URBAN GREEN ENVIRONMENTAL

1700 Beason Street
Baltimore, Maryland 21230

# Supplemental Phase II Environmental Site Assessement Report

## State Center Property – Parcel G

900 North Eutaw Street
Baltimore, Maryland 21201

*Prepared For:*

**State Center Parcel G Master Tenant LLC**
3420 2nd Street
Baltimore, Maryland 21225

September 2010

**CONTENTS**

*List of Appendices*

## 1.0 INTRODUCTION

State Center Parcel G Master Tenant LLC contracted Urban Green Environmental LLC (Urban Green) to perform a Supplemental Phase II Environmental Site Assessment (ESA) investigation of the State Center Property – Parcel G located at 900 North Eutaw Street in Baltimore, Maryland.

The objective of this investigation was to provide an evaluation of the recognized environmental concerns (RECs) as identified in the *Phase I Environmental Site Assessment Report* prepared by Earth Resources Management (ERM), Inc. and dated March 2007 (ERM 2007) and in the most recent *Phase I Environmental Site Assessment Report Update* prepared by Urban Green Environmental, LLC and dated September 2010 (UG 2010a) and to provide additional site characterization information to support a future application of the Site into the Maryland Voluntary Cleanup Program (VCP).

The findings of this Supplemental Phase II ESA are based solely on the data obtained and reviewed as part of this investigation, including observations and conditions that existed at the time of the field investigative activities performed in July and August 2010. Information provided by third parties is assumed to be accurate and complete.

This report was prepared for State Center Parcel G Master Tenant LLC by Urban Green Environmental, LLC and is based in part on third party information not within the control of State Center Parcel G Master Tenant LLC or Urban Green Environmental, LLC. While it is believed that the third party information contained herein will be reliable under the conditions and subject to the limitations set forth herein, neither State Center Parcel G Master Tenant LLC nor Urban Green Environmental, LLC guarantee the accuracy thereof.

## 2.0 SITE BACKGROUND

### 2.1 Site Location and Description

The approximate 2.74-acre State Center Property-Parcel G is located at 900 North Eutaw Street on the southwestern corner of the Maryland State Center complex located in Baltimore, Maryland. The Site is not currently developed with buildings; Site improvements are limited to surface level asphalt paved parking areas which cover the majority of the Site and a small landscaped border along the Site perimeter. According to information on-file with the Maryland Department of Assessment and Taxation, the Site is identified as Block 0459, Lot 3 and is currently owned by the State of Maryland.

A Site location map is attached as Figure 1; a Site plan is attached as Figure 2.

The Site is not currently serviced with municipal water and sewer; however, municipal water and sewer are available in the area of the Site. The Site is serviced with below-grade electric (paved parking lot lights) and stormwater (municipal stormwater drains were observed throughout the Site). Municipal water and sewer are provided to the Site area by the City of Baltimore; electric utilities are provided by BGE.

The Site is located in a densely developed, mixed use section of the City of Baltimore, Maryland. Surrounding properties include North Eutaw Street to the northeast, beyond which are additional Maryland State Center commercial buildings, West Preston Street to the northwest, beyond which is an asphalt paved parking lot, Martin Luther King Boulevard to the southeast, beyond which are commercial buildings, and Madison Avenue to the southwest, beyond which are commercial office buildings and a residential complex, McCulloh Homes.

### 2.2 Site History

Based on historic records and the prior environmental site assessment reports, the Site was developed into the current use (surface level paved parking) circa 1958, at which time the State of Maryland purchased the property for the development of the State Center complex. Prior to the current Site development, the property appears to have been improved with approximately 90 to 100 structures identified primarily as residential dwellings (rowhomes) and retail stores.

It is noteworthy, that circa 1930 to 1958, a gasoline filling station appears to have been located on the northeast corner of the Site, from the 1930s to the 1950s, a gasoline filling station is noted on the southeast corner of the property and from the early 1900s to the early 1950s, a bakehouse/candy kitchen is noted in the central portion of the property. In addition, a former tailor/cleaning facility and former laundry are suspected to have been located proximate to the bakehouse and on the southwest corner of the property circa 1920 and 1925 to 1942, respectively.

## 2.3 Environmental Setting

### 2.3.1 Topography

According to the U.S. Geological Survey (USGS) topographic map of Baltimore West, Maryland (1953, revised 1966/1974) Site elevation is relatively flat at approximately 135 feet (ft) above mean sea level. In general, the overall topographic trend of the subject property slopes very gently to the south/southeast. No streams or surface water bodies were observed on-Site. The nearest surface water body, the Jones Falls, is located approximately 2,000 feet east of the Site.

### 2.3.2 Geology and Lithology

According to the EDR database report and the 1998 Soil Survey of City of Baltimore, Maryland, the Site is underlain by soils of the Urban Land Complex. The 1998 Soil Survey text defines the Urban Land Complex as an area where more than 80% of the surface is covered by asphalt, concrete, buildings, or other impervious structures.

On-site conditions were observed to be consistent with the above. Specifically, overburden soil at the Site was observed to consist of fill materials, underlain primarily by medium to fine sand, and some silty sand and gravel to the maximum drilling depth of 24 feet below grade.

No visual or olfactory evidence of a release, such as a chemical odor or staining was observed throughout the drilling activities. Further, results of field screening for evidence of total volatile organic compounds (VOCs) using a photoionization detector indicated background readings (0.0 parts per million).

## 2.4 Prior Environmental Investigations

*Phase I Environmental Site Assessment Report, State Center, Baltimore, Maryland, prepared by ERM and dated March 2007.*

The scope of work of the ERM 2007 Phase I ESA consisted of a visual Site inspection and review of available historic and regulatory information for the property and surrounding State Center parcels. At the time of the ERM 2007 Phase I ESA, the Site was improved with the existing surface level asphalt paved parking area and was owned and operated by the State of Maryland.

The ERM report noted that the Site parcel was reportedly developed circa 1958, at which time the State of Maryland purchased the properties for development of the State Center. It was also noted in the Phase I ESA, that two historic fires, which occurred in 1904 and 1933, reportedly destroyed much of the Site parcel.

No evidence of hazardous material use, handling or generation were identified within the ERM 2007 Phase I ESA for the Site, further, no visual evidence of bulk storage, such as ASTs or USTs was identified. As identified in the March 2007 Phase I ESA, the results of the Phase I ESA did not indicate evidence of significant environmental concerns associated with the subject property.

*Final Limited Phase II Environmental Site Assessments, State Center, Baltimore, Maryland, prepared by Urban Green Environmental, LLC and dated October 2009.*

In October 2009, Urban Green Environmental, LLC completed a Limited Phase II Environmental Site Assessment for the Site (Parcel G) and the nearby State Center Properties, Parcels C and I2. The purpose of the assessment was to further evaluate environmental conditions identified within the prior Phase I ESA (ERM 2007) and to provide general site characterization of soil and/or groundwater at the State Center properties.

The scope of work of the Urban Green investigation consisted of the advancement of two soil borings on the State Center Property – Parcel G (SB-1/TW-1 and SB-2) and five soil borings at off-Site locations. Soil boring SB-1 and SB-2 were advanced to depths of 32 feet below grade and 20 feet below grade respectively. Further, at soil boring location SB-1, the soil boring was completed as a temporary groundwater monitoring well (groundwater was encountered at 31.5 feet below grade). No groundwater was encountered to the maximum drilling depth of 20 feet below grade in soil boring SB-2. It is noteworthy, that the locations of soil borings SB-1 and SB-2 correspond with the proximate historic locations of the gasoline filling station on the northeast corner of the property and the suspect laundry located on the southwest corner of the Site.

Surface and subsurface soil samples were collected from each sampling location and field screened for volatile organic compounds (VOCs). Further, surface soil samples were submitted for analysis of polycyclic aromatic hydrocarbons (PAHs) and priority pollutant metals; subsurface soil samples (collected from depths of 4 to 5 feet below grade) were submitted for laboratory analysis of VOCs, PAHs, and priority pollutant metals. Prior soil boring locations are presented on the attached Figure 2; a summary of the laboratory analytical results is included on the attached Table 1.

In summary, based on field screening results, visual and olfactory observations, no evidence of a release of petroleum products or hazardous materials were observed throughout the drilling activities. Further, no concentrations of VOCs, PAHs, and/or priority pollutant metals were reported above the current applicable MDE Cleanup Standards for Residential Soil and/or background standards. Lastly, no detectable concentrations of VOCs were reported in groundwater collected from soil boring SB-1/TW-1.

# 3.0 PHASE II INVESTIGATION METHODOLOGY

## 3.1 Purpose and Objectives

The goal of the Supplemental Phase II investigation was to provide the environmental due diligence services associated with the State Center Property – Parcel G to satisfy the initial due diligence elements of the Maryland Voluntary Cleanup Program (VCP). The scope of work has also been updated based on a June 30, 2010 meeting with the Maryland Department of the Environment (MDE) VCP and discussions with the MDE VCP following receipt of the initial laboratory analytical results in August 2010. As indicated within the VCP pre-application meeting, the MDE VCP indicated that additional Phase II investigation support would be required to support the VCP applications for the State Center Property – Parcel G. Based on the results of the initial October 2009 investigation (UG 2009), Parcel G would likely qualify for a NFRD; however additional site characterization, including a geophysical survey proximate to the former filling stations and bakehouse, and additional soil and groundwater sampling would be required.

Toward that end, the following elements were included within this investigation to satisfy the MDE VCP requirements for the parcel.

- Completion of geophysical surveys proximate to the former gasoline filling stations (northeast and southeast corners of the Site) and the former bakehouse/candy kitchen located on the central portion of the Site.
- Advancement of five soil borings (SB-8 through SB-11A) throughout the Site for site characterization; one soil boring (SB-9) located on the southeastern corner of the Site was intended to be completed as a groundwater monitoring well. Refusal was encountered within this soil boring at 24 feet below grade (ft bg). Urban Green installed a temporary well point within the soil boring; however no groundwater was observed to collect within eight hours.
- Field screening of soil samples (two foot intervals) from each soil boring for the presence of total volatile organic compounds.
- Collection of discrete surface and subsurface soil samples from select soil boring; fixed laboratory analysis of the select soil samples for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), priority pollutant (PPL) metals, hexavalent chromium, polychlorinated biphenyls (PCBs), and/or pesticides/herbicides.

In addition, following completion of the above work tasks, elevated concentrations of SVOCs were reported in surface soil collected from soil boring SB-10A (former bakehouse); therefore an additional six shallow soil borings (SB-A through SB-F) were advanced in the area surrounding the former soil boring SB-10A to further evaluate SVOCs in surface soil in this area. One surface soil sample was collected from each shallow soil boring and submitted for laboratory analysis of SVOCs and PPL Metals.

The work tasks and associated field sampling activities described below were performed in general accordance with our proposal executed August 12, 2010, the *MDE Voluntary Cleanup Program Guidance Document* (MDE 2006) and the *State of Maryland Department of the Environment Cleanup Standards for Soil and Groundwater, Interim Final Guidance, Update No. 2.1* (MDE 2008).

## 3.2 Field Investigation Procedures

Fieldwork for the Phase II ESA was conducted on July 11 and 31 and September 8, 2010. The following report sections summarize the field sampling and laboratory analytical methodologies implemented during the field investigation.

### 3.2.1 Utility Mark out

Prior to initiating field activities, Urban Green coordinated with MissUtility and a private utility mark out subcontractor, to complete the required dig permit and obtain utility clearance for the Site investigation areas. In addition, the Urban Green engineer conducted a Site visit to confirm the proposed soil boring locations and below grade utility markings.

### 3.2.2 Geophysical Survey

On July 11, 2010, geophysical surveys were conducted in the areas of suspect former gasoline filling station areas and the former bakehouse/candy kitchen via an electromagnetic survey, magnetic survey, and ground penetrating radar. Geophysical survey services were performed by Bucks Geophysical Corporation of Plumsteadville, Pennsylvania.

The Geonics EM31 Terrain Conductivity Meter, oriented in the vertical dipole mode was utilized for the electromagnetic survey. This instrument measures the electrical conductivity of the ground, by inducing a current into the ground that creates secondary magnetic fields that are then detected by the instrument. The predicted response would be conductivities elevated above background across areas of a suspect UST or anomalies. Two sets of measurements are made by the instrument and consist of conductivity readings (quadrature phase) and inphase readings that are particularly sensitive to buried metallic objects. In the vertical dipole mode the instrument has an approximate depth of penetration of 16 feet below grade (carried at shoulder height).

Ground penetrating radar (GPR) data was collected using the GSSI SIR3000 digital radar unit. GPR uses radar pulses to image the subsurface of the Site. The depth range of GPR is limited by the electrical conductivity of the ground, and the transmitting frequency. As conductivity increases, the penetration depth decreases. As such, subsurface materials, such as concrete, reinforced concrete or metallic debris may reduce the effective penetration depth. The maximum depth of penetration was approximately two to four feet below grade.

The GEM Systems, Model GSM-19G magnetomer, was utilized for the magnetic survey. This instrument is used to measure the total geomagnetic field at a particular location, via three

components, the main field, the external field, and local variation. Local variations are typically attributable to anomalies near the surface such as buried metal objects or above ground objects containing metallic substance.

A spatial reference grid was marked within the designated geophysical area in order to reference each of the above instrument's location during the survey and for future reference. Baselines were established in the area surveyed, and marked every 5 ft to establish references for traverses. A grid was then laid out perpendicular to each baseline at separations of 5 ft. The geophysical areas (designated Geophysical Areas No. 1, 2, and 3) covered an approximate 50 feet by 60 feet area (northeast corner former filling station), 100 feet by 100 feet (southeast corner former filling station), and 50 feet by 50 feet (former bakehouse/candy kitchen). The geophysical survey areas are depicted on Figure 2; a copy of the geophysical survey data report is included as Appendix A.

### 3.2.1 Soil Investigation

On July 31, 2010, under the supervision of the Urban Green Engineer, five soil borings were advanced at the Site. Soil borings were advanced from grade using truck-mounted direct push technology (Geoprobe). Drilling services were performed by Green Services, Inc. of Bel Air, Maryland. The direct push technology method utilizes a two-inch inner diameter, four foot long, stainless steel sampler lined with a dedicated high-density polyethylene (HDPE) liner. The HDPE-lined stainless steel sampler is hydraulically driven into the subsurface for soil core retrieval. Soil borings were advanced to a maximum depth of 24 feet below grade (ft bg). In addition, on September 8, 2010, six soil borings (SB-A through SB-F) were advanced at the Site by the Urban Green Environmental Technician using a hand auger.

A summary of the soil borings is provided below; soil boring locations are also provided on Figure 2.

- *SB-8 and SB-9 – Historic gasoline filling station:* Soil boring SB-8 was advanced to a depth of approximately 18 ft bg (refusal); soil boring SB-9 was advanced to a depth of 24 feet below grade (refusal). No groundwater was encountered in either soil boring.
- *SB-10A and SB-11A – Former Bakehouse/Candy Kitchen and Former Tailor/Cleaning:* Soil boring SB-10A was advanced to a depth of 16 ft bg; soil boring SB-11A was advanced to a depth of 16 ft bg. No groundwater was encountered.
- *SB-12 – Historic gasoline filling station:* Soil boring SB-12 was advanced to refusal (20 ft bg). No groundwater was encountered.
- *SB-A through SB-F – Site Characterization:* Soils borings SB-A through SB-F were advanced surrounding the former soil boring SB-10A to further evaluate SVOC concentrations in surface soil proximate to the former Bakehouse/Candy Kitchen. Soil borings SB-A through SB-F were advanced to depths of approximately three ft bg.

Immediately following the direct push sampler retrieval, the HDPE sample liner was opened by the Urban Green Engineer, and screened, at approximate two foot intervals for evidence of total VOCs using a photoionization detector (PID). Discrete grab soil samples were then collected directly from the sample core liner using disposable, dedicated aseptic sampling devices.

A log of field activities, including photographs and logs of the continuous soil borings were maintained throughout the field activities. Soil boring logs, including soil lithology, recovery and field observations are provided in Appendix B.

Soil borings were advanced to a maximum depth of 24 ft bg. Bedrock was not observed to the maximum drilling depth of 24 ft bg; groundwater was not observed.

Select soil samples were collected from each soil boring and submitted for laboratory analysis of VOCs via USEPA Method 8260B; SVOCs via USEPA Method 8270C; PPL metals via USEPA Method 6020A; PCBs via USEPA Method 8082; and pesticide/herbicide analysis was performed via USEPA 8081A/8151A.

One surface and one subsurface soil sample was collected from soil borings SB-8 and SB-10A. Further, surface soil samples were collected from soil borings SB-A through SB-F. The above samples intervals were selected based on preliminary discussions with the MDE VCP regarding the existing site characterization data for the property.

Soil samples were collected with dedicated sampling equipment into new, clean sample containers. The soil samples were labeled with sample designation, date and time, and the required analyses. Soil samples were then placed on ice in a portable cooler prior to hand-delivery to Caliber Analytical Services in Towson, Maryland. Chain-of-Custody (COC) forms were maintained (and accompanied the samples in transit) to provide a record of samples from collection to analyses. A copy of the laboratory analytical report and associated COC is included in Appendix C.

## 3.3 Quality Assurance/Quality Control Procedures

QA/QC protocol covered general aspects of measurement systems design and implementation, including sampling methods, data handling, and QC measures employed. QA/QC procedures followed during the investigation included the use of dedicated sampling equipment for all sampling activities.

## 3.4 Sample Handling/Chain of Custody

Soil samples collected for laboratory analyses were recorded on soil boring logs and in the project field notes. Field notes will be kept at Urban Green on file for reference. Each sample collected during field activities was given a unique sample designation (Table 1). The sample identification (ID) was used to establish each discrete sampling point. The sample ID also was included on the

laboratory chain of custody as well as the bottle label. The interval (e.g. 0-1) identified following the soil boring identification in the following sections represents the discrete depth interval in feet below grade at which the soil sample was collected.

Following sample collection, containers were sealed and placed in a cooler with bagged ice and cooled to 4°C or less. The COC was placed in a plastic bag and taped to the inside of the cooler lid for submission to Phase Separation Science, Inc. Soil and groundwater samples were then hand-carried under strict COC procedures to Caliber Analytical Services in Towson, Maryland for analysis. Samples were analyzed with standard one week turn-around time from receipt of samples.

## 3.5 Decontamination and Investigation-Derived Material Handling Procedures

The primary objective of the decontamination process was to prevent the accidental introduction of potential contaminants to non-contaminated areas and/or samples. During field activities, a designated decontamination area was established and equipped with decontamination equipment (wash buckets, brushes, spray bottles, potable water, distilled water, towels, etc.) to adequately decontaminate the equipment used on-site. To the maximum extent possible, dedicated equipment was used at each media sample location. Specifically, the direct push sample tubes (macrocores) were lined with a HDPE liner. Further, disposable plastic bags were used to homogenize each soil sample (non-VOC analysis), as required for fixed laboratory analysis.

Sampling equipment that was not dedicated to one sample location was washed with a medical-grade detergent wash, rinsed with distilled water and allowed to air dry.

Following completion of each soil boring, soil cuttings generated during sampling activities were placed directly down the soil boring. Sampling locations were finished at grade with a concrete slurry / bentonite and asphalt.

# 4.0 PHASE II INVESTIGATION RESULTS

## 4.1 Site Conditions

### 4.1.1 Lithology

Soil lithology at the Site consisted of fill materials, underlain primarily by medium to fine sand, and some silty sand and gravel to the maximum drilling depth of 24 feet below grade.

No visual or olfactory evidence of a release, such as a chemical odor or staining was observed throughout the drilling activities. Further, results of field screening for evidence of total volatile organic compounds (VOCs) using a photoionization detector indicated background readings (0.0 parts per million).

## 4.2 Geophysical Investigation Results

Results of the geophysical survey indicated the following:

*Area 1 (northeast suspect filling station):* No anomalies, indicative of a remaining UST were identified; however several possible pipes and utilities were identified.

*Area 2 (southeast suspect filling station):* Four possible pipes or tanks were identified; however it is noteworthy, that the geophysical survey results indicate that the anomalies are most likely below grade piping. Three anomalies were primarily identified along the existing storm water conduits; the remaining anomaly was also identified proximate to below grade piping and was less than three feet by five feet and is therefore not anticipated to be a UST associated with the former filling station.

*Area 3 (former bakehouse/candy kitchen):* No anomalies, indicative of a remaining UST were identified; however several below grade anomalies, most likely indicative of fill/debris were identified.

A description of each subsurface anomaly, and associated contour maps of the grid areas are provided in Appendix A.

## 4.3 Soil Analytical Results

A summary of the laboratory analytical results for soil is presented in Table 1 and discussed below. The full laboratory analytical data reports are provided in Appendix C.

In total, 10 select soil samples were collected from varying depths within the designated sample locations and submitted for fixed laboratory analysis of VOCs, SVOCs, PPL Metals, PCBs, pesticides, and herbicides. For comparative purposes, the analytical results are herein compared with the MDE Cleanup Standards for Residential Soil.

### 4.3.1 Volatile Organic Compounds

Two subsurface samples (SB-8 4-5 and SB-10A 4-5) were submitted for fixed analysis of VOCs.

As shown in Table 1, no detectable concentrations of VOCs were reported in subsurface soil.

### 4.3.2 Semi-Volatile Organic Compounds

Ten soil samples (one surface soil and one subsurface soil sample from soil borings SB-8 and SB-10A and surface soil samples from soil borings SB-A through SB-F) were submitted for fixed analysis of SVOCs.

As shown in Table 1, with the exception of surface soil collected from soil boring SB-10A and SB-A through SB-F, no concentrations of SVOCs were reported in soil above the current applicable MDE Cleanup Standards for Residential Soil. Specifically, benzo(a)pyrene (up to 210 ug/kg), benzo(b)fluoranthene (up to 280 ug/kg), dibenz(a,h,)fluoranthene (up to 110 ug/kg) and indeno(1,2,3-c,d)pyrene (up to 240 ug/kg) were reported in soil at concentrations above the MDE Cleanup Standard for Residential Soil (22 ug/kg, 220 ug/kg, and 22 ug/kg, respectively).

### 4.3.3 Metals and Hexavalent Chromium

Six soil samples (SB-8 0-1, SB-8 4-5, SB-10A 0-1, SB-10A 4-5, SB-A 0-1, and SB-E 0-1) were submitted for fixed analysis of PPL Metals. In addition, soil samples SB-A 0-1 and SB-E 0-1 were further analyzed for hexavalent chromium.

With the exception of a single occurrence of lead (470 mg/kg) in soil boring SB-A, no concentrations of PPL metals were reported in surface soil above the MDE Cleanup Standards for Residential Soil. The current applicable MDE Cleanup Standard for lead is 400 mg/kg.

### 4.3.4 PCBs, Pesticides and Herbicides

Two select soil samples (SB-8 4-5 and SB-10A 4-5) were submitted for fixed laboratory analysis of PCBs, pesticides, and herbicides. No detectable concentrations of PCB congeners, pesticides or herbicides were reported.

## 5.0 CONCLUSIONS

The goal of the Supplemental Phase II investigation was to provide the environmental due diligence services associated with the State Center Property – Parcel G to satisfy the initial due diligence elements of the Maryland Voluntary Cleanup Program (VCP). The scope of work has also been updated based on a June 30, 2010 meeting with the Maryland Department of the Environment (MDE) VCP and discussions with the MDE VCP following receipt of the initial laboratory analytical results in August 2010. As indicated within the VCP pre-application meeting, the MDE VCP indicated that additional Phase II investigation support would be required to support the VCP applications for the State Center Property – Parcel G. Based on the results of the initial October 2009 investigation (UG 2009), Parcel G would likely qualify for a NFRD; however additional site characterization, including a geophysical survey proximate to the former filling stations and bakehouse, and additional soil and groundwater sampling would be required.

The scope of this investigation consisted of advancing 11 soil borings (SB-8 through SB-12 and SB-A through SB-F) at the Site. In general, soil boring locations were biased towards areas of concerns, including the historic use (filling stations, bakehouse/candy kitchen). Soil samples were collected from select soil boring and submitted for fixed laboratory analysis of VOCs, PAHs, PPL Metals, PCBs, pesticides, and herbicides.

### 5.1 Geophysical Investigation Results

With the exception of several small anomalies located in Area 2 (southeast suspect former filling station), no anomalies, indicative of a remaining UST, were identified based on the results of the geophysical investigation. It is noteworthy, that the results for geophysical survey Area 2 indicated that the anomalies are most likely below grade piping. Three anomalies were primarily identified along the existing storm water conduits; the remaining anomaly was also identified proximate to below grade piping and was less than three feet by five feet and is therefore not anticipated to be a UST associated with the former filling station.

In addition, several below grade anomalies, most likely indicative of fill/debris were identified in geophysical survey Area 3 (former bakehouse/candy kitchen).

### 5.2 Soil

With the exception of lead and select SVOCs, no analytes were reported at concentrations in excess the currently applicable MDE Cleanup Standards for Residential soil. Specifically,

- Lead was reported in soil boring SB-A at a concentration of 470 mg/kg above the MDE Cleanup Standards for Residential Soil. The current applicable MDE Cleanup Standard for lead is 400 mg/kg.
- Select SVOCs were reported above the current applicable state cleanup standards in surface soil in and surrounding the former bakehouse/candy kitchen area.

## 5.3 Groundwater

No groundwater was collected as part of this recent supplemental phase II environmental site assessment. Specifically, Urban Green attempted to collect groundwater samples from both the southeastern area of the property. However, groundwater was not encountered to the maximum depth of 24 ft bg. It is noteworthy, that groundwater was encountered at a depth of 32 ft bg and sampled during the prior Limited Phase II Environmental Site Assessment (UG 2009). No concentrations of VOCs were reported in the groundwater sample collected from temporary well TW-1 above the current applicable MDE Cleanup Standards for Groundwater.

## 6.0 REFERENCES

Environmental Resources Management, Inc. (ERM). 2007. *Phase I Environmental Site Assessment State Center, Baltimore, Maryland*. March.

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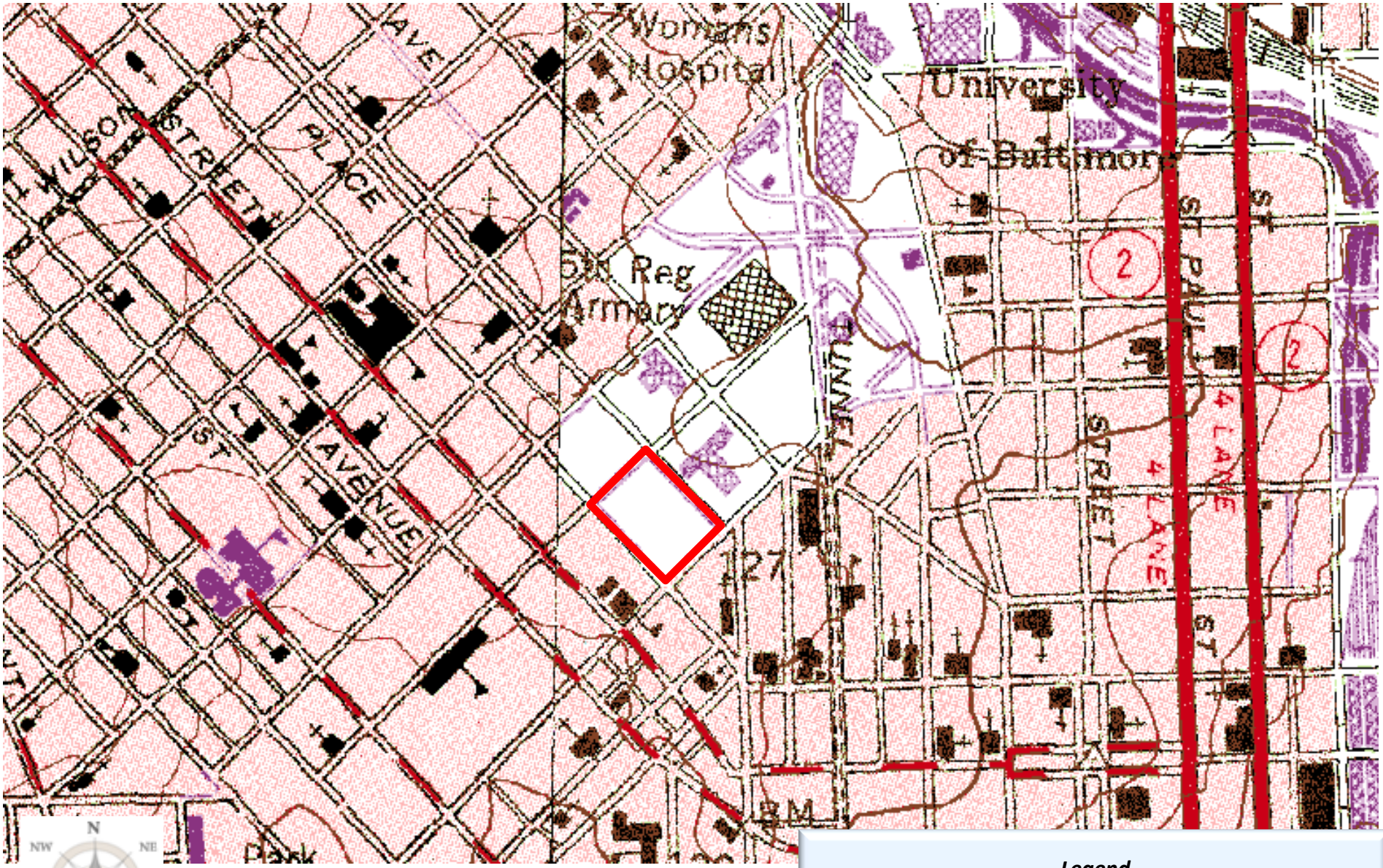
UG. 2010. *Draft Phase I Environmental Site Assessment Report Update, State Center Property – Parcel G.* September.

