

Bernard Franklin
New York State Department of Environmental Conservation
Division of Environmental Remediation
625 Broadway, 11th Floor
Albany, New York 12233-7017

Subject:
NYSEG McMaster Street Former MGP Site
Upland PDI Summary Report

Dear Mr. Franklin:

This letter has been prepared on behalf of NYSEG to summarize the activities and results of the Upland Pre-Design Investigation (Upland PDI) completed at the NYSEG McMaster Street former Manufactured Gas Plant (MGP) Site (the site) located in Auburn, New York. The objectives of the Upland PDI were to obtain the data necessary to complete the Remedial Design, including:

- Confirm the horizontal limits of soil removal based on the criteria presented in the November 2009 New York State Department of Environmental Conservation (NYSDEC) Record of Decision (ROD) (NYSDEC, 2009).
- Delineate shallow foundations and obstructions within the soil removal area.
- Obtain geotechnical data necessary to evaluate and design soil excavation support systems.
- Obtain groundwater quality data to support the design of a temporary water treatment system to be used during soil excavation activities.
- Conduct a site survey to document the locations of Upland PDI sampling activities and identified utilities to facilitate preparation of the remedial design.

The following sections present descriptions of the Upland PDI activities, Upland PDI results, and rationale supporting the limits of the proposed soil removal areas for the selected site remedy.

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Upland PDI Activities

Upland PDI activities were conducted in two phases: the first during September/October 2011 and the second during February/March 2012. Upland PDI activities were conducted in accordance with the NYSDEC ROD, the NYSDEC-approved May 2011 *Remedial Design Work Plan* (RDWP) (ARCADIS, 2011), and a January 17, 2012 letter work plan (describing the additional PDI activities). For the purpose of this summary, Upland PDI field activities are organized as follows:

- Utility Location and Coordination
- Soil Investigation
- Groundwater Investigation
- Site Survey

PDI field activities were conducted in accordance with the methodologies and protocols presented in the *Field Sampling Plan* (FSP), the *Quality Assurance Project Plan* (QAPP), and the *Health and Safety Plan* (HASP) included as appendices to the RDWP.

A detailed description of the Upland PDI field activities is presented below.

Utility Location and Coordination

Kick-off meetings for the initial and additional Upland PDI activities were conducted at the site on September 8, 2011 and on February 27, 2012, respectively. Kick-off meetings were attended by ARCADIS, ARCADIS' drilling subcontractor (Parratt-Wolff, Inc. [Parratt-Wolff]) and a private utility locator (SoftDig, Inc. [SoftDig]). During the kick-off meetings, ARCADIS reviewed investigation locations and identified potential conflicts (i.e., physical obstructions, subsurface utilities) with the proposed investigation locations. Based on the utility markout, soil boring SB-24 was relocated approximately seven feet north of the proposed location due to the presence of subsurface utilities.

During the utility markout conducted as part of the initial Upland PDI kick-off, the location of the sanitary sewer (as marked out by the City of Auburn) did not correspond with the location historically shown on Remedial Investigation (RI) and Feasibility Study (FS) figures. Additionally, during the PDI activities, four additional sanitary and/or storm sewer manholes were identified in an area south of the railroad right-of-way. Based on the location of manholes and the location of the sanitary

sewer (as marked out by the City of Auburn), the sanitary sewer alignment has been updated on project figures/drawings.

Additionally, City of Auburn drawings (review by ARCADIS in support of the Upland PDI) indicate that the 'outlet pipe' located on the Owasco Outlet bank (east of the former gas holder) is associated with a storm sewer that extends from the four additional sanitary and/or storm sewer manholes located south of the railroad right-of-way. The location of the storm sewer shown on the figures included herein is inferred based on manhole locations, the location of the outlet pipe, and City of Auburn drawings. The location of the storm sewer pipe was not physically verified by the private utility locator or the City during the PDI. Based on drawings obtained from the City of Auburn, this storm sewer also appears to serve as a sanitary sewer overflow during peak storm events.

Soil Investigation

Upland PDI soil investigation activities consisted of drilling soil borings and excavating test pits to facilitate soil characterization; sample collection; and identification of potential subsurface obstructions. Descriptions of the Upland PDI soil boring and test pitting activities are presented below. *Soil Borings*

Parratt-Wolff completed a total of 26 soil borings (SB-01 through SB-26) during the Upland PDI activities (soil borings SB-01 through SB-17 were completed during the initial Upland PDI activities and SB-18 through SB-26 were completed during the additional PDI activities). Prior to drilling, soil boring locations were cleared to approximately four feet below grade using an air knife and vacuum truck. Soil boring locations are shown on Figure 1. Variances in the soil borings completed during the Upland PDI relative to the RDWP and the January 17, 2012 letter work plan consisted of the following:

- Soil boring SB-12 was drilled as an additional boring to confirm the eastern limit of the proposed soil removal area.
- Soil borings SB-13 through SB-15 were drilled as additional borings to confirm the western limit of the proposed soil removal area due to visual impacts observed in test pits MTP-1A, MTP-1B, MTP-4A and MTP-5.
- Soil borings SB-16 and SB-17 were drilled in the flood plain area to confirm the northern extent of the proposed soil removal limits.

- Soil borings SB-18 and SB-19 were drilled as part of the additional PDI activities to further confirm the eastern limits of the proposed soil removal area.
- Soil borings SB-20 through SB-26 were drilled as part of the additional PDI activities to further confirm the western limits of the proposed soil removal area due to visual impacts observed in test pits MTP-1A, MTP-1B, MTP-4A and MTP-5 and the absence of visual impacts in soil borings SB-14 and SB-15.

All borings were sampled continuously from the ground surface (to the depth of completion) using 2-inch diameter, 2-foot long, split-spoon sampling devices. An ARCADIS geologist measured and recorded the length of the representative sample recovered from each interval and visually characterized each soil sample for soil type and the presence of visible staining, sheen, NAPL, and obvious odors. Each sample was containerized and labeled with appropriate identification information (e.g., site information, date, blow counts, depth interval, etc.).

Soil samples collected from soil boring locations SB-01, SB-02, SB-03, SB-04, SB-10, and SB-13 through SB-26 were submitted to TestAmerica, Inc. (TestAmerica) located in Amherst, New York for laboratory analysis of benzene, toluene, ethylene, and xylenes (BTEX) and polycyclic aromatic hydrocarbons (PAHs). Samples collected from soil borings SB-05 through SB-09, SB-11, and SB-12 were not submitted for laboratory analysis based on the presence of visual impacts (e.g., NAPL, blebs). A summary of the soil sample analytical testing is presented in Table 1.

A total of 17 samples collected from soil borings SB-03, SB-05 through SB-09, and SB-11 through SB-14 were submitted for geotechnical testing at GeoTesting Express, Inc. located in Acton, Massachusetts. Geotechnical testing consisted of moisture content, grain size analysis, Atterberg limits, and specific gravity. Cohesive soils were not encountered and therefore undisturbed soil samples were not collected. A summary of the soil sample geotechnical testing is presented in Table 1.

After completing each boring, boreholes were backfilled with cement/bentonite grout and down-hole drilling equipment was decontaminated in accordance with the FSP. Parratt-Wolff constructed a temporary decontamination pad and steam cleaned non-disposable equipment that came into contact with site soils.

Test Pits

Parratt-Wolff excavated a total of 10 test pits to further delineate the extent of visually impacted soils and identify subsurface obstructions that may be relevant during the design of the selected site remedy. Test pit locations are shown on Figure 1.

Each test pit was completed using a track-mounted excavator. Test pits were excavated to a depth of refusal (either on bedrock or a foundation element) or until the sidewalls of the test pit became unstable. Test pits were generally completed to a depth of 9 to 10 feet below ground surface (bgs). Excavated material was staged on polyethylene sheeting adjacent to the test pits. An ARCADIS geologist observed the test pitting activities and noted soil characteristics (i.e., visual impacts, soil type, etc.), the presence/absence, location, and type of subsurface structures encountered, along with the materials of construction. Relevant observations were noted and photographed.

Variances in the test pits completed during the PDI relative to the RDWP consisted of the following:

- Test pits MTP-3A and MTP-3B were expanded significantly in size to determine the extent of a subsurface structure encountered south of the collision shop.
- Test pits MTP-4A and MTP-4B were completed to further delineate visual impacts and the subsurface structure encountered in test pit MTP-3A.
- Test pit MTP-5 was completed to further delineate visual impacts observed in test pit MTP-3A.

Parratt-Wolff backfilled each test pit by replacing excavated material in the reverse order that it was removed.

Community Air Monitoring

ARCADIS conducted community air monitoring for volatile organic compounds (VOCs) and airborne particulate matter with a diameter of 10 micrometers or less (PM₁₀) during intrusive investigation activities (i.e., soil boring drilling and test pit excavation). One upwind station and one downwind station were established each morning before the start of work and removed at the completion of each work day. Station locations were adjusted throughout the day based on prevailing wind direction. Instruments at each location were monitored periodically throughout the

day for potential action level exceedances and data was retrieved from each instrument daily following the completion of site activities. The upwind photoionization detector (PID) used to monitor upwind VOC levels erroneously did not record data during additional PDI activities or air monitoring data was lost when downloading data from the equipment. On days where field personnel recognized that air monitoring equipment was not recording properly, periodic manual readings were used to record upwind VOC conditions.

IDW Management

Investigation-derived waste (IDW) (e.g., soil cuttings, decontamination water, decontamination pad construction materials) was drummed and staged on-site in a NYSEG-approved location. Drums were labeled with non-hazardous labels describing the drum contents, as well as start and end accumulation dates. A composite soil waste characterization sample was collected and submitted to TestAmerica for analysis of toxicity characteristic leaching procedure (TCLP) benzene, polychlorinated-biphenyls, reactivity and total cyanide.

Groundwater Investigation

ARCADIS conducted groundwater investigation activities during the week of September 26, 2011. As described in the RDWP, the groundwater investigation activities were completed in support of designing a temporary groundwater treatment system to be used during remedial construction.

Sampling activities were completed in accordance with the RDWP and the associated FSP. Prior to sampling groundwater, ARCADIS field personnel gauged the wells for depth to water and depth to the bottom of the well. Following well purging, groundwater samples were collected using dedicated polyethylene bailers.

Groundwater samples were collected from eight monitoring wells (MW-04-03, MW-04-04, MW-04-05, MW-05-02R, MW-05-7R, MW-05-08R, MW-06-10 and MW-06-13R) and submitted for the following parameters:

- Total Toxic Organics (TTO)
- Target Analyte List (TAL) inorganics and cyanide (filtered and unfiltered samples)
- Oil and grease
- Total suspended solids (TSS)
- Total dissolved solids (TDS)
- 5-Day biological oxygen demand (BOD5)

- Chemical oxygen demand (COD)
- Bioactivity (via iron-reducing, sulfate-reducing, and slime-forming bacteria)
- Total kjeldahl nitrogen (TKN)
- Hardness
- pH

With the exception of the bioactivity analysis, laboratory analyses were conducted by TestAmerica. Bioactivity analyses were conducted by Microbial Insights, located in Rockford, Tennessee. A summary of the groundwater sample analytical testing is presented in Table 1.

IDW Management

Purge water was combined with the decontamination water generated during soil boring/test pitting activities. A liquid waste characterization composite sample was collected and submitted to TestAmerica for analysis for total benzene and total cyanide.

Site Survey

ARCADIS's surveying subcontractor, Paul James Olszewski, P.L.S., (Mr. Olszewski), completed surveying activities during two site visits in October 2011. Mr. Olszewski surveyed the ground surface elevation and location of each soil boring and test pit completed during soil investigation activities. Mr. Olszewski also collected ground surface elevations to facilitate the generation of a one-foot topographic contour map of the site. In addition, ARCADIS surveyed subsurface obstructions encountered in test pits (e.g., subsurface pipes, walls, etc.), subsurface utilities encountered during test pitting activities, and the location and ground surface elevation of the additional soil borings.

Site survey activities were conducted relative to the following:

- Horizontal datum: North American Datum of 1983, New York State Plane Coordinate System, Central Zone
- Vertical datum: North American Vertical Datum of 1988

A topographic map of the site is included on Figure 2.

Upland PDI Results

This section presents the results of the Upland PDI activities.

Soil Investigation

As indicated above, community air monitoring was conducted in support of the soil investigation activities. Upwind and downwind VOC and particulate levels recorded during the soil investigation activities are provided in Attachment 1. Based on the results of the real-time monitoring, action levels for VOCs and PM₁₀ were not exceeded during the soil investigation activities. As indicated previously, field personnel were unable to recover all air monitoring data on days that included intrusive site activities due to technical issues with air monitoring equipment. No visible dust was observed leaving the work area during completion of upland PDI activities. Therefore, it can be assumed that, consistent with recovered data, no air monitoring exceedances occurred on days when air monitoring data was not recorded by perimeter monitoring instrumentation.

Soil borings were completed at the locations shown on Figure 1. Soil boring logs are included as Attachment 2. A summary of the visual impacts observed in the Upland PDI soil borings is presented in Table 2 and briefly described below.

- Heavily NAPL-impacted soil was observed in soil boring SB-08 at 10.2 to 10.3 ft bgs.
- NAPL impacted soil was observed in soil boring SB-11 at 10.7 and 12.3 ft bgs.
- Discontinuous blebs of NAPL were generally observed in soil borings SB-06, SB-07, and SB-09 from 8 to 11 ft bgs and in soil borings SB-05 and SB-11 from 13 to 15 ft bgs.
- Sheens and staining were generally observed in soil borings SB-02, SB-12, and SB-13 from 8 to 12 ft bgs and in SB-07 from 3 to 10 ft bgs.

Analytical results for soil samples collected during the Upland PDI are presented in Table 3. A soil sample collected from soil boring SB-19 (12 to 13.1 ft bgs) contained total PAHs at a concentration of 580 milligrams per kilogram (mg/kg). Remaining soil samples submitted for laboratory analysis did not contain total BTEX or total PAHs at concentrations greater than 10 or 500 mg/kg, respectively. ARCADIS validated the

laboratory results, which are presented in Data Usability Summary Reports (DUSRs), included as Attachment 3.

The results of the geotechnical testing will be used during the design of the selected remedial alternative and are not discussed in detail in this letter report. As indicated previously, cohesive soils were not encountered during the Upland PDI activities and therefore, undisturbed soil samples were not collected. Shallow overburden materials (i.e. materials shallower than 10 feet bgs) generally consist of fill materials. An electronic copy of the geotechnical testing laboratory reports is included as Attachment 4.

Test pits were completed at the locations shown on Figure 1. Test pit logs are included as Attachment 5 and a photo log is included as Attachment 6. Notable findings/observations during the completion of the test pits are as follows:

- A brick subsurface structure was encountered in the general vicinity of test pit locations MTP-3A and MTP-3B. The structure consisted of a main tunnel with an arched top (see Photo #14, Attachment 5) and three to four “rooms” or vaults branching off from the main tunnel. When encountered, the structure was noted to be filled with water (which was not flowing). NAPL was observed floating on the surface of the water (see Photo #14), however, additional sheens/NAPL were not observed when sediment at the bottom of the structure was agitated. Although the origin and function of the subsurface structure is unknown, the structure appeared to be a basement-type foundation and was not associated with the nearby sanitary sewer. The structure appeared to be tied into or extend beneath the retaining wall immediately south of the former collision shop, but did not appear to connect to the former collision shop.

An additional unknown concrete structure was encountered east of the basement-type foundation (at the west end of test pit MTP-3B). The concrete structure was left in place during the test pitting activities, as it is likely associated with the sanitary sewer that bisects the site.

- The wall of the former gas holder was encountered in test pits MTP-2 and MTP-2A.
- Test pits completed in the proposed removal area contained numerous potential subsurface obstructions and varying amounts of debris including: abandoned pipes; concrete foundations; timbers/wood; brick walls; and fill materials consisting of brick rubble, cinders, gravel, animal bones, and sand/silt.

- Visual impacts observed in the test pits are summarized in Table 2 and generally consisted of the following:
 - Test pits MTP-1A, MTP-1B, and MTP-1C: blebs and heavy sheens generally observed at 8 to 10 ft bgs
 - Test pit MTP-2: Heavily NAPL coated soils and staining observed at 8 to 10 ft bgs
 - Test pits MTP-3A: Sheen and NAPL coatings observed at 9 ft bgs
 - Test pit MTP-4A: NAPL coated soil observed 3 to 5 ft bgs
 - Test pit MTP-5: Isolated sheens and NAPL coated soils observed from 7 to 9 ft bgs

Groundwater Investigation

Groundwater samples were collected from select monitoring wells in support of designing a temporary water treatment system to be utilized during remedial construction activities. Analytical results for groundwater treatability samples are presented in Table 5. Groundwater sampling logs are included as Attachment 7.

IDW Management

Waste characterization results for soil and liquid IDW generated during the Upland PDI activities are presented in Tables 5 and 6, respectively. Based on the results of the laboratory analysis, the IDW was transported for off-site disposal as non-hazardous waste through NYSEG's waste handling contractor (Clean Harbors).

Proposed Removal Areas

Based on the PDI results, the horizontal and vertical limits of the proposed removal areas have been re-defined in accordance with the removal criteria presented in the NYSDEC ROD. Proposed revised soil removal limits are shown on Figure 3. Rationale for establishing the additional limits of the proposed removal area is presented below.

- Soil excavation is not proposed behind (i.e., north of) the Auburn Tank building. Although NAPL has been observed/recovered from bedrock at monitoring wells

MW-06-13R and MW-06-15R, visual impacts were not observed in the overburden during the drilling of soil borings completed to install the wells. Visual impacts were not observed in soil borings SB-01, SB-03, and SB-04 and only staining and sheens were observed in soil boring SB-02 from 8 to 9 ft bgs. Additionally, soil samples collected from soil borings SB-01 through SB-04 did not contain total BTEX or total PAHs at concentrations greater than 10 and 500 mg/kg, respectively. The northwest extent of the proposed removal area is defined by PDI soil boring SB-03 and RI test pit TP-06-14, which were free of visual impacts and did not contain total PAHs/total BTEX at concentrations greater than 500 and 10 mg/kg, respectively.

- The western extent of the proposed soil removal limits has been revised based on visual impacts observed in soil boring SB-09 and test pit MTP-1A. Soil removal limits to the west are defined by soil borings SB-15, SB-20, SB-23, SB-24, and SB-25, which did not contain any visual impacts. Additionally, soil samples collected from these soil borings did not contain total PAHs/total BTEX at concentrations greater than 500 and 10 mg/kg, respectively.
- Isolated sheens and NAPL coated soils were observed from 7 to 9 ft bgs in a 3-foot long section of PDI test pit MTP-5 (located west of the proposed soil removal limits). However, soil excavation is not proposed in this area as the visual impacts were isolated and relatively minor. Soil boring SB-22 was completed immediately adjacent to PDI test pit MTP-5 during the additional PDI activities and was free of visual impacts. Furthermore, a soil sample (SB-22 [6.0-7.2 ft bgs]) collected from the soil boring contained total PAHs and total BTEX at concentrations of 11 mg/kg and less than 1 mg/kg, respectively.
- Based on visual impacts observed in soil boring SB-05, the area immediately east of the former gas holder has been included within the proposed soil removal limits.
- The eastern extent of the proposed soil removal limits has been revised based on elevated total PAH concentrations observed in soil boring SB-19. Soil removal limits to the east are defined by PDI soil boring SB-12 and RI soil borings completed to facilitate installation of monitoring wells MW-04-01 and MW-06-01 RI/RD, which did not contain any visual impacts in overburden material that meet removal criteria (note that a soil sample collected from SB-12 contained wood fragments with NAPL coating). Additionally, soil samples collected from the borings completed to install monitoring wells MW-04-01 and MW-06-01 did not contain total PAHs/total BTEX at concentrations greater than 500 and 10 mg/kg,

respectively. The eastern extent of the proposed soil removal area is also defined by the railroad right-of-way south of monitoring well MW-04-01 and the retaining wall north of soil borings SB-12 and SB-18. Additionally, soil borings SB-16 and SB-17 (completed north of the retaining wall) did not contain any visual impacts and soil samples collected from these borings did not contain total PAHs/total BTEX at concentrations greater than 500 and 10 mg/kg, respectively.

- The southern extent of the proposed soil removal limits has been revised based on visual impacts observed in test pits MTP-3A and MTP-4A. The southern extent is defined by the concrete retaining wall of the elevated railroad right-of-way.

Remedial Design Schedule

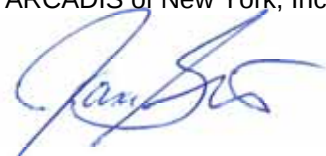
Based on the results of the Upland PDI activities presented herein, sufficient site data exists to proceed with the remedial design. An anticipated schedule for the remedial design is presented in the following table.

Schedule Component	Date
<i>Preliminary (50%) Remedial Design Report</i> to NYSDEC	August 30, 2012
NYSEG receives NYSDEC comments on the <i>Preliminary (50%) Remedial Design Report</i>	September 2012
<i>Draft (95%) Remedial Design Report</i> to NYSDEC	December 2012
NYSEG receives comments on the <i>Draft (95%) Remedial Design Report</i>	January 2013
<i>Final (100%) Remedial Design Report</i> to NYSDEC	February 2013

Please do not hesitate to contact Mr. John Ruspantini of NYSEG at 607.762.8787 or the undersigned at 315.671.9114 if you have any questions or comments regarding the information presented in this letter or any other aspects of this project.

Sincerely,

ARCADIS of New York, Inc.



Jason Brien, P.E.
Principal Engineer

Copies:

John Ruspantini, NYSEG (2 copies)
Margaret A. Carrillo-Sheridan, P.E., ARCADIS (w/o attachments)
Keith A. White, C.P.G., ARCADIS (w/o attachments)

Figures

Figure 1	Pre-Design Investigation Location Map
Figure 2	Topographic Map
Figure 3	Proposed Soil Removal Areas

Tables

Table 1	Sample Analysis Summary
Table 2	Visual Impacts Summary
Table 3	Soil Analytical Results
Table 4	Groundwater Analytical Results
Table 5	Soil Waste Characterization Results
Table 6	Liquid Waste Characterization Results

Attachments

Attachment 1	Air Monitoring Logs (on CD)
Attachment 2	Soil Boring Logs
Attachment 3	Data Usability Summary Reports (on CD)
Attachment 4	Geotechnical Testing Laboratory Reports (on CD)
Attachment 5	Test Pit Logs
Attachment 6	Photo Log w/ figure
Attachment 7	Groundwater Sampling Logs (on CD)

Tables

Table 1
Sample Analysis Summary

NYSEG - McMaster Street Former MGP Site - Auburn, New York
Upland PDI Summary Report

Location	Depth	Date	BTEX	PAHs	Total Toxic Organics - VOCs	Total Toxic Organics - SVOCs	Target Analyte List - Inorganics + Mercury	Cyanide	Oil & Grease	Total Suspended Solids (TSS)	Total Dissolved Solids (TDS)	5 Day Biochemical Oxygen Demand	Chemical Oxygen Demand	Bioactivity	Total Kjeldahl Nitrogen	Hardness	pH	Moisture Content	Atterberg Limits	Grain-size analysis - #200 wash	Grain-size Analysis - Sieve and Hydrometer	Specific Gravity
Soil Samples																						
SB-01	5.0-6.8	9/30/2011	x	x																		
SB-01	10.9-11.9	9/30/2011	x	x																		
SB-02	8.0-10.5	9/26/2011	x	x																		
SB-03	8.0-9.5	9/26/2011	x	x																		
SB-04	8.0-10.9	9/26/2011	x	x																		
SB-10	8.0-10.4	9/26/2011	x	x																		
SB-13	9.0-10.8	9/29/2011	x	x																		
SB-14	7.0-9.3	9/30/2011	x	x																		
SB-15	7.0-8.9	10/1/2011	x	x																		
SB-16	2.0-4.3	10/2/2011	x	x																		
SB-17	2.0-4.3	10/3/2011	x	x																		
SB-18	12.0-13.4	2/29/2012	x	x																		
SB-19	12.0-13.1	2/29/2012	x	x																		
SB-20	8.0-9.0	3/1/2012	x	x																		
SB-21	8.0-8.7	2/29/2012	x	x																		
SB-22	6.0-7.2	3/1/2012	x	x																		
SB-23	8.0-8.7	3/1/2012	x	x																		
SB-24	8.0-8.9	2/29/2012	x	x																		
SB-25	8.0-10.4	2/29/2012	x	x																		
SB-26	8.0-10.6	2/29/2012	x	x																		
Groundwater Samples																						
MW-04-03	--	9/29/2011			x	x	x	x	x	x	x	x	x	x	x	x	x					
MW-04-04	--	9/30/2011			x	x	x	x	x	x	x	x	x	x	x	x	x					
MW-04-05	--	9/30/2011			x	x	x	x	x	x	x	x	x	x	x	x	x					
MW-05-2R	--	9/29/2011			x	x	x	x	x	x	x	x	x	x	x	x	x					
MW-05-07R	--	9/29/2011			x	x	x	x	x	x	x	x	x	x	x	x	x					
MW-05-08R	--	9/29/2011			x	x	x	x	x	x	x	x	x	x	x	x	x					
MW-06-10	--	9/28/2011			x	x	x	x	x	x	x	x	x	x	x	x	x					
MW-06-13R	--	9/29/2011			x	x	x	x	x	x	x	x	x	x	x	x	x					
Geotechnical Samples																						
SB-03	0.0-5.0	9/26/2011																x			x	
SB-05	5.0-15.0	9/27/2011																x			x	x
SB-06	0.0-5.0	9/27/2011																x			x	
SB-06	5.0-10.7	9/27/2011																			x	
SB-07	5.0-9.7	9/27/2011																				
SB-08	0.0-5.0	9/28/2011																				
SB-08	10.0-12.0	9/28/2011																x	x			x
SB-09	1.0-5.0	9/27/2011																x			x	
SB-09	5.0-11.3	9/27/2011																x		x		
SB-11	0.0-5.0	9/28/2011																x			x	
SB-11	5.0-12.0	9/28/2011																	x	x		x
SB-11	12.0-14.0	9/28/2011																x				
SB-12	10.0-12.0	9/28/2011																x	x	x		
SB-13	0.0-4.5	9/29/2011																x			x	
SB-13	7.4-8.4	9/29/2011																x				
SB-14	0.0-4.0	9/30/2011																			x	
SB-14	5.0-9.0	9/30/2011																x			x	

Notes:

	Analysis conducted by Microbial Insights located in Rockford, Tennessee.
	Analysis conducted by TestAmerica located in Buffalo, New York.
	Analysis conducted by GeoTesting Express located in Acton, Massachusetts.

Table 2
Visual Impacts Summary

NYSEG - McMaster Street Former MGP Site - Auburn, New York
Upland PDI Summary Report

Boring/ Test Pit ID	Date Advanced	Potential Impacts	General Subsurface Soils	Completion Depth	Samples Collected BTEX & PAH Analysis
Soil Borings					
SB-1	9/30/2011	No obvious impacts	0 - 6.8 ft bgs - FILL	6.8 ft bgs	5 - 6.8 ft bgs
SB-2	9/26/2011	Trace dark staining and sheen from 8 to 9.1 ft bgs	0 - 7.1 ft bgs - Sand & Gravel fill 7.1 - 10.5 ft bgs - Fine SAND, some gravel and silt	10.5 ft bgs	8 - 10.5 ft bgs
SB-3	9/26/2011	No obvious impacts	0 - 7 ft bgs - FILL 7-9.5 ft bgs - F-SAND, some silt and gravel, trace clay	9.5 ft bgs	8 - 9.5 ft bgs
SB-4	9/26/2011	No obvious impacts	0 - 7 ft bgs - Sand & Gravel FILL 7 - 9.5 ft bgs - F-SAND, some gravel	10.9 ft bgs	8 - 10.9 ft bgs
SB-5	9/27/2011	Little NAPL blebs and moderate sheen from 13 to 15 feet bgs	0 - 15 ft bgs - SAND & GRAVEL Fill	15 ft bgs	None
SB-6	9/27/2011	Little NAPL blebs and sheen from 10 to 10.7 ft bgs.	0 - 8.1 ft bgs - Fill 8.1 - 10.7 ft bgs - Fine SAND, little Silt and Gravel 10.7 - 11.4 ft bgs Gravel (till-like)	11.4 ft bgs	None
SB-7	9/27/2011	Sheen and staining from 3 to 9.7 ft bgs Heavy sheen, NAPL blebs and staining from 8 to 9.7 ft bgs	0 - 9.7 ft bgs - SAND & GRAVEL Fill	9.7 ft bgs	None
SB-8	9/28/2011	Heavily impacted between 10.2 and 10.3 feet bgs with brown-black NAPL	0 - 6 ft bgs - Fill 6 - 10 ft bgs - SAND & GRAVEL 10 - 11.9 ft bgs - Clayey SILT, little Gravel	11.9 feet bgs	None
SB-9	9/27/2011	Sheen from 8 to 11.2 ft bgs Little to trace NAPL blebs from 11 to 11.2 ft bgs	0 - 11.2 ft bgs - Sand & Gravel Fill	11.2 ft bgs	None
SB-10	9/26/2011	Sheen and trace NAPL blebs from 3.5 to 5 ft bgs Trace sheen from 8 to 9 ft bgs	0 - 8 ft bgs - Sand & Gravel Fill 8 - 10.4 ft bgs - f-Sand and Silt, little gravel and clay	10.4 ft bgs	8 - 10.4 ft bgs
SB-11	9/28/2011	1-inch thick band of brown-black NAPL at 10.7 ft bgs 1/2-inch thick band of brown-black NAPL at 12.3 ft bgs Trace NAPL blebs from 14 to 14.2 ft bgs	0 - 14.2 ft bgs - SILT with varying amounts of Sand and Gravel.	14.2 ft bgs	None
SB-12	9/28/2011	Trace brown NAPL coating organics from 10-11.2 ft bgs	0 - 10 ft bgs - FILL 10-12.4 ft bgs - Brown SILT, little F-Sand and Gravel	12.4 ft bgs	None
SB-13	10/6/2011	Trace sheen at 9.3 ft bgs	0 - 4.5 ft bgs - FILL 4.5 - 10.2 ft bgs - SAND and SILT, little organics, little gravel increasing with depth 10.2 - 10.4 ft bgs - Weathered rock	10.8 ft bgs	9.0 - 10.8 ft bgs
SB-14	10/6/2011	No obvious impacts	0 - 4 ft bgs - FILL 4 - 9 ft bgs - SILT, little f-sand, clay, f-m gravel 9 - 9.3 ft bgs - Weathered rock	9.3 ft bgs	7.0 - 9.3 ft bgs
SB-15	10/6/2011	No obvious impacts	0 - 8 ft bgs - SAND and SILT, little f-m-c gravel increasing with depth, trace clay	8.9 ft bgs	7.0 - 8.9 ft bgs
SB-16	10/6/2011	No obvious impacts	0 - 4 ft bgs - FILL	4.3 ft bgs	2.0 - 4.3 ft bgs
SB-17	10/6/2011	No obvious impacts	0 - 4.3 ft bgs - FILL	4.3 ft bgs	2.0 - 4.3 ft bgs
SB-18	2/29/2012	No obvious impacts	0 - 6.5 ft bgs - SAND, some silt 6.5 - 10 ft bgs - CLAY, f-sand, silt 10 - 12.8 ft bgs - PEAT, little silt, f-sand, clay 12.8 - 13 ft bgs - Weathered BEDROCK	13.4 ft bgs	12.0 - 13.4 ft bgs
SB-19	2/29/2012	Faint to Moderate MGP-like odor from 10.4 to 13.0 ft bgs	0 - 12.6 ft bgs - SAND, gravel, silt, trace red brick 12.6 - 13 ft bgs - Weathered BEDROCK, little sand	13.1 ft bgs	12.0 - 13.1 ft bgs
SB-20	3/1/2012	No obvious impacts	0 - 5 ft bgs - SAND, some silt, gravel 5 - 8 ft bgs - CLAY, little sand, silt, gravel, trace brick 8 - 8.8 ft bgs - SAND and GRAVEL	9.0 ft bgs	8.0 - 9.0 ft bgs
SB-21	2/29/2012	No obvious impacts	0 - 5 ft bgs - SAND, little silt, gravel, red brick 5 - 5.7 ft bgs - SILT, sand, gravel, little clay 6 - 8 ft bgs - SAND, some silt, gravel, trace clay 8 - 8.7 ft bgs - Weathered BEDROCK, some sand, silt	9.2 ft bgs	8.0 - 8.7 ft bgs

Table 2
Visual Impacts Summary

NYSEG - McMaster Street Former MGP Site - Auburn, New York
Upland PDI Summary Report

Boring/ Test Pit ID	Date Advanced	Potential Impacts	General Subsurface Soils	Completion Depth	Samples Collected BTEX & PAH Analysis
Soil Borings (cont'd)					
SB-22	3/1/2012	No obvious impacts	0 - 5 ft bgs - SAND, little gravel, silt, organics, brick 5 - 6 ft bgs - brick 6 - 9.7 ft bgs - CLAY, little sand, silt, brick	9.7 ft bgs	6.0 - 7.2 ft bgs
SB-23	3/1/2012	No obvious impacts	0 - 4.5 ft bgs - SAND, little grave, trace organics 4.5 - 5 ft bgs - COBBLES, little sand 5 - 8 ft bgs - SAND, little silt, gravel, clay 8 - 8.7 ft bgs - GRAVEL, weathered BEDROCK, silt	9.5 ft bgs	8.0 - 8.7 ft bgs
SB-24	2/29/2012	No obvious impacts	0 - 8 ft bgs - SAND, some gravel, brick 8 - 8.9 - SAND and SILT, gravel, weathered BEDROCK	8.9 ft bgs	8.0 - 8.9 ft bgs
SB-25	2/29/2012	Faint to Moderate MGP-like odor from 6.0 to 10. ft bgs	0 - 2 ft bgs - SAND, little gravel, brick 2 - 5.2 ft bgs - COBBLES, little sand, silt 5.2 - 9 ft bgs - SAND and SILT, little gravel, clay 9 - 10.4 ft bgs - Weathered BEDROCK, little silt, sand	10.4 ft bgs	8.0 - 10.4 ft bgs
SB-26	2/29/2012	Faint MGP-like odor from 5.2 to 5.4 and 8.8 to 9.0 ft bgs	0 - 1.5 ft bgs - SAND, little gravel, brick 1.5 - 5 ft bgs - brick 5 - 5.2 ft bgs - SAND and GRAVEL, little brick 5.2 - 5.6 ft bgs - wood 6 - 7.2 ft bgs - SAND and SILT, little gravel, wood 8 - 8.8 ft bgs - SAND, some silt, little clay, gravel 8.8 - 10.6 ft bgs - Weathered BEDROCK, silt, sand	10.6 ft bgs	8.0 - 10.6 bgs
Test Pits					
MTP-1A	9/12/2011	NAPL blebs and heavy sheen observed from 8 to 9.5 ft bgs	0 - 8 ft bgs - m-SAND, m-f GRAVEL, little cobbles, brick 8 - 9.5 ft bgs - SAND, m-c GRAVEL	9.5 ft bgs	None
MTP-1B	9/12/2011	Heavy sheen and NAPL coating on top of bedrock	Same as MTP-1A	9 ft bgs	None
MTP-1C	9/12/2011	Moderate NAPL coating on soil from 8 to 9.5 ft bgs	0 - 9.5 ft bgs - SAND, gravel, cobbles, brick	9.5 ft bgs	None
MTP-2	9/9/2011	Stained soil, heavy NAPL coating on soil from 8 to 10 ft bgs	0 - 4 ft bgs - f-SAND, roots, brick, trace clay and silt 4 - 8 ft bgs - large COBBLES, f-sand, coarse fill 8 - 10 ft bgs - coarse fill	10 ft bgs	None
MTP-2A	9/9/2011	No obvious impacts	0 - 10 ft bgs - f-SAND, cobbles, f-m-c gravel, bones	10 ft bgs	None
MTP-3A	9/13/2011	MGP-like odor from 0 to 3.3 ft bgs NAPL coating and sheen on top of bedrock	0 - 3 ft bgs - SAND, wood, gravel, brick 3 - 7.5 ft bgs - f-m SAND, little gravel, brick 7.5 - 9 ft bgs - SAND and gravel	9 ft bgs	None
MTP-3B	9/13/2011	No obvious impacts	0 - 1 ft bgs - 0.8 ft thick concrete pad 1 - 8 ft bgs - Hard fill and debris (east end of test pit) 1 - 8 ft bgs - Concrete structure (west end of test pit)	8 ft bgs	None
MTP-4A	9/13/2011	NAPL coated soil 3 to 5 ft bgs	0 - 5 ft bgs - SAND, little gravel, roots 5 - 8 ft bgs - SAND, little grave, wood timbers, silt 8 - 9 ft bgs - SAND, gravel 9 - 9.5 ft bgs - weathered BEDROCK	9.5 ft bgs	None
MTP-4B	9/14/2011	No obvious impacts	0 - 2 ft bgs - SAND, f-m gravel, silt, roots 2 - 5 ft bgs - f-m SAND, some silt 5 - 10 ft bgs - f-SAND, little silt, trace f-m gravel	10.5 ft bgs	None
MTP-5	9/12/2011	NAPL coated soil and sheens from 7 to 9 ft bgs	0 - 0.5 ft bgs - Asphalt 0.5 - 3 ft bgs - f-SAND, little gravel, silt, trace organics 3 - 3.5 ft bgs - cinders 3.5 - 7 ft bgs - f-SAND, little cinders, brick, f-m gravel 7 - 10.5 ft bgs - f-SAND, little silt, f-gravel	10.5 ft bgs	None

Notes:

1. Samples collected and visually characterized by an ARCADIS geologist on the date indicated.
2. Split spoon refusal assumed to be bedrock surface.
3. bgs - Below ground surface
4. MS/MSD - Matrix Spike/Matrix Spike Duplicate

Table 3
Soil Analytical Results

NYSEG - McMaster Street Former MGP Site - Auburn, New York
Upland PDI Summary Report

Location ID: Sample Depth(Feet): Date Collected:	Units	SB-01 5 - 6.8 09/30/11	SB-01 10.9 - 11.9 09/30/11	SB-02 8 - 10.5 09/26/11	SB-03 8 - 9.5 09/26/11	SB-04 8 - 10.9 09/26/11	SB-10 8 - 10.4 09/26/11	SB-13 9 - 10.8 10/06/11	SB-14 7 - 9.3 10/06/11	SB-15 7 - 8.9 10/06/11	SB-16 2 - 4.3 10/06/11
BTEX											
Benzene	mg/kg	0.0062 U [0.0056 U]	0.0055 U	0.0059 U	0.0060 U	0.0055 U	0.0061 U	0.0053 U	0.0058 U	0.0063 U	0.0065 U
Ethylbenzene	mg/kg	0.0062 U [0.0056 U]	0.0055 U	0.0059 U	0.0060 U	0.0055 U	0.0061 U	0.0053 U	0.0058 U	0.0063 U	0.0065 U
Toluene	mg/kg	0.0062 U [0.0056 U]	0.0055 U	0.0059 U	0.0060 U	0.0055 U	0.0061 U	0.00080 J	0.00097 J	0.0013 J	0.0011 J
Xylene (Total)	mg/kg	0.012 U [0.011 U]	0.011 U	0.012 U	0.012 U	0.011 U	0.012 U	0.011 UB	0.012 UB	0.013 UB	0.013 UB
Total BTEX	mg/kg	ND [ND]	ND	ND	ND	ND	ND	0.00080 J	0.00097 J	0.0013 J	0.0011 J
PAHs											
2-Methylnaphthalene	mg/kg	0.043 J [0.059 J]	0.19 U	0.27 J	0.28 J	0.19 U	0.21 U	0.0084 J	2.0 U	2.2 U	2.3 U
Acenaphthene	mg/kg	0.14 J [0.098 J]	0.19 U	0.90 J	3.7	0.19 U	0.21 U	0.018 J	2.0 U	2.2 U	2.3 U
Acenaphthylene	mg/kg	0.13 J [0.17 J]	0.19 U	0.48 J	1.1 J	0.19 U	0.21 U	0.18 U	2.0 U	2.2 U	2.3 U
Anthracene	mg/kg	0.44 J [0.38 J]	0.19 U	2.6	9.1	0.038 J	0.21 U	0.015 J	0.24 J	2.2 U	2.3 U
Benzo(a)anthracene	mg/kg	1.5 J [1.4]	0.19 U	4.9	8.6	0.054 J	0.035 J	0.18 U	0.64 J	2.2 U	2.3 U
Benzo(a)pyrene	mg/kg	1.4 J [1.3]	0.19 U	3.9	7.0	0.053 J	0.043 J	0.017 J	0.87 J	2.2 U	2.3 U
Benzo(b)fluoranthene	mg/kg	1.6 J [1.3]	0.19 U	4.1	7.1	0.069 J	0.039 J	0.18 U	0.80 J	2.2 U	2.3 U
Benzo(g,h,i)perylene	mg/kg	0.94 J [0.89 J]	0.19 U	2.1	4.2	0.040 J	0.035 J	0.18 U	0.58 J	2.2 U	2.3 U
Benzo(k)fluoranthene	mg/kg	0.64 J [0.80 J]	0.19 U	1.9	3.3	0.037 J	0.025 J	0.18 U	0.47 J	2.2 U	2.3 U
Chrysene	mg/kg	1.4 [1.4]	0.19 U	3.7	7.4	0.062 J	0.032 J	0.18 U	0.67 J	2.2 U	2.3 U
Dibenz(a,h)anthracene	mg/kg	1.0 UJ [0.97 U]	0.19 U	0.68 J	1.3 J	0.19 U	0.21 U	0.18 U	0.16 J	2.2 U	2.3 U
Dibenzofuran	mg/kg	0.11 J [0.10 J]	0.19 U	0.49 J	2.7	0.19 U	0.21 U	0.18 U	2.0 U	2.2 U	2.3 U
Fluoranthene	mg/kg	3.0 J [2.8]	0.19 U	9.5	19	0.13 J	0.044 J	0.036 J	0.89 J	0.16 J	0.22 J
Fluorene	mg/kg	0.14 J [0.14 J]	0.19 U	1.0	4.7	0.19 U	0.21 U	0.18 U	2.0 U	2.2 U	2.3 U
Indeno(1,2,3-cd)pyrene	mg/kg	0.77 J [0.75 J]	0.19 U	2.0	3.5	0.034 J	0.029 J	0.18 U	0.49 J	2.2 U	2.3 U
Naphthalene	mg/kg	1.0 U [0.13 J]	0.19 U	0.56 J	0.95 J	0.19 U	0.21 U	0.022 J	2.0 U	2.2 U	2.3 U
Phenanthrene	mg/kg	2.2 J [2.1]	0.19 U	5.3	21	0.12 J	0.025 J	0.066 J	0.93 J	0.12 J	2.3 U
Pyrene	mg/kg	2.8 J [2.6]	0.19 U	7.7	15	0.11 J	0.044 J	0.045 J	0.99 J	0.15 J	0.20 J
Total PAHs	mg/kg	17 J [16 J]	ND	52 J	120 J	0.75 J	0.35 J	0.23 J	7.7 J	0.43 J	0.42 J

Table 3
Soil Analytical Results

NYSEG - McMaster Street Former MGP Site - Auburn, New York
Upland PDI Summary Report

Location ID: Sample Depth(Feet): Date Collected:	Units	SB-17 2 - 4.3 10/06/11	SB-18 12 - 13.4 02/29/12	SB-19 12 - 13.1 02/29/12	SB-20 8 - 9 03/01/12	SB-21 8 - 8.7 02/29/12	SB-22 6 - 7.2 03/01/12	SB-23 8 - 8.7 03/01/12	SB-24 8 - 8.9 02/29/12	SB-25 8 - 10.4 02/29/12	SB-26 8 - 10.6 02/29/12
BTEX											
Benzene	mg/kg	0.0076 U	0.0081 U	0.0044 J	0.0066 U [0.0063 U]	0.0062 U	0.0071 U	0.0061 UJ	0.0029 J	0.043	0.019
Ethylbenzene	mg/kg	0.0076 U	0.0081 U	0.0089 J	0.0066 U [0.0063 U]	0.00055 J	0.0018 J	0.0061 UJ	0.0061 U	0.12	0.010
Toluene	mg/kg	0.0014 J	0.0081 U	0.013 J	0.0066 U [0.0063 U]	0.0062 U	0.00080 J	0.0061 UJ	0.0017 J	0.0071	0.013
Xylene (Total)	mg/kg	0.015 UB	0.016 U	0.47	0.013 U [0.013 U]	0.012 U	0.0050 J	0.012 UJ	0.0023 J	0.16	0.069
Total BTEX	mg/kg	0.0014 J	ND	0.50 J	ND [ND]	0.00055 J	0.0076 J	ND	0.0069 J	0.33	0.11
PAHs											
2-Methylnaphthalene	mg/kg	0.21 J	0.18 J	14	0.38 [0.68]	0.29	0.58	1.5	0.36	12	15
Acenaphthene	mg/kg	1.2 J	0.13 J	56 D	0.061 J [0.071 J]	0.34	0.44	0.31	0.17 J	37	49
Acenaphthylene	mg/kg	2.9	0.074 J	6.4	0.069 J [0.074 J]	0.16 J	0.20 J	0.25	0.087 J	15	13
Anthracene	mg/kg	4.5	0.056 J	25 D	0.11 J [0.12 J]	0.082 J	0.22 J	0.34	0.14 J	5.5	5.1
Benzo(a)anthracene	mg/kg	11	0.022 J	58 D	0.036 J [0.050 J]	0.13 J	0.53	0.13 J	0.064 J	12	4.7
Benzo(a)pyrene	mg/kg	10	0.085 J	32 D	0.097 J [0.12 J]	0.19 J	0.43	0.34	0.11 J	18	14
Benzo(b)fluoranthene	mg/kg	6.9	0.11 J	30 D	0.21 J [0.30]	0.23	0.54	0.71	0.24	17	14
Benzo(g,h,i)perylene	mg/kg	4.4	0.61	230 D	0.63 [0.89]	0.82	2.4	2.1 J	0.77	61 D	54 D
Benzo(k)fluoranthene	mg/kg	6.8	0.43	4.9	0.79 [1.4]	0.64	1.2	3.1 J	0.87	41	50
Chrysene	mg/kg	10	0.42	0.87 D	0.75 [1.2]	0.55	1.1	2.7 J	0.87	32	40
Dibenz(a,h)anthracene	mg/kg	1.5 J	0.22 J	14 D	0.44 [0.87]	0.32	0.68	1.8 J	0.39	16	19
Dibenzofuran	mg/kg	0.54 J	0.15 J	5.3	0.55 [0.76]	0.34	0.61	2.1 J	0.41	12	16
Fluoranthene	mg/kg	18	0.089 J	0.51	0.23 [0.45]	0.16 J	0.30	0.78	0.18 J	7.1	6.7
Fluorene	mg/kg	1.4 J	0.16 J	4.1	0.40 [0.69]	0.27	0.56	1.6 J	0.32	11	13
Indeno(1,2,3-cd)pyrene	mg/kg	4.0	0.055 J	0.92 D	0.15 J [0.21 J]	0.11 J	0.20 J	0.58 J	0.12 J	3.4	4.8
Naphthalene	mg/kg	2.7 U	0.012 J	0.43	0.053 J [0.072 J]	0.039 J	0.075 J	0.18 J	0.036 J	0.92 J	1.4 J
Phenanthrene	mg/kg	17	0.059 J	1.0	0.17 J [0.22]	0.12 J	0.21 J	0.59 J	0.14 J	3.4	5.6
Pyrene	mg/kg	19	0.078 J	100 D	0.050 J [0.037 J]	0.095 J	0.41	0.16 J	0.059 J	6.7	11
Total PAHs	mg/kg	120 J	2.9 J	580	5.1 J [8.1 J]	4.7 J	10 J	19 J	5.2 J	300 J	320 J

Notes:

1. Samples collected by ARCADIS on the date indicated.
2. Samples analyzed by TestAmerica located in Buffalo, New York.
3. Concentrations reported in milligrams per kilogram (mg/kg) which is equivalent to parts per million (ppm) unless otherwise noted.
4. J - Indicates an estimated value.
5. U - Indicates that the compound was not detected at a concentration greater than the indicated laboratory detection limit.
6. ND - Reported for sum of BTEX or PAH compounds where none of the individual compounds exceeded laboratory detection limits.
7. B - Indicates an estimated value between the instrument detection limit and the Reporting Limit (RL).
8. D - Indicates that the reported concentration is based on the analysis of a diluted sample.

Table 4
Groundwater Analytical Results

NYSEG - McMaster Street Former MGP Site - Auburn, New York
Upland PDI Summary Report

Location ID: Date Collected:	Units	MW-04-03 09/29/11	MW-04-04 09/30/11	MW-04-05 09/30/11	MW-05-02R 09/29/11	MW-05-07R 09/29/11	MW-05-08R 09/29/11	MW-06-10 09/30/11	MW-06-13R 09/29/11
VOCs									
1,1,1-Trichloroethane	ug/L	4.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
1,1,2,2-Tetrachloroethane	ug/L	4.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
1,1,2-Trichloro-1,2,2-trifluoroethane	ug/L	4.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
1,1,2-Trichloroethane	ug/L	4.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
1,1-Dichloroethane	ug/L	4.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
1,1-Dichloroethene	ug/L	4.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
1,2,4-Trichlorobenzene	ug/L	4.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
1,2-Dibromo-3-chloropropane	ug/L	4.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
1,2-Dibromoethane	ug/L	4.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
1,2-Dichlorobenzene	ug/L	4.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
1,2-Dichloroethane	ug/L	4.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
1,2-Dichloropropane	ug/L	4.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
1,3-Dichlorobenzene	ug/L	4.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
1,4-Dichlorobenzene	ug/L	4.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
2-Butanone	ug/L	40 U	10 U [10 U]	10 U	10 U	10 U	10 U	10 U	50 U
2-Hexanone	ug/L	20 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	25 U
4-Methyl-2-Pentanone	ug/L	20 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	25 U
Acetone	ug/L	40 U	10 U [10 U]	10 U	10 U	10 U	4.0 J	10 U	50 U
Benzene	ug/L	170	4.7 [4.7]	1.0 U	0.53 J	57	2.6	1.0 U	1,100
Bromodichloromethane	ug/L	4.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
Bromoform	ug/L	4.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
Bromomethane	ug/L	4.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
Carbon Disulfide	ug/L	4.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
Carbon Tetrachloride	ug/L	4.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
Chlorobenzene	ug/L	4.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
Chloroethane	ug/L	4.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
Chloroform	ug/L	4.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
Chloromethane	ug/L	4.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
cis-1,2-Dichloroethene	ug/L	4.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
cis-1,3-Dichloropropene	ug/L	4.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
Cyclohexane	ug/L	4.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
Dibromochloromethane	ug/L	4.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
Dichlorodifluoromethane	ug/L	4.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
Ethylbenzene	ug/L	380	1.0 U [1.0 U]	1.0 U	0.99 J	1.4	1.0 U	1.0 U	910
Isopropylbenzene	ug/L	63	1.0 U [1.0 U]	1.0 U	0.81 J	1.0 U	1.0 U	2.0	62
Methyl acetate	ug/L	4.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
Methyl tert-butyl ether	ug/L	4.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
Methylcyclohexane	ug/L	4.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	0.84 J	1.5 J

Table 4
Groundwater Analytical Results

NYSEG - McMaster Street Former MGP Site - Auburn, New York
Upland PDI Summary Report

Location ID: Date Collected:	Units	MW-04-03 09/29/11	MW-04-04 09/30/11	MW-04-05 09/30/11	MW-05-02R 09/29/11	MW-05-07R 09/29/11	MW-05-08R 09/29/11	MW-06-10 09/30/11	MW-06-13R 09/29/11
VOCs (cont'd)									
Methylene Chloride	ug/L	4.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
Styrene	ug/L	4.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
Tetrachloroethene	ug/L	4.0 U	1.0 U [1.0 U]	0.57 J	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
Toluene	ug/L	110	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1,400
trans-1,2-Dichloroethene	ug/L	4.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
trans-1,3-Dichloropropene	ug/L	4.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
Trichloroethene	ug/L	4.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
Trichlorofluoromethane	ug/L	4.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
Vinyl Chloride	ug/L	4.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
Xylene (Total)	ug/L	700	0.89 J [0.90 J]	2.0 U	2.0 U	2.6	2.0 U	2.0 U	2,800
SVOCs									
2,4,5-Trichlorophenol	ug/L	100 U	5.3 U [5.6 U]	47 U	5.1 U	5.6 U	4.8 U	5.1 U	48 U
2,4,6-Trichlorophenol	ug/L	100 U	5.3 U [5.6 U]	47 U	5.1 U	5.6 U	4.8 U	5.1 U	48 U
2,4-Dichlorophenol	ug/L	100 U	5.3 U [5.6 U]	47 U	5.1 U	5.6 U	4.8 U	5.1 U	48 U
2,4-Dimethylphenol	ug/L	100 U	5.3 U [5.6 U]	47 U	5.1 U	5.6 U	4.8 U	5.1 U	79
2,4-Dinitrophenol	ug/L	210 U	11 U [11 U]	94 U	10 U	11 U	9.6 U	10 U	95 U
2,4-Dinitrotoluene	ug/L	100 U	5.3 U [5.6 U]	47 U	5.1 U	5.6 U	4.8 U	5.1 U	48 U
2,6-Dinitrotoluene	ug/L	100 U	5.3 U [5.6 U]	47 U	5.1 U	5.6 U	4.8 U	5.1 U	48 U
2-Chloronaphthalene	ug/L	100 U	5.3 U [5.6 U]	47 U	5.1 U	5.6 U	4.8 U	5.1 U	48 U
2-Chlorophenol	ug/L	100 U	5.3 U [5.6 U]	47 U	5.1 U	5.6 U	4.8 U	5.1 U	48 U
2-Methylphenol	ug/L	100 U	5.3 U [5.6 U]	47 U	5.1 U	5.6 U	0.82 J	5.1 U	48 U
2-Nitroaniline	ug/L	210 U	11 U [11 U]	94 U	10 U	11 U	9.6 U	10 U	95 U
2-Nitrophenol	ug/L	100 U	5.3 U [5.6 U]	47 U	5.1 U	5.6 U	4.8 U	5.1 U	48 U
3,3'-Dichlorobenzidine	ug/L	100 U	5.3 U [5.6 U]	47 U	5.1 U	5.6 U	4.8 U	5.1 U	48 U
3-Nitroaniline	ug/L	210 U	11 U [11 U]	94 U	10 U	11 U	9.6 U	10 U	95 U
4,6-Dinitro-2-methylphenol	ug/L	210 U	11 U [11 U]	94 U	10 U	11 U	9.6 U	10 U	95 U
4-Bromophenyl-phenylether	ug/L	100 U	5.3 U [5.6 U]	47 U	5.1 U	5.6 U	4.8 U	5.1 U	48 U
4-Chloro-3-methylphenol	ug/L	100 U	5.3 U [5.6 U]	47 U	5.1 U	5.6 U	4.8 U	5.1 U	48 U
4-Chloroaniline	ug/L	100 U	5.3 U [5.6 U]	47 U	5.1 U	5.6 U	4.8 U	5.1 U	48 U
4-Chlorophenyl-phenylether	ug/L	100 U	5.3 U [5.6 U]	47 U	0.76 J	5.6 U	4.8 U	5.1 U	48 U
4-Methylphenol	ug/L	210 U	11 U [11 U]	94 U	10 U	11 U	1.1 J	10 U	6.5 J
4-Nitroaniline	ug/L	210 U	11 U [11 U]	94 U	10 U	11 U	9.6 U	10 U	95 U
4-Nitrophenol	ug/L	210 U	11 U [11 U]	94 U	10 U	11 U	9.6 U	10 U	95 U
Acetophenone	ug/L	100 U	5.3 U [5.6 U]	47 U	5.1 U	5.6 U	4.8 U	5.1 U	48 U
Atrazine	ug/L	100 U*	5.3 U* [5.6 U*]	47 U*	5.1 U*	5.6 U*	4.8 U*	5.1 U*	48 U*
Benzaldehyde	ug/L	100 U	5.3 U [5.6 U]	47 U	5.1 U	5.6 U	4.8 U	5.1 U	48 U
bis(2-Chloroethoxy)methane	ug/L	100 U	5.3 U [5.6 U]	47 U	5.1 U	5.6 U	4.8 U	5.1 U	48 U
bis(2-Chloroethyl)ether	ug/L	100 U	5.3 U [5.6 U]	47 U	5.1 U	5.6 U	4.8 U	5.1 U	48 U

Table 4
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SVOCs (cont'd)									
bis(2-chloroisopropyl)ether	ug/L	100 U	5.3 U [5.6 U]	47 U	5.1 U	5.6 U	4.8 U	5.1 U	48 U
bis(2-Ethylhexyl)phthalate	ug/L	100 U	5.3 U [5.6 U]	47 U	5.1 U	3.3 J	4.8 U	5.1 U	48 U
Butylbenzylphthalate	ug/L	100 U	5.3 U [5.6 U]	47 U	5.1 U	5.6 U	4.8 U	5.1 U	48 U
Caprolactam	ug/L	100 U	5.3 U [5.6 U]	47 U	5.4	7.2	4.8 U	5.1 U	48 U
Chrysene	ug/L	100 U	5.5 [5.9]	77	5.1 U	1.9 J	4.8 U	5.1 U	170
Diethylphthalate	ug/L	100 U	5.3 U [5.6 U]	47 U	5.1 U	5.6 U	4.8 U	5.1 U	48 U
Dimethylphthalate	ug/L	100 U	5.3 U [5.6 U]	47 U	5.1 U	5.6 U	4.8 U	5.1 U	48 U
Di-n-butylphthalate	ug/L	100 U	0.44 JB [0.47 JB]	47 U	0.77 JB	0.82 JB	0.51 JB	0.59 JB	48 U
Di-n-octylphthalate	ug/L	100 U	5.3 U [5.6 U]	47 U	5.1 U	5.6 U	4.8 U	5.1 U	48 U
Hexachlorobenzene	ug/L	100 U	5.3 U [5.6 U]	47 U	0.65 J	5.6 U	4.8 U	5.1 U	48 U
Hexachlorobutadiene	ug/L	100 U	5.3 U [5.6 U]	47 U	5.1 U	5.6 U	4.8 U	5.1 U	48 U
Hexachlorocyclopentadiene	ug/L	100 U	5.3 U [5.6 U]	47 U	5.1 U	5.6 U	4.8 U	5.1 U	48 U
Hexachloroethane	ug/L	100 U	5.3 U [5.6 U]	47 U	5.1 U	5.6 U	4.8 U	5.1 U	48 U
Isophorone	ug/L	100 U	5.3 U [5.6 U]	47 U	5.1 U	5.6 U	4.8 U	5.1 U	48 U
Nitrobenzene	ug/L	100 U	5.3 U [5.6 U]	47 U	5.1 U	5.6 U	4.8 U	5.1 U	48 U
N-Nitroso-di-n-propylamine	ug/L	100 U	5.3 U [5.6 U]	47 U	5.1 U	5.6 U	4.8 U	5.1 U	48 U
N-Nitrosodiphenylamine	ug/L	100 U	5.3 U [5.6 U]	47 U	5.1 U	5.6 U	4.8 U	5.1 U	48 U
Pentachlorophenol	ug/L	210 U	11 U [11 U]	94 U	10 U	11 U	9.6 U	10 U	95 U
Phenol	ug/L	100 U	5.3 U [5.6 U]	47 U	5.1 U	5.6 U	4.8 U	5.1 U	48 U
Naphthalene	ug/L	1,200	9.4 [5.7]	26 J	2.3 J	5.9	1.5 J	8.6	4,400
Biphenyl	ug/L	100 U	5.3 U [5.6 U]	47 U	1.5 J	5.6 U	4.8 U	5.1 U	60
Dibenzofuran	ug/L	17 J	1.2 J [1.4 J]	17 J	0.70 J	11 U	9.6 U	10 U	220
Acenaphthylene	ug/L	59 J	1.4 J [1.4 J]	22 J	5.0 J	0.83 J	0.82 J	0.83 J	300
Acenaphthene	ug/L	63 J	6.5 [6.6]	27 J	9.0	5.6 U	2.8 J	2.7 J	170
Fluorene	ug/L	30 J	3.2 J [4.3 J]	31 J	4.4 J	0.65 J	0.52 J	2.2 J	310
Anthracene	ug/L	8.1 J	3.6 J [4.7 J]	68	1.4 J	0.92 J	4.8 U	0.41 J	230
Phenanthrene	ug/L	46 J	12 [16]	130	12	2.6 J	4.8 U	1.5 J	760
Fluoranthene	ug/L	100 U	14 [16]	200	0.87 J	4.2 J	4.8 U	5.1 U	490
Pyrene	ug/L	100 U	11 [12]	130	1.0 J	3.7 J	0.36 J	5.1 U	390
Benzo(a)anthracene	ug/L	100 U	5.5 [5.9]	79	5.1 U	2.2 J	4.8 U	5.1 U	220
Benzo(b)fluoranthene	ug/L	100 U	6.1 [6.3]	92	5.1 U	2.4 J	4.8 U	5.1 U	170
Benzo(k)fluoranthene	ug/L	100 U	2.9 J [3.1 J]	46 J	5.1 U	1.1 J	4.8 U	5.1 U	100
Benzo(a)pyrene	ug/L	100 U	5.5 [5.9]	96	5.1 U	2.1 J	4.8 U	5.1 U	180
Indeno(1,2,3-cd)pyrene	ug/L	100 U	2.6 J [2.8 J]	46 J	5.1 U	1.2 J	4.8 U	5.1 U	78
Dibenz(a,h)anthracene	ug/L	100 U	0.93 J [1.0 J]	15 J	5.1 U	0.47 J	4.8 U	5.1 U	27 J
Benzo(g,h,i)perylene	ug/L	100 U	2.9 J [3.3 J]	48	5.1 U	1.4 J	4.8 U	5.1 U	86
2-Methylnaphthalene	ug/L	190	0.76 J [5.6 U]	5.7 J	5.1 U	0.76 J	4.8 U	4.0 J	530
Carbazole	ug/L	28 J	0.71 J [0.94 J]	5.9 J	5.1 U	0.48 J	4.8 U	5.1 U	130

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Inorganics									
Aluminum	ug/L	91,800	3,700 [72,500]	4,100	12,000	1,500	6,600	28,100	3,300
Antimony	ug/L	20.0 U	20.0 U [19.0 J]	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U
Arsenic	ug/L	230	30.0 [640]	10.0 U	43.0	10.0 U	130	45.0	10.0 U
Barium	ug/L	950	560 [2,000]	79.0	320	34.0	330	580	250
Beryllium	ug/L	5.10	2.00 U [8.50]	2.00 U	1.10 J	2.00 U	0.730 J	1.10 J	2.00 U
Cadmium	ug/L	2.90	0.710 J [11.0]	1.00 U	1.00 U	1.00 U	1.00 U	0.960 J	1.00 U
Calcium	ug/L	477,000	139,000 [490,000]	65,800	191,000	69,900	179,000	188,000	156,000
Chromium	ug/L	140	9.90 [220]	10.0	22.0	14.0	2.20 J	42.0	5.90
Cobalt	ug/L	42.0	3.20 J [92.0]	4.00 U	9.70	4.00 U	0.890 J	12.0	2.00 J
Copper	ug/L	310	72.0 [1,600]	16.0	23.0	9.50 J	5.10 J	59.0	7.70 J
Iron	ug/L	157,000	26,100 [466,000]	3,400	17,300	2,000	13,900	68,600	5,500
Lead	ug/L	160	240 [5,800]	25.0	47.0	5.30	5.70	72.0	5.00 U
Magnesium	ug/L	172,000	42,300 [117,000]	13,800	27,000	26,400	35,000	64,800	89,400
Manganese	ug/L	4,800	270 [2,700]	27.0	390	28.0	630	920	54.0
Mercury	ug/L	0.950	0.610 [15.0]	0.540	0.200 U	0.200 U	0.200 U	0.150 J	0.200 U
Nickel	ug/L	150	17.0 [310]	4.90 J	7.90 J	4.60 J	2.60 J	51.0	6.60 J
Potassium	ug/L	22,400	18,200 [26,400]	2,500	4,200	3,400	8,900	22,500	7,300
Selenium	ug/L	200	15.0 U [44.0]	15.0 U	15.0 U	15.0 U	15.0 U	15.0 U	15.0 U
Silver	ug/L	3.00 U	3.00 U [2.10 J]	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U
Sodium	ug/L	49,400	20,600 [20,300]	23,900	36,300	3,500	104,000	108,000	44,400
Thallium	ug/L	20.0 U	20.0 U [20.0 U]	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U
Vanadium	ug/L	170	12.0 [250]	5.10	10.0	4.60 J	2.20 J	60.0	5.70
Zinc	ug/L	310	280 [5,300]	35.0	52.0	31.0	26.0	130	91.0
Inorganics-Filtered									
Aluminum	ug/L	69.0 J	200 U [200 U]	200 U	200 U	60.0 J	83.0 J	200 U	200 U
Antimony	ug/L	20.0 U	20.0 U [20.0 U]	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U
Arsenic	ug/L	10.0 U	10.0 U [10.0 U]	10.0 U	10.0 U	10.0 U	13.0	10.0 U	10.0 U
Barium	ug/L	290	360 [370]	43.0	150	17.0	220	350	160
Beryllium	ug/L	2.00 U	2.00 U [2.00 U]	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U
Cadmium	ug/L	1.00 U	1.00 U [1.00 U]	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U
Calcium	ug/L	137,000	115,000 [117,000]	67,100	99,400	38,800	160,000	106,000	116,000
Chromium	ug/L	1.10 J	4.00 U [4.00 U]	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U
Cobalt	ug/L	4.00 U	0.670 J [0.800 J]	4.00 U	1.40 J	4.00 U	0.960 J	4.00 U	4.00 U
Copper	ug/L	4.40 J	1.60 J [10.0 U]	2.10 J	1.50 J	1.50 J	1.80 J	1.80 J	1.70 J
Iron	ug/L	43.0 JB	22.0 JB [25.0 JB]	20.0 JB	50.0 U	50.0 U	48.0 JB	4,700 B	620 B
Lead	ug/L	5.00 U	5.00 U [5.00 U]	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U
Magnesium	ug/L	33,200	38,200 [38,600]	12,700	19,000	23,400	33,100	24,700	68,300
Manganese	ug/L	600 B	170 B [180 B]	21.0 B	200 B	9.40 B	520 B	180 B	29.0 B

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Inorganics-Filtered (cont'd)									
Mercury	ug/L	0.200 U	0.200 U [0.200 U]	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U
Nickel	ug/L	2.50 J	4.50 J [5.10 J]	10.0 U	10.0 U	2.10 J	10.0 U	10.0 U	1.90 J
Potassium	ug/L	6,000	15,400 [15,800]	1,600	2,100	3,000	7,400	11,400	5,300
Selenium	ug/L	25.0	15.0 U [15.0 U]	15.0 U	15.0 U	15.0 U	15.0 U	15.0 U	15.0 U
Silver	ug/L	3.00 U	3.00 U [3.00 U]	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U
Sodium	ug/L	45,100	18,500 [18,400]	24,000	32,700	3,400	99,800	107,000	28,600
Thallium	ug/L	20.0 U	20.0 U [20.0 U]	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U
Vanadium	ug/L	1.20 J	1.10 J [5.00 U]	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U
Zinc	ug/L	3.20 JB	14.0 B [24.0 B]	4.20 JB	4.50 JB	8.30 JB	21.0 B	13.0 B	17.0 B
Misc. Compounds									
Biochemical Oxygen Demand	ug/L	31,700 b	6,000 B [6,800 b]	4,300 B	2,000 U	22,300 B	2,000 U	3,400 b	23,900 B
BARTS(iron related)	cfu/mL	74,500	140,000	74,500	74,500	74,500	140,000	2,300	140,000
BARTS(slime forming)	cfu/mL	350,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000
BARTS(sulfate reducing)	cfu/mL	359,000	359,000	1,200	359,000	18,000	359,000	1,200	18,000
Chemical Oxygen Demand	ug/L	44,300	6,700 J [14,100]	10,000 U	10,000 U	49,500	14,400	34,000	92,600
Cyanide, Total	ug/L	56	28 * [25 *]	24	10 U	10 U	87	10 U*	10 U
Hardness as calcium carbonate	ug/L	1,060,000	680,000 [1,700,000]	215,000	720,000	406,000	660,000	350,000	779,000
Oil & Grease	ug/L	6,800	3,300 J [2,500 J]	1,600 J	2,500 J	1,700 J	5,700	5,300 J	3,200 J
pH	SU	7.52 H	7.54 H [7.57 H]	7.25 H	7.55 H	8.02 H	7.35 H	6.95 H	7.76 H
Total dissolved solids	ug/L	608,000	479,000 [503,000]	261,000	457,000	229,000	883,000	627,000	1,420,000
Total Kjeldahl Nitrogen	ug/L	7,400	1,300 [1,500]	750	870	1,600	1,700	2,100	1,400
Total Suspended Solids	ug/L	1,820,000	224,000 [606,000]	429,000	1,410,000	455,000	127,000	2,110,000	170,000
Total Toxic Organics	ug/L	1,400	5.6 J [5.6 J]	10 U	10 U	61	6.6 J	10 U	63,000

Notes:

1. Samples collected by ARCADIS on the date indicated.
2. Samples analyzed by TestAmerica located in Buffalo, New York.
3. Concentrations reported in micrograms per Liter (ug/L) which is equivalent to parts per billion (ppb) unless otherwise noted.
4. U - Indicates the compound was analyzed for but not detected. The associated value is the compound quantitation limit.
5. J - Indicates an estimated value.
6. * - Indicates the laboratory duplicate was outside of control limits.
7. B- Indicates an estimated value between the instrument detection limit and the Reporting Limit (RL).
8. b - Indicates the dilution water dissolved oxygen was greater than 0.2 mg/L but less than the reporting limit of 2.0 mg/L.
9. H - Indicates sample was extracted or analyzed beyond the specified holding time.

