**REPORT ON**
**PHASE II ENVIRONMENTAL SITE ASSESSMENT**
**ST. ELIZABETHS EAST CAMPUS**
**MARTIN LUTHER KING JR. (MLK) AVENUE SE**
**WASHINGTON, D.C.**

**by**

**Haley & Aldrich, Inc.**
**McLean, Virginia**

**for**

**CH2M Hill**
**Chantilly, Virginia**

**File No. 38677-004**
**14 November 2012**

HALEY& ALDRICH

Haley & Aldrich, Inc.
7926 Jones Branch Dr.
Suite 870
McLean, VA 22102

Tel: 703.336.6200
Fax: 703.356.4699
HaleyAldrich.com

HALEY & ALDRICH

14 November 2012
File No. 38677-004

CH2M Hill
15010 Conference Center Drive
Suite 200
Chantilly, Virginia 20151

Attention: Keisha Voigt

Subject: Phase II Environmental Site Assessment
St. Elizabeths East Campus
Martin Luther King Jr. (MLK) Avenue SE
Washington, D.C.

Ladies and Gentlemen:

We are pleased to submit this Phase II Environmental Site Assessment for the above-referenced site. This report summarizes investigative work conducted at the St. Elizabeths East Campus in support of proposed roadway and proposed utility construction. Please feel free to contact us with any questions.

Sincerely yours,
HALEY & ALDRICH, INC.

Kristen M. Wright-Ng
Senior Engineer

Thomas A. Varner, LSRP
Senior Client Leader

Enclosures

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# 1. INTRODUCTION

The enclosed report presents the results of a Phase II Environmental Site Assessment (Phase II ESA) conducted at the St. Elizabeths East Campus located at 1100 Alabama Avenue, SE in Washington, DC (herein referred to as the "site"). This work was performed by Haley & Aldrich, Inc. (Haley & Aldrich), in accordance with our proposal to CH2M Hill dated 30 May 2012 and CH2M Hill Purchase Order No. 949866 executed by Ms. Dee Karaskevicus, C.P.M. on 2 August 2012. As indicated in our proposal, this Phase II ESA was conducted using practices generally consistent with the American Society of Testing and Materials (ASTM) E 1903-11 Standard Practice for Environmental Site Assessments: Phase II Environmental Site Assessment Process (ASTM E 1903-11 Standard).

## 1.1 Objective

The purpose of this Phase II ESA was to investigate potential soil and groundwater contamination in areas of proposed roadway and utility construction at the site, based on findings of "Phase I Environmental Site Assessment Report, Proposed Saint Elizabeths East Campus Roadway Improvements," prepared by Tidewater, Inc., dated 1 March 2012. The anticipated depth of work in proposed roadways is 12 ft. bgs and in proposed utility corridors is 15 ft. bgs. The results will support planning to be conducted for proper management of soil and water generated during construction.

## 1.2 Limitations

This Phase II ESA was prepared pursuant to an Agreement dated 30 May 2012 between CH2M Hill and Haley & Aldrich. All uses of this report are subject to, and deemed accepting of, the conditions and restrictions contained in the Agreement. The observations and conclusions described in this report are based solely on the Scope of Services provided pursuant to the Agreement. Haley & Aldrich has not performed any additional observations, investigations, studies, or other testing not specified in the Agreement. Haley & Aldrich shall not be liable for the existence of any condition the discovery of which would have required the performance of services not authorized under the Agreement.

This report is prepared for the exclusive use of CH2M Hill. There are no intended beneficiaries other than CH2M Hill. Haley & Aldrich shall owe no duty whatsoever to any other person or entity on account of the Agreement or the report. Use of this report by any person or entity other than CH2M Hill for any purpose whatsoever is expressly forbidden unless such other person or entity obtains written authorization from CH2M Hill and from Haley & Aldrich. Use of this report by such other person or entity without the written authorization of CH2M Hill and Haley & Aldrich shall be at such other person's or entities sole risk, and shall be without legal exposure or liability to Haley & Aldrich.

Use of this report by any person or entity, including by CH2M Hill, for a purpose other than for future potential redevelopment is expressly prohibited unless such person or entity obtains written authorization from Haley & Aldrich indicating that the report is adequate for such other use. Use of this report by any person or entity for such other purpose without written authorization by Haley & Aldrich shall be at such person's or entities sole risk and shall be without legal exposure or liability to Haley & Aldrich.

This report reflects site conditions observed and described by records available to Haley & Aldrich as of the date of report preparation. The passage of time may result in significant changes in site conditions, technology, or economic conditions, which could alter the findings and/or recommendations

of the report. Accordingly, CH2M Hill and any other party to whom the report is provided recognize and agree that Haley & Aldrich shall bear no liability for deviations from observed conditions or available records after the time of report preparation.

Use of this report by any person or entity in violation of the restrictions expressed in this report shall be deemed and accepted by the user as conclusive evidence that such use and the reliance placed on this report, or any portions thereof, is unreasonable, and that the user accepts full and exclusive responsibility and liability for any losses, damages, or other liability which may result.

Considerations outside of the scope of this Phase II ESA include asbestos-containing materials, radon, lead-based paint, lead in drinking water, wetlands, regulatory compliance, cultural and historic resources, industrial hygiene, health and safety, ecological resources, endangered species, indoor air quality, bio-agents, and mold.

## 2. BACKGROUND

### 2.1 Site Description

The subject site is located at the St. Elizabeths East Campus at 1100 Alabama Avenue, SE in Washington, DC and is also referred to as 2700 Martin Luther King Jr. (MLK) Avenue, SE in Washington, DC. The subject site is located on the east side of MLK and west side of Alabama Avenue as shown on Figure 1, Project Locus. An underground easement runs through the northern portion of the subject site and is utilized by the Green Line of the Washington, DC Metrorail system (Metro).

The proposed utility and roadway alignment considered as part of this Phase II ESA includes:

- Sycamore Street from Building 95 to Dogwood Street;
- Dogwood Street from Sycamore Street to 13th Street;
- Cypress Street from MLK Avenue to 13th Street;
- 13th Street from Pecan Street to Alabama Avenue SE; and
- Oak Street.

The subject site is bordered to the northwest by the "North Parcel" portion of the St. Elizabeths East Campus (currently vacant buildings), to the northeast by a ravine and wooded land below which is a portion of the Metro line, to the southeast by Alabama Avenue beyond which are residential neighborhoods, and to the west/southwest by MLK Avenue beyond which is the St. Elizabeths West Campus (currently vacant buildings).

### 2.2 Physical Setting

The site is located within the Coastal Plain Physiographic Province in the District of Columbia. The Coastal Plain consists of a seaward-thickening wedge of alluvial to marginal-marine sedimentary deposits generally consisting of interbedded sands and clays.

The upper, natural soils at the site generally consist of Terrace Deposits associated with the nearby Potomac River. These deposits represent ancient flood plain sediments, generally characterized by interbedded layers of silt, sand, clay and gravel that were deposited when the river and its tributaries were at a higher elevation than current day. Underlying the Terrace Deposits are the Cretaceous age marine deposits of the Arundel Formation of the Potomac Group, which are generally characterized as highly over-consolidated sands, silts and clays. The silts and clays of the Potomac Formation are often referred to locally as "marine clays", and typically have high plasticity characteristics, significant shrink-swell potential and can be highly fissured. The Potomac Group deposits are generally underlain by crystalline bedrock at depths greater than approximately 100 feet (ft.) below ground surface (bgs).

Based on a review of the available hydrogeologic data and reports from the St. Elizabeths West Campus redevelopment, two zones of groundwater are anticipated to exist at the site. The uppermost zone consists of a water table aquifer present within the Terrace Deposits that is perched on top of the clayey soils of the Potomac Group. The second and lower zone of groundwater is a confined aquifer that consists of intercalated layers of sand within the highly over-consolidated Arundel Formation clays of

the Potomac Group. Observations in the vicinity of the project site indicate that groundwater levels in the upper perched groundwater zone range from approximately 15 and 30 ft. bgs. It should be noted that groundwater levels will fluctuate with the season, precipitation, and adjacent construction activity and may significantly vary in elevation across the site.

### 2.3 Site History and Land Use

St. Elizabeths Hospital was once a government hospital for the insane. The subject site was used for residential and agricultural purposes prior to St. Elizabeths purchasing the subject site in November 1869. The purchase was intended to provide grazing grounds for cattle. In 1902, four hospital pavilions were constructed and an underpass below MLK Avenue was constructed. The grounds around the pavilions were developed with roads, walks, and lawns. In the 1930s, the hospital significantly expanded their facilities at the subject site although agricultural activities continued. The subject site development was completed by 1963.

The northeastern portion of the site extends into the North Parcel which was used as landfill from 1982 to 1989 by the DC government. Subsurface investigations were reported in 1991 and 2008 as summarized in Section 2.4.

### 2.4 Summary of Previous Assessments

**"Phase I Environmental Site Assessment Report, Proposed Saint Elizabeths East Campus Roadway Improvements," prepared by Tidewater, Inc., dated 1 March 2012.**

This Phase I ESA summarized historical information, regulatory information, and results of a site reconnaissance for the subject site in an effort to identify Recognized Environmental Conditions (RECs). The following RECs were identified:

1. Fly ash disposal area along Pecan Street in the northeast portion of the subject site (currently a paved parking area).

2. Potential soil and groundwater impacts associated with offsite sources (dry cleaning and gas station operations) along the southwest property line.

3. Underground storage tanks (USTs) associated with emergency generators at Buildings 100, 109, 119, and 124.

4. Product or waste drums around Building 125.

5. Outside transformers associated with Buildings 88, 89, 117, 119, and 124.

6. Aboveground storage tanks (ASTs) associated with Buildings 94, 95, 102, 111, 119, and 124.

Tidewater recommended that a Phase II soil and groundwater investigation be conducted to investigate possible petroleum hydrocarbon and volatile organic compound (VOC) contamination related to RECs.

**"Final Department of Homeland Security Headquarter Consolidation at St. Elizabeths Master Plan Amendment – East Campus North Parcel Environmental Impact Statement," prepared by U.S. General Services Administration National Capital Region, dated March 2012.**

This report summarized subsurface investigations reported in 1991 and 2008 at the former landfill area located on the northeastern portion of the site.

- 1991 field investigation report (refer to Figure 2 1991 Ash/Fill Area): The fill material within the landfill was composed of storm sewer cleanings, street sweepings, road construction debris, and incinerator fly ash. The landfill was composed of four portions which were closed in 1983, 1987, 1988, and 1989, respectively. Closure consisted of a cap of 18 to 30 inches of a mixture of milled asphalt, soils, and compost from a sewage treatment plant. Sampling of fill, fill leachate, and pond sediment in the area of the landfill was conducted in 1984 and 1985. Chlorinated dioxins and furans were detected in ash fill and PCB-1260 was detected in pond sediments.

- 2008 geotechnical report (refer to Figure 2 2008 Fly Ash Zone): This report identified ash fill. A composite soil sample was collected and analyzed for metals and semi-volatile organic compounds to characterize ash for disposal. Results were below RCRA limits and the ash was not considered a RCRA hazardous waste for metals or SVOCs.

## 3. SUBSURFACE EXPLORATION PROGRAM

Boring locations were selected to coincide with future road and utility construction as indicated on the electronic file named "stage1roadways.pdf" depicting Alternative 2, as annotated by CH2M Hill on 23 August 2012. The number, depth and locations of the borings were designed to provide spatial coverage throughout the future construction area and to provide data in the vicinity of nearby RECs as described in Section 2.4 above.

Prior to completing soil borings, boring locations were verified and marked-out in the field by Haley & Aldrich through the use of a GPS unit and by measuring off existing structures. Utilities were located at or near marked-out boring locations by Accumark, Inc. of Ashland, Virginia, a private utility locator. The drilling of soil borings and installation of temporary monitoring wells was authorized by the Washington, DC Deputy Mayor for Planning and Economic Development.

Soil borings were conducted using a truck-mounted Geoprobe® operated by Vironex, Inc. of Bowie, Maryland. The Geoprobe® sampling device consisted of a 1.5-inch-diameter, five-foot-long hollow steel tube with an expendable internal plastic sleeve that retained the sample. During 10-12 September 2012, 27 soil borings (B101 through B129, except B108 and B109) were completed. Borings B108 and B109 could not be completed due to the presence of a potential shallow corridor for the DC Metro rail system and the potential presence of subsurface utilities that could not be confirmed. Boring B105B was offset from B105 in an effort to collect additional subsurface information due to poor recovery at B105. Boring depths were determined based on the depth of the proposed utility and roadway construction and the elevation at the boring location; boring depths ranged from approximately 11 ft to 25 ft bgs. Refusal was encountered at B116 (12 ft bgs), B117 (17.5 ft. bgs), B118 (11 ft. bgs), and B128 (13 ft. bgs). Boreholes were grouted upon completion.

Data collected from the borings consisted of field observations including; soil type, soil color, and degree of impact (e.g., odor, staining, ash). Soil cores were also screened for impacts using a photoionization detector (PID). Boring logs are included in Appendix A. Subsurface samples were collected for laboratory analysis based on visual, olfactory and PID screening results. If the screening indicated potential impacts, a sample was collected for laboratory analysis within the impacted soil core interval and one sample was collected below the impacted area. If evidence of impacts was not observed, sample depths were determined based on the anticipated depth of utility and roadway construction, typically within the 5 to 10 ft. bgs interval.

Soil samples were collected into pre-cleaned glassware provided by the laboratory and shipped in coolers with ice under chain of custody. Sample fractions for VOC analysis were collected into vials containing methanol as a preservative, also provided by the laboratory. The soil samples were submitted to Caliber Analytical Services, LLC (Caliber) of Towson, Maryland for analysis. Forty-three soil samples were analyzed for one or more of the following:

- Benzene, Toluene, Ethylbenzene, Xylenes, and Naphthalene (BTEXN) by EPA Method 8260B;
- VOCs ( U.S. EPA Target Compound List [TCL]) by EPA Method 8260B;
- Polyaromatic Hydrocarbons (PAHs) by EPA Method 8270;
- Polychlorinated Biphenyls (PCBs) by EPA Method 8082;

- Total Petroleum Hydrocarbons – Diesel Range Organics (TPH-DRO) by EPA Method 8015C;
- Total Petroleum Hydrocarbons – Gasoline Range Organics (TPH-GRO) by EPA Method 8015C;
- Total Petroleum Hydrocarbons – Oil Range Organics (TPH-ORO) by EPA Method 8015C; and
- RCRA Metals by EPA Method 6020A.

Specific soil sample analyses were selected based on the nature of nearby RECs. Soil samples were analyzed for BTEXN and TPH GRO/DRO/ORO at a minimum as a default analytical suite, and to address the presence of AST and UST RECs where applicable. A subset of these samples was also analyzed for PCBs or VOCs to address the nearby presence of transformer RECs or drum storage RECs, respectively. In addition, soil samples from selected borings were analyzed for a comprehensive suite of parameters to assess general conditions and the potential placement of fill across the site. Table I provides a list of the borings, sample depths and analyses, and rationale.

Groundwater was encountered at only one boring location within the depth of proposed construction, and therefore only one temporary monitoring well was installed (at B103) on 11 September 2012. Groundwater was encountered at a depth of 10 ft at B103. Groundwater was encountered in B106, but at a depth (21 ft) below the proposed construction depth. The temporary monitoring well was constructed with 2-inch-diameter PVC well screen and riser, and was screened from a depth of 10 ft. to 15 ft. bgs. A groundwater sample was collected using a bailer on 12 September 2012 and submitted to Caliber for analysis of VOCs by EPA Method 8260B and TPH-DRO/GRO/ORO by EPA Method 8015C. The groundwater sample was collected into pre-cleaned glassware provided by the laboratory and shipped in a cooler with ice under chain of custody. The sample fraction for VOC analysis was collected into vials containing hydrochloric acid as a preservative, also provided by the laboratory. The temporary well was removed on 12 September 2012 and the borehole was grouted.

# 4. RESULTS

## 4.1 Subsurface Conditions

Explorations at the site generally revealed subsurface conditions consistent with probable man-placed fill consisting of re-worked borrow material from the Terrace Deposits, natural undisturbed Terrace Deposits, and the sand facies of the Potomac Formation with depth. Accordingly, distinct changes in strata are difficult to interpret given the similarity of the probable man-placed fill and Terrace Deposits, and the gradual transition between Terrace and Potomac Formation soils. The materials encountered generally consisted of sands with varying amounts of silts, clays and gravels, though the primary component of the soil included lean clay and silt at some locations and depths. Drilling action and sample recovery indicate discontinuous layers or possible former channel deposits containing significant amounts of gravel-sized material are present throughout the probable fill and Terrace Deposits.

Dark-colored staining was observed in soil samples recovered at four (4) exploration locations. Staining was observed in boring B101 at approximately 10 to 12 ft. bgs; B104 at approximately 0.5 to 3.5 ft. bgs; B115 at approximately 5 to 8 ft. bgs; B122 from 0 to 5 ft. bgs and again between 13 and 14 ft. bgs; and B125 at approximately 0 to 5 ft. bgs. Organic odors of varying intensities were observed in multiple explorations at varying depths, and are noted on the logs.

Groundwater was encountered during the exploration program at two boring locations, B103 and B106. Groundwater levels were measured at 21 ft. bgs at B106 at the completion of drilling. Groundwater levels were measured at 12 ft. bgs upon the completion of drilling at B103, and at 10 ft. bgs after an approximate 24-hour stabilization period. Groundwater level readings were made in the borings and observation well at times and under conditions stated in the boring logs. However, it must be noted that fluctuations in the level of the groundwater may occur due to variations in season, rainfall, temperature, and other factors not evident at the time measurements were made and reported herein.

The boring logs depict subsurface conditions only at the specific locations and at the particular time designated on the logs. Soil conditions at other locations may differ from conditions occurring at the boring locations. Also the passage of time and proposed construction activity may result in a change in the soil conditions at these boring locations.

## 4.2 Analytical Results

Although the site is not currently enrolled in a regulatory program, the following regulatory criteria were used as guidance, as applicable, in evaluating analytical results:

- Section 6208 of the DC UST Regulations Tier 0 Screening Levels dated 1999 for common petroleum constituents;
- DC RBCA Risk-Based Screening Levels for Resident Child Surficial Soil dated June 2011;
- EPA Region III Soil Screening Levels for Residential Soil, and;
- Petroleum Contaminated Groundwater Cleanup Standards for the DC UST Program Tier 1 Screening Levels 2003 Revisions

- EPA Region III Soil Screening Levels for Protection of Groundwater dated April 2012.

### 4.2.1 Soil

A total of 43 soil samples were collected from soil borings and submitted for laboratory analysis. BTEXN and VOCs were not detected in soil samples collected. PAHs were detected in 16 of the 17 soil samples analyzed for PAHs. At least one range of TPH (DRO, GRO or ORO) was detected in 15 of the 43 soil samples collected. A PCB, specifically Aroclor1260, was detected in one soil sample. At least one of the following metals: arsenic, barium, chromium, lead, or mercury were detected in all 17 soil samples analyzed for RCRA metals.

Table II provides a summary of the constituents or parameters detected with comparison to the above criteria. Figure 3 depicts boring locations with the corresponding analytical results for samples in which contaminants were detected at or exceeding one of the above criteria. Complete analytical laboratory reports are provided in Appendix B. A summary of the results by contaminant class is as follows:

- BTEXN and VOCs were not detected in soil samples collected and therefore did not exceed regulatory criteria.

- PAHs exceeded the most conservative criteria (EPA Region III protection of groundwater) at sample locations B101 (8 to 10 ft. bgs and 13 to 15 ft. bgs), B102 (5 to 6.5 ft. bgs), B104 (1.5 to 3.5 ft. bgs and 10 to 12 ft. bgs), B106 (7 to 9 ft. bgs and 21 to 23 ft. bgs), B117 (2 to 4 ft. bgs), B121 (5 to 7 ft. bgs and 13 to 15 ft. bgs), and B129 (5 to 7 ft. bgs and 13 to 15 ft. bgs). Five of these samples also exceeded EPA Region III residential soil criteria and one also exceeded DC resident child soil criteria.

- TPH-DRO was detected at a concentration exceeding the DC UST criteria at sample location B101 (8 to 10 ft. bgs and 13 to 15 ft. bgs). TPH-DRO and TPH-ORO were detected at concentrations exceeding the DC UST criteria at sample locations B111 (10 to 12 ft. bgs) and B129 (5 to 7 ft. bgs).

- One PCB, specifically Aroclor 1260, was detected in one soil sample (B101 from 13 to 15 ft. bgs) at a concentration (7.8 mg/kg) exceeding the most conservative criteria (EPA Region III protection of groundwater) and the EPA Region III residential soil criteria.

- Arsenic concentrations exceeded the most conservative criteria (EPA Region III protection of groundwater) and the EPA Region III residential soil criteria in all 17 samples analyzed. Barium was detected at a concentration exceeding the most conservative criteria (EPA Region III protection of groundwater) at sample location B101 (8 to 10 ft. bgs), and mercury concentrations exceeded the most conservative criteria (EPA Region III protection of groundwater) at B101 (8 to 10 ft. bgs), B104 (1.5 to 3.5 ft. bgs), B117 (2 to 4 ft. bgs), and B125 (1 to 3 ft. bgs).

### 4.2.2 Groundwater

One groundwater sample was collected from a temporary well installed at boring B103. Table III provides a summary of the analytes detected. VOCs, TPH-GRO, and TPH-ORO were not detected. TPH-DRO was detected at a concentration of 0.24 milligram per liter (mg/l), which is less than the Petroleum Contaminated Groundwater Cleanup Standards for the DC UST Program Tier 1 Screening Levels 2003 Revision of 3.57 mg/l.

## 5. CONCLUSIONS

The following describes findings of the investigation relevant to the RECs identified to date:

1. Fly ash disposal area along Pecan Street in the northeast portion of the subject site (currently a paved parking area):

   B101 was the boring completed nearest to the anticipated fly ash disposal area. Fly ash and other debris indicative of a landfill were not observed in B101. However, the soil analytical results for B101 indicate the most constituent detections and concentrations exceeding regulatory criteria of any boring location investigated during this Phase II ESA. An elevated concentration of Aroclor 1260 relative to regulatory criteria is consistent with findings from a 1984/85 sampling event in which Aroclor 1260 was also detected in soil associated with the ash disposal area. The highest concentrations of PAHs, TPH, barium and mercury were observed in samples collected from this boring. Exceedances of regulatory criteria were observed to a depth of 15 ft. bgs.

2. Potential soil and groundwater impacts associated with offsite sources (dry cleaning and gas station operations) along the southwest property line:

   Selected soil samples from boring locations along the southwest property line were analyzed for BTEXN and VOCs; none were detected. Groundwater was not encountered in borings completed along the southwestern portion of the site. Results indicate that evidence of a release associated with offsite sources was not observed in the upper 11 to 25 ft. bgs of soil on the southwest portion of the site.

3. Impacts from the following RECs and fill placement throughout the site:

   - USTs associated with Buildings 100, 109, 119, and 124 emergency generators
   - Product or waste drums around Building 125
   - Outside transformers associated with Buildings 88, 89, 117, 119, and 124
   - ASTs associated with Buildings 94, 95, 102, 111, 119, and 124

   Concentrations of PAHs or TPH were observed at several sampling locations near these RECs. The PAHs or TPH concentrations may be attributable to the USTs, drums, transformers, and/or ASTs. The presence of PAHs in borings B106, B117, and B121 may be the result of discharges from RECs (currently identified or previously unidentified), or possibly emplacement of impacted urban fill. Similarly, the presence of PAHs and TPH at B129, which is not in close proximity to RECs identified to date, may be attributable to impacted urban fill, or possibly the presence of a previously unidentified REC.

   The presence of arsenic above regulatory criteria appears to be related to background conditions based on the distribution of occurrences and the similarity in concentration from location to location. Additionally, the eastern United States has an average arsenic concentration in soil of 4.8 mg/kg which is similar to the average arsenic concentration at the site (USGS, 1984). Similarly, the presence of mercury above regulatory criteria (except in boring B101 as discussed previously) also appears to be related to background conditions, based on the average

eastern United States concentration of 0.081 mg/kg, which is similar to the mercury concentrations detected in samples collected during this investigation.

## REFERENCES


1. "Phase I Environmental Site Assessment Report, Proposed Saint Elizabeths East Campus Roadway Improvements," prepared by Tidewater, Inc., dated 1 March 2012.

2. "Final Department of Homeland Security Headquarter Consolidation at St. Elizabeths Master Plan Amendment – East Campus North Parcel Environmental Impact Statement," prepared by U.S. General Services Administration National Capital Region, dated March 2012.

3. "Element Concentrations in Soils and other Surficial Materials of the Conterminous United States, U.S. Geological Survey Professional Paper 1270," prepared by Hansford T. Shacklette and Josephine G. Boerngen, dated 1984.


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**TABLE I**
**SUMMARY OF SAMPLING RATIONALE**
**ST. ELIZABETHS EAST CAMPUS**
**WASHINGTON, D.C.**

| Boring Name | Potential Sources of Contamination | Roadway (Rd) or Utility (Ut) Boring | temp well installed | depth [1] | SOIL ANALYSIS | | | | | | GROUNDWATER ANALYSIS | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | TPH-GRO/DRO/ORO EPA Method 8015C | BTEX & Naphthalene EPA Method 8260B | VOCs (TCL) EPA Method 8260B | PCBs EPA Method 8082 | RCRA 8 Metals EPA Method 6020A | PAHs EPA Method 8270 | TPH-GRO/DRO/ORO EPA Method 8015C | VOCs (TCL) EPA Method 8260B |
| B101 | Potential fly ash disposal area and potential fill placement | Ut | | 15 | 2 | | 2 | 2 | 2 | 2 | | |
| B102 | Potential fly ash disposal area and potential fill placement | Ut | | 15 | 2 | | | 2 | 2 | 2 | | |
| B103 | Potential fill placement. Water encountered at depth therefore well installed. | Ut | x | 20 | 2 | | 2 | | | | 1 | 1 |
| B104 | Product or waste drums around Bldg 125 and potential fill placement | Ut | | 15 | 2 | | 2 | 2 | 2 | 2 | | |
| B105 | Bldg 119 USTs associated with emergency generator, outside transformers, and ASTs. Potential fill placement. | Ut | | 20 | | | | | | | | |
| B105B | Boring B105B was offset from B105 in an effort to collect additional subsurface information due to poor recovery at B105. | Ut | | 15 | 2 | 2 | | 2 | | | | |
| B106 | Bldg 119 USTs associated with emergency generator, outside transformers, and ASTs. Potential fill placement. | Ut | | 25 | 2 | | 2 | 2 | 2 | 2 | | |
| B107 | Bldg 124 USTs associated with emergency generator, outside transformers, and ASTs. Potential fill placement. | Ut | | 25 | 2 | 2 | | 2 | | | | |
| B108 | Borings B108 and B109 could not be completed due to the presence of a potential shallow corridor for the DC Metro rail system and the potential presence of subsurface utilities that could not be confirmed. | | | | | | | | | | | |
| B109 | | | | | | | | | | | | |
| B110 | Bldg 119 USTs associated with emergency generator, outside transformers, and ASTs. Potential fill placement | Rd | | 15 | 2 | 2 | | 2 | | | | |
| B111 | Bldg 124 USTs associated with emergency generator, outside transformers, and ASTs. Potential fill placement. | Rd | | 15 | 2 | 2 | | 2 | | | | |
| B112 | Nearby ASTs, USTs, and transformers. | Rd | | 20 | 2 | 2 | | 2 | | | | |
| B113 | Bldg 102 ASTs. | Rd | | 15 | 1 | 1 | | | | | | |
| B114 | Nearby ASTs and USTs. | Rd | | 15 | 2 | 2 | | | | | | |
| B115 | Bldg 119 USTs associated with emergency generator, outside transformers, and ASTs | Rd | | 15 | 2 | 2 | | 2 | | | | |
| B116 | Bldg 119 USTs associated with emergency generator, outside transformers, and ASTs | Rd | | 12 R | 1 | 1 | | 1 | | | | |
| B117 | Bldg 124 USTs associated with emergency generator, outside transformers, and ASTs. Potential fill placement. | Rd | | 17.5 R | 2 | | 2 | 2 | 2 | 2 | | |
| B118 | Nearby ASTs, USTs, and transformers. Potential fill placement | Rd | | 11 R | 1 | 1 | | 1 | | | | |
| B119 | Bldg 100 USTs. Potential fill placement. | Rd | | 15 | 1 | 1 | | | | | | |
| B120 | Bldg 100 USTs. Potential fill placement. | Rd | | 15 | 1 | 1 | | | | | | |
| B121 | Bldg 111 ASTs. Potential fill placement. | Rd | | 15 | 2 | | 2 | 2 | 2 | 2 | | |
| B122 | Bldg 100 USTs. Potential fill placement. | Rd | | 15 | 1 | 1 | | | | | | |
| B123 | Bldg 94 and 95 ASTs. Potential fill placement | Rd | | 15 | 1 | 1 | | | | | | |
| B124 | Bldg 100 USTs. Potential fill placement. | Rd | | 15 | 1 | 1 | | | | | | |
| B125 | Bldg 100 USTs and Bldg 117 transformers. Potential fill placement. Potential offsite sources | Rd | | 20 | 2 | | 2 | 2 | 2 | 2 | | |
| B126 | Nearby ASTs and USTs. Potential fill placement | Rd | | 20 | 1 | 1 | | | | | | |
| B127 | Nearby ASTs and USTs. Potential fill placement. Potential offsite sources | Rd | | 15 | 1 | | 1 | 1 | 1 | 1 | | |
| B128 | Bldg 109 USTs. Potential fill placement. | Rd | | 13 R | 1 | 1 | | | | | | |
| B129 | Bldg 109 USTs. Potential fill placement. Potential offsite sources | Rd | | 15 | 2 | | 2 | 2 | 2 | 2 | | |
| | | Sum | 1 | 405 | 43 | 24 | 17 | 31 | 17 | 17 | 1 | 1 |

**Notes:**

1 Boring depths for proposed roadways were at least 12 ft deep and for proposed utility corridors were at least 15 ft deep. Boring depths were extended if visual impacts were observed or if there was poor sample recovery. R means boring terminated at refusal.

2 Bldg means building, AST means aboveground storage tank, UST means underground storage tank

**TABLE II**
**SUMMARY OF LABORTORY ANALYTICAL DATA FOR SOIL**
**ST. ELIZABETHS EAST CAMPUS**
**WASHINGTON, D.C.**



| | | EPA Region III Soil Screening Level Protection of GW April 2012 | EPA Region III Soil Screening Level Residential Soil April 2012 | DC RBCA Risk-Based Screening Levels Resident Child Surficial Soil June 2011 | Section 6208 of the DC UST Regulations Tier 0 Screening Levels 1999 | B101-S1-8'-10' 9/10/2012 8'-10' | B101-S2-13'-15' 9/10/2012 13'-15' | B102-S2-5'-6.5' 9/10/2012 5'-6.5' | B102-S1-11'-13' 9/10/2012 11'-13' | B103-S1-0.5'-1.5' 9/11/2012 0.5'-1.5' | B103-S2-5'-7' 9/11/2012 5'-7' |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **VOCs BTEXN** | | NA | NA | NA | NA | - | - | - | - | - | - |
| **VOCs (COMPLETE LIST)** | | NA | NA | NA | NA | ND | ND | - | - | ND | ND |
| **PAHs** | | | | | | | | | | | |
| Acenaphthene | ug/kg | 4,100 | 3,400,000 | 3,440,000 | NA | **510** | <6 | <5 | <5 | - | - |
| Acenaphthylene | ug/kg | NA | NA | NA | NA | **57** | <6 | <5 | <5 | - | - |
| Anthracene | ug/kg | 42,000 | 17,000,000 | 17,200,000 | NA | **1300** | **6** | <5 | <5 | - | - |
| Benzo[a]anthracene | ug/kg | 10 | 150 | 916 | NA | **2000** | **22** | **8** | <5 | - | - |
| Benzo[a]pyrene | ug/kg | 3.5 | 15 | 91.6 | NA | **2500** | **20** | **10** | <5 | - | - |
| Benzo[b]fluoranthene | ug/kg | 35 | 150 | 916 | NA | **3400** | **41** | **16** | <5 | - | - |
| Benzo[g,h,i]perylene | ug/kg | NA | NA | 1,870,000 | NA | **1500** | **14** | **5** | <5 | - | - |
| Benzo[k]fluoranthene | ug/kg | 350 | 1,500 | 9,160 | NA | **1500** | **11** | **6** | <5 | - | - |
| Chrysene | ug/kg | 1,100 | 15,000 | 91,500 | NA | **1800** | **20** | **7** | <5 | - | - |
| Dibenz[a,h]anthracene | ug/kg | 11 | 15 | NA | NA | **440** | <6 | <5 | <5 | - | - |
| Fluoranthene | ug/kg | 70,000 | 2,300,000 | 2,290,000 | NA | **4000** | **60** | **14** | <5 | - | - |
| Fluorene | ug/kg | 4,000 | 2,300,000 | 2,290,000 | NA | **690** | <6 | <5 | <5 | - | - |
| Indeno[1,2,3-cd]pyrene | ug/kg | 120 | 150 | NA | NA | **1400** | **11** | <5 | <5 | - | - |
| 2-Methylnaphthalene | ug/kg | 140 | 230,000 | NA | NA | **130** | **110** | <5 | <5 | - | - |
| Naphthalene` | ug/kg | 0.47 | 3,600 | 469,000 | NA | **160** | **31** | <5 | <5 | - | - |
| Phenanthrene | ug/kg | NA | NA | 1,870,000 | NA | **3300** | **150** | **7** | <5 | - | - |
| Pyrene | ug/kg | 9,500 | 1,700,000 | 1,720,000 | NA | **3400** | **50** | **12** | <5 | - | - |
| **TPH-Diesel Range Organics** | mg/kg | NA | NA | NA | 100 | **260** | **440** | <11 | <11 | <12 | <12 |
| **TPH-Gasoline Range Organics** | mg/kg | NA | NA | NA | 100 | **0.81** | **1.6** | <0.17 | <0.19 | <0.23 | <0.2 |
| **TPH-Oil Range Organics** | mg/kg | NA | NA | NA | 100 | **26** | **45** | <11 | <11 | <12 | <12 |
| **PCBs** | | | | | | | | | | | |
| Aroclor 1260 | mg/kg | 0.024 | 0.22 | NA | NA | <1.5 | **7.8** | <0.053 | <0.052 | - | - |
| **RCRA Metals** | | | | | | | | | | | |
| Arsenic | mg/kg | 0.0013 | 0.39 | NA | NA | **5.5** | **3.6** | **4.1** | **3.1** | - | - |
| Barium | mg/kg | 120 | 15000 | NA | NA | **170** | **50** | **35** | **11** | - | - |
| Cadmium | mg/kg | NA | NA | NA | NA | <2.4 | <3 | <2.4 | <2 | - | - |
| Chromium | mg/kg | NA | NA | NA | NA | **15** | **20** | **15** | **9.7** | - | - |
| Lead | mg/kg | NA | 400 | NA | NA | **230** | **22** | **12** | **3.2** | - | - |
| Mercury | mg/kg | 0.033 | 10 | NA | NA | **2.6** | <0.12 | <0.095 | <0.081 | - | - |
| Selenium | mg/kg | 0.4 | 390 | NA | NA | <2.4 | <3 | <2.4 | <2 | - | - |
| Silver | mg/kg | 0.6 | 390 | NA | NA | <2.4 | <3 | <2.4 | <2 | - | - |

Notes and Abbreviations:
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6. VOC: volatile organic compound; PAH: polyaromatic hydrocarbons; TPH: total petroleum hydrocarbons; PCB: polychlorinated biphenyl
7. ug/kg means micrograms per kilogram; mg/kg means milligram per kilogram
8. - means not analyzed

**TABLE II**
**SUMMARY OF LABORTORY ANALYTICAL DATA FOR SOIL**
**ST. ELIZABETHS EAST CAMPUS**
**WASHINGTON, D.C.**



| | | EPA Region III Soil Screening Level Protection of GW April 2012 | EPA Region III Soil Screening Level Residential Soil April 2012 | DC RBCA Risk-Based Screening Levels Resident Child Surficial Soil June 2011 | Section 6208 of the DC UST Regulations Tier 0 Screening Levels 1999 | B104-S1-1.5'-3.5' 9/10/2012 1.5'-3.5' | B104-S2-10'-12' 9/10/2012 10'-12' | B105B-S1-1'-5' 9/12/2012 1'-5' | B105-S1-5'-7' 9/12/2012 5'-7' | B106-S1-7'-9' 9/12/2012 7'-9' |
|---|---|---|---|---|---|---|---|---|---|---|
| **VOCs BTEXN** | | NA | NA | NA | NA | - | - | ND | ND | - |
| **VOCs (COMPLETE LIST)** | | NA | NA | NA | NA | ND | ND | - | - | ND |
| **PAHs** | | | | | | | | | | |
| Acenaphthene | ug/kg | 4,100 | 3,400,000 | 3,440,000 | NA | <6 | <5 | - | - | **5** |
| Acenaphthylene | ug/kg | NA | NA | NA | NA | **7** | <5 | - | - | <5 |
| Anthracene | ug/kg | 42,000 | 17,000,000 | 17,200,000 | NA | **7** | <5 | - | - | **11** |
| Benzo[a]anthracene | ug/kg | 10 | 150 | 916 | NA | **36** | <5 | - | - | **20** |
| Benzo[a]pyrene | ug/kg | 3.5 | 15 | 91.6 | NA | **58** | **13** | - | - | **19** |
| Benzo[b]fluoranthene | ug/kg | 35 | 150 | 916 | NA | **82** | **25** | - | - | **23** |
| Benzo[g,h,i]perylene | ug/kg | NA | NA | 1,870,000 | NA | **37** | **7** | - | - | **17** |
| Benzo[k]fluoranthene | ug/kg | 350 | 1,500 | 9,160 | NA | **25** | **8** | - | - | **18** |
| Chrysene | ug/kg | 1,100 | 15,000 | 91,500 | NA | **45** | <5 | - | - | **21** |
| Dibenz[a,h]anthracene | ug/kg | 11 | 15 | NA | NA | **8** | <5 | - | - | **12** |
| Fluoranthene | ug/kg | 70,000 | 2,300,000 | 2,290,000 | NA | **53** | **19** | - | - | **25** |
| Fluorene | ug/kg | 4,000 | 2,300,000 | 2,290,000 | NA | <6 | <5 | - | - | **6** |
| Indeno[1,2,3-cd]pyrene | ug/kg | 120 | 150 | NA | NA | **23** | <5 | - | - | **16** |
| 2-Methylnaphthalene | ug/kg | 140 | 230,000 | NA | NA | **9** | <5 | - | - | **11** |
| Naphthalene` | ug/kg | 0.47 | 3,600 | 469,000 | NA | **8** | <5 | - | - | <5 |
| Phenanthrene | ug/kg | NA | NA | 1,870,000 | NA | **32** | **21** | - | - | **18** |
| Pyrene | ug/kg | 9,500 | 1,700,000 | 1,720,000 | NA | **64** | **19** | - | - | **25** |
| **TPH-Diesel Range Organics** | mg/kg | NA | NA | NA | 100 | **35** | **62** | **23** | <12 | <11 |
| **TPH-Gasoline Range Organics** | mg/kg | NA | NA | NA | 100 | <0.17 | <0.16 | <0.18 | <0.18 | <0.18 |
| **TPH-Oil Range Organics** | mg/kg | NA | NA | NA | 100 | **17** | **36** | <11 | <12 | <11 |
| **PCBs** | | | | | | | | | | |
| Aroclor 1260 | mg/kg | 0.024 | 0.22 | NA | NA | <0.063 | <0.051 | <0.054 | <0.052 | <0.053 |
| **RCRA Metals** | | | | | | | | | | |
| Arsenic | mg/kg | 0.0013 | 0.39 | NA | NA | **4.7** | **2.3** | - | - | **5.3** |
| Barium | mg/kg | 120 | 15000 | NA | NA | **89** | **21** | - | - | **72** |
| Cadmium | mg/kg | NA | NA | NA | NA | <2 | <2.1 | - | - | <2.7 |
| Chromium | mg/kg | NA | NA | NA | NA | **21** | **16** | - | - | **20** |
| Lead | mg/kg | NA | 400 | NA | NA | **38** | **4.9** | - | - | **23** |
| Mercury | mg/kg | 0.033 | 10 | NA | NA | **0.13** | <0.085 | - | - | <0.11 |
| Selenium | mg/kg | 0.4 | 390 | NA | NA | <2 | <2.1 | - | - | <2.7 |
| Silver | mg/kg | 0.6 | 390 | NA | NA | <2 | <2.1 | - | - | <2.7 |

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6. VOC: volatile organic compound; PAH: polyaromatic hydrocarbons; TPH: total petroleum hydrocarbons; PCB: polychlorinated biphenyl
7. ug/kg means micrograms per kilogram; mg/kg means milligram per kilogram
8. - means not analyzed

**TABLE II**
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**ST. ELIZABETHS EAST CAMPUS**
**WASHINGTON, D.C.**



| | | EPA Region III Soil Screening Level Protection of GW April 2012 | EPA Region III Soil Screening Level Residential Soil April 2012 | DC RBCA Risk-Based Screening Levels Resident Child Surficial Soil June 2011 | Section 6208 of the DC UST Regulations Tier 0 Screening Levels 1999 | B106-S2-21'-23' 9/12/2012 21'-23' | B107-S1-5'-7' 9/12/2012 5'-7' | B107-S2-20'-22' 9/12/2012 20'-22' | B110-S1-3'-5' 9/12/2012 3'-5' | B110-S2-13'-15' 9/12/2012 13'-15' | B111-S1-10'-12' 9/11/2012 10'-12' |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **VOCs BTEXN** | | NA | NA | NA | NA | - | ND | ND | ND | ND | ND |
| **VOCs (COMPLETE LIST)** | | NA | NA | NA | NA | ND | - | - | - | - | - |
| **PAHs** | | | | | | | | | | | |
| Acenaphthene | ug/kg | 4,100 | 3,400,000 | 3,440,000 | NA | <6 | - | - | - | - | - |
| Acenaphthylene | ug/kg | NA | NA | NA | NA | <6 | - | - | - | - | - |
| Anthracene | ug/kg | 42,000 | 17,000,000 | 17,200,000 | NA | **9** | - | - | - | - | - |
| Benzo[a]anthracene | ug/kg | 10 | 150 | 916 | NA | **13** | - | - | - | - | - |
| Benzo[a]pyrene | ug/kg | 3.5 | 15 | 91.6 | NA | **11** | - | - | - | - | - |
| Benzo[b]fluoranthene | ug/kg | 35 | 150 | 916 | NA | **13** | - | - | - | - | - |
| Benzo[g,h,i]perylene | ug/kg | NA | NA | 1,870,000 | NA | **13** | - | - | - | - | - |
| Benzo[k]fluoranthene | ug/kg | 350 | 1,500 | 9,160 | NA | **14** | - | - | - | - | - |
| Chrysene | ug/kg | 1,100 | 15,000 | 91,500 | NA | **14** | - | - | - | - | - |
| Dibenz[a,h]anthracene | ug/kg | 11 | 15 | NA | NA | **11** | - | - | - | - | - |
| Fluoranthene | ug/kg | 70,000 | 2,300,000 | 2,290,000 | NA | **11** | - | - | - | - | - |
| Fluorene | ug/kg | 4,000 | 2,300,000 | 2,290,000 | NA | <6 | - | - | - | - | - |
| Indeno[1,2,3-cd]pyrene | ug/kg | 120 | 150 | NA | NA | **11** | - | - | - | - | - |
| 2-Methylnaphthalene | ug/kg | 140 | 230,000 | NA | NA | <6 | - | - | - | - | - |
| Naphthalene` | ug/kg | 0.47 | 3,600 | 469,000 | NA | <6 | - | - | - | - | - |
| Phenanthrene | ug/kg | NA | NA | 1,870,000 | NA | **9** | - | - | - | - | - |
| Pyrene | ug/kg | 9,500 | 1,700,000 | 1,720,000 | NA | **11** | - | - | - | - | - |
| **TPH-Diesel Range Organics** | mg/kg | NA | NA | NA | 100 | <13 | <12 | <11 | <11 | <11 | **170** |
| **TPH-Gasoline Range Organics** | mg/kg | NA | NA | NA | 100 | <0.21 | <0.2 | <0.17 | <0.19 | <0.17 | <0.18 |
| **TPH-Oil Range Organics** | mg/kg | NA | NA | NA | 100 | <13 | <12 | <11 | <11 | <11 | **170** |
| **PCBs** | | | | | | | | | | | |
| Aroclor 1260 | mg/kg | 0.024 | 0.22 | NA | NA | <0.062 | <0.058 | <0.055 | <0.055 | <0.055 | <0.052 |
| **RCRA Metals** | | | | | | | | | | | |
| Arsenic | mg/kg | 0.0013 | 0.39 | NA | NA | **0.88** | - | - | - | - | - |
| Barium | mg/kg | 120 | 15000 | NA | NA | **5.6** | - | - | - | - | - |
| Cadmium | mg/kg | NA | NA | NA | NA | <2.7 | - | - | - | - | - |
| Chromium | mg/kg | NA | NA | NA | NA | **2.9** | - | - | - | - | - |
| Lead | mg/kg | NA | 400 | NA | NA | **2.8** | - | - | - | - | - |
| Mercury | mg/kg | 0.033 | 10 | NA | NA | <0.11 | - | - | - | - | - |
| Selenium | mg/kg | 0.4 | 390 | NA | NA | <2.7 | - | - | - | - | - |
| Silver | mg/kg | 0.6 | 390 | NA | NA | <2.7 | - | - | - | - | - |

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7. ug/kg means micrograms per kilogram; mg/kg means milligram per kilogram
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**WASHINGTON, D.C.**



| | | EPA Region III Soil Screening Level Protection of GW April 2012 | EPA Region III Soil Screening Level Residential Soil April 2012 | DC RBCA Risk-Based Screening Levels Resident Child Surficial Soil June 2011 | Section 6208 of the DC UST Regulations Tier 0 Screening Levels 1999 | B111-S2-1'-3' 9/11/2012 1'-3' | B112-S1-5'-6' 9/11/2012 5'-6' | B112-S2-18'-20' 9/11/2012 18'-20' | B113-S1-5'-7' 9/10/2012 5'-7' | B114-S1-3'-5' 9/12/2012 3'-5' | B114-S2-13'-15' 9/12/2012 13'-15' |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **VOCs BTEXN** | | NA | NA | NA | NA | ND | ND | ND | ND | ND | ND |
| **VOCs (COMPLETE LIST)** | | NA | NA | NA | NA | - | - | - | - | - | - |
| **PAHs** | | | | | | | | | | | |
| Acenaphthene | ug/kg | 4,100 | 3,400,000 | 3,440,000 | NA | - | - | - | - | - | - |
| Acenaphthylene | ug/kg | NA | NA | NA | NA | - | - | - | - | - | - |
| Anthracene | ug/kg | 42,000 | 17,000,000 | 17,200,000 | NA | - | - | - | - | - | - |
| Benzo[a]anthracene | ug/kg | 10 | 150 | 916 | NA | - | - | - | - | - | - |
| Benzo[a]pyrene | ug/kg | 3.5 | 15 | 91.6 | NA | - | - | - | - | - | - |
| Benzo[b]fluoranthene | ug/kg | 35 | 150 | 916 | NA | - | - | - | - | - | - |
| Benzo[g,h,i]perylene | ug/kg | NA | NA | 1,870,000 | NA | - | - | - | - | - | - |
| Benzo[k]fluoranthene | ug/kg | 350 | 1,500 | 9,160 | NA | - | - | - | - | - | - |
| Chrysene | ug/kg | 1,100 | 15,000 | 91,500 | NA | - | - | - | - | - | - |
| Dibenz[a,h]anthracene | ug/kg | 11 | 15 | NA | NA | - | - | - | - | - | - |
| Fluoranthene | ug/kg | 70,000 | 2,300,000 | 2,290,000 | NA | - | - | - | - | - | - |
| Fluorene | ug/kg | 4,000 | 2,300,000 | 2,290,000 | NA | - | - | - | - | - | - |
| Indeno[1,2,3-cd]pyrene | ug/kg | 120 | 150 | NA | NA | - | - | - | - | - | - |
| 2-Methylnaphthalene | ug/kg | 140 | 230,000 | NA | NA | - | - | - | - | - | - |
| Naphthalene` | ug/kg | 0.47 | 3,600 | 469,000 | NA | - | - | - | - | - | - |
| Phenanthrene | ug/kg | NA | NA | 1,870,000 | NA | - | - | - | - | - | - |
| Pyrene | ug/kg | 9,500 | 1,700,000 | 1,720,000 | NA | - | - | - | - | - | - |
| **TPH-Diesel Range Organics** | mg/kg | NA | NA | NA | 100 | <11 | **22** | <11 | **20** | <11 | <12 |
| **TPH-Gasoline Range Organics** | mg/kg | NA | NA | NA | 100 | <0.18 | <0.2 | <0.19 | <0.21 | <0.19 | <0.2 |
| **TPH-Oil Range Organics** | mg/kg | NA | NA | NA | 100 | <11 | **19** | <11 | **13** | <11 | <12 |
| **PCBs** | | | | | | | | | | | |
| Aroclor 1260 | mg/kg | 0.024 | 0.22 | NA | NA | <0.055 | <0.065 | <0.058 | - | - | - |
| **RCRA Metals** | | | | | | | | | | | |
| Arsenic | mg/kg | 0.0013 | 0.39 | NA | NA | - | - | - | - | - | - |
| Barium | mg/kg | 120 | 15000 | NA | NA | - | - | - | - | - | - |
| Cadmium | mg/kg | NA | NA | NA | NA | - | - | - | - | - | - |
| Chromium | mg/kg | NA | NA | NA | NA | - | - | - | - | - | - |
| Lead | mg/kg | NA | 400 | NA | NA | - | - | - | - | - | - |
| Mercury | mg/kg | 0.033 | 10 | NA | NA | - | - | - | - | - | - |
| Selenium | mg/kg | 0.4 | 390 | NA | NA | - | - | - | - | - | - |
| Silver | mg/kg | 0.6 | 390 | NA | NA | - | - | - | - | - | - |

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7. ug/kg means micrograms per kilogram; mg/kg means milligram per kilogram
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**WASHINGTON, D.C.**



| | | EPA Region III Soil Screening Level Protection of GW April 2012 | EPA Region III Soil Screening Level Residential Soil April 2012 | DC RBCA Risk-Based Screening Levels Resident Child Surficial Soil June 2011 | Section 6208 of the DC UST Regulations Tier 0 Screening Levels 1999 | B115-S1-5'-7' 9/12/2012 5'-7' | B115-S2-12'-14' 9/12/2012 12'-14' | B116-S1-6'-8' 9/11/2012 6'-8' | B117-S1-15'-17' 9/11/2012 15'-17' | B117-S2-2'-4' 9/11/2012 2'-4' | B118-S1-10'-11' 9/11/2012 10'-11' |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **VOCs BTEXN** | | NA | NA | NA | NA | ND | ND | ND | - | - | ND |
| **VOCs (COMPLETE LIST)** | | NA | NA | NA | NA | - | - | - | ND | ND | - |
| **PAHs** | | | | | | | | | | | |
| Acenaphthene | ug/kg | 4,100 | 3,400,000 | 3,440,000 | NA | - | - | - | <6 | <6 | - |
| Acenaphthylene | ug/kg | NA | NA | NA | NA | - | - | - | <6 | <6 | - |
| Anthracene | ug/kg | 42,000 | 17,000,000 | 17,200,000 | NA | - | - | - | <6 | <6 | - |
| Benzo[a]anthracene | ug/kg | 10 | 150 | 916 | NA | - | - | - | <6 | **17** | - |
| Benzo[a]pyrene | ug/kg | 3.5 | 15 | 91.6 | NA | - | - | - | <6 | **29** | - |
| Benzo[b]fluoranthene | ug/kg | 35 | 150 | 916 | NA | - | - | - | **6** | **49** | - |
| Benzo[g,h,i]perylene | ug/kg | NA | NA | 1,870,000 | NA | - | - | - | <6 | **14** | - |
| Benzo[k]fluoranthene | ug/kg | 350 | 1,500 | 9,160 | NA | - | - | - | <6 | **16** | - |
| Chrysene | ug/kg | 1,100 | 15,000 | 91,500 | NA | - | - | - | <6 | **23** | - |
| Dibenz[a,h]anthracene | ug/kg | 11 | 15 | NA | NA | - | - | - | <6 | <6 | - |
| Fluoranthene | ug/kg | 70,000 | 2,300,000 | 2,290,000 | NA | - | - | - | **7** | **30** | - |
| Fluorene | ug/kg | 4,000 | 2,300,000 | 2,290,000 | NA | - | - | - | <6 | <6 | - |
| Indeno[1,2,3-cd]pyrene | ug/kg | 120 | 150 | NA | NA | - | - | - | <6 | **12** | - |
| 2-Methylnaphthalene | ug/kg | 140 | 230,000 | NA | NA | - | - | - | <6 | <6 | - |
| Naphthalene` | ug/kg | 0.47 | 3,600 | 469,000 | NA | - | - | - | <6 | <6 | - |
| Phenanthrene | ug/kg | NA | NA | 1,870,000 | NA | - | - | - | <6 | **13** | - |
| Pyrene | ug/kg | 9,500 | 1,700,000 | 1,720,000 | NA | - | - | - | **6** | **21** | - |
| **TPH-Diesel Range Organics** | mg/kg | NA | NA | NA | 100 | <11 | <11 | <12 | <12 | **13** | <12 |
| **TPH-Gasoline Range Organics** | mg/kg | NA | NA | NA | 100 | <0.2 | <0.15 | <0.24 | <0.21 | <0.2 | **0.22** |
| **TPH-Oil Range Organics** | mg/kg | NA | NA | NA | 100 | <11 | <11 | <12 | <12 | <12 | <12 |
| **PCBs** | | | | | | | | | | | |
| Aroclor 1260 | mg/kg | 0.024 | 0.22 | NA | NA | <0.055 | <0.051 | <0.054 | <0.06 | <0.061 | <0.062 |
| **RCRA Metals** | | | | | | | | | | | |
| Arsenic | mg/kg | 0.0013 | 0.39 | NA | NA | - | - | - | **0.77** | **6.3** | - |
| Barium | mg/kg | 120 | 15000 | NA | NA | - | - | - | **21** | **51** | - |
| Cadmium | mg/kg | NA | NA | NA | NA | - | - | - | <2.3 | <2 | - |
| Chromium | mg/kg | NA | NA | NA | NA | - | - | - | **12** | **25** | - |
| Lead | mg/kg | NA | 400 | NA | NA | - | - | - | **5.9** | **27** | - |
| Mercury | mg/kg | 0.033 | 10 | NA | NA | - | - | - | <0.093 | **0.12** | - |
| Selenium | mg/kg | 0.4 | 390 | NA | NA | - | - | - | <2.3 | <2 | - |
| Silver | mg/kg | 0.6 | 390 | NA | NA | - | - | - | <2.3 | <2 | - |

Notes and Abbreviations:
1. Only those constituents detected in at least one sample are shown.
2. <#: Result is less than indicated reporting limit.
3. Results in bold are detected.
4. Compounds exceeding regulatory criteria are formatted according to column heading.
5. ND means not detected or less than the laboratory reporting limit for each constituent; NA means criteria not available
6. VOC: volatile organic compound; PAH: polyaromatic hydrocarbons; TPH: total petroleum hydrocarbons; PCB: polychlorinated biphenyl
7. ug/kg means micrograms per kilogram; mg/kg means milligram per kilogram
8. - means not analyzed