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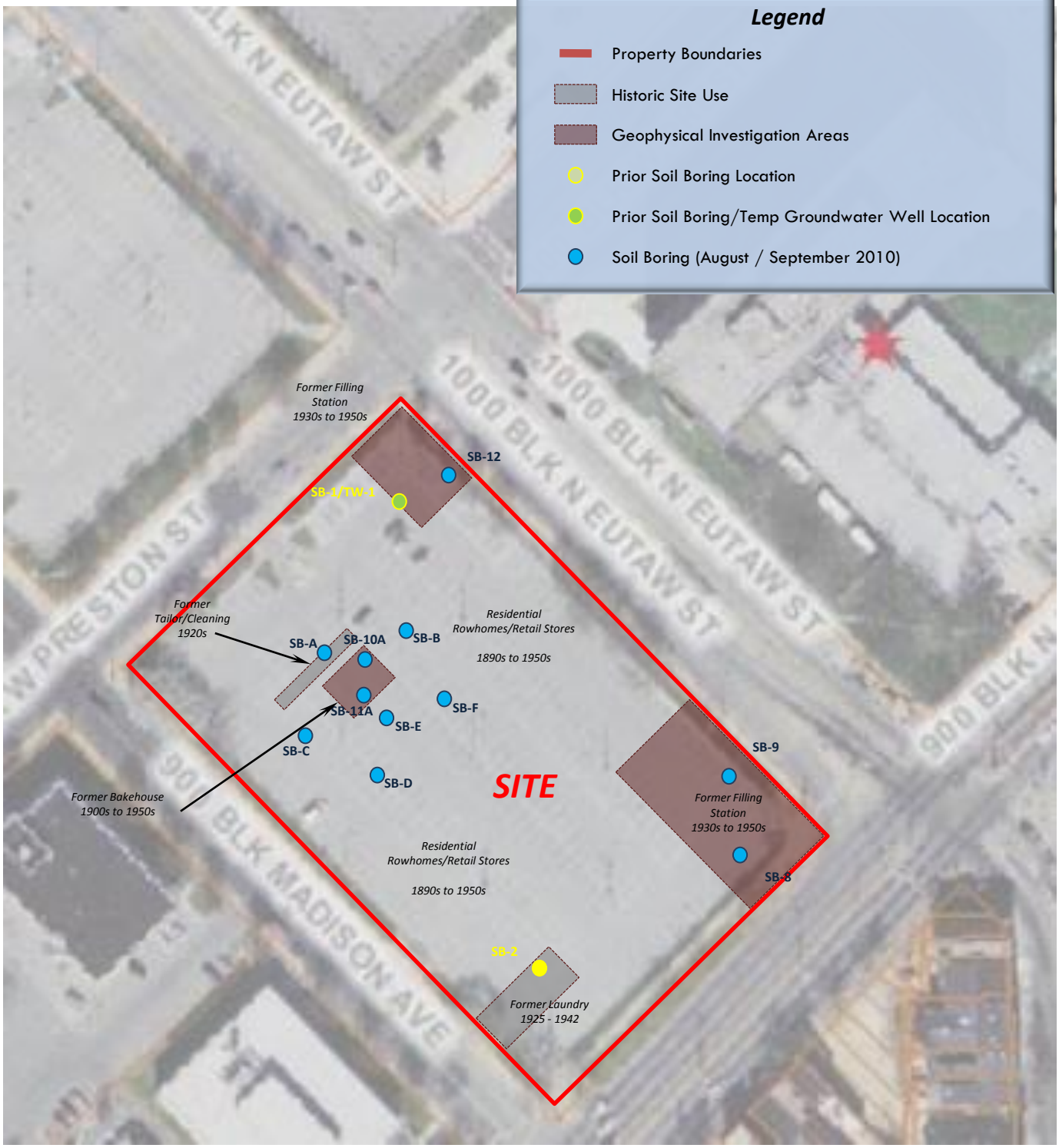
|---|---|---|---|---|
| UG | State Center Parcel G Master Tenant LLC | Figure 1 Site Location Map<br>State Center Property Parcel G<br>Baltimore, Maryland 21201 | Date: September 2010<br>Approximate Scale: Not to Scale | Figure: 1<br>Project Number: 016-006-10 |




*Basemap Source: mapquest.com*

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|---|---|---|---|---|
| UG | State Center Parcel G Master Tenant LLC | Figure 2 Site Plan<br>State Center Property Parcel G<br>Baltimore, Maryland 21201 | Date: September 2010 | Figure: 2 |
| | | | Approximate Scale: As Shown | Project Number: 016-006-10 |

**Table 1 Summary of Soil Analytical Results**
**Limited Phase II Environmental Site Assessment**
**State Center Property -Parcel G, Baltimore, Maryland 21201**

| ANALYTE | MDE Cleanup Standard - Residential [1] | MDE Cleanup Standard - Non Residential [1] | ATC [2] | Limited Phase II ESA (October 2009) | | | | Limited Phase II ESA (August / September 2010) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | SB-1 0-1 | SB-1 4-5 | SB-2 0-1 | SB-2 19-20 | SB-8 0-1 | SB-8 4-5 | SB-10A 0-1 | SB-10A 4-5 | SB-A 0-1 | SB-B 0-1 | SB-C 0-1 | SB-D 0-1 | SB-E 0-1 | SB-F 0-1 |
| ***Pesticides (SW8081A / ug/kg)*** | NA | NA | NA | *Not analyzed* | *Not analyzed* | *Not analyzed* | *Not analyzed* | *Not analyzed* | ND | *Not analyzed* | ND | *Not analyzed* | *Not analyzed* | *Not analyzed* | *Not analyzed* | *Not analyzed* | *Not analyzed* |
| ***Herbicides (SW8151A / ug/kg)*** | NA | NA | NA | *Not analyzed* | *Not analyzed* | *Not analyzed* | *Not analyzed* | *Not analyzed* | ND | *Not analyzed* | ND | *Not analyzed* | *Not analyzed* | *Not analyzed* | *Not analyzed* | *Not analyzed* | *Not analyzed* |
| ***PCBs (SW8082 / mg/kg)*** | NA | NA | NA | *Not analyzed* | *Not analyzed* | *Not analyzed* | *Not analyzed* | *Not analyzed* | ND | *Not analyzed* | ND | *Not analyzed* | *Not analyzed* | *Not analyzed* | *Not analyzed* | *Not analyzed* | *Not analyzed* |
| ***Priority Pollutant Metals (SW6020 / mg/kg)*** | | | | | | | | | | | | | | | | | |
| Antimony | 3.1 | 41 | 6 | < 2.5 | < 2.6 | < 1.9 | < 2 | < 2.1 | < 2.6 | < 2 | < 2 | < 2.2 | *Not analyzed* | *Not analyzed* | *Not analyzed* | < 2.6 | *Not analyzed* |
| Arsenic | 0.43 | 1.9 | 3.6 | **1.7** | **0.63** | **1.1** | < 0.4 | **0.89** | **1.2** | **2.2** | **3.4** | 2.2 | | | | **2.4** | |
| Beryllium | 16 | 200 | 0.66 | < 2.5 | < 2.6 | < 1.9 | < 2 | < 2.1 | < 2.6 | < 2 | < 2 | < 2.2 | | | | < 2.6 | |
| Cadmium | 3.9 | 51 | 0.73 | < 2.5 | < 2.6 | < 1.9 | < 2 | < 2.1 | < 2.6 | < 2 | < 2 | < 2.2 | | | | < 2.6 | |
| Chromium | 23 | 310 | 28 | **25** | **3.1** | **21** | < 2 | **16** | **14** | **12** | **16** | 18 | | | | **22** | |
| | | | | | | | | | | | | < 2.7 | | | | < 2.7 | |
| Copper | 310 | 4,100 | 12 | **31** | < 2.6 | **12** | < 2 | **5.5** | **2.7** | **12** | **11** | 10 | | | | **12** | |
| Lead | 400 | 1000 | 45 | **21** | < 2.6 | **2.6** | < 2 | **7.3** | < 2.6 | **100** | **43** | **470** | | | | **400** | |
| Mercury | -- | -- | 0.51 | < 0.099 | < 0.1 | < 0.076 | < 0.081 | **0.12** | < 0.1 | **0.25** | **0.27** | 0.25 | | | | **0.32** | |
| Nickel | 160 | 2,000 | 13 | **7.9** | < 2.6 | **7.8** | < 2 | **2.2** | < 2.6 | **8.7** | **8** | 5.7 | | | | **7.2** | |
| Selenium | 39 | 510 | 2.2 | < 2.5 | < 2.6 | < 1.9 | < 2 | < 2.1 | < 2.6 | < 2 | < 2 | < 2.2 | | | | < 2.6 | |
| Silver | 39 | 510 | 0.94 | < 2.5 | < 2.6 | < 1.9 | < 2 | < 2.1 | < 2.6 | < 2 | < 2 | < 2.2 | | | | < 2.6 | |
| Thallium | 0.55 | 7.2 | 3.9 | < 2 | < 2 | < 1.5 | < 1.6 | < 2.1 | < 2.6 | < 2 | < 2 | < 2.2 | | | | < 2.6 | |
| Zinc | 2,300 | 31,000 | 63 | **38** | **31** | **42** | < 2 | **32** | **5.7** | **37** | **31** | **100** | | | | **97** | |
| ***Semivolatile Organic Compounds / Polycyclic Aromatic Hydrocarbons (SW8270C / ug/kg)*** [3] | | | | | | | | | | | | | | | | | |
| Acenaphthene | 470,000 | 6,100,000 | NA | **6** | < 5 | < 5 | < 5 | < 5 | < 5 | < 5 | < 5 | **13** | < 5 | **8** | **58** | **34** | **9** |
| Acenaphthylene | 470,000 | 6,100,000 | NA | < 5 | < 5 | < 5 | < 5 | < 5 | < 5 | 8 | < 5 | **10** | **11** | **10** | **63** | **34** | **8** |
| Anthracene | 2,300,000 | 31,000,000 | NA | < 5 | < 5 | **32** | < 5 | < 5 | < 5 | 8 | < 5 | **41** | **16** | **28** | **42** | **34** | **23** |
| Benzo(a)anthracene | 220 | 3,900 | NA | **9** | < 5 | **17** | < 5 | < 5 | < 5 | 37 | **13** | **180** | **96** | **140** | **210** | **150** | **170** |
| Benzo(a)pyrene | 22 | 390 | NA | **8** | < 5 | **20** | < 5 | < 5 | < 5 | **56** | **17** | **180** | **100** | **150** | **210** | **170** | **190** |
| Benzo(b)fluoranthene | 220 | 3,900 | NA | **16** | < 5 | **42** | < 5 | < 5 | < 5 | **99** | **29** | **250** | **140** | **210** | **280** | **220** | **260** |
| Benzo(g,h,i)perylene | 230,000 | 3,100,000 | NA | **7** | < 5 | **15** | < 5 | < 5 | < 5 | **30** | **13** | **190** | **120** | **170** | **270** | **240** | **250** |
| Benzo(k)fluoranthene | 2,200 | 39,000 | NA | < 5 | < 5 | < 5 | < 5 | < 5 | < 5 | **42** | **13** | **100** | **53** | **84** | **130** | **91** | **100** |
| Chrysene | 22,000 | 390,000 | NA | < 5 | < 5 | **21** | < 5 | < 5 | < 5 | **52** | **19** | **200** | **120** | **170** | **240** | **180** | **220** |
| Dibenz(a,h)anthracene | 22 | 390 | NA | < 5 | < 5 | **9** | < 5 | < 5 | < 5 | **13** | **5** | **52** | **35** | **46** | **100** | **110** | **62** |
| Fluoranthene | 310,000 | 4,100,000 | NA | **12** | < 5 | **23** | < 5 | < 5 | < 5 | **63** | **23** | **410** | **210** | **290** | **400** | **270** | **390** |
| Fluorene | 310,000 | 4,100,000 | NA | **9** | < 5 | < 5 | < 5 | < 5 | < 5 | < 5 | < 5 | **13** | **5** | **12** | **47** | **28** | **9** |
| Indeno(1,2,3-c,d)Pyrene | 220 | 3,900 | NA | **6** | < 5 | **10** | < 5 | < 5 | < 5 | **25** | **12** | **170** | **110** | **140** | **240** | **220** | **210** |
| 2-Methylnaphthalene | 31,000 | 410,000 | NA | **9** | < 5 | **5** | < 5 | < 5 | < 5 | **8** | < 5 | **22** | **12** | **22** | **64** | **45** | **22** |
| Naphthalene | 160,000 | 4,100,000 | NA | < 5 | < 5 | < 5 | < 5 | < 5 | < 5 | **6** | < 5 | **12** | **13** | **11** | **35** | **31** | **12** |
| Phenanthrene | 2,300,000 | 31,000,000 | NA | **45** | < 5 | **27** | < 5 | < 5 | < 5 | **34** | **19** | **240** | **100** | **130** | **160** | **120** | **180** |
| Pyrene | 230,000 | 3,100,000 | NA | **26** | < 5 | **61** | < 5 | < 5 | < 5 | **62** | 20 | **350** | **180** | **280** | **360** | **260** | **360** |
| ***Volatile Organic Compounds (SW8260B / ug/kg)*** | | | | *Not analyzed* | ND | *Not analyzed* | ND | *Not analyzed* | ND | *Not analyzed* | ND | *Not analyzed* | *Not analyzed* | *Not analyzed* | *Not analyzed* | *Not analyzed* | *Not analyzed* |
| ***Total Petroleum Hydrocarbons (SW8015C / mg/kg)*** | | | | *Not analyzed* | *Not analyzed* | *Not analyzed* | *Not analyzed* | *Not analyzed* | *Not analyzed* | *Not analyzed* | *Not analyzed* | *Not analyzed* | *Not analyzed* | *Not analyzed* | *Not analyzed* | *Not analyzed* | *Not analyzed* |
| Gasoline Range Organics | 230 | 620 | NA | | | | | | | | | | | | | | |
| Diesel Range Organics | 230 | 620 | NA | | | | | | | | | | | | | | |

*Notes / Superscripts*

Only detected analytes are shown.

(1) State of Maryland Department of the Environment Cleanup Standards for Soil and Groundwater, Interim Final Guidance, Update No. 2.1 (MDE 2008).

(2) Anticipated Typical Concentrations (ATCs) represent reference or background levels published by the MDE for the Site area.

(3) Soil samples were analyzed for polycyclic aromatic hydrocarbons (PAHs) in October 2009 and semivolatile organic compounds (SVOCs) in August 2010.

ND - Analyte(s) not detected in sample.

Not Analyzed - sample not analyzed for select parameters.

## Table 2 Summary of Groundwater Analytical Results
## Limited Phase II Environmental Site Assessment
## State Center Property - Parcels G, C, and I2, Baltimore, Maryland 21201

| ANALYTE | MDE Cleanup Standard - Groundwater [1] | PARCEL G TW-1 | PARCEL C TW-5 |
|---|---|---|---|
| ***Volatile Organic Compounds (SW8260B / ug/l)*** | | | |
| tert-Amyl methyl ether (TAME) | -- | ND | **2** |
| Methyl T-butyl Ether (MTBE) | **20** | ND | **15** |

*Notes / Superscripts*

Only detected analytes are shown.

(1) State of Maryland Department of the Environment Cleanup Standards for Soil and Groundwater, Interim Final Guidance, Update No. 2.1 (MDE 2008).

ND - Analyte not detected in sample

**APPENDIX A**

GEOPHYSICAL INVESTIGATION REPORT

BUCKS
GEOPHYSICAL
Corporation

July 27, 2010

Denise Sullivan
Urban Green Environmental, LLC.
1700 Beason Street
Baltimore, MD 21230

**REPORT**: GEOPHYSICAL INVESTIGATION
State Center Property Parcels
Baltimore, MD

Dear Ms. Sullivan:

We are pleased to present our report of the geophysical investigation for the State Center Properties located in Baltimore, MD. The investigation was performed on July 11, 2010.

If you have any questions concerning this report please contact us at 215-345-7193. We look forward to working with you in the future.

Respectfully submitted,
**BUCKS GEOPHYSICAL CORPORATION**

Matthew J. McMillen
Geophysicist

**P.O. Box 388, Plumsteadville, PA 18949 Phone 215-345-7193**
**FAX 215-345-8553**

## 1) INTRODUCTION AND PURPOSE

The property located at 900 North Eutaw Street and a property located at 101 West Preston Street in Baltimore, MD were the locations of this geophysical survey. The survey was conducted on three areas of the North Eutaw Street property and a portion of the West Preston Street property that were accessible to the geophysical instrumentation.

The purpose of this geophysical survey was to locate possible tanks and to investigate subsurface conditions. Electromagnetic terrain conductivity (EM-31), ground penetrating radar (GPR), and magnetometry (MAG) were employed for the survey. Brief descriptions of each technique are given in Appendix A.

## 2) REFERENCE GRID

A reference grid was established to accurately locate the geophysical stations using a 300-foot measuring tape and paint. The survey lines were spaced 2.5 feet and 5 feet apart and were marked every 5 feet or 25 feet. Figures 1, 6, 11, and 16 shows the locations of the survey lines and the extent of the geophysical coverage.

## 3) GEOPHYSICAL METHODOLOGY

### 3a) Electromagnetic Survey

Electromagnetic data were gathered using a Geonics EM-31 Terrain Conductivity Meter oriented in the vertical dipole mode which obtains subsurface data to an effective depth of about 16 feet.

Data were recorded on a Model 720 digital recorder. Both conductivity data (mmhos/m) and in-phase data (parts per thousand), along with the line number, and station location were recorded at each station. Field observations were noted in a field book. EM-31 data were collected at 0.5 second intervals (approximately every 2.5 feet) along survey lines spaced 5 feet apart. The data was downloaded to a laptop computer for processing and generation of conductivity contour map.

### 3b) Ground Penetrating Radar Survey

Ground penetrating radar data were collected using a GSSI SIR3000 digital radar unit with 400 mhz antenna. Data were collected continuously on survey lines spaced 2.5 feet apart and orientated perpendicular to each other. Depth of investigation was approximately 2 - 4 feet with this antenna due to subsurface conditions.

### 3c) Magnetic Survey

Magnetic data were collected using a GEM Systems GSM-19G magnetometer. Magnetic data were collected at 0.5 sec intervals (approximately every 2.5 feet) along survey lines spaced 5 feet apart. Data was downloaded to a laptop computer for processing and generation of magnetic contour maps.

## 4) INTERPRETATION

AREA 1

Area 1 is located on the northeast corner of the parking lot. The geophysical survey of this area detected an anomalous area and several possible pipes or utilities.

The anomalous area was detected at approximately 2+19N to 2+31N, 1+90E to 1+96E. The cause of this area is unknown but may be a possible pipe or foundation. Figure 3 shows the location of this area.

Figure 3 shows the locations of the possible pipes or utilities detected by the survey.

AREA 2

Area 2 is located on the southeast corner of the parking lot. The geophysical survey of this area detected four possible pipes or tanks, six anomalous areas, a conductivity high, a magnetic high, a possible subsurface layer, and numerous possible pipes or utilities.

Four possible pipes or tanks were detected by the geophysical survey at approximately:

1) 1+56N to 1+60N, 1+87E to 1+94E
2) 1+61N to 1+64N, 1+89E to 1+94E
3) 1+91N to 1+94N, 1+34E to 1+41E
4) 2+21N to 2+26N, 1+85E to 1+93E

These areas are most likely pipes but could be tanks. Figure 8 shows the locations of these areas.

Six anomalous areas were detected by the geophysical survey at approximately:

1) 1+20N to 1+35N, 1+80E to 1+92E
2) 1+42N to 1+49N, 1+80E to 1+84E
3) 2+00N to 2+18N, 1+21E to 1+29E
4) 2+22N to 2+33N, 1+50E to 1+61E
5) 2+31N to 2+41N, 1+26E to 1+41E
6) 2+36N to 2+42N, 1+61E to 1+68E

The causes of these areas are unknown but could be buried debris, concrete, etc.. Figure 8 shows the locations of these areas.

A conductivity high was detected by the survey at approximately 1+70N to 2+17N, 1+53E to 1+89E. The cause of this area is unknown but may be caused by subsurface material with a higher conductivity than the surrounding material such as clay or slag. Figure 8 shows the location of this area.

A magnetic high was detected by the survey at approximately 2+54N to 2+75N, 1+87E to 1+92E. This area may be caused by a foundation wall, buried metal, or interference. Figure 8 shows the location of this area.

A possible subsurface layer was detected by the survey at approximately 1+40N to 1+57N, 1+29E to 1+44E. This may be caused by buried concrete slab or a layer of pavement. See Figure 8 for the location of this area.

Figure 8 shows the locations of the possible pipes or utilities detected by the survey.

AREA 3

Area 3 is located north central part of the parking lot. The geophysical survey of this area detected an area of possible buried debris, an area of disturbed conductivity, a possible subsurface layer, and several possible pipes or utilities.

The area of possible buried debris was detected at approximately 1+25N to 1+43N, 1+11E to 1+28E. Figure 13 shows the location of this area.

An area of disturbed conductivity was detected by the survey at approximately 1+09N to 1+45N, 1+00E to 1+47E. This may be caused by a demolished building. See Figure 13 for the location of this area.

A possible subsurface layer was detected at approximately 1+19N to 1+40N, 1+34E to 1+45E. This may be caused by a buried slab or pavement. Figure 13 shows the location of this area.

See Figure 13 for the locations of the possible pipes or utilities detected in this area.

AREA 4

Area 4 is located along North Howard Street. The geophysical survey of this area detected an anomalous area, a magnetic high, two magnetic lows, a possible utility box, and several possible pipes or utilities.

The anomalous area was detected by the survey at approximately 1+24N to 1+34N, 1+25E to 1+30E. The cause of this area is unknown. Figure 18 shows the location of this area.

A magnetic high was detected at approximately 1+25N to 1+36N, 1+09E to 1+13E. The cause of this area is unknown but may be cultural interference. Figure 18 shows the location of this area.

Two magnetic lows were detected by the survey at approximately:

1) 1+13N to 1+26N, 1+04E to 1+11E

2) 1+27N to 1+38N, 1+30E to 1+36E

The causes of these areas are unknown but could be cultural interference. Figure 18 shows the locations of these areas.

A possible utility box was detected at approximately 1+00N to 1+11N, 1+27E to 1+34E. This is related to the manhole cover located in this area. Figure 18 shows the location of this area.

See Figure 18 for the locations of the possible pipes or utilities detected by the survey.

## 5) CONCLUSIONS and RECOMMENDATIONS

The geophysical investigation of the State Center Property Parcels located in Baltimore, MD detected eight anomalous areas, four possible pipes or tanks, one conductivity high, two magnetic highs, two magnetic lows, two possible subsurface layers, an area of possible buried debris, an area of disturbed conductivity, a possible utility box, and numerous possible pipes or utilities.

Eight anomalous areas were detected in the four areas. One area in Area 1, six areas in Area 2, and an area in Area 4. The causes of these areas are unknown. Further investigation using other means of these areas is recommended to determine the exact cause of each.

Four possible pipes or tanks were detected in Area 2. Further investigation using other means is recommended to determine the exact cause of each.

A conductivity high was detected in Area 2. Further investigation may be considered.

A magnetic high was detected in Area 2 and Area 4. The causes of the magnetic high in Area 4 may be cultural interference. Further investigation of both may be considered to determine the cause of each.

Two magnetic lows were detected in Area 4. These areas may be caused by cultural interference.

A possible subsurface layer was detected by the survey in Area 2 and Area 3.

An area possible buried debris was detected in Area 3. Further investigation may be considered for this area.

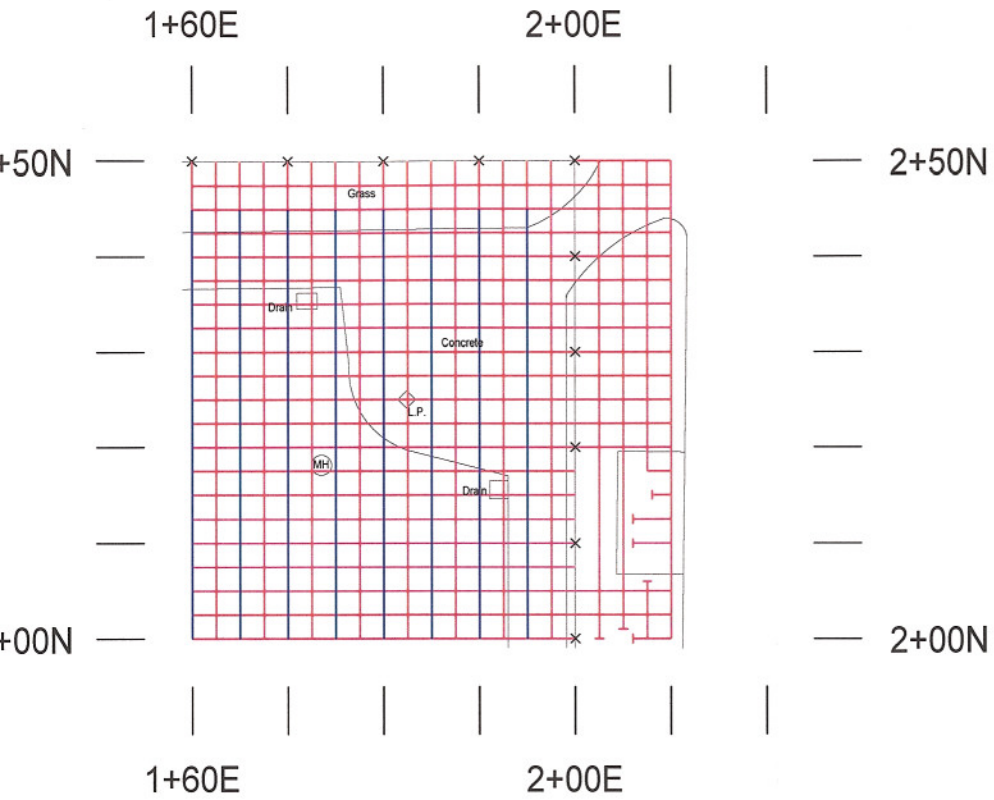
An area of disturbed conductivity was in Area 3. This may be caused by a demolished building.

Depth of investigation for the GPR was limited due to site subsurface conditions.

Not all objects or areas may have been detected by the geophysical survey due to subsurface conditions and equipment limitations.

Figures 3, 8, 13, and 18 show the locations of all areas and objects detected by the geophysical survey.

# FIGURES




## Explanation

GPR only

EM-31, GPR, and MAG

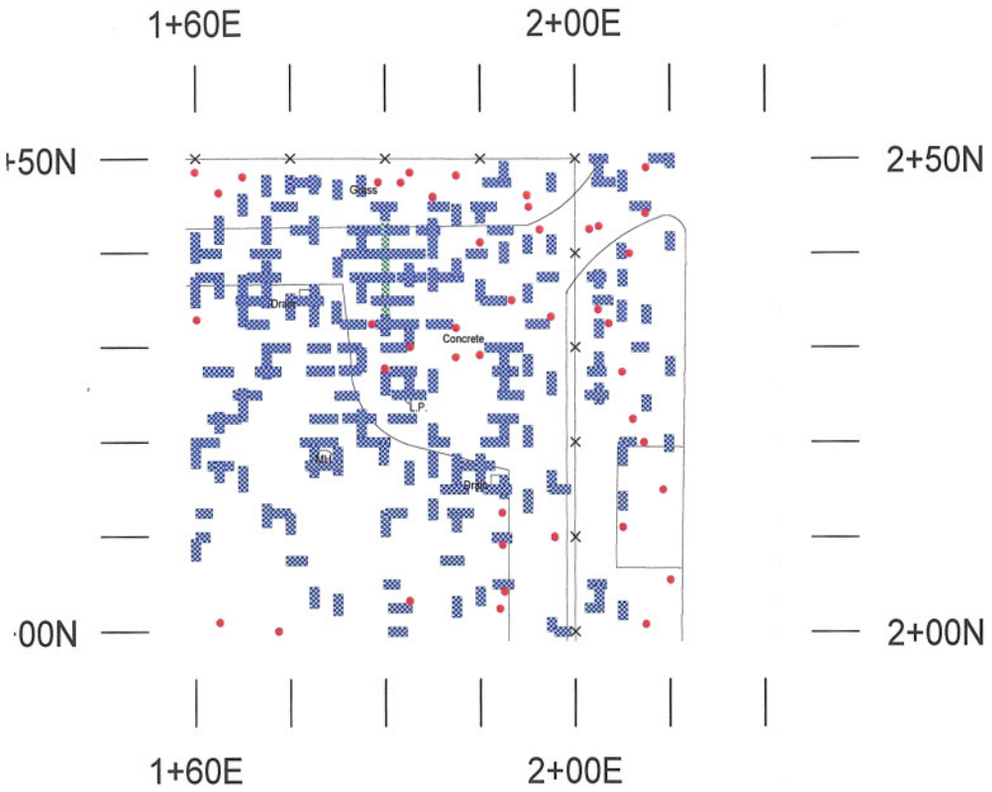
Scale

0 10 20 40

Feet

FIGURE 1
GEOPHYSICAL COVERAGE, AREA 1
State Center Property Parcels
Baltimore, MD
prepared for
Urban Green Environmental, LLC.
Baltimore, MD
July 2010

BUCKS GEOPHYSICAL CORPORATION
P.O. Box 388, Plumsteadville, PA 18949




## Explanation

- Point target ( Pipe, brick, cobble, metal, etc. )
- Larger GPR reflector
- Possible subsurface layer

Scale

0 10 20 40

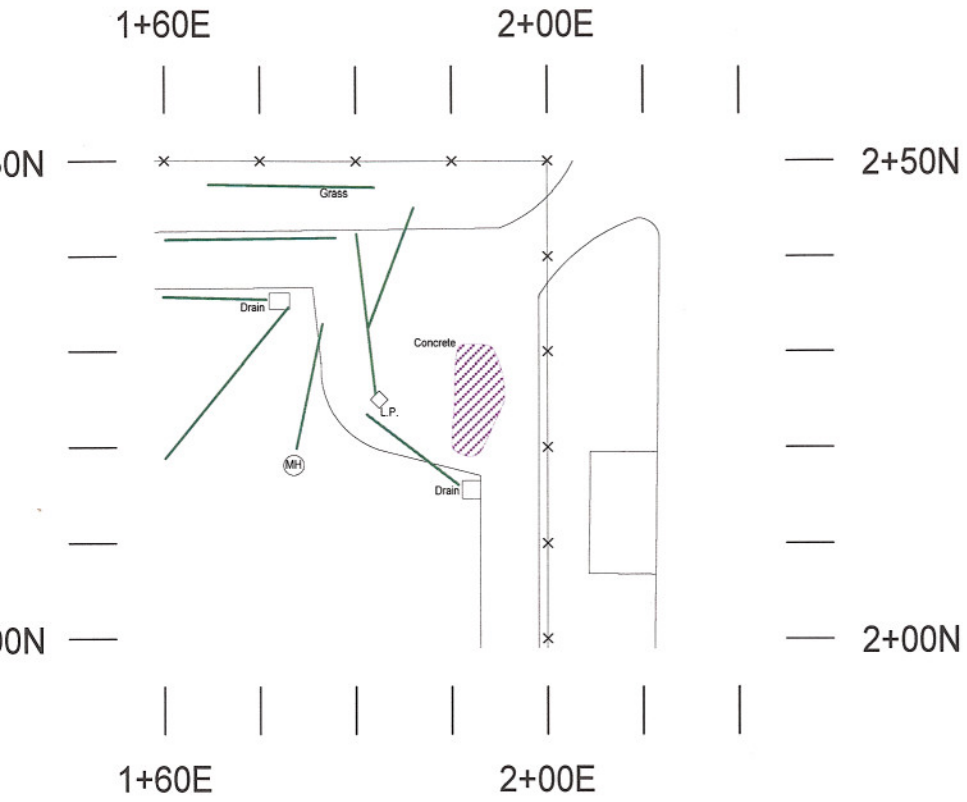
Feet

FIGURE 2

GPR ANOMALY MAP, AREA 1

State Center Property Parcels
Baltimore, MD
prepared for
Urban Green Environmental, LLC.
Baltimore, MD
July 2010