Table 5
Soil Waste Characterization Results

NYSEG - McMaster Street Former MGP Site - Auburn, New York
Upland PDI Summary Report

Location ID: Date Collected:	Units	WC-MCMaster 10/11/11
PCBs		
Aroclor-1016	mg/kg	0.26 U
Aroclor-1221	mg/kg	0.26 U
Aroclor-1232	mg/kg	0.26 U
Aroclor-1242	mg/kg	0.26 U
Aroclor-1248	mg/kg	0.26 U
Aroclor-1254	mg/kg	0.26 U
Aroclor-1260	mg/kg	0.26 U
Misc. Compounds		
Cyanide, Reactivity	mg/kg	10 U
Sulfide, Reactivity	mg/kg	20.1
VOCs-TCLP		
Benzene	ug/L	10 U

Notes:

1. Sample collected by ARCADIS on the date indicated.
2. Sample analyzed by TestAmerica located in Buffalo, New York.
3. Concentrations reported in milligrams per kilogram (mg/kg) which is equivalent to parts per million (ppm) unless otherwise noted.
Benzene analysis reported in micrograms per liter (ug/L) which is equivalent to parts per billion (ppb) due to Toxicity Characteristic Leaching Procedure (TCLP) methodology.
4. U - Indicates the compound was analyzed for but not detected. The associated value is the compound quantitation limit.

Table 6
Liquid Waste Characterization Results

NYSEG - McMaster Street Former MGP Site - Auburn, New York
PDI Summary Report

Location ID: Date Collected:	Units	WC-MCMaster 10/11/11
VOCs		
Benzene	ug/L	1.0 U
Misc. Compounds		
Cyanide, Total	ug/L	1,200

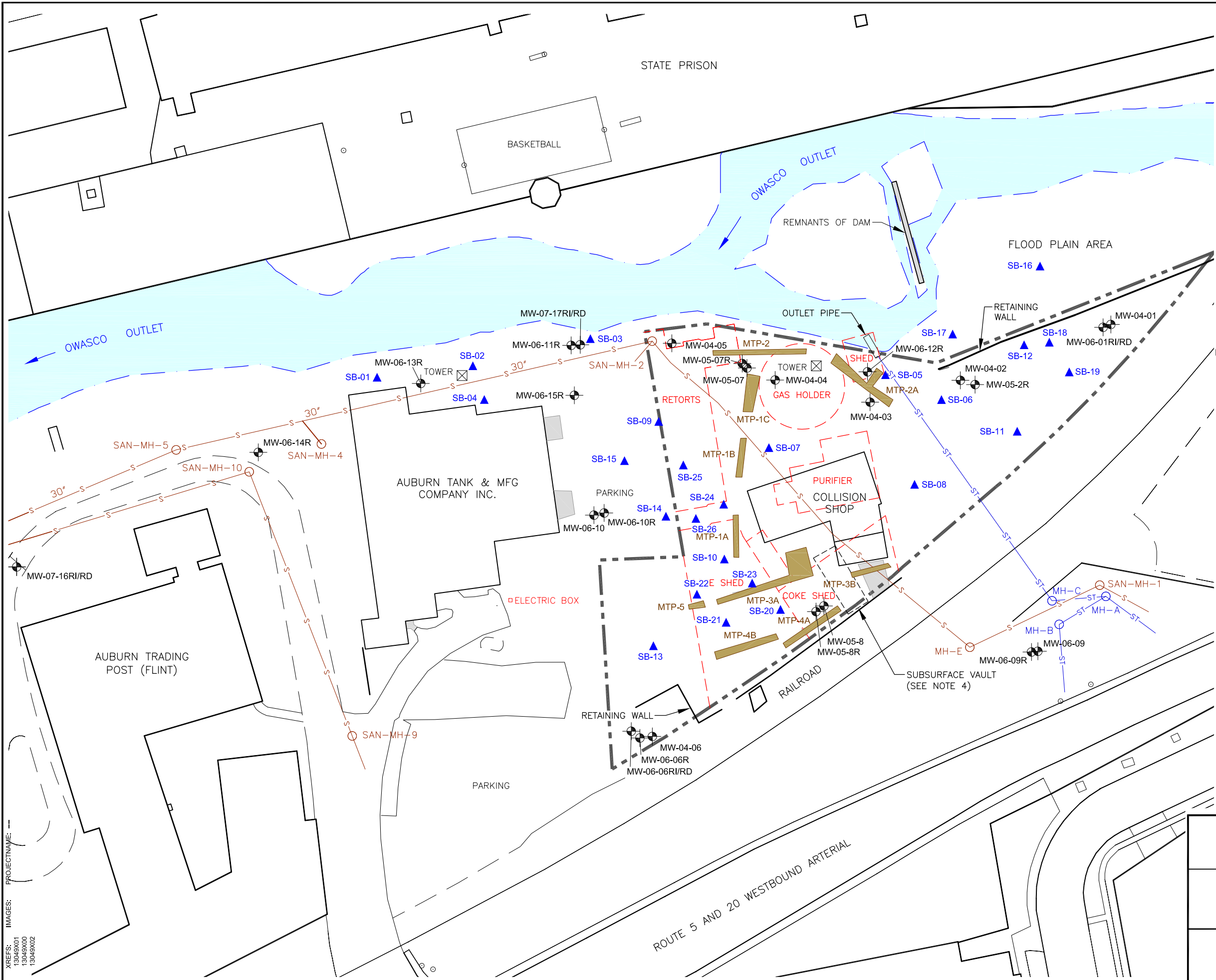
Notes:

1. Samples collected by ARCADIS on the date indicated.
2. Samples analyzed by TestAmerica located in Buffalo, NY.
3. Concentrations reported in micrograms per Liter (ug/L) which is equivalent to parts per billion (ppb) unless otherwise noted.
4. U - Indicates the compound was analyzed for but not detected. The associated value is the compound quantitation limit.

Figures

CITY:SYRACUSE,N.Y. GROUP:ENV/CAD-141 DB:W.JONES,R.BASSETT,PM-J.BRIEN TR:A.FALZARANO,LYRON#OFF=REF,(FRZ) G:\ENV\CAD\SYRACUSE\ACT\B0013049\000700016DWG\IPDS\MMH-RPT113049B07.DWG LAYOUT:1 SAVED:3/28/2012 4:20 PM ACADVER:18.1 S (LMS TECH) PAGES:18 PLOT:3/28/2012 4:23 PM BY:BASSETT,RICHARD

PROJECT NAME: --
IMAGES: --
XREFS: 13049X01
13049X00
13049X02

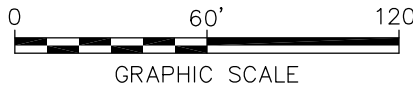


LEGEND:

- WATER EDGE
- PROPERTY BOUNDARY
- HISTORICAL MGP STRUCTURE
- SANITARY SEWER
- ST --- STORM SEWER (LOCATION INFERRED)
- SAN-MH-1 O MANHOLE
- CONCRETE
- MW-04-01 MONITORING WELL LOCATION
- SB-05 PDI SOIL BORING LOCATION
- MTP-1A PDI TEST PIT LOCATION

NOTES:

1. BASE MAP PREPARED BY MERGING SITE HISTORICAL LOCATIONS FROM ELECTRONIC CADD FILE PROVIDED BY NYSEG ON 2/07/07, NAMED AUBMACMAS2.DWG, AND BASED ON SURVEY (NAD 1983) ACTIVITIES CONDUCTED BY PAUL OLSZEWSKI, PLS LAND SURVEYING DURING OCTOBER 2011.
2. SANITARY LINE AND MANHOLE LOCATIONS BASED ON MARK-OUT CONDUCTED DURING PDI AND SURVEYED BY ARCADIS IN SEPTEMBER 2011.
3. PROPERTY LINES FOR AUBURN TANK AND AUBURN TRADING POST PROPERTY DIGITIZED FROM TAX MAP 115.52-1, PROVIDED BY NYSEG ON 10/18/06.
4. SUBSURFACE VAULT IDENTIFIED DURING TEST PITTING ACTIVITIES. THE AREA CONTAINS TUNNELS AND SUBFLOORS.



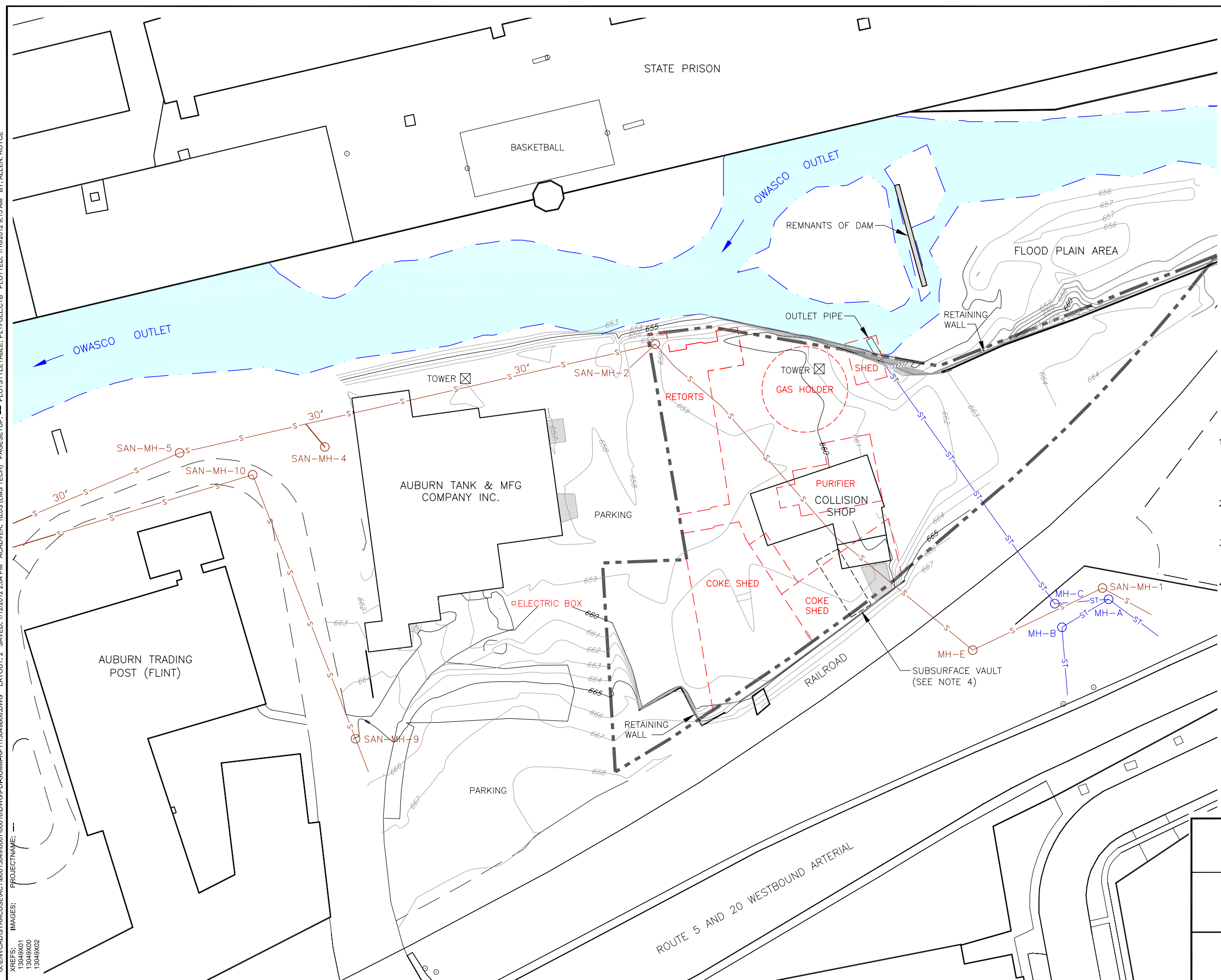
NYSEG
McMASTER STREET FORMER MGP SITE
AUBURN, NEW YORK
UPLAND PDI SUMMARY REPORT

**PRE-DESIGN INVESTIGATION
LOCATION MAP**



FIGURE
1

CITY:SYRACUSE, N.Y. GROUP:ENVCAD-141 DB:W.JONES, R.BASSETT, R.ALLEN PM:J.BRIEN TR:A.FALZARANO LYRON:OFF-REF (FRZ)
G:\ENVCAD\SYRACUSE\ACT\B0013049\000700016\DWG\PD\S\MMH-RPT13049B08.DWG LAYOUT:2 SAVED:11/2/2012 2:04 PM ACADVER:18.0S (LMS TECH) PAGES:21 PLOT:11/6/2012 8:15 AM BY:ALLEN, ROYCE
XREFS: 13049X01 13049X00 13049X02
IMAGES: PROJECTNAME: ---

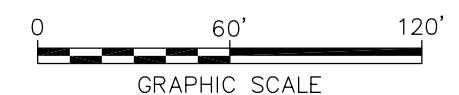


LEGEND:

- WATER EDGE
- PROPERTY BOUNDARY
- HISTORICAL MGP STRUCTURE
- S SANITARY SEWER
- ST STORM SEWER (LOCATION INFERRED)
- SAN-MH-1 O SANITARY MANHOLE
- CONCRETE
- 662 TOPOGRAPHIC CONTOUR

NOTES:

1. BASE MAP PREPARED BY MERGING SITE HISTORICAL LOCATIONS FROM ELECTRONIC CADD FILE PROVIDED BY NYSEG ON 2/07/07, NAMED AUBMACMAS2.DWG, AND BASED ON SURVEY ACTIVITIES CONDUCTED BY PAUL OLSZEWSKI, PLS LAND SURVEYING DURING OCTOBER 2011.
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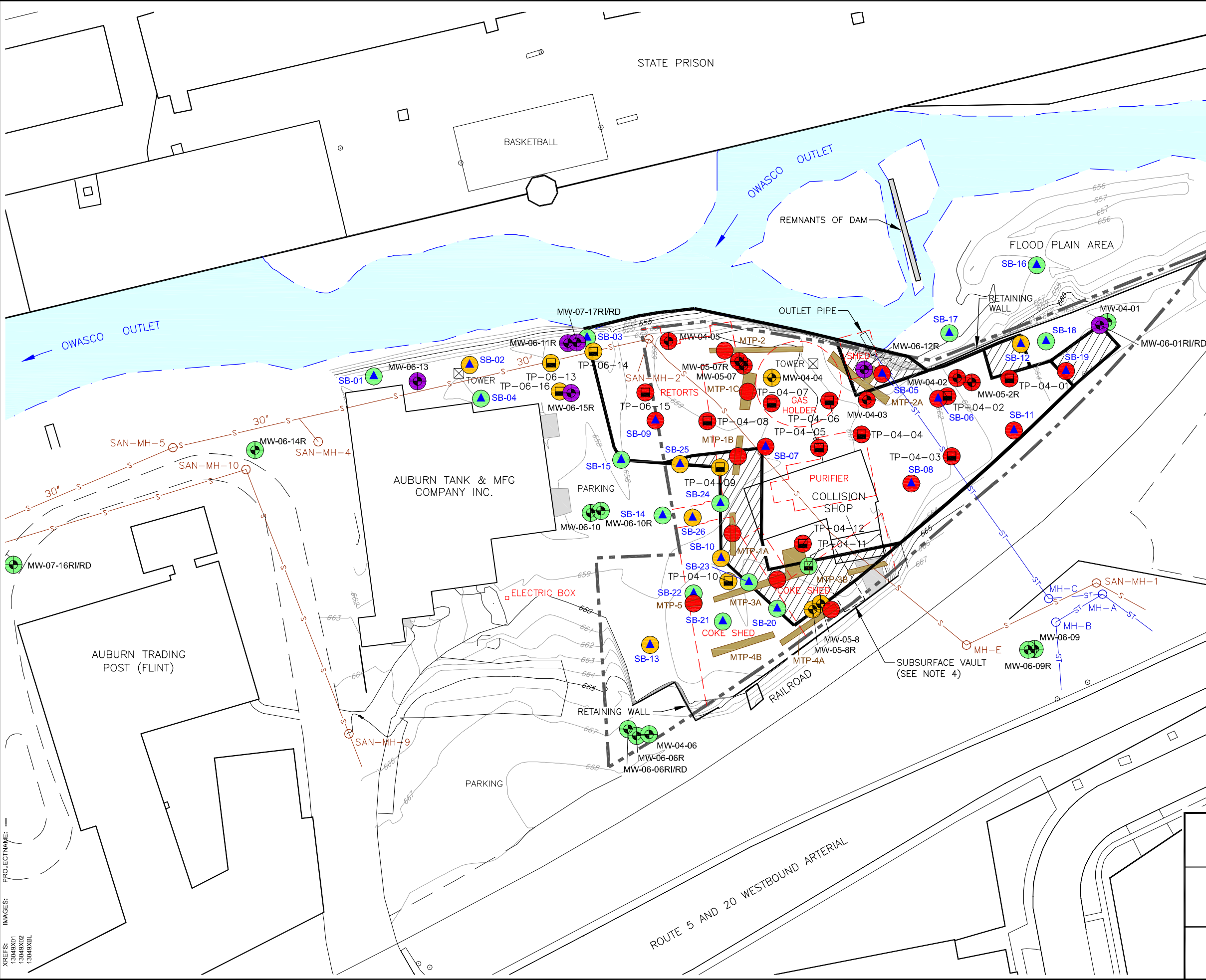
NYSEG
McMASTER STREET FORMER MGP SITE
AUBURN, NEW YORK
UPLAND PDI SUMMARY REPORT

TOPOGRAPHIC MAP

ARCADIS

FIGURE
2

CITY:SYRACUSE, NY, GROUP:ENVCAD-41, DB:W.JONES, R.BASSETT, PM:J.BRIEN, TR:A.FALZARANO, LYRON:OFF-REF, FRZ, GAEVCAD:SYRACUSE\ACT\B0013049000\0020\DWG\PD\SUMMRPT\13049B01.DWG, LAYOUT: 3, SAVED: 6/4/2012 2:19 PM, ACADVER: 18, S (LMS TECH), PAGES: 1, PLOT: 1, PLOT DATE: 6/4/2012 2:19 PM, BY: BASSETT, RICHARD

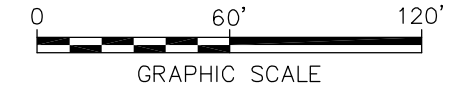


LEGEND:

- WATER EDGE
- PROPERTY BOUNDARY
- HISTORICAL MGP STRUCTURE
- SANITARY SEWER
- STORM SEWER (LOCATION INFERRED)
- SAN-MH-1 O MANHOLE
- CONCRETE
- TOPOGRAPHIC CONTOUR
- MW-04-01 MONITORING WELL LOCATION
- TP-04-01 RI TEST PIT LOCATION
- SB-05 PDI SOIL BORING LOCATION
- MTP-1A PDI TEST PIT LOCATION
- PROPOSED SOIL REMOVAL PER NYSDEC ROD
- ADDITIONAL PROPOSED SOIL REMOVAL AREA BASED ON UPLAND PDI
- NO OBSERVED IMPACTS
- SHEENS/ODOR/STAINING/BLEBS (DOES NOT MEET REMOVAL CRITERIA)
- NAPL OR BTEX AND PAHs GREATER THAN 10 AND 500 ppm, RESPECTIVELY
- NAPL IN BEDROCK

NOTES:

- BASE MAP PREPARED BY MERGING SITE HISTORICAL LOCATIONS FROM ELECTRONIC CADD FILE PROVIDED BY NYSEG ON 2/07/07, NAMED AUBMACMAS2.DWG, AND BASED ON SURVEY (NAD 1983) ACTIVITIES CONDUCTED BY PAUL OLSZEWSKI, PLS LAND SURVEYING DURING OCTOBER 2011.
- SANITARY LINE AND MANHOLE LOCATIONS BASED ON MARK-OUT CONDUCTED DURING PDI AND SURVEYED BY ARCADIS IN SEPTEMBER 2011.
- PROPERTY LINES FOR AUBURN TANK AND AUBURN TRADING POST PROPERTY DIGITIZED FROM TAX MAP 115.52-1, PROVIDED BY NYSEG ON 10/18/06.
- SUBSURFACE VAULT IDENTIFIED DURING TEST PITTING ACTIVITIES. THE AREA CONTAINS TUNNELS AND SUBFLOORS.



NYSEG
McMASTER STREET FORMER MGP SITE
AUBURN, NEW YORK
UPLAND PDI SUMMARY REPORT

PROPOSED SOIL REMOVAL AREA

ARCADIS

FIGURE
3



Attachment 1

Air Monitoring Logs

(on Compact Disc)

**Upwind VOC
Monitoring Data**

Location:			Upwind VOC		
Date of Monitoring			9/8/2011		
Instrument: MiniRAE 2000 (PGM7600)			Serial Number: 005940		
User ID: 00000001			Site ID: 00000003		
Data Points: 25		Gas Name: Isobutylene		Sample period: 900 sec	
Last Calibration Time:			9/6/2011 11:39		
Measurement Type:			Min (ppm)	Avg (ppm)	Max (ppm)
High Alarm Levels			100.0	100.0	100.0
Low Alarm levels:			50.0	50.0	50.0
Line #	Date	Time	Min (ppm)	Avg (ppm)	Max (ppm)
1	9/8/2011	9:04	0.0	0.0	0.0
2	9/8/2011	9:19	0.0	0.0	0.0
3	9/8/2011	9:34	0.0	0.0	0.0
4	9/8/2011	9:49	0.0	0.0	0.0
5	9/8/2011	10:04	0.0	0.0	0.0
6	9/8/2011	10:19	0.0	0.0	0.0
7	9/8/2011	10:34	0.0	0.0	0.0
8	9/8/2011	10:49	0.0	0.0	0.0
9	9/8/2011	11:04	0.0	0.0	0.0
10	9/8/2011	11:19	0.0	0.0	0.0
11	9/8/2011	11:34	0.0	0.0	0.0
12	9/8/2011	11:49	0.0	0.0	0.0
13	9/8/2011	12:04	0.0	0.0	0.0
14	9/8/2011	12:19	0.0	0.0	0.0
15	9/8/2011	12:34	0.0	0.0	0.0
16	9/8/2011	12:49	0.0	0.0	0.0
17	9/8/2011	13:04	0.0	0.0	0.0
18	9/8/2011	13:19	0.0	0.0	0.0
19	9/8/2011	13:34	0.0	0.0	0.0
20	9/8/2011	13:49	0.0	0.0	0.0
21	9/8/2011	14:04	0.0	0.0	0.0
22	9/8/2011	14:19	0.0	0.0	0.0
23	9/8/2011	14:34	0.0	0.0	0.0
24	9/8/2011	14:49	0.0	0.0	0.0
25	9/8/2011	15:04	0.0	0.0	0.0

Location:			Upwind VOC		
Date of Monitoring			9/9/2011		
Instrument: MiniRAE 2000 (PGM7600)			Serial Number: 005940		
User ID: 00000001			Site ID: 00000004		
Data Points: 22		Gas Name: Isobutylene		Sample period: 900 sec	
Last Calibration Time:			9/6/2011 11:39		
Measurement Type:			Min (ppm)	Avg (ppm)	Max (ppm)
High Alarm Levels			100.0	100.0	100.0
Low Alarm levels:			50.0	50.0	50.0
Line #	Date	Time	Min (ppm)	Avg (ppm)	Max (ppm)
1	9/9/2011	8:07	0.0	0.0	0.0
2	9/9/2011	8:22	0.0	0.0	0.0
3	9/9/2011	8:37	0.0	0.0	0.0
4	9/9/2011	8:52	0.0	0.0	0.0
5	9/9/2011	9:07	0.0	0.0	0.0
6	9/9/2011	9:22	0.0	0.0	0.0
7	9/9/2011	9:37	0.0	0.0	0.0
8	9/9/2011	9:52	0.0	0.0	0.0
9	9/9/2011	10:07	0.0	0.0	0.0
10	9/9/2011	10:22	0.0	0.0	0.0
11	9/9/2011	10:37	0.0	0.0	0.0
12	9/9/2011	10:52	0.0	0.0	0.0
13	9/9/2011	11:07	0.0	0.0	0.0
14	9/9/2011	11:22	0.0	0.0	0.0
15	9/9/2011	11:37	0.0	0.0	0.0
16	9/9/2011	11:52	0.0	0.0	0.0
17	9/9/2011	12:07	0.0	0.0	0.0
18	9/9/2011	12:22	0.0	0.0	0.0
19	9/9/2011	12:37	0.0	0.0	0.0
20	9/9/2011	12:52	0.0	0.0	0.0
21	9/9/2011	13:07	0.0	0.0	0.0
22	9/9/2011	13:22	0.0	0.0	0.0

Location:			Upwind VOC		
Date of Monitoring			9/12/2011		
Instrument: MiniRAE 2000 (PGM7600)			Serial Number: 005940		
User ID: 00000001			Site ID: 00000005		
Data Points: 29		Gas Name: Isobutylene		Sample period: 900 sec	
Last Calibration Time:			9/6/2011 11:39		
Measurement Type:			Min (ppm)	Avg (ppm)	Max (ppm)
High Alarm Levels			100.0	100.0	100.0
Low Alarm levels:			50.0	50.0	50.0
Line #	Date	Time	Min (ppm)	Avg (ppm)	Max (ppm)
1	9/12/2011	8:36	0.0	0.0	0.0
2	9/12/2011	8:51	0.0	0.0	0.0
3	9/12/2011	9:06	0.0	0.0	0.0
4	9/12/2011	9:21	0.0	0.0	0.0
5	9/12/2011	9:36	0.0	0.0	0.0
6	9/12/2011	9:51	0.0	0.0	0.0
7	9/12/2011	10:06	0.0	0.0	0.0
8	9/12/2011	10:21	0.0	0.0	0.0
9	9/12/2011	10:36	0.0	0.0	0.0
10	9/12/2011	10:51	0.0	0.0	0.0
11	9/12/2011	11:06	0.0	0.0	0.0
12	9/12/2011	11:21	0.0	0.0	0.0
13	9/12/2011	11:36	0.0	0.0	0.0
14	9/12/2011	11:51	0.0	0.0	0.2
15	9/12/2011	12:06	0.0	0.0	0.0
16	9/12/2011	12:21	0.0	0.0	0.0
17	9/12/2011	12:36	0.0	0.0	0.0
18	9/12/2011	12:51	0.0	0.0	0.0
19	9/12/2011	13:06	0.0	0.0	0.0
20	9/12/2011	13:21	0.0	0.0	0.0
21	9/12/2011	13:36	0.0	0.0	0.0
22	9/12/2011	13:51	0.0	0.0	0.0
23	9/12/2011	14:06	0.0	0.0	0.0
24	9/12/2011	14:21	0.0	0.0	0.0
25	9/12/2011	14:36	0.0	0.0	0.0
26	9/12/2011	14:51	0.0	0.0	0.0
27	9/12/2011	15:06	0.0	0.0	0.0
28	9/12/2011	15:21	0.0	0.0	0.0
29	9/12/2011	15:36	0.0	0.0	0.0

Location:			Upwind VOC		
Date of Monitoring			9/13/2011		
Instrument: MiniRAE 2000 (PGM7600)			Serial Number: 005940		
User ID: 00000001			Site ID: 00000006		
Data Points: 15		Gas Name: Isobutylene		Sample period: 900 sec	
Last Calibration Time:			9/6/2011 11:39		
Measurement Type:			Min (ppm)	Avg (ppm)	Max (ppm)
High Alarm Levels			100.0	100.0	100.0
Low Alarm levels:			50.0	50.0	50.0
Line #	Date	Time	Min (ppm)	Avg (ppm)	Max (ppm)
1	9/13/2011	8:43	0.0	0.0	0.0
2	9/13/2011	8:58	0.0	0.0	0.0
3	9/13/2011	9:13	0.0	0.0	0.0
4	9/13/2011	9:28	0.0	0.0	0.0
5	9/13/2011	9:43	0.0	0.0	0.0
6	9/13/2011	9:58	0.0	0.0	0.0
7	9/13/2011	10:13	0.0	0.0	0.0
8	9/13/2011	10:28	0.0	0.0	0.0
9	9/13/2011	10:43	0.0	0.0	0.0
10	9/13/2011	10:58	0.0	0.0	0.0
11	9/13/2011	11:13	0.0	0.0	0.0
12	9/13/2011	11:28	0.0	0.0	0.0
13	9/13/2011	11:43	0.0	0.0	0.0
14	9/13/2011	11:58	0.0	0.0	0.0
15	9/13/2011	12:13	0.0	0.0	0.0

Location:			Upwind VOC		
Date of Monitoring			9/20/2011		
Instrument: MiniRAE 2000 (PGM7600)			Serial Number: 013337		
User ID: 00000001			Site ID: 00000009		
Data Points: 10		Gas Name: Isobutyl		Sample period: 900 sec	
Last Calibration Time:			9/6/2011 11:11		
Measurement Type:			Min (ppm)	Avg (ppm)	Max (ppm)
High Alarm Levels			100.0	100.0	100.0
Low Alarm levels:			50.0	50.0	50.0
Line #	Date	Time	Min (ppm)	Avg (ppm)	Max (ppm)
1	9/20/2011	7:56	0.0	0.0	0.0
2	9/20/2011	8:11	0.0	0.0	0.0
3	9/20/2011	8:26	0.0	0.0	0.0
4	9/20/2011	8:41	0.0	0.0	0.0
5	9/20/2011	8:56	0.0	0.0	0.0
6	9/20/2011	9:11	0.0	0.0	0.0
7	9/20/2011	9:26	0.0	0.0	0.0
8	9/20/2011	9:41	0.0	0.0	0.0
9	9/20/2011	9:56	0.0	0.0	0.0
10	9/20/2011	10:11	0.0	0.0	0.0

Location:			Upwind VOC		
Date of Monitoring			9/21/2011		
Instrument: MiniRAE 2000 (PGM7600)			Serial Number: 005940		
User ID: 00000001			Site ID: 000000012		
Data Points: 31		Gas Name: Isobutylene		Sample period: 900 sec	
Last Calibration Time:			9/6/2011 11:39		
Measurement Type:			Min (ppm)	Avg (ppm)	Max (ppm)
High Alarm Levels			100.0	100.0	100.0
Low Alarm levels:			50.0	50.0	50.0
Line #	Date	Time	Min (ppm)	Avg (ppm)	Max (ppm)
1	9/21/2011	7:40	0.0	0.0	0.0
2	9/21/2011	7:55	0.0	0.0	0.0
3	9/21/2011	8:10	0.0	0.0	0.0
4	9/21/2011	8:25	0.0	0.0	0.0
5	9/21/2011	8:40	0.0	0.0	0.0
6	9/21/2011	8:55	0.0	0.0	1.0
7	9/21/2011	9:10	0.0	0.0	0.0
8	9/21/2011	9:25	0.0	0.0	0.0
9	9/21/2011	9:40	0.0	0.0	0.0
10	9/21/2011	9:55	0.0	0.0	0.0
11	9/21/2011	10:10	0.0	0.0	0.0
12	9/21/2011	10:25	0.0	0.0	0.0
13	9/21/2011	10:40	0.0	0.0	0.0
14	9/21/2011	10:55	0.0	0.0	0.0
15	9/21/2011	11:10	0.0	0.0	0.0
16	9/21/2011	11:25	0.0	0.0	0.0
17	9/21/2011	11:40	0.0	0.0	0.0
18	9/21/2011	11:55	0.0	0.0	0.0
19	9/21/2011	12:10	0.0	0.0	0.0
20	9/21/2011	12:25	0.0	0.0	0.0
21	9/21/2011	12:40	0.0	0.0	0.0
22	9/21/2011	12:55	0.0	0.0	0.0
23	9/21/2011	13:10	0.0	0.0	0.0
24	9/21/2011	13:25	0.0	0.0	0.0
25	9/21/2011	13:40	0.0	0.0	0.0
26	9/21/2011	13:55	0.0	0.0	0.0
27	9/21/2011	14:10	0.0	0.0	0.0
28	9/21/2011	14:25	0.0	0.0	0.0
29	9/21/2011	14:40	0.0	0.0	0.0
30	9/21/2011	14:55	0.0	0.0	0.0
31	9/21/2011	15:10	0.0	0.0	0.0

Location:			Upwind VOC		
Date of Monitoring			9/26/2011		
Instrument: MiniRAE 2000 (PGM7600)			Serial Number: 013337		
User ID: 00000001			Site ID: 00000013		
Data Points: 27		Gas Name: Isobutyl		Sample period: 900 sec	
Last Calibration Time:			9/6/2011 11:39		
Measurement Type:			Min (ppm)	Avg (ppm)	Max (ppm)
High Alarm Levels			100.0	100.0	100.0
Low Alarm levels:			50.0	50.0	50.0
Line #	Date	Time	Min (ppm)	Avg (ppm)	Max (ppm)
1	9/26/2011	8:47	0.0	0.0	0.0
2	9/26/2011	9:02	0.0	0.0	0.0
3	9/26/2011	9:17	0.0	0.0	0.0
4	9/26/2011	9:32	0.0	0.0	0.0
5	9/26/2011	9:47	0.0	0.0	0.0
6	9/26/2011	10:02	0.0	0.0	0.0
7	9/26/2011	10:17	0.0	0.0	0.0
8	9/26/2011	10:32	0.0	0.0	0.0
9	9/26/2011	10:47	0.0	0.0	0.0
10	9/26/2011	11:02	0.0	0.0	0.0
11	9/26/2011	11:17	0.0	0.0	0.0
12	9/26/2011	11:32	0.0	0.0	0.0
13	9/26/2011	11:47	0.0	0.0	0.0
14	9/26/2011	12:02	0.0	0.0	0.0
15	9/26/2011	12:17	0.0	0.0	0.0
16	9/26/2011	12:32	0.0	0.0	0.0
17	9/26/2011	12:47	0.0	0.0	0.0
18	9/26/2011	13:02	0.0	0.0	0.0
19	9/26/2011	13:17	0.0	0.0	0.0
20	9/26/2011	13:32	0.0	0.0	0.0
21	9/26/2011	13:47	0.0	0.0	0.0
22	9/26/2011	14:02	0.0	0.0	0.0
23	9/26/2011	14:17	0.0	0.0	0.0
24	9/26/2011	14:32	0.0	0.0	0.0
25	9/26/2011	14:47	0.0	0.0	0.0
26	9/26/2011	15:02	0.0	0.0	0.0
27	9/26/2011	15:17	0.0	0.0	0.0

Location:			Upwind VOC		
Date of Monitoring			9/27/2011		
Instrument: MiniRAE 2000 (PGM7600)			Serial Number: 013337		
User ID: 00000001			Site ID: 00000013		
Data Points: 29		Gas Name: Isobutyl		Sample period: 900 sec	
Last Calibration Time:			9/6/2011 11:39		
Measurement Type:			Min (ppm)	Avg (ppm)	Max (ppm)
High Alarm Levels			100.0	100.0	100.0
Low Alarm levels:			50.0	50.0	50.0
Line #	Date	Time	Min (ppm)	Avg (ppm)	Max (ppm)
1	9/27/2011	8:15	0.0	0.0	0.0
2	9/27/2011	8:30	0.0	0.0	0.0
3	9/27/2011	8:45	0.0	0.0	0.0
4	9/27/2011	9:00	0.0	0.0	0.0
5	9/27/2011	9:15	0.0	0.0	0.0
6	9/27/2011	9:30	0.0	0.0	0.0
7	9/27/2011	9:45	0.0	0.0	0.0
8	9/27/2011	10:00	0.0	0.0	0.0
9	9/27/2011	10:15	0.0	0.0	0.0
10	9/27/2011	10:30	0.0	0.0	0.0
11	9/27/2011	10:45	0.0	0.0	0.0
12	9/27/2011	11:00	0.0	0.0	0.0
13	9/27/2011	11:15	0.0	0.0	0.0
14	9/27/2011	11:30	0.0	0.0	0.0
15	9/27/2011	11:45	0.0	0.0	0.0
16	9/27/2011	12:00	0.0	0.0	0.0
17	9/27/2011	12:15	0.0	0.0	0.0
18	9/27/2011	12:30	0.0	0.0	0.0
19	9/27/2011	12:45	0.0	0.0	0.0
20	9/27/2011	13:00	0.0	0.0	0.0
21	9/27/2011	13:15	0.0	0.0	0.0
22	9/27/2011	13:30	0.0	0.0	0.0
23	9/27/2011	13:45	0.0	0.0	0.0
24	9/27/2011	14:00	0.0	0.0	0.0
25	9/27/2011	14:15	0.0	0.0	0.0
26	9/27/2011	14:30	0.0	0.0	0.0
27	9/27/2011	14:45	0.0	0.0	0.0
28	9/27/2011	15:00	0.0	0.0	0.0
29	9/27/2011	15:15	0.0	0.0	0.0

Location:			Upwind VOC		
Date of Monitoring			9/28/2011		
Instrument: MiniRAE 2000 (PGM7600)			Serial Number: 013337		
User ID: 00000001			Site ID: 00000013		
Data Points: 32		Gas Name: Isobutyl		Sample period: 900 sec	
Last Calibration Time:			9/6/2011 11:39		
Measurement Type:			Min (ppm)	Avg (ppm)	Max (ppm)
High Alarm Levels			100.0	100.0	100.0
Low Alarm levels:			50.0	50.0	50.0
Line #	Date	Time	Min (ppm)	Avg (ppm)	Max (ppm)
1	9/28/2011	8:00	0.0	0.0	0.0
2	9/28/2011	8:15	0.0	0.0	0.0
3	9/28/2011	8:30	0.0	0.0	0.0
4	9/28/2011	8:45	0.0	0.0	0.0
5	9/28/2011	9:00	0.0	0.0	0.0
6	9/28/2011	9:15	0.0	0.0	0.0
7	9/28/2011	9:30	0.0	0.0	0.0
8	9/28/2011	9:45	0.0	0.0	0.0
9	9/28/2011	10:00	0.0	0.0	0.0
10	9/28/2011	10:15	0.0	0.0	0.0
11	9/28/2011	10:30	0.0	0.0	0.0
12	9/28/2011	10:45	0.0	0.0	0.0
13	9/28/2011	11:00	0.0	0.0	0.0
14	9/28/2011	11:15	0.0	0.0	0.0
15	9/28/2011	11:30	0.0	0.0	0.0
16	9/28/2011	11:45	0.0	0.0	0.0
17	9/28/2011	12:00	0.0	0.0	0.0
18	9/28/2011	12:15	0.0	0.0	0.0
19	9/28/2011	12:30	0.0	0.0	0.0
20	9/28/2011	12:45	0.0	0.0	0.0
21	9/28/2011	13:00	0.0	0.0	0.0
22	9/28/2011	13:15	0.0	0.0	0.0
23	9/28/2011	13:30	0.0	0.0	0.0
24	9/28/2011	13:45	0.0	0.0	0.0
25	9/28/2011	14:00	0.0	0.0	0.0
26	9/28/2011	14:15	0.0	0.0	0.0
27	9/28/2011	14:30	0.0	0.0	0.0
28	9/28/2011	14:45	0.0	0.0	0.0
29	9/28/2011	15:00	0.0	0.0	0.0
30	9/28/2011	15:15	0.0	0.0	0.0
31	9/28/2011	15:30	0.0	0.0	0.0
32	9/28/2011	15:45	0.0	0.0	0.0

Location:			Upwind VOC		
Date of Monitoring			9/30/2011		
Instrument: MiniRAE 2000 (PGM7600)			Serial Number: 013337		
User ID: 00000001			Site ID: 00000013		
Data Points: 36		Gas Name: Isobutyl		Sample period: 900 sec	
Last Calibration Time:			9/6/2011 11:39		
Measurement Type:			Min (ppm)	Avg (ppm)	Max (ppm)
High Alarm Levels			100.0	100.0	100.0
Low Alarm levels:			50.0	50.0	50.0
Line #	Date	Time	Min (ppm)	Avg (ppm)	Max (ppm)
1	9/30/2011	8:00	0.0	0.0	0.0
2	9/30/2011	8:15	0.0	0.0	0.0
3	9/30/2011	8:30	0.0	0.0	0.0
4	9/30/2011	8:45	0.0	0.0	0.0
5	9/30/2011	9:00	0.0	0.0	0.0
6	9/30/2011	9:15	0.0	0.0	0.0
7	9/30/2011	9:30	0.0	0.0	0.0
8	9/30/2011	9:45	0.0	0.0	0.0
9	9/30/2011	10:00	0.0	0.0	0.0
10	9/30/2011	10:15	0.0	0.0	0.0
11	9/30/2011	10:30	0.0	0.0	0.0
12	9/30/2011	10:45	0.0	0.0	0.0
13	9/30/2011	11:00	0.0	0.0	0.0
14	9/30/2011	11:15	0.0	0.0	0.0
15	9/30/2011	11:30	0.0	0.0	0.0
16	9/30/2011	11:45	0.0	0.0	0.0
17	9/30/2011	12:00	0.0	0.0	0.0
18	9/30/2011	12:15	0.0	0.0	0.0
19	9/30/2011	12:30	0.0	0.0	0.0
20	9/30/2011	12:45	0.0	0.0	0.0
21	9/30/2011	13:00	0.0	0.0	0.0
22	9/30/2011	13:15	0.0	0.0	0.0
23	9/30/2011	13:30	0.0	0.0	0.0
24	9/30/2011	13:45	0.0	0.0	0.0
25	9/30/2011	14:00	0.0	0.0	0.0
26	9/30/2011	14:15	0.0	0.0	0.0
27	9/30/2011	14:30	0.0	0.0	0.0
28	9/30/2011	14:45	0.0	0.0	0.0
29	9/30/2011	15:00	0.0	0.0	0.0
30	9/30/2011	15:15	0.0	0.0	0.0
31	9/30/2011	15:30	0.0	0.0	0.0
32	9/30/2011	15:45	0.0	0.0	0.0
33	9/30/2011	16:00	0.0	0.0	0.0
34	9/30/2011	16:15	0.0	0.0	0.0
35	9/30/2011	16:30	0.0	0.0	0.0
36	9/30/2011	16:45	0.0	0.0	0.0

Location:			Upwind VOC		
Date of Monitoring			10/6/2011		
Instrument: MiniRAE 2000 (PGM7600)			Serial Number: 005940		
User ID: 00000001			Site ID: 00000020		
Data Points: 5		Gas Name: Isobutylene		Sample period: 900 sec	
Last Calibration Time:			9/6/2011 11:39		
Measurement Type:			Min (ppm)	Avg (ppm)	Max (ppm)
High Alarm Levels			100.0	100.0	100.0
Low Alarm levels:			50.0	50.0	50.0
Line #	Date	Time	Min (ppm)	Avg (ppm)	Max (ppm)
1	10/6/2011	9:12	0.0	0.0	0.0
2	10/6/2011	9:27	0.0	0.0	0.0
3	10/6/2011	9:42	0.0	0.0	0.0
4	10/6/2011	9:57	0.0	0.0	0.0
5	10/6/2011	10:12	0.0	0.0	0.0

Date: 2/27/12

PID upwind Monitoring

Activity: Soil Boring Install

[illegible]

Date:

Air Monitoring

Activity:

[illegible]

Date:

Air Monitoring

PID upwind monitoring

Activity: Soil Boring Install

[illegible]

Date: 3/1/12

Air Monitoring *PID upwind monitoring*

Activity: PID upwind Monitor
Soil Boring Install

PID upwind monitoring

[illegible]

**Upwind PM₁₀
Monitoring Data**

Location:		Upwind Dust
Date of Monitoring		9/8/2011
TrakPro Version 4.41 ASCII Data File		
Model: DustTrak 8520	Serial Number:	85200085
Test ID: 001	Log Interval (mm:ss)	15:00
Data Points: 27	Calibration Date:	5/17/2011
Statistics	Maximum:	0.003
	Average:	0.001
	Minimum:	-0.003
Date	Time (hh:mm:ss)	Aerosol (mg/m ³)
9/8/2011	9:13:21	0.000
9/8/2011	9:28:21	0.000
9/8/2011	9:43:21	-0.001
9/8/2011	9:58:21	0.000
9/8/2011	10:13:21	-0.002
9/8/2011	10:28:21	0.000
9/8/2011	10:43:21	-0.001
9/8/2011	10:58:21	-0.003
9/8/2011	11:13:21	-0.002
9/8/2011	11:28:21	-0.001
9/8/2011	11:43:21	0.000
9/8/2011	11:58:21	0.000
9/8/2011	12:13:21	0.000
9/8/2011	12:28:21	0.001
9/8/2011	12:43:21	0.001
9/8/2011	12:58:21	0.001
9/8/2011	13:13:21	0.003
9/8/2011	13:28:21	0.002
9/8/2011	13:43:21	0.003
9/8/2011	13:58:21	0.003
9/8/2011	14:13:21	0.003
9/8/2011	14:28:21	0.003
9/8/2011	14:43:21	0.003
9/8/2011	14:58:21	0.002
9/8/2011	15:13:21	0.001
9/8/2011	15:28:21	0.001
9/8/2011	15:43:21	0.000

Location:		Upwind Dust
Date of Monitoring		9/12/2011
TrakPro Version 4.41 ASCII Data File		
Model: DustTrak 8520	Serial Number:	85200085
Test ID: 002	Log Interval (mm:ss)	--
Data Points: 1	Calibration Date:	5/17/2011
Statistics	Maximum:	0.067
	Average:	0.067
	Minimum:	0.067
Date	Time (hh:mm:ss)	Aerosol (mg/m ³)
9/12/2011	8:28:27	0.067

Location:		Upwind Dust
Date of Monitoring		9/13/2011
TrakPro Version 4.41 ASCII Data File		
Model: DustTrak 8520	Serial Number:	85200085
Test ID: 003	Log Interval (mm:ss)	--
Data Points: 1	Calibration Date:	5/17/2011
Statistics	Maximum:	0.051
	Average:	0.051
	Minimum:	0.051
Date	Time (hh:mm:ss)	Aerosol (mg/m ³)
9/13/2011	8:36:17	0.051

Location:		Upwind Dust
Date of Monitoring		9/20/2011
TrakPro Version 4.41 ASCII Data File		
Model: DustTrak 8520	Serial Number:	85197769
Test ID: 004	Log Interval (mm:ss)	5:00
Data Points: 34	Calibration Date:	10/27/2011
Statistics	Maximum:	0.019
	Average:	0.012
	Minimum:	0.008
Date	Time (hh:mm:ss)	Aerosol (mg/m ³)
9/20/2011	8:01:12	0.012
9/20/2011	8:16:12	0.010
9/20/2011	8:31:12	0.010
9/20/2011	8:46:12	0.010
9/20/2011	9:01:12	0.009
9/20/2011	9:16:12	0.010
9/20/2011	9:31:12	0.010
9/20/2011	9:46:12	0.013
9/20/2011	10:01:12	0.014
9/20/2011	10:16:12	0.013
9/20/2011	10:31:12	0.016

Location:		Upwind Dust	Upwind Dust
Date of Monitoring		9/21/2011	9/21/2011
TrakPro Version 4.41 ASCII Data File			
Model: DustTrak 8520	Serial Number:	85197769	85197769
Test ID: 001	Log Interval (mm:ss)	5:00	5:00
Data Points: 98	Calibration Date:	10/27/2011	10/27/2011
Statistics	Maximum:	0.137	0.137
	Average:	0.037	0.037
	Minimum:	0.022	0.022
Date	Time (hh:mm:ss)	Aerosol (mg/m ³)	Aerosol (mg/m ³)
9/21/2011	7:41:52	0.028	0.027
9/21/2011	7:56:52	0.030	0.029
9/21/2011	8:11:52	0.030	0.031
9/21/2011	8:26:52	0.034	0.032
9/21/2011	8:41:52	0.042	0.036
9/21/2011	8:56:52	0.040	0.038
9/21/2011	9:11:52	0.038	0.040
9/21/2011	9:26:52	0.038	0.039
9/21/2011	9:41:52	0.039	0.039
9/21/2011	9:56:52	0.043	0.041
9/21/2011	10:11:52	0.047	0.046
9/21/2011	10:26:52	0.045	0.046
9/21/2011	10:41:52	0.044	0.044
9/21/2011	10:56:52	0.043	0.043
9/21/2011	11:11:52	0.051	0.047
9/21/2011	11:26:52	0.055	0.045
9/21/2011	11:41:52	0.036	0.037
9/21/2011	11:56:52	0.032	0.036
9/21/2011	12:11:52	0.031	0.031
9/21/2011	12:26:52	0.031	0.030
9/21/2011	12:41:52	0.026	0.027
9/21/2011	12:56:52	0.025	0.025
9/21/2011	13:11:52	0.027	0.031
9/21/2011	13:26:52	0.025	0.026
9/21/2011	13:41:52	0.037	0.041
9/21/2011	13:56:52	0.033	0.028
9/21/2011	14:11:52	0.024	0.024
9/21/2011	14:26:52	0.071	0.040
9/21/2011	14:41:52	0.071	0.046
9/21/2011	14:56:52	0.062	0.086
9/21/2011	15:11:52	0.026	0.027
9/21/2011	15:26:52	0.031	0.031

Location:		Upwind Dust
Date of Monitoring		9/26/2011
TrakPro Version 4.41 ASCII Data File		
Model: DustTrak 8520	Serial Number:	85197769
Test ID: 004	Log Interval (mm:ss)	5:00
Data Points: 86	Calibration Date:	10/27/2011
Statistics	Maximum:	0.038
	Average:	0.024
	Minimum:	0.015
Date	Time (hh:mm:ss)	Aerosol (mg/m ³)
9/26/2011	8:52:49	0.028
9/26/2011	9:07:49	0.029
9/26/2011	9:22:49	0.028
9/26/2011	9:37:49	0.027
9/26/2011	9:52:49	0.026
9/26/2011	10:07:49	0.028
9/26/2011	10:22:49	0.031
9/26/2011	10:37:49	0.033
9/26/2011	10:52:49	0.036
9/26/2011	11:07:49	0.035
9/26/2011	11:22:49	0.030
9/26/2011	11:37:49	0.027
9/26/2011	11:52:49	0.025
9/26/2011	12:07:49	0.022
9/26/2011	12:22:49	0.019
9/26/2011	12:37:49	0.020
9/26/2011	12:52:49	0.022
9/26/2011	13:07:49	0.023
9/26/2011	13:22:49	0.022
9/26/2011	13:37:49	0.023
9/26/2011	13:52:49	0.020
9/26/2011	14:07:49	0.019
9/26/2011	14:22:49	0.018
9/26/2011	14:37:49	0.017
9/26/2011	14:52:49	0.015
9/26/2011	15:07:49	0.015
9/26/2011	15:22:49	0.016
9/26/2011	15:37:49	0.016

Location:		Upwind Dust
Date of Monitoring		10/6/2011
TrakPro Version 4.41 ASCII Data File		
Model: DustTrak 8520	Serial Number:	85197769
Test ID: 009	Log Interval (mm:ss)	5:00
Data Points: 72	Calibration Date:	10/27/2011
Statistics	Maximum:	0.030
	Average:	0.008
	Minimum:	0.003
Date	Time (hh:mm:ss)	Aerosol (mg/m ³)
10/6/2011	9:17:14	0.006
10/6/2011	9:32:14	0.007
10/6/2011	9:47:14	0.007
10/6/2011	10:02:14	0.007
10/6/2011	10:17:14	0.011
10/6/2011	10:32:14	0.008
10/6/2011	10:47:14	0.006
10/6/2011	11:02:14	0.009
10/6/2011	11:17:14	0.010
10/6/2011	11:32:14	0.013
10/6/2011	11:47:14	0.015
10/6/2011	12:02:14	0.005
10/6/2011	12:17:14	0.016
10/6/2011	12:32:14	0.005
10/6/2011	12:47:14	0.004
10/6/2011	13:02:14	0.003
10/6/2011	13:17:14	0.004
10/6/2011	13:32:14	0.005
10/6/2011	13:47:14	0.007
10/6/2011	14:02:14	0.004
10/6/2011	14:17:14	0.005
10/6/2011	14:32:14	0.005
10/6/2011	14:47:14	0.005
10/6/2011	15:02:14	0.015

Location:		Upwind Dust	Upwind Dust
Date of Monitoring		2/27/2012	2/27/2012
TrakPro Version 4.41 ASCII Data File			
Model: DustTrak 8520	Serial Number:	85203518	85203518
Test ID: 1	Log Interval (mm:ss)	5:00	5:00
Data Points: 65	Calibration Date:	3/1/2011	3/1/2011
Statistics	Maximum:	-0.001	-0.001
	Average:	-0.009	-0.009
	Minimum:	-0.018	-0.018
Date	Time (hh:mm:ss)	Aerosol (mg/m ³)	Aerosol (mg/m ³)
2/27/2012	9:57:30	-0.017	-0.017
2/27/2012	10:12:30	-0.017	-0.017
2/27/2012	10:27:30	-0.015	-0.016
2/27/2012	10:42:30	-0.013	-0.013
2/27/2012	10:57:30	-0.011	-0.012
2/27/2012	11:12:30	-0.010	-0.010
2/27/2012	11:27:30	-0.008	-0.009
2/27/2012	11:42:30	-0.008	-0.007
2/27/2012	11:57:30	-0.008	-0.008
2/27/2012	12:12:30	-0.008	-0.008
2/27/2012	12:27:30	-0.008	-0.007
2/27/2012	12:42:30	-0.007	-0.007
2/27/2012	12:57:30	-0.008	-0.005
2/27/2012	13:12:30	-0.009	-0.008
2/27/2012	13:27:30	-0.008	-0.008
2/27/2012	13:42:30	-0.007	-0.008
2/27/2012	13:57:30	-0.008	-0.008
2/27/2012	14:12:30	-0.008	-0.008
2/27/2012	14:27:30	-0.006	-0.007
2/27/2012	14:42:30	-0.005	-0.005
2/27/2012	14:57:30	-0.003	-0.004

Location:		Upwind Dust
Date of Monitoring		2/28/2012
TrakPro Version 4.41 ASCII Data File		
Model: DustTrak 8520	Serial Number:	85203518
Test ID: 2	Log Interval (mm:ss)	15:00
Data Points: 26	Calibration Date:	3/1/2011
Statistics	Maximum:	-0.017
	Average:	-0.023
	Minimum:	-0.026
Date	Time (hh:mm:ss)	Aerosol (mg/m ³)
2/28/2012	7:28:58	-0.023
2/28/2012	7:43:58	-0.026
2/28/2012	7:58:58	-0.026
2/28/2012	8:13:58	-0.025
2/28/2012	8:28:58	-0.026
2/28/2012	8:43:58	-0.026
2/28/2012	8:58:58	-0.025
2/28/2012	9:13:58	-0.023
2/28/2012	9:28:58	-0.025
2/28/2012	9:43:58	-0.024
2/28/2012	9:58:58	-0.023
2/28/2012	10:13:58	-0.024
2/28/2012	10:28:58	-0.024
2/28/2012	10:43:58	-0.024
2/28/2012	10:58:58	-0.023
2/28/2012	11:13:58	-0.022
2/28/2012	11:28:58	-0.022
2/28/2012	11:43:58	-0.021
2/28/2012	11:58:58	-0.021
2/28/2012	12:13:58	-0.021
2/28/2012	12:28:58	-0.020
2/28/2012	12:43:58	-0.020
2/28/2012	12:58:58	-0.019
2/28/2012	13:13:58	-0.018
2/28/2012	13:28:58	-0.018
2/28/2012	13:43:58	-0.017

Location:		Upwind Dust
Date of Monitoring		2/29/2012
TrakPro Version 4.41 ASCII Data File		
Model: DustTrak 8520	Serial Number:	85203518
Test ID: 3	Log Interval (mm:ss)	5:00
Data Points: 94	Calibration Date:	3/1/2011
Statistics	Maximum:	0.013
	Average:	-0.001
	Minimum:	-0.013
Date	Time (hh:mm:ss)	Aerosol (mg/m ³)
2/29/2012	7:45:41	-0.012
2/29/2012	8:00:41	-0.012
2/29/2012	8:15:41	-0.012
2/29/2012	8:30:41	-0.013
2/29/2012	8:45:41	-0.012
2/29/2012	9:00:41	-0.011
2/29/2012	9:15:41	-0.009
2/29/2012	9:30:41	-0.009
2/29/2012	9:45:41	-0.009
2/29/2012	10:00:41	-0.007
2/29/2012	10:15:41	-0.007
2/29/2012	10:30:41	-0.003
2/29/2012	10:45:41	-0.001
2/29/2012	11:00:41	0.000
2/29/2012	11:15:41	0.000
2/29/2012	11:30:41	0.001
2/29/2012	11:45:41	0.002
2/29/2012	12:00:41	0.004
2/29/2012	12:15:41	0.004
2/29/2012	12:30:41	0.005
2/29/2012	12:45:41	0.008
2/29/2012	13:00:41	0.009
2/29/2012	13:15:41	0.011
2/29/2012	13:30:41	0.010
2/29/2012	13:45:41	0.010
2/29/2012	14:00:41	0.010
2/29/2012	14:15:41	0.008
2/29/2012	14:30:41	0.005
2/29/2012	14:45:41	0.004
2/29/2012	15:00:41	0.002
2/29/2012	15:15:41	0.004

**Downwind VOC
Monitoring Data**

Location:			Downwind VOC		
Date of Monitoring			9/8/2011		
Instrument: MiniRAE 2000 (PGM7600)			Serial Number: 013337		
User ID: 00000001			Site ID: 00000002		
Data Points: 26		Gas Name: Isobutyl		Sample period: 900 sec	
Last Calibration Time:			9/6/2011 11:11		
Measuremen Type:			Min (ppm)	Avg (ppm)	Max (ppm)
High Alarm Levels			100.0	100.0	100.0
Low Alarm levels:			50.0	50.0	50.0
Line #	Date	Time	Min (ppm)	Avg (ppm)	Max (ppm)
1	9/8/2011	9:07	0.0	0.0	0.0
2	9/8/2011	9:22	0.0	0.0	0.0
3	9/8/2011	9:37	0.0	0.0	0.0
4	9/8/2011	9:52	0.0	0.0	0.0
5	9/8/2011	10:07	0.0	0.0	0.0
6	9/8/2011	10:22	0.0	0.0	0.0
7	9/8/2011	10:37	0.0	0.0	0.0
8	9/8/2011	10:52	0.0	0.0	0.0
9	9/8/2011	11:07	0.0	0.0	0.0
10	9/8/2011	11:22	0.0	0.0	0.0
11	9/8/2011	11:37	0.0	0.0	0.0
12	9/8/2011	11:52	0.0	0.0	0.0
13	9/8/2011	12:07	0.0	0.0	0.0
14	9/8/2011	12:22	0.0	0.0	0.0
15	9/8/2011	12:37	0.0	0.0	0.0
16	9/8/2011	12:52	0.0	0.0	0.0
17	9/8/2011	13:07	0.0	0.0	0.0
18	9/8/2011	13:22	0.0	0.0	0.0
19	9/8/2011	13:37	0.0	0.0	0.0
20	9/8/2011	13:52	0.0	0.0	0.0
21	9/8/2011	14:07	0.0	0.0	0.0
22	9/8/2011	14:22	0.0	0.0	0.0
23	9/8/2011	14:37	0.0	0.0	0.0
24	9/8/2011	14:52	0.0	0.0	0.0
25	9/8/2011	15:07	0.0	0.0	0.0
26	9/8/2011	15:22	0.0	0.0	0.0

