



Geotechnical
Environmental
Water Resources
Ecological

Pre-Design Investigation Data Report

Troy (Liberty Street) Non-Owned Former MGP Site

Troy, New York
NYSDEC Site # V000482

Submitted to:

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Abbreviations and Acronyms

AA	Alternatives Analysis
ADT	Aquifer Drilling and Testing, Inc.
ASTM	American Society of Testing and Materials
AWQS	Ambient Groundwater Quality Standards
bgs	below ground surface
B/MW	Boring/Monitoring Well
B/PZ	Soil Boring/Piezometer
BTEX	Benzene, Toluene, Ethylbenzene, Xylene
CAMP	Community Air Monitoring Program
Clean Harbors	Clean Harbors Environmental Services, Inc.
CFR	Code of Federal Regulations
Delta	Delta Engineers, Architects and Land Surveyors
Dig Safely	Dig Safely New York
DUSR	Data Usability Summary Report
EA	EA Engineering, Inc.
EPA	United States Environmental Protection Agency
GEI	GEI Consultants, Inc.
GPS	Global Positioning System
HASP	Health and Safety Plan
Land	Land Remediation, Inc.
mg/kg	milligrams per kilogram
mg/L	milligrams per Liter
MGP	Manufactured Gas Plant
mm	millimeter
NAPL	Non-Aqueous Phase Liquids
NYLD	New York Leak Detection
NYSASP	New York State Analytical Services Protocol
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
PAH	Polycyclic Aromatic Hydrocarbon
PCB	Polychlorinated Biphenyl
PDI	Pre-Design Investigation
PID	Photoionization Detector
ppm	parts per million
QA/QC	Quality Assurance/Quality Control
RAWP	Remedial Action Work Plan
RI	Remedial Investigation
SPT	Standard Penetration Test
SVOC	Semi-Volatile Organic Compound
TCLP	Toxicity Characteristic Leaching Procedure

TestAmerica
VCO
VOC

Test America, Inc.
Voluntary Cleanup Order
Volatile Organic Compound

1. Introduction

This Pre-Design Investigation (PDI) Data Report summarizes the work performed and presents the data generated during the PDI at the Troy (Liberty Street) Non-Owned Former Manufacturing Gas Plant (MGP) Site in Troy, Rensselaer County, New York. The PDI was conducted pursuant to New York State Department of Environmental Conservation (NYSDEC) voluntary cleanup order (VCO) Index Number D0-0001-0011, dated July 3, 2001. The NYSDEC Site number is V000482. The site location is shown in Figure 1. Figure 2 provides the Historic Structures, Utilities, Current Site Conditions, and Monitoring Wells.

NYSDEC approved the Remedial Investigation (RI) Report for the Site on August 31, 2012 and requested development of a combined Alternatives Analysis (AA) and Remedial Action Work Plan (RAWP). However, in order to support development of an AA/RAWP, additional data and information was required.

As such, GEI Consultants, Inc. (GEI), on behalf of National Grid, wrote and submitted to NYSDEC a PDI, AA/RAWP Work Plan dated February 14, 2013. NYSDEC approved the work plan in an email to National Grid on March 11, 2013.

GEI performed the PDI field work in March and April of 2013.

1.1 Report Organization

The remainder of this Report is organized as follows:

- Section 2 Describes the goals of the PDI and the work that was performed.
- Section 3 Describes the findings and conclusions of the PDI.

2. Pre-Design Investigation

Key work activities performed as part of the PDI are described under the following subsections:

- Subsection 2.1 – Monitoring Well/Piezometer Decommissioning Activities
- Subsection 2.2 – Subsurface Utilities
- Subsection 2.3 – Field Survey Activities
- Subsection 2.4 – Subsurface Soil Investigation Activities
- Subsection 2.5 – Work Zone and Community Air Monitoring Summary

2.1 Monitoring Well/Piezometer Decommissioning Activities

All five piezometers and six monitoring wells (Figure 3) at the Site were decommissioned on March 13, 2013, per guidance provided in the November 2009 NYSDEC Monitoring Well Decommissioning Guidance, the NYSDEC-approved work plan (1/10/13), and concurrence with the NYSDEC field representative. This effort was not related to the PDI, but the wells and piezometers had served their purpose for remedial investigation.

Pulling the casings out of the ground was not feasible due to the well construction methods; the risers were grouted in place. The following piezometers/wells were decommissioned by pressure-grouting methods from the bottom-up using a tremie pipe with a portland cement grout mixture.

Piezometers	Monitoring Wells
B/PZ-407(11)	B/MW-103(05)
B/PZ-408(11)	B/MW-201(06)
B/PZ-409(11)	B/MW-301(10)
B/PZ-410(11)	B/MW-302(10)
B/PZ-411(11)	B/MW-303(10), B/MW-324(10)

Residual void space within the casing and flush mount was filled with concrete and smoothed at the surface. The remaining wells at the Site were retained for future monitoring purposes.

2.2 Subsurface Utilities

The City of Troy had previously reported the presence of a 24-inch by 36-inch brick sewer in Hill Street near the southern tar well. However, its exact location was unknown and verification of its location was necessary to develop the remedial design for the southern tar well.

New York Leak Detection (NYLD) from Syracuse, New York applied several different methods (metal detector, ground penetrating radar, test tones from sondes) to scan for the sewer and any other subsurface utilities in Hill Street. The design of catch basins assumed to drain into the brick sewer prevented introduction of traceable sondes.

NYLD also conducted surface scans around the northern tar well.

The results are discussed in Section 3.

2.3 Field Survey Activities

Land survey activities were performed by Delta Engineers, Architects and Land Surveyors (Delta) on April 26, 2013 as part of the PDI. The survey activities were performed using conventional survey and global positioning system (GPS) techniques to accomplish the following:

- Document elevation and horizontal locations of PDI soil borings and test pits.
- Document locations of subsurface utilities as identified and marked in Hill Street by NYLD (described above).

2.4 Subsurface Soil Investigation Activities

The PDI subsurface soil investigation included drilling and sampling of twenty-six (26) soil borings to generate the following data and information:

- Locations of utilities that will need protection during the remedial action.
- Obtain Standard Penetration Test (SPT) information and soil samples for geotechnical analysis.
- Verify the depth of the northern tar well.
- Evaluate soil beneath the northern tar well.
- Verify the depth of impacted soil adjacent to the tar wells.
- Collect chemical analytical samples to determine excavation limits.
- Waste Characterization of soils for off-site treatment/disposal; determine whether soil may have hazardous characteristics.

Prior to drilling, Clean Harbors Environmental Corporation, Inc. (Clean Harbors) cleared the boreholes to approximately 5 feet below ground surface (bgs) using a jack hammer to break concrete near ground surface and a vacuum truck and hose to remove the underlying material.

Soil borings were performed by Aquifer Drilling and Testing, Inc. (ADT - Waterford, NY).

2.4.1 Soil Boring and Sampling Activities

Twenty-six (26) soil borings were completed; B-501(13) through B-520(13), NTW1 through NTW4, and STW1 and STW2 (Figure 3). Borings adjacent to the northern tar well were terminated at 30 feet bgs and borings in the southern tar well area terminated at 25 feet bgs. These termination depths were chosen because remedial investigation borings demonstrated that tar impacts were generally absent beyond these depths.

Inside the northern tar well, borings NTW1 through NTW4 terminated at 15 or 20 feet bgs. STW1 and STW2, within the southern tar well footprint, terminated at 15 feet bgs. All delineation and geotechnical soil borings were continuously logged, digitally photographed, screened with a photo-ionization detector (PID), and sampled to assess horizontal and vertical excavation limits. The boring logs and soil photographs are provided in Appendix A and B, respectively.

Three borings, B-501(13) adjacent to the northern tar well, and B-505(13) and B-515(13) near the southern tar well, were completed using truck-mounted, hollow-stem auger methods. Continuous 2-foot long, 2-inch or 3-inch diameter split spoon samples were collected. SPT data was obtained and six soil samples were collected and analyzed for grain size and Atterberg limits to support remedial design.

Twenty-three borings were completed with a Geoprobe® 6610DT. Continuous five-foot macrocore® samples were collected using standard direct-push drilling methods. Two Geoprobe® borings [B-519(13) and B-520(13)] were completed as 45-degree angle borings to evaluate soil beneath the northern tar well, which was presumed to have an intact base. The angle borings were advanced to a total linear distance of 40 feet, with a total vertical depth of approximately 28 feet. Appendix C provides a sketch of the angled borings and depicts the vertical sample depths/locations.

Soil borings were abandoned by pouring bentonite chips down the hole that were hydrated and finished at the surface with either concrete or asphalt patch. Soil cuttings, other investigation-derived solid waste and decontamination liquid waste were containerized separately in 55-gallon drums and stored in a containment pad constructed within a secured temporary fence. This non-hazardous waste was transported for appropriate off-site disposal by Clean Harbors.

Geotechnical Borings and Analysis. Three soil borings [B-501(13), B-505(13), B-515(13)] were advanced in the vicinity of the northern and southern tar wells. The locations of the borings are shown in Figure 3.

The borings were advanced to obtain geotechnical data to support design of temporary earth support systems necessary for remediation, and supplement blow count data generated by EA Engineering, P.C. (EA), who conducted the Site Characterization in 2006.

For each soil boring, SPT of the overburden was performed using 2-inch outside diameter split-spoon samplers in general accordance with American Society of Testing and Materials (ASTM) D1586. 3-inch diameter split spoon samplers were used at some intervals to collect sufficient sample volume as required to perform the geotechnical analysis.

Four samples were collected from boring B-501(13) between 6 and 30 feet bgs at the northern tar well. Three samples were collected from boring B-515(13) between 8 and 25 feet bgs at the southern tar well. All the samples were analyzed for:

- Grain size via sieve and hydrometer (ASTM D422 and ASTM D1140)
- Atterberg limits (ASTM D4318)

QCQA Laboratories (Schenectady, New York) conducted the tests. The geotechnical analyses results are provided and discussed in Section 3.

Excavation Limit Samples. Sixty-seven samples were collected to support determination of vertical and horizontal excavation limits at both tar wells. The samples were selected to quantify polycyclic aromatic hydrocarbons (PAH) concentrations in both impacted and apparently clean intervals based on presence or absence of physical impacts, odors, and PID measurements. The samples were analyzed as follows:

- Benzene, toluene, ethylbenzene, and xylenes (BTEX), Environmental Protection Agency (EPA) Method 8260B
- PAHs, EPA Method 8270C

The excavation limit samples are discussed in Section 3 and the results are presented in Table 1. Test America, Inc. (Shelton, Connecticut) analyzed all of the samples. The analytical results were also validated per New York State Analytical Services Protocol (NYSASP) B.

Waste Characterization Samples. Waste characterization samples were collected at both tar wells.

Two samples (composites from each tar well) were analyzed as outlined in the EPA Title 40, Code of Federal Regulations (CFR) Part 261, Subpart C - Toxicity Characteristic Leaching

Procedure (TCLP), to determine if hazardous characteristics were present, as follows on the next page.

- TCLP Volatile Organic Compounds (VOCs) (EPA Methods 1311 TCLP and 8260B)
- TCLP Semivolatile Organic Compounds (SVOCs) (EPA Methods 1311 TCLP and 8270D)
- TCLP Metals (EPA Methods 1311 TCLP and 6010B)
- TCLP Mercury (EPA Methods 1311 TCLP and 7470A)
- TCLP chlorinated pesticides/herbicides (EPA SW-846 Methods 1311/ 8081A)

Four samples (two composites at each tar well) were also analyzed for the following additional parameters:

- VOC (GC-MS) (EPA SW-846 Method 8260B)
- SVOC (GC-MS) (EPA SW-846 Method 8270C)
- Total Cyanide (EPA Method 9012A)
- Total Mercury (EPA Method 7471A)
- Reactive Cyanide (EPA SW-846 Method 7.3.3/9014)
- Reactive Sulfide (EPA SW-846 Method 7.3.4/9034)
- Ignitability (EPA Method 1030)
- Extractable Organic Halogens (EPA SW-846 Method 9023)
- pH (EPA Method 9045C)
- Percent Solids/Percent Moisture (EPA Method CLPISM01.2)
- Total British Thermal Units (ASTM-D240-87)
- Total Metals (EPA Method 6010B)
- Hexavalent chromium (EPA SW-846 Method 3060A/7196A)
- Diesel range organics (EPA SW-846 Method 8015B – DRO)
- Gasoline range organics (EPA SW-846 Method 8015B –GRO)
- Polychlorinated biphenyls (PCBs) (EPA SW-846 Method 8082)

The table below summarizes where the samples were collected.

Location:	Northern Tar Well			Southern Tar Well	
Sample ID:	Waste 1 (TCLP)	Pre char 1 (additional parameters)	Pre char 2 (additional parameters)	Pre char 3 (additional parameters)	Pre char 4 Waste 2 (TCLP and additional parameters)
Sampled Soil:	Composited soil/NAPL from inside tar well (NTW1 – NTW4 8-15' bgs)	Composited soil from B-519(13) 5-20' bgs and ~20% NAPL from inside tar well	Composited soil from B-520(13) 5-20' bgs and ~20% NAPL from inside tar well	Composited soil from B-513(13) 5-20' bgs	Composited soil from heaviest impacts within tar well (STW1 and STW2 5-15' bgs)

Note. Sample Pre char 4 Waste 2 was analyzed for TCLP analyses as well as additional parameters.
 NAPL = Non-aqueous phase liquid

The waste samples were collected by placing the soil in large stainless steel bowls or on clean polyethylene plastic sheeting and homogenizing it with stainless steel spoons.

Appropriate Quality Assurance/Quality Control (QA/QC) samples, including duplicates, trip blanks, a field blank, and matrix spike/matrix spike duplicates, were collected. Test America, Inc. (Shelton, Connecticut) analyzed all of the samples. The results are discussed in Section 3 and presented in Table 2.

2.5 Work Zone and Community Air Monitoring

As required by NYSDEC and the New York State Department of Health (NYSDOH), work zone air monitoring and community air monitoring at the upwind and downwind site boundaries were conducted by GEI during the PDI to monitor respirable dust and VOCs. Air monitoring was conducted as described in the Work Plan and Community Air Monitoring Plan (CAMP), and Health and Safety Plan (HASP) for the Site.

The air monitoring data are discussed in Section 3.

3. PDI Findings

This section presents the findings of the PDI subsurface soil investigation. Soil boring logs are included in Appendix A. Photographs of the soil samples recovered from soil borings are included in Appendix B. Subsurface intervals where non-aqueous phase liquid (NAPL), sheen, MGP-like odors, and staining were encountered within the soil borings are summarized in Figures 4 and 5.

3.1 Subsurface Utilities

One consistent linear feature was located along the middle of Hill Street, and an apparently round, ferrous object was identified along the trend of the feature. The ferrous object was suspected of being a paved-over manhole.



View along Hill Street to the northwest. Southern tar well to extreme lower right of photograph. White paint marks feature trend and assumed paved-over manhole. Green paint marks broken 6-inch clay pipe originating near southern tar well.

The City of Troy Water Department investigated the potential manhole by digging a test trench at its location. The City reported that no manhole was present, but an 8-inch steel pipe was located approximately 4.5 feet below the pavement. The City backfilled and repaved the pit. GEI did not observe the work.



Test pit TP-1-13 in Hill Street near the southern tar well

Since the brick sewer could not be located indirectly, test pit TP-1-13 was installed across Hill Street near the southern tar well (Figure 3). Land Remediation, Inc. (Land - Troy, New York) conducted the test pit work. Though appropriate notice was made beforehand to Dig Safely New York, an unidentified 8-inch steel pipe was found during vacuum clearance approximately 4.5 feet below the pavement, in the middle of the street.

The location, depth, and design of the 8-inch steel pipe was consistent with the linear feature first identified by NYLD near the middle of Hill Street, and with the steel pipe uncovered by the City of Troy. The pipe was eventually identified as a low pressure gas main.



Gas main found near center of Hill Street in TP-1-13

Land resumed the test pit excavation on the east side of the gas main, between the southern tar well and the main. The excavation proceeded through the former cobblestone street, miscellaneous fill materials, and eventually to a total depth of 14.5 feet. Groundwater was not encountered and the brick sewer was not observed. The test pit details follow:

0.0 to 1.4 feet bgs:	Asphalt, cobbles
1.4 to 6.0 feet bgs:	Dry brown loam, cinders, ash, some gravel
6.0 to 14.5 feet bgs:	Grey, moist, coarse sand

No MGP-related odors or impacts were apparent. A maximum reading of 0.9 parts per million (ppm) organic vapors was detected. The test pit location and the locations of relevant subsurface utilities are presented on Figure 3.

NYLD also conducted surface scans in the vicinity of the northern tar well. No features were discerned near the northern tar well.

The NYLD report and test pit photographs are included in Appendix D.

3.2 Northern Tar Well

Four vertical borings (B-501(13) through B-504(13)) were drilled outside and adjacent to the northern tar well. Naphthalene-like odors were observed at varying depths in all four borings (Figure 4). Numerous analytical samples (Table 1) were collected from the odiferous intervals between 6 and 20 feet bgs. None contained total PAH concentrations above 500 milligrams per kilogram (mg/kg). The Data Usability Summary Report (DUSR) and validated Form 1 results are provided in Appendix E.

Based on one boring installed in the tar well during the RI, a hard bottom was present at 16.9 feet bgs. Four borings (NTW1 through NTW4) were drilled within the tar well during the PDI to retrieve material for waste characterization and attempt to verify the depth. All four borings contained varying amounts of NAPL, generally encountered between 8 and 15 feet bgs. The NAPL was sticky and very viscous. It did not appear to be flowable.

Three of the borings inside the tar well were advanced to 20 feet, where they were terminated. One boring contained brick fragments from 18.5 to 20 feet bgs. The other two contained a mixture of sand and gravel. No NAPL was observed between 16.9 and 20 feet at any of the borings. Since no distinct or intact well bottom was encountered, two angle borings were installed to evaluate soil below the well.

Angle boring B-519(13) contained sticky tar stringers approximately 1 millimeter (mm) in thickness between vertical depths of 20.1 and 21.2 feet bgs (linear distance of 28.4 and 30 feet). The sample collected (B-519(13) 29-30) of the tarry material yielded a total PAH concentration of 5,567 mg/kg (Table 1, and photograph below). This sample was collected approximately 2 feet from the outside of the northern tar well (see Figure 4 and the sketch in Appendix C) and is believed to be an isolated impact.



Thin (1 mm), sticky tar stringers in boring B-519(13) between 20.1 and 21.2 feet bgs.

All samples collected from angle boring B-519(13) are summarized below.

Sample ID	Vertical Depth (feet bgs)	Linear Distance (feet)	Total PAHs (mg/kg)
B-519(13) 29-30	20.5-21.2	29-30	5,567
B-519(13) 34-35	24-24.8	34-35	0.255
B-519(13) 39-40	27.6-28.3	39-40	1.683

Angle boring B-520(13), drilled from the southeast toward and beneath the suspected tar well floor, contained naphthalene-like odors between vertical depths of 17.7 and 28.3 feet bgs (linear depth of 25 to 40 feet bgs) where the boring terminated. Total PAH concentrations in samples B-520(13)27.5-30, B-520(13)34-35, and B-520(13)38-40 and its duplicate were well below 500 mg/kg.

Sample ID	Vertical Depth (feet bgs)	Linear Distance (feet)	Total PAHs (mg/kg)
B-520(13) 11-12	7.8-8.5	11-12	647.3
Duplicate of: B-520(13) 11-12	7.8-8.5	11-12	671.3
B-520(13) 27.5-30	19.5-21.2	27.5-30	1.442
B-520(13) 34-35	24-24.8	34-35	1.003
B-520(13) 38-40	26.9-28.3	38-40	0.39
Duplicate of: B-520(13) 38-40	26.9-28.3	38-40	0.36

3.3 Southern Tar Well

Fourteen borings (B-505(13) through B-518(13)) were drilled outside and adjacent to the southern tar well. All contained intervals of naphthalene-like odors ranging between 1.3 feet thick at B-511(13) to 14.5 feet thick at B-508(13) (Figure 5). Fill was observed as deep as 20.25 feet bgs (B-505(13)).

Adjacent to B/MW-103(05), where layers of “black liquid” were described between 10 and 15 feet bgs by EA during Site Characterization activities, a 2 mm vertical lens of black NAPL was encountered 11.3 to 12.3 feet bgs in B-517(13). One-0mm lenses of black and brown NAPL were also encountered in soil pores between 14.3 and 15.9 feet bgs in B-513(13) nearby. Samples collected from the NAPL lenses at B-513(13) did not contain total PAHs in excess of 500 mg/kg. The NAPL at these locations was sticky and did not appear to be flowable.



2 mm vertical lens of black NAPL in boring B-517(13) between 11.3 and 12.3 feet bgs.

The table below provides a summary of the analytical samples collected during the RI and PDI that contained total PAH concentrations above 500 mg/kg.

Remedial Investigation	Pre-Design Investigation
B-310(10) 11-12.25	B-506(13) 9.5-10
B-310(10) 14.25-15	B-509(13) 11-14
B-313(10) 7.5-9.5	B-510(13) 11-12
B-314(10) 21-23	B-513(13) 13-14
B/MW-324(10) 15.25-16	B-514(13) 15.5-16
	B-517(13) 11-12

Two borings (STW1 and STW2) were drilled to 15 feet bgs within the suspected footprint of the tar well to obtain more heavily impacted soil for waste characterization. MGP-impacted soil was encountered between 10 and 13 feet bgs and a 6-inch layer of concrete was encountered approximately 13 to 14 feet bgs. Residual odors and slight staining were observed in soil below the concrete.

3.3.1 Tar Wells Summary and Excavation Limits

The analytical results of samples collected during the RI and PDI support horizontal excavation limits as shown in Figures 4 and 5, based on “clean” soil conditions (total PAH concentrations less than 500 mg/kg, and the absence of tar or sheen).

The vertical limit of the excavations will be approximately 20 feet bgs. The predominance of physical tar is limited to 20 feet bgs and less. In addition, groundwater is present at approximately 15 feet bgs.

3.3.2 Waste Characterization

Waste characterization results are provided in Table 2. Sample Waste 1, which mostly consisted of tar collected from inside of the northern tar well, is hazardous for benzene. Its leachate concentration was 8.5 milligrams per Liter (mg/L). The regulatory limit is 0.5 mg/L. No other samples exceeded the EPA 40 CFR Part 261 criteria.

3.3.3 Geotechnical Results

The grain size, soil description, and Atterberg Limits for each geotechnical sample are summarized in the table below.

Sample ID	Grain Size %			Soil Description	Atterberg Limits		
	Gravel	Sand	Fines		PL	LL	PI
B-501, 6-8 feet	12.7	22.3	65	Sandy lean clay	21.7	37.2	15.5
B-501, 14-16 feet	26.8	63.6	9.6	Poorly graded sand with silt and gravel	NP	NV	NP
B-501, 22-24 feet	3.8	88.7	7.5	Poorly graded sand with silt	NP	NV	NP
B-501, 28-30 feet	44.3	50.9	4.8	Well graded sand with gravel	NP	NV	NP
B-515, 8-9 feet	0.7	8.5	90.8	Lean clay	19.5	32.7	13.2
B-515, 20-21 feet	12.4	80.4	7.2	Poorly graded sand with silt	NP	NV	NP
B-515, 24-25 feet	22.9	66	11.1	Poorly graded sand with silt and gravel	NP	NV	NP

PL-Plastic Limit, LL-Liquid Limit, PI-Plasticity Index

NP-Not Plastic, NV-No Value

The results above indicate that most of the subsurface soil within the tar well excavations is not plastic or generally cohesive (no value). These properties, however, are common and no unusual challenges are expected with design of temporary shoring systems.

The detailed laboratory results are presented in Appendix F.

3.3.4 Work Zone and Community Air Monitoring Summary

Air quality was monitored in the work zone for multiple parameters (VOCs, hydrogen cyanide, hydrogen sulfide, lower explosive limit, oxygen, and dust) and at the upwind and downwind perimeters for dust and VOC concentrations. Table 3 summarizes the air monitoring data.

VOCs, hydrogen cyanide, hydrogen sulfide, lower explosive limit, and oxygen were within the limits set forth in the CAMP and HASP.

There were occasions when 15-minute average dust concentrations exceeded the action levels in the work zone during saw-cutting and jack-hammering activities on March 6 and March 7, 2013. Elevated dust levels were temporary and not sustained outside of these periods during vacuum clearance activities. On March 18, 2013, there was another time period of elevated dust in the work zone while drilling activities were taking place concurrently with concrete mixing activities in the southern tar well area. Again, the levels were temporary and not sustained.

3.4 PDI Conclusions

A brick sewer does not appear to be present below the eastern half of Hill Street. Since the southern tar well excavation is not expected to extend to the middle of the street, neither the 8-inch gas main nor the brick sewer will influence the remedial design. However, vibration monitoring will be implemented if required during remediation to assist in protecting the 8-inch gas main along with keeping the required distance from the gas main.

SPT information and geotechnical analysis results are adequate to develop a remedial design to remove both former tar wells and surrounding tar-impacted soil.

The horizontal extent of soil containing more than 500 mg/kg of total PAHs has been determined at both tar wells.

The original depths of both tar wells are unknown. However, NAPL at both locations does not appear to be flowable and the PAH concentrations and depths to “clean” soil have been determined. Angle boring samples demonstrate the lack of tar below the northern tar well and “clean” soil (less than 500 mg/kg total PAHs) is present at 28 feet bgs. At the southern tar well, clean soil is present by 25 feet bgs.

NAPL within the northern tar well generates a leachate that contains 8.5 mg/L of benzene. This exceeds the federal regulatory limit of 0.5 mg/L.

Soil at the southern tar well is not hazardous based on results of samples collected during the PDI. However, we were unable to retrieve soils as heavily impacted as were observed during the RI. As such, a remedial action to remove this former tar well should include a contingency to confirm the non-hazardous finding.

Tables

Table 1
PDI Subsurface Soil Analytical Results
Pre-Design Investigation Data Report
Troy (Liberty Street) Non-Owned Former MGP Site
Troy, New York

Location Name				B-501(13)	B-501(13)	B-501(13)	B-501(13)	B-502(13)	B-502(13)	B-502(13)
Sample Name				B-501(13)9-10	B-501(13)12-14	B-501(13)15-17	B-501(13)18-20	B-502(13)9.5-10	B-502(13)11-12	B-502(13)19-20
Start Depth				9	12	15	18	9.5	11	19
End Depth				10	14	17	20	10	12	20
Depth Unit				ft	ft	ft	ft	ft	ft	ft
Sample Date				3/11/2013	3/11/2013	3/11/2013	3/11/2013	3/14/2013	3/14/2013	3/14/2013
Parent Sample Code										
Analyte	CAS no.	Unrestricted SCO	Commercial SCO							
BTEX (mg/kg)										
Benzene	71-43-2	0.06	44	0.066	0.25 J	0.00064 J	0.00032 J	0.00073 J	0.0015 J	0.0011 UJ
Toluene	108-88-3	0.7	500	0.081	0.28 J	0.00085 U	0.000088 J	0.0011 J	0.00049 J	0.0003 J
Ethylbenzene	100-41-4	1	390	0.51	0.68 J	0.00032 J	R	0.00066 J	0.00047 J	0.0011 UJ
Total Xylene	1330-20-7	0.26	500	1.1	2.2 J	0.001 J	R	0.002 J	0.0016 J	0.0033 UJ
Total BTEX	TBTEX	NE	NE	1.757	3.41	0.00196	0.000408	0.00449	0.00406	0.0003
Non-carcinogenic PAHs (mg/kg)										
Acenaphthene	83-32-9	20	500	1.2	0.79	0.36 U	NA	1.1	0.53	0.37 U
Acenaphthylene	208-96-8	100	500	0.99	0.58	0.36 U	NA	0.33 J	0.59	0.37 U
Anthracene	120-12-7	100	500	1.6	1.2	0.36 U	NA	0.75	2.3	0.37 U
Benzo[g,h,i]perylene	191-24-2	100	500	0.74	0.33 J	0.36 U	NA	0.17 J	1.7	0.37 U
Fluoranthene	206-44-0	100	500	2.7	1.7	0.36 U	NA	1.4	6.4	0.37 U
Fluorene	86-73-7	30	500	2.6	1.6	0.082 J	NA	1.3	1.4	0.37 U
Naphthalene	91-20-3	12	500	0.97	2.6	0.24 J	NA	0.39 J	0.65	0.37 U
Phenanthrene	85-01-8	100	500	4.2	3.7	0.082 J	NA	2.1	4.8	0.056 J
Pyrene	129-00-0	100	500	3	1.8	0.36 U	NA	1	4.5	0.031 J
Carcinogenic PAHs (mg/kg)										
Benz[a]anthracene	56-55-3	1	5.6	1.7	1.1	0.036 U	NA	0.52	4	0.037 U
Benzo[a]pyrene	50-32-8	1	1	1.5	0.74	0.036 U	NA	0.42	3.7	0.037 U
Benzo[b]fluoranthene	205-99-2	1	5.6	1.5	0.75	0.036 U	NA	0.41	3.7	0.037 U
Benzo[k]fluoranthene	207-08-9	0.8	56	0.83	0.39	0.036 U	NA	0.2	1.5	0.037 U
Chrysene	218-01-9	1	56	1.6	0.99	0.36 U	NA	0.5	3.8	0.37 U
Dibenz[a,h]anthracene	53-70-3	0.33	0.56	0.22	0.11	0.036 U	NA	0.04 U	0.55	0.037 U
Indeno[1,2,3-cd]pyrene	193-39-5	0.5	5.6	0.76	0.33	0.036 U	NA	0.2	1.9	0.037 U
Total PAHs (mg/kg)										
Total PAH 16	TPAH16	NE	500	26.11	18.71	0.404	NA	10.79	42.02	0.087

Table 1
PDI Subsurface Soil Analytical Results
Pre-Design Investigation Data Report
Troy (Liberty Street) Non-Owned Former MGP Site
Troy, New York

Location Name				B-503(13)	B-503(13)	B-503(13)	B-504(13)	B-504(13)	B-504(13)	B-505(13)
Sample Name				B-503(13)8-9	B-503(13)14.5-15	B-503(13)18-19	B-504(13)6-8	B-504(13)11.5-12	B-504(13)18.5-19.5	B-505(13)8-9
Start Depth				8	14.5	18	6	11.5	18.5	8
End Depth				9	15	19	8	12	19.5	9
Depth Unit				ft	ft	ft	ft	ft	ft	ft
Sample Date				3/14/2013	3/14/2013	3/14/2013	3/14/2013	3/14/2013	3/14/2013	3/12/2013
Parent Sample Code										
Analyte	CAS no.	Unrestricted SCO	Commercial SCO							
BTEX (mg/kg)										
Benzene	71-43-2	0.06	44	0.00052 J	0.0011 UJ	0.0011 UJ	0.0013 J	0.035 J	0.0068 J	0.001 U
Toluene	108-88-3	0.7	500	0.0007 J	0.00026 J	0.00032 J	0.00037 J	0.001 J	0.00034 J	0.001 U
Ethylbenzene	100-41-4	1	390	0.002 J	0.0011 UJ	0.0011 UJ	0.0012 UJ	0.0018 J	0.0011 J	0.001 U
Total Xylene	1330-20-7	0.26	500	0.0053 J	0.0032 UJ	0.0033 UJ	0.0037 UJ	0.0036 J	0.0011 J	0.0031 U
Total BTEX	TBTEX	NE	NE	0.00852	0.00026	0.00032	0.00167	0.0414	0.00934	ND
Non-carcinogenic PAHs (mg/kg)										
Acenaphthene	83-32-9	20	500	2.1	0.39 U	0.37 U	0.35 J	0.23 J	0.13 J	0.43 U
Acenaphthylene	208-96-8	100	500	2.4	0.39 U	0.37 U	0.055 J	0.62	0.37 U	0.43 U
Anthracene	120-12-7	100	500	7.4	0.39 U	0.37 U	0.12 J	0.45 U	0.34 J	0.43 U
Benzo[g,h,i]perylene	191-24-2	100	500	3	0.39 U	0.37 U	0.18 J	0.45 U	0.37 U	0.43 U
Fluoranthene	206-44-0	100	500	12	0.39 U	0.37 U	0.62	0.45 U	0.14 J	0.43 U
Fluorene	86-73-7	30	500	6.5	0.39 U	0.37 U	0.28 J	0.11 J	0.76	0.43 U
Naphthalene	91-20-3	12	500	0.94 J	0.39 U	0.37 U	0.13 J	1.4	0.38	0.068 J
Phenanthrene	85-01-8	100	500	20	0.39 U	0.37 U	0.27 J	0.45 U	0.63	0.079 J
Pyrene	129-00-0	100	500	11	0.39 U	0.37 U	0.59	0.45 U	0.098 J	0.43 U
Carcinogenic PAHs (mg/kg)										
Benz[a]anthracene	56-55-3	1	5.6	9	0.039 U	0.037 U	0.47	0.045 U	0.037 U	0.043 U
Benzo[a]pyrene	50-32-8	1	1	6.2	0.039 U	0.037 U	0.4	0.045 U	0.037 U	0.043 U
Benzo[b]fluoranthene	205-99-2	1	5.6	5.5	0.039 U	0.037 U	0.45	0.045 U	0.037 U	0.043 U
Benzo[k]fluoranthene	207-08-9	0.8	56	2.9	0.039 U	0.037 U	0.21	0.045 U	0.037 U	0.043 U
Chrysene	218-01-9	1	56	8.1	0.39 U	0.37 U	0.46	0.45 U	0.37 U	0.43 U
Dibenzo[a,h]anthracene	53-70-3	0.33	0.56	1.4	0.039 U	0.037 U	0.053	0.045 U	0.037 U	0.043 U
Indeno[1,2,3-cd]pyrene	193-39-5	0.5	5.6	3.2	0.039 U	0.037 U	0.17	0.045 U	0.037 U	0.043 U
Total PAHs (mg/kg)										
Total PAH 16	TPAH16	NE	500	101.64	ND	ND	4.808	2.36	2.478	0.147

Table 1
PDI Subsurface Soil Analytical Results
Pre-Design Investigation Data Report
Troy (Liberty Street) Non-Owned Former MGP Site
Troy, New York

Location Name				B-505(13)	B-505(13)	B-506(13)	B-506(13)	B-506(13)	B-507(13)	B-507(13)
Sample Name				B-505(13)13-15	B-505(13)18-19	B-506(13)9.5-10	B-506(13)12-13	B-506(13)19.5-20	B-507(13)9.5-10	B-507(13)14-15
Start Depth				13	18	9.5	12	19.5	9.5	14
End Depth				15	19	10	13	20	10	15
Depth Unit				ft	ft	ft	ft	ft	ft	ft
Sample Date				3/12/2013	3/12/2013	3/14/2013	3/14/2013	3/14/2013	3/14/2013	3/14/2013
Parent Sample Code										
Analyte	CAS no.	Unrestricted SCO	Commercial SCO							
BTEX (mg/kg)										
Benzene	71-43-2	0.06	44	0.0033	0.00065 J	0.012 J	0.37 J	0.00075 J	0.0021 J	0.14 J
Toluene	108-88-3	0.7	500	0.00032 J	0.00016 J	0.0035 J	0.13 J	0.00039 J	0.0013 J	0.11 J
Ethylbenzene	100-41-4	1	390	0.00056 J	0.00097 U	0.032 J	2.5 J	0.00025 J	0.0052 J	0.58 J
Total Xylene	1330-20-7	0.26	500	0.00086 J	0.0029 U	0.021 J	2.2 J	0.0032 UJ	0.0027 J	1.2 J
Total BTEX	TBTEX	NE	NE	0.00504	0.00081	0.0685	5.2	0.00139	0.0113	2.03
Non-carcinogenic PAHs (mg/kg)										
Acenaphthene	83-32-9	20	500	0.29 J	1.2	15 J	0.42 U	0.16 J	0.44 U	1.1
Acenaphthylene	208-96-8	100	500	0.38 U	0.12 J	33	0.42 U	0.37 U	0.44 U	1.4
Anthracene	120-12-7	100	500	0.38 U	0.37 U	140	0.21 J	0.047 J	0.44 U	3
Benzo[g,h,i]perylene	191-24-2	100	500	0.38 U	0.37 U	67	0.062 J	0.37 U	0.44 U	1.8
Fluoranthene	206-44-0	100	500	0.42	0.37 U	220	0.4 J	0.087 J	0.44 U	8.8
Fluorene	86-73-7	30	500	0.18 J	0.37 U	46	0.055 J	0.37 U	0.44 U	2.4
Naphthalene	91-20-3	12	500	0.11 J	0.37 U	18 U	1.5	0.061 J	0.49	3.1
Phenanthrene	85-01-8	100	500	0.065 J	0.37 U	280	0.36 J	0.098 J	0.44 U	8.4
Pyrene	129-00-0	100	500	0.35 J	0.37 U	180	0.35 J	0.071 J	0.44 U	6.3
Carcinogenic PAHs (mg/kg)										
Benz[a]anthracene	56-55-3	1	5.6	0.038	0.037 U	88	0.15	0.037	0.044 U	3.4
Benzo[a]pyrene	50-32-8	1	1	0.024 J	0.037 U	89	0.14	0.03 J	0.044 U	3.4
Benzo[b]fluoranthene	205-99-2	1	5.6	0.027 J	0.037 U	77	0.14	0.028 J	0.044 U	3.1
Benzo[k]fluoranthene	207-08-9	0.8	56	0.013 J	0.037 U	38	0.057	0.013 J	0.044 U	1.2
Chrysene	218-01-9	1	56	0.38 U	0.37 U	110	0.17 J	0.37 U	0.44 U	2.7
Dibenz[a,h]anthracene	53-70-3	0.33	0.56	0.038 U	0.037 U	17	0.019 J	0.037 U	0.044 U	0.44
Indeno[1,2,3-cd]pyrene	193-39-5	0.5	5.6	0.038 U	0.037 U	63	0.063	0.015 J	0.044 U	1.9
Total PAHs (mg/kg)										
Total PAH 16	TPAH16	NE	500	1.517	1.32	1463	3.676	0.647	0.49	52.44

Table 1
PDI Subsurface Soil Analytical Results
Pre-Design Investigation Data Report
Troy (Liberty Street) Non-Owned Former MGP Site
Troy, New York

Location Name				B-507(13)	B-508(13)	B-508(13)	B-508(13)	B-509(13)	B-509(13)	B-509(13)
Sample Name				B-507(13)18.5-19	B-508 (13) 9.5-10	B-508 (13) 12.5-15	B-508 (13) 19.5-20	B-509 (13) 9-10	B-509 (13) 11-14	B-509 (13) 16.5-17.5
Start Depth				18.5	9.5	12.5	19.5	9	11	16.5
End Depth				19	10	15	20	10	14	17.5
Depth Unit				ft	ft	ft	ft	ft	ft	ft
Sample Date				3/14/2013	3/15/2013	3/15/2013	3/15/2013	3/15/2013	3/15/2013	3/15/2013
Parent Sample Code										
Analyte	CAS no.	Unrestricted SCO	Commercial SCO							
BTEX (mg/kg)										
Benzene	71-43-2	0.06	44	0.00078 J	0.00045 J	0.028 J	0.00072 J	0.00062 J	0.019 J	0.0011 UJ
Toluene	108-88-3	0.7	500	0.0011 UJ	0.00037 J	0.0043 J	0.001 J	0.00037 J	0.0044 J	0.0011 UJ
Ethylbenzene	100-41-4	1	390	0.0011 UJ	0.0011 UJ	0.012 J	0.037 J	0.0012 UJ	0.0048 J	0.0011 UJ
Total Xylene	1330-20-7	0.26	500	0.0033 UJ	0.0033 UJ	0.011 J	0.065 J	0.0037 UJ	0.045 J	0.0032 UJ
Total BTEX	TBTEX	NE	NE	0.00078	0.00082	0.0553	0.10372	0.00099	0.0732	ND
Non-carcinogenic PAHs (mg/kg)										
Acenaphthene	83-32-9	20	500	0.4 U	0.78 U	1.7 J	4.7	0.075 J	22	0.41 U
Acenaphthylene	208-96-8	100	500	0.4 U	0.5 J	1.9	1.4 J	0.45	61	0.082 J
Anthracene	120-12-7	100	500	0.4 U	3.6	14	18	1	120	0.24 J
Benzo[g,h,i]perylene	191-24-2	100	500	0.4 U	6.1	5.3	11	2.9	51	0.24 J
Fluoranthene	206-44-0	100	500	0.4 U	15	23	40	5.9	190	0.84
Fluorene	86-73-7	30	500	0.4 U	0.22 J	2.9	8.2	0.13 J	85	0.061 J
Naphthalene	91-20-3	12	500	0.26 J	0.78 U	14	12	0.16 J	9.8 J	0.41 U
Phenanthrene	85-01-8	100	500	0.4 U	5.8	21	52	1.2	340	0.28 J
Pyrene	129-00-0	100	500	0.4 U	11	22	35	4.8	180	0.73
Carcinogenic PAHs (mg/kg)										
Benz[a]anthracene	56-55-3	1	5.6	0.04 U	6.9	9.5	17	3.6	83	0.39
Benzo[a]pyrene	50-32-8	1	1	0.04 U	7.6	10	17	4.5	79	0.39
Benzo[b]fluoranthene	205-99-2	1	5.6	0.04 U	7.5	9.8	17	4.6	72	0.42
Benzo[k]fluoranthene	207-08-9	0.8	56	0.04 U	3.1	4.4	6.9	1.6	39	0.19
Chrysene	218-01-9	1	56	0.4 U	7	10	16	3.7	83	0.38 J
Dibenz[a,h]anthracene	53-70-3	0.33	0.56	0.04 U	1.5	0.95	1.8	0.78	8.3	0.034 J
Indeno[1,2,3-cd]pyrene	193-39-5	0.5	5.6	0.04 U	6.4	5.4	11	3.2	49	0.25
Total PAHs (mg/kg)										
Total PAH 16	TPAH16	NE	500	0.26	82.22	155.85	269	38.595	1472.1	4.527

Table 1
PDI Subsurface Soil Analytical Results
Pre-Design Investigation Data Report
Troy (Liberty Street) Non-Owned Former MGP Site
Troy, New York

Location Name				B-510(13)	B-510(13)	B-510(13)	B-511(13)	B-511(13)	B-511(13)	B-512(13)
Sample Name				B-510 (13) 5-10	B-510 (13) 11-12	B-510 (13) 15-20	B-511 (13) 5-7.5	B-511 (13) 11-13	B-511 (13) 19-20	B-512 (13) 9-10
Start Depth				5	11	15	5	11	19	9
End Depth				10	12	20	7.5	13	20	10
Depth Unit				ft	ft	ft	ft	ft	ft	ft
Sample Date				3/15/2013	3/15/2013	3/15/2013	3/15/2013	3/15/2013	3/15/2013	3/15/2013
Parent Sample Code										
Analyte	CAS no.	Unrestricted SCO	Commercial SCO							
BTEX (mg/kg)										
Benzene	71-43-2	0.06	44	0.0023 J	0.0027 J	0.001 UJ	0.00031 J	0.0043 J	0.00023 J	0.017 J
Toluene	108-88-3	0.7	500	0.0006 J	0.0019 J	0.0002 J	0.00053 J	0.0016 J	0.00036 J	0.00099 J
Ethylbenzene	100-41-4	1	390	0.0011 UJ	0.0013 J	0.001 UJ	0.0011 UJ	0.00068 J	0.0011 UJ	0.001 UJ
Total Xylene	1330-20-7	0.26	500	0.0033 UJ	0.0014 J	0.0031 UJ	0.0034 UJ	0.0018 J	0.0032 UJ	0.0031 UJ
Total BTEX	TBTEX	NE	NE	0.0029	0.0073	0.0002	0.00084	0.00838	0.00059	0.01799
Non-carcinogenic PAHs (mg/kg)										
Acenaphthene	83-32-9	20	500	0.24 J	10	0.39 U	0.37 U	5.3	0.37 U	0.37 U
Acenaphthylene	208-96-8	100	500	0.084 J	11	0.39 U	0.05 J	0.96	0.37 U	0.37 U
Anthracene	120-12-7	100	500	0.44	39	0.39 U	0.37 U	0.98	0.37 U	0.37 U
Benzo[g,h,i]perylene	191-24-2	100	500	1.1	19	0.39 U	0.5	0.19 J	0.37 U	0.37 U
Fluoranthene	206-44-0	100	500	2.7	96	0.12 J	0.55	1.6	0.37 U	0.37 U
Fluorene	86-73-7	30	500	0.21 J	9.4	0.39 U	0.37 U	6.2	0.37 U	0.37 U
Naphthalene	91-20-3	12	500	0.23 J	1.4 J	0.39 U	0.061 J	2.3	0.37 U	0.081 J
Phenanthrene	85-01-8	100	500	2	72	0.076 J	0.13 J	5.2	0.37 U	0.37 U
Pyrene	129-00-0	100	500	2.1	79	0.098 J	0.8	1.6	0.37 U	0.37 U
Carcinogenic PAHs (mg/kg)										
Benz[a]anthracene	56-55-3	1	5.6	1.7	36	0.051	0.46	0.46	0.037 U	0.037 U
Benzo[a]pyrene	50-32-8	1	1	1.9	34	0.05	0.76	0.35	0.037 U	0.037 U
Benzo[b]fluoranthene	205-99-2	1	5.6	1.9	28	0.053	0.84	0.33	0.037 U	0.037 U
Benzo[k]fluoranthene	207-08-9	0.8	56	0.82	15	0.023 J	0.37	0.18	0.037 U	0.037 U
Chrysene	218-01-9	1	56	1.7	34	0.39 U	0.53	0.43 J	0.37 U	0.37 U
Dibenz[a,h]anthracene	53-70-3	0.33	0.56	0.3	4.9	0.039 U	0.12	0.054	0.037 U	0.037 U
Indeno[1,2,3-cd]pyrene	193-39-5	0.5	5.6	1.2	21	0.021 J	0.55	0.23	0.037 U	0.037 U
Total PAHs (mg/kg)										
Total PAH 16	TPAH16	NE	500	18.624	509.7	0.492	5.721	26.364	ND	0.081

Table 1
PDI Subsurface Soil Analytical Results
Pre-Design Investigation Data Report
Troy (Liberty Street) Non-Owned Former MGP Site
Troy, New York

Location Name				B-512(13)	B-512(13)	B-513(13)	B-513(13)	B-513(13)	B-513(13)	B-514(13)
Sample Name				B-512 (13) 12.5-13.5	B-512 (13) 15-16	B-513(13)9-10	B-513(13)13-14	B-513(13)15.5-16.5	B-513(13)24.5-25.0	B-514(13)12-13
Start Depth				12.5	15	9	13	15.5	24.5	12
End Depth				13.5	16	10	14	16.5	25	13
Depth Unit				ft	ft	ft	ft	ft	ft	ft
Sample Date				3/15/2013	3/15/2013	3/18/2013	3/18/2013	3/18/2013	3/18/2013	3/18/2013
Parent Sample Code										
Analyte	CAS no.	Unrestricted SCO	Commercial SCO							
BTEX (mg/kg)										
Benzene	71-43-2	0.06	44	0.0055 J	0.00024 J	0.0011 UJ	0.8 J	0.49 J	0.0053 J	0.09 J
Toluene	108-88-3	0.7	500	0.00052 J	0.00051 J	0.00036 J	1.1 J	0.42 J	0.00049 J	0.013 J
Ethylbenzene	100-41-4	1	390	0.0012 UJ	0.0011 UJ	0.00025 J	4.2 J	0.45 J	0.0013 J	0.086 J
Total Xylene	1330-20-7	0.26	500	0.0035 UJ	0.0032 UJ	0.0034 UJ	7.2 J	0.84 J	0.002 J	0.12 J
Total BTEX	TBTEX	NE	NE	0.00602	0.00075	0.00061	13.3	2.2	0.00909	0.309
Non-carcinogenic PAHs (mg/kg)										
Acenaphthene	83-32-9	20	500	0.26 J	0.38 U	0.084 J	11	7.6	0.48	1.3
Acenaphthylene	208-96-8	100	500	0.41 U	0.38 U	0.44	18	7.9	0.38 U	0.22 J
Anthracene	120-12-7	100	500	0.056 J	0.38 U	1.3	27	15	0.14 J	0.16 J
Benzo[g,h,i]perylene	191-24-2	100	500	0.41 U	0.38 U	1.6	9.7	6.7	0.38 U	0.099 J
Fluoranthene	206-44-0	100	500	0.066 J	0.38 U	4.5	45	31	0.5	0.26 J
Fluorene	86-73-7	30	500	0.074 J	0.38 U	0.21 J	21	12	0.56	1.1
Naphthalene	91-20-3	12	500	0.069 J	0.38 U	0.29 J	54	16	0.43	6.3
Phenanthrene	85-01-8	100	500	0.41 U	0.38 U	1.9	79	53	0.27 J	1.5
Pyrene	129-00-0	100	500	0.052 J	0.38 U	5.6	47	32	0.27 J	0.29 J
Carcinogenic PAHs (mg/kg)										
Benzo[a]anthracene	56-55-3	1	5.6	0.041 U	0.038 U	2.4	16	11	0.038 U	0.12
Benzo[a]pyrene	50-32-8	1	1	0.024 J	0.038 U	2.7	16	12	0.019 J	0.15
Benzo[b]fluoranthene	205-99-2	1	5.6	0.028 J	0.038 U	2.5	16	11	0.018 J	0.15
Benzo[k]fluoranthene	207-08-9	0.8	56	0.041 U	0.038 U	1.3	6.6	5	0.038 U	0.041 U
Chrysene	218-01-9	1	56	0.41 U	0.38 U	2.4	15	9.1	0.38 U	0.13 J
Dibenz[a,h]anthracene	53-70-3	0.33	0.56	0.041 U	0.038 U	0.43	2.1	1.4	0.038 U	0.027 J
Indeno[1,2,3-cd]pyrene	193-39-5	0.5	5.6	0.041 U	0.038 U	1.7	9	6.5	0.038 U	0.096
Total PAHs (mg/kg)										
Total PAH 16	TPAH16	NE	500	0.629	ND	29.354	392.4	237.2	2.687	11.902

Table 1
PDI Subsurface Soil Analytical Results
Pre-Design Investigation Data Report
Troy (Liberty Street) Non-Owned Former MGP Site
Troy, New York

Location Name				B-514(13)	B-514(13)	B-515(13)	B-515(13)	B-515(13)	B-515(13)	B-516(13)
Sample Name				B-514(13)15.5-16.0	B-514(13)20.0-21.5	B-515(13)9-10	B-515(13)12.6-12.8	B-515(13)18.5-19	B-515(13)23-23.5	B-516(13)7.5-8.0
Start Depth				15.5	20	9	12.6	18.5	23	7.5
End Depth				16	21.5	10	12.8	19	23.5	8
Depth Unit				ft	ft	ft	ft	ft	ft	ft
Sample Date				3/18/2013	3/18/2013	3/12/2013	3/12/2013	3/12/2013	3/12/2013	3/18/2013
Parent Sample Code										
Analyte	CAS no.	Unrestricted SCO	Commercial SCO							
BTEX (mg/kg)										
Benzene	71-43-2	0.06	44	17 J	0.11 J	0.0091	0.0045	0.00016 J	NA	0.0012 UJ
Toluene	108-88-3	0.7	500	38 J	0.026 J	0.0002 J	0.00019 J	0.001 U	NA	0.0012 UJ
Ethylbenzene	100-41-4	1	390	55 J	0.078 J	0.00038 J	0.00082 U	0.001 U	NA	0.0012 UJ
Total Xylene	1330-20-7	0.26	500	160 J	0.17 J	0.0033 U	0.0024 U	0.0031 U	NA	0.0035 UJ
Total BTEX	TBTEX	NE	NE	270	0.384	0.00968	0.00469	0.00016	NA	ND
Non-carcinogenic PAHs (mg/kg)										
Acenaphthene	83-32-9	20	500	9.7 J	2.3	0.4 U	0.059 J	0.086 J	0.59	0.42 U
Acenaphthylene	208-96-8	100	500	48	4.6	0.4 U	0.05 J	0.4 U	0.083 J	0.42 U
Anthracene	120-12-7	100	500	41	6.1	0.4 U	0.092 J	0.4 U	0.061 J	0.42 U
Benzo[g,h,i]perylene	191-24-2	100	500	18 J	3.2	0.4 U	0.36 U	0.4 U	0.41 U	0.42 U
Fluoranthene	206-44-0	100	500	91	14	0.4 U	0.18 J	0.11 J	0.46	0.42 U
Fluorene	86-73-7	30	500	40	5.7	0.4 U	0.14 J	0.4 U	0.19 J	0.42 U
Naphthalene	91-20-3	12	500	250	17	0.052 J	0.12 J	0.4 U	0.065 J	0.42 U
Phenanthrene	85-01-8	100	500	150	22	0.4 U	0.14 J	0.4 U	0.052 J	0.42 U
Pyrene	129-00-0	100	500	85	15	0.4 U	0.16 J	0.084 J	0.45	0.42 U
Carcinogenic PAHs (mg/kg)										
Benz[a]anthracene	56-55-3	1	5.6	32	5.4	0.04 U	0.036 U	0.04 U	0.041 U	0.042 U
Benzo[a]pyrene	50-32-8	1	1	35	5.1	0.04 U	0.036 U	0.04 U	0.041 U	0.042 U
Benzo[b]fluoranthene	205-99-2	1	5.6	29	4.9	0.04 U	0.036 U	0.04 U	0.041 U	0.042 U
Benzo[k]fluoranthene	207-08-9	0.8	56	17	2.1	0.04 U	0.036 U	0.04 U	0.041 U	0.042 U
Chrysene	218-01-9	1	56	27	5.2	0.4 U	0.36 U	0.4 U	0.41 U	0.42 U
Dibenz[a,h]anthracene	53-70-3	0.33	0.56	3.6	0.73	0.04 U	0.036 U	0.04 U	0.041 U	0.042 U
Indeno[1,2,3-cd]pyrene	193-39-5	0.5	5.6	16	3.1	0.04 U	0.036 U	0.04 U	0.041 U	0.042 U
Total PAHs (mg/kg)										
Total PAH 16	TPAH16	NE	500	892.3	116.43	0.052	0.941	0.28	1.951	ND

Table 1
PDI Subsurface Soil Analytical Results
Pre-Design Investigation Data Report
Troy (Liberty Street) Non-Owned Former MGP Site
Troy, New York

Location Name				B-516(13)	B-516(13)	B-516(13)	B-517(13)	B-517(13)	B-518(13)	B-518(13)
Sample Name				B-516(13)14-15	B-516(13)18.25-18.75	B-516(13)22.5-23	B-517(13)11-12	B-517(13)24.5-25.0	B-518(13)5-7.5	B-518(13)14.5-16
Start Depth				14	18.25	22.5	11	24.5	5	14.5
End Depth				15	18.75	23	12	25	7.5	16
Depth Unit				ft	ft	ft	ft	ft	ft	ft
Sample Date				3/18/2013	3/18/2013	3/18/2013	3/18/2013	3/18/2013	3/18/2013	3/18/2013
Parent Sample Code										
Analyte	CAS no.	Unrestricted SCO	Commercial SCO							
BTEX (mg/kg)										
Benzene	71-43-2	0.06	44	0.00046 J	0.063 J	0.0013 J	9.4 J	0.0011 J	0.0011 UJ	0.005 J
Toluene	108-88-3	0.7	500	0.00026 J	0.00075 J	0.00022 J	29 J	0.00027 J	0.0011 UJ	0.00036 J
Ethylbenzene	100-41-4	1	390	0.00072 J	0.012 J	0.00026 J	43 J	0.00043 J	0.0011 UJ	0.00067 J
Total Xylene	1330-20-7	0.26	500	0.0025 J	0.017 J	0.003 UJ	290 J	0.0034 UJ	0.0032 UJ	0.0033 UJ
Total BTEX	TBTEX	NE	NE	0.00394	0.09275	0.00178	371.4	0.0018	ND	0.00603
Non-carcinogenic PAHs (mg/kg)										
Acenaphthene	83-32-9	20	500	0.12 J	1.5	0.82	14 J	0.62	0.36 U	0.86 J
Acenaphthylene	208-96-8	100	500	0.41 U	0.24 J	0.1 J	42	0.39 U	0.36 U	0.47 J
Anthracene	120-12-7	100	500	0.41 U	0.28 J	0.12 J	95	0.24 J	0.36 U	0.38 UJ
Benzo[g,h,i]perylene	191-24-2	100	500	0.41 U	0.4 U	0.37 U	39	0.39 U	0.15 J	0.38 UJ
Fluoranthene	206-44-0	100	500	0.41 U	0.4 U	0.51	160	0.73	0.097 J	0.38 UJ
Fluorene	86-73-7	30	500	0.08 J	2.8	0.22 J	66	0.54	0.36 U	1.3 J
Naphthalene	91-20-3	12	500	0.24 J	1.1	0.29 J	310	0.43	0.36 U	0.4 J
Phenanthrene	85-01-8	100	500	0.17 J	2	0.11 J	270	0.15 J	0.06 J	1.3 J
Pyrene	129-00-0	100	500	0.037 J	0.4 U	0.27 J	160	0.46	0.11 J	0.38 UJ
Carcinogenic PAHs (mg/kg)										
Benzo[a]anthracene	56-55-3	1	5.6	0.041 U	0.04 U	0.037 U	64	0.039 U	0.11	0.038 UJ
Benzo[a]pyrene	50-32-8	1	1	0.041 U	0.0091 J	0.037 U	64	0.039 U	0.21	0.038 UJ
Benzo[b]fluoranthene	205-99-2	1	5.6	0.041 U	0.01 J	0.037 U	58	0.039 U	0.19	0.038 UJ
Benzo[k]fluoranthene	207-08-9	0.8	56	0.041 U	0.04 U	0.037 U	27	0.039 U	0.11	0.038 UJ
Chrysene	218-01-9	1	56	0.41 U	0.4 U	0.37 U	56	0.39 U	0.11 J	0.38 UJ
Dibenzo[a,h]anthracene	53-70-3	0.33	0.56	0.041 U	0.04 U	0.037 U	8.8	0.039 U	0.038	0.038 UJ
Indeno[1,2,3-cd]pyrene	193-39-5	0.5	5.6	0.041 UJ	0.04 U	0.037 U	35	0.039 U	0.17	0.038 UJ
Total PAHs (mg/kg)										
Total PAH 16	TPAH16	NE	500	0.647	7.9391	2.44	1468.8	3.17	1.355	4.33

Table 1
PDI Subsurface Soil Analytical Results
Pre-Design Investigation Data Report
Troy (Liberty Street) Non-Owned Former MGP Site
Troy, New York

Location Name				B-518(13)	B-518(13)	B-519(13)	B-519(13)	B-519(13)	B-520(13)	B-520(13)	
Sample Name				B-518(13)25-30	B-518(13)21-22	B-519(13)29-30	B-519(13)34-35	B-519(13)39-40	B-520(13)11-12	B-520(13)14-15	
Start Depth				25	21	29	34	39	11	14	
End Depth				30	22	30	35	40	12	15	
Depth Unit				ft	ft	ft	ft	ft	ft	ft	
Sample Date				3/18/2013	3/18/2013	3/19/2013	3/19/2013	3/19/2013	3/20/2013	3/20/2013	
Parent Sample Code				B-518(13)14.5-16						B-520(13)11-12	
Analyte	CAS no.	Unrestricted SCO	Commercial SCO								
BTEX (mg/kg)											
Benzene	71-43-2	0.06	44	0.023 J	0.062 J	0.14 J	0.0011 UJ	0.00018 J	0.027 J	0.12 J	
Toluene	108-88-3	0.7	500	0.0013 J	0.00087 J	0.5 J	0.0011 UJ	0.0012 UJ	0.0085 J	0.11 J	
Ethylbenzene	100-41-4	1	390	0.00089 J	0.0018 J	4.9 J	0.0011 UJ	0.0012 UJ	0.024 J	0.29 J	
Total Xylene	1330-20-7	0.26	500	0.0028 J	0.02 J	21 J	0.0034 UJ	0.0035 UJ	0.081 J	1 J	
Total BTEX	TBTEX	NE	NE	0.02799	0.08467	26.54	ND	0.00018	0.1405	1.52	
Non-carcinogenic PAHs (mg/kg)											
Acenaphthene	83-32-9	20	500	13 J	0.7	160	0.085 J	0.12 J	13	12	
Acenaphthylene	208-96-8	100	500	3.3 J	0.082 J	320	0.4 U	0.053 J	7.5 J	7.7 J	
Anthracene	120-12-7	100	500	16 J	0.1 J	310	0.4 U	0.39 U	39	45	
Benzo[g,h,i]perylene	191-24-2	100	500	14 J	0.42 U	96	0.4 U	0.39 U	21	23	
Fluoranthene	206-44-0	100	500	50 J	0.22 J	540	0.4 U	0.086 J	88	99	
Fluorene	86-73-7	30	500	11 J	0.63	410	0.4 U	0.053 J	45	44	
Naphthalene	91-20-3	12	500	0.72 J	0.096 J	820	0.17 J	1	35	27	
Phenanthrene	85-01-8	100	500	15 J	0.78	1200	0.4 U	0.14 J	150	140	
Pyrene	129-00-0	100	500	56 J	0.17 J	590	0.4 U	0.059 J	74	78	
Carcinogenic PAHs (mg/kg)											
Benz[a]anthracene	56-55-3	1	5.6	21 J	0.062	270	0.04 U	0.043	38	42	
Benzo[a]pyrene	50-32-8	1	1	23 J	0.064	210	0.04 U	0.027 J	33	37	
Benzo[b]fluoranthene	205-99-2	1	5.6	20 J	0.056	180	0.04 U	0.028 J	29	35	
Benzo[k]fluoranthene	207-08-9	0.8	56	8.9 J	0.028 J	100	0.04 U	0.015 J	15	16	
Chrysene	218-01-9	1	56	18 J	0.072 J	230	0.4 U	0.05 J	34	38	
Dibenz[a,h]anthracene	53-70-3	0.33	0.56	3.2 J	0.042 U	31	0.04 U	0.039 U	4.8	5.6	
Indeno[1,2,3-cd]pyrene	193-39-5	0.5	5.6	14 J	0.032 J	100	0.04 U	0.009 J	21	22	
Total PAHs (mg/kg)											
Total PAH 16	TPAH16	NE	500	287.12	3.092	5567	0.255	1.683	647.3	671.3	

Table 1
PDI Subsurface Soil Analytical Results
Pre-Design Investigation Data Report
Troy (Liberty Street) Non-Owned Former MGP Site
Troy, New York

Location Name		B-520(13)	B-520(13)	B-520(13)	B-520(13)		
Sample Name		B-520(13)27.5-30	B-520(13)34-35	B-520(13)38-40	B-520(13)40-45		
Start Depth		27.5	34	38	40		
End Depth		30	35	40	45		
Depth Unit		ft	ft	ft	ft		
Sample Date		3/20/2013	3/20/2013	3/20/2013	3/20/2013		
Parent Sample Code					B-520(13)38-40		
Analyte	CAS no.	Unrestricted SCO	Commercial SCO				
BTEX (mg/kg)							
Benzene	71-43-2	0.06	44	0.0029 J	0.0034 J	0.0031 J	0.0015 J
Toluene	108-88-3	0.7	500	0.0007 J	0.00087 J	0.00048 J	0.00037 J
Ethylbenzene	100-41-4	1	390	0.0011 UJ	0.001 UJ	0.00099 UJ	0.001 UJ
Total Xylene	1330-20-7	0.26	500	0.0032 UJ	0.003 UJ	0.003 UJ	0.0031 UJ
Total BTEX	TBTEX	NE	NE	0.0036	0.00427	0.00358	0.00187
Non-carcinogenic PAHs (mg/kg)							
Acenaphthene	83-32-9	20	500	0.36 U	0.37 U	0.38 U	0.38 U
Acenaphthylene	208-96-8	100	500	0.36 U	0.37 U	0.38 U	0.38 U
Anthracene	120-12-7	100	500	0.073 J	0.052 J	0.38 U	0.38 U
Benzo[g,h,i]perylene	191-24-2	100	500	0.034 J	0.37 U	0.38 U	0.38 U
Fluoranthene	206-44-0	100	500	0.2 J	0.18 J	0.38 U	0.38 U
Fluorene	86-73-7	30	500	0.068 J	0.37 U	0.38 U	0.38 U
Naphthalene	91-20-3	12	500	0.2 J	0.28 J	0.39	0.36 J
Phenanthrene	85-01-8	100	500	0.24 J	0.076 J	0.38 U	0.38 U
Pyrene	129-00-0	100	500	0.18 J	0.26 J	0.38 U	0.38 U
Carcinogenic PAHs (mg/kg)							
Benz[a]anthracene	56-55-3	1	5.6	0.093	0.063	0.038 U	0.038 U
Benzo[a]pyrene	50-32-8	1	1	0.093	0.037 U	0.038 U	0.038 U
Benzo[b]fluoranthene	205-99-2	1	5.6	0.086	0.024 J	0.038 U	0.038 U
Benzo[k]fluoranthene	207-08-9	0.8	56	0.043	0.01 J	0.038 U	0.038 U
Chrysene	218-01-9	1	56	0.094 J	0.058 J	0.38 U	0.38 U
Dibenz[a,h]anthracene	53-70-3	0.33	0.56	0.036 U	0.037 U	0.038 U	0.038 U
Indeno[1,2,3-cd]pyrene	193-39-5	0.5	5.6	0.038	0.037 U	0.038 U	0.038 U
Total PAHs (mg/kg)							
Total PAH 16	TPAH16	NE	500	1.442	1.003	0.39	0.36

Table 1
PDI Subsurface Soil Analytical Results
Pre-Design Investigation Data Report
Troy (Liberty Street) Non-Owned Former MGP Site
Troy, New York

Notes:

mg/kg - milligrams/kilogram or parts per million (ppm)

BTEX - benzene, toluene, ethylbenzene, and xylenes

VOCs - volatile organic compounds

PAHs - polycyclic aromatic hydrocarbons

SVOCs - semivolatile organic compounds

Total BTEX and Total PAHs are calculated using detects only.

Total PAH16 is calculated using the EPA16 list of analytes: Acenaphthene, Acenaphthylene, Anthracene, Benz[a]anthracene, Benzo[a]pyrene, Benzo[b]fluoranthene, Benzo[g,h,i]perylene, Benzo[k]fluoranthene, Chrysene, Dibenz[a,h]anthracene, Fluoranthene, Fluorene, Indeno[1,2,3-cd]pyrene, Naphthalene, Phenanthrene, and Pyrene

6 NYCRR - New York State Register and Official Compilation of Codes, Rules and Regulations of the State of New York

Comparison of detected results are performed against one or more of the following NYCRR, Chapter IV, Part 375-6 Soil Cleanup Objectives (SCO): Unrestricted Use, Residential, Restricted-Residential, Commercial, Industrial, Protection of Ecological Resources, or Protection of Groundwater

* 500 ppm total PAH SCO for non-residential sites (Commercial or Industrial), per NYSDEC CP-51 / Soil Cleanup Guidance, Section V(H).

NE - not established

NA - not analyzed

ND - not detected; total concentrations are listed as ND because no analytes are detected in the group

Bolding indicates a detected concentration

Gray shading and bolding indicates that the detected result value exceeds the Unrestricted SCO

Yellow shading and bolding indicates that the detected result value exceeds the Commercial SCO

Validation Qualifiers:

J - estimated value

U - indicates not detected to the reporting limit

UJ - not detected at or above the reporting limit shown and the reporting limit is estimated

R - rejected

Table 2
PDI Pre- and Waste Characterization Analytical Results
Pre-Design Investigation Data Report
Troy (Liberty Street) Non-Owned Former MGP Site
Troy, New York

		Location Name	PRE CHAR	PRE CHAR	PRE CHAR	PRE CHAR	WASTE
		Sample Name	Pre Char 1	Pre Char 2	Pre Char 3	Pre Char 4 Waste 2	Waste 1
		Sample Date	3/20/2013	3/20/2013	3/18/2013	3/18/2013	3/20/2013
Analyte	CAS no.	EPA 40 CFR 261					
BTEX (mg/kg)							
Benzene	71-43-2	NA	9.2	270	0.33	9	190
Toluene	108-88-3	NA	13	300	0.15	44	200
Ethylbenzene	100-41-4	NA	1.3	26	0.3	26	20
m,p-Xylene	108383/106423	NA	15	290	0.43	150	200
o-Xylene	95-47-6	NA	5.6	110	0.16	49	75
Other VOCs (mg/kg)							
Acetone	67-64-1	NA	0.59 U	12 U	0.53 U	1.3 U	10 U
Bromochloromethane	74-97-5	NA	0.12 U	2.4 U	0.11 U	0.26 U	2 U
Bromodichloromethane	75-27-4	NA	0.12 U	2.4 U	0.11 U	0.26 U	2 U
Bromoform	75-25-2	NA	0.12 U	2.4 U	0.11 U	0.26 U	2 U
Bromomethane	74-83-9	NA	0.12 U	2.4 U	0.11 U	0.26 U	2 U
2-Butanone (Methyl ethyl ketone)	78-93-3	NA	0.59 U	12 U	0.53 U	1.3 U	10 U
Carbon disulfide	75-15-0	NA	0.12 U	2.4 U	0.11 U	0.26 U	2 U
Carbon tetrachloride	56-23-5	NA	0.12 U	2.4 U	0.11 U	0.26 U	2 U
Chlorobenzene	108-90-7	NA	0.12 U	2.4 U	0.11 U	0.26 U	2 U
Chloroethane	75-00-3	NA	0.12 U	2.4 U	0.11 U	0.26 U	2 U
Chloroform	67-66-3	NA	0.12 U	2.4 U	0.11 U	0.26 U	2 U
Chloromethane	74-87-3	NA	0.12 U	2.4 U	0.11 U	0.26 U	2 U
Cyclohexane	110-82-7	NA	0.15	2.4 U	0.11 U	0.26 U	0.81 J
1,2-Dibromo-3-chloropropane	96-12-8	NA	0.12 U	2.4 U	0.11 U	0.26 U	2 U
Dibromochloromethane	124-48-1	NA	0.12 U	2.4 U	0.11 U	0.26 U	2 U
1,2-Dibromoethane (EDB)	106-93-4	NA	0.12 U	2.4 U	0.11 U	0.26 U	2 U
1,2-Dichlorobenzene	95-50-1	NA	0.12 U	2.4 U	0.11 U	0.26 U	2 U
1,3-Dichlorobenzene	541-73-1	NA	0.12 U	2.4 U	0.11 U	0.26 U	2 U
1,4-Dichlorobenzene	106-46-7	NA	0.12 U	2.4 U	0.11 U	0.26 U	2 U
Dichlorodifluoromethane (Freon 12)	75-71-8	NA	0.12 U	2.4 U	0.11 U	0.26 U	2 U
1,1-Dichloroethane	75-34-3	NA	0.12 U	2.4 U	0.11 U	0.26 U	2 U
1,2-Dichloroethane	107-06-2	NA	0.12 U	2.4 U	0.11 U	0.26 U	2 U
1,1-Dichloroethene	75-35-4	NA	0.12 U	2.4 U	0.11 U	0.26 U	2 U
cis-1,2-Dichloroethene	156-59-2	NA	0.12 U	2.4 U	0.11 U	0.26 U	2 U
trans-1,2-Dichloroethene	156-60-5	NA	0.12 U	2.4 U	0.11 U	0.26 U	2 U
1,2-Dichloropropane	78-87-5	NA	0.12 U	2.4 U	0.11 U	0.26 U	2 U
cis-1,3-Dichloropropene	10061-01-5	NA	0.12 U	2.4 U	0.11 U	0.26 U	2 U
trans-1,3-Dichloropropene	10061-02-6	NA	0.12 U	2.4 U	0.11 U	0.26 U	2 U
1,4-Dioxane	123-91-1	NA	5.9 U	120 U	5.3 U	13 U	100 U
2-Hexanone	591-78-6	NA	0.59 U	12 U	0.53 U	1.3 U	10 U

Table 2
PDI Pre- and Waste Characterization Analytical Results
Pre-Design Investigation Data Report
Troy (Liberty Street) Non-Owned Former MGP Site
Troy, New York

Location Name		PRE CHAR	PRE CHAR	PRE CHAR	PRE CHAR	WASTE	
Sample Name		Pre Char 1	Pre Char 2	Pre Char 3	Pre Char 4 Waste 2	Waste 1	
Sample Date		3/20/2013	3/20/2013	3/18/2013	3/18/2013	3/20/2013	
Analyte	CAS no.	EPA 40 CFR 261					
Isopropyl benzene	98-82-8	NA	0.1 J	1.5 J	0.031 J	1.5	1.1 J
Methyl acetate	79-20-9	NA	0.23 U	4.8 U	0.21 U	0.52 U	4 U
Methyl tert-butyl ether (MTBE)	1634-04-4	NA	0.12 U	2.4 U	0.11 U	0.26 U	2 U
4-Methyl-2-pentanone (MIBK)	108-10-1	NA	0.59 U	12 U	0.53 U	1.3 U	10 U
Methylcyclohexane	108-87-2	NA	0.39	3.9	0.17	19	2.7
Methylene chloride	75-09-2	NA	0.12 U	2.4 U	0.11 U	0.26 U	2 U
Styrene	100-42-5	NA	5.7	120	0.016 J	34	75
1,1,2,2-Tetrachloroethane	79-34-5	NA	0.12 U	2.4 U	0.11 U	0.26 U	2 U
Tetrachloroethene (PCE)	127-18-4	NA	0.12 U	2.4 U	0.11 U	0.26 U	2 U
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon-113)	76-13-1	NA	0.12 U	2.4 U	0.11 U	0.26 U	2 U
1,2,3-Trichlorobenzene	87-61-6	NA	0.12 U	2.4 U	0.11 U	0.26 U	2 U
1,2,4-Trichlorobenzene	120-82-1	NA	0.12 U	2.4 U	0.11 U	0.26 U	2 U
1,1,1-Trichloroethane	71-55-6	NA	0.12 U	2.4 U	0.11 U	0.26 U	2 U
1,1,2-Trichloroethane	79-00-5	NA	0.12 U	2.4 U	0.11 U	0.26 U	2 U
Trichloroethene (TCE)	79-01-6	NA	0.12 U	2.4 U	0.11 U	0.26 U	2 U
Trichlorofluoromethane (Freon 11)	75-69-4	NA	0.12 U	2.4 U	0.11 U	0.26 U	2 U
Vinyl chloride	75-01-4	NA	0.12 U	2.4 U	0.11 U	0.26 U	2 U
TCCLP VOCs (mg/L)							
Benzene	71-43-2	0.5	NA	NA	NA	0.096	8.5
2-Butanone (Methyl ethyl ketone)	78-93-3	200	NA	NA	NA	0.05 U	0.1 U
Carbon tetrachloride	56-23-5	0.5	NA	NA	NA	0.01 U	0.02 U
Chlorobenzene	108-90-7	100	NA	NA	NA	0.01 U	0.02 U
Chloroform	67-66-3	6	NA	NA	NA	0.01 U	0.02 U
1,2-Dichloroethane	107-06-2	0.5	NA	NA	NA	0.01 U	0.02 U
1,1-Dichloroethene	75-35-4	0.7	NA	NA	NA	0.01 U	0.02 U
Tetrachloroethene (PCE)	127-18-4	0.7	NA	NA	NA	0.01 U	0.02 U
Trichloroethene (TCE)	79-01-6	0.5	NA	NA	NA	0.01 U	0.02 U
Vinyl chloride	75-01-4	0.2	NA	NA	NA	0.01 U	0.02 U
1,4-Dichlorobenzene	106-46-7	7.5	NA	NA	NA	0.04 U	1 U
Other SVOCs (mg/kg)							
Acenaphthene	83-32-9	NA	40 J	61 J	2.6	43 J	140 J
Acenaphthylene	208-96-8	NA	210	320	5.1	84	840
Acetophenone	98-86-2	NA	54 U	120 U	1.9 U	44 U	240 U
Anthracene	120-12-7	NA	210	350	11	150	1100
Atrazine	1912-24-9	NA	54 U	120 U	1.9 U	44 U	240 U
Benz[a]anthracene	56-55-3	NA	150	260	9.4	78	570
Benzaldehyde	100-52-7	NA	54 U	120 U	1.9 U	44 U	240 U

Table 2
PDI Pre- and Waste Characterization Analytical Results
Pre-Design Investigation Data Report
Troy (Liberty Street) Non-Owned Former MGP Site
Troy, New York

Location Name		PRE CHAR	PRE CHAR	PRE CHAR	PRE CHAR	WASTE	
Sample Name		Pre Char 1	Pre Char 2	Pre Char 3	Pre Char 4 Waste 2	Waste 1	
Sample Date		3/20/2013	3/20/2013	3/18/2013	3/18/2013	3/20/2013	
Analyte	CAS no.	EPA 40 CFR 261					
Benzo[a]pyrene	50-32-8	NA	130	250	9.1	76	520
Benzo[b]fluoranthene	205-99-2	NA	130	220	8.2	67	490
Benzo[g,h,i]perylene	191-24-2	NA	81	150	5.5	46	290
Benzo[k]fluoranthene	207-08-9	NA	54	110	4	34	210
1,1-Biphenyl	92-52-4	NA	57	85 J	1.8 J	29 J	230 J
Bis(chloroisopropyl)ether	108-60-1	NA	54 U	120 U	1.9 U	44 U	240 U
Bis(2-chloroethyl)ether	111-44-4	NA	5.4 U	12 U	0.19 U	4.4 U	24 U
Bis(2-chloroethoxy)methane	111-91-1	NA	54 U	120 U	1.9 U	44 U	240 U
Bis(2-ethylhexyl)phthalate	117-81-7	NA	54 U	120 U	1.9 U	44 U	240 U
4-Bromophenyl phenyl ether	101-55-3	NA	54 U	120 U	1.9 U	44 U	240 U
Butyl benzyl phthalate	85-68-7	NA	54 U	120 U	1.9 U	44 U	240 U
Caprolactam	105-60-2	NA	54 U	120 U	1.9 U	44 U	240 U
Carbazole	86-74-8	NA	76	130	3.9	42 J	410
4-Chloro-3-methylphenol	59-50-7	NA	54 U	120 U	1.9 U	44 U	240 U
4-Chloroaniline	106-47-8	NA	54 U	120 U	1.9 U	44 U	240 U
2-Chloronaphthalene	91-58-7	NA	54 U	120 U	1.9 U	44 U	240 U
2-Chlorophenol	95-57-8	NA	54 U	120 U	1.9 U	44 U	240 U
4-Chlorophenyl phenyl ether	7005-72-3	NA	54 U	120 U	1.9 U	44 U	240 U
Chrysene	218-01-9	NA	140	260	9.6	87	600
Dibenz[a,h]anthracene	53-70-3	NA	19	38	1.3	11	73
Dibenzofuran	132-64-9	NA	170	260	5.9	82	700
3,3-Dichlorobenzidine	91-94-1	NA	110 U	250 U	4 U	90 U	480 U
2,4-Dichlorophenol	120-83-2	NA	54 U	120 U	1.9 U	44 U	240 U
Diethyl phthalate	84-66-2	NA	54 U	120 U	1.9 U	44 U	240 U
Dimethyl phthalate	131-11-3	NA	54 U	120 U	1.9 U	44 U	240 U
2,4-Dimethylphenol	105-67-9	NA	36 J	53 J	1.9 U	44 U	190 J
Di-n-butyl phthalate	84-74-2	NA	54 U	120 U	1.9 U	44 U	240 U
4,6-Dinitro-2-methylphenol	534-52-1	NA	160 U	370 U	5.9 U	130 U	720 U
2,4-Dinitrophenol	51-28-5	NA	160 U	370 U	5.9 U	130 U	720 U
2,4-Dinitrotoluene	121-14-2	NA	11 U	25 U	0.4 U	9 U	48 U
2,6-Dinitrotoluene	606-20-2	NA	11 U	25 U	0.4 U	9 U	48 U
Di-n-octyl phthalate	117-84-0	NA	54 U	120 U	1.9 U	44 U	240 U
Fluoranthene	206-44-0	NA	340	640	21	200	1400
Fluorene	86-73-7	NA	200	290	7.1	91	790
Hexachlorobenzene	118-74-1	NA	5.4 U	12 U	0.19 U	4.4 U	24 U
Hexachlorobutadiene	87-68-3	NA	11 U	25 U	0.4 U	9 U	48 U
Hexachlorocyclopentadiene	77-47-4	NA	54 U	120 U	1.9 U	44 U	240 U

Table 2
PDI Pre- and Waste Characterization Analytical Results
Pre-Design Investigation Data Report
Troy (Liberty Street) Non-Owned Former MGP Site
Troy, New York

Location Name		PRE CHAR	PRE CHAR	PRE CHAR	PRE CHAR	WASTE	
Sample Name		Pre Char 1	Pre Char 2	Pre Char 3	Pre Char 4 Waste 2	Waste 1	
Sample Date		3/20/2013	3/20/2013	3/18/2013	3/18/2013	3/20/2013	
Analyte	CAS no.	EPA 40 CFR 261					
Hexachloroethane	67-72-1	NA	5.4 U	12 U	0.19 U	4.4 U	24 U
Indeno[1,2,3-cd]pyrene	193-39-5	NA	75	150	5.5	43	280
Isophorone	78-59-1	NA	54 U	120 U	1.9 U	44 U	240 U
2-Methylnaphthalene	91-57-6	NA	210	340	2.8	60	980
2-Methylphenol (o-Cresol)	95-48-7	NA	30 J	41 J	1.9 U	44 U	180 J
4-Methylphenol (p-Cresol)	106-44-5	NA	73	100 J	1.9 U	44 U	470
Naphthalene	91-20-3	NA	770	1200	10	230	4000
2-Nitroaniline	88-74-4	NA	110 U	250 U	4 U	90 U	480 U
3-Nitroaniline	99-09-2	NA	110 U	250 U	4 U	90 U	480 U
4-Nitroaniline	100-01-6	NA	110 U	250 U	4 U	90 U	480 U
Nitrobenzene	98-95-3	NA	5.4 U	12 U	0.19 U	4.4 U	24 U
2-Nitrophenol	88-75-5	NA	54 U	120 U	1.9 U	44 U	240 U
4-Nitrophenol	100-02-7	NA	160 U	370 U	5.9 U	130 U	720 U
N-Nitrosodi-n-propylamine	621-64-7	NA	5.4 U	12 U	0.19 U	4.4 U	24 U
N-Nitrosodiphenylamine	86-30-6	NA	54 U	120 U	1.9 U	44 U	240 U
Pentachlorophenol	87-86-5	NA	160 U	370 U	5.9 U	130 U	720 U
Phenanthrene	85-01-8	NA	670	1100	27	400	2500
Phenol	108-95-2	NA	45 J	69 J	1.9 U	44 U	410
Pyrene	129-00-0	NA	310	500	23	230	1000
1,2,4,5-Tetrachlorobenzene	95-94-3	NA	54 U	120 U	1.9 U*	44 U*	240 U
2,3,4,6-Tetrachlorophenol	58-90-2	NA	54 U	120 U	1.9 U	44 U	240 U
2,4,5-Trichlorophenol	95-95-4	NA	54 U	120 U	1.9 U	44 U	240 U
2,4,6-Trichlorophenol	88-06-2	NA	54 U	120 U	1.9 U	44 U	240 U
TCLP SVOCs (mg/L)							
2,4-Dinitrotoluene	121-14-2	0.13	NA	NA	NA	0.008 U	0.2 U
Hexachlorobenzene	118-74-1	0.13	NA	NA	NA	0.004 U	0.1 U
Hexachlorobutadiene	87-68-3	0.5	NA	NA	NA	0.008 U	0.2 U
Hexachloroethane	67-72-1	3	NA	NA	NA	0.004 U	0.1 U
2-Methylphenol (o-Cresol)	95-48-7	200	NA	NA	NA	0.044	8.3
Nitrobenzene	98-95-3	2	NA	NA	NA	0.004 U	0.1 U
Pentachlorophenol	87-86-5	100	NA	NA	NA	0.12 U	3 U
2,4,5-Trichlorophenol	95-95-4	400	NA	NA	NA	0.04 U	1 U
2,4,6-Trichlorophenol	88-06-2	2	NA	NA	NA	0.04 U	1 U
3,4-Methylphenol (m,p-Cresol)	108394/106445	NA	NA	NA	NA	0.095	19
Pyridine	110-86-1	5	NA	NA	NA	0.04 U	1 U
PCBs (mg/kg)							
Aroclor 1016	12674-11-2	NA	0.08 U	0.086 U	0.079 U	0.089 U	0.074 U

Table 2
PDI Pre- and Waste Characterization Analytical Results
Pre-Design Investigation Data Report
Troy (Liberty Street) Non-Owned Former MGP Site
Troy, New York

Location Name		PRE CHAR	PRE CHAR	PRE CHAR	PRE CHAR	WASTE	
Sample Name		Pre Char 1	Pre Char 2	Pre Char 3	Pre Char 4 Waste 2	Waste 1	
Sample Date		3/20/2013	3/20/2013	3/18/2013	3/18/2013	3/20/2013	
Analyte	CAS no.	EPA 40 CFR 261					
Aroclor 1221	11104-28-2	NA	0.08 U	0.086 U	0.079 U	0.089 U	0.074 U
Aroclor 1232	11141-16-5	NA	0.08 U	0.086 U	0.079 U	0.089 U	0.074 U
Aroclor 1242	53469-21-9	NA	0.08 U	0.086 U	0.079 U	0.089 U	0.074 U
Aroclor 1248	12672-29-6	NA	0.08 U	0.086 U	0.079 U	0.089 U	0.074 U
Aroclor 1254	11097-69-1	NA	0.08 U	0.086 U	0.079 U	0.089 U	0.074 U
Aroclor 1260	11096-82-5	NA	0.08 U	0.086 U	0.079 U	0.089 U	0.074 U
Aroclor 1262	37324-23-5	NA	0.08 U	0.086 U	0.079 U	0.089 U	0.074 U
Aroclor 1268	11100-14-4	NA	0.08 U	0.086 U	0.079 U	0.089 U	0.074 U
Total PCBs	1336-36-3	NA	0.08 U	0.086 U	0.079 U	0.089 U	0.074 U
TCLP Pesticides (mg/L)							
gamma-BHC	58-89-9	NA	NA	NA	NA	0.0005 U	0.0005 U
Chlordane (Alpha & Gamma)	57-74-9	0.03	NA	NA	NA	0.005 U	0.005 U
Endrin	72-20-8	0.02	NA	NA	NA	0.0005 U	0.0005 U
Heptachlor	76-44-8	0.008	NA	NA	NA	0.0005 U	0.0005 U
Heptachlor epoxide	1024-57-3	0.008	NA	NA	NA	0.0005 U	0.0005 U
Methoxychlor	72-43-5	10	NA	NA	NA	0.0005 U*	0.0005 U*
Toxaphene	8001-35-2	0.5	NA	NA	NA	0.005 U	0.005 U
TCLP Herbicides (mg/L)							
2,4-D	94-75-7	10	NA	NA	NA	0.017 U	0.017 U
Silvex	93-72-1	1	NA	NA	NA	0.017 U	0.017 U
Metals (mg/kg)							
Antimony	7440-36-0	NA	2.4 U	2.3 U	2.4 U	2.5 U	2.1 U
Aluminum	7429-90-5	NA	11600	9690	14000	11800	9250
Arsenic	7440-38-2	NA	9.4	15	8.3	5.9	15.2
Barium	7440-39-3	NA	116	139	159	100	100
Beryllium	7440-41-7	NA	0.69	0.53	0.73	0.62	0.48
Cadmium	7440-43-9	NA	1.2 U	1.1 U	1.2 U	1.3 U	1 U
Calcium	7440-70-2	NA	15400	40000	15100	74800	24200
Chromium	7440-47-3	NA	15.4	20.1	17.4	17.6	13.1
Chromium (VI)	18540-29-9	NA	NA	NA	NA	2.7 U	2.3 U
Cobalt	7440-48-4	NA	10.8 J	7.2 J	10.3 J	7.5 J	7.5 J
Copper	7440-50-8	NA	28	142	24.3	39.3	29
Iron	7439-89-6	NA	29800	21100	26700	25900	20800
Lead	7439-92-1	NA	85.2	252	34.8	40.4	115
Magnesium	7439-95-4	NA	6300	5850	5780	8600	7130
Manganese	7439-96-5	NA	685	480	1190	709	834
Mercury	7439-97-6	NA	0.25	0.26	0.019 J	0.95	0.18

Table 2
PDI Pre- and Waste Characterization Analytical Results
Pre-Design Investigation Data Report
Troy (Liberty Street) Non-Owned Former MGP Site
Troy, New York

Location Name		PRE CHAR	PRE CHAR	PRE CHAR	PRE CHAR	WASTE	
Sample Name		Pre Char 1	Pre Char 2	Pre Char 3	Pre Char 4 Waste 2	Waste 1	
Sample Date		3/20/2013	3/20/2013	3/18/2013	3/18/2013	3/20/2013	
Analyte	CAS no.	EPA 40 CFR 261					
Nickel	7440-02-0	NA	23.1	18.2	24.6	20.3	18.1
Potassium	7440-09-7	NA	1650	1600	1420	1970	1420
Selenium	7782-49-2	NA	2.4 U	2.3 U	2.4 U	2.5 U	2.1 U
Silver	7440-22-4	NA	2.4 U	2.3 U	2.4 U	2.5 U	2.1 U
Sodium	7440-23-5	NA	1650	329 J	270 J	1260 U	1040 U
Thallium	7440-28-0	NA	2.4 U	2.3 U	2.4 U	2.5 U	2.1 U
Vanadium	7440-62-2	NA	19.9	17.6	19.4	19.4	25.4
Zinc	7440-66-6	NA	75.5	115	72.9	73.2	77.7
TCLP Metals (mg/L)							
Arsenic	7440-38-2	5	NA	NA	NA	0.025 U	0.0894
Barium	7440-39-3	100	NA	NA	NA	1.29	0.716 J
Cadmium	7440-43-9	1	NA	NA	NA	0.025 U	0.025 U
Chromium	7440-47-3	5	NA	NA	NA	0.05 U	0.05 U
Lead	7439-92-1	5	NA	NA	NA	0.025 U	0.055
Mercury	7439-97-6	0.2	NA	NA	NA	0.0002 U	0.00026
Selenium	7782-49-2	1	NA	NA	NA	0.05 U	0.05 U
Silver	7440-22-4	5	NA	NA	NA	0.05 U	0.05 U
Cyanides (mg/kg)							
Total Cyanide	57-12-5	NA	0.63	0.45	0.21	2.3	18.4
Cyanide Reactivity	REAC-CN	NA	NA	NA	NA	25 U	25 U
Other							
British Thermal Units (btu)	BTU	NA	DNF	DNF	DNF	DNF	5070
Corrosivity (pH) (s.u.)	CORROS	NA	NA	NA	NA	8.29 HF	9.21 HF
Diesel Range Organics (mg/kg)	DRO	NA	4700	800	180	3400	7300
Extractable Organic Halides (mg/kg)	EOX	NA	NA	NA	NA	66.8 U	55.6 U
Gasoline Range Organics (mg/kg)	GRO	NA	170	820	3.5	1900 *	2000 *
Ignitibility (mm/sec)	IGNIT	NA	NA	NA	NA	2.2 U	2.2 U
Sulfide Reactivity (mg/kg)	REAC-HS	NA	NA	NA	NA	20 U	20 U

Table 2
PDI Pre- and Waste Characterization Analytical Results
Pre-Design Investigation Data Report
Troy (Liberty Street) Non-Owned Former MGP Site
Troy, New York

Notes:

Analytes in blue are not detected in any sample

Data for these sampling events have not been validated. Qualifiers are Lab Qualifiers.

mg/kg - milligrams/kilogram or parts per million (ppm)

mg/L - milligrams/liter

btu - British thermal units

S.U. - Standard Units

mm/sec - millimeters per second

BTEX - benzene, toluene, ethylbenzene, and xylenes

TCLP- toxicity characteristics leaching procedure

VOCs - volatile organic compounds

SVOCs - semivolatile organic compounds

PCBs - polychlorinated biphenyls

40 CFR Part 261 - Regulatory Determination on Wastes from the Combustion of Fossil Fuels

NA - not analyzed or not applicable

Bolding indicates a detected concentration

Gray shading and bolding indicates that the detected result value exceeds the EPA 40 CFR 261

Laboratory Qualifiers:

J - estimated value

R - rejected

U - indicates not detected to the reporting limit

* - Duplicate analysis not within control limits

DNF - "Did Not Fire". There was no measurable heat content in the sample. This is equivalent to a result of "Not Detected".

HF - indicate pH was performed in the laboratory outside the 15 minute timeframe.

Table 3
Air Monitoring Data
Pre-Design Investigation Report
Troy (Liberty Street) Non-Owned Former MGP Site
Troy, New York

Date	Upwind				Work Zone				Downwind			
	VOC ¹ (ppm)		Dust ² (mg/m ³)		VOC ¹ (ppm)		Dust ² (mg/m ³)		VOC ¹ (ppm)		Dust ² (mg/m ³)	
	Maximum 15-Minute Average Concentration	Number of Exceedances	Maximum 15-Minute Average Concentration	Number of Exceedances	Maximum 15-Minute Average Concentration	Number of Exceedances	Maximum 15-Minute Average Concentration	Number of Exceedances	Maximum 15-Minute Average Concentration	Number of Exceedances	Maximum 15-Minute Average Concentration	Number of Exceedances
3/6/2013	0.2	0	44	0	1.4	0	1966	4*	0.4	0	80	0
3/7/2013	0.1	0	5	0	0.0	0	574	1*	0.9	0	17	0
3/11/2013	0.3	0	19	0	0.0	0	29	0	0.6	0	36	0
3/12/2013	0.4	0	13	0	0.0	0	15	0	0.8	0	12	0
3/13/2013	0.3	0	47	0	0.2	0	27	0	0.4	0	37	0
3/14/2013	0.3	0	1025	4**	0.1	0	25	0	0.2	0	13	0
3/15/2015	0.2	0	16	0	0.0	0	20	0	0.2	0	16	0
3/18/2013	0.9	0	33	0	0.0	0	251	1***	0.0	0	17	0
3/19/2013	0.3	0	39	0	0.0	0	50	0	0.5	0	36	0
3/20/2013	0.1	0	38	0	0.0	0	73	0	0.2	0	37	0
4/18/2013	0.8	0	--	--	1.0	0	34	0	1.0	0	42	0

Notes:

VOC - Volatile Organic Compounds

ppm - parts per million

mg/m³ - milligrams per cubic meter

-- - Instrument failure or data could not be retrieved from the instrument

¹ - Maximum fifteen-minute average concentrations of VOCs are time-weighted averages over a fifteen-minute period. Fifteen-minute average concentrations were compared to an action level of 5 ppm for sustained readings over a fifteen-minute period.

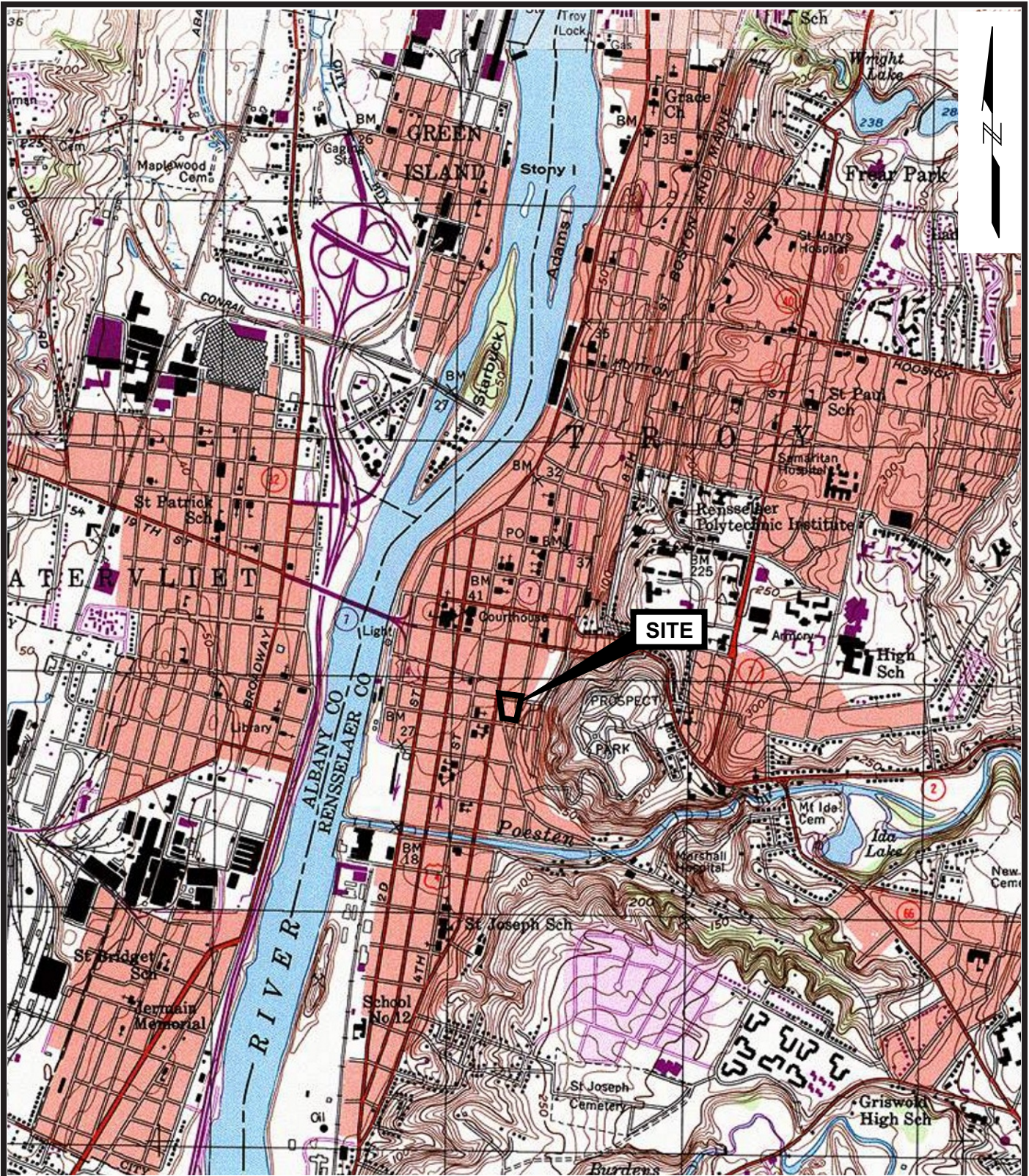
² - Maximum fifteen-minute average concentrations of VOCs are time-weighted averages over a fifteen-minute period. Fifteen-minute average concentrations were compared to an action level of 0.150 mg/m³ for sustained readings over a fifteen-minute period.

* - There were occasions when 15-minute average dust concentrations exceeded the action level in the work zone during saw-cutting and jack-hammering activities on March 6 and March 7, 2013. Elevated dust levels were temporary and not sustained outside of these periods during vacuum clearance activities those days.

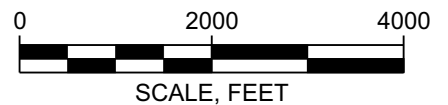
** - At the end of the day on March 14, 2013, 15-minute average dust concentrations exceeded the action level at the upwind location. These levels do not appear to be a direct result of field activities in that area.

*** - On March 18, 2013, 15-minute average dust concentrations exceeded the action level in the work zone during drilling and concrete mixing activities in the southern tar well area. Elevated dust levels were temporary and not sustained outside of these periods during vacuum clearance activities.

Figures



SOURCE: Map created with TOPO!® ©2001 National Geographic
 (www.nationalgeographic.com/topo™)



PRE-DESIGN INVESTIGATION REPORT
 TROY (LIBERTY ST.) NON-OWNED
 FORMER MGP SITE
 TROY, NEW YORK

nationalgrid

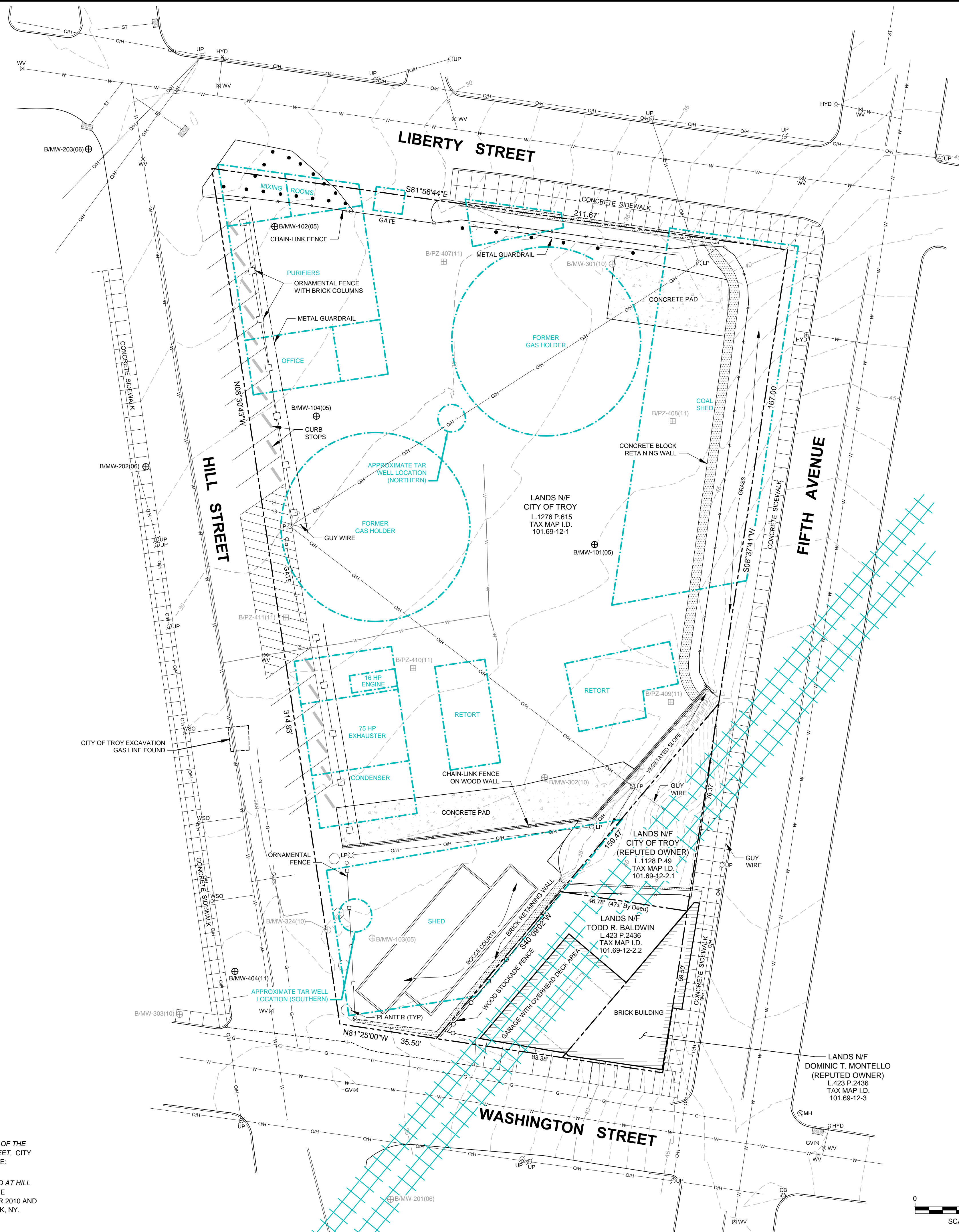


SITE LOCATION MAP

Project 093300-2-1203

May 2013

Figure 1



LEGEND:

	PROPERTY LINE
	SITE BOUNDARY
	GROUND SURFACE CONTOURS
	CONCRETE BLOCK RETAINING WALL
	CHAIN-LINK FENCE
	METAL FENCE WITH BRICK PILLARS
	GUIDE RAIL
	EDGE OF PAVEMENT
	HISTORICAL RAILROAD TRACKS (APPROXIMATE)
	HISTORICAL STRUCTURE BASED ON 1885 SANBORN FIRE INSURANCE MAP
	HISTORICAL GAS HOLDER/TAR WELL (SURVEYED UNLESS NOTED)
	CONCRETE PAD
	BOLLARD
	HYDRANT
	WOOD UTILITY POLE
	STEEL LIGHT POLE
	CATCH BASIN
	MANHOLE
	GAS VALVE
	WATER SHUT OFF
	WATER VALVE
	OVERHEAD UTILITY LINES
	CITY OF TROY WATER MAIN
	WATER LINE (SUSPECTED ABANDONED)
	GAS LINE
	SANITARY SEWER LINE (DEFUNCT)
	STORM SEWER LINE
	SOIL BORING/MONITORING WELL (EA ENGINEERING PC, 2005)
	SOIL BORING/MONITORING WELL (EA ENGINEERING PC, 2006)
	SOIL BORING/MONITORING WELL (GEI, 2010)
	SOIL BORING/MONITORING WELL (GEI, 2011)
	SOIL BORING/PIEZOMETER (GEI, 2011)
	PIEZOMETER DECOMMISSIONED MARCH 2013
	MONITORING WELL DECOMMISSIONED MARCH 2013

NOTES:

- ELEVATIONS REFERENCED TO NATIONAL GEODETIC VERTICAL DATUM OF 1929 (NGVD 29). HORIZONTAL LOCATIONS REFERENCED TO NORTH AMERICAN DATUM OF 1983 (NAD 83).
- BOUNDARIES BASED ON SURVEY BY DELTA ENGINEERS, DATED JANUARY 2013.

SOURCES:

- BASE MAP TAKEN FROM TOPOGRAPHIC AND BOUNDARY SURVEY, PORTION OF THE LANDS OF THE CITY OF TROY, NEW YORK (FORMER MGP SITE), 34 HILL STREET, CITY OF TROY, RENSSELAER COUNTY, STATE OF NEW YORK, SCALE: 1" = 20', DATE: JANUARY 22, 2013 AND APRIL 19, 2013 BY DELTA ENGINEERS, VERNON, NY.
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- SANBORN FIRE INSURANCE MAP, 1885.

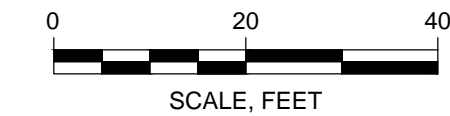
PRE-DESIGN INVESTIGATION REPORT
 TROY (LIBERTY STREET)
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nationalgrid
 PROJECT 093300-2-1203

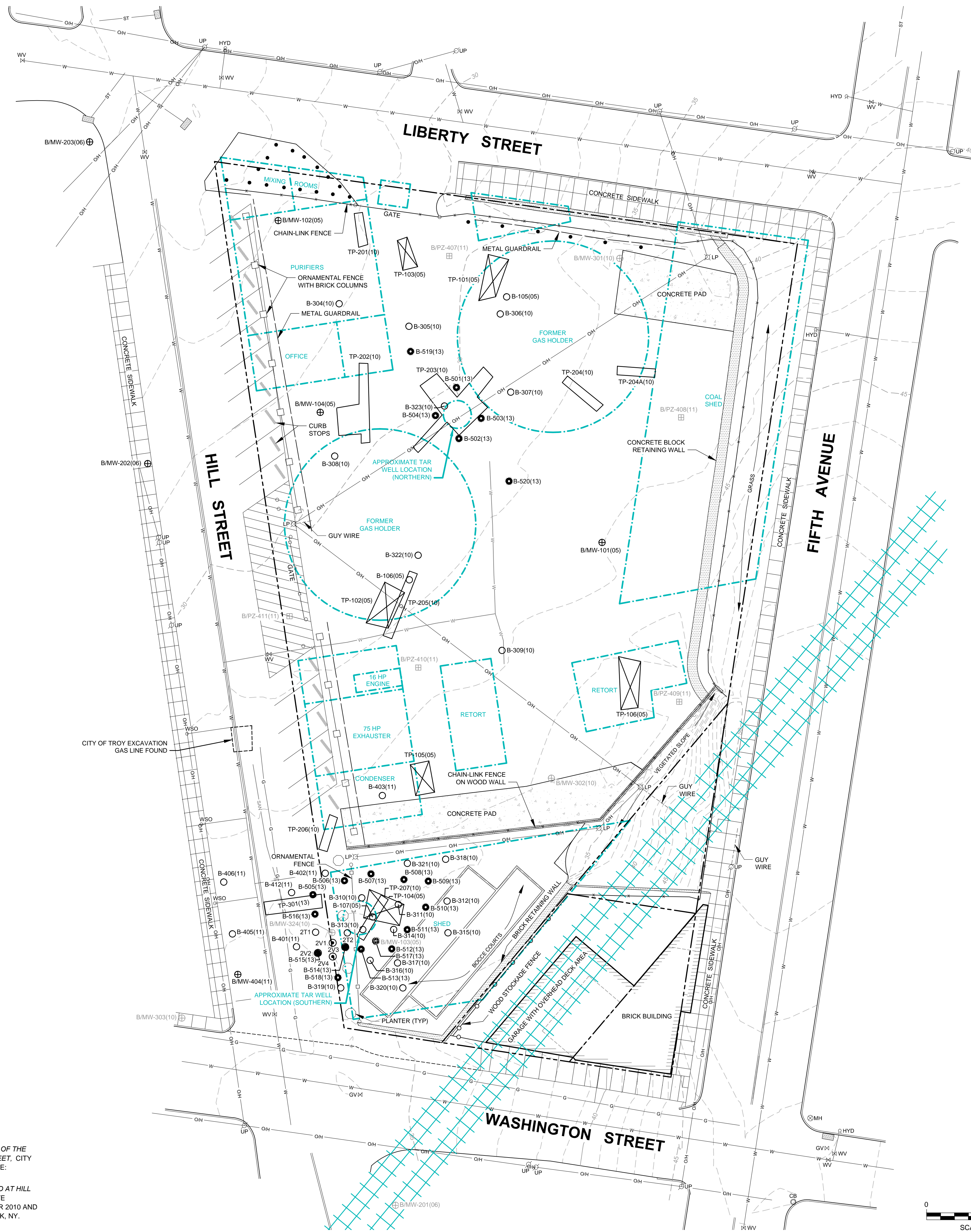


**HISTORIC STRUCTURES, UTILITIES,
 CURRENT SITE CONDITIONS, AND
 MONITORING WELLS**

May 2013

Figure 2





LEGEND:

---	PROPERTY LINE
---	SITE BOUNDARY
---	GROUND SURFACE CONTOURS
---	CONCRETE BLOCK RETAINING WALL
---	CHAIN-LINK FENCE
---	METAL FENCE WITH BRICK PILLARS
---	GUIDE RAIL
---	EDGE OF PAVEMENT
---	HISTORICAL RAILROAD TRACKS (APPROXIMATE)
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---	HISTORICAL GAS HOLDER/TAR WELL (SURVEYED UNLESS NOTED)
---	CONCRETE PAD
●	BOLLARD
○	HYDRANT
○	WOOD UTILITY POLE
○	STEEL LIGHT POLE
○	CATCH BASIN
○	MANHOLE
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○	WATER SHUT OFF
○	WATER VALVE
---	OVERHEAD UTILITY LINES
---	CITY OF TROY WATER MAIN
---	WATER LINE (SUSPECTED ABANDONED)
---	GAS LINE
---	SANITARY SEWER LINE (DEFUNCT)
---	STORM SEWER LINE
⊠	TEST PIT (EA ENGINEERING PC, 2005)
○	SOIL BORING (EA ENGINEERING PC, 2005)
⊕	SOIL BORING/MONITORING WELL (EA ENGINEERING PC, 2005)
⊕	SOIL BORING/MONITORING WELL (EA ENGINEERING PC, 2006)
⊠	TEST PIT (GEI, 2010)
○	SOIL BORING (GEI, 2010)
⊕	SOIL BORING/MONITORING WELL (GEI, 2010)
○	NYSEARCH COAL TAR VOLATILIZATION STUDY BORING (GEI, 2010)
○	NYSEARCH COAL TAR VOLATILIZATION STUDY SOIL VAPOR SAMPLE (GEI, 2010)
○	SOIL BORING (GEI, 2011)
⊕	SOIL BORING/PIEZOMETER (GEI, 2011)
⊕	SOIL BORING/MONITORING WELL (GEI, 2011)
⊠	TEST PIT (GEI, 2013)
○	SOIL BORING (GEI, 2013)
⊕	PIEZOMETER DECOMMISSIONED MARCH 2013
⊕	MONITORING WELL DECOMMISSIONED MARCH 2013

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SOURCES:

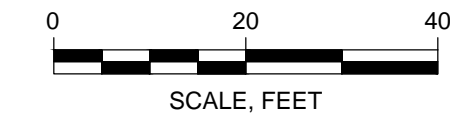
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 TROY, NEW YORK
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PREVIOUS INVESTIGATION LOCATIONS AND PRE-DESIGN INVESTIGATION SOIL BORING AND TEST PIT LOCATIONS

May 2013 Figure 3



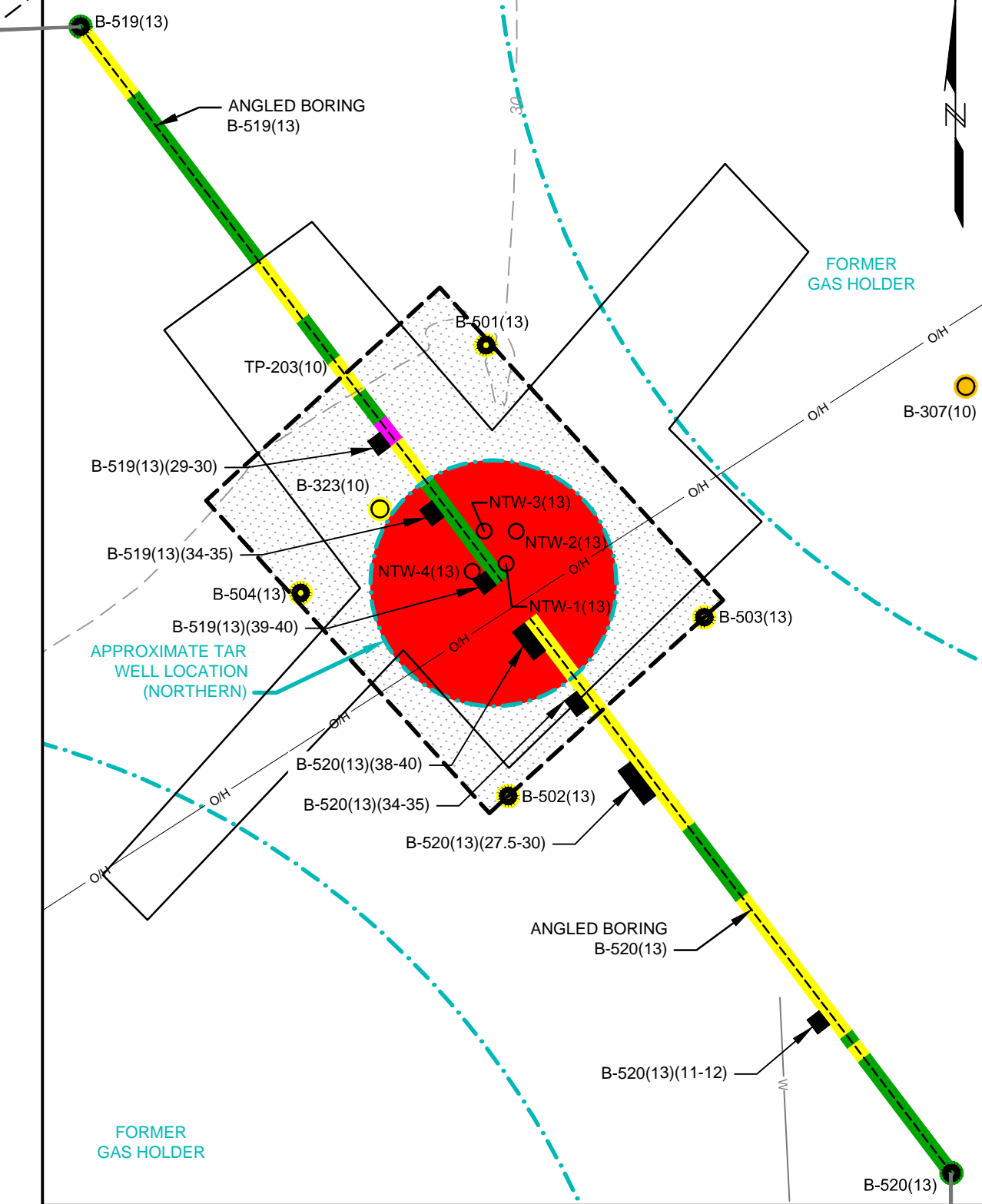
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SOURCES:

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3. SANBORN FIRE INSURANCE MAP, 1885.

