

PHASE II ENVIRONMENTAL SITE ASSESSMENT 49 L STREET SE, WASHINGTON, DC

Schnabel Reference # 10212006
May 14, 2010





Phase II Environmental Site Assessment

49 L Street SE
Washington, DC

(Schnabel Project No. 10212006)

Prepared for:
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May 14, 2010

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1.0 SUMMARY

SCHNABEL ENGINEERING, LLC (Schnabel) has conducted a Phase II Environmental Site Assessment (ESA) for MGA Partner on a parcel of land located at 49 L Street SE in Washington, DC. The subject site is bounded by L Street to the north, Cushing Place to the east, Half Street to the west, and a privately owned parking lot to the south. Currently, the site is almost completely occupied with a 33,455 square foot, one- to two-story warehouse building. The site is being considered as the location for a new building to be used by the United States Court of Appeals for Veterans Claims (USCAVC).

The objective of the Phase II ESA was to evaluate *recognized environmental conditions* (RECs) consisting of several potential off-site sources of contamination, identified in a Phase I ESA report conducted by Greenhorne & O'Mara in June 2003. Specifically, the assessment focused on determining if petroleum hydrocarbons, Resource Conservation and Recovery Act (RCRA) metals and/or volatile organic compounds (VOCs) are present at the project site.

Schnabel advanced five environmental borings across the subject site. Four soil samples were analyzed for Total Petroleum Hydrocarbons (TPH)-Diesel Range Organics (DRO), TPH-Gasoline Range Organics (GRO), Benzene, Toluene, Ethylbenzene, Xylenes (BTEX), methyl-tert-butyl ether (MTBE), Naphthalene, and RCRA metals. Two groundwater samples, as well as one field duplicate and one field blank were analyzed for TPH-DRO, TPH-GRO, dissolved RCRA metals, volatile organic compounds (VOCs) and semi-volatile organic compounds (SVOCs). Additionally, a trip blank was analyzed for VOCs.

Soil samples obtained from the borings were screened on site with a photoionization detector (PID). PID readings ranging from 0 to 1,872 parts per million (ppm) were noted in GP-1. The highest PID readings were within the 14 ft to 23 ft interval. In boring GP-2, PID readings ranging from 1.5 ppm to 3.0 ppm were noted within the 4 ft to 8 ft sample interval. The soil from this interval did not appear to be stained and did not have a petroleum odor, the elevated PID readings were attributed to organic material in the sample. All other PID readings from GP-2 were 0 ppm. PID measurements of 0 ppm were obtained on all samples obtained from borings GP-3, GP-4 and GP-5. In addition to the Geoprobe borings, three geotechnical borings were advanced to maximum depths of approximately 70 ft. Petroleum odors and PID readings were noted at depths greater than the maximum Geoprobe investigation depths.

TPH-DRO and MTBE were not detected in any of the soil samples. TPH-GRO, BTEX and naphthalene were only detected in the soil sample from boring GP-1. All of the contaminants were below the DDOE screening levels and the EPA RBCs. Of the RCRA metals, only barium was detected in the soil samples. Barium was present in each of the borings, but did not exceed the EPA RBCs in any of the samples.

Laboratory results, PID screening and observations of the environmental soil samples indicate that low levels of petroleum contamination are present at depths of about 14 ft to 23 ft bgs at GP-1, on the northern central portion of the site. PID readings on geotechnical samples indicate potential petroleum contamination at depths up to 40 ft. At other locations on the site, the environmental laboratory results and PID screening did not detect evidence of petroleum contamination. However, petroleum odors and elevated PID readings on geotechnical samples from depths below 40 ft bgs did indicate low level potential petroleum contamination. With regard to the elevated metals that were detected in the soil samples, the metal concentrations were below the respective EPA RBCs and therefore are not a concern.

TPH-DRO and SVOCs were not detected in the two groundwater samples. In the sample from GP-1, TPH-GRO, several VOCs and barium were detected. In the sample from GP-3, two VOCs (benzene and Tert-Butanol) and barium were detected. TPH-GRO was not detected in the groundwater sample from GP-3. With the exception of the benzene concentration in GP-3, all of the chemical concentrations detected in the groundwater were below the DDOE Risk-Based Corrective Action (DCRBCA) standards for groundwater. Benzene was detected in GP-3 at 0.0094 mg/L, which is above the District's standard of 0.005 mg/L.

We understand that current design concepts for the building consist of seven to eight stories above ground with one to two levels below-grade. In this case, site excavation is not expected to extend beyond 25 ft bgs. One localized area of contamination to a depth of 23 ft was identified in the area of GP-1. A deeper zone of contamination identified in the geotechnical borings would be expected to be below the building. Although only one localized area of contamination was identified in the top 25 ft, it is possible that additional small, localized areas of petroleum contaminated soil may be encountered during construction. Furthermore, if the building design changes and additional sub-grade levels are added, deeper soil contamination may be encountered during construction. In such a case, soil requiring disposal at a permitted facility will need laboratory analysis of additional parameters to satisfy the disposal facility's requirements. If petroleum impacted soil is encountered during construction, it is recommended that an environmental professional be on site during excavation activities to use field screening methods to identify and segregate petroleum impacted soils. In addition, it is recommended that the area of soil contamination is further delineated to aid in developing a cost for contaminated soil disposal and the potential need for inclusion of a vapor barrier in the building design.

Based on the analytical results for the groundwater samples, detectable levels of TPH-GRO, VOCs and metals are present in the groundwater. Benzene was detected in GP-3 at a level that is slightly above the District's groundwater standard. Groundwater was encountered at a depth of approximately 16 ft to 19 ft bgs during the investigation, which is above the bottom of the proposed building. If dewatering of the excavation is required or if a permanent groundwater collection system is installed, groundwater treatment may be required, depending on where the water is discharged (sanitary sewer or storm sewer). Discharge permits may require periodic testing of the groundwater to demonstrate that contaminated groundwater is not being discharged to the sanitary or storm sewer systems.

One potential concern with respect to site dewatering during construction is drawing groundwater contamination from off-site sources onto the site. Through our review of previous reports, we have identified that the southern adjacent site was formerly improved with a filling station. Furthermore, based on local experience, petroleum groundwater contamination exists in the vicinity of the subject site. The potential for movement of such contamination will depend on the local hydrogeologic conditions, the depth of excavation and the duration of dewatering. Monitoring of the dewatering discharge would provide for detection of any contaminants that might be drawn to the site.

Based on the results of this Phase II ESA, we recommend advancing additional borings in the area of GP-1 to vertically and horizontally delineate the area of soil contamination. The contaminants of concern identified during the Phase II ESA consist of TPH-GRO and VOCs.

MGA Partners
49 L Street SE

This summary has been prepared for the convenience of the users of this report. This summary does not contain all the information presented in this report and, therefore, the entire report should be read to assure all pertinent information is transmitted.

2.0 INTRODUCTION

2.1 Project Description

SCHNABEL ENGINEERING, LLC (Schnabel) performed a subsurface investigation for MGA Partners on a parcel of land located at 49 L Street SE in Washington, DC. Currently, the site is almost completely occupied with a 33,455 square foot, one- to two-story warehouse building. The site is being considered as the location for a new building to be used by the United States Court of Appeals for Veterans Claims (USCAVC).

2.2 Scope of Services

The subsurface investigation conducted by Schnabel was completed in accordance with our proposal to MGA Partners dated December 18, 2009. The objective of the investigation was to evaluate *recognized environmental conditions* (RECs) that were identified in a Phase I ESA report conducted by Greenhorne & O'Mara in June 2003. The RECs consisted of several potential off-site sources of contamination. The assessment focused on determining if petroleum hydrocarbons, metals and polychlorinated biphenyls (PCBs) are present at the project site.

Services performed during the investigations included subsurface sampling and laboratory analysis as described in our proposals. Specifically, we:

1. Reviewed available information, including the Phase I ESA conducted by Greenhorne & O'Mara in June 2003 and information provided by GSA.
2. Advanced direct push (Geoprobe) borings at five locations across the site.
3. Provided on-site monitoring during drilling activities by an OSHA-trained environmental professional. The environmental professional screened the soils during drilling activities with a photoionization detector (PID) for the presence of volatile organic compounds (VOCs).
4. Collected soil and groundwater samples using EPA approved methods. Submitted samples to an EPA approved laboratory under appropriate chain of custody.
5. Performed laboratory analysis on soil and groundwater samples. Four soil samples were analyzed for TPH-DRO/GRO, BTEX, MTBE, naphthalene and Resource Conservation and Recovery Act (RCRA) metals. Two groundwater samples, one field duplicate, and one field blank were analyzed for TPH-DRO/GRO, VOCs, SVOCs and dissolved RCRA metals. A trip blank was analyzed for VOCs.
6. Screened the soil samples taken from a concurrent geotechnical investigation performed by Schnabel using a PID to detect the presence of VOCs.
7. Prepared this report of findings including laboratory analysis, boring logs, contamination information, conclusions and recommendations.

3.0 SITE INFORMATION

3.1 Site Location and Description

The site is located southeast of the intersection of L Street and Half Street, west of Cushing Place, in southeast Washington, DC. The subject site has a physical address of 49 L Street SE and is developed with a 33,455 square foot building that occupies a majority of the site. A site location map is included as Figure 1.

A multi-story office building is located east of the site across Cushing Place SE. The site is bordered to the west by another multi-story building that sits next to a one- to two-story warehouse, across Half Street SE. Directly south of the property, abutting the warehouse, is a privately owned parking lot. The parking lot was previously improved with a filling station. North of the property across L Street SE appears to be a construction site. Underground and aboveground utilities exist around the site and include water lines, storm drains, and electric/communication lines.

3.2 Site History

In June 2003, Greenhorne & O'Mara (G&O) performed a Phase I Environmental Site Assessment (ESA) for the site. According to the ESA, the subject property was developed with the current structure in 1926. In the 1930's, the building was used as a gun depot. In the 1960's the building had been converted into a motor pool and auto service garage by the United States government. Once the government started using outside contractors to service its vehicles, the building was vacated. In 1991 the Department of Defense took over the building and has used it since that time for its Office of Special Events. The Park Police also used the building from 1999 to 2001.

It was also reported that the southern abutting property has been occupied as a filling station since 1959 until at least 2003, the time of the ESA. That property is currently developed with a privately owned parking lot.

Asbestos was observed in the building's pipe insulation in a previous study and was improperly removed and disposed of in an on-site dumpster. Asbestos debris was later observed on the premises, but air sampling revealed asbestos fiber counts below regulatory standards. Radon testing was also conducted for the site, and testing revealed levels below regulatory standards. During a previous site study, drinking water showed elevated levels of lead, iron and turbidity. Water samples were subsequently collected from a drinking fountain. Testing results revealed that none of these parameters were above regulatory standards for drinking water. A PCB study revealed that although there are no known transformers on the site, PCBs may be present in the light ballasts of fluorescent light bulbs used throughout the building.

The G&O Phase I ESA identified one potential REC, as defined by ASTM E 1527-05, in connection with the property, as well as several other potential issues of concern. The potential REC was the historical use of the property as a motor pool and auto service garage. The G&O Phase II ESA recommended that a limited Phase II ESA investigation of soil and groundwater to determine the impacts of historic on-site development. Furthermore, the G&O report recommended that all remaining asbestos containing material (ACM) should be identified and abated, all lead-based paint be identified and properly managed,

and any potential PCB containing light ballasts and mercury-containing lamps should be properly recycled or disposed.

3.3 Site Geology and Hydrology

According to the Schnabel environmental and geotechnical investigations, the site is underlain by fill to depths ranging from 3.5 ft to 8.5 ft bgs. Below the fill material, the site is underlain by sandy lean clay, sandy fat clay, silty sand, and poorly graded sand, with various amounts of gravel, to maximum boring depths of 70 ft bgs. These soils are considered part of the Coastal Plain deposits of the Pleistocene aged Wicomico Formation and the Cretaceous-age Potomac Group.

Groundwater was measured during the environmental and geotechnical investigations at depths ranging from 16.5 ft to 42 ft bgs. The higher groundwater elevations may represent a zone of perched water. Note that fluctuations in the groundwater table should be expected depending on variations in precipitation, surface runoff, time of year, evaporation and similar factors.

4.0 FIELD INVESTIGATION

4.1 Soil Sampling

Under the observation of a Schnabel representative, Earth Matters Inc. of Ellicott City, Maryland advanced five Geoprobe borings on March 1, 2010, at the locations indicated in Figure 2. Truck-mounted, direct-push equipment was used for the environmental investigation. The machine employed 4-ft rods. Borings were advanced to depths ranging from 21 ft bgs up to 47 ft bgs. Due to varying elevations of groundwater, the borings were advanced to different depths. The boring logs are included in Appendix A.

Soils were sampled continuously and recovered in 4 ft increments. The samples were collected in disposable polyethylene liners inserted into the steel probe rods for sampling at each interval. The liners preserved soil sample integrity and prevented sample contamination. Liners containing soil samples were split vertically upon recovery. Portions of the samples were placed in laboratory supplied jars for potential laboratory analysis and placed in a cooler on ice. Other portions of the samples were placed in zipper lock bags for PID screening. PID readings are annotated on the boring logs.

4.2 Soil Screening

Soil samples obtained from the five direct push borings were screened on site with a PID. Soil samples were taken from depths with the highest PID readings, or, if a PID reading of 0 ppm was obtained throughout the boring, samples were taken at depths just above the water table. The PID is an instrument used to detect VOCs. Note that a PID reading is a measure of the VOCs detected near a soil sample and is not a direct measure of the quantity of TPH present in the soil sample. The results of the screening are presented on the boring logs in Appendix A.