BUCKS GEOPHYSICAL CORPORATION
P.O. Box 388, Plumsteadville, PA 18949




Scale

0 10 20 40

Feet

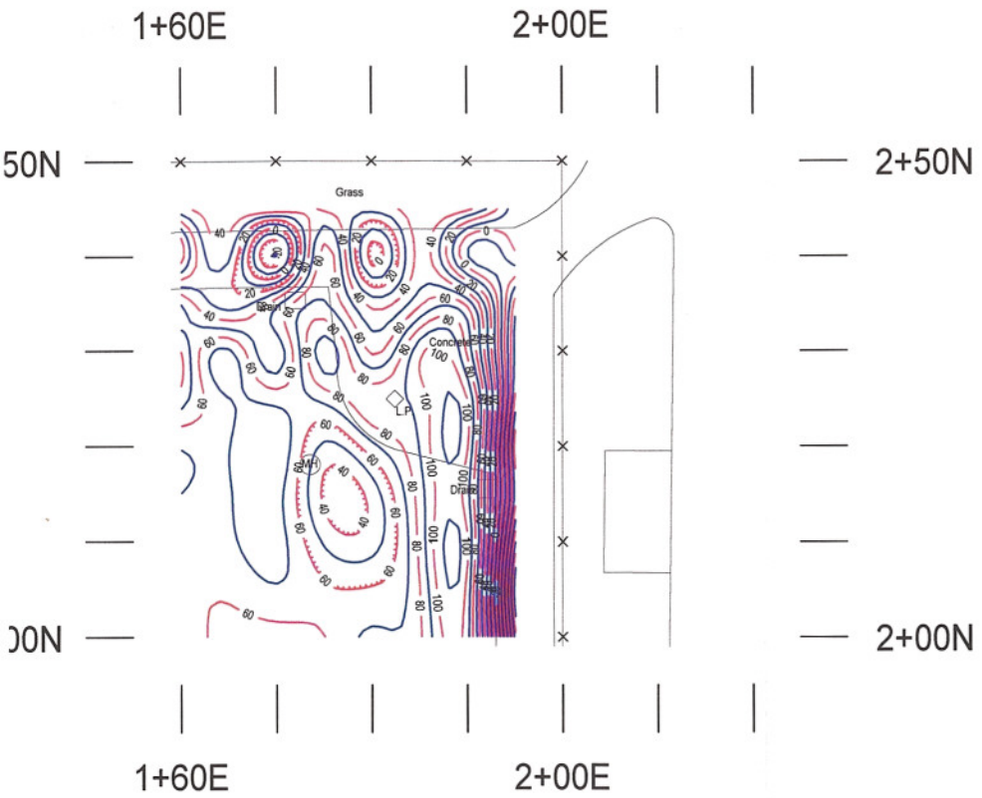
## Explanation

Possible pipe or utility

Anomalous area

FIGURE 3
INTERPRETATION, AREA 1
State Center Property Parcels
Baltimore, MD
prepared for
Urban Green Environmental, LLC.
Baltimore, MD
July 2010

BUCKS GEOPHYSICAL CORPORATION
P.O. Box 388, Plumsteadville, PA 18949




## Explanation

20 — 10 mmoho contour interval

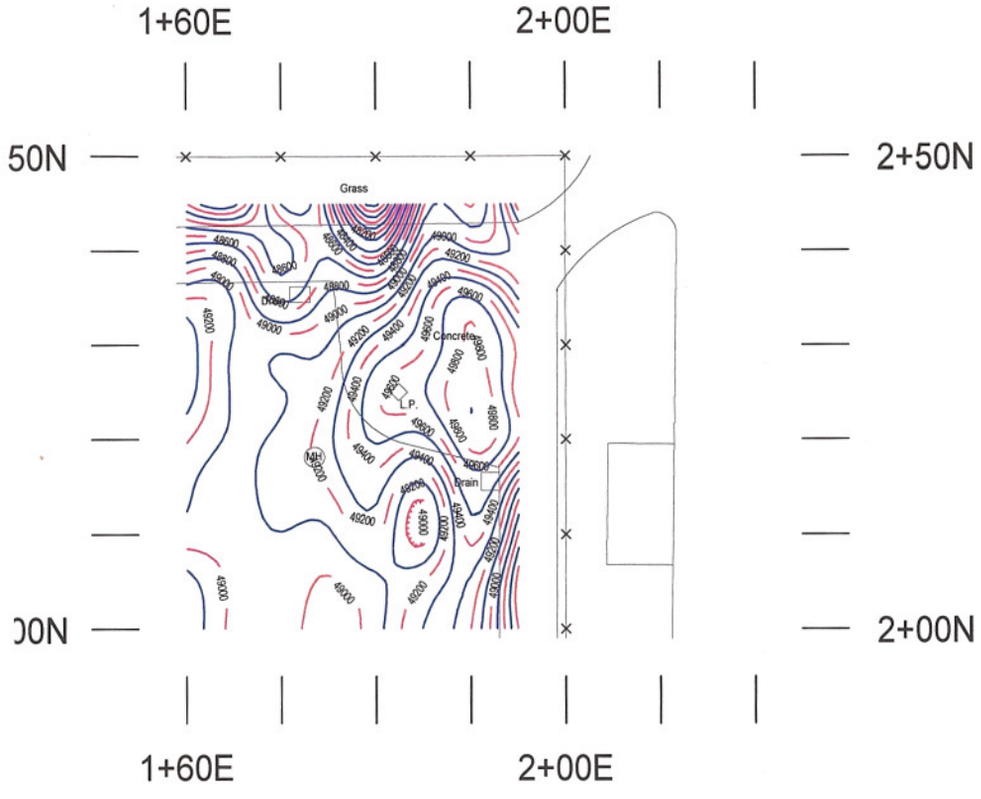
Scale

0 10 20 40

Feet

FIGURE 4
CONDUCTIVITY CONTOUR MAP, AREA 1
State Center Property Parcels
Baltimore, MD
prepared for
Urban Green Environmental, LLC.
Baltimore, MD
July 2010

BUCKS GEOPHYSICAL CORPORATION
P.O. Box 388, Plumsteadville, PA 18949




## Explanation

52000 — 100 gamma contour interval

Scale

0 10 20 40

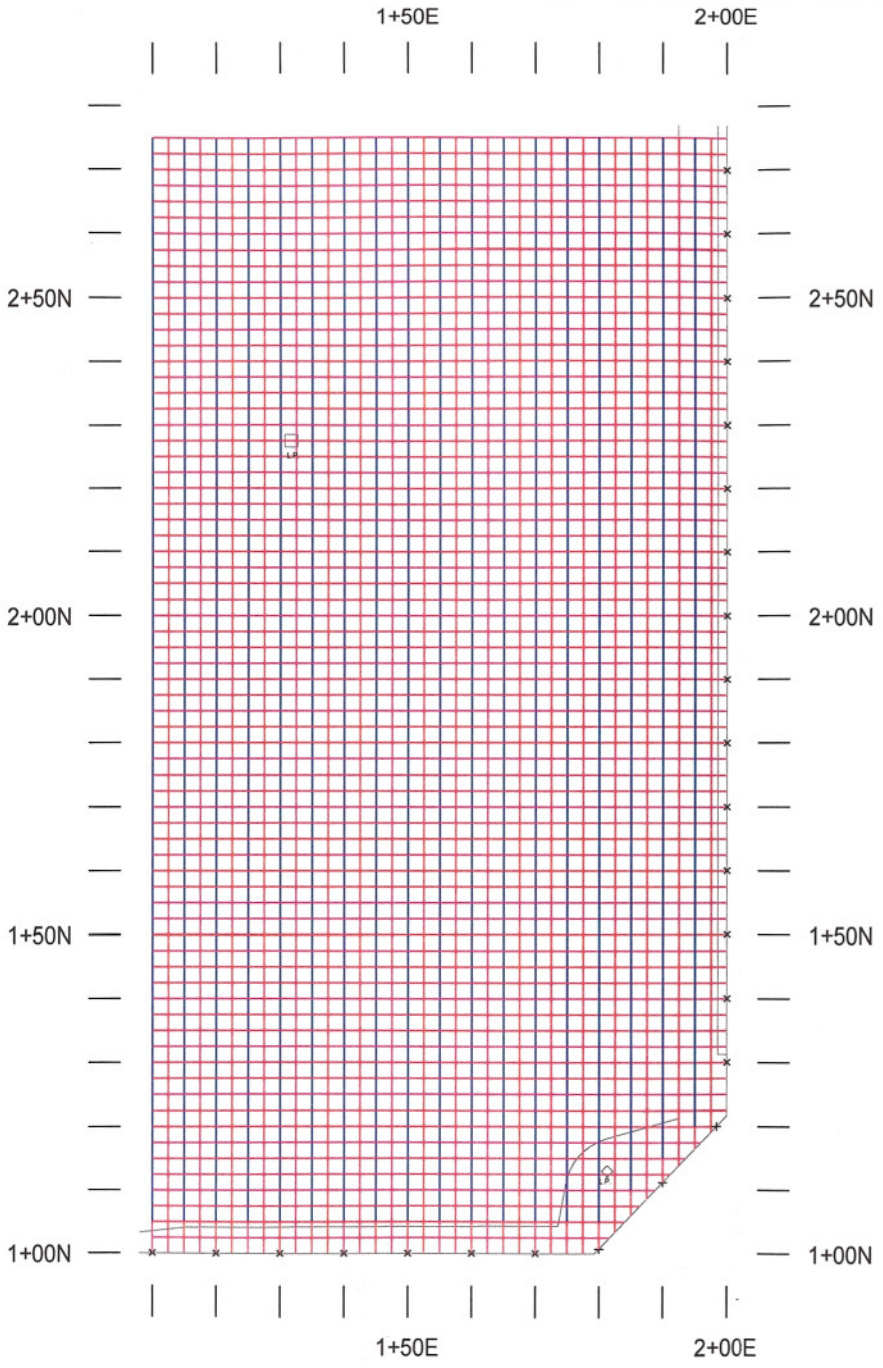
Feet

FIGURE 5

MAGNETIC CONTOUR MAP, AREA 1

State Center Property Parcels
Baltimore, MD
prepared for
Urban Green Environmental, LLC.
Baltimore, MD
July 2010

BUCKS GEOPHYSICAL CORPORATION
P.O. Box 388, Plumsteadville, PA 18949




## Explanation

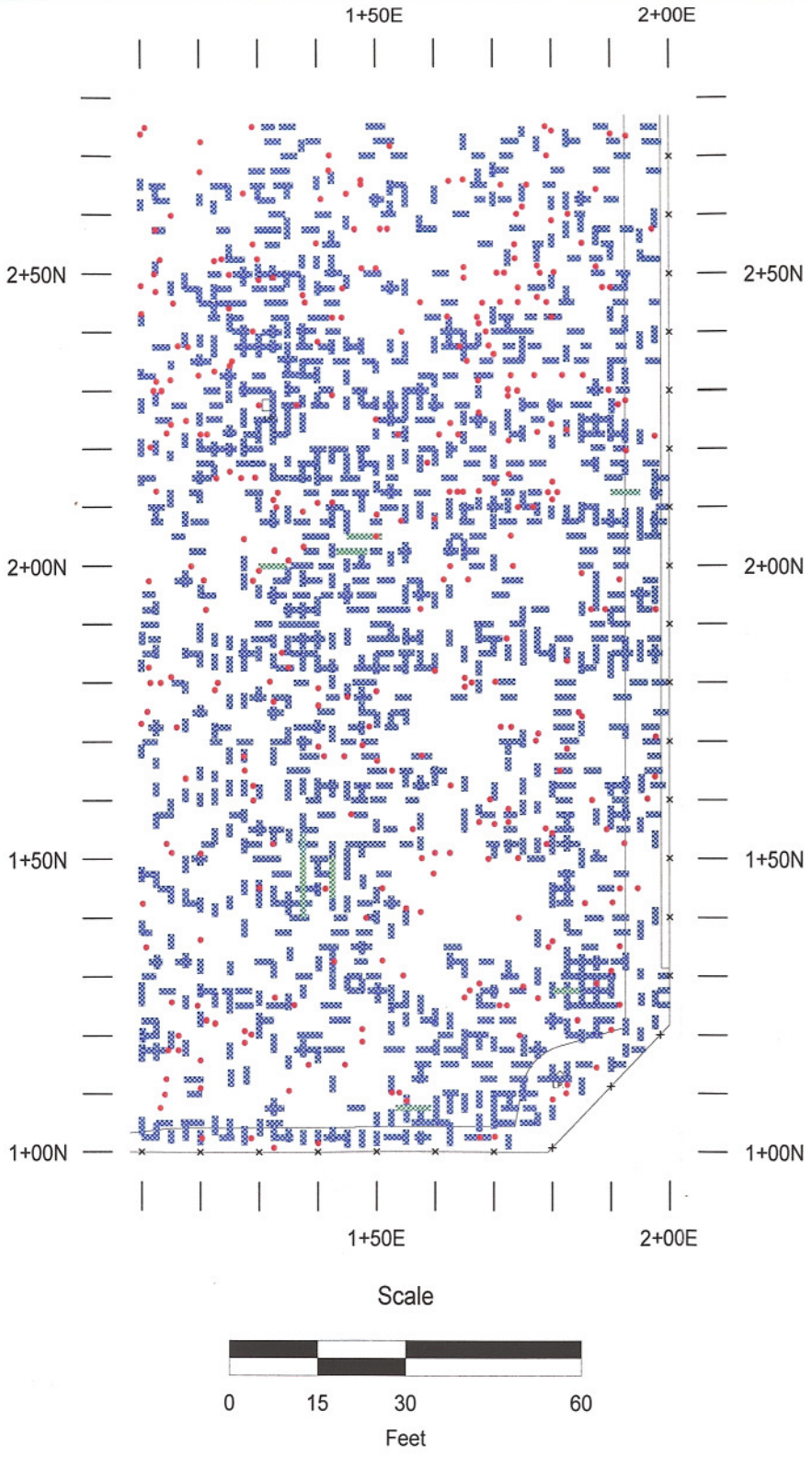
GPR only

EM-31, GPR, and MAG

# FIGURE 6
# GEOPHYSICAL COVERAGE, AREA 2

State Center Property Parcel
Baltimore, MD
prepared for
Urban Green Environmental, LLC.
Baltimore, MD
July 2010

BUCKS GEOPHYSICAL CORPORATION
P.O. Box 388, Plumsteadville, PA 18949



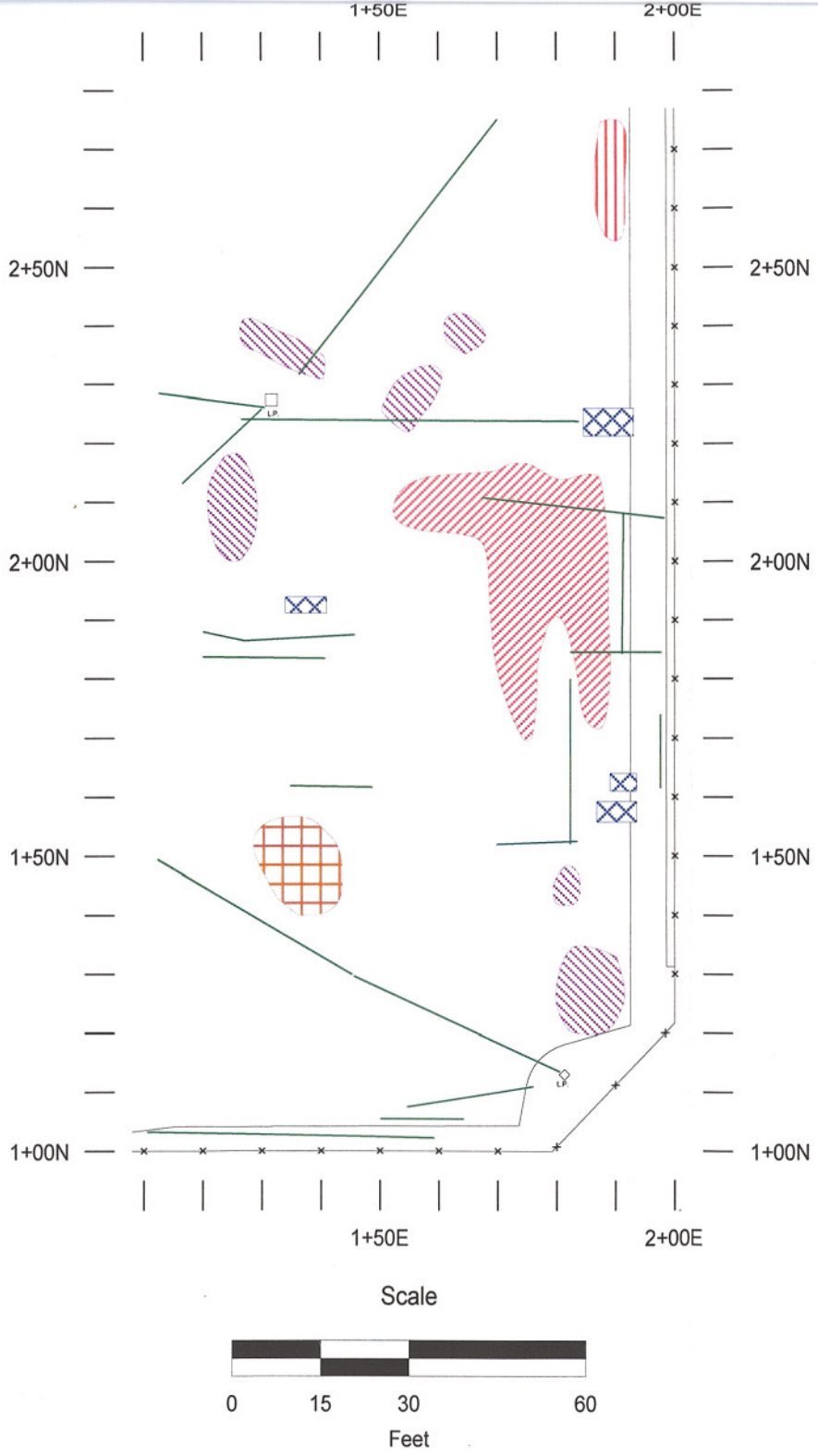

## Explanation

- Point target ( Pipe, brick, cobble, metal, etc. )
- Larger GPR reflector
- Possible subsurface layer

# FIGURE 7
# GPR ANOMALY MAP, AREA 2

State Center Property Parcel
Baltimore, MD
prepared for
Urban Green Environmental, LLC.
Baltimore, MD
July 2010

BUCKS GEOPHYSICAL CORPORATION
P.O. Box 388, Plumsteadville, PA 18949

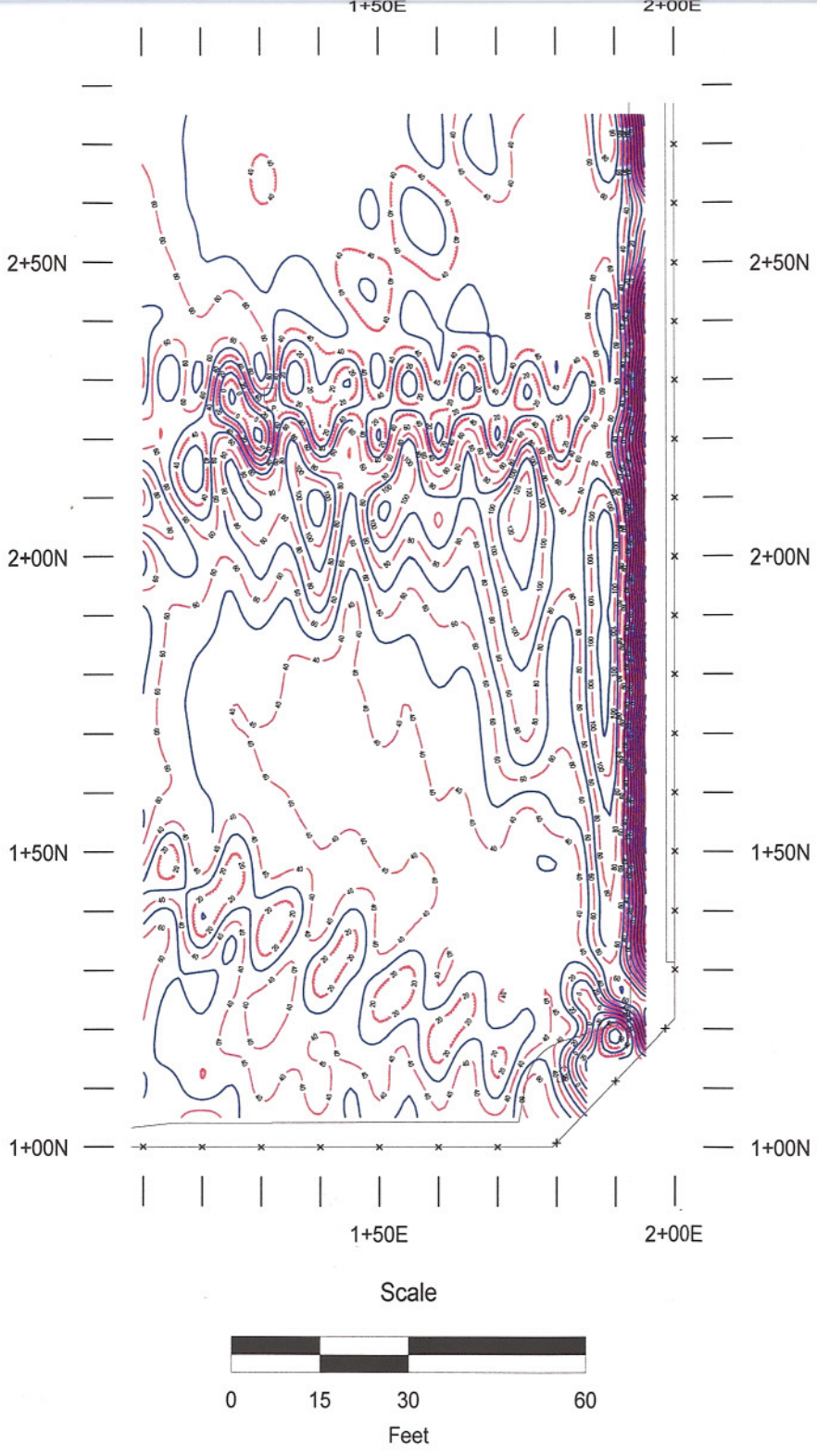



## Explanation

- Possible pipe or utility
- Possible pipe or tank
- Anomalous area
- Conductivity high
- Magnetic high
- Possible subsurface layer

FIGURE 8
INTERPRETATION, AREA 2
State Center Property Parcel
Baltimore, MD
prepared for
Urban Green Environmental, LLC.
Baltimore, MD
July 2010

BUCKS GEOPHYSICAL CORPORATION
P.O. Box 388, Plumsteadville, PA 18949




## Explanation

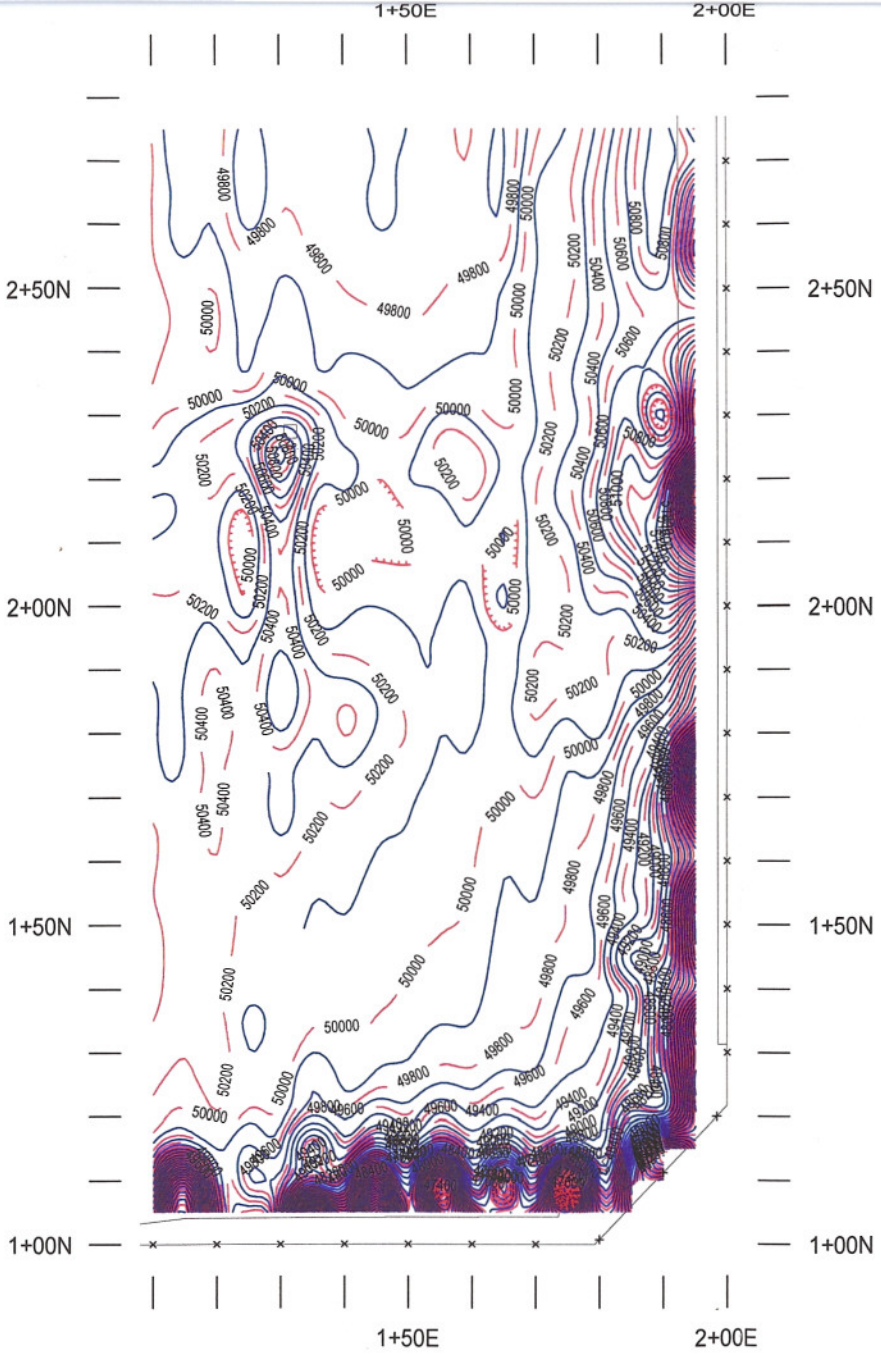
20 10 mmoho contour interval

FIGURE 9

CONDUCTIVITY CONTOUR MAP, AREA 2

State Center Property Parcel
Baltimore, MD
prepared for
Urban Green Environmental, LLC.
Baltimore, MD
July 2010

BUCKS GEOPHYSICAL CORPORATION
P.O. Box 388, Plumsteadville, PA 18949



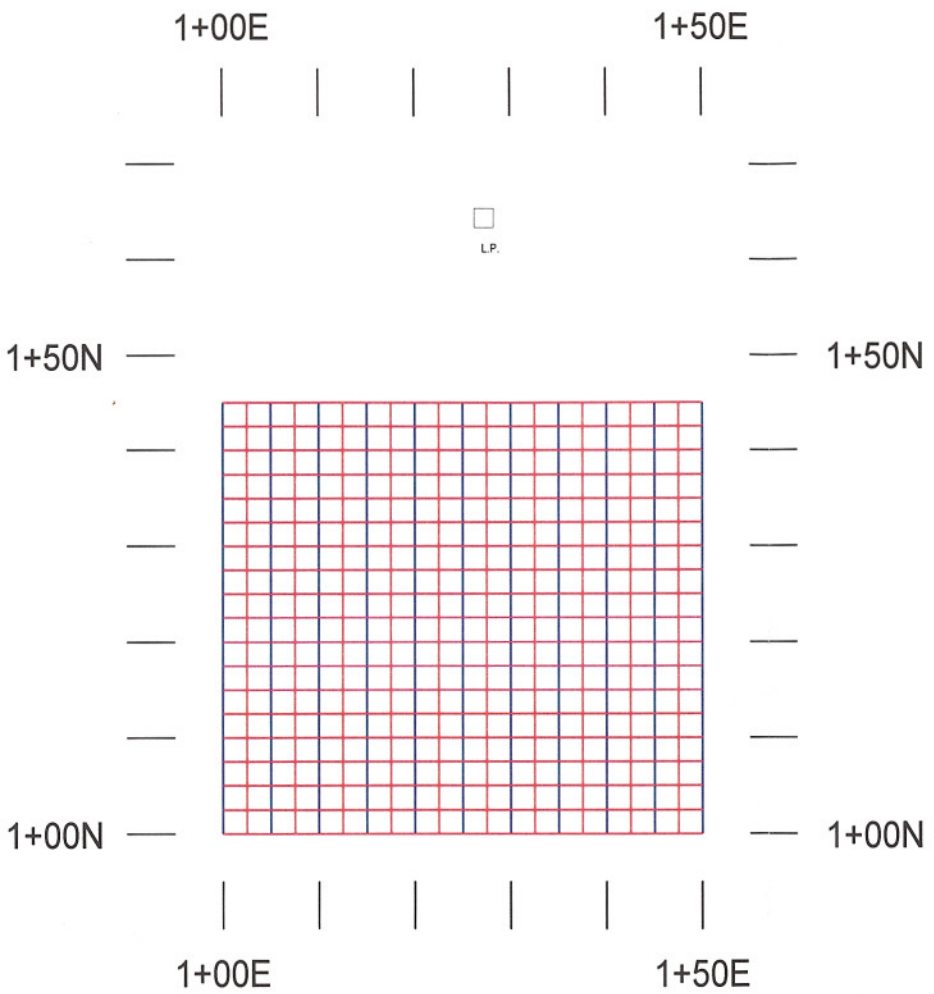

## Explanation

52000 100 gamma contour interval

# FIGURE 10
# MAGNETIC CONTOUR MAP, AREA 2

State Center Property Parcel
Baltimore, MD
prepared for
Urban Green Environmental, LLC.
Baltimore, MD
July 2010

