

**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**

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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.

A handwritten signature in black ink, appearing to read "K Ng".

Kristen M. Wright-Ng
Senior Engineer

A handwritten signature in black ink, appearing to read "Thomas A. Varner".

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 Karaskevics, 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 LABORATORY 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:

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

TABLE II
SUMMARY OF LABORATORY 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

Notes and Abbreviations:

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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: polycyclic aromatic hydrocarbons; TPH: total petroleum hydrocarbons; PCB: polychlorinated biphenyl
7. ug/kg means micrograms per kilogram; mg/kg means milligram per kilogram
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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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WASHINGTON, D.C.

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						1'-3'	5'-6'	18'-20'	5'-7'	3'-5'	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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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	-

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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: polycyclic aromatic 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 LABORATORY 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	B125-S1-1'-3' 9/11/2012	B125-S2-8'-10' 9/11/2012	B126-S1-18'-20' 9/11/2012	B127-S1-5'-7' 9/10/2012	B128-S1-5'-7' 9/10/2012
						5'-7'	1'-3'	8'-10'	18'-20'	5'-7'	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:

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

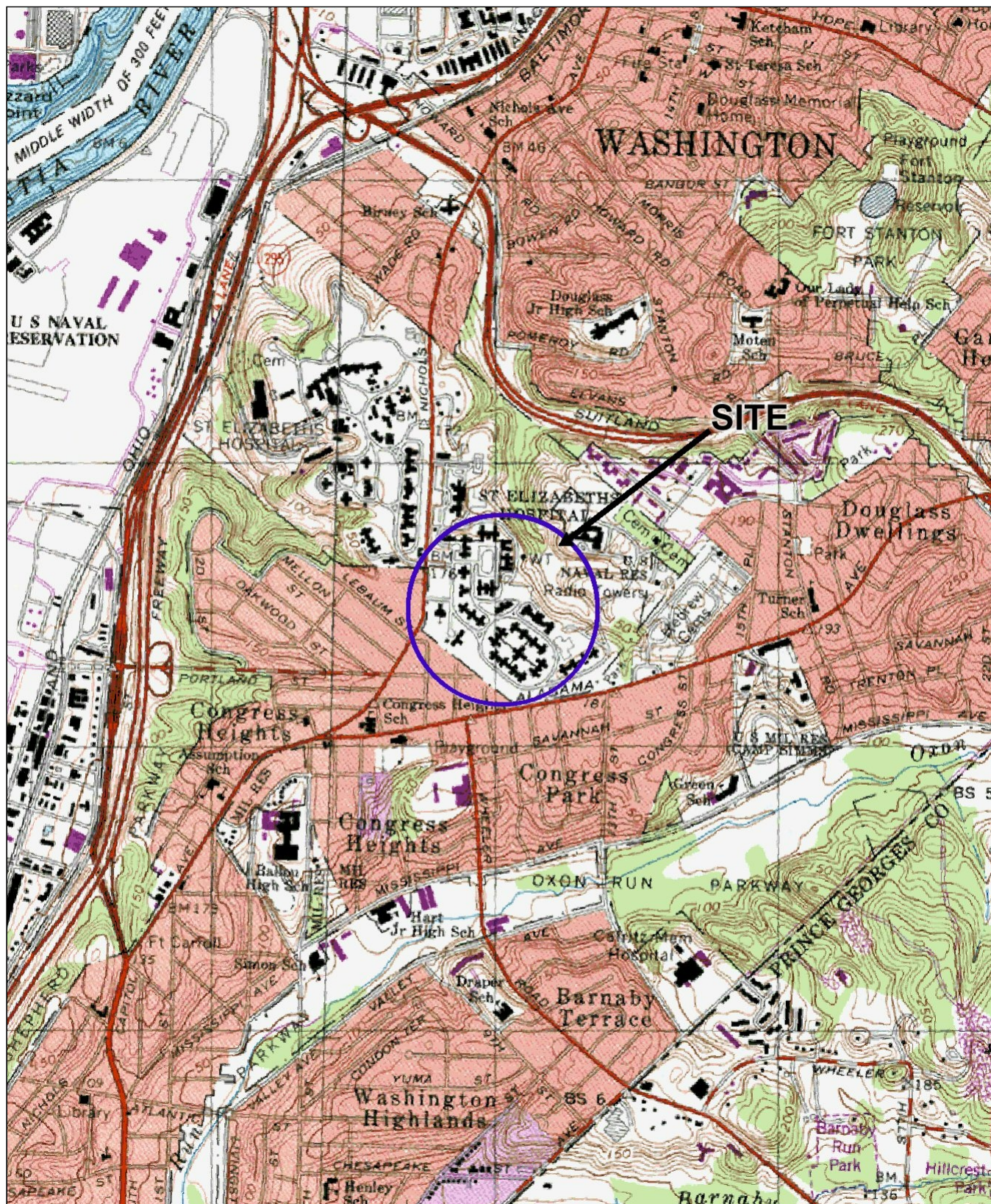
Notes and Abbreviations:

1. Only those constituents detected in at least one sample are shown.
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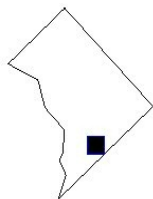
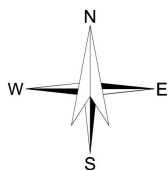
TABLE III
SUMMARY OF LABORTORY ANALYTICAL DATA FOR GROUNDWATER
ST. ELIZABETHS EAST CAMPUS
WASHINGTON, D.C.

		Petroleum Contaminated GW Cleanup Standards for the DC UST Program Tier 1 Screening Levels 2003 Revision	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