**TABLE II**
**SUMMARY OF LABORTORY ANALYTICAL DATA FOR SOIL**
**ST. ELIZABETHS EAST CAMPUS**
**WASHINGTON, D.C.**



| | | EPA Region III Soil Screening Level Protection of GW April 2012 | EPA Region III Soil Screening Level Residential Soil April 2012 | DC RBCA Risk-Based Screening Levels Resident Child Surficial Soil June 2011 | Section 6208 of the DC UST Regulations Tier 0 Screening Levels 1999 | B119-S1-5'-7' 9/10/2012 5'-7' | B120-S1-5'-7' 9/10/2012 5'-7' | B121-S1-5'-7' 9/12/2012 5'-7' | B121-S1-13'-15' 9/12/2012 13'-15' | B122-S1-0.5'-2.5' 9/10/2012 0.5'-2.5' | B123-S1-5'-7' 9/10/2012 5'-7' |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **VOCs BTEXN** | | NA | NA | NA | NA | ND | ND | - | - | ND | ND |
| **VOCs (COMPLETE LIST)** | | NA | NA | NA | NA | - | - | ND | ND | - | - |
| **PAHs** | | | | | | | | | | | |
| Acenaphthene | ug/kg | 4,100 | 3,400,000 | 3,440,000 | NA | - | - | **6** | <5 | - | - |
| Acenaphthylene | ug/kg | NA | NA | NA | NA | - | - | <6 | <5 | - | - |
| Anthracene | ug/kg | 42,000 | 17,000,000 | 17,200,000 | NA | - | - | **13** | **5** | - | - |
| Benzo[a]anthracene | ug/kg | 10 | 150 | 916 | NA | - | - | **16** | **7** | - | - |
| Benzo[a]pyrene | ug/kg | 3.5 | 15 | 91.6 | NA | - | - | **15** | **7** | - | - |
| Benzo[b]fluoranthene | ug/kg | 35 | 150 | 916 | NA | - | - | **19** | **8** | - | - |
| Benzo[g,h,i]perylene | ug/kg | NA | NA | 1,870,000 | NA | - | - | **15** | **5** | - | - |
| Benzo[k]fluoranthene | ug/kg | 350 | 1,500 | 9,160 | NA | - | - | **16** | **8** | - | - |
| Chrysene | ug/kg | 1,100 | 15,000 | 91,500 | NA | - | - | **23** | **8** | - | - |
| Dibenz[a,h]anthracene | ug/kg | 11 | 15 | NA | NA | - | - | **14** | **5** | - | - |
| Fluoranthene | ug/kg | 70,000 | 2,300,000 | 2,290,000 | NA | - | - | **18** | **6** | - | - |
| Fluorene | ug/kg | 4,000 | 2,300,000 | 2,290,000 | NA | - | - | **6** | <5 | - | - |
| Indeno[1,2,3-cd]pyrene | ug/kg | 120 | 150 | NA | NA | - | - | **15** | **5** | - | - |
| 2-Methylnaphthalene | ug/kg | 140 | 230,000 | NA | NA | - | - | <6 | <5 | - | - |
| Naphthalene` | ug/kg | 0.47 | 3,600 | 469,000 | NA | - | - | <6 | <5 | - | - |
| Phenanthrene | ug/kg | NA | NA | 1,870,000 | NA | - | - | **21** | **5** | - | - |
| Pyrene | ug/kg | 9,500 | 1,700,000 | 1,720,000 | NA | - | - | **18** | **7** | - | - |
| **TPH-Diesel Range Organics** | mg/kg | NA | NA | NA | 100 | <11 | <12 | **13** | <10 | <13 | <12 |
| **TPH-Gasoline Range Organics** | mg/kg | NA | NA | NA | 100 | <0.14 | **0.26** | <0.21 | <0.17 | <0.21 | <0.23 |
| **TPH-Oil Range Organics** | mg/kg | NA | NA | NA | 100 | <11 | <12 | <12 | <10 | <13 | <12 |
| **PCBs** | | | | | | | | | | | |
| Aroclor 1260 | mg/kg | 0.024 | 0.22 | NA | NA | - | - | <0.06 | <0.049 | - | - |
| **RCRA Metals** | | | | | | | | | | | |
| Arsenic | mg/kg | 0.0013 | 0.39 | NA | NA | - | - | **6.1** | **0.56** | - | - |
| Barium | mg/kg | 120 | 15000 | NA | NA | - | - | **46** | **4.1** | - | - |
| Cadmium | mg/kg | NA | NA | NA | NA | - | - | <2.9 | <1.9 | - | - |
| Chromium | mg/kg | NA | NA | NA | NA | - | - | **34** | **2.6** | - | - |
| Lead | mg/kg | NA | 400 | NA | NA | - | - | **18** | **2.2** | - | - |
| Mercury | mg/kg | 0.033 | 10 | NA | NA | - | - | <0.12 | <0.076 | - | - |
| Selenium | mg/kg | 0.4 | 390 | NA | NA | - | - | <2.9 | <1.9 | - | - |
| Silver | mg/kg | 0.6 | 390 | NA | NA | - | - | <2.9 | <1.9 | - | - |

Notes and Abbreviations:
1. Only those constituents detected in at least one sample are shown.
2. <#: Result is less than indicated reporting limit.
3. Results in bold are detected.
4. Compounds exceeding regulatory criteria are formatted according to column heading.
5. ND means not detected or less than the laboratory reporting limit for each constituent; NA means criteria not available
6. VOC: volatile organic compound; PAH: polyaromatic hydrocarbons; TPH: total petroleum hydrocarbons; PCB: polychlorinated biphenyl
7. ug/kg means micrograms per kilogram; mg/kg means milligram per kilogram
8. - means not analyzed

**TABLE II**
**SUMMARY OF LABORTORY ANALYTICAL DATA FOR SOIL**
**ST. ELIZABETHS EAST CAMPUS**
**WASHINGTON, D.C.**



| | | EPA Region III Soil Screening Level Protection of GW April 2012 | EPA Region III Soil Screening Level Residential Soil April 2012 | DC RBCA Risk-Based Screening Levels Resident Child Surficial Soil June 2011 | Section 6208 of the DC UST Regulations Tier 0 Screening Levels 1999 | B124-S1-5'-7' 9/10/2012 5'-7' | B125-S1-1'-3' 9/11/2012 1'-3' | B125-S2-8'-10' 9/11/2012 8'-10' | B126-S1-18'-20' 9/11/2012 18'-20' | B127-S1-5'-7' 9/10/2012 5'-7' | B128-S1-5'-7' 9/10/2012 5'-7' |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **VOCs BTEXN** | | NA | NA | NA | NA | ND | - | - | ND | - | ND |
| **VOCs (COMPLETE LIST)** | | NA | NA | NA | NA | - | ND | ND | - | ND | - |
| **PAHs** | | | | | | | | | | | |
| Acenaphthene | ug/kg | 4,100 | 3,400,000 | 3,440,000 | NA | - | <6 | <5 | - | <6 | - |
| Acenaphthylene | ug/kg | NA | NA | NA | NA | - | <6 | <5 | - | <6 | - |
| Anthracene | ug/kg | 42,000 | 17,000,000 | 17,200,000 | NA | - | <6 | <5 | - | <6 | - |
| Benzo[a]anthracene | ug/kg | 10 | 150 | 916 | NA | - | <6 | <5 | - | <6 | - |
| Benzo[a]pyrene | ug/kg | 3.5 | 15 | 91.6 | NA | - | <6 | <5 | - | <6 | - |
| Benzo[b]fluoranthene | ug/kg | 35 | 150 | 916 | NA | - | **8** | **8** | - | <6 | - |
| Benzo[g,h,i]perylene | ug/kg | NA | NA | 1,870,000 | NA | - | <6 | <5 | - | <6 | - |
| Benzo[k]fluoranthene | ug/kg | 350 | 1,500 | 9,160 | NA | - | <6 | <5 | - | <6 | - |
| Chrysene | ug/kg | 1,100 | 15,000 | 91,500 | NA | - | <6 | <5 | - | <6 | - |
| Dibenz[a,h]anthracene | ug/kg | 11 | 15 | NA | NA | - | <6 | <5 | - | <6 | - |
| Fluoranthene | ug/kg | 70,000 | 2,300,000 | 2,290,000 | NA | - | **8** | **8** | - | <6 | - |
| Fluorene | ug/kg | 4,000 | 2,300,000 | 2,290,000 | NA | - | <6 | <5 | - | <6 | - |
| Indeno[1,2,3-cd]pyrene | ug/kg | 120 | 150 | NA | NA | - | <6 | <5 | - | <6 | - |
| 2-Methylnaphthalene | ug/kg | 140 | 230,000 | NA | NA | - | <6 | <5 | - | **12** | - |
| Naphthalene` | ug/kg | 0.47 | 3,600 | 469,000 | NA | - | <6 | <5 | - | <6 | - |
| Phenanthrene | ug/kg | NA | NA | 1,870,000 | NA | - | **11** | **5** | - | <6 | - |
| Pyrene | ug/kg | 9,500 | 1,700,000 | 1,720,000 | NA | - | **7** | **7** | - | <6 | - |
| **TPH-Diesel Range Organics** | mg/kg | NA | NA | NA | 100 | <13 | <12 | <11 | <10 | <12 | <11 |
| **TPH-Gasoline Range Organics** | mg/kg | NA | NA | NA | 100 | **0.21** | <0.17 | <0.19 | <0.15 | <0.27 | <0.23 |
| **TPH-Oil Range Organics** | mg/kg | NA | NA | NA | 100 | <13 | <12 | <11 | <10 | <12 | <11 |
| **PCBs** | | | | | | | | | | | |
| Aroclor 1260 | mg/kg | 0.024 | 0.22 | NA | NA | - | <0.058 | <0.053 | - | <0.057 | - |
| **RCRA Metals** | | | | | | | | | | | |
| Arsenic | mg/kg | 0.0013 | 0.39 | NA | NA | - | **2.9** | **2.8** | - | **4** | - |
| Barium | mg/kg | 120 | 15000 | NA | NA | - | **63** | **16** | - | **44** | - |
| Cadmium | mg/kg | NA | NA | NA | NA | - | <1.6 | <2.7 | - | <1.9 | - |
| Chromium | mg/kg | NA | NA | NA | NA | - | **17** | **14** | - | **23** | - |
| Lead | mg/kg | NA | 400 | NA | NA | - | **16** | **7.7** | - | **15** | - |
| Mercury | mg/kg | 0.033 | 10 | NA | NA | - | **0.18** | <0.11 | - | <0.077 | - |
| Selenium | mg/kg | 0.4 | 390 | NA | NA | - | <1.6 | <2.7 | - | <1.9 | - |
| Silver | mg/kg | 0.6 | 390 | NA | NA | - | <1.6 | <2.7 | - | <1.9 | - |

Notes and Abbreviations:
1. Only those constituents detected in at least one sample are shown.
2. <#: Result is less than indicated reporting limit.
3. Results in bold are detected.
4. Compounds exceeding regulatory criteria are formatted according to column heading.
5. ND means not detected or less than the laboratory reporting limit for each constituent; NA means criteria not available
6. VOC: volatile organic compound; PAH: polyaromatic hydrocarbons; TPH: total petroleum hydrocarbons; PCB: polychlorinated biphenyl
7. ug/kg means micrograms per kilogram; mg/kg means milligram per kilogram
8. - means not analyzed

**TABLE II**
**SUMMARY OF LABORTORY ANALYTICAL DATA FOR SOIL**
**ST. ELIZABETHS EAST CAMPUS**
**WASHINGTON, D.C.**



| | | EPA Region III Soil Screening Level Protection of GW April 2012 | EPA Region III Soil Screening Level Residential Soil April 2012 | DC RBCA Risk-Based Screening Levels Resident Child Surficial Soil June 2011 | Section 6208 of the DC UST Regulations Tier 0 Screening Levels 1999 | B129-S1-5'-7' 9/11/2012 5'-7' | B129-S2-13'-15' 9/11/2012 13'-15' |
|---|---|---|---|---|---|---|---|
| **VOCs BTEXN** | | NA | NA | NA | NA | - | - |
| **VOCs (COMPLETE LIST)** | | NA | NA | NA | NA | ND | ND |
| **PAHs** | | | | | | | |
| Acenaphthene | ug/kg | 4,100 | 3,400,000 | 3,440,000 | NA | <6 | <5 |
| Acenaphthylene | ug/kg | NA | NA | NA | NA | <6 | <5 |
| Anthracene | ug/kg | 42,000 | 17,000,000 | 17,200,000 | NA | <6 | <5 |
| Benzo[a]anthracene | ug/kg | 10 | 150 | 916 | NA | **7** | **7** |
| Benzo[a]pyrene | ug/kg | 3.5 | 15 | 91.6 | NA | **14** | **9** |
| Benzo[b]fluoranthene | ug/kg | 35 | 150 | 916 | NA | **23** | **11** |
| Benzo[g,h,i]perylene | ug/kg | NA | NA | 1,870,000 | NA | **12** | **6** |
| Benzo[k]fluoranthene | ug/kg | 350 | 1,500 | 9,160 | NA | **7** | **11** |
| Chrysene | ug/kg | 1,100 | 15,000 | 91,500 | NA | **20** | **7** |
| Dibenz[a,h]anthracene | ug/kg | 11 | 15 | NA | NA | <6 | **6** |
| Fluoranthene | ug/kg | 70,000 | 2,300,000 | 2,290,000 | NA | **9** | **6** |
| Fluorene | ug/kg | 4,000 | 2,300,000 | 2,290,000 | NA | <6 | <5 |
| Indeno[1,2,3-cd]pyrene | ug/kg | 120 | 150 | NA | NA | <6 | **6** |
| 2-Methylnaphthalene | ug/kg | 140 | 230,000 | NA | NA | <6 | <5 |
| Naphthalene` | ug/kg | 0.47 | 3,600 | 469,000 | NA | <6 | <5 |
| Phenanthrene | ug/kg | NA | NA | 1,870,000 | NA | **8** | <5 |
| Pyrene | ug/kg | 9,500 | 1,700,000 | 1,720,000 | NA | **12** | **8** |
| **TPH-Diesel Range Organics** | mg/kg | NA | NA | NA | 100 | **280** | <11 |
| **TPH-Gasoline Range Organics** | mg/kg | NA | NA | NA | 100 | <0.2 | <0.19 |
| **TPH-Oil Range Organics** | mg/kg | NA | NA | NA | 100 | **340** | <11 |
| **PCBs** | | | | | | | |
| Aroclor 1260 | mg/kg | 0.024 | 0.22 | NA | NA | <0.056 | <0.057 |
| **RCRA Metals** | | | | | | | |
| Arsenic | mg/kg | 0.0013 | 0.39 | NA | NA | **5.7** | **0.91** |
| Barium | mg/kg | 120 | 15000 | NA | NA | **42** | **29** |
| Cadmium | mg/kg | NA | NA | NA | NA | <2.8 | <1.4 |
| Chromium | mg/kg | NA | NA | NA | NA | **30** | **4.9** |
| Lead | mg/kg | NA | 400 | NA | NA | **15** | **13** |
| Mercury | mg/kg | 0.033 | 10 | NA | NA | <0.11 | <0.058 |
| Selenium | mg/kg | 0.4 | 390 | NA | NA | <2.8 | <1.4 |
| Silver | mg/kg | 0.6 | 390 | NA | NA | <2.8 | <1.4 |

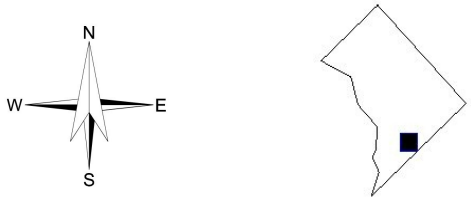
Notes and Abbreviations:
1. Only those constituents detected in at least one sample are shown.
2. <#: Result is less than indicated reporting limit.
3. Results in bold are detected.
4. Compounds exceeding regulatory criteria are formatted according to column heading.
5. ND means not detected or less than the laboratory reporting limit for each constituent; NA means criteria not available
6. VOC: volatile organic compound; PAH: polyaromatic hydrocarbons; TPH: total petroleum hydrocarbons; PCB: polychlorinated biphenyl
7. ug/kg means micrograms per kilogram; mg/kg means milligram per kilogram
8. - means not analyzed

**TABLE III**
**SUMMARY OF LABORTORY ANALYTICAL DATA FOR GROUNDWATER**
**ST. ELIZABETHS EAST CAMPUS**
**WASHINGTON, D.C.**

| | | Petroleum Contaminated GW Cleanup Standards for the DC UST Program Tier 1 Screening Levels 2003 Revison | B103 Temp Well 9/12/2012 |
|---|---|---|---|
| **VOCs (COMPLETE LIST)** | ug/l | NA | ND |
| **TPH-Diesel Range Organics** | mg/l | 3.57 | **0.24** |
| **TPH-Gasoline Range Organics** | mg/l | 7.3 | <0.2 |
| **TPH-Oil Range Organics** | mg/l | NA | <0.2 |

Notes and Abbreviations:
1. Only those compounds detected in at least one sample are shown.
2. <#: Result is less than indicated reporting limit.
3. Results in bold are detected.
4. ND means not detected or less than the laboratory reporting limit for each constituent; NA means criteria not available
5. VOC: volatile organic compound; TPH: total petroleum hydrocarbons
7. ug/l means micrograms per liter; mg/l means milligram per liter


SITE COORDINATES:38°50'50"N 76°59'35"W




U.S.G.S. QUADRANGLE: ANACOSTIA, DC

HALEY & ALDRICH

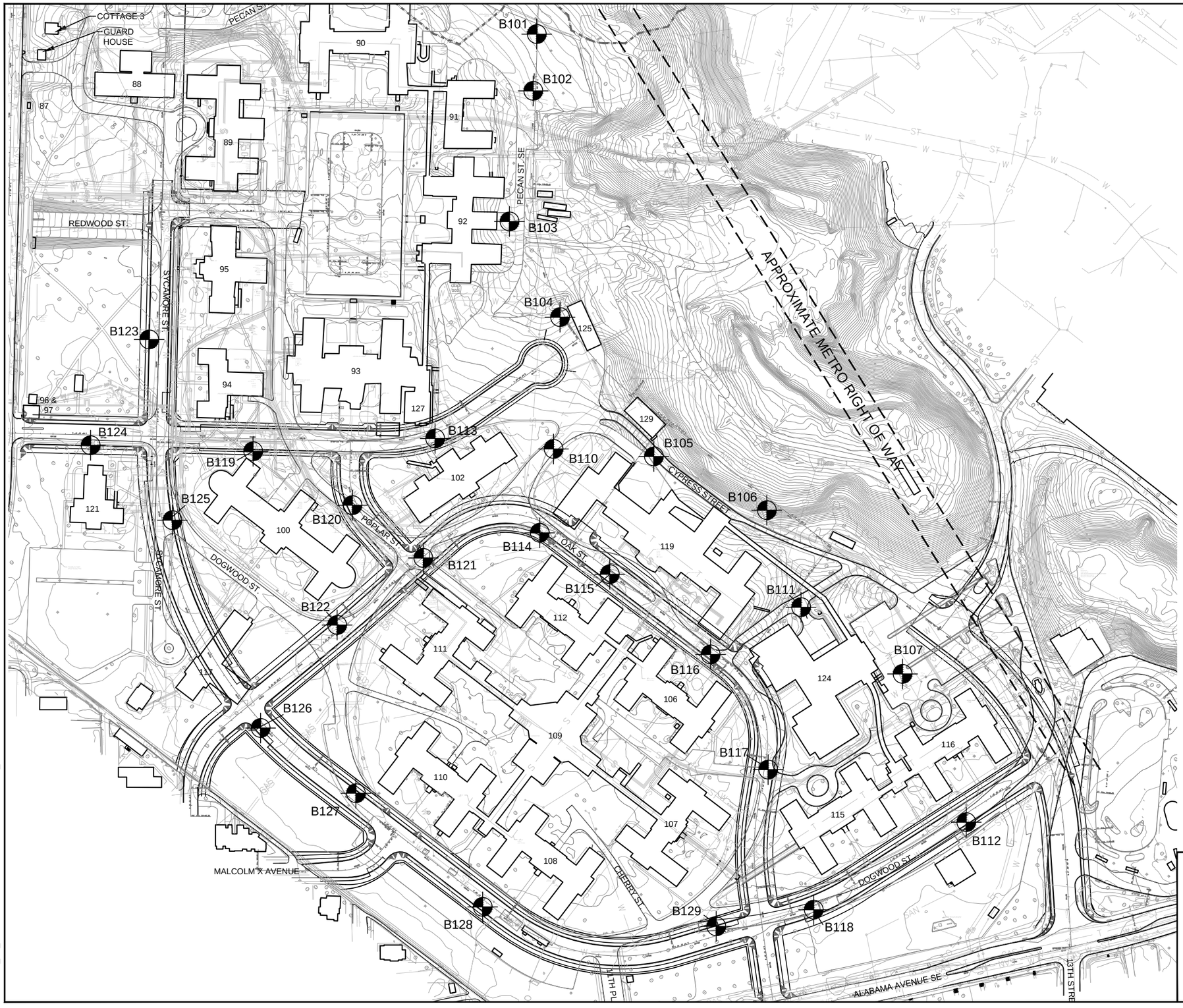
ST ELIZABETHS EAST CAMPUS
MARTIN LUTHER KING JR. (MLK) AVENUE SE
WASHINGTON, DISTRICT OF COLUMBIA

PROJECT LOCUS

SCALE: 1:24,000
OCTOBER 2012

FIGURE 1

38677-004 1.PDF




LEGEND

B108 — DESIGNATION AND APPROXIMATE LOCATION OF GEOPROBE BORINGS DRILLED BY VIRONEX, INC. OF BOWIE, MARYLAND BETWEEN 10 AND 12 SEPTEMBER 2012.

APPROXIMATE ASH / FILL AREA AS DEPICTED BY OTHERS, 1991.

APPROXIMATE FLY ASH ZONE AS DEPICTED BY OTHERS, 2008.

NOTES:

1. BASEMAP BASED ON ELECTRONIC CAD FILES OBTAINED FROM CH2MHILL OF ATLANTA, GEORGIA ON 27 AUGUST 2012.
2. LIMITS OF THE DISPOSAL FROM "FINAL DEPARTMENT OF HOMELAND SECURITY HEADQUARTERS CONSOLATION AT ST. ELIZABETH'S MASTER PLAN AMENDMENT - EAST CAMPUS NORTH PARCEL ENVIRONMENTAL IMPACT STATEMENT," PREPARED BY U.S. GENERAL SERVICES ADMINISTRATION NATIONAL CAPITAL REGION, DATED MARCH 2012.

N
W E
S

0 200 400
SCALE IN FEET

HALEY & ALDRICH

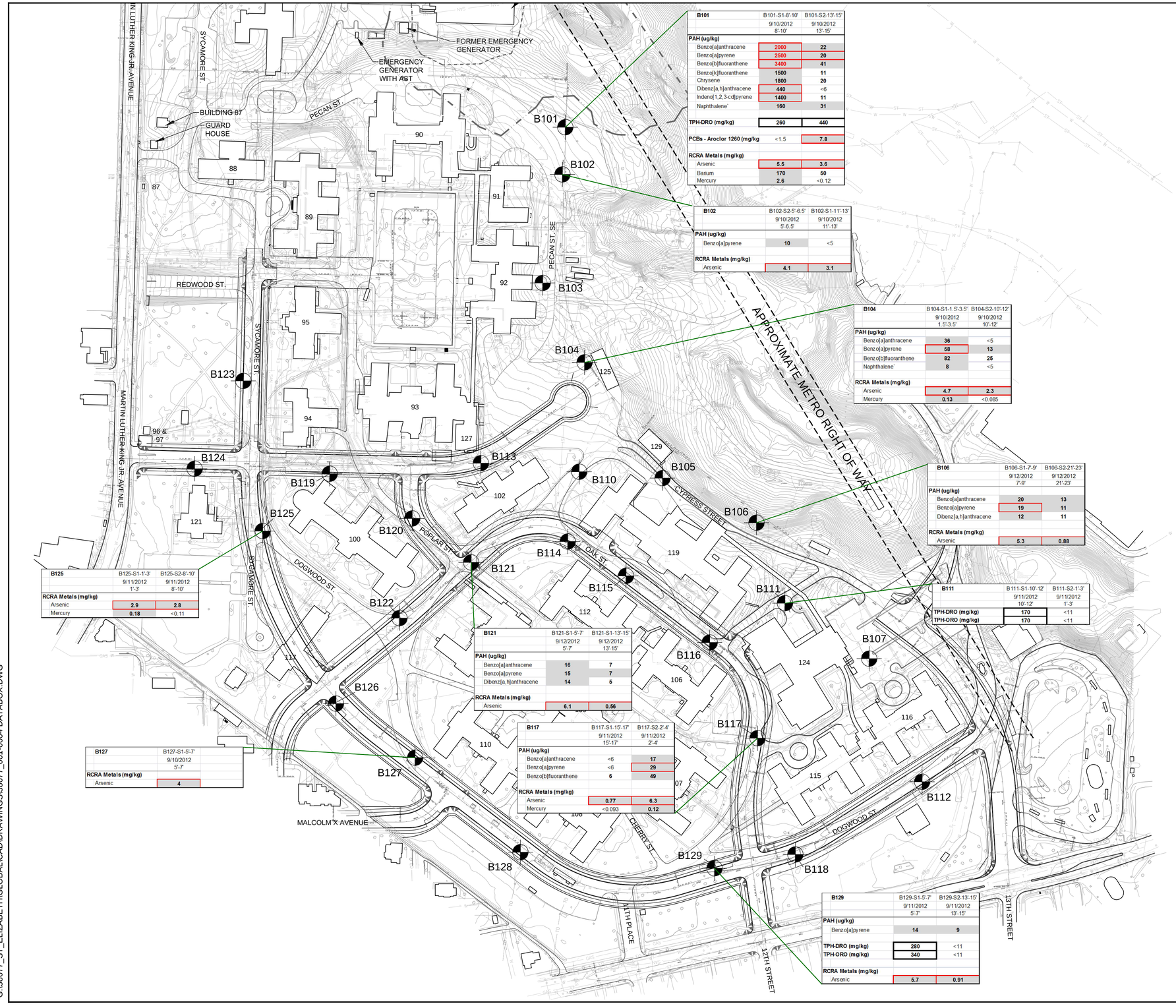
ST. ELIZABETH'S EAST CAMPUS
MARTIN LUTHER KING JR. (MLK) AVENUE SE
WASHINGTON D.C.

# SUBSURFACE EXPLORATION LOCATION PLAN

SCALE: AS SHOWN
NOVEMBER 2012

FIGURE 2

G:\38677_ST_ELIZABETH\GLOBAL\CAD\DRAWINGS\38677_001-0003 SELP.DWG




| B101 | B101-S1-8'-10' 9/10/2012 8'-10' | B101-S2-13'-15' 9/10/2012 13'-15' |
|---|---|---|
| **PAH (ug/kg)** | | |
| Benzo[a]anthracene | 2000 | 22 |
| Benzo[a]pyrene | 2500 | 20 |
| Benzo[b]fluoranthene | 3400 | 41 |
| Benzo[k]fluoranthene | 1500 | 11 |
| Chrysene | 1800 | 20 |
| Dibenz[a,h]anthracene | 440 | <6 |
| Indeno[1,2,3-cd]pyrene | 1400 | 11 |
| Naphthalene` | 160 | 31 |
| **TPH-DRO (mg/kg)** | 260 | 440 |
| **PCBs - Aroclor 1260 (mg/kg** | <1.5 | 7.8 |
| **RCRA Metals (mg/kg)** | | |
| Arsenic | 5.5 | 3.6 |
| Barium | 170 | 50 |
| Mercury | 2.6 | <0.12 |

| B102 | B102-S2-5'-6.5' 9/10/2012 5'-6.5' | B102-S1-11'-13' 9/10/2012 11'-13' |
|---|---|---|
| **PAH (ug/kg)** | | |
| Benzo[a]pyrene | 10 | <5 |
| **RCRA Metals (mg/kg)** | | |
| Arsenic | 4.1 | 3.1 |

| B104 | B104-S1-1.5'-3.5' 9/10/2012 1.5'-3.5' | B104-S2-10'-12' 9/10/2012 10'-12' |
|---|---|---|
| **PAH (ug/kg)** | | |
| Benzo[a]anthracene | 36 | <5 |
| Benzo[a]pyrene | 58 | 13 |
| Benzo[b]fluoranthene | 82 | 25 |
| Naphthalene` | 8 | <5 |
| **RCRA Metals (mg/kg)** | | |
| Arsenic | 4.7 | 2.3 |
| Mercury | 0.13 | <0.085 |

| B106 | B106-S1-7'-9' 9/12/2012 7'-9' | B106-S2-21'-23' 9/12/2012 21'-23' |
|---|---|---|
| **PAH (ug/kg)** | | |
| Benzo[a]anthracene | 20 | 13 |
| Benzo[a]pyrene | 19 | 11 |
| Dibenz[a,h]anthracene | 12 | 11 |
| **RCRA Metals (mg/kg)** | | |
| Arsenic | 5.3 | 0.88 |

| B111 | B111-S1-10'-12' 9/11/2012 10'-12' | B111-S2-1'-3' 9/11/2012 1'-3' |
|---|---|---|
| **TPH-DRO (mg/kg)** | 170 | <11 |
| **TPH-ORO (mg/kg)** | 170 | <11 |

| B121 | B121-S1-5'-7' 9/12/2012 5'-7' | B121-S1-13'-15' 9/12/2012 13'-15' |
|---|---|---|
| **PAH (ug/kg)** | | |
| Benzo[a]anthracene | 16 | 7 |
| Benzo[a]pyrene | 15 | 7 |
| Dibenz[a,h]anthracene | 14 | 5 |
| **RCRA Metals (mg/kg)** | | |
| Arsenic | 6.1 | 0.56 |

| B117 | B117-S1-15'-17' 9/11/2012 15'-17' | B117-S2-2'-4' 9/11/2012 2'-4' |
|---|---|---|
| **PAH (ug/kg)** | | |
| Benzo[a]anthracene | <6 | 17 |
| Benzo[a]pyrene | <6 | 29 |
| Benzo[b]fluoranthene | 6 | 49 |
| **RCRA Metals (mg/kg)** | | |
| Arsenic | 0.77 | 6.3 |
| Mercury | <0.093 | 0.12 |

| B125 | B125-S1-1'-3' 9/11/2012 1'-3' | B125-S2-8'-10' 9/11/2012 8'-10' |
|---|---|---|
| **RCRA Metals (mg/kg)** | | |
| Arsenic | 2.9 | 2.8 |
| Mercury | 0.18 | <0.11 |

| B127 | B127-S1-5'-7' 9/10/2012 5'-7' |
|---|---|
| **RCRA Metals (mg/kg)** | |
| Arsenic | 4 |

| B129 | B129-S1-5'-7' 9/11/2012 5'-7' | B129-S2-13'-15' 9/11/2012 13'-15' |
|---|---|---|
| **PAH (ug/kg)** | | |
| Benzo[a]pyrene | 14 | 9 |
| **TPH-DRO (mg/kg)** | 280 | <11 |
| **TPH-ORO (mg/kg)** | 340 | <11 |
| **RCRA Metals (mg/kg)** | | |
| Arsenic | 5.7 | 0.91 |

LEGEND

B111 — DESIGNATION AND APPROXIMATE LOCATION OF GEOPROBE BORINGS DRILLED BY VIRONEX, INC. OF BOWIE, MARYLAND BETWEEN 10 AND 12 SEPTEMBER 2012.

APPROXIMATE ASH / FILL AREA AS DEPICTED BY OTHERS, 1991.

APPROXIMATE FLY ASH ZONE AS DEPICTED BY OTHERS, 2008.

NOTES:

1. BASEMAP BASED ON ELECTRONIC CAD FILES OBTAINED FROM CH2MHILL OF ATLANTA, GEORGIA ON 27 AUGUST 2012.
2. LIMITS OF THE DISPOSAL FROM "FINAL DEPARTMENT OF HOMELAND SECURITY HEADQUARTERS CONSOLATION AT ST. ELIZABETH'S MASTER PLAN AMENDMENT - EAST CAMPUS NORTH PARCEL ENVIRONMENTAL IMPACT STATEMENT," PREPARED BY U.S. GENERAL SERVICES ADMINISTRATION NATIONAL CAPITAL REGION, DATED MARCH 2012.

**Notes:**
1. Only those compounds exceeding regulatory criteria shown.
2. <#: Result is less than indicated reporting limit.
3. Results in bold are detected.
4. Compounds exceeding regulatory criteria are formated as follows:

| EPA Region III Soil Screening Level Protection of GW April 2012 | EPA Region III Soil Screening Level Residential Soil April 2012 | DC RBCA Risk-Based Screening Levels Resident Child Surficial Soil | Section 6208 of the DC UST Regulations Tier 0 Screening Levels |
|---|---|---|---|

N
W E
S

0 120 240 360 480
SCALE IN FEET

HALEY & ALDRICH

ST. ELIZABETH'S EAST CAMPUS
MARTIN LUTHER KING JR. (MLK) AVENUE SE
WASHINGTON D.C.

# SOIL CONCENTRATIONS EXCEEDING REGULATORY CRITERIA

SCALE: AS SHOWN
NOVEMBER 2012

FIGURE 3

G:\38677_ST_ELIZABETH\GLOBAL\CAD\DRAWINGS\38677_001-0004 DATABOX.DWG

# APPENDIX A

## Boring Logs

HALEY & ALDRICH

# GEOPROBE REPORT

**Boring No. B101**

Project St. Elizabeths East Campus; Martin Luther King Jr. (MLK) Avenue SE; Washington, DC
Client CH2M Hill
Contractor Vironex, Inc.

File No. 38677-004
Sheet No. 1 of 1
Start September 10, 2012
Finish September 10, 2012
Driller B. Porter
H&A Rep. M. Tschibelu
Elevation Datum
Location See Plan

| | Casing | Sampler | Barrel | Drilling Equipment and Procedures |
|---|---|---|---|---|
| Type | 2 1/4 in. | - | - | Rig Make & Model: Geoprobe |
| Inside Diameter (in.) | 2 | - | - | Bit Type: - |
| Hammer Weight (lb) | - | - | - | Drill Mud: - |
| Hammer Fall (in.) | - | - | - | Casing: - |
| | | | | Hoist/Hammer: Direct Push - |
| | | | | PID Make & Model: MiniRAE 2000 |

| Depth (ft) | Sample No. & Rec. (in.) | Sample Depth (ft) | Stratum Change Elev/Depth (ft) | USCS Symbol | VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION) | PID Readings (ppm) |
|---|---|---|---|---|---|---|
| 0 | G1 60 | 0.0 5.0 | 0.5 | | -ASPHALT (2 in.) / SUBBASE (4 in.)- | |
| | | | | SM | Light brown silty SAND with gravel, no odor, dry | 0.0 |
| | | | | SM | Dark brown with red pockets silty SAND with gravel, petroleum odor, moist | |
| 5 | G2 48 | 5.0 10.0 | | SM | Similar to above | 0.0 |
| | | | | | | 0.1 |
| 10 | G3 60 | 10.0 15.0 | | SM | Dark brown with red-pockets silty SAND with gravel, petroleum odor and staining, moist | 0.2 |
| | | | | SM | Tan and gray silty SAND with gravel, no odor, dry | |
| 15 | | | 15.0 | | Bottom of exploration at 15.0 ft | |
| | | | | | Note: Borehole grouted upon completion | |

**Water Level Data**

| Date | Time | Elapsed Time (hr.) | Depth (ft) to: Bottom of Casing | Bottom of Hole | Water |
|---|---|---|---|---|---|
| | | Not Encountered | | | |

Sample ID
O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Splitspoon Sample
G - Geoprobe

Well Diagram
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

**Summary**

| | |
|---|---|
| Overburden (ft) | 15.0 |
| Rock Cored (ft) | - |
| Samples | 3G |
| **Boring No.** | **B101** |

**Field Tests:** **Dilatancy**: R - Rapid S - Slow N - None **Toughness**: L - Low M - Medium H - High **Plasticity**: N - Nonplastic L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

**Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.**

HALEY & ALDRICH

# GEOPROBE REPORT

**Boring No. B102**

Project St. Elizabeths East Campus; Martin Luther King Jr. (MLK) Avenue SE; Washington, DC
Client CH2M Hill
Contractor Vironex, Inc.

File No. 38677-004
Sheet No. 1 of 1
Start September 10, 2012
Finish September 10, 2012
Driller B. Porter
H&A Rep. M. Tschibelu
Elevation Datum
Location See Plan

| | Casing | Sampler | Barrel | Drilling Equipment and Procedures |
|---|---|---|---|---|
| Type | 2 1/4 in. | - | - | Rig Make & Model: Geoprobe |
| Inside Diameter (in.) | 2 | - | - | Bit Type: - |
| Hammer Weight (lb) | - | - | - | Drill Mud: - |
| Hammer Fall (in.) | - | - | - | Casing: - |
| | | | | Hoist/Hammer: Direct Push - |
| | | | | PID Make & Model: MiniRAE 2000 |

| Depth (ft) | Sample No. & Rec. (in.) | Sample Depth (ft) | Stratum Change Elev/Depth (ft) | USCS Symbol | VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION) | PID Readings (ppm) |
|---|---|---|---|---|---|---|
| 0 | G1 24 | 0.0 5.0 | 0.5 | | -ASPHALT (2 in.) / SUBBASE (4 in.)- | |
| | | | | SM | Dark brown to brown silty SAND with gravel, no odor, moist | 0.0 |
| | | | 2.5 | | No recovery | |
| 5 | G2 18 | 5.0 10.0 | 5.0 | SM | Brown silty SAND with quartz gravel, no odor, moist | 0.0 |
| | | | 6.5 | | No recovery | |
| 10 | G3 36 | 10.0 15.0 | 10.0 | SM | Brown silty sand with quartz gravel, no odor, moist | 0.0 |
| | | | 13.0 | | No recovery | |
| 15 | | | 15.0 | | Bottom of exploration at 15.0 ft | |
| | | | | | Note: Borehole grouted upon completion | |

**Water Level Data**

| Date | Time | Elapsed Time (hr.) | Depth (ft) to: Bottom of Casing | Bottom of Hole | Water |
|---|---|---|---|---|---|
| | | Not Encountered | | | |

Sample ID
O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Splitspoon Sample
G - Geoprobe

Well Diagram
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

**Summary**

| | |
|---|---|
| Overburden (ft) | 15.0 |
| Rock Cored (ft) | - |
| Samples | 3G |
| **Boring No.** | **B102** |

**Field Tests:** **Dilatancy**: R - Rapid S - Slow N - None **Toughness**: L - Low M - Medium H - High
**Plasticity**: N - Nonplastic L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

**Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.**

HALEY & ALDRICH

# GEOPROBE REPORT

**Boring No. B103**

Project St. Elizabeths East Campus; Martin Luther King Jr. (MLK) Avenue SE; Washington, DC
Client CH2M Hill
Contractor Vironex, Inc.

File No. 38677-004
Sheet No. 1 of 1
Start September 11, 2012
Finish September 11, 2012
Driller B. Porter
H&A Rep. M. Tschibelu
Elevation Datum
Location See Plan

| | Casing | Sampler | Barrel | Drilling Equipment and Procedures |
|---|---|---|---|---|
| Type | 2 1/4 in. | - | - | Rig Make & Model: Geoprobe |
| Inside Diameter (in.) | 2 | - | - | Bit Type: - |
| Hammer Weight (lb) | - | - | - | Drill Mud: - |
| Hammer Fall (in.) | - | - | - | Casing: - |
| | | | | Hoist/Hammer: Direct Push - |
| | | | | PID Make & Model: MiniRAE 2000 |

| Depth (ft) | Sample No. & Rec. (in.) | Sample Depth (ft) | Stratum Change Elev/Depth (ft) | USCS Symbol | VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION) | PID Readings (ppm) |
|---|---|---|---|---|---|---|
| 0 | G1 18 | 0.0 5.0 | 0.5 | | -TOPSOIL- | |
| | | | | ML | Brown sandy SILT with gravel, no odor, dry | 61.3 |
| | | | 1.5 | | No recovery | |
| 5 | G2 24 | 5.0 10.0 | 5.0 | SC | Brown clayey SAND with gravel, slight petroleum odor, dry | 49.2 |
| | | | 7.0 | | No recovery | |
| 10 | G3 30 | 10.0 15.0 | 10.0 | SM | Red-brown silty SAND, trace gravel, no odor, wet | 36.9 |
| | | | 12.5 | | No recovery | |
| 15 | G4 60 | 15.0 20.0 | 15.0 | SC | Red-brown clayey SAND, trace gravel, no odor, wet | 20.7 |
| 20 | | | 20.0 | | Bottom of exploration at 20.0 ft | |

Note: Temporary well installed with S1 screen between 10.0 to 15.0 ft that was later removed. Borehole grouted upon completion

**Water Level Data**

| Date | Time | Elapsed Time (hr.) | Depth (ft) to: Bottom of Casing | Bottom of Hole | Water |
|---|---|---|---|---|---|
| 9/11/12 | 1100 | - | - | - | 12.5 |
| 9/12/12 | 0900 | - | - | - | 10.0 |

**Sample ID**
O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Splitspoon Sample
G - Geoprobe

**Well Diagram**
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

**Summary**

| | |
|---|---|
| Overburden (ft) | 20.0 |
| Rock Cored (ft) | - |
| Samples | 4G |

**Boring No. B103**

**Field Tests:** **Dilatancy**: R - Rapid S - Slow N - None **Toughness**: L - Low M - Medium H - High **Plasticity**: N - Nonplastic L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

**Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.**

HALEY & ALDRICH

# GEOPROBE REPORT

**Boring No. B104**

Project St. Elizabeths East Campus; Martin Luther King Jr. (MLK) Avenue SE; Washington, DC
Client CH2M Hill
Contractor Vironex, Inc.

File No. 38677-004
Sheet No. 1 of 1
Start September 10, 2012
Finish September 10, 2012
Driller B. Porter
H&A Rep. M. Tschibelu
Elevation Datum
Location See Plan

| | Casing | Sampler | Barrel | Drilling Equipment and Procedures |
|---|---|---|---|---|
| Type | 2 1/4 in. | - | - | Rig Make & Model: Geoprobe |
| Inside Diameter (in.) | 2 | - | - | Bit Type: - |
| Hammer Weight (lb) | - | - | - | Drill Mud: - |
| Hammer Fall (in.) | - | - | - | Casing: - |
| | | | | Hoist/Hammer: Direct Push - |
| | | | | PID Make & Model: MiniRAE 2000 |

| Depth (ft) | Sample No. & Rec. (in.) | Sample Depth (ft) | Stratum Change Elev/Depth (ft) | USCS Symbol | VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION) | PID Readings (ppm) |
|---|---|---|---|---|---|---|
| 0 | G1 42 | 0.0 5.0 | 0.5 | | -ASPHALT (2 in.) / SUBBASE (4 in.)- | |
| | | | | SM | Brown silty SAND with gravel, petroleum odor and staining, moist | 0.0 |
| | | | 3.5 | | No recovery | |
| 5 | G2 42 | 5.0 10.0 | 5.0 | SM | Brown silty SAND with gravel, no odor, moist | 0.0 |
| | | | 8.5 | | No recovery | |
| 10 | G3 24 | 10.0 15.0 | 10.0 | SW | Light brown to tan well-graded SAND with quartz gravel, petroleum odor, moist | 0.0 |
| | | | 12.0 | | No recovery | |
| 15 | | | 15.0 | | Bottom of exploration at 15.0 ft | |
| | | | | | Note: Borehole grouted upon completion | |

**Water Level Data**

| Date | Time | Elapsed Time (hr.) | Depth (ft) to: Bottom of Casing | Bottom of Hole | Water |
|---|---|---|---|---|---|
| | | Not Encountered | | | |

**Sample ID**
O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Splitspoon Sample
G - Geoprobe

**Well Diagram**
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

**Summary**

| | |
|---|---|
| Overburden (ft) | 15.0 |
| Rock Cored (ft) | - |
| Samples | 3G |

**Boring No. B104**

**Field Tests:** **Dilatancy**: R - Rapid S - Slow N - None **Toughness**: L - Low M - Medium H - High
**Plasticity**: N - Nonplastic L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

**Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.**

HALEY & ALDRICH

# GEOPROBE REPORT

**Boring No. B105**

Project St. Elizabeths East Campus; Martin Luther King Jr. (MLK) Avenue SE; Washington, DC
Client CH2M Hill
Contractor Vironex, Inc.

File No. 38677-004
Sheet No. 1 of 1
Start September 12, 2012
Finish September 12, 2012
Driller B. Porter
H&A Rep. M. Tschibelu
Elevation Datum
Location See Plan

| | Casing | Sampler | Barrel | Drilling Equipment and Procedures |
|---|---|---|---|---|
| Type | 2 1/4 in. | - | - | Rig Make & Model: Geoprobe |
| Inside Diameter (in.) | 2 | - | - | Bit Type: - |
| Hammer Weight (lb) | - | - | - | Drill Mud: - |
| Hammer Fall (in.) | - | - | - | Casing: - |
| | | | | Hoist/Hammer: Direct Push - |
| | | | | PID Make & Model: MiniRAE 2000 |

| Depth (ft) | Sample No. & Rec. (in.) | Sample Depth (ft) | Stratum Change Elev/Depth (ft) | USCS Symbol | VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION) | PID Readings (ppm) |
|---|---|---|---|---|---|---|
| 0 | G1 36 | 0.0 5.0 | 0.5 | SW-SM | -ASPHALT (2 in.) / SUBBASE (4 in.)- Light brown well-graded silty SAND with coarse gravel, no odor, dry | 201.0 |
| | | | 3.0 | | No recovery | |
| 5 | G2 24 | 5.0 10.0 | 5.0 | SW-SM | Light brown well-graded silty SAND with coarse gravel, no odor, dry | 244.0 |
| | | | 7.0 | | No recovery | |
| 10 | G3 0 | 10.0 15.0 | 10.0 | | No recovery<br>Note: Gravel clogged geoprobe sleeve | |
| 15 | G4 0 | 15.0 20.0 | 15.0 | | No recovery | |
| 20 | | | 20.0 | | Bottom of exploration at 20.0 ft<br>Note: Borehole grouted upon completion | |

| Water Level Data | | | | | |
|---|---|---|---|---|---|
| Date | Time | Elapsed Time (hr.) | Depth (ft) to: Bottom of Casing | Bottom of Hole | Water |
| | | Not Encountered | | | |

Sample ID
O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Splitspoon Sample
G - Geoprobe

Well Diagram
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary
Overburden (ft) 20.0
Rock Cored (ft) -
Samples 4G

**Boring No. B105**

**Field Tests:** **Dilatancy**: R - Rapid S - Slow N - None **Toughness**: L - Low M - Medium H - High
**Plasticity**: N - Nonplastic L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**
**Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.**

H&A-GEOPROBE-NO BLOW COLUMN HAR HA-LIB07-R1.GLB HA-TB+CORE+WELL-07-1.GDT \\WAS\COMMON\PROJECTS\38677 - ST E. EAST\004 ST E. EAST PHASE II REPORT\DATABASE\2012-0917 38677-004 GEOPROBES.GPJ Oct 3, 12

HALEY & ALDRICH

# GEOPROBE REPORT

**Boring No. B105-B**

Project St. Elizabeths East Campus; Martin Luther King Jr. (MLK) Avenue SE; Washington, DC
Client CH2M Hill
Contractor Vironex, Inc.

File No. 38677-004
Sheet No. 1 of 1
Start September 12, 2012
Finish September 12, 2012
Driller B. Porter
H&A Rep. M. Tschibelu
Elevation Datum
Location See Plan

| | Casing | Sampler | Barrel | Drilling Equipment and Procedures |
|---|---|---|---|---|
| Type | 2 1/4 in. | - | - | Rig Make & Model: Geoprobe |
| Inside Diameter (in.) | 2 | - | - | Bit Type: - |
| Hammer Weight (lb) | - | - | - | Drill Mud: - |
| Hammer Fall (in.) | - | - | - | Casing: - |
| | | | | Hoist/Hammer: Direct Push - |
| | | | | PID Make & Model: MiniRAE 2000 |

| Depth (ft) | Sample No. & Rec. (in.) | Sample Depth (ft) | Stratum Change Elev/Depth (ft) | USCS Symbol | VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION) | PID Readings (ppm) |
|---|---|---|---|---|---|---|
| 0 | | | | | -ASPHALT (2 in.) / SUBBASE (4 in.)- | |
| | G1 36 | 0.0 5.0 | 0.5 | SW-SM | Brown well-graded silty SAND with quartz gravel, no odor, moist | 109.0 |
| | | | 3.0 | | No recovery | |
| 5 | G2 12 | 5.0 10.0 | 5.0 | SW-SM | Brown well-graded SAND with silt and gravel, no odor, dry | 107.0 |
| | | | 6.0 | | No recovery | |
| 10 | G3 0 | 10.0 15.0 | 10.0 | | No recovery | |
| 15 | | | 15.0 | | Bottom of exploration at 15.0 ft | |
| | | | | | Note: Borehole grouted upon completion | |

**Water Level Data**

| Date | Time | Elapsed Time (hr.) | Depth (ft) to: Bottom of Casing | Bottom of Hole | Water |
|---|---|---|---|---|---|
| | | Not Encountered | | | |

Sample ID
O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Splitspoon Sample
G - Geoprobe

Well Diagram
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

**Summary**

| | |
|---|---|
| Overburden (ft) | 15.0 |
| Rock Cored (ft) | - |
| Samples | 3G |
| **Boring No.** | **B105-B** |

**Field Tests:** **Dilatancy**: R - Rapid S - Slow N - None **Toughness**: L - Low M - Medium H - High **Plasticity**: N - Nonplastic L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

**Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.**

HALEY & ALDRICH

# GEOPROBE REPORT

**Boring No. B106**

Project St. Elizabeths East Campus; Martin Luther King Jr. (MLK) Avenue SE; Washington, DC
Client CH2M Hill
Contractor Vironex, Inc.

File No. 38677-004
Sheet No. 1 of 2
Start September 12, 2012
Finish September 12, 2012
Driller B. Porter
H&A Rep. M. Tschibelu
Elevation Datum
Location See Plan

| | Casing | Sampler | Barrel | Drilling Equipment and Procedures |
|---|---|---|---|---|
| Type | 2 1/4 in. | - | - | Rig Make & Model: Geoprobe |
| Inside Diameter (in.) | 2 | - | - | Bit Type: - |
| Hammer Weight (lb) | - | - | - | Drill Mud: - |
| Hammer Fall (in.) | - | - | - | Casing: - |
| | | | | Hoist/Hammer: Direct Push - |
| | | | | PID Make & Model: MiniRAE 2000 |

| Depth (ft) | Sample No. & Rec. (in.) | Sample Depth (ft) | Stratum Change Elev/Depth (ft) | USCS Symbol | VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION) | PID Readings (ppm) |
|---|---|---|---|---|---|---|
| 0 | G1 60 | 0.0 5.0 | 0.5 | | -TOPSOIL- | |
| | | | | ML | Red-brown sandy SILT with gravel, no odor, dry | 10.9 |
| 5 | G2 48 | 5.0 10.0 | | ML | Similar to above, except trace clay | 123.0 |
| | | | 9.0 | | No recovery | |
| 10 | G3 24 | 10.0 15.0 | 10.0 | SW | Brown well-graded SAND with quartz gravel, no odor, dry | 9.4 |
| | | | 12.0 | | No recovery | |
| 15 | G4 36 | 15.0 20.0 | 15.0 | SW | Brown well-graded SAND with quartz gravel, no odor, dry | 13.6 |
| | | | 18.0 | | No recovery | |
| 20 | | | | | | |

**Water Level Data**

| Date | Time | Elapsed Time (hr.) | Depth (ft) to: Bottom of Casing | Bottom of Hole | Water |
|---|---|---|---|---|---|
| 9/12/12 | 0745 | - | - | - | 21.0 |

**Sample ID**
O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Splitspoon Sample
G - Geoprobe

**Well Diagram**
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

**Summary**
Overburden (ft) 25.0
Rock Cored (ft) -
Samples 5G

**Boring No. B106**

**Field Tests:** **Dilatancy**: R - Rapid S - Slow N - None **Toughness**: L - Low M - Medium H - High **Plasticity**: N - Nonplastic L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

**Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.**

HALEY & ALDRICH

# GEOPROBE REPORT

**Boring No.** B106
File No. 38677-004
Sheet No. 2 of 2

| Depth (ft) | Sample No. & Rec. (in.) | Sample Depth (ft) | Stratum Change Elev/Depth (ft) | USCS Symbol | VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION) | PID Readings (ppm) |
|---|---|---|---|---|---|---|
| 20 | G5 36 | 20.0 25.0 | 20.0 | SM | Brown silty SAND, trace clay, no odor, wet | 18.6 |
| | | | 23.0 | | No recovery | |
| 25 | | | 25.0 | | Bottom of exploration at 25.0 ft<br>Note: Borehole grouted upon completion | |

NOTE: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

**Boring No.** B106

HALEY & ALDRICH

# GEOPROBE REPORT

**Boring No. B107**

Project St. Elizabeths East Campus; Martin Luther King Jr. (MLK) Avenue SE; Washington, DC
Client CH2M Hill
Contractor Vironex, Inc.

File No. 38677-004
Sheet No. 1 of 2
Start September 12, 2012
Finish September 12, 2012
Driller B. Porter
H&A Rep. M. Tschibelu
Elevation Datum
Location See Plan

| | Casing | Sampler | Barrel | Drilling Equipment and Procedures |
|---|---|---|---|---|
| Type | 2 1/4 in. | - | - | Rig Make & Model: Geoprobe |
| Inside Diameter (in.) | 2 | - | - | Bit Type: - |
| Hammer Weight (lb) | - | - | - | Drill Mud: - |
| Hammer Fall (in.) | - | - | - | Casing: - |
| | | | | Hoist/Hammer: Direct Push - |
| | | | | PID Make & Model: MiniRAE 2000 |

| Depth (ft) | Sample No. & Rec. (in.) | Sample Depth (ft) | Stratum Change Elev/Depth (ft) | USCS Symbol | VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION) | PID Readings (ppm) |
|---|---|---|---|---|---|---|
| 0 | G1 48 | 0.0 5.0 | 0.5 | | -ASPHALT (2 in.) / SUBBASE (4 in.)- | |
| | | | | CL | Dark brown CLAY with sand and gravel, no odor, moist | 21.8 |
| | | | 4.0 | | No recovery | |
| 5 | G2 36 | 5.0 10.0 | 5.0 | CL | Brown sandy CLAY, trace gravel, no odor, moist | 49.1 |
| | | | 8.0 | | No recovery | |
| 10 | G3 36 | 10.0 15.0 | 10.0 | CL | Brown sandy CLAY, trace gravel, no odor, moist | 39.8 |
| | | | 13.0 | | No recovery | |
| 15 | G4 24 | 15.0 20.0 | 15.0 | CL | Brown lean CLAY with sand and gravel, no odor, moist | 0.2 |
| | | | 17.0 | | No recovery | |
| 20 | | | | | | |

**Water Level Data**

| Date | Time | Elapsed Time (hr.) | Depth (ft) to: Bottom of Casing | Bottom of Hole | Water |
|---|---|---|---|---|---|
| | | Not Encountered | | | |

**Sample ID**
O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Splitspoon Sample
G - Geoprobe

**Well Diagram**
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

**Summary**
Overburden (ft) 25.0
Rock Cored (ft) -
Samples 5G

**Boring No. B107**

**Field Tests:** **Dilatancy**: R - Rapid S - Slow N - None **Toughness**: L - Low M - Medium H - High **Plasticity**: N - Nonplastic L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

**Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.**

HALEY & ALDRICH

# GEOPROBE REPORT

**Boring No.** B107
File No. 38677-004
Sheet No. 2 of 2

| Depth (ft) | Sample No. & Rec. (in.) | Sample Depth (ft) | Stratum Change Elev/Depth (ft) | USCS Symbol | VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION) | PID Readings (ppm) |
|---|---|---|---|---|---|---|
| 20 | G5 24 | 20.0 25.0 | 20.0 | SW-SC | Yellow-brown well-graded SAND with clay and gravel, no odor, wet | 0.0 |
| | | | 22.0 | | No recovery | |
| 25 | | | 25.0 | | Bottom of exploration at 25.0 ft | |

Note: Borehole grouted upon completion

**NOTE: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.**

**Boring No.** B107

HALEY & ALDRICH

# GEOPROBE REPORT

**Boring No. B110**

Project St. Elizabeths East Campus; Martin Luther King Jr. (MLK) Avenue SE; Washington, DC
Client CH2M Hill
Contractor Vironex, Inc.

File No. 38677-004
Sheet No. 1 of 1
Start September 12, 2012
Finish September 12, 2012
Driller B. Porter
H&A Rep. M. Tschibelu
Elevation Datum
Location See Plan

| | Casing | Sampler | Barrel | Drilling Equipment and Procedures |
|---|---|---|---|---|
| Type | 2 1/4 in. | - | - | Rig Make & Model: Geoprobe |
| Inside Diameter (in.) | 2 | - | - | Bit Type: - |
| Hammer Weight (lb) | - | - | - | Drill Mud: - |
| Hammer Fall (in.) | - | - | - | Casing: - |
| | | | | Hoist/Hammer: Direct Push - |
| | | | | PID Make & Model: MiniRAE 2000 |

| Depth (ft) | Sample No. & Rec. (in.) | Sample Depth (ft) | Stratum Change Elev/Depth (ft) | USCS Symbol | VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION) | PID Readings (ppm) |
|---|---|---|---|---|---|---|
| 0 | G1 60 | 0.0 5.0 | 0.5 | | -ASPHALT (2 in.) / SUBBASE (4 in.)- | |
| | | | | SW | Gray to brown well-graded SAND with silt and gravel, slight petroleum odor, dry | 2.1 |
| 5 | G2 60 | 5.0 10.0 | | SW | Similar to above, except moist | 0.0 |
| 10 | G3 60 | 10.0 15.0 | | SM | Gray-brown silty SAND, no odor, moist | 0.0 |
| 15 | | | 15.0 | | Bottom of exploration at 15.0 ft | |
| | | | | | Note: Borehole grouted upon completion | |

**Water Level Data**

| Date | Time | Elapsed Time (hr.) | Depth (ft) to: Bottom of Casing | Bottom of Hole | Water |
|---|---|---|---|---|---|
| | | Not Encountered | | | |

Sample ID
O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Splitspoon Sample
G - Geoprobe

Well Diagram
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

**Summary**

| | |
|---|---|
| Overburden (ft) | 15.0 |
| Rock Cored (ft) | - |
| Samples | 3G |
| **Boring No.** | **B110** |

**Field Tests:** **Dilatancy**: R - Rapid S - Slow N - None **Toughness**: L - Low M - Medium H - High **Plasticity**: N - Nonplastic L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

**Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.**

HALEY & ALDRICH

# GEOPROBE REPORT

**Boring No. B111**

Project St. Elizabeths East Campus; Martin Luther King Jr. (MLK) Avenue SE; Washington, DC
Client CH2M Hill
Contractor Vironex, Inc.