BUCKS GEOPHYSICAL CORPORATION
P.O. Box 388, Plumsteadville, PA 18949




Scale

0 10 20 40

Feet

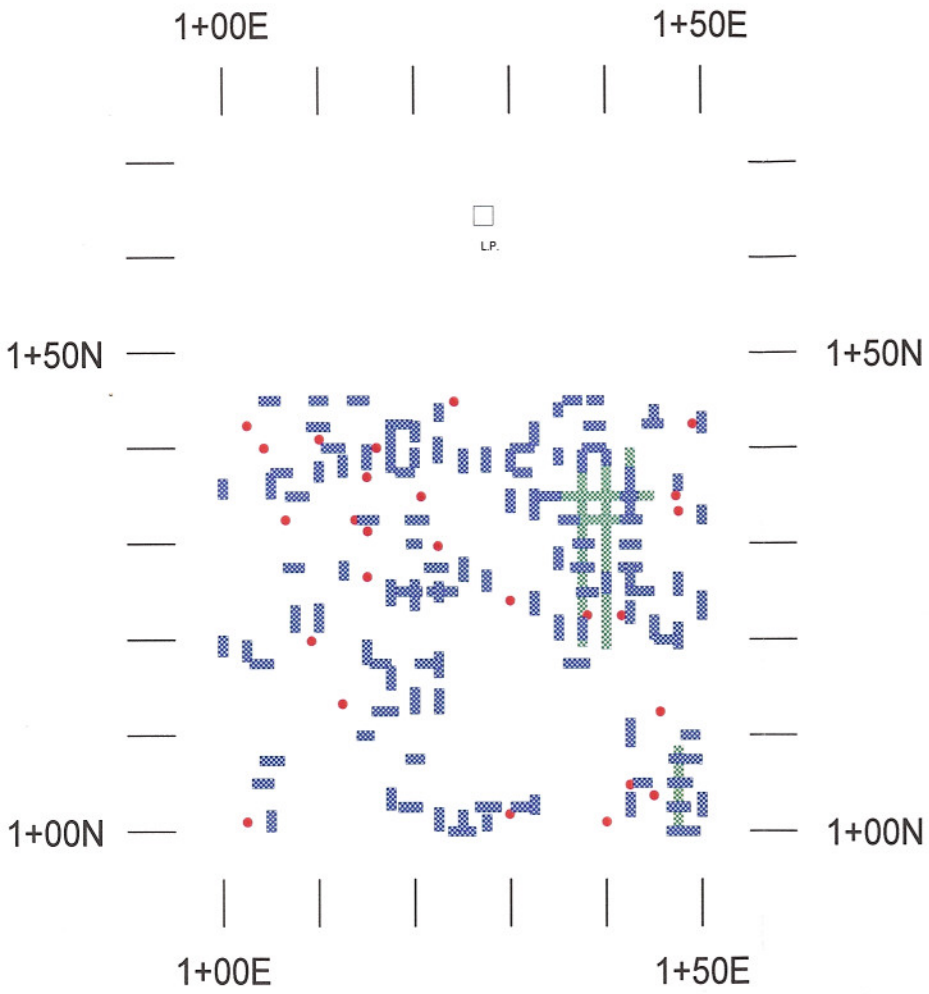
## Explanation

GPR only

EM-31, GPR, and MAG

FIGURE 11
GEOPHYSICAL COVERAGE, AREA 3
State Center Property Parcel
Baltimore, MD
prepared for
Urban Green Environmental, LLC.
Baltimore, MD
July 2010

BUCKS GEOPHYSICAL CORPORATION
P.O. Box 388, Plumsteadville, PA 18949




Scale

0 10 20 40

Feet

## Explanation

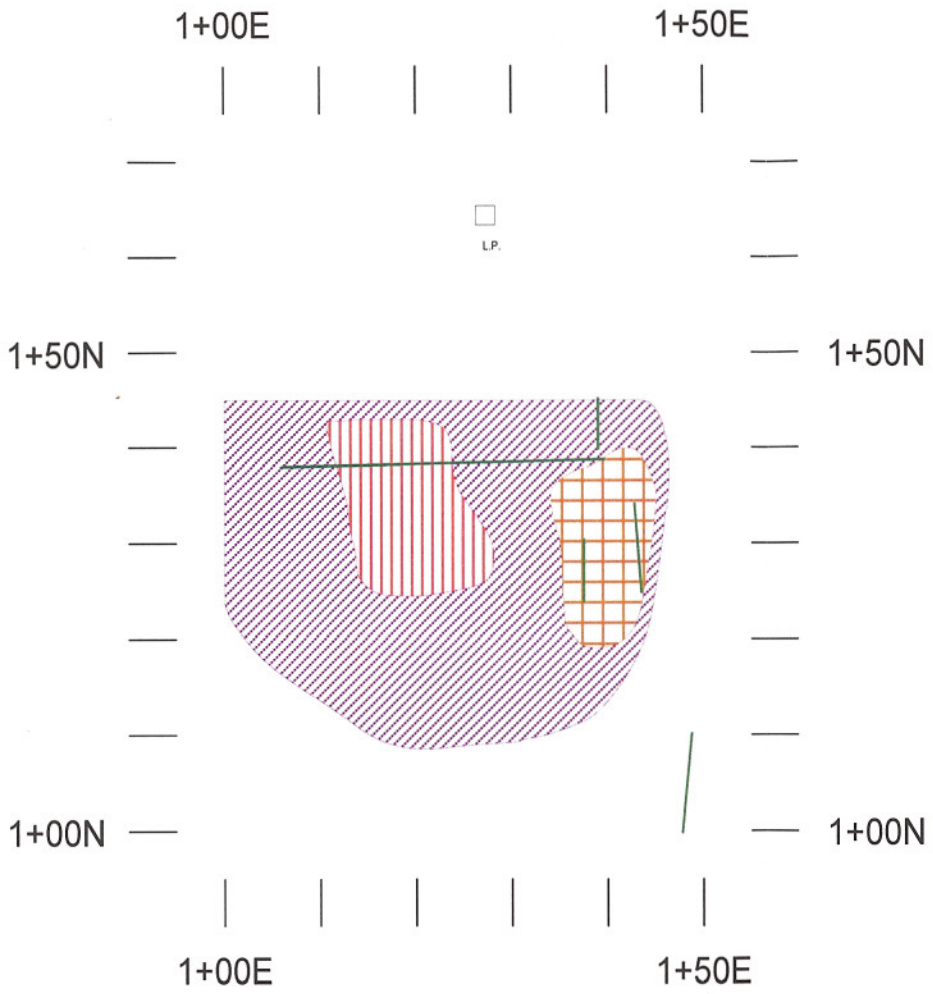
Point target
( Pipe, brick, cobble, metal, etc. )

Larger GPR reflector

Possible subsurface layer

FIGURE 12
GPR ANOMALY MAP, AREA 3
State Center Property Parcel
Baltimore, MD
prepared for
Urban Green Environmental, LLC.
Baltimore, MD
July 2010

BUCKS GEOPHYSICAL CORPORATION
P.O. Box 388, Plumsteadville, PA 18949




Scale

0 10 20 40

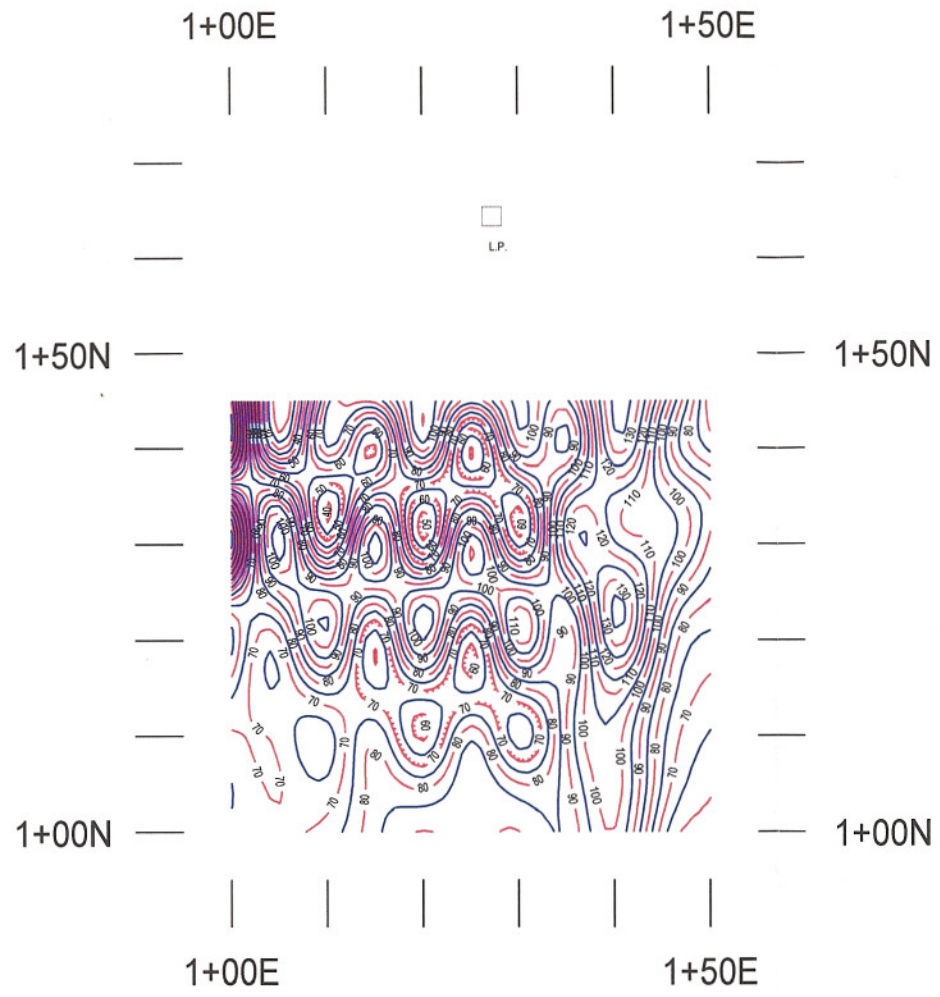
Feet

## Explanation

- Possible pipe or utility
- Possible buried debris
- Disturbed conductivity
- Possible subsurface layer

FIGURE 13
INTERPRETATION, AREA 3
State Center Property Parcel
Baltimore, MD
prepared for
Urban Green Environmental, LLC.
Baltimore, MD
July 2010

BUCKS GEOPHYSICAL CORPORATION
P.O. Box 388, Plumsteadville, PA 18949




Scale

0 10 20 40

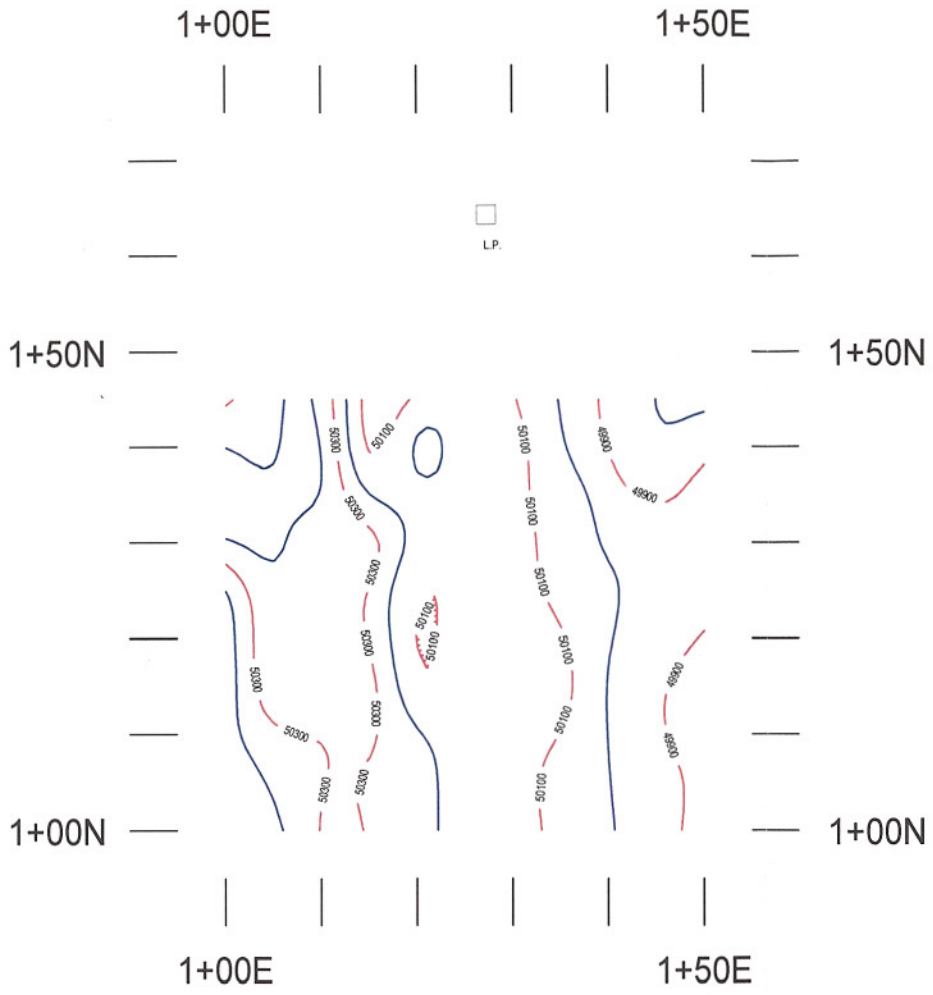
Feet

## Explanation

20 5 mmoho contour interval

FIGURE 14
CONDUCTIVITY CONTOUR MAP, AREA 3
State Center Property Parcel
Baltimore, MD
prepared for
Urban Green Environmental, LLC.
Baltimore, MD
July 2010

BUCKS GEOPHYSICAL CORPORATION
P.O. Box 388, Plumsteadville, PA 18949




Scale

0 10 20 40

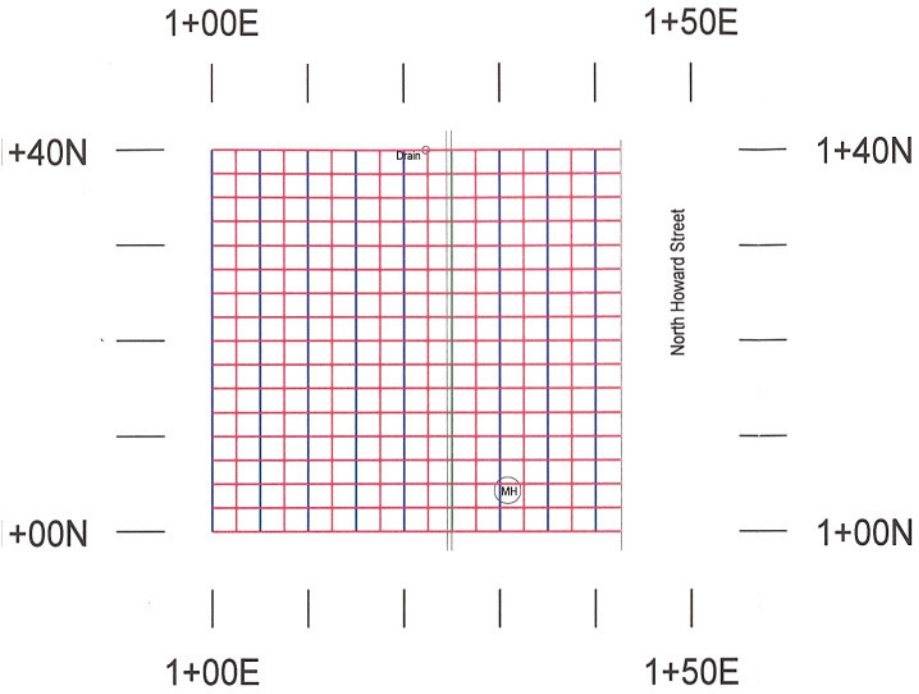
Feet

## Explanation

52000 100 gamma contour interval

FIGURE 15
MAGNETIC CONTOUR MAP, AREA 3
State Center Property Parcel
Baltimore, MD
prepared for
Urban Green Environmental, LLC.
Baltimore, MD
July 2010

BUCKS GEOPHYSICAL CORPORATION
P.O. Box 388, Plumsteadville, PA 18949




## Explanation

- GPR only
- EM-31 and MAG
- EM-31, GPR, and MAG

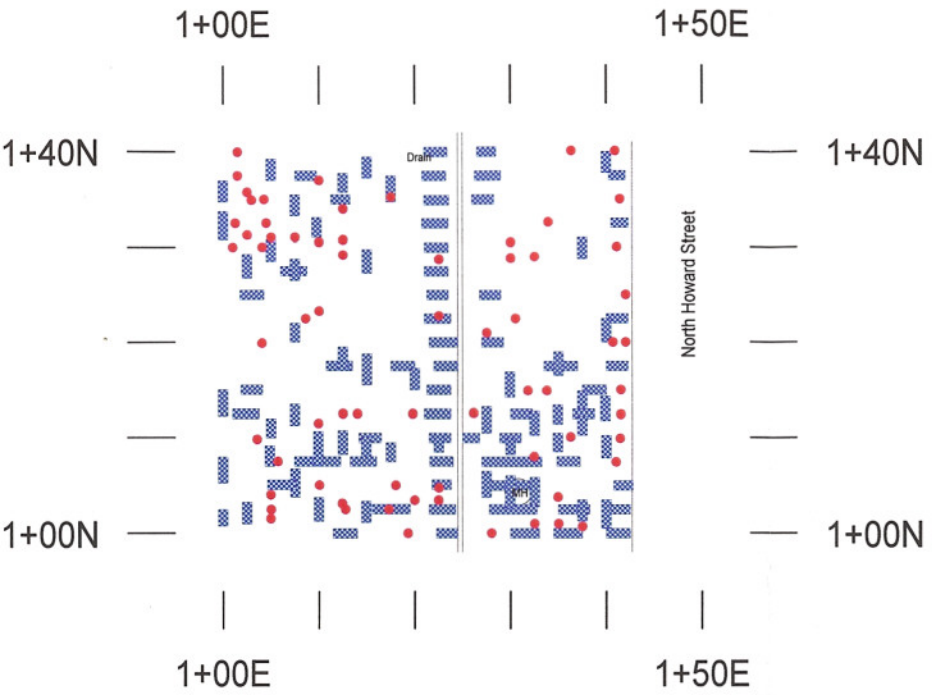
Scale

0 10 20 40

Feet

FIGURE 16
GEOPHYSICAL COVERAGE, AREA 4
State Center Property Parcel
Baltimore, MD
prepared for
Urban Green Environmental, LLC.
Baltimore, MD
July 2010

BUCKS GEOPHYSICAL CORPORATION
P.O. Box 388, Plumsteadville, PA 18949




Scale

0 10 20 40

Feet

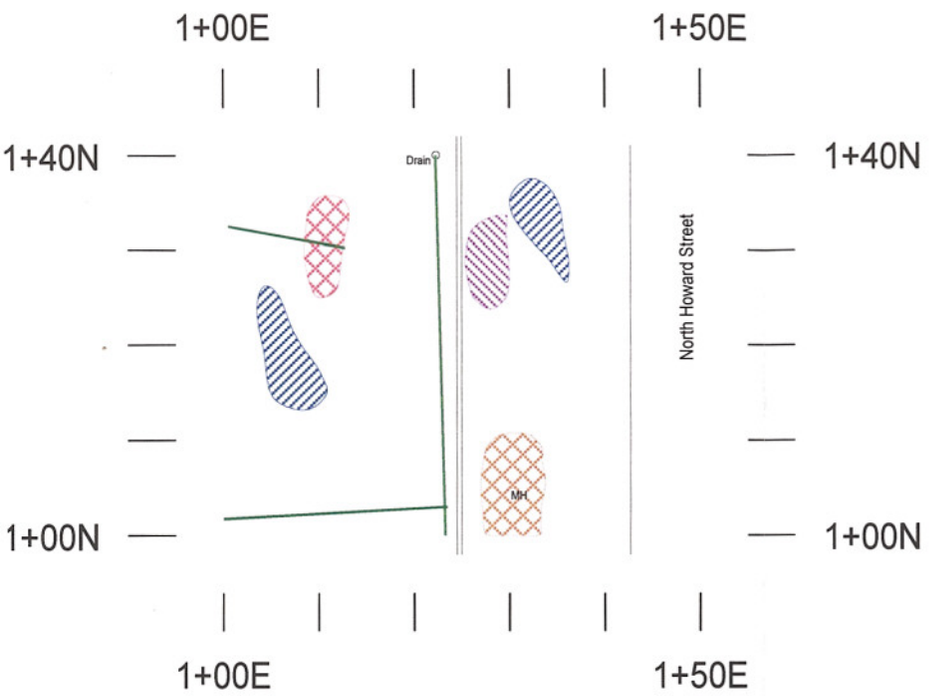
## Explanation

Point target
( Pipe, brick, cobble, metal, etc. )

Larger GPR reflector

FIGURE 17
GPR ANOMALY MAP, AREA 4
State Center Property Parcel
Baltimore, MD
prepared for
Urban Green Environmental, LLC.
Baltimore, MD
July 2010

BUCKS GEOPHYSICAL CORPORATION
P.O. Box 388, Plumsteadville, PA 18949




## Explanation

- Possible pipe or utility
- Anomalous area
- Magnetic high
- Magnetic low
- Possible utility box

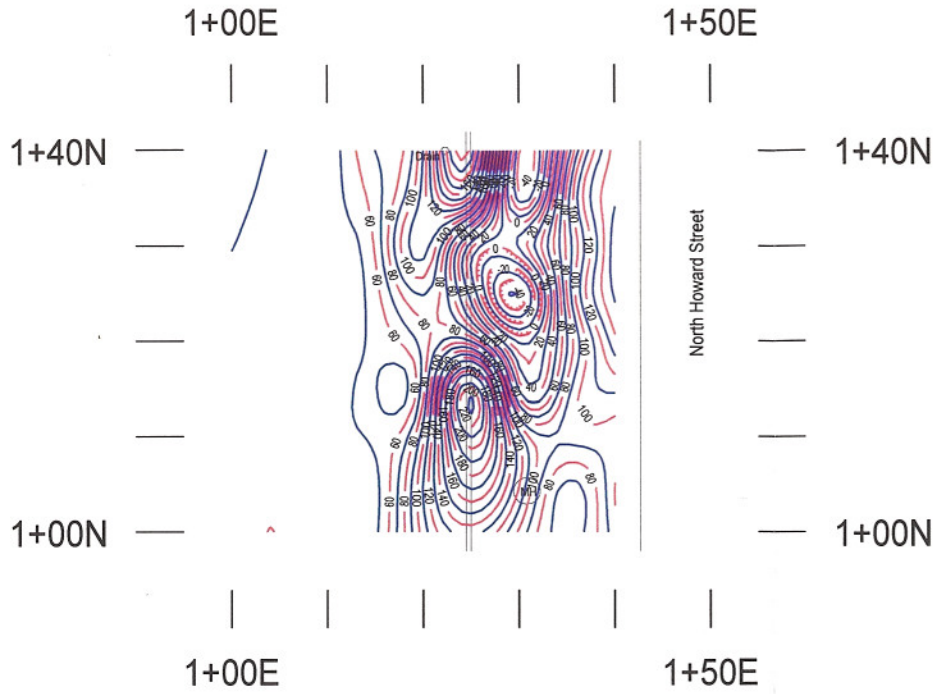
Scale

0 10 20 40

Feet

FIGURE 18
INTERPRETATION, AREA 4
State Center Property Parcel
Baltimore, MD
prepared for
Urban Green Environmental, LLC.
Baltimore, MD
July 2010

BUCKS GEOPHYSICAL CORPORATION
P.O. Box 388, Plumsteadville, PA 18949




## Explanation

20 — 10 mmoho contour interval

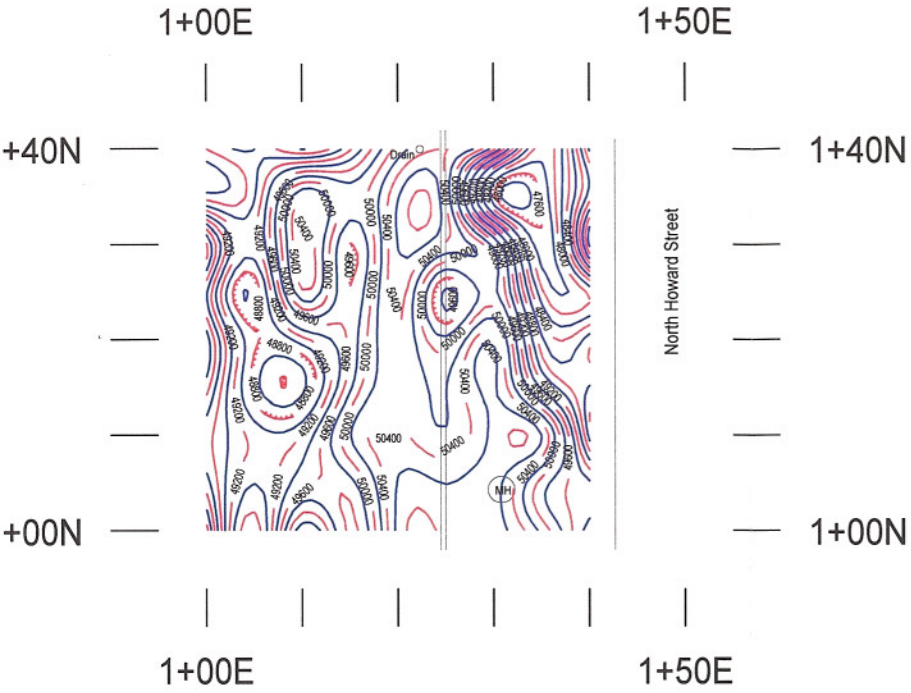
Scale

0 10 20 40

Feet

FIGURE 19
CONDUCTIVITY CONTOUR MAP, AREA 4
State Center Property Parcel
Baltimore, MD
prepared for
Urban Green Environmental, LLC.
Baltimore, MD
July 2010

BUCKS GEOPHYSICAL CORPORATION
P.O. Box 388, Plumsteadville, PA 18949




## Explanation

52000 200 gamma contour interval

Scale

0 10 20 40

Feet

FIGURE 20
MAGNETIC CONTOUR MAP, AREA 4
State Center Property Parcel
Baltimore, MD
prepared for
Urban Green Environmental, LLC.
Baltimore, MD
July 2010

BUCKS GEOPHYSICAL CORPORATION
P.O. Box 388, Plumsteadville, PA 18949

# APPENDIX A

## ELECTROMAGNETICS (EM-31)

The EM-31 measures subsurface conductance using the principles of electromagnetic induction. The EM-31 is portable, rapid, and nondestructive. It has a fixed boom containing the transmitter and receiver coils so that handling and data gathering is easily achieved by one operator.

The EM-31 sends an alternating current into the transmitter coil. This alternating current generates an alternating primary magnetic field, which in turn induces a small alternating current in any conductive medium surrounding the transmitter coil. The alternating current in the conductive medium generates an alternating secondary magnetic field which is detected by the receiver coil. The EM-31 calculates the conductivity of the subsurface (mmhos/m) by comparing the primary field and the secondary field.

Factors which may increase subsurface conductivities include higher moisture content, greater amounts of finer materials, increased clay and/or silt content, soil contamination and/or ground water contamination. The presence of buried metal can also affect the conductivity data.

The detectability of metal objects (buried pipes, drums, etc.) can be enhanced by measuring the change in the magnitude of the primary field (inphase component) of the induced magnetic field. The change in magnitude is measured in parts per thousand (PPT). The primary field is affected mainly by metal.

Several factors can affect the effectiveness of the EM method including the proximity of cultural interferences (such as buildings, fences and reinforced concrete), the presence of highly conductive materials (such as clays and water), and the size, depth, and conductivity contrast of the target.

## GROUND PENETRATING RADAR

Some of the uses of GPR include locating buried tanks and drums, delineating boundaries of landfills and trenches, and defining voids and geologic stratigraphy. Although other techniques can also provide this information, GPR is less affected by cultural interferences such as overhead power lines, buildings, and fences. GPR can also provide higher resolution of the target in many cases.

The antenna can either be moved manually by an operator or towed by a vehicle. Depths of exploration can vary widely, from just a few feet in water saturated clayey materials to hundreds of feet in glacial ice. A variety of antennas (ranging from 80 to 900 Mhz) can be used depending on subsurface conditions and the objective of the survey. Resolution of shallow objects requires higher frequencies, while lower frequencies work better for deeper investigations.

The profile recorder supplies the power and synchronizing signals to the antenna. The antenna outputs a pulse of electromagnetic energy to the ground. The energy pulse is reflected by geologic layers or objects under the surface back to the antenna. The antenna converts the pulse (nanoseconds in duration) to an analog signal (tens of milliseconds in duration) back to the radar unit. The signal is then processed and sent to a graphic recorder which creates a continuous profile of the subsurface reflectors.

Several factors can affect the effectiveness of the GPR method including reinforced concrete at the surface, the presence of highly conductive materials (such as clays and water), the size, depth, and physical property of the target and in stratigraphic investigations, the conductivity contrast between stratigraphic units. The presence of numerous buried objects may mask objects and/or stratigraphy below them.

## MAGNETOMETER

A magnetometer is a rapid, effective and non-destructive instrument used to locate buried ferrous material (drums, pipes, mineral deposits, archaeological objects, etc.). The instrument is operated and carried by one person, and contains a digital memory for data storage.

The proton magnetometer utilizes the precession of spinning protons to measure the intensity of the earth's magnetic field. The protons act as small magnetic dipoles. A coil is charged with an electrical current which creates a magnetic field, which temporarily aligns the protons with respect to the coil. The current is then removed, and the protons spin in the direction of the earth's magnetic field. As the protons spin they generate a small electrical signal, which is measured and converted into a value of magnetic intensity (gammas) by the magnetometer. The intensity of the earth's magnetic field is affected by ferrous material.

Interpretation of magnetometer data includes recognizing and characterizing local changes in the intensity of the earth's magnetic field. Analysis usually involves contouring and profiling the data. The size, shape, and magnitude of an anomaly depends on the mass, orientation and depth of the buried target (drums, mineral deposits, etc.). Modeling of the data can provide a rough estimate of the mass and depth of the target, but is usually reserved for large-scale geological surveys.

Several factors can limit the effectiveness of the magnetometry method including the proximity of cultural interferences (such as buildings, fences, and reinforced concrete), and the size, depth and magnetic susceptibility of the target.