- PID readings ranging from 0 ppm to 1,872 ppm were noted in GP-1. The highest PID readings were within the 14 ft to 23 ft interval. Samples from this interval also had a strong petroleum odor and were discolored.
- In boring GP-2, PID readings ranging from 1.5 ppm to 3.0 ppm were noted within the 4 ft to 8 ft sample interval. The soil from this interval did not appear to be stained and did not have a petroleum odor; the elevated PID readings were attributed to organic material in the sample. All other PID readings from GP-2 were 0 ppm.
- PID measurements of 0 ppm were obtained on all samples obtained from borings GP-3, GP-4 and GP-5.

Soil samples obtained from a concurrent geotechnical study conducted at the subject site were also evaluated for the presence of VOCs through PID screening of the samples in the laboratory and descriptions provided on the boring logs. Three geotechnical borings (B-1, B-2 and B-3) were advanced with 2 ¼-inch hollow stem augers to a depth of 70 ft bgs, at the locations indicated in Figure 2.

- In boring B-1, elevated PID reading ranging from 60 ppm to 145 ppm were noted at the 18.5 ft to 20 ft interval and petroleum odors were noted in the logs at depths from 18.5 ft to 25 ft. These observations correspond with data from environmental boring GP-1, which was located

approximately 5 ft from B-1. At greater depths in boring B-1, PID readings ranging from 1.8 ppm to 21.9 ppm were obtained on samples from 28.5 ft to 70 ft bgs.

- In boring B-2, the PID readings ranged from 0 ppm to 4.1 ppm, with the highest reading being obtained at a depth of 28.5 ft to 30 ft. Petroleum odors were noted in samples from boring B-2 from 43.5 ft to 50 ft bgs, which were below the maximum depth of the Geoprobe borings.
- Boring B-3 was similar to boring B-2, in that PID readings ranged from 0 ppm to 4.7 ppm and the highest reading occurred at a depth of 28.5 ft to 30 ft. Petroleum odors were noted in samples from boring B-3 at 48.5 ft to 50 ft bgs, which were below the maximum depth of the Geoprobe borings.

4.3 Groundwater Sampling

On March 1, 2010, a Schnabel representative collected groundwater samples from borings GP-1 and GP-3, which were located at the northern and southern boundaries of the site, respectively. A temporary PVC pipe with a 10-ft screened interval was installed at each location. The sample from GP-3 was collected using a peristaltic pump with flow controller. Due to the lower depth of groundwater in GP-1, the peristaltic pump could not be used to obtain a groundwater sample. The groundwater sample from GP-1 was collected using a disposable plastic bailer. Three well volumes were purged from each well prior to sample collection. Groundwater samples taken for analysis of RCRA metals were field filtered using a disposable filter. Disposable tubing and sample gloves were used to prevent cross contamination.

5.0 LABORATORY ANALYSIS

The results of PID screening and information regarding areas of historical commercial site use were evaluated as an aid in selecting soil samples for laboratory chemical analysis. In the absence of non-zero PID readings, soil samples from the interval just above the saturated zone were submitted for analysis. Soil samples from borings GP-1, GP-2, GP-3 and GP-4 were submitted to HP Environmental, Inc. in Herndon, Virginia for analysis. The laboratory analysis for soil consisted of TPH DRO/GRO, BTEX, MTBE, Naphthalene, and RCRA metals. The sample depths ranged from 17 ft to 20 ft bgs.

Groundwater samples from borings GP-1 and GP-3 were also submitted to HP Environmental. These samples were analyzed for TPH-DRO, TPH-GRO, VOCs, SVOCs and dissolved RCRA metals.

5.1 Soil Analysis

Analytical results for the TPH DRO/GRO, BTEX, MTBE, naphthalene and RCRA metals are provided in Table 1. To provide reference values for interpreting the results, the summary table includes the Tier 1 Risk-Based Screening Levels (RBSLs) developed for the District Department of the Environment (DDOE) DC Risk-Based Corrective Action (DCRBCA) Plan (Tables 5-8 and 5-9). Table 1 also includes the Residential Clean-up Standards from the EPA Region 3 Risk-Based Concentrations (RBC) for Residential Soil from the Risk-Based Concentration Table dated September 1, 2008. Due to the absence of DDOE RBSLs for these parameters, EPA standards were used to assist in interpreting the laboratory results.

Table 1: Soil Analytical Results

Compound (mg/kg)	GP-1 19 ft to 20 ft	GP-2 17 ft to 18 ft	GP-3 19 ft to 20 ft	GP-4 18 ft to 20 ft	DDOE Screening Levels	EPA Region 3 RBCs Residential
TPH-DRO	ND	ND	ND	ND	969	NA
TPH-GRO	85	ND	ND	ND	814	NA
Benzene	0.01	ND	ND	ND	0.157	1.1
Toluene	0.0081	ND	ND	ND	125	5,000
Ethylbenzene	0.38	ND	ND	ND	1,160	5.7
Xylenes	0.35	ND	ND	ND	504	600
MTBE	ND	ND	ND	ND	1,440	3.9
Naphthalene	0.18	ND	ND	ND	NA	NA
Arsenic	ND	ND	ND	ND	0.101	0.39
Barium	18	10	15	52	NA	15,000
Cadmium	ND	ND	ND	ND	0.3	NA
Chromium	10	ND	ND	ND	NA	280
Lead	ND	ND	ND	ND	NA	400
Mercury	ND	ND	ND	ND	NA	6.7
Notes: mg/kg = milligrams per kilogram NA = Regulatory standard not available ND = Not Detected						

TPH-DRO and MTBE were not detected in any of the samples. TPH-GRO, BTEX, and naphthalene were detected in only one sample, from boring GP-1. All of the detected values are below the DDOE screening levels and the EPA RBCs.

Of the RCRA metals, only barium was detected in the soil samples. Barium was present in each of the borings, but did not exceed the EPA RBCs in any of the samples.

5.2 Groundwater Analysis

Laboratory results from the groundwater samples are presented in Table 2. Analytical results are provided for TPH-DRO, TPH-GRO, VOCs, SVOCs and dissolved RCRA metals. To provide reference values for interpreting the results, the summary table includes the DDOE DCRBCA Plan standards for Groundwater and Surface Water at the Point of Exposure (Table 5-6, for groundwater).

Table 2: Groundwater Analytical Results

Compound (mg/L)	GP-1	GP-3	DDOE Groundwater Standard
TPH-DRO	ND	ND	7.3
TPH-GRO	0.56	ND	3.57
MTBE	0.011	ND	0.05
Tert-Butanol	0.34	0.84	NA
Diisopropyl ether	0.027	ND	NA
Tert-Amyl alcohol	0.12	ND	NA
Benzene	0.0019	0.0094	0.005
Toluene	0.0015	ND	1
Ethylbenzene	0.017	ND	0.7
xylenes	0.0144	ND	10
Isopropylbenzene	0.0032	ND	NA
n-propylbenzene	0.0046	ND	NA
1,3,5-Trimethylbenzene	0.0042	ND	NA
1,2,4-Trimethylbenzene	0.012	ND	NA
Naphthalene	0.0026	ND	0.73
Barium	0.14	0.16	NA
Notes: mg/L = milligrams per liter BOLD – exceeds regulatory standard ND – Not Detected NA – Regulatory standard not available			

Chemical analysis of the groundwater sample from GP-1 showed no detectable concentrations of TPH-DRO or SVOCs. TPH-GRO, several VOCs and barium were detected at low levels in the groundwater sample from GP-1.

Chemical analysis of the groundwater sample from GP-3 showed no detectable concentrations of TPH-DRO, TPH-GRO, and SVOCs. Low levels of two VOCs and barium were detected in GP-3. With the exception of the benzene concentration in GP-3, all detected levels are below the DDOE DCRBCA groundwater standards. Benzene was detected in GP-3 at 0.0094 mg/kg, which is slightly above the District's standard of 0.005.

5.3 Quality Control Samples

Three quality control samples were taken during the site investigation. The field blank and duplicate samples were analyzed for TPH-DRO, TPH-GRO, VOCs, SVOCs and dissolved RCRA Metals. The trip blank sample was analyzed for VOCs.

Chemical analysis of the field duplicate, GP-3a, showed no detectable concentrations of TPH-DRO, TPH-GRO, and SVOCs, which is consistent with the analytical results from GP-3. Low levels of tert-Butanol, benzene, and barium were detected in GP-3a at concentrations slightly higher than those seen in GP-3, but the results were still generally consistent.

Chemical analysis of the field blank and trip blank showed no detectable concentrations of any of the analyzed contaminants.

6.0 FINDINGS

Based on information from the June 2003 Phase I ESA for the site, the current structure has existed since at least 1926 and was previously used as a motor pool and auto service garage. The southern abutting property was previously occupied with a filling station from 1959 until at least 2003, the time of the ESA. That property is currently developed with a privately owned parking lot. Therefore, this investigation was directed to determining whether impacts to the subsurface have occurred as a result of former site uses or the former offsite adjacent filling station.

Laboratory results, PID screening, and observations of the environmental soil samples indicate that low levels of petroleum contamination are present at depths of about 14 ft to 23 ft bgs at GP-1, on the northern central portion of the site. PID readings on geotechnical samples indicate potential petroleum contamination at depths up to 40 ft. At other locations on the site, the environmental laboratory results and PID screening did not detect evidence of petroleum contamination. However, petroleum odors and elevated PID readings on geotechnical samples from depths below 40 ft bgs did indicate low level potential petroleum contamination. With regard to the elevated metals that were detected in the soil samples, the metal concentrations were below the respective EPA RBCs and therefore are not a concern.

TPH-DRO and SVOCs were not detected in the two groundwater samples. In the sample from GP-1, TPH-GRO, several VOCs and barium were detected. In the sample from GP-3, two VOCs (benzene and Tert-Butanol) and barium were detected. TPH-GRO was not detected in the groundwater sample from GP-3. With the exception of the benzene concentration in GP-3, all of the chemical concentrations detected in the groundwater were below the DDOE Risk-Based Corrective Action (DCRBCA) standards for groundwater. Benzene was detected in GP-3 at 0.0094 mg/L, which is above the District's standard of 0.005 mg/L.

7.0 CONCLUSIONS AND RECOMMENDATIONS

We understand that current design concepts for the building consist of seven to eight stories above ground with one to two levels below-grade. In this case, site excavation is not expected to extend beyond 25 ft bgs. One localized area of contamination to a depth of 23 ft was identified in the area of GP-1. A deeper zone of contamination identified in the geotechnical borings would be expected to be below the building. Although only one localized area of contamination was identified in the top 25 ft, it is possible that additional small, localized areas of petroleum contaminated soil may be encountered during construction. Furthermore, if the building design changes and additional sub-grade levels are added, deeper soil contamination may be encountered during construction. In such a case, soil requiring disposal at a permitted facility will need laboratory analysis of additional parameters to satisfy the disposal facility's requirements. If petroleum impacted soil is encountered during construction, it is recommended that an environmental professional be on site during excavation activities to use field screening methods to identify and segregate petroleum impacted soils. In addition, it is recommended that the area of soil contamination is further delineated to aid in developing a cost for contaminated soil disposal and the potential need for inclusion of a vapor barrier in the building design.

Due to the apparently localized areas of contamination, anticipated removal of contaminated soil during construction, and very low level groundwater contamination, vapor intrusion does not appear to be an issue for the proposed building. However, if building design changes or a broad area of petroleum impacted soil is identified, vapor intrusion could be an issue for the proposed building.

Based on the analytical results for the groundwater samples, detectable levels of TPH-GRO, VOCs and metals are present in the groundwater. Benzene was detected in GP-3 at a level that is slightly above the District's groundwater standard. Groundwater was encountered at a depth of approximately 16 ft to 19 ft bgs during the investigation, which is above the bottom of the proposed building. If dewatering of the excavation is required or if a permanent groundwater collection system is installed, groundwater treatment may be required, depending on where the water is discharged (sanitary sewer or storm sewer). Discharge permits may require periodic testing of the groundwater to demonstrate that contaminated groundwater is not being discharged to the sanitary or storm sewer systems.

One potential concern with respect to site dewatering during construction is drawing groundwater contamination from off-site sources onto the site. Through our review of previous reports, we have identified that the southern adjacent site was formerly improved with a filling station. Furthermore, based on local experience, petroleum groundwater contamination exists in the vicinity of the subject site. The potential for movement of such contamination will depend on the local hydrogeologic conditions, the depth of excavation and the duration of dewatering. Monitoring of the dewatering discharge would provide for detection of any contaminants that might be drawn to the site.

Based on the results of this Phase II ESA, we recommend advancing additional borings in the area of GP-1 to vertically and horizontally delineate the area of soil contamination. The contaminants of concern identified during the Phase II ESA consist of TPH-GRO and VOCs.

8.0 GENERAL LIMITATIONS

Chemical analyses have been performed on soil and groundwater samples recovered at the site during the course of this study. It is possible that additional constituents not searched for during this study might be present in soil and/or groundwater.

Our conclusions regarding the site are based on observations of existing site conditions, our interpretations of site history and site usage information, and the results of a limited subsurface exploration, sample screening and chemical testing program. The results of this evaluation are qualified by the fact that only a limited number of borings, soil and groundwater sampling, and chemical testing were conducted at the site. The concentrations of contaminants measured may not be representative of conditions at locations intermediate to those locations sampled.