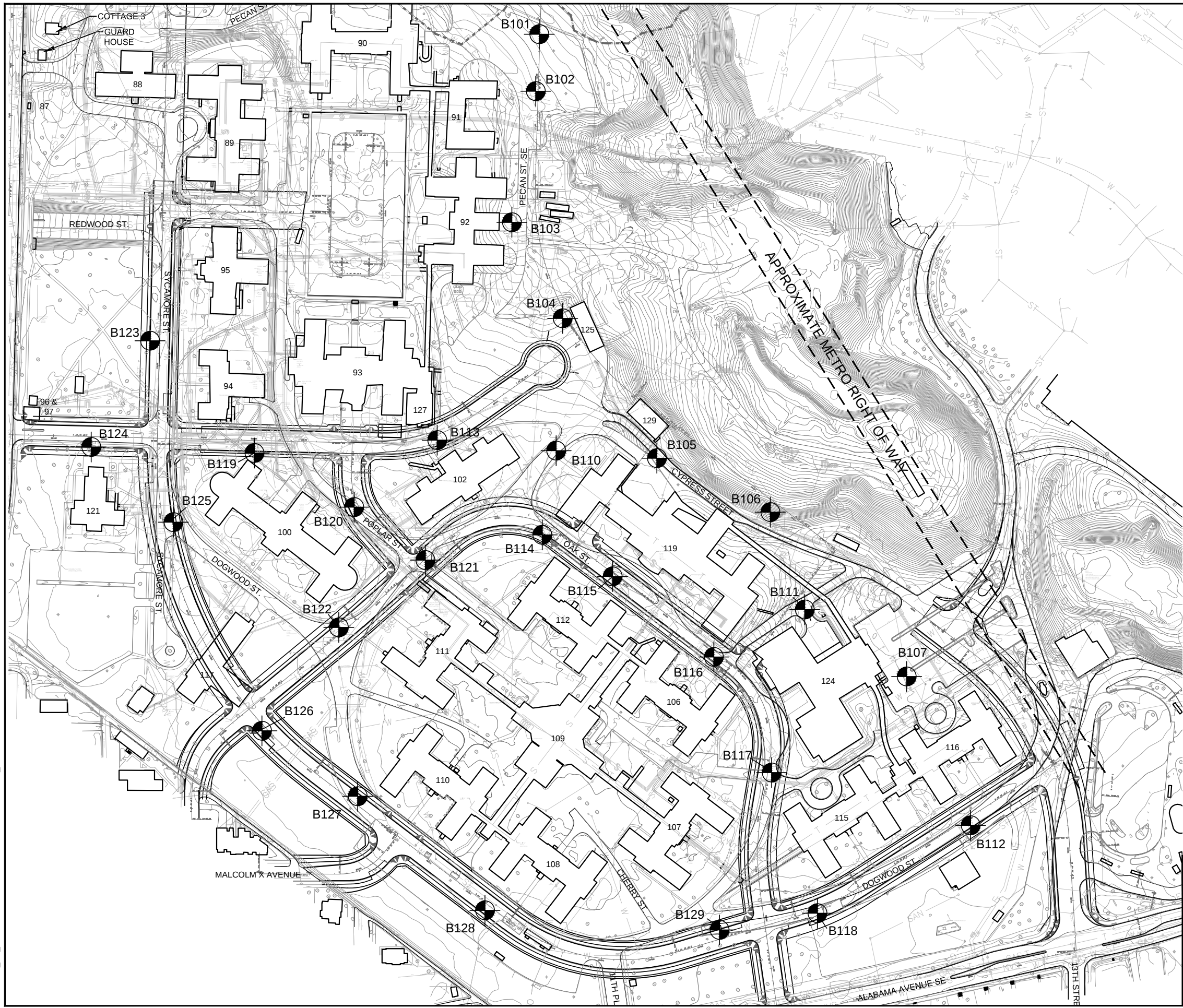
ST ELIZABETHS EAST CAMPUS
MARTIN LUTHER KING JR. (MLK) AVENUE SE
WASHINGTON, DISTRICT OF COLUMBIA

PROJECT LOCUS

SCALE: 1:24,000
OCTOBER 2012

FIGURE 1

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



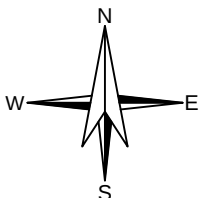
LEGEND

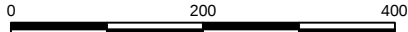
B108  DESIGNATION AND APPROXIMATE LOCATION OF GEOPROBE BORINGS DRILLED BY VIRONEX, INC. OF BOWIE, MARYLAND BETWEEN 10 AND 12 SEPTEMBER 2012.

 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.





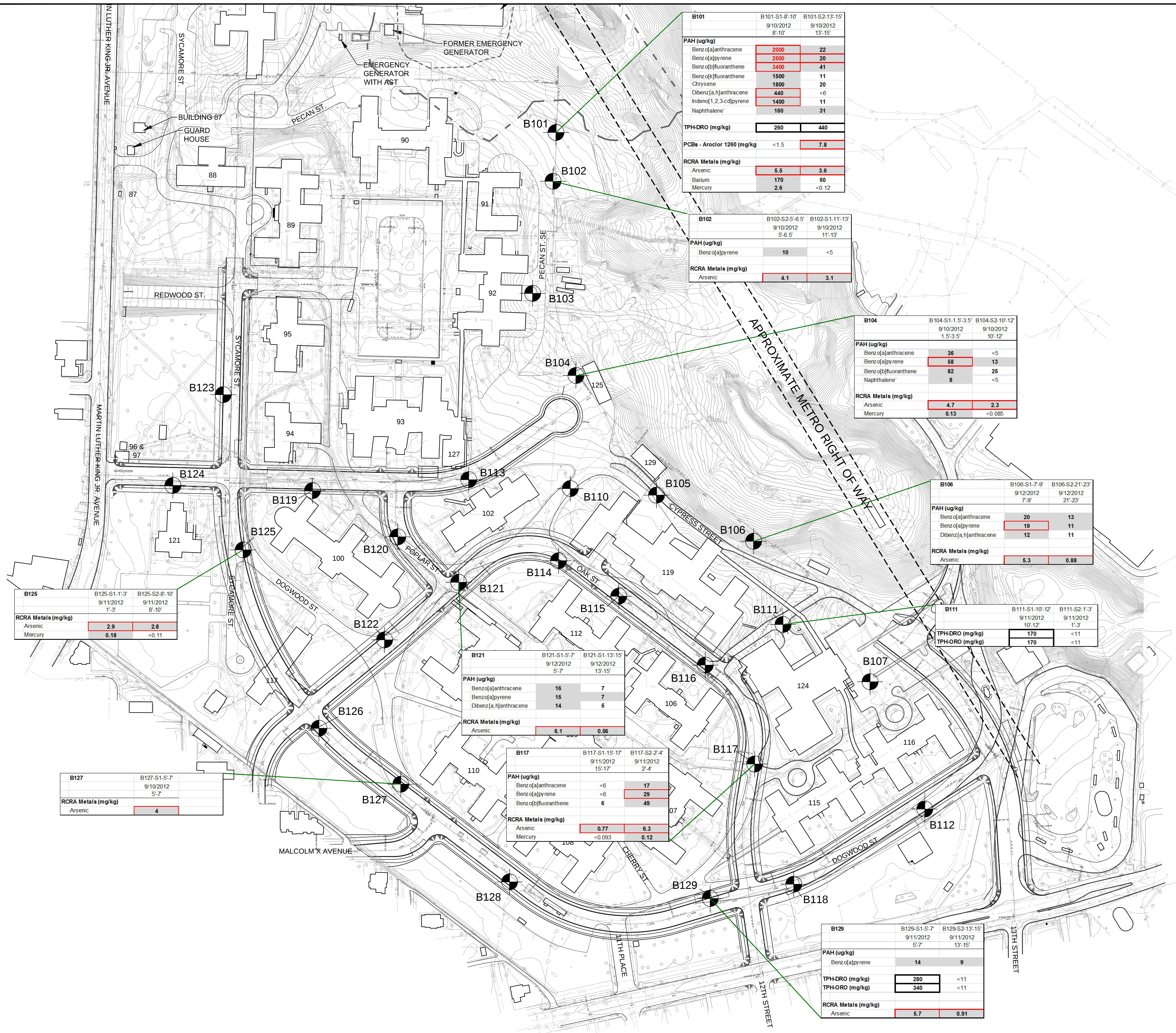
SCALE IN FEET

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

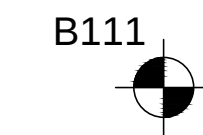
**SUBSURFACE EXPLORATION
LOCATION PLAN**

SCALE: AS SHOWN
NOVEMBER 2012

FIGURE 2



LEGEND



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

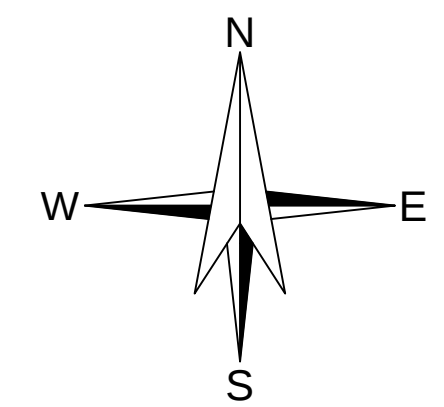
APPROXIMATE ASH / FILL AREA AS DEPICTED BY OTHERS, 1991.

