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FINAL Response Action Plan

Gateway South Phase I and Warner Street Properties

1501, 1601, 1629, 1633, and 1649 Warner Street
2119 Haines Street
2104 Worcester Street
2102 Oler Street
1501, 1525, and 1551 Russell Street
Baltimore, Maryland 21230

Prepared For:

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1.0 INTRODUCTION

At the direction of the Maryland Department of the Environment (MDE) and on behalf of CBAC Gaming, LLC (CBAC or Participant), Urban Green Environmental, LLC (Urban Green), has prepared this revision to the Response Action Plan Amendment approved by MDE on November 27, 2012 for the Gateway South Phase I and Warner Street Properties located in Baltimore, Maryland (Site). A Site location map is attached as Figure 1.

On April 25, 2008 and June 4, 2009, the Baltimore Development Corporation (BDC) on behalf of the City of Baltimore, submitted applications for the Gateway South Phase I and Warner Street Properties to the MDE Voluntary Cleanup Program (VCP). Following the completion of several Phase I Environmental Site Assessments (ESAs) and Phase II ESAs, on December 22, 2009 and March 18, 2010, each property was accepted into the MDE VCP. As part of the VCP acceptance for each property, the MDE VCP requested that a Response Action Plan (RAP) be developed, approved and implemented to address potential risks due to the presence of metals and polycyclic aromatic hydrocarbons (PAHs) in soil and volatile organic compounds (VOCs) and pesticides in groundwater at the Site. In addition, as part of the RAP for the Warner Street Properties, the MDE VCP required that the RAP include additional soil gas sampling for heptachlor proximate to the former soil boring SB-42 on the Warner Street Properties Site.

In June 2012, CBAC submitted an application for the Site to the MDE VCP. The Participant subsequently submitted a Response Action Plan Amendment, amending the Baltimore Development Corporation's Response Action Plan, which had been approved by MDE on September 15, 2011. CBAC received approval from MDE on the Response Action Plan Amendment on November 27, 2012 (hereafter Approved RAP).

1.1 Purpose and Scope

The Approved RAP is hereby revised in order to respond to comments provided to the Participant by MDE on May 6, 2013, following an additional public comment period that closed on April 23, 2013. This document incorporates CBAC's revisions to the Approved RAP so that, upon MDE approval, a single document will provide a summary of the environmental investigations performed to date, an evaluation of the potential migration pathways and potentially exposed populations for each contaminant and media of concern at the Site under the present and future use scenarios, and a description of the remedy for the Site. The remedy consists of engineering and institutional controls consisting of a containment remedy, vapor mitigation, deed restrictions prohibiting groundwater use, and deed restrictions on future excavations to mitigate associated risks to human health and the environment at the Site. In addition, this Response Action Plan also includes soil removal action(s) in select areas of the Site.

CBAC will comply with all local, state and federal laws and regulations by obtaining all necessary approvals and permits to conduct the activities pursuant to an approved RAP. If during

implementation of the Approved RAP or any revisions or addenda thereto, any previously undiscovered contamination or citation from regulatory entities related to health and safety practices are identified, the MDE VCP will be verbally notified within one business day by CBAC. Written notification will be submitted within ten business days.

2.0 SITE DESCRIPTION

2.1 Site Description

The Site consists of eleven parcels of land located in the Carroll-Camden Industrial Area of the City of Baltimore and comprises approximately 8.58 acres.

The Warner Street Properties Site Parcels are located at 1501, 1601, 1629, 1633 and 1645 Warner Street, 2119 Haines Street, and 2102 Oler Street in Baltimore, Maryland. The property consists of eight lots located south of Warner Street in the Carroll-Camden area of Baltimore City. Until March 2013, the property was improved with a combination of paved parking areas and vacant warehouse foundations which were located on the 1501, 1601, 1633 and 1645 Warner Street Properties and 2104 Worcester and 2102 Oler Street properties.

The Gateway South, Phase I Site Parcels are located at 1501, 1525 and 1551 Russell Street in Baltimore, Maryland. Until March 2013, the property also consisted of a combination of paved parking areas and former warehouse/building foundations. The property was most recently occupied by Maryland Chemical Company.

A Site location map is attached as Figure 1; Site tax plats are attached as Figures 2a, 2b, and 2c; and a Site plan is attached as Figure 3.

2.2 Site Setting

The Site is currently zoned industrial, and is located in a densely developed, mixed use, area of Baltimore City. The Gateway South Phase I Site Parcels are bordered to the north by a self-storage facility, to the northwest by Warner Street with the Gateway South Phase I Site Parcels (former Maryland Chemical), and bordered to the south and southeast by undeveloped waterfront parcels owned by the City of Baltimore.

The Warner Street Properties Site Parcels are bound to the northwest by Russell Street, beyond which are warehouses and a gasoline filling station, bound to the northeast by Worcester Street, beyond which is a self-storage facility, bound to the southwest by Bayard Street, and bound to the southeast by Warner Street, beyond which are the Warner Street Properties Site Parcels.

The Site is serviced by municipal water, municipal sewer, and a combination of electric and natural gas. No known potable water supply wells are located on the Site or surrounding properties. No surface water bodies are located on the Site. The nearest surface water body, the Middle Branch of the Patapsco River, is located approximately 300 feet southeast of the Site.

2.3 Site History

The following Site history is based on information provided in the prior *Phase I ESA Reports* (KCI 2007a, 2007c, and 2009a) and information available online from the MDE VCP. A summary of select historic uses is also provided on the Site plan attached as Figure 3.

The Gateway South Phase I Site Parcels were operated by American Cyanamid, an industrial manufacturer of pesticides and agricultural chemicals, operated on the property from the 1890s through the early 1900s. The nature of the operations on the property is not known. From 1904 to approximately 2009, the Maryland Chemical Company operated on the property and used the property for the storage and sale of custom blended chemicals. Maryland Chemical Company discharged wastes from a neutralization tank to the sanitary sewer under a National Pollution Discharge and Elimination System (NPDES) permit. Eastfield Container Corporation was also located at 1501 Russell Street for an unknown period and was identified as a small quantity generator.

The Warner Street Properties Site Parcels have also been developed since the 1800s, primarily for industrial uses. The specific uses of each property are discussed below.

The 1501 Warner Street property was improved with a warehouse as early as 1890. The 1601 Warner Street property was occupied by Baltimore Cedar Company, a manufacturer of wood items in at least 1890. The facility included a warehouse, wood working machinery and a stem dry kiln/sawing operation. In 1901 and continuing until at least 1952, J.B. McNeal and Company Varnish and Color Works facility operated at the 1601 Warner Street Property. The J.B. McNeal facility was improved with two warehouses; the southern warehouse has also been identified as an oil storage area.

The 1629 Warner Street property housed a stable in the 1890s. By 1901, the building was identified as vacant; however by 1914, the property was improved with four shed-like structures. In 1952, the property was occupied by Gordon Carton, Inc., a folding box factory.

From 1890 to 1901, the 1633 Warner Street property was occupied by a stable and office. In 1914, the property was occupied by C.D. Pruden Company, a manufacturer of fire proof doors and windows. In 1952, the property was occupied by paper warehouse #3 for the Gordon Carton, Inc.

From 1890 to 1901, the 1645 Warner Street property was occupied by a small office. In 1914, the western portion of the property was vacant, while the eastern portion was occupied by a shed and storage for the C.D. Pruden Company facility that was also located on the neighboring property. In 1952, the property was occupied by Gibson & Kirk Company, a brass foundry and machine shop.

From 1890 to 1901, the 2119 Haines Street property was occupied by part of L.T. Ranstead Wharf and was used as a loading platform and storage structure. In 1914, irregular temporary lumber piles were present on the property, and in 1952 it was unoccupied.

2.4 Environmental Setting

2.4.1 Topography

According to the U.S. Geological Survey (USGS) topographic map of Baltimore East (1974) the Site elevation moderately grades from approximately 10 (ft) above mean sea level on the northwestern portion of the Site to approximately 5 ft above mean sea level on the southeastern portion of the Site. In general, the subject property slopes gently to the southeast towards the Middle Branch of the Patapsco River. Overland storm water flow discharges are directed to the municipal storm water catch basins located within the surrounding thoroughfares. These municipal storm water catch basins drain to the Middle Branch of the Patapsco River. The nearest surface water body, the Middle Branch of the Patapsco River, is located approximately 300 feet south of the Site.

2.4.2 Geology

According to the prior *Phase I ESAs* (KCI 2007a, 2007c, and 2009a) and Maryland Geologic Society 1968 Geologic Map of Maryland, the Site is situated near the generalized boundary between the Piedmont Physiographic Province and the Coastal Plain Physiographic Province.

The Piedmont Physiographic Province is an area underlain by ancient hard, crystalline igneous and metamorphic rock types extending from the inner edge of the Coastal Plain westward to Catoctin Mountain, the eastern boundary of the Blue Ridge Province. Bedrock in the eastern part of the Piedmont consists of schist, gneiss, gabbro, and other highly metamorphosed sedimentary and igneous rocks of probable volcanic origin. In several places these rocks have been intruded by granitic plutons and pegmatites. Several domal uplifts of Precambrian gneiss mantled with quartzite, marble, and schist are present in Baltimore County and in parts of adjacent counties.

The Atlantic Coastal Plain Physiographic Province is underlain by the Lowland Deposits. Soils within these formations consist of Cretaceous age soils consisting of medium to coarse-grained sand and gravel and varicolored silts and clays.

The geology beneath the subject site generally consists of the Patapsco Formation. The Patapsco Formation (Kps) is approximately 0.5 to 30 meters in thickness and consists of well-sorted, medium to fine grained quartz sand with abundant quartz gravel and clay clasts. Sands associated with the Patapsco Formation are planar to high-angle crossbedded and occasionally have fining-upward sequences.

2.4.3 Lithology

According to the Phase I ESAs (KCI 2007a, 2007c, and 2009a, Urban Green 2013b), native soils throughout the eastern portion of the Site are comprised of the Udorthents series, which consist of an earthy fill and non-soil material on poorly drained to somewhat excessively drained soils to provide sites for roads, recreational areas and railroads. 80% of the fill is comprised of a sandy, silty, clayey, and gravelly mixture and the remaining 20% of soil is comprised of human trash, bricks, wire and metals.

The western portion of the subject site consists of Urban Land-Beltsville-Keyport Complex. The Urban Land-Beltsville-Keyport Complex consists of moderately well drained soils that have been cut, graded, or filled for buildings, concrete or asphalt. As of March 2013, 40% of this material was covered by concrete, buildings or asphalt. 30% of the material consisted of a mixture of silt, sand and clay. The remaining 20% of the material was relatively undisturbed.

Overburden soil at the Site has been observed to consist primarily of fill material consisting of sands, brick, asphalt, cobbles and gravel.

Groundwater at the Site appears to be situated at depths ranging from five to nine feet below grade and has been surveyed to flow in a general southeasterly direction across the Site.

2.5 Areas of Concern

Environmental investigations of the Gateway South Phase I and Warner Street Properties which have supported the existing VCP applications for the Sites date back to 2007 and include three Phase II ESAs and two Supplemental Phase II ESAs (KCI 2007b, 2008, 2009b, 2009c, and 2009d).

A summary of the prior investigations is provided below. Prior media sampling locations, performed during these investigations are illustrated in Figure 4. A summary of the prior soil, groundwater and soil gas analytical results are presented in Tables 1, 2 and 3. A summary of the prior soil, groundwater, and soil gas analytical results are also presented on Figures 5, 6, 7 and 8.

2.5.1 Soil

Based on information in numerous studies which included a discussion of previous reports conducted on the various parcels, concentrations of heavy metals, semi-volatile organic compounds (SVOCs), petroleum compounds, and volatile organic compounds (VOCs), have been identified in surface and subsurface soil at the Site at concentrations which exceed MDE Cleanup Standards for Non-Residential Soil.

A summary of the analytes detected in soil above the MDE Cleanup Standards for Non-Residential Soil is provided in Table 1 and presented on Figures 5 and 6.

2.5.2 Groundwater

Based on information provided in previous reports, concentrations of VOCs, SVOCs, petroleum-related compounds, and pesticides have been identified in groundwater at the Site at concentrations which exceed MDE Cleanup Standards for Groundwater.

A summary of the analytes detected in groundwater above the MDE Cleanup Standards is provided in Table 2 and presented on Figure 7.

In addition to the above, in August 2011 a Report of Preliminary Geotechnical Exploration was completed at the Site by Geo-Technology Associates, Inc. (GTA). As part of this geotechnical investigation, five temporary groundwater monitoring wells (GTA-1W, GTA-3W, GTA-5W, GTA-7W and GTA-8W) were installed at the Site to measure the depth to groundwater and to evaluate the potential for light non-aqueous phase liquids (LNAPL). The depth to groundwater at the Site was measured to range from 5.6 ft below grade to 10.3 feet below grade. No discernible thicknesses of LNAPL were observed. Temporary groundwater monitoring well locations are illustrated on Figures 4 and 6.

2.5.3 Soil Gas

Based on information provided in previous reports, concentrations of VOCs, including benzene, hexane, pentane, 1,1,1-trichloroethane, trichloroethene (TCE), cis-1-2-Dichloroethene, tetrachloroethene (PCE), trans-1, 2-dichloroethene, chloroform, and vinyl chloride have been reported in soil gas at the Site at concentrations above the screening values presented in the EPA document *OSWER Draft Guidance for Evaluating the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soils (Subsurface Vapor Intrusion Guidance) Table 2b: Target Shallow Soil Gas Concentration Corresponding to Target Indoor Air Concentration.*

A summary of the analytes detected in soil gas is provided in Table 3 and presented on Figure 8.

2.6 Development and Future Use

The development of the Gateway South Phase I and Warner Street Properties is Tier 2B, Restricted Commercial Use.

The term restricted commercial refers to the planned use of the property that allows exposure and access by the general public, workers, and other expected users, including customers, patrons, or visitors. Commercial purposes allow access to the property and duration consistent with a typical business day. Tier 2 properties typically include shopping centers, retail businesses, vehicle service stations, medical offices, hotels, office space, religious institutions and restaurants.

Restricted Commercial also indicates that one or more land use controls are imposed on the property as a condition for the future use of the Site. At a minimum, it is anticipated that a groundwater use restriction will be placed on the property.

The future development is anticipated to include the construction of a two-story casino structure (including additional restaurant and retail space) and associated open air multi-level parking on the northern portion of the Site (Gateway South Phase I Parcel), and an open air multi-level parking structure and facility service areas on the southern portion of the Site (Warner Street Properties Parcel). All building foundations are planned to be concrete slab-on-grade. All foundations will consist of a minimum four inch concrete slab. Future Site redevelopment plans incorporate building footprints and/or surface level parking areas across the majority of the Site. Conceptual Site development plans are provided in Appendix D of this RAP Amendment.

The Site will be serviced by municipal water and sewer (City of Baltimore), and below grade storm water, natural gas and electric. Groundwater will not be used as a potable water supply, nor is it planned for use as a non-potable water supply. To ensure and maintain this use, a groundwater use restriction will be placed on the Site prior to occupancy.

2.7 Response Actions

The entire property will be subject to the Approved RAP and any MDE approved revisions or addenda. The Approved RAP incorporates a method of development that the Developer has selected to eliminate the potential for unacceptable levels of environmental risk to future non-residential and on-site visitor populations. Further, based on the professional judgment of Urban Green Environmental, LLC and generally accepted professional practices and standard of care exercised by reputable companies performing similar environmental services, the environmental remediation described herein, if implemented, operated, and maintained (Refer to Section 8.4 and Appendix C), will be protective for the intended commercial use.

The Approved RAP provides for regrading the Site and constructing a containment remedy (cap) above the existing surface. The containment remedy will consist of clean-fill soil, concrete, and/or asphalt cover materials placed in appropriately designated areas. The Site cap will affect all portions of the property. In addition, due to the potential risk from vapor intrusion within the northwestern portion of the Site, vapor mitigation consisting of two active vapor extraction points and a sub-slab depressurization system (SSDS) will be constructed beneath the building foundation.

Following implementation of the remedy, institutional controls (groundwater use deed restriction, an excavation deed restriction, and vapor mitigation deed restriction) will be recorded as part of an environmental covenant for the Site in order to maintain the integrity of the containment remedy and mitigate exposure to human health and the environment.

3.0 ADDITIONAL INVESTIGATORY INFORMATION

3.1 Purpose and Objectives

Supplemental soil gas sampling and analysis was performed to further evaluate the presence of the heptachlor identified in groundwater at the Site. Specifically, the scope of the investigation included the following tasks:

- Installation of two soil gas sampling points proximate to the former soil boring B-42.
- Collection of soil gas from each of the newly installed soil gas sampling points for analysis of VOCs.

The work tasks and associated field sampling activities described below were performed in general accordance with 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 Soil Gas Investigation

Fieldwork for the investigation was conducted from April 3 through April 5, 2012 and on August 7 and 8, 2012. The following report sections summarize the field sampling and laboratory analytical methodologies implemented during the field investigation

Under the oversight of Urban Green, on April 3, 2012 and August 7, 2012 Urban Green Environmental, LLC performed a site visit to locate and mark out soil gas sampling points. On April 4, 2012, two soil borings (B-42A and B-42B) were advanced at the Site using pneumatic and manual slide hammers. On August 8, 2012, two soil borings (SB-1/B-42A and SB-2/B-42B) were advanced immediately adjacent to the previously installed soil borings B-42A and B-42B. Soil borings were advanced to a depth of approximately five feet below grade by Green Services, Inc. of Bel Air, Maryland and/or Urban Green Environmental personnel. The pneumatic and manual slide hammer method utilized a pneumatic drill equipped with a 1.5-inch diameter drill bit used to core through the concrete floor surface, followed by a slide hammer anvil equipped with a two foot long, 1.25-inch diameter, metal core sampler rod lined with a two foot long dedicated high-density polyethylene (HDPE) liner. The 1.25-inch diameter, metal core sampler was manually driven into the subsurface for soil core retrieval. Soil gas sampling locations are presented on Figure 4.

Subsurface soil samples were collected at approximate two foot intervals from each boring and screened for evidence of total VOCs using a photoionization detector (PID). PID readings ranged from 0.7 parts per million by volume (ppmv) in B-42A at two feet below grade to 71.5 ppmv in B-42A at a depth of four and a half feet below grade. A log of field activities, including logs of the soil borings and photographs, was maintained throughout the field activities. Soil boring logs, including soil lithology, recovery and field observations are provided in Appendix A.

Following soil boring advancement, one new stainless steel vapor implant, attached to approximately eight feet of 3/16 inch Teflon tubing was placed into each boring with the vapor implant screened section situated at the base of the boring. Following placement of the vapor implant, the surrounding annulus was backfilled with approximately 12 inches of clean No. 2 sand and backfilled with a hydrated bentonite seal to surface grade. Following sample point installation, each soil gas sample point was allowed to rest for a period of approximately 24 hours.

On April 5, 2012 and August 8, 2012, soil gas sampling was performed at the Site. Prior to connection of the soil gas sampling probe, each sample point was purged of approximately 3 volumes of air. Following purging, a Summa Canister® with an 8-hour flow controller was attached to the Teflon tubing of each sampling location and allowed to sample for an approximate 8-hour period. Following sample collection, each canister was closed, sealed, and hand delivered under strict chain-of-custody to Maryland Spectral Services, Inc. of Baltimore, Maryland for laboratory analysis of the VOCs by USEPA Method TO-15 (April 2012) or chlorinated pesticides by USEPA Method EPA TO-10A. A copy of the laboratory analytical reports and associated chain-of-custody (COC) for the soil gas samples is included in Appendix A.

3.2.1 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.

3.2.2 Sample Tracking, Containers and Handling

Soil boring logs, including soil lithology, recovery and field observations were recorded on soil boring logs and in the project field notes. A sample identification (ID) was established for each discrete sampling point. The sample ID was included on the chain-of-custody and container label. Sample containers were affixed with a sample label that was filled out at the time of collection. COC forms were initiated at the time soil gas samples were collected for laboratory analysis by the sampler.

Soil gas samples and associated media were hand delivered, via strict chain-of-custody, to Maryland Spectral Services of Baltimore, Maryland for fixed laboratory analysis of VOCs via USEPA Method TO-15 and chlorinated pesticides via USEPA Method TO-10A. Analysis was performed on standard two week turn around.

3.2.3 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 bucket, brushes, spray bottles, potable water, distilled water, towels, etc.) to adequately decontaminate the equipment used on-site. As noted above, dedicated equipment was used at each media sample location.

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 gas sampling point, soil cuttings generated during sampling activities were placed near the borehole for future management (i.e. regrading during development and/or off-site disposal).

3.3 Supplemental Soil Gas Sampling and Analysis Reporting and Conclusions

On April 5, 2012 and August 8, 2012, two soil gas samples were collected from sample locations B-42A and B-42B and submitted for laboratory analysis of VOCs via USEPA Method TO-15 or chlorinated pesticides via USEPA Method TO-10A. A summary of the soil gas sample results are presented in Table 3 and on Figure 8. As shown, concentrations of cyclohexane, heptane and 2,2,4-trimethylpentane were identified in soil gas collected from the borings. No concentrations of heptachlor or chlorinated pesticides were reported in either soil gas sample.

Based on the results, a vapor mitigation system (consisting of active vapor extraction and a passive sub-slab depressurization systems [SSDS]), is currently being designed for installation beneath the foundation of the future Casino building on the northwestern portion of the Site. Vapor mitigation system details will be provided as an addendum to the Approved RAP as part of the development of the construction documents for the Site.

3.4 March 2013 Soil Investigation

In March 2013, Urban Green performed an MDE approved soil investigation of the Gateway South Phase I and Warner Street Properties. Results of this investigation were submitted to the MDE VCP in the *Limited Soil Investigation Report, Gateway South Phase I and Warner Street Properties*, prepared by Urban Green Environmental, LLC and dated April 2013. A summary of this investigation is provided in the following report sections.

The objective of the limited soil investigation was to further evaluate and provide additional horizontal and vertical delineation of soil-borne arsenic and to evaluate the soils for potential toxicity characteristic leachate procedure (TCLP) arsenic surrounding the former soil boring B-38. Soil boring B-38 was advanced at the Site during the prior investigations. Specifically, the scope of this investigation consisted of the following:

- Advancement of nine soil borings (B-38A through B-38I) at the former location of and on an approximate five to fifteen-foot grid spacing surrounding the former soil boring B-38. Soil

borings were installed to depths of approximately 12 feet below grade. Groundwater was encountered at depths of approximately five to 11 feet below grade.

- Field screening of select soil samples from each soil boring at two foot intervals for the presence of total volatile organic compounds (VOCs).
- Collection of three, discrete soil samples from each soil boring (0-4 feet below grade, 4-8 feet below grade and 8-12 feet below grade) for fixed laboratory analysis of total arsenic.
- Fixed laboratory analysis of one composite soil sample, collected from soil borings B-38A through B-38E for fixed laboratory analysis of TCLP arsenic.

On March 27, 2013, under the supervision of Urban Green personnel, the following nine soil borings were advanced at the former location of and on an approximate five to fifteen-foot grid spacing surrounding the former soil boring B-38:

- B-38A was advanced adjacent to the former location B-38
- B-38B was advanced 5 feet northwest of the former location B-38.
- B-38C was advanced 5 feet northeast of the former location B-38.
- B-38D was advanced 5 feet southeast of the former location B-38.
- B-38E was advanced 5 feet southwest of the former location B-38.
- B-38F was advanced 10 feet northeast of the former location B-38.
- B-38G was advanced 10 feet southeast of the former location B-38.
- B-38H was advanced 15 feet southwest of the former location B-38.
- B-38I was advanced 15 feet northwest of the former location B-38.

All soil borings were advanced to depths of 12 feet below grade using direct push drilling technologies. Immediately following the direct push soil sampler retrieval, the high density polyethylene sample liner was opened by the Urban Green Environmental Scientist, and screened, at approximate two foot intervals for indication 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. PID readings within the soil borings ranged from 0.2 parts per million by volume (ppmv) (B-38B between four to six feet below grade) to 144 ppmv (B-38G between zero to two feet below grade). No visual evidence of staining or a strong petroleum or chemical odor was observed associated with the soils at the Site.

Three discrete soil samples were collected from each soil boring, and consisted of one surface soil sample (0-4 feet below grade) and two subsurface soil samples (4-8 feet below grade and 8-12 feet below grade). Samples were collected using dedicated sampling equipment and placed 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 Service in Towson, Maryland. Chain-of-custody forms were maintained (and accompanied the samples in transit) to provide a record of samples from collection to analyses. Soil samples were submitted for fixed laboratory analysis of total arsenic. In addition, soil collected from the 4 to 8 foot interval from the soil borings B-38A, B-38B, B-38C, B-38D, and B-38E were composited at the laboratory and analyzed for TCLP arsenic.

3.4.1 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.

3.4.2 Sample Handling/Chain of Custody

Soil samples collected for laboratory analyses were recorded on soil boring logs and in the Urban Green field notebooks. Each sample collected during field activities was given a unique sample designation. 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) following the soil boring identification 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^{o}C or less. Soil samples were hand delivered, via strict chain-of-custody, to Caliber Analytical Service in Towson, Maryland for fixed laboratory analysis of total arsenic via USEPA Method 200.8 and for TCLP arsenic via USEPA method 1311/6020A. Analysis was performed on a 72-hour turn-around.

3.4.3 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 bucket, 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 dedicated HDPE liners. Disposable plastic bags were used to homogenize each soil sample as required for fixed laboratory analysis.

Following completion of each soil boring, soil cuttings generated during sampling activities were placed back into the respective soil boring location.

3.5 March 2013 Limited Soil Investigation Results

Twenty-seven soil samples were collected from soil borings B-38A through B-38I. Three soil samples, one surface soil sample (0-4 feet below grade) and two subsurface soil samples (4-8 feet below grade and 8-12 feet), were collected from each soil boring and were submitted for fixed laboratory analysis of total arsenic. In addition, soil collected from the 4 to 8 foot interval from soil borings B-38A, B-38B, B-38C, B-38D, and B-38E were composited at the laboratory and analyzed for TCLP arsenic.

A summary of the soil laboratory analytical results is included on Table 1 and Figure 5.

Based on the future non-residential use of the Site, the results were compared to the MDE Cleanup Standards for Non-Residential Soil and the eastern Maryland Anticipated Typical Concentrations (ATC) for arsenic of 1.9 mg/kg and 3.6 mg/kg, respectively. The MDE VCP recognizes the greater of the MDE Cleanup Standards for Non-Residential Soil or the ATC as the applicable cleanup standard. In addition, the TCLP arsenic results were compared to the federal EP toxicity threshold of 5 mg/l.

Arsenic was reported at concentrations in several of the soil samples at concentrations ranging from non-detect to 2.4 mg/kg. None of the reported detectable concentrations exceeded the ATC of 3.6 mg/kg. Further, with the exception of the arsenic concentrations in soil samples SB-38B 8-12 and SB-38E 8-12, none of the total arsenic concentrations exceeded the MDE Cleanup Standards for Non-Residential Soil of 1.9 mg/kg.

No detectable concentration of TCLP arsenic was reported in the composite soil sample B-38A, B-38B, B-38C, B-38D, and B-38E.

4.0 EXPOSURE ASSESSMENT

4.1 Media of Concern

4.1.1 Soil

Soil is considered to be a potential media of concern at the Site. Future commercial workers and visitors are likely to contact surface soil at the Site. Construction workers are likely to contact surface and subsurface soil during earth movement activities associated with construction activities.