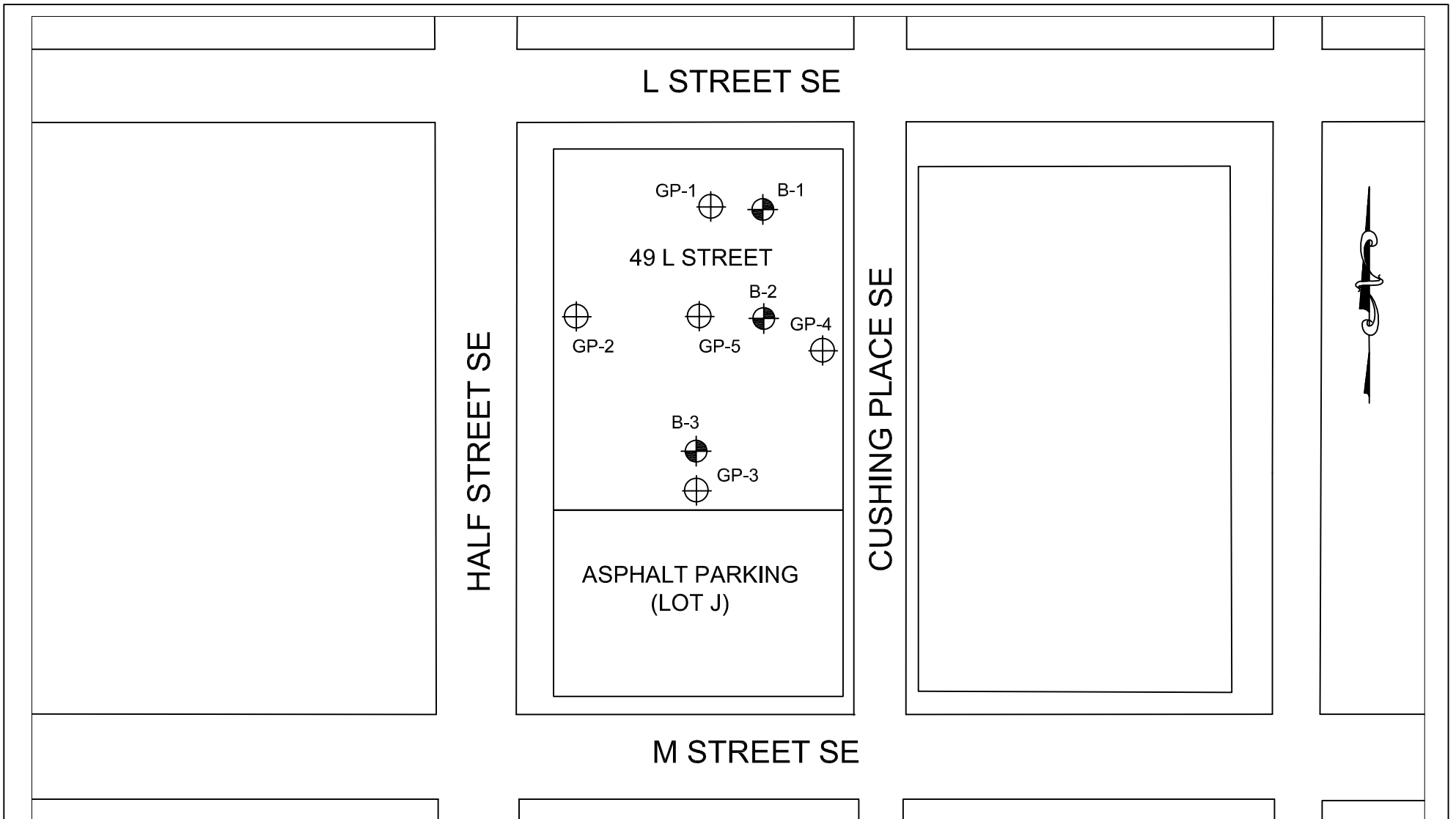
The report's findings are based on conditions that existed on the dates of our site visits and should not be relied upon to precisely represent conditions at any other time. Surface and subsurface conditions at the site could change with the passage of time.

This report is an instrument of service of Schnabel Engineering, LLC and has been prepared for, and is intended for the exclusive use, of MGA Partners and the General Services Administration. The content of this report should not be relied upon by any other party without our express consent.

We have endeavored to provide the professional services as reported herein in accordance with generally accepted environmental practices, and make no other warranties, either express or implied, as to the professional services provided under the terms of this agreement and included on this report.

FIGURES

Site Vicinity Map, Figure 1
Boring Location Plan, Figure 2



LEGEND

-  - APPROXIMATE GEOPROBE BORING LOCATION
-  - APPROXIMATE GEOTECHNICAL BORING LOCATION



USCAVC
49 L STREET SE
WASHINGTON, DC

DRAWN BY:
MR

DATE:
MARCH 2010

BORING LOCATION PLAN

CHECKED BY:
JN

SCALE:
NOT TO SCALE

PROJECT: 10212006
FIGURE 2

APPENDIX A

Geoprobe Boring Logs (6 sheets)



Project: 49 L Street SE
Washington, D.C.

Geo Probe Number: **GP-01**
Contract Number: 10212006
Sheet: 1 of 2

Contractor: Earth Matters
Contractor Foreman: Paul
Schnabel Representative: M. Ker and M. Rodriguez
Equipment: Geoprobe 540B
Method: Direct Push
Hammer Type:
Dates Started: 3/1/10 Finished: 3/1/10
Location: See Location Plan
Ground Surface Elevation: Total Depth: 47.0 ft

Groundwater Observations					
	Date	Time	Depth	Casing	Caved
Encountered	3/1	11:17 AM	41.0'	---	---

TEST BORING LOG P9120335.GPJ SCHNABEL DATA TEMPLATE 2008_07_06.GDT 3/17/10

DEPTH (ft)	MATERIAL DESCRIPTION	SYMBOL	ELEV (ft)	STRATUM	SAMPLING		TESTS	REMARKS
					DEPTH	DATA		
3.5	FILL, sampled as silty sand, fine grained sand; moist, orangish brown	FILL				GEOPROBE REC=39"	PID = 0 ppm	
5	SANDY LEAN CLAY; moist, orangish brown	CL				GEOPROBE REC=48"	PID = 0 ppm	
10						GEOPROBE REC=36"	PID = 0 ppm	
11.0	CLAYEY SAND, fine grained sand; moist, orangish brown and red, contains gravel Change: no gravel	SC				GEOPROBE REC=36"	PID = 0 ppm	
15						GEOPROBE REC=36"	PID = 0 ppm	
16.5	SANDY LEAN CLAY; moist, orangish brown	CL				GEOPROBE REC=36"	PID = 15.3 ppm	Petroleum odor
17.0	CLAYEY SAND, fine to medium grained sand; moist, orangish brown	SC				GEOPROBE REC=36"	PID = 1872 ppm	
20	Change: gray					GEOPROBE REC=36"	PID 1.9 - 3.4 ppm	Samples taken
21.8	SANDY LEAN CLAY; moist, gray, contains organics, slight organic odor	CL				GEOPROBE REC=27"	PID = 0 ppm	

(continued)



DEPTH (ft)	MATERIAL DESCRIPTION	SYMBOL	ELEV (ft)	STRATUM	SAMPLING		TESTS	REMARKS
					DEPTH	DATA		
25.5	CLAYEY SAND, fine grained sand; moist, gray LEAN CLAY; moist, gray	CL						Perched water
26.0		SC						
		CL			30	GEOPROBE REC=36"	PID = 3.2 ppm	
		CL				GEOPROBE REC=36"	PID 63 - 91 ppm	
		CL				GEOPROBE REC=36"	PID = 9 ppm	
	Change: dark brown and gray, contains organics							Petroleum odor
35.0	SANDY LEAN CLAY; moist, gray	CL			35	GEOPROBE REC=36"	PID 6 - 15.8 ppm	
36.3	CLAYEY SAND, fine to coarse grained sand; moist, gray	SC						
37.5	POORLY GRADED SAND, fine to coarse grained sand; moist, gray POORLY GRADED SAND WITH SILT AND GRAVEL; moist, gray	SP						
38.0		SP						
		SP-SM			40	GEOPROBE REC=15"	PID = 1.7 ppm	
		SP-SM				GEOPROBE REC=18"	PID = 0 ppm	
	Change: wet							
		SP-SM			45	GEOPROBE REC=36"	PID = 0 ppm	
47.0	Bottom of Geo Probe at 47.0 ft. Temporary well installed upon completion							

TEST BORING LOG P9120335.GPJ SCHNABEL DATA TEMPLATE 2008_07_06.GDT 3/17/10



Project: 49 L Street SE
Washington, D.C.

Geo Probe Number: GP-02
Contract Number: 10212006
Sheet: 1 of 1

Contractor: Earth Matters
Contractor Foreman: Paul
Schnabel Representative: M. Ker and M. Rodriguez
Equipment: Geoprobe 540B
Method: Direct Push
Hammer Type:
Dates Started: 3/1/10 **Finished:** 3/1/10
Location: See Location Plan
Ground Surface Elevation: **Total Depth:** 21.0 ft

Groundwater Observations						
	Date	Time	Depth	Casing	Caved	
Encountered	3/1	11:55 AM	16.5'	---	---	▽

DEPTH (ft)	MATERIAL DESCRIPTION	SYMBOL	ELEV (ft)	STRATUM	SAMPLING		TESTS	REMARKS
					DEPTH	DATA		
0.5	FILL, sampled as silty sand, fine grained sand; dry, tan, contains gravel	FILL				GEOPROBE REC=27"	PID = 0 ppm	
2.5	FILL, sampled as clayey sand, fine grained sand; moist, dark brown	FILL						
	SANDY LEAN CLAY; moist, dark brown	CL			5	GEOPROBE REC=39"	PID 1.5 - 3.0 ppm	
6.5	FAT CLAY; moist, grayish brown	CH						
8.0	SANDY LEAN CLAY; moist, orangish brown	CL			10	GEOPROBE REC=48"	PID = 0 ppm	
14.0	SILTY SAND, fine grained sand; moist, orangish brown	SM			15	GEOPROBE REC=36"	PID = 0 ppm	
15.0	SANDY LEAN CLAY; moist, orangish brown	CL				GEOPROBE REC=36"	PID = 0 ppm	
20.5	SILTY SAND, fine to coarse grained sand; moist, orangish brown	SM			20	GEOPROBE REC=36"	PID = 0 ppm	Samples taken
21.0								

Bottom of Geo Probe at 21.0 ft.

TEST BORING LOG P9120335.GPJ SCHNABEL DATA TEMPLATE 2008_07_06.GDT 3/17/10



Project: 49 L Street SE
Washington, D.C.

Geo Probe Number: GP-03
Contract Number: 10212006
Sheet: 1 of 1

Contractor: Earth Matters
Contractor Foreman: Paul
Schnabel Representative: M. Ker and M. Rodriguez
Equipment: Geoprobe 540B
Method: Direct Push
Hammer Type:
Dates Started: 3/1/10 **Finished:** 3/1/10
Location: See Location Plan
Ground Surface Elevation: **Total Depth:** 24.0 ft

Groundwater Observations						
	Date	Time	Depth	Casing	Caved	
Encountered	3/1	9:15 AM	19.0'	---	---	▽

DEPTH (ft)	MATERIAL DESCRIPTION	SYMBOL	ELEV (ft)	STRATUM	SAMPLING		TESTS	REMARKS
					DEPTH	DATA		
3.0	FILL, sampled as silty sand, fine grained sand; dry, light brown	FILL				GEOPROBE REC=30"	PID = 0 ppm	
	SANDY LEAN CLAY; moist, orangish brown				5	GEOPROBE REC=32"	PID = 0 ppm	
	Change: orangish brown with streaks of black Change: orangish brown and red	CL			10	GEOPROBE REC=48"	PID = 0 ppm	
					15	GEOPROBE REC=36"	PID = 0 ppm	
17.5	CLAYEY SAND, fine grained sand; moist, orangish brown	SC				GEOPROBE REC=36"	PID = 0 ppm	
18.5	SANDY LEAN CLAY; wet, orangish brown	CL			20	GEOPROBE REC=36"	PID = 0 ppm	Samples taken
20.5	CLAYEY SAND, fine grained sand; wet, orangish brown	SC				GEOPROBE REC=36"	PID = 0 ppm	
21.0	SANDY LEAN CLAY; moist, orangish brown	CL				GEOPROBE REC=36"	PID = 0 ppm	
24.0	Change: gray, contains mica, organic odor Bottom of Geo Probe at 24.0 ft. Temporary well installed upon completion							

TEST BORING LOG P9120335.GPJ SCHNABEL DATA TEMPLATE 2008_07_06.GDT 3/17/10



Project: 49 L Street SE
Washington, D.C.

Geo Probe Number: **GP-04**
Contract Number: 10212006
Sheet: 1 of 1

Contractor: Earth Matters
Contractor Foreman: Paul
Schnabel Representative: M. Ker and M. Rodriguez
Equipment: Geoprobe 540B
Method: Direct Push
Hammer Type:
Dates Started: 3/1/10 Finished: 3/1/10
Location: See Location Plan
Ground Surface Elevation: Total Depth: 30.0 ft

Groundwater Observations						
	Date	Time	Depth	Casing	Caved	
Encountered	3/1	12:42 PM	17.0'	---	---	▽

DEPTH (ft)	MATERIAL DESCRIPTION	SYMBOL	ELEV (ft)	STRATUM	SAMPLING		TESTS	REMARKS
					DEPTH	DATA		
2.0	FILL, sampled as silty sand, fine to medium grained sand; moist, orangish brown	FILL				GEOPROBE REC=24"	PID = 0 ppm	
5.0	CLAYEY SAND, fine grained sand; moist, orangish brown	SC				GEOPROBE REC=48"	PID = 0 ppm	
11.0	SANDY LEAN CLAY; moist, orangish brown	CL			5	GEOPROBE REC=36"	PID = 0 ppm	
13.0	Change: orangish brown with streaks of black	CL			10	GEOPROBE REC=36"	PID = 0 ppm	
13.0	CLAYEY SAND, fine grained sand; moist, orangish brown	SC				GEOPROBE REC=36"	PID = 0 ppm	
13.0	SANDY LEAN CLAY; moist, orangish brown	CL			15	GEOPROBE REC=36"	PID = 0 ppm	
21.5	FAT CLAY; wet, orangish brown	CH			20	GEOPROBE REC=36"	PID = 0 ppm	Samples taken
27.0	LEAN CLAY; moist, grayish brown, contains mica	CL			25	GEOPROBE REC=36"	PID = 0 ppm	Water table
27.0		CL				GEOPROBE REC=21"	PID = 0 ppm	
30.0		CL				GEOPROBE REC=24"	PID = 0 ppm	

Bottom of Geo Probe at 30.0 ft.