File No. 38677-004
Sheet No. 1 of 1
Start September 11, 2012
Finish September 11, 2012
Driller B. Porter
H&A Rep. M. Tschibelu
Elevation Datum
Location See Plan

| | Casing | Sampler | Barrel | Drilling Equipment and Procedures |
|---|---|---|---|---|
| Type | 2 1/4 in. | - | - | Rig Make & Model: Geoprobe |
| Inside Diameter (in.) | 2 | - | - | Bit Type: - |
| Hammer Weight (lb) | - | - | - | Drill Mud: - |
| Hammer Fall (in.) | - | - | - | Casing: - |
| | | | | Hoist/Hammer: Direct Push - |
| | | | | PID Make & Model: MiniRAE 2000 |

| Depth (ft) | Sample No. & Rec. (in.) | Sample Depth (ft) | Stratum Change Elev/Depth (ft) | USCS Symbol | VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION) | PID Readings (ppm) |
|---|---|---|---|---|---|---|
| 0 | | | | | -ASPHALT (2 in.) / SUBBASE (4 in.)- | |
| | G1 36 | 0.0 5.0 | 0.5 | SM | Brown silty SAND with quartz gravel, slight petroleum odor, dry | 95.3 |
| | | | 3.0 | | No recovery | |
| 5 | G2 24 | 5.0 10.0 | 5.0 | SM | Brown silty SAND with quartz gravel, slight petroleum odor, dry | 87.6 |
| | | | 7.0 | | No recovery | |
| 10 | G3 30 | 10.0 15.0 | 10.0 | SM | Brown silty SAND with quartz gravel, slight petroleum odor, dry | 111.0 |
| | | | 12.5 | | No recovery | |
| 15 | | | 15.0 | | Bottom of exploration at 15.0 ft | |
| | | | | | Note: Borehole grouted upon completion | |

**Water Level Data**

| Date | Time | Elapsed Time (hr.) | Depth (ft) to: Bottom of Casing | Bottom of Hole | Water |
|---|---|---|---|---|---|
| | | Not Encountered | | | |

Sample ID
O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Splitspoon Sample
G - Geoprobe

Well Diagram
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

**Summary**

| | |
|---|---|
| Overburden (ft) | 15.0 |
| Rock Cored (ft) | - |
| Samples | 3G |
| **Boring No.** | **B111** |

**Field Tests:** **Dilatancy**: R - Rapid S - Slow N - None **Toughness**: L - Low M - Medium H - High **Plasticity**: N - Nonplastic L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

**Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.**

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# GEOPROBE REPORT

**Boring No. B112**

Project St. Elizabeths East Campus; Martin Luther King Jr. (MLK) Avenue SE; Washington, DC
Client CH2M Hill
Contractor Vironex, Inc.

File No. 38677-004
Sheet No. 1 of 1
Start September 11, 2012
Finish September 11, 2012
Driller B. Porter
H&A Rep. M. Tschibelu
Elevation Datum
Location See Plan

| | Casing | Sampler | Barrel | Drilling Equipment and Procedures |
|---|---|---|---|---|
| Type | 2 1/4 in. | - | - | Rig Make & Model: Geoprobe |
| Inside Diameter (in.) | 2 | - | - | Bit Type: - |
| Hammer Weight (lb) | - | - | - | Drill Mud: - |
| Hammer Fall (in.) | - | - | - | Casing: - |
| | | | | Hoist/Hammer: Direct Push - |
| | | | | PID Make & Model: MiniRAE 2000 |

| Depth (ft) | Sample No. & Rec. (in.) | Sample Depth (ft) | Stratum Change Elev/Depth (ft) | USCS Symbol | VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION) | PID Readings (ppm) |
|---|---|---|---|---|---|---|
| 0 | G1 48 | 0.0 5.0 | 0.5 | ML | -ASPHALT (2 in.) / SUBBASE (4 in.)- Gray sandy SILT with gravel, trace clay, no odor, dry | 105.0 |
| | | | 4.0 | | No recovery | |
| 5 | G2 12 | 5.0 10.0 | 5.0 | CL | Brown sandy CLAY with gravel, no odor, dry | 137.0 |
| | | | 6.0 | | No recovery | |
| 10 | G3 30 | 10.0 15.0 | 10.0 | SC | Brown clayey SAND with quartz gravel, no odor, moist | 104.0 |
| | | | 12.5 | | No recovery | |
| 15 | G4 60 | 15.0 20.0 | 15.0 | SC | Brown SAND with clay, trace gravel, no odor, moist | 0.0 |
| 20 | | | 20.0 | | Bottom of exploration at 20.0 ft<br>Note: Borehole grouted upon completion | |

| Water Level Data | | | | | | Sample ID | Well Diagram | Summary | |
|---|---|---|---|---|---|---|---|---|---|
| Date | Time | Elapsed Time (hr.) | Depth (ft) to: Bottom of Casing | Bottom of Hole | Water | O - Open End Rod<br>T - Thin Wall Tube<br>U - Undisturbed Sample<br>S - Splitspoon Sample<br>G - Geoprobe | Riser Pipe<br>Screen<br>Filter Sand<br>Cuttings<br>Grout<br>Concrete<br>Bentonite Seal | Overburden (ft) | 20.0 |
| | | Not Encountered | | | | | | Rock Cored (ft) | - |
| | | | | | | | | Samples | 4G |
| | | | | | | | | **Boring No.** | **B112** |

**Field Tests:** **Dilatancy**: R - Rapid S - Slow N - None **Toughness**: L - Low M - Medium H - High **Plasticity**: N - Nonplastic L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

**Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.**

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# GEOPROBE REPORT

**Boring No. B113**

Project St. Elizabeths East Campus; Martin Luther King Jr. (MLK) Avenue SE; Washington, DC
Client CH2M Hill
Contractor Vironex, Inc.

File No. 38677-004
Sheet No. 1 of 1
Start September 10, 2012
Finish September 10, 2012
Driller B. Porter
H&A Rep. M. Tschibelu
Elevation Datum
Location See Plan

| | Casing | Sampler | Barrel | Drilling Equipment and Procedures |
|---|---|---|---|---|
| Type | 2 1/4 in. | - | - | Rig Make & Model: Geoprobe |
| Inside Diameter (in.) | 2 | - | - | Bit Type: - |
| Hammer Weight (lb) | - | - | - | Drill Mud: - |
| Hammer Fall (in.) | - | - | - | Casing: - |
| | | | | Hoist/Hammer: Direct Push - |
| | | | | PID Make & Model: MiniRAE 2000 |

| Depth (ft) | Sample No. & Rec. (in.) | Sample Depth (ft) | Stratum Change Elev/Depth (ft) | USCS Symbol | VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION) | PID Readings (ppm) |
|---|---|---|---|---|---|---|
| 0 | G1 60 | 0.0 5.0 | | | -ASPHALT (3 in.) / SUBBASE (15 in.)- | |
| | | | 1.5 | ML | Red-brown SILT with sand, trace quartz gravel, no odor, dry | 0.0 |
| 5 | G2 60 | 5.0 10.0 | | ML | Similar to above | 0.0 |
| | | | 6.0 | SW | Gray-brown to tan well-graded SAND with quartz gravel, no odor, dry | |
| 10 | G3 54 | 10.0 15.0 | | SW | Similar to above | 0.0 |
| | | | 14.5 | | No recovery | |
| 15 | | | 15.0 | | Bottom of exploration at 15.0 ft | |
| | | | | | Note: Borehole grouted upon completion | |

**Water Level Data**

| Date | Time | Elapsed Time (hr.) | Depth (ft) to: Bottom of Casing | Bottom of Hole | Water |
|---|---|---|---|---|---|
| | | Not Encountered | | | |

Sample ID
O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Splitspoon Sample
G - Geoprobe

Well Diagram
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary
Overburden (ft) 15.0
Rock Cored (ft) -
Samples 3G

**Boring No. B113**

**Field Tests:** **Dilatancy**: R - Rapid S - Slow N - None **Toughness**: L - Low M - Medium H - High **Plasticity**: N - Nonplastic L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

**Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.**

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# GEOPROBE REPORT

**Boring No. B114**

Project St. Elizabeths East Campus; Martin Luther King Jr. (MLK) Avenue SE; Washington, DC
Client CH2M Hill
Contractor Vironex, Inc.

File No. 38677-004
Sheet No. 1 of 1
Start September 12, 2012
Finish September 12, 2012
Driller B. Porter
H&A Rep. M. Tschibelu
Elevation Datum
Location See Plan

| | Casing | Sampler | Barrel | Drilling Equipment and Procedures |
|---|---|---|---|---|
| Type | 2 1/4 in. | - | - | Rig Make & Model: Geoprobe |
| Inside Diameter (in.) | 2 | - | - | Bit Type: - |
| Hammer Weight (lb) | - | - | - | Drill Mud: - |
| Hammer Fall (in.) | - | - | - | Casing: - |
| | | | | Hoist/Hammer: Direct Push - |
| | | | | PID Make & Model: MiniRAE 2000 |

| Depth (ft) | Sample No. & Rec. (in.) | Sample Depth (ft) | Stratum Change Elev/Depth (ft) | USCS Symbol | VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION) | PID Readings (ppm) |
|---|---|---|---|---|---|---|
| 0 | G1 60 | 0.0 5.0 | 0.5 | | -TOPSOIL- | |
| | | | | ML | Brown sandy SILT with gravel, no odor, dry | 12.7 |
| 5 | G2 60 | 5.0 10.0 | | ML | Similar to above | 0.0 |
| | | | 8.0 | SW | Gray well-graded SAND with quartz gravel, no odor, dry | |
| 10 | G3 60 | 10.0 15.0 | 10.0 | SC | Gray-brown clayey SAND with quartz gravel, no odor, moist | 0.0 |
| 15 | | | 15.0 | | Bottom of exploration at 15.0 ft | |
| | | | | | Note: Borehole grouted upon completion | |

**Water Level Data**

| Date | Time | Elapsed Time (hr.) | Depth (ft) to: Bottom of Casing | Bottom of Hole | Water |
|---|---|---|---|---|---|
| | | Not Encountered | | | |

**Sample ID**
O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Splitspoon Sample
G - Geoprobe

**Well Diagram**
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

**Summary**

| | |
|---|---|
| Overburden (ft) | 15.0 |
| Rock Cored (ft) | - |
| Samples | 3G |

**Boring No. B114**

**Field Tests:** **Dilatancy**: R - Rapid S - Slow N - None **Toughness**: L - Low M - Medium H - High **Plasticity**: N - Nonplastic L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

**Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.**

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# GEOPROBE REPORT

**Boring No. B115**

Project St. Elizabeths East Campus; Martin Luther King Jr. (MLK) Avenue SE; Washington, DC
Client CH2M Hill
Contractor Vironex, Inc.

File No. 38677-004
Sheet No. 1 of 1
Start September 12, 2012
Finish September 12, 2012
Driller B. Porter
H&A Rep. M. Tschibelu
Elevation Datum
Location See Plan

| | Casing | Sampler | Barrel | Drilling Equipment and Procedures |
|---|---|---|---|---|
| Type | 2 1/4 in. | - | - | Rig Make & Model: Geoprobe |
| Inside Diameter (in.) | 2 | - | - | Bit Type: - |
| Hammer Weight (lb) | - | - | - | Drill Mud: - |
| Hammer Fall (in.) | - | - | - | Casing: - |
| | | | | Hoist/Hammer: Direct Push - |
| | | | | PID Make & Model: MiniRAE 2000 |

| Depth (ft) | Sample No. & Rec. (in.) | Sample Depth (ft) | Stratum Change Elev/Depth (ft) | USCS Symbol | VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION) | PID Readings (ppm) |
|---|---|---|---|---|---|---|
| 0 | G1 60 | 0.0 5.0 | 0.5 | | -ASPHALT (2 in.) / SUBBASE (4 in.)- | |
| | | | | ML | Brown sandy SILT with gravel, no odor, dry | 0.0 |
| 5 | G2 60 | 5.0 10.0 | | ML | Similar to above except dark staining | 183.0 |
| | | | 8.0 | SW | Gray-brown well-graded SAND with gravel, no odor, dry | |
| 10 | G3 48 | 10.0 15.0 | | SW | Similar to above | 201.0 |
| | | | 14.0 | | No recovery | |
| 15 | | | 15.0 | | Bottom of exploration at 15.0 ft | |
| | | | | | Note: Borehole grouted upon completion | |

**Water Level Data**

| Date | Time | Elapsed Time (hr.) | Depth (ft) to: Bottom of Casing | Bottom of Hole | Water |
|---|---|---|---|---|---|
| | | Not Encountered | | | |

**Sample ID**
O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Splitspoon Sample
G - Geoprobe

**Well Diagram**
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

**Summary**

| | |
|---|---|
| Overburden (ft) | 15.0 |
| Rock Cored (ft) | - |
| Samples | 3G |

**Boring No. B115**

**Field Tests:** **Dilatancy**: R - Rapid S - Slow N - None **Toughness**: L - Low M - Medium H - High **Plasticity**: N - Nonplastic L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

**Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.**

HALEY & ALDRICH

# GEOPROBE REPORT

**Boring No. B116**

Project St. Elizabeths East Campus; Martin Luther King Jr. (MLK) Avenue SE; Washington, DC
Client CH2M Hill
Contractor Vironex, Inc.

File No. 38677-004
Sheet No. 1 of 1
Start September 11, 2012
Finish September 11, 2012
Driller B. Porter
H&A Rep. M. Tschibelu
Elevation Datum
Location See Plan

| | Casing | Sampler | Barrel | Drilling Equipment and Procedures |
|---|---|---|---|---|
| Type | 2 1/4 in. | - | - | Rig Make & Model: Geoprobe |
| Inside Diameter (in.) | 2 | - | - | Bit Type: - |
| Hammer Weight (lb) | - | - | - | Drill Mud: - |
| Hammer Fall (in.) | - | - | - | Casing: - |
| | | | | Hoist/Hammer: Direct Push - |
| | | | | PID Make & Model: MiniRAE 2000 |

| Depth (ft) | Sample No. & Rec. (in.) | Sample Depth (ft) | Stratum Change Elev/Depth (ft) | USCS Symbol | VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION) | PID Readings (ppm) |
|---|---|---|---|---|---|---|
| 0 | G1 60 | 0.0 5.0 | 0.5 | | -ASPHALT (2 in.) / SUBBASE (4 in.)- | |
| | | | | CL | Brown CLAY with sand and gravel, no odor, dry | 38.8 |
| 5 | G2 60 | 5.0 10.0 | | CL | Similar to above | 84.8 |
| | | | 6.0 | SW | Gray well-graded SAND with quartz gravel, petroleum odor, dry | |
| 10 | G3 24 | 10.0 12.0 | 10.0 | CL | Dark brown CLAY with sand, trace gravel, slight petroleum odor, dry | 8.1 |
| | | | 12.0 | | Bottom of exploration at 12.0 ft | |
| | | | | | Note: Refusal at 12.0 ft | |
| | | | | | Note: Borehole grouted upon completion | |

**Water Level Data**

| Date | Time | Elapsed Time (hr.) | Depth (ft) to: Bottom of Casing | Bottom of Hole | Water |
|---|---|---|---|---|---|
| | | Not Encountered | | | |

**Sample ID**
O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Splitspoon Sample
G - Geoprobe

**Well Diagram**
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

**Summary**

| | |
|---|---|
| Overburden (ft) | 12.0 |
| Rock Cored (ft) | - |
| Samples | 3G |

**Boring No. B116**

**Field Tests:** **Dilatancy**: R - Rapid S - Slow N - None **Toughness**: L - Low M - Medium H - High
**Plasticity**: N - Nonplastic L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

**Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.**

HALEY & ALDRICH

# GEOPROBE REPORT

**Boring No. B117**

Project St. Elizabeths East Campus; Martin Luther King Jr. (MLK) Avenue SE; Washington, DC
Client CH2M Hill
Contractor Vironex, Inc.

File No. 38677-004
Sheet No. 1 of 1
Start September 11, 2012
Finish September 11, 2012
Driller B. Porter
H&A Rep. M. Tschibelu
Elevation Datum
Location See Plan

| | Casing | Sampler | Barrel | Drilling Equipment and Procedures |
|---|---|---|---|---|
| Type | 2 1/4 in. | - | - | Rig Make & Model: Geoprobe |
| Inside Diameter (in.) | 2 | - | - | Bit Type: - |
| Hammer Weight (lb) | - | - | - | Drill Mud: - |
| Hammer Fall (in.) | - | - | - | Casing: - |
| | | | | Hoist/Hammer: Direct Push - |
| | | | | PID Make & Model: MiniRAE 2000 |

| Depth (ft) | Sample No. & Rec. (in.) | Sample Depth (ft) | Stratum Change Elev/Depth (ft) | USCS Symbol | VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION) | PID Readings (ppm) |
|---|---|---|---|---|---|---|
| 0 | G1 60 | 0.0 5.0 | 0.5 | | -ASPHALT (2 in.) / SUBBASE (4 in.)- | |
| | | | | ML | Brown sandy SILT with gravel, petroleum odor, moist | 49.7 |
| | | | 4.0 | SW | Gray well-graded SAND with gravel, petroleum odor, moist | |
| 5 | G2 24 | 5.0 10.0 | | SW | Similar to above | 9.4 |
| | | | 7.0 | | No recovery | |
| 10 | G3 60 | 10.0 15.0 | 10.0 | SW-SM | Gray well graded silty SAND with gravel, no odor, moist | 24.1 |
| 15 | G4 30 | 15.0 17.5 | | SW-SM | Similar to above | 68.9 |
| | | | 17.5 | | Bottom of exploration at 17.5 ft | |
| | | | | | Note: Refusal at 17.5 ft | |
| | | | | | Note: Borehole grouted upon completion | |

**Water Level Data**

| Date | Time | Elapsed Time (hr.) | Depth (ft) to: Bottom of Casing | Bottom of Hole | Water |
|---|---|---|---|---|---|
| | | Not Encountered | | | |

**Sample ID**
O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Splitspoon Sample
G - Geoprobe

**Well Diagram**
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

**Summary**

| | |
|---|---|
| Overburden (ft) | 17.5 |
| Rock Cored (ft) | - |
| Samples | 4G |

**Boring No. B117**

**Field Tests:** **Dilatancy**: R - Rapid S - Slow N - None **Toughness**: L - Low M - Medium H - High **Plasticity**: N - Nonplastic L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

**Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.**

HALEY & ALDRICH

# GEOPROBE REPORT

**Boring No. B118**

Project St. Elizabeths East Campus; Martin Luther King Jr. (MLK) Avenue SE; Washington, DC
Client CH2M Hill
Contractor Vironex, Inc.

File No. 38677-004
Sheet No. 1 of 1
Start September 11, 2012
Finish September 11, 2012
Driller B. Porter
H&A Rep. M. Tschibelu
Elevation Datum
Location See Plan

| | Casing | Sampler | Barrel | Drilling Equipment and Procedures |
|---|---|---|---|---|
| Type | 2 1/4 in. | - | - | Rig Make & Model: Geoprobe |
| Inside Diameter (in.) | 2 | - | - | Bit Type: - |
| Hammer Weight (lb) | - | - | - | Drill Mud: - |
| Hammer Fall (in.) | - | - | - | Casing: - |
| | | | | Hoist/Hammer: Direct Push - |
| | | | | PID Make & Model: MiniRAE 2000 |

| Depth (ft) | Sample No. & Rec. (in.) | Sample Depth (ft) | Stratum Change Elev/Depth (ft) | USCS Symbol | VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION) | PID Readings (ppm) |
|---|---|---|---|---|---|---|
| 0 | G1 60 | 0.0 5.0 | 0.5 | | -TOPSOIL- | |
| | | | | CL | Dark brown CLAY with sand, no odor, moist | 4.8 |
| 5 | G2 60 | 5.0 10.0 | | CL | Dark brown CLAY with sand and gravel, no odor, dry | 0.8 |
| | | | 8.0 | SW-SC | Gray-brown well-graded SAND with clay and quartz gravel, no odor, dry | |
| 10 | G3 12 | 10.0 11.0 | 10.0 | SW | Gray well-graded SAND with quartz gravel, no odor, dry | 10.4 |
| | | | 11.0 | | Bottom of exploration at 11.0 ft | |
| | | | | | Note: Refusal at 11.0 ft | |
| | | | | | Note: Borehole grouted upon completion | |

**Water Level Data**

| Date | Time | Elapsed Time (hr.) | Depth (ft) to: Bottom of Casing | Bottom of Hole | Water |
|---|---|---|---|---|---|
| | | Not Encountered | | | |

Sample ID
O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Splitspoon Sample
G - Geoprobe

Well Diagram
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

**Summary**

| | |
|---|---|
| Overburden (ft) | 11.0 |
| Rock Cored (ft) | - |
| Samples | 3G |

**Boring No. B118**

**Field Tests:** **Dilatancy**: R - Rapid S - Slow N - None **Toughness**: L - Low M - Medium H - High
**Plasticity**: N - Nonplastic L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

**Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.**

HALEY & ALDRICH

# GEOPROBE REPORT

**Boring No. B119**

Project St. Elizabeths East Campus; Martin Luther King Jr. (MLK) Avenue SE; Washington, DC
Client CH2M Hill
Contractor Vironex, Inc.

File No. 38677-004
Sheet No. 1 of 1
Start September 10, 2012
Finish September 10, 2012
Driller B. Porter
H&A Rep. M. Tschibelu
Elevation Datum
Location See Plan

| | Casing | Sampler | Barrel | Drilling Equipment and Procedures |
|---|---|---|---|---|
| Type | 2 1/4 in. | - | - | Rig Make & Model: Geoprobe |
| Inside Diameter (in.) | 2 | - | - | Bit Type: - |
| Hammer Weight (lb) | - | - | - | Drill Mud: - |
| Hammer Fall (in.) | - | - | - | Casing: - |
| | | | | Hoist/Hammer: Direct Push - |
| | | | | PID Make & Model: MiniRAE 2000 |

| Depth (ft) | Sample No. & Rec. (in.) | Sample Depth (ft) | Stratum Change Elev/Depth (ft) | USCS Symbol | VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION) | PID Readings (ppm) |
|---|---|---|---|---|---|---|
| 0 | G1 60 | 0.0 5.0 | 0.5 | | -TOPSOIL- | |
| | | | | ML | Light brown SILT, trace sand and gravel, no odor, dry | 0.0 |
| 5 | G2 60 | 5.0 10.0 | | ML | Light brown SILT with sand, trace gravel, no odor, dry | 0.0 |
| 10 | G3 60 | 10.0 15.0 | | ML | Similar to above | 0.0 |
| | | | 12.0 | SW | Tan to white well-graded SAND with quartz gravel, no odor, dry | |
| 15 | | | 15.0 | | Bottom of exploration at 15.0 ft | |
| | | | | | Note: Borehole grouted upon completion | |

**Water Level Data**

| Date | Time | Elapsed Time (hr.) | Depth (ft) to: Bottom of Casing | Bottom of Hole | Water |
|---|---|---|---|---|---|
| | | Not Encountered | | | |

**Sample ID**
O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Splitspoon Sample
G - Geoprobe

**Well Diagram**
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

**Summary**

| | |
|---|---|
| Overburden (ft) | 15.0 |
| Rock Cored (ft) | - |
| Samples | 3G |

**Boring No. B119**

**Field Tests:** **Dilatancy**: R - Rapid S - Slow N - None **Toughness**: L - Low M - Medium H - High **Plasticity**: N - Nonplastic L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

**Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.**

HALEY & ALDRICH

# GEOPROBE REPORT

**Boring No. B120**

Project St. Elizabeths East Campus; Martin Luther King Jr. (MLK) Avenue SE; Washington, DC
Client CH2M Hill
Contractor Vironex, Inc.

File No. 38677-004
Sheet No. 1 of 1
Start September 10, 2012
Finish September 10, 2012
Driller B. Porter
H&A Rep. M. Tschibelu
Elevation Datum
Location See Plan

| | Casing | Sampler | Barrel | Drilling Equipment and Procedures |
|---|---|---|---|---|
| Type | 2 1/4 in. | - | - | Rig Make & Model: Geoprobe |
| Inside Diameter (in.) | 2 | - | - | Bit Type: - |
| Hammer Weight (lb) | - | - | - | Drill Mud: - |
| Hammer Fall (in.) | - | - | - | Casing: - |
| | | | | Hoist/Hammer: Direct Push - |
| | | | | PID Make & Model: MiniRAE 2000 |

| Depth (ft) | Sample No. & Rec. (in.) | Sample Depth (ft) | Stratum Change Elev/Depth (ft) | USCS Symbol | VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION) | PID Readings (ppm) |
|---|---|---|---|---|---|---|
| 0 | G1 60 | 0.0 5.0 | 0.5 | | -ASPHALT (2 in.) / SUBBASE (4 in.)- | |
| | | | | ML | Light brown sandy SILT, trace gravel and clay, no odor, moist | 0.0 |
| 5 | G2 60 | 5.0 10.0 | | ML | Dark brown to brown sandy SILT with gravel, trace clay, no odor, moist | 0.0 |
| | | | | ML | Gray-brown, brown and orange sandy SILT with gravel, trace clay, no odor, moist | |
| 10 | G3 60 | 10.0 15.0 | | ML | Brown orange sandy SILT, trace gravel and clay, no odor, moist | 0.0 |
| | | | 11.0 | SM | Tan silty SAND with gravel, no odor, dry | |
| 15 | | | 15.0 | | Bottom of exploration at 15.0 ft | |
| | | | | | Note: Borehole grouted upon completion | |

**Water Level Data**

| Date | Time | Elapsed Time (hr.) | Depth (ft) to: Bottom of Casing | Bottom of Hole | Water |
|---|---|---|---|---|---|
| | | Not Encountered | | | |

**Sample ID**
O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Splitspoon Sample
G - Geoprobe

**Well Diagram**
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

**Summary**

| | |
|---|---|
| Overburden (ft) | 15.0 |
| Rock Cored (ft) | - |
| Samples | 3G |

**Boring No. B120**

**Field Tests:** **Dilatancy**: R - Rapid S - Slow N - None **Toughness**: L - Low M - Medium H - High **Plasticity**: N - Nonplastic L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

**Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.**

HALEY & ALDRICH

# GEOPROBE REPORT

**Boring No. B121**

Project St. Elizabeths East Campus; Martin Luther King Jr. (MLK) Avenue SE; Washington, DC
Client CH2M Hill
Contractor Vironex, Inc.

File No. 38677-004
Sheet No. 1 of 1
Start September 12, 2012
Finish September 12, 2012
Driller B. Porter
H&A Rep. M. Tschibelu
Elevation Datum
Location See Plan

| | Casing | Sampler | Barrel | Drilling Equipment and Procedures |
|---|---|---|---|---|
| Type | 2 1/4 in. | - | - | Rig Make & Model: Geoprobe |
| Inside Diameter (in.) | 2 | - | - | Bit Type: - |
| Hammer Weight (lb) | - | - | - | Drill Mud: - |
| Hammer Fall (in.) | - | - | - | Casing: - |
| | | | | Hoist/Hammer: Direct Push - |
| | | | | PID Make & Model: MiniRAE 2000 |

| Depth (ft) | Sample No. & Rec. (in.) | Sample Depth (ft) | Stratum Change Elev/Depth (ft) | USCS Symbol | VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION) | PID Readings (ppm) |
|---|---|---|---|---|---|---|
| 0 | G1 60 | 0.0 5.0 | 0.5 | | -ASPHALT (2 in.) / SUBBASE (4 in.)- | |
| | | | | CL | Brown to dark brown CLAY with sand, no odor, moist | 0.0 |
| 5 | G2 60 | 5.0 10.0 | | CL | Similar to above, except contains gravel | 0.0 |
| | | | 8.0 | SW | Gray well-graded SAND with quartz gravel, no odor, dry | |
| 10 | G3 60 | 10.0 15.0 | | SW | Similar to above, except trace silt | 0.0 |
| 15 | | | 15.0 | | Bottom of exploration at 15.0 ft | |
| | | | | | Note: Borehole grouted upon completion | |

**Water Level Data**

| Date | Time | Elapsed Time (hr.) | Depth (ft) to: Bottom of Casing | Bottom of Hole | Water |
|---|---|---|---|---|---|
| | | Not Encountered | | | |

**Sample ID**
O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Splitspoon Sample
G - Geoprobe

**Well Diagram**
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

**Summary**
Overburden (ft) 15.0
Rock Cored (ft) -
Samples 3G

**Boring No. B121**

**Field Tests:** **Dilatancy**: R - Rapid S - Slow N - None **Toughness**: L - Low M - Medium H - High **Plasticity**: N - Nonplastic L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

**Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.**

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# GEOPROBE REPORT

**Boring No. B122**

Project St. Elizabeths East Campus; Martin Luther King Jr. (MLK) Avenue SE; Washington, DC
Client CH2M Hill
Contractor Vironex, Inc.

File No. 38677-004
Sheet No. 1 of 1
Start September 10, 2012
Finish September 10, 2012
Driller B. Porter
H&A Rep. M. Tschibelu
Elevation Datum
Location See Plan

| | Casing | Sampler | Barrel | Drilling Equipment and Procedures |
|---|---|---|---|---|
| Type | 2 1/4 in. | - | - | Rig Make & Model: Geoprobe |
| Inside Diameter (in.) | 2 | - | - | Bit Type: - |
| Hammer Weight (lb) | - | - | - | Drill Mud: - |
| Hammer Fall (in.) | - | - | - | Casing: - |
| | | | | Hoist/Hammer: Direct Push - |
| | | | | PID Make & Model: MiniRAE 2000 |

| Depth (ft) | Sample No. & Rec. (in.) | Sample Depth (ft) | Stratum Change Elev/Depth (ft) | USCS Symbol | VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION) | PID Readings (ppm) |
|---|---|---|---|---|---|---|
| 0 | G1 60 | 0.0 5.0 | 0.2 | SW | -ASPHALT (2 in.)- | 0.0 |
| | | | 1.0 | | Orange to black well-graded SAND with gravel, black staining, no odor, dry | |
| | | | | CL | Brown lean CLAY with sand, black staining, no odor, dry | |
| 5 | G2 60 | 5.0 10.0 | | CL | Brown lean CLAY with sand and gravel, no odor, dry | 0.0 |
| 10 | G3 60 | 10.0 15.0 | | CL | Brown sandy CLAY with gravel, no odor, dry | 0.0 |
| | | | 13.0 | SW | Gray well-graded SAND with gravel, black staining, no odor, dry | |
| | | | 14.0 | CL | Gray-brown lean CLAY, trace sand, no odor, dry | |
| 15 | | | 15.0 | | Bottom of exploration at 15.0 ft | |
| | | | | | Note: Borehole grouted upon completion | |

**Water Level Data**

| Date | Time | Elapsed Time (hr.) | Depth (ft) to: Bottom of Casing | Bottom of Hole | Water |
|---|---|---|---|---|---|
| | | Not Encountered | | | |

**Sample ID**
O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Splitspoon Sample
G - Geoprobe

**Well Diagram**
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

**Summary**

| | |
|---|---|
| Overburden (ft) | 15.0 |
| Rock Cored (ft) | - |
| Samples | 3G |

**Boring No. B122**

**Field Tests:** **Dilatancy**: R - Rapid S - Slow N - None **Toughness**: L - Low M - Medium H - High **Plasticity**: N - Nonplastic L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

**Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.**

HALEY & ALDRICH

# GEOPROBE REPORT

**Boring No. B123**

Project St. Elizabeths East Campus; Martin Luther King Jr. (MLK) Avenue SE; Washington, DC
Client CH2M Hill
Contractor Vironex, Inc.

File No. 38677-004
Sheet No. 1 of 1
Start September 10, 2012
Finish September 10, 2012
Driller B. Porter
H&A Rep. M. Tschibelu
Elevation Datum
Location See Plan

| | Casing | Sampler | Barrel | Drilling Equipment and Procedures |
|---|---|---|---|---|
| Type | 2 1/4 in. | - | - | Rig Make & Model: Geoprobe |
| Inside Diameter (in.) | 2 | - | - | Bit Type: - |
| Hammer Weight (lb) | - | - | - | Drill Mud: - |
| Hammer Fall (in.) | - | - | - | Casing: - |
| | | | | Hoist/Hammer: Direct Push - |
| | | | | PID Make & Model: MiniRAE 2000 |

| Depth (ft) | Sample No. & Rec. (in.) | Sample Depth (ft) | Stratum Change Elev/Depth (ft) | USCS Symbol | VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION) | PID Readings (ppm) |
|---|---|---|---|---|---|---|
| 0 | G1 60 | 0.0 5.0 | 0.5 | | -TOPSOIL- | |
| | | | | ML | Brown SILT with sand, trace gravel, no odor, dry | 0.0 |
| 5 | G2 60 | 5.0 10.0 | | ML | Red-brown sandy SILT with gravel, no odor, dry | 0.0 |
| 10 | G3 60 | 10.0 15.0 | 10.0 | SW | Light brown to tan well-graded SAND with gravel, no odor, dry | 0.0 |
| 15 | | | 15.0 | | Bottom of exploration at 15.0 ft | |
| | | | | | Note: Borehole grouted upon completion | |

**Water Level Data**

| Date | Time | Elapsed Time (hr.) | Depth (ft) to: Bottom of Casing | Bottom of Hole | Water |
|---|---|---|---|---|---|
| | | Not Encountered | | | |

Sample ID
O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Splitspoon Sample
G - Geoprobe

Well Diagram
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary
Overburden (ft) 15.0
Rock Cored (ft) -
Samples 3G

**Boring No. B123**

**Field Tests:** **Dilatancy**: R - Rapid S - Slow N - None **Toughness**: L - Low M - Medium H - High
**Plasticity**: N - Nonplastic L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**
**Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.**

HALEY & ALDRICH

# GEOPROBE REPORT

**Boring No. B124**

Project St. Elizabeths East Campus; Martin Luther King Jr. (MLK) Avenue SE; Washington, DC
Client CH2M Hill
Contractor Vironex, Inc.

File No. 38677-004
Sheet No. 1 of 1
Start September 10, 2012
Finish September 10, 2012
Driller B. Porter
H&A Rep. M. Tschibelu
Elevation Datum
Location See Plan

| | Casing | Sampler | Barrel | Drilling Equipment and Procedures |
|---|---|---|---|---|
| Type | 2 1/4 in. | - | - | Rig Make & Model: Geoprobe |
| Inside Diameter (in.) | 2 | - | - | Bit Type: - |
| Hammer Weight (lb) | - | - | - | Drill Mud: - |
| Hammer Fall (in.) | - | - | - | Casing: - |
| | | | | Hoist/Hammer: Direct Push - |
| | | | | PID Make & Model: MiniRAE 2000 |

| Depth (ft) | Sample No. & Rec. (in.) | Sample Depth (ft) | Stratum Change Elev/Depth (ft) | USCS Symbol | VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION) | PID Readings (ppm) |
|---|---|---|---|---|---|---|
| 0 | G1 42 | 0.0 5.0 | 0.5 | | -TOPSOIL- | |
| | | | | ML | Brown sandy SILT with quartz gravel, no odor, moist | 0.0 |
| | | | 3.5 | | No recovery | |
| 5 | G2 42 | 5.0 10.0 | 5.0 | ML | Brown sandy SILT with quartz gravel, no odor, moist | 0.0 |
| | | | 8.5 | | No recovery | |
| 10 | G3 48 | 10.0 15.0 | 10.0 | ML | Brown sandy SILT with quartz gravel, no odor, moist | 0.0 |
| | | | 12.0 | SW | Light brown well-graded SAND with gravel, no odor, moist | |
| | | | 14.0 | | No recovery | |
| 15 | | | 15.0 | | Bottom of exploration at 15.0 ft | |
| | | | | | Note: Borehole grouted upon completion | |

**Water Level Data**

| Date | Time | Elapsed Time (hr.) | Depth (ft) to: Bottom of Casing | Bottom of Hole | Water |
|---|---|---|---|---|---|
| | | Not Encountered | | | |

**Sample ID**
O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Splitspoon Sample
G - Geoprobe

**Well Diagram**
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

**Summary**

| | |
|---|---|
| Overburden (ft) | 15.0 |
| Rock Cored (ft) | - |
| Samples | 3G |

**Boring No. B124**

**Field Tests:** **Dilatancy**: R - Rapid S - Slow N - None **Plasticity**: N - Nonplastic L - Low M - Medium H - High
**Toughness**: L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

**Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.**

HALEY & ALDRICH

# GEOPROBE REPORT

**Boring No. B125**

Project St. Elizabeths East Campus; Martin Luther King Jr. (MLK) Avenue SE; Washington, DC
Client CH2M Hill
Contractor Vironex, Inc.

File No. 38677-004
Sheet No. 1 of 1
Start September 11, 2012
Finish September 11, 2012
Driller B. Porter
H&A Rep. M. Tschibelu
Elevation Datum
Location See Plan

| | Casing | Sampler | Barrel | Drilling Equipment and Procedures |
|---|---|---|---|---|
| Type | 2 1/4 in. | - | - | Rig Make & Model: Geoprobe |
| Inside Diameter (in.) | 2 | - | - | Bit Type: - |
| Hammer Weight (lb) | - | - | - | Drill Mud: - |
| Hammer Fall (in.) | - | - | - | Casing: - |
| | | | | Hoist/Hammer: Direct Push - |
| | | | | PID Make & Model: MiniRAE 2000 |

| Depth (ft) | Sample No. & Rec. (in.) | Sample Depth (ft) | Stratum Change Elev/Depth (ft) | USCS Symbol | VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION) | PID Readings (ppm) |
|---|---|---|---|---|---|---|
| 0 | G1 60 | 0.0 5.0 | 0.5 | | -ASPHALT (2 in.) / SUBBASE (4 in.)- | |
| | | | | CL | Gray-black sandy lean CLAY, black staining, slight petroleum odor, dry | 120 |
| 5 | G2 60 | 5.0 10.0 | | CL | Gray-brown sandy lean CLAY with gravel, slight petroleum odor, dry | 112 |
| 10 | G3 60 | 10.0 15.0 | 10.0 | SW | Gray-tan well-graded SAND with gravel, no odor, dry | 87.6 |
| 15 | G4 60 | 15.0 20.0 | | SW | Similar to above | 59.3 |
| 20 | | | 20.0 | | Bottom of exploration at 20.0 ft | |
| | | | | | Note: Borehole grouted upon completion | |

**Water Level Data**

| Date | Time | Elapsed Time (hr.) | Depth (ft) to: Bottom of Casing | Bottom of Hole | Water |
|---|---|---|---|---|---|
| | | Not Encountered | | | |

**Sample ID**
O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Splitspoon Sample
G - Geoprobe

**Well Diagram**
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

**Summary**

| | |
|---|---|
| Overburden (ft) | 20.0 |
| Rock Cored (ft) | - |
| Samples | 4G |

**Boring No. B125**

**Field Tests:** **Dilatancy**: R - Rapid S - Slow N - None **Toughness**: L - Low M - Medium H - High **Plasticity**: N - Nonplastic L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

**Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.**

HALEY & ALDRICH

# GEOPROBE REPORT

**Boring No. B126**

Project St. Elizabeths East Campus; Martin Luther King Jr. (MLK) Avenue SE; Washington, DC
Client CH2M Hill
Contractor Vironex, Inc.

File No. 38677-004
Sheet No. 1 of 1
Start September 11, 2012
Finish September 11, 2012
Driller B. Porter
H&A Rep. M. Tschibelu
Elevation Datum
Location See Plan

| | Casing | Sampler | Barrel | Drilling Equipment and Procedures |
|---|---|---|---|---|
| Type | 2 1/4 in. | - | - | Rig Make & Model: Geoprobe |
| Inside Diameter (in.) | 2 | - | - | Bit Type: - |
| Hammer Weight (lb) | - | - | - | Drill Mud: - |
| Hammer Fall (in.) | - | - | - | Casing: - |
| | | | | Hoist/Hammer: Direct Push - |
| | | | | PID Make & Model: MiniRAE 2000 |

| Depth (ft) | Sample No. & Rec. (in.) | Sample Depth (ft) | Stratum Change Elev/Depth (ft) | USCS Symbol | VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION) | PID Readings (ppm) |
|---|---|---|---|---|---|---|
| 0 | G1 60 | 0.0 5.0 | 0.5 | | -TOPSOIL- | |
| | | | | ML | Brown sandy SILT, trace gravel, no odor, dry | 0.0 |
| 5 | G2 60 | 5.0 10.0 | | ML | Similar to above | 0.0 |
| 10 | G3 60 | 10.0 15.0 | | ML | Similar to above | 0.0 |
| | | | 11.5 | SW | Tan to white well-graded SAND with quartz gravel, slight petroleum odor, dry | |
| 15 | G4 60 | 15.0 20.0 | | SW | Similar to above | 0.0 |
| 20 | | | 20.0 | | Bottom of exploration at 20.0 ft | |
| | | | | | Note: Borehole grouted upon completion | |

**Water Level Data**

| Date | Time | Elapsed Time (hr.) | Depth (ft) to: Bottom of Casing | Bottom of Hole | Water |
|---|---|---|---|---|---|
| | | Not Encountered | | | |

**Sample ID**
O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Splitspoon Sample
G - Geoprobe

**Well Diagram**
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

**Summary**

| | |
|---|---|
| Overburden (ft) | 20.0 |
| Rock Cored (ft) | - |
| Samples | 4G |

**Boring No. B126**

**Field Tests:** **Dilatancy**: R - Rapid S - Slow N - None **Toughness**: L - Low M - Medium H - High **Plasticity**: N - Nonplastic L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

**Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.**

HALEY & ALDRICH

# GEOPROBE REPORT

**Boring No. B127**

Project St. Elizabeths East Campus; Martin Luther King Jr. (MLK) Avenue SE; Washington, DC
Client CH2M Hill
Contractor Vironex, Inc.

File No. 38677-004
Sheet No. 1 of 1
Start September 10, 2012
Finish September 10, 2012
Driller B. Porter
H&A Rep. M. Tschibelu
Elevation Datum
Location See Plan

| | Casing | Sampler | Barrel | Drilling Equipment and Procedures |
|---|---|---|---|---|
| Type | 2 1/4 in. | - | - | Rig Make & Model: Geoprobe |
| Inside Diameter (in.) | 2 | - | - | Bit Type: - |
| Hammer Weight (lb) | - | - | - | Drill Mud: - |
| Hammer Fall (in.) | - | - | - | Casing: - |
| | | | | Hoist/Hammer: Direct Push - |
| | | | | PID Make & Model: MiniRAE 2000 |

| Depth (ft) | Sample No. & Rec. (in.) | Sample Depth (ft) | Stratum Change Elev/Depth (ft) | USCS Symbol | VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION) | PID Readings (ppm) |
|---|---|---|---|---|---|---|
| 0 | G1 60 | 0.0 5.0 | 0.5 | | -TOPSOIL- | |
| | | | | ML | Light brown sandy SILT, trace gravel, no odor, dry | 0.0 |
| | | | | ML | Brown SILT with sand, trace gravel and clay, no odor, dry | |
| 5 | G2 60 | 5.0 10.0 | | ML | Red-brown SILT with sand and quartz gravel, contains clay pockets, no odor, dry | 0.0 |
| | | | 9.0 | SW | Tan well-graded SAND with gravel, no odor, dry | |
| 10 | G3 60 | 10.0 15.0 | 10.0 | SM | Brown silty SAND with gravel, no odor, dry | 0.0 |
| | | | 12.0 | SW | White-tan well-graded SAND with quartz gravel, no odor, dry | |
| 15 | | | 15.0 | | Bottom of exploration at 15.0 ft | |
| | | | | | Note: Borehole grouted upon completion | |

**Water Level Data**

| Date | Time | Elapsed Time (hr.) | Depth (ft) to: Bottom of Casing | Bottom of Hole | Water |
|---|---|---|---|---|---|
| | | Not Encountered | | | |

**Sample ID**
O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Splitspoon Sample
G - Geoprobe

**Well Diagram**
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

**Summary**

| | |
|---|---|
| Overburden (ft) | 15.0 |
| Rock Cored (ft) | - |
| Samples | 3G |

**Boring No. B127**

**Field Tests:** **Dilatancy**: R - Rapid S - Slow N - None **Toughness**: L - Low M - Medium H - High **Plasticity**: N - Nonplastic L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

**Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.**

HALEY & ALDRICH

# GEOPROBE REPORT

**Boring No. B128**

Project St. Elizabeths East Campus; Martin Luther King Jr. (MLK) Avenue SE; Washington, DC
Client CH2M Hill
Contractor Vironex, Inc.

File No. 38677-004
Sheet No. 1 of 1
Start September 10, 2012
Finish
Driller B. Porter
H&A Rep. M. Tschibelu
Elevation
Datum
Location See Plan

| | Casing | Sampler | Barrel | Drilling Equipment and Procedures |
|---|---|---|---|---|
| Type | 2 1/4 in. | - | - | Rig Make & Model: Geoprobe |
| Inside Diameter (in.) | 2 | - | - | Bit Type: - |
| Hammer Weight (lb) | - | - | - | Drill Mud: - |
| Hammer Fall (in.) | - | - | - | Casing: - |
| | | | | Hoist/Hammer: Direct Push - |
| | | | | PID Make & Model: |

| Depth (ft) | Sample No. & Rec. (in.) | Sample Depth (ft) | Stratum Change Elev/Depth (ft) | USCS Symbol | VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION) | PID Readings (ppm) |
|---|---|---|---|---|---|---|
| 0 | G1 60 | 0.0 5.0 | 0.2 | ML | -ASPHALT- | 0.0 |
| | | | | ML | Gray sandy SILT with gravel, no odor, dry | |
| | | | | ML | Brown sandy SILT, trace gravel and clay, no odor, dry | |
| 5 | G2 60 | 5.0 10.0 | 5.0 | SM | Gray-brown silty SAND with gravel, no odor, dry | 0.0 |
| | | | | SM | Orange-brown silty SAND with gravel, no odor, dry | |
| | | | 8.0 | SW | Gray-orange SAND with gravel, no odor, dry | |
| 10 | G3 36 | 10.0 13.0 | | SW | Tan-orange well-graded SAND with quartz gravel, no odor, dry | 0.0 |
| | | | 13.0 | | Bottom of exploration at 13.0 ft | |
| | | | | | Note: Refusal at 13.0 ft | |
| | | | | | Note: Borehole grouted upon completion | |

**Water Level Data**

| Date | Time | Elapsed Time (hr.) | Depth (ft) to: Bottom of Casing | Bottom of Hole | Water |
|---|---|---|---|---|---|
| | | Not Encountered | | | |

**Sample ID**
O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Splitspoon Sample
G - Geoprobe

**Well Diagram**
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

**Summary**

| | |
|---|---|
| Overburden (ft) | 13.0 |
| Rock Cored (ft) | - |
| Samples | 3G |

**Boring No. B128**

**Field Tests:** **Dilatancy**: R - Rapid S - Slow N - None **Toughness**: L - Low M - Medium H - High **Plasticity**: N - Nonplastic L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

**Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.**

HALEY & ALDRICH

# GEOPROBE REPORT

**Boring No. B129**

Project St. Elizabeths East Campus; Martin Luther King Jr. (MLK) Avenue SE; Washington, DC
Client CH2M Hill
Contractor Vironex, Inc.

File No. 38677-004
Sheet No. 1 of 1
Start September 11, 2012
Finish September 11, 2012
Driller B. Porter
H&A Rep. M. Tschibelu
Elevation Datum
Location See Plan

| | Casing | Sampler | Barrel | Drilling Equipment and Procedures |
|---|---|---|---|---|
| Type | 2 1/4 in. | - | - | Rig Make & Model: Geoprobe |
| Inside Diameter (in.) | 2 | - | - | Bit Type: - |
| Hammer Weight (lb) | - | - | - | Drill Mud: - |
| Hammer Fall (in.) | - | - | - | Casing: - |
| | | | | Hoist/Hammer: Direct Push - |
| | | | | PID Make & Model: MiniRAE 2000 |

| Depth (ft) | Sample No. & Rec. (in.) | Sample Depth (ft) | Stratum Change Elev/Depth (ft) | USCS Symbol | VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION) | PID Readings (ppm) |
|---|---|---|---|---|---|---|
| 0 | G1 60 | 0.0 5.0 | 0.5 | | -ASPHALT (2 in.) / SUBBASE (4 in.)- | |
| | | | | CL | Brown CLAY with sand and gravel, slight petroleum odor, dry | 4.3 |
| 5 | G2 60 | 5.0 10.0 | | CL | Similar to above | 58.9 |
| | | | 8.0 | SW | Gray well graded SAND with gravel, no odor, dry | |
| 10 | G3 60 | 10.0 15.0 | | SW | Similar to above | 16.4 |
| | | | 13.0 | CL | Brown CLAY with sand, no dor, dry | |
| 15 | | | 15.0 | | Bottom of exploration at 15.0 ft | |
| | | | | | Note: Borehole grouted upon completion | |

**Water Level Data**

| Date | Time | Elapsed Time (hr.) | Depth (ft) to: Bottom of Casing | Bottom of Hole | Water |
|---|---|---|---|---|---|
| | | Not Encountered | | | |

**Sample ID**
O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Splitspoon Sample
G - Geoprobe

**Well Diagram**
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

**Summary**

| | |
|---|---|
| Overburden (ft) | 15.0 |
| Rock Cored (ft) | - |
| Samples | 3G |

**Boring No. B129**

**Field Tests:** **Dilatancy**: R - Rapid S - Slow N - None **Toughness**: L - Low M - Medium H - High **Plasticity**: N - Nonplastic L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

**Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.**

# APPENDIX B

## Analytical Laboratory Reports

# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

Haley & Aldrich, Inc
200 Town Centre Dr., Suite 2
Rochester, NY 14623-4264

Date Sampled: 09/10/12 8:41
Date Received: 09/12/12 12:10
Date Issued: 09/25/12

Project: St. Elizabeths East Campus
Site Location: Washington, DC
Project Number: 38677-003

**SDG Number: 12091201**

**Field Sample ID: B128-S1-5'-7'** **Matrix: Soil** **Lab ID: 12091201-01**

| | Result | Unit | LLQ | Method | Prepared | Analyzed | Init. |
|---|---|---|---|---|---|---|---|
| **Percent Solids** | | | | | | | |
| Percent Solids | **85** | % | | SM2540G | 09/18/12 | 09/18/12 9:37 | LMJ |
| **Total Petroleum Hydrocarbons - (C10-C28) DRO** | | | | | | | |
| Diesel Range Organics | ND | mg/kg | 11 | EPA 8015C | 09/14/12 | 09/15/12 1:15 | AC |
| **Total Petroleum Hydrocarbons - (C28-C40) HRO** | | | | | | | |
| Oil Range Organics | ND | mg/kg | 11 | EPA 8015C | 09/14/12 | 09/15/12 1:15 | AC |
| **Total Petroleum Hydrocarbons - (C6-C10) GRO** | | | | | | | |
| Gasoline Range Organics | ND | mg/kg | 0.23 | EPA 8015C | 09/19/12 | 09/20/12 19:24 | CBS |
| **Volatile Organic Compounds** | | | | | | | |
| Benzene | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/14/12 22:03 | JKL |
| Toluene | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/14/12 22:03 | JKL |
| Ethylbenzene | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/14/12 22:03 | JKL |
| m&p-Xylene | ND | ug/kg | 11 | EPA 8260B | 09/14/12 | 09/14/12 22:03 | JKL |
| o-Xylene | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/14/12 22:03 | JKL |
| Naphthalene | ND | ug/kg | 11 | EPA 8260B | 09/14/12 | 09/14/12 22:03 | JKL |

Notes/Qualifiers:
LLQ- Lowest Level of Quantitation
ND - Not Detected at a concentration greater than or equal to the LLQ.
Results reported on a dry weight basis.

Approved by: 
QC Chemist



8851 Orchard Tree Lane Towson, Maryland 21286
tel: 410.825.1151 fax: 410.825.2126 www.caslabs.net

# Certificate of Analysis

Haley & Aldrich, Inc
200 Town Centre Dr., Suite 2
Rochester, NY 14623-4264

Date Sampled: 09/10/12 9:41
Date Received: 09/12/12 12:10
Date Issued: 09/25/12

Project: St. Elizabeths East Campus
Site Location: Washington, DC
Project Number: 38677-003

**SDG Number: 12091201**

**Field Sample ID: B127-S1-5'-7'** **Matrix: Soil** **Lab ID: 12091201-02**

| | Result | Unit | LLQ | Method | Prepared | Analyzed | Init. |
|---|---|---|---|---|---|---|---|
| **Percent Solids** | | | | | | | |
| Percent Solids | **87** | % | | SM2540G | 09/18/12 | 09/18/12 9:37 | LMJ |
| **Polychlorinated Biphenyls** | | | | | | | |
| Aroclor 1016 | ND | mg/kg | 0.057 | EPA 8082 | 09/14/12 | 09/17/12 18:57 | AC |
| Aroclor 1221 | ND | mg/kg | 0.057 | EPA 8082 | 09/14/12 | 09/17/12 18:57 | AC |
| Aroclor 1232 | ND | mg/kg | 0.057 | EPA 8082 | 09/14/12 | 09/17/12 18:57 | AC |
| Aroclor 1242 | ND | mg/kg | 0.057 | EPA 8082 | 09/14/12 | 09/17/12 18:57 | AC |
| Aroclor 1248 | ND | mg/kg | 0.057 | EPA 8082 | 09/14/12 | 09/17/12 18:57 | AC |
| Aroclor 1254 | ND | mg/kg | 0.057 | EPA 8082 | 09/14/12 | 09/17/12 18:57 | AC |
| Aroclor 1260 | ND | mg/kg | 0.057 | EPA 8082 | 09/14/12 | 09/17/12 18:57 | AC |
| **Polycyclic Aromatic Hydrocarbons (SIM)** | | | | | | | |
| Acenaphthene | ND | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/17/12 22:17 | JKL |
| Acenaphthylene | ND | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/17/12 22:17 | JKL |
| Anthracene | ND | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/17/12 22:17 | JKL |
| Benzo[a]anthracene | ND | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/17/12 22:17 | JKL |
| Benzo[a]pyrene | ND | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/17/12 22:17 | JKL |
| Benzo[b]fluoranthene | ND | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/17/12 22:17 | JKL |
| Benzo[g,h,i]perylene | ND | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/17/12 22:17 | JKL |
| Benzo[k]fluoranthene | ND | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/17/12 22:17 | JKL |
| Chrysene | ND | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/17/12 22:17 | JKL |
| Dibenz[a,h]anthracene | ND | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/17/12 22:17 | JKL |
| Fluoranthene | ND | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/17/12 22:17 | JKL |
| Fluorene | ND | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/17/12 22:17 | JKL |
| Indeno[1,2,3-cd]pyrene | ND | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/17/12 22:17 | JKL |
| 2-Methylnaphthalene | **12** | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/17/12 22:17 | JKL |
| Naphthalene` | ND | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/17/12 22:17 | JKL |
| Phenanthrene | ND | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/17/12 22:17 | JKL |
| Pyrene | ND | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/17/12 22:17 | JKL |
| **Target Compound List - VOLATILES** | | | | | | | |
| Dichlorodifluoromethane | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/14/12 22:31 | JKL |
| Chloromethane | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/14/12 22:31 | JKL |
| Vinyl chloride | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/14/12 22:31 | JKL |
| Bromomethane | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/14/12 22:31 | JKL |
| Chloroethane | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/14/12 22:31 | JKL |
| Trichlorofluoromethane | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/14/12 22:31 | JKL |
| 1,1-Dichloroethene | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/14/12 22:31 | JKL |
| 1,1,2-Trichlorotrifluoroethane | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/14/12 22:31 | JKL |
| Acetone | ND | ug/kg | 52 | EPA 8260B | 09/14/12 | 09/14/12 22:31 | JKL |
| Carbon disulfide | ND | ug/kg | 10 | EPA 8260B | 09/14/12 | 09/14/12 22:31 | JKL |



8851 Orchard Tree Lane Towson, Maryland 21286
tel: 410.825.1151 fax: 410.825.2126 www.caslabs.net

# Certificate of Analysis

Haley & Aldrich, Inc
200 Town Centre Dr., Suite 2
Rochester, NY 14623-4264

Date Sampled: 09/10/12 9:41
Date Received: 09/12/12 12:10
Date Issued: 09/25/12

Project: St. Elizabeths East Campus
Site Location: Washington, DC
Project Number: 38677-003

**SDG Number: 12091201**

**Field Sample ID: B127-S1-5'-7'** **Matrix: Soil** **Lab ID: 12091201-02**

| | Result | Unit | LLQ | Method | Prepared | Analyzed | Init. |
|---|---|---|---|---|---|---|---|
| **Target Compound List - VOLATILES** | | | | | | | |
| Methyl acetate | ND | ug/kg | 26 | EPA 8260B | 09/14/12 | 09/14/12 22:31 | JKL |
| Methylene chloride | ND | ug/kg | 26 | EPA 8260B | 09/14/12 | 09/14/12 22:31 | JKL |
| trans-1,2-Dichloroethene | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/14/12 22:31 | JKL |
| Methyl t-butyl ether (MTBE) | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/14/12 22:31 | JKL |
| 1,1-Dichloroethane | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/14/12 22:31 | JKL |
| cis-1,2-Dichloroethene | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/14/12 22:31 | JKL |
| 2-Butanone (MEK) | ND | ug/kg | 52 | EPA 8260B | 09/14/12 | 09/14/12 22:31 | JKL |
| Chloroform | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/14/12 22:31 | JKL |
| 1,1,1-Trichloroethane | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/14/12 22:31 | JKL |
| Cyclohexane | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/14/12 22:31 | JKL |
| Carbon tetrachloride | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/14/12 22:31 | JKL |
| Benzene | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/14/12 22:31 | JKL |
| 1,2-Dichloroethane | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/14/12 22:31 | JKL |
| Trichloroethene | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/14/12 22:31 | JKL |
| Methylcyclohexane | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/14/12 22:31 | JKL |
| 1,2-Dichloropropane | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/14/12 22:31 | JKL |
| Bromodichloromethane | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/14/12 22:31 | JKL |
| cis-1,3-Dichloropropene | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/14/12 22:31 | JKL |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/kg | 10 | EPA 8260B | 09/14/12 | 09/14/12 22:31 | JKL |
| Toluene | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/14/12 22:31 | JKL |
| trans-1,3-Dichloropropene | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/14/12 22:31 | JKL |
| 1,1,2-Trichloroethane | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/14/12 22:31 | JKL |
| Tetrachloroethene | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/14/12 22:31 | JKL |
| 2-Hexanone (MBK) | ND | ug/kg | 10 | EPA 8260B | 09/14/12 | 09/14/12 22:31 | JKL |
| Dibromochloromethane | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/14/12 22:31 | JKL |
| 1,2-Dibromoethane | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/14/12 22:31 | JKL |
| Chlorobenzene | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/14/12 22:31 | JKL |
| Ethylbenzene | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/14/12 22:31 | JKL |
| m&p-Xylene | ND | ug/kg | 10 | EPA 8260B | 09/14/12 | 09/14/12 22:31 | JKL |
| o-Xylene | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/14/12 22:31 | JKL |
| Styrene | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/14/12 22:31 | JKL |
| Bromoform | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/14/12 22:31 | JKL |
| Isopropylbenzene | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/14/12 22:31 | JKL |
| 1,1,2,2-Tetrachloroethane | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/14/12 22:31 | JKL |
| 1,3-Dichlorobenzene | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/14/12 22:31 | JKL |
| 1,4-Dichlorobenzene | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/14/12 22:31 | JKL |
| 1,2-Dichlorobenzene | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/14/12 22:31 | JKL |
| 1,2-Dibromo-3-chloropropane | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/14/12 22:31 | JKL |



8851 Orchard Tree Lane Towson, Maryland 21286
tel: 410.825.1151 fax: 410.825.2126 www.caslabs.net

# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

Haley & Aldrich, Inc
200 Town Centre Dr., Suite 2
Rochester, NY 14623-4264

Date Sampled: 09/10/12 9:41
Date Received: 09/12/12 12:10
Date Issued: 09/25/12

Project: St. Elizabeths East Campus
Site Location: Washington, DC
Project Number: 38677-003

**SDG Number: 12091201**

**Field Sample ID: B127-S1-5'-7'** **Matrix: Soil** **Lab ID: 12091201-02**

| | Result | Unit | LLQ | Method | Prepared | Analyzed | Init. |
|---|---|---|---|---|---|---|---|
| **Target Compound List - VOLATILES** | | | | | | | |
| 1,2,4-Trichlorobenzene | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/14/12 22:31 | JKL |
| Naphthalene | ND | ug/kg | 10 | EPA 8260B | 09/14/12 | 09/14/12 22:31 | JKL |
| Ethyl t-butyl ether (ETBE) | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/14/12 22:31 | JKL |
| tert-Butanol (TBA) | ND | ug/kg | 26 | EPA 8260B | 09/14/12 | 09/14/12 22:31 | JKL |
| Diisopropyl ether (DIPE) | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/14/12 22:31 | JKL |
| tert-Amyl methyl ether (TAME) | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/14/12 22:31 | JKL |
| tert-Amyl alcohol (TAA) | ND | ug/kg | 26 | EPA 8260B | 09/14/12 | 09/14/12 22:31 | JKL |
| tert-Amyl ethyl ether (TAEE) | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/14/12 22:31 | JKL |
| **Total Metals** | | | | | | | |
| Arsenic | **4.0** | mg/kg | 0.38 | EPA 6020A | 09/13/12 | 09/14/12 13:58 | MEL |
| Barium | **44** | mg/kg | 1.9 | EPA 6020A | 09/13/12 | 09/14/12 13:58 | MEL |
| Cadmium | ND | mg/kg | 1.9 | EPA 6020A | 09/13/12 | 09/14/12 13:58 | MEL |
| Chromium | **23** | mg/kg | 1.9 | EPA 6020A | 09/13/12 | 09/14/12 13:58 | MEL |
| Lead | **15** | mg/kg | 1.9 | EPA 6020A | 09/13/12 | 09/14/12 13:58 | MEL |
| Mercury | ND | mg/kg | 0.077 | EPA 6020A | 09/13/12 | 09/14/12 13:58 | MEL |
| Selenium | ND | mg/kg | 1.9 | EPA 6020A | 09/13/12 | 09/14/12 13:58 | MEL |
| Silver | ND | mg/kg | 1.9 | EPA 6020A | 09/13/12 | 09/14/12 13:58 | MEL |
| **Total Petroleum Hydrocarbons - (C10-C28) DRO** | | | | | | | |
| Diesel Range Organics | ND | mg/kg | 12 | EPA 8015C | 09/14/12 | 09/15/12 1:49 | AC |
| **Total Petroleum Hydrocarbons - (C28-C40) HRO** | | | | | | | |
| Oil Range Organics | ND | mg/kg | 12 | EPA 8015C | 09/14/12 | 09/15/12 1:49 | AC |
| **Total Petroleum Hydrocarbons - (C6-C10) GRO** | | | | | | | |
| Gasoline Range Organics | ND | mg/kg | 0.27 | EPA 8015C | 09/19/12 | 09/20/12 19:49 | CBS |

Notes/Qualifiers:
LLQ- Lowest Level of Quantitation
ND - Not Detected at a concentration greater than or equal to the LLQ.
Results reported on a dry weight basis.