APPROXIMATE FLY ASH ZONE AS DEPICTED BY OTHERS, 2008.

NOTES:

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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 formatted as follows:			
EPA Region III Soil Screening Level Protection of GW April 2012	EPA Region III Soil Screening Level Residential Soil April 2012	DC RCRA Risk-Based Screening Levels Residential Child Surface Soil	Section 6008 of the DC UST Regulations Tier 0 Screening Levels



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

APPENDIX A

Boring Logs

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\004 ST E EAST PHASE II\REPORT\DATABASE\2012.0917 38677-004 GEOPROBES.GPJ Oct 3, 12

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																																								
		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 60	0.0 5.0	0.5	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																																						
				SM	Dark brown with red-pockets silty SAND with gravel, petroleum odor and staining, moist					0.1																																						
10	G3 60	10.0 15.0		SM	Tan and gray silty SAND with gravel, no odor, dry					0.2																																						
				SM																																												
15			15.0		Bottom of exploration at 15.0 ft																																											
					Note: Borehole grouted upon completion																																											
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th colspan="5" style="text-align: left;">Water Level Data</th> <th style="text-align: left;">Sample ID</th> <th style="text-align: left;">Well Diagram</th> <th style="text-align: left;">Summary</th> </tr> <tr> <th rowspan="2">Date</th> <th rowspan="2">Time</th> <th rowspan="2">Elapsed Time (hr.)</th> <th colspan="3">Depth (ft) to:</th> <th rowspan="2"> O - Open End Rod T - Thin Wall Tube U - Undisturbed Sample S - Splitspoon Sample G - Geoprobe </th> <th rowspan="2"> </th> <th>Overburden (ft)</th> </tr> <tr> <th>Bottom of Casing</th> <th>Bottom of Hole</th> <th>Water</th> <th>Rock Cored (ft)</th> </tr> <tr> <td></td> <td></td> <td style="text-align: center;">Not Encountered</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>Samples</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td style="text-align: center;">3G</td> </tr> </table>										Water Level Data					Sample ID	Well Diagram	Summary	Date	Time	Elapsed Time (hr.)	Depth (ft) to:			O - Open End Rod T - Thin Wall Tube U - Undisturbed Sample S - Splitspoon Sample G - Geoprobe		Overburden (ft)	Bottom of Casing	Bottom of Hole	Water	Rock Cored (ft)			Not Encountered						Samples									3G
Water Level Data					Sample ID	Well Diagram	Summary																																									
Date	Time	Elapsed Time (hr.)	Depth (ft) to:			O - Open End Rod T - Thin Wall Tube U - Undisturbed Sample S - Splitspoon Sample G - Geoprobe		Overburden (ft)																																								
			Bottom of Casing	Bottom of Hole	Water			Rock Cored (ft)																																								
		Not Encountered						Samples																																								
								3G																																								
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.																																																

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\004 ST E EAST PHASE II REPORT\DATABASE\2012-09-17 38677-004 GEOPROBES.GPJ Oct 3, 12

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	
		Casing	Sampler	Barrel	Drilling Equipment and Procedures			
Type	2 1/4 in.	-	-	Rig Make & Model: Geoprobe			Elevation	
Inside Diameter (in.)	2	-	-	Bit Type: -			Datum	
Hammer Weight (lb)	-	-	-	Drill Mud: -			Location See Plan	
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	SM	-ASPHALT (2 in.) / SUBBASE (4 in.)-	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						Sample ID	Well Diagram	Summary
Date	Time	Elapsed Time (hr.)	Depth (ft) to:			O - Open End Rod T - Thin Wall Tube U - Undisturbed Sample S - Splitspoon Sample G - Geoprobe		Overburden (ft) 15.0 Rock Cored (ft) - Samples 3G
			Bottom of Casing	Bottom of Hole	Water			
		Not Encountered						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
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***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\004 ST E EAST PHASE II REPORT\DATABASE\2012-09-17 38677-004 GEOPROBES.GPJ Oct 3, 12

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			
	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					-TOPSOIL-			
	G1 18	0.0 5.0	0.5	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:			O - Open End Rod T - Thin Wall Tube U - Undisturbed Sample S - Splitspoon Sample G - Geoprobe	Riser Pipe Screen Filter Sand Cuttings Grout Concrete Bentonite Seal	Summary Overburden (ft) 20.0 Rock Cored (ft) - Samples 4G Boring No. B103
			Bottom of Casing	Bottom of Hole	Water			
9/11/12	1100	-	-	-	12.5			
9/12/12	0900	-	-	-	10.0			
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.								

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\2012.09\17 38677-004 GEOPROBES.GPJ Oct 3, 12

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	
		Casing	Sampler	Barrel	Drilling Equipment and Procedures			
Type	2 1/4 in.	-	-	Rig Make & Model: Geoprobe			Elevation	
Inside Diameter (in.)	2	-	-	Bit Type: -			Datum	
Hammer Weight (lb)	-	-	-	Drill Mud: -			Location See Plan	
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	0.5	SM	-ASPHALT (2 in.) / SUBBASE (4 in.)-	0.0
		5.0			Brown silty SAND with gravel, petroleum odor and staining, moist	

			3.5		No recovery	

5	G2 42	5.0	5.0	SM	Brown silty SAND with gravel, no odor, moist	0.0
		10.0				

			8.5		No recovery	

10	G3 24	10.0	10.0	SW	Light brown to tan well-graded SAND with quartz gravel, petroleum odor, moist	0.0
		15.0				

			12.0		No recovery	

15			15.0		Bottom of exploration at 15.0 ft	
					Note: Borehole grouted upon completion	

Water Level Data					Sample ID	Well Diagram	Summary	
Date	Time	Elapsed Time (hr.)	Depth (ft) to:			O - Open End Rod T - Thin Wall Tube U - Undisturbed Sample S - Splitspoon Sample G - Geoprobe		Overburden (ft)
			Bottom of Casing	Bottom of Hole	Water			Rock Cored (ft)
		Not Encountered						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
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***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\2012-09\17 38677-004 GEOPROBES.GPJ Oct 3, 12

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		
		Casing	Sampler	Barrel	Drilling Equipment and Procedures				
Type		2 1/4 in.	-	-	Rig Make & Model: Geoprobe			Elevation	
Inside Diameter (in.)		2	-	-	Bit Type: -			Datum	
Hammer Weight (lb)		-	-	-	Drill Mud: -			Location See Plan	
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				PID Readings (ppm)
					(Color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)				
0					-ASPHALT (2 in.) / SUBBASE (4 in.)-				
	G1 36	0.0 5.0	0.5	SW-SM	Light brown well-graded silty SAND with coarse gravel, no odor, dry				201.0
			3.0		----- No recovery				
5			5.0	SW-SM	Light brown well-graded silty SAND with coarse gravel, no odor, dry				244.0
	G2 24	5.0 10.0			----- No recovery				
			7.0		----- No recovery				
10			10.0		----- No recovery				
	G3 0	10.0 15.0			Note: Gravel clogged geoprobe sleeve				
			15.0		----- No recovery				
15			15.0		----- No recovery				
	G4 0	15.0 20.0			----- No recovery				
			20.0		----- Bottom of exploration at 20.0 ft				
20					Note: Borehole grouted upon completion				
Water Level Data					Sample ID	Well Diagram		Summary	
Date	Time	Elapsed Time (hr.)	Depth (ft) to:		O - Open End Rod T - Thin Wall Tube U - Undisturbed Sample S - Splitspoon Sample G - Geoprobe	 Riser Pipe Screen Filter Sand Cuttings Grout Concrete Bentonite Seal	Overburden (ft) 20.0 Rock Cored (ft) - Samples 4G		
			Bottom of Casing	Bottom of Hole					
		Not Encountered							Boring No. B105
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.				