TEST BORING LOG P9120335.GPJ SCHNABEL DATA TEMPLATE 2008_07_06.GDT 3/17/10



Project: 49 L Street SE
Washington, D.C.

Geo Probe Number: GP-05
Contract Number: 10212006
Sheet: 1 of 1

Contractor: Earth Matters
Contractor Foreman: Paul
Schnabel Representative: M. Ker and M. Rodriguez
Equipment: Geoprobe 540B
Method: Direct Push
Hammer Type:
Dates Started: 3/1/10 **Finished:** 3/1/10
Location: See Location Plan
Ground Surface Elevation: **Total Depth:** 24.0 ft

Groundwater Observations						
	Date	Time	Depth	Casing	Caved	
Encountered	3/1	1:50 PM	18.5'	---	---	

DEPTH (ft)	MATERIAL DESCRIPTION	SYMBOL	ELEV (ft)	STRATUM	SAMPLING		TESTS	REMARKS
					DEPTH	DATA		
0.0 - 3.0	FILL, sampled as silty sand, fine to medium grained sand; moist, orangish brown to dark brown, contains gravel	FILL				GEOPROBE REC=33"	PID = 0 ppm	
3.0 - 4.0	SANDY LEAN CLAY; moist, gray and brown, contains gravel	CL						
4.0 - 6.0	CLAYEY SAND, fine to medium grained sand; moist, gray to orangish brown	SC			5	GEOPROBE REC=39"	PID = 0 ppm	
6.0 - 12.0	SANDY LEAN CLAY; moist, orangish brown Change: tan with mottles of orange	CL			10	GEOPROBE REC=35"	PID = 0 ppm	
12.0 - 15.0	CLAYEY SAND, fine grained sand; moist, tan with mottles of orange Change: orangish brown	SC			15	GEOPROBE REC=36"	PID = 0 ppm	
15.0 - 20.0						GEOPROBE REC=36"	PID = 0 ppm	
20.0 - 21.0	LEAN CLAY; moist, red with mottles of orange	CL			20			
21.0 - 24.0	SANDY LEAN CLAY; moist, gray, contains mica, organics	CL				GEOPROBE REC=36"	PID = 0 ppm	

TEST BORING LOG P9120335.GPJ - SCHNABEL DATA TEMPLATE 2008_07_06.GDT 3/17/10

Bottom of Geo Probe at 24.0 ft.

APPENDIX B

Laboratory Analytical Results (27 sheets)



HP ENVIRONMENTAL
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Certificate of Laboratory Analysis

Schnabel Engineering North, LLC
Attn: Matthew Ker
656 Quince Orchard Road
Suite 700
Gaithersburg, MD 20878

Date Received: 03/02/10
Date Reported: 03/04/10
Project Location: **49 L. Street**

Report Number: **103202**

1. Client Sample No: **GP-1** HPE Sample No.: 103202-01
Sample Matrix: Soil Date Collected: 03/01/10
Sample Location:

Test Requested: **BTEX/M/N**
Preparation Method: EPA 5030 Date Prepared: 03/02/10
Analysis Method: EPA 8260 Date Analyzed: 03/02/10

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Reporting Limit</u>	<u>Qualifier</u>
Benzene	10	ug/Kg	5.0	
Toluene	8.1	ug/Kg	5.0	
Ethylbenzene	380	ug/Kg	5.0	
m,p-Xylene	200	ug/Kg	5.0	
o-Xylene	150	ug/Kg	5.0	
Methyl-tert-butyl ether (MTBE)	< 5.0	ug/Kg	5.0	U
Naphthalene	180	ug/Kg	5.0	

Test Requested: **TPH - Gasoline Range Organics**
Preparation Method: EPA 5030 Date Prepared: 03/02/10
Analysis Method: EPA 8015 Date Analyzed: 03/02/10

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Reporting Limit</u>	<u>Qualifier</u>
TPH - GRO	85	mg/Kg	2.5	D

Test Requested: **TPH - Diesel Range Organics**
Preparation Method: EPA 3550 Date Prepared: 03/02/10
Analysis Method: EPA 8015 Date Analyzed: 03/02/10

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Reporting Limit</u>	<u>Qualifier</u>
TPH - DRO	< 10	mg/Kg	10	U

Analyte Qualifier Codes

- U = Analyte was not detected
- J = Analyte detected below reporting limit (estimated value)
- D = Analyte reported from a sample dilution
- B = Analyte was detected in the corresponding method blank



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Certificate of Laboratory Analysis

Schnabel Engineering North, LLC
Attn: Matthew Ker
656 Quince Orchard Road
Suite 700
Gaithersburg, MD 20878

Date Received: 03/02/10
Date Reported: 03/04/10
Project Location: **49 L. Street**

Report Number: **103202**

Sample Results Continued -----

Client Sample No.: **GP-1**

Test Requested: **RCRA Total Metals**
Preparation Method: EPA 3050
Analysis Method: EPA 6010

Date Prepared: 03/03/10
Date Analyzed: 03/04/10

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Reporting Limit</u>	<u>Qualifier</u>
Arsenic	< 10	mg/Kg	10	U
Barium	18	mg/Kg	10	
Cadmium	< 10	mg/Kg	10	U
Chromium	10	mg/Kg	10	
Lead	< 10	mg/Kg	10	U
Selenium	< 10	mg/Kg	10	U
Silver	< 10	mg/Kg	10	U

Test Requested: **Mercury**
Preparation Method: EPA 7471
Analysis Method: EPA 7471

Date Prepared: 03/04/10
Date Analyzed: 03/04/10

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Reporting Limit</u>	<u>Qualifier</u>
Mercury	< 0.04	mg/Kg	0.04	U

Analyte Qualifier Codes

- U = Analyte was not detected
- J = Analyte detected below reporting limit (estimated value)
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- B = Analyte was detected in the corresponding method blank



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Attn: Matthew Ker
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Gaithersburg, MD 20878

Date Received: 03/02/10
Date Reported: 03/04/10
Project Location: **49 L. Street**

Report Number: **103202**

2. Client Sample No: **GP-2** HPE Sample No.: 103202-02
Sample Matrix: Soil Date Collected: 03/01/10
Sample Location:

Test Requested: **BTEX/M/N**
Preparation Method: EPA 5030 Date Prepared: 03/02/10
Analysis Method: EPA 8260 Date Analyzed: 03/02/10

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Reporting Limit</u>	<u>Qualifier</u>
Benzene	< 5.0	ug/Kg	5.0	U
Toluene	< 5.0	ug/Kg	5.0	U
Ethylbenzene	< 5.0	ug/Kg	5.0	U
m,p-Xylene	< 5.0	ug/Kg	5.0	U
o-Xylene	< 5.0	ug/Kg	5.0	U
Methyl-tert-butyl ether (MTBE)	< 5.0	ug/Kg	5.0	U
Naphthalene	< 5.0	ug/Kg	5.0	U

Test Requested: **TPH - Gasoline Range Organics**
Preparation Method: EPA 5030 Date Prepared: 03/02/10
Analysis Method: EPA 8015 Date Analyzed: 03/02/10

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Reporting Limit</u>	<u>Qualifier</u>
TPH - GRO	< 0.5	mg/Kg	0.5	U

Test Requested: **TPH - Diesel Range Organics**
Preparation Method: EPA 3550 Date Prepared: 03/02/10
Analysis Method: EPA 8015 Date Analyzed: 03/02/10

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Reporting Limit</u>	<u>Qualifier</u>
TPH - DRO	< 10	mg/Kg	10	U

Analyte Qualifier Codes

- U = Analyte was not detected
- J = Analyte detected below reporting limit (estimated value)
- D = Analyte reported from a sample dilution
- B = Analyte was detected in the corresponding method blank



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Attn: Matthew Ker
656 Quince Orchard Road
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Gaithersburg, MD 20878

Date Received: 03/02/10
Date Reported: 03/04/10
Project Location: **49 L. Street**

Report Number: **103202**

Sample Results Continued -----

Client Sample No.: **GP-2**

Test Requested: **RCRA Total Metals**
Preparation Method: EPA 3050
Analysis Method: EPA 6010

Date Prepared: 03/03/10
Date Analyzed: 03/04/10

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Reporting Limit</u>	<u>Qualifier</u>
Arsenic	< 10	mg/Kg	10	U
Barium	10	mg/Kg	10	
Cadmium	< 10	mg/Kg	10	U
Chromium	< 10	mg/Kg	10	U
Lead	< 10	mg/Kg	10	U
Selenium	< 10	mg/Kg	10	U
Silver	< 10	mg/Kg	10	U

Test Requested: **Mercury**
Preparation Method: EPA 7471
Analysis Method: EPA 7471

Date Prepared: 03/04/10
Date Analyzed: 03/04/10

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Reporting Limit</u>	<u>Qualifier</u>
Mercury	< 0.04	mg/Kg	0.04	U

Analyte Qualifier Codes

- U = Analyte was not detected
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- B = Analyte was detected in the corresponding method blank



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Schnabel Engineering North, LLC
Attn: Matthew Ker
656 Quince Orchard Road
Suite 700
Gaithersburg, MD 20878

Date Received: 03/02/10
Date Reported: 03/04/10
Project Location: **49 L. Street**

Report Number: **103202**

3. Client Sample No: **GP-3** HPE Sample No.: 103202-03
Sample Matrix: Soil Date Collected: 03/01/10
Sample Location:

Test Requested: **BTEX/M/N**
Preparation Method: EPA 5030 Date Prepared: 03/02/10
Analysis Method: EPA 8260 Date Analyzed: 03/02/10

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Reporting Limit</u>	<u>Qualifier</u>
Benzene	< 5.0	ug/Kg	5.0	U
Toluene	< 5.0	ug/Kg	5.0	U
Ethylbenzene	< 5.0	ug/Kg	5.0	U
m,p-Xylene	< 5.0	ug/Kg	5.0	U
o-Xylene	< 5.0	ug/Kg	5.0	U
Methyl-tert-butyl ether (MTBE)	< 5.0	ug/Kg	5.0	U
Naphthalene	< 5.0	ug/Kg	5.0	U

Test Requested: **TPH - Gasoline Range Organics**
Preparation Method: EPA 5030 Date Prepared: 03/02/10
Analysis Method: EPA 8015 Date Analyzed: 03/02/10

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Reporting Limit</u>	<u>Qualifier</u>
TPH - GRO	< 0.5	mg/Kg	0.5	U

Test Requested: **TPH - Diesel Range Organics**
Preparation Method: EPA 3550 Date Prepared: 03/02/10
Analysis Method: EPA 8015 Date Analyzed: 03/02/10

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Reporting Limit</u>	<u>Qualifier</u>
TPH - DRO	< 10	mg/Kg	10	U

Analyte Qualifier Codes

- U = Analyte was not detected
- J = Analyte detected below reporting limit (estimated value)
- D = Analyte reported from a sample dilution
- B = Analyte was detected in the corresponding method blank



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Attn: Matthew Ker
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Suite 700
Gaithersburg, MD 20878

Date Received: 03/02/10
Date Reported: 03/04/10
Project Location: **49 L. Street**

Report Number: **103202**

Sample Results Continued -----

Client Sample No.: **GP-3**

Test Requested: **RCRA Total Metals**
Preparation Method: EPA 3050
Analysis Method: EPA 6010

Date Prepared: 03/03/10
Date Analyzed: 03/04/10

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Reporting Limit</u>	<u>Qualifier</u>
Arsenic	< 10	mg/Kg	10	U
Barium	15	mg/Kg	10	
Cadmium	< 10	mg/Kg	10	U
Chromium	< 10	mg/Kg	10	U
Lead	< 10	mg/Kg	10	U
Selenium	< 10	mg/Kg	10	U
Silver	< 10	mg/Kg	10	U

Test Requested: **Mercury**
Preparation Method: EPA 7471
Analysis Method: EPA 7471

Date Prepared: 03/04/10
Date Analyzed: 03/04/10

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Reporting Limit</u>	<u>Qualifier</u>
Mercury	< 0.04	mg/Kg	0.04	U

Analyte Qualifier Codes

- U = Analyte was not detected
- J = Analyte detected below reporting limit (estimated value)
- D = Analyte reported from a sample dilution
- B = Analyte was detected in the corresponding method blank



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Attn: Matthew Ker
656 Quince Orchard Road
Suite 700
Gaithersburg, MD 20878

Date Received: 03/02/10
Date Reported: 03/04/10
Project Location: **49 L. Street**

Report Number: **103202**

4. Client Sample No: **GP-4** HPE Sample No.: 103202-04
Sample Matrix: Soil Date Collected: 03/01/10
Sample Location:

Test Requested: **BTEX/M/N**
Preparation Method: EPA 5030 Date Prepared: 03/02/10
Analysis Method: EPA 8260 Date Analyzed: 03/02/10

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Reporting Limit</u>	<u>Qualifier</u>
Benzene	< 5.0	ug/Kg	5.0	U
Toluene	< 5.0	ug/Kg	5.0	U
Ethylbenzene	< 5.0	ug/Kg	5.0	U
m,p-Xylene	< 5.0	ug/Kg	5.0	U
o-Xylene	< 5.0	ug/Kg	5.0	U
Methyl-tert-butyl ether (MTBE)	< 5.0	ug/Kg	5.0	U
Naphthalene	< 5.0	ug/Kg	5.0	U

Test Requested: **TPH - Gasoline Range Organics**
Preparation Method: EPA 5030 Date Prepared: 03/02/10
Analysis Method: EPA 8015 Date Analyzed: 03/02/10