The remedy and institutional controls will mitigate the potential for future receptors (commercial workers, and on-Site visitors) from contacting impacted soil at the Site; the health and safety controls outlined in Section 8.1 and the Site-Specific Health and Safety Plan will mitigate the potential risk to construction workers from contacting impacted soil at the Site. Potential human exposure pathways are summarized in Section 4.2.

4.1.2 Groundwater and Soil to Groundwater

Groundwater is considered to be a potential media of concern at the Site. However, groundwater is situated at depths greater than 5 ft bg, and is not used as a potable water supply. Further, the Developer will file a deed restriction prohibiting the use of groundwater at the Site in the future. As such, groundwater is not considered to be a potential media of concern for future receptors (commercial occupants and on-Site visitors).

Groundwater is considered to be a potential media of concern for construction workers. However, as groundwater is situated at depths greater than 5 ft bg, this exposure is only anticipated for excavations greater than 5 ft bg. According to information provided by the developer and construction team, groundwater dewatering is anticipated to be likely required in two areas of the Site. Specifically, it is anticipated that groundwater dewatering may be required for the installation of a grease line on the northeastern portion of the property and for the installation of a concrete stormwater vault on the southeastern portion of the Site. Dewatering is addressed in Section 8.6.

4.1.3 Soil Gas

VOCs, including benzene, hexane, pentane, 1,1,1-trichloroethane, trichloroethene (TCE), cis-1-2-dichloroethene, tetrachloroethene (PCE), trans-1,2-dichloroethene, chloroform, and vinyl chloride have been reported in soil gas at the Site As such, soil gas is considered to be a potential media of concern at the Site.

With the exception of soil gas collected from the northwest portion of the Site (SG-11), the results of the soil gas modeling indicated no unacceptable risks associated with soil gas at the Site. At soil gas

sample SG-11, results of the soil gas modeling indicated a potential carcinogenic risk of 4.44×10^{-5} which is greater than the MDE acceptable carcinogenic risk threshold of 1.0×10^{-5}.

As such, soil gas is considered to be a potential media of concern at the Site within the northwestern portion of the Site. A vapor mitigation system, to consist of two active vapor extraction points and a passive sub-slab depressurization system (SSDS) will be designed for installation beneath the foundation of the building to be located on the northwest portion of the Site. Vapor mitigation system details will be provided as a future RAP Addendum for MDE review and approval.

4.2 Potential Exposure Pathways and Receptors of Concern

Under the proposed future use (Tier 2B Restricted Commercial Use) potential human receptors include: future on-Site commercial workers and visitors, and future construction workers. Potential exposure pathways include: incidental ingestion, dermal contact, and inhalation of particulates entrained as dust from impacted Site soils, and dermal contact/incidental ingestion of groundwater for the construction worker.

Future commercial workers and visitors are likely to contact impacted soils unless a containment remedy that eliminates the exposure pathway is applied to the Site.

Construction workers are likely to contact impacted soils during earth movement activities associated with future construction activities.

In *absence* of the containment remedy, the following potential human exposure pathways were identified for evaluation for the Site:

Future Construction Worker

- Incidental ingestion of soil.
- Dermal contact with soil.
- Inhalation of soil particles and soil gas.
- Incidental ingestion of groundwater.
- Dermal contact with groundwater.

Future on-Site Commercial Worker

- Incidental ingestion of soil.
- Dermal contact with soil.
- Inhalation of soil particles and soil gas.

Future Visitor (Adult, Youth and Child)

- Incidental ingestion of soil.
- Dermal contact with soil.

- Inhalation of soil particles and soil gas.

4.3 Risk-Based Screening and Selection of Chemicals of Potential Concern

Risk-based screening was conducted by comparing the maximum detected chemical concentrations for each media to the MDE Cleanup Standards for Non-Residential Soil and the MDE Cleanup Standards for Groundwater (MDE 2008) and the USEPA OSWER Draft Guidance for Evaluating the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soils (Subsurface Vapor Intrusion Guidance Table 2b (USEPA 2002)[1]. Given the future use of the Site (Tier 2b), analytes in any medium for which the maximum measured concentration exceeded the applicable MDE Cleanup Standard or USEPA target concentration were considered a Chemical of Potential Concern (COPC). Analytes detected above the applicable MDE Cleanup Standards consist of the following:

Surface Soil:	Metals
	PAHs
	VOCs (carbon tetrachloride)
	TPH-DRO
Suburface Soil:	Metals
	PAHs
	VOCs (trichloroethylene)
	TPH-DRO
Groundwater:	Metals
	PAHs
	VOCs
	TPH-DRO
	Pesticides
Soil Gas:	VOCs

The above analytes are considered COPCs for each specified media.

4.4 Complete Exposure Pathways

The following complete exposure pathways have been identified at the Site:

- **Future Construction Worker:** Incidental ingestion of soil and groundwater; dermal contact with soil and groundwater; and inhalation of soil particles and soil gas.
- **Future Commercial Worker:** Incidental ingestion of soil, dermal contact with soil, and inhalation of soil particles and soil gas.

[1] For the construction worker scenario, a demonstration of attainment in comparison to the MDE Cleanup Standards for Non-Residential Soil and the USEPA Region 3 Risk Based Concentrations for Industrial Soil was used to identify COPCs.

- **Future Visitor:** Incidental ingestion of soil, dermal contact with soil, and inhalation of soil particles and soil gas.

As identified below, engineering and institutional controls consisting of a containment remedy (asphalt cap cover, concrete cap cover, clean backfill cap cover), vapor mitigation (vapor extraction and SSDS), and deed restrictions prohibiting groundwater use and restricting future excavations will mitigate associated risks to human health at the Site.

Summary of Exposure Pathways and Remedies		
Exposure Pathway	**Population**	**Response Action**
Ingestion of Subsurface and Surface Soil	Commercial (all)	*Engineering Control* - Placement of cap over the entire property will prevent unacceptable risks to future commercial populations *Institutional Control* - Deed Restriction requiring the scheduled inspection and maintenance of the cap, in perpetuity.
	Construction Workers	*Administrative Control* - A written Health and Safety Plan will control worker exposures by specifying appropriate personal protective equipment and hygiene practices.
Inhalation of Fugitive Dust	Commercial (all)	*Engineering Control* - Placement of cap over the entire property will prevent unacceptable risks to future commercial populations *Institutional Control* - Deed Restriction requiring the scheduled inspection and maintenance of the cap, in perpetuity.
	Construction Workers	*Administrative Control* - A written Health and Safety Plan will control worker exposures by specifying an airborne dust Action Level, and by requiring routine dust monitoring and the use of dust suppression techniques as appropriate.
Dermal Contact with Subsurface and Surface Soil	Commercial (all)	*Engineering Control* - Placement of cap over the entire property will prevent unacceptable risks to future commercial populations *Institutional Control* - Deed Restriction requiring the scheduled inspection and maintenance of the cap, in perpetuity.
	Construction Workers	*Administrative Control* - A written Health and Safety Plan will control worker exposures by specifying appropriate personal protective equipment and hygiene practices.
Dermal Contact with Groundwater	Commercial (all)	*Institutional Control* - Deed Restriction prohibiting the use of groundwater beneath the property for any purpose.
	Construction Workers	*Administrative Control* - A written Health and Safety Plan will control potential worker exposure by specifying appropriate work practices, personal protective equipment, and hygiene practices.
Inhalation of Subsurface Gases	Commercial (all)	*Engineering Control* - Future buildings on the northwest portion of the property will incorporate engineered passive sub-slab venting control systems. If necessary, the venting system will be converted to an active venting system. *Institutional Control* - Deed Restriction requiring vapor mitigation and confirmatory sampling for future buildings (excludes open air structures/parking garages).
	Construction Workers	*Administrative Control* - A written Health and Safety Plan will control potential worker exposure by specifying appropriate air monitoring and action levels, and proper personal protective equipment (including respirators, if applicable).

5.0 CLEANUP CRITERIA

The cleanup criteria selected for the Site is the Non-Residential cleanup standard for soil (*Cleanup Standards for Soil and Groundwater Interim Final Guidance, Update No. 2*.1). Based on the future Site use (Tier 2B), the following cleanup standards apply to soil at the Site:

COPC	Cleanup Standard
Antimony	41 mg/kg
Arsenic	1.9 mg/kg
Cadmium	51 mg/kg
Chromium	310 mg/kg
Iron	72,000 mg/kg
Lead	1,000 mg/kg
Manganese	2,000 mg/kg
Mercury[2]	31 mg/kg
Elemental Mercury	0.0 mg/kg
Thallium	7.2 mg/kg
Vanadium	100 mg/kg
Benzo[a]anthracene	3,900 ug/kg
Benzo[a]pyrene	390 ug/kg
Benzo[b]fluoranthene	3,900 ug/kg
Dibenz[a,h]anthracene	390 ug/kg
Indeno[1,2,3-cd]pyrene	3,900 ug/kg
Diesel Range Organics	620 mg/kg
Carbon Tetrachloride	220 ug/kg
Trichloroethene (TCE)	7,200 ug/kg

With regards to the cleanup criteria for soil gas, as outlined in Section 6.1, following implementation of the vapor mitigation system remedy, confirmatory indoor air samples will be collected from the buildings located on the northwest portion of the Site. The concentrations of any individual contaminant of concern identified in the indoor air samples cannot exceed a cancer risk of 1×10^{-5} or a hazard quotient of 1.0, in order for the cleanup to be achieved. Furthermore, the sum of the risk estimates for all contaminants of concern cannot exceed a cancer risk of 1×10^{-5} or a hazard quotient of 1.0, in order for the cleanup criteria to be achieved. Furthermore, in order to support converting the active vapor extraction points from active vapor extraction to a passive system, confirmatory soil gas sampling, including soil gas sampling event(s) performed following system shutdown (refer to Section 6.1.2) shall demonstrate attainment of the soil gas cleanup criteria for the Site.

The cleanup criteria for soil gas and indoor air are summarized below:

[2] The cleanup standard for mercury is associated with the MDE Cleanup Standard for Non-Residential Soil for Inorganic Mercury/Mercuric Dichloride.

	Indoor Air (ug/m3)	***Soil Gas (mg/m3)***
Trichloroethylene	*8.8*	*880*
Cis-1,2-dichloroethylene	*270*	*27,000*
Trans-1,2-Dichloroethylene	*270*	*27,000*
Vinyl Chloride	*28*	*2,800*

Cleanup criteria for indoor air will be considered to have been met upon receipt of three consecutive monthly sampling event results which demonstrate that the concentrations of the above referenced VOCs in indoor air are below the target concentrations. The cleanup criteria for soil gas will be considered to have been met upon receipt of four confirmatory sampling events results (collected 30-days, 60-days, 180-days and 360-days post system shutdown) which demonstrate that the above referenced VOCs are below the target concentrations.

The containment remedy presented herein will eliminate the exposure pathway from the media of concern (surface and subsurface soil, groundwater) to the potential receptors (future commercial worker and construction worker). Health and safety protocols, as outlined in Section 8.1 and the Draft Site Specific Health and Safety Plan Guidance Document (Appendix E), will be implemented during the construction phase of the redevelopment to ensure construction workers are not exposed to an unacceptable risk.

The containment remedy will minimize the threat to human health by eliminating potential contact with the impacted media (soil, groundwater and soil gas). This containment remedy will consist of one of the following capping techniques across the entire Site:

- Concrete covered areas (i.e. building foundations, sidewalks): placement of a minimum 4 to 5-inch concrete slab-on-grade.
- Asphalt paved areas: Placement of minimum of 8-inch combination of clean fill and/or road base and asphalt.
- Landscaped areas: Placement of a minimum two-foot combination clean fill and/or top soil over an MDE approved geotextile fabric material/marker fabric material

In addition to the above, a vapor mitigation system (consisting of active vapor extraction and a SSDS) will be installed beneath the building foundation located on the northwestern portion of the Site.

Based on the professional judgment of Urban Green Environmental, LLC and generally accepted professional practices and standard of care exercised by reputable companies performing similar environmental services, the environmental remedies designed and proposed herein, if implemented, operated, and maintained (Refer to Section 8.4 and Appendix C), will be protective for the future intended commercial use.

The following institutional controls will provide an effective means of mitigating potential exposure to impacted media. A restriction will be placed on the deed which identifies that the MDE will be notified of any repairs that are the result of a pavement condition index (PCI) of 4.0 or greater; the required MDE notification will include documentation of the conditions being repaired and the location of the repair (refer to Appendix C). The excavation restriction will require that the MDE be notified at least 15 days prior to any excavation that will penetrate below the cap.

Further, a restriction will be placed on the deed to prevent use of groundwater and to provide certain requirements for any excavation encountering groundwater at the Site.

Lastly, a Site Specific Health and Safety Plan (HASP) will identify the means and methods to protect construction workers engaged in intrusive activities at the Site. During construction, all on-site personnel and visitors will be notified of the Site Specific HASP. A copy of the Site Specific HASP and its signature log will be present on-Site during all RAP construction activities for MDE inspection and review.

6.0 SELECTED TECHNOLOGIES AND LAND USE CONTROLS

Future redevelopment of the Site is Tier 2B, restricted commercial.

The Site will be redeveloped as a two-story casino structure (including additional restaurant and retail space) and associated multi-level parking on the northern portion of the Site (Gateway South Phase I Parcel), and a multi-level parking structure and facility service areas on the southern portion of the Site (Warner Street Properties Parcel). All building foundations are planned to be concrete slab-on-grade. All foundations will consist of a minimum four inch concrete slab. Site redevelopment plans incorporate building footprints and/or surface level parking areas across the majority of the Site. Conceptual Site development plans are provided in Appendix D.

The rationale for selecting the containment remedy is to effectively mitigate the threat to human health by eliminating potential contact of the on-Site receptors with the impacted media (soil, groundwater and soil gas). The capping technologies presented in this Section will provide an adequate cap and eliminate these potential exposure pathways. Institutional controls presented herein will be placed on the Site to ensure that the potential exposure pathways are mitigated in the future.

The Site will be serviced by municipal water, municipal sewer, natural gas, and electric. Groundwater will not be used as a potable water supply, nor is it planned for use as a non-potable water supply. To ensure and maintain this use, a groundwater use restriction will be placed on the Site and recorded with the property deed prior to occupancy.

The selected remedy is intended to eliminate exposure pathways and does not reduce the toxicity and volume of the COPCs. Continued maintenance of the containment remedy will limit the mobility of Site contaminants in the future.

No additional activities, other than those specified below, are anticipated to develop this remedial design. This remedy has been incorporated into the development plan for the Site.

The response actions for the Site are detailed in the following sections.

6.1 Northwest Portion of the Site – Vapor Mitigation System

The vapor mitigation remedy for the Site is anticipated to consist of two active vapor extraction points and a subslab depressurization system for the building located across the northwestern portion of the Site. More specifically, two separate and independent vapor mitigation systems, one passive SSDS and one active system will be installed beneath the building across the northwestern portion of the Site. The garage buildings will consist of open air parking structures, which will act as a remedy to address any potential vapor intrusion. No further vapor intrusion remedy is provided for the open air parking structures at the Site.

The layout of the first vapor mitigation system, the passive SSDS will incorporate the following elements:

- Placement of a uniform, layer of clean aggregate/stone as sub-slab material; permeable sub-slab material thickness shall be a minimum of 4 inches.
- A minimum two-inch diameter perforated PVC piping shall be embedded horizontally into the sub-slab aggregate before the slab is poured. The two-inch diameter perforated piping, shall be placed on approximate 30 foot centers running across the footprint of the building foundation.
- Perforated PVC pipe running along the exterior building foundation wall (manifolded to each lateral and the fresh air intakes).
- Fresh air intakes, and
- Vents to the roof.

Any penetrations and entryways through the slab must be sealed against vapor intrusion; further, the first passive SSDS system is designed such that it can be upgraded to an active (blower assisted) system if necessary.

In addition to the above, a second active vapor mitigation system will be installed at the Site. This active system will consist of two active vapor extraction points, manifolded to one fresh air intake and one vent, supplied with a blower will be installed in the vicinity of the former soil borings B-28 and B-38.

6.1.1 Confirmatory Indoor Air Sampling

Confirmatory indoor air samples will be collected from the interior of every building on the northwest portion of the property to ensure that the vapor barrier is an effective remedy for the vapor intrusion pathway. An addendum to the RAP will be submitted proposing actual sample locations following finalization of the site development plans.

For the indoor air confirmation samples, sampling will be collected in a minimum one-liter SUMMA canister with a sample collection period of 12-hours. Analyses will include the full suite of volatile organic compounds including naphthalene and samples will be collected and analyzed via EPA Method TO-15. Samples will be collected under normal operating conditions.

A total of three confirmation sampling events will be conducted. The first event will be performed immediately following the enclosure of the building space and the second and third will be performed approximately 30 and 60 days later, respectively.

Results of each confirmation sampling event will be submitted to the MDE to determine whether the cleanup criteria have been met for the sampling event for each building. Data will be submitted to the MDE within 10 business days of receipt of the laboratory data. In the event that the cleanup criteria have not been met in a building during a sampling event, indoor air samples will be collected from that building at 30-day intervals until three consecutive samples meet the indoor air cleanup criteria.

The cleanup criteria for indoor air will correspond to a cancer risk of $1x10^{-5}$ and a hazard index of 1. In addition, in order to support converting the active vapor extraction points from active vapor extraction to a passive system, confirmatory soil gas sampling, including soil gas sampling event(s) performed following system shutdown (refer to Section 6.1.2) shall demonstrate attainment of the soil gas cleanup criteria for the Site.

Towards that end, the cleanup criteria for soil gas and indoor air are summarized below:

	Indoor Air (ug/m3)	***Soil Gas (mg/m3)***
Trichloroethylene	*8.8*	*880*
Cis-1,2-dichloroethylene	*270*	*27,000*
Trans-1,2-Dichloroethylene	*270*	*27,000*
Vinyl Chloride	*28*	*2,800*

A vapor mitigation system layout plan, including the final proposed confirmatory indoor air sampling, will be provided for MDE VCP review and approval upon development of the construction plans for the Site building.

6.1.2 Confirmatory Subslab Soil Gas Sampling

In order to support permanently converting the active vapor mitigation system to a passive system, four soil gas sampling events shall be performed following system shutdown; each event shall demonstrate attainment of the remediation target thresholds for the Site identified in the prior report section. The soil gas sampling events shall be performed on or about 30-days, 60-days, 180-days and 360-days following system shutdown. An addendum to the RAP will be submitted proposing the subslab soil gas sample locations following site development plan finalization.

For the subslab soil gas confirmation samples, sampling will be collected in a minimum one-liter SUMMA canister with a sample collection period of 12-hours. Analyses will include the full suite of volatile organic compounds including naphthalene and samples will be collected and analyzed via EPA Method TO-15. Samples will be collected under normal operating conditions.

Results of each confirmation sampling event will be submitted to the MDE to determine whether the cleanup criteria have been met for the sampling event. Data will be submitted to the MDE within 10 business days of receipt of the laboratory data.

As an alternative to the above, the active vapor mitigation system will remain active in perpetuity and a restriction requiring the continued operation of the active vapor mitigation system will be included in the COC.

6.2 Paved and Concrete Covered Areas

In addition to regrading the Site, certain areas will be paved with asphalt or concrete in accordance with the following procedures:

- Regrade the Site.
- Placement of an 8-inch thick asphalt pavement and clean fill sub-base, or placement of a 4- to 5-inch thick concrete slab.
- Deed restriction to maintain the cap and require future excavations at the Site to be approved by the MDE prior to any disturbance to the subsurface.

Cross sections detailing the composition of the impervious surface layers for asphalt paved and concrete covered areas are presented on Figure 8. Based on the professional judgment of Urban Green Environmental, LLC's Environmental Engineer and generally accepted professional practices and standard of care exercised by reputable companies performing similar environmental services, the above environmental containment remedy, if implemented, operated, and maintained (Refer to Section 8.4 and Appendix C), will be protective for the intended future use.

6.3 Landscaped Areas

Several public landscaped areas will be included throughout the Site. In landscaped areas, construction will adhere to the following protocols:

- Regrade the Site.
- Placement of a MDE-approved geotextile fabric.
- Placement of a two-foot clean fill layer.
- Deed restriction to maintain the cap and require future excavations at the Site to be approved by the MDE prior to any disturbance to the subsurface.

A cross section detailing the composition of the landscaped areas is presented on Figure 9. Landscape plants will be limited to those with root systems which will not penetrate the geotextile/marker barrier. If landscaped plants have root systems that extend deeper than two feet, the thickness of the clean fill cap will be adjusted accordingly.

6.4 Limited Soil Removal – Former Soil Boring B-38

In order to address the elevated concentrations of arsenic in the former soil boring B-38, a limited soil removal will be performed. The boundaries of the limited soil removal are presented on Figure 5.

Following removal of the concrete foundation, soil excavation will be performed. An area of approximately 10 feet by 10 feet by 10 feet deep will be excavated surrounding the prior soil boring B-38. This area is proposed based on the results of the initial investigation, which reported a concentration of arsenic of 4,200 mg/kg at a depth of four to eight feet below grade, coupled with the results of the recent limited soil investigation, which indicates that the soil-borne arsenic concentrations do not extend beyond the initial area of soil boring B-38. The total volume of soil estimated to be removed is estimated at 40 cubic yards (60 tons).

6.4.1 Excavation Oversight

Under the supervision of Urban Green Environmental, one excavation will be completed using one backhoe with a front-end loader attachment or equivalent equipment. The excavation dimensions will be as follows:

- Prior soil boring B-38: Approximately 10 feet wide by 10 feet long by ten feet deep

Observations from the excavations, including dimensions, lithology, field screening results, and visual and olfactory observations, will be recorded on the excavation log. Urban Green Environmental will photograph excavated soils and the excavation walls as appropriate to document removal activities.

The excavated soils will be placed directly into trucks for off-Site disposal and/or placed in a secured and separate stockpile, schedule permitting. If live-loading of the excavated soil is not possible, the excavated soils will be temporarily stockpiled on 6-mil plastic onsite, covered completely with 6-mil plastic so that the entire stockpile is encapsulated and anchored to prevent the elements from affecting the integrity of the plastic containment. The stockpiled soil will then be removed for off-Site transport and disposal in accordance with all state and federal regulations.

At this time, if soils are characterized as nonhazardous for arsenic, it is anticipated that soils will be accepted by Modern Landfill (York, Pennsylvania) or Honeygo Landfill (Baltimore, Maryland); if soils are characterized as hazardous for arsenic it is anticipated that soils will be accepted by Max Environmental Technologies for transport and disposal as hazardous material at their Yukon, Pennsylvania facility. Prior to initiating the off-Site transport and disposal of soil, Urban Green Environmental will coordinate with the proposed facility for the acceptance of the arsenic-impacted soils at the Site. At a minimum, characterization sampling will include total PPL metals, TCLP RCRA-8 metals, VOCs, and any additional analytical requirements of the receiving facility. Acceptance documentation will also be provided to the MDE VCP for review.

6.4.2 Post Soil Removal Confirmatory Soil Sampling

Five post-excavation soil samples (1 from each sidewall and 1 from the base) will be collected from the excavation area as confirmatory soil samples. Since it is anticipated that the excavation will proceed to a depth greater than 48 inches below grade, to address potential worker safety

concerns, soil samples collected from the excavation base will be collected from the excavator bucket; however caution will be taken to ensure that the soil sampled is representative of the base of the excavation. A fresh excavator bucket (empty) will be used to scrape the sidewall or bottom sample area. Using dedicated or decontaminated sampling equipment (trowel), soil will be collected from the midpoint within the bucket, taking caution not to sample from soil contacting the bucket sides.

Confirmatory soil samples will be submitted for fixed laboratory analysis of TCLP arsenic via USEPA method 1311 and total arsenic via USEPA method 200.8. In addition, one blind duplicate sample will be collected for quality assurance/quality control (QA/QC) purposes.

If laboratory analytical results indicate that TCLP arsenic concentrations in post-excavation samples exceed the EP toxicity threshold of 5 mg/l, the area where the sample was collected will be further excavated by increments of two feet. This iterative procedure will continue until the laboratory analytical results indicate the TCLP arsenic concentrations are below the EP toxicity threshold.

6.4.3 Excavation Backfill

Following completion of the confirmatory soil sampling, the excavation will be backfilled, as necessary to stabilize the excavation areas. If off-site material is proposed as backfill, the backfill material must comply with the clean fill requirements identified within Section 8.7 of this RAP.

6.4.4 Decontamination Procedures

The primary objective of the decontamination process is to prevent the accidental introduction of potential contaminants to non-contaminated areas and/or samples. This section describes the methods associated with decontamination of field equipment.

Specifically, construction equipment used to remove and transport the arsenic-impacted soil should be thoroughly cleaned and decontaminated prior to traversing to remaining areas of the Site. Excavation equipment (excavator bucket) will be decontaminated via dry brushing/scraping or an equivalent decontamination method.

6.4.5 Soil Management and Disposal

All soil transported from the Site will be manifested in accordance with state and federal requirements. Prior to the soil being removed from the site, Urban Green Environmental will confirm that the transporter is a hauler certified by the Department and is using trucks that are permitted and certified for this activity.

6.5 Future Excavation/Utility Trenching

Utility conduits constructed on-Site will be required to adhere to the containment remedy protocols identified in Table 4. Construction monitoring will be required throughout utility excavations. Concrete duct banks will be required for future communication lines.

Soil excavated during the utility trench excavation will be regraded beneath the cap at the Site.

6.6 Storm Water Management Areas

Excavation for any storm water management pond (SWMP) or stormwater management feature will be subject to the requirements of Section 8.5 of this RAP Amendment.

In addition, as noted within Section 6.8, a RAP Addendum will also be submitted with the final development plans, including any future storm water management areas, for review and approval by the MDE VCP.

6.7 Site Access and Control

Prior to and during implementation of the response action, Site access will be limited through maintenance of the existing Site perimeter fencing. In addition, CBAC, will comply with all local, State, and Federal laws and regulations by obtaining all necessary approvals and permits to conduct the activities pursuant to an approved CAP.

In addition, as previously discussed in Section 4.2, during construction and development the potential exists for exposure to COPCs by construction workers through incidental ingestion of soil, dermal contact with soil, inhalation of soil particles, incidental ingestion of groundwater and dermal contact with groundwater. Therefore, future construction contractors must comply with all requirements of the Site Specific HASP and the health and safety protocols described herein. The primary actions taken to mitigate potential exposures to future construction workers will be environmental monitoring and the appropriate use of personal protective equipment during construction activities.

6.8 Institutional Controls (Future Land Use Controls)

Long-term conditions will be placed on the RAP approval and Certificate of Completion (COC) regarding future uses of the Site. These conditions are expected to include the following:

- Restriction prohibiting use of groundwater at the Site and a requirement to characterize, containerize and properly dispose of groundwater in the event of deep excavations encountering groundwater.

- Notice to MDE prior to any future soil disturbance activities at the Site below areas designated for engineering controls. This written notice will be required at least 15 days prior to any planned excavation activities at the Site that will penetrate through the cap.
- Requirement for a HASP in the event of any future excavations at the Site.
- Complete appropriate characterization and disposal of any future material excavated from beneath the cap in accordance with applicable local, state and federal requirements.
- Complete appropriate maintenance and inspection of the containment remedy.
- Continued operation of the active vapor mitigation system in perpetuity unless the four confirmatory soil gas sampling events confirm that the target remediation levels have been met.