Location:			Downwind VOC		
Date of Monitoring			9/9/2011		
Instrument: MiniRAE 2000 (PGM7600)			Serial Number: 013337		
User ID: 00000001			Site ID: 00000003		
Data Points: 29		Gas Name: Isobutyl		Sample period: 900 sec	
Last Calibration Time:			9/6/2011 11:11		
Measuremen Type:			Min (ppm)	Avg (ppm)	Max (ppm)
High Alarm Levels			100.0	100.0	100.0
Low Alarm levels:			50.0	50.0	50.0
Line #	Date	Time	Min (ppm)	Avg (ppm)	Max (ppm)
1	9/9/2011	8:05	0.0	0.0	0.0
2	9/9/2011	8:20	0.0	0.0	0.0
3	9/9/2011	8:35	0.0	0.0	0.0
4	9/9/2011	8:50	0.0	0.0	0.0
5	9/9/2011	9:05	0.0	0.0	0.0
6	9/9/2011	9:20	0.0	0.0	0.0
7	9/9/2011	9:35	0.0	0.0	0.0
8	9/9/2011	9:50	0.0	0.0	0.0
9	9/9/2011	10:05	0.0	0.0	0.0
10	9/9/2011	10:20	0.0	0.0	0.0
11	9/9/2011	10:35	0.0	0.0	0.0
12	9/9/2011	10:50	0.0	0.0	0.0
13	9/9/2011	11:05	0.0	0.0	0.0
14	9/9/2011	11:20	0.0	0.0	0.0
15	9/9/2011	11:35	0.0	0.0	0.0
16	9/9/2011	11:50	0.0	0.0	0.0
17	9/9/2011	12:05	0.0	0.0	0.0
18	9/9/2011	12:20	0.0	0.0	0.0
19	9/9/2011	12:35	0.0	0.0	0.0
20	9/9/2011	12:50	0.0	0.0	0.0
21	9/9/2011	13:05	0.0	0.0	0.0
22	9/9/2011	13:20	0.0	0.0	0.0
23	9/9/2011	13:35	0.0	0.0	0.0
24	9/9/2011	13:50	0.0	0.0	0.0
25	9/9/2011	14:05	0.0	0.0	0.0
26	9/9/2011	14:20	0.0	0.0	0.0
27	9/9/2011	14:35	0.0	0.0	0.0
28	9/9/2011	14:50	0.0	0.0	0.0
29	9/9/2011	15:05	0.0	0.0	0.0

Location:			Downwind VOC		
Date of Monitoring			9/12/2011		
Instrument: MiniRAE 2000 (PGM7600)			Serial Number: 013337		
User ID: 00000001			Site ID: 00000004		
Data Points: 30		Gas Name: Isobutyl		Sample period: 900 sec	
Last Calibration Time:			9/6/2011 11:11		
Measuremen Type:			Min (ppm)	Avg (ppm)	Max (ppm)
High Alarm Levels			100.0	100.0	100.0
Low Alarm levels:			50.0	50.0	50.0
Line #	Date	Time	Min (ppm)	Avg (ppm)	Max (ppm)
1	9/12/2011	8:32	0.0	0.0	0.0
2	9/12/2011	8:47	0.0	0.0	0.0
3	9/12/2011	9:02	0.0	0.0	0.0
4	9/12/2011	9:17	0.0	0.0	0.0
5	9/12/2011	9:32	0.0	0.0	0.0
6	9/12/2011	9:47	0.0	0.0	0.0
7	9/12/2011	10:02	0.0	0.0	0.0
8	9/12/2011	10:17	0.0	0.0	0.0
9	9/12/2011	10:32	0.0	0.0	0.0
10	9/12/2011	10:47	0.0	0.0	0.0
11	9/12/2011	11:02	0.0	0.0	0.0
12	9/12/2011	11:17	0.0	0.0	0.0
13	9/12/2011	11:32	0.0	0.0	0.0
14	9/12/2011	11:47	0.0	0.0	0.0
15	9/12/2011	12:02	0.0	0.0	0.0
16	9/12/2011	12:17	0.0	0.0	0.0
17	9/12/2011	12:32	0.0	0.0	0.0
18	9/12/2011	12:47	0.0	0.0	0.0
19	9/12/2011	13:02	0.0	0.0	0.0
20	9/12/2011	13:17	0.0	0.0	0.0
21	9/12/2011	13:32	0.0	0.0	0.0
22	9/12/2011	13:47	0.0	0.0	0.0
23	9/12/2011	14:02	0.0	0.0	0.0
24	9/12/2011	14:17	0.0	0.0	0.0
25	9/12/2011	14:32	0.0	0.0	0.0
26	9/12/2011	14:47	0.0	0.0	0.0
27	9/12/2011	15:02	0.0	0.0	0.0
28	9/12/2011	15:17	0.0	0.0	0.0
29	9/12/2011	15:32	0.0	0.0	0.0
30	9/12/2011	15:47	0.0	0.0	0.0

Location:			Downwind VOC		
Date of Monitoring			9/13/2011		
Instrument: MiniRAE 2000 (PGM7600)			Serial Number: 013337		
User ID: 00000001			Site ID: 00000005		
Data Points: 20		Gas Name: Isobutyl		Sample period: 900 sec	
Last Calibration Time:			9/6/2011 11:11		
Measuremen Type:			Min (ppm)	Avg (ppm)	Max (ppm)
High Alarm Levels			100.0	100.0	100.0
Low Alarm levels:			50.0	50.0	50.0
Line #	Date	Time	Min (ppm)	Avg (ppm)	Max (ppm)
1	9/13/2011	8:40	0.0	0.0	0.0
2	9/13/2011	8:55	0.0	0.0	0.0
3	9/13/2011	9:10	0.0	0.0	0.0
4	9/13/2011	9:25	0.0	0.0	0.0
5	9/13/2011	9:40	0.0	0.0	0.0
6	9/13/2011	9:55	0.0	0.0	0.0
7	9/13/2011	10:10	0.0	0.0	0.0
8	9/13/2011	10:25	0.0	0.0	0.0
9	9/13/2011	10:40	0.0	0.0	0.0
10	9/13/2011	10:55	0.0	0.0	0.0
11	9/13/2011	11:10	0.0	0.0	0.0
12	9/13/2011	11:25	0.0	0.0	0.0
13	9/13/2011	11:40	0.0	0.0	0.0
14	9/13/2011	11:55	0.0	0.0	0.0
15	9/13/2011	12:10	0.0	0.0	0.0
16	9/13/2011	12:25	0.0	0.0	0.0
17	9/13/2011	12:40	0.0	0.0	0.0
18	9/13/2011	12:55	0.0	0.0	0.0
19	9/13/2011	13:10	0.0	0.0	0.0
20	9/13/2011	13:25	0.0	0.0	0.0

Location:			Downwind VOC		
Date of Monitoring			9/20/2011		
Instrument: MiniRAE 2000 (PGM7600)			Serial Number: 005940		
User ID: 00000001			Site ID: 00000011		
Data Points: 10		Gas Name: Isobutylene		Sample period: 900 sec	
Last Calibration Time:			9/6/2011 11:39		
Measuremen Type:			Min (ppm)	Avg (ppm)	Max (ppm)
High Alarm Levels			100.0	100.0	100.0
Low Alarm levels:			50.0	50.0	50.0
Line #	Date	Time	Min (ppm)	Avg (ppm)	Max (ppm)
1	9/20/2011	7:48	0.0	0.0	0.0
2	9/20/2011	8:03	0.0	0.0	0.0
3	9/20/2011	8:18	0.0	0.0	0.0
4	9/20/2011	8:33	0.0	0.0	0.0
5	9/20/2011	8:48	0.0	0.0	0.0
6	9/20/2011	9:03	0.0	0.0	0.0
7	9/20/2011	9:18	0.0	0.0	0.0
8	9/20/2011	9:33	0.0	0.0	0.0
9	9/20/2011	9:48	0.0	0.0	0.0
10	9/20/2011	10:03	0.0	0.0	0.0

Location:			Downwind VOC		
Date of Monitoring			9/21/2011		
Instrument: MiniRAE 2000 (PGM7600)			Serial Number: 013337		
User ID: 00000001			Site ID: 000000010		
Data Points: 31		Gas Name: Isobutyl		Sample period: 900 sec	
Last Calibration Time:			9/6/2011 11:11		
Measuremen Type:			Min (ppm)	Avg (ppm)	Max (ppm)
High Alarm Levels			100.0	100.0	100.0
Low Alarm levels:			50.0	50.0	50.0
Line #	Date	Time	Min (ppm)	Avg (ppm)	Max (ppm)
1	9/21/2011	7:35	0.0	0.0	0.0
2	9/21/2011	7:50	0.0	0.0	0.0
3	9/21/2011	8:05	0.0	0.0	0.0
4	9/21/2011	8:20	0.0	0.0	0.0
5	9/21/2011	8:35	0.0	0.0	0.0
6	9/21/2011	8:50	0.0	0.0	0.0
7	9/21/2011	9:05	0.0	0.0	0.0
8	9/21/2011	9:20	0.0	0.0	0.0
9	9/21/2011	9:35	0.0	0.0	0.0
10	9/21/2011	9:50	0.0	0.0	0.0
11	9/21/2011	10:05	0.0	0.0	0.0
12	9/21/2011	10:20	0.0	0.0	0.0
13	9/21/2011	10:35	0.0	0.0	0.0
14	9/21/2011	10:50	0.0	0.0	0.0
15	9/21/2011	11:05	0.0	0.0	0.0
16	9/21/2011	11:20	0.0	0.0	0.0
17	9/21/2011	11:35	0.0	0.0	0.0
18	9/21/2011	11:50	0.0	0.0	0.0
19	9/21/2011	12:05	0.0	0.0	0.0
20	9/21/2011	12:20	0.0	0.0	0.0
21	9/21/2011	12:35	0.0	0.0	0.0
22	9/21/2011	12:50	0.0	0.0	0.0
23	9/21/2011	13:05	0.0	0.0	0.0
24	9/21/2011	13:20	0.0	0.0	0.0
25	9/21/2011	13:35	0.0	0.0	0.0
26	9/21/2011	13:50	0.0	0.0	0.0
27	9/21/2011	14:05	0.0	0.0	0.0
28	9/21/2011	14:20	0.0	0.0	0.0
29	9/21/2011	14:35	0.0	0.0	0.0
30	9/21/2011	14:50	0.0	0.0	0.0
31	9/21/2011	15:05	0.0	0.0	0.0

Location:			Downwind VOC		
Date of Monitoring			9/26/2011		
Instrument: MiniRAE 2000 (PGM7600)			Serial Number: 005940		
User ID: 00000001			Site ID: 00000015		
Data Points: 28		Gas Name: Isobutylene		Sample period: 900 sec	
Last Calibration Time:			9/6/2011 11:39		
Measuremen Type:			Min (ppm)	Avg (ppm)	Max (ppm)
High Alarm Levels			100.0	100.0	100.0
Low Alarm levels:			50.0	50.0	50.0
Line #	Date	Time	Min (ppm)	Avg (ppm)	Max (ppm)
1	9/26/2011	8:44	0.0	0.0	0.0
2	9/26/2011	8:59	0.0	0.0	0.0
3	9/26/2011	9:14	0.0	0.0	0.0
4	9/26/2011	9:29	0.0	0.0	0.0
5	9/26/2011	9:44	0.0	0.0	0.0
6	9/26/2011	9:59	0.0	0.0	0.0
7	9/26/2011	10:14	0.0	0.0	0.0
8	9/26/2011	10:29	0.0	0.0	0.0
9	9/26/2011	10:44	0.0	0.0	0.0
10	9/26/2011	10:59	0.0	0.0	0.0
11	9/26/2011	11:14	0.0	0.0	0.0
12	9/26/2011	11:29	0.0	0.0	0.0
13	9/26/2011	11:44	0.0	0.0	0.0
14	9/26/2011	11:59	0.0	0.0	0.0
15	9/26/2011	12:14	0.0	0.0	0.0
16	9/26/2011	12:29	0.0	0.0	0.0
17	9/26/2011	12:44	0.0	0.0	0.0
18	9/26/2011	12:59	0.0	0.0	0.0
19	9/26/2011	13:14	0.0	0.0	0.0
20	9/26/2011	13:29	0.0	0.0	0.0
21	9/26/2011	13:44	0.0	0.0	0.0
22	9/26/2011	13:59	0.0	0.0	0.0
23	9/26/2011	14:14	0.0	0.0	0.0
24	9/26/2011	14:29	0.0	0.0	0.0
25	9/26/2011	14:44	0.0	0.0	0.0
26	9/26/2011	14:59	0.0	0.0	0.0
27	9/26/2011	15:14	0.0	0.0	0.0
28	9/26/2011	15:29	0.0	0.0	0.0

Location:			Downwind VOC		
Date of Monitoring			9/28/2011		
Instrument: MiniRAE 2000 (PGM7600)			Serial Number: 013337		
User ID: 00000001			Site ID: 00000013		
Data Points: 30		Gas Name: Isobutyl		Sample period: 900 sec	
Last Calibration Time:			9/27/2011 8:00		
Measurement Type:			Min (ppm)	Avg (ppm)	Max (ppm)
High Alarm Levels			100.0	100.0	100.0
Low Alarm levels:			50.0	50.0	50.0
Line #	Date	Time	Min (ppm)	Avg (ppm)	Max (ppm)
1	9/27/2011	8:15	0.0	0.0	0.0
2	9/27/2011	8:30	0.0	0.0	0.0
3	9/27/2011	8:45	0.0	0.0	0.0
4	9/27/2011	9:00	0.0	0.0	0.0
5	9/27/2011	9:15	0.0	0.0	0.0
6	9/27/2011	9:30	0.0	0.0	0.0
7	9/27/2011	9:45	0.0	0.0	0.0
8	9/27/2011	10:00	0.0	0.0	0.0
9	9/27/2011	10:15	0.0	0.0	0.0
10	9/27/2011	10:30	0.0	0.0	0.0
11	9/27/2011	10:45	0.0	0.0	0.0
12	9/27/2011	11:00	0.0	0.0	0.0
13	9/27/2011	11:15	0.0	0.0	0.0
14	9/27/2011	11:30	0.0	0.0	0.0
15	9/27/2011	11:45	0.0	0.0	0.0
16	9/27/2011	12:00	0.0	0.0	0.0
17	9/27/2011	12:15	0.0	0.0	0.0
18	9/27/2011	12:30	0.0	0.0	0.0
19	9/27/2011	12:45	0.0	0.0	0.0
20	9/27/2011	13:00	0.0	0.0	0.0
21	9/27/2011	13:15	0.0	0.0	0.0
22	9/27/2011	13:30	0.0	0.0	0.0
23	9/27/2011	13:45	0.0	0.0	0.0
24	9/27/2011	14:00	0.0	0.0	0.0
25	9/27/2011	14:15	0.0	0.0	0.0
26	9/27/2011	14:30	0.0	0.0	0.0
27	9/27/2011	14:45	0.0	0.0	0.0
28	9/27/2011	15:00	0.0	0.0	0.0
29	9/27/2011	15:15	0.0	0.0	0.0
30	9/27/2011	15:15	0.0	0.0	0.0

Location:			Downwind VOC		
Date of Monitoring			9/28/2011		
Instrument: MiniRAE 2000 (PGM7600)			Serial Number: 013337		
User ID: 00000001			Site ID: 00000013		
Data Points: 32		Gas Name: Isobutyl		Sample period: 900 sec	
Last Calibration Time:			9/28/2011 8:00		
Measurement Type:			Min (ppm)	Avg (ppm)	Max (ppm)
High Alarm Levels			100.0	100.0	100.0
Low Alarm levels:			50.0	50.0	50.0
Line #	Date	Time	Min (ppm)	Avg (ppm)	Max (ppm)
1	9/28/2011	8:00	0.0	0.0	0.0
2	9/28/2011	8:15	0.0	0.0	0.0
3	9/28/2011	8:30	0.0	0.0	0.0
4	9/28/2011	8:45	0.0	0.0	0.0
5	9/28/2011	9:00	0.0	0.0	0.0
6	9/28/2011	9:15	0.0	0.0	0.0
7	9/28/2011	9:30	0.0	0.0	0.0
8	9/28/2011	9:45	0.0	0.0	0.0
9	9/28/2011	10:00	0.0	0.0	0.0
10	9/28/2011	10:15	0.0	0.0	0.0
11	9/28/2011	10:30	0.0	0.0	0.0
12	9/28/2011	10:45	0.0	0.0	0.0
13	9/28/2011	11:00	0.0	0.0	0.0
14	9/28/2011	11:15	0.0	0.0	0.0
15	9/28/2011	11:30	0.0	0.0	0.0
16	9/28/2011	11:45	0.0	0.0	0.0
17	9/28/2011	12:00	0.0	0.0	0.0
18	9/28/2011	12:15	0.0	0.0	0.0
19	9/28/2011	12:30	0.0	0.0	0.0
20	9/28/2011	12:45	0.0	0.0	0.0
21	9/28/2011	13:00	0.0	0.0	0.0
22	9/28/2011	13:15	0.0	0.0	0.0
23	9/28/2011	13:30	0.0	0.0	0.0
24	9/28/2011	13:45	0.0	0.0	0.0
25	9/28/2011	14:00	0.0	0.0	0.0
26	9/28/2011	14:15	0.0	0.0	0.0
27	9/28/2011	14:30	0.0	0.0	0.0
28	9/28/2011	14:45	0.0	0.0	0.0
29	9/28/2011	15:00	0.0	0.0	0.0
30	9/28/2011	15:15	0.0	0.0	0.0
31	9/28/2011	15:30	0.0	0.0	0.0
32	9/28/2011	15:45	0.0	0.0	0.0

Location:			Downwind VOC		
Date of Monitoring			9/30/2011		
Instrument: MiniRAE 2000 (PGM7600)			Serial Number: 013337		
User ID: 00000001			Site ID: 00000013		
Data Points: 35		Gas Name: Isobutyl		Sample period: 900 sec	
Last Calibration Time:		9/30/2011 8:00			
Measurement Type:			Min (ppm)	Avg (ppm)	Max (ppm)
High Alarm Levels			100.0	100.0	100.0
Low Alarm levels:			50.0	50.0	50.0
Line #	Date	Time	Min (ppm)	Avg (ppm)	Max (ppm)
1	9/30/2011	8:00	0.0	0.0	0.0
2	9/30/2011	8:15	0.0	0.0	0.0
3	9/30/2011	8:30	0.0	0.0	0.0
4	9/30/2011	8:45	0.0	0.0	0.0
5	9/30/2011	9:00	0.0	0.0	0.0
6	9/30/2011	9:15	0.0	0.0	0.0
7	9/30/2011	9:30	0.0	0.0	0.0
8	9/30/2011	9:45	0.0	0.0	0.0
9	9/30/2011	10:00	0.0	0.0	0.0
10	9/30/2011	10:15	0.0	0.0	0.0
11	9/30/2011	10:30	0.0	0.0	0.0
12	9/30/2011	10:45	0.0	0.0	0.0
13	9/30/2011	11:00	0.0	0.0	0.0
14	9/30/2011	11:15	0.0	0.0	0.0
15	9/30/2011	11:30	0.0	0.0	0.0
16	9/30/2011	11:45	0.0	0.0	0.0
17	9/30/2011	12:00	0.0	0.0	0.0
18	9/30/2011	12:15	0.0	0.0	0.0
19	9/30/2011	12:30	0.0	0.0	0.0
20	9/30/2011	12:45	0.0	0.0	0.0
21	9/30/2011	13:00	0.0	0.0	0.0
22	9/30/2011	13:15	0.0	0.0	0.0
23	9/30/2011	13:30	0.0	0.0	0.0
24	9/30/2011	13:45	0.0	0.0	0.0
25	9/30/2011	14:00	0.0	0.0	0.0
26	9/30/2011	14:15	0.0	0.0	0.0
27	9/30/2011	14:30	0.0	0.0	0.0
28	9/30/2011	14:45	0.0	0.0	0.0
29	9/30/2011	15:00	0.0	0.0	0.0
30	9/30/2011	15:15	0.0	0.0	0.0
31	9/30/2011	15:30	0.0	0.0	0.0
32	9/30/2011	15:45	0.0	0.0	0.0
33	9/30/2011	16:00	0.0	0.0	0.0
34	9/30/2011	16:15	0.0	0.0	0.0
35	9/30/2011	16:30	0.0	0.0	0.0
36	9/30/2011	16:45	0.0	0.0	0.0

Location:			Downwind VOC		
Date of Monitoring			10/6/2011		
Instrument: MiniRAE 2000 (PGM7600)			Serial Number: 013337		
User ID: 00000001			Site ID: 00000018		
Data Points: 28		Gas Name: Isobutyl		Sample period: 900 sec	
Last Calibration Time:			9/6/2011 11:11		
Measuremen Type:			Min (ppm)	Avg (ppm)	Max (ppm)
High Alarm Levels			100.0	100.0	100.0
Low Alarm levels:			50.0	50.0	50.0
Line #	Date	Time	Min (ppm)	Avg (ppm)	Max (ppm)
1	10/6/2011	9:08	0.0	0.0	0.0
2	10/6/2011	9:23	0.0	0.0	0.0
3	10/6/2011	9:38	0.0	0.0	0.0
4	10/6/2011	9:53	0.0	0.0	0.0
5	10/6/2011	10:08	0.0	0.0	0.0
6	10/6/2011	10:23	0.0	0.0	0.0
7	10/6/2011	10:38	0.0	0.0	0.0
8	10/6/2011	10:53	0.0	0.0	0.0
9	10/6/2011	11:08	0.0	0.0	0.0
10	10/6/2011	11:23	0.0	0.0	0.0
11	10/6/2011	11:38	0.0	0.0	0.0
12	10/6/2011	11:53	0.0	0.0	0.0
13	10/6/2011	12:08	0.0	0.0	0.0
14	10/6/2011	12:23	0.0	0.0	0.0
15	10/6/2011	12:38	0.0	0.0	0.0
16	10/6/2011	12:53	0.0	0.0	0.0
17	10/6/2011	13:08	0.0	0.0	0.0
18	10/6/2011	13:23	0.0	0.0	0.0
19	10/6/2011	13:38	0.0	0.0	0.0
20	10/6/2011	13:53	0.0	0.0	0.0
21	10/6/2011	14:08	0.0	0.0	0.0
22	10/6/2011	14:23	0.0	0.0	0.0
23	10/6/2011	14:38	0.0	0.0	0.0
24	10/6/2011	14:53	0.0	0.0	0.0
25	10/6/2011	15:08	0.0	0.0	0.0
26	10/6/2011	15:23	0.0	0.0	0.0
27	10/6/2011	15:38	0.0	0.0	0.0
28	10/6/2011	15:53	0.0	0.0	0.0

Location:			Downwind VOC		
Date of Monitoring			2/27/2012		
Instrument: MiniRAE 2000 (PGM7600)			Serial Number: 902672		
User ID: 00000001			Site ID: 0000002		
Data Points: 330		Gas Name: Isobutyl		Sample period: 60 sec	
Last Calibration Time:			2/13/2012 11:48:00 AM		
Measurement Type:			Min (ppm)	Avg (ppm)	Max (ppm)
High Alarm Levels			100.0	100.0	100.0
Low Alarm levels:			50.0	50.0	50.0
Line #	Date	Time	Min (ppm)	Avg (ppm)	Max (ppm)
1	2/27/2012	9:29	0.0	0.0	0.0
2	2/27/2012	9:30	0.0	0.0	0.0
3	2/27/2012	9:31	0.0	0.0	0.0
4	2/27/2012	9:32	0.0	0.0	0.0
5	2/27/2012	9:33	0.0	0.0	0.0
6	2/27/2012	9:34	0.0	0.0	0.0
7	2/27/2012	9:35	0.0	0.0	0.0
8	2/27/2012	9:36	0.0	0.0	0.0
9	2/27/2012	9:37	0.0	0.0	0.0
10	2/27/2012	9:38	0.0	0.0	0.0
11	2/27/2012	9:39	0.0	0.0	0.0
12	2/27/2012	9:40	0.0	0.0	0.0
13	2/27/2012	9:41	0.0	0.0	0.0
14	2/27/2012	9:42	0.0	0.0	0.0
15	2/27/2012	9:43	0.0	0.0	0.0
16	2/27/2012	9:44	0.0	0.0	0.0
17	2/27/2012	9:45	0.0	0.0	0.0
18	2/27/2012	9:46	0.0	0.0	0.0
19	2/27/2012	9:47	0.0	0.0	0.0
20	2/27/2012	9:48	0.0	0.0	0.0
21	2/27/2012	9:49	0.0	0.0	0.0
22	2/27/2012	9:50	0.0	0.0	0.0
23	2/27/2012	9:51	0.0	0.0	0.0
24	2/27/2012	9:52	0.0	0.0	0.0
25	2/27/2012	9:53	0.0	0.0	0.0
26	2/27/2012	9:54	0.0	0.0	0.0
27	2/27/2012	9:55	0.0	0.0	0.0
28	2/27/2012	9:56	0.0	0.0	0.0
29	2/27/2012	9:57	0.0	0.0	0.0
30	2/27/2012	9:58	0.0	0.0	0.0
31	2/27/2012	9:59	0.0	0.0	0.0
32	2/27/2012	10:00	0.0	0.0	0.0
33	2/27/2012	10:01	0.0	0.0	0.0

Location:			Downwind VOC		
Date of Monitoring			2/27/2012		
Instrument: MiniRAE 2000 (PGM7600)			Serial Number: 902672		
User ID: 00000001			Site ID: 0000002		
Data Points: 330		Gas Name: Isobutyl		Sample period: 60 sec	
Last Calibration Time:			2/13/2012 11:48:00 AM		
Measurement Type:			Min (ppm)	Avg (ppm)	Max (ppm)
High Alarm Levels			100.0	100.0	100.0
Low Alarm levels:			50.0	50.0	50.0
Line #	Date	Time	Min (ppm)	Avg (ppm)	Max (ppm)
34	2/27/2012	10:02	0.0	0.0	0.0
35	2/27/2012	10:03	0.0	0.0	0.0
36	2/27/2012	10:04	0.0	0.0	0.0
37	2/27/2012	10:05	0.0	0.0	0.0
38	2/27/2012	10:06	0.0	0.0	0.0
39	2/27/2012	10:07	0.0	0.0	0.0
40	2/27/2012	10:08	0.0	0.0	0.0
41	2/27/2012	10:09	0.0	0.0	0.0
42	2/27/2012	10:10	0.0	0.0	0.0
43	2/27/2012	10:11	0.0	0.0	0.0
44	2/27/2012	10:12	0.0	0.0	0.0
45	2/27/2012	10:13	0.0	0.0	0.0
46	2/27/2012	10:14	0.0	0.0	0.0
47	2/27/2012	10:15	0.0	0.0	0.0
48	2/27/2012	10:16	0.0	0.0	0.0
49	2/27/2012	10:17	0.0	0.0	0.0
50	2/27/2012	10:18	0.0	0.0	0.0
51	2/27/2012	10:19	0.0	0.0	0.0
52	2/27/2012	10:20	0.0	0.0	0.0
53	2/27/2012	10:21	0.0	0.0	0.0
54	2/27/2012	10:22	0.0	0.0	0.0
55	2/27/2012	10:23	0.0	0.0	0.0
56	2/27/2012	10:24	0.0	0.0	0.0
57	2/27/2012	10:25	0.0	0.0	0.0
58	2/27/2012	10:26	0.0	0.0	0.0
59	2/27/2012	10:27	0.0	0.0	0.0
60	2/27/2012	10:28	0.0	0.0	0.0
61	2/27/2012	10:29	0.0	0.0	0.0
62	2/27/2012	10:30	0.0	0.0	0.0
63	2/27/2012	10:31	0.0	0.0	0.0
64	2/27/2012	10:32	0.0	0.0	0.0
65	2/27/2012	10:33	0.0	0.0	0.0
66	2/27/2012	10:34	0.0	0.0	0.0

Location:			Downwind VOC		
Date of Monitoring			2/27/2012		
Instrument: MiniRAE 2000 (PGM7600)			Serial Number: 902672		
User ID: 00000001			Site ID: 0000002		
Data Points: 330		Gas Name: Isobutyl		Sample period: 60 sec	
Last Calibration Time:			2/13/2012 11:48:00 AM		
Measurement Type:			Min (ppm)	Avg (ppm)	Max (ppm)
High Alarm Levels			100.0	100.0	100.0
Low Alarm levels:			50.0	50.0	50.0
Line #	Date	Time	Min (ppm)	Avg (ppm)	Max (ppm)
67	2/27/2012	10:35	0.0	0.0	0.0
68	2/27/2012	10:36	0.0	0.0	0.0
69	2/27/2012	10:37	0.0	0.0	0.0
70	2/27/2012	10:38	0.0	0.0	0.0
71	2/27/2012	10:39	0.0	0.0	0.0
72	2/27/2012	10:40	0.0	0.0	0.0
73	2/27/2012	10:41	0.0	0.0	0.0
74	2/27/2012	10:42	0.0	0.0	0.0
75	2/27/2012	10:43	0.0	0.0	0.0
76	2/27/2012	10:44	0.0	0.0	0.0
77	2/27/2012	10:45	0.0	0.0	0.0
78	2/27/2012	10:46	0.0	0.0	0.0
79	2/27/2012	10:47	0.0	0.0	0.0
80	2/27/2012	10:48	0.0	0.0	0.0
81	2/27/2012	10:49	0.0	0.0	0.0
82	2/27/2012	10:50	0.0	0.0	0.0
83	2/27/2012	10:51	0.0	0.0	0.0
84	2/27/2012	10:52	0.0	0.0	0.0
85	2/27/2012	10:53	0.0	0.0	0.0
86	2/27/2012	10:54	0.0	0.0	0.0
87	2/27/2012	10:55	0.0	0.0	0.0
88	2/27/2012	10:56	0.0	0.0	0.0
89	2/27/2012	10:57	0.0	0.0	0.0
90	2/27/2012	10:58	0.0	0.0	0.0
91	2/27/2012	10:59	0.0	0.0	0.0
92	2/27/2012	11:00	0.0	0.0	0.0
93	2/27/2012	11:01	0.0	0.0	0.0
94	2/27/2012	11:02	0.0	0.0	0.0
95	2/27/2012	11:03	0.0	0.0	0.0
96	2/27/2012	11:04	0.0	0.0	0.0
97	2/27/2012	11:05	0.0	0.0	0.0
98	2/27/2012	11:06	0.0	0.0	0.0
99	2/27/2012	11:07	0.0	0.0	0.0

Location:			Downwind VOC		
Date of Monitoring			2/27/2012		
Instrument: MiniRAE 2000 (PGM7600)			Serial Number: 902672		
User ID: 00000001			Site ID: 0000002		
Data Points: 330		Gas Name: Isobutyl		Sample period: 60 sec	
Last Calibration Time:		2/13/2012 11:48:00 AM			
Measurement Type:			Min (ppm)	Avg (ppm)	Max (ppm)
High Alarm Levels			100.0	100.0	100.0
Low Alarm levels:			50.0	50.0	50.0
Line #	Date	Time	Min (ppm)	Avg (ppm)	Max (ppm)
100	2/27/2012	11:08	0.0	0.0	0.0
101	2/27/2012	11:09	0.0	0.0	0.0
102	2/27/2012	11:10	0.0	0.0	0.0
103	2/27/2012	11:11	0.0	0.0	0.0
104	2/27/2012	11:12	0.0	0.0	0.0
105	2/27/2012	11:13	0.0	0.0	0.0
106	2/27/2012	11:14	0.0	0.0	0.0
107	2/27/2012	11:15	0.0	0.0	0.0
108	2/27/2012	11:16	0.0	0.0	0.0
109	2/27/2012	11:17	0.0	0.0	0.0
110	2/27/2012	11:18	0.0	0.0	0.0
111	2/27/2012	11:19	0.0	0.0	0.0
112	2/27/2012	11:20	0.0	0.0	0.0
113	2/27/2012	11:21	0.0	0.0	0.0
114	2/27/2012	11:22	0.0	0.0	0.0
115	2/27/2012	11:23	0.0	0.0	0.0
116	2/27/2012	11:24	0.0	0.0	0.0
117	2/27/2012	11:25	0.0	0.0	0.0
118	2/27/2012	11:26	0.0	0.0	0.0
119	2/27/2012	11:27	0.0	0.0	0.0
120	2/27/2012	11:28	0.0	0.0	0.0
121	2/27/2012	11:29	0.0	0.0	0.0
122	2/27/2012	11:30	0.0	0.0	0.0
123	2/27/2012	11:31	0.0	0.0	0.0
124	2/27/2012	11:32	0.0	0.0	0.0
125	2/27/2012	11:33	0.0	0.0	0.0
126	2/27/2012	11:34	0.0	0.0	0.0
127	2/27/2012	11:35	0.0	0.0	0.0
128	2/27/2012	11:36	0.0	0.0	0.0
129	2/27/2012	11:37	0.0	0.0	0.0
130	2/27/2012	11:38	0.0	0.0	0.0
131	2/27/2012	11:39	0.0	0.0	0.0
132	2/27/2012	11:40	0.0	0.0	0.0

Location:			Downwind VOC		
Date of Monitoring			2/27/2012		
Instrument: MiniRAE 2000 (PGM7600)			Serial Number: 902672		
User ID: 00000001			Site ID: 0000002		
Data Points: 330		Gas Name: Isobutyl		Sample period: 60 sec	
Last Calibration Time:		2/13/2012 11:48:00 AM			
Measurement Type:			Min (ppm)	Avg (ppm)	Max (ppm)
High Alarm Levels			100.0	100.0	100.0
Low Alarm levels:			50.0	50.0	50.0
Line #	Date	Time	Min (ppm)	Avg (ppm)	Max (ppm)
133	2/27/2012	11:41	0.0	0.0	0.0
134	2/27/2012	11:42	0.0	0.0	0.0
135	2/27/2012	11:43	0.0	0.0	0.0
136	2/27/2012	11:44	0.0	0.0	0.0
137	2/27/2012	11:45	0.0	0.0	0.0
138	2/27/2012	11:46	0.0	0.0	0.0
139	2/27/2012	11:47	0.0	0.0	0.0
140	2/27/2012	11:48	0.0	0.0	0.0
141	2/27/2012	11:49	0.0	0.0	0.0
142	2/27/2012	11:50	0.0	0.0	0.0
143	2/27/2012	11:51	0.0	0.0	0.0
144	2/27/2012	11:52	0.0	0.0	0.0
145	2/27/2012	11:53	0.0	0.0	0.0
146	2/27/2012	11:54	0.0	0.0	0.0
147	2/27/2012	11:55	0.0	0.0	0.0
148	2/27/2012	11:56	0.0	0.0	0.0
149	2/27/2012	11:57	0.0	0.0	0.0
150	2/27/2012	11:58	0.0	0.0	0.0
151	2/27/2012	11:59	0.0	0.0	0.0
152	2/27/2012	12:00	0.0	0.0	0.0
153	2/27/2012	12:01	0.0	0.0	0.0
154	2/27/2012	12:02	0.0	0.0	0.0
155	2/27/2012	12:03	0.0	0.0	0.0
156	2/27/2012	12:04	0.0	0.0	0.0
157	2/27/2012	12:05	0.0	0.0	0.0
158	2/27/2012	12:06	0.0	0.0	0.0
159	2/27/2012	12:07	0.0	0.0	0.0
160	2/27/2012	12:08	0.0	0.0	0.0
161	2/27/2012	12:09	0.0	0.0	0.0
162	2/27/2012	12:10	0.0	0.0	0.0
163	2/27/2012	12:11	0.0	0.0	0.0
164	2/27/2012	12:12	0.0	0.0	0.0
165	2/27/2012	12:13	0.0	0.0	0.0

Location:			Downwind VOC		
Date of Monitoring			2/27/2012		
Instrument: MiniRAE 2000 (PGM7600)			Serial Number: 902672		
User ID: 00000001			Site ID: 0000002		
Data Points: 330		Gas Name: Isobutyl		Sample period: 60 sec	
Last Calibration Time:		2/13/2012 11:48:00 AM			
Measurement Type:			Min (ppm)	Avg (ppm)	Max (ppm)
High Alarm Levels			100.0	100.0	100.0
Low Alarm levels:			50.0	50.0	50.0
Line #	Date	Time	Min (ppm)	Avg (ppm)	Max (ppm)
166	2/27/2012	12:14	0.0	0.0	0.0
167	2/27/2012	12:15	0.0	0.0	0.0
168	2/27/2012	12:16	0.0	0.0	0.0
169	2/27/2012	12:17	0.0	0.0	0.0
170	2/27/2012	12:18	0.0	0.0	0.0
171	2/27/2012	12:19	0.0	0.0	0.0
172	2/27/2012	12:20	0.0	0.0	0.0
173	2/27/2012	12:21	0.0	0.0	0.0
174	2/27/2012	12:22	0.0	0.0	0.0
175	2/27/2012	12:23	0.0	0.0	0.0
176	2/27/2012	12:24	0.0	0.0	0.0
177	2/27/2012	12:25	0.0	0.0	0.0
178	2/27/2012	12:26	0.0	0.0	0.0
179	2/27/2012	12:27	0.0	0.0	0.0
180	2/27/2012	12:28	0.0	0.0	0.0
181	2/27/2012	12:29	0.0	0.0	0.0
182	2/27/2012	12:30	0.0	0.0	0.0
183	2/27/2012	12:31	0.0	0.0	0.0
184	2/27/2012	12:32	0.0	0.0	0.0
185	2/27/2012	12:33	0.0	0.0	0.0
186	2/27/2012	12:34	0.0	0.0	0.0
187	2/27/2012	12:35	0.0	0.0	0.0
188	2/27/2012	12:36	0.0	0.0	0.0
189	2/27/2012	12:37	0.0	0.0	0.0
190	2/27/2012	12:38	0.0	0.0	0.0
191	2/27/2012	12:39	0.0	0.0	0.0
192	2/27/2012	12:40	0.0	0.0	0.0
193	2/27/2012	12:41	0.0	0.0	0.0
194	2/27/2012	12:42	0.0	0.0	0.0
195	2/27/2012	12:43	0.0	0.0	0.0
196	2/27/2012	12:44	0.0	0.0	0.0
197	2/27/2012	12:45	0.0	0.0	0.0
198	2/27/2012	12:46	0.0	0.0	0.0

Location:			Downwind VOC		
Date of Monitoring			2/27/2012		
Instrument: MiniRAE 2000 (PGM7600)			Serial Number: 902672		
User ID: 00000001			Site ID: 0000002		
Data Points: 330		Gas Name: Isobutyl		Sample period: 60 sec	
Last Calibration Time:			2/13/2012 11:48:00 AM		
Measurement Type:			Min (ppm)	Avg (ppm)	Max (ppm)
High Alarm Levels			100.0	100.0	100.0
Low Alarm levels:			50.0	50.0	50.0
Line #	Date	Time	Min (ppm)	Avg (ppm)	Max (ppm)
199	2/27/2012	12:47	0.0	0.0	0.0
200	2/27/2012	12:48	0.0	0.0	0.0
201	2/27/2012	12:49	0.0	0.0	0.0
202	2/27/2012	12:50	0.0	0.0	0.0
203	2/27/2012	12:51	0.0	0.0	0.0
204	2/27/2012	12:52	0.0	0.0	0.0
205	2/27/2012	12:53	0.0	0.0	0.0
206	2/27/2012	12:54	0.0	0.0	0.0
207	2/27/2012	12:55	0.0	0.0	0.0
208	2/27/2012	12:56	0.0	0.0	0.0
209	2/27/2012	12:57	0.0	0.0	0.0
210	2/27/2012	12:58	0.0	0.0	0.0
211	2/27/2012	12:59	0.0	0.0	0.0
212	2/27/2012	13:00	0.0	0.0	0.0
213	2/27/2012	13:01	0.0	0.0	0.0
214	2/27/2012	13:02	0.0	0.0	0.0
215	2/27/2012	13:03	0.0	0.0	0.0
216	2/27/2012	13:04	0.0	0.0	0.0
217	2/27/2012	13:05	0.0	0.0	0.0
218	2/27/2012	13:06	0.0	0.0	0.0
219	2/27/2012	13:07	0.0	0.0	0.0
220	2/27/2012	13:08	0.0	0.0	0.0
221	2/27/2012	13:09	0.0	0.0	0.0
222	2/27/2012	13:10	0.0	0.0	0.0
223	2/27/2012	13:11	0.0	0.0	0.0
224	2/27/2012	13:12	0.0	0.0	0.0
225	2/27/2012	13:13	0.0	0.0	0.0
226	2/27/2012	13:14	0.0	0.0	0.0
227	2/27/2012	13:15	0.0	0.0	0.0
228	2/27/2012	13:16	0.0	0.0	0.0
229	2/27/2012	13:17	0.0	0.0	0.0
230	2/27/2012	13:18	0.0	0.0	0.0
231	2/27/2012	13:19	0.0	0.0	0.0

Location:			Downwind VOC		
Date of Monitoring			2/27/2012		
Instrument: MiniRAE 2000 (PGM7600)			Serial Number: 902672		
User ID: 00000001			Site ID: 0000002		
Data Points: 330		Gas Name: Isobutyl		Sample period: 60 sec	
Last Calibration Time:			2/13/2012 11:48:00 AM		
Measurement Type:			Min (ppm)	Avg (ppm)	Max (ppm)
High Alarm Levels			100.0	100.0	100.0
Low Alarm levels:			50.0	50.0	50.0
Line #	Date	Time	Min (ppm)	Avg (ppm)	Max (ppm)
232	2/27/2012	13:20	0.0	0.0	0.0
233	2/27/2012	13:21	0.0	0.0	0.0
234	2/27/2012	13:22	0.0	0.0	0.0
235	2/27/2012	13:23	0.0	0.0	0.0
236	2/27/2012	13:24	0.0	0.0	0.0
237	2/27/2012	13:25	0.0	0.0	0.0
238	2/27/2012	13:26	0.0	0.0	0.0
239	2/27/2012	13:27	0.0	0.0	0.0
240	2/27/2012	13:28	0.0	0.0	0.0
241	2/27/2012	13:29	0.0	0.0	0.0
242	2/27/2012	13:30	0.0	0.0	0.0
243	2/27/2012	13:31	0.0	0.0	0.0
244	2/27/2012	13:32	0.0	0.0	0.0
245	2/27/2012	13:33	0.0	0.0	0.0
246	2/27/2012	13:34	0.0	0.0	0.0
247	2/27/2012	13:35	0.0	0.0	0.0
248	2/27/2012	13:36	0.0	0.0	0.0
249	2/27/2012	13:37	0.0	0.0	0.0
250	2/27/2012	13:38	0.0	0.0	0.0
251	2/27/2012	13:39	0.0	0.0	0.0
252	2/27/2012	13:40	0.0	0.0	0.0
253	2/27/2012	13:41	0.0	0.0	0.0
254	2/27/2012	13:42	0.0	0.0	0.0
255	2/27/2012	13:43	0.0	0.0	0.0
256	2/27/2012	13:44	0.0	0.0	0.0
257	2/27/2012	13:45	0.0	0.0	0.0
258	2/27/2012	13:46	0.0	0.0	0.0
259	2/27/2012	13:47	0.0	0.0	0.0
260	2/27/2012	13:48	0.0	0.0	0.0
261	2/27/2012	13:49	0.0	0.0	0.0
262	2/27/2012	13:50	0.0	0.0	0.0
263	2/27/2012	13:51	0.0	0.0	0.0
264	2/27/2012	13:52	0.0	0.0	0.0

Location:			Downwind VOC		
Date of Monitoring			2/27/2012		
Instrument: MiniRAE 2000 (PGM7600)			Serial Number: 902672		
User ID: 00000001			Site ID: 0000002		
Data Points: 330		Gas Name: Isobutyl		Sample period: 60 sec	
Last Calibration Time:		2/13/2012 11:48:00 AM			
Measurement Type:			Min (ppm)	Avg (ppm)	Max (ppm)
High Alarm Levels			100.0	100.0	100.0
Low Alarm levels:			50.0	50.0	50.0
Line #	Date	Time	Min (ppm)	Avg (ppm)	Max (ppm)
265	2/27/2012	13:53	0.0	0.0	0.0
266	2/27/2012	13:54	0.0	0.0	0.0
267	2/27/2012	13:55	0.0	0.0	0.0
268	2/27/2012	13:56	0.0	0.0	0.0
269	2/27/2012	13:57	0.0	0.0	0.0
270	2/27/2012	13:58	0.0	0.0	0.0
271	2/27/2012	13:59	0.0	0.0	0.0
272	2/27/2012	14:00	0.0	0.0	0.0
273	2/27/2012	14:01	0.0	0.0	0.0
274	2/27/2012	14:02	0.0	0.0	0.0
275	2/27/2012	14:03	0.0	0.0	0.0
276	2/27/2012	14:04	0.0	0.0	0.0
277	2/27/2012	14:05	0.0	0.0	0.0
278	2/27/2012	14:06	0.0	0.0	0.0
279	2/27/2012	14:07	0.0	0.0	0.0
280	2/27/2012	14:08	0.0	0.0	0.0
281	2/27/2012	14:09	0.0	0.0	0.0
282	2/27/2012	14:10	0.0	0.0	0.0
283	2/27/2012	14:11	0.0	0.0	0.0
284	2/27/2012	14:12	0.0	0.0	0.0
285	2/27/2012	14:13	0.0	0.0	0.0
286	2/27/2012	14:14	0.0	0.0	0.0
287	2/27/2012	14:15	0.0	0.0	0.0
288	2/27/2012	14:16	0.0	0.0	0.0
289	2/27/2012	14:17	0.0	0.0	0.0
290	2/27/2012	14:18	0.0	0.0	0.0
291	2/27/2012	14:19	0.0	0.0	0.0
292	2/27/2012	14:20	0.0	0.0	0.0
293	2/27/2012	14:21	0.0	0.0	0.0
294	2/27/2012	14:22	0.0	0.0	0.0
295	2/27/2012	14:23	0.0	0.0	0.0
296	2/27/2012	14:24	0.0	0.0	0.0
297	2/27/2012	14:25	0.0	0.0	0.0

Location:			Downwind VOC		
Date of Monitoring			2/27/2012		
Instrument: MiniRAE 2000 (PGM7600)			Serial Number: 902672		
User ID: 00000001			Site ID: 0000002		
Data Points: 330		Gas Name: Isobutyl		Sample period: 60 sec	
Last Calibration Time:			2/13/2012 11:48:00 AM		
Measurement Type:			Min (ppm)	Avg (ppm)	Max (ppm)
High Alarm Levels			100.0	100.0	100.0
Low Alarm levels:			50.0	50.0	50.0
Line #	Date	Time	Min (ppm)	Avg (ppm)	Max (ppm)
298	2/27/2012	14:26	0.0	0.0	0.0
299	2/27/2012	14:27	0.0	0.0	0.0
300	2/27/2012	14:28	0.0	0.0	0.0
301	2/27/2012	14:29	0.0	0.0	0.0
302	2/27/2012	14:30	0.0	0.0	0.0
303	2/27/2012	14:31	0.0	0.0	0.0
304	2/27/2012	14:32	0.0	0.0	0.0
305	2/27/2012	14:33	0.0	0.0	0.0
306	2/27/2012	14:34	0.0	0.0	0.0
307	2/27/2012	14:35	0.0	0.0	0.0
308	2/27/2012	14:36	0.0	0.0	0.0
309	2/27/2012	14:37	0.0	0.0	0.0
310	2/27/2012	14:38	0.0	0.0	0.0
311	2/27/2012	14:39	0.0	0.0	0.0
312	2/27/2012	14:40	0.0	0.0	0.0
313	2/27/2012	14:41	0.0	0.0	0.0
314	2/27/2012	14:42	0.0	0.0	0.0
315	2/27/2012	14:43	0.0	0.0	0.0
316	2/27/2012	14:44	0.0	0.0	0.0
317	2/27/2012	14:45	0.0	0.0	0.0
318	2/27/2012	14:46	0.0	0.0	0.0
319	2/27/2012	14:47	0.0	0.0	0.0
320	2/27/2012	14:48	0.0	0.0	0.0
321	2/27/2012	14:49	0.0	0.0	0.0
322	2/27/2012	14:50	0.0	0.0	0.0
323	2/27/2012	14:51	0.0	0.0	0.0
324	2/27/2012	14:52	0.0	0.0	0.0
325	2/27/2012	14:53	0.0	0.0	0.0
326	2/27/2012	14:54	0.0	0.0	0.0
327	2/27/2012	14:55	0.0	0.0	0.0
328	2/27/2012	14:56	0.0	0.0	0.0
329	2/27/2012	14:57	0.0	0.0	0.0
330	2/27/2012	14:58	0.0	0.0	0.0

Location:			Downwind VOC		
Date of Monitoring			2/28/2012		
Instrument: MiniRAE 2000 (PGM7600)			Serial Number: 902672		
User ID: 00000001			Site ID: 0000003		
Data Points: 374		Gas Name: Isobutyl		Sample period: 60 sec	
Last Calibration Time:		2/13/2012 11:48:00 AM			
Measuremen Type:			Min (ppm)	Avg (ppm)	Max (ppm)
High Alarm Levels			100.0	100.0	100.0
Low Alarm levels:			50.0	50.0	50.0
Line #	Date	Time	Min (ppm)	Avg (ppm)	Max (ppm)
1	2/28/2012	7:05	0.0	0.0	0.0
16	2/28/2012	7:20	0.0	0.0	0.0
31	2/28/2012	7:35	0.0	0.0	0.0
46	2/28/2012	7:50	0.0	0.0	0.0
61	2/28/2012	8:05	0.0	0.0	0.0
76	2/28/2012	8:20	0.0	0.0	0.0
91	2/28/2012	8:35	0.0	0.0	0.0
106	2/28/2012	8:50	0.0	0.0	0.0
121	2/28/2012	9:05	0.0	0.0	0.0
136	2/28/2012	9:20	0.0	0.0	0.0
151	2/28/2012	9:35	0.0	0.0	0.0
166	2/28/2012	9:50	0.0	0.0	0.0
181	2/28/2012	10:05	0.0	0.0	0.0
196	2/28/2012	10:20	0.0	0.0	0.0
211	2/28/2012	10:35	0.0	0.0	0.0
226	2/28/2012	10:50	0.0	0.0	0.0
241	2/28/2012	11:05	0.0	0.0	0.0
256	2/28/2012	11:20	0.0	0.0	0.0
271	2/28/2012	11:35	0.0	0.0	0.0
286	2/28/2012	11:50	0.0	0.0	0.0
301	2/28/2012	12:05	0.0	0.0	0.0
316	2/28/2012	12:20	0.0	0.0	0.0
331	2/28/2012	12:35	0.0	0.0	0.0
346	2/28/2012	12:50	0.0	0.0	0.0
361	2/28/2012	13:05	0.0	0.0	0.0
375	2/28/2012	13:19	0.0	0.0	0.0

Location:			Downwind VOC		
Date of Monitoring			2/29/2012		
Instrument: MiniRAE 2000 (PGM7600)			Serial Number: 902672		
User ID: 00000001			Site ID: 0000005		
Data Points: 471		Gas Name: Isobutyl		Sample period: 60 sec	
Last Calibration Time:		2/13/2012 11:48:00 AM			
Measuremen Type:			Min (ppm)	Avg (ppm)	Max (ppm)
High Alarm Levels			100.0	100.0	100.0
Low Alarm levels:			50.0	50.0	50.0
Line #	Date	Time	Min (ppm)	Avg (ppm)	Max (ppm)
15	2/29/2012	7:32	0.0	0.0	0.0
30	2/29/2012	7:47	0.0	0.0	0.0
45	2/29/2012	8:02	0.0	0.0	0.0
60	2/29/2012	8:17	0.0	0.0	0.0
75	2/29/2012	8:32	0.0	0.0	0.0
90	2/29/2012	8:47	0.0	0.0	0.0
105	2/29/2012	9:02	0.0	0.0	0.0
120	2/29/2012	9:17	0.0	0.0	0.0
135	2/29/2012	9:32	0.0	0.0	0.0
150	2/29/2012	9:47	0.0	0.0	0.0
165	2/29/2012	10:02	0.0	0.0	0.0
180	2/29/2012	10:17	0.0	0.0	0.0
195	2/29/2012	10:32	0.0	0.0	0.0
210	2/29/2012	10:47	0.0	0.0	0.0
225	2/29/2012	11:02	0.0	0.0	0.0
240	2/29/2012	11:17	0.0	0.0	0.0
255	2/29/2012	11:32	0.0	0.0	0.0
270	2/29/2012	11:47	0.0	0.0	0.0
285	2/29/2012	12:02	0.0	0.0	0.0
300	2/29/2012	12:17	0.0	0.0	0.0
315	2/29/2012	12:32	0.0	0.0	0.0
330	2/29/2012	12:47	0.0	0.0	0.0
345	2/29/2012	13:02	0.0	0.0	0.0
360	2/29/2012	13:17	0.0	0.0	0.0
375	2/29/2012	13:32	0.0	0.0	0.0
390	2/29/2012	13:47	0.0	0.0	0.0
405	2/29/2012	14:02	0.0	0.0	0.0
420	2/29/2012	14:17	0.0	0.0	0.0
435	2/29/2012	14:32	0.0	0.0	0.0
450	2/29/2012	14:47	0.0	0.0	0.0
465	2/29/2012	15:02	0.0	0.0	0.0

Location:			Downwind VOC		
Date of Monitoring			3/1/2012		
Instrument: MiniRAE 2000 (PGM7600)			Serial Number: 902672		
User ID: 00000001			Site ID: 0000006		
Data Points: 33		Gas Name: Isobutyl		Sample period: 60 sec	
Last Calibration Time:		2/13/2012 11:48:00 AM			
Measuremen Type:			Min (ppm)	Avg (ppm)	Max (ppm)
High Alarm Levels			100.0	100.0	100.0
Low Alarm levels:			50.0	50.0	50.0
Line #	Date	Time	Min (ppm)	Avg (ppm)	Max (ppm)
15	3/14/2012	7:13	0.0	0.0	0.0
30	3/29/2012	7:28	0.0	0.0	0.0

**Downwind PM₁₀
Monitoring Data**

Location:		Downwind Dust
Date of Monitoring		9/20/2011
TrakPro Version 4.41 ASCII Data File		
Model: DustTrak 8520	Serial Number:	85200085
Test ID: 003	Log Interval (mm:ss)	1:00
Data Points: 179	Calibration Date:	5/17/2011
Statistics	Maximum:	0.104
	Average:	0.004
	Minimum:	-0.001
Date	Time (hh:mm:ss)	Aerosol (mg/m ³)
9/20/2011	7:55:52	0.002
9/20/2011	8:10:52	0.000
9/20/2011	8:25:52	0.000
9/20/2011	8:40:52	0.001
9/20/2011	8:55:52	0.002
9/20/2011	9:10:52	0.000
9/20/2011	9:25:52	0.001
9/20/2011	9:40:52	0.001
9/20/2011	9:55:52	0.008
9/20/2011	10:10:52	0.008
9/20/2011	10:25:52	0.003
9/20/2011	10:39:52	0.017

Location:		Downwind Dust
Date of Monitoring		9/21/2011
TrakPro Version 4.41 ASCII Data File		
Model: DustTrak 8520	Serial Number:	85200085
Test ID: 004	Log Interval (mm:ss)	1:00
Data Points: 489	Calibration Date:	5/17/2011
Statistics	Maximum:	0.104
	Average:	0.021
	Minimum:	0.011
Date	Time (hh:mm:ss)	Aerosol (mg/m ³)
9/21/2011	7:47:50	0.016
9/21/2011	8:02:50	0.018
9/21/2011	8:17:50	0.018
9/21/2011	8:32:50	0.020
9/21/2011	8:47:50	0.028
9/21/2011	9:02:50	0.024
9/21/2011	9:17:50	0.026
9/21/2011	9:32:50	0.024
9/21/2011	9:48:50	0.024
9/21/2011	10:02:50	0.027
9/21/2011	10:17:50	0.032
9/21/2011	10:32:50	0.033
9/21/2011	10:47:50	0.030
9/21/2011	11:02:50	0.030
9/21/2011	11:17:50	0.028
9/21/2011	11:32:50	0.026
9/21/2011	11:47:50	0.024
9/21/2011	12:02:50	0.021
9/21/2011	12:17:50	0.020
9/21/2011	12:32:50	0.019
9/21/2011	12:47:50	0.023
9/21/2011	13:02:50	0.015
9/21/2011	13:17:50	0.015
9/21/2011	13:32:50	0.015
9/21/2011	13:47:50	0.015
9/21/2011	14:02:50	0.014
9/21/2011	14:17:50	0.016
9/21/2011	14:32:50	0.019
9/21/2011	14:47:50	0.015
9/21/2011	15:02:50	0.012
9/21/2011	15:17:50	0.013
9/21/2011	15:32:50	0.015

Location:		Downwind Dust
Date of Monitoring		9/26/2011
TrakPro Version 4.41 ASCII Data File		
Model: DustTrak 8520	Serial Number:	85200085
Test ID: 007	Log Interval (mm:ss)	1:00
Data Points: 438	Calibration Date:	5/17/2011
Statistics	Maximum:	0.139
	Average:	0.014
	Minimum:	0.005
Date	Time (hh:mm:ss)	Aerosol (mg/m ³)
9/26/2011	8:52:44	0.014
9/26/2011	9:07:44	0.013
9/26/2011	9:22:44	0.014
9/26/2011	9:37:44	0.015
9/26/2011	9:52:44	0.015
9/26/2011	10:07:44	0.015
9/26/2011	10:22:44	0.017
9/26/2011	10:37:44	0.029
9/26/2011	10:52:44	0.035
9/26/2011	11:07:44	0.027
9/26/2011	11:22:44	0.019
9/26/2011	11:37:44	0.018
9/26/2011	11:52:44	0.013
9/26/2011	12:07:44	0.012
9/26/2011	12:22:44	0.008
9/26/2011	12:37:44	0.008
9/26/2011	12:52:44	0.011
9/26/2011	13:07:44	0.012
9/26/2011	13:22:44	0.011
9/26/2011	13:37:44	0.016
9/26/2011	13:52:44	0.012
9/26/2011	14:07:44	0.012
9/26/2011	14:22:44	0.008
9/26/2011	14:37:44	0.008
9/26/2011	14:52:44	0.007
9/26/2011	15:07:44	0.007
9/26/2011	15:22:44	0.009
9/26/2011	15:37:44	0.008
9/26/2011	15:52:44	0.012

Location:		Downwind Dust
Date of Monitoring		10/6/2011
TrakPro Version 4.41 ASCII Data File		
Model: DustTrak 8520	Serial Number:	85200085
Test ID: 012	Log Interval (mm:ss)	1:00
Data Points: 174	Calibration Date:	5/17/2011
Statistics	Maximum:	0.023
	Average:	-0.002
	Minimum:	-0.005
Date	Time (hh:mm:ss)	Aerosol (mg/m ³)
10/6/2011	9:18:54	-0.003
10/6/2011	9:33:54	-0.002
10/6/2011	9:48:54	-0.001
10/6/2011	10:03:54	-0.003
10/6/2011	10:18:54	-0.001
10/6/2011	10:33:54	-0.003
10/6/2011	10:48:54	-0.003
10/6/2011	11:03:54	-0.003
10/6/2011	11:18:54	-0.002
10/6/2011	11:33:54	-0.004
10/6/2011	11:48:54	-0.004

Location:		Downwind Dust
Date of Monitoring		2/27/2012
TrakPro Version 4.41 ASCII Data File		
Model: DustTrak 8520	Serial Number:	85200169
Test ID: 012	Log Interval (mm:ss)	0:01
Data Points: 19971	Calibration Date:	1/27/2011
Statistics	Maximum:	0.500
	Average:	0.034
	Minimum:	0.019
Date	Time (hh:mm:ss)	Aerosol (mg/m ³)
2/27/2012	9:59:09	0.044
2/27/2012	10:14:09	0.038
2/27/2012	10:29:09	0.034
2/27/2012	10:44:09	0.033
2/27/2012	10:59:09	0.034
2/27/2012	11:14:09	0.034
2/27/2012	11:29:09	0.034
2/27/2012	11:44:09	0.034
2/27/2012	11:59:09	0.033
2/27/2012	12:14:09	0.034
2/27/2012	12:29:09	0.035
2/27/2012	12:44:09	0.035
2/27/2012	12:59:09	0.037
2/27/2012	13:14:09	0.034
2/27/2012	13:29:09	0.034
2/27/2012	13:44:09	0.033
2/27/2012	13:59:09	0.031
2/27/2012	14:14:09	0.029
2/27/2012	14:29:09	0.029
2/27/2012	14:44:09	0.028
2/27/2012	14:59:09	0.029
2/27/2012	15:14:09	0.030

Location:		Downwind Dust
Date of Monitoring		2/28/2012
TrakPro Version 4.41 ASCII Data File		
Model: DustTrak 8520	Serial Number:	85200169
Test ID: 2	Log Interval (mm:ss)	1:00
Data Points: 377	Calibration Date:	1/27/2011
Statistics	Maximum:	0.112
	Average:	0.020
	Minimum:	0.013
Date	Time (hh:mm:ss)	Aerosol (mg/m ³)
2/28/2012	7:35:38	0.040
2/28/2012	7:50:38	0.026
2/28/2012	8:05:38	0.024
2/28/2012	8:20:38	0.021
2/28/2012	8:35:38	0.021
2/28/2012	8:50:38	0.020
2/28/2012	9:05:38	0.020
2/28/2012	9:20:38	0.022
2/28/2012	9:35:38	0.021
2/28/2012	9:50:38	0.025
2/28/2012	10:05:38	0.021
2/28/2012	10:20:38	0.019
2/28/2012	10:35:38	0.020
2/28/2012	10:50:38	0.016
2/28/2012	11:05:38	0.015
2/28/2012	11:20:38	0.016
2/28/2012	11:35:38	0.018
2/28/2012	11:50:38	0.017
2/28/2012	12:05:38	0.017
2/28/2012	12:20:38	0.017
2/28/2012	12:35:38	0.018
2/28/2012	12:50:38	0.018
2/28/2012	13:05:38	0.020
2/28/2012	13:20:38	0.019

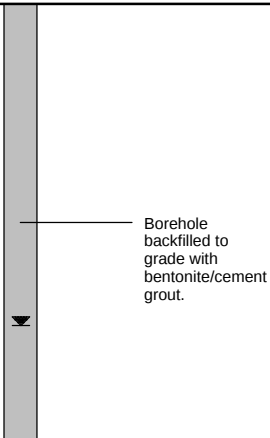
Location:		Downwind Dust
Date of Monitoring		2/29/2012
TrakPro Version 4.41 ASCII Data File		
Model: DustTrak 8520	Serial Number:	85200169
Test ID: 3	Log Interval (mm:ss)	1:00
Data Points: 457	Calibration Date:	1/27/2011
Statistics	Maximum:	0.134
	Average:	0.080
	Minimum:	0.050
Date	Time (hh:mm:ss)	Aerosol (mg/m ³)
2/29/2012	7:52:50	0.067
2/29/2012	8:07:50	0.061
2/29/2012	8:22:50	0.056
2/29/2012	8:37:50	0.054
2/29/2012	8:52:50	0.053
2/29/2012	9:07:50	0.052
2/29/2012	9:22:50	0.054
2/29/2012	9:37:50	0.054
2/29/2012	9:52:50	0.055
2/29/2012	10:07:50	0.057
2/29/2012	10:22:50	0.059
2/29/2012	10:37:50	0.069
2/29/2012	10:52:50	0.075
2/29/2012	11:07:50	0.077
2/29/2012	11:22:50	0.083
2/29/2012	11:37:50	0.087
2/29/2012	11:52:50	0.092
2/29/2012	12:07:50	0.095
2/29/2012	12:22:50	0.098
2/29/2012	12:37:50	0.098
2/29/2012	12:52:50	0.104
2/29/2012	13:07:50	0.108
2/29/2012	13:22:50	0.106
2/29/2012	13:37:50	0.106
2/29/2012	13:52:50	0.104
2/29/2012	14:07:50	0.104
2/29/2012	14:22:50	0.103
2/29/2012	14:37:50	0.094
2/29/2012	14:52:50	0.089
2/29/2012	15:07:50	0.085



Attachment 2

Soil Boring Logs

Date Start/Finish: 9/21/2011 - 9/30/2011 Drilling Company: Parratt Wolff Driller's Name: Brad Palmer Drilling Method: Hollow Stem Auger Casing Diameter: 4.25" ID Rig Type: CME-55 Sampling Method: 2" x 2' Split Spoon	Northing: 822991.5 Easting: 1068978 Borehole Depth: 6.8' bgs Surface Elevation: 657.14' AMSL Descriptions By: M. Eriksson/L. Terrell	Well/Boring ID: SB-01 Client: NYSEG Location: McMaster Street Former MGP Site Auburn, NY
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DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Blow Counts	N - Value	Geologic Column	Stratigraphic Description	Well/Boring Construction
660										
0		1	0-2	Grab	0.0	NA	NA		Brown fine SAND, some Silt, red Brick and Cobble fragments, trace Organics (fill material, very boney) and Clay.	
655		2	2-4	Grab	0.0	NA	NA			
5		3	5-6	0.3	0.0	9 5	NA		Dark brown fine, medium and coarse subangular GRAVEL, little fine, medium and coarse Sand and red Brick, trace Silt, loose, wet.	
		4	6-8	0.2	0.0	50/4"	NA		Auger refusal at 6.8' bgs.	
650									End of boring at 6.8' bgs.	
10										
645										
15										

	Remarks: bgs = below ground surface; NA = not applicable/available; AMSL = above mean sea level; VOC = volatile organic compound; SVOC = semi-volatile organic compound. Geotechnical samples collected from 0-4' bgs and 5-6.8' bgs. VOC/SVOC sample collected from 5-6.8' bgs. Blow counts are not available above 5 feet bgs due to hand clearing.
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Date Start/Finish: 9/20/2011 - 9/26/2011 Drilling Company: Parratt Wolff Driller's Name: Brad Palmer Drilling Method: Hollow Stem Auger Casing Diameter: 4.25" ID Rig Type: CME-55 Sampling Method: 2" x 2' Split Spoon	Northing: 823051.5 Easting: 1068985 Borehole Depth: 10.5' bgs Surface Elevation: 658.04' AMSL Descriptions By: Marcus Eriksson	Well/Boring ID: SB-02 Client: NYSEG Location: McMaster Street Former MGP Site Auburn, NY
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DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Blow Counts	N - Value	Geologic Column	Stratigraphic Description	Well/Boring Construction
660										
0		1	0-2	Grab	0.0	NA	NA		Gray/brown fine SAND, some Silt, little to some fine, medium and coarse Gravel, Organics (roots) and Cobbles, little red Brick and fire Brick, moist, non-plastic.	
655		2	2-4	Grab	0.0	NA	NA			
5		3	4-5	Grab	0.0	NA	NA		Trace Clay from 4.5' to 5.0' bgs.	
		4	5-6	0.8	0.0	4	6		Little Cinders and Coal.	
		5	6-8	1.1	0.0	NA	NA			
650		6	8-10	1.1	1.9	2	2		Dark gray/brown, some fine, medium and coarse Gravel and Silt, trace dark staining, sheen, faint MGP-like odor, saturated, non-plastic.	
10		7	10-12	0.5	0.0	NA	NA		Trace Clay from 9.5-10.5' bgs.	
									BEDROCK at 10.5' bgs.	
									End of boring at 10.5' bgs.	
645										
15										

 ARCADIS Infrastructure · Water · Environment · Buildings	Remarks: bgs = below ground surface; NA = not applicable/available; AMSL = above mean sea level; BTEX = benzene, toluene, ethylbenzene and xylenes; PAH = polycyclic aromatic hydrocarbons; MGP = manufactured gas plant. BTEX/PAH sample collected from 8-10.5' bgs. Blow counts are not available above 5 feet bgs due to hand clearing.
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Date Start/Finish: 9/20/2011 - 9/26/2011 Drilling Company: Parratt Wolff Driller's Name: Brad Palmer Drilling Method: Hollow Stem Auger Casing Diameter: 4.25" ID Rig Type: CME-55 Sampling Method: 2" x 2' Split Spoon	Northing: 823125.1 Easting: 1069002 Borehole Depth: 9.5' bgs Surface Elevation: 657.99' AMSL Descriptions By: Marcus Eriksson	Well/Boring ID: SB-03 Client: NYSEG Location: McMaster Street Former MGP Site Auburn, NY
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DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Blow Counts	N - Value	Geologic Column	Stratigraphic Description	Well/Boring Construction
660										
655		1	0-2	Grab	0.0	NA	NA		Brown fine SAND, little Silt and fine, medium and coarse Gravel, trace Organics (roots), Cobbles, moist, non-plastic.	
		2	2-4	Grab	0.0	NA	NA			
		3	4-5	Grab	0.0	NA	NA		Trace red Brick, fire Brick and Coal from 4-5' bgs.	
		4	5-6	0.6	0.0	4-7 5-5	12		Dark brown fine SAND and SILT, little Brick, fine to medium Gravel, and coal fragments, trace Clay, moist, non-plastic.	
		5	6-8	1.0	0.0	5 5 4 9	9		Trace Slag.	
650		6	8-10	0.9	0.0	9 7 50/4"	NA		Dark brown fine SAND, some Silt and fine, medium and coarse Gravel, trace Clay, saturated, non-plastic.	
									Auger refusal at 9.5' bgs; rock in tip of spoon.	
10									End of boring at 9.5' bgs.	
645										
15										

 ARCADIS <i>Infrastructure · Water · Environment · Buildings</i>	Remarks: bgs = below ground surface; NA = not applicable/available; AMSL = above mean sea level; BTEX = benzene, toluene, ethylbenzene and xylenes; PAH = polycyclic aromatic hydrocarbons. BTEX/PAH sample collected from 8-9.5' bgs. Blow counts are not available above 5 feet bgs due to hand clearing.
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Date Start/Finish: 9/20/2011 - 9/26/2011 Drilling Company: Parratt Wolff Driller's Name: Brad Palmer Drilling Method: Hollow Stem Auger Casing Diameter: 4.25" ID Rig Type: CME-55 Sampling Method: 2" x 2' Split Spoon	Northing: 823058.6 Easting: 1068964 Borehole Depth: 10.9' bgs Surface Elevation: 657.93' AMSL Descriptions By: Marcus Eriksson	Well/Boring ID: SB-04 Client: NYSEG Location: McMaster Street Former MGP Site Auburn, NY
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DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Blow Counts	N - Value	Geologic Column	Stratigraphic Description	Well/Boring Construction
660										
655		1	0-2	Grab	0.0	NA	NA		Dark brown/gray fine SAND, some fine, medium and coarse Gravel, little Silt and Cobbles, trace red Brick and Slag.	
		2	2-4	Grab	0.0	NA	NA		Trace Clay.	
		3	4-5	Grab	0.0	NA	NA			
		4	5-6	1.0	0.0	3 2	12			
		5	6-8	1.3	0.0	2 4 5 4	9		Trace fine Gravel.	
650									Saturated, non-plastic.	
		6	8-10	1.3	0.0	4 6 46 40	52		Gray/brown fine SAND and fine, medium and coarse GRAVEL, saturated, non-plastic.	
10		7	10-12	0.9	0.0	58 50/4"	NA		Weathered BEDROCK from 10.5-10.9' bgs.	
									End of boring at 10.9' bgs.	
645										
15										

 ARCADIS <i>Infrastructure · Water · Environment · Buildings</i>	Remarks: bgs = below ground surface; NA = not applicable/available; AMSL = above mean sea level; BTEX = benzene, toluene, ethylbenzene and xylenes; PAH = polycyclic aromatic hydrocarbons. BTEX/PAH sample collected from 8-10.9' bgs. Blow counts are not available above 5 feet bgs due to hand clearing.
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Date Start/Finish: 9/21/2011 - 9/27/2011 Drilling Company: Parratt Wolff Driller's Name: Brad Palmer Drilling Method: Hollow Stem Auger Casing Diameter: 4.25" ID Rig Type: CME-55 Sampling Method: 2" x 2' Split Spoon	Northing: 823309.8 Easting: 1068979 Borehole Depth: 15' bgs Surface Elevation: 663.86' AMSL Descriptions By: Marcus Eriksson	Well/Boring ID: SB-05 Client: NYSEG Location: McMaster Street Former MGP Site Auburn, NY
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DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Blow Counts	N - Value	Geologic Column	Stratigraphic Description	Well/Boring Construction
665										
0		1	0-2	Grab	0.0	NA	NA		Brown fine SAND, little to some fine, medium and coarse Gravel, trace Organics and Silt (very stiff).	
		2	2-4	NA	NA	NA	NA	x x x x x x x x x x	Large COBBLES, little red Brick and Concrete, trace fine Sand.	
660		3	4-5	NA	NA	NA	NA	x x x x x x		
5		4	5-7	0.9	0.0	5 2 2 3	4		Brown fine to medium SAND, little to some fine to medium Gravel and Silt, moist, non-plastic.	
		5	7-9	1.0	0.0	4 6 3 4	9			
655		6	9-11	1.7	0.0	7 6 11 10	17		Gray/brown fine SAND and fine, medium and coarse GRAVEL, little Cobble fragments, trace Coal and Silt, moist, non-plastic.	
10		7	11-13	1.0	0.0	9 7 16 11	23		Increasing Cobbles and Gravel with depth (no Coal).	
		8	13-15	2.0	24.3	11 9 6 50/5"	15		Moderate sheen, little NAPL blebs, moderate MGP-like odor.	
650										
15									End of boring at 15' bgs.	