**APPENDIX B**

SOIL BORING LOGS

**SOIL BORING LOG**

HOLE NUMBER: **SB-8**

| | | | |
|---|---|---|---|
| 1. COMPANY NAME: URBAN GREEN ENVIRONMENTAL | 2. DRILL SUBCONTRACTOR: GREEN SERVICES INC. | | SHEET 1 of SHEETS 1 |
| 3. PROJECT: State Center Parcel G | | | |
| 7. NAME OF DRILLER: Don | 8. MANUFACTURER'S DESIGNATION OF DRILL: GEOPROBE 5410 | | |
| 9. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 2" X 4' MACROCORE<br>TYPE OF LINER USED, IF APPLICABLE: HDPE | 10. SURFACE ELEVATION AND CONDITIONS: Asphalt Paved - Former Filling Station, Southeast Corner | | |
| 11. DIRECT READING PARAMETERS: VOCs (PID) | 12. DATE STARTED: 7/31/2010 | 13. DATE COMPLETED: 7/31/2010 | |
| 14. OVERBURDEN THICKNESS: > 20 | 15. DEPTH GROUNDWATER ENCOUNTERED: NA | | |
| 16. DEPTH DRILLED INTO ROCK: NA | 17. DEPTH TO WATER AND ELAPSED TIME ATFER DRILLING COMPLETED: NA | | |
| 18. TOTAL DEPTH OF HOLE: 18 feet below grade (refusal) | 19. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): NA | | |
| 20. WELL INSTALLED? NO / IF SO COMPLETE CONSTRUCTION DIAGRAM: NA | SAMPLE TYPE: | | |
| 21. SAMPLE INTERVAL AND DESIGNATION FOR LAB ANALYSIS<br>**SB-8 0-1 SVOCs, PPL Metals**<br>**SB-8 4-5 VOCs, SVOCs, PPL Metals, Pesticides, Herbicides, PCBs** | SAMPLE INTERVAL AND DESIGNATION FOR FIELD SCREENING ANALYSIS: Every 2 feet for VOCs with a PID | | SCREENING ANALYSIS: VOCs |
| 22. DISPOSITION OF HOLE: IF NOT A WELL, BACKFILLED WITH: Soil Cuttings / Bentonite | 23. GEOLOGIST: K FORD | | |

| USCS LOG (a) | DEPTH (FT) (b) | DESCRIPTION OF MATERIALS (c) | DIRECT READING (d) VOC (ppm) | DIRECT READING (d) Depth (ft) | ANALYTICAL SAMPLE DESIGN. (e) | DEPTH (FT) (f) | RECOVERY (FT) (g) | REMARKS |
|---|---|---|---|---|---|---|---|---|
| | 0-0.5 | Asphalt, gravel and sand (subbase). | 0.0 | | | | 75% | No visual staining or chemical odor. |
| | 0.5-2.5 | FILL, medium sand, some crushed brick | | | | | | |
| | 2.5-4.0 | Medium to fine SAND, some gravel. | 0.0 | | | | | |
| | 4.0-6.0 | Medium to fine sandy SILT, some gravel. | 0.0 | | | | 100% | No visual staining or chemical odor. |
| | 6.0-8.0 | Fine sand. | 0.0 | | | | | |
| | 8.0-10.0 | Medium to coarse sand, some gravel, reddish brown. | 0.0 | | | | 100% | No visual staining or chemical odor. |
| | 10.0-14.0 | Gravel, some medium to coarse sand. | 0.0 | | | | | |
| | | | 0.0 | | | | 100% | No visual staining or chemical odor. |
| | 14.0-15.0 | Silty clay. | 0.0 | | | | | |
| | 15.0-16.0 | Fine sand, reddish brown. | | | | | | |
| | 16.0-17.0 | Medium to coarse sand, some gravel. | 0.0 | | | | 100% | No visual staining or chemical odor. |
| | 17.0-18.0 | Fine sand, little silt. | | | | | | |
| | | *End boring at 18 feet below grade (refusal). No groundwater observed.* | | | | | | |

PROJECT: 016-006-10

HOLE NO.: **SB-8**

| SOIL BORING LOG | | HOLE NUMBER SB-9 | |
|---|---|---|---|
| 1. COMPANY NAME URBAN GREEN ENVIRONMENTAL | 2. DRILL SUBCONTRACTOR GREEN SERVICES INC. | | SHEET 1 of 1 SHEETS |
| 3. PROJECT State Center Parcel G | | | |
| 7. NAME OF DRILLER Don | 8. MANUFACTURER'S DESIGNATION OF DRILL GEOPROBE 5410 | | |
| 9. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 2" X 4' MACROCORE<br>TYPE OF LINER USED, IF APPLICABLE HDPE | 10. SURFACE ELEVATION AND CONDITIONS Asphalt Paved - Former Filling Station - Southeast Corner | | |
| 11. DIRECT READING PARAMETERS: VOCs (PID) | 12. DATE STARTED 7/31/2010 | 13. DATE COMPLETED 7/31/2010 | |
| 14. OVERBURDEN THICKNESS > 20 | 15. DEPTH GROUNDWATER ENCOUNTERED NA | | |
| 16. DEPTH DRILLED INTO ROCK NA | 17. DEPTH TO WATER AND ELAPSED TIME ATFER DRILLING COMPLETED NA | | |
| 18. TOTAL DEPTH OF HOLE 24 feet below grade (refusal) | 19. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA | | |
| 20. WELL INSTALLED? NO / IF SO COMPLETE CONSTRUCTION DIAGRAM NA | SAMPLE TYPE: | | |
| 21. SAMPLE INTERVAL AND DESIGNATION FOR LAB ANALYSIS **No samples planned - if elevated PID reading or staining is observed, collect one 4-oz. soil jar from the soil interval. Submit to lab as a hold** | SAMPLE INTERVAL AND DESIGNATION FOR FIELD SCREENING ANALYSIS Every 2 feet for VOCs with a PID | | SCREENING ANALYSIS VOCs |
| 22. DISPOSITION OF HOLE | IF NOT A WELL, BACKFILLED WITH: Soil Cuttings / Bentonite | 23. GEOLOGIST | |

| USCS LOG (a) | DEPTH (FT) (b) | DESCRIPTION OF MATERIALS (c) | DIRECT READING (d) VOC (ppm) | DIRECT READING (d) Depth (ft) | ANALYTICAL SAMPLE DESIGN. (e) | DEPTH (FT) (f) | RECOVERY (FT) (g) | REMARKS |
|---|---|---|---|---|---|---|---|---|
| | 0-0.5 | Asphalt, gravel and sand (subbase). | 0.0 | | | | | |
| | 0.5-4.0 | Medium to fine sandy silt, some gravel. | 0.0 | | | | *75%* | *No visual staining or chemical odor.* |
| | 4.0-5.0 | Medium to coarse sand, some gravel. | 0.0 | | | | | |
| | 5.0-10.0 | Fine sand, some silt. | 0.0 | | | | *80%* | *No visual staining or chemical odor.* |
| | | | 0.0 | | | | *100%* | *No visual staining or chemical odor.* |
| | 10.0-11.0 | Silty fine sand. | 0.0 | | | | | |
| | 11.0-12.0 | Silty clay. | | | | | | |
| | 12.0-16.0 | Silty fine sand. | 0.0 | | | | *100%* | *No visual staining or chemical odor.* |
| | 16.0-20.0 | Fine sand and gravel. | 0.0 | | | | *100%* | *No visual staining or chemical odor.* |
| | 20.0-23.0 | Fine sand, some gravel. | 0.0 | | | | *100%* | *No visual staining or chemical odor.* |
| | 23.0-24.0 | Fine sand, some silt. | 0.0 | | | | | |
| | | *End boring at 24 feet below grade (refusal). No groundwater observed.* | | | | | | |

| PROJECT: 016-006-10 | HOLE NO.: SB-9 |
|---|---|

| SOIL BORING LOG | | HOLE NUMBER SB-10A | |
|---|---|---|---|
| 1. COMPANY NAME URBAN GREEN ENVIRONMENTAL | 2. DRILL SUBCONTRACTOR GREEN SERVICES INC. | | SHEET 1 of 1 SHEETS |
| 3. PROJECT State Center Parcel G | | | |
| 7. NAME OF DRILLER Don | 8. MANUFACTURER'S DESIGNATION OF DRILL GEOPROBE 5410 | | |
| 9. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 2" X 4' MACROCORE<br>TYPE OF LINER USED, IF APPLICABLE HDPE | 10. SURFACE ELEVATION AND CONDITIONS Asphalt Paved - Former Bake House | | |
| 11. DIRECT READING PARAMETERS: VOCs (PID) | 12. DATE STARTED 7/31/2010 | 13. DATE COMPLETED 7/31/2010 | |
| 14. OVERBURDEN THICKNESS > 20 | 15. DEPTH GROUNDWATER ENCOUNTERED NA | | |
| 16. DEPTH DRILLED INTO ROCK NA | 17. DEPTH TO WATER AND ELAPSED TIME ATFER DRILLING COMPLETED NA | | |
| 18. TOTAL DEPTH OF HOLE 16 feet below grade | 19. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA | | |
| 20. WELL INSTALLED? NO / IF SO COMPLETE CONSTRUCTION DIAGRAM NA | SAMPLE TYPE: | | |
| 21. SAMPLE INTERVAL AND DESIGNATION FOR LAB ANALYSIS<br>**SB-10 0-1 SVOCs, PPL Metals**<br>**SB-10 4-5 VOCs, SVOCs, PPL Metals** | SAMPLE INTERVAL AND DESIGNATION FOR FIELD SCREENING ANALYSIS Every 2 feet for VOCs with a PID | | SCREENING ANALYSIS VOCs |
| 22. DISPOSITION OF HOLE | IF NOT A WELL, BACKFILLED WITH: Soil Cuttings / Bentonite | 23. GEOLOGIST | |

| USCS LOG (a) | DEPTH (FT) (b) | DESCRIPTION OF MATERIALS (c) | DIRECT READING (d) VOC (ppm) | DIRECT READING (d) Depth (ft) | ANALYTICAL SAMPLE DESIGN. (e) | DEPTH (FT) (f) | RECOVERY (FT) (g) | REMARKS |
|---|---|---|---|---|---|---|---|---|
| | 0-2.5 | Asphalt, gravel and sand (subbase). | 0.0 | | | | *75%* | *No visual staining or chemical odor.* |
| | 2.5-10.0 | FILL; sandy silt, some gravel. | 0.0 | | | | | |
| | | | 0.0 | | | | *75%* | *No visual staining or chemical odor.* |
| | | | 0.0 | | | | | |
| | | | 0.0 | | | | *75%* | *No visual staining or chemical odor.* |
| | 10.0-16.0 | Fine sand. | 0.0 | | | | | |
| | | | 0.0 | | | | *80%* | *No visual staining or chemical odor.* |
| | | | 0.0 | | | | | |
| | | *End boring at 16 feet below grade. No groundwater observed.* | | | | | | |
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| PROJECT: | HOLE NO.: |
|---|---|
| 016-006-10 | **SB-10A** |

| SOIL BORING LOG | | HOLE NUMBER SB-11A | |
|---|---|---|---|
| 1. COMPANY NAME URBAN GREEN ENVIRONMENTAL | 2. DRILL SUBCONTRACTOR GREEN SERVICES INC. | | SHEET 1 of 1 SHEETS |
| 3. PROJECT State Center Parcel G | | | |
| 7. NAME OF DRILLER Don | 8. MANUFACTURER'S DESIGNATION OF DRILL GEOPROBE 5410 | | |
| 9. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 2" X 4' MACROCORE<br>TYPE OF LINER USED, IF APPLICABLE HDPE | 10. SURFACE ELEVATION AND CONDITIONS Asphalt Paved - Former Bake House | | |
| 11. DIRECT READING PARAMETERS: VOCs (PID) | 12. DATE STARTED 7/31/2010 | 13. DATE COMPLETED 7/31/2010 | |
| 14. OVERBURDEN THICKNESS > 20 | 15. DEPTH GROUNDWATER ENCOUNTERED NA | | |
| 16. DEPTH DRILLED INTO ROCK NA | 17. DEPTH TO WATER AND ELAPSED TIME ATFER DRILLING COMPLETED NA | | |
| 18. TOTAL DEPTH OF HOLE 16 feet below grade | 19. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA | | |
| 20. WELL INSTALLED? NO / IF SO COMPLETE CONSTRUCTION DIAGRAM NA | SAMPLE TYPE: | | |
| 21. SAMPLE INTERVAL AND DESIGNATION FOR LAB ANALYSIS **No samples planned - if elevated PID reading or staining is observed, collect one 4-oz. soil jar from the soil interval. Submit to lab as a hold** | SAMPLE INTERVAL AND DESIGNATION FOR FIELD SCREENING ANALYSIS Every 2 feet for VOCs with a PID | | SCREENING ANALYSIS VOCs |
| 22. DISPOSITION OF HOLE | IF NOT A WELL, BACKFILLED WITH: Soil Cuttings / Bentonite | 23. GEOLOGIST | |

| USCS LOG (a) | DEPTH (FT) (b) | DESCRIPTION OF MATERIALS (c) | DIRECT READING (d) VOC (ppm) | DIRECT READING (d) Depth (ft) | ANALYTICAL SAMPLE DESIGN. (e) | DEPTH (FT) (f) | RECOVERY (FT) (g) | REMARKS |
|---|---|---|---|---|---|---|---|---|
| | 0-2.5 | Asphalt, gravel and sand (subbase). | 0.0 | | | | *50%* | *No visual staining or chemical odor.* |
| | 2.5-10.0 | FILL; sandy silt, some gravel. | 0.0 | | | | | |
| | | | 0.0 | | | | *100%* | *No visual staining or chemical odor.* |
| | | | 0.0 | | | | | |
| | | | 0.0 | | | | *90%* | *No visual staining or chemical odor.* |
| | 10.0-16.0 | Fine sand. | 0.0 | | | | | |
| | | | 0.0 | | | | *90%* | *No visual staining or chemical odor.* |
| | | | 0.0 | | | | | |
| | | *End boring at 16 feet below grade. No groundwater observed.* | | | | | | |
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| PROJECT: | HOLE NO.: |
|---|---|
| 016-006-10 | **SB-11A** |

| SOIL BORING LOG | | HOLE NUMBER SB-12 | |
|---|---|---|---|
| 1. COMPANY NAME URBAN GREEN ENVIRONMENTAL | 2. DRILL SUBCONTRACTOR GREEN SERVICES INC. | | SHEET 1 of 1 SHEETS |
| 3. PROJECT State Center Parcel G | | | |
| 7. NAME OF DRILLER Don | 8. MANUFACTURER'S DESIGNATION OF DRILL GEOPROBE 5410 | | |
| 9. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 2" X 4' MACROCORE<br>TYPE OF LINER USED, IF APPLICABLE HDPE | 10. SURFACE ELEVATION AND CONDITIONS Asphalt Paved - General Site Characterization - Northeast Corner | | |
| 11. DIRECT READING PARAMETERS: VOCs (PID) | 12. DATE STARTED 7/31/2010 | 13. DATE COMPLETED 7/31/2010 | |
| 14. OVERBURDEN THICKNESS > 20 | 15. DEPTH GROUNDWATER ENCOUNTERED NA | | |
| 16. DEPTH DRILLED INTO ROCK NA | 17. DEPTH TO WATER AND ELAPSED TIME ATFER DRILLING COMPLETED NA | | |
| 18. TOTAL DEPTH OF HOLE 20 feet below grade | 19. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA | | |
| 20. WELL INSTALLED? NO / IF SO COMPLETE CONSTRUCTION DIAGRAM NA | SAMPLE TYPE: | | |
| 21. SAMPLE INTERVAL AND DESIGNATION FOR LAB ANALYSIS **No samples planned - if elevated PID reading or staining is observed, collect one 4-oz. soil jar from the soil interval. Submit to lab as a hold** | SAMPLE INTERVAL AND DESIGNATION FOR FIELD SCREENING ANALYSIS Every 2 feet for VOCs with a PID | | SCREENING ANALYSIS VOCs |
| 22. DISPOSITION OF HOLE | IF NOT A WELL, BACKFILLED WITH: Soil Cuttings / Bentonite | 23. GEOLOGIST | |

| USCS LOG (a) | DEPTH (FT) (b) | DESCRIPTION OF MATERIALS (c) | DIRECT READING (d) VOC (ppm) | DIRECT READING (d) Depth (ft) | ANALYTICAL SAMPLE DESIGN. (e) | DEPTH (FT) (f) | RECOVERY (FT) (g) | REMARKS |
|---|---|---|---|---|---|---|---|---|
| | 0-0.5 | Asphalt, gravel and sand (subbase). | 0.0 | | | | | |
| | 0.5-5.0 | FILL, sandy silt, some gravel. | 0.0 | | | | *50%* | *No visual staining or chemical odor.* |
| | 5.0-15.0 | Clayey sand and silt, little gravel. | 0.0<br>0.0 | | | | *75%* | *No visual staining or chemical odor.* |
| | | | 0.0<br>0.0 | | | | *100%* | *No visual staining or chemical odor.* |
| | | | 0.0<br>0.0 | | | | *90%* | *No visual staining or chemical odor.* |
| | 15.0-17.0 | Medium to fine sandy silt. | | | | | | |
| | 17.0-20.0 | Fine to medium sand. | 0.0<br>0.0 | | | | *100%* | *No visual staining or chemical odor.* |
| | | *End boring at 20 feet below grade. No groundwater observed.* | | | | | | |
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| PROJECT: 016-006-10 | HOLE NO.: SB-12 |
|---|---|

**APPENDIX C**

LABORATORY ANALYTICAL REPORT

# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

Urban Green Environmental
3634 Beech Ave.
Baltimore, MD 21211

Date Sampled: 07/31/10 8:30
Date Received: 08/02/10 11:50
Date Issued: 08/12/10

Project: State Center - Parcel G
Site Location: Baltimore City
Project Number: 016-006-10

**SDG Number: 10080203**

**Field Sample ID: SB-8 0-1** **Matrix: Soil** **Lab ID: 10080203-01**

| | Result | Unit | LLQ | Method | Prepared | Analyzed | Init. |
|---|---|---|---|---|---|---|---|
| **Percent Solids** | | | | | | | |
| Percent Solids | **90** | % | | SM2540G | 08/03/10 | 08/03/10 15:38 | LMJ |
| **Polycyclic Aromatic Hydrocarbons (SIM)** | | | | | | | |
| Acenaphthene | ND | ug/kg | 5 | EPA 8270C | 08/09/10 | 08/10/10 10:13 | CBS |
| Acenaphthylene | ND | ug/kg | 5 | EPA 8270C | 08/09/10 | 08/10/10 10:13 | CBS |
| Anthracene | ND | ug/kg | 5 | EPA 8270C | 08/09/10 | 08/10/10 10:13 | CBS |
| Benzo[a]anthracene | ND | ug/kg | 5 | EPA 8270C | 08/09/10 | 08/10/10 10:13 | CBS |
| Benzo[a]pyrene | ND | ug/kg | 5 | EPA 8270C | 08/09/10 | 08/10/10 10:13 | CBS |
| Benzo[b]fluoranthene | ND | ug/kg | 5 | EPA 8270C | 08/09/10 | 08/10/10 10:13 | CBS |
| Benzo[g,h,i]perylene | ND | ug/kg | 5 | EPA 8270C | 08/09/10 | 08/10/10 10:13 | CBS |
| Benzo[k]fluoranthene | ND | ug/kg | 5 | EPA 8270C | 08/09/10 | 08/10/10 10:13 | CBS |
| Chrysene | ND | ug/kg | 5 | EPA 8270C | 08/09/10 | 08/10/10 10:13 | CBS |
| Dibenz[a,h]anthracene | ND | ug/kg | 5 | EPA 8270C | 08/09/10 | 08/10/10 10:13 | CBS |
| Fluoranthene | ND | ug/kg | 5 | EPA 8270C | 08/09/10 | 08/10/10 10:13 | CBS |
| Fluorene | ND | ug/kg | 5 | EPA 8270C | 08/09/10 | 08/10/10 10:13 | CBS |
| Indeno[1,2,3-cd]pyrene | ND | ug/kg | 5 | EPA 8270C | 08/09/10 | 08/10/10 10:13 | CBS |
| 2-Methylnaphthalene | ND | ug/kg | 5 | EPA 8270C | 08/09/10 | 08/10/10 10:13 | CBS |
| Naphthalene` | ND | ug/kg | 5 | EPA 8270C | 08/09/10 | 08/10/10 10:13 | CBS |
| Phenanthrene | ND | ug/kg | 5 | EPA 8270C | 08/09/10 | 08/10/10 10:13 | CBS |
| Pyrene | ND | ug/kg | 5 | EPA 8270C | 08/09/10 | 08/10/10 10:13 | CBS |
| **Target Compound List - SEMIVOLATILES** | | | | | | | |
| Phenol | ND | ug/kg | 100 | EPA 8270C | 08/09/10 | 08/10/10 12:13 | CBS |
| Bis (2-chloroethyl) ether | ND | ug/kg | 100 | EPA 8270C | 08/09/10 | 08/10/10 12:13 | CBS |
| 2-Chlorophenol | ND | ug/kg | 100 | EPA 8270C | 08/09/10 | 08/10/10 12:13 | CBS |
| 2-Methylphenol | ND | ug/kg | 100 | EPA 8270C | 08/09/10 | 08/10/10 12:13 | CBS |
| Bis (2-chloroisopropyl) ether | ND | ug/kg | 100 | EPA 8270C | 08/09/10 | 08/10/10 12:13 | CBS |
| Acetophenone | ND | ug/kg | 100 | EPA 8270C | 08/09/10 | 08/10/10 12:13 | CBS |
| 4-Methylphenol | ND | ug/kg | 100 | EPA 8270C | 08/09/10 | 08/10/10 12:13 | CBS |
| N-Nitroso-di-n-propylamine | ND | ug/kg | 100 | EPA 8270C | 08/09/10 | 08/10/10 12:13 | CBS |
| Hexachloroethane | ND | ug/kg | 100 | EPA 8270C | 08/09/10 | 08/10/10 12:13 | CBS |
| Nitrobenzene | ND | ug/kg | 100 | EPA 8270C | 08/09/10 | 08/10/10 12:13 | CBS |
| Isophorone | ND | ug/kg | 100 | EPA 8270C | 08/09/10 | 08/10/10 12:13 | CBS |
| 2-Nitrophenol | ND | ug/kg | 100 | EPA 8270C | 08/09/10 | 08/10/10 12:13 | CBS |
| 2,4-Dimethylphenol | ND | ug/kg | 100 | EPA 8270C | 08/09/10 | 08/10/10 12:13 | CBS |
| Bis (2-chloroethoxy) methane | ND | ug/kg | 100 | EPA 8270C | 08/09/10 | 08/10/10 12:13 | CBS |
| 2,4-Dichlorophenol | ND | ug/kg | 100 | EPA 8270C | 08/09/10 | 08/10/10 12:13 | CBS |
| 4-Chloroaniline | ND | ug/kg | 100 | EPA 8270C | 08/09/10 | 08/10/10 12:13 | CBS |
| Hexachlorobutadiene` | ND | ug/kg | 100 | EPA 8270C | 08/09/10 | 08/10/10 12:13 | CBS |
| Caprolactam | ND | ug/kg | 100 | EPA 8270C | 08/09/10 | 08/10/10 12:13 | CBS |
| 4-Chloro-3-methylphenol | ND | ug/kg | 100 | EPA 8270C | 08/09/10 | 08/10/10 12:13 | CBS |



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# Certificate of Analysis

Urban Green Environmental
3634 Beech Ave.
Baltimore, MD 21211

Date Sampled: 07/31/10 8:30
Date Received: 08/02/10 11:50
Date Issued: 08/12/10

Project: State Center - Parcel G
Site Location: Baltimore City
Project Number: 016-006-10

**SDG Number: 10080203**

**Field Sample ID: SB-8 0-1** **Matrix: Soil** **Lab ID: 10080203-01**

| | Result | Unit | LLQ | Method | Prepared | Analyzed | Init. |
|---|---|---|---|---|---|---|---|
| **Target Compound List - SEMIVOLATILES** | | | | | | | |
| Hexachlorocyclopentadiene | ND | ug/kg | 100 | EPA 8270C | 08/09/10 | 08/10/10 12:13 | CBS |
| 2,4,6-Trichlorophenol | ND | ug/kg | 100 | EPA 8270C | 08/09/10 | 08/10/10 12:13 | CBS |
| 2,4,5-Trichlorophenol | ND | ug/kg | 250 | EPA 8270C | 08/09/10 | 08/10/10 12:13 | CBS |
| 1,1-Biphenyl | ND | ug/kg | 100 | EPA 8270C | 08/09/10 | 08/10/10 12:13 | CBS |
| 2-Chloronaphthalene | ND | ug/kg | 100 | EPA 8270C | 08/09/10 | 08/10/10 12:13 | CBS |
| 2-Nitroaniline | ND | ug/kg | 250 | EPA 8270C | 08/09/10 | 08/10/10 12:13 | CBS |
| Dimethyl phthalate | ND | ug/kg | 100 | EPA 8270C | 08/09/10 | 08/10/10 12:13 | CBS |
| 2,6-Dinitrotoluene | ND | ug/kg | 100 | EPA 8270C | 08/09/10 | 08/10/10 12:13 | CBS |
| 3-Nitroaniline | ND | ug/kg | 250 | EPA 8270C | 08/09/10 | 08/10/10 12:13 | CBS |
| 2,4-Dinitrophenol | ND | ug/kg | 250 | EPA 8270C | 08/09/10 | 08/10/10 12:13 | CBS |
| 4-Nitrophenol | ND | ug/kg | 250 | EPA 8270C | 08/09/10 | 08/10/10 12:13 | CBS |
| Dibenzofuran | ND | ug/kg | 100 | EPA 8270C | 08/09/10 | 08/10/10 12:13 | CBS |
| 2,4-Dinitrotoluene | ND | ug/kg | 100 | EPA 8270C | 08/09/10 | 08/10/10 12:13 | CBS |
| Diethyl phthalate | ND | ug/kg | 100 | EPA 8270C | 08/09/10 | 08/10/10 12:13 | CBS |
| 4-Chlorophenyl phenyl ether | ND | ug/kg | 100 | EPA 8270C | 08/09/10 | 08/10/10 12:13 | CBS |
| 4-Nitroaniline | ND | ug/kg | 250 | EPA 8270C | 08/09/10 | 08/10/10 12:13 | CBS |
| 4,6-Dinitro-2-methylphenol | ND | ug/kg | 230 | EPA 8270C | 08/09/10 | 08/10/10 12:13 | CBS |
| N-Nitrosodiphenylamine | ND | ug/kg | 100 | EPA 8270C | 08/09/10 | 08/10/10 12:13 | CBS |
| 4-Bromophenyl phenyl ether | ND | ug/kg | 100 | EPA 8270C | 08/09/10 | 08/10/10 12:13 | CBS |
| Hexachlorobenzene | ND | ug/kg | 100 | EPA 8270C | 08/09/10 | 08/10/10 12:13 | CBS |
| Atrazine | ND | ug/kg | 100 | EPA 8270C | 08/09/10 | 08/10/10 12:13 | CBS |
| Pentachlorophenol | ND | ug/kg | 250 | EPA 8270C | 08/09/10 | 08/10/10 12:13 | CBS |
| Carbazole | ND | ug/kg | 100 | EPA 8270C | 08/09/10 | 08/10/10 12:13 | CBS |
| Di-n-butyl phthalate | ND | ug/kg | 100 | EPA 8270C | 08/09/10 | 08/10/10 12:13 | CBS |
| Butyl benzyl phthalate | ND | ug/kg | 100 | EPA 8270C | 08/09/10 | 08/10/10 12:13 | CBS |
| 3,3-Dichlorobenzidine | ND | ug/kg | 100 | EPA 8270C | 08/09/10 | 08/10/10 12:13 | CBS |
| Bis (2-ethylhexyl) phthalate | ND | ug/kg | 100 | EPA 8270C | 08/09/10 | 08/10/10 12:13 | CBS |
| Di-n-octyl phthalate | ND | ug/kg | 100 | EPA 8270C | 08/09/10 | 08/10/10 12:13 | CBS |
| **Total Metals** | | | | | | | |
| Antimony | ND | mg/kg | 2.1 | EPA 6020A | 08/04/10 | 08/04/10 13:40 | MEL |
| Arsenic | **0.89** | mg/kg | 0.42 | EPA 6020A | 08/04/10 | 08/04/10 13:40 | MEL |
| Beryllium | ND | mg/kg | 2.1 | EPA 6020A | 08/04/10 | 08/04/10 13:40 | MEL |
| Cadmium | ND | mg/kg | 2.1 | EPA 6020A | 08/04/10 | 08/04/10 13:40 | MEL |
| Chromium | **16** | mg/kg | 2.1 | EPA 6020A | 08/04/10 | 08/04/10 13:40 | MEL |
| Copper | **5.5** | mg/kg | 2.1 | EPA 6020A | 08/04/10 | 08/04/10 13:40 | MEL |
| Lead | **7.3** | mg/kg | 2.1 | EPA 6020A | 08/04/10 | 08/04/10 13:40 | MEL |
| Mercury | **0.12** | mg/kg | 0.085 | EPA 6020A | 08/04/10 | 08/04/10 13:40 | MEL |
| Nickel | **2.2** | mg/kg | 2.1 | EPA 6020A | 08/04/10 | 08/04/10 13:40 | MEL |
| Selenium | ND | mg/kg | 2.1 | EPA 6020A | 08/04/10 | 08/04/10 13:40 | MEL |



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# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

Urban Green Environmental
3634 Beech Ave.
Baltimore, MD 21211

Date Sampled: 07/31/10 8:30
Date Received: 08/02/10 11:50
Date Issued: 08/12/10

Project: State Center - Parcel G
Site Location: Baltimore City
Project Number: 016-006-10

**SDG Number: 10080203**

**Field Sample ID: SB-8 0-1** **Matrix: Soil** **Lab ID: 10080203-01**

| | Result | Unit | LLQ | Method | Prepared | Analyzed | Init. |
|---|---|---|---|---|---|---|---|
| **Total Metals** | | | | | | | |
| Silver | ND | mg/kg | 2.1 | EPA 6020A | 08/04/10 | 08/04/10 13:40 | MEL |
| Thallium | ND | mg/kg | 1.7 | EPA 6020A | 08/04/10 | 08/04/10 13:40 | MEL |
| Zinc | **32** | mg/kg | 2.1 | EPA 6020A | 08/04/10 | 08/04/10 13:40 | MEL |

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

Approved by: Matt Ocker
QC Chemist



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Date Sampled: 07/31/10 8:30
Date Received: 08/02/10 11:50
Date Issued: 08/12/10

Project: State Center - Parcel G
Site Location: Baltimore City
Project Number: 016-006-10