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
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	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

VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION

(Color, GROUP NAME, max. particle size*,
structure, odor, moisture, optional descriptions
GEOLOGIC INTERPRETATION)

PID Readings
(ppm)

Depth (ft)	Soil Sample	Soil Description	Soil Type	Soil Color	Soil Consistency	Soil Moisture	Soil Odor	Soil Temperature (°F)	Soil Notes
0	G1 36	0.0 5.0	0.5	SW- SM	-ASPHALT (2 in.) / SUBBASE (4 in.)-				
					Brown well-graded silty SAND with quartz gravel, no odor, moist				
			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				
			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

Sample ID

Well Diagram

Summary

Date	Time	Elapsed Time (hr.)	Depth (ft) to:			O - Open End Rod T - Thin Wall Tube U - Undisturbed Sample S - Spiltspoon Sample G - Geoprobe	</
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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.

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\2012.09\17 38677-004 GEOPROBES.GPJ Oct 3, 12

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			
		Casing	Sampler	Barrel	Drilling Equipment and Procedures						
Type		2 1/4 in.	-	-	Rig Make & Model: Geoprobe					Elevation	
Inside Diameter (in.)		2	-	-	Bit Type: -					Datum	
Hammer Weight (lb)		-	-	-	Drill Mud: -					Location See Plan	
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					-TOPSOIL-	
	G1 60	0.0 5.0	0.5	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						Sample ID	Well Diagram	Summary
Date	Time	Elapsed Time (hr.)	Depth (ft) to:			O - Open End Rod T - Thin Wall Tube U - Undisturbed Sample S - Splitspoon Sample G - Geoprobe		Overburden (ft)
			Bottom of Casing	Bottom of Hole	Water			Rock Cored (ft)
9/12/12	0745	-	-	-	21.0			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
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***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.

GEOPROBE REPORT

Boring No. B106

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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 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

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\004 ST E EAST PHASE II REPORT\DATABASE\2012.0917 38677-004 GEOPROBES.GPJ Oct 3, 12

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																																				
		Casing	Sampler	Barrel	Drilling Equipment and Procedures																																						
Type		2 1/4 in.	-	-	Rig Make & Model: Geoprobe			Elevation																																			
Inside Diameter (in.)		2	-	-	Bit Type: -			Datum																																			
Hammer Weight (lb)		-	-	-	Drill Mud: -			Location See Plan																																			
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	0.5	CL	-ASPHALT (2 in.) / SUBBASE (4 in.)-				21.8																																		
		5.0			Dark brown CLAY with sand and gravel, no odor, moist																																						

			4.0		No recovery																																						
5	G2 36	5.0	5.0	CL	Brown sandy CLAY, trace gravel, no odor, moist				49.1																																		
		10.0			-----																																						

			8.0		No recovery																																						
10	G3 36	10.0	10.0	CL	Brown sandy CLAY, trace gravel, no odor, moist				39.8																																		
		15.0			-----																																						

			13.0		No recovery																																						
15	G4 24	15.0	15.0	CL	Brown lean CLAY with sand and gravel, no odor, moist				0.2																																		
		20.0			-----																																						

			17.0		No recovery																																						
20																																											
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th colspan="5" style="text-align: left;">Water Level Data</th> <th style="text-align: left;">Sample ID</th> <th style="text-align: left;">Well Diagram</th> <th colspan="2" style="text-align: left;">Summary</th> </tr> <tr> <th rowspan="2" style="text-align: center;">Date</th> <th rowspan="2" style="text-align: center;">Time</th> <th rowspan="2" style="text-align: center;">Elapsed Time (hr.)</th> <th colspan="3" style="text-align: left;">Depth (ft) to:</th> <th rowspan="2" style="text-align: left;"> O - Open End Rod T - Thin Wall Tube U - Undisturbed Sample S - Splitspoon Sample G - Geoprobe </th> <th rowspan="2" style="text-align: left;"> Riser Pipe Screen Filter Sand Cuttings Grout Concrete Bentonite Seal </th> <th style="text-align: left;">Overburden (ft)</th> <th style="text-align: left;">25.0</th> </tr> <tr> <th style="text-align: center;">Bottom of Casing</th> <th style="text-align: center;">Bottom of Hole</th> <th style="text-align: center;">Water</th> <th style="text-align: left;">Rock Cored (ft)</th> <th style="text-align: left;">-</th> </tr> <tr> <td></td> <td></td> <td style="text-align: center;">Not Encountered</td> <td></td> <td></td> <td></td> <td></td> <td></td> <th style="text-align: left;">Samples</th> <th style="text-align: left;">5G</th> </tr> </table>										Water Level Data					Sample ID	Well Diagram	Summary		Date	Time	Elapsed Time (hr.)	Depth (ft) to:			O - Open End Rod T - Thin Wall Tube U - Undisturbed Sample S - Splitspoon Sample G - Geoprobe	Riser Pipe Screen Filter Sand Cuttings Grout Concrete Bentonite Seal	Overburden (ft)	25.0	Bottom of Casing	Bottom of Hole	Water	Rock Cored (ft)	-			Not Encountered						Samples	5G
Water Level Data					Sample ID	Well Diagram	Summary																																				
Date	Time	Elapsed Time (hr.)	Depth (ft) to:			O - Open End Rod T - Thin Wall Tube U - Undisturbed Sample S - Splitspoon Sample G - Geoprobe	Riser Pipe Screen Filter Sand Cuttings Grout Concrete Bentonite Seal	Overburden (ft)	25.0																																		
			Bottom of Casing	Bottom of Hole	Water			Rock Cored (ft)	-																																		
		Not Encountered						Samples	5G																																		
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.																																											

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

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

	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

Elevation Datum	
Location	See Plan

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						Sample ID O - Open End Rod T - Thin Wall Tube U - Undisturbed Sample S - Splitspoon Sample G - Geoprobe	Well Diagram		Summary	
Date	Time	Elapsed Time (hr.)	Depth (ft) to:		Water			Riser Pipe	Overburden (ft)	15.0
			Bottom of Casing	Bottom of Hole				Screen		
								Filter Sand		
		Not Encountered					Cuttings	Rock Cored (ft)	-	
								Grout	Samples	3G
								Concrete	Boring No.	B110
							Bentonite Seal			

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.