 ARCADIS <i>Infrastructure · Water · Environment · Buildings</i>	Remarks: bgs = below ground surface; NA = not applicable/available; AMSL = above mean sea level; MGP = manufactured gas plant; NAPL = non-aqueous phase liquid. Geotechnical sample collected from 0-2' bgs. Blow counts are not available above 5 feet bgs due to hand clearing.
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Date Start/Finish: 9/21/2011 - 9/27/2011 Drilling Company: Parratt Wolff Driller's Name: Brad Palmer Drilling Method: Hollow Stem Auger Casing Diameter: 4.25" ID Rig Type: CME-55 Sampling Method: 2" x 2' Split Spoon	Northing: 823344.9 Easting: 1068964 Borehole Depth: 11.4' bgs Surface Elevation: 662.33' AMSL Descriptions By: Marcus Eriksson	Well/Boring ID: SB-06 Client: NYSEG Location: McMaster Street Former MGP Site Auburn, NY
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DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Blow Counts	N - Value	Geologic Column	Stratigraphic Description	Well/Boring Construction
665										
0		1	0-2	Grab	0.0	NA	NA		Dark brown fine to medium SAND, little Silt, fine, medium and coarse Gravel, Organics (roots, mainly 0-1' bgs), and Coal fragments, moist, non-plastic.	
660		2	2-4	Grab	0.0	NA	NA		Silt increasing with depth.	
5		3	4-5	Grab	0.0	NA	NA			
		4	5-6	1.0	0.0	2 2	NA		Trace Silt, fire Brick at 6' bgs.	
655		5	6-8	1.1	0.0	3 7 6 9	13		Trace Slag below 8' bgs.	
		6	8-10	1.2	0.0	2 2 4 6	6			
10		7	10-12	1.4	16.2	NA	NA		Little NAPL blebs throughout, sheen. Little fine to medium subrounded Gravel (till-like).	
650									End of boring at 11.4' bgs (BEDROCK).	
15										

	Remarks: bgs = below ground surface; NA = not applicable/available; AMSL = above mean sea level; NAPL = non-aqueous phase liquid. Geotechnical samples collected from 0-5' bgs, 5-10.7' bgs and 10.7-11.4' bgs. Blow counts are not available above 5 feet bgs due to hand clearing.
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Date Start/Finish: 9/21/2011 - 9/27/2011 Drilling Company: Parratt Wolff Driller's Name: Brad Palmer Drilling Method: Hollow Stem Auger Casing Diameter: 4.25" ID Rig Type: CME-55 Sampling Method: 2" x 2' Split Spoon	Northing: 823236.9 Easting: 1068933 Borehole Depth: 9.7' bgs Surface Elevation: 659.36' AMSL Descriptions By: Marcus Eriksson	Well/Boring ID: SB-07 Client: NYSEG Location: McMaster Street Former MGP Site Auburn, NY
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DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Blow Counts	N - Value	Geologic Column	Stratigraphic Description	Well/Boring Construction
660										
655		1	0-2	Grab	0.0	NA	NA		Dark brown fine SAND, little Silt, fine to medium Gravel, and Organics (roots), moist, non-plastic. Some to little Silt and fine, medium and coarse Gravel, trace Organics, Coal fragments and red Brick, moist, non-plastic.	Borehole backfilled to grade with bentonite/cement grout.
		2	2-4	Grab	4.9	NA	NA		Faint MGP-like odor at 3' bgs (increases with depth).	
		3	4-5	Grab	79.1	NA	NA		Strong MGP-like odor (4-9.2' bgs), dark staining, trace sheen.	
		4	5-6	0.6	118	4 11	NA		Wood in tip of spoon at 6' bgs.	
		5	6-8	0.8	20.5	4 17 27 23	44			
650		6	8-10	1.2	52.6	4 5 9 50/2"	14		Black fine to medium SAND and GRAVEL, little wood, rock in tip of shoe, heavy NAPL sheen, blebs, staining, saturated, non-plastic.	
10									End of boring at 9.7' bgs (BEDROCK).	
645										

 ARCADIS <i>Infrastructure · Water · Environment · Buildings</i>	Remarks: bgs = below ground surface; NA = not applicable/available; AMSL = above mean sea level; NAPL = non-aqueous phase liquid; MGP = manufactured gas plant. Geotechnical samples collected from 0-5' bgs and 5-9.7' bgs. Blow counts are not available above 5 feet bgs due to hand clearing.
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Date Start/Finish: 9/21/2011 - 9/28/2011 Drilling Company: Parratt Wolff Driller's Name: Brad Palmer Drilling Method: Hollow Stem Auger Casing Diameter: 4.25" ID Rig Type: CME-55 Sampling Method: 2" x 2' Split Spoon	Northing: 823328.1 Easting: 1068910 Borehole Depth: 11.9' bgs Surface Elevation: 661.73' AMSL Descriptions By: M. Eriksson/L. Terrell	Well/Boring ID: SB-08 Client: NYSEG Location: McMaster Street Former MGP Site Auburn, NY
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DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Blow Counts	N - Value	Geologic Column	Stratigraphic Description	Well/Boring Construction
0										
5	660	1	0-2	Grab	0.0	NA	NA		Dark brown fine to medium SAND, little to some fine, medium and coarse Gravel, little Silt, trace red Brick, Coal fragments (increasing with depth) and Organics, loose.	
		2	2-4	Grab	0.0	NA	NA			
		3	4-5	Grab	0.0	NA	NA		Trace yellow Brick below 5' bgs.	
		4	5-6	0.5	0.0	4 6	NA			
5	655	5	6-8	1.0	0.0	4 9 4 5	13		Dark brown and light brown/tan fine, medium and coarse SAND and fine, medium and coarse GRAVEL, some Silt, trace Clay, loose, moist.	
		6	8-10	0.6	0.0	4 4 5 4	9		Slight MGP-like odor from 8-10' bgs.	
10									Band of brown/black oil-like material between 10.2' and 10.3' bgs, trace sheen and MGP-like odor.	
	650	7	10-12	1.2	0.0	2 10 12 50/4"	22		Brown Clayey SILT, little fine subround Gravel, low plasticity, moist, very stiff.	
									Spoon refusal at 11.9' bgs.	
15									End of boring at 11.9' bgs.	

 ARCADIS Infrastructure · Water · Environment · Buildings	Remarks: bgs = below ground surface; NA = not applicable/available; AMSL = above mean sea level; NAPL = non-aqueous phase liquid; MGP = manufactured gas plant. Geotechnical samples collected from 0-5' bgs, 5-10' bgs and 10-12' bgs. Blow counts are not available above 5 feet bgs due to hand clearing.
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Date Start/Finish: 9/27/2011 Drilling Company: Parratt Wolff Driller's Name: Brad Palmer Drilling Method: Hollow Stem Auger Casing Diameter: 4.25" ID Rig Type: CME-55 Sampling Method: 2" x 2' Split Spoon	Northing: 823167.9 Easting: 1068950 Borehole Depth: 11.2' bgs Surface Elevation: 658.83' AMSL Descriptions By: Marcus Eriksson	Well/Boring ID: SB-09 Client: NYSEG Location: McMaster Street Former MGP Site Auburn, NY
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DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Blow Counts	N - Value	Geologic Column	Stratigraphic Description	Well/Boring Construction
660										
655		1	0-2	Grab	0.0	NA	NA		Dark brown fine SAND and subangular GRAVEL (run-a-crush).	 Borehole backfilled to grade with bentonite/cement grout.
		2	2-4	Grab	0.0	NA	NA		Dark brown fine SAND, some fine, medium and coarse Gravel, little Cobbles, red Brick and Silt, moist, non-plastic. Silt increases with depth.	
		3	4-5	Grab	0.0	NA	NA		Trace Clay and Cinders at 5' bgs.	
		4	5-6	0.5	0.0	4 4	NA		Dark brown fine SAND and SILT, little fine, medium and coarse Gravel, trace Clay (laminated), moist, non-plastic. Trace red Brick, faint MGP-like odor below 6' bgs.	
		5	6-8	1.0	0.0	2 6 7 7	13		Possible weathered Bedrock in shoe, saturated, non-plastic, increasing fine, medium and coarse Gravel with depth, faint MGP-like odor, trace sheen.	
650		6	8-10	0.6	0.0	4 6 4 26	10		Dark brown fine SAND and GRAVEL, little Silt and weathered Bedrock.	
10		7	10-12	1.2	42.5	17 27 50/2"	NA		Little to trace NAPL blebs at 11-11.2' bgs, moderate MGP-like odor, sheen.	
645									End of boring at 11.2' bgs (spoon refusal).	

 Infrastructure · Water · Environment · Buildings	Remarks: bgs = below ground surface; NA = not applicable/available; AMSL = above mean sea level; NAPL = non-aqueous phase liquid; MGP = manufactured gas plant. Geotechnical sample collected from 5-11.3' bgs. Blow counts are not available above 5 feet bgs due to hand clearing.
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Date Start/Finish: 9/22/2011 - 9/26/2011 Drilling Company: Parratt Wolff Driller's Name: Brad Palmer Drilling Method: Hollow Stem Auger Casing Diameter: 4.25" ID Rig Type: CME-55 Sampling Method: 2" x 2' Split Spoon	Northing: 823208.9 Easting: 1068864 Borehole Depth: 10.4' bgs Surface Elevation: 659.22' AMSL Descriptions By: Marcus Eriksson	Well/Boring ID: SB-10 Client: NYSEG Location: McMaster Street Former MGP Site Auburn, NY
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DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Blow Counts	N - Value	Geologic Column	Stratigraphic Description	Well/Boring Construction
660										
0		1	0-2	Grab	0.0	NA	NA		Dark brown SAND and GRAVEL (run-a-crush). Dark brown fine SAND, little fine Gravel and Coal fragments, trace Organics (3-4' bgs), red Brick, fire Brick and Cobbles, moist, non-plastic. Cobbles increasing with depth.	Borehole backfilled to grade with bentonite/cement grout.
		2	2-4	Grab	0.0	NA	NA			
655		3	4-5	Grab	0.0	NA	NA			
5		4	5-6	0.4	0.0	2 3	NA			
		5	6-8	0.8	17.3	2 3 7 7	10			
		6	8-10	1.0	119	4 3 2 3	5		Gray/brown fine SAND and SILT, little fine, medium and coarse Gravel and Clay, moist, non-plastic, trace sheen.	
650		7	10-12	0.4	0.0	50/4"	NA		Gray Weathered BEDROCK, little Clay, Silt and fine Sand, saturated, non-plastic; bedrock in shoe.	
10									End of boring at 10.4' bgs.	
645										
15										

 ARCADIS <i>Infrastructure · Water · Environment · Buildings</i>	Remarks: bgs = below ground surface; NA = not applicable/available; AMSL = above mean sea level; BTEX = benzene, toluene, ethylbenzene and xylenes; PAH = polycyclic aromatic hydrocarbons. Geotechnical sample collected from 0-5' bgs. BTEX/PAH sample collected from 8-10.4' bgs. Blow counts are not available above 5 feet bgs due to hand clearing.
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Date Start/Finish: 9/21/2011 - 9/28/2011 Drilling Company: Parratt Wolff Driller's Name: Brad Palmer Drilling Method: Hollow Stem Auger Casing Diameter: 4.25" ID Rig Type: CME-55 Sampling Method: 2" x 2' Split Spoon	Northing: 823392.4 Easting: 1068944 Borehole Depth: 14.7' bgs Surface Elevation: 663.50' AMSL Descriptions By: M. Eriksson/L. Terrell	Well/Boring ID: SB-11 Client: NYSEG Location: McMaster Street Former MGP Site Auburn, NY
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DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Blow Counts	N - Value	Geologic Column	Stratigraphic Description	Well/Boring Construction
665										
660		1	0-2	Grab	0.0	NA	NA		Brown fine SAND, little Organics (roots), fine to medium Gravel and Silt, moist, non-plastic. Some Silt, fine, medium and coarse Gravel and Cobble fragments, very stiff, moist, non-plastic.	
		2	2-4	Grab	0.0	NA	NA			
		3	4-5	Grab	0.0	NA	NA			
		4	5-6	1.0	0.0	4 6	NA		Dark brown SILT, little fine to medium Sand and fine to medium subangular Gravel, trace Organics, moist, non-plastic. Light brown, trace fine Sand, coarse subangular Gravel and Organics.	
		5	6-8	0.3	0.0	5 11 16 41	27			
655		6	8-10	1.0	0.0	7 8 13 20	21			
10		7	10-12	1.1	48.2	10 28 7 11	35		Dark brown to brown fine to medium SAND, SILT and fine, medium and coarse GRAVEL, dense, moist. Brown-black NAPL at 10.7' bgs (approx. 1" thick), MGP odor.	
		8	12-14	1.4	0.0	41 41 38 40	79		Brown fine to medium SAND and fine, medium and coarse subangular GRAVEL, little Silt, dense, very stiff, moist to dry. 0.5" band of brown-black NAPL, MGP odor.	
650		9	14-16	0.7	0.0	50/2"	NA		Trace brown-black NAPL blebs on outside of sample	
15									End of boring at 14.7' bgs.	

 ARCADIS Infrastructure · Water · Environment · Buildings	Remarks: bgs = below ground surface; NA = not applicable/available; AMSL = above mean sea level; MGP = manufactured gas plant; NAPL = non-aqueous phase liquid. Geotechnical samples collected from 0-5' bgs, 5-12' bgs and 12-14' bgs. Blow counts are not available above 5 feet bgs due to hand clearing.
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Date Start/Finish: 9/21/2011 - 9/28/2011 Drilling Company: Parratt Wolff Driller's Name: Brad Palmer Drilling Method: Hollow Stem Auger Casing Diameter: 4.25" ID Rig Type: CME-55 Sampling Method: 2" x 2' Split Spoon	Northing: 823396.7 Easting: 1068998 Borehole Depth: 12.4' bgs Surface Elevation: 663.55' AMSL Descriptions By: M. Eriksson/L. Terrell	Well/Boring ID: SB-12 Client: NYSEG Location: McMaster Street Former MGP Site Auburn, NY
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DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Blow Counts	N - Value	Geologic Column	Stratigraphic Description	Well/Boring Construction
665										
660		1	0-2	Grab	0.0	NA	NA		Dark brown fine SAND, little fine, medium and coarse Gravel and Organics, trace Shells and red Brick, moist, non-plastic. Increasing red-brown color with depth.	Borehole backfilled to grade with bentonite/cement grout.
		2	2-4	Grab	0.0	NA	NA			
		3	4-5	Grab	0.0	NA	NA			
		4	5-6	0.7	0.0	3 3	NA		Some Silt, little fine to medium subangular Gravel, trace Organics, Cinders and Coal, loose, moist.	
		5	6-8	0.2	0.0	3 3 4 4	6		Trace Slag at 8' bgs.	
655		6	8-10	0.8	0.0	2 2 2 4	4		Tan/pink fine, medium and coarse SAND and fine to medium subangular GRAVEL, loose, moist.	
10		7	10-12	1.3	0.0	2 1 1 5	2		Dark brown SILT, little fine Sand, trace Organics (wood), trace brown NAPL coating the wood, MGP odor, soft, moist.	
		8	12-14	0.4	0.0	50/4"	NA		No NAPL observed from 12-12.4' bgs.	
650									End of boring at 12.4' bgs (refusal).	
15										

 ARCADIS <i>Infrastructure · Water · Environment · Buildings</i>	Remarks: bgs = below ground surface; NA = not applicable/available; AMSL = above mean sea level; VOC = volatile organic compound; SVOC = semi-volatile organic compound; MGP = manufactured gas plant; NAPL = non-aqueous phase liquid. Geotechnical samples collected from 0-5' bgs, 5-10' bgs and 10-12' bgs. VOC/SVOC sample collected from 10.2-12.2' bgs. Blow counts are not available above 5 feet bgs due to hand clearing.
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Date Start/Finish: 10/6/11 Drilling Company: Parratt Wolff Driller's Name: Brad Palmer Drilling Method: Hollow Stem Auger Casing Diameter: 4.25" ID Rig Type: CME-55 Sampling Method: 2" x 2' Split Spoon	Northing: NA Easting: NA Borehole Depth: 10.8' bgs Surface Elevation: NA Descriptions By: Marcus Eriksson	Well/Boring ID: SB-13 Client: NYSEG Location: McMaster Street Former MGP Site Auburn, NY
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DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Blow Counts	N - Value	Geologic Column	Stratigraphic Description	Well/Boring Construction
0	0									
		1	0-2	Grab	0.0	NA	NA		Brown fine to medium SAND, little to some fine, medium and coarse Gravel, little Slag, Coal fragments, fire Brick and Organics (roots), trace Silt, moist, non-plastic.	Borehole backfilled to grade with bentonite/cement grout.
		2	2-4	Grab	0.0	NA	NA		Red/brown/gray fine, medium and coarse SAND and fine to medium GRAVEL, little Slag, Cinders, red Brick, fire Brick and Silt, trace Clay, moist, non-plastic.	
		3	4-5	Grab	0.0	NA	NA		Gray/brown SILT, little to some Clay, little fine Sand and fine to medium Gravel, moist, moderately plastic.	
-5	-5	4	5-7	1.5	0.0	3 3 3 3	6		Brown fine SAND, little Silt, little to trace Organics and fine to medium Gravel, moist, non-plastic.	
		5	7-9	1.4	0.0	5 7 7 9	14		Gray/brown SILT, little fine, medium and coarse Gravel, trace Clay and fine Sand (possible Till).	
		6	9-10.8	1.4	0.0	14 36 45 50/3"	81		Gravel content increases with depth (some) below 9' bgs. Trace sheen, very faint MGP-like odor.	
-10	-10								Weathered BEDROCK.	
									End of boring at 10.8' bgs (auger refusal).	
-15	-15									

 ARCADIS Infrastructure · Water · Environment · Buildings	Remarks: bgs = below ground surface; NA = not applicable/available; BTEX = benzene, toluene, ethylbenzene and xylenes; PAH = polycyclic aromatic hydrocarbons; MGP = manufactured gas plant. Geotechnical samples collected from 0-4.5' bgs and 5-6.5' bgs. BTEX/PAH sample collected from 9-10.8' bgs. Blow counts are not available above 5 feet bgs due to hand clearing.
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Date Start/Finish: 10/6/11 Drilling Company: Parratt Wolff Driller's Name: Brad Palmer Drilling Method: Hollow Stem Auger Casing Diameter: 4.25" ID Rig Type: CME-55 Sampling Method: 2" x 2' Split Spoon	Northing: NA Easting: NA Borehole Depth: 9.3' bgs Surface Elevation: NA Descriptions By: Marcus Eriksson	Well/Boring ID: SB-14 Client: NYSEG Location: McMaster Street Former MGP Site Auburn, NY
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DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Blow Counts	N - Value	Geologic Column	Stratigraphic Description	Well/Boring Construction
0	0									
		1	0-2	Grab	0.0	NA	NA		Gray/brown RUN-A-CRUSH, little fine to medium Sand, moist, non-plastic.	 Borehole backfilled to grade with bentonite/cement grout.
		2	2-4	Grab	0.0	NA	NA		Dark brown fine to medium SAND, some fine, medium and coarse Gravel, little to trace Silt, trace Cobbles, Coal fragments and red Brick, moist, non-plastic.	
									Asphalt-like layer at 4' bgs, little Cinders.	
-5	-5	3	4-5	Grab	0.0	NA	NA		Gray/brown SILT, little fine Sand, Clay and fine to medium Gravel, moist, moderately plastic.	
		4	5-7	1.2	0.0	5 12 8 6	20		COBBLE.	
		5	7-9	0.6	0.0	4 5 5 6	10		Gray-brown fine, medium and coarse subangular GRAVEL and fine, medium and coarse SAND, trace Silt and Clay, saturated, non-plastic.	
		6	9-10.8	0.3	NA	100/3"	NA		Weathered BEDROCK.	
-10	-10								End of boring at 9.3' bgs (auger refusal).	
-15	-15									

 Infrastructure · Water · Environment · Buildings	Remarks: bgs = below ground surface; NA = not applicable/available; BTEX = benzene, toluene, ethylbenzene and xylenes; PAH = polycyclic aromatic hydrocarbons. Geotechnical samples collected from 0-4' bgs and 5-9' bgs. BTEX/PAH sample collected from 7-9.3' bgs. Blow counts are not available above 5 feet bgs due to hand clearing.
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Date Start/Finish: 10/6/11 Drilling Company: Parratt Wolff Driller's Name: Brad Palmer Drilling Method: Hollow Stem Auger Casing Diameter: 4.25" ID Rig Type: CME-55 Sampling Method: 2" x 2' Split Spoon	Northing: NA Easting: NA Borehole Depth: 8.9' bgs Surface Elevation: NA Descriptions By: Marcus Eriksson	Well/Boring ID: SB-15 Client: NYSEG Location: McMaster Street Former MGP Site Auburn, NY
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DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Blow Counts	N - Value	Geologic Column	Stratigraphic Description	Well/Boring Construction
0	0									
		1	0-2	Grab	0.0	NA	NA		Gray/brown fine SAND and SILT, little fine, medium and coarse Gravel and red Brick, trace Clay, moist, non-plastic.	 Borehole backfilled to grade with bentonite/cement grout.
		2	2-4	Grab	NA	NA	NA		Concrete encountered at 2.4' bgs; relocated boring. CONCRETE (augered through to 5' bgs).	
		3	4-5	Grab	NA	NA	NA			
-5	-5	4	5-7	1.2	0.0	2 3 2 5	5		Gray/brown fine SAND and SILT, little fine to medium subangular Gravel, trace Clay and red Brick, saturated, non-plastic.	
		5	7-9	1.0	0.0	5 7 7 65/4"	14		Gravel increases with depth below 7' bgs. Possible weathered Bedrock in shoe.	
-10	-10								End of boring at 8.9' bgs.	
-15	-15									

 ARCADIS <i>Infrastructure · Water · Environment · Buildings</i>	Remarks: bgs = below ground surface; NA = not applicable/available; BTEX = benzene, toluene, ethylbenzene and xylenes; PAH = polycyclic aromatic hydrocarbons. Geotechnical samples collected from 0-2' bgs and 5-8' bgs. BTEX/PAH sample collected from 7-8.9' bgs. Blow counts are not available above 5 feet bgs due to hand clearing.
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Date Start/Finish: 10/6/11 Drilling Company: Parratt Wolff Driller's Name: Brad Palmer Drilling Method: Hollow Stem Auger Casing Diameter: 4.25" ID Rig Type: CME-55 Sampling Method: 2" x 2' Split Spoon	Northing: NA Easting: NA Borehole Depth: 4.3' bgs Surface Elevation: NA Descriptions By: Marcus Eriksson	Well/Boring ID: SB-16 Client: NYSEG Location: McMaster Street Former MGP Site Auburn, NY
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DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Blow Counts	N - Value	Geologic Column	Stratigraphic Description	Well/Boring Construction
0	0									
		1	0-2	1.0	0.0	4 4 2 2	6		Brown fine SAND, little to some Silt, little Organics (roots) and fine to medium Gravel, trace Coal and red Brick, moist, non-plastic. Brick and Coal decreases with depth.	
		2	2-4	1.2	0.0	3 3 6 47	9		Possible weathered Bedrock in shoe.	
		3	4-6	0.1	0.0	75/3"	NA		End of boring at 4.3' bgs (auger refusal).	
-5	-5									
-10	-10									
-15	-15									

	Remarks: bgs = below ground surface; NA = not applicable/available; BTEX = benzene, toluene, ethylbenzene and xylenes; PAH = polycyclic aromatic hydrocarbons. Geotechnical sample collected from 0-4' bgs. BTEX/PAH sample collected from 2-4.3' bgs.
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Date Start/Finish: 10/6/11 Drilling Company: Parratt Wolff Driller's Name: Brad Palmer Drilling Method: Hollow Stem Auger Casing Diameter: 4.25" ID Rig Type: CME-55 Sampling Method: 2" x 2' Split Spoon	Northing: NA Easting: NA Borehole Depth: 4.3' bgs Surface Elevation: NA Descriptions By: Marcus Eriksson	Well/Boring ID: SB-17 Client: NYSEG Location: McMaster Street Former MGP Site Auburn, NY
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DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Blow Counts	N - Value	Geologic Column	Stratigraphic Description	Well/Boring Construction
0	0									
		1	0-2	1.2	0.0	3 4 24 16	28		Gray/brown fine to medium SAND, little fine to medium Gravel, Organics (peat, roots) and Silt, trace red Brick, saturated, non-plastic.	
		2	2-4	1.0	0.0	4 20 16 4	36		Faint MGP-like odor below 2' bgs.	
		3	4-6	0.3	0.0	50/3"	NA		Gray weathered BEDROCK.	
-5	-5								End of boring at 4.3' bgs (auger refusal).	
-10	-10									
-15	-15									

 ARCADIS Infrastructure · Water · Environment · Buildings	Remarks: bgs = below ground surface; NA = not applicable/available; BTEX = benzene, toluene, ethylbenzene and xylenes; PAH = polycyclic aromatic hydrocarbons; MGP = manufactured gas plant. Geotechnical sample collected from 0-4' bgs. BTEX/PAH sample collected from 2-4.3' bgs.
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Date Start/Finish: 2-28-12/2-29-12 Drilling Company: Parratt Wolff Driller's Name: M. Marshall Drilling Method: HSA Auger Size: 3.25" ID Rig Type: IR-8200 Sampling Method: 2" x 2' Splitspoon	Northing: 1068999.49 Easting: 823412.47 Casing Elevation: NA Borehole Depth: 13.4' bgs. Surface Elevation: NA Descriptions By: MWE	Well/Boring ID: SB-18 Client: NYSEG Location: McMaster Street Former MGP Site Auburn, New York
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DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blow Counts	N - Value	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
0	0									
		1	0-2	Grab	NA	NA	0.0		Grey/brown fine SAND, some fine to medium subangular Gravel, little Silt, trace Organics (roots) (M,NP)	Cement/Bentonite Grout (0-13.4' bgs.)
		2	2-4	Grab	NA	NA	0.0		dark Brown fine SAND, little to some Silt, little fine to medium subangular Gravel, trace Organics (roots) (M,NP)	
		3	4-5	Grab	NA	NA	0.0			
5	-5	4	5-6	0.8	4 1	NA	0.0		dark Brown fine to medium SAND, little fine to medium subangular Gravel, trace Silt, red Brick, Coal (M,NP)	
		5	6-8	1.2	1 2 2 3	4	0.0		Brown CLAY, little fine Sand, Silt, Coal, trace red Brick (M,MP)	
		6	8-10	0.9	3 3 2 1	5	0.0			
10	-10	7	10-12	2.0	1 1 2 1	3	0.0		Brown PEAT, little Silt, fine Sand, trace Clay, fine Gravel (S,NP)	
		8	12-14	1.0	1 4 50/4	54	0.0		Weathered ROCK, little to trace fine Sand, Silt (rock in shoe) (S,NP)	
									Bottom of Boring at 13.4' bgs.	
15	-15									



Remarks: bgs = below ground surface; ND = non-detect; NA = not available/applicable; NR = no recovery; M = moist; S = saturated; NP = non-plastic; P = plastic; MP = moderately plastic

SB-18 (12-13.4') sampled for BTEX and PAHs

Date Start/Finish: 2-28-12/2-29-12 Drilling Company: Parratt Wolff Driller's Name: M. Marshall Drilling Method: HSA Auger Size: 3.25" ID Rig Type: IR-8200 Sampling Method: 2" x 2' Splitspoon	Northing: 1068980.85 Easting: 823424.95 Casing Elevation: NA Borehole Depth: 13.1' bgs. Surface Elevation: NA Descriptions By: MWE	Well/Boring ID: SB-19 Client: NYSEG Location: McMaster Street Former MGP Site Auburn, New York
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DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blow Counts	N - Value	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
0	0									
		1	0-2	Grab	NA	NA	0.0		Grey/brown fine to medium SAND, little fine to medium subangular Gravel, Silt, trace Organics (leaves, roots) (M,NP)	
		2	2-4	Grab	NA	NA	0.0			
		3	4-5	Grab	NA	NA	0.0			
5	-5	4	5-6	0.6	5 5	NA	0.0		dark Brown fine SAND and SILT, little red Brick, fine to medium subangular Gravel, trace Clay (M,NP)	
		5	6-8	0.9	4 4 4 3	8	0.0			
		6	8-10	0.5	3 3 1 2	4	0.0			
10	-10	7	10-12	1.0	1 1 5 3	6	3.9		dark Brown fine SAND and fine to medium subangular GRAVEL, little Silt, trace red Brick (S,NP) faint to moderate MGP-like odor (10.4-13.1' bgs.)	
		8	12-14	1.0	6 50	100	13.0		Grey Weathered ROCK, little fine Sand (S,NP)	
									Bottom of Boring at 13.1' bgs.	
15	-15									

Cement/Bentonite Grout (0-13.1' bgs.)



Remarks: bgs = below ground surface; ND = non-detect; NA = not available/applicable; NR = no recovery; M = moist; S = saturated; NP = non-plastic; P = plastic; MP = moderately plastic

SB-19 (12-13.1') sampled for BTEX and PAHs

Date Start/Finish: 2-28-12/3-1-12 Drilling Company: Parratt Wolff Driller's Name: M. Marshall Drilling Method: HSA Auger Size: 3.25" ID Rig Type: IR-8200 Sampling Method: 2" x 2' Splitspoon	Northing: 1068832.06 Easting: 823244.12 Casing Elevation: NA Borehole Depth: 9.0' bgs. Surface Elevation: NA Descriptions By: MWE	Well/Boring ID: SB-20 Client: NYSEG Location: McMaster Street Former MGP Site Auburn, New York
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DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blow Counts	N - Value	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
0	0									
		1	0-2	Grab	NA	NA	0.0		dark Brown fine to medium SAND, little fine to medium subangular Gravel, Coal, trace Slag, Silt, Organics (roots) (M,NP)	
		2	2-4	Grab	NA	NA	0.0			
5	-5	3	4-5	Grab	NA	NA	0.0		Brown fine SAND, some Silt, little Clay, fine to coarse subangular Gravel (M,NP)	
		4	5-6	1.0	2 2	NA	0.7		Grey/brown CLAY, little fine Sand, Silt, fine to medium subangular Gravel, trace red Brick, Coal (M,NP)	
		5	6-8	0.3	8 7 10 16	17	0.0		Grey/brown fine SAND and GRAVEL (weathered) (S,NP)	
		6	8-10	0.8	8 50/2	50+	0.0			
10	-10								Bottom of Boring at 9' bgs.	
15	-15									



Remarks: bgs = below ground surface; ND = non-detect; NA = not available/applicable; NR = no recovery; M = moist; S = saturated; NP = non-plastic; P = plastic; MP = moderately plastic

SB-20 (8-9') sampled for BTEX and PAHs

Date Start/Finish: 2-27-12/2-29-12 Drilling Company: Parratt Wolff Driller's Name: M. Marshall Drilling Method: HSA Auger Size: 3.25" ID Rig Type: IR-8200 Sampling Method: 2" x 2' Splitspoon	Northing: 1068824.00 Easting: 823210.06 Casing Elevation: NA Borehole Depth: 9.2' bgs. Surface Elevation: NA Descriptions By: MWE	Well/Boring ID: SB-21 Client: NYSEG Location: McMaster Street Former MGP Site Auburn, New York
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DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blow Counts	N - Value	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
0	0									
		1	0-2	Grab	NA	NA	0.0		dark Brown fine to medium SAND, little Silt, fine to medium subangular Gravel, little to trace Organics (roots) (M,NP)	Cement/Bentonite Grout (0-9.2' bgs.)
		2	2-4	Grab	NA	NA	0.0			
		3	4-5	Grab	NA	NA	0.0		dark Brown fine to medium SAND, some fine to medium subangular Gravel, trace red Brick, fire Brick, Silt (S,NP)	
5	-5	4	5-6	0.7	1 4	NA	0.0		Grey SILT, some fine Sand, little fine to medium subangular Gravel, little Clay (till-like) (M,NP)	
		5	6-8	1.2	3 2 2 3	4	0.0		Grey/brown fine SAND, some to little Silt, little fine to medium subangular Gravel, trace Clay, Organics (roots) (S,NP)	
		6	8-10	0.7	17 4 50/2	54	0.0		Grey/brown Weathered ROCK, some fine Sand, little Silt (S,NP)	
10	-10								Bottom of Boring at 9.2' bgs.	
15	-15									



Remarks: bgs = below ground surface; ND = non-detect; NA = not available/applicable; NR = no recovery; M = moist; S = saturated; NP = non-plastic; P = plastic; MP = moderately plastic

SB-21 (8-8.7') sampled for BTEX and PAHs

Date Start/Finish: 2-27-12/3-1-12 Drilling Company: Parratt Wolff Driller's Name: M. Marshall Drilling Method: HSA Auger Size: 3.25" ID Rig Type: IR-8200 Sampling Method: 2" x 2' Splitspoon	Northing: 1068841.58 Easting: 823191.76 Casing Elevation: NA Borehole Depth: 9.7' bgs. Surface Elevation: NA Descriptions By: MWE	Well/Boring ID: SB-22 Client: NYSEG Location: McMaster Street Former MGP Site Auburn, New York
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DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blow Counts	N - Value	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
0	0									
		1	0-2	Grab	NA	NA	0.0		dark Brown fine to medium SAND, little fine to medium subangular Gravel, Silt, trace Organics (wood) (M,NP)	Cement/Bentonite Grout (0-9.7' bgs.)
		2	2-4	Grab	NA	NA	0.0		Red/dark brown fine SAND, little fine to coarse Gravel, Silt, trace Slag, Coal (M,NP)	
		3	4-5	Grab	NA	NA	0.0		Red/brown fine SAND, some Silt, fine to coarse subangular Gravel, little fire Brick, trace Clay, red Brick, Organics (roots) (S,NP)	
5	-5	4	5-6	NR	4 4	NA	NA		No Recovery	
		5	6-8	1.2	4 4 7 8	4	6.1		Grey/brown CLAY, little fine Sand, Silt, red Brick, fine Gravel, trace Coal (S,MP)	
		6	8-10	1.5	4 2 2 50/2	54	0.0		Grey Weathered ROCK, little fine Sand, Silt (S,NP)	
10	-10								Bottom of Boring at 9.7' bgs.	
15	-15									

	Remarks: bgs = below ground surface; ND = non-detect; NA = not available/applicable; NR = no recovery; M = moist; S = saturated; NP = non-plastic; P = plastic; MP = moderately plastic SB-22 (6-7.2') sampled for BTEX and PAHs
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Date Start/Finish: 2-28-12/3-1-12 Drilling Company: Parratt Wolff Driller's Name: M. Marshall Drilling Method: HSA Auger Size: 3.25" ID Rig Type: IR-8200 Sampling Method: 2" x 2' Splitspoon	Northing: 1068848.58 Easting: 823226.39 Casing Elevation: NA Borehole Depth: 9.5' bgs. Surface Elevation: NA Descriptions By: MWE	Well/Boring ID: SB-23 Client: NYSEG Location: McMaster Street Former MGP Site Auburn, New York
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DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blow Counts	N - Value	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
0	0									
		1	0-2	Grab	NA	NA	0.0		dark Brown fine to medium SAND, little fine to medium subangular Gravel, trace Organics (roots), Coal, Silt (M,NP)	
		2	2-4	Grab	NA	NA	0.0			
5	-5	3	4-5	Grab	NA	NA	NA		Grey COBBLES, little fine brown Sand (M,NP)	
		4	5-6	1.0	3 3	NA	0.8		Grey fine SAND, little Silt, fine to medium subangular Gravel, trace Clay (S,NP)	
		5	6-8	1.2	3 4 7 10	4	0.0			
		6	8-10	0.7	6 7 9 50/3	54	1.2		Grey/brown fine to coarse GRAVEL (weathered rock), little Silt, fine Sand (S,NP)	
10	-10								Bottom of Boring at 9.5' bgs.	
15	-15									

Cement/Bentonite Grout (0-9.5' bgs.)



Remarks: bgs = below ground surface; ND = non-detect; NA = not available/applicable; NR = no recovery; M = moist; S = saturated; NP = non-plastic; P = plastic; MP = moderately plastic

SB-23 (8-8.7') sampled for BTEX and PAHs
 *MS/MSD

Date Start/Finish: 2-28-12/2-29-12 Drilling Company: Parratt Wolff Driller's Name: M. Marshall Drilling Method: HSA Auger Size: 3.25" ID Rig Type: IR-8200 Sampling Method: 2" x 2' Splitspoon	Northing: 1068897.98 Easting: 823208.54 Casing Elevation: NA Borehole Depth: 8.9' bgs. Surface Elevation: NA Descriptions By: MWE	Well/Boring ID: SB-24 Client: NYSEG Location: McMaster Street Former MGP Site Auburn, New York
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DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blow Counts	N - Value	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
0	0									
		1	0-2	Grab	NA	NA	0.0		dark Brown fine to medium SAND, little to some fine to medium subangular Gravel, trace Silt, red Brick (M,NP)	Cement/Bentonite Grout (0-8.9' bgs.)
		2	2-4	Grab	NA	NA	0.0		dark Brown fine SAND, some medium to coarse subangular Gravel, red Brick, little fire Brick, Coal, trace Silt (M,NP)	
5	-5	3	4-5	Grab	NA	NA	NA			
		4	5-6	0.5	50/5	50+	0.8		dark Brown fine to medium SAND, some fine to medium subangular Gravel, little Coal, red Brick, trace fire Brick (M,NP)	
		5	6-8	1.2	3 6 3 4	9	0.0		Brown fine SAND, some Silt, fine to medium subangular Gravel, trace red Brick, fire Brick (M,NP)	
		6	8-10	0.9	1 50/8	50+	1.2		Brown fine SAND and SILT, some fine to medium subangular Gravel (weathered rock) (S,NP)	
10	-10								Bottom of Boring at 8.9' bgs.	
15	-15									

	Remarks: bgs = below ground surface; ND = non-detect; NA = not available/applicable; NR = no recovery; M = moist; S = saturated; NP = non-plastic; P = plastic; MP = moderately plastic SB-24 (8-8.9') sampled for BTEX and PAHs
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Date Start/Finish: 2-27-12/2-29-12 Drilling Company: Parratt Wolff Driller's Name: M. Marshall Drilling Method: HSA Auger Size: 3.25" ID Rig Type: IR-8200 Sampling Method: 2" x 2' Splitspoon	Northing: 1068922.54 Easting: 823183.27 Casing Elevation: NA Borehole Depth: 10.4' bgs. Surface Elevation: NA Descriptions By: MWE	Well/Boring ID: SB-25 Client: NYSEG Location: McMaster Street Former MGP Site Auburn, New York
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DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blow Counts	N - Value	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
0	0									
		1	0-2	Grab	NA	NA	0.0		dark Brown fine to medium SAND, little fine subangular Gravel, red Brick, trace Silt (M,NP)	Cement/Bentonite Grout (0-10.4' bgs.)
									red Brick, Slag, fire Brick at 2.0' bgs. (floor/wall like)	
		2	2-4	Grab	NA	NA	0.0		Grey medium to coarse COBBLES, little brown fine Sand, Silt (M,NP)	
		3	4-5	Grab	NA	NA	0.0		Grey/brown fine SAND and SILT, little fine to medium subangular Gravel, trace Coal, Clay (M,NP)	
-5	-5	4	5-6	0.6	4 3	NA	0.0		faint MGP-like odor (7-10.4' bgs)	
		5	6-8	0.5	2 2 2	4	3.2		Grey Weathered ROCK, little Silt, fine Sand (S,NP)	
-10	-10	6	8-10	2.0	8 4 7 41	11	3.5		Bottom of Boring at 10.4' bgs.	
		7	10-12	0.4	50/4	50+	2.4			
-15	-15									

	Remarks: bgs = below ground surface; ND = non-detect; NA = not available/applicable; NR = no recovery; M = moist; S = saturated; NP = non-plastic; P = plastic; MP = moderately plastic SB-25 (8-10.4') sampled for BTEX and PAHs
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Date Start/Finish: 2-27-12/2-29-12 Drilling Company: Parratt Wolff Driller's Name: M. Marshall Drilling Method: HSA Auger Size: 3.25" ID Rig Type: IR-8200 Sampling Method: 2" x 2' Splitspoon	Northing: 1068889.06 Easting: 823191.13 Casing Elevation: NA Borehole Depth: 10.6' bgs. Surface Elevation: NA Descriptions By: MWE	Well/Boring ID: SB-26 Client: NYSEG Location: McMaster Street Former MGP Site Auburn, New York
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DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blow Counts	N - Value	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
0	0									
		1	0-2	Grab	NA	NA	0.0		dark Brown fine to medium SAND, little fine to medium subangular Gravel, red Brick, trace Silt, fire Brick (M,NP)	Cement/Bentonite Grout (0-10.6' bgs.)
		2	2-4	Grab	NA	NA	0.0		Red BRICK, some fire Brick (possible wall, E to W direction) (M,NP)	
		3	4-5	Grab	NA	NA	0.0		dark Brown fine SAND and fine to medium subangular GRAVEL, little red Brick, trace Coal (M,NP)	
5	-5	4	5-6	0.6	14 12	NA	2.4		WOOD (possible wood blocking) faint MGP-like odor (M,NP)	
		5	6-8	1.2	5 4 4 2	8	2.5		Grey/brown fine SAND and SILT, little fine to medium subangular Gravel, little to trace Wood (M,NP) faint MGP-like odor	
		6	8-10	1.0	8 9 8 7	17	3.2		Brown/grey fine SAND, some Silt, little Clay, fine to medium subangular Gravel (till-like), Silt, fine Sand (S,NP)	
10	-10	7	10-12	0.6	26 50/1	50+	3.5		Grey/brown Weathered ROCK, little Silt, fine Sand (S,NP) faint MGP-like odor	
									Bottom of Boring at 10.6' bgs.	
15	-15									



Remarks: bgs = below ground surface; ND = non-detect; NA = not available/applicable; NR = no recovery; M = moist; S = saturated; NP = non-plastic; P = plastic; MP = moderately plastic

SB-26 (8-10.6') sampled for BTEX and PAHs



Attachment 3

Data Usability Summary Report

(on Compact Disc)

**NYSEG McMaster Street
Former MGP Site**

Data Usability Summary Report (DUSR)

AUBURN, NEW YORK

Volatile and Semivolatile Organic Compounds
(VOCs and SVOCs) Analyses

SDG #s: 480-10396 and 480-10509

Analyses Performed By:
TestAmerica Laboratories
Buffalo, New York

Report #: 15107R
Review Level: Tier III
Project: B0013049.0007.00016

SUMMARY

This data quality assessment summarizes the review of Sample Delivery Groups (SDGs) # 480-10396 and 480-10509 for samples collected in association with the NYSEG McMaster Street Former MGP site in Auburn, New York. The review was conducted as a Tier III evaluation and included review of data package completeness. Only analytical data associated with constituents of concern were reviewed for this validation. Field documentation was not included in this review. Included with this assessment are the validation annotated sample result sheets, and chain of custody. Analyses were performed on the following samples:

SDG	Sample ID	Lab ID	Matrix	Sample Collection Date	Parent Sample	Analysis				
						VOC	SVOC	PCB	MET	MISC
480-10396	SB-10 (8-10.4)	480-10396-1	Soil	9/26/2011		X	X			
	SB-03 (8-9.5)	480-10396-2	Soil	9/26/2011		X	X			
	SB-02 (8-10.5)	480-10396-3	Soil	9/26/2011		X	X			
	SB-04 (8-10.9)	480-10396-4	Soil	9/26/2011		X	X			
	SB-01 (5-6.8)	480-10576-1	Soil	9/30/2011		X	X			
	BD-093011	480-10576-2	Soil	9/30/2011	SB-01 (5-6.8)	X	X			
	MSB-13 (9-10.8)	480-10967-1	Soil	10/6/2011		X	X			
	MSB-14 (7-9.3)	480-10967-2	Soil	10/6/2011		X	X			
	MSB-15 (7-8.9)	480-10967-3	Soil	10/6/2011		X	X			
	MSB-16 (2-4.3)	480-10967-4	Soil	10/6/2011		X	X			
	MSB-17 (2-4.3)	480-10967-5	Soil	10/6/2011		X	X			
480-10509	SB-12 (10.2-12.2)	480-10509-1	Soil	9/28/2011		X	X			

Note: Sample results were reported on a dry-weight basis.

ANALYTICAL DATA PACKAGE DOCUMENTATION

The table below is the evaluation of the data package completeness.

Items Reviewed	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
1. Sample receipt condition		X		X	
2. Requested analyses and sample results		X		X	
3. Master tracking list		X		X	
4. Methods of analysis		X		X	
5. Reporting limits		X		X	
6. Sample collection date		X		X	
7. Laboratory sample received date		X		X	
8. Sample preservation verification (as applicable)		X		X	
9. Sample preparation/extraction/analysis dates		X		X	
10. Fully executed Chain-of-Custody (COC) form		X		X	
11. Narrative summary of QA or sample problems provided		X		X	
12. Data Package Completeness and Compliance		X		X	

QA - Quality Assurance

ORGANIC ANALYSIS INTRODUCTION

Analyses were performed according to United States Environmental Protection Agency (USEPA) SW-846 Methods 8260B and 8270C as referenced in NYSDEC-ASP. Data were reviewed in accordance with USEPA National Functional Guidelines of October 1999 and USEPA Region II SOPs associated with USEPA SW-846 Validating Volatile Organic Compounds by GC/MS SW-846 Method 8260B (SOP HW-24 Revision 2, October 2006) and Validating Semivolatile Organic Compounds by GC/MS SW-846 Method 8270D (SOP HW-22 Revision 3, October 2006).

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with USEPA National Functional Guidelines:

- Concentration (C) Qualifiers
 - U The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
 - B The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.
- Quantitation (Q) Qualifiers
 - E The compound was quantitated above the calibration range.
 - D Concentration is based on a diluted sample analysis.
- Validation Qualifiers
 - J The compound was positively identified; however, the associated numerical value is an estimated concentration only.
 - UJ The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.
 - JN The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.
 - UB Compound considered non-detect at the listed value due to associated blank contamination.
 - N The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification.
 - R The sample results are rejected as unusable. The compound may or may not be present in the sample.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

VOLATILE ORGANIC COMPOUND (VOC) ANALYSES

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
SW-846 8260B	Water	14 days from collection to analysis	Cool to 4±2 °C; pH < 2 with HCl
	Soil	48 hours from collection to extraction and 14 days from collection to analysis	Cool to 4±2 °C

All samples were analyzed within the specified holding time criteria.

2. Blank Contamination

Quality assurance (QA) blanks (i.e. laboratory method blanks, trip blanks, and equipment rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Trip blanks measure sample storage contamination. Rinse blanks also measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

All compounds associated with the QA blanks exhibited a concentration less than the MDL, with the exception of the compounds listed in the following table. Sample results associated with QA blank contamination that were greater than the BAL resulted in the removal of the laboratory qualifier (B) of data. Sample results less than the BAL associated with the following sample locations were qualified as listed in the following table.

Sample Locations	Analytes	Sample Result	Qualification
MSB-13 (9-10.8) MSB-14 (7-9.3) MSB-15 (7-8.9) MSB-16 (2-4.3) MSB-17 (2-4.3)	m&p-Xylenes Total Xylenes	Detected sample results < RL and < BAL	"UB" at the RL

RL Reporting limit

3. Mass Spectrometer Tuning

Mass spectrometer performance was acceptable and all analyses were performed within a 12-hour tune clock.

System performance and column resolution were acceptable.

4. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

4.1 Initial Calibration (ICV)

The method specifies percent relative standard deviation (%RSD) and relative response factor (RRF) limits for select compounds only. A technical review of the data applies limits to all compounds with no exceptions.

All target compounds associated with the initial calibration standards must exhibit a %RSD less than the control limit (15%) or a correlation coefficient greater than 0.99, and a RRF value greater than control limit (0.05).

4.2 Continuing Calibration (CCV)

All target compounds associated with the continuing calibration standard must exhibit a percent difference (%D) less than the control limit (20%) and RRF value greater than control limit (0.05).

All compounds associated with the calibrations were within the specified control limits.

5. Surrogates/System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. VOC analysis requires that all surrogates associated with the analysis exhibit recoveries within the laboratory-established acceptance limits.

All surrogate recoveries were within the control limits.

6. Internal Standard Performance

Internal standard performance criteria insure that the GC/MS sensitivity and response are stable during every sample analysis. The criteria requires the internal standard compounds associated with the VOC analysis exhibit area counts that are not greater than two times (+100%) or less than one-half (-50%) of the area counts of the associated continuing calibration standard.

All internal standard area counts were within the control limits.

7. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis

MS/MSD data are used to assess the precision and accuracy of the analytical method. The spiked compounds used in the MS/MSD analysis must exhibit recoveries within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS and MSD results must be within the laboratory-established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSDs performed on sample locations where the compound concentration detected in the parent sample exceeds the MS/MSD spiking concentration by a factor of four or greater. Sample results associated with MS/MSD exceedances where the parent samples are not site-specific are not qualified.

Sample location SB-01 (5-6.8) was used in the MS/MSD analysis. Sample locations associated with the MS/MSD exhibiting recoveries outside of the control limits are presented in the following table.

Sample Location	Compounds	MS Recovery	MSD Recovery
SB-01 (5-6.8)	Benzene Toluene Ethylbenzene m&p-Xylenes o-Xylene	< LL but > 10%	< LL but > 10%

The criteria used to evaluate the MS/MSD recoveries are presented in the following table. In the case of MS/MSD deviations, the sample results are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> the upper control limit (UL)	Non-detect	No Action
	Detect	J
< the lower control limit (LL) but > 10%	Non-detect	UJ
	Detect	J
< 10%	Non-detect	R
	Detect	J
Parent sample concentration > 4x the MS/MSD spiking solution concentration.	Detect	No Action
	Non-detect	

8. Laboratory Control Sample (LCS) Analysis

The LCS analysis is used to assess the accuracy of the analytical method independent of matrix interferences. The spiked compounds used in the LCS analysis must exhibit recoveries within the laboratory-established acceptance limits.

All compounds associated with the LCS analyses exhibited recoveries within the control limits.

9. Field Duplicate Sample Analysis

The field duplicate sample analysis is used to assess the precision of the field sampling procedures and analytical method. A control limit of 50% for water matrices and 100% for soil matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to five times the reporting limit (RL), a control limit of two times the RL is applied for water matrices or three times the RL is applied for soil matrices.

Results for the field duplicate samples are summarized in the following table.

Sample ID/Duplicate ID	Compound	Sample Result	Duplicate Result	RPD
SB-01 (5-6.8) / BD-093011	All Compounds	U	U	AC

AC Acceptable
U Not detected

The field duplicate sample results are acceptable.

10. Compound Identification

Compounds are identified on the GC/MS by using the analytes relative retention time and ion spectra.

All identified compounds met the specified criteria.

11. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

DATA VALIDATION CHECKLIST FOR VOCs

VOCs: SW-846 8260B	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)					
Tier II Validation					
Holding times		X		X	
Reporting limits (units)		X		X	
Blanks					
A. Method blanks		X		X	
B. Equipment/Field blanks					X
C. Trip blanks		X		X	
Laboratory Control Sample (LCS) Accuracy (%R)		X		X	
Laboratory Control Sample Duplicate (LCSD) %R					X
LCS/LCSD Precision (RPD)					X
Matrix Spike (MS) %R		X	X		
Matrix Spike Duplicate (MSD) %R		X	X		
MS/MSD Precision RPD		X		X	
Field/Laboratory Duplicate Sample RPD		X		X	
Surrogate Spike %R		X		X	
Dilution Factor		X		X	
Moisture Content		X		X	
Tier III Validation					
System performance and column resolution		X		X	
Initial calibration %RSDs		X		X	
Continuing calibration RRFs		X		X	
Continuing calibration %Ds		X		X	
Instrument tune and performance check		X		X	
Ion abundance criteria for each instrument used		X		X	
Internal standard		X		X	
Compound identification and quantitation					
A. Reconstructed ion chromatograms		X		X	
B. Quantitation Reports		X		X	
C. RT of sample compounds within the established RT windows		X		X	
D. Quantitation transcriptions/calculations		X		X	
E. Reporting limits adjusted for sample dilutions		X		X	

%R Percent recovery
 RPD Relative percent difference
 %RSD Relative standard deviation
 %D Percent difference

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYSES

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
SW-846 8270C	Water	7 days from collection to extraction and 40 days from extraction to analysis	Cool to 4±2 °C
	Soil	14 days from collection to extraction and 40 days from extraction to analysis	Cool to 4±2 °C

All samples were extracted and analyzed within the specified holding time criteria.

2. Blank Contamination

Quality assurance (QA) blanks (i.e. laboratory method blanks and equipment rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Target compounds were not detected above the MDL in the associated blanks; therefore detected sample results were not associated with blank contamination.

3. Mass Spectrometer Tuning

Mass spectrometer performance was acceptable and all analyses were performed within a 12-hour tune clock.

System performance and column resolution are acceptable.

4. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

4.1 Initial Calibration Verification (ICV)

The method specifies percent relative standard deviation (%RSD) and relative response factor (RRF) limits for select compounds only. A technical review of the data applies limits to all compounds with no exceptions.

All target compounds associated with the initial calibration standards must exhibit a %RSD less than the control limit (15%) or a correlation coefficient greater than 0.99 and an RRF value greater than control limit (0.05).

4.2 Continuing Calibration Verification (CCV)

All target compounds associated with the continuing calibration standard must exhibit a percent difference (%D) less than the control limit (20%) and RRF value greater than control limit (0.05).

All compounds associated with the calibrations were within the specified control limits.

5. Surrogates/System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. SVOC analysis requires that two of the three SVOC surrogate compounds within each fraction exhibit recoveries within the laboratory-established acceptance limits, and that all SVOC surrogate recoveries be greater than ten percent.

All surrogate recoveries were within the control limits.

6. Internal Standard Performance

Internal standard performance criteria insure that the GC/MS sensitivity and response are stable during every sample analysis. The criteria requires the internal standard compounds associated with the SVOC analysis exhibit area counts that are not greater than two times (+100%) or less than one-half (-50%) of the area counts of the associated continuing calibration standard.

All internal standard responses were within the control limits.

7. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis

MS/MSD data are used to assess the precision and accuracy of the analytical method. The compounds used to perform the MS/MSD analysis must exhibit recoveries within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS and MSD results must be within the laboratory-established or analytical method-referenced acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations where the compound concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater. Sample results associated with MS/MSD exceedances where the parent samples are not site-specific are not qualified.

Sample location SB-01 (5-6.8) was used in the MS/MSD analysis. Sample locations associated with the MS/MSD exhibiting recoveries outside of the control limits are presented in the following table.

Sample Location	Compounds	MS Recovery	MSD Recovery
SB-01 (5-6.8)	Benz(a)anthracene Benzo(a)pyrene Benzo(b)fluoranthene Benzo(g,h,i)perylene Chrysene	AC	> UL

Sample Location	Compounds	MS Recovery	MSD Recovery
SB-01 (5-6.8)	Fluoranthene Phenanthrene Pyrene	AC	> UL

AC Acceptable

UL Upper control limit

The criteria used to evaluate the MS/MSD recoveries are presented in the following table. In the case of MS/MSD deviations, the sample results are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> the upper control limit (UL)	Non-detect	No Action
	Detect	J
< the lower control limit (LL) but > 10%	Non-detect	UJ
	Detect	J
< 10%	Non-detect	R
	Detect	J
Parent sample concentration > 4x the MS/MSD spiking solution concentration.	Detect	No Action
	Non-detect	

Sample locations associated with MS/MSDs exhibiting RPDs greater than of the control limit are presented in the following table.