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Reporting Limit</u>	<u>Qualifier</u>
TPH - GRO	< 0.5	mg/Kg	0.5	U

Test Requested: **TPH - Diesel Range Organics**
Preparation Method: EPA 3550 Date Prepared: 03/02/10
Analysis Method: EPA 8015 Date Analyzed: 03/02/10

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Reporting Limit</u>	<u>Qualifier</u>
TPH - DRO	< 10	mg/Kg	10	U

Analyte Qualifier Codes

- U = Analyte was not detected
- J = Analyte detected below reporting limit (estimated value)
- D = Analyte reported from a sample dilution
- B = Analyte was detected in the corresponding method blank



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INCORPORATED

Certificate of Laboratory Analysis

Schnabel Engineering North, LLC
Attn: Matthew Ker
656 Quince Orchard Road
Suite 700
Gaithersburg, MD 20878

Date Received: 03/02/10
Date Reported: 03/04/10
Project Location: **49 L. Street**

Report Number: **103202**

Sample Results Continued -----

Client Sample No.: **GP-4**

Test Requested: **RCRA Total Metals**
Preparation Method: EPA 3050
Analysis Method: EPA 6010

Date Prepared: 03/03/10
Date Analyzed: 03/04/10

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Reporting Limit</u>	<u>Qualifier</u>
Arsenic	< 10	mg/Kg	10	U
Barium	52	mg/Kg	10	
Cadmium	< 10	mg/Kg	10	U
Chromium	< 10	mg/Kg	10	U
Lead	< 10	mg/Kg	10	U
Selenium	< 10	mg/Kg	10	U
Silver	< 10	mg/Kg	10	U

Test Requested: **Mercury**
Preparation Method: EPA 7471
Analysis Method: EPA 7471

Date Prepared: 03/04/10
Date Analyzed: 03/04/10

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Reporting Limit</u>	<u>Qualifier</u>
Mercury	< 0.04	mg/Kg	0.04	U

Analyte Qualifier Codes

- U = Analyte was not detected
- J = Analyte detected below reporting limit (estimated value)
- D = Analyte reported from a sample dilution
- B = Analyte was detected in the corresponding method blank



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Certificate of Laboratory Analysis

Schnabel Engineering North, LLC
Attn: **Matthew Ker**
656 Quince Orchard Road
Suite 700
Gaithersburg, MD 20878

Date Received: 03/02/10
Date Reported: 03/04/10
Project Location: **49 L. Street**

Report Number: **103202**

5. Client Sample No: **GP-1** HPE Sample No.: 103202-05
Sample Matrix: Water Date Collected: 03/01/10
Sample Location:

Test Requested: **Volatile Organic Compounds**
Preparation Method: EPA 5030 Date Prepared: 03/03/10
Analysis Method: EPA 8260 Date Analyzed: 03/03/10

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Reporting Limit</u>	<u>Qualifier</u>
Dichlorodifluoromethane	< 5.0	ug/L	5.0	U
Chloromethane	< 5.0	ug/L	5.0	U
Vinyl chloride	< 5.0	ug/L	5.0	U
Bromomethane	< 5.0	ug/L	5.0	U
Chloroethane	< 5.0	ug/L	5.0	U
Trichlorofluoromethane	< 5.0	ug/L	5.0	U
1,1-Dichloroethene	< 5.0	ug/L	5.0	U
Acetone	< 5.0	ug/L	5.0	U
Methylene chloride	< 5.0	ug/L	5.0	U
Methyl-tert-butyl ether (MTBE)	11	ug/L	5.0	
tert-Butanol (TBA)	340	ug/L	5.0	
Diisopropyl ether (DIPE)	27	ug/L	5.0	
Ethyl-tert-butyl ether (ETBE)	< 5.0	ug/L	5.0	U
tert-Amyl methyl ether (TAME)	< 5.0	ug/L	5.0	U
tert-Amyl alcohol (TAA)	120	ug/L	10	
tert-Amyl ethyl ether (TAEE)	< 5.0	ug/L	5.0	U
trans-1,2-Dichloroethene	< 5.0	ug/L	5.0	U
1,1-Dichloroethane	< 5.0	ug/L	5.0	U
2-Butanone	< 5.0	ug/L	5.0	U
2,2-Dichloropropane	< 5.0	ug/L	5.0	U
cis-1,2-Dichloroethene	< 5.0	ug/L	5.0	U
Bromochloromethane	< 5.0	ug/L	5.0	U
Chloroform	< 5.0	ug/L	5.0	U
1,1,1-Trichloroethane	< 5.0	ug/L	5.0	U
Carbon tetrachloride	< 5.0	ug/L	5.0	U
1,1-Dichloropropene	< 5.0	ug/L	5.0	U
Benzene	1.9	ug/L	5.0	J
1,2-Dichloroethane	< 5.0	ug/L	5.0	U
Trichloroethene	< 5.0	ug/L	5.0	U
1,2-Dichloropropane	< 5.0	ug/L	5.0	U
Dibromomethane	< 5.0	ug/L	5.0	U
Bromodichloromethane	< 5.0	ug/L	5.0	U
cis-1,3-Dichloropropene	< 5.0	ug/L	5.0	U
4-Methyl-2-pentanone	< 5.0	ug/L	5.0	U
Toluene	1.5	ug/L	5.0	J
trans-1,3-Dichloropropene	< 5.0	ug/L	5.0	U
1,1,2-Trichloroethane	< 5.0	ug/L	5.0	U
2-Hexanone	< 5.0	ug/L	5.0	U
Tetrachloroethene	< 5.0	ug/L	5.0	U
1,3-Dichloropropane	< 5.0	ug/L	5.0	U
Dibromochloromethane	< 5.0	ug/L	5.0	U
1,2-Dibromoethane	< 5.0	ug/L	5.0	U
Chlorobenzene	< 5.0	ug/L	5.0	U



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Project Location: **49 L. Street**

Report Number: **103202**

Sample Results Continued -----

Client Sample No.: **GP-1**

EPA 8260

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Reporting Limit</u>	<u>Qualifier</u>
1,1,1,2-Tetrachloroethane	< 5.0	ug/L	5.0	U
Ethylbenzene	17	ug/L	5.0	
m,p-Xylene	6.6	ug/L	5.0	
o-Xylene	7.8	ug/L	5.0	
Styrene	< 5.0	ug/L	5.0	U
Bromoform	< 5.0	ug/L	5.0	U
Isopropylbenzene	3.2	ug/L	5.0	J
Bromobenzene	< 5.0	ug/L	5.0	U
1,1,2,2-Tetrachloroethane	< 5.0	ug/L	5.0	U
1,2,3-Trichloropropane	< 5.0	ug/L	5.0	U
n-Propylbenzene	4.6	ug/L	5.0	J
2-Chlorotoluene	< 5.0	ug/L	5.0	U
4-Chlorotoluene	< 5.0	ug/L	5.0	U
1,3,5-Trimethylbenzene	4.2	ug/L	5.0	J
tert-Butylbenzene	< 5.0	ug/L	5.0	U
1,2,4-Trimethylbenzene	12	ug/L	5.0	
sec-Butylbenzene	< 5.0	ug/L	5.0	U
1,3-Dichlorobenzene	< 5.0	ug/L	5.0	U
4-Isopropyltoluene	< 5.0	ug/L	5.0	U
1,4-Dichlorobenzene	< 5.0	ug/L	5.0	U
1,2-Dichlorobenzene	< 5.0	ug/L	5.0	U
n-Butylbenzene	< 5.0	ug/L	5.0	U
1,2-Dibromo-3-chloropropane	< 5.0	ug/L	5.0	U
1,2,4-Trichlorobenzene	< 5.0	ug/L	5.0	U
Hexachlorobutadiene	< 5.0	ug/L	5.0	U
Naphthalene	2.6	ug/L	5.0	J
1,2,3-Trichlorobenzene	< 5.0	ug/L	5.0	U

Test Requested: **TPH - Gasoline Range Organics**

Preparation Method: EPA 5030

Analysis Method: EPA 8015

Date Prepared: 03/03/10

Date Analyzed: 03/03/10

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Reporting Limit</u>	<u>Qualifier</u>
TPH - GRO	0.56	mg/L	0.5	

Test Requested: **TPH - Diesel Range Organics**

Preparation Method: EPA 3510

Analysis Method: EPA 8015

Date Prepared: 03/02/10

Date Analyzed: 03/02/10

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Reporting Limit</u>	<u>Qualifier</u>
TPH - DRO	< 0.5	mg/L	0.5	U

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Date Received: 03/02/10
 Date Reported: 03/04/10
 Project Location: **49 L. Street**

Report Number: **103202**

Sample Results Continued -----

Client Sample No.: **GP-1**

Test Requested: **Semivolatile Organic Compounds**

Preparation Method: EPA 3510

Date Prepared: 03/02/10

Analysis Method: EPA 8270

Date Analyzed: 03/02/10

Analyte	Result	Units	Reporting Limit	Qualifier
bis(2-Chloroethyl)ether	< 10	ug/L	10	U
Phenol	< 10	ug/L	10	U
N-nitrosodimethylamine	< 10	ug/L	10	U
2-Chlorophenol	< 10	ug/L	10	U
1,3-Dichlorobenzene	< 10	ug/L	10	U
1,4-Dichlorobenzene	< 10	ug/L	10	U
1,2-Dichlorobenzene	< 10	ug/L	10	U
bis(2-chloroisopropyl)ether	< 10	ug/L	10	U
Hexachloroethane	< 10	ug/L	10	U
N-Nitroso-di-n-propylamine	< 10	ug/L	10	U
4-Methylphenol	< 10	ug/L	10	U
Nitrobenzene	< 10	ug/L	10	U
Isophorone	< 10	ug/L	10	U
2-Nitrophenol	< 10	ug/L	10	U
2,4-Dimethylphenol	< 10	ug/L	10	U
bis(2-Chloroethoxy)methane	< 10	ug/L	10	U
2,4-Dichlorophenol	< 10	ug/L	10	U
1,2,4-Trichlorobenzene	< 10	ug/L	10	U
Naphthalene	1.4	ug/L	10	J
Hexachlorobutadiene	< 10	ug/L	10	U
4-Chloro-3-methylphenol	< 10	ug/L	10	U
Hexachlorocyclopentadiene	< 10	ug/L	10	U
2,4,6-Trichlorophenol	< 10	ug/L	10	U
2-Chloronaphthalene	< 10	ug/L	10	U
Acenaphthylene	< 10	ug/L	10	U
Dimethylphthalate	< 10	ug/L	10	U
2,6-Dinitrotoluene	< 10	ug/L	10	U
Acenaphthene	< 10	ug/L	10	U
2,4-Dinitrophenol	< 10	ug/L	10	U
2,4-Dinitrotoluene	< 10	ug/L	10	U
4-Nitrophenol	< 10	ug/L	10	U
Fluorene	< 10	ug/L	10	U
4-Chlorophenyl-phenylether	< 10	ug/L	10	U
Diethylphthalate	< 10	ug/L	10	U
4,6-Dinitro-2-methylphenol	< 10	ug/L	10	U
N-Nitrosodiphenylamine	< 10	ug/L	10	U
1,2-Diphenylhydrazine	< 10	ug/L	10	U
4-Bromophenyl-phenylether	< 10	ug/L	10	U
Hexachlorobenzene	< 10	ug/L	10	U
Pentachlorophenol	< 10	ug/L	10	U
Phenanthrene	< 10	ug/L	10	U
Anthracene	< 10	ug/L	10	U
Carbazole	< 10	ug/L	10	U

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Date Received: 03/02/10
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 Project Location: **49 L. Street**

Report Number: **103202**

Sample Results Continued -----	Client Sample No.:	GP-1	EPA 8270
Di-n-butylphthalate	< 10	ug/L	10 U
2,3,4,6-Tetrachlorophenol	< 10	ug/L	10 U
Fluoranthene	< 10	ug/L	10 U
Benzidine	< 10	ug/L	10 U
Pyrene	< 10	ug/L	10 U
Butylbenzylphthalate	< 10	ug/L	10 U
3,3'-Dichlorobenzidine	< 10	ug/L	10 U
Benzo[a]anthracene	< 10	ug/L	10 U
Chrysene	< 10	ug/L	10 U
bis(2-Ethylhexyl)phthalate	< 10	ug/L	10 U
Di-n-octylphthalate	< 10	ug/L	10 U
Benzo[b]fluoranthene	< 10	ug/L	10 U
Benzo[k]fluoranthene	< 10	ug/L	10 U
Benzo[a]pyrene	< 10	ug/L	10 U
Indeno[1,2,3-cd]pyrene	< 10	ug/L	10 U
Dibenz[a,h]anthracene	< 10	ug/L	10 U
Benzo[g,h,i]perylene	< 10	ug/L	10 U

Test Requested: **Dissolved RCRA Metals**
 Preparation Method: EPA 3010
 Analysis Method: EPA 6010

Date Prepared: 03/03/10
 Date Analyzed: 03/04/10

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Reporting Limit</u>	<u>Qualifier</u>
Arsenic	< 50	ug/L	50	U
Barium	140	ug/L	50	
Cadmium	< 50	ug/L	50	U
Chromium	< 50	ug/L	50	U
Lead	< 50	ug/L	50	U
Selenium	< 50	ug/L	50	U
Silver	< 50	ug/L	50	U

Test Requested: **Dissolved Mercury**
 Preparation Method: EPA 7470
 Analysis Method: EPA 7470

Date Prepared: 03/04/10
 Date Analyzed: 03/04/10

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Reporting Limit</u>	<u>Qualifier</u>
Mercury	< 1.0	ug/L	1.0	U

Analyte Qualifier Codes

- U = Analyte was not detected
- J = Analyte detected below reporting limit (estimated value)
- D = Analyte reported from a sample dilution
- B = Analyte was detected in the corresponding method blank