CBAC will file the above deed restrictions as defined by the MDE VCP in the COC. CBAC will maintain control of the Site during all phases of development. All areas of the Site are subject to the Approved RAP containment remedy (capping). All areas of the Site are subject to the Approved RAP institutional controls (deed restrictions).

6.9 Post Remediation Requirements

Post remediation care requirements will include compliance with the conditions placed on the COC and the deed restrictions recorded for the Site. Deed restrictions will be issued as part of the COC and will be recorded within 30 days after issuance of the COC.

Physical maintenance requirements will include maintenance of the capped areas to prevent degradation of the cap and exposure to the underlying soil. As part of the Site redevelopment, the Developer has also included the attached Operations and Maintenance Plan (O&M Plan) for MDE VCP review (Appendix C). The O&M Plan includes a maintenance schedule and inspection protocols. The property owner will update and revise the plan accordingly as Site-specific utilization and development plans are finalized and implemented. A RAP Addendum will also be submitted with the final development plans for review and approval by the MDE VCP.

Inspections of the cap will be conducted each year, targeting early spring. The property owner will be responsible for on-site cap maintenance inspections, performing maintenance of the cap, and for maintaining all cap inspection records. Maintenance records will include the date of the inspection, name of the inspector, any noted issues and subsequent resolution of the issues. Any areas of the pavement cap that have degraded to a Pavement Condition Index of 4.0 will be repaired within 15 business days of discovery. MDE shall be notified within ten business days of any repairs that are the result of a PCI of 4.0 or greater or if damage to the landscaped capped area(s) exceeds one foot in diameter and/or two feet in depth. The notification will include documentation of the conditions being repaired and the location of the repair.

In addition, MDE will be provided written notice at least 15 days prior to any planned excavation activities at the Site that will penetrate through the cap. Written notice of planned excavation activities will include the proposed date(s) for the excavation, location of the excavation, health and safety protocols (as required), clean fill source (as required), and proposed characterization and disposal requirements. Cap maintenance requirements are also described in Section 8.4 and in Appendix C.

7.0 EVALUATION CRITERIA FOR THE SELECTED TECHNOLOGIES

7.1 Oversight of RAP Implementation

The Participant will document implementation of the Approved RAP through the following means and methods, based on which the COC can be issued to the Developer:

- During periods of RAP construction activities, field visits will be conducted by the Developer's environmental consultant to perform environmental oversight and health and safety monitoring to ensure accurate construction of the containment remedy. At a minimum, daily field visits will be required to perform environmental dust monitoring and to document compliance with the RAP. Field visits will also be performed at the initiation and completion of each RAP activity.
- During periods of RAP construction activities, monthly progress reports will be submitted to MDE documenting the RAP implementation.

7.2 Criteria for Issuance of the Certificate of Completion

The Certificate of Completion will be issued when all of the following criteria have been met:

- All underground storage tanks have been properly removed from the property. Copies of all correspondence, including notifications, and closure reports must be submitted the to the VCP;
- Laboratory data sheets from the confirmation samples from the arsenic removal area demonstrate concentrations of arsenic within the confirmatory soil samples are below the target threshold of 380 mg/kg[3] and disposal tickets and laboratory data sheets show proper off-Site disposal of the removed soil.
- Indoor air samples adequately document that the vapor mitigation is effective by providing laboratory datasheets demonstrating that cleanup criteria for indoor air have been met;
- Construction of the remedial cap (in paved and concrete covered area) is completed to the full design thickness as specified in the Approved RAP;
- A RAP Completion report has been submitted that documents that all of the above RAP activities have been completed to the specification of the Approved RAP. The RAP Completion report must include all field visit documentation, photo-documentation of each completed RAP milestone (.e. clean fill capping, landscaping and paving,), health and safety monitoring during RAP implementation, site plans illustrating paved areas, open landscaped areas, building footprints and final elevations of the capped Site. The RAP Completion report must also include copies of all certificates of disposal, manifests for all media and solid waste generated during implementation of the RAP (including the removal

[3] Target threshold for removal is based on the USEPA Hazard Evaluation Handbook, A Guide to Removal Actions, Fourth Edition, published by the USEPA and dated October 1997.

of all USTs) and proper documentation regarding any clean fill material brought onto the property.

The COC will be recorded in the land records of Baltimore City within 30 days of issuance of the COC.

7.3 Criteria for Contingency Measures

If, during implementation of this RAP, any previously undiscovered contamination, change to the remediation schedule, or citation from regulatory entities related to health and safety practices is identified, the MDE VCP Project Manager will be verbally notified in a timely manner by CBAC. Notifications will be provided to the VCP at the following address:

MDE Land Restoration Program/Voluntary Cleanup
c/o VCP Project Manager
1800 Washington Boulevard, Suite 625
Baltimore, Maryland 21230
Phone: 410-537-3493

In addition to verbal notifications, the MDE VCP will be provided with all documentation and analytical reports generated as a result of newly identified conditions. This includes manifests for contaminated material disposed off-site.

8.0 RESPONSE ACTION IMPLEMENTATION

The following section includes plans and protocols for implementation of the Response Action, including general health and safety protocols, reporting requirements, maintenance, excavation protocols and specifications for clean fill characterization.

8.1 General Health and Safety Protocols

During construction and development the potential exists for exposure to COPCs (incidental ingestion, dermal contact and inhalation of soil particles and dermal contact or incidental ingestion of groundwater) by construction workers. Therefore, all Contractors shall be required to conduct onsite safety meetings and/or disseminate safety information to employees who may have reason for exposure to COPCs. Construction contractors must comply with all requirements of the RAP health and safety protocols and Occupational Safety and Health Administration (OSHA) guidelines for managing contaminated materials. A Site Specific Health and Safety Plan guidance document is included as Appendix E of this RAP. A copy of the Site Specific Health and Safety Plan will be present on-Site during all intrusive RAP activities. In addition, all construction personnel will be advised of the requirements of the Health and Safety Plan prior to working on the property and a log book will be available to the Department upon request.

The primary actions to mitigate potential exposures to future construction workers will be environmental air monitoring and the use of appropriate personal protective equipment (i.e. hard hats, leather work gloves, steel toed boots, etc.) during construction activities. Further, Site access will be continued to be controlled by maintaining the existing eight foot high chain link fence around the perimeter of the Site. A summary of the procedures for addressing potential exposure to air-borne dust or to soil is provided in the following section.

8.2 Air Monitoring Requirements and Site Controls

In order to evaluate risks associated with dust emissions generated during construction activities relative to the COPCs identified in Site soils (metals, PAHs, and VOCs), a total Site specific dust action level was calculated for the Site by using the permissible exposure limits (PEL) for airborne concentrations of the COPC at the Site. The action level was calculated using the highest concentration of each COPC in soil (and assuming the concentration in soil was equal to the concentration in air) in order to provide a conservative estimate of potential worker exposure. The calculated Site specific permissible dust levels ranged from 20 to greater than 1,000 milligrams per cubic meter (mg/m^3)[4]. These concentrations are greater than the OSHA Permissible Exposure Limits (PEL) for total dust (15 mg/m^3), and the OSHA and ACGIH (American Conference of

[4] Calculations do not include the single-occurrence of arsenic at a concentration of 4,200 mg/kg. Since this concentration was identified in deeper soils which will be removed during the soil removal action discussed in Section 6.4, a specific dust action level of 2.4 mg/m^3 will apply for excavation activities within this area.

Governmental Industrial Hygienists) PEL and TLV (Threshold Limit Value) for respirable "nuisance" particulates not otherwise specified of 5.0 mg/m^3 and 3.0 mg/m^3, respectively.

The action level for the purposes of determining the need for dust suppression techniques (e.g. misting) and/or continuous monitoring during future construction activities completed at the Site will be 3 mg/m^3. The action level is based on the lowest of the site specific dust action levels, OSHA PELs and ACGIH TLV.

Environmental dust monitoring (within the construction zones and along the Site perimeter) is being performed for approximately 40 hours/week. This monitoring frequency shall continue throughout the duration of Site grading and environmental capping activities. Following completion of the initial primary Site grading activities, and once the majority (greater than 95% of the environmental cap has been completed), an alternative frequency may be considered. If an alternative frequency is proposed, this frequency will be submitted to the MDE VCP for review and approval.

If visible dust is generated in the breathing zone, air monitoring will be implemented as follows:

- At the start of intrusive Site activities.
- Periodically during intrusive Site activities (15-minute intervals).
- When contaminants other than those previously identified are being handled.
- When a different type of operation is initiated or conditions change.
- If personnel are working in areas with obvious particulate contamination.
- If a sufficient reasonable interval has passed so that exposures may have significantly changed.

Air monitoring will be performed using a ThermoElectron Corporation Personal Data RAM 1000AN dust monitor, or equivalent real time air monitoring device. If the 3 mg/m^3 action level is exceeded, operations will be shut down and dust suppression implemented. Operations may only be resumed once re-testing indicates that dust concentrations are below the 3 mg/m^3 action level.

As applicable, air monitoring will be conducted during RAP excavation activities in the immediate work zones and surrounding areas to assess levels of exposure to Site workers, establish that the work zone designations are valid and verify that the respiratory protection being worn by personnel is adequate. Concurrent with the air monitoring, perimeter air monitoring will also be performed to ensure contaminants are not migrating off-site. Perimeter monitoring will include monitoring along the entire perimeter of the Site, including the downwind portions of the Site.

In addition to the above, as a precautionary measure to ensure that dust and/or sediment from on-Site grading, excavation, and earth moving activities does not migrate beyond the Site boundary, a wheel wash shall be present at the construction entrance(s) to the Site, a street sweeper shall be

engaged on an on-call basis to ensure that appreciable soil is not tracked onto the surrounding right-of-ways, and a water truck will be engaged to perform Site-wide wetting/dust suppression on a daily basis.

8.3 Reporting Requirements

Reporting required during the implementation of the RAP will consist of RAP addenda, including construction documents/final development plans, the initial written notification and construction schedule, monthly progress reporting, and submission of the Response Action Completion Report.

The RAP implementation schedule, relevant construction documents/final development plans will be forwarded to the MDE VCP as completed. Monthly progress reports will be submitted to MDE documenting the RAP implementation. At the completion of RAP activities, a Response Action Completion Report will be submitted to MDE for review and approval. The Response Action Completion Report will include documentation regarding field visits, photo-documentation as each RAP milestone is completed (i.e. clean fill capping, landscaping and paving), health and safety monitoring during RAP implementation activities, and copies of all clean fill documentation. Copies of certificates of disposal or manifests, as applicable, for environmental media and solid waste generated during the performance of the RAP will also be included in the Response Action Completion Report.

8.4 Maintenance Requirements

Physical maintenance requirements will include maintenance of the capped areas to prevent degradation of the environmental cap and unacceptable exposure to the underlying soil. Annual inspections will be scheduled, targeting early spring. The Developer or the future property owner(s) will be responsible for conducting the inspections. Any degraded areas of the cap will be repaired within 15 business days of discovery. MDE will be provided with written documentation of the repair within 10 business days after completion of the repair. In addition, MDE will be provided written notice within 15 days prior to any planned excavation activities at the Site that will penetrate through the cap. Written notice of planned excavation activities will include the proposed date(s) for the excavation, location of the excavation, health and safety protocols (as required), clean fill source (as required), and proposed characterization and disposal requirements.

8.5 Soil Excavation, Staging, Sampling and Disposal

With the exception of soils removed in accordance with Section 6.4, soils excavated during redevelopment of the Site are anticipated to be placed under the environmental cap.

However, if there is “excess” soil such that off-Site disposal is necessary, this “excess” soil will be placed in a designated stockpile area of the Site and/or live-loaded for transport to within the Gateway South Phase I and Warner Street Properties or to an appropriate and MDE-approved

facility. No excavated soil from the Site will be taken to a property with current or proposed residential use or zoned for residential use.

Stockpiled soil will be placed on plastic or impervious surface, covered completely with 6-mil plastic, so that the entire stockpile is encapsulated, and anchored to prevent the elements from affecting the integrity of the plastic containment. As required by the appropriate and MDE-approved facility, composite soil samples will be collected for profiling/waste characterization. Each composite sample must be submitted to a fixed laboratory for the following analyses: PPL metals, PAHs, VOCs, TPH-DRO and any additional analysis required by the selected disposal facility.

Upon receipt of any additional characterization analytical results, an addendum to this RAP requesting approval of the selected disposal or placement facility will be submitted to MDE VCP. All manifests or trucking trip tickets generated during the implementation of the RAP will be incorporated in a completion report for submittal to MDE.

All "excess" soil, rubble or debris excavated from the Site will be disposed in accordance with applicable local, State, and federal laws and regulations.

8.6 Groundwater Management

Short term groundwater dewatering may be required in two areas of the Site. Specifically, it is anticipated that groundwater dewatering may be required for the installation of a below grade grease line on the northwestern portion of the property and for the installation of a concrete stormwater vault on the southeastern portion of the Site.

Groundwater dewatering, if required, will be performed in compliance with all local, state, and federal laws and regulations and will be accomplished by obtaining the necessary discharge permits. As required under Section 9.0 of this RAP, copies of discharge permits will be submitted to the MDE VCP for review as an addendum.

At this time, the developer is evaluating several discharge alternatives, including the following:

- Pre-treatment filtration, as required, and discharge to the municipal sanitary sewer under City of Baltimore Department of Public Works Wastewater Discharge Permit.
- Pre-treatment filtration and discharge to the stormwater system via a general National Pollution Discharge Elimination System (NPDES) permit (limited to the southeastern portion of the Site).

Regardless of the discharge alternative proposed and selected, discharge effluent monitoring will be performed for compliance with the local, state, and federal requirements, and will include flow monitoring, and periodic fixed laboratory analysis of the effluent stream for VOCs via USEPA Method 8260B, TPH DRO/GRO via USEPA Method 8015M, and total suspended solids (TSS).

8.7 Clean Fill

The Approved RAP includes containment remedies to mitigate exposure to impacted soil. In order to implement this remedy, clean fill materials from a designated off-Site location(s) will be utilized for construction of the cap in paved and landscaped areas.

As required to complete the environmental containment remedy within the asphalt paved and landscaped areas, material from the LaFarge Texas Road Quarry or other suitable MDE-approved clean fill source will be used for the construction of the environmental cap. If another clean fill source is identified which has not been previously approved by the MDE as clean fill, a clean fill sampling and analysis plan will be submitted to the MDE VCP for review and approval. The clean fill sampling and analysis plan will outline the source and quantity of clean fill, the proposed sampling frequency and analysis, the protocols for sampling, and the attainment standards (i.e. MDE Cleanup Standard for Non-Residential Soil). Clean fill characterization results will be submitted to the MDE VCP for review and approval of the materials as clean fill. Materials will be approved by the MDE VCP as clean fill prior to being transported on-site.

If gravel or stone, including stone dust, is proposed for use as clean fill, the Developer will provide certification from the quarry, on the generating quarry's company letterhead, that the material is not recycled, is derived from a virgin source mined at their facility, and that no controlled hazardous substances or oil were used in the extraction, production, or loading processes of the material.

As clean fill materials are transported to the Site they will be compacted in place or staged in temporary stockpile areas. Clean fill material stockpiles will be maintained and separately secured from excavated on-Site soils during CAP activities. Further, clean fill materials will be stockpiled on asphalt/concrete paved areas, 6-mil plastic, or capped areas. Prior to transport of clean fill to the Site, a Site plan, designating the proposed temporary stockpile area(s), as applicable will be submitted to the MDE VCP for review and approval.

8.8 Asbestos, Lead, Oil and Drums

Eleven current, potential, or historic underground storage tanks (USTs) have been identified at the Site parcels. Two USTs (6,000-gallon gasoline and 4,000-gallon diesel within the 1551 Russell Street parcel) have been issued closure by the MDE OCP; these two tanks will only be removed from the Site if it is required for future development.

Test pit excavations of each of the nine suspected UST areas were performed in March 2013, at which time the presence of seven USTs was confirmed at the Site. Further, in April 2013, during visual inspections during the removal of surface concrete on the Site, an additional three potential

USTs were observed. On April 11, 2013, the 30-day Written Notification for the removal of the USTs was submitted to the MDE Oil Control Program. UST removals (during which an 11th UST was identified) were performed in accordance with Code of Maryland Regulations (COMAR) 26.10 from April 25, 2013 through May 3, 2013. The UST removals included the over excavation of approximately 750 tons of petroleum-impacted soil and non-petroleum impacted soils. Final soil removal and UST removal reporting is pending. The final UST removal report to the MDE OCP and VCP will include results of the UST test pit investigation and copies of all correspondence, including UST removal notifications, schedules, and UST closure reporting.

In addition, a previous occupant at 1633 Warner Street reportedly abandoned one-hundred and twenty-two (122) drums at the Site parcel. Of these 122 drums, 59 drums containing hazardous (low flash point) liquids were emptied and the contents removed for off-Site disposal as a hazardous waste. The remaining drums were identified as empty or characterized as non-hazardous materials. The drums were inventoried in December 2012 and then removed and transported for off-Site disposal in accordance with State and Federal requirements. Manifests documenting the removals will be submitted in RAP Progress Report #1.

If any undocumented underground storage tank or other oil storage container or any unanticipated environmental condition or hazard is discovered during excavation and intrusive Site activities, or a release of petroleum occurs at the Site, the Developer will notify the MDE Oil Control Program at 410-537-3442 or the MDE VCP at 410-537-3493, as applicable.

9.0 PERMITS, NOTIFICATIONS AND CONTINGENCIES

CBAC will comply with all local, State, and federal laws and regulations by obtaining all necessary approvals and permits to conduct the activities and implement the CAP. If during implementation of the Approved RAP any previously undiscovered contamination, change to the remediation schedule, previously undiscovered storage tank or other oil-related issue, or other citation from regulatory entities related to health and safety practices is identified, the MDE VCP will be verbally notified in a timely manner by the Participant. Notifications will be provided to the VCP at the following address:

MDE Land Restoration Program/Voluntary Cleanup
c/o Division Chief
1800 Washington Boulevard, Suite 625
Baltimore, Maryland 21230
Phone: 410-537-3493

In addition to verbal notifications, the MDE VCP will be provided with all documentation and analytical reports generated as a result of newly identified conditions. This includes manifests for contaminated material transported for off-Site disposal. CBAC understands that previously undiscovered contamination, previously undiscovered storage tanks or other oil-related issues may require an addendum to the Approved RAP.

9.1 Implementation Schedule

Initial site preparation activities commenced in March of 2013 and completion of construction is projected for Summer 2014.

In general, development activities include regrading the Site and construction of the planned containment remedy as outlined in Section 6. RAP activities will include general regrading, excavation and utility installations, foundation installation (including excavation for building footers and concrete slabs), and installation of the containment remedy within landscaped (geotextile and clean fill) and asphalt paved areas of the Site.

Throughout the implementation of the Response Action, access to the Site will be restricted and will be controlled via the existing 8-foot high permanent fence and future 8-foot high construction fencing.

The total Site redevelopment/construction period, including implementation of the RAP activities is anticipated to be 18 months. Demolition of the existing buildings occurred in early 2013. The following provides the anticipated schedule for the start of each remaining RAP activity:

RAP Milestone	Start Date
Submission of the Performance Bond /Surety	December 5, 2013
Final Construction Document/Development Plan submissions	March 2013
Pre-RAP Activities Health and Safety Meetings	December 2012 / March 2013
Removal of Drums/Compressed Gas Cylinders	January 2013
Site Grading Activities (including cap placement and installation of the vapor mitigation system)	March 2013
Removal of underground storage tanks	April 2013
Utility Excavations and Installation	March 2013
Environmental Cap Construction	March 2013
Vapor Mitigation System Installation	Summer 2013
Vapor Mitigation System Confirmation Sampling	Summer 2013

Schedule(s) updates will be forwarded to the MDE for review as RAP addenda. Materials prepared in support of RAP addenda (final development plans, property subdivisions, deed restrictions, etc.) will also be forwarded to the MDE. Lastly, it is also understood that any proposed clean fill material or receiving disposal facilities must be submitted to the MDE VCP for review and approval as addenda to the Approved RAP.

9.2 Administrative Requirements

A copy of the written agreement and certified zoning statement are provided in Appendix B. The written agreement is in accordance with Section 7-512 of the Environmental Article, Annotated Code of Maryland, and states that the Participant will comply with the provisions of the RAP. Further, the Participant acknowledges that there are significant penalties for falsifying any information required by MDE under Title 7, Subtitle 5 of the Environment Article, Annotated Code of Maryland, and that the certified zoning statement is required to be included in the RAP for the VCP pursuant to Title 7, Subtitle 5 of the Environmental Article, Annotated Code of Maryland.

The Participant filed a performance bond with MDE in the amount of $ 31,000 on December 5, 2013. The performance bond costs are intended and determined based on the items needed to secure and stabilize the Site should the RAP activities not be completed. Activities to be covered under the bond include the following:

- Posting warnings and notices regarding property conditions.
- Restricting access to the property by maintaining perimeter fencing.
- Minor regrading of any open excavations at the property.
- Import and placement of approximately 1,300 tons of crushed stone across limited areas of the Site. The volume of crushed stone was calculated assuming that approximately one acre of the Site would require placement of a crushed stone cap.

- Removal, transportation and off-Site disposal under proper manifest the existing 122 drums located at the property. Of these 122 drums, 83 have been identified as empty; the remaining 39 drums have been identified as containing non-hazardous materials.
- Removal, transportation and off-Site disposal under proper manifest of any remaining compressed gas cylinders (CGCs) located at the Site.

10.0 REFERENCES

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MDE. 2009b. *Datascreen for Gateway South Phase I , 1501, 1525, and 1551 Russell Street.* December.

MDE. 2010. *Datascreen for Warner Street Properties, 1501, 1601, 1629, 1633, and 1645 Warner Street, 2119 Haines Street, and 2102 Oler Street.* March.

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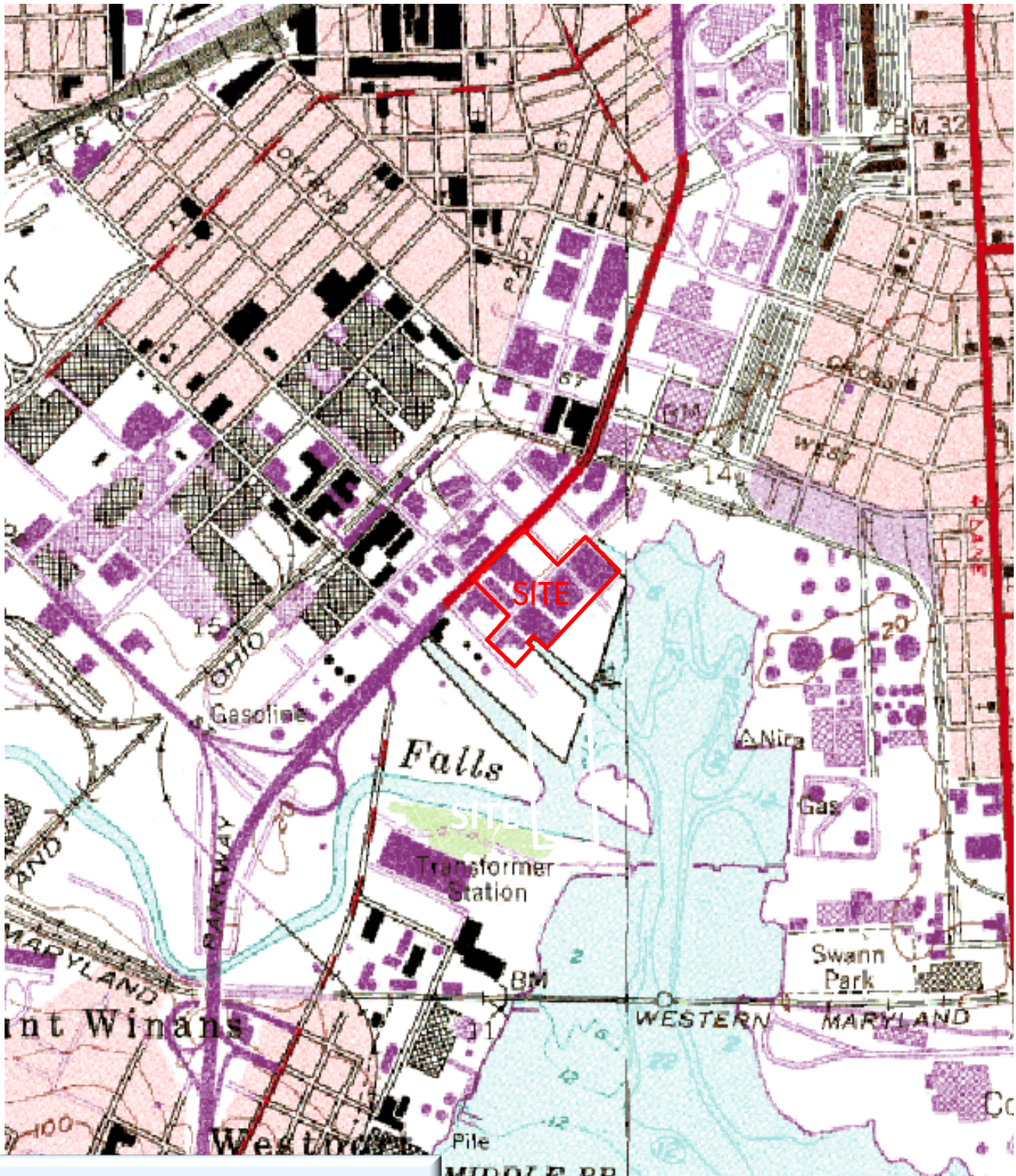
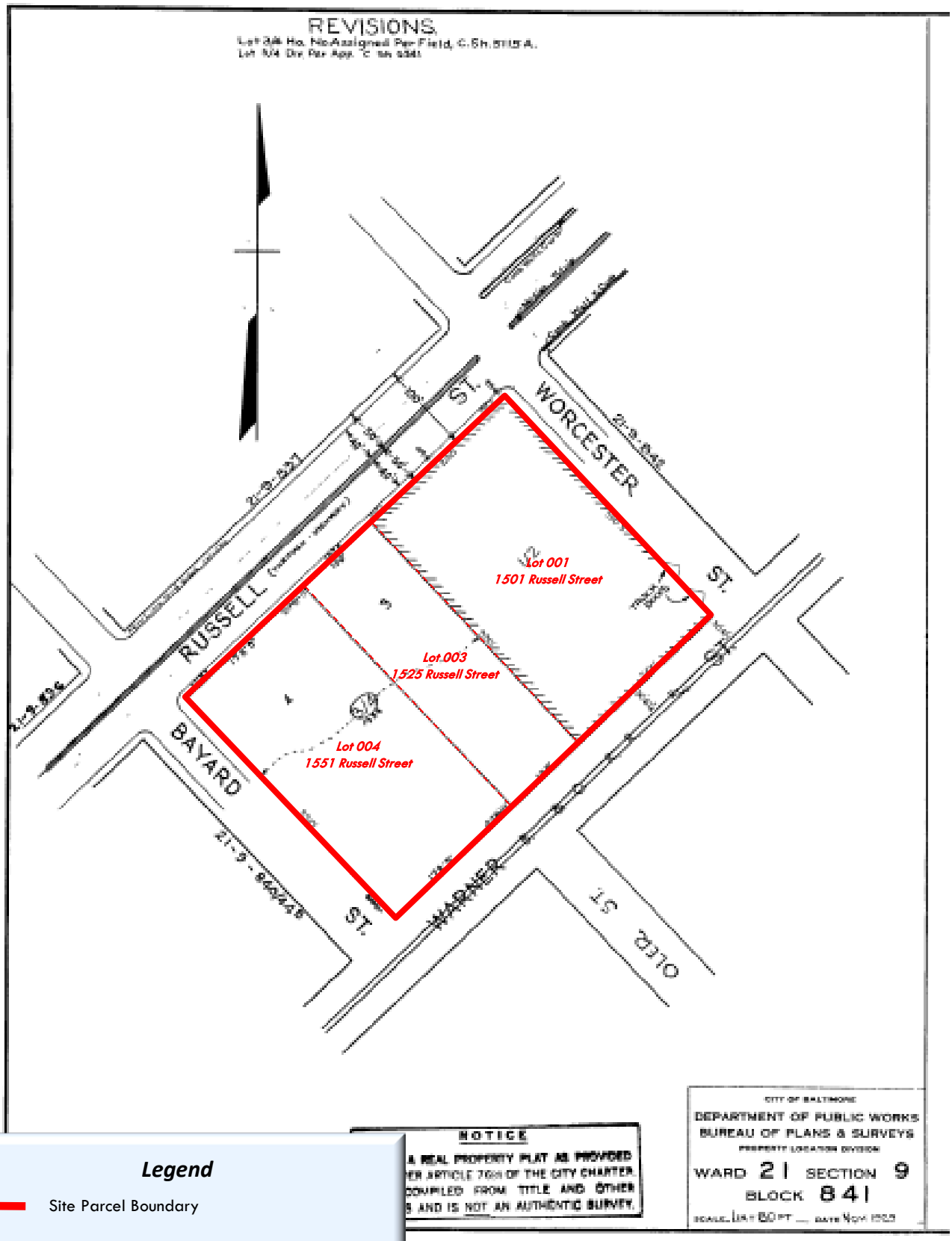
Urban Green. 2013b. *Phase I Environmental Site Assessment Update, Future Horseshoe Casino (Former Gateway South Phase I and Warner Street Properties).* April.