Sample Locations	Compound
SB-01 (5-6.8)	Benz(a)anthracene Benzo(a)pyrene Benzo(b)fluoranthene Benzo(g,h,i)perylene Benzo(k)fluoranthene Chrysene Dibenz(a,h)anthracene Fluoranthene Indeno(1,2,3-c,d)pyrene Phenanthrene Pyrene

The criteria used to evaluate the RPD between the MS and MSD are presented in the following table. In the case of RPD deviations, the sample results are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> UL	Non-detect	UJ
	Detect	J

8. Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) Analysis

The LCS/LCSD analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS/LCSD analysis must exhibit recoveries and relative percent differences (RPDs) between the LCS and LCSD results within the laboratory-established or analytical method-referenced acceptance limits.

All compounds associated with the LCS/LCSD analysis exhibited recoveries and RPDs within the method-referenced control limits.

9. Field Duplicate Sample Analysis

The field duplicate sample analysis is used to assess the precision of the field sampling procedures and analytical method. A control limit of 50% for water matrices and 100% for soil matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to five times the reporting limit (RL), a control limit of two times the RL is applied for water matrices or three times the RL is applied for soil matrices.

Results (in µg/kg) for the field duplicate samples are summarized in the following table.

Sample ID/Duplicate ID	Compound	Sample Result	Duplicate Result	RPD
SB-01 (5-6.8) / BD-093011	Acenaphthene	140 J	98 J	AC
	Acenaphthylene	130 J	170 J	AC
	Anthracene	440 J	380 J	AC
	Benz(a)anthracene	1500	1400	6.9 %
	Benzo(a)pyrene	1400	1300	7.4 %
	Benzo(b)fluoranthene	1600	1300	20.7 %
	Benzo(g,h,i)perylene	940 J	890 J	AC
	Benzo(k)fluoranthene	640 J	800 J	AC
	Chrysene	1400	1400	0 %
	Fluoranthene	3000	2800	6.9 %
	Fluorene	140 J	140 J	AC
	Indeno(1,2,3-c,d)pyrene	770 J	750 J	AC
	Naphthalene	1000 U	130 J	AC
	Phenanthrene	2200	2100	4.7 %
	Pyrene	2800	2600	7.4 %
	2-Methylnaphthalene	43 J	59 J	AC
	Dibenzofuran	110 J	100 J	AC

AC Acceptable

J Estimated (result is < RL)

U Not detected

The field duplicate sample results are acceptable.

10. Compound Identification

Compounds are identified on the GC/MS by using the analytes relative retention time and ion spectra.

All identified compounds met the specified criteria.

11. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

DATA VALIDATION CHECKLIST FOR SVOCs

SVOCs: SW-846 8270C	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)					
Tier II Validation					
Holding Times		X		X	
Reporting Limits (units)		X		X	
Blanks					
A. Method Blanks		X		X	
B. Equipment/Field Blanks					X
Laboratory Control Sample (LCS) Accuracy (%R)		X		X	
Laboratory Control Sample Duplicate (LCSD) %R		X		X	
LCS/LCSD Precision (RPD)		X		X	
Matrix Spike (MS) %R		X	X		
Matrix Spike Duplicate (MSD) %R		X	X		
MS/MSD RPD		X	X		
Field/Laboratory Duplicate Sample RPD		X		X	
Surrogate Spike %R		X		X	
Dilution Factor		X		X	
Moisture Content		X		X	
Tier III Validation					
System Performance and Column Resolution		X		X	
Initial Calibration %RSDs		X		X	
Continuing Calibration RRFs		X		X	
Continuing Calibration %Ds		X		X	
Instrument Tune and Performance Check		X		X	
Ion Abundance Criteria for Each Instrument Used		X		X	
Internal Standards		X		X	
Compound Identification and Quantitation					
A. Reconstructed Ion Chromatograms		X		X	
B. Quantitation Reports		X		X	
C. RT of Sample Compounds Within the Established RT Windows		X		X	
D. Quantitation transcriptions/calculations		X		X	
E. Reporting Limits Adjusted for Sample Dilutions		X		X	

%R Percent Recovery
 RPD Relative Percent Difference
 %RSD Relative Standard Deviation
 %D Percent Difference

SAMPLE COMPLIANCE REPORT

Sample Delivery Group (SDG)	Sampling Date	Protocol	Sample ID	Matrix	Compliance ¹					Noncompliance
					VOC	SVOC	PCB	MET	MISC	
480-10396	9/26/2011	SW846	SB-10 (8-10.4)	Soil	Yes	Yes	--	--	--	
	9/26/2011	SW846	SB-03 (8-9.5)	Soil	Yes	Yes	--	--	--	
	9/26/2011	SW846	SB-02 (8-10.5)	Soil	Yes	Yes	--	--	--	
	9/26/2011	SW846	SB-04 (8-10.9)	Soil	Yes	Yes	--	--	--	
	9/30/2011	SW846	SB-01 (5-6.8)	Soil	No	No	--	--	--	VOC: MS/MSD %R SVOC: MS/MSD %R, RPD
	9/30/2011	SW846	BD-093011	Soil	Yes	Yes	--	--	--	
	10/6/2011	SW846	MSB-13 (9-10.8)	Soil	No	Yes	--	--	--	VOC: Blank contamination
	10/6/2011	SW846	MSB-14 (7-9.3)	Soil	No	Yes	--	--	--	VOC: Blank contamination
	10/6/2011	SW846	MSB-15 (7-8.9)	Soil	No	Yes	--	--	--	VOC: Blank contamination
	10/6/2011	SW846	MSB-16 (2-4.3)	Soil	No	Yes	--	--	--	VOC: Blank contamination
	10/6/2011	SW846	MSB-17 (2-4.3)	Soil	No	Yes	--	--	--	VOC: Blank contamination
480-10509	9/28/2011	SW846	SB-12 (10.2-12.2)	Soil	Yes	Yes	--	--	--	

- 1 Samples which are compliant with no added validation qualifiers are listed as "yes". Samples which are non-compliant or which have added qualifiers are listed as "no". A "no" designation does not necessarily indicate that the data have been rejected or are otherwise unusable

Validation Performed By: Dennis Dyke

Signature: _____

Date: November 29, 2011

Peer Review: Dennis Capria

Date: December 4, 2011

**CHAIN OF CUSTODY /
CORRECTED SAMPLE ANALYSIS DATA SHEETS**

10/20/2011

Contract & Company Name JOHN ZIMANSKI		Telephone 315 446 9126	Preservative E	Container Information Key: 1. 40 ml Vial 2. 1 L Amber 3. 250 ml Plastic 4. 500 ml Plastic 5. Encoke 6. 2 oz. Glass 7. 4 oz. Glass 8. 8 oz. Glass 9. Other 10. Other
City 6723 Towpath Rd		State NY	Zip 13214	Container Information Key: A. H ₂ SO ₄ B. HCl C. HNO ₃ D. NaOH E. None F. Other G. Other H. Other
Project Name/Location (City, State) SYRACUSE NY 13214		Project # 80013049	Matrix Key: SE - Sediment SW - Sample Wipe A - Air Other	
Site/Project Name MOHAWK ST, AUBURN NY 13001		Sample # LEVIT 1600-CL	Matrix Key: SE - Sediment SW - Sample Wipe A - Air Other	
Sample ID	Collection	Type (V)	Grab	Matrix
SB-01 (5-6.8)	9-30-11 0950	X		S
BD-023061	9-30-11	X		S

Special Instructions/Comments: IMP NOT HAVE ENOUGH SAMPLE TO SEND SEPARATE MS/PAH SAMPLES		Received By REX L. L. REX L. L.	Refined/Revised By REX L. L. REX L. L.	Laboratory Received By REX L. L. REX L. L.
Lab Name IA BUFFALO	Laboratory Information and Receipt COOLER CUSTODY SEAL (✓)	Project Name LEVIA TEEBEE	Project Name LEVIA TEEBEE	Project Name LEVIA TEEBEE
☐ Cooler packed with ice (✓)	☐ Inlet ☐ Not Inlet	Signature REX L. L.	Signature REX L. L.	Signature REX L. L.
Sample Receipt HAH STANDARD	Condition/Coiler Temp	Project Name LEVIA TEEBEE	Project Name LEVIA TEEBEE	Project Name LEVIA TEEBEE
Shipping Tracking #		Project Name LEVIA TEEBEE	Project Name LEVIA TEEBEE	Project Name LEVIA TEEBEE

Distribution: WHITE - Laboratory returns with results		Distribution: YELLOW - Lab copy		Distribution: PINK - Retained by ARCADIS	
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Contact & Company Name		Region		Preservative		Matrix		Type (V)		Collection		Sample ID		REMARKS	
Address		City		State		Matrix		Type (V)		Date		Sample ID		REMARKS	
Jason Brian		315-446-9120		PAH-8100		BTEX-8100		X		10-6-11 1300		MSB-13(9-10.8)			
6723 Towpath Rd		PAH-8100		BTEX-8100		X		X		10-6-11 1400		MSB-14(7-9.3)			
City		State		Matrix		Type (V)		X		10-6-11 1410		MSB-15(7-4.9)			
SYNCRUE		PAH-8100		BTEX-8100		X		X		10-6-11 1530		MSB-16(2-4.3)			
BOD13049		PAH-8100		BTEX-8100		X		X		10-6-11 1600		MSB-17(2-4.3)			
Marcus Eriksson		PAH-8100		BTEX-8100		X		X							
Project Name/Location (City, State)		Region		Preservative		Matrix		Type (V)		Collection		Sample ID		REMARKS	
BOD13049		PAH-8100		BTEX-8100		X		X							
City		State		Matrix		Type (V)		X							
SYNCRUE		PAH-8100		BTEX-8100		X		X							
BOD13049		PAH-8100		BTEX-8100		X		X							
Marcus Eriksson		PAH-8100		BTEX-8100		X		X							

Special Instructions/Comments:

Laboratory Information and Receipt		Received By		Relinquished By		Relinquished By	
Cooler Custody Seal (✓)		Printed Name		Printed Name		Printed Name	
Cooler packed with ice (✓)		Signature		Signature		Signature	
Sample Receipt:		Date/Time		Date/Time		Date/Time	
Condition/Cooler Temp:		Date/Time		Date/Time		Date/Time	
Condition/Cooler Temp:		Date/Time		Date/Time		Date/Time	
Condition/Cooler Temp:		Date/Time		Date/Time		Date/Time	

Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 480-10396-1

Client Sample ID: SB-10 (8-10.4)

Lab Sample ID: 480-10396-1

Date Sampled: 09/26/2011 1100

Client Matrix: Solid

% Moisture: 19.2

Date Received: 09/28/2011 1030

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	480-33610	Instrument ID:	HP5973F
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	F4327.D
Dilution:	1.0			Initial Weight/Volume:	5.04 g
Analysis Date:	10/01/2011 1613			Final Weight/Volume:	5 mL
Prep Date:	10/01/2011 1613				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Benzene		ND		0.30	6.1
Toluene		ND		0.46	6.1
Ethylbenzene		ND		0.42	6.1
m-Xylene & p-Xylene		ND		1.0	12
o-Xylene		ND		0.80	6.1
Xylenes, Total		ND		1.0	12

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	102		64 - 126
Toluene-d8 (Surr)	102		71 - 125
4-Bromofluorobenzene (Surr)	95		72 - 126

Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 480-10396-1

Client Sample ID: SB-03 (8-9.5)

Lab Sample ID: 480-10396-2

Date Sampled: 09/26/2011 1300

Client Matrix: Solid

% Moisture: 17.2

Date Received: 09/28/2011 1030

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	480-33610	Instrument ID:	HP5973F
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	F4328.D
Dilution:	1.0			Initial Weight/Volume:	5.02 g
Analysis Date:	10/01/2011 1638			Final Weight/Volume:	5 mL
Prep Date:	10/01/2011 1638				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Benzene		ND		0.29	6.0
Toluene		ND		0.45	6.0
Ethylbenzene		ND		0.41	6.0
m-Xylene & p-Xylene		ND		1.0	12
o-Xylene		ND		0.79	6.0
Xylenes, Total		ND		1.0	12

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	99		64 - 126
Toluene-d8 (Surr)	101		71 - 125
4-Bromofluorobenzene (Surr)	94		72 - 126

Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 480-10396-1

Client Sample ID: SB-02 (8-10.5)

Lab Sample ID: 480-10396-3

Date Sampled: 09/26/2011 1415

Client Matrix: Solid

% Moisture: 17.7

Date Received: 09/28/2011 1030

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	480-33610	Instrument ID:	HP5973F
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	F4329.D
Dilution:	1.0			Initial Weight/Volume:	5.17 g
Analysis Date:	10/01/2011 1704			Final Weight/Volume:	5 mL
Prep Date:	10/01/2011 1704				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Benzene		ND		0.29	5.9
Toluene		ND		0.44	5.9
Ethylbenzene		ND		0.41	5.9
m-Xylene & p-Xylene		ND		0.99	12
o-Xylene		ND		0.77	5.9
Xylenes, Total		ND		0.99	12

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	102		64 - 126
Toluene-d8 (Surr)	101		71 - 125
4-Bromofluorobenzene (Surr)	94		72 - 126

Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 480-10396-1

Client Sample ID: SB-04 (8-10.9)

Lab Sample ID: 480-10396-4

Date Sampled: 09/26/2011 1545

Client Matrix: Solid

% Moisture: 9.5

Date Received: 09/28/2011 1030

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	480-33610	Instrument ID:	HP5973F
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	F4330.D
Dilution:	1.0			Initial Weight/Volume:	5 g
Analysis Date:	10/01/2011 1729			Final Weight/Volume:	5 mL
Prep Date:	10/01/2011 1729				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Benzene		ND		0.27	5.5
Toluene		ND		0.42	5.5
Ethylbenzene		ND		0.38	5.5
m-Xylene & p-Xylene		ND		0.93	11
o-Xylene		ND		0.72	5.5
Xylenes, Total		ND		0.93	11

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	102		64 - 126
Toluene-d8 (Surr)	100		71 - 125
4-Bromofluorobenzene (Surr)	96		72 - 126

Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 480-10396-1

Client Sample ID: SB-01 (5-6.8)

Lab Sample ID: 480-10576-1

Date Sampled: 09/30/2011 0950

Client Matrix: Solid

% Moisture: 19.5

Date Received: 10/01/2011 0915

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	480-33978	Instrument ID:	HP5973P
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	P5647.D
Dilution:	1.0			Initial Weight/Volume:	5.02 g
Analysis Date:	10/05/2011 0702			Final Weight/Volume:	5 mL
Prep Date:	10/05/2011 0702				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Benzene		ND	UJ	0.30	6.2
Toluene		ND		0.47	6.2
Ethylbenzene		ND		0.43	6.2
m-Xylene & p-Xylene		ND		1.0	12
o-Xylene		ND		0.81	6.2
Xylenes, Total		ND		1.0	12

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	86		64 - 126
Toluene-d8 (Surr)	90		71 - 125
4-Bromofluorobenzene (Surr)	86		72 - 126

Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 480-10396-1

Client Sample ID: BD-093011

Lab Sample ID: 480-10576-2

Date Sampled: 09/30/2011 0000

Client Matrix: Solid

% Moisture: 14.1

Date Received: 10/01/2011 0915

8260B Volatile Organic Compounds (GC/MS)

Analysis Method: 8260B

Analysis Batch: 480-33978

Instrument ID: HP5973P

Prep Method: 5030B

Prep Batch: N/A

Lab File ID: P5650.D

Dilution: 1.0

Initial Weight/Volume: 5.15 g

Analysis Date: 10/05/2011 0817

Final Weight/Volume: 5 mL

Prep Date: 10/05/2011 0817

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Benzene		ND		0.28	5.6
Toluene		ND		0.43	5.6
Ethylbenzene		ND		0.39	5.6
m-Xylene & p-Xylene		ND		0.95	11
o-Xylene		ND		0.74	5.6
Xylenes, Total		ND		0.95	11

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	89		64 - 126
Toluene-d8 (Surr)	91		71 - 125
4-Bromofluorobenzene (Surr)	89		72 - 126

Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 480-10396-1

Client Sample ID: MSB-13 (9-10.8)

Lab Sample ID: 480-10967-1

Date Sampled: 10/06/2011 1300

Client Matrix: Solid

% Moisture: 6.2

Date Received: 10/08/2011 0850

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	480-35031	Instrument ID:	HP5973P
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	P5767.D
Dilution:	1.0			Initial Weight/Volume:	5.05 g
Analysis Date:	10/12/2011 1326			Final Weight/Volume:	5 mL
Prep Date:	10/12/2011 1326				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Benzene		ND		0.26	5.3
Toluene		0.80	J	0.40	5.3
Ethylbenzene		ND		0.36	5.3
m-Xylene & p-Xylene		ND 1.2	UB 1.2	0.89 1.2	11
o-Xylene		ND		0.69	5.3
Xylenes, Total		ND 1.2	UB 1.2	0.89 1.2	11
Surrogate		%Rec	Qualifier	Acceptance Limits	
1,2-Dichloroethane-d4 (Surr)		75		64 - 126	
Toluene-d8 (Surr)		83		71 - 125	
4-Bromofluorobenzene (Surr)		88		72 - 126	

Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 480-10396-1

Client Sample ID: MSB-14 (7-9.3)

Lab Sample ID: 480-10967-2

Date Sampled: 10/06/2011 1405

Client Matrix: Solid

% Moisture: 16.4

Date Received: 10/08/2011 0850

8260B Volatile Organic Compounds (GC/MS)

Analysis Method: 8260B

Analysis Batch: 480-35031

Instrument ID: HP5973P

Prep Method: 5030B

Prep Batch: N/A

Lab File ID: P5768.D

Dilution: 1.0

Initial Weight/Volume: 5.13 g

Analysis Date: 10/12/2011 1351

Final Weight/Volume: 5 mL

Prep Date: 10/12/2011 1351

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Benzene		ND		0.29	5.8
Toluene		0.97	J	0.44	5.8
Ethylbenzene		ND		0.40	5.8
m-Xylene & p-Xylene		1.3 ND	JB UB	0.98	12
o-Xylene		ND		0.76	5.8
Xylenes, Total		1.3 ND	JB UB	0.98	12
Surrogate		%Rec	Qualifier	Acceptance Limits	
1,2-Dichloroethane-d4 (Surr)		80		64 - 126	
Toluene-d8 (Surr)		87		71 - 125	
4-Bromofluorobenzene (Surr)		91		72 - 126	

Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 480-10396-1

Client Sample ID: MSB-15 (7-8.9)

Lab Sample ID: 480-10967-3

Date Sampled: 10/06/2011 1440

Client Matrix: Solid

% Moisture: 23.5

Date Received: 10/08/2011 0850

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	480-35031	Instrument ID:	HP5973P
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	P5769.D
Dilution:	1.0			Initial Weight/Volume:	5.22 g
Analysis Date:	10/12/2011 1416			Final Weight/Volume:	5 mL
Prep Date:	10/12/2011 1416				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Benzene		ND		0.31	6.3
Toluene		1.3	J	0.47	6.3
Ethylbenzene		ND		0.43	6.3
m-Xylene & p-Xylene		1.2 ND	UB UB	1.1	13
o-Xylene		ND		0.82	6.3
Xylenes, Total		1.2 ND	UB UB	1.1	13

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	85		64 - 126
Toluene-d8 (Surr)	88		71 - 125
4-Bromofluorobenzene (Surr)	92		72 - 126

Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 480-10396-1

Client Sample ID: MSB-16 (2-4.3)

Lab Sample ID: 480-10967-4

Date Sampled: 10/06/2011 1530

Client Matrix: Solid

% Moisture: 27.3

Date Received: 10/08/2011 0850

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	480-35031	Instrument ID:	HP5973P
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	P5770.D
Dilution:	1.0			Initial Weight/Volume:	5.26 g
Analysis Date:	10/12/2011 1442			Final Weight/Volume:	5 mL
Prep Date:	10/12/2011 1442				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Benzene		ND		0.32	6.5
Toluene		1.1	J	0.49	6.5
Ethylbenzene		ND		0.45	6.5
m-Xylene & p-Xylene		1.2 ND	LB UB	1.1	13
o-Xylene		ND		0.85	6.5
Xylenes, Total		1.2 ND	LB UB	1.1	13
Surrogate		%Rec	Qualifier	Acceptance Limits	
1,2-Dichloroethane-d4 (Surr)		82		64 - 126	
Toluene-d8 (Surr)		87		71 - 125	
4-Bromofluorobenzene (Surr)		90		72 - 126	

Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 480-10396-1

Client Sample ID: MSB-17 (2-4.3)

Lab Sample ID: 480-10967-5

Date Sampled: 10/06/2011 1600

Client Matrix: Solid

% Moisture: 38.4

Date Received: 10/08/2011 0850

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	480-35031	Instrument ID:	HP5973P
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	P5771.D
Dilution:	1.0			Initial Weight/Volume:	5.31 g
Analysis Date:	10/12/2011 1507			Final Weight/Volume:	5 mL
Prep Date:	10/12/2011 1507				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Benzene		ND		0.37	7.6
Toluene		1.4	J	0.58	7.6
Ethylbenzene		ND		0.53	7.6
m-Xylene & p-Xylene		1.8 ND	UB UB	1.3	15
o-Xylene		ND		1.0	7.6
Xylenes, Total		1.8 ND	UB UB	1.3	15
Surrogate		%Rec	Qualifier	Acceptance Limits	
1,2-Dichloroethane-d4 (Surr)		85		64 - 126	
Toluene-d8 (Surr)		89		71 - 125	
4-Bromofluorobenzene (Surr)		93		72 - 126	

Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 480-10396-1

Client Sample ID: SB-10 (8-10.4)

Lab Sample ID: 480-10396-1

Date Sampled: 09/26/2011 1100

Client Matrix: Solid

% Moisture: 19.2

Date Received: 09/28/2011 1030

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	480-33584	Instrument ID:	HP5973V
Prep Method:	3550B	Prep Batch:	480-33544	Lab File ID:	V5791.D
Dilution:	1.0			Initial Weight/Volume:	+30.58 g
Analysis Date:	10/03/2011 0425			Final Weight/Volume:	1 mL
Prep Date:	09/30/2011 1659			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		ND		2.4	210
Acenaphthylene		ND		1.7	210
Anthracene		ND		5.2	210
Benz(a)anthracene		35	J	3.5	210
Benzo(a)pyrene		43	J	4.9	210
Benzo(b)fluoranthene		39	J	4.0	210
Benzo(g,h,i)perylene		35	J	2.5	210
Benzo(k)fluoranthene		25	J	2.3	210
Chrysene		32	J	2.1	210
Dibenz(a,h)anthracene		ND		2.4	210
Fluoranthene		44	J	3.0	210
Fluorene		ND		4.7	210
Indeno(1,2,3-c,d)pyrene		29	J	5.7	210
Naphthalene		ND		3.4	210
Phenanthrene		25	J	4.3	210
Pyrene		44	J	1.3	210
2-Methylnaphthalene		ND		2.5	210
Dibenzofuran		ND		2.1	210

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5	56		34 - 132
2-Fluorobiphenyl	64		37 - 120
p-Terphenyl-d14	90		58 - 147

Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 480-10396-1

Client Sample ID: SB-03 (8-9.5)

Lab Sample ID: 480-10396-2

Date Sampled: 09/26/2011 1300

Client Matrix: Solid

% Moisture: 17.2

Date Received: 09/28/2011 1030

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	480-33584	Instrument ID:	HP5973V
Prep Method:	3550B	Prep Batch:	480-33544	Lab File ID:	V5792.D
Dilution:	10			Initial Weight/Volume:	+30.49 g
Analysis Date:	10/03/2011 0448			Final Weight/Volume:	1 mL
Prep Date:	09/30/2011 1659			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		3700		24	2000
Acenaphthylene		1100	J	16	2000
Anthracene		9100		51	2000
Benz(a)anthracene		8600		35	2000
Benzo(a)pyrene		7000		48	2000
Benzo(b)fluoranthene		7100		39	2000
Benzo(g,h,i)perylene		4200		24	2000
Benzo(k)fluoranthene		3300		22	2000
Chrysene		7400		20	2000
Dibenz(a,h)anthracene		1300	J	24	2000
Fluoranthene		19000		29	2000
Fluorene		4700		46	2000
Indeno(1,2,3-c,d)pyrene		3500		55	2000
Naphthalene		950	J	33	2000
Phenanthrene		21000		42	2000
Pyrene		15000		13	2000
2-Methylnaphthalene		280	J	24	2000
Dibenzofuran		2700		21	2000

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5	79		34 - 132
2-Fluorobiphenyl	96		37 - 120
p-Terphenyl-d14	118		58 - 147

Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 480-10396-1

Client Sample ID: SB-02 (8-10.5)

Lab Sample ID: 480-10396-3

Date Sampled: 09/26/2011 1415

Client Matrix: Solid

% Moisture: 17.7

Date Received: 09/28/2011 1030

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	480-33642	Instrument ID:	HP5973V
Prep Method:	3550B	Prep Batch:	480-33544	Lab File ID:	V5810.D
Dilution:	5.0			Initial Weight/Volume:	+30.23 g
Analysis Date:	10/03/2011 1200			Final Weight/Volume:	1 mL
Prep Date:	09/30/2011 1659			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		900	J	12	1000
Acenaphthylene		480	J	8.3	1000
Anthracene		2600		26	1000
Benz(a)anthracene		4900		18	1000
Benzo(a)pyrene		3900		25	1000
Benzo(b)fluoranthene		4100		20	1000
Benzo(g,h,i)perylene		2100		12	1000
Benzo(k)fluoranthene		1900		11	1000
Chrysene		3700		10	1000
Dibenz(a,h)anthracene		680	J	12	1000
Fluoranthene		9500		15	1000
Fluorene		1000		23	1000
Indeno(1,2,3-c,d)pyrene		2000		28	1000
Naphthalene		560	J	17	1000
Phenanthrene		5300		21	1000
Pyrene		7700		6.6	1000
2-Methylnaphthalene		270	J	12	1000
Dibenzofuran		490	J	11	1000

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5	71		34 - 132
2-Fluorobiphenyl	86		37 - 120
p-Terphenyl-d14	105		58 - 147

Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 480-10396-1

Client Sample ID: SB-04 (8-10.9)

Lab Sample ID: 480-10396-4

Date Sampled: 09/26/2011 1545

Client Matrix: Solid

% Moisture: 9.5

Date Received: 09/28/2011 1030

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	480-33642	Instrument ID:	HP5973V
Prep Method:	3550B	Prep Batch:	480-33544	Lab File ID:	V5811.D
Dilution:	1.0			Initial Weight/Volume:	+30.28 g
Analysis Date:	10/03/2011 1224			Final Weight/Volume:	1 mL
Prep Date:	09/30/2011 1659			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		ND		2.2	190
Acenaphthylene		ND		1.5	190
Anthracene		38	J	4.7	190
Benz(a)anthracene		54	J	3.2	190
Benzo(a)pyrene		53	J	4.5	190
Benzo(b)fluoranthene		69	J	3.6	190
Benzo(g,h,i)perylene		40	J	2.2	190
Benzo(k)fluoranthene		37	J	2.0	190
Chrysene		62	J	1.8	190
Dibenz(a,h)anthracene		ND		2.2	190
Fluoranthene		130	J	2.7	190
Fluorene		ND		4.3	190
Indeno(1,2,3-c,d)pyrene		34	J	5.1	190
Naphthalene		ND		3.1	190
Phenanthrene		120	J	3.9	190
Pyrene		110	J	1.2	190
2-Methylnaphthalene		ND		2.2	190
Dibenzofuran		ND		1.9	190

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5	72		34 - 132
2-Fluorobiphenyl	81		37 - 120
p-Terphenyl-d14	108		58 - 147

Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 480-10396-1

Client Sample ID: SB-01 (5-6.8)

Lab Sample ID: 480-10576-1

Date Sampled: 09/30/2011 0950

Client Matrix: Solid

% Moisture: 19.5

Date Received: 10/01/2011 0915

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method: 8270C

Analysis Batch: 480-34970

Instrument ID: HP5973U

Prep Method: 3550B

Prep Batch: 480-34039

Lab File ID: U5133.D

Dilution: 5.0

Initial Weight/Volume: +30.21 g

Analysis Date: 10/12/2011 1227

Final Weight/Volume: 1 mL

Prep Date: 10/05/2011 0931

Injection Volume: 1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		140	J	12	1000
Acenaphthylene		130	J	8.5	1000
Anthracene		440	J	27	1000
Benz(a)anthracene		1500	J	18	1000
Benzo(a)pyrene		1400	J	25	1000
Benzo(b)fluoranthene		1600	J	20	1000
Benzo(g,h,i)perylene		940	J	12	1000
Benzo(k)fluoranthene		640	J	11	1000
Chrysene		1400	J	10	1000
Dibenz(a,h)anthracene		ND	J	12	1000
Fluoranthene		3000	J	15	1000
Fluorene		140	J	24	1000
Indeno(1,2,3-c,d)pyrene		770	J	29	1000
Naphthalene		ND	J	17	1000
Phenanthrene		2200	J	22	1000
Pyrene		2800	J	6.7	1000
2-Methylnaphthalene		43	J	13	1000
Dibenzofuran		110	J	11	1000

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5	80		34 - 132
2-Fluorobiphenyl	94		37 - 120
p-Terphenyl-d14	111		58 - 147

Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 480-10396-1

Client Sample ID: BD-093011

Lab Sample ID: 480-10576-2

Date Sampled: 09/30/2011 0000

Client Matrix: Solid

% Moisture: 14.1

Date Received: 10/01/2011 0915

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	480-34970	Instrument ID:	HP5973U
Prep Method:	3550B	Prep Batch:	480-34039	Lab File ID:	U5134.D
Dilution:	5.0			Initial Weight/Volume:	+30.60 g
Analysis Date:	10/12/2011 1250			Final Weight/Volume:	1 mL
Prep Date:	10/05/2011 0931			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		98	J	11	970
Acenaphthylene		170	J	7.9	970
Anthracene		380	J	25	970
Benz(a)anthracene		1400		17	970
Benzo(a)pyrene		1300		23	970
Benzo(b)fluoranthene		1300		19	970
Benzo(g,h,i)perylene		890	J	12	970
Benzo(k)fluoranthene		800	J	11	970
Chrysene		1400		9.6	970
Dibenz(a,h)anthracene		ND		11	970
Fluoranthene		2800		14	970
Fluorene		140	J	22	970
Indeno(1,2,3-c,d)pyrene		750	J	27	970
Naphthalene		130	J	16	970
Phenanthrene		2100		20	970
Pyrene		2600		6.2	970
2-Methylnaphthalene		59	J	12	970
Dibenzofuran		100	J	10	970

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5	71		34 - 132
2-Fluorobiphenyl	80		37 - 120
p-Terphenyl-d14	94		58 - 147

Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 480-10396-1

Client Sample ID: MSB-13 (9-10.8)

Lab Sample ID: 480-10967-1

Date Sampled: 10/06/2011 1300

Client Matrix: Solid

% Moisture: 6.2

Date Received: 10/08/2011 0850

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	480-34838	Instrument ID:	HP5973V
Prep Method:	3550B	Prep Batch:	480-34709	Lab File ID:	V6153.D
Dilution:	1.0			Initial Weight/Volume:	+30.74 g
Analysis Date:	10/11/2011 1659			Final Weight/Volume:	1 mL
Prep Date:	10/10/2011 1146			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		18	J	2.1	180
Acenaphthylene		ND		1.4	180
Anthracene		15	J	4.5	180
Benz(a)anthracene		ND		3.0	180
Benzo(a)pyrene		17	J	4.2	180
Benzo(b)fluoranthene		ND		3.4	180
Benzo(g,h,i)perylene		ND		2.1	180
Benzo(k)fluoranthene		ND		1.9	180
Chrysene		ND		1.8	180
Dibenz(a,h)anthracene		ND		2.1	180
Fluoranthene		36	J	2.5	180
Fluorene		ND		4.0	180
Indeno(1,2,3-c,d)pyrene		ND		4.9	180
Naphthalene		22	J	2.9	180
Phenanthrene		66	J	3.7	180
Pyrene		45	J	1.1	180
2-Methylnaphthalene		8.4	J	2.1	180
Dibenzofuran		ND		1.8	180

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5	71		34 - 132
2-Fluorobiphenyl	75		37 - 120
p-Terphenyl-d14	98		58 - 147

Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 480-10396-1

Client Sample ID: MSB-14 (7-9.3)

Lab Sample ID: 480-10967-2

Date Sampled: 10/06/2011 1405

Client Matrix: Solid

% Moisture: 16.4

Date Received: 10/08/2011 0850

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	480-34838	Instrument ID:	HP5973V
Prep Method:	3550B	Prep Batch:	480-34709	Lab File ID:	V6154.D
Dilution:	10			Initial Weight/Volume:	+30.25 g
Analysis Date:	10/11/2011 1723			Final Weight/Volume:	1 mL
Prep Date:	10/10/2011 1146			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		ND		24	2000
Acenaphthylene		ND		16	2000
Anthracene		240	J	51	2000
Benz(a)anthracene		640	J	35	2000
Benzo(a)pyrene		870	J	48	2000
Benzo(b)fluoranthene		800	J	39	2000
Benzo(g,h,i)perylene		580	J	24	2000
Benzo(k)fluoranthene		470	J	22	2000
Chrysene		670	J	20	2000
Dibenz(a,h)anthracene		160	J	24	2000
Fluoranthene		890	J	29	2000
Fluorene		ND		46	2000
Indeno(1,2,3-c,d)pyrene		490	J	55	2000
Naphthalene		ND		33	2000
Phenanthrene		930	J	42	2000
Pyrene		990	J	13	2000
2-Methylnaphthalene		ND		24	2000
Dibenzofuran		ND		21	2000

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5	54		34 - 132
2-Fluorobiphenyl	70		37 - 120
p-Terphenyl-d14	104		58 - 147

Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 480-10396-1

Client Sample ID: MSB-15 (7-8.9)

Lab Sample ID: 480-10967-3

Date Sampled: 10/06/2011 1440

Client Matrix: Solid

% Moisture: 23.5

Date Received: 10/08/2011 0850

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	480-34838	Instrument ID:	HP5973V
Prep Method:	3550B	Prep Batch:	480-34709	Lab File ID:	V6155.D
Dilution:	10			Initial Weight/Volume:	+30.18 g
Analysis Date:	10/11/2011 1747			Final Weight/Volume:	1 mL
Prep Date:	10/10/2011 1146			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		ND		26	2200
Acenaphthylene		ND		18	2200
Anthracene		ND		56	2200
Benz(a)anthracene		ND		38	2200
Benzo(a)pyrene		ND		53	2200
Benzo(b)fluoranthene		ND		43	2200
Benzo(g,h,i)perylene		ND		26	2200
Benzo(k)fluoranthene		ND		24	2200
Chrysene		ND		22	2200
Dibenz(a,h)anthracene		ND		26	2200
Fluoranthene		160	J	32	2200
Fluorene		ND		51	2200
Indeno(1,2,3-c,d)pyrene		ND		61	2200
Naphthalene		ND		36	2200
Phenanthrene		120	J	46	2200
Pyrene		150	J	14	2200
2-Methylnaphthalene		ND		27	2200
Dibenzofuran		ND		23	2200

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5	68		34 - 132
2-Fluorobiphenyl	84		37 - 120
p-Terphenyl-d14	107		58 - 147

Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 480-10396-1

Client Sample ID: MSB-16 (2-4.3)

Lab Sample ID: 480-10967-4

Date Sampled: 10/06/2011 1530

Client Matrix: Solid

% Moisture: 27.3

Date Received: 10/08/2011 0850

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	480-34838	Instrument ID:	HP5973V
Prep Method:	3550B	Prep Batch:	480-34709	Lab File ID:	V6156.D
Dilution:	10			Initial Weight/Volume:	+30.26 g
Analysis Date:	10/11/2011 1811			Final Weight/Volume:	1 mL
Prep Date:	10/10/2011 1146			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		ND		27	2300
Acenaphthylene		ND		19	2300
Anthracene		ND		59	2300
Benz(a)anthracene		ND		40	2300
Benzo(a)pyrene		ND		56	2300
Benzo(b)fluoranthene		ND		45	2300
Benzo(g,h,i)perylene		ND		28	2300
Benzo(k)fluoranthene		ND		25	2300
Chrysene		ND		23	2300
Dibenz(a,h)anthracene		ND		27	2300
Fluoranthene		220	J	33	2300
Fluorene		ND		53	2300
Indeno(1,2,3-c,d)pyrene		ND		64	2300
Naphthalene		ND		38	2300
Phenanthrene		ND		48	2300
Pyrene		200	J	15	2300
2-Methylnaphthalene		ND		28	2300
Dibenzofuran		ND		24	2300
Surrogate		%Rec	Qualifier	Acceptance Limits	
Nitrobenzene-d5		69		34 - 132	
2-Fluorobiphenyl		80		37 - 120	
p-Terphenyl-d14		94		58 - 147	

Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 480-10396-1

Client Sample ID: MSB-17 (2-4.3)

Lab Sample ID: 480-10967-5

Date Sampled: 10/06/2011 1600

Client Matrix: Solid

% Moisture: 38.4

Date Received: 10/08/2011 0850

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	480-34838	Instrument ID:	HP5973V
Prep Method:	3550B	Prep Batch:	480-34709	Lab File ID:	V6157.D
Dilution:	10			Initial Weight/Volume:	+30.30 g
Analysis Date:	10/11/2011 1835			Final Weight/Volume:	1 mL
Prep Date:	10/10/2011 1146			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		1200	J	32	2700
Acenaphthylene		2900		22	2700
Anthracene		4500		69	2700
Benz(a)anthracene		11000		47	2700
Benzo(a)pyrene		10000		65	2700
Benzo(b)fluoranthene		6900		53	2700
Benzo(g,h,i)perylene		4400		33	2700
Benzo(k)fluoranthene		6800		30	2700
Chrysene		10000		27	2700
Dibenz(a,h)anthracene		1500	J	32	2700
Fluoranthene		18000		39	2700
Fluorene		1400	J	62	2700
Indeno(1,2,3-c,d)pyrene		4000		75	2700
Naphthalene		ND		45	2700
Phenanthrene		17000		57	2700
Pyrene		19000		18	2700
2-Methylnaphthalene		210	J	33	2700
Dibenzofuran		540	J	28	2700

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5	89		34 - 132
2-Fluorobiphenyl	97		37 - 120
p-Terphenyl-d14	108		58 - 147

Chain of Custody Record

2

Client Information		Lab PM		Carrier Tracking No(s)		GOC No			
Company: ARCADIS U.S., Inc.		Lab PM: Giglia, Denise		Carrier Tracking No(s):		480-16552-3935.2			
Address: 5723 Township PO BOX 85		E-Mail: denise.giglia@testamericanc.com		Page: Page 2 of 2		Job #			
City: Syracuse		Phone: 315-263-7167		Analysis Requested		Preservation Codes:			
State, Zip: NY, 13214-0066		Due Date Requested:		TAT Requested (days):		A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Ascorbic Acid H - Ice I - Ice J - DI Water K - EDTA L - EDA M - Hexane N - None O - Aspicol P - Na2O46 Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Oxidant/porose U - Acetone V - MCAA W - pH 4-5 X - other (specify)			
Project Name: NYSEG 2009 Street Sediment Analysis		Project #:		PO #:		Special Instructions/Notes:			
Site: 315 446 912.0		48003612		4700141280					
Email: LAURA.ZELINSKI@ARCADIS-OS.COM		WFO #:		ST					
Address: 1000 CLARK STREET		Auburn, MA 01501		ST					
Sample Identification	Sample Date	Sample Time	Sample Type (C=Composite, G=Grab)	Matrix (Type: Solid, Liquid, Gas, etc.)	Field Filtered Sample (Yes or No)	2700 - (MeOH) Part Samboles	2700 - (MeOH) Part Samboles	Total Number of Containers	Special Instructions/Notes:
SB-12 (10.2 - 12.2)	9-28-11	1330	C	Solid		X	X	3	
SB-10 (7-9)	9-24-11	0850	C	Solid		X	X	3	
SB-03 (9-12)	9-24-11	1200	C	Solid		X	X	3	
SB-02 (12-14)	9-24-11	1415	C	Solid		X	X	3	
SB-04 (7-9)	9-24-11	1535	C	Solid		X	X	3	
TRIPALANK	9-29-11	---	---	Solid		X	X	1	
				Solid					
				Solid					
				Solid					
				Solid					
				Solid					
				Solid					
				Solid					

Possible Hazard Identification

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

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

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return To Client ☒ Disposal By Lab ☐ Archive For Months

Special Instructions/QC Requirements:

Empty Kit Relinquished by:

Relinquished by: *Lauren Zelenki*

Relinquished by: *RC-191116*

Relinquished by:

Company: ARCADIS

Date/Time: 09-29-11 17:30

Company: Syn

Date/Time: 09-29-11 09:30

Company: Burt

Date/Time:

Company:

Custody Seal No.:

Custody Seal No.:

Custody Seal No.:

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 480-10509-2

Client Sample ID: SB-12 (10.2-12.2)

Lab Sample ID: 480-10509-1

Date Sampled: 09/28/2011 1330

Client Matrix: Solid

% Moisture: 33.8

Date Received: 09/30/2011 0930

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	480-33610	Instrument ID:	HP5973F
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	F4340.D
Dilution:	1.0			Initial Weight/Volume:	5.12 g
Analysis Date:	10/01/2011 2144			Final Weight/Volume:	5 mL
Prep Date:	10/01/2011 2144				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Benzene		3.7	J	0.36	7.4
Toluene		2.0	J	0.56	7.4
Ethylbenzene		180		0.51	7.4
m-Xylene & p-Xylene		12	J	1.2	15
o-Xylene		9.1		0.96	7.4
Xylenes, Total		21		1.2	15

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	101		64 - 126
Toluene-d8 (Surr)	99		71 - 125
4-Bromofluorobenzene (Surr)	96		72 - 126

Analytical Data

Client: ARCADIS U.S. Inc

Job Number: 480-10509-2

Client Sample ID: SB-12 (10.2-12.2)

Lab Sample ID: 480-10509-1

Date Sampled: 09/28/2011 1330

Client Matrix: Solid

% Moisture: 33.8

Date Received: 09/30/2011 0930

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	480-33584	Instrument ID:	HP5973V
Prep Method:	3550B	Prep Batch:	480-33544	Lab File ID:	V5781.D
Dilution:	10			Initial Weight/Volume:	+30.22 g
Analysis Date:	10/03/2011 0029			Final Weight/Volume:	1 mL
Prep Date:	09/30/2011 1659			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		23000		30	2500
Acenaphthylene		6800		21	2500
Anthracene		15000		65	2500
Benz(a)anthracene		12000		44	2500
Benzo(a)pyrene		9400		61	2500
Benzo(b)fluoranthene		6100		49	2500
Benzo(g,h,i)perylene		3800		30	2500
Benzo(k)fluoranthene		3100		28	2500
Chrysene		12000		25	2500
Dibenz(a,h)anthracene		1400	J	30	2500
Fluoranthene		14000		37	2500
Fluorene		8500		58	2500
Indeno(1,2,3-c,d)pyrene		3600		70	2500
Naphthalene		9700		42	2500
Phenanthrene		67000		53	2500
Pyrene		24000		16	2500
2-Methylnaphthalene		3400		31	2500
Dibenzofuran		ND		26	2500

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5	81		34 - 132
2-Fluorobiphenyl	95		37 - 120
p-Terphenyl-d14	111		58 - 147

**NYSEG McMaster Street
Former MGP Site**

Data Usability Summary Report (DUSR)

AUBURN, NEW YORK

Volatile and Semivolatile Organic Compounds
(VOCs and SVOCs) Analyses

SDG #480-16792

Analyses Performed By:
TestAmerica Laboratories
Buffalo, New York

Report #15900R
Review Level: Tier III
Project: B0013049.0007.00016

SUMMARY

This data quality assessment summarizes the review of Sample Delivery Groups (SDGs) #480-16792-1 for samples collected in association with the NYSEG McMaster Street Former MGP site in Auburn, New York. The review was conducted as a Tier III evaluation and included review of data package completeness. Only analytical data associated with constituents of concern were reviewed for this validation. Field documentation was not included in this review. Included with this assessment are the validation annotated sample result sheets, and chain of custody. Analyses were performed on the following samples:

Sample ID	Lab ID	Matrix	Sample Collection Date	Parent Sample	Analysis				
					VOC	SVOC	PCB	MET	MISC
MSB-18(12-13.4)	480-16792-1	Soil	2/29/2012		X	X			
DUP-3112	480-16792-10	Soil	3/1/2012	MSB-20(8-9')	X	X			
MSB-19(12-13.1)	480-16792-2	Soil	2/29/2012		X	X			
MSB-24(8-8.9)	480-16792-3	Soil	2/29/2012		X	X			
MSB-26(8-10.6)	480-16792-4	Soil	2/29/2012		X	X			
MSB-25(8-10.4)	480-16792-5	Soil	2/29/2012		X	X			
MSB-21(8-8.7)	480-16792-6	Soil	2/29/2012		X	X			
MSB-22(6-7.2)	480-16792-7	Soil	3/1/2012		X	X			
MSB-23(8-8.7)	480-16792-8	Soil	3/1/2012		X	X			
MSB-20(8-9')	480-16792-9	Soil	3/1/2012		X	X			

Note:

1. The matrix spike/matrix spike duplicate analysis was performed on sample location MSB-23(8-8.7).

2. ANALYTICAL DATA PACKAGE DOCUMENTATION

The table below is the evaluation of the data package completeness.

Items Reviewed	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
1. Sample receipt condition		X		X	
2. Requested analyses and sample results		X		X	
3. Master tracking list		X		X	
4. Methods of analysis		X		X	
5. Reporting limits		X		X	
6. Sample collection date		X		X	
7. Laboratory sample received date		X		X	
8. Sample preservation verification (as applicable)		X		X	
9. Sample preparation/extraction/analysis dates		X		X	
10. Fully executed Chain-of-Custody (COC) form		X		X	
11. Narrative summary of QA or sample problems provided		X		X	
12. Data Package Completeness and Compliance		X		X	

QA - Quality Assurance

ORGANIC ANALYSIS INTRODUCTION

Analyses were performed according to United States Environmental Protection Agency (USEPA) SW-846 Methods 8260B and 8270C as referenced in NYSDEC-ASP. Data were reviewed in accordance with USEPA National Functional Guidelines of October 1999 and USEPA Region II SOPs associated with USEPA SW-846 Validating Volatile Organic Compounds by GC/MS SW-846 Method 8260B (SOP HW-24 Revision 2, October 2006) and Validating Semivolatile Organic Compounds by GC/MS SW-846 Method 8270D (SOP HW-22 Revision 3, October 2006).

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with USEPA National Functional Guidelines:

- Concentration (C) Qualifiers
 - U The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
 - B The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.
- Quantitation (Q) Qualifiers
 - E The compound was quantitated above the calibration range.
 - D Concentration is based on a diluted sample analysis.
- Validation Qualifiers
 - J The compound was positively identified; however, the associated numerical value is an estimated concentration only.
 - UJ The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.
 - JN The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.
 - UB Compound considered non-detect at the listed value due to associated blank contamination.
 - N The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification.
 - R The sample results are rejected as unusable. The compound may or may not be present in the sample.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

VOLATILE ORGANIC COMPOUND (VOC) ANALYSES

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
SW-846 8260B	Water	14 days from collection to analysis	Cool to 4±2 °C; pH < 2 with HCl
	Soil	48 hours from collection to extraction and 14 days from collection to analysis	Cool to 4±2 °C

All samples were analyzed within the specified holding time criteria.

2. Blank Contamination

Quality assurance (QA) blanks (i.e. laboratory method blanks, trip blanks, and equipment rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Trip blanks measure sample storage contamination. Rinse blanks also measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Compounds were not detected above the MDL in the associated blanks; therefore detected sample results were not associated with blank contamination.

3. Mass Spectrometer Tuning

Mass spectrometer performance was acceptable and all analyses were performed within a 12-hour tune clock.

System performance and column resolution were acceptable.

4. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

4.1 Initial Calibration (ICV)

The method specifies percent relative standard deviation (%RSD) and relative response factor (RRF) limits for select compounds only. A technical review of the data applies limits to all compounds with no exceptions.

All target compounds associated with the initial calibration standards must exhibit a %RSD less than the control limit (15%) or a correlation coefficient greater than 0.99, and a RRF value greater than control limit (0.05).

4.2 Continuing Calibration (CCV)

All target compounds associated with the continuing calibration standard must exhibit a percent difference (%D) less than the control limit (20%) and RRF value greater than control limit (0.05).

All compounds associated with the calibrations were within the specified control limits.

5. Surrogates/System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. VOC analysis requires that all surrogates associated with the analysis exhibit recoveries within the laboratory-established acceptance limits.

All surrogate recoveries were within the control limits.

6. Internal Standard Performance

Internal standard performance criteria insure that the GC/MS sensitivity and response are stable during every sample analysis. The criteria requires the internal standard compounds associated with the VOC analysis exhibit area counts that are not greater than two times (+100%) or less than one-half (-50%) of the area counts of the associated continuing calibration standard.

All internal standard area counts were within the control limits.

7. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis

MS/MSD data are used to assess the precision and accuracy of the analytical method. The spiked compounds used in the MS/MSD analysis must exhibit recoveries within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS and MSD results must be within the laboratory-established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSDs performed on sample locations where the compound concentration detected in the parent sample exceeds the MS/MSD spiking concentration by a factor of four or greater. Sample results associated with MS/MSD exceedances where the parent samples are not site-specific are not qualified.

Sample locations associated with the MS/MSD exhibiting recoveries outside of the control limits are presented in the following table.

Sample Location	Compounds	MS Recovery	MSD Recovery
MSB-23(8-8.7)	Benzene	< LL but > 10%	AC
	Toluene		
	Ethylbenzene		< LL but > 10%
	m-Xylene & p-Xylene		AC
	o-Xylene		

The criteria used to evaluate the MS/MSD recoveries are presented in the following table. In the case of MS/MSD deviations, the sample results are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> the upper control limit (UL)	Non-detect	No Action
	Detect	J
< the lower control limit (LL) but > 10%	Non-detect	UJ
	Detect	J
< 10%	Non-detect	R
	Detect	J
Parent sample concentration > 4x the MS/MSD spiking solution concentration.	Detect	No Action
	Non-detect	

8. Laboratory Control Sample (LCS) Analysis

The LCS analysis is used to assess the accuracy of the analytical method independent of matrix interferences. The spiked compounds used in the LCS analysis must exhibit recoveries within the laboratory-established acceptance limits.

All compounds associated with the LCS analyses exhibited recoveries within the control limits.

9. Field Duplicate Sample Analysis

The field duplicate sample analysis is used to assess the precision of the field sampling procedures and analytical method. A control limit of 50% for water matrices and 100% for soil matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to five times the reporting limit (RL), a control limit of two times the RL is applied for water matrices or three times the RL is applied for soil matrices.

Results for the field duplicate samples are summarized in the following table.

Sample ID/Duplicate ID	Compound	Sample Result	Duplicate Result	RPD
MSB-20(8-9')/ DUP-3112	All Compounds	U	U	AC

AC Acceptable

The calculated RPDs between the parent sample and field duplicate were acceptable.

10. Compound Identification

Compounds are identified on the GC/MS by using the analytes relative retention time and ion spectra.

All identified compounds met the specified criteria.

11. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

DATA VALIDATION CHECKLIST FOR VOCs

VOCs: SW-846 8260B	Reported		Performance Acceptable		Not Required	
	No	Yes	No	Yes		
GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)						
Tier II Validation						
Holding times		X		X		
Reporting limits (units)		X		X		
Blanks						
A. Method blanks		X		X		
B. Equipment/Field blanks					X	
C. Trip blanks					X	
Laboratory Control Sample (LCS) Accuracy (%R)		X		X		
Laboratory Control Sample Duplicate (LCSD) %R					X	
LCS/LCSD Precision (RPD)					X	
Matrix Spike (MS) %R		X	X			
Matrix Spike Duplicate (MSD) %R		X	X			
MS/MSD Precision RPD		X		X		
Field/Laboratory Duplicate Sample RPD		X		X		
Surrogate Spike %R		X		X		
Dilution Factor		X		X		
Moisture Content		X		X		
Tier III Validation						
System performance and column resolution		X		X		
Initial calibration %RSDs		X		X		
Continuing calibration RRFs		X		X		
Continuing calibration %Ds		X		X		
Instrument tune and performance check		X		X		
Ion abundance criteria for each instrument used		X		X		
Internal standard		X		X		
Compound identification and quantitation						
A. Reconstructed ion chromatograms		X		X		
B. Quantitation Reports		X		X		
C. RT of sample compounds within the established RT windows		X		X		
D. Quantitation transcriptions/calculations		X		X		
E. Reporting limits adjusted for sample dilutions		X		X		

%R Percent recovery
 RPD Relative percent difference
 %RSD Relative standard deviation
 %D Percent difference

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYSES

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
SW-846 8270C	Water	7 days from collection to extraction and 40 days from extraction to analysis	Cool to 4±2 °C
	Soil	14 days from collection to extraction and 40 days from extraction to analysis	Cool to 4±2 °C

All samples were extracted and analyzed within the specified holding time criteria.

2. Blank Contamination

Quality assurance (QA) blanks (i.e. laboratory method blanks and equipment rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Target compounds were not detected above the MDL in the associated blanks; therefore detected sample results were not associated with blank contamination.

3. Mass Spectrometer Tuning

Mass spectrometer performance was acceptable and all analyses were performed within a 12-hour tune clock.

System performance and column resolution are acceptable.

4. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

4.1 Initial Calibration Verification (ICV)

The method specifies percent relative standard deviation (%RSD) and relative response factor (RRF) limits for select compounds only. A technical review of the data applies limits to all compounds with no exceptions.

All target compounds associated with the initial calibration standards must exhibit a %RSD less than the control limit (15%) or a correlation coefficient greater than 0.99 and an RRF value greater than control limit (0.05).

4.2 Continuing Calibration Verification (CCV)

All target compounds associated with the continuing calibration standard must exhibit a percent difference (%D) less than the control limit (20%) and RRF value greater than control limit (0.05).

All compounds associated with the calibrations were within the specified control limits.

5. Surrogates/System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. SVOC analysis requires that two of the three SVOC surrogate compounds within each fraction exhibit recoveries within the laboratory-established acceptance limits, and that all SVOC surrogate recoveries be greater than ten percent.

Sample locations associated with surrogates exhibiting recoveries outside of the control limits presented in the following table.

Sample Locations	Surrogate	Recovery
MSB-19(12-13.1)	Nitrobenzene-d5	AC
	2-Fluorobiphenyl	
	Terphenyl-d14	
MSB-19(12-13.1) DL	Nitrobenzene-d5	AC
	2-Fluorobiphenyl	> UL
	Terphenyl-d14	AC

UL Upper control limit

AC Acceptable

The criteria used to evaluate the surrogate recoveries are presented in the following table. In the case of a surrogate deviation, the sample results associated with the deviant fraction are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> UL	Non-detect	No Action
	Detect	J
< LL but > 10%	Non-detect	UJ
	Detect	J
< 10%	Non-detect	R
	Detect	J
Surrogates diluted below the calibration curve due to the high concentration of a target compounds	Non-detect	UJ ¹
	Detect	J ¹

¹ A more concentrated analysis was not performed with surrogate compounds within the calibration range; therefore, no determination of extraction efficiency could be made.

6. Internal Standard Performance

Internal standard performance criteria insure that the GC/MS sensitivity and response are stable during every sample analysis. The criteria requires the internal standard compounds associated with the SVOC analysis exhibit area counts that are not greater than two times (+100%) or less than one-half (-50%) of the area counts of the associated continuing calibration standard.

All internal standard responses were within the control limits.

7. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis

MS/MSD data are used to assess the precision and accuracy of the analytical method. The compounds used to perform the MS/MSD analysis must exhibit recoveries within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS and MSD results must be within the laboratory-established or analytical method-referenced acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations where the compound concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater. Sample results associated with MS/MSD exceedances where the parent samples are not site-specific are not qualified.

Sample locations associated with the MS/MSD exhibiting recoveries outside of the control limits are presented in the following table.

Sample Location	Compounds	MS Recovery	MSD Recovery
MSB-23(8-8.7)	Benzo(a)pyrene	< LL but > 10%	AC
	Benzo(b)fluoranthene	< LL but > 10%	AC
	Benzo(g,h,i)perylene	AC	< LL but > 10%
	Dibenz(a,h)anthracene	AC	< LL but > 10%
	Indeno(1,2,3-c,d)pyrene	AC	< LL but > 10%
	Phenanthrene	AC	> UL

AC Acceptable

The criteria used to evaluate the MS/MSD recoveries are presented in the following table. In the case of MS/MSD deviations, the sample results are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> the upper control limit (UL)	Non-detect	No Action
	Detect	J
< the lower control limit (LL) but > 10%	Non-detect	UJ
	Detect	J
< 10%	Non-detect	R
	Detect	J
Parent sample concentration > 4x the MS/MSD spiking solution concentration.	Detect	No Action
	Non-detect	

Sample locations associated with MS/MSDs exhibiting RPDs greater than of the control limit are presented in the following table.

Sample Locations	Compound
MSB-23(8-8.7)	Benz(a)anthracene
	Benzo(a)pyrene
	Benzo(b)fluoranthene
	Fluoranthene
	Phenanthrene

The criteria used to evaluate the RPD between the MS and MSD are presented in the following table. In the case of RPD deviations, the sample results are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> UL	Non-detect	UJ
	Detect	J

8. Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) Analysis

The LCS/LCSD analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS/LCSD analysis must exhibit recoveries and relative percent differences (RPDs) between the LCS and LCSD results within the laboratory-established or analytical method-referenced acceptance limits.

All compounds associated with the LCS/LCSD analysis exhibited recoveries and RPDs within the control limits.

9. Field Duplicate Sample Analysis

The field duplicate sample analysis is used to assess the precision of the field sampling procedures and analytical method. A control limit of 50% for water matrices and 100% for soil matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to five times the reporting limit (RL), a control limit of two times the RL is applied for water matrices or three times the RL is applied for soil matrices.

Results (in µg/kg) for the field duplicate samples are summarized in the following table.

Sample ID/Duplicate ID	Compound	Sample Result	Duplicate Result	RPD
MSB-20(8-9')/ DUP-3112	2-Methylnaphthalene	0.05 J	0.037 J	AC
	Acenaphthene	0.036 J	0.05 J	
	Acenaphthylene	0.11 J	0.12 J	
	Anthracene	0.21 J	0.3	
	Benz(a)anthracene	0.44	0.87	

Sample ID/Duplicate ID	Compound	Sample Result	Duplicate Result	RPD
	Benzo(a)pyrene	0.4	0.69	AC
	Benzo(b)fluoranthene	0.55	0.76	
	Benzo(g,h,i)perylene	0.17 J	0.22	
	Benzo(k)fluoranthene	0.23	0.45	
	Chrysene	0.38	0.68	
	Dibenz(a,h)anthracene	0.053 J	0.072 J	
	Dibenzofuran	0.069 J	0.074 J	
	Fluoranthene	0.79	1.4	
	Fluorene	0.097 J	0.12 J	
	Indeno(1,2,3-c,d)pyrene	0.15 J	0.21 J	
	Naphthalene	0.061 J	0.071 J	
	Phenanthrene	0.63	0.89	
	Pyrene	0.75	1.2	
	Total PAHs	5.1 J	8.1 J	
	Total SVOCs	5.2 J	8.2 J	

AC Acceptable

The calculated RPDs between the parent sample and field duplicate were acceptable.

10. Compound Identification

Compounds are identified on the GC/MS by using the analytes relative retention time and ion spectra.

Sample results associated with compound that exhibited a concentration greater than the linear range of the instrument calibration are summarized in the following table.

Sample ID	Compound	Original Analysis	Diluted Analysis	Reported Analysis
MSB-19(12-13.1)	Acenaphthene	34000 E	58000 D	58000 D
	Acenaphthylene	18000 E	25000 D	25000 D
	Anthracene	12000 E	30000 D	30000 D
	Benzo(a)anthracene	7600 E	14000 D	14000 D
	Chrysene	8100 E	14000 D	14000 D
	Fluorene	22000 E	32000 D	32000 D
	Naphthalene	32000 E	56000 D	56000 D
	Phenanthrene	46000 E	230000 D	230000 D
	2-Methylnaphthalene	62000 E	100000 D	100000 D
MSB-26(8-10.6)	Phenanthrene	71000 E	54000 D	54000 D

Sample ID	Compound	Original Analysis	Diluted Analysis	Reported Analysis
MSB-25(8-10.4)	Phenanthrene	76000 E	61000 D	61000 D

Note: In the instance where both the original analysis and the diluted analysis sample results exhibited a concentration greater than and/or less than the calibration linear range of the instrument; the sample result exhibiting the greatest concentration will be reported as the final result.

Sample results associated with compounds exhibiting concentrations greater than the linear range are qualified as documented in the table below when reported as the final reported sample result.