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Date Received: 03/02/10
Date Reported: 03/04/10
Project Location: **49 L. Street**

Report Number: **103202**

6. Client Sample No: **GP-3** HPE Sample No.: 103202-06
Sample Matrix: Water Date Collected: 03/01/10
Sample Location:

Test Requested: **Volatile Organic Compounds**
Preparation Method: EPA 5030 Date Prepared: 03/03/10
Analysis Method: EPA 8260 Date Analyzed: 03/03/10

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Reporting Limit</u>	<u>Qualifier</u>
Dichlorodifluoromethane	< 5.0	ug/L	5.0	U
Chloromethane	< 5.0	ug/L	5.0	U
Vinyl chloride	< 5.0	ug/L	5.0	U
Bromomethane	< 5.0	ug/L	5.0	U
Chloroethane	< 5.0	ug/L	5.0	U
Trichlorofluoromethane	< 5.0	ug/L	5.0	U
1,1-Dichloroethene	< 5.0	ug/L	5.0	U
Acetone	< 5.0	ug/L	5.0	U
Methylene chloride	< 5.0	ug/L	5.0	U
Methyl-tert-butyl ether (MTBE)	< 5.0	ug/L	5.0	U
tert-Butanol (TBA)	840	ug/L	5.0	D
Diisopropyl ether (DIPE)	< 5.0	ug/L	5.0	U
Ethyl-tert-butyl ether (ETBE)	< 5.0	ug/L	5.0	U
tert-Amyl methyl ether (TAME)	< 5.0	ug/L	5.0	U
tert-Amyl alcohol (TAA)	< 10	ug/L	10	U
tert-Amyl ethyl ether (TAEE)	< 5.0	ug/L	5.0	U
trans-1,2-Dichloroethene	< 5.0	ug/L	5.0	U
1,1-Dichloroethane	< 5.0	ug/L	5.0	U
2-Butanone	< 5.0	ug/L	5.0	U
2,2-Dichloropropane	< 5.0	ug/L	5.0	U
cis-1,2-Dichloroethene	< 5.0	ug/L	5.0	U
Bromochloromethane	< 5.0	ug/L	5.0	U
Chloroform	< 5.0	ug/L	5.0	U
1,1,1-Trichloroethane	< 5.0	ug/L	5.0	U
Carbon tetrachloride	< 5.0	ug/L	5.0	U
1,1-Dichloropropene	< 5.0	ug/L	5.0	U
Benzene	9.4	ug/L	5.0	
1,2-Dichloroethane	< 5.0	ug/L	5.0	U
Trichloroethene	< 5.0	ug/L	5.0	U
1,2-Dichloropropane	< 5.0	ug/L	5.0	U
Dibromomethane	< 5.0	ug/L	5.0	U
Bromodichloromethane	< 5.0	ug/L	5.0	U
cis-1,3-Dichloropropene	< 5.0	ug/L	5.0	U
4-Methyl-2-pentanone	< 5.0	ug/L	5.0	U
Toluene	< 5.0	ug/L	5.0	U
trans-1,3-Dichloropropene	< 5.0	ug/L	5.0	U
1,1,2-Trichloroethane	< 5.0	ug/L	5.0	U
2-Hexanone	< 5.0	ug/L	5.0	U
Tetrachloroethene	< 5.0	ug/L	5.0	U
1,3-Dichloropropane	< 5.0	ug/L	5.0	U
Dibromochloromethane	< 5.0	ug/L	5.0	U
1,2-Dibromoethane	< 5.0	ug/L	5.0	U
Chlorobenzene	< 5.0	ug/L	5.0	U



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Date Received: 03/02/10
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Project Location: **49 L. Street**

Report Number: **103202**

Sample Results Continued -----

Client Sample No.: **GP-3**

EPA 8260

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Reporting Limit</u>	<u>Qualifier</u>
1,1,1,2-Tetrachloroethane	< 5.0	ug/L	5.0	U
Ethylbenzene	< 5.0	ug/L	5.0	U
m,p-Xylene	< 5.0	ug/L	5.0	U
o-Xylene	< 5.0	ug/L	5.0	U
Styrene	< 5.0	ug/L	5.0	U
Bromoform	< 5.0	ug/L	5.0	U
Isopropylbenzene	< 5.0	ug/L	5.0	U
Bromobenzene	< 5.0	ug/L	5.0	U
1,1,2,2-Tetrachloroethane	< 5.0	ug/L	5.0	U
1,2,3-Trichloropropane	< 5.0	ug/L	5.0	U
n-Propylbenzene	< 5.0	ug/L	5.0	U
2-Chlorotoluene	< 5.0	ug/L	5.0	U
4-Chlorotoluene	< 5.0	ug/L	5.0	U
1,3,5-Trimethylbenzene	< 5.0	ug/L	5.0	U
tert-Butylbenzene	< 5.0	ug/L	5.0	U
1,2,4-Trimethylbenzene	< 5.0	ug/L	5.0	U
sec-Butylbenzene	< 5.0	ug/L	5.0	U
1,3-Dichlorobenzene	< 5.0	ug/L	5.0	U
4-Isopropyltoluene	< 5.0	ug/L	5.0	U
1,4-Dichlorobenzene	< 5.0	ug/L	5.0	U
1,2-Dichlorobenzene	< 5.0	ug/L	5.0	U
n-Butylbenzene	< 5.0	ug/L	5.0	U
1,2-Dibromo-3-chloropropane	< 5.0	ug/L	5.0	U
1,2,4-Trichlorobenzene	< 5.0	ug/L	5.0	U
Hexachlorobutadiene	< 5.0	ug/L	5.0	U
Naphthalene	< 5.0	ug/L	5.0	U
1,2,3-Trichlorobenzene	< 5.0	ug/L	5.0	U

Test Requested: **TPH - Gasoline Range Organics**

Preparation Method: EPA 5030

Analysis Method: EPA 8015

Date Prepared: 03/03/10

Date Analyzed: 03/03/10

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Reporting Limit</u>	<u>Qualifier</u>
TPH - GRO	< 0.5	mg/L	0.5	U

Test Requested: **TPH - Diesel Range Organics**

Preparation Method: EPA 3510

Analysis Method: EPA 8015

Date Prepared: 03/02/10

Date Analyzed: 03/02/10

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Reporting Limit</u>	<u>Qualifier</u>
TPH - DRO	< 0.5	mg/L	0.5	U

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Date Received: 03/02/10
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 Project Location: **49 L. Street**

Report Number: **103202**

Sample Results Continued -----

Client Sample No.: **GP-3**

Test Requested: **Semivolatile Organic Compounds**

Preparation Method: EPA 3510

Date Prepared: 03/02/10

Analysis Method: EPA 8270

Date Analyzed: 03/02/10

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Reporting Limit</u>	<u>Qualifier</u>
bis(2-Chloroethyl)ether	< 10	ug/L	10	U
Phenol	< 10	ug/L	10	U
N-nitrosodimethylamine	< 10	ug/L	10	U
2-Chlorophenol	< 10	ug/L	10	U
1,3-Dichlorobenzene	< 10	ug/L	10	U
1,4-Dichlorobenzene	< 10	ug/L	10	U
1,2-Dichlorobenzene	< 10	ug/L	10	U
bis(2-chloroisopropyl)ether	< 10	ug/L	10	U
Hexachloroethane	< 10	ug/L	10	U
N-Nitroso-di-n-propylamine	< 10	ug/L	10	U
4-Methylphenol	< 10	ug/L	10	U
Nitrobenzene	< 10	ug/L	10	U
Isophorone	< 10	ug/L	10	U
2-Nitrophenol	< 10	ug/L	10	U
2,4-Dimethylphenol	< 10	ug/L	10	U
bis(2-Chloroethoxy)methane	< 10	ug/L	10	U
2,4-Dichlorophenol	< 10	ug/L	10	U
1,2,4-Trichlorobenzene	< 10	ug/L	10	U
Naphthalene	< 10	ug/L	10	U
Hexachlorobutadiene	< 10	ug/L	10	U
4-Chloro-3-methylphenol	< 10	ug/L	10	U
Hexachlorocyclopentadiene	< 10	ug/L	10	U
2,4,6-Trichlorophenol	< 10	ug/L	10	U
2-Chloronaphthalene	< 10	ug/L	10	U
Acenaphthylene	< 10	ug/L	10	U
Dimethylphthalate	< 10	ug/L	10	U
2,6-Dinitrotoluene	< 10	ug/L	10	U
Acenaphthene	< 10	ug/L	10	U
2,4-Dinitrophenol	< 10	ug/L	10	U
2,4-Dinitrotoluene	< 10	ug/L	10	U
4-Nitrophenol	< 10	ug/L	10	U
Fluorene	< 10	ug/L	10	U
4-Chlorophenyl-phenylether	< 10	ug/L	10	U
Diethylphthalate	< 10	ug/L	10	U
4,6-Dinitro-2-methylphenol	< 10	ug/L	10	U
N-Nitrosodiphenylamine	< 10	ug/L	10	U
1,2-Diphenylhydrazine	< 10	ug/L	10	U
4-Bromophenyl-phenylether	< 10	ug/L	10	U
Hexachlorobenzene	< 10	ug/L	10	U
Pentachlorophenol	< 10	ug/L	10	U
Phenanthrene	< 10	ug/L	10	U
Anthracene	< 10	ug/L	10	U
Carbazole	< 10	ug/L	10	U

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Date Received: 03/02/10
 Date Reported: 03/04/10
 Project Location: **49 L. Street**

Report Number: **103202**

Sample Results Continued -----	Client Sample No.:	GP-3	EPA 8270	
Di-n-butylphthalate	< 10	ug/L	10	U
2,3,4,6-Tetrachlorophenol	< 10	ug/L	10	U
Fluoranthene	< 10	ug/L	10	U
Benzidine	< 10	ug/L	10	U
Pyrene	< 10	ug/L	10	U
Butylbenzylphthalate	< 10	ug/L	10	U
3,3'-Dichlorobenzidine	< 10	ug/L	10	U
Benzo[a]anthracene	< 10	ug/L	10	U
Chrysene	< 10	ug/L	10	U
bis(2-Ethylhexyl)phthalate	< 10	ug/L	10	U
Di-n-octylphthalate	< 10	ug/L	10	U
Benzo[b]fluoranthene	< 10	ug/L	10	U
Benzo[k]fluoranthene	< 10	ug/L	10	U
Benzo[a]pyrene	< 10	ug/L	10	U
Indeno[1,2,3-cd]pyrene	< 10	ug/L	10	U
Dibenz[a,h]anthracene	< 10	ug/L	10	U
Benzo[g,h,i]perylene	< 10	ug/L	10	U

Test Requested: **Dissolved RCRA Metals**
 Preparation Method: EPA 3010
 Analysis Method: EPA 6010

Date Prepared: 03/03/10
 Date Analyzed: 03/04/10

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Reporting Limit</u>	<u>Qualifier</u>
Arsenic	< 50	ug/L	50	U
Barium	160	ug/L	50	
Cadmium	< 50	ug/L	50	U
Chromium	< 50	ug/L	50	U
Lead	< 50	ug/L	50	U
Selenium	< 50	ug/L	50	U
Silver	< 50	ug/L	50	U

Test Requested: **Dissolved Mercury**
 Preparation Method: EPA 7470
 Analysis Method: EPA 7470

Date Prepared: 03/04/10
 Date Analyzed: 03/04/10

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Reporting Limit</u>	<u>Qualifier</u>
Mercury	< 1.0	ug/L	1.0	U

Analyte Qualifier Codes

- U = Analyte was not detected
- J = Analyte detected below reporting limit (estimated value)
- D = Analyte reported from a sample dilution
- B = Analyte was detected in the corresponding method blank



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Certificate of Laboratory Analysis

Schnabel Engineering North, LLC
Attn: **Matthew Ker**
656 Quince Orchard Road
Suite 700
Gaithersburg, MD 20878

Date Received: 03/02/10
Date Reported: 03/04/10
Project Location: **49 L. Street**

Report Number: **103202**

7. Client Sample No: **GP-3a** HPE Sample No.: 103202-07
Sample Matrix: Water Date Collected: 03/01/10
Sample Location:

Test Requested: **Volatile Organic Compounds**
Preparation Method: EPA 5030 Date Prepared: 03/03/10
Analysis Method: EPA 8260 Date Analyzed: 03/03/10