Sample Name:	B-519(13)	B-519(13)	B-519(13)
Sample Interval/Linear Depth (feet):	29-30	34-35	39-40
Vertical Depth/Horizontal Distance (feet):	Commercial	20.5-21.2	24-24.8
Sample Date:	3/19/2013	3/19/2013	3/19/2013
Total BTEX (mg/kg)	NE	26.54	ND
Total PAHs (mg/kg)	500*	5567	0.255
			1.683

Linear Boring Depth (feet)	Vertical Depth/Horizontal Distance (feet)	Impact Type
0.0 - 0.5	0.0 - 0.35	no physical impacts
0.5 - 5	0.35 - 3.5	slight naphthalene-like odor
5 - 16.8	3.5 - 11.9	no physical impacts
16.8 - 21	11.9 - 14.9	slight naphthalene-like odor, black staining
21 - 24.1	14.9 - 17	no physical impacts
24.1 - 26.4	17 - 18.7	slight naphthalene-like odor, slight thin black staining
26.4 - 28.4	18.7 - 20.1	no physical impacts
28.4 - 30	20.1 - 21.2	strong naphthalene-like odor, 1 mm thin sticky tar strippers
30 - 32.9	21.2 - 23.3	strong to moderate naphthalene-like odor
32.9 - 40	23.3 - 28.3	no physical impacts
40.0	28.3	terminated



NORTHERN TAR WELL ANGLED BORINGS

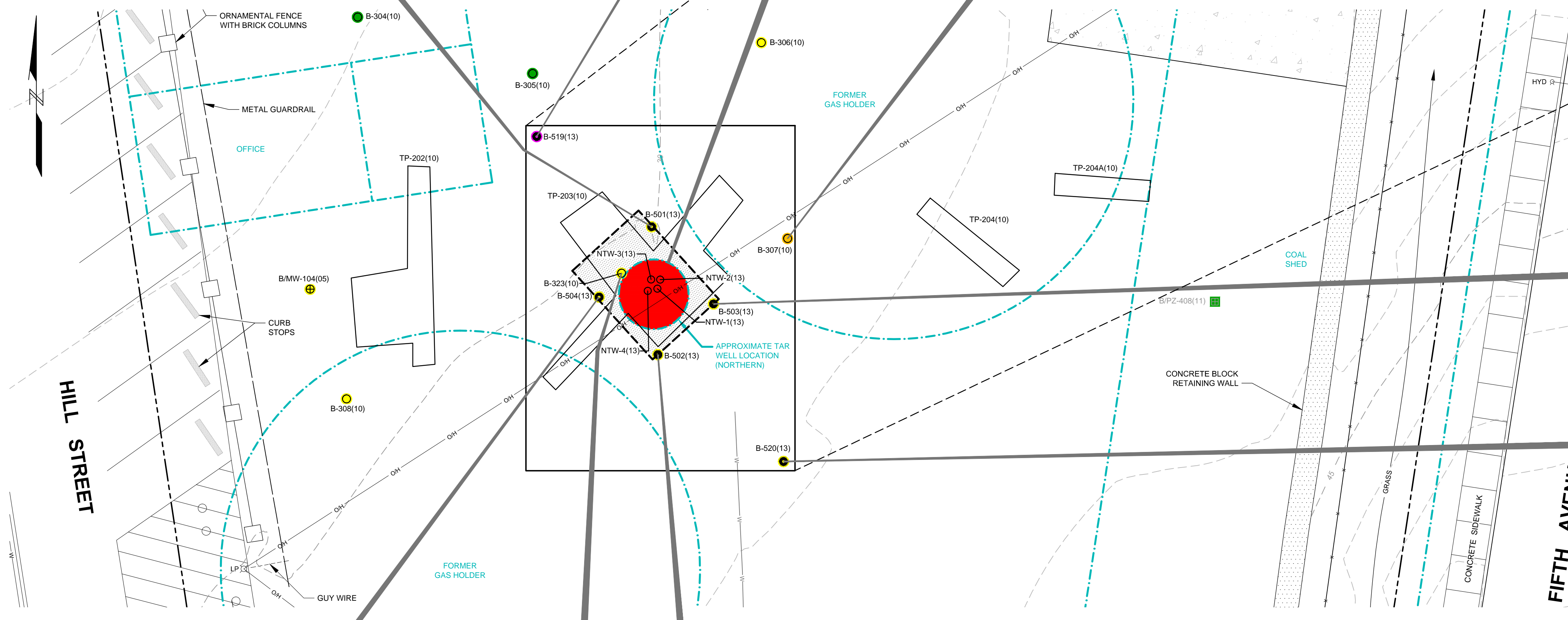
0 6 12
SCALE, FEET

Sample Name:	B-501(13)	B-501(13)	B-501(13)	B-501(13)
Sample Interval/Linear Depth (feet):	Commercial	9-10	12-14	15-17
Vertical Depth/Horizontal Distance (feet):	Commercial	3/11/2013	3/11/2013	3/11/2013
Sample Date:	NE	1.757	3.41	0.00196
Total BTEX (mg/kg)	500*	26.11	18.71	0.454
Total PAHs (mg/kg)				NA

Depth (feet)	Impact Type
0.0 - 8.5	no physical impacts
8.5 - 25.2	naphthalene-like odor, slight staining 12-14"
25.2 - 30	no physical impacts
30.0	terminated

Sample Name:	Commercial	B-307(10)	B-307(10)	Duplicate of:
Sample Interval/Linear Depth (feet):	Commercial	7.6-7.9	13.5-14.75	B-307(10)
Vertical Depth/Horizontal Distance (feet):	Commercial	10/28/2010	10/28/2010	10/28/2010
Sample Date:	NE	0.00034	ND	ND
Total BTEX (mg/kg)	500*	336.02	220.42	49.08
Total PAHs (mg/kg)				

Depth (feet)	Impact Type
0.0 - 5.0	no physical impacts
5.0 - 8.0	naphthalene-like odor, stained
8.0 - 13.5	naphthalene-like odor, stained
13.5 - 15.75	naphthalene-like odor, stained
15.75 - 16.0	naphthalene-like odor, stained, slight sheen
16.0	refusal



Sample Name:	Commercial	B-504(13)	B-504(13)	B-504(13)
Sample Interval/Linear Depth (feet):	Commercial	6-8	11.5-12	18.5-19.5
Vertical Depth/Horizontal Distance (feet):	Commercial	3/14/2013	3/14/2013	3/14/2013
Sample Date:	NE	0.00167	0.0414	0.00934
Total BTEX (mg/kg)	500*	4.808	2.36	2.478
Total PAHs (mg/kg)				

Depth (feet)	Impact Type
0.0 - 5	no physical impacts
5 - 7.8	naphthalene-like odor
7.8 - 10.4	naphthalene-like odor
10.4 - 10.9	slight sulfur-like odor
10.9 - 12.3	no physical impacts
12.3 - 16.3	naphthalene-like odor
16.3 - 30	no physical impacts
30.0	terminated

Sample Name:	Commercial	B-323(10)	B-323(10)
Sample Interval/Linear Depth (feet):	Commercial	18.5-19.5	28.5-29.5
Vertical Depth/Horizontal Distance (feet):	Commercial	10/29/2010	10/29/2010
Sample Date:	NE	ND	ND
Total BTEX (mg/kg)	500*	3.090	ND
Total PAHs (mg/kg)			

Depth (feet)	Impact Type
0.0 - 15.0	not sampled
15.0 - 17.0	tar-like odor, trace bitumens
17.0 - 30.0	terminated

Sample Name:	Commercial	B-520(13)	B-520(13)	B-520(13)
Sample Interval/Linear Depth (feet):	Commercial	9.5-10	11-12	19-20
Vertical Depth/Horizontal Distance (feet):	Commercial	3/14/2013	3/14/2013	3/14/2013
Sample Date:	NE	0.00449	0.00406	0.0003
Total BTEX (mg/kg)	500*	10.79	42.02	0.087
Total PAHs (mg/kg)				

Depth (feet)	Impact Type
0.0 - 9.2	no physical impacts
9.2 - 13	naphthalene-like odor
13 - 30	terminated

Sample Name:	Commercial	B-503(13)	B-503(13)	B-503(13)
Sample Interval/Linear Depth (feet):	Commercial	8-9	14.5-15	18-19
Vertical Depth/Horizontal Distance (feet):	Commercial	3/14/2013	3/14/2013	3/14/2013
Sample Date:	NE	0.00052	0.00026	0.00032
Total BTEX (mg/kg)	500*	101.64	ND	ND
Total PAHs (mg/kg)				

Depth (feet)	Impact Type
0.0 - 10	no physical impacts
10 - 13.5	naphthalene-like odor
13.5 - 15	naphthalene-like odor
15 - 15.8	naphthalene-like odor
15.8 - 30	no physical impacts
30.0	terminated

Sample Name:	Commercial	B-520(13)	B-520(13)	B-520(13)	B-520(13)	B-520(13)	Duplicate of:	
Sample Interval/Linear Depth (feet):	Commercial	11-12	14-15	27.5-30	34-35	38-40	40-45	B-520(13)
Vertical Depth/Horizontal Distance (feet):	Commercial	7.8-8.5	7.8-8.5	19.5-21.2	24-24.8	26.9-28.3	26.9-28.3	B-520(13)
Sample Date:	NE	0.1405	1.52	0.0036	0.00427	0.00358	0.00187	0.00187
Total BTEX (mg/kg)	500*	647.3	671.3	1.442	1.053	0.39	0.36	
Total PAHs (mg/kg)								

Linear Boring Depth (feet)	Vertical Depth/Horizontal Distance (feet)	Impact Type
0.0 - 8.4	0.0 - 5.9	no physical impacts
8.4 - 9.3	5.9 - 6.6	slight naphthalene-like odor
9.3 - 10	6.6 - 7.1	no physical impacts
10 - 20	7.1 - 14.1	various degrees of naphthalene-like odor, black stained portions
20 - 25	14.1 - 17.7	no physical impacts
25 - 40	17.7 - 28.3	various degrees of naphthalene-like odor, black stained portions
40.0	28.3	terminated

LEGEND:

- PROPERTY LINE
- SITE BOUNDARY
- GROUND SURFACE CONTOURS
- CONCRETE BLOCK RETAINING WALL
- CHAIN-LINK FENCE
- METAL FENCE WITH BRICK PILLARS
- GUIDE RAIL
- EDGE OF PAVEMENT
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- CONCRETE PAD
- STEEL LIGHT POLE
- OVERHEAD UTILITY LINES
- CITY OF TROY WATER MAIN
- WATER LINE (SUSPECTED ABANDONED)
- ESTIMATED LIMIT OF EXCAVATION
- SOIL BORING/MONITORING WELL (EA ENGINEERING PC, 2005)
- TEST PIT (GEI, 2010)
- SOIL BORING (GEI, 2010)
- SOIL BORING/PIEZOMETER (GEI, 2011)
- SOIL BORING (GEI, 2013)
- NORTHERN TAR WELL PRE-CHARACTERIZATION/WASTE BORING (GEI, 2013)

PHYSICAL OBSERVATIONS

- TAR SATURATED
- COATED MATERIAL, LENSES
- HARDENED TAR
- BLEBS, GLOBS, SHEEN
- STAINING, ODORS
- PETROLEUM IMPACTS SATURATION AND SHEENS
- PETROLEUM IMPACTS, STAINING, ODORS
- PURIFIER WASTE AND ODOR
- NO PHYSICAL IMPACTS OBSERVED
- NO SAMPLE/NO RECOVERY
- SAMPLE LOCATION ALONG ANGLED BORING

ANALYTICAL BOX NOTES

SCOs Commercial - regulatory comparison against NYCRR, Chapter IV, Part 375-6 Restricted Use Commercial Soil Cleanup Objectives

*According to NYSDEC CP-51, for commercial sites where the ecological standards are not applicable, DEC may approve a remedial program which achieves a soil cleanup level of 500 mg/kg for Total PAHs for all subsurface soil. The 500 mg/kg cleanup level is in lieu of achieving all of the PAH-specific SCOs in NYCRR 375-6.

1463 COMPOUNDS THAT EXCEED PART 375 COMMERCIAL USE STANDARDS

NA NOT APPLICABLE, NOT AVAILABLE OR NOT ANALYZED

ND NOT DETECTED

NE NOT ESTABLISHED

mg/kg MILLIGRAM PER KILOGRAM

PAHs POLYCYCLIC AROMATIC HYDROCARBONS

BTEX BENZENE, TOLUENE, ETHYLBENZENE, XYLENES

- NOTES:**
1. ELEVATIONS REFERENCED TO NATIONAL GEODETIC VERTICAL DATUM OF 1929 (NGVD 29). HORIZONTAL LOCATIONS REFERENCED TO NORTH AMERICAN DATUM OF 1983 (NAD 83).
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 3. THE COLOR SHADING AT EACH BORING/WELL LOCATION SYMBOL INDICATE THE WORST PHYSICAL IMPACTS OBSERVED AT THAT LOCATION.
 4. THE CALL-OUT BOXES FOR EACH SAMPLE LOCATION PRESENT THE ANALYTICAL RESULTS FOR SPECIFIC COMPOUNDS WITH CONCENTRATIONS THAT EXCEED THE APPLICABLE STANDARD. IF INDIVIDUAL COMPOUND CONCENTRATIONS DO NOT EXCEED THE STANDARD, THEN THE SUMMARY RESULTS OF THE GROUP ARE LISTED (IE. TOTAL BTEX AND TOTAL PAHs). RESULT VALUES FOR NON-DETECTS ARE ASSIGNED ND.
 5. BORINGS B-519(13) AND B-520(13) WERE 45° ANGLED BORINGS.

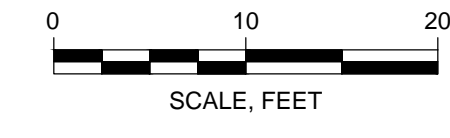
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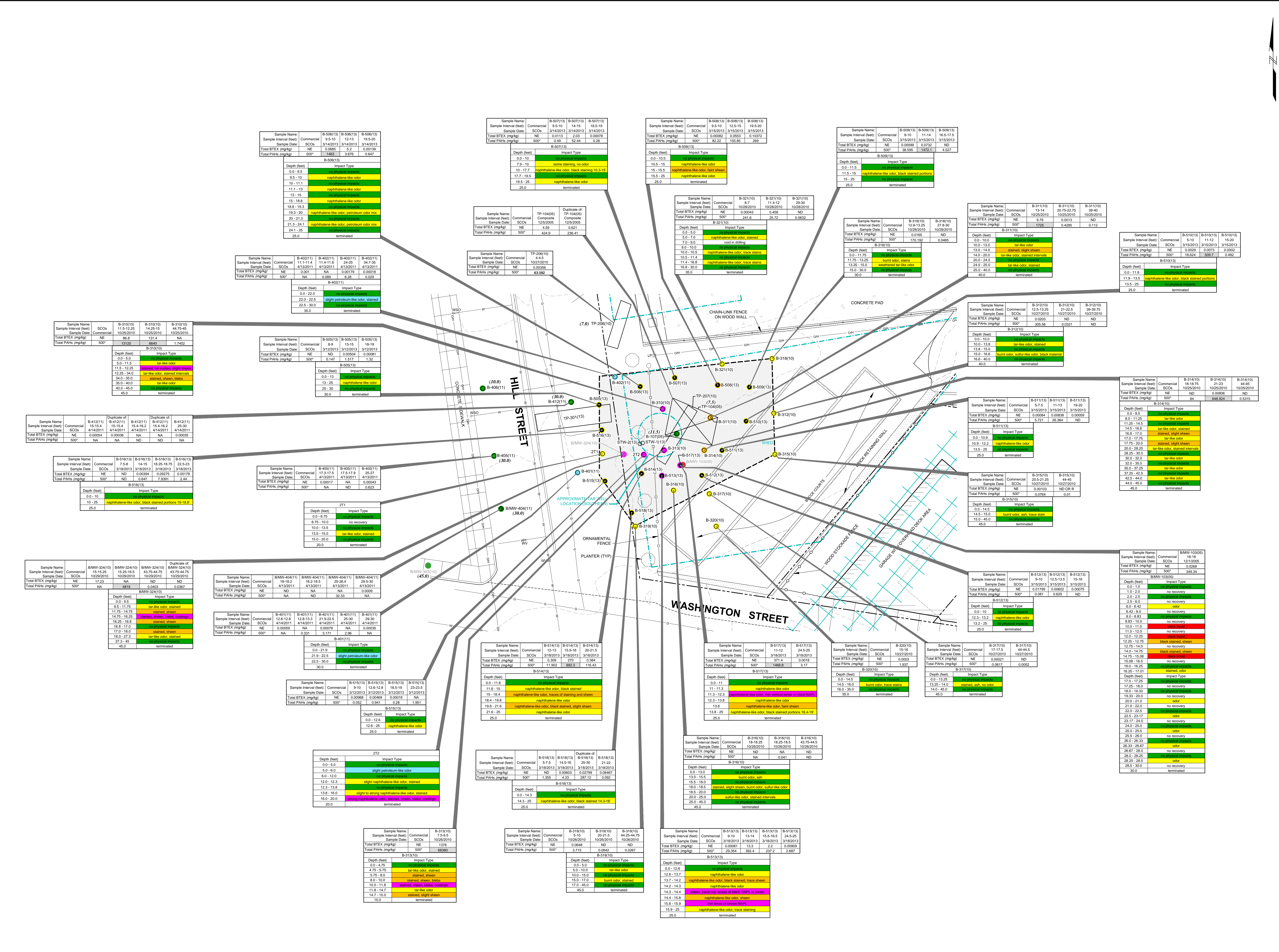
PROJECT 093300-2-1203

GEI Consultants
455 WINDING BROOK DRIVE
GLASTONBURY, CONNECTICUT 06033

NORTHERN TAR WELL PHYSICAL IMPACTS, ANALYTICAL RESULTS SUMMARY AND PROPOSED EXCAVATION LIMITS



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LEGEND:

- PROPERTY LINE
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- NYS SCOUR TAIL VOLATILIZATION STUDY SOIL VAPOR SAMPLE (GEI, 2010)
- SOIL BORING (GEI, 2011)
- TEST PIT (GEI, 2013)
- SOIL BORING (GEI, 2013)
- SOUTHERN TAR WELL PRE-CHARACTERIZATION/WASTE BORING (GEI, 2013)
- MONITORING WELL DECORATED MARCH 2013 (DEPTH IN FEET)
- BORING/TEST PIT TERMINATED (DEPTH IN FEET)

PHYSICAL OBSERVATIONS

- TAR SATURATED
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- HARDENED TAR
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- PETROLEUM IMPACTS SATURATION AND SHEENS
- PETROLEUM IMPACTS, STAINING, ODORS
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ND NOT DETECTED

NE NOT ESTABLISHED

mg/kg MILLIGRAM PER KILOGRAM

PAHs POLYCYCLIC AROMATIC HYDROCARBONS

BTEX BENZENE, TOLUENE, ETHYLBENZENE, XYLENES

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TROY (LIBERTY STREET)
NON-OWNED FORMER MGP SITE
TROY, NEW YORK

nationalgrid

PROJECT 093300-2-1203

GEI consultants
455 WINDING BROOK DRIVE
GLASTONBURY, CONNECTICUT 06033

SOUTHERN TAR WELL PHYSICAL IMPACTS, ANALYTICAL RESULTS SUMMARY AND PROPOSED EXCAVATION LIMITS

May 2013

Figure 5

Appendix A

PDI Soil Boring Logs



GEI Consultants, Inc.
455 Winding Brook Road
Glastonbury, CT 06033
(860) 368-5300

CLIENT: National Grid
PROJECT: Troy Liberty Street
CITY/STATE: Troy, New York
GEI PROJECT NUMBER: 093300-1-1113

BORING LOG
PAGE 1 of 2
B-501(13)

GROUND SURFACE ELEVATION (FT): 30.0076 LOCATION: Adjacent to Northern Tar Well
NORTHING: 1418766.433 EASTING: 709852.6453 TOTAL DEPTH (FT): 30.00
DRILLED BY: ADT / Ritchie Comfort DATUM VERT. / HORZ.: MSL / NAD83
LOGGED BY: Drew Blicharz DATE START / END: 3/11/2013 - 3/11/2013
DRILLING DETAILS: Hollow Stem Auger/2 inch ID Split Spoon
WATER LEVEL DEPTHS (FT):

DEPTH FT.	SAMPLE INFORMATION					STRATA	VISUAL IMPACTS	ODOR	ANALYZED SAMPLE ID	SOIL / BEDROCK DESCRIPTION
	TYPE and NO.	PEN FT.	REC FT.	Blows (/6 in.)	PID (ppm)					
0		4.0								Hand and vacuum cleared to 4' bgs, FILL.
5	S-1	2.0	0.6	1-2-3-4	0.1					LEAN CLAY (CL); ~90% fines, ~10% sand, fine to coarse; moist to wet, brown, concrete and brick fragments, FILL.
	S-2	2.0	1.2	2-2-2-3	0.2, 2.5					NARROWLY GRADED SILTY SAND (SM); ~85% sand, fine to medium, ~15% fines; wet, brown, trace brick fragments, FILL.
10	S-3	2.0	1.2	24-18-4-4	26.6, 30.4			NLO	B-501(13) 9-10	NARROWLY GRADED SILTY SAND (SM); ~85% sand, fine to medium, ~15% fines; wet, brown, trace brick fragments, FILL. LEAN CLAY (CL); ~95% fines, ~5% sand, fine; wet, brown, FILL.
	S-4	2.0	0.5	2-2-2-3	38.0			NLO		WIDELY GRADED GRAVEL (GW); ~100% gravel, angular; moderate naphthalene-like odor, saturated, gray, FILL.
	S-5	2.0	0.4	3-3-3-4	17.7			NLO	B-501(13) 12-14	SILT (ML); ~95% fines, ~5% sand, fine; moderate naphthalene-like odor, wet, light brown, trace fine gravel, FILL.
15	S-6	2.0	0.0	5-6-8-13				NLO	B-501(13) 15-17	LEAN CLAY (CL); fine to medium, ~100% fines; strong naphthalene-like odor, moist, gray, trace brown fine to medium sand, trace fines, trace coal fragments at ~10.5' bgs, FILL.
	S-7	2.0	0.2	16-13-13-17	26.8			NLO		SILT (ML); ~100% fines; strong naphthalene-like odor, wet, gray brown, trace fine sand, slight staining, FILL.
20	S-8	2.0	1.0	5-10-8-8	14.5, 12.9, 25.2, 23.9			NLO	B-501(13) 18-20	WIDELY GRADED SAND (SW); ~85% sand, fine to coarse, ~10% gravel, fine to coarse, subrounded, ~5% fines; moderate naphthalene-like odor, moist to wet, gray, FILL.
	S-9	2.0	0.1	15-15-11-11				NLO		NARROWLY GRADED SAND WITH GRAVEL (SP); ~70% sand, fine to medium, ~25% gravel, fine to coarse, angular, ~5% fines; slight naphthalene-like odor, light brown, FILL.
	S-10	2.0	0.5	25-25-37-37	0.0			NLO		NARROWLY GRADED SAND WITH GRAVEL (SP); ~70% sand, fine to medium, ~25% gravel, fine to coarse, angular, ~5% fines; slight naphthalene-like odor, saturated, light brown, FILL.
										WIDELY GRADED GRAVEL WITH SAND (GW); ~90% gravel, fine to coarse, ~10% sand, fine to coarse; slight naphthalene-like odor, brown.

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IN. = INCHES
FT. = FEET

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MLO = MUSTY LIKE ODOR

ENVIRONMENTAL BORING LOG ALL BORING LOGS REVISED.GPJ GEI CONSULTANTS.GDT 5/24/13



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BORING LOG
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B-501(13)

DEPTH FT.	SAMPLE INFORMATION					STRATA	VISUAL IMPACTS	ODOR	ANALYZED SAMPLE ID	SOIL / BEDROCK DESCRIPTION
	TYPE and NO.	PEN FT.	REC FT.	Blows (/6 in.)	PID (ppm)					
25	S-11	2.0	1.7	8-15-33-38	0.0, 0.0, 0.0			NLO		<p>NARROWLY GRADED SAND (SP); ~95% sand, fine to medium, ~5% fines; slight naphthalene-like odor, wet, dark brown, shoe contained fine to coarse sand (no odor). WIDELY GRADED SAND (SW); ~100% sand, fine to coarse; slight naphthalene-like odor, saturated, dark brown, trace fines. WIDELY GRADED SAND (SW); ~100% sand, fine to medium; wet, dark brown, trace fines. WIDELY GRADED GRAVEL (GW); ~95% gravel, fine to coarse, subrounded & subangular, ~5% sand, fine; brown brown to light, trace reddish-brown fines and fine sand. NARROWLY GRADED SAND (SP); ~100% sand, fine to medium; saturated, gray, trace fines. WIDELY GRADED GRAVEL (GW); fine to medium, ~100% gravel, fine to coarse, angular to subangular; saturated, gray brown to, trace fine to medium sand.</p>
	S-12	2.0	1.2	11-9-6-7	0.0, 0.0, 0.0					
	S-13	2.0	0.9	21-9-7-8	0.0, 0.0					
30	<p>End of Boring at 30 feet. Poor recoveries 12 to 18' bgs with a 2-inch spoon. A 3-inch spoon was pushed 14-18' bgs for better recovery. Fill with bentonite chips.</p>									

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REC = RECOVERY LENGTH OF SAMPLE	IN. = INCHES	PLO = PETROLEUM LIKE ODOR	OLO = ORGANIC LIKE ODOR
PID = PHOTOIONIZATION DETECTOR READING (JAR HEADSPACE)	FT. = FEET	TLO = TAR LIKE ODOR	SLO = SULFUR LIKE ODOR
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BORING LOG
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B-502(13)

GROUND SURFACE ELEVATION (FT): 30.1978 LOCATION: Adjacent to Northern Tar Well
NORTHING: 1418748.095 EASTING: 709853.5453 TOTAL DEPTH (FT): 30.00
DRILLED BY: ADT / Marty Bachner DATUM VERT. / HORZ.: MSL / NAD83
LOGGED BY: Drew Blicharz DATE START / END: 3/14/2013 - 3/14/2013
DRILLING DETAILS: Geoprobe / 6610DT
WATER LEVEL DEPTHS (FT):

DEPTH FT.	SAMPLE INFO				STRATA	VISUAL IMPACTS	ODOR	ANALYZED SAMPLE ID	SOIL / BEDROCK DESCRIPTION
	TYPE and NO.	PEN FT.	REC FT.	PID (ppm)					
0		5.0							Hand and vacuum cleared to 5' bgs, FILL.
5	S-1	5.0	2.0	0.1, 0.1, 0.1, 0.1					NARROWLY GRADED SAND (SP); ~100% sand, fine to medium; dry, gray to dark brown, trace fines, trace fine to coarse gravel, angular coal fragments at ~7.5', FILL.
10	S-2	5.0	2.9	0.0, 0.0, 0.0, 0.0, 0.0			NLO	B-502(13) 9.5-10	Bricks, FILL. NARROWLY GRADED SAND (SP); ~100% sand, fine to medium; slight naphthalene-like odor, dry, gray, coal ash, shoe is moist, FILL.
							NLO	B-502(13) 11-12	SILT (ML); ~90% fines, ~10% sand, fine to medium; slight naphthalene-like odor, moist to wet, brown gray, trace fine gravel, trace brick fragments, FILL.
									SILT (ML); ~100% fines; slight naphthalene-like odor, moist to wet, brown gray, trace fine to medium sand, trace fine gravel, trace brick fragments, FILL.
15	S-3	5.0	3.2	0.0, 0.0, 0.0, 0.0, 0.0					LEAN CLAY (CL); ~100% fines; moist, gray, trace fine sand, trace fine gravel, FILL.
									SILT (ML); ~100% fines; moist, light brown, trace fine sand, trace brick fragments, FILL.
									WIDELY GRADED SAND WITH GRAVEL (SW); ~80% sand, fine to coarse, ~15% gravel, fine, ~5% fines; moist to wet, brown, trace coarse gravel, trace reddish brown fine sand.
20	S-4	5.0	2.0	0.0, 0.0, 0.0				B-502(13) 19-20	NARROWLY GRADED SAND WITH GRAVEL (SP); ~60% sand, medium to coarse, ~40% gravel, fine to coarse; wet, brown, trace fines, gravel is all shapes.

NOTES:

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 REC = RECOVERY LENGTH OF SAMPLE IN. = INCHES PLO = PETROLEUM LIKE ODOR OLO = ORGANIC LIKE ODOR
 PID = PHOTOIONIZATION DETECTOR READING (JAR FT. = FEET TLO = TAR LIKE ODOR SLO = SULFUR LIKE ODOR
 HEADSPACE) ALO = ASPHALT LIKE ODOR CLO = CHEMICAL LIKE ODOR MLO = MUSTY LIKE ODOR

ENVIRONMENTAL BORING LOG ALL BORING LOGS REVISED.GPJ GEI CONSULTANTS.GDT 5/24/13



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BORING LOG

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B-502(13)

DEPTH FT.	SAMPLE INFO				STRATA	VISUAL IMPACTS	ODOR	ANALYZED SAMPLE ID	SOIL / BEDROCK DESCRIPTION
	TYPE and NO.	PEN FT.	REC FT.	PID (ppm)					
25	S-5	5.0	0.4	0.0					NARROWLY GRADED SAND (SP); poor recovery, same as above.
30									End of Boring at 30 feet. Fill with bentonite chips.

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BORING LOG

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B-503(13)

DEPTH FT.	SAMPLE INFO				STRATA	VISUAL IMPACTS	ODOR	ANALYZED SAMPLE ID	SOIL / BEDROCK DESCRIPTION
	TYPE and NO.	PEN FT.	REC FT.	PID (ppm)					
25	S-5	5.0	2.7	0.0, 0.2, 0.0	[Patterned]	[Green]			NARROWLY GRADED SAND (SP); ~100% sand, fine; wet, brown, trace coarse subrounded gravel. NARROWLY GRADED SAND WITH GRAVEL (SW); ~60% sand, fine to coarse, ~40% gravel, fine to coarse; saturated, brown, subrounded and angular.
30									End of Boring at 30 feet. Fill with bentonite chips.

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BORING LOG

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B-504(13)

GROUND SURFACE ELEVATION (FT): 30.0787 LOCATION: Adjacent to Northern Tar Well
 NORTHING: 1418756.355 EASTING: 709845.1089 TOTAL DEPTH (FT): 30.00
 DRILLED BY: ADT / Marty Bachner DATUM VERT. / HORZ.: MSL / NAD83
 LOGGED BY: Drew Blicharz DATE START / END: 3/14/2013 - 3/14/2013
 DRILLING DETAILS: Geoprobe / 6610DT
 WATER LEVEL DEPTHS (FT):

DEPTH FT.	SAMPLE INFO				STRATA	VISUAL IMPACTS	ODOR	ANALYZED SAMPLE ID	SOIL / BEDROCK DESCRIPTION
	TYPE and NO.	PEN FT.	REC FT.	PID (ppm)					
0		5.0							Hand and vacuum cleared to 5' bgs, FILL.
5	S-1	5.0	1.8	0.2, 0.2, 0.2, 0.0			NLO	B-504(13) 6-8	SILT (ML); ~95% fines, ~5% sand, fine to medium; slight naphthalene-like odor, dry, brown gray, trace brick and coal fragments, FILL. SILT (ML); ~100% fines; dry to moist, brown gray, firm, trace subrounded gravel, lean clay at the bottom, FILL.
10	S-2	5.0	4.8	0.2, 0.2, 0.2, 0.2, 0.3			SLO	B-504(13) 11.5-12	SILT (ML); ~100% fines; moist, gray, trace fine sand, trace fine to coarse gravel, soft, FILL. ELASTIC SILT (MH); ~100% fines; slight sulfur-like odor, wet, brown gray. LEAN CLAY (CL); ~100% fines; wet, brown gray, trace fine sand, tiny coal fragments. SILT (ML); fine to coarse, fine to coarse, ~100% fines; slight naphthalene-like odor, wet to moist, brown to light brown, trace fine sand, brick fragments at ~14' bgs.
15	S-3	5.0	2.9	0.2, 0.2, 0.2, 0.2				B-504(13) 18.5-19.5	WIDELY GRADED SAND (SW); ~90% sand, fine to coarse, ~10% gravel, fine to coarse; wet, brown to dark gray, subangular and subrounded, trace fines, traces of tiny brick fragments and coal ash.
20	S-4	5.0	3.6	0.2, 0.2, 0.2, 0.1					WIDELY GRADED SAND (SW); ~85% sand, fine to coarse, ~10% gravel, fine to coarse, ~5% fines; wet, light brown to gray. WIDELY GRADED SAND (SW); ~90% sand, fine to coarse, ~10% gravel, fine to coarse; saturated, brown and gray, trace fines, % gravel decreases with depth.

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BORING LOG

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B-504(13)

DEPTH FT.	SAMPLE INFO				STRATA	VISUAL IMPACTS	ODOR	ANALYZED SAMPLE ID	SOIL / BEDROCK DESCRIPTION
	TYPE and NO.	PEN FT.	REC FT.	PID (ppm)					
25	S-5	5.0	3.9	0.3, 0.3, 0.2, 0.2, 0.0					WIDELY GRADED SAND (SW); ~90% sand, fine to coarse, ~10% gravel, fine; saturated to wet, brown, firm fine sand at the bottom.
30									End of Boring at 30 feet. Fill with bentonite chips.

ENVIRONMENTAL BORING LOG ALL BORING LOGS REVISED.GPJ GEI CONSULTANTS.GDT 5/24/13

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BORING LOG

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B-505(13)

GROUND SURFACE ELEVATION (FT): 32.3578 LOCATION: Near the Southern Tar Well
 NORTHING: 1418584.134 EASTING: 709801.0513 TOTAL DEPTH (FT): 25.00
 DRILLED BY: ADT / Ritchie Comfort DATUM VERT. / HORZ.: MSL / NAD83
 LOGGED BY: Drew Blicharz DATE START / END: 3/12/2013 - 3/12/2013
 DRILLING DETAILS: Hollow Stem Auger/2 inch ID Split Spoon
 WATER LEVEL DEPTHS (FT):

DEPTH FT.	SAMPLE INFORMATION					STRATA	VISUAL IMPACTS	ODOR	ANALYZED SAMPLE ID	SOIL / BEDROCK DESCRIPTION
	TYPE and NO.	PEN FT.	REC FT.	Blows (6 in.)	PID (ppm)					
0		5.0								Hand and vacuum cleared to 5' bgs, FILL.
5	S-1	2.0	1.3	2-3-5-5	0.0, 0.0, 0.0					LEAN CLAY (CL); ~95% fines, ~5% sand, fine to coarse; moist, brown, trace fine gravel, FILL. LEAN CLAY (CL); ~95% fines, ~5% sand, fine to coarse; moist, gray, trace fine gravel, FILL. WIDELY GRADED SAND (SW); ~100% sand, fine to coarse; moist, brown gray, trace fines, trace fine gravel, FILL. LEAN CLAY (CL); ~95% fines, ~5% sand, fine to coarse; moist, gray, trace fine gravel, FILL. WIDELY GRADED SAND (SW); ~100% sand, fine to coarse; moist, brown gray, trace fines, trace fine gravel, FILL. LEAN CLAY (CL); ~95% fines, ~5% sand, fine to coarse; moist, brown, FILL. LEAN CLAY (CL); ~95% fines, ~5% sand, fine to coarse; moist, gray, FILL. SILT WITH SAND (ML); ~85% fines, ~15% sand, fine; moist, brown, FILL. SILT WITH SAND (ML); ~85% fines, ~15% sand, fine; wet, brown gray, FILL. ELASTIC SILT (MH); ~100% fines, low plasticity; wet, brown gray, trace fine sand, firm, FILL. NARROWLY GRADED GRAVEL (GP); ~100% gravel, angular; moist, black, FILL. WIDELY GRADED SAND (SW); ~95% sand, fine to coarse, ~5% gravel, subrounded; moist, gray, trace fines, FILL. SILTY SAND (SM); ~60% sand, fine to coarse, ~40% fines; slight naphthalene-like odor, wet, gray, FILL. SILTY SAND (SM); ~80% sand, fine to medium, ~15% fines, ~5% gravel, fine to coarse, subangular; moderate naphthalene-like odor, wet, brown gray, FILL. SILT (ML); ~90% fines, ~10% sand, fine; moderate naphthalene-like odor, wet, brown, FILL. SILT (ML); ~95% fines, ~5% sand, fine; slight naphthalene-like odor, wet, light brown, FILL. NARROWLY GRADED SAND (SP); ~100% sand,
	S-2	2.0	1.7	4-3-4-5	0.0, 0.0, 0.0, 0.0				B-505(13) 8-9	
	S-3	2.0	1.6	2-4-3-3	0.0, 0.0, 0.0, 0.0					
10	S-4	2.0	1.9	3-8-8-6	0.1, 0.1, 0.1, 0.0					
	S-5	2.0	0.7	6-3-3-4	0.0, 0.0			NLO	B-505(13) 13-15	
15	S-6	2.0	1.1	3-4-3-4				NLO		
	S-7	2.0	1.0	10-13-13-15	0.1, 0.7			NLO	B-505(13) 18-19	
	S-8	2.0	1.6	9-6-13-14	0.4, 0.3, 0.1, 0.0			NLO		
20	S-9	2.0	1.0	11-12-15-15	0.2, 0.0			NLO		
	S-10	2.0	2.0	13-7-9-10	0.2, 0.2, 0.2, 0.2			NLO		

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ENVIRONMENTAL BORING LOG ALL BORING LOGS REVISED.GPJ GEI CONSULTANTS.GDT: 5/24/13



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DEPTH FT.	SAMPLE INFORMATION					STRATA	VISUAL IMPACTS	ODOR	ANALYZED SAMPLE ID	SOIL / BEDROCK DESCRIPTION
	TYPE and NO.	PEN FT.	REC FT.	Blows (/6 in.)	PID (ppm)					
25						•••••	■			<p>fine to medium; moderate naphthalene-like odor, wet, gray, trace fines, FILL. NARROWLY GRADED SAND (SP); ~95% sand, fine to medium, ~5% gravel, fine, subrounded; moderate naphthalene-like odor, wet, gray, trace fines, fine to coarse sand 19.5-20.25' bgs, FILL. NARROWLY GRADED SAND WITH GRAVEL (SP); ~80% sand, fine to medium, ~20% gravel, fine to coarse, subrounded; moderate naphthalene-like odor, saturated, gray, bottom 0.2' traces of reddish brown sand. WIDELY GRADED SAND WITH GRAVEL (SW); ~60% sand, fine to coarse, ~40% gravel, fine to coarse, subrounded; slight naphthalene-like odor, saturated, gray, trace cobbles. WIDELY GRADED SAND WITH GRAVEL (SW); ~75% sand, fine to coarse, ~25% gravel, fine to coarse, subrounded; slight naphthalene-like odor, saturated, gray, trace cobbles, yellow fine to medium sand at bottom. End of Boring at 25 feet. A 2-inch spoon was used 5-17' bgs. A 3-inch spoon was used 17-25' bgs for better recovery. Fill with bentonite chips.</p>

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BORING LOG
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B-506(13)

GROUND SURFACE ELEVATION (FT): 32.5479 LOCATION: Near the Southern Tar Well
NORTHING: 1418589.169 EASTING: 709812.3815 TOTAL DEPTH (FT): 25.00
DRILLED BY: ADT / Marty Bachner DATUM VERT. / HORZ.: MSL / NAD83
LOGGED BY: Drew Blicharz DATE START / END: 3/14/2013 - 3/14/2013
DRILLING DETAILS: Geoprobe / 6610DT
WATER LEVEL DEPTHS (FT):

DEPTH FT.	SAMPLE INFO				STRATA	VISUAL IMPACTS	ODOR	ANALYZED SAMPLE ID	SOIL / BEDROCK DESCRIPTION
	TYPE and NO.	PEN FT.	REC FT.	PID (ppm)					
0		5.0							Hand and vacuum cleared to 5' bgs, FILL.
5	S-1	5.0	2.0	0.2, 0.2, 0.2, 0.2, 0.2					LEAN CLAY (CL); ~100% fines; moist to wet, brown gray, silt and clay, non-plastic and plastic soil, FILL.
10	S-2	5.0	3.5	0.3, 0.3, 0.3, 0.5, 0.3			NLO	B-506(13) 9.5-10	CLAYEY SAND (SC); ~50% sand, fine to medium, ~45% fines, ~5% gravel, fine; moderate naphthalene-like odor, moist, dark gray, same as above, coal ash, FILL.
							NLO	B-506(13) 12-13	NARROWLY GRADED SAND (SP); ~95% sand, fine to medium, ~5% gravel, fine; moist, brown, trace fines, brick fragments, FILL.
15	S-3	5.0	4.0	0.2, 0.2, 0.2, 0.2, 0.2			NLO		LEAN CLAY (CL); ~100% fines; slight naphthalene-like odor, SAA, petroleum odor mix, FILL.
							NLO		SILT (ML); fine, ~95% fines, ~5% sand; slight naphthalene-like odor, wet, brown gray, trace tiny brick fragments, petroleum odor mix, FILL.
							NLO	B-506(13) 19.5-20	SILTY SAND WITH GRAVEL (SM); ~50% sand, fine to medium, ~30% gravel, fine to coarse, ~20% fines; slight naphthalene-like odor, wet, brown gray, tiny wood fragments or decomposed organics, petroleum odor mix, FILL.
20	S-4	5.0	4.4	0.2, 0.2, 0.2, 0.2, 0.2			NLO		SILT (ML); ~100% fines; wet, olive green.
							NLO		WIDELY GRADED SAND (SW); fine to coarse, ~100% fines; slight naphthalene-like odor, wet, brown gray, trace fines, trace fine gravel, petroleum odor mix.
							NLO		SILT (ML); ~95% fines, ~5% sand, fine to medium; wet, brown, trace coal fragments.

NOTES:

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PID = PHOTOIONIZATION DETECTOR READING (JAR HEADSPACE)

ppm = PARTS PER MILLION
IN. = INCHES
FT. = FEET

NLO = NAPHTHALENE LIKE ODOR
PLO = PETROLEUM LIKE ODOR
TLO = TAR LIKE ODOR
CLO = CHEMICAL LIKE ODOR
ALO = ASPHALT LIKE ODOR

CrLO = CREOSOTE LIKE ODOR
OLO = ORGANIC LIKE ODOR
SLO = SULFUR LIKE ODOR
MLO = MUSTY LIKE ODOR

ENVIRONMENTAL BORING LOG ALL BORING LOGS REVISED.GPJ GEI CONSULTANTS.GDT 5/24/13



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CLIENT: National Grid
 PROJECT: Troy Liberty Street
 CITY/STATE: Troy, New York
 GEI PROJECT NUMBER: 093300-1-1113

BORING LOG

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B-506(13)

DEPTH FT.	SAMPLE INFO				STRATA	VISUAL IMPACTS	ODOR	ANALYZED SAMPLE ID	SOIL / BEDROCK DESCRIPTION
	TYPE and NO.	PEN FT.	REC FT.	PID (ppm)					
25								<p>LEAN CLAY (CL); ~95% fines, ~5% sand, fine to coarse; wet, gray.</p> <p>WIDELY GRADED SAND (SW); ~95% sand, fine to coarse, ~5% gravel, fine; slight naphthalene-like odor, wet, dark gray, trace fines, gravel is various shapes and size, petroleum odor mix.</p> <p>WIDELY GRADED SAND WITH GRAVEL (SW); ~70% sand, fine to coarse, ~30% gravel, fine to coarse; wet, brown, trace fines, gravel is various shapes and size.</p> <p>End of Boring at 25 feet. Fill with bentonite chips.</p>	

ENVIRONMENTAL BORING LOG ALL BORING LOGS REVISED.GPJ GEI CONSULTANTS.GDT 5/24/13

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BORING LOG

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B-507(13)

GROUND SURFACE ELEVATION (FT): 32.5946 LOCATION: Near the Southern Tar Well
 NORTHING: 1418591.597 EASTING: 709821.9199 TOTAL DEPTH (FT): 25.00
 DRILLED BY: ADT / Marty Bachner DATUM VERT. / HORZ.: MSL / NAD83
 LOGGED BY: Drew Blicharz DATE START / END: 3/14/2013 - 3/14/2013
 DRILLING DETAILS: Geoprobe / 6610DT
 WATER LEVEL DEPTHS (FT): _____

ENVIRONMENTAL BORING LOG ALL BORING LOGS REVISED.GPJ GEI CONSULTANTS.GDT: 5/24/13

DEPTH FT.	SAMPLE INFO				STRATA	VISUAL IMPACTS	ODOR	ANALYZED SAMPLE ID	SOIL / BEDROCK DESCRIPTION
	TYPE and NO.	PEN FT.	REC FT.	PID (ppm)					
0		5.0							Hand and vacuum cleared to 5' bgs, FILL.
5	S-1	5.0	1.7	0.2, 0.2, 0.2					NARROWLY GRADED SAND (SP); ~95% sand, fine to medium, ~5% fines; dry, brown, coal fragments at ~5.5' bgs, FILL. LEAN CLAY (CL); ~100% fines; moist, gray, some wood fragments, some staining, FILL.
10	S-2	5.0	1.8	0.3, 0.4, 1.5, 0.0			NLO NLO	B-507(13) 9.5-10	LEAN CLAY (CL); ~95% fines, ~5% sand, fine; slight naphthalene-like odor, moist, gray, brick fragments, firm, FILL. SILTY SAND (SM); ~75% sand, fine to coarse, ~20% fines, ~5% gravel, fine to coarse; strong naphthalene-like odor, saturated, brown and gray, brick and coal fragments, black staining, FILL.
15	S-3	5.0	3.1	2.4, 1.4, 0.3, 0.3, 0.3			NLO NLO	B-507(13) 14-15	LEAN CLAY (CL); ~100% fines; slight naphthalene-like odor, moist, gray, firm, FILL. SILT (ML); fine, ~100% fines; slight naphthalene-like odor, moist, gray, trace angular gravel, brick fragments, FILL. Moist, yellow, mortar or ash, FILL.
20	S-4	5.0	3.1	1.7, 0.6, 2.5, 0.8, 0.5			NLO NLO	B-507(13) 18.5-19	LEAN CLAY (CL); ~100% fines; moist, gray, trace fine sand, FILL. SILT (ML); ~100% fines; moist, olive green, trace fine to medium sand, FILL. NARROWLY GRADED SAND (SP); ~100% sand; slight naphthalene-like odor, wet, brown gray, trace fine to medium sand, trace rounded gravel, FILL. LEAN CLAY (CL); ~100% fines; slight naphthalene-like odor, wet, gray, trace angular gravel, trace brick fragments.

NOTES:

PEN = PENETRATION LENGTH OF SAMPLER OR CORE BARREL	ppm = PARTS PER MILLION	NLO = NAPHTHALENE LIKE ODOR	CrLo = CREOSOTE LIKE ODOR
REC = RECOVERY LENGTH OF SAMPLE	IN. = INCHES	PLo = PETROLEUM LIKE ODOR	OLO = ORGANIC LIKE ODOR
PID = PHOTOIONIZATION DETECTOR READING (JAR HEADSPACE)	FT. = FEET	TLO = TAR LIKE ODOR	SLO = SULFUR LIKE ODOR
		CLO = CHEMICAL LIKE ODOR	MLO = MUSTY LIKE ODOR
		ALO = ASPHALT LIKE ODOR	



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B-507(13)

DEPTH FT.	SAMPLE INFO				STRATA	VISUAL IMPACTS	ODOR	ANALYZED SAMPLE ID	SOIL / BEDROCK DESCRIPTION
	TYPE and NO.	PEN FT.	REC FT.	PID (ppm)					
25					•••••		NLO		WIDELY GRADED SAND (SW); ~100% sand; slight naphthalene-like odor, wet, gray, trace fines, trace gravel. End of Boring at 25 feet. Fill with bentonite chips.

ENVIRONMENTAL BORING LOG ALL BORING LOGS REVISED.GPJ GEI CONSULTANTS.GDT 5/24/13

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BORING LOG

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B-508(13)

GROUND SURFACE ELEVATION (FT): 32.7776 LOCATION: Near the Southern Tar Well
 NORTHING: 1418589.581 EASTING: 709833.7609 TOTAL DEPTH (FT): 25.00
 DRILLED BY: ADT / Marty Bachner DATUM VERT. / HORZ.: MSL / NAD83
 LOGGED BY: Drew Blicharz DATE START / END: 3/15/2013 - 3/15/2013
 DRILLING DETAILS: Geoprobe / 6610DT
 WATER LEVEL DEPTHS (FT):

DEPTH FT.	SAMPLE INFO				STRATA	VISUAL IMPACTS	ODOR	ANALYZED SAMPLE ID	SOIL / BEDROCK DESCRIPTION
	TYPE and NO.	PEN FT.	REC FT.	PID (ppm)					
0		2.0							Hand and vacuum cleared to 2' bgs, FILL.
	S-1	3.0	1.3	0.0					NARROWLY GRADED SAND WITH SILT AND GRAVEL (SP-SM); ~60% sand, fine to medium, ~30% gravel, coarse, ~10% fines; dry, brown and gray, hard drilling, FILL.
5	S-2	5.0	2.7	0.0, 0.0, 0.0, 0.0, 0.0					NARROWLY GRADED SAND WITH GRAVEL (SP); ~85% sand, fine to medium, ~15% gravel, coarse, angular, ~5% fines; dry, gray, coal ash, FILL. LEAN CLAY (CL); ~100% fines; dry, gray, trace fine sand, firm, FILL.
10	S-3	5.0	1.2	5.5				B-508(13) 9.5-10	NARROWLY GRADED SAND (SP); ~100% sand, fine to medium; dry, brown, trace fine angular gravel, trace fines, FILL.
								B-508(13) 12.5-15	SILTY SAND (SM); ~75% sand, fine to coarse, ~20% fines, ~5% gravel, fine; strong naphthalene-like odor, wet, dark gray, FILL.
15	S-4	5.0	3.2	0.5, 2.6, 1.0, 1.0, 1.9			NLO		Moderate naphthalene-like odor, faint sheen in slough. SILTY SAND (SM); ~80% sand, fine to medium, ~15% fines, ~5% gravel, fine to coarse; moderate naphthalene-like odor, moist to wet, brown gray, trace coarse sand, gravel all shapes, brick fragments at ~17' and 20' bgs, FILL.
20	S-5	5.0	2.2	1.3, 1.3, 2.8, 1.3			NLO	B-508(13) 19.5-20	SILT WITH SAND (ML); ~85% fines, ~15% sand, medium coarse; strong naphthalene-like odor, wet, brown gray, trace fine to coarse gravel, all shapes. SILT (ML); ~95% fines, ~5% sand; strong naphthalene-like odor, wet, brown gray.

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 FT. = FEET

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 MLO = MUSTY LIKE ODOR

ENVIRONMENTAL BORING LOG ALL BORING LOGS REVISED.GPJ GEI CONSULTANTS.GDT: 5/24/13



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BORING LOG

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B-508(13)

DEPTH FT.	SAMPLE INFO				STRATA	VISUAL IMPACTS	ODOR	ANALYZED SAMPLE ID	SOIL / BEDROCK DESCRIPTION
	TYPE and NO.	PEN FT.	REC FT.	PID (ppm)					
25									End of Boring at 25 feet. Fill with bentonite chips.

ENVIRONMENTAL BORING LOG ALL BORING LOGS REVISED.GPJ GEI CONSULTANTS.GDT 5/24/13

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BORING LOG
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B-509(13)

GROUND SURFACE ELEVATION (FT): 32.9488 LOCATION: Near the Southern Tar Well
NORTHING: 1418589.023 EASTING: 709842.5253 TOTAL DEPTH (FT): 25.00
DRILLED BY: ADT / Marty Bachner DATUM VERT. / HORZ.: MSL / NAD83
LOGGED BY: Drew Blicharz DATE START / END: 3/15/2013 - 3/15/2013
DRILLING DETAILS: Geoprobe / 6610DT
WATER LEVEL DEPTHS (FT):

DEPTH FT.	SAMPLE INFO				STRATA	VISUAL IMPACTS	ODOR	ANALYZED SAMPLE ID	SOIL / BEDROCK DESCRIPTION
	TYPE and NO.	PEN FT.	REC FT.	PID (ppm)					
0		5.0							Hand and vacuum cleared to 5' bgs, FILL.
5	S-1	5.0	1.5	0.0, 0.0, 0.0					WIDELY GRADED SAND (SW); ~95% sand, ~5% fines; dry, brown, brick fragments, ash, FILL. WIDELY GRADED GRAVEL (GW); ~100% gravel, fine to coarse, angular; dry, gray, FILL. LEAN CLAY (CL); ~100% fines; moist, brown, trace fine sand, trace gravel, FILL.
10	S-2	5.0	1.7	0.2, 23.4, 2.7, 0.4				B-509(13) 9-10	LEAN CLAY (CL); ~100% fines; wet, brown, trace fine sand, trace gravel, FILL.
15	S-3	5.0	3.1	0.1, 0.0, 0.0, 0.0, 0.0				B-509(13) 11-14	WIDELY GRADED SAND WITH SILT (SW); ~85% sand, fine to coarse, ~10% fines, ~5% gravel, fine; moderate naphthalene-like odor, moist, black and brown, coal fragments and ash, black stained portions, FILL.
20	S-4	5.0	2.1	0.2, 0.5, 0.3, 0.2, 0.1				B-509(13) 16.5-17.5	WIDELY GRADED SAND WITH SILT (SW); ~85% sand, fine to coarse, ~10% fines, ~5% gravel, fine to coarse; moderate naphthalene-like odor, wet, brown, black stained portions, FILL. WIDELY GRADED SAND WITH SILT AND GRAVEL (SW-SM); ~80% sand, ~10% gravel, ~10% fines; slight naphthalene-like odor, wet, coal fragments, gravel all shapes, FILL. SILT (ML); ~95% fines, ~5% sand, fine to medium; saturated, loose. SILT (ML); ~95% fines, ~5% sand; moist to wet, brittle, layer of fine gravel at ~18' bgs, 5% fine to coarse red brown gravel bottom 0.5'. WIDELY GRADED GRAVEL WITH SAND (GW); ~70% gravel, fine to coarse, ~25% sand, medium to coarse, ~5% fines; saturated to wet.

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ALO = ASPHALT LIKE ODOR

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OLO = ORGANIC LIKE ODOR
SLO = SULFUR LIKE ODOR
MLO = MUSTY LIKE ODOR

ENVIRONMENTAL BORING LOG ALL BORING LOGS REVISED.GPJ GEI CONSULTANTS.GDT 5/24/13



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B-509(13)

DEPTH FT.	SAMPLE INFO				STRATA	VISUAL IMPACTS	ODOR	ANALYZED SAMPLE ID	SOIL / BEDROCK DESCRIPTION
	TYPE and NO.	PEN FT.	REC FT.	PID (ppm)					
25									End of Boring at 25 feet. Fill with bentonite chips.

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BORING LOG
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B-510(13)

GROUND SURFACE ELEVATION (FT): 33.2662 LOCATION: Near the Southern Tar Well
NORTHING: 1418579.635 EASTING: 709841.5964 TOTAL DEPTH (FT): 25.00
DRILLED BY: ADT / Marty Bachner DATUM VERT. / HORZ.: MSL / NAD83
LOGGED BY: Drew Blicharz DATE START / END: 3/15/2013 - 3/15/2013
DRILLING DETAILS: Geoprobe / 6610DT
WATER LEVEL DEPTHS (FT):

DEPTH FT.	SAMPLE INFO				STRATA	VISUAL IMPACTS	ODOR	ANALYZED SAMPLE ID	SOIL / BEDROCK DESCRIPTION
	TYPE and NO.	PEN FT.	REC FT.	PID (ppm)					
0		5.0							Hand and vacuum cleared to 5' bgs, FILL.
5	S-1	5.0	0.9	0.1, 0.1				B-510(13) 5-10	NARROWLY GRADED SAND (SP); ~95% sand, fine to medium, ~5% fines; wet to saturated, brown, trace gravel, mortar, brick, concrete, coal, FILL.
10	S-2	5.0	2.2	0.3, 2.3, 0.2, 0.1			NLO NLO	B-510(13) 11-12	NARROWLY GRADED SAND WITH SILT (SP-SM); ~85% sand, fine to medium, ~10% fines, ~5% gravel; moderate naphthalene-like odor, moist, brown and black, brick and coal fragments, mortar, stained portions, FILL. NARROWLY GRADED SAND WITH SILT (SP-SM); ~85% sand, fine to medium, ~10% fines, ~5% gravel; slight naphthalene-like odor, moist, brown, FILL. Brown, FILL. SILT (ML); ~95% fines, ~5% sand, fine; wet, brown.
15	S-3	5.0	2.5	0.0, 0.0, 0.0, 0.0				B-510(13) 15-20	SILT (ML); ~100% fines; moist, brown, firm, brittle.
20	S-4	5.0	2.8	0.0, 0.0, 0.0					SILT (ML); ~90% fines, ~10% gravel, fine to coarse; dry to moist, brown. SILT (ML); ~95% fines, ~5% sand, fine; wet, brown.
									WIDELY GRADED SAND WITH GRAVEL (SW); ~60% sand, fine to coarse, ~35% gravel, fine to coarse, ~5% fines; wet, gray to brown, gravel all shapes.

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ENVIRONMENTAL BORING LOG ALL BORING LOGS REVISED.GPJ GEI CONSULTANTS.GDT 5/24/13



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B-510(13)

DEPTH FT.	SAMPLE INFO				STRATA	VISUAL IMPACTS	ODOR	ANALYZED SAMPLE ID	SOIL / BEDROCK DESCRIPTION
	TYPE and NO.	PEN FT.	REC FT.	PID (ppm)					
25									End of Boring at 25 feet. Fill with bentonite chips.

ENVIRONMENTAL BORING LOG ALL BORING LOGS REVISED.GPJ GEI CONSULTANTS.GDT 5/24/13

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B-511(13)

GROUND SURFACE ELEVATION (FT): 33.3621 LOCATION: Near the Southern Tar Well
NORTHING: 1418571.567 EASTING: 709834.9669 TOTAL DEPTH (FT): 25.00
DRILLED BY: ADT / Marty Bachner DATUM VERT. / HORZ.: MSL / NAD83
LOGGED BY: Drew Blicharz DATE START / END: 3/15/2013 - 3/15/2013
DRILLING DETAILS: Geoprobe / 6610DT
WATER LEVEL DEPTHS (FT):

DEPTH FT.	SAMPLE INFO				STRATA	VISUAL IMPACTS	ODOR	ANALYZED SAMPLE ID	SOIL / BEDROCK DESCRIPTION
	TYPE and NO.	PEN FT.	REC FT.	PID (ppm)					
0		5.0							Hand and vacuum cleared to 5' bgs, FILL.
5	S-1	5.0	1.5	0.1, 0.1, 0.1				B-511(13) 5-7.5	WIDELY GRADED SAND WITH SILT (SW-SM); ~90% sand, fine to coarse, ~10% fines; dry, brown, trace gravel, bricks, coal ash at 8' bgs, FILL. LEAN CLAY (CL); ~100% fines; moist, gray, FILL.
10	S-2	5.0	1.6	0.1, 0.7, 0.2, 0.2		NLO		B-511(13) 11-13	SILTY SAND (SM); ~80% sand, fine to medium, ~20% fines; dry, gray, FILL. Moderate naphthalene-like odor, dry, black coal fragments, tiny wood chips, FILL. SILT (ML); ~80% fines, ~10% gravel, ~10% sand; moist, brown, trace fine reddish brown sand, coarse gravel at 15' bgs, FILL.
15	S-3	5.0	2.9	0.2, 0.2, 0.1, 0.0, 0.0				B-511(13) 19-20	NARROWLY GRADED SAND (SP); ~95% sand, ~5% fines; dry, brown orange, firm. NARROWLY GRADED SAND (SP); ~95% sand, ~5% fines; wet, gray. NARROWLY GRADED SAND WITH SILT (SP-SM); ~90% sand, ~10% fines; saturated, gray brown. SILT (ML); ~100% fines; moist, brown. SILTY SAND (SM); ~80% sand, fine to medium, ~15% fines, ~5% gravel, fine; wet, brown gray, trace fine reddish brown sand, firm, hard drilling.
20	S-4	5.0	2.0	0.1, 0.1, 0.1, 0.1					SILT (ML); ~80% fines, ~10% gravel, ~10% sand, fine to medium; wet to moist, brown. WIDELY GRADED SAND WITH GRAVEL (SW); ~60%

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ENVIRONMENTAL BORING LOG ALL BORING LOGS REVISED.GPJ GEI CONSULTANTS.GDT: 5/24/13

DEPTH FT.	SAMPLE INFO				STRATA	VISUAL IMPACTS	ODOR	ANALYZED SAMPLE ID	SOIL / BEDROCK DESCRIPTION
	TYPE and NO.	PEN FT.	REC FT.	PID (ppm)					
25									sand, fine to coarse, ~35% gravel, fine to coarse, ~5% fines; wet, gray to brown, gravel all shapes. End of Boring at 25 feet. Fill with bentonite chips.

NOTES:

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REC = RECOVERY LENGTH OF SAMPLE	IN. = INCHES	PLO = PETROLEUM LIKE ODOR
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GEI Consultants, Inc.
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(860) 368-5300

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PROJECT: Troy Liberty Street
CITY/STATE: Troy, New York
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BORING LOG

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B-512(13)

GROUND SURFACE ELEVATION (FT): 33.4133 LOCATION: Near the Southern Tar Well
NORTHING: 1418564.657 EASTING: 709829.3927 TOTAL DEPTH (FT): 25.00
DRILLED BY: ADT / Marty Bachner DATUM VERT. / HORZ.: MSL / NAD83
LOGGED BY: Drew Blicharz DATE START / END: 3/15/2013 - 3/15/2013
DRILLING DETAILS: Geoprobe / 6610DT
WATER LEVEL DEPTHS (FT):

DEPTH FT.	SAMPLE INFO				STRATA	VISUAL IMPACTS	ODOR	ANALYZED SAMPLE ID	SOIL / BEDROCK DESCRIPTION
	TYPE and NO.	PEN FT.	REC FT.	PID (ppm)					
0		5.0							Hand and vacuum cleared to 5' bgs, FILL.
5	S-1	5.0	2.1	0.0, 0.0, 0.0, 0.0					NARROWLY GRADED SAND (SP); ~95% sand, fine to medium, ~5% fines; dry, brown and red, bricks, coarse stone, FILL.
10	S-2	5.0	2.3	0.0, 0.0, 0.0, 0.0			NLO	B-512(13) 9-10	SILTY SAND (SM); ~80% sand, fine to coarse, ~20% fines; wet, brown gray, trace gravel, FILL. SILTY SAND (SM); slight naphthalene-like odor, same as above, 0.2' coarse stone at 12.1' bgs, FILL.
15	S-3	5.0	2.6	0.0, 0.0, 0.0, 0.0, 0.0			NLO	B-512(13) 12.5-13.5	NARROWLY GRADED SAND (SP); ~100% sand, fine to medium; moderate naphthalene-like odor, moist, dark gray and black, trace fine gravel, FILL. SILT (ML); ~90% fines, ~5% gravel, fine, ~5% sand, fine; slight naphthalene-like odor, moist, gray, FILL.
20	S-4	5.0	2.3	0.2, 0.2, 0.1, 0.1, 0.1				B-512(13) 15-16	SILTY SAND (SM); ~75% sand, fine to coarse, ~15% fines, ~10% gravel, fine; dry, brown to red brown, FILL. SILTY SAND (SM); ~85% sand, ~15% fines; wet, brown, trace fine gravel. SILT (ML); ~90% fines, ~10% sand, fine; wet, brown, firm, trace fine reddish brown sand.
									SILT WITH SAND (ML); ~80% fines, ~20% sand, fine; wet, brown, firm, trace fine gravel. WIDELY GRADED SAND WITH SILT AND GRAVEL (SW-SM); ~70% sand, fine to coarse, ~20% gravel, fine, ~10% fines; saturated, brown gray.

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ENVIRONMENTAL BORING LOG ALL BORING LOGS REVISED.GPJ GEI CONSULTANTS.GDT 5/24/13



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BORING LOG

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B-512(13)

DEPTH FT.	SAMPLE INFO				STRATA	VISUAL IMPACTS	ODOR	ANALYZED SAMPLE ID	SOIL / BEDROCK DESCRIPTION
	TYPE and NO.	PEN FT.	REC FT.	PID (ppm)					
25					•••••	■			WIDELY GRADED SAND WITH GRAVEL (SW); ~60% sand, fine to coarse, ~35% gravel, fine to coarse, ~5% fines; wet, brown, gravel all shapes. End of Boring at 25 feet. Fill with bentonite chips.

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BORING LOG

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B-513(13)

GROUND SURFACE ELEVATION (FT): 33.216 LOCATION: Near the Southern Tar Well
 NORTHING: 1418564.561 EASTING: 709818.3941 TOTAL DEPTH (FT): 25.00
 DRILLED BY: ADT / Marty Bachner DATUM VERT. / HORZ.: MSL / NAD83
 LOGGED BY: Drew Blicharz DATE START / END: 3/18/2013 - 3/18/2013
 DRILLING DETAILS: Geoprobe / 6610DT
 WATER LEVEL DEPTHS (FT):

DEPTH FT.	SAMPLE INFO				STRATA	VISUAL IMPACTS	ODOR	ANALYZED SAMPLE ID	SOIL / BEDROCK DESCRIPTION
	TYPE and NO.	PEN FT.	REC FT.	PID (ppm)					
0		5.0							Hand and vacuum cleared to 5' bgs, FILL.
5	S-1	5.0	1.9	0.0, 0.1, 0.2				B-513(13) 9-10	Brown, red, dark gray, mix of sand, bricks, trace ash, trace gravel, clay in shoe, moist, FILL.
10	S-2	5.0	2.3	0.1, 0.1, 9.3, 15.1					LEAN CLAY (CL); ~100% fines; moist, trace fine sand, FILL.
15	S-3	5.0	2.5	0.6, 1.6, 1.3, 3.1, 1.9				B-513(13) 13-14 B-513(13) 15.5-16.5	NARROWLY GRADED SAND (SP); ~100% sand, fine to medium; slight naphthalene-like odor, moist, gray brown, trace fine gravel, firm, FILL. LEAN CLAY (CL); ~100% fines; slight naphthalene-like odor, moist, trace fine sand, FILL. Strong naphthalene-like odor, wood, black stained, trace sheen, FILL. SILT (ML); ~90% fines, ~10% sand, fine; strong naphthalene-like odor, moist, brown to dark brown, trace subrounded gravel, trace black stains, FILL. Strong naphthalene-like odor, trace tiny lenses (1 mm) of black NAPL in pores, sheen, FILL. SILT (ML); ~80% fines, ~10% gravel, fine to coarse, ~10% sand, fine; strong naphthalene-like odor, moist, brown, sheen in water poured from the core, sheen in soil, FILL. Strong naphthalene-like odor, thin lense (1 mm) of brown NAPL, FILL. SILT (ML); ~80% fines, ~10% gravel, fine to coarse, ~10% sand, fine; strong naphthalene-like odor, moist, brown gray. NARROWLY GRADED SAND (SP); ~95% sand, fine to medium, ~5% fines; strong naphthalene-like odor, moist to wet, gray, trace subrounded gravel. SILT (ML); ~100% fines; strong naphthalene-like odor,
20	S-4	5.0	3.0	0.6, 1.6, 1.3, 3.1, 1.9					

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BORING LOG

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B-513(13)

DEPTH FT.	SAMPLE INFO				STRATA	VISUAL IMPACTS	ODOR	ANALYZED SAMPLE ID	SOIL / BEDROCK DESCRIPTION
	TYPE and NO.	PEN FT.	REC FT.	PID (ppm)					
25								B-513(13) 24.5-25	<p>moist, light brown, trace fine sand, trace staining. WIDELY GRADED SAND (SW); ~100% sand; strong naphthalene-like odor, wet, black gray, trace fines, trace fine gravel. SILT (ML); ~80% fines, ~10% sand, fine; slight naphthalene-like odor, saturated, brown, trace gravel, trace brick. SILT (ML); ~80% fines, ~10% sand; slight naphthalene-like odor, saturated, gray brown, trace organics. WIDELY GRADED SAND WITH GRAVEL (SW); ~60% sand, fine to coarse, ~40% gravel, fine to coarse; slight naphthalene-like odor, saturated, dark gray, black staining. WIDELY GRADED SAND WITH GRAVEL (SW); ~60% sand, fine to coarse, ~40% gravel, fine to coarse; saturated, brown gray. End of Boring at 25 feet. Fill with bentonite chips.</p>

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BORING LOG
PAGE 1 of 2
B-514(13)

GROUND SURFACE ELEVATION (FT): 33.153 LOCATION: Near the Southern Tar Well
NORTHING: 1418565.168 EASTING: 709812.7402 TOTAL DEPTH (FT): 25.00
DRILLED BY: ADT / Marty Bachner DATUM VERT. / HORZ.: MSL / NAD83
LOGGED BY: Drew Blicharz DATE START / END: 3/18/2013 - 3/18/2013
DRILLING DETAILS: Geoprobe / 6610DT
WATER LEVEL DEPTHS (FT):

DEPTH FT.	SAMPLE INFO				STRATA	VISUAL IMPACTS	ODOR	ANALYZED SAMPLE ID	SOIL / BEDROCK DESCRIPTION
	TYPE and NO.	PEN FT.	REC FT.	PID (ppm)					
0		5.0							Hand and vacuum cleared to 5' bgs, FILL.
5	S-1	5.0	1.6	0.5, 0.4, 0.3					(SP-SM); poor recovery, brown, red, dark gray, mix of sand, bricks, ash, gravel, clay in shoe, moist, FILL.
10	S-2	5.0	1.7	0.4, 4.8, 15.8					SILT (ML); ~85% fines, ~10% sand, fine to coarse, ~5% gravel; dry, brown, trace brick fragments, FILL. LEAN CLAY (CL); ~100% fines; moist, brown gray, FILL. Moderate naphthalene-like odor, moist, gray, black stained, FILL.
15	S-3	5.0	4.0	2.2, 10.6, 38.6, 14.2, 12.4			NLO	B-514(13) 12-13	Slight sheen on angular gravel/coarse stone at ~15' bgs. SILT (ML); ~95% fines, ~5% sand, fine to coarse; strong naphthalene-like odor, moist to wet, brown, traces of staining and sheen, FILL.
20	S-4	5.0	1.8	8.8, 2.8, 2.3			NLO	B-514(13) 20-21.5	NARROWLY GRADED SAND (SP); ~95% sand, fine to medium, ~5% fines; strong naphthalene-like odor, wet, brown and gray, coarse gravel at 21.6' bgs. Black stained, slight sheen.
							NLO		NARROWLY GRADED SAND (SP); ~100% sand, fine; strong naphthalene-like odor, moist, orange brown. WIDELY GRADED SAND WITH GRAVEL (SW); ~75% sand, fine to coarse, ~15% gravel, fine; moderate naphthalene-like odor, moist, brown gray.

ENVIRONMENTAL BORING LOG ALL BORING LOGS REVISED.GPJ GEI CONSULTANTS.GDT: 5/24/13

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BORING LOG

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B-514(13)

DEPTH FT.	SAMPLE INFO				STRATA	VISUAL IMPACTS	ODOR	ANALYZED SAMPLE ID	SOIL / BEDROCK DESCRIPTION
	TYPE and NO.	PEN FT.	REC FT.	PID (ppm)					
25					•••••				End of Boring at 25 feet. Fill with bentonite chips.

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BORING LOG
PAGE 1 of 2
B-515(13)

GROUND SURFACE ELEVATION (FT): 32.9441 LOCATION: Near the Southern Tar Well
NORTHING: 1418563.079 EASTING: 709802.681 TOTAL DEPTH (FT): 25.00
DRILLED BY: ADT / Ritchie Comfort DATUM VERT. / HORZ.: MSL / NAD83
LOGGED BY: Drew Blicharz DATE START / END: 3/12/2013 - 3/12/2013
DRILLING DETAILS: Hollow Stem Auger/3 inch ID Split Spoon
WATER LEVEL DEPTHS (FT):

DEPTH FT.	SAMPLE INFORMATION					STRATA	VISUAL IMPACTS	ODOR	ANALYZED SAMPLE ID	SOIL / BEDROCK DESCRIPTION
	TYPE and NO.	PEN FT.	REC FT.	Blows (6 in.)	PID (ppm)					
0		5.0								Hand and vacuum cleared to 5' bgs, FILL.
5	S-1	2.0	2.0	9-8-5-6	0.0, 0.4, 0.0, 0.6					SILTY SAND (SM); ~80% sand, fine to coarse, ~15% fines, ~5% gravel, fine to coarse; moist, brown, bricks at 2.3' bgs, FILL. WIDELY GRADED SAND (SW); ~100% sand, fine to coarse; moist, brown, trace cobble, FILL. LEAN CLAY (CL); ~100% fines; moist, gray, firm, FILL. LEAN CLAY (CL); ~100% fines; moist, gray brown, layers of fine to medium sand, FILL. NARROWLY GRADED SAND (SP); ~100% sand, fine to medium; moist to wet, dark gray, trace fines, 50% clay mixed in 10-10.6' bgs, FILL. LEAN CLAY (CL); ~100% fines; wet, gray, layers of fine to medium sand, FILL. LEAN CLAY (CL); ~100% fines; moist, brown and gray, FILL. CLAYEY SAND (SC); ~80% sand, fine to medium, ~20% fines; moist, brown, trace fine subrounded gravel, FILL. CLAYEY SAND (SC); ~80% sand, fine to coarse, ~20% fines; moist, dark gray, FILL. Slight naphthalene-like odor. CLAYEY SAND (SC); ~80% sand, ~20% fines; slight naphthalene-like odor, moist, dark gray to brown, FILL. Slight naphthalene-like odor, wet, SAA, wet, FILL. NARROWLY GRADED SAND (SP); ~100% sand, fine to medium; slight naphthalene-like odor, wet, brown to reddish brown, trace fine subangular gravel, FILL. SILT (ML); ~85% fines, ~10% sand, fine, ~5% gravel, fine; slight naphthalene-like odor, moist, dark gray, FILL. Slight naphthalene-like odor, moist, FILL. NARROWLY GRADED SAND (SP); ~95% sand, fine, ~5% fines; slight naphthalene-like odor, moist, brown. NARROWLY GRADED SAND (SP); ~95% sand, fine, ~5% fines; slight naphthalene-like odor, wet,
	S-2	2.0	1.8	5-6-5-6	0.0, 0.0, 0.0, 0.0				B-515(13) 9-10	
	S-3	2.0	2.0	4-3-3-4	0.0, 0.0, 0.0, 0.0					
10	S-4	2.0	2.0	8-11-12-10	0.0, 0.0, 0.0, 0.0					
	S-5	2.0	1.4	6-10-7-7	0.0, 0.0, 0.0, 0.0			NLO	B-515(13) 12.6-12.8	
	S-6	2.0	1.2		0.0, 0.0, 0.0, 0.0			NLO		
15	S-7	2.0	2.0	4-6-6-6	0.0, 0.0, 0.0, 0.0			NLO		
	S-8	2.0	1.6	4-11-20-15	0.0, 0.0, 0.0, 0.0			NLO	B-515(13) 18.5-19	
20	S-9	2.0	0.6	10-18-17-16	0.0, 0.0, 0.0, 0.0			NLO		
	S-10	2.0	2.0	9-13-10-13	0.0, 0.0, 0.0, 0.0			NLO	B-515(13) 23-23.5	

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ENVIRONMENTAL BORING LOG ALL BORING LOGS REVISED.GPJ GEI CONSULTANTS.GDT 5/24/13




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BORING LOG

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B-515(13)

DEPTH FT.	SAMPLE INFORMATION					STRATA	VISUAL IMPACTS	ODOR	ANALYZED SAMPLE ID	SOIL / BEDROCK DESCRIPTION
	TYPE and NO.	PEN FT.	REC FT.	Blows (/6 in.)	PID (ppm)					
25								NLO		brown, loose. SILT (ML); ~95% fines, ~5% sand, fine; slight naphthalene-like odor, moist, brown, brittle, firm. SILT (ML); ~90% fines, ~10% sand, fine to medium; slight naphthalene-like odor, saturated, brown. WIDELY GRADED SAND (SW); ~100% sand, fine to coarse; slight naphthalene-like odor, wet, dark gray, bottom 0.3' - coarse gravel and trace fine reddish brown sand. WIDELY GRADED SAND (SW); ~95% sand, fine to coarse, ~5% gravel, fine; moderate naphthalene-like odor, saturated to wet, dark gray. WIDELY GRADED SAND (SW); ~95% sand, fine to coarse, ~5% gravel; moderate naphthalene-like odor, saturated to wet, brown gray, trace fines. NARROWLY GRADED SAND WITH SILT AND GRAVEL (SW-SM); ~85% sand, fine to coarse, ~10% fines, ~5% gravel, fine to coarse; moderate naphthalene-like odor, saturated to wet, brown gray. End of Boring at 25 feet. A 3-inch spoon was used for the entire boring for better recoveries. Fill with bentonite chips.

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B-516(13)

GROUND SURFACE ELEVATION (FT): 32.528 LOCATION: Near the Southern Tar Well
NORTHING: 1418577.155 EASTING: 709801.7991 TOTAL DEPTH (FT): 25.00
DRILLED BY: ADT / Ritchie Comfort DATUM VERT. / HORZ.: MSL / NAD83
LOGGED BY: Drew Blicharz DATE START / END: 3/18/2013 - 3/18/2013
DRILLING DETAILS: Geoprobe / 6610DT
WATER LEVEL DEPTHS (FT):

DEPTH FT.	SAMPLE INFO				STRATA	VISUAL IMPACTS	ODOR	ANALYZED SAMPLE ID	SOIL / BEDROCK DESCRIPTION	
	TYPE and NO.	PEN FT.	REC FT.	PID (ppm)						
0	S-1	5.0	1.9	0.8, 0.7, 0.8	[Cross-hatched pattern]	[Green bar]		Hand and vacuum cleared to 5' bgs, FILL.		
5	S-2	5.0	3.6	0.6, 0.5, 0.5, 0.5, 0.4				B-516(13) 7.5-8	SILT (ML); ~90% fines, ~10% sand, fine to medium; dry, brown, trace brick fragments, FILL. LEAN CLAY (CL); ~100% fines; moist, gray, trace fine sand, FILL. LEAN CLAY (CL); ~100% fines; wet, brown, layers of fine sand, FILL. NARROWLY GRADED SAND WITH SILT (SP); ~90% sand, fine, ~10% fines; moist, gray, FILL.	
10	S-3	5.0	2.1	0.4, 1.2, 0.7			NLO		B-516(13) 14-15	LEAN CLAY (CL); ~100% fines; slight naphthalene-like odor, moist, brown gray, trace fine sand, trace fine gravel, all shapes, FILL. LEAN CLAY (CL); ~100% fines; moderate naphthalene-like odor, moist, brown gray, trace fine sand, trace fine gravel, all shapes, FILL. CLAYEY SAND WITH GRAVEL (SC); ~60% sand, ~20% gravel, ~20% fines; moderate naphthalene-like odor, moist, brown, FILL.
15	S-4	5.0	3.9	0.6, 0.7, 0.7, 0.6, 0.8			NLO		B-516(13) 18.25-18.75	WIDELY GRADED SAND WITH SILT (SW-SM); ~90% sand, fine to coarse, ~10% fines; moderate naphthalene-like odor, saturated, gray, trace gravel, slight black staining, FILL. SILT (ML); ~90% fines, ~10% sand; moderate naphthalene-like odor, wet, brown, thin black stained portions, vertical stains (1-2mm) 16.0-16.3' bgs.
20	S-5	5.0	3.6				NLO		B-516(13) 22.5-23	NARROWLY GRADED SAND (SP); ~100% sand; moderate naphthalene-like odor, wet, brown gray, trace fines, trace fine gravel. WIDELY GRADED GRAVEL WITH SAND (GW); ~60% gravel, fine to coarse, ~40% sand, fine to coarse; slight naphthalene-like odor, wet, brown gray. WIDELY GRADED SAND WITH GRAVEL (SW); ~80%

NOTES:

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IN. = INCHES
FT. = FEET

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PLO = PETROLEUM LIKE ODOR
TLO = TAR LIKE ODOR
CLO = CHEMICAL LIKE ODOR
ALO = ASPHALT LIKE ODOR

CrLO = CREOSOTE LIKE ODOR
OLO = ORGANIC LIKE ODOR
SLO = SULFUR LIKE ODOR
MLO = MUSTY LIKE ODOR

ENVIRONMENTAL BORING LOG ALL BORING LOGS REVISED.GPJ GEI CONSULTANTS.GDT 5/24/13



GEI Consultants, Inc.
 455 Winding Brook Road
 Glastonbury, CT 06033
 (860) 368-5300

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 PROJECT: Troy Liberty Street
 CITY/STATE: Troy, New York
 GEI PROJECT NUMBER: 093300-1-1113

BORING LOG

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B-516(13)

DEPTH FT.	SAMPLE INFO				STRATA	VISUAL IMPACTS	ODOR	ANALYZED SAMPLE ID	SOIL / BEDROCK DESCRIPTION
	TYPE and NO.	PEN FT.	REC FT.	PID (ppm)					
25					•••••				sand, fine to coarse, ~20% gravel, fine to coarse; slight naphthalene-like odor, wet, brown gray, trace fines. End of Boring at 25 feet. Fill with bentonite chips.

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BORING LOG

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B-517(13)

GROUND SURFACE ELEVATION (FT): 33.1925 LOCATION: Near the Southern Tar Well
 NORTHING: 1418567.47 EASTING: 709823.5884 TOTAL DEPTH (FT): 25.00
 DRILLED BY: ADT / Marty Bachner DATUM VERT. / HORZ.: MSL / NAD83
 LOGGED BY: Drew Blicharz DATE START / END: 3/18/2013 - 3/18/2013
 DRILLING DETAILS: Geoprobe / 6610DT
 WATER LEVEL DEPTHS (FT):

DEPTH FT.	SAMPLE INFO				STRATA	VISUAL IMPACTS	ODOR	ANALYZED SAMPLE ID	SOIL / BEDROCK DESCRIPTION	
	TYPE and NO.	PEN FT.	REC FT.	PID (ppm)						
0	S-1	5.0	2.4	0.2, 0.2, 0.2, 0.1	[Cross-hatched pattern]	[Green fill]	B-517(13) 11-12	Asphalt, brown sand and silt, brick fragments, coal fragments, dry, no odor, FILL.		
5	S-2	5.0	0.1, 0.1	Same as above, dry to moist, black stained soil in shoe, FILL.						
10	S-3	5.0	2.6	0.4, 2.8, 0.4, 10.4, 2.0				[Green fill]	NLO	LEAN CLAY (CL); ~100% fines; moist, brown gray, trace fine sand, trace gravel, FILL. SILT (ML); ~100% fines; strong naphthalene-like odor, wet, gray brown, 2 mm thin vertical lense of black NAPL, FILL.
15	S-4	5.0	4.7	0.6, 0.6, 0.9, 2.3, 3.3				[Yellow fill]	NLO	WIDELY GRADED SAND WITH GRAVEL (SW); ~75% sand, fine to coarse, ~20% gravel, fine to coarse, ~5% fines; strong naphthalene-like odor, wet, gray black, brick fragments, faint sheen ~13.8' bgs, FILL. SILT (ML); ~100% fines; slight naphthalene-like odor, dry, light brown, trace fine to medium sand. SILT (ML); ~100% fines; moderate naphthalene-like odor, moist, gray, black stained 16.4 to 16.7' bgs - strong odor. SILT (ML); ~100% fines; moderate naphthalene-like odor, moist, trace fine to medium sand, trace gravel. NARROWLY GRADED SAND WITH GRAVEL (SP-SM); ~85% sand, fine to medium, ~10% gravel, ~5% fines; moderate naphthalene-like odor, wet, brown gray, black stained 17.5 to 17.7' bgs - strong odor.
20	S-5	5.0	3.0	1.2, 1.0, 0.8, 0.7, 0.6				[Yellow fill]	NLO	LEAN CLAY (CL); ~95% fines, ~5% sand, fine to medium; moderate naphthalene-like odor, wet, gray, black stained 18.6 to 19.0' bgs - strong odor. SILT (ML); ~95% fines, ~5% sand; moderate naphthalene-like odor, wet to saturated, trace fine sand, portions of black stained soil. WIDELY GRADED SAND WITH GRAVEL (SW); ~80%

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BORING LOG

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B-517(13)

DEPTH FT.	SAMPLE INFO				STRATA	VISUAL IMPACTS	ODOR	ANALYZED SAMPLE ID	SOIL / BEDROCK DESCRIPTION
	TYPE and NO.	PEN FT.	REC FT.	PID (ppm)					
25					•••••	■		B-517(13) 24.5-25	sand, fine to coarse, ~20% gravel, fine to coarse; moderate naphthalene-like odor, wet, dark gray, trace fines, rounded and subrounded gravel. End of Boring at 25 feet. Fill with bentonite chips.

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BORING LOG
PAGE 1 of 2
B-518(13)

GROUND SURFACE ELEVATION (FT): 33.0204 LOCATION: Near the Southern Tar Well
NORTHING: 1418554.339 EASTING: 709810.0309 TOTAL DEPTH (FT): 25.00
DRILLED BY: ADT / Marty Bachner DATUM VERT. / HORZ.: MSL / NAD83
LOGGED BY: Drew Blicharz DATE START / END: 3/18/2013 - 3/18/2013
DRILLING DETAILS: Geoprobe / 6610DT
WATER LEVEL DEPTHS (FT):

DEPTH FT.	SAMPLE INFO				STRATA	VISUAL IMPACTS	ODOR	ANALYZED SAMPLE ID	SOIL / BEDROCK DESCRIPTION
	TYPE and NO.	PEN FT.	REC FT.	PID (ppm)					
0	S-1	5.0	2.3						Brown fine to medium sand, trace coarse stone, some silt, trace gravel, dry, FILL. Black stained.
5	S-2	5.0	2.6	0.2, 0.2, 0.2, 0.2			B-518(13) 5-7.5	WIDELY GRADED SAND (SW); ~100% sand, fine to coarse; moist to wet, brown gray, trace fine to coarse gravel, black coal fragments, FILL. LEAN CLAY (CL); ~100% sand; wet, gray, firm, FILL.	
10	S-3	5.0	2.1	0.2, 0.2, 0.2, 0.2				LEAN CLAY (CL); ~100% sand; moist, gray, trace fine sand, soft, FILL. NARROWLY GRADED SAND (SP); ~90% sand, fine to medium, ~10% fines; moist, gray, trace gravel, various shapes, FILL. NARROWLY GRADED SAND (SP); ~95% sand, fine to medium, ~5% gravel, fine; moist, brown, trace coal fragments, FILL.	
15	S-4	5.0	2.3	1.8, 1.1, 0.8, 2.2, 1.2			B-518(13) 14.5-16	NARROWLY GRADED SAND (SP); ~90% sand, ~10% gravel, fine to coarse; moderate naphthalene-like odor, moist, black stained, FILL. SILT (ML); ~95% fines, ~5% sand; moderate naphthalene-like odor, moist, gray, black stained to 16' bgs. SILT (ML); ~95% fines, ~5% sand; slight naphthalene-like odor, wet to moist, gray to light brown.	
20	S-5	5.0	2.2	0.5, 0.4, 0.5, 0.8			B-518(13) 21-22	NARROWLY GRADED SAND (SP); ~95% sand, ~5% fines; slight naphthalene-like odor, moist, gray. SILT (ML); ~100% fines; slight naphthalene-like odor, wet, brown gray brown gray, trace fine sand. NARROWLY GRADED SAND (SP); ~90% sand, fine to medium, ~5% gravel, fine to coarse, ~5% fines; moderate naphthalene-like odor, wet, gray and brown.	

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ENVIRONMENTAL BORING LOG ALL BORING LOGS REVISED.GPJ GEI CONSULTANTS.GDT: 5/24/13



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BORING LOG

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B-518(13)

DEPTH FT.	SAMPLE INFO				STRATA	VISUAL IMPACTS	ODOR	ANALYZED SAMPLE ID	SOIL / BEDROCK DESCRIPTION
	TYPE and NO.	PEN FT.	REC FT.	PID (ppm)					
25					•••••	■			End of Boring at 25 feet. Fill with bentonite chips.

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BORING LOG
PAGE 1 of 2
B-519(13)

GROUND SURFACE ELEVATION (FT): 29.5413 LOCATION: Angled Near Northern Tar Well
NORTHING: 1418779.382 EASTING: 709836.1634 TOTAL DEPTH (FT): 40.00
DRILLED BY: ADT / Marty Bachner DATUM VERT. / HORZ.: MSL / NAD83
LOGGED BY: Drew Blicharz DATE START / END: 3/19/2013 - 3/19/2013
DRILLING DETAILS: Geoprobe / 6610DT
WATER LEVEL DEPTHS (FT):

DEPTH FT.	SAMPLE INFO				STRATA	VISUAL IMPACTS	ODOR	ANALYZED SAMPLE ID	SOIL / BEDROCK DESCRIPTION
	TYPE and NO.	PEN FT.	REC FT.	PID (ppm)					
0	S-1	5.0	2.8	0.4, 0.1, 0.1, 1.1					FILL. SILTY SAND (SM); ~85% sand, fine to medium, ~15% fines; slight naphthalene-like odor, dry, brown, trace gravel, coal and brick fragments, FILL.
5	S-2	5.0	2.4	0.4, 0.2, 0.1, 0.3, 0.4					NARROWLY GRADED SAND WITH SILT (SP-SM); ~90% sand, fine to medium, ~10% fines; dry, light brown to brown, silt layer between 7 and 8', trace gravel and brick fragments at 8', FILL.
10	S-3	5.0	1.5	0.0, 0.0, 0.0, 0.0, 0.0					SILTY SAND (SM); ~75% sand, fine to medium, ~20% fines, ~5% gravel; dry, brown, trace brick fragments, FILL.
15	S-4	5.0	4.5	0.0, 0.0, 0.1, 0.1, 0.2					SILT WITH SAND (ML); ~90% fines, ~10% sand, fine to medium; saturated, gray brown, trace gravel, FILL. SILT (ML); ~100% fines; saturated, gray, layers of fine sand, trace gravel, FILL. LEAN CLAY (CL); ~100% fines; slight naphthalene-like odor, moist, gray, thin black stained streaks, FILL. SILT (ML); ~100% fines; slight naphthalene-like odor, moist, gray brown olive, trace fine sand, FILL.
20	S-5	5.0	3.3	0.1, 0.1, 0.1, 0.1, 0.1					LEAN CLAY (CL); ~100% fines; slight naphthalene-like odor, moist, gray, trace fine sand, slight staining, FILL. SILT (ML); ~100% fines; wet, olive, trace fine sand, trace fine gravel, FILL. SILT (ML); ~95% fines, ~5% sand, fine; wet, brown red, trace fine gravel, FILL. NARROWLY GRADED SAND (SP); ~95% sand, fine to

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ENVIRONMENTAL BORING LOG ALL BORING LOGS REVISED.GPJ GEI CONSULTANTS.GDT: 5/24/13



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BORING LOG

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B-519(13)

DEPTH FT.	SAMPLE INFO				STRATA	VISUAL IMPACTS	ODOR	ANALYZED SAMPLE ID	SOIL / BEDROCK DESCRIPTION
	TYPE and NO.	PEN FT.	REC FT.	PID (ppm)					
25	S-6	5.0	3.5	0.2, 0.1, 0.1, 0.2, 17.2			NLO	B-519(13) 29-30	medium, ~5% fines; wet, gray, FILL. NARROWLY GRADED SAND (SP); ~90% sand, fine to medium, ~5% gravel, ~5% fines; wet, olive, FILL. WIDELY GRADED SAND WITH GRAVEL (SW); ~75% sand, fine to coarse, ~20% gravel, ~5% fines; slight naphthalene-like odor, moist, gray to light brown, FILL. SILT (ML); ~95% fines, ~5% sand; slight naphthalene-like odor, wet, gray to olive, slight thin staining, FILL. WIDELY GRADED SAND (SW); ~90% sand, fine to coarse, ~5% gravel, fine, ~5% fines; wet, gray, FILL. WIDELY GRADED SAND WITH GRAVEL (SW); ~80% sand, fine to coarse, ~15% gravel, fine to coarse, ~5% fines; wet, gray to brown, FILL. SILT WITH GRAVEL (ML); ~70% fines, ~30% gravel, fine to coarse; strong naphthalene-like odor, moist, dark gray, 1 mm thin sticky tar stringers, FILL. SILT WITH SAND (ML); ~90% fines, ~10% sand; strong naphthalene-like odor, wet, gray, FILL. WIDELY GRADED SAND (SW); ~90% sand, fine to coarse, ~10% gravel, fine to coarse; moderate naphthalene-like odor, wet, brown, trace fines. WIDELY GRADED GRAVEL WITH SAND (GW); ~70% gravel, fine to coarse, ~30% sand, fine to coarse; moderate naphthalene-like odor, wet, brown, trace fines. WIDELY GRADED SAND (SW); ~95% sand, fine to coarse, ~5% gravel, fine to coarse; trace fines. WIDELY GRADED SAND (SW); ~95% sand, fine to coarse, ~5% gravel, fine to coarse; slight naphthalene-like odor, wet, brown. WIDELY GRADED GRAVEL WITH SAND (GW); ~70% gravel, fine to coarse, ~30% sand, fine to coarse; moderate naphthalene-like odor, wet, brown.
							NLO		
							NLO		
30	S-7	5.0	4.0	0.2, 1.7, 0.4, 0.2, 0.2			NLO	B-519(13) 34-35	
							NLO		
							NLO		
35	S-8	5.0	3.9	0.3, 1.2, 0.4, 0.2, 0.2			NLO	B-519(13) 39-40	
							NLO		
							NLO		
40								End of Boring at 40 feet. Fill with bentonite chips.	

ENVIRONMENTAL BORING LOG ALL BORING LOGS REVISED.GPJ GEI CONSULTANTS.GDT: 5/24/13

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BORING LOG
PAGE 1 of 2
B-520(13)

GROUND SURFACE ELEVATION (FT): 30.802 LOCATION: Angled Near Northern Tar Well
NORTHING: 1418732.764 EASTING: 709871.5646 TOTAL DEPTH (FT): 40.00
DRILLED BY: ADT / Marty Bachner DATUM VERT. / HORZ.: MSL / NAD83
LOGGED BY: Drew Blicharz DATE START / END: 3/20/2013 - 3/20/2013
DRILLING DETAILS: Geoprobe / 6610DT
WATER LEVEL DEPTHS (FT):

DEPTH FT.	SAMPLE INFO				STRATA	VISUAL IMPACTS	ODOR	ANALYZED SAMPLE ID	SOIL / BEDROCK DESCRIPTION
	TYPE and NO.	PEN FT.	REC FT.	PID (ppm)					
0	S-1	5.0	2.2	0.1, 0.1					Asphalt, FILL. NARROWLY GRADED SAND (SP); ~95% sand, fine to medium, ~5% gravel; dry, brown, coal fragments, brick at ~4', gravel is rounded and subangular, FILL.
5	S-2	5.0	2.8	0.1, 0.1, 0.1, 0.1					WIDELY GRADED SAND WITH SILT AND GRAVEL (SW-SM); ~90% sand, fine to coarse, ~15% gravel, fine to coarse, subrounded, ~10% fines; wet, brown, FILL. Slight naphthalene-like odor, moist, wood chunk.
10	S-3	5.0	3.1	0.7, 4.3, 6.1, 2.9, 1.4				B-520(13) 11-12	WIDELY GRADED SAND (SW); ~90% sand, fine to coarse, ~10% gravel, fine to coarse; moist, brown, trace fines, coal fragments, bricks, FILL. Fine, subrounded; moderate naphthalene-like odor, moist, brick, trace fine to medium sand, FILL. WIDELY GRADED SAND (SW); ~90% sand, ~5% gravel, ~5% fines; slight naphthalene-like odor, wet, brown, black stained, coal fragments, wood fragments, FILL. SILT (ML); ~100% fines; strong naphthalene-like odor, moist, FILL. LEAN CLAY (CL); ~100% fines; moderate naphthalene-like odor, moist, gray, firm, FILL.
15	S-4	5.0	4.2	0.6, 2.7, 5.6, 2.7, 0.7					LEAN CLAY (CL); ~95% fines, ~5% sand, fine to medium; moderate naphthalene-like odor, moist, brown and gray, trace fine to coarse subangular gravel, FILL. LEAN CLAY (CL); ~100% fines; slight naphthalene-like odor, moist, gray, firm, brick fragments at ~13.5', FILL. WIDELY GRADED SAND (SW); ~95% sand, fine to coarse, ~5% fines; moderate naphthalene-like odor, wet, brown, trace fine gravel, trace brick fragments, FILL. SILT (ML); ~95% fines, ~5% sand, fine to medium; moderate naphthalene-like odor, wet, brown, FILL.
20	S-5	5.0	4.0	0.3, 0.4, 0.3, 0.3, 0.2					Strong naphthalene-like odor, wet, SAA, black stained, FILL. WIDELY GRADED SAND WITH SILT (SW); ~90% sand, fine to coarse, ~10% gravel, fine, ~10% fines; moderate naphthalene-like odor, wet, brown, FILL. LEAN CLAY (CL); ~100% fines; moderate naphthalene-like odor, wet, gray, trace fine sand, firm, FILL. WIDELY GRADED SAND (SW); ~95% sand, fine to coarse, ~5% gravel, fine to coarse, subrounded; moderate

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NLO = NAPHTHALENE LIKE ODOR
PLO = PETROLEUM LIKE ODOR
TLO = TAR LIKE ODOR
CLO = CHEMICAL LIKE ODOR
ALO = ASPHALT LIKE ODOR

CrLO = CREOSOTE LIKE ODOR
OLO = ORGANIC LIKE ODOR
SLO = SULFUR LIKE ODOR
MLO = MUSTY LIKE ODOR

ENVIRONMENTAL BORING LOG ALL BORING LOGS REVISED.GPJ GEI CONSULTANTS.GDT 5/24/13



GEI Consultants, Inc.
455 Winding Brook Road
Glastonbury, CT 06033
(860) 368-5300

CLIENT: National Grid
PROJECT: Troy Liberty Street
CITY/STATE: Troy, New York
GEI PROJECT NUMBER: 093300-1-1113

BORING LOG

PAGE 1 of 1

NTW1

GROUND SURFACE ELEVATION (FT): 30.1309 LOCATION: Inside the Northern Tar Well
NORTHING: 1418757.551 EASTING: 709853.4592 TOTAL DEPTH (FT): 20.00
DRILLED BY: ADT / Marty Bachner DATUM VERT. / HORZ.: MSL / NAD83
LOGGED BY: Drew Blicharz DATE START / END: 3/20/2013 - 3/20/2013
DRILLING DETAILS: Geoprobe / 6610DT
WATER LEVEL DEPTHS (FT):

DEPTH FT.	SAMPLE INFO				STRATA	SOIL / BEDROCK DESCRIPTION
	TYPE and NO.	PEN FT.	REC FT.	PID (ppm)		
0	S-1	5.0		NA		Asphalt, mixture of sand and gravel, FILL. Roof of tar well ~2.4' bgs. Some void space below roof.
5	S-2	5.0		NA		Mixture of sand, silt, clay, gravel, bricks, FILL. Various degrees of tar impacts between ~8-15' bgs, odors below.
10	S-3	5.0		NA		
15	S-4	5.0		NA		~0.2' wood chunk at 16.9' bgs.
20						End of Boring at 20 feet. Boring was drilled to acquire impacted soil for waste characterization. Fill with soil cuttings.

ENVIRONMENTAL BORING LOG ALL BORING LOGS REVISED.GPJ GEI CONSULTANTS.GDT 5/24/13

NOTES:

PEN = PENETRATION LENGTH OF SAMPLER OR CORE BARREL
REC = RECOVERY LENGTH OF SAMPLE
PID = PHOTOIONIZATION DETECTOR READING (JAR HEADSPACE)

ppm = PARTS PER MILLION
IN. = INCHES
FT. = FEET

NLO = NAPHTHALENE LIKE ODOR
PLO = PETROLEUM LIKE ODOR
TLO = TAR LIKE ODOR
CLO = CHEMICAL LIKE ODOR
ALO = ASPHALT LIKE ODOR

CrLO = CREOSOTE LIKE ODOR
OLO = ORGANIC LIKE ODOR
SLO = SULFUR LIKE ODOR
MLO = MUSTY LIKE ODOR



GEI Consultants, Inc.
455 Winding Brook Road
Glastonbury, CT 06033
(860) 368-5300

CLIENT: National Grid
PROJECT: Troy Liberty Street
CITY/STATE: Troy, New York
GEI PROJECT NUMBER: 093300-1-1113

BORING LOG

PAGE
1 of 1

NTW3

GROUND SURFACE ELEVATION (FT): 30.0422 LOCATION: Inside the Northern Tar Well
 NORTHING: 1418758.866 EASTING: 709852.5704 TOTAL DEPTH (FT): 20.00
 DRILLED BY: ADT / Marty Bachner DATUM VERT. / HORZ.: MSL / NAD83
 LOGGED BY: Drew Blicharz DATE START / END: 3/20/2013 - 3/20/2013
 DRILLING DETAILS: Geoprobe / 6610DT
 WATER LEVEL DEPTHS (FT):

DEPTH FT.	SAMPLE INFO				STRATA	SOIL / BEDROCK DESCRIPTION
	TYPE and NO.	PEN FT.	REC FT.	PID (ppm)		
0	S-1	5.0		NA		Asphalt, mixture of sand and gravel, FILL.
						Roof of tar well ~2.4' bgs.
						Some void space below roof.
5	S-2	5.0		NA		Mixture of sand, silt, clay, gravel, bricks, FILL.
					Various degrees of tar impacts between ~8-15' bgs, odors below.	
10	S-3	5.0		NA		
15	S-4	5.0		NA		
						~1.5' of bricks, water saturated sand and gravel above.
20						End of Boring at 20 feet. Boring was drilled to acquire impacted soil for waste characterization. Fill with soil cuttings.

ENVIRONMENTAL BORING LOG ALL BORING LOGS REVISED.GPJ GEI CONSULTANTS.GDT 5/24/13

NOTES:

PEN = PENETRATION LENGTH OF SAMPLER OR CORE BARREL
 REC = RECOVERY LENGTH OF SAMPLE
 PID = PHOTOIONIZATION DETECTOR READING (JAR HEADSPACE)

ppm = PARTS PER MILLION
 IN. = INCHES
 FT. = FEET

NLO = NAPHTHALENE LIKE ODOR
 PLO = PETROLEUM LIKE ODOR
 TLO = TAR LIKE ODOR
 CLO = CHEMICAL LIKE ODOR
 ALO = ASPHALT LIKE ODOR

CrLO = CREOSOTE LIKE ODOR
 OLO = ORGANIC LIKE ODOR
 SLO = SULFUR LIKE ODOR
 MLO = MUSTY LIKE ODOR



GEI Consultants, Inc.
455 Winding Brook Road
Glastonbury, CT 06033
(860) 368-5300

CLIENT: **National Grid**
PROJECT: **Troy Liberty Street**
CITY/STATE: **Troy, New York**
GEI PROJECT NUMBER: **093300-1-1113**

BORING LOG
PAGE 1 of 1
STW1

GROUND SURFACE ELEVATION (FT): **32.8951** LOCATION: **Inside the Southern Tar Well Footprint**
NORTHING: **1418573.596** EASTING: **709813.1145** TOTAL DEPTH (FT): **15.00**
DRILLED BY: **ADT / Marty Bachner** DATUM VERT. / HORZ.: **MSL / NAD83**
LOGGED BY: **Drew Blicharz** DATE START / END: **3/18/2013 - 3/18/2013**
DRILLING DETAILS: **Geoprobe / 6610DT**
WATER LEVEL DEPTHS (FT): _____

DEPTH FT.	SAMPLE INFO				STRATA	SOIL / BEDROCK DESCRIPTION
	TYPE and NO.	PEN FT.	REC FT.	PID (ppm)		
0	S-1	5.0		NA	[Cross-hatched pattern]	Asphalt, mixture of brown sand, silt, gravel, FILL.
5	S-2	5.0		NA		Brown gray to black lean clay, brick fragments, FILL. MGP impacts ~7.5-13'.
10	S-3	5.0		NA		6-inch layer of concrete, FILL.
15					[Cross-hatched pattern]	Mixture of brown sand, silt, gravel, FILL.

End of Boring at 15 feet.
Boring was drilled to acquire impacted soil for waste characterization.
Fill with bentonite chips.

ENVIRONMENTAL BORING LOG ALL BORING LOGS REVISED.GPJ GEI CONSULTANTS.GDT 5/24/13

NOTES:

PEN = PENETRATION LENGTH OF SAMPLER OR CORE BARREL	ppm = PARTS PER MILLION	NLO = NAPHTHALENE LIKE ODOR	CrLO = CREOSOTE LIKE ODOR
REC = RECOVERY LENGTH OF SAMPLE	IN. = INCHES	PLO = PETROLEUM LIKE ODOR	OLO = ORGANIC LIKE ODOR
PID = PHOTOIONIZATION DETECTOR READING (JAR HEADSPACE)	FT. = FEET	TLO = TAR LIKE ODOR	SLO = SULFUR LIKE ODOR
		CLO = CHEMICAL LIKE ODOR	MLO = MUSTY LIKE ODOR
		ALO = ASPHALT LIKE ODOR	



GEI Consultants, Inc.
 455 Winding Brook Road
 Glastonbury, CT 06033
 (860) 368-5300

CLIENT: National Grid
 PROJECT: Troy Liberty Street
 CITY/STATE: Troy, New York
 GEI PROJECT NUMBER: 093300-1-1113

BORING LOG

PAGE
1 of 1

STW2

GROUND SURFACE ELEVATION (FT): 32.8476 LOCATION: Inside the Southern Tar Well Footprint
 NORTHING: 1418573.378 EASTING: 709812.2897 TOTAL DEPTH (FT): 15.00
 DRILLED BY: ADT / Marty Bachner DATUM VERT. / HORZ.: MSL / NAD83
 LOGGED BY: Drew Blicharz DATE START / END: 3/18/2013 - 3/18/2013
 DRILLING DETAILS: Geoprobe / 6610DT
 WATER LEVEL DEPTHS (FT):

DEPTH FT.	SAMPLE INFO				STRATA	SOIL / BEDROCK DESCRIPTION
	TYPE and NO.	PEN FT.	REC FT.	PID (ppm)		
0	S-1	5.0		NA	[Cross-hatched pattern]	Asphalt, mixture of brown sand, silt, gravel, FILL.
5	S-2	5.0		NA		Brown gray to black lean clay, brick fragments, FILL. MGP impacts ~7.5-13'.
10	S-3	5.0		NA		6-inch layer of concrete, FILL.
15					[Cross-hatched pattern]	Mixture of brown sand, silt, gravel, FILL.