**SDG Number: 10080203**

**Field Sample ID: SB-8 4-5** **Matrix: Soil** **Lab ID: 10080203-02**

| | Result | Unit | LLQ | Method | Prepared | Analyzed | Init. |
|---|---|---|---|---|---|---|---|
| **Chlorinated Herbicides** | | | | | | | |
| Dicamba | ND | ug/kg | 22 | EPA 8151A | 08/09/10 | 08/11/10 12:33 | AC |
| MCPP | ND | ug/kg | 2200 | EPA 8151A | 08/09/10 | 08/11/10 12:33 | AC |
| MCPA | ND | ug/kg | 2200 | EPA 8151A | 08/09/10 | 08/11/10 12:33 | AC |
| Dichloroprop | ND | ug/kg | 22 | EPA 8151A | 08/09/10 | 08/11/10 12:33 | AC |
| 2,4-D | ND | ug/kg | 22 | EPA 8151A | 08/09/10 | 08/11/10 12:33 | AC |
| 2,4,5-TP (Silvex) | ND | ug/kg | 22 | EPA 8151A | 08/09/10 | 08/11/10 12:33 | AC |
| 2,4,5-T | ND | ug/kg | 22 | EPA 8151A | 08/09/10 | 08/11/10 12:33 | AC |
| Dinoseb | ND | ug/kg | 22 | EPA 8151A | 08/09/10 | 08/11/10 12:33 | AC |
| 2,4-DB | ND | ug/kg | 22 | EPA 8151A | 08/09/10 | 08/11/10 12:33 | AC |
| **Organochlorine Pesticides** | | | | | | | |
| Aldrin | ND | ug/kg | 10 | EPA 8081A | 08/04/10 | 08/09/10 14:32 | AC |
| a-BHC | ND | ug/kg | 10 | EPA 8081A | 08/04/10 | 08/09/10 14:32 | AC |
| b-BHC | ND | ug/kg | 10 | EPA 8081A | 08/04/10 | 08/09/10 14:32 | AC |
| g-BHC (Lindane) | ND | ug/kg | 10 | EPA 8081A | 08/04/10 | 08/09/10 14:32 | AC |
| d-BHC | ND | ug/kg | 10 | EPA 8081A | 08/04/10 | 08/09/10 14:32 | AC |
| a-Chlordane | ND | ug/kg | 10 | EPA 8081A | 08/04/10 | 08/09/10 14:32 | AC |
| g-Chlordane | ND | ug/kg | 10 | EPA 8081A | 08/04/10 | 08/09/10 14:32 | AC |
| 4,4-DDD | ND | ug/kg | 10 | EPA 8081A | 08/04/10 | 08/09/10 14:32 | AC |
| 4,4-DDE | ND | ug/kg | 10 | EPA 8081A | 08/04/10 | 08/09/10 14:32 | AC |
| 4,4-DDT | ND | ug/kg | 10 | EPA 8081A | 08/04/10 | 08/09/10 14:32 | AC |
| Dieldrin | ND | ug/kg | 10 | EPA 8081A | 08/04/10 | 08/09/10 14:32 | AC |
| Endosulfan I | ND | ug/kg | 10 | EPA 8081A | 08/04/10 | 08/09/10 14:32 | AC |
| Endosulfan II | ND | ug/kg | 10 | EPA 8081A | 08/04/10 | 08/09/10 14:32 | AC |
| Endosulfan Sulfate | ND | ug/kg | 10 | EPA 8081A | 08/04/10 | 08/09/10 14:32 | AC |
| Endrin | ND | ug/kg | 10 | EPA 8081A | 08/04/10 | 08/09/10 14:32 | AC |
| Endrin Aldehyde | ND | ug/kg | 10 | EPA 8081A | 08/04/10 | 08/09/10 14:32 | AC |
| Endrin Ketone | ND | ug/kg | 10 | EPA 8081A | 08/04/10 | 08/09/10 14:32 | AC |
| Heptachlor | ND | ug/kg | 10 | EPA 8081A | 08/04/10 | 08/09/10 14:32 | AC |
| Heptachlor Epoxide | ND | ug/kg | 10 | EPA 8081A | 08/04/10 | 08/09/10 14:32 | AC |
| Methoxychlor | ND | ug/kg | 10 | EPA 8081A | 08/04/10 | 08/09/10 14:32 | AC |
| Toxaphene | ND | ug/kg | 100 | EPA 8081A | 08/04/10 | 08/09/10 14:32 | AC |
| **Percent Solids** | | | | | | | |
| Percent Solids | **95** | % | | SM2540G | 08/03/10 | 08/03/10 15:38 | LMJ |
| **Polychlorinated Biphenyls** | | | | | | | |
| Aroclor 1016 | ND | mg/kg | 0.05 | EPA 8082 | 08/05/10 | 08/09/10 11:55 | AC |
| Aroclor 1221 | ND | mg/kg | 0.05 | EPA 8082 | 08/05/10 | 08/09/10 11:55 | AC |
| Aroclor 1232 | ND | mg/kg | 0.05 | EPA 8082 | 08/05/10 | 08/09/10 11:55 | AC |
| Aroclor 1242 | ND | mg/kg | 0.05 | EPA 8082 | 08/05/10 | 08/09/10 11:55 | AC |
| Aroclor 1248 | ND | mg/kg | 0.05 | EPA 8082 | 08/05/10 | 08/09/10 11:55 | AC |



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Date Sampled: 07/31/10 8:30
Date Received: 08/02/10 11:50
Date Issued: 08/12/10

Project: State Center - Parcel G
Site Location: Baltimore City
Project Number: 016-006-10

**SDG Number: 10080203**

**Field Sample ID: SB-8 4-5** **Matrix: Soil** **Lab ID: 10080203-02**

| | Result | Unit | LLQ | Method | Prepared | Analyzed | Init. |
|---|---|---|---|---|---|---|---|
| **Polychlorinated Biphenyls** | | | | | | | |
| Aroclor 1254 | ND | mg/kg | 0.05 | EPA 8082 | 08/05/10 | 08/09/10 11:55 | AC |
| Aroclor 1260 | ND | mg/kg | 0.05 | EPA 8082 | 08/05/10 | 08/09/10 11:55 | AC |
| **Polycyclic Aromatic Hydrocarbons (SIM)** | | | | | | | |
| Acenaphthene | ND | ug/kg | 5 | EPA 8270C | 08/09/10 | 08/10/10 10:52 | CBS |
| Acenaphthylene | ND | ug/kg | 5 | EPA 8270C | 08/09/10 | 08/10/10 10:52 | CBS |
| Anthracene | ND | ug/kg | 5 | EPA 8270C | 08/09/10 | 08/10/10 10:52 | CBS |
| Benzo[a]anthracene | ND | ug/kg | 5 | EPA 8270C | 08/09/10 | 08/10/10 10:52 | CBS |
| Benzo[a]pyrene | ND | ug/kg | 5 | EPA 8270C | 08/09/10 | 08/10/10 10:52 | CBS |
| Benzo[b]fluoranthene | ND | ug/kg | 5 | EPA 8270C | 08/09/10 | 08/10/10 10:52 | CBS |
| Benzo[g,h,i]perylene | ND | ug/kg | 5 | EPA 8270C | 08/09/10 | 08/10/10 10:52 | CBS |
| Benzo[k]fluoranthene | ND | ug/kg | 5 | EPA 8270C | 08/09/10 | 08/10/10 10:52 | CBS |
| Chrysene | ND | ug/kg | 5 | EPA 8270C | 08/09/10 | 08/10/10 10:52 | CBS |
| Dibenz[a,h]anthracene | ND | ug/kg | 5 | EPA 8270C | 08/09/10 | 08/10/10 10:52 | CBS |
| Fluoranthene | ND | ug/kg | 5 | EPA 8270C | 08/09/10 | 08/10/10 10:52 | CBS |
| Fluorene | ND | ug/kg | 5 | EPA 8270C | 08/09/10 | 08/10/10 10:52 | CBS |
| Indeno[1,2,3-cd]pyrene | ND | ug/kg | 5 | EPA 8270C | 08/09/10 | 08/10/10 10:52 | CBS |
| 2-Methylnaphthalene | ND | ug/kg | 5 | EPA 8270C | 08/09/10 | 08/10/10 10:52 | CBS |
| Naphthalene` | ND | ug/kg | 5 | EPA 8270C | 08/09/10 | 08/10/10 10:52 | CBS |
| Phenanthrene | ND | ug/kg | 5 | EPA 8270C | 08/09/10 | 08/10/10 10:52 | CBS |
| Pyrene | ND | ug/kg | 5 | EPA 8270C | 08/09/10 | 08/10/10 10:52 | CBS |
| **Target Compound List - SEMIVOLATILES** | | | | | | | |
| Phenol | ND | ug/kg | 95 | EPA 8270C | 08/09/10 | 08/10/10 12:53 | CBS |
| Bis (2-chloroethyl) ether | ND | ug/kg | 95 | EPA 8270C | 08/09/10 | 08/10/10 12:53 | CBS |
| 2-Chlorophenol | ND | ug/kg | 95 | EPA 8270C | 08/09/10 | 08/10/10 12:53 | CBS |
| 2-Methylphenol | ND | ug/kg | 95 | EPA 8270C | 08/09/10 | 08/10/10 12:53 | CBS |
| Bis (2-chloroisopropyl) ether | ND | ug/kg | 95 | EPA 8270C | 08/09/10 | 08/10/10 12:53 | CBS |
| Acetophenone | ND | ug/kg | 95 | EPA 8270C | 08/09/10 | 08/10/10 12:53 | CBS |
| 4-Methylphenol | ND | ug/kg | 95 | EPA 8270C | 08/09/10 | 08/10/10 12:53 | CBS |
| N-Nitroso-di-n-propylamine | ND | ug/kg | 95 | EPA 8270C | 08/09/10 | 08/10/10 12:53 | CBS |
| Hexachloroethane | ND | ug/kg | 95 | EPA 8270C | 08/09/10 | 08/10/10 12:53 | CBS |
| Nitrobenzene | ND | ug/kg | 95 | EPA 8270C | 08/09/10 | 08/10/10 12:53 | CBS |
| Isophorone | ND | ug/kg | 95 | EPA 8270C | 08/09/10 | 08/10/10 12:53 | CBS |
| 2-Nitrophenol | ND | ug/kg | 95 | EPA 8270C | 08/09/10 | 08/10/10 12:53 | CBS |
| 2,4-Dimethylphenol | ND | ug/kg | 95 | EPA 8270C | 08/09/10 | 08/10/10 12:53 | CBS |
| Bis (2-chloroethoxy) methane | ND | ug/kg | 95 | EPA 8270C | 08/09/10 | 08/10/10 12:53 | CBS |
| 2,4-Dichlorophenol | ND | ug/kg | 95 | EPA 8270C | 08/09/10 | 08/10/10 12:53 | CBS |
| 4-Chloroaniline | ND | ug/kg | 95 | EPA 8270C | 08/09/10 | 08/10/10 12:53 | CBS |
| Hexachlorobutadiene` | ND | ug/kg | 95 | EPA 8270C | 08/09/10 | 08/10/10 12:53 | CBS |
| Caprolactam | ND | ug/kg | 95 | EPA 8270C | 08/09/10 | 08/10/10 12:53 | CBS |



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# Certificate of Analysis

Urban Green Environmental
3634 Beech Ave.
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Date Sampled: 07/31/10 8:30
Date Received: 08/02/10 11:50
Date Issued: 08/12/10

Project: State Center - Parcel G
Site Location: Baltimore City
Project Number: 016-006-10

**SDG Number: 10080203**

**Field Sample ID: SB-8 4-5** **Matrix: Soil** **Lab ID: 10080203-02**

| | Result | Unit | LLQ | Method | Prepared | Analyzed | Init. |
|---|---|---|---|---|---|---|---|
| **Target Compound List - SEMIVOLATILES** | | | | | | | |
| 4-Chloro-3-methylphenol | ND | ug/kg | 95 | EPA 8270C | 08/09/10 | 08/10/10 12:53 | CBS |
| Hexachlorocyclopentadiene | ND | ug/kg | 95 | EPA 8270C | 08/09/10 | 08/10/10 12:53 | CBS |
| 2,4,6-Trichlorophenol | ND | ug/kg | 95 | EPA 8270C | 08/09/10 | 08/10/10 12:53 | CBS |
| 2,4,5-Trichlorophenol | ND | ug/kg | 240 | EPA 8270C | 08/09/10 | 08/10/10 12:53 | CBS |
| 1,1-Biphenyl | ND | ug/kg | 95 | EPA 8270C | 08/09/10 | 08/10/10 12:53 | CBS |
| 2-Chloronaphthalene | ND | ug/kg | 95 | EPA 8270C | 08/09/10 | 08/10/10 12:53 | CBS |
| 2-Nitroaniline | ND | ug/kg | 240 | EPA 8270C | 08/09/10 | 08/10/10 12:53 | CBS |
| Dimethyl phthalate | ND | ug/kg | 95 | EPA 8270C | 08/09/10 | 08/10/10 12:53 | CBS |
| 2,6-Dinitrotoluene | ND | ug/kg | 95 | EPA 8270C | 08/09/10 | 08/10/10 12:53 | CBS |
| 3-Nitroaniline | ND | ug/kg | 240 | EPA 8270C | 08/09/10 | 08/10/10 12:53 | CBS |
| 2,4-Dinitrophenol | ND | ug/kg | 240 | EPA 8270C | 08/09/10 | 08/10/10 12:53 | CBS |
| 4-Nitrophenol | ND | ug/kg | 240 | EPA 8270C | 08/09/10 | 08/10/10 12:53 | CBS |
| Dibenzofuran | ND | ug/kg | 95 | EPA 8270C | 08/09/10 | 08/10/10 12:53 | CBS |
| 2,4-Dinitrotoluene | ND | ug/kg | 95 | EPA 8270C | 08/09/10 | 08/10/10 12:53 | CBS |
| Diethyl phthalate | ND | ug/kg | 95 | EPA 8270C | 08/09/10 | 08/10/10 12:53 | CBS |
| 4-Chlorophenyl phenyl ether | ND | ug/kg | 95 | EPA 8270C | 08/09/10 | 08/10/10 12:53 | CBS |
| 4-Nitroaniline | ND | ug/kg | 240 | EPA 8270C | 08/09/10 | 08/10/10 12:53 | CBS |
| 4,6-Dinitro-2-methylphenol | ND | ug/kg | 220 | EPA 8270C | 08/09/10 | 08/10/10 12:53 | CBS |
| N-Nitrosodiphenylamine | ND | ug/kg | 95 | EPA 8270C | 08/09/10 | 08/10/10 12:53 | CBS |
| 4-Bromophenyl phenyl ether | ND | ug/kg | 95 | EPA 8270C | 08/09/10 | 08/10/10 12:53 | CBS |
| Hexachlorobenzene | ND | ug/kg | 95 | EPA 8270C | 08/09/10 | 08/10/10 12:53 | CBS |
| Atrazine | ND | ug/kg | 95 | EPA 8270C | 08/09/10 | 08/10/10 12:53 | CBS |
| Pentachlorophenol | ND | ug/kg | 240 | EPA 8270C | 08/09/10 | 08/10/10 12:53 | CBS |
| Carbazole | ND | ug/kg | 95 | EPA 8270C | 08/09/10 | 08/10/10 12:53 | CBS |
| Di-n-butyl phthalate | ND | ug/kg | 95 | EPA 8270C | 08/09/10 | 08/10/10 12:53 | CBS |
| Butyl benzyl phthalate | ND | ug/kg | 95 | EPA 8270C | 08/09/10 | 08/10/10 12:53 | CBS |
| 3,3-Dichlorobenzidine | ND | ug/kg | 95 | EPA 8270C | 08/09/10 | 08/10/10 12:53 | CBS |
| Bis (2-ethylhexyl) phthalate | ND | ug/kg | 95 | EPA 8270C | 08/09/10 | 08/10/10 12:53 | CBS |
| Di-n-octyl phthalate | ND | ug/kg | 95 | EPA 8270C | 08/09/10 | 08/10/10 12:53 | CBS |
| **Target Compound List - VOLATILES** | | | | | | | |
| Dichlorodifluoromethane | ND | ug/kg | 6 | EPA 8260B | 08/03/10 | 08/03/10 14:50 | JKL |
| Chloromethane | ND | ug/kg | 6 | EPA 8260B | 08/03/10 | 08/03/10 14:50 | JKL |
| Vinyl chloride | ND | ug/kg | 6 | EPA 8260B | 08/03/10 | 08/03/10 14:50 | JKL |
| Bromomethane | ND | ug/kg | 6 | EPA 8260B | 08/03/10 | 08/03/10 14:50 | JKL |
| Chloroethane | ND | ug/kg | 6 | EPA 8260B | 08/03/10 | 08/03/10 14:50 | JKL |
| Trichlorofluoromethane | ND | ug/kg | 6 | EPA 8260B | 08/03/10 | 08/03/10 14:50 | JKL |
| 1,1-Dichloroethene | ND | ug/kg | 6 | EPA 8260B | 08/03/10 | 08/03/10 14:50 | JKL |
| 1,1,2-Trichlorotrifluoroethane | ND | ug/kg | 6 | EPA 8260B | 08/03/10 | 08/03/10 14:50 | JKL |
| Acetone | ND | ug/kg | 56 | EPA 8260B | 08/03/10 | 08/03/10 14:50 | JKL |



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Urban Green Environmental
3634 Beech Ave.
Baltimore, MD 21211

Date Sampled: 07/31/10 8:30
Date Received: 08/02/10 11:50
Date Issued: 08/12/10

Project: State Center - Parcel G
Site Location: Baltimore City
Project Number: 016-006-10

**SDG Number: 10080203**

**Field Sample ID: SB-8 4-5** **Matrix: Soil** **Lab ID: 10080203-02**

| | Result | Unit | LLQ | Method | Prepared | Analyzed | Init. |
|---|---|---|---|---|---|---|---|
| **Target Compound List - VOLATILES** | | | | | | | |
| Carbon disulfide | ND | ug/kg | 11 | EPA 8260B | 08/03/10 | 08/03/10 14:50 | JKL |
| Methyl acetate | ND | ug/kg | 28 | EPA 8260B | 08/03/10 | 08/03/10 14:50 | JKL |
| Methylene chloride | ND | ug/kg | 28 | EPA 8260B | 08/03/10 | 08/03/10 14:50 | JKL |
| trans-1,2-Dichloroethene | ND | ug/kg | 6 | EPA 8260B | 08/03/10 | 08/03/10 14:50 | JKL |
| Methyl t-butyl ether (MTBE) | ND | ug/kg | 6 | EPA 8260B | 08/03/10 | 08/03/10 14:50 | JKL |
| 1,1-Dichloroethane | ND | ug/kg | 6 | EPA 8260B | 08/03/10 | 08/03/10 14:50 | JKL |
| cis-1,2-Dichloroethene | ND | ug/kg | 6 | EPA 8260B | 08/03/10 | 08/03/10 14:50 | JKL |
| 2-Butanone (MEK) | ND | ug/kg | 56 | EPA 8260B | 08/03/10 | 08/03/10 14:50 | JKL |
| Chloroform | ND | ug/kg | 6 | EPA 8260B | 08/03/10 | 08/03/10 14:50 | JKL |
| 1,1,1-Trichloroethane | ND | ug/kg | 6 | EPA 8260B | 08/03/10 | 08/03/10 14:50 | JKL |
| Cyclohexane | ND | ug/kg | 6 | EPA 8260B | 08/03/10 | 08/03/10 14:50 | JKL |
| Carbon tetrachloride | ND | ug/kg | 6 | EPA 8260B | 08/03/10 | 08/03/10 14:50 | JKL |
| Benzene | ND | ug/kg | 6 | EPA 8260B | 08/03/10 | 08/03/10 14:50 | JKL |
| 1,2-Dichloroethane | ND | ug/kg | 6 | EPA 8260B | 08/03/10 | 08/03/10 14:50 | JKL |
| Trichloroethene | ND | ug/kg | 6 | EPA 8260B | 08/03/10 | 08/03/10 14:50 | JKL |
| Methylcyclohexane | ND | ug/kg | 6 | EPA 8260B | 08/03/10 | 08/03/10 14:50 | JKL |
| 1,2-Dichloropropane | ND | ug/kg | 6 | EPA 8260B | 08/03/10 | 08/03/10 14:50 | JKL |
| Bromodichloromethane | ND | ug/kg | 6 | EPA 8260B | 08/03/10 | 08/03/10 14:50 | JKL |
| cis-1,3-Dichloropropene | ND | ug/kg | 6 | EPA 8260B | 08/03/10 | 08/03/10 14:50 | JKL |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/kg | 11 | EPA 8260B | 08/03/10 | 08/03/10 14:50 | JKL |
| Toluene | ND | ug/kg | 6 | EPA 8260B | 08/03/10 | 08/03/10 14:50 | JKL |
| trans-1,3-Dichloropropene | ND | ug/kg | 6 | EPA 8260B | 08/03/10 | 08/03/10 14:50 | JKL |
| 1,1,2-Trichloroethane | ND | ug/kg | 6 | EPA 8260B | 08/03/10 | 08/03/10 14:50 | JKL |
| Tetrachloroethene | ND | ug/kg | 6 | EPA 8260B | 08/03/10 | 08/03/10 14:50 | JKL |
| 2-Hexanone (MBK) | ND | ug/kg | 11 | EPA 8260B | 08/03/10 | 08/03/10 14:50 | JKL |
| Dibromochloromethane | ND | ug/kg | 6 | EPA 8260B | 08/03/10 | 08/03/10 14:50 | JKL |
| 1,2-Dibromoethane | ND | ug/kg | 6 | EPA 8260B | 08/03/10 | 08/03/10 14:50 | JKL |
| Chlorobenzene | ND | ug/kg | 6 | EPA 8260B | 08/03/10 | 08/03/10 14:50 | JKL |
| Ethylbenzene | ND | ug/kg | 6 | EPA 8260B | 08/03/10 | 08/03/10 14:50 | JKL |
| m&p-Xylene | ND | ug/kg | 11 | EPA 8260B | 08/03/10 | 08/03/10 14:50 | JKL |
| o-Xylene | ND | ug/kg | 6 | EPA 8260B | 08/03/10 | 08/03/10 14:50 | JKL |
| Styrene | ND | ug/kg | 6 | EPA 8260B | 08/03/10 | 08/03/10 14:50 | JKL |
| Bromoform | ND | ug/kg | 6 | EPA 8260B | 08/03/10 | 08/03/10 14:50 | JKL |
| Isopropylbenzene | ND | ug/kg | 6 | EPA 8260B | 08/03/10 | 08/03/10 14:50 | JKL |
| 1,1,2,2-Tetrachloroethane | ND | ug/kg | 6 | EPA 8260B | 08/03/10 | 08/03/10 14:50 | JKL |
| 1,3-Dichlorobenzene | ND | ug/kg | 6 | EPA 8260B | 08/03/10 | 08/03/10 14:50 | JKL |
| 1,4-Dichlorobenzene | ND | ug/kg | 6 | EPA 8260B | 08/03/10 | 08/03/10 14:50 | JKL |
| 1,2-Dichlorobenzene | ND | ug/kg | 6 | EPA 8260B | 08/03/10 | 08/03/10 14:50 | JKL |
| 1,2-Dibromo-3-chloropropane | ND | ug/kg | 6 | EPA 8260B | 08/03/10 | 08/03/10 14:50 | JKL |
| 1,2,4-Trichlorobenzene | ND | ug/kg | 6 | EPA 8260B | 08/03/10 | 08/03/10 14:50 | JKL |



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Baltimore, MD 21211

Date Sampled: 07/31/10 8:30
Date Received: 08/02/10 11:50
Date Issued: 08/12/10

Project: State Center - Parcel G
Site Location: Baltimore City
Project Number: 016-006-10

**SDG Number: 10080203**

**Field Sample ID: SB-8 4-5** **Matrix: Soil** **Lab ID: 10080203-02**

| | Result | Unit | LLQ | Method | Prepared | Analyzed | Init. |
|---|---|---|---|---|---|---|---|
| **Target Compound List - VOLATILES** | | | | | | | |
| Ethyl t-butyl ether (ETBE) | ND | ug/kg | 6 | EPA 8260B | 08/03/10 | 08/03/10 14:50 | JKL |
| tert-Butanol (TBA) | ND | ug/kg | 28 | EPA 8260B | 08/03/10 | 08/03/10 14:50 | JKL |
| Diisopropyl ether (DIPE) | ND | ug/kg | 6 | EPA 8260B | 08/03/10 | 08/03/10 14:50 | JKL |
| tert-Amyl methyl ether (TAME) | ND | ug/kg | 6 | EPA 8260B | 08/03/10 | 08/03/10 14:50 | JKL |
| tert-Amyl alcohol (TAA) | ND | ug/kg | 28 | EPA 8260B | 08/03/10 | 08/03/10 14:50 | JKL |
| tert-Amyl ethyl ether (TAEE) | ND | ug/kg | 6 | EPA 8260B | 08/03/10 | 08/03/10 14:50 | JKL |
| **Total Metals** | | | | | | | |
| Antimony | ND | mg/kg | 2.6 | EPA 6020A | 08/04/10 | 08/04/10 13:46 | MEL |
| Arsenic | **1.2** | mg/kg | 0.51 | EPA 6020A | 08/04/10 | 08/04/10 13:46 | MEL |
| Beryllium | ND | mg/kg | 2.6 | EPA 6020A | 08/04/10 | 08/04/10 13:46 | MEL |
| Cadmium | ND | mg/kg | 2.6 | EPA 6020A | 08/04/10 | 08/04/10 13:46 | MEL |
| Chromium | **14** | mg/kg | 2.6 | EPA 6020A | 08/04/10 | 08/04/10 13:46 | MEL |
| Copper | **2.7** | mg/kg | 2.6 | EPA 6020A | 08/04/10 | 08/04/10 13:46 | MEL |
| Lead | ND | mg/kg | 2.6 | EPA 6020A | 08/04/10 | 08/04/10 13:46 | MEL |
| Mercury | ND | mg/kg | 0.1 | EPA 6020A | 08/04/10 | 08/04/10 13:46 | MEL |
| Nickel | ND | mg/kg | 2.6 | EPA 6020A | 08/04/10 | 08/04/10 13:46 | MEL |
| Selenium | ND | mg/kg | 2.6 | EPA 6020A | 08/04/10 | 08/04/10 13:46 | MEL |
| Silver | ND | mg/kg | 2.6 | EPA 6020A | 08/04/10 | 08/04/10 13:46 | MEL |
| Thallium | ND | mg/kg | 2.1 | EPA 6020A | 08/04/10 | 08/04/10 13:46 | MEL |
| Zinc | **5.7** | mg/kg | 2.6 | EPA 6020A | 08/04/10 | 08/04/10 13:46 | MEL |

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 Oshea
QC Chemist



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# Certificate of Analysis

Urban Green Environmental
3634 Beech Ave.
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Date Sampled: 07/31/10 12:30
Date Received: 08/02/10 11:50
Date Issued: 08/12/10

Project: State Center - Parcel G
Site Location: Baltimore City
Project Number: 016-006-10

**SDG Number: 10080203**

**Field Sample ID: SB-10A 0-1** **Matrix: Soil** **Lab ID: 10080203-08**

| | Result | Unit | LLQ | Method | Prepared | Analyzed | Init. |
|---|---|---|---|---|---|---|---|
| **Percent Solids** | | | | | | | |
| Percent Solids | **95** | % | | SM2540G | 08/03/10 | 08/03/10 15:38 | LMJ |
| **Polycyclic Aromatic Hydrocarbons (SIM)** | | | | | | | |
| Acenaphthene | ND | ug/kg | 5 | EPA 8270C | 08/09/10 | 08/09/10 22:42 | CBS |
| Acenaphthylene | **8** | ug/kg | 5 | EPA 8270C | 08/09/10 | 08/09/10 22:42 | CBS |
| Anthracene | **8** | ug/kg | 5 | EPA 8270C | 08/09/10 | 08/09/10 22:42 | CBS |
| Benzo[a]anthracene | **37** | ug/kg | 5 | EPA 8270C | 08/09/10 | 08/09/10 22:42 | CBS |
| Benzo[a]pyrene | **56** | ug/kg | 5 | EPA 8270C | 08/09/10 | 08/09/10 22:42 | CBS |
| Benzo[b]fluoranthene | **99** | ug/kg | 5 | EPA 8270C | 08/09/10 | 08/09/10 22:42 | CBS |
| Benzo[g,h,i]perylene | **30** | ug/kg | 5 | EPA 8270C | 08/09/10 | 08/09/10 22:42 | CBS |
| Benzo[k]fluoranthene | **42** | ug/kg | 5 | EPA 8270C | 08/09/10 | 08/09/10 22:42 | CBS |
| Chrysene | **52** | ug/kg | 5 | EPA 8270C | 08/09/10 | 08/09/10 22:42 | CBS |
| Dibenz[a,h]anthracene | **13** | ug/kg | 5 | EPA 8270C | 08/09/10 | 08/09/10 22:42 | CBS |
| Fluoranthene | **63** | ug/kg | 5 | EPA 8270C | 08/09/10 | 08/09/10 22:42 | CBS |
| Fluorene | ND | ug/kg | 5 | EPA 8270C | 08/09/10 | 08/09/10 22:42 | CBS |
| Indeno[1,2,3-cd]pyrene | **25** | ug/kg | 5 | EPA 8270C | 08/09/10 | 08/09/10 22:42 | CBS |
| 2-Methylnaphthalene | **8** | ug/kg | 5 | EPA 8270C | 08/09/10 | 08/09/10 22:42 | CBS |
| Naphthalene` | **6** | ug/kg | 5 | EPA 8270C | 08/09/10 | 08/09/10 22:42 | CBS |
| Phenanthrene | **34** | ug/kg | 5 | EPA 8270C | 08/09/10 | 08/09/10 22:42 | CBS |
| Pyrene | **62** | ug/kg | 5 | EPA 8270C | 08/09/10 | 08/09/10 22:42 | CBS |
| **Target Compound List - SEMIVOLATILES** | | | | | | | |
| Phenol | ND | ug/kg | 94 | EPA 8270C | 08/09/10 | 08/10/10 13:35 | CBS |
| Bis (2-chloroethyl) ether | ND | ug/kg | 94 | EPA 8270C | 08/09/10 | 08/10/10 13:35 | CBS |
| 2-Chlorophenol | ND | ug/kg | 94 | EPA 8270C | 08/09/10 | 08/10/10 13:35 | CBS |
| 2-Methylphenol | ND | ug/kg | 94 | EPA 8270C | 08/09/10 | 08/10/10 13:35 | CBS |
| Bis (2-chloroisopropyl) ether | ND | ug/kg | 94 | EPA 8270C | 08/09/10 | 08/10/10 13:35 | CBS |
| Acetophenone | ND | ug/kg | 94 | EPA 8270C | 08/09/10 | 08/10/10 13:35 | CBS |
| 4-Methylphenol | ND | ug/kg | 94 | EPA 8270C | 08/09/10 | 08/10/10 13:35 | CBS |
| N-Nitroso-di-n-propylamine | ND | ug/kg | 94 | EPA 8270C | 08/09/10 | 08/10/10 13:35 | CBS |
| Hexachloroethane | ND | ug/kg | 94 | EPA 8270C | 08/09/10 | 08/10/10 13:35 | CBS |
| Nitrobenzene | ND | ug/kg | 94 | EPA 8270C | 08/09/10 | 08/10/10 13:35 | CBS |
| Isophorone | ND | ug/kg | 94 | EPA 8270C | 08/09/10 | 08/10/10 13:35 | CBS |
| 2-Nitrophenol | ND | ug/kg | 94 | EPA 8270C | 08/09/10 | 08/10/10 13:35 | CBS |
| 2,4-Dimethylphenol | ND | ug/kg | 94 | EPA 8270C | 08/09/10 | 08/10/10 13:35 | CBS |
| Bis (2-chloroethoxy) methane | ND | ug/kg | 94 | EPA 8270C | 08/09/10 | 08/10/10 13:35 | CBS |
| 2,4-Dichlorophenol | ND | ug/kg | 94 | EPA 8270C | 08/09/10 | 08/10/10 13:35 | CBS |
| 4-Chloroaniline | ND | ug/kg | 94 | EPA 8270C | 08/09/10 | 08/10/10 13:35 | CBS |
| Hexachlorobutadiene` | ND | ug/kg | 94 | EPA 8270C | 08/09/10 | 08/10/10 13:35 | CBS |
| Caprolactam | ND | ug/kg | 94 | EPA 8270C | 08/09/10 | 08/10/10 13:35 | CBS |
| 4-Chloro-3-methylphenol | ND | ug/kg | 94 | EPA 8270C | 08/09/10 | 08/10/10 13:35 | CBS |



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Date Sampled: 07/31/10 12:30
Date Received: 08/02/10 11:50
Date Issued: 08/12/10

Project: State Center - Parcel G
Site Location: Baltimore City
Project Number: 016-006-10