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Reporting Limit</u>	<u>Qualifier</u>
Dichlorodifluoromethane	< 5.0	ug/L	5.0	U
Chloromethane	< 5.0	ug/L	5.0	U
Vinyl chloride	< 5.0	ug/L	5.0	U
Bromomethane	< 5.0	ug/L	5.0	U
Chloroethane	< 5.0	ug/L	5.0	U
Trichlorofluoromethane	< 5.0	ug/L	5.0	U
1,1-Dichloroethene	< 5.0	ug/L	5.0	U
Acetone	< 5.0	ug/L	5.0	U
Methylene chloride	< 5.0	ug/L	5.0	U
Methyl-tert-butyl ether (MTBE)	< 5.0	ug/L	5.0	U
tert-Butanol (TBA)	940	ug/L	5.0	D
Diisopropyl ether (DIPE)	< 5.0	ug/L	5.0	U
Ethyl-tert-butyl ether (ETBE)	< 5.0	ug/L	5.0	U
tert-Amyl methyl ether (TAME)	< 5.0	ug/L	5.0	U
tert-Amyl alcohol (TAA)	< 10	ug/L	10	U
tert-Amyl ethyl ether (TAEE)	< 5.0	ug/L	5.0	U
trans-1,2-Dichloroethene	< 5.0	ug/L	5.0	U
1,1-Dichloroethane	< 5.0	ug/L	5.0	U
2-Butanone	< 5.0	ug/L	5.0	U
2,2-Dichloropropane	< 5.0	ug/L	5.0	U
cis-1,2-Dichloroethene	< 5.0	ug/L	5.0	U
Bromochloromethane	< 5.0	ug/L	5.0	U
Chloroform	< 5.0	ug/L	5.0	U
1,1,1-Trichloroethane	< 5.0	ug/L	5.0	U
Carbon tetrachloride	< 5.0	ug/L	5.0	U
1,1-Dichloropropene	< 5.0	ug/L	5.0	U
Benzene	10	ug/L	5.0	
1,2-Dichloroethane	< 5.0	ug/L	5.0	U
Trichloroethene	< 5.0	ug/L	5.0	U
1,2-Dichloropropane	< 5.0	ug/L	5.0	U
Dibromomethane	< 5.0	ug/L	5.0	U
Bromodichloromethane	< 5.0	ug/L	5.0	U
cis-1,3-Dichloropropene	< 5.0	ug/L	5.0	U
4-Methyl-2-pentanone	< 5.0	ug/L	5.0	U
Toluene	< 5.0	ug/L	5.0	U
trans-1,3-Dichloropropene	< 5.0	ug/L	5.0	U
1,1,2-Trichloroethane	< 5.0	ug/L	5.0	U
2-Hexanone	< 5.0	ug/L	5.0	U
Tetrachloroethene	< 5.0	ug/L	5.0	U
1,3-Dichloropropane	< 5.0	ug/L	5.0	U
Dibromochloromethane	< 5.0	ug/L	5.0	U
1,2-Dibromoethane	< 5.0	ug/L	5.0	U
Chlorobenzene	< 5.0	ug/L	5.0	U



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Date Received: 03/02/10
Date Reported: 03/04/10
Project Location: **49 L. Street**

Report Number: **103202**

Sample Results Continued -----

Client Sample No.: **GP-3a**

EPA 8260

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Reporting Limit</u>	<u>Qualifier</u>
1,1,1,2-Tetrachloroethane	< 5.0	ug/L	5.0	U
Ethylbenzene	< 5.0	ug/L	5.0	U
m,p-Xylene	< 5.0	ug/L	5.0	U
o-Xylene	< 5.0	ug/L	5.0	U
Styrene	< 5.0	ug/L	5.0	U
Bromoform	< 5.0	ug/L	5.0	U
Isopropylbenzene	< 5.0	ug/L	5.0	U
Bromobenzene	< 5.0	ug/L	5.0	U
1,1,2,2-Tetrachloroethane	< 5.0	ug/L	5.0	U
1,2,3-Trichloropropane	< 5.0	ug/L	5.0	U
n-Propylbenzene	< 5.0	ug/L	5.0	U
2-Chlorotoluene	< 5.0	ug/L	5.0	U
4-Chlorotoluene	< 5.0	ug/L	5.0	U
1,3,5-Trimethylbenzene	< 5.0	ug/L	5.0	U
tert-Butylbenzene	< 5.0	ug/L	5.0	U
1,2,4-Trimethylbenzene	< 5.0	ug/L	5.0	U
sec-Butylbenzene	< 5.0	ug/L	5.0	U
1,3-Dichlorobenzene	< 5.0	ug/L	5.0	U
4-Isopropyltoluene	< 5.0	ug/L	5.0	U
1,4-Dichlorobenzene	< 5.0	ug/L	5.0	U
1,2-Dichlorobenzene	< 5.0	ug/L	5.0	U
n-Butylbenzene	< 5.0	ug/L	5.0	U
1,2-Dibromo-3-chloropropane	< 5.0	ug/L	5.0	U
1,2,4-Trichlorobenzene	< 5.0	ug/L	5.0	U
Hexachlorobutadiene	< 5.0	ug/L	5.0	U
Naphthalene	< 5.0	ug/L	5.0	U
1,2,3-Trichlorobenzene	< 5.0	ug/L	5.0	U

Test Requested: **TPH - Gasoline Range Organics**

Preparation Method: EPA 5030

Analysis Method: EPA 8015

Date Prepared: 03/03/10

Date Analyzed: 03/03/10

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Reporting Limit</u>	<u>Qualifier</u>
TPH - GRO	< 0.5	mg/L	0.5	U

Test Requested: **TPH - Diesel Range Organics**

Preparation Method: EPA 3510

Analysis Method: EPA 8015

Date Prepared: 03/02/10

Date Analyzed: 03/02/10

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Reporting Limit</u>	<u>Qualifier</u>
TPH - DRO	< 0.5	mg/L	0.5	U

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 656 Quince Orchard Road
 Suite 700
 Gaithersburg, MD 20878

Date Received: 03/02/10
 Date Reported: 03/04/10
 Project Location: **49 L. Street**

Report Number: **103202**

Sample Results Continued -----

Client Sample No.: **GP-3a**

Test Requested: **Semivolatile Organic Compounds**

Preparation Method: EPA 3510

Date Prepared: 03/02/10

Analysis Method: EPA 8270

Date Analyzed: 03/02/10

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Reporting Limit</u>	<u>Qualifier</u>
bis(2-Chloroethyl)ether	< 10	ug/L	10	U
Phenol	< 10	ug/L	10	U
N-nitrosodimethylamine	< 10	ug/L	10	U
2-Chlorophenol	< 10	ug/L	10	U
1,3-Dichlorobenzene	< 10	ug/L	10	U
1,4-Dichlorobenzene	< 10	ug/L	10	U
1,2-Dichlorobenzene	< 10	ug/L	10	U
bis(2-chloroisopropyl)ether	< 10	ug/L	10	U
Hexachloroethane	< 10	ug/L	10	U
N-Nitroso-di-n-propylamine	< 10	ug/L	10	U
4-Methylphenol	< 10	ug/L	10	U
Nitrobenzene	< 10	ug/L	10	U
Isophorone	< 10	ug/L	10	U
2-Nitrophenol	< 10	ug/L	10	U
2,4-Dimethylphenol	< 10	ug/L	10	U
bis(2-Chloroethoxy)methane	< 10	ug/L	10	U
2,4-Dichlorophenol	< 10	ug/L	10	U
1,2,4-Trichlorobenzene	< 10	ug/L	10	U
Naphthalene	< 10	ug/L	10	U
Hexachlorobutadiene	< 10	ug/L	10	U
4-Chloro-3-methylphenol	< 10	ug/L	10	U
Hexachlorocyclopentadiene	< 10	ug/L	10	U
2,4,6-Trichlorophenol	< 10	ug/L	10	U
2-Chloronaphthalene	< 10	ug/L	10	U
Acenaphthylene	< 10	ug/L	10	U
Dimethylphthalate	< 10	ug/L	10	U
2,6-Dinitrotoluene	< 10	ug/L	10	U
Acenaphthene	< 10	ug/L	10	U
2,4-Dinitrophenol	< 10	ug/L	10	U
2,4-Dinitrotoluene	< 10	ug/L	10	U
4-Nitrophenol	< 10	ug/L	10	U
Fluorene	< 10	ug/L	10	U
4-Chlorophenyl-phenylether	< 10	ug/L	10	U
Diethylphthalate	< 10	ug/L	10	U
4,6-Dinitro-2-methylphenol	< 10	ug/L	10	U
N-Nitrosodiphenylamine	< 10	ug/L	10	U
1,2-Diphenylhydrazine	< 10	ug/L	10	U
4-Bromophenyl-phenylether	< 10	ug/L	10	U
Hexachlorobenzene	< 10	ug/L	10	U
Pentachlorophenol	< 10	ug/L	10	U
Phenanthrene	< 10	ug/L	10	U
Anthracene	< 10	ug/L	10	U
Carbazole	< 10	ug/L	10	U

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Date Received: 03/02/10
 Date Reported: 03/04/10
 Project Location: **49 L. Street**

Report Number: **103202**

Sample Results Continued -----	Client Sample No.:	GP-3a	EPA 8270	
Di-n-butylphthalate	< 10	ug/L	10	U
2,3,4,6-Tetrachlorophenol	< 10	ug/L	10	U
Fluoranthene	< 10	ug/L	10	U
Benzidine	< 10	ug/L	10	U
Pyrene	< 10	ug/L	10	U
Butylbenzylphthalate	< 10	ug/L	10	U
3,3'-Dichlorobenzidine	< 10	ug/L	10	U
Benzo[a]anthracene	< 10	ug/L	10	U
Chrysene	< 10	ug/L	10	U
bis(2-Ethylhexyl)phthalate	< 10	ug/L	10	U
Di-n-octylphthalate	< 10	ug/L	10	U
Benzo[b]fluoranthene	< 10	ug/L	10	U
Benzo[k]fluoranthene	< 10	ug/L	10	U
Benzo[a]pyrene	< 10	ug/L	10	U
Indeno[1,2,3-cd]pyrene	< 10	ug/L	10	U
Dibenz[a,h]anthracene	< 10	ug/L	10	U
Benzo[g,h,i]perylene	< 10	ug/L	10	U

Test Requested: **Dissolved RCRA Metals**
 Preparation Method: EPA 3010
 Analysis Method: EPA 6010

Date Prepared: 03/03/10
 Date Analyzed: 03/04/10

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Reporting Limit</u>	<u>Qualifier</u>
Arsenic	< 50	ug/L	50	U
Barium	170	ug/L	50	
Cadmium	< 50	ug/L	50	U
Chromium	< 50	ug/L	50	U
Lead	< 50	ug/L	50	U
Selenium	< 50	ug/L	50	U
Silver	< 50	ug/L	50	U

Test Requested: **Dissolved Mercury**
 Preparation Method: EPA 7470
 Analysis Method: EPA 7470

Date Prepared: 03/04/10
 Date Analyzed: 03/04/10

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Reporting Limit</u>	<u>Qualifier</u>
Mercury	< 1.0	ug/L	1.0	U

Analyte Qualifier Codes

- U = Analyte was not detected
- J = Analyte detected below reporting limit (estimated value)
- D = Analyte reported from a sample dilution
- B = Analyte was detected in the corresponding method blank



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Attn: Matthew Ker
656 Quince Orchard Road
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Gaithersburg, MD 20878

Date Received: 03/02/10
Date Reported: 03/04/10
Project Location: **49 L. Street**

Report Number: **103202**

8. Client Sample No: **Field Blank** HPE Sample No.: 103202-08
Sample Matrix: Water Date Collected: 03/01/10
Sample Location:

Test Requested: **Volatile Organic Compounds**
Preparation Method: EPA 5030 Date Prepared: 03/03/10
Analysis Method: EPA 8260 Date Analyzed: 03/03/10

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Reporting Limit</u>	<u>Qualifier</u>
Dichlorodifluoromethane	< 5.0	ug/L	5.0	U
Chloromethane	< 5.0	ug/L	5.0	U
Vinyl chloride	< 5.0	ug/L	5.0	U
Bromomethane	< 5.0	ug/L	5.0	U
Chloroethane	< 5.0	ug/L	5.0	U
Trichlorofluoromethane	< 5.0	ug/L	5.0	U
1,1-Dichloroethene	< 5.0	ug/L	5.0	U
Acetone	< 5.0	ug/L	5.0	U
Methylene chloride	< 5.0	ug/L	5.0	U
Methyl-tert-butyl ether (MTBE)	< 5.0	ug/L	5.0	U
tert-Butanol (TBA)	< 5.0	ug/L	5.0	U
Diisopropyl ether (DIPE)	< 5.0	ug/L	5.0	U
Ethyl-tert-butyl ether (ETBE)	< 5.0	ug/L	5.0	U
tert-Amyl methyl ether (TAME)	< 5.0	ug/L	5.0	U
tert-Amyl alcohol (TAA)	< 10	ug/L	10	U
tert-Amyl ethyl ether (TAEE)	< 5.0	ug/L	5.0	U
trans-1,2-Dichloroethene	< 5.0	ug/L	5.0	U
1,1-Dichloroethane	< 5.0	ug/L	5.0	U
2-Butanone	< 5.0	ug/L	5.0	U
2,2-Dichloropropane	< 5.0	ug/L	5.0	U
cis-1,2-Dichloroethene	< 5.0	ug/L	5.0	U
Bromochloromethane	< 5.0	ug/L	5.0	U
Chloroform	< 5.0	ug/L	5.0	U
1,1,1-Trichloroethane	< 5.0	ug/L	5.0	U
Carbon tetrachloride	< 5.0	ug/L	5.0	U
1,1-Dichloropropene	< 5.0	ug/L	5.0	U
Benzene	< 5.0	ug/L	5.0	U
1,2-Dichloroethane	< 5.0	ug/L	5.0	U
Trichloroethene	< 5.0	ug/L	5.0	U
1,2-Dichloropropane	< 5.0	ug/L	5.0	U
Dibromomethane	< 5.0	ug/L	5.0	U
Bromodichloromethane	< 5.0	ug/L	5.0	U
cis-1,3-Dichloropropene	< 5.0	ug/L	5.0	U
4-Methyl-2-pentanone	< 5.0	ug/L	5.0	U
Toluene	< 5.0	ug/L	5.0	U
trans-1,3-Dichloropropene	< 5.0	ug/L	5.0	U
1,1,2-Trichloroethane	< 5.0	ug/L	5.0	U
2-Hexanone	< 5.0	ug/L	5.0	U
Tetrachloroethene	< 5.0	ug/L	5.0	U
1,3-Dichloropropane	< 5.0	ug/L	5.0	U
Dibromochloromethane	< 5.0	ug/L	5.0	U
1,2-Dibromoethane	< 5.0	ug/L	5.0	U
Chlorobenzene	< 5.0	ug/L	5.0	U



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Attn: **Matthew Ker**
656 Quince Orchard Road
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Date Received: 03/02/10
Date Reported: 03/04/10
Project Location: **49 L. Street**