End of Boring at 15 feet.
 Boring was drilled to acquire impacted soil for waste characterization.
 Fill with bentonite chips.

ENVIRONMENTAL BORING LOG ALL BORING LOGS REVISED.GPJ GEI CONSULTANTS.GDT 5/24/13

NOTES:

PEN = PENETRATION LENGTH OF SAMPLER OR CORE BARREL
 REC = RECOVERY LENGTH OF SAMPLE
 PID = PHOTOIONIZATION DETECTOR READING (JAR HEADSPACE)

ppm = PARTS PER MILLION
 IN. = INCHES
 FT. = FEET

NLO = NAPHTHALENE LIKE ODOR
 PLO = PETROLEUM LIKE ODOR
 TLO = TAR LIKE ODOR
 CLO = CHEMICAL LIKE ODOR
 ALO = ASPHALT LIKE ODOR

CrLO = CREOSOTE LIKE ODOR
 OLO = ORGANIC LIKE ODOR
 SLO = SULFUR LIKE ODOR
 MLO = MUSTY LIKE ODOR

Appendix B

Photographs of PDI Soil (Electronic only in a separate folder on CD)

Appendix C

PDI Angled Borings Sketch



Client NATIONAL GRID

Subject TROY LIBERTY STREET PDI ANGLED BORINGS

Project TROY LIBERTY

Page 1

By BLICHAZ

Date 4/16/13

Checked

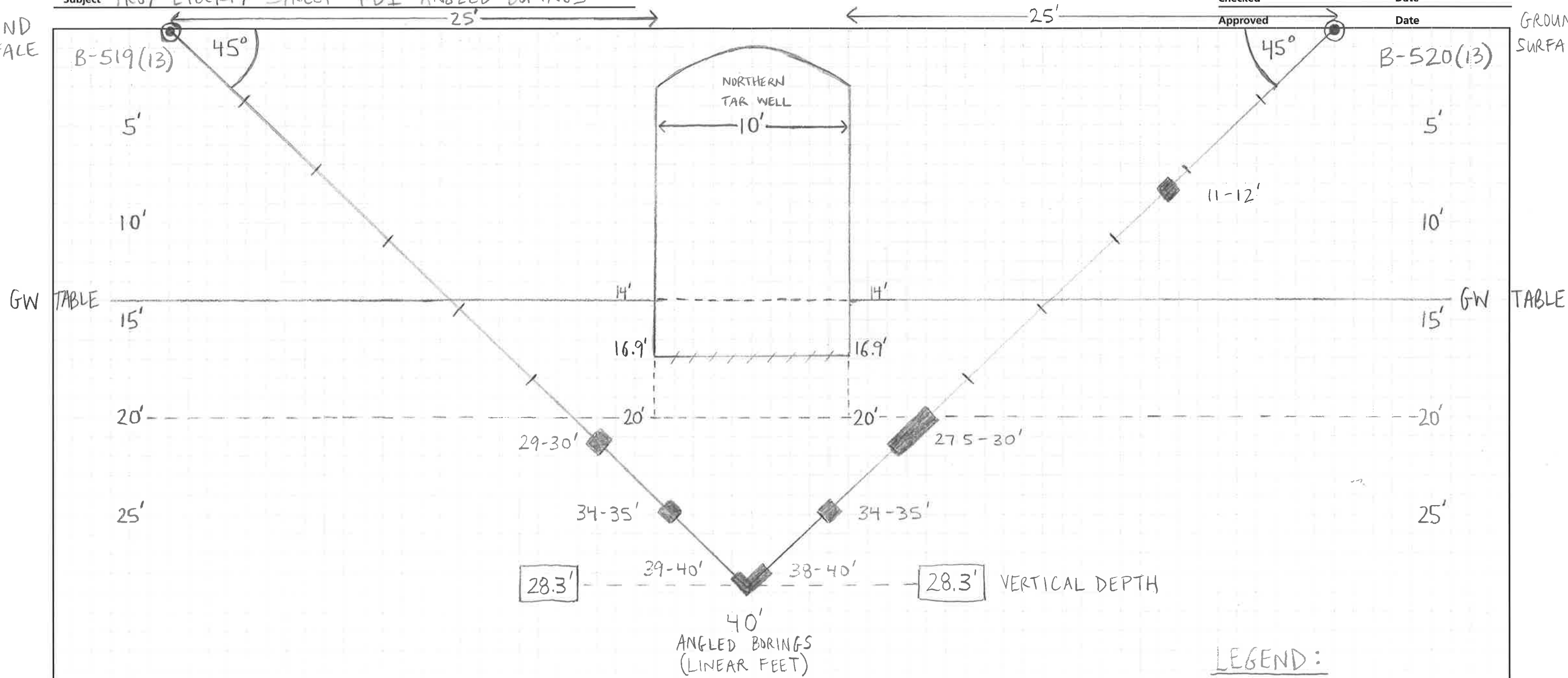
Date

Approved

Date

GROUND SURFACE

GROUND SURFACE



LEGEND:

- ANALYTICAL SAMPLES
- ## INFERRED BOTTOM

SCALE = 1:1

Appendix D

New York Leak Detection (NYLD) Survey Report and Photographs

NYLD

NEW YORK LEAK DETECTION, INC.

Job Information

Date & Time: 4/18/2013

Technician: Mark Manzari

Customer: GEI Consultants, Inc.

Site Address: Intersection of Hill Street & Washington Street, Troy, NY

Contact Person: Jerry Zak Phone: 860-558-3866

Office Notes/Scope of Work:

Utility location for test pits.

Type of Service

Leak Detection

Utility Location/GPR

Video Inspection

Type of Equipment Used

LC2100 Leak Correlator

RD4000

Video Inspection Camera

LC2500 Leak Correlator

Noggin 250 mHz

Gas Detector

S-30 Surveyor

Noggin 500 mHz

Other: _____

Sonde

Conquest 1000 mHz

Marking Used

Paint

Flags

Chalk

Other: _____

Instructions from Customer Contact:

Locate utilities in area of proposed test pit

Size of Pipe: _____

Notes/Testing Results:

See below.

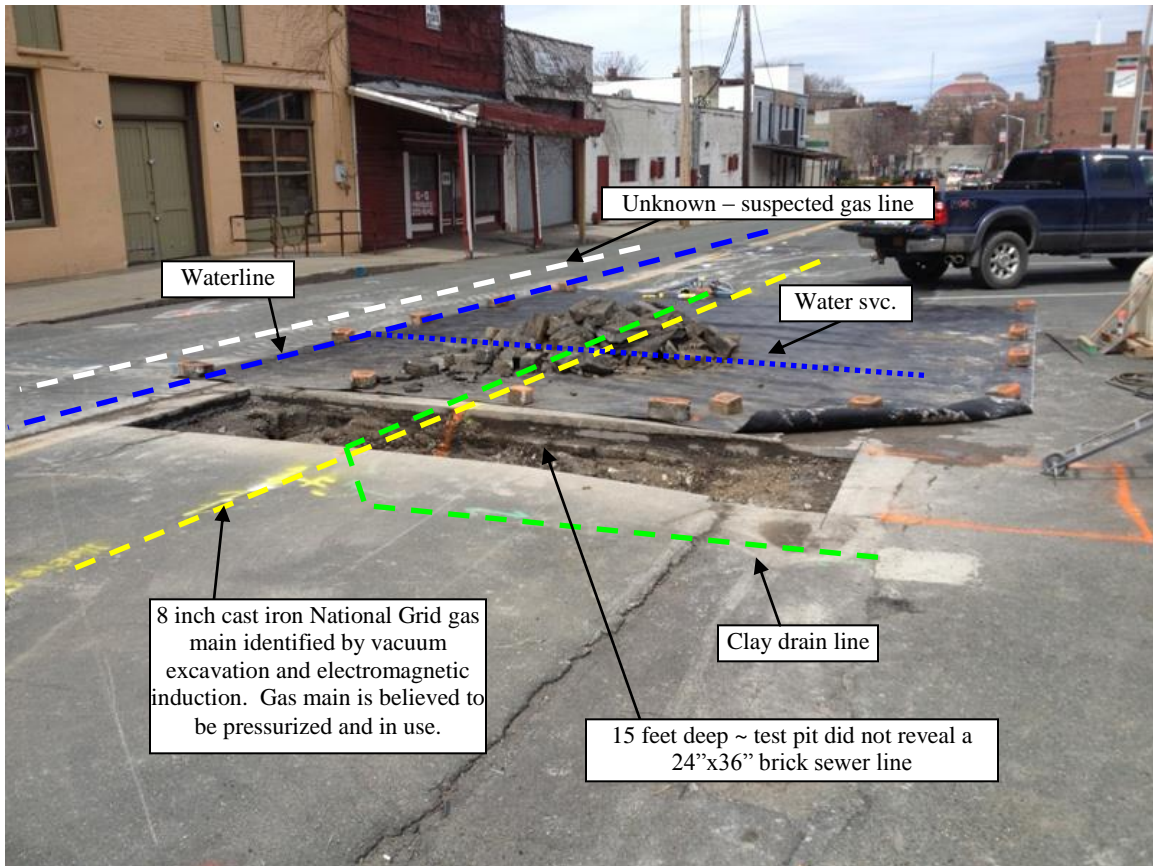
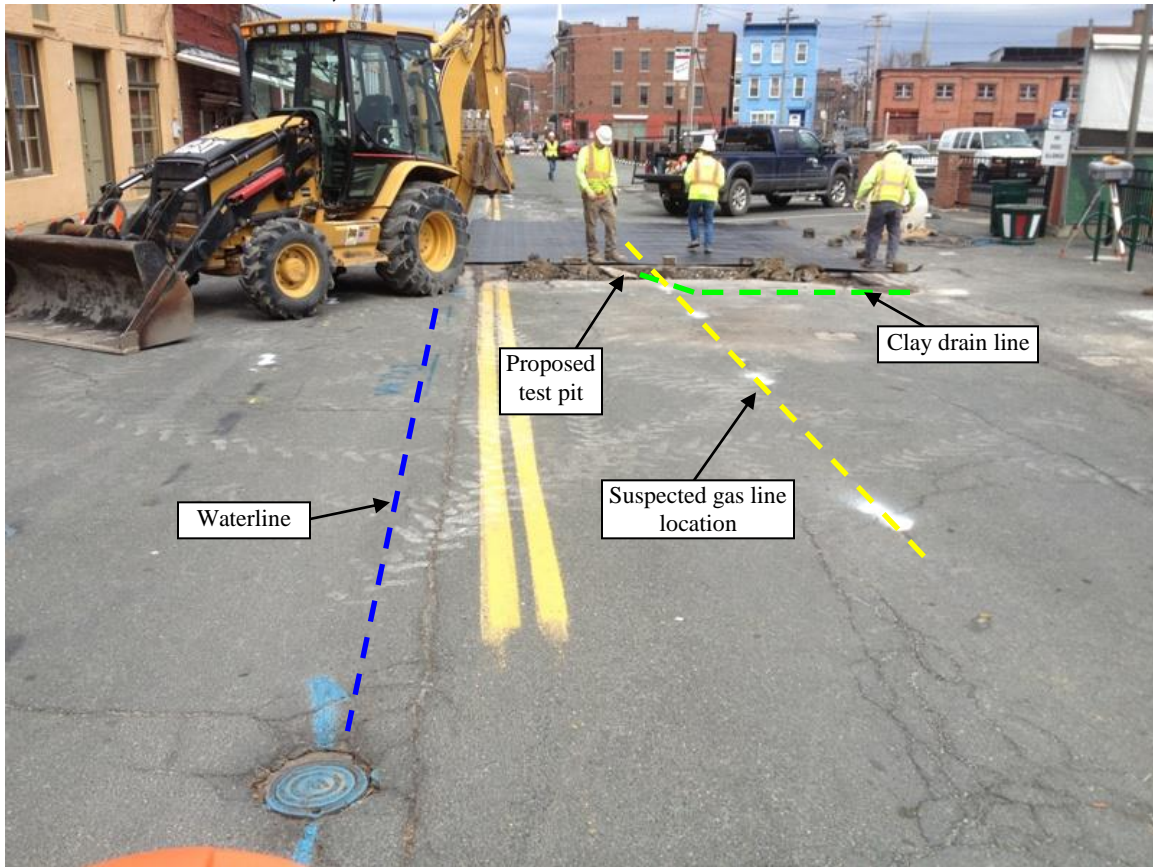
Information Transfer

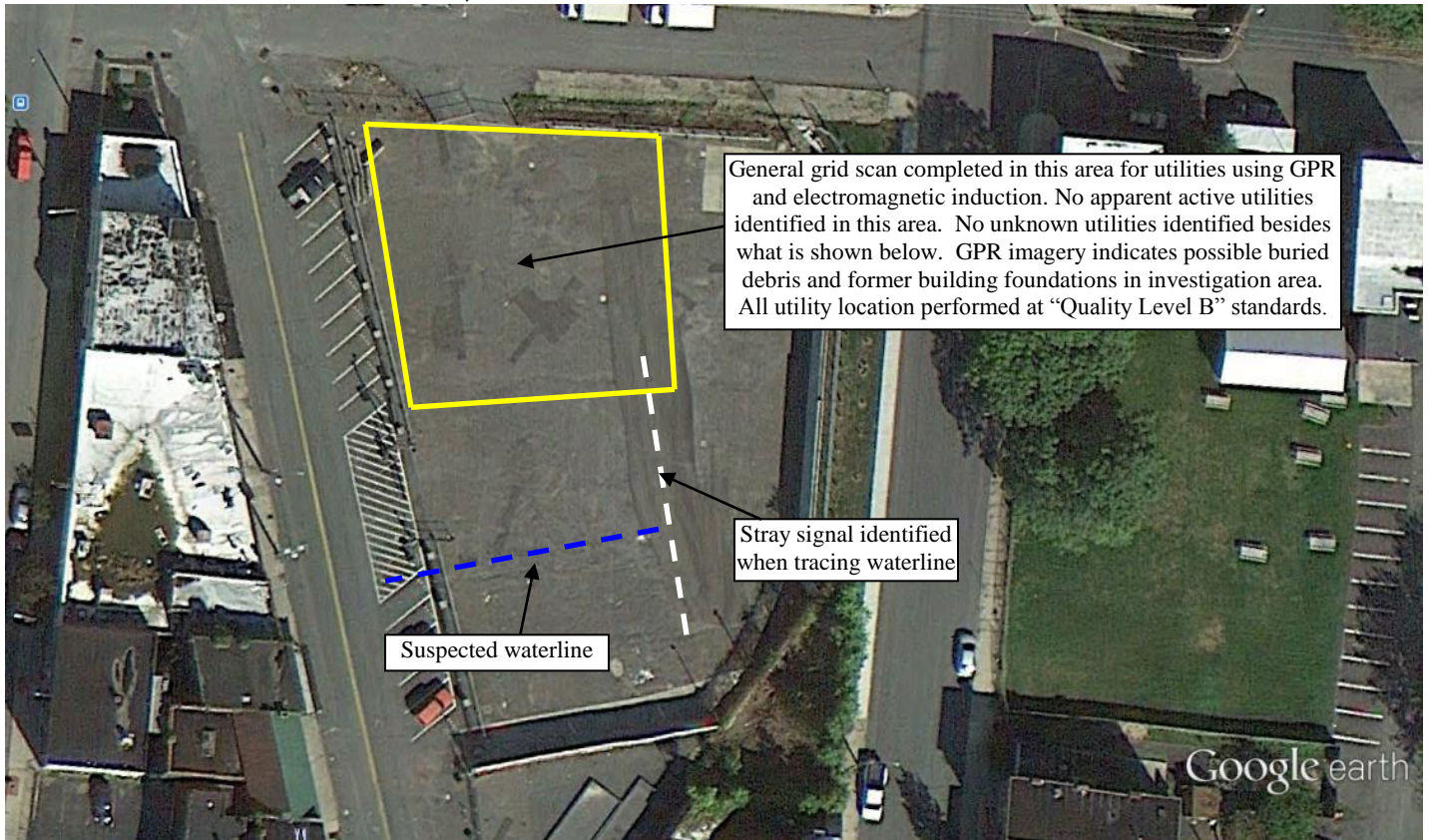
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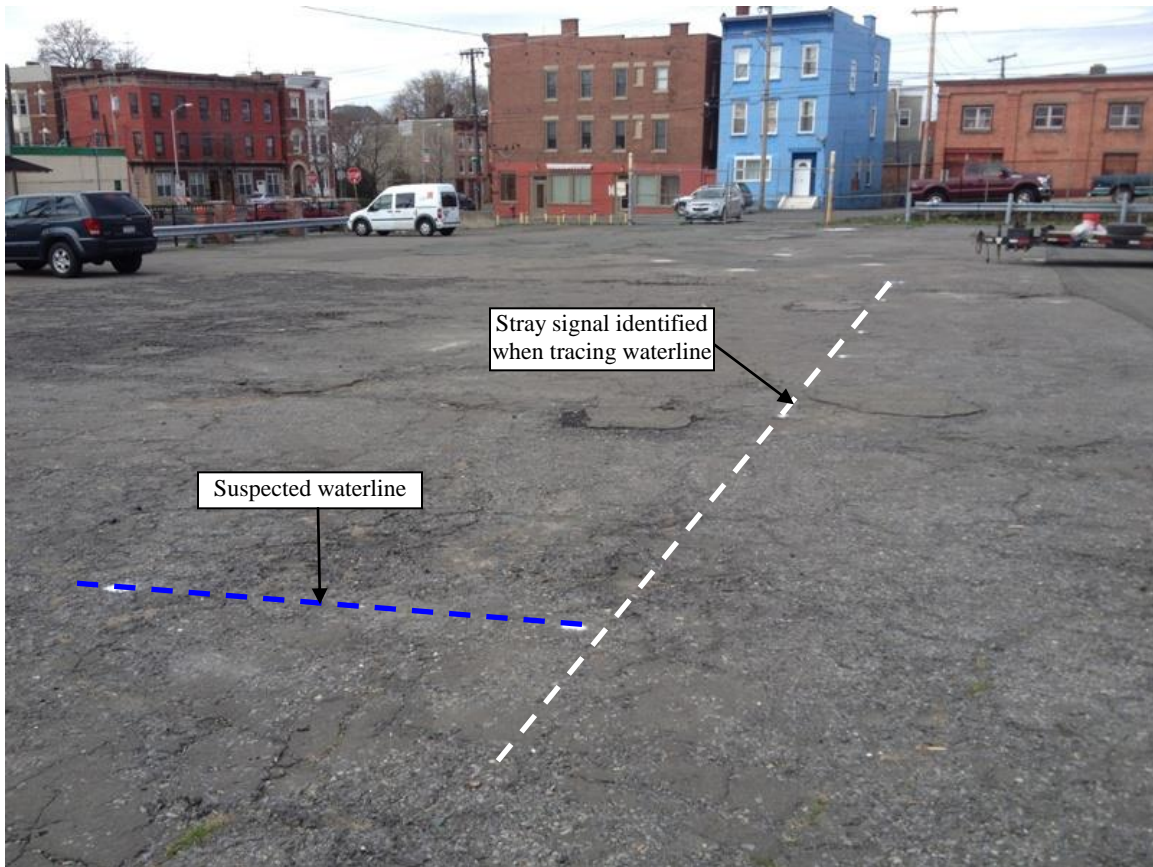
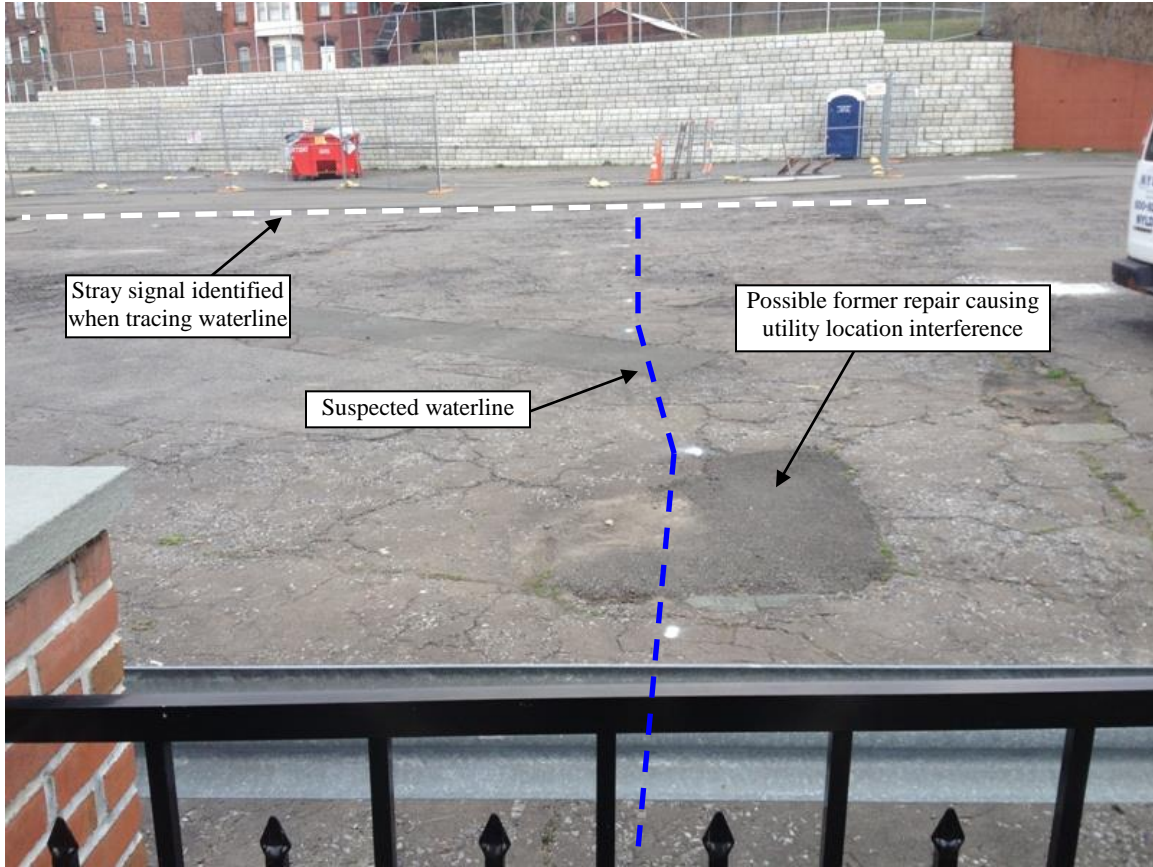
Hand drawn map (forward to office for digital remake)

All markings picked up by surveyors

Jerry Zak







Appendix E

PDI Data Usability Summary Reports (DUSRs) and Form 1s (Electronic only)

Site: Troy Liberty Street
Laboratory: Test America, Edison, NJ
Report No.: 460-52122-1, 460-52122-2, and 460-52212
Reviewer: Lorie MacKinnon/GEI Consultants
Date: April 15, 2013

Samples Reviewed and Evaluation Summary

FIELD ID	LAB ID	FRACTIONS VALIDATED
B-501 (13) 9-10	460-52122-01	BTEX, PAH
B-501 (13) 12-14	460-52122-02	BTEX, PAH
B-501 (13) 15-17	460-52122-03	BTEX, PAH
B-501 (13) 18-20	460-52122-04	BTEX, PAH
TB-031113	460-52122-05	BTEX
B-505 (13) 8-9	460-52212-01	BTEX, PAH
B-505 (13) 13-15	460-52212-02	BTEX, PAH
B-505 (13) 18-19	460-52212-03	BTEX, PAH
B-515 (13) 9-10	460-52212-04	BTEX, PAH
B-505 (13) 12.6-12.8	460-52212-05	BTEX, PAH
B-505 (13) 18.5-19	460-52212-06	BTEX, PAH
B-505 (13) 23-23.5	460-52212-07	PAH
TB-031213	460-52212-08	BTEX

Associated QC Samples(s): Trip Blanks: TB-031513
Field Duplicate pair: None associated

The above-listed soil samples and trip blank samples were collected on March 11 and 12, 2013 and were analyzed for BTEX volatile organic compounds (VOCs) by SW-846 method 8260B and polynuclear aromatic hydrocarbon (PAH) semivolatile organic compounds (SVOCs) by SW-846 method 8270C. The data validation was performed in accordance with the *USEPA Region II Functional Guidelines for Evaluating Organic Analyses* (September 2006).

The organic data were evaluated based on the following parameters:

- Data Completeness
- Holding Times and Sample Preservation
- Gas Chromatography/Mass Spectrometry (GC/MS) Tunes
- Initial and Continuing Calibrations
- Blanks
- Surrogate Recoveries
- Matrix Spike/Matrix Spike Duplicate (MS/MSD) Results

- Laboratory Control Sample (LCS) Results
- Internal Standards
- Moisture Content
- NA • Field Duplicate Results
- Quantitation Limits and Data Assessment
- Sample Quantitation and Compound Identification

NA – A field duplicate pair was not associated with this sample set.

The nondetect results for ethylbenzene and xylene in sample B-501(13) 18-20 were rejected due to gross exceedance in holding time. All other results are usable as reported or usable with minor qualification due to sample matrix or laboratory quality control outliers.

The validation findings were based on the following information.

Data Completeness

The data package was complete as defined under the requirements for the NYSDEC ASP category B laboratory deliverables.

Holding Times and Sample Preservation

SVOC

All criteria were met.

VOC

Sample B-501 (13) 18-20 was taken off hold and the VOC analysis took place 15 days outside of holding time. The nondetect results for ethylbenzene and xylene in this sample were rejected (R) and positive results for benzene and toluene were estimated (J). These results may be biased low.

Upon receipt at the laboratory the septa seal was noted to be broken on both vials for VOC sample B-501 (13) 12-14. The positive results for VOC sample B-501 (13) 12-14 were qualified as estimated (J) and may be biased low.

Upon receipt at the laboratory the septa seal was noted to be broken on one vial for sample B-501 (13) 15-17. Validation action was not required as an alternate vial could be used for analysis.

GC/MS Tunes

All criteria were met.

Initial and Continuing Calibrations

All criteria were met.

Blanks

Contamination was not detected in the associated method blank samples or trip blank sample.

Surrogate Recoveries

All criteria were met.

MS/MSD Results

MS/MSD analyses were not associated with sample set. Validation action was not required on this basis.

LCS Results

All criteria were met.

Internal Standards

All criteria were met.

Moisture Content

All criteria were met.

Field Duplicate Results

A field duplicate pair was not associated with this sample set. Validation action was not required on this basis.

Quantitation Limits and Data Assessment

All criteria were met. The following table lists the sample dilutions which were performed. QLs were elevated accordingly.

Sample	VOC Analysis Reported	SVOC Analysis Reported
B-501 (13) 9-10	A medium level analysis (50-fold dilution) was performed to high target compound levels.	NR
B-501 (13) 12-14	A medium level analysis (50-fold dilution) was performed to high target compound levels.	NR

NR- Dilution was not required

Sample Quantitation and Compound Identification

Calculations were spot-checked; no discrepancies were noted.

DATA VALIDATION QUALIFIERS

- U - The analyte was analyzed for, but due to blank contamination was flagged as nondetect (U). The result is usable as a nondetect.
- J - Data are flagged (J) when a QC analysis fails outside the primary acceptance limits. The qualified “J” data are not excluded from further review or consideration. However, only one flag (J) is applied to a sample result, even though several associated QC analyses may fail. The ‘J’ data may be biased high or low or the direction of the bias may be indeterminable.
- UJ - The analyte was not detected above the reported sample quantitation limit. Data are flagged (UJ) when a QC analysis fails outside the primary acceptance limits. The qualified “UJ” data are not excluded from further review or consideration. However, only one flag is applied to a sample result, even though several associated QC analyses may fail. The ‘UJ’ data may be biased low.
- JN - The analysis indicates the presence of a compound that has been “tentatively identified” (N) and the associated numerical value represents its approximate (J) concentration.
- R - Data rejected (R) on the basis of an unacceptable QC analysis should be excluded from further review or consideration. Data are rejected when associated QC analysis results exceed the expanded control limits of the QC criteria. The rejected data are known to contain significant errors based on documented information. The data user must not use the rejected data to make environmental decisions. The presence or absence of the analyte cannot be verified.

Site: Troy Liberty Street
Laboratory: Test America, Edison, NJ
Report No.: 460-52406
Reviewer: Lisa McDonagh/GEI Consultants
Date: May 3, 2013

Samples Reviewed and Evaluation Summary

FIELD ID	LAB ID	FRACTIONS VALIDATED
B-502 (13) 9.5-10	460-52406-01	BTEX, PAH
B-502 (13) 11-12	460-52406-02	BTEX, PAH
B-502 (13) 19-20	460-52406-03	BTEX, PAH
B-503 (13) 8-9	460-52406-04	BTEX, PAH
B-503 (13) 14.5-15	460-52406-05	BTEX, PAH
B-503 (13) 18-19	460-52406-06	BTEX, PAH
B-504(13) 6-8	460-52406-07	BTEX, PAH
B-504 (13) 11.5-12	460-52406-08	BTEX, PAH
B-504 (13) 18.5-19.5	460-52406-09	BTEX, PAH
B-506 (13) 9.5-10	460-52406-10	BTEX, PAH
B-506 (13) 12-13	460-52406-11	BTEX, PAH
B-506 (13) 19.5-20	460-52406-12	BTEX, PAH
B-507 (13) 9.5-10	460-52406-13	BTEX, PAH
B-507 (13) 14-15	460-52406-14	BTEX, PAH
B-507 (13) 18.5-19	460-52406-15	BTEX, PAH
Trip Blank	460-52406-16	BTEX

Associated QC Samples(s): Trip Blanks: Trip Blank
Field Duplicate pair: None associated

The above-listed soil samples and trip blank sample were collected on March 14, 2013 and were analyzed for BTEX volatile organic compounds (VOCs) by SW-846 method 8260B and polynuclear aromatic hydrocarbon (PAH) semivolatile organic compounds (SVOCs) by SW-846 method 8270C. The data validation was performed in accordance with the *USEPA Region II Functional Guidelines for Evaluating Organic Analyses* (September 2006).

The organic data were evaluated based on the following parameters:

- Data Completeness
- Holding Times and Sample Preservation
- Gas Chromatography/Mass Spectrometry (GC/MS) Tunes
- Initial and Continuing Calibrations
- Blanks

- Surrogate Recoveries
- Matrix Spike/Matrix Spike Duplicate (MS/MSD) Results
- Laboratory Control Sample (LCS) Results
- Internal Standards
- Moisture Content
- NA • Field Duplicate Results
- Quantitation Limits and Data Assessment
- Sample Quantitation and Compound Identification

All results are usable as reported or usable with minor qualification due to sample matrix or laboratory quality control outliers.

The validation findings were based on the following information.

Data Completeness

The data package was complete as defined under the requirements for the NYSDEC ASP category B laboratory deliverables.

Holding Times and Sample Preservation

VOC

The soil VOC samples were not collected according to method 5035/5035A specifications. The positive and nondetect results for all VOC soil samples were estimated (J/UJ) and may be biased low.

A trip blank was submitted for analysis with the samples, it was not listed on the Chain of Custody (COC). The trip blank was logged in per GEI request.

SVOC

All criteria were met.

GC/MS Tunes

All criteria were met.

Initial and Continuing Calibrations

VOC

Compounds that did not meet criteria in the calibrations are summarized in the following table.

Compound	Associated Samples	QC Outlier	Calibration	Validation Qualifier
M,p-xylene	Trip Blank	XX	Continuing	UJ

X = Initial calibration (IC) relative standard deviation (%RSD) or Initial Calibration Verification (ICV) (%D) > 30; estimate (J) positive and blank-qualified (UJ) results only.

XX = Continuing calibration (CC) percent difference (%D) > 30; estimate (J/UJ) positive and nondetect results.

XXX = Continuing calibration (CC) percent difference (%D) > 90; estimate (J) positive results and reject (R) nondetect results.

RF = Response factor (RRF) < 0.05; Estimate (J) positive results and reject (R) nondetect results.

The direction of the bias cannot be determined from the remaining calibration nonconformances. The results can be used for project objectives as estimated values (J) and nondetects with estimated quantitation limits (UJ) which may have a minor impact on the data usability.

SVOC

All criteria were met.

Blanks

Contamination was not detected in the associated method blank samples or trip blank sample.

Surrogate Recoveries

All criteria were met for samples analyzed at dilutions less than 10.

MS/MSD Results

MS/MSD analyses were performed on sample B-506(13) 12-13 for the VOC analyses. All criteria were met in the VOC MS/MSD. Qualifications were not required.

MS/MSD analyses were not submitted for the SVOC analyses.

LCS Results

All criteria were met.

Internal Standards

All criteria were met.

Moisture Content

All criteria were met.

Field Duplicate Results

A field duplicate pair was not associated with this sample set. Validation action was not required on this basis.

Quantitation Limits and Data Assessment

Results were reported which were below the reporting limit (RL) in the BTEX and PAH analyses. These results were qualified as estimated (J) by the laboratory.

All criteria were met. The following table lists the sample dilutions which were performed. QLs were elevated accordingly.

Sample	VOC Analysis Reported	SVOC Analysis Reported
B-503 (13) 8-9	NR	A five-fold dilution was performed to high target compound levels.
B-506 (13) 9.5-10	NR	A 50-fold dilution was performed to high target compound levels.
B-506 (13) 12-13	A 50-fold dilution was performed to high target compound levels.	NR

NR- Dilution was not required

Sample Quantitation and Compound Identification

Calculations were spot-checked; no discrepancies were noted.

DATA VALIDATION QUALIFIERS

- U - The analyte was analyzed for, but due to blank contamination was flagged as nondetect (U). The result is usable as a nondetect.
- J - Data are flagged (J) when a QC analysis fails outside the primary acceptance limits. The qualified “J” data are not excluded from further review or consideration. However, only one flag (J) is applied to a sample result, even though several associated QC analyses may fail. The ‘J’ data may be biased high or low or the direction of the bias may be indeterminable.
- UJ - The analyte was not detected above the reported sample quantitation limit. Data are flagged (UJ) when a QC analysis fails outside the primary acceptance limits. The qualified “UJ” data are not excluded from further review or consideration. However, only one flag is applied to a sample result, even though several associated QC analyses may fail. The ‘UJ’ data may be biased low.
- JN - The analysis indicates the presence of a compound that has been “tentatively identified” (N) and the associated numerical value represents its approximate (J) concentration.
- R - Data rejected (R) on the basis of an unacceptable QC analysis should be excluded from further review or consideration. Data are rejected when associated QC analysis results exceed the expanded control limits of the QC criteria. The rejected data are known to contain significant errors based on documented information. The data user must not use the rejected data to make environmental decisions. The presence or absence of the analyte cannot be verified.

Site: Troy Liberty Street
Laboratory: Test America, Edison, NJ
Report No.: 460-52487
Reviewer: Lorie MacKinnon/GEI Consultants
Date: April 10, 2013

Samples Reviewed and Evaluation Summary

FIELD ID	LAB ID	FRACTIONS VALIDATED
B-508 (13) 9.5-10	460-52487-01	BTEX, PAH
B-508 (13) 12.5-15	460-52487-02	BTEX, PAH
B-508 (13) 19.5-20	460-52487-03	BTEX, PAH
B-509 (13) 9-10	460-52487-04	BTEX, PAH
B-509 (13) 11-14	460-52487-05	BTEX, PAH
B-509 (13) 16.5-17.5	460-52487-06	BTEX, PAH
B-510 (13) 5-10	460-52487-07	BTEX, PAH
B-510 (13) 15-20	460-52487-08	BTEX, PAH
B-510 (13) 11-12	460-52487-09	BTEX, PAH
B-511 (13) 5-7.5	460-52487-10	BTEX, PAH
B-511 (13) 11-13	460-52487-11	BTEX, PAH
B-511 (13) 19-20	460-52487-12	BTEX, PAH
B-512 (13) 9-10	460-52487-13	BTEX, PAH
B-512 (13) 12.5-13.5	460-52487-14	BTEX, PAH
B-512 (13) 15-16	460-52487-15	BTEX, PAH
TB-031513	460-52487-16	BTEX

Associated QC Samples(s): Trip Blanks: TB-031513
Field Duplicate pair: None associated

The above-listed soil samples and trip blank sample were collected on March 15, 2013 and were analyzed for BTEX volatile organic compounds (VOCs) by SW-846 method 8260B and polynuclear aromatic hydrocarbon (PAH) semivolatile organic compounds (SVOCs) by SW-846 method 8270C. The data validation was performed in accordance with the *USEPA Region II Functional Guidelines for Evaluating Organic Analyses* (September 2006).

The organic data were evaluated based on the following parameters:

- Data Completeness
- Holding Times and Sample Preservation
- Gas Chromatography/Mass Spectrometry (GC/MS) Tunes
- Initial and Continuing Calibrations
- Blanks

- Surrogate Recoveries
- Matrix Spike/Matrix Spike Duplicate (MS/MSD) Results
- Laboratory Control Sample (LCS) Results
- Internal Standards
- Moisture Content
- Field Duplicate Results
- Quantitation Limits and Data Assessment
- Sample Quantitation and Compound Identification

All results are usable as reported or usable with minor qualification due to sample matrix or laboratory quality control outliers.

The validation findings were based on the following information.

Data Completeness

The data package was complete as defined under the requirements for the NYSDEC ASP category B laboratory deliverables.

Holding Times and Sample Preservation

VOC

The soil VOC samples were not collected according to method 5035/5035A specifications. The positive and nondetect results for all VOC soil samples were estimated (J/UJ) and may be biased low.

SVOC

All criteria were met.

GC/MS Tunes

All criteria were met.

Initial and Continuing Calibrations

All criteria were met.

Blanks

Contamination was not detected in the associated method blank samples or trip blank sample.

Surrogate Recoveries

All criteria were met.

MS/MSD Results

MS/MSD analyses were performed on sample B-510 (13) 15-20 for VOC and SVOC. All criteria were met in the SVOC MS/MSD. The following table lists the compounds recovered outside of control limits in the VOC MS/MSD analyses and the resulting actions.

MS Sample	Compound	Exceedance	Validation Action/Bias
B-510 (13) 15-20	Toluene	MS/MSD LL	Estimate (J/UJ) the positive and nondetect results for toluene, ethylbenzene, and total Xylenes in sample B-510 (13) 15-20; Low bias.
	Ethylbenzene	MS/MSD LL	
	Xylenes, total	MS/MSD LL	

LL – Lower limit exceedance

LCS Results

All criteria were met.

Internal Standards

All criteria were met.

Moisture Content

All criteria were met.

Field Duplicate Results

A field duplicate pair was not associated with this sample set. Validation action was not required on this basis.

Quantitation Limits and Data Assessment

All criteria were met. The following table lists the sample dilutions which were performed. QLs were elevated accordingly.

Sample	VOC Analysis Reported	SVOC Analysis Reported
B-508 (13) 9.5-10	NR	A two-fold dilution was performed to high target compound levels.
B-508 (13) 12.5-15	NR	A five-fold dilution was performed to high target compound levels.
B-508 (13) 19.5-20	NR	A ten-fold dilution was performed to high target compound levels.
B-509 (13) 11-14	NR	A 50-fold dilution was performed to high target compound levels.
B-510 (13) 11-12	NR	A ten-fold dilution was performed to high target compound levels.

NR- Dilution was not required

Sample Quantitation and Compound Identification

Calculations were spot-checked; no discrepancies were noted.

DATA VALIDATION QUALIFIERS

- U - The analyte was analyzed for, but due to blank contamination was flagged as nondetect (U). The result is usable as a nondetect.
- J - Data are flagged (J) when a QC analysis fails outside the primary acceptance limits. The qualified “J” data are not excluded from further review or consideration. However, only one flag (J) is applied to a sample result, even though several associated QC analyses may fail. The ‘J’ data may be biased high or low or the direction of the bias may be indeterminable.
- UJ - The analyte was not detected above the reported sample quantitation limit. Data are flagged (UJ) when a QC analysis fails outside the primary acceptance limits. The qualified “UJ” data are not excluded from further review or consideration. However, only one flag is applied to a sample result, even though several associated QC analyses may fail. The ‘UJ’ data may be biased low.
- JN - The analysis indicates the presence of a compound that has been “tentatively identified” (N) and the associated numerical value represents its approximate (J) concentration.
- R - Data rejected (R) on the basis of an unacceptable QC analysis should be excluded from further review or consideration. Data are rejected when associated QC analysis results exceed the expanded control limits of the QC criteria. The rejected data are known to contain significant errors based on documented information. The data user must not use the rejected data to make environmental decisions. The presence or absence of the analyte cannot be verified.

Site: Troy Liberty Street
Laboratory: Test America, Edison, NJ
Report No.: 460-52562
Reviewer: Lorie MacKinnon/GEI Consultants
Date: April 16, 2013

Samples Reviewed and Evaluation Summary

FIELD ID	LAB ID	FRACTIONS VALIDATED
B-513 (13) 9-10	460-52562-01	BTEX, PAH
B-513 (13) 13-14	460-52562-02	BTEX, PAH
B-513 (13) 15.5-16.5	460-52562-03	BTEX, PAH
B-513 (13) 24.5-25.0	460-52562-04	BTEX, PAH
B-517 (13) 11-12	460-52562-05	BTEX, PAH
B-517 (13) 24.5-25.0	460-52562-06	BTEX, PAH
B-514 (13) 12-13	460-52562-07	BTEX, PAH
B-514 (13) 15.5-16.0	460-52562-08	BTEX, PAH
B-514 (13) 20.0-21.5	460-52562-09	BTEX, PAH
B-516 (13) 7.5-8.0	460-52562-10	BTEX, PAH
B-516 (13) 14-15	460-52562-11	BTEX, PAH
B-516 (13) 18.25-18.75	460-52562-12	BTEX, PAH
B-516 (13) 22.5-23	460-52562-13	BTEX, PAH
B-518 (13) 14.5-16	460-52562-14	BTEX, PAH
B-518 (13) 25-30	460-52562-15	BTEX, PAH
B-518 (13) 5-7.5	460-52562-18	BTEX, PAH
B-518 (13) 21-22	460-52562-19	BTEX, PAH
TB-031813	460-52562-20	BTEX

Associated QC Samples(s): Trip Blanks: TB-031813
Field Duplicate pair: None associated

The above-listed soil samples and trip blank sample were collected on March 18, 2013 and were analyzed for BTEX volatile organic compounds (VOCs) by SW-846 method 8260B and polynuclear aromatic hydrocarbon (PAH) semivolatile organic compounds (SVOCs) by SW-846 method 8270C. The data validation was performed in accordance with the *USEPA Region II Functional Guidelines for Evaluating Organic Analyses* (September 2006).

The organic data were evaluated based on the following parameters:

- Data Completeness
- Holding Times and Sample Preservation
- Gas Chromatography/Mass Spectrometry (GC/MS) Tunes

- Initial and Continuing Calibrations
- Blanks
- Surrogate Recoveries
- Matrix Spike/Matrix Spike Duplicate (MS/MSD) Results
- Laboratory Control Sample (LCS) Results
- Internal Standards
- Moisture Content
- Field Duplicate Results
- Quantitation Limits and Data Assessment
- Sample Quantitation and Compound Identification

All results are usable as reported or usable with minor qualification due to sample matrix or laboratory quality control outliers.

The validation findings were based on the following information.

Data Completeness

The data package was complete as defined under the requirements for the NYSDEC ASP category B laboratory deliverables.

Holding Times and Sample Preservation

VOC

The soil VOC samples were not collected according to method 5035/5035A specifications. The positive and nondetect results for all VOC soil samples were estimated (J/UJ) and may be biased low.

SVOC

All criteria were met.

GC/MS Tunes

All criteria were met.

Initial and Continuing Calibrations

VOC

All criteria were met.

SVOC

Compounds that did not meet criteria in the calibrations are summarized in the following table.

Compound	Associated Samples	QC Outlier	Calibration	Validation Qualifier
Indeno(123-cd)pyrene	B-516(13) 14-15	XX	Continuing	UJ

- X = Initial calibration (IC) relative standard deviation (%RSD) or Initial Calibration Verification (ICV) (%D) > 30; estimate (J) positive and blank-qualified (UJ) results only.
- XX = Continuing calibration (CC) percent difference (%D) > 30; estimate (J/UJ) positive and nondetect results.
- XXX = Continuing calibration (CC) percent difference (%D) > 90; estimate (J) positive results and reject (R) nondetect results.
- RF = Response factor (RRF) < 0.05; Estimate (J) positive results and reject (R) nondetect results.

The direction of the bias cannot be determined from the remaining calibration nonconformances. The results can be used for project objectives as estimated values (J) and nondetects with estimated quantitation limits (UJ) which may have a minor impact on the data usability.

Blanks

Contamination was not detected in the associated method blank samples or trip blank sample.

Surrogate Recoveries

All criteria were met for samples analyzed at dilutions less than 10.

MS/MSD Results

MS/MSD analyses were performed on sample B-518 (13) 14.5-16 for VOC and SVOC. The following table lists the compounds recovered outside of control limits in the MS/MSD analyses and the resulting actions.

MS Sample	Compound	Exceedance	Validation Action/Bias
B-518(13) 14.5-16	Toluene	MS/MSD LL	Estimate (J/UJ) the positive and nondetect results for benzene, toluene, ethylbenzene, total xylenes, and naphthalene in sample B-518 (13) 14.5-16; Low bias.
	Ethylbenzene	MS LL	
	Xylenes, total	MS LL	
	Benzene	MSD LL	
	Naphthalene	MS/MSD LL	

LL – Lower limit exceedance

LCS Results

All criteria were met.

Internal Standards

All criteria were met.

Moisture Content

All criteria were met.

Field Duplicate Results

A field duplicate pair was not associated with this sample set. Validation action was not required on this basis.

Quantitation Limits and Data Assessment

All criteria were met. The following table lists the sample dilutions which were performed. QLs were elevated accordingly.

Sample	VOC Analysis Reported	SVOC Analysis Reported
B-513(13) 13-14	A medium level analysis (with 100-fold dilution) was performed to high target compound levels.	A 10-fold dilution was performed to high target compound levels.
B-513(13) 15.5-16.5	NR	A 10-fold dilution was performed to high target compound levels.
B-517(13) 11-12	A medium level analysis (with 500-fold dilution) was performed to high target compound levels.	A 50-fold dilution was performed to high target compound levels.
B-514(13) 15.5-16.0	A medium level analysis (with 2500-fold dilution) was performed to high target compound levels.	A 50-fold dilution was performed to high target compound levels.
B-514(13) 20.0-21.5	NR	A 5-fold dilution was performed to high target compound levels.
B-518(13) 25-30	NR	A 10-fold dilution was performed to high target compound levels.

NR- Dilution was not required

Troy Liberty Street, Project 093300-2-1203

Sample Quantitation and Compound Identification

Calculations were spot-checked; no discrepancies were noted.

DATA VALIDATION QUALIFIERS

- U - The analyte was analyzed for, but due to blank contamination was flagged as nondetect (U). The result is usable as a nondetect.
- J - Data are flagged (J) when a QC analysis fails outside the primary acceptance limits. The qualified “J” data are not excluded from further review or consideration. However, only one flag (J) is applied to a sample result, even though several associated QC analyses may fail. The ‘J’ data may be biased high or low or the direction of the bias may be indeterminable.
- UJ - The analyte was not detected above the reported sample quantitation limit. Data are flagged (UJ) when a QC analysis fails outside the primary acceptance limits. The qualified “UJ” data are not excluded from further review or consideration. However, only one flag is applied to a sample result, even though several associated QC analyses may fail. The ‘UJ’ data may be biased low.
- JN - The analysis indicates the presence of a compound that has been “tentatively identified” (N) and the associated numerical value represents its approximate (J) concentration.
- R - Data rejected (R) on the basis of an unacceptable QC analysis should be excluded from further review or consideration. Data are rejected when associated QC analysis results exceed the expanded control limits of the QC criteria. The rejected data are known to contain significant errors based on documented information. The data user must not use the rejected data to make environmental decisions. The presence or absence of the analyte cannot be verified.

Site: Troy Liberty Street
Laboratory: Test America, Edison, NJ
Report No.: 460-52708
Reviewer: Lisa McDonagh/GEI Consultants
Date: May 3, 2013

Samples Reviewed and Evaluation Summary

FIELD ID	LAB ID	FRACTIONS VALIDATED
B-519 (13) 29-30	460-52708 -01	BTEX, PAH
B-519 (13) 34-35	460-52708 -02	BTEX, PAH
B-519 (13) 39-40	460-52708 -03	BTEX, PAH
TB-031913	460-52708 -04	BTEX
FB-031913	460-52708 -05	BTEX, PAH

Associated QC Samples(s): Trip Blanks: Trip Blank
Field Duplicate pair: None associated

The above-listed soil samples and trip blank sample were collected on March 19, 2013 and were analyzed for BTEX volatile organic compounds (BTEXs) by SW-846 method 8260B and polynuclear aromatic hydrocarbon (PAH) semivolatile organic compounds (PAHs) by SW-846 method 8270C. The data validation was performed in accordance with the *USEPA Region II Functional Guidelines for Evaluating Organic Analyses* (September 2006).

The organic data were evaluated based on the following parameters:

- Data Completeness
- Holding Times and Sample Preservation
- Gas Chromatography/Mass Spectrometry (GC/MS) Tunes
- Initial and Continuing Calibrations
- Blanks
- Surrogate Recoveries
- Matrix Spike/Matrix Spike Duplicate (MS/MSD) Results
- Laboratory Control Sample (LCS) Results
- Internal Standards
- Moisture Content
- NA • Field Duplicate Results
- Quantitation Limits and Data Assessment
- Sample Quantitation and Compound Identification

All results are usable as reported or usable with minor qualification due to sample matrix or laboratory quality control outliers.

The validation findings were based on the following information.

Data Completeness

The data package was complete as defined under the requirements for the NYSDEC ASP category B laboratory deliverables.

Holding Times and Sample Preservation

BTEX

The soil BTEX samples were not collected according to method 5035/5035A specifications. The positive and nondetect results for all BTEX soil samples were estimated (J/UJ) and may be biased low.

PAH

All criteria were met.

GC/MS Tunes

All criteria were met.

Initial and Continuing Calibrations

All criteria were met.

Blanks

Contamination was not detected in the associated method blank samples or field and trip blank samples.

Surrogate Recoveries

All criteria were met for samples analyzed at dilutions less than 10.

MS/MSD Results

MS/MSD analyses were not submitted for the BTEX and PAH analyses.

LCS Results

All criteria were met.

Internal Standards

All criteria were met.

Moisture Content

All criteria were met.

Field Duplicate Results

A field duplicate pair was not associated with this sample set. Validation action was not required on this basis.

Quantitation Limits and Data Assessment

Results were reported which were below the reporting limit (RL) in the BTEX and PAH analyses. These results were qualified as estimated (J) by the laboratory.

All criteria were met. The following table lists the sample dilutions which were performed. QLs were elevated accordingly.

Sample	BTEX Analysis Reported	PAH Analysis Reported
B-519 (13) 29-30	A 500-fold dilution was performed to high target compound levels.	A 200-fold dilution was performed to high target compound levels.

NR- Dilution was not required

Sample Quantitation and Compound Identification

Calculations were spot-checked; no discrepancies were noted.

DATA VALIDATION QUALIFIERS

- U - The analyte was analyzed for, but due to blank contamination was flagged as nondetect (U). The result is usable as a nondetect.
- J - Data are flagged (J) when a QC analysis fails outside the primary acceptance limits. The qualified “J” data are not excluded from further review or consideration. However, only one flag (J) is applied to a sample result, even though several associated QC analyses may fail. The ‘J’ data may be biased high or low or the direction of the bias may be indeterminable.
- UJ - The analyte was not detected above the reported sample quantitation limit. Data are flagged (UJ) when a QC analysis fails outside the primary acceptance limits. The qualified “UJ” data are not excluded from further review or consideration. However, only one flag is applied to a sample result, even though several associated QC analyses may fail. The ‘UJ’ data may be biased low.
- JN - The analysis indicates the presence of a compound that has been “tentatively identified” (N) and the associated numerical value represents its approximate (J) concentration.
- R - Data rejected (R) on the basis of an unacceptable QC analysis should be excluded from further review or consideration. Data are rejected when associated QC analysis results exceed the expanded control limits of the QC criteria. The rejected data are known to contain significant errors based on documented information. The data user must not use the rejected data to make environmental decisions. The presence or absence of the analyte cannot be verified.

Site: Troy Liberty Street
Laboratory: Test America, Edison, NJ
Report No.: 460-52717
Reviewer: Lisa McDonagh/GEI Consultants
Date: May 3, 2013

Samples Reviewed and Evaluation Summary

FIELD ID	LAB ID	FRACTIONS VALIDATED
B-520 (13) 11-12	460-52717 -01	BTEX, PAH
B-520 (13) 14-15	460-52717 -02	BTEX, PAH
B-520 (13) 27.5-30	460-52717 -03	BTEX, PAH
B-520 (13) 34-35	460-52717 -04	BTEX, PAH
B-520 (13) 38-40	460-52717 -05	BTEX, PAH
B-520 (13) 40-45	460-52717 -06	BTEX, PAH
TB 032013	460-52717 -07	BTEX

Associated QC Samples(s): Trip Blanks: TB 032013
Field Duplicate pair: B-520 (13) 11-12/B-520 (13) 14-15
B-520 (13) 38-40/B-520 (13) 40-45

The above-listed soil samples and trip blank sample were collected on March 20, 2013 and were analyzed for BTEX volatile organic compounds (VOCs) by SW-846 method 8260B and polynuclear aromatic hydrocarbon (PAH) semivolatile organic compounds (SVOCs) by SW-846 method 8270C. The data validation was performed in accordance with the *USEPA Region II Functional Guidelines for Evaluating Organic Analyses* (September 2006).

The organic data were evaluated based on the following parameters:

- Data Completeness
- Holding Times and Sample Preservation
- Gas Chromatography/Mass Spectrometry (GC/MS) Tunes
- Initial and Continuing Calibrations
- Blanks
- Surrogate Recoveries
- Matrix Spike/Matrix Spike Duplicate (MS/MSD) Results
- Laboratory Control Sample (LCS) Results
- Internal Standards
- Moisture Content
- NA • Field Duplicate Results
- Quantitation Limits and Data Assessment
- Sample Quantitation and Compound Identification

All results are usable as reported or usable with minor qualification due to sample matrix or laboratory quality control outliers.

The validation findings were based on the following information.

Data Completeness

The data package was complete as defined under the requirements for the NYSDEC ASP category B laboratory deliverables.

Holding Times and Sample Preservation

VOC

The soil VOC samples were not collected according to method 5035/5035A specifications. The positive and nondetect results for all VOC soil samples were estimated (J/UJ) and may be biased low.

SVOC

All criteria were met.

GC/MS Tunes

All criteria were met.

Initial and Continuing Calibrations

All criteria were met.

Blanks

Contamination was not detected in the associated method blank samples or trip blank sample.

Surrogate Recoveries

All criteria were met for samples analyzed at dilutions less than 10.

MS/MSD Results

MS/MSD analyses were performed on sample B-520(13) 27.5-30 for the VOC analyses. The percent recovery for VOC compounds benzene (76%), ethylbenzene (78%) and xylenes, total

(80%) were below the recommended control limits in the MS/MSD. The positive and nondetect results for benzene, ethylbenzene and xylenes, total were qualified as estimated (J/UJ). Low bias.

LCS Results

All criteria were met.

Internal Standards

All criteria were met.

Moisture Content

All criteria were met.

Field Duplicate Results

Samples B-520 (13) 11-12 and B-520 (13) 14-15 were submitted as the field duplicate pair with this sample group. The following table summarizes the VOC and PAH RPDs of the detected compounds, all of which were acceptable, with the exception of ethylbenzene and xylenes, total which were qualified as estimated (J).

Compound	B-520 (13) 11-12 (ug/Kg)	B-520 (13) 14-15 (ug/Kg)	RPD (%)
Benzene	27	120	126, within 2XQL.
Toluene	8.5	110	171, within 2XQL.
Ethylbenzene	24	290	169
Xylene(total)	81	1000	184
Naphthalene(SVOC)	35000	27000	26
Acenaphthylene	7500	7700	3
Acenaphthene	13000	12000	8
Fluorene	45000	44000	2
Phenanthrene	150000	140000	7
Anthracene	39000	45000	14
Fluoranthene	88000	99000	12
Pyrene	74000	78000	5
Benzo(a)anthracene	38000	42000	10

Compound	B-520 (13) 11-12 (ug/Kg)	B-520 (13) 14-15 (ug/Kg)	RPD (%)
Chrysene	34000	38000	11
Benzo(b)fluoranthene	29000	35000	18
Benzo(k)fluoranthene	15000	16000	6
Benzo(a)pyrene	33000	37000	11
Indeno(123cd)pyrene	21000	22000	5
Dibenz(ah)anthracene	4800	5600	15
Benzo(ghi)perylene	21000	23000	9

NC – Not calculable

For soil results > 5xQL and RPDs>50%; estimate (J) results in the field duplicate pair.

For soil results < 5xQL; the sample and duplicate results must be within 2XQL.

Samples B-520 (13) 38-40 and B-520 (13) 40-45 were submitted as the field duplicate pair with this sample group. The following table summarizes the VOC and PAH RPDs of the detected compounds, all of which were acceptable, with the exception of ethylbenzene and xylenes, total which were qualified as estimated (J).

Compound	B-520 (13) 38-40 (ug/Kg)	B-520 (13) 40-45 (ug/Kg)	RPD (%)
Benzene	3.1	1.5	70, within 2XQL.
Toluene	0.48	0.37	26
Naphthalene(SVOC)	390	360	8

NC – Not calculable

For soil results > 5xQL and RPDs>50%; estimate (J) results in the field duplicate pair.

For soil results < 5xQL; the sample and duplicate results must be within 2XQL.

Quantitation Limits and Data Assessment

All criteria were met. The following table lists the sample dilutions which were performed. QLs were elevated accordingly.

Sample	VOC Analysis Reported	SVOC Analysis Reported
B-520 (13) 11-12	NR	A 25-fold dilution was performed to high target compound levels.
B-520 (13) 14-15	A 50-fold dilution was performed to high target compound levels.	A 25-fold dilution was performed to high target compound levels.

National Grid Troy Liberty Street, Project 093300-2-1203

NR- Dilution was not required

Sample Quantitation and Compound Identification

Calculations were spot-checked; no discrepancies were noted.

DATA VALIDATION QUALIFIERS

- U - The analyte was analyzed for, but due to blank contamination was flagged as nondetect (U). The result is usable as a nondetect.
- J - Data are flagged (J) when a QC analysis fails outside the primary acceptance limits. The qualified “J” data are not excluded from further review or consideration. However, only one flag (J) is applied to a sample result, even though several associated QC analyses may fail. The ‘J’ data may be biased high or low or the direction of the bias may be indeterminable.
- UJ - The analyte was not detected above the reported sample quantitation limit. Data are flagged (UJ) when a QC analysis fails outside the primary acceptance limits. The qualified “UJ” data are not excluded from further review or consideration. However, only one flag is applied to a sample result, even though several associated QC analyses may fail. The ‘UJ’ data may be biased low.
- JN - The analysis indicates the presence of a compound that has been “tentatively identified” (N) and the associated numerical value represents its approximate (J) concentration.
- R - Data rejected (R) on the basis of an unacceptable QC analysis should be excluded from further review or consideration. Data are rejected when associated QC analysis results exceed the expanded control limits of the QC criteria. The rejected data are known to contain significant errors based on documented information. The data user must not use the rejected data to make environmental decisions. The presence or absence of the analyte cannot be verified.

Analytical Data

Job Number: 460-52212-1

Client: GEI Consultants, Inc.

Client Sample ID: B-505(13)8-9

Lab Sample ID: 460-52212-1

Client Matrix: Solid

% Moisture: 22.6

Date Sampled: 03/12/2013 0845

Date Received: 03/13/2013 0905

8260B Volatile Organic Compounds (GC/MS)

Analysis Method: 8260B
 Prep Method: 5035
 Dilution: 1.0
 Analysis Date: 03/25/2013 0905
 Prep Date: 03/13/2013 1754

Analysis Batch: 460-152553
 Prep Batch: 460-151012

Instrument ID: VOAMS12
 Lab File ID: o71621.d
 Initial Weight/Volume: 6.35 g
 Final Weight/Volume: 5 mL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Benzene		1.0	U	0.15	1.0
Toluene		1.0	U	0.14	1.0
Ethylbenzene		1.0	U	0.17	1.0
Xylenes, Total		3.1	U	0.68	3.1
Surrogate		%Rec	Qualifier	Acceptance Limits	
1,2-Dichloroethane-d4 (Surr)		107		70 - 130	
Bromofluorobenzene		97		70 - 130	
Toluene-d8 (Surr)		96		70 - 130	

Jan
4/11/13

Client: GEI Consultants, Inc.

Job Number: 460-52212-1

Client Sample ID: B-505(13)13-15

Lab Sample ID: 460-52212-2

Date Sampled: 03/12/2013 0930

Client Matrix: Solid

% Moisture: 12.8

Date Received: 03/13/2013 0905

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	460-152683	Instrument ID:	VOAMS12
Prep Method:	5035	Prep Batch:	460-151012	Lab File ID:	o71645.d
Dilution:	1.0			Initial Weight/Volume:	6.035 g
Analysis Date:	03/25/2013 1917			Final Weight/Volume:	5 mL
Prep Date:	03/13/2013 1754				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Benzene		3.3		0.14	0.95
Toluene		0.32	J -	0.13	0.95
Ethylbenzene		0.56	J -	0.16	0.95
Xylenes, Total		0.86	J -	0.64	2.9
Surrogate		%Rec	Qualifier	Acceptance Limits	
1,2-Dichloroethane-d4 (Surr)		106		70 - 130	
Bromofluorobenzene		89		70 - 130	
Toluene-d8 (Surr)		91		70 - 130	

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52212-1

Client Sample ID: B-505(13)18-19

Lab Sample ID: 460-52212-3

Date Sampled: 03/12/2013 1010

Client Matrix: Solid

% Moisture: 10.9

Date Received: 03/13/2013 0905

8260B Volatile Organic Compounds (GC/MS)

Analysis Method: 8260B	Analysis Batch: 460-152432	Instrument ID: VOAMS12
Prep Method: 5035	Prep Batch: 460-151012	Lab File ID: o71526.d
Dilution: 1.0		Initial Weight/Volume: 5.786 g
Analysis Date: 03/23/2013 1459		Final Weight/Volume: 5 mL
Prep Date: 03/13/2013 1754		

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Benzene		0.65	J -	0.15	0.97
Toluene		0.16	J -	0.14	0.97
Ethylbenzene		0.97	U	0.16	0.97
Xylenes, Total		2.9	U	0.65	2.9

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	122		70 - 130
Bromofluorobenzene	88		70 - 130
Toluene-d8 (Surr)	90		70 - 130

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52212-1

Client Sample ID: B-515(13)9-10

Lab Sample ID: 460-52212-4

Date Sampled: 03/12/2013 1400

Client Matrix: Solid

% Moisture: 17.7

Date Received: 03/13/2013 0905

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	460-152683	Instrument ID:	VOAMS12
Prep Method:	5035	Prep Batch:	460-151012	Lab File ID:	o71646.d
Dilution:	1.0			Initial Weight/Volume:	5.546 g
Analysis Date:	03/25/2013 1942			Final Weight/Volume:	5 mL
Prep Date:	03/13/2013 1754				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Benzene		9.1		0.16	1.1
Toluene		0.20	J	0.15	1.1
Ethylbenzene		0.38	J	0.19	1.1
Xylenes, Total		3.3	U	0.73	3.3

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	106		70 - 130
Bromofluorobenzene	96		70 - 130
Toluene-d8 (Surr)	93		70 - 130

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52212-1

Client Sample ID: B-515(13)12.6-12.8

Lab Sample ID: 460-52212-5

Date Sampled: 03/12/2013 1420

Client Matrix: Solid

% Moisture: 9.0

Date Received: 03/13/2013 0905

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	460-152432	Instrument ID:	VOAMS12
Prep Method:	5035	Prep Batch:	460-151012	Lab File ID:	o71528.d
Dilution:	1.0			Initial Weight/Volume:	6.736 g
Analysis Date:	03/23/2013 1549			Final Weight/Volume:	5 mL
Prep Date:	03/13/2013 1755				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Benzene		4.5		0.12	0.82
Toluene		0.19	J	0.11	0.82
Ethylbenzene		0.82	U	0.14	0.82
Xylenes, Total		2.4	U	0.55	2.4

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	124		70 - 130
Bromofluorobenzene	88		70 - 130
Toluene-d8 (Surr)	92		70 - 130

Client: GEI Consultants, Inc.

Job Number: 460-52212-1

Client Sample ID: B-515(13)18.5-19

Lab Sample ID: 460-52212-6

Date Sampled: 03/12/2013 1505

Client Matrix: Solid

% Moisture: 18.2

Date Received: 03/13/2013 0905

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	460-152432	Instrument ID:	VOAMS12
Prep Method:	5035	Prep Batch:	460-151012	Lab File ID:	o71529.d
Dilution:	1.0			Initial Weight/Volume:	5.96 g
Analysis Date:	03/23/2013 1614			Final Weight/Volume:	5 mL
Prep Date:	03/13/2013 1755				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Benzene		0.16	J	0.15	1.0
Toluene		1.0	U	0.14	1.0
Ethylbenzene		1.0	U	0.17	1.0
Xylenes, Total		3.1	U	0.69	3.1

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	124		70 - 130
Bromofluorobenzene	90		70 - 130
Toluene-d8 (Surr)	93		70 - 130

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52212-1

Client Sample ID: TB-031213

Lab Sample ID: 460-52212-8TB

Date Sampled: 03/12/2013 1600

Client Matrix: Water

Date Received: 03/13/2013 0905

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	460-151870	Instrument ID:	VOAMS5
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	e14895.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	03/20/2013 1128			Final Weight/Volume:	5 mL
Prep Date:	03/20/2013 1128				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Benzene	1.0	U	0.080	1.0
Toluene	1.0	U	0.15	1.0
Ethylbenzene	1.0	U	0.10	1.0
Xylenes, Total	3.0	U	0.36	3.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	93		70 - 130
Bromofluorobenzene	100		70 - 130
Toluene-d8 (Surr)	99		70 - 130

Client: GEI Consultants, Inc.

Job Number: 460-52212-1

Client Sample ID: B-505(13)8-9

Lab Sample ID: 460-52212-1

Date Sampled: 03/12/2013 0845

Client Matrix: Solid

% Moisture: 22.6

Date Received: 03/13/2013 0905

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-151317	Instrument ID:	BNAMS4
Prep Method:	3541	Prep Batch:	460-151061	Lab File ID:	u85343.d
Dilution:	1.0			Initial Weight/Volume:	15.02 g
Analysis Date:	03/15/2013 0901			Final Weight/Volume:	1 mL
Prep Date:	03/14/2013 0840			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Naphthalene		68	J ✓	49	430
Acenaphthylene		430	U	50	430
Acenaphthene		430	U	62	430
Fluorene		430	U	55	430
Phenanthrene		79	J ✓	54	430
Anthracene		430	U	52	430
Fluoranthene		430	U	57	430
Pyrene		430	U	36	430
Benzo[a]anthracene		43	U	3.0	43
Chrysene		430	U	50	430
Benzo[b]fluoranthene		43	U	2.7	43
Benzo[k]fluoranthene		43	U	3.2	43
Benzo[a]pyrene		43	U	3.0	43
Indeno[1,2,3-cd]pyrene		43	U	7.9	43
Dibenz(a,h)anthracene		43	U	5.4	43
Benzo[g,h,i]perylene		430	U	32	430

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5	87		38 - 105
Terphenyl-d14	84		16 - 151
2-Fluorobiphenyl	75		40 - 109

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52212-1

Client Sample ID: B-505(13)13-15

Lab Sample ID: 460-52212-2

Date Sampled: 03/12/2013 0930

Client Matrix: Solid

% Moisture: 12.8

Date Received: 03/13/2013 0905

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method: 8270C	Analysis Batch: 460-151317	Instrument ID: BNAMS4
Prep Method: 3541	Prep Batch: 460-151061	Lab File ID: u85353.d
Dilution: 1.0		Initial Weight/Volume: 15.00 g
Analysis Date: 03/15/2013 1237		Final Weight/Volume: 1 mL
Prep Date: 03/14/2013 0840		Injection Volume: 1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Naphthalene		110	J -	44	380
Acenaphthylene		380	U	45	380
Acenaphthene		290	J -	55	380
Fluorene		180	J -	49	380
Phenanthrene		65	J -	48	380
Anthracene		380	U	46	380
Fluoranthene		420		51	380
Pyrene		350	J -	32	380
Benzo[a]anthracene		38		2.7	38
Chrysene		380	U	44	380
Benzo[b]fluoranthene		27	J -	2.4	38
Benzo[k]fluoranthene		13	J -	2.9	38
Benzo[a]pyrene		24	J -	2.7	38
Indeno[1,2,3-cd]pyrene		38	U	7.1	38
Dibenz(a,h)anthracene		38	U	4.8	38
Benzo[g,h,i]perylene		380	U	28	380

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5	78		38 - 105
Terphenyl-d14	83		16 - 151
2-Fluorobiphenyl	88		40 - 109

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52212-1

Client Sample ID: B-505(13)18-19

Lab Sample ID: 460-52212-3

Date Sampled: 03/12/2013 1010

Client Matrix: Solid

% Moisture: 10.9

Date Received: 03/13/2013 0905

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-151317	Instrument ID:	BNAMS4
Prep Method:	3541	Prep Batch:	460-151061	Lab File ID:	u85352.d
Dilution:	1.0			Initial Weight/Volume:	15.01 g
Analysis Date:	03/15/2013 1215			Final Weight/Volume:	1 mL
Prep Date:	03/14/2013 0840			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Naphthalene		370	U	43	370
Acenaphthylene		120	J	44	370
Acenaphthene		1200		54	370
Fluorene		370	U	47	370
Phenanthrene		370	U	47	370
Anthracene		370	U	45	370
Fluoranthene		370	U	49	370
Pyrene		370	U	31	370
Benzo[a]anthracene		37	U	2.6	37
Chrysene		370	U	43	370
Benzo[b]fluoranthene		37	U	2.3	37
Benzo[k]fluoranthene		37	U	2.8	37
Benzo[a]pyrene		37	U	2.6	37
Indeno[1,2,3-cd]pyrene		37	U	6.9	37
Dibenz(a,h)anthracene		37	U	4.7	37
Benzo[g,h,i]perylene		370	U	27	370

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5	93		38 - 105
Terphenyl-d14	81		16 - 151
2-Fluorobiphenyl	94		40 - 109

Client: GEI Consultants, Inc.

Job Number: 460-52212-1

Client Sample ID: B-515(13)9-10

Lab Sample ID: 460-52212-4

Date Sampled: 03/12/2013 1400

Client Matrix: Solid

% Moisture: 17.7

Date Received: 03/13/2013 0905

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method: 8270C	Analysis Batch: 460-151317	Instrument ID: BNAMS4
Prep Method: 3541	Prep Batch: 460-151061	Lab File ID: u85336.d
Dilution: 1.0		Initial Weight/Volume: 15.02 g
Analysis Date: 03/15/2013 0546		Final Weight/Volume: 1 mL
Prep Date: 03/14/2013 0840		Injection Volume: 1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Naphthalene		52	J	46	400
Acenaphthylene		400	U	47	400
Acenaphthene		400	U	58	400
Fluorene		400	U	51	400
Phenanthrene		400	U	51	400
Anthracene		400	U	49	400
Fluoranthene		400	U	53	400
Pyrene		400	U	34	400
Benzo[a]anthracene		40	U	2.8	40
Chrysene		400	U	47	400
Benzo[b]fluoranthene		40	U	2.5	40
Benzo[k]fluoranthene		40	U	3.0	40
Benzo[a]pyrene		40	U	2.8	40
Indeno[1,2,3-cd]pyrene		40	U	7.5	40
Dibenz(a,h)anthracene		40	U	5.1	40
Benzo[g,h,i]perylene		400	U	30	400

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5	86		38 - 105
Terphenyl-d14	84		16 - 151
2-Fluorobiphenyl	86		40 - 109

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52212-1

Client Sample ID: B-515(13)12.6-12.8

Lab Sample ID: 460-52212-5

Date Sampled: 03/12/2013 1420

Client Matrix: Solid

% Moisture: 9.0

Date Received: 03/13/2013 0905

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-151317	Instrument ID:	BNAMS4
Prep Method:	3541	Prep Batch:	460-151061	Lab File ID:	u85354.d
Dilution:	1.0			Initial Weight/Volume:	15.04 g
Analysis Date:	03/15/2013 1258			Final Weight/Volume:	1 mL
Prep Date:	03/14/2013 0840			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Naphthalene		120	J -	42	360
Acenaphthylene		50	J -	43	360
Acenaphthene		59	J -	53	360
Fluorene		140	J -	46	360
Phenanthrene		140	J -	46	360
Anthracene		92	J -	44	360
Fluoranthene		180	J -	48	360
Pyrene		160	J -	30	360
Benzo[a]anthracene		36	U	2.5	36
Chrysene		360	U	42	360
Benzo[b]fluoranthene		36	U	2.3	36
Benzo[k]fluoranthene		36	U	2.8	36
Benzo[a]pyrene		36	U	2.6	36
Indeno[1,2,3-cd]pyrene		36	U	6.7	36
Dibenz(a,h)anthracene		36	U	4.6	36
Benzo[g,h,i]perylene		360	U	27	360

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5	84		38 - 105
Terphenyl-d14	79		16 - 151
2-Fluorobiphenyl	84		40 - 109

Client: GEI Consultants, Inc.

Job Number: 460-52212-1

Client Sample ID: B-515(13)18.5-19

Lab Sample ID: 460-52212-6

Date Sampled: 03/12/2013 1505

Client Matrix: Solid

% Moisture: 18.2

Date Received: 03/13/2013 0905

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-151317	Instrument ID:	BNAMS4
Prep Method:	3541	Prep Batch:	460-151061	Lab File ID:	u85337.d
Dilution:	1.0			Initial Weight/Volume:	15.00 g
Analysis Date:	03/15/2013 0607			Final Weight/Volume:	1 mL
Prep Date:	03/14/2013 0840			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Naphthalene		400	U	47	400
Acenaphthylene		400	U	48	400
Acenaphthene		86	J	59	400
Fluorene		400	U	52	400
Phenanthrene		400	U	51	400
Anthracene		400	U	49	400
Fluoranthene		110	J	54	400
Pyrene		84	J	34	400
Benzo[a]anthracene		40	U	2.8	40
Chrysene		400	U	47	400
Benzo[b]fluoranthene		40	U	2.6	40
Benzo[k]fluoranthene		40	U	3.1	40
Benzo[a]pyrene		40	U	2.9	40
Indeno[1,2,3-cd]pyrene		40	U	7.5	40
Dibenz(a,h)anthracene		40	U	5.1	40
Benzo[g,h,i]perylene		400	U	30	400

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5	94		38 - 105
Terphenyl-d14	88		16 - 151
2-Fluorobiphenyl	81		40 - 109

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52212-1

Client Sample ID: B-515(13)23-23.5

Lab Sample ID: 460-52212-7

Date Sampled: 03/12/2013 1535

Client Matrix: Solid

% Moisture: 19.0

Date Received: 03/13/2013 0905

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-151317	Instrument ID:	BNAMS4
Prep Method:	3541	Prep Batch:	460-151061	Lab File ID:	u85344.d
Dilution:	1.0			Initial Weight/Volume:	15.01 g
Analysis Date:	03/15/2013 0922			Final Weight/Volume:	1 mL
Prep Date:	03/14/2013 0840			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Naphthalene		65	J -	47	410
Acenaphthylene		83	J -	48	410
Acenaphthene		590		59	410
Fluorene		190	J -	52	410
Phenanthrene		52	J -	52	410
Anthracene		61	J -	50	410
Fluoranthene		460		54	410
Pyrene		450		34	410
Benzo[a]anthracene		41	U	2.9	41
Chrysene		410	U	48	410
Benzo[b]fluoranthene		41	U	2.6	41
Benzo[k]fluoranthene		41	U	3.1	41
Benzo[a]pyrene		41	U	2.9	41
Indeno[1,2,3-cd]pyrene		41	U	7.6	41
Dibenz(a,h)anthracene		41	U	5.1	41
Benzo[g,h,i]perylene		410	U	30	410

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5	86		38 - 105
Terphenyl-d14	86		16 - 151
2-Fluorobiphenyl	88		40 - 109

Name (for report and invoice) <u>Jerry Zah</u>		Samplers Name (Printed) <u>Drew Blicharz / Mark Marino</u>		Site/Project Identification <u>Troy Liberty Street PDI</u>	
Company <u>GEI Consultants, Inc.</u>		P. O. # <u>S983</u>		State (Location site): NJ: <input type="checkbox"/> NY: <input checked="" type="checkbox"/> Other: _____	
Address <u>455 Winding Brook Drive</u>		Analysis Turnaround Time Standard <input checked="" type="checkbox"/>		ANALYSIS REQUESTED (ENTER 'X' BELOW TO INDICATE REQUEST)	
City <u>Glastonbury</u> State <u>CT</u>		Rush Charges Authorized For: 2 Week <input type="checkbox"/> 1 Week <input type="checkbox"/> Other <input type="checkbox"/>			
Phone <u>(860) 368-5404</u>		LAB USE ONLY Project No: Job No: <u>52212</u>		Sample Numbers	
Fax		Sample Identification			
Date	Time	Matrix	No. of Cont.		
<u>3/12/13</u>	<u>845</u>	<u>SO</u>	<u>5</u>	<u>BTEX 8260</u>	<u>PAH 8270</u>
	<u>930</u>			X	X
	<u>1010</u>			X	X
	<u>1400</u>			X	X
	<u>1420</u>			X	X
	<u>1505</u>		<u>✓</u>	X	X
	<u>1535</u>	<u>✓</u>	<u>1</u>	X	X
	<u>1600</u>	<u>AQ</u>	<u>2</u>	X	X
<u>TB-031213</u>		<u>TRIG</u>		<u>3-12-13</u>	
Preservation Used: 1 = ICE, 2 = HCl, 3 = H ₂ SO ₄ , 4 = HNO ₃ , 5 = NaOH		Soil: <u>1/6 1</u>			
6 = Other <u>MEDH</u> , 7 = Other _____		Water:			

SHORT HOLD

Special Instructions			Water Metals Filtered (Yes/No)?	
Relinquished by <u>Drew Blicharz</u>	Company <u>GEI</u>	Date / Time <u>3/12/13</u>	Received by <u>Tin Kroll</u>	Company <u>TA</u>
Relinquished by <u>Tin Kroll</u>	Company <u>TA</u>	Date / Time <u>3-12-13 1200</u>	Received by <u>Fed Ex</u>	Company
Relinquished by <u>Fed Ex</u>	Company	Date / Time <u>3/13/13 9:05</u>	Received by <u>C C</u>	Company <u>TA</u>
Relinquished by	Company	Date / Time	Received by	Company

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52122-1

Client Sample ID: B-501(13)9-10

Lab Sample ID: 460-52122-1

Date Sampled: 03/11/2013 0935

Client Matrix: Solid

% Moisture: 15.9

Date Received: 03/12/2013 0910

8260B Volatile Organic Compounds (GC/MS)

Analysis Method: 8260B

Analysis Batch: 460-151573

Instrument ID: VOAMS2

Prep Method: 5035

Prep Batch: 460-150812

Lab File ID: b53444.d

Dilution: 50

Initial Weight/Volume: 6.195 g

Analysis Date: 03/18/2013 1323

Final Weight/Volume: 5 mL

Prep Date: 03/12/2013 1620

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Benzene		66		4.0	48
Toluene		81		7.2	48
Ethylbenzene		510		4.6	48
Xylenes, Total		1100		17	140

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	115		75 - 135
Bromofluorobenzene	121		72 - 133
Toluene-d8 (Surr)	103		59 - 150

Jan 9/11/13

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52122-1

Client Sample ID: B-501(13)12-14

Lab Sample ID: 460-52122-2

Date Sampled: 03/11/2013 1005

Client Matrix: Solid

% Moisture: 19.8

Date Received: 03/12/2013 0910

8260B Volatile Organic Compounds (GC/MS)

Analysis Method: 8260B	Analysis Batch: 460-151573	Instrument ID: VOAMS2
Prep Method: 5035	Prep Batch: 460-150812	Lab File ID: b53445.d
Dilution: 50		Initial Weight/Volume: 6.396 g
Analysis Date: 03/18/2013 1345		Final Weight/Volume: 5 mL
Prep Date: 03/12/2013 1621		

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Benzene		250	J	4.0	49
Toluene		280	J	7.3	49
Ethylbenzene		680	J	4.7	49
Xylenes, Total		2200	J	18	150

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	109		75 - 135
Bromofluorobenzene	115		72 - 133
Toluene-d8 (Surr)	98		59 - 150

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52122-1

Client Sample ID: B-501(13)15-17

Lab Sample ID: 460-52122-3

Client Matrix: Solid

% Moisture: 9.1

Date Sampled: 03/11/2013 1040

Date Received: 03/12/2013 0910

8260B Volatile Organic Compounds (GC/MS)

Analysis Method: 8260B

Analysis Batch: 460-152233

Instrument ID: VOAMS12

Prep Method: 5035

Prep Batch: 460-150810

Lab File ID: o71431.d

Dilution: 1.0

Initial Weight/Volume: 6.484 g

Analysis Date: 03/21/2013 1836

Final Weight/Volume: 5 mL

Prep Date: 03/12/2013 1618

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Benzene		0.64	J	0.13	0.85
Toluene		0.85	U	0.12	0.85
Ethylbenzene		0.32	J	0.14	0.85
Xylenes, Total		1.0	J	0.57	2.5
Surrogate		%Rec	Qualifier	Acceptance Limits	
1,2-Dichloroethane-d4 (Surr)		116		70 - 130	
Bromofluorobenzene		92		70 - 130	
Toluene-d8 (Surr)		94		70 - 130	

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52122-1

Client Sample ID: TB-031113

Lab Sample ID: 460-52122-5TB

Date Sampled: 03/11/2013 1200

Client Matrix: Water

Date Received: 03/12/2013 0910

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	460-151556	Instrument ID:	VOAMS13
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	p67886.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	03/18/2013 1155			Final Weight/Volume:	5 mL
Prep Date:	03/18/2013 1155				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Benzene	1.0	U	0.080	1.0
Toluene	1.0	U	0.15	1.0
Ethylbenzene	1.0	U	0.10	1.0
Xylenes, Total	3.0	U	0.36	3.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	106		70 - 130
Bromofluorobenzene	92		70 - 130
Toluene-d8 (Surr)	105		70 - 130

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52122-1

Client Sample ID: B-501(13)9-10

Lab Sample ID: 460-52122-1

Date Sampled: 03/11/2013 0935

Client Matrix: Solid

% Moisture: 15.9

Date Received: 03/12/2013 0910

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-151496	Instrument ID:	BNAMS4
Prep Method:	3541	Prep Batch:	460-150893	Lab File ID:	u85372.d
Dilution:	1.0			Initial Weight/Volume:	15.00 g
Analysis Date:	03/17/2013 1217			Final Weight/Volume:	1 mL
Prep Date:	03/13/2013 0937			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Naphthalene		970		46	390
Acenaphthylene		990		46	390
Acenaphthene		1200		57	390
Fluorene		2600		50	390
Phenanthrene		4200		50	390
Anthracene		1600		48	390
Fluoranthene		2700		52	390
Pyrene		3000		33	390
Benzo[a]anthracene		1700		2.7	39
Chrysene		1600		46	390
Benzo[b]fluoranthene		1500		2.5	39
Benzo[k]fluoranthene		830		3.0	39
Benzo[a]pyrene		1500		2.8	39
Indeno[1,2,3-cd]pyrene		760		7.3	39
Dibenz(a,h)anthracene		220		5.0	39
Benzo[g,h,i]perylene		740		29	390

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5	97		38 - 105
Terphenyl-d14	94		16 - 151
2-Fluorobiphenyl	84		40 - 109

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52122-1

Client Sample ID: B-501(13)12-14

Lab Sample ID: 460-52122-2

Date Sampled: 03/11/2013 1005

Client Matrix: Solid

% Moisture: 19.8

Date Received: 03/12/2013 0910

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-151109	Instrument ID:	BNAMS4
Prep Method:	3541	Prep Batch:	460-150893	Lab File ID:	u85316.d
Dilution:	1.0			Initial Weight/Volume:	15.03 g
Analysis Date:	03/14/2013 0637			Final Weight/Volume:	1 mL
Prep Date:	03/13/2013 0937			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Naphthalene		2600		48	410
Acenaphthylene		580		49	410
Acenaphthene		790		60	410
Fluorene		1600		53	410
Phenanthrene		3700		52	410
Anthracene		1200		50	410
Fluoranthene		1700		55	410
Pyrene		1800		34	410
Benzo[a]anthracene		1100		2.9	41
Chrysene		990		48	410
Benzo[b]fluoranthene		750		2.6	41
Benzo[k]fluoranthene		390		3.1	41
Benzo[a]pyrene		740		2.9	41
Indeno[1,2,3-cd]pyrene		330		7.7	41
Dibenz(a,h)anthracene		110		5.2	41
Benzo[g,h,i]perylene		330	J .	30	410
Surrogate		%Rec	Qualifier	Acceptance Limits	
Nitrobenzene-d5		87		38 - 105	
Terphenyl-d14		92		16 - 151	
2-Fluorobiphenyl		80		40 - 109	

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52122-1

Client Sample ID: B-501(13)15-17

Lab Sample ID: 460-52122-3

Date Sampled: 03/11/2013 1040

Client Matrix: Solid

% Moisture: 9.1

Date Received: 03/12/2013 0910

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method: 8270C	Analysis Batch: 460-151109	Instrument ID: BNAMS4
Prep Method: 3541	Prep Batch: 460-150893	Lab File ID: u85307.d
Dilution: 1.0		Initial Weight/Volume: 15.02 g
Analysis Date: 03/14/2013 0347		Final Weight/Volume: 1 mL
Prep Date: 03/13/2013 0937		Injection Volume: 1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Naphthalene		240	J -	42	360
Acenaphthylene		360	U	43	360
Acenaphthene		360	U	53	360
Fluorene		82	J -	46	360
Phenanthrene		82	J -	46	360
Anthracene		360	U	44	360
Fluoranthene		360	U	48	360
Pyrene		360	U	30	360
Benzo[a]anthracene		36	U	2.5	36
Chrysene		360	U	42	360
Benzo[b]fluoranthene		36	U	2.3	36
Benzo[k]fluoranthene		36	U	2.8	36
Benzo[a]pyrene		36	U	2.6	36
Indeno[1,2,3-cd]pyrene		36	U	6.8	36
Dibenz(a,h)anthracene		36	U	4.6	36
Benzo[g,h,i]perylene		360	U	27	360
Surrogate		%Rec	Qualifier	Acceptance Limits	
Nitrobenzene-d5		88		38 - 105	
Terphenyl-d14		90		16 - 151	
2-Fluorobiphenyl		76		40 - 109	

Name (for report and invoice) JERRY ZAK		Samplers Name (Printed) DREW BLICHAZ / NICK MORANG		Site/Project Identification TROY LIBERTY STREET PDI		
Company GEI CONSULTANTS, INC		P.O. # 5983		State (Location of site): NJ: <input type="checkbox"/> NY: <input checked="" type="checkbox"/> Other:		
Address 455 WINDING BROOK DRIVE		Analysis Turnaround Time Standard <input checked="" type="checkbox"/>		ANALYSIS REQUESTED (ENTER "X" BELOW TO INDICATE REQUEST)		
City GLASTONBURY State CT		Rush Charges Authorized For: 2 Week <input type="checkbox"/> 1 Week <input type="checkbox"/> Other <input type="checkbox"/>				
Phone 860-368-5404				LAB USE ONLY Project No:		
				Job No: 52122		
				Sample Numbers		
Sample Identification	Date	Time	Matrix	No. of Cont.	BTEX 8260	PAH 8270
B-501(13)9-10	3/11/13	935	SO	6	X	X
B-501(13)12-14	↓	1005	↓	↓	X	X
B-501(13)15-17	↓	1040	↓	↓	X	X
B-501(13)18-20	↓	1055	↓	4	X	X
TB-031113	↓	1200	AQ	2	X	X
TOC						
3-11-13						
Preservation Used: 1 = ICE, 2 = HCl, 3 = H ₂ SO ₄ , 4 = HNO ₃ , 5 = NaOH 6 = Other <u>MeDH</u> , 7 = Other				Soil: 1/6	1	
				Water:		

SHORT HOLD

Special Instructions

Water Metals Filtered (Yes/No)?

Relinquished by Drew Blichaz	Company GEI	Date / Time 3/11/13 1610	Received by 1) Tim K...	Company TA
Relinquished by 2) Ter...	Company TA	Date / Time 3-11-13 1700	Received by 2) Fed Ex	Company
Relinquished by 3) Fed Ex	Company	Date / Time 3/12/13 9:20	Received by 3) C C	Company TA
Relinquished by 4)	Company	Date / Time	Received by 4)	Company

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132),

TAL - 0016 (04/08)

Massachusetts (M-NJ312), North Carolina (No. 578)

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52122-2

Client Sample ID: B-501(13)18-20

Lab Sample ID: 460-52122-4

Date Sampled: 03/11/2013 1055

Client Matrix: Solid

% Moisture: 10.2

Date Received: 03/12/2013 0910

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	460-154790	Instrument ID:	VOAMS12
Prep Method:	5035	Prep Batch:	460-150810	Lab File ID:	o72312.d
Dilution:	1.0			Initial Weight/Volume:	10.19 g
Analysis Date:	04/09/2013 2310			Final Weight/Volume:	5 mL
Prep Date:	03/12/2013 1619				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Benzene		0.32	JH	0.082	0.55
Toluene		0.088	JH	0.076	0.55
Ethylbenzene		0.55 R	UH	0.093	0.55
Xylenes, Total		1.6 R	UH	0.37	1.6

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	100		70 - 130
Bromofluorobenzene	93		70 - 130
Toluene-d8 (Surr)	87		70 - 130

Am
4/12/13

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52717-1

Client Sample ID: B-520(13)11-12

Lab Sample ID: 460-52717-1

Date Sampled: 03/20/2013 0955

Client Matrix: Solid

% Moisture: 18.8

Date Received: 03/21/2013 0850

8260B Volatile Organic Compounds (GC/MS)

Analysis Method: 8260B Analysis Batch: 460-153392 Instrument ID: VOAMS12
Prep Method: 5035 Prep Batch: 460-152176 Lab File ID: o71866.d
Dilution: 1.0 Initial Weight/Volume: 5.00 g
Analysis Date: 03/30/2013 0101 Final Weight/Volume: 5 mL
Prep Date: 03/21/2013 1746

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Benzene		27 J		0.18	1.2
Toluene		8.5 J		0.17	1.2
Ethylbenzene		24 J		0.21	1.2
Xylenes, Total		81 J		0.83	3.7

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	108		70 - 130
Toluene-d8 (Surr)	93		70 - 130
Bromofluorobenzene	94		70 - 130

EMM

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52717-1

Client Sample ID: B-520(13)14-15

Lab Sample ID: 460-52717-2

Date Sampled: 03/20/2013 1000

Client Matrix: Solid

% Moisture: 16.6

Date Received: 03/21/2013 0850

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	460-152933	Instrument ID:	VOAMS2
Prep Method:	5035	Prep Batch:	460-152166	Lab File ID:	b53894.d
Dilution:	50			Initial Weight/Volume:	5.65 g
Analysis Date:	03/27/2013 1113			Final Weight/Volume:	10 mL
Prep Date:	03/21/2013 1711				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Benzene		120	J	8.8	110
Toluene		110	J	16	110
Ethylbenzene		290	J	10	110
Xylenes, Total		1000	J	38	320

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	83		75 - 135
Toluene-d8 (Surr)	81		59 - 150
Bromofluorobenzene	91		72 - 133

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52717-1

Client Sample ID: B-520(13)27.5-30

Lab Sample ID: 460-52717-3

Date Sampled: 03/20/2013 1105

Client Matrix: Solid

% Moisture: 9.5

Date Received: 03/21/2013 0850

8260B Volatile Organic Compounds (GC/MS)

Analysis Method: 8260B	Analysis Batch: 460-153392	Instrument ID: VOAMS12
Prep Method: 5035	Prep Batch: 460-152176	Lab File ID: o71862.d
Dilution: 1.0		Initial Weight/Volume: 5.20 g
Analysis Date: 03/29/2013 2321		Final Weight/Volume: 5 mL
Prep Date: 03/21/2013 1750		

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Benzene		2.9	J	0.16	1.1
Toluene		0.70	J	0.15	1.1
Ethylbenzene		1.1	U	0.18	1.1
Xylenes, Total		3.2	U	0.71	3.2

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Sum)	101		70 - 130
Toluene-d8 (Sum)	92		70 - 130
Bromofluorobenzene	95		70 - 130

✓

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52717-1

Client Sample ID: B-520(13)34-36

Lab Sample ID: 460-52717-4

Date Sampled: 03/20/2013 1125

Client Matrix: Solid

% Moisture: 11.7

Date Received: 03/21/2013 0850

8260B Volatile Organic Compounds (GC/MS)

Analysis Method: 8260B Analysis Batch: 460-153498 Instrument ID: VOAMS12
Prep Method: 5035 Prep Batch: 460-152176 Lab File ID: o71923.d
Dilution: 1.0 Initial Weight/Volume: 5.68 g
Analysis Date: 04/01/2013 1141 Final Weight/Volume: 5 mL
Prep Date: 03/21/2013 1756

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Benzene		3.4	J	0.15	1.0
Toluene		0.87	J J	0.14	1.0
Ethylbenzene		1.0	U U J	0.17	1.0
Xylenes, Total		3.0	U U J	0.67	3.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	100		70 - 130
Toluene-d8 (Surr)	92		70 - 130
Bromofluorobenzene	96		70 - 130

J

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52717-1

Client Sample ID: B-520(13)38-40

Lab Sample ID: 460-52717-5

Date Sampled: 03/20/2013 1155

Client Matrix: Solid

% Moisture: 12.9

Date Received: 03/21/2013 0850

8260B Volatile Organic Compounds (GC/MS)

Analysis Method: 8260B	Analysis Batch: 460-153498	Instrument ID: VOAMS12
Prep Method: 5035	Prep Batch: 460-152176	Lab File ID: o71924.d
Dilution: 1.0		Initial Weight/Volume: 5.80 g
Analysis Date: 04/01/2013 1206		Final Weight/Volume: 5 mL
Prep Date: 03/21/2013 1758		

Analyte	DryWT Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Benzene		3.1	J	0.15	0.99
Toluene		0.48	J J	0.14	0.99
Ethylbenzene		0.99	U U J	0.17	0.99
Xylenes, Total		3.0	U U J	0.66	3.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	99		70 - 130
Toluene-d8 (Surr)	91		70 - 130
Bromofluorobenzene	92		70 - 130

✓

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52717-1

Client Sample ID: B-520(13)40-45

Lab Sample ID: 460-52717-6

Date Sampled: 03/20/2013 1200

Client Matrix: Solid

% Moisture: 13.2

Date Received: 03/21/2013 0850

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	460-153392	Instrument ID:	VOAMS12
Prep Method:	5035	Prep Batch:	460-152176	Lab File ID:	o71865.d
Dilution:	1.0			Initial Weight/Volume:	5.51 g
Analysis Date:	03/30/2013 0036			Final Weight/Volume:	5 mL
Prep Date:	03/21/2013 1759				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Benzene		1.5	J	0.16	1.0
Toluene		0.37	J J	0.15	1.0
Ethylbenzene		1.0	U U J	0.18	1.0
Xylenes, Total		3.1	U U	0.70	3.1

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	99		70 - 130
Toluene-d8 (Surr)	91		70 - 130
Bromofluorobenzene	92		70 - 130

✓

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52717-1

Client Sample ID: TB 032013

Lab Sample ID: 460-52717-7

Date Sampled: 03/20/2013 1600

Client Matrix: Water

Date Received: 03/21/2013 0850

8260B Volatile Organic Compounds (GC/MS)

Analysis Method: 8260B	Analysis Batch: 460-153459	Instrument ID: VOAMS9
Prep Method: 5030B	Prep Batch: N/A	Lab File ID: k11469.d
Dilution: 1.0		Initial Weight/Volume: 5 mL
Analysis Date: 03/31/2013 0907		Final Weight/Volume: 5 mL
Prep Date: 03/31/2013 0907		

Analyte	Result (ug/L)	Qualifier	MDL	RL
Benzene	1.0	U UJ	0.080	1.0
Toluene	1.0	U UJ	0.15	1.0
Ethylbenzene	1.0	U UJ	0.10	1.0
Xylenes, Total	3.0	U UJ	0.36	3.0
Surrogate	%Rec	Qualifier	Acceptance Limits	
1,2-Dichloroethane-d4 (Surr)	96		70 - 130	
Bromofluorobenzene	96		70 - 130	
Toluene-d8 (Surr)	98		70 - 130	

✓

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52717-1

Client Sample ID: B-520(13)11-12

Lab Sample ID: 460-52717-1

Date Sampled: 03/20/2013 0955

Client Matrix: Solid

% Moisture: 18.8

Date Received: 03/21/2013 0850

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method: 8270C	Analysis Batch: 460-152660	Instrument ID: BNAMS10
Prep Method: 3541	Prep Batch: 460-152532	Lab File ID: p35784.d
Dilution: 25		Initial Weight/Volume: 14.98 g
Analysis Date: 03/25/2013 1306	Run Type: DL	Final Weight/Volume: 1 mL
Prep Date: 03/24/2013 1922		Injection Volume: 1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Naphthalene		35000		1200	10000
Acenaphthylene		7500	J J	1200	10000
Acenaphthene		13000		1500	10000
Fluorene		45000		1300	10000
Phenanthrene		150000		1300	10000
Anthracene		39000		1200	10000
Fluoranthene		88000		1400	10000
Pyrene		74000		850	10000
Benzo[a]anthracene		38000		71	1000
Chrysene		34000		1200	10000
Benzo[b]fluoranthene		29000		64	1000
Benzo[k]fluoranthene		15000		77	1000
Benzo[a]pyrene		33000		72	1000
Indeno[1,2,3-cd]pyrene		21000		190	1000
Dibenz(a,h)anthracene		4800		130	1000
Benzo[g,h,i]perylene		21000		760	10000

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5	0	D	38 - 105
Terphenyl-d14	0	D	16 - 151
2-Fluorobiphenyl	0	D	40 - 109

EMM
✓

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52717-1

Client Sample ID: B-520(13)14-15

Lab Sample ID: 460-52717-2

Date Sampled: 03/20/2013 1000

Client Matrix: Solid

% Moisture: 16.6

Date Received: 03/21/2013 0850

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-153015	Instrument ID:	BNAMS10
Prep Method:	3541	Prep Batch:	460-152648	Lab File ID:	p35848.d
Dilution:	25			Initial Weight/Volume:	15.00 g
Analysis Date:	03/26/2013 2100	Run Type:	DL	Final Weight/Volume:	1 mL
Prep Date:	03/25/2013 1501			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Naphthalene		27000		1100	9900
Acenaphthylene		7700	J J	1200	9900
Acenaphthene		12000		1400	9900
Fluorene		44000		1300	9900
Phenanthrene		140000		1300	9900
Anthracene		45000		1200	9900
Fluoranthene		99000		1300	9900
Pyrene		78000		830	9900
Benzo[a]anthracene		42000		69	990
Chrysene		38000		1200	9900
Benzo[b]fluoranthene		35000		63	990
Benzo[k]fluoranthene		16000		75	990
Benzo[a]pyrene		37000		70	990
Indeno[1,2,3-cd]pyrene		22000		180	990
Dibenz(a,h)anthracene		5600		130	990
Benzo[g,h,i]perylene		23000		730	9900

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5	0	D	38 - 105
Terphenyl-d14	0	D	16 - 151
2-Fluorobiphenyl	0	D	40 - 109



Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52717-1

Client Sample ID: B-520(13)27.5-30

Lab Sample ID: 460-52717-3

Date Sampled: 03/20/2013 1105

Client Matrix: Solid

% Moisture: 9.5

Date Received: 03/21/2013 0850

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-153015	Instrument ID:	BNAMS10
Prep Method:	3541	Prep Batch:	460-152648	Lab File ID:	p35834.d
Dilution:	1.0			Initial Weight/Volume:	15.00 g
Analysis Date:	03/26/2013 1505			Final Weight/Volume:	1 mL
Prep Date:	03/25/2013 1501			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Naphthalene		200	J J	42	360
Acenaphthylene		360	U	43	360
Acenaphthene		360	U	53	360
Fluorene		68	J J	47	360
Phenanthrene		240	J J	47	360
Anthracene		73	J J	44	360
Fluoranthene		200	J J	49	360
Pyrene		180	J J	31	360
Benzo[a]anthracene		93		2.6	36
Chrysene		94	J J	43	360
Benzo[b]fluoranthene		86		2.3	36
Benzo[k]fluoranthene		43		2.8	36
Benzo[a]pyrene		93		2.6	36
Indeno[1,2,3-cd]pyrene		38		6.8	36
Dibenz(a,h)anthracene		36	U	4.6	36
Benzo[g,h,i]perylene		34	J J	27	360
Surrogate		%Rec	Qualifier	Acceptance Limits	
Nitrobenzene-d5		60		38 - 105	
Terphenyl-d14		85		16 - 151	
2-Fluorobiphenyl		64		40 - 109	

J

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52717-1

Client Sample ID: B-520(13)34-35

Lab Sample ID: 460-52717-4

Date Sampled: 03/20/2013 1125

Client Matrix: Solid

% Moisture: 11.7

Date Received: 03/21/2013 0850

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-153015	Instrument ID:	BNAMS10
Prep Method:	3541	Prep Batch:	460-152648	Lab File ID:	p35837.d
Dilution:	1.0			Initial Weight/Volume:	15.05 g
Analysis Date:	03/26/2013 1621			Final Weight/Volume:	1 mL
Prep Date:	03/25/2013 1501			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Naphthalene		280	J J	43	370
Acenaphthylene		370	U	44	370
Acenaphthene		370	U	54	370
Fluorene		370	U	48	370
Phenanthrene		76	J J	48	370
Anthracene		52	J J	45	370
Fluoranthene		180	J J	50	370
Pyrene		260	J J	31	370
Benzo[a]anthracene		63		2.6	37
Chrysene		58	J J	44	370
Benzo[b]fluoranthene		24	J J	2.4	37
Benzo[k]fluoranthene		10	J J	2.8	37
Benzo[a]pyrene		37	U	2.6	37
Indeno[1,2,3-cd]pyrene		37	U	6.9	37
Dibenz(a,h)anthracene		37	U	4.7	37
Benzo[g,h,i]perylene		370	U	28	370

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5	52		38 - 105
Terphenyl-d14	80		16 - 151
2-Fluorobiphenyl	65		40 - 109



Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52717-1

Client Sample ID: B-520(13)38-40

Lab Sample ID: 460-52717-5

Date Sampled: 03/20/2013 1155

Client Matrix: Solid

% Moisture: 12.9

Date Received: 03/21/2013 0850

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method: 8270C	Analysis Batch: 460-153015	Instrument ID: BNAMS10	
Prep Method: 3541	Prep Batch: 460-152648	Lab File ID: p35831.d	
Dilution: 1.0		Initial Weight/Volume: 15.04 g	
Analysis Date: 03/26/2013 1350		Final Weight/Volume: 1 mL	
Prep Date: 03/25/2013 1501		Injection Volume: 1 uL	

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Naphthalene		390		44	380
Acenaphthylene		380	U	45	380
Acenaphthene		380	U	55	380
Fluorene		380	U	48	380
Phenanthrene		380	U	48	380
Anthracene		380	U	46	380
Fluoranthene		380	U	50	380
Pyrene		380	U	32	380
Benzo[a]anthracene		38	U	2.6	38
Chrysene		380	U	44	380
Benzo[b]fluoranthene		38	U	2.4	38
Benzo[k]fluoranthene		38	U	2.9	38
Benzo[a]pyrene		38	U	2.7	38
Indeno[1,2,3-cd]pyrene		38	U	7.0	38
Dibenz(a,h)anthracene		38	U	4.8	38
Benzo[g,h,i]perylene		380	U	28	380
Surrogate		%Rec	Qualifier	Acceptance Limits	
Nitrobenzene-d5		51		38 - 105	
Terphenyl-d14		84		16 - 151	
2-Fluorobiphenyl		59		40 - 109	

✓

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52717-1

Client Sample ID: B-520(13)40-45

Lab Sample ID: 460-52717-6

Date Sampled: 03/20/2013 1200

Client Matrix: Solid

% Moisture: 13.2

Date Received: 03/21/2013 0850

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-153015	Instrument ID:	BNAMS10
Prep Method:	3541	Prep Batch:	460-152648	Lab File ID:	p35832.d
Dilution:	1.0			Initial Weight/Volume:	15.02 g
Analysis Date:	03/26/2013 1415			Final Weight/Volume:	1 mL
Prep Date:	03/25/2013 1501			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Naphthalene		360	J Y	44	380
Acenaphthylene		380	U	45	380
Acenaphthene		380	U	55	380
Fluorene		380	U	49	380
Phenanthrene		380	U	48	380
Anthracene		380	U	46	380
Fluoranthene		380	U	51	380
Pyrene		380	U	32	380
Benzo[a]anthracene		38	U	2.7	38
Chrysene		380	U	44	380
Benzo[b]fluoranthene		38	U	2.4	38
Benzo[k]fluoranthene		38	U	2.9	38
Benzo[a]pyrene		38	U	2.7	38
Indeno[1,2,3-cd]pyrene		38	U	7.1	38
Dibenz(a,h)anthracene		38	U	4.8	38
Benzo[g,h,i]perylene		380	U	28	380
<hr/>					
Surrogate		%Rec	Qualifier	Acceptance Limits	
Nitrobenzene-d5		57		38 - 105	
Terphenyl-d14		88		16 - 151	
2-Fluorobiphenyl		63		40 - 109	

Chain of Custody Record

Temperature on Receipt 3/4.1°
 Drinking Water? Yes No

TestAmerica
 THE LEADER IN ENVIRONMENTAL TESTING

52717

04/03/2013

TAL-4124 (1007)

Client: GCI Consultants, Inc. Project Manager: Jerry Pak Date: 03/20/13 Chain of Custody Number: 216105

Address: 455 Winding Beach Drive Telephone Number (Area Code)/Fax Number: (860) 368-5404 Lab Number: _____ Page 1 of 1

City: Classtonbury, CT State: CT Zip Code: 06033 Site Contact: Don Blinck Lab Contact: Melissa Heas

Project Name and Location (State): Troy Liberty Street PDT Carrier/Waybill Number: _____

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix				Containers & Preservatives						Analysis (Attach list if more space is needed)	Special Instructions/Conditions of Receipt	
			Air	Aqueous	Sed	Soil	Unpres.	H2SO4	HNO3	HCl	H2O2	ZnAc			NaOH
B-520(13) 11-12	3/20/13	0955			X	X									-1
B-520(13) 14-15	3/20/13	1000			X	X									-2
B-520(13) 27.5-30	3/20/13	1105			X	X									*MS/MSD -3
B-520(13) 34-35	3/20/13	1125			X	X									-4
B-520(13) 38-40	3/20/13	1155			X	X									-5
B-520(13) 40-45	3/20/13	1200			X	X									-6
TB 032013	3/20/13	1600	X												-7
TAL															
3-20-13															

SEPARATE
REPORT

Possible Hazard Identification: Non-Hazard Flammable Skin Irritant Poison B Unknown

Sample Disposal: Return To Client Disposal By Lab Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: 24 Hours 48 Hours 7 Days 14 Days 21 Days Other STANDARD

QC Requirements (Specify): _____

1. Relinquished By: <u>Dr. Blinck</u>	Date: <u>03/20/13</u>	Time: <u>17:05</u>	1. Received By: <u>[Signature]</u>	Date: <u>3-20-13</u>	Time: <u>17:05</u>
2. Relinquished By: <u>[Signature]</u>	Date: <u>3-20-13</u>	Time: <u>1500</u>	2. Received By: <u>FedEx</u>	Date:	Time:
3. Relinquished By: <u>FedEx</u>	Date:	Time:	3. Received By: <u>[Signature]</u>	Date: <u>3/21/13</u>	Time: <u>8:50</u>

Comments: CS# 710228

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Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52406-1

Client Sample ID: B-502(13)9.5-10

Lab Sample ID: 460-52406-1

Date Sampled: 03/14/2013 0835

Client Matrix: Solid

% Moisture: 18.4

Date Received: 03/15/2013 0950

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	460-152553	Instrument ID:	VOAMS12
Prep Method:	5035	Prep Batch:	460-151439	Lab File ID:	o71615.d
Dilution:	1.0			Initial Weight/Volume:	5.39 g
Analysis Date:	03/25/2013 0636			Final Weight/Volume:	5 mL
Prep Date:	03/16/2013 1643				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Benzene		0.73	J J	0.17	1.1
Toluene		1.1		0.16	1.1
Ethylbenzene		0.66	J J	0.19	1.1
Xylenes, Total		2.0	J J	0.76	3.4
Surrogate		%Rec	Qualifier	Acceptance Limits	
1,2-Dichloroethane-d4 (Surr)		107		70 - 130	
Toluene-d8 (Surr)		96		70 - 130	
Bromofluorobenzene		100		70 - 130	

EM

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52406-1

Client Sample ID: B-502(13)11-12

Lab Sample ID: 460-52406-2

Date Sampled: 03/14/2013 0850

Client Matrix: Solid

% Moisture: 15.5

Date Received: 03/15/2013 0950

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	460-152553	Instrument ID:	VOAMS12
Prep Method:	5035	Prep Batch:	460-151439	Lab File ID:	o71616.d
Dilution:	1.0			Initial Weight/Volume:	5.62 g
Analysis Date:	03/25/2013 0701			Final Weight/Volume:	5 mL
Prep Date:	03/16/2013 1645				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Benzene		1.5		0.16	1.1
Toluene		0.49	J J	0.15	1.1
Ethylbenzene		0.47	J J	0.18	1.1
Xylenes, Total		1.6	J J	0.71	3.2
Surrogate		%Rec	Qualifier	Acceptance Limits	
1,2-Dichloroethane-d4 (Surr)		102		70 - 130	
Toluene-d8 (Surr)		93		70 - 130	
Bromofluorobenzene		97		70 - 130	

✓

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52406-1

Client Sample ID: B-502(13)19-20

Lab Sample ID: 460-52406-3

Date Sampled: 03/14/2013 0910

Client Matrix: Solid

% Moisture: 11.2

Date Received: 03/15/2013 0950

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	460-152553	Instrument ID:	VOAMS12
Prep Method:	5035	Prep Batch:	460-151439	Lab File ID:	o71617.d
Dilution:	1.0			Initial Weight/Volume:	5.11 g
Analysis Date:	03/25/2013 0725			Final Weight/Volume:	5 mL
Prep Date:	03/16/2013 1647				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Benzene		1.1	U	0.17	1.1
Toluene		0.30	J J	0.15	1.1
Ethylbenzene		1.1	U	0.19	1.1
Xylenes, Total		3.3	U	0.74	3.3

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	99		70 - 130
Toluene-d8 (Surr)	93		70 - 130
Bromofluorobenzene	95		70 - 130