Source: USGS 7.5 Minute Quadrangle, "Baltimore East, MD" 1974

URBAN GREEN ENVIRONMENTAL	CBAC Gaming, LLC	Figure 1 Site Location Map Gateway South Property Baltimore, Maryland 21230	Date: May 2013	Figure: 1
			Approximate Scale: As Shown	Project Number: 078-001-12

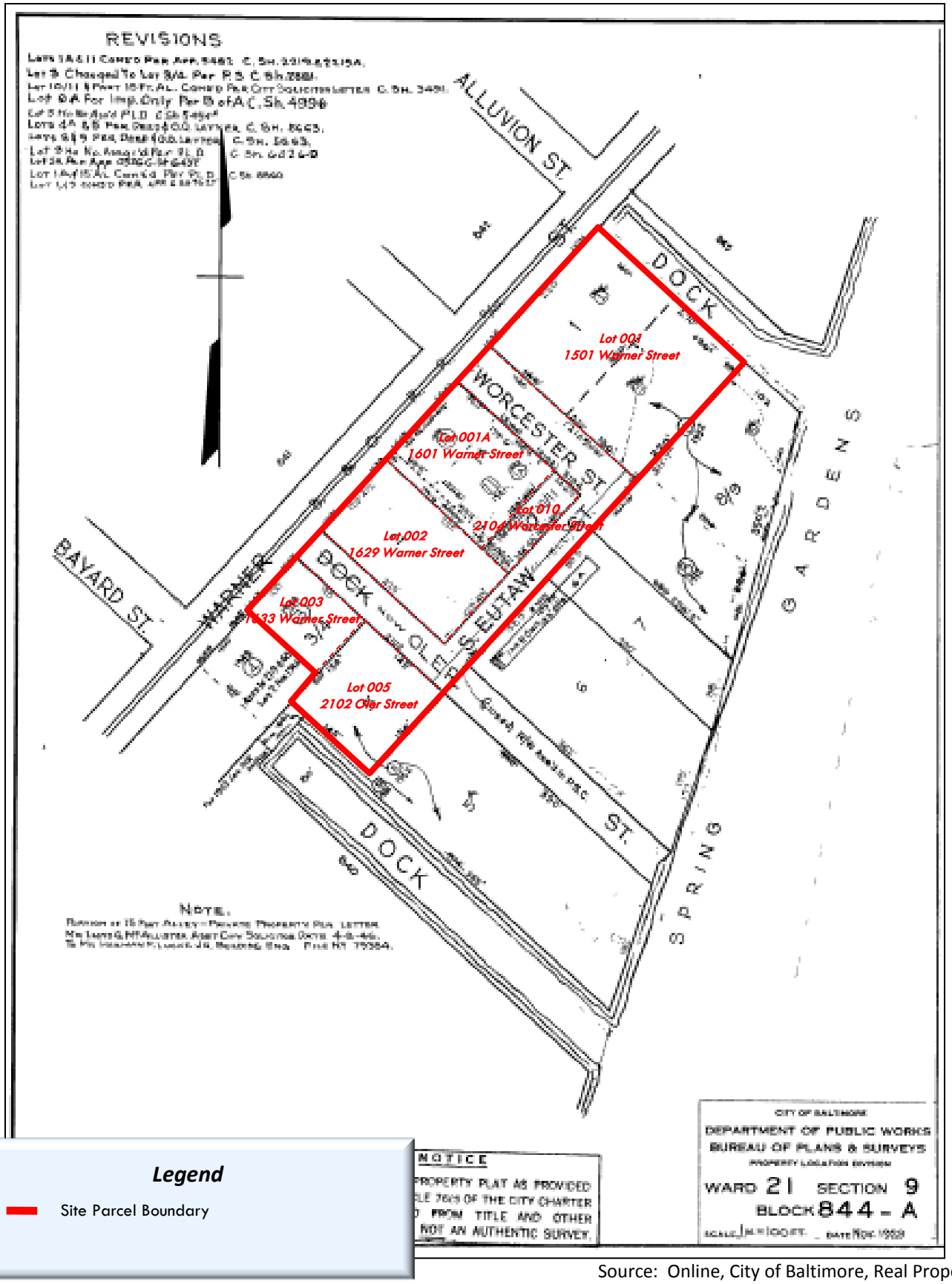


Legend

Site Parcel Boundary

Source: Online, City of Baltimore, Real Property

URBAN GREEN ENVIRONMENTAL	CBAC Gaming, LLC	Figure 2a Site Tax Plat Gateway South Phase I and Warner Street Properties Baltimore, Maryland 21230	Date: May 2013	Figure: 2a
			Approximate Scale: As Shown	Project Number: 078-001-12

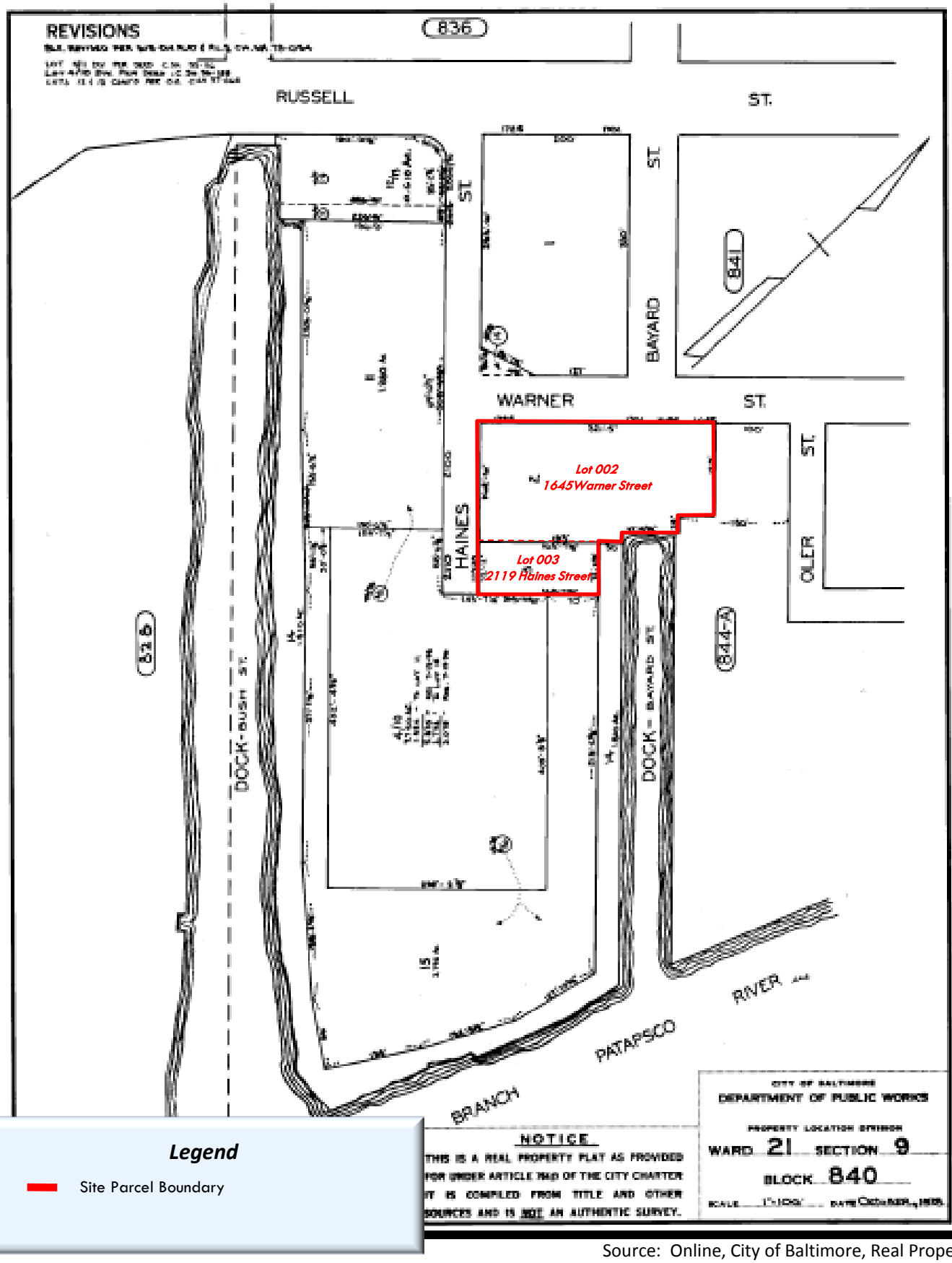


Legend

Site Parcel Boundary

Source: Online, City of Baltimore, Real Property

URBAN GREEN ENVIRONMENTAL	CBAC Gaming, LLC	Figure 2b Site Tax Plat Gateway South Phase I and Warner Street Properties Baltimore, Maryland 21230	Date: May 2013	Figure: 2b
			Approximate Scale: As Shown	Project Number: 078-001-12

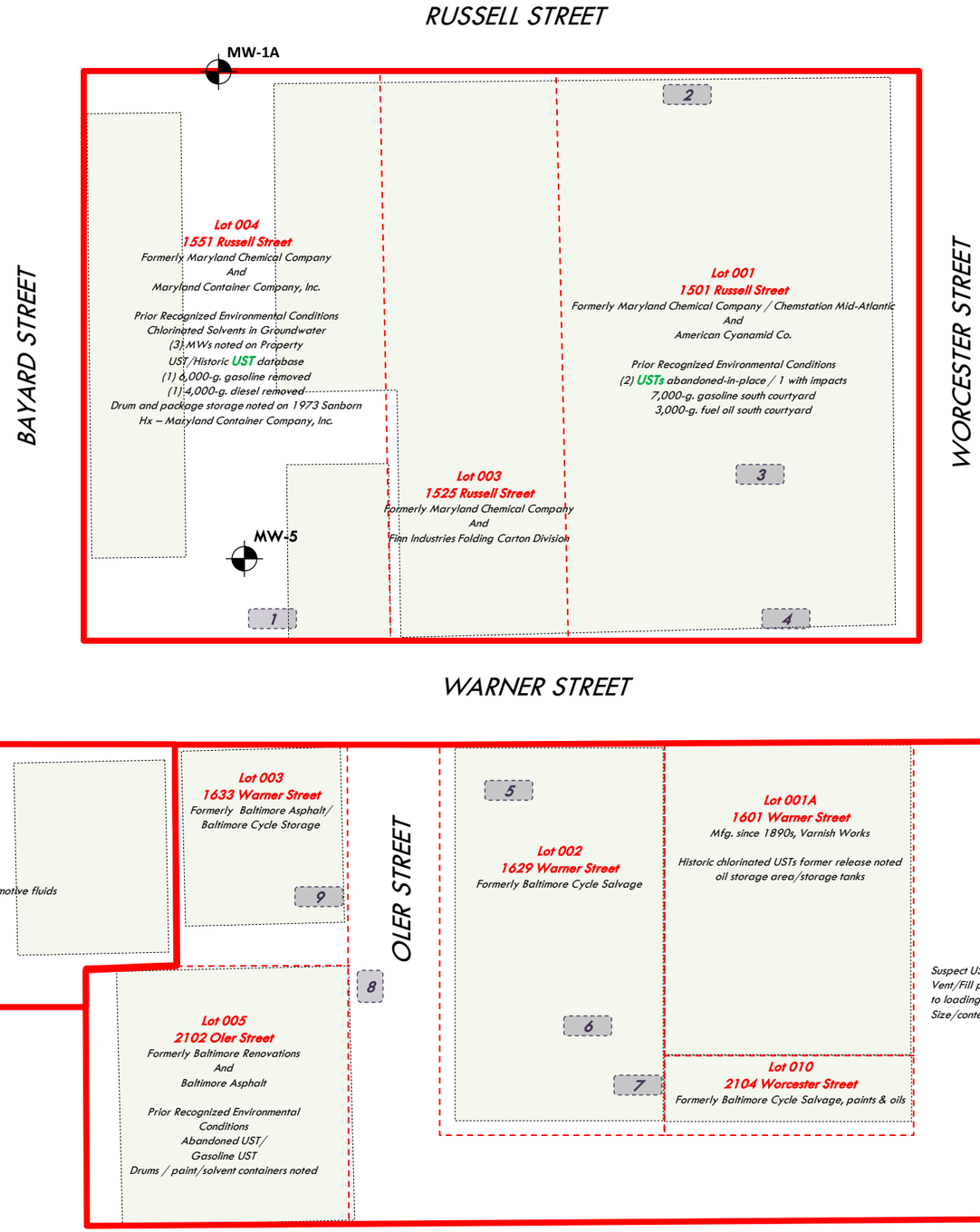


Legend

Site Parcel Boundary

Source: Online, City of Baltimore, Real Property

URBAN GREEN ENVIRONMENTAL	CBAC Gaming, LLC	Figure 2c Site Tax Plat Gateway South Phase I and Warner Street Properties Baltimore, Maryland 21230	Date: May 2013	Figure: 2c
			Approximate Scale: As Shown	Project Number: 078-001-12



LEGEND

- Approximate Site Boundary
- Site Parcel Boundary
- Former Building Footprint / Building Foundation
- Suspect UST Location
- Permanent Groundwater Monitoring Well

POTENTIAL UST SUMMARY

1	REMOVED 6,000-GALLON GASOLINE REMOVED 4,000-GALLON DIESEL
2	ABANDONED IN PLACE 7,000-GALLON GASOLINE
3	ABANDONED IN PLACE 3,000-GALLON HEATING OIL
4	SUSPECT UST BASED ON PRIOR GEOPHYSICAL INVESTIGATION
5	SUSPECT UST BASED ON PRIOR GEOPHYSICAL INVESTIGATION
6	SUSPECT UST BASED ON PRIOR GEOPHYSICAL INVESTIGATION
7	SUSPECT UST BASED ON PRIOR GEOPHYSICAL INVESTIGATION
8	UST IN PLACE; NO RECORDS
9	SUSPECT UST BASED ON PRIOR GEOPHYSICAL INVESTIGATION
10	SUSPECT UST BASED ON FILL/VENT

URBAN GREEN ENVIRONMENTAL

CBAC Gaming, LLC

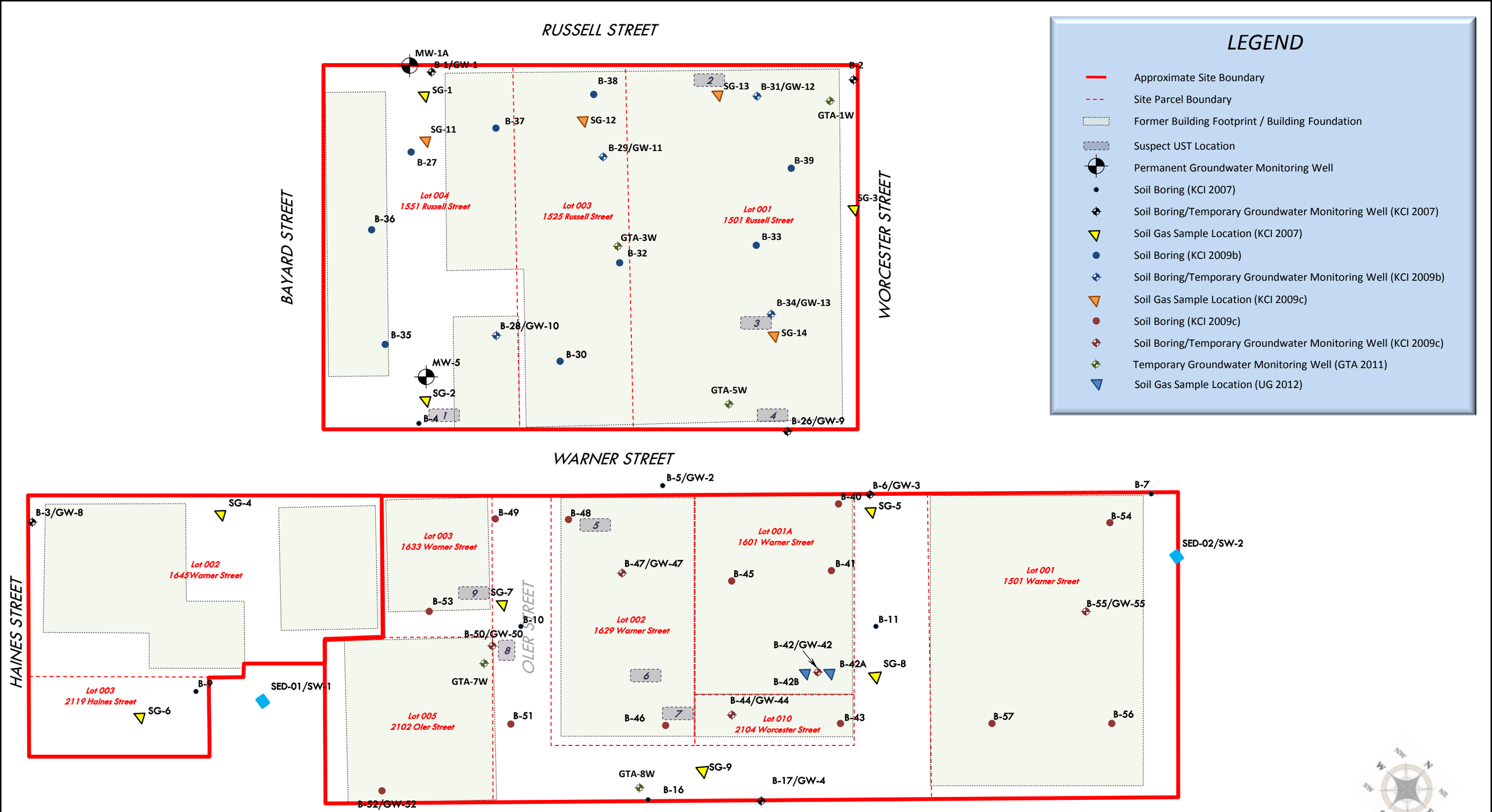
Figure 3 Summary of Historic Site Uses
Gateway South Phase I and Warner Street Properties
Baltimore, Maryland 21230

Date: May 2013

Figure: 3

Approximate Scale: Not to Scale

Project Number: 078-001-12

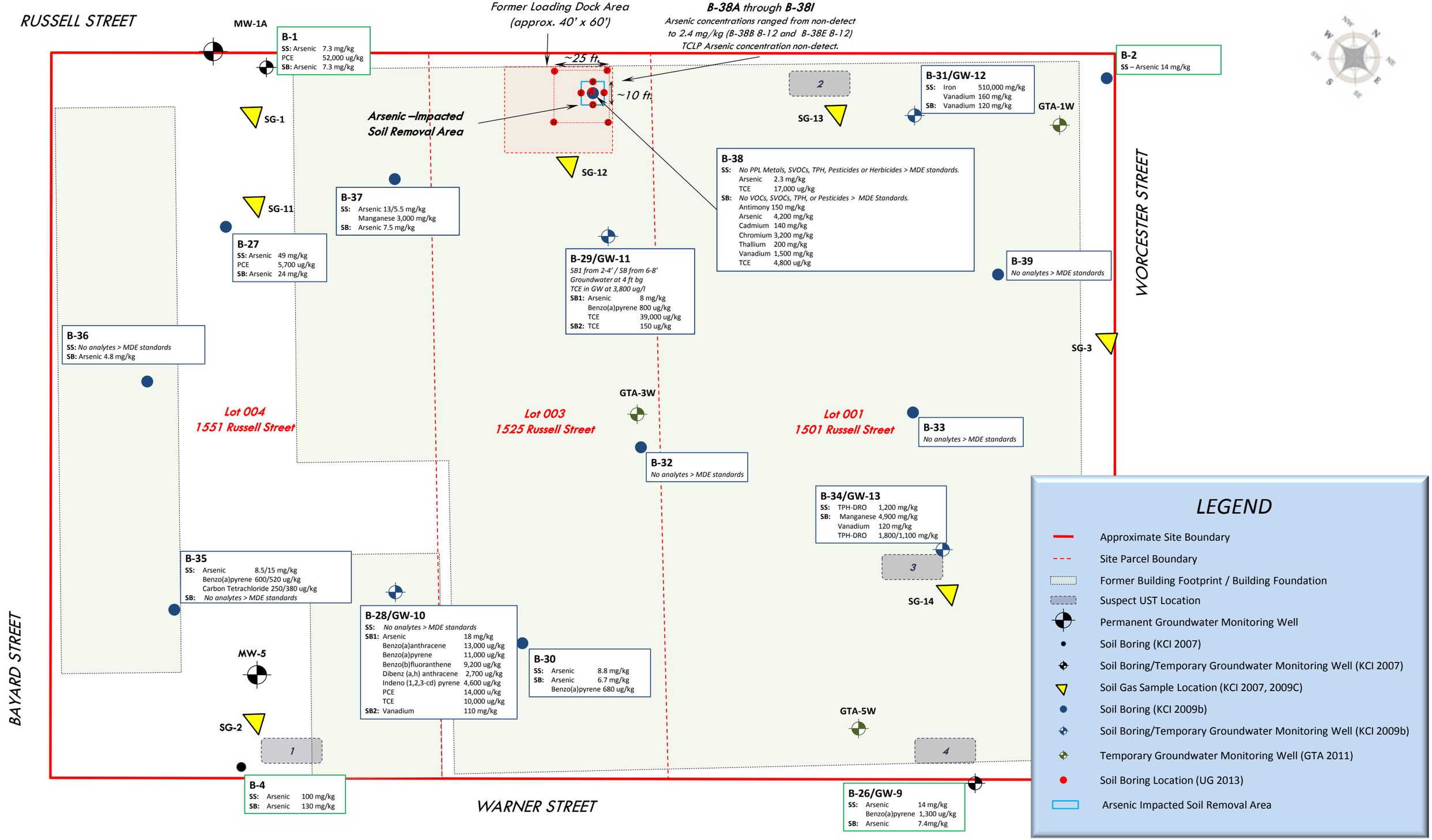


URBAN GREEN ENVIRONMENTAL

CBAC Gaming, LLC

Figure 4 Summary of Prior Media Sample Locations
Gateway South Property
Baltimore, Maryland 21230

Date: May 2013	Figure: 4
Approximate Scale: Not to Scale	Project Number: 078-001-12



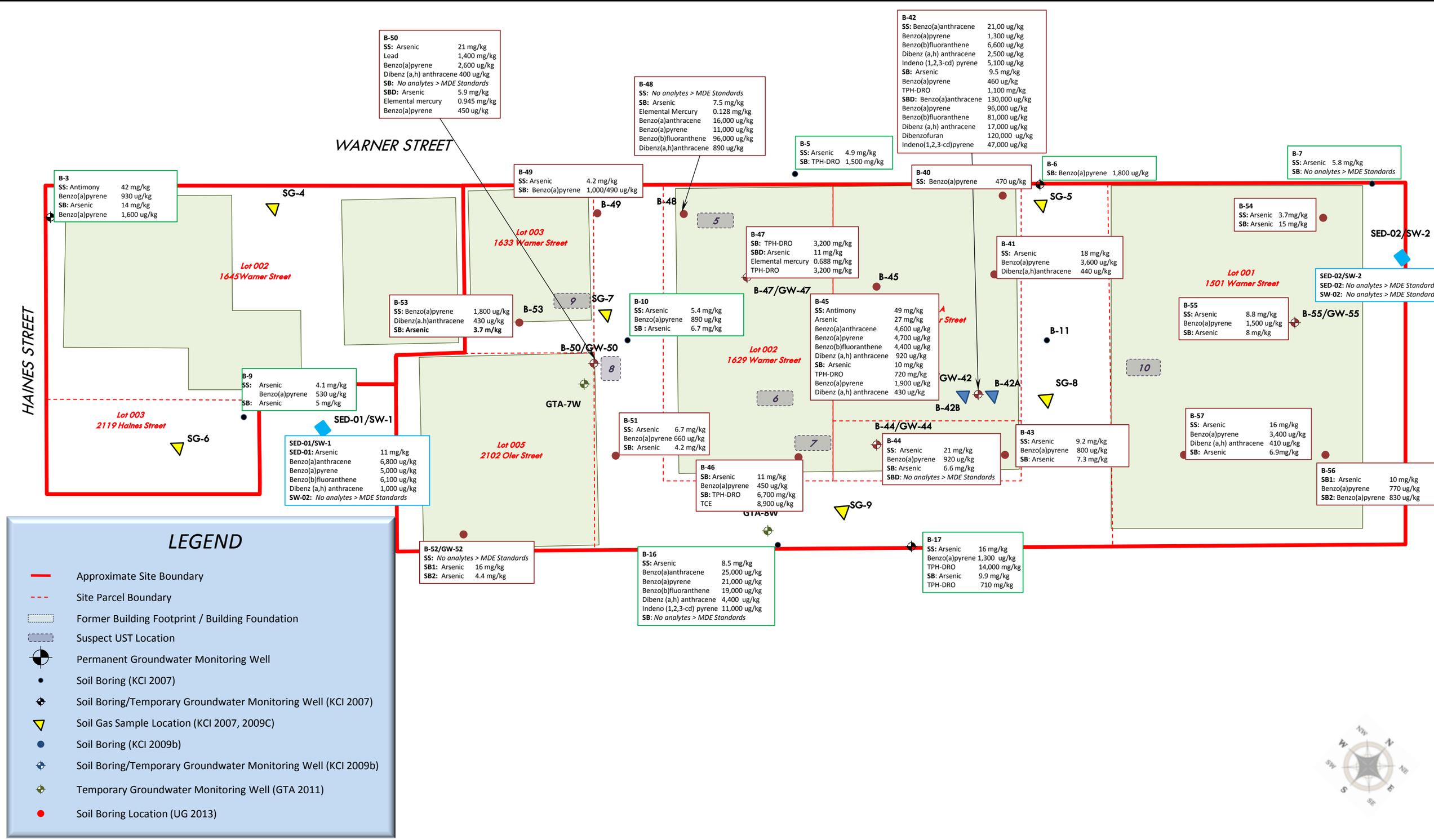
URBAN GREEN ENVIRONMENTAL

CBAC Gaming, LLC

Figure 5 Summary of Analytes Reported in Soil above the MDE Cleanup Standards for Non-Residential Soil – Gateway South Phase I