Approved by: Matt Osher
QC Chemist



8851 Orchard Tree Lane Towson, Maryland 21286
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# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

Haley & Aldrich, Inc
200 Town Centre Dr., Suite 2
Rochester, NY 14623-4264

Date Sampled: 09/10/12 10:25
Date Received: 09/12/12 12:10
Date Issued: 09/25/12

Project: St. Elizabeths East Campus
Site Location: Washington, DC
Project Number: 38677-003

**SDG Number: 12091201**

**Field Sample ID: B122-S1-0.5'-2.5'** **Matrix: Soil** **Lab ID: 12091201-03**

| | Result | Unit | LLQ | Method | Prepared | Analyzed | Init. |
|---|---|---|---|---|---|---|---|
| **Percent Solids** | | | | | | | |
| Percent Solids | **77** | % | | SM2540G | 09/18/12 | 09/18/12 9:37 | LMJ |
| **Total Petroleum Hydrocarbons - (C10-C28) DRO** | | | | | | | |
| Diesel Range Organics | ND | mg/kg | 13 | EPA 8015C | 09/14/12 | 09/15/12 2:24 | AC |
| **Total Petroleum Hydrocarbons - (C28-C40) HRO** | | | | | | | |
| Oil Range Organics | ND | mg/kg | 13 | EPA 8015C | 09/14/12 | 09/15/12 2:24 | AC |
| **Total Petroleum Hydrocarbons - (C6-C10) GRO** | | | | | | | |
| Gasoline Range Organics | ND | mg/kg | 0.21 | EPA 8015C | 09/19/12 | 09/20/12 20:13 | CBS |
| **Volatile Organic Compounds** | | | | | | | |
| Benzene | ND | ug/kg | 6 | EPA 8260B | 09/14/12 | 09/14/12 23:00 | JKL |
| Toluene | ND | ug/kg | 6 | EPA 8260B | 09/14/12 | 09/14/12 23:00 | JKL |
| Ethylbenzene | ND | ug/kg | 6 | EPA 8260B | 09/14/12 | 09/14/12 23:00 | JKL |
| m&p-Xylene | ND | ug/kg | 11 | EPA 8260B | 09/14/12 | 09/14/12 23:00 | JKL |
| o-Xylene | ND | ug/kg | 6 | EPA 8260B | 09/14/12 | 09/14/12 23:00 | JKL |
| Naphthalene | ND | ug/kg | 11 | EPA 8260B | 09/14/12 | 09/14/12 23:00 | JKL |

Notes/Qualifiers:
LLQ- Lowest Level of Quantitation
ND - Not Detected at a concentration greater than or equal to the LLQ.
Results reported on a dry weight basis.

Approved by: Matt Ocker
QC Chemist



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# CALIBER ANALYTICAL SERVICES

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Date Sampled: 09/10/12 11:26
Date Received: 09/12/12 12:10
Date Issued: 09/25/12

Project: St. Elizabeths East Campus
Site Location: Washington, DC
Project Number: 38677-003

**SDG Number: 12091201**

**Field Sample ID: B123-S1-5'-7'** **Matrix: Soil** **Lab ID: 12091201-04**

| | Result | Unit | LLQ | Method | Prepared | Analyzed | Init. |
|---|---|---|---|---|---|---|---|
| **Percent Solids** | | | | | | | |
| Percent Solids | **83** | % | | SM2540G | 09/18/12 | 09/18/12 9:37 | LMJ |
| **Total Petroleum Hydrocarbons - (C10-C28) DRO** | | | | | | | |
| Diesel Range Organics | ND | mg/kg | 12 | EPA 8015C | 09/14/12 | 09/15/12 2:59 | AC |
| **Total Petroleum Hydrocarbons - (C28-C40) HRO** | | | | | | | |
| Oil Range Organics | ND | mg/kg | 12 | EPA 8015C | 09/14/12 | 09/15/12 2:59 | AC |
| **Total Petroleum Hydrocarbons - (C6-C10) GRO** | | | | | | | |
| Gasoline Range Organics | ND | mg/kg | 0.23 | EPA 8015C | 09/19/12 | 09/20/12 20:37 | CBS |
| **Volatile Organic Compounds** | | | | | | | |
| Benzene | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/14/12 23:28 | JKL |
| Toluene | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/14/12 23:28 | JKL |
| Ethylbenzene | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/14/12 23:28 | JKL |
| m&p-Xylene | ND | ug/kg | 10 | EPA 8260B | 09/14/12 | 09/14/12 23:28 | JKL |
| o-Xylene | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/14/12 23:28 | JKL |
| Naphthalene | ND | ug/kg | 10 | EPA 8260B | 09/14/12 | 09/14/12 23:28 | JKL |

Notes/Qualifiers:
LLQ- Lowest Level of Quantitation
ND - Not Detected at a concentration greater than or equal to the LLQ.
Results reported on a dry weight basis.

Approved by: 
QC Chemist



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# CALIBER ANALYTICAL SERVICES

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Date Sampled: 09/10/12 12:05
Date Received: 09/12/12 12:10
Date Issued: 09/25/12

Project: St. Elizabeths East Campus
Site Location: Washington, DC
Project Number: 38677-003

**SDG Number: 12091201**

**Field Sample ID: B119-S1-5'-7'** **Matrix: Soil** **Lab ID: 12091201-05**

| | Result | Unit | LLQ | Method | Prepared | Analyzed | Init. |
|---|---|---|---|---|---|---|---|
| **Percent Solids** | | | | | | | |
| Percent Solids | **84** | % | | SM2540G | 09/18/12 | 09/18/12 9:37 | LMJ |
| **Total Petroleum Hydrocarbons - (C10-C28) DRO** | | | | | | | |
| Diesel Range Organics | ND | mg/kg | 11 | EPA 8015C | 09/14/12 | 09/15/12 3:33 | AC |
| **Total Petroleum Hydrocarbons - (C28-C40) HRO** | | | | | | | |
| Oil Range Organics | ND | mg/kg | 11 | EPA 8015C | 09/14/12 | 09/15/12 3:33 | AC |
| **Total Petroleum Hydrocarbons - (C6-C10) GRO** | | | | | | | |
| Gasoline Range Organics | ND | mg/kg | 0.14 | EPA 8015C | 09/19/12 | 09/20/12 21:02 | CBS |
| **Volatile Organic Compounds** | | | | | | | |
| Benzene | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/14/12 23:56 | JKL |
| Toluene | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/14/12 23:56 | JKL |
| Ethylbenzene | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/14/12 23:56 | JKL |
| m&p-Xylene | ND | ug/kg | 10 | EPA 8260B | 09/14/12 | 09/14/12 23:56 | JKL |
| o-Xylene | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/14/12 23:56 | JKL |
| Naphthalene | ND | ug/kg | 10 | EPA 8260B | 09/14/12 | 09/14/12 23:56 | JKL |

Notes/Qualifiers:
LLQ- Lowest Level of Quantitation
ND - Not Detected at a concentration greater than or equal to the LLQ.
Results reported on a dry weight basis.

Approved by: 
QC Chemist



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Date Sampled: 09/10/12 12:30
Date Received: 09/12/12 12:10
Date Issued: 09/25/12

Project: St. Elizabeths East Campus
Site Location: Washington, DC
Project Number: 38677-003

**SDG Number: 12091201**

**Field Sample ID: B124-S1-5'-7'** **Matrix: Soil** **Lab ID: 12091201-06**

| | Result | Unit | LLQ | Method | Prepared | Analyzed | Init. |
|---|---|---|---|---|---|---|---|
| **Percent Solids** | | | | | | | |
| Percent Solids | **83** | % | | SM2540G | 09/18/12 | 09/18/12 9:37 | LMJ |
| **Total Petroleum Hydrocarbons - (C10-C28) DRO** | | | | | | | |
| Diesel Range Organics | ND | mg/kg | 13 | EPA 8015C | 09/14/12 | 09/15/12 4:08 | AC |
| **Total Petroleum Hydrocarbons - (C28-C40) HRO** | | | | | | | |
| Oil Range Organics | ND | mg/kg | 13 | EPA 8015C | 09/14/12 | 09/15/12 4:08 | AC |
| **Total Petroleum Hydrocarbons - (C6-C10) GRO** | | | | | | | |
| Gasoline Range Organics | **0.21** | mg/kg | 0.19 | EPA 8015C | 09/19/12 | 09/20/12 17:20 | CBS |
| **Volatile Organic Compounds** | | | | | | | |
| Benzene | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/15/12 0:25 | JKL |
| Toluene | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/15/12 0:25 | JKL |
| Ethylbenzene | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/15/12 0:25 | JKL |
| m&p-Xylene | ND | ug/kg | 10 | EPA 8260B | 09/14/12 | 09/15/12 0:25 | JKL |
| o-Xylene | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/15/12 0:25 | JKL |
| Naphthalene | ND | ug/kg | 10 | EPA 8260B | 09/14/12 | 09/15/12 0:25 | JKL |

Notes/Qualifiers:
LLQ- Lowest Level of Quantitation
ND - Not Detected at a concentration greater than or equal to the LLQ.
Results reported on a dry weight basis.

Approved by: Matt Ocker
QC Chemist



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Date Sampled: 09/10/12 13:20
Date Received: 09/12/12 12:10
Date Issued: 09/25/12

Project: St. Elizabeths East Campus
Site Location: Washington, DC
Project Number: 38677-003

**SDG Number: 12091201**

**Field Sample ID: B113-S1-5'-7'** **Matrix: Soil** **Lab ID: 12091201-07**

| | Result | Unit | LLQ | Method | Prepared | Analyzed | Init. |
|---|---|---|---|---|---|---|---|
| **Percent Solids** | | | | | | | |
| Percent Solids | **86** | % | | SM2540G | 09/18/12 | 09/18/12 9:37 | LMJ |
| **Total Petroleum Hydrocarbons - (C10-C28) DRO** | | | | | | | |
| Diesel Range Organics | **20** | mg/kg | 12 | EPA 8015C | 09/14/12 | 09/15/12 4:42 | AC |
| **Total Petroleum Hydrocarbons - (C28-C40) HRO** | | | | | | | |
| Oil Range Organics | **13** | mg/kg | 12 | EPA 8015C | 09/14/12 | 09/15/12 4:42 | AC |
| **Total Petroleum Hydrocarbons - (C6-C10) GRO** | | | | | | | |
| Gasoline Range Organics | ND | mg/kg | 0.21 | EPA 8015C | 09/19/12 | 09/20/12 21:51 | CBS |
| **Volatile Organic Compounds** | | | | | | | |
| Benzene | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/15/12 0:54 | JKL |
| Toluene | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/15/12 0:54 | JKL |
| Ethylbenzene | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/15/12 0:54 | JKL |
| m&p-Xylene | ND | ug/kg | 10 | EPA 8260B | 09/14/12 | 09/15/12 0:54 | JKL |
| o-Xylene | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/15/12 0:54 | JKL |
| Naphthalene | ND | ug/kg | 10 | EPA 8260B | 09/14/12 | 09/15/12 0:54 | JKL |

Notes/Qualifiers:
LLQ- Lowest Level of Quantitation
ND - Not Detected at a concentration greater than or equal to the LLQ.
Results reported on a dry weight basis.

Approved by: Matt Ocker
QC Chemist



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# Certificate of Analysis

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Date Sampled: 09/10/12 13:49
Date Received: 09/12/12 12:10
Date Issued: 09/25/12

Project: St. Elizabeths East Campus
Site Location: Washington, DC
Project Number: 38677-003

**SDG Number: 12091201**

**Field Sample ID: B104-S1-1.5'-3.5'** **Matrix: Soil** **Lab ID: 12091201-08**

| | Result | Unit | LLQ | Method | Prepared | Analyzed | Init. |
|---|---|---|---|---|---|---|---|
| **Percent Solids** | | | | | | | |
| Percent Solids | **87** | % | | SM2540G | 09/18/12 | 09/18/12 9:37 | LMJ |
| **Polychlorinated Biphenyls** | | | | | | | |
| Aroclor 1016 | ND | mg/kg | 0.063 | EPA 8082 | 09/14/12 | 09/17/12 19:26 | AC |
| Aroclor 1221 | ND | mg/kg | 0.063 | EPA 8082 | 09/14/12 | 09/17/12 19:26 | AC |
| Aroclor 1232 | ND | mg/kg | 0.063 | EPA 8082 | 09/14/12 | 09/17/12 19:26 | AC |
| Aroclor 1242 | ND | mg/kg | 0.063 | EPA 8082 | 09/14/12 | 09/17/12 19:26 | AC |
| Aroclor 1248 | ND | mg/kg | 0.063 | EPA 8082 | 09/14/12 | 09/17/12 19:26 | AC |
| Aroclor 1254 | ND | mg/kg | 0.063 | EPA 8082 | 09/14/12 | 09/17/12 19:26 | AC |
| Aroclor 1260 | ND | mg/kg | 0.063 | EPA 8082 | 09/14/12 | 09/17/12 19:26 | AC |
| **Polycyclic Aromatic Hydrocarbons (SIM)** | | | | | | | |
| Acenaphthene | ND | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/17/12 22:53 | JKL |
| Acenaphthylene | **7** | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/17/12 22:53 | JKL |
| Anthracene | **7** | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/17/12 22:53 | JKL |
| Benzo[a]anthracene | **36** | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/17/12 22:53 | JKL |
| Benzo[a]pyrene | **58** | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/17/12 22:53 | JKL |
| Benzo[b]fluoranthene | **82** | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/17/12 22:53 | JKL |
| Benzo[g,h,i]perylene | **37** | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/17/12 22:53 | JKL |
| Benzo[k]fluoranthene | **25** | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/17/12 22:53 | JKL |
| Chrysene | **45** | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/17/12 22:53 | JKL |
| Dibenz[a,h]anthracene | **8** | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/17/12 22:53 | JKL |
| Fluoranthene | **53** | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/17/12 22:53 | JKL |
| Fluorene | ND | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/17/12 22:53 | JKL |
| Indeno[1,2,3-cd]pyrene | **23** | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/17/12 22:53 | JKL |
| 2-Methylnaphthalene | **9** | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/17/12 22:53 | JKL |
| Naphthalene` | **8** | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/17/12 22:53 | JKL |
| Phenanthrene | **32** | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/17/12 22:53 | JKL |
| Pyrene | **64** | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/17/12 22:53 | JKL |
| **Target Compound List - VOLATILES** | | | | | | | |
| Dichlorodifluoromethane | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/15/12 1:22 | JKL |
| Chloromethane | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/15/12 1:22 | JKL |
| Vinyl chloride | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/15/12 1:22 | JKL |
| Bromomethane | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/15/12 1:22 | JKL |
| Chloroethane | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/15/12 1:22 | JKL |
| Trichlorofluoromethane | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/15/12 1:22 | JKL |
| 1,1-Dichloroethene | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/15/12 1:22 | JKL |
| 1,1,2-Trichlorotrifluoroethane | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/15/12 1:22 | JKL |
| Acetone | ND | ug/kg | 80 | EPA 8260B | 09/14/12 | 09/15/12 1:22 | JKL |
| Carbon disulfide | ND | ug/kg | 11 | EPA 8260B | 09/14/12 | 09/15/12 1:22 | JKL |



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Date Sampled: 09/10/12 13:49
Date Received: 09/12/12 12:10
Date Issued: 09/25/12

Project: St. Elizabeths East Campus
Site Location: Washington, DC
Project Number: 38677-003

**SDG Number: 12091201**

**Field Sample ID: B104-S1-1.5'-3.5'** **Matrix: Soil** **Lab ID: 12091201-08**

| | Result | Unit | LLQ | Method | Prepared | Analyzed | Init. |
|---|---|---|---|---|---|---|---|
| **Target Compound List - VOLATILES** | | | | | | | |
| Methyl acetate | ND | ug/kg | 27 | EPA 8260B | 09/14/12 | 09/15/12 1:22 | JKL |
| Methylene chloride | ND | ug/kg | 27 | EPA 8260B | 09/14/12 | 09/15/12 1:22 | JKL |
| trans-1,2-Dichloroethene | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/15/12 1:22 | JKL |
| Methyl t-butyl ether (MTBE) | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/15/12 1:22 | JKL |
| 1,1-Dichloroethane | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/15/12 1:22 | JKL |
| cis-1,2-Dichloroethene | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/15/12 1:22 | JKL |
| 2-Butanone (MEK) | ND | ug/kg | 54 | EPA 8260B | 09/14/12 | 09/15/12 1:22 | JKL |
| Chloroform | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/15/12 1:22 | JKL |
| 1,1,1-Trichloroethane | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/15/12 1:22 | JKL |
| Cyclohexane | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/15/12 1:22 | JKL |
| Carbon tetrachloride | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/15/12 1:22 | JKL |
| Benzene | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/15/12 1:22 | JKL |
| 1,2-Dichloroethane | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/15/12 1:22 | JKL |
| Trichloroethene | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/15/12 1:22 | JKL |
| Methylcyclohexane | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/15/12 1:22 | JKL |
| 1,2-Dichloropropane | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/15/12 1:22 | JKL |
| Bromodichloromethane | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/15/12 1:22 | JKL |
| cis-1,3-Dichloropropene | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/15/12 1:22 | JKL |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/kg | 11 | EPA 8260B | 09/14/12 | 09/15/12 1:22 | JKL |
| Toluene | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/15/12 1:22 | JKL |
| trans-1,3-Dichloropropene | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/15/12 1:22 | JKL |
| 1,1,2-Trichloroethane | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/15/12 1:22 | JKL |
| Tetrachloroethene | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/15/12 1:22 | JKL |
| 2-Hexanone (MBK) | ND | ug/kg | 11 | EPA 8260B | 09/14/12 | 09/15/12 1:22 | JKL |
| Dibromochloromethane | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/15/12 1:22 | JKL |
| 1,2-Dibromoethane | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/15/12 1:22 | JKL |
| Chlorobenzene | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/15/12 1:22 | JKL |
| Ethylbenzene | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/15/12 1:22 | JKL |
| m&p-Xylene | ND | ug/kg | 11 | EPA 8260B | 09/14/12 | 09/15/12 1:22 | JKL |
| o-Xylene | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/15/12 1:22 | JKL |
| Styrene | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/15/12 1:22 | JKL |
| Bromoform | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/15/12 1:22 | JKL |
| Isopropylbenzene | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/15/12 1:22 | JKL |
| 1,1,2,2-Tetrachloroethane | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/15/12 1:22 | JKL |
| 1,3-Dichlorobenzene | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/15/12 1:22 | JKL |
| 1,4-Dichlorobenzene | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/15/12 1:22 | JKL |
| 1,2-Dichlorobenzene | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/15/12 1:22 | JKL |
| 1,2-Dibromo-3-chloropropane | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/15/12 1:22 | JKL |



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Haley & Aldrich, Inc
200 Town Centre Dr., Suite 2
Rochester, NY 14623-4264

Date Sampled: 09/10/12 13:49
Date Received: 09/12/12 12:10
Date Issued: 09/25/12

Project: St. Elizabeths East Campus
Site Location: Washington, DC
Project Number: 38677-003

**SDG Number: 12091201**

**Field Sample ID: B104-S1-1.5'-3.5'** **Matrix: Soil** **Lab ID: 12091201-08**

| | Result | Unit | LLQ | Method | Prepared | Analyzed | Init. |
|---|---|---|---|---|---|---|---|
| **Target Compound List - VOLATILES** | | | | | | | |
| 1,2,4-Trichlorobenzene | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/15/12 1:22 | JKL |
| Naphthalene | ND | ug/kg | 11 | EPA 8260B | 09/14/12 | 09/15/12 1:22 | JKL |
| Ethyl t-butyl ether (ETBE) | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/15/12 1:22 | JKL |
| tert-Butanol (TBA) | ND | ug/kg | 27 | EPA 8260B | 09/14/12 | 09/15/12 1:22 | JKL |
| Diisopropyl ether (DIPE) | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/15/12 1:22 | JKL |
| tert-Amyl methyl ether (TAME) | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/15/12 1:22 | JKL |
| tert-Amyl alcohol (TAA) | ND | ug/kg | 27 | EPA 8260B | 09/14/12 | 09/15/12 1:22 | JKL |
| tert-Amyl ethyl ether (TAEE) | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/15/12 1:22 | JKL |
| **Total Metals** | | | | | | | |
| Arsenic | **4.7** | mg/kg | 0.39 | EPA 6020A | 09/13/12 | 09/14/12 14:04 | MEL |
| Barium | **89** | mg/kg | 2 | EPA 6020A | 09/13/12 | 09/14/12 14:04 | MEL |
| Cadmium | ND | mg/kg | 2 | EPA 6020A | 09/13/12 | 09/14/12 14:04 | MEL |
| Chromium | **21** | mg/kg | 2 | EPA 6020A | 09/13/12 | 09/14/12 14:04 | MEL |
| Lead | **38** | mg/kg | 2 | EPA 6020A | 09/13/12 | 09/14/12 14:04 | MEL |
| Mercury | **0.13** | mg/kg | 0.078 | EPA 6020A | 09/13/12 | 09/14/12 14:04 | MEL |
| Selenium | ND | mg/kg | 2 | EPA 6020A | 09/13/12 | 09/14/12 14:04 | MEL |
| Silver | ND | mg/kg | 2 | EPA 6020A | 09/13/12 | 09/14/12 14:04 | MEL |
| **Total Petroleum Hydrocarbons - (C10-C28) DRO** | | | | | | | |
| Diesel Range Organics | **35** | mg/kg | 12 | EPA 8015C | 09/14/12 | 09/15/12 5:17 | AC |
| **Total Petroleum Hydrocarbons - (C28-C40) HRO** | | | | | | | |
| Oil Range Organics | **17** | mg/kg | 12 | EPA 8015C | 09/14/12 | 09/15/12 5:17 | AC |
| **Total Petroleum Hydrocarbons - (C6-C10) GRO** | | | | | | | |
| Gasoline Range Organics | ND | mg/kg | 0.17 | EPA 8015C | 09/19/12 | 09/20/12 22:16 | CBS |

Notes/Qualifiers:
LLQ- Lowest Level of Quantitation
ND - Not Detected at a concentration greater than or equal to the LLQ.
Results reported on a dry weight basis.

Approved by: Matt Osher
QC Chemist



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Date Sampled: 09/10/12 13:49
Date Received: 09/12/12 12:10
Date Issued: 09/25/12

Project: St. Elizabeths East Campus
Site Location: Washington, DC
Project Number: 38677-003

**SDG Number: 12091201**

**Field Sample ID: B104-S2-10'-12'** **Matrix: Soil** **Lab ID: 12091201-09**

| | Result | Unit | LLQ | Method | Prepared | Analyzed | Init. |
|---|---|---|---|---|---|---|---|
| **Percent Solids** | | | | | | | |
| Percent Solids | **93** | % | | SM2540G | 09/18/12 | 09/18/12 9:37 | LMJ |
| **Polychlorinated Biphenyls** | | | | | | | |
| Aroclor 1016 | ND | mg/kg | 0.051 | EPA 8082 | 09/14/12 | 09/17/12 19:55 | AC |
| Aroclor 1221 | ND | mg/kg | 0.051 | EPA 8082 | 09/14/12 | 09/17/12 19:55 | AC |
| Aroclor 1232 | ND | mg/kg | 0.051 | EPA 8082 | 09/14/12 | 09/17/12 19:55 | AC |
| Aroclor 1242 | ND | mg/kg | 0.051 | EPA 8082 | 09/14/12 | 09/17/12 19:55 | AC |
| Aroclor 1248 | ND | mg/kg | 0.051 | EPA 8082 | 09/14/12 | 09/17/12 19:55 | AC |
| Aroclor 1254 | ND | mg/kg | 0.051 | EPA 8082 | 09/14/12 | 09/17/12 19:55 | AC |
| Aroclor 1260 | ND | mg/kg | 0.051 | EPA 8082 | 09/14/12 | 09/17/12 19:55 | AC |
| **Polycyclic Aromatic Hydrocarbons (SIM)** | | | | | | | |
| Acenaphthene | ND | ug/kg | 5 | EPA 8270C | 09/13/12 | 09/17/12 23:29 | JKL |
| Acenaphthylene | ND | ug/kg | 5 | EPA 8270C | 09/13/12 | 09/17/12 23:29 | JKL |
| Anthracene | ND | ug/kg | 5 | EPA 8270C | 09/13/12 | 09/17/12 23:29 | JKL |
| Benzo[a]anthracene | ND | ug/kg | 5 | EPA 8270C | 09/13/12 | 09/17/12 23:29 | JKL |
| Benzo[a]pyrene | **13** | ug/kg | 5 | EPA 8270C | 09/13/12 | 09/17/12 23:29 | JKL |
| Benzo[b]fluoranthene | **25** | ug/kg | 5 | EPA 8270C | 09/13/12 | 09/17/12 23:29 | JKL |
| Benzo[g,h,i]perylene | **7** | ug/kg | 5 | EPA 8270C | 09/13/12 | 09/17/12 23:29 | JKL |
| Benzo[k]fluoranthene | **8** | ug/kg | 5 | EPA 8270C | 09/13/12 | 09/17/12 23:29 | JKL |
| Chrysene | ND | ug/kg | 5 | EPA 8270C | 09/13/12 | 09/17/12 23:29 | JKL |
| Dibenz[a,h]anthracene | ND | ug/kg | 5 | EPA 8270C | 09/13/12 | 09/17/12 23:29 | JKL |
| Fluoranthene | **19** | ug/kg | 5 | EPA 8270C | 09/13/12 | 09/17/12 23:29 | JKL |
| Fluorene | ND | ug/kg | 5 | EPA 8270C | 09/13/12 | 09/17/12 23:29 | JKL |
| Indeno[1,2,3-cd]pyrene | ND | ug/kg | 5 | EPA 8270C | 09/13/12 | 09/17/12 23:29 | JKL |
| 2-Methylnaphthalene | ND | ug/kg | 5 | EPA 8270C | 09/13/12 | 09/17/12 23:29 | JKL |
| Naphthalene` | ND | ug/kg | 5 | EPA 8270C | 09/13/12 | 09/17/12 23:29 | JKL |
| Phenanthrene | **21** | ug/kg | 5 | EPA 8270C | 09/13/12 | 09/17/12 23:29 | JKL |
| Pyrene | **19** | ug/kg | 5 | EPA 8270C | 09/13/12 | 09/17/12 23:29 | JKL |
| **Target Compound List - VOLATILES** | | | | | | | |
| Dichlorodifluoromethane | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/15/12 1:51 | JKL |
| Chloromethane | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/15/12 1:51 | JKL |
| Vinyl chloride | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/15/12 1:51 | JKL |
| Bromomethane | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/15/12 1:51 | JKL |
| Chloroethane | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/15/12 1:51 | JKL |
| Trichlorofluoromethane | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/15/12 1:51 | JKL |
| 1,1-Dichloroethene | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/15/12 1:51 | JKL |
| 1,1,2-Trichlorotrifluoroethane | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/15/12 1:51 | JKL |
| Acetone | ND | ug/kg | 46 | EPA 8260B | 09/14/12 | 09/15/12 1:51 | JKL |
| Carbon disulfide | ND | ug/kg | 9 | EPA 8260B | 09/14/12 | 09/15/12 1:51 | JKL |



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Date Sampled: 09/10/12 13:49
Date Received: 09/12/12 12:10
Date Issued: 09/25/12

Project: St. Elizabeths East Campus
Site Location: Washington, DC
Project Number: 38677-003

**SDG Number: 12091201**

**Field Sample ID: B104-S2-10'-12'** **Matrix: Soil** **Lab ID: 12091201-09**

| | Result | Unit | LLQ | Method | Prepared | Analyzed | Init. |
|---|---|---|---|---|---|---|---|
| **Target Compound List - VOLATILES** | | | | | | | |
| Methyl acetate | ND | ug/kg | 23 | EPA 8260B | 09/14/12 | 09/15/12 1:51 | JKL |
| Methylene chloride | ND | ug/kg | 23 | EPA 8260B | 09/14/12 | 09/15/12 1:51 | JKL |
| trans-1,2-Dichloroethene | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/15/12 1:51 | JKL |
| Methyl t-butyl ether (MTBE) | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/15/12 1:51 | JKL |
| 1,1-Dichloroethane | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/15/12 1:51 | JKL |
| cis-1,2-Dichloroethene | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/15/12 1:51 | JKL |
| 2-Butanone (MEK) | ND | ug/kg | 46 | EPA 8260B | 09/14/12 | 09/15/12 1:51 | JKL |
| Chloroform | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/15/12 1:51 | JKL |
| 1,1,1-Trichloroethane | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/15/12 1:51 | JKL |
| Cyclohexane | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/15/12 1:51 | JKL |
| Carbon tetrachloride | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/15/12 1:51 | JKL |
| Benzene | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/15/12 1:51 | JKL |
| 1,2-Dichloroethane | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/15/12 1:51 | JKL |
| Trichloroethene | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/15/12 1:51 | JKL |
| Methylcyclohexane | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/15/12 1:51 | JKL |
| 1,2-Dichloropropane | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/15/12 1:51 | JKL |
| Bromodichloromethane | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/15/12 1:51 | JKL |
| cis-1,3-Dichloropropene | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/15/12 1:51 | JKL |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/kg | 9 | EPA 8260B | 09/14/12 | 09/15/12 1:51 | JKL |
| Toluene | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/15/12 1:51 | JKL |
| trans-1,3-Dichloropropene | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/15/12 1:51 | JKL |
| 1,1,2-Trichloroethane | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/15/12 1:51 | JKL |
| Tetrachloroethene | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/15/12 1:51 | JKL |
| 2-Hexanone (MBK) | ND | ug/kg | 9 | EPA 8260B | 09/14/12 | 09/15/12 1:51 | JKL |
| Dibromochloromethane | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/15/12 1:51 | JKL |
| 1,2-Dibromoethane | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/15/12 1:51 | JKL |
| Chlorobenzene | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/15/12 1:51 | JKL |
| Ethylbenzene | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/15/12 1:51 | JKL |
| m&p-Xylene | ND | ug/kg | 9 | EPA 8260B | 09/14/12 | 09/15/12 1:51 | JKL |
| o-Xylene | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/15/12 1:51 | JKL |
| Styrene | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/15/12 1:51 | JKL |
| Bromoform | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/15/12 1:51 | JKL |
| Isopropylbenzene | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/15/12 1:51 | JKL |
| 1,1,2,2-Tetrachloroethane | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/15/12 1:51 | JKL |
| 1,3-Dichlorobenzene | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/15/12 1:51 | JKL |
| 1,4-Dichlorobenzene | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/15/12 1:51 | JKL |
| 1,2-Dichlorobenzene | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/15/12 1:51 | JKL |
| 1,2-Dibromo-3-chloropropane | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/15/12 1:51 | JKL |



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# CALIBER ANALYTICAL SERVICES

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200 Town Centre Dr., Suite 2
Rochester, NY 14623-4264

Date Sampled: 09/10/12 13:49
Date Received: 09/12/12 12:10
Date Issued: 09/25/12

Project: St. Elizabeths East Campus
Site Location: Washington, DC
Project Number: 38677-003

**SDG Number: 12091201**

**Field Sample ID: B104-S2-10'-12'** **Matrix: Soil** **Lab ID: 12091201-09**

| | Result | Unit | LLQ | Method | Prepared | Analyzed | Init. |
|---|---|---|---|---|---|---|---|
| **Target Compound List - VOLATILES** | | | | | | | |
| 1,2,4-Trichlorobenzene | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/15/12 1:51 | JKL |
| Naphthalene | ND | ug/kg | 9 | EPA 8260B | 09/14/12 | 09/15/12 1:51 | JKL |
| Ethyl t-butyl ether (ETBE) | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/15/12 1:51 | JKL |
| tert-Butanol (TBA) | ND | ug/kg | 23 | EPA 8260B | 09/14/12 | 09/15/12 1:51 | JKL |
| Diisopropyl ether (DIPE) | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/15/12 1:51 | JKL |
| tert-Amyl methyl ether (TAME) | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/15/12 1:51 | JKL |
| tert-Amyl alcohol (TAA) | ND | ug/kg | 23 | EPA 8260B | 09/14/12 | 09/15/12 1:51 | JKL |
| tert-Amyl ethyl ether (TAEE) | ND | ug/kg | 5 | EPA 8260B | 09/14/12 | 09/15/12 1:51 | JKL |
| **Total Metals** | | | | | | | |
| Arsenic | **2.3** | mg/kg | 0.42 | EPA 6020A | 09/13/12 | 09/14/12 14:10 | MEL |
| Barium | **21** | mg/kg | 2.1 | EPA 6020A | 09/13/12 | 09/14/12 14:10 | MEL |
| Cadmium | ND | mg/kg | 2.1 | EPA 6020A | 09/13/12 | 09/14/12 14:10 | MEL |
| Chromium | **16** | mg/kg | 2.1 | EPA 6020A | 09/13/12 | 09/14/12 14:10 | MEL |
| Lead | **4.9** | mg/kg | 2.1 | EPA 6020A | 09/13/12 | 09/14/12 14:10 | MEL |
| Mercury | ND | mg/kg | 0.085 | EPA 6020A | 09/13/12 | 09/14/12 14:10 | MEL |
| Selenium | ND | mg/kg | 2.1 | EPA 6020A | 09/13/12 | 09/14/12 14:10 | MEL |
| Silver | ND | mg/kg | 2.1 | EPA 6020A | 09/13/12 | 09/14/12 14:10 | MEL |
| **Total Petroleum Hydrocarbons - (C10-C28) DRO** | | | | | | | |
| Diesel Range Organics | **62** | mg/kg | 11 | EPA 8015C | 09/14/12 | 09/15/12 5:51 | AC |
| **Total Petroleum Hydrocarbons - (C28-C40) HRO** | | | | | | | |
| Oil Range Organics | **36** | mg/kg | 11 | EPA 8015C | 09/14/12 | 09/15/12 5:51 | AC |
| **Total Petroleum Hydrocarbons - (C6-C10) GRO** | | | | | | | |
| Gasoline Range Organics | ND | mg/kg | 0.16 | EPA 8015C | 09/19/12 | 09/20/12 22:40 | CBS |

Notes/Qualifiers:
LLQ- Lowest Level of Quantitation
ND - Not Detected at a concentration greater than or equal to the LLQ.
Results reported on a dry weight basis.

Approved by: Matt Osher
QC Chemist



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# Certificate of Analysis

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200 Town Centre Dr., Suite 2
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Date Sampled: 09/10/12 14:30
Date Received: 09/12/12 12:10
Date Issued: 09/25/12

Project: St. Elizabeths East Campus
Site Location: Washington, DC
Project Number: 38677-003

**SDG Number: 12091201**

**Field Sample ID: B102-S1-11'-13'** **Matrix: Soil** **Lab ID: 12091201-10**

| | Result | Unit | LLQ | Method | Prepared | Analyzed | Init. |
|---|---|---|---|---|---|---|---|
| **Percent Solids** | | | | | | | |
| Percent Solids | **90** | % | | SM2540G | 09/18/12 | 09/18/12 9:37 | LMJ |
| **Polychlorinated Biphenyls** | | | | | | | |
| Aroclor 1016 | ND | mg/kg | 0.052 | EPA 8082 | 09/14/12 | 09/17/12 20:24 | AC |
| Aroclor 1221 | ND | mg/kg | 0.052 | EPA 8082 | 09/14/12 | 09/17/12 20:24 | AC |
| Aroclor 1232 | ND | mg/kg | 0.052 | EPA 8082 | 09/14/12 | 09/17/12 20:24 | AC |
| Aroclor 1242 | ND | mg/kg | 0.052 | EPA 8082 | 09/14/12 | 09/17/12 20:24 | AC |
| Aroclor 1248 | ND | mg/kg | 0.052 | EPA 8082 | 09/14/12 | 09/17/12 20:24 | AC |
| Aroclor 1254 | ND | mg/kg | 0.052 | EPA 8082 | 09/14/12 | 09/17/12 20:24 | AC |
| Aroclor 1260 | ND | mg/kg | 0.052 | EPA 8082 | 09/14/12 | 09/17/12 20:24 | AC |
| **Polycyclic Aromatic Hydrocarbons (SIM)** | | | | | | | |
| Acenaphthene | ND | ug/kg | 5 | EPA 8270C | 09/13/12 | 09/18/12 0:05 | JKL |
| Acenaphthylene | ND | ug/kg | 5 | EPA 8270C | 09/13/12 | 09/18/12 0:05 | JKL |
| Anthracene | ND | ug/kg | 5 | EPA 8270C | 09/13/12 | 09/18/12 0:05 | JKL |
| Benzo[a]anthracene | ND | ug/kg | 5 | EPA 8270C | 09/13/12 | 09/18/12 0:05 | JKL |
| Benzo[a]pyrene | ND | ug/kg | 5 | EPA 8270C | 09/13/12 | 09/18/12 0:05 | JKL |
| Benzo[b]fluoranthene | ND | ug/kg | 5 | EPA 8270C | 09/13/12 | 09/18/12 0:05 | JKL |
| Benzo[g,h,i]perylene | ND | ug/kg | 5 | EPA 8270C | 09/13/12 | 09/18/12 0:05 | JKL |
| Benzo[k]fluoranthene | ND | ug/kg | 5 | EPA 8270C | 09/13/12 | 09/18/12 0:05 | JKL |
| Chrysene | ND | ug/kg | 5 | EPA 8270C | 09/13/12 | 09/18/12 0:05 | JKL |
| Dibenz[a,h]anthracene | ND | ug/kg | 5 | EPA 8270C | 09/13/12 | 09/18/12 0:05 | JKL |
| Fluoranthene | ND | ug/kg | 5 | EPA 8270C | 09/13/12 | 09/18/12 0:05 | JKL |
| Fluorene | ND | ug/kg | 5 | EPA 8270C | 09/13/12 | 09/18/12 0:05 | JKL |
| Indeno[1,2,3-cd]pyrene | ND | ug/kg | 5 | EPA 8270C | 09/13/12 | 09/18/12 0:05 | JKL |
| 2-Methylnaphthalene | ND | ug/kg | 5 | EPA 8270C | 09/13/12 | 09/18/12 0:05 | JKL |
| Naphthalene` | ND | ug/kg | 5 | EPA 8270C | 09/13/12 | 09/18/12 0:05 | JKL |
| Phenanthrene | ND | ug/kg | 5 | EPA 8270C | 09/13/12 | 09/18/12 0:05 | JKL |
| Pyrene | ND | ug/kg | 5 | EPA 8270C | 09/13/12 | 09/18/12 0:05 | JKL |
| **Total Metals** | | | | | | | |
| Arsenic | **3.1** | mg/kg | 0.41 | EPA 6020A | 09/13/12 | 09/14/12 14:17 | MEL |
| Barium | **11** | mg/kg | 2 | EPA 6020A | 09/13/12 | 09/14/12 14:17 | MEL |
| Cadmium | ND | mg/kg | 2 | EPA 6020A | 09/13/12 | 09/14/12 14:17 | MEL |
| Chromium | **9.7** | mg/kg | 2 | EPA 6020A | 09/13/12 | 09/14/12 14:17 | MEL |
| Lead | **3.2** | mg/kg | 2 | EPA 6020A | 09/13/12 | 09/14/12 14:17 | MEL |
| Mercury | ND | mg/kg | 0.081 | EPA 6020A | 09/13/12 | 09/14/12 14:17 | MEL |
| Selenium | ND | mg/kg | 2 | EPA 6020A | 09/13/12 | 09/14/12 14:17 | MEL |
| Silver | ND | mg/kg | 2 | EPA 6020A | 09/13/12 | 09/14/12 14:17 | MEL |



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Date Sampled: 09/10/12 14:30
Date Received: 09/12/12 12:10
Date Issued: 09/25/12

Project: St. Elizabeths East Campus
Site Location: Washington, DC
Project Number: 38677-003

**SDG Number: 12091201**

**Field Sample ID: B102-S1-11'-13'** **Matrix: Soil** **Lab ID: 12091201-10**

| | Result | Unit | LLQ | Method | Prepared | Analyzed | Init. |
|---|---|---|---|---|---|---|---|
| **Total Petroleum Hydrocarbons - (C10-C28) DRO** | | | | | | | |
| Diesel Range Organics | ND | mg/kg | 11 | EPA 8015C | 09/14/12 | 09/15/12 6:26 | AC |
| **Total Petroleum Hydrocarbons - (C28-C40) HRO** | | | | | | | |
| Oil Range Organics | ND | mg/kg | 11 | EPA 8015C | 09/14/12 | 09/15/12 6:26 | AC |
| **Total Petroleum Hydrocarbons - (C6-C10) GRO** | | | | | | | |
| Gasoline Range Organics | ND | mg/kg | 0.19 | EPA 8015C | 09/19/12 | 09/20/12 23:04 | CBS |

Notes/Qualifiers:
LLQ- Lowest Level of Quantitation
ND - Not Detected at a concentration greater than or equal to the LLQ.
Results reported on a dry weight basis.

Approved by: Matt Osher
QC Chemist



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Rochester, NY 14623-4264

Date Sampled: 09/10/12 14:30
Date Received: 09/12/12 12:10
Date Issued: 09/25/12

Project: St. Elizabeths East Campus
Site Location: Washington, DC
Project Number: 38677-003

**SDG Number: 12091201**

**Field Sample ID: B102-S2-5'-6.5'** **Matrix: Soil** **Lab ID: 12091201-11**

| | Result | Unit | LLQ | Method | Prepared | Analyzed | Init. |
|---|---|---|---|---|---|---|---|
| **Percent Solids** | | | | | | | |
| Percent Solids | **94** | % | | SM2540G | 09/18/12 | 09/18/12 9:37 | LMJ |
| **Polychlorinated Biphenyls** | | | | | | | |
| Aroclor 1016 | ND | mg/kg | 0.053 | EPA 8082 | 09/14/12 | 09/17/12 20:53 | AC |
| Aroclor 1221 | ND | mg/kg | 0.053 | EPA 8082 | 09/14/12 | 09/17/12 20:53 | AC |
| Aroclor 1232 | ND | mg/kg | 0.053 | EPA 8082 | 09/14/12 | 09/17/12 20:53 | AC |
| Aroclor 1242 | ND | mg/kg | 0.053 | EPA 8082 | 09/14/12 | 09/17/12 20:53 | AC |
| Aroclor 1248 | ND | mg/kg | 0.053 | EPA 8082 | 09/14/12 | 09/17/12 20:53 | AC |
| Aroclor 1254 | ND | mg/kg | 0.053 | EPA 8082 | 09/14/12 | 09/17/12 20:53 | AC |
| Aroclor 1260 | ND | mg/kg | 0.053 | EPA 8082 | 09/14/12 | 09/17/12 20:53 | AC |
| **Polycyclic Aromatic Hydrocarbons (SIM)** | | | | | | | |
| Acenaphthene | ND | ug/kg | 5 | EPA 8270C | 09/13/12 | 09/18/12 1:41 | JKL |
| Acenaphthylene | ND | ug/kg | 5 | EPA 8270C | 09/13/12 | 09/18/12 1:41 | JKL |
| Anthracene | ND | ug/kg | 5 | EPA 8270C | 09/13/12 | 09/18/12 1:41 | JKL |
| Benzo[a]anthracene | **8** | ug/kg | 5 | EPA 8270C | 09/13/12 | 09/18/12 1:41 | JKL |
| Benzo[a]pyrene | **10** | ug/kg | 5 | EPA 8270C | 09/13/12 | 09/18/12 1:41 | JKL |
| Benzo[b]fluoranthene | **16** | ug/kg | 5 | EPA 8270C | 09/13/12 | 09/18/12 1:41 | JKL |
| Benzo[g,h,i]perylene | **5** | ug/kg | 5 | EPA 8270C | 09/13/12 | 09/18/12 1:41 | JKL |
| Benzo[k]fluoranthene | **6** | ug/kg | 5 | EPA 8270C | 09/13/12 | 09/18/12 1:41 | JKL |
| Chrysene | **7** | ug/kg | 5 | EPA 8270C | 09/13/12 | 09/18/12 1:41 | JKL |
| Dibenz[a,h]anthracene | ND | ug/kg | 5 | EPA 8270C | 09/13/12 | 09/18/12 1:41 | JKL |
| Fluoranthene | **14** | ug/kg | 5 | EPA 8270C | 09/13/12 | 09/18/12 1:41 | JKL |
| Fluorene | ND | ug/kg | 5 | EPA 8270C | 09/13/12 | 09/18/12 1:41 | JKL |
| Indeno[1,2,3-cd]pyrene | ND | ug/kg | 5 | EPA 8270C | 09/13/12 | 09/18/12 1:41 | JKL |
| 2-Methylnaphthalene | ND | ug/kg | 5 | EPA 8270C | 09/13/12 | 09/18/12 1:41 | JKL |
| Naphthalene` | ND | ug/kg | 5 | EPA 8270C | 09/13/12 | 09/18/12 1:41 | JKL |
| Phenanthrene | **7** | ug/kg | 5 | EPA 8270C | 09/13/12 | 09/18/12 1:41 | JKL |
| Pyrene | **12** | ug/kg | 5 | EPA 8270C | 09/13/12 | 09/18/12 1:41 | JKL |
| **Total Metals** | | | | | | | |
| Arsenic | **4.1** | mg/kg | 0.48 | EPA 6020A | 09/13/12 | 09/14/12 14:23 | MEL |
| Barium | **35** | mg/kg | 2.4 | EPA 6020A | 09/13/12 | 09/14/12 14:23 | MEL |
| Cadmium | ND | mg/kg | 2.4 | EPA 6020A | 09/13/12 | 09/14/12 14:23 | MEL |
| Chromium | **15** | mg/kg | 2.4 | EPA 6020A | 09/13/12 | 09/14/12 14:23 | MEL |
| Lead | **12** | mg/kg | 2.4 | EPA 6020A | 09/13/12 | 09/14/12 14:23 | MEL |
| Mercury | ND | mg/kg | 0.095 | EPA 6020A | 09/13/12 | 09/14/12 14:23 | MEL |
| Selenium | ND | mg/kg | 2.4 | EPA 6020A | 09/13/12 | 09/14/12 14:23 | MEL |
| Silver | ND | mg/kg | 2.4 | EPA 6020A | 09/13/12 | 09/14/12 14:23 | MEL |



8851 Orchard Tree Lane Towson, Maryland 21286
tel: 410.825.1151 fax: 410.825.2126 www.caslabs.net

# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

Haley & Aldrich, Inc
200 Town Centre Dr., Suite 2
Rochester, NY 14623-4264

Date Sampled: 09/10/12 14:30
Date Received: 09/12/12 12:10
Date Issued: 09/25/12

Project: St. Elizabeths East Campus
Site Location: Washington, DC
Project Number: 38677-003

**SDG Number: 12091201**

**Field Sample ID: B102-S2-5'-6.5'** **Matrix: Soil** **Lab ID: 12091201-11**

| | Result | Unit | LLQ | Method | Prepared | Analyzed | Init. |
|---|---|---|---|---|---|---|---|
| **Total Petroleum Hydrocarbons - (C10-C28) DRO** | | | | | | | |
| Diesel Range Organics | ND | mg/kg | 11 | EPA 8015C | 09/14/12 | 09/15/12 7:00 | AC |
| **Total Petroleum Hydrocarbons - (C28-C40) HRO** | | | | | | | |
| Oil Range Organics | ND | mg/kg | 11 | EPA 8015C | 09/14/12 | 09/15/12 7:00 | AC |
| **Total Petroleum Hydrocarbons - (C6-C10) GRO** | | | | | | | |
| Gasoline Range Organics | ND | mg/kg | 0.17 | EPA 8015C | 09/19/12 | 09/20/12 23:29 | CBS |

Notes/Qualifiers:
LLQ- Lowest Level of Quantitation
ND - Not Detected at a concentration greater than or equal to the LLQ.
Results reported on a dry weight basis.