J

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52406-1

Client Sample ID: B-503(13)8-9

Lab Sample ID: 460-52406-4

Date Sampled: 03/14/2013 0950

Client Matrix: Solid

% Moisture: 17.5

Date Received: 03/15/2013 0950

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	460-152553	Instrument ID:	VOAMS12
Prep Method:	5035	Prep Batch:	460-151439	Lab File ID:	o71618.d
Dilution:	1.0			Initial Weight/Volume:	5.53 g
Analysis Date:	03/25/2013 0750			Final Weight/Volume:	5 mL
Prep Date:	03/16/2013 1648				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Benzene		0.52	J J	0.16	1.1
Toluene		0.70	J J	0.15	1.1
Ethylbenzene		2.0		0.19	1.1
Xylenes, Total		5.3		0.73	3.3

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	97		70 - 130
Toluene-d8 (Surr)	95		70 - 130
Bromofluorobenzene	95		70 - 130

J

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52406-1

Client Sample ID: B-503(13)14.6-15

Lab Sample ID: 460-52406-5

Date Sampled: 03/14/2013 1010

Client Matrix: Solid

% Moisture: 15.8

Date Received: 03/15/2013 0950

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	460-152611	Instrument ID:	VOAMS4
Prep Method:	5035	Prep Batch:	460-151439	Lab File ID:	d30940.d
Dilution:	1.0			Initial Weight/Volume:	5.49 g
Analysis Date:	03/25/2013 1311			Final Weight/Volume:	5 mL
Prep Date:	03/16/2013 1650				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Benzene		1.1	U	0.16	1.1
Toluene		0.26	J J	0.15	1.1
Ethylbenzene		1.1	U	0.18	1.1
Xylenes, Total		3.2	U	0.72	3.2
Surrogate		%Rec	Qualifier	Acceptance Limits	
1,2-Dichloroethane-d4 (Surr)		87		70 - 130	
Toluene-d8 (Surr)		86		70 - 130	
Bromofluorobenzene		87		70 - 130	

J

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52406-1

Client Sample ID: B-503(13)18-19

Lab Sample ID: 460-52406-6

Date Sampled: 03/14/2013 1020

Client Matrix: Solid

% Moisture: 10.1

Date Received: 03/15/2013 0950

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	460-152611	Instrument ID:	VOAMS4
Prep Method:	5035	Prep Batch:	460-151439	Lab File ID:	d30941.d
Dilution:	1.0			Initial Weight/Volume:	5.03 g
Analysis Date:	03/25/2013 1335			Final Weight/Volume:	5 mL
Prep Date:	03/16/2013 1652				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Benzene		1.1	U	0.17	1.1
Toluene		0.32	J J	0.15	1.1
Ethylbenzene		1.1	U	0.19	1.1
Xylenes, Total		3.3	U	0.74	3.3

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	95		70 - 130
Toluene-d8 (Surr)	91		70 - 130
Bromofluorobenzene	89		70 - 130

J

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52406-1

Client Sample ID: B-504(13)6-8

Lab Sample ID: 460-52406-7

Date Sampled: 03/14/2013 1105

Client Matrix: Solid

% Moisture: 23.3

Date Received: 03/15/2013 0950

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	460-152611	Instrument ID:	VOAMS4
Prep Method:	5035	Prep Batch:	460-151439	Lab File ID:	d30942.d
Dilution:	1.0			Initial Weight/Volume:	5.35 g
Analysis Date:	03/25/2013 1401			Final Weight/Volume:	5 mL
Prep Date:	03/16/2013 1654				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Benzene		1.3		0.18	1.2
Toluene		0.37	J J	0.17	1.2
Ethylbenzene		1.2	U	0.21	1.2
Xylenes, Total		3.7	U	0.82	3.7

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	95		70 - 130
Toluene-d8 (Surr)	90		70 - 130
Bromofluorobenzene	89		70 - 130

✓

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52406-1

Client Sample ID: B-504(13)11.5-12

Lab Sample ID: 460-52406-8

Date Sampled: 03/14/2013 1130

Client Matrix: Solid

% Moisture: 26.5

Date Received: 03/15/2013 0950

8260B Volatile Organic Compounds (GC/MS)

Analysis Method: 8260B Analysis Batch: 460-152611 Instrument ID: VOAMS4
Prep Method: 5035 Prep Batch: 460-151439 Lab File ID: d30943.d
Dilution: 1.0 Initial Weight/Volume: 5.35 g
Analysis Date: 03/25/2013 1426 Final Weight/Volume: 5 mL
Prep Date: 03/16/2013 1655

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Benzene		35		0.19	1.3
Toluene		1.0	J J	0.18	1.3
Ethylbenzene		1.8		0.22	1.3
Xylenes, Total		3.6	J J	0.85	3.8
Surrogate		%Rec	Qualifier	Acceptance Limits	
1,2-Dichloroethane-d4 (Surr)		95		70 - 130	
Toluene-d8 (Surr)		94		70 - 130	
Bromofluorobenzene		95		70 - 130	

✓

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52406-1

Client Sample ID: B-504(13)18.5-19.5

Lab Sample ID: 460-52406-9

Date Sampled: 03/14/2013 1145

Client Matrix: Solid

% Moisture: 10.2

Date Received: 03/15/2013 0950

8260B Volatile Organic Compounds (GC/MS)

Analysis Method: 8260B	Analysis Batch: 460-152611	Instrument ID: VOAMS4
Prep Method: 5035	Prep Batch: 460-151439	Lab File ID: d30944.d
Dilution: 1.0		Initial Weight/Volume: 5.19 g
Analysis Date: 03/25/2013 1449		Final Weight/Volume: 5 mL
Prep Date: 03/16/2013 1657		

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Benzene		6.8		0.16	1.1
Toluene		0.34	J J	0.15	1.1
Ethylbenzene		1.1		0.18	1.1
Xylenes, Total		1.1	J J	0.72	3.2
Surrogate		%Rec	Qualifier	Acceptance Limits	
1,2-Dichloroethane-d4 (Surr)		88		70 - 130	
Toluene-d8 (Surr)		89		70 - 130	
Bromofluorobenzene		90		70 - 130	



Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52406-1

Client Sample ID: B-506(13)9.5-10

Lab Sample ID: 460-52406-10

Date Sampled: 03/14/2013 1330

Client Matrix: Solid

% Moisture: 10.5

Date Received: 03/15/2013 0950

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	460-152611	Instrument ID:	VOAMS4
Prep Method:	5035	Prep Batch:	460-151439	Lab File ID:	d30945.d
Dilution:	1.0			Initial Weight/Volume:	5.39 g
Analysis Date:	03/25/2013 1513			Final Weight/Volume:	5 mL
Prep Date:	03/16/2013 1659				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Benzene		12		0.16	1.0
Toluene		3.5		0.15	1.0
Ethylbenzene		32		0.18	1.0
Xylenes, Total		21		0.69	3.1

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	98		70 - 130
Toluene-d8 (Surr)	98		70 - 130
Bromofluorobenzene	99		70 - 130

✓

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52406-1

Client Sample ID: B-506(13)12-13

Lab Sample ID: 460-52406-11

Date Sampled: 03/14/2013 1340

Client Matrix: Solid

% Moisture: 21.3

Date Received: 03/15/2013 0950

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	460-152399	Instrument ID:	VOAMS2
Prep Method:	5035	Prep Batch:	460-151437	Lab File ID:	b53710.d
Dilution:	50			Initial Weight/Volume:	5.17 g
Analysis Date:	03/23/2013 0901			Final Weight/Volume:	10 mL
Prep Date:	03/16/2013 1630				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Benzene		370		10	120
Toluene		130		18	120
Ethylbenzene		2500		12	120
Xylenes, Total		2200		44	370

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	91		75 - 135
Toluene-d8 (Surr)	89		59 - 150
Bromofluorobenzene	95		72 - 133

✓

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52406-1

Client Sample ID: B-506(13)19.5-20

Lab Sample ID: 460-52406-12

Date Sampled: 03/14/2013 1355

Client Matrix: Solid

% Moisture: 10.0

Date Received: 03/15/2013 0950

8260B Volatile Organic Compounds (GC/MS)

Analysis Method: 8260B Analysis Batch: 460-152611 Instrument ID: VOAMS4
Prep Method: 5035 Prep Batch: 460-151439 Lab File ID: d30946.d
Dilution: 1.0 Initial Weight/Volume: 5.26 g
Analysis Date: 03/25/2013 1538 Final Weight/Volume: 5 mL
Prep Date: 03/16/2013 1702

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Benzene		0.75	J J	0.16	1.1
Toluene		0.39	J J	0.15	1.1
Ethylbenzene		0.25	J J	0.18	1.1
Xylenes, Total		3.2	U	0.71	3.2

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Sum)	89		70 - 130
Toluene-d8 (Sum)	91		70 - 130
Bromofluorobenzene	89		70 - 130

✓

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52406-1

Client Sample ID: B-507(13)9.5-10

Lab Sample ID: 460-52406-13

Date Sampled: 03/14/2013 1430

Client Matrix: Solid

% Moisture: 25.1

Date Received: 03/15/2013 0950

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	460-152611	Instrument ID:	VOAMS4
Prep Method:	5035	Prep Batch:	460-151439	Lab File ID:	d30947.d
Dilution:	1.0			Initial Weight/Volume:	5.77 g
Analysis Date:	03/25/2013 1602			Final Weight/Volume:	5 mL
Prep Date:	03/16/2013 1704				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Benzene		2.1		0.17	1.2
Toluene		1.3		0.16	1.2
Ethylbenzene		5.2		0.20	1.2
Xylenes, Total		2.7	J J	0.78	3.5

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	87		70 - 130
Toluene-d8 (Surr)	88		70 - 130
Bromofluorobenzene	86		70 - 130

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52406-1

Client Sample ID: B-507(13)14-15

Lab Sample ID: 460-52406-14

Date Sampled: 03/14/2013 1445

Client Matrix: Solid

% Moisture: 21.2

Date Received: 03/15/2013 0950

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	460-152611	Instrument ID:	VOAMS4
Prep Method:	5035	Prep Batch:	460-151439	Lab File ID:	d30948.d
Dilution:	1.0			Initial Weight/Volume:	5.34 g
Analysis Date:	03/25/2013 1626			Final Weight/Volume:	5 mL
Prep Date:	03/16/2013 1706				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Benzene		140		0.18	1.2
Toluene		110		0.17	1.2
Ethylbenzene		580		0.20	1.2
Xylenes, Total		1200		0.80	3.6

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	91		70 - 130
Toluene-d8 (Surr)	91		70 - 130
Bromofluorobenzene	93		70 - 130

✓

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52406-1

Client Sample ID: B-507(13)18.5-19

Lab Sample ID: 460-52406-15

Date Sampled: 03/14/2013 1505

Client Matrix: Solid

% Moisture: 18.0

Date Received: 03/15/2013 0950

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	460-152934	Instrument ID:	VOAMS4
Prep Method:	5035	Prep Batch:	460-151439	Lab File ID:	d31054.d
Dilution:	1.0			Initial Weight/Volume:	5.49 g
Analysis Date:	03/27/2013 1426			Final Weight/Volume:	5 mL
Prep Date:	03/16/2013 1709				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Benzene		0.78	J J	0.17	1.1
Toluene		1.1	U	0.16	1.1
Ethylbenzene		1.1	U	0.19	1.1
Xylenes, Total		3.3	U	0.74	3.3

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	105		70 - 130
Toluene-d8 (Surr)	93		70 - 130
Bromofluorobenzene	94		70 - 130

J

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52406-1

Client Sample ID: Trip Blank

Lab Sample ID: 460-52406-16TB

Date Sampled: 03/14/2013 0000

Client Matrix: Water

Date Received: 03/15/2013 0950

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	460-151807	Instrument ID:	VOAMS4
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	d30661.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	03/20/2013 0247			Final Weight/Volume:	5 mL
Prep Date:	03/20/2013 0247				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Benzene	1.0	U	0.080	1.0
Toluene	1.0	U	0.15	1.0
Ethylbenzene	1.0	U	0.10	1.0
Xylenes, Total	3.0	U <i>UI</i>	0.36	3.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	94		70 - 130
Bromofluorobenzene	92		70 - 130
Toluene-d8 (Surr)	92		70 - 130

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52406-1

Client Sample ID: B-502(13)9.5-10

Lab Sample ID: 460-52406-1

Date Sampled: 03/14/2013 0835

Client Matrix: Solid

% Moisture: 18.4

Date Received: 03/15/2013 0950

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method: 8270C	Analysis Batch: 460-152346	Instrument ID: BNAMS10
Prep Method: 3541	Prep Batch: 460-151672	Lab File ID: p35652.d
Dilution: 1.0		Initial Weight/Volume: 15.03 g
Analysis Date: 03/22/2013 0119		Final Weight/Volume: 1 mL
Prep Date: 03/19/2013 0801		Injection Volume: 1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Naphthalene	✓	390	J J	47	400
Acenaphthylene	✓	330	J J	48	400
Acenaphthene	✓	1100		59	400
Fluorene	✓	1300		52	400
Phenanthrene	✓	2100		52	400
Anthracene	✓	750		49	400
Fluoranthene	✓	1400		54	400
Pyrene	✓	1000		34	400
Benzo[a]anthracene	✓	520		2.8	40
Chrysene	✓	500		47	400
Benzo[b]fluoranthene	✓	410		2.6	40
Benzo[k]fluoranthene	✓	200		3.1	40
Benzo[a]pyrene	✓	420		2.9	40
Indeno[1,2,3-cd]pyrene	✓	200		7.5	40
Dibenz(a,h)anthracene		40	U	5.1	40
Benzo[g,h,i]perylene		170	J J	30	400
Surrogate					
Nitrobenzene-d5		68		38 - 105	
Terphenyl-d14		88		16 - 151	
2-Fluorobiphenyl		76		40 - 109	

EMM

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52406-1

Client Sample ID: B-502(13)11-12

Lab Sample ID: 460-52406-2

Date Sampled: 03/14/2013 0850

Client Matrix: Solid

% Moisture: 15.5

Date Received: 03/15/2013 0950

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method: 8270C	Analysis Batch: 460-152353	Instrument ID: BNAMS10
Prep Method: 3541	Prep Batch: 460-151672	Lab File ID: p35685.d
Dilution: 1.0		Initial Weight/Volume: 15.01 g
Analysis Date: 03/22/2013 1650		Final Weight/Volume: 1 mL
Prep Date: 03/19/2013 0801		Injection Volume: 1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Naphthalene	✓	650		45	390
Acenaphthylene	✓	590		46	390
Acenaphthene		530		57	390
Fluorene	✓	1400		50	390
Phenanthrene	✓	4800		50	390
Anthracene		2300		48	390
Fluoranthene	✓	6400		52	390
Pyrene	✓	4500		33	390
Benzo[a]anthracene	✓	4000		2.7	39
Chrysene		3800		46	390
Benzo[b]fluoranthene	✓	3700		2.5	39
Benzo[k]fluoranthene	✓	1500		3.0	39
Benzo[a]pyrene	✓	3700		2.8	39
Indeno[1,2,3-cd]pyrene	✓	1900		7.3	39
Dibenz(a,h)anthracene		550		4.9	39
Benzo[g,h,i]perylene	✓	1700		29	390

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5	60		38 - 105
Terphenyl-d14	73		16 - 151
2-Fluorobiphenyl	77		40 - 109

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52406-1

Client Sample ID: B-502(13)19-20

Lab Sample ID: 460-52406-3

Date Sampled: 03/14/2013 0910

Client Matrix: Solid

% Moisture: 11.2

Date Received: 03/15/2013 0950

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method: 8270C	Analysis Batch: 460-152346	Instrument ID: BNAMS10
Prep Method: 3541	Prep Batch: 460-151672	Lab File ID: p35647.d
Dilution: 1.0		Initial Weight/Volume: 15.01 g
Analysis Date: 03/21/2013 2312		Final Weight/Volume: 1 mL
Prep Date: 03/19/2013 0801		Injection Volume: 1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Naphthalene		370	U	43	370
Acenaphthylene		370	U	44	370
Acenaphthene		370	U	54	370
Fluorene		370	U	48	370
Phenanthrene		56	J J	47	370
Anthracene		370	U	45	370
Fluoranthene		370	U	50	370
Pyrene		31	J J	31	370
Benzo[a]anthracene		37	U	2.6	37
Chrysene		370	U	43	370
Benzo[b]fluoranthene		37	U	2.4	37
Benzo[k]fluoranthene		37	U	2.8	37
Benzo[a]pyrene		37	U	2.6	37
Indeno[1,2,3-cd]pyrene		37	U	6.9	37
Dibenz(a,h)anthracene		37	U	4.7	37
Benzo[g,h,i]perylene		370	U	28	370

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5	67		38 - 105
Terphenyl-d14	86		16 - 151
2-Fluorobiphenyl	75		40 - 109

✓

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52406-1

Client Sample ID: B-503(13)8-9

Lab Sample ID: 460-52406-4

Date Sampled: 03/14/2013 0950

Client Matrix: Solid

% Moisture: 17.5

Date Received: 03/15/2013 0950

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method: 8270C	Analysis Batch: 460-152660	Instrument ID: BNAMS10
Prep Method: 3541	Prep Batch: 460-151672	Lab File ID: p35785.d
Dilution: 5.0		Initial Weight/Volume: 15.00 g
Analysis Date: 03/25/2013 1332		Final Weight/Volume: 1 mL
Prep Date: 03/19/2013 0801		Injection Volume: 1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Naphthalene		940	J J	230	2000
Acenaphthylene		2400		240	2000
Acenaphthene		2100		290	2000
Fluorene		6500		260	2000
Phenanthrene		20000		260	2000
Anthracene		7400		240	2000
Fluoranthene		12000		270	2000
Pyrene		11000		170	2000
Benzo[a]anthracene		9000		14	200
Chrysene		8100		230	2000
Benzo[b]fluoranthene		5500		13	200
Benzo[k]fluoranthene		2900		15	200
Benzo[a]pyrene		6200		14	200
Indeno[1,2,3-cd]pyrene		3200		37	200
Dibenz(a,h)anthracene		1400		25	200
Benzo[g,h,i]perylene		3000		150	2000

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5	59		38 - 105
Terphenyl-d14	86		16 - 151
2-Fluorobiphenyl	80		40 - 109

✓

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52406-1

Client Sample ID: B-503(13)14.5-15

Lab Sample ID: 460-52406-5

Date Sampled: 03/14/2013 1010

Client Matrix: Solid

% Moisture: 15.8

Date Received: 03/15/2013 0950

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-152346	Instrument ID:	BNAMS10
Prep Method:	3541	Prep Batch:	460-151672	Lab File ID:	p35648.d
Dilution:	1.0			Initial Weight/Volume:	15.02 g
Analysis Date:	03/21/2013 2338			Final Weight/Volume:	1 mL
Prep Date:	03/19/2013 0801			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Naphthalene		390	U	45	390
Acenaphthylene		390	U	46	390
Acenaphthene		390	U	57	390
Fluorene		390	U	50	390
Phenanthrene		390	U	50	390
Anthracene		390	U	48	390
Fluoranthene		390	U	52	390
Pyrene		390	U	33	390
Benzo[a]anthracene		39	U	2.7	39
Chrysene		390	U	46	390
Benzo[b]fluoranthene		39	U	2.5	39
Benzo[k]fluoranthene		39	U	3.0	39
Benzo[a]pyrene		39	U	2.8	39
Indeno[1,2,3-cd]pyrene		39	U	7.3	39
Dibenz(a,h)anthracene		39	U	4.9	39
Benzo[g,h,i]perylene		390	U	29	390
Surrogate		%Rec	Qualifier	Acceptance Limits	
Nitrobenzene-d5		66		38 - 105	
Terphenyl-d14		90		16 - 151	
2-Fluorobiphenyl		72		40 - 109	

J

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52406-1

Client Sample ID: B-503(13)18-19

Lab Sample ID: 460-52406-6

Date Sampled: 03/14/2013 1020

Client Matrix: Solid

% Moisture: 10.1

Date Received: 03/15/2013 0950

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-152346	Instrument ID:	BNAMS10
Prep Method:	3541	Prep Batch:	460-151672	Lab File ID:	p35649.d
Dilution:	1.0			Initial Weight/Volume:	15.05 g
Analysis Date:	03/22/2013 0003			Final Weight/Volume:	1 mL
Prep Date:	03/19/2013 0801			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Naphthalene		370	U	42	370
Acenaphthylene		370	U	43	370
Acenaphthene		370	U	53	370
Fluorene		370	U	47	370
Phenanthrene		370	U	47	370
Anthracene		370	U	45	370
Fluoranthene		370	U	49	370
Pyrene		370	U	31	370
Benzo[a]anthracene		37	U	2.6	37
Chrysene		370	U	43	370
Benzo[b]fluoranthene		37	U	2.3	37
Benzo[k]fluoranthene		37	U	2.8	37
Benzo[a]pyrene		37	U	2.6	37
Indeno[1,2,3-cd]pyrene		37	U	6.8	37
Dibenz(a,h)anthracene		37	U	4.6	37
Benzo[g,h,i]perylene		370	U	27	370

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5	71		38 - 105
Terphenyl-d14	91		16 - 151
2-Fluorobiphenyl	76		40 - 109

✓

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52406-1

Client Sample ID: B-504(13)8-8

Lab Sample ID: 460-52406-7

Date Sampled: 03/14/2013 1105

Client Matrix: Solid

% Moisture: 23.3

Date Received: 03/15/2013 0950

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method: 8270C	Analysis Batch: 460-152346	Instrument ID: BNAMS10
Prep Method: 3541	Prep Batch: 460-151672	Lab File ID: p35654.d
Dilution: 1.0		Initial Weight/Volume: 15.00 g
Analysis Date: 03/22/2013 0210		Final Weight/Volume: 1 mL
Prep Date: 03/19/2013 0801		Injection Volume: 1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Naphthalene		130	J J	50	430
Acenaphthylene		55	J J	51	430
Acenaphthene		350	J J	63	430
Fluorene		280	J J	55	430
Phenanthrene		270	J J	55	430
Anthracene		120	J J	52	430
Fluoranthene		620		57	430
Pyrene		590		36	430
Benzo[a]anthracene		470		3.0	43
Chrysene		460		50	430
Benzo[b]fluoranthene		450		2.7	43
Benzo[k]fluoranthene		210		3.3	43
Benzo[a]pyrene		400		3.1	43
Indeno[1,2,3-cd]pyrene		170		8.0	43
Dibenz(a,h)anthracene		53		5.4	43
Benzo[g,h,i]perylene		180	J J	32	430

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5	56		38 - 105
Terphenyl-d14	91		16 - 151
2-Fluorobiphenyl	69		40 - 109

✓

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52406-1

Client Sample ID: B-504(13)11.5-12

Lab Sample ID: 460-52406-8

Date Sampled: 03/14/2013 1130

Client Matrix: Solid

% Moisture: 26.5

Date Received: 03/15/2013 0950

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-152346	Instrument ID:	BNAMS10
Prep Method:	3541	Prep Batch:	460-151672	Lab File ID:	p35650.d
Dilution:	1.0			Initial Weight/Volume:	15.00 g
Analysis Date:	03/22/2013 0029			Final Weight/Volume:	1 mL
Prep Date:	03/19/2013 0801			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Naphthalene		1400		52	450
Acenaphthylene		620		53	450
Acenaphthene		230	J J	66	450
Fluorene		110	J J	58	450
Phenanthrene		450	U	57	450
Anthracene		450	U	55	450
Fluoranthene		450	U	60	450
Pyrene		450	U	38	450
Benzo[a]anthracene		45	U	3.1	45
Chrysene		450	U	53	450
Benzo[b]fluoranthene		45	U	2.8	45
Benzo[k]fluoranthene		45	U	3.4	45
Benzo[a]pyrene		45	U	3.2	45
Indeno[1,2,3-cd]pyrene		45	U	8.4	45
Dibenz(a,h)anthracene		45	U	5.7	45
Benzo[g,h,i]perylene		450	U	33	450
<hr/>					
Surrogate		%Rec	Qualifier	Acceptance Limits	
Nitrobenzene-d5		68		38 - 105	
Terphenyl-d14		87		16 - 151	
2-Fluorobiphenyl		74		40 - 109	

✓

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52406-1

Client Sample ID: B-504(13)18.5-19.5

Lab Sample ID: 460-52406-9

Date Sampled: 03/14/2013 1145

Client Matrix: Solid

% Moisture: 10.2

Date Received: 03/15/2013 0950

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-152346	Instrument ID:	BNAMS10
Prep Method:	3541	Prep Batch:	460-151672	Lab File ID:	p35651.d
Dilution:	1.0			Initial Weight/Volume:	15.04 g
Analysis Date:	03/22/2013 0054			Final Weight/Volume:	1 mL
Prep Date:	03/19/2013 0801			Injection Volume:	1 uL

Analyte	DryWT Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Naphthalene		380		43	370
Acenaphthylene		370	U	43	370
Acenaphthene		130	J J	54	370
Fluorene		760		47	370
Phenanthrene		630		47	370
Anthracene		340	J J	45	370
Fluoranthene		140	J J J	49	370
Pyrene		98	J J	31	370
Benzo[a]anthracene		37	U	2.6	37
Chrysene		370	U	43	370
Benzo[b]fluoranthene		37	U	2.3	37
Benzo[k]fluoranthene		37	U	2.8	37
Benzo[a]pyrene		37	U	2.6	37
Indeno[1,2,3-cd]pyrene		37	U	6.8	37
Dibenz(a,h)anthracene		37	U	4.6	37
Benzo[g,h,i]perylene		370	U	27	370
<hr/>					
Surrogate		%Rec	Qualifier	Acceptance Limits	
Nitrobenzene-d5		57		38 - 105	
Terphenyl-d14		86		16 - 151	
2-Fluorobiphenyl		69		40 - 109	

J

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52406-1

Client Sample ID: B-506(13)9.5-10

Lab Sample ID: 460-52406-10

Date Sampled: 03/14/2013 1330

Client Matrix: Solid

% Moisture: 10.5

Date Received: 03/15/2013 0950

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-152660	Instrument ID:	BNAMS10
Prep Method:	3541	Prep Batch:	460-151672	Lab File ID:	p35786.d
Dilution:	50			Initial Weight/Volume:	15.01 g
Analysis Date:	03/25/2013 1357	Run Type:	DL	Final Weight/Volume:	1 mL
Prep Date:	03/19/2013 0801			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Naphthalene		18000	U	2100	18000
Acenaphthylene		33000		2200	18000
Acenaphthene		15000	J J	2700	18000
Fluorene		46000		2400	18000
Phenanthrene		280000		2400	18000
Anthracene		140000		2200	18000
Fluoranthene		220000		2500	18000
Pyrene		180000		1500	18000
Benzo[a]anthracene		88000		130	1800
Chrysene		110000		2200	18000
Benzo[b]fluoranthene		77000		120	1800
Benzo[k]fluoranthene		38000		140	1800
Benzo[a]pyrene		89000		130	1800
Indeno[1,2,3-cd]pyrene		63000		340	1800
Dibenz(a,h)anthracene		17000		230	1800
Benzo[g,h,i]perylene		67000		1400	18000

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5	0	D	38 - 105
Terphenyl-d14	0	D	16 - 151
2-Fluorobiphenyl	0	D	40 - 109

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52406-1

Client Sample ID: B-506(13)12-13

Lab Sample ID: 460-52406-11

Date Sampled: 03/14/2013 1340

Client Matrix: Solid

% Moisture: 21.3

Date Received: 03/15/2013 0950

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-152530	Instrument ID:	BNAMS10
Prep Method:	3541	Prep Batch:	460-151672	Lab File ID:	p35701.d
Dilution:	1.0			Initial Weight/Volume:	15.03 g
Analysis Date:	03/23/2013 1546			Final Weight/Volume:	1 mL
Prep Date:	03/19/2013 0801			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Naphthalene		1500		49	420
Acenaphthylene		420	U	50	420
Acenaphthene		420	U	61	420
Fluorene		55	J J	54	420
Phenanthrene		360	J J	53	420
Anthracene		210	J J	51	420
Fluoranthene		400	J J	56	420
Pyrene		350	J J	35	420
Benzo[a]anthracene		150		2.9	42
Chrysene		170	J J	49	420
Benzo[b]fluoranthene		140		2.7	42
Benzo[k]fluoranthene		57		3.2	42
Benzo[a]pyrene		140		3.0	42
Indeno[1,2,3-cd]pyrene		63		7.8	42
Dibenz(a,h)anthracene		19	J J	5.3	42
Benzo[g,h,i]perylene		62	J J	31	420
Surrogate		%Rec	Qualifier	Acceptance Limits	
Nitrobenzene-d5		57		38 - 105	
Terphenyl-d14		85		16 - 151	
2-Fluorobiphenyl		63		40 - 109	

J

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52406-1

Client Sample ID: B-506(13)19.5-20

Lab Sample ID: 460-52406-12

Date Sampled: 03/14/2013 1355

Client Matrix: Solid

% Moisture: 10.0

Date Received: 03/15/2013 0950

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-152530	Instrument ID:	BNAMS10
Prep Method:	3541	Prep Batch:	460-151672	Lab File ID:	p35702.d
Dilution:	1.0			Initial Weight/Volume:	15.02 g
Analysis Date:	03/23/2013 1611			Final Weight/Volume:	1 mL
Prep Date:	03/19/2013 0801			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Naphthalene		61	J J	42	370
Acenaphthylene		370	U	43	370
Acenaphthene		160	J J	53	370
Fluorene		370	U	47	370
Phenanthrene		98	J J	47	370
Anthracene		47	J J	45	370
Fluoranthene		87	J J	49	370
Pyrene		71	J J	31	370
Benzo[a]anthracene		37		2.6	37
Chrysene		370	U	43	370
Benzo[b]fluoranthene		28	J J	2.3	37
Benzo[k]fluoranthene		13	J J	2.8	37
Benzo[a]pyrene		30	J J	2.6	37
Indeno[1,2,3-cd]pyrene		15	J J	6.8	37
Dibenz(a,h)anthracene		37	U	4.6	37
Benzo[g,h,i]perylene		370	U	27	370
Surrogate		%Rec	Qualifier	Acceptance Limits	
Nitrobenzene-d5		53		38 - 105	
Terphenyl-d14		74		16 - 151	
2-Fluorobiphenyl		60		40 - 109	

✓

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52406-1

Client Sample ID: B-507(13)9.6-10

Lab Sample ID: 460-52406-13

Date Sampled: 03/14/2013 1430

Client Matrix: Solid

% Moisture: 25.1

Date Received: 03/15/2013 0950

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-152530	Instrument ID:	BNAMS10
Prep Method:	3541	Prep Batch:	460-151672	Lab File ID:	p35699.d
Dilution:	1.0			Initial Weight/Volume:	15.00 g
Analysis Date:	03/23/2013 1440			Final Weight/Volume:	1 mL
Prep Date:	03/19/2013 0801			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Naphthalene		490		51	440
Acenaphthylene		440	U	52	440
Acenaphthene		440	U	64	440
Fluorene		440	U	56	440
Phenanthrene		440	U	56	440
Anthracene		440	U	54	440
Fluoranthene		440	U	59	440
Pyrene		440	U	37	440
Benzo[a]anthracene		44	U	3.1	44
Chrysene		440	U	52	440
Benzo[b]fluoranthene		44	U	2.8	44
Benzo[k]fluoranthene		44	U	3.4	44
Benzo[a]pyrene		44	U	3.1	44
Indeno[1,2,3-cd]pyrene		44	U	8.2	44
Dibenz[a,h]anthracene		44	U	5.6	44
Benzo[g,h,i]perylene		440	U	33	440

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5	62		38 - 105
Terphenyl-d14	83		16 - 151
2-Fluorobiphenyl	63		40 - 109

/

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52406-1

Client Sample ID: B-507(13)14-15

Lab Sample ID: 460-52406-14

Date Sampled: 03/14/2013 1445

Client Matrix: Solid

% Moisture: 21.2

Date Received: 03/15/2013 0950

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-152530	Instrument ID:	BNAMS10
Prep Method:	3541	Prep Batch:	460-151672	Lab File ID:	p35718.d
Dilution:	1.0			Initial Weight/Volume:	15.00 g
Analysis Date:	03/23/2013 2256			Final Weight/Volume:	1 mL
Prep Date:	03/19/2013 0801			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Naphthalene		3100		49	420
Acenaphthylene		1400		50	420
Acenaphthene		1100		61	420
Fluorene		2400		54	420
Phenanthrene		8400		53	420
Anthracene		3000		51	420
Fluoranthene		8800		56	420
Pyrene		6300		35	420
Benzo[a]anthracene		3400		2.9	42
Chrysene		2700		49	420
Benzo[b]fluoranthene		3100		2.7	42
Benzo[k]fluoranthene		1200		3.2	42
Benzo[a]pyrene		3400		3.0	42
Indeno[1,2,3-cd]pyrene		1900		7.8	42
Dibenz(a,h)anthracene		440		5.3	42
Benzo[g,h,i]perylene		1800		31	420

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5	59		38 - 105
Terphenyl-d14	76		16 - 151
2-Fluorobiphenyl	74		40 - 109

✓

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52406-1

Client Sample ID: B-607(13)18.5-19

Lab Sample ID: 460-52406-15

Date Sampled: 03/14/2013 1505

Client Matrix: Solid

% Moisture: 18.0

Date Received: 03/15/2013 0950

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method: 8270C	Analysis Batch: 460-152530	Instrument ID: BNAMS10
Prep Method: 3541	Prep Batch: 460-151672	Lab File ID: p35700.d
Dilution: 1.0		Initial Weight/Volume: 15.05 g
Analysis Date: 03/23/2013 1506		Final Weight/Volume: 1 mL
Prep Date: 03/19/2013 0801		Injection Volume: 1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Naphthalene		260	J J	47	400
Acenaphthylene		400	U	48	400
Acenaphthene		400	U	59	400
Fluorene		400	U	51	400
Phenanthrene		400	U	51	400
Anthracene		400	U	49	400
Fluoranthene		400	U	54	400
Pyrene		400	U	34	400
Benzo[a]anthracene		40	U	2.8	40
Chrysene		400	U	47	400
Benzo[b]fluoranthene		40	U	2.5	40
Benzo[k]fluoranthene		40	U	3.1	40
Benzo[a]pyrene		40	U	2.8	40
Indeno[1,2,3-cd]pyrene		40	U	7.5	40
Dibenz[a,h]anthracene		40	U	5.1	40
Benzo[g,h,i]perylene		400	U	30	400
Surrogate		%Rec	Qualifier	Acceptance Limits	
Nitrobenzene-d5		59		38 - 105	
Terphenyl-d14		79		16 - 151	
2-Fluorobiphenyl		65		40 - 109	



dblichar2@geiconsultants.com

Name (for report and invoice) <i>Jerry Zak jzak@geiconsultants.com</i>		Samplers Name (Printed) <i>Drew Blichar / Nick Manning</i>		Site/Project Identification <i>Troy Liberty Street PDI</i>		
Company <i>GEI Consultants, Inc.</i>		P. O. # <i>5983</i>		State (Location of site): NJ: <input type="checkbox"/> NY: <input checked="" type="checkbox"/> Other:		
Address <i>455 Winding Brook Drive</i>		Analysis Turnaround Time Standard <input checked="" type="checkbox"/>		ANALYSIS REQUESTED (ENTER 'X' BELOW TO INDICATE REQUEST) <i>BTEX 8260 PAH 8270</i>		
City <i>Glastonbury</i> State <i>CT</i>		Rush Charges Authorized For: 2 Week <input type="checkbox"/> 1 Week <input type="checkbox"/> Other <input type="checkbox"/>				
Phone <i>(860) 368-5404</i>		Fax		LAB USE ONLY Project No:		
Sample Identification		Date	Time	Matrix	No. of Cont.	Job No: <i>52406</i>
<i>B-502(13) 9.5-10</i>		<i>3/14/13</i>	<i>835</i>	<i>SO</i>	<i>2</i>	<i>-1</i>
<i>B-502(13) 11-12</i>			<i>850</i>			<i>-2</i>
<i>B-502(13) 19-20</i>			<i>910</i>			<i>-3</i>
<i>B-503(13) 8-9</i>			<i>950</i>			<i>-4</i>
<i>B-503(13) 14.5-15</i>			<i>1010</i>			<i>-5</i>
<i>B-503(13) 18-19</i>			<i>1020</i>			<i>-6</i>
<i>B-504(13) 6-8</i>			<i>1105</i>			<i>-7</i>
<i>B-504(13) 11.5-12</i>			<i>1130</i>			<i>-8</i>
<i>B-504(13) 18.5-19.5</i>			<i>1145</i>			<i>-9</i>
<i>B-506(13) 9.5-10</i>		<i>↓</i>	<i>1330</i>	<i>↓</i>	<i>↓</i>	<i>-10</i>
Preservation Used: 1 = ICE, 2 = HCl, 3 = H ₂ SO ₄ , 4 = HNO ₃ , 5 = NaOH				Soil: <i>1 1</i>		
6 = Other _____, 7 = Other _____				Water:		

Special Instructions

Water Metals Filtered (Yes/No)? _____

Relinquished by <i>Drew Blichar</i>	Company <i>GEI</i>	Date / Time <i>3/14/13 16:15</i>	Received by <i>1) TCH</i>	Company <i>TA</i>
Relinquished by <i>2) Tim Kroll</i>	Company <i>TA</i>	Date / Time <i>3-14-13 1800</i>	Received by <i>2) FedEx</i>	Company
Relinquished by <i>3) FedEx</i>	Company	Date / Time <i>3/5/13 19:50</i>	Received by <i>3) C L</i>	Company <i>TA</i>
Relinquished by <i>4)</i>	Company	Date / Time	Received by <i>4)</i>	Company

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132).

TAL - 0016 (0408)

Massachusetts (M-NJ312), North Carolina (No. 578)

TestAmerica Westfield

Westfield Executive Park 53 Southampton Road
Westfield, MA 01085
Phone (413) 572-4000 Fax (413) 572-3707

Boston Service Center

240 Bear Hill Rd. Suite 104
Waltham, MA 02451
Phone (781) 466-6900 Fax (781) 466-6901

Chain of Custody Record

Client Information		Sampler: <u>Drew Richter / Nick Moran</u>		Lab PM: <u>Hess, Melissa</u>		Carrier Tracking No(s):		COC No:		03/29/2013
Client Contact: <u>Mr. Drew Richter / Terry Zick</u>		Phone: <u>(978) 368-5101</u>		E-Mail: <u>melissa.hess@testamericainc.com</u>				Page: <u>2/2</u>		
Company: <u>G&I Consultants Inc.</u>		Due Date Requested:		Analysis Requested		Total Number of Containers		Preservation Codes: A - HCL J - DI Water B - NaOH M - Hexane C - Zn Acetate N - None D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2SO3 H - Ascorbic Acid S - H2SO4 I - Ice Z - other (specify)		PAGE 1027 OF 1029
Address: <u>455 Winding Brook Drive, Suite 201</u>		TAT Requested (days):								
City: <u>Glastonbury</u>		STANDARD								
State, Zip: <u>CT 06033</u>		Quote #:								
Phone: <u>(617) 549-4950</u>		PO #: <u>S983</u>								
Email: <u>DRichter@geiconsultants.com</u>		WO #:		BTEX 8260 PAH 8270		DEG 8270		Regulatory programs: MCP <input type="checkbox"/> GW1/S1 <input type="checkbox"/> RCP <input type="checkbox"/> CT RSR <input type="checkbox"/> DEP Form <input type="checkbox"/> EDD Required <input type="checkbox"/>		
Project Name/Number: <u>Trig Liberty Street Former Map PDI</u>		SSOW#:								
Sample Identification		Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=soil, A=air)			Special Instructions/Notes		
<u>B-506(13) 12-13</u>		<u>3/14/13</u>	<u>1340</u>	<u>G</u>	<u>S</u>	XXXX		-11		
<u>B-506(13) 19.5-20</u>			<u>1355</u>			XXXX		-12		
<u>B-507(13) 9.5-10</u>			<u>1430</u>			XXXX		-13		
<u>B-507(13) 14-15</u>			<u>1445</u>			XXXX		-14		
<u>B-502(13) 18.5-19</u>			<u>1505</u>			XXXX		-15		
						XXXX		-16		
						XXXX		-17		
						XXXX		-18		
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						XXXX		-98		
						XXXX		-99		
						XXXX		-100		

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Relinquished by: <u>Dw Blinn</u>	Date/Time: <u>3/14/13 1615</u>	Company: <u>TA</u>	Received by: <u>Terry Kuhn</u>	Date/Time: <u>3-14-13 1615</u>	Company: <u>TA</u>
Relinquished by: <u>Terry Kuhn</u>	Date/Time: <u>3-14-13 1800</u>	Company: <u>TA</u>	Received by: <u>Pedro</u>	Date/Time:	Company:
Relinquished by: <u>FedEx</u>	Date/Time:	Company:	Received by: <u>CC</u>	Date/Time: <u>3/15/13 9:50</u>	Company: <u>TA</u>

Cooler Temperature(s) °C and Other Remarks: 2/31 224

Custody Seals Intact: Yes No Custody Seal No.: 7101966

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52487-1

Client Sample ID: B-508 (13) 9.5-10

Lab Sample ID: 460-52487-1

Date Sampled: 03/15/2013 0830

Client Matrix: Solid

% Moisture: 15.0

Date Received: 03/18/2013 0900

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	460-152866	Instrument ID:	VOAMS4
Prep Method:	5035	Prep Batch:	460-151776	Lab File ID:	d31012.d
Dilution:	1.0			Initial Weight/Volume:	5.33 g
Analysis Date:	03/26/2013 2121			Final Weight/Volume:	5 mL
Prep Date:	03/19/2013 1917				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Benzene		0.45	J	0.17	1.1
Toluene		0.37	J	0.15	1.1
Ethylbenzene		1.1	U J	0.19	1.1
Xylenes, Total		3.3	U J	0.74	3.3
Surrogate					
		%Rec	Qualifier	Acceptance Limits	
1,2-Dichloroethane-d4 (Surr)		91		70 - 130	
Toluene-d8 (Surr)		84		70 - 130	
Bromofluorobenzene		85		70 - 130	

dam
4/19/13

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52487-1

Client Sample ID: B-508 (13) 12.5-15

Lab Sample ID: 460-52487-2

Date Sampled: 03/15/2013 0835

Client Matrix: Solid

% Moisture: 13.3

Date Received: 03/18/2013 0900

8260B Volatile Organic Compounds (GC/MS)

Analysis Method: 8260B

Analysis Batch: 460-152866

Instrument ID: VOAMS4

Prep Method: 5035

Prep Batch: 460-151776

Lab File ID: d31013.d

Dilution: 1.0

Initial Weight/Volume: 5.14 g

Analysis Date: 03/26/2013 2144

Final Weight/Volume: 5 mL

Prep Date: 03/19/2013 1918

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Benzene		28	J	0.17	1.1
Toluene		4.3	J	0.16	1.1
Ethylbenzene		12	J	0.19	1.1
Xylenes, Total		11	J	0.75	3.4
Surrogate					
		%Rec	Qualifier	Acceptance Limits	
1,2-Dichloroethane-d4 (Surr)		93		70 - 130	
Toluene-d8 (Surr)		86		70 - 130	
Bromofluorobenzene		89		70 - 130	

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52487-1

Client Sample ID: B-508 (13) 19.5-20

Lab Sample ID: 460-52487-3

Client Matrix: Solid

% Moisture: 13.9

Date Sampled: 03/15/2013 0845

Date Received: 03/18/2013 0900

8260B Volatile Organic Compounds (GC/MS)

Analysis Method: 8260B
 Prep Method: 5035
 Dilution: 1.0
 Analysis Date: 03/27/2013 1015
 Prep Date: 03/19/2013 1921

Analysis Batch: 460-152934
 Prep Batch: 460-151776

Instrument ID: VOAMS4
 Lab File ID: d31043.d
 Initial Weight/Volume: 5.36 g
 Final Weight/Volume: 5 mL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Benzene		0.72	J	0.16	1.1
Toluene		1.0	J	0.15	1.1
Ethylbenzene		37	J	0.18	1.1
Xylenes, Total		65	J	0.73	3.3
Surrogate					
		%Rec	Qualifier	Acceptance Limits	
1,2-Dichloroethane-d4 (Surr)		89		70 - 130	
Toluene-d8 (Surr)		85		70 - 130	
Bromofluorobenzene		84		70 - 130	

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52487-1

Client Sample ID: B-509 (13) 9-10

Lab Sample ID: 460-52487-4

Client Matrix: Solid

% Moisture: 19.7

Date Sampled: 03/15/2013 0920

Date Received: 03/18/2013 0900

8260B Volatile Organic Compounds (GC/MS)

Analysis Method: 8260B

Prep Method: 5035

Dilution: 1.0

Analysis Date: 03/27/2013 0952

Prep Date: 03/19/2013 1923

Analysis Batch: 460-152934

Prep Batch: 460-151776

Instrument ID: VOAMS4

Lab File ID: d31042.d

Initial Weight/Volume: 5.03 g

Final Weight/Volume: 5 mL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Benzene		0.62	J	0.19	1.2
Toluene		0.37	J	0.17	1.2
Ethylbenzene		1.2	UJ	0.21	1.2
Xylenes, Total		3.7	UJ	0.83	3.7
Surrogate		%Rec	Qualifier	Acceptance Limits	
1,2-Dichloroethane-d4 (Surr)		97		70 - 130	
Toluene-d8 (Surr)		87		70 - 130	
Bromofluorobenzene		93		70 - 130	

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52487-1

Client Sample ID: B-509 (13) 11-14

Lab Sample ID: 460-52487-5

Client Matrix: Solid

% Moisture: 15.6

Date Sampled: 03/15/2013 0935

Date Received: 03/18/2013 0900

8260B Volatile Organic Compounds (GC/MS)

Analysis Method: 8260B

Prep Method: 5035

Dilution: 1.0

Analysis Date: 03/26/2013 2253

Prep Date: 03/19/2013 1924

Analysis Batch: 460-152866

Prep Batch: 460-151776

Instrument ID: VOAMS4

Lab File ID: d31016.d

Initial Weight/Volume: 5.13 g

Final Weight/Volume: 5 mL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Benzene		19	J	0.17	1.2
Toluene		4.4	J /	0.16	1.2
Ethylbenzene		4.8	J	0.20	1.2
Xylenes, Total		45	J	0.77	3.5
Surrogate		%Rec	Qualifier	Acceptance Limits	
1,2-Dichloroethane-d4 (Surr)		94		70 - 130	
Toluene-d8 (Surr)		99		70 - 130	
Bromofluorobenzene		90		70 - 130	

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52487-1

Client Sample ID: B-509 (13) 16.5-17.5

Lab Sample ID: 460-52487-6

Client Matrix: Solid

% Moisture: 18.8

Date Sampled: 03/15/2013 0955

Date Received: 03/18/2013 0900

8260B Volatile Organic Compounds (GC/MS)

Analysis Method: 8260B

Prep Method: 5035

Dilution: 1.0

Analysis Date: 03/27/2013 0110

Prep Date: 03/19/2013 1925

Analysis Batch: 460-152866

Prep Batch: 460-151776

Instrument ID: VOAMS4

Lab File ID: d31022.d

Initial Weight/Volume: 5.74 g

Final Weight/Volume: 5 mL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Benzene		1.1	U J	0.16	1.1
Toluene		1.1	U ↓	0.15	1.1
Ethylbenzene		1.1	U ↓	0.18	1.1
Xylenes, Total		3.2	U J	0.72	3.2
Surrogate					
		%Rec	Qualifier	Acceptance Limits	
1,2-Dichloroethane-d4 (Surr)		87		70 - 130	
Toluene-d8 (Surr)		79		70 - 130	
Bromofluorobenzene		79		70 - 130	

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52487-1

Client Sample ID: B-510 (13) 5-10

Lab Sample ID: 460-52487-7

Date Sampled: 03/15/2013 1050

Client Matrix: Solid

% Moisture: 14.7

Date Received: 03/18/2013 0900

8260B Volatile Organic Compounds (GC/MS)

Analysis Method: 8260B
 Prep Method: 5035
 Dilution: 1.0
 Analysis Date: 03/27/2013 0133
 Prep Date: 03/19/2013 1927

Analysis Batch: 460-152866
 Prep Batch: 460-151776

Instrument ID: VOAMS4
 Lab File ID: d31023.d
 Initial Weight/Volume: 5.27 g
 Final Weight/Volume: 5 mL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Benzene		2.3	J	0.17	1.1
Toluene		0.60	J	0.16	1.1
Ethylbenzene		1.1	UJ	0.19	1.1
Xylenes, Total		3.3	UJ	0.75	3.3
Surrogate		%Rec	Qualifier	Acceptance Limits	
1,2-Dichloroethane-d4 (Surr)		93		70 - 130	
Toluene-d8 (Surr)		81		70 - 130	
Bromofluorobenzene		82		70 - 130	

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52487-1

Client Sample ID: B-510 (13) 15-20

Lab Sample ID: 460-52487-8

Client Matrix: Solid

% Moisture: 16.3

Date Sampled: 03/15/2013 1115

Date Received: 03/18/2013 0900

8260B Volatile Organic Compounds (GC/MS)

Analysis Method: 8260B

Prep Method: 5035

Dilution: 1.0

Analysis Date: 03/27/2013 0929

Prep Date: 03/19/2013 1929

Analysis Batch: 460-152934

Prep Batch: 460-151776

Instrument ID: VOAMS4

Lab File ID: d31041.d

Initial Weight/Volume: 5.79 g

Final Weight/Volume: 5 mL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Benzene		1.0	UJ	0.15	1.0
Toluene		0.20	J ✓	0.14	1.0
Ethylbenzene		1.0	UJ	0.18	1.0
Xylenes, Total		3.1	UJ	0.69	3.1
Surrogate					
		%Rec	Qualifier	Acceptance Limits	
1,2-Dichloroethane-d4 (Surr)		92		70 - 130	
Toluene-d8 (Surr)		89		70 - 130	
Bromofluorobenzene		84		70 - 130	

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52487-1

Client Sample ID: B-510 (13) 11-12

Lab Sample ID: 460-52487-9

Client Matrix: Solid

% Moisture: 20.5

Date Sampled: 03/15/2013 1100

Date Received: 03/18/2013 0900

8260B Volatile Organic Compounds (GC/MS)

Analysis Method: 8260B
 Prep Method: 5035
 Dilution: 1.0
 Analysis Date: 03/27/2013 0156
 Prep Date: 03/19/2013 1931

Analysis Batch: 460-152866
 Prep Batch: 460-151776
 Instrument ID: VOAMS4
 Lab File ID: d31024.d
 Initial Weight/Volume: 5.15 g
 Final Weight/Volume: 5 mL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Benzene		2.7	J	0.18	1.2
Toluene		1.9	J	0.17	1.2
Ethylbenzene		1.3	J	0.21	1.2
Xylenes, Total		1.4	J	0.82	3.7
Surrogate					
		%Rec	Qualifier	Acceptance Limits	
1,2-Dichloroethane-d4 (Surr)		98		70 - 130	
Toluene-d8 (Surr)		92		70 - 130	
Bromofluorobenzene		93		70 - 130	

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52487-1

Client Sample ID: B-511 (13) 5-7.5

Lab Sample ID: 460-52487-10

Client Matrix: Solid

% Moisture: 11.5

Date Sampled: 03/15/2013 1235

Date Received: 03/18/2013 0900

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	460-152866	Instrument ID:	VOAMS4
Prep Method:	5035	Prep Batch:	460-151776	Lab File ID:	d31025.d
Dilution:	1.0			Initial Weight/Volume:	5.00 g
Analysis Date:	03/27/2013 0218			Final Weight/Volume:	5 mL
Prep Date:	03/19/2013 1932				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Benzene		0.31	J	0.17	1.1
Toluene		0.53	J	0.16	1.1
Ethylbenzene		1.1	U J	0.19	1.1
Xylenes, Total		3.4	U J	0.76	3.4
Surrogate					
		%Rec	Qualifier	Acceptance Limits	
1,2-Dichloroethane-d4 (Surr)		96		70 - 130	
Toluene-d8 (Surr)		91		70 - 130	
Bromofluorobenzene		90		70 - 130	

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52487-1

Client Sample ID: B-511 (13) 11-13

Lab Sample ID: 460-52487-11

Client Matrix: Solid

% Moisture: 27.9

Date Sampled: 03/15/2013 1245

Date Received: 03/18/2013 0900

8260B Volatile Organic Compounds (GC/MS)

Analysis Method: 8260B

Prep Method: 5035

Dilution: 1.0

Analysis Date: 03/27/2013 0241

Prep Date: 03/19/2013 1934

Analysis Batch: 460-152866

Prep Batch: 460-151776

Instrument ID: VOAMS4

Lab File ID: d31026.d

Initial Weight/Volume: 5.42 g

Final Weight/Volume: 5 mL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Benzene		4.3	J	0.19	1.3
Toluene		1.6	J	0.18	1.3
Ethylbenzene		0.68	J	0.22	1.3
Xylenes, Total		1.8	J	0.86	3.8
Surrogate		%Rec	Qualifier	Acceptance Limits	
1,2-Dichloroethane-d4 (Surr)		118		70 - 130	
Toluene-d8 (Surr)		74		70 - 130	
Bromofluorobenzene		107		70 - 130	

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52487-1

Client Sample ID: B-511 (13) 19-20

Lab Sample ID: 460-52487-12

Client Matrix: Solid

% Moisture: 11.5

Date Sampled: 03/15/2013 1300

Date Received: 03/18/2013 0900

8260B Volatile Organic Compounds (GC/MS)

Analysis Method: 8260B

Prep Method: 5035

Dilution: 1.0

Analysis Date: 03/27/2013 0304

Prep Date: 03/19/2013 1936

Analysis Batch: 460-152866

Prep Batch: 460-151776

Instrument ID: VOAMS4

Lab File ID: d31027.d

Initial Weight/Volume: 5.24 g

Final Weight/Volume: 5 mL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Benzene		0.23	J	0.16	1.1
Toluene		0.36	J	0.15	1.1
Ethylbenzene		1.1	U J	0.18	1.1
Xylenes, Total		3.2	U J	0.72	3.2
Surrogate		%Rec	Qualifier	Acceptance Limits	
1,2-Dichloroethane-d4 (Surr)		92		70 - 130	
Toluene-d8 (Surr)		85		70 - 130	
Bromofluorobenzene		88		70 - 130	

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52487-1

Client Sample ID: B-512 (13) 9-10

Lab Sample ID: 460-52487-13

Client Matrix: Solid

% Moisture: 10.2

Date Sampled: 03/15/2013 1330

Date Received: 03/18/2013 0900

8260B Volatile Organic Compounds (GC/MS)

Analysis Method: 8260B

Prep Method: 5035

Dilution: 1.0

Analysis Date: 03/27/2013 0327

Prep Date: 03/19/2013 1938

Analysis Batch: 460-152866

Prep Batch: 460-151776

Instrument ID: VOAMS4

Lab File ID: d31028.d

Initial Weight/Volume: 5.33 g

Final Weight/Volume: 5 mL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Benzene		17	J	0.16	1.0
Toluene		0.99	J	0.15	1.0
Ethylbenzene		1.0	UJ	0.18	1.0
Xylenes, Total		3.1	UJ	0.70	3.1
Surrogate		%Rec	Qualifier	Acceptance Limits	
1,2-Dichloroethane-d4 (Surr)		101		70 - 130	
Toluene-d8 (Surr)		96		70 - 130	
Bromofluorobenzene		93		70 - 130	

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52487-1

Client Sample ID: B-512 (13) 12.5-13.5

Lab Sample ID: 460-52487-14

Client Matrix: Solid

% Moisture: 20.5

Date Sampled: 03/15/2013 1340

Date Received: 03/18/2013 0900

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	460-152866	Instrument ID:	VOAMS4
Prep Method:	5035	Prep Batch:	460-151776	Lab File ID:	d31029.d
Dilution:	1.0			Initial Weight/Volume:	5.34 g
Analysis Date:	03/27/2013 0350			Final Weight/Volume:	5 mL
Prep Date:	03/19/2013 1939				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Benzene		5.5	J	0.18	1.2
Toluene		0.52	J	0.16	1.2
Ethylbenzene		1.2	UJ	0.20	1.2
Xylenes, Total		3.5	UJ	0.79	3.5
Surrogate					
		%Rec	Qualifier	Acceptance Limits	
1,2-Dichloroethane-d4 (Surr)		99		70 - 130	
Toluene-d8 (Surr)		92		70 - 130	
Bromofluorobenzene		94		70 - 130	

Client: GEI Consultants, Inc.

Job Number: 460-52487-1

Client Sample ID: B-512 (13) 15-16

Lab Sample ID: 460-52487-15

Client Matrix: Solid

% Moisture: 13.8

Date Sampled: 03/15/2013 1355

Date Received: 03/18/2013 0900

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	460-152866	Instrument ID:	VOAMS4
Prep Method:	5035	Prep Batch:	460-151776	Lab File ID:	d31030.d
Dilution:	1.0			Initial Weight/Volume:	5.42 g
Analysis Date:	03/27/2013 0413			Final Weight/Volume:	5 mL
Prep Date:	03/19/2013 1941				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Benzene		0.24	J	0.16	1.1
Toluene		0.51	J	0.15	1.1
Ethylbenzene		1.1	U J	0.18	1.1
Xylenes, Total		3.2	U J	0.72	3.2
Surrogate					
		%Rec	Qualifier	Acceptance Limits	
1,2-Dichloroethane-d4 (Surr)		98		70 - 130	
Toluene-d8 (Surr)		90		70 - 130	
Bromofluorobenzene		91		70 - 130	

Client: GEI Consultants, Inc.

Job Number: 460-52487-1

Client Sample ID: TB-031513
 Lab Sample ID: 460-52487-16TB
 Client Matrix: Water

Date Sampled: 03/15/2013 1600
 Date Received: 03/18/2013 0900

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	460-152746	Instrument ID:	VOAMS10
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	r00243.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	03/26/2013 1334			Final Weight/Volume:	5 mL
Prep Date:	03/26/2013 1334				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Benzene	1.0	U	0.080	1.0
Toluene	1.0	U	0.15	1.0
Ethylbenzene	1.0	U	0.10	1.0
Xylenes, Total	3.0	U	0.36	3.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	101		70 - 130
Bromofluorobenzene	97		70 - 130
Toluene-d8 (Surr)	101		70 - 130

Client: GEI Consultants, Inc.

Job Number: 460-52487-1

Client Sample ID: B-508 (13) 9.5-10

Lab Sample ID: 460-52487-1

Client Matrix: Solid

% Moisture: 15.0

Date Sampled: 03/15/2013 0830

Date Received: 03/18/2013 0900

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-152660	Instrument ID:	BNAMS10
Prep Method:	3541	Prep Batch:	460-151872	Lab File ID:	p35796.d
Dilution:	2.0			Initial Weight/Volume:	15.00 g
Analysis Date:	03/25/2013 1809			Final Weight/Volume:	1 mL
Prep Date:	03/20/2013 1030			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Naphthalene		780	U	90	780
Acenaphthylene		500	J -	92	780
Acenaphthene		780	U	110	780
Fluorene		220	J -	100	780
Phenanthrene		5800		99	780
Anthracene		3600		95	780
Fluoranthene		15000		100	780
Pyrene		11000		65	780
Benzo[a]anthracene		6900		5.4	78
Chrysene		7000		91	780
Benzo[b]fluoranthene		7500		4.9	78
Benzo[k]fluoranthene		3100		5.9	78
Benzo[a]pyrene		7600		5.5	78
Indeno[1,2,3-cd]pyrene		6400		14	78
Dibenz(a,h)anthracene		1500		9.8	78
Benzo[g,h,i]perylene		6100		58	780
Surrogate		%Rec	Qualifier	Acceptance Limits	
Nitrobenzene-d5		76		38 - 105	
Terphenyl-d14		76		16 - 151	
2-Fluorobiphenyl		90		40 - 109	

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52487-1

Client Sample ID: B-508 (13) 12.5-15

Lab Sample ID: 460-52487-2

Client Matrix: Solid

% Moisture: 13.3

Date Sampled: 03/15/2013 0835

Date Received: 03/18/2013 0900

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-152882	Instrument ID:	BNAMS10
Prep Method:	3541	Prep Batch:	460-151872	Lab File ID:	p35737.d
Dilution:	5.0			Initial Weight/Volume:	15.01 g
Analysis Date:	03/24/2013 1316			Final Weight/Volume:	1 mL
Prep Date:	03/20/2013 1030			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Naphthalene		14000		220	1900
Acenaphthylene		1900		230	1900
Acenaphthene		1700	J	280	1900
Fluorene		2900		240	1900
Phenanthrene		21000		240	1900
Anthracene		14000		230	1900
Fluoranthene		23000		250	1900
Pyrene		22000		160	1900
Benzo[a]anthracene		9500		13	190
Chrysene		10000		220	1900
Benzo[b]fluoranthene		9800		12	190
Benzo[k]fluoranthene		4400		14	190
Benzo[a]pyrene		10000		13	190
Indeno[1,2,3-cd]pyrene		5400		35	190
Dibenz(a,h)anthracene		950		24	190
Benzo[g,h,i]perylene		5300		140	1900
Surrogate		%Rec	Qualifier	Acceptance Limits	
Nitrobenzene-d5		74		38 - 105	
Terphenyl-d14		93		16 - 151	
2-Fluorobiphenyl		86		40 - 109	

Client: GEI Consultants, Inc.

Job Number: 460-52487-1

Client Sample ID: B-508 (13) 19.5-20

Lab Sample ID: 460-52487-3

Client Matrix: Solid

% Moisture: 13.9

Date Sampled: 03/15/2013 0845

Date Received: 03/18/2013 0900

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-152882	Instrument ID:	BNAMS10
Prep Method:	3541	Prep Batch:	460-151872	Lab File ID:	p35738.d
Dilution:	10	Run Type:	DL	Initial Weight/Volume:	15.01 g
Analysis Date:	03/24/2013 1341			Final Weight/Volume:	1 mL
Prep Date:	03/20/2013 1030			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Naphthalene		12000		440	3800
Acenaphthylene		1400	J	450	3800
Acenaphthene		4700		560	3800
Fluorene		8200		490	3800
Phenanthrene		52000		490	3800
Anthracene		18000		470	3800
Fluoranthene		40000		510	3800
Pyrene		35000		320	3800
Benzo[a]anthracene		17000		27	380
Chrysene		16000		450	3800
Benzo[b]fluoranthene		17000		24	380
Benzo[k]fluoranthene		6900		29	380
Benzo[a]pyrene		17000		27	380
Indeno[1,2,3-cd]pyrene		11000		71	380
Dibenz(a,h)anthracene		1800		48	380
Benzo[g,h,i]perylene		11000		280	3800
Surrogate		%Rec	Qualifier	Acceptance Limits	
Nitrobenzene-d5		0	D	38 - 105	
Terphenyl-d14		0	D	16 - 151	
2-Fluorobiphenyl		0	D	40 - 109	

Client: GEI Consultants, Inc.

Job Number: 460-52487-1

Client Sample ID: B-509 (13) 9-10

Lab Sample ID: 460-52487-4

Client Matrix: Solid

% Moisture: 19.7

Date Sampled: 03/15/2013 0920

Date Received: 03/18/2013 0900

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-152660	Instrument ID:	BNAMS10
Prep Method:	3541	Prep Batch:	460-151872	Lab File ID:	p35797.d
Dilution:	1.0			Initial Weight/Volume:	15.03 g
Analysis Date:	03/25/2013 1835			Final Weight/Volume:	1 mL
Prep Date:	03/20/2013 1030			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Naphthalene		160	J	48	410
Acenaphthylene		450		49	410
Acenaphthene		75	J	60	410
Fluorene		130	J	53	410
Phenanthrene		1200		52	410
Anthracene		1000		50	410
Fluoranthene		5900		55	410
Pyrene		4800		34	410
Benzo[a]anthracene		3600		2.9	41
Chrysene		3700		48	410
Benzo[b]fluoranthene		4600		2.6	41
Benzo[k]fluoranthene		1600		3.1	41
Benzo[a]pyrene		4500		2.9	41
Indeno[1,2,3-cd]pyrene		3200		7.6	41
Dibenz(a,h)anthracene		780		5.2	41
Benzo[g,h,i]perylene		2900		30	410
Surrogate					
Nitrobenzene-d5		%Rec	Qualifier	Acceptance Limits	
		61		38 - 105	
Terphenyl-d14		64		16 - 151	
2-Fluorobiphenyl		78		40 - 109	

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52487-1

Client Sample ID: B-509 (13) 11-14

Lab Sample ID: 460-52487-5

Date Sampled: 03/15/2013 0935

Client Matrix: Solid

% Moisture: 15.6

Date Received: 03/18/2013 0900

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-152882	Instrument ID:	BNAMS10
Prep Method:	3541	Prep Batch:	460-151872	Lab File ID:	p35739.d
Dilution:	50	Run Type:	DL	Initial Weight/Volume:	15.02 g
Analysis Date:	03/24/2013 1406			Final Weight/Volume:	1 mL
Prep Date:	03/20/2013 1030			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Naphthalene		9800	J	2300	20000
Acenaphthylene		61000		2300	20000
Acenaphthene		22000		2900	20000
Fluorene		85000		2500	20000
Phenanthrene		340000		2500	20000
Anthracene		120000		2400	20000
Fluoranthene		190000		2600	20000
Pyrene		180000		1600	20000
Benzo[a]anthracene		83000		140	2000
Chrysene		83000		2300	20000
Benzo[b]fluoranthene		72000		120	2000
Benzo[k]fluoranthene		39000		150	2000
Benzo[a]pyrene		79000		140	2000
Indeno[1,2,3-cd]pyrene		49000		360	2000
Dibenz(a,h)anthracene		8300		250	2000
Benzo[g,h,i]perylene		51000		1500	20000
Surrogate		%Rec	Qualifier	Acceptance Limits	
Nitrobenzene-d5		0	D	38 - 105	
Terphenyl-d14		0	D	16 - 151	
2-Fluorobiphenyl		0	D	40 - 109	

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52487-1

Client Sample ID: B-509 (13) 16.5-17.5

Lab Sample ID: 460-52487-6

Date Sampled: 03/15/2013 0955

Client Matrix: Solid

% Moisture: 18.8

Date Received: 03/18/2013 0900

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-152882	Instrument ID:	BNAMS10
Prep Method:	3541	Prep Batch:	460-151872	Lab File ID:	p35735.d
Dilution:	1.0			Initial Weight/Volume:	15.01 g
Analysis Date:	03/24/2013 1225			Final Weight/Volume:	1 mL
Prep Date:	03/20/2013 1030			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Naphthalene		410	U	47	410
Acenaphthylene		82	J .	48	410
Acenaphthene		410	U	59	410
Fluorene		61	J .	52	410
Phenanthrene		280	J .	52	410
Anthracene		240	J .	49	410
Fluoranthene		840		54	410
Pyrene		730		34	410
Benzo[a]anthracene		390		2.8	41
Chrysene		380	J .	48	410
Benzo[b]fluoranthene		420		2.6	41
Benzo[k]fluoranthene		190		3.1	41
Benzo[a]pyrene		390		2.9	41
Indeno[1,2,3-cd]pyrene		250		7.6	41
Dibenz(a,h)anthracene		34	J .	5.1	41
Benzo[g,h,i]perylene		240	J .	30	410
Surrogate		%Rec	Qualifier	Acceptance Limits	
Nitrobenzene-d5		64		38 - 105	
Terphenyl-d14		76		16 - 151	
2-Fluorobiphenyl		74		40 - 109	

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52487-1

Client Sample ID: B-510 (13) 5-10

Lab Sample ID: 460-52487-7

Date Sampled: 03/15/2013 1050

Client Matrix: Solid

% Moisture: 14.7

Date Received: 03/18/2013 0900

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-152660	Instrument ID:	BNAMS10
Prep Method:	3541	Prep Batch:	460-151872	Lab File ID:	p35800.d
Dilution:	1.0			Initial Weight/Volume:	15.02 g
Analysis Date:	03/25/2013 1951			Final Weight/Volume:	1 mL
Prep Date:	03/20/2013 1030			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Naphthalene		230	J	45	390
Acenaphthylene		84	J	46	390
Acenaphthene		240	J	56	390
Fluorene		210	J	50	390
Phenanthrene		2000		49	390
Anthracene		440		47	390
Fluoranthene		2700		52	390
Pyrene		2100		32	390
Benzo[a]anthracene		1700		2.7	39
Chrysene		1700		45	390
Benzo[b]fluoranthene		1900		2.4	39
Benzo[k]fluoranthene		820		2.9	39
Benzo[a]pyrene		1900		2.7	39
Indeno[1,2,3-cd]pyrene		1200		7.2	39
Dibenz(a,h)anthracene		300		4.9	39
Benzo[g,h,i]perylene		1100		29	390

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5	61		38 - 105
Terphenyl-d14	59		16 - 151
2-Fluorobiphenyl	74		40 - 109

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52487-1

Client Sample ID: B-510 (13) 15-20

Lab Sample ID: 460-52487-8

Client Matrix: Solid

% Moisture: 16.3

Date Sampled: 03/15/2013 1115

Date Received: 03/18/2013 0900

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-152294	Instrument ID:	BNAMS4
Prep Method:	3541	Prep Batch:	460-151874	Lab File ID:	u85487.d
Dilution:	1.0			Initial Weight/Volume:	15.01 g
Analysis Date:	03/21/2013 0746			Final Weight/Volume:	1 mL
Prep Date:	03/20/2013 1036			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Naphthalene		390	U	46	390
Acenaphthylene		390	U	47	390
Acenaphthene		390	U	58	390
Fluorene		390	U	50	390
Phenanthrene		76	J -	50	390
Anthracene		390	U	48	390
Fluoranthene		120	J -	53	390
Pyrene		98	J -	33	390
Benzo[a]anthracene		51		2.8	39
Chrysene		390	U	46	390
Benzo[b]fluoranthene		53		2.5	39
Benzo[k]fluoranthene		23	J -	3.0	39
Benzo[a]pyrene		50		2.8	39
Indeno[1,2,3-cd]pyrene		21	J -	7.3	39
Dibenz[a,h]anthracene		39	U	5.0	39
Benzo[g,h,i]perylene		390	U	29	390
Surrogate		%Rec	Qualifier	Acceptance Limits	
Nitrobenzene-d5		65		38 - 105	
Terphenyl-d14		86		16 - 151	
2-Fluorobiphenyl		70		40 - 109	

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52487-1

Client Sample ID: B-510 (13) 11-12

Lab Sample ID: 460-52487-9

Date Sampled: 03/15/2013 1100

Client Matrix: Solid

% Moisture: 20.5

Date Received: 03/18/2013 0900

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-152527	Instrument ID:	BNAMS4
Prep Method:	3541	Prep Batch:	460-151874	Lab File ID:	u85582.d
Dilution:	10	Run Type:	DL	Initial Weight/Volume:	15.00 g
Analysis Date:	03/23/2013 2046			Final Weight/Volume:	1 mL
Prep Date:	03/20/2013 1036			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Naphthalene		1400	J	480	4200
Acenaphthylene		11000		490	4200
Acenaphthene		10000		610	4200
Fluorene		9400		530	4200
Phenanthrene		72000		530	4200
Anthracene		39000		510	4200
Fluoranthene		96000		550	4200
Pyrene		79000		350	4200
Benzo[a]anthracene		36000		29	420
Chrysene		34000		490	4200
Benzo[b]fluoranthene		28000		26	420
Benzo[k]fluoranthene		15000		32	420
Benzo[a]pyrene		34000		29	420
Indeno[1,2,3-cd]pyrene		21000		77	420
Dibenz(a,h)anthracene		4900		52	420
Benzo[g,h,i]perylene		19000		310	4200

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5	0	D	38 - 105
Terphenyl-d14	0	D	16 - 151
2-Fluorobiphenyl	0	D	40 - 109

Client: GEI Consultants, Inc.

Job Number: 460-52487-1

Client Sample ID: B-511 (13) 5-7.5

Lab Sample ID: 460-52487-10

Client Matrix: Solid

% Moisture: 11.5

Date Sampled: 03/15/2013 1235

Date Received: 03/18/2013 0900

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-152527	Instrument ID:	BNAMS4
Prep Method:	3541	Prep Batch:	460-151874	Lab File ID:	u85577.d
Dilution:	1.0			Initial Weight/Volume:	15.01 g
Analysis Date:	03/23/2013 1847			Final Weight/Volume:	1 mL
Prep Date:	03/20/2013 1036			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Naphthalene		61	J	43	370
Acenaphthylene		50	J	44	370
Acenaphthene		370	U	54	370
Fluorene		370	U	48	370
Phenanthrene		130	J	48	370
Anthracene		370	U	45	370
Fluoranthene		550		50	370
Pyrene		800		31	370
Benzo[a]anthracene		460		2.6	37
Chrysene		530		44	370
Benzo[b]fluoranthene		840		2.4	37
Benzo[k]fluoranthene		370		2.8	37
Benzo[a]pyrene		760		2.6	37
Indeno[1,2,3-cd]pyrene		550		6.9	37
Dibenz(a,h)anthracene		120		4.7	37
Benzo[g,h,i]perylene		500		28	370
Surrogate		%Rec	Qualifier	Acceptance Limits	
Nitrobenzene-d5		63		38 - 105	
Terphenyl-d14		101		16 - 151	
2-Fluorobiphenyl		75		40 - 109	

Client: GEI Consultants, Inc.

Job Number: 460-52487-1

Client Sample ID: B-511 (13) 11-13

Lab Sample ID: 460-52487-11

Client Matrix: Solid

% Moisture: 27.9

Date Sampled: 03/15/2013 1245

Date Received: 03/18/2013 0900

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-152527	Instrument ID:	BNAMS4
Prep Method:	3541	Prep Batch:	460-151874	Lab File ID:	u85578.d
Dilution:	1.0			Initial Weight/Volume:	15.03 g
Analysis Date:	03/23/2013 1908			Final Weight/Volume:	1 mL
Prep Date:	03/20/2013 1036			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Naphthalene		2300		53	460
Acenaphthylene		960		54	460
Acenaphthene		5300		67	460
Fluorene		6200		59	460
Phenanthrene		5200		58	460
Anthracene		980		56	460
Fluoranthene		1600		61	460
Pyrene		1600		38	460
Benzo[a]anthracene		460		3.2	46
Chrysene		430	J -	53	460
Benzo[b]fluoranthene		330		2.9	46
Benzo[k]fluoranthene		180		3.5	46
Benzo[a]pyrene		350		3.2	46
Indeno[1,2,3-cd]pyrene		230		8.5	46
Dibenz(a,h)anthracene		54		5.8	46
Benzo[g,h,i]perylene		190	J -	34	460
Surrogate		%Rec	Qualifier	Acceptance Limits	
Nitrobenzene-d5		72		38 - 105	
Terphenyl-d14		98		16 - 151	
2-Fluorobiphenyl		81		40 - 109	

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52487-1

Client Sample ID: B-511 (13) 19-20

Lab Sample ID: 460-52487-12

Client Matrix: Solid

% Moisture: 11.5

Date Sampled: 03/15/2013 1300

Date Received: 03/18/2013 0900

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-152527	Instrument ID:	BNAMS4
Prep Method:	3541	Prep Batch:	460-151874	Lab File ID:	u85586.d
Dilution:	1.0			Initial Weight/Volume:	15.02 g
Analysis Date:	03/23/2013 2211			Final Weight/Volume:	1 mL
Prep Date:	03/20/2013 1036			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Naphthalene		370	U	43	370
Acenaphthylene		370	U	44	370
Acenaphthene		370	U	54	370
Fluorene		370	U	48	370
Phenanthrene		370	U	47	370
Anthracene		370	U	45	370
Fluoranthene		370	U	50	370
Pyrene		370	U	31	370
Benzo[a]anthracene		37	U	2.6	37
Chrysene		370	U	44	370
Benzo[b]fluoranthene		37	U	2.4	37
Benzo[k]fluoranthene		37	U	2.8	37
Benzo[a]pyrene		37	U	2.6	37
Indeno[1,2,3-cd]pyrene		37	U	6.9	37
Dibenz(a,h)anthracene		37	U	4.7	37
Benzo[g,h,i]perylene		370	U	28	370
Surrogate		%Rec	Qualifier	Acceptance Limits	
Nitrobenzene-d5		64		38 - 105	
Terphenyl-d14		96		16 - 151	
2-Fluorobiphenyl		76		40 - 109	

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52487-1

Client Sample ID: B-512 (13) 9-10

Lab Sample ID: 460-52487-13

Client Matrix: Solid

% Moisture: 10.2

Date Sampled: 03/15/2013 1330

Date Received: 03/18/2013 0900

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-152527	Instrument ID:	BNAMS4
Prep Method:	3541	Prep Batch:	460-151874	Lab File ID:	u85587.d
Dilution:	1.0			Initial Weight/Volume:	15.00 g
Analysis Date:	03/23/2013 2232			Final Weight/Volume:	1 mL
Prep Date:	03/20/2013 1036			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Naphthalene		81	J	43	370
Acenaphthylene		370	U	44	370
Acenaphthene		370	U	54	370
Fluorene		370	U	47	370
Phenanthrene		370	U	47	370
Anthracene		370	U	45	370
Fluoranthene		370	U	49	370
Pyrene		370	U	31	370
Benzo[a]anthracene		37	U	2.6	37
Chrysene		370	U	43	370
Benzo[b]fluoranthene		37	U	2.3	37
Benzo[k]fluoranthene		37	U	2.8	37
Benzo[a]pyrene		37	U	2.6	37
Indeno[1,2,3-cd]pyrene		37	U	6.8	37
Dibenz(a,h)anthracene		37	U	4.6	37
Benzo[g,h,i]perylene		370	U	27	370
Surrogate		%Rec	Qualifier	Acceptance Limits	
Nitrobenzene-d5		63		38 - 105	
Terphenyl-d14		99		16 - 151	
2-Fluorobiphenyl		72		40 - 109	

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52487-1

Client Sample ID: B-512 (13) 12.5-13.5

Lab Sample ID: 460-52487-14

Client Matrix: Solid

% Moisture: 20.5

Date Sampled: 03/15/2013 1340

Date Received: 03/18/2013 0900

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-152527	Instrument ID:	BNAMS4
Prep Method:	3541	Prep Batch:	460-151874	Lab File ID:	u85588.d
Dilution:	1.0			Initial Weight/Volume:	15.01 g
Analysis Date:	03/23/2013 2253			Final Weight/Volume:	1 mL
Prep Date:	03/20/2013 1036			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Naphthalene		69	J	48	410
Acenaphthylene		410	U	49	410
Acenaphthene		260	J	61	410
Fluorene		74	J	53	410
Phenanthrene		410	U	53	410
Anthracene		56	J	51	410
Fluoranthene		66	J	55	410
Pyrene		52	J	35	410
Benzo[a]anthracene		41	U	2.9	41
Chrysene		410	U	49	410
Benzo[b]fluoranthene		28	J	2.6	41
Benzo[k]fluoranthene		41	U	3.2	41
Benzo[a]pyrene		24	J	2.9	41
Indeno[1,2,3-cd]pyrene		41	U	7.7	41
Dibenz(a,h)anthracene		41	U	5.2	41
Benzo[g,h,i]perylene		410	U	31	410
Surrogate		%Rec	Qualifier	Acceptance Limits	
Nitrobenzene-d5		70		38 - 105	
Terphenyl-d14		81		16 - 151	
2-Fluorobiphenyl		74		40 - 109	

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52487-1

Client Sample ID: B-512 (13) 15-16

Lab Sample ID: 460-52487-15

Client Matrix: Solid

% Moisture: 13.8

Date Sampled: 03/15/2013 1355

Date Received: 03/18/2013 0900

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-152527	Instrument ID:	BNAMS4
Prep Method:	3541	Prep Batch:	460-151874	Lab File ID:	u85589.d
Dilution:	1.0			Initial Weight/Volume:	15.03 g
Analysis Date:	03/23/2013 2315			Final Weight/Volume:	1 mL
Prep Date:	03/20/2013 1036			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Naphthalene		380	U	44	380
Acenaphthylene		380	U	45	380
Acenaphthene		380	U	56	380
Fluorene		380	U	49	380
Phenanthrene		380	U	49	380
Anthracene		380	U	47	380
Fluoranthene		380	U	51	380
Pyrene		380	U	32	380
Benzo[a]anthracene		38	U	2.7	38
Chrysene		380	U	45	380
Benzo[b]fluoranthene		38	U	2.4	38
Benzo[k]fluoranthene		38	U	2.9	38
Benzo[a]pyrene		38	U	2.7	38
Indeno[1,2,3-cd]pyrene		38	U	7.1	38
Dibenz(a,h)anthracene		38	U	4.8	38
Benzo[g,h,i]perylene		380	U	28	380
Surrogate		%Rec	Qualifier	Acceptance Limits	
Nitrobenzene-d5		63		38 - 105	
Terphenyl-d14		94		16 - 151	
2-Fluorobiphenyl		76		40 - 109	

Chain of Custody Record

Temperature on Receipt 4/5.1 204 **TestAmerica**
 Drinking Water? Yes No THE LEADER IN ENVIRONMENTAL TESTING

460-52487

TAL-4124 (1007)

Client: FEI CONSULTANTS, INC Project Manager: JERRY ZAK Date: 3/15/13 Chain of Custody Number: 216101

Address: 455 WINDING BROOK DRIVE Telephone Number (Area Code)/Fax Number: 860-368-5404 Lab Number: _____ Page 1 of 2

City: GLASTONBURY State: CT Zip Code: 06033 Site Contact: DREW BLICHARZ Lab Contact: MELISSA HAAS Analysis (Attach list if more space is needed)

Project Name and Location (State): Troy LIBERTY STREET PDT. Carrier/Waybill Number: _____

Contract/Purchase Order/Quote No.: S983 Matrix: Containers & Preservatives: _____

Special Instructions/Conditions of Receipt: _____

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix						Containers & Preservatives						Analysis	Special Instructions/Conditions of Receipt			
			Air	Aqueous	Sed.	Soil	#	Unpres.	HPSON	HNCO	HCI	NaOH	ZnAc/NaOH						
B-508(13) 9.5-10	3/15/13	830				X	3				X								
B-508(13) 12.5-15		835				X	3				X								1
B-508(13) 19.5-20		845				X	3				X								2
B-509(13) 9-10		920				X	2				X								3
B-509(13) 11-14		935				X	2				X								4
B-509(13) 16.5-17.5		955				X	3				X								5
B-510(13) 5-10		1050				X	3				X								6
B-510(13) 15-20		1115				X	11				X								7
B-510(13) 11-12		1100				X	3				X								8 MS/MSD*
B-511(13) 5-7.5		1235				X	3				X								9
B-511(13) 11-13		1245				X	3				X								10
B-511(13) 19-20		1300				X	3				X								11

Possible Hazard Identification: Non-Hazard Flammable Skin Irritant Poison B Unknown Return To Client Disposal By Lab Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: 24 Hours 48 Hours 7 Days 14 Days 21 Days Other STANDARD OC Requirements (Specify): _____

1. Relinquished By: <u>Drew Blicharz</u>	Date: <u>3/15/13</u>	Time: <u>16:00</u>	1. Received By: <u>[Signature]</u>	Date: <u>3-15-13</u>	Time: <u>16:00</u>
2. Relinquished By: <u>[Signature]</u>	Date: <u>3-15-13</u>	Time: <u>16:00</u>	2. Received By: <u>[Signature]</u>	Date:	Time:
3. Relinquished By: <u>[Signature]</u>	Date: <u>3/18/13</u>	Time: <u>9:00</u>	3. Received By: <u>[Signature]</u>	Date: <u>3/18/13</u>	Time: <u>9:00</u>

Comments: C5# 710205

Chain of Custody Record

Temperature on Receipt 4/5-1 DAY
 Drinking Water? Yes No

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

52487

TAL-4124 (1007)

Client: GEI CONSULTANTS, INC Project Manager: JERRY ZAK Date: 3/15/13 Chain of Custody Number: 216102
 Address: 455 WINDING BROOK DRIVE Telephone Number (Area Code)/Fax Number: 860-368-5404 Lab Number: _____
 City: GLASTONBURY State: CT Zip Code: 06033 Site Contact: DREW BLICHARZ Lab Contact: MELISSA HAAS
 Project Name and Location (State): TRDY LIBERTY STREET PDI Carrier/Waybill Number: _____
 Contract/Purchase Order/Quote No.: 5983

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix				#	Containers & Preservatives								Analysis (Attach list if more space is needed)	Special Instructions/ Conditions of Receipt	
			Air	Aqueous	Sed.	Sol		Unpres.	H2SO4	HNO3	HCl	MeOH	ZnAc	NaOH				
B-512(13) 9-10	3/15/13	1330				X	2											13
B-512(13) 12.5-13.5	↓	1340				X	3											14
B-512(13) 15-16	↓	1355				X	2											15
DB TB-031513 DB	3/15/13	1600	X				2											16

TMA

3-15-13

Possible Hazard Identification: Non-Hazard Flammable Skin Irritant Poison B Unknown Return To Client Disposal By Lab Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: 24 Hours 48 Hours 7 Days 14 Days 21 Days Other STANDARD

QC Requirements (Specify)

1. Relinquished By: <u>Drew Blicharz</u>	Date: <u>3/15/13</u>	Time: <u>16:00</u>	1. Received By: <u>Tina Kuller</u>	Date: <u>3-15-13</u>	Time: <u>1600</u>
2. Relinquished By: <u>Tina Kuller</u>	Date: <u>3-15-13</u>	Time: <u>1800</u>	2. Received By: <u>FedEx</u>	Date:	Time:
3. Relinquished By: <u>FedEx</u>	Date:	Time:	3. Received By: _____	Date: <u>3/18/13</u>	Time: <u>9:00</u>

Comments: CS# 710205

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

04/01/2013
Page 988 of 990

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52562-1

Client Sample ID: B-513(13)9-10

Lab Sample ID: 460-52562-1

Date Sampled: 03/18/2013 0830

Client Matrix: Solid

% Moisture: 14.5

Date Received: 03/19/2013 0910

8260B Volatile Organic Compounds (GC/MS)

Analysis Method: 8260B	Analysis Batch: 460-153113	Instrument ID: VOAMS4
Prep Method: 5035	Prep Batch: 460-151809	Lab File ID: d31098.d
Dilution: 1.0		Initial Weight/Volume: 5.21 g
Analysis Date: 03/28/2013 1211		Final Weight/Volume: 5 mL
Prep Date: 03/20/2013 0138		

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Benzene		1.1	U J	0.17	1.1
Toluene		0.36	J	0.16	1.1
Ethylbenzene		0.25	J	0.19	1.1
Xylenes, Total		3.4	U J	0.75	3.4

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	100		70 - 130
Toluene-d8 (Surr)	88		70 - 130
Bromofluorobenzene	91		70 - 130

Jam
4/15/13

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52562-1

Client Sample ID: B-513(13)13-14

Lab Sample ID: 460-52562-2

Date Sampled: 03/18/2013 0840

Client Matrix: Solid

% Moisture: 11.7

Date Received: 03/19/2013 0910

8260B Volatile Organic Compounds (GC/MS)

Analysis Method: 8260B	Analysis Batch: 460-153314	Instrument ID: VOAMS2
Prep Method: 5035	Prep Batch: 460-151808	Lab File ID: b54012.d
Dilution: 100		Initial Weight/Volume: 5.29 g
Analysis Date: 03/29/2013 1408		Final Weight/Volume: 10 mL
Prep Date: 03/20/2013 0116		

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Benzene		800	J	18	210
Toluene		1100	J	32	210
Ethylbenzene		4200	J	21	210
Xylenes, Total		7200	J	77	640

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	88		75 - 135
Toluene-d8 (Surr)	85		59 - 150
Bromofluorobenzene	96		72 - 133

Client: GEI Consultants, Inc.

Job Number: 460-52562-1

Client Sample ID: B-513(13)15.5-16.5

Lab Sample ID: 460-52562-3

Date Sampled: 03/18/2013 0850

Client Matrix: Solid

% Moisture: 17.3

Date Received: 03/19/2013 0910

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	460-153064	Instrument ID:	VOAMS4
Prep Method:	5035	Prep Batch:	460-151809	Lab File ID:	d31082.d
Dilution:	1.0			Initial Weight/Volume:	5.51 g
Analysis Date:	03/28/2013 0224			Final Weight/Volume:	5 mL
Prep Date:	03/20/2013 0141				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Benzene		490	J	0.16	1.1
Toluene		420	J	0.15	1.1
Ethylbenzene		450	J	0.19	1.1
Xylenes, Total		840	J	0.74	3.3
Surrogate		%Rec	Qualifier	Acceptance Limits	
1,2-Dichloroethane-d4 (Surr)		97		70 - 130	
Toluene-d8 (Surr)		86		70 - 130	
Bromofluorobenzene		85		70 - 130	

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52562-1

Client Sample ID: B-513(13)24.5-25.0

Lab Sample ID: 460-52562-4

Date Sampled: 03/18/2013 0920

Client Matrix: Solid

% Moisture: 12.0

Date Received: 03/19/2013 0910

8260B Volatile Organic Compounds (GC/MS)

Analysis Method: 8260B	Analysis Batch: 460-153064	Instrument ID: VOAMS4
Prep Method: 5035	Prep Batch: 460-151809	Lab File ID: d31083.d
Dilution: 1.0		Initial Weight/Volume: 5.46 g
Analysis Date: 03/28/2013 0246		Final Weight/Volume: 5 mL
Prep Date: 03/20/2013 0143		

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Benzene		5.3	J	0.16	1.0
Toluene		0.49	J	0.15	1.0
Ethylbenzene		1.3	J	0.18	1.0
Xylenes, Total		2.0	J	0.70	3.1

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	90		70 - 130
Toluene-d8 (Surr)	84		70 - 130
Bromofluorobenzene	84		70 - 130

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52562-1

Client Sample ID: B-517(13)11-12

Lab Sample ID: 460-52562-5

Date Sampled: 03/18/2013 1000

Client Matrix: Solid

% Moisture: 28.1

Date Received: 03/19/2013 0910

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	460-153314	Instrument ID:	VOAMS2
Prep Method:	5035	Prep Batch:	460-151808	Lab File ID:	b54013.d
Dilution:	500			Initial Weight/Volume:	5.42 g
Analysis Date:	03/29/2013 1431			Final Weight/Volume:	10 mL
Prep Date:	03/20/2013 0120				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Benzene		9400	J	110	1300
Toluene		29000	J	190	1300
Ethylbenzene		43000	J	120	1300
Xylenes, Total		290000	J	460	3800

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	79		75 - 135
Toluene-d8 (Surr)	75		59 - 150
Bromofluorobenzene	79		72 - 133

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52562-1

Client Sample ID: B-517(13)24.5-25.0

Lab Sample ID: 460-52562-6

Date Sampled: 03/18/2013 1030

Client Matrix: Solid

% Moisture: 14.4

Date Received: 03/19/2013 0910

8260B Volatile Organic Compounds (GC/MS)

Analysis Method: 8260B	Analysis Batch: 460-153113	Instrument ID: VOAMS4
Prep Method: 5035	Prep Batch: 460-151809	Lab File ID: d31099.d
Dilution: 1.0		Initial Weight/Volume: 5.19 g
Analysis Date: 03/28/2013 1234		Final Weight/Volume: 5 mL
Prep Date: 03/20/2013 0147		

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Benzene		1.1	J	0.17	1.1
Toluene		0.27	J ✓	0.16	1.1
Ethylbenzene		0.43	J	0.19	1.1
Xylenes, Total		3.4	UJ	0.75	3.4

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	93		70 - 130
Toluene-d8 (Surr)	80		70 - 130
Bromofluorobenzene	83		70 - 130

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52562-1

Client Sample ID: B-514(13)12-13

Lab Sample ID: 460-52562-7

Date Sampled: 03/18/2013 1100

Client Matrix: Solid

% Moisture: 20.0

Date Received: 03/19/2013 0910

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	460-153064	Instrument ID:	VOAMS4
Prep Method:	5035	Prep Batch:	460-151809	Lab File ID:	d31085.d
Dilution:	1.0			Initial Weight/Volume:	5.56 g
Analysis Date:	03/28/2013 0332			Final Weight/Volume:	5 mL
Prep Date:	03/20/2013 0148				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Benzene		90	J	0.17	1.1
Toluene		13	J	0.16	1.1
Ethylbenzene		86	J	0.19	1.1
Xylenes, Total		120	J	0.75	3.4

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	96		70 - 130
Toluene-d8 (Surr)	85		70 - 130
Bromofluorobenzene	86		70 - 130

Client: GEI Consultants, Inc.

Job Number: 460-52562-1

Client Sample ID: B-514(13)15.5-16.0

Lab Sample ID: 460-52562-8

Date Sampled: 03/18/2013 1120

Client Matrix: Solid

% Moisture: 14.1

Date Received: 03/19/2013 0910

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	460-153314	Instrument ID:	VOAMS2
Prep Method:	5035	Prep Batch:	460-151808	Lab File ID:	b54011.d
Dilution:	2500			Initial Weight/Volume:	5.40 g
Analysis Date:	03/29/2013 1346			Final Weight/Volume:	10 mL
Prep Date:	03/20/2013 0123				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Benzene		17000	J	450	5400
Toluene		38000	J	810	5400
Ethylbenzene		55000	J	520	5400
Xylenes, Total		160000	J	1900	16000

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	0	*	75 - 135
Toluene-d8 (Surr)	0	*	59 - 150
Bromofluorobenzene	0	*	72 - 133

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52562-1

Client Sample ID: B-514(13)20.0-21.5

Lab Sample ID: 460-52562-9

Date Sampled: 03/18/2013 1135

Client Matrix: Solid

% Moisture: 14.6

Date Received: 03/19/2013 0910

8260B Volatile Organic Compounds (GC/MS)

Analysis Method: 8260B	Analysis Batch: 460-153064	Instrument ID: VOAMS4
Prep Method: 5035	Prep Batch: 460-151809	Lab File ID: d31086.d
Dilution: 1.0		Initial Weight/Volume: 5.99 g
Analysis Date: 03/28/2013 0355		Final Weight/Volume: 5 mL
Prep Date: 03/20/2013 0151		

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Benzene		110	J	0.15	0.98
Toluene		26	J	0.14	0.98
Ethylbenzene		78	J	0.17	0.98
Xylenes, Total		170	J	0.65	2.9

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	91		70 - 130
Toluene-d8 (Surr)	82		70 - 130
Bromofluorobenzene	83		70 - 130

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52562-1

Client Sample ID: B-516(13)7.5-8.0

Lab Sample ID: 460-52562-10

Date Sampled: 03/18/2013 1230

Client Matrix: Solid

% Moisture: 21.8

Date Received: 03/19/2013 0910

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	460-152704	Instrument ID:	VOAMS4
Prep Method:	5035	Prep Batch:	460-151809	Lab File ID:	d30977.d
Dilution:	1.0			Initial Weight/Volume:	5.43 g
Analysis Date:	03/26/2013 0424			Final Weight/Volume:	5 mL
Prep Date:	03/20/2013 0154				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Benzene		1.2	U J	0.18	1.2
Toluene		1.2	U J	0.16	1.2
Ethylbenzene		1.2	U J	0.20	1.2
Xylenes, Total		3.5	U J	0.79	3.5

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	101		70 - 130
Toluene-d8 (Surr)	90		70 - 130
Bromofluorobenzene	92		70 - 130

Client: GEI Consultants, Inc.

Job Number: 460-52562-1

Client Sample ID: B-516(13)14-15

Lab Sample ID: 460-52562-11

Date Sampled: 03/18/2013 1240

Client Matrix: Solid

% Moisture: 19.6

Date Received: 03/19/2013 0910

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	460-152611	Instrument ID:	VOAMS4
Prep Method:	5035	Prep Batch:	460-151809	Lab File ID:	d30952.d
Dilution:	1.0			Initial Weight/Volume:	5.02 g
Analysis Date:	03/25/2013 1805			Final Weight/Volume:	5 mL
Prep Date:	03/20/2013 0155				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Benzene		0.46	J	0.19	1.2
Toluene		0.26	J	0.17	1.2
Ethylbenzene		0.72	J	0.21	1.2
Xylenes, Total		2.5	J	0.83	3.7

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	91		70 - 130
Toluene-d8 (Surr)	85		70 - 130
Bromofluorobenzene	85		70 - 130

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52562-1

Client Sample ID: B-516(13)18.25-18.75

Lab Sample ID: 460-52562-12

Date Sampled: 03/18/2013 1335

Client Matrix: Solid

% Moisture: 18.0

Date Received: 03/19/2013 0910

8260B Volatile Organic Compounds (GC/MS)

Analysis Method: 8260B	Analysis Batch: 460-152611	Instrument ID: VOAMS4
Prep Method: 5035	Prep Batch: 460-151809	Lab File ID: d30953.d
Dilution: 1.0		Initial Weight/Volume: 5.92 g
Analysis Date: 03/25/2013 1829		Final Weight/Volume: 5 mL
Prep Date: 03/20/2013 0156		

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Benzene		63	J	0.15	1.0
Toluene		0.75	J	0.14	1.0
Ethylbenzene		12	J	0.18	1.0
Xylenes, Total		17	J	0.69	3.1
Surrogate		%Rec	Qualifier	Acceptance Limits	
1,2-Dichloroethane-d4 (Surr)		83		70 - 130	
Toluene-d8 (Surr)		79		70 - 130	
Bromofluorobenzene		81		70 - 130	

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52562-1

Client Sample ID: B-516(13)22.5-23

Lab Sample ID: 460-52562-13

Date Sampled: 03/18/2013 1350

Client Matrix: Solid

% Moisture: 12.0

Date Received: 03/19/2013 0910

8260B Volatile Organic Compounds (GC/MS)

Analysis Method: 8260B	Analysis Batch: 460-152611	Instrument ID: VOAMS4
Prep Method: 5035	Prep Batch: 460-151809	Lab File ID: d30954.d
Dilution: 1.0		Initial Weight/Volume: 5.59 g
Analysis Date: 03/25/2013 1856		Final Weight/Volume: 5 mL
Prep Date: 03/20/2013 0158		

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Benzene		1.3	J	0.15	1.0
Toluene		0.22	J	0.14	1.0
Ethylbenzene		0.26	J	0.17	1.0
Xylenes, Total		3.0	UJ	0.68	3.0
Surrogate		%Rec	Qualifier	Acceptance Limits	
1,2-Dichloroethane-d4 (Surr)		92		70 - 130	
Toluene-d8 (Surr)		89		70 - 130	
Bromofluorobenzene		88		70 - 130	

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52562-1

Client Sample ID: B-518(13)14.5-16

Lab Sample ID: 460-52562-14

Date Sampled: 03/18/2013 1420

Client Matrix: Solid

% Moisture: 13.4

Date Received: 03/19/2013 0910

8260B Volatile Organic Compounds (GC/MS)

Analysis Method: 8260B	Analysis Batch: 460-152704	Instrument ID: VOAMS4
Prep Method: 5035	Prep Batch: 460-151809	Lab File ID: d30965.d
Dilution: 1.0		Initial Weight/Volume: 5.19 g
Analysis Date: 03/25/2013 2349		Final Weight/Volume: 5 mL
Prep Date: 03/20/2013 0200		

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Benzene		5.0	J	0.17	1.1
Toluene		0.36	J	0.16	1.1
Ethylbenzene		0.67	J	0.19	1.1
Xylenes, Total		3.3	UJ	0.75	3.3
Surrogate		%Rec	Qualifier	Acceptance Limits	
1,2-Dichloroethane-d4 (Surr)		82		70 - 130	
Toluene-d8 (Surr)		85		70 - 130	
Bromofluorobenzene		86		70 - 130	

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52562-1

Client Sample ID: B-518(13)25-30

Lab Sample ID: 460-52562-15

Date Sampled: 03/18/2013 1515

Client Matrix: Solid

% Moisture: 13.2

Date Received: 03/19/2013 0910

8260B Volatile Organic Compounds (GC/MS)

Analysis Method: 8260B	Analysis Batch: 460-152611	Instrument ID: VOAMS4
Prep Method: 5035	Prep Batch: 460-151809	Lab File ID: d30955.d
Dilution: 1.0		Initial Weight/Volume: 5.86 g
Analysis Date: 03/25/2013 1920		Final Weight/Volume: 5 mL
Prep Date: 03/20/2013 0201		

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Benzene		23	J	0.15	0.98
Toluene		1.3	J	0.14	0.98
Ethylbenzene		0.89	J	0.17	0.98
Xylenes, Total		2.8	J	0.66	2.9
Surrogate		%Rec	Qualifier	Acceptance Limits	
1,2-Dichloroethane-d4 (Surr)		93		70 - 130	
Toluene-d8 (Surr)		82		70 - 130	
Bromofluorobenzene		85		70 - 130	

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52562-1

Client Sample ID: B-518(13)5-7.5

Lab Sample ID: 460-52562-18

Date Sampled: 03/18/2013 1405

Client Matrix: Solid

% Moisture: 9.5

Date Received: 03/19/2013 0910

8260B Volatile Organic Compounds (GC/MS)

Analysis Method: 8260B	Analysis Batch: 460-152611	Instrument ID: VOAMS4
Prep Method: 5035	Prep Batch: 460-151809	Lab File ID: d30957.d
Dilution: 1.0		Initial Weight/Volume: 5.19 g
Analysis Date: 03/25/2013 2006		Final Weight/Volume: 5 mL
Prep Date: 03/20/2013 0205		

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Benzene		1.1	U J	0.16	1.1
Toluene		1.1	U	0.15	1.1
Ethylbenzene		1.1	U	0.18	1.1
Xylenes, Total		3.2	U J	0.71	3.2

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	96		70 - 130
Toluene-d8 (Surr)	88		70 - 130
Bromofluorobenzene	92		70 - 130

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52562-1

Client Sample ID: B-51813)21-22

Lab Sample ID: 460-52562-19

Date Sampled: 03/18/2013 1500

Client Matrix: Solid

% Moisture: 21.1

Date Received: 03/19/2013 0910

8260B Volatile Organic Compounds (GC/MS)

Analysis Method: 8260B	Analysis Batch: 460-152611	Instrument ID: VOAMS4
Prep Method: 5035	Prep Batch: 460-151809	Lab File ID: d30956.d
Dilution: 1.0		Initial Weight/Volume: 5.46 g
Analysis Date: 03/25/2013 1942		Final Weight/Volume: 5 mL
Prep Date: 03/20/2013 0203		

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Benzene		62	J	0.17	1.2
Toluene		0.87	J	0.16	1.2
Ethylbenzene		1.8	J	0.20	1.2
Xylenes, Total		20	J	0.78	3.5
Surrogate		%Rec	Qualifier	Acceptance Limits	
1,2-Dichloroethane-d4 (Surr)		89		70 - 130	
Toluene-d8 (Surr)		89		70 - 130	
Bromofluorobenzene		88		70 - 130	

Client: GEI Consultants, Inc.