Gateway South and Warner Street Properties, Baltimore, Maryland 21230

Date: May 2013	Figure: 5
Approximate Scale: Not to Scale	Project Number: 078-001-12



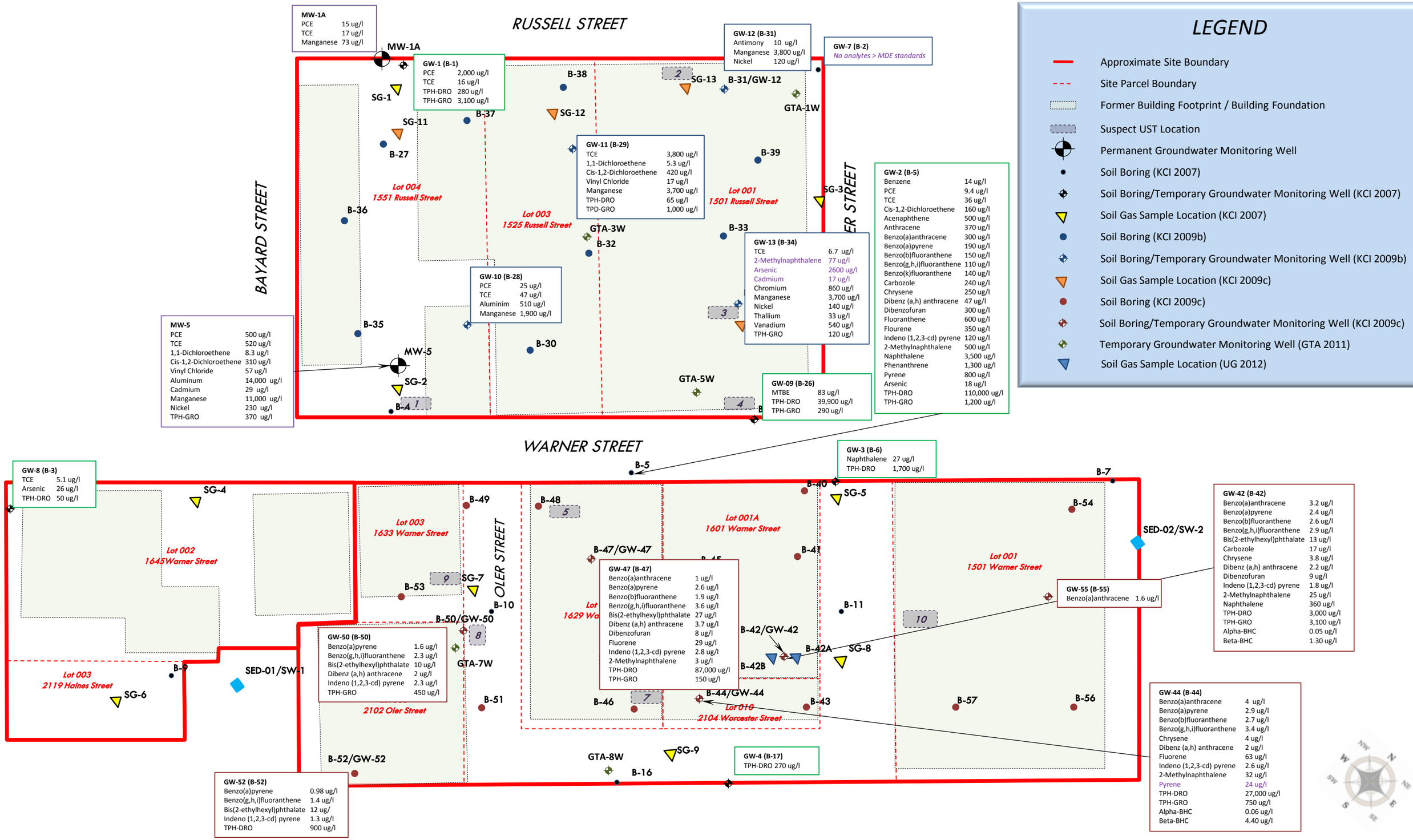
URBAN GREEN ENVIRONMENTAL

CBAC Gaming, LLC

Figure 6 Summary of Analytes Reported in Soil above the MDE Cleanup Standards for Non-Residential Soil – Warner Street Properties

Gateway South and Warner Street Properties, Baltimore, Maryland 21230

Date:	Figure:
May 2013	6
Approximate Scale:	Project Number:
Not to Scale	078-001-12



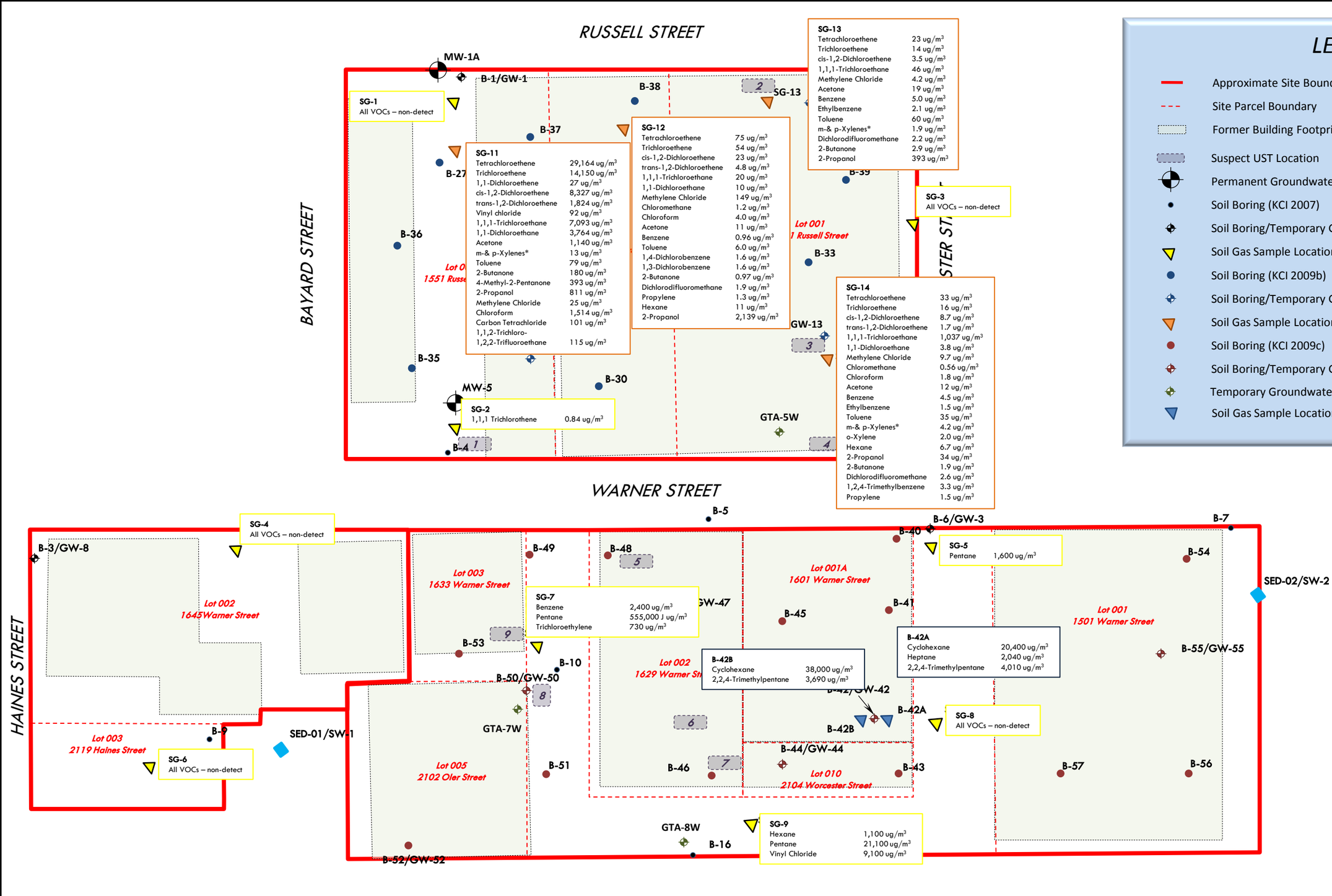
URBAN GREEN ENVIRONMENTAL

CBAC Gaming, LLC

Figure 7 Summary of Groundwater Sample Results

Gateway South Property, Baltimore, Maryland 21230

Date: May 2013	Figure: 7
Approximate Scale: Not to Scale	Project Number: 078-001-12



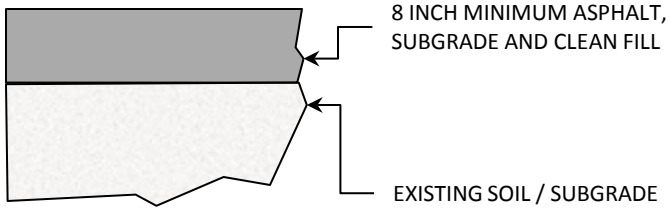
URBAN GREEN ENVIRONMENTAL

CBAC Gaming, LLC

Figure 8 Summary of Soil Gas Sample Results

Gateway South Property, Baltimore, Maryland 21230

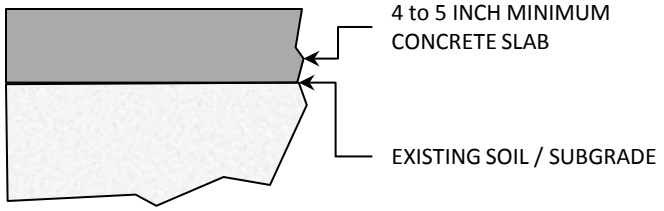
Date: May 2013	Figure: 8
Approximate Scale: Not to Scale	Project Number: 078-001-12



PAVING SECTION DETAIL
NOT TO SCALE

NOTES:

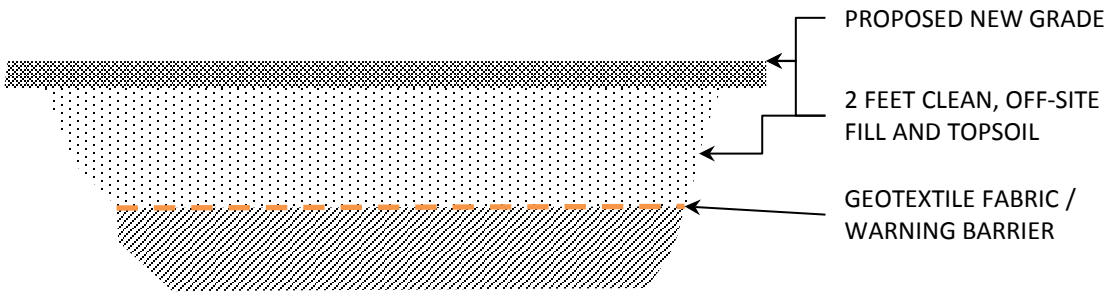
1. DETAIL NOT FOR CONSTRUCTION
2. DETAIL ADDRESSES ENVIRONMENTAL CONCERNS AND DOES NOT ADDRESS CIVIL OR GEOTECHNICAL CONCERNS. ENGINEER SHOULD EVALUATE FOR CONSTRUCTION PURPOSES.
3. PAVEMENT SECTION: PERVIOUS/IMPERVIOUS



CONCRETE SECTION DETAIL
NOT TO SCALE

NOTES:

1. DETAIL NOT FOR CONSTRUCTION
2. DETAIL ADDRESSES ENVIRONMENTAL CONCERNS AND DOES NOT ADDRESS CIVIL OR GEOTECHNICAL CONCERNS. ENGINEER SHOULD EVALUATE FOR CONSTRUCTION PURPOSES.
3. PAVEMENT SECTION: PERVIOUS/IMPERVIOUS



TYPICAL LANDSCAPE AREA DETAIL

NOT TO SCALE

NOTES:

1. DETAIL NOT FOR CONSTRUCTION
2. DETAIL ADDRESSES ENVIRONMENTAL CONCERNS AND DOES NOT ADDRESS CIVIL OR GEOTECHNICAL CONCERNS. ENGINEER SHOULD EVALUATE FOR CONSTRUCTION PURPOSES.

URBAN GREEN ENVIRONMENTAL	CBAC Gaming, LLC	Figure 10 Cross Section Showing Cap Construction in Landscaped Areas Gateway South Property Baltimore, Maryland	Date: October 2012 Approximate Scale: Not to Scale	Figure: 10 Project Number: 078-001-12

Table 1 Summary of Analytes Detected in Soil Above the MDE Cleanup Standards for NON-RESIDENTIAL Soil
Gateway South Phase I and Warner Street Properties
Baltimore, Maryland 21230

ANALYTE	MDE Cleanup Standard - Non-Residential [1]	ATC [2]	TCLP [3]	Sample ID	SS-01	SB-01	SS-02	SB-02	SS-03	SB-03	SS-04	SB-04	SS-05	SB-05	SB-05B	SB-06	SS-07
					B-01	B-01	B-02	B-02	B-03	B-03	B-04	B-04	B-05	B-05	B-05	B-06	B-07
				Interval (ft bg)	0-2'	4-6'	3-4'	4-6'	0-2'	4-8'	1-3'	4-6'	3-4'	4-6'	11'	10-12'	0-2'
				Date	9/26/07	9/26/07	9/27/07	9/27/07	9/26/07	9/26/07	9/26/07	9/26/07	9/26/07	9/26/07	9/26/07	9/26/07	9/27/07
Target Analyte List Metals (SW6020 / mg/kg)																	
Antimony	41	6.0	---		1.4	ND(0.97)	3.8	ND(0.92)	42	4.0	3.8	3.3	2.2	1.2		ND(1.0)	1.1
Arsenic	1.9	3.6	---		7.3	7.3	14	2.8	ND(0.40)	14	100	130	4.9	ND(0.39)		2.5	5.8
TCLP Arsenic [3]	---	---	5.0														
Cadmium	51	0.73	---		0.12	0.10	ND(0.098)	ND(0.92)	ND(0.099)	1.9	2.4	3.3	<0.094	0.14		ND(0.10)	0.26
Chromium	310	28	---		76	33	44	64	ND(0.49)	82	31	44	8.3	ND(0.49)		21	22
Iron	72,000	15,000	---														
Lead	1,000	45	---		58	43	43	3.6	380	210	69	330	65	130		180	95
Manganese	2,000	480	---														
Mercury [4]	31	0.51	---		0.044	0.13	ND(0.027)	ND(0.024)	0.27	0.20	0.17	1.4	0.22	0.38		3.6	0.25
Elemental Mercury	0.0	---	---														
Thallium	7.2	3.9	---		ND(0.38)	ND(0.39)	ND(0.39)	ND(0.37)	ND(0.40)	ND(0.39)	ND(0.39)	ND(0.39)	ND(0.38)	ND(0.39)		ND(0.40)	ND(0.39)
Vanadium	100	30	---														
Semi-Volatile Oganic Compounds (SW8270C / ug/kg)																	
Benzo[a]anthracene	3,900	---	---		ND(360)	ND(400)	ND(390)	ND(350)	1,100 (J)	2,000	560	600 (J)	ND(380)	ND(410)		2,700	ND(340)
Benzo[a]pyrene	390	---	---		ND(360)	ND(400)	ND(390)	ND(350)	930 (J)	1,600 (J)	ND(390)	ND(490)	ND(380)	ND(410)		1,800	ND(340)
Benzo[b]fluoranthene	3,900	---	---		ND(360)	ND(400)	ND(390)	ND(350)	860 (J)	1,900 (J)	410 (J)	ND(490)	ND(380)	ND(410)		1,500	ND(340)
Dibenz[a,h]anthracene	390	---	---		ND(360)	ND(400)	ND(390)	ND(350)	ND(390)	380 (J)	ND(390)	ND(490)	ND(380)	ND(410)		ND(440)	ND(340)
Indeno[1,2,3-cd]pyrene	3,900	---	---		ND(360)	ND(400)	ND(390)	ND(350)	660 (J)	980 (J)	ND(390)	ND(490)	ND(380)	ND(410)		870	ND(340)
Total Petroleum Hydrocarbons (SW8015C / mg/kg)																	
Diesel Range Organics	620	--	---		11	ND(10)						170			1,500		
Volatile Oganic Compounds (SW8260C / ug/kg)																	
Carbon Tetrachloride	220	---	---			ND(520)		ND(5.5)		ND(6.5)		ND(670)		ND(7.8)		ND(5.7)	
Tetrachloroethene	5,300	---				52,000		ND(5.5)		ND(6.5)		4,300		ND(7.8)		ND(5.7)	
Trichloroethene (TCE)	7,200	---	---			ND(520)		ND(5.5)		ND(6.5)		1,600		ND(7.8)		ND(5.7)	
Herbicides (SW8151 / ug/kg)																	
Pesticides (SW8081A ug/kg)					ND	ND						ND			ND		

Notes / Superscripts

(1) State of Maryland Department of the Environment Cleanup Standards for Soil and Groundwater, Interim Final Guidance, Update No. 2 (MDE 2008).

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

(3) TCLP Arsenic = federal toxicity characteristic threshold for arsenic is 5 mg/l.

(4) Incorganic Mercury

ft bg - feet below grade.

ug/kg - micrograms per kilogram.

mg/kg - milligrams per kilogram.

ND - Not Detected. The lowest level of quantitation (LLQ) is in parentheses.

NA - No analytes reported above the MDE Cleanup Standards for Non-Residential Soil.

J - Estimated value.

Bold cell indicates a concentration above the LLQ

Bold and shaded cells indicate a detection above the MDE Cleanup Standard.

--- No published standard.

Blank cells indicate that the soil sample was not analyzed for the select analysis.

Only analytes reported above the MDE Cleanup Standards for Non-Residential Soil are shown. For the complete list of compounds analyzed, please refer to the prior environmental assessment reports.

Table 1 Summary of Analytes Detected in Soil Above the MDE Cleanup Standards for NON-RESIDENTIAL Soil
Gateway South Phase I and Warner Street Properties
Baltimore, Maryland 21230

ANALYTE	MDE Cleanup Standard - Non-Residential [1]	ATC [2]	TCLP [3]	SB-07 B-07 4-5' 9/27/07	SS-09 B-09 0-2' 9/27/07	SB-09 B-09 4-6' 09/27/07	SS-10 B-10 3' 09/25/07	SB-10 B-10 6-7' 09/25/07	SB-10B B-10 14' 09/25/07	SS-16 B-16 0-2' 09/25/07	SB-16 B-16 4-5' 09/25/07	SS-17 B-17 0-2' 09/25/07	SB-17 B-17 4-6' 09/25/07	SS-26 B-26 2-4' 09/27/07	SB-26 B-26 8-10' 09/27/07	SED-01 SW-1 9/26/07
Target Analyte List Metals (SW6020 / mg/kg)																
Antimony	41	6.0	---	ND(0.98)	1.7	2.0	2.8 (J)	1.2		1.0	2.2	3.1	1.9	5.2	ND(0.99)	11
Arsenic	1.9	3.6	---	3.6	4.1	5.0	5.4	6.7		8.5	1.1	16	9.9	14	7.4	11
TCLP Arsenic [3]	---	---	5.0													
Cadmium	51	0.73	---	ND(0.098)	0.50	1.1	0.16	ND(0.099)		0.35	ND(0.096)	2.8	0.68	0.29	ND(0.099)	3.8
Chromium	310	28	---	10	25	27	8.6	32		55	4.1	35	48	28	43	120
Iron	72,000	15,000	---													
Lead	1,000	45	---	33	110	510	170	150		140	14	520	210	200	330	640
Manganese	2,000	480	---													
Mercury [4]	31	0.51	---	0.86	0.17	0.32	0.11	0.18		0.12	0.025	1.4	0.24	0.37	0.98	0.76
Elemental Mercury	0.0	---	---													
Thallium	7.2	3.9	---	ND(0.39)	ND(0.39)	ND(0.40)	ND(0.39)	ND(0.39)		ND(0.39)	ND(0.38)	ND(0.39)	ND(0.40)	ND(0.39)	ND(0.39)	ND (0.40)
Vanadium	100	30	---													
Semi-Volatile Oganic Compounds (SW8270C / ug/kg)																
Benzo[a]anthracene	3,900	---	---	ND(350)	610	ND(360)	1,200 (J)	ND(390)		25,000	ND(390)	1,700	ND(390)	1,900 (J)		6,800
Benzo[a]pyrene	390	---	---	ND(350)	530	ND(360)	890	ND(390)		21,000	ND(390)	1,300	ND(390)	1,300 (J)		5,000
Benzo[b]fluoranthene	3,900	---	---	ND(350)	470	ND(360)	870	ND(390)		19,000	ND(390)	1,300	ND(390)	1,500 (J)		6,100
Dibenz[a,h]anthracene	390	---	---	ND(350)	ND(340)	ND(360)	ND(360)	ND(390)		4,400	ND(390)	ND(390)	ND(390)	ND(370)		1,000 (J)
Indeno[1,2,3-cd]pyrene	3,900	---	---	ND(350)	380	ND(360)	630 (J)	ND(390)		11,000	ND(390)	820	ND(390)	840 (J)		ND (410)
Total Petroleum Hydrocarbons (SW8015C / mg/kg)																
Diesel Range Organics	620	--	---						130			14,000	710		91	
Volatile Oganic Compounds (SW8260C / ug/kg)																
Carbon Tetrachloride	220	---	---	ND(4.8)		ND(4.7)		ND(5.2)			ND(510)		ND(500)		ND(350)	ND (13)
Tetrachloroethene	5,300	---		ND(4.8)		ND(4.7)		ND(5.2)			ND(510)		ND(500)		ND(500)	ND (13)
Trichloroethene (TCE)	7,200	---	---	ND(4.8)		7.8		ND(5.2)			3,000		ND(500)		ND(350)	ND (13)
Herbicides (SW8151 / ug/kg)									ND			ND	ND		ND	
Pesticides (SW8081A ug/kg)									ND			ND	ND		ND	

Notes / Superscripts

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Gateway South Phase I and Warner Street Properties
Baltimore, Maryland 21230

ANALYTE	MDE Cleanup Standard - Non-Residential [1]	ATC [2]	TCLP [3]	SED-02 SW-2 9/26/07	SW-1 SW-1 9/26/07	SW-2 SW-2 9/25/07	B-27 SS-27 0-4' 2/4/09	B-27 SB-27 4-8' 2/4/09	B-28 SS-28 2-4' 2/4/09	B-28 SB-28 4-8' 2/4/09	B-28 SB-28-2 14-16' 2/4/09	B-29 SS-29 2-4' 2/4/09	B-29 SB-29 6-8' 2/4/09	B-30 SS-30 0-4' 2/4/09	B-30 SB-30 4-8' 2/4/09	B-31 SS-31 3-4' 2/4/09
Target Analyte List Metals (SW6020 / mg/kg)																
Antimony	41	6.0	---	ND (0.99)	ND (5)	ND (5)	6.8	2.4	ND(1.0)	2.2	ND(0.99)	ND(1.0)	ND(1.0)	ND(0.98)	3.5	ND(1.0)
Arsenic	1.9	3.6	---	ND (0.99)	ND (5)	ND (5)	49	24	2.2	18	2.0	8.0	1.3	8.8	6.7	1.0
TCLP Arsenic [3]	---	---	5.0													
Cadmium	51	0.73	---	0.27	ND (0.5)	ND (0.5)	0.48	0.45	0.28	4.5	0.11	0.28	0.055	0.20	0.11	0.17
Chromium	310	28	---	66	8.1	9.5	41	51	39	94	130	54	62	44	13	140
Iron	72,000	15,000	---				22,000	25,000	11,000	22,000	36,000	14,000	21,000	21,000	16,000	510,000
Lead	1,000	45	---	110	4.2	11	96	180	20	380	7.4	65	5.0	35	160	8.9
Manganese	2,000	480	---				390	470	410	210	190	390	1,800	290	200	1,100
Mercury [4]	31	0.51	---	0.064	ND (0.2)	ND (0.2)	0.25	0.12	ND(0.0035)	ND(0.0037)	ND(0.0041)	ND(0.0035)	ND(0.0036)	ND(0.0037)	0.87	ND(0.0044)
Elemental Mercury	0.0	---	---													
Thallium	7.2	3.9	---	ND (0.40)	ND (2)	ND (2)	ND(0.053)	ND(0.053)	ND(0.052)	ND(0.051)	ND(0.052)	ND(0.053)	ND(0.053)	ND(0.051)	ND(0.052)	ND(0.053)
Vanadium	100	30	---				42	63	49	41	110	49	69	56	17	160
Semi-Volatile Oganic Compounds (SW8270C / ug/kg)																
Benzo[a]anthracene	3,900	---	---	ND (410)	ND (11)	ND (11)	560	ND(110)	ND(98)	13,000	ND(110)	700	ND(110)	ND(100)	760	ND(120)
Benzo[a]pyrene	390	---	---	ND (410)	ND (11)	ND (11)	ND(130)	ND(130)	ND(110)	11,000	ND(130)	800	ND(130)	ND(120)	680	ND(140)
Benzo[b]fluoranthene	3,900	---	---	ND (410)	ND (11)	ND (11)	530	ND(110)	ND(97)	9,200	ND(110)	750	ND(110)	ND(100)	610	ND(120)
Dibenz[a,h]anthracene	390	---	---	ND (410)	ND (11)	ND (11)	ND(87)	ND(92)	ND(80)	2,700	ND(94)	ND(83)	ND(92)	ND(84)	ND(89)	ND(100)
Indeno[1,2,3-cd]pyrene	3,900	---	---	ND (410)	ND (11)	ND (11)	ND(97)	ND(100)	ND(89)	4,600	ND(100)	580	ND(100)	ND(93)	ND(98)	ND(110)
Total Petroleum Hydrocarbons (SW8015C / mg/kg)																
Diesel Range Organics	620	--	---				48	15	ND(5)	72	ND(5)	97	ND(5)	ND(5)	13	ND(5)
Volatile Oganic Compounds (SW8260C / ug/kg)																
Carbon Tetrachloride	220	---	---	ND (4.7)	ND (1)	ND (1)	ND(110)	ND(100)	ND(100)	ND(100)	ND(110)	ND(83)	ND(92)	ND(100)	ND(89)	ND(120)
Tetrachloroethene	5,300	---		ND (4.7)	ND (1)	ND (1)	5,700	600	240	14,000	1,600	70 (J)	ND(69)	ND(75)	ND(66)	ND(86)
Trichloroethene (TCE)	7,200	---	---	ND (4.7)	ND (1)	ND (1)	3,900	390 (J)	150 (J)	10,000	400 (J)	39,000	150 (J)	ND(66)	ND(58)	110 (J)
Herbicides (SW8151 / ug/kg)							ND	ND	ND	NA	ND	ND	NA	ND	NA	ND
Pesticides (SW8081A ug/kg)							ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes / Superscripts