**SDG Number: 10080203**

**Field Sample ID: SB-10A 0-1** **Matrix: Soil** **Lab ID: 10080203-08**

| | Result | Unit | LLQ | Method | Prepared | Analyzed | Init. |
|---|---|---|---|---|---|---|---|
| **Target Compound List - SEMIVOLATILES** | | | | | | | |
| Hexachlorocyclopentadiene | ND | ug/kg | 94 | EPA 8270C | 08/09/10 | 08/10/10 13:35 | CBS |
| 2,4,6-Trichlorophenol | ND | ug/kg | 94 | EPA 8270C | 08/09/10 | 08/10/10 13:35 | CBS |
| 2,4,5-Trichlorophenol | ND | ug/kg | 240 | EPA 8270C | 08/09/10 | 08/10/10 13:35 | CBS |
| 1,1-Biphenyl | ND | ug/kg | 94 | EPA 8270C | 08/09/10 | 08/10/10 13:35 | CBS |
| 2-Chloronaphthalene | ND | ug/kg | 94 | EPA 8270C | 08/09/10 | 08/10/10 13:35 | CBS |
| 2-Nitroaniline | ND | ug/kg | 240 | EPA 8270C | 08/09/10 | 08/10/10 13:35 | CBS |
| Dimethyl phthalate | ND | ug/kg | 94 | EPA 8270C | 08/09/10 | 08/10/10 13:35 | CBS |
| 2,6-Dinitrotoluene | ND | ug/kg | 94 | EPA 8270C | 08/09/10 | 08/10/10 13:35 | CBS |
| 3-Nitroaniline | ND | ug/kg | 240 | EPA 8270C | 08/09/10 | 08/10/10 13:35 | CBS |
| 2,4-Dinitrophenol | ND | ug/kg | 240 | EPA 8270C | 08/09/10 | 08/10/10 13:35 | CBS |
| 4-Nitrophenol | ND | ug/kg | 240 | EPA 8270C | 08/09/10 | 08/10/10 13:35 | CBS |
| Dibenzofuran | ND | ug/kg | 94 | EPA 8270C | 08/09/10 | 08/10/10 13:35 | CBS |
| 2,4-Dinitrotoluene | ND | ug/kg | 94 | EPA 8270C | 08/09/10 | 08/10/10 13:35 | CBS |
| Diethyl phthalate | ND | ug/kg | 94 | EPA 8270C | 08/09/10 | 08/10/10 13:35 | CBS |
| 4-Chlorophenyl phenyl ether | ND | ug/kg | 94 | EPA 8270C | 08/09/10 | 08/10/10 13:35 | CBS |
| 4-Nitroaniline | ND | ug/kg | 240 | EPA 8270C | 08/09/10 | 08/10/10 13:35 | CBS |
| 4,6-Dinitro-2-methylphenol | ND | ug/kg | 220 | EPA 8270C | 08/09/10 | 08/10/10 13:35 | CBS |
| N-Nitrosodiphenylamine | ND | ug/kg | 94 | EPA 8270C | 08/09/10 | 08/10/10 13:35 | CBS |
| 4-Bromophenyl phenyl ether | ND | ug/kg | 94 | EPA 8270C | 08/09/10 | 08/10/10 13:35 | CBS |
| Hexachlorobenzene | ND | ug/kg | 94 | EPA 8270C | 08/09/10 | 08/10/10 13:35 | CBS |
| Atrazine | ND | ug/kg | 94 | EPA 8270C | 08/09/10 | 08/10/10 13:35 | CBS |
| Pentachlorophenol | ND | ug/kg | 240 | EPA 8270C | 08/09/10 | 08/10/10 13:35 | CBS |
| Carbazole | ND | ug/kg | 94 | EPA 8270C | 08/09/10 | 08/10/10 13:35 | CBS |
| Di-n-butyl phthalate | ND | ug/kg | 94 | EPA 8270C | 08/09/10 | 08/10/10 13:35 | CBS |
| Butyl benzyl phthalate | ND | ug/kg | 94 | EPA 8270C | 08/09/10 | 08/10/10 13:35 | CBS |
| 3,3-Dichlorobenzidine | ND | ug/kg | 94 | EPA 8270C | 08/09/10 | 08/10/10 13:35 | CBS |
| Bis (2-ethylhexyl) phthalate | ND | ug/kg | 94 | EPA 8270C | 08/09/10 | 08/10/10 13:35 | CBS |
| Di-n-octyl phthalate | ND | ug/kg | 94 | EPA 8270C | 08/09/10 | 08/10/10 13:35 | CBS |
| **Total Metals** | | | | | | | |
| Antimony | ND | mg/kg | 2 | EPA 6020A | 08/04/10 | 08/04/10 14:30 | MEL |
| Arsenic | **2.2** | mg/kg | 0.41 | EPA 6020A | 08/04/10 | 08/04/10 14:30 | MEL |
| Beryllium | ND | mg/kg | 2 | EPA 6020A | 08/04/10 | 08/04/10 14:30 | MEL |
| Cadmium | ND | mg/kg | 2 | EPA 6020A | 08/04/10 | 08/04/10 14:30 | MEL |
| Chromium | **12** | mg/kg | 2 | EPA 6020A | 08/04/10 | 08/04/10 14:30 | MEL |
| Copper | **12** | mg/kg | 2 | EPA 6020A | 08/04/10 | 08/04/10 14:30 | MEL |
| Lead | **100** | mg/kg | 2 | EPA 6020A | 08/04/10 | 08/04/10 14:30 | MEL |
| Mercury | **0.25** | mg/kg | 0.082 | EPA 6020A | 08/04/10 | 08/04/10 14:30 | MEL |
| Nickel | **8.7** | mg/kg | 2 | EPA 6020A | 08/04/10 | 08/04/10 14:30 | MEL |
| Selenium | ND | mg/kg | 2 | EPA 6020A | 08/04/10 | 08/04/10 14:30 | MEL |



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Baltimore, MD 21211

Date Sampled: 07/31/10 12:30
Date Received: 08/02/10 11:50
Date Issued: 08/12/10

Project: State Center - Parcel G
Site Location: Baltimore City
Project Number: 016-006-10

**SDG Number: 10080203**

**Field Sample ID: SB-10A 0-1** **Matrix: Soil** **Lab ID: 10080203-08**

| | Result | Unit | LLQ | Method | Prepared | Analyzed | Init. |
|---|---|---|---|---|---|---|---|
| **Total Metals** | | | | | | | |
| Silver | ND | mg/kg | 2 | EPA 6020A | 08/04/10 | 08/04/10 14:30 | MEL |
| Thallium | ND | mg/kg | 1.6 | EPA 6020A | 08/04/10 | 08/04/10 14:30 | MEL |
| Zinc | **37** | mg/kg | 2 | EPA 6020A | 08/04/10 | 08/04/10 14:30 | MEL |

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: 07/31/10 12:30
Date Received: 08/02/10 11:50
Date Issued: 08/12/10

Project: State Center - Parcel G
Site Location: Baltimore City
Project Number: 016-006-10

**SDG Number: 10080203**

**Field Sample ID: SB-10A 4-5** **Matrix: Soil** **Lab ID: 10080203-09**

| | Result | Unit | LLQ | Method | Prepared | Analyzed | Init. |
|---|---|---|---|---|---|---|---|
| **Chlorinated Herbicides** | | | | | | | |
| Dicamba | ND | ug/kg | 22 | EPA 8151A | 08/09/10 | 08/11/10 12:56 | AC |
| MCPP | ND | ug/kg | 2200 | EPA 8151A | 08/09/10 | 08/11/10 12:56 | AC |
| MCPA | ND | ug/kg | 2200 | EPA 8151A | 08/09/10 | 08/11/10 12:56 | AC |
| Dichloroprop | ND | ug/kg | 22 | EPA 8151A | 08/09/10 | 08/11/10 12:56 | AC |
| 2,4-D | ND | ug/kg | 22 | EPA 8151A | 08/09/10 | 08/11/10 12:56 | AC |
| 2,4,5-TP (Silvex) | ND | ug/kg | 22 | EPA 8151A | 08/09/10 | 08/11/10 12:56 | AC |
| 2,4,5-T | ND | ug/kg | 22 | EPA 8151A | 08/09/10 | 08/11/10 12:56 | AC |
| Dinoseb | ND | ug/kg | 22 | EPA 8151A | 08/09/10 | 08/11/10 12:56 | AC |
| 2,4-DB | ND | ug/kg | 22 | EPA 8151A | 08/09/10 | 08/11/10 12:56 | AC |
| **Organochlorine Pesticides** | | | | | | | |
| Aldrin | ND | ug/kg | 11 | EPA 8081A | 08/04/10 | 08/09/10 15:00 | AC |
| a-BHC | ND | ug/kg | 11 | EPA 8081A | 08/04/10 | 08/09/10 15:00 | AC |
| b-BHC | ND | ug/kg | 11 | EPA 8081A | 08/04/10 | 08/09/10 15:00 | AC |
| g-BHC (Lindane) | ND | ug/kg | 11 | EPA 8081A | 08/04/10 | 08/09/10 15:00 | AC |
| d-BHC | ND | ug/kg | 11 | EPA 8081A | 08/04/10 | 08/09/10 15:00 | AC |
| a-Chlordane | ND | ug/kg | 11 | EPA 8081A | 08/04/10 | 08/09/10 15:00 | AC |
| g-Chlordane | ND | ug/kg | 11 | EPA 8081A | 08/04/10 | 08/09/10 15:00 | AC |
| 4,4-DDD | ND | ug/kg | 11 | EPA 8081A | 08/04/10 | 08/09/10 15:00 | AC |
| 4,4-DDE | ND | ug/kg | 11 | EPA 8081A | 08/04/10 | 08/09/10 15:00 | AC |
| 4,4-DDT | ND | ug/kg | 11 | EPA 8081A | 08/04/10 | 08/09/10 15:00 | AC |
| Dieldrin | ND | ug/kg | 11 | EPA 8081A | 08/04/10 | 08/09/10 15:00 | AC |
| Endosulfan I | ND | ug/kg | 11 | EPA 8081A | 08/04/10 | 08/09/10 15:00 | AC |
| Endosulfan II | ND | ug/kg | 11 | EPA 8081A | 08/04/10 | 08/09/10 15:00 | AC |
| Endosulfan Sulfate | ND | ug/kg | 11 | EPA 8081A | 08/04/10 | 08/09/10 15:00 | AC |
| Endrin | ND | ug/kg | 11 | EPA 8081A | 08/04/10 | 08/09/10 15:00 | AC |
| Endrin Aldehyde | ND | ug/kg | 11 | EPA 8081A | 08/04/10 | 08/09/10 15:00 | AC |
| Endrin Ketone | ND | ug/kg | 11 | EPA 8081A | 08/04/10 | 08/09/10 15:00 | AC |
| Heptachlor | ND | ug/kg | 11 | EPA 8081A | 08/04/10 | 08/09/10 15:00 | AC |
| Heptachlor Epoxide | ND | ug/kg | 11 | EPA 8081A | 08/04/10 | 08/09/10 15:00 | AC |
| Methoxychlor | ND | ug/kg | 11 | EPA 8081A | 08/04/10 | 08/09/10 15:00 | AC |
| Toxaphene | ND | ug/kg | 110 | EPA 8081A | 08/04/10 | 08/09/10 15:00 | AC |
| **Percent Solids** | | | | | | | |
| Percent Solids | **88** | % | | SM2540G | 08/03/10 | 08/03/10 15:38 | LMJ |
| **Polychlorinated Biphenyls** | | | | | | | |
| Aroclor 1016 | ND | mg/kg | 0.055 | EPA 8082 | 08/05/10 | 08/09/10 12:24 | AC |
| Aroclor 1221 | ND | mg/kg | 0.055 | EPA 8082 | 08/05/10 | 08/09/10 12:24 | AC |
| Aroclor 1232 | ND | mg/kg | 0.055 | EPA 8082 | 08/05/10 | 08/09/10 12:24 | AC |
| Aroclor 1242 | ND | mg/kg | 0.055 | EPA 8082 | 08/05/10 | 08/09/10 12:24 | AC |
| Aroclor 1248 | ND | mg/kg | 0.055 | EPA 8082 | 08/05/10 | 08/09/10 12:24 | AC |



8851 Orchard Tree Lane Towson, Maryland 21286
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# Certificate of Analysis

Urban Green Environmental
3634 Beech Ave.
Baltimore, MD 21211

Date Sampled: 07/31/10 12:30
Date Received: 08/02/10 11:50
Date Issued: 08/12/10

Project: State Center - Parcel G
Site Location: Baltimore City
Project Number: 016-006-10

**SDG Number: 10080203**

**Field Sample ID: SB-10A 4-5** **Matrix: Soil** **Lab ID: 10080203-09**

| | Result | Unit | LLQ | Method | Prepared | Analyzed | Init. |
|---|---|---|---|---|---|---|---|
| **Polychlorinated Biphenyls** | | | | | | | |
| Aroclor 1254 | ND | mg/kg | 0.055 | EPA 8082 | 08/05/10 | 08/09/10 12:24 | AC |
| Aroclor 1260 | ND | mg/kg | 0.055 | EPA 8082 | 08/05/10 | 08/09/10 12:24 | AC |
| **Polycyclic Aromatic Hydrocarbons (SIM)** | | | | | | | |
| Acenaphthene | ND | ug/kg | 5 | EPA 8270C | 08/09/10 | 08/09/10 23:23 | CBS |
| Acenaphthylene | ND | ug/kg | 5 | EPA 8270C | 08/09/10 | 08/09/10 23:23 | CBS |
| Anthracene | ND | ug/kg | 5 | EPA 8270C | 08/09/10 | 08/09/10 23:23 | CBS |
| Benzo[a]anthracene | **13** | ug/kg | 5 | EPA 8270C | 08/09/10 | 08/09/10 23:23 | CBS |
| Benzo[a]pyrene | **17** | ug/kg | 5 | EPA 8270C | 08/09/10 | 08/09/10 23:23 | CBS |
| Benzo[b]fluoranthene | **29** | ug/kg | 5 | EPA 8270C | 08/09/10 | 08/09/10 23:23 | CBS |
| Benzo[g,h,i]perylene | **13** | ug/kg | 5 | EPA 8270C | 08/09/10 | 08/09/10 23:23 | CBS |
| Benzo[k]fluoranthene | **13** | ug/kg | 5 | EPA 8270C | 08/09/10 | 08/09/10 23:23 | CBS |
| Chrysene | **19** | ug/kg | 5 | EPA 8270C | 08/09/10 | 08/09/10 23:23 | CBS |
| Dibenz[a,h]anthracene | **5** | ug/kg | 5 | EPA 8270C | 08/09/10 | 08/09/10 23:23 | CBS |
| Fluoranthene | **23** | ug/kg | 5 | EPA 8270C | 08/09/10 | 08/09/10 23:23 | CBS |
| Fluorene | ND | ug/kg | 5 | EPA 8270C | 08/09/10 | 08/09/10 23:23 | CBS |
| Indeno[1,2,3-cd]pyrene | **12** | ug/kg | 5 | EPA 8270C | 08/09/10 | 08/09/10 23:23 | CBS |
| 2-Methylnaphthalene | ND | ug/kg | 5 | EPA 8270C | 08/09/10 | 08/09/10 23:23 | CBS |
| Naphthalene` | ND | ug/kg | 5 | EPA 8270C | 08/09/10 | 08/09/10 23:23 | CBS |
| Phenanthrene | **19** | ug/kg | 5 | EPA 8270C | 08/09/10 | 08/09/10 23:23 | CBS |
| Pyrene | **20** | ug/kg | 5 | EPA 8270C | 08/09/10 | 08/09/10 23:23 | CBS |
| **Target Compound List - SEMIVOLATILES** | | | | | | | |
| Phenol | ND | ug/kg | 110 | EPA 8270C | 08/09/10 | 08/10/10 14:17 | CBS |
| Bis (2-chloroethyl) ether | ND | ug/kg | 110 | EPA 8270C | 08/09/10 | 08/10/10 14:17 | CBS |
| 2-Chlorophenol | ND | ug/kg | 110 | EPA 8270C | 08/09/10 | 08/10/10 14:17 | CBS |
| 2-Methylphenol | ND | ug/kg | 110 | EPA 8270C | 08/09/10 | 08/10/10 14:17 | CBS |
| Bis (2-chloroisopropyl) ether | ND | ug/kg | 110 | EPA 8270C | 08/09/10 | 08/10/10 14:17 | CBS |
| Acetophenone | ND | ug/kg | 110 | EPA 8270C | 08/09/10 | 08/10/10 14:17 | CBS |
| 4-Methylphenol | ND | ug/kg | 110 | EPA 8270C | 08/09/10 | 08/10/10 14:17 | CBS |
| N-Nitroso-di-n-propylamine | ND | ug/kg | 110 | EPA 8270C | 08/09/10 | 08/10/10 14:17 | CBS |
| Hexachloroethane | ND | ug/kg | 110 | EPA 8270C | 08/09/10 | 08/10/10 14:17 | CBS |
| Nitrobenzene | ND | ug/kg | 110 | EPA 8270C | 08/09/10 | 08/10/10 14:17 | CBS |
| Isophorone | ND | ug/kg | 110 | EPA 8270C | 08/09/10 | 08/10/10 14:17 | CBS |
| 2-Nitrophenol | ND | ug/kg | 110 | EPA 8270C | 08/09/10 | 08/10/10 14:17 | CBS |
| 2,4-Dimethylphenol | ND | ug/kg | 110 | EPA 8270C | 08/09/10 | 08/10/10 14:17 | CBS |
| Bis (2-chloroethoxy) methane | ND | ug/kg | 110 | EPA 8270C | 08/09/10 | 08/10/10 14:17 | CBS |
| 2,4-Dichlorophenol | ND | ug/kg | 110 | EPA 8270C | 08/09/10 | 08/10/10 14:17 | CBS |
| 4-Chloroaniline | ND | ug/kg | 110 | EPA 8270C | 08/09/10 | 08/10/10 14:17 | CBS |
| Hexachlorobutadiene` | ND | ug/kg | 110 | EPA 8270C | 08/09/10 | 08/10/10 14:17 | CBS |
| Caprolactam | ND | ug/kg | 110 | EPA 8270C | 08/09/10 | 08/10/10 14:17 | CBS |



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Urban Green Environmental
3634 Beech Ave.
Baltimore, MD 21211

Date Sampled: 07/31/10 12:30
Date Received: 08/02/10 11:50
Date Issued: 08/12/10

Project: State Center - Parcel G
Site Location: Baltimore City
Project Number: 016-006-10

**SDG Number: 10080203**

**Field Sample ID: SB-10A 4-5** **Matrix: Soil** **Lab ID: 10080203-09**

| | Result | Unit | LLQ | Method | Prepared | Analyzed | Init. |
|---|---|---|---|---|---|---|---|
| **Target Compound List - SEMIVOLATILES** | | | | | | | |
| 4-Chloro-3-methylphenol | ND | ug/kg | 110 | EPA 8270C | 08/09/10 | 08/10/10 14:17 | CBS |
| Hexachlorocyclopentadiene | ND | ug/kg | 110 | EPA 8270C | 08/09/10 | 08/10/10 14:17 | CBS |
| 2,4,6-Trichlorophenol | ND | ug/kg | 110 | EPA 8270C | 08/09/10 | 08/10/10 14:17 | CBS |
| 2,4,5-Trichlorophenol | ND | ug/kg | 260 | EPA 8270C | 08/09/10 | 08/10/10 14:17 | CBS |
| 1,1-Biphenyl | ND | ug/kg | 110 | EPA 8270C | 08/09/10 | 08/10/10 14:17 | CBS |
| 2-Chloronaphthalene | ND | ug/kg | 110 | EPA 8270C | 08/09/10 | 08/10/10 14:17 | CBS |
| 2-Nitroaniline | ND | ug/kg | 260 | EPA 8270C | 08/09/10 | 08/10/10 14:17 | CBS |
| Dimethyl phthalate | ND | ug/kg | 110 | EPA 8270C | 08/09/10 | 08/10/10 14:17 | CBS |
| 2,6-Dinitrotoluene | ND | ug/kg | 110 | EPA 8270C | 08/09/10 | 08/10/10 14:17 | CBS |
| 3-Nitroaniline | ND | ug/kg | 260 | EPA 8270C | 08/09/10 | 08/10/10 14:17 | CBS |
| 2,4-Dinitrophenol | ND | ug/kg | 260 | EPA 8270C | 08/09/10 | 08/10/10 14:17 | CBS |
| 4-Nitrophenol | ND | ug/kg | 260 | EPA 8270C | 08/09/10 | 08/10/10 14:17 | CBS |
| Dibenzofuran | ND | ug/kg | 110 | EPA 8270C | 08/09/10 | 08/10/10 14:17 | CBS |
| 2,4-Dinitrotoluene | ND | ug/kg | 110 | EPA 8270C | 08/09/10 | 08/10/10 14:17 | CBS |
| Diethyl phthalate | ND | ug/kg | 110 | EPA 8270C | 08/09/10 | 08/10/10 14:17 | CBS |
| 4-Chlorophenyl phenyl ether | ND | ug/kg | 110 | EPA 8270C | 08/09/10 | 08/10/10 14:17 | CBS |
| 4-Nitroaniline | ND | ug/kg | 260 | EPA 8270C | 08/09/10 | 08/10/10 14:17 | CBS |
| 4,6-Dinitro-2-methylphenol | ND | ug/kg | 240 | EPA 8270C | 08/09/10 | 08/10/10 14:17 | CBS |
| N-Nitrosodiphenylamine | ND | ug/kg | 110 | EPA 8270C | 08/09/10 | 08/10/10 14:17 | CBS |
| 4-Bromophenyl phenyl ether | ND | ug/kg | 110 | EPA 8270C | 08/09/10 | 08/10/10 14:17 | CBS |
| Hexachlorobenzene | ND | ug/kg | 110 | EPA 8270C | 08/09/10 | 08/10/10 14:17 | CBS |
| Atrazine | ND | ug/kg | 110 | EPA 8270C | 08/09/10 | 08/10/10 14:17 | CBS |
| Pentachlorophenol | ND | ug/kg | 260 | EPA 8270C | 08/09/10 | 08/10/10 14:17 | CBS |
| Carbazole | ND | ug/kg | 110 | EPA 8270C | 08/09/10 | 08/10/10 14:17 | CBS |
| Di-n-butyl phthalate | ND | ug/kg | 110 | EPA 8270C | 08/09/10 | 08/10/10 14:17 | CBS |
| Butyl benzyl phthalate | ND | ug/kg | 110 | EPA 8270C | 08/09/10 | 08/10/10 14:17 | CBS |
| 3,3-Dichlorobenzidine | ND | ug/kg | 110 | EPA 8270C | 08/09/10 | 08/10/10 14:17 | CBS |
| Bis (2-ethylhexyl) phthalate | ND | ug/kg | 110 | EPA 8270C | 08/09/10 | 08/10/10 14:17 | CBS |
| Di-n-octyl phthalate | ND | ug/kg | 110 | EPA 8270C | 08/09/10 | 08/10/10 14:17 | CBS |
| **Target Compound List - VOLATILES** | | | | | | | |
| Dichlorodifluoromethane | ND | ug/kg | 7 | EPA 8260B | 08/03/10 | 08/03/10 15:24 | JKL |
| Chloromethane | ND | ug/kg | 7 | EPA 8260B | 08/03/10 | 08/03/10 15:24 | JKL |
| Vinyl chloride | ND | ug/kg | 7 | EPA 8260B | 08/03/10 | 08/03/10 15:24 | JKL |
| Bromomethane | ND | ug/kg | 7 | EPA 8260B | 08/03/10 | 08/03/10 15:24 | JKL |
| Chloroethane | ND | ug/kg | 7 | EPA 8260B | 08/03/10 | 08/03/10 15:24 | JKL |
| Trichlorofluoromethane | ND | ug/kg | 7 | EPA 8260B | 08/03/10 | 08/03/10 15:24 | JKL |
| 1,1-Dichloroethene | ND | ug/kg | 7 | EPA 8260B | 08/03/10 | 08/03/10 15:24 | JKL |
| 1,1,2-Trichlorotrifluoroethane | ND | ug/kg | 7 | EPA 8260B | 08/03/10 | 08/03/10 15:24 | JKL |
| Acetone | ND | ug/kg | 69 | EPA 8260B | 08/03/10 | 08/03/10 15:24 | JKL |



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Date Received: 08/02/10 11:50
Date Issued: 08/12/10

Project: State Center - Parcel G
Site Location: Baltimore City
Project Number: 016-006-10

**SDG Number: 10080203**

**Field Sample ID: SB-10A 4-5** **Matrix: Soil** **Lab ID: 10080203-09**

| | Result | Unit | LLQ | Method | Prepared | Analyzed | Init. |
|---|---|---|---|---|---|---|---|
| **Target Compound List - VOLATILES** | | | | | | | |
| Carbon disulfide | ND | ug/kg | 14 | EPA 8260B | 08/03/10 | 08/03/10 15:24 | JKL |
| Methyl acetate | ND | ug/kg | 35 | EPA 8260B | 08/03/10 | 08/03/10 15:24 | JKL |
| Methylene chloride | ND | ug/kg | 35 | EPA 8260B | 08/03/10 | 08/03/10 15:24 | JKL |
| trans-1,2-Dichloroethene | ND | ug/kg | 7 | EPA 8260B | 08/03/10 | 08/03/10 15:24 | JKL |
| Methyl t-butyl ether (MTBE) | ND | ug/kg | 7 | EPA 8260B | 08/03/10 | 08/03/10 15:24 | JKL |
| 1,1-Dichloroethane | ND | ug/kg | 7 | EPA 8260B | 08/03/10 | 08/03/10 15:24 | JKL |
| cis-1,2-Dichloroethene | ND | ug/kg | 7 | EPA 8260B | 08/03/10 | 08/03/10 15:24 | JKL |
| 2-Butanone (MEK) | ND | ug/kg | 69 | EPA 8260B | 08/03/10 | 08/03/10 15:24 | JKL |
| Chloroform | ND | ug/kg | 7 | EPA 8260B | 08/03/10 | 08/03/10 15:24 | JKL |
| 1,1,1-Trichloroethane | ND | ug/kg | 7 | EPA 8260B | 08/03/10 | 08/03/10 15:24 | JKL |
| Cyclohexane | ND | ug/kg | 7 | EPA 8260B | 08/03/10 | 08/03/10 15:24 | JKL |
| Carbon tetrachloride | ND | ug/kg | 7 | EPA 8260B | 08/03/10 | 08/03/10 15:24 | JKL |
| Benzene | ND | ug/kg | 7 | EPA 8260B | 08/03/10 | 08/03/10 15:24 | JKL |
| 1,2-Dichloroethane | ND | ug/kg | 7 | EPA 8260B | 08/03/10 | 08/03/10 15:24 | JKL |
| Trichloroethene | ND | ug/kg | 7 | EPA 8260B | 08/03/10 | 08/03/10 15:24 | JKL |
| Methylcyclohexane | ND | ug/kg | 7 | EPA 8260B | 08/03/10 | 08/03/10 15:24 | JKL |
| 1,2-Dichloropropane | ND | ug/kg | 7 | EPA 8260B | 08/03/10 | 08/03/10 15:24 | JKL |
| Bromodichloromethane | ND | ug/kg | 7 | EPA 8260B | 08/03/10 | 08/03/10 15:24 | JKL |
| cis-1,3-Dichloropropene | ND | ug/kg | 7 | EPA 8260B | 08/03/10 | 08/03/10 15:24 | JKL |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/kg | 14 | EPA 8260B | 08/03/10 | 08/03/10 15:24 | JKL |
| Toluene | ND | ug/kg | 7 | EPA 8260B | 08/03/10 | 08/03/10 15:24 | JKL |
| trans-1,3-Dichloropropene | ND | ug/kg | 7 | EPA 8260B | 08/03/10 | 08/03/10 15:24 | JKL |
| 1,1,2-Trichloroethane | ND | ug/kg | 7 | EPA 8260B | 08/03/10 | 08/03/10 15:24 | JKL |
| Tetrachloroethene | ND | ug/kg | 7 | EPA 8260B | 08/03/10 | 08/03/10 15:24 | JKL |
| 2-Hexanone (MBK) | ND | ug/kg | 14 | EPA 8260B | 08/03/10 | 08/03/10 15:24 | JKL |
| Dibromochloromethane | ND | ug/kg | 7 | EPA 8260B | 08/03/10 | 08/03/10 15:24 | JKL |
| 1,2-Dibromoethane | ND | ug/kg | 7 | EPA 8260B | 08/03/10 | 08/03/10 15:24 | JKL |
| Chlorobenzene | ND | ug/kg | 7 | EPA 8260B | 08/03/10 | 08/03/10 15:24 | JKL |
| Ethylbenzene | ND | ug/kg | 7 | EPA 8260B | 08/03/10 | 08/03/10 15:24 | JKL |
| m&p-Xylene | ND | ug/kg | 14 | EPA 8260B | 08/03/10 | 08/03/10 15:24 | JKL |
| o-Xylene | ND | ug/kg | 7 | EPA 8260B | 08/03/10 | 08/03/10 15:24 | JKL |
| Styrene | ND | ug/kg | 7 | EPA 8260B | 08/03/10 | 08/03/10 15:24 | JKL |
| Bromoform | ND | ug/kg | 7 | EPA 8260B | 08/03/10 | 08/03/10 15:24 | JKL |
| Isopropylbenzene | ND | ug/kg | 7 | EPA 8260B | 08/03/10 | 08/03/10 15:24 | JKL |
| 1,1,2,2-Tetrachloroethane | ND | ug/kg | 7 | EPA 8260B | 08/03/10 | 08/03/10 15:24 | JKL |
| 1,3-Dichlorobenzene | ND | ug/kg | 7 | EPA 8260B | 08/03/10 | 08/03/10 15:24 | JKL |
| 1,4-Dichlorobenzene | ND | ug/kg | 7 | EPA 8260B | 08/03/10 | 08/03/10 15:24 | JKL |
| 1,2-Dichlorobenzene | ND | ug/kg | 7 | EPA 8260B | 08/03/10 | 08/03/10 15:24 | JKL |
| 1,2-Dibromo-3-chloropropane | ND | ug/kg | 7 | EPA 8260B | 08/03/10 | 08/03/10 15:24 | JKL |
| 1,2,4-Trichlorobenzene | ND | ug/kg | 7 | EPA 8260B | 08/03/10 | 08/03/10 15:24 | JKL |



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# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

Urban Green Environmental
3634 Beech Ave.
Baltimore, MD 21211

Date Sampled: 07/31/10 12:30
Date Received: 08/02/10 11:50
Date Issued: 08/12/10

Project: State Center - Parcel G
Site Location: Baltimore City
Project Number: 016-006-10