Job Number: 460-52562-1

Client Sample ID: TB-031813

Lab Sample ID: 460-52562-20TB

Date Sampled: 03/18/2013 1600

Client Matrix: Water

Date Received: 03/19/2013 0910

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	460-152496	Instrument ID:	VOAMS13
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	p68182.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	03/24/2013 1209			Final Weight/Volume:	5 mL
Prep Date:	03/24/2013 1209				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Benzene	1.0	U	0.080	1.0
Toluene	1.0	U	0.15	1.0
Ethylbenzene	1.0	U	0.10	1.0
Xylenes, Total	3.0	U	0.36	3.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	91		70 - 130
Bromofluorobenzene	97		70 - 130
Toluene-d8 (Surr)	96		70 - 130

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52562-1

Client Sample ID: B-513(13)9-10

Lab Sample ID: 460-52562-1

Date Sampled: 03/18/2013 0830

Client Matrix: Solid

% Moisture: 14.5

Date Received: 03/19/2013 0910

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-152624	Instrument ID:	BNAMS4
Prep Method:	3541	Prep Batch:	460-151888	Lab File ID:	u85621.d
Dilution:	1.0			Initial Weight/Volume:	15.01 g
Analysis Date:	03/24/2013 2227			Final Weight/Volume:	1 mL
Prep Date:	03/20/2013 1131			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Naphthalene		290	J	45	390
Acenaphthylene		440		46	390
Acenaphthene		84	J	56	390
Fluorene		210	J	49	390
Phenanthrene		1900		49	390
Anthracene		1300		47	390
Fluoranthene		4500		52	390
Pyrene		5600		32	390
Benzo[a]anthracene		2400		2.7	39
Chrysene		2400		45	390
Benzo[b]fluoranthene		2500		2.4	39
Benzo[k]fluoranthene		1300		2.9	39
Benzo[a]pyrene		2700		2.7	39
Indeno[1,2,3-cd]pyrene		1700		7.2	39
Dibenz(a,h)anthracene		430		4.9	39
Benzo[g,h,i]perylene		1600		29	390

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5	69		38 - 105
Terphenyl-d14	98		16 - 151
2-Fluorobiphenyl	75		40 - 109

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52562-1

Client Sample ID: B-513(13)13-14

Lab Sample ID: 460-52562-2

Client Matrix: Solid

% Moisture: 11.7

Date Sampled: 03/18/2013 0840

Date Received: 03/19/2013 0910

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-152624	Instrument ID:	BNAMS4
Prep Method:	3541	Prep Batch:	460-151888	Lab File ID:	u85617.d
Dilution:	10			Initial Weight/Volume:	15.00 g
Analysis Date:	03/24/2013 2059	Run Type:	DL	Final Weight/Volume:	1 mL
Prep Date:	03/20/2013 1131			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Naphthalene		54000		430	3700
Acenaphthylene		18000		440	3700
Acenaphthene		11000		550	3700
Fluorene		21000		480	3700
Phenanthrene		79000		480	3700
Anthracene		27000		460	3700
Fluoranthene		45000		500	3700
Pyrene		47000		310	3700
Benzo[a]anthracene		16000		26	370
Chrysene		15000		440	3700
Benzo[b]fluoranthene		16000		24	370
Benzo[k]fluoranthene		6600		28	370
Benzo[a]pyrene		16000		27	370
Indeno[1,2,3-cd]pyrene		9000		70	370
Dibenz(a,h)anthracene		2100		47	370
Benzo[g,h,i]perylene		9700		280	3700

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5	0	D	38 - 105
Terphenyl-d14	0	D	16 - 151
2-Fluorobiphenyl	0	D	40 - 109

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52562-1

Client Sample ID: B-513(13)15.5-16.5

Lab Sample ID: 460-52562-3

Date Sampled: 03/18/2013 0850

Client Matrix: Solid

% Moisture: 17.3

Date Received: 03/19/2013 0910

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-152624	Instrument ID:	BNAMS4
Prep Method:	3541	Prep Batch:	460-151888	Lab File ID:	u85618.d
Dilution:	10			Initial Weight/Volume:	15.05 g
Analysis Date:	03/24/2013 2121	Run Type:	DL	Final Weight/Volume:	1 mL
Prep Date:	03/20/2013 1131			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Naphthalene		16000		460	4000
Acenaphthylene		7900		470	4000
Acenaphthene		7600		580	4000
Fluorene		12000		510	4000
Phenanthrene		53000		510	4000
Anthracene		15000		480	4000
Fluoranthene		31000		530	4000
Pyrene		32000		330	4000
Benzo[a]anthracene		11000		28	400
Chrysene		9100		470	4000
Benzo[b]fluoranthene		11000		25	400
Benzo[k]fluoranthene		5000		30	400
Benzo[a]pyrene		12000		28	400
Indeno[1,2,3-cd]pyrene		6500		74	400
Dibenz[a,h]anthracene		1400		50	400
Benzo[g,h,i]perylene		6700		300	4000

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5	0	D	38 - 105
Terphenyl-d14	0	D	16 - 151
2-Fluorobiphenyl	0	D	40 - 109

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52562-1

Client Sample ID: B-513(13)24.5-25.0

Lab Sample ID: 460-52562-4

Date Sampled: 03/18/2013 0920

Client Matrix: Solid

% Moisture: 12.0

Date Received: 03/19/2013 0910

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method: 8270C	Analysis Batch: 460-152624	Instrument ID: BNAMS4
Prep Method: 3541	Prep Batch: 460-151888	Lab File ID: u85609.d
Dilution: 1.0		Initial Weight/Volume: 14.99 g
Analysis Date: 03/24/2013 1727		Final Weight/Volume: 1 mL
Prep Date: 03/20/2013 1131		Injection Volume: 1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Naphthalene		430		44	380
Acenaphthylene		380	U	44	380
Acenaphthene		480		55	380
Fluorene		560		48	380
Phenanthrene		270	J	48	380
Anthracene		140	J	46	380
Fluoranthene		500		50	380
Pyrene		270	J	32	380
Benzo[a]anthracene		38	U	2.6	38
Chrysene		380	U	44	380
Benzo[b]fluoranthene		18	J	2.4	38
Benzo[k]fluoranthene		38	U	2.9	38
Benzo[a]pyrene		19	J	2.7	38
Indeno[1,2,3-cd]pyrene		38	U	7.0	38
Dibenz(a,h)anthracene		38	U	4.7	38
Benzo[g,h,i]perylene		380	U	28	380

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5	70		38 - 105
Terphenyl-d14	84		16 - 151
2-Fluorobiphenyl	73		40 - 109

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52562-1

Client Sample ID: B-517(13)11-12

Lab Sample ID: 460-52562-5

Date Sampled: 03/18/2013 1000

Client Matrix: Solid

% Moisture: 28.1

Date Received: 03/19/2013 0910

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-152624	Instrument ID:	BNAMS4
Prep Method:	3541	Prep Batch:	460-151888	Lab File ID:	u85619.d
Dilution:	50			Initial Weight/Volume:	15.02 g
Analysis Date:	03/24/2013 2143	Run Type:	DL	Final Weight/Volume:	1 mL
Prep Date:	03/20/2013 1131			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Naphthalene		310000		2700	23000
Acenaphthylene		42000		2700	23000
Acenaphthene		14000	J	3300	23000
Fluorene		66000		2900	23000
Phenanthrene		270000		2900	23000
Anthracene		95000		2800	23000
Fluoranthene		160000		3100	23000
Pyrene		160000		1900	23000
Benzo[a]anthracene		64000		160	2300
Chrysene		56000		2700	23000
Benzo[b]fluoranthene		58000		150	2300
Benzo[k]fluoranthene		27000		170	2300
Benzo[a]pyrene		64000		160	2300
Indeno[1,2,3-cd]pyrene		35000		430	2300
Dibenz[a,h]anthracene		8800		290	2300
Benzo[g,h,i]perylene		39000		1700	23000

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5	0	D	38 - 105
Terphenyl-d14	0	D	16 - 151
2-Fluorobiphenyl	0	D	40 - 109

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52562-1

Client Sample ID: B-517(13)24.5-25.0

Lab Sample ID: 460-52562-6

Date Sampled: 03/18/2013 1030

Client Matrix: Solid

% Moisture: 14.4

Date Received: 03/19/2013 0910

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-152624	Instrument ID:	BNAMS4
Prep Method:	3541	Prep Batch:	460-151888	Lab File ID:	u85610.d
Dilution:	1.0			Initial Weight/Volume:	15.00 g
Analysis Date:	03/24/2013 1817			Final Weight/Volume:	1 mL
Prep Date:	03/20/2013 1131			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Naphthalene		430		45	390
Acenaphthylene		390	U	46	390
Acenaphthene		620		56	390
Fluorene		540		49	390
Phenanthrene		150	J	49	390
Anthracene		240	J	47	390
Fluoranthene		730		52	390
Pyrene		460		32	390
Benzo[a]anthracene		39	U	2.7	39
Chrysene		390	U	45	390
Benzo[b]fluoranthene		39	U	2.4	39
Benzo[k]fluoranthene		39	U	2.9	39
Benzo[a]pyrene		39	U	2.7	39
Indeno[1,2,3-cd]pyrene		39	U	7.2	39
Dibenz[a,h]anthracene		39	U	4.9	39
Benzo[g,h,i]perylene		390	U	29	390

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5	69		38 - 105
Terphenyl-d14	83		16 - 151
2-Fluorobiphenyl	71		40 - 109

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52562-1

Client Sample ID: B-514(13)12-13

Lab Sample ID: 460-52562-7

Date Sampled: 03/18/2013 1100

Client Matrix: Solid

% Moisture: 20.0

Date Received: 03/19/2013 0910

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-152663	Instrument ID:	BNAMS4
Prep Method:	3541	Prep Batch:	460-151888	Lab File ID:	u85653.d
Dilution:	1.0			Initial Weight/Volume:	15.02 g
Analysis Date:	03/25/2013 1841			Final Weight/Volume:	1 mL
Prep Date:	03/20/2013 1131			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Naphthalene		6300		48	410
Acenaphthylene		220	J -	49	410
Acenaphthene		1300		60	410
Fluorene		1100		53	410
Phenanthrene		1500		53	410
Anthracene		160	J -	50	410
Fluoranthene		260	J -	55	410
Pyrene		290	J -	35	410
Benzo[a]anthracene		120		2.9	41
Chrysene		130	J -	48	410
Benzo[b]fluoranthene		150		2.6	41
Benzo[k]fluoranthene		41	U	3.1	41
Benzo[a]pyrene		150		2.9	41
Indeno[1,2,3-cd]pyrene		96		7.7	41
Dibenz(a,h)anthracene		27	J -	5.2	41
Benzo[g,h,i]perylene		99	J -	31	410
Surrogate		%Rec	Qualifier	Acceptance Limits	
Nitrobenzene-d5		66		38 - 105	
Terphenyl-d14		85		16 - 151	
2-Fluorobiphenyl		69		40 - 109	

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52562-1

Client Sample ID: B-514(13)15.5-16.0

Lab Sample ID: 460-52562-8

Date Sampled: 03/18/2013 1120

Client Matrix: Solid

% Moisture: 14.1

Date Received: 03/19/2013 0910

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-152624	Instrument ID:	BNAMS4
Prep Method:	3541	Prep Batch:	460-151888	Lab File ID:	u85616.d
Dilution:	50			Initial Weight/Volume:	15.03 g
Analysis Date:	03/24/2013 2037	Run Type:	DL	Final Weight/Volume:	1 mL
Prep Date:	03/20/2013 1131			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Naphthalene		250000		2200	19000
Acenaphthylene		48000		2300	19000
Acenaphthene		9700	J	2800	19000
Fluorene		40000		2500	19000
Phenanthrene		150000		2400	19000
Anthracene		41000		2300	19000
Fluoranthene		91000		2600	19000
Pyrene		85000		1600	19000
Benzo[a]anthracene		32000		130	1900
Chrysene		27000		2200	19000
Benzo[b]fluoranthene		29000		120	1900
Benzo[k]fluoranthene		17000		150	1900
Benzo[a]pyrene		35000		140	1900
Indeno[1,2,3-cd]pyrene		16000		360	1900
Dibenz[a,h]anthracene		3600		240	1900
Benzo[g,h,i]perylene		18000	J	1400	19000

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5	0	D	38 - 105
Terphenyl-d14	0	D	16 - 151
2-Fluorobiphenyl	0	D	40 - 109

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52562-1

Client Sample ID: B-514(13)20.0-21.5

Lab Sample ID: 460-52562-9

Date Sampled: 03/18/2013 1135

Client Matrix: Solid

% Moisture: 14.6

Date Received: 03/19/2013 0910

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-152624	Instrument ID:	BNAMS4
Prep Method:	3541	Prep Batch:	460-151888	Lab File ID:	u85620.d
Dilution:	5.0			Initial Weight/Volume:	15.00 g
Analysis Date:	03/24/2013 2205			Final Weight/Volume:	1 mL
Prep Date:	03/20/2013 1131			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Naphthalene		17000		220	1900
Acenaphthylene		4600		230	1900
Acenaphthene		2300		280	1900
Fluorene		5700		250	1900
Phenanthrene		22000		250	1900
Anthracene		6100		240	1900
Fluoranthene		14000		260	1900
Pyrene		15000		160	1900
Benzo[a]anthracene		5400	✓	14	190
Chrysene		5200		230	1900
Benzo[b]fluoranthene		4900		12	190
Benzo[k]fluoranthene		2100		15	190
Benzo[a]pyrene		5100		14	190
Indeno[1,2,3-cd]pyrene		3100		36	190
Dibenz(a,h)anthracene		730		24	190
Benzo[g,h,i]perylene		3200		140	1900
Surrogate		%Rec	Qualifier	Acceptance Limits	
Nitrobenzene-d5		70		38 - 105	
Terphenyl-d14		105		16 - 151	
2-Fluorobiphenyl		83		40 - 109	

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52562-1

Client Sample ID: B-516(13)7.5-8.0

Lab Sample ID: 460-52562-10

Date Sampled: 03/18/2013 1230

Client Matrix: Solid

% Moisture: 21.8

Date Received: 03/19/2013 0910

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-152663	Instrument ID:	BNAMS4
Prep Method:	3541	Prep Batch:	460-151888	Lab File ID:	u85649.d
Dilution:	1.0			Initial Weight/Volume:	15.05 g
Analysis Date:	03/25/2013 1715			Final Weight/Volume:	1 mL
Prep Date:	03/20/2013 1131			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Naphthalene		420	U	49	420
Acenaphthylene		420	U	50	420
Acenaphthene		420	U	61	420
Fluorene		420	U	54	420
Phenanthrene		420	U	54	420
Anthracene		420	U	51	420
Fluoranthene		420	U	56	420
Pyrene		420	U	35	420
Benzo[a]anthracene		42	U	2.9	42
Chrysene		420	U	49	420
Benzo[b]fluoranthene		42	U	2.7	42
Benzo[k]fluoranthene		42	U	3.2	42
Benzo[a]pyrene		42	U	3.0	42
Indeno[1,2,3-cd]pyrene		42	U	7.8	42
Dibenz(a,h)anthracene		42	U	5.3	42
Benzo[g,h,i]perylene		420	U	31	420

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5	73		38 - 105
Terphenyl-d14	89		16 - 151
2-Fluorobiphenyl	75		40 - 109

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52562-1

Client Sample ID: B-516(13)14-15

Lab Sample ID: 460-52562-11

Date Sampled: 03/18/2013 1240

Client Matrix: Solid

% Moisture: 19.6

Date Received: 03/19/2013 0910

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method: 8270C	Analysis Batch: 460-152991	Instrument ID: BNAMS4
Prep Method: 3541	Prep Batch: 460-151888	Lab File ID: u85693.d
Dilution: 1.0		Initial Weight/Volume: 15.00 g
Analysis Date: 03/26/2013 0944		Final Weight/Volume: 1 mL
Prep Date: 03/20/2013 1131		Injection Volume: 1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Naphthalene		240	J -	48	410
Acenaphthylene		410	U	49	410
Acenaphthene		120	J -	60	410
Fluorene		80	J -	53	410
Phenanthrene		170	J -	52	410
Anthracene		410	U	50	410
Fluoranthene		410	U	55	410
Pyrene		37	J -	34	410
Benzo[a]anthracene		41	U	2.9	41
Chrysene		410	U	48	410
Benzo[b]fluoranthene		41	U	2.6	41
Benzo[k]fluoranthene		41	U	3.1	41
Benzo[a]pyrene		41	U	2.9	41
Indeno[1,2,3-cd]pyrene		41	U J -	7.6	41
Dibenz(a,h)anthracene		41	U	5.2	41
Benzo[g,h,i]perylene		410	U	30	410

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5	64		38 - 105
Terphenyl-d14	77		16 - 151
2-Fluorobiphenyl	90		40 - 109

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52562-1

Client Sample ID: B-516(13)18.25-18.75

Lab Sample ID: 460-52562-12

Date Sampled: 03/18/2013 1335

Client Matrix: Solid

% Moisture: 18.0

Date Received: 03/19/2013 0910

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-152663	Instrument ID:	BNAMS4
Prep Method:	3541	Prep Batch:	460-151888	Lab File ID:	u85651.d
Dilution:	1.0			Initial Weight/Volume:	15.02 g
Analysis Date:	03/25/2013 1758			Final Weight/Volume:	1 mL
Prep Date:	03/20/2013 1131			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Naphthalene		1100		47	400
Acenaphthylene		240	J -	48	400
Acenaphthene		1500		59	400
Fluorene		2800		52	400
Phenanthrene		2000		51	400
Anthracene		280	J -	49	400
Fluoranthene		400	U	54	400
Pyrene		400	U	34	400
Benzo[a]anthracene		40	U	2.8	40
Chrysene		400	U	47	400
Benzo[b]fluoranthene		10	J -	2.5	40
Benzo[k]fluoranthene		40	U	3.1	40
Benzo[a]pyrene		9.1	J -	2.9	40
Indeno[1,2,3-cd]pyrene		40	U	7.5	40
Dibenz(a,h)anthracene		40	U	5.1	40
Benzo[g,h,i]perylene		400	U	30	400

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5	67		38 - 105
Terphenyl-d14	86		16 - 151
2-Fluorobiphenyl	69		40 - 109

Client: GEI Consultants, Inc.

Job Number: 460-52562-1

Client Sample ID: B-516(13)22.5-23

Lab Sample ID: 460-52562-13

Date Sampled: 03/18/2013 1350

Client Matrix: Solid

% Moisture: 12.0

Date Received: 03/19/2013 0910

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-152663	Instrument ID:	BNAMS4
Prep Method:	3541	Prep Batch:	460-151888	Lab File ID:	u85654.d
Dilution:	1.0			Initial Weight/Volume:	15.00 g
Analysis Date:	03/25/2013 1902			Final Weight/Volume:	1 mL
Prep Date:	03/20/2013 1131			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Naphthalene		290	J *	44	370
Acenaphthylene		100	J *	44	370
Acenaphthene		820		55	370
Fluorene		220	J *	48	370
Phenanthrene		110	J *	48	370
Anthracene		120	J *	46	370
Fluoranthene		510		50	370
Pyrene		270	J *	31	370
Benzo[a]anthracene		37	U	2.6	37
Chrysene		370	U	44	370
Benzo[b]fluoranthene		37	U	2.4	37
Benzo[k]fluoranthene		37	U	2.9	37
Benzo[a]pyrene		37	U	2.7	37
Indeno[1,2,3-cd]pyrene		37	U	7.0	37
Dibenz(a,h)anthracene		37	U	4.7	37
Benzo[g,h,i]perylene		370	U	28	370

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5	73		38 - 105
Terphenyl-d14	92		16 - 151
2-Fluorobiphenyl	73		40 - 109

Client: GEI Consultants, Inc.

Job Number: 460-52562-1

Client Sample ID: B-518(13)14.5-16

Lab Sample ID: 460-52562-14

Date Sampled: 03/18/2013 1420

Client Matrix: Solid

% Moisture: 13.4

Date Received: 03/19/2013 0910

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-152624	Instrument ID:	BNAMS4
Prep Method:	3541	Prep Batch:	460-151888	Lab File ID:	u85611.d
Dilution:	1.0			Initial Weight/Volume:	15.02 g
Analysis Date:	03/24/2013 1841			Final Weight/Volume:	1 mL
Prep Date:	03/20/2013 1131			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Naphthalene		400	J	44	380
Acenaphthylene		470	J	45	380
Acenaphthene		860	J	56	380
Fluorene		1300	J	49	380
Phenanthrene		1300	J	49	380
Anthracene		380	U J	46	380
Fluoranthene		380	U	51	380
Pyrene		380	U	32	380
Benzo[a]anthracene		38	U	2.7	38
Chrysene		380	U	45	380
Benzo[b]fluoranthene		38	U	2.4	38
Benzo[k]fluoranthene		38	U	2.9	38
Benzo[a]pyrene		38	U	2.7	38
Indeno[1,2,3-cd]pyrene		38	U	7.1	38
Dibenz(a,h)anthracene		38	U	4.8	38
Benzo[g,h,i]perylene		380	U J	28	380

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5	56		38 - 105
Terphenyl-d14	87		16 - 151
2-Fluorobiphenyl	69		40 - 109

Client: GEI Consultants, Inc.

Job Number: 460-52562-1

Client Sample ID: B-518(13)25-30

Lab Sample ID: 460-52562-15

Date Sampled: 03/18/2013 1515

Client Matrix: Solid

% Moisture: 13.2

Date Received: 03/19/2013 0910

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-152663	Instrument ID:	BNAMS4
Prep Method:	3541	Prep Batch:	460-151888	Lab File ID:	u85661.d
Dilution:	10			Initial Weight/Volume:	15.03 g
Analysis Date:	03/25/2013 2132	Run Type:	DL	Final Weight/Volume:	1 mL
Prep Date:	03/20/2013 1131			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Naphthalene		720	J	440	3800
Acenaphthylene		3300	J	450	3800
Acenaphthene		13000		550	3800
Fluorene		11000		490	3800
Phenanthrene		15000		480	3800
Anthracene		16000		460	3800
Fluoranthene		50000		510	3800
Pyrene		56000		320	3800
Benzo[a]anthracene		21000		27	380
Chrysene		18000		440	3800
Benzo[b]fluoranthene		20000		24	380
Benzo[k]fluoranthene		8900		29	380
Benzo[a]pyrene		23000		27	380
Indeno[1,2,3-cd]pyrene		14000		71	380
Dibenz(a,h)anthracene		3200		48	380
Benzo[g,h,i]perylene		14000	J	280	3800

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5	0	D	38 - 105
Terphenyl-d14	0	D	16 - 151
2-Fluorobiphenyl	0	D	40 - 109

Client: GEI Consultants, Inc.

Job Number: 460-52562-1

Client Sample ID: B-518(13)5-7.5

Lab Sample ID: 460-52562-18

Date Sampled: 03/18/2013 1405

Client Matrix: Solid

% Moisture: 9.5

Date Received: 03/19/2013 0910

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-152624	Instrument ID:	BNAMS4
Prep Method:	3541	Prep Batch:	460-151888	Lab File ID:	u85614.d
Dilution:	1.0			Initial Weight/Volume:	15.00 g
Analysis Date:	03/24/2013 1953			Final Weight/Volume:	1 mL
Prep Date:	03/20/2013 1131			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Naphthalene		360	U	42	360
Acenaphthylene		360	U	43	360
Acenaphthene		360	U	53	360
Fluorene		360	U	47	360
Phenanthrene		60	J -	47	360
Anthracene		360	U	44	360
Fluoranthene		97	J -	49	360
Pyrene		110	J -	31	360
Benzo[a]anthracene		110		2.6	36
Chrysene		110	J -	43	360
Benzo[b]fluoranthene		190		2.3	36
Benzo[k]fluoranthene		110		2.8	36
Benzo[a]pyrene		210		2.6	36
Indeno[1,2,3-cd]pyrene		170		6.8	36
Dibenz(a,h)anthracene		38		4.6	36
Benzo[g,h,i]perylene		150	J -	27	360

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5	66		38 - 105
Terphenyl-d14	85		16 - 151
2-Fluorobiphenyl	66		40 - 109

Client: GEI Consultants, Inc.

Job Number: 460-52562-1

Client Sample ID: B-51813)21-22

Lab Sample ID: 460-52562-19

Date Sampled: 03/18/2013 1500

Client Matrix: Solid

% Moisture: 21.1

Date Received: 03/19/2013 0910

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-152663	Instrument ID:	BNAMS4
Prep Method:	3541	Prep Batch:	460-151888	Lab File ID:	u85652.d
Dilution:	1.0			Initial Weight/Volume:	15.01 g
Analysis Date:	03/25/2013 1820			Final Weight/Volume:	1 mL
Prep Date:	03/20/2013 1131			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Naphthalene		96	J -	49	420
Acenaphthylene		82	J -	50	420
Acenaphthene		700		61	420
Fluorene		630		54	420
Phenanthrene		780		53	420
Anthracene		100	J -	51	420
Fluoranthene		220	J -	56	420
Pyrene		170	J -	35	420
Benzo[a]anthracene		62		2.9	42
Chrysene		72	J -	49	420
Benzo[b]fluoranthene		56		2.6	42
Benzo[k]fluoranthene		28	J -	3.2	42
Benzo[a]pyrene		64		3.0	42
Indeno[1,2,3-cd]pyrene		32	J -	7.8	42
Dibenz(a,h)anthracene		42	U	5.3	42
Benzo[g,h,i]perylene		420	U	31	420

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5	66		38 - 105
Terphenyl-d14	93		16 - 151
2-Fluorobiphenyl	69		40 - 109

Chain of Custody Record

Temperature on Receipt 2/21 2014

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124 (1007)

Client GEL Consultants, Inc.	Project Manager Jerry Zak	Date 03/15/13	Chain of Custody Number 216103
Address 455 Winding Brook Drive	Telephone Number (Area Code)/Fax Number (860).368-5404	Lab Number	Page 1 of 2

City Glastonbury	State CT	Zip Code 06033	Site Contact Drew Blicharz	Lab Contact Melissa Haas	Analysis (Attach list if more space is needed)	Special Instructions/ Conditions of Receipt 52562
Project Name and Location (State) Troy Liberty Street PDI, Troy, NY			Carrier/Waybill Number			
Contract/Purchase Order/Quote No. 5983						

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix				Containers & Preservatives						Analysis	Special Instructions/ Conditions of Receipt	
			Air	Aqueous	Sed.	Soil	Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc2			NaOH
B-513(U3) 9-10	03/15/13	0830				X									1
B-513(U3) 13-14		0840				X									2
B-513(U3) 15.5-16.5		0850				X									3
B-513(U3) 24.5-25.0		0920				X									4
B-517(U3) 11-12		1000				X									5
B-517(U3) 24.5-25.0		1030				X									6
B-514(U3) 12-13		1100				X									7
B-514(U3) 15.5-16.0		1120				X									8
B-514(U3) 20.0-21.5		1135				X									9
B-516(U3) 7.5-8.0		1230				X									10
B-516(U3) 14-15		1240				X									11
B-516(U3) 18.25-18.75	✓	1335				X									12

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Return To Client Disposal By Lab Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
 24 Hours 48 Hours 7 Days 14 Days 21 Days Other **STANDARD**

1. Relinquished By		Date	Time	1. Received By		Date	Time
Drew Blicharz		03/15/13	1615	Tim K...		3-18-13	1615
2. Relinquished By		Date	Time	2. Received By		Date	Time
Tim K...		3-18-13	1800	FedEx			
3. Relinquished By		Date	Time	3. Received By		Date	Time
FedEx				[Signature]		3/15/13	9:10

Comments: **CS# 710215**

Chain of Custody Record

Temperature on Receipt 2/31 °F

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

04/03/2013

TAL-4124 (1007)

Client G&I Consultants, Inc.		Project Manager Jerry Zak		Date 03/18/13	Chain of Custody Number 236399
Address 455 Winding Brook Drive		Telephone Number (Area Code)/Fax Number (860) 368-5704		Lab Number	
City Glastonbury	State CT	Zip Code 06033	Site Contact Dr. Bligh	Page 2 of 2	

Project Name and Location (State) Troy Liberty Street PDI, Troy, NY		Carrier/Waybill Number		Analysis (Attach list if more space is needed)	
Contract/Purchase Order/Quote No. S983		Lab Contact Melissa Hays			

Sample I.D. No. and Description <small>(Containers for each sample may be combined on one line)</small>	Date	Time	Matrix				Containers & Preservatives						Special Instructions/Conditions of Receipt		
			Air	Aqueous	Sed.	Soil	Unpres.	H2SO4	HNO3	HCl	HClO4	ZnAc2		NiCl2	
B-516(13) 22.5-23	03/18/13	1350			X		X	X	X	X	X	X	X	X	52562 13 MS/MSD 148 1508 19 768 20 1508 18 1605 16 1508
B-518(13) 14.5-16	↓	1420			X		X	X	X	X	X	X	X	X	
B-518(13) 25-30	↓	1515			X		X	X	X	X	X	X	X	X	
B-518(13) 21-22	↓	1500			X		X	X	X	X	X	X	X	X	
TB-031813	↓	1600	X		X		X	X	X	X	X	X	X	X	
B-518(13) 5-7.5	3/18/13	1405			X		X	X	X	X	X	X	X	X	
TRK 3-18-13															

Possible Hazard Identification				Sample Disposal				(A fee may be assessed if samples are retained longer than 1 month)			
<input type="checkbox"/> Non-Hazard	<input type="checkbox"/> Flammable	<input type="checkbox"/> Skin Irritant	<input type="checkbox"/> Poison B	<input type="checkbox"/> Unknown	<input type="checkbox"/> Return To Client	<input checked="" type="checkbox"/> Disposal By Lab	<input type="checkbox"/> Archive For _____ Months				

Turn Around Time Required				QC Requirements (Specify)					
<input type="checkbox"/> 24 Hours	<input type="checkbox"/> 48 Hours	<input type="checkbox"/> 7 Days	<input type="checkbox"/> 14 Days	<input type="checkbox"/> 21 Days	<input type="checkbox"/> Other STANDARD				

1. Relinquished By Dr. Bligh	Date 03/18/13	Time 1615	1. Received By TL	Date 3-18-13	Time 1615
2. Relinquished By T. K...	Date 3-18-13	Time 1800	2. Received By RedBy	Date	Time
3. Relinquished By RedBy	Date	Time	3. Received By C C	Date 3/19/13	Time 9:10

Comments: **CS# 710215**

ANALYTICAL REPORT

Job Number: 460-52720-1

Job Description: Troy Liberty Street Former MGP PDI

For:

GEI Consultants, Inc.
455 Winding Brook Drive
Suite 201
Glastonbury, CT 06033
Attention: Mr. Jerry Zak



Approved for release.
Jennifer Capece
Project Mgmt. Assistant
4/8/2013 10:07 AM

Designee for
Melissa Haas
Project Manager I
melissa.haas@testamericainc.com
04/08/2013

cc: Mr. Drew Blicharz
Jaimie Wargo

The test results in this report meet all NELAP requirements unless specified within the case narrative. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. All questions regarding this report should be directed to the TestAmerica Edison Project Manager.

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TestAmerica Laboratories, Inc.

TestAmerica Edison 777 New Durham Road, Edison, NJ 08817
Tel (732) 549-3900 Fax (732) 549-3679 www.testamericainc.com



Job Number: 460-52720-1

Job Description: Troy Liberty Street Former MGP PDI

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed within the body of this report. Release of the data contained in this sample data package and in the electronic data deliverable has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.



Approved for release.
Jennifer Capece
Project Mgmt. Assistant
4/8/2013 10:07 AM

Designee for
Melissa Haas

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CASE NARRATIVE

Client: GEI Consultants, Inc.

Project: Troy Liberty Street Former MGP PDI

Report Number: 460-52720-1

This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

It should be noted that samples with elevated Reporting Limits (RLs) as a result of a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the RLs are unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes or interferences which exceed the calibration range of the instrument.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

The samples were received on 03/21/2013; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 4.1 C.

Except:

Samples were collected as dirt in jar. Samples were not collected according to 5035-L/5035A-L specifications. The client was notified and instructed the lab to proceed with analysis.

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2C of the required temperature or method specified range. For samples with a specified temperature of 4C, samples with a temperature ranging from just above freezing temperature of water to 6C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

IGNITABILITY

Sample 460-52720-3 was analyzed for Ignitability in accordance with EPA SW-846 Method 1030. The samples were analyzed on 03/25/2013.

No difficulties were encountered during the burn rate analysis.

All quality control parameters were within the acceptance limits.

TCLP METALS

Sample 460-52720-3 was analyzed for TCLP metals in accordance with EPA SW-846 Methods 1311/ 6010B. The samples were leached on 03/22/2013, prepared on 03/23/2013 and analyzed on 03/24/2013.

As a standard practice all TCLP samples are diluted 5X prior to analysis. Further dilutions may be required dependent upon analyte levels in the samples. Refer to the analytical results forms for dilutions.

No difficulties were encountered during the TCLP metals analysis.

All quality control parameters were within the acceptance limits.

TOTAL METALS

Samples 460-52720-1 through 460-52720-3 were analyzed for total metals in accordance with EPA SW-846 Method 6010B. The samples were prepared and analyzed on 03/22/2013.

Samples 460-52720-1 through 460-52720-3(4X) required dilution prior to analysis. The reporting limits have been adjusted accordingly.

As a standard practice all soil samples and related QC samples (i.e., MB, LCS, Dup, MS, SD) are diluted 2X-4X prior to analysis. Further dilutions may be required dependent upon analyte levels in the samples. Refer to the analytical results forms for dilutions.

No difficulties were encountered during the metals analyses.

All quality control parameters were within the acceptance limits.

HEXAVALENT CHROMIUM

Sample 460-52720-3 was analyzed for hexavalent chromium in accordance with EPA SW-846 Method 3060A/7196A. The samples were prepared and analyzed on 03/25/2013.

No difficulties were encountered during the hexchrome Cr6 analysis.

All quality control parameters were within the acceptance limits.

TCLP MERCURY

Sample 460-52720-3 was analyzed for TCLP mercury in accordance with EPA SW-846 Methods 1311/7470A. The samples were leached on 03/22/2013, and prepared and analyzed on 03/23/2013.

No difficulties were encountered during the TCLP mercury analysis.

All quality control parameters were within the acceptance limits.

TOTAL MERCURY

Samples 460-52720-1 through 460-52720-3 were analyzed for total mercury in accordance with EPA SW-846 Method 7471A. The samples were prepared and analyzed on 03/24/2013.

No difficulties were encountered during the Hg analyses.

All quality control parameters were within the acceptance limits.

DIESEL RANGE ORGANICS

Samples 460-52720-1 through 460-52720-3 were analyzed for diesel range organics in accordance with EPA SW-846 Method 8015B - DRO. The samples were prepared on 03/22/2013 and analyzed on 03/25/2013 and 03/26/2013.

Due to the level of dilution required for the following sample, surrogate recoveries are not reported: Pre-Char 2 (460-52720-2).

Due to the level of dilution required for the following sample, surrogate recoveries are not reported: Pre-Char 1 (460-52720-1).

Due to the level of dilution required for the following sample, surrogate recoveries are not reported: Waste 1 (460-52720-3).

The following sample was diluted to bring the concentration of the target analyte within the calibration range: Pre-Char 2 (460-52720-2). Elevated reporting limits (RLs) are provided.

The following sample was diluted to bring the concentration of the target analyte within the calibration range: Waste 1 (460-52720-3). Elevated reporting limits (RLs) are provided.

The following sample was diluted to bring the concentration of the target analyte within the calibration range: Pre-Char 1 (460-52720-1). Elevated reporting limits (RLs) are provided.

Refer to the QC report for details.

Samples 460-52720-1(20X), 460-52720-2(10X) and 460-52720-3(50X) required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No other difficulties were encountered during the DRO analyses.

All other quality control parameters were within the acceptance limits.

GASOLINE RANGE ORGANICS

Samples 460-52720-1 through 460-52720-3 were analyzed for gasoline range organics in accordance with EPA SW-846 Method 8015B - GRO. The samples were prepared on 03/21/2013 and analyzed on 03/22/2013 and 03/26/2013.

The %RPD of the laboratory control sample (LCS) and laboratory control standard duplicate (LCSD) for batch 152957 exceeded control limits for the following analyte: GRO. The LCS/LCSD recoveries were within control limits; therefore, the data has been flagged and reported.

The following sample was diluted to bring the concentration of the target analyte within the calibration range: Pre-Char 2 (460-52720-2). Elevated reporting limits (RLs) are provided.

The following sample was diluted to bring the concentration of the target analyte within the calibration range: Waste 1 (460-52720-3). Elevated reporting limits (RLs) are provided.

The following sample was diluted to bring the concentration of the target analyte within the calibration range: Pre-Char 1 (460-52720-1).

Elevated reporting limits (RLs) are provided.

Refer to the QC report for details.

No other difficulties were encountered during the GRO analyses.

All other quality control parameters were within the acceptance limits.

TCLP CHLORINATED PESTICIDES

Sample 460-52720-3 was analyzed for TCLP chlorinated pesticides in accordance with EPA SW-846 Methods 1311/ 8081A. The samples were leached on 03/22/2013, prepared on 03/23/2013 and analyzed on 03/24/2013.

The laboratory control sample (LCS) for batch 152430 exceeded control limits for the following analytes: methoxychlor. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported. (LCS 460-152430/2-A)

Refer to the QC report for details.

No other difficulties were encountered during the TCLP pesticides analysis.

All other quality control parameters were within the acceptance limits.

POLYCHLORINATED BIPHENYLS

Samples 460-52720-1 through 460-52720-3 were analyzed for polychlorinated biphenyls in accordance with EPA SW-846 Method 8082. The samples were prepared on 03/22/2013 and analyzed on 03/25/2013.

No difficulties were encountered during the PCBs analyses.

All quality control parameters were within the acceptance limits.

TCLP CHLORINATED HERBICIDES

Sample 460-52720-3 was analyzed for TCLP chlorinated herbicides in accordance with EPA SW-846 Methods 1311/ 8151A. The samples were leached on 03/22/2013, prepared on 03/25/2013 and analyzed on 03/26/2013.

No difficulties were encountered during the TCLP herbicides analysis.

All quality control parameters were within the acceptance limits.

TCLP VOLATILE ORGANIC COMPOUNDS (GC-MS)

Sample 460-52720-3 was analyzed for TCLP volatile organic compounds (GC-MS) in accordance with EPA SW-846 Methods 1311/8260B. The samples were leached on 03/23/2013 and analyzed on 04/03/2013.

All samples and associated QC are diluted 10X prior to TCLP VOA analysis.

No difficulties were encountered during the TCLP volatiles analysis.

All quality control parameters were within the acceptance limits.

VOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples 460-52720-1 through 460-52720-3 were analyzed for volatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8260B. The samples were prepared on 03/21/2013 and analyzed on 03/27/2013.

The following samples were diluted due to the abundance of target and non-target analytes: Pre-Char 1 (460-52720-1), Pre-Char 2 (460-52720-2), Waste 1 (460-52720-3). Elevated reporting limits (RLs) are provided.

The following sample was diluted to bring the concentration of target analytes within the calibration range: Waste 1 (460-52720-3). Elevated reporting limits (RLs) are provided.

Refer to the QC report for details.

No other difficulties were encountered during the volatiles analyses.

All other quality control parameters were within the acceptance limits.

SEMIVOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples 460-52720-1 through 460-52720-3 were analyzed for semivolatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8270C. The samples were prepared on 03/25/2013 and analyzed on 03/26/2013.

The following samples were diluted due to abundance of target analytes: Pre-Char 1 (460-52720-1), Pre-Char 2 (460-52720-2), Waste 1

(460-52720-3). As such, surrogate recoveries are not reported, and elevated reporting limits (RLs) are provided.

Refer to the QC report for details.

Samples 460-52720-1(50X), 460-52720-2(100X) and 460-52720-3(250X) required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No other difficulties were encountered during the semivolatiles analyses.

All other quality control parameters were within the acceptance limits.

SEMIVOLATILE ORGANIC COMPOUNDS (GC/MS)

Sample 460-52720-3 was analyzed for semivolatile organic compounds (GC/MS) in accordance with EPA SW-846 Method 8270D. The samples were leached on 03/22/2013, prepared on 03/24/2013 and analyzed on 04/01/2013.

The following sample was diluted due to abundance of target analytes: Waste 1 (460-52720-3). As such, surrogate recoveries are not reported, and elevated reporting limits (RLs) are provided.

2,4,6-Tribromophenol, 2-Fluorobiphenyl, 2-Fluorophenol, Nitrobenzene-d5, Phenol-d5 and Terphenyl-d14 failed the surrogate recovery criteria low for 460-52720-3.

Refer to the QC report for details.

Sample 460-52720-3(25X) required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No other difficulties were encountered during the semivolatiles analysis.

All other quality control parameters were within the acceptance limits.

TOTAL CYANIDE

Samples 460-52720-1 through 460-52720-3 were analyzed for total cyanide in accordance with EPA SW-846 Method 9012A. The samples were prepared and analyzed on 03/24/2013.

The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 152519 were outside control limits. The associated laboratory control sample (LCS) recovery met acceptance criteria.

The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 152521 were outside control limits. The associated laboratory control sample (LCS) recovery met acceptance criteria.

Refer to the QC report for details.

Sample 460-52720-3(10X) required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No other difficulties were encountered during the cyanide analyses.

All other quality control parameters were within the acceptance limits.

REACTIVE CYANIDE

Sample 460-52720-3 was analyzed for reactive cyanide in accordance with EPA SW-846 Method 7.3.3/9014. The samples were prepared and analyzed on 03/25/2013.

No difficulties were encountered during the reactive cyanide analysis.

All quality control parameters were within the acceptance limits.

EXTRACTABLE ORGANIC HALOGENS

Sample 460-52720-3 was analyzed for Extractable Organic Halogens in accordance with EPA SW-846 Method 9023. The samples were prepared on 04/03/2013 and analyzed on 04/04/2013.

No difficulties were encountered during the EOX analysis.

All quality control parameters were within the acceptance limits.

REACTIVE SULFIDE

Sample 460-52720-3 was analyzed for reactive sulfide in accordance with EPA SW-846 Method 7.3.4/9034. The samples were prepared and analyzed on 03/25/2013.

No difficulties were encountered during the reactive sulfide analysis.

All quality control parameters were within the acceptance limits.

CORROSIVITY (PH)

Sample 460-52720-3 was analyzed for corrosivity (pH) in accordance with EPA SW-846 Method 9045C. The samples were analyzed on 03/22/2013.

This analysis is normally performed in the field and has a method-defined holding time of 15 minutes. The following sample has been qualified with the "HF" flag to indicate analysis was performed in the laboratory outside the 15 minute timeframe: 460-52720-3

No difficulties were encountered during the corrosivity (pH) analysis.

All quality control parameters were within the acceptance limits.

HEAT OF COMBUSTION

Samples 460-52720-1 through 460-52720-3 were analyzed for Heat of Combustion in accordance with ASTM Method D240-87. The samples were prepared and analyzed on 04/02/2013.

No difficulties were encountered during the BTU analyses.

All quality control parameters were within the acceptance limits.

PERCENT SOLIDS/PERCENT MOISTURE

Samples 460-52720-1 through 460-52720-3 were analyzed for percent solids/percent moisture in accordance with EPA Method CLPISM01.2 (Exhibit D). The samples were analyzed on 03/23/2013.

No difficulties were encountered during the %solids/moisture analyses.

All quality control parameters were within the acceptance limits.

EXECUTIVE SUMMARY - Detections

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

Lab Sample ID	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
460-52720-1	PRE-CHAR 1					
Benzene		9200		120	ug/Kg	8260B
Toluene		13000		120	ug/Kg	8260B
Ethylbenzene		1300		120	ug/Kg	8260B
Styrene		5700		120	ug/Kg	8260B
m&p-Xylene		15000		230	ug/Kg	8260B
o-Xylene		5600		120	ug/Kg	8260B
Cyclohexane		150		120	ug/Kg	8260B
Isopropylbenzene		100	J	120	ug/Kg	8260B
Methylcyclohexane		390		120	ug/Kg	8260B
Phenol		45000	J	54000	ug/Kg	8270C
2-Methylphenol		30000	J	54000	ug/Kg	8270C
4-Methylphenol		73000		54000	ug/Kg	8270C
2,4-Dimethylphenol		36000	J	54000	ug/Kg	8270C
Naphthalene		770000		54000	ug/Kg	8270C
2-Methylnaphthalene		210000		54000	ug/Kg	8270C
Diphenyl		57000		54000	ug/Kg	8270C
Acenaphthylene		210000		54000	ug/Kg	8270C
Acenaphthene		40000	J	54000	ug/Kg	8270C
Dibenzofuran		170000		54000	ug/Kg	8270C
Fluorene		200000		54000	ug/Kg	8270C
Fluoranthene		340000		54000	ug/Kg	8270C
Anthracene		210000		54000	ug/Kg	8270C
Carbazole		76000		54000	ug/Kg	8270C
Phenanthrene		670000		54000	ug/Kg	8270C
Pyrene		310000		54000	ug/Kg	8270C
Chrysene		140000		54000	ug/Kg	8270C
Benzo[k]fluoranthene		54000		5400	ug/Kg	8270C
Benzo[g,h,i]perylene		81000		54000	ug/Kg	8270C
Benzo[b]fluoranthene		130000		5400	ug/Kg	8270C
Benzo[a]pyrene		130000		5400	ug/Kg	8270C
Benzo[a]anthracene		150000		5400	ug/Kg	8270C
Indeno[1,2,3-cd]pyrene		75000		5400	ug/Kg	8270C
Dibenz(a,h)anthracene		19000		5400	ug/Kg	8270C
GRO		170000		5500	ug/Kg	8015B
Diesel Range Organics [C10-C28]		4700		160	mg/Kg	8015B
Aluminum		11600		47.9	mg/Kg	6010B
Arsenic		9.4		1.2	mg/Kg	6010B
Barium		116		47.9	mg/Kg	6010B
Beryllium		0.69		0.48	mg/Kg	6010B
Calcium		15400		1200	mg/Kg	6010B
Chromium		15.4		2.4	mg/Kg	6010B
Cobalt		10.8	J	12.0	mg/Kg	6010B
Copper		28.0		6.0	mg/Kg	6010B
Iron		29800		35.9	mg/Kg	6010B
Lead		85.2		1.2	mg/Kg	6010B
Magnesium		6300		1200	mg/Kg	6010B

EXECUTIVE SUMMARY - Detections

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

Lab Sample ID	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
Manganese		685		3.6	mg/Kg	6010B
Nickel		23.1		9.6	mg/Kg	6010B
Potassium		1650		1200	mg/Kg	6010B
Sodium		1650		1200	mg/Kg	6010B
Vanadium		19.9		12.0	mg/Kg	6010B
Zinc		75.5		7.2	mg/Kg	6010B
Mercury		0.25		0.020	mg/Kg	7471A
Cyanide, Total		0.63		0.12	mg/Kg	9012A
BTU		DNF		2.00	BTU/lb	D240-87
Percent Moisture		16.5		1.0	%	Moisture
Percent Solids		83.5		1.0	%	Moisture

EXECUTIVE SUMMARY - Detections

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

Lab Sample ID	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
460-52720-2	PRE-CHAR 2					
Benzene		270000		2400	ug/Kg	8260B
Toluene		300000		2400	ug/Kg	8260B
Ethylbenzene		26000		2400	ug/Kg	8260B
Styrene		120000		2400	ug/Kg	8260B
m&p-Xylene		290000		4800	ug/Kg	8260B
o-Xylene		110000		2400	ug/Kg	8260B
Isopropylbenzene		1500	J	2400	ug/Kg	8260B
Methylcyclohexane		3900		2400	ug/Kg	8260B
Phenol		69000	J	120000	ug/Kg	8270C
2-Methylphenol		41000	J	120000	ug/Kg	8270C
4-Methylphenol		100000	J	120000	ug/Kg	8270C
2,4-Dimethylphenol		53000	J	120000	ug/Kg	8270C
Naphthalene		1200000		120000	ug/Kg	8270C
2-Methylnaphthalene		340000		120000	ug/Kg	8270C
Diphenyl		85000	J	120000	ug/Kg	8270C
Acenaphthylene		320000		120000	ug/Kg	8270C
Acenaphthene		61000	J	120000	ug/Kg	8270C
Dibenzofuran		260000		120000	ug/Kg	8270C
Fluorene		290000		120000	ug/Kg	8270C
Fluoranthene		640000		120000	ug/Kg	8270C
Anthracene		350000		120000	ug/Kg	8270C
Carbazole		130000		120000	ug/Kg	8270C
Phenanthrene		1100000		120000	ug/Kg	8270C
Pyrene		500000		120000	ug/Kg	8270C
Chrysene		260000		120000	ug/Kg	8270C
Benzo[k]fluoranthene		110000		12000	ug/Kg	8270C
Benzo[g,h,i]perylene		150000		120000	ug/Kg	8270C
Benzo[b]fluoranthene		220000		12000	ug/Kg	8270C
Benzo[a]pyrene		250000		12000	ug/Kg	8270C
Benzo[a]anthracene		260000		12000	ug/Kg	8270C
Indeno[1,2,3-cd]pyrene		150000		12000	ug/Kg	8270C
Dibenz(a,h)anthracene		38000		12000	ug/Kg	8270C
GRO		820000		28000	ug/Kg	8015B
Diesel Range Organics [C10-C28]		800		86	mg/Kg	8015B
Aluminum		9690		46.0	mg/Kg	6010B
Arsenic		15.0		1.1	mg/Kg	6010B
Barium		139		46.0	mg/Kg	6010B
Beryllium		0.53		0.46	mg/Kg	6010B
Calcium		40000		1150	mg/Kg	6010B
Chromium		20.1		2.3	mg/Kg	6010B
Cobalt		7.2	J	11.5	mg/Kg	6010B
Copper		142		5.7	mg/Kg	6010B
Iron		21100		34.5	mg/Kg	6010B
Lead		252		1.1	mg/Kg	6010B
Magnesium		5850		1150	mg/Kg	6010B
Manganese		480		3.4	mg/Kg	6010B

EXECUTIVE SUMMARY - Detections

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

Lab Sample ID	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
Nickel		18.2		9.2	mg/Kg	6010B
Potassium		1600		1150	mg/Kg	6010B
Sodium		329	J	1150	mg/Kg	6010B
Vanadium		17.6		11.5	mg/Kg	6010B
Zinc		115		6.9	mg/Kg	6010B
Mercury		0.26		0.022	mg/Kg	7471A
Cyanide, Total		0.45		0.13	mg/Kg	9012A
BTU		DNF		4.06	BTU/lb	D240-87
Percent Moisture		22.3		1.0	%	Moisture
Percent Solids		77.7		1.0	%	Moisture

EXECUTIVE SUMMARY - Detections

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

Lab Sample ID	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
460-52720-3	WASTE 1					
Benzene		190000		2000	ug/Kg	8260B
Toluene		200000		2000	ug/Kg	8260B
Ethylbenzene		20000		2000	ug/Kg	8260B
Styrene		75000		2000	ug/Kg	8260B
m&p-Xylene		200000		4000	ug/Kg	8260B
o-Xylene		75000		2000	ug/Kg	8260B
Cyclohexane		810	J	2000	ug/Kg	8260B
Isopropylbenzene		1100	J	2000	ug/Kg	8260B
Methylcyclohexane		2700		2000	ug/Kg	8260B
Phenol		410000		240000	ug/Kg	8270C
2-Methylphenol		180000	J	240000	ug/Kg	8270C
4-Methylphenol		470000		240000	ug/Kg	8270C
2,4-Dimethylphenol		190000	J	240000	ug/Kg	8270C
Naphthalene		4000000		240000	ug/Kg	8270C
2-Methylnaphthalene		980000		240000	ug/Kg	8270C
Diphenyl		230000	J	240000	ug/Kg	8270C
Acenaphthylene		840000		240000	ug/Kg	8270C
Acenaphthene		140000	J	240000	ug/Kg	8270C
Dibenzofuran		700000		240000	ug/Kg	8270C
Fluorene		790000		240000	ug/Kg	8270C
Fluoranthene		1400000		240000	ug/Kg	8270C
Anthracene		1100000		240000	ug/Kg	8270C
Carbazole		410000		240000	ug/Kg	8270C
Phenanthrene		2500000		240000	ug/Kg	8270C
Pyrene		1000000		240000	ug/Kg	8270C
Chrysene		600000		240000	ug/Kg	8270C
Benzo[k]fluoranthene		210000		24000	ug/Kg	8270C
Benzo[g,h,i]perylene		290000		240000	ug/Kg	8270C
Benzo[b]fluoranthene		490000		24000	ug/Kg	8270C
Benzo[a]pyrene		520000		24000	ug/Kg	8270C
Benzo[a]anthracene		570000		24000	ug/Kg	8270C
Indeno[1,2,3-cd]pyrene		280000		24000	ug/Kg	8270C
Dibenz(a,h)anthracene		73000		24000	ug/Kg	8270C
GRO		2000000	*	52000	ug/Kg	8015B
Diesel Range Organics [C10-C28]		7300		370	mg/Kg	8015B
Aluminum		9250		41.5	mg/Kg	6010B
Arsenic		15.2		1.0	mg/Kg	6010B
Barium		100		41.5	mg/Kg	6010B
Beryllium		0.48		0.42	mg/Kg	6010B
Calcium		24200		1040	mg/Kg	6010B
Chromium		13.1		2.1	mg/Kg	6010B
Cobalt		7.5	J	10.4	mg/Kg	6010B
Copper		29.0		5.2	mg/Kg	6010B
Iron		20800		31.2	mg/Kg	6010B
Lead		115		1.0	mg/Kg	6010B
Magnesium		7130		1040	mg/Kg	6010B

EXECUTIVE SUMMARY - Detections

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

Lab Sample ID Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
Manganese		834		3.1	mg/Kg	6010B
Nickel		18.1		8.3	mg/Kg	6010B
Potassium		1420		1040	mg/Kg	6010B
Vanadium		25.4		10.4	mg/Kg	6010B
Zinc		77.7		6.2	mg/Kg	6010B
Mercury		0.18		0.019	mg/Kg	7471A
Cyanide, Total		18.4		1.1	mg/Kg	9012A
Corrosivity		9.21	HF		SU	9045C
BTU		5070		2.00	BTU/lb	D240-87
Percent Moisture		10.0		1.0	%	Moisture
Percent Solids		90.0		1.0	%	Moisture
<i>TCLP</i>						
Benzene		8.5		0.020	mg/L	8260B
2-Methylphenol		8.3		1.0	mg/L	8270D
3 & 4 Methylphenol		19		1.0	mg/L	8270D
Arsenic		89.4		25.0	ug/L	6010B
Barium		716	J	1000	ug/L	6010B
Lead		55.0		25.0	ug/L	6010B
Mercury		0.26		0.20	ug/L	7470A

METHOD SUMMARY

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

Description	Lab Location	Method	Preparation Method
Matrix: Solid			
Volatile Organic Compounds (GC/MS)	TAL EDI	SW846 8260B	
Closed System Purge and Trap	TAL EDI		SW846 5035
Volatile Organic Compounds (GC/MS)	TAL EDI	SW846 8260B	
TCLP Extraction	TAL EDI		SW846 1311
Purge and Trap	TAL EDI		SW846 5030B
Semivolatile Organic Compounds (GC/MS)	TAL EDI	SW846 8270C	
Automated Soxhlet Extraction	TAL EDI		SW846 3541
Semivolatile Organic Compounds (GC/MS)	TAL EDI	SW846 8270D	
TCLP Extraction	TAL EDI		SW846 1311
Liquid-Liquid Extraction (Separatory Funnel)	TAL EDI		SW846 3510C
Gasoline Range Organics - (GC)	TAL EDI	SW846 8015B	
Closed System Purge and Trap	TAL EDI		SW846 5035
Diesel Range Organics (DRO) (GC)	TAL EDI	SW846 8015B	
Microwave Extraction	TAL EDI		SW846 3546
Organochlorine Pesticides (GC)	TAL EDI	SW846 8081A	
TCLP Extraction	TAL EDI		SW846 1311
Liquid-Liquid Extraction (Separatory Funnel)	TAL EDI		SW846 3510C
Polychlorinated Biphenyls (PCBs) by Gas Chromatography	TAL EDI	SW846 8082	
Microwave Extraction	TAL EDI		SW846 3546
Herbicides (GC)	TAL EDI	SW846 8151A	
TCLP Extraction	TAL EDI		SW846 1311
Extraction (Herbicides)	TAL EDI		SW846 8151A
Metals (ICP)	TAL EDI	SW846 6010B	
Preparation, Metals	TAL EDI		SW846 3050B
Metals (ICP)	TAL EDI	SW846 6010B	
TCLP Extraction	TAL EDI		SW846 1311
Preparation, Total Metals	TAL EDI		SW846 3010A
Mercury (CVAA)	TAL EDI	SW846 7470A	
TCLP Extraction	TAL EDI		SW846 1311
Preparation, Mercury	TAL EDI		SW846 7470A
Mercury (CVAA)	TAL EDI	SW846 7471A	
Preparation, Mercury	TAL EDI		SW846 7471A
Ignitability, Solids	TAL EDI	SW846 1030	
Chromium, Hexavalent	TAL EDI	SW846 7196A	
Alkaline Digestion (Chromium, Hexavalent)	TAL EDI		SW846 3060A
Cyanide, Total and/or Amenable	TAL EDI	SW846 9012A	
Cyanide, Total and/or Amenable, Distillation	TAL EDI		SW846 9012A
Cyanide, Reactive	TAL EDI	SW846 9014	
Cyanide, Reactive	TAL EDI		SW846 7.3.3
Sulfide, Reactive	TAL EDI	SW846 9034	
Sulfide, Reactive	TAL EDI		SW846 7.3.4
pH	TAL EDI	SW846 9045C	

METHOD SUMMARY

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

Description	Lab Location	Method	Preparation Method
Matrix: Solid			
Percent Moisture	TAL EDI	EPA Moisture	
Organic Halides, Extractable (EOX)	TAL NSH	SW846 9023	
Preparation, EOX	TAL NSH		SW846 9023
Heat of Combustion	TAL SAV	ASTM D240-87	
Preparation, Heat of Combustion	TAL SAV		ASTM D240-87
General Sub Contract Method	Harris Lab	Subcontract	

Lab References:

Harris Lab = Harris Testing Laboratories Inc.

TAL EDI = TestAmerica Edison

TAL NSH = TestAmerica Nashville

TAL SAV = TestAmerica Savannah

Method References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

Method	Analyst	Analyst ID
SW846 8260B	Desai, Saurab	SD
SW846 8260B	Tupayachi, Audberto	AT
SW846 8270C	Rana, Vidhi	VR
SW846 8270D	Rana, Vidhi	VR
SW846 8015B	Jin, Fangzhou	FJ
SW846 8015B	Nimer, Diaa	DN
SW846 8081A	Manlangit, Ferdie	FM
SW846 8082	Kapoor, Sita	SK
SW846 8151A	Kim, Ho	HK
SW846 6010B	Chang, Churn Der	CDC
SW846 7470A	Patel, Purva H	PHP
SW846 7471A	Patel, Purva H	PHP
SW846 1030	Kowalski, Joseph A	JAK
SW846 7196A	Leye, Mamadou	ML
SW846 9012A	Leye, Mamadou	ML
SW846 9014	Opara, Somtochi C	SCO
SW846 9023	Johnson, Cynthia L	CLJ
SW846 9034	Opara, Somtochi C	SCO
SW846 9045C	Opara, Somtochi C	SCO
ASTM D240-87	West, Ryan	RW
EPA Moisture	Martinez, Victor	VM

SAMPLE SUMMARY

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
460-52720-1	Pre-Char 1	Solid	03/20/2013 1500	03/21/2013 0850
460-52720-2	Pre-Char 2	Solid	03/20/2013 1515	03/21/2013 0850
460-52720-3	Waste 1	Solid	03/20/2013 1400	03/21/2013 0850

SAMPLE RESULTS

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

Client Sample ID: Pre-Char 1

Lab Sample ID: 460-52720-1

Date Sampled: 03/20/2013 1500

Client Matrix: Solid

% Moisture: 16.5

Date Received: 03/21/2013 0850

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	460-152933	Instrument ID:	VOAMS2
Prep Method:	5035	Prep Batch:	460-152166	Lab File ID:	b53895.d
Dilution:	50			Initial Weight/Volume:	5.10 g
Analysis Date:	03/27/2013 1136			Final Weight/Volume:	10 mL
Prep Date:	03/21/2013 1705				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Chloromethane		120	U	11	120
Bromomethane		120	U	21	120
Vinyl chloride		120	U	17	120
Chloroethane		120	U	20	120
Methylene Chloride		120	U	21	120
Acetone		590	U	310	590
Carbon disulfide		120	U	15	120
Trichlorofluoromethane		120	U	17	120
1,1-Dichloroethene		120	U	10	120
1,1-Dichloroethane		120	U	15	120
trans-1,2-Dichloroethene		120	U	15	120
cis-1,2-Dichloroethene		120	U	21	120
Chloroform		120	U	9.2	120
1,2-Dichloroethane		120	U	22	120
2-Butanone		590	U	270	590
1,1,1-Trichloroethane		120	U	7.3	120
Carbon tetrachloride		120	U	6.7	120
Bromodichloromethane		120	U	15	120
1,2-Dichloropropane		120	U	10	120
cis-1,3-Dichloropropene		120	U	22	120
Trichloroethene		120	U	11	120
Dibromochloromethane		120	U	23	120
1,1,2-Trichloroethane		120	U	22	120
Benzene		9200		9.7	120
trans-1,3-Dichloropropene		120	U	28	120
Bromoform		120	U	23	120
4-Methyl-2-pentanone		590	U	120	590
2-Hexanone		590	U	59	590
Tetrachloroethene		120	U	11	120
1,1,2,2-Tetrachloroethane		120	U	19	120
Toluene		13000		18	120
Chlorobenzene		120	U	13	120
Ethylbenzene		1300		11	120
Styrene		5700		14	120
m&p-Xylene		15000		29	230
o-Xylene		5600		15	120
Freon TF		120	U	9.6	120
MTBE		120	U	16	120
Cyclohexane		150		19	120
1,2-Dibromoethane		120	U	32	120
1,3-Dichlorobenzene		120	U	16	120
1,4-Dichlorobenzene		120	U	27	120
1,2-Dichlorobenzene		120	U	24	120
Dichlorodifluoromethane		120	U	25	120
1,2,4-Trichlorobenzene		120	U	40	120
1,4-Dioxane		5900	U	4200	5900

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

Client Sample ID: Pre-Char 1

Lab Sample ID: 460-52720-1

Date Sampled: 03/20/2013 1500

Client Matrix: Solid

% Moisture: 16.5

Date Received: 03/21/2013 0850

8260B Volatile Organic Compounds (GC/MS)

Analysis Method: 8260B Analysis Batch: 460-152933 Instrument ID: VOAMS2
Prep Method: 5035 Prep Batch: 460-152166 Lab File ID: b53895.d
Dilution: 50 Initial Weight/Volume: 5.10 g
Analysis Date: 03/27/2013 1136 Final Weight/Volume: 10 mL
Prep Date: 03/21/2013 1705

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,2,3-Trichlorobenzene		120	U	60	120
1,2-Dibromo-3-Chloropropane		120	U	47	120
Bromochloromethane		120	U	32	120
Isopropylbenzene		100	J	9.0	120
Methyl acetate		230	U	39	230
Methylcyclohexane		390		16	120

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	87		75 - 135
Toluene-d8 (Surr)	82		59 - 150
Bromofluorobenzene	92		72 - 133

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

Client Sample ID: Pre-Char 1

Lab Sample ID: 460-52720-1

Date Sampled: 03/20/2013 1500

Client Matrix: Solid

% Moisture: 16.5

Date Received: 03/21/2013 0850

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	460-152933	Instrument ID:	VOAMS2
Prep Method:	5035	Prep Batch:	460-152166	Lab File ID:	b53895.d
Dilution:	50			Initial Weight/Volume:	5.10 g
Analysis Date:	03/27/2013 1136			Final Weight/Volume:	10 mL
Prep Date:	03/21/2013 1705				

Tentatively Identified Compounds**Number TIC's Found: 10**

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
	C9H8 Aromatic	11.21	72000	J
	Methylbenzofuran isomer-1	11.76	15000	J
	C10H10 Aromatic	12.12	14000	J
	C10H10 Aromatic-1	12.20	15000	J
91-20-3	Naphthalene	12.59	170000	E
	Benzothiophene isomer	12.71	21000	J
91-57-6	Naphthalene, 2-methyl-	13.66	120000	J N
90-12-0	Naphthalene, 1-methyl-	13.87	61000	J N
92-52-4	Biphenyl	14.50	14000	J N
	Dimethylnaphthalene isomer	14.94	16000	J

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

Client Sample ID: Pre-Char 2

Lab Sample ID: 460-52720-2

Date Sampled: 03/20/2013 1515

Client Matrix: Solid

% Moisture: 22.3

Date Received: 03/21/2013 0850

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	460-152933	Instrument ID:	VOAMS2
Prep Method:	5035	Prep Batch:	460-152166	Lab File ID:	b53896.d
Dilution:	1000			Initial Weight/Volume:	5.38 g
Analysis Date:	03/27/2013 1158			Final Weight/Volume:	10 mL
Prep Date:	03/21/2013 1707				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Chloromethane		2400	U	230	2400
Bromomethane		2400	U	430	2400
Vinyl chloride		2400	U	350	2400
Chloroethane		2400	U	400	2400
Methylene Chloride		2400	U	440	2400
Acetone		12000	U	6400	12000
Carbon disulfide		2400	U	300	2400
Trichlorofluoromethane		2400	U	350	2400
1,1-Dichloroethene		2400	U	210	2400
1,1-Dichloroethane		2400	U	310	2400
trans-1,2-Dichloroethene		2400	U	310	2400
cis-1,2-Dichloroethene		2400	U	420	2400
Chloroform		2400	U	190	2400
1,2-Dichloroethane		2400	U	450	2400
2-Butanone		12000	U	5500	12000
1,1,1-Trichloroethane		2400	U	150	2400
Carbon tetrachloride		2400	U	140	2400
Bromodichloromethane		2400	U	300	2400
1,2-Dichloropropane		2400	U	210	2400
cis-1,3-Dichloropropene		2400	U	440	2400
Trichloroethene		2400	U	220	2400
Dibromochloromethane		2400	U	480	2400
1,1,2-Trichloroethane		2400	U	450	2400
Benzene		270000		200	2400
trans-1,3-Dichloropropene		2400	U	580	2400
Bromoform		2400	U	460	2400
4-Methyl-2-pentanone		12000	U	2400	12000
2-Hexanone		12000	U	1200	12000
Tetrachloroethene		2400	U	230	2400
1,1,2,2-Tetrachloroethane		2400	U	380	2400
Toluene		300000		360	2400
Chlorobenzene		2400	U	260	2400
Ethylbenzene		26000		230	2400
Styrene		120000		280	2400
m&p-Xylene		290000		590	4800
o-Xylene		110000		310	2400
Freon TF		2400	U	200	2400
MTBE		2400	U	330	2400
Cyclohexane		2400	U	380	2400
1,2-Dibromoethane		2400	U	660	2400
1,3-Dichlorobenzene		2400	U	320	2400
1,4-Dichlorobenzene		2400	U	560	2400
1,2-Dichlorobenzene		2400	U	490	2400
Dichlorodifluoromethane		2400	U	520	2400
1,2,4-Trichlorobenzene		2400	U	820	2400
1,4-Dioxane		120000	U	86000	120000

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

Client Sample ID: Pre-Char 2

Lab Sample ID: 460-52720-2

Date Sampled: 03/20/2013 1515

Client Matrix: Solid

% Moisture: 22.3

Date Received: 03/21/2013 0850

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	460-152933	Instrument ID:	VOAMS2
Prep Method:	5035	Prep Batch:	460-152166	Lab File ID:	b53896.d
Dilution:	1000			Initial Weight/Volume:	5.38 g
Analysis Date:	03/27/2013 1158			Final Weight/Volume:	10 mL
Prep Date:	03/21/2013 1707				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,2,3-Trichlorobenzene		2400	U	1200	2400
1,2-Dibromo-3-Chloropropane		2400	U	960	2400
Bromochloromethane		2400	U	650	2400
Isopropylbenzene		1500	J	180	2400
Methyl acetate		4800	U	800	4800
Methylcyclohexane		3900		320	2400
Surrogate		%Rec	Qualifier	Acceptance Limits	
1,2-Dichloroethane-d4 (Surr)		89		75 - 135	
Toluene-d8 (Surr)		78		59 - 150	
Bromofluorobenzene		87		72 - 133	

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

Client Sample ID: Pre-Char 2

Lab Sample ID: 460-52720-2

Date Sampled: 03/20/2013 1515

Client Matrix: Solid

% Moisture: 22.3

Date Received: 03/21/2013 0850

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	460-152933	Instrument ID:	VOAMS2
Prep Method:	5035	Prep Batch:	460-152166	Lab File ID:	b53896.d
Dilution:	1000			Initial Weight/Volume:	5.38 g
Analysis Date:	03/27/2013 1158			Final Weight/Volume:	10 mL
Prep Date:	03/21/2013 1707				

Tentatively Identified Compounds **Number TIC's Found: 10**

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
	C9H8 Aromatic	11.21	1400000	J
	Methylbenzofuran isomer-1	11.76	300000	J
	C10H10 Aromatic	12.12	260000	J
	C10H10 Aromatic-1	12.20	280000	J
91-20-3	Naphthalene	12.59	3300000	E
	Benzothiophene isomer	12.71	410000	J
91-57-6	Naphthalene, 2-methyl-	13.66	2200000	J N
90-12-0	Naphthalene, 1-methyl-	13.87	1000000	J N
92-52-4	Biphenyl	14.50	260000	J N
	Dimethylnaphthalene isomer	14.94	260000	J

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

Client Sample ID: Waste 1

Lab Sample ID: 460-52720-3

Date Sampled: 03/20/2013 1400

Client Matrix: Solid

% Moisture: 10.0

Date Received: 03/21/2013 0850

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	460-152933	Instrument ID:	VOAMS2
Prep Method:	5035	Prep Batch:	460-152166	Lab File ID:	b53897.d
Dilution:	1000			Initial Weight/Volume:	5.51 g
Analysis Date:	03/27/2013 1221			Final Weight/Volume:	10 mL
Prep Date:	03/21/2013 1708				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Chloromethane		2000	U	200	2000
Bromomethane		2000	U	370	2000
Vinyl chloride		2000	U	290	2000
Chloroethane		2000	U	340	2000
Methylene Chloride		2000	U	370	2000
Acetone		10000	U	5400	10000
Carbon disulfide		2000	U	250	2000
Trichlorofluoromethane		2000	U	290	2000
1,1-Dichloroethene		2000	U	180	2000
1,1-Dichloroethane		2000	U	260	2000
trans-1,2-Dichloroethene		2000	U	260	2000
cis-1,2-Dichloroethene		2000	U	360	2000
Chloroform		2000	U	160	2000
1,2-Dichloroethane		2000	U	380	2000
2-Butanone		10000	U	4700	10000
1,1,1-Trichloroethane		2000	U	130	2000
Carbon tetrachloride		2000	U	110	2000
Bromodichloromethane		2000	U	250	2000
1,2-Dichloropropane		2000	U	170	2000
cis-1,3-Dichloropropene		2000	U	370	2000
Trichloroethene		2000	U	190	2000
Dibromochloromethane		2000	U	400	2000
1,1,2-Trichloroethane		2000	U	380	2000
Benzene		190000		170	2000
trans-1,3-Dichloropropene		2000	U	490	2000
Bromoform		2000	U	390	2000
4-Methyl-2-pentanone		10000	U	2000	10000
2-Hexanone		10000	U	1000	10000
Tetrachloroethene		2000	U	200	2000
1,1,2,2-Tetrachloroethane		2000	U	320	2000
Toluene		200000		300	2000
Chlorobenzene		2000	U	220	2000
Ethylbenzene		20000		190	2000
Styrene		75000		240	2000
m&p-Xylene		200000		490	4000
o-Xylene		75000		260	2000
Freon TF		2000	U	170	2000
MTBE		2000	U	280	2000
Cyclohexane		810	J	320	2000
1,2-Dibromoethane		2000	U	560	2000
1,3-Dichlorobenzene		2000	U	270	2000
1,4-Dichlorobenzene		2000	U	470	2000
1,2-Dichlorobenzene		2000	U	410	2000
Dichlorodifluoromethane		2000	U	430	2000
1,2,4-Trichlorobenzene		2000	U	690	2000
1,4-Dioxane		100000	U	73000	100000

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

Client Sample ID: Waste 1

Lab Sample ID: 460-52720-3

Date Sampled: 03/20/2013 1400

Client Matrix: Solid

% Moisture: 10.0

Date Received: 03/21/2013 0850

8260B Volatile Organic Compounds (GC/MS)

Analysis Method: 8260B Analysis Batch: 460-152933 Instrument ID: VOAMS2
Prep Method: 5035 Prep Batch: 460-152166 Lab File ID: b53897.d
Dilution: 1000 Initial Weight/Volume: 5.51 g
Analysis Date: 03/27/2013 1221 Final Weight/Volume: 10 mL
Prep Date: 03/21/2013 1708

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,2,3-Trichlorobenzene		2000	U	1000	2000
1,2-Dibromo-3-Chloropropane		2000	U	810	2000
Bromochloromethane		2000	U	550	2000
Isopropylbenzene		1100	J	150	2000
Methyl acetate		4000	U	680	4000
Methylcyclohexane		2700		270	2000

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	95		75 - 135
Toluene-d8 (Surr)	83		59 - 150
Bromofluorobenzene	94		72 - 133

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

Client Sample ID: Waste 1

Lab Sample ID: 460-52720-3

Date Sampled: 03/20/2013 1400

Client Matrix: Solid

% Moisture: 10.0

Date Received: 03/21/2013 0850

8260B Volatile Organic Compounds (GC/MS)

Analysis Method: 8260B

Analysis Batch: 460-152933

Instrument ID: VOAMS2

Prep Method: 5035

Prep Batch: 460-152166

Lab File ID: b53897.d

Dilution: 1000

Initial Weight/Volume: 5.51 g

Analysis Date: 03/27/2013 1221

Final Weight/Volume: 10 mL

Prep Date: 03/21/2013 1708

Tentatively Identified Compounds**Number TIC's Found: 10**

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
	C9H8 Aromatic	11.21	1000000	J
	Methylbenzofuran isomer-1	11.76	190000	J
	C10H10 Aromatic	12.12	170000	J
	C10H10 Aromatic-1	12.20	180000	J
91-20-3	Naphthalene	12.59	2700000	E
	Benzothiophene isomer	12.71	260000	J
91-57-6	Naphthalene, 2-methyl-	13.66	1400000	J N
90-12-0	Naphthalene, 1-methyl-	13.87	670000	J N
92-52-4	Biphenyl	14.50	170000	J N
	Dimethylnaphthalene isomer-1	15.17	180000	J

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

Client Sample ID: Waste 1

Lab Sample ID: 460-52720-3

Date Sampled: 03/20/2013 1400

Client Matrix: Solid

Date Received: 03/21/2013 0850

8260B Volatile Organic Compounds (GC/MS)-TCLP

Analysis Method:	8260B	Analysis Batch:	460-153884	Instrument ID:	VOAMS13
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	p68637.d
Dilution:	20	Leach Batch:	460-152411	Initial Weight/Volume:	5 mL
Analysis Date:	04/03/2013 1258			Final Weight/Volume:	5 mL
Prep Date:	04/03/2013 1258				
Leach Date:	03/23/2013 0932				

Analyte	DryWt Corrected: N	Result (mg/L)	Qualifier	MDL	RL
Vinyl chloride		0.020	U	0.0028	0.020
1,1-Dichloroethene		0.020	U	0.0018	0.020
2-Butanone		0.10	U	0.046	0.10
Chloroform		0.020	U	0.0016	0.020
Carbon tetrachloride		0.020	U	0.0012	0.020
Benzene		8.5		0.0016	0.020
1,2-Dichloroethane		0.020	U	0.0038	0.020
Trichloroethene		0.020	U	0.0018	0.020
Tetrachloroethene		0.020	U	0.0020	0.020
Chlorobenzene		0.020	U	0.0022	0.020

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	116		70 - 130
Toluene-d8 (Surr)	109		70 - 130
Bromofluorobenzene	84		70 - 130

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

Client Sample ID: Pre-Char 1

Lab Sample ID: 460-52720-1

Date Sampled: 03/20/2013 1500

Client Matrix: Solid

% Moisture: 16.5

Date Received: 03/21/2013 0850

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-153015	Instrument ID:	BNAMS10
Prep Method:	3541	Prep Batch:	460-152648	Lab File ID:	p35845.d
Dilution:	50			Initial Weight/Volume:	5.54 g
Analysis Date:	03/26/2013 1944	Run Type:	DL	Final Weight/Volume:	1 mL
Prep Date:	03/25/2013 1501			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Phenol		45000	J	7200	54000
2-Chlorophenol		54000	U	7100	54000
2-Methylphenol		30000	J	9100	54000
4-Methylphenol		73000		11000	54000
Benzaldehyde		54000	U	6300	54000
Acetophenone		54000	U	8200	54000
Bis(2-chloroethyl)ether		5400	U	730	5400
2,2'-oxybis[1-chloropropane]		54000	U	5900	54000
N-Nitrosodi-n-propylamine		5400	U	900	5400
Nitrobenzene		5400	U	760	5400
Hexachloroethane		5400	U	600	5400
Isophorone		54000	U	6500	54000
2-Nitrophenol		54000	U	6000	54000
2,4-Dimethylphenol		36000	J	13000	54000
2,4-Dichlorophenol		54000	U	7900	54000
Bis(2-chloroethoxy)methane		54000	U	6900	54000
Naphthalene		770000		6200	54000
4-Chloroaniline		54000	U	14000	54000
Hexachlorobutadiene		11000	U	1300	11000
Caprolactam		54000	U	12000	54000
4-Chloro-3-methylphenol		54000	U	8100	54000
2-Methylnaphthalene		210000		6900	54000
Hexachlorobenzene		5400	U	730	5400
Hexachlorocyclopentadiene		54000	U	6300	54000
2,4,6-Trichlorophenol		54000	U	6300	54000
2,4,5-Trichlorophenol		54000	U	6900	54000
Diphenyl		57000		7200	54000
2-Chloronaphthalene		54000	U	6000	54000
2-Nitroaniline		110000	U	22000	110000
2,6-Dinitrotoluene		11000	U	1600	11000
Dimethyl phthalate		54000	U	6400	54000
Acenaphthylene		210000		6300	54000
3-Nitroaniline		110000	U	19000	110000
Acenaphthene		40000	J	7800	54000
4-Nitrophenol		160000	U	35000	160000
2,4-Dinitrophenol		160000	U	30000	160000
Dibenzofuran		170000		6300	54000
Diethyl phthalate		54000	U	6400	54000
Fluorene		200000		6900	54000
Fluoranthene		340000		7200	54000
Di-n-butyl phthalate		54000	U	6600	54000
2,4-Dinitrotoluene		11000	U	1800	11000
4-Chlorophenyl phenyl ether		54000	U	6300	54000
4-Nitroaniline		110000	U	17000	110000
4,6-Dinitro-2-methylphenol		160000	U	15000	160000
4-Bromophenyl phenyl ether		54000	U	5300	54000

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

Client Sample ID: Pre-Char 1

Lab Sample ID: 460-52720-1

Date Sampled: 03/20/2013 1500

Client Matrix: Solid

% Moisture: 16.5

Date Received: 03/21/2013 0850

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-153015	Instrument ID:	BNAMS10
Prep Method:	3541	Prep Batch:	460-152648	Lab File ID:	p35845.d
Dilution:	50			Initial Weight/Volume:	5.54 g
Analysis Date:	03/26/2013 1944	Run Type:	DL	Final Weight/Volume:	1 mL
Prep Date:	03/25/2013 1501			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Atrazine		54000	U	8300	54000
Anthracene		210000		6500	54000
Carbazole		76000		6300	54000
Phenanthrene		670000		6800	54000
Pentachlorophenol		160000	U	16000	160000
Pyrene		310000		4500	54000
Chrysene		140000		6300	54000
Benzo[k]fluoranthene		54000		410	5400
Benzo[g,h,i]perylene		81000		4000	54000
Benzo[b]fluoranthene		130000		340	5400
Benzo[a]pyrene		130000		380	5400
Benzo[a]anthracene		150000		370	5400
N-Nitrosodiphenylamine		54000	U	5300	54000
Butyl benzyl phthalate		54000	U	4900	54000
Bis(2-ethylhexyl) phthalate		54000	U	18000	54000
Di-n-octyl phthalate		54000	U	3400	54000
Indeno[1,2,3-cd]pyrene		75000		1000	5400
Dibenz(a,h)anthracene		19000		680	5400
3,3'-Dichlorobenzidine		110000	U	19000	110000
1,2,4,5-Tetrachlorobenzene		54000	U	7200	54000
2,3,4,6-Tetrachlorophenol		54000	U	7000	54000

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5	0	D	38 - 105
Phenol-d5	0	D	41 - 118
Terphenyl-d14	0	D	16 - 151
2,4,6-Tribromophenol	0	D	10 - 120
2-Fluorophenol	0	D	37 - 125
2-Fluorobiphenyl	0	D	40 - 109

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

Client Sample ID: Pre-Char 1

Lab Sample ID: 460-52720-1

Date Sampled: 03/20/2013 1500

Client Matrix: Solid

% Moisture: 16.5

Date Received: 03/21/2013 0850

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-153015	Instrument ID:	BNAMS10
Prep Method:	3541	Prep Batch:	460-152648	Lab File ID:	p35845.d
Dilution:	50			Initial Weight/Volume:	5.54 g
Analysis Date:	03/26/2013 1944	Run Type:	DL	Final Weight/Volume:	1 mL
Prep Date:	03/25/2013 1501			Injection Volume:	1 uL

Tentatively Identified Compounds**Number TIC's Found: 11**

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
90-12-0	1-Methylnaphthalene	6.26	110000	
	Dimethylnaphthalene isomer-1	6.78	67000	J
575-41-7	1,3-Dimethylnaphthalene	6.85	73000	
	Dimethylnaphthalene isomer-2	6.97	44000	J
132-65-0	Dibenzothiophene	8.55	60000	J N
	C15H12 PAH-1	9.15	47000	J
	C15H12 PAH-2	9.18	65000	J
	C15H10 PAH	9.25	87000	J
	C17H12 PAH-1	10.40	81000	J
	C17H12 PAH-2	10.47	57000	J
	C20H12 PAH	13.11	76000	J

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

Client Sample ID: Pre-Char 2

Lab Sample ID: 460-52720-2

Date Sampled: 03/20/2013 1515

Client Matrix: Solid

% Moisture: 22.3

Date Received: 03/21/2013 0850

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-153015	Instrument ID:	BNAMS10
Prep Method:	3541	Prep Batch:	460-152648	Lab File ID:	p35846.d
Dilution:	100			Initial Weight/Volume:	5.23 g
Analysis Date:	03/26/2013 2010	Run Type:	DL	Final Weight/Volume:	1 mL
Prep Date:	03/25/2013 1501			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Phenol		69000	J	16000	120000
2-Chlorophenol		120000	U	16000	120000
2-Methylphenol		41000	J	21000	120000
4-Methylphenol		100000	J	24000	120000
Benzaldehyde		120000	U	14000	120000
Acetophenone		120000	U	19000	120000
Bis(2-chloroethyl)ether		12000	U	1700	12000
2,2'-oxybis[1-chloropropane]		120000	U	14000	120000
N-Nitrosodi-n-propylamine		12000	U	2000	12000
Nitrobenzene		12000	U	1700	12000
Hexachloroethane		12000	U	1400	12000
Isophorone		120000	U	15000	120000
2-Nitrophenol		120000	U	14000	120000
2,4-Dimethylphenol		53000	J	30000	120000
2,4-Dichlorophenol		120000	U	18000	120000
Bis(2-chloroethoxy)methane		120000	U	16000	120000
Naphthalene		1200000		14000	120000
4-Chloroaniline		120000	U	32000	120000
Hexachlorobutadiene		25000	U	3000	25000
Caprolactam		120000	U	28000	120000
4-Chloro-3-methylphenol		120000	U	18000	120000
2-Methylnaphthalene		340000		16000	120000
Hexachlorobenzene		12000	U	1700	12000
Hexachlorocyclopentadiene		120000	U	14000	120000
2,4,6-Trichlorophenol		120000	U	14000	120000
2,4,5-Trichlorophenol		120000	U	16000	120000
Diphenyl		85000	J	16000	120000
2-Chloronaphthalene		120000	U	14000	120000
2-Nitroaniline		250000	U	51000	250000
2,6-Dinitrotoluene		25000	U	3700	25000
Dimethyl phthalate		120000	U	14000	120000
Acenaphthylene		320000		14000	120000
3-Nitroaniline		250000	U	43000	250000
Acenaphthene		61000	J	18000	120000
4-Nitrophenol		370000	U	79000	370000
2,4-Dinitrophenol		370000	U	69000	370000
Dibenzofuran		260000		14000	120000
Diethyl phthalate		120000	U	15000	120000
Fluorene		290000		16000	120000
Fluoranthene		640000		16000	120000
Di-n-butyl phthalate		120000	U	15000	120000
2,4-Dinitrotoluene		25000	U	4000	25000
4-Chlorophenyl phenyl ether		120000	U	14000	120000
4-Nitroaniline		250000	U	38000	250000
4,6-Dinitro-2-methylphenol		370000	U	33000	370000
4-Bromophenyl phenyl ether		120000	U	12000	120000

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

Client Sample ID: Pre-Char 2

Lab Sample ID: 460-52720-2

Date Sampled: 03/20/2013 1515

Client Matrix: Solid

% Moisture: 22.3

Date Received: 03/21/2013 0850

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-153015	Instrument ID:	BNAMS10
Prep Method:	3541	Prep Batch:	460-152648	Lab File ID:	p35846.d
Dilution:	100			Initial Weight/Volume:	5.23 g
Analysis Date:	03/26/2013 2010	Run Type:	DL	Final Weight/Volume:	1 mL
Prep Date:	03/25/2013 1501			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Atrazine		120000	U	19000	120000
Anthracene		350000		15000	120000
Carbazole		130000		14000	120000
Phenanthrene		1100000		16000	120000
Pentachlorophenol		370000	U	36000	370000
Pyrene		500000		10000	120000
Chrysene		260000		14000	120000
Benzo[k]fluoranthene		110000		930	12000
Benzo[g,h,i]perylene		150000		9000	120000
Benzo[b]fluoranthene		220000		770	12000
Benzo[a]pyrene		250000		860	12000
Benzo[a]anthracene		260000		850	12000
N-Nitrosodiphenylamine		120000	U	12000	120000
Butyl benzyl phthalate		120000	U	11000	120000
Bis(2-ethylhexyl) phthalate		120000	U	41000	120000
Di-n-octyl phthalate		120000	U	7800	120000
Indeno[1,2,3-cd]pyrene		150000		2300	12000
Dibenz(a,h)anthracene		38000		1500	12000
3,3'-Dichlorobenzidine		250000	U	43000	250000
1,2,4,5-Tetrachlorobenzene		120000	U	16000	120000
2,3,4,6-Tetrachlorophenol		120000	U	16000	120000

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5	0	D	38 - 105
Phenol-d5	0	D	41 - 118
Terphenyl-d14	0	D	16 - 151
2,4,6-Tribromophenol	0	D	10 - 120
2-Fluorophenol	0	D	37 - 125
2-Fluorobiphenyl	0	D	40 - 109

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

Client Sample ID: Pre-Char 2

Lab Sample ID: 460-52720-2

Date Sampled: 03/20/2013 1515

Client Matrix: Solid

% Moisture: 22.3

Date Received: 03/21/2013 0850

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-153015	Instrument ID:	BNAMS10
Prep Method:	3541	Prep Batch:	460-152648	Lab File ID:	p35846.d
Dilution:	100			Initial Weight/Volume:	5.23 g
Analysis Date:	03/26/2013 2010	Run Type:	DL	Final Weight/Volume:	1 mL
Prep Date:	03/25/2013 1501			Injection Volume:	1 uL

Tentatively Identified Compounds

Number TIC's Found: 7

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
90-12-0	1-Methylnaphthalene	6.25	180000	
575-41-7	1,3-Dimethylnaphthalene	6.85	110000	J
	C15H12 PAH	9.18	110000	J
	C15H10 PAH	9.25	150000	J
	C17H12 PAH-1	10.40	120000	J
	C17H12 PAH-2	10.47	100000	J
	C20H12 PAH	13.11	120000	J

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

Client Sample ID: Waste 1

Lab Sample ID: 460-52720-3

Date Sampled: 03/20/2013 1400

Client Matrix: Solid

% Moisture: 10.0

Date Received: 03/21/2013 0850

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-153015	Instrument ID:	BNAMS10
Prep Method:	3541	Prep Batch:	460-152648	Lab File ID:	p35847.d
Dilution:	250			Initial Weight/Volume:	5.78 g
Analysis Date:	03/26/2013 2035	Run Type:	DL	Final Weight/Volume:	1 mL
Prep Date:	03/25/2013 1501			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Phenol		410000		32000	240000
2-Chlorophenol		240000	U	31000	240000
2-Methylphenol		180000	J	41000	240000
4-Methylphenol		470000		47000	240000
Benzaldehyde		240000	U	28000	240000
Acetophenone		240000	U	37000	240000
Bis(2-chloroethyl)ether		24000	U	3300	24000
2,2'-oxybis[1-chloropropane]		240000	U	26000	240000
N-Nitrosodi-n-propylamine		24000	U	4000	24000
Nitrobenzene		24000	U	3400	24000
Hexachloroethane		24000	U	2700	24000
Isophorone		240000	U	29000	240000
2-Nitrophenol		240000	U	27000	240000
2,4-Dimethylphenol		190000	J	59000	240000
2,4-Dichlorophenol		240000	U	35000	240000
Bis(2-chloroethoxy)methane		240000	U	31000	240000
Naphthalene		4000000		28000	240000
4-Chloroaniline		240000	U	63000	240000
Hexachlorobutadiene		48000	U	5800	48000
Caprolactam		240000	U	55000	240000
4-Chloro-3-methylphenol		240000	U	36000	240000
2-Methylnaphthalene		980000		31000	240000
Hexachlorobenzene		24000	U	3300	24000
Hexachlorocyclopentadiene		240000	U	28000	240000
2,4,6-Trichlorophenol		240000	U	28000	240000
2,4,5-Trichlorophenol		240000	U	31000	240000
Diphenyl		230000	J	32000	240000
2-Chloronaphthalene		240000	U	27000	240000
2-Nitroaniline		480000	U	99000	480000
2,6-Dinitrotoluene		48000	U	7200	48000
Dimethyl phthalate		240000	U	28000	240000
Acenaphthylene		840000		28000	240000
3-Nitroaniline		480000	U	84000	480000
Acenaphthene		140000	J	35000	240000
4-Nitrophenol		720000	U	150000	720000
2,4-Dinitrophenol		720000	U	140000	720000
Dibenzofuran		700000		28000	240000
Diethyl phthalate		240000	U	28000	240000
Fluorene		790000		30000	240000
Fluoranthene		1400000		32000	240000
Di-n-butyl phthalate		240000	U	29000	240000
2,4-Dinitrotoluene		48000	U	7900	48000
4-Chlorophenyl phenyl ether		240000	U	28000	240000
4-Nitroaniline		480000	U	74000	480000
4,6-Dinitro-2-methylphenol		720000	U	65000	720000
4-Bromophenyl phenyl ether		240000	U	24000	240000

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

Client Sample ID: Waste 1

Lab Sample ID: 460-52720-3

Date Sampled: 03/20/2013 1400

Client Matrix: Solid

% Moisture: 10.0

Date Received: 03/21/2013 0850

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-153015	Instrument ID:	BNAMS10
Prep Method:	3541	Prep Batch:	460-152648	Lab File ID:	p35847.d
Dilution:	250			Initial Weight/Volume:	5.78 g
Analysis Date:	03/26/2013 2035	Run Type:	DL	Final Weight/Volume:	1 mL
Prep Date:	03/25/2013 1501			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Atrazine		240000	U	37000	240000
Anthracene		1100000		29000	240000
Carbazole		410000		28000	240000
Phenanthrene		2500000		30000	240000
Pentachlorophenol		720000	U	71000	720000
Pyrene		1000000		20000	240000
Chrysene		600000		28000	240000
Benzo[k]fluoranthene		210000		1800	24000
Benzo[g,h,i]perylene		290000		18000	240000
Benzo[b]fluoranthene		490000		1500	24000
Benzo[a]pyrene		520000		1700	24000
Benzo[a]anthracene		570000		1700	24000
N-Nitrosodiphenylamine		240000	U	24000	240000
Butyl benzyl phthalate		240000	U	22000	240000
Bis(2-ethylhexyl) phthalate		240000	U	79000	240000
Di-n-octyl phthalate		240000	U	15000	240000
Indeno[1,2,3-cd]pyrene		280000		4400	24000
Dibenz(a,h)anthracene		73000		3000	24000
3,3'-Dichlorobenzidine		480000	U	84000	480000
1,2,4,5-Tetrachlorobenzene		240000	U	32000	240000
2,3,4,6-Tetrachlorophenol		240000	U	31000	240000

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5	0	D	38 - 105
Phenol-d5	0	D	41 - 118
Terphenyl-d14	0	D	16 - 151
2,4,6-Tribromophenol	0	D	10 - 120
2-Fluorophenol	0	D	37 - 125
2-Fluorobiphenyl	0	D	40 - 109

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

Client Sample ID: Waste 1

Lab Sample ID: 460-52720-3

Date Sampled: 03/20/2013 1400

Client Matrix: Solid

% Moisture: 10.0

Date Received: 03/21/2013 0850

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-153015	Instrument ID:	BNAMS10
Prep Method:	3541	Prep Batch:	460-152648	Lab File ID:	p35847.d
Dilution:	250			Initial Weight/Volume:	5.78 g
Analysis Date:	03/26/2013 2035	Run Type:	DL	Final Weight/Volume:	1 mL
Prep Date:	03/25/2013 1501			Injection Volume:	1 uL

Tentatively Identified Compounds**Number TIC's Found: 12**

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
65-85-0	Benzoic acid	5.25	320000	
95-15-8	Benzo[b]thiophene	5.51	250000	J N
90-12-0	1-Methylnaphthalene	6.25	470000	
	Dimethylnaphthalene isomer	6.78	260000	J
575-41-7	1,3-Dimethylnaphthalene	6.85	270000	
	Methyl dibenzofuran isomer	7.97	280000	J
132-65-0	Dibenzothiophene	8.55	230000	J N
	C15H12 PAH-1	9.15	190000	J
	C15H12 PAH-2	9.18	270000	J
	C15H10 PAH	9.25	470000	J
	C17H12 PAH-1	10.40	270000	J
	C17H12 PAH-2	10.47	250000	J

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

Client Sample ID: Waste 1

Lab Sample ID: 460-52720-3

Date Sampled: 03/20/2013 1400

Client Matrix: Solid

Date Received: 03/21/2013 0850

8270D Semivolatile Organic Compounds (GC/MS)-TCLP

Analysis Method:	8270D	Analysis Batch:	460-153728	Instrument ID:	BNAMS5
Prep Method:	3510C	Prep Batch:	460-152495	Lab File ID:	x35762.d
Dilution:	25	Leach Batch:	460-152369	Initial Weight/Volume:	250 mL
Analysis Date:	04/01/2013 1829	Run Type:	DL	Final Weight/Volume:	2 mL
Prep Date:	03/24/2013 0930			Injection Volume:	
Leach Date:	03/22/2013 1801				

Analyte	DryWt Corrected: N	Result (mg/L)	Qualifier	MDL	RL
2-Methylphenol		8.3		0.18	1.0
3 & 4 Methylphenol		19		0.16	1.0
2,4,6-Trichlorophenol		1.0	U	0.24	1.0
2,4,5-Trichlorophenol		1.0	U	0.26	1.0
Pentachlorophenol		3.0	U	0.53	3.0
1,4-Dichlorobenzene		1.0	U	0.25	1.0
Hexachloroethane		0.10	U	0.025	0.10
Nitrobenzene		0.10	U	0.030	0.10
Hexachlorobutadiene		0.20	U	0.057	0.20
2,4-Dinitrotoluene		0.20	U	0.047	0.20
Hexachlorobenzene		0.10	U	0.029	0.10
Pyridine		1.0	U	0.091	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5	0	D	56 - 112
Phenol-d5	0	D	10 - 48
Terphenyl-d14	0	D	50 - 122
2,4,6-Tribromophenol	0	D	46 - 122
2-Fluorophenol	0	D	10 - 65
2-Fluorobiphenyl	0	D	53 - 108

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

Client Sample ID: Pre-Char 1

Lab Sample ID: 460-52720-1

Date Sampled: 03/20/2013 1500

Client Matrix: Solid

% Moisture: 16.5

Date Received: 03/21/2013 0850

8015B Gasoline Range Organics - (GC)

Analysis Method:	8015B	Analysis Batch:	460-152423	Instrument ID:	VOAGC3
Prep Method:	5035	Prep Batch:	460-152145	Initial Weight/Volume:	5.45 g
Dilution:	100			Final Weight/Volume:	10 mL
Analysis Date:	03/22/2013 0331			Injection Volume:	
Prep Date:	03/21/2013 1457			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	RL	RL
GRO		170000		5500	5500
Surrogate		%Rec	Qualifier	Acceptance Limits	
a,a,a-Trifluorotoluene		99		70 - 130	

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

Client Sample ID: Pre-Char 2

Lab Sample ID: 460-52720-2

Date Sampled: 03/20/2013 1515

Client Matrix: Solid

% Moisture: 22.3

Date Received: 03/21/2013 0850

8015B Gasoline Range Organics - (GC)

Analysis Method:	8015B	Analysis Batch:	460-152423	Instrument ID:	VOAGC3
Prep Method:	5035	Prep Batch:	460-152145	Initial Weight/Volume:	5.79 g
Dilution:	500			Final Weight/Volume:	10 mL
Analysis Date:	03/22/2013 0355			Injection Volume:	
Prep Date:	03/21/2013 1458			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	RL	RL
GRO		820000		28000	28000
Surrogate		%Rec	Qualifier	Acceptance Limits	
a,a,a-Trifluorotoluene		117		70 - 130	

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

Client Sample ID: Waste 1

Lab Sample ID: 460-52720-3

Date Sampled: 03/20/2013 1400

Client Matrix: Solid

% Moisture: 10.0

Date Received: 03/21/2013 0850

8015B Gasoline Range Organics - (GC)

Analysis Method: 8015B

Analysis Batch: 460-152957

Instrument ID: VOAGC3

Prep Method: 5035

Prep Batch: 460-152145

Initial Weight/Volume: 5.38 g

Dilution: 1000

Final Weight/Volume: 10 mL

Analysis Date: 03/26/2013 2206

Injection Volume:

Prep Date: 03/21/2013 1459

Result Type: PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	RL	RL
GRO		2000000	*	52000	52000
Surrogate		%Rec	Qualifier	Acceptance Limits	
a,a,a-Trifluorotoluene		121		70 - 130	

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

Client Sample ID: Pre-Char 1

Lab Sample ID: 460-52720-1

Date Sampled: 03/20/2013 1500

Client Matrix: Solid

% Moisture: 16.5

Date Received: 03/21/2013 0850

8015B Diesel Range Organics (DRO) (GC)

Analysis Method:	8015B	Analysis Batch:	460-152817	Instrument ID:	BNAGC3
Prep Method:	3546	Prep Batch:	460-152223	Initial Weight/Volume:	15.00 g
Dilution:	20			Final Weight/Volume:	1 mL
Analysis Date:	03/26/2013 1028			Injection Volume:	1 uL
Prep Date:	03/22/2013 0244			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
Diesel Range Organics [C10-C28]		4700		160	160

Surrogate	%Rec	Qualifier	Acceptance Limits
o-Terphenyl	0	* D	52 - 134

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

Client Sample ID: Pre-Char 2

Lab Sample ID: 460-52720-2

Date Sampled: 03/20/2013 1515

Client Matrix: Solid

% Moisture: 22.3

Date Received: 03/21/2013 0850

8015B Diesel Range Organics (DRO) (GC)

Analysis Method:	8015B	Analysis Batch:	460-152644	Instrument ID:	BNAGC3
Prep Method:	3546	Prep Batch:	460-152223	Initial Weight/Volume:	15.03 g
Dilution:	10			Final Weight/Volume:	1 mL
Analysis Date:	03/25/2013 1607			Injection Volume:	1 uL
Prep Date:	03/22/2013 0244			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
Diesel Range Organics [C10-C28]		800		86	86

Surrogate	%Rec	Qualifier	Acceptance Limits
o-Terphenyl	0	D	52 - 134

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

Client Sample ID: Waste 1

Lab Sample ID: 460-52720-3

Date Sampled: 03/20/2013 1400

Client Matrix: Solid

% Moisture: 10.0

Date Received: 03/21/2013 0850

8015B Diesel Range Organics (DRO) (GC)

Analysis Method:	8015B	Analysis Batch:	460-152817	Instrument ID:	BNAGC3
Prep Method:	3546	Prep Batch:	460-152223	Initial Weight/Volume:	15.02 g
Dilution:	50			Final Weight/Volume:	1 mL
Analysis Date:	03/26/2013 1214			Injection Volume:	1 uL
Prep Date:	03/22/2013 0244			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
Diesel Range Organics [C10-C28]		7300		370	370

Surrogate	%Rec	Qualifier	Acceptance Limits
o-Terphenyl	0	* D	52 - 134

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

Client Sample ID: Waste 1

Lab Sample ID: 460-52720-3

Date Sampled: 03/20/2013 1400

Client Matrix: Solid

Date Received: 03/21/2013 0850

8081A Organochlorine Pesticides (GC)-TCLP

Analysis Method:	8081A	Analysis Batch:	460-152560	Instrument ID:	PESTGC4
Prep Method:	3510C	Prep Batch:	460-152430	Initial Weight/Volume:	100 mL
Dilution:	1.0	Leach Batch:	460-152369	Final Weight/Volume:	5 mL
Analysis Date:	03/24/2013 1749			Injection Volume:	
Prep Date:	03/23/2013 1108			Result Type:	PRIMARY
Leach Date:	03/22/2013 1801				

Analyte	DryWt Corrected: N	Result (mg/L)	Qualifier	MDL	RL
Chlordane		0.0050	U	0.0033	0.0050
Endrin		0.00050	U	0.00010	0.00050
Heptachlor		0.00050	U	0.00010	0.00050
Heptachlor epoxide		0.00050	U	0.00010	0.00050
gamma-BHC (Lindane)		0.00050	U	0.00012	0.00050
Methoxychlor		0.00050	U*	0.00013	0.00050
Toxaphene		0.0050	U	0.0020	0.0050

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	125		46 - 140
DCB Decachlorobiphenyl	138		55 - 150

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

Client Sample ID: Waste 1

Lab Sample ID: 460-52720-3

Date Sampled: 03/20/2013 1400

Client Matrix: Solid

Date Received: 03/21/2013 0850

8081A Organochlorine Pesticides (GC)-TCLP

Analysis Method:	8081A	Analysis Batch:	460-152560	Instrument ID:	PESTGC4
Prep Method:	3510C	Prep Batch:	460-152430	Initial Weight/Volume:	100 mL
Dilution:	1.0	Leach Batch:	460-152369	Final Weight/Volume:	5 mL
Analysis Date:	03/24/2013 1749			Injection Volume:	
Prep Date:	03/23/2013 1108			Result Type:	SECONDARY
Leach Date:	03/22/2013 1801				

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	101		46 - 140
DCB Decachlorobiphenyl	136		55 - 150

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

Client Sample ID: Pre-Char 1

Lab Sample ID: 460-52720-1

Date Sampled: 03/20/2013 1500

Client Matrix: Solid

% Moisture: 16.5

Date Received: 03/21/2013 0850

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method: 8082	Analysis Batch: 460-152593	Instrument ID: PESTGC7
Prep Method: 3546	Prep Batch: 460-152234	Initial Weight/Volume: 15.00 g
Dilution: 1.0		Final Weight/Volume: 10 mL
Analysis Date: 03/25/2013 0353		Injection Volume:
Prep Date: 03/22/2013 0706		Result Type: PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor 1016		80	U	18	80
Aroclor 1221		80	U	18	80
Aroclor 1232		80	U	18	80
Aroclor 1242		80	U	18	80
Aroclor 1248		80	U	18	80
Aroclor 1254		80	U	23	80
Aroclor 1260		80	U	23	80
Aroclor 1262		80	U	23	80
Aroclor 1268		80	U	23	80
Polychlorinated biphenyls, Total		80	U	23	80

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	131		45 - 138

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

Client Sample ID: Pre-Char 1

Lab Sample ID: 460-52720-1

Date Sampled: 03/20/2013 1500

Client Matrix: Solid

% Moisture: 16.5

Date Received: 03/21/2013 0850

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082	Analysis Batch:	460-152593	Instrument ID:	PESTGC7
Prep Method:	3546	Prep Batch:	460-152234	Initial Weight/Volume:	15.00 g
Dilution:	1.0			Final Weight/Volume:	10 mL
Analysis Date:	03/25/2013 0353			Injection Volume:	
Prep Date:	03/22/2013 0706			Result Type:	SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	101		45 - 138

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

Client Sample ID: Pre-Char 2

Lab Sample ID: 460-52720-2

Date Sampled: 03/20/2013 1515

Client Matrix: Solid

% Moisture: 22.3

Date Received: 03/21/2013 0850

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method: 8082	Analysis Batch: 460-152593	Instrument ID: PESTGC7
Prep Method: 3546	Prep Batch: 460-152234	Initial Weight/Volume: 15.00 g
Dilution: 1.0		Final Weight/Volume: 10 mL
Analysis Date: 03/25/2013 0409		Injection Volume:
Prep Date: 03/22/2013 0706		Result Type: PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor 1016		86	U	19	86
Aroclor 1221		86	U	19	86
Aroclor 1232		86	U	19	86
Aroclor 1242		86	U	19	86
Aroclor 1248		86	U	19	86
Aroclor 1254		86	U	24	86
Aroclor 1260		86	U	24	86
Aroclor 1262		86	U	24	86
Aroclor 1268		86	U	24	86
Polychlorinated biphenyls, Total		86	U	24	86

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	134		45 - 138

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

Client Sample ID: Pre-Char 2

Lab Sample ID: 460-52720-2

Date Sampled: 03/20/2013 1515

Client Matrix: Solid

% Moisture: 22.3

Date Received: 03/21/2013 0850

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method: 8082

Analysis Batch: 460-152593

Instrument ID: PESTGC7

Prep Method: 3546

Prep Batch: 460-152234

Initial Weight/Volume: 15.00 g

Dilution: 1.0

Final Weight/Volume: 10 mL

Analysis Date: 03/25/2013 0409

Injection Volume:

Prep Date: 03/22/2013 0706

Result Type: SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	107		45 - 138

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

Client Sample ID: Waste 1

Lab Sample ID: 460-52720-3

Date Sampled: 03/20/2013 1400

Client Matrix: Solid

% Moisture: 10.0

Date Received: 03/21/2013 0850

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method: 8082	Analysis Batch: 460-152593	Instrument ID: PESTGC7
Prep Method: 3546	Prep Batch: 460-152234	Initial Weight/Volume: 15.00 g
Dilution: 1.0		Final Weight/Volume: 10 mL
Analysis Date: 03/25/2013 0426		Injection Volume:
Prep Date: 03/22/2013 0706		Result Type: PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor 1016		74	U	17	74
Aroclor 1221		74	U	17	74
Aroclor 1232		74	U	17	74
Aroclor 1242		74	U	17	74
Aroclor 1248		74	U	17	74
Aroclor 1254		74	U	21	74
Aroclor 1260		74	U	21	74
Aroclor 1262		74	U	21	74
Aroclor 1268		74	U	21	74
Polychlorinated biphenyls, Total		74	U	21	74

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	137		45 - 138

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

Client Sample ID: Waste 1

Lab Sample ID: 460-52720-3

Date Sampled: 03/20/2013 1400

Client Matrix: Solid

% Moisture: 10.0

Date Received: 03/21/2013 0850

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method: 8082

Analysis Batch: 460-152593

Instrument ID: PESTGC7

Prep Method: 3546

Prep Batch: 460-152234

Initial Weight/Volume: 15.00 g

Dilution: 1.0

Final Weight/Volume: 10 mL

Analysis Date: 03/25/2013 0426

Injection Volume:

Prep Date: 03/22/2013 0706

Result Type: SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	109		45 - 138

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

Client Sample ID: Waste 1

Lab Sample ID: 460-52720-3

Date Sampled: 03/20/2013 1400

Client Matrix: Solid

Date Received: 03/21/2013 0850

8151A Herbicides (GC)-TCLP

Analysis Method:	8151A	Analysis Batch:	460-152946	Instrument ID:	PESTGC3
Prep Method:	8151A	Prep Batch:	460-152591	Initial Weight/Volume:	15 mL
Dilution:	1.0	Leach Batch:	460-152369	Final Weight/Volume:	5 mL
Analysis Date:	03/26/2013 2119			Injection Volume:	
Prep Date:	03/25/2013 1013			Result Type:	PRIMARY
Leach Date:	03/22/2013 1801				

Analyte	DryWt Corrected: N	Result (mg/L)	Qualifier	MDL	RL
2,4-D		0.017	U	0.0033	0.017
Silvex (2,4,5-TP)		0.017	U	0.0030	0.017
Surrogate		%Rec	Qualifier	Acceptance Limits	
2,4-Dichlorophenylacetic acid		95		72 - 145	

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

Client Sample ID: Waste 1

Lab Sample ID: 460-52720-3

Date Sampled: 03/20/2013 1400

Client Matrix: Solid

Date Received: 03/21/2013 0850

8151A Herbicides (GC)-TCLP

Analysis Method:	8151A	Analysis Batch:	460-152946	Instrument ID:	PESTGC3
Prep Method:	8151A	Prep Batch:	460-152591	Initial Weight/Volume:	15 mL
Dilution:	1.0	Leach Batch:	460-152369	Final Weight/Volume:	5 mL
Analysis Date:	03/26/2013 2119			Injection Volume:	
Prep Date:	03/25/2013 1013			Result Type:	SECONDARY
Leach Date:	03/22/2013 1801				

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4-Dichlorophenylacetic acid	130		72 - 145

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

Client Sample ID: Pre-Char 1

Lab Sample ID: 460-52720-1

Date Sampled: 03/20/2013 1500

Client Matrix: Solid

% Moisture: 16.5

Date Received: 03/21/2013 0850

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	460-152385	Instrument ID:	ICP5
Prep Method:	3050B	Prep Batch:	460-152248	Lab File ID:	03222013.asc
Dilution:	4.0			Initial Weight/Volume:	1.00 g
Analysis Date:	03/22/2013 1214			Final Weight/Volume:	50 mL
Prep Date:	03/22/2013 0818				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		11600		21.8	47.9
Antimony		2.4	U	1.5	2.4
Arsenic		9.4		1.1	1.2
Barium		116		1.4	47.9
Beryllium		0.69		0.17	0.48
Cadmium		1.2	U	0.18	1.2
Calcium		15400		84.8	1200
Chromium		15.4		1.0	2.4
Cobalt		10.8	J	1.0	12.0
Copper		28.0		2.3	6.0
Iron		29800		14.5	35.9
Lead		85.2		1.0	1.2
Magnesium		6300		86.3	1200
Manganese		685		1.1	3.6
Nickel		23.1		1.1	9.6
Potassium		1650		128	1200
Selenium		2.4	U	1.6	2.4
Silver		2.4	U	0.24	2.4
Sodium		1650		189	1200
Thallium		2.4	U	1.4	2.4
Vanadium		19.9		0.92	12.0
Zinc		75.5		1.3	7.2

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	460-152523	Instrument ID:	LEEMAN3
Prep Method:	7471A	Prep Batch:	460-152503	Lab File ID:	152503.PRN
Dilution:	1.0			Initial Weight/Volume:	0.61 g
Analysis Date:	03/24/2013 1700			Final Weight/Volume:	50 mL
Prep Date:	03/24/2013 1057				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.25		0.014	0.020

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

Client Sample ID: Pre-Char 2

Lab Sample ID: 460-52720-2

Date Sampled: 03/20/2013 1515

Client Matrix: Solid

% Moisture: 22.3

Date Received: 03/21/2013 0850

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	460-152385	Instrument ID:	ICP5
Prep Method:	3050B	Prep Batch:	460-152248	Lab File ID:	03222013.asc
Dilution:	4.0			Initial Weight/Volume:	1.12 g
Analysis Date:	03/22/2013 1232			Final Weight/Volume:	50 mL
Prep Date:	03/22/2013 0818				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		9690		20.9	46.0
Antimony		2.3	U	1.4	2.3
Arsenic		15.0		1.1	1.1
Barium		139		1.3	46.0
Beryllium		0.53		0.17	0.46
Cadmium		1.1	U	0.17	1.1
Calcium		40000		81.3	1150
Chromium		20.1		0.99	2.3
Cobalt		7.2	J	0.98	11.5
Copper		142		2.2	5.7
Iron		21100		13.9	34.5
Lead		252		0.99	1.1
Magnesium		5850		82.7	1150
Manganese		480		1.0	3.4
Nickel		18.2		1.0	9.2
Potassium		1600		123	1150
Selenium		2.3	U	1.5	2.3
Silver		2.3	U	0.23	2.3
Sodium		329	J	182	1150
Thallium		2.3	U	1.3	2.3
Vanadium		17.6		0.88	11.5
Zinc		115		1.2	6.9

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	460-152523	Instrument ID:	LEEMAN3
Prep Method:	7471A	Prep Batch:	460-152503	Lab File ID:	152503.PRN
Dilution:	1.0			Initial Weight/Volume:	0.61 g
Analysis Date:	03/24/2013 1701			Final Weight/Volume:	50 mL
Prep Date:	03/24/2013 1057				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.26		0.015	0.022

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

Client Sample ID: Waste 1

Lab Sample ID: 460-52720-3

Date Sampled: 03/20/2013 1400

Client Matrix: Solid

% Moisture: 10.0

Date Received: 03/21/2013 0850

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	460-152385	Instrument ID:	ICP5
Prep Method:	3050B	Prep Batch:	460-152248	Lab File ID:	03222013.asc
Dilution:	4.0			Initial Weight/Volume:	1.07 g
Analysis Date:	03/22/2013 1236			Final Weight/Volume:	50 mL
Prep Date:	03/22/2013 0818				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		9250		18.9	41.5
Antimony		2.1	U	1.3	2.1
Arsenic		15.2		0.98	1.0
Barium		100		1.2	41.5
Beryllium		0.48		0.15	0.42
Cadmium		1.0	U	0.15	1.0
Calcium		24200		73.5	1040
Chromium		13.1		0.89	2.1
Cobalt		7.5	J	0.88	10.4
Copper		29.0		2.0	5.2
Iron		20800		12.6	31.2
Lead		115		0.89	1.0
Magnesium		7130		74.8	1040
Manganese		834		0.91	3.1
Nickel		18.1		0.91	8.3
Potassium		1420		111	1040
Selenium		2.1	U	1.4	2.1
Silver		2.1	U	0.21	2.1
Sodium		1040	U	164	1040
Thallium		2.1	U	1.2	2.1
Vanadium		25.4		0.80	10.4
Zinc		77.7		1.1	6.2

6010B Metals (ICP)-TCLP

Analysis Method:	6010B	Analysis Batch:	460-152520	Instrument ID:	ICP5
Prep Method:	3010A	Prep Batch:	460-152459	Lab File ID:	03242013.asc
Dilution:	5.0	Leach Batch:	460-152369	Initial Weight/Volume:	50 mL
Analysis Date:	03/24/2013 1409			Final Weight/Volume:	50 mL
Prep Date:	03/23/2013 1340				
Leach Date:	03/22/2013 1801				

Analyte	DryWt Corrected: N	Result (ug/L)	Qualifier	MDL	RL
Arsenic		89.4		18.6	25.0
Barium		716	J	29.7	1000
Cadmium		25.0	U	4.1	25.0
Chromium		50.0	U	22.3	50.0
Lead		55.0		20.1	25.0
Selenium		50.0	U	28.8	50.0
Silver		50.0	U	6.7	50.0

7470A Mercury (CVAA)-TCLP

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

Client Sample ID: Waste 1

Lab Sample ID: 460-52720-3

Date Sampled: 03/20/2013 1400

Client Matrix: Solid

Date Received: 03/21/2013 0850

7470A Mercury (CVAA)-TCLP

Analysis Method:	7470A	Analysis Batch:	460-152469	Instrument ID:	LEEMAN5
Prep Method:	7470A	Prep Batch:	460-152436	Lab File ID:	152435.PRN
Dilution:	1.0	Leach Batch:	460-152369	Initial Weight/Volume:	30 mL
Analysis Date:	03/23/2013 1650			Final Weight/Volume:	30 mL
Prep Date:	03/23/2013 1154				
Leach Date:	03/22/2013 1801				

Analyte	DryWt Corrected: N	Result (ug/L)	Qualifier	MDL	RL
Mercury		0.26		0.16	0.20

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	460-152523	Instrument ID:	LEEMAN3
Prep Method:	7471A	Prep Batch:	460-152503	Lab File ID:	152503.PRN
Dilution:	1.0			Initial Weight/Volume:	0.60 g
Analysis Date:	03/24/2013 1703			Final Weight/Volume:	50 mL
Prep Date:	03/24/2013 1057				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.18		0.013	0.019

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

General Chemistry

Client Sample ID: Pre-Char 1

Lab Sample ID: 460-52720-1

Date Sampled: 03/20/2013 1500

Client Matrix: Solid

% Moisture: 16.5

Date Received: 03/21/2013 0850

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Cyanide, Total	0.63		mg/Kg	0.066	0.12	1.0	9012A
	Analysis Batch: 460-152521	Analysis Date: 03/24/2013 1644					DryWt Corrected: Y
	Prep Batch: 460-152502	Prep Date: 03/24/2013 1100					

Analyte	Result	Qual	Units	RL	RL	Dil	Method
BTU	DNF		BTU/lb	2.00	2.00	1.0	D240-87
	Analysis Batch: 680-271624	Analysis Date: 04/02/2013 1659					DryWt Corrected: N
	Prep Batch: 680-271572	Prep Date: 04/02/2013 1339					
Percent Moisture	16.5		%	1.0	1.0	1.0	Moisture
	Analysis Batch: 460-152462	Analysis Date: 03/23/2013 1524					DryWt Corrected: N
Percent Solids	83.5		%	1.0	1.0	1.0	Moisture
	Analysis Batch: 460-152462	Analysis Date: 03/23/2013 1524					DryWt Corrected: N

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

General Chemistry

Client Sample ID: Pre-Char 2

Lab Sample ID: 460-52720-2

Date Sampled: 03/20/2013 1515

Client Matrix: Solid

% Moisture: 22.3

Date Received: 03/21/2013 0850

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Cyanide, Total	0.45		mg/Kg	0.071	0.13	1.0	9012A
	Analysis Batch: 460-152521	Analysis Date: 03/24/2013 1646					DryWt Corrected: Y
	Prep Batch: 460-152502	Prep Date: 03/24/2013 1100					

Analyte	Result	Qual	Units	RL	RL	Dil	Method
BTU	DNF		BTU/lb	4.06	4.06	1.0	D240-87
	Analysis Batch: 680-271624	Analysis Date: 04/02/2013 1659					DryWt Corrected: N
	Prep Batch: 680-271572	Prep Date: 04/02/2013 1339					
Percent Moisture	22.3		%	1.0	1.0	1.0	Moisture
	Analysis Batch: 460-152462	Analysis Date: 03/23/2013 1524					DryWt Corrected: N
Percent Solids	77.7		%	1.0	1.0	1.0	Moisture
	Analysis Batch: 460-152462	Analysis Date: 03/23/2013 1524					DryWt Corrected: N

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

General Chemistry

Client Sample ID: Waste 1

Lab Sample ID: 460-52720-3

Date Sampled: 03/20/2013 1400

Client Matrix: Solid

% Moisture: 10.0

Date Received: 03/21/2013 0850

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Chromium (hexavalent)	2.3	U	mg/Kg	0.56	2.3	1.0	7196A
	Analysis Batch: 460-152695	Analysis Date: 03/25/2013 1758					DryWt Corrected: Y
	Prep Batch: 460-152694	Prep Date: 03/25/2013 1200					
Cyanide, Total	18.4		mg/Kg	0.61	1.1	10	9012A
	Analysis Batch: 460-152521	Analysis Date: 03/24/2013 1651					DryWt Corrected: Y
	Prep Batch: 460-152502	Prep Date: 03/24/2013 1100					
Halogens, Extractable Organic	55.6	U	mg/Kg	38.9	55.6	1.0	9023
	Analysis Batch: 490-70109	Analysis Date: 04/04/2013 1158					DryWt Corrected: Y
	Prep Batch: 490-69936	Prep Date: 04/03/2013 1713					

Analyte	Result	Qual	Units	Dil	Method
Corrosivity	9.21	HF	SU	1.0	9045C
	Analysis Batch: 460-152355	Analysis Date: 03/22/2013 1445			DryWt Corrected: N

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Burn Rate	2.20	U	mm/sec	2.20	2.20	1.0	1030
	Analysis Batch: 460-152639	Analysis Date: 03/25/2013 1300					DryWt Corrected: N
Cyanide, Reactive	25.0	U	mg/Kg	25.0	25.0	1.0	9014
	Analysis Batch: 460-152607	Analysis Date: 03/25/2013 1106					DryWt Corrected: N
	Prep Batch: 460-152592	Prep Date: 03/25/2013 1015					
Sulfide, Reactive	20.0	U	mg/Kg	20.0	20.0	1.0	9034
	Analysis Batch: 460-152610	Analysis Date: 03/25/2013 1113					DryWt Corrected: N
	Prep Batch: 460-152602	Prep Date: 03/25/2013 1045					
BTU	5070		BTU/lb	2.00	2.00	1.0	D240-87
	Analysis Batch: 680-271624	Analysis Date: 04/02/2013 1659					DryWt Corrected: N
	Prep Batch: 680-271572	Prep Date: 04/02/2013 1339					
Percent Moisture	10.0		%	1.0	1.0	1.0	Moisture
	Analysis Batch: 460-152462	Analysis Date: 03/23/2013 1524					DryWt Corrected: N
Percent Solids	90.0		%	1.0	1.0	1.0	Moisture
	Analysis Batch: 460-152462	Analysis Date: 03/23/2013 1524					DryWt Corrected: N

DATA REPORTING QUALIFIERS

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

Lab Section	Qualifier	Description
GC/MS VOA		
	U	Analyzed for but not detected.
	E	Compound concentration exceeds the upper level of the calibration range of the instrument for that specific analysis.
	J	Indicates an estimated value.
	N	This flag indicates the presumptive evidence of a compound.
GC/MS Semi VOA		
	U	Analyzed for but not detected.
	J	Indicates an estimated value.
	D	The reported value is from a dilution.
	A	The tentatively identified compound is a suspected aldol-condensation product.
	N	This flag indicates the presumptive evidence of a compound.
GC VOA		
	U	Analyzed for but not detected.
	*	RPD of the LCS and LCSD exceeds the control limits
GC Semi VOA		
	U	Analyzed for but not detected.
	*	LCS or LCSD exceeds the control limits
	*	Surrogate exceeds the control limit
	D	The reported value is from a dilution.
Metals		
	U	Indicates analyzed for but not detected.
	J	Sample result is greater than the MDL but below the CRDL

DATA REPORTING QUALIFIERS

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

Lab Section	Qualifier	Description
General Chemistry	HF	Field parameter with a holding time of 15 minutes
	U	Indicates analyzed for but not detected.
	N	Spiked sample recovery is not within control limits.