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Baltimore, Maryland 21230

ANALYTE	MDE Cleanup Standard - Non-Residential [1]	ATC [2]	TCLP [3]	B-31 SB-31 4-6' 2/4/09	B-32 SS-32 0-1' 2/4/09	B-33 SS-33 0-4' 2/6/09	B-33 SS-33 0-4' 2/19/09	B-33 SB-33 4-6' 2/19/09	B-34 SS-34 4-12' 2/4/09	B-34 SB-34 12-16' 2/12/09	B-34 SB-DUP04 12-16' 2/12/09	B-35 SS-35 2-4' 2/5/09	B-35 SS-DUP03 2-4' 2/5/09	B-35 SB-35 4-8' 2/5/09	B-36 SS-36 0-4' 2/5/09	B-36 SB-36 4-8' 2/5/09
Target Analyte List Metals (SW6020 / mg/kg)																
Antimony	41	6.0	---	ND(1.0)	ND(0.98)	ND(0.99)	ND(1.0)	ND(0.97)	ND(0.98)	ND(1.0)	ND(0.99)	ND(1.0)	ND(0.99)	ND(1.0)	ND(1.0)	ND(1.0)
Arsenic	1.9	3.6	---	3.6	1.2	1.4	2.9	2.0	ND(0.53)	ND(0.55)	ND(0.54)	8.5	15	2.5	3.2	4.8
TCLP Arsenic [3]	---	---	5.0													
Cadmium	51	0.73	---	0.70	ND(0.0020)	0.13	0.17	0.14	0.21	0.50	0.26	0.37	0.35	0.075	0.045	0.14
Chromium	310	28	---	160	26	9.6	54	30	34	130	36	47	110	46	67	58
Iron	72,000	15,000	---	11,000	4,200	8,000	37,000	22,000	9,200	31,000	24,000	27,000	31,000	26,000	13,000	28,000
Lead	1,000	45	---	9.3	5.2	2.2	6.7	5.8	6.1	8.5	5	150	200	5.7	45	31
Manganese	2,000	480	---	75	150	14	140	68	92	4,900	160	310	410	160	200	520
Mercury [4]	31	0.51	---	0.043	ND(0.0035)	ND(0.0035)	ND(0.0039)	ND(0.0037)	ND(0.0036)	0.032	ND(0.0039)	0.26	1.8	ND(0.0037)	ND(0.0033)	0.068
Elemental Mercury	0.0	---	---													
Thallium	7.2	3.9	---	ND(0.053)	ND(0.051)	ND(0.052)	ND(0.053)	ND(0.051)	ND(0.051)	ND(0.052)	ND(0.052)	ND(0.053)	ND(0.052)	ND(0.052)	ND(0.053)	ND(0.052)
Vanadium	100	30	---	120	22	20	62	46	31	120	93	61	53	53	44	74
Semi-Volatile Oganic Compounds (SW8270C / ug/kg)																
Benzo[a]anthracene	3,900	---	---	ND(130)	ND(96)	ND(45)	ND(110)	ND(100)	ND(100)	ND(120)	ND(110)	520	440	ND(100)	ND(96)	ND(110)
Benzo[a]pyrene	390	---	---	ND(150)	ND(110)	ND(69)	ND(130)	ND(120)	ND(120)	ND(140)	ND(130)	600	520	ND(120)	ND(110)	ND(130)
Benzo[b]fluoranthene	3,900	---	---	ND(130)	ND(96)	ND(65)	ND(110)	ND(110)	ND(110)	ND(120)	ND(100)	590	420	ND(100)	ND(95)	ND(110)
Dibenz[a,h]anthracene	390	---	---	ND(110)	ND(79)	ND(64)	ND(90)	ND(85)	ND(85)	ND(99)	ND(92)	ND(86)	ND(86)	ND(83)	ND(78)	ND(88)
Indeno[1,2,3-cd]pyrene	3,900	---	---	ND(120)	ND(88)	ND(67)	ND(100)	ND(95)	ND(94)	ND(110)	ND(100)	390	ND(96)	ND(92)	ND(87)	ND(97)
Total Petroleum Hydrocarbons (SW8015C / mg/kg)																
Diesel Range Organics	620	--	---	ND(5)	ND(5)	ND(7.3)	ND(5)	ND(5)	1,200	1,800	1,100	25	ND(5)	ND(5)	ND(5)	ND(5)
Volatile Oganic Compounds (SW8260C / ug/kg)																
Carbon Tetrachloride	220	---	---	ND(100)	ND(82)	ND(91)	ND(50)	ND(41)	ND(100)	ND(100)	ND(89)	250 (J)	380 (J)	ND(87)	ND(87)	ND(95)
Tetrachloroethene	5,300	---		ND(78)	ND(61)	ND(68)	ND(38)	ND(30)	ND(75)	ND(75)	ND(68)	2,000	3,400	140	ND(65)	540
Trichloroethene (TCE)	7,200	---	---	ND(69)	140 (J)	ND(60)	43 (J)	ND(27)	ND(66)	ND(66)	ND(59)	1,600	3,200	85 (J)	ND(58)	2,100
Herbicides (SW8151 / ug/kg)				ND	NA	ND			ND	NA	ND	NA	NA	ND	ND	NA
Pesticides (SW8081A ug/kg)				ND	ND	ND			ND	ND	ND	ND	ND	ND	ND	ND

Notes / Superscripts

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(3) TCLP Arsenic = federal toxicity characteristic threshold for arsenic is 5 mg/l.

(4) Incorganic Mercury

ft bg - feet below grade.

ug/kg - micrograms per kilogram.

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ND - Not Detected. The lowest level of quantitation (LLQ) is in parentheses.

NA - No analytes reported above the MDE Cleanup Standards for Non-Residential Soil.

J - Estimated value.

Bold cell indicates a concentration above the LLQ

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--- No published standard.

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Only analytes reported above the MDE Cleanup Standards for Non-Residential Soil are shown. For the complete list of compounds analyzed, please refer to the prior environmental assessment reports.

Table 1 Summary of Analytes Detected in Soil Above the MDE Cleanup Standards for NON-RESIDENTIAL Soil
Gateway South Phase I and Warner Street Properties
Baltimore, Maryland 21230

ANALYTE	MDE Cleanup Standard - Non-Residential [1]	ATC [2]	TCLP [3]	B-37 SS-37 0-4' 2/4/09	B-37 SS-DUP02 0-4' 2/4/09	B-37 SB-37 4-8' 2/4/09	B-38 SS-38 0-4' 2/4/09	B-38 SB-38 4-8' 2/4/09	SB-38A 0-4' 3/27/13	SB-38A 4-8' 3/27/13	SB-38A 8-12' 3/27/13	SB-38B 0-4' 3/27/13	SB-38B 4-8' 3/27/13	SB-38B 8-12' 3/27/13	SB-38C 0-4' 3/27/13	SB-38C 4-8' 3/27/13
Target Analyte List Metals (SW6020 / mg/kg)																
Antimony	41	6.0	---	ND(1.0)	ND(0.97)	ND(1.0)	ND(1.0)	150								
Arsenic	1.9	3.6	---	13	5.5	7.5	2.3	4,200	ND(0.5)	0.39	ND(0.54)	0.58	0.68	2.4	ND(0.33)	ND(0.38)
TCLP Arsenic [3]	---	---	5.0													
Cadmium	51	0.73	---	0.43	0.10	0.054	0.13	140								
Chromium	310	28	---	35	65	49	95	3,200								
Iron	72,000	15,000	---	11,000	16,000	21,000	18,000	13,000								
Lead	1,000	45	---	43	27	17	15	140								
Manganese	2,000	480	---	220	3,000	75	390	1,000								
Mercury [4]	31	0.51	---	0.056	0.046	0.055	0.067	ND(0.0040)								
Elemental Mercury	0.0	---	---													
Thallium	7.2	3.9	---	ND(0.052)	ND(0.051)	ND(0.052)	ND(0.052)	200								
Vanadium	100	30	---	29	48	57	100	1,500								
Semi-Volatile Oganic Compounds (SW8270C / ug/kg)																
Benzo[a]anthracene	3,900	---	---	ND(100)	ND(100)	ND(110)	ND(100)	ND(110)								
Benzo[a]pyrene	390	---	---	ND(120)	ND(120)	ND(130)	ND(120)	ND(130)								
Benzo[b]fluoranthene	3,900	---	---	ND(99)	ND(100)	ND(110)	ND(100)	ND(110)								
Dibenz[a,h]anthracene	390	---	---	ND(82)	ND(83)	ND(88)	ND(85)	ND(91)								
Indeno[1,2,3-cd]pyrene	3,900	---	---	ND(91)	ND(92)	ND(98)	ND(94)	ND(100)								
Total Petroleum Hydrocarbons (SW8015C / mg/kg)																
Diesel Range Organics	620	--	---	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)								
Volatile Oganic Compounds (SW8260C / ug/kg)																
Carbon Tetrachloride	220	---	---	ND(130)	ND(44)	ND(100)	ND(84)	ND(91)								
Tetrachloroethene	5,300	---		410 (J)	ND(66)	87 (J)	120 (J)	ND(68)								
Trichloroethene (TCE)	7,200	---	---	240 (J)	ND(60)	ND(69)	17,000	4,800								
Herbicides (SW8151 / ug/kg)				ND	NA	NA	NA	NA								
Pesticides (SW8081A ug/kg)				ND	ND	ND	ND	ND								

Notes / Superscripts

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Table 1 Summary of Analytes Detected in Soil Above the MDE Cleanup Standards for NON-RESIDENTIAL Soil
Gateway South Phase I and Warner Street Properties
Baltimore, Maryland 21230

ANALYTE	MDE Cleanup Standard - Non-Residential [1]	ATC [2]	TCLP [3]	SB-38C 8-12' 3/27/13	SB-38D 0-4' 3/27/13	SB-38D 4-8' 3/27/13	SB-38D 8-12' 3/27/13	SB-38E 0-4' 3/27/13	SB-38E 4-8' 3/27/13	SB-38E 8-12' 3/27/13	SB-38F 0-4' 3/27/13	SB-38F 4-8' 3/27/13	SB-38F 8-12' 3/27/13	SB-38G 0-4' 3/27/13	SB-38G 4-8' 3/27/13	SB-38G 8-12' 3/27/13
Target Analyte List Metals (SW6020 / mg/kg)																
Antimony	**41**	**6.0**	---													
Arsenic	**1.9**	**3.6**	---	**0.60**	**1.0**	**0.91**	**1.2**	ND(0.38)	ND(0.51)	**2.4**	**0.93**	**0.89**	**1.2**	**0.52**	ND(0.52)	**1.9**
TCLP Arsenic [3]	---	---	**5.0**													
Cadmium	**51**	**0.73**	---													
Chromium	**310**	**28**	---													
Iron	**72,000**	**15,000**	---													
Lead	**1,000**	**45**	---													
Manganese	**2,000**	**480**	---													
Mercury [4]	**31**	**0.51**	---													
Elemental Mercury	**0.0**	---	---													
Thallium	**7.2**	**3.9**	---													
Vanadium	**100**	**30**	---													
Semi-Volatile Oganic Compounds (SW8270C / ug/kg)																
Benzo[a]anthracene	**3,900**	---	---													
Benzo[a]pyrene	**390**	---	---													
Benzo[b]fluoranthene	**3,900**	---	---													
Dibenz[a,h]anthracene	**390**	---	---													
Indeno[1,2,3-cd]pyrene	**3,900**	---	---													
Total Petroleum Hydrocarbons (SW8015C / mg/kg)																
Diesel Range Organics	**620**	--	---													
Volatile Oganic Compounds (SW8260C / ug/kg)																
Carbon Tetrachloride	**220**	---	---													
Tetrachloroethene	**5,300**	---														
Trichloroethene (TCE)	**7,200**	---	---													
Herbicides (SW8151 / ug/kg)																
Pesticides (SW8081A ug/kg)																

Notes / Superscripts

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Table 1 Summary of Analytes Detected in Soil Above the MDE Cleanup Standards for NON-RESIDENTIAL Soil
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Baltimore, Maryland 21230

ANALYTE	MDE Cleanup Standard - Non-Residential [1]	ATC [2]	TCLP [3]	SB-38H 0-4' 3/27/13	SB-38H 4-8' 3/27/13	SB-38H 8-12' 3/27/13	SB-38I 0-4' 3/27/13	SB-38I 4-8' 3/27/13	SB-38I 8-12' 3/27/13	B-38A, B, C, D, and E 4-8 4-8' 3/27/13	B-39 SB-39 0-1.5' 2/19/09	SS-40 B-40 0-2' 3/30/09	SS-41 B-41 0-2' 3/31/09	SS-42 B-42 0-2' 3/30/09	SB-42 B-42 4-6' 3/30/09	SB-D-42 B-42 12-12' 3/31/09
Target Analyte List Metals (SW6020 / mg/kg)																
Antimony	41	6.0	---								ND(1.0)	1.8	ND(2.1)	ND(0.085)	2.6	ND(2.0)
Arsenic	1.9	3.6	---	ND(0.42)	1.7	1.1	0.49	1.7	0.72		2.6	12	18	1.9	9.5	2.9
TCLP Arsenic [3]	---	---	5.0							ND(0.05)						
Cadmium	51	0.73	---								0.21	0.42	ND(0.01)	ND(0.0017)	ND(0.0018)	ND(0.01)
Chromium	310	28	---								31	62	39	8.6	30	15
Iron	72,000	15,000	---								27,000					
Lead	1,000	45	---								8.8	500	110	32	460	250
Manganese	2,000	480	---								120					
Mercury [4]	31	0.51	---								ND(0.0038)	0.22	0.13	0.23	2.5	0.55
Elemental Mercury	0.0	---	---												0.162	
Thallium	7.2	3.9	---								ND(0.053)	ND(0.037)	ND(1.0)	ND(0.044)	ND(0.047)	ND(1.0)
Vanadium	100	30	---								46					
Semi-Volatile Oganic Compounds (SW8270C / ug/kg)																
Benzo[a]anthracene	3,900	---	---								ND(110)	440	3,400	21,000	820	130,000
Benzo[a]pyrene	390	---	---								ND(120)	470	3,600	13,000	460	96,000
Benzo[b]fluoranthene	3,900	---	---								ND(110)	560	3,800	6,600	460	81,000
Dibenz[a,h]anthracene	390	---	---								ND(87)	190	440	2,500	ND(130)	17,000
Indeno[1,2,3-cd]pyrene	3,900	---	---								ND(97)	350	1,800	5,100	250	47,000
Total Petroleum Hydrocarbons (SW8015C / mg/kg)																
Diesel Range Organics	620	--	---								ND(5)	ND(5)	ND(10)	280	1,100	
Volatile Oganic Compounds (SW8260C / ug/kg)																
Carbon Tetrachloride	220	---	---								ND(43)				ND(58)	ND(66)
Tetrachloroethene	5,300	---									ND(32)				ND(58)	ND(66)
Trichloroethene (TCE)	7,200	---	---								ND(28)				200	ND(43)
Herbicides (SW8151 / ug/kg)											ND	ND				
Pesticides (SW8081A ug/kg)											ND	NA	NA	NA	NA	

Notes / Superscripts

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Gateway South Phase I and Warner Street Properties
Baltimore, Maryland 21230

ANALYTE	MDE Cleanup Standard - Non-Residential [1]	ATC [2]	TCLP [3]	SS-43 B-43 0-2' 3/30/09	SB-43 B-43 4-6' 3/30/09	SS-44 B-44 0-2' 3/31/09	SB-44 B-44 4-6' 3/31/09	SB-D-44 B-44 6-8' 3/31/09	SS-45 B-45 0-2' 3/30/09	SB-45 B-45 4-6' 3/30/09	SS-46 B-46 0-2' 3/30/09	SB-46 B-46 4-6' 3/30/09	SS-47 B-47 0-2' 3/31/09	SB-47 B-47 4-6' 3/31/09	SB-D-47 B-47 8-12' 3/31/09	SS-48 B-48 0-2' 3/30/09
Target Analyte List Metals (SW6020 / mg/kg)																
Antimony	41	6.0	---	3.6	ND(0.085)	8.7	4.7	ND(2.4)	49	4.3	ND(0.83)	ND(1.0)	1.7	2.8	ND(2.9)	ND(1.0)
Arsenic	1.9	3.6	---	9.2	7.3	21	6.6	2.5	27	10	11	2.2	3.3	2.7	11	3.6
TCLP Arsenic [3]	---	---	5.0													
Cadmium	51	0.73	---	0.57	ND(0.0017)	1.3	0.79	0.077	1.4	0.82	0.74	ND(0.0020)	0.23	ND(0.011)	ND(0.015)	ND(0.0021)
Chromium	310	28	---	19	8.5	23	16	51	41	35	18	26	7	30	39	15
Iron	72,000	15,000	---													
Lead	1,000	45	---	320	75	430	190	16	990	540	180	47	160	350	900	170
Manganese	2,000	480	---													
Mercury [4]	31	0.51	---	1.1	0.099	0.25	0.1	0.07	0.91	0.74	0.11	0.09	0.1	0.3	14	0.13
Elemental Mercury	0.0	---	---												0.688	
Thallium	7.2	3.9	---	ND(0.033)	ND(0.045)	ND(1.1)	ND(0.98)	ND(1.2)	ND(0.052)	ND(0.033)	ND(0.043)	ND(0.052)	ND(0.86)	ND(1.1)	ND(1.5)	ND(0.053)
Vanadium	100	30	---													
Semi-Volatile Oganic Compounds (SW8270C / ug/kg)																
Benzo[a]anthracene	3,900	---	---	960	90	910	210	170	4,600	1,900	530	94	160	72	1,300	140
Benzo[a]pyrene	390	---	---	800	84	920	200	160	4,700	1,900	450	170	100	ND(69)	ND(1400)	110
Benzo[b]fluoranthene	3,900	---	---	950	85	1,100	190	190	4,400	2,100	450	220	110	ND(65)	ND(1300)	160
Dibenz[a,h]anthracene	390	---	---	180	ND(64)	220	88	87	920	430	140	ND(64)	ND(64)	ND(64)	ND(1300)	65
Indeno[1,2,3-cd]pyrene	3,900	---	---	440	72	560	130	130	2,600	1,100	240	100	75	ND(67)	ND(1300)	73
Total Petroleum Hydrocarbons (SW8015C / mg/kg)																
Diesel Range Organics	620	--	---						240	720		6,700	ND(10)	3,200		
Volatile Oganic Compounds (SW8260C / ug/kg)																
Carbon Tetrachloride	220	---	---		ND(1)		ND(65)	ND(58)		ND(58)		ND(55)		ND(58)	ND(760)	
Tetrachloroethene	5,300	---			ND(1)		ND(65)	ND(58)		ND(58)		500		ND(58)	ND(760)	
Trichloroethene (TCE)	7,200	---	---		ND(0.66)		ND(43)	ND(38)		ND(38)		8,900		ND(38)	ND(500)	
Herbicides (SW8151 / ug/kg)													ND			
Pesticides (SW8081A ug/kg)									NA	NA			NA	NA		

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Baltimore, Maryland 21230

ANALYTE	MDE Cleanup Standard - Non-Residential [1]	ATC [2]	TCLP [3]	SB-48 B-48 4-6' 3/30/09	SS-49 B-49 0-2' 3/30/09	SS-DUP B-49 0-2' 3/30/09	SB-49 B-49 4-6' 3/30/09	SB-DUP B-49 4-6' 3/30/09	SS-50 B-50 0-2' 3/31/09	SB-50 B-50 4.5-6' 3/31/09	SB-D-50 B-50 9-11' 3/31/09	SS-51 B-51 0-2' 3/30/09	SB-51 B-51 4-6' 3/30/09	SS-52 B-52 1-2' 3/31/09	SB-52 B-52 6-8' 3/31/09	SB-D-52 B-52 10-12' 3/31/09
Target Analyte List Metals (SW6020 / mg/kg)																
Antimony	41	6.0	---	1.7	ND(0.75)	ND(0.65)	ND(0.65)	ND(0.81)	7.7	ND(1.8)	ND(1.6)	ND(0.92)	ND(0.68)	ND(1.5)	3	ND(2.3)
Arsenic	1.9	3.6	---	7.5	3.2	4.2	3.5	3.1	21	2.3	5.9	6.7	4.2	ND(0.75)	16	4.4
TCLP Arsenic [3]	---	---	5.0													
Cadmium	51	0.73	---	0.6	0.16	0.27	ND(0.0013)	0.056	13	0.4	0.28	0.69	0.044	ND(0.0075)	1.4	ND(0.012)
Chromium	310	28	---	48	6.7	6.9	52	39	62	7.5	23	48	14	16	36	75
Iron	72,000	15,000	---													
Lead	1,000	45	---	610	120	250	97	240	1,400	28	170	220	220	4.6	280	120
Manganese	2,000	480	---													
Mercury [4]	31	0.51	---	4.1	0.12	0.059	0.97	0.69	0.2	0.034	4.8	0.083	0.047	ND(0.26)	0.32	0.47
Elemental Mercury	0.0	---	---	0.128							0.945					
Thallium	7.2	3.9	---	ND(0.043)	ND(0.039)	ND(0.034)	ND(0.034)	ND(0.042)	ND(0.70)	ND(0.92)	ND(0.81)	ND(0.048)	ND(0.035)	ND(0.75)	ND(0.83)	ND(1.2)
Vanadium	100	30	---													
Semi-Volatile Oganic Compounds (SW8270C / ug/kg)																
Benzo[a]anthracene	3,900	---	---	16,000	100	58	1,500	660	3,100	320	370	870	110	ND(44)	440	260
Benzo[a]pyrene	390	---	---	11,000	83	ND(69)	1,000	490	2,600	250	450	660	100	ND(59)	370	250
Benzo[b]fluoranthene	3,900	---	---	96,000	83	ND(65)	1,200	490	3,100	200	340	900	86	ND(65)	360	260
Dibenz[a,h]anthracene	390	---	---	890	ND(64)	ND(64)	270	110	400	ND(64)	83	160	ND(64)	ND(64)	88	ND(64)
Indeno[1,2,3-cd]pyrene	3,900	---	---	3,000	ND(67)	ND(67)	480	250	1,600	160	310	400	ND(67)	ND(67)	270	140
Total Petroleum Hydrocarbons (SW8015C / mg/kg)																
Diesel Range Organics	620	--	---	510	ND(5)	ND(5)	ND(5)	ND(5)	ND(10)	ND(10)						
Volatile Oganic Compounds (SW8260C / ug/kg)																
Carbon Tetrachloride	220	---	---	ND(1.1)			ND(0.97)	ND(0.76)		ND(52)	ND(55)		ND(0.90)		ND(53)	ND(58)
Tetrachloroethene	5,300	---		1.4			5.4	0.72		ND(52)	ND(55)		ND(0.90)		480	290
Trichloroethene (TCE)	7,200	---	---	3.8			ND(0.64)	ND(0.50)		ND(34)	ND(36)		ND(0.59)		980	ND(38)
Herbicides (SW8151 / ug/kg)					ND				ND							
Pesticides (SW8081A ug/kg)					NA	NA			NA	NA						

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mg/kg - milligrams per kilogram.

ND - Not Detected. The lowest level of quantitation (LLQ) is in parentheses.

NA - No analytes reported above the MDE Cleanup Standards for Non-Residential Soil.

J - Estimated value.

Bold cell indicates a concentration above the LLQ

Bold and shaded cells indicate a detection above the MDE Cleanup Standard.

--- No published standard.

Blank cells indicate that the soil sample was not analyzed for the select analysis.

Only analytes reported above the MDE Cleanup Standards for Non-Residential Soil are shown. For the complete list of compounds analyzed, please refer to the prior environmental assessment reports.

Table 1 Summary of Analytes Detected in Soil Above the MDE Cleanup Standards for NON-RESIDENTIAL Soil
Gateway South Phase I and Warner Street Properties
Baltimore, Maryland 21230

ANALYTE	MDE Cleanup Standard - Non-Residential [1]	ATC [2]	TCLP [3]	SS-53 B-53 0-2' 3/30/09	SB-53 B-53 4-6' 3/30/09	SS-54 B-54 2-4' 3/31/09	SB-54 B-54 6-8' 3/31/09	SS-55 B-55 1-4' 3/31/09	SB-55 B-55 5.5-8' 3/31/09	SS-56 B-56 2-4' 3/31/09	SB-56 B-56 4-6' 3/31/09	SS-57 B-57 0-2' 3/31/09	SB-57 B-57 4-6' 3/31/09
Target Analyte List Metals (SW6020 / mg/kg)													
Antimony	41	6.0	---	3.8	ND(0.60)	ND(2)	3.1	ND(1.6)	1.9	ND(1.7)	ND(1.4)	1.9	ND(1.9)
Arsenic	1.9	3.6	---	2.8	3.7	3.7	15	8.8	8	10	2.1	16	6.9
TCLP Arsenic [3]	---	---	5.0										
Cadmium	51	0.73	---	0.81	ND(0.0012)	ND(0.0099)	0.57	0.21	0.38	0.54	ND(0.0072)	0.53	ND(0.0095)
Chromium	310	28	---	14	17	45	35	27	20	27	15	38	40
Iron	72,000	15,000	---										
Lead	1,000	45	---	1,000	160	8.6	450	250	530	290	120	370	170
Manganese	2,000	480	---										
Mercury [4]	31	0.51	---	0.3	0.35	ND(0.025)	0.19	0.49	0.86	0.47	0.93	0.69	0.4
Elemental Mercury	0.0	---	---										
Thallium	7.2	3.9	---	ND(0.046)	ND(0.031)	ND(0.99)	ND(0.8)	ND(0.8)	ND(0.92)	ND(0.84)	ND(0.72)	ND(0.72)	ND(0.95)
Vanadium	100	30	---										
Semi-Volatile Oganic Compounds (SW8270C / ug/kg)													
Benzo[a]anthracene	3,900	---	---	3,300	150	400	89	1,800	100	880	1,000	2,800	140
Benzo[a]pyrene	390	---	---	1,800	120	290	160	1,500	110	770	830	3,400	140
Benzo[b]fluoranthene	3,900	---	---	2,400	160	200	180	1,700	110	1,000	760	3,100	160
Dibenz[a,h]anthracene	390	---	---	430	ND(64)	95	87	300	ND(64)	240	200	410	ND(64)
Indeno[1,2,3-cd]pyrene	3,900	---	---	980	81	150	170	760	ND(67)	420	470	1,800	74
Total Petroleum Hydrocarbons (SW8015C / mg/kg)													
Diesel Range Organics	620	--	---					ND(10)	ND(10)				
Volatile Oganic Compounds (SW8260C / ug/kg)													
Carbon Tetrachloride	220	---	---		ND(0.86)		ND(54)		ND(55)		ND(55)		ND(59)
Tetrachloroethene	5,300	---			ND(0.86)		ND(54)		ND(55)		ND(55)		ND(59)
Trichloroethene (TCE)	7,200	---	---		ND(0.57)		ND(36)		ND(37)		ND(36)		ND(39)
Herbicides (SW8151 / ug/kg)								ND					
Pesticides (SW8081A ug/kg)								NA	NA				

Notes / Superscripts

(1) State of Maryland Department of the Environment Cleanup Standards for Soil and Groundwater, Interim Final Guidance, Update No. 2 (MDE 2008).