H&A-GEOPROBE-NO BLOW COLUMN HAR HA-LIB07-R1.GLB HA-TB-CORE+WELL-07-1.GDT \\WASCOMMON\PROJECTS\38677 - ST E EAST\004 ST E EAST\004 ST E EAST PHASE II REPORT\DATABASE\2012.09\17 38677-004 GEOPROBES.GPJ Oct 3, 12

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		
		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	0.5	SM	-ASPHALT (2 in.) / SUBBASE (4 in.)-		95.3		
		5.0			Brown silty SAND with quartz gravel, slight petroleum odor, dry				
					3.0	No recovery			
5	G2 24	5.0	5.0	SM	Brown silty SAND with quartz gravel, slight petroleum odor, dry		87.6		
		10.0			No recovery				
					7.0	No recovery			
10	G3 30	10.0	10.0	SM	Brown silty SAND with quartz gravel, slight petroleum odor, dry		111.0		
		15.0			No recovery				
					12.5	No recovery			
15			15.0		Bottom of exploration at 15.0 ft				
					Note: Borehole grouted upon completion				
Water Level Data				Sample ID		Well Diagram		Summary	
Date	Time	Elapsed Time (hr.)	Depth (ft) to:			O - Open End Rod T - Thin Wall Tube U - Undisturbed Sample S - Splitspoon Sample G - Geoprobe	Riser Pipe Screen Filter Sand Cuttings Grout Concrete Bentonite Seal	Overburden (ft)	15.0
			Bottom of Casing	Bottom of Hole	Water				
		Not Encountered						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.									

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

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Finish September 11, 2012
Driller B. Porter
H&A Rep. M. Tschibelu

	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

Elevation Datum	
Location	See Plan

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 Note: Borehole grouted upon completion	

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

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.

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

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Driller B. Porter
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	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

Elevation Datum	
Location	See Plan

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	1.5		-ASPHALT (3 in.) / SUBBASE (15 in.)-	0.0
				ML	Red-brown SILT with sand, trace quartz gravel, no odor, dry	
5	G2 60	5.0 10.0	6.0	ML	Similar to above	0.0
				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						Sample ID O - Open End Rod T - Thin Wall Tube U - Undisturbed Sample S - Splitspoon Sample G - Geoprobe	Well Diagram		Summary	
Date	Time	Elapsed Time (hr.)	Depth (ft) to:		Water			Riser Pipe	Overburden (ft)	15.0
		Bottom of Casing	Bottom of Hole				Screen			
							Filter Sand			
		Not Encountered					Cuttings	Rock Cored (ft)	-	
							Grout	Samples	3G	
							Concrete	Boring No.	B113	
							Bentonite Seal			

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.

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

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	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

Elevation Datum	
Location	See Plan

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-	12.7
				ML	Brown sandy SILT with gravel, no odor, dry	
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	
15			15.0		Bottom of exploration at 15.0 ft Note: Borehole grouted upon completion	

Water Level Data						Sample ID	Well Diagram	Summary		
Date	Time	Elapsed Time (hr.)	Depth (ft) to:			O - Open End Rod T - Thin Wall Tube U - Undisturbed Sample S - Splitspoon Sample G - Geoprobe		Riser Pipe	Overburden (ft)	15.0
			Bottom of Casing	Bottom of Hole	Water			Screen	Rock Cored (ft)	-
		Not Encountered						Filter Sand	Cuttings	3G
								Grout		
								Concrete		
								Bentonite Seal	Boring No.	B114

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.

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\004 ST E EAST PHASE II REPORT\DATABASE\2012.09\17 38677-004 GEOPROBES.GPJ Oct 3, 12

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	
		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	ML	-ASPHALT (2 in.) / SUBBASE (4 in.)- 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				Sample ID		Well Diagram	Summary	
Date	Time	Elapsed Time (hr.)	Depth (ft) to:		O - Open End Rod T - Thin Wall Tube U - Undisturbed Sample S - Splitspoon Sample G - Geoprobe		Overburden (ft) 15.0	
			Bottom of Casing	Bottom of Hole			Water	Rock Cored (ft) -
		Not Encountered						Samples 3G
							Boring No. B115	
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.								

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

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	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

Elevation Datum	
Location	See Plan

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	CL	-ASPHALT (2 in.) / SUBBASE (4 in.)- Brown CLAY with sand and gravel, no odor, dry	38.8
5	G2 60	5.0 10.0	6.0	CL	Similar to above	84.8
				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						Sample ID	Well Diagram	Summary		
Date	Time	Elapsed Time (hr.)	Depth (ft) to:			O - Open End Rod T - Thin Wall Tube U - Undisturbed Sample S - Splitspoon Sample G - Geoprobe		Riser Pipe	Overburden (ft)	12.0
		Bottom of Casing	Bottom of Hole	Water			Screen	Rock Cored (ft)	-	
		Not Encountered						Filter Sand	Samples	3G
								Cuttings	Boring No. B116	
							Grout			
							Concrete			
							Bentonite Seal			

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.

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\004 ST E EAST PHASE II REPORT\DATABASE\2012.09\17 38677-004 GEOPROBES.GPJ Oct 3, 12

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			
		Casing	Sampler	Barrel	Drilling Equipment and Procedures						
Type	2 1/4 in.		-	-	Rig Make & Model: Geoprobe					Elevation	
Inside Diameter (in.)	2		-	-	Bit Type: -					Datum	
Hammer Weight (lb)	-		-	-	Drill Mud: -					Location See Plan	
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	ML	-ASPHALT (2 in.) / SUBBASE (4 in.)-						
					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					Sample ID		Well Diagram		Summary		
Date	Time	Elapsed Time (hr.)	Depth (ft) to:		O - Open End Rod T - Thin Wall Tube U - Undisturbed Sample S - Splitspoon Sample G - Geoprobe				Overburden (ft) 17.5 Rock Cored (ft) - Samples 4G Boring No. B117		
			Bottom of Casing	Bottom of Hole							
		Not Encountered									
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\004 ST E EAST PHASE II REPORT\DATABASE\2012.0917 38677-004 GEOPROBES.GPJ Oct 3, 12

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				
		Casing	Sampler	Barrel	Drilling Equipment and Procedures							
Type		2 1/4 in.	-	-	Rig Make & Model: Geoprobe					Elevation		
Inside Diameter (in.)		2	-	-	Bit Type: -					Datum		
Hammer Weight (lb)		-	-	-	Drill Mud: -					Location See Plan		
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					-TOPSOIL-							
	G1 60	0.0 5.0	0.5	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					Sample ID		Well Diagram		Summary			
Date	Time	Elapsed Time (hr.)	Depth (ft) to:		O - Open End Rod T - Thin Wall Tube U - Undisturbed Sample S - Splitspoon Sample G - Geoprobe				Overburden (ft) 11.0 Rock Cored (ft) - Samples 3G			
			Bottom of Casing	Bottom of Hole								Water
		Not Encountered								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.												

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Contractor	Vironex, Inc.