QUALITY CONTROL RESULTS

Quality Control Results

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Prep Batch: 460-152166					
460-52720-1	Pre-Char 1	T	Solid	5035	
460-52720-2	Pre-Char 2	T	Solid	5035	
460-52720-3	Waste 1	T	Solid	5035	
Prep Batch: 460-152411					
460-52720-3	Waste 1	P	Solid	1311	
Analysis Batch:460-152933					
LCS 460-152933/3	Lab Control Sample	T	Solid	8260B	
MB 460-152933/4	Method Blank	T	Solid	8260B	
460-52720-1	Pre-Char 1	T	Solid	8260B	460-152166
460-52720-2	Pre-Char 2	T	Solid	8260B	460-152166
460-52720-3	Waste 1	T	Solid	8260B	460-152166
Analysis Batch:460-153884					
LCS 460-153884/3	Lab Control Sample	T	Water	8260B	
MB 460-153884/4	Method Blank	T	Water	8260B	
460-52720-3	Waste 1	P	Solid	8260B	

Report Basis

P = TCLP

T = Total

Quality Control Results

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS Semi VOA					
Prep Batch: 460-152369					
LB 460-152369/1-E	TCLP SPLPE Leachate Blank	P	Solid	1311	
460-52720-3DL	Waste 1	P	Solid	1311	
Prep Batch: 460-152495					
LCS 460-152495/2-A	Lab Control Sample	T	Water	3510C	
MB 460-152495/1-A	Method Blank	T	Water	3510C	
LB 460-152369/1-E	TCLP SPLPE Leachate Blank	P	Solid	3510C	460-152369
460-52720-3DL	Waste 1	P	Solid	3510C	460-152369
Prep Batch: 460-152648					
LCS 460-152648/2-A	Lab Control Sample	T	Solid	3541	
MB 460-152648/1-A	Method Blank	T	Solid	3541	
460-52720-1DL	Pre-Char 1	T	Solid	3541	
460-52720-2DL	Pre-Char 2	T	Solid	3541	
460-52720-3DL	Waste 1	T	Solid	3541	
Analysis Batch:460-153015					
LCS 460-152648/2-A	Lab Control Sample	T	Solid	8270C	460-152648
MB 460-152648/1-A	Method Blank	T	Solid	8270C	460-152648
460-52720-1DL	Pre-Char 1	T	Solid	8270C	460-152648
460-52720-2DL	Pre-Char 2	T	Solid	8270C	460-152648
460-52720-3DL	Waste 1	T	Solid	8270C	460-152648
Analysis Batch:460-153728					
LB 460-152369/1-E	TCLP SPLPE Leachate Blank	P	Solid	8270D	460-152495
LCS 460-152495/2-A	Lab Control Sample	T	Water	8270D	460-152495
MB 460-152495/1-A	Method Blank	T	Water	8270D	460-152495
460-52720-3DL	Waste 1	P	Solid	8270D	460-152495

Report Basis

P = TCLP

T = Total

Quality Control Results

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC VOA					
Prep Batch: 460-152145					
460-52720-1	Pre-Char 1	T	Solid	5035	
460-52720-2	Pre-Char 2	T	Solid	5035	
460-52720-3	Waste 1	T	Solid	5035	
Analysis Batch:460-152423					
LCS 460-152423/2	Lab Control Sample	T	Solid	8015B	
LCSD 460-152423/3	Lab Control Sample Duplicate	T	Solid	8015B	
MB 460-152423/4	Method Blank	T	Solid	8015B	
460-52720-1	Pre-Char 1	T	Solid	8015B	460-152145
460-52720-2	Pre-Char 2	T	Solid	8015B	460-152145
Analysis Batch:460-152957					
LCS 460-152957/2	Lab Control Sample	T	Solid	8015B	
LCSD 460-152957/3	Lab Control Sample Duplicate	T	Solid	8015B	
MB 460-152957/4	Method Blank	T	Solid	8015B	
460-52720-3	Waste 1	T	Solid	8015B	460-152145

Report Basis

T = Total

Quality Control Results

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC Semi VOA					
Prep Batch: 460-152187					
LB 460-152187/1-E	TCLP SPLPE Leachate Blank	P	Solid	1311	
Prep Batch: 460-152223					
LCS 460-152223/2-A	Lab Control Sample	T	Solid	3546	
MB 460-152223/1-A	Method Blank	T	Solid	3546	
460-52720-1	Pre-Char 1	T	Solid	3546	
460-52720-2	Pre-Char 2	T	Solid	3546	
460-52720-3	Waste 1	T	Solid	3546	
Prep Batch: 460-152234					
LCS 460-152234/2-A	Lab Control Sample	T	Solid	3546	
MB 460-152234/1-A	Method Blank	T	Solid	3546	
460-52720-1	Pre-Char 1	T	Solid	3546	
460-52720-2	Pre-Char 2	T	Solid	3546	
460-52720-3	Waste 1	T	Solid	3546	
Prep Batch: 460-152369					
LB 460-152369/1-B	TCLP SPLPE Leachate Blank	P	Solid	1311	
LB 460-152369/1-G	TCLP SPLPE Leachate Blank	P	Solid	1311	
460-52720-3	Waste 1	P	Solid	1311	
Prep Batch: 460-152430					
LCS 460-152430/2-A	Lab Control Sample	T	Water	3510C	
MB 460-152430/1-A	Method Blank	T	Water	3510C	
LB 460-152187/1-E	TCLP SPLPE Leachate Blank	P	Solid	3510C	460-152187
LB 460-152369/1-B	TCLP SPLPE Leachate Blank	P	Solid	3510C	460-152369
460-52720-3	Waste 1	P	Solid	3510C	460-152369
Analysis Batch: 460-152560					
LB 460-152187/1-E	TCLP SPLPE Leachate Blank	P	Solid	8081A	460-152430
LB 460-152369/1-B	TCLP SPLPE Leachate Blank	P	Solid	8081A	460-152430
LCS 460-152430/2-A	Lab Control Sample	T	Water	8081A	460-152430
MB 460-152430/1-A	Method Blank	T	Water	8081A	460-152430
460-52720-3	Waste 1	P	Solid	8081A	460-152430
Prep Batch: 460-152591					
LCS 460-152591/2-A	Lab Control Sample	T	Water	8151A	
LCSD 460-152591/3-A	Lab Control Sample Duplicate	T	Water	8151A	
MB 460-152591/1-A	Method Blank	T	Water	8151A	
LB 460-152369/1-G	TCLP SPLPE Leachate Blank	P	Solid	8151A	460-152369
460-52720-3	Waste 1	P	Solid	8151A	460-152369

TestAmerica Edison

Quality Control Results

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC Semi VOA					
Analysis Batch:460-152593					
LCS 460-152234/2-A	Lab Control Sample	T	Solid	8082	460-152234
460-52720-1	Pre-Char 1	T	Solid	8082	460-152234
460-52720-2	Pre-Char 2	T	Solid	8082	460-152234
460-52720-3	Waste 1	T	Solid	8082	460-152234
Analysis Batch:460-152604					
MB 460-152234/1-A	Method Blank	T	Solid	8082	460-152234
Analysis Batch:460-152644					
LCS 460-152223/2-A	Lab Control Sample	T	Solid	8015B	460-152223
MB 460-152223/1-A	Method Blank	T	Solid	8015B	460-152223
460-52720-2	Pre-Char 2	T	Solid	8015B	460-152223
Analysis Batch:460-152817					
460-52720-1	Pre-Char 1	T	Solid	8015B	460-152223
460-52720-3	Waste 1	T	Solid	8015B	460-152223
Analysis Batch:460-152945					
LCS 460-152591/2-A	Lab Control Sample	T	Water	8151A	460-152591
LCSD 460-152591/3-A	Lab Control Sample Duplicate	T	Water	8151A	460-152591
MB 460-152591/1-A	Method Blank	T	Water	8151A	460-152591
Analysis Batch:460-152946					
LB 460-152369/1-G	TCLP SPLPE Leachate Blank	P	Solid	8151A	460-152591
460-52720-3	Waste 1	P	Solid	8151A	460-152591

Report Basis

P = TCLP

T = Total

Quality Control Results

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report		Method	Prep Batch
		Basis	Client Matrix		
Metals					
Prep Batch: 460-152248					
LCSSRM 460-152248/2-A ^4	LCS-Certified Reference Material	T	Solid	3050B	
MB 460-152248/1-A ^2	Method Blank	T	Solid	3050B	
460-52720-1	Pre-Char 1	T	Solid	3050B	
460-52720-2	Pre-Char 2	T	Solid	3050B	
460-52720-3	Waste 1	T	Solid	3050B	
Prep Batch: 460-152369					
LB 460-152369/1-C	TCLP SPLPE Leachate Blank	P	Solid	1311	
LB 460-152369/1-D ^5	TCLP SPLPE Leachate Blank	P	Solid	1311	
460-52720-3	Waste 1	P	Solid	1311	
Analysis Batch:460-152385					
LCSSRM 460-152248/2-A ^4	LCS-Certified Reference Material	T	Solid	6010B	460-152248
MB 460-152248/1-A ^2	Method Blank	T	Solid	6010B	460-152248
460-52720-1	Pre-Char 1	T	Solid	6010B	460-152248
460-52720-2	Pre-Char 2	T	Solid	6010B	460-152248
460-52720-3	Waste 1	T	Solid	6010B	460-152248
Prep Batch: 460-152436					
LCS 460-152436/2-A	Lab Control Sample	T	Water	7470A	
MB 460-152436/1-A	Method Blank	T	Water	7470A	
LB 460-152369/1-C	TCLP SPLPE Leachate Blank	P	Solid	7470A	460-152369
460-52720-3	Waste 1	P	Solid	7470A	460-152369
Prep Batch: 460-152459					
LCS 460-152459/2-A	Lab Control Sample	T	Water	3010A	
MB 460-152459/1-A	Method Blank	T	Water	3010A	
LB 460-152369/1-D ^5	TCLP SPLPE Leachate Blank	P	Solid	3010A	460-152369
460-52720-3	Waste 1	P	Solid	3010A	460-152369
Analysis Batch:460-152469					
LB 460-152369/1-C	TCLP SPLPE Leachate Blank	P	Solid	7470A	460-152436
LCS 460-152436/2-A	Lab Control Sample	T	Water	7470A	460-152436
MB 460-152436/1-A	Method Blank	T	Water	7470A	460-152436
460-52720-3	Waste 1	P	Solid	7470A	460-152436
Prep Batch: 460-152503					
LCSSRM 460-152503/2-A ^50	LCS-Certified Reference Material	T	Solid	7471A	
MB 460-152503/1-A	Method Blank	T	Solid	7471A	
460-52720-1	Pre-Char 1	T	Solid	7471A	
460-52720-2	Pre-Char 2	T	Solid	7471A	
460-52720-3	Waste 1	T	Solid	7471A	

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Quality Control Results

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Analysis Batch:460-152520					
LB 460-152369/1-D ^5	TCLP SPLPE Leachate Blank	P	Solid	6010B	460-152459
LCS 460-152459/2-A	Lab Control Sample	T	Water	6010B	460-152459
MB 460-152459/1-A	Method Blank	T	Water	6010B	460-152459
460-52720-3	Waste 1	P	Solid	6010B	460-152459
Analysis Batch:460-152523					
LCSSRM 460-152503/2-A ^50	LCS-Certified Reference Material	T	Solid	7471A	460-152503
MB 460-152503/1-A	Method Blank	T	Solid	7471A	460-152503
460-52720-1	Pre-Char 1	T	Solid	7471A	460-152503
460-52720-2	Pre-Char 2	T	Solid	7471A	460-152503
460-52720-3	Waste 1	T	Solid	7471A	460-152503

Report Basis

P = TCLP

T = Total

Quality Control Results

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Prep Batch: 490-69936					
LCS 490-69936/2-A	Lab Control Sample	T	Solid	9023	
MB 490-69936/1-A	Method Blank	T	Solid	9023	
460-52720-3	Waste 1	T	Solid	9023	
Analysis Batch:490-70109					
LCS 490-69936/2-A	Lab Control Sample	T	Solid	9023	490-69936
MB 490-69936/1-A	Method Blank	T	Solid	9023	490-69936
460-52720-3	Waste 1	T	Solid	9023	490-69936
Analysis Batch:460-152355					
LCSSRM 460-152355/3	LCS-Certified Reference Material	T	Solid	9045C	
MB 460-152355/2	Method Blank	T	Solid	9045C	
460-52720-3	Waste 1	T	Solid	9045C	
Analysis Batch:460-152462					
460-52720-1	Pre-Char 1	T	Solid	Moisture	
460-52720-2	Pre-Char 2	T	Solid	Moisture	
460-52720-3	Waste 1	T	Solid	Moisture	
Prep Batch: 460-152502					
H LCS 460-152502/3-A	High Level Control Sample	T	Solid	9012A	
LLCS 460-152502/2-A	Low Level Control Sample	T	Solid	9012A	
MB 460-152502/1-A	Method Blank	T	Solid	9012A	
460-52720-1	Pre-Char 1	T	Solid	9012A	
460-52720-1MS	Matrix Spike	T	Solid	9012A	
460-52720-1MSD	Matrix Spike Duplicate	T	Solid	9012A	
460-52720-2	Pre-Char 2	T	Solid	9012A	
460-52720-3	Waste 1	T	Solid	9012A	
Analysis Batch:460-152521					
H LCS 460-152502/3-A	High Level Control Sample	T	Solid	9012A	460-152502
LLCS 460-152502/2-A	Low Level Control Sample	T	Solid	9012A	460-152502
MB 460-152502/1-A	Method Blank	T	Solid	9012A	460-152502
460-52720-1	Pre-Char 1	T	Solid	9012A	460-152502
460-52720-1MS	Matrix Spike	T	Solid	9012A	460-152502
460-52720-1MSD	Matrix Spike Duplicate	T	Solid	9012A	460-152502
460-52720-2	Pre-Char 2	T	Solid	9012A	460-152502
460-52720-3	Waste 1	T	Solid	9012A	460-152502
Prep Batch: 460-152592					
LCS 460-152592/2-A	Lab Control Sample	T	Solid	7.3.3	
MB 460-152592/1-A	Method Blank	T	Solid	7.3.3	
460-52720-3	Waste 1	T	Solid	7.3.3	

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Quality Control Results

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Prep Batch: 460-152602					
LCSSRM 460-152602/2-A	LCS-Certified Reference Material	T	Solid	7.3.4	
MB 460-152602/1-A	Method Blank	T	Solid	7.3.4	
460-52720-3	Waste 1	T	Solid	7.3.4	
Analysis Batch:460-152607					
LCS 460-152592/2-A	Lab Control Sample	T	Solid	9014	460-152592
MB 460-152592/1-A	Method Blank	T	Solid	9014	460-152592
460-52720-3	Waste 1	T	Solid	9014	460-152592
Analysis Batch:460-152610					
LCSSRM 460-152602/2-A	LCS-Certified Reference Material	T	Solid	9034	460-152602
MB 460-152602/1-A	Method Blank	T	Solid	9034	460-152602
460-52720-3	Waste 1	T	Solid	9034	460-152602
Analysis Batch:460-152639					
460-52720-3	Waste 1	T	Solid	1030	
Prep Batch: 460-152694					
LCSI 460-152694/3-A	Lab Control Sample Insoluble	T	Solid	3060A	
LCSS 460-152694/2-A	Lab Control Sample Soluble	T	Solid	3060A	
MB 460-152694/1-A	Method Blank	T	Solid	3060A	
460-52720-3	Waste 1	T	Solid	3060A	
Analysis Batch:460-152695					
LCSI 460-152694/3-A	Lab Control Sample Insoluble	T	Solid	7196A	460-152694
LCSS 460-152694/2-A	Lab Control Sample Soluble	T	Solid	7196A	460-152694
MB 460-152694/1-A	Method Blank	T	Solid	7196A	460-152694
460-52720-3	Waste 1	T	Solid	7196A	460-152694
Prep Batch: 680-271572					
LCS 680-271572/1-A	Lab Control Sample	T	Solid	D240-87	
460-52720-1	Pre-Char 1	T	Solid	D240-87	
460-52720-2	Pre-Char 2	T	Solid	D240-87	
460-52720-3	Waste 1	T	Solid	D240-87	
460-52720-3DU	Duplicate	T	Solid	D240-87	
Analysis Batch:680-271624					
LCS 680-271572/1-A	Lab Control Sample	T	Solid	D240-87	680-271572
460-52720-1	Pre-Char 1	T	Solid	D240-87	680-271572
460-52720-2	Pre-Char 2	T	Solid	D240-87	680-271572
460-52720-3	Waste 1	T	Solid	D240-87	680-271572
460-52720-3DU	Duplicate	T	Solid	D240-87	680-271572

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Quality Control Results

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
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Report Basis

T = Total

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

Surrogate Recovery Report

8260B Volatile Organic Compounds (GC/MS)

Client Matrix: Solid

Lab Sample ID	Client Sample ID	DCA %Rec	TOL %Rec	BFB %Rec
460-52720-1	Pre-Char 1	87	82	92
460-52720-2	Pre-Char 2	89	78	87
460-52720-3	Waste 1	95	83	94
MB 460-152933/4		92	89	100
LCS 460-152933/3		92	88	99

Surrogate	Acceptance Limits
DCA = 1,2-Dichloroethane-d4 (Surr)	75-135
TOL = Toluene-d8 (Surr)	59-150
BFB = Bromofluorobenzene	72-133

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

Surrogate Recovery Report

8260B Volatile Organic Compounds (GC/MS)

Client Matrix: Solid TCLP

Lab Sample ID	Client Sample ID	DCA %Rec	TOL %Rec	BFB %Rec
460-52720-3	Waste 1	116	109	84
MB 460-153884/4		120	110	85
LCS 460-153884/3		117	110	93

Surrogate	Acceptance Limits
DCA = 1,2-Dichloroethane-d4 (Surr)	70-130
TOL = Toluene-d8 (Surr)	70-130
BFB = Bromofluorobenzene	70-130

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

Surrogate Recovery Report

8270C Semivolatile Organic Compounds (GC/MS)

Client Matrix: Solid

Lab Sample ID	Client Sample ID	NBZ %Rec	PHL %Rec	TPH %Rec	TBP %Rec	2FP %Rec	FBP %Rec
460-52720-1 DL	Pre-Char 1 DL	0D	0D	0D	0D	0D	0D
460-52720-2 DL	Pre-Char 2 DL	0D	0D	0D	0D	0D	0D
460-52720-3 DL	Waste 1 DL	0D	0D	0D	0D	0D	0D
MB 460-152648/1-A		82	79	80	70	74	74
LCS 460-152648/2-A		69	69	67	67	64	70

Surrogate	Acceptance Limits
NBZ = Nitrobenzene-d5	38-105
PHL = Phenol-d5	41-118
TPH = Terphenyl-d14	16-151
TBP = 2,4,6-Tribromophenol	10-120
2FP = 2-Fluorophenol	37-125
FBP = 2-Fluorobiphenyl	40-109

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

Surrogate Recovery Report

8270D Semivolatile Organic Compounds (GC/MS)

Client Matrix: Solid TCLP

Lab Sample ID	Client Sample ID	NBZ %Rec	PHL %Rec	TPH %Rec	TBP %Rec	2FP %Rec	FBP %Rec
460-52720-3 DL	Waste 1 DL	0D	0D	0D	0D	0D	0D
MB 460-152495/1-A		93	47	91	94	58	85
LB 460-152369/1-E		91	33	95	95	47	87
LCS 460-152495/2-A		82	44	78	96	55	75

Surrogate	Acceptance Limits
NBZ = Nitrobenzene-d5	56-112
PHL = Phenol-d5	10-48
TPH = Terphenyl-d14	50-122
TBP = 2,4,6-Tribromophenol	46-122
2FP = 2-Fluorophenol	10-65
FBP = 2-Fluorobiphenyl	53-108

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

Surrogate Recovery Report

8015B Gasoline Range Organics - (GC)

Client Matrix: Solid

Lab Sample ID	Client Sample ID	TFT1 %Rec
460-52720-1	Pre-Char 1	99
460-52720-2	Pre-Char 2	117
460-52720-3	Waste 1	121
MB 460-152423/4		97
MB 460-152957/4		90
LCS 460-152423/2		105
LCS 460-152957/2		106
LCSD 460-152423/3		100
LCSD 460-152957/3		97

Surrogate	Acceptance Limits
TFT = a,a,a-Trifluorotoluene	70-130

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

Surrogate Recovery Report

8015B Diesel Range Organics (DRO) (GC)

Client Matrix: Solid

Lab Sample ID	Client Sample ID	OTPH1 %Rec
460-52720-1	Pre-Char 1	0* D
460-52720-2	Pre-Char 2	0D
460-52720-3	Waste 1	0* D
MB 460-152223/1-A		78
LCS 460-152223/2-A		93

Surrogate	Acceptance Limits
OTPH = o-Terphenyl	52-134

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

Surrogate Recovery Report

8081A Organochlorine Pesticides (GC)

Client Matrix: Solid TCLP

Lab Sample ID	Client Sample ID	TCX1 %Rec	TCX2 %Rec	DCB1 %Rec	DCB2 %Rec
460-52720-3	Waste 1	125	101	138	136
MB 460-152430/1-A		100	107	97	108
LB 460-152369/1-B		107	117	126	123
LB 460-152187/1-E		117	130	135	135
LCS 460-152430/2-A		101	108	95	98

Surrogate	Acceptance Limits
TCX = Tetrachloro-m-xylene	46-140
DCB = DCB Decachlorobiphenyl	55-150

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

Surrogate Recovery Report

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Matrix: Solid

Lab Sample ID	Client Sample ID	DCB1 %Rec	DCB2 %Rec
460-52720-1	Pre-Char 1	101	131
460-52720-2	Pre-Char 2	107	134
460-52720-3	Waste 1	109	137
MB 460-152234/1-A		125	117
LCS 460-152234/2-A		121	114

Surrogate	Acceptance Limits
DCB = DCB Decachlorobiphenyl	45-138

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

Surrogate Recovery Report

8151A Herbicides (GC)

Client Matrix: Solid TCLP

Lab Sample ID	Client Sample ID	DCPA1 %Rec	DCPA2 %Rec
460-52720-3	Waste 1	95	130
MB 460-152591/1-A		101	98
LB 460-152369/1-G		90	85
LCS 460-152591/2-A		96	101
LCSD 460-152591/3-A		102	100

Surrogate	Acceptance Limits
DCPA = 2,4-Dichlorophenylacetic acid	72-145

Quality Control Results

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

Method Blank - Batch: 460-152933

**Method: 8260B
Preparation: N/A**

Lab Sample ID: MB 460-152933/4
 Client Matrix: Solid
 Dilution: 50
 Analysis Date: 03/27/2013 0659
 Prep Date: N/A
 Leach Date: N/A

Analysis Batch: 460-152933
 Prep Batch: N/A
 Leach Batch: N/A
 Units: ug/Kg

Instrument ID: VOAMS2
 Lab File ID: b53883.d
 Initial Weight/Volume: 2.5 mL
 Final Weight/Volume: 5 mL

Analyte	Result	Qual	MDL	RL
Chloromethane	100	U	9.7	100
Bromomethane	100	U	18	100
Chloroethane	100	U	17	100
Vinyl chloride	100	U	14	100
Methylene Chloride	100	U	18	100
Acetone	500	U	270	500
Carbon disulfide	100	U	13	100
Trichlorofluoromethane	100	U	15	100
1,1-Dichloroethene	100	U	8.8	100
1,1-Dichloroethane	100	U	13	100
trans-1,2-Dichloroethene	100	U	13	100
cis-1,2-Dichloroethene	100	U	18	100
Chloroform	100	U	7.9	100
1,2-Dichloroethane	100	U	19	100
2-Butanone	500	U	230	500
1,1,1-Trichloroethane	100	U	6.2	100
Carbon tetrachloride	100	U	5.7	100
Bromodichloromethane	100	U	13	100
1,2-Dichloropropane	100	U	8.6	100
cis-1,3-Dichloropropene	100	U	18	100
Trichloroethene	100	U	9.2	100
Dibromochloromethane	100	U	20	100
1,1,2-Trichloroethane	100	U	19	100
Benzene	100	U	8.3	100
trans-1,3-Dichloropropene	100	U	24	100
Bromoform	100	U	19	100
4-Methyl-2-pentanone	500	U	99	500
2-Hexanone	500	U	50	500
Tetrachloroethene	100	U	9.7	100
1,1,2,2-Tetrachloroethane	100	U	16	100
Toluene	100	U	15	100
Chlorobenzene	100	U	11	100
Ethylbenzene	100	U	9.6	100
Styrene	100	U	12	100
m&p-Xylene	200	U	25	200
o-Xylene	100	U	13	100
Freon TF	100	U	8.2	100
MTBE	100	U	14	100
Cyclohexane	100	U	16	100
1,2-Dibromoethane	100	U	28	100
1,3-Dichlorobenzene	100	U	14	100
1,4-Dichlorobenzene	100	U	23	100
1,2-Dichlorobenzene	100	U	21	100
Dichlorodifluoromethane	100	U	22	100
1,2,4-Trichlorobenzene	100	U	34	100

Quality Control Results

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

Method Blank - Batch: 460-152933

**Method: 8260B
Preparation: N/A**

Lab Sample ID: MB 460-152933/4
 Client Matrix: Solid
 Dilution: 50
 Analysis Date: 03/27/2013 0659
 Prep Date: N/A
 Leach Date: N/A

Analysis Batch: 460-152933
 Prep Batch: N/A
 Leach Batch: N/A
 Units: ug/Kg

Instrument ID: VOAMS2
 Lab File ID: b53883.d
 Initial Weight/Volume: 2.5 mL
 Final Weight/Volume: 5 mL

Analyte	Result	Qual	MDL	RL
1,4-Dioxane	5000	U	3600	5000
1,2,3-Trichlorobenzene	100	U	51	100
1,2-Dibromo-3-Chloropropane	100	U	40	100
Bromochloromethane	100	U	27	100
Isopropylbenzene	100	U	7.7	100
Methyl acetate	200	U	34	200
Methylcyclohexane	100	U	14	100

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	92	75 - 135
Toluene-d8 (Surr)	89	59 - 150
Bromofluorobenzene	100	72 - 133

Method Blank TICs- Batch: 460-152933

Cas Number	Analyte	RT	Est. Result	Qual
	Tentatively Identified Compound		None	

Quality Control Results

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

Lab Control Sample - Batch: 460-152933

**Method: 8260B
Preparation: N/A**

Lab Sample ID: LCS 460-152933/3	Analysis Batch: 460-152933	Instrument ID: VOAMS2
Client Matrix: Solid	Prep Batch: N/A	Lab File ID: b53879.d
Dilution: 50	Leach Batch: N/A	Initial Weight/Volume: 2.5 mL
Analysis Date: 03/27/2013 0525	Units: ug/Kg	Final Weight/Volume: 5 mL
Prep Date: N/A		
Leach Date: N/A		

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Chloromethane	2000	1630	81	52 - 144	
Bromomethane	2000	1830	91	58 - 154	
Chloroethane	2000	1840	92	66 - 144	
Vinyl chloride	2000	1770	88	55 - 154	
Methylene Chloride	2000	1690	84	78 - 118	
Acetone	2000	1420	71	48 - 177	
Carbon disulfide	2000	1710	86	70 - 120	
Trichlorofluoromethane	2000	1790	90	60 - 148	
1,1-Dichloroethene	2000	2110	106	68 - 138	
1,1-Dichloroethane	2000	1880	94	79 - 119	
trans-1,2-Dichloroethene	2000	1900	95	73 - 119	
cis-1,2-Dichloroethene	2000	1960	98	78 - 118	
Chloroform	2000	1970	99	81 - 122	
1,2-Dichloroethane	2000	1860	93	81 - 121	
2-Butanone	2000	1910	95	70 - 139	
1,1,1-Trichloroethane	2000	2100	105	78 - 118	
Carbon tetrachloride	2000	2170	108	64 - 130	
Bromodichloromethane	2000	1970	99	78 - 118	
1,2-Dichloropropane	2000	1910	96	78 - 118	
cis-1,3-Dichloropropene	2000	1790	89	75 - 120	
Trichloroethene	2000	2050	102	82 - 122	
Dibromochloromethane	2000	1930	97	78 - 118	
1,1,2-Trichloroethane	2000	1760	88	77 - 120	
Benzene	2000	1670	84	71 - 118	
trans-1,3-Dichloropropene	2000	1850	92	73 - 118	
Bromoform	2000	1940	97	76 - 133	
4-Methyl-2-pentanone	2000	1580	79	69 - 124	
2-Hexanone	2000	1620	81	62 - 123	
Tetrachloroethene	2000	2140	107	78 - 136	
1,1,2,2-Tetrachloroethane	2000	1770	89	86 - 145	
Toluene	2000	1810	91	79 - 136	
Chlorobenzene	2000	2010	100	69 - 124	
Ethylbenzene	2000	2050	102	78 - 124	
Styrene	2000	2150	108	73 - 126	
m&p-Xylene	4000	4100	102	78 - 127	
o-Xylene	2000	2100	105	77 - 122	
Freon TF	2000	2480	124	50 - 128	
MTBE	2000	1810	90	65 - 143	
Cyclohexane	2000	1890	95	69 - 128	
1,2-Dibromoethane	2000	1940	97	76 - 120	
1,3-Dichlorobenzene	2000	2010	101	83 - 123	

Quality Control Results

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

Lab Control Sample - Batch: 460-152933

**Method: 8260B
Preparation: N/A**

Lab Sample ID: LCS 460-152933/3	Analysis Batch: 460-152933	Instrument ID: VOAMS2
Client Matrix: Solid	Prep Batch: N/A	Lab File ID: b53879.d
Dilution: 50	Leach Batch: N/A	Initial Weight/Volume: 2.5 mL
Analysis Date: 03/27/2013 0525	Units: ug/Kg	Final Weight/Volume: 5 mL
Prep Date: N/A		
Leach Date: N/A		

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
1,4-Dichlorobenzene	2000	2000	100	84 - 124	
1,2-Dichlorobenzene	2000	2040	102	83 - 123	
Dichlorodifluoromethane	2000	1630	81	41 - 149	
1,2,4-Trichlorobenzene	2000	2210	110	62 - 144	
1,4-Dioxane	15000	11800	79	54 - 147	
1,2,3-Trichlorobenzene	2000	2320	116	36 - 207	
1,2-Dibromo-3-Chloropropane	2000	2160	108	62 - 127	
Bromochloromethane	2000	2040	102	81 - 121	
Isopropylbenzene	2000	2170	108	80 - 143	
Methyl acetate	2000	1700	85	72 - 165	
Methylcyclohexane	2000	1800	90	80 - 134	
<hr/>					
Surrogate		% Rec		Acceptance Limits	
1,2-Dichloroethane-d4 (Surr)		92		75 - 135	
Toluene-d8 (Surr)		88		59 - 150	
Bromofluorobenzene		99		72 - 133	

Quality Control Results

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

Method Blank - Batch: 460-153884

**Method: 8260B
Preparation: 5030B**

Lab Sample ID: MB 460-153884/4
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 04/03/2013 0909
 Prep Date: 04/03/2013 0909
 Leach Date: N/A

Analysis Batch: 460-153884
 Prep Batch: N/A
 Leach Batch: N/A
 Units: mg/L

Instrument ID: VOAMS13
 Lab File ID: p68628.d
 Initial Weight/Volume: 5 mL
 Final Weight/Volume: 5 mL

Analyte	Result	Qual	MDL	RL
Vinyl chloride	0.0010	U	0.00014	0.0010
1,1-Dichloroethene	0.0010	U	0.000090	0.0010
Chloroform	0.0010	U	0.000080	0.0010
1,2-Dichloroethane	0.0010	U	0.00019	0.0010
2-Butanone	0.0050	U	0.0023	0.0050
Carbon tetrachloride	0.0010	U	0.000060	0.0010
Trichloroethene	0.0010	U	0.000090	0.0010
Benzene	0.0010	U	0.000080	0.0010
Tetrachloroethene	0.0010	U	0.00010	0.0010
Chlorobenzene	0.0010	U	0.00011	0.0010
Surrogate	% Rec	Acceptance Limits		
1,2-Dichloroethane-d4 (Surr)	120	70 - 130		
Toluene-d8 (Surr)	110	70 - 130		
Bromofluorobenzene	85	70 - 130		

Quality Control Results

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

Lab Control Sample - Batch: 460-153884

**Method: 8260B
Preparation: 5030B**

Lab Sample ID: LCS 460-153884/3	Analysis Batch: 460-153884	Instrument ID: VOAMS13
Client Matrix: Water	Prep Batch: N/A	Lab File ID: p68626.d
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 5 mL
Analysis Date: 04/03/2013 0746	Units: mg/L	Final Weight/Volume: 5 mL
Prep Date: 04/03/2013 0746		
Leach Date: N/A		

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Vinyl chloride	0.0200	0.0169	85	54 - 138	
1,1-Dichloroethene	0.0200	0.0202	101	61 - 143	
Chloroform	0.0200	0.0208	104	85 - 125	
1,2-Dichloroethane	0.0200	0.0206	103	76 - 116	
2-Butanone	0.0200	0.0199	99	61 - 108	
Carbon tetrachloride	0.0200	0.0172	86	76 - 116	
Trichloroethene	0.0200	0.0198	99	82 - 122	
Benzene	0.0200	0.0216	108	84 - 124	
Tetrachloroethene	0.0200	0.0197	99	80 - 142	
Chlorobenzene	0.0200	0.0208	104	85 - 125	
Surrogate	% Rec	Acceptance Limits			
1,2-Dichloroethane-d4 (Surr)	117	70 - 130			
Toluene-d8 (Surr)	110	70 - 130			
Bromofluorobenzene	93	70 - 130			

Quality Control Results

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

Method Blank - Batch: 460-152648

**Method: 8270C
Preparation: 3541**

Lab Sample ID: MB 460-152648/1-A
 Client Matrix: Solid
 Dilution: 1.0
 Analysis Date: 03/26/2013 1324
 Prep Date: 03/25/2013 1501
 Leach Date: N/A

Analysis Batch: 460-153015
 Prep Batch: 460-152648
 Leach Batch: N/A
 Units: ug/Kg

Instrument ID: BNAMS10
 Lab File ID: p35830.d
 Initial Weight/Volume: 15.00 g
 Final Weight/Volume: 1 mL
 Injection Volume: 1 uL

Analyte	Result	Qual	MDL	RL
Phenol	330	U	44	330
2-Chlorophenol	330	U	44	330
2-Methylphenol	330	U	56	330
4-Methylphenol	330	U	65	330
Benzaldehyde	330	U	39	330
Acetophenone	330	U	51	330
Bis(2-chloroethyl)ether	33	U	4.5	33
2,2'-oxybis[1-chloropropane]	330	U	37	330
N-Nitrosodi-n-propylamine	33	U	5.5	33
Nitrobenzene	33	U	4.7	33
Hexachloroethane	33	U	3.7	33
Isophorone	330	U	40	330
2-Nitrophenol	330	U	37	330
2,4-Dimethylphenol	330	U	82	330
2,4-Dichlorophenol	330	U	48	330
Bis(2-chloroethoxy)methane	330	U	43	330
Naphthalene	330	U	38	330
4-Chloroaniline	330	U	88	330
Hexachlorobutadiene	67	U	8.1	67
Caprolactam	330	U	76	330
4-Chloro-3-methylphenol	330	U	50	330
2-Methylnaphthalene	330	U	43	330
Hexachlorobenzene	33	U	4.5	33
Hexachlorocyclopentadiene	330	U	39	330
2,4,6-Trichlorophenol	330	U	39	330
2,4,5-Trichlorophenol	330	U	43	330
Diphenyl	330	U	44	330
2-Chloronaphthalene	330	U	37	330
2-Nitroaniline	670	U	140	670
2,6-Dinitrotoluene	67	U	10	67
Dimethyl phthalate	330	U	39	330
Acenaphthylene	330	U	39	330
3-Nitroaniline	670	U	120	670
Acenaphthene	330	U	48	330
4-Nitrophenol	1000	U	210	1000
2,4-Dinitrophenol	1000	U	190	1000
Dibenzofuran	330	U	39	330
Diethyl phthalate	330	U	39	330
Fluorene	330	U	42	330
Fluoranthene	330	U	44	330
Di-n-butyl phthalate	330	U	41	330
2,4-Dinitrotoluene	67	U	11	67
4-Chlorophenyl phenyl ether	330	U	39	330
4-Nitroaniline	670	U	100	670
4,6-Dinitro-2-methylphenol	1000	U	90	1000

Quality Control Results

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

Method Blank - Batch: 460-152648

**Method: 8270C
Preparation: 3541**

Lab Sample ID: MB 460-152648/1-A
 Client Matrix: Solid
 Dilution: 1.0
 Analysis Date: 03/26/2013 1324
 Prep Date: 03/25/2013 1501
 Leach Date: N/A

Analysis Batch: 460-153015
 Prep Batch: 460-152648
 Leach Batch: N/A
 Units: ug/Kg

Instrument ID: BNAMS10
 Lab File ID: p35830.d
 Initial Weight/Volume: 15.00 g
 Final Weight/Volume: 1 mL
 Injection Volume: 1 uL

Analyte	Result	Qual	MDL	RL
4-Bromophenyl phenyl ether	330	U	33	330
Atrazine	330	U	51	330
Anthracene	330	U	40	330
Carbazole	330	U	39	330
Phenanthrene	330	U	42	330
Pentachlorophenol	1000	U	99	1000
Pyrene	330	U	28	330
Chrysene	330	U	39	330
Benzo[k]fluoranthene	33	U	2.5	33
Benzo[g,h,i]perylene	330	U	25	330
Benzo[b]fluoranthene	33	U	2.1	33
Benzo[a]pyrene	33	U	2.3	33
Benzo[a]anthracene	33	U	2.3	33
N-Nitrosodiphenylamine	330	U	33	330
Butyl benzyl phthalate	330	U	30	330
Bis(2-ethylhexyl) phthalate	330	U	110	330
Di-n-octyl phthalate	330	U	21	330
Indeno[1,2,3-cd]pyrene	33	U	6.2	33
Dibenz(a,h)anthracene	33	U	4.2	33
3,3'-Dichlorobenzidine	670	U	120	670
1,2,4,5-Tetrachlorobenzene	330	U	45	330
2,3,4,6-Tetrachlorophenol	330	U	43	330

Surrogate	% Rec	Acceptance Limits
Nitrobenzene-d5	82	38 - 105
Phenol-d5	79	41 - 118
Terphenyl-d14	80	16 - 151
2,4,6-Tribromophenol	70	10 - 120
2-Fluorophenol	74	37 - 125
2-Fluorobiphenyl	74	40 - 109

Method Blank TICs- Batch: 460-152648

Cas Number	Analyte	RT	Est. Result	Qual
	Unknown Aldol Condensate-1	2.44	682	A J
	Unknown Aldol Condensate-2	2.67	24500	A J
	Unknown Aldol Condensate-3	3.28	317	A J

Quality Control Results

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

Lab Control Sample - Batch: 460-152648

**Method: 8270C
Preparation: 3541**

Lab Sample ID: LCS 460-152648/2-A	Analysis Batch: 460-153015	Instrument ID: BNAMS10
Client Matrix: Solid	Prep Batch: 460-152648	Lab File ID: p35829.d
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 15.00 g
Analysis Date: 03/26/2013 1259	Units: ug/Kg	Final Weight/Volume: 1 mL
Prep Date: 03/25/2013 1501		Injection Volume: 1 uL
Leach Date: N/A		

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Phenol	6670	4640	70	54 - 115	
2-Chlorophenol	6670	4830	73	56 - 110	
2-Methylphenol	6670	5070	76	54 - 117	
4-Methylphenol	6670	4750	71	47 - 103	
Benzaldehyde	3330	1460	44	10 - 160	
Acetophenone	3330	2750	82	40 - 95	
Bis(2-chloroethyl)ether	3330	2570	77	44 - 101	
2,2'-oxybis[1-chloropropane]	3330	2590	78	45 - 102	
N-Nitrosodi-n-propylamine	3330	2900	87	42 - 107	
Nitrobenzene	3330	2650	80	42 - 106	
Hexachloroethane	3330	2460	74	45 - 90	
Isophorone	3330	2610	78	48 - 97	
2-Nitrophenol	6670	4920	74	55 - 101	
2,4-Dimethylphenol	6670	4750	71	56 - 112	
2,4-Dichlorophenol	6670	4790	72	58 - 115	
Bis(2-chloroethoxy)methane	3330	2640	79	51 - 100	
Naphthalene	3330	2670	80	53 - 94	
4-Chloroaniline	3330	1430	43	10 - 96	
Hexachlorobutadiene	3330	2390	72	45 - 98	
Caprolactam	3330	2600	78	10 - 127	
4-Chloro-3-methylphenol	6670	5090	76	55 - 117	
2-Methylnaphthalene	3330	2540	76	51 - 98	
Hexachlorobenzene	3330	2660	80	43 - 104	
Hexachlorocyclopentadiene	3330	1940	58	24 - 98	
2,4,6-Trichlorophenol	6670	4890	73	53 - 118	
2,4,5-Trichlorophenol	6670	5030	75	50 - 115	
Diphenyl	3330	2620	79	50 - 105	
2-Chloronaphthalene	3330	2570	77	51 - 102	
2-Nitroaniline	3330	2510	75	51 - 109	
2,6-Dinitrotoluene	3330	2630	79	51 - 115	
Dimethyl phthalate	3330	2650	79	52 - 112	
Acenaphthylene	3330	2600	78	51 - 103	
3-Nitroaniline	3330	1740	52	32 - 104	
Acenaphthene	3330	2630	79	46 - 100	
4-Nitrophenol	6670	5650	85	45 - 114	
2,4-Dinitrophenol	6670	3140	47	10 - 129	
Dibenzofuran	3330	2630	79	52 - 106	
Diethyl phthalate	3330	2620	79	52 - 114	
Fluorene	3330	2620	79	51 - 108	
Fluoranthene	3330	2620	79	49 - 108	
Di-n-butyl phthalate	3330	2610	78	50 - 108	

Quality Control Results

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

Lab Control Sample - Batch: 460-152648

**Method: 8270C
Preparation: 3541**

Lab Sample ID: LCS 460-152648/2-A	Analysis Batch: 460-153015	Instrument ID: BNAMS10
Client Matrix: Solid	Prep Batch: 460-152648	Lab File ID: p35829.d
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 15.00 g
Analysis Date: 03/26/2013 1259	Units: ug/Kg	Final Weight/Volume: 1 mL
Prep Date: 03/25/2013 1501		Injection Volume: 1 uL
Leach Date: N/A		

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
2,4-Dinitrotoluene	3330	2540	76	53 - 110	
4-Chlorophenyl phenyl ether	3330	2610	78	50 - 106	
4-Nitroaniline	3330	2140	64	45 - 106	
4,6-Dinitro-2-methylphenol	6670	4130	62	10 - 110	
4-Bromophenyl phenyl ether	3330	2650	79	44 - 102	
Atrazine	3330	2340	70	30 - 100	
Anthracene	3330	2650	80	50 - 107	
Carbazole	3330	2680	80	49 - 104	
Phenanthrene	3330	2710	81	48 - 108	
Pentachlorophenol	6670	4800	72	19 - 113	
Pyrene	3330	2550	76	49 - 116	
Chrysene	3330	2650	79	45 - 114	
Benzo[k]fluoranthene	3330	2740	82	35 - 115	
Benzo[g,h,i]perylene	3330	2600	78	43 - 106	
Benzo[b]fluoranthene	3330	2500	75	33 - 96	
Benzo[a]pyrene	3330	2730	82	36 - 89	
Benzo[a]anthracene	3330	2570	77	46 - 112	
N-Nitrosodiphenylamine	3330	2860	86	49 - 106	
Butyl benzyl phthalate	3330	2540	76	49 - 117	
Bis(2-ethylhexyl) phthalate	3330	2470	74	49 - 119	
Di-n-octyl phthalate	3330	2580	78	40 - 106	
Indeno[1,2,3-cd]pyrene	3330	2490	75	43 - 109	
Dibenz(a,h)anthracene	3330	2740	82	43 - 107	
3,3'-Dichlorobenzidine	3330	2180	65	24 - 105	
1,2,4,5-Tetrachlorobenzene	3330	2490	75	70 - 130	
2,3,4,6-Tetrachlorophenol	3330	2600	78	70 - 130	
<hr/>					
Surrogate	% Rec	Acceptance Limits			
Nitrobenzene-d5	69	38 - 105			
Phenol-d5	69	41 - 118			
Terphenyl-d14	67	16 - 151			
2,4,6-Tribromophenol	67	10 - 120			
2-Fluorophenol	64	37 - 125			
2-Fluorobiphenyl	70	40 - 109			

Quality Control Results

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

Method Blank - Batch: 460-152495

**Method: 8270D
Preparation: 3510C**

Lab Sample ID: MB 460-152495/1-A
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 04/01/2013 1154
 Prep Date: 03/24/2013 0930
 Leach Date: N/A

Analysis Batch: 460-153728
 Prep Batch: 460-152495
 Leach Batch: N/A
 Units: mg/L

Instrument ID: BNAMS5
 Lab File ID: x35747.d
 Initial Weight/Volume: 1000 mL
 Final Weight/Volume: 2 mL
 Injection Volume:

Analyte	Result	Qual	MDL	RL
2-Methylphenol	0.010	U	0.0018	0.010
3 & 4 Methylphenol	0.010	U	0.0016	0.010
2,4,6-Trichlorophenol	0.010	U	0.0024	0.010
2,4,5-Trichlorophenol	0.010	U	0.0026	0.010
Pentachlorophenol	0.030	U	0.0053	0.030
1,4-Dichlorobenzene	0.010	U	0.0025	0.010
Hexachloroethane	0.0010	U	0.00025	0.0010
Nitrobenzene	0.0010	U	0.00030	0.0010
Hexachlorobutadiene	0.0020	U	0.00057	0.0020
2,4-Dinitrotoluene	0.0020	U	0.00047	0.0020
Hexachlorobenzene	0.0010	U	0.00029	0.0010
Pyridine	0.010	U	0.00091	0.010

Surrogate	% Rec	Acceptance Limits
Nitrobenzene-d5	93	56 - 112
Phenol-d5	47	10 - 48
Terphenyl-d14	91	50 - 122
2,4,6-Tribromophenol	94	46 - 122
2-Fluorophenol	58	10 - 65
2-Fluorobiphenyl	85	53 - 108

Quality Control Results

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

TCLP SPLPE Leachate Blank - Batch: 460-152495

**Method: 8270D
Preparation: 3510C
TCLP**

Lab Sample ID: LB 460-152369/1-E
Client Matrix: Solid
Dilution: 1.0
Analysis Date: 04/01/2013 1922
Prep Date: 03/24/2013 0930
Leach Date: 03/22/2013 1801

Analysis Batch: 460-153728
Prep Batch: 460-152495
Leach Batch: 460-152369
Units: mg/L

Instrument ID: BNAMS5
Lab File ID: x35764.d
Initial Weight/Volume: 250 mL
Final Weight/Volume: 2 mL
Injection Volume:

Analyte	Result	Qual	MDL	RL
2-Methylphenol	0.040	U	0.0072	0.040
3 & 4 Methylphenol	0.040	U	0.0064	0.040
2,4,6-Trichlorophenol	0.040	U	0.0096	0.040
2,4,5-Trichlorophenol	0.040	U	0.010	0.040
Pentachlorophenol	0.12	U	0.021	0.12
1,4-Dichlorobenzene	0.040	U	0.010	0.040
Hexachloroethane	0.0040	U	0.0010	0.0040
Nitrobenzene	0.0040	U	0.0012	0.0040
Hexachlorobutadiene	0.0080	U	0.0023	0.0080
2,4-Dinitrotoluene	0.0080	U	0.0019	0.0080
Hexachlorobenzene	0.0040	U	0.0012	0.0040
Pyridine	0.040	U	0.0036	0.040

Surrogate	% Rec	Acceptance Limits
Nitrobenzene-d5	91	56 - 112
Phenol-d5	33	10 - 48
Terphenyl-d14	95	50 - 122
2,4,6-Tribromophenol	95	46 - 122
2-Fluorophenol	47	10 - 65
2-Fluorobiphenyl	87	53 - 108

Quality Control Results

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

Lab Control Sample - Batch: 460-152495

**Method: 8270D
Preparation: 3510C**

Lab Sample ID: LCS 460-152495/2-A	Analysis Batch: 460-153728	Instrument ID: BNAMS5
Client Matrix: Water	Prep Batch: 460-152495	Lab File ID: x35746.d
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 1000 mL
Analysis Date: 04/01/2013 1128	Units: mg/L	Final Weight/Volume: 2 mL
Prep Date: 03/24/2013 0930		Injection Volume:
Leach Date: N/A		

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
2-Methylphenol	0.200	0.141	71	41 - 90	
3 & 4 Methylphenol	0.400	0.259	65	30 - 87	
2,4,6-Trichlorophenol	0.200	0.157	79	67 - 115	
2,4,5-Trichlorophenol	0.200	0.166	83	66 - 120	
Pentachlorophenol	0.200	0.175	87	50 - 124	
1,4-Dichlorobenzene	0.100	0.0753	75	64 - 110	
Hexachloroethane	0.100	0.0803	80	61 - 112	
Nitrobenzene	0.100	0.0665	66	49 - 92	
Hexachlorobutadiene	0.100	0.0799	80	56 - 113	
2,4-Dinitrotoluene	0.100	0.0968	97	67 - 126	
Hexachlorobenzene	0.100	0.0702	70	24 - 98	
Pyridine	0.100	0.0202	20	14 - 55	
Surrogate	% Rec	Acceptance Limits			
Nitrobenzene-d5	82	56 - 112			
Phenol-d5	44	10 - 48			
Terphenyl-d14	78	50 - 122			
2,4,6-Tribromophenol	96	46 - 122			
2-Fluorophenol	55	10 - 65			
2-Fluorobiphenyl	75	53 - 108			

Quality Control Results

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

Method Blank - Batch: 460-152423

**Method: 8015B
Preparation: N/A**

Lab Sample ID: MB 460-152423/4
Client Matrix: Solid
Dilution: 50
Analysis Date: 03/21/2013 2107
Prep Date: N/A
Leach Date: N/A

Analysis Batch: 460-152423
Prep Batch: N/A
Leach Batch: N/A
Units: ug/Kg

Instrument ID: VOAGC3
Lab File ID: ifid7811.d
Initial Weight/Volume: 2.5 mL
Final Weight/Volume: 5 mL
Injection Volume:
Column ID: PRIMARY

Analyte	Result	Qual	RL	RL
GRO	2500	U	2500	2500
Surrogate	% Rec	Acceptance Limits		
a,a,a-Trifluorotoluene	97	70 - 130		

**Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 460-152423**

**Method: 8015B
Preparation: N/A**

LCS Lab Sample ID: LCS 460-152423/2
Client Matrix: Solid
Dilution: 50
Analysis Date: 03/21/2013 1955
Prep Date: N/A
Leach Date: N/A

Analysis Batch: 460-152423
Prep Batch: N/A
Leach Batch: N/A
Units: ug/Kg

Instrument ID: VOAGC3
Lab File ID: ifid7808.d
Initial Weight/Volume: 2.5 mL
Final Weight/Volume: 5 mL
Injection Volume:
Column ID: PRIMARY

LCSD Lab Sample ID: LCSD 460-152423/3
Client Matrix: Solid
Dilution: 50
Analysis Date: 03/21/2013 2019
Prep Date: N/A
Leach Date: N/A

Analysis Batch: 460-152423
Prep Batch: N/A
Leach Batch: N/A
Units: ug/Kg

Instrument ID: VOAGC3
Lab File ID: ifid7809.d
Initial Weight/Volume: 2.5 mL
Final Weight/Volume: 5 mL
Injection Volume:
Column ID: PRIMARY

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
GRO	95	99	26 - 123	4	30		
Surrogate	LCS % Rec		LCSD % Rec		Acceptance Limits		
a,a,a-Trifluorotoluene	105		100		70 - 130		

Quality Control Results

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

Method Blank - Batch: 460-152957

**Method: 8015B
Preparation: N/A**

Lab Sample ID:	MB 460-152957/4	Analysis Batch:	460-152957	Instrument ID:	VOAGC3
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	ifid7861.d
Dilution:	50	Leach Batch:	N/A	Initial Weight/Volume:	2.5 mL
Analysis Date:	03/26/2013 1807	Units:	ug/Kg	Final Weight/Volume:	5 mL
Prep Date:	N/A			Injection Volume:	
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Result	Qual	RL	RL
GRO	2500	U	2500	2500
Surrogate	% Rec		Acceptance Limits	
a,a,a-Trifluorotoluene	90		70 - 130	

**Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 460-152957**

**Method: 8015B
Preparation: N/A**

LCS Lab Sample ID:	LCS 460-152957/2	Analysis Batch:	460-152957	Instrument ID:	VOAGC3
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	ifid7858.d
Dilution:	50	Leach Batch:	N/A	Initial Weight/Volume:	2.5 mL
Analysis Date:	03/26/2013 1654	Units:	ug/Kg	Final Weight/Volume:	5 mL
Prep Date:	N/A			Injection Volume:	
Leach Date:	N/A			Column ID:	PRIMARY

LCSD Lab Sample ID:	LCSD 460-152957/3	Analysis Batch:	460-152957	Instrument ID:	VOAGC3
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	ifid7859.d
Dilution:	50	Leach Batch:	N/A	Initial Weight/Volume:	2.5 mL
Analysis Date:	03/26/2013 1718	Units:	ug/Kg	Final Weight/Volume:	5 mL
Prep Date:	N/A			Injection Volume:	
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
GRO	118	80	26 - 123	38	30		*
Surrogate	LCS % Rec		LCSD % Rec	Acceptance Limits			
a,a,a-Trifluorotoluene	106		97	70 - 130			

Quality Control Results

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

Method Blank - Batch: 460-152223

**Method: 8015B
Preparation: 3546**

Lab Sample ID: MB 460-152223/1-A
 Client Matrix: Solid
 Dilution: 1.0
 Analysis Date: 03/25/2013 1118
 Prep Date: 03/22/2013 0244
 Leach Date: N/A

Analysis Batch: 460-152644
 Prep Batch: 460-152223
 Leach Batch: N/A
 Units: mg/Kg

Instrument ID: BNAGC3
 Lab File ID: gc3f7888.d
 Initial Weight/Volume: 14.98 g
 Final Weight/Volume: 1 mL
 Injection Volume: 1 uL
 Column ID: PRIMARY

Analyte	Result	Qual	RL	RL
Diesel Range Organics [C10-C28]	6.7	U	6.7	6.7
Surrogate	% Rec	Acceptance Limits		
o-Terphenyl	78	52 - 134		

Lab Control Sample - Batch: 460-152223

**Method: 8015B
Preparation: 3546**

Lab Sample ID: LCS 460-152223/2-A
 Client Matrix: Solid
 Dilution: 1.0
 Analysis Date: 03/25/2013 1132
 Prep Date: 03/22/2013 0244
 Leach Date: N/A

Analysis Batch: 460-152644
 Prep Batch: 460-152223
 Leach Batch: N/A
 Units: mg/Kg

Instrument ID: BNAGC3
 Lab File ID: gc3f7889.d
 Initial Weight/Volume: 15.02 g
 Final Weight/Volume: 1 mL
 Injection Volume: 1 uL
 Column ID: PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Diesel Range Organics [C10-C28]	166	164	99	54 - 139	
Surrogate	% Rec	Acceptance Limits			
o-Terphenyl	93	52 - 134			

Quality Control Results

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

Method Blank - Batch: 460-152430

**Method: 8081A
Preparation: 3510C**

Lab Sample ID: MB 460-152430/1-A
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 03/24/2013 1320
 Prep Date: 03/23/2013 1108
 Leach Date: N/A

Analysis Batch: 460-152560
 Prep Batch: 460-152430
 Leach Batch: N/A
 Units: mg/L

Instrument ID: PESTGC4
 Lab File ID: WR710905.D
 Initial Weight/Volume: 100 mL
 Final Weight/Volume: 5 mL
 Injection Volume:
 Column ID: PRIMARY

Analyte	Result	Qual	MDL	RL
Chlordane	0.0050	U	0.0033	0.0050
Endrin	0.00050	U	0.00010	0.00050
Heptachlor	0.00050	U	0.00010	0.00050
Heptachlor epoxide	0.00050	U	0.00010	0.00050
gamma-BHC (Lindane)	0.00050	U	0.00012	0.00050
Methoxychlor	0.00050	U	0.00013	0.00050
Toxaphene	0.0050	U	0.0020	0.0050

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	107	46 - 140
DCB Decachlorobiphenyl	108	55 - 150

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	100	46 - 140
DCB Decachlorobiphenyl	97	55 - 150

TCLP SPLPE Leachate Blank - Batch: 460-152430

**Method: 8081A
Preparation: 3510C
TCLP**

Lab Sample ID: LB 460-152369/1-B
 Client Matrix: Solid
 Dilution: 1.0
 Analysis Date: 03/24/2013 1803
 Prep Date: 03/23/2013 1108
 Leach Date: 03/22/2013 1801

Analysis Batch: 460-152560
 Prep Batch: 460-152430
 Leach Batch: 460-152369
 Units: mg/L

Instrument ID: PESTGC4
 Lab File ID: WR710921.D
 Initial Weight/Volume: 100 mL
 Final Weight/Volume: 5 mL
 Injection Volume:
 Column ID: PRIMARY

Analyte	Result	Qual	MDL	RL
Chlordane	0.0050	U	0.0033	0.0050
Endrin	0.00050	U	0.00010	0.00050
Heptachlor	0.00050	U	0.00010	0.00050
Heptachlor epoxide	0.00050	U	0.00010	0.00050
gamma-BHC (Lindane)	0.00050	U	0.00012	0.00050
Methoxychlor	0.00050	U	0.00013	0.00050
Toxaphene	0.0050	U	0.0020	0.0050

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	117	46 - 140
DCB Decachlorobiphenyl	126	55 - 150

Quality Control Results

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	107	46 - 140
DCB Decachlorobiphenyl	123	55 - 150

TCLP SPLPE Leachate Blank - Batch: 460-152430

Method: 8081A
Preparation: 3510C
TCLP

Lab Sample ID: LB 460-152187/1-E
 Client Matrix: Solid
 Dilution: 1.0
 Analysis Date: 03/24/2013 1831
 Prep Date: 03/23/2013 1108
 Leach Date: 03/21/2013 1600

Analysis Batch: 460-152560
 Prep Batch: 460-152430
 Leach Batch: 460-152187
 Units: mg/L

Instrument ID: PESTGC4
 Lab File ID: WR710923.D
 Initial Weight/Volume: 100 mL
 Final Weight/Volume: 5 mL
 Injection Volume:
 Column ID: PRIMARY

Analyte	Result	Qual	MDL	RL
Chlordane	0.0050	U	0.0033	0.0050
Endrin	0.00050	U	0.00010	0.00050
Heptachlor	0.00050	U	0.00010	0.00050
Heptachlor epoxide	0.00050	U	0.00010	0.00050
gamma-BHC (Lindane)	0.00050	U	0.00012	0.00050
Methoxychlor	0.00050	U	0.00013	0.00050
Toxaphene	0.0050	U	0.0020	0.0050

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	130	46 - 140
DCB Decachlorobiphenyl	135	55 - 150

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	117	46 - 140
DCB Decachlorobiphenyl	135	55 - 150

Quality Control Results

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

Lab Control Sample - Batch: 460-152430

**Method: 8081A
Preparation: 3510C**

Lab Sample ID: LCS 460-152430/2-A	Analysis Batch: 460-152560	Instrument ID: PESTGC4
Client Matrix: Water	Prep Batch: 460-152430	Lab File ID: WF710906.D
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 100 mL
Analysis Date: 03/24/2013 1401	Units: mg/L	Final Weight/Volume: 5 mL
Prep Date: 03/23/2013 1108		Injection Volume:
Leach Date: N/A		Column ID: PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Chlordane	0.0250	0.0263	105	62 - 150	
Endrin	0.00500	0.00726	145	66 - 150	
Heptachlor	0.00500	0.00682	136	75 - 150	
Heptachlor epoxide	0.00500	0.00587	117	75 - 150	
gamma-BHC (Lindane)	0.00500	0.00527	105	68 - 150	
Methoxychlor	0.00500	0.0151	301	10 - 150	*
Toxaphene	0.0500	0.0343	69	41 - 130	
<hr/>					
Surrogate		% Rec		Acceptance Limits	
Tetrachloro-m-xylene		108		46 - 140	
DCB Decachlorobiphenyl		98		55 - 150	

Lab Control Sample - Batch: 460-152430

**Method: 8081A
Preparation: 3510C**

Lab Sample ID: LCS 460-152430/2-A	Analysis Batch: 460-152560	Instrument ID: PESTGC4
Client Matrix: Water	Prep Batch: 460-152430	Lab File ID: WR710906.D
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 100 mL
Analysis Date: 03/24/2013 1401	Units: mg/L	Final Weight/Volume: 5 mL
Prep Date: 03/23/2013 1108		Injection Volume:
Leach Date: N/A		Column ID: SECONDARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Chlordane	0.0250	0.0248	99	62 - 150	
Endrin	0.00500	0.00640	128	66 - 150	
Heptachlor	0.00500	0.00652	130	75 - 150	
Heptachlor epoxide	0.00500	0.00539	108	75 - 150	
gamma-BHC (Lindane)	0.00500	0.00508	102	68 - 150	
Methoxychlor	0.00500	0.00773	155	10 - 150	*
Toxaphene	0.0500	0.0324	65	41 - 130	
<hr/>					
Surrogate		% Rec		Acceptance Limits	
Tetrachloro-m-xylene		101		46 - 140	
DCB Decachlorobiphenyl		95		55 - 150	

Quality Control Results

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

Method Blank - Batch: 460-152234

**Method: 8082
Preparation: 3546**

Lab Sample ID: MB 460-152234/1-A
 Client Matrix: Solid
 Dilution: 1.0
 Analysis Date: 03/25/2013 1004
 Prep Date: 03/22/2013 0706
 Leach Date: N/A

Analysis Batch: 460-152604
 Prep Batch: 460-152234
 Leach Batch: N/A
 Units: ug/Kg

Instrument ID: PESTGC7
 Lab File ID: or201155.d
 Initial Weight/Volume: 15.00 g
 Final Weight/Volume: 10 mL
 Injection Volume:
 Column ID: PRIMARY

Analyte	Result	Qual	MDL	RL
Aroclor 1016	67	U	15	67
Aroclor 1221	67	U	15	67
Aroclor 1232	67	U	15	67
Aroclor 1242	67	U	15	67
Aroclor 1248	67	U	15	67
Aroclor 1254	67	U	19	67
Aroclor 1260	67	U	19	67
Aroclor 1262	67	U	19	67
Aroclor 1268	67	U	19	67
Polychlorinated biphenyls, Total	67	U	19	67

Surrogate	% Rec	Acceptance Limits
DCB Decachlorobiphenyl	125	45 - 138
Surrogate	% Rec	Acceptance Limits
DCB Decachlorobiphenyl	117	45 - 138

Quality Control Results

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

Lab Control Sample - Batch: 460-152234

**Method: 8082
Preparation: 3546**

Lab Sample ID:	LCS 460-152234/2-A	Analysis Batch:	460-152593	Instrument ID:	PESTGC7
Client Matrix:	Solid	Prep Batch:	460-152234	Lab File ID:	of201128.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	15.00 g
Analysis Date:	03/25/2013 0107	Units:	ug/Kg	Final Weight/Volume:	10 mL
Prep Date:	03/22/2013 0706			Injection Volume:	
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Aroclor 1016	333	404	121	75 - 150	
Aroclor 1260	333	425	127	72 - 150	
Surrogate			% Rec	Acceptance Limits	
DCB Decachlorobiphenyl			121	45 - 138	

Lab Control Sample - Batch: 460-152234

**Method: 8082
Preparation: 3546**

Lab Sample ID:	LCS 460-152234/2-A	Analysis Batch:	460-152593	Instrument ID:	PESTGC7
Client Matrix:	Solid	Prep Batch:	460-152234	Lab File ID:	or201128.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	15.00 g
Analysis Date:	03/25/2013 0107	Units:	ug/Kg	Final Weight/Volume:	10 mL
Prep Date:	03/22/2013 0706			Injection Volume:	
Leach Date:	N/A			Column ID:	SECONDARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Aroclor 1016	333	399	120	75 - 150	
Aroclor 1260	333	397	119	72 - 150	
Surrogate			% Rec	Acceptance Limits	
DCB Decachlorobiphenyl			114	45 - 138	

Quality Control Results

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

Method Blank - Batch: 460-152591

**Method: 8151A
Preparation: 8151A**

Lab Sample ID: MB 460-152591/1-A
Client Matrix: Water
Dilution: 1.0
Analysis Date: 03/26/2013 1715
Prep Date: 03/25/2013 1013
Leach Date: N/A

Analysis Batch: 460-152945
Prep Batch: 460-152591
Leach Batch: N/A
Units: mg/L

Instrument ID: PESTGC3
Lab File ID: zf115995.d
Initial Weight/Volume: 15 mL
Final Weight/Volume: 5 mL
Injection Volume:
Column ID: PRIMARY

Analyte	Result	Qual	MDL	RL
2,4-D	0.017	U	0.0033	0.017
Silvex (2,4,5-TP)	0.017	U	0.0030	0.017
Surrogate	% Rec		Acceptance Limits	
2,4-Dichlorophenylacetic acid	101		72 - 145	
Surrogate	% Rec		Acceptance Limits	
2,4-Dichlorophenylacetic acid	98		72 - 145	

TCLP SPLPE Leachate Blank - Batch: 460-152591

**Method: 8151A
Preparation: 8151A
TCLP**

Lab Sample ID: LB 460-152369/1-G
Client Matrix: Solid
Dilution: 1.0
Analysis Date: 03/26/2013 2141
Prep Date: 03/25/2013 1013
Leach Date: 03/22/2013 1801

Analysis Batch: 460-152946
Prep Batch: 460-152591
Leach Batch: 460-152369
Units: mg/L

Instrument ID: PESTGC3
Lab File ID: zf116007.d
Initial Weight/Volume: 15 mL
Final Weight/Volume: 5 mL
Injection Volume:
Column ID: PRIMARY

Analyte	Result	Qual	MDL	RL
2,4-D	0.017	U	0.0033	0.017
Silvex (2,4,5-TP)	0.017	U	0.0030	0.017
Surrogate	% Rec		Acceptance Limits	
2,4-Dichlorophenylacetic acid	90		72 - 145	

Quality Control Results

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

TCLP SPLPE Leachate Blank - Batch: 460-152591

Method: 8151A
Preparation: 8151A
TCLP

Lab Sample ID: LB 460-152369/1-G
Client Matrix: Solid
Dilution: 1.0
Analysis Date: 03/26/2013 2141
Prep Date: 03/25/2013 1013
Leach Date: 03/22/2013 1801

Analysis Batch: 460-152946
Prep Batch: 460-152591
Leach Batch: 460-152369
Units: mg/L

Instrument ID: PESTGC3
Lab File ID: zr116007.d
Initial Weight/Volume: 15 mL
Final Weight/Volume: 5 mL
Injection Volume:
Column ID: SECONDARY

Analyte	Result	Qual	MDL	RL
2,4-D	0.017	U	0.0033	0.017
Silvex (2,4,5-TP)	0.017	U	0.0030	0.017
Surrogate	% Rec		Acceptance Limits	
2,4-Dichlorophenylacetic acid	85		72 - 145	

Quality Control Results

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

**Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 460-152591**

**Method: 8151A
Preparation: 8151A**

LCS Lab Sample ID:	LCS 460-152591/2-A	Analysis Batch:	460-152945	Instrument ID:	PESTGC3
Client Matrix:	Water	Prep Batch:	460-152591	Lab File ID:	zr115996.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	15 mL
Analysis Date:	03/26/2013 1737	Units:	mg/L	Final Weight/Volume:	5 mL
Prep Date:	03/25/2013 1013			Injection Volume:	
Leach Date:	N/A			Column ID:	PRIMARY

LCSD Lab Sample ID:	LCSD 460-152591/3-A	Analysis Batch:	460-152945	Instrument ID:	PESTGC3
Client Matrix:	Water	Prep Batch:	460-152591	Lab File ID:	zr115997.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	15 mL
Analysis Date:	03/26/2013 1759	Units:	mg/L	Final Weight/Volume:	5 mL
Prep Date:	03/25/2013 1013			Injection Volume:	
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
2,4-D	92	92	60 - 136	0	30		
Silvex (2,4,5-TP)	111	107	70 - 150	4	30		
Surrogate	LCS % Rec		LCSD % Rec	Acceptance Limits			
2,4-Dichlorophenylacetic acid	96		102	72 - 145			

**Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 460-152591**

**Method: 8151A
Preparation: 8151A**

LCS Lab Sample ID:	LCS 460-152591/2-A	Analysis Batch:	460-152945	Instrument ID:	PESTGC3
Client Matrix:	Water	Prep Batch:	460-152591	Lab File ID:	zf115996.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	15 mL
Analysis Date:	03/26/2013 1737	Units:	mg/L	Final Weight/Volume:	5 mL
Prep Date:	03/25/2013 1013			Injection Volume:	
Leach Date:	N/A			Column ID:	SECONDARY

LCSD Lab Sample ID:	LCSD 460-152591/3-A	Analysis Batch:	460-152945	Instrument ID:	PESTGC3
Client Matrix:	Water	Prep Batch:	460-152591	Lab File ID:	zf115997.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	15 mL
Analysis Date:	03/26/2013 1759	Units:	mg/L	Final Weight/Volume:	5 mL
Prep Date:	03/25/2013 1013			Injection Volume:	
Leach Date:	N/A			Column ID:	SECONDARY

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
2,4-D	87	86	60 - 136	2	30		
Silvex (2,4,5-TP)	106	105	70 - 150	1	30		
Surrogate	LCS % Rec		LCSD % Rec	Acceptance Limits			
2,4-Dichlorophenylacetic acid	101		100	72 - 145			

Quality Control Results

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

Method Blank - Batch: 460-152248

Method: 6010B

Preparation: 3050B

Lab Sample ID: MB 460-152248/1-A ^2
 Client Matrix: Solid
 Dilution: 2.0
 Analysis Date: 03/22/2013 1228
 Prep Date: 03/22/2013 0818
 Leach Date: N/A

Analysis Batch: 460-152385
 Prep Batch: 460-152248
 Leach Batch: N/A
 Units: mg/Kg

Instrument ID: ICP5
 Lab File ID: 03222013.asc
 Initial Weight/Volume: 1.00 g
 Final Weight/Volume: 50 mL

Analyte	Result	Qual	MDL	RL
Aluminum	20.0	U	9.1	20.0
Antimony	1.0	U	0.62	1.0
Arsenic	0.50	U	0.47	0.50
Barium	20.0	U	0.57	20.0
Beryllium	0.20	U	0.072	0.20
Cadmium	0.50	U	0.074	0.50
Calcium	500	U	35.4	500
Chromium	1.0	U	0.43	1.0
Cobalt	5.0	U	0.43	5.0
Copper	2.5	U	0.97	2.5
Iron	15.0	U	6.1	15.0
Lead	0.50	U	0.43	0.50
Magnesium	500	U	36.0	500
Manganese	1.5	U	0.44	1.5
Nickel	4.0	U	0.44	4.0
Potassium	500	U	53.5	500
Selenium	1.0	U	0.66	1.0
Silver	1.0	U	0.10	1.0
Sodium	500	U	79.0	500
Thallium	1.0	U	0.57	1.0
Vanadium	5.0	U	0.38	5.0
Zinc	3.0	U	0.54	3.0

Quality Control Results

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

LCS-Certified Reference Material - Batch: 460-152248

Method: 6010B

Preparation: 3050B

Lab Sample ID: LCSSRM	Analysis Batch: 460-152385	Instrument ID: ICP5
Client Matrix: Solid	Prep Batch: 460-152248	Lab File ID: 03222013.asc
Dilution: 4.0	Leach Batch: N/A	Initial Weight/Volume: 1.01 g
Analysis Date: 03/22/2013 1218	Units: mg/Kg	Final Weight/Volume: 50 mL
Prep Date: 03/22/2013 0818		
Leach Date: N/A		

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Aluminum	9220	7846	85.1	43.3 - 156.8	
Antimony	119	198.8	167.3	20.8 - 252.5	
Arsenic	166	156.8	94.3	70.8 - 129.8	
Barium	211	209.9	99.5	73.2 - 126.8	
Beryllium	109	107.1	98.4	75.1 - 125.5	
Cadmium	102	101.9	99.9	73.0 - 126.2	
Calcium	6800	6935	102.0	74.4 - 125.8	
Chromium	118	120.1	101.9	69.7 - 129.4	
Cobalt	130	133.4	102.8	74.4 - 125.2	
Copper	117	117.4	100.5	74.6 - 124.6	
Iron	12900	13560	105.4	32.2 - 167.7	
Lead	76.1	77.09	101.2	68.7 - 131.3	
Magnesium	2750	2626	95.4	65.1 - 135.3	
Manganese	335	360.8	107.8	75.4 - 125.1	
Nickel	69.3	72.59	104.7	70.9 - 129.0	
Potassium	3100	2895	93.4	62.9 - 136.7	
Selenium	125	119.9	96.1	66.7 - 134.1	
Silver	41.9	39.21	93.6	66.2 - 134.0	
Sodium	347	338.4	97.7	42.9 - 156.9	J
Thallium	206	216.2	105.0	69.2 - 130.8	
Vanadium	86.2	87.07	101.0	63.1 - 136.6	
Zinc	273	276.0	101.0	71.4 - 128.6	

Quality Control Results

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

Method Blank - Batch: 460-152459

**Method: 6010B
Preparation: 3010A**

Lab Sample ID: MB 460-152459/1-A
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 03/24/2013 1346
 Prep Date: 03/23/2013 1340
 Leach Date: N/A

Analysis Batch: 460-152520
 Prep Batch: 460-152459
 Leach Batch: N/A
 Units: ug/L

Instrument ID: ICP5
 Lab File ID: 03242013.asc
 Initial Weight/Volume: 50 mL
 Final Weight/Volume: 50 mL

Analyte	Result	Qual	MDL	RL
Arsenic	5.0	U	3.7	5.0
Barium	200	U	5.9	200
Cadmium	5.0	U	0.82	5.0
Chromium	10.0	U	4.5	10.0
Lead	5.0	U	4.0	5.0
Selenium	10.0	U	5.8	10.0
Silver	10.0	U	1.3	10.0

TCLP SPLPE Leachate Blank - Batch: 460-152459

**Method: 6010B
Preparation: 3010A
TCLP**

Lab Sample ID: LB 460-152369/1-D ^5
 Client Matrix: Solid
 Dilution: 5.0
 Analysis Date: 03/24/2013 1350
 Prep Date: 03/23/2013 1340
 Leach Date: 03/22/2013 1801

Analysis Batch: 460-152520
 Prep Batch: 460-152459
 Leach Batch: 460-152369
 Units: ug/L

Instrument ID: ICP5
 Lab File ID: 03242013.asc
 Initial Weight/Volume: 50 mL
 Final Weight/Volume: 50 mL

Analyte	Result	Qual	MDL	RL
Arsenic	25.0	U	18.6	25.0
Barium	1000	U	29.7	1000
Cadmium	25.0	U	4.1	25.0
Chromium	50.0	U	22.3	50.0
Lead	25.0	U	20.1	25.0
Selenium	50.0	U	28.8	50.0
Silver	50.0	U	6.7	50.0

Quality Control Results

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

Lab Control Sample - Batch: 460-152459

Method: 6010B

Preparation: 3010A

Lab Sample ID: LCS 460-152459/2-A
Client Matrix: Water
Dilution: 1.0
Analysis Date: 03/24/2013 1336
Prep Date: 03/23/2013 1340
Leach Date: N/A

Analysis Batch: 460-152520
Prep Batch: 460-152459
Leach Batch: N/A
Units: ug/L

Instrument ID: ICP5
Lab File ID: 03242013.asc
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Arsenic	5000	5201	104	80 - 120	
Barium	10000	11000	110	80 - 120	
Cadmium	1000	1105	111	80 - 120	
Chromium	5000	5379	108	80 - 120	
Lead	5000	5636	113	80 - 120	
Selenium	1000	1041	104	80 - 120	
Silver	500	506.0	101	80 - 120	

Quality Control Results

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

Method Blank - Batch: 460-152436

Lab Sample ID: MB 460-152436/1-A
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 03/23/2013 1627
 Prep Date: 03/23/2013 1154
 Leach Date: N/A

Analysis Batch: 460-152469
 Prep Batch: 460-152436
 Leach Batch: N/A
 Units: ug/L

**Method: 7470A
 Preparation: 7470A**

Instrument ID: LEEMAN5
 Lab File ID: 152435.PRN
 Initial Weight/Volume: 30 mL
 Final Weight/Volume: 30 mL

Analyte	Result	Qual	MDL	RL
Mercury	0.20	U	0.16	0.20

TCLP SPLPE Leachate Blank - Batch: 460-152436

Lab Sample ID: LB 460-152369/1-C
 Client Matrix: Solid
 Dilution: 1.0
 Analysis Date: 03/23/2013 1652
 Prep Date: 03/23/2013 1154
 Leach Date: 03/22/2013 1801

Analysis Batch: 460-152469
 Prep Batch: 460-152436
 Leach Batch: 460-152369
 Units: ug/L

**Method: 7470A
 Preparation: 7470A
 TCLP**

Instrument ID: LEEMAN5
 Lab File ID: 152435.PRN
 Initial Weight/Volume: 30 mL
 Final Weight/Volume: 30 mL

Analyte	Result	Qual	MDL	RL
Mercury	0.20	U	0.16	0.20

Lab Control Sample - Batch: 460-152436

Lab Sample ID: LCS 460-152436/2-A
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 03/23/2013 1629
 Prep Date: 03/23/2013 1154
 Leach Date: N/A

Analysis Batch: 460-152469
 Prep Batch: 460-152436
 Leach Batch: N/A
 Units: ug/L

**Method: 7470A
 Preparation: 7470A**

Instrument ID: LEEMAN5
 Lab File ID: 152435.PRN
 Initial Weight/Volume: 30 mL
 Final Weight/Volume: 30 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	5.00	4.84	97	80 - 120	

Quality Control Results

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

Method Blank - Batch: 460-152503

Lab Sample ID: MB 460-152503/1-A
 Client Matrix: Solid
 Dilution: 1.0
 Analysis Date: 03/24/2013 1612
 Prep Date: 03/24/2013 1057
 Leach Date: N/A

Analysis Batch: 460-152523
 Prep Batch: 460-152503
 Leach Batch: N/A
 Units: mg/Kg

**Method: 7471A
 Preparation: 7471A**

Instrument ID: LEEMAN3
 Lab File ID: 152503.PRN
 Initial Weight/Volume: 0.60 g
 Final Weight/Volume: 50 mL

Analyte	Result	Qual	MDL	RL
Mercury	0.017	U	0.012	0.017

LCS-Certified Reference Material - Batch: 460-152503

Lab Sample ID: LCSSRM
 Client Matrix: Solid
 Dilution: 50
 Analysis Date: 03/24/2013 1614
 Prep Date: 03/24/2013 1057
 Leach Date: N/A

Analysis Batch: 460-152523
 Prep Batch: 460-152503
 Leach Batch: N/A
 Units: mg/Kg

**Method: 7471A
 Preparation: 7471A**

Instrument ID: LEEMAN3
 Lab File ID: 152503.PRN
 Initial Weight/Volume: 0.60 g
 Final Weight/Volume: 50 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	25.1	23.71	94.5	51.4 - 148.2	

Quality Control Results

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

Method Blank - Batch: 460-152694

**Method: 7196A
Preparation: 3060A**

Lab Sample ID:	MB 460-152694/1-A	Analysis Batch:	460-152695	Instrument ID:	WetHexSpec
Client Matrix:	Solid	Prep Batch:	460-152694	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	2.50 g
Analysis Date:	03/25/2013 1652	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	03/25/2013 1200				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Chromium (hexavalent)	2.0	U	0.50	2.0

Lab Control Sample Insoluble - Batch: 460-152694

**Method: 7196A
Preparation: 3060A**

Lab Sample ID:	LCSI 460-152694/3-A	Analysis Batch:	460-152695	Instrument ID:	WetHexSpec
Client Matrix:	Solid	Prep Batch:	460-152694	Lab File ID:	N/A
Dilution:	50	Leach Batch:	N/A	Initial Weight/Volume:	2.50 g
Analysis Date:	03/25/2013 1652	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	03/25/2013 1200				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Chromium (hexavalent)	708	703.2	99	80 - 120	

Lab Control Sample Soluble - Batch: 460-152694

**Method: 7196A
Preparation: 3060A**

Lab Sample ID:	LCSS 460-152694/2-A	Analysis Batch:	460-152695	Instrument ID:	WetHexSpec
Client Matrix:	Solid	Prep Batch:	460-152694	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	2.50 g
Analysis Date:	03/25/2013 1652	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	03/25/2013 1200				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Chromium (hexavalent)	15.2	14.26	94	85 - 115	

Quality Control Results

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

Method Blank - Batch: 460-152502

Lab Sample ID: MB 460-152502/1-A
 Client Matrix: Solid
 Dilution: 1.0
 Analysis Date: 03/24/2013 1627
 Prep Date: 03/24/2013 1100
 Leach Date: N/A

Analysis Batch: 460-152521
 Prep Batch: 460-152502
 Leach Batch: N/A
 Units: mg/Kg

**Method: 9012A
 Preparation: 9012A**

Instrument ID: Lachat3
 Lab File ID: OM_3-24-2013_04-15-
 Initial Weight/Volume: 0.5 g
 Final Weight/Volume: 5 mL

Analyte	Result	Qual	MDL	RL
Cyanide, Total	0.10	U	0.055	0.10

Low Level Control Sample - Batch: 460-152502

Lab Sample ID: LLCS 460-152502/2-A
 Client Matrix: Solid
 Dilution: 1.0
 Analysis Date: 03/24/2013 1628
 Prep Date: 03/24/2013 1100
 Leach Date: N/A

Analysis Batch: 460-152521
 Prep Batch: 460-152502
 Leach Batch: N/A
 Units: mg/Kg

**Method: 9012A
 Preparation: 9012A**

Instrument ID: Lachat3
 Lab File ID: OM_3-24-2013_04-15-
 Initial Weight/Volume: 0.5 g
 Final Weight/Volume: 5 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Cyanide, Total	1.00	0.963	96	90 - 110	

High Level Control Sample - Batch: 460-152502

Lab Sample ID: HLCS 460-152502/3-A
 Client Matrix: Solid
 Dilution: 1.0
 Analysis Date: 03/24/2013 1629
 Prep Date: 03/24/2013 1100
 Leach Date: N/A

Analysis Batch: 460-152521
 Prep Batch: 460-152502
 Leach Batch: N/A
 Units: mg/Kg

**Method: 9012A
 Preparation: 9012A**

Instrument ID: Lachat3
 Lab File ID: OM_3-24-2013_04-15-
 Initial Weight/Volume: 0.5 g
 Final Weight/Volume: 5 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Cyanide, Total	2.00	1.97	99	90 - 110	

Quality Control Results

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 460-152502**

**Method: 9012A
Preparation: 9012A**

MS Lab Sample ID: 460-52720-1
 Client Matrix: Solid
 Dilution: 1.0
 Analysis Date: 03/24/2013 1644
 Prep Date: 03/24/2013 1100
 Leach Date: N/A

Analysis Batch: 460-152521
 Prep Batch: 460-152502
 Leach Batch: N/A

Instrument ID: Lachat3
 Lab File ID: OM_3-24-2013_04-15-
 Initial Weight/Volume: 0.5 g
 Final Weight/Volume: 5 mL

MSD Lab Sample ID: 460-52720-1
 Client Matrix: Solid
 Dilution: 1.0
 Analysis Date: 03/24/2013 1645
 Prep Date: 03/24/2013 1100
 Leach Date: N/A

Analysis Batch: 460-152521
 Prep Batch: 460-152502
 Leach Batch: N/A

Instrument ID: Lachat3
 Lab File ID: OM_3-24-2013_04-15-
 Initial Weight/Volume: 0.5 g
 Final Weight/Volume: 5 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Cyanide, Total	71	71	85 - 115	0	10	N	N

Quality Control Results

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

Method Blank - Batch: 460-152592

Lab Sample ID: MB 460-152592/1-A
 Client Matrix: Solid
 Dilution: 1.0
 Analysis Date: 03/25/2013 1106
 Prep Date: 03/25/2013 1015
 Leach Date: N/A

Analysis Batch: 460-152607
 Prep Batch: 460-152592
 Leach Batch: N/A
 Units: mg/Kg

**Method: 9014
 Preparation: 7.3.3**

Instrument ID: No Equipment
 Lab File ID: N/A
 Initial Weight/Volume: 10 mL
 Final Weight/Volume: 50 mL

Analyte	Result	Qual	RL	RL
Cyanide, Reactive	25.0	U	25.0	25.0

Lab Control Sample - Batch: 460-152592

Lab Sample ID: LCS 460-152592/2-A
 Client Matrix: Solid
 Dilution: 1.0
 Analysis Date: 03/25/2013 1106
 Prep Date: 03/25/2013 1015
 Leach Date: N/A

Analysis Batch: 460-152607
 Prep Batch: 460-152592
 Leach Batch: N/A
 Units: mg/Kg

**Method: 9014
 Preparation: 7.3.3**

Instrument ID: No Equipment
 Lab File ID: N/A
 Initial Weight/Volume: 10 mL
 Final Weight/Volume: 50 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Cyanide, Reactive	40.0	25.0	12	10 - 100	U

Quality Control Results

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

Method Blank - Batch: 490-69936

**Method: 9023
Preparation: 9023**

Lab Sample ID: MB 490-69936/1-A
 Client Matrix: Solid
 Dilution: 1.0
 Analysis Date: 04/04/2013 1158
 Prep Date: 04/03/2013 1713
 Leach Date: N/A

Analysis Batch: 490-70109
 Prep Batch: 490-69936
 Leach Batch: N/A
 Units: mg/Kg

Instrument ID: No Equipment
 Lab File ID: N/A
 Initial Weight/Volume: 1 g
 Final Weight/Volume: 1 mL

Analyte	Result	Qual	MDL	RL
Halogens, Extractable Organic	50.0	U	35.0	50.0

Lab Control Sample - Batch: 490-69936

**Method: 9023
Preparation: 9023**

Lab Sample ID: LCS 490-69936/2-A
 Client Matrix: Solid
 Dilution: 1.0
 Analysis Date: 04/04/2013 1158
 Prep Date: 04/03/2013 1713
 Leach Date: N/A

Analysis Batch: 490-70109
 Prep Batch: 490-69936
 Leach Batch: N/A
 Units: mg/Kg

Instrument ID: No Equipment
 Lab File ID: N/A
 Initial Weight/Volume: 1 g
 Final Weight/Volume: 1 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Halogens, Extractable Organic	1040	1000	96	80 - 120	

Quality Control Results

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

Method Blank - Batch: 460-152602

**Method: 9034
Preparation: 7.3.4**

Lab Sample ID:	MB 460-152602/1-A	Analysis Batch:	460-152610	Instrument ID:	No Equipment
Client Matrix:	Solid	Prep Batch:	460-152602	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	10 mL
Analysis Date:	03/25/2013 1113	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	03/25/2013 1045				
Leach Date:	N/A				

Analyte	Result	Qual	RL	RL
Sulfide, Reactive	20.0	U	20.0	20.0

LCS-Certified Reference Material - Batch: 460-152602

**Method: 9034
Preparation: 7.3.4**

Lab Sample ID:	LCSSRM	Analysis Batch:	460-152610	Instrument ID:	No Equipment
Client Matrix:	Solid	Prep Batch:	460-152602	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	10 mL
Analysis Date:	03/25/2013 1113	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	03/25/2013 1045				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Sulfide, Reactive	13.3	20.0	77.1	49.3 - 139.1	U

Quality Control Results

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

Method Blank - Batch: 460-152355

**Method: 9045C
Preparation: N/A**

Lab Sample ID:	MB 460-152355/2	Analysis Batch:	460-152355	Instrument ID:	No Equipment
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	20 mL
Analysis Date:	03/22/2013 1421	Units:	SU	Final Weight/Volume:	20 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	NONE	NONE
Corrosivity	5.960			

LCS-Certified Reference Material - Batch: 460-152355

**Method: 9045C
Preparation: N/A**

Lab Sample ID:	LCSSRM 460-152355/3	Analysis Batch:	460-152355	Instrument ID:	No Equipment
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	20 mL
Analysis Date:	03/22/2013 1422	Units:	SU	Final Weight/Volume:	20 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Corrosivity	7.03	7.030	100.0	98.0 - 102.0	

Quality Control Results

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

Lab Control Sample - Batch: 680-271572

Method: D240-87
Preparation: D240-87

Lab Sample ID:	LCS 680-271572/1-A	Analysis Batch:	680-271624	Instrument ID:	No Equipment
Client Matrix:	Solid	Prep Batch:	680-271572	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.02 g
Analysis Date:	04/02/2013 1659	Units:	BTU/lb	Final Weight/Volume:	1.02 g
Prep Date:	04/02/2013 1339				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
BTU	5960	4943	83	70 - 130	

Duplicate - Batch: 680-271572

Method: D240-87
Preparation: D240-87

Lab Sample ID:	460-52720-3	Analysis Batch:	680-271624	Instrument ID:	No Equipment
Client Matrix:	Solid	Prep Batch:	680-271572	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.95 g
Analysis Date:	04/02/2013 1659	Units:	BTU/lb	Final Weight/Volume:	0.95 g
Prep Date:	04/02/2013 1339				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
BTU	5070	3997	24	30	

Chain of Custody Record

Temperature on Receipt 3/4.1
 Drinking Water? Yes No

TestAmerica 52720
 THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124 (1007)

Client: GFI Consultants, Inc Project Manager: Terry Zak Date: 3/20/13 Chain of Custody Number: 216109

Address: 455 Windy Brook Drive Telephone Number (Area Code)/Fax Number: (860) 368-5404 Lab Number: _____

City: Glastonbury State: CT Zip Code: 06033 Site Contact: Drew Bicharz Lab Contact: Melissa Haas

Project Name and Location (State): Troy Liberty Street PDT Carrier/Waybill Number: _____

Contact/Purchase Order/Quote No.: S983

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix				Containers & Preservatives						Analysis (Attach list if more space is needed)	Special Instructions/Conditions of Receipt		
			Air	Aqueous	Sed.	Soil	Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc2/NaOH				
<u>Pre-Chan 1</u>	<u>3/20/13</u>	<u>1500</u>				X	X								<u>-1</u>	
<u>Pre-Chan 2</u>	<u>↓</u>	<u>1515</u>				X	X								<u>-2</u>	
<u>Waste 1</u>	<u>↓</u>	<u>1400</u>				X	X					X	X	X	X	<u>-3</u>
<u>TK</u> <u>3-20-13</u>																

Possible Hazard Identification: Non-Hazard Flammable Skin Irritant Poison B Unknown

Sample Disposal: Return To Client Disposal By Lab Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: 24 Hours 48 Hours 7 Days 14 Days 21 Days Other STANDARD

QC Requirements (Specify)

1. Relinquished By: <u>Dr Blich</u>	Date: <u>3/20/13</u>	Time: <u>17:05</u>	1. Received By: <u>TK</u>	Date: <u>3-20-13</u>	Time: <u>17:05</u>
2. Relinquished By: <u>[Signature]</u>	Date: <u>3-20-13</u>	Time: <u>18:00</u>	2. Received By: <u>FedEx</u>	Date: _____	Time: _____
3. Relinquished By: <u>FedEx</u>	Date: _____	Time: _____	3. Received By: <u>[Signature]</u>	Date: <u>3/21/13</u>	Time: <u>8:50</u>

Comments: CS# 710228

04/08/2013
Page 125 of 130

Login Sample Receipt Checklist

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

Login Number: 52720

List Source: TestAmerica Edison

List Number: 1

Creator: Rivera, Kenneth

Question	Answer	Comment
Radioactivity wasn't checked or is <= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	710228
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.1°C, IR #4
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	False	See NCM
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	N/A	
Residual Chlorine Checked.	N/A	No analysis requiring residual chlorine check assigned.

Login Sample Receipt Checklist

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

Login Number: 52720

List Source: TestAmerica Nashville

List Number: 1

List Creation: 03/22/13 07:26 PM

Creator: McBride, Mike

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: GEI Consultants, Inc.

Job Number: 460-52720-1

Login Number: 52720

List Source: TestAmerica Savannah

List Number: 1

List Creation: 03/22/13 03:19 PM

Creator: Barnett, Eddie T

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ANALYTICAL REPORT

Job Number: 460-52701-1

Job Description: Troy Liberty Street Former MGP PDI

For:

GEI Consultants, Inc.
455 Winding Brook Drive
Suite 201
Glastonbury, CT 06033
Attention: Mr. Jerry Zak



Approved for release.
Kristina Blocker
Project Manager I
4/4/2013 11:39 AM

Designee for
Melissa Haas
Project Manager I
melissa.haas@testamericainc.com
04/04/2013

cc: Mr. Drew Blicharz
Jaimie Wargo

The test results in this report meet all NELAP requirements unless specified within the case narrative. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. All questions regarding this report should be directed to the TestAmerica Edison Project Manager.

TestAmerica Edison Certifications and Approvals: Connecticut: CTDOH #PH-0200, New Jersey: NJDEP (NELAP) #12028, New York: NYDOH (NELAP) #11452, NYDOH (ELAP) #11452, Pennsylvania: PADEP (NELAP) 68-00522 and Rhode Island: RIDOH LAO00132

TestAmerica Laboratories, Inc.

TestAmerica Edison 777 New Durham Road, Edison, NJ 08817
Tel (732) 549-3900 Fax (732) 549-3679 www.testamericainc.com



Job Number: 460-52701-1

Job Description: Troy Liberty Street Former MGP PDI

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed within the body of this report. Release of the data contained in this sample data package and in the electronic data deliverable has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.



Approved for release.
Kristina Blocker
Project Manager I
4/4/2013 11:39 AM

Designee for
Melissa Haas

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CASE NARRATIVE

Client: GEI Consultants, Inc.

Project: Troy Liberty Street Former MGP PDI

Report Number: 460-52701-1

This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

It should be noted that samples with elevated Reporting Limits (RLs) as a result of a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the RLs are unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes or interferences which exceed the calibration range of the instrument.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

The samples were received on 03/20/2013; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 3.1° C.

Except:

VOC was collected as dirt in jar. Samples were not collected according to 5035L/5035A-L specifications. The client was notified and instructed the lab to proceed with analysis.

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2C of the required temperature or method specified range. For samples with a specified temperature of 4C, samples with a temperature ranging from just above freezing temperature of water to 6C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

IGNITABILITY

Sample 460-52701-1 was analyzed for Ignitability in accordance with EPA SW-846 Method 1030. The samples were analyzed on 03/25/2013.

No difficulties were encountered during the burn rate analysis.

All quality control parameters were within the acceptance limits.

TCLP METALS

Sample 460-52701-1 was analyzed for TCLP metals in accordance with EPA SW-846 Methods 1311/ 6010B. The samples were leached on 03/22/2013, prepared on 03/23/2013 and analyzed on 03/24/2013.

As a standard practice all TCLP samples are diluted 5X prior to analysis. Further dilutions may be required dependent upon analyte levels in the samples. Refer to the analytical results forms for dilutions.

No difficulties were encountered during the TCLP metals analysis.

All quality control parameters were within the acceptance limits.

TOTAL METALS

Samples 460-52701-1 and 460-52701-2 were analyzed for total metals in accordance with EPA SW-846 Method 6010B. The samples were prepared and analyzed on 03/22/2013.

Samples 460-52701-1(10X), 460-52701-1 and 460-52701-2(4X) required dilution prior to analysis. The reporting limits have been adjusted accordingly.

As a standard practice all soil samples and related QC samples (i.e., MB, LCS, Dup, MS, SD) are diluted 2X-4X prior to analysis. Further dilutions may be required dependent upon analyte levels in the samples. Refer to the analytical results forms for dilutions.

No difficulties were encountered during the metals analyses.

All quality control parameters were within the acceptance limits.

HEXAVALENT CHROMIUM

Sample 460-52701-1 was analyzed for hexavalent chromium in accordance with EPA SW-846 Method 3060A/7196A. The samples were prepared and analyzed on 03/22/2013.

No difficulties were encountered during the hexchrome Cr6 analysis.

All quality control parameters were within the acceptance limits.

TCLP MERCURY

Sample 460-52701-1 was analyzed for TCLP mercury in accordance with EPA SW-846 Methods 1311/7470A. The samples were leached on 03/22/2013, and prepared and analyzed on 03/23/2013.

No difficulties were encountered during the TCLP mercury analysis.

All quality control parameters were within the acceptance limits.

TOTAL MERCURY

Samples 460-52701-1 and 460-52701-2 were analyzed for total mercury in accordance with EPA SW-846 Method 7471A. The samples were prepared and analyzed on 03/24/2013.

No difficulties were encountered during the Hg analyses.

All quality control parameters were within the acceptance limits.

DIESEL RANGE ORGANICS

Samples 460-52701-1 and 460-52701-2 were analyzed for diesel range organics in accordance with EPA SW-846 Method 8015B - DRO. The samples were prepared on 03/22/2013 and analyzed on 03/25/2013.

o-Terphenyl failed the surrogate recovery criteria low for 460-52701-1. Refer to the QC report for details.

Due to the level of dilution required for the following sample(s), surrogate recoveries are not reported: Pre-Char 4Waste 2 (460-52701-1).

Sample 460-52701-1(10X) required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No other difficulties were encountered during the DRO analyses.

All other quality control parameters were within the acceptance limits.

GASOLINE RANGE ORGANICS

Samples 460-52701-1 and 460-52701-2 were analyzed for gasoline range organics in accordance with EPA SW-846 Method 8015B - GRO. The samples were prepared on 03/21/2013 and analyzed on 03/22/2013 and 03/26/2013.

GRO exceeded the rpd limit for LCSD 460-152957/3. Refer to the QC report for details.

a,a,a-Trifluorotoluene failed the surrogate recovery criteria high for 460-52701-1. Refer to the QC report for details.

The following sample was diluted to bring the concentration of the target analyte within the calibration range: Pre-Char 4Waste 2 (460-52701-1). Elevated reporting limits (RLs) are provided.

Surrogate recovery for the following sample was outside control limits: Pre-Char 4Waste 2 (460-52701-1). Re-analysis was performed with concurring results (Batch 152423 - ifid7821).

No other difficulties were encountered during the GRO analyses.

All other quality control parameters were within the acceptance limits.

TCLP CHLORINATED PESTICIDES

Sample 460-52701-1 was analyzed for TCLP chlorinated pesticides in accordance with EPA SW-846 Methods 1311/ 8081A. The samples were leached on 03/22/2013, prepared on 03/23/2013 and analyzed on 03/24/2013.

Methoxychlor failed the recovery criteria high for LCS 460-152430/2-A. Refer to the QC report for details.

No other difficulties were encountered during the TCLP pesticides analysis.

All other quality control parameters were within the acceptance limits.

POLYCHLORINATED BIPHENYLS

Samples 460-52701-1 and 460-52701-2 were analyzed for polychlorinated biphenyls in accordance with EPA SW-846 Method 8082. The samples were prepared and analyzed on 03/22/2013.

No difficulties were encountered during the PCBs analyses.

All quality control parameters were within the acceptance limits.

TCLP CHLORINATED HERBICIDES

Sample 460-52701-1 was analyzed for TCLP chlorinated herbicides in accordance with EPA SW-846 Methods 1311/ 8151A. The samples were leached on 03/22/2013, prepared on 03/25/2013 and analyzed on 03/26/2013.

No difficulties were encountered during the TCLP herbicides analysis.

All quality control parameters were within the acceptance limits.

TCLP VOLATILE ORGANIC COMPOUNDS (GC-MS)

Sample 460-52701-1 was analyzed for TCLP volatile organic compounds (GC-MS) in accordance with EPA SW-846 Methods 1311/8260B. The samples were leached on 03/21/2013 and analyzed on 03/24/2013.

Sample 460-52701-1(10X) required dilution prior to analysis. The reporting limits have been adjusted accordingly.

All samples and associated QC are diluted 10X prior to TCLP VOA analysis.

No difficulties were encountered during the TCLP volatiles analysis.

All quality control parameters were within the acceptance limits.

VOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples 460-52701-1 and 460-52701-2 were analyzed for volatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8260B. The samples were prepared on 03/21/2013 and analyzed on 03/23/2013.

No difficulties were encountered during the volatiles analyses.

All quality control parameters were within the acceptance limits.

SEMIVOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples 460-52701-1 and 460-52701-2 were analyzed for semivolatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8270C. The samples were prepared on 03/24/2013 and analyzed on 03/25/2013.

2,4,6-Tribromophenol, 2-Fluorobiphenyl, 2-Fluorophenol, Nitrobenzene-d5, Phenol-d5 and Terphenyl-d14 failed the surrogate recovery criteria low for 460-52701-1. Refer to the QC report for details.

1,2,4,5-Tetrachlorobenzene failed the recovery criteria low for LCS 460-152531/2-A. Refer to the QC report for details.

Refer to the QC report for details.

Samples 460-52701-1(100X) and 460-52701-2(5X) required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No other difficulties were encountered during the semivolatiles analyses.

All other quality control parameters were within the acceptance limits.

SEMIVOLATILE ORGANIC COMPOUNDS (GC/MS)

Sample 460-52701-1 was analyzed for semivolatile organic compounds (GC/MS) in accordance with EPA SW-846 Method 8270D. The samples were leached on 03/22/2013, prepared on 03/24/2013 and analyzed on 04/01/2013.

Nitrobenzene-d5 failed the surrogate recovery criteria high for 460-52701-1. Refer to the QC report for details.

No other difficulties were encountered during the semivolatiles analysis.

All other quality control parameters were within the acceptance limits.

TOTAL CYANIDE

Samples 460-52701-1 and 460-52701-2 were analyzed for total cyanide in accordance with EPA SW-846 Method 9012A. The samples were prepared and analyzed on 03/24/2013.

No difficulties were encountered during the cyanide analyses.

All quality control parameters were within the acceptance limits.

REACTIVE CYANIDE

Sample 460-52701-1 was analyzed for reactive cyanide in accordance with EPA SW-846 Method 7.3.3/9014. The samples were prepared and analyzed on 03/25/2013.

No difficulties were encountered during the reactive cyanide analysis.

All quality control parameters were within the acceptance limits.

EXTRACTABLE ORGANIC HALOGENS

Sample 460-52701-1 was analyzed for Extractable Organic Halogens in accordance with EPA SW-846 Method 9023. The samples were prepared on 03/27/2013 and analyzed on 03/28/2013.

No difficulties were encountered during the EOX analysis.

All quality control parameters were within the acceptance limits.

REACTIVE SULFIDE

Sample 460-52701-1 was analyzed for reactive sulfide in accordance with EPA SW-846 Method 7.3.4/9034. The samples were prepared and analyzed on 03/25/2013.

No difficulties were encountered during the reactive sulfide analysis.

All quality control parameters were within the acceptance limits.

CORROSIVITY (PH)

Sample 460-52701-1 was analyzed for corrosivity (pH) in accordance with EPA SW-846 Method 9045C. The samples were analyzed on 03/22/2013.

This analysis is normally performed in the field and has a method-defined holding time of 15 minutes. The following sample(s) has been qualified with the "HF" flag to indicate analysis was performed in the laboratory outside the 15 minute timeframe: Pre Char 4/Waste 2 (460-52701-1).

No difficulties were encountered during the corrosivity (pH) analysis.

All quality control parameters were within the acceptance limits.

HEAT OF COMBUSTION

Samples 460-52701-1 and 460-52701-2 were analyzed for Heat of Combustion in accordance with ASTM Method D240-87. The samples were prepared and analyzed on 03/29/2013.

When prepped for Heat of Combustion/BTU analysis, the following sample(s) did not combust: Pre Char 3 (460-52701-2), Pre-Char 4 Waste 2 (460-52701-1). The samples were run in duplicate to confirm. The results have been reported as "Did Not Fire" (DNF).

No other difficulties were encountered during the BTU analyses.

All other quality control parameters were within the acceptance limits.

PERCENT SOLIDS/PERCENT MOISTURE

Samples 460-52701-1 and 460-52701-2 were analyzed for percent solids/percent moisture in accordance with EPA Method CLPISM01.2 (Exhibit D). The samples were analyzed on 03/22/2013.

Percent Moisture exceeded the rpd limit for the duplicate of sample 460-52708-1. Refer to the QC report for details.

No other difficulties were encountered during the %solids/moisture analyses.

All other quality control parameters were within the acceptance limits.

EXECUTIVE SUMMARY - Detections

Client: GEI Consultants, Inc.

Job Number: 460-52701-1

Lab Sample ID	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
460-52701-1	PRE-CHAR 4 WASTE 2					
Benzene		9000		260	ug/Kg	8260B
Toluene		44000		260	ug/Kg	8260B
Ethylbenzene		26000		260	ug/Kg	8260B
Styrene		34000		260	ug/Kg	8260B
m&p-Xylene		150000		520	ug/Kg	8260B
o-Xylene		49000		260	ug/Kg	8260B
Isopropylbenzene		1500		260	ug/Kg	8260B
Methylcyclohexane		19000		260	ug/Kg	8260B
Naphthalene		230000		44000	ug/Kg	8270C
2-Methylnaphthalene		60000		44000	ug/Kg	8270C
Diphenyl		29000	J	44000	ug/Kg	8270C
Acenaphthylene		84000		44000	ug/Kg	8270C
Acenaphthene		43000	J	44000	ug/Kg	8270C
Dibenzofuran		82000		44000	ug/Kg	8270C
Fluorene		91000		44000	ug/Kg	8270C
Fluoranthene		200000		44000	ug/Kg	8270C
Anthracene		150000		44000	ug/Kg	8270C
Carbazole		42000	J	44000	ug/Kg	8270C
Phenanthrene		400000		44000	ug/Kg	8270C
Pyrene		230000		44000	ug/Kg	8270C
Chrysene		87000		44000	ug/Kg	8270C
Benzo[k]fluoranthene		34000		4400	ug/Kg	8270C
Benzo[g,h,i]perylene		46000		44000	ug/Kg	8270C
Benzo[b]fluoranthene		67000		4400	ug/Kg	8270C
Benzo[a]pyrene		76000		4400	ug/Kg	8270C
Benzo[a]anthracene		78000		4400	ug/Kg	8270C
Indeno[1,2,3-cd]pyrene		43000		4400	ug/Kg	8270C
Dibenz(a,h)anthracene		11000		4400	ug/Kg	8270C
GRO		1900000	*	63000	ug/Kg	8015B
Diesel Range Organics [C10-C28]		3400		90	mg/Kg	8015B
Aluminum		11800		50.4	mg/Kg	6010B
Arsenic		5.9		1.3	mg/Kg	6010B
Barium		100		50.4	mg/Kg	6010B
Beryllium		0.62		0.50	mg/Kg	6010B
Calcium		74800		3150	mg/Kg	6010B
Chromium		17.6		2.5	mg/Kg	6010B
Cobalt		7.5	J	12.6	mg/Kg	6010B
Copper		39.3		6.3	mg/Kg	6010B
Iron		25900		37.8	mg/Kg	6010B
Lead		40.4		1.3	mg/Kg	6010B
Magnesium		8600		1260	mg/Kg	6010B
Manganese		709		3.8	mg/Kg	6010B
Nickel		20.3		10.1	mg/Kg	6010B
Potassium		1970		1260	mg/Kg	6010B
Vanadium		19.4		12.6	mg/Kg	6010B
Zinc		73.2		7.6	mg/Kg	6010B

EXECUTIVE SUMMARY - Detections

Client: GEI Consultants, Inc.

Job Number: 460-52701-1

Lab Sample ID Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
Mercury		0.95		0.022	mg/Kg	7471A
Cyanide, Total		2.3		0.13	mg/Kg	9012A
Corrosivity		8.29	HF		SU	9045C
BTU		DNF		2.00	BTU/lb	D240-87
Percent Moisture		25.1		1.0	%	Moisture
Percent Solids		74.9		1.0	%	Moisture
<i>TCLP</i>						
Benzene		0.096		0.010	mg/L	8260B
2-Methylphenol		0.044		0.040	mg/L	8270D
3 & 4 Methylphenol		0.095		0.040	mg/L	8270D
Barium		1290		1000	ug/L	6010B

EXECUTIVE SUMMARY - Detections

Client: GEI Consultants, Inc.