Report Number: **103202**

Sample Results Continued -----

Analyte	Result	Units	Reporting Limit	Qualifier
1,1,1,2-Tetrachloroethane	< 5.0	ug/L	5.0	U
Ethylbenzene	< 5.0	ug/L	5.0	U
m,p-Xylene	< 5.0	ug/L	5.0	U
o-Xylene	< 5.0	ug/L	5.0	U
Styrene	< 5.0	ug/L	5.0	U
Bromoform	< 5.0	ug/L	5.0	U
Isopropylbenzene	< 5.0	ug/L	5.0	U
Bromobenzene	< 5.0	ug/L	5.0	U
1,1,2,2-Tetrachloroethane	< 5.0	ug/L	5.0	U
1,2,3-Trichloropropane	< 5.0	ug/L	5.0	U
n-Propylbenzene	< 5.0	ug/L	5.0	U
2-Chlorotoluene	< 5.0	ug/L	5.0	U
4-Chlorotoluene	< 5.0	ug/L	5.0	U
1,3,5-Trimethylbenzene	< 5.0	ug/L	5.0	U
tert-Butylbenzene	< 5.0	ug/L	5.0	U
1,2,4-Trimethylbenzene	< 5.0	ug/L	5.0	U
sec-Butylbenzene	< 5.0	ug/L	5.0	U
1,3-Dichlorobenzene	< 5.0	ug/L	5.0	U
4-Isopropyltoluene	< 5.0	ug/L	5.0	U
1,4-Dichlorobenzene	< 5.0	ug/L	5.0	U
1,2-Dichlorobenzene	< 5.0	ug/L	5.0	U
n-Butylbenzene	< 5.0	ug/L	5.0	U
1,2-Dibromo-3-chloropropane	< 5.0	ug/L	5.0	U
1,2,4-Trichlorobenzene	< 5.0	ug/L	5.0	U
Hexachlorobutadiene	< 5.0	ug/L	5.0	U
Naphthalene	< 5.0	ug/L	5.0	U
1,2,3-Trichlorobenzene	< 5.0	ug/L	5.0	U

Test Requested: **TPH - Gasoline Range Organics**
Preparation Method: EPA 5030
Analysis Method: EPA 8015

Date Prepared: 03/03/10
Date Analyzed: 03/03/10

Analyte	Result	Units	Reporting Limit	Qualifier
TPH - GRO	< 0.5	mg/L	0.5	U

Test Requested: **TPH - Diesel Range Organics**
Preparation Method: EPA 3510
Analysis Method: EPA 8015

Date Prepared: 03/02/10
Date Analyzed: 03/02/10

Analyte	Result	Units	Reporting Limit	Qualifier
TPH - DRO	< 0.5	mg/L	0.5	U

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 Gaithersburg, MD 20878

Date Received: 03/02/10
 Date Reported: 03/04/10
 Project Location: **49 L. Street**

Report Number: **103202**

Sample Results Continued -----

Client Sample No.: **Field Blank**

Test Requested: **Semivolatile Organic Compounds**

Preparation Method: EPA 3510

Date Prepared: 03/02/10

Analysis Method: EPA 8270

Date Analyzed: 03/02/10

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Reporting Limit</u>	<u>Qualifier</u>
bis(2-Chloroethyl)ether	< 10	ug/L	10	U
Phenol	< 10	ug/L	10	U
N-nitrosodimethylamine	< 10	ug/L	10	U
2-Chlorophenol	< 10	ug/L	10	U
1,3-Dichlorobenzene	< 10	ug/L	10	U
1,4-Dichlorobenzene	< 10	ug/L	10	U
1,2-Dichlorobenzene	< 10	ug/L	10	U
bis(2-chloroisopropyl)ether	< 10	ug/L	10	U
Hexachloroethane	< 10	ug/L	10	U
N-Nitroso-di-n-propylamine	< 10	ug/L	10	U
4-Methylphenol	< 10	ug/L	10	U
Nitrobenzene	< 10	ug/L	10	U
Isophorone	< 10	ug/L	10	U
2-Nitrophenol	< 10	ug/L	10	U
2,4-Dimethylphenol	< 10	ug/L	10	U
bis(2-Chloroethoxy)methane	< 10	ug/L	10	U
2,4-Dichlorophenol	< 10	ug/L	10	U
1,2,4-Trichlorobenzene	< 10	ug/L	10	U
Naphthalene	< 10	ug/L	10	U
Hexachlorobutadiene	< 10	ug/L	10	U
4-Chloro-3-methylphenol	< 10	ug/L	10	U
Hexachlorocyclopentadiene	< 10	ug/L	10	U
2,4,6-Trichlorophenol	< 10	ug/L	10	U
2-Chloronaphthalene	< 10	ug/L	10	U
Acenaphthylene	< 10	ug/L	10	U
Dimethylphthalate	< 10	ug/L	10	U
2,6-Dinitrotoluene	< 10	ug/L	10	U
Acenaphthene	< 10	ug/L	10	U
2,4-Dinitrophenol	< 10	ug/L	10	U
2,4-Dinitrotoluene	< 10	ug/L	10	U
4-Nitrophenol	< 10	ug/L	10	U
Fluorene	< 10	ug/L	10	U
4-Chlorophenyl-phenylether	< 10	ug/L	10	U
Diethylphthalate	< 10	ug/L	10	U
4,6-Dinitro-2-methylphenol	< 10	ug/L	10	U
N-Nitrosodiphenylamine	< 10	ug/L	10	U
1,2-Diphenylhydrazine	< 10	ug/L	10	U
4-Bromophenyl-phenylether	< 10	ug/L	10	U
Hexachlorobenzene	< 10	ug/L	10	U
Pentachlorophenol	< 10	ug/L	10	U
Phenanthrene	< 10	ug/L	10	U
Anthracene	< 10	ug/L	10	U
Carbazole	< 10	ug/L	10	U

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 Gaithersburg, MD 20878

Date Received: 03/02/10
 Date Reported: 03/04/10
 Project Location: **49 L. Street**

Report Number: **103202**

Sample Results Continued -----	Client Sample No.:	Field Blank		EPA 8270
Di-n-butylphthalate	< 10	ug/L	10	U
2,3,4,6-Tetrachlorophenol	< 10	ug/L	10	U
Fluoranthene	< 10	ug/L	10	U
Benzidine	< 10	ug/L	10	U
Pyrene	< 10	ug/L	10	U
Butylbenzylphthalate	< 10	ug/L	10	U
3,3'-Dichlorobenzidine	< 10	ug/L	10	U
Benzo[a]anthracene	< 10	ug/L	10	U
Chrysene	< 10	ug/L	10	U
bis(2-Ethylhexyl)phthalate	< 10	ug/L	10	U
Di-n-octylphthalate	< 10	ug/L	10	U
Benzo[b]fluoranthene	< 10	ug/L	10	U
Benzo[k]fluoranthene	< 10	ug/L	10	U
Benzo[a]pyrene	< 10	ug/L	10	U
Indeno[1,2,3-cd]pyrene	< 10	ug/L	10	U
Dibenz[a,h]anthracene	< 10	ug/L	10	U
Benzo[g,h,i]perylene	< 10	ug/L	10	U

Test Requested: **Dissolved RCRA Metals**
 Preparation Method: EPA 3010
 Analysis Method: EPA 6010

Date Prepared: 03/03/10
 Date Analyzed: 03/04/10

Analyte	Result	Units	Reporting Limit	Qualifier
Arsenic	< 50	ug/L	50	U
Barium	< 50	ug/L	50	U
Cadmium	< 50	ug/L	50	U
Chromium	< 50	ug/L	50	U
Lead	< 50	ug/L	50	U
Selenium	< 50	ug/L	50	U
Silver	< 50	ug/L	50	U

Test Requested: **Dissolved Mercury**
 Preparation Method: EPA 7470
 Analysis Method: EPA 7470

Date Prepared: 03/04/10
 Date Analyzed: 03/04/10

Analyte	Result	Units	Reporting Limit	Qualifier
Mercury	< 1.0	ug/L	1.0	U

Analyte Qualifier Codes

- U = Analyte was not detected
- J = Analyte detected below reporting limit (estimated value)
- D = Analyte reported from a sample dilution
- B = Analyte was detected in the corresponding method blank



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Certificate of Laboratory Analysis

Schnabel Engineering North, LLC
Attn: Matthew Ker
656 Quince Orchard Road
Suite 700
Gaithersburg, MD 20878

Date Received: 03/02/10
Date Reported: 03/04/10
Project Location: **49 L. Street**

Report Number: **103202**

9. Client Sample No: **Trip Blank** HPE Sample No.: 103202-09
Sample Matrix: Water Date Collected: 03/01/10
Sample Location:

Test Requested: **Volatile Organic Compounds**
Preparation Method: EPA 5030 Date Prepared: 03/03/10
Analysis Method: EPA 8260 Date Analyzed: 03/03/10

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Reporting Limit</u>	<u>Qualifier</u>
Dichlorodifluoromethane	< 5.0	ug/L	5.0	U
Chloromethane	< 5.0	ug/L	5.0	U
Vinyl chloride	< 5.0	ug/L	5.0	U
Bromomethane	< 5.0	ug/L	5.0	U
Chloroethane	< 5.0	ug/L	5.0	U
Trichlorofluoromethane	< 5.0	ug/L	5.0	U
1,1-Dichloroethene	< 5.0	ug/L	5.0	U
Acetone	< 5.0	ug/L	5.0	U
Methylene chloride	< 5.0	ug/L	5.0	U
Methyl-tert-butyl ether (MTBE)	< 5.0	ug/L	5.0	U
tert-Butanol (TBA)	< 5.0	ug/L	5.0	U
Diisopropyl ether (DIPE)	< 5.0	ug/L	5.0	U
Ethyl-tert-butyl ether (ETBE)	< 5.0	ug/L	5.0	U
tert-Amyl methyl ether (TAME)	< 5.0	ug/L	5.0	U
tert-Amyl alcohol (TAA)	< 10	ug/L	10	U
tert-Amyl ethyl ether (TAEE)	< 5.0	ug/L	5.0	U
trans-1,2-Dichloroethene	< 5.0	ug/L	5.0	U
1,1-Dichloroethane	< 5.0	ug/L	5.0	U
2-Butanone	< 5.0	ug/L	5.0	U
2,2-Dichloropropane	< 5.0	ug/L	5.0	U
cis-1,2-Dichloroethene	< 5.0	ug/L	5.0	U
Bromochloromethane	< 5.0	ug/L	5.0	U
Chloroform	< 5.0	ug/L	5.0	U
1,1,1-Trichloroethane	< 5.0	ug/L	5.0	U
Carbon tetrachloride	< 5.0	ug/L	5.0	U
1,1-Dichloropropene	< 5.0	ug/L	5.0	U
Benzene	< 5.0	ug/L	5.0	U
1,2-Dichloroethane	< 5.0	ug/L	5.0	U
Trichloroethene	< 5.0	ug/L	5.0	U
1,2-Dichloropropane	< 5.0	ug/L	5.0	U
Dibromomethane	< 5.0	ug/L	5.0	U
Bromodichloromethane	< 5.0	ug/L	5.0	U
cis-1,3-Dichloropropene	< 5.0	ug/L	5.0	U
4-Methyl-2-pentanone	< 5.0	ug/L	5.0	U
Toluene	< 5.0	ug/L	5.0	U
trans-1,3-Dichloropropene	< 5.0	ug/L	5.0	U
1,1,2-Trichloroethane	< 5.0	ug/L	5.0	U
2-Hexanone	< 5.0	ug/L	5.0	U
Tetrachloroethene	< 5.0	ug/L	5.0	U
1,3-Dichloropropane	< 5.0	ug/L	5.0	U
Dibromochloromethane	< 5.0	ug/L	5.0	U
1,2-Dibromoethane	< 5.0	ug/L	5.0	U
Chlorobenzene	< 5.0	ug/L	5.0	U



HP ENVIRONMENTAL, INC.

104 Elden St, Herndon, VA 20170 (703) 471-4200 Fax (703) 471-0020

Environmental Sample Chain-of-Custody Record

COC Reference Number: 4000

Client: Schnabel Engineering, LLC		TURN-AROUND TIME: Routine					Tests Requested							
Address: 656 Quince Orchard Road Gaithersburg, MD 20878		P.O./Job Number: P9120335												
Contact: Matthew Ker		SITE: 49 L Street												
Phone: (301) 417-2400		Sampled by:												
Fax: (301) 417-2730		Ker/Rodriguez												
Sample ID	Date	Sample Time	Comp/Grab	Matrix	Preserv. pH	# Bottles	TPH-DRO/GRO	BTEX and MTBE	Naphthalene	VOCs	SVOCs	RCRA Metals	Dissolved RCRA Metals	Description/Comments
1. GP-1	03/01/10	10:18	Grab	soil	various	5	x	x	x			x		
2. GP-2	03/01/10	12:05	Grab	soil	various	5	x	x	x			x		
3. GP-3	03/01/10	9:24	Grab	soil	various	5	x	x	x			x		
4. GP-4	03/01/10	1:05	Grab	soil	various	5	x	x	x			x		
5. GP-1	03/01/10	12:40	Grab	GW	various	6	x			x	x		x	
6. GP-3	03/01/10	2:15	Grab	GW	various	6	x			x	x		x	
7. GP-3a	03/01/10	2:15	Grab	GW	various	6	x			x	x		x	
8. Field Blank	03/01/10	1:00	Grab	Water	various	6	x			x	x		x	
9. Trip Blank	03/01/10	8:00	---	Water	hcl	2				x				
10.														
11.														
12.														
13.														
14.														
15.														
Received Condition:			Relinquished By: <i>Matthew Ker</i>				Date/Time: 3/2/10 9:45		Received By:			Date/Time		
Mode of Shipment:			Relinquished By:				Date/Time		Received By Laboratory: <i>JP</i>			Date/Time: 3/2/10 1100		
HPE Report Number: 103202														