Reported Sample Results	Qualification
Diluted sample result within calibration range	D
Diluted sample result less than the calibration range	DJ
Diluted sample result greater than the calibration range	EDJ
Original sample result greater than the calibration range	EJ

11. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

DATA VALIDATION CHECKLIST FOR SVOCs

SVOCs: SW-846 8270C	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)					
Tier II Validation					
Holding Times		X		X	
Reporting Limits (units)		X		X	
Blanks					
A. Method Blanks		X		X	
B. Equipment/Field Blanks					X
Laboratory Control Sample (LCS) Accuracy (%R)		X		X	
Laboratory Control Sample Duplicate (LCSD) %R					X
LCS/LCSD Precision (RPD)					X
Matrix Spike (MS) %R		X	X		
Matrix Spike Duplicate (MSD) %R		X	X		
MS/MSD RPD		X	X		
Field/Laboratory Duplicate Sample RPD		X		X	
Surrogate Spike %R		X	X		
Dilution Factor		X		X	
Moisture Content		X		X	
Tier III Validation					
System Performance and Column Resolution		X		X	
Initial Calibration %RSDs		X		X	
Continuing Calibration RRFs		X		X	
Continuing Calibration %Ds		X		X	
Instrument Tune and Performance Check		X		X	
Ion Abundance Criteria for Each Instrument Used		X		X	
Internal Standards		X		X	
Compound Identification and Quantitation					
A. Reconstructed Ion Chromatograms		X		X	
B. Quantitation Reports		X		X	
C. RT of Sample Compounds Within the Established RT Windows		X		X	
D. Quantitation transcriptions/calculations		X		X	
E. Reporting Limits Adjusted for Sample Dilutions		X		X	

%R Percent Recovery
 RPD Relative Percent Difference
 %RSD Relative Standard Deviation
 %D Percent Difference

SAMPLE COMPLIANCE REPORT

Sample Delivery Group (SDG)	Sampling Date	Protocol	Sample ID	Matrix	Compliance ¹					Noncompliance
					VOC	SVOC	PCB	MET	MISC	
480-16792	2/29/2012	SW846	MSB-18(12-13.4)	Soil	Yes	Yes	--	--	--	
	3/1/2012	SW846	DUP-3112	Soil	Yes	Yes	--	--	--	
	2/29/2012	SW846	MSB-19(12-13.1)	Soil	Yes	No	--	--	--	SVOC - Dilution
	2/29/2012	SW846	MSB-24(8-8.9)	Soil	Yes	Yes	--	--	--	
	2/29/2012	SW846	MSB-26(8-10.6)	Soil	Yes	No	--	--	--	SVOC - Dilution
	2/29/2012	SW846	MSB-25(8-10.4)	Soil	Yes	No	--	--	--	SVOC - Dilution
	2/29/2012	SW846	MSB-21(8-8.7)	Soil	Yes	Yes	--	--	--	
	3/1/2012	SW846	MSB-22(6-7.2)	Soil	Yes	Yes	--	--	--	
	3/1/2012	SW846	MSB-23(8-8.7)	Soil	No	No	--	--	--	VOC – MS/MSD %recovery, MS/MSD RPD SVOC – MS/MSD %recovery
	3/1/2012	SW846	MSB-20(8-9')	Soil	Yes	Yes	--	--	--	

- 1 Samples which are compliant with no added validation qualifiers are listed as "yes". Samples which are non-compliant or which have added qualifiers are listed as "no". A "no" designation does not necessarily indicate that the data have been rejected or are otherwise unusable

Validation Performed By: Todd Church

Signature:



Date: March 30, 2012

Peer Review: Dennis Capria

Date: April 4, 2012

**CHAIN OF CUSTODY /
CORRECTED SAMPLE ANALYSIS DATA SHEETS**

Chain of Custody Record

TestAmerica
THE TEST AMERICA GROUP

Client Information		Sample: <u>Marius Eriksson</u>		Lab P.M.: <u>Devo, Melissa L.</u>		Carrier Tracking No(s):		COC No: <u>480-22294-5506.1</u>	
Client Contact: <u>Laura Zuranski</u>		Phone: <u>315-247-5782</u>		E-Mail: <u>melissa.devo@testamericainc.com</u>		Page: <u>Page 1 of 2</u>		Job #:	
Company: <u>ARCADIS U.S., Inc.</u>		Address: <u>6723 Towpath PO BOX 66</u>		City: <u>Syracuse</u>		State, Zip: <u>NY, 13214-0066</u>		Phone: <u>4700141280</u>	
Email: <u>laura.zuranski@arcadis-us.com</u>		Project Name: <u>NYSEG McMaster Street</u>		Project #: <u>48003612</u>		SSDWH:		Site:	
Due Date Requested:		TAT Requested (days):		PO #:		WO #:		Auburn McMaster/John Ruspantini	
Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)		Matrix (Water, Solid, Organic, BT-Tissue, A=Air)	
MSB-18 (12-13.4)		2-29-12		0830		G		Solid	
MSB-19 (12-13.1)		2-29-12		0945		G		Solid	
MSB-24 (8-8.9)		2-29-12		1100		G		Solid	
MSB-26 (8-10.6)		2-29-12		1250		G		Solid	
MSB-25 (8-10.4)		2-29-12		1400		G		Solid	
MSB-21 (8-8.7)		2-29-12		1500		G		Solid	
MSB-22 (6-7.2)		3-1-12		0825		G		Solid	
MSB-23 (8-8.7)		3-1-12		0130		G		Solid	
MSB-20 (8-7)		3-1-12		1800		G		Solid	
DUP-3112		3-1-12		—		G		Solid	
Possible Hazard Identification		☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological		Deliverable Requested: I, II, III, IV, Other (specify)		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)		☐ Return To Client ☐ Disposal By Lab ☐ Archive For Months	
Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:		Special Instructions/Note:	
Relinquished by: <u>[Signature]</u>		Date/Time: <u>13:05/3-1-12</u>		Company: <u>ARCADIS</u>		Received by: <u>[Signature]</u>		Date/Time: <u>3-1-12 13:10</u>	
Relinquished by: <u>[Signature]</u>		Date/Time: <u>3-1-12 18:30</u>		Company: <u>ARCADIS</u>		Received by: <u>[Signature]</u>		Date/Time: <u>3-1-12 0900</u>	
Relinquished by: <u>[Signature]</u>		Date/Time: <u>3-1-12 18:30</u>		Company: <u>ARCADIS</u>		Received by: <u>[Signature]</u>		Date/Time: <u>3-1-12 0900</u>	
Custody Seals Intact: <u>Yes</u>		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: <u>3.3 #3</u>		Special Instructions/QC Requirements:		Total Number of Containers: <u>1</u>	

Analytical Data

Client: New York State Electric & Gas

Job Number: 480-16792-1

Client Sample ID: MSB-18(12-13.4)

Lab Sample ID: 480-16792-1

Date Sampled: 02/29/2012 0830

Client Matrix: Solid

% Moisture: 39.5

Date Received: 03/02/2012 0900

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	480-53738	Instrument ID:	HP5973F
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	F7168.D
Dilution:	1.0			Initial Weight/Volume:	5.08 g
Analysis Date:	03/03/2012 0059			Final Weight/Volume:	5 mL
Prep Date:	03/03/2012 0059				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Benzene		ND		0.40	8.1
Toluene		ND		0.62	8.1
Ethylbenzene		ND		0.56	8.1
m-Xylene & p-Xylene		ND		1.4	16
o-Xylene		ND		1.1	8.1
Xylenes, Total		ND		1.4	16

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	90		64 - 126
Toluene-d8 (Surr)	106		71 - 125
4-Bromofluorobenzene (Surr)	103		72 - 126

Analytical Data

Client: New York State Electric & Gas

Job Number: 480-16792-1

Client Sample ID: MSB-19(12-13.1)

Lab Sample ID: 480-16792-2

Date Sampled: 02/29/2012 0945

Client Matrix: Solid

% Moisture: 18.9

Date Received: 03/02/2012 0900

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	480-54017	Instrument ID:	HP5973F
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	F7201.D
Dilution:	1.0			Initial Weight/Volume:	1 g
Analysis Date:	03/06/2012 2127			Final Weight/Volume:	5 mL
Prep Date:	03/06/2012 2127				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Benzene		4.4	J	1.5	31
Toluene		13	J	2.3	31
Ethylbenzene		8.9	J	2.1	31
m-Xylene & p-Xylene		170		5.2	62
o-Xylene		300		4.0	31
Xylenes, Total		470		5.2	62

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	92		64 - 126
Toluene-d8 (Surr)	104		71 - 125
4-Bromofluorobenzene (Surr)	102		72 - 126

Analytical Data

Client: New York State Electric & Gas

Job Number: 480-16792-1

Client Sample ID: MSB-24(8-8.9)

Lab Sample ID: 480-16792-3

Date Sampled: 02/29/2012 1100

Client Matrix: Solid

% Moisture: 21.4

Date Received: 03/02/2012 0900

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	480-53738	Instrument ID:	HP5973F
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	F7169.D
Dilution:	1.0			Initial Weight/Volume:	5.19 g
Analysis Date:	03/03/2012 0124			Final Weight/Volume:	5 mL
Prep Date:	03/03/2012 0124				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Benzene		2.9	J	0.30	6.1
Toluene		1.7	J	0.46	6.1
Ethylbenzene		ND		0.42	6.1
m-Xylene & p-Xylene		1.5	J	1.0	12
o-Xylene		0.80	J	0.80	6.1
Xylenes, Total		2.3	J	1.0	12

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	88		64 - 126
Toluene-d8 (Surr)	106		71 - 125
4-Bromofluorobenzene (Surr)	103		72 - 126

Analytical Data

Client: New York State Electric & Gas

Job Number: 480-16792-1

Client Sample ID: MSB-26(8-10.6)

Lab Sample ID: 480-16792-4

Date Sampled: 02/29/2012 1250

Client Matrix: Solid

% Moisture: 21.9

Date Received: 03/02/2012 0900

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	480-53738	Instrument ID:	HP5973F
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	F7170.D
Dilution:	1.0			Initial Weight/Volume:	5.19 g
Analysis Date:	03/03/2012 0150			Final Weight/Volume:	5 mL
Prep Date:	03/03/2012 0150				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Benzene		19		0.30	6.2
Toluene		13		0.47	6.2
Ethylbenzene		10		0.43	6.2
m-Xylene & p-Xylene		46		1.0	12
o-Xylene		23		0.81	6.2
Xylenes, Total		69		1.0	12

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	89		64 - 126
Toluene-d8 (Surr)	105		71 - 125
4-Bromofluorobenzene (Surr)	103		72 - 126

Analytical Data

Client: New York State Electric & Gas

Job Number: 480-16792-1

Client Sample ID: MSB-25(8-10.4)

Lab Sample ID: 480-16792-5

Date Sampled: 02/29/2012 1400

Client Matrix: Solid

% Moisture: 23.1

Date Received: 03/02/2012 0900

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	480-53738	Instrument ID:	HP5973F
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	F7171.D
Dilution:	1.0			Initial Weight/Volume:	5.06 g
Analysis Date:	03/03/2012 0215			Final Weight/Volume:	5 mL
Prep Date:	03/03/2012 0215				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Benzene		43		0.31	6.4
Toluene		7.1		0.49	6.4
Ethylbenzene		120		0.44	6.4
m-Xylene & p-Xylene		100		1.1	13
o-Xylene		60		0.84	6.4
Xylenes, Total		160		1.1	13

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	93		64 - 126
Toluene-d8 (Surr)	103		71 - 125
4-Bromofluorobenzene (Surr)	104		72 - 126

Analytical Data

Client: New York State Electric & Gas

Job Number: 480-16792-1

Client Sample ID: MSB-21(8-8.7)

Lab Sample ID: 480-16792-6

Client Matrix: Solid

% Moisture: 20.4

Date Sampled: 02/29/2012 1500

Date Received: 03/02/2012 0900

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	480-53738	Instrument ID:	HP5973F
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	F7172.D
Dilution:	1.0			Initial Weight/Volume:	5.05 g
Analysis Date:	03/03/2012 0240			Final Weight/Volume:	5 mL
Prep Date:	03/03/2012 0240				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Benzene		ND		0.30	6.2
Toluene		ND		0.47	6.2
Ethylbenzene		0.55	J	0.43	6.2
m-Xylene & p-Xylene		ND		1.0	12
o-Xylene		ND		0.81	6.2
Xylenes, Total		ND		1.0	12

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	88		64 - 126
Toluene-d8 (Surr)	107		71 - 125
4-Bromofluorobenzene (Surr)	104		72 - 126

Analytical Data

Client: New York State Electric & Gas

Job Number: 480-16792-1

Client Sample ID: MSB-22(6-7.2)

Lab Sample ID: 480-16792-7

Date Sampled: 03/01/2012 0825

Client Matrix: Solid

% Moisture: 29.7

Date Received: 03/02/2012 0900

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	480-53738	Instrument ID:	HP5973F
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	F7173.D
Dilution:	1.0			Initial Weight/Volume:	5.03 g
Analysis Date:	03/03/2012 0306			Final Weight/Volume:	5 mL
Prep Date:	03/03/2012 0306				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Benzene		ND		0.35	7.1
Toluene		0.80	J	0.53	7.1
Ethylbenzene		1.8	J	0.49	7.1
m-Xylene & p-Xylene		2.6	J	1.2	14
o-Xylene		2.4	J	0.92	7.1
Xylenes, Total		5.0	J	1.2	14

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	92		64 - 126
Toluene-d8 (Surr)	106		71 - 125
4-Bromofluorobenzene (Surr)	106		72 - 126

Analytical Data

Client: New York State Electric & Gas

Job Number: 480-16792-1

Client Sample ID: MSB-23(8-8.7)

Lab Sample ID: 480-16792-8

Date Sampled: 03/01/2012 0930

Client Matrix: Solid

% Moisture: 18.9

Date Received: 03/02/2012 0900

8260B Volatile Organic Compounds (GC/MS)

Analysis Method: 8260B

Analysis Batch: 480-53738

Instrument ID: HP5973F

Prep Method: 5030B

Prep Batch: N/A

Lab File ID: F7174.D

Dilution: 1.0

Initial Weight/Volume: 5.04 g

Analysis Date: 03/03/2012 0331

Final Weight/Volume: 5 mL

Prep Date: 03/03/2012 0331

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Benzene		ND		0.30	6.1
Toluene		ND		0.46	6.1
Ethylbenzene		ND		0.42	6.1
m-Xylene & p-Xylene		ND		1.0	12
o-Xylene		ND		0.80	6.1
Xylenes, Total		ND		1.0	12

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	88		64 - 126
Toluene-d8 (Surr)	104		71 - 125
4-Bromofluorobenzene (Surr)	105		72 - 126

Analytical Data

Client: New York State Electric & Gas

Job Number: 480-16792-1

Client Sample ID: MSB-20(8-9')

Lab Sample ID: 480-16792-9

Date Sampled: 03/01/2012 1000

Client Matrix: Solid

% Moisture: 24.9

Date Received: 03/02/2012 0900

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	480-53738	Instrument ID:	HP5973F
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	F7175.D
Dilution:	1.0			Initial Weight/Volume:	5.04 g
Analysis Date:	03/03/2012 0357			Final Weight/Volume:	5 mL
Prep Date:	03/03/2012 0357				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Benzene		ND		0.32	6.6
Toluene		ND		0.50	6.6
Ethylbenzene		ND		0.46	6.6
m-Xylene & p-Xylene		ND		1.1	13
o-Xylene		ND		0.86	6.6
Xylenes, Total		ND		1.1	13

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	92		64 - 126
Toluene-d8 (Surr)	107		71 - 125
4-Bromofluorobenzene (Surr)	104		72 - 126

Analytical Data

Client: New York State Electric & Gas

Job Number: 480-16792-1

Client Sample ID: DUP-3112

Lab Sample ID: 480-16792-10

Date Sampled: 03/01/2012 0000

Client Matrix: Solid

% Moisture: 23.2

Date Received: 03/02/2012 0900

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	480-53738	Instrument ID:	HP5973F
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	F7176.D
Dilution:	1.0			Initial Weight/Volume:	5.19 g
Analysis Date:	03/03/2012 0422			Final Weight/Volume:	5 mL
Prep Date:	03/03/2012 0422				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Benzene		ND		0.31	6.3
Toluene		ND		0.47	6.3
Ethylbenzene		ND		0.43	6.3
m-Xylene & p-Xylene		ND		1.1	13
o-Xylene		ND		0.82	6.3
Xylenes, Total		ND		1.1	13

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	93		64 - 126
Toluene-d8 (Surr)	109		71 - 125
4-Bromofluorobenzene (Surr)	106		72 - 126

Analytical Data

Client: New York State Electric & Gas

Job Number: 480-16792-1

Client Sample ID: MSB-18(12-13.4)

Lab Sample ID: 480-16792-1

Client Matrix: Solid

% Moisture: 39.5

Date Sampled: 02/29/2012 0830

Date Received: 03/02/2012 0900

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	480-54403	Instrument ID:	HP5973V
Prep Method:	3550B	Prep Batch:	480-53764	Lab File ID:	V7278.D
Dilution:	1.0			Initial Weight/Volume:	+30.49 g
Analysis Date:	03/08/2012 1915			Final Weight/Volume:	1 mL
Prep Date:	03/03/2012 0702			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		22	J	3.2	280
Acenaphthylene		56	J	2.2	280
Anthracene		110	J	7.0	280
Benz(a)anthracene		220	J	4.7	280
Benzo(a)pyrene		160	J	6.6	280
Benzo(b)fluoranthene		150	J	5.3	280
Benzo(g,h,i)perylene		59	J	3.3	280
Benzo(k)fluoranthene		89	J	3.0	280
Chrysene		180	J	2.7	280
Dibenz(a,h)anthracene		12	J	3.2	280
Fluoranthene		430		4.0	280
Fluorene		85	J	6.3	280
Indeno(1,2,3-c,d)pyrene		55	J	7.6	280
Naphthalene		130	J	4.6	280
Phenanthrene		610		5.8	280
Pyrene		420		1.8	280
2-Methylnaphthalene		78	J	3.3	280
Dibenzofuran		74	J	2.9	280

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5	80		34 - 132
2-Fluorobiphenyl	89		37 - 120
p-Terphenyl-d14	104		65 - 153

Analytical Data

Client: New York State Electric & Gas

Job Number: 480-16792-1

Client Sample ID: MSB-19(12-13.1)

Lab Sample ID: 480-16792-2

Date Sampled: 02/29/2012 0945

Client Matrix: Solid

% Moisture: 18.9

Date Received: 03/02/2012 0900

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	480-54403	Instrument ID:	HP5973V
Prep Method:	3550B	Prep Batch:	480-53764	Lab File ID:	V7279.D
Dilution:	1.0			Initial Weight/Volume:	+30.69 g
Analysis Date:	03/08/2012 1939			Final Weight/Volume:	1 mL
Prep Date:	03/03/2012 0702			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene	58000	34000	E D	2.4	200
Acenaphthylene	25000	18000	E D	1.7	200
Anthracene	30000	12000	E D	5.2	200
Benz(a)anthracene	14000	7600	E D	3.5	200
Benzo(a)pyrene		4100		4.9	200
Benzo(b)fluoranthene		5300		3.9	200
Benzo(g,h,i)perylene		1000		2.4	200
Benzo(k)fluoranthene		510		2.2	200
Chrysene	14000	8400	E D	2.0	200
Dibenz(a,h)anthracene		430		2.4	200
Fluoranthene		4900		2.9	200
Fluorene	32000	22000	E D	4.7	200
Indeno(1,2,3-c,d)pyrene		920		5.6	200
Naphthalene	56000	32000	E D	3.4	200
Phenanthrene	230000	46000	E D	4.3	200
Pyrene		870		1.3	200
2-Methylnaphthalene	100000	62000	E D	2.5	200
Dibenzofuran		6400		2.1	200

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5	74		34 - 132
2-Fluorobiphenyl	65		37 - 120
p-Terphenyl-d14	117		65 - 153

Analytical Data

Client: New York State Electric & Gas

Job Number: 480-16792-1

Client Sample ID: MSB-19(12-13.1)

Lab Sample ID: 480-16792-2

Date Sampled: 02/29/2012 0945

Client Matrix: Solid

% Moisture: 18.9

Date Received: 03/02/2012 0900

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	480-54551	Instrument ID:	HP5973V
Prep Method:	3550B	Prep Batch:	480-53764	Lab File ID:	V7322.D
Dilution:	50			Initial Weight/Volume:	+30.69 g
Analysis Date:	03/09/2012 1334	Run Type:	DL	Final Weight/Volume:	1 mL
Prep Date:	03/03/2012 0702			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		58000		120	10000
Acenaphthylene		25000		83	10000
Anthracene		30000		260	10000
Benz(a)anthracene		14000		180	10000
Benzo(a)pyrene		6400	J	250	10000
Benzo(b)fluoranthene		5300	J	200	10000
Benzo(g,h,i)perylene		2800	J	120	10000
Benzo(k)fluoranthene		2400	J	110	10000
Chrysene		14000		100	10000
Dibenz(a,h)anthracene		1200	J	120	10000
Fluoranthene		20000		150	10000
Fluorene		32000		230	10000
Indeno(1,2,3-c,d)pyrene		2400	J	280	10000
Naphthalene		56000		170	10000
Phenanthrene		230000		210	10000
Pyrene		41000		66	10000
2-Methylnaphthalene		100000		120	10000
Dibenzofuran		7900	J	110	10000

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5	107		34 - 132
2-Fluorobiphenyl	123	X	37 - 120
p-Terphenyl-d14	132		65 - 153

Analytical Data

Client: New York State Electric & Gas

Job Number: 480-16792-1

Client Sample ID: MSB-24(8-8.9)

Lab Sample ID: 480-16792-3

Date Sampled: 02/29/2012 1100

Client Matrix: Solid

% Moisture: 21.4

Date Received: 03/02/2012 0900

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method: 8270C

Analysis Batch: 480-54403

Instrument ID: HP5973V

Prep Method: 3550B

Prep Batch: 480-53764

Lab File ID: V7280.D

Dilution: 1.0

Initial Weight/Volume: +30.42 g

Analysis Date: 03/08/2012 2003

Final Weight/Volume: 1 mL

Prep Date: 03/03/2012 0702

Injection Volume: 1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		64	J	2.5	210
Acenaphthylene		140	J	1.7	210
Anthracene		240		5.4	210
Benz(a)anthracene		390		3.7	210
Benzo(a)pyrene		320		5.1	210
Benzo(b)fluoranthene		410		4.1	210
Benzo(g,h,i)perylene		140	J	2.5	210
Benzo(k)fluoranthene		180	J	2.3	210
Chrysene		360		2.1	210
Dibenz(a,h)anthracene		36	J	2.5	210
Fluoranthene		870		3.1	210
Fluorene		110	J	4.9	210
Indeno(1,2,3-c,d)pyrene		120	J	5.9	210
Naphthalene		170	J	3.5	210
Phenanthrene		770		4.4	210
Pyrene		870		1.4	210
2-Methylnaphthalene		59	J	2.6	210
Dibenzofuran		87	J	2.2	210

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5	78		34 - 132
2-Fluorobiphenyl	90		37 - 120
p-Terphenyl-d14	117		65 - 153

Analytical Data

Client: New York State Electric & Gas

Job Number: 480-16792-1

Client Sample ID: MSB-26(8-10.6)

Lab Sample ID: 480-16792-4

Date Sampled: 02/29/2012 1250

Client Matrix: Solid

% Moisture: 21.9

Date Received: 03/02/2012 0900

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	480-54403	Instrument ID:	HP5973V
Prep Method:	3550B	Prep Batch:	480-53764	Lab File ID:	V7281.D
Dilution:	10			Initial Weight/Volume:	+30.11 g
Analysis Date:	03/08/2012 2027			Final Weight/Volume:	1 mL
Prep Date:	03/03/2012 0702			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		4700		25	2200
Acenaphthylene		5100		18	2200
Anthracene		14000		55	2200
Benz(a)anthracene		19000		37	2200
Benzo(a)pyrene		13000		52	2200
Benzo(b)fluoranthene		16000		42	2200
Benzo(g,h,i)perylene		5600		26	2200
Benzo(k)fluoranthene		6700		24	2200
Chrysene		15000		22	2200
Dibenz(a,h)anthracene		1400	J	25	2200
Fluoranthene		50000		31	2200
Fluorene		14000		50	2200
Indeno(1,2,3-c,d)pyrene		4800		60	2200
Naphthalene		49000		36	2200
Phenanthrene	54000	71000	ED	45	2200
Pyrene		40000		14	2200
2-Methylnaphthalene		11000		26	2200
Dibenzofuran		13000		22	2200

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5	91		34 - 132
2-Fluorobiphenyl	89		37 - 120
p-Terphenyl-d14	97		65 - 153

Analytical Data

Client: New York State Electric & Gas

Job Number: 480-16792-1

Client Sample ID: MSB-26(8-10.6)

Lab Sample ID: 480-16792-4

Client Matrix: Solid

% Moisture: 21.9

Date Sampled: 02/29/2012 1250

Date Received: 03/02/2012 0900

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method: 8270C

Prep Method: 3550B

Dilution: 50

Analysis Date: 03/09/2012 1358

Prep Date: 03/03/2012 0702

Analysis Batch: 480-54551

Prep Batch: 480-53764

Run Type: DL

Instrument ID: HP5973V

Lab File ID: V7323.D

Initial Weight/Volume: +30.11 g

Final Weight/Volume: 1 mL

Injection Volume: 1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		3700	J	130	11000
Acenaphthylene		3300	J	88	11000
Anthracene		11000		280	11000
Benz(a)anthracene		16000		190	11000
Benzo(a)pyrene		11000		260	11000
Benzo(b)fluoranthene		11000		210	11000
Benzo(g,h,i)perylene		6600	J	130	11000
Benzo(k)fluoranthene		4500	J	120	11000
Chrysene		13000		110	11000
Dibenz(a,h)anthracene		1500	J	130	11000
Fluoranthene		39000		160	11000
Fluorene		12000		250	11000
Indeno(1,2,3-c,d)pyrene		5900	J	300	11000
Naphthalene		38000		180	11000
Phenanthrene		54000		230	11000
Pyrene		33000		70	11000
2-Methylnaphthalene		8800	J	130	11000
Dibenzofuran		11000		110	11000

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5	62		34 - 132
2-Fluorobiphenyl	76		37 - 120
p-Terphenyl-d14	79		65 - 153

Analytical Data

Client: New York State Electric & Gas

Job Number: 480-16792-1

Client Sample ID: MSB-25(8-10.4)

Lab Sample ID: 480-16792-5

Date Sampled: 02/29/2012 1400

Client Matrix: Solid

% Moisture: 23.1

Date Received: 03/02/2012 0900

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	480-54403	Instrument ID:	HP5973V
Prep Method:	3550B	Prep Batch:	480-53764	Lab File ID:	V7282.D
Dilution:	10			Initial Weight/Volume:	30.24 g
Analysis Date:	03/08/2012 2052			Final Weight/Volume:	1 mL
Prep Date:	03/03/2012 0702			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		12000		26	2200
Acenaphthylene		5500		18	2200
Anthracene		17000		56	2200
Benz(a)anthracene		16000		38	2200
Benzo(a)pyrene		11000		52	2200
Benzo(b)fluoranthene		12000		42	2200
Benzo(g,h,i)perylene		3400		26	2200
Benzo(k)fluoranthene		7100		24	2200
Chrysene		12000		22	2200
Dibenz(a,h)anthracene		920	J	26	2200
Fluoranthene		41000		32	2200
Fluorene		18000		50	2200
Indeno(1,2,3-c,d)pyrene		3400		60	2200
Naphthalene		37000		36	2200
Phenanthrene	61600	76000	E D	46	2200
Pyrene		32000		14	2200
2-Methylnaphthalene		6700		26	2200
Dibenzofuran		15000		23	2200

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5	84		34 - 132
2-Fluorobiphenyl	92		37 - 120
p-Terphenyl-d14	97		65 - 153

Analytical Data

Client: New York State Electric & Gas

Job Number: 480-16792-1

Client Sample ID: MSB-25(8-10.4)

Lab Sample ID: 480-16792-5

Client Matrix: Solid

% Moisture: 23.1

Date Sampled: 02/29/2012 1400

Date Received: 03/02/2012 0900

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method: 8270C

Prep Method: 3550B

Dilution: 50

Analysis Date: 03/09/2012 1423

Prep Date: 03/03/2012 0702

Analysis Batch: 480-54551

Prep Batch: 480-53764

Run Type: DL

Instrument ID: HP5973V

Lab File ID: V7324.D

Initial Weight/Volume: 30.24 g

Final Weight/Volume: 1 mL

Injection Volume: 1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		10000	J	130	11000
Acenaphthylene		4000	J	89	11000
Anthracene		14000		280	11000
Benz(a)anthracene		14000		190	11000
Benzo(a)pyrene		9000	J	260	11000
Benzo(b)fluoranthene		9300	J	210	11000
Benzo(g,h,i)perylene		4400	J	130	11000
Benzo(k)fluoranthene		3400	J	120	11000
Chrysene		11000		110	11000
Dibenz(a,h)anthracene		1400	J	130	11000
Fluoranthene		32000		160	11000
Fluorene		16000		250	11000
Indeno(1,2,3-c,d)pyrene		4100	J	300	11000
Naphthalene		30000		180	11000
Phenanthrene		61000		230	11000
Pyrene		26000		70	11000
2-Methylnaphthalene		5900	J	130	11000
Dibenzofuran		13000		110	11000
Surrogate		%Rec	Qualifier	Acceptance Limits	
Nitrobenzene-d5		58		34 - 132	
2-Fluorobiphenyl		73		37 - 120	
p-Terphenyl-d14		82		65 - 153	

Analytical Data

Client: New York State Electric & Gas

Job Number: 480-16792-1

Client Sample ID: MSB-21(8-8.7)

Lab Sample ID: 480-16792-6

Date Sampled: 02/29/2012 1500

Client Matrix: Solid

% Moisture: 20.4

Date Received: 03/02/2012 0900

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	480-54403	Instrument ID:	HP5973V
Prep Method:	3550B	Prep Batch:	480-53764	Lab File ID:	V7283.D
Dilution:	1.0			Initial Weight/Volume:	+30.16 g
Analysis Date:	03/08/2012 2116			Final Weight/Volume:	1 mL
Prep Date:	03/03/2012 0702			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		130	J	2.5	210
Acenaphthylene		82	J	1.7	210
Anthracene		230		5.4	210
Benz(a)anthracene		320		3.6	210
Benzo(a)pyrene		270		5.1	210
Benzo(b)fluoranthene		340		4.1	210
Benzo(g,h,i)perylene		120	J	2.5	210
Benzo(k)fluoranthene		160	J	2.3	210
Chrysene		290		2.1	210
Dibenz(a,h)anthracene		39	J	2.5	210
Fluoranthene		640		3.1	210
Fluorene		190	J	4.9	210
Indeno(1,2,3-c,d)pyrene		110	J	5.8	210
Naphthalene		340		3.5	210
Phenanthrene		820		4.4	210
Pyrene		550		1.4	210
2-Methylnaphthalene		95	J	2.6	210
Dibenzofuran		160	J	2.2	210

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5	82		34 - 132
2-Fluorobiphenyl	93		37 - 120
p-Terphenyl-d14	112		65 - 153

Analytical Data

Client: New York State Electric & Gas

Job Number: 480-16792-1

Client Sample ID: MSB-22(6-7.2)

Lab Sample ID: 480-16792-7

Date Sampled: 03/01/2012 0825

Client Matrix: Solid

% Moisture: 29.7

Date Received: 03/02/2012 0900

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	480-54403	Instrument ID:	HP5973V
Prep Method:	3550B	Prep Batch:	480-53764	Lab File ID:	V7284.D
Dilution:	1.0			Initial Weight/Volume:	30.02 g
Analysis Date:	03/08/2012 2139			Final Weight/Volume:	1 mL
Prep Date:	03/03/2012 0702			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		530		2.8	240
Acenaphthylene		220	J	2.0	240
Anthracene		540		6.1	240
Benz(a)anthracene		680		4.1	240
Benzo(a)pyrene		560		5.8	240
Benzo(b)fluoranthene		610		4.7	240
Benzo(g,h,i)perylene		210	J	2.9	240
Benzo(k)fluoranthene		300		2.6	240
Chrysene		580		2.4	240
Dibenz(a,h)anthracene		75	J	2.8	240
Fluoranthene		1200		3.5	240
Fluorene		430		5.5	240
Indeno(1,2,3-c,d)pyrene		200	J	6.6	240
Naphthalene		440		4.0	240
Phenanthrene		2400		5.0	240
Pyrene		1100		1.6	240
2-Methylnaphthalene		410		2.9	240
Dibenzofuran		200	J	2.5	240

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5	85		34 - 132
2-Fluorobiphenyl	94		37 - 120
p-Terphenyl-d14	102		65 - 153

Analytical Data

Client: New York State Electric & Gas

Job Number: 480-16792-1

Client Sample ID: MSB-23(8-8.7)

Lab Sample ID: 480-16792-8

Date Sampled: 03/01/2012 0930

Client Matrix: Solid

% Moisture: 18.9

Date Received: 03/02/2012 0900

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	480-54403	Instrument ID:	HP5973V
Prep Method:	3550B	Prep Batch:	480-53764	Lab File ID:	V7285.D
Dilution:	1.0			Initial Weight/Volume:	+30.42 g
Analysis Date:	03/08/2012 2203			Final Weight/Volume:	1 mL
Prep Date:	03/03/2012 0702			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		130	J	2.4	210
Acenaphthylene		340		1.7	210
Anthracene		710		5.3	210
Benz(a)anthracene		1800 J		3.5	210
Benzo(a)pyrene		1600 J		4.9	210
Benzo(b)fluoranthene		2100 J		4.0	210
Benzo(g,h,i)perylene		590 J		2.5	210
Benzo(k)fluoranthene		780		2.3	210
Chrysene		1500		2.1	210
Dibenz(a,h)anthracene		180 J	J	2.4	210
Fluoranthene		3100 J		3.0	210
Fluorene		340		4.7	210
Indeno(1,2,3-c,d)pyrene		580 J		5.7	210
Naphthalene		310		3.4	210
Phenanthrene		2100 J		4.3	210
Pyrene		2700 J		1.3	210
2-Methylnaphthalene		160	J	2.5	210
Dibenzofuran		250		2.1	210

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5	84		34 - 132
2-Fluorobiphenyl	94		37 - 120
p-Terphenyl-d14	107		65 - 153

Analytical Data

Client: New York State Electric & Gas

Job Number: 480-16792-1

Client Sample ID: MSB-20(8-9')

Lab Sample ID: 480-16792-9

Date Sampled: 03/01/2012 1000

Client Matrix: Solid

% Moisture: 24.9

Date Received: 03/02/2012 0900

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method: 8270C

Analysis Batch: 480-54403

Instrument ID: HP5973V

Prep Method: 3550B

Prep Batch: 480-53764

Lab File ID: V7286.D

Dilution: 1.0

Initial Weight/Volume: +30.69 g

Analysis Date: 03/08/2012 2227

Final Weight/Volume: 1 mL

Prep Date: 03/03/2012 0702

Injection Volume: 1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		36	J	2.6	220
Acenaphthylene		110	J	1.8	220
Anthracene		210	J	5.6	220
Benz(a)anthracene		440		3.8	220
Benzo(a)pyrene		400		5.3	220
Benzo(b)fluoranthene		550		4.3	220
Benzo(g,h,i)perylene		170	J	2.6	220
Benzo(k)fluoranthene		230		2.4	220
Chrysene		380		2.2	220
Dibenz(a,h)anthracene		53	J	2.6	220
Fluoranthene		790		3.2	220
Fluorene		97	J	5.1	220
Indeno(1,2,3-c,d)pyrene		150	J	6.1	220
Naphthalene		61	J	3.7	220
Phenanthrene		630		4.6	220
Pyrene		750		1.4	220
2-Methylnaphthalene		50	J	2.7	220
Dibenzofuran		69	J	2.3	220

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5	80		34 - 132
2-Fluorobiphenyl	92		37 - 120
p-Terphenyl-d14	106		65 - 153

Analytical Data

Client: New York State Electric & Gas

Job Number: 480-16792-1

Client Sample ID: DUP-3112

Lab Sample ID: 480-16792-10

Client Matrix: Solid

% Moisture: 23.2

Date Sampled: 03/01/2012 0000

Date Received: 03/02/2012 0900

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	480-54403	Instrument ID:	HP5973V
Prep Method:	3550B	Prep Batch:	480-53764	Lab File ID:	V7287.D
Dilution:	1.0			Initial Weight/Volume:	+30.23 g
Analysis Date:	03/08/2012 2251			Final Weight/Volume:	1 mL
Prep Date:	03/03/2012 0702			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		50	J	2.6	220
Acenaphthylene		120	J	1.8	220
Anthracene		300		5.6	220
Benz(a)anthracene		870		3.8	220
Benzo(a)pyrene		690		5.3	220
Benzo(b)fluoranthene		760		4.2	220
Benzo(g,h,i)perylene		220		2.6	220
Benzo(k)fluoranthene		450		2.4	220
Chrysene		680		2.2	220
Dibenz(a,h)anthracene		72	J	2.6	220
Fluoranthene		1400		3.2	220
Fluorene		120	J	5.0	220
Indeno(1,2,3-c,d)pyrene		210	J	6.0	220
Naphthalene		71	J	3.6	220
Phenanthrene		890		4.6	220
Pyrene		1200		1.4	220
2-Methylnaphthalene		37	J	2.6	220
Dibenzofuran		74	J	2.3	220

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5	86		34 - 132
2-Fluorobiphenyl	94		37 - 120
p-Terphenyl-d14	108		65 - 153



Attachment 4

Geotechnical Testing Laboratory
Reports (on Compact Disc)



Client:	Arcadis U.S., Inc.		
Project:	McMaster Street - NYSEG		
Location:	Auburn, NY		Project No: GTX-11290
Boring ID: ---	Sample Type: ---	Tested By: jef	
Sample ID:---	Test Date: 11/23/11	Checked By: jdt	
Depth : ---	Sample Id: ---		

Moisture Content of Soil - ASTM D 2216-05

Boring ID	Sample ID	Depth	Description	Moisture Content, %
---	MSB-3	0-5 ft	Moist, dark brown silty gravel with sand	9.3
---	MSB-5	5-15 ft	Moist, dark grayish brown silty gravel with sand	7.7
---	MSB-6	0-5 ft	Moist, dark brown silty gravel with sand	11.1
---	MSB-7	5-9.7 ft	Moist, very dark brown silty gravel with sand	21.7
---	MSB-8	10-12 ft	Moist, brown clay with gravel	10.4
---	MSB-9	1-5 ft	Moist, dark brown silty gravel with sand	12.9
---	MSB-9	5-11.3 ft	Moist, very dark brown sandy silt	18.3

Notes: Temperature of Drying : 110° Celsius



Client:	Arcadis U.S., Inc.	Project No:	GTX-11290
Project:	McMaster Street - NYSEG		
Location:	Auburn, NY		
Boring ID: ---	Sample Type: ---	Tested By:	jef
Sample ID:---	Test Date: 11/23/11	Checked By:	jdt
Depth : ---	Sample Id: ---		

Moisture Content of Soil - ASTM D 2216-05

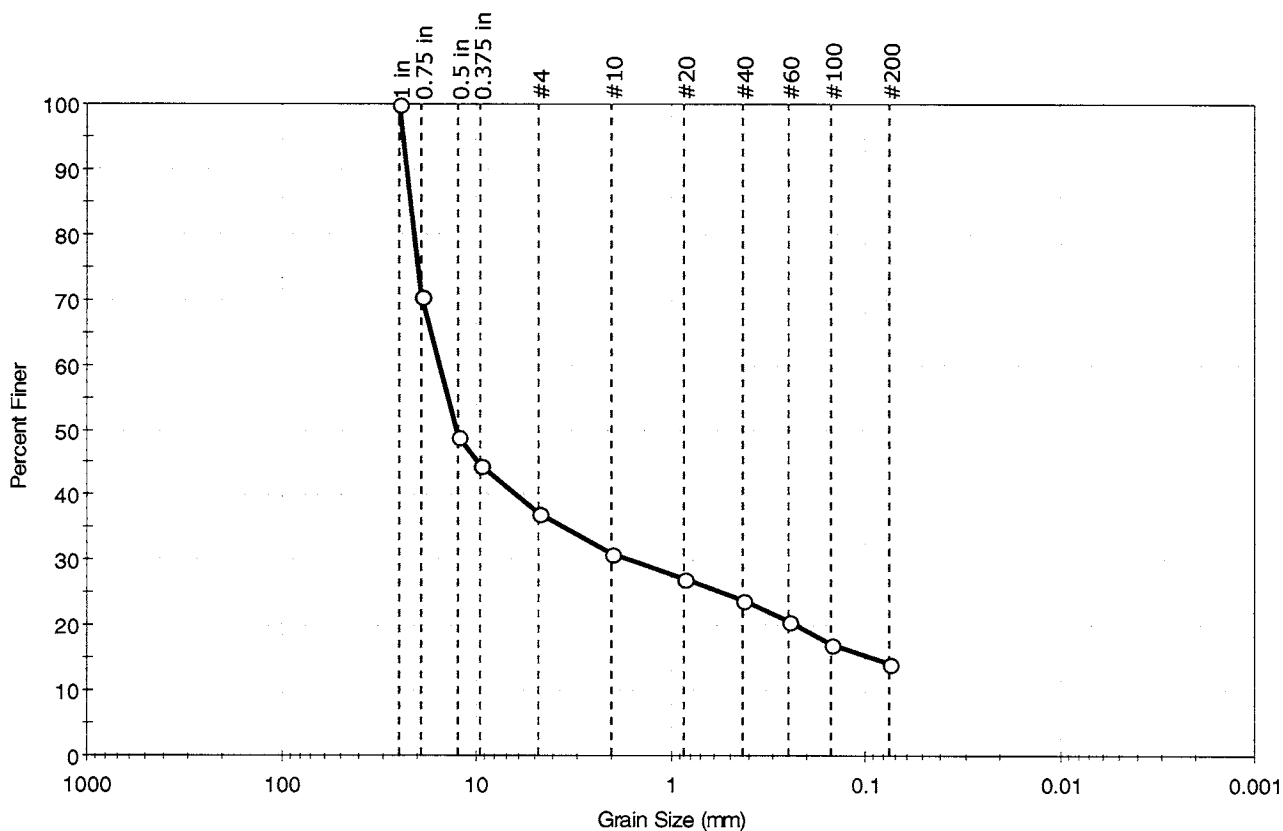
Boring ID	Sample ID	Depth	Description	Moisture Content, %
---	MSB-11	0-5 ft	Moist, dark brown silty sand with gravel	7.9
---	MSB-11	12-14 ft	Moist, grayish brown silty sand with gravel	7.5
---	MSB-12	10-12 ft	Moist, very dark brown silty sand	47
---	MSB-13	0-4.5 ft	Moist, dark brown silty gravel with sand	13.3
---	MSB-13	7.4-8.4 ft	Moist, brown sandy silt	11.9
---	MSB-14	5-9 ft	Moist, grayish brown silty gravel with sand	15.9

Notes: Temperature of Drying : 110° Celsius



Client:	Arcadis U.S., Inc.	Project No:	GTX-11290
Project:	McMaster Street - NYSEG	Tested By:	jbr
Location:	Auburn, NY	Checked By:	jdt
Boring ID:	---	Sample Type:	bag
Sample ID:	MSB-3	Test Date:	11/17/11
Depth:	0-5 ft	Test Id:	222797
Test Comment:	---		
Sample Description:	Moist, dark brown silty gravel with sand		
Sample Comment:	---		

Particle Size Analysis - ASTM D 422-63 (reapproved 2002)



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	62.9	23.0	14.1

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
1 in	25.00	100		
0.75 in	19.00	71		
0.5 in	12.50	49		
0.375 in	9.50	45		
#4	4.75	37		
#10	2.00	31		
#20	0.85	27		
#40	0.42	24		
#60	0.25	21		
#100	0.15	17		
#200	0.075	14		

Coefficients

D ₈₅ = 21.7407 mm	D ₃₀ = 1.6108 mm
D ₆₀ = 15.5002 mm	D ₁₅ = 0.0917 mm
D ₅₀ = 12.7756 mm	D ₁₀ = 0.0289 mm
C _u = N/A	C _c = N/A

Classification

ASTM	N/A
AASHTO	Stone Fragments, Gravel and Sand (A-1-a (0))

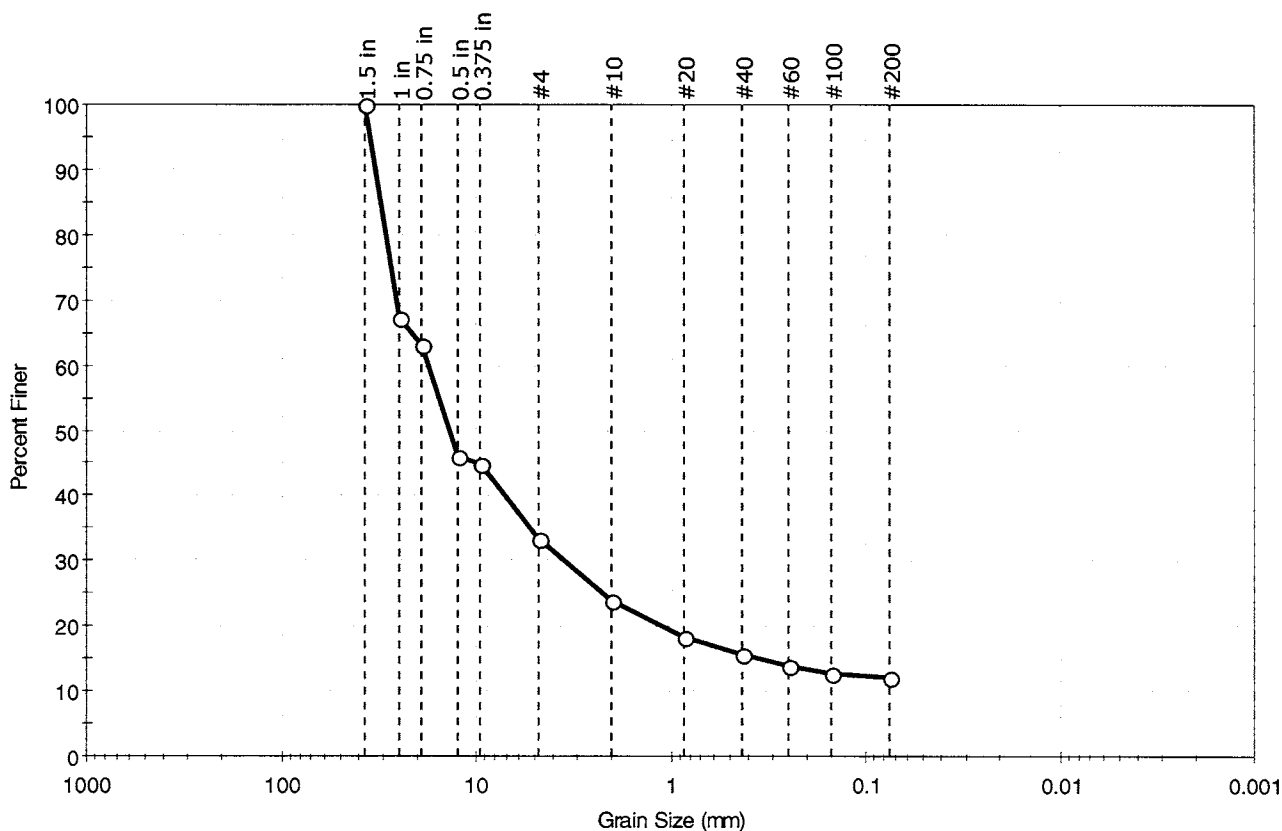
Sample/Test Description

Sand/Gravel Particle Shape : **ROUNDED**
 Sand/Gravel Hardness : **HARD**



Client: Arcadis U.S., Inc.	Project No: GTX-11290	
Project: McMaster Street - NYSEG		
Location: Auburn, NY	Boring ID: ---	Sample Type: bag
	Sample ID:MSB-5	Test Date: 11/17/11
	Depth : 5-15 ft	Test Id: 222798
Test Comment: ---		
Sample Description: Moist, dark grayish brown silty gravel with sand		
Sample Comment: ---		

Particle Size Analysis - ASTM D 422-63 (reapproved 2002)



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	66.7	21.2	12.1

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
1.5 in	37.50	100		
1 in	25.00	67		
0.75 in	19.00	63		
0.5 in	12.50	46		
0.375 in	9.50	45		
#4	4.75	33		
#10	2.00	24		
#20	0.85	18		
#40	0.42	16		
#60	0.25	14		
#100	0.15	13		
#200	0.075	12		

Coefficients

D ₈₅ = 31.1484 mm	D ₃₀ = 3.5196 mm
D ₆₀ = 17.6008 mm	D ₁₅ = 0.3460 mm
D ₅₀ = 13.7607 mm	D ₁₀ = 0.0085 mm
C _u = N/A	C _c = N/A

Classification

ASTM N/A

AASHTO Stone Fragments, Gravel and Sand (A-1-a (0))

Sample/Test Description

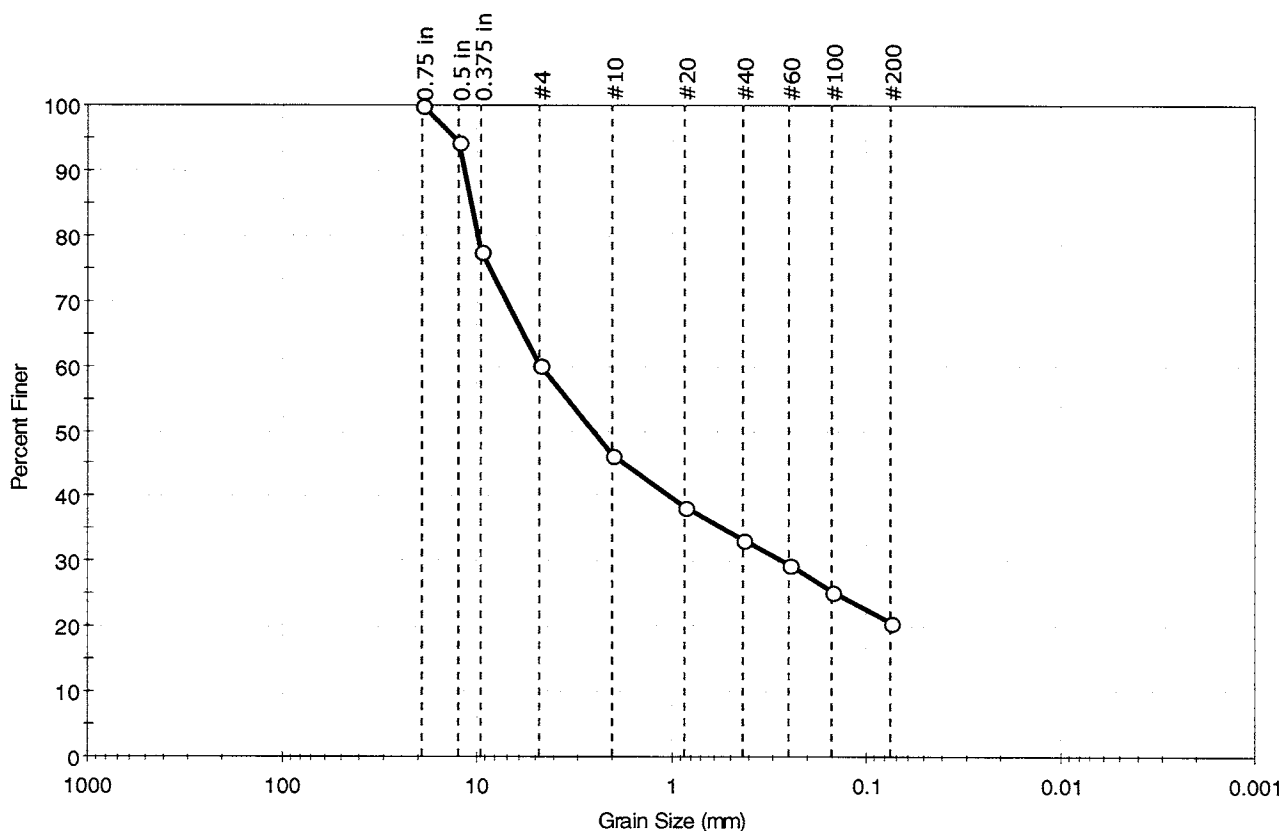
Sand/Gravel Particle Shape :

Sand/Gravel Hardness :



Client:	Arcadis U.S., Inc.	Project No:	GTX-11290
Project:	McMaster Street - NYSEG	Tested By:	jbr
Location:	Auburn, NY	Checked By:	jdt
Boring ID:	---	Sample Type:	bag
Sample ID:	MSB-6	Test Date:	11/17/11
Depth :	0-5 ft	Test Id:	222799
Test Comment:	---		
Sample Description:	Moist, dark brown silty gravel with sand		
Sample Comment:	---		

Particle Size Analysis - ASTM D 422-63 (reapproved 2002)



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	39.9	39.5	20.6

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
0.75 in	19.00	100		
0.5 in	12.50	94		
0.375 in	9.50	78		
#4	4.75	60		
#10	2.00	46		
#20	0.85	38		
#40	0.42	33		
#60	0.25	29		
#100	0.15	25		
#200	0.075	21		

Coefficients

D ₈₅ = 10.7105 mm	D ₃₀ = 0.2700 mm
D ₆₀ = 4.7216 mm	D ₁₅ = N/A
D ₅₀ = 2.5145 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

Classification

ASTM N/A

AASHTO Stone Fragments, Gravel and Sand (A-1-b (0))

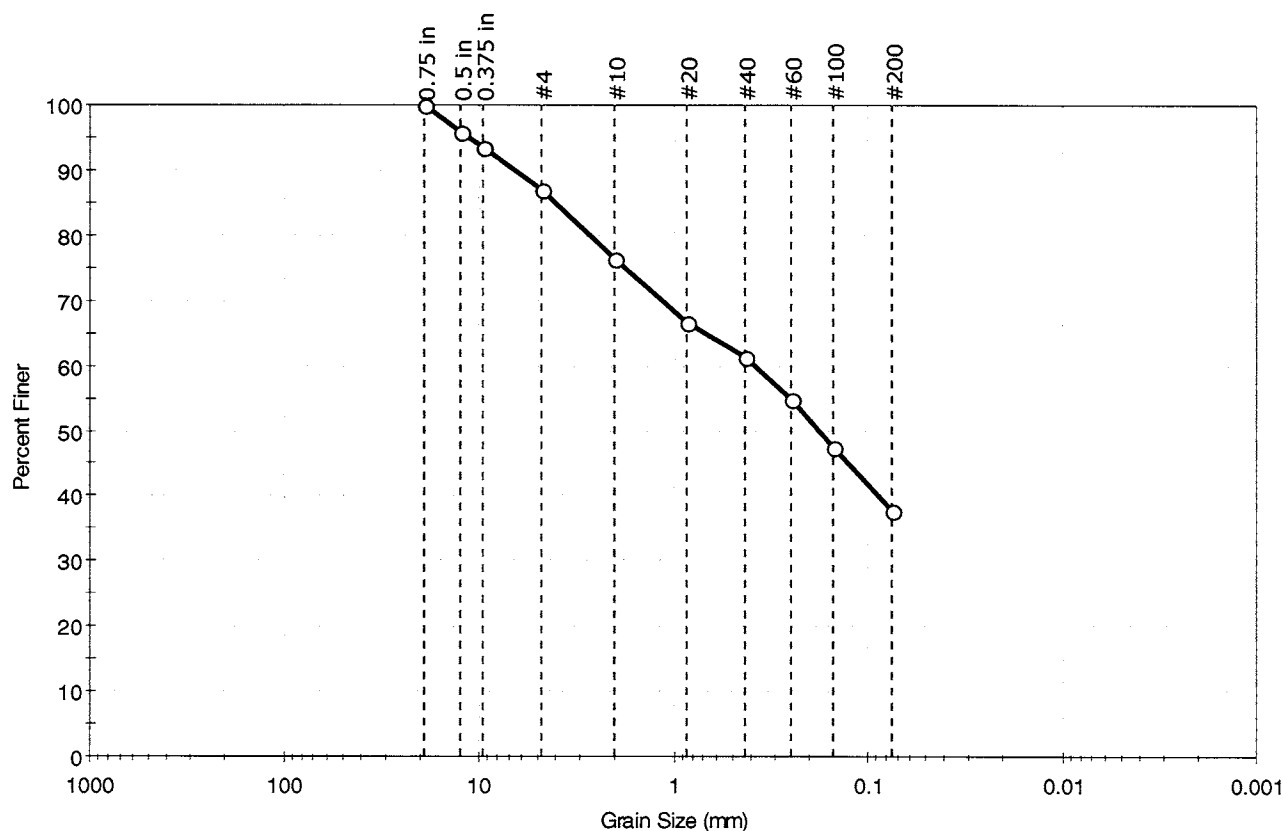
Sample/Test Description

Sand/Gravel Particle Shape : ROUNDED
Sand/Gravel Hardness : HARD



Client:	Arcadis U.S., Inc.	Project No:	GTX-11290
Project:	McMaster Street - NYSEG	Tested By:	jbr
Location:	Auburn, NY	Checked By:	jdt
Boring ID:	---	Sample Type:	bag
Sample ID:	MSB-6	Test Date:	11/17/11
Depth:	5-10.7 ft	Test Id:	222800
Test Comment:	---		
Sample Description:	Moist, dark olive brown silty sand		
Sample Comment:	---		

Particle Size Analysis - ASTM D 422-63 (reapproved 2002)



%Cobble	%Gravel	%Sand	%Silt & Clay Size
—	12.9	49.5	37.6

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
0.75 in	19.00	100		
0.5 in	12.50	96		
0.375 in	9.50	94		
#4	4.75	87		
#10	2.00	76		
#20	0.85	67		
#40	0.42	61		
#60	0.25	55		
#100	0.15	48		
#200	0.075	38		

Coefficients

D ₈₅ = 4.0022 mm	D ₃₀ = N/A
D ₆₀ = 0.3783 mm	D ₁₅ = N/A
D ₅₀ = 0.1776 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

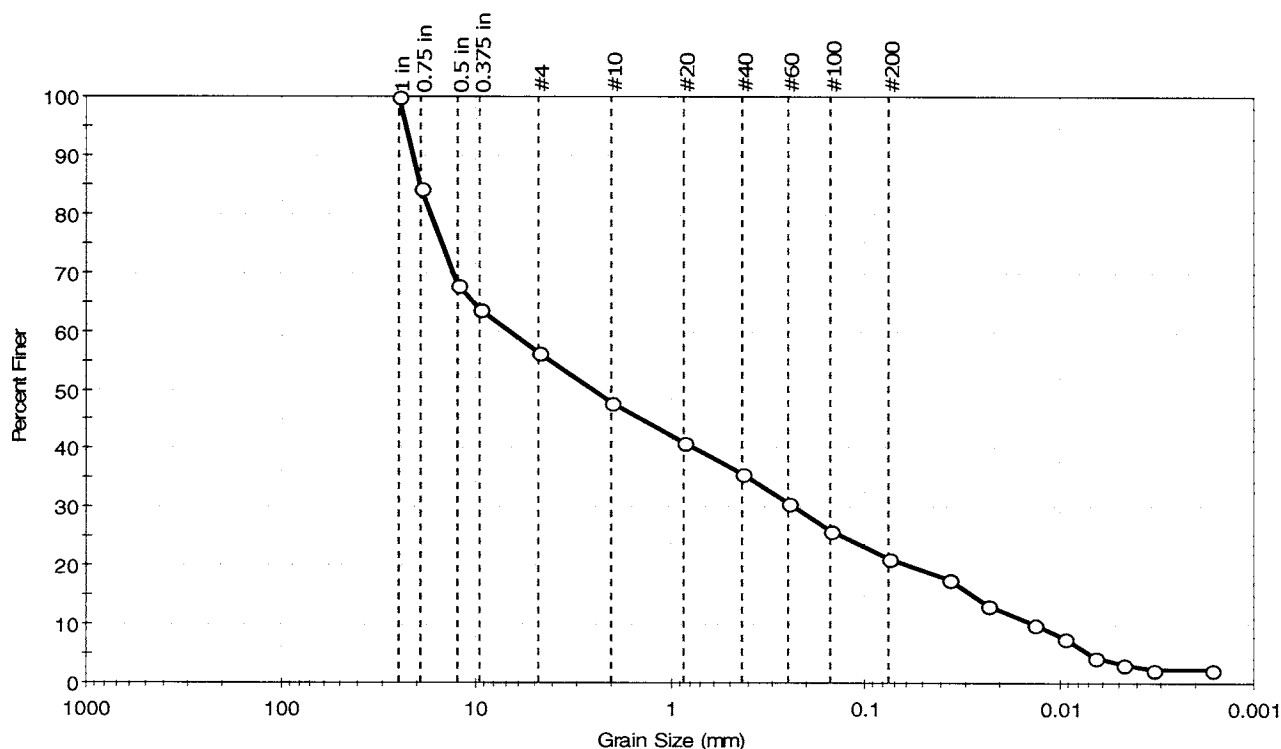
Sample/Test Description

Sand/Gravel Particle Shape : ROUNDED
Sand/Gravel Hardness : HARD



Client: Arcadis U.S., Inc.	Project No: GTX-11290
Project: McMaster Street - NYSEG	
Location: Auburn, NY	
Boring ID: ---	Sample Type: bag
Sample ID: MSB-7	Test Date: 11/16/11
Depth: 5-9.7 ft	Test Id: 222808
Test Comment: ---	Tested By: jbr
Sample Description: Moist, very dark brown silty gravel with sand	Checked By: jdt
Sample Comment: ---	

Particle Size Analysis - ASTM D 422-63 (reapproved 2002)



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	43.5	35.3	21.2

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
1 in	25.00	100		
0.75 in	19.00	84		
0.5 in	12.50	68		
0.375 in	9.50	64		
#4	4.75	56		
#10	2.00	48		
#20	0.85	41		
#40	0.42	36		
#60	0.25	31		
#100	0.15	26		
#200	0.075	21		
---	Particle Size (mm)	Percent Finer	Spec. Percent	Complies
---	0.0371	18		
---	0.0231	13		
---	0.0134	10		
---	0.0094	8		
---	0.0066	4		
---	0.0047	3		
---	0.0033	2		
---	0.0017	2		

Coefficients

D ₈₅ = 19.2086 mm	D ₃₀ = 0.2340 mm
D ₆₀ = 6.6375 mm	D ₁₅ = 0.0277 mm
D ₅₀ = 2.4800 mm	D ₁₀ = 0.0135 mm
C _u = N/A	C _c = N/A

Classification

ASTM	N/A
AASHTO	Stone Fragments, Gravel and Sand (A-1-b (0))

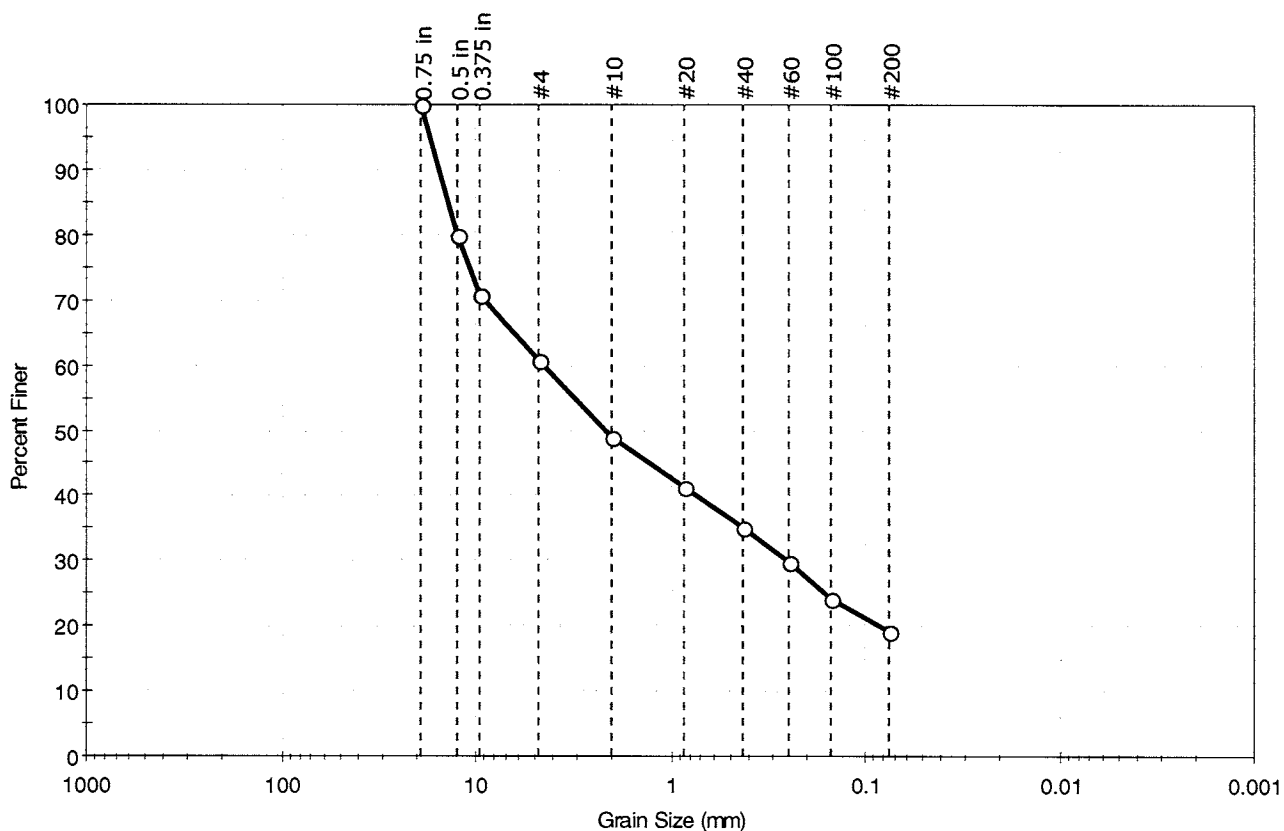
Sample/Test Description

Sand/Gravel Particle Shape : ROUNDED
Sand/Gravel Hardness : HARD



Client:	Arcadis U.S., Inc.	Project No:	GTX-11290
Project:	McMaster Street - NYSEG	Tested By:	jbr
Location:	Auburn, NY	Checked By:	jdt
Boring ID:	---	Sample Type:	bag
Sample ID:	MSB-8	Test Date:	11/16/11
Depth:	0-5 ft	Test Id:	222801
Test Comment:	---		
Sample Description:	Moist, dark brown silty sand with gravel		
Sample Comment:	---		

Particle Size Analysis - ASTM D 422-63 (reapproved 2002)



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	39.3	41.7	19.0

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
0.75 in	19.00	100		
0.5 in	12.50	80		
0.375 in	9.50	71		
#4	4.75	61		
#10	2.00	49		
#20	0.85	41		
#40	0.42	35		
#60	0.25	30		
#100	0.15	24		
#200	0.075	19		

Coefficients

D ₈₅ = 13.8662 mm	D ₃₀ = 0.2576 mm
D ₆₀ = 4.5052 mm	D ₁₅ = N/A
D ₅₀ = 2.1479 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

Classification

ASTM N/A

AASHTO Stone Fragments, Gravel and Sand (A-1-b (0))