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	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

Elevation Datum	
Location	See Plan

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-	0.0
				ML	Light brown SILT, trace sand and gravel, no odor, dry	
5	G2 60	5.0 10.0		ML	Light brown SILT with sand, trace gravel, no odor, dry	
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						Sample ID	Well Diagram	Summary		
Date	Time	Elapsed Time (hr.)	Depth (ft) to:			O - Open End Rod T - Thin Wall Tube U - Undisturbed Sample S - Splitspoon Sample G - Geoprobe		Riser Pipe	Overburden (ft)	15.0
			Bottom of Casing	Bottom of Hole	Water			Screen	Rock Cored (ft)	-
		Not Encountered						Filter Sand	Cuttings	3G
								Grout		
								Concrete	Boring No.	B119
								Bentonite Seal		

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.

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\004 ST E EAST PHASE II REPORT\DATABASE\2012.0917 38677-004 GEOPROBES.GPJ Oct 3, 12

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			
		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	ML	-ASPHALT (2 in.) / SUBBASE (4 in.)-					0.0	
					Light brown sandy SILT, trace gravel and clay, no odor, moist						
5	G2 60	5.0 10.0		ML ML	Dark brown to brown sandy SILT with gravel, trace clay, no odor, moist					0.0	
					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				Sample ID		Well Diagram		Summary			
Date	Time	Elapsed Time (hr.)	Depth (ft) to:		O - Open End Rod T - Thin Wall Tube U - Undisturbed Sample S - Splitspoon Sample G - Geoprobe		Overburden (ft) 15.0 Rock Cored (ft) - Samples 3G Boring No. B120				
			Bottom of Casing	Bottom of Hole						Water	
		Not Encountered									
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.							

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

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H&A Rep. M. Tschibelu

	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

Elevation Datum	
Location	See Plan

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.)-	0.0
				CL	Brown to dark brown CLAY with sand, no odor, moist	
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						Sample ID	Well Diagram	Summary	
Date	Time	Elapsed Time (hr.)	Depth (ft) to:		Water	O - Open End Rod T - Thin Wall Tube U - Undisturbed Sample S - Splitspoon Sample G - Geoprobe	 Riser Pipe  Screen  Filter Sand  Cuttings  Grout  Concrete  Bentonite Seal	Overburden (ft)	15.0
			Bottom of Casing	Bottom of Hole				Rock Cored (ft)	-
		Not Encountered					Samples	3G	
							Boring No.	B121	

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.

H&A-GEOPROBE-NO BLOW COLUMN HAR HA-LIB07-R1.GLB HA-TB-CORE+WELL-07-1.GDT \\WASCOMMON\PROJECTS\38677 - ST E EAST\004 ST E EAST\2012-09-17 38677-004 GEOPROBES.GPJ Oct 3, 12

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				
		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	0.2	SW	-ASPHALT (2 in.)-					0.0		
		5.0		1.0	CL	Orange to black well-graded SAND with gravel, black staining, no odor, dry						
						Brown lean CLAY with sand, black staining, no odor, dry						
5	G2 60	5.0	CL		Brown lean CLAY with sand and gravel, no odor, dry					0.0		
		10.0										
10	G3 60	10.0	CL		Brown sandy CLAY with gravel, no odor, dry					0.0		
		15.0										
					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						Sample ID		Well Diagram		Summary		
Date	Time	Elapsed Time (hr.)	Depth (ft) to:			O - Open End Rod T - Thin Wall Tube U - Undisturbed Sample S - Splitspoon Sample G - Geoprobe		Overburden (ft) 15.0 Rock Cored (ft) - Samples 3G				
			Bottom of Casing	Bottom of Hole	Water							
		Not Encountered						Boring No. B122				
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.						

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

	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

Elevation	
Datum	
Location	See Plan

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-	0.0
				ML	Brown SILT with sand, trace gravel, no odor, dry	
5	G2 60	5.0 10.0	10.0	ML	Red-brown sandy SILT with gravel, no odor, dry	0.0
10	G3 60	10.0 15.0		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						Sample ID	Well Diagram	Summary			
Date	Time	Elapsed Time (hr.)	Depth (ft) to:			O - Open End Rod T - Thin Wall Tube U - Undisturbed Sample S - Splitspoon Sample G - Geoprobe		Riser Pipe	Overburden (ft)	15.0	
			Bottom of Casing	Bottom of Hole	Water			Screen			
		Not Encountered					 <td>Cuttings<td>Samples</td><td>3G</td></td>	Cuttings <td>Samples</td> <td>3G</td>	Samples	3G	
								 <td>Grout</td> <td rowspan="2">Boring No.</td> <td rowspan="2">B123</td>	Grout	Boring No.	B123
								 <td>Concrete</td>	Concrete		
								 <td>Bentonite Seal</td> <td colspan="2"></td>	Bentonite Seal		

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.

HALE & ALDRICH GEOPROBE REPORT OCT 3, 12 38677-004 ST. ELIZABETHS EAST CAMPUS; MARTIN LUTHER KING JR. (MLK) AVENUE SE; WASHINGTON, DC

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			
		Casing	Sampler	Barrel	Drilling Equipment and Procedures						
Type	2 1/4 in.	-	-	Rig Make & Model: Geoprobe					Elevation		
Inside Diameter (in.)	2	-	-	Bit Type: -					Datum		
Hammer Weight (lb)	-	-	-	Drill Mud: -					Location See Plan		
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	ML	-TOPSOIL- 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				Sample ID		Well Diagram		Summary			
Date	Time	Elapsed Time (hr.)	Depth (ft) to:		O - Open End Rod T - Thin Wall Tube U - Undisturbed Sample S - Splitspoon Sample G - Geoprobe		Overburden (ft) 15.0				
			Bottom of Casing	Bottom of Hole			Water	Rock Cored (ft) -			
		Not Encountered						Samples 3G			
								Boring No. B124			
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\2012-09-17 38677-004 GEOPROBES.GPJ Oct 3, 12

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			
		Casing	Sampler	Barrel	Drilling Equipment and Procedures						
Type		2 1/4 in.	-	-	Rig Make & Model: Geoprobe					Elevation	
Inside Diameter (in.)		2	-	-	Bit Type: -					Datum	
Hammer Weight (lb)		-	-	-	Drill Mud: -					Location See Plan	
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	CL	-ASPHALT (2 in.) / SUBBASE (4 in.)- 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					Sample ID		Well Diagram		Summary		
Date	Time	Elapsed Time (hr.)	Depth (ft) to:		O - Open End Rod T - Thin Wall Tube U - Undisturbed Sample S - Splitspoon Sample G - Geoprobe				Overburden (ft) 20.0 Rock Cored (ft) - Samples 4G Boring No. B125		
			Bottom of Casing	Bottom of Hole							Water
		Not Encountered									
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\2012.09\17 38677-004 GEOPROBES.GPJ Oct 3, 12

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			
		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	ML	-TOPSOIL-					0.0	
					Brown sandy SILT, trace gravel, no odor, dry						
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						Sample ID		Well Diagram		Summary	
Date	Time	Elapsed Time (hr.)	Depth (ft) to:			O - Open End Rod T - Thin Wall Tube U - Undisturbed Sample S - Splitspoon Sample G - Geoprobe				Overburden (ft) 20.0 Rock Cored (ft) - Samples 4G	
			Bottom of Casing	Bottom of Hole	Water						
		Not Encountered									
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.					
										Boring No. B126	

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\004 ST E EAST PHASE II REPORT\DATABASE\2012-09-17 38677-004 GEOPROBES.GPJ Oct 3, 12