Approved by:

QC Chemist



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# Certificate of Analysis

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200 Town Centre Dr., Suite 2
Rochester, NY 14623-4264

Date Sampled: 09/10/12 15:26
Date Received: 09/12/12 12:10
Date Issued: 09/25/12

Project: St. Elizabeths East Campus
Site Location: Washington, DC
Project Number: 38677-003

**SDG Number: 12091201**

**Field Sample ID: B101-S1-8'-10'** **Matrix: Soil** **Lab ID: 12091201-12**

| | Result | Unit | LLQ | Method | Prepared | Analyzed | Init. |
|---|---|---|---|---|---|---|---|
| **Percent Solids** | | | | | | | |
| Percent Solids | **84** | % | | SM2540G | 09/18/12 | 09/18/12 9:37 | LMJ |
| **Polychlorinated Biphenyls** | | | | | | | |
| Aroclor 1016 | ND | mg/kg | 1.5 | EPA 8082 | 09/20/12 | 09/20/12 15:05 | AC |
| Aroclor 1221 | ND | mg/kg | 1.5 | EPA 8082 | 09/20/12 | 09/20/12 15:05 | AC |
| Aroclor 1232 | ND | mg/kg | 1.5 | EPA 8082 | 09/20/12 | 09/20/12 15:05 | AC |
| Aroclor 1242 | ND | mg/kg | 1.5 | EPA 8082 | 09/20/12 | 09/20/12 15:05 | AC |
| Aroclor 1248 | ND | mg/kg | 1.5 | EPA 8082 | 09/20/12 | 09/20/12 15:05 | AC |
| Aroclor 1254 | ND | mg/kg | 1.5 | EPA 8082 | 09/20/12 | 09/20/12 15:05 | AC |
| Aroclor 1260 | ND | mg/kg | 1.5 | EPA 8082 | 09/20/12 | 09/20/12 15:05 | AC |
| **Polycyclic Aromatic Hydrocarbons (SIM)** | | | | | | | |
| Acenaphthene | **510** | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/18/12 2:18 | JKL |
| Acenaphthylene | **57** | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/18/12 2:18 | JKL |
| Anthracene | **1,300** | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/18/12 2:18 | JKL |
| Benzo[a]anthracene | **2,000** | ug/kg | 62 | EPA 8270C | 09/13/12 | 09/18/12 11:00 | JKL |
| Benzo[a]pyrene | **2,500** | ug/kg | 62 | EPA 8270C | 09/13/12 | 09/18/12 11:00 | JKL |
| Benzo[b]fluoranthene | **3,400** | ug/kg | 62 | EPA 8270C | 09/13/12 | 09/18/12 11:00 | JKL |
| Benzo[g,h,i]perylene | **1,500** | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/18/12 2:18 | JKL |
| Benzo[k]fluoranthene | **1,500** | ug/kg | 62 | EPA 8270C | 09/13/12 | 09/18/12 11:00 | JKL |
| Chrysene | **1,800** | ug/kg | 62 | EPA 8270C | 09/13/12 | 09/18/12 11:00 | JKL |
| Dibenz[a,h]anthracene | **440** | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/18/12 2:18 | JKL |
| Fluoranthene | **4,000** | ug/kg | 62 | EPA 8270C | 09/13/12 | 09/18/12 11:00 | JKL |
| Fluorene | **690** | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/18/12 2:18 | JKL |
| Indeno[1,2,3-cd]pyrene | **1,400** | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/18/12 2:18 | JKL |
| 2-Methylnaphthalene | **130** | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/18/12 2:18 | JKL |
| Naphthalene` | **160** | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/18/12 2:18 | JKL |
| Phenanthrene | **3,300** | ug/kg | 62 | EPA 8270C | 09/13/12 | 09/18/12 11:00 | JKL |
| Pyrene | **3,400** | ug/kg | 62 | EPA 8270C | 09/13/12 | 09/18/12 11:00 | JKL |
| **Target Compound List - VOLATILES** | | | | | | | |
| Dichlorodifluoromethane | ND | ug/kg | 6 | EPA 8260B | 09/18/12 | 09/18/12 16:48 | JKL |
| Chloromethane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 16:48 | JKL |
| Vinyl chloride | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 16:48 | JKL |
| Bromomethane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 16:48 | JKL |
| Chloroethane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 16:48 | JKL |
| Trichlorofluoromethane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 16:48 | JKL |
| 1,1-Dichloroethene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 16:48 | JKL |
| 1,1,2-Trichlorotrifluoroethane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 16:48 | JKL |
| Acetone | ND | ug/kg | 220 | EPA 8260B | 09/18/12 | 09/18/12 16:48 | JKL |
| Carbon disulfide | ND | ug/kg | 11 | EPA 8260B | 09/18/12 | 09/18/12 16:48 | JKL |



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Date Sampled: 09/10/12 15:26
Date Received: 09/12/12 12:10
Date Issued: 09/25/12

Project: St. Elizabeths East Campus
Site Location: Washington, DC
Project Number: 38677-003

**SDG Number: 12091201**

**Field Sample ID: B101-S1-8'-10'** **Matrix: Soil** **Lab ID: 12091201-12**

| | Result | Unit | LLQ | Method | Prepared | Analyzed | Init. |
|---|---|---|---|---|---|---|---|
| **Target Compound List - VOLATILES** | | | | | | | |
| Methyl acetate | ND | ug/kg | 27 | EPA 8260B | 09/18/12 | 09/18/12 16:48 | JKL |
| Methylene chloride | ND | ug/kg | 27 | EPA 8260B | 09/18/12 | 09/18/12 16:48 | JKL |
| trans-1,2-Dichloroethene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 16:48 | JKL |
| Methyl t-butyl ether (MTBE) | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 16:48 | JKL |
| 1,1-Dichloroethane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 16:48 | JKL |
| cis-1,2-Dichloroethene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 16:48 | JKL |
| 2-Butanone (MEK) | ND | ug/kg | 54 | EPA 8260B | 09/18/12 | 09/18/12 16:48 | JKL |
| Chloroform | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 16:48 | JKL |
| 1,1,1-Trichloroethane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 16:48 | JKL |
| Cyclohexane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 16:48 | JKL |
| Carbon tetrachloride | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 16:48 | JKL |
| Benzene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 16:48 | JKL |
| 1,2-Dichloroethane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 16:48 | JKL |
| Trichloroethene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 16:48 | JKL |
| Methylcyclohexane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 16:48 | JKL |
| 1,2-Dichloropropane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 16:48 | JKL |
| Bromodichloromethane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 16:48 | JKL |
| cis-1,3-Dichloropropene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 16:48 | JKL |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/kg | 11 | EPA 8260B | 09/18/12 | 09/18/12 16:48 | JKL |
| Toluene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 16:48 | JKL |
| trans-1,3-Dichloropropene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 16:48 | JKL |
| 1,1,2-Trichloroethane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 16:48 | JKL |
| Tetrachloroethene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 16:48 | JKL |
| 2-Hexanone (MBK) | ND | ug/kg | 11 | EPA 8260B | 09/18/12 | 09/18/12 16:48 | JKL |
| Dibromochloromethane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 16:48 | JKL |
| 1,2-Dibromoethane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 16:48 | JKL |
| Chlorobenzene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 16:48 | JKL |
| Ethylbenzene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 16:48 | JKL |
| m&p-Xylene | ND | ug/kg | 11 | EPA 8260B | 09/18/12 | 09/18/12 16:48 | JKL |
| o-Xylene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 16:48 | JKL |
| Styrene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 16:48 | JKL |
| Bromoform | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 16:48 | JKL |
| Isopropylbenzene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 16:48 | JKL |
| 1,1,2,2-Tetrachloroethane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 16:48 | JKL |
| 1,3-Dichlorobenzene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 16:48 | JKL |
| 1,4-Dichlorobenzene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 16:48 | JKL |
| 1,2-Dichlorobenzene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 16:48 | JKL |
| 1,2-Dibromo-3-chloropropane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 16:48 | JKL |



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Date Sampled: 09/10/12 15:26
Date Received: 09/12/12 12:10
Date Issued: 09/25/12

Project: St. Elizabeths East Campus
Site Location: Washington, DC
Project Number: 38677-003

**SDG Number: 12091201**

**Field Sample ID: B101-S1-8'-10'** **Matrix: Soil** **Lab ID: 12091201-12**

| | Result | Unit | LLQ | Method | Prepared | Analyzed | Init. |
|---|---|---|---|---|---|---|---|
| **Target Compound List - VOLATILES** | | | | | | | |
| 1,2,4-Trichlorobenzene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 16:48 | JKL |
| Naphthalene | ND | ug/kg | 11 | EPA 8260B | 09/18/12 | 09/18/12 16:48 | JKL |
| Ethyl t-butyl ether (ETBE) | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 16:48 | JKL |
| tert-Butanol (TBA) | ND | ug/kg | 27 | EPA 8260B | 09/18/12 | 09/18/12 16:48 | JKL |
| Diisopropyl ether (DIPE) | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 16:48 | JKL |
| tert-Amyl methyl ether (TAME) | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 16:48 | JKL |
| tert-Amyl alcohol (TAA) | ND | ug/kg | 27 | EPA 8260B | 09/18/12 | 09/18/12 16:48 | JKL |
| tert-Amyl ethyl ether (TAEE) | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 16:48 | JKL |
| **Total Metals** | | | | | | | |
| Arsenic | **5.5** | mg/kg | 0.47 | EPA 6020A | 09/13/12 | 09/14/12 14:41 | MEL |
| Barium | **170** | mg/kg | 2.4 | EPA 6020A | 09/13/12 | 09/14/12 14:41 | MEL |
| Cadmium | ND | mg/kg | 2.4 | EPA 6020A | 09/13/12 | 09/14/12 14:41 | MEL |
| Chromium | **15** | mg/kg | 2.4 | EPA 6020A | 09/13/12 | 09/14/12 14:41 | MEL |
| Lead | **230** | mg/kg | 2.4 | EPA 6020A | 09/13/12 | 09/14/12 14:41 | MEL |
| Mercury | **2.6** | mg/kg | 0.095 | EPA 6020A | 09/13/12 | 09/14/12 14:41 | MEL |
| Selenium | ND | mg/kg | 2.4 | EPA 6020A | 09/13/12 | 09/14/12 14:41 | MEL |
| Silver | ND | mg/kg | 2.4 | EPA 6020A | 09/13/12 | 09/14/12 14:41 | MEL |
| **Total Petroleum Hydrocarbons - (C10-C28) DRO** | | | | | | | |
| Diesel Range Organics | **260** | mg/kg | 12 | EPA 8015C | 09/14/12 | 09/15/12 7:35 | AC |
| **Total Petroleum Hydrocarbons - (C28-C40) HRO** | | | | | | | |
| Oil Range Organics | **26** | mg/kg | 12 | EPA 8015C | 09/14/12 | 09/15/12 7:35 | AC |
| **Total Petroleum Hydrocarbons - (C6-C10) GRO** | | | | | | | |
| Gasoline Range Organics | **0.81** | mg/kg | 0.21 | EPA 8015C | 09/19/12 | 09/20/12 23:53 | CBS |

Notes/Qualifiers:
LLQ- Lowest Level of Quantitation
ND - Not Detected at a concentration greater than or equal to the LLQ.
Results reported on a dry weight basis.

Approved by:

QC Chemist



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Date Sampled: 09/10/12 15:26
Date Received: 09/12/12 12:10
Date Issued: 09/25/12

Project: St. Elizabeths East Campus
Site Location: Washington, DC
Project Number: 38677-003

**SDG Number: 12091201**

**Field Sample ID: B101-S2-13'-15'** **Matrix: Soil** **Lab ID: 12091201-13**

| | Result | Unit | LLQ | Method | Prepared | Analyzed | Init. |
|---|---|---|---|---|---|---|---|
| **Percent Solids** | | | | | | | |
| Percent Solids | **79** | % | | SM2540G | 09/18/12 | 09/18/12 9:37 | LMJ |
| **Polychlorinated Biphenyls** | | | | | | | |
| Aroclor 1016 | ND | mg/kg | 0.063 | EPA 8082 | 09/14/12 | 09/17/12 21:51 | AC |
| Aroclor 1221 | ND | mg/kg | 0.063 | EPA 8082 | 09/14/12 | 09/17/12 21:51 | AC |
| Aroclor 1232 | ND | mg/kg | 0.063 | EPA 8082 | 09/14/12 | 09/17/12 21:51 | AC |
| Aroclor 1242 | ND | mg/kg | 0.063 | EPA 8082 | 09/14/12 | 09/17/12 21:51 | AC |
| Aroclor 1248 | ND | mg/kg | 0.063 | EPA 8082 | 09/14/12 | 09/17/12 21:51 | AC |
| Aroclor 1254 | ND | mg/kg | 0.063 | EPA 8082 | 09/14/12 | 09/17/12 21:51 | AC |
| Aroclor 1260 | **7.8** | mg/kg | 0.063 | EPA 8082 | 09/14/12 | 09/17/12 21:51 | AC |
| **Polycyclic Aromatic Hydrocarbons (SIM)** | | | | | | | |
| Acenaphthene | ND | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/18/12 2:53 | JKL |
| Acenaphthylene | ND | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/18/12 2:53 | JKL |
| Anthracene | **6** | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/18/12 2:53 | JKL |
| Benzo[a]anthracene | **22** | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/18/12 2:53 | JKL |
| Benzo[a]pyrene | **20** | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/18/12 2:53 | JKL |
| Benzo[b]fluoranthene | **41** | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/18/12 2:53 | JKL |
| Benzo[g,h,i]perylene | **14** | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/18/12 2:53 | JKL |
| Benzo[k]fluoranthene | **11** | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/18/12 2:53 | JKL |
| Chrysene | **20** | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/18/12 2:53 | JKL |
| Dibenz[a,h]anthracene | ND | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/18/12 2:53 | JKL |
| Fluoranthene | **60** | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/18/12 2:53 | JKL |
| Fluorene | ND | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/18/12 2:53 | JKL |
| Indeno[1,2,3-cd]pyrene | **11** | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/18/12 2:53 | JKL |
| 2-Methylnaphthalene | **110** | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/18/12 2:53 | JKL |
| Naphthalene` | **31** | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/18/12 2:53 | JKL |
| Phenanthrene | **150** | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/18/12 2:53 | JKL |
| Pyrene | **50** | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/18/12 2:53 | JKL |
| **Target Compound List - VOLATILES** | | | | | | | |
| Dichlorodifluoromethane | ND | ug/kg | 7 | EPA 8260B | 09/18/12 | 09/18/12 17:46 | JKL |
| Chloromethane | ND | ug/kg | 7 | EPA 8260B | 09/18/12 | 09/18/12 17:46 | JKL |
| Vinyl chloride | ND | ug/kg | 7 | EPA 8260B | 09/18/12 | 09/18/12 17:46 | JKL |
| Bromomethane | ND | ug/kg | 7 | EPA 8260B | 09/18/12 | 09/18/12 17:46 | JKL |
| Chloroethane | ND | ug/kg | 7 | EPA 8260B | 09/18/12 | 09/18/12 17:46 | JKL |
| Trichlorofluoromethane | ND | ug/kg | 7 | EPA 8260B | 09/18/12 | 09/18/12 17:46 | JKL |
| 1,1-Dichloroethene | ND | ug/kg | 7 | EPA 8260B | 09/18/12 | 09/18/12 17:46 | JKL |
| 1,1,2-Trichlorotrifluoroethane | ND | ug/kg | 7 | EPA 8260B | 09/18/12 | 09/18/12 17:46 | JKL |
| Acetone | ND | ug/kg | 79 | EPA 8260B | 09/18/12 | 09/18/12 17:46 | JKL |
| Carbon disulfide | ND | ug/kg | 13 | EPA 8260B | 09/18/12 | 09/18/12 17:46 | JKL |



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200 Town Centre Dr., Suite 2
Rochester, NY 14623-4264

Date Sampled: 09/10/12 15:26
Date Received: 09/12/12 12:10
Date Issued: 09/25/12

Project: St. Elizabeths East Campus
Site Location: Washington, DC
Project Number: 38677-003

**SDG Number: 12091201**

**Field Sample ID: B101-S2-13'-15'** **Matrix: Soil** **Lab ID: 12091201-13**

| | Result | Unit | LLQ | Method | Prepared | Analyzed | Init. |
|---|---|---|---|---|---|---|---|
| **Target Compound List - VOLATILES** | | | | | | | |
| Methyl acetate | ND | ug/kg | 33 | EPA 8260B | 09/18/12 | 09/18/12 17:46 | JKL |
| Methylene chloride | ND | ug/kg | 33 | EPA 8260B | 09/18/12 | 09/18/12 17:46 | JKL |
| trans-1,2-Dichloroethene | ND | ug/kg | 7 | EPA 8260B | 09/18/12 | 09/18/12 17:46 | JKL |
| Methyl t-butyl ether (MTBE) | ND | ug/kg | 7 | EPA 8260B | 09/18/12 | 09/18/12 17:46 | JKL |
| 1,1-Dichloroethane | ND | ug/kg | 7 | EPA 8260B | 09/18/12 | 09/18/12 17:46 | JKL |
| cis-1,2-Dichloroethene | ND | ug/kg | 7 | EPA 8260B | 09/18/12 | 09/18/12 17:46 | JKL |
| 2-Butanone (MEK) | ND | ug/kg | 66 | EPA 8260B | 09/18/12 | 09/18/12 17:46 | JKL |
| Chloroform | ND | ug/kg | 7 | EPA 8260B | 09/18/12 | 09/18/12 17:46 | JKL |
| 1,1,1-Trichloroethane | ND | ug/kg | 7 | EPA 8260B | 09/18/12 | 09/18/12 17:46 | JKL |
| Cyclohexane | ND | ug/kg | 7 | EPA 8260B | 09/18/12 | 09/18/12 17:46 | JKL |
| Carbon tetrachloride | ND | ug/kg | 7 | EPA 8260B | 09/18/12 | 09/18/12 17:46 | JKL |
| Benzene | ND | ug/kg | 7 | EPA 8260B | 09/18/12 | 09/18/12 17:46 | JKL |
| 1,2-Dichloroethane | ND | ug/kg | 7 | EPA 8260B | 09/18/12 | 09/18/12 17:46 | JKL |
| Trichloroethene | ND | ug/kg | 7 | EPA 8260B | 09/18/12 | 09/18/12 17:46 | JKL |
| Methylcyclohexane | ND | ug/kg | 7 | EPA 8260B | 09/18/12 | 09/18/12 17:46 | JKL |
| 1,2-Dichloropropane | ND | ug/kg | 7 | EPA 8260B | 09/18/12 | 09/18/12 17:46 | JKL |
| Bromodichloromethane | ND | ug/kg | 7 | EPA 8260B | 09/18/12 | 09/18/12 17:46 | JKL |
| cis-1,3-Dichloropropene | ND | ug/kg | 7 | EPA 8260B | 09/18/12 | 09/18/12 17:46 | JKL |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/kg | 13 | EPA 8260B | 09/18/12 | 09/18/12 17:46 | JKL |
| Toluene | ND | ug/kg | 7 | EPA 8260B | 09/18/12 | 09/18/12 17:46 | JKL |
| trans-1,3-Dichloropropene | ND | ug/kg | 7 | EPA 8260B | 09/18/12 | 09/18/12 17:46 | JKL |
| 1,1,2-Trichloroethane | ND | ug/kg | 7 | EPA 8260B | 09/18/12 | 09/18/12 17:46 | JKL |
| Tetrachloroethene | ND | ug/kg | 7 | EPA 8260B | 09/18/12 | 09/18/12 17:46 | JKL |
| 2-Hexanone (MBK) | ND | ug/kg | 13 | EPA 8260B | 09/18/12 | 09/18/12 17:46 | JKL |
| Dibromochloromethane | ND | ug/kg | 7 | EPA 8260B | 09/18/12 | 09/18/12 17:46 | JKL |
| 1,2-Dibromoethane | ND | ug/kg | 7 | EPA 8260B | 09/18/12 | 09/18/12 17:46 | JKL |
| Chlorobenzene | ND | ug/kg | 7 | EPA 8260B | 09/18/12 | 09/18/12 17:46 | JKL |
| Ethylbenzene | ND | ug/kg | 7 | EPA 8260B | 09/18/12 | 09/18/12 17:46 | JKL |
| m&p-Xylene | ND | ug/kg | 13 | EPA 8260B | 09/18/12 | 09/18/12 17:46 | JKL |
| o-Xylene | ND | ug/kg | 7 | EPA 8260B | 09/18/12 | 09/18/12 17:46 | JKL |
| Styrene | ND | ug/kg | 7 | EPA 8260B | 09/18/12 | 09/18/12 17:46 | JKL |
| Bromoform | ND | ug/kg | 7 | EPA 8260B | 09/18/12 | 09/18/12 17:46 | JKL |
| Isopropylbenzene | ND | ug/kg | 7 | EPA 8260B | 09/18/12 | 09/18/12 17:46 | JKL |
| 1,1,2,2-Tetrachloroethane | ND | ug/kg | 7 | EPA 8260B | 09/18/12 | 09/18/12 17:46 | JKL |
| 1,3-Dichlorobenzene | ND | ug/kg | 7 | EPA 8260B | 09/18/12 | 09/18/12 17:46 | JKL |
| 1,4-Dichlorobenzene | ND | ug/kg | 7 | EPA 8260B | 09/18/12 | 09/18/12 17:46 | JKL |
| 1,2-Dichlorobenzene | ND | ug/kg | 7 | EPA 8260B | 09/18/12 | 09/18/12 17:46 | JKL |
| 1,2-Dibromo-3-chloropropane | ND | ug/kg | 7 | EPA 8260B | 09/18/12 | 09/18/12 17:46 | JKL |



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Date Sampled: 09/10/12 15:26
Date Received: 09/12/12 12:10
Date Issued: 09/25/12

Project: St. Elizabeths East Campus
Site Location: Washington, DC
Project Number: 38677-003

**SDG Number: 12091201**

**Field Sample ID: B101-S2-13'-15'** **Matrix: Soil** **Lab ID: 12091201-13**

| | Result | Unit | LLQ | Method | Prepared | Analyzed | Init. |
|---|---|---|---|---|---|---|---|
| **Target Compound List - VOLATILES** | | | | | | | |
| 1,2,4-Trichlorobenzene | ND | ug/kg | 7 | EPA 8260B | 09/18/12 | 09/18/12 17:46 | JKL |
| Naphthalene | ND | ug/kg | 13 | EPA 8260B | 09/18/12 | 09/18/12 17:46 | JKL |
| Ethyl t-butyl ether (ETBE) | ND | ug/kg | 7 | EPA 8260B | 09/18/12 | 09/18/12 17:46 | JKL |
| tert-Butanol (TBA) | ND | ug/kg | 33 | EPA 8260B | 09/18/12 | 09/18/12 17:46 | JKL |
| Diisopropyl ether (DIPE) | ND | ug/kg | 7 | EPA 8260B | 09/18/12 | 09/18/12 17:46 | JKL |
| tert-Amyl methyl ether (TAME) | ND | ug/kg | 7 | EPA 8260B | 09/18/12 | 09/18/12 17:46 | JKL |
| tert-Amyl alcohol (TAA) | ND | ug/kg | 33 | EPA 8260B | 09/18/12 | 09/18/12 17:46 | JKL |
| tert-Amyl ethyl ether (TAEE) | ND | ug/kg | 7 | EPA 8260B | 09/18/12 | 09/18/12 17:46 | JKL |
| **Total Metals** | | | | | | | |
| Arsenic | **3.6** | mg/kg | 0.6 | EPA 6020A | 09/13/12 | 09/14/12 14:48 | MEL |
| Barium | **50** | mg/kg | 3 | EPA 6020A | 09/13/12 | 09/14/12 14:48 | MEL |
| Cadmium | ND | mg/kg | 3 | EPA 6020A | 09/13/12 | 09/14/12 14:48 | MEL |
| Chromium | **20** | mg/kg | 3 | EPA 6020A | 09/13/12 | 09/14/12 14:48 | MEL |
| Lead | **22** | mg/kg | 3 | EPA 6020A | 09/13/12 | 09/14/12 14:48 | MEL |
| Mercury | ND | mg/kg | 0.12 | EPA 6020A | 09/13/12 | 09/14/12 14:48 | MEL |
| Selenium | ND | mg/kg | 3 | EPA 6020A | 09/13/12 | 09/14/12 14:48 | MEL |
| Silver | ND | mg/kg | 3 | EPA 6020A | 09/13/12 | 09/14/12 14:48 | MEL |
| **Total Petroleum Hydrocarbons - (C10-C28) DRO** | | | | | | | |
| Diesel Range Organics | **440** | mg/kg | 12 | EPA 8015C | 09/15/12 | 09/15/12 11:01 | AC |
| **Total Petroleum Hydrocarbons - (C28-C40) HRO** | | | | | | | |
| Oil Range Organics | **45** | mg/kg | 12 | EPA 8015C | 09/15/12 | 09/15/12 11:01 | AC |
| **Total Petroleum Hydrocarbons - (C6-C10) GRO** | | | | | | | |
| Gasoline Range Organics | **1.6** | mg/kg | 0.25 | EPA 8015C | 09/19/12 | 09/21/12 0:18 | CBS |

Notes/Qualifiers:
LLQ- Lowest Level of Quantitation
ND - Not Detected at a concentration greater than or equal to the LLQ.
Results reported on a dry weight basis.

Approved by: Matt Osher
QC Chemist



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# CALIBER ANALYTICAL SERVICES

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Date Sampled: 09/10/12 16:20
Date Received: 09/12/12 12:10
Date Issued: 09/25/12

Project: St. Elizabeths East Campus
Site Location: Washington, DC
Project Number: 38677-003

**SDG Number: 12091201**

**Field Sample ID: B120-S1-5'-7'** **Matrix: Soil** **Lab ID: 12091201-14**

| | Result | Unit | LLQ | Method | Prepared | Analyzed | Init. |
|---|---|---|---|---|---|---|---|
| **Percent Solids** | | | | | | | |
| Percent Solids | **84** | % | | SM2540G | 09/18/12 | 09/18/12 9:37 | LMJ |
| **Total Petroleum Hydrocarbons - (C10-C28) DRO** | | | | | | | |
| Diesel Range Organics | ND | mg/kg | 12 | EPA 8015C | 09/14/12 | 09/15/12 11:36 | AC |
| **Total Petroleum Hydrocarbons - (C28-C40) HRO** | | | | | | | |
| Oil Range Organics | ND | mg/kg | 12 | EPA 8015C | 09/14/12 | 09/15/12 11:36 | AC |
| **Total Petroleum Hydrocarbons - (C6-C10) GRO** | | | | | | | |
| Gasoline Range Organics | **0.26** | mg/kg | 0.19 | EPA 8015C | 09/19/12 | 09/21/12 0:42 | CBS |
| **Volatile Organic Compounds** | | | | | | | |
| Benzene | ND | ug/kg | 4 | EPA 8260B | 09/18/12 | 09/18/12 18:14 | JKL |
| Toluene | ND | ug/kg | 4 | EPA 8260B | 09/18/12 | 09/18/12 18:14 | JKL |
| Ethylbenzene | ND | ug/kg | 4 | EPA 8260B | 09/18/12 | 09/18/12 18:14 | JKL |
| m&p-Xylene | ND | ug/kg | 8 | EPA 8260B | 09/18/12 | 09/18/12 18:14 | JKL |
| o-Xylene | ND | ug/kg | 4 | EPA 8260B | 09/18/12 | 09/18/12 18:14 | JKL |
| Naphthalene | ND | ug/kg | 8 | EPA 8260B | 09/18/12 | 09/18/12 18:14 | JKL |

Notes/Qualifiers:
LLQ- Lowest Level of Quantitation
ND - Not Detected at a concentration greater than or equal to the LLQ.
Results reported on a dry weight basis.

Approved by: 
QC Chemist



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Date Sampled: 09/11/12 8:19
Date Received: 09/12/12 12:10
Date Issued: 09/25/12

Project: St. Elizabeths East Campus
Site Location: Washington, DC
Project Number: 38677-003

**SDG Number: 12091201**

**Field Sample ID: B126-S1-18'-20'** **Matrix: Soil** **Lab ID: 12091201-15**

| | Result | Unit | LLQ | Method | Prepared | Analyzed | Init. |
|---|---|---|---|---|---|---|---|
| **Percent Solids** | | | | | | | |
| Percent Solids | **95** | % | | SM2540G | 09/18/12 | 09/18/12 9:37 | LMJ |
| **Total Petroleum Hydrocarbons - (C10-C28) DRO** | | | | | | | |
| Diesel Range Organics | ND | mg/kg | 10 | EPA 8015C | 09/14/12 | 09/15/12 12:10 | AC |
| **Total Petroleum Hydrocarbons - (C28-C40) HRO** | | | | | | | |
| Oil Range Organics | ND | mg/kg | 10 | EPA 8015C | 09/14/12 | 09/15/12 12:10 | AC |
| **Total Petroleum Hydrocarbons - (C6-C10) GRO** | | | | | | | |
| Gasoline Range Organics | ND | mg/kg | 0.15 | EPA 8015C | 09/19/12 | 09/21/12 9:22 | CBS |
| **Volatile Organic Compounds** | | | | | | | |
| Benzene | ND | ug/kg | 3 | EPA 8260B | 09/18/12 | 09/18/12 18:43 | JKL |
| Toluene | ND | ug/kg | 3 | EPA 8260B | 09/18/12 | 09/18/12 18:43 | JKL |
| Ethylbenzene | ND | ug/kg | 3 | EPA 8260B | 09/18/12 | 09/18/12 18:43 | JKL |
| m&p-Xylene | ND | ug/kg | 6 | EPA 8260B | 09/18/12 | 09/18/12 18:43 | JKL |
| o-Xylene | ND | ug/kg | 3 | EPA 8260B | 09/18/12 | 09/18/12 18:43 | JKL |
| Naphthalene | ND | ug/kg | 6 | EPA 8260B | 09/18/12 | 09/18/12 18:43 | JKL |

Notes/Qualifiers:
LLQ- Lowest Level of Quantitation
ND - Not Detected at a concentration greater than or equal to the LLQ.
Results reported on a dry weight basis.

Approved by: Matt Ocker
QC Chemist



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# CALIBER ANALYTICAL SERVICES

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Date Sampled: 09/11/12 8:55
Date Received: 09/12/12 12:10
Date Issued: 09/25/12

Project: St. Elizabeths East Campus
Site Location: Washington, DC
Project Number: 38677-003

**SDG Number: 12091201**

**Field Sample ID: B111-S1-10'-12'** **Matrix: Soil** **Lab ID: 12091201-16**

| | Result | Unit | LLQ | Method | Prepared | Analyzed | Init. |
|---|---|---|---|---|---|---|---|
| **Percent Solids** | | | | | | | |
| Percent Solids | **94** | % | | SM2540G | 09/18/12 | 09/18/12 9:37 | LMJ |
| **Polychlorinated Biphenyls** | | | | | | | |
| Aroclor 1016 | ND | mg/kg | 0.052 | EPA 8082 | 09/14/12 | 09/17/12 22:19 | AC |
| Aroclor 1221 | ND | mg/kg | 0.052 | EPA 8082 | 09/14/12 | 09/17/12 22:19 | AC |
| Aroclor 1232 | ND | mg/kg | 0.052 | EPA 8082 | 09/14/12 | 09/17/12 22:19 | AC |
| Aroclor 1242 | ND | mg/kg | 0.052 | EPA 8082 | 09/14/12 | 09/17/12 22:19 | AC |
| Aroclor 1248 | ND | mg/kg | 0.052 | EPA 8082 | 09/14/12 | 09/17/12 22:19 | AC |
| Aroclor 1254 | ND | mg/kg | 0.052 | EPA 8082 | 09/14/12 | 09/17/12 22:19 | AC |
| Aroclor 1260 | ND | mg/kg | 0.052 | EPA 8082 | 09/14/12 | 09/17/12 22:19 | AC |
| **Total Petroleum Hydrocarbons - (C10-C28) DRO** | | | | | | | |
| Diesel Range Organics | **170** | mg/kg | 110 | EPA 8015C | 09/14/12 | 09/15/12 12:45 | AC |
| **Total Petroleum Hydrocarbons - (C28-C40) HRO** | | | | | | | |
| Oil Range Organics | **170** | mg/kg | 110 | EPA 8015C | 09/14/12 | 09/15/12 12:45 | AC |
| **Total Petroleum Hydrocarbons - (C6-C10) GRO** | | | | | | | |
| Gasoline Range Organics | ND | mg/kg | 0.18 | EPA 8015C | 09/19/12 | 09/21/12 11:27 | CBS |
| **Volatile Organic Compounds** | | | | | | | |
| Benzene | ND | ug/kg | 6 | EPA 8260B | 09/18/12 | 09/18/12 19:11 | JKL |
| Toluene | ND | ug/kg | 6 | EPA 8260B | 09/18/12 | 09/18/12 19:11 | JKL |
| Ethylbenzene | ND | ug/kg | 6 | EPA 8260B | 09/18/12 | 09/18/12 19:11 | JKL |
| m&p-Xylene | ND | ug/kg | 11 | EPA 8260B | 09/18/12 | 09/18/12 19:11 | JKL |
| o-Xylene | ND | ug/kg | 6 | EPA 8260B | 09/18/12 | 09/18/12 19:11 | JKL |
| Naphthalene | ND | ug/kg | 11 | EPA 8260B | 09/18/12 | 09/18/12 19:11 | JKL |

Notes/Qualifiers:
LLQ- Lowest Level of Quantitation
ND - Not Detected at a concentration greater than or equal to the LLQ.
Results reported on a dry weight basis.

Approved by:

QC Chemist



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# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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200 Town Centre Dr., Suite 2
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Date Sampled: 09/11/12 8:55
Date Received: 09/12/12 12:10
Date Issued: 09/25/12

Project: St. Elizabeths East Campus
Site Location: Washington, DC
Project Number: 38677-003

**SDG Number: 12091201**

**Field Sample ID: B111-S2-1'-3'** **Matrix: Soil** **Lab ID: 12091201-17**

| | Result | Unit | LLQ | Method | Prepared | Analyzed | Init. |
|---|---|---|---|---|---|---|---|
| **Percent Solids** | | | | | | | |
| Percent Solids | **90** | % | | SM2540G | 09/18/12 | 09/18/12 9:37 | LMJ |
| **Polychlorinated Biphenyls** | | | | | | | |
| Aroclor 1016 | ND | mg/kg | 0.055 | EPA 8082 | 09/14/12 | 09/17/12 22:48 | AC |
| Aroclor 1221 | ND | mg/kg | 0.055 | EPA 8082 | 09/14/12 | 09/17/12 22:48 | AC |
| Aroclor 1232 | ND | mg/kg | 0.055 | EPA 8082 | 09/14/12 | 09/17/12 22:48 | AC |
| Aroclor 1242 | ND | mg/kg | 0.055 | EPA 8082 | 09/14/12 | 09/17/12 22:48 | AC |
| Aroclor 1248 | ND | mg/kg | 0.055 | EPA 8082 | 09/14/12 | 09/17/12 22:48 | AC |
| Aroclor 1254 | ND | mg/kg | 0.055 | EPA 8082 | 09/14/12 | 09/17/12 22:48 | AC |
| Aroclor 1260 | ND | mg/kg | 0.055 | EPA 8082 | 09/14/12 | 09/17/12 22:48 | AC |
| **Total Petroleum Hydrocarbons - (C10-C28) DRO** | | | | | | | |
| Diesel Range Organics | ND | mg/kg | 11 | EPA 8015C | 09/14/12 | 09/15/12 13:19 | AC |
| **Total Petroleum Hydrocarbons - (C28-C40) HRO** | | | | | | | |
| Oil Range Organics | ND | mg/kg | 11 | EPA 8015C | 09/14/12 | 09/15/12 13:19 | AC |
| **Total Petroleum Hydrocarbons - (C6-C10) GRO** | | | | | | | |
| Gasoline Range Organics | ND | mg/kg | 0.18 | EPA 8015C | 09/19/12 | 09/21/12 11:51 | CBS |
| **Volatile Organic Compounds** | | | | | | | |
| Benzene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 19:39 | JKL |
| Toluene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 19:39 | JKL |
| Ethylbenzene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 19:39 | JKL |
| m&p-Xylene | ND | ug/kg | 10 | EPA 8260B | 09/18/12 | 09/18/12 19:39 | JKL |
| o-Xylene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 19:39 | JKL |
| Naphthalene | ND | ug/kg | 10 | EPA 8260B | 09/18/12 | 09/18/12 19:39 | JKL |

Notes/Qualifiers:
LLQ- Lowest Level of Quantitation
ND - Not Detected at a concentration greater than or equal to the LLQ.
Results reported on a dry weight basis.

Approved by:

QC Chemist



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# Certificate of Analysis

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200 Town Centre Dr., Suite 2
Rochester, NY 14623-4264

Date Sampled: 09/11/12 9:53
Date Received: 09/12/12 12:10
Date Issued: 09/25/12

Project: St. Elizabeths East Campus
Site Location: Washington, DC
Project Number: 38677-003

**SDG Number: 12091201**

**Field Sample ID: B125-S1-1'-3'** **Matrix: Soil** **Lab ID: 12091201-18**

| | Result | Unit | LLQ | Method | Prepared | Analyzed | Init. |
|---|---|---|---|---|---|---|---|
| **Percent Solids** | | | | | | | |
| Percent Solids | **83** | % | | SM2540G | 09/18/12 | 09/18/12 9:37 | LMJ |
| **Polychlorinated Biphenyls** | | | | | | | |
| Aroclor 1016 | ND | mg/kg | 0.058 | EPA 8082 | 09/14/12 | 09/17/12 23:17 | AC |
| Aroclor 1221 | ND | mg/kg | 0.058 | EPA 8082 | 09/14/12 | 09/17/12 23:17 | AC |
| Aroclor 1232 | ND | mg/kg | 0.058 | EPA 8082 | 09/14/12 | 09/17/12 23:17 | AC |
| Aroclor 1242 | ND | mg/kg | 0.058 | EPA 8082 | 09/14/12 | 09/17/12 23:17 | AC |
| Aroclor 1248 | ND | mg/kg | 0.058 | EPA 8082 | 09/14/12 | 09/17/12 23:17 | AC |
| Aroclor 1254 | ND | mg/kg | 0.058 | EPA 8082 | 09/14/12 | 09/17/12 23:17 | AC |
| Aroclor 1260 | ND | mg/kg | 0.058 | EPA 8082 | 09/14/12 | 09/17/12 23:17 | AC |
| **Polycyclic Aromatic Hydrocarbons (SIM)** | | | | | | | |
| Acenaphthene | ND | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/18/12 3:29 | JKL |
| Acenaphthylene | ND | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/18/12 3:29 | JKL |
| Anthracene | ND | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/18/12 3:29 | JKL |
| Benzo[a]anthracene | ND | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/18/12 3:29 | JKL |
| Benzo[a]pyrene | ND | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/18/12 3:29 | JKL |
| Benzo[b]fluoranthene | **8** | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/18/12 3:29 | JKL |
| Benzo[g,h,i]perylene | ND | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/18/12 3:29 | JKL |
| Benzo[k]fluoranthene | ND | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/18/12 3:29 | JKL |
| Chrysene | ND | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/18/12 3:29 | JKL |
| Dibenz[a,h]anthracene | ND | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/18/12 3:29 | JKL |
| Fluoranthene | **8** | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/18/12 3:29 | JKL |
| Fluorene | ND | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/18/12 3:29 | JKL |
| Indeno[1,2,3-cd]pyrene | ND | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/18/12 3:29 | JKL |
| 2-Methylnaphthalene | ND | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/18/12 3:29 | JKL |
| Naphthalene` | ND | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/18/12 3:29 | JKL |
| Phenanthrene | **11** | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/18/12 3:29 | JKL |
| Pyrene | **7** | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/18/12 3:29 | JKL |
| **Target Compound List - VOLATILES** | | | | | | | |
| Dichlorodifluoromethane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 20:08 | JKL |
| Chloromethane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 20:08 | JKL |
| Vinyl chloride | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 20:08 | JKL |
| Bromomethane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 20:08 | JKL |
| Chloroethane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 20:08 | JKL |
| Trichlorofluoromethane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 20:08 | JKL |
| 1,1-Dichloroethene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 20:08 | JKL |
| 1,1,2-Trichlorotrifluoroethane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 20:08 | JKL |
| Acetone | ND | ug/kg | 47 | EPA 8260B | 09/18/12 | 09/18/12 20:08 | JKL |
| Carbon disulfide | ND | ug/kg | 9 | EPA 8260B | 09/18/12 | 09/18/12 20:08 | JKL |



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# Certificate of Analysis

Haley & Aldrich, Inc
200 Town Centre Dr., Suite 2
Rochester, NY 14623-4264

Date Sampled: 09/11/12 9:53
Date Received: 09/12/12 12:10
Date Issued: 09/25/12

Project: St. Elizabeths East Campus
Site Location: Washington, DC
Project Number: 38677-003

**SDG Number: 12091201**

**Field Sample ID: B125-S1-1'-3'** **Matrix: Soil** **Lab ID: 12091201-18**

| | Result | Unit | LLQ | Method | Prepared | Analyzed | Init. |
|---|---|---|---|---|---|---|---|
| **Target Compound List - VOLATILES** | | | | | | | |
| Methyl acetate | ND | ug/kg | 24 | EPA 8260B | 09/18/12 | 09/18/12 20:08 | JKL |
| Methylene chloride | ND | ug/kg | 24 | EPA 8260B | 09/18/12 | 09/18/12 20:08 | JKL |
| trans-1,2-Dichloroethene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 20:08 | JKL |
| Methyl t-butyl ether (MTBE) | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 20:08 | JKL |
| 1,1-Dichloroethane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 20:08 | JKL |
| cis-1,2-Dichloroethene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 20:08 | JKL |
| 2-Butanone (MEK) | ND | ug/kg | 47 | EPA 8260B | 09/18/12 | 09/18/12 20:08 | JKL |
| Chloroform | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 20:08 | JKL |
| 1,1,1-Trichloroethane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 20:08 | JKL |
| Cyclohexane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 20:08 | JKL |
| Carbon tetrachloride | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 20:08 | JKL |
| Benzene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 20:08 | JKL |
| 1,2-Dichloroethane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 20:08 | JKL |
| Trichloroethene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 20:08 | JKL |
| Methylcyclohexane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 20:08 | JKL |
| 1,2-Dichloropropane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 20:08 | JKL |
| Bromodichloromethane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 20:08 | JKL |
| cis-1,3-Dichloropropene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 20:08 | JKL |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/kg | 9 | EPA 8260B | 09/18/12 | 09/18/12 20:08 | JKL |
| Toluene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 20:08 | JKL |
| trans-1,3-Dichloropropene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 20:08 | JKL |
| 1,1,2-Trichloroethane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 20:08 | JKL |
| Tetrachloroethene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 20:08 | JKL |
| 2-Hexanone (MBK) | ND | ug/kg | 9 | EPA 8260B | 09/18/12 | 09/18/12 20:08 | JKL |
| Dibromochloromethane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 20:08 | JKL |
| 1,2-Dibromoethane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 20:08 | JKL |
| Chlorobenzene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 20:08 | JKL |
| Ethylbenzene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 20:08 | JKL |
| m&p-Xylene | ND | ug/kg | 9 | EPA 8260B | 09/18/12 | 09/18/12 20:08 | JKL |
| o-Xylene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 20:08 | JKL |
| Styrene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 20:08 | JKL |
| Bromoform | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 20:08 | JKL |
| Isopropylbenzene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 20:08 | JKL |
| 1,1,2,2-Tetrachloroethane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 20:08 | JKL |
| 1,3-Dichlorobenzene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 20:08 | JKL |
| 1,4-Dichlorobenzene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 20:08 | JKL |
| 1,2-Dichlorobenzene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 20:08 | JKL |
| 1,2-Dibromo-3-chloropropane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 20:08 | JKL |



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200 Town Centre Dr., Suite 2
Rochester, NY 14623-4264

Date Sampled: 09/11/12 9:53
Date Received: 09/12/12 12:10
Date Issued: 09/25/12

Project: St. Elizabeths East Campus
Site Location: Washington, DC
Project Number: 38677-003

**SDG Number: 12091201**

**Field Sample ID: B125-S1-1'-3'** **Matrix: Soil** **Lab ID: 12091201-18**

| | Result | Unit | LLQ | Method | Prepared | Analyzed | Init. |
|---|---|---|---|---|---|---|---|
| **Target Compound List - VOLATILES** | | | | | | | |
| 1,2,4-Trichlorobenzene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 20:08 | JKL |
| Naphthalene | ND | ug/kg | 9 | EPA 8260B | 09/18/12 | 09/18/12 20:08 | JKL |
| Ethyl t-butyl ether (ETBE) | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 20:08 | JKL |
| tert-Butanol (TBA) | ND | ug/kg | 24 | EPA 8260B | 09/18/12 | 09/18/12 20:08 | JKL |
| Diisopropyl ether (DIPE) | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 20:08 | JKL |
| tert-Amyl methyl ether (TAME) | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 20:08 | JKL |
| tert-Amyl alcohol (TAA) | ND | ug/kg | 24 | EPA 8260B | 09/18/12 | 09/18/12 20:08 | JKL |
| tert-Amyl ethyl ether (TAEE) | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 20:08 | JKL |
| **Total Metals** | | | | | | | |
| Arsenic | **2.9** | mg/kg | 0.31 | EPA 6020A | 09/13/12 | 09/14/12 14:54 | MEL |
| Barium | **63** | mg/kg | 1.6 | EPA 6020A | 09/13/12 | 09/14/12 14:54 | MEL |
| Cadmium | ND | mg/kg | 1.6 | EPA 6020A | 09/13/12 | 09/14/12 14:54 | MEL |
| Chromium | **17** | mg/kg | 1.6 | EPA 6020A | 09/13/12 | 09/14/12 14:54 | MEL |
| Lead | **16** | mg/kg | 1.6 | EPA 6020A | 09/13/12 | 09/14/12 14:54 | MEL |
| Mercury | **0.18** | mg/kg | 0.063 | EPA 6020A | 09/13/12 | 09/14/12 14:54 | MEL |
| Selenium | ND | mg/kg | 1.6 | EPA 6020A | 09/13/12 | 09/14/12 14:54 | MEL |
| Silver | ND | mg/kg | 1.6 | EPA 6020A | 09/13/12 | 09/14/12 14:54 | MEL |
| **Total Petroleum Hydrocarbons - (C10-C28) DRO** | | | | | | | |
| Diesel Range Organics | ND | mg/kg | 12 | EPA 8015C | 09/14/12 | 09/15/12 13:54 | AC |
| **Total Petroleum Hydrocarbons - (C28-C40) HRO** | | | | | | | |
| Oil Range Organics | ND | mg/kg | 12 | EPA 8015C | 09/14/12 | 09/15/12 13:54 | AC |
| **Total Petroleum Hydrocarbons - (C6-C10) GRO** | | | | | | | |
| Gasoline Range Organics | ND | mg/kg | 0.17 | EPA 8015C | 09/19/12 | 09/21/12 12:16 | CBS |

Notes/Qualifiers:
LLQ- Lowest Level of Quantitation
ND - Not Detected at a concentration greater than or equal to the LLQ.
Results reported on a dry weight basis.

Approved by: Matt Osher
QC Chemist



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Date Sampled: 09/11/12 9:53
Date Received: 09/12/12 12:10
Date Issued: 09/25/12

Project: St. Elizabeths East Campus
Site Location: Washington, DC
Project Number: 38677-003

**SDG Number: 12091201**

**Field Sample ID: B125-S2-8'-10'** **Matrix: Soil** **Lab ID: 12091201-19**

| | Result | Unit | LLQ | Method | Prepared | Analyzed | Init. |
|---|---|---|---|---|---|---|---|
| **Percent Solids** | | | | | | | |
| Percent Solids | **87** | % | | SM2540G | 09/18/12 | 09/18/12 9:37 | LMJ |
| **Polychlorinated Biphenyls** | | | | | | | |
| Aroclor 1016 | ND | mg/kg | 0.053 | EPA 8082 | 09/14/12 | 09/17/12 23:46 | AC |
| Aroclor 1221 | ND | mg/kg | 0.053 | EPA 8082 | 09/14/12 | 09/17/12 23:46 | AC |
| Aroclor 1232 | ND | mg/kg | 0.053 | EPA 8082 | 09/14/12 | 09/17/12 23:46 | AC |
| Aroclor 1242 | ND | mg/kg | 0.053 | EPA 8082 | 09/14/12 | 09/17/12 23:46 | AC |
| Aroclor 1248 | ND | mg/kg | 0.053 | EPA 8082 | 09/14/12 | 09/17/12 23:46 | AC |
| Aroclor 1254 | ND | mg/kg | 0.053 | EPA 8082 | 09/14/12 | 09/17/12 23:46 | AC |
| Aroclor 1260 | ND | mg/kg | 0.053 | EPA 8082 | 09/14/12 | 09/17/12 23:46 | AC |
| **Polycyclic Aromatic Hydrocarbons (SIM)** | | | | | | | |
| Acenaphthene | ND | ug/kg | 5 | EPA 8270C | 09/13/12 | 09/18/12 4:05 | JKL |
| Acenaphthylene | ND | ug/kg | 5 | EPA 8270C | 09/13/12 | 09/18/12 4:05 | JKL |
| Anthracene | ND | ug/kg | 5 | EPA 8270C | 09/13/12 | 09/18/12 4:05 | JKL |
| Benzo[a]anthracene | ND | ug/kg | 5 | EPA 8270C | 09/13/12 | 09/18/12 4:05 | JKL |
| Benzo[a]pyrene | ND | ug/kg | 5 | EPA 8270C | 09/13/12 | 09/18/12 4:05 | JKL |
| Benzo[b]fluoranthene | **8** | ug/kg | 5 | EPA 8270C | 09/13/12 | 09/18/12 4:05 | JKL |
| Benzo[g,h,i]perylene | ND | ug/kg | 5 | EPA 8270C | 09/13/12 | 09/18/12 4:05 | JKL |
| Benzo[k]fluoranthene | ND | ug/kg | 5 | EPA 8270C | 09/13/12 | 09/18/12 4:05 | JKL |
| Chrysene | ND | ug/kg | 5 | EPA 8270C | 09/13/12 | 09/18/12 4:05 | JKL |
| Dibenz[a,h]anthracene | ND | ug/kg | 5 | EPA 8270C | 09/13/12 | 09/18/12 4:05 | JKL |
| Fluoranthene | **8** | ug/kg | 5 | EPA 8270C | 09/13/12 | 09/18/12 4:05 | JKL |
| Fluorene | ND | ug/kg | 5 | EPA 8270C | 09/13/12 | 09/18/12 4:05 | JKL |
| Indeno[1,2,3-cd]pyrene | ND | ug/kg | 5 | EPA 8270C | 09/13/12 | 09/18/12 4:05 | JKL |
| 2-Methylnaphthalene | ND | ug/kg | 5 | EPA 8270C | 09/13/12 | 09/18/12 4:05 | JKL |
| Naphthalene` | ND | ug/kg | 5 | EPA 8270C | 09/13/12 | 09/18/12 4:05 | JKL |
| Phenanthrene | **5** | ug/kg | 5 | EPA 8270C | 09/13/12 | 09/18/12 4:05 | JKL |
| Pyrene | **7** | ug/kg | 5 | EPA 8270C | 09/13/12 | 09/18/12 4:05 | JKL |
| **Target Compound List - VOLATILES** | | | | | | | |
| Dichlorodifluoromethane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 20:37 | JKL |
| Chloromethane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 20:37 | JKL |
| Vinyl chloride | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 20:37 | JKL |
| Bromomethane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 20:37 | JKL |
| Chloroethane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 20:37 | JKL |
| Trichlorofluoromethane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 20:37 | JKL |
| 1,1-Dichloroethene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 20:37 | JKL |
| 1,1,2-Trichlorotrifluoroethane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 20:37 | JKL |
| Acetone | ND | ug/kg | 54 | EPA 8260B | 09/18/12 | 09/18/12 20:37 | JKL |
| Carbon disulfide | ND | ug/kg | 11 | EPA 8260B | 09/18/12 | 09/18/12 20:37 | JKL |



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Date Sampled: 09/11/12 9:53
Date Received: 09/12/12 12:10
Date Issued: 09/25/12

Project: St. Elizabeths East Campus
Site Location: Washington, DC
Project Number: 38677-003

**SDG Number: 12091201**

**Field Sample ID: B125-S2-8'-10'** **Matrix: Soil** **Lab ID: 12091201-19**

| | Result | Unit | LLQ | Method | Prepared | Analyzed | Init. |
|---|---|---|---|---|---|---|---|
| **Target Compound List - VOLATILES** | | | | | | | |
| Methyl acetate | ND | ug/kg | 27 | EPA 8260B | 09/18/12 | 09/18/12 20:37 | JKL |
| Methylene chloride | ND | ug/kg | 27 | EPA 8260B | 09/18/12 | 09/18/12 20:37 | JKL |
| trans-1,2-Dichloroethene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 20:37 | JKL |
| Methyl t-butyl ether (MTBE) | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 20:37 | JKL |
| 1,1-Dichloroethane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 20:37 | JKL |
| cis-1,2-Dichloroethene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 20:37 | JKL |
| 2-Butanone (MEK) | ND | ug/kg | 54 | EPA 8260B | 09/18/12 | 09/18/12 20:37 | JKL |
| Chloroform | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 20:37 | JKL |
| 1,1,1-Trichloroethane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 20:37 | JKL |
| Cyclohexane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 20:37 | JKL |
| Carbon tetrachloride | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 20:37 | JKL |
| Benzene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 20:37 | JKL |
| 1,2-Dichloroethane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 20:37 | JKL |
| Trichloroethene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 20:37 | JKL |
| Methylcyclohexane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 20:37 | JKL |
| 1,2-Dichloropropane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 20:37 | JKL |
| Bromodichloromethane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 20:37 | JKL |
| cis-1,3-Dichloropropene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 20:37 | JKL |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/kg | 11 | EPA 8260B | 09/18/12 | 09/18/12 20:37 | JKL |
| Toluene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 20:37 | JKL |
| trans-1,3-Dichloropropene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 20:37 | JKL |
| 1,1,2-Trichloroethane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 20:37 | JKL |
| Tetrachloroethene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 20:37 | JKL |
| 2-Hexanone (MBK) | ND | ug/kg | 11 | EPA 8260B | 09/18/12 | 09/18/12 20:37 | JKL |
| Dibromochloromethane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 20:37 | JKL |
| 1,2-Dibromoethane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 20:37 | JKL |
| Chlorobenzene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 20:37 | JKL |
| Ethylbenzene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 20:37 | JKL |
| m&p-Xylene | ND | ug/kg | 11 | EPA 8260B | 09/18/12 | 09/18/12 20:37 | JKL |
| o-Xylene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 20:37 | JKL |
| Styrene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 20:37 | JKL |
| Bromoform | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 20:37 | JKL |
| Isopropylbenzene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 20:37 | JKL |
| 1,1,2,2-Tetrachloroethane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 20:37 | JKL |
| 1,3-Dichlorobenzene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 20:37 | JKL |
| 1,4-Dichlorobenzene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 20:37 | JKL |
| 1,2-Dichlorobenzene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 20:37 | JKL |
| 1,2-Dibromo-3-chloropropane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 20:37 | JKL |



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# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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200 Town Centre Dr., Suite 2
Rochester, NY 14623-4264

Date Sampled: 09/11/12 9:53
Date Received: 09/12/12 12:10
Date Issued: 09/25/12

Project: St. Elizabeths East Campus
Site Location: Washington, DC
Project Number: 38677-003

**SDG Number: 12091201**

**Field Sample ID: B125-S2-8'-10'** **Matrix: Soil** **Lab ID: 12091201-19**

| | Result | Unit | LLQ | Method | Prepared | Analyzed | Init. |
|---|---|---|---|---|---|---|---|
| **Target Compound List - VOLATILES** | | | | | | | |
| 1,2,4-Trichlorobenzene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 20:37 | JKL |
| Naphthalene | ND | ug/kg | 11 | EPA 8260B | 09/18/12 | 09/18/12 20:37 | JKL |
| Ethyl t-butyl ether (ETBE) | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 20:37 | JKL |
| tert-Butanol (TBA) | ND | ug/kg | 27 | EPA 8260B | 09/18/12 | 09/18/12 20:37 | JKL |
| Diisopropyl ether (DIPE) | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 20:37 | JKL |
| tert-Amyl methyl ether (TAME) | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 20:37 | JKL |
| tert-Amyl alcohol (TAA) | ND | ug/kg | 27 | EPA 8260B | 09/18/12 | 09/18/12 20:37 | JKL |
| tert-Amyl ethyl ether (TAEE) | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 20:37 | JKL |
| **Total Metals** | | | | | | | |
| Arsenic | **2.8** | mg/kg | 0.54 | EPA 6020A | 09/13/12 | 09/14/12 15:00 | MEL |
| Barium | **16** | mg/kg | 2.7 | EPA 6020A | 09/13/12 | 09/14/12 15:00 | MEL |
| Cadmium | ND | mg/kg | 2.7 | EPA 6020A | 09/13/12 | 09/14/12 15:00 | MEL |
| Chromium | **14** | mg/kg | 2.7 | EPA 6020A | 09/13/12 | 09/14/12 15:00 | MEL |
| Lead | **7.7** | mg/kg | 2.7 | EPA 6020A | 09/13/12 | 09/14/12 15:00 | MEL |
| Mercury | ND | mg/kg | 0.11 | EPA 6020A | 09/13/12 | 09/14/12 15:00 | MEL |
| Selenium | ND | mg/kg | 2.7 | EPA 6020A | 09/13/12 | 09/14/12 15:00 | MEL |
| Silver | ND | mg/kg | 2.7 | EPA 6020A | 09/13/12 | 09/14/12 15:00 | MEL |
| **Total Petroleum Hydrocarbons - (C10-C28) DRO** | | | | | | | |
| Diesel Range Organics | ND | mg/kg | 11 | EPA 8015C | 09/14/12 | 09/15/12 14:28 | AC |
| **Total Petroleum Hydrocarbons - (C28-C40) HRO** | | | | | | | |
| Oil Range Organics | ND | mg/kg | 11 | EPA 8015C | 09/14/12 | 09/15/12 14:28 | AC |
| **Total Petroleum Hydrocarbons - (C6-C10) GRO** | | | | | | | |
| Gasoline Range Organics | ND | mg/kg | 0.19 | EPA 8015C | 09/19/12 | 09/21/12 12:40 | CBS |

Notes/Qualifiers:
LLQ- Lowest Level of Quantitation
ND - Not Detected at a concentration greater than or equal to the LLQ.
Results reported on a dry weight basis.