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

(3) TCLP Arsenic = federal toxicity characteristic threshold for arsenic is 5 mg/l.

(4) Incorganic Mercury

ft bg - feet below grade.

ug/kg - micrograms per kilogram.

mg/kg - milligrams per kilogram.

ND - Not Detected. The lowest level of quantitation (LLQ) is in parentheses.

NA - No analytes reported above the MDE Cleanup Standards for Non-Residential Soil.

J - Estimated value.

Bold cell indicates a concentration above the LLQ

Bold and shaded cells indicate a detection above the MDE Cleanup Standard.

--- No published standard.

Blank cells indicate that the soil sample was not analyzed for the select analysis.

Only analytes reported above the MDE Cleanup Standards for Non-Residential Soil are shown. For the complete list of compounds analyzed, please refer to the prior environmental assessment reports.

Table 2 Summary of Analytes Detected in Groundwater Above the MDE Cleanup Standards for Groundwater
Gateway South Phase I and Warner Street Properties
Baltimore, Maryland 21230

ANALYTE	MDE Cleanup Standard - Groundwater [1]	Sample ID	GW-01 B-01	GW-02 B-05	GW-3 B-06	GW-04 B-17	GW-7 B-02	GW-08 B-03	GW-09 B-26	GW-10	GW-11	GW-12	GW-13	GW-MW-1A
		Date	9/26/07	9/26/07	9/26/07	9/25/07	09/25/07	09/26/07	09/27/07	2/5/09	2/5/09	2/5/09	2/5/09	2/13/09
Volatile Organic Compounds (SW8260B / ug/l)														
Benzene	5		ND (1)	14	ND (1)	ND (1)	ND (1)	ND (1)	2.6	ND(0.30)	ND(0.30)	ND(0.30)	ND(0.30)	ND(0.30)
Methyl t-butyl ether	20		ND (2)	ND (2)	ND (2)	ND (2)	ND (2)	ND (2)	83	ND(0.19)	ND(0.19)	ND(0.19)	ND(0.19)	ND(0.19)
Tetrachloroethene (PCE)	5		2,000	9.4	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	25	4.2	ND(0.43)	ND(0.43)	15
Trichloroethane (TCE)	5		16	36	ND (1)	ND (1)	2.8	5.1	ND (1)	47	3,800	ND(0.33)	6.7	17
1,1-Dichloroethene	5		ND (1)	1.5	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND(0.30)	5.3	ND(0.30)	ND(0.30)	ND(0.30)
cis-1,2-Dichloroethene	70		12	160	ND (1)	ND (1)	ND (1)	ND (1)	22	ND(0.27)	420	ND(0.27)	0.76	7.8
Vinyl Chloride	2		ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND(0.25)	17	ND(0.25)	ND(0.25)	ND(0.25)
Semi-Volatile Organic Compounds (SW8270C / ug/kg)														
Acenaphthene	37		ND (10)	500	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND(3.2)	ND(3.2)	ND(0.81)	3.4	ND(0.78)
Anthracene	180		ND (10)	370	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND(2.4)	ND(2.4)	ND(0.91)	ND(0.91)	ND(0.88)
Benzo(a)anthracene	0.2		ND (10)	300	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND(1.6)	ND(1.6)	ND(0.81)	ND(0.81)	ND(0.78)
Benzo(a)pyrene	0.2		ND (10)	190 (J)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND(1.6)	ND(1.6)	ND(0.91)	ND(0.91)	ND(0.88)
Benzo(b)fluoranthene	0.2		ND (10)	150 (J)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND(1.7)	ND(1.7)	ND(1.6)	ND(1.6)	ND(1.6)
Benzo(g,h,i)perylene	0.18		ND (10)	110 (J)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND(1.6)	ND(1.6)	ND(1)	ND(1)	ND(0.98)
Benzo(k)fluoranthene	0.3		ND (10)	140 (J)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND(2.1)	ND(2.1)	ND(2.2)	ND(2.2)	ND(2.2)
Bis(2-ethylhexyl)phthalate	6		ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND(2.6)	ND(2.6)	1.6	3	1.6
Carbazole	3.3		ND (10)	240	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND(3.7)	ND(3.7)	ND(1.2)	ND(1.2)	ND(1.2)
Chrysene	3		ND (10)	250	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND(1.5)	ND(1.5)	ND(1)	ND(1)	ND(0.98)
Dibenz(a,h)anthracene	0.2		ND (10)	47 (J)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND(1.2)	ND(1.2)	ND(0.91)	ND(0.91)	ND(0.88)
Dibenzofuran	3.7		ND (10)	300	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND(3.0)	ND(3.0)	ND(0.91)	2.6	ND(0.78)
Fluoranthene	150		ND (10)	600	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND(2.2)	ND(2.2)	ND(1.2)	ND(1)	ND(0.98)
Fluorene	24		ND (10)	350	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND(2.8)	ND(2.8)	ND(1)	ND(1)	ND(0.98)
Hexachloroethane	4.8		ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND(2.8)	ND(2.8)	ND(1)	ND(1)	ND(0.98)
Indeno(1,2,3-cd)pyrene	0.2		ND (10)	120 (J)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND(4.6)	ND(4.6)	ND(0.91)	ND(1)	ND(0.98)
2-Methylnaphthalene	2.4		ND (10)	500	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND(2.9)	ND(2.9)	ND(0.91)	77	ND(0.88)
Naphthalene	0.65		ND (10)	3,500	27	ND (10)	ND (10)	ND (10)	ND (10)	ND(3.3)	ND(3.3)	ND(1)	ND(0.71)	ND(0.69)
Phenanthrene	180		ND (10)	1,300	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND(2.4)	ND(2.4)	ND(0.81)	6.4	ND(0.78)
Pyrene	18		ND (10)	800	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND(1.8)	ND(1.8)	ND(0.91)	ND(0.91)	ND(0.88)
Priority Pollutant List Metals (SW6020 / ug/l)														
Aluminum	50		---	---	---	---	---	---	---	510	ND(3.9)	ND(3.9)	ND(3.9)	ND(3.9)
Antimony	6		ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	---	5.4	ND(3.8)	10	ND(3.8)	ND(3.8)
Arsenic	10		ND (2)	18	ND (2)	ND (2)	ND (2)	26	---	ND(2.0)	ND(2.0)	ND(2.0)	2,600	ND(2.0)
Cadmium	5		ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	---	3.3	ND(0.36)	2.1	17	ND(0.36)
Chromium	100		5.5	4.7	5.9	7.1	6.4	4.7	---	3.6	ND(1.9)	ND(1.9)	860	ND(1.9)
Manganese	50		---	---	---	---	---	---	---	1,900	3,700	3,800	3,700	73
Nickel	73		20	5.3	7.8	11	25	6.4	---	18	13	120	140	ND(0.57)
Thallium	2		ND (2)	ND (2)	ND (2)	ND (2)	ND (2)	ND (2)	---	ND(0.40)	ND(0.40)	ND(0.40)	33	ND(0.40)
Vanadium	3.7		---	---	---	---	---	---	---	ND(3.7)	ND(3.7)	ND(3.7)	540	ND(3.7)
Total Petroleum Hydrocarbons (SW8015M / ug/l)														
Diesel Range Organics	47		280	110,000	1,700	270	ND (40)	50	39,900	45	65	ND(7.3)	ND(7.3)	ND(7.3)
Gasoline Range Organics	47		3,100	1,200	ND (250)	ND (250)	ND (250)	ND (250)	290	ND (14)	1,000	ND (14)	120	ND (14)
Herbicides (SW8151 / ug/l)			ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND
Pesticides (SW8081A ug/l)														
Alpha-BHC	0.011		ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)					
Beta-BHC	0.037		ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)					

Notes / Superscripts

(1) State of Maryland Department of the Environment Cleanup Standards for Soil and Groundwater, Interim Final Guidance, Update No. 2 (MDE 2008).

ug/l - micrograms per liter

ND - Not Detected. The lowest level of quantitation (LLQ) is in parentheses.

--- No published MDE Cleanup Standard.

Blank cells indicate that the soil sample was not analyzed for the select analysis.

For the full list of compounds analyzed, please refer to the laboratory report.

Table 2 Summary of Analytes Detected in Groundv
Gateway South Phase I and Warner Street Propert
Baltimore, Maryland 21230

ANALYTE	MDE Cleanup Standard - Groundwater [1]	GW-MW5 2/13/09	GW-MS01 2/13/09	GW-DUP02 2/13/09	GW-42 B-42 3/31/09	GW-44 B-44 3/31/09	GW-47 B-47 3/31/09	GW-50 B-50 3/31/09	GW-DUP B-50 3/31/09	GW-52 B-52 3/31/09	GW-55 B-55 3/31/09
Volatile Organic Compounds (SW8260B / ug/l)											
Benzene	5	2	2	ND(0.30)	ND(3.0)	4.2	ND(0.30)	ND(1.5)	1.8	ND(0.30)	ND(0.30)
Methyl t-butyl ether	20	ND(0.19)	ND(0.19)	ND(0.19)	ND(2.9)	ND(0.95)	ND(0.19)	14	14	ND(0.19)	ND(0.19)
Tetrachloroethene (PCE)	5	500	540	13	ND(4.3)	ND(2.2)	ND(0.43)	ND(2.2)	ND(2.2)	ND(0.43)	ND(0.43)
Trichloroethane (TCE)	5	520	530	15	ND(3.3)	ND(1.6)	ND(0.33)	ND(1.6)	ND(1.6)	ND(0.33)	ND(0.33)
1,1-Dichloroethene	5	8.3	7.8	ND(0.30)	ND(3.0)	ND(1.5)	ND(0.30)	ND(1.5)	ND(1.5)	ND(0.30)	ND(0.30)
cis-1,2-Dichloroethene	70	310	320	7.2	ND(2.7)	ND(1.4)	ND(0.27)	ND(1.4)	ND(1.4)	ND(0.27)	ND(0.27)
Vinyl Chloride	2	57	58	ND(0.25)	ND(2.5)	ND(1.2)	ND(0.25)	ND(1.2)	ND(1.2)	ND(0.25)	ND(0.25)
Semi-Volatile Organic Compounds (SW8270C / ug/kg)											
Acenaphthene	37	ND(0.78)	ND(0.78)	ND(0.78)	24	30	15	ND(0.8)	ND(0.8)	ND(0.8)	ND(0.8)
Anthracene	180	ND(0.88)	ND(0.88)	ND(0.88)	6.8	11	4.8	ND(0.9)	ND(0.9)	ND(0.9)	ND(0.9)
Benzo(a)anthracene	0.2	ND(0.78)	ND(0.78)	ND(0.78)	3.2	4	1	ND(0.8)	ND(0.8)	ND(0.8)	1.6
Benzo(a)pyrene	0.2	ND(0.88)	ND(0.88)	ND(0.88)	2.4	2.9	2.6	1.6	2.4	0.98	ND(0.9)
Benzo(b)fluoranthene	0.2	ND(1.6)	ND(1.6)	ND(1.6)	2.6	2.7	1.9	ND(1.6)	ND(1.6)	ND(1.6)	ND(1.6)
Benzo(g,h,i)perylene	0.18	ND(0.98)	ND(0.98)	ND(0.98)	2.9	3.4	3.6	2.3	2.2	1.4	ND(1)
Benzo(k)fluoranthene	0.3	ND(2.2)	ND(2.2)	ND(2.2)	ND(2.2)	ND(2.2)	3	ND(2.2)	ND(2.2)	ND(2.2)	ND(2.2)
Bis(2-ethylhexyl)phthalate	6	1.7	1.6	1.8	13	6	27	10	2.9	12	ND(1.1)
Carbazole	3.3	ND(1.2)	ND(1.2)	ND(1.2)	17	ND(1.2)	ND(1.2)	ND(1.2)	ND(1.2)	ND(1.2)	ND(1.2)
Chrysene	3	ND(0.98)	ND(0.98)	ND(0.98)	3.8	4	2.9	ND(1)	ND(1)	ND(1)	ND(1)
Dibenz(a,h)anthracene	0.2	ND(0.88)	ND(0.88)	ND(0.88)	2.2	2	3.7	2	1.8	ND(0.9)	ND(0.9)
Dibenzofuran	3.7	ND(0.78)	ND(0.78)	ND(0.78)	9	ND(0.8)	8	ND(0.8)	ND(0.8)	ND(0.8)	ND(0.8)
Fluoranthene	150	ND(0.98)	ND(0.98)	ND(0.98)	7.5	16	2.3	ND(1)	1.9	ND(1)	ND(1)
Fluorene	24	ND(0.98)	ND(0.98)	ND(0.98)	12	63	29	ND(1)	ND(1)	ND(1)	ND(1)
Hexachloroethane	4.8	ND(0.98)	ND(0.98)	ND(0.98)	ND(0.9)	ND(0.9)	ND(0.9)	ND(0.9)	26	ND(0.9)	ND(0.9)
Indeno(1,2,3-cd)pyrene	0.2	ND(0.98)	ND(0.98)	ND(0.98)	1.8	2.6	2.8	2.3	2.2	1.3	ND(1)
2-Methylnaphthalene	2.4	ND(0.88)	ND(0.88)	ND(0.88)	25	32	3	ND(0.9)	ND(0.9)	ND(0.9)	ND(0.9)
Naphthalene	0.65	ND(0.69)	ND(0.69)	ND(0.69)	360	ND(7)	ND(7)	ND(7)	ND(7)	ND(7)	ND(7)
Phenanthrene	180	ND(0.78)	ND(0.78)	ND(0.78)	21	140	44	2.5	2.4	ND(0.8)	ND(0.8)
Pyrene	18	ND(0.88)	ND(0.88)	ND(0.88)	6.9	24	5.9	0.94	2	ND(0.9)	ND(0.9)
Priority Pollutant List Metals (SW6020 / ug/l)											
Aluminum	50	14,000	14,000	ND(3.9)	---	---	---	---	---	---	---
Antimony	6	ND(3.8)	ND(3.8)	ND(3.8)	ND(3.8)	ND(3.8)	ND(3.8)	ND(3.8)	ND(3.8)	ND(3.8)	ND(3.8)
Arsenic	10	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)
Cadmium	5	29	31	ND(0.36)	ND(0.36)	ND(0.36)	ND(0.36)	ND(0.36)	ND(0.36)	ND(0.36)	ND(0.36)
Chromium	100	ND(1.9)	ND(1.9)	ND(1.9)	ND(1.9)	ND(1.9)	ND(1.9)	ND(1.9)	3.6	ND(1.9)	ND(1.9)
Manganese	50	11,000	11,000	71	---	---	---	---	---	---	---
Nickel	73	230	240	ND(0.57)	ND(0.57)	6.8	ND(0.57)	ND(0.57)	5.2	ND(0.57)	ND(0.57)
Thallium	2	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)
Vanadium	3.7	ND(3.7)	ND(3.7)	ND(3.7)	---	---	---	---	---	---	---
Total Petroleum Hydrocarbons (SW8015M / ug/l)											
Diesel Range Organics	47	ND(7.3)	ND(7.3)	ND(7.3)	3,000	27,000	87,000	ND(50)	ND(50)	900	ND(50)
Gasoline Range Organics	47	370	210	ND (14)	3,100	750	150	450	500	ND(14)	ND(14)
Herbicides (SW8151 / ug/l)		ND	NA	ND	ND	ND				NA	
Pesticides (SW8081A ug/l)											
Alpha-BHC	0.011				0.05	0.06				ND	
Beta-BHC	0.037				1.30	4.40				ND	

Notes / Superscripts

(1) State of Maryland Department of the Environment Cleanup Standards for Soil and Groundwater, Interim Final Guidance, Update No. 2 (MDE 2008).

ug/l - micrograms per liter

ND - Not Detected. The lowest level of quantitation (LLQ) is in parentheses.

--- No published MDE Cleanup Standard.

Blank cells indicate that the soil sample was not analyzed for the select analysis.

For the full list of compounds analyzed, please refer to the laboratory report.

Table 3 Summary of Analytes Detected in Soil Gas
Gateway South Phase I and Warner Street Properties
Baltimore, Maryland 21230

Analyte	Target Shallow Soil Gas Concentration	Sample ID	SG-01*	SG-02	SG-3	SG-04	SG-5	SG-06	SG-07	SG-08	SG-09	SG-11
		Date	9/28/07	9/28/07	9/28/07	9/28/07	9/28/07	9/28/07	9/28/07	9/28/07	9/28/07	2/12/09
		Depth	16 feet**	5 feet	10 feet	8 feet	8 feet	8 feet	7 feet	7 feet	8 feet	16 feet
Volatile Organic Compounds (TO-15 / ug/m^3)												
Acetone	**3,500**		ND (5,000)	ND (5,000)	ND (5,000)	ND (5,000)	ND (5,000)	ND (5,000)	ND (5,000)	ND (5,000)	ND (5,000)	**1,140**
Benzene	**31**		ND (500)	ND (500)	ND (500)	ND (500)	ND (500)	ND (500)	**2,400**	ND (500)	ND (500)	ND
2-Butanone	**---**		ND (5,000)	ND (5,000)	ND (5,000)	ND (5,000)	ND (5,000)	ND (5,000)	ND (5,000)	ND (5,000)	ND (5,000)	**180**
Carbon Tetrachloride	**16**		ND (500)	ND (500)	ND (500)	ND (500)	ND (500)	ND (500)	ND (500)	ND (500)	ND (500)	**101**
Chloroform	**11**		ND (500)	ND (500)	ND (500)	ND (500)	ND (500)	ND (500)	ND (500)	ND (500)	ND (500)	**1,514**
Chloromethane	**---**		ND (500)	ND (500)	ND (500)	ND (500)	ND (500)	ND (500)	ND (500)	ND (500)	ND (500)	ND
Cyclohexane	**---**		ND (500)	ND (500)	ND (500)	ND (500)	ND (500)	ND (500)	ND (500)	ND (500)	ND (500)	ND
1,3-Dichlorobenzene	**1,100**		ND (500)	ND (500)	ND (500)	ND (500)	ND (500)	ND (500)	ND (500)	ND (500)	ND (500)	ND
1,4-Dichlorobenzene	**8,000**		ND (500)	ND (500)	ND (500)	ND (500)	ND (500)	ND (500)	ND (500)	ND (500)	ND (500)	ND
1,1-Dichloroethane	**5,000**		ND (500)	ND (500)	ND (500)	ND (500)	ND (500)	ND (500)	ND (500)	ND (500)	ND (500)	**3,764**
1,1-Dichloroethene	**2,000**		ND (500)	ND (500)	ND (500)	ND (500)	ND (500)	ND (500)	ND (500)	ND (500)	ND (500)	**27**
cis-1,2-Dichloroethene	**350**		ND (500)	ND (500)	ND (500)	ND (500)	ND (500)	ND (500)	ND (500)	ND (500)	ND (500)	**8,327**
trans-1,2-Dichloroethene	**700**		ND (500)	ND (500)	ND (500)	ND (500)	ND (500)	ND (500)	ND (500)	ND (500)	ND (500)	**1,824**
Dichlorofluoromethane	**2,000**		ND (500)	ND (500)	ND (500)	ND (500)	ND (500)	ND (500)	ND (500)	ND (500)	ND (500)	ND
Ethylbenzene	**220**		ND (500)	ND (500)	ND (500)	ND (500)	ND (500)	ND (500)	ND (500)	ND (500)	ND (500)	ND
Heptane	**---**		ND (500)	ND (500)	ND (500)	ND (500)	ND (500)	ND (500)	ND (500)	ND (500)	ND (500)	ND
Hexane	**2,000**		ND (500)	ND (500)	ND (500)	ND (500)	ND (500)	ND (500)	ND (500)	ND (500)	**1,100**	ND
4-Methyl-2-Pentanone	**---**		ND (2,500)	ND (2,500)	ND (2,500)	ND (2,500)	ND (2,500)	ND (2,500)	ND (2,500)	ND (2,500)	ND (2,500)	**393**
Methylene chloride	**520**		ND (500)	ND (500)	ND (500)	ND (500)	ND (500)	ND (500)	ND (500)	ND (500)	ND (500)	**25**
Pentane	**---**		ND (1,000)	ND (1,000)	ND (1,000)	ND (1,000)	**1,600**	ND (1,000)	***555,000 (J)***	ND (1,000)	**21,100**	NA
2-Propanol	**---**		NA	NA	NA	NA	NA	NA	NA	NA	NA	**811**
Propylene	**---**		NA	NA	NA	NA	NA	NA	NA	NA	NA	ND
Tetrachloroethene	**81**		ND (500)	ND (500)	ND (500)	ND (500)	ND (500)	ND (500)	ND (500)	ND (500)	ND (500)	**29,164**
Toluene	**4,000**		ND (500)	ND (500)	ND (500)	ND (500)	ND (500)	ND (500)	ND (500)	ND (500)	ND (500)	**79**
1,1,2-Trichloro-1,2,2-Trifluoroethane	**300,000**		NA	NA	NA	NA	NA	NA	NA	NA	NA	**115**
1,1,1-Trichloroethane	**22,000**		ND (500)	**840**	ND (500)	ND (500)	ND (500)	ND (500)	ND (500)	ND (500)	ND (500)	**7,093**
Trichloroethene	**2**		ND (500)	ND (500)	ND (500)	ND (500)	ND (500)	ND (500)	**730**	ND (500)	ND (500)	**14,510**
1,2,4-Trimethylbenzene	**60**		ND (500)	ND (500)	ND (500)	ND (500)	ND (500)	ND (500)	ND (500)	ND (500)	ND (500)	ND
2,2,4-Trimethylpentane	**---**		NA	NA	NA	NA	NA	NA	NA	NA	NA	ND
Vinyl Chloride	**28**		ND (500)	ND (500)	ND (500)	ND (500)	ND (500)	ND (500)	ND (500)	ND (500)	**9100**	**92**
m,p-Xylene	**70,000**		ND (1000)	ND (1000)	ND (1000)	ND (1000)	ND (1000)	ND (1000)	ND (1000)	ND (1000)	ND (1000)	**13**
o-Xylene	**70,000**		ND (500)	ND (500)	ND (500)	ND (500)	ND (500)	ND (500)	ND (500)	ND (500)	ND (500)	ND
Heptachlor (TO 10A)	**190**		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes / Superscripts

* SG-01 through SG-09 samples were analyzed via US EPA Method 8260B; soil gas samples SG-11 through B-42B were analyzed via US EPA Method TO-15; and samples B-42A and B-42B were analyzed for heptachlor via TO-10A.

** Sample depths for SG-1 through SG-14 were not given in the reports, instead the depths were listed "just above the groundwater table"; therefore the depths are estimated based on depth to groundwater reported in nearby groundwater wells

All concentrations are in micrograms per cubic meter (ug/m^3).

ND - Not Detected. The quantitation limit is in parentheses.

NA - Sample not analyzed for select parameter.

Bold cell indicates a concentration detected above the quantitation limit.

J - The concentration is an estimated value above the calibration range of the instrument.

--- No published MDE Cleanup Standard.

Blank cells indicate that the soil sample was not analyzed for the select

For the full list of compounds analyzed, please refer to the laboratory reports.

Table 3 Summary of Analytes Detected in Soil Gas
Gateway South Phase I and Warner Street Properties
Baltimore, Maryland 21230

Analyte	Target Shallow Soil Gas Concentration	SG-12 2/12/09 4 feet	SG-13 2/12/09 5 feet	SG-14 2/12/09 10 feet	B-42A 4/5/12 4 feet	B-42B 4/5/12 5 feet
Volatile Organic Compounds (TO-15 / ug/m^3)						
Acetone	3,500	11	19	12	ND (360)	ND (360)
Benzene	31	0.96	5.0	4.5	ND (192)	ND (192)
2-Butanone	---	0.97	2.9	1.9	ND (177)	ND (177)
Carbon Tetrachloride	16	ND	ND	ND	ND (390)	ND (390)
Chloroform	11	4.0	ND	1.8	ND (291)	ND (291)
Chloromethane	---	1.2	ND	0.56	ND (123)	ND (123)
Cyclohexane	---	ND	ND	ND	20,400	38,000 (J)
1,3-Dichlorobenzene	1,100	1.6	ND	ND	ND (360)	ND (360)
1,4-Dichlorobenzene	8,000	1.6	ND	ND	ND (360)	ND (360)
1,1-Dichloroethane	5,000	10	ND	3.8	ND (243)	ND (243)
1,1-Dichloroethene	2,000	ND	ND	ND	ND (237)	ND (237)
cis-1,2-Dichloroethene	350	23	3.5	8.7	ND (237)	ND (237)
trans-1,2-Dichloroethene	700	4.8	ND	1.7	ND (237)	ND (237)
Dichlorofluoromethane	2,000	1.9	2.2	2.6	ND (297)	ND (297)
Ethylbenzene	220	ND	2.1	1.5	ND (261)	ND (261)
Heptane	---	ND	ND	ND	2,040	ND (246)
Hexane	2,000	11	ND	6.7	ND (4,200)	ND (4,200)
4-Methyl-2-Pentanone	---	ND	ND	ND	ND (246)	ND (246)
Methylene chloride	520	149	4.2	9.7	ND (4,200)	ND (4,200)
Pentane	---	NA	NA	NA	NA	NA
2-Propanol	---	2,139	393	34	NA	NA
Propylene	---	1.3	ND	1.5	ND (102)	ND (102)
Tetrachloroethene	81	75	23	33	ND (420)	ND (420)
Toluene	4,000	6.0	60	35	ND (225)	ND (225)
1,1,2-Trichloro-1,2,2-Trifluoroethane	300,000	ND	ND	ND	NA	NA
1,1,1-Trichloroethane	22,000	20	46	1,037	ND (330)	ND (330)
Trichloroethene	2	54	14	16	ND (330)	ND (330)
1,2,4-Trimethylbenzene	60	ND	ND	3.3	ND (294)	ND (294)
2,2,4-Trimethylpentane	---	ND	ND	ND	4,010	3,690
Vinyl Chloride	28	ND	ND	ND	ND (153)	ND (153)
m,p-Xylene	70,000	ND	1.9	4.2	ND (510)	ND (510)
o-Xylene	70,000	ND	ND	2.0	ND (261)	ND (261)
Heptachlor (TO 10A)	190	NA	NA	NA	ND (0.514)	ND (0.518)

Notes / Superscripts

* SG-01 through SG-09 samples were analyzed via US EPA Meth

** Sample depths for SG-1 through SG-14 were not given in the a.

All concentrations are in micrograms per cubic meter (ug/m^3).

ND - Not Detected. The quantitation limit is in parentheses.

NA - Sample not analyzed for select parameter.

Bold cell indicates a concentration detected above the quantitatio

J - The concentration is an estimated value above the calibration r

--- No published MDE Cleanup Standard.