**SDG Number: 10080203**

**Field Sample ID: SB-10A 4-5** **Matrix: Soil** **Lab ID: 10080203-09**

| | Result | Unit | LLQ | Method | Prepared | Analyzed | Init. |
|---|---|---|---|---|---|---|---|
| **Target Compound List - VOLATILES** | | | | | | | |
| Ethyl t-butyl ether (ETBE) | ND | ug/kg | 7 | EPA 8260B | 08/03/10 | 08/03/10 15:24 | JKL |
| tert-Butanol (TBA) | ND | ug/kg | 35 | EPA 8260B | 08/03/10 | 08/03/10 15:24 | JKL |
| Diisopropyl ether (DIPE) | ND | ug/kg | 7 | EPA 8260B | 08/03/10 | 08/03/10 15:24 | JKL |
| tert-Amyl methyl ether (TAME) | ND | ug/kg | 7 | EPA 8260B | 08/03/10 | 08/03/10 15:24 | JKL |
| tert-Amyl alcohol (TAA) | ND | ug/kg | 35 | EPA 8260B | 08/03/10 | 08/03/10 15:24 | JKL |
| tert-Amyl ethyl ether (TAEE) | ND | ug/kg | 7 | EPA 8260B | 08/03/10 | 08/03/10 15:24 | JKL |
| **Total Metals** | | | | | | | |
| Antimony | ND | mg/kg | 2 | EPA 6020A | 08/04/10 | 08/04/10 14:37 | MEL |
| Arsenic | **3.4** | mg/kg | 0.4 | EPA 6020A | 08/04/10 | 08/04/10 14:37 | MEL |
| Beryllium | ND | mg/kg | 2 | EPA 6020A | 08/04/10 | 08/04/10 14:37 | MEL |
| Cadmium | ND | mg/kg | 2 | EPA 6020A | 08/04/10 | 08/04/10 14:37 | MEL |
| Chromium | **16** | mg/kg | 2 | EPA 6020A | 08/04/10 | 08/04/10 14:37 | MEL |
| Copper | **11** | mg/kg | 2 | EPA 6020A | 08/04/10 | 08/04/10 14:37 | MEL |
| Lead | **43** | mg/kg | 2 | EPA 6020A | 08/04/10 | 08/04/10 14:37 | MEL |
| Mercury | **0.27** | mg/kg | 0.081 | EPA 6020A | 08/04/10 | 08/04/10 14:37 | MEL |
| Nickel | **8.0** | mg/kg | 2 | EPA 6020A | 08/04/10 | 08/04/10 14:37 | MEL |
| Selenium | ND | mg/kg | 2 | EPA 6020A | 08/04/10 | 08/04/10 14:37 | MEL |
| Silver | ND | mg/kg | 2 | EPA 6020A | 08/04/10 | 08/04/10 14:37 | MEL |
| Thallium | ND | mg/kg | 1.6 | EPA 6020A | 08/04/10 | 08/04/10 14:37 | MEL |
| Zinc | **31** | mg/kg | 2 | EPA 6020A | 08/04/10 | 08/04/10 14:37 | MEL |

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 Oshea
QC Chemist



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CALIBER ANALYTICAL SERVICES

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Phone: 410.825.1151
Fax: 410.825.2126
www.caslabs.net

# Chain of Custody Record

| | |
|---|---|
| **Customer:** | Urban Green Environment |
| **Contact/Report to:** | Denise A Sullivan |
| **Phone:** | 410-244-7215 |
| **Fax:** | 410-685-0226 |

| | |
|---|---|
| **E-mail address:** | denise@ugenv.com |
| **Project Name:** | State Center - Parcel G |
| **Project Number:** | 016-006-10 |
| **Site Location:** | Baltimore City |

| | |
|---|---|
| **SDG Number:** | 10080203 |
| **Sampled by:** | WDH |
| **PO Number:** | 016-006-10 |

**Page** 1 **of** 1

**Analysis Requested**

| Lab Number | Field Sample ID | Date Sampled | Time Sampled | No. of Bottles | Matrix * | Preservative | VOCs | SVOCs (SIM) | PPL Metals | Pesticides | Herbiceds | PCBs | | | | | Sampling Remarks/ Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | SB-8 0-1 | 07/31/10 | 0830 | 1 | S | | | x | x | | | | | | | | |
| | SB-8 4-5 | 07/31/10 | 0830 | 2+2 encores | | | x | x | x | x | x | x | | | | | |
| | SB-9 4-5 | 07/31/10 | 0915 | 1 | | | | | | | | | | | | | HOLD |
| | SB-10 0-1 | 07/31/10 | 1020 | 1 | | | | | | | | | | | | | HOLD |
| | SB-10 4-5 | 07/31/10 | 1020 | 2+2 encores | | | | | | | | | | | | | HOLD |
| | SB-11 4-5 | 07/31/10 | 1045 | 1 | | | | | | | | | | | | | HOLD |
| | SB-12 4-5 | 07/31/10 | 1135 | | | | | | | | | | | | | | HOLD |
| | SB-10A 0-1 | 07/31/10 | 1230 | 1 | | | | x | x | | | | | | | | |
| | SB-10A 4-5 | 07/31/10 | 1230 | 2+2 encores | | | x | x | x | x | x | x | | | | | |
| | SB-11B 4-5 | 07/31/10 | 1320 | 1 | | | | | | | | | | | | | HOLD |

| | | | | | | |
|---|---|---|---|---|---|---|
| **Relinquished by:** | Bill Harmon | **Date/Time:** | 8/2/10 1150 | **Deliverables:** | **Receipt Temperature:** | **Turnaround Time:** |
| **Received by:** | Matt Colvin | **Date/Time:** | 8/2/10 1150 | 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:** | | | | |

* W = Water; WW = Wastewater; GW = Groundwater; S = Soil; SL = Sludge

# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

Urban Green Environmental
3634 Beech Ave.
Baltimore, MD 21211

Date Sampled: 09/08/10 13:30
Date Received: 09/08/10 16:50
Date Issued: 09/14/10

Project: State Center
Site Location: W. Preston & N. Eutaw
Project Number: 016-006-10

**SDG Number: 10090809**

**Field Sample ID: SB-D** **Matrix: Soil** **Lab ID: 10090809-01**

| | Result | Unit | LLQ | Method | Prepared | Analyzed | Init. |
|---|---|---|---|---|---|---|---|
| **Percent Solids** | | | | | | | |
| Percent Solids | **89** | % | | SM2540G | 09/10/10 | 09/10/10 15:13 | LMJ |
| **Polycyclic Aromatic Hydrocarbons (SIM)** | | | | | | | |
| Acenaphthene | **58** | ug/kg | 5 | EPA 8270C | 09/14/10 | 09/14/10 10:13 | CBS |
| Acenaphthylene | **63** | ug/kg | 5 | EPA 8270C | 09/14/10 | 09/14/10 10:13 | CBS |
| Anthracene | **42** | ug/kg | 5 | EPA 8270C | 09/14/10 | 09/14/10 10:13 | CBS |
| Benzo[a]anthracene | **210** | ug/kg | 5 | EPA 8270C | 09/14/10 | 09/14/10 10:13 | CBS |
| Benzo[a]pyrene | **210** | ug/kg | 5 | EPA 8270C | 09/14/10 | 09/14/10 10:13 | CBS |
| Benzo[b]fluoranthene | **280** | ug/kg | 5 | EPA 8270C | 09/14/10 | 09/14/10 10:13 | CBS |
| Benzo[g,h,i]perylene | **270** | ug/kg | 5 | EPA 8270C | 09/14/10 | 09/14/10 10:13 | CBS |
| Benzo[k]fluoranthene | **130** | ug/kg | 5 | EPA 8270C | 09/14/10 | 09/14/10 10:13 | CBS |
| Chrysene | **240** | ug/kg | 5 | EPA 8270C | 09/14/10 | 09/14/10 10:13 | CBS |
| Dibenz[a,h]anthracene | **100** | ug/kg | 5 | EPA 8270C | 09/14/10 | 09/14/10 10:13 | CBS |
| Fluoranthene | **400** | ug/kg | 5 | EPA 8270C | 09/14/10 | 09/14/10 10:13 | CBS |
| Fluorene | **47** | ug/kg | 5 | EPA 8270C | 09/14/10 | 09/14/10 10:13 | CBS |
| Indeno[1,2,3-cd]pyrene | **240** | ug/kg | 5 | EPA 8270C | 09/14/10 | 09/14/10 10:13 | CBS |
| 2-Methylnaphthalene | **64** | ug/kg | 5 | EPA 8270C | 09/14/10 | 09/14/10 10:13 | CBS |
| Naphthalene` | **35** | ug/kg | 5 | EPA 8270C | 09/14/10 | 09/14/10 10:13 | CBS |
| Phenanthrene | **160** | ug/kg | 5 | EPA 8270C | 09/14/10 | 09/14/10 10:13 | CBS |
| Pyrene | **360** | ug/kg | 5 | EPA 8270C | 09/14/10 | 09/14/10 10:13 | 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 Oshen
QC Chemist



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# Certificate of Analysis

Urban Green Environmental
3634 Beech Ave.
Baltimore, MD 21211

Date Sampled: 09/08/10 13:55
Date Received: 09/08/10 16:50
Date Issued: 09/14/10

Project: State Center
Site Location: W. Preston & N. Eutaw
Project Number: 016-006-10

**SDG Number: 10090809**

**Field Sample ID: SB-E** **Matrix: Soil** **Lab ID: 10090809-02**

| | Result | Unit | LLQ | Method | Prepared | Analyzed | Init. |
|---|---|---|---|---|---|---|---|
| **Hexavalent Chromium in Soil** | | | | | | | |
| Hexavalent Chromium | ND | mg/kg | 2.7 | EPA 7196A | 09/14/10 | 09/14/10 11:00 | MEL |
| **Percent Solids** | | | | | | | |
| Percent Solids | **90** | % | | SM2540G | 09/10/10 | 09/10/10 15:13 | LMJ |
| **Polycyclic Aromatic Hydrocarbons (SIM)** | | | | | | | |
| Acenaphthene | **34** | ug/kg | 6 | EPA 8270C | 09/14/10 | 09/14/10 10:51 | CBS |
| Acenaphthylene | **34** | ug/kg | 6 | EPA 8270C | 09/14/10 | 09/14/10 10:51 | CBS |
| Anthracene | **34** | ug/kg | 6 | EPA 8270C | 09/14/10 | 09/14/10 10:51 | CBS |
| Benzo[a]anthracene | **150** | ug/kg | 6 | EPA 8270C | 09/14/10 | 09/14/10 10:51 | CBS |
| Benzo[a]pyrene | **170** | ug/kg | 6 | EPA 8270C | 09/14/10 | 09/14/10 10:51 | CBS |
| Benzo[b]fluoranthene | **220** | ug/kg | 6 | EPA 8270C | 09/14/10 | 09/14/10 10:51 | CBS |
| Benzo[g,h,i]perylene | **240** | ug/kg | 6 | EPA 8270C | 09/14/10 | 09/14/10 10:51 | CBS |
| Benzo[k]fluoranthene | **91** | ug/kg | 6 | EPA 8270C | 09/14/10 | 09/14/10 10:51 | CBS |
| Chrysene | **180** | ug/kg | 6 | EPA 8270C | 09/14/10 | 09/14/10 10:51 | CBS |
| Dibenz[a,h]anthracene | **110** | ug/kg | 6 | EPA 8270C | 09/14/10 | 09/14/10 10:51 | CBS |
| Fluoranthene | **270** | ug/kg | 6 | EPA 8270C | 09/14/10 | 09/14/10 10:51 | CBS |
| Fluorene | **28** | ug/kg | 6 | EPA 8270C | 09/14/10 | 09/14/10 10:51 | CBS |
| Indeno[1,2,3-cd]pyrene | **220** | ug/kg | 6 | EPA 8270C | 09/14/10 | 09/14/10 10:51 | CBS |
| 2-Methylnaphthalene | **45** | ug/kg | 6 | EPA 8270C | 09/14/10 | 09/14/10 10:51 | CBS |
| Naphthalene` | **31** | ug/kg | 6 | EPA 8270C | 09/14/10 | 09/14/10 10:51 | CBS |
| Phenanthrene | **120** | ug/kg | 6 | EPA 8270C | 09/14/10 | 09/14/10 10:51 | CBS |
| Pyrene | **260** | ug/kg | 6 | EPA 8270C | 09/14/10 | 09/14/10 10:51 | CBS |
| **Total Metals** | | | | | | | |
| Antimony | ND | mg/kg | 2.6 | EPA 6020A | 09/10/10 | 09/13/10 14:19 | MEL |
| Arsenic | **2.4** | mg/kg | 0.52 | EPA 6020A | 09/10/10 | 09/13/10 14:19 | MEL |
| Beryllium | ND | mg/kg | 2.6 | EPA 6020A | 09/10/10 | 09/13/10 14:19 | MEL |
| Cadmium | ND | mg/kg | 2.6 | EPA 6020A | 09/10/10 | 09/13/10 14:19 | MEL |
| Chromium | **22** | mg/kg | 2.6 | EPA 6020A | 09/10/10 | 09/13/10 14:19 | MEL |
| Copper | **12** | mg/kg | 2.6 | EPA 6020A | 09/10/10 | 09/13/10 14:19 | MEL |
| Lead | **400** | mg/kg | 2.6 | EPA 6020A | 09/10/10 | 09/13/10 14:19 | MEL |
| Mercury | **0.32** | mg/kg | 0.1 | EPA 6020A | 09/10/10 | 09/13/10 14:19 | MEL |
| Nickel | **7.2** | mg/kg | 2.6 | EPA 6020A | 09/10/10 | 09/13/10 14:19 | MEL |
| Selenium | ND | mg/kg | 2.6 | EPA 6020A | 09/10/10 | 09/13/10 14:19 | MEL |
| Silver | ND | mg/kg | 2.6 | EPA 6020A | 09/10/10 | 09/13/10 14:19 | MEL |
| Thallium | ND | mg/kg | 2.1 | EPA 6020A | 09/10/10 | 09/13/10 14:19 | MEL |
| Zinc | **97** | mg/kg | 2.6 | EPA 6020A | 09/10/10 | 09/13/10 14:19 | MEL |



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# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

Urban Green Environmental
3634 Beech Ave.
Baltimore, MD 21211

Date Sampled: 09/08/10 13:55
Date Received: 09/08/10 16:50
Date Issued: 09/14/10

Project: State Center
Site Location: W. Preston & N. Eutaw
Project Number: 016-006-10

**SDG Number: 10090809**

**Field Sample ID: SB-E** **Matrix: Soil** **Lab ID: 10090809-02**

| | Result | Unit | LLQ | Method | Prepared | Analyzed | Init. |
|---|---|---|---|---|---|---|---|

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 Oshen
QC Chemist



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# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

Urban Green Environmental
3634 Beech Ave.
Baltimore, MD 21211

Date Sampled: 09/08/10 14:35
Date Received: 09/08/10 16:50
Date Issued: 09/14/10

Project: State Center
Site Location: W. Preston & N. Eutaw
Project Number: 016-006-10

**SDG Number: 10090809**

**Field Sample ID: SB-F** **Matrix: Soil** **Lab ID: 10090809-03**

| | Result | Unit | LLQ | Method | Prepared | Analyzed | Init. |
|---|---|---|---|---|---|---|---|
| **Percent Solids** | | | | | | | |
| Percent Solids | **90** | % | | SM2540G | 09/10/10 | 09/10/10 15:13 | LMJ |
| **Polycyclic Aromatic Hydrocarbons (SIM)** | | | | | | | |
| Acenaphthene | **9** | ug/kg | 6 | EPA 8270C | 09/14/10 | 09/14/10 12:07 | CBS |
| Acenaphthylene | **8** | ug/kg | 6 | EPA 8270C | 09/14/10 | 09/14/10 12:07 | CBS |
| Anthracene | **23** | ug/kg | 6 | EPA 8270C | 09/14/10 | 09/14/10 12:07 | CBS |
| Benzo[a]anthracene | **170** | ug/kg | 6 | EPA 8270C | 09/14/10 | 09/14/10 12:07 | CBS |
| Benzo[a]pyrene | **190** | ug/kg | 6 | EPA 8270C | 09/14/10 | 09/14/10 12:07 | CBS |
| Benzo[b]fluoranthene | **260** | ug/kg | 6 | EPA 8270C | 09/14/10 | 09/14/10 12:07 | CBS |
| Benzo[g,h,i]perylene | **250** | ug/kg | 6 | EPA 8270C | 09/14/10 | 09/14/10 12:07 | CBS |
| Benzo[k]fluoranthene | **100** | ug/kg | 6 | EPA 8270C | 09/14/10 | 09/14/10 12:07 | CBS |
| Chrysene | **220** | ug/kg | 6 | EPA 8270C | 09/14/10 | 09/14/10 12:07 | CBS |
| Dibenz[a,h]anthracene | **62** | ug/kg | 6 | EPA 8270C | 09/14/10 | 09/14/10 12:07 | CBS |
| Fluoranthene | **390** | ug/kg | 6 | EPA 8270C | 09/14/10 | 09/14/10 12:07 | CBS |
| Fluorene | **9** | ug/kg | 6 | EPA 8270C | 09/14/10 | 09/14/10 12:07 | CBS |
| Indeno[1,2,3-cd]pyrene | **210** | ug/kg | 6 | EPA 8270C | 09/14/10 | 09/14/10 12:07 | CBS |
| 2-Methylnaphthalene | **22** | ug/kg | 6 | EPA 8270C | 09/14/10 | 09/14/10 12:07 | CBS |
| Naphthalene` | **12** | ug/kg | 6 | EPA 8270C | 09/14/10 | 09/14/10 12:07 | CBS |
| Phenanthrene | **180** | ug/kg | 6 | EPA 8270C | 09/14/10 | 09/14/10 12:07 | CBS |
| Pyrene | **360** | ug/kg | 6 | EPA 8270C | 09/14/10 | 09/14/10 12:07 | 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 Oshe
QC Chemist



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# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

Urban Green Environmental
3634 Beech Ave.
Baltimore, MD 21211

Date Sampled: 09/08/10 15:05
Date Received: 09/08/10 16:50
Date Issued: 09/14/10

Project: State Center
Site Location: W. Preston & N. Eutaw
Project Number: 016-006-10

**SDG Number: 10090809**

**Field Sample ID: SB-C** **Matrix: Soil** **Lab ID: 10090809-04**

| | Result | Unit | LLQ | Method | Prepared | Analyzed | Init. |
|---|---|---|---|---|---|---|---|
| **Percent Solids** | | | | | | | |
| Percent Solids | **90** | % | | SM2540G | 09/10/10 | 09/10/10 15:13 | LMJ |
| **Polycyclic Aromatic Hydrocarbons (SIM)** | | | | | | | |
| Acenaphthene | **8** | ug/kg | 6 | EPA 8270C | 09/14/10 | 09/14/10 12:44 | CBS |
| Acenaphthylene | **10** | ug/kg | 6 | EPA 8270C | 09/14/10 | 09/14/10 12:44 | CBS |
| Anthracene | **28** | ug/kg | 6 | EPA 8270C | 09/14/10 | 09/14/10 12:44 | CBS |
| Benzo[a]anthracene | **140** | ug/kg | 6 | EPA 8270C | 09/14/10 | 09/14/10 12:44 | CBS |
| Benzo[a]pyrene | **150** | ug/kg | 6 | EPA 8270C | 09/14/10 | 09/14/10 12:44 | CBS |
| Benzo[b]fluoranthene | **210** | ug/kg | 6 | EPA 8270C | 09/14/10 | 09/14/10 12:44 | CBS |
| Benzo[g,h,i]perylene | **170** | ug/kg | 6 | EPA 8270C | 09/14/10 | 09/14/10 12:44 | CBS |
| Benzo[k]fluoranthene | **84** | ug/kg | 6 | EPA 8270C | 09/14/10 | 09/14/10 12:44 | CBS |
| Chrysene | **170** | ug/kg | 6 | EPA 8270C | 09/14/10 | 09/14/10 12:44 | CBS |
| Dibenz[a,h]anthracene | **46** | ug/kg | 6 | EPA 8270C | 09/14/10 | 09/14/10 12:44 | CBS |
| Fluoranthene | **290** | ug/kg | 6 | EPA 8270C | 09/14/10 | 09/14/10 12:44 | CBS |
| Fluorene | **12** | ug/kg | 6 | EPA 8270C | 09/14/10 | 09/14/10 12:44 | CBS |
| Indeno[1,2,3-cd]pyrene | **140** | ug/kg | 6 | EPA 8270C | 09/14/10 | 09/14/10 12:44 | CBS |
| 2-Methylnaphthalene | **22** | ug/kg | 6 | EPA 8270C | 09/14/10 | 09/14/10 12:44 | CBS |
| Naphthalene` | **11** | ug/kg | 6 | EPA 8270C | 09/14/10 | 09/14/10 12:44 | CBS |
| Phenanthrene | **130** | ug/kg | 6 | EPA 8270C | 09/14/10 | 09/14/10 12:44 | CBS |
| Pyrene | **280** | ug/kg | 6 | EPA 8270C | 09/14/10 | 09/14/10 12:44 | CBS |

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

Approved by: 
QC Chemist



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# Certificate of Analysis

Urban Green Environmental
3634 Beech Ave.
Baltimore, MD 21211

Date Sampled: 09/08/10 15:40
Date Received: 09/08/10 16:50
Date Issued: 09/14/10

Project: State Center
Site Location: W. Preston & N. Eutaw
Project Number: 016-006-10

**SDG Number: 10090809**

**Field Sample ID: SB-A** **Matrix: Soil** **Lab ID: 10090809-05**

| | Result | Unit | LLQ | Method | Prepared | Analyzed | Init. |
|---|---|---|---|---|---|---|---|
| **Hexavalent Chromium in Soil** | | | | | | | |
| Hexavalent Chromium | ND | mg/kg | 2.7 | EPA 7196A | 09/14/10 | 09/14/10 11:00 | MEL |
| **Percent Solids** | | | | | | | |
| Percent Solids | **89** | % | | SM2540G | 09/10/10 | 09/10/10 15:13 | LMJ |
| **Polycyclic Aromatic Hydrocarbons (SIM)** | | | | | | | |
| Acenaphthene | **13** | ug/kg | 6 | EPA 8270C | 09/14/10 | 09/14/10 13:22 | CBS |
| Acenaphthylene | **10** | ug/kg | 6 | EPA 8270C | 09/14/10 | 09/14/10 13:22 | CBS |
| Anthracene | **41** | ug/kg | 6 | EPA 8270C | 09/14/10 | 09/14/10 13:22 | CBS |
| Benzo[a]anthracene | **180** | ug/kg | 6 | EPA 8270C | 09/14/10 | 09/14/10 13:22 | CBS |
| Benzo[a]pyrene | **180** | ug/kg | 6 | EPA 8270C | 09/14/10 | 09/14/10 13:22 | CBS |
| Benzo[b]fluoranthene | **250** | ug/kg | 6 | EPA 8270C | 09/14/10 | 09/14/10 13:22 | CBS |
| Benzo[g,h,i]perylene | **190** | ug/kg | 6 | EPA 8270C | 09/14/10 | 09/14/10 13:22 | CBS |
| Benzo[k]fluoranthene | **100** | ug/kg | 6 | EPA 8270C | 09/14/10 | 09/14/10 13:22 | CBS |
| Chrysene | **200** | ug/kg | 6 | EPA 8270C | 09/14/10 | 09/14/10 13:22 | CBS |
| Dibenz[a,h]anthracene | **52** | ug/kg | 6 | EPA 8270C | 09/14/10 | 09/14/10 13:22 | CBS |
| Fluoranthene | **410** | ug/kg | 6 | EPA 8270C | 09/14/10 | 09/14/10 13:22 | CBS |
| Fluorene | **13** | ug/kg | 6 | EPA 8270C | 09/14/10 | 09/14/10 13:22 | CBS |
| Indeno[1,2,3-cd]pyrene | **170** | ug/kg | 6 | EPA 8270C | 09/14/10 | 09/14/10 13:22 | CBS |
| 2-Methylnaphthalene | **22** | ug/kg | 6 | EPA 8270C | 09/14/10 | 09/14/10 13:22 | CBS |
| Naphthalene` | **12** | ug/kg | 6 | EPA 8270C | 09/14/10 | 09/14/10 13:22 | CBS |
| Phenanthrene | **240** | ug/kg | 6 | EPA 8270C | 09/14/10 | 09/14/10 13:22 | CBS |
| Pyrene | **350** | ug/kg | 6 | EPA 8270C | 09/14/10 | 09/14/10 13:22 | CBS |
| **Total Metals** | | | | | | | |
| Antimony | ND | mg/kg | 2.4 | EPA 6020A | 09/10/10 | 09/13/10 14:50 | MEL |
| Arsenic | **2.2** | mg/kg | 0.48 | EPA 6020A | 09/10/10 | 09/13/10 14:50 | MEL |
| Beryllium | ND | mg/kg | 2.4 | EPA 6020A | 09/10/10 | 09/13/10 14:50 | MEL |
| Cadmium | ND | mg/kg | 2.4 | EPA 6020A | 09/10/10 | 09/13/10 14:50 | MEL |
| Chromium | **18** | mg/kg | 2.4 | EPA 6020A | 09/10/10 | 09/13/10 14:50 | MEL |
| Copper | **10** | mg/kg | 2.4 | EPA 6020A | 09/10/10 | 09/13/10 14:50 | MEL |
| Lead | **470** | mg/kg | 2.4 | EPA 6020A | 09/10/10 | 09/13/10 14:50 | MEL |
| Mercury | **0.25** | mg/kg | 0.097 | EPA 6020A | 09/10/10 | 09/13/10 14:50 | MEL |
| Nickel | **5.7** | mg/kg | 2.4 | EPA 6020A | 09/10/10 | 09/13/10 14:50 | MEL |
| Selenium | ND | mg/kg | 2.4 | EPA 6020A | 09/10/10 | 09/13/10 14:50 | MEL |
| Silver | ND | mg/kg | 2.4 | EPA 6020A | 09/10/10 | 09/13/10 14:50 | MEL |
| Thallium | ND | mg/kg | 1.9 | EPA 6020A | 09/10/10 | 09/13/10 14:50 | MEL |
| Zinc | **100** | mg/kg | 2.4 | EPA 6020A | 09/10/10 | 09/13/10 14:50 | MEL |



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# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

Urban Green Environmental
3634 Beech Ave.
Baltimore, MD 21211

Date Sampled: 09/08/10 15:40
Date Received: 09/08/10 16:50
Date Issued: 09/14/10

Project: State Center
Site Location: W. Preston & N. Eutaw
Project Number: 016-006-10

**SDG Number: 10090809**

| **Field Sample ID:** | **SB-A** | **Matrix:** | **Soil** | **Lab ID:** | **10090809-05** |
|---|---|---|---|---|---|

| | Result | Unit | LLQ | Method | Prepared | Analyzed | Init. |
|---|---|---|---|---|---|---|---|

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

Approved by:

QC Chemist



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

# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

Urban Green Environmental
3634 Beech Ave.
Baltimore, MD 21211

Date Sampled: 09/08/10 16:05
Date Received: 09/08/10 16:50
Date Issued: 09/14/10

Project: State Center
Site Location: W. Preston & N. Eutaw
Project Number: 016-006-10

**SDG Number: 10090809**

**Field Sample ID: SB-B** **Matrix: Soil** **Lab ID: 10090809-06**

| | Result | Unit | LLQ | Method | Prepared | Analyzed | Init. |
|---|---|---|---|---|---|---|---|
| **Percent Solids** | | | | | | | |
| Percent Solids | **90** | % | | SM2540G | 09/10/10 | 09/10/10 15:13 | LMJ |
| **Polycyclic Aromatic Hydrocarbons (SIM)** | | | | | | | |
| Acenaphthene | ND | ug/kg | 5 | EPA 8270C | 09/14/10 | 09/14/10 15:15 | CBS |
| Acenaphthylene | **11** | ug/kg | 5 | EPA 8270C | 09/14/10 | 09/14/10 15:15 | CBS |
| Anthracene | **16** | ug/kg | 5 | EPA 8270C | 09/14/10 | 09/14/10 15:15 | CBS |
| Benzo[a]anthracene | **96** | ug/kg | 5 | EPA 8270C | 09/14/10 | 09/14/10 15:15 | CBS |
| Benzo[a]pyrene | **100** | ug/kg | 5 | EPA 8270C | 09/14/10 | 09/14/10 15:15 | CBS |
| Benzo[b]fluoranthene | **140** | ug/kg | 5 | EPA 8270C | 09/14/10 | 09/14/10 15:15 | CBS |
| Benzo[g,h,i]perylene | **120** | ug/kg | 5 | EPA 8270C | 09/14/10 | 09/14/10 15:15 | CBS |
| Benzo[k]fluoranthene | **53** | ug/kg | 5 | EPA 8270C | 09/14/10 | 09/14/10 15:15 | CBS |
| Chrysene | **120** | ug/kg | 5 | EPA 8270C | 09/14/10 | 09/14/10 15:15 | CBS |
| Dibenz[a,h]anthracene | **35** | ug/kg | 5 | EPA 8270C | 09/14/10 | 09/14/10 15:15 | CBS |
| Fluoranthene | **210** | ug/kg | 5 | EPA 8270C | 09/14/10 | 09/14/10 15:15 | CBS |
| Fluorene | **5** | ug/kg | 5 | EPA 8270C | 09/14/10 | 09/14/10 15:15 | CBS |
| Indeno[1,2,3-cd]pyrene | **110** | ug/kg | 5 | EPA 8270C | 09/14/10 | 09/14/10 15:15 | CBS |
| 2-Methylnaphthalene | **12** | ug/kg | 5 | EPA 8270C | 09/14/10 | 09/14/10 15:15 | CBS |
| Naphthalene` | **13** | ug/kg | 5 | EPA 8270C | 09/14/10 | 09/14/10 15:15 | CBS |
| Phenanthrene | **100** | ug/kg | 5 | EPA 8270C | 09/14/10 | 09/14/10 15:15 | CBS |
| Pyrene | **180** | ug/kg | 5 | EPA 8270C | 09/14/10 | 09/14/10 15:15 | 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 Oshe
QC Chemist



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# Chain of Custody Record

| | | | | | |
|---|---|---|---|---|---|
| Customer: | URBAN GREEN ENVIRONMENTAL | E-mail address: | denise@ugenv.com | SDG Number: | 10090809 |
| Contact/Report to: | DENISE SULLIVAN | Project Name: | STATE CENTER | | |
| Phone: | 410-244-7215 | Project Number: | 016-006-10 | Sampled by: | BILL HARMON |
| Fax: | 410-685-0266 | Location: | W. PRESTON & N. EUTAW | PO Number: | |

Analysis Requested

| Lab Number | Field Sample ID | Date Sampled | Time Sampled | No. of Bottles | Matrix | Preservative | PPLM / HEX CHROM | PAHS SIM | Sampling Remarks/ Comments |
|---|---|---|---|---|---|---|---|---|---|
| | SB-D | 9/8/10 | 13:30 | 1 | SOIL | | | X | |
| | SB-E | | 13:55 | 1 | | | X | X | |
| | SB-F | | 14:35 | 1 | | | | X | |
| | SB-C | | 15:05 | 1 | | | | X | |
| | SB-A | | 15:40 | 1 | | | X | X | |
| | SB-B | | 16:05 | 1 | | | | X | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| Relinquished by: | Bill Harmon | Date/Time: | 9/8/10 1650 | Deliverables: | Receipt Temperature: | Turnaround Time: |
| Received by: | Matt Colvin | Date/Time: | 9/8/10 1650 | I II III CLP EDD | Temp:____ On Ice | STD Next Day 2-Day Other Fast |
| 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: | | | | |