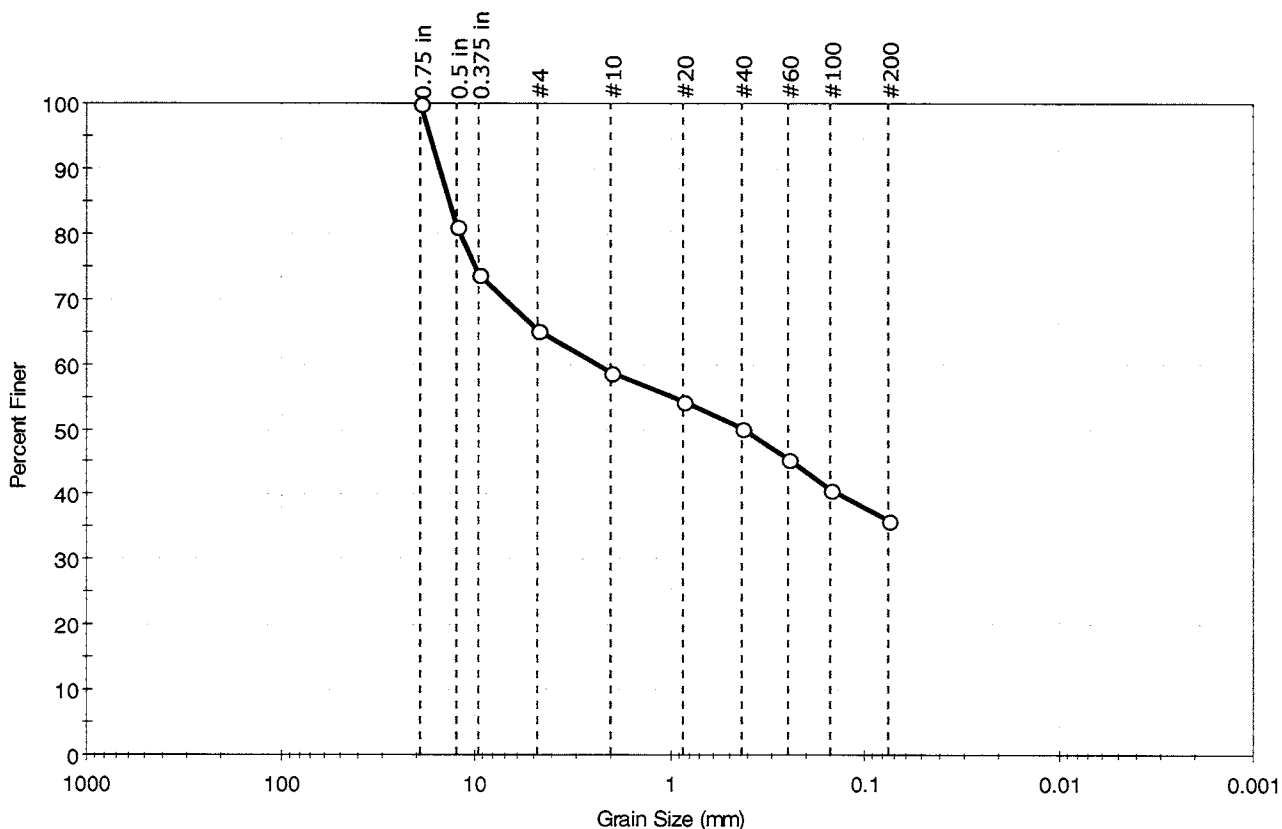
Sample/Test Description

Sand/Gravel Particle Shape : ROUNDED
Sand/Gravel Hardness : HARD



Client:	Arcadis U.S., Inc.	Project No:	GTX-11290
Project:	McMaster Street - NYSEG	Tested By:	jbr
Location:	Auburn, NY	Checked By:	jdt
Boring ID:	---	Sample Type:	bag
Sample ID:	MSB-9	Test Date:	11/19/11
Depth:	1-5 ft	Test Id:	222802
Test Comment:	---		
Sample Description:	Moist, dark brown silty gravel with sand		
Sample Comment:	---		

Particle Size Analysis - ASTM D 422-63 (reapproved 2002)



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	34.7	29.2	36.1

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
0.75 in	19.00	100		
0.5 in	12.50	81		
0.375 in	9.50	74		
#4	4.75	65		
#10	2.00	59		
#20	0.85	54		
#40	0.42	50		
#60	0.25	45		
#100	0.15	41		
#200	0.075	36		

Coefficients

D ₈₅ = 13.6482 mm	D ₃₀ = N/A
D ₆₀ = 2.3558 mm	D ₁₅ = N/A
D ₅₀ = 0.4142 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

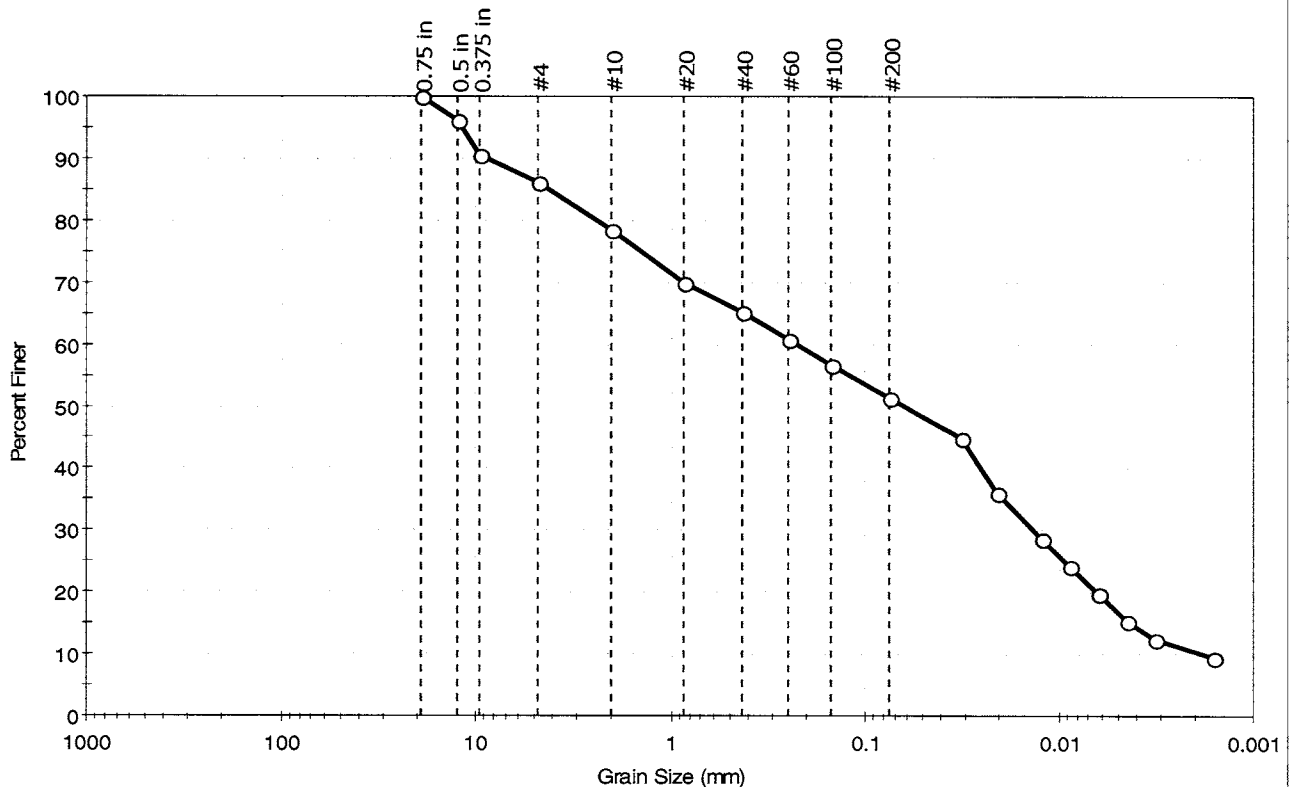
Sample/Test Description

Sand/Gravel Particle Shape : ROUNDED
Sand/Gravel Hardness : HARD



Client: Arcadis U.S., Inc.	Project No: GTX-11290
Project: McMaster Street - NYSEG	
Location: Auburn, NY	
Boring ID: ---	Sample Type: bag
Sample ID:MSB-9	Test Date: 11/16/11
Depth : 5-11.3 ft	Test Id: 222810
Test Comment: ---	Tested By: jbr
Sample Description: Moist, very dark brown sandy silt	Checked By: jdt
Sample Comment: ---	

Particle Size Analysis - ASTM D 422-63 (reapproved 2002)



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	13.8	34.9	51.3

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
0.75 in	19.00	100		
0.5 in	12.50	96		
0.375 in	9.50	91		
#4	4.75	86		
#10	2.00	78		
#20	0.85	70		
#40	0.42	65		
#60	0.25	61		
#100	0.15	57		
#200	0.075	51		
---	Particle Size (mm)	Percent Finer	Spec. Percent	Complies
---	0.0320	45		
---	0.0205	36		
---	0.0122	29		
---	0.0087	24		
---	0.0063	20		
---	0.0044	15		
---	0.0032	12		
---	0.0016	10		

Coefficients

D ₈₅ = 4.1401 mm	D ₃₀ = 0.0134 mm
D ₆₀ = 0.2243 mm	D ₁₅ = 0.0042 mm
D ₅₀ = 0.0627 mm	D ₁₀ = 0.0018 mm
C _u = N/A	C _c = N/A

Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

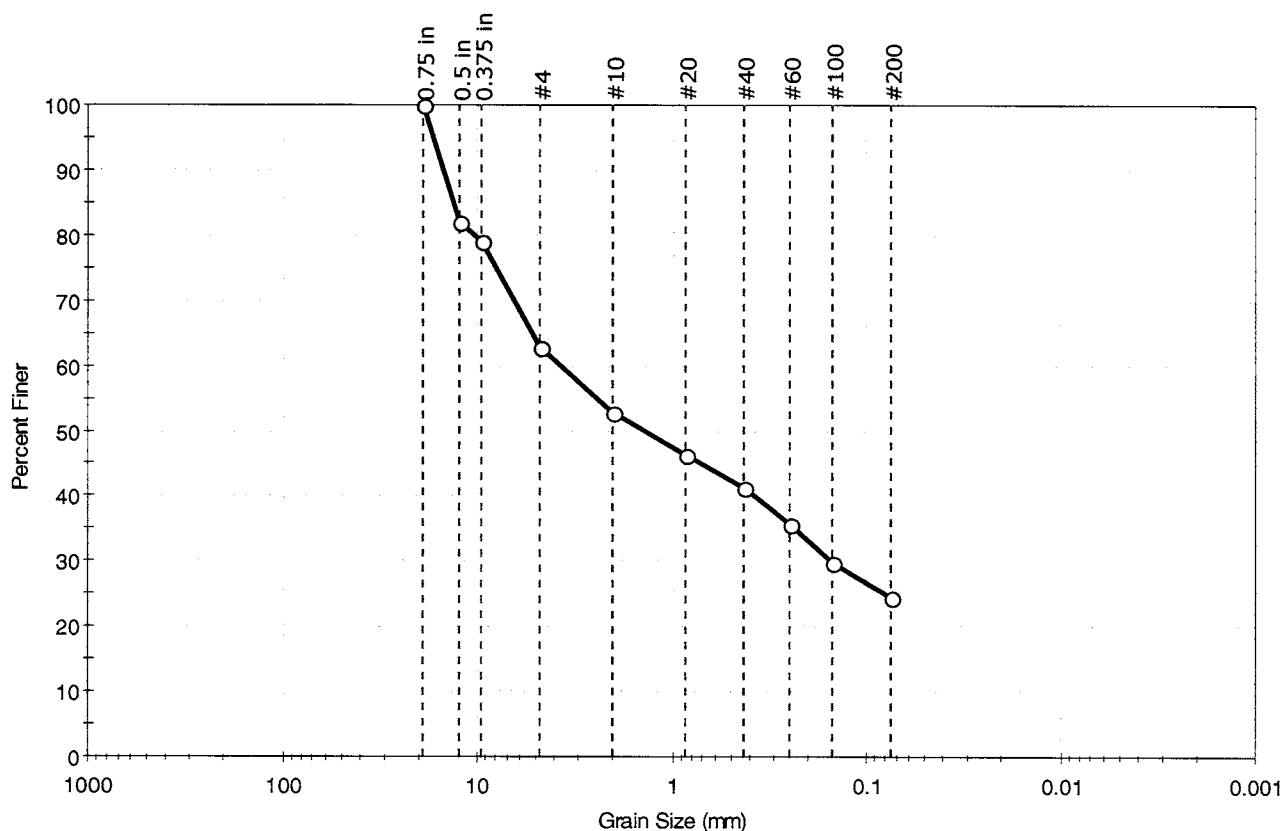
Sample/Test Description

Sand/Gravel Particle Shape : ROUNDED
Sand/Gravel Hardness : HARD



Client:	Arcadis U.S., Inc.	Project No:	GTX-11290
Project:	McMaster Street - NYSEG	Tested By:	jbr
Location:	Auburn, NY	Checked By:	jdt
Boring ID:	---	Sample Type:	bag
Sample ID:	MSB-11	Test Date:	11/17/11
Depth:	0-5 ft	Test Id:	222803
Test Comment:	---		
Sample Description:	Moist, dark brown silty sand with gravel		
Sample Comment:	---		

Particle Size Analysis - ASTM D 422-63 (reapproved 2002)



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	37.1	38.3	24.6

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
0.75 in	19.00	100		
0.5 in	12.50	82		
0.375 in	9.50	79		
#4	4.75	63		
#10	2.00	53		
#20	0.85	46		
#40	0.42	41		
#60	0.25	36		
#100	0.15	30		
#200	0.075	25		

Coefficients

D ₈₅ = 13.4084 mm	D ₃₀ = 0.1533 mm
D ₆₀ = 3.6904 mm	D ₁₅ = N/A
D ₅₀ = 1.3845 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

Classification

ASTM N/A

AASHTO Stone Fragments, Gravel and Sand (A-1-b (0))

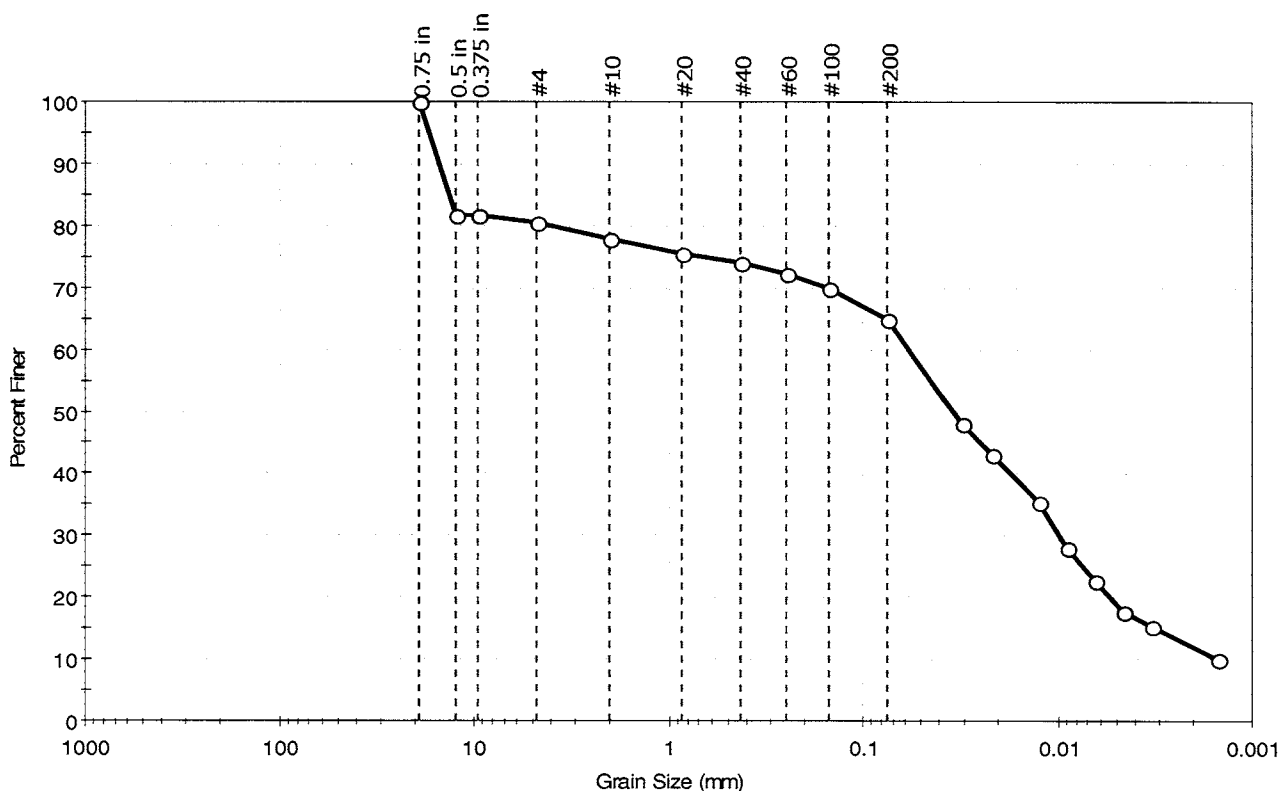
Sample/Test Description

Sand/Gravel Particle Shape : ROUNDED
Sand/Gravel Hardness : HARD



Client:	Arcadis U.S., Inc.	Project No:	GTX-11290
Project:	McMaster Street - NYSEG	Tested By:	jbr
Location:	Auburn, NY	Checked By:	jdt
Boring ID:	---	Sample Type:	bag
Sample ID:	MSB-11	Test Date:	11/16/11
Depth:	5-12 ft	Test Id:	222811
Test Comment:	---		
Sample Description:	Moist, brown gravelly silt with sand		
Sample Comment:	---		

Particle Size Analysis - ASTM D 422-63 (reapproved 2002)



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	19.5	15.4	65.1

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
0.75 in	19.00	100		
0.5 in	12.50	82		
0.375 in	9.50	82		
#4	4.75	80		
#10	2.00	78		
#20	0.85	76		
#40	0.42	74		
#60	0.25	72		
#100	0.15	70		
#200	0.075	65		
---	Particle Size (mm)	Percent Finer	Spec. Percent	Complies
---	0.0312	48		
---	0.0215	43		
---	0.0125	35		
---	0.0089	28		
---	0.0064	23		
---	0.0046	18		
---	0.0033	15		
---	0.0015	10		

Coefficients

D ₈₅ = 13.4685 mm	D ₃₀ = 0.0098 mm
D ₆₀ = 0.0577 mm	D ₁₅ = 0.0032 mm
D ₅₀ = 0.0343 mm	D ₁₀ = 0.0015 mm
C _u = N/A	C _c = N/A

Classification

ASTM	Gravelly lean clay with sand (CL)
AASHTO	Silty Soils (A-4 (3))

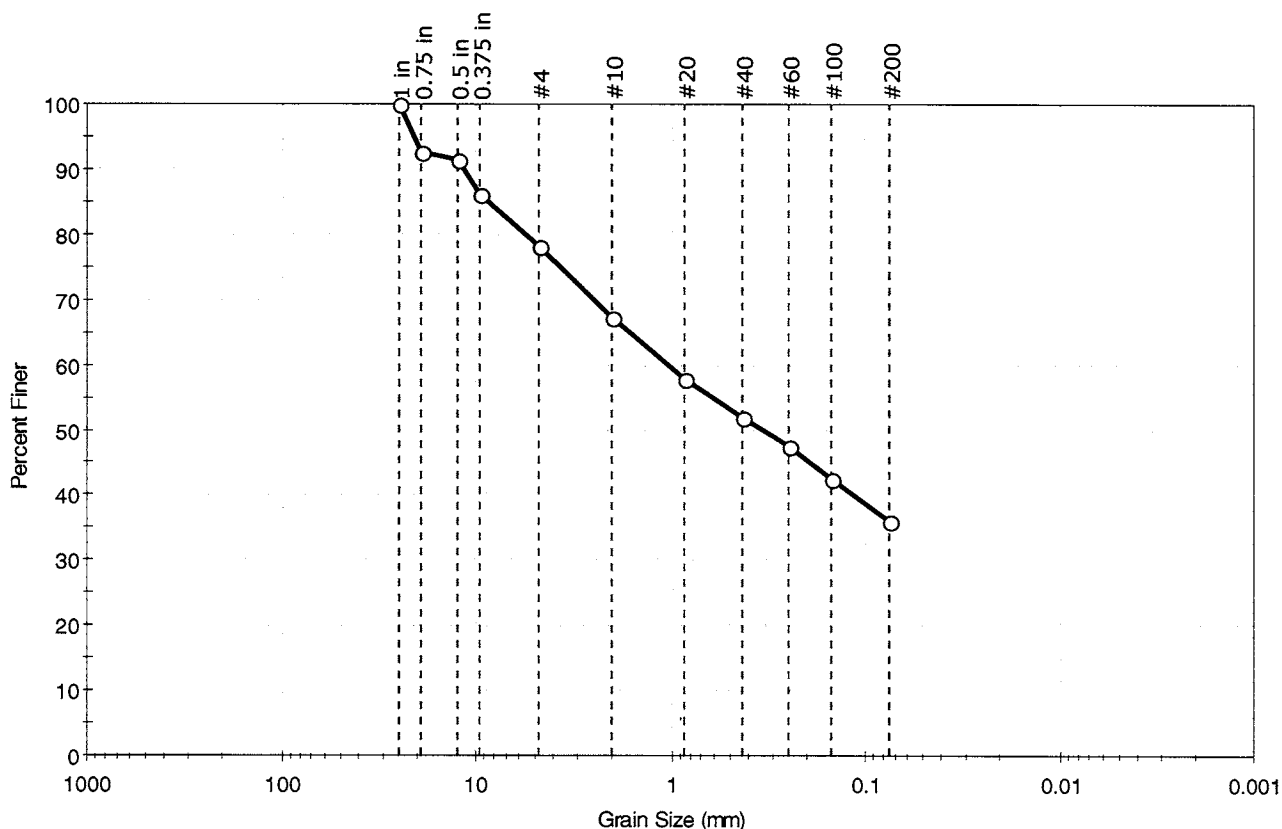
Sample/Test Description

Sand/Gravel Particle Shape : **ROUNDED**
 Sand/Gravel Hardness : **HARD**



Client: Arcadis U.S., Inc.	Project No: GTX-11290
Project: McMaster Street - NYSEG	
Location: Auburn, NY	
Boring ID: ---	Sample Type: bag
Sample ID:MSB-11	Test Date: 11/16/11
Depth : 12-14 ft	Test Id: 222804
Test Comment: ---	Tested By: jbr
Sample Description: Moist, grayish brown silty sand with gravel	Checked By: jdt
Sample Comment: ---	

Particle Size Analysis - ASTM D 422-63 (reapproved 2002)



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	21.6	42.4	36.0

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
1 in	25.00	100		
0.75 in	19.00	93		
0.5 in	12.50	91		
0.375 in	9.50	86		
#4	4.75	78		
#10	2.00	67		
#20	0.85	58		
#40	0.42	52		
#60	0.25	47		
#100	0.15	42		
#200	0.075	36		

Coefficients

D ₈₅ = 8.5236 mm	D ₃₀ = N/A
D ₆₀ = 1.0336 mm	D ₁₅ = N/A
D ₅₀ = 0.3400 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

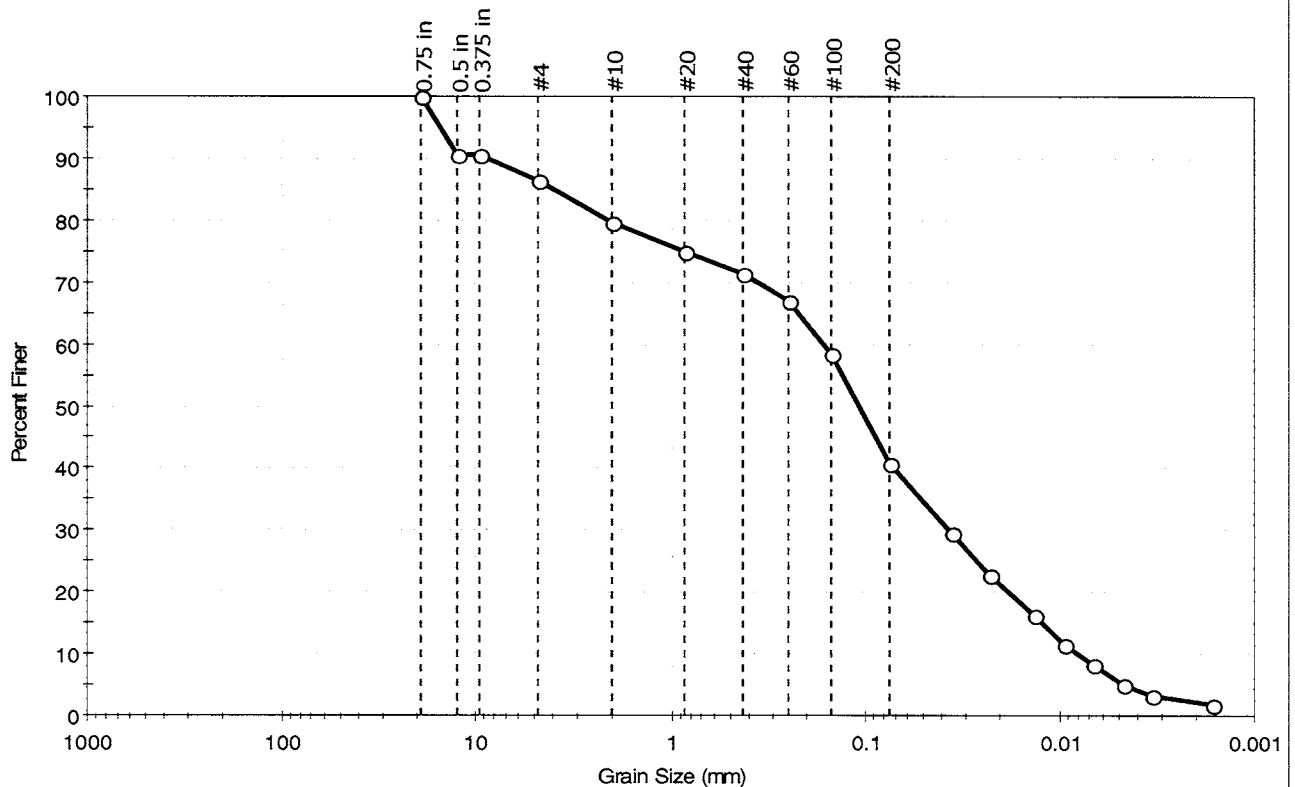
Sample/Test Description

Sand/Gravel Particle Shape : ROUNDED
Sand/Gravel Hardness : HARD



Client:	Arcadis U.S., Inc.	Project No:	GTX-11290
Project:	McMaster Street - NYSEG	Tested By:	jbr
Location:	Auburn, NY	Checked By:	jdt
Boring ID:	---	Sample Type:	bag
Sample ID:	MSB-12	Test Date:	11/16/11
Depth:	10-12 ft	Test Id:	222812
Test Comment:	---		
Sample Description:	Moist, very dark brown silty sand		
Sample Comment:	---		

Particle Size Analysis - ASTM D 422-63 (reapproved 2002)



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	13.5	45.9	40.6

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
0.75 in	19.00	100		
0.5 in	12.50	91		
0.375 in	9.50	91		
#4	4.75	87		
#10	2.00	80		
#20	0.85	75		
#40	0.42	71		
#60	0.25	67		
#100	0.15	58		
#200	0.075	41		
---	Particle Size (mm)	Percent Finer	Spec. Percent	Complies
---	0.0359	29		
---	0.0228	23		
---	0.0134	16		
---	0.0094	11		
---	0.0067	8		
---	0.0048	5		
---	0.0033	3		
---	0.0017	2		

Coefficients

D ₈₅ = 3.9020 mm	D ₃₀ = 0.0374 mm
D ₆₀ = 0.1653 mm	D ₁₅ = 0.0122 mm
D ₅₀ = 0.1082 mm	D ₁₀ = 0.0081 mm
C _u = N/A	C _c = N/A

Classification

ASTM Silty sand (SM)

AASHTO Clayey Soils (A-7-5 (2))

Sample/Test Description

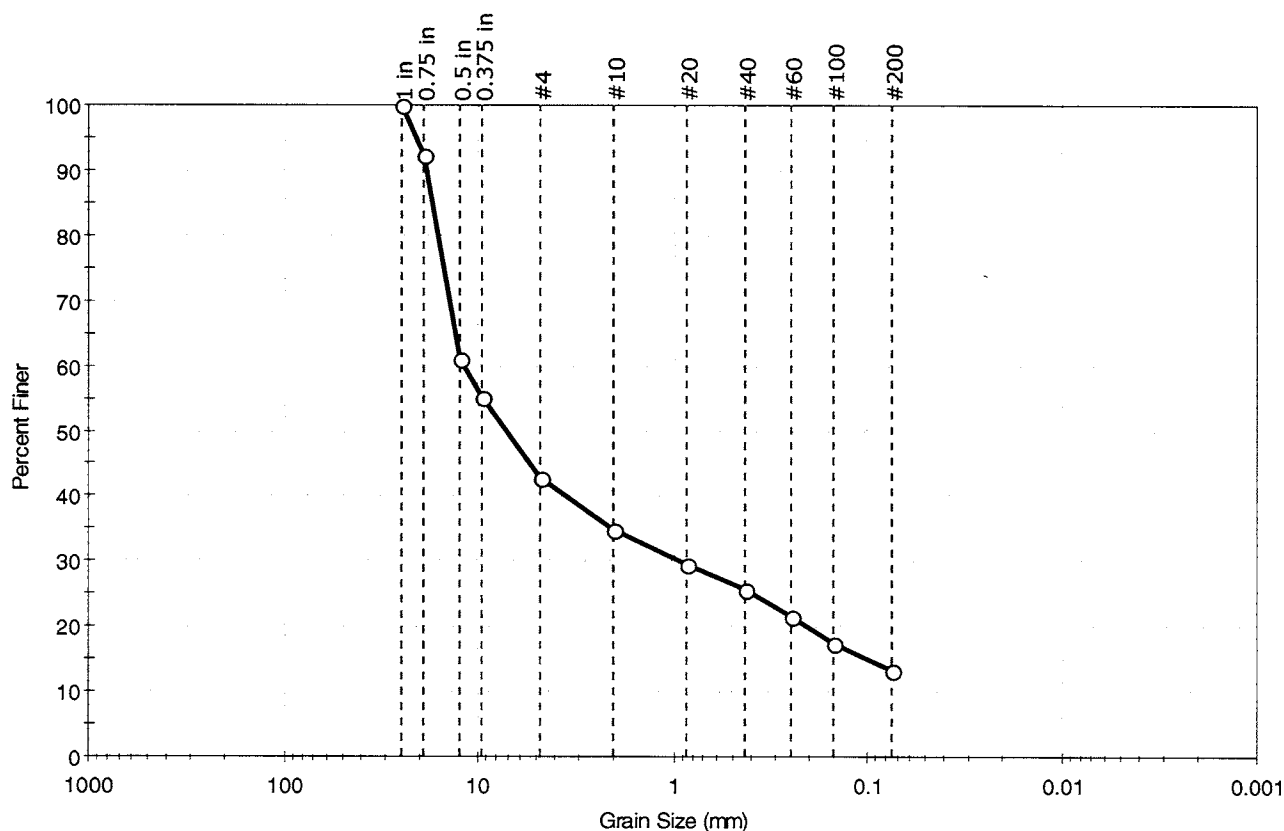
Sand/Gravel Particle Shape : ROUNDED

Sand/Gravel Hardness : HARD



Client:	Arcadis U.S., Inc.	Project No:	GTX-11290
Project:	McMaster Street - NYSEG	Tested By:	jbr
Location:	Auburn, NY	Checked By:	jdt
Boring ID:	---	Sample Type:	bag
Sample ID:	MSB-13	Test Date:	11/17/11
Depth :	0-4.5 ft	Test Id:	222805
Test Comment:	---		
Sample Description:	Moist, dark brown silty gravel with sand		
Sample Comment:	---		

Particle Size Analysis - ASTM D 422-63 (reapproved 2002)



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	57.1	29.5	13.4

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
1 in	25.00	100		
0.75 in	19.00	92		
0.5 in	12.50	61		
0.375 in	9.50	55		
#4	4.75	43		
#10	2.00	35		
#20	0.85	29		
#40	0.42	26		
#60	0.25	22		
#100	0.15	18		
#200	0.075	13		

Coefficients

D ₈₅ = 17.2110 mm	D ₃₀ = 0.9346 mm
D ₆₀ = 11.8847 mm	D ₁₅ = 0.0987 mm
D ₅₀ = 7.0708 mm	D ₁₀ = 0.0428 mm
C _u = N/A	C _c = N/A

Classification

ASTM N/A

AASHTO Stone Fragments, Gravel and Sand (A-1-a (0))

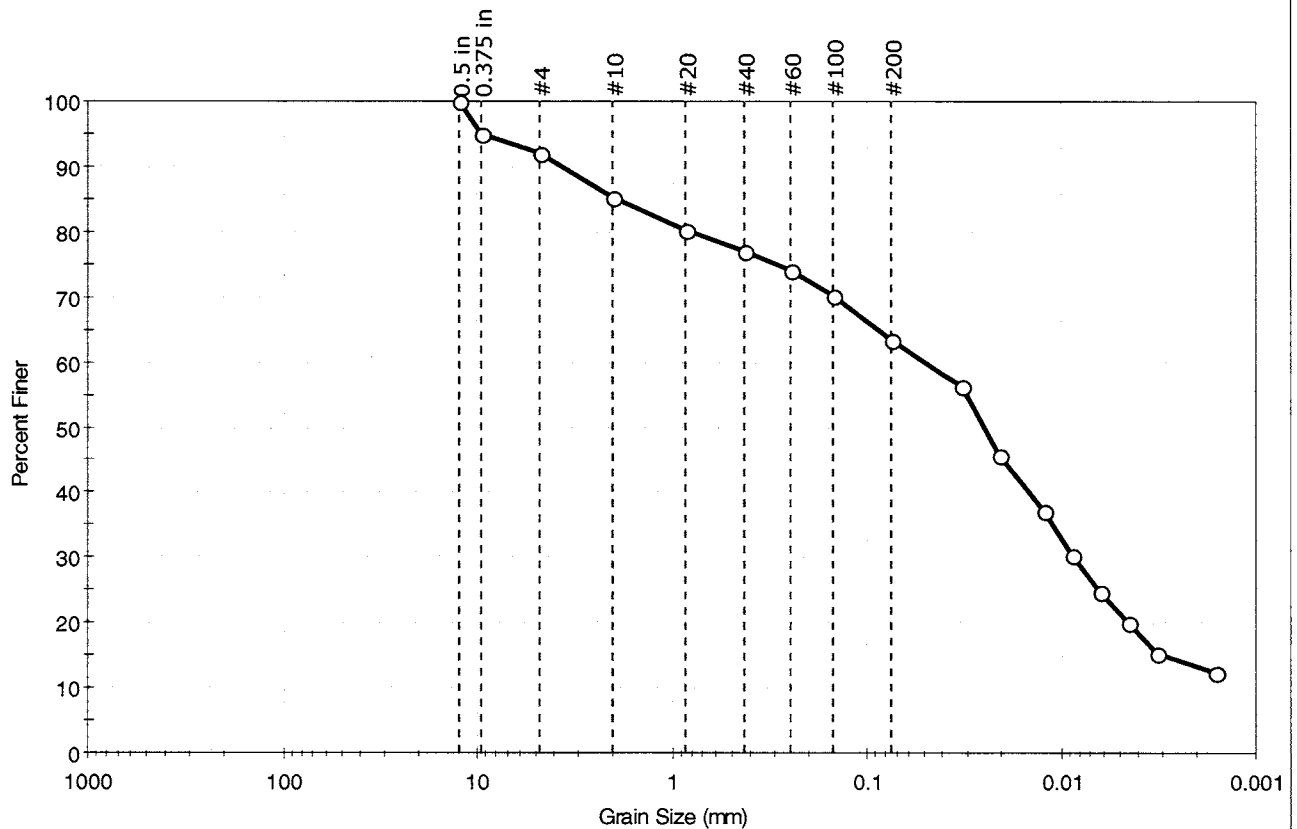
Sample/Test Description

Sand/Gravel Particle Shape : ROUNDED
Sand/Gravel Hardness : HARD



Client:	Arcadis U.S., Inc.	Project No:	GTX-11290
Project:	McMaster Street - NYSEG	Tested By:	jbr
Location:	Auburn, NY	Checked By:	jdt
Boring ID:	---	Sample Type:	bag
Sample ID:	MSB-13	Test Date:	11/16/11
Depth:	7.4-8.4 ft	Test Id:	222813
Test Comment:	---		
Sample Description:	Moist, brown sandy silt		
Sample Comment:	---		

Particle Size Analysis - ASTM D 422-63 (reapproved 2002)



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	8.0	28.6	63.4

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
0.5 in	12.50	100		
0.375 in	9.50	95		
#4	4.75	92		
#10	2.00	85		
#20	0.85	80		
#40	0.42	77		
#60	0.25	74		
#100	0.15	70		
#200	0.075	63		
---	Particle Size (mm)	Percent Finer	Spec. Percent	Complies
---	0.0322	56		
---	0.0207	46		
---	0.0122	37		
---	0.0087	31		
---	0.0063	25		
---	0.0045	20		
---	0.0032	15		
---	0.0016	12		

Coefficients

D ₈₅ = 1.9081 mm	D ₃₀ = 0.0085 mm
D ₆₀ = 0.0501 mm	D ₁₅ = 0.0030 mm
D ₅₀ = 0.0248 mm	D ₁₀ = 0.0009 mm
C _u = N/A	C _c = N/A

Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

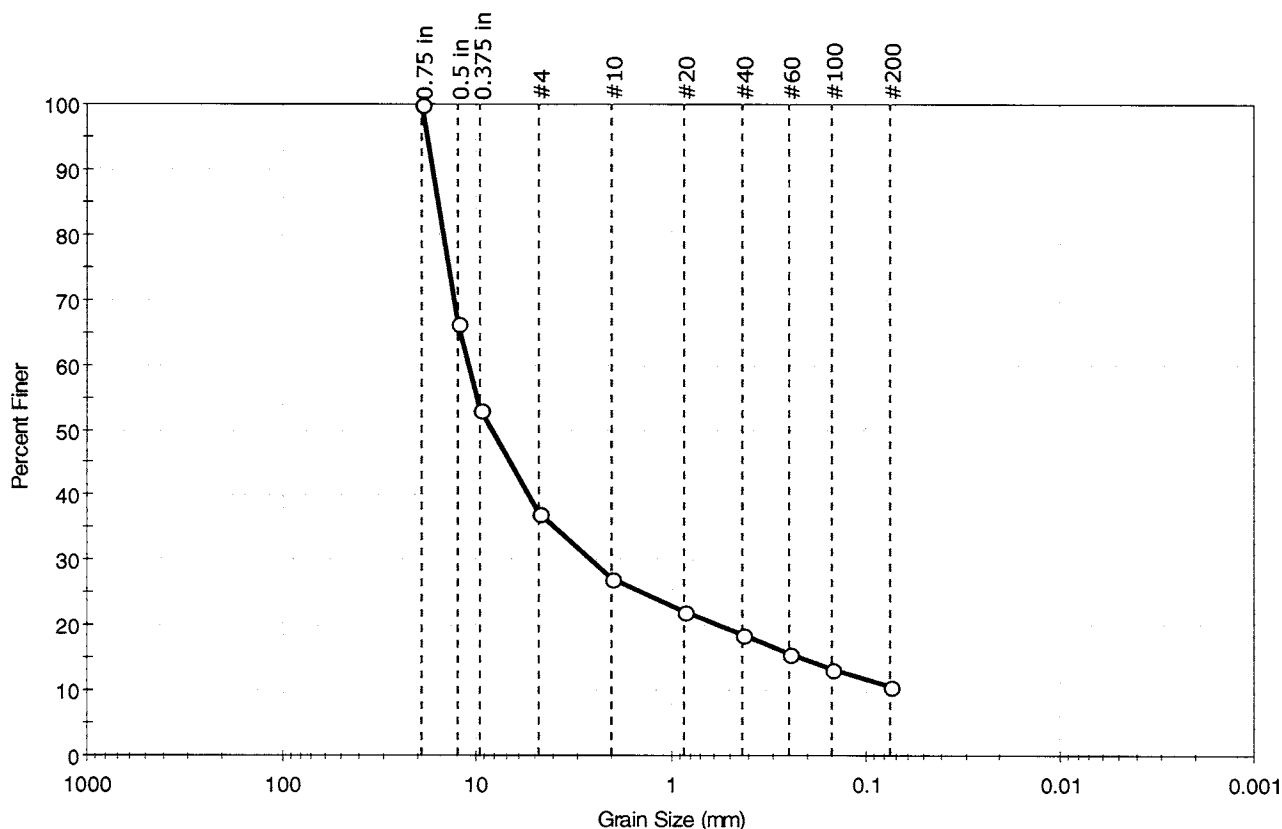
Sample/Test Description

Sand/Gravel Particle Shape : ROUNDED
Sand/Gravel Hardness : HARD



Client:	Arcadis U.S., Inc.	Project No:	GTX-11290
Project:	McMaster Street - NYSEG	Tested By:	jbr
Location:	Auburn, NY	Checked By:	jdt
Boring ID:	---	Sample Type:	bag
Sample ID:	MSB-14	Test Date:	11/16/11
Depth :	0-4 ft	Test Id:	222806
Test Comment:	---		
Sample Description:	Moist, very dark brown gravel with silt and sand		
Sample Comment:	---		

Particle Size Analysis - ASTM D 422-63 (reapproved 2002)



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	62.9	26.5	10.6

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
0.75 in	19.00	100		
0.5 in	12.50	66		
0.375 in	9.50	53		
#4	4.75	37		
#10	2.00	27		
#20	0.85	22		
#40	0.42	19		
#60	0.25	16		
#100	0.15	13		
#200	0.075	11		

Coefficients

D ₈₅ = 15.7570 mm	D ₃₀ = 2.5607 mm
D ₆₀ = 10.9556 mm	D ₁₅ = 0.2149 mm
D ₅₀ = 8.3232 mm	D ₁₀ = 0.0641 mm
C _u = 170.914	C _c = 9.337

Classification

ASTM N/A

AASHTO Stone Fragments, Gravel and Sand (A-1-a (0))

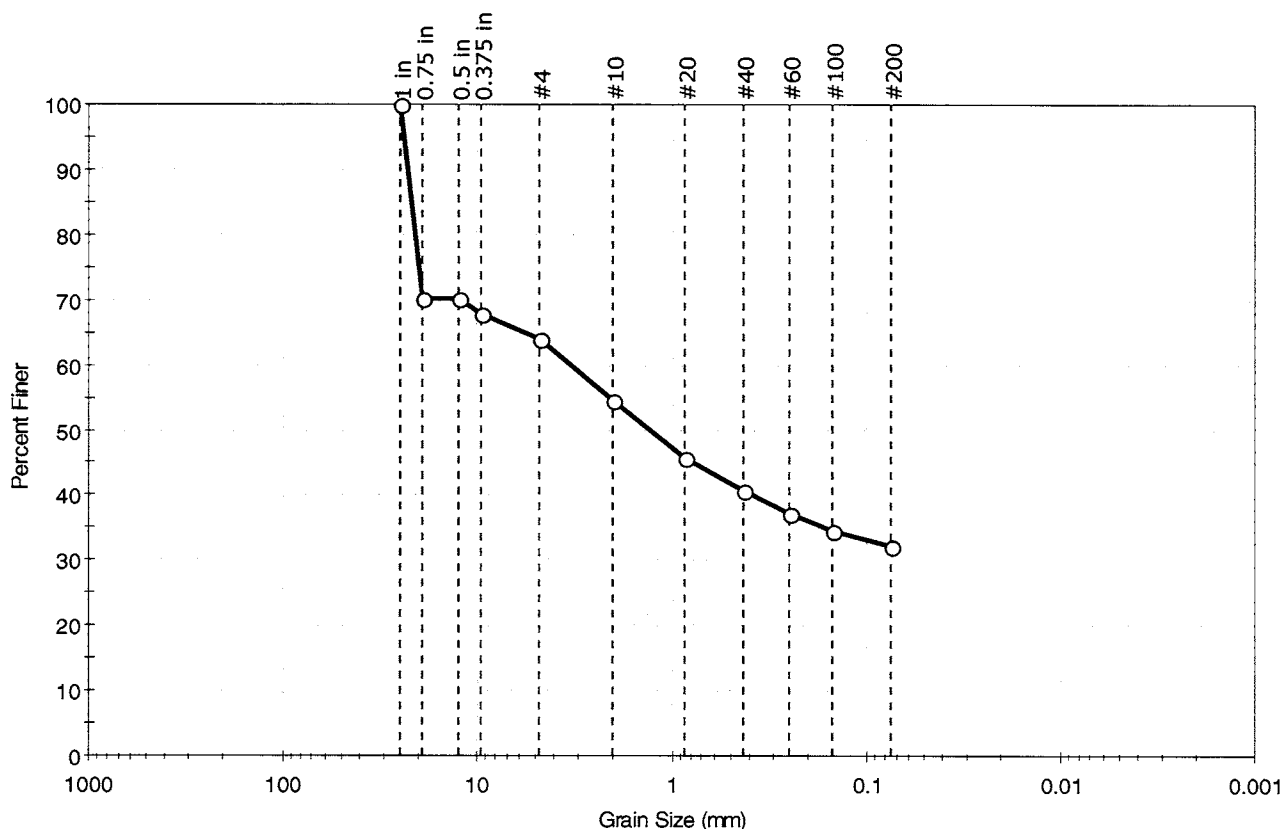
Sample/Test Description

Sand/Gravel Particle Shape : **ROUNDED**
 Sand/Gravel Hardness : **HARD**



Client:	Arcadis U.S., Inc.	Project No:	GTX-11290
Project:	McMaster Street - NYSEG	Tested By:	jbr
Location:	Auburn, NY	Checked By:	jdt
Boring ID:	---	Sample Type:	bag
Sample ID:	MSB-14	Test Date:	11/17/11
Depth :	5-9 ft	Test Id:	222807
Test Comment:	---		
Sample Description:	Moist, grayish brown silty gravel with sand		
Sample Comment:	---		

Particle Size Analysis - ASTM D 422-63 (reapproved 2002)



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	36.1	31.8	32.1

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
1 in	25.00	100		
0.75 in	19.00	70		
0.5 in	12.50	70		
0.375 in	9.50	68		
#4	4.75	64		
#10	2.00	54		
#20	0.85	46		
#40	0.42	41		
#60	0.25	37		
#100	0.15	35		
#200	0.075	32		

Coefficients

D ₈₅ = 21.7588 mm	D ₃₀ = N/A
D ₆₀ = 3.3055 mm	D ₁₅ = N/A
D ₅₀ = 1.2895 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

Classification

ASTM N/A

AASHTO Silty Gravel and Sand (A-2-4 (0))

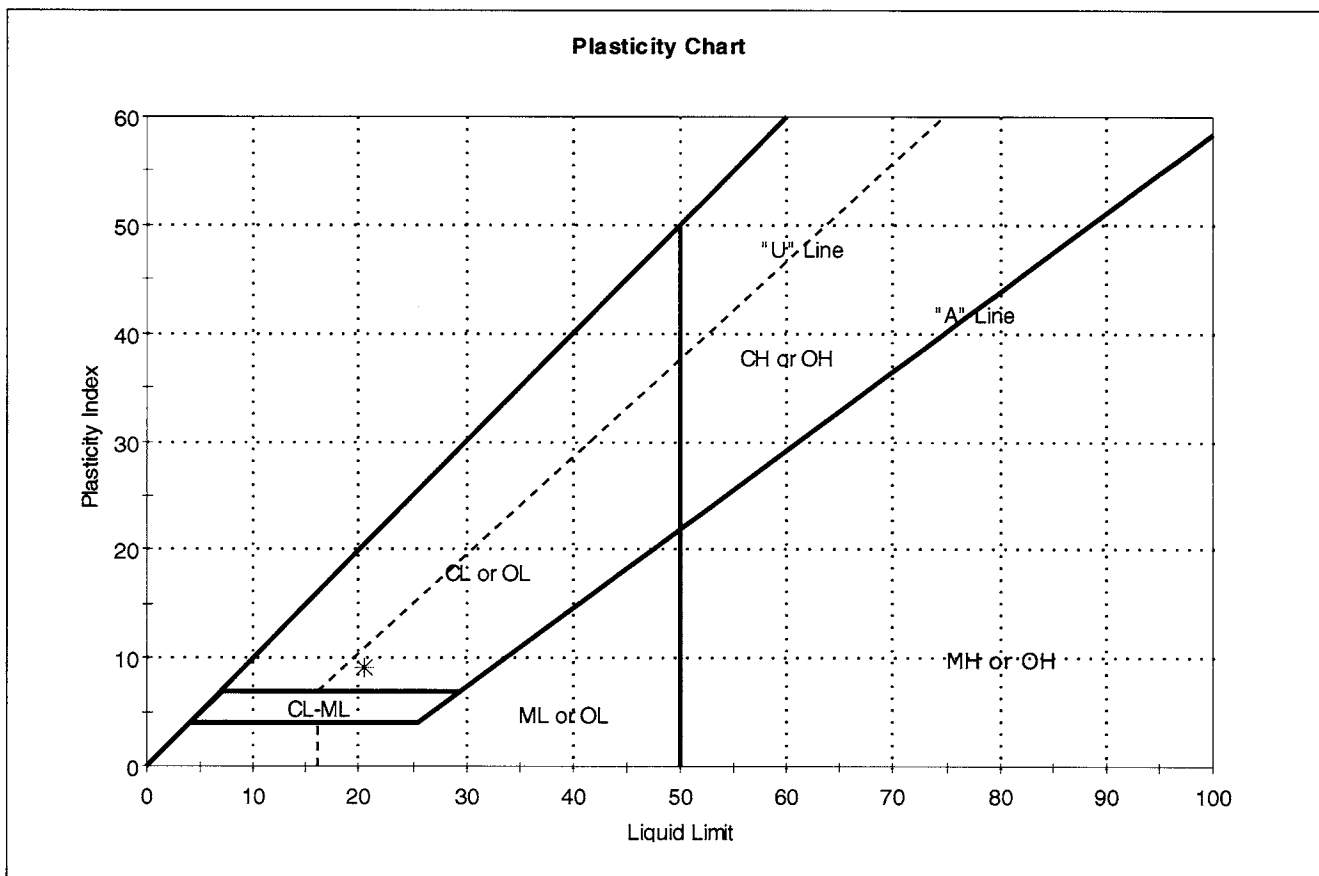
Sample/Test Description

Sand/Gravel Particle Shape : ROUNDED
Sand/Gravel Hardness : HARD



Client:	Arcadis U.S., Inc.	Project No:	GTX-11290
Project:	McMaster Street - NYSEG	Tested By:	cam
Location:	Auburn, NY	Checked By:	jdt
Boring ID:	---	Sample Type:	bag
Sample ID:	MSB-8	Test Date:	11/21/11
Depth :	10-12 ft	Test Id:	222794
Test Comment:	---		
Sample Description:	Moist, brown clay with gravel		
Sample Comment:	---		

Atterberg Limits - ASTM D 4318-05



Symbol	Sample ID	Boring	Depth	Natural Moisture Content, %	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
*	MSB-8	---	10-12 ft	10	20	11	9	0	

Sample Prepared using the WET method

Dry Strength: VERY HIGH

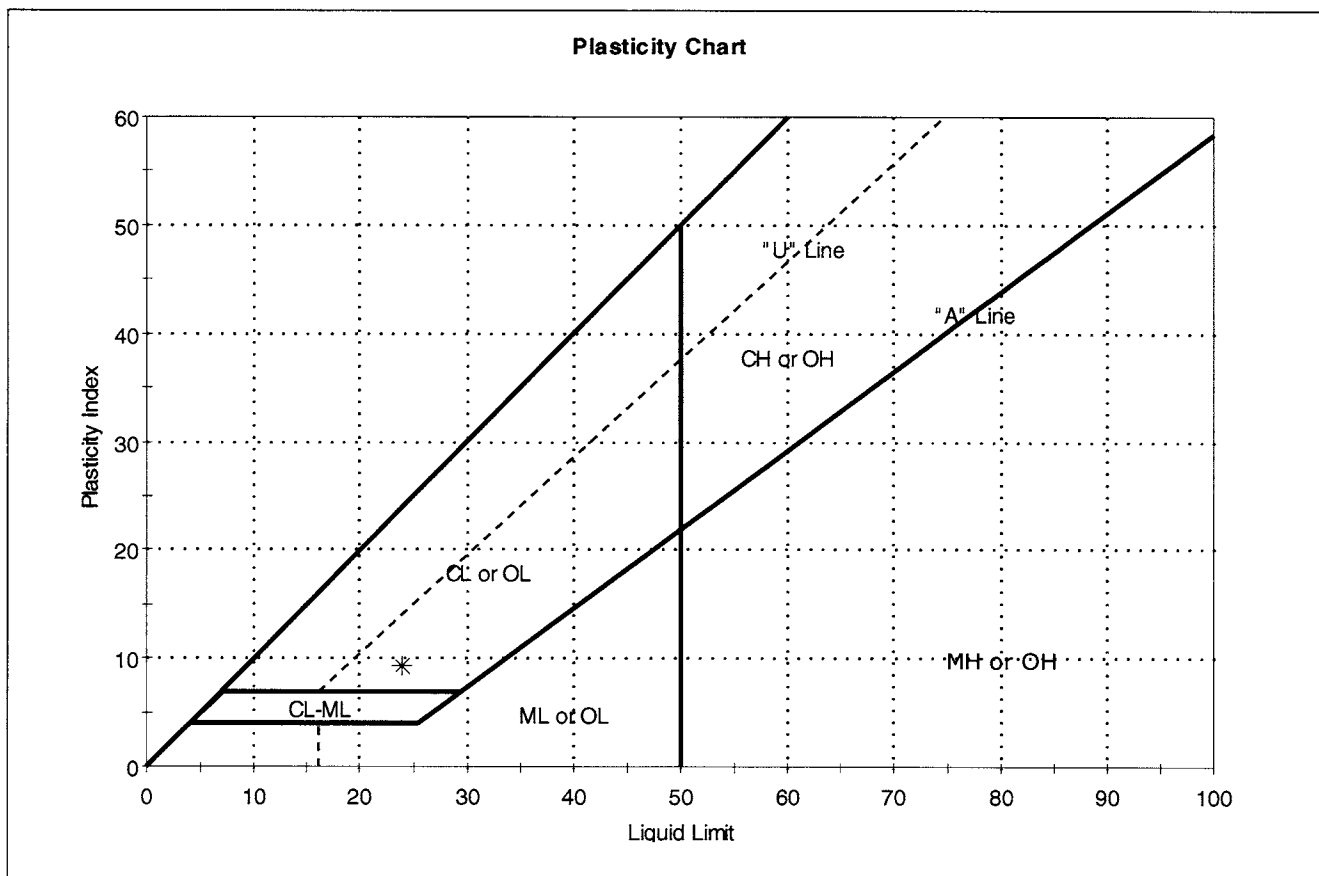
Dilatancy: SLOW

Toughness: LOW



Client:	Arcadis U.S., Inc.			Project No:	GTX-11290
Project:	McMaster Street - NYSEG				
Location:	Auburn, NY				
Boring ID: ---	Sample Type: bag		Tested By:	cam	
Sample ID:MSB-11	Test Date: 11/21/11		Checked By:	jdt	
Depth : 5-12 ft	Test Id: 222795				
Test Comment:	---				
Sample Description:	Moist, brown gravelly clay with sand				
Sample Comment:	---				

Atterberg Limits - ASTM D 4318-05



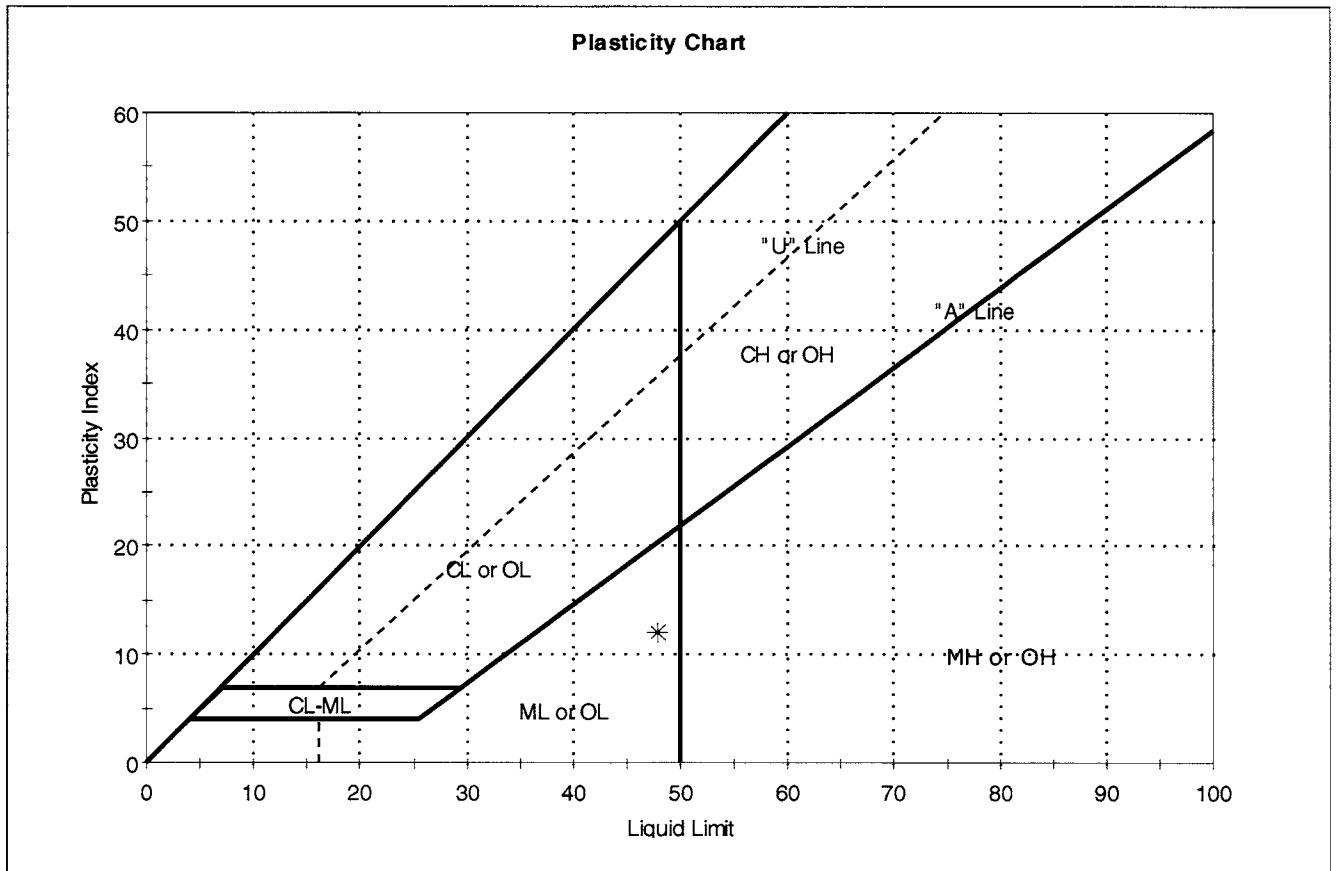
Symbol	Sample ID	Boring	Depth	Natural Moisture Content, %	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
*	MSB-11	---	5-12 ft	8	24	15	9	-1	Gravelly lean clay with sand (CL)

Sample Prepared using the WET method
 26% Retained on #40 Sieve
 Dry Strength: VERY HIGH
 Dilatancy: SLOW
 Toughness: LOW



Client:	Arcadis U.S., Inc.	Project No:	GTX-11290
Project:	McMaster Street - NYSEG	Tested By:	cam
Location:	Auburn, NY	Checked By:	jdt
Boring ID:	---	Sample Type:	bag
Sample ID:	MSB-12	Test Date:	11/21/11
Depth :	10-12 ft	Test Id:	222796
Test Comment:	---		
Sample Description:	Moist, very dark brown silty sand		
Sample Comment:	---		

Atterberg Limits - ASTM D 4318-05



Symbol	Sample ID	Boring	Depth	Natural Moisture Content, %	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
*	MSB-12	---	10-12 ft	47	48	36	12	1	Silty sand (SM)

Sample Prepared using the WET method
 29% Retained on #40 Sieve
 Dry Strength: HIGH
 Dilatancy: SLOW
 Toughness: LOW



Client:	Arcadis U.S., Inc.	
Project:	McMaster Street - NYSEG	
Location:	Auburn, NY	Project No: GTX-11290
Boring ID: ---	Sample Type: ---	Tested By: ema
Sample ID:---	Test Date: 11/28/11	Checked By: jdt
Depth : ---	Test Id: 222816	

Specific Gravity of Soils by ASTM D 854-06

Boring ID	Sample ID	Depth	Visual Description	Specific Gravity
---	MSB-5	5-15 ft	Moist, dark grayish brown silty gravel with sand	2.72
---	MSB-8	10-12 ft	Moist, brown clay with gravel	2.75
---	MSB-11	5-12 ft	Moist, brown gravelly silt with sand	2.71

Notes: Specific Gravity performed by using method A (oven dried specimens) of ASTM D 854
Moisture Content determined by ASTM D 2216.