Blank cells indicate that the soil sample was not analyzed for the s

For the full list of compounds analyzed, please refer to the labora

Table 4 Summary of Containment Remedy Alternatives for Future Utility Conduits

Response Action Plan Amendment
Gateway South Phase I and Warner Street Properties
Baltimore, Maryland 21230

Utility Type	Anticipated Depth of Utility (range in feet)*	Anticipated Installation Method	Anticipated Future Maintenance Access	Proposed Containment Remedy
Water	Up to 4 feet below grade	Excavation and placement	Excavation to access and repair	Overexcavation (1' on all sides) and construction monitoring during installation
Sewer / Stormwater	6+ feet below grade	Excavation and placement	No excavation anticipated; future access anticipated to be internal (e.g. bore and re-line conduit)	Construction monitoring during installation
Electric	Up to 5 feet below grade	Installation of concrete duct banks; electric lines will be run through duct banks or Direct bore installation	No excavation anticipated; future access via existing concrete duct banks or utilities will be abandoned (direct bore replacement). Note the concrete duct banks are typically over-designed by 100% to allow for future facility expansion.	Concrete duct banks. Construction monitoring during installation
Natural Gas	Up to 4 feet below grade	Excavation and placement	Excavation to access and repair	Overexcavation (1' on all sides) and construction monitoring during installation
Communication	Up to 4 feet below grade	Excavation and placement	Excavation to access and repair	Concrete duct banks and construction monitoring during installation or Overexcavation (1' on all sides) and construction monitoring during installation

APPENDIX A

SUPPLEMENTAL SOIL GAS SAMPLING AND ANALYSIS

SOIL BORING LOG

HOLE NUMBER: **B-42A**

1. COMPANY NAME URBAN GREEN ENVIRONMENTAL, LLC	2. DRILL SUBCONTRACTOR Green Services, Inc		SHEET 1 of 1 SHEETS
3. PROJECT Gateway South Phase I and Warner Street Properties			
7. NAME OF DRILLER Tim Niblett	8. MANUFACTURER'S DESIGNATION OF DRILL Manual		
9. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 2 in. x 2 ft. Macrocore TYPE OF LINER USED, IF APPLICABLE HDPE	10. SURFACE ELEVATION AND CONDITIONS Concrete		
11. DIRECT READING PARAMETERS: VOCs (PID)	12. DATE AND TIME STARTED 4/4/12 12:45	13. DATE AND TIME COMPLETED 4/4/12 13:00	
14. OVERBURDEN THICKNESS > 15'	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 4.5'	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 Soil borings installed for soil gas point installation and soil gas sample collection. No soil samples collected.	SAMPLE INTERVAL AND DESIGNATION FOR FIELD SCREENING ANALYSIS Every 2 feet (approximate) for VOCs with a PID		SCREENING ANALYSIS VOCs
22. DISPOSITION OF HOLE IF NOT A WELL, BACKFILLED WITH: Cuttings	23. GEOLOGIST Kathy Christensen		

USCS LOG (a)	DEPTH (FT) (b)	DESCRIPTION OF MATERIALS (c)	DIRECT READING (d) VOC (ppm)	DIRECT READING (d) Blow Counts	ANALYTICAL SAMPLE DESIGN. (e)	DEPTH (FT) (f)	RECOVERY (FT) (g)	REMARKS
	0-0.5'	Concrete						
	0.5-1'	FILL (Light tan SAND)						
	1-2'	FILL (Light brown SAND with some clay)	0.7				100%	*Strong petroleum odor between 2 and 4.5 feet*
	2-4.5'	FILL (Black coarse SAND with brick and coal fragments)	71.5					
		Drilling refusal; borehole terminated. soil gas sample point installed at 4.5 feet.						

PROJECT: **Gateway South Phase I and Warner Street Properties**

HOLE NO. **B-42A**

SOIL BORING LOG		HOLE NUMBER B-42B	
1. COMPANY NAME URBAN GREEN ENVIRONMENTAL, LLC	2. DRILL SUBCONTRACTOR Green Services, Inc		SHEET 1 of 1 SHEETS
3. PROJECT Gateway South Phase I and Warner Street Properties			
7. NAME OF DRILLER Tim Niblett	8. MANUFACTURER'S DESIGNATION OF DRILL Manual		
9. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT 2 in. x 2 ft. Macrocore TYPE OF LINER USED, IF APPLICABLE HDPE	10. SURFACE ELEVATION AND CONDITIONS Concrete		
11. DIRECT READING PARAMETERS: VOCs (PID)	12. DATE AND TIME STARTED 4/4/12 13:10	13. DATE AND TIME COMPLETED 4/4/12 13:25	
14. OVERBURDEN THICKNESS > 15'	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 5'	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 Soil borings installed for soil gas point installation and soil gas sample collection. No soil samples collected.	SAMPLE INTERVAL AND DESIGNATION FOR FIELD SCREENING ANALYSIS Every 2 feet (approximate) for VOCs with a PID		SCREENING ANALYSIS VOCs
22. DISPOSITION OF HOLE IF NOT A WELL, BACKFILLED WITH: Cuttings		23. GEOLOGIST Kathy Christensen	

USCS LOG (a)	DEPTH (FT) (b)	DESCRIPTION OF MATERIALS (c)	DIRECT READING (d) VOC (ppm)	DIRECT READING (d) Blow Counts	ANALYTICAL SAMPLE DESIGN. (e)	DEPTH (FT) (f)	RECOVERY (FT) (g)	REMARKS
	0-0.5'	Concrete						
	0.5-3'	FILL (Light tan sand)	1.1				100%	*No staining or odor observed*
	3-4'	FILL (Black coarse sand with brick and coal fragments)	2.0					
	4-5'	FILL (Black coarse sand and red clay); moist	8.5					
		Borehole terminated. soil gas sample point installed at 5 feet.						

PROJECT:	HOLE NO.
Gateway South Phase I and Warner Street Properties	**B-42B**

Maryland spectral Services

Analytical Chemistry Services

nelac

1500 Caton Center Dr Suite G
Baltimore MD 21227
410-247-7600
www.mdspectral.com
VELAP ID 460040

Analytical Results

Project: **1601 WARNER ST**

Project Number: N/A

Project Manager: Denise Sullivan

Report Issued: 04/19/12 15:07

Urban Green Environmental, LLC

1700 Beason St

Baltimore MD, 21230

CLIENT SAMPLE ID:		42-A	42-B
LAB SAMPLE ID:		2040601-01	2040601-02
SAMPLE DATE:		04/05/12	04/05/12
RECEIVED DATE:		04/05/12	04/05/12
MATRIX	Units	Vapor	Vapor

VOLATILE ORGANICS BY EPA METHOD TO-15 (GC/MS) (Vapor)

Acetone	ug/m³	<360	<360
Benzene	ug/m³	<192	<192
Benzyl chloride	ug/m³	<300	<300
Bromodichloromethane	ug/m³	<390	<390
Bromoform	ug/m³	<630	<630
Bromomethane	ug/m³	<234	<234
1,3-Butadiene	ug/m³	<132	<132
Carbon disulfide	ug/m³	<186	<186
Carbon tetrachloride	ug/m³	<390	<390
Chlorobenzene	ug/m³	<276	<276
Chloroethane	ug/m³	<159	<159
Chloroform	ug/m³	<291	<291
Chloromethane	ug/m³	<123	<123
3-Chloropropene	ug/m³	<189	<189
Cyclohexane	ug/m³	**20400**	**38000 [1]**
Dibromochloromethane	ug/m³	<390	<390
1,2-Dibromoethane (EDB)	ug/m³	<420	<420
1,2-Dichlorobenzene	ug/m³	<360	<360
1,3-Dichlorobenzene	ug/m³	<360	<360
1,4-Dichlorobenzene	ug/m³	<360	<360
Dichlorodifluoromethane	ug/m³	<297	<297
1,1-Dichloroethane	ug/m³	<243	<243
1,2-Dichloroethane	ug/m³	<243	<243
1,1-Dichloroethene	ug/m³	<237	<237
cis-1,2-Dichloroethene	ug/m³	<237	<237
trans-1,2-Dichloroethene	ug/m³	<237	<237
1,2-Dichloropropane	ug/m³	<276	<276
cis-1,3-Dichloropropene	ug/m³	<273	<273
trans-1,3-Dichloropropene	ug/m³	<273	<273
1,4-Dioxane	ug/m³	<216	<216
Ethyl acetate	ug/m³	<216	<216
Ethylbenzene	ug/m³	<261	<261
4-Ethyltoluene	ug/m³	<294	<294
Freon 113	ug/m³	<450	<450
Freon 114	ug/m³	<420	<420
Heptane	ug/m³	**2040**	<246

1 = The concentration indicated for this analyte is an estimated value above the calibration range of the instrument. This value is considered an estimate (CLP E-flag).

Analytical Results

1500 Caton Center Dr Suite G
Baltimore MD 21227
410-247-7600
www.mdspectral.com
VELAP ID 460040

Project: **1601 WARNER ST**

Project Number: N/A

Project Manager: Denise Sullivan

Report Issued: 04/19/12 15:07

Urban Green Environmental, LLC

1700 Beason St

Baltimore MD, 21230

CLIENT SAMPLE ID:		42-A	42-B
LAB SAMPLE ID:		2040601-01	2040601-02
SAMPLE DATE:		04/05/12	04/05/12
RECEIVED DATE:		04/05/12	04/05/12
MATRIX	Units	Vapor	Vapor

VOLATILE ORGANICS BY EPA METHOD TO-15 (GC/MS) (continued)

Hexachlorobutadiene	ug/m³	<630	<630
Hexane	ug/m³	<4200	<4200
2-Hexanone	ug/m³	<246	<246
Methyl tert-butyl ether (MTBE)	ug/m³	<216	<216
Methylene chloride	ug/m³	<4200	<4200
Methyl ethyl ketone (2-Butanone)	ug/m³	<177	<177
Methyl isobutyl ketone	ug/m³	<246	<246
Naphthalene	ug/m³	<330	<330
Propene	ug/m³	<102	<102
Styrene	ug/m³	<255	<255
1,1,2,2-Tetrachloroethane	ug/m³	<420	<420
Tetrachloroethene	ug/m³	<420	<420
Tetrahydrofuran	ug/m³	<177	<177
Toluene	ug/m³	<225	<225
1,2,4-Trichlorobenzene	ug/m³	<450	<450
1,1,1-Trichloroethane	ug/m³	<330	<330
1,1,2-Trichloroethane	ug/m³	<330	<330
Trichloroethene	ug/m³	<330	<330
Trichlorofluoromethane	ug/m³	<330	<330
1,2,4-Trimethylbenzene	ug/m³	<294	<294
1,3,5-Trimethylbenzene	ug/m³	<294	<294
2,2,4-Trimethylpentane	ug/m³	**4010**	**3690**
Vinyl acetate	ug/m³	<210	<210
Vinyl bromide	ug/m³	<261	<261
Vinyl chloride	ug/m³	<153	<153
o-Xylene	ug/m³	<261	<261
m- & p-Xylenes	ug/m³	<510	<510

1 = The concentration indicated for this analyte is an estimated value above the calibration range of the instrument. This value is considered an estimate (CLP E-flag).

Maryland Spectral Services
1500 Caton Ctr Dr Suite G
Baltimore MD 21227
410-247-7600

Air Analysis by TO-15

Chain of Custody

Client Contact Information	Project Manager: DENISE SULLIVAN	Carrier:	1 of 1 COCs
Company: URBAN GREEN ENV.	Phone: 410-244-7215	Samplers Name(s) Bill HARMON	
Address: 1700 BEASON ST.	Site Contact:		
City/State/Zip BALT./MD/21230	VINNIE - 443-726-5063		
Phone: 410-244-7215			
FAX: 410-685-0226			
Project Name:	Analysis Turnaround Time		
Site: 1601 WARNER ST.	Standard (Specify) ✓		
PO #	Rush (Specify)		

Client Sample ID	Sample Date(s)	Time Start (24 hr clock)	Time Stop (24 hr clock)	Canister Pressure in Field ("Hg) (Start)	Canister Pressure in Field ("Hg) (Stop)	Incoming Canister Pressure ("Hg) (Lab)	Sample Regulator ID	Can ID	Can Size (L)		Analysis/ Matrix: TO-15 FULL LIST	TO-15 ABREVIATED LIST	Indoor / Ambient Air	Soil Gas / Subslab	Comments
42-A	4/5/12	8:30	5:20	30	4		S-AH	073	6		X				2040601-01
42-B	4/5/12	8:40	5:30	30	4		S-H	067	6		X				02

Special Instructions/QC Requirements & Comments:

Canisters Shipped by:	Date/Time: 4/5/12 1748	Canisters Received by:	Date/Time: 4/5/12 1748
Samples Relinquished by:	Date/Time: 4/5/12 1748	Received by: Wm. Harmon	Date/Time: 4/5/12 1748
Relinquished by:	Date/Time:	Received by:	Date/Time:

Analytical Results

1500 Caton Center Dr Suite G
Baltimore MD 21227
410-247-7600
www.mdspectral.com
VELAP ID 460040

Project: **CASINO SITE**

Project Number: N/A

Project Manager: Denise Sullivan

Report Issued: 08/14/12 13:26

Urban Green Environmental, LLC

1700 Beason St

Baltimore MD, 21230

CLIENT SAMPLE ID:		SB-1	SB-2
LAB SAMPLE ID:		2080806-01	2080806-02
SAMPLE DATE:		08/08/12	08/08/12
RECEIVED DATE:		08/08/12	08/08/12
MATRIX	Units	Vapor	Vapor

CHLORINATED PESTICES AND PCBs BY EPA TO-10A (Vapor)

Aldrin	ug/m³	<0.514	<0.518
alpha-BHC	ug/m³	<0.514	<0.518
beta-BHC	ug/m³	<0.514	<0.518
delta-BHC	ug/m³	<0.514	<0.518
alpha-Chlordane	ug/m³	<0.514	<0.518
gamma-Chlordane	ug/m³	<0.514	<0.518
4,4'-DDD	ug/m³	<0.989	<0.996
4,4'-DDE	ug/m³	<0.989	<0.996
4,4'-DDT	ug/m³	<0.989	<0.996
Dieldrin	ug/m³	<0.989	<0.996
Endosulfan I	ug/m³	<0.514	<0.518
Endosulfan II	ug/m³	<0.989	<0.996
Endosulfan sulfate	ug/m³	<0.989	<0.996
Endrin	ug/m³	<0.989	<0.996
Endrin aldehyde	ug/m³	<0.989	<0.996
Endrin ketone	ug/m³	<0.989	<0.996
Heptachlor	ug/m³	<0.514	<0.518
Heptachlor epoxide	ug/m³	<0.514	<0.518
Lindane (gamma-BHC)	ug/m³	<0.514	<0.518
Methoxychlor	ug/m³	<5.14	<5.18
Toxaphene	ug/m³	<9.89	<9.96
Aroclor-1016	ug/m³	<12.9	<12.9
Aroclor-1221	ug/m³	<25.7	<25.9
Aroclor-1232	ug/m³	<12.9	<12.9
Aroclor-1242	ug/m³	<12.9	<12.9
Aroclor-1248	ug/m³	<12.9	<12.9
Aroclor-1254	ug/m³	<12.9	<12.9
Aroclor-1260	ug/m³	<12.9	<12.9

CHAIN-OF-CUSTODY RECORD

Maryland Spectral Services, Inc.
1500 Caton Center Drive, Suite G
Baltimore, MD 21227
410-247-7600 • Fax 410-247-7602
labman@mdspectral.com

Company Name:	Project Manager:
URBAN GREEN ENVIRONMENTAL	DENISE SULLIVAN
Project Name:	**Project ID:**
CASINO SITE	
Sampler(s):	**P.O. Number:**
BILL HARMON	

Field Sample ID	Date	Time	Water	Soil	Other	No. of Containers	Parameters	Preservative/Remarks	MSS Lab ID
SB-1	8/8/12	1630			✓	1		PUMP #P01 97.05	208080601
SB-2	8/8/12	1630			✓	1		PUMP #P02 96.39	-02

Relinquished by: *(Signature)*	Date/Time	Received by: *(Signature)*	Relinquished by: *(Signature)*	Date/Time	Received by: *(Signature)*
Wm Harmon	8-8-12				
(Printed)		*(Printed)*	*(Printed)*		*(Printed)*
William Harmon	1706				

Relinquished by: *(Signature)*	Date/Time	Received by: *(Signature)*	Date/Time	Remarks
(Printed)		*(Printed)*		

Page ___ of ___

MSS-F001-03/09

APPENDIX B

ADMINISTRATIVE REQUIREMENTS

WRITTEN AGREEMENT

Gateway South Phase I and Warner Street Properties

If the response action plan is approved by the Maryland Department of the Environment, the participant agrees, subject to the withdrawal provisions of Section 7-512 of the Environmental Article, to comply with the provisions of the response action plan. Participant understands that if he fails to implement and complete the requirements of the approved plan and schedule, the Maryland Department of the Environment may reach an agreement with the participant to revise the schedule of completion in the approved response action plan or, if an agreement cannot be reached, the Department may withdraw approval of the plan.

Printed Name: Lee Monfort Title: Authorized Signatory, CBAC Gaming, LLC

Signature: _____ Date: _____

Document: Response Action Plan, Gateway South Phase I and Warner Street Properties, Baltimore, Maryland 21230 prepared by Urban Green Environmental, LLC.

CERTIFIED STATEMENT FOR COUNTY AND MUNICIPAL ZONING REQUIREMENTS

Gateway South Phase I and Warner Street Properties

The participant hereby certifies under penalty of law that the current use and proposed use of the eligible property upon which the response action plan is based, are in conformance with all applicable zoning requirements.

The participant acknowledges that there are significant penalties for falsifying any information required by MDE under Title 7, Subtitle 5 of the Environmental Article, Annotated Code of Maryland, and that this certification is required to be included in a response action plan for the Voluntary Cleanup Program pursuant to Title 7, Subtitle 5 of the Environmental Article, annotated Code of Maryland.

Printed Name: Lee Monfort Title: Authorized Signatory, CBAC Gaming, LLC

Signature: _____ Date: _____

Document: Response Action Plan, Gateway South Phase I and Warner Street Properties, Baltimore, Maryland 21230 prepared by Urban Green Environmental, LLC.

APPENDIX C

CONTAINMENT REMEDY OPERATIONS AND MAINTENANCE PLAN

Appendix C Containment Remedy Operations and Maintenance Plan

GATEWAY SOUTH PHASE I AND WARNER STREET PROPERTIES
BALTIMORE, MARYLAND 21230

C.1 CONTAINMENT REMEDY OPERATIONS AND MAINTENANCE OVERVIEW

In accordance with the Approved RAP, post remediation care requirements include compliance with the conditions placed on the Certificate of Completion and deed restriction(s) recorded for the Site. In addition, physical maintenance requirements must be performed throughout the life of the containment surface of the capped areas to prevent degradation of the cap and exposure to the underlying soil. Inspections of the cap must be conducted annually, targeting early spring. The property owner is responsible for on-site cap maintenance inspections, performing maintenance of the cap, and for maintaining all cap inspection records. Maintenance records must include the date of the inspection, name of the inspector, any noted issues and subsequent resolution of the issues. Maintenance records will be maintained in a designated area at the Site for Maryland Department of the Environment (MDE) inspection and review.

The containment remedy (environmental cap) must be constructed as described in the Approved RAP. The following outlines the operations and maintenance plan (O&M Plan) inspection procedures to be followed at the Gateway South Phase I and Warner Street Properties to determine when maintenance of the capped areas is required.

In addition, in accordance with the Approved RAP, maintenance of the cap is required in the event of any breaches which would impair the integrity of the cap. In the event of discovery of such breach, the MDE shall be verbally notified within 24 hours and maintenance shall begin within 72 hours.

C.2 PAVEMENT COVERED AREA INSPECTIONS

The paved areas of the Site shall include (from bottom to top) graded aggregate base and hot mix asphalt to complete the remedial cap. The total thickness must be a minimum of 8-inches. This aggregate base and asphalt must be maintained to ensure the integrity of the cap.

Pavement covered area inspections are required at a minimum of an annual basis (targeting early spring) to document that the environmental cap integrity is being maintained. During the inspection, the environmental cap surface shall be observed for the following conditions:

1. Differential settlement and significant surface-water ponding
2. Erosion or cracking of the cap materials
3. Obstruction or blocking of drainage facilities

Environmental cap inspections may be performed by the Owner, Owner's staff or consultants/ representative. The inspection shall note any areas where repairs are necessary, and provide a written description, including photo documentation, of any cap defect to be repaired.

Inspection forms and any resulting repair records are required to be maintained by the property owner.

Where the inspections recommend that cap maintenance and repair be completed, such repairs will be completed as soon as practically possible, and in compliance with any recorded deed restriction(s). If an action is required and completed, documentation of the response action is required, and shall include the name of the company completing the work, a description of the work, and the date the work was completed. An example pavement inspection form is provided to document the results of each inspection, the recommended maintenance responses, and the actual response.

Pavement Inspection Protocol

A pavement management system (pavement condition index) shall be implemented at the Site. The purpose of this system will be to plan and prioritize future pavement maintenance needs. The system is based on a numerical rating of pavement distresses as published by the US Army Corps of Engineers. This system is based on professional assessment and judgment. Inspections are to be performed by driving slowly over the paved areas and observing the surface conditions. A by foot field inspection should then be performed on areas judges to be in need of maintenance. The following chart is to be used to provide an index of the pavement condition.

TABLE C.1 PAVEMENT CONDITION INDEX (PCI)

PCI	Characterization	Description
1	New crack-free surface	Black in color, smooth texture
2	Oxidation has started	Short hairline cracks start to develop. Dark gray color.
3	Oxidation in advanced state	Hairline cracks are longer and wider. Gray in color.
4	Oxidation complete	Crack area 0.25 inch wide and crack lines have found base faults
5	Moisture penetrating through 0.25 inch cracks. Loose material, stone and sand, evident	Texture of surface becoming rough. Preventative maintenance.
6	Cracks widen and join	Cracks and shrinkage evident at curb and gutter lines.
7	Potholes develop in low spots	Gatoring areas begin to break up. Overall texture very rough.
8	Potholes developing	Pavement breaking up
9	Heaving due to excessive moisture in base	Distorts entire surface
10	General breakup of surface	

Any inspection indicating a PCI of 4 or greater for any portion of the Site shall require maintenance activities, including milling and resurfacing of the pavement. The intent is that repairs should be completed before the pavement degrades beyond a PCI of 4. ***MDE shall be notified in a timely manner of any repairs that are the result of a PCI of great than a 4.0 or greater; the notification shall include documentation of the conditions being repaired and the location of the repair.***

An example pavement inspection form is attached herein to document the results of each inspection, the recommended maintenance responses, and the actual response implemented.

C.3 LANDSCAPED COVERED AREA INSPECTIONS

The Site redevelopment includes limited vegetated and grassed areas, primarily along the site perimeter. These areas shall be graded and filled with approved clean fill to provide a minimum 24-inch vertical buffer zone consisting of (from bottom to top): MDE-approved geotextile, and a minimum buffer thickness of 24 inches. This landscaping must be maintained to ensure the integrity of the environmental cap.

Landscape Inspection Protocol

Inspections are to be performed by traversing the landscaped areas and observing the surface conditions. Landscaped areas shall be inspected to evaluate the health and condition of plants, signs or mortality, animal burrows, erosion, or other features that may compromise the cap integrity. Of particular importance would be any feature such as an uprooted tree or excess erosion that would compromise the thickness of the remedial cap or would contravene the purpose of the cap.

If plants need to be replaced, they must be replaced with shallow-rooted species whose root systems will not penetrate beyond the cap thickness. Alternatively, an excavation notification may be submitted to the MDE CHS for review and approval to extend the cap thickness in the area of the plants to allow for deeper rooted species. The extended cap thickness must encompass the maximum anticipated root depth of the plant.

Environmental cap inspections may be performed by the Owner's staff or consultants. The inspection shall note any areas where repairs are necessary, and provide a written description, including photo documentation, of any cap defect to be repaired.

Inspection forms and any resulting repair records are required to be maintained by the property owner. ***MDE shall be notified in a timely manner if damage to the capped area(s) exceeds one foot in diameter and/or two feet in depth.***

Where the inspections recommend that cap maintenance and repair be completed, such repairs will be completed as soon as practically possible, and in compliance with the MDE deed restriction. If an action is required and completed, documentation of the response action is required, and shall include the name of the company completing the work, a description of the work, and the date the work was completed. An

example pavement summary form is provided to document the results of each inspection, the recommended maintenance responses, and the actual response.

An example landscape inspection form is attached herein to document the results of each inspection, the recommended maintenance responses, and the actual response implemented.

PAVEMENT INSPECTION FORM

PAVEMENT INSPECTION FORM		Gateway South Phase I and Warner Street Properties Baltimore, Maryland 21230
Date:	**Time:**	
Weather Conditions:		
General Pavement Conditions:		

PAVEMENT CONDITION INDEX (PCI)

PCI		Characterization	Description
1		New crack-free surface	Black in color, smooth texture
2		Oxidation has started	Short hairline cracks start to develop. Dark gray color.
3		Oxidation in advanced state	Hairline cracks are longer and wider. Gray in color.
RESPONSE REQUIRED	4	Oxidation complete	Crack area 0.25 inch wide and crack lines have found base faults
	5	Moisture penetrating through 0.25 inch cracks. Loose material, stone and sand, evident	Texture of surface becoming rough. Preventative maintenance.
	6	Cracks widen and join	Cracks and shrinkage evident at curb and gutter lines.
	7	Potholes develop in low spots	Gatoring areas begin to break up. Overall texture very rough.
	8	Potholes developing	Pavement breaking up
	9	Heaving due to excessive moisture in base	Distorts entire surface
	10	General breakup of surface	

PAVEMENT INSPECTION FORM	Gateway South Phase I and Warner Street Properties Baltimore, Maryland 21230
CURB CONDITION	☐ Exists ☐ Sound ☐ Cracked ☐ Root Intrusion ☐ Deteriorated Comments: _____
SIDEWALK CONDITION	☐ Exists ☐ Sound ☐ Cracked ☐ Root Intrusion ☐ Deteriorated Comments: _____
RESPONSE REQUIRED[4]	
WORK COMPLETED	
PHOTOGRAPHS / FIGURES ATTACHED	
RESPONSE CONTRACTOR	Work Completed By: _____ Date: _____ Signature: _____

[4] Any inspection indicating a PCI of 4 or greater for any portion of the Site shall require maintenance activities, including milling and resurfacing of the pavement.

LANDSCAPE INSPECTION FORM

LANDSCAPE INSPECTION FORM		Gateway South Phase I and Warner Street Properties Baltimore, Maryland 21230
Date:	**Time:**	
Weather Conditions:		
General Landscaping Description:		
GENERAL LANDSCAPE CONDITION	☐ Exists ☐ Sound ☐ Erosion ☐ Root Intrusion ☐ Healthy Plant Condition ☐ Signs of Mortality ☐ Animal Burrows Comments: _____	
GROUND COVER	☐ Dry ☐ Damp ☐ Wet Comments: _____	
TREES	☐ Exists ☐ Healthy ☐ Poor Health ☐ Dead ☐ Fallen Comments: _____	
SHRUBS	☐ Exists ☐ Healthy ☐ Poor Health ☐ Dead ☐ Fallen Comments: _____	
EROSION	☐ Exists ☐ Slight ☐ Moderate ☐ Significant Comments: _____	
HOLES	☐ Exists ☐ Depth of Holes: _____ Comments: _____	

LANDSCAPE INSPECTION FORM	Gateway South Phase I and Warner Street Properties Baltimore, Maryland 21230
RESPONSE REQUIRED	
WORK COMPLETED	
PHOTOGRAPHS / FIGURES ATTACHED	
RESPONSE CONTRACTOR	Work Completed By: _____ Date: _____ Signature: _____

APPENDIX D

CONCEPTUAL SITE DEVELOPMENT PLANS

Harrah's Baltimore Site Plan

APPENDIX E

SITE SPECIFIC HEALTH AND SAFETY PLAN GUIDANCE DOCUMENT