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																																							
		Casing	Sampler	Barrel	Drilling Equipment and Procedures																																										
Type		2 1/4 in.	-	-	Rig Make & Model: Geoprobe					Elevation																																					
Inside Diameter (in.)		2	-	-	Bit Type: -					Datum																																					
Hammer Weight (lb)		-	-	-	Drill Mud: -					Location See Plan																																					
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					-TOPSOIL-																																										
	G1 60	0.0 5.0	0.5	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				ML	Red-brown SILT with sand and quartz gravel, contains clay pockets, no odor, dry						0.0																																				
	G2 60	5.0 10.0																																													
				9.0	SW	Tan well-graded SAND with gravel, no odor, dry																																									
10				10.0	SM	Brown silty SAND with gravel, no odor, dry						0.0																																			
	G3 60	10.0 15.0																																													
				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																																										
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th colspan="5" style="text-align: left;">Water Level Data</th> <th style="text-align: left;">Sample ID</th> <th style="text-align: left;">Well Diagram</th> <th style="text-align: left;">Summary</th> </tr> <tr> <th rowspan="2">Date</th> <th rowspan="2">Time</th> <th rowspan="2">Elapsed Time (hr.)</th> <th colspan="3">Depth (ft) to:</th> <th rowspan="2"> O - Open End Rod T - Thin Wall Tube U - Undisturbed Sample S - Splitspoon Sample G - Geoprobe </th> <th rowspan="2"> Riser Pipe Screen Filter Sand Cuttings Grout Concrete Bentonite Seal </th> <th>Overburden (ft)</th> <th>Rock Cored (ft)</th> <th>Samples</th> </tr> <tr> <th>Bottom of Casing</th> <th>Bottom of Hole</th> <th>Water</th> <th></th> <th></th> <th></th> </tr> <tr> <td></td> <td></td> <td style="text-align: center;">Not Encountered</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>											Water Level Data					Sample ID	Well Diagram	Summary	Date	Time	Elapsed Time (hr.)	Depth (ft) to:			O - Open End Rod T - Thin Wall Tube U - Undisturbed Sample S - Splitspoon Sample G - Geoprobe	Riser Pipe Screen Filter Sand Cuttings Grout Concrete Bentonite Seal	Overburden (ft)	Rock Cored (ft)	Samples	Bottom of Casing	Bottom of Hole	Water						Not Encountered									
Water Level Data					Sample ID	Well Diagram	Summary																																								
Date	Time	Elapsed Time (hr.)	Depth (ft) to:			O - Open End Rod T - Thin Wall Tube U - Undisturbed Sample S - Splitspoon Sample G - Geoprobe	Riser Pipe Screen Filter Sand Cuttings Grout Concrete Bentonite Seal	Overburden (ft)	Rock Cored (ft)	Samples																																					
			Bottom of Casing	Bottom of Hole	Water																																										
		Not Encountered																																													
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.																																															

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	

	Casing	Sampler	Barrel	Drilling Equipment and Procedures	Finish Driller	B. Porter
Type	2 1/4 in.	-	-	Rig Make & Model: Geoprobe	H&A Rep.	M. Tschibelu
Inside Diameter (in.)	2	-	-	Bit Type: -	Elevation	
Hammer Weight (lb)	-	-	-	Drill Mud: -	Datum	
Hammer Fall (in.)	-	-	-	Casing: -	Location	See Plan
				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 ML	-ASPHALT- Gray sandy SILT with gravel, no odor, dry Brown sandy SILT, trace gravel and clay, no odor, dry	0.0
5	G2 60	5.0 10.0	5.0	SM SM	Gray-brown silty SAND with gravel, no odor, dry Orange-brown silty SAND with gravel, no odor, dry	0.0
			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						Sample ID	Well Diagram	Summary		
Date	Time	Elapsed Time (hr.)	Depth (ft) to:			O - Open End Rod T - Thin Wall Tube U - Undisturbed Sample S - Splitspoon Sample G - Geoprobe		Riser Pipe	Overburden (ft)	13.0
			Bottom of Casing	Bottom of Hole	Water			Screen		
		Not Encountered						Filter Sand	Samples	3G
								Cuttings	Boring No.	B128
								Grout		
							Concrete			
							Bentonite Seal			

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.

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

	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

Elevation Datum	
Location	See Plan

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.)-	4.3	
				CL	Brown CLAY with sand and gravel, slight petroleum odor, dry		
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	16.4
10	G3 60	10.0 15.0		SW	Similar to above		
			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						Sample ID	Well Diagram	Summary		
Date	Time	Elapsed Time (hr.)	Depth (ft) to:			O - Open End Rod T - Thin Wall Tube U - Undisturbed Sample S - Splitspoon Sample G - Geoprobe		Riser Pipe	Overburden (ft)	15.0
			Bottom of Casing	Bottom of Hole	Water			Screen	Rock Cored (ft)	-
		Not Encountered						Filter Sand	Cuttings	3G
								Grout		
								Concrete		
								Bentonite Seal		
Boring No.									B129	

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.

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



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.
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



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							
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



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 (TAAE)	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:

QC Chemist



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:

QC Chemist



CALIBER ANALYTICAL SERVICES

Certificate of Analysis

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

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



CALIBER ANALYTICAL SERVICES

Certificate of Analysis

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

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



CALIBER ANALYTICAL SERVICES

Certificate of Analysis

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

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:

QC Chemist



CALIBER ANALYTICAL SERVICES

Certificate of Analysis

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

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:

QC Chemist



CALIBER ANALYTICAL SERVICES

Certificate of Analysis

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.
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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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							
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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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 (TAAE)	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:

QC Chemist



CALIBER ANALYTICAL SERVICES

Certificate of Analysis

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-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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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							
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



CALIBER ANALYTICAL SERVICES

Certificate of Analysis

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-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 (TAAE)	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:

QC Chemist



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-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



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-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:

QC Chemist



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.
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



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



CALIBER ANALYTICAL SERVICES

Certificate of Analysis

Haley & Aldrich, Inc
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



CALIBER ANALYTICAL SERVICES

Certificate of Analysis

Haley & Aldrich, Inc
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.
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 (TAAE)	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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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 (TAAE)	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:

QC Chemist



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:

QC Chemist



CALIBER ANALYTICAL SERVICES

Certificate of Analysis

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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



CALIBER ANALYTICAL SERVICES

Certificate of Analysis

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

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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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.
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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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 (TAAE)	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:

QC Chemist



CALIBER ANALYTICAL SERVICES

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-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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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							
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



CALIBER ANALYTICAL SERVICES

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-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 (TAAE)	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 Cohen

QC Chemist



CALIBER ANALYTICAL SERVICES

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



CALIBER ANALYTICAL SERVICES

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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.
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



CALIBER ANALYTICAL SERVICES

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



CALIBER ANALYTICAL SERVICES

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:

QC Chemist



CALIBER ANALYTICAL SERVICES

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



CALIBER ANALYTICAL SERVICES

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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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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 (TAAE)	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:

QC Chemist



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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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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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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 (TAAE)	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:

QC Chemist



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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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



CALIBER ANALYTICAL SERVICES

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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:

Matt Cohen

QC Chemist



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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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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



CALIBER ANALYTICAL SERVICES

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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 (TAAE)	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 Cohen

QC Chemist



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.
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