Attachment 5

Test Pit Logs

Test Pit Log

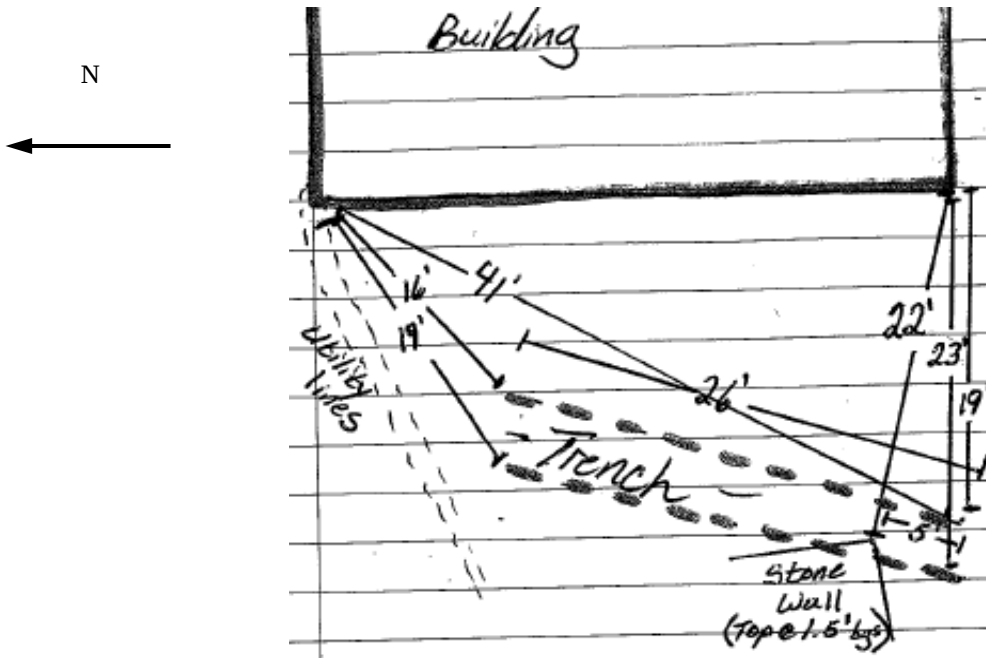
Test Pit ID: MTP-1A



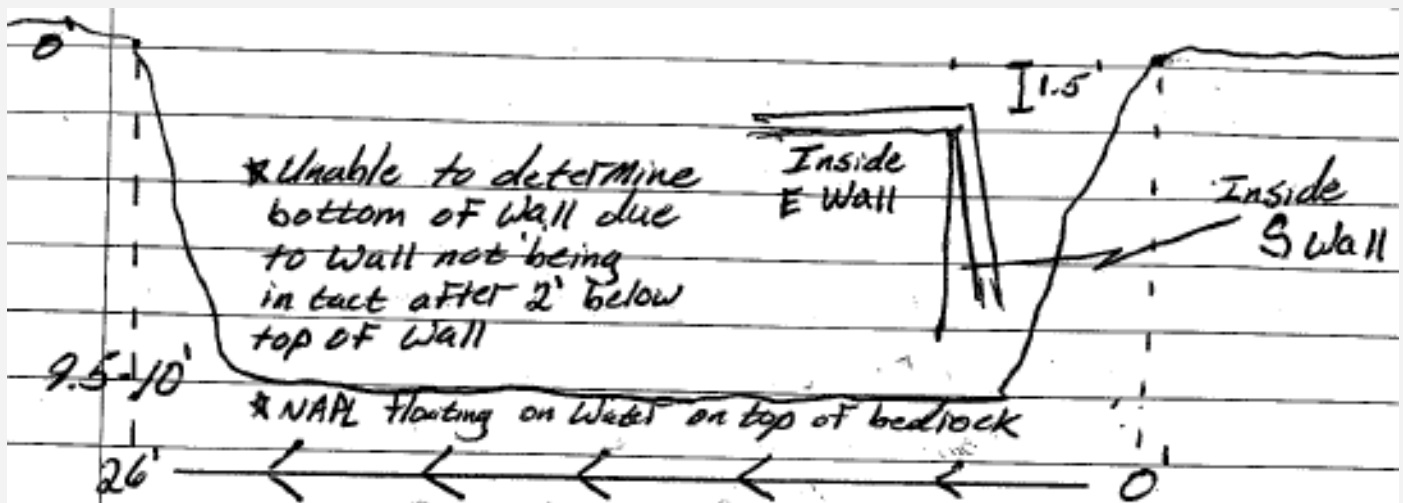
Project:	Upland Pre-Design Investigation
Location:	McMaster Street Former MGP Site, Auburn, New York
Project #:	B0013049
Geologist:	Marcus Eriksson
Date:	9/12/11
Subcontractor:	Parratt-Wolff, Inc.
Equipment:	Deere 120C track excavator

Sketch of Test Pit Layout:

Plan View



Cross Section View



Test Pit Length:	26'	Total Depth:	10'	Depth to Water:	9'
------------------	-----	--------------	-----	-----------------	----

Depth
Interval

Description of Soil/Material

(feet)	
0'-8'	Gray/brown fine to medium sand, some fine to medium to coarse gravel, little cobbles, red brick
8'-9.5'	Gray sand and fine to medium to coarse gravel (NAPL blebs and heavy sheen)
10'	Bedrock

Notes:

NA = Not Available/Applicable; bgs = below ground surface

* Not to scale

Photograph Summary:

01	View of stone wall corner
02	Looking N to S of MTP-1

Test Pit Log

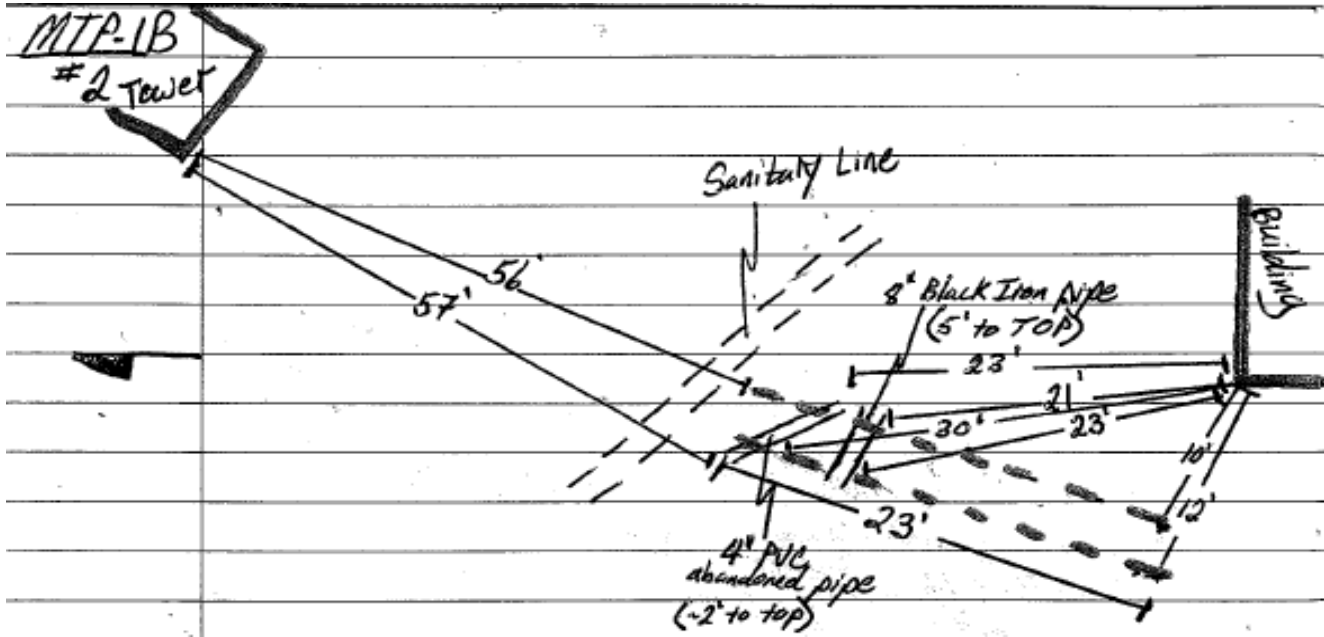
Test Pit ID: MTP-1B



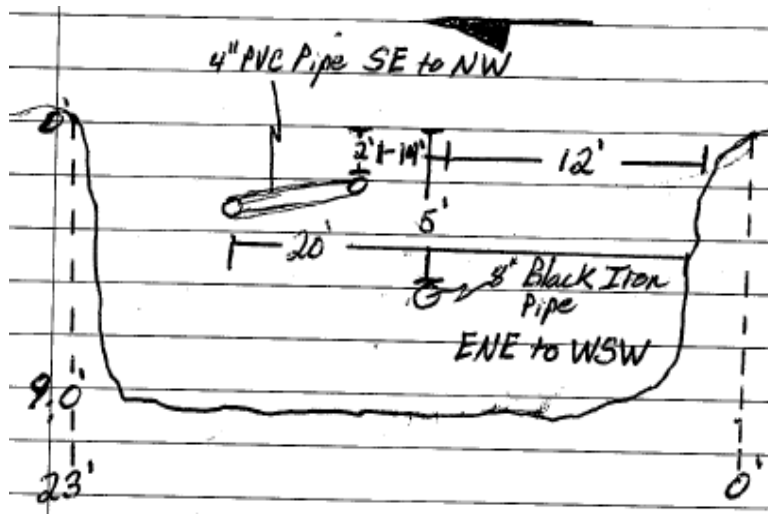
Project: Upland Pre-Design Investigation
Location: McMaster Street Former MGP Site, Auburn, New York
Project #: B0013049
Geologist: Marcus Eriksson
Date: 9/12/11
Subcontractor: Parratt-Wolff, Inc.
Equipment: Deere 120C track excavator

Sketch of Test Pit Layout:

Plan View



Cross Section View



Test Pit Length:	23'	Total Depth:	9'	Depth to Water:	8'
------------------	-----	--------------	----	-----------------	----

Depth Interval	Description of Soil/Material
----------------	------------------------------

(feet)	
0'-9'	Notes not recorded during test pitting activities (Heavy sheen and NAPL coating at bedrock at approximately 9' bgs)
9'	Bedrock

Notes:

NA = Not Available/Applicable; bgs = below ground surface.

* Not to scale

Photograph Summary:

03	8" iron pipe observed in MTP-1B
04	Looking S to N of MTP-1B



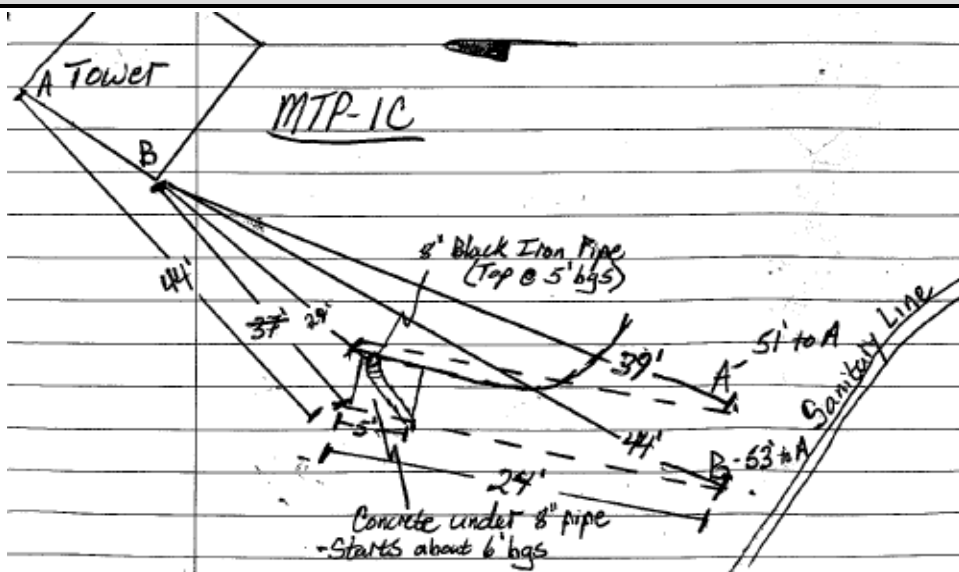
Test Pit Log

Test Pit ID: MTP-1C

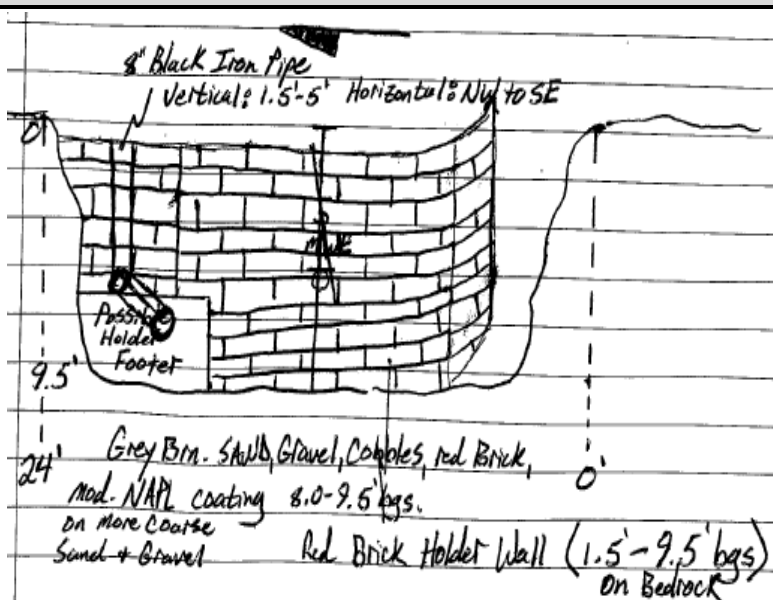
Client:	NYSEG
Project:	Upland Pre-Design Investigation
Location:	McMaster Street Former MGP Site, Auburn, New York
Project #:	B0013049
Geologist:	Marcus Eriksson
Date:	9/12/11
Subcontractor:	Parratt-Wolff, Inc.
Equipment:	Deere 120C track excavator

Sketch of Test Pit Layout:

Plan View



Cross Section View



Test Pit Length:	24'	Total Depth:	9.5'	Depth to Water:	8.5'
------------------	-----	--------------	------	-----------------	------

Depth Interval (feet)	Description of Soil/Material
0.0-9.5'	Gray brown sand, gravel, cobbles, red brick (Moderate NAPL coating from 8' to 9.5' bgs)
9.5	Bedrock

Notes:

NA = Not Available/Applicable; bgs = below ground surface

* Gas holder wall observed from 1.5' to 9.5' bgs

* Not to scale

Photograph Summary:

05	View from west to east of MTP-1C
06	View from west to east of MTP-1C

Depth Interval (feet)	Description of Soil/Material
0'-4'	Fine brown sand, roots, red brick, trace clay, silt
4'-8'	Large cobbles, fine sand, very coarse fill material
8'-10'	Dark brown/black stained soil, heavy NAPL coating (stained soil, NAPL coating)
10'	Bedrock

Notes:

NA = Not Available/Applicable; bgs = below ground surface
 * Not to scale

Photograph Summary:

07	Facing north at the east end of test pit.
08	South side of test pit toward the west end.

Test Pit Log

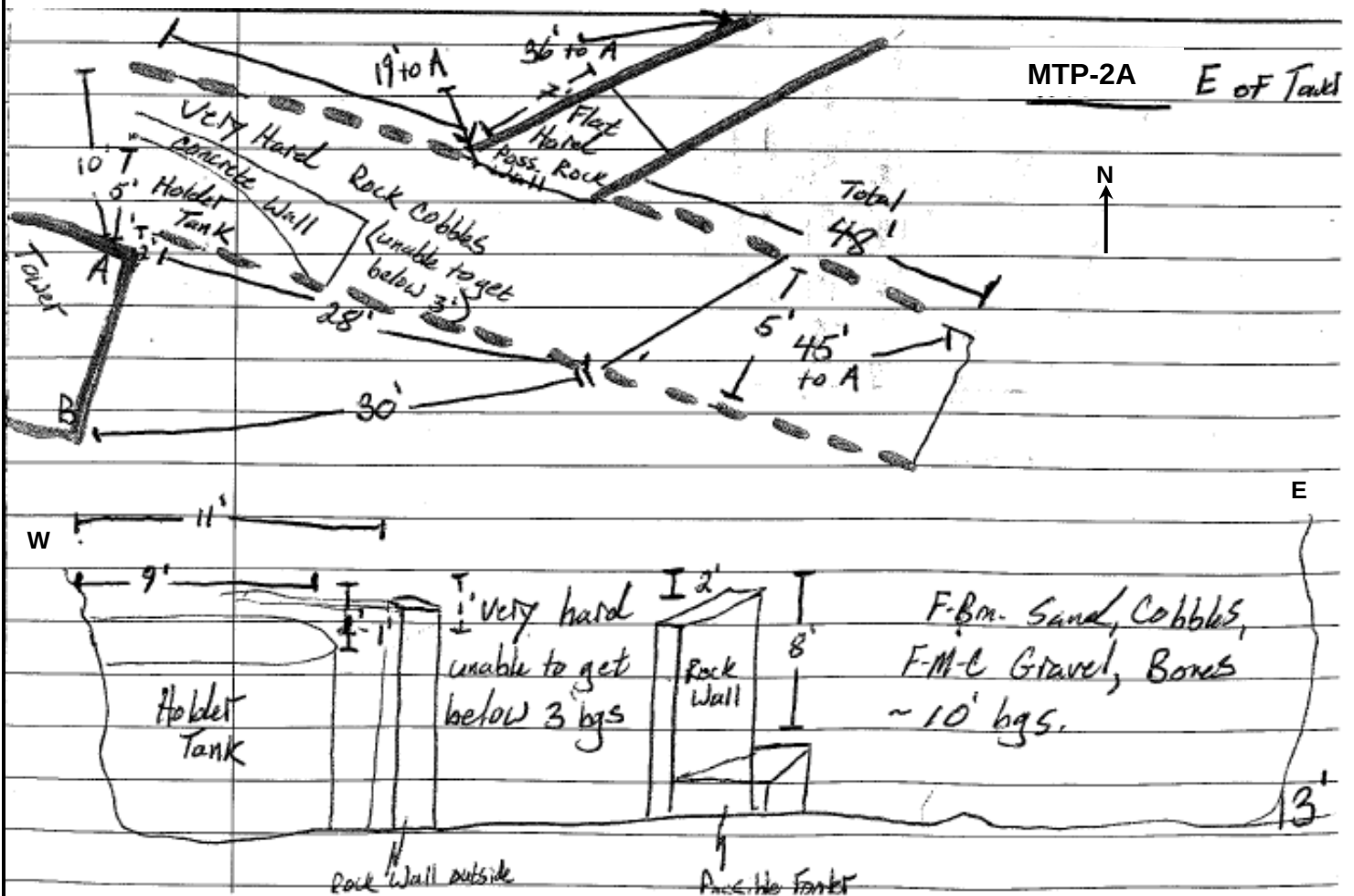
Test Pit ID: MTP-2A



Project: Upland Pre-Design Investigation
 Location: McMaster Street Former MGP Site, Auburn, New York
 Project #: B0013049
 Geologist: Marcus Eriksson
 Date: 9/9/11
 Subcontractor: Parratt-Wolff, Inc.
 Equipment: Deere 120C track excavator

Sketch of Test Pit Layout:

Plan and Cross Section View



Test Pit Length:	48'	Total Depth:	13'	Depth to Water:	6'
------------------	-----	--------------	-----	-----------------	----

Depth
Interval

Description of Soil/Material

(feet)	
0'-10'	Fine brown sand, cobbles, fine to medium to coarse gravel, bones
10'	Bedrock

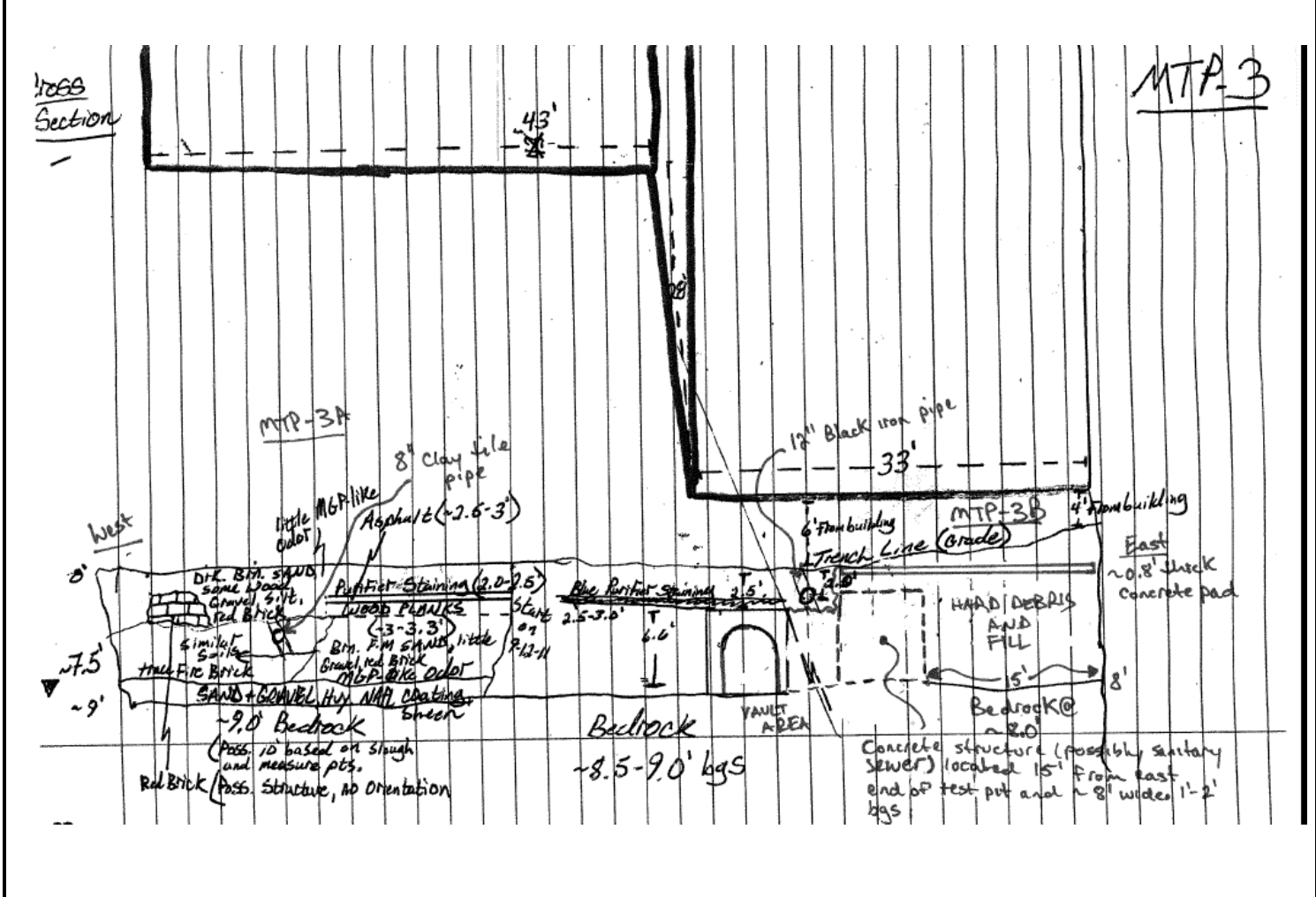
Notes:

NA = Not Available/Applicable; bgs = below ground surface
 * Gas holder observed at 1' bgs
 * Not to scale

Photograph Summary:

No photos for MTP-2A

Cross Section View



Depth Interval (feet)	Description of Soil/Material (MTP-3A)
0'-3'	Dark brown sand, some wood, gravel, silt, red brick (Little MGP-like odor from 0' to 3')
3'-7.5'	Brown fine to medium sand, little gravel, red brick (MGP-like odor from 3' to 3.3')
7.5'-9'	Sand and gravel
9'	Bedrock (NAPL coating and sheen)

Depth Interval (feet)	Description of Soil/Material (MTP-3B)
0'-1'	~ 0.8' thick concrete pad
1'-8'	Hard fill and debris (eastern 15' of test pit). Concrete structure (possibly sewer) on western portion of test pit. See notes below.
8'	Bedrock (eastern portion of TP).

Notes:

-NA = Not Available/Applicable; bgs = below ground surface
-Not to scale
-General area of MTP-3A and MTP-3B scrapped to 1' to 2' feet below grade to locate extent of subsurface vault/basement area. West end of MTP-3B not completed to bedrock (additional concrete structure present, possible location of sanitary sewer). Sanitary sewer not encountered on east end of MTP-3B.

Photograph Summary:

09	Red brick structure at MTP-3A
10	Looking at MTP-3A
11	Looking at MTP-3A
12	West end of MTP-3A
13	East end of MTP-3A
14	Subsurface vault between MTP-3A and MTP-3B



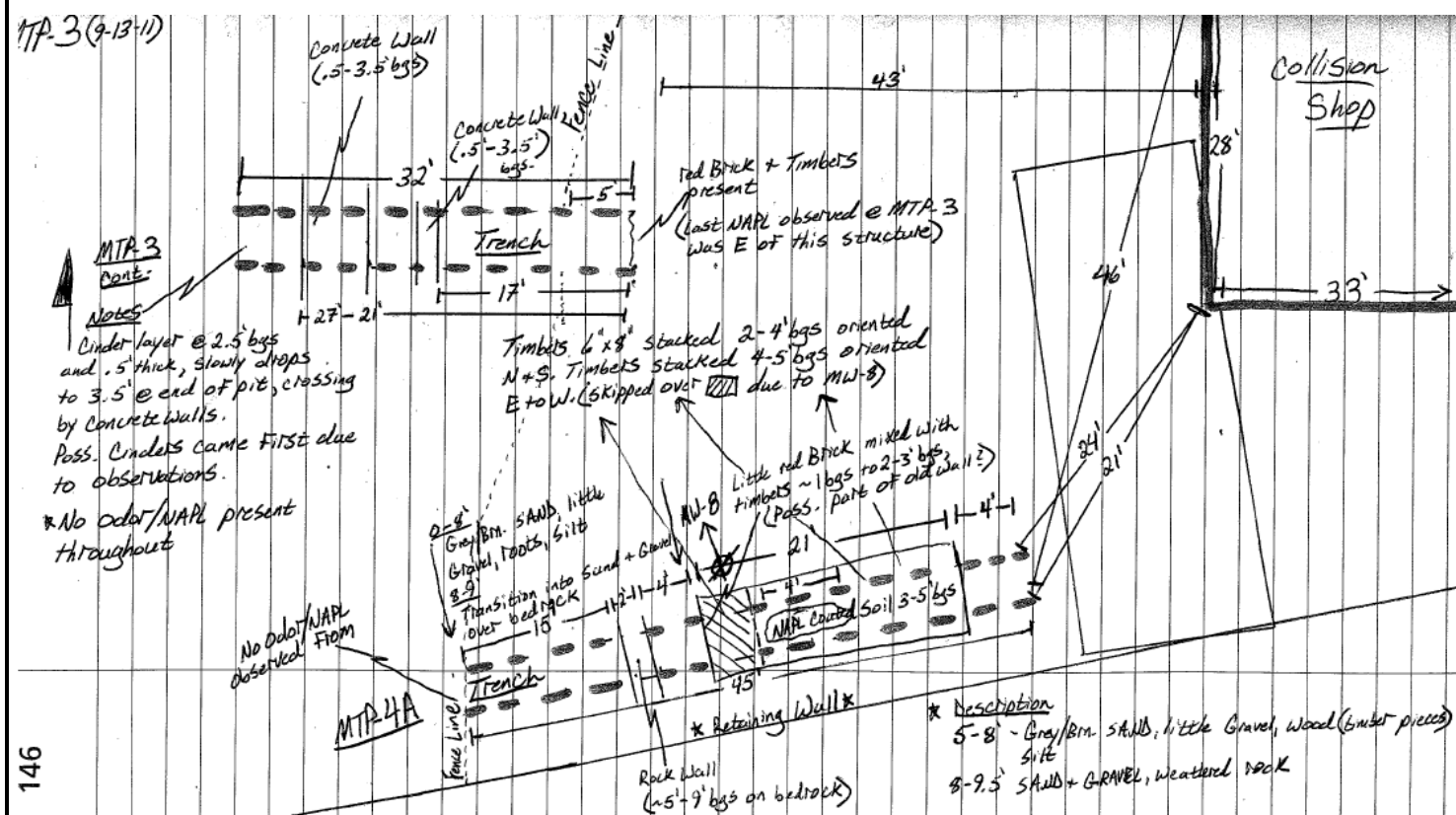
Test Pit Log

Test Pit ID: MTP-4A

Client:	NYSEG
Project:	Pre Design Investigation
Location:	McMaster Street Former MGP Site, Auburn, New York
Project #:	B0013049
Geologist:	Marcus Eriksson
Date:	9/13/11
Subcontractor:	Parratt-Wolff, Inc.
Equipment:	Deere 120C track excavator

Sketch of Test Pit Layout:

Plan View



Test Pit Length:	45'	Total Depth:	--	Depth to Water:	--
------------------	-----	--------------	----	-----------------	----

Depth Interval (feet)	Description of Soil/Material
0'-5'	Gray/brown sand, little gravel, roots, silt (NAPL coated soil from 3' to 5')
5'-8'	Gray/brown sand, little gravel, wood (timber pieces), silt
8'-9'	Transition into sand and gravel over bedrock
9'-9.5'	Sand and gravel, weathered rock

Notes:

NA = Not Available/Applicable; bgs = below ground surface
 * Not to scale

Photograph Summary:

15	Looking into MTP-4A
16	Looking into MTP-4A



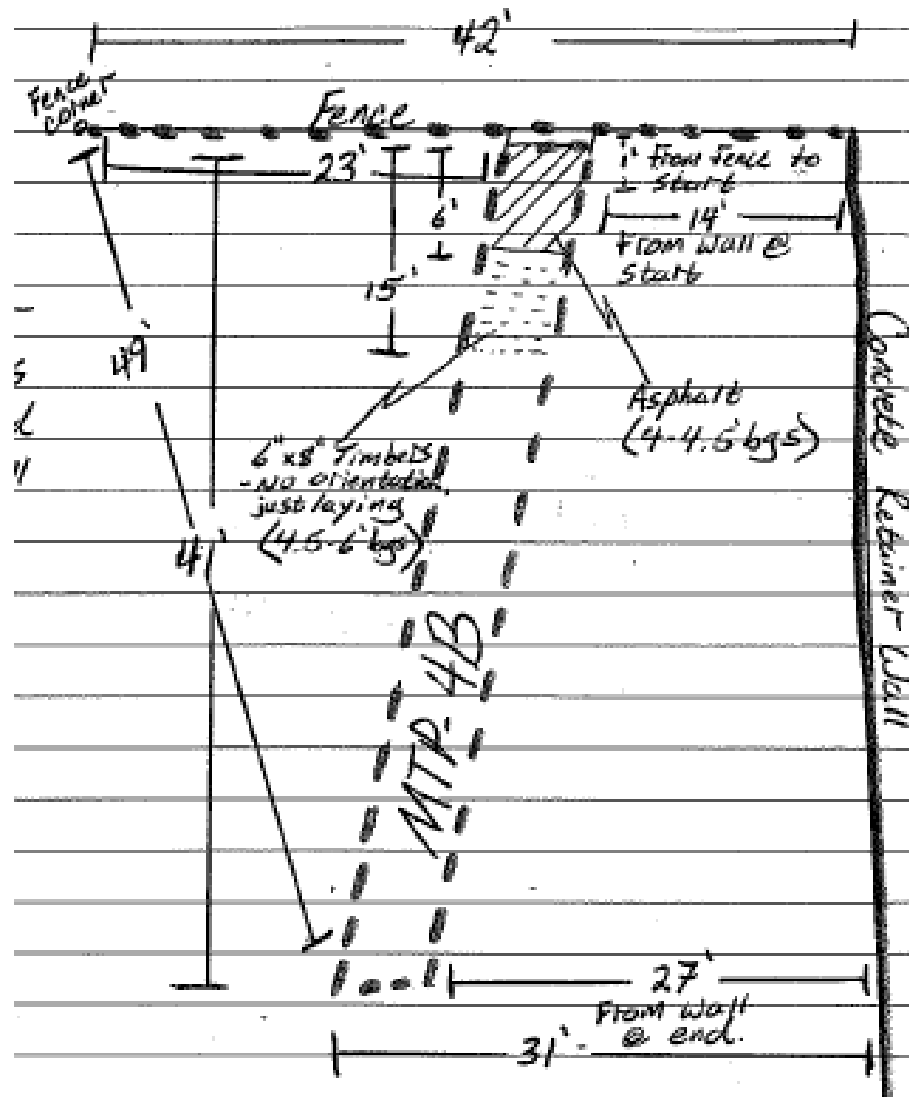
Test Pit Log

Test Pit ID: MTP-4B

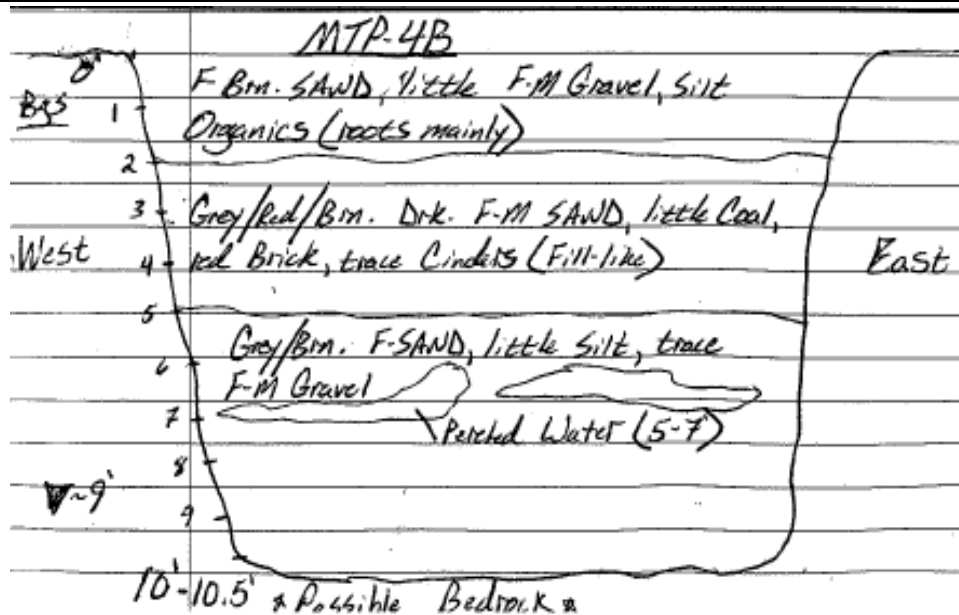
Client:	NYSEG
Project:	Pre Design Investigation
Location:	McMaster Street Former MGP Site, Auburn, New York
Project #:	B0013049
Geologist:	Marcus Eriksson
Date:	9/14/11
Subcontractor:	Parratt-Wolff, Inc.
Equipment:	Deere 120C track excavator

Sketch of Test Pit Layout:

Plan View



Cross Section View



Test Pit Length:

41'

Total Depth:

10.5'

Depth to Water:

9'

Depth Interval (feet)	Description of Soil/Material
0'-2'	Fine brown sand, little fine to medium gravel, silt, organics (roots mainly)
2'-5'	Brown, fine to medium sand, some silt, moist
5'-10'	Gray/brown fine sand, little silt, trace fine to medium gravel
10.5'	Possible bedrock

Notes:

NA = Not Available/Applicable; bgs = below ground surface

* Not to scale

Photograph Summary:

17	Looking west to east into MTP-4B
18	East end of MTP-4B



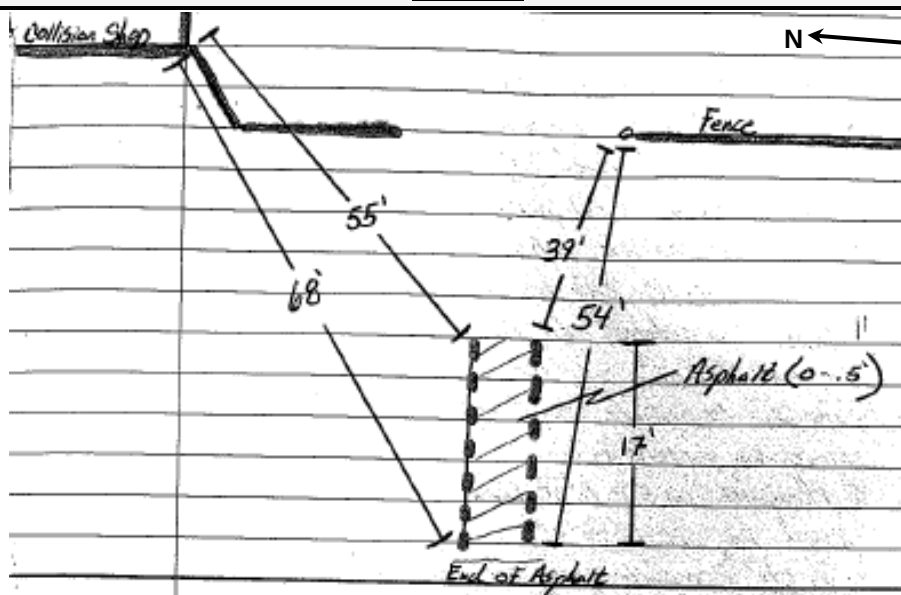
Test Pit Log

Test Pit ID: MTP-5

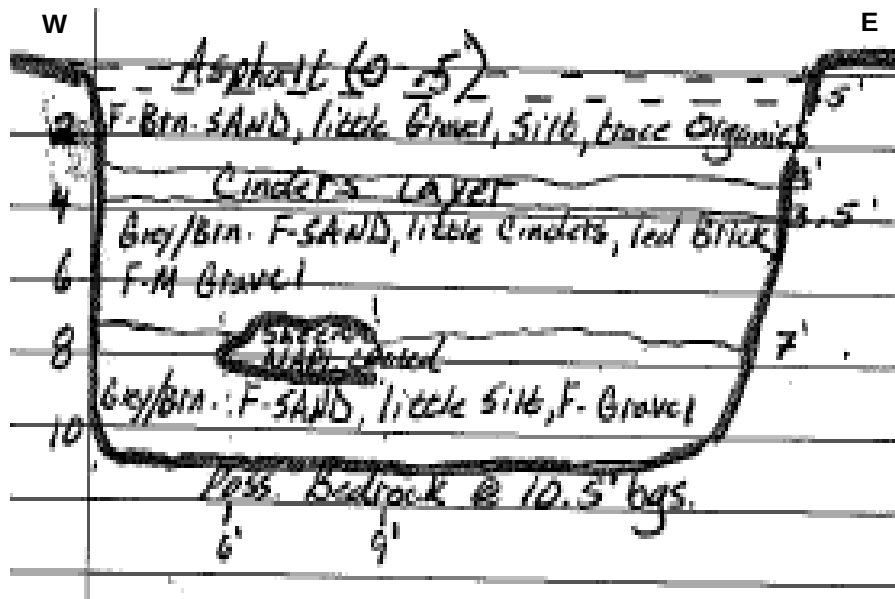
Client:	NYSEG
Project:	Pre Design Investigation
Location:	McMaster Street Former MGP Site, Auburn, New York
Project #:	B0013049
Geologist:	Marcus Eriksson
Date:	9/12/11
Subcontractor:	Parratt-Wolff, Inc.
Equipment:	Deere 120C track excavator

Sketch of Test Pit Layout:

Plan View



Cross Section View



Test Pit Length:	17'	Total Depth:	10.5'	Depth to Water:	--
------------------	-----	--------------	-------	-----------------	----

Depth Interval (feet)	Description of Soil/Material
0'-0.5'	Asphalt
0.5'-3'	Fine brown sand, little gravel, silt, trace organics
3'-3.5'	Cinders layer
3.5'-7'	Gray/brown fine sand, little cinders, red brick, fine to medium gravel (sheen NAPL coated at 7')
7'-10.5'	Gray/brown fine sand, little sit, fine gravel (sheen NAPL coated area from 7' to 9')
10.5'	Possible bedrock

Notes:

NA = Not Available/Applicable; bgs = below ground surface

* Not to scale

Photograph Summary:

19	Looking W to E into MTP-5
20	S wall of MTP-5

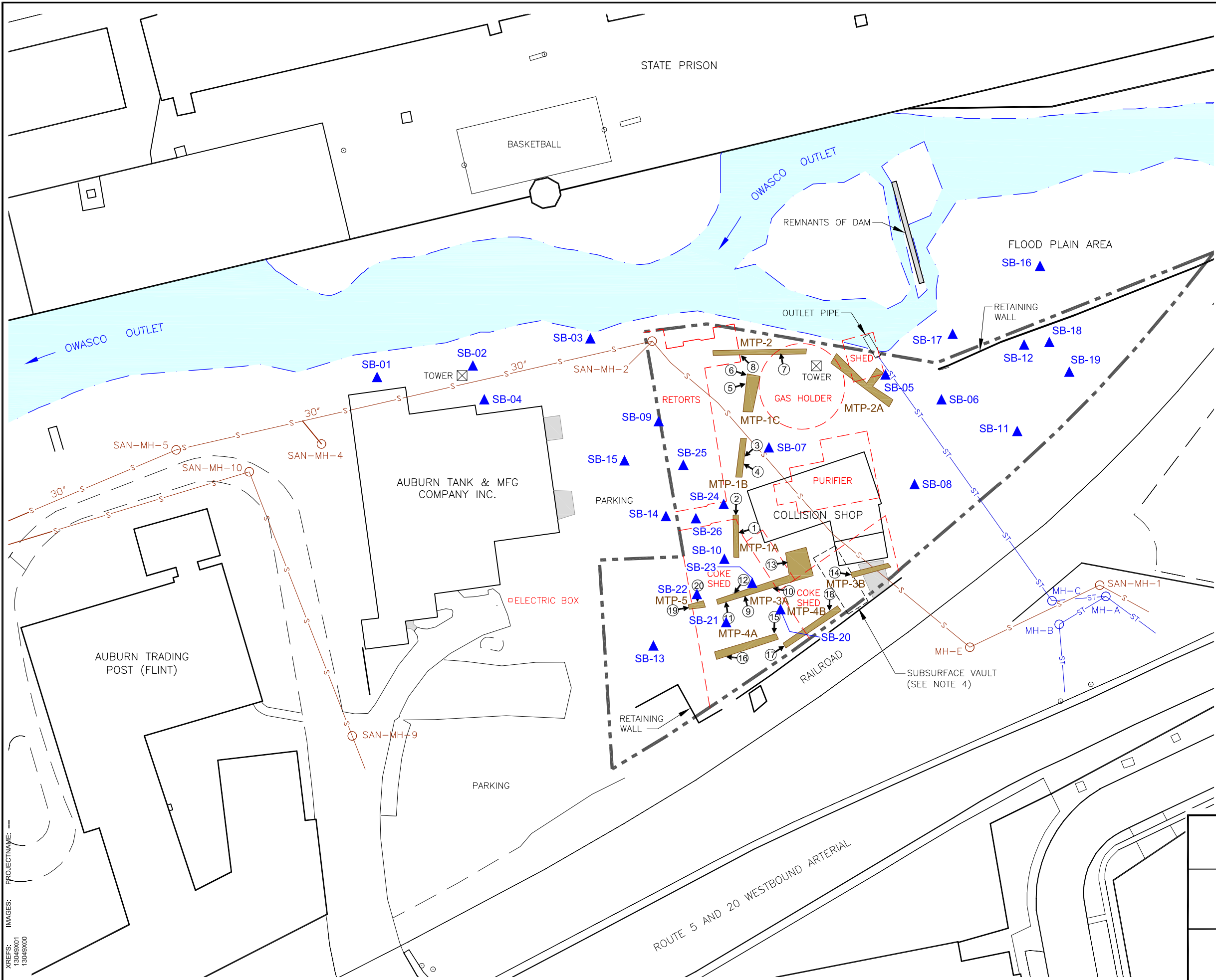


Attachment 6

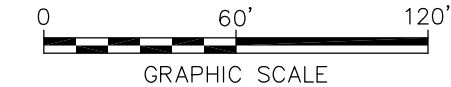
Photo Log with Figure

CITY:SYRACUSE,N.Y. GROUP:ENVCAD-141 DB:W.JONES,R.BASSETT,PM:J.BRIEN TR:A.FALZARANO LYRON:OFF-REF,FRZ
G:\ENVCAD\SYRACUSE\ACT\B0013049\000700016DWG\PD\S\MM-A-RPT113049B06.DWG LAYOUT:1 SAVED:3/28/2012 4:46 PM ACADVER:18.1S (LMS TECH) PAGES:18 PLOT:PLT01.PLT PLOT:3/28/2012 4:46 PM BY:BASSETT,RICHARD

PROJECTNAME: --
IMAGES: 13049X01
13049X00



- NOTES:
1. BASE MAP PREPARED BY MERGING SITE HISTORICAL LOCATIONS FROM ELECTRONIC CADD FILE PROVIDED BY NYSEG ON 2/07/07, NAMED AUBMACMAS2.DWG, AND BASED ON SURVEY (NAD 1983) ACTIVITIES CONDUCTED BY PAUL OLSZEWSKI, PLS LAND SURVEYING DURING OCTOBER 2011.
 2. SANITARY LINE AND MANHOLE LOCATIONS BASED ON MARK-OUT CONDUCTED DURING PDI AND SURVEYED BY ARCADIS IN SEPTEMBER 2011.
 3. PROPERTY LINES FOR AUBURN TANK AND AUBURN TRADING POST PROPERTY DIGITIZED FROM TAX MAP 115.52-1, PROVIDED BY NYSEG ON 10/18/06.
 4. SUBSURFACE VAULT IDENTIFIED DURING TEST PITTING ACTIVITIES. THE AREA CONTAINS TUNNELS AND SUBFLOORS.



NYSEG
McMASTER STREET FORMER MGP SITE
AUBURN, NEW YORK
UPLAND PDI SUMMARY REPORT

TEST PIT PHOTO LOCATIONS





Photo #1 (2010.09.12): MTP-1A. Stone wall located at 1.5' bgs.



Photo #2 (2010.09.12): MTP-1A. Photo looking north to south fo test pit.

Client: NYSEG

Project: B0013049.0007.00015

Site: McMaster Street Former Manufactured Gas Plant Site

Site Location: Auburn, New York

ARCADIS



8" black iron pipe

Photo #3 (2010.09.12): MTP-1B. Looking down at 8" black iron pipe.



4" PVC pipe

Photo #4 (2010.09.12): MTP-1B. 4" PVC pipe approximately at north end of test pit.

Client: NYSEG

Project: B0013049.0007.00015

Site: McMaster Street Former Manufactured Gas Plant Site

Site Location: Auburn, New York

ARCADIS



Photo #5 (2010.09.12): MTP-1C. Looking west to east at gas holder wall.



Photo #6 (2010.09.12):MTP-1C. Vertical 8" pipe located from 1.5 to 5' bgs.

Client: NYSEG

Project: B0013049.0007.00015

Site: McMaster Street Former Manufactured Gas Plant Site

Site Location: Auburn, New York

ARCADIS



Photo #7 (2010.09.20): MTP-2. Facing north at the east end of test pit. Inside wall of former gas holder.



Photo #8 (2010.09.20): MTP-2. South side of test pit toward the west end.

Client: NYSEG
Project: B0013049.0007.00015
Site: McMaster Street Former Manufactured Gas Plant Site
Site Location: Auburn, New York

ARCADIS



Photo #9 (2010.09.13): MTP-3A. Concrete, brick and wood structure.



Photo #10 (2010.09.13):MTP-3A. Cinder Layer.

Client: NYSEG

Project: B0013049.0007.00015

Site: McMaster Street Former Manufactured Gas Plant Site

Site Location: Auburn, New York

ARCADIS



Photo #11 (2010.09.13): MTP-3A. Red brick structure atop wood structure, 8" clay tile pipe just below.



Concrete structures

Photo #12 (2010.09.13): MTP-3A. Concrete structures found at west end of test pit (0.5' – 1' bgs).

Client: NYSEG

Project: B0013049.0007.00015

Site: McMaster Street Former Manufactured Gas Plant Site

Site Location: Auburn, New York

ARCADIS



Photo #13 (2010.09.08): MTP-3A. Basement/foundation at east end of test pit.



Photo #14 (2010.09.08): MTP-3B. Basement 'tunnel' filled with water, heavy NAPL precense.

Client: NYSEG

Project: B0013049.0007.00015

Site: McMaster Street Former Manufactured Gas Plant Site

Site Location: Auburn, New York

ARCADIS



Photo #15 (2010.09.13): MTP-4A.



Wood timbers

NAPL coated soil

Photo #16 (2010.09.13): MTP-4A. Just east of red brick/wood timbers at NAPL coated soil (3 – 5' bgs).

Client: NYSEG

Project: B0013049.0007.00015

Site: McMaster Street Former Manufactured Gas Plant Site

Site Location: Auburn, New York

ARCADIS



Photo #17 (2010.09.20): MTP-4B. Facing east.



Wood timbers

Photo #18 (2010.09.20): MTP-4B. East end of test pit, wood timbers.

Client: NYSEG

Project: B0013049.0007.00015

Site: McMaster Street Former Manufactured Gas Plant Site

Site Location: Auburn, New York

ARCADIS



Photo #19 (2010.09.20): MTP-5. Looking west to east down test pit.



Photo #20 (2010.09.20): MTP-5. NAPL coated area 7 – 9' bgs on south stone wall.

Client: NYSEG

Project: B0013049.0007.00015

Site: McMaster Street Former Manufactured Gas Plant Site

Site Location: Auburn, New York

ARCADIS



Attachment 7

Groundwater Sampling Logs

(on Compact Disc)

GROUNDWATER SAMPLING LOG

Site McMaster St.

NYSEG Auburn, NY

Event: 2011 Treatability Sampling

Sampling Personnel: LGT/LZ

Well ID: MW-05-ER

Client / Job Number: NYSEG/B0013049

Date: 9/29/11

Weather: 60°F, Raining

Time In:

Time Out:

Well Information

Depth to Water: 1.82 (feet TIC)
Total Depth: 28.05 (feet TIC)
Length of Water Column: 21.23 (feet)
Volume of Water in Well: 3.416 (gal)

Well Type: Flushmount Stick-Up
Well Material: Stainless Steel PVC
Well Locked: Yes No
Measuring Point Marked: Yes No
Well Diameter: 1" 2" Other:

Purging Information

Purging Method: Bailer Peristaltic Grundfos Other:
Tubing/Bailer Material: St. Steel Polyethylene Teflon Other:
Sampling Method: Bailer Peristaltic Grundfos Other:
Duration of Pumping: (min)
Average Pumping Rate: (ml/min) Water-Quality Meter Type: U-22 Horiba
Total Volume Removed: 4.0 (gal) Did well go dry: Yes No

Conversion Factors				
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469
1 gal = 3.785 L = 3785 ml = 0.1337 cubic feet				

Unit Stability			
pH	DO	Cond.	ORP
±0.1	± 10%	± 3.0%	± 10 mV

Parameter:	1	2	3	4	5	6	7	8	9	10
Volume Purged (gal)	1.5	3.5								
Rate (mL/min)	-	-								
Depth to Water (ft.)	-	-								
pH	7.64	6.89								
Temp. (C)	15.40	15.24								
Conductivity (mS/cm)	.924	1.05								
Dissolved Oxygen (mg/l)	6.61	1.75								
ORP (mV)	-58	-68								
Turbidity (NTU)	60.6	27.6								
Notes:	turbid gray	slightly turbid gray, slight odor								

Sampling Information

Analyses	#	Laboratory
Sample ID: MW-05-ER	Sample Time: 1030	
MS/MSD:	Yes (No)	
Duplicate:	Yes (No)	
Duplicate ID	Dup. Time:	
Chain of Custody Signed By:		

Problems / Observations

Initial Purge:

Final Purge:

GROUNDWATER SAMPLING LOG

Site McMaster St.

NYSEG Auburn, NY

Event: 2011 Treatability Sampling

Sampling Personnel: LGT/LZ

Well ID: MW-05-2R

Client / Job Number: NYSEG/B0013049

Date: 9/29/11

Weather: 60°F, Rainy

Time In:

Time Out:

Well Information

Depth to Water:	9.81	(feet TIC)
Total Depth:	29.47	(feet TIC)
Length of Water Column:	19.66	(feet)
Volume of Water in Well:	3.20	(gal)

Well Type:	Flushmount	Stick-Up
Well Material:	Stainless Steel	PVC
Well Locked:	Yes	No
Measuring Point Marked:	Yes	No
Well Diameter:	1"	2" Other:

Purging Information

Purging Method:	Bailer	Peristaltic	Grundfos	Other:
Tubing/Bailer Material:	St. Steel	Polyethylene	Teflon	Other:
Sampling Method:	Bailer	Peristaltic	Grundfos	Other:
Duration of Pumping:	—	(min)		
Average Pumping Rate:	—	(ml/min)	Water-Quality Meter Type:	U-22 Horiba
Total Volume Removed:	3.5	(gal)	Did well go dry:	Yes No

Conversion Factors				
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469
1 gal = 3.785 L = 3785 ml = 0.1337 cubic feet				

Unit Stability			
pH	DO	Cond.	ORP
±0.1	± 10%	± 3.0%	± 10 mV

Parameter:	1	2	3	4	5	6	7	8	9	10
Volume Purged (gal)	1.5	3.3								
Rate (mL/min)	—	—								
Depth to Water (ft.)	—	—								
pH	6.32	7.12								
Temp. (C)	16.77	16.86								
Conductivity (mS/cm)	0.000	0.000								
Dissolved Oxygen (mg/l)	11.95	11.10								
ORP (mV)	135	86								
Turbidity (NTU)	199	202								
Notes:	light brown sl. turbid →									

Sampling Information

Analyses	#	Laboratory
Sample ID: MW-05-2R	Sample Time: 1130	
MS/MSD:	Yes No	
Duplicate:	Yes No	
Duplicate ID	Dup. Time:	
Chain of Custody		
Signed By:		

Problems / Observations

Initial Purge:

Final Purge:

GROUNDWATER SAMPLING LOG

Site McMaster St.

NYSEG Auburn, NY

Event: 2011 Treatability Sampling

Sampling Personnel: LGT/LZ

Well ID: MW-04-03

Client / Job Number: NYSEG/B0013049

Date: 9/29/11

Weather: 60°F overcast, humid

Time In: Time Out:

Well Information

Depth to Water: 7.27 (feet TIC)
Total Depth: 11.18 (feet TIC)
Length of Water Column: 3.91 (feet)
Volume of Water in Well: 0.64 (gal)

Well Type: Flushmount Stick-Up
Well Material: Stainless Steel PVC
Well Locked: Yes No
Measuring Point Marked: Yes No
Well Diameter: 1" 2" Other:

Purging Information

Purging Method: Bailer Peristaltic Grundfos Other:
Tubing/Bailer Material: St. Steel Polyethylene Teflon Other:
Sampling Method: Bailer Peristaltic Grundfos Other:
Duration of Pumping: — (min)
Average Pumping Rate: — (ml/min) Water-Quality Meter Type: U-22 Horiba
Total Volume Removed: 0.6 (gal) Did well go dry: Yes No

Conversion Factors				
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469
1 gal = 3.785 L = 3785 ml = 0.1337 cubic feet				

Unit Stability			
pH	DO	Cond.	ORP
±0.1	± 10%	± 3.0%	± 10 mV

Parameter:	1	2	3	4	5	6	7	8	9	10
Volume Purged (gal)	<u>0.3</u>	<u>0.6</u>								
Rate (mL/min)	<u>—</u>	<u>—</u>								
Depth to Water (ft.)	<u>—</u>	<u>—</u>								
pH	<u>7.48</u>	<u>7.48</u>								
Temp. (C)	<u>17.50</u>	<u>17.50</u>								
Conductivity (mS/cm)	<u>0.810</u>	<u>0.001</u>								
Dissolved Oxygen (mg/l)	<u>8.19</u>	<u>10.95</u>								
ORP (mV)	<u>-77</u>	<u>-118</u>								
Turbidity (NTU)	<u>0.0</u>	<u>209</u>								
Notes:	<u>odor, brown, turbid</u>	<u>odor, yellow brown, turbid</u>								

Sampling Information

Analyses	#	Laboratory
Sample ID: <u>MW-04-03</u>	Sample Time: <u>1210</u>	
MS/MSD: <u>Yes</u>	No	
Duplicate: <u>Yes</u>	<u>No</u>	
Duplicate ID	Dup. Time:	
Chain of Custody		
Signed By:		

Problems / Observations

Initial Purge:

Final Purge:

GROUNDWATER SAMPLING LOG

Site McMaster St.

NYSEG Auburn, NY

Event: 2011 Treatability Sampling

Sampling Personnel: LGT/LZ

Well ID: MW-06-13R

Client / Job Number: NYSEG/B0013049

Date: 9/29/11

Weather: 60°F, overcast, humid

Time In:

Time Out:

Well Information

Depth to Water:	20.11	(feet TIC)
Total Depth:	34.05	(feet TIC)
Length of Water Column:	13.94	(feet)
Volume of Water in Well:	2.27	(gal)

Well Type:	Flushmount	Stick-Up
Well Material:	Stainless Steel	PVC
Well Locked:	Yes	No
Measuring Point Marked:	Yes	No
Well Diameter:	1"	2" Other:

Purging Information

Purging Method:	Bailer	Peristaltic	Grundfos	Other:
Tubing/Bailer Material:	St. Steel	Polyethylene	Teflon	Other:
Sampling Method:	Bailer	Peristaltic	Grundfos	Other:
Duration of Pumping:	—	(min)		
Average Pumping Rate:	—	(ml/min)	Water-Quality Meter Type:	U-22 Horiba
Total Volume Removed:	2.3	(gal)	Did well go dry:	Yes No

Conversion Factors				
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469
1 gal = 3.785 L = 3785 ml = 0.1337 cubic feet				

Unit Stability			
pH	DO	Cond.	ORP
±0.1	± 10%	± 3.0%	± 10 mV

Parameter:	1	2	3	4	5	6	7	8	9	10
Volume Purged (gal)	2.30									
Rate (mL/min)	—									
Depth to Water (ft.)	—									
pH	7.91									
Temp. (C)	15.77									
Conductivity (mS/cm)	.812									
Dissolved Oxygen (mg/l)	2.00									
ORP (mV)	-55									
Turbidity (NTU)	281									
Notes:	visible free product, colorless									

Strong odor

Sampling Information

Analyses	#	Laboratory
Sample ID: MW-06-13R	Sample Time: 1430	
MS/MSD:	Yes No	
Duplicate:	Yes No	
Duplicate ID	Dup. Time:	
Chain of Custody		
Signed By:		

Problems / Observations

Initial Purge:

~1 foot NAPL in bottom of well.
NAPL coating bailer, difficult to bail water due to coating on bailer and casing.

Final Purge:

* well slow to recover sample collected after 2gal purge

GROUNDWATER SAMPLING LOG

Site McMaster St.

NYSEG Auburn, NY

Event: 2011 Treatability Sampling

Sampling Personnel: LGT/LZ

Well ID:

MW-05-07R

Client / Job Number: NYSEG/B0013049

Date:

9/29/11

Weather: 70°, partly cloudy, humid

Time In:

Time Out:

Well Information

Depth to Water: 13.16 (feet TIC)
Total Depth: 29.56 (feet TIC)
Length of Water Column: 16.4 (feet)
Volume of Water in Well: 2.67 (gal)

Well Type: Flushmount Stick-Up
Well Material: Stainless Steel PVC
Well Locked: Yes No
Measuring Point Marked: Yes No
Well Diameter: 1" 2" Other:

Purging Information

Purging Method: Bailor Peristaltic Grundfos Other:
Tubing/Bailer Material: St. Steel Polyethylene Teflon Other:
Sampling Method: Bailor Peristaltic Grundfos Other:
Duration of Pumping: — (min)
Average Pumping Rate: — (ml/min) Water-Quality Meter Type: U-22 Horiba
Total Volume Removed: 2.7 (gal) Did well go dry: Yes No

Conversion Factors				
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469
1 gal = 3.785 L = 3785 ml = 0.1337 cubic feet				

Unit Stability			
pH	DO	Cond.	ORP
±0.1	± 10%	± 3.0%	± 10 mV

Parameter:	1	2	3	4	5	6	7	8	9	10
Volume Purged (gal)	1.3	2.7								
Rate (mL/min)	—	—								
Depth to Water (ft.)	—	—								
pH	8.10	8.01								
Temp. (C)	18.49	15.01								
Conductivity (mS/cm)	6.00	0.288								
Dissolved Oxygen (mg/l)	3.15	5.12								
ORP (mV)	-46	-53								
Turbidity (NTU)	89.0	190								
Notes:	colorless, slight odor, clear	colorless, sl. turbid, slight odor								

Sampling Information

Analyses	#	Laboratory
Sample ID: MW-05-07R	Sample Time: 1540	
MS/MSD:	Yes No	
Duplicate:	Yes No	
Duplicate ID	Dup. Time:	
Chain of Custody Signed By:		

Problems / Observations

Initial Purge:

Final Purge:

GROUNDWATER SAMPLING LOG

Site McMaster St.

NYSEG Auburn, NY

Event: 2011 Treatability Sampling

Sampling Personnel: ~~LGT/LZ~~ LMZ/MED

Well ID: MW-04-05

Client / Job Number: NYSEG/B0013049

Date: 9/30/11

Weather: 61°F Sunny

Time In: Time Out:

Well Information

Depth to Water:	5.91	(feet TIC)
Total Depth:	9.50	(feet TIC)
Length of Water Column:	3.59	(feet)
Volume of Water in Well:	0.59	(gal)

Well Type:	Flushmount	Stick-Up
Well Material:	Stainless Steel	PVC
Well Locked:	Yes	No
Measuring Point Marked:	Yes	No
Well Diameter:	1"	2" Other:

Purging Information

Purging Method:	Bailer	Peristaltic	Grundfos	Other:
Tubing/Bailer Material:	St. Steel	Polyethylene	Teflon	Other:
Sampling Method:	Bailer	Peristaltic	Grundfos	Other:
Duration of Pumping:	—	(min)		
Average Pumping Rate:	—	(ml/min)	Water-Quality Meter Type:	U-22 Horiba
Total Volume Removed:	0.60	(gal)	Did well go dry:	Yes No

Conversion Factors				
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469
1 gal = 3.785 L = 3785 ml = 0.1337 cubic feet				

Unit Stability			
pH	DO	Cond.	ORP
±0.1	± 10%	± 3.0%	± 10 mV

Parameter:	1	2	3	4	5	6	7	8	9	10
Volume Purged (gal)	0.50									
Rate (mL/min)	—									
Depth to Water (ft.)	—									
pH	7.61									
Temp. (C)	17.55									
Conductivity (mS/cm)	0.387									
Dissolved Oxygen (mg/l)	11.81									
ORP (mV)	107									
Turbidity (NTU)	16.8									
Notes:	colorless slightly turbid									

Sampling Information

Analyses	#	Laboratory
Sample ID: MW-04-05	Sample Time: 940	
MS/MSD:	Yes No	
Duplicate:	Yes No	
Duplicate ID	—	Dup. Time: —
Chain of Custody Signed By:	[Signature]	

Problems / Observations

Initial Purge:

Final Purge:

GROUNDWATER SAMPLING LOG

Site McMaster St.

NYSEG Auburn, NY

Event: 2011 Treatability Sampling

Sampling Personnel: LGTAZ CMZ/MED

Well ID: MW-04-04

Client / Job Number: NYSEG/B0013049

Date: 9/30/11

Weather: 60° Sunny w. wind

Time In: Time Out:

Well Information

Depth to Water: 5.91 (feet TIC)
Total Depth: 13.30 (feet TIC)
Length of Water Column: 7.39 (feet)
Volume of Water in Well: 1.2 (gal)

Well Type: Flushmount Stick-Up
Well Material: Stainless Steel PVC
Well Locked: Yes No
Measuring Point Marked: Yes No
Well Diameter: 1" 2" Other:

Purging Information

Purging Method: Bailer Peristaltic Grundfos Other:
Tubing/Bailer Material: St. Steel Polyethylene Teflon Other:
Sampling Method: Bailer Peristaltic Grundfos Other:
Duration of Pumping: (min)
Average Pumping Rate: (ml/min) Water-Quality Meter Type: U-22 Horiba
Total Volume Removed: 1.3 (gal) Did well go dry: Yes No

Conversion Factors				
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469
1 gal = 3.785 L = 3785 ml = 0.1337 cubic feet				

Unit Stability			
pH	DO	Cond.	ORP
±0.1	± 10%	± 3.0%	± 10 mV

Parameter:	1	2	3	4	5	6	7	8	9	10
Volume Purged (gal)	0.8	1.3								
Rate (mL/min)	—	—								
Depth to Water (ft.)	—	—								
pH	7.11	7.20								
Temp. (C)	16.02	15.70								
Conductivity (mS/cm)	0.707	0.710								
Dissolved Oxygen (mg/l)	7.56	7.21								
ORP (mV)	-152	-158								
Turbidity (NTU)	103	143								
Notes:	light brown sl. turbid	u u								

Sampling Information

Analyses	#	Laboratory
Sample ID: MW-04-04	Sample Time: 1010	
MS/MSD:	Yes No	
Duplicate:	Yes No	
Duplicate ID: DUP-01	Dup. Time: 1020	
Chain of Custody Signed By:		

Problems / Observations

Initial Purge:

Final Purge:

GROUNDWATER SAMPLING LOG

Site McMaster St.

NYSEG Auburn, NY

Event: 2011 Treatability Sampling

Sampling Personnel: LGTLZ umz/MED

Well ID: MW-06-10

Client / Job Number: NYSEG/B0013049

Date: 9/30/11

Weather: 65°F Sunny Windy

Time In: Time Out:

Well Information

Depth to Water: 4.69 (feet TIC)
Total Depth: 7.4 (feet TIC)
Length of Water Column: 2.71 (feet)
Volume of Water in Well: 0.44 (gal)

Well Type: Flushmount Stick-Up
Well Material: Stainless Steel PVC
Well Locked: Yes No
Measuring Point Marked: Yes No
Well Diameter: 1" 2" Other:

Purging Information

Purging Method: Bailer Peristaltic Grundfos Other:
Tubing/Bailer Material: St. Steel Polyethylene Teflon Other:
Sampling Method: Bailer Peristaltic Grundfos Other:
Duration of Pumping: (min)
Average Pumping Rate: (ml/min) Water-Quality Meter Type: U-22 Horiba
Total Volume Removed: 0.50 (gal) Did well go dry: Yes No

Conversion Factors				
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469
1 gal = 3.785 L = 3785 ml = 0.1337 cubic feet				

Unit Stability			
pH	DO	Cond.	ORP
±0.1	± 10%	± 3.0%	± 10 mV

Parameter:	1	2	3	4	5	6	7	8	9	10
Volume Purged (gal)	0.45									
Rate (mL/min)	—									
Depth to Water (ft.)										
pH	6.04									
Temp. (C)	17.65									
Conductivity (mS/cm)	0.00									
Dissolved Oxygen (mg/l)	11.91									
ORP (mV)	147									
Turbidity (NTU)	197									
Notes:	light brown turbid slight odor									

Sampling Information

Analyses	#	Laboratory
Sample ID: MW-6-10	Sample Time: 1130	
MS/MSD: Yes No		
Duplicate: Yes No		
Duplicate ID: —	Dup. Time: —	
Chain of Custody Signed By: Amy		

Problems / Observations

Initial Purge:

Final Purge:

well slow to recharge @ 1140.
will return to collect remaining volume.
Final 1L of volume collected at 1330.