Job Number: 460-52701-1

Lab Sample ID	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
460-52701-2	PRE CHAR 3					
Benzene		330		110	ug/Kg	8260B
Toluene		150		110	ug/Kg	8260B
Ethylbenzene		300		110	ug/Kg	8260B
Styrene		16	J	110	ug/Kg	8260B
m&p-Xylene		430		210	ug/Kg	8260B
o-Xylene		160		110	ug/Kg	8260B
Isopropylbenzene		31	J	110	ug/Kg	8260B
Methylcyclohexane		170		110	ug/Kg	8260B
Naphthalene		10000		1900	ug/Kg	8270C
2-Methylnaphthalene		2800		1900	ug/Kg	8270C
Diphenyl		1800	J	1900	ug/Kg	8270C
Acenaphthylene		5100		1900	ug/Kg	8270C
Acenaphthene		2600		1900	ug/Kg	8270C
Dibenzofuran		5900		1900	ug/Kg	8270C
Fluorene		7100		1900	ug/Kg	8270C
Fluoranthene		21000		1900	ug/Kg	8270C
Anthracene		11000		1900	ug/Kg	8270C
Carbazole		3900		1900	ug/Kg	8270C
Phenanthrene		27000		1900	ug/Kg	8270C
Pyrene		23000		1900	ug/Kg	8270C
Chrysene		9600		1900	ug/Kg	8270C
Benzo[k]fluoranthene		4000		190	ug/Kg	8270C
Benzo[g,h,i]perylene		5500		1900	ug/Kg	8270C
Benzo[b]fluoranthene		8200		190	ug/Kg	8270C
Benzo[a]pyrene		9100		190	ug/Kg	8270C
Benzo[a]anthracene		9400		190	ug/Kg	8270C
Indeno[1,2,3-cd]pyrene		5500		190	ug/Kg	8270C
Dibenz(a,h)anthracene		1300		190	ug/Kg	8270C
GRO		3500		2800	ug/Kg	8015B
Diesel Range Organics [C10-C28]		180		7.9	mg/Kg	8015B
Aluminum		14000		47.1	mg/Kg	6010B
Arsenic		8.3		1.2	mg/Kg	6010B
Barium		159		47.1	mg/Kg	6010B
Beryllium		0.73		0.47	mg/Kg	6010B
Calcium		15100		1180	mg/Kg	6010B
Chromium		17.4		2.4	mg/Kg	6010B
Cobalt		10.3	J	11.8	mg/Kg	6010B
Copper		24.3		5.9	mg/Kg	6010B
Iron		26700		35.3	mg/Kg	6010B
Lead		34.8		1.2	mg/Kg	6010B
Magnesium		5780		1180	mg/Kg	6010B
Manganese		1190		3.5	mg/Kg	6010B
Nickel		24.6		9.4	mg/Kg	6010B
Potassium		1420		1180	mg/Kg	6010B
Sodium		270	J	1180	mg/Kg	6010B
Vanadium		19.4		11.8	mg/Kg	6010B

EXECUTIVE SUMMARY - Detections

Client: GEI Consultants, Inc.

Job Number: 460-52701-1

Lab Sample ID	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
Zinc		72.9		7.1	mg/Kg	6010B
Mercury		0.019	J	0.020	mg/Kg	7471A
Cyanide, Total		0.21		0.12	mg/Kg	9012A
BTU		DNF		2.00	BTU/lb	D240-87
Percent Moisture		15.1		1.0	%	Moisture
Percent Solids		84.9		1.0	%	Moisture

METHOD SUMMARY

Client: GEI Consultants, Inc.

Job Number: 460-52701-1

Description	Lab Location	Method	Preparation Method
Matrix: Solid			
Volatile Organic Compounds (GC/MS)	TAL EDI	SW846 8260B	
Closed System Purge and Trap	TAL EDI		SW846 5035
Volatile Organic Compounds (GC/MS)	TAL EDI	SW846 8260B	
TCLP Extraction	TAL EDI		SW846 1311
Purge and Trap	TAL EDI		SW846 5030B
Semivolatile Organic Compounds (GC/MS)	TAL EDI	SW846 8270C	
Automated Soxhlet Extraction	TAL EDI		SW846 3541
Semivolatile Organic Compounds (GC/MS)	TAL EDI	SW846 8270D	
TCLP Extraction	TAL EDI		SW846 1311
Liquid-Liquid Extraction (Separatory Funnel)	TAL EDI		SW846 3510C
Gasoline Range Organics - (GC)	TAL EDI	SW846 8015B	
Closed System Purge and Trap	TAL EDI		SW846 5035
Diesel Range Organics (DRO) (GC)	TAL EDI	SW846 8015B	
Microwave Extraction	TAL EDI		SW846 3546
Organochlorine Pesticides (GC)	TAL EDI	SW846 8081A	
TCLP Extraction	TAL EDI		SW846 1311
Liquid-Liquid Extraction (Separatory Funnel)	TAL EDI		SW846 3510C
Polychlorinated Biphenyls (PCBs) by Gas Chromatography	TAL EDI	SW846 8082	
Microwave Extraction	TAL EDI		SW846 3546
Herbicides (GC)	TAL EDI	SW846 8151A	
TCLP Extraction	TAL EDI		SW846 1311
Extraction (Herbicides)	TAL EDI		SW846 8151A
Metals (ICP)	TAL EDI	SW846 6010B	
Preparation, Metals	TAL EDI		SW846 3050B
Metals (ICP)	TAL EDI	SW846 6010B	
TCLP Extraction	TAL EDI		SW846 1311
Preparation, Total Metals	TAL EDI		SW846 3010A
Mercury (CVAA)	TAL EDI	SW846 7470A	
TCLP Extraction	TAL EDI		SW846 1311
Preparation, Mercury	TAL EDI		SW846 7470A
Mercury (CVAA)	TAL EDI	SW846 7471A	
Preparation, Mercury	TAL EDI		SW846 7471A
Ignitability, Solids	TAL EDI	SW846 1030	
Chromium, Hexavalent	TAL EDI	SW846 7196A	
Alkaline Digestion (Chromium, Hexavalent)	TAL EDI		SW846 3060A
Cyanide, Total and/or Amenable	TAL EDI	SW846 9012A	
Cyanide, Total and/or Amenable, Distillation	TAL EDI		SW846 9012A
Cyanide, Reactive	TAL EDI	SW846 9014	
Cyanide, Reactive	TAL EDI		SW846 7.3.3
Sulfide, Reactive	TAL EDI	SW846 9034	
Sulfide, Reactive	TAL EDI		SW846 7.3.4
pH	TAL EDI	SW846 9045C	

METHOD SUMMARY

Client: GEI Consultants, Inc.

Job Number: 460-52701-1

Description	Lab Location	Method	Preparation Method
Matrix: Solid			
Percent Moisture	TAL EDI	EPA Moisture	
Organic Halides, Extractable (EOX)	TAL NSH	SW846 9023	
Preparation, EOX	TAL NSH		SW846 9023
Heat of Combustion	TAL SAV	ASTM D240-87	
Preparation, Heat of Combustion	TAL SAV		ASTM D240-87
General Sub Contract Method	Harris Lab	Subcontract	

Lab References:

Harris Lab = Harris Testing Laboratories Inc.

TAL EDI = TestAmerica Edison

TAL NSH = TestAmerica Nashville

TAL SAV = TestAmerica Savannah

Method References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: GEI Consultants, Inc.

Job Number: 460-52701-1

Method	Analyst	Analyst ID
SW846 8260B	Del Polito, Vita	VD
SW846 8260B	Tupayachi, Audberto	AT
SW846 8270C	Zhao, Chunxin	CZ
SW846 8270D	Rana, Vidhi	VR
SW846 8015B	Jin, Fangzhou	FJ
SW846 8015B	Nimer, Diaa	DN
SW846 8081A	Manlangit, Ferdie	FM
SW846 8082	Boykin, Carol B	CBB
SW846 8151A	Kim, Ho	HK
SW846 6010B	Chang, Churn Der	CDC
SW846 7470A	Patel, Purva H	PHP
SW846 7471A	Patel, Purva H	PHP
SW846 1030	Kowalski, Joseph A	JAK
SW846 7196A	Leye, Mamadou	ML
SW846 9012A	Leye, Mamadou	ML
SW846 9014	Opara, Somtochi C	SCO
SW846 9023	Johnson, Cynthia L	CLJ
SW846 9034	Opara, Somtochi C	SCO
SW846 9045C	Opara, Somtochi C	SCO
ASTM D240-87	West, Ryan	RW
EPA Moisture	Armbruster, Chris	CHA

SAMPLE SUMMARY

Client: GEI Consultants, Inc.

Job Number: 460-52701-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
460-52701-1	Pre-Char 4 Waste 2	Solid	03/18/2013 1645	03/20/2013 0900
460-52701-2	Pre Char 3	Solid	03/18/2013 0930	03/20/2013 0900

SAMPLE RESULTS

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52701-1

Client Sample ID: Pre-Char 4 Waste 2

Lab Sample ID: 460-52701-1

Date Sampled: 03/18/2013 1645

Client Matrix: Solid

% Moisture: 25.1

Date Received: 03/20/2013 0900

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	460-152399	Instrument ID:	VOAMS2
Prep Method:	5035	Prep Batch:	460-152166	Lab File ID:	b53728.d
Dilution:	100			Initial Weight/Volume:	5.17 g
Analysis Date:	03/23/2013 1549			Final Weight/Volume:	10 mL
Prep Date:	03/21/2013 1728				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Chloromethane		260	U	25	260
Bromomethane		260	U	47	260
Vinyl chloride		260	U	37	260
Chloroethane		260	U	44	260
Methylene Chloride		260	U	47	260
Acetone		1300	U	690	1300
Carbon disulfide		260	U	32	260
Trichlorofluoromethane		260	U	38	260
1,1-Dichloroethene		260	U	23	260
1,1-Dichloroethane		260	U	34	260
trans-1,2-Dichloroethene		260	U	33	260
cis-1,2-Dichloroethene		260	U	46	260
Chloroform		260	U	20	260
1,2-Dichloroethane		260	U	49	260
2-Butanone		1300	U	600	1300
1,1,1-Trichloroethane		260	U	16	260
Carbon tetrachloride		260	U	15	260
Bromodichloromethane		260	U	32	260
1,2-Dichloropropane		260	U	22	260
cis-1,3-Dichloropropene		260	U	48	260
Trichloroethene		260	U	24	260
Dibromochloromethane		260	U	52	260
1,1,2-Trichloroethane		260	U	48	260
Benzene		9000		21	260
trans-1,3-Dichloropropene		260	U	63	260
Bromoform		260	U	50	260
4-Methyl-2-pentanone		1300	U	250	1300
2-Hexanone		1300	U	130	1300
Tetrachloroethene		260	U	25	260
1,1,2,2-Tetrachloroethane		260	U	41	260
Toluene		44000		39	260
Chlorobenzene		260	U	28	260
Ethylbenzene		26000		25	260
Styrene		34000		31	260
m&p-Xylene		150000		63	520
o-Xylene		49000		34	260
Freon TF		260	U	21	260
MTBE		260	U	36	260
Cyclohexane		260	U	41	260
1,2-Dibromoethane		260	U	71	260
1,3-Dichlorobenzene		260	U	35	260
1,4-Dichlorobenzene		260	U	60	260
1,2-Dichlorobenzene		260	U	53	260
Dichlorodifluoromethane		260	U	56	260
1,2,4-Trichlorobenzene		260	U	88	260
1,4-Dioxane		13000	U	9300	13000

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52701-1

Client Sample ID: Pre-Char 4 Waste 2

Lab Sample ID: 460-52701-1

Date Sampled: 03/18/2013 1645

Client Matrix: Solid

% Moisture: 25.1

Date Received: 03/20/2013 0900

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	460-152399	Instrument ID:	VOAMS2
Prep Method:	5035	Prep Batch:	460-152166	Lab File ID:	b53728.d
Dilution:	100			Initial Weight/Volume:	5.17 g
Analysis Date:	03/23/2013 1549			Final Weight/Volume:	10 mL
Prep Date:	03/21/2013 1728				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,2,3-Trichlorobenzene		260	U	130	260
1,2-Dibromo-3-Chloropropane		260	U	100	260
Bromochloromethane		260	U	71	260
Isopropylbenzene		1500		20	260
Methyl acetate		520	U	87	520
Methylcyclohexane		19000		35	260

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	85		75 - 135
Toluene-d8 (Surr)	78		59 - 150
Bromofluorobenzene	85		72 - 133

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52701-1

Client Sample ID: Pre-Char 4 Waste 2

Lab Sample ID: 460-52701-1

Date Sampled: 03/18/2013 1645

Client Matrix: Solid

% Moisture: 25.1

Date Received: 03/20/2013 0900

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	460-152399	Instrument ID:	VOAMS2
Prep Method:	5035	Prep Batch:	460-152166	Lab File ID:	b53728.d
Dilution:	100			Initial Weight/Volume:	5.17 g
Analysis Date:	03/23/2013 1549			Final Weight/Volume:	10 mL
Prep Date:	03/21/2013 1728				

Tentatively Identified Compounds**Number TIC's Found: 10**

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
95-13-6	Indene	11.22	400000	J N
	Methylbenzofuran isomer	11.76	61000	J
	Unknown Aromatic-1	12.12	79000	J
	Unknown Aromatic-2	12.21	73000	J
91-20-3	Naphthalene	12.60	510000	E
	Unknown	12.64	380000	J
270-82-6	2-Benzothiophene #	12.71	110000	J N
91-57-6	Naphthalene, 2-methyl-	13.67	500000	J N
90-12-0	Naphthalene, 1-methyl-	13.87	240000	J N
92-52-4	Biphenyl	14.50	63000	J N

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52701-1

Client Sample ID: Pre-Char 4 Waste 2

Lab Sample ID: 460-52701-1

Date Sampled: 03/18/2013 1645

Client Matrix: Solid

Date Received: 03/20/2013 0900

8260B Volatile Organic Compounds (GC/MS)-TCLP

Analysis Method:	8260B	Analysis Batch:	460-152617	Instrument ID:	VOAMS6
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	f01705.d
Dilution:	10	Leach Batch:	460-152150	Initial Weight/Volume:	5 mL
Analysis Date:	03/24/2013 1734			Final Weight/Volume:	5 mL
Prep Date:	03/24/2013 1734				
Leach Date:	03/21/2013 1525				

Analyte	DryWt Corrected: N	Result (mg/L)	Qualifier	MDL	RL
Vinyl chloride		0.010	U	0.0014	0.010
1,1-Dichloroethene		0.010	U	0.00090	0.010
2-Butanone		0.050	U	0.023	0.050
Chloroform		0.010	U	0.00080	0.010
Carbon tetrachloride		0.010	U	0.00060	0.010
Benzene		0.096		0.00080	0.010
1,2-Dichloroethane		0.010	U	0.0019	0.010
Trichloroethene		0.010	U	0.00090	0.010
Tetrachloroethene		0.010	U	0.0010	0.010
Chlorobenzene		0.010	U	0.0011	0.010

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	104		70 - 130
Toluene-d8 (Surr)	95		70 - 130
Bromofluorobenzene	96		70 - 130

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52701-1

Client Sample ID: Pre Char 3

Lab Sample ID: 460-52701-2

Date Sampled: 03/18/2013 0930

Client Matrix: Solid

% Moisture: 15.1

Date Received: 03/20/2013 0900

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	460-152399	Instrument ID:	VOAMS2
Prep Method:	5035	Prep Batch:	460-152166	Lab File ID:	b53727.d
Dilution:	50			Initial Weight/Volume:	5.57 g
Analysis Date:	03/23/2013 1526			Final Weight/Volume:	10 mL
Prep Date:	03/21/2013 1730				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Chloromethane		110	U	10	110
Bromomethane		110	U	19	110
Vinyl chloride		110	U	15	110
Chloroethane		110	U	18	110
Methylene Chloride		110	U	19	110
Acetone		530	U	280	530
Carbon disulfide		110	U	13	110
Trichlorofluoromethane		110	U	15	110
1,1-Dichloroethene		110	U	9.3	110
1,1-Dichloroethane		110	U	14	110
trans-1,2-Dichloroethene		110	U	14	110
cis-1,2-Dichloroethene		110	U	19	110
Chloroform		110	U	8.3	110
1,2-Dichloroethane		110	U	20	110
2-Butanone		530	U	250	530
1,1,1-Trichloroethane		110	U	6.6	110
Carbon tetrachloride		110	U	6.0	110
Bromodichloromethane		110	U	13	110
1,2-Dichloropropane		110	U	9.1	110
cis-1,3-Dichloropropene		110	U	19	110
Trichloroethene		110	U	9.7	110
Dibromochloromethane		110	U	21	110
1,1,2-Trichloroethane		110	U	20	110
Benzene		330		8.7	110
trans-1,3-Dichloropropene		110	U	26	110
Bromoform		110	U	20	110
4-Methyl-2-pentanone		530	U	100	530
2-Hexanone		530	U	53	530
Tetrachloroethene		110	U	10	110
1,1,2,2-Tetrachloroethane		110	U	17	110
Toluene		150		16	110
Chlorobenzene		110	U	12	110
Ethylbenzene		300		10	110
Styrene		16	J	13	110
m&p-Xylene		430		26	210
o-Xylene		160		14	110
Freon TF		110	U	8.7	110
MTBE		110	U	15	110
Cyclohexane		110	U	17	110
1,2-Dibromoethane		110	U	29	110
1,3-Dichlorobenzene		110	U	14	110
1,4-Dichlorobenzene		110	U	25	110
1,2-Dichlorobenzene		110	U	22	110
Dichlorodifluoromethane		110	U	23	110
1,2,4-Trichlorobenzene		110	U	36	110
1,4-Dioxane		5300	U	3800	5300

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52701-1

Client Sample ID: Pre Char 3

Lab Sample ID: 460-52701-2

Date Sampled: 03/18/2013 0930

Client Matrix: Solid

% Moisture: 15.1

Date Received: 03/20/2013 0900

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	460-152399	Instrument ID:	VOAMS2
Prep Method:	5035	Prep Batch:	460-152166	Lab File ID:	b53727.d
Dilution:	50			Initial Weight/Volume:	5.57 g
Analysis Date:	03/23/2013 1526			Final Weight/Volume:	10 mL
Prep Date:	03/21/2013 1730				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,2,3-Trichlorobenzene		110	U	54	110
1,2-Dibromo-3-Chloropropane		110	U	42	110
Bromochloromethane		110	U	29	110
Isopropylbenzene		31	J	8.1	110
Methyl acetate		210	U	36	210
Methylcyclohexane		170		14	110

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	83		75 - 135
Toluene-d8 (Surr)	80		59 - 150
Bromofluorobenzene	89		72 - 133

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52701-1

Client Sample ID: Pre Char 3

Lab Sample ID: 460-52701-2

Date Sampled: 03/18/2013 0930

Client Matrix: Solid

% Moisture: 15.1

Date Received: 03/20/2013 0900

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	460-152399	Instrument ID:	VOAMS2
Prep Method:	5035	Prep Batch:	460-152166	Lab File ID:	b53727.d
Dilution:	50			Initial Weight/Volume:	5.57 g
Analysis Date:	03/23/2013 1526			Final Weight/Volume:	10 mL
Prep Date:	03/21/2013 1730				

Tentatively Identified Compounds**Number TIC's Found: 10**

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
496-11-7	2,3-Dihydroindene	11.03	1200	
95-13-6	Indene	11.22	1300	J N
91-20-3	Naphthalene	12.60	36000	
270-82-6	2-Benzothiophene #	12.71	1300	J N
91-57-6	Naphthalene, 2-methyl-	13.66	3400	J N
90-12-0	Naphthalene, 1-methyl-	13.87	2500	J N
	Dimethylnaphthalene isomer	14.94	1700	J
	Dimethylnaphthalene isomer-1	15.17	1900	J
	Dimethylnaphthalene isomer-2	15.23	1500	J
	Dimethylnaphthalene isomer-3	15.54	1000	J

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52701-1

Client Sample ID: Pre-Char 4 Waste 2

Lab Sample ID: 460-52701-1

Date Sampled: 03/18/2013 1645

Client Matrix: Solid

% Moisture: 25.1

Date Received: 03/20/2013 0900

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-152663	Instrument ID:	BNAMS4
Prep Method:	3541	Prep Batch:	460-152531	Lab File ID:	u85656.d
Dilution:	100			Initial Weight/Volume:	15.00 g
Analysis Date:	03/25/2013 1945	Run Type:	DL	Final Weight/Volume:	1 mL
Prep Date:	03/24/2013 1921			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Phenol		44000	U	5900	44000
2-Chlorophenol		44000	U	5800	44000
2-Methylphenol		44000	U	7500	44000
4-Methylphenol		44000	U	8700	44000
Benzaldehyde		44000	U	5200	44000
Acetophenone		44000	U	6800	44000
Bis(2-chloroethyl)ether		4400	U	600	4400
2,2'-oxybis[1-chloropropane]		44000	U	4900	44000
N-Nitrosodi-n-propylamine		4400	U	740	4400
Nitrobenzene		4400	U	630	4400
Hexachloroethane		4400	U	490	4400
Isophorone		44000	U	5400	44000
2-Nitrophenol		44000	U	4900	44000
2,4-Dimethylphenol		44000	U	11000	44000
2,4-Dichlorophenol		44000	U	6500	44000
Bis(2-chloroethoxy)methane		44000	U	5700	44000
Naphthalene		230000		5100	44000
4-Chloroaniline		44000	U	12000	44000
Hexachlorobutadiene		9000	U	1100	9000
Caprolactam		44000	U	10000	44000
4-Chloro-3-methylphenol		44000	U	6700	44000
2-Methylnaphthalene		60000		5700	44000
Hexachlorobenzene		4400	U	600	4400
Hexachlorocyclopentadiene		44000	U	5200	44000
2,4,6-Trichlorophenol		44000	U	5200	44000
2,4,5-Trichlorophenol		44000	U	5700	44000
Diphenyl		29000	J	5900	44000
2-Chloronaphthalene		44000	U	4900	44000
2-Nitroaniline		90000	U	18000	90000
2,6-Dinitrotoluene		9000	U	1300	9000
Dimethyl phthalate		44000	U	5200	44000
Acenaphthylene		84000		5200	44000
3-Nitroaniline		90000	U	16000	90000
Acenaphthene		43000	J	6400	44000
4-Nitrophenol		130000	U	28000	130000
2,4-Dinitrophenol		130000	U	25000	130000
Dibenzofuran		82000		5200	44000
Diethyl phthalate		44000	U	5300	44000
Fluorene		91000		5700	44000
Fluoranthene		200000		5900	44000
Di-n-butyl phthalate		44000	U	5500	44000
2,4-Dinitrotoluene		9000	U	1500	9000
4-Chlorophenyl phenyl ether		44000	U	5200	44000
4-Nitroaniline		90000	U	14000	90000
4,6-Dinitro-2-methylphenol		130000	U	12000	130000
4-Bromophenyl phenyl ether		44000	U	4400	44000

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52701-1

Client Sample ID: Pre-Char 4 Waste 2

Lab Sample ID: 460-52701-1

Date Sampled: 03/18/2013 1645

Client Matrix: Solid

% Moisture: 25.1

Date Received: 03/20/2013 0900

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-152663	Instrument ID:	BNAMS4
Prep Method:	3541	Prep Batch:	460-152531	Lab File ID:	u85656.d
Dilution:	100			Initial Weight/Volume:	15.00 g
Analysis Date:	03/25/2013 1945	Run Type:	DL	Final Weight/Volume:	1 mL
Prep Date:	03/24/2013 1921			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Atrazine		44000	U	6800	44000
Anthracene		150000		5400	44000
Carbazole		42000	J	5200	44000
Phenanthrene		400000		5600	44000
Pentachlorophenol		130000	U	13000	130000
Pyrene		230000		3700	44000
Chrysene		87000		5200	44000
Benzo[k]fluoranthene		34000		340	4400
Benzo[g,h,i]perylene		46000		3300	44000
Benzo[b]fluoranthene		67000		280	4400
Benzo[a]pyrene		76000		310	4400
Benzo[a]anthracene		78000		310	4400
N-Nitrosodiphenylamine		44000	U	4400	44000
Butyl benzyl phthalate		44000	U	4000	44000
Bis(2-ethylhexyl) phthalate		44000	U	15000	44000
Di-n-octyl phthalate		44000	U	2800	44000
Indeno[1,2,3-cd]pyrene		43000		820	4400
Dibenz(a,h)anthracene		11000		560	4400
3,3'-Dichlorobenzidine		90000	U	15000	90000
1,2,4,5-Tetrachlorobenzene		44000	U *	5900	44000
2,3,4,6-Tetrachlorophenol		44000	U	5700	44000

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5	0	D	38 - 105
Phenol-d5	0	D	41 - 118
Terphenyl-d14	0	D	16 - 151
2,4,6-Tribromophenol	0	D	10 - 120
2-Fluorophenol	0	D	37 - 125
2-Fluorobiphenyl	0	D	40 - 109

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52701-1

Client Sample ID: Pre-Char 4 Waste 2

Lab Sample ID: 460-52701-1

Date Sampled: 03/18/2013 1645

Client Matrix: Solid

% Moisture: 25.1

Date Received: 03/20/2013 0900

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method: 8270C

Analysis Batch: 460-152663

Instrument ID: BNAMS4

Prep Method: 3541

Prep Batch: 460-152531

Lab File ID: u85656.d

Dilution: 100

Initial Weight/Volume: 15.00 g

Analysis Date: 03/25/2013 1945

Run Type: DL

Final Weight/Volume: 1 mL

Prep Date: 03/24/2013 1921

Injection Volume: 1 uL

Tentatively Identified Compounds

Number TIC's Found: 3

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
	C15H10 PAH	9.36	40000	J
	C17H12 PAH	10.51	37000	J
	C20H12 PAH	13.24	37000	J

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52701-1

Client Sample ID: Pre Char 3

Lab Sample ID: 460-52701-2

Date Sampled: 03/18/2013 0930

Client Matrix: Solid

% Moisture: 15.1

Date Received: 03/20/2013 0900

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-152663	Instrument ID:	BNAMS4
Prep Method:	3541	Prep Batch:	460-152531	Lab File ID:	u85662.d
Dilution:	5.0			Initial Weight/Volume:	14.98 g
Analysis Date:	03/25/2013 2153			Final Weight/Volume:	1 mL
Prep Date:	03/24/2013 1921			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Phenol		1900	U	260	1900
2-Chlorophenol		1900	U	260	1900
2-Methylphenol		1900	U	330	1900
4-Methylphenol		1900	U	380	1900
Benzaldehyde		1900	U	230	1900
Acetophenone		1900	U	300	1900
Bis(2-chloroethyl)ether		190	U	27	190
2,2'-oxybis[1-chloropropane]		1900	U	220	1900
N-Nitrosodi-n-propylamine		190	U	33	190
Nitrobenzene		190	U	28	190
Hexachloroethane		190	U	22	190
Isophorone		1900	U	240	1900
2-Nitrophenol		1900	U	220	1900
2,4-Dimethylphenol		1900	U	480	1900
2,4-Dichlorophenol		1900	U	290	1900
Bis(2-chloroethoxy)methane		1900	U	250	1900
Naphthalene		10000		230	1900
4-Chloroaniline		1900	U	520	1900
Hexachlorobutadiene		400	U	48	400
Caprolactam		1900	U	450	1900
4-Chloro-3-methylphenol		1900	U	290	1900
2-Methylnaphthalene		2800		250	1900
Hexachlorobenzene		190	U	27	190
Hexachlorocyclopentadiene		1900	U	230	1900
2,4,6-Trichlorophenol		1900	U	230	1900
2,4,5-Trichlorophenol		1900	U	250	1900
Diphenyl		1800	J	260	1900
2-Chloronaphthalene		1900	U	220	1900
2-Nitroaniline		4000	U	810	4000
2,6-Dinitrotoluene		400	U	59	400
Dimethyl phthalate		1900	U	230	1900
Acenaphthylene		5100		230	1900
3-Nitroaniline		4000	U	690	4000
Acenaphthene		2600		280	1900
4-Nitrophenol		5900	U	1300	5900
2,4-Dinitrophenol		5900	U	1100	5900
Dibenzofuran		5900		230	1900
Diethyl phthalate		1900	U	230	1900
Fluorene		7100		250	1900
Fluoranthene		21000		260	1900
Di-n-butyl phthalate		1900	U	240	1900
2,4-Dinitrotoluene		400	U	64	400
4-Chlorophenyl phenyl ether		1900	U	230	1900
4-Nitroaniline		4000	U	610	4000
4,6-Dinitro-2-methylphenol		5900	U	530	5900
4-Bromophenyl phenyl ether		1900	U	190	1900

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52701-1

Client Sample ID: Pre Char 3

Lab Sample ID: 460-52701-2

Date Sampled: 03/18/2013 0930

Client Matrix: Solid

% Moisture: 15.1

Date Received: 03/20/2013 0900

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-152663	Instrument ID:	BNAMS4
Prep Method:	3541	Prep Batch:	460-152531	Lab File ID:	u85662.d
Dilution:	5.0			Initial Weight/Volume:	14.98 g
Analysis Date:	03/25/2013 2153			Final Weight/Volume:	1 mL
Prep Date:	03/24/2013 1921			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Atrazine		1900	U	300	1900
Anthracene		11000		240	1900
Carbazole		3900		230	1900
Phenanthrene		27000		250	1900
Pentachlorophenol		5900	U	580	5900
Pyrene		23000		160	1900
Chrysene		9600		230	1900
Benzo[k]fluoranthene		4000		15	190
Benzo[g,h,i]perylene		5500		140	1900
Benzo[b]fluoranthene		8200		12	190
Benzo[a]pyrene		9100		14	190
Benzo[a]anthracene		9400		14	190
N-Nitrosodiphenylamine		1900	U	190	1900
Butyl benzyl phthalate		1900	U	180	1900
Bis(2-ethylhexyl) phthalate		1900	U	650	1900
Di-n-octyl phthalate		1900	U	120	1900
Indeno[1,2,3-cd]pyrene		5500		36	190
Dibenz(a,h)anthracene		1300		25	190
3,3'-Dichlorobenzidine		4000	U	680	4000
1,2,4,5-Tetrachlorobenzene		1900	U *	260	1900
2,3,4,6-Tetrachlorophenol		1900	U	250	1900

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5	48		38 - 105
Phenol-d5	62		41 - 118
Terphenyl-d14	94		16 - 151
2,4,6-Tribromophenol	44		10 - 120
2-Fluorophenol	57		37 - 125
2-Fluorobiphenyl	65		40 - 109

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52701-1

Client Sample ID: Pre Char 3

Lab Sample ID: 460-52701-2

Date Sampled: 03/18/2013 0930

Client Matrix: Solid

% Moisture: 15.1

Date Received: 03/20/2013 0900

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	460-152663	Instrument ID:	BNAMS4
Prep Method:	3541	Prep Batch:	460-152531	Lab File ID:	u85662.d
Dilution:	5.0			Initial Weight/Volume:	14.98 g
Analysis Date:	03/25/2013 2153			Final Weight/Volume:	1 mL
Prep Date:	03/24/2013 1921			Injection Volume:	1 uL

Tentatively Identified Compounds**Number TIC's Found: 14**

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
90-12-0	1-Methylnaphthalene	6.35	1700	J *
132-65-0	Dibenzothiophene	8.65	1900	J N
	C15H12 PAH-1	9.26	1700	J
	C15H12 PAH-2	9.29	1900	J
	C15H10 PAH	9.37	4500	J
	C16H12 PAH	9.55	2000	J
	C16H10 PAH	10.05	2000	J
	C17H12 PAH-1	10.51	2900	J
	C17H12 PAH-2	10.59	2400	J
	Unknown	10.62	1600	J
	C20H12 PAH-1	13.02	2500	J
	C20H12 PAH-2	13.25	5200	J
	C20H12 PAH-3	13.43	3400	J
	C22H12 PAH	15.49	2600	J

Client: GEI Consultants, Inc.

Job Number: 460-52701-1

Client Sample ID: Pre-Char 4 Waste 2

Lab Sample ID: 460-52701-1

Date Sampled: 03/18/2013 1645

Client Matrix: Solid

Date Received: 03/20/2013 0900

8270D Semivolatile Organic Compounds (GC/MS)-TCLP

Analysis Method:	8270D	Analysis Batch:	460-153728	Instrument ID:	BNAMS5
Prep Method:	3510C	Prep Batch:	460-152495	Lab File ID:	x35749.d
Dilution:	1.0	Leach Batch:	460-152369	Initial Weight/Volume:	250 mL
Analysis Date:	04/01/2013 1246			Final Weight/Volume:	2 mL
Prep Date:	03/24/2013 0930			Injection Volume:	
Leach Date:	03/22/2013 1801				

Analyte	DryWt Corrected: N	Result (mg/L)	Qualifier	MDL	RL
2-Methylphenol		0.044		0.0072	0.040
3 & 4 Methylphenol		0.095		0.0064	0.040
2,4,6-Trichlorophenol		0.040	U	0.0096	0.040
2,4,5-Trichlorophenol		0.040	U	0.010	0.040
Pentachlorophenol		0.12	U	0.021	0.12
1,4-Dichlorobenzene		0.040	U	0.010	0.040
Hexachloroethane		0.0040	U	0.0010	0.0040
Nitrobenzene		0.0040	U	0.0012	0.0040
Hexachlorobutadiene		0.0080	U	0.0023	0.0080
2,4-Dinitrotoluene		0.0080	U	0.0019	0.0080
Hexachlorobenzene		0.0040	U	0.0012	0.0040
Pyridine		0.040	U	0.0036	0.040

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5	121	*	56 - 112
Phenol-d5	34		10 - 48
Terphenyl-d14	91		50 - 122
2,4,6-Tribromophenol	102		46 - 122
2-Fluorophenol	46		10 - 65
2-Fluorobiphenyl	85		53 - 108

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52701-1

Client Sample ID: Pre-Char 4 Waste 2

Lab Sample ID: 460-52701-1

Date Sampled: 03/18/2013 1645

Client Matrix: Solid

% Moisture: 25.1

Date Received: 03/20/2013 0900

8015B Gasoline Range Organics - (GC)

Analysis Method:	8015B	Analysis Batch:	460-152957	Instrument ID:	VOAGC3
Prep Method:	5035	Prep Batch:	460-152145	Initial Weight/Volume:	5.33 g
Dilution:	1000			Final Weight/Volume:	10 mL
Analysis Date:	03/26/2013 2143			Injection Volume:	
Prep Date:	03/21/2013 1451			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	RL	RL
GRO		1900000	*	63000	63000
Surrogate		%Rec	Qualifier	Acceptance Limits	
a,a,a-Trifluorotoluene		198	*	70 - 130	

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52701-1

Client Sample ID: Pre Char 3

Lab Sample ID: 460-52701-2

Date Sampled: 03/18/2013 0930

Client Matrix: Solid

% Moisture: 15.1

Date Received: 03/20/2013 0900

8015B Gasoline Range Organics - (GC)

Analysis Method:	8015B	Analysis Batch:	460-152423	Instrument ID:	VOAGC3
Prep Method:	5035	Prep Batch:	460-152145	Initial Weight/Volume:	5.28 g
Dilution:	50			Final Weight/Volume:	10 mL
Analysis Date:	03/22/2013 0043			Injection Volume:	
Prep Date:	03/21/2013 1453			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	RL	RL
GRO		3500		2800	2800

Surrogate	%Rec	Qualifier	Acceptance Limits
a,a,a-Trifluorotoluene	101		70 - 130

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52701-1

Client Sample ID: Pre-Char 4 Waste 2

Lab Sample ID: 460-52701-1

Date Sampled: 03/18/2013 1645

Client Matrix: Solid

% Moisture: 25.1

Date Received: 03/20/2013 0900

8015B Diesel Range Organics (DRO) (GC)

Analysis Method:	8015B	Analysis Batch:	460-152644	Instrument ID:	BNAGC3
Prep Method:	3546	Prep Batch:	460-152223	Initial Weight/Volume:	15.00 g
Dilution:	10			Final Weight/Volume:	1 mL
Analysis Date:	03/25/2013 1455			Injection Volume:	1 uL
Prep Date:	03/22/2013 0244			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
Diesel Range Organics [C10-C28]		3400		90	90

Surrogate	%Rec	Qualifier	Acceptance Limits
o-Terphenyl	0	D	52 - 134

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52701-1

Client Sample ID: Pre Char 3

Lab Sample ID: 460-52701-2

Date Sampled: 03/18/2013 0930

Client Matrix: Solid

% Moisture: 15.1

Date Received: 03/20/2013 0900

8015B Diesel Range Organics (DRO) (GC)

Analysis Method:	8015B	Analysis Batch:	460-152644	Instrument ID:	BNAGC3
Prep Method:	3546	Prep Batch:	460-152223	Initial Weight/Volume:	15.04 g
Dilution:	1.0			Final Weight/Volume:	1 mL
Analysis Date:	03/25/2013 1509			Injection Volume:	1 uL
Prep Date:	03/22/2013 0244			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL	RL
Diesel Range Organics [C10-C28]		180		7.9	7.9

Surrogate	%Rec	Qualifier	Acceptance Limits
o-Terphenyl	91		52 - 134

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52701-1

Client Sample ID: Pre-Char 4 Waste 2

Lab Sample ID: 460-52701-1

Date Sampled: 03/18/2013 1645

Client Matrix: Solid

Date Received: 03/20/2013 0900

8081A Organochlorine Pesticides (GC)-TCLP

Analysis Method:	8081A	Analysis Batch:	460-152560	Instrument ID:	PESTGC4
Prep Method:	3510C	Prep Batch:	460-152430	Initial Weight/Volume:	100 mL
Dilution:	1.0	Leach Batch:	460-152369	Final Weight/Volume:	5 mL
Analysis Date:	03/24/2013 1735			Injection Volume:	
Prep Date:	03/23/2013 1108			Result Type:	PRIMARY
Leach Date:	03/22/2013 1801				

Analyte	DryWt Corrected: N	Result (mg/L)	Qualifier	MDL	RL
Chlordane		0.0050	U	0.0033	0.0050
Endrin		0.00050	U	0.00010	0.00050
Heptachlor		0.00050	U	0.00010	0.00050
Heptachlor epoxide		0.00050	U	0.00010	0.00050
gamma-BHC (Lindane)		0.00050	U	0.00012	0.00050
Methoxychlor		0.00050	U*	0.00013	0.00050
Toxaphene		0.0050	U	0.0020	0.0050

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	103		46 - 140
DCB Decachlorobiphenyl	125		55 - 150

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52701-1

Client Sample ID: Pre-Char 4 Waste 2

Lab Sample ID: 460-52701-1

Date Sampled: 03/18/2013 1645

Client Matrix: Solid

Date Received: 03/20/2013 0900

8081A Organochlorine Pesticides (GC)-TCLP

Analysis Method:	8081A	Analysis Batch:	460-152560	Instrument ID:	PESTGC4
Prep Method:	3510C	Prep Batch:	460-152430	Initial Weight/Volume:	100 mL
Dilution:	1.0	Leach Batch:	460-152369	Final Weight/Volume:	5 mL
Analysis Date:	03/24/2013 1735			Injection Volume:	
Prep Date:	03/23/2013 1108			Result Type:	SECONDARY
Leach Date:	03/22/2013 1801				

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	84		46 - 140
DCB Decachlorobiphenyl	123		55 - 150

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52701-1

Client Sample ID: Pre-Char 4 Waste 2

Lab Sample ID: 460-52701-1

Date Sampled: 03/18/2013 1645

Client Matrix: Solid

% Moisture: 25.1

Date Received: 03/20/2013 0900

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method: 8082	Analysis Batch: 460-152360	Instrument ID: PESTGC7
Prep Method: 3546	Prep Batch: 460-152232	Initial Weight/Volume: 15.05 g
Dilution: 1.0		Final Weight/Volume: 10 mL
Analysis Date: 03/22/2013 2151		Injection Volume:
Prep Date: 03/22/2013 0657		Result Type: PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor 1016		89	U	20	89
Aroclor 1221		89	U	20	89
Aroclor 1232		89	U	20	89
Aroclor 1242		89	U	20	89
Aroclor 1248		89	U	20	89
Aroclor 1254		89	U	25	89
Aroclor 1260		89	U	25	89
Aroclor 1262		89	U	25	89
Aroclor 1268		89	U	25	89
Polychlorinated biphenyls, Total		89	U	25	89

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	113		45 - 138

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52701-1

Client Sample ID: Pre-Char 4 Waste 2

Lab Sample ID: 460-52701-1

Date Sampled: 03/18/2013 1645

Client Matrix: Solid

% Moisture: 25.1

Date Received: 03/20/2013 0900

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method: 8082

Analysis Batch: 460-152360

Instrument ID: PESTGC7

Prep Method: 3546

Prep Batch: 460-152232

Initial Weight/Volume: 15.05 g

Dilution: 1.0

Final Weight/Volume: 10 mL

Analysis Date: 03/22/2013 2151

Injection Volume:

Prep Date: 03/22/2013 0657

Result Type: SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	92		45 - 138

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52701-1

Client Sample ID: Pre Char 3

Lab Sample ID: 460-52701-2

Date Sampled: 03/18/2013 0930

Client Matrix: Solid

% Moisture: 15.1

Date Received: 03/20/2013 0900

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method: 8082	Analysis Batch: 460-152360	Instrument ID: PESTGC7
Prep Method: 3546	Prep Batch: 460-152232	Initial Weight/Volume: 15.01 g
Dilution: 1.0		Final Weight/Volume: 10 mL
Analysis Date: 03/22/2013 2208		Injection Volume:
Prep Date: 03/22/2013 0657		Result Type: PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor 1016		79	U	18	79
Aroclor 1221		79	U	18	79
Aroclor 1232		79	U	18	79
Aroclor 1242		79	U	18	79
Aroclor 1248		79	U	18	79
Aroclor 1254		79	U	22	79
Aroclor 1260		79	U	22	79
Aroclor 1262		79	U	22	79
Aroclor 1268		79	U	22	79
Polychlorinated biphenyls, Total		79	U	22	79

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	117		45 - 138

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52701-1

Client Sample ID: Pre Char 3

Lab Sample ID: 460-52701-2

Date Sampled: 03/18/2013 0930

Client Matrix: Solid

% Moisture: 15.1

Date Received: 03/20/2013 0900

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method: 8082

Analysis Batch: 460-152360

Instrument ID: PESTGC7

Prep Method: 3546

Prep Batch: 460-152232

Initial Weight/Volume: 15.01 g

Dilution: 1.0

Final Weight/Volume: 10 mL

Analysis Date: 03/22/2013 2208

Injection Volume:

Prep Date: 03/22/2013 0657

Result Type: SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	114		45 - 138

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52701-1

Client Sample ID: Pre-Char 4 Waste 2

Lab Sample ID: 460-52701-1

Date Sampled: 03/18/2013 1645

Client Matrix: Solid

Date Received: 03/20/2013 0900

8151A Herbicides (GC)-TCLP

Analysis Method:	8151A	Analysis Batch:	460-152946	Instrument ID:	PESTGC3
Prep Method:	8151A	Prep Batch:	460-152591	Initial Weight/Volume:	15 mL
Dilution:	1.0	Leach Batch:	460-152369	Final Weight/Volume:	5 mL
Analysis Date:	03/26/2013 2057			Injection Volume:	
Prep Date:	03/25/2013 1013			Result Type:	PRIMARY
Leach Date:	03/22/2013 1801				

Analyte	DryWt Corrected: N	Result (mg/L)	Qualifier	MDL	RL
2,4-D		0.017	U	0.0033	0.017
Silvex (2,4,5-TP)		0.017	U	0.0030	0.017
Surrogate		%Rec	Qualifier	Acceptance Limits	
2,4-Dichlorophenylacetic acid		127		72 - 145	

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52701-1

Client Sample ID: Pre-Char 4 Waste 2

Lab Sample ID: 460-52701-1

Date Sampled: 03/18/2013 1645

Client Matrix: Solid

Date Received: 03/20/2013 0900

8151A Herbicides (GC)-TCLP

Analysis Method:	8151A	Analysis Batch:	460-152946	Instrument ID:	PESTGC3
Prep Method:	8151A	Prep Batch:	460-152591	Initial Weight/Volume:	15 mL
Dilution:	1.0	Leach Batch:	460-152369	Final Weight/Volume:	5 mL
Analysis Date:	03/26/2013 2057			Injection Volume:	
Prep Date:	03/25/2013 1013			Result Type:	SECONDARY
Leach Date:	03/22/2013 1801				

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4-Dichlorophenylacetic acid	119		72 - 145

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52701-1

Client Sample ID: Pre-Char 4 Waste 2

Lab Sample ID: 460-52701-1

Date Sampled: 03/18/2013 1645

Client Matrix: Solid

% Moisture: 25.1

Date Received: 03/20/2013 0900

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	460-152385	Instrument ID:	ICP5
Prep Method:	3050B	Prep Batch:	460-152243	Lab File ID:	03222013.asc
Dilution:	4.0			Initial Weight/Volume:	1.06 g
Analysis Date:	03/22/2013 1531			Final Weight/Volume:	50 mL
Prep Date:	03/22/2013 0751				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		11800		22.9	50.4
Antimony		2.5	U	1.6	2.5
Arsenic		5.9		1.2	1.3
Barium		100		1.4	50.4
Beryllium		0.62		0.18	0.50
Cadmium		1.3	U	0.19	1.3
Chromium		17.6		1.1	2.5
Cobalt		7.5	J	1.1	12.6
Copper		39.3		2.4	6.3
Iron		25900		15.2	37.8
Lead		40.4		1.1	1.3
Magnesium		8600		90.7	1260
Manganese		709		1.1	3.8
Nickel		20.3		1.1	10.1
Potassium		1970		135	1260
Selenium		2.5	U	1.7	2.5
Silver		2.5	U	0.25	2.5
Sodium		1260	U	199	1260
Thallium		2.5	U	1.4	2.5
Vanadium		19.4		0.97	12.6
Zinc		73.2		1.4	7.6

Analysis Method:	6010B	Analysis Batch:	460-152385	Instrument ID:	ICP5
Prep Method:	3050B	Prep Batch:	460-152243	Lab File ID:	03222013.asc
Dilution:	10			Initial Weight/Volume:	1.06 g
Analysis Date:	03/22/2013 1815			Final Weight/Volume:	50 mL
Prep Date:	03/22/2013 0751				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Calcium		74800		223	3150

6010B Metals (ICP)-TCLP

Analysis Method:	6010B	Analysis Batch:	460-152520	Instrument ID:	ICP5
Prep Method:	3010A	Prep Batch:	460-152459	Lab File ID:	03242013.asc
Dilution:	5.0	Leach Batch:	460-152369	Initial Weight/Volume:	50 mL
Analysis Date:	03/24/2013 1405			Final Weight/Volume:	50 mL
Prep Date:	03/23/2013 1340				
Leach Date:	03/22/2013 1801				

Analyte	DryWt Corrected: N	Result (ug/L)	Qualifier	MDL	RL
Arsenic		25.0	U	18.6	25.0
Barium		1290		29.7	1000

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52701-1

Client Sample ID: Pre-Char 4 Waste 2

Lab Sample ID: 460-52701-1

Date Sampled: 03/18/2013 1645

Client Matrix: Solid

Date Received: 03/20/2013 0900

6010B Metals (ICP)-TCLP

Analyte	DryWt Corrected: N	Result (ug/L)	Qualifier	MDL	RL
Cadmium		25.0	U	4.1	25.0
Chromium		50.0	U	22.3	50.0
Lead		25.0	U	20.1	25.0
Selenium		50.0	U	28.8	50.0
Silver		50.0	U	6.7	50.0

7470A Mercury (CVAA)-TCLP

Analysis Method:	7470A	Analysis Batch:	460-152469	Instrument ID:	LEEMAN5
Prep Method:	7470A	Prep Batch:	460-152436	Lab File ID:	152435.PRN
Dilution:	1.0	Leach Batch:	460-152369	Initial Weight/Volume:	30 mL
Analysis Date:	03/23/2013 1648			Final Weight/Volume:	30 mL
Prep Date:	03/23/2013 1154				
Leach Date:	03/22/2013 1801				

Analyte	DryWt Corrected: N	Result (ug/L)	Qualifier	MDL	RL
Mercury		0.20	U	0.16	0.20

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	460-152523	Instrument ID:	LEEMAN3
Prep Method:	7471A	Prep Batch:	460-152503	Lab File ID:	152503.PRN
Dilution:	1.0			Initial Weight/Volume:	0.62 g
Analysis Date:	03/24/2013 1654			Final Weight/Volume:	50 mL
Prep Date:	03/24/2013 1057				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.95		0.016	0.022

Analytical Data

Client: GEI Consultants, Inc.

Job Number: 460-52701-1

Client Sample ID: Pre Char 3

Lab Sample ID: 460-52701-2

Date Sampled: 03/18/2013 0930

Client Matrix: Solid

% Moisture: 15.1

Date Received: 03/20/2013 0900

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	460-152385	Instrument ID:	ICP5
Prep Method:	3050B	Prep Batch:	460-152243	Lab File ID:	03222013.asc
Dilution:	4.0			Initial Weight/Volume:	1.00 g
Analysis Date:	03/22/2013 1535			Final Weight/Volume:	50 mL
Prep Date:	03/22/2013 0751				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		14000		21.4	47.1
Antimony		2.4	U	1.5	2.4
Arsenic		8.3		1.1	1.2
Barium		159		1.3	47.1
Beryllium		0.73		0.17	0.47
Cadmium		1.2	U	0.17	1.2
Calcium		15100		83.4	1180
Chromium		17.4		1.0	2.4
Cobalt		10.3	J	1.0	11.8
Copper		24.3		2.3	5.9
Iron		26700		14.3	35.3
Lead		34.8		1.0	1.2
Magnesium		5780		84.8	1180
Manganese		1190		1.0	3.5
Nickel		24.6		1.0	9.4
Potassium		1420		126	1180
Selenium		2.4	U	1.6	2.4
Silver		2.4	U	0.24	2.4
Sodium		270	J	186	1180
Thallium		2.4	U	1.3	2.4
Vanadium		19.4		0.90	11.8
Zinc		72.9		1.3	7.1

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	460-152523	Instrument ID:	LEEMAN3
Prep Method:	7471A	Prep Batch:	460-152503	Lab File ID:	152503.PRN
Dilution:	1.0			Initial Weight/Volume:	0.61 g
Analysis Date:	03/24/2013 1656			Final Weight/Volume:	50 mL
Prep Date:	03/24/2013 1057				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.019	J	0.014	0.020

Client: GEI Consultants, Inc.

Job Number: 460-52701-1

General Chemistry

Client Sample ID: Pre-Char 4 Waste 2

Lab Sample ID: 460-52701-1

Date Sampled: 03/18/2013 1645

Client Matrix: Solid

% Moisture: 25.1

Date Received: 03/20/2013 0900

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Chromium (hexavalent)	2.7	U	mg/Kg	0.68	2.7	1.0	7196A
	Analysis Batch: 460-152310	Analysis Date: 03/22/2013 1608					DryWt Corrected: Y
	Prep Batch: 460-152304	Prep Date: 03/22/2013 1258					
Cyanide, Total	2.3		mg/Kg	0.073	0.13	1.0	9012A
	Analysis Batch: 460-152521	Analysis Date: 03/24/2013 1642					DryWt Corrected: Y
	Prep Batch: 460-152502	Prep Date: 03/24/2013 1100					
Halogens, Extractable Organic	66.8	U	mg/Kg	46.8	66.8	1.0	9023
	Analysis Batch: 490-68532	Analysis Date: 03/28/2013 0800					DryWt Corrected: Y
	Prep Batch: 490-68479	Prep Date: 03/27/2013 1539					
Analyte	Result	Qual	Units			Dil	Method
Corrosivity	8.29	HF	SU			1.0	9045C
	Analysis Batch: 460-152355	Analysis Date: 03/22/2013 1425					DryWt Corrected: N
Analyte	Result	Qual	Units	RL	RL	Dil	Method
Burn Rate	2.20	U	mm/sec	2.20	2.20	1.0	1030
	Analysis Batch: 460-152639	Analysis Date: 03/25/2013 1300					DryWt Corrected: N
Cyanide, Reactive	25.0	U	mg/Kg	25.0	25.0	1.0	9014
	Analysis Batch: 460-152607	Analysis Date: 03/25/2013 1106					DryWt Corrected: N
	Prep Batch: 460-152592	Prep Date: 03/25/2013 1015					
Sulfide, Reactive	20.0	U	mg/Kg	20.0	20.0	1.0	9034
	Analysis Batch: 460-152610	Analysis Date: 03/25/2013 1113					DryWt Corrected: N
	Prep Batch: 460-152602	Prep Date: 03/25/2013 1045					
BTU	DNF		BTU/lb	2.00	2.00	1.0	D240-87
	Analysis Batch: 680-271263	Analysis Date: 03/29/2013 1624					DryWt Corrected: N
	Prep Batch: 680-271195	Prep Date: 03/29/2013 1120					
Percent Moisture	25.1		%	1.0	1.0	1.0	Moisture
	Analysis Batch: 460-152317	Analysis Date: 03/22/2013 1353					DryWt Corrected: N
Percent Solids	74.9		%	1.0	1.0	1.0	Moisture
	Analysis Batch: 460-152317	Analysis Date: 03/22/2013 1353					DryWt Corrected: N

Client: GEI Consultants, Inc.

Job Number: 460-52701-1

General Chemistry

Client Sample ID: Pre Char 3

Lab Sample ID: 460-52701-2

Date Sampled: 03/18/2013 0930

Client Matrix: Solid

% Moisture: 15.1

Date Received: 03/20/2013 0900

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Cyanide, Total	0.21		mg/Kg	0.065	0.12	1.0	9012A
	Analysis Batch: 460-152521	Analysis Date: 03/24/2013 1643					DryWt Corrected: Y
	Prep Batch: 460-152502	Prep Date: 03/24/2013 1100					

Analyte	Result	Qual	Units	RL	RL	Dil	Method
BTU	DNF		BTU/lb	2.00	2.00	1.0	D240-87
	Analysis Batch: 680-271263	Analysis Date: 03/29/2013 1624					DryWt Corrected: N
	Prep Batch: 680-271195	Prep Date: 03/29/2013 1120					
Percent Moisture	15.1		%	1.0	1.0	1.0	Moisture
	Analysis Batch: 460-152317	Analysis Date: 03/22/2013 1353					DryWt Corrected: N
Percent Solids	84.9		%	1.0	1.0	1.0	Moisture
	Analysis Batch: 460-152317	Analysis Date: 03/22/2013 1353					DryWt Corrected: N

DATA REPORTING QUALIFIERS

Client: GEI Consultants, Inc.

Job Number: 460-52701-1

Lab Section	Qualifier	Description
GC/MS VOA	U	Analyzed for but not detected.
	E	Compound concentration exceeds the upper level of the calibration range of the instrument for that specific analysis.
	J	Indicates an estimated value.
	N	This flag indicates the presumptive evidence of a compound.
GC/MS Semi VOA	U	Analyzed for but not detected.
	J	Indicates an estimated value.
	*	LCS or LCSD exceeds the control limits
	*	Surrogate exceeds the control limit
	D	The reported value is from a dilution.
	A	The tentatively identified compound is a suspected aldol-condensation product.
	N	This flag indicates the presumptive evidence of a compound.
GC VOA	U	Analyzed for but not detected.
	*	RPD of the LCS and LCSD exceeds the control limits
	*	Surrogate exceeds the control limit
GC Semi VOA	U	Analyzed for but not detected.
	*	LCS or LCSD exceeds the control limits
	D	The reported value is from a dilution.
Metals	U	Indicates analyzed for but not detected.
	J	Sample result is greater than the MDL but below the CRDL

DATA REPORTING QUALIFIERS

Client: GEI Consultants, Inc.

Job Number: 460-52701-1

Lab Section	Qualifier	Description
General Chemistry	HF	Field parameter with a holding time of 15 minutes
	U	Indicates analyzed for but not detected.

QUALITY CONTROL RESULTS

Quality Control Results

Client: GEI Consultants, Inc.

Job Number: 460-52701-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Prep Batch: 460-152150					
LB 460-152150/1-A	TCLP SPLPE Leachate Blank	P	Solid	1311	
460-52701-1	Pre-Char 4 Waste 2	P	Solid	1311	
Prep Batch: 460-152166					
460-52701-1	Pre-Char 4 Waste 2	T	Solid	5035	
460-52701-2	Pre Char 3	T	Solid	5035	
Analysis Batch:460-152399					
LCS 460-152399/3	Lab Control Sample	T	Solid	8260B	
MB 460-152399/4	Method Blank	T	Solid	8260B	
460-52701-1	Pre-Char 4 Waste 2	T	Solid	8260B	460-152166
460-52701-2	Pre Char 3	T	Solid	8260B	460-152166
Analysis Batch:460-152617					
LB 460-152150/1-A	TCLP SPLPE Leachate Blank	P	Solid	8260B	
LCS 460-152617/3	Lab Control Sample	T	Water	8260B	
MB 460-152617/2	Method Blank	T	Water	8260B	
460-52701-1	Pre-Char 4 Waste 2	P	Solid	8260B	

Report Basis

P = TCLP

T = Total

Quality Control Results

Client: GEI Consultants, Inc.

Job Number: 460-52701-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS Semi VOA					
Prep Batch: 460-152369					
LB 460-152369/1-E	TCLP SPLPE Leachate Blank	P	Solid	1311	
460-52701-1	Pre-Char 4 Waste 2	P	Solid	1311	
Prep Batch: 460-152495					
LCS 460-152495/2-A	Lab Control Sample	T	Water	3510C	
MB 460-152495/1-A	Method Blank	T	Water	3510C	
LB 460-152369/1-E	TCLP SPLPE Leachate Blank	P	Solid	3510C	460-152369
460-52701-1	Pre-Char 4 Waste 2	P	Solid	3510C	460-152369
Prep Batch: 460-152531					
LCS 460-152531/2-A	Lab Control Sample	T	Solid	3541	
MB 460-152531/1-A	Method Blank	T	Solid	3541	
460-52701-1DL	Pre-Char 4 Waste 2	T	Solid	3541	
460-52701-2	Pre Char 3	T	Solid	3541	
Analysis Batch:460-152619					
LCS 460-152531/2-A	Lab Control Sample	T	Solid	8270C	460-152531
MB 460-152531/1-A	Method Blank	T	Solid	8270C	460-152531
Analysis Batch:460-152663					
460-52701-1DL	Pre-Char 4 Waste 2	T	Solid	8270C	460-152531
460-52701-2	Pre Char 3	T	Solid	8270C	460-152531
Analysis Batch:460-153728					
LB 460-152369/1-E	TCLP SPLPE Leachate Blank	P	Solid	8270D	460-152495
LCS 460-152495/2-A	Lab Control Sample	T	Water	8270D	460-152495
MB 460-152495/1-A	Method Blank	T	Water	8270D	460-152495
460-52701-1	Pre-Char 4 Waste 2	P	Solid	8270D	460-152495

Report Basis

P = TCLP

T = Total

Quality Control Results

Client: GEI Consultants, Inc.

Job Number: 460-52701-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC VOA					
Prep Batch: 460-152145					
460-52701-1	Pre-Char 4 Waste 2	T	Solid	5035	
460-52701-2	Pre Char 3	T	Solid	5035	
Analysis Batch:460-152423					
LCS 460-152423/2	Lab Control Sample	T	Solid	8015B	
LCSD 460-152423/3	Lab Control Sample Duplicate	T	Solid	8015B	
MB 460-152423/4	Method Blank	T	Solid	8015B	
460-52701-2	Pre Char 3	T	Solid	8015B	460-152145
Analysis Batch:460-152957					
LCS 460-152957/2	Lab Control Sample	T	Solid	8015B	
LCSD 460-152957/3	Lab Control Sample Duplicate	T	Solid	8015B	
MB 460-152957/4	Method Blank	T	Solid	8015B	
460-52701-1	Pre-Char 4 Waste 2	T	Solid	8015B	460-152145

Report Basis

T = Total

Quality Control Results

Client: GEI Consultants, Inc.

Job Number: 460-52701-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC Semi VOA					
Prep Batch: 460-152187					
LB 460-152187/1-E	TCLP SPLPE Leachate Blank	P	Solid	1311	
Prep Batch: 460-152223					
LCS 460-152223/2-A	Lab Control Sample	T	Solid	3546	
MB 460-152223/1-A	Method Blank	T	Solid	3546	
460-52701-1	Pre-Char 4 Waste 2	T	Solid	3546	
460-52701-2	Pre Char 3	T	Solid	3546	
Prep Batch: 460-152232					
LCS 460-152232/2-A	Lab Control Sample	T	Solid	3546	
MB 460-152232/1-A	Method Blank	T	Solid	3546	
460-52701-1	Pre-Char 4 Waste 2	T	Solid	3546	
460-52701-2	Pre Char 3	T	Solid	3546	
Analysis Batch:460-152360					
LCS 460-152232/2-A	Lab Control Sample	T	Solid	8082	460-152232
MB 460-152232/1-A	Method Blank	T	Solid	8082	460-152232
460-52701-1	Pre-Char 4 Waste 2	T	Solid	8082	460-152232
460-52701-2	Pre Char 3	T	Solid	8082	460-152232
Prep Batch: 460-152369					
LB 460-152369/1-B	TCLP SPLPE Leachate Blank	P	Solid	1311	
LB 460-152369/1-G	TCLP SPLPE Leachate Blank	P	Solid	1311	
460-52701-1	Pre-Char 4 Waste 2	P	Solid	1311	
Prep Batch: 460-152430					
LCS 460-152430/2-A	Lab Control Sample	T	Water	3510C	
MB 460-152430/1-A	Method Blank	T	Water	3510C	
LB 460-152187/1-E	TCLP SPLPE Leachate Blank	P	Solid	3510C	460-152187
LB 460-152369/1-B	TCLP SPLPE Leachate Blank	P	Solid	3510C	460-152369
460-52701-1	Pre-Char 4 Waste 2	P	Solid	3510C	460-152369
Analysis Batch:460-152560					
LB 460-152187/1-E	TCLP SPLPE Leachate Blank	P	Solid	8081A	460-152430
LB 460-152369/1-B	TCLP SPLPE Leachate Blank	P	Solid	8081A	460-152430
LCS 460-152430/2-A	Lab Control Sample	T	Water	8081A	460-152430
MB 460-152430/1-A	Method Blank	T	Water	8081A	460-152430
460-52701-1	Pre-Char 4 Waste 2	P	Solid	8081A	460-152430
Prep Batch: 460-152591					
LCS 460-152591/2-A	Lab Control Sample	T	Water	8151A	
LCSD 460-152591/3-A	Lab Control Sample Duplicate	T	Water	8151A	
MB 460-152591/1-A	Method Blank	T	Water	8151A	
LB 460-152369/1-G	TCLP SPLPE Leachate Blank	P	Solid	8151A	460-152369
460-52701-1	Pre-Char 4 Waste 2	P	Solid	8151A	460-152369

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Quality Control Results

Client: GEI Consultants, Inc.

Job Number: 460-52701-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC Semi VOA					
Analysis Batch:460-152644					
LCS 460-152223/2-A	Lab Control Sample	T	Solid	8015B	460-152223
MB 460-152223/1-A	Method Blank	T	Solid	8015B	460-152223
460-52701-1	Pre-Char 4 Waste 2	T	Solid	8015B	460-152223
460-52701-2	Pre Char 3	T	Solid	8015B	460-152223
Analysis Batch:460-152945					
LCS 460-152591/2-A	Lab Control Sample	T	Water	8151A	460-152591
LCSD 460-152591/3-A	Lab Control Sample Duplicate	T	Water	8151A	460-152591
MB 460-152591/1-A	Method Blank	T	Water	8151A	460-152591
Analysis Batch:460-152946					
LB 460-152369/1-G	TCLP SPLPE Leachate Blank	P	Solid	8151A	460-152591
460-52701-1	Pre-Char 4 Waste 2	P	Solid	8151A	460-152591

Report Basis

P = TCLP

T = Total

Quality Control Results

Client: GEI Consultants, Inc.

Job Number: 460-52701-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report		Method	Prep Batch
		Basis	Client Matrix		
Metals					
Prep Batch: 460-152243					
LCSSRM 460-152243/2-A ^4	LCS-Certified Reference Material	T	Solid	3050B	
MB 460-152243/1-A ^2	Method Blank	T	Solid	3050B	
460-52701-1	Pre-Char 4 Waste 2	T	Solid	3050B	
460-52701-2	Pre Char 3	T	Solid	3050B	
Prep Batch: 460-152369					
LB 460-152369/1-C	TCLP SPLPE Leachate Blank	P	Solid	1311	
LB 460-152369/1-D ^5	TCLP SPLPE Leachate Blank	P	Solid	1311	
460-52701-1	Pre-Char 4 Waste 2	P	Solid	1311	
Analysis Batch:460-152385					
LCSSRM 460-152243/2-A ^4	LCS-Certified Reference Material	T	Solid	6010B	460-152243
MB 460-152243/1-A ^2	Method Blank	T	Solid	6010B	460-152243
460-52701-1	Pre-Char 4 Waste 2	T	Solid	6010B	460-152243
460-52701-2	Pre Char 3	T	Solid	6010B	460-152243
Prep Batch: 460-152436					
LCS 460-152436/2-A	Lab Control Sample	T	Water	7470A	
MB 460-152436/1-A	Method Blank	T	Water	7470A	
LB 460-152369/1-C	TCLP SPLPE Leachate Blank	P	Solid	7470A	460-152369
460-52701-1	Pre-Char 4 Waste 2	P	Solid	7470A	460-152369
Prep Batch: 460-152459					
LCS 460-152459/2-A	Lab Control Sample	T	Water	3010A	
MB 460-152459/1-A	Method Blank	T	Water	3010A	
LB 460-152369/1-D ^5	TCLP SPLPE Leachate Blank	P	Solid	3010A	460-152369
460-52701-1	Pre-Char 4 Waste 2	P	Solid	3010A	460-152369
Analysis Batch:460-152469					
LB 460-152369/1-C	TCLP SPLPE Leachate Blank	P	Solid	7470A	460-152436
LCS 460-152436/2-A	Lab Control Sample	T	Water	7470A	460-152436
MB 460-152436/1-A	Method Blank	T	Water	7470A	460-152436
460-52701-1	Pre-Char 4 Waste 2	P	Solid	7470A	460-152436
Prep Batch: 460-152503					
LCSSRM 460-152503/2-A ^50	LCS-Certified Reference Material	T	Solid	7471A	
MB 460-152503/1-A	Method Blank	T	Solid	7471A	
460-52701-1	Pre-Char 4 Waste 2	T	Solid	7471A	
460-52701-2	Pre Char 3	T	Solid	7471A	
Analysis Batch:460-152520					
LB 460-152369/1-D ^5	TCLP SPLPE Leachate Blank	P	Solid	6010B	460-152459
LCS 460-152459/2-A	Lab Control Sample	T	Water	6010B	460-152459
MB 460-152459/1-A	Method Blank	T	Water	6010B	460-152459
460-52701-1	Pre-Char 4 Waste 2	P	Solid	6010B	460-152459

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Quality Control Results

Client: GEI Consultants, Inc.

Job Number: 460-52701-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Analysis Batch:460-152523					
LCSSRM 460-152503/2-A ^50	LCS-Certified Reference Material	T	Solid	7471A	460-152503
MB 460-152503/1-A	Method Blank	T	Solid	7471A	460-152503
460-52701-1	Pre-Char 4 Waste 2	T	Solid	7471A	460-152503
460-52701-2	Pre Char 3	T	Solid	7471A	460-152503

Report Basis

P = TCLP

T = Total

Quality Control Results

Client: GEI Consultants, Inc.

Job Number: 460-52701-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Prep Batch: 490-68479					
LCS 490-68479/2-A	Lab Control Sample	T	Solid	9023	
LCSD 490-68479/25-A	Lab Control Sample Duplicate	T	Solid	9023	
MB 490-68479/1-A	Method Blank	T	Solid	9023	
460-52701-1	Pre-Char 4 Waste 2	T	Solid	9023	
Analysis Batch:490-68532					
LCS 490-68479/2-A	Lab Control Sample	T	Solid	9023	490-68479
LCSD 490-68479/25-A	Lab Control Sample Duplicate	T	Solid	9023	490-68479
MB 490-68479/1-A	Method Blank	T	Solid	9023	490-68479
460-52701-1	Pre-Char 4 Waste 2	T	Solid	9023	490-68479
Prep Batch: 460-152304					
LCSI 460-152304/3-A	Lab Control Sample Insoluble	T	Solid	3060A	
LCSS 460-152304/2-A	Lab Control Sample Soluble	T	Solid	3060A	
MB 460-152304/1-A	Method Blank	T	Solid	3060A	
460-52701-1	Pre-Char 4 Waste 2	T	Solid	3060A	
Analysis Batch:460-152310					
LCSI 460-152304/3-A	Lab Control Sample Insoluble	T	Solid	7196A	460-152304
LCSS 460-152304/2-A	Lab Control Sample Soluble	T	Solid	7196A	460-152304
MB 460-152304/1-A	Method Blank	T	Solid	7196A	460-152304
460-52701-1	Pre-Char 4 Waste 2	T	Solid	7196A	460-152304
Analysis Batch:460-152317					
460-52701-1	Pre-Char 4 Waste 2	T	Solid	Moisture	
460-52701-2	Pre Char 3	T	Solid	Moisture	
Analysis Batch:460-152355					
LCSSRM 460-152355/3	LCS-Certified Reference Material	T	Solid	9045C	
MB 460-152355/2	Method Blank	T	Solid	9045C	
460-52701-1	Pre-Char 4 Waste 2	T	Solid	9045C	
Prep Batch: 460-152502					
HLCS 460-152502/3-A	High Level Control Sample	T	Solid	9012A	
LLCS 460-152502/2-A	Low Level Control Sample	T	Solid	9012A	
MB 460-152502/1-A	Method Blank	T	Solid	9012A	
460-52701-1	Pre-Char 4 Waste 2	T	Solid	9012A	
460-52701-2	Pre Char 3	T	Solid	9012A	
Analysis Batch:460-152521					
HLCS 460-152502/3-A	High Level Control Sample	T	Solid	9012A	460-152502
LLCS 460-152502/2-A	Low Level Control Sample	T	Solid	9012A	460-152502
MB 460-152502/1-A	Method Blank	T	Solid	9012A	460-152502
460-52701-1	Pre-Char 4 Waste 2	T	Solid	9012A	460-152502
460-52701-2	Pre Char 3	T	Solid	9012A	460-152502

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Quality Control Results

Client: GEI Consultants, Inc.

Job Number: 460-52701-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Prep Batch: 460-152592					
LCS 460-152592/2-A	Lab Control Sample	T	Solid	7.3.3	
MB 460-152592/1-A	Method Blank	T	Solid	7.3.3	
460-52701-1	Pre-Char 4 Waste 2	T	Solid	7.3.3	
460-52701-1DU	Duplicate	T	Solid	7.3.3	
Prep Batch: 460-152602					
LCSSRM 460-152602/2-A	LCS-Certified Reference Material	T	Solid	7.3.4	
MB 460-152602/1-A	Method Blank	T	Solid	7.3.4	
460-52701-1	Pre-Char 4 Waste 2	T	Solid	7.3.4	
460-52701-1MS	Matrix Spike	T	Solid	7.3.4	
460-52701-1MSD	Matrix Spike Duplicate	T	Solid	7.3.4	
Analysis Batch:460-152607					
LCS 460-152592/2-A	Lab Control Sample	T	Solid	9014	460-152592
MB 460-152592/1-A	Method Blank	T	Solid	9014	460-152592
460-52701-1	Pre-Char 4 Waste 2	T	Solid	9014	460-152592
460-52701-1DU	Duplicate	T	Solid	9014	460-152592
Analysis Batch:460-152610					
LCSSRM 460-152602/2-A	LCS-Certified Reference Material	T	Solid	9034	460-152602
MB 460-152602/1-A	Method Blank	T	Solid	9034	460-152602
460-52701-1	Pre-Char 4 Waste 2	T	Solid	9034	460-152602
460-52701-1MS	Matrix Spike	T	Solid	9034	460-152602
460-52701-1MSD	Matrix Spike Duplicate	T	Solid	9034	460-152602
Analysis Batch:460-152639					
460-52701-1	Pre-Char 4 Waste 2	T	Solid	1030	
Prep Batch: 680-271195					
LCS 680-271195/1-A	Lab Control Sample	T	Solid	D240-87	
460-52701-1	Pre-Char 4 Waste 2	T	Solid	D240-87	
460-52701-2	Pre Char 3	T	Solid	D240-87	
Analysis Batch:680-271263					
LCS 680-271195/1-A	Lab Control Sample	T	Solid	D240-87	680-271195
460-52701-1	Pre-Char 4 Waste 2	T	Solid	D240-87	680-271195
460-52701-2	Pre Char 3	T	Solid	D240-87	680-271195

Report Basis

T = Total

Client: GEI Consultants, Inc.

Job Number: 460-52701-1

Surrogate Recovery Report

8260B Volatile Organic Compounds (GC/MS)

Client Matrix: Solid

Lab Sample ID	Client Sample ID	DCA %Rec	TOL %Rec	BFB %Rec
460-52701-1	Pre-Char 4 Waste 2	85	78	85
460-52701-2	Pre Char 3	83	80	89
MB 460-152399/4		90	90	100
LCS 460-152399/3		91	90	97

Surrogate	Acceptance Limits
DCA = 1,2-Dichloroethane-d4 (Surr)	75-135
TOL = Toluene-d8 (Surr)	59-150
BFB = Bromofluorobenzene	72-133

Client: GEI Consultants, Inc.

Job Number: 460-52701-1

Surrogate Recovery Report

8260B Volatile Organic Compounds (GC/MS)

Client Matrix: Solid TCLP

Lab Sample ID	Client Sample ID	DCA %Rec	TOL %Rec	BFB %Rec
460-52701-1	Pre-Char 4 Waste 2	104	95	96
MB 460-152617/2		103	93	100
LB 460-152150/1-A		104	97	105
LCS 460-152617/3		105	101	103

Surrogate	Acceptance Limits
DCA = 1,2-Dichloroethane-d4 (Surr)	70-130
TOL = Toluene-d8 (Surr)	70-130
BFB = Bromofluorobenzene	70-130

Client: GEI Consultants, Inc.

Job Number: 460-52701-1

Surrogate Recovery Report

8270C Semivolatile Organic Compounds (GC/MS)

Client Matrix: Solid

Lab Sample ID	Client Sample ID	NBZ %Rec	PHL %Rec	TPH %Rec	TBP %Rec	2FP %Rec	FBP %Rec
460-52701-1 DL	Pre-Char 4 Waste 2 DL	0D	0D	0D	0D	0D	0D
460-52701-2	Pre Char 3	48	62	94	44	57	65
MB 460-152531/1-A		84	79	83	75	76	78
LCS 460-152531/2-A		70	63	64	68	64	69

Surrogate	Acceptance Limits
NBZ = Nitrobenzene-d5	38-105
PHL = Phenol-d5	41-118
TPH = Terphenyl-d14	16-151
TBP = 2,4,6-Tribromophenol	10-120
2FP = 2-Fluorophenol	37-125
FBP = 2-Fluorobiphenyl	40-109

Client: GEI Consultants, Inc.

Job Number: 460-52701-1

Surrogate Recovery Report

8270D Semivolatile Organic Compounds (GC/MS)

Client Matrix: Solid TCLP

Lab Sample ID	Client Sample ID	NBZ %Rec	PHL %Rec	TPH %Rec	TBP %Rec	2FP %Rec	FBP %Rec
460-52701-1	Pre-Char 4 Waste 2	121*	34	91	102	46	85
MB 460-152495/1-A		93	47	91	94	58	85
LB 460-152369/1-E		91	33	95	95	47	87
LCS 460-152495/2-A		82	44	78	96	55	75

Surrogate	Acceptance Limits
NBZ = Nitrobenzene-d5	56-112
PHL = Phenol-d5	10-48
TPH = Terphenyl-d14	50-122
TBP = 2,4,6-Tribromophenol	46-122
2FP = 2-Fluorophenol	10-65
FBP = 2-Fluorobiphenyl	53-108

Client: GEI Consultants, Inc.

Job Number: 460-52701-1

Surrogate Recovery Report

8015B Gasoline Range Organics - (GC)

Client Matrix: Solid

Lab Sample ID	Client Sample ID	TFT1 %Rec
460-52701-1	Pre-Char 4 Waste 2	198*
460-52701-2	Pre Char 3	101
MB 460-152423/4		97
MB 460-152957/4		90
LCS 460-152423/2		105
LCS 460-152957/2		106
LCSD 460-152423/3		100
LCSD 460-152957/3		97

Surrogate	Acceptance Limits
TFT = a,a,a-Trifluorotoluene	70-130

Client: GEI Consultants, Inc.

Job Number: 460-52701-1

Surrogate Recovery Report

8015B Diesel Range Organics (DRO) (GC)

Client Matrix: Solid

Lab Sample ID	Client Sample ID	OTPH1 %Rec
460-52701-1	Pre-Char 4 Waste 2	0D
460-52701-2	Pre Char 3	91
MB 460-152223/1-A		78
LCS 460-152223/2-A		93

Surrogate	Acceptance Limits
OTPH = o-Terphenyl	52-134

Client: GEI Consultants, Inc.

Job Number: 460-52701-1

Surrogate Recovery Report

8081A Organochlorine Pesticides (GC)

Client Matrix: Solid TCLP

Lab Sample ID	Client Sample ID	TCX1 %Rec	TCX2 %Rec	DCB1 %Rec	DCB2 %Rec
460-52701-1	Pre-Char 4 Waste 2	103	84	123	125
MB 460-152430/1-A		100	107	97	108
LB 460-152369/1-B		107	117	126	123
LB 460-152187/1-E		117	130	135	135
LCS 460-152430/2-A		101	108	95	98

Surrogate	Acceptance Limits
TCX = Tetrachloro-m-xylene	46-140
DCB = DCB Decachlorobiphenyl	55-150

Client: GEI Consultants, Inc.

Job Number: 460-52701-1

Surrogate Recovery Report

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Matrix: Solid

Lab Sample ID	Client Sample ID	DCB1 %Rec	DCB2 %Rec
460-52701-1	Pre-Char 4 Waste 2	92	113
460-52701-2	Pre Char 3	114	117
MB 460-152232/1-A		105	101
LCS 460-152232/2-A		107	102

Surrogate	Acceptance Limits
DCB = DCB Decachlorobiphenyl	45-138

Client: GEI Consultants, Inc.

Job Number: 460-52701-1

Surrogate Recovery Report

8151A Herbicides (GC)

Client Matrix: Solid TCLP

Lab Sample ID	Client Sample ID	DCPA1 %Rec	DCPA2 %Rec
460-52701-1	Pre-Char 4 Waste 2	127	119
MB 460-152591/1-A		101	98
LB 460-152369/1-G		90	85
LCS 460-152591/2-A		96	101
LCSD 460-152591/3-A		102	100

Surrogate	Acceptance Limits
DCPA = 2,4-Dichlorophenylacetic acid	72-145

Quality Control Results

Client: GEI Consultants, Inc.

Job Number: 460-52701-1

Method Blank - Batch: 460-152399

**Method: 8260B
Preparation: N/A**

Lab Sample ID: MB 460-152399/4
 Client Matrix: Solid
 Dilution: 50
 Analysis Date: 03/23/2013 0806
 Prep Date: N/A
 Leach Date: N/A

Analysis Batch: 460-152399
 Prep Batch: N/A
 Leach Batch: N/A
 Units: ug/Kg

Instrument ID: VOAMS2
 Lab File ID: b53708.d
 Initial Weight/Volume: 2.5 mL
 Final Weight/Volume: 5 mL

Analyte	Result	Qual	MDL	RL
Chloromethane	100	U	9.7	100
Bromomethane	100	U	18	100
Chloroethane	100	U	17	100
Vinyl chloride	100	U	14	100
Methylene Chloride	100	U	18	100
Acetone	500	U	270	500
Carbon disulfide	100	U	13	100
Trichlorofluoromethane	100	U	15	100
1,1-Dichloroethene	100	U	8.8	100
1,1-Dichloroethane	100	U	13	100
trans-1,2-Dichloroethene	100	U	13	100
cis-1,2-Dichloroethene	100	U	18	100
Chloroform	100	U	7.9	100
1,2-Dichloroethane	100	U	19	100
2-Butanone	500	U	230	500
1,1,1-Trichloroethane	100	U	6.2	100
Carbon tetrachloride	100	U	5.7	100
Bromodichloromethane	100	U	13	100
1,2-Dichloropropane	100	U	8.6	100
cis-1,3-Dichloropropene	100	U	18	100
Trichloroethene	100	U	9.2	100
Dibromochloromethane	100	U	20	100
1,1,2-Trichloroethane	100	U	19	100
Benzene	100	U	8.3	100
trans-1,3-Dichloropropene	100	U	24	100
Bromoform	100	U	19	100
4-Methyl-2-pentanone	500	U	99	500
2-Hexanone	500	U	50	500
Tetrachloroethene	100	U	9.7	100
1,1,2,2-Tetrachloroethane	100	U	16	100
Toluene	100	U	15	100
Chlorobenzene	100	U	11	100
Ethylbenzene	100	U	9.6	100
Styrene	100	U	12	100
m&p-Xylene	200	U	25	200
o-Xylene	100	U	13	100
Freon TF	100	U	8.2	100
MTBE	100	U	14	100
Cyclohexane	100	U	16	100
1,2-Dibromoethane	100	U	28	100
1,3-Dichlorobenzene	100	U	14	100
1,4-Dichlorobenzene	100	U	23	100
1,2-Dichlorobenzene	100	U	21	100
Dichlorodifluoromethane	100	U	22	100
1,2,4-Trichlorobenzene	100	U	34	100

Quality Control Results

Client: GEI Consultants, Inc.

Job Number: 460-52701-1

Method Blank - Batch: 460-152399

**Method: 8260B
Preparation: N/A**

Lab Sample ID: MB 460-152399/4
 Client Matrix: Solid
 Dilution: 50
 Analysis Date: 03/23/2013 0806
 Prep Date: N/A
 Leach Date: N/A

Analysis Batch: 460-152399
 Prep Batch: N/A
 Leach Batch: N/A
 Units: ug/Kg

Instrument ID: VOAMS2
 Lab File ID: b53708.d
 Initial Weight/Volume: 2.5 mL
 Final Weight/Volume: 5 mL

Analyte	Result	Qual	MDL	RL
1,4-Dioxane	5000	U	3600	5000
1,2,3-Trichlorobenzene	100	U	51	100
1,2-Dibromo-3-Chloropropane	100	U	40	100
Bromochloromethane	100	U	27	100
Isopropylbenzene	100	U	7.7	100
Methyl acetate	200	U	34	200
Methylcyclohexane	100	U	14	100

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	90	75 - 135
Toluene-d8 (Surr)	90	59 - 150
Bromofluorobenzene	100	72 - 133

Method Blank TICs- Batch: 460-152399

Cas Number	Analyte	RT	Est. Result	Qual
	Tentatively Identified Compound		None	

Quality Control Results

Client: GEI Consultants, Inc.

Job Number: 460-52701-1

Lab Control Sample - Batch: 460-152399

**Method: 8260B
Preparation: N/A**

Lab Sample ID: LCS 460-152399/3	Analysis Batch: 460-152399	Instrument ID: VOAMS2
Client Matrix: Solid	Prep Batch: N/A	Lab File ID: b53704.d
Dilution: 50	Leach Batch: N/A	Initial Weight/Volume: 2.5 mL
Analysis Date: 03/23/2013 0637	Units: ug/Kg	Final Weight/Volume: 5 mL
Prep Date: N/A		
Leach Date: N/A		

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Chloromethane	2000	1650	83	52 - 144	
Bromomethane	2000	1980	99	58 - 154	
Chloroethane	2000	1640	82	66 - 144	
Vinyl chloride	2000	1720	86	55 - 154	
Methylene Chloride	2000	1590	80	78 - 118	
Acetone	2000	1660	83	48 - 177	
Carbon disulfide	2000	1820	91	70 - 120	
Trichlorofluoromethane	2000	1840	92	60 - 148	
1,1-Dichloroethene	2000	1620	81	68 - 138	
1,1-Dichloroethane	2000	1910	96	79 - 119	
trans-1,2-Dichloroethene	2000	1890	94	73 - 119	
cis-1,2-Dichloroethene	2000	1990	99	78 - 118	
Chloroform	2000	1960	98	81 - 122	
1,2-Dichloroethane	2000	1820	91	81 - 121	
2-Butanone	2000	1840	92	70 - 139	
1,1,1-Trichloroethane	2000	2010	100	78 - 118	
Carbon tetrachloride	2000	2050	102	64 - 130	
Bromodichloromethane	2000	1880	94	78 - 118	
1,2-Dichloropropane	2000	1860	93	78 - 118	
cis-1,3-Dichloropropene	2000	1820	91	75 - 120	
Trichloroethene	2000	1970	98	82 - 122	
Dibromochloromethane	2000	1840	92	78 - 118	
1,1,2-Trichloroethane	2000	1800	90	77 - 120	
Benzene	2000	1740	87	71 - 118	
trans-1,3-Dichloropropene	2000	1850	92	73 - 118	
Bromoform	2000	1760	88	76 - 133	
4-Methyl-2-pentanone	2000	1690	85	69 - 124	
2-Hexanone	2000	1690	84	62 - 123	
Tetrachloroethene	2000	2070	104	78 - 136	
1,1,2,2-Tetrachloroethane	2000	1770	89	86 - 145	
Toluene	2000	1850	93	79 - 136	
Chlorobenzene	2000	1970	99	69 - 124	
Ethylbenzene	2000	2040	102	78 - 124	
Styrene	2000	2110	105	73 - 126	
m&p-Xylene	4000	4050	101	78 - 127	
o-Xylene	2000	2090	105	77 - 122	
Freon TF	2000	2160	108	50 - 128	
MTBE	2000	1870	93	65 - 143	
Cyclohexane	2000	2090	104	69 - 128	
1,2-Dibromoethane	2000	1910	96	76 - 120	
1,3-Dichlorobenzene	2000	1990	99	83 - 123	

Quality Control Results

Client: GEI Consultants, Inc.

Job Number: 460-52701-1

Lab Control Sample - Batch: 460-152399

**Method: 8260B
Preparation: N/A**

Lab Sample ID: LCS 460-152399/3	Analysis Batch: 460-152399	Instrument ID: VOAMS2
Client Matrix: Solid	Prep Batch: N/A	Lab File ID: b53704.d
Dilution: 50	Leach Batch: N/A	Initial Weight/Volume: 2.5 mL
Analysis Date: 03/23/2013 0637	Units: ug/Kg	Final Weight/Volume: 5 mL
Prep Date: N/A		
Leach Date: N/A		

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
1,4-Dichlorobenzene	2000	1990	99	84 - 124	
1,2-Dichlorobenzene	2000	2010	100	83 - 123	
Dichlorodifluoromethane	2000	1660	83	41 - 149	
1,2,4-Trichlorobenzene	2000	2180	109	62 - 144	
1,4-Dioxane	15000	11500	77	54 - 147	
1,2,3-Trichlorobenzene	2000	2300	115	36 - 207	
1,2-Dibromo-3-Chloropropane	2000	2160	108	62 - 127	
Bromochloromethane	2000	1980	99	81 - 121	
Isopropylbenzene	2000	2140	107	80 - 143	
Methyl acetate	2000	1700	85	72 - 165	
Methylcyclohexane	2000	2000	100	80 - 134	
Surrogate		% Rec		Acceptance Limits	
1,2-Dichloroethane-d4 (Surr)		91		75 - 135	
Toluene-d8 (Surr)		90		59 - 150	
Bromofluorobenzene		97		72 - 133	

Quality Control Results

Client: GEI Consultants, Inc.

Job Number: 460-52701-1

Method Blank - Batch: 460-152617

**Method: 8260B
Preparation: 5030B**

Lab Sample ID: MB 460-152617/2
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 03/24/2013 1339
 Prep Date: 03/24/2013 1339
 Leach Date: N/A

Analysis Batch: 460-152617
 Prep Batch: N/A
 Leach Batch: N/A
 Units: mg/L

Instrument ID: VOAMS6
 Lab File ID: f01694.d
 Initial Weight/Volume: 5 mL
 Final Weight/Volume: 5 mL

Analyte	Result	Qual	MDL	RL
Vinyl chloride	0.0010	U	0.00014	0.0010
1,1-Dichloroethene	0.0010	U	0.000090	0.0010
Chloroform	0.0010	U	0.000080	0.0010
1,2-Dichloroethane	0.0010	U	0.00019	0.0010
2-Butanone	0.0050	U	0.0023	0.0050
Carbon tetrachloride	0.0010	U	0.000060	0.0010
Trichloroethene	0.0010	U	0.000090	0.0010
Benzene	0.0010	U	0.000080	0.0010
Tetrachloroethene	0.0010	U	0.00010	0.0010
Chlorobenzene	0.0010	U	0.00011	0.0010
Surrogate	% Rec	Acceptance Limits		
1,2-Dichloroethane-d4 (Surr)	103	70 - 130		
Toluene-d8 (Surr)	93	70 - 130		
Bromofluorobenzene	100	70 - 130		

Quality Control Results

Client: GEI Consultants, Inc.

Job Number: 460-52701-1

TCLP SPLPE Leachate Blank - Batch: 460-152617

**Method: 8260B
Preparation: 5030B
TCLP**

Lab Sample ID:	LB 460-152150/1-A	Analysis Batch:	460-152617	Instrument ID:	VOAMS6
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	f01697.d
Dilution:	10	Leach Batch:	460-152150	Initial Weight/Volume:	5 mL
Analysis Date:	03/24/2013 1443	Units:	mg/L	Final Weight/Volume:	5 mL
Prep Date:	03/24/2013 1443				
Leach Date:	03/21/2013 1525				

Analyte	Result	Qual	MDL	RL
Vinyl chloride	0.010	U	0.0014	0.010
1,1-Dichloroethene	0.010	U	0.00090	0.010
Chloroform	0.010	U	0.00080	0.010
1,2-Dichloroethane	0.010	U	0.0019	0.010
2-Butanone	0.050	U	0.023	0.050
Carbon tetrachloride	0.010	U	0.00060	0.010
Trichloroethene	0.010	U	0.00090	0.010
Benzene	0.010	U	0.00080	0.010
Tetrachloroethene	0.010	U	0.0010	0.010
Chlorobenzene	0.010	U	0.0011	0.010
Surrogate	% Rec		Acceptance Limits	
1,2-Dichloroethane-d4 (Surr)	104		70 - 130	
Toluene-d8 (Surr)	97		70 - 130	
Bromofluorobenzene	105		70 - 130	

Quality Control Results

Client: GEI Consultants, Inc.

Job Number: 460-52701-1

Lab Control Sample - Batch: 460-152617

Method: 8260B
Preparation: 5030B

Lab Sample ID: LCS 460-152617/3	Analysis Batch: 460-152617	Instrument ID: VOAMS6
Client Matrix: Water	Prep Batch: N/A	Lab File ID: f01695.d
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 5 mL
Analysis Date: 03/24/2013 1401	Units: mg/L	Final Weight/Volume: 5 mL
Prep Date: 03/24/2013 1401		
Leach Date: N/A		

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Vinyl chloride	0.0200	0.0226	113	54 - 138	
1,1-Dichloroethene	0.0200	0.0213	107	61 - 143	
Chloroform	0.0200	0.0220	110	85 - 125	
1,2-Dichloroethane	0.0200	0.0216	108	76 - 116	
2-Butanone	0.0200	0.0216	108	61 - 108	
Carbon tetrachloride	0.0200	0.0206	103	76 - 116	
Trichloroethene	0.0200	0.0204	102	82 - 122	
Benzene	0.0200	0.0211	106	84 - 124	
Tetrachloroethene	0.0200	0.0210	105	80 - 142	
Chlorobenzene	0.0200	0.0210	105	85 - 125	
Surrogate	% Rec	Acceptance Limits			
1,2-Dichloroethane-d4 (Surr)	105	70 - 130			
Toluene-d8 (Surr)	101	70 - 130			
Bromofluorobenzene	103	70 - 130			

Quality Control Results

Client: GEI Consultants, Inc.

Job Number: 460-52701-1

Method Blank - Batch: 460-152531

Method: 8270C
Preparation: 3541

Lab Sample ID: MB 460-152531/1-A
Client Matrix: Solid
Dilution: 1.0
Analysis Date: 03/24/2013 2302
Prep Date: 03/24/2013 1921
Leach Date: N/A

Analysis Batch: 460-152619
Prep Batch: 460-152531
Leach Batch: N/A
Units: ug/Kg

Instrument ID: BNAMS10
Lab File ID: p35757.d
Initial Weight/Volume: 15.00 g
Final Weight/Volume: 1 mL
Injection Volume: 1 uL

Analyte	Result	Qual	MDL	RL
Phenol	330	U	44	330
2-Chlorophenol	330	U	44	330
2-Methylphenol	330	U	56	330
4-Methylphenol	330	U	65	330
Benzaldehyde	330	U	39	330
Acetophenone	330	U	51	330
Bis(2-chloroethyl)ether	33	U	4.5	33
2,2'-oxybis[1-chloropropane]	330	U	37	330
N-Nitrosodi-n-propylamine	33	U	5.5	33
Nitrobenzene	33	U	4.7	33
Hexachloroethane	33	U	3.7	33
Isophorone	330	U	40	330
2-Nitrophenol	330	U	37	330
2,4-Dimethylphenol	330	U	82	330
2,4-Dichlorophenol	330	U	48	330
Bis(2-chloroethoxy)methane	330	U	43	330
Naphthalene	330	U	38	330
4-Chloroaniline	330	U	88	330
Hexachlorobutadiene	67	U	8.1	67
Caprolactam	330	U	76	330
4-Chloro-3-methylphenol	330	U	50	330
2-Methylnaphthalene	330	U	43	330
Hexachlorobenzene	33	U	4.5	33
Hexachlorocyclopentadiene	330	U	39	330
2,4,6-Trichlorophenol	330	U	39	330
2,4,5-Trichlorophenol	330	U	43	330
Diphenyl	330	U	44	330
2-Chloronaphthalene	330	U	37	330
2-Nitroaniline	670	U	140	670
2,6-Dinitrotoluene	67	U	10	67
Dimethyl phthalate	330	U	39	330
Acenaphthylene	330	U	39	330
3-Nitroaniline	670	U	120	670
Acenaphthene	330	U	48	330
4-Nitrophenol	1000	U	210	1000
2,4-Dinitrophenol	1000	U	190	1000
Dibenzofuran	330	U	39	330
Diethyl phthalate	330	U	39	330
Fluorene	330	U	42	330
Fluoranthene	330	U	44	330
Di-n-butyl phthalate	330	U	41	330
2,4-Dinitrotoluene	67	U	11	67
4-Chlorophenyl phenyl ether	330	U	39	330
4-Nitroaniline	670	U	100	670
4,6-Dinitro-2-methylphenol	1000	U	90	1000

Quality Control Results

Client: GEI Consultants, Inc.

Job Number: 460-52701-1

Method Blank - Batch: 460-152531

**Method: 8270C
Preparation: 3541**

Lab Sample ID: MB 460-152531/1-A
 Client Matrix: Solid
 Dilution: 1.0
 Analysis Date: 03/24/2013 2302
 Prep Date: 03/24/2013 1921
 Leach Date: N/A

Analysis Batch: 460-152619
 Prep Batch: 460-152531
 Leach Batch: N/A
 Units: ug/Kg

Instrument ID: BNAMS10
 Lab File ID: p35757.d
 Initial Weight/Volume: 15.00 g
 Final Weight/Volume: 1 mL
 Injection Volume: 1 uL

Analyte	Result	Qual	MDL	RL
4-Bromophenyl phenyl ether	330	U	33	330
Atrazine	330	U	51	330
Anthracene	330	U	40	330
Carbazole	330	U	39	330
Phenanthrene	330	U	42	330
Pentachlorophenol	1000	U	99	1000
Pyrene	330	U	28	330
Chrysene	330	U	39	330
Benzo[k]fluoranthene	33	U	2.5	33
Benzo[g,h,i]perylene	330	U	25	330
Benzo[b]fluoranthene	33	U	2.1	33
Benzo[a]pyrene	33	U	2.3	33
Benzo[a]anthracene	33	U	2.3	33
N-Nitrosodiphenylamine	330	U	33	330
Butyl benzyl phthalate	330	U	30	330
Bis(2-ethylhexyl) phthalate	330	U	110	330
Di-n-octyl phthalate	330	U	21	330
Indeno[1,2,3-cd]pyrene	33	U	6.2	33
Dibenz(a,h)anthracene	33	U	4.2	33
3,3'-Dichlorobenzidine	670	U	120	670
1,2,4,5-Tetrachlorobenzene	330	U	45	330
2,3,4,6-Tetrachlorophenol	330	U	43	330

Surrogate	% Rec	Acceptance Limits
Nitrobenzene-d5	84	38 - 105
Phenol-d5	79	41 - 118
Terphenyl-d14	83	16 - 151
2,4,6-Tribromophenol	75	10 - 120
2-Fluorophenol	76	37 - 125
2-Fluorobiphenyl	78	40 - 109

Method Blank TICs- Batch: 460-152531

Cas Number	Analyte	RT	Est. Result	Qual
	Unknown Aldol Condensate	2.65	6430	A J

Quality Control Results

Client: GEI Consultants, Inc.

Job Number: 460-52701-1

Lab Control Sample - Batch: 460-152531

**Method: 8270C
Preparation: 3541**

Lab Sample ID: LCS 460-152531/2-A	Analysis Batch: 460-152619	Instrument ID: BNAMS10
Client Matrix: Solid	Prep Batch: 460-152531	Lab File ID: p35756.d
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 15.01 g
Analysis Date: 03/24/2013 2237	Units: ug/Kg	Final Weight/Volume: 1 mL
Prep Date: 03/24/2013 1921		Injection Volume: 1 uL
Leach Date: N/A		

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Phenol	6660	4040	61	54 - 115	
2-Chlorophenol	6660	4200	63	56 - 110	
2-Methylphenol	6660	4320	65	54 - 117	
4-Methylphenol	6660	4050	61	47 - 103	
Benzaldehyde	3330	1590	48	10 - 160	
Acetophenone	3330	2440	73	40 - 95	
Bis(2-chloroethyl)ether	3330	2230	67	44 - 101	
2,2'-oxybis[1-chloropropane]	3330	2410	72	45 - 102	
N-Nitrosodi-n-propylamine	3330	2570	77	42 - 107	
Nitrobenzene	3330	2480	74	42 - 106	
Hexachloroethane	3330	2310	69	45 - 90	
Isophorone	3330	2450	74	48 - 97	
2-Nitrophenol	6660	4540	68	55 - 101	
2,4-Dimethylphenol	6660	4390	66	56 - 112	
2,4-Dichlorophenol	6660	4330	65	58 - 115	
Bis(2-chloroethoxy)methane	3330	2440	73	51 - 100	
Naphthalene	3330	2500	75	53 - 94	
4-Chloroaniline	3330	866	26	10 - 96	
Hexachlorobutadiene	3330	2260	68	45 - 98	
Caprolactam	3330	2310	69	10 - 127	
4-Chloro-3-methylphenol	6660	4530	68	55 - 117	
2-Methylnaphthalene	3330	2320	70	51 - 98	
Hexachlorobenzene	3330	2500	75	43 - 104	
Hexachlorocyclopentadiene	3330	1790	54	24 - 98	
2,4,6-Trichlorophenol	6660	4400	66	53 - 118	
2,4,5-Trichlorophenol	6660	4490	67	50 - 115	
Diphenyl	3330	2460	74	50 - 105	
2-Chloronaphthalene	3330	2440	73	51 - 102	
2-Nitroaniline	3330	2190	66	51 - 109	
2,6-Dinitrotoluene	3330	2430	73	51 - 115	
Dimethyl phthalate	3330	2530	76	52 - 112	
Acenaphthylene	3330	2450	73	51 - 103	
3-Nitroaniline	3330	1320	40	32 - 104	
Acenaphthene	3330	2490	75	46 - 100	
4-Nitrophenol	6660	5330	80	45 - 114	
2,4-Dinitrophenol	6660	3420	51	10 - 129	
Dibenzofuran	3330	2420	73	52 - 106	
Diethyl phthalate	3330	2520	76	52 - 114	
Fluorene	3330	2470	74	51 - 108	
Fluoranthene	3330	2590	78	49 - 108	
Di-n-butyl phthalate	3330	2610	78	50 - 108	

Quality Control Results

Client: GEI Consultants, Inc.

Job Number: 460-52701-1

Lab Control Sample - Batch: 460-152531

**Method: 8270C
Preparation: 3541**

Lab Sample ID: LCS 460-152531/2-A	Analysis Batch: 460-152619	Instrument ID: BNAMS10
Client Matrix: Solid	Prep Batch: 460-152531	Lab File ID: p35756.d
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 15.01 g
Analysis Date: 03/24/2013 2237	Units: ug/Kg	Final Weight/Volume: 1 mL
Prep Date: 03/24/2013 1921		Injection Volume: 1 uL
Leach Date: N/A		

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
2,4-Dinitrotoluene	3330	2460	74	53 - 110	
4-Chlorophenyl phenyl ether	3330	2400	72	50 - 106	
4-Nitroaniline	3330	2010	60	45 - 106	
4,6-Dinitro-2-methylphenol	6660	4320	65	10 - 110	
4-Bromophenyl phenyl ether	3330	2540	76	44 - 102	
Atrazine	3330	2360	71	30 - 100	
Anthracene	3330	2540	76	50 - 107	
Carbazole	3330	2520	76	49 - 104	
Phenanthrene	3330	2590	78	48 - 108	
Pentachlorophenol	6660	4310	65	19 - 113	
Pyrene	3330	2290	69	49 - 116	
Chrysene	3330	2480	75	45 - 114	
Benzo[k]fluoranthene	3330	2470	74	35 - 115	
Benzo[g,h,i]perylene	3330	2370	71	43 - 106	
Benzo[b]fluoranthene	3330	2410	72	33 - 96	
Benzo[a]pyrene	3330	2540	76	36 - 89	
Benzo[a]anthracene	3330	2440	73	46 - 112	
N-Nitrosodiphenylamine	3330	2710	81	49 - 106	
Butyl benzyl phthalate	3330	2450	73	49 - 117	
Bis(2-ethylhexyl) phthalate	3330	2550	77	49 - 119	
Di-n-octyl phthalate	3330	2570	77	40 - 106	
Indeno[1,2,3-cd]pyrene	3330	2220	67	43 - 109	
Dibenz(a,h)anthracene	3330	2560	77	43 - 107	
3,3'-Dichlorobenzidine	3330	1350	40	24 - 105	
1,2,4,5-Tetrachlorobenzene	3330	2250	68	70 - 130	*
2,3,4,6-Tetrachlorophenol	3330	2390	72	70 - 130	

Surrogate	% Rec	Acceptance Limits
Nitrobenzene-d5	70	38 - 105
Phenol-d5	63	41 - 118
Terphenyl-d14	64	16 - 151
2,4,6-Tribromophenol	68	10 - 120
2-Fluorophenol	64	37 - 125
2-Fluorobiphenyl	69	40 - 109

Quality Control Results

Client: GEI Consultants, Inc.

Job Number: 460-52701-1

Method Blank - Batch: 460-152495

**Method: 8270D
Preparation: 3510C**

Lab Sample ID: MB 460-152495/1-A
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 04/01/2013 1154
 Prep Date: 03/24/2013 0930
 Leach Date: N/A

Analysis Batch: 460-153728
 Prep Batch: 460-152495
 Leach Batch: N/A
 Units: mg/L

Instrument ID: BNAMS5
 Lab File ID: x35747.d
 Initial Weight/Volume: 1000 mL
 Final Weight/Volume: 2 mL
 Injection Volume:

Analyte	Result	Qual	MDL	RL
2-Methylphenol	0.010	U	0.0018	0.010
3 & 4 Methylphenol	0.010	U	0.0016	0.010
2,4,6-Trichlorophenol	0.010	U	0.0024	0.010
2,4,5-Trichlorophenol	0.010	U	0.0026	0.010
Pentachlorophenol	0.030	U	0.0053	0.030
1,4-Dichlorobenzene	0.010	U	0.0025	0.010
Hexachloroethane	0.0010	U	0.00025	0.0010
Nitrobenzene	0.0010	U	0.00030	0.0010
Hexachlorobutadiene	0.0020	U	0.00057	0.0020
2,4-Dinitrotoluene	0.0020	U	0.00047	0.0020
Hexachlorobenzene	0.0010	U	0.00029	0.0010
Pyridine	0.010	U	0.00091	0.010

Surrogate	% Rec	Acceptance Limits
Nitrobenzene-d5	93	56 - 112
Phenol-d5	47	10 - 48
Terphenyl-d14	91	50 - 122
2,4,6-Tribromophenol	94	46 - 122
2-Fluorophenol	58	10 - 65
2-Fluorobiphenyl	85	53 - 108

Quality Control Results

Client: GEI Consultants, Inc.

Job Number: 460-52701-1

TCLP SPLPE Leachate Blank - Batch: 460-152495

Method: 8270D
Preparation: 3510C
TCLP

Lab Sample ID: LB 460-152369/1-E
 Client Matrix: Solid
 Dilution: 1.0
 Analysis Date: 04/01/2013 1922
 Prep Date: 03/24/2013 0930
 Leach Date: 03/22/2013 1801

Analysis Batch: 460-153728
 Prep Batch: 460-152495
 Leach Batch: 460-152369
 Units: mg/L

Instrument ID: BNAMS5
 Lab File ID: x35764.d
 Initial Weight/Volume: 250 mL
 Final Weight/Volume: 2 mL
 Injection Volume:

Analyte	Result	Qual	MDL	RL
2-Methylphenol	0.040	U	0.0072	0.040
3 & 4 Methylphenol	0.040	U	0.0064	0.040
2,4,6-Trichlorophenol	0.040	U	0.0096	0.040
2,4,5-Trichlorophenol	0.040	U	0.010	0.040
Pentachlorophenol	0.12	U	0.021	0.12
1,4-Dichlorobenzene	0.040	U	0.010	0.040
Hexachloroethane	0.0040	U	0.0010	0.0040
Nitrobenzene	0.0040	U	0.0012	0.0040
Hexachlorobutadiene	0.0080	U	0.0023	0.0080
2,4-Dinitrotoluene	0.0080	U	0.0019	0.0080
Hexachlorobenzene	0.0040	U	0.0012	0.0040
Pyridine	0.040	U	0.0036	0.040

Surrogate	% Rec	Acceptance Limits
Nitrobenzene-d5	91	56 - 112
Phenol-d5	33	10 - 48
Terphenyl-d14	95	50 - 122
2,4,6-Tribromophenol	95	46 - 122
2-Fluorophenol	47	10 - 65
2-Fluorobiphenyl	87	53 - 108

Quality Control Results

Client: GEI Consultants, Inc.

Job Number: 460-52701-1

Lab Control Sample - Batch: 460-152495

**Method: 8270D
Preparation: 3510C**

Lab Sample ID: LCS 460-152495/2-A	Analysis Batch: 460-153728	Instrument ID: BNAMS5
Client Matrix: Water	Prep Batch: 460-152495	Lab File ID: x35746.d
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 1000 mL
Analysis Date: 04/01/2013 1128	Units: mg/L	Final Weight/Volume: 2 mL
Prep Date: 03/24/2013 0930		Injection Volume:
Leach Date: N/A		

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
2-Methylphenol	0.200	0.141	71	41 - 90	
3 & 4 Methylphenol	0.400	0.259	65	30 - 87	
2,4,6-Trichlorophenol	0.200	0.157	79	67 - 115	
2,4,5-Trichlorophenol	0.200	0.166	83	66 - 120	
Pentachlorophenol	0.200	0.175	87	50 - 124	
1,4-Dichlorobenzene	0.100	0.0753	75	64 - 110	
Hexachloroethane	0.100	0.0803	80	61 - 112	
Nitrobenzene	0.100	0.0665	66	49 - 92	
Hexachlorobutadiene	0.100	0.0799	80	56 - 113	
2,4-Dinitrotoluene	0.100	0.0968	97	67 - 126	
Hexachlorobenzene	0.100	0.0702	70	24 - 98	
Pyridine	0.100	0.0202	20	14 - 55	
Surrogate	% Rec	Acceptance Limits			
Nitrobenzene-d5	82	56 - 112			
Phenol-d5	44	10 - 48			
Terphenyl-d14	78	50 - 122			
2,4,6-Tribromophenol	96	46 - 122			
2-Fluorophenol	55	10 - 65			
2-Fluorobiphenyl	75	53 - 108			

Quality Control Results

Client: GEI Consultants, Inc.

Job Number: 460-52701-1

Method Blank - Batch: 460-152423

**Method: 8015B
Preparation: N/A**

Lab Sample ID:	MB 460-152423/4	Analysis Batch:	460-152423	Instrument ID:	VOAGC3
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	ifid7811.d
Dilution:	50	Leach Batch:	N/A	Initial Weight/Volume:	2.5 mL
Analysis Date:	03/21/2013 2107	Units:	ug/Kg	Final Weight/Volume:	5 mL
Prep Date:	N/A			Injection Volume:	
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Result	Qual	RL	RL
GRO	2500	U	2500	2500
Surrogate	% Rec		Acceptance Limits	
a,a,a-Trifluorotoluene	97		70 - 130	

**Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 460-152423**

**Method: 8015B
Preparation: N/A**

LCS Lab Sample ID:	LCS 460-152423/2	Analysis Batch:	460-152423	Instrument ID:	VOAGC3
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	ifid7808.d
Dilution:	50	Leach Batch:	N/A	Initial Weight/Volume:	2.5 mL
Analysis Date:	03/21/2013 1955	Units:	ug/Kg	Final Weight/Volume:	5 mL
Prep Date:	N/A			Injection Volume:	
Leach Date:	N/A			Column ID:	PRIMARY

LCSD Lab Sample ID:	LCSD 460-152423/3	Analysis Batch:	460-152423	Instrument ID:	VOAGC3
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	ifid7809.d
Dilution:	50	Leach Batch:	N/A	Initial Weight/Volume:	2.5 mL
Analysis Date:	03/21/2013 2019	Units:	ug/Kg	Final Weight/Volume:	5 mL
Prep Date:	N/A			Injection Volume:	
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
GRO	95	99	26 - 123	4	30		
Surrogate	LCS % Rec		LCSD % Rec		Acceptance Limits		
a,a,a-Trifluorotoluene	105		100		70 - 130		

Quality Control Results

Client: GEI Consultants, Inc.

Job Number: 460-52701-1

Method Blank - Batch: 460-152957

**Method: 8015B
Preparation: N/A**

Lab Sample ID: MB 460-152957/4
Client Matrix: Solid
Dilution: 50
Analysis Date: 03/26/2013 1807
Prep Date: N/A
Leach Date: N/A

Analysis Batch: 460-152957
Prep Batch: N/A
Leach Batch: N/A
Units: ug/Kg

Instrument ID: VOAGC3
Lab File ID: ifid7861.d
Initial Weight/Volume: 2.5 mL
Final Weight/Volume: 5 mL
Injection Volume:
Column ID: PRIMARY

Analyte	Result	Qual	RL	RL
GRO	2500	U	2500	2500

Surrogate	% Rec	Acceptance Limits
a,a,a-Trifluorotoluene	90	70 - 130

**Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 460-152957**

**Method: 8015B
Preparation: N/A**

LCS Lab Sample ID: LCS 460-152957/2
Client Matrix: Solid
Dilution: 50
Analysis Date: 03/26/2013 1654
Prep Date: N/A
Leach Date: N/A

Analysis Batch: 460-152957
Prep Batch: N/A
Leach Batch: N/A
Units: ug/Kg

Instrument ID: VOAGC3
Lab File ID: ifid7858.d
Initial Weight/Volume: 2.5 mL
Final Weight/Volume: 5 mL
Injection Volume:
Column ID: PRIMARY

LCSD Lab Sample ID: LCSD 460-152957/3
Client Matrix: Solid
Dilution: 50
Analysis Date: 03/26/2013 1718
Prep Date: N/A
Leach Date: N/A

Analysis Batch: 460-152957
Prep Batch: N/A
Leach Batch: N/A
Units: ug/Kg

Instrument ID: VOAGC3
Lab File ID: ifid7859.d
Initial Weight/Volume: 2.5 mL
Final Weight/Volume: 5 mL
Injection Volume:
Column ID: PRIMARY

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
GRO	118	80	26 - 123	38	30		*
Surrogate	LCS % Rec		LCSD % Rec	Acceptance Limits			
a,a,a-Trifluorotoluene	106		97	70 - 130			

Quality Control Results

Client: GEI Consultants, Inc.