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							
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



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 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 (TAAE)	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:

QC Chemist



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



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

Lab Number	Field Sample ID	Date Sampled	Time Sampled	No. of Bottles	Matrix	Analysis Requested										Sampling Remarks/Comments
						Preservative	BTEX + Naphthalene	TPH-DRO/600/600	VOCs by 8260	PCBs	RCRA 8 Metals	PAHs	Dioxins/Furans *			
	B128-S1-5'-7'	9/10/12	8:41	4	SO		X	X								* TCDD+TCDF
	B127-S1-5'-7'	9/10/12	9:41	5	SO		X	X	X	X	X	X				
	B122-S1-0.5'-2.5'	9/10/12	10:25	4	SO		X	X								
	B123-S1-5'-7'	9/10/12	11:26	4	SO		X	X								
	B119-S1-5'-7'	9/10/12	12:05	4	SO		X	X								
	B124-S1-5'-7'	9/10/12	12:30	4	SO		X	X								
	B113-S1-5'-7'	9/10/12	13:20	4	SO		X	X								
	B104-S1-1.5'-3.5'	9/10/12	13:49	5	SO		X		X	X	X	X				
	B104-S2-10'-12'	9/10/12	13:49	5	SO		X		X	X	X	X				
	B104-S2-10'-12'	9/10/12	13:49	5	SO		X		X	X	X	X				

Relinquished by:		Date/Time:		Deliverables:	Receipt Temperature:	Turnaround Time:
Received by:	J. Cohen	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		



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:	1209/201
Sampled by:	CT
PO Number:	38677-003

Lab Number	Field Sample ID	Date Sampled	Time Sampled	No. of Bottles	Matrix	Analysis Requested										Sampling Remarks/Comments
						Preservative	BTEX + NAPHTHALENE	TPH - ARO/GRO/ORO	VOCs - by 8260	PCBs	RCRA 8 METALS	PAHs	DIOXINS/FURANS*			
	B102-51-11' to 13'	9/10/12	14:30	2	SO											*TCDD & TCDF
	B102-51-11' to 13'	9/10/12	14:30	2	SO		X	X	X	X	X	X	X			
	B102-52-5' to 6.5'	9/10/12	14:30	2	SO		X	X	X	X	X	X	X			
	B101-51-8' to 10'	9/10/12	15:26	5	SO		X	X	X	X	X	X	X			
	B101-52-13' to 15'	9/10/12	15:26	5	SO		X	X	X	X	X	X	X			
	B120-51-5' to 7'	9/10/12	16:20	4	SO		X	X	X	X	X	X	X			
	B126-51-18' to 20'	9/11/12	8:19	5	SO		X	X	X	X	X	X	X			
	B111-51-10' to 12'	9/11/12	8:55	4	SO		X	X	X	X	X	X	X			
	B111-52-1' to 3'	9/11/12	8:55	1	SO		X	X	X	X	X	X	X			
	B125-51-1' to 3'	9/11/12	9:53	4	SO		X	X	X	X	X	X	X			

Relinquished by:		Date/Time:		Deliverables:	Receipt Temperature:	Turnaround Time:
Received by:	J. Cohen	Date/Time:	9/12/12 1240	I II III CLP EDD	Temp: Office	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		



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 CAMPOS
Project Number:	38677-003
Location:	WASHINGTON DC

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

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

Relinquished by:		Date/Time:		Deliverables:	Receipt Temperature:	Turnaround Time:
Received by:	<i>J. Cohen</i>	Date/Time:	9/12/12 1210	I II III CLP EDD	Temp: <u>On Ice</u> <u>STD</u>	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:		<i>FedEx</i>		



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	Matrix	Preservative										Sampling Remarks/ Comments
						BTEX + NAPHTHALENE	TPH-DEO/GRO/ORO	VOCs by 8260	PCBs	RCRA 8 METALS	PAHS	Dioxins/Furans*				
	B129-S1-5' to 7'	9/11/2012	14:46	4												* TCDD & TCDF
	B129-S2-13' to 15'	9/11/12	14:46	1												
	B116-S1-6' to 8'	9/11/12	15:28	4												

Relinquished by:		Date/Time:		Deliverables:	Receipt Temperature:	Turnaround Time:
Received by:	<i>M. Cohen</i>	Date/Time:	9/12/12 1210	I II III CLP EDD	Temp: <u>On Ice</u>	<u>STD</u> 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:		<i>FedEx</i>		



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



CALIBER ANALYTICAL SERVICES

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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-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



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 (TAAE)	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:

QC Chemist



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-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



CALIBER ANALYTICAL SERVICES

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

Date Sampled: 09/12/12 7:48
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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



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-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 (TAAE)	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 Cohen

QC Chemist



CALIBER ANALYTICAL SERVICES

Certificate of Analysis

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

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

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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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



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



CALIBER ANALYTICAL SERVICES

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Haley & Aldrich, Inc
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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



CALIBER ANALYTICAL SERVICES

Certificate of Analysis

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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



CALIBER ANALYTICAL SERVICES

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-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



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Haley & Aldrich, Inc
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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-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:

QC Chemist



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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:

QC Chemist



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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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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



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-S1-5'-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



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							
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



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-S1-5'-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 (TAE)	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:

QC Chemist



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.
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



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							
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



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 (TAAE)	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:

QC Chemist



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:	12091307
Sampled by:	CT
PO Number:	38677-003

Lab Number	Field Sample ID	Date Sampled	Time Sampled	No. of Bottles	Matrix	Analysis Requested										Sampling Remarks/Comments
						Preservative	BTEX-NAPHTHALENE	TPH-DRO/GREY/ORG	VOCs by 8260	PCBs	RCRA 8 METALS	PAHs	DIOXINS/FURANS*	TPH-DRO/GREY/ORG	VOCs	
	B106-S1-7' to 9'	9/12/12	7:48	5			X	X	X	X	X					* TCDD + TCDF
	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	X						
	B105-S2-2' to 3'	9/12/12	8:29	4	HOLD		X	X	X	X						
	B105B-S1-1' to 5'	9/12/12	8:49	4			X	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	X						
	B107-S2-20' to 22'	9/12/12	10:00	4			X	X	X	X						
	B115-S1-5' to 7'	9/12/12	11:43	4			X	X	X	X						
	B115-S2-12' to 14'	9/12/12	11:4	1			X	X	X	X						

Relinquished by:	Christian Tschibelu	Date/Time:	9/12/12 15:00	Deliverables:	Receipt Temperature:	Turnaround Time:
Received by:	M. Colue	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:		Fox		



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

Lab Number	Field Sample ID	Date Sampled	Time Sampled	No. of Bottles	Matrix	Analysis Requested										Sampling Remarks/ Comments
						Preservative	BTEX-NAPHTALENE	TPH-DRO/GRO/ORO	VOCs by 8260	PCBs	PCRA & METALS	PAHS	DIOXINS/FURANS*			
	B114-S1-3'to 5'	9/12/12	12:21	4		X	X									* TCDD + TCDF
	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 Tschubelu	Date/Time:	9/12/12 15:00	Deliverables:	Receipt Temperature:	Turnaround Time:
Received by:	M. Cohen	Date/Time:	9/13/12 1200	I II III CLP EDD	Temp: <u>On Ice</u>	<u>STD</u> 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		