Approved by: Matt Osher
QC Chemist



8851 Orchard Tree Lane Towson, Maryland 21286
tel: 410.825.1151 fax: 410.825.2126 www.caslabs.net

# Certificate of Analysis

Haley & Aldrich, Inc
200 Town Centre Dr., Suite 2
Rochester, NY 14623-4264

Date Sampled: 09/11/12 11:04
Date Received: 09/12/12 12:10
Date Issued: 09/25/12

Project: St. Elizabeths East Campus
Site Location: Washington, DC
Project Number: 38677-003

**SDG Number: 12091201**

**Field Sample ID: B103-S1-0.5'-1.5'** **Matrix: Soil** **Lab ID: 12091201-20**

| | Result | Unit | LLQ | Method | Prepared | Analyzed | Init. |
|---|---|---|---|---|---|---|---|
| **Percent Solids** | | | | | | | |
| Percent Solids | **85** | % | | SM2540G | 09/18/12 | 09/18/12 9:37 | LMJ |
| **Target Compound List - VOLATILES** | | | | | | | |
| Dichlorodifluoromethane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 21:05 | JKL |
| Chloromethane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 21:05 | JKL |
| Vinyl chloride | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 21:05 | JKL |
| Bromomethane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 21:05 | JKL |
| Chloroethane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 21:05 | JKL |
| Trichlorofluoromethane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 21:05 | JKL |
| 1,1-Dichloroethene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 21:05 | JKL |
| 1,1,2-Trichlorotrifluoroethane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 21:05 | JKL |
| Acetone | ND | ug/kg | 51 | EPA 8260B | 09/18/12 | 09/18/12 21:05 | JKL |
| Carbon disulfide | ND | ug/kg | 10 | EPA 8260B | 09/18/12 | 09/18/12 21:05 | JKL |
| Methyl acetate | ND | ug/kg | 26 | EPA 8260B | 09/18/12 | 09/18/12 21:05 | JKL |
| Methylene chloride | ND | ug/kg | 26 | EPA 8260B | 09/18/12 | 09/18/12 21:05 | JKL |
| trans-1,2-Dichloroethene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 21:05 | JKL |
| Methyl t-butyl ether (MTBE) | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 21:05 | JKL |
| 1,1-Dichloroethane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 21:05 | JKL |
| cis-1,2-Dichloroethene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 21:05 | JKL |
| 2-Butanone (MEK) | ND | ug/kg | 51 | EPA 8260B | 09/18/12 | 09/18/12 21:05 | JKL |
| Chloroform | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 21:05 | JKL |
| 1,1,1-Trichloroethane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 21:05 | JKL |
| Cyclohexane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 21:05 | JKL |
| Carbon tetrachloride | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 21:05 | JKL |
| Benzene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 21:05 | JKL |
| 1,2-Dichloroethane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 21:05 | JKL |
| Trichloroethene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 21:05 | JKL |
| Methylcyclohexane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 21:05 | JKL |
| 1,2-Dichloropropane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 21:05 | JKL |
| Bromodichloromethane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 21:05 | JKL |
| cis-1,3-Dichloropropene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 21:05 | JKL |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/kg | 10 | EPA 8260B | 09/18/12 | 09/18/12 21:05 | JKL |
| Toluene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 21:05 | JKL |
| trans-1,3-Dichloropropene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 21:05 | JKL |
| 1,1,2-Trichloroethane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 21:05 | JKL |
| Tetrachloroethene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 21:05 | JKL |
| 2-Hexanone (MBK) | ND | ug/kg | 10 | EPA 8260B | 09/18/12 | 09/18/12 21:05 | JKL |
| Dibromochloromethane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 21:05 | JKL |
| 1,2-Dibromoethane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 21:05 | JKL |



8851 Orchard Tree Lane Towson, Maryland 21286
tel: 410.825.1151 fax: 410.825.2126 www.caslabs.net

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200 Town Centre Dr., Suite 2
Rochester, NY 14623-4264

Date Sampled: 09/11/12 11:04
Date Received: 09/12/12 12:10
Date Issued: 09/25/12

Project: St. Elizabeths East Campus
Site Location: Washington, DC
Project Number: 38677-003

**SDG Number: 12091201**

**Field Sample ID: B103-S1-0.5'-1.5'** **Matrix: Soil** **Lab ID: 12091201-20**

| | Result | Unit | LLQ | Method | Prepared | Analyzed | Init. |
|---|---|---|---|---|---|---|---|
| **Target Compound List - VOLATILES** | | | | | | | |
| Chlorobenzene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 21:05 | JKL |
| Ethylbenzene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 21:05 | JKL |
| m&p-Xylene | ND | ug/kg | 10 | EPA 8260B | 09/18/12 | 09/18/12 21:05 | JKL |
| o-Xylene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 21:05 | JKL |
| Styrene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 21:05 | JKL |
| Bromoform | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 21:05 | JKL |
| Isopropylbenzene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 21:05 | JKL |
| 1,1,2,2-Tetrachloroethane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 21:05 | JKL |
| 1,3-Dichlorobenzene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 21:05 | JKL |
| 1,4-Dichlorobenzene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 21:05 | JKL |
| 1,2-Dichlorobenzene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 21:05 | JKL |
| 1,2-Dibromo-3-chloropropane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 21:05 | JKL |
| 1,2,4-Trichlorobenzene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 21:05 | JKL |
| Naphthalene | ND | ug/kg | 10 | EPA 8260B | 09/18/12 | 09/18/12 21:05 | JKL |
| Ethyl t-butyl ether (ETBE) | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 21:05 | JKL |
| tert-Butanol (TBA) | ND | ug/kg | 26 | EPA 8260B | 09/18/12 | 09/18/12 21:05 | JKL |
| Diisopropyl ether (DIPE) | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 21:05 | JKL |
| tert-Amyl methyl ether (TAME) | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 21:05 | JKL |
| tert-Amyl alcohol (TAA) | ND | ug/kg | 26 | EPA 8260B | 09/18/12 | 09/18/12 21:05 | JKL |
| tert-Amyl ethyl ether (TAEE) | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 21:05 | JKL |
| **Total Petroleum Hydrocarbons - (C10-C28) DRO** | | | | | | | |
| Diesel Range Organics | ND | mg/kg | 12 | EPA 8015C | 09/14/12 | 09/15/12 15:03 | AC |
| **Total Petroleum Hydrocarbons - (C28-C40) HRO** | | | | | | | |
| Oil Range Organics | ND | mg/kg | 12 | EPA 8015C | 09/14/12 | 09/15/12 15:03 | AC |
| **Total Petroleum Hydrocarbons - (C6-C10) GRO** | | | | | | | |
| Gasoline Range Organics | ND | mg/kg | 0.23 | EPA 8015C | 09/19/12 | 09/21/12 13:04 | CBS |

Notes/Qualifiers:
LLQ- Lowest Level of Quantitation
ND - Not Detected at a concentration greater than or equal to the LLQ.
Results reported on a dry weight basis.

Approved by:

QC Chemist



8851 Orchard Tree Lane Towson, Maryland 21286
tel: 410.825.1151 fax: 410.825.2126 www.caslabs.net

# Certificate of Analysis

Haley & Aldrich, Inc
200 Town Centre Dr., Suite 2
Rochester, NY 14623-4264

Date Sampled: 09/11/12 11:04
Date Received: 09/12/12 12:10
Date Issued: 09/25/12

Project: St. Elizabeths East Campus
Site Location: Washington, DC
Project Number: 38677-003

**SDG Number: 12091201**

**Field Sample ID: B103-S2-5'-7'** **Matrix: Soil** **Lab ID: 12091201-21**

| | Result | Unit | LLQ | Method | Prepared | Analyzed | Init. |
|---|---|---|---|---|---|---|---|
| **Percent Solids** | | | | | | | |
| Percent Solids | **84** | % | | SM2540G | 09/18/12 | 09/18/12 9:37 | LMJ |
| **Target Compound List - VOLATILES** | | | | | | | |
| Dichlorodifluoromethane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 21:34 | JKL |
| Chloromethane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 21:34 | JKL |
| Vinyl chloride | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 21:34 | JKL |
| Bromomethane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 21:34 | JKL |
| Chloroethane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 21:34 | JKL |
| Trichlorofluoromethane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 21:34 | JKL |
| 1,1-Dichloroethene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 21:34 | JKL |
| 1,1,2-Trichlorotrifluoroethane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 21:34 | JKL |
| Acetone | ND | ug/kg | 55 | EPA 8260B | 09/18/12 | 09/18/12 21:34 | JKL |
| Carbon disulfide | ND | ug/kg | 9 | EPA 8260B | 09/18/12 | 09/18/12 21:34 | JKL |
| Methyl acetate | ND | ug/kg | 23 | EPA 8260B | 09/18/12 | 09/18/12 21:34 | JKL |
| Methylene chloride | ND | ug/kg | 23 | EPA 8260B | 09/18/12 | 09/18/12 21:34 | JKL |
| trans-1,2-Dichloroethene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 21:34 | JKL |
| Methyl t-butyl ether (MTBE) | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 21:34 | JKL |
| 1,1-Dichloroethane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 21:34 | JKL |
| cis-1,2-Dichloroethene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 21:34 | JKL |
| 2-Butanone (MEK) | ND | ug/kg | 46 | EPA 8260B | 09/18/12 | 09/18/12 21:34 | JKL |
| Chloroform | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 21:34 | JKL |
| 1,1,1-Trichloroethane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 21:34 | JKL |
| Cyclohexane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 21:34 | JKL |
| Carbon tetrachloride | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 21:34 | JKL |
| Benzene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 21:34 | JKL |
| 1,2-Dichloroethane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 21:34 | JKL |
| Trichloroethene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 21:34 | JKL |
| Methylcyclohexane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 21:34 | JKL |
| 1,2-Dichloropropane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 21:34 | JKL |
| Bromodichloromethane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 21:34 | JKL |
| cis-1,3-Dichloropropene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 21:34 | JKL |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/kg | 9 | EPA 8260B | 09/18/12 | 09/18/12 21:34 | JKL |
| Toluene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 21:34 | JKL |
| trans-1,3-Dichloropropene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 21:34 | JKL |
| 1,1,2-Trichloroethane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 21:34 | JKL |
| Tetrachloroethene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 21:34 | JKL |
| 2-Hexanone (MBK) | ND | ug/kg | 9 | EPA 8260B | 09/18/12 | 09/18/12 21:34 | JKL |
| Dibromochloromethane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 21:34 | JKL |
| 1,2-Dibromoethane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 21:34 | JKL |



8851 Orchard Tree Lane Towson, Maryland 21286
tel: 410.825.1151 fax: 410.825.2126 www.caslabs.net

# Certificate of Analysis

Haley & Aldrich, Inc
200 Town Centre Dr., Suite 2
Rochester, NY 14623-4264

Date Sampled: 09/11/12 11:04
Date Received: 09/12/12 12:10
Date Issued: 09/25/12

Project: St. Elizabeths East Campus
Site Location: Washington, DC
Project Number: 38677-003

**SDG Number: 12091201**

**Field Sample ID: B103-S2-5'-7'** **Matrix: Soil** **Lab ID: 12091201-21**

| | Result | Unit | LLQ | Method | Prepared | Analyzed | Init. |
|---|---|---|---|---|---|---|---|
| **Target Compound List - VOLATILES** | | | | | | | |
| Chlorobenzene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 21:34 | JKL |
| Ethylbenzene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 21:34 | JKL |
| m&p-Xylene | ND | ug/kg | 9 | EPA 8260B | 09/18/12 | 09/18/12 21:34 | JKL |
| o-Xylene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 21:34 | JKL |
| Styrene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 21:34 | JKL |
| Bromoform | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 21:34 | JKL |
| Isopropylbenzene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 21:34 | JKL |
| 1,1,2,2-Tetrachloroethane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 21:34 | JKL |
| 1,3-Dichlorobenzene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 21:34 | JKL |
| 1,4-Dichlorobenzene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 21:34 | JKL |
| 1,2-Dichlorobenzene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 21:34 | JKL |
| 1,2-Dibromo-3-chloropropane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 21:34 | JKL |
| 1,2,4-Trichlorobenzene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 21:34 | JKL |
| Naphthalene | ND | ug/kg | 9 | EPA 8260B | 09/18/12 | 09/18/12 21:34 | JKL |
| Ethyl t-butyl ether (ETBE) | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 21:34 | JKL |
| tert-Butanol (TBA) | ND | ug/kg | 23 | EPA 8260B | 09/18/12 | 09/18/12 21:34 | JKL |
| Diisopropyl ether (DIPE) | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 21:34 | JKL |
| tert-Amyl methyl ether (TAME) | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 21:34 | JKL |
| tert-Amyl alcohol (TAA) | ND | ug/kg | 23 | EPA 8260B | 09/18/12 | 09/18/12 21:34 | JKL |
| tert-Amyl ethyl ether (TAEE) | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 21:34 | JKL |
| **Total Petroleum Hydrocarbons - (C10-C28) DRO** | | | | | | | |
| Diesel Range Organics | ND | mg/kg | 12 | EPA 8015C | 09/14/12 | 09/15/12 15:37 | AC |
| **Total Petroleum Hydrocarbons - (C28-C40) HRO** | | | | | | | |
| Oil Range Organics | ND | mg/kg | 12 | EPA 8015C | 09/14/12 | 09/15/12 15:37 | AC |
| **Total Petroleum Hydrocarbons - (C6-C10) GRO** | | | | | | | |
| Gasoline Range Organics | ND | mg/kg | 0.2 | EPA 8015C | 09/19/12 | 09/21/12 13:28 | CBS |

Notes/Qualifiers:
LLQ- Lowest Level of Quantitation
ND - Not Detected at a concentration greater than or equal to the LLQ.
Results reported on a dry weight basis.

Approved by: Matt Osher
QC Chemist



8851 Orchard Tree Lane Towson, Maryland 21286
tel: 410.825.1151 fax: 410.825.2126 www.caslabs.net

# Certificate of Analysis

Haley & Aldrich, Inc
200 Town Centre Dr., Suite 2
Rochester, NY 14623-4264

Date Sampled: 09/11/12 11:59
Date Received: 09/12/12 12:10
Date Issued: 09/25/12

Project: St. Elizabeths East Campus
Site Location: Washington, DC
Project Number: 38677-003

**SDG Number: 12091201**

**Field Sample ID: B117-S1-15'-17'** **Matrix: Soil** **Lab ID: 12091201-22**

| | Result | Unit | LLQ | Method | Prepared | Analyzed | Init. |
|---|---|---|---|---|---|---|---|
| **Percent Solids** | | | | | | | |
| Percent Solids | **87** | % | | SM2540G | 09/18/12 | 09/18/12 9:37 | LMJ |
| **Polychlorinated Biphenyls** | | | | | | | |
| Aroclor 1016 | ND | mg/kg | 0.06 | EPA 8082 | 09/14/12 | 09/18/12 0:15 | AC |
| Aroclor 1221 | ND | mg/kg | 0.06 | EPA 8082 | 09/14/12 | 09/18/12 0:15 | AC |
| Aroclor 1232 | ND | mg/kg | 0.06 | EPA 8082 | 09/14/12 | 09/18/12 0:15 | AC |
| Aroclor 1242 | ND | mg/kg | 0.06 | EPA 8082 | 09/14/12 | 09/18/12 0:15 | AC |
| Aroclor 1248 | ND | mg/kg | 0.06 | EPA 8082 | 09/14/12 | 09/18/12 0:15 | AC |
| Aroclor 1254 | ND | mg/kg | 0.06 | EPA 8082 | 09/14/12 | 09/18/12 0:15 | AC |
| Aroclor 1260 | ND | mg/kg | 0.06 | EPA 8082 | 09/14/12 | 09/18/12 0:15 | AC |
| **Polycyclic Aromatic Hydrocarbons (SIM)** | | | | | | | |
| Acenaphthene | ND | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/18/12 4:41 | JKL |
| Acenaphthylene | ND | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/18/12 4:41 | JKL |
| Anthracene | ND | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/18/12 4:41 | JKL |
| Benzo[a]anthracene | ND | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/18/12 4:41 | JKL |
| Benzo[a]pyrene | ND | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/18/12 4:41 | JKL |
| Benzo[b]fluoranthene | **6** | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/18/12 4:41 | JKL |
| Benzo[g,h,i]perylene | ND | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/18/12 4:41 | JKL |
| Benzo[k]fluoranthene | ND | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/18/12 4:41 | JKL |
| Chrysene | ND | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/18/12 4:41 | JKL |
| Dibenz[a,h]anthracene | ND | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/18/12 4:41 | JKL |
| Fluoranthene | **7** | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/18/12 4:41 | JKL |
| Fluorene | ND | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/18/12 4:41 | JKL |
| Indeno[1,2,3-cd]pyrene | ND | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/18/12 4:41 | JKL |
| 2-Methylnaphthalene | ND | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/18/12 4:41 | JKL |
| Naphthalene` | ND | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/18/12 4:41 | JKL |
| Phenanthrene | ND | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/18/12 4:41 | JKL |
| Pyrene | **6** | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/18/12 4:41 | JKL |
| **Target Compound List - VOLATILES** | | | | | | | |
| Dichlorodifluoromethane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 22:03 | JKL |
| Chloromethane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 22:03 | JKL |
| Vinyl chloride | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 22:03 | JKL |
| Bromomethane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 22:03 | JKL |
| Chloroethane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 22:03 | JKL |
| Trichlorofluoromethane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 22:03 | JKL |
| 1,1-Dichloroethene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 22:03 | JKL |
| 1,1,2-Trichlorotrifluoroethane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 22:03 | JKL |
| Acetone | ND | ug/kg | 48 | EPA 8260B | 09/18/12 | 09/18/12 22:03 | JKL |
| Carbon disulfide | ND | ug/kg | 10 | EPA 8260B | 09/18/12 | 09/18/12 22:03 | JKL |



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200 Town Centre Dr., Suite 2
Rochester, NY 14623-4264

Date Sampled: 09/11/12 11:59
Date Received: 09/12/12 12:10
Date Issued: 09/25/12

Project: St. Elizabeths East Campus
Site Location: Washington, DC
Project Number: 38677-003

**SDG Number: 12091201**

**Field Sample ID: B117-S1-15'-17'** **Matrix: Soil** **Lab ID: 12091201-22**

| | Result | Unit | LLQ | Method | Prepared | Analyzed | Init. |
|---|---|---|---|---|---|---|---|
| **Target Compound List - VOLATILES** | | | | | | | |
| Methyl acetate | ND | ug/kg | 24 | EPA 8260B | 09/18/12 | 09/18/12 22:03 | JKL |
| Methylene chloride | ND | ug/kg | 24 | EPA 8260B | 09/18/12 | 09/18/12 22:03 | JKL |
| trans-1,2-Dichloroethene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 22:03 | JKL |
| Methyl t-butyl ether (MTBE) | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 22:03 | JKL |
| 1,1-Dichloroethane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 22:03 | JKL |
| cis-1,2-Dichloroethene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 22:03 | JKL |
| 2-Butanone (MEK) | ND | ug/kg | 48 | EPA 8260B | 09/18/12 | 09/18/12 22:03 | JKL |
| Chloroform | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 22:03 | JKL |
| 1,1,1-Trichloroethane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 22:03 | JKL |
| Cyclohexane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 22:03 | JKL |
| Carbon tetrachloride | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 22:03 | JKL |
| Benzene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 22:03 | JKL |
| 1,2-Dichloroethane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 22:03 | JKL |
| Trichloroethene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 22:03 | JKL |
| Methylcyclohexane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 22:03 | JKL |
| 1,2-Dichloropropane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 22:03 | JKL |
| Bromodichloromethane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 22:03 | JKL |
| cis-1,3-Dichloropropene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 22:03 | JKL |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/kg | 10 | EPA 8260B | 09/18/12 | 09/18/12 22:03 | JKL |
| Toluene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 22:03 | JKL |
| trans-1,3-Dichloropropene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 22:03 | JKL |
| 1,1,2-Trichloroethane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 22:03 | JKL |
| Tetrachloroethene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 22:03 | JKL |
| 2-Hexanone (MBK) | ND | ug/kg | 10 | EPA 8260B | 09/18/12 | 09/18/12 22:03 | JKL |
| Dibromochloromethane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 22:03 | JKL |
| 1,2-Dibromoethane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 22:03 | JKL |
| Chlorobenzene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 22:03 | JKL |
| Ethylbenzene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 22:03 | JKL |
| m&p-Xylene | ND | ug/kg | 10 | EPA 8260B | 09/18/12 | 09/18/12 22:03 | JKL |
| o-Xylene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 22:03 | JKL |
| Styrene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 22:03 | JKL |
| Bromoform | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 22:03 | JKL |
| Isopropylbenzene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 22:03 | JKL |
| 1,1,2,2-Tetrachloroethane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 22:03 | JKL |
| 1,3-Dichlorobenzene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 22:03 | JKL |
| 1,4-Dichlorobenzene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 22:03 | JKL |
| 1,2-Dichlorobenzene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 22:03 | JKL |
| 1,2-Dibromo-3-chloropropane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 22:03 | JKL |



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Rochester, NY 14623-4264

Date Sampled: 09/11/12 11:59
Date Received: 09/12/12 12:10
Date Issued: 09/25/12

Project: St. Elizabeths East Campus
Site Location: Washington, DC
Project Number: 38677-003

**SDG Number: 12091201**

**Field Sample ID: B117-S1-15'-17'** **Matrix: Soil** **Lab ID: 12091201-22**

| | Result | Unit | LLQ | Method | Prepared | Analyzed | Init. |
|---|---|---|---|---|---|---|---|
| **Target Compound List - VOLATILES** | | | | | | | |
| 1,2,4-Trichlorobenzene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 22:03 | JKL |
| Naphthalene | ND | ug/kg | 10 | EPA 8260B | 09/18/12 | 09/18/12 22:03 | JKL |
| Ethyl t-butyl ether (ETBE) | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 22:03 | JKL |
| tert-Butanol (TBA) | ND | ug/kg | 24 | EPA 8260B | 09/18/12 | 09/18/12 22:03 | JKL |
| Diisopropyl ether (DIPE) | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 22:03 | JKL |
| tert-Amyl methyl ether (TAME) | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 22:03 | JKL |
| tert-Amyl alcohol (TAA) | ND | ug/kg | 24 | EPA 8260B | 09/18/12 | 09/18/12 22:03 | JKL |
| tert-Amyl ethyl ether (TAEE) | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 22:03 | JKL |
| **Total Metals** | | | | | | | |
| Arsenic | **0.77** | mg/kg | 0.47 | EPA 6020A | 09/13/12 | 09/14/12 15:06 | MEL |
| Barium | **21** | mg/kg | 2.3 | EPA 6020A | 09/13/12 | 09/14/12 15:06 | MEL |
| Cadmium | ND | mg/kg | 2.3 | EPA 6020A | 09/13/12 | 09/14/12 15:06 | MEL |
| Chromium | **12** | mg/kg | 2.3 | EPA 6020A | 09/13/12 | 09/14/12 15:06 | MEL |
| Lead | **5.9** | mg/kg | 2.3 | EPA 6020A | 09/13/12 | 09/14/12 15:06 | MEL |
| Mercury | ND | mg/kg | 0.093 | EPA 6020A | 09/13/12 | 09/14/12 15:06 | MEL |
| Selenium | ND | mg/kg | 2.3 | EPA 6020A | 09/13/12 | 09/14/12 15:06 | MEL |
| Silver | ND | mg/kg | 2.3 | EPA 6020A | 09/13/12 | 09/14/12 15:06 | MEL |
| **Total Petroleum Hydrocarbons - (C10-C28) DRO** | | | | | | | |
| Diesel Range Organics | ND | mg/kg | 12 | EPA 8015C | 09/14/12 | 09/15/12 16:12 | AC |
| **Total Petroleum Hydrocarbons - (C28-C40) HRO** | | | | | | | |
| Oil Range Organics | ND | mg/kg | 12 | EPA 8015C | 09/14/12 | 09/15/12 16:12 | AC |
| **Total Petroleum Hydrocarbons - (C6-C10) GRO** | | | | | | | |
| Gasoline Range Organics | ND | mg/kg | 0.21 | EPA 8015C | 09/19/12 | 09/21/12 14:09 | CBS |

Notes/Qualifiers:
LLQ- Lowest Level of Quantitation
ND - Not Detected at a concentration greater than or equal to the LLQ.
Results reported on a dry weight basis.

Approved by: Matt Osher
QC Chemist



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Date Sampled: 09/11/12 11:59
Date Received: 09/12/12 12:10
Date Issued: 09/25/12

Project: St. Elizabeths East Campus
Site Location: Washington, DC
Project Number: 38677-003

**SDG Number: 12091201**

**Field Sample ID: B117-S2-2'-4'** **Matrix: Soil** **Lab ID: 12091201-23**

| | Result | Unit | LLQ | Method | Prepared | Analyzed | Init. |
|---|---|---|---|---|---|---|---|
| **Percent Solids** | | | | | | | |
| Percent Solids | **85** | % | | SM2540G | 09/18/12 | 09/18/12 9:38 | LMJ |
| **Polychlorinated Biphenyls** | | | | | | | |
| Aroclor 1016 | ND | mg/kg | 0.061 | EPA 8082 | 09/14/12 | 09/18/12 0:43 | AC |
| Aroclor 1221 | ND | mg/kg | 0.061 | EPA 8082 | 09/14/12 | 09/18/12 0:43 | AC |
| Aroclor 1232 | ND | mg/kg | 0.061 | EPA 8082 | 09/14/12 | 09/18/12 0:43 | AC |
| Aroclor 1242 | ND | mg/kg | 0.061 | EPA 8082 | 09/14/12 | 09/18/12 0:43 | AC |
| Aroclor 1248 | ND | mg/kg | 0.061 | EPA 8082 | 09/14/12 | 09/18/12 0:43 | AC |
| Aroclor 1254 | ND | mg/kg | 0.061 | EPA 8082 | 09/14/12 | 09/18/12 0:43 | AC |
| Aroclor 1260 | ND | mg/kg | 0.061 | EPA 8082 | 09/14/12 | 09/18/12 0:43 | AC |
| **Polycyclic Aromatic Hydrocarbons (SIM)** | | | | | | | |
| Acenaphthene | ND | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/18/12 5:17 | JKL |
| Acenaphthylene | ND | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/18/12 5:17 | JKL |
| Anthracene | ND | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/18/12 5:17 | JKL |
| Benzo[a]anthracene | **17** | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/18/12 5:17 | JKL |
| Benzo[a]pyrene | **29** | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/18/12 5:17 | JKL |
| Benzo[b]fluoranthene | **49** | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/18/12 5:17 | JKL |
| Benzo[g,h,i]perylene | **14** | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/18/12 5:17 | JKL |
| Benzo[k]fluoranthene | **16** | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/18/12 5:17 | JKL |
| Chrysene | **23** | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/18/12 5:17 | JKL |
| Dibenz[a,h]anthracene | ND | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/18/12 5:17 | JKL |
| Fluoranthene | **30** | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/18/12 5:17 | JKL |
| Fluorene | ND | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/18/12 5:17 | JKL |
| Indeno[1,2,3-cd]pyrene | **12** | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/18/12 5:17 | JKL |
| 2-Methylnaphthalene | ND | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/18/12 5:17 | JKL |
| Naphthalene` | ND | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/18/12 5:17 | JKL |
| Phenanthrene | **13** | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/18/12 5:17 | JKL |
| Pyrene | **21** | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/18/12 5:17 | JKL |
| **Target Compound List - VOLATILES** | | | | | | | |
| Dichlorodifluoromethane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 22:31 | JKL |
| Chloromethane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 22:31 | JKL |
| Vinyl chloride | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 22:31 | JKL |
| Bromomethane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 22:31 | JKL |
| Chloroethane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 22:31 | JKL |
| Trichlorofluoromethane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 22:31 | JKL |
| 1,1-Dichloroethene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 22:31 | JKL |
| 1,1,2-Trichlorotrifluoroethane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 22:31 | JKL |
| Acetone | ND | ug/kg | 140 | EPA 8260B | 09/18/12 | 09/18/12 22:31 | JKL |
| Carbon disulfide | ND | ug/kg | 11 | EPA 8260B | 09/18/12 | 09/18/12 22:31 | JKL |



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Date Sampled: 09/11/12 11:59
Date Received: 09/12/12 12:10
Date Issued: 09/25/12

Project: St. Elizabeths East Campus
Site Location: Washington, DC
Project Number: 38677-003

**SDG Number: 12091201**

**Field Sample ID: B117-S2-2'-4'** **Matrix: Soil** **Lab ID: 12091201-23**

| | Result | Unit | LLQ | Method | Prepared | Analyzed | Init. |
|---|---|---|---|---|---|---|---|
| **Target Compound List - VOLATILES** | | | | | | | |
| Methyl acetate | ND | ug/kg | 27 | EPA 8260B | 09/18/12 | 09/18/12 22:31 | JKL |
| Methylene chloride | ND | ug/kg | 27 | EPA 8260B | 09/18/12 | 09/18/12 22:31 | JKL |
| trans-1,2-Dichloroethene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 22:31 | JKL |
| Methyl t-butyl ether (MTBE) | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 22:31 | JKL |
| 1,1-Dichloroethane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 22:31 | JKL |
| cis-1,2-Dichloroethene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 22:31 | JKL |
| 2-Butanone (MEK) | ND | ug/kg | 55 | EPA 8260B | 09/18/12 | 09/18/12 22:31 | JKL |
| Chloroform | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 22:31 | JKL |
| 1,1,1-Trichloroethane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 22:31 | JKL |
| Cyclohexane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 22:31 | JKL |
| Carbon tetrachloride | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 22:31 | JKL |
| Benzene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 22:31 | JKL |
| 1,2-Dichloroethane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 22:31 | JKL |
| Trichloroethene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 22:31 | JKL |
| Methylcyclohexane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 22:31 | JKL |
| 1,2-Dichloropropane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 22:31 | JKL |
| Bromodichloromethane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 22:31 | JKL |
| cis-1,3-Dichloropropene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 22:31 | JKL |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/kg | 11 | EPA 8260B | 09/18/12 | 09/18/12 22:31 | JKL |
| Toluene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 22:31 | JKL |
| trans-1,3-Dichloropropene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 22:31 | JKL |
| 1,1,2-Trichloroethane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 22:31 | JKL |
| Tetrachloroethene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 22:31 | JKL |
| 2-Hexanone (MBK) | ND | ug/kg | 11 | EPA 8260B | 09/18/12 | 09/18/12 22:31 | JKL |
| Dibromochloromethane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 22:31 | JKL |
| 1,2-Dibromoethane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 22:31 | JKL |
| Chlorobenzene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 22:31 | JKL |
| Ethylbenzene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 22:31 | JKL |
| m&p-Xylene | ND | ug/kg | 11 | EPA 8260B | 09/18/12 | 09/18/12 22:31 | JKL |
| o-Xylene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 22:31 | JKL |
| Styrene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 22:31 | JKL |
| Bromoform | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 22:31 | JKL |
| Isopropylbenzene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 22:31 | JKL |
| 1,1,2,2-Tetrachloroethane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 22:31 | JKL |
| 1,3-Dichlorobenzene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 22:31 | JKL |
| 1,4-Dichlorobenzene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 22:31 | JKL |
| 1,2-Dichlorobenzene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 22:31 | JKL |
| 1,2-Dibromo-3-chloropropane | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 22:31 | JKL |



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## Certificate of Analysis

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200 Town Centre Dr., Suite 2
Rochester, NY 14623-4264

Date Sampled: 09/11/12 11:59
Date Received: 09/12/12 12:10
Date Issued: 09/25/12

Project: St. Elizabeths East Campus
Site Location: Washington, DC
Project Number: 38677-003

**SDG Number: 12091201**

**Field Sample ID: B117-S2-2'-4'** **Matrix: Soil** **Lab ID: 12091201-23**

| | Result | Unit | LLQ | Method | Prepared | Analyzed | Init. |
|---|---|---|---|---|---|---|---|
| **Target Compound List - VOLATILES** | | | | | | | |
| 1,2,4-Trichlorobenzene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 22:31 | JKL |
| Naphthalene | ND | ug/kg | 11 | EPA 8260B | 09/18/12 | 09/18/12 22:31 | JKL |
| Ethyl t-butyl ether (ETBE) | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 22:31 | JKL |
| tert-Butanol (TBA) | ND | ug/kg | 27 | EPA 8260B | 09/18/12 | 09/18/12 22:31 | JKL |
| Diisopropyl ether (DIPE) | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 22:31 | JKL |
| tert-Amyl methyl ether (TAME) | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 22:31 | JKL |
| tert-Amyl alcohol (TAA) | ND | ug/kg | 27 | EPA 8260B | 09/18/12 | 09/18/12 22:31 | JKL |
| tert-Amyl ethyl ether (TAEE) | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 22:31 | JKL |
| **Total Metals** | | | | | | | |
| Arsenic | **6.3** | mg/kg | 0.41 | EPA 6020A | 09/13/12 | 09/14/12 15:12 | MEL |
| Barium | **51** | mg/kg | 2 | EPA 6020A | 09/13/12 | 09/14/12 15:12 | MEL |
| Cadmium | ND | mg/kg | 2 | EPA 6020A | 09/13/12 | 09/14/12 15:12 | MEL |
| Chromium | **25** | mg/kg | 2 | EPA 6020A | 09/13/12 | 09/14/12 15:12 | MEL |
| Lead | **27** | mg/kg | 2 | EPA 6020A | 09/13/12 | 09/14/12 15:12 | MEL |
| Mercury | **0.12** | mg/kg | 0.081 | EPA 6020A | 09/13/12 | 09/14/12 15:12 | MEL |
| Selenium | ND | mg/kg | 2 | EPA 6020A | 09/13/12 | 09/14/12 15:12 | MEL |
| Silver | ND | mg/kg | 2 | EPA 6020A | 09/13/12 | 09/14/12 15:12 | MEL |
| **Total Petroleum Hydrocarbons - (C10-C28) DRO** | | | | | | | |
| Diesel Range Organics | **13** | mg/kg | 12 | EPA 8015C | 09/14/12 | 09/15/12 16:47 | AC |
| **Total Petroleum Hydrocarbons - (C28-C40) HRO** | | | | | | | |
| Oil Range Organics | ND | mg/kg | 12 | EPA 8015C | 09/14/12 | 09/15/12 16:47 | AC |
| **Total Petroleum Hydrocarbons - (C6-C10) GRO** | | | | | | | |
| Gasoline Range Organics | ND | mg/kg | 0.2 | EPA 8015C | 09/19/12 | 09/21/12 14:59 | CBS |

Notes/Qualifiers:
LLQ- Lowest Level of Quantitation
ND - Not Detected at a concentration greater than or equal to the LLQ.
Results reported on a dry weight basis.

Approved by: Matt Osher
QC Chemist



8851 Orchard Tree Lane Towson, Maryland 21286
tel: 410.825.1151 fax: 410.825.2126 www.caslabs.net

# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

Haley & Aldrich, Inc
200 Town Centre Dr., Suite 2
Rochester, NY 14623-4264

Date Sampled: 09/11/12 13:19
Date Received: 09/12/12 12:10
Date Issued: 09/25/12

Project: St. Elizabeths East Campus
Site Location: Washington, DC
Project Number: 38677-003

**SDG Number: 12091201**

**Field Sample ID: B112-S1-5'-6'** **Matrix: Soil** **Lab ID: 12091201-24**

| | Result | Unit | LLQ | Method | Prepared | Analyzed | Init. |
|---|---|---|---|---|---|---|---|
| **Percent Solids** | | | | | | | |
| Percent Solids | **81** | % | | SM2540G | 09/18/12 | 09/18/12 9:38 | LMJ |
| **Polychlorinated Biphenyls** | | | | | | | |
| Aroclor 1016 | ND | mg/kg | 0.065 | EPA 8082 | 09/14/12 | 09/18/12 1:12 | AC |
| Aroclor 1221 | ND | mg/kg | 0.065 | EPA 8082 | 09/14/12 | 09/18/12 1:12 | AC |
| Aroclor 1232 | ND | mg/kg | 0.065 | EPA 8082 | 09/14/12 | 09/18/12 1:12 | AC |
| Aroclor 1242 | ND | mg/kg | 0.065 | EPA 8082 | 09/14/12 | 09/18/12 1:12 | AC |
| Aroclor 1248 | ND | mg/kg | 0.065 | EPA 8082 | 09/14/12 | 09/18/12 1:12 | AC |
| Aroclor 1254 | ND | mg/kg | 0.065 | EPA 8082 | 09/14/12 | 09/18/12 1:12 | AC |
| Aroclor 1260 | ND | mg/kg | 0.065 | EPA 8082 | 09/14/12 | 09/18/12 1:12 | AC |
| **Total Petroleum Hydrocarbons - (C10-C28) DRO** | | | | | | | |
| Diesel Range Organics | **22** | mg/kg | 13 | EPA 8015C | 09/14/12 | 09/15/12 17:22 | AC |
| **Total Petroleum Hydrocarbons - (C28-C40) HRO** | | | | | | | |
| Oil Range Organics | **19** | mg/kg | 13 | EPA 8015C | 09/14/12 | 09/15/12 17:22 | AC |
| **Total Petroleum Hydrocarbons - (C6-C10) GRO** | | | | | | | |
| Gasoline Range Organics | ND | mg/kg | 0.2 | EPA 8015C | 09/19/12 | 09/21/12 15:25 | CBS |
| **Volatile Organic Compounds** | | | | | | | |
| Benzene | ND | ug/kg | 4 | EPA 8260B | 09/18/12 | 09/18/12 23:00 | JKL |
| Toluene | ND | ug/kg | 4 | EPA 8260B | 09/18/12 | 09/18/12 23:00 | JKL |
| Ethylbenzene | ND | ug/kg | 4 | EPA 8260B | 09/18/12 | 09/18/12 23:00 | JKL |
| m&p-Xylene | ND | ug/kg | 9 | EPA 8260B | 09/18/12 | 09/18/12 23:00 | JKL |
| o-Xylene | ND | ug/kg | 4 | EPA 8260B | 09/18/12 | 09/18/12 23:00 | JKL |
| Naphthalene | ND | ug/kg | 9 | EPA 8260B | 09/18/12 | 09/18/12 23:00 | JKL |

Notes/Qualifiers:
LLQ- Lowest Level of Quantitation
ND - Not Detected at a concentration greater than or equal to the LLQ.
Results reported on a dry weight basis.

Approved by:

QC Chemist



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tel: 410.825.1151 fax: 410.825.2126 www.caslabs.net

# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

Haley & Aldrich, Inc
200 Town Centre Dr., Suite 2
Rochester, NY 14623-4264

Date Sampled: 09/11/12 13:19
Date Received: 09/12/12 12:10
Date Issued: 09/25/12

Project: St. Elizabeths East Campus
Site Location: Washington, DC
Project Number: 38677-003

**SDG Number: 12091201**

**Field Sample ID: B112-S2-18'-20'** **Matrix: Soil** **Lab ID: 12091201-25**

| | Result | Unit | LLQ | Method | Prepared | Analyzed | Init. |
|---|---|---|---|---|---|---|---|
| **Percent Solids** | | | | | | | |
| Percent Solids | **91** | % | | SM2540G | 09/18/12 | 09/18/12 9:38 | LMJ |
| **Polychlorinated Biphenyls** | | | | | | | |
| Aroclor 1016 | ND | mg/kg | 0.058 | EPA 8082 | 09/14/12 | 09/18/12 1:41 | AC |
| Aroclor 1221 | ND | mg/kg | 0.058 | EPA 8082 | 09/14/12 | 09/18/12 1:41 | AC |
| Aroclor 1232 | ND | mg/kg | 0.058 | EPA 8082 | 09/14/12 | 09/18/12 1:41 | AC |
| Aroclor 1242 | ND | mg/kg | 0.058 | EPA 8082 | 09/14/12 | 09/18/12 1:41 | AC |
| Aroclor 1248 | ND | mg/kg | 0.058 | EPA 8082 | 09/14/12 | 09/18/12 1:41 | AC |
| Aroclor 1254 | ND | mg/kg | 0.058 | EPA 8082 | 09/14/12 | 09/18/12 1:41 | AC |
| Aroclor 1260 | ND | mg/kg | 0.058 | EPA 8082 | 09/14/12 | 09/18/12 1:41 | AC |
| **Total Petroleum Hydrocarbons - (C10-C28) DRO** | | | | | | | |
| Diesel Range Organics | ND | mg/kg | 11 | EPA 8015C | 09/14/12 | 09/15/12 17:56 | AC |
| **Total Petroleum Hydrocarbons - (C28-C40) HRO** | | | | | | | |
| Oil Range Organics | ND | mg/kg | 11 | EPA 8015C | 09/14/12 | 09/15/12 17:56 | AC |
| **Total Petroleum Hydrocarbons - (C6-C10) GRO** | | | | | | | |
| Gasoline Range Organics | ND | mg/kg | 0.19 | EPA 8015C | 09/19/12 | 09/21/12 15:49 | CBS |
| **Volatile Organic Compounds** | | | | | | | |
| Benzene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 23:28 | JKL |
| Toluene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 23:28 | JKL |
| Ethylbenzene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 23:28 | JKL |
| m&p-Xylene | ND | ug/kg | 9 | EPA 8260B | 09/18/12 | 09/18/12 23:28 | JKL |
| o-Xylene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 23:28 | JKL |
| Naphthalene | ND | ug/kg | 9 | EPA 8260B | 09/18/12 | 09/18/12 23:28 | JKL |

Notes/Qualifiers:
LLQ- Lowest Level of Quantitation
ND - Not Detected at a concentration greater than or equal to the LLQ.
Results reported on a dry weight basis.

Approved by:

QC Chemist



8851 Orchard Tree Lane Towson, Maryland 21286
tel: 410.825.1151 fax: 410.825.2126 www.caslabs.net

# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

Haley & Aldrich, Inc
200 Town Centre Dr., Suite 2
Rochester, NY 14623-4264

Date Sampled: 09/11/12 13:59
Date Received: 09/12/12 12:10
Date Issued: 09/25/12

Project: St. Elizabeths East Campus
Site Location: Washington, DC
Project Number: 38677-003

**SDG Number: 12091201**

**Field Sample ID: B118-S1-10'-11'** **Matrix: Soil** **Lab ID: 12091201-26**

| | Result | Unit | LLQ | Method | Prepared | Analyzed | Init. |
|---|---|---|---|---|---|---|---|
| **Percent Solids** | | | | | | | |
| Percent Solids | **84** | % | | SM2540G | 09/18/12 | 09/18/12 9:38 | LMJ |
| **Polychlorinated Biphenyls** | | | | | | | |
| Aroclor 1016 | ND | mg/kg | 0.062 | EPA 8082 | 09/14/12 | 09/18/12 2:10 | AC |
| Aroclor 1221 | ND | mg/kg | 0.062 | EPA 8082 | 09/14/12 | 09/18/12 2:10 | AC |
| Aroclor 1232 | ND | mg/kg | 0.062 | EPA 8082 | 09/14/12 | 09/18/12 2:10 | AC |
| Aroclor 1242 | ND | mg/kg | 0.062 | EPA 8082 | 09/14/12 | 09/18/12 2:10 | AC |
| Aroclor 1248 | ND | mg/kg | 0.062 | EPA 8082 | 09/14/12 | 09/18/12 2:10 | AC |
| Aroclor 1254 | ND | mg/kg | 0.062 | EPA 8082 | 09/14/12 | 09/18/12 2:10 | AC |
| Aroclor 1260 | ND | mg/kg | 0.062 | EPA 8082 | 09/14/12 | 09/18/12 2:10 | AC |
| **Total Petroleum Hydrocarbons - (C10-C28) DRO** | | | | | | | |
| Diesel Range Organics | ND | mg/kg | 12 | EPA 8015C | 09/14/12 | 09/15/12 18:31 | AC |
| **Total Petroleum Hydrocarbons - (C28-C40) HRO** | | | | | | | |
| Oil Range Organics | ND | mg/kg | 12 | EPA 8015C | 09/14/12 | 09/15/12 18:31 | AC |
| **Total Petroleum Hydrocarbons - (C6-C10) GRO** | | | | | | | |
| Gasoline Range Organics | **0.22** | mg/kg | 0.21 | EPA 8015C | 09/19/12 | 09/21/12 16:14 | CBS |
| **Volatile Organic Compounds** | | | | | | | |
| Benzene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 23:56 | JKL |
| Toluene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 23:56 | JKL |
| Ethylbenzene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 23:56 | JKL |
| m&p-Xylene | ND | ug/kg | 11 | EPA 8260B | 09/18/12 | 09/18/12 23:56 | JKL |
| o-Xylene | ND | ug/kg | 5 | EPA 8260B | 09/18/12 | 09/18/12 23:56 | JKL |
| Naphthalene | ND | ug/kg | 11 | EPA 8260B | 09/18/12 | 09/18/12 23:56 | JKL |

Notes/Qualifiers:
LLQ- Lowest Level of Quantitation
ND - Not Detected at a concentration greater than or equal to the LLQ.
Results reported on a dry weight basis.

Approved by:

QC Chemist



8851 Orchard Tree Lane Towson, Maryland 21286
tel: 410.825.1151 fax: 410.825.2126 www.caslabs.net

# Certificate of Analysis

Haley & Aldrich, Inc
200 Town Centre Dr., Suite 2
Rochester, NY 14623-4264

Date Sampled: 09/11/12 14:46
Date Received: 09/12/12 12:10
Date Issued: 09/25/12

Project: St. Elizabeths East Campus
Site Location: Washington, DC
Project Number: 38677-003

**SDG Number: 12091201**

**Field Sample ID: B129-S1-5'-7'** **Matrix: Soil** **Lab ID: 12091201-27**

| | Result | Unit | LLQ | Method | Prepared | Analyzed | Init. |
|---|---|---|---|---|---|---|---|
| **Percent Solids** | | | | | | | |
| Percent Solids | **84** | % | | SM2540G | 09/18/12 | 09/18/12 9:38 | LMJ |
| **Polychlorinated Biphenyls** | | | | | | | |
| Aroclor 1016 | ND | mg/kg | 0.056 | EPA 8082 | 09/14/12 | 09/18/12 2:39 | AC |
| Aroclor 1221 | ND | mg/kg | 0.056 | EPA 8082 | 09/14/12 | 09/18/12 2:39 | AC |
| Aroclor 1232 | ND | mg/kg | 0.056 | EPA 8082 | 09/14/12 | 09/18/12 2:39 | AC |
| Aroclor 1242 | ND | mg/kg | 0.056 | EPA 8082 | 09/14/12 | 09/18/12 2:39 | AC |
| Aroclor 1248 | ND | mg/kg | 0.056 | EPA 8082 | 09/14/12 | 09/18/12 2:39 | AC |
| Aroclor 1254 | ND | mg/kg | 0.056 | EPA 8082 | 09/14/12 | 09/18/12 2:39 | AC |
| Aroclor 1260 | ND | mg/kg | 0.056 | EPA 8082 | 09/14/12 | 09/18/12 2:39 | AC |
| **Polycyclic Aromatic Hydrocarbons (SIM)** | | | | | | | |
| Acenaphthene | ND | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/18/12 5:53 | JKL |
| Acenaphthylene | ND | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/18/12 5:53 | JKL |
| Anthracene | ND | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/18/12 5:53 | JKL |
| Benzo[a]anthracene | **7** | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/18/12 5:53 | JKL |
| Benzo[a]pyrene | **14** | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/18/12 5:53 | JKL |
| Benzo[b]fluoranthene | **23** | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/18/12 5:53 | JKL |
| Benzo[g,h,i]perylene | **12** | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/18/12 5:53 | JKL |
| Benzo[k]fluoranthene | **7** | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/18/12 5:53 | JKL |
| Chrysene | **20** | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/18/12 5:53 | JKL |
| Dibenz[a,h]anthracene | ND | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/18/12 5:53 | JKL |
| Fluoranthene | **9** | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/18/12 5:53 | JKL |
| Fluorene | ND | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/18/12 5:53 | JKL |
| Indeno[1,2,3-cd]pyrene | ND | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/18/12 5:53 | JKL |
| 2-Methylnaphthalene | ND | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/18/12 5:53 | JKL |
| Naphthalene` | ND | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/18/12 5:53 | JKL |
| Phenanthrene | **8** | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/18/12 5:53 | JKL |
| Pyrene | **12** | ug/kg | 6 | EPA 8270C | 09/13/12 | 09/18/12 5:53 | JKL |
| **Target Compound List - VOLATILES** | | | | | | | |
| Dichlorodifluoromethane | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 0:24 | JKL |
| Chloromethane | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 0:24 | JKL |
| Vinyl chloride | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 0:24 | JKL |
| Bromomethane | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 0:24 | JKL |
| Chloroethane | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 0:24 | JKL |
| Trichlorofluoromethane | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 0:24 | JKL |
| 1,1-Dichloroethene | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 0:24 | JKL |
| 1,1,2-Trichlorotrifluoroethane | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 0:24 | JKL |
| Acetone | ND | ug/kg | 48 | EPA 8260B | 09/19/12 | 09/19/12 0:24 | JKL |
| Carbon disulfide | ND | ug/kg | 10 | EPA 8260B | 09/19/12 | 09/19/12 0:24 | JKL |



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tel: 410.825.1151 fax: 410.825.2126 www.caslabs.net

# Certificate of Analysis

Haley & Aldrich, Inc
200 Town Centre Dr., Suite 2
Rochester, NY 14623-4264

Date Sampled: 09/11/12 14:46
Date Received: 09/12/12 12:10
Date Issued: 09/25/12

Project: St. Elizabeths East Campus
Site Location: Washington, DC
Project Number: 38677-003

**SDG Number: 12091201**

**Field Sample ID: B129-S1-5'-7'** **Matrix: Soil** **Lab ID: 12091201-27**

| | Result | Unit | LLQ | Method | Prepared | Analyzed | Init. |
|---|---|---|---|---|---|---|---|
| **Target Compound List - VOLATILES** | | | | | | | |
| Methyl acetate | ND | ug/kg | 24 | EPA 8260B | 09/19/12 | 09/19/12 0:24 | JKL |
| Methylene chloride | ND | ug/kg | 24 | EPA 8260B | 09/19/12 | 09/19/12 0:24 | JKL |
| trans-1,2-Dichloroethene | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 0:24 | JKL |
| Methyl t-butyl ether (MTBE) | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 0:24 | JKL |
| 1,1-Dichloroethane | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 0:24 | JKL |
| cis-1,2-Dichloroethene | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 0:24 | JKL |
| 2-Butanone (MEK) | ND | ug/kg | 48 | EPA 8260B | 09/19/12 | 09/19/12 0:24 | JKL |
| Chloroform | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 0:24 | JKL |
| 1,1,1-Trichloroethane | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 0:24 | JKL |
| Cyclohexane | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 0:24 | JKL |
| Carbon tetrachloride | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 0:24 | JKL |
| Benzene | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 0:24 | JKL |
| 1,2-Dichloroethane | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 0:24 | JKL |
| Trichloroethene | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 0:24 | JKL |
| Methylcyclohexane | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 0:24 | JKL |
| 1,2-Dichloropropane | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 0:24 | JKL |
| Bromodichloromethane | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 0:24 | JKL |
| cis-1,3-Dichloropropene | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 0:24 | JKL |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/kg | 10 | EPA 8260B | 09/19/12 | 09/19/12 0:24 | JKL |
| Toluene | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 0:24 | JKL |
| trans-1,3-Dichloropropene | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 0:24 | JKL |
| 1,1,2-Trichloroethane | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 0:24 | JKL |
| Tetrachloroethene | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 0:24 | JKL |
| 2-Hexanone (MBK) | ND | ug/kg | 10 | EPA 8260B | 09/19/12 | 09/19/12 0:24 | JKL |
| Dibromochloromethane | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 0:24 | JKL |
| 1,2-Dibromoethane | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 0:24 | JKL |
| Chlorobenzene | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 0:24 | JKL |
| Ethylbenzene | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 0:24 | JKL |
| m&p-Xylene | ND | ug/kg | 10 | EPA 8260B | 09/19/12 | 09/19/12 0:24 | JKL |
| o-Xylene | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 0:24 | JKL |
| Styrene | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 0:24 | JKL |
| Bromoform | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 0:24 | JKL |
| Isopropylbenzene | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 0:24 | JKL |
| 1,1,2,2-Tetrachloroethane | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 0:24 | JKL |
| 1,3-Dichlorobenzene | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 0:24 | JKL |
| 1,4-Dichlorobenzene | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 0:24 | JKL |
| 1,2-Dichlorobenzene | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 0:24 | JKL |
| 1,2-Dibromo-3-chloropropane | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 0:24 | JKL |



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tel: 410.825.1151 fax: 410.825.2126 www.caslabs.net

# Certificate of Analysis

Haley & Aldrich, Inc
200 Town Centre Dr., Suite 2
Rochester, NY 14623-4264

Date Sampled: 09/11/12 14:46
Date Received: 09/12/12 12:10
Date Issued: 09/25/12

Project: St. Elizabeths East Campus
Site Location: Washington, DC
Project Number: 38677-003

**SDG Number: 12091201**

**Field Sample ID: B129-S1-5'-7'** **Matrix: Soil** **Lab ID: 12091201-27**

| | Result | Unit | LLQ | Method | Prepared | Analyzed | Init. |
|---|---|---|---|---|---|---|---|
| **Target Compound List - VOLATILES** | | | | | | | |
| 1,2,4-Trichlorobenzene | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 0:24 | JKL |
| Naphthalene | ND | ug/kg | 10 | EPA 8260B | 09/19/12 | 09/19/12 0:24 | JKL |
| Ethyl t-butyl ether (ETBE) | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 0:24 | JKL |
| tert-Butanol (TBA) | ND | ug/kg | 24 | EPA 8260B | 09/19/12 | 09/19/12 0:24 | JKL |
| Diisopropyl ether (DIPE) | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 0:24 | JKL |
| tert-Amyl methyl ether (TAME) | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 0:24 | JKL |
| tert-Amyl alcohol (TAA) | ND | ug/kg | 24 | EPA 8260B | 09/19/12 | 09/19/12 0:24 | JKL |
| tert-Amyl ethyl ether (TAEE) | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 0:24 | JKL |
| **Total Metals** | | | | | | | |
| Arsenic | **5.7** | mg/kg | 0.56 | EPA 6020A | 09/13/12 | 09/14/12 15:19 | MEL |
| Barium | **42** | mg/kg | 2.8 | EPA 6020A | 09/13/12 | 09/14/12 15:19 | MEL |
| Cadmium | ND | mg/kg | 2.8 | EPA 6020A | 09/13/12 | 09/14/12 15:19 | MEL |
| Chromium | **30** | mg/kg | 2.8 | EPA 6020A | 09/13/12 | 09/14/12 15:19 | MEL |
| Lead | **15** | mg/kg | 2.8 | EPA 6020A | 09/13/12 | 09/14/12 15:19 | MEL |
| Mercury | ND | mg/kg | 0.11 | EPA 6020A | 09/13/12 | 09/14/12 15:19 | MEL |
| Selenium | ND | mg/kg | 2.8 | EPA 6020A | 09/13/12 | 09/14/12 15:19 | MEL |
| Silver | ND | mg/kg | 2.8 | EPA 6020A | 09/13/12 | 09/14/12 15:19 | MEL |
| **Total Petroleum Hydrocarbons - (C10-C28) DRO** | | | | | | | |
| Diesel Range Organics | **280** | mg/kg | 120 | EPA 8015C | 09/14/12 | 09/15/12 19:06 | AC |
| **Total Petroleum Hydrocarbons - (C28-C40) HRO** | | | | | | | |
| Oil Range Organics | **340** | mg/kg | 120 | EPA 8015C | 09/14/12 | 09/15/12 19:06 | AC |
| **Total Petroleum Hydrocarbons - (C6-C10) GRO** | | | | | | | |
| Gasoline Range Organics | ND | mg/kg | 0.2 | EPA 8015C | 09/19/12 | 09/21/12 16:38 | CBS |

Notes/Qualifiers:
LLQ- Lowest Level of Quantitation
ND - Not Detected at a concentration greater than or equal to the LLQ.
Results reported on a dry weight basis.

Approved by: Matt Osher
QC Chemist



8851 Orchard Tree Lane Towson, Maryland 21286
tel: 410.825.1151 fax: 410.825.2126 www.caslabs.net

# Certificate of Analysis

Haley & Aldrich, Inc
200 Town Centre Dr., Suite 2
Rochester, NY 14623-4264

Date Sampled: 09/11/12 14:46
Date Received: 09/12/12 12:10
Date Issued: 09/25/12

Project: St. Elizabeths East Campus
Site Location: Washington, DC
Project Number: 38677-003

**SDG Number: 12091201**

**Field Sample ID: B129-S2-13'-15'** **Matrix: Soil** **Lab ID: 12091201-28**

| | Result | Unit | LLQ | Method | Prepared | Analyzed | Init. |
|---|---|---|---|---|---|---|---|
| **Percent Solids** | | | | | | | |
| Percent Solids | **94** | % | | SM2540G | 09/18/12 | 09/18/12 9:38 | LMJ |
| **Polychlorinated Biphenyls** | | | | | | | |
| Aroclor 1016 | ND | mg/kg | 0.057 | EPA 8082 | 09/14/12 | 09/18/12 3:07 | AC |
| Aroclor 1221 | ND | mg/kg | 0.057 | EPA 8082 | 09/14/12 | 09/18/12 3:07 | AC |
| Aroclor 1232 | ND | mg/kg | 0.057 | EPA 8082 | 09/14/12 | 09/18/12 3:07 | AC |
| Aroclor 1242 | ND | mg/kg | 0.057 | EPA 8082 | 09/14/12 | 09/18/12 3:07 | AC |
| Aroclor 1248 | ND | mg/kg | 0.057 | EPA 8082 | 09/14/12 | 09/18/12 3:07 | AC |
| Aroclor 1254 | ND | mg/kg | 0.057 | EPA 8082 | 09/14/12 | 09/18/12 3:07 | AC |
| Aroclor 1260 | ND | mg/kg | 0.057 | EPA 8082 | 09/14/12 | 09/18/12 3:07 | AC |
| **Polycyclic Aromatic Hydrocarbons (SIM)** | | | | | | | |
| Acenaphthene | ND | ug/kg | 5 | EPA 8270C | 09/13/12 | 09/18/12 6:29 | JKL |
| Acenaphthylene | ND | ug/kg | 5 | EPA 8270C | 09/13/12 | 09/18/12 6:29 | JKL |
| Anthracene | ND | ug/kg | 5 | EPA 8270C | 09/13/12 | 09/18/12 6:29 | JKL |
| Benzo[a]anthracene | **7** | ug/kg | 5 | EPA 8270C | 09/13/12 | 09/18/12 6:29 | JKL |
| Benzo[a]pyrene | **9** | ug/kg | 5 | EPA 8270C | 09/13/12 | 09/18/12 6:29 | JKL |
| Benzo[b]fluoranthene | **11** | ug/kg | 5 | EPA 8270C | 09/13/12 | 09/18/12 6:29 | JKL |
| Benzo[g,h,i]perylene | **6** | ug/kg | 5 | EPA 8270C | 09/13/12 | 09/18/12 6:29 | JKL |
| Benzo[k]fluoranthene | **11** | ug/kg | 5 | EPA 8270C | 09/13/12 | 09/18/12 6:29 | JKL |
| Chrysene | **7** | ug/kg | 5 | EPA 8270C | 09/13/12 | 09/18/12 6:29 | JKL |
| Dibenz[a,h]anthracene | **6** | ug/kg | 5 | EPA 8270C | 09/13/12 | 09/18/12 6:29 | JKL |
| Fluoranthene | **6** | ug/kg | 5 | EPA 8270C | 09/13/12 | 09/18/12 6:29 | JKL |
| Fluorene | ND | ug/kg | 5 | EPA 8270C | 09/13/12 | 09/18/12 6:29 | JKL |
| Indeno[1,2,3-cd]pyrene | **6** | ug/kg | 5 | EPA 8270C | 09/13/12 | 09/18/12 6:29 | JKL |
| 2-Methylnaphthalene | ND | ug/kg | 5 | EPA 8270C | 09/13/12 | 09/18/12 6:29 | JKL |
| Naphthalene` | ND | ug/kg | 5 | EPA 8270C | 09/13/12 | 09/18/12 6:29 | JKL |
| Phenanthrene | ND | ug/kg | 5 | EPA 8270C | 09/13/12 | 09/18/12 6:29 | JKL |
| Pyrene | **8** | ug/kg | 5 | EPA 8270C | 09/13/12 | 09/18/12 6:29 | JKL |
| **Target Compound List - VOLATILES** | | | | | | | |
| Dichlorodifluoromethane | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 0:53 | JKL |
| Chloromethane | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 0:53 | JKL |
| Vinyl chloride | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 0:53 | JKL |
| Bromomethane | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 0:53 | JKL |
| Chloroethane | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 0:53 | JKL |
| Trichlorofluoromethane | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 0:53 | JKL |
| 1,1-Dichloroethene | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 0:53 | JKL |
| 1,1,2-Trichlorotrifluoroethane | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 0:53 | JKL |
| Acetone | ND | ug/kg | 98 | EPA 8260B | 09/19/12 | 09/19/12 0:53 | JKL |
| Carbon disulfide | ND | ug/kg | 10 | EPA 8260B | 09/19/12 | 09/19/12 0:53 | JKL |



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# Certificate of Analysis

Haley & Aldrich, Inc
200 Town Centre Dr., Suite 2
Rochester, NY 14623-4264

Date Sampled: 09/11/12 14:46
Date Received: 09/12/12 12:10
Date Issued: 09/25/12

Project: St. Elizabeths East Campus
Site Location: Washington, DC
Project Number: 38677-003

**SDG Number: 12091201**

**Field Sample ID: B129-S2-13'-15'** **Matrix: Soil** **Lab ID: 12091201-28**

| | Result | Unit | LLQ | Method | Prepared | Analyzed | Init. |
|---|---|---|---|---|---|---|---|
| **Target Compound List - VOLATILES** | | | | | | | |
| Methyl acetate | ND | ug/kg | 25 | EPA 8260B | 09/19/12 | 09/19/12 0:53 | JKL |
| Methylene chloride | ND | ug/kg | 25 | EPA 8260B | 09/19/12 | 09/19/12 0:53 | JKL |
| trans-1,2-Dichloroethene | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 0:53 | JKL |
| Methyl t-butyl ether (MTBE) | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 0:53 | JKL |
| 1,1-Dichloroethane | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 0:53 | JKL |
| cis-1,2-Dichloroethene | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 0:53 | JKL |
| 2-Butanone (MEK) | ND | ug/kg | 49 | EPA 8260B | 09/19/12 | 09/19/12 0:53 | JKL |
| Chloroform | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 0:53 | JKL |
| 1,1,1-Trichloroethane | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 0:53 | JKL |
| Cyclohexane | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 0:53 | JKL |
| Carbon tetrachloride | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 0:53 | JKL |
| Benzene | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 0:53 | JKL |
| 1,2-Dichloroethane | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 0:53 | JKL |
| Trichloroethene | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 0:53 | JKL |
| Methylcyclohexane | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 0:53 | JKL |
| 1,2-Dichloropropane | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 0:53 | JKL |
| Bromodichloromethane | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 0:53 | JKL |
| cis-1,3-Dichloropropene | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 0:53 | JKL |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/kg | 10 | EPA 8260B | 09/19/12 | 09/19/12 0:53 | JKL |
| Toluene | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 0:53 | JKL |
| trans-1,3-Dichloropropene | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 0:53 | JKL |
| 1,1,2-Trichloroethane | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 0:53 | JKL |
| Tetrachloroethene | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 0:53 | JKL |
| 2-Hexanone (MBK) | ND | ug/kg | 10 | EPA 8260B | 09/19/12 | 09/19/12 0:53 | JKL |
| Dibromochloromethane | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 0:53 | JKL |
| 1,2-Dibromoethane | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 0:53 | JKL |
| Chlorobenzene | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 0:53 | JKL |
| Ethylbenzene | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 0:53 | JKL |
| m&p-Xylene | ND | ug/kg | 10 | EPA 8260B | 09/19/12 | 09/19/12 0:53 | JKL |
| o-Xylene | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 0:53 | JKL |
| Styrene | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 0:53 | JKL |
| Bromoform | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 0:53 | JKL |
| Isopropylbenzene | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 0:53 | JKL |
| 1,1,2,2-Tetrachloroethane | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 0:53 | JKL |
| 1,3-Dichlorobenzene | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 0:53 | JKL |
| 1,4-Dichlorobenzene | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 0:53 | JKL |
| 1,2-Dichlorobenzene | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 0:53 | JKL |
| 1,2-Dibromo-3-chloropropane | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 0:53 | JKL |



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# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

Haley & Aldrich, Inc
200 Town Centre Dr., Suite 2
Rochester, NY 14623-4264

Date Sampled: 09/11/12 14:46
Date Received: 09/12/12 12:10
Date Issued: 09/25/12

Project: St. Elizabeths East Campus
Site Location: Washington, DC
Project Number: 38677-003

**SDG Number: 12091201**

**Field Sample ID: B129-S2-13'-15'** **Matrix: Soil** **Lab ID: 12091201-28**

| | Result | Unit | LLQ | Method | Prepared | Analyzed | Init. |
|---|---|---|---|---|---|---|---|
| **Target Compound List - VOLATILES** | | | | | | | |
| 1,2,4-Trichlorobenzene | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 0:53 | JKL |
| Naphthalene | ND | ug/kg | 10 | EPA 8260B | 09/19/12 | 09/19/12 0:53 | JKL |
| Ethyl t-butyl ether (ETBE) | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 0:53 | JKL |
| tert-Butanol (TBA) | ND | ug/kg | 25 | EPA 8260B | 09/19/12 | 09/19/12 0:53 | JKL |
| Diisopropyl ether (DIPE) | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 0:53 | JKL |
| tert-Amyl methyl ether (TAME) | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 0:53 | JKL |
| tert-Amyl alcohol (TAA) | ND | ug/kg | 25 | EPA 8260B | 09/19/12 | 09/19/12 0:53 | JKL |
| tert-Amyl ethyl ether (TAEE) | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 0:53 | JKL |
| **Total Metals** | | | | | | | |
| Arsenic | **0.91** | mg/kg | 0.29 | EPA 6020A | 09/13/12 | 09/14/12 15:25 | MEL |
| Barium | **29** | mg/kg | 1.4 | EPA 6020A | 09/13/12 | 09/14/12 15:25 | MEL |
| Cadmium | ND | mg/kg | 1.4 | EPA 6020A | 09/13/12 | 09/14/12 15:25 | MEL |
| Chromium | **4.9** | mg/kg | 1.4 | EPA 6020A | 09/13/12 | 09/14/12 15:25 | MEL |
| Lead | **13** | mg/kg | 1.4 | EPA 6020A | 09/13/12 | 09/14/12 15:25 | MEL |
| Mercury | ND | mg/kg | 0.058 | EPA 6020A | 09/13/12 | 09/14/12 15:25 | MEL |
| Selenium | ND | mg/kg | 1.4 | EPA 6020A | 09/13/12 | 09/14/12 15:25 | MEL |
| Silver | ND | mg/kg | 1.4 | EPA 6020A | 09/13/12 | 09/14/12 15:25 | MEL |
| **Total Petroleum Hydrocarbons - (C10-C28) DRO** | | | | | | | |
| Diesel Range Organics | ND | mg/kg | 11 | EPA 8015C | 09/14/12 | 09/15/12 19:41 | AC |
| **Total Petroleum Hydrocarbons - (C28-C40) HRO** | | | | | | | |
| Oil Range Organics | ND | mg/kg | 11 | EPA 8015C | 09/14/12 | 09/15/12 19:41 | AC |
| **Total Petroleum Hydrocarbons - (C6-C10) GRO** | | | | | | | |
| Gasoline Range Organics | ND | mg/kg | 0.19 | EPA 8015C | 09/19/12 | 09/21/12 17:02 | CBS |

Notes/Qualifiers:
LLQ- Lowest Level of Quantitation
ND - Not Detected at a concentration greater than or equal to the LLQ.
Results reported on a dry weight basis.

Approved by: Matt Osher
QC Chemist



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# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

Haley & Aldrich, Inc
200 Town Centre Dr., Suite 2
Rochester, NY 14623-4264

Date Sampled: 09/11/12 15:28
Date Received: 09/12/12 12:10
Date Issued: 09/25/12

Project: St. Elizabeths East Campus
Site Location: Washington, DC
Project Number: 38677-003

**SDG Number: 12091201**

**Field Sample ID: B116-S1-6'-8'** **Matrix: Soil** **Lab ID: 12091201-29**

| | Result | Unit | LLQ | Method | Prepared | Analyzed | Init. |
|---|---|---|---|---|---|---|---|
| **Percent Solids** | | | | | | | |
| Percent Solids | **85** | % | | SM2540G | 09/18/12 | 09/18/12 9:38 | LMJ |
| **Polychlorinated Biphenyls** | | | | | | | |
| Aroclor 1016 | ND | mg/kg | 0.054 | EPA 8082 | 09/14/12 | 09/18/12 3:37 | AC |
| Aroclor 1221 | ND | mg/kg | 0.054 | EPA 8082 | 09/14/12 | 09/18/12 3:37 | AC |
| Aroclor 1232 | ND | mg/kg | 0.054 | EPA 8082 | 09/14/12 | 09/18/12 3:37 | AC |
| Aroclor 1242 | ND | mg/kg | 0.054 | EPA 8082 | 09/14/12 | 09/18/12 3:37 | AC |
| Aroclor 1248 | ND | mg/kg | 0.054 | EPA 8082 | 09/14/12 | 09/18/12 3:37 | AC |
| Aroclor 1254 | ND | mg/kg | 0.054 | EPA 8082 | 09/14/12 | 09/18/12 3:37 | AC |
| Aroclor 1260 | ND | mg/kg | 0.054 | EPA 8082 | 09/14/12 | 09/18/12 3:37 | AC |
| **Total Petroleum Hydrocarbons - (C10-C28) DRO** | | | | | | | |
| Diesel Range Organics | ND | mg/kg | 12 | EPA 8015C | 09/14/12 | 09/15/12 20:15 | AC |
| **Total Petroleum Hydrocarbons - (C28-C40) HRO** | | | | | | | |
| Oil Range Organics | ND | mg/kg | 12 | EPA 8015C | 09/14/12 | 09/15/12 20:15 | AC |
| **Total Petroleum Hydrocarbons - (C6-C10) GRO** | | | | | | | |
| Gasoline Range Organics | ND | mg/kg | 0.24 | EPA 8015C | 09/19/12 | 09/21/12 17:27 | CBS |
| **Volatile Organic Compounds** | | | | | | | |
| Benzene | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 1:22 | JKL |
| Toluene | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 1:22 | JKL |
| Ethylbenzene | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 1:22 | JKL |
| m&p-Xylene | ND | ug/kg | 10 | EPA 8260B | 09/19/12 | 09/19/12 1:22 | JKL |
| o-Xylene | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 1:22 | JKL |
| Naphthalene | ND | ug/kg | 10 | EPA 8260B | 09/19/12 | 09/19/12 1:22 | JKL |

Notes/Qualifiers:
LLQ- Lowest Level of Quantitation
ND - Not Detected at a concentration greater than or equal to the LLQ.
Results reported on a dry weight basis.

Approved by:

QC Chemist



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CALIBER ANALYTICAL SERVICES

8851 Orchard Tree Lane Towson, MD 21286
Phone: 410.825.1151
Fax: 410.825.2126
www.caslabs.net

# Chain of Custody Record

| | |
|---|---|
| Customer: | Haley + Aldrich |
| Contact/Report to: | Kwright-ng@haleyaldrich.com |
| Phone: | 703 336 6234 |
| Fax: | |

| | |
|---|---|
| E-mail address: | |
| Project Name: | St Elizabeths East Campus |
| Project Number: | 38677-003 |
| Location: | Washington DC |

| | |
|---|---|
| SDG Number: | 120912O1 |
| Sampled by: | CT |
| PO Number: | 38677-003 |

Analysis Requested

| Lab Number | Field Sample ID | Date Sampled | Time Sampled | No. of Bottles | Preservative / Matrix | BTEX + Naphthalene | TPH-DRO/GRO/ORO | VOCs by 8260 | PCBs | RCRA 8 Metals | PAHs | Dioxins/Furans * | | | | * TCDD+TCDF Sampling Remarks/ Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | B128-S1-5'-7' | 9/10/12 | 8:41 | 4 | SO | X | X | | | | | | | | | |
| | B127-S1-5'-7 | 9/10/12 | 9:41 | 5 | SO | | X | X | X | X | X | | | | | |
| | B122-S1-0.5'-2' | 9/10/12 | 10:25 | 4 | SO | X | X | | | | | | | | | |
| | B123-S1-5' to 7' | 9/10/12 | 11:26 | 4 | SO | X | X | | | | | | | | | |
| | B119-S1-5' to 7' | 9/10/12 | 12:05 | 4 | SO | X | X | | | | | | | | | |
| | B124-S1-5' to 7' | 9/10/12 | 12:30 | 4 | SO | X | X | | | | | | | | | |
| | B113-S1-5' to 7' | 9/10/12 | 13:20 | 4 | SO | X | X | | | | | | | | | |
| | B109-S1-1.5' to 3.5' | 9/10/12 | 13:49 | 5 | SO | | X | | X | X | X | | | | | |
| | B109-S2-10' to 12' | 9/10/12 | 13:49 | 5 | SO | | X | | X | X | X | | | | | |
| | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | | | | | X | X | X | | | | |

| | | | | | |
|---|---|---|---|---|---|
| Relinquished by: | | Date/Time: | | Deliverables: | Receipt Temperature: / Turnaround Time: |
| Received by: | L. Colee | Date/Time: | 9/12/12 1210 | I II III CLP EDD | Temp: On Ice / STD Next Day 2-Day Other |
| Relinquished by: | | Date/Time: | | Custody Seals: | Comments/Special Instructions: |
| Received by: | | Date/Time: | | Sample Cooler | |
| Relinquished by: | | Date/Time: | | Delivered by client | |
| Received by: | | Date/Time: | | FedEX | |

CALIBER ANALYTICAL SERVICES

8851 Orchard Tree Lane Towson, MD 21286
Phone: 410.825.1151
Fax: 410.825.2126
www.caslabs.net

# Chain of Custody Record

| | |
|---|---|
| Customer: | HALEY & ALDRICH |
| Contact/Report to: | KWRIGHT-NG@HALEYALDRICH.COM |
| Phone: | 703 336 6234 |
| Fax: | |

| | |
|---|---|
| E-mail address: | |
| Project Name: | ST. ELIZABETHS EAST CAMPUS |
| Project Number: | 38677-003 |
| Location: | WASHINGTON DC |

| | |
|---|---|
| SDG Number: | 1209120 |
| Sampled by: | CT |
| PO Number: | 38677-003 |

Analysis Requested

| Lab Number | Field Sample ID | Date Sampled | Time Sampled | No. of Bottles | Preservative / Matrix | BTEX + NAPHTHALENE | TPH - DRO/GRO/OCO | VOCs by 8260 | RCRA 8 Bs | RCRA 8 METALS | PAHs | DIOXINS/FURANS * | | | | Sampling Remarks/ Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | | | | | | | | | | | |
| | B102-S1-11' to 13' | 9/10/12 | 14:30 | 2 | SO | | X | | X | X | X | | | | | |
| | B102-S2-5' to 6.5' | 9/10/12 | 14:30 | 2 | SO | | X | | X | X | X | | | | | |
| | B101-S1-8' to 10' | 9/10/12 | 15:26 | 5 | SO | | X | X | X | X | X | | | | | |
| | B101-S2-13' to 15' | 9/10/12 | 15:26 | 5 | SO | | X | X | X | X | X | | | | | |
| | B120-S1-5' to 7' | 9/10/12 | 16:20 | 4 | SO | X | X | | | | | | | | | |
| | B126-S1-18' to 20' | 9/11/12 | 8:19 | 5 | SO | X | X | | | | | | | | | |
| | B111-S1-10' to 12' | 9/11/12 | 8:55 | 4 | SO | X | X | | X | | | | | | | |
| | B111-S2-1' to 3' | 9/11/12 | 8:55 | 1 | SO | X | X | | X | | | | | | | |
| | B125-S1-1' to 3' | 9/11/12 | 9:53 | 4 | SO | | X | X | X | X | X | | | | | |

*TCDD & TCDF

| | | | |
|---|---|---|---|
| Relinquished by: | | Date/Time: | |
| Received by: | M. Collier | Date/Time: | 9/12/12 1210 |
| Relinquished by: | | Date/Time: | |
| Received by: | | Date/Time: | |
| Relinquished by: | | Date/Time: | |
| Received by: | | Date/Time: | |

Deliverables: I II III CLP EDD

Receipt Temperature: Temp: Office

Turnaround Time: STD Next Day 2-Day Other

Custody Seals: Sample Cooler

Delivered by client FedEx

Comments/Special Instructions:

CALIBER ANALYTICAL SERVICES

8851 Orchard Tree Lane Towson, MD 21286
Phone: 410.825.1151
Fax: 410.825.2126
www.caslabs.net

# Chain of Custody Record

| | |
|---|---|
| Customer: | HALEY & ALDRICH |
| Contact/Report to: | KWRIGHT-NG@HALEYALDRICH.COM |
| Phone: | 703 336 6234 |
| Fax: | |

| | |
|---|---|
| E-mail address: | |
| Project Name: | ST. ELIZABETH EAST CAMPUS |
| Project Number: | 38677-003 |
| Location: | WASHINGTON DC |

| | |
|---|---|
| SDG Number: | 12091201 |
| Sampled by: | CT |
| PO Number: | 38677-003 |

Analysis Requested

| Lab Number | Field Sample ID | Date Sampled | Time Sampled | No. of Bottles | Preservative / Matrix | BTEX + NAPHTHALENE | TPH-DRO/GRO/ORO | VOCs by 8260 | RCRA Bs | RCRA 8 METALS | PAHs | DIOXINS/FURANS* | | | | * TCDD & TCDF Sampling Remarks/ Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | B125-S2-8'to10' | 9/11/12 | 9:53 | 1 | SO | | X | X | X | X | X | | | | | |
| | B103-S1-0.5'to1.5' | 9/11/12 | 11:04 | 4 | SO | | X | X | | | | | | | | |
| | B103-S2-5'to7' | 9/11/12 | 11:09 | 4 | SO | | X | X | | | | | | | | |
| | B117-S1-15'to17' | 9/11/12 | 11:59 | 4 | SO | | X | X | X | X | X | | | | | |
| | B117-S2-2'to4' | 9/11/12 | 11:59 | 1 | SO | | X | X | X | X | X | | | | | |
| | [illegible] | | | | | | | | | | | | | | | |
| | B112-S1-5'to6' | 9/11/12 | 13:19 | 4 | SO | X | X | | X | | | | | | | |
| | B112-S2-18'to20' | 9/11/12 | 13:19 | 1 | SO | X | X | | X | | | | | | | |
| | [illegible] | [illegible] | [illegible] | N/A | SO | X | X | X | X | | | | | | | |
| | B118-S1-10'to11' | 9/11/12 | 13:59 | 4 | SO | X | X | | X | | | | | | | |

| | | | |
|---|---|---|---|
| Relinquished by: | | Date/Time: | |
| Received by: | [signature] | Date/Time: | 9/12/12 12:10 |
| Relinquished by: | | Date/Time: | |
| Received by: | | Date/Time: | |
| Relinquished by: | | Date/Time: | |
| Received by: | | Date/Time: | |

Deliverables: I II III CLP EDD

Custody Seals: Sample Cooler Delivered by client FedEx

Receipt Temperature: Temp: On Ice

Turnaround Time: STD Next Day 2-Day Other

Comments/Special Instructions:

CALIBER ANALYTICAL SERVICES

8851 Orchard Tree Lane Towson, MD 21286
Phone: 410.825.1151
Fax: 410.825.2126
www.caslabs.net

# Chain of Custody Record

| | |
|---|---|
| Customer: | HALEY & ALDRICH |
| Contact/Report to: | KWRIGHT-NG@HALEYALDRICH.COM |
| Phone: | 703 336 6234 |
| Fax: | |

| | |
|---|---|
| E-mail address: | |
| Project Name: | ST. ELIZABETH EAST CAMPUS |
| Project Number: | 38677-003 |
| Location: | WASHINGTON DC |

| | |
|---|---|
| SDG Number: | 1209120 |
| Sampled by: | CT |
| PO Number: | 38677-003 |

Analysis Requested

| Lab Number | Field Sample ID | Date Sampled | Time Sampled | No. of Bottles | Matrix | Preservative | BTEX + NAPHTHALENE | TPH-DRO/GRO/ORO | VOCs by 8260 | TCBs | RCRA 8 METALS | PAHs | DIOXINS/FURANS* | | | | * TCDD & TCDF Sampling Remarks/ Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | B129-S1-5'to7' | 9/11/2012 | 14:46 | 4 | | | | X | X | X | X | X | | | | | |
| | B129-S2-13'to15' | 9/11/12 | 14:46 | 1 | | | | X | X | X | X | X | | | | | |
| | B116-S1-6'to8' | 9/11/12 | 15:28 | 4 | | | X | X | | X | | | | | | | |
| | | | | | | | | | | | | | | | | | |
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| | | | | | | |
|---|---|---|---|---|---|---|
| Relinquished by: | | Date/Time: | | Deliverables: | Receipt Temperature: | Turnaround Time: |
| Received by: | M-Colee | Date/Time: | 9/12/12 1210 | I II III CLP EDD | Temp:____ On Ice | STD Next Day 2-Day Other____ |
| Relinquished by: | | Date/Time: | | Custody Seals: | Comments/Special Instructions: | |
| Received by: | | Date/Time: | | Sample Cooler | | |
| Relinquished by: | | Date/Time: | | Delivered by client | | |
| Received by: | | Date/Time: | | FedEx | | |

# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

Haley & Aldrich, Inc
200 Town Centre Dr., Suite 2
Rochester, NY 14623-4264

Date Sampled: 09/12/12 7:48
Date Received: 09/13/12 12:00
Date Issued: 09/26/12

Project: St. Elizabeth East Campus
Site Location: Washington, DC
Project Number: 38677-003

**SDG Number: 12091307**

**Field Sample ID: B106-S1-7'-9'** **Matrix: Soil** **Lab ID: 12091307-01**

| | Result | Unit | LLQ | Method | Prepared | Analyzed | Init. |
|---|---|---|---|---|---|---|---|
| **Percent Solids** | | | | | | | |
| Percent Solids | **90** | % | | SM2540G | 09/18/12 | 09/18/12 9:38 | LMJ |
| **Polychlorinated Biphenyls** | | | | | | | |
| Aroclor 1016 | ND | mg/kg | 0.053 | EPA 8082 | 09/19/12 | 09/19/12 17:05 | AC |
| Aroclor 1221 | ND | mg/kg | 0.053 | EPA 8082 | 09/19/12 | 09/19/12 17:05 | AC |
| Aroclor 1232 | ND | mg/kg | 0.053 | EPA 8082 | 09/19/12 | 09/19/12 17:05 | AC |
| Aroclor 1242 | ND | mg/kg | 0.053 | EPA 8082 | 09/19/12 | 09/19/12 17:05 | AC |
| Aroclor 1248 | ND | mg/kg | 0.053 | EPA 8082 | 09/19/12 | 09/19/12 17:05 | AC |
| Aroclor 1254 | ND | mg/kg | 0.053 | EPA 8082 | 09/19/12 | 09/19/12 17:05 | AC |
| Aroclor 1260 | ND | mg/kg | 0.053 | EPA 8082 | 09/19/12 | 09/19/12 17:05 | AC |
| **Polycyclic Aromatic Hydrocarbons (SIM)** | | | | | | | |
| Acenaphthene | **5** | ug/kg | 5 | EPA 8270C | 09/18/12 | 09/24/12 20:43 | JKL |
| Acenaphthylene | ND | ug/kg | 5 | EPA 8270C | 09/18/12 | 09/24/12 20:43 | JKL |
| Anthracene | **11** | ug/kg | 5 | EPA 8270C | 09/18/12 | 09/24/12 20:43 | JKL |
| Benzo[a]anthracene | **20** | ug/kg | 5 | EPA 8270C | 09/18/12 | 09/24/12 20:43 | JKL |
| Benzo[a]pyrene | **19** | ug/kg | 5 | EPA 8270C | 09/18/12 | 09/24/12 20:43 | JKL |
| Benzo[b]fluoranthene | **23** | ug/kg | 5 | EPA 8270C | 09/18/12 | 09/24/12 20:43 | JKL |
| Benzo[g,h,i]perylene | **17** | ug/kg | 5 | EPA 8270C | 09/18/12 | 09/24/12 20:43 | JKL |
| Benzo[k]fluoranthene | **18** | ug/kg | 5 | EPA 8270C | 09/18/12 | 09/24/12 20:43 | JKL |
| Chrysene | **21** | ug/kg | 5 | EPA 8270C | 09/18/12 | 09/24/12 20:43 | JKL |
| Dibenz[a,h]anthracene | **12** | ug/kg | 5 | EPA 8270C | 09/18/12 | 09/24/12 20:43 | JKL |
| Fluoranthene | **25** | ug/kg | 5 | EPA 8270C | 09/18/12 | 09/24/12 20:43 | JKL |
| Fluorene | **6** | ug/kg | 5 | EPA 8270C | 09/18/12 | 09/24/12 20:43 | JKL |
| Indeno[1,2,3-cd]pyrene | **16** | ug/kg | 5 | EPA 8270C | 09/18/12 | 09/24/12 20:43 | JKL |
| 2-Methylnaphthalene | **11** | ug/kg | 5 | EPA 8270C | 09/18/12 | 09/24/12 20:43 | JKL |
| Naphthalene` | ND | ug/kg | 5 | EPA 8270C | 09/18/12 | 09/24/12 20:43 | JKL |
| Phenanthrene | **18** | ug/kg | 5 | EPA 8270C | 09/18/12 | 09/24/12 20:43 | JKL |
| Pyrene | **25** | ug/kg | 5 | EPA 8270C | 09/18/12 | 09/24/12 20:43 | JKL |
| **Target Compound List - VOLATILES** | | | | | | | |
| Dichlorodifluoromethane | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 17:42 | JKL |
| Chloromethane | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 17:42 | JKL |
| Vinyl chloride | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 17:42 | JKL |
| Bromomethane | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 17:42 | JKL |
| Chloroethane | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 17:42 | JKL |
| Trichlorofluoromethane | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 17:42 | JKL |
| 1,1-Dichloroethene | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 17:42 | JKL |
| 1,1,2-Trichlorotrifluoroethane | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 17:42 | JKL |
| Acetone | ND | ug/kg | 41 | EPA 8260B | 09/19/12 | 09/19/12 17:42 | JKL |
| Carbon disulfide | ND | ug/kg | 8 | EPA 8260B | 09/19/12 | 09/19/12 17:42 | JKL |



8851 Orchard Tree Lane Towson, Maryland 21286
tel: 410.825.1151 fax: 410.825.2126 www.caslabs.net

# Certificate of Analysis

Haley & Aldrich, Inc
200 Town Centre Dr., Suite 2
Rochester, NY 14623-4264

Date Sampled: 09/12/12 7:48
Date Received: 09/13/12 12:00
Date Issued: 09/26/12

Project: St. Elizabeth East Campus
Site Location: Washington, DC
Project Number: 38677-003

**SDG Number: 12091307**

**Field Sample ID: B106-S1-7'-9'** **Matrix: Soil** **Lab ID: 12091307-01**

| | Result | Unit | LLQ | Method | Prepared | Analyzed | Init. |
|---|---|---|---|---|---|---|---|
| **Target Compound List - VOLATILES** | | | | | | | |
| Methyl acetate | ND | ug/kg | 20 | EPA 8260B | 09/19/12 | 09/19/12 17:42 | JKL |
| Methylene chloride | ND | ug/kg | 20 | EPA 8260B | 09/19/12 | 09/19/12 17:42 | JKL |
| trans-1,2-Dichloroethene | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 17:42 | JKL |
| Methyl t-butyl ether (MTBE) | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 17:42 | JKL |
| 1,1-Dichloroethane | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 17:42 | JKL |
| cis-1,2-Dichloroethene | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 17:42 | JKL |
| 2-Butanone (MEK) | ND | ug/kg | 41 | EPA 8260B | 09/19/12 | 09/19/12 17:42 | JKL |
| Chloroform | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 17:42 | JKL |
| 1,1,1-Trichloroethane | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 17:42 | JKL |
| Cyclohexane | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 17:42 | JKL |
| Carbon tetrachloride | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 17:42 | JKL |
| Benzene | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 17:42 | JKL |
| 1,2-Dichloroethane | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 17:42 | JKL |
| Trichloroethene | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 17:42 | JKL |
| Methylcyclohexane | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 17:42 | JKL |
| 1,2-Dichloropropane | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 17:42 | JKL |
| Bromodichloromethane | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 17:42 | JKL |
| cis-1,3-Dichloropropene | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 17:42 | JKL |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/kg | 8 | EPA 8260B | 09/19/12 | 09/19/12 17:42 | JKL |
| Toluene | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 17:42 | JKL |
| trans-1,3-Dichloropropene | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 17:42 | JKL |
| 1,1,2-Trichloroethane | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 17:42 | JKL |
| Tetrachloroethene | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 17:42 | JKL |
| 2-Hexanone (MBK) | ND | ug/kg | 8 | EPA 8260B | 09/19/12 | 09/19/12 17:42 | JKL |
| Dibromochloromethane | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 17:42 | JKL |
| 1,2-Dibromoethane | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 17:42 | JKL |
| Chlorobenzene | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 17:42 | JKL |
| Ethylbenzene | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 17:42 | JKL |
| m&p-Xylene | ND | ug/kg | 8 | EPA 8260B | 09/19/12 | 09/19/12 17:42 | JKL |
| o-Xylene | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 17:42 | JKL |
| Styrene | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 17:42 | JKL |
| Bromoform | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 17:42 | JKL |
| Isopropylbenzene | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 17:42 | JKL |
| 1,1,2,2-Tetrachloroethane | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 17:42 | JKL |
| 1,3-Dichlorobenzene | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 17:42 | JKL |
| 1,4-Dichlorobenzene | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 17:42 | JKL |
| 1,2-Dichlorobenzene | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 17:42 | JKL |
| 1,2-Dibromo-3-chloropropane | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 17:42 | JKL |



8851 Orchard Tree Lane Towson, Maryland 21286
tel: 410.825.1151 fax: 410.825.2126 www.caslabs.net

# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

Haley & Aldrich, Inc
200 Town Centre Dr., Suite 2
Rochester, NY 14623-4264

Date Sampled: 09/12/12 7:48
Date Received: 09/13/12 12:00
Date Issued: 09/26/12

Project: St. Elizabeth East Campus
Site Location: Washington, DC
Project Number: 38677-003

**SDG Number: 12091307**

**Field Sample ID: B106-S1-7'-9'** **Matrix: Soil** **Lab ID: 12091307-01**

| | Result | Unit | LLQ | Method | Prepared | Analyzed | Init. |
|---|---|---|---|---|---|---|---|
| **Target Compound List - VOLATILES** | | | | | | | |
| 1,2,4-Trichlorobenzene | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 17:42 | JKL |
| Naphthalene | ND | ug/kg | 8 | EPA 8260B | 09/19/12 | 09/19/12 17:42 | JKL |
| Ethyl t-butyl ether (ETBE) | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 17:42 | JKL |
| tert-Butanol (TBA) | ND | ug/kg | 20 | EPA 8260B | 09/19/12 | 09/19/12 17:42 | JKL |
| Diisopropyl ether (DIPE) | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 17:42 | JKL |
| tert-Amyl methyl ether (TAME) | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 17:42 | JKL |
| tert-Amyl alcohol (TAA) | ND | ug/kg | 20 | EPA 8260B | 09/19/12 | 09/19/12 17:42 | JKL |
| tert-Amyl ethyl ether (TAEE) | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 17:42 | JKL |
| **Total Metals** | | | | | | | |
| Arsenic | **5.3** | mg/kg | 0.55 | EPA 6020A | 09/13/12 | 09/14/12 15:31 | MEL |
| Barium | **72** | mg/kg | 2.7 | EPA 6020A | 09/13/12 | 09/14/12 15:31 | MEL |
| Cadmium | ND | mg/kg | 2.7 | EPA 6020A | 09/13/12 | 09/14/12 15:31 | MEL |
| Chromium | **20** | mg/kg | 2.7 | EPA 6020A | 09/13/12 | 09/14/12 15:31 | MEL |
| Lead | **23** | mg/kg | 2.7 | EPA 6020A | 09/13/12 | 09/14/12 15:31 | MEL |
| Mercury | ND | mg/kg | 0.11 | EPA 6020A | 09/13/12 | 09/14/12 15:31 | MEL |
| Selenium | ND | mg/kg | 2.7 | EPA 6020A | 09/13/12 | 09/14/12 15:31 | MEL |
| Silver | ND | mg/kg | 2.7 | EPA 6020A | 09/13/12 | 09/14/12 15:31 | MEL |
| **Total Petroleum Hydrocarbons - (C10-C28) DRO** | | | | | | | |
| Diesel Range Organics | ND | mg/kg | 11 | EPA 8015C | 09/18/12 | 09/19/12 17:29 | AC |
| **Total Petroleum Hydrocarbons - (C28-C40) ORO** | | | | | | | |
| Oil Range Organics | ND | mg/kg | 11 | EPA 8015C | 09/18/12 | 09/19/12 17:29 | AC |
| **Total Petroleum Hydrocarbons - (C6-C10) GRO** | | | | | | | |
| Gasoline Range Organics | ND | mg/kg | 0.18 | EPA 8015C | 09/25/12 | 09/25/12 4:33 | CBS |

Notes/Qualifiers:
LLQ- Lowest Level of Quantitation
ND - Not Detected at a concentration greater than or equal to the LLQ.
Results reported on a dry weight basis.

Approved by: Matt Osher
QC Chemist



8851 Orchard Tree Lane Towson, Maryland 21286
tel: 410.825.1151 fax: 410.825.2126 www.caslabs.net

# Certificate of Analysis

Haley & Aldrich, Inc
200 Town Centre Dr., Suite 2
Rochester, NY 14623-4264

Date Sampled: 09/12/12 7:48
Date Received: 09/13/12 12:00
Date Issued: 09/26/12

Project: St. Elizabeth East Campus
Site Location: Washington, DC
Project Number: 38677-003

**SDG Number: 12091307**

**Field Sample ID: B106-S2-21'-23'** **Matrix: Soil** **Lab ID: 12091307-02**

| | Result | Unit | LLQ | Method | Prepared | Analyzed | Init. |
|---|---|---|---|---|---|---|---|
| **Percent Solids** | | | | | | | |
| Percent Solids | **77** | % | | SM2540G | 09/18/12 | 09/18/12 9:38 | LMJ |
| **Polychlorinated Biphenyls** | | | | | | | |
| Aroclor 1016 | ND | mg/kg | 0.062 | EPA 8082 | 09/19/12 | 09/20/12 12:12 | AC |
| Aroclor 1221 | ND | mg/kg | 0.062 | EPA 8082 | 09/19/12 | 09/20/12 12:12 | AC |
| Aroclor 1232 | ND | mg/kg | 0.062 | EPA 8082 | 09/19/12 | 09/20/12 12:12 | AC |
| Aroclor 1242 | ND | mg/kg | 0.062 | EPA 8082 | 09/19/12 | 09/20/12 12:12 | AC |
| Aroclor 1248 | ND | mg/kg | 0.062 | EPA 8082 | 09/19/12 | 09/20/12 12:12 | AC |
| Aroclor 1254 | ND | mg/kg | 0.062 | EPA 8082 | 09/19/12 | 09/20/12 12:12 | AC |
| Aroclor 1260 | ND | mg/kg | 0.062 | EPA 8082 | 09/19/12 | 09/20/12 12:12 | AC |
| **Polycyclic Aromatic Hydrocarbons (SIM)** | | | | | | | |
| Acenaphthene | ND | ug/kg | 6 | EPA 8270C | 09/18/12 | 09/24/12 21:19 | JKL |
| Acenaphthylene | ND | ug/kg | 6 | EPA 8270C | 09/18/12 | 09/24/12 21:19 | JKL |
| Anthracene | **9** | ug/kg | 6 | EPA 8270C | 09/18/12 | 09/24/12 21:19 | JKL |
| Benzo[a]anthracene | **13** | ug/kg | 6 | EPA 8270C | 09/18/12 | 09/24/12 21:19 | JKL |
| Benzo[a]pyrene | **11** | ug/kg | 6 | EPA 8270C | 09/18/12 | 09/24/12 21:19 | JKL |
| Benzo[b]fluoranthene | **13** | ug/kg | 6 | EPA 8270C | 09/18/12 | 09/24/12 21:19 | JKL |
| Benzo[g,h,i]perylene | **13** | ug/kg | 6 | EPA 8270C | 09/18/12 | 09/24/12 21:19 | JKL |
| Benzo[k]fluoranthene | **14** | ug/kg | 6 | EPA 8270C | 09/18/12 | 09/24/12 21:19 | JKL |
| Chrysene | **14** | ug/kg | 6 | EPA 8270C | 09/18/12 | 09/24/12 21:19 | JKL |
| Dibenz[a,h]anthracene | **11** | ug/kg | 6 | EPA 8270C | 09/18/12 | 09/24/12 21:19 | JKL |
| Fluoranthene | **11** | ug/kg | 6 | EPA 8270C | 09/18/12 | 09/24/12 21:19 | JKL |
| Fluorene | ND | ug/kg | 6 | EPA 8270C | 09/18/12 | 09/24/12 21:19 | JKL |
| Indeno[1,2,3-cd]pyrene | **11** | ug/kg | 6 | EPA 8270C | 09/18/12 | 09/24/12 21:19 | JKL |
| 2-Methylnaphthalene | ND | ug/kg | 6 | EPA 8270C | 09/18/12 | 09/24/12 21:19 | JKL |
| Naphthalene` | ND | ug/kg | 6 | EPA 8270C | 09/18/12 | 09/24/12 21:19 | JKL |
| Phenanthrene | **9** | ug/kg | 6 | EPA 8270C | 09/18/12 | 09/24/12 21:19 | JKL |
| Pyrene | **11** | ug/kg | 6 | EPA 8270C | 09/18/12 | 09/24/12 21:19 | JKL |
| **Target Compound List - VOLATILES** | | | | | | | |
| Dichlorodifluoromethane | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 18:11 | JKL |
| Chloromethane | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 18:11 | JKL |
| Vinyl chloride | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 18:11 | JKL |
| Bromomethane | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 18:11 | JKL |
| Chloroethane | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 18:11 | JKL |
| Trichlorofluoromethane | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 18:11 | JKL |
| 1,1-Dichloroethene | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 18:11 | JKL |
| 1,1,2-Trichlorotrifluoroethane | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 18:11 | JKL |
| Acetone | ND | ug/kg | 43 | EPA 8260B | 09/19/12 | 09/19/12 18:11 | JKL |
| Carbon disulfide | ND | ug/kg | 9 | EPA 8260B | 09/19/12 | 09/19/12 18:11 | JKL |



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Rochester, NY 14623-4264

Date Sampled: 09/12/12 7:48
Date Received: 09/13/12 12:00
Date Issued: 09/26/12

Project: St. Elizabeth East Campus
Site Location: Washington, DC
Project Number: 38677-003

**SDG Number: 12091307**

**Field Sample ID: B106-S2-21'-23'** **Matrix: Soil** **Lab ID: 12091307-02**

| | Result | Unit | LLQ | Method | Prepared | Analyzed | Init. |
|---|---|---|---|---|---|---|---|
| **Target Compound List - VOLATILES** | | | | | | | |
| Methyl acetate | ND | ug/kg | 22 | EPA 8260B | 09/19/12 | 09/19/12 18:11 | JKL |
| Methylene chloride | ND | ug/kg | 22 | EPA 8260B | 09/19/12 | 09/19/12 18:11 | JKL |
| trans-1,2-Dichloroethene | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 18:11 | JKL |
| Methyl t-butyl ether (MTBE) | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 18:11 | JKL |
| 1,1-Dichloroethane | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 18:11 | JKL |
| cis-1,2-Dichloroethene | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 18:11 | JKL |
| 2-Butanone (MEK) | ND | ug/kg | 43 | EPA 8260B | 09/19/12 | 09/19/12 18:11 | JKL |
| Chloroform | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 18:11 | JKL |
| 1,1,1-Trichloroethane | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 18:11 | JKL |
| Cyclohexane | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 18:11 | JKL |
| Carbon tetrachloride | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 18:11 | JKL |
| Benzene | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 18:11 | JKL |
| 1,2-Dichloroethane | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 18:11 | JKL |
| Trichloroethene | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 18:11 | JKL |
| Methylcyclohexane | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 18:11 | JKL |
| 1,2-Dichloropropane | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 18:11 | JKL |
| Bromodichloromethane | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 18:11 | JKL |
| cis-1,3-Dichloropropene | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 18:11 | JKL |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/kg | 9 | EPA 8260B | 09/19/12 | 09/19/12 18:11 | JKL |
| Toluene | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 18:11 | JKL |
| trans-1,3-Dichloropropene | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 18:11 | JKL |
| 1,1,2-Trichloroethane | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 18:11 | JKL |
| Tetrachloroethene | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 18:11 | JKL |
| 2-Hexanone (MBK) | ND | ug/kg | 9 | EPA 8260B | 09/19/12 | 09/19/12 18:11 | JKL |
| Dibromochloromethane | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 18:11 | JKL |
| 1,2-Dibromoethane | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 18:11 | JKL |
| Chlorobenzene | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 18:11 | JKL |
| Ethylbenzene | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 18:11 | JKL |
| m&p-Xylene | ND | ug/kg | 9 | EPA 8260B | 09/19/12 | 09/19/12 18:11 | JKL |
| o-Xylene | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 18:11 | JKL |
| Styrene | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 18:11 | JKL |
| Bromoform | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 18:11 | JKL |
| Isopropylbenzene | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 18:11 | JKL |
| 1,1,2,2-Tetrachloroethane | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 18:11 | JKL |
| 1,3-Dichlorobenzene | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 18:11 | JKL |
| 1,4-Dichlorobenzene | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 18:11 | JKL |
| 1,2-Dichlorobenzene | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 18:11 | JKL |
| 1,2-Dibromo-3-chloropropane | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 18:11 | JKL |



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200 Town Centre Dr., Suite 2
Rochester, NY 14623-4264

Date Sampled: 09/12/12 7:48
Date Received: 09/13/12 12:00
Date Issued: 09/26/12

Project: St. Elizabeth East Campus
Site Location: Washington, DC
Project Number: 38677-003

**SDG Number: 12091307**

**Field Sample ID: B106-S2-21'-23'** **Matrix: Soil** **Lab ID: 12091307-02**

| | Result | Unit | LLQ | Method | Prepared | Analyzed | Init. |
|---|---|---|---|---|---|---|---|
| **Target Compound List - VOLATILES** | | | | | | | |
| 1,2,4-Trichlorobenzene | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 18:11 | JKL |
| Naphthalene | ND | ug/kg | 9 | EPA 8260B | 09/19/12 | 09/19/12 18:11 | JKL |
| Ethyl t-butyl ether (ETBE) | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 18:11 | JKL |
| tert-Butanol (TBA) | ND | ug/kg | 22 | EPA 8260B | 09/19/12 | 09/19/12 18:11 | JKL |
| Diisopropyl ether (DIPE) | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 18:11 | JKL |
| tert-Amyl methyl ether (TAME) | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 18:11 | JKL |
| tert-Amyl alcohol (TAA) | ND | ug/kg | 22 | EPA 8260B | 09/19/12 | 09/19/12 18:11 | JKL |
| tert-Amyl ethyl ether (TAEE) | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 18:11 | JKL |
| **Total Metals** | | | | | | | |
| Arsenic | **0.88** | mg/kg | 0.54 | EPA 6020A | 09/13/12 | 09/14/12 15:50 | MEL |
| Barium | **5.6** | mg/kg | 2.7 | EPA 6020A | 09/13/12 | 09/14/12 15:50 | MEL |
| Cadmium | ND | mg/kg | 2.7 | EPA 6020A | 09/13/12 | 09/14/12 15:50 | MEL |
| Chromium | **2.9** | mg/kg | 2.7 | EPA 6020A | 09/13/12 | 09/14/12 15:50 | MEL |
| Lead | **2.8** | mg/kg | 2.7 | EPA 6020A | 09/13/12 | 09/14/12 15:50 | MEL |
| Mercury | ND | mg/kg | 0.11 | EPA 6020A | 09/13/12 | 09/14/12 15:50 | MEL |
| Selenium | ND | mg/kg | 2.7 | EPA 6020A | 09/13/12 | 09/14/12 15:50 | MEL |
| Silver | ND | mg/kg | 2.7 | EPA 6020A | 09/13/12 | 09/14/12 15:50 | MEL |
| **Total Petroleum Hydrocarbons - (C10-C28) DRO** | | | | | | | |
| Diesel Range Organics | ND | mg/kg | 13 | EPA 8015C | 09/18/12 | 09/19/12 18:36 | AC |
| **Total Petroleum Hydrocarbons - (C28-C40) ORO** | | | | | | | |
| Oil Range Organics | ND | mg/kg | 13 | EPA 8015C | 09/18/12 | 09/19/12 18:36 | AC |
| **Total Petroleum Hydrocarbons - (C6-C10) GRO** | | | | | | | |
| Gasoline Range Organics | ND | mg/kg | 0.21 | EPA 8015C | 09/25/12 | 09/25/12 11:41 | CBS |

Notes/Qualifiers:
LLQ- Lowest Level of Quantitation
ND - Not Detected at a concentration greater than or equal to the LLQ.
Results reported on a dry weight basis.

Approved by: Matt Osher
QC Chemist



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# CALIBER ANALYTICAL SERVICES

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Date Sampled: 09/12/12 8:29
Date Received: 09/13/12 12:00
Date Issued: 09/26/12

Project: St. Elizabeth East Campus
Site Location: Washington, DC
Project Number: 38677-003

**SDG Number: 12091307**

**Field Sample ID: B105-S1-5'-7'** **Matrix: Soil** **Lab ID: 12091307-03**

| | Result | Unit | LLQ | Method | Prepared | Analyzed | Init. |
|---|---|---|---|---|---|---|---|
| **Percent Solids** | | | | | | | |
| Percent Solids | **90** | % | | SM2540G | 09/18/12 | 09/18/12 9:38 | LMJ |
| **Polychlorinated Biphenyls** | | | | | | | |
| Aroclor 1016 | ND | mg/kg | 0.052 | EPA 8082 | 09/19/12 | 09/20/12 9:49 | AC |
| Aroclor 1221 | ND | mg/kg | 0.052 | EPA 8082 | 09/19/12 | 09/20/12 9:49 | AC |
| Aroclor 1232 | ND | mg/kg | 0.052 | EPA 8082 | 09/19/12 | 09/20/12 9:49 | AC |
| Aroclor 1242 | ND | mg/kg | 0.052 | EPA 8082 | 09/19/12 | 09/20/12 9:49 | AC |
| Aroclor 1248 | ND | mg/kg | 0.052 | EPA 8082 | 09/19/12 | 09/20/12 9:49 | AC |
| Aroclor 1254 | ND | mg/kg | 0.052 | EPA 8082 | 09/19/12 | 09/20/12 9:49 | AC |
| Aroclor 1260 | ND | mg/kg | 0.052 | EPA 8082 | 09/19/12 | 09/20/12 9:49 | AC |
| **Total Petroleum Hydrocarbons - (C10-C28) DRO** | | | | | | | |
| Diesel Range Organics | ND | mg/kg | 12 | EPA 8015C | 09/18/12 | 09/19/12 19:10 | AC |
| **Total Petroleum Hydrocarbons - (C28-C40) ORO** | | | | | | | |
| Oil Range Organics | ND | mg/kg | 12 | EPA 8015C | 09/18/12 | 09/19/12 19:10 | AC |
| **Total Petroleum Hydrocarbons - (C6-C10) GRO** | | | | | | | |
| Gasoline Range Organics | ND | mg/kg | 0.18 | EPA 8015C | 09/25/12 | 09/25/12 5:19 | CBS |
| **Volatile Organic Compounds** | | | | | | | |
| Benzene | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 18:39 | JKL |
| Toluene | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 18:39 | JKL |
| Ethylbenzene | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 18:39 | JKL |
| m&p-Xylene | ND | ug/kg | 9 | EPA 8260B | 09/19/12 | 09/19/12 18:39 | JKL |
| o-Xylene | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 18:39 | JKL |
| Naphthalene | ND | ug/kg | 9 | EPA 8260B | 09/19/12 | 09/19/12 18:39 | JKL |

Notes/Qualifiers:
LLQ- Lowest Level of Quantitation
ND - Not Detected at a concentration greater than or equal to the LLQ.
Results reported on a dry weight basis.

Approved by:

QC Chemist



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Date Sampled: 09/12/12 8:49
Date Received: 09/13/12 12:00
Date Issued: 09/26/12

Project: St. Elizabeth East Campus
Site Location: Washington, DC
Project Number: 38677-003

**SDG Number: 12091307**

**Field Sample ID: B105B-S1-1'-5'** **Matrix: Soil** **Lab ID: 12091307-05**

| | Result | Unit | LLQ | Method | Prepared | Analyzed | Init. |
|---|---|---|---|---|---|---|---|
| **Percent Solids** | | | | | | | |
| Percent Solids | **95** | % | | SM2540G | 09/18/12 | 09/18/12 9:39 | LMJ |
| **Polychlorinated Biphenyls** | | | | | | | |
| Aroclor 1016 | ND | mg/kg | 0.054 | EPA 8082 | 09/19/12 | 09/20/12 10:17 | AC |
| Aroclor 1221 | ND | mg/kg | 0.054 | EPA 8082 | 09/19/12 | 09/20/12 10:17 | AC |
| Aroclor 1232 | ND | mg/kg | 0.054 | EPA 8082 | 09/19/12 | 09/20/12 10:17 | AC |
| Aroclor 1242 | ND | mg/kg | 0.054 | EPA 8082 | 09/19/12 | 09/20/12 10:17 | AC |
| Aroclor 1248 | ND | mg/kg | 0.054 | EPA 8082 | 09/19/12 | 09/20/12 10:17 | AC |
| Aroclor 1254 | ND | mg/kg | 0.054 | EPA 8082 | 09/19/12 | 09/20/12 10:17 | AC |
| Aroclor 1260 | ND | mg/kg | 0.054 | EPA 8082 | 09/19/12 | 09/20/12 10:17 | AC |
| **Total Petroleum Hydrocarbons - (C10-C28) DRO** | | | | | | | |
| Diesel Range Organics | **23** | mg/kg | 11 | EPA 8015C | 09/18/12 | 09/19/12 19:43 | AC |
| **Total Petroleum Hydrocarbons - (C28-C40) ORO** | | | | | | | |
| Oil Range Organics | ND | mg/kg | 11 | EPA 8015C | 09/18/12 | 09/19/12 19:43 | AC |
| **Total Petroleum Hydrocarbons - (C6-C10) GRO** | | | | | | | |
| Gasoline Range Organics | ND | mg/kg | 0.18 | EPA 8015C | 09/25/12 | 09/25/12 5:42 | CBS |
| **Volatile Organic Compounds** | | | | | | | |
| Benzene | ND | ug/kg | 4 | EPA 8260B | 09/20/12 | 09/20/12 12:52 | JKL |
| Toluene | ND | ug/kg | 4 | EPA 8260B | 09/20/12 | 09/20/12 12:52 | JKL |
| Ethylbenzene | ND | ug/kg | 4 | EPA 8260B | 09/20/12 | 09/20/12 12:52 | JKL |
| m&p-Xylene | ND | ug/kg | 8 | EPA 8260B | 09/20/12 | 09/20/12 12:52 | JKL |
| o-Xylene | ND | ug/kg | 4 | EPA 8260B | 09/20/12 | 09/20/12 12:52 | JKL |
| Naphthalene | ND | ug/kg | 8 | EPA 8260B | 09/20/12 | 09/20/12 12:52 | JKL |

Notes/Qualifiers:
LLQ- Lowest Level of Quantitation
ND - Not Detected at a concentration greater than or equal to the LLQ.
Results reported on a dry weight basis.

Approved by:

QC Chemist



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# Certificate of Analysis

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Date Sampled: 09/12/12 9:09
Date Received: 09/13/12 12:00
Date Issued: 09/26/12

Project: St. Elizabeth East Campus
Site Location: Washington, DC
Project Number: 38677-003

**SDG Number: 12091307**

**Field Sample ID: B103-Groundwater** **Matrix: Water** **Lab ID: 12091307-06**

| | Result | Unit | LLQ | Method | Prepared | Analyzed | Init. |
|---|---|---|---|---|---|---|---|
| **Target Compound List - VOLATILES** | | | | | | | |
| Dichlorodifluoromethane | ND | ug/L | 1 | EPA 8260B | 09/20/12 | 09/20/12 12:27 | JKL |
| Chloromethane | ND | ug/L | 1 | EPA 8260B | 09/20/12 | 09/20/12 12:27 | JKL |
| Vinyl chloride | ND | ug/L | 1 | EPA 8260B | 09/20/12 | 09/20/12 12:27 | JKL |
| Bromomethane | ND | ug/L | 1 | EPA 8260B | 09/20/12 | 09/20/12 12:27 | JKL |
| Chloroethane | ND | ug/L | 1 | EPA 8260B | 09/20/12 | 09/20/12 12:27 | JKL |
| Trichlorofluoromethane | ND | ug/L | 5 | EPA 8260B | 09/20/12 | 09/20/12 12:27 | JKL |
| 1,1-Dichloroethene | ND | ug/L | 1 | EPA 8260B | 09/20/12 | 09/20/12 12:27 | JKL |
| 1,1,2-Trichlorotrifluoroethane | ND | ug/L | 1 | EPA 8260B | 09/20/12 | 09/20/12 12:27 | JKL |
| Acetone | ND | ug/L | 10 | EPA 8260B | 09/20/12 | 09/20/12 12:27 | JKL |
| Carbon disulfide | ND | ug/L | 5 | EPA 8260B | 09/20/12 | 09/20/12 12:27 | JKL |
| Methyl acetate | ND | ug/L | 5 | EPA 8260B | 09/20/12 | 09/20/12 12:27 | JKL |
| Methylene chloride | ND | ug/L | 5 | EPA 8260B | 09/20/12 | 09/20/12 12:27 | JKL |
| trans-1,2-Dichloroethene | ND | ug/L | 1 | EPA 8260B | 09/20/12 | 09/20/12 12:27 | JKL |
| Methyl t-butyl ether (MTBE) | ND | ug/L | 1 | EPA 8260B | 09/20/12 | 09/20/12 12:27 | JKL |
| 1,1-Dichloroethane | ND | ug/L | 1 | EPA 8260B | 09/20/12 | 09/20/12 12:27 | JKL |
| cis-1,2-Dichloroethene | ND | ug/L | 1 | EPA 8260B | 09/20/12 | 09/20/12 12:27 | JKL |
| 2-Butanone (MEK) | ND | ug/L | 5 | EPA 8260B | 09/20/12 | 09/20/12 12:27 | JKL |
| Chloroform | ND | ug/L | 1 | EPA 8260B | 09/20/12 | 09/20/12 12:27 | JKL |
| 1,1,1-Trichloroethane | ND | ug/L | 1 | EPA 8260B | 09/20/12 | 09/20/12 12:27 | JKL |
| Cyclohexane | ND | ug/L | 5 | EPA 8260B | 09/20/12 | 09/20/12 12:27 | JKL |
| Carbon tetrachloride | ND | ug/L | 1 | EPA 8260B | 09/20/12 | 09/20/12 12:27 | JKL |
| Benzene | ND | ug/L | 1 | EPA 8260B | 09/20/12 | 09/20/12 12:27 | JKL |
| 1,2-Dichloroethane | ND | ug/L | 1 | EPA 8260B | 09/20/12 | 09/20/12 12:27 | JKL |
| Trichloroethene | ND | ug/L | 1 | EPA 8260B | 09/20/12 | 09/20/12 12:27 | JKL |
| Methylcyclohexane | ND | ug/L | 5 | EPA 8260B | 09/20/12 | 09/20/12 12:27 | JKL |
| 1,2-Dichloropropane | ND | ug/L | 1 | EPA 8260B | 09/20/12 | 09/20/12 12:27 | JKL |
| Bromodichloromethane | ND | ug/L | 1 | EPA 8260B | 09/20/12 | 09/20/12 12:27 | JKL |
| cis-1,3-Dichloropropene | ND | ug/L | 1 | EPA 8260B | 09/20/12 | 09/20/12 12:27 | JKL |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/L | 5 | EPA 8260B | 09/20/12 | 09/20/12 12:27 | JKL |
| Toluene | ND | ug/L | 1 | EPA 8260B | 09/20/12 | 09/20/12 12:27 | JKL |
| trans-1,3-Dichloropropene | ND | ug/L | 1 | EPA 8260B | 09/20/12 | 09/20/12 12:27 | JKL |
| 1,1,2-Trichloroethane | ND | ug/L | 1 | EPA 8260B | 09/20/12 | 09/20/12 12:27 | JKL |
| Tetrachloroethene | ND | ug/L | 1 | EPA 8260B | 09/20/12 | 09/20/12 12:27 | JKL |
| 2-Hexanone (MBK) | ND | ug/L | 5 | EPA 8260B | 09/20/12 | 09/20/12 12:27 | JKL |
| Dibromochloromethane | ND | ug/L | 1 | EPA 8260B | 09/20/12 | 09/20/12 12:27 | JKL |
| 1,2-Dibromoethane | ND | ug/L | 1 | EPA 8260B | 09/20/12 | 09/20/12 12:27 | JKL |
| Chlorobenzene | ND | ug/L | 1 | EPA 8260B | 09/20/12 | 09/20/12 12:27 | JKL |
| Ethylbenzene | ND | ug/L | 1 | EPA 8260B | 09/20/12 | 09/20/12 12:27 | JKL |



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Date Sampled: 09/12/12 9:09
Date Received: 09/13/12 12:00
Date Issued: 09/26/12

Project: St. Elizabeth East Campus
Site Location: Washington, DC
Project Number: 38677-003

**SDG Number: 12091307**

**Field Sample ID: B103-Groundwater** **Matrix: Water** **Lab ID: 12091307-06**

| | Result | Unit | LLQ | Method | Prepared | Analyzed | Init. |
|---|---|---|---|---|---|---|---|
| **Target Compound List - VOLATILES** | | | | | | | |
| m&p-Xylene | ND | ug/L | 2 | EPA 8260B | 09/20/12 | 09/20/12 12:27 | JKL |
| o-Xylene | ND | ug/L | 1 | EPA 8260B | 09/20/12 | 09/20/12 12:27 | JKL |
| Styrene | ND | ug/L | 1 | EPA 8260B | 09/20/12 | 09/20/12 12:27 | JKL |
| Bromoform | ND | ug/L | 1 | EPA 8260B | 09/20/12 | 09/20/12 12:27 | JKL |
| Isopropylbenzene | ND | ug/L | 1 | EPA 8260B | 09/20/12 | 09/20/12 12:27 | JKL |
| 1,1,2,2-Tetrachloroethane | ND | ug/L | 1 | EPA 8260B | 09/20/12 | 09/20/12 12:27 | JKL |
| 1,3-Dichlorobenzene | ND | ug/L | 1 | EPA 8260B | 09/20/12 | 09/20/12 12:27 | JKL |
| 1,4-Dichlorobenzene | ND | ug/L | 1 | EPA 8260B | 09/20/12 | 09/20/12 12:27 | JKL |
| 1,2-Dichlorobenzene | ND | ug/L | 1 | EPA 8260B | 09/20/12 | 09/20/12 12:27 | JKL |
| 1,2-Dibromo-3-chloropropane | ND | ug/L | 1 | EPA 8260B | 09/20/12 | 09/20/12 12:27 | JKL |
| 1,2,4-Trichlorobenzene | ND | ug/L | 2 | EPA 8260B | 09/20/12 | 09/20/12 12:27 | JKL |
| Naphthalene | ND | ug/L | 10 | EPA 8260B | 09/20/12 | 09/20/12 12:27 | JKL |
| Ethyl t-butyl ether (ETBE) | ND | ug/L | 1 | EPA 8260B | 09/20/12 | 09/20/12 12:27 | JKL |
| tert-Butanol (TBA) | ND | ug/L | 25 | EPA 8260B | 09/20/12 | 09/20/12 12:27 | JKL |
| Diisopropyl ether (DIPE) | ND | ug/L | 1 | EPA 8260B | 09/20/12 | 09/20/12 12:27 | JKL |
| tert-Amyl methyl ether (TAME) | ND | ug/L | 1 | EPA 8260B | 09/20/12 | 09/20/12 12:27 | JKL |
| tert-Amyl alcohol (TAA) | ND | ug/L | 25 | EPA 8260B | 09/20/12 | 09/20/12 12:27 | JKL |
| tert-Amyl ethyl ether (TAEE) | ND | ug/L | 1 | EPA 8260B | 09/20/12 | 09/20/12 12:27 | JKL |
| **Total Petroleum Hydrocarbons - (C10-C28) DRO** | | | | | | | |
| Diesel Range Organics | **0.24** | mg/L | 0.22 | EPA 8015C | 09/17/12 | 09/19/12 6:15 | AC |
| **Total Petroleum Hydrocarbons - (C28-C40) ORO** | | | | | | | |
| Oil Range Organics | ND | mg/L | 0.2 | EPA 8015C | 09/17/12 | 09/19/12 6:15 | AC |
| **Total Petroleum Hydrocarbons - (C6-C10) GRO** | | | | | | | |
| Gasoline Range Organics | ND | mg/L | 0.2 | EPA 8015C | 09/25/12 | 09/25/12 6:05 | CBS |

Notes/Qualifiers:
LLQ- Lowest Level of Quantitation
ND - Not Detected at a concentration greater than or equal to the LLQ.

Approved by:

QC Chemist



8851 Orchard Tree Lane Towson, Maryland 21286
tel: 410.825.1151 fax: 410.825.2126 www.caslabs.net

# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

Haley & Aldrich, Inc
200 Town Centre Dr., Suite 2
Rochester, NY 14623-4264

Date Sampled: 09/12/12 10:00
Date Received: 09/13/12 12:00
Date Issued: 09/26/12

Project: St. Elizabeth East Campus
Site Location: Washington, DC
Project Number: 38677-003

**SDG Number: 12091307**

**Field Sample ID: B107-S1-5'-7'** **Matrix: Soil** **Lab ID: 12091307-07**

| | Result | Unit | LLQ | Method | Prepared | Analyzed | Init. |
|---|---|---|---|---|---|---|---|
| **Percent Solids** | | | | | | | |
| Percent Solids | **83** | % | | SM2540G | 09/18/12 | 09/18/12 9:39 | LMJ |
| **Polychlorinated Biphenyls** | | | | | | | |
| Aroclor 1016 | ND | mg/kg | 0.058 | EPA 8082 | 09/19/12 | 09/20/12 10:46 | AC |
| Aroclor 1221 | ND | mg/kg | 0.058 | EPA 8082 | 09/19/12 | 09/20/12 10:46 | AC |
| Aroclor 1232 | ND | mg/kg | 0.058 | EPA 8082 | 09/19/12 | 09/20/12 10:46 | AC |
| Aroclor 1242 | ND | mg/kg | 0.058 | EPA 8082 | 09/19/12 | 09/20/12 10:46 | AC |
| Aroclor 1248 | ND | mg/kg | 0.058 | EPA 8082 | 09/19/12 | 09/20/12 10:46 | AC |
| Aroclor 1254 | ND | mg/kg | 0.058 | EPA 8082 | 09/19/12 | 09/20/12 10:46 | AC |
| Aroclor 1260 | ND | mg/kg | 0.058 | EPA 8082 | 09/19/12 | 09/20/12 10:46 | AC |
| **Total Petroleum Hydrocarbons - (C10-C28) DRO** | | | | | | | |
| Diesel Range Organics | ND | mg/kg | 12 | EPA 8015C | 09/18/12 | 09/19/12 20:17 | AC |
| **Total Petroleum Hydrocarbons - (C28-C40) ORO** | | | | | | | |
| Oil Range Organics | ND | mg/kg | 12 | EPA 8015C | 09/18/12 | 09/19/12 20:17 | AC |
| **Total Petroleum Hydrocarbons - (C6-C10) GRO** | | | | | | | |
| Gasoline Range Organics | ND | mg/kg | 0.2 | EPA 8015C | 09/25/12 | 09/25/12 7:15 | CBS |
| **Volatile Organic Compounds** | | | | | | | |
| Benzene | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 19:36 | JKL |
| Toluene | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 19:36 | JKL |
| Ethylbenzene | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 19:36 | JKL |
| m&p-Xylene | ND | ug/kg | 9 | EPA 8260B | 09/19/12 | 09/19/12 19:36 | JKL |
| o-Xylene | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 19:36 | JKL |
| Naphthalene | ND | ug/kg | 9 | EPA 8260B | 09/19/12 | 09/19/12 19:36 | JKL |

Notes/Qualifiers:
LLQ- Lowest Level of Quantitation
ND - Not Detected at a concentration greater than or equal to the LLQ.
Results reported on a dry weight basis.

Approved by:

QC Chemist



8851 Orchard Tree Lane Towson, Maryland 21286
tel: 410.825.1151 fax: 410.825.2126 www.caslabs.net

# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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200 Town Centre Dr., Suite 2
Rochester, NY 14623-4264

Date Sampled: 09/12/12 10:00
Date Received: 09/13/12 12:00
Date Issued: 09/26/12

Project: St. Elizabeth East Campus
Site Location: Washington, DC
Project Number: 38677-003

**SDG Number: 12091307**

**Field Sample ID: B107-S2-20'-22'** **Matrix: Soil** **Lab ID: 12091307-08**

| | Result | Unit | LLQ | Method | Prepared | Analyzed | Init. |
|---|---|---|---|---|---|---|---|
| **Percent Solids** | | | | | | | |
| Percent Solids | **90** | % | | SM2540G | 09/18/12 | 09/18/12 9:39 | LMJ |
| **Polychlorinated Biphenyls** | | | | | | | |
| Aroclor 1016 | ND | mg/kg | 0.055 | EPA 8082 | 09/19/12 | 09/20/12 11:15 | AC |
| Aroclor 1221 | ND | mg/kg | 0.055 | EPA 8082 | 09/19/12 | 09/20/12 11:15 | AC |
| Aroclor 1232 | ND | mg/kg | 0.055 | EPA 8082 | 09/19/12 | 09/20/12 11:15 | AC |
| Aroclor 1242 | ND | mg/kg | 0.055 | EPA 8082 | 09/19/12 | 09/20/12 11:15 | AC |
| Aroclor 1248 | ND | mg/kg | 0.055 | EPA 8082 | 09/19/12 | 09/20/12 11:15 | AC |
| Aroclor 1254 | ND | mg/kg | 0.055 | EPA 8082 | 09/19/12 | 09/20/12 11:15 | AC |
| Aroclor 1260 | ND | mg/kg | 0.055 | EPA 8082 | 09/19/12 | 09/20/12 11:15 | AC |
| **Total Petroleum Hydrocarbons - (C10-C28) DRO** | | | | | | | |
| Diesel Range Organics | ND | mg/kg | 11 | EPA 8015C | 09/18/12 | 09/19/12 20:50 | AC |
| **Total Petroleum Hydrocarbons - (C28-C40) ORO** | | | | | | | |
| Oil Range Organics | ND | mg/kg | 11 | EPA 8015C | 09/18/12 | 09/19/12 20:50 | AC |
| **Total Petroleum Hydrocarbons - (C6-C10) GRO** | | | | | | | |
| Gasoline Range Organics | ND | mg/kg | 0.17 | EPA 8015C | 09/25/12 | 09/25/12 7:38 | CBS |
| **Volatile Organic Compounds** | | | | | | | |
| Benzene | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 20:04 | JKL |
| Toluene | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 20:04 | JKL |
| Ethylbenzene | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 20:04 | JKL |
| m&p-Xylene | ND | ug/kg | 10 | EPA 8260B | 09/19/12 | 09/19/12 20:04 | JKL |
| o-Xylene | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 20:04 | JKL |
| Naphthalene | ND | ug/kg | 10 | EPA 8260B | 09/19/12 | 09/19/12 20:04 | JKL |

Notes/Qualifiers:
LLQ- Lowest Level of Quantitation
ND - Not Detected at a concentration greater than or equal to the LLQ.
Results reported on a dry weight basis.

Approved by:

QC Chemist



8851 Orchard Tree Lane Towson, Maryland 21286
tel: 410.825.1151 fax: 410.825.2126 www.caslabs.net

# Certificate of Analysis

Haley & Aldrich, Inc
200 Town Centre Dr., Suite 2
Rochester, NY 14623-4264

Date Sampled: 09/12/12 11:43
Date Received: 09/13/12 12:00
Date Issued: 09/26/12

Project: St. Elizabeth East Campus
Site Location: Washington, DC
Project Number: 38677-003

**SDG Number: 12091307**

**Field Sample ID: B115-S1-5'-7'** **Matrix: Soil** **Lab ID: 12091307-09**

| | Result | Unit | LLQ | Method | Prepared | Analyzed | Init. |
|---|---|---|---|---|---|---|---|
| **Percent Solids** | | | | | | | |
| Percent Solids | **87** | % | | SM2540G | 09/18/12 | 09/18/12 9:39 | LMJ |
| **Polychlorinated Biphenyls** | | | | | | | |
| Aroclor 1016 | ND | mg/kg | 0.055 | EPA 8082 | 09/19/12 | 09/20/12 11:44 | AC |
| Aroclor 1221 | ND | mg/kg | 0.055 | EPA 8082 | 09/19/12 | 09/20/12 11:44 | AC |
| Aroclor 1232 | ND | mg/kg | 0.055 | EPA 8082 | 09/19/12 | 09/20/12 11:44 | AC |
| Aroclor 1242 | ND | mg/kg | 0.055 | EPA 8082 | 09/19/12 | 09/20/12 11:44 | AC |
| Aroclor 1248 | ND | mg/kg | 0.055 | EPA 8082 | 09/19/12 | 09/20/12 11:44 | AC |
| Aroclor 1254 | ND | mg/kg | 0.055 | EPA 8082 | 09/19/12 | 09/20/12 11:44 | AC |
| Aroclor 1260 | ND | mg/kg | 0.055 | EPA 8082 | 09/19/12 | 09/20/12 11:44 | AC |
| **Total Petroleum Hydrocarbons - (C10-C28) DRO** | | | | | | | |
| Diesel Range Organics | ND | mg/kg | 11 | EPA 8015C | 09/18/12 | 09/19/12 21:24 | AC |
| **Total Petroleum Hydrocarbons - (C28-C40) ORO** | | | | | | | |
| Oil Range Organics | ND | mg/kg | 11 | EPA 8015C | 09/18/12 | 09/19/12 21:24 | AC |
| **Total Petroleum Hydrocarbons - (C6-C10) GRO** | | | | | | | |
| Gasoline Range Organics | ND | mg/kg | 0.2 | EPA 8015C | 09/25/12 | 09/25/12 8:02 | CBS |
| **Volatile Organic Compounds** | | | | | | | |
| Benzene | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 20:32 | JKL |
| Toluene | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 20:32 | JKL |
| Ethylbenzene | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 20:32 | JKL |
| m&p-Xylene | ND | ug/kg | 9 | EPA 8260B | 09/19/12 | 09/19/12 20:32 | JKL |
| o-Xylene | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 20:32 | JKL |
| Naphthalene | ND | ug/kg | 9 | EPA 8260B | 09/19/12 | 09/19/12 20:32 | JKL |

Notes/Qualifiers:
LLQ- Lowest Level of Quantitation
ND - Not Detected at a concentration greater than or equal to the LLQ.
Results reported on a dry weight basis.

Approved by:

QC Chemist



8851 Orchard Tree Lane Towson, Maryland 21286
tel: 410.825.1151 fax: 410.825.2126 www.caslabs.net

# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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200 Town Centre Dr., Suite 2
Rochester, NY 14623-4264

Date Sampled: 09/12/12 11:43
Date Received: 09/13/12 12:00
Date Issued: 09/26/12

Project: St. Elizabeth East Campus
Site Location: Washington, DC
Project Number: 38677-003

**SDG Number: 12091307**

**Field Sample ID: B115-S2-12'-14'** **Matrix: Soil** **Lab ID: 12091307-10**

| | Result | Unit | LLQ | Method | Prepared | Analyzed | Init. |
|---|---|---|---|---|---|---|---|
| **Percent Solids** | | | | | | | |
| Percent Solids | **94** | % | | SM2540G | 09/18/12 | 09/18/12 9:39 | LMJ |
| **Polychlorinated Biphenyls** | | | | | | | |
| Aroclor 1016 | ND | mg/kg | 0.051 | EPA 8082 | 09/19/12 | 09/20/12 12:41 | AC |
| Aroclor 1221 | ND | mg/kg | 0.051 | EPA 8082 | 09/19/12 | 09/20/12 12:41 | AC |
| Aroclor 1232 | ND | mg/kg | 0.051 | EPA 8082 | 09/19/12 | 09/20/12 12:41 | AC |
| Aroclor 1242 | ND | mg/kg | 0.051 | EPA 8082 | 09/19/12 | 09/20/12 12:41 | AC |
| Aroclor 1248 | ND | mg/kg | 0.051 | EPA 8082 | 09/19/12 | 09/20/12 12:41 | AC |
| Aroclor 1254 | ND | mg/kg | 0.051 | EPA 8082 | 09/19/12 | 09/20/12 12:41 | AC |
| Aroclor 1260 | ND | mg/kg | 0.051 | EPA 8082 | 09/19/12 | 09/20/12 12:41 | AC |
| **Total Petroleum Hydrocarbons - (C10-C28) DRO** | | | | | | | |
| Diesel Range Organics | ND | mg/kg | 11 | EPA 8015C | 09/18/12 | 09/19/12 21:57 | AC |
| **Total Petroleum Hydrocarbons - (C28-C40) ORO** | | | | | | | |
| Oil Range Organics | ND | mg/kg | 11 | EPA 8015C | 09/18/12 | 09/19/12 21:57 | AC |
| **Total Petroleum Hydrocarbons - (C6-C10) GRO** | | | | | | | |
| Gasoline Range Organics | ND | mg/kg | 0.15 | EPA 8015C | 09/25/12 | 09/25/12 8:24 | CBS |
| **Volatile Organic Compounds** | | | | | | | |
| Benzene | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 21:00 | JKL |
| Toluene | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 21:00 | JKL |
| Ethylbenzene | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 21:00 | JKL |
| m&p-Xylene | ND | ug/kg | 10 | EPA 8260B | 09/19/12 | 09/19/12 21:00 | JKL |
| o-Xylene | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 21:00 | JKL |
| Naphthalene | ND | ug/kg | 10 | EPA 8260B | 09/19/12 | 09/19/12 21:00 | JKL |

Notes/Qualifiers:
LLQ- Lowest Level of Quantitation
ND - Not Detected at a concentration greater than or equal to the LLQ.
Results reported on a dry weight basis.

Approved by:

QC Chemist



8851 Orchard Tree Lane Towson, Maryland 21286
tel: 410.825.1151 fax: 410.825.2126 www.caslabs.net

# CALIBER ANALYTICAL SERVICES

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200 Town Centre Dr., Suite 2
Rochester, NY 14623-4264

Date Sampled: 09/12/12 12:21
Date Received: 09/13/12 12:00
Date Issued: 09/26/12

Project: St. Elizabeth East Campus
Site Location: Washington, DC
Project Number: 38677-003

**SDG Number: 12091307**

**Field Sample ID: B114-S1-3'-5'** **Matrix: Soil** **Lab ID: 12091307-11**

| | Result | Unit | LLQ | Method | Prepared | Analyzed | Init. |
|---|---|---|---|---|---|---|---|
| **Percent Solids** | | | | | | | |
| Percent Solids | **87** | % | | SM2540G | 09/18/12 | 09/18/12 9:39 | LMJ |
| **Total Petroleum Hydrocarbons - (C10-C28) DRO** | | | | | | | |
| Diesel Range Organics | ND | mg/kg | 11 | EPA 8015C | 09/18/12 | 09/19/12 22:31 | AC |
| **Total Petroleum Hydrocarbons - (C28-C40) ORO** | | | | | | | |
| Oil Range Organics | ND | mg/kg | 11 | EPA 8015C | 09/18/12 | 09/19/12 22:31 | AC |
| **Total Petroleum Hydrocarbons - (C6-C10) GRO** | | | | | | | |
| Gasoline Range Organics | ND | mg/kg | 0.19 | EPA 8015C | 09/25/12 | 09/25/12 6:52 | CBS |
| **Volatile Organic Compounds** | | | | | | | |
| Benzene | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 21:28 | JKL |
| Toluene | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 21:28 | JKL |
| Ethylbenzene | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 21:28 | JKL |
| m&p-Xylene | ND | ug/kg | 11 | EPA 8260B | 09/19/12 | 09/19/12 21:28 | JKL |
| o-Xylene | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 21:28 | JKL |
| Naphthalene | ND | ug/kg | 11 | EPA 8260B | 09/19/12 | 09/19/12 21:28 | JKL |

Notes/Qualifiers:
LLQ- Lowest Level of Quantitation
ND - Not Detected at a concentration greater than or equal to the LLQ.
Results reported on a dry weight basis.

Approved by: Matt Ocker
QC Chemist



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# CALIBER ANALYTICAL SERVICES

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Rochester, NY 14623-4264

Date Sampled: 09/12/12 12:21
Date Received: 09/13/12 12:00
Date Issued: 09/26/12

Project: St. Elizabeth East Campus
Site Location: Washington, DC
Project Number: 38677-003

**SDG Number: 12091307**

**Field Sample ID: B114-S2-13'-15'** **Matrix: Soil** **Lab ID: 12091307-12**

| | Result | Unit | LLQ | Method | Prepared | Analyzed | Init. |
|---|---|---|---|---|---|---|---|
| **Percent Solids** | | | | | | | |
| Percent Solids | **85** | % | | SM2540G | 09/18/12 | 09/18/12 9:39 | LMJ |
| **Total Petroleum Hydrocarbons - (C10-C28) DRO** | | | | | | | |
| Diesel Range Organics | ND | mg/kg | 12 | EPA 8015C | 09/18/12 | 09/19/12 23:04 | AC |
| **Total Petroleum Hydrocarbons - (C28-C40) ORO** | | | | | | | |
| Oil Range Organics | ND | mg/kg | 12 | EPA 8015C | 09/18/12 | 09/19/12 23:04 | AC |
| **Total Petroleum Hydrocarbons - (C6-C10) GRO** | | | | | | | |
| Gasoline Range Organics | ND | mg/kg | 0.2 | EPA 8015C | 09/25/12 | 09/25/12 8:50 | CBS |
| **Volatile Organic Compounds** | | | | | | | |
| Benzene | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 21:56 | JKL |
| Toluene | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 21:56 | JKL |
| Ethylbenzene | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 21:56 | JKL |
| m&p-Xylene | ND | ug/kg | 11 | EPA 8260B | 09/19/12 | 09/19/12 21:56 | JKL |
| o-Xylene | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 21:56 | JKL |
| Naphthalene | ND | ug/kg | 11 | EPA 8260B | 09/19/12 | 09/19/12 21:56 | JKL |

Notes/Qualifiers:
LLQ- Lowest Level of Quantitation
ND - Not Detected at a concentration greater than or equal to the LLQ.
Results reported on a dry weight basis.

Approved by: Matt Ocker
QC Chemist



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# CALIBER ANALYTICAL SERVICES

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Rochester, NY 14623-4264

Date Sampled: 09/12/12 12:47
Date Received: 09/13/12 12:00
Date Issued: 09/26/12

Project: St. Elizabeth East Campus
Site Location: Washington, DC
Project Number: 38677-003

**SDG Number: 12091307**

**Field Sample ID: B110-S1-3'-5'** **Matrix: Soil** **Lab ID: 12091307-13**

| | Result | Unit | LLQ | Method | Prepared | Analyzed | Init. |
|---|---|---|---|---|---|---|---|
| **Percent Solids** | | | | | | | |
| Percent Solids | **88** | % | | SM2540G | 09/18/12 | 09/18/12 9:39 | LMJ |
| **Polychlorinated Biphenyls** | | | | | | | |
| Aroclor 1016 | ND | mg/kg | 0.055 | EPA 8082 | 09/19/12 | 09/20/12 13:10 | AC |
| Aroclor 1221 | ND | mg/kg | 0.055 | EPA 8082 | 09/19/12 | 09/20/12 13:10 | AC |
| Aroclor 1232 | ND | mg/kg | 0.055 | EPA 8082 | 09/19/12 | 09/20/12 13:10 | AC |
| Aroclor 1242 | ND | mg/kg | 0.055 | EPA 8082 | 09/19/12 | 09/20/12 13:10 | AC |
| Aroclor 1248 | ND | mg/kg | 0.055 | EPA 8082 | 09/19/12 | 09/20/12 13:10 | AC |
| Aroclor 1254 | ND | mg/kg | 0.055 | EPA 8082 | 09/19/12 | 09/20/12 13:10 | AC |
| Aroclor 1260 | ND | mg/kg | 0.055 | EPA 8082 | 09/19/12 | 09/20/12 13:10 | AC |
| **Total Petroleum Hydrocarbons - (C10-C28) DRO** | | | | | | | |
| Diesel Range Organics | ND | mg/kg | 11 | EPA 8015C | 09/18/12 | 09/19/12 23:38 | AC |
| **Total Petroleum Hydrocarbons - (C28-C40) ORO** | | | | | | | |
| Oil Range Organics | ND | mg/kg | 11 | EPA 8015C | 09/18/12 | 09/19/12 23:38 | AC |
| **Total Petroleum Hydrocarbons - (C6-C10) GRO** | | | | | | | |
| Gasoline Range Organics | ND | mg/kg | 0.19 | EPA 8015C | 09/25/12 | 09/25/12 9:13 | CBS |
| **Volatile Organic Compounds** | | | | | | | |
| Benzene | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 22:24 | JKL |
| Toluene | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 22:24 | JKL |
| Ethylbenzene | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 22:24 | JKL |
| m&p-Xylene | ND | ug/kg | 9 | EPA 8260B | 09/19/12 | 09/19/12 22:24 | JKL |
| o-Xylene | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 22:24 | JKL |
| Naphthalene | ND | ug/kg | 9 | EPA 8260B | 09/19/12 | 09/19/12 22:24 | JKL |

Notes/Qualifiers:
LLQ- Lowest Level of Quantitation
ND - Not Detected at a concentration greater than or equal to the LLQ.
Results reported on a dry weight basis.

Approved by:

QC Chemist



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tel: 410.825.1151 fax: 410.825.2126 www.caslabs.net

# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

Haley & Aldrich, Inc
200 Town Centre Dr., Suite 2
Rochester, NY 14623-4264

Date Sampled: 09/12/12 12:47
Date Received: 09/13/12 12:00
Date Issued: 09/26/12

Project: St. Elizabeth East Campus
Site Location: Washington, DC
Project Number: 38677-003

**SDG Number: 12091307**

**Field Sample ID: B110-S2-13'-15'** **Matrix: Soil** **Lab ID: 12091307-14**

| | Result | Unit | LLQ | Method | Prepared | Analyzed | Init. |
|---|---|---|---|---|---|---|---|
| **Percent Solids** | | | | | | | |
| Percent Solids | **90** | % | | SM2540G | 09/18/12 | 09/18/12 9:39 | LMJ |
| **Polychlorinated Biphenyls** | | | | | | | |
| Aroclor 1016 | ND | mg/kg | 0.055 | EPA 8082 | 09/19/12 | 09/20/12 13:39 | AC |
| Aroclor 1221 | ND | mg/kg | 0.055 | EPA 8082 | 09/19/12 | 09/20/12 13:39 | AC |
| Aroclor 1232 | ND | mg/kg | 0.055 | EPA 8082 | 09/19/12 | 09/20/12 13:39 | AC |
| Aroclor 1242 | ND | mg/kg | 0.055 | EPA 8082 | 09/19/12 | 09/20/12 13:39 | AC |
| Aroclor 1248 | ND | mg/kg | 0.055 | EPA 8082 | 09/19/12 | 09/20/12 13:39 | AC |
| Aroclor 1254 | ND | mg/kg | 0.055 | EPA 8082 | 09/19/12 | 09/20/12 13:39 | AC |
| Aroclor 1260 | ND | mg/kg | 0.055 | EPA 8082 | 09/19/12 | 09/20/12 13:39 | AC |
| **Total Petroleum Hydrocarbons - (C10-C28) DRO** | | | | | | | |
| Diesel Range Organics | ND | mg/kg | 11 | EPA 8015C | 09/18/12 | 09/20/12 0:12 | AC |
| **Total Petroleum Hydrocarbons - (C28-C40) ORO** | | | | | | | |
| Oil Range Organics | ND | mg/kg | 11 | EPA 8015C | 09/18/12 | 09/20/12 0:12 | AC |
| **Total Petroleum Hydrocarbons - (C6-C10) GRO** | | | | | | | |
| Gasoline Range Organics | ND | mg/kg | 0.17 | EPA 8015C | 09/25/12 | 09/25/12 9:36 | CBS |
| **Volatile Organic Compounds** | | | | | | | |
| Benzene | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 22:53 | JKL |
| Toluene | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 22:53 | JKL |
| Ethylbenzene | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 22:53 | JKL |
| m&p-Xylene | ND | ug/kg | 10 | EPA 8260B | 09/19/12 | 09/19/12 22:53 | JKL |
| o-Xylene | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 22:53 | JKL |
| Naphthalene | ND | ug/kg | 10 | EPA 8260B | 09/19/12 | 09/19/12 22:53 | JKL |

Notes/Qualifiers:
LLQ- Lowest Level of Quantitation
ND - Not Detected at a concentration greater than or equal to the LLQ.
Results reported on a dry weight basis.

Approved by:

QC Chemist



8851 Orchard Tree Lane Towson, Maryland 21286
tel: 410.825.1151 fax: 410.825.2126 www.caslabs.net

# Certificate of Analysis

Haley & Aldrich, Inc
200 Town Centre Dr., Suite 2
Rochester, NY 14623-4264

Date Sampled: 09/12/12 13:23
Date Received: 09/13/12 12:00
Date Issued: 09/26/12

Project: St. Elizabeth East Campus
Site Location: Washington, DC
Project Number: 38677-003

**SDG Number: 12091307**

**Field Sample ID: B121-S1-5'-7'** **Matrix: Soil** **Lab ID: 12091307-15**

| | Result | Unit | LLQ | Method | Prepared | Analyzed | Init. |
|---|---|---|---|---|---|---|---|
| **Percent Solids** | | | | | | | |
| Percent Solids | **82** | % | | SM2540G | 09/18/12 | 09/18/12 9:39 | LMJ |
| **Polychlorinated Biphenyls** | | | | | | | |
| Aroclor 1016 | ND | mg/kg | 0.06 | EPA 8082 | 09/19/12 | 09/20/12 14:07 | AC |
| Aroclor 1221 | ND | mg/kg | 0.06 | EPA 8082 | 09/19/12 | 09/20/12 14:07 | AC |
| Aroclor 1232 | ND | mg/kg | 0.06 | EPA 8082 | 09/19/12 | 09/20/12 14:07 | AC |
| Aroclor 1242 | ND | mg/kg | 0.06 | EPA 8082 | 09/19/12 | 09/20/12 14:07 | AC |
| Aroclor 1248 | ND | mg/kg | 0.06 | EPA 8082 | 09/19/12 | 09/20/12 14:07 | AC |
| Aroclor 1254 | ND | mg/kg | 0.06 | EPA 8082 | 09/19/12 | 09/20/12 14:07 | AC |
| Aroclor 1260 | ND | mg/kg | 0.06 | EPA 8082 | 09/19/12 | 09/20/12 14:07 | AC |
| **Polycyclic Aromatic Hydrocarbons (SIM)** | | | | | | | |
| Acenaphthene | **6** | ug/kg | 6 | EPA 8270C | 09/18/12 | 09/24/12 21:54 | JKL |
| Acenaphthylene | ND | ug/kg | 6 | EPA 8270C | 09/18/12 | 09/24/12 21:54 | JKL |
| Anthracene | **13** | ug/kg | 6 | EPA 8270C | 09/18/12 | 09/24/12 21:54 | JKL |
| Benzo[a]anthracene | **16** | ug/kg | 6 | EPA 8270C | 09/18/12 | 09/24/12 21:54 | JKL |
| Benzo[a]pyrene | **15** | ug/kg | 6 | EPA 8270C | 09/18/12 | 09/24/12 21:54 | JKL |
| Benzo[b]fluoranthene | **19** | ug/kg | 6 | EPA 8270C | 09/18/12 | 09/24/12 21:54 | JKL |
| Benzo[g,h,i]perylene | **15** | ug/kg | 6 | EPA 8270C | 09/18/12 | 09/24/12 21:54 | JKL |
| Benzo[k]fluoranthene | **16** | ug/kg | 6 | EPA 8270C | 09/18/12 | 09/24/12 21:54 | JKL |
| Chrysene | **23** | ug/kg | 6 | EPA 8270C | 09/18/12 | 09/24/12 21:54 | JKL |
| Dibenz[a,h]anthracene | **14** | ug/kg | 6 | EPA 8270C | 09/18/12 | 09/24/12 21:54 | JKL |
| Fluoranthene | **18** | ug/kg | 6 | EPA 8270C | 09/18/12 | 09/24/12 21:54 | JKL |
| Fluorene | **6** | ug/kg | 6 | EPA 8270C | 09/18/12 | 09/24/12 21:54 | JKL |
| Indeno[1,2,3-cd]pyrene | **15** | ug/kg | 6 | EPA 8270C | 09/18/12 | 09/24/12 21:54 | JKL |
| 2-Methylnaphthalene | ND | ug/kg | 6 | EPA 8270C | 09/18/12 | 09/24/12 21:54 | JKL |
| Naphthalene` | ND | ug/kg | 6 | EPA 8270C | 09/18/12 | 09/24/12 21:54 | JKL |
| Phenanthrene | **21** | ug/kg | 6 | EPA 8270C | 09/18/12 | 09/24/12 21:54 | JKL |
| Pyrene | **18** | ug/kg | 6 | EPA 8270C | 09/18/12 | 09/24/12 21:54 | JKL |
| **Target Compound List - VOLATILES** | | | | | | | |
| Dichlorodifluoromethane | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 23:21 | JKL |
| Chloromethane | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 23:21 | JKL |
| Vinyl chloride | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 23:21 | JKL |
| Bromomethane | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 23:21 | JKL |
| Chloroethane | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 23:21 | JKL |
| Trichlorofluoromethane | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 23:21 | JKL |
| 1,1-Dichloroethene | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 23:21 | JKL |
| 1,1,2-Trichlorotrifluoroethane | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 23:21 | JKL |
| Acetone | ND | ug/kg | 54 | EPA 8260B | 09/19/12 | 09/19/12 23:21 | JKL |
| Carbon disulfide | ND | ug/kg | 11 | EPA 8260B | 09/19/12 | 09/19/12 23:21 | JKL |



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Date Sampled: 09/12/12 13:23
Date Received: 09/13/12 12:00
Date Issued: 09/26/12

Project: St. Elizabeth East Campus
Site Location: Washington, DC
Project Number: 38677-003

**SDG Number: 12091307**

**Field Sample ID: B121-S1-5'-7'** **Matrix: Soil** **Lab ID: 12091307-15**

| | Result | Unit | LLQ | Method | Prepared | Analyzed | Init. |
|---|---|---|---|---|---|---|---|
| **Target Compound List - VOLATILES** | | | | | | | |
| Methyl acetate | ND | ug/kg | 27 | EPA 8260B | 09/19/12 | 09/19/12 23:21 | JKL |
| Methylene chloride | ND | ug/kg | 27 | EPA 8260B | 09/19/12 | 09/19/12 23:21 | JKL |
| trans-1,2-Dichloroethene | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 23:21 | JKL |
| Methyl t-butyl ether (MTBE) | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 23:21 | JKL |
| 1,1-Dichloroethane | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 23:21 | JKL |
| cis-1,2-Dichloroethene | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 23:21 | JKL |
| 2-Butanone (MEK) | ND | ug/kg | 54 | EPA 8260B | 09/19/12 | 09/19/12 23:21 | JKL |
| Chloroform | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 23:21 | JKL |
| 1,1,1-Trichloroethane | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 23:21 | JKL |
| Cyclohexane | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 23:21 | JKL |
| Carbon tetrachloride | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 23:21 | JKL |
| Benzene | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 23:21 | JKL |
| 1,2-Dichloroethane | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 23:21 | JKL |
| Trichloroethene | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 23:21 | JKL |
| Methylcyclohexane | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 23:21 | JKL |
| 1,2-Dichloropropane | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 23:21 | JKL |
| Bromodichloromethane | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 23:21 | JKL |
| cis-1,3-Dichloropropene | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 23:21 | JKL |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/kg | 11 | EPA 8260B | 09/19/12 | 09/19/12 23:21 | JKL |
| Toluene | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 23:21 | JKL |
| trans-1,3-Dichloropropene | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 23:21 | JKL |
| 1,1,2-Trichloroethane | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 23:21 | JKL |
| Tetrachloroethene | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 23:21 | JKL |
| 2-Hexanone (MBK) | ND | ug/kg | 11 | EPA 8260B | 09/19/12 | 09/19/12 23:21 | JKL |
| Dibromochloromethane | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 23:21 | JKL |
| 1,2-Dibromoethane | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 23:21 | JKL |
| Chlorobenzene | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 23:21 | JKL |
| Ethylbenzene | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 23:21 | JKL |
| m&p-Xylene | ND | ug/kg | 11 | EPA 8260B | 09/19/12 | 09/19/12 23:21 | JKL |
| o-Xylene | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 23:21 | JKL |
| Styrene | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 23:21 | JKL |
| Bromoform | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 23:21 | JKL |
| Isopropylbenzene | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 23:21 | JKL |
| 1,1,2,2-Tetrachloroethane | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 23:21 | JKL |
| 1,3-Dichlorobenzene | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 23:21 | JKL |
| 1,4-Dichlorobenzene | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 23:21 | JKL |
| 1,2-Dichlorobenzene | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 23:21 | JKL |
| 1,2-Dibromo-3-chloropropane | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 23:21 | JKL |



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# CALIBER ANALYTICAL SERVICES

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200 Town Centre Dr., Suite 2
Rochester, NY 14623-4264

Date Sampled: 09/12/12 13:23
Date Received: 09/13/12 12:00
Date Issued: 09/26/12

Project: St. Elizabeth East Campus
Site Location: Washington, DC
Project Number: 38677-003

**SDG Number: 12091307**

**Field Sample ID: B121-S1-5'-7'** **Matrix: Soil** **Lab ID: 12091307-15**

| | Result | Unit | LLQ | Method | Prepared | Analyzed | Init. |
|---|---|---|---|---|---|---|---|
| **Target Compound List - VOLATILES** | | | | | | | |
| 1,2,4-Trichlorobenzene | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 23:21 | JKL |
| Naphthalene | ND | ug/kg | 11 | EPA 8260B | 09/19/12 | 09/19/12 23:21 | JKL |
| Ethyl t-butyl ether (ETBE) | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 23:21 | JKL |
| tert-Butanol (TBA) | ND | ug/kg | 27 | EPA 8260B | 09/19/12 | 09/19/12 23:21 | JKL |
| Diisopropyl ether (DIPE) | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 23:21 | JKL |
| tert-Amyl methyl ether (TAME) | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 23:21 | JKL |
| tert-Amyl alcohol (TAA) | ND | ug/kg | 27 | EPA 8260B | 09/19/12 | 09/19/12 23:21 | JKL |
| tert-Amyl ethyl ether (TAEE) | ND | ug/kg | 5 | EPA 8260B | 09/19/12 | 09/19/12 23:21 | JKL |
| **Total Metals** | | | | | | | |
| Arsenic | **6.1** | mg/kg | 0.58 | EPA 6020A | 09/13/12 | 09/14/12 16:21 | MEL |
| Barium | **46** | mg/kg | 2.9 | EPA 6020A | 09/13/12 | 09/14/12 16:21 | MEL |
| Cadmium | ND | mg/kg | 2.9 | EPA 6020A | 09/13/12 | 09/14/12 16:21 | MEL |
| Chromium | **34** | mg/kg | 2.9 | EPA 6020A | 09/13/12 | 09/14/12 16:21 | MEL |
| Lead | **18** | mg/kg | 2.9 | EPA 6020A | 09/13/12 | 09/14/12 16:21 | MEL |
| Mercury | ND | mg/kg | 0.12 | EPA 6020A | 09/13/12 | 09/14/12 16:21 | MEL |
| Selenium | ND | mg/kg | 2.9 | EPA 6020A | 09/13/12 | 09/14/12 16:21 | MEL |
| Silver | ND | mg/kg | 2.9 | EPA 6020A | 09/13/12 | 09/14/12 16:21 | MEL |
| **Total Petroleum Hydrocarbons - (C10-C28) DRO** | | | | | | | |
| Diesel Range Organics | **13** | mg/kg | 12 | EPA 8015C | 09/18/12 | 09/20/12 0:45 | AC |
| **Total Petroleum Hydrocarbons - (C28-C40) ORO** | | | | | | | |
| Oil Range Organics | ND | mg/kg | 12 | EPA 8015C | 09/18/12 | 09/20/12 0:45 | AC |
| **Total Petroleum Hydrocarbons - (C6-C10) GRO** | | | | | | | |
| Gasoline Range Organics | ND | mg/kg | 0.21 | EPA 8015C | 09/25/12 | 09/25/12 9:59 | CBS |

Notes/Qualifiers:
LLQ- Lowest Level of Quantitation
ND - Not Detected at a concentration greater than or equal to the LLQ.
Results reported on a dry weight basis.

Approved by: Matt Osher
QC Chemist



8851 Orchard Tree Lane Towson, Maryland 21286
tel: 410.825.1151 fax: 410.825.2126 www.caslabs.net

# Certificate of Analysis

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200 Town Centre Dr., Suite 2
Rochester, NY 14623-4264

Date Sampled: 09/12/12 13:23
Date Received: 09/13/12 12:00
Date Issued: 09/26/12

Project: St. Elizabeth East Campus
Site Location: Washington, DC
Project Number: 38677-003

**SDG Number: 12091307**

**Field Sample ID: B121-S1-13'-15'** **Matrix: Soil** **Lab ID: 12091307-16**

| | Result | Unit | LLQ | Method | Prepared | Analyzed | Init. |
|---|---|---|---|---|---|---|---|
| **Percent Solids** | | | | | | | |
| Percent Solids | **96** | % | | SM2540G | 09/18/12 | 09/18/12 9:39 | LMJ |
| **Polychlorinated Biphenyls** | | | | | | | |
| Aroclor 1016 | ND | mg/kg | 0.049 | EPA 8082 | 09/19/12 | 09/20/12 14:36 | AC |
| Aroclor 1221 | ND | mg/kg | 0.049 | EPA 8082 | 09/19/12 | 09/20/12 14:36 | AC |
| Aroclor 1232 | ND | mg/kg | 0.049 | EPA 8082 | 09/19/12 | 09/20/12 14:36 | AC |
| Aroclor 1242 | ND | mg/kg | 0.049 | EPA 8082 | 09/19/12 | 09/20/12 14:36 | AC |
| Aroclor 1248 | ND | mg/kg | 0.049 | EPA 8082 | 09/19/12 | 09/20/12 14:36 | AC |
| Aroclor 1254 | ND | mg/kg | 0.049 | EPA 8082 | 09/19/12 | 09/20/12 14:36 | AC |
| Aroclor 1260 | ND | mg/kg | 0.049 | EPA 8082 | 09/19/12 | 09/20/12 14:36 | AC |
| **Polycyclic Aromatic Hydrocarbons (SIM)** | | | | | | | |
| Acenaphthene | ND | ug/kg | 5 | EPA 8270C | 09/18/12 | 09/24/12 22:28 | JKL |
| Acenaphthylene | ND | ug/kg | 5 | EPA 8270C | 09/18/12 | 09/24/12 22:28 | JKL |
| Anthracene | **5** | ug/kg | 5 | EPA 8270C | 09/18/12 | 09/24/12 22:28 | JKL |
| Benzo[a]anthracene | **7** | ug/kg | 5 | EPA 8270C | 09/18/12 | 09/24/12 22:28 | JKL |
| Benzo[a]pyrene | **7** | ug/kg | 5 | EPA 8270C | 09/18/12 | 09/24/12 22:28 | JKL |
| Benzo[b]fluoranthene | **8** | ug/kg | 5 | EPA 8270C | 09/18/12 | 09/24/12 22:28 | JKL |
| Benzo[g,h,i]perylene | **5** | ug/kg | 5 | EPA 8270C | 09/18/12 | 09/24/12 22:28 | JKL |
| Benzo[k]fluoranthene | **8** | ug/kg | 5 | EPA 8270C | 09/18/12 | 09/24/12 22:28 | JKL |
| Chrysene | **8** | ug/kg | 5 | EPA 8270C | 09/18/12 | 09/24/12 22:28 | JKL |
| Dibenz[a,h]anthracene | **5** | ug/kg | 5 | EPA 8270C | 09/18/12 | 09/24/12 22:28 | JKL |
| Fluoranthene | **6** | ug/kg | 5 | EPA 8270C | 09/18/12 | 09/24/12 22:28 | JKL |
| Fluorene | ND | ug/kg | 5 | EPA 8270C | 09/18/12 | 09/24/12 22:28 | JKL |
| Indeno[1,2,3-cd]pyrene | **5** | ug/kg | 5 | EPA 8270C | 09/18/12 | 09/24/12 22:28 | JKL |
| 2-Methylnaphthalene | ND | ug/kg | 5 | EPA 8270C | 09/18/12 | 09/24/12 22:28 | JKL |
| Naphthalene` | ND | ug/kg | 5 | EPA 8270C | 09/18/12 | 09/24/12 22:28 | JKL |
| Phenanthrene | **5** | ug/kg | 5 | EPA 8270C | 09/18/12 | 09/24/12 22:28 | JKL |
| Pyrene | **7** | ug/kg | 5 | EPA 8270C | 09/18/12 | 09/24/12 22:28 | JKL |
| **Target Compound List - VOLATILES** | | | | | | | |
| Dichlorodifluoromethane | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 23:48 | JKL |
| Chloromethane | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 23:48 | JKL |
| Vinyl chloride | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 23:48 | JKL |
| Bromomethane | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 23:48 | JKL |
| Chloroethane | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 23:48 | JKL |
| Trichlorofluoromethane | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 23:48 | JKL |
| 1,1-Dichloroethene | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 23:48 | JKL |
| 1,1,2-Trichlorotrifluoroethane | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 23:48 | JKL |
| Acetone | ND | ug/kg | 44 | EPA 8260B | 09/19/12 | 09/19/12 23:48 | JKL |
| Carbon disulfide | ND | ug/kg | 9 | EPA 8260B | 09/19/12 | 09/19/12 23:48 | JKL |



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# Certificate of Analysis

Haley & Aldrich, Inc
200 Town Centre Dr., Suite 2
Rochester, NY 14623-4264

Date Sampled: 09/12/12 13:23
Date Received: 09/13/12 12:00
Date Issued: 09/26/12

Project: St. Elizabeth East Campus
Site Location: Washington, DC
Project Number: 38677-003

**SDG Number: 12091307**

**Field Sample ID: B121-S1-13'-15'** **Matrix: Soil** **Lab ID: 12091307-16**

| | Result | Unit | LLQ | Method | Prepared | Analyzed | Init. |
|---|---|---|---|---|---|---|---|
| **Target Compound List - VOLATILES** | | | | | | | |
| Methyl acetate | ND | ug/kg | 22 | EPA 8260B | 09/19/12 | 09/19/12 23:48 | JKL |
| Methylene chloride | ND | ug/kg | 22 | EPA 8260B | 09/19/12 | 09/19/12 23:48 | JKL |
| trans-1,2-Dichloroethene | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 23:48 | JKL |
| Methyl t-butyl ether (MTBE) | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 23:48 | JKL |
| 1,1-Dichloroethane | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 23:48 | JKL |
| cis-1,2-Dichloroethene | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 23:48 | JKL |
| 2-Butanone (MEK) | ND | ug/kg | 44 | EPA 8260B | 09/19/12 | 09/19/12 23:48 | JKL |
| Chloroform | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 23:48 | JKL |
| 1,1,1-Trichloroethane | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 23:48 | JKL |
| Cyclohexane | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 23:48 | JKL |
| Carbon tetrachloride | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 23:48 | JKL |
| Benzene | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 23:48 | JKL |
| 1,2-Dichloroethane | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 23:48 | JKL |
| Trichloroethene | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 23:48 | JKL |
| Methylcyclohexane | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 23:48 | JKL |
| 1,2-Dichloropropane | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 23:48 | JKL |
| Bromodichloromethane | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 23:48 | JKL |
| cis-1,3-Dichloropropene | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 23:48 | JKL |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/kg | 9 | EPA 8260B | 09/19/12 | 09/19/12 23:48 | JKL |
| Toluene | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 23:48 | JKL |
| trans-1,3-Dichloropropene | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 23:48 | JKL |
| 1,1,2-Trichloroethane | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 23:48 | JKL |
| Tetrachloroethene | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 23:48 | JKL |
| 2-Hexanone (MBK) | ND | ug/kg | 9 | EPA 8260B | 09/19/12 | 09/19/12 23:48 | JKL |
| Dibromochloromethane | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 23:48 | JKL |
| 1,2-Dibromoethane | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 23:48 | JKL |
| Chlorobenzene | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 23:48 | JKL |
| Ethylbenzene | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 23:48 | JKL |
| m&p-Xylene | ND | ug/kg | 9 | EPA 8260B | 09/19/12 | 09/19/12 23:48 | JKL |
| o-Xylene | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 23:48 | JKL |
| Styrene | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 23:48 | JKL |
| Bromoform | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 23:48 | JKL |
| Isopropylbenzene | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 23:48 | JKL |
| 1,1,2,2-Tetrachloroethane | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 23:48 | JKL |
| 1,3-Dichlorobenzene | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 23:48 | JKL |
| 1,4-Dichlorobenzene | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 23:48 | JKL |
| 1,2-Dichlorobenzene | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 23:48 | JKL |
| 1,2-Dibromo-3-chloropropane | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 23:48 | JKL |



8851 Orchard Tree Lane Towson, Maryland 21286
tel: 410.825.1151 fax: 410.825.2126 www.caslabs.net

# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

Haley & Aldrich, Inc
200 Town Centre Dr., Suite 2
Rochester, NY 14623-4264

Date Sampled: 09/12/12 13:23
Date Received: 09/13/12 12:00
Date Issued: 09/26/12

Project: St. Elizabeth East Campus
Site Location: Washington, DC
Project Number: 38677-003

**SDG Number: 12091307**

**Field Sample ID: B121-S1-13'-15'** **Matrix: Soil** **Lab ID: 12091307-16**

| | Result | Unit | LLQ | Method | Prepared | Analyzed | Init. |
|---|---|---|---|---|---|---|---|
| **Target Compound List - VOLATILES** | | | | | | | |
| 1,2,4-Trichlorobenzene | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 23:48 | JKL |
| Naphthalene | ND | ug/kg | 9 | EPA 8260B | 09/19/12 | 09/19/12 23:48 | JKL |
| Ethyl t-butyl ether (ETBE) | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 23:48 | JKL |
| tert-Butanol (TBA) | ND | ug/kg | 22 | EPA 8260B | 09/19/12 | 09/19/12 23:48 | JKL |
| Diisopropyl ether (DIPE) | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 23:48 | JKL |
| tert-Amyl methyl ether (TAME) | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 23:48 | JKL |
| tert-Amyl alcohol (TAA) | ND | ug/kg | 22 | EPA 8260B | 09/19/12 | 09/19/12 23:48 | JKL |
| tert-Amyl ethyl ether (TAEE) | ND | ug/kg | 4 | EPA 8260B | 09/19/12 | 09/19/12 23:48 | JKL |
| **Total Metals** | | | | | | | |
| Arsenic | **0.56** | mg/kg | 0.38 | EPA 6020A | 09/13/12 | 09/14/12 16:27 | MEL |
| Barium | **4.1** | mg/kg | 1.9 | EPA 6020A | 09/13/12 | 09/14/12 16:27 | MEL |
| Cadmium | ND | mg/kg | 1.9 | EPA 6020A | 09/13/12 | 09/14/12 16:27 | MEL |
| Chromium | **2.6** | mg/kg | 1.9 | EPA 6020A | 09/13/12 | 09/14/12 16:27 | MEL |
| Lead | **2.2** | mg/kg | 1.9 | EPA 6020A | 09/13/12 | 09/14/12 16:27 | MEL |
| Mercury | ND | mg/kg | 0.076 | EPA 6020A | 09/13/12 | 09/14/12 16:27 | MEL |
| Selenium | ND | mg/kg | 1.9 | EPA 6020A | 09/13/12 | 09/14/12 16:27 | MEL |
| Silver | ND | mg/kg | 1.9 | EPA 6020A | 09/13/12 | 09/14/12 16:27 | MEL |
| **Total Petroleum Hydrocarbons - (C10-C28) DRO** | | | | | | | |
| Diesel Range Organics | ND | mg/kg | 10 | EPA 8015C | 09/18/12 | 09/20/12 1:19 | AC |
| **Total Petroleum Hydrocarbons - (C28-C40) ORO** | | | | | | | |
| Oil Range Organics | ND | mg/kg | 10 | EPA 8015C | 09/18/12 | 09/20/12 1:19 | AC |
| **Total Petroleum Hydrocarbons - (C6-C10) GRO** | | | | | | | |
| Gasoline Range Organics | ND | mg/kg | 0.17 | EPA 8015C | 09/25/12 | 09/25/12 10:23 | CBS |

Notes/Qualifiers:
LLQ- Lowest Level of Quantitation
ND - Not Detected at a concentration greater than or equal to the LLQ.
Results reported on a dry weight basis.

Approved by: Matt Osher
QC Chemist



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CALIBER ANALYTICAL SERVICES

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Fax: 410.825.2126
www.caslabs.net

# Chain of Custody Record

| | |
|---|---|
| Customer: | HALEY & ALDRICH |
| Contact/Report to: | KWRIGHT-NG@HALEYALDRICH.COM |
| Phone: | 703 336 6234 |
| Fax: | |

| | |
|---|---|
| E-mail address: | |
| Project Name: | ST. ELIZABETHS EAST CAMPUS |
| Project Number: | 38677-003 |
| Location: | WASHINGTON DC |

| | |
|---|---|
| SDG Number: | 1209307 |
| Sampled by: | CT |
| PO Number: | 38677-003 |

Analysis Requested

| Lab Number | Field Sample ID | Date Sampled | Time Sampled | No. of Bottles | Preservative / Matrix | BTEX - NAPHTHALENE | TPH - DRO/GRO/ORO | VOCs by 8260 | PCBs | RCRA 8 METALS | PAHs | DIOXINS/FURANS* | TPH - DRO/ORO/GRO | GROUND WATER ANALYSIS VOCs | * TCDD + TCDF Sampling Remarks/ Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | B106-S1-7' to 9' | 9/12/12 | 7:48 | 5 | | | X | X | X | X | X | | | | |
| | B106-S2-21' to 23' | 9/12/12 | 7:48 | 5 | | | X | X | X | X | X | | | | |
| | B105-S1-5' to 7' | 9/12/12 | 8:29 | 4 | | X | X | | X | | | | | | |
| | B105-S2-2' to 3' | 9/12/12 | 8:29 | 4 | HOLD | X | X | | X | | | | | | |
| | B105B-S1-1' to 5' | 9/12/12 | 8:49 | 4 | | X | X | | X | | | | | | |
| | B103-GROUND WATER | 9/12/12 | 9:09 | 4 | | | | | | | | | X | X | |
| | B107-S1-5' to 7' | 9/12/12 | 10:00 | 4 | | X | X | | X | | | | | | |
| | B107-S2-20' to 22' | 9/12/12 | 10:00 | 4 | | X | X | | X | | | | | | |
| | B115-S1-5' to 7' | 9/12/12 | 11:43 | 4 | | X | X | | X | | | | | | |
| | B115-S2-12' to 14' | 9/12/12 | 11:4 | 1 | | X | X | | X | | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| Relinquished by: | Christian Tschibelu | Date/Time: | 9/12/12 15:00 | Deliverables: | Receipt Temperature: | Turnaround Time: |
| Received by: | M. Collie | Date/Time: | 9/13/12 1200 | I II III CLP EDD | Temp: ____ On Ice | STD Next Day 2-Day Other ____ |
| Relinquished by: | | Date/Time: | | Custody Seals: | Comments/Special Instructions: | |
| Received by: | | Date/Time: | | Sample Cooler | | |
| Relinquished by: | | Date/Time: | | Delivered by client | | |
| Received by: | | Date/Time: | | FedEx | | |

CALIBER ANALYTICAL SERVICES

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Phone: 410.825.1151
Fax: 410.825.2126
www.caslabs.net

# Chain of Custody Record

| | |
|---|---|
| Customer: | HALEY & ALDRICH |
| Contact/Report to: | KWRIGHT-NG@HALEYALDRICH.COM |
| Phone: | 703 336 6234 |
| Fax: | |

| | |
|---|---|
| E-mail address: | |
| Project Name: | ST. ELIZABETH EAST CAMPUS |
| Project Number: | 38677-003 |
| Location: | WASHINGTON DC |

| | |
|---|---|
| SDG Number: | 12091307 |

| | |
|---|---|
| Sampled by: | CT |
| PO Number: | 38677-003 |

Analysis Requested

| Lab Number | Field Sample ID | Date Sampled | Time Sampled | No. of Bottles | Matrix | Preservative | BTEX-NAPHTALENE | TPH-DRO/GRO/ORO | VOCs by 8260 | PCBs | RCRA 8 METALS | PAHs | DIOXINS/FURANS * | | | | * TCDD + TCDF Sampling Remarks/ Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | B114-S1-3' to 5' | 9/12/12 | 12:21 | 4 | | | X | X | | | | | | | | | |
| | B114-S2-13' to 15' | 9/12/12 | 12:21 | 1 | | | X | X | | | | | | | | | |
| | B110-S1-3' to 5' | 9/12/12 | 12:47 | 4 | | | X | X | | X | | | | | | | |
| | B110-S2-13' to 15' | 9/12/12 | 12:47 | 1 | | | X | X | | X | | | | | | | |
| | B121-S1-5' to 7' | 9/12/12 | 13:23 | 4 | | | | X | X | X | X | X | | | | | |
| | B121-S2-13' to 15' | 9/12/12 | 13:23 | 1 | | | | X | X | X | X | X | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| Relinquished by: | Christian Tschebelu | Date/Time: | 9/12/12 15:00 | Deliverables: | Receipt Temperature: | Turnaround Time: |
| Received by: | M. Collier | Date/Time: | 9/13/12 1200 | I II III CLP EDD | Temp: On Ice | STD Next Day 2-Day Other |
| Relinquished by: | | Date/Time: | | Custody Seals: | Comments/Special Instructions: | |
| Received by: | | Date/Time: | | Sample Cooler | | |
| Relinquished by: | | Date/Time: | | Delivered by client FedEx | | |
| Received by: | | Date/Time: | | | | |