Job Number: 460-52701-1

Method Blank - Batch: 460-152223

**Method: 8015B
Preparation: 3546**

Lab Sample ID: MB 460-152223/1-A
 Client Matrix: Solid
 Dilution: 1.0
 Analysis Date: 03/25/2013 1118
 Prep Date: 03/22/2013 0244
 Leach Date: N/A

Analysis Batch: 460-152644
 Prep Batch: 460-152223
 Leach Batch: N/A
 Units: mg/Kg

Instrument ID: BNAGC3
 Lab File ID: gc3f7888.d
 Initial Weight/Volume: 14.98 g
 Final Weight/Volume: 1 mL
 Injection Volume: 1 uL
 Column ID: PRIMARY

Analyte	Result	Qual	RL	RL
Diesel Range Organics [C10-C28]	6.7	U	6.7	6.7
Surrogate	% Rec	Acceptance Limits		
o-Terphenyl	78	52 - 134		

Lab Control Sample - Batch: 460-152223

**Method: 8015B
Preparation: 3546**

Lab Sample ID: LCS 460-152223/2-A
 Client Matrix: Solid
 Dilution: 1.0
 Analysis Date: 03/25/2013 1132
 Prep Date: 03/22/2013 0244
 Leach Date: N/A

Analysis Batch: 460-152644
 Prep Batch: 460-152223
 Leach Batch: N/A
 Units: mg/Kg

Instrument ID: BNAGC3
 Lab File ID: gc3f7889.d
 Initial Weight/Volume: 15.02 g
 Final Weight/Volume: 1 mL
 Injection Volume: 1 uL
 Column ID: PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Diesel Range Organics [C10-C28]	166	164	99	54 - 139	
Surrogate	% Rec	Acceptance Limits			
o-Terphenyl	93	52 - 134			

Quality Control Results

Client: GEI Consultants, Inc.

Job Number: 460-52701-1

Method Blank - Batch: 460-152430

**Method: 8081A
Preparation: 3510C**

Lab Sample ID: MB 460-152430/1-A
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 03/24/2013 1320
 Prep Date: 03/23/2013 1108
 Leach Date: N/A

Analysis Batch: 460-152560
 Prep Batch: 460-152430
 Leach Batch: N/A
 Units: mg/L

Instrument ID: PESTGC4
 Lab File ID: WR710905.D
 Initial Weight/Volume: 100 mL
 Final Weight/Volume: 5 mL
 Injection Volume:
 Column ID: PRIMARY

Analyte	Result	Qual	MDL	RL
Chlordane	0.0050	U	0.0033	0.0050
Endrin	0.00050	U	0.00010	0.00050
Heptachlor	0.00050	U	0.00010	0.00050
Heptachlor epoxide	0.00050	U	0.00010	0.00050
gamma-BHC (Lindane)	0.00050	U	0.00012	0.00050
Methoxychlor	0.00050	U	0.00013	0.00050
Toxaphene	0.0050	U	0.0020	0.0050

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	107	46 - 140
DCB Decachlorobiphenyl	108	55 - 150

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	100	46 - 140
DCB Decachlorobiphenyl	97	55 - 150

TCLP SPLPE Leachate Blank - Batch: 460-152430

**Method: 8081A
Preparation: 3510C
TCLP**

Lab Sample ID: LB 460-152369/1-B
 Client Matrix: Solid
 Dilution: 1.0
 Analysis Date: 03/24/2013 1803
 Prep Date: 03/23/2013 1108
 Leach Date: 03/22/2013 1801

Analysis Batch: 460-152560
 Prep Batch: 460-152430
 Leach Batch: 460-152369
 Units: mg/L

Instrument ID: PESTGC4
 Lab File ID: WR710921.D
 Initial Weight/Volume: 100 mL
 Final Weight/Volume: 5 mL
 Injection Volume:
 Column ID: PRIMARY

Analyte	Result	Qual	MDL	RL
Chlordane	0.0050	U	0.0033	0.0050
Endrin	0.00050	U	0.00010	0.00050
Heptachlor	0.00050	U	0.00010	0.00050
Heptachlor epoxide	0.00050	U	0.00010	0.00050
gamma-BHC (Lindane)	0.00050	U	0.00012	0.00050
Methoxychlor	0.00050	U	0.00013	0.00050
Toxaphene	0.0050	U	0.0020	0.0050

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	117	46 - 140
DCB Decachlorobiphenyl	126	55 - 150

Quality Control Results

Client: GEI Consultants, Inc.

Job Number: 460-52701-1

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	107	46 - 140
DCB Decachlorobiphenyl	123	55 - 150

TCLP SPLPE Leachate Blank - Batch: 460-152430

Method: 8081A
Preparation: 3510C
TCLP

Lab Sample ID:	LB 460-152187/1-E	Analysis Batch:	460-152560	Instrument ID:	PESTGC4
Client Matrix:	Solid	Prep Batch:	460-152430	Lab File ID:	WR710923.D
Dilution:	1.0	Leach Batch:	460-152187	Initial Weight/Volume:	100 mL
Analysis Date:	03/24/2013 1831	Units:	mg/L	Final Weight/Volume:	5 mL
Prep Date:	03/23/2013 1108			Injection Volume:	
Leach Date:	03/21/2013 1600			Column ID:	PRIMARY

Analyte	Result	Qual	MDL	RL
Chlordane	0.0050	U	0.0033	0.0050
Endrin	0.00050	U	0.00010	0.00050
Heptachlor	0.00050	U	0.00010	0.00050
Heptachlor epoxide	0.00050	U	0.00010	0.00050
gamma-BHC (Lindane)	0.00050	U	0.00012	0.00050
Methoxychlor	0.00050	U	0.00013	0.00050
Toxaphene	0.0050	U	0.0020	0.0050

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	130	46 - 140
DCB Decachlorobiphenyl	135	55 - 150

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	117	46 - 140
DCB Decachlorobiphenyl	135	55 - 150

Quality Control Results

Client: GEI Consultants, Inc.

Job Number: 460-52701-1

Lab Control Sample - Batch: 460-152430

**Method: 8081A
Preparation: 3510C**

Lab Sample ID: LCS 460-152430/2-A	Analysis Batch: 460-152560	Instrument ID: PESTGC4
Client Matrix: Water	Prep Batch: 460-152430	Lab File ID: WF710906.D
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 100 mL
Analysis Date: 03/24/2013 1401	Units: mg/L	Final Weight/Volume: 5 mL
Prep Date: 03/23/2013 1108		Injection Volume:
Leach Date: N/A		Column ID: PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Chlordane	0.0250	0.0263	105	62 - 150	
Endrin	0.00500	0.00726	145	66 - 150	
Heptachlor	0.00500	0.00682	136	75 - 150	
Heptachlor epoxide	0.00500	0.00587	117	75 - 150	
gamma-BHC (Lindane)	0.00500	0.00527	105	68 - 150	
Methoxychlor	0.00500	0.0151	301	10 - 150	*
Toxaphene	0.0500	0.0343	69	41 - 130	
Surrogate		% Rec		Acceptance Limits	
Tetrachloro-m-xylene		108		46 - 140	
DCB Decachlorobiphenyl		98		55 - 150	

Lab Control Sample - Batch: 460-152430

**Method: 8081A
Preparation: 3510C**

Lab Sample ID: LCS 460-152430/2-A	Analysis Batch: 460-152560	Instrument ID: PESTGC4
Client Matrix: Water	Prep Batch: 460-152430	Lab File ID: WR710906.D
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 100 mL
Analysis Date: 03/24/2013 1401	Units: mg/L	Final Weight/Volume: 5 mL
Prep Date: 03/23/2013 1108		Injection Volume:
Leach Date: N/A		Column ID: SECONDARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Chlordane	0.0250	0.0248	99	62 - 150	
Endrin	0.00500	0.00640	128	66 - 150	
Heptachlor	0.00500	0.00652	130	75 - 150	
Heptachlor epoxide	0.00500	0.00539	108	75 - 150	
gamma-BHC (Lindane)	0.00500	0.00508	102	68 - 150	
Methoxychlor	0.00500	0.00773	155	10 - 150	*
Toxaphene	0.0500	0.0324	65	41 - 130	
Surrogate		% Rec		Acceptance Limits	
Tetrachloro-m-xylene		101		46 - 140	
DCB Decachlorobiphenyl		95		55 - 150	

Quality Control Results

Client: GEI Consultants, Inc.

Job Number: 460-52701-1

Method Blank - Batch: 460-152232

**Method: 8082
Preparation: 3546**

Lab Sample ID: MB 460-152232/1-A
 Client Matrix: Solid
 Dilution: 1.0
 Analysis Date: 03/22/2013 1605
 Prep Date: 03/22/2013 0657
 Leach Date: N/A

Analysis Batch: 460-152360
 Prep Batch: 460-152232
 Leach Batch: N/A
 Units: ug/Kg

Instrument ID: PESTGC7
 Lab File ID: or201023.d
 Initial Weight/Volume: 15.00 g
 Final Weight/Volume: 10 mL
 Injection Volume:
 Column ID: PRIMARY

Analyte	Result	Qual	MDL	RL
Aroclor 1016	67	U	15	67
Aroclor 1221	67	U	15	67
Aroclor 1232	67	U	15	67
Aroclor 1242	67	U	15	67
Aroclor 1248	67	U	15	67
Aroclor 1254	67	U	19	67
Aroclor 1260	67	U	19	67
Aroclor 1262	67	U	19	67
Aroclor 1268	67	U	19	67
Polychlorinated biphenyls, Total	67	U	19	67

Surrogate	% Rec	Acceptance Limits
DCB Decachlorobiphenyl	105	45 - 138
Surrogate	% Rec	Acceptance Limits
DCB Decachlorobiphenyl	101	45 - 138

Quality Control Results

Client: GEI Consultants, Inc.

Job Number: 460-52701-1

Lab Control Sample - Batch: 460-152232

**Method: 8082
Preparation: 3546**

Lab Sample ID:	LCS 460-152232/2-A	Analysis Batch:	460-152360	Instrument ID:	PESTGC7
Client Matrix:	Solid	Prep Batch:	460-152232	Lab File ID:	of201024.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	15.00 g
Analysis Date:	03/22/2013 1622	Units:	ug/Kg	Final Weight/Volume:	10 mL
Prep Date:	03/22/2013 0657			Injection Volume:	
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Aroclor 1016	333	371	111	75 - 150	
Aroclor 1260	333	390	117	72 - 150	
Surrogate			% Rec	Acceptance Limits	
DCB Decachlorobiphenyl			107	45 - 138	

Lab Control Sample - Batch: 460-152232

**Method: 8082
Preparation: 3546**

Lab Sample ID:	LCS 460-152232/2-A	Analysis Batch:	460-152360	Instrument ID:	PESTGC7
Client Matrix:	Solid	Prep Batch:	460-152232	Lab File ID:	or201024.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	15.00 g
Analysis Date:	03/22/2013 1622	Units:	ug/Kg	Final Weight/Volume:	10 mL
Prep Date:	03/22/2013 0657			Injection Volume:	
Leach Date:	N/A			Column ID:	SECONDARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Aroclor 1016	333	355	106	75 - 150	
Aroclor 1260	333	367	110	72 - 150	
Surrogate			% Rec	Acceptance Limits	
DCB Decachlorobiphenyl			102	45 - 138	

Quality Control Results

Client: GEI Consultants, Inc.

Job Number: 460-52701-1

Method Blank - Batch: 460-152591

**Method: 8151A
Preparation: 8151A**

Lab Sample ID: MB 460-152591/1-A
Client Matrix: Water
Dilution: 1.0
Analysis Date: 03/26/2013 1715
Prep Date: 03/25/2013 1013
Leach Date: N/A

Analysis Batch: 460-152945
Prep Batch: 460-152591
Leach Batch: N/A
Units: mg/L

Instrument ID: PESTGC3
Lab File ID: zf115995.d
Initial Weight/Volume: 15 mL
Final Weight/Volume: 5 mL
Injection Volume:
Column ID: PRIMARY

Analyte	Result	Qual	MDL	RL
2,4-D	0.017	U	0.0033	0.017
Silvex (2,4,5-TP)	0.017	U	0.0030	0.017
Surrogate	% Rec		Acceptance Limits	
2,4-Dichlorophenylacetic acid	101		72 - 145	
Surrogate	% Rec		Acceptance Limits	
2,4-Dichlorophenylacetic acid	98		72 - 145	

TCLP SPLPE Leachate Blank - Batch: 460-152591

**Method: 8151A
Preparation: 8151A
TCLP**

Lab Sample ID: LB 460-152369/1-G
Client Matrix: Solid
Dilution: 1.0
Analysis Date: 03/26/2013 2141
Prep Date: 03/25/2013 1013
Leach Date: 03/22/2013 1801

Analysis Batch: 460-152946
Prep Batch: 460-152591
Leach Batch: 460-152369
Units: mg/L

Instrument ID: PESTGC3
Lab File ID: zf116007.d
Initial Weight/Volume: 15 mL
Final Weight/Volume: 5 mL
Injection Volume:
Column ID: PRIMARY

Analyte	Result	Qual	MDL	RL
2,4-D	0.017	U	0.0033	0.017
Silvex (2,4,5-TP)	0.017	U	0.0030	0.017
Surrogate	% Rec		Acceptance Limits	
2,4-Dichlorophenylacetic acid	90		72 - 145	

Quality Control Results

Client: GEI Consultants, Inc.

Job Number: 460-52701-1

TCLP SPLPE Leachate Blank - Batch: 460-152591

Method: 8151A
Preparation: 8151A
TCLP

Lab Sample ID: LB 460-152369/1-G
 Client Matrix: Solid
 Dilution: 1.0
 Analysis Date: 03/26/2013 2141
 Prep Date: 03/25/2013 1013
 Leach Date: 03/22/2013 1801

Analysis Batch: 460-152946
 Prep Batch: 460-152591
 Leach Batch: 460-152369
 Units: mg/L

Instrument ID: PESTGC3
 Lab File ID: zr116007.d
 Initial Weight/Volume: 15 mL
 Final Weight/Volume: 5 mL
 Injection Volume:
 Column ID: SECONDARY

Analyte	Result	Qual	MDL	RL
2,4-D	0.017	U	0.0033	0.017
Silvex (2,4,5-TP)	0.017	U	0.0030	0.017
Surrogate	% Rec	Acceptance Limits		
2,4-Dichlorophenylacetic acid	85	72 - 145		

Quality Control Results

Client: GEI Consultants, Inc.

Job Number: 460-52701-1

**Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 460-152591**

**Method: 8151A
Preparation: 8151A**

LCS Lab Sample ID:	LCS 460-152591/2-A	Analysis Batch:	460-152945	Instrument ID:	PESTGC3
Client Matrix:	Water	Prep Batch:	460-152591	Lab File ID:	zr115996.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	15 mL
Analysis Date:	03/26/2013 1737	Units:	mg/L	Final Weight/Volume:	5 mL
Prep Date:	03/25/2013 1013			Injection Volume:	
Leach Date:	N/A			Column ID:	PRIMARY

LCSD Lab Sample ID:	LCSD 460-152591/3-A	Analysis Batch:	460-152945	Instrument ID:	PESTGC3
Client Matrix:	Water	Prep Batch:	460-152591	Lab File ID:	zr115997.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	15 mL
Analysis Date:	03/26/2013 1759	Units:	mg/L	Final Weight/Volume:	5 mL
Prep Date:	03/25/2013 1013			Injection Volume:	
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
2,4-D	92	92	60 - 136	0	30		
Silvex (2,4,5-TP)	111	107	70 - 150	4	30		
Surrogate	LCS % Rec		LCSD % Rec	Acceptance Limits			
2,4-Dichlorophenylacetic acid	96		102			72 - 145	

**Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 460-152591**

**Method: 8151A
Preparation: 8151A**

LCS Lab Sample ID:	LCS 460-152591/2-A	Analysis Batch:	460-152945	Instrument ID:	PESTGC3
Client Matrix:	Water	Prep Batch:	460-152591	Lab File ID:	zf115996.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	15 mL
Analysis Date:	03/26/2013 1737	Units:	mg/L	Final Weight/Volume:	5 mL
Prep Date:	03/25/2013 1013			Injection Volume:	
Leach Date:	N/A			Column ID:	SECONDARY

LCSD Lab Sample ID:	LCSD 460-152591/3-A	Analysis Batch:	460-152945	Instrument ID:	PESTGC3
Client Matrix:	Water	Prep Batch:	460-152591	Lab File ID:	zf115997.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	15 mL
Analysis Date:	03/26/2013 1759	Units:	mg/L	Final Weight/Volume:	5 mL
Prep Date:	03/25/2013 1013			Injection Volume:	
Leach Date:	N/A			Column ID:	SECONDARY

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
2,4-D	87	86	60 - 136	2	30		
Silvex (2,4,5-TP)	106	105	70 - 150	1	30		
Surrogate	LCS % Rec		LCSD % Rec	Acceptance Limits			
2,4-Dichlorophenylacetic acid	101		100			72 - 145	

Quality Control Results

Client: GEI Consultants, Inc.

Job Number: 460-52701-1

Method Blank - Batch: 460-152243

Method: 6010B

Preparation: 3050B

Lab Sample ID: MB 460-152243/1-A ^2
 Client Matrix: Solid
 Dilution: 2.0
 Analysis Date: 03/22/2013 1356
 Prep Date: 03/22/2013 0751
 Leach Date: N/A

Analysis Batch: 460-152385
 Prep Batch: 460-152243
 Leach Batch: N/A
 Units: mg/Kg

Instrument ID: ICP5
 Lab File ID: 03222013.asc
 Initial Weight/Volume: 1.00 g
 Final Weight/Volume: 50 mL

Analyte	Result	Qual	MDL	RL
Aluminum	20.0	U	9.1	20.0
Antimony	1.0	U	0.62	1.0
Arsenic	0.50	U	0.47	0.50
Barium	20.0	U	0.57	20.0
Beryllium	0.20	U	0.072	0.20
Cadmium	0.50	U	0.074	0.50
Calcium	500	U	35.4	500
Chromium	1.0	U	0.43	1.0
Cobalt	5.0	U	0.43	5.0
Copper	2.5	U	0.97	2.5
Iron	15.0	U	6.1	15.0
Lead	0.50	U	0.43	0.50
Magnesium	500	U	36.0	500
Manganese	1.5	U	0.44	1.5
Nickel	4.0	U	0.44	4.0
Potassium	500	U	53.5	500
Selenium	1.0	U	0.66	1.0
Silver	1.0	U	0.10	1.0
Sodium	500	U	79.0	500
Thallium	1.0	U	0.57	1.0
Vanadium	5.0	U	0.38	5.0
Zinc	3.0	U	0.54	3.0

Quality Control Results

Client: GEI Consultants, Inc.

Job Number: 460-52701-1

LCS-Certified Reference Material - Batch: 460-152243

**Method: 6010B
Preparation: 3050B**

Lab Sample ID:	LCSSRM	Analysis Batch:	460-152385	Instrument ID:	ICP5
Client Matrix:	Solid	Prep Batch:	460-152243	Lab File ID:	03222013.asc
Dilution:	4.0	Leach Batch:	N/A	Initial Weight/Volume:	1.02 g
Analysis Date:	03/22/2013 1345	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	03/22/2013 0751				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Aluminum	9130	8012	87.8	43.3 - 156.8	
Antimony	118	210.0	178.5	20.8 - 252.5	
Arsenic	165	167.8	101.9	70.8 - 129.8	
Barium	209	215.5	103.2	73.2 - 126.8	
Beryllium	108	115.1	106.7	75.1 - 125.5	
Cadmium	101	110.7	109.6	73.0 - 126.2	
Calcium	6740	7480	111.1	74.4 - 125.8	
Chromium	117	126.9	108.7	69.7 - 129.4	
Cobalt	128	145.1	113.0	74.4 - 125.2	
Copper	116	128.1	110.7	74.6 - 124.6	
Iron	12700	13410	105.2	32.2 - 167.7	
Lead	75.4	82.82	109.9	68.7 - 131.3	
Magnesium	2730	2680	98.3	65.1 - 135.3	
Manganese	331	375.5	113.3	75.4 - 125.1	
Nickel	68.6	79.31	115.6	70.9 - 129.0	
Potassium	3070	2955	96.3	62.9 - 136.7	
Selenium	124	129.6	104.9	66.7 - 134.1	
Silver	41.5	40.16	96.8	66.2 - 134.0	
Sodium	343	369.2	107.6	42.9 - 156.9	J
Thallium	204	226.9	111.2	69.2 - 130.8	
Vanadium	85.4	90.80	106.3	63.1 - 136.6	
Zinc	271	294.7	108.9	71.4 - 128.6	

Quality Control Results

Client: GEI Consultants, Inc.

Job Number: 460-52701-1

Method Blank - Batch: 460-152459

**Method: 6010B
Preparation: 3010A**

Lab Sample ID: MB 460-152459/1-A
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 03/24/2013 1346
 Prep Date: 03/23/2013 1340
 Leach Date: N/A

Analysis Batch: 460-152520
 Prep Batch: 460-152459
 Leach Batch: N/A
 Units: ug/L

Instrument ID: ICP5
 Lab File ID: 03242013.asc
 Initial Weight/Volume: 50 mL
 Final Weight/Volume: 50 mL

Analyte	Result	Qual	MDL	RL
Arsenic	5.0	U	3.7	5.0
Barium	200	U	5.9	200
Cadmium	5.0	U	0.82	5.0
Chromium	10.0	U	4.5	10.0
Lead	5.0	U	4.0	5.0
Selenium	10.0	U	5.8	10.0
Silver	10.0	U	1.3	10.0

TCLP SPLPE Leachate Blank - Batch: 460-152459

**Method: 6010B
Preparation: 3010A
TCLP**

Lab Sample ID: LB 460-152369/1-D ^5
 Client Matrix: Solid
 Dilution: 5.0
 Analysis Date: 03/24/2013 1350
 Prep Date: 03/23/2013 1340
 Leach Date: 03/22/2013 1801

Analysis Batch: 460-152520
 Prep Batch: 460-152459
 Leach Batch: 460-152369
 Units: ug/L

Instrument ID: ICP5
 Lab File ID: 03242013.asc
 Initial Weight/Volume: 50 mL
 Final Weight/Volume: 50 mL

Analyte	Result	Qual	MDL	RL
Arsenic	25.0	U	18.6	25.0
Barium	1000	U	29.7	1000
Cadmium	25.0	U	4.1	25.0
Chromium	50.0	U	22.3	50.0
Lead	25.0	U	20.1	25.0
Selenium	50.0	U	28.8	50.0
Silver	50.0	U	6.7	50.0

Quality Control Results

Client: GEI Consultants, Inc.

Job Number: 460-52701-1

Lab Control Sample - Batch: 460-152459

Method: 6010B

Preparation: 3010A

Lab Sample ID: LCS 460-152459/2-A
Client Matrix: Water
Dilution: 1.0
Analysis Date: 03/24/2013 1336
Prep Date: 03/23/2013 1340
Leach Date: N/A

Analysis Batch: 460-152520
Prep Batch: 460-152459
Leach Batch: N/A
Units: ug/L

Instrument ID: ICP5
Lab File ID: 03242013.asc
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Arsenic	5000	5201	104	80 - 120	
Barium	10000	11000	110	80 - 120	
Cadmium	1000	1105	111	80 - 120	
Chromium	5000	5379	108	80 - 120	
Lead	5000	5636	113	80 - 120	
Selenium	1000	1041	104	80 - 120	
Silver	500	506.0	101	80 - 120	

Quality Control Results

Client: GEI Consultants, Inc.

Job Number: 460-52701-1

Method Blank - Batch: 460-152436

Lab Sample ID: MB 460-152436/1-A
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 03/23/2013 1627
 Prep Date: 03/23/2013 1154
 Leach Date: N/A

Analysis Batch: 460-152469
 Prep Batch: 460-152436
 Leach Batch: N/A
 Units: ug/L

**Method: 7470A
 Preparation: 7470A**

Instrument ID: LEEMAN5
 Lab File ID: 152435.PRN
 Initial Weight/Volume: 30 mL
 Final Weight/Volume: 30 mL

Analyte	Result	Qual	MDL	RL
Mercury	0.20	U	0.16	0.20

TCLP SPLPE Leachate Blank - Batch: 460-152436

Lab Sample ID: LB 460-152369/1-C
 Client Matrix: Solid
 Dilution: 1.0
 Analysis Date: 03/23/2013 1652
 Prep Date: 03/23/2013 1154
 Leach Date: 03/22/2013 1801

Analysis Batch: 460-152469
 Prep Batch: 460-152436
 Leach Batch: 460-152369
 Units: ug/L

**Method: 7470A
 Preparation: 7470A
 TCLP**

Instrument ID: LEEMAN5
 Lab File ID: 152435.PRN
 Initial Weight/Volume: 30 mL
 Final Weight/Volume: 30 mL

Analyte	Result	Qual	MDL	RL
Mercury	0.20	U	0.16	0.20

Lab Control Sample - Batch: 460-152436

Lab Sample ID: LCS 460-152436/2-A
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 03/23/2013 1629
 Prep Date: 03/23/2013 1154
 Leach Date: N/A

Analysis Batch: 460-152469
 Prep Batch: 460-152436
 Leach Batch: N/A
 Units: ug/L

**Method: 7470A
 Preparation: 7470A**

Instrument ID: LEEMAN5
 Lab File ID: 152435.PRN
 Initial Weight/Volume: 30 mL
 Final Weight/Volume: 30 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	5.00	4.84	97	80 - 120	

Quality Control Results

Client: GEI Consultants, Inc.

Job Number: 460-52701-1

Method Blank - Batch: 460-152503

Lab Sample ID: MB 460-152503/1-A
 Client Matrix: Solid
 Dilution: 1.0
 Analysis Date: 03/24/2013 1612
 Prep Date: 03/24/2013 1057
 Leach Date: N/A

Analysis Batch: 460-152523
 Prep Batch: 460-152503
 Leach Batch: N/A
 Units: mg/Kg

**Method: 7471A
 Preparation: 7471A**

Instrument ID: LEEMAN3
 Lab File ID: 152503.PRN
 Initial Weight/Volume: 0.60 g
 Final Weight/Volume: 50 mL

Analyte	Result	Qual	MDL	RL
Mercury	0.017	U	0.012	0.017

LCS-Certified Reference Material - Batch: 460-152503

Lab Sample ID: LCSSRM
 Client Matrix: Solid
 Dilution: 50
 Analysis Date: 03/24/2013 1614
 Prep Date: 03/24/2013 1057
 Leach Date: N/A

Analysis Batch: 460-152523
 Prep Batch: 460-152503
 Leach Batch: N/A
 Units: mg/Kg

**Method: 7471A
 Preparation: 7471A**

Instrument ID: LEEMAN3
 Lab File ID: 152503.PRN
 Initial Weight/Volume: 0.60 g
 Final Weight/Volume: 50 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	25.1	23.71	94.5	51.4 - 148.2	

Quality Control Results

Client: GEI Consultants, Inc.

Job Number: 460-52701-1

Method Blank - Batch: 460-152304

**Method: 7196A
Preparation: 3060A**

Lab Sample ID:	MB 460-152304/1-A	Analysis Batch:	460-152310	Instrument ID:	WetHexSpec
Client Matrix:	Solid	Prep Batch:	460-152304	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	2.50 g
Analysis Date:	03/22/2013 1452	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	03/22/2013 1258				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Chromium (hexavalent)	2.0	U	0.50	2.0

Lab Control Sample Insoluble - Batch: 460-152304

**Method: 7196A
Preparation: 3060A**

Lab Sample ID:	LCSI 460-152304/3-A	Analysis Batch:	460-152310	Instrument ID:	WetHexSpec
Client Matrix:	Solid	Prep Batch:	460-152304	Lab File ID:	N/A
Dilution:	50	Leach Batch:	N/A	Initial Weight/Volume:	2.50 g
Analysis Date:	03/22/2013 1452	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	03/22/2013 1258				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Chromium (hexavalent)	708	719.0	102	80 - 120	

Lab Control Sample Soluble - Batch: 460-152304

**Method: 7196A
Preparation: 3060A**

Lab Sample ID:	LCSS 460-152304/2-A	Analysis Batch:	460-152310	Instrument ID:	WetHexSpec
Client Matrix:	Solid	Prep Batch:	460-152304	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	2.50 g
Analysis Date:	03/22/2013 1452	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	03/22/2013 1258				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Chromium (hexavalent)	15.2	14.47	95	85 - 115	

Quality Control Results

Client: GEI Consultants, Inc.

Job Number: 460-52701-1

Method Blank - Batch: 460-152502

Lab Sample ID: MB 460-152502/1-A
 Client Matrix: Solid
 Dilution: 1.0
 Analysis Date: 03/24/2013 1627
 Prep Date: 03/24/2013 1100
 Leach Date: N/A

Analysis Batch: 460-152521
 Prep Batch: 460-152502
 Leach Batch: N/A
 Units: mg/Kg

**Method: 9012A
 Preparation: 9012A**

Instrument ID: Lachat3
 Lab File ID: OM_3-24-2013_04-15-
 Initial Weight/Volume: 0.5 g
 Final Weight/Volume: 5 mL

Analyte	Result	Qual	MDL	RL
Cyanide, Total	0.10	U	0.055	0.10

Low Level Control Sample - Batch: 460-152502

Lab Sample ID: LLCS 460-152502/2-A
 Client Matrix: Solid
 Dilution: 1.0
 Analysis Date: 03/24/2013 1628
 Prep Date: 03/24/2013 1100
 Leach Date: N/A

Analysis Batch: 460-152521
 Prep Batch: 460-152502
 Leach Batch: N/A
 Units: mg/Kg

**Method: 9012A
 Preparation: 9012A**

Instrument ID: Lachat3
 Lab File ID: OM_3-24-2013_04-15-
 Initial Weight/Volume: 0.5 g
 Final Weight/Volume: 5 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Cyanide, Total	1.00	0.963	96	90 - 110	

High Level Control Sample - Batch: 460-152502

Lab Sample ID: HLCS 460-152502/3-A
 Client Matrix: Solid
 Dilution: 1.0
 Analysis Date: 03/24/2013 1629
 Prep Date: 03/24/2013 1100
 Leach Date: N/A

Analysis Batch: 460-152521
 Prep Batch: 460-152502
 Leach Batch: N/A
 Units: mg/Kg

**Method: 9012A
 Preparation: 9012A**

Instrument ID: Lachat3
 Lab File ID: OM_3-24-2013_04-15-
 Initial Weight/Volume: 0.5 g
 Final Weight/Volume: 5 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Cyanide, Total	2.00	1.97	99	90 - 110	

Quality Control Results

Client: GEI Consultants, Inc.

Job Number: 460-52701-1

Method Blank - Batch: 460-152592

**Method: 9014
Preparation: 7.3.3**

Lab Sample ID:	MB 460-152592/1-A	Analysis Batch:	460-152607	Instrument ID:	No Equipment
Client Matrix:	Solid	Prep Batch:	460-152592	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	10 mL
Analysis Date:	03/25/2013 1106	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	03/25/2013 1015				
Leach Date:	N/A				

Analyte	Result	Qual	RL	RL
Cyanide, Reactive	25.0	U	25.0	25.0

Lab Control Sample - Batch: 460-152592

**Method: 9014
Preparation: 7.3.3**

Lab Sample ID:	LCS 460-152592/2-A	Analysis Batch:	460-152607	Instrument ID:	No Equipment
Client Matrix:	Solid	Prep Batch:	460-152592	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	10 mL
Analysis Date:	03/25/2013 1106	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	03/25/2013 1015				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Cyanide, Reactive	40.0	25.0	12	10 - 100	U

Duplicate - Batch: 460-152592

**Method: 9014
Preparation: 7.3.3**

Lab Sample ID:	460-52701-1	Analysis Batch:	460-152607	Instrument ID:	No Equipment
Client Matrix:	Solid	Prep Batch:	460-152592	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	10 g
Analysis Date:	03/25/2013 1106	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	03/25/2013 1015				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Cyanide, Reactive	25.0 U	25.0	NC	10	U

Quality Control Results

Client: GEI Consultants, Inc.

Job Number: 460-52701-1

Method Blank - Batch: 490-68479

**Method: 9023
Preparation: 9023**

Lab Sample ID: MB 490-68479/1-A
Client Matrix: Solid
Dilution: 1.0
Analysis Date: 03/28/2013 0800
Prep Date: 03/27/2013 1539
Leach Date: N/A

Analysis Batch: 490-68532
Prep Batch: 490-68479
Leach Batch: N/A
Units: mg/Kg

Instrument ID: No Equipment
Lab File ID: N/A
Initial Weight/Volume: 1 g
Final Weight/Volume: 1 mL

Analyte	Result	Qual	MDL	RL
Halogens, Extractable Organic	50.0	U	35.0	50.0

**Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 490-68479**

**Method: 9023
Preparation: 9023**

LCS Lab Sample ID: LCS 490-68479/2-A
Client Matrix: Solid
Dilution: 1.0
Analysis Date: 03/28/2013 0800
Prep Date: 03/27/2013 1539
Leach Date: N/A

Analysis Batch: 490-68532
Prep Batch: 490-68479
Leach Batch: N/A
Units: mg/Kg

Instrument ID: No Equipment
Lab File ID: N/A
Initial Weight/Volume: 1 g
Final Weight/Volume: 1 mL

LCSD Lab Sample ID: LCSD 490-68479/25-A
Client Matrix: Solid
Dilution: 1.0
Analysis Date: 03/28/2013 0800
Prep Date: 03/27/2013 1539
Leach Date: N/A

Analysis Batch: 490-68532
Prep Batch: 490-68479
Leach Batch: N/A
Units: mg/Kg

Instrument ID: No Equipment
Lab File ID: N/A
Initial Weight/Volume: 1 g
Final Weight/Volume: 1 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Halogens, Extractable Organic	111	93	80 - 120	18	20		

Quality Control Results

Client: GEI Consultants, Inc.

Job Number: 460-52701-1

Method Blank - Batch: 460-152602

**Method: 9034
Preparation: 7.3.4**

Lab Sample ID:	MB 460-152602/1-A	Analysis Batch:	460-152610	Instrument ID:	No Equipment
Client Matrix:	Solid	Prep Batch:	460-152602	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	10 mL
Analysis Date:	03/25/2013 1113	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	03/25/2013 1045				
Leach Date:	N/A				

Analyte	Result	Qual	RL	RL
Sulfide, Reactive	20.0	U	20.0	20.0

LCS-Certified Reference Material - Batch: 460-152602

**Method: 9034
Preparation: 7.3.4**

Lab Sample ID:	LCSSRM	Analysis Batch:	460-152610	Instrument ID:	No Equipment
Client Matrix:	Solid	Prep Batch:	460-152602	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	10 mL
Analysis Date:	03/25/2013 1113	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	03/25/2013 1045				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Sulfide, Reactive	13.3	20.0	77.1	49.3 - 139.1	U

Matrix Spike/

Matrix Spike Duplicate Recovery Report - Batch: 460-152602

**Method: 9034
Preparation: 7.3.4**

MS Lab Sample ID:	460-52701-1	Analysis Batch:	460-152610	Instrument ID:	No Equipment
Client Matrix:	Solid	Prep Batch:	460-152602	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	10 g
Analysis Date:	03/25/2013 1113			Final Weight/Volume:	50 mL
Prep Date:	03/25/2013 1045				
Leach Date:	N/A				

MSD Lab Sample ID:	460-52701-1	Analysis Batch:	460-152610	Instrument ID:	No Equipment
Client Matrix:	Solid	Prep Batch:	460-152602	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	10 g
Analysis Date:	03/25/2013 1113			Final Weight/Volume:	50 mL
Prep Date:	03/25/2013 1045				
Leach Date:	N/A				

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Sulfide, Reactive	49	48	40 - 150	3	10		

Quality Control Results

Client: GEI Consultants, Inc.

Job Number: 460-52701-1

Method Blank - Batch: 460-152355

**Method: 9045C
Preparation: N/A**

Lab Sample ID:	MB 460-152355/2	Analysis Batch:	460-152355	Instrument ID:	No Equipment
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	20 mL
Analysis Date:	03/22/2013 1421	Units:	SU	Final Weight/Volume:	20 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	NONE	NONE
Corrosivity	5.960			

LCS-Certified Reference Material - Batch: 460-152355

**Method: 9045C
Preparation: N/A**

Lab Sample ID:	LCSSRM 460-152355/3	Analysis Batch:	460-152355	Instrument ID:	No Equipment
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	20 mL
Analysis Date:	03/22/2013 1422	Units:	SU	Final Weight/Volume:	20 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Corrosivity	7.03	7.030	100.0	98.0 - 102.0	

Quality Control Results

Client: GEI Consultants, Inc.

Job Number: 460-52701-1

Lab Control Sample - Batch: 680-271195

**Method: D240-87
Preparation: D240-87**

Lab Sample ID:	LCS 680-271195/1-A	Analysis Batch:	680-271263	Instrument ID:	No Equipment
Client Matrix:	Solid	Prep Batch:	680-271195	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.98 g
Analysis Date:	03/29/2013 1624	Units:	BTU/lb	Final Weight/Volume:	0.98 g
Prep Date:	03/29/2013 1120				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
BTU	5960	4926	83	70 - 130	

Chain of Custody Record

Temperature on Receipt 2/31 2014
 Drinking Water? Yes No

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

52701

TAL-4124 (1007)

Client <u>CEI Consultants, Inc.</u>			Project Manager <u>Jerry Zaki</u>			Date <u>03/19/13</u>	Chain of Custody Number <u>236398</u>
Address <u>455 Winding Brook Drive</u>			Telephone Number (Area Code)/Fax Number <u>(860) 360-5704</u>			Lab Number	Page <u>1</u> of <u>2</u>
City <u>Glastonbury</u>	State <u>CT</u>	Zip Code <u>06033</u>	Site Contact <u>Drew Blicharz</u>		Lab Contact <u>Melissa Hays</u>	Analysis (Attach list if more space is needed)	

Project Name and Location (State)
Troy Liberty Street PDI

Contract/Purchase Order/Quote No.
5983

Carrier/Waybill Number

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix					Containers & Preservatives						Special Instructions/ Conditions of Receipt			
			Air	Aqueous	Sed.	Soil	Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Hex CAFCN				
<u>Pre-Char 4 Waste 2</u>	<u>03/18/13</u>	<u>1645</u>			X	X	X	X	X	X	X	X	X	X	X	X	<u>-1</u>
<u>Pre-Char 3</u>	<u>03/19/13</u>	<u>0930</u>			X	X	X	X	X	X	X	X	X	X	X	X	<u>-2</u>
<u>TDK</u>																	
<u>3-19-13</u>																	

Sub Work

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown

Sample Disposal
 Return To Client Disposal By Lab Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
 24 Hours 48 Hours 7 Days 14 Days 21 Days Other STANDARD

QC Requirements (Specify)

1. Relinquished By <u>Drew Blicharz</u>	Date <u>03/19/13</u>	Time <u>1630</u>	1. Received By <u>Tia Kraler</u>	Date <u>3-19-13</u>	Time <u>1630</u>
2. Relinquished By <u>Tia Kraler</u>	Date <u>3-19-13</u>	Time <u>1800</u>	2. Received By <u>FedBy</u>	Date	Time
3. Relinquished By <u>FedBy</u>	Date	Time	3. Received By <u>[Signature]</u>	Date <u>3/20/13</u>	Time <u>9:00</u>

Comments
CS# 539262

Chain of Custody Record

Temperature on Receipt 2/31 ²⁰¹³
 Drinking Water? Yes No

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

52701

TAL-4124 (1007)

Client GEL Consultants, Inc		Project Manager Jerry Zak		Date 03/19/13	Chain of Custody Number 216110
Address 455 Winding Brook Drive		Telephone Number (Area Code)/Fax Number (860) 368-5404		Lab Number	

City Glastonbury	State CT	Zip Code 06033	Site Contact Drew Blicharz	Lab Contact Melissa Haas	Analysis (Attach list if more space is needed)
Project Name and Location (State) Troy Liberty Street PDI			Carrier/Waybill Number		

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix					Containers & Preservatives					Special Instructions/Conditions of Receipt	
			Air	Aqueous	Sed.	Soil	Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH		
Pre-Char 4 Waste 2	03/18/13	1645			X	X	X	X	X	X	X	X	X	-1
TRK 3-19-13														

Possible Hazard Identification	Sample Disposal	(A fee may be assessed if samples are retained longer than 1 month)
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown	<input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months	

Turn Around Time Required	QC Requirements (Specify)
<input type="checkbox"/> 24 Hours <input type="checkbox"/> 48 Hours <input type="checkbox"/> 7 Days <input type="checkbox"/> 14 Days <input type="checkbox"/> 21 Days <input checked="" type="checkbox"/> Other STANDARD	

1. Relinquished By Drew Blicharz	Date 03/15/13	Time 1630	1. Received By Tina Kroll	Date 3-19-13	Time 1630
2. Relinquished By Tina Kroll	Date 3-19-13	Time 1800	2. Received By FedEx	Date	Time
3. Relinquished By FedEx	Date	Time	3. Received By L L	Date 3/20/13	Time 9:00

Comments **CS# 539252**

TestAmerica Edison Receipt Temperature and pH Log

Job Number:

52701

Number of Coolers:	<u>1</u>	IR Gun #	<u>4</u>
Temp. Cooler #1 (Deg C) (Raw/Corrected)	<u>2/3.1°C</u>	Temp. Cooler #4 (Deg C) (Raw/Corrected)	_____
Temp. Cooler #2 (Deg C) (Raw/Corrected)	_____	Temp. Cooler #5 (Deg C) (Raw/Corrected)	_____
Temp. Cooler #3 (Deg C) (Raw/Corrected)	_____	Temp. Cooler #6 (Deg C) (Raw/Corrected)	_____
		Temp. Cooler #7 (Deg C) (Raw/Corrected)	_____
		Temp. Cooler #8 (Deg C) (Raw/Corrected)	_____
		Temp. Cooler #9 (Deg C) (Raw/Corrected)	_____

Sample No.	Ammonia (pH<2)	COD (pH<2)	Nitrate Nitrite (pH<2)	*Metals (pH<2)	Pest (pH 5-9)	PHC (pH<2)	Phenols (pH<2)	Sulfide (pH>9)	TKN (pH<2)	TOC (pH<2)	Total Cyanide (pH>12)	Total Phos (pH<2)	Other

If pH adjustments are required record the information below:

Sample No(s). adjusted: _____

Preservative Name/Conc.: _____ Volume of Preservative used (ml): _____

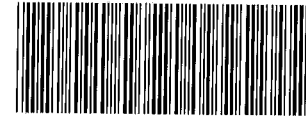
Lot # of Preservative: _____ Expiration Date: _____

Project Manager and the Department Manager should be notified about the samples which were pH adjusted.
 * Samples for Metal analysis which are out of compliance must be acidified at least 24 hours prior to analysis.

Initials: KR

Date: 3/21/13

04/04/2013
Page 110 of 116



460-52701 Chain of Custody

COOLER RECEIPT FORM

Cooler Received/Opened On 3-20-13 @ 0955

1. Tracking # 1Z0039560153356273 (last 4 digits, FedEx)

Courier: UPS IR Gun ID 94660220

2. Temperature of rep. sample or temp blank when opened: 3.4 Degrees Celsius

3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES NO: NA

4. Were custody seals on outside of cooler? YES..NO...NA

If yes, how many and where: (2) Front / Back

5. Were the seals intact, signed, and dated correctly? YES..NO...NA

6. Were custody papers inside cooler? YES..NO...NA

I certify that I opened the cooler and answered questions 1-6 (initial) W

7. Were custody seals on containers: YES NO and Intact YES...NO...NA

Were these signed and dated correctly? YES...NO...NA

8. Packing mat'l used? Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process: Ice Ice-pack Ice (direct contact) Dry ice Other None

10. Did all containers arrive in good condition (unbroken)? YES..NO...NA

11. Were all container labels complete (#, date, signed, pres., etc)? YES..NO...NA

12. Did all container labels and tags agree with custody papers? YES..NO...NA

13a. Were VOA vials received? YES...NO...NA

b. Was there any observable headspace present in any VOA vial? YES...NO...NA

14. Was there a Trip Blank in this cooler? YES...NO...NA If multiple coolers, sequence # _____

I certify that I unloaded the cooler and answered questions 7-14 (initial) W

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES..NO...NA

b. Did the bottle labels indicate that the correct preservatives were used YES...NO...NA

16. Was residual chlorine present? YES...NO...NA

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (initial) W

17. Were custody papers properly filled out (ink, signed, etc)? YES..NO...NA

18. Did you sign the custody papers in the appropriate place? YES..NO...NA

19. Were correct containers used for the analysis requested? YES..NO...NA

20. Was sufficient amount of sample sent in each container? YES..NO...NA

I certify that I entered this project into LIMS and answered questions 17-20 (initial) W

I certify that I attached a label with the unique LIMS number to each container (initial) W

21. Were there Non-Conformance issues at login? YES...NO Was a NCM generated? YES...NO..# _____

TestAmerica Edison

777 New Durham Road
Edison, NJ 08817
Phone (732) 549-3900 Fax (732) 549-3679

Chain of Custody Record



THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)			Sampler:	Lab PM:	Carrier Tracking No(s):	COC No:						
Client Contact: Shipping/Receiving			Phone:	Haas, Melissa		460-19325.1						
Company: TestAmerica Laboratories, Inc				E-Mail:		Page: Page 1 of 1						
Address: 2960 Foster Creighton Drive, Nashville, TN, 37204			Due Date Requested: 4/1/2013	Analysis Requested					Job #: 460-52701-1			
City: Nashville			TAT Requested (days):	Field Filtered Sample (Yes or No) Perform MS/MSD (Yes or No) 9023/9023 - Prep Extractable Organic Halides					Total Number of Containers 1			
State, Zip: TN, 37204			PO #:									
Phone: 615-726-0177(Tel) 615-726-0954(Fax)			WO #:									
Project Name: Troy Liberty Street Former MGP PDI			Project #:	Preservation Codes: A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2SO3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ice U - Acetone J - DI Water V - MCAA K - EDTA W - ph 4-5 L - EDA Z - other (specify)					Other:			
Site:			SSOW#:									
Sample Identification - Client ID (Lab ID)			Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oli, BT=Tissue, A=Air)						Special Instructions/Note:
Pre-Char 4 Waste 2 (460-52701-1)			3/18/13	16:45 Eastern		Solid		X				
Possible Hazard Identification			Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)									
Unconfirmed			<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months									
Deliverable Requested: I, II, III, IV, Other (specify)			Special Instructions/QC Requirements:									
Empty Kit Relinquished by:			Date:	Time:	Method of Shipment:							
Relinquished by:			Date/Time: 3/21/13/1600	Company: TEST 72	Received by:			Date/Time: 3-22-13 @ 0800	Company: TAN			
Relinquished by:			Date/Time:	Company:	Received by:			Date/Time:	Company:			
Relinquished by:			Date/Time:	Company:	Received by:			Date/Time:	Company:			
Custody Seals Intact: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Custody Seal No.:			Cooler Temperature(s) °C and Other Remarks: 3.4c							

Login Sample Receipt Checklist

Client: GEI Consultants, Inc.

Job Number: 460-52701-1

Login Number: 52701
List Number: 1
Creator: Rivera, Kenneth

List Source: TestAmerica Edison

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	539262
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.1°C, IR #4
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	False	See NCM
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	N/A	
Residual Chlorine Checked.	N/A	No analysis requiring residual chlorine check assigned.

Login Sample Receipt Checklist

Client: GEI Consultants, Inc.

Job Number: 460-52701-1

Login Number: 52701
List Number: 1
Creator: McBride, Mike

List Source: TestAmerica Nashville
List Creation: 03/22/13 07:23 PM

Question	Answer	Comment
Radioactivity wasn't checked or is <= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: GEI Consultants, Inc.

Job Number: 460-52701-1

Login Number: 52701
List Number: 1
Creator: Barnett, Eddie T

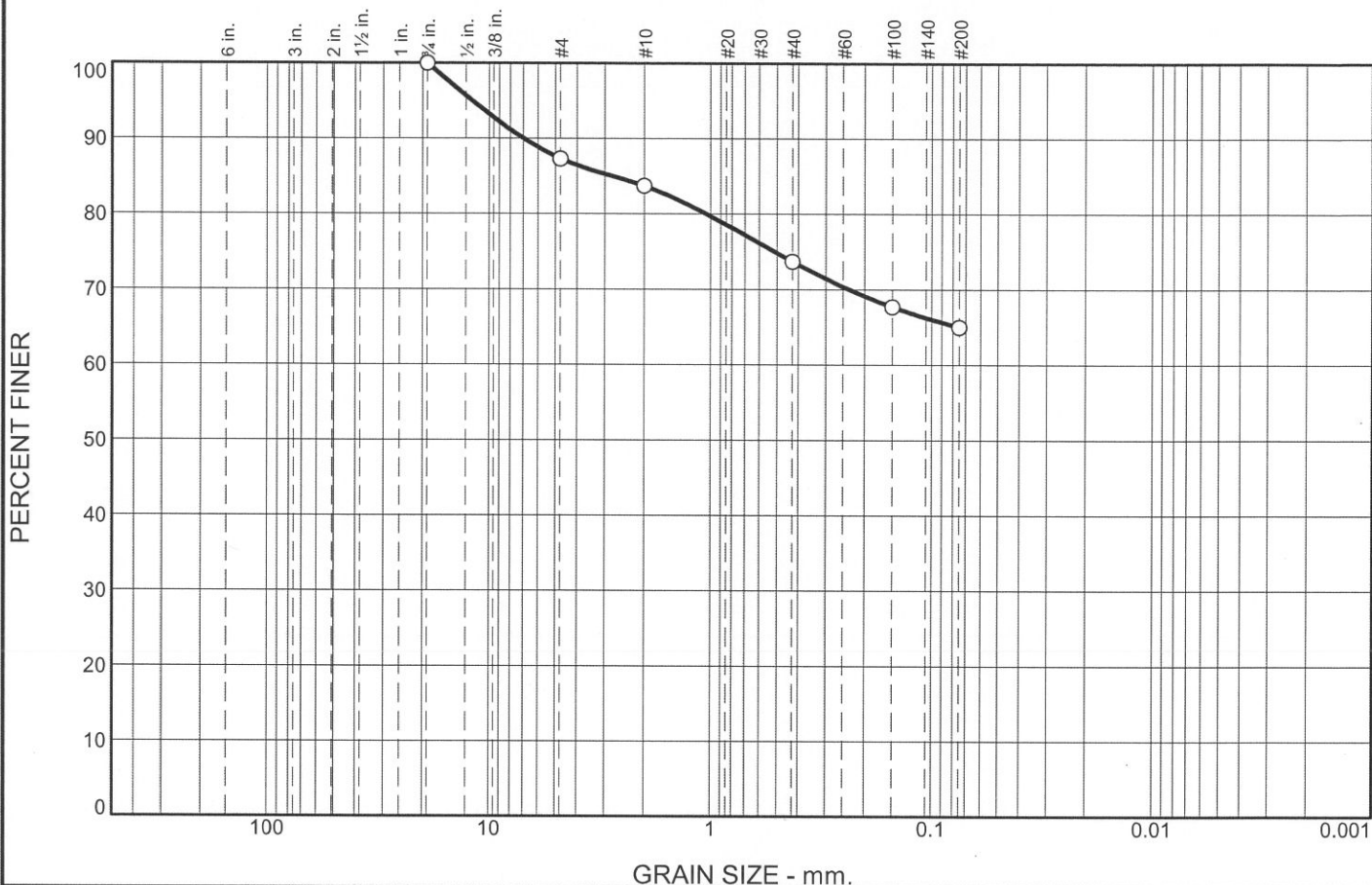
List Source: TestAmerica Savannah
List Creation: 03/22/13 03:19 PM

Question	Answer	Comment
Radioactivity wasn't checked or is <= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Appendix F

Grain Size and Atterberg Limits Results

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	12.7	3.6	10.0	8.7	65.0	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
.75	100.0		
#4	87.3		
#10	83.7		
#40	73.7		
#100	67.7		
#200	65.0		

Soil Description

sandy lean clay

Atterberg Limits

PL= 21.7 LL= 37.2 PI= 15.5

Coefficients

D₈₅= 2.7875 D₆₀= D₅₀=
D₃₀= D₁₅= D₁₀=
C_u= C_c=

Classification

USCS= CL AASHTO= A-6(8)

Remarks

* (no specification provided)

Sample No.: 13-009
Location: B-501, 6 - 8 feet

Source of Sample: B-501

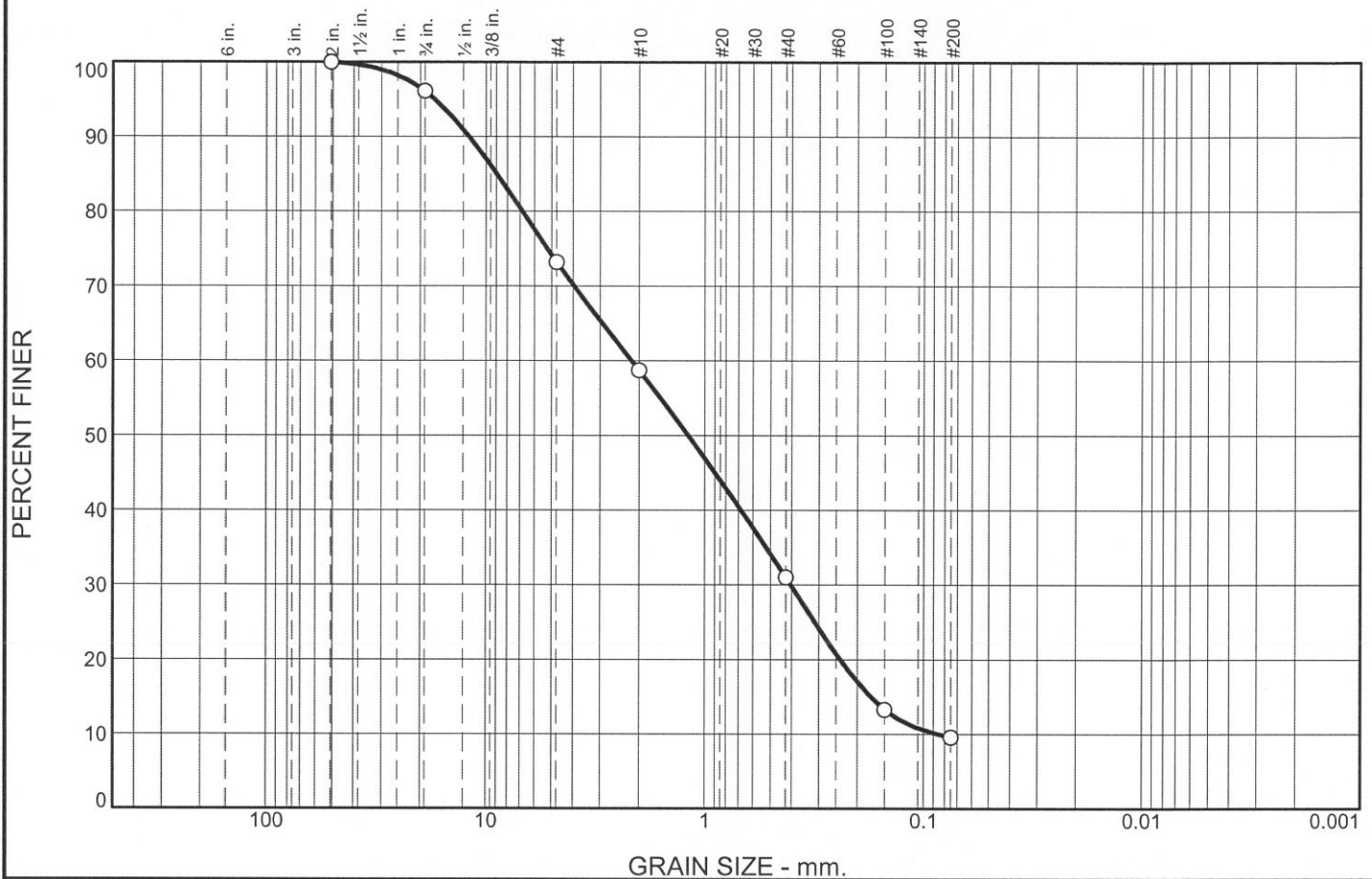
Date: 3/29/13
Elev./Depth: 6-8'

QCQA Laboratories, Inc.
Schenectady, NY

Client: GEI Consultants, Inc.
Project: Pre Design Investigation
Liberty Street - Troy, New York
Project No: z13-3425

Figure 13-009

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	3.9	22.9	14.5	27.7	21.4	9.6	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
2	100.0		
.75	96.1		
#4	73.2		
#10	58.7		
#40	31.0		
#100	13.3		
#200	9.6		

Soil Description
poorly graded sand with silt and gravel

Atterberg Limits
 PL= NP LL= NV PI= NP

Coefficients
 D₈₅= 8.9425 D₆₀= 2.1653 D₅₀= 1.1929
 D₃₀= 0.4040 D₁₅= 0.1736 D₁₀= 0.0857
 C_u= 25.27 C_c= 0.88

Classification
 USCS= SP-SM AASHTO= A-1-b

Remarks

* (no specification provided)

Sample No.: 13-010

Source of Sample: B-501

Date: 3/29/13

Location: B-501, 14 - 16 feet

Elev./Depth: 14-16'

QCQA Laboratories, Inc.

Client: GEI Consultants, Inc.

Project: Pre Design Investigation

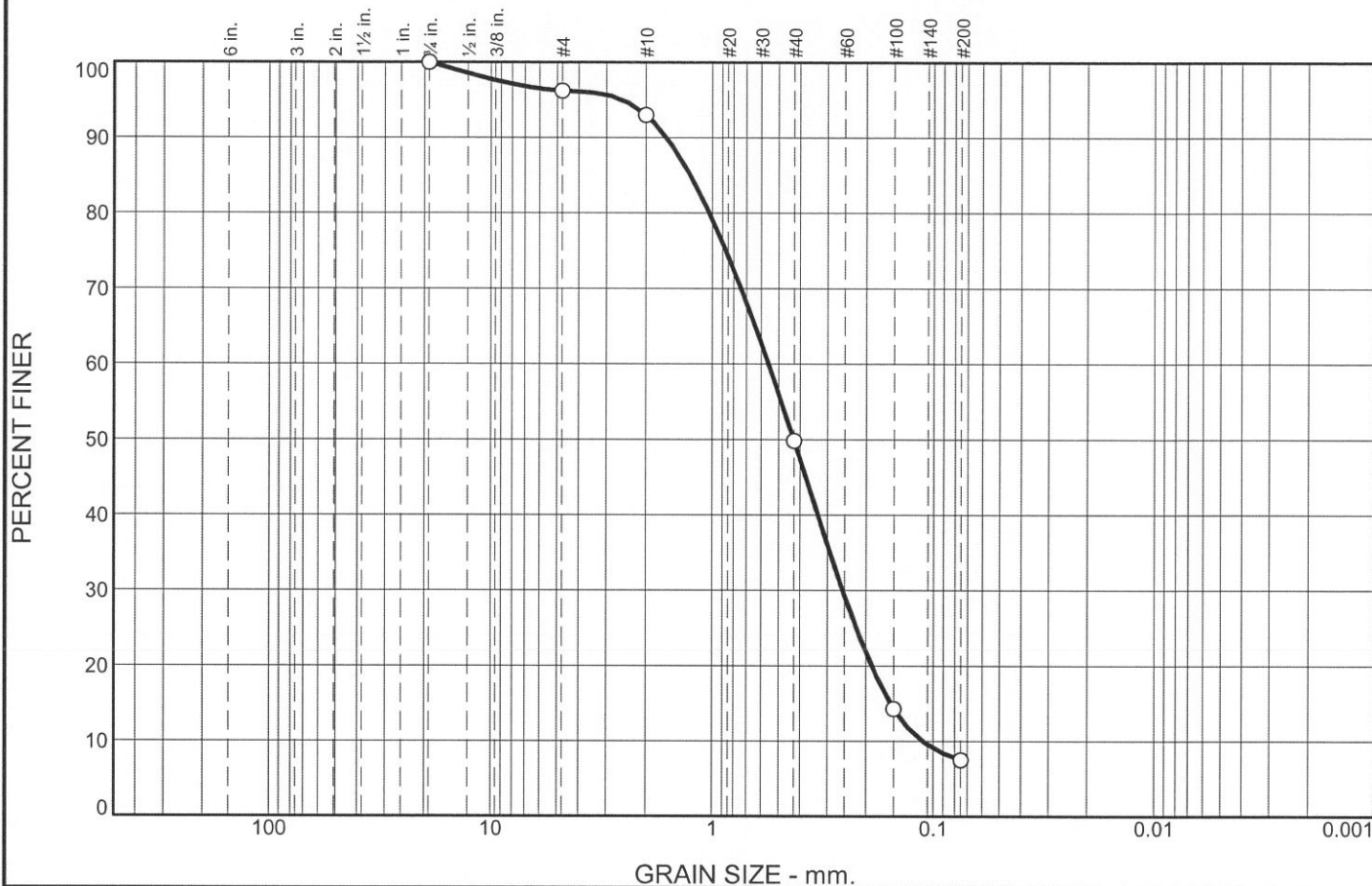
Liberty Street - Troy, New York

Schenectady, NY

Project No: z13-3425

Figure 13-010

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	3.8	3.2	43.2	42.3	7.5	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
.75	100.0		
#4	96.2		
#10	93.0		
#40	49.8		
#100	14.3		
#200	7.5		

Soil Description

poorly graded sand with silt

Atterberg Limits

PL= NP LL= NV PI= NP

Coefficients

D₈₅= 1.2612 D₆₀= 0.5560 D₅₀= 0.4272
 D₃₀= 0.2555 D₁₅= 0.1551 D₁₀= 0.1112
 C_u= 5.00 C_c= 1.06

Classification

USCS= SP-SM AASHTO= A-1-b

Remarks

* (no specification provided)

Sample No.: 13-011 Source of Sample: B-501 Date: 3/29/13
 Location: B-501, 22 - 24 feet Elev./Depth: 24-24'

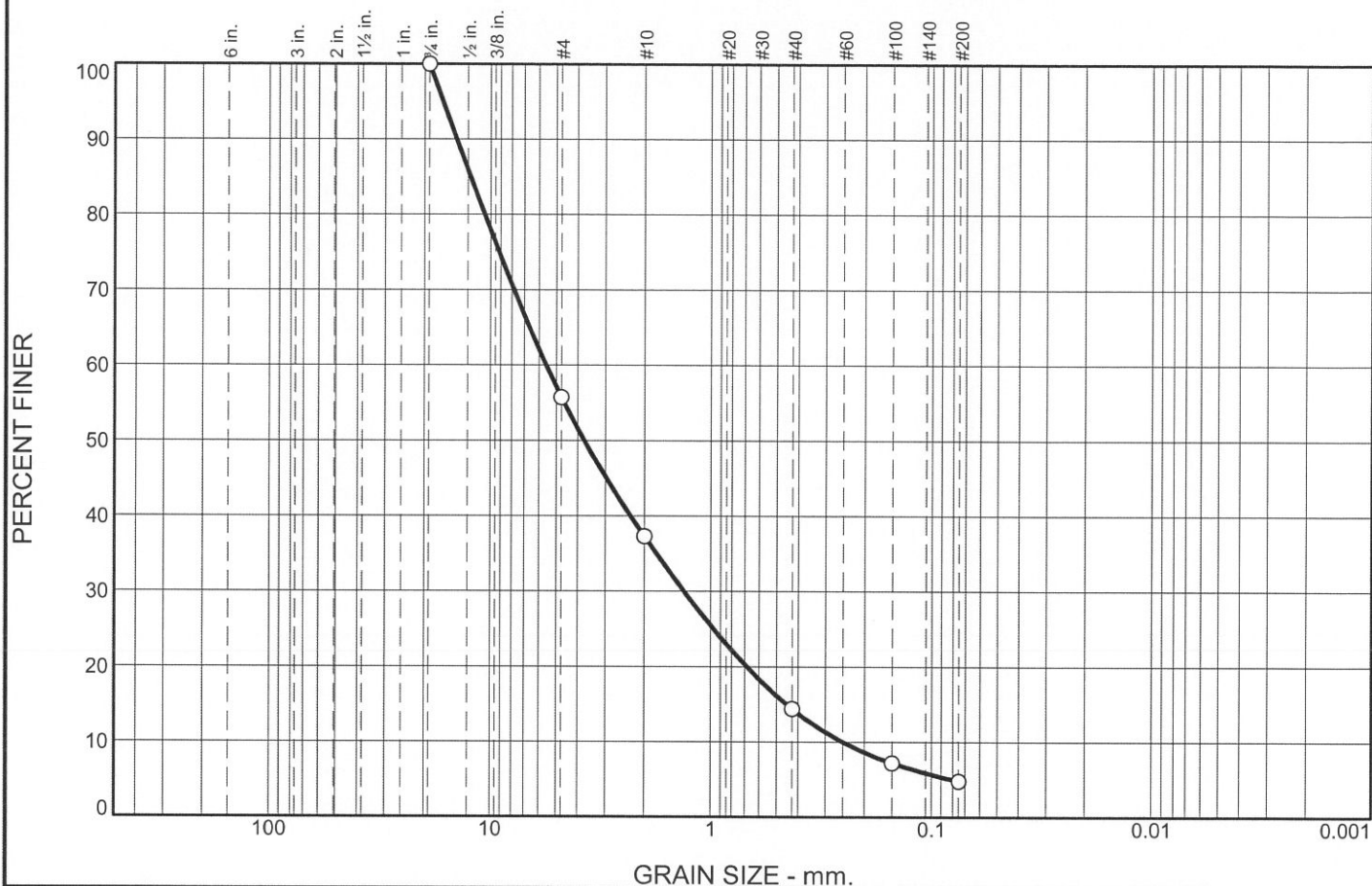
QCQA Laboratories, Inc.

Schenectady, NY

Client: GEI Consultants, Inc.
 Project: Pre Design Investigation
 Liberty Street - Troy, New York
 Project No: z13-3425

Figure 13-011

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	44.3	18.4	22.9	9.6	4.8	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
.75	100.0		
#4	55.7		
#10	37.3		
#40	14.4		
#100	7.2		
#200	4.8		

Soil Description
well-graded sand with gravel

Atterberg Limits
 PL= NP LL= NV PI= NP

Coefficients
 D₈₅= 12.3672 D₆₀= 5.5805 D₅₀= 3.7515
 D₃₀= 1.3218 D₁₅= 0.4504 D₁₀= 0.2508
 C_u= 22.25 C_c= 1.25

Classification
 USCS= SW AASHTO= A-1-a

Remarks

* (no specification provided)

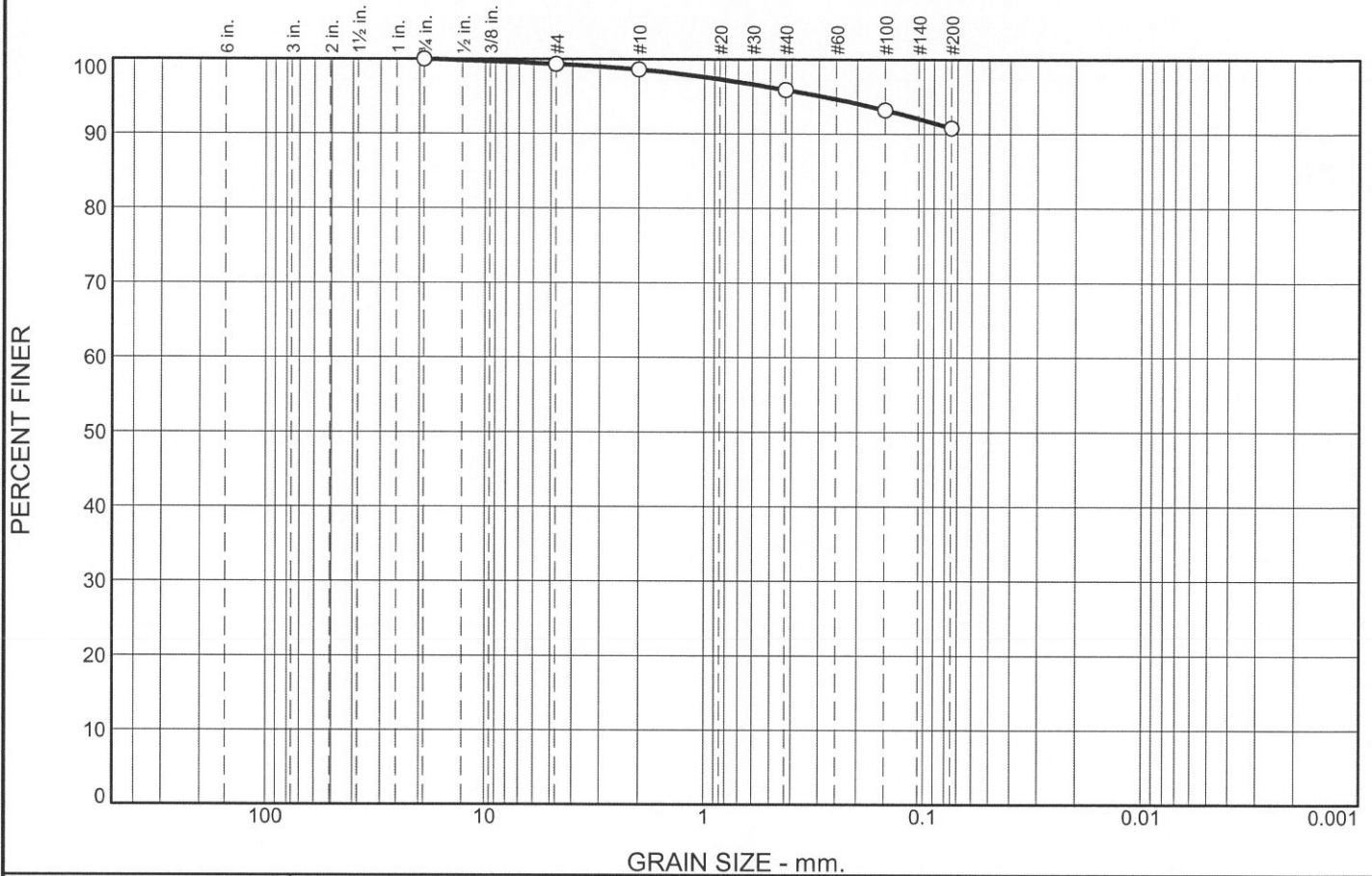
Sample No.: 13-012 **Source of Sample:** B-501 **Date:** 3/29/13
Location: B-501, 28 - 30 feet **Elev./Depth:** 28-30'

QCQA Laboratories, Inc.
Schenectady, NY

Client: GEI Consultants, Inc.
Project: Pre Design Investigation
 Liberty Street - Troy, New York
Project No: z13-3425

Figure 13-012

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.7	0.7	2.7	5.1	90.8	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
.75	100.0		
#4	99.3		
#10	98.6		
#40	95.9		
#100	93.2		
#200	90.8		

Soil Description
lean clay

Atterberg Limits
PL= 19.5 LL= 32.7 PI= 13.2

Coefficients
D₈₅= D₆₀= D₅₀=
D₃₀= D₁₅= D₁₀=
C_u= C_c=

Classification
USCS= CL AASHTO= A-6(12)

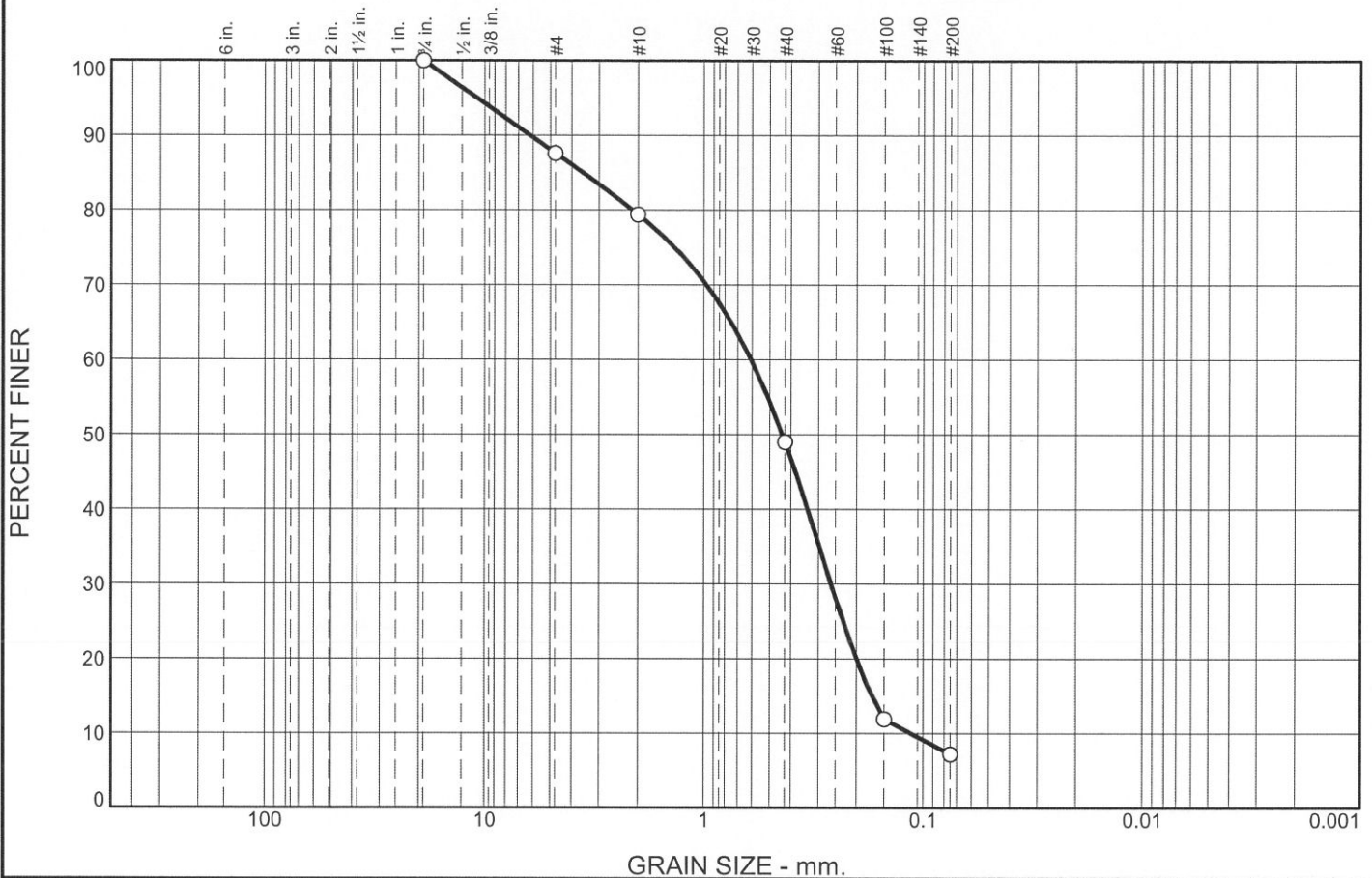
Remarks

* (no specification provided)

Sample No.: 13-013 Source of Sample: B-515 Date: 3/29/13
 Location: B-515, 8 - 9 feet Elev./Depth: 8-9'

<p>QCQA Laboratories, Inc.</p> <p style="text-align: center;">Schenectady, NY</p>	<p>Client: GEI Consultants, Inc. Project: Pre Design Investigation Liberty Street - Troy, New York Project No: z13-3425</p> <p style="text-align: right;">Figure 13-013</p>
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Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	12.4	8.2	30.4	41.8	7.2	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
.75	100.0		
#4	87.6		
#10	79.4		
#40	49.0		
#100	11.9		
#200	7.2		

Soil Description

poorly graded sand with silt

Atterberg Limits

PL= NP LL= NV PI= NP

Coefficients

D₈₅= 3.5643 D₆₀= 0.6080 D₅₀= 0.4372
D₃₀= 0.2625 D₁₅= 0.1708 D₁₀= 0.1133
C_u= 5.36 C_c= 1.00

Classification

USCS= SP-SM AASHTO= A-1-b

Remarks

* (no specification provided)

Sample No.: 13-014 Source of Sample: B-515 Date: 3/29/13
Location: B-515, 20 - 21 feet Elev./Depth: 20-21'

QCQA Laboratories, Inc.

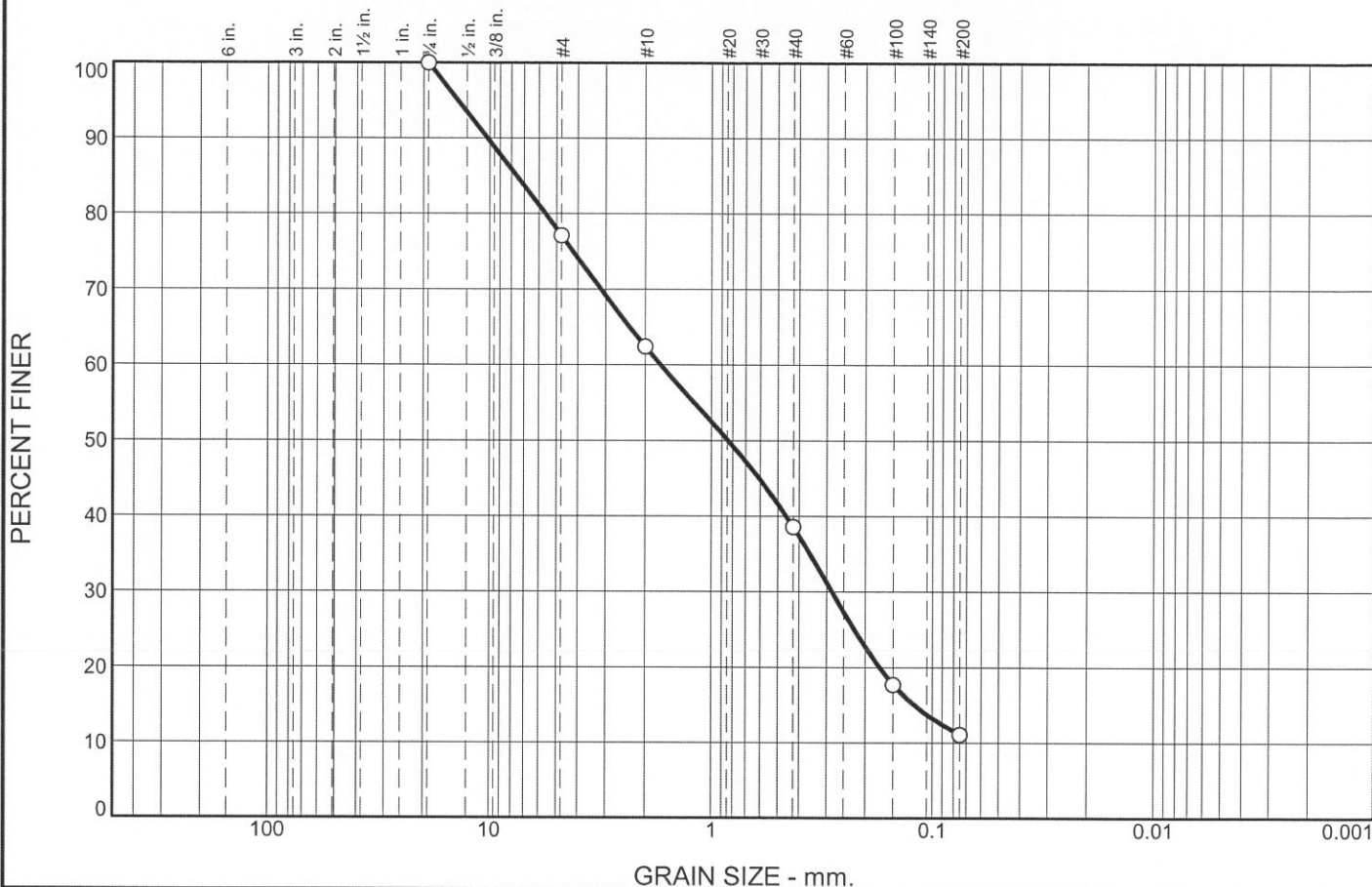
Schenectady, NY

Client: GEI Consultants, Inc.
Project: Pre Design Investigation
Liberty Street - Troy, New York

Project No: z13-3425

Figure 13-014

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	22.9	14.7	23.8	27.5	11.1	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
.75	100.0		
#4	77.1		
#10	62.4		
#40	38.6		
#100	17.7		
#200	11.1		

Soil Description
poorly graded sand with silt and gravel

Atterberg Limits
 PL= NP LL= NV PI= NP

Coefficients
 D₈₅= 7.5683 D₆₀= 1.7055 D₅₀= 0.8403
 D₃₀= 0.2837 D₁₅= 0.1207 D₁₀=
 C_u=

Classification
 USCS= SP-SM AASHTO= A-1-b

Remarks

* (no specification provided)

Sample No.: 13-015

Source of Sample: B-515

Date: 3/29/13

Location: B-515, 24 - 25 feet

Elev./Depth: 24-25'

QCQA Laboratories, Inc.

Client: GEI Consultants, Inc.

Project: Pre Design Investigation

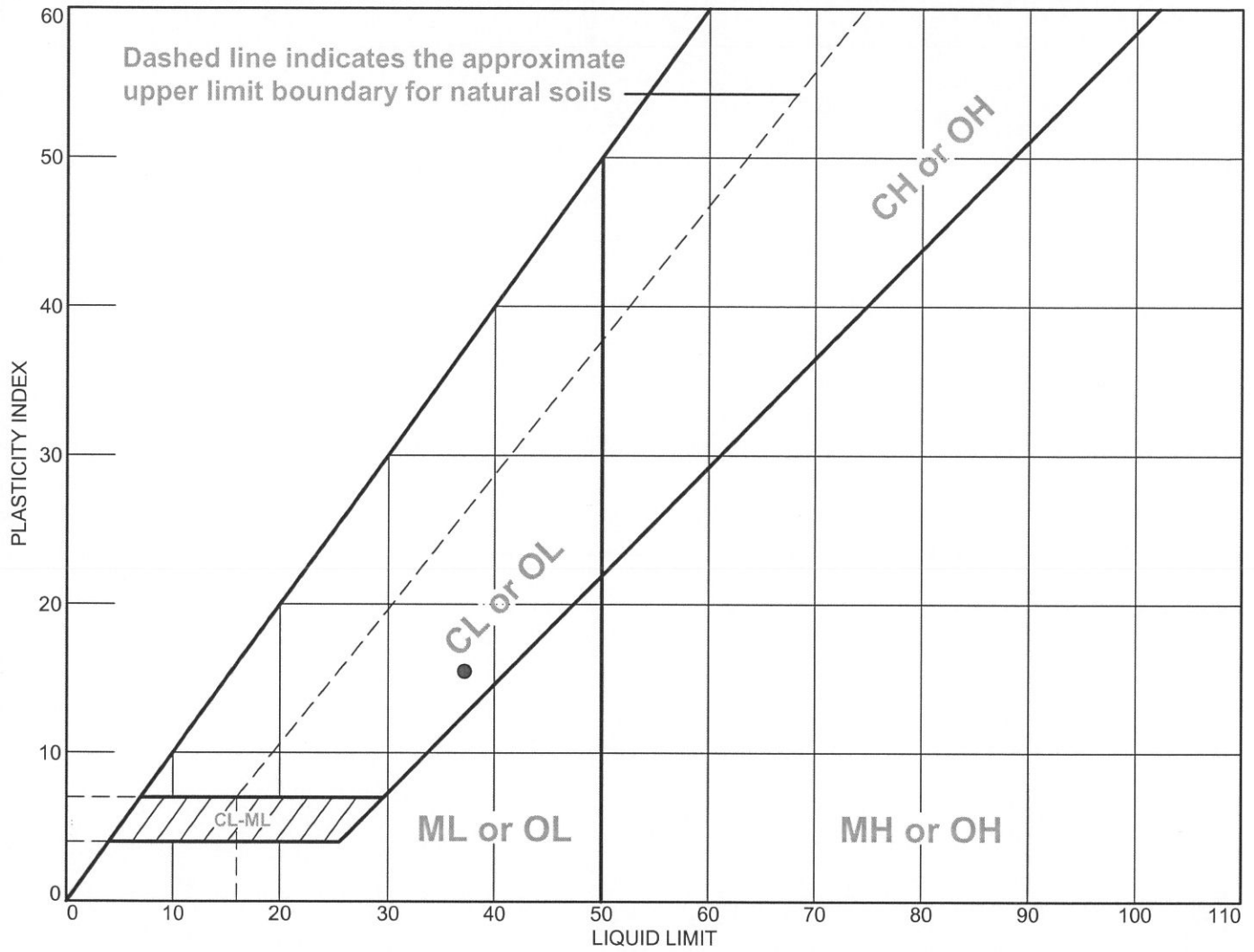
Liberty Street - Troy, New York

Schenectady, NY

Project No: z13-3425

Figure 13-015

LIQUID AND PLASTIC LIMITS TEST REPORT



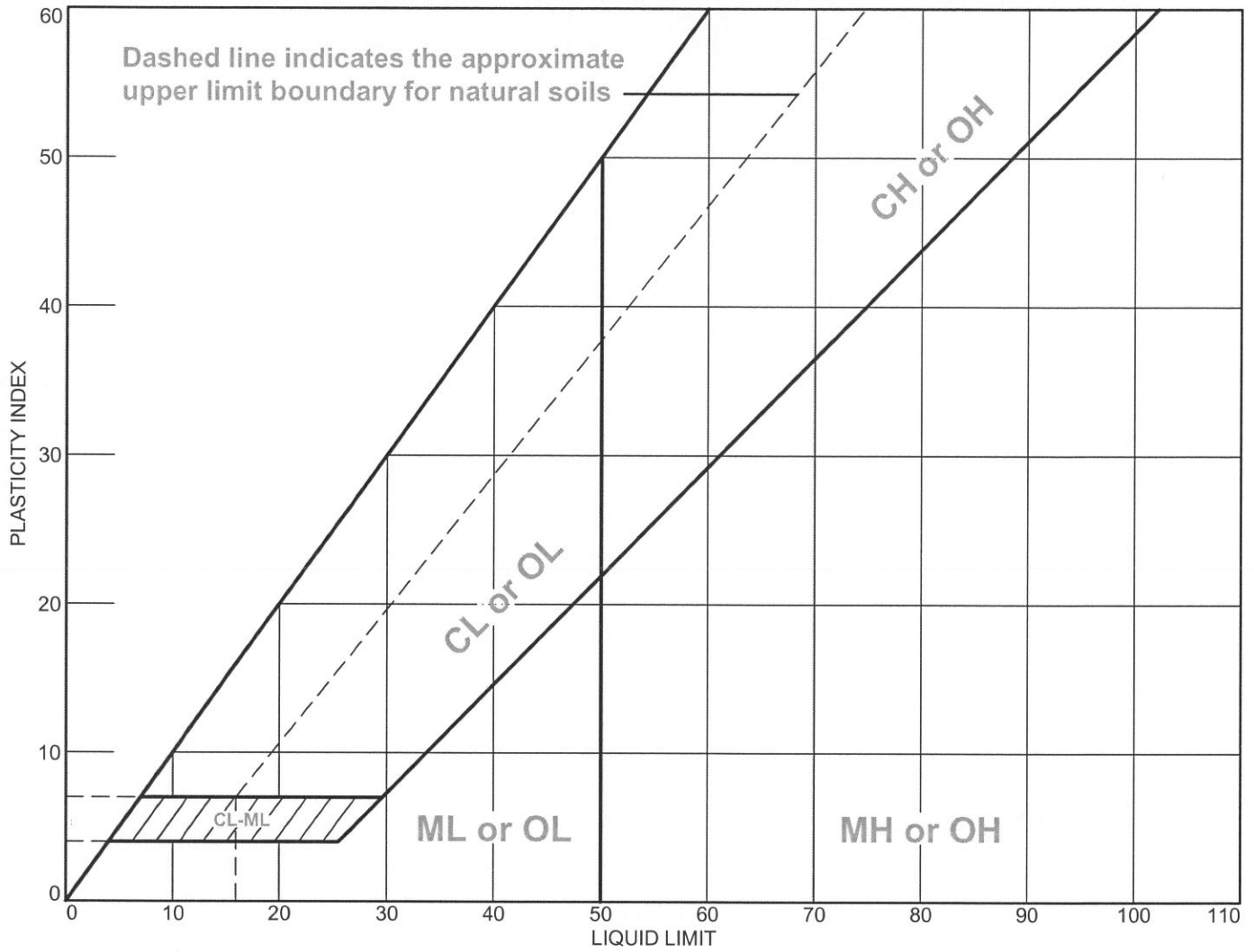
	MATERIAL DESCRIPTION	LL	PL	PI	%<#40	%<#200	USCS
●	sandy lean clay	37.2	21.7	15.5	73.7	65.0	CL

Project No. z13-3425 **Client:** GEI Consultants, Inc.
Project: Pre Design Investigation
 Liberty Street - Troy, New York
 ● **Location:** B-501, 6 - 8 feet **Depth:** 6-8' **Sample Number:** 13-009

QCQA Laboratories, Inc.
Schenectady, NY

Remarks:

LIQUID AND PLASTIC LIMITS TEST REPORT



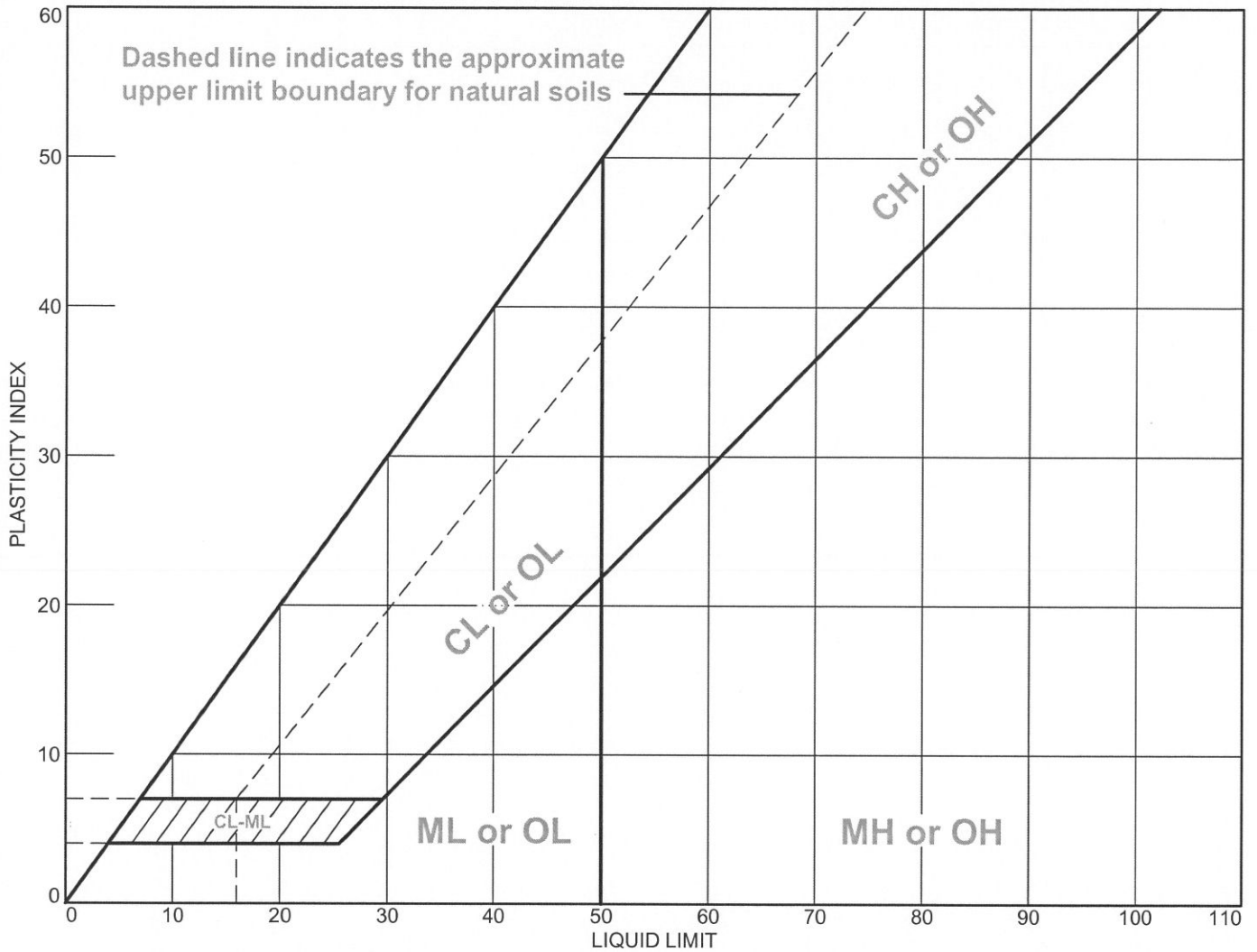
MATERIAL DESCRIPTION	LL	PL	PI	%<#40	%<#200	USCS
● poorly graded sand with silt and gravel	NV	NP	NP	31.0	9.6	SP-SM

Project No. z13-3425 **Client:** GEI Consultants, Inc.
Project: Pre Design Investigation
 Liberty Street - Troy, New York
 ● **Location:** B-501, 14 - 16 feet **Depth:** 14-16' **Sample Number:** 13-010

Remarks:

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 Schenectady, NY

LIQUID AND PLASTIC LIMITS TEST REPORT



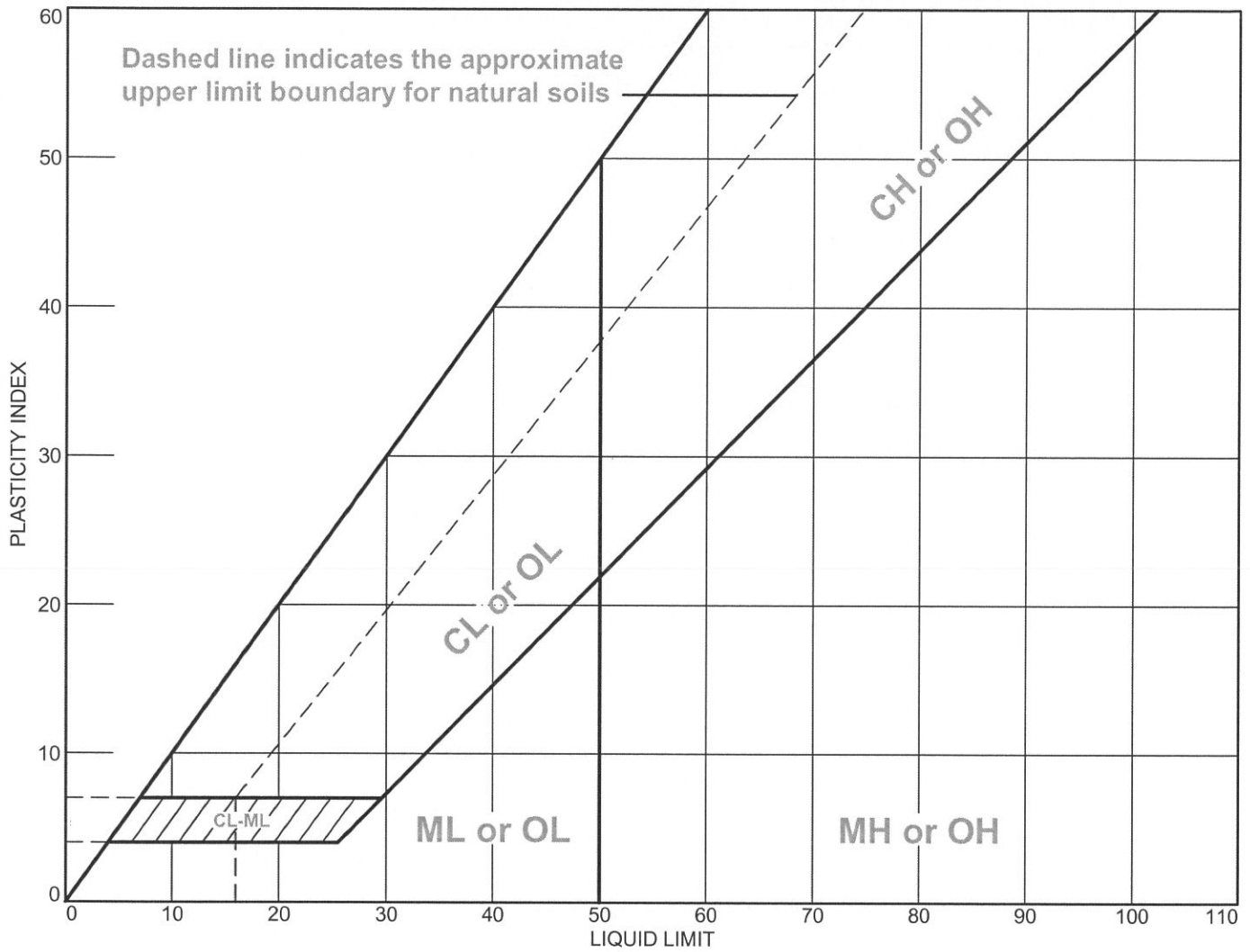
MATERIAL DESCRIPTION	LL	PL	PI	%<#40	%<#200	USCS
● poorly graded sand with silt	NV	NP	NP	49.8	7.5	SP-SM

Project No. z13-3425 **Client:** GEI Consultants, Inc.
Project: Pre Design Investigation
 Liberty Street - Troy, New York
 ● **Location:** B-501, 22 - 24 feet **Depth:** 24-24' **Sample Number:** 13-011

Remarks:

QCQA Laboratories, Inc.
 Schenectady, NY

LIQUID AND PLASTIC LIMITS TEST REPORT



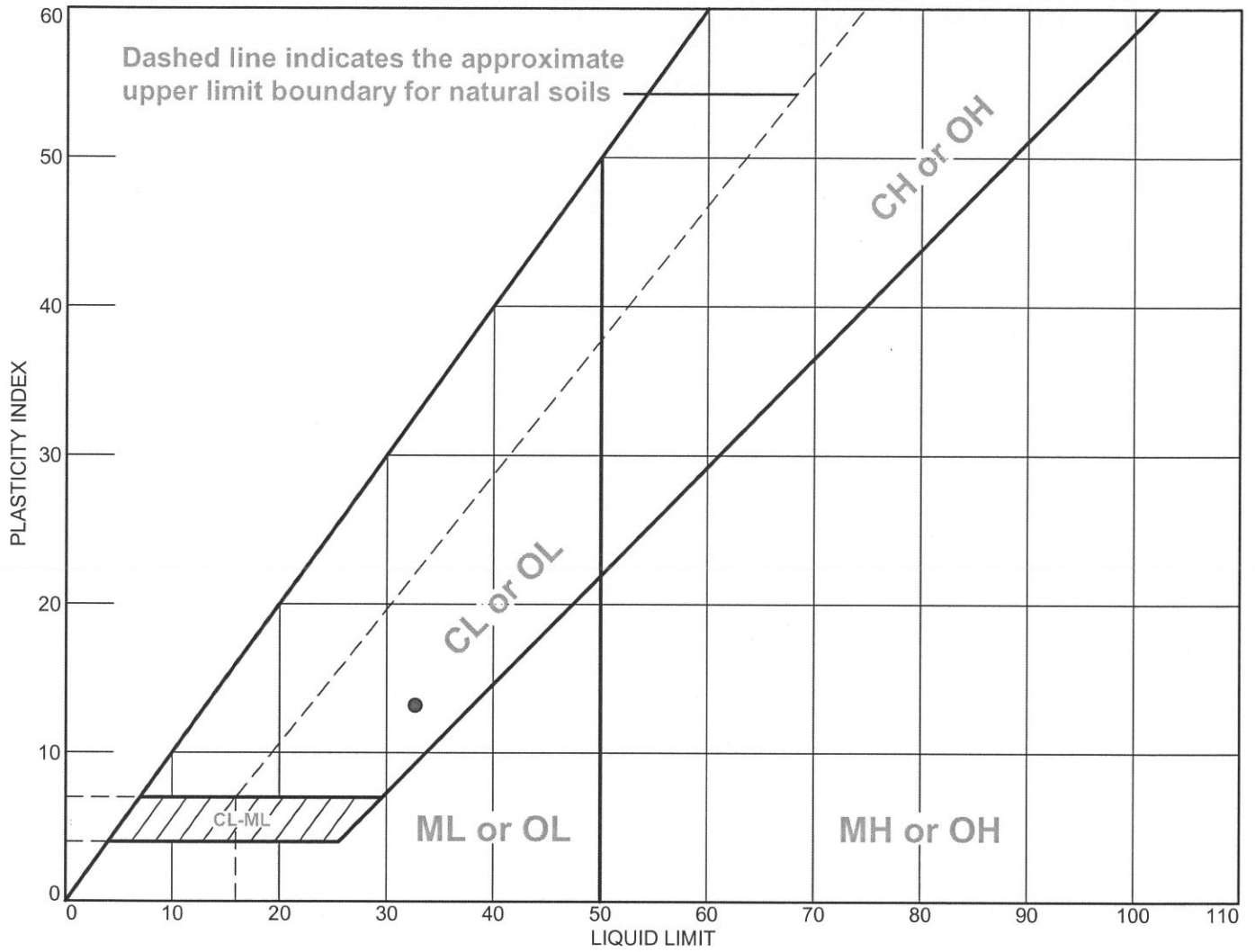
MATERIAL DESCRIPTION	LL	PL	PI	%<#40	%<#200	USCS
● well-graded sand with gravel	NV	NP	NP	14.4	4.8	SW

Project No. z13-3425 **Client:** GEI Consultants, Inc.
Project: Pre Design Investigation
 Liberty Street - Troy, New York
 ● **Location:** B-501, 28 - 30 feet **Depth:** 28-30' **Sample Number:** 13-012

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 Schenectady, NY

Remarks:

LIQUID AND PLASTIC LIMITS TEST REPORT



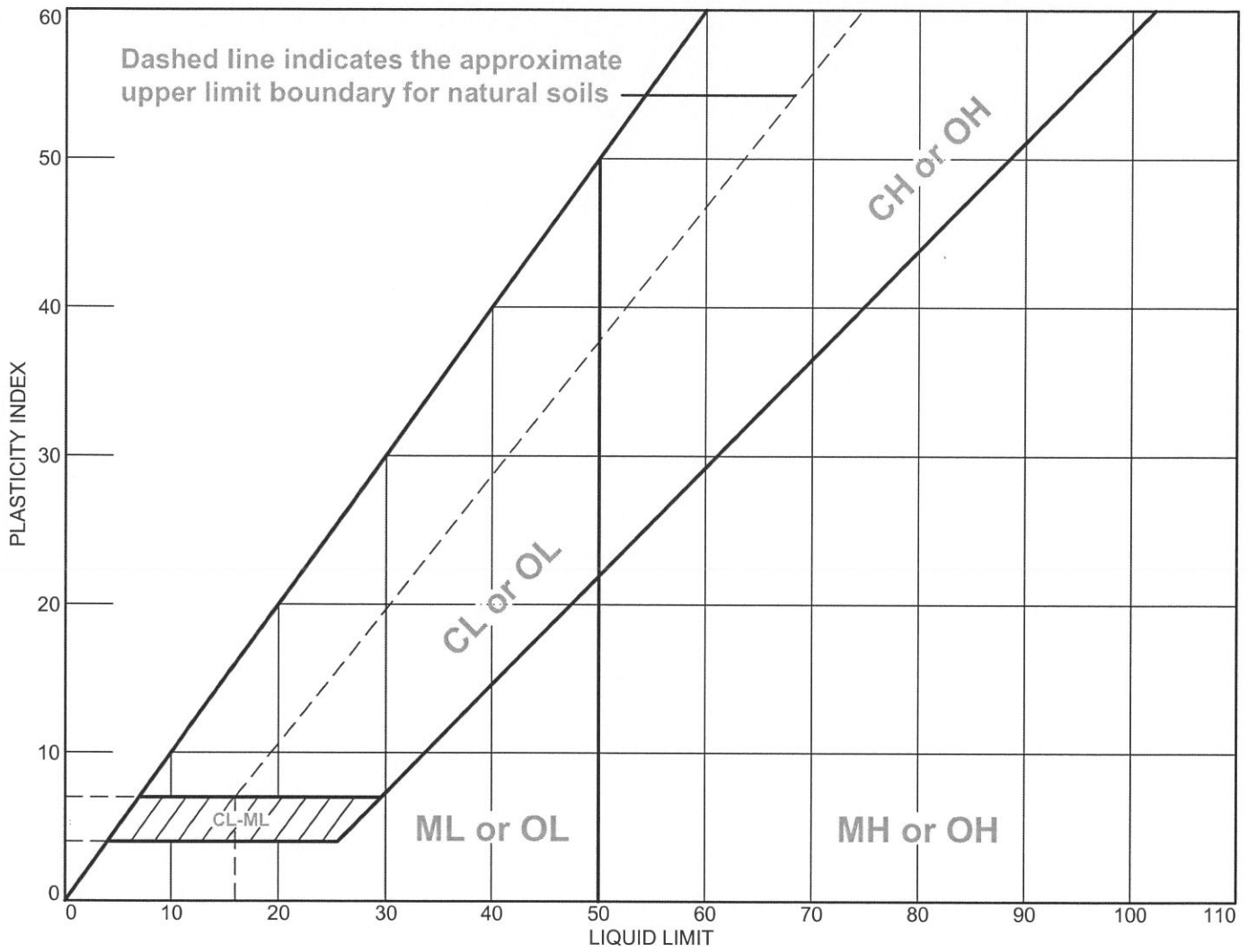
MATERIAL DESCRIPTION	LL	PL	PI	%<#40	%<#200	USCS
● lean clay	32.7	19.5	13.2	95.9	90.8	CL

Project No. z13-3425 **Client:** GEI Consultants, Inc.
Project: Pre Design Investigation
 Liberty Street - Troy, New York
 ● **Location:** B-515, 8 - 9 feet **Depth:** 8-9' **Sample Number:** 13-013

Remarks:

QCQA Laboratories, Inc.
 Schenectady, NY

LIQUID AND PLASTIC LIMITS TEST REPORT



	MATERIAL DESCRIPTION	LL	PL	PI	%<#40	%<#200	USCS
●	poorly graded sand with silt	NV	NP	NP	49.0	7.2	SP-SM

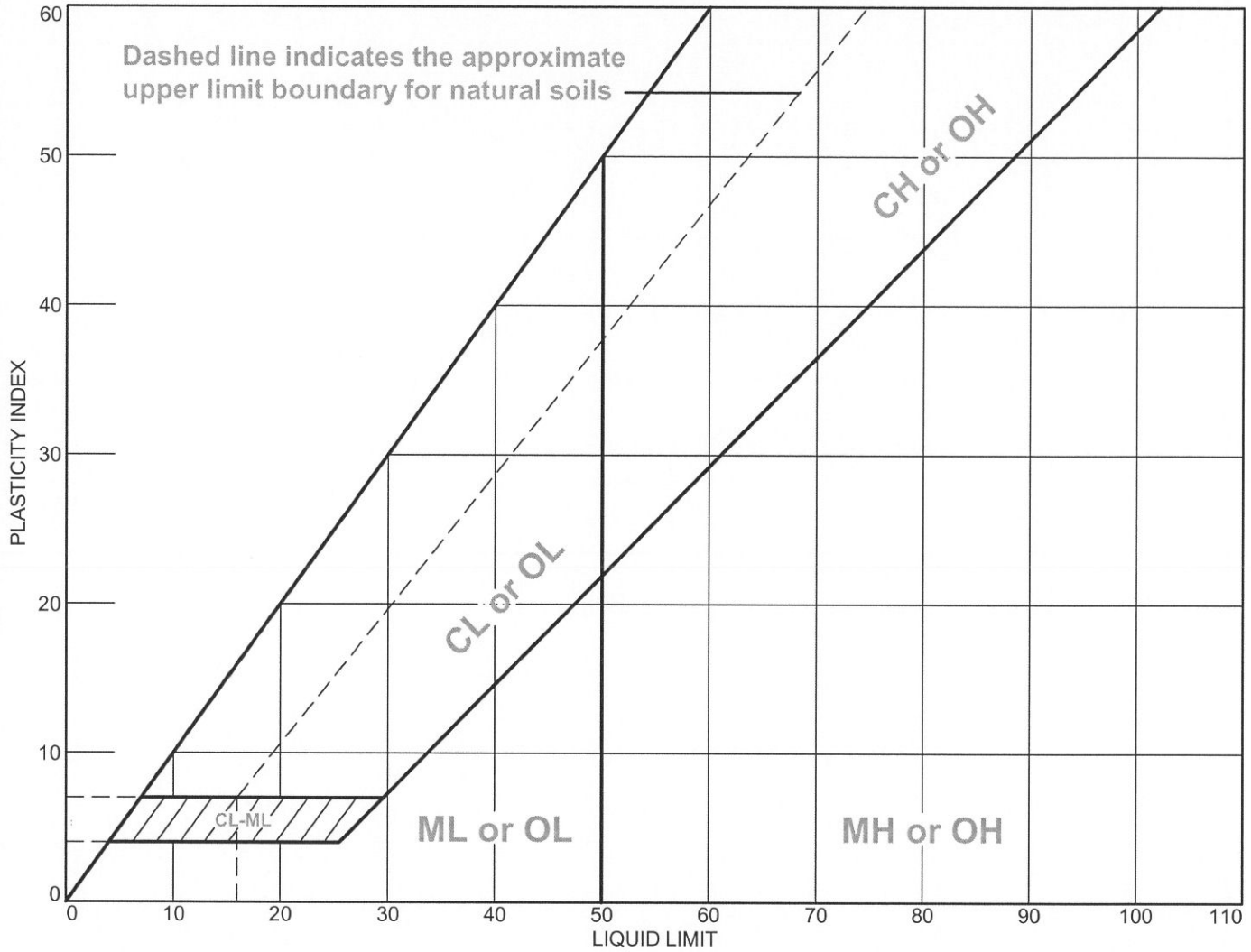
Project No. z13-3425 **Client:** GEI Consultants, Inc.
Project: Pre Design Investigation
 Liberty Street - Troy, New York
 ● **Location:** B-515, 20 - 21 feet **Depth:** 20-21' **Sample Number:** 13-014

QCQA Laboratories, Inc.
 Schenectady, NY

Remarks:

Figure 13-014

LIQUID AND PLASTIC LIMITS TEST REPORT



MATERIAL DESCRIPTION	LL	PL	PI	%<#40	%<#200	USCS
● poorly graded sand with silt and gravel	NV	NP	NP	38.6	11.1	SP-SM

Project No. z13-3425 **Client:** GEI Consultants, Inc.
Project: Pre Design Investigation
 Liberty Street - Troy, New York
 ● **Location:** B-515, 24 - 25 feet **Depth:** 24-25' **Sample Number:** 13-015

QCQA Laboratories, Inc.
 Schenectady, NY

Remarks: