

**PRE-DESIGN INVESTIGATION REPORT  
FOR OPERABLE UNIT 1**

**NYSEG FORMER MGP SITE  
DANSVILLE, NEW YORK**

June 2009

*Prepared for:*

**NYSEG**  
Kirkwood Industrial Park  
Binghamton, NY 13902

*Prepared by:*

**Ish Inc.**  
804 Salem Woods Drive, Suite 201 B  
Raleigh, NC 27615

## TABLE OF CONTENTS

<b>1.0</b>	<b>INTRODUCTION.....</b>	<b>1</b>
<b>2.0</b>	<b>PURPOSE.....</b>	<b>1</b>
<b>3.0</b>	<b>PRE-DESIGN INVESTIGATION METHODS.....</b>	<b>2</b>
3.1	Field Methods.....	2
3.1.1	Underground Utilities.....	2
3.1.2	Soil Boring Installation and Sampling.....	2
3.1.3	Sample Identification.....	3
3.1.4	Analytical Sample Handling.....	3
3.1.5	Geotechnical Borings.....	3
3.1.6	Decontamination Procedures.....	4
3.1.7	Soil Boring Abandonment.....	4
3.1.8	Quality Assurance and Quality Control.....	4
3.1.9	Health and Safety.....	5
3.2	Sample Analysis.....	5
<b>4.0</b>	<b>PRE-DESIGN INVESTIGATION FIELD ACTIVITY SUMMARY .....</b>	<b>5</b>
4.1	Soil Delineation Borings.....	5
4.2	Waste Characterization Borings.....	6
4.3	Geotechnical Borings.....	6
4.4	Investigation Derived Waste.....	7
4.5	Survey.....	7
<b>5.0</b>	<b>PRE-DESIGN INVESTIGATION RESULTS .....</b>	<b>7</b>
5.1	Site Geology.....	7
5.2	Subsurface Soil Conditions.....	8
5.2.1	Visual Observations.....	8
5.2.2	Subsurface Soil Analytical Results.....	9
5.2.3	Subsurface Geotechnical Conditions.....	9
5.3	Quality Assurance/Quality Control.....	10
<b>6.0</b>	<b>SUMMARY AND CONCLUSIONS .....</b>	<b>10</b>
<b>7.0</b>	<b>REFERENCES.....</b>	<b>12</b>

## TABLES

3-1	Summary of Analytical Methodologies
4-1	Summary of Soil Borings and Rationale
4-2	Summary of Soil Samples Collected
5-1	Summary of Visual Observations in Subsurface Soils
5-2	PDI Subsurface Soil VOC Results
5-3	PDI Subsurface Soil SVOC Results
5-4	PDI Subsurface Soil TCLP VOC Results
5-5	PDI Subsurface Soil TPH and General Chemistry Results
5-6	PDI Subsurface Soil VOC Duplicate Results
5-7	PDI Subsurface Soil SVOC Duplicate Results
5-8	Geotechnical Test Results

## FIGURES

4-1	PDI Soil Boring Locations
5-1	Geologic Cross Section Strike Lines
5-2	Geologic Cross Section A – A'
5-3	Geologic Cross Section B – B'
5-4	Geologic Cross Section C – C'
5-5	Geologic Cross Section D – D'
5-6	Geologic Cross Section E – E'
5-7	Geologic Cross Section F – F'
5-8	Geologic Cross Section G – G'
5-9	Geologic Cross Section H – H'
6-1	Proposed Excavation, Hydraulic Control, and OU1 Limits Contained in the ROD
6-2	3D View of NAPL Indicators Values
6-3	Extent of Impacted Soil Requiring Remediation and Expanded OU1 Limits

## APPENDICES

A	Chain-of-Custody Forms
B	Community Air Monitoring Plan Reports
C	Geologic Soil Boring Logs
D	Geotechnical and Analytical Laboratory Data

## 1.0 INTRODUCTION

This Pre-Design Investigation (PDI) Report summarizes the elements of the field investigation conducted as part of the PDI by Ish Inc. for NYSEG (New York State Electric & Gas Corporation) in support of the New York State Department of Environmental Conservation (NYSDEC)-selected remedy for Operable Unit 1 (OU1) of the Dansville former manufactured gas plant (MGP) site located in Dansville, New York. The NYSDEC-selected remedy is presented in the Dansville OU1 Record of Decision (OU1 ROD) dated March 2008 (NYSDEC, 2008). Except as noted in this report, the PDI work was performed in accordance with the procedures detailed in the Final Dansville Former MGP Site – Operable Unit 1 Pre-Design Investigation Work Plan (Work Plan), which was prepared in accordance with the Order on Consent (Order) between NYSEG and NYSDEC (Index No. DO-0002-9309) and the Dansville OU1 ROD (Ish Inc., 2008a, NYSDEC, 1996, NYSDEC 2008, respectively). The NYSDEC-approved Work Plan was prepared by Ish Inc for NYSEG in September 2008.

In March 1994, NYSEG entered into an Order with the NYSDEC to investigate and, where necessary, remediate 33 former MGP sites in New York. The Dansville former MGP site (Site No. 8-26-012) is included on this list of 33 sites. Section VI of the Order states that NYSEG shall submit to the NYSDEC a remedial design to implement the NYSDEC-selected remedial alternative for the site. This PDI Report describes the PDI activities (which is Phase I of the overall remedial design development work) performed to further delineate the lateral and vertical extent of the excavation areas tentatively identified in the OU1 ROD, and to obtain geotechnical data required to complete the remedial design (as Phase V) of the NYSDEC-selected remedy. For more details on the five-phased approach for the development of the OU1 remedial design, please refer to Section 1.2 of the Work Plan.

## 2.0 PURPOSE

As noted in the Dansville OU1 ROD, MGP waste, non-aqueous phase liquid (NAPL), or contaminated soils meeting one or more of the following criteria will be excavated under the selected remedy: visible tar or oil; the presence of sheens or odors with total polycyclic aromatic hydrocarbons (PAHs) over 1,000 mg/kg or benzene, toluene, ethylbenzene, and xylene (BTEX) concentrations above 10 mg/kg. In conjunction with the planned excavation activities, a hydraulic control barrier [most likely either a steel sheet pile wall or a cement-bentonite (CB) wall or a combination will be installed around the perimeter of the area. As such, the purpose of the PDI described in the approved Work Plan for OU1 is to accomplish the following:

- delineate the limits of the impacted soil requiring remediation to establish the location/alignment of the hydraulic control barrier;
- determine the volumes of the impacted soil to be remediated;
- obtain geotechnical data necessary to select wall installation materials and methods of construction, and to complete the design of the barrier wall; and,
- provide for preliminary waste characterization of impacted soil layers requiring remediation.



### **3.0 PRE-DESIGN INVESTIGATION METHODS**

This section summarizes the field methods and sample collection techniques, including sample identification, sample handling, equipment decontamination, field quality assurance and quality control procedures, and health and safety procedures. In addition, the methods used to analyze the collected samples are discussed in this section.

#### **3.1 Field Methods**

##### **3.1.1 Underground Utilities**

Prior to performing drilling activities, Dig Safely New York was contacted on November 4, 2008, (Ticket #11048-138-012) to identify underground utilities, including electric, telephone, fiber optic, water supply, sewer, natural gas, etc. . Other potential on-site hazards such as overhead utility lines and existing buildings were noted prior to drill rig set-up at each location and the necessary safety precautions were taken during the drilling operations.

##### **3.1.2 Soil Boring Installation and Sampling**

Drilling activities commenced on November 10, 2008. Soil borings were advanced using both direct push technology (DPT) with 4-foot Macro-Core® samplers and hollow stem augers (HSA) with standard 2-foot split-spoons. DPT borings were advanced to provide data for soil delineation and HSA borings were advanced at locations where samples for waste characterization and geotechnical analyses were collected.

##### **Direct Push Soil Borings**

At locations where DPT borings were advanced, a hydraulic hammer mounted on the HSA drill rig was used to drive Macro-Core® samplers. The Macro-Core® samplers were approximately 2-inches in diameter and 4 feet long. For each 4-foot sample interval, a new 1.5-inch diameter acetate liner was placed into the Macro-Core® sampler. Macro-Core® soil samples were obtained continuously from the boring until the silt/clay layer was encountered which typically occurred at a depth of 14 to 18 feet below ground surface (bgs).

##### **Hollow Stem Auger Borings**

At locations where HSA drilling techniques were used, 3.25-inch hollow stem augers were advanced, and continuous split-spoon samples were collected by driving the split spoon in advance of the augers. Geotechnical borings were continuously sampled to a depth of 26 feet bgs, and then sampled every five feet until completion at 42 feet bgs. Waste characterization borings were advanced to a depth of 14 to 15 feet, and terminated in the silt/clay layer. Blow counts were recorded in 0.5-foot increments for both the waste characterization and geotechnical borings. A total of four undisturbed samples were collected by using Shelby tubes at four different sampling intervals in place of split-spoon sampling during completion of the geotechnical borings.

##### **Soil Sampling**

Split-spoon and Macro-Core® samplers were opened immediately upon retrieval, and screened using a photo-ionization detector (PID) with a 10.6 eV lamp. PID screening for organic vapors was performed in 1- to 2-foot increments depending on the percent recovery of the sample.

Geologic logs were prepared for each soil boring including descriptions of soil color, texture, lithologic classification, visual and olfactory observations of the presence/absence of MGP residuals, field screening results, and presence of groundwater.

Representative soil samples were selected for laboratory analysis based on field observations (visual/olfactory) and/or to assist in developing the remedial design. The soils from these selected intervals were collected using disposable plastic scoops and appropriate sample jars. Sample jars were labeled using an identifier unique to the sample interval (see below) and documentation regarding sampling intervals and times were recorded in the field logbook.

Soil sample containers were pre-cleaned glass containers, with Teflon<sup>®</sup>-lined lids supplied by the laboratory, TestAmerica Buffalo (TestAmerica). Containers were labeled with the corresponding sample identification, date, time of sample collection, the analyses to be performed, and the personnel collecting the sample.

### 3.1.3 Sample Identification

Each soil sample was assigned a unique field sample identification according to the following scheme:

DV-SD07(13.2-13.7), where:

DV	Dansville Former MGP Site
SD07	Sequential number for Soil Delineation Boring (SD), Waste Characterization Boring (WC), or Geotechnical Boring (GB)
(13.2-13.7)	Analytical sample interval in feet bgs

### 3.1.4 Analytical Sample Handling

Immediately following sample collection, the sample jars were placed into sample coolers with ice to cool and then maintain the samples at approximately 4°C. In preparation for shipment, the sample containers were carefully packed in foam or bubble wrap, to prevent breakage and the ice in the coolers was replenished to keep the samples chilled during delivery to the laboratory. Chain-of-custody forms (Appendix A) were completed and enclosed in the coolers prior to shipment to TestAmerica, via overnight delivery by Federal Express.

### 3.1.5 Geotechnical Borings

The objective of the geotechnical investigation tasks included with the PDI Work Plan was to obtain the geotechnical data necessary to select and complete the design of the excavation barrier and hydraulic control system (barrier wall) included as part of the excavation remedy selected for the Site in the ROD. Installation of a barrier wall is required to ensure stable excavations and to provide groundwater management during the planned excavation activities.

The geotechnical investigation activities, detailed in the PDI Work Plan, included the installation of eight (8) soil borings utilizing HSA techniques with split-spoon and Shelby tube sampling. The borings were to be completed at approximately 200-foot intervals along the candidate barrier wall alignment to provide stratigraphic information, empirical geotechnical data, and representative soil samples for geotechnical laboratory testing. Additionally, the soil boring program, along with data from other borings completed at

the Site, provided information regarding the possible presence of subsurface obstructions along the proposed alignment that may require removal by excavation in advance of barrier wall installation. The subsurface investigation and subsequent geotechnical laboratory testing of the collected samples is described in greater detail in Sections 4.3 and 5.2.3 of this report.

### **3.1.6 Decontamination Procedures**

During soil sampling, two areas were established for the decontamination of non-disposable field sampling equipment. The primary decontamination area consisted of an approximate 8-foot square wooden frame, polyethylene-lined pad, for drilling equipment decontamination. Drilling equipment (augers, rods, etc.) was decontaminated before reuse, using a high temperature/pressure washer.

A second decontamination area was established for the decontamination of non-disposable sampling equipment, and was maintained at each soil boring location. Non-disposable field sampling equipment used for the collection of soil samples, such as split-spoons and stainless steel bowls, were decontaminated prior to each use, using the following procedure:

- Knock, scrape, or wipe off excess soil;
- Pre-rinse with tap water;
- Wash with non-phosphate detergent and tap water;
- Rinse with tap water;
- Rinse with methanol;
- Rinse with distilled water;
- Rinse with 10% nitric acid;
- Rinse thoroughly with distilled water; and
- Air dry on a clean surface.

All decontamination fluids were collected and contained within a 550-gallon polyethylene tank, for subsequent disposal by NYSEG (see section 4.4).

### **3.1.7 Soil Boring Abandonment**

Each soil boring was abandoned by emplacing a cement-bentonite grout mixture from the bottom of the boring to ground surface. Following abandonment, a pin flag identifying the location was placed at the sample location for surveying.

### **3.1.8 Quality Assurance and Quality Control**

Quality Assurance/Quality Control (QA/QC) procedures as detailed in the project-specific Quality Assurance Project Plan (QAPP) were followed during the field sampling, sample handling and shipment, and sample analyses (Ish Inc., 2008b).

Blind duplicates and matrix spike samples were collected and analyzed, at a frequency of one QA/QC sample per 20 soil samples, to provide verification regarding variation among samples, and analytical precision and accuracy.

### **3.1.9 Health and Safety**

The site-specific Health and Safety Plan (HASP) prepared for the previous Supplemental Remedial Investigation (SRI), was used for the PDI, after verification of the site-specific information (Ish Inc., 2008c). The Community Air Monitoring Plan (CAMP), which was included within the HASP, was implemented during the PDI. The results of the CAMP are provided in Appendix B.

### **3.2 Sample Analysis**

The primary potential constituents of concern (PCOCs) at the site are those related to the former MGP processes. Based on the SRI results, it was determined that BTEX and PAHs are the PCOCs associated with potential remedial activities at Operable Unit 1 (OU1). Chlorinated volatile organic compounds (VOCs) were also analyzed to assess potential contribution from a potential off-site source that was identified during the SRI (Ish Inc., 2006).

Soil samples for delineation purposes were analyzed for target compound list (TCL) VOCs and TCL semi-volatile organic compounds (SVOCs) by TestAmerica which is certified by the Environmental Laboratory Accreditation Program (ELAP) and a participating member of the New York State Department of Health (NYSDOH) Analytical Service Protocol-Contract Laboratory Program (ASP-CLP).

Waste characterization analyses were also performed. Waste characterization samples were analyzed for toxicity characteristic leaching procedure (TCLP) VOCs, TCL VOCs and, TCL SVOCs. Some select waste characterization samples were also analyzed for British thermal unit (BTU) content, total petroleum hydrocarbons (TPH), diesel range organics (DRO), and for sulfur/sulfate content. Two composite samples (one each for drummed soil and decontamination water) were also collected and analyzed for BTEX via Environmental Protection Agency (EPA) method 8260. TestAmerica, also performed the waste characterization analyses. The analytical methods used and the parameters analyzed for are summarized on Table 3-1.

## **4.0 PRE-DESIGN INVESTIGATION FIELD ACTIVITY SUMMARY**

This section of the PDI Report summarizes the activities performed during the PDI and provides details regarding the samples collected as part of the execution of the Work Plan as well as additional borings completed and samples that were collected based on observations made in the field.

A total of 49 borings were completed during the PDI. A total of 35 borings were advanced for the delineation of impacted soil requiring remediation, six borings were drilled for waste characterization, and eight borings advanced for geotechnical data along the hydraulic control boundary. Table 4-1 lists the borings and provides the rationales for the installation of the borings. Soil boring logs are attached in Appendix C

### **4.1 Soil Delineation Borings**

A total of 32 soil delineation borings (SD01 to SD32) were initially planned for the PDI in the Work Plan. During the field investigation activities, the scope of work was expanded to include three additional shallow soil borings (SD33, SD34, and SD35), to assist in the further delineation of impacted soil requiring

remediation. Therefore, a total of 35 soil delineation borings were advanced using DPT drilling techniques for the PDI.

The soil delineation borings were drilled to depths of 16 to 20 feet bgs, which represents the approximate depth to the silt/clay layer. Borings were arranged in a series of four transects on the southern "front" yard, supplemented with additional soil borings between the main transects. The perimeter of the tentative excavation areas in the northeastern site area was also investigated (Figure 4-1). The three additional soil delineation borings were added as follows: 1) in the vicinity of the southern gasholder (SD33), 2) along the eastern edge of the NYSEG Service Center building (SD34), and 3) between SD25 and GB06 (SD35). Additionally, the six waste characterization borings and eight geotechnical borings were used to document visual, olfactory and organic vapor screening results, providing further information concerning the extent of subsurface impacts.

A total of 35 soil delineation samples were collected for laboratory analyses and are listed in Table 4-2. During the subsurface soil investigation, care was taken to identify and record soil zones that contained NAPL. Evidence of NAPL included significant NAPL in soil pores, NAPL globules and stringers, and heavy sheens with visible NAPL. During advancement of the impacted soil delineation borings, analytical samples were collected from 25 of the 35 soil boring locations. Which soil intervals to sample was determined in the field based on several factors, including visual and olfactory observations, PID screening results, and the vertical location in relation to impacted material. It should be noted that some of the borings that contained NAPL were not sampled, since in some instances the visual observations were sufficient to characterize the impacts. Also, some sample intervals were selected for vertical delineation of potentially impacted soils requiring remediation, which did not exhibit any visual or olfactory observations, and were located either above or below visually observed NAPL impacts.

#### **4.2 Waste Characterization Borings**

Preliminary waste characterization soil samples were collected to provide data to assess soil disposal options. A total of 13 preliminary waste characterization soil samples were collected from the six designated waste characterization soil borings (WC01 through WC06), as well as from SD33. The initial 5-foot interval was not split-spoon sampled, except at WC04, since this interval was generally free of visual and olfactory impacts. At WC04, only the initial 2 feet was not split-spoon sampled, due to black stained soil encountered in drill cuttings at approximately 1-foot bgs. The locations of the six waste characterization borings are located on Figure 4-1.

Subsurface soil sample intervals for the waste characterization borings generally targeted both the visually impacted material (approximately 8 to 13.5 feet bgs), and the visually unimpacted soil above it (5 to 10 feet bgs) as these soil horizons would be handled during a remedial excavation. Table 4-2 provides the soil samples, sample intervals, and analyses performed for each of the preliminary waste characterization samples.

#### **4.3 Geotechnical Borings**

A total of eight (8) geotechnical soil borings were completed by Nathnagle Drilling. The soil borings, identified as GB01 to GB08 on Figure 1, were drilled with 3¼ - inch inside diameter HSAs. Split spoon samples were collected for visual identification of soil type(s) by the field geologist/engineer continuously

to a depth of 26 feet, and then on a 5-foot vertical spacing until each soil boring was completed at a depth of 42 feet. This depth was selected to slightly exceed the maximum anticipated embedment depth of a cantilevered sheet pile barrier wall (i.e., the worst-case scenario from a depth perspective). Standard Penetration Testing was performed for each split spoon sample interval and the results were recorded by the field geologist/engineer. Composite soil samples were collected from 11 split spoons and placed in jars for subsequent geotechnical laboratory testing. Additional representative undisturbed samples of encountered cohesive soil strata were obtained using Shelby tube sampling techniques. Shelby tube samples were collected from GB04 (depth interval of 20 - 22 feet bgs), GB05 (14 - 16 feet bgs), GB6 (30 - 32 feet bgs), and GB7 (40 - 42 feet bgs).

#### **4.4 Investigation Derived Waste**

The investigation derived waste (IDW) generated during the PDI field activities consisted of soil cuttings, excess grout from abandonment, and water from decontamination activities. All soil cuttings and excess grout was containerized in Department of Transportation (DOT) approved 55-gallon drums. All decontamination water from drilling equipment and sampling activities was first placed into DOT approved 55-gallon drums, and then transferred into a 550-gallon polyethylene tank used for wastewater containerization. Two composite samples were obtained, one from the soil cuttings, and the other from the decontamination water for BTEX analysis. The IDW will be disposed of by NYSEG in accordance with applicable regulations.

#### **4.5 Survey**

At the conclusion of PDI field activities, C.T. Male and Associates performed the land surveying of the soil borings. Soil boring locations were referenced horizontally to the State Plane Coordinate System (New York Central), and the ground elevations were referenced to the North American vertical datum 1988 (NAVD'88).

### **5.0 PRE-DESIGN INVESTIGATION RESULTS**

The results of the PDI along with historical findings, a discussion of the geologic setting, and analytical results are presented in the following section.

#### **5.1 Site Geology**

The Site geology was described in the SRI Report and is characterized by Quaternary lacustrine deposits overlain by layers of alluvial sediment and anthropogenic fill (Ish Inc., 2006). The lithologic data obtained during the PDI augmented the existing geologic data and was used to develop the eight geologic cross sections at the locations shown on Figure 5-1. The geologic cross sections are provided as Figures 5-2 through 5-9.

The anthropogenic fill at the site is distinguished from naturally occurring material by lithologic character (e.g., bricks, coal, and debris), location in relation to former structures, or surface exposure. The anthropogenic fill was found to range in thickness from approximately 3 to 4 feet to over 10 feet in the northern site area, which is in the vicinity of a former canal. Approximately 10 feet of fill was also

encountered in and around historical MGP structures (gasholders, gas house, etc.) in the front yard of the current service center building.

The alluvial deposits consist of two primary layers. The upper layer consisting of fine to coarse sand and fine to coarse gravel, with varying minor amounts of silt, clay, and cobbles. The sand and gravel layer ranges in thickness from approximately 2 to 8 feet. The stratigraphically lower alluvial deposit is thinner (ranging from approximately 2 feet thick to absent), underlies the sand and gravel layer, and generally consists of silty fine sand.

The Quaternary lacustrine deposits are present beneath the silty fine sand or sand and gravel and are lithologically characterized as clayey silt, with increasingly interbedded fine sand and gravel lenses as depth increases. The thickness of this unit is in excess of 100 feet (Ish Inc., 2006).

The shallow groundwater bearing unit at the site is unconfined, and predominantly present in the sand and gravel alluvial deposits. During the PDI, groundwater was generally observed during drilling at approximately 6 feet bgs in the northeast site area, to approximately 12 feet bgs in the southern site area. The thickness of the saturated soils observed was limited, generally ranging from two to four feet above the Quaternary glacial deposits of clayey silt.

## **5.2 Subsurface Soil Conditions**

The following presents subsurface soil conditions based on visual observations and soil analytical data.

### **5.2.1 Visual Observations**

The PDI geologic soil boring logs are attached in Appendix C, and summaries of the visual observations noted during logging are presented on Table 5-1. Visual observations are comprised of stains, sheens, and visual evidence of NAPL (e.g. globules, stringers, etc.). It should be noted that the upper soils from surface to approximately 6 to 8 feet deep are unimpacted. Similarly, the deeper alluvial soil deposit is also unimpacted.

Consistent with the information previously presented in the SRI Report, evidence of tar NAPL was observed over much of the investigation area. In general, the NAPL encountered was reddish-brown color, had relatively low viscosity, and was intermixed with water in the pore spaces of the shallow alluvial groundwater bearing unit.

Geologic cross sections (Figures 5-2 through 5-9) depict the observations of MGP-related residuals and show that the greatest thickness of NAPL-containing soils was observed in soil borings to the east of the NYSEG Service Center in the vicinity of the former gasholder (SD25, SD35, WC04, and WC05), where approximately 4 to 6 feet of NAPL-containing soils were noted. Also, at SD33, which was advanced in the gasholder located south of the NYSEG Service Center, 8.2 feet of visually impacted material was observed.

The very southwestern portion of the site (SD01 through SD05, and SD08) was generally free of MGP-related residuals. The remainder of the western site boundary (SD07, SD13, SD17, SD19, SD23, and GB03) generally exhibited sheens once the water table was encountered, except at SD06 and GB03, where NAPL globules and stringers were noted, respectively.

### **5.2.2 Subsurface Soil Analytical Results**

This section summarizes the chemical analysis results for subsurface soil samples collected during the PDI. Various types of samples were collected for chemical analyses, including soils from visually impacted intervals, soils above impacted intervals, and soils immediately below impacted intervals. Extensive sampling within the Quaternary lacustrine deposits (clayey silt) was not performed, as the SRI showed this unit was effectively acting as a barrier to the downward migration of MGP-related residuals. As defined in the OU1 ROD, MGP waste, NAPL, or contaminated soils meeting one or more of the following criteria will require remediation: visible tar or oil, the presence of sheens or odors with total PAHs over 1,000 mg/kg or total BTEX above 10 mg/kg. This definition was used as a criterion for interpreting the soil analytical and visual observations made in the field investigation.

#### **BTEX**

Benzene, toluene, ethylbenzene, and xylene are VOCs commonly found in MGP-related residuals. The BTEX concentrations found in subsurface soil samples are presented in Table 5-2. Samples containing total BTEX in excess of 10 mg/kg were limited to seven soil samples: SD18(12-13), SD23(11.5-13), SD25(10-12), SD33(9-11), SD34(12-12.8), WC01(11-13), and WC02(8-13.5), which were collected from visually impacted intervals. These results indicate that the visual observations of MGP residuals are an excellent indicator for soils containing elevated BTEX concentrations.

#### **SVOCs**

The semi-volatile organic compound (SVOC) concentrations in subsurface soils are presented on Table 5-3. Only one soil sample, WC04(10-12.5), collected from visually impacted intervals exceeded the OU1 ROD soil excavation criterion of 1,000 mg/kg total PAHs. Similar to the BTEX results, these results indicate that visual observations are an excellent indicator of the soils requiring remediation as discussed in the OU1 ROD.

#### **Chlorinated VOCs**

The results of the target compound list VOC analyses are located on Table 5-2.

### **Waste Characterization Analytical Results**

In addition to the above analyses for impacted soils requiring remediation delineation, waste characterization samples were collected. The analytical results for the TCLP VOC analyses are located on Table 5-4, and the TPH DRO, BTU content, and the sulfate/sulfur results are presented on Table 5-5. The compounds with detected TLCP results were benzene, carbon tetrachloride, tetrachloroethene, and trichloroethene. As shown in Table 5-5, TPH results ranged from 260 mg/kg at WC03(10.5-11.5) to 7,300 mg/kg at WC04(10-12.5). In addition, BTU content was not measured above reporting limits of 100 and 200 BTU/lb, while sulfate and sulfur were not detected above reporting limits of 0.05 and 0.0166%, respectively.

### **5.2.3 Subsurface Geotechnical Conditions**

Relatively similar stratigraphic conditions were encountered at the locations of the eight (8) geotechnical soil borings. Fill materials, sands, and gravels were encountered at the site surface to a depth of approximately 11 to 14 feet bgs. The relative density of these materials was generally medium dense and contained a large percentage of gravel and sand with lesser amounts of clay and silt.



Relatively soft silts, clays, and fine sands were encountered below a depth of approximately 11 to 14 feet bgs to the termination depth of the geotechnical soil borings at 42 feet bgs. Standard penetration testing values for these soils ranged from "Weight of Rods" to approximately 15 blows per 6-inch interval. The general lithology of the Site is described in more detail in Section 5.1.

No significant subsurface obstructions were encountered during the completion of the PDI activities that would prevent the successful installation of a barrier wall system. However, subsurface conditions between borings can vary significantly and previously un-encountered obstructions may still be present along the proposed barrier wall alignment.

Representative undisturbed (i.e., Shelby tube) and composite bulk soil samples were delivered to JLT Laboratories in Canonsburg, Pennsylvania for subsequent geotechnical analyses. In particular, consolidated undrained triaxial shear strength tests (with pore pressure monitoring) were performed on three representative cohesive soil samples. These tests provided strength properties data suitable for design of both short-term (i.e., total stress analysis) and long-term (i.e., effective stress analysis) soil loading conditions. Permeability testing was performed on two representative Shelby tube samples to help evaluate the hydraulic control and dewatering requirements for the site.

Other laboratory tests performed include the following:

- Natural moisture content and unit weight;
- Permeability;
- Atterberg limits; and,
- Grain size distribution.

The results of these tests are summarized on Table 5.8, and detailed laboratory test results are provided in Appendix D.

### **5.3 Quality Assurance/Quality Control**

The results for field duplicates of soil samples are shown in Table 5-6 and Table 5-7. In general, RPDs of less than 50% for soil field duplicates indicate that both field sampling procedures and the analytical precision are of sufficient quality. The RPDs for measurements of individual VOCs in soil varied from 4 to 105 %. For SVOCs, the RPDs ranged from 0 to 123%. The highest RPDs were found for results near the sample reporting limits where variability generally increases. Overall, the RPDs for duplicate soil samples indicate that the sampling procedures and analytical precision are of sufficient quality. There was some variability, particularly in samples at levels near the method reporting limit, which is not unexpected.

Although the Work Plan discussed preparation of a Data Usability Summary Report, since the data will be used strictly for remedial planning purposes, the review was not performed.

## **6.0 SUMMARY AND CONCLUSIONS**

As defined in the OU1 ROD, MGP waste, NAPL, or contaminated soils meeting one or more of the following criteria will require remediation: visible tar or oil, the presence of sheens, or odors with total PAHs over 1,000 mg/kg or total BTEX above 10 mg/kg. The purpose of the PDI was to (1) delineate the limits of the impacted

soils requiring remediation per the criteria set forth in the ROD, in order to establish the location and alignment of the hydraulic control barrier, (2) use the data for determining the volume of impacted soils to be remediated, obtain geotechnical data required to design the hydraulic control barrier and provide preliminary waste characterization data for the soil layers within the footprint of the impacted soil requiring remediation.

The goals of the PDI were satisfied through the installation and geologic logging of 35 delineation borings (SD01 to SD35), six waste characterization borings (WC01 to WC06), and eight geotechnical borings (GB01 to GB08). A total of 35 soil delineation samples were collected and analyzed for TCL VOCs and TCL SVOCs. In addition, 13 waste characterization samples were collected and analyzed for TCL VOCs, TCL SVOCs, and TCLP VOCs. Seven waste characterization samples were also analyzed BTU content, TPH, and sulfur/sulfate content. Finally, four Shelby tubes were collected for geotechnical analysis.

Figure 6-1 shows the proposed limits of excavation of the impacted soil presented in the ROD along with the alignment of the proposed hydraulic barrier for achieving the excavation work. Figure 6-2 provides a three dimensional depiction of observations in soil borings containing sheens (as green rings), stingers or blebs (as yellow rings), and NAPL (as red rings) for both the SRI and PDI data from the site. The spatial extent of impacted soil requiring remediation, as further delineated by the PDI, has increased and accordingly the boundaries of the OU1 have been extended as shown on Figure 6-3.

The findings of the PDI can be summarized as follows:

- The aerial and vertical extent of impacted soil requiring remediation in OU1 has been fully delineated
- The geotechnical borings and analyses have provided sufficient stratigraphic information as well as laboratory test results to allow for the development of the design of a hydraulic barrier wall system for remediation of the OU1.
- Preliminary waste characterization data have been collected, and additional waste characterization sampling may be required, depending on the remedial design and treatment facility requirements.
- As shown on Figure 6-3, the footprint of OU1 has been extended to the north, east and west to include the extent of the impacted soils for remediation, as determined by the PDI.
- The elevated results for total PAHs and BTEX in soils that constitute impacted soils for remediation (as defined in the OU1 ROD) correlate very well to visual observations of NAPL and sheens in the subsurface soils.

## **7.0 REFERENCES**

Ish Inc., 2006, "Final Supplemental Remedial Investigation Report for Operable Unit 1 at the Former MGP Site, Dansville, New York", January 2006.

Ish Inc., 2008a, "Final Dansville Former MGP Site – Operable Unit 1, Pre-Design Investigation Work Plan", September 2008.

Ish Inc., 2008b, "Final Quality Assurance Project Plan, Pre-Design Investigation – Operable Unit 1, Former MGP Site, Dansville, New York", September 2008.

Ish Inc., 2008c, "Final Health and Safety Plan, Pre-Design Investigation – Operable Unit 1, Former MGP Site, Dansville, New York", September 2008.

NYSDEC, 1996, Consent Order between NYSDEC and NYSEG (Document Number D0-0002-09309), March 25, 1994, Revised November 21, 1996.

NYSDEC, 2008, "Record of Decision, NYSEG Dansville MGP Site, Operable Unit No. 1, Dansville, Livingston County, New York, Site Number 8-26-012", March 2008.

## TABLES

**TABLE 3-1**  
**SUMMARY OF ANALYTICAL METHODOLOGIES**  
**NYSEG FORMER MGP SITE**  
**DANSVILLE, NEW YORK**

Parameter	Method
Target Compound List Volatile Organic Compounds	EPA 8260B
Target Compound List Semi-Volatile Organic Compounds	EPA 8270C
Toxicity Characteristic Leaching Procedure Volatile Organic Compounds	EPA 1311/8260
Total Petroleum Hydrocarbons Diesel Range Organics	EPA 8015B
British Thermal Units (%)	ASTM D240
Sulfur/Sulfate	SW846 5050

**TABLE 4-1  
SUMMARY OF SOIL BORINGS AND RATIONALE  
NYSEG FORMER MGP SITE  
DANVILLE, NEW YORK**

PDI Soil Delineation Borings			Rationale
Boring ID	Total Depth (feet bgs)	Date Completed	
SD01	20	11/10/2008	Evaluate the presence of MGP material to the west of the excavation proposed to the south of the NYSEG service center building
SD02	20	11/10/2008	
SD03	16	11/11/2008	
SD04	16	11/12/2008	
SD05	16	11/11/2008	
SD06	20	11/12/2008	
SD07	20	11/10/2008	
SD08	20	11/11/2008	
SD09	16	11/12/2008	
SD10	20	11/12/2008	
SD11	18	11/11/2008	
SD12	16	11/12/2008	
SD13	20	11/10/2008	
SD14	16	11/11/2008	
SD15	16	11/12/2008	
SD16	16	11/12/2008	
SD17	16	11/11/2008	
SD18	16	11/13/2008	
SD19	16	11/10/2008	
SD20	16	11/11/2008	
SD21	16	11/13/2008	
SD22	16	11/12/2008	
SD23	16	11/10/2008	
SD24	16	11/13/2008	
SD25	20	11/13/2008	Evaluate the presence of MGP material to the north of the excavation proposed to the east of the NYSEG service center building
SD26	16	11/24/2008	
SD27	20	11/14/2008	
SD28	16	11/24/2008	
SD29	16	11/24/2008	
SD30	16	11/24/2008	
SD31	16	11/24/2008	
SD32	18	11/24/2008	
SD33	12	11/24/2008	Additional to scope of work, added to investigate the former underground gas holder
SD34	16	11/24/2008	Additional to scope of work, added to investigate the eastern side of the NYSEG service center building
SD35	16	11/24/2008	Additional to scope of work, for spatial coverage to the north of the excavation proposed to the east of the NYSEG service center building
Waste Characterization Borings			Rationale
Boring ID	Total Depth (feet bgs)	Date Completed	
WC01	15	11/13/2008	Collect waste characterization samples from the excavation proposed to the south of the NYSEG service center building
WC02	15	11/13/2008	
WC03	15	11/13/2008	
WC04	14	11/14/2008	Collect waste characterization samples from the excavation proposed to the east of the NYSEG service center building
WC05	15	11/14/2008	
WC06	15	11/14/2008	
PDI Geotechnical Borings			Rationale
Boring ID	Total Depth (feet bgs)	Date Completed	
GB01	42	11/19/2008	Collect samples for geotechnical testing from the southeast corner of the barrier wall proposed to the south of the NYSEG service center building
GB02	42	11/18/2008	Collect samples for geotechnical testing from the southwest corner of the barrier wall proposed to the south of the NYSEG service center building
GB03	42	11/20/2008	Collect samples for geotechnical testing from the northwest corner of the barrier wall proposed to the south of the NYSEG service center building
GB04	42	11/17/2008	Collect samples for geotechnical testing from the central portion of the northern barrier wall proposed to the south of the NYSEG service center building
GB05	42	11/19/2008	Collect samples for geotechnical testing from the northeast corner of the barrier wall proposed to the south of the NYSEG service center building
GB06	42	11/21/2008	Collect samples for geotechnical testing from the southeast corner of the barrier wall proposed to the east of the NYSEG service center building
GB07	42	11/20/2008	Collect samples for geotechnical testing from the northeast corner of the barrier wall proposed to the east of the NYSEG service center building
GB08	42	11/17/2008	Collect samples for geotechnical testing from the northwest corner of the barrier wall proposed to the east of the NYSEG service center building

**TABLE 4-2**  
**SUMMARY OF SOIL SAMPLES COLLECTED**  
**NYSEG FORMER MGP SITE**  
**DANVILLE, NEW YORK**

Boring ID	Sample Date	Sample ID	Sample Depth Interval (feet bgs)	Analysis					
				VOC	SVOC	TCLP VOC	BTU	TPH	Sulfur
Soil Delineation									
SD02	11/10/2008	SD-02(5.5-6.5)	5.5-6.5	X	X				
SD07	11/10/2008	SD-07(13.2-13.7)	13.2-13.7	X	X				
SD08	11/11/2008	SD-08(15-16)	15.0-16.0	X	X				
SD09	11/12/2008	SD-09(8-10)	8.0-10.0	X	X				
	11/12/2008	SD-09(14-16)	14.0-16.0	X	X				
SD10	11/12/2008	SD-10(11-13)	11.0-13.0	X	X				
SD11	11/11/2008	SD-11(13-14)	13.0-14.0	X	X				
SD15	11/12/2008	SD-15(8-10)	8.0-12.0	X	X				
	11/12/2008	SD-15(14-16)	14.0-16.0	X	X				
SD16	11/12/2008	SD-16(12.5-13.5)	12.5-13.5	X	X				
SD17	11/11/2008	SD-17(12-12.9)	12.0-12.9	X	X				
	11/11/2008	SD-17(15-16)	15.0-16.0	X	X				
SD18	11/13/2008	SD-18(2-4)	2.0-4.0	X	X				
	11/13/2008	SD-18(12-13)	12.0-13.0	X	X				
SD19	11/10/2008	SD-19(11.5-12)	11.5-12.0	X	X				
	11/10/2008	SD-19(12-12.5)	12.0-12.5	X	X				
SD20	11/11/2008	SD-20(12-12.7)	12.0-12.7	X	X				
SD21	11/13/2008	SD-21(12-13.5)	12.0-13.5	X	X				
SD22	11/12/2008	SD-22(12-13)	12.0-13.0	X	X				
SD23	11/10/2008	SD-23(11.5-13)	11.5-13.0	X	X				
	11/10/2008	SD-23(14-15)	14.0-15.0	X	X				
SD25	11/13/2008	SD-25(10-12)	10.0-12.0	X	X				
	11/13/2008	SD-25(14-16)	14.0-16.0	X	X				
SD26	11/24/2008	SD-26(3.5-4)	3.5-4.0	X	X				
	11/24/2008	SD-26(10.6-11.6)	10.6-11.6	X	X				
SD27	11/14/2008	SD-27(2-4)	2.0-4.0	X	X				
	11/14/2008	SD-27(11-13)	11.0-13.0	X	X				
SD28	11/24/2008	SD-28(8-10)	8.0-10.0	X	X				
	11/24/2008	SD-28(14-16)	14.0-16.0	X	X				
SD29	11/24/2008	SD-29(10.3-11.6)	10.3-11.6	X	X				
SD30	11/24/2008	SD-30(11.3-12.0)	11.3-12.0	X	X				
SD32	11/24/2008	SD-32(14-16)	14.0-16.0	X	X				
SD33	11/24/2008	SD-33(9-11)	9.0-11.0	X	X	X			
SD34	11/24/2008	SD-34(12-12.8)	12.0-12.8	X	X				
SD35	11/24/2008	SD-35(10-12)	10.0-12.0	X	X				

**TABLE 4-2**  
**SUMMARY OF SOIL SAMPLES COLLECTED**  
**NYSEG FORMER MGP SITE**  
**DANSVILLE, NEW YORK**

Boring ID	Sample Date	Sample ID	Sample Depth Interval (feet bgs)	Analysis					
				VOC	SVOC	TCLP VOC	BTU	TPH	Sulfur
Waste Characterization									
WC01	11/13/2008	WC-1(7-10)	7.0-10.0	X	X	X			
	11/13/2008	WC-1(11-13)	11.0-13.0	X	X	X	X	X	X
WC02	11/13/2008	WC-2(6-7)	6.0-7.0	X	X	X	X	X	X
	11/13/2008	WC-2(8-13.5)	8.0-13.5	X	X	X	X	X	X
WC03	11/13/2008	WC-3(6-9)	6.0-9.0	X	X	X			
	11/13/2008	WC-3(10.5-11.5)	10.5-11.5	X	X	X	X	X	X
WC04	11/14/2008	WC-4(6-10)	6.0-10.0	X	X	X			
	11/14/2008	WC-4(10-12.5)	10.0-12.5	X	X	X	X	X	X
WC05	11/14/2008	WC-5(5-9)	5.0-9.0	X	X	X			
	11/14/2008	WC-5(10-12.5)	10.0-12.5	X	X	X	X	X	X
WC06	11/14/2008	WC-6(6-9)	6.0-9.0	X	X	X			
	11/14/2008	WC-6(10-13.5)	10.0-13.5	X	X	X	X	X	X
Field Duplicates									
	11/10/2008	FD111008	14.0-15.0	X	X				
	11/11/2008	FD111108	13.0-14.0	X	X				
	11/14/2008	FD111408	11.0-13.0	X	X				



**TABLE 5-1**  
**SUMMARY OF VISUAL OBSERVATIONS IN SUBSURFACE SOILS**  
**NYSEG FORMER MGP SITE**  
**DANVILLE, NEW YORK**

PDI Soil Delineation Borings		
Boring ID	Maximum PID (ppm)	Visual Observations
SD01	0	None
SD02	3.1	None
SD03	0	None
SD04	0	None
SD05	0.7	None
SD06	78	12.0-12.5 ft: Staining, and some NAPL globules
SD07	18	13.3-13.7 ft: Staining, trace to some NAPL globules
SD08	0.4	None
SD09	15	11.7-12.4 ft: Sheen, NAPL parially coating gravels
SD10	370	11.5-13 ft: Staining, moderate sheen
SD11	31	12.8-14.5 ft: Sheen, staining, some NAPL globules
SD12	74	11.7-12.8 ft: Slight to moderate sheen
SD13	1	16-19 ft: Slight sheen
SD14	55.8	11.5-12.5 ft: Staining, trace NAPL globules
SD15	17.3	11.5-12.0 ft: Staining, sheen 12.0-12.8 ft: Staining, sheen, trace NAPL globules
SD16	79.3	11.4-12.0 ft: Sheens, trace to some NAPL globules 12.0-13.5 ft: Sheens
SD17	32.8	10-12.9 ft: Staining, sheen
SD18	377	11.2-12.3 ft: Staining, sheen 12.3-13.2 ft: Staining, sheen, some NAPL globules
SD19	58.2	12.0-12.8 ft: Sheens
SD20	52.8	11.5-12.0 ft: Staining 12.0-12.7 ft: Staining and trace NAPL globules
SD21	132	11.0-13.5 ft: Staining, sheens beginning at 11.8 11.5-11.7 ft: Staining
SD22	75	11.7-12.0 ft: Staining, sheen 12.0-13.2 ft: Staining, trace NAPL globules
SD23	255	12-13.3 ft: Sheen
SD24	157	12.9-13.1 ft: Staining, trace NAPL globules 13.1-14.1 ft: Staining, trace to some NAPL globules
SD25	680	9.5-12.0 ft: Stained, sheen, trace NAPL globules 12.0-16.0 ft: Heavy staining and sheen, trace to some NAPL globules
SD26	110	7.0-8.0 ft: Sheens 8.0-11.6 ft: Staining, sheens, trace NAPL globules throughout 11.2-11.4 ft: NAPL stringers and ganglia
SD27	33.8	10.5-12.0 ft: Stained, sheens, some NAPL stringers 12.0-16.0 ft: Stained, sheens, some NAPL stringers, NAPL in liquid, sleeve stained brown
SD28	7.4	None
SD29	5.3	10.3-11.6 ft: Trace NAPL globules, slight sheen
SD30	1.4	11.3-12.0 ft: Dark brown staining
SD31	4.9	10.0-12.0 ft: Trace NAPL globules, moderate sheen 12.0-12.7 ft: Trace to some NAPL globules, moderate sheen
SD32	16.5	14.0-16.0 ft: Moderate sheen, some NAPL globules 3.8-4.0 ft: Staining
SD33	907	4.0-8.0 ft: Black staining, heavy sheen with NAPL 8.0-12.0 ft: Heavy black staining, heavy sheen (petroleum)
SD34	1051	9.0-12 ft: Stained, slight sheen 12.0-12.8 ft: Slight sheen, some NAPL stringers and ganglia
SD35	384	9.8-12 ft: Stained, sheens, trace to some NAPL globules and stringers 12.0-13.7 ft: Stained, NAPL sheens, partially saturated with NAPL

**TABLE 5-1**  
**SUMMARY OF VISUAL OBSERVATIONS IN SUBSURFACE SOILS**  
**NYSEG FORMER MGP SITE**  
**DANVILLE, NEW YORK**

Waste Characterization Borings		
Boring ID	Maximum PID (ppm)	Visual Observations
WC01	184	10.7-11.0 ft: Staining, sheen 11.0-12.8 ft: Staining, sheen, trace NAPL globules
WC02	208	8.0-9.0 ft: Staining 9.0-11.0 ft: Staining, sheens 11.0-13.5 ft: Heavy staining, heavy sheens
WC03	38.7	10.5-11.5 ft: Sheens
WC04	1637	8.0-10.0 ft: Slight sheens 10.0-12.0 ft: Heavy staining, heavy sheens, partially NAPL saturated from 10.7-10.9 and 11.2-11.8
WC05	179	9.0-11.0 ft: Staining, sheens, trace NAPL globules 11.0-12.8 ft: Heavy sheen, some NAPL globules
WC06	44	9.0-11.0 ft: Staining, sheen, some NAPL stringers 11.0-13.5 ft: Stained, heavy sheen (NAPL in sheen)

PDI Geotechnical Borings		
Boring ID	Maximum PID (ppm)	Visual Observations
GB01	18.2	11.6-12.0 ft: Stained, trace NAPL globules 12.0-12.5 ft: Sheens, trace to some NAPL globules
GB02	0	None
GB03	274	11.8-12.0 ft: Sheens 12.0-13.0 ft: Some NAPL stringers
GB04	49.8	11.4-12.0 ft: Sheens from 11.6-12.0 12.0-14.0 ft: No recovery, sheen and NAPL globules on rods
GB05	363	10.6-13.0 ft: Stained black (diesel odor)
GB06	82	10.0-12.0 ft: Staining, sheens, NAPL on outside of spoon 12.0-14.0 ft: Heavy staining, heavy sheen (with NAPL), some NAPL globules
GB07	0	None
GB08	0	10.0-10.6 ft: Slight sheen accumulated in spoon

**TABLE 5-2**  
**PDI SUBSURFACE SOIL VOC RESULTS**  
**NYSEG FORMER MGP SITE**  
**DANSVILLE, NEW YORK**

Sample ID(Depth in Feet)	SD02(5.5-6.5)	SD07(13.2-13.7)	SD08(15-16)	SD09(8-10)	SD09(14-16)	SD10(11-13)	SD11(13-14)	FD111108	SD15(8-10)	SD15(14-16)
Laboratory ID	A8E39907	A8E39901	A8E39908	A8E54402	A8E54403	A8E54401	A8E39909	A8E39910	A8E54404	A8E54405
Date Sampled	11/10/2008	11/10/2008	11/11/2008	11/12/2008	11/12/2008	11/12/2008	11/11/2008	11/11/2008	11/12/2008	11/12/2008
<b>Volatile Organic Compounds (µg/kg)</b>										
1,1,1-Trichloroethane	5 U	120 U	6 U	5 U	150 U	150 U	140 U	130 U	5 U	6 U
1,1,2,2-Tetrachloroethane	5 U	120 U	6 U	5 U	150 U	150 U	140 U	130 U	5 U	6 U
1,1,2-Trichloro-1,2,2-trifluoroethane	5 U	120 U	6 U	5 U	150 U	150 U	140 U	130 U	5 U	6 U
1,1,2-Trichloroethane	5 U	120 U	6 U	5 U	150 U	150 U	140 U	130 U	5 U	6 U
1,1-Dichloroethane	5 U	120 U	6 U	5 U	150 U	150 U	140 U	130 U	5 U	6 U
1,1-Dichloroethene	5 U	120 U	6 U	5 U	150 U	150 U	140 U	130 U	5 U	6 U
1,2,4-Trichlorobenzene	5 U	120 U	6 U	5 U	150 U	150 U	140 U	130 U	5 U	6 U
1,2-Dibromo-3-chloropropane	5 U	120 U	6 U	5 U	150 U	150 U	140 U	130 U	5 U	6 U
1,2-Dibromoethane	5 U	120 U	6 U	5 U	150 U	150 U	140 U	130 U	5 U	6 U
1,2-Dichlorobenzene	5 U	120 U	6 U	5 U	150 U	150 U	140 U	130 U	5 U	6 U
1,2-Dichloroethane	5 U	120 U	6 U	5 U	150 U	150 U	140 U	130 U	5 U	6 U
1,2-Dichloropropane	5 U	120 U	6 U	5 U	150 U	150 U	140 U	130 U	5 U	6 U
1,3-Dichlorobenzene	5 U	120 U	6 U	5 U	150 U	150 U	140 U	130 U	5 U	6 U
1,4-Dichlorobenzene	5 U	120 U	6 U	5 U	150 U	150 U	140 U	130 U	5 U	6 U
2-Butanone	26 U	180 BJ	32 U	25 U	750 U	740 U	220 BJ	190 BJ	25 U	32 U
2-Hexenone	26 U	630 U	32 U	25 U	750 U	740 U	690 U	640 U	25 U	32 U
4-Methyl-2-pentanone	26 U	630 U	32 U	25 U	750 U	740 U	690 U	640 U	25 U	32 U
Acetone	15 J	630 U	35	6 BJ	750 U	740 U	690 U	640 U	25 U	60 B
Benzene	5 U	120 U	6 U	5 U	150 U	150 U	140 U	130 U	5 U	31
Bromodichloromethane	5 U	120 U	6 U	5 U	150 U	150 U	140 U	130 U	5 U	6 U
Bromoform	5 U	120 U	6 U	5 U	150 U	150 U	140 U	130 U	5 U	6 U
Bromomethane	5 U	120 U	6 U	5 U	150 U	150 U	140 U	130 U	5 U	6 U
Carbon disulfide	5 U	120 U	6 U	5 U	150 U	150 U	140 U	130 U	5 U	2 J
Carbon tetrachloride	5 U	120 U	6 U	5 U	150 U	150 U	140 U	130 U	5 U	6 U
Chlorobenzene	5 U	120 U	6 U	5 U	150 U	150 U	140 U	130 U	5 U	6 U
Chloroethane	5 U	120 U	6 U	5 U	150 U	150 U	140 U	130 U	5 U	6 U
Chloroform	5 U	120 U	6 U	5 U	150 U	150 U	140 U	130 U	5 U	6 U
Chloromethane	5 U	120 U	6 U	5 U	150 U	150 U	140 U	130 U	5 U	6 U
cis-1,2-Dichloroethene	5 U	120 U	6 U	5 U	150 U	150 U	140 U	130 U	5 U	22
cis-1,3-Dichloropropene	5 U	120 U	6 U	5 U	150 U	150 U	140 U	130 U	5 U	6 U
Cyclohexane	5 U	120 U	6 U	5 U	150 U	150 U	140 U	130 U	5 U	6
Dibromochloromethane	5 U	120 U	6 U	5 U	150 U	150 U	140 U	130 U	5 U	6 U
Dichlorodifluoromethane	5 U	120 U	6 U	5 U	150 U	150 U	140 U	130 U	5 U	6 U
Ethylbenzene	5 U	49 J	6 U	5 U	310	2,800	700	2,000	5 U	220
Isopropylbenzene	5 U	100 J	2 J	5 U	150 U	660	360	1,000	5 U	22
Methyl acetate	5 U	120 U	6 U	5 U	150 U	150 U	140 U	130 U	5 U	6 U
Methylcyclohexane	5 U	150	4 J	5 U	150 U	2,400	960	1,700	5 U	20
Methylene chloride	13 B	120 U	15 B	8 B	150 U	150 U	140 U	130 U	8 B	36 B
Methyl-t-Butyl Ether (MTBE)	5 U	120 U	6 U	5 U	150 U	150 U	140 U	130 U	5 U	6 U
Styrene	5 U	120 U	6 U	5 U	150 U	150 U	140 U	130 U	5 U	6 U
Tetrachloroethene	5 U	120 U	6 U	5 U	150 U	150 U	140 U	130 U	5 U	6 U
Toluene	5 U	120 U	6 U	5 U	150 U	120 J	140 U	130 U	5 U	7
Total Xylenes	16 U	130 J	6 J	15 U	550	4,900	670	2,600	15 U	190
trans-1,2-Dichloroethene	5 U	120 U	6 U	5 U	150 U	150 U	140 U	130 U	5 U	6 U
trans-1,3-Dichloropropene	5 U	120 U	6 U	5 U	150 U	150 U	140 U	130 U	5 U	6 U
Trichloroethene	5 U	120 U	6 U	5 U	150 U	150 U	140 U	130 U	5 U	6 U
Trichlorofluoromethane	5 U	120 U	6 U	5 U	150 U	150 U	140 U	130 U	5 U	6 U
Vinyl chloride	10 U	250 U	13 U	10 U	300 U	300 U	280 U	260 U	10 U	13 U
<b>Total VOCs (µg/kg)</b>	<b>26</b>	<b>610</b>	<b>62</b>	<b>14</b>	<b>860</b>	<b>11,000</b>	<b>3,100</b>	<b>7,700</b>	<b>6.0</b>	<b>620</b>

**Notes:**

ND = Not Detected

MDL = Method Detection Limit

U = The material was analyzed for but not detected at or above the MDL. The associated numerical value is the sample reporting limit.

J = The associated numerical value is an estimated quantity.

B = Blank contamination was present in one or more quality control samples

D = The concentration indicated was obtained from a diluted analytical run.

**TABLE 5-2**  
**PDI SUBSURFACE SOIL VOC RESULTS**  
**NYSEG FORMER MGP SITE**  
**DANVILLE, NEW YORK**

Sample ID (Depth in Feet) Laboratory ID Date Sampled	SD16(12.5-13.5) A8E54407 11/12/2008	SD17(12-12.9) A8E39911 11/11/2008	SD17(15-16) A8E39912 11/11/2008	SD18(2-4) A8E54408 11/13/2008	SD18(12-13) A8E54409 11/13/2008	SD19(11.5-12) A8E39902 11/10/2008	SD19(12-12.5) A8E39903 11/10/2008	SD20(12-12.7) A8E39913 11/11/2008	SD21(12-13.5) A8E54410 11/13/2008	SD22(12-13) A8E54406 11/12/2008
<b>Volatle Organic Compounds (µg/kg)</b>										
1,1,1-Trichloroethene	140 U	130 U	160 U	6 U	130 U	140 U	130 U	140 U	140 U	130 U
1,1,2,2-Tetrachloroethane	140 U	130 U	160 U	6 U	130 U	140 U	130 U	140 U	140 U	130 U
1,1,2-Trichloro-1,2,2-trifluoroethane	140 U	130 U	160 U	6 U	130 U	140 U	130 U	140 U	140 U	130 U
1,1,2-Trichloroethane	140 U	130 U	160 U	6 U	130 U	140 U	130 U	140 U	140 U	130 U
1,1-Dichloroethane	140 U	130 U	160 U	6 U	130 U	140 U	130 U	140 U	140 U	130 U
1,1-Dichloroethene	140 U	130 U	160 U	6 U	130 U	140 U	130 U	140 U	140 U	130 U
1,2,4-Trichlorobenzene	140 U	130 U	160 U	6 U	130 U	140 U	130 U	140 U	140 U	130 U
1,2-Dibromo-3-chloropropane	140 U	130 U	160 U	6 U	130 U	140 U	130 U	140 U	140 U	130 U
1,2-Dibromoethane	140 U	130 U	160 U	6 U	130 U	140 U	130 U	140 U	140 U	130 U
1,2-Dichlorobenzene	140 U	130 U	160 U	6 U	130 U	140 U	130 U	140 U	140 U	130 U
1,2-Dichloroethane	140 U	130 U	160 U	6 U	130 U	140 U	130 U	140 U	140 U	130 U
1,2-Dichloropropane	140 U	130 U	160 U	6 U	130 U	140 U	130 U	140 U	140 U	130 U
1,3-Dichlorobenzene	140 U	130 U	160 U	6 U	130 U	140 U	130 U	140 U	140 U	130 U
1,4-Dichlorobenzene	140 U	130 U	160 U	6 U	130 U	140 U	130 U	140 U	140 U	130 U
2-Butanone	690 U	180 BJ	230 BJ	28 U	660 U	230 BJ	200 BJ	200 BJ	690 U	630 U
2-Hexanone	690 U	670 U	790 U	28 U	660 U	680 U	640 U	690 U	690 U	630 U
4-Methyl-2-pentanone	690 U	670 U	790 U	28 U	660 U	680 U	640 U	690 U	690 U	630 U
Acetone	690 U	670 U	790 U	7 BJ	660 U	680 U	640 U	690 U	690 U	630 U
Benzene	140 U	130 U	150 J	6 U	130 U	140 U	130 U	140 U	140 U	130 U
Bromodichloromethane	140 U	130 U	160 U	6 U	130 U	140 U	130 U	140 U	140 U	130 U
Bromoform	140 U	130 U	160 U	6 U	130 U	140 U	130 U	140 U	140 U	130 U
Bromomethane	140 U	130 U	160 U	6 U	130 U	140 U	130 U	140 U	140 U	130 U
Carbon disulfide	140 U	130 U	160 U	6 U	130 U	140 U	130 U	140 U	140 U	130 U
Carbon tetrachloride	140 U	130 U	160 U	6 U	130 U	140 U	130 U	140 U	140 U	130 U
Chlorobenzene	140 U	130 U	160 U	6 U	130 U	140 U	130 U	140 U	140 U	130 U
Chloroethane	140 U	130 U	160 U	6 U	130 U	140 U	130 U	140 U	140 U	130 U
Chloroform	140 U	130 U	160 U	6 U	130 U	140 U	130 U	140 U	140 U	130 U
Chloromethane	140 U	130 U	160 U	6 U	130 U	140 U	130 U	140 U	140 U	130 U
cis-1,2-Dichloroethene	140 U	130 U	210	6 U	130 U	140 U	130 U	140 U	140 U	130 U
cis-1,3-Dichloropropene	140 U	130 U	160 U	6 U	130 U	140 U	130 U	140 U	140 U	130 U
Cyclohexane	140 U	130 U	160 U	6 U	130 U	140 U	130 U	140 U	140 U	130 U
Dibromochloromethane	140 U	130 U	160 U	6 U	130 U	140 U	130 U	140 U	140 U	130 U
Dichlorodifluoromethane	140 U	130 U	160 U	6 U	130 U	140 U	130 U	140 U	140 U	130 U
Ethylbenzene	630	58 J	660	6 U	12,000	140 U	130 U	2,700	3,300	1,500
Isopropylbenzene	120 J	49 J	240	6 U	2,600	140 U	130 U	520	470	590
Methyl acetate	140 U	130 U	160 U	6 U	130 U	140 U	130 U	140 U	140 U	130 U
Methylcyclohexane	320	250	410	6 U	2,500	140 U	130 U	840	1,300	2,300
Methylene chloride	140 U	130 U	160 U	10 B	130 U	140 U	130 U	140 U	140 U	130 U
Methyl-t-Butyl Ether (MTBE)	140 U	130 U	160 U	6 U	130 U	140 U	130 U	140 U	140 U	130 U
Styrene	140 U	130 U	160 U	6 U	130 U	140 U	130 U	140 U	140 U	130 U
Tetrachloroethene	140 U	130 U	160 U	6 U	130 U	140 U	130 U	140 U	140 U	130 U
Toluene	140 U	130 U	160 U	6 U	140	140 U	130 U	59 J	160	130 U
Total Xylenes	700	400 U	1,000	17 U	9,700	410 U	380 U	1,900	3,500	1,800
trans-1,2-Dichloroethene	140 U	130 U	160 U	6 U	130 U	140 U	130 U	140 U	140 U	130 U
trans-1,3-Dichloropropene	140 U	130 U	160 U	6 U	130 U	140 U	130 U	140 U	140 U	130 U
Trichloroethene	140 U	130 U	160 U	6 U	130 U	140 U	130 U	140 U	140 U	130 U
Trichlorofluoromethane	140 U	130 U	160 U	6 U	130 U	140 U	130 U	140 U	140 U	130 U
Vinyl chloride	280 U	270 U	320 U	11 U	260 U	270 U	260 U	280 U	280 U	250 U
<b>Total VOCs (µg/kg)</b>	1,800	540	2,900	17	27,000	230	200	6,200	8,700	6,200

Notes:

ND = Not Detected

MDL = Method Detection Limit

U = The material was analyzed for but not detected at or above the MDL. The associated numerical value is the sample reporting limit.

J = The associated numerical value is an estimated quantity.

B = Blank contamination was present in one or more quality control samples

D = The concentration indicated was obtained from a diluted analytical run.

**TABLE 5-2**  
**PDI SUBSURFACE SOIL VOC RESULTS**  
**NYSEG FORMER MGP SITE**  
**DANVILLE, NEW YORK**

Sample ID(Depth in Feet) Laboratory ID Date Sampled	SD23(11.5-13) A8E39904 11/10/2008	SD23(14-15) A8E39905 11/10/2008	FD111008 A8E39906 11/10/2008	SD25(10-12) A8E60803 11/13/2008	SD25(14-16) A8E60804 11/13/2008	SD26(3.5-4) A8F06306 11/24/2008	SD26(10.6-11.6) A8F06307 11/24/2008	SD27(2-4) A8E60809 11/14/2008	SD27(11-13) A8E60810 11/14/2008	FD111408 A8E60811 11/14/2008
<b>Volatile Organic Compounds (µg/kg)</b>										
1,1,1-Trichloroethane	130 U	150 U	160 U	26 U	25 U	28 U	5 U	6 U	22 U	26 U
1,1,2,2-Tetrachloroethane	130 U	150 U	160 U	26 U	25 U	28 U	5 U	6 U	17 J	26 U
1,1,2-Trichloro-1,2,2-trifluoroethane	130 U	150 U	160 U	26 U	25 U	28 U	5 U	6 U	22 U	26 U
1,1,2-Trichloroethane	130 U	150 U	160 U	26 U	25 U	28 U	5 U	6 U	22 U	26 U
1,1-Dichloroethane	130 U	150 U	160 U	26 U	25 U	28 U	5 U	6 U	22 U	26 U
1,1-Dichloroethene	130 U	150 U	160 U	26 U	33	28 U	5 U	6 U	22 U	26 U
1,2,4-Trichlorobenzene	130 U	150 U	160 U	26 U	25 U	28 U	5 U	6 U	22 U	26 U
1,2-Dibromo-3-chloropropane	130 U	150 U	160 U	26 U	25 U	28 U	5 U	6 U	22 U	26 U
1,2-Dibromoethane	130 U	150 U	160 U	26 U	25 U	28 U	5 U	6 U	22 U	26 U
1,2-Dichlorobenzene	130 U	150 U	160 U	26 U	25 U	28 U	5 U	6 U	22 U	26 U
1,2-Dichloroethane	130 U	150 U	160 U	26 U	25 U	28 U	5 U	6 U	22 U	26 U
1,2-Dichloropropane	130 U	150 U	160 U	26 U	25 U	28 U	5 U	6 U	22 U	26 U
1,3-Dichlorobenzene	130 U	150 U	160 U	26 U	25 U	28 U	5 U	6 U	22 U	26 U
1,4-Dichlorobenzene	130 U	150 U	160 U	26 U	25 U	28 U	5 U	6 U	22 U	26 U
2-Butanone	230 BJ	230 BJ	240 BJ	130 U	120 U	140 U	26 U	29 U	110 U	130 U
2-Hexanone	650 U	760 U	780 U	130 U	120 U	140 U	26 U	29 U	110 U	130 U
4-Methyl-2-pentanone	650 U	760 U	780 U	130 U	120 U	140 U	26 U	29 U	110 U	130 U
Acetone	650 U	760 U	780 U	68 J	120 U	43 J	21 J	6 J	62 J	58 J
Benzene	130 U	150 U	160 U	10 J	11 J	28 U	5 U	6 U	34	29
Bromodichloromethane	130 U	150 U	160 U	26 U	25 U	28 U	5 U	6 U	22 U	26 U
Bromoform	130 U	150 U	160 U	26 U	25 U	28 U	5 U	6 U	22 U	26 U
Bromomethane	130 U	150 U	160 U	26 U	25 U	28 U	5 U	6 U	22 U	26 U
Carbon disulfide	130 U	150 U	160 U	9 J	44	28 U	4 J	6 U	16 J	15 J
Carbon tetrachloride	130 U	150 U	160 U	26 U	25 U	28 U	5 U	6 U	22 U	26 U
Chlorobenzene	130 U	150 U	160 U	26 U	25 U	28 U	5 U	6 U	22 U	26 U
Chloroethane	130 U	150 U	160 U	26 U	25 U	28 U	5 U	6 U	22 U	26 U
Chloroform	130 U	150 U	160 U	26 U	25 U	28 U	5 U	6 U	22 U	26 U
Chloromethane	130 U	150 U	160 U	26 U	25 U	28 U	5 U	6 U	22 U	26 U
cis-1,2-Dichloroethene	130 U	150 U	160 U	960	2,600 D	6 J	350 D	6 U	630	550
cis-1,3-Dichloropropene	130 U	150 U	160 U	26 U	25 U	28 U	5 U	6 U	22 U	26 U
Cyclohexane	130 U	150 U	160 U	26 U	90	28 U	5 U	6 U	7 J	26 U
Dibromochloromethane	130 U	150 U	160 U	26 U	25 U	28 U	5 U	6 U	22 U	26 U
Dichlorodifluoromethane	130 U	150 U	160 U	26 U	25 U	28 U	5 U	6 U	22 U	26 U
Ethylbenzene	8,400	160	49 J	37,000 D	2,900 D	23 J	1 J	6 U	710	580
Isopropylbenzene	1,500	150 U	160 U	7,900 D	1,700 D	28 U	10	6 U	480	340
Methyl acetate	130 U	150 U	160 U	26 U	25 U	28 U	5 U	6 U	22 U	26 U
Methylcyclohexane	810	72 J	160 U	620	840	28 U	2 J	6 U	33	25 J
Methylene chloride	130 U	150 U	160 U	35	23 J	36	7	7	12 J	25 J
Methyl-t-Butyl Ether (MTBE)	130 U	150 U	160 U	26 U	25 U	28 U	5 U	6 U	22 U	26 U
Styrene	130 U	150 U	160 U	26 U	25 U	48	1 J	6 U	22 U	26 U
Tetrachloroethene	130 U	150 U	160 U	12 J	8,700 D	200	1,500 D	19	830	730
Toluene	170	150 U	160 U	480	75	25 J	5 U	6 U	86	71
Total Xylenes	7,500	150 J	470 U	44,000 D	2,600	200	16 U	17 U	670	530
trans-1,2-Dichloroethene	130 U	150 U	160 U	26 U	480	28 U	13	6 U	63	52
trans-1,3-Dichloropropene	130 U	150 U	160 U	26 U	25 U	28 U	5 U	6 U	22 U	26 U
Trichloroethene	130 U	150 U	160 U	26 U	590 DJ	50	6,700 D	6 U	160	200
Trichlorofluoromethane	130 U	150 U	160 U	26 U	25 U	28 U	5 U	6 U	22 U	26 U
Vinyl chloride	260 U	300 U	310 U	51 U	130	55 U	10 U	12 U	76	97
<b>Total VOCs (µg/kg)</b>	<b>19,000</b>	<b>610</b>	<b>290</b>	<b>91,000</b>	<b>21,000</b>	<b>630</b>	<b>8,600</b>	<b>32</b>	<b>3,900</b>	<b>3,300</b>

**Notes:**

ND = Not Detected

MDL = Method Detection Limit

U = The material was analyzed for but not detected at or above the MDL. The associated numerical value is the sample reporting limit.

J = The associated numerical value is an estimated quantity.

B = Blank contamination was present in one or more quality control samples

D = The concentration indicated was obtained from a diluted analytical run.

**TABLE 5-2  
PDI SUBSURFACE SOIL VOC RESULTS  
NYSEG FORMER MGP SITE  
DANSVILLE, NEW YORK**

Sample ID(Depth in Feet) Laboratory ID Date Sampled	SD28(8-10) A8F06301 11/24/2008	SD28(14-16) A8F06302 11/24/2008	SD29(10.3-11.6) A8F06303 11/24/2008	SD30(11.3-12.0) A8F06304 11/24/2008	SD32(14-16) A8F06305 11/24/2008	SD33(9-11) A8F06310 11/24/2008	SD34(12-12.8) A8F06309 11/24/2008	SD35(10-12) A8F06308 11/24/2008	WC01(7-10) A8E54411 11/13/2008	WC01(11-13) A8E54412 11/13/2008
<b>Volatle Organic Compounds (µg/kg)</b>										
1,1,1-Trichloroethane	5 U	6 U	5 U	6 U	29 U	1,700 U	26 U	22 U	5 U	150 U
1,1,2,2-Tetrachloroethane	5 U	6 U	5 U	6 U	29 U	1,700 U	26 U	22 U	5 U	150 U
1,1,2-Trichloro-1,2,2-trifluoroethane	5 U	6 U	5 U	6 U	29 U	1,700 U	26 U	22 U	5 U	150 U
1,1,2-Trichloroethane	5 U	6 U	5 U	6 U	29 U	1,700 U	26 U	22 U	5 U	150 U
1,1-Dichloroethane	5 U	6 U	5 U	6 U	29 U	1,700 U	26 U	22 U	5 U	150 U
1,1-Dichloroethene	5 U	6 U	5 U	6 U	29 U	1,700 U	67	22 U	5 U	150 U
1,2,4-Trichlorobenzene	5 U	6 U	5 U	6 U	29 U	1,700 U	26 U	22 U	5 U	150 U
1,2-Dibromo-3-chloropropane	5 U	6 U	5 U	6 U	29 U	1,700 U	26 U	22 U	5 U	150 U
1,2-Dibromoethane	5 U	6 U	5 U	6 U	29 U	1,700 U	26 U	22 U	5 U	150 U
1,2-Dichlorobenzene	5 U	6 U	5 U	6 U	29 U	1,700 U	26 U	22 U	5 U	150 U
1,2-Dichloroethane	5 U	6 U	5 U	6 U	29 U	1,700 U	26 U	22 U	5 U	150 U
1,2-Dichloropropane	5 U	6 U	5 U	6 U	29 U	1,700 U	26 U	22 U	5 U	150 U
1,3-Dichlorobenzene	5 U	6 U	5 U	6 U	29 U	1,700 U	26 U	22 U	5 U	150 U
1,4-Dichlorobenzene	5 U	6 U	5 U	6 U	29 U	1,700 U	26 U	22 U	5 U	150 U
2-Butanone	26 U	30 U	27 U	28 U	150 U	8,500 U	130 U	110 U	26 U	730 U
2-Hexanone	26 U	30 U	27 U	28 U	150 U	8,500 U	130 U	110 U	26 U	730 U
4-Methyl-2-pentanone	26 U	30 U	27 U	28 U	150 U	8,500 U	130 U	110 U	26 U	730 U
Acetone	26 U	12 J	10 J	28 U	36 J	8,500 U	100 J	68 J	130 B	730 U
Benzene	5 U	6 U	5 U	6 U	29 U	7,100	50	22 U	5 U	81 J
Bromodichloromethane	5 U	6 U	5 U	6 U	29 U	1,700 U	26 U	22 U	5 U	150 U
Bromoform	5 U	6 U	5 U	6 U	29 U	1,700 U	26 U	22 U	5 U	150 U
Bromomethane	5 U	6 U	5 U	6 U	29 U	1,700 U	26 U	22 U	5 U	150 U
Carbon disulfide	5 U	6 U	5 U	6 U	7 J	1,700 U	29	46	5 U	150 U
Carbon tetrachloride	5 U	6 U	5 U	6 U	29 U	1,700 U	26 U	22 U	5 U	150 U
Chlorobenzene	5 U	6 U	5 U	6 U	29 U	1,700 U	26 U	22 U	5 U	150 U
Chloroethane	5 U	6 U	5 U	6 U	29 U	1,700 U	26 U	22 U	5 U	150 U
Chloroform	5 U	6 U	5 U	4 J	29 U	1,700 U	26 U	22 U	5 U	150 U
Chloromethane	5 U	6 U	5 U	6 U	29 U	1,700 U	26 U	22 U	5 U	150 U
cis-1,2-Dichloroethene	5 U	23	5 U	6 U	160	1,700 U	2,800 D	890	5 U	150 U
cis-1,3-Dichloropropene	5 U	6 U	5 U	6 U	29 U	1,700 U	26 U	22 U	5 U	150 U
Cyclohexane	5 U	6 U	5 U	6 U	9 J	2,500	670	12 J	5 U	150 U
Dibromochloromethane	5 U	6 U	5 U	1 J	29 U	1,700 U	26 U	22 U	5 U	150 U
Dichlorodifluoromethane	5 U	6 U	5 U	6 U	29 U	1,700 U	26 U	22 U	5 U	150 U
Ethylbenzene	5 U	6 U	5 U	6 U	970	76,000	15,000 D	3,200 D	5 U	10,000
Isopropylbenzene	5 U	6 U	5 U	6 U	330	5,400	4,000 D	1,300 D	5 U	1,800
Methyl acetate	5 U	6 U	5 U	6 U	29 U	1,700 U	26 U	22 U	5 U	150 U
Methylcyclohexane	5 U	6 U	5 U	6 U	97	16,000	13,000 D	53	5 U	2,000
Methylene chloride	6	9	10	7	36	1,700 U	33	30	15 B	150 U
Methyl-t-Butyl Ether (MTBE)	5 U	6 U	5 U	6 U	29 U	1,700 U	26 U	22 U	5 U	150 U
Styrene	5 U	6 U	5 U	6 U	29 U	1,700 U	26 U	22 U	5 U	150 U
Tetrachloroethene	96	760 D	990 D	7	320	1,700 U	21,000 D	410	5 U	150 U
Toluene	5 U	6 U	5 U	6 U	57	44,000	790	59	5 U	480
Total Xylenes	15 U	18 U	16 U	17 U	850	99,000	20,000 D	3,800 D	16 U	15,000
trans-1,2-Dichloroethene	5 U	6 U	5 U	6 U	77	1,700 U	110	22	5 U	150 U
trans-1,3-Dichloropropene	5 U	6 U	5 U	6 U	29 U	1,700 U	26 U	22 U	5 U	150 U
Trichloroethene	7	78	6	6 U	62	1,700 U	27,000 D	28	5 U	150 U
Trichlorofluoromethane	5 U	6 U	5 U	6 U	29 U	1,700 U	26 U	22 U	5 U	150 U
Vinyl chloride	10 U	12 U	11 U	11 U	58 U	3,400 U	8 J	45 U	10 U	290 U
<b>Total VOCs (µg/kg)</b>	110	880	1,000	19	3,000	250,000	100,000	9,900	150	29,000

**Notes:**

ND = Not Detected

MDL = Method Detection Limit

U = The material was analyzed for but not detected at or above the MDL. The associated numerical value is the sample reporting limit.

J = The associated numerical value is an estimated quantity.

B = Blank contamination was present in one or more quality control samples

D = The concentration indicated was obtained from a diluted analytical run.



**TABLE 5-2**  
**PDI SUBSURFACE SOIL VOC RESULTS**  
**NYSEG FORMER MGP SITE**  
**DANVILLE, NEW YORK**

Sample ID(Depth in Feet) Laboratory ID Date Sampled	WC02(6-7) A8E54413 11/13/2008	WC02(8-13.5) A8E54414 11/13/2008	WC03(6-9) A8E54415 11/13/2008	WC03(10.5-11.5) A8E54416 11/13/2008	WC04(6-10) A8E60801 11/14/2008	WC04(10-12.5) A8E60802 11/14/2008	WC05(5-9) A8E60805 11/14/2008	WC05(10-12.5) A8E60806 11/14/2008	WC06(6-9) A8E60807 11/14/2008	WC06(10-13.5) A8E60808 11/14/2008
<b>Volatile Organic Compounds (µg/kg)</b>										
1,1,1-Trichloroethane	6 U	140 U	6 U	140 U	5 U	24 U	6 U	24 U	5 U	28 U
1,1,2,2-Tetrachloroethane	6 U	140 U	6 U	140 U	5 U	24 U	6 U	24 U	5 U	28 U
1,1,2-Trichloro-1,2,2-Infuoroethane	6 U	140 U	6 U	140 U	5 U	24 U	6 U	24 U	5 U	28 U
1,1,2-Trichloroethane	6 U	140 U	6 U	140 U	5 U	24 U	6 U	24 U	5 U	28 U
1,1-Dichloroethane	6 U	140 U	6 U	140 U	5 U	24 U	6 U	24 U	5 U	28 U
1,1-Dichloroethene	6 U	140 U	6 U	140 U	5 U	15 J	6 U	6 J	5 U	28 U
1,2,4-Trichlorobenzene	6 U	140 U	6 U	140 U	5 U	24 U	6 U	24 U	5 U	28 U
1,2-Dibromo-3-chloropropane	6 U	140 U	6 U	140 U	5 U	24 U	6 U	24 U	5 U	28 U
1,2-Dibromoethane	6 U	140 U	6 U	140 U	5 U	24 U	6 U	24 U	5 U	28 U
1,2-Dichlorobenzene	6 U	140 U	6 U	140 U	5 U	24 U	6 U	24 U	5 U	28 U
1,2-Dichloroethane	6 U	140 U	6 U	140 U	5 U	24 U	6 U	24 U	5 U	28 U
1,2-Dichloropropane	6 U	140 U	6 U	140 U	5 U	24 U	6 U	24 U	5 U	28 U
1,3-Dichlorobenzene	6 U	140 U	6 U	140 U	5 U	24 U	6 U	24 U	5 U	28 U
1,4-Dichlorobenzene	6 U	140 U	6 U	140 U	5 U	24 U	6 U	24 U	5 U	28 U
2-Butanone	30	700 U	29 U	710 U	27 U	120 U	28 U	120 U	26 U	140 U
2-Hexanone	28 U	700 U	29 U	710 U	27 U	120 U	28 U	120 U	26 U	140 U
4-Methyl-2-pentanone	28 U	700 U	29 U	710 U	27 U	120 U	28 U	120 U	26 U	140 U
Acetone	140 B	700 U	10 BJ	710 U	36	94 J	34	42 J	26 U	45 J
Benzene	7	130 J	6 U	120 J	2 J	12 J	6 U	19 J	5 U	28 U
Bromodichloromethane	6 U	140 U	6 U	140 U	5 U	24 U	6 U	24 U	5 U	28 U
Bromoform	6 U	140 U	6 U	140 U	5 U	24 U	6 U	24 U	5 U	28 U
Bromomethane	6 U	140 U	6 U	140 U	5 U	24 U	6 U	24 U	5 U	28 U
Carbon disulfide	3 J	140 U	6 U	140 U	5 U	19 J	6 U	16 J	5 U	10 J
Carbon tetrachloride	6 U	140 U	6 U	140 U	5 U	24 U	6 U	24 U	5 U	28 U
Chlorobenzene	6 U	140 U	6 U	140 U	5 U	24 U	6 U	24 U	5 U	28 U
Chloroethane	6 U	140 U	6 U	140 U	5 U	24 U	6 U	24 U	5 U	28 U
Chloroform	6 U	140 U	6 U	140 U	5 U	24 U	6 U	24 U	5 U	28 U
Chloromethane	6 U	140 U	6 U	140 U	5 U	24 U	6 U	24 U	5 U	28 U
cis-1,2-Dichloroethene	6 U	140 U	6 U	520	100	5,900 E	1 J	1,200 DJ	3 J	290
cis-1,3-Dichloropropene	6 U	140 U	6 U	140 U	5 U	24 U	6 U	24 U	5 U	28 U
Cyclohexane	32	3,400	6 U	140 U	5 U	24 U	6 U	6 J	5 U	28 U
Dibromochloromethane	6 U	140 U	6 U	140 U	5 U	24 U	6 U	24 U	5 U	28 U
Dichlorodifluoromethane	6 U	140 U	6 U	140 U	5 U	24 U	6 U	24 U	5 U	28 U
Ethylbenzene	140	8,000	6 U	700	150	3,500 E	3 J	570	5 U	8 J
Isopropylbenzene	31	1,300	6 U	140	9	1,500 E	6 U	180	5 U	42
Methyl acetate	6 U	140 U	6 U	140 U	5 U	24 U	6 U	24 U	5 U	28 U
Methylcyclohexane	150	23,000 D	6 U	1,200	5 U	7,600 E	1 J	30	5 U	11 J
Methylene chloride	14 B	140 U	11 B	140 U	6	35	13	31	2 J	27 J
Methyl-t-Butyl Ether (MTBE)	6 U	140 U	6 U	140 U	5 U	24 U	6 U	24 U	5 U	28 U
Styrene	6 U	470	6 U	140 U	5 U	24 U	6 U	24 U	5 U	28 U
Tetrachloroethene	6 U	140 U	6 U	140 U	9	3,700 E	930 D	6,600 D	630 D	870
Toluene	4 J	1,100	6 U	140 U	19	320	6 U	14 J	5 U	28 U
Total Xylenes	250	16,000	18 U	990	220	5,800 E	5 J	500	5 J	25 J
trans-1,2-Dichloroethene	6 U	140 U	6 U	140 U	5 U	40	6 U	130	5 U	10 J
trans-1,3-Dichloropropene	6 U	140 U	6 U	140 U	5 U	24 U	6 U	24 U	5 U	28 U
Trichloroethene	6 U	140 U	6 U	140 U	5 U	6,400 E	14	750 DJ	36	2,800 D
Trichlorofluoromethane	6 U	140 U	6 U	140 U	5 U	24 U	6 U	24 U	5 U	28 U
Vinyl chloride	11 U	280 U	12 U	280 U	11 U	49 U	11 U	48 U	11 U	55 U
<b>Total VOCs (µg/kg)</b>	<b>800</b>	<b>53,000</b>	<b>21</b>	<b>3,700</b>	<b>550</b>	<b>35,000</b>	<b>1,000</b>	<b>10,000</b>	<b>670</b>	<b>4,100</b>

**Notes:**

ND = Not Detected

MDL = Method Detection Limit

U = The material was analyzed for but not detected at or above the MDL. The associated numerical value is the sample reporting limit.

J = The associated numerical value is an estimated quantity.

B = Blank contamination was present in one or more quality control samples

D = The concentration indicated was obtained from a diluted analytical run.

TABLE 5-3  
PDI SUBSURFACE SOIL SVOC RESULTS  
NYSEG FORMER MGP SITE  
DANVILLE, NEW YORK

Sample ID(Depth in Feet) Laboratory ID Date Sampled	S002(5.5-6.5) A8E39901 11/10/2008	S007(13.2-13.7) A8E39901 11/10/2008	S008(15-18) A8E39908 11/11/2008	S009(8-10) A8E54402 11/11/2008	S009(14-16) A8E54403 11/11/2008	S010(11-13) A8E54401 11/11/2008	S011(13-14) A8E39909 11/11/2008	FD111108 A8E39910 11/11/08	S015(8-10) A8E54404 11/11/2008	S015(14-18) A8E54405 11/11/2008	S016(12.5-13.5) A8E39911 11/11/2008	S017(12-12.9) A8E39912 11/11/2008	S017(15-16) A8E39912 11/11/2008
<b>Semivolatile Organic Compounds (µg/kg)</b>													
2-Methylnaphthalene	180 U	900 J	11 J	180 U	830	28,000	13,000	8,700	3,700 U	2,200	6,800	3,800 U	2,200
Acenaphthene	12 J	8,600	260	180 U	210	35,000	17,000	23,000	3,700 U	41 J	6,800	2,300 J	33 J
Acenaphthylene	180 U	6,700	57 J	180 U	38 J	6,800	4,800	7,100	580 J	410 U	720 J	550 J	58 J
Anthracene	180 U	19,000	220 U	180 U	210 U	34,000	18,000	38,000	3,700 U	410 U	3,900	1,800 J	13 J
Benzo(a)anthracene	8 J	10,000	220 U	180 U	210 U	22,000	11,000	26,000	200 J	410 U	2,200 J	1,500 J	10 J
Benzo(a)pyrene	180 U	8,000	220 U	180 U	210 U	19,000	8,500	20,000	1,300 J	410 U	1,700 J	1,200 J	220 U
Benzo(b)fluoranthene	180 U	4,900	220 U	180 U	210 U	12,000	6,200	15,000	700 J	410 U	1,100 J	800 J	220 U
Benzo(g,h,i)perylene	180 U	4,100	220 U	180 U	210 U	10,000	4,200	10,000	3,800	410 U	820 J	650 J	220 U
Benzo(k)fluoranthene	180 U	2,400	220 U	180 U	210 U	4,800	1,800 J	4,200	190 J	410 U	390 J	330 J	220 U
Chrysene	180 U	8,600	220 U	180 U	210 U	20,000	9,100	22,000	420 J	18 J	1,800 J	1,300 J	31 J
Dibenzo(a,h)anthracene	180 U	1,000 J	220 U	180 U	210 U	2,400 J	1,000 J	2,500 J	300 J	410 U	3,900 U	3,800 U	220 U
Fluoranthene	180 U	21,000	220 U	180 U	210 U	41,000	22,000	47,000	3,700 U	410 U	4,800	2,800 J	15 J
Fluorene	180 U	11,000	11 J	180 U	160 J	26,000	14,000	19,000	3,700 U	17 J	3,900	1,600 J	13 J
Indeno(1,2,3-cd)pyrene	180 U	3,000	220 U	180 U	210 U	6,600	3,000	7,500	1,000 J	410 U	600 J	430 J	220 U
Naphthalene	180 U	580 J	660	180 U	2,900	58,000	24,000	15,000	3,700 U	25,000 D	16,000	3,800 U	32,000 D
Phenanthrene	23 J	54,000	220 U	180 U	55 J	180,000	55,000	98,000	3,700 U	410 U	14,000	5,300	34 J
Pyrene	9 J	26,000	220 U	180 U	210 U	61,000	28,000	62,000	670 J	410 U	6,400	3,900	29 J
<b>Total PAHs (µg/kg)</b>	52	190,000	1,000	ND	4,200	490,000	240,000	430,000	9,200	27,000	72,000	24,000	34,000
<b>Total CPAHs (µg/kg)</b>	8.0	38,000	ND	ND	ND	87,000	41,000	97,000	4,100	18	7,800	5,600	41
2,2'-Oxybis(1-Chloropropane)	180 U	1,900 U	220 U	180 U	210 U	4,000 U	1,900 U	3,800 U	3,700 U	410 U	3,900 U	3,800 U	220 U
2,4,5-Trichlorophenol	180 U	1,900 U	220 U	180 U	210 U	4,000 U	1,900 U	3,800 U	3,700 U	410 U	3,900 U	3,800 U	220 U
2,4,6-Trichlorophenol	180 U	1,900 U	220 U	180 U	210 U	4,000 U	1,900 U	3,800 U	3,700 U	410 U	3,900 U	3,800 U	220 U
2,4-Dichlorophenol	180 U	1,900 U	220 U	180 U	210 U	4,000 U	1,900 U	3,800 U	3,700 U	410 U	3,900 U	3,800 U	220 U
2,4-Dimethylphenol	180 U	1,900 U	220 U	180 U	210 U	4,000 U	1,900 U	3,800 U	3,700 U	410 U	3,900 U	3,800 U	220 U
2,4-Dinitrophenol	350 U	3,700 U	420 U	360 U	400 U	7,700 U	3,600 U	7,400 U	7,200 U	800 U	7,600 U	7,500 U	420 U
2,4-Dinitrotoluene	180 U	1,900 U	220 U	180 U	210 U	4,000 U	1,900 U	3,800 U	3,700 U	410 U	3,900 U	3,800 U	220 U
2,6-Dinitrotoluene	180 U	1,900 U	220 U	180 U	210 U	4,000 U	1,900 U	3,800 U	3,700 U	410 U	3,900 U	3,800 U	220 U
2-Chloronaphthalene	180 U	1,900 U	220 U	180 U	210 U	4,000 U	1,900 U	3,800 U	3,700 U	410 U	3,900 U	3,800 U	220 U
2-Chlorophenol	180 U	1,900 U	220 U	180 U	210 U	4,000 U	1,900 U	3,800 U	3,700 U	410 U	3,900 U	3,800 U	220 U
2-Methylphenol	180 U	1,900 U	220 U	180 U	210 U	4,000 U	1,900 U	3,800 U	3,700 U	410 U	3,900 U	3,800 U	220 U
2-Nitroaniline	350 U	3,700 U	420 U	360 U	400 U	7,700 U	3,600 U	7,400 U	7,200 U	800 U	7,600 U	7,500 U	420 U
2-Nitrophenol	180 U	1,900 U	220 U	180 U	210 U	4,000 U	1,900 U	3,800 U	3,700 U	410 U	3,900 U	3,800 U	220 U
3,3'-Dichlorobenzidine	180 U	1,900 U	220 U	180 U	210 U	4,000 U	1,900 U	3,800 U	3,700 U	410 U	3,900 U	3,800 U	220 U
3-Nitroaniline	350 U	3,700 U	420 U	360 U	400 U	7,700 U	3,600 U	7,400 U	7,200 U	800 U	7,600 U	7,500 U	420 U
4,6-Dinitro-2-methylphenol	350 U	3,700 U	420 U	360 U	400 U	7,700 U	3,600 U	7,400 U	7,200 U	800 U	7,600 U	7,500 U	420 U
4-Bromophenyl phenyl ether	180 U	1,900 U	220 U	180 U	210 U	4,000 U	1,900 U	3,800 U	3,700 U	410 U	3,900 U	3,800 U	220 U
4-Chloro-3-methylphenol	180 U	1,900 U	220 U	180 U	210 U	4,000 U	1,900 U	3,800 U	3,700 U	410 U	3,900 U	3,800 U	220 U
4-Chloroaniline	180 U	1,900 U	220 U	180 U	210 U	4,000 U	1,900 U	3,800 U	3,700 U	410 U	3,900 U	3,800 U	220 U
4-Chlorophenyl phenyl ether	180 U	1,900 U	220 U	180 U	210 U	4,000 U	1,900 U	3,800 U	3,700 U	410 U	3,900 U	3,800 U	220 U
4-Methylphenol	180 U	1,900 U	220 U	180 U	210 U	4,000 U	1,900 U	3,800 U	3,700 U	410 U	3,900 U	3,800 U	220 U
4-Nitroaniline	350 U	3,700 U	420 U	360 U	400 U	7,700 U	3,600 U	7,400 U	7,200 U	800 U	7,600 U	7,500 U	420 U
4-Nitrophenol	350 U	3,700 U	420 U	360 U	400 U	7,700 U	3,600 U	7,400 U	7,200 U	800 U	7,600 U	7,500 U	420 U
Acetophenone	180 U	1,900 U	220 U	180 U	210 U	4,000 U	1,900 U	3,800 U	3,700 U	410 U	3,900 U	3,800 U	220 U
Atrazine	180 U	1,900 U	220 U	180 U	210 U	4,000 U	1,900 U	3,800 U	3,700 U	410 U	3,900 U	3,800 U	220 U
Benzaldehyde	180 U	1,900 U	220 U	180 U	210 U	4,000 U	1,900 U	3,800 U	3,700 U	410 U	3,900 U	3,800 U	220 U
Biphenyl	180 U	3,800	130 J	180 U	94 J	4,000 U	5,400	6,400	3,700 U	160 J	1,200 J	340 J	84 J
bis(2-chloroethoxy) methane	180 U	1,900 U	220 U	180 U	210 U	4,000 U	1,900 U	3,800 U	3,700 U	410 U	3,900 U	3,800 U	220 U
bis(2-chloroethyl) ether	180 U	1,900 U	220 U	180 U	210 U	4,000 U	1,900 U	3,800 U	3,700 U	410 U	3,900 U	3,800 U	220 U
bis(2-ethylhexyl) phthalate	180 U	1,900 U	220 U	180 U	210 U	4,000 U	1,900 U	3,800 U	3,700 U	410 U	3,900 U	3,800 U	220 U
Butyl benzyl phthalate	180 U	1,900 U	220 U	180 U	210 U	4,000 U	1,900 U	3,800 U	3,700 U	410 U	3,900 U	3,800 U	220 U
Caprolactam	180 U	1,900 U	220 U	180 U	210 U	4,000 U	1,900 U	3,800 U	3,700 U	410 U	3,900 U	3,400 J	220 U
Carbazole	180 U	1,900 U	32 J	180 U	34 J	4,000 U	1,900 U	3,800 U	3,700 U	410 U	3,900 U	3,800 U	220 U
Dibenzofuran	180 U	700 J	22 J	180 U	14 J	1,500 J	870 J	1,200 J	3,700 U	410 U	290 J	3,800 U	220 U
Diethyl phthalate	180 U	1,900 U	220 U	180 U	210 U	4,000 U	1,900 U	3,800 U	3,700 U	410 U	3,900 U	3,800 U	220 U
Dimethyl phthalate	180 U	1,900 U	220 U	180 U	210 U	4,000 U	1,900 U	3,800 U	3,700 U	410 U	3,900 U	3,800 U	220 U
Di-n-butyl phthalate	180 U	1,900 U	220 U	180 U	210 U	4,000 U	1,900 U	3,800 U	3,700 U	410 U	3,900 U	3,800 U	220 U
Di-n-octyl phthalate	180 U	1,900 U	220 U	180 U	210 U	4,000 U	1,900 U	3,800 U	3,700 U	410 U	3,900 U	3,800 U	220 U
Hexachlorobenzene	180 U	1,900 U	220 U	180 U	210 U	4,000 U	1,900 U	3,800 U	3,700 U	410 U	3,900 U	3,800 U	220 U
Hexachlorobutadiene	180 U	1,900 U	220 U	180 U	210 U	4,000 U	1,900 U	3,800 U	3,700 U	410 U	3,900 U	3,800 U	220 U
Hexachlorocyclopentadiene	180 U	1,900 U	220 U	180 U	210 U	4,000 U	1,900 U	3,800 U	3,700 U	410 U	3,900 U	3,800 U	220 U
Hexachloroethane	180 U	1,900 U	220 U	180 U	210 U	4,000 U	1,900 U	3,800 U	3,700 U	410 U	3,900 U	3,800 U	220 U
Isophorone	180 U	1,900 U	220 U	180 U	210 U	4,000 U	1,900 U	3,800 U	3,700 U	410 U	3,900 U	3,800 U	220 U
Nitrobenzene	180 U	1,900 U	220 U	180 U	210 U	4,000 U	1,900 U	3,800 U	3,700 U	410 U	3,900 U	3,800 U	220 U
N-Nitroso-Di-n-propylamine	180 U	1,900 U	220 U	180 U	210 U	4,000 U	1,900 U	3,800 U	3,700 U	410 U	3,900 U	3,800 U	220 U
N-Nitrosodiphenylamine	180 U	1,900 U	220 U	180 U	210 U	1,500 J	670 J	1,200 J	3,700 U	410 U	3,900 U	3,800 U	16 J
Pentachlorophenol	350 U	3,700 U	420 U	360 U	400 U	7,700 U	3,600 U	7,400 U	7,200 U	800 U	7,600 U	7,500 U	420 U
Phenol	180 U	1,900 U	220 U	180 U	210 U	4,000 U	1,900 U	3,800 U	3,700 U	410 U	3,900 U	3,800 U	220 U
<b>Total SVOCs (µg/kg)</b>	52	190,000	1,200	ND	4,300	490,000	250,000	430,000	9,200	27,000	73,000	28,000	34,000

Notes:

NL = Not Listed

ND = Not Detected

MDL = Method Detection Limit

U = The material was analyzed for but not detected at or above the MDL. The associated numerical value is the sample reporting limit.

J = The associated numerical value is an estimated quantity.

D = The concentration indicated was obtained from a diluted analytical run.

The total SVOC values include all PAH compounds.

Carcinogenic PAHs are shown in bold.



TABLE 5-3  
PDI SUBSURFACE SOIL SVOC RESULTS  
NYSEG FORMER MGP SITE  
DANVILLE, NEW YORK

Sample ID(Depth in Feet) Laboratory ID Date Sampled	SD18(2-4) A8E54408 11/13/2008	SD18(12-13) A8E54409 11/13/2008	SD19(11.5-12) A8E39902 11/10/2008	SD19(12.12.5) A8E39903 11/10/2008	SD28(12.12.7) A8E39913 11/11/2008	SD22(12.13.5) A8E54410 11/13/2008	SD22(12.13) A8E54406 11/13/2008	SD23(11.8.13) A8E39904 11/10/2008	SD23(14.15) A8E39905 11/10/2008	FD111008 A8E39908 11/19/2008	SD25(16-12) A8E90803 11/13/2008	SD25(14.16) A8E60804 11/13/2008	SD28(3.5-4) C8K200329006 11/12/2008
Semivolatile Organic Compounds (µg/kg)													
2-Methylnaphthalene	200 U	27,000	210 J	54 J	1,000 J	2,000	2,800 J	10,000	460	660	130,000	22,000	38,000
Acenaphthene	200 U	18,000	1,500 J	420 J	16,000	2,900	14,000	23,000	330	570	75,000	30,000	11,000
Acenaphthylene	200 U	3,000 J	610 J	100 J	1,800 J	270 J	1,500 J	2,800 J	36 J	60 J	8,200 J	5,900	69,000
Anthracene	200 U	14,000	1,400 J	470 J	9,800	1,700 J	7,000	9,100	68 J	120 J	33,000	17,000	40,000
Benzo(a)anthracene	23 J	9,400	1,100 J	280 J	5,200	900 J	4,200	5,400	52 J	80 J	19,000	9,600	36,000
Benzo(a)pyrene	16 J	7,400	1,400 J	210 J	4,100	670 J	3,200 J	5,300	41 J	66 J	14,000 J	7,600	29,000
Benzo(b)fluoranthene	24 J	5,300	810 J	130 J	2,500 J	540 J	2,400 J	3,600 J	30 J	49 J	7,900 J	5,100	25,000
Benzo(k)fluoranthene	200 U	3,800 J	1,500 J	110 J	2,000 J	360 J	1,500 J	3,000 J	24 J	34 J	6,000 J	3,000 J	24,000
Chrysene	200 U	2,200 J	250 J	50 J	1,200 J	73 J	650 J	1,000 J	11 J	9 J	4,500 J	1,900 J	1,200 U
Dibenz(a,h)anthracene	21 J	8,500	1,000 J	220 J	4,300	780 J	3,600 J	4,600	41 J	66 J	15,000 J	8,600	34,000
Fluoranthene	200 U	960 J	1,800 U	930 U	550 J	1,800 U	3,800 U	740 J	210 U	210 U	1,800 J	580 J	3,800
Fluorene	37 J	19,000	2,100	590 J	11,000	2,100	7,700	9,700	85 J	130 J	36,000	20,000	73,000
Indeno(1,2,3-cd)pyrene	200 U	14,000	1,200 J	380 J	9,400	1,500 J	7,400	10,000	120 J	240	34,000	15,000	43,000
Naphthalene	200 U	2,900 J	910 J	80 J	1,400 J	230 J	1,200 J	2,200 J	17 J	24 J	4,100 J	2,200 J	15,000
Phenanthrene	200 U	45,000	1,800 U	930 U	16,000	5,600	11,000	52,000	1,600	2,400	290,000	50,000	23,000
Pyrene	20 J	53,000	4,000	1,400	33,000	5,800	24,000	29,000	300	600	120,000	55,000	180,000
Pyrene	33 J	25,000	3,000	840 J	14,000	2,700	11,000	13,000	120 J	200 J	52,000	25,000	82,000
Total PAHs (µg/kg)	170	260,000	21,000	5,300	130,000	28,000	100,000	180,000	3,300	5,300	850,000	280,000	730,000
Total CPAHs (µg/kg)	84	37,000	5,500	970	19,000	3,200	15,000	23,000	400	290	66,000	36,000	140,000
2,2'-Oxybis(1-Chloropropane)	200 U	3,700 U	1,800 U	930 U	3,800 U	1,800 U	3,800 U	3,800 U	210 U	210 U	19,000 U	3,800 U	1,200 U
2,4,5-Trichlorophenol	200 U	3,700 U	1,800 U	930 U	3,800 U	1,800 U	3,800 U	3,800 U	210 U	210 U	19,000 U	3,800 U	6,100 U
2,4,6-Trichlorophenol	200 U	3,700 U	1,800 U	930 U	3,800 U	1,800 U	3,800 U	3,800 U	210 U	210 U	19,000 U	3,800 U	6,100 U
2,4-Dichlorophenol	200 U	3,700 U	1,800 U	930 U	3,800 U	1,800 U	3,800 U	3,800 U	210 U	210 U	19,000 U	3,800 U	1,200 U
2,4-Dimethylphenol	200 U	3,700 U	1,800 U	930 U	3,800 U	1,800 U	3,800 U	3,800 U	210 U	210 U	19,000 U	3,800 U	6,100 U
2,4-Dinitrophenol	380 U	7,200 U	3,600 U	1,800 U	7,500 U	3,600 U	7,400 U	7,300 U	400 U	400 U	36,000 U	7,500 U	32,000 U
2,4-Dinitrotoluene	200 U	3,700 U	1,800 U	930 U	3,800 U	1,800 U	3,800 U	3,800 U	210 U	210 U	19,000 U	3,800 U	6,100 U
2,6-Dinitrotoluene	200 U	3,700 U	1,800 U	930 U	3,800 U	1,800 U	3,800 U	3,800 U	210 U	210 U	19,000 U	3,800 U	6,100 U
2-Chloronaphthalene	200 U	3,700 U	1,800 U	930 U	3,800 U	1,800 U	3,800 U	3,800 U	210 U	210 U	19,000 U	3,800 U	1,200 U
2-Chlorophenol	200 U	3,700 U	1,800 U	930 U	3,800 U	1,800 U	3,800 U	3,800 U	210 U	210 U	19,000 U	3,800 U	6,100 U
2-Methylphenol	200 U	3,700 U	1,800 U	930 U	3,800 U	1,800 U	3,800 U	3,800 U	210 U	210 U	19,000 U	3,800 U	6,100 U
2-Nitroaniline	380 U	7,200 U	3,600 U	1,800 U	7,500 U	3,600 U	7,400 U	7,300 U	400 U	400 U	36,000 U	7,500 U	32,000 U
2-Nitrophenol	200 U	3,700 U	1,800 U	930 U	3,800 U	1,800 U	3,800 U	3,800 U	210 U	210 U	19,000 U	3,800 U	6,100 U
3,3'-Dichlorobenzidine	200 U	3,700 U	1,800 U	930 U	3,800 U	1,800 U	3,800 U	3,800 U	210 U	210 U	19,000 U	3,800 U	6,100 U
3-Nitroaniline	380 U	7,200 U	3,600 U	1,800 U	7,500 U	3,600 U	7,400 U	7,300 U	400 U	400 U	36,000 U	7,500 U	32,000 U
4,6-Dinitro-2-methylphenol	380 U	7,200 U	3,600 U	1,800 U	7,500 U	3,600 U	7,400 U	7,300 U	400 U	400 U	36,000 U	7,500 U	32,000 U
4-Bromophenyl phenyl ether	200 U	3,700 U	1,800 U	930 U	3,800 U	1,800 U	3,800 U	3,800 U	210 U	210 U	19,000 U	3,800 U	6,100 U
4-Chloro-3-methylphenol	200 U	3,700 U	1,800 U	930 U	3,800 U	1,800 U	3,800 U	3,800 U	210 U	210 U	19,000 U	3,800 U	6,100 U
4-Chloroaniline	200 U	3,700 U	1,800 U	930 U	3,800 U	1,800 U	3,800 U	3,800 U	210 U	210 U	19,000 U	3,800 U	6,100 U
4-Chlorophenyl phenyl ether	200 U	3,700 U	1,800 U	930 U	3,800 U	1,800 U	3,800 U	3,800 U	210 U	210 U	19,000 U	3,800 U	6,100 U
4-Methylphenol	200 U	3,700 U	1,800 U	930 U	3,800 U	1,800 U	3,800 U	3,800 U	210 U	210 U	19,000 U	3,800 U	6,100 U
4-Nitroaniline	380 U	7,200 U	3,600 U	1,800 U	7,500 U	3,600 U	7,400 U	7,300 U	400 U	400 U	36,000 U	7,500 U	32,000 U
4-Nitrophenol	380 U	7,200 U	3,600 U	1,800 U	7,500 U	3,600 U	7,400 U	7,300 U	400 U	400 U	36,000 U	7,500 U	32,000 U
Acetophenone	200 U	3,700 U	1,800 U	930 U	3,800 U	1,800 U	3,800 U	3,800 U	210 U	210 U	19,000 U	3,800 U	6,100 U
Alazine	200 U	3,700 U	1,800 U	930 U	3,800 U	1,800 U	3,800 U	3,800 U	210 U	210 U	19,000 U	3,800 U	6,100 U
Benzaldehyde	200 U	3,700 U	1,800 U	930 U	3,800 U	1,800 U	3,800 U	3,800 U	210 U	210 U	19,000 U	3,800 U	6,100 U
Biphenyl	200 U	4,600	300 J	90 J	2,800 J	460 J	2,900 J	4,200	96 J	150 J	16,000 J	7,400	9,800
bis(2-chloroethoxy) methane	200 U	3,700 U	1,800 U	930 U	3,800 U	1,800 U	3,800 U	3,800 U	210 U	210 U	19,000 U	3,800 U	6,100 U
bis(2-chloroethyl) ether	200 U	3,700 U	1,800 U	930 U	3,800 U	1,800 U	3,800 U	3,800 U	210 U	210 U	19,000 U	3,800 U	1,200 U
bis(2-ethylhexyl) phthalate	200 U	3,700 U	1,800 U	930 U	3,800 U	1,800 U	3,800 U	3,800 U	210 U	210 U	19,000 U	3,800 U	6,100 U
Butyl benzyl phthalate	200 U	3,700 U	1,800 U	930 U	3,800 U	1,800 U	3,800 U	3,800 U	210 U	210 U	19,000 U	3,800 U	6,100 U
Caprolactam	2 U	3,700 U	2,000	930 U	3,800 U	1,800 U	5,100	3,800 U	160 J	190 J	19,000 U	3,800 U	32,000 U
Carbazole	200 U	3,700 U	1,800 U	930 U	3,800 U	1,800 U	190 J	220 J	28 J	36 J	19,000 U	3,800 U	1,200 U
Dibenzofuran	200 U	1,100 J	95 J	930 U	700 J	120 J	780 J	1,100 J	27 J	39 J	3,100 J	1,700 J	6,100 U
Diethyl phthalate	200 U	3,700 U	1,800 U	930 U	3,800 U	1,800 U	3,800 U	3,800 U	210 U	210 U	19,000 U	3,800 U	6,100 U
Dimethyl phthalate	200 U	3,700 U	1,800 U	930 U	3,800 U	1,800 U	3,800 U	3,800 U	210 U	210 U	19,000 U	3,800 U	6,100 U
Di-n-butyl phthalate	200 U	3,700 U	1,800 U	930 U	3,800 U	1,800 U	3,800 U	3,800 U	210 U	210 U	19,000 U	3,800 U	6,100 U
Di-n-octyl phthalate	200 U	3,700 U	1,800 U	930 U	3,800 U	1,800 U	3,800 U	3,800 U	210 U	210 U	19,000 U	3,800 U	6,100 U
Hexachlorobenzene	200 U	3,700 U	1,800 U	930 U	3,800 U	1,800 U	3,800 U	3,800 U	210 U	210 U	19,000 U	3,800 U	1,200 U
Hexachlorobutadiene	200 U	3,700 U	1,800 U	930 U	3,800 U	1,800 U	3,800 U	3,800 U	210 U	210 U	19,000 U	3,800 U	1,200 U
Hexachlorocyclopentadiene	200 U	3,700 U	1,800 U	930 U	3,800 U	1,800 U	3,800 U	3,800 U	210 U	210 U	19,000 U	3,800 U	6,100 U
Hexachloroethane	200 U	3,700 U	1,800 U	930 U	3,800 U	1,800 U	3,800 U	3,800 U	210 U	210 U	19,000 U	3,800 U	6,100 U
Isophorone	200 U	3,700 U	1,800 U	930 U	3,800 U	1,800 U	3,800 U	3,800 U	210 U	210 U	19,000 U	3,800 U	6,100 U
Nitrobenzene	200 U	3,700 U	1,800 U	930 U	3,800 U	1,800 U	3,800 U	3,800 U	210 U	210 U	19,000 U	3,800 U	1,200 U
N-Nitroso-Di-n-propylamine	200 U	3,700 U	1,800 U	930 U	3,800 U	1,800 U	3,800 U	3,800 U	210 U	210 U	19,000 U	3,800 U	1,200 U
N-nitrosodiphenylamine	200 U	400 J	1,800 U	70 J	3,800 U	1,800 U	950 J	3,800 U	210 U	210 U	1,700 J	3,800 U	1,200 U
Pentachlorophenol	380 U	7,200 U	3,600 U	1,800 U	7,500 U	3,600 U	7,400 U	7,300 U	400 U	400 U	36,000 U	7,500 U	6,100 U
Phenol	200 U	3,700 U	1,800 U	930 U	3,800 U	1,800 U	3,800 U	3,800 U	210 U	210 U	19,000 U	3,800 U	1,200 U
Total SVOCs (µg/kg)	170	260,000	23,000	5,500	140,000	29,000	110,000	190,000	3,600	5,700	870,000	290,000	740,000

Notes:

NL = Not Listed

ND = N I Detected

MDL = Meth d Detection Limit

U = The material was analyzed for but not detected at or above the MDL. The associated numerical value is the sample reporting limit.

J = The associated numerical value is an estimated quantity.

D = The concentration indicated was obtained from a diluted analytical run.

\*The total SVOC values include all PAH compounds

Carcinogenic PAHs are shown in bold

TABLE 5-3  
PDI SUBSURFACE SOIL SVOC RESULTS  
NYSEG FORMER MGP SITE  
DANVILLE, NEW YORK

Sample ID (Depth in Feet) Laboratory ID Date Sampled	SD28(16 -11.6) C8K260329007 11/25/2008	SD27(12-4) A8E60809 11/14/2008	SD27(11-13) A8E60810 11/14/2008	SD28(8-16) C8K260329001 11/28/2008	SD28(14-18) C8K260329002 11/27/2008	SD29(16.3-11.8) C8K260329003 11/28/2008	SD30(11.3-12.0) C8K260329004 11/29/2008	SD32(1 -16) C8K260329005 11/30/2008	SD33(9.11) C8K260329010 12/1/2008	SD34(12.12.8) C8K260329009 12/2/2008	SD35(18.12) C8K260329006 12/2/2008	FD111408 A8E60811 11/14/2008	WC01(7-10) A8E54411 11/13/2008
<b>Semivolatile Organic Compounds (µg/kg)</b>													
2-Methylnaphthalene	600 U	12 J	2,900 J	100	83 U	55 J	78 U	460	7,000	37,000	7,300	5,700	180 J
Acenaphthene	8,700	190 U	19,000	16 J	83 U	76 U	78 U	1,000	6,500	32,000	7,300	25,000	3,600 U
Acenaphthylene	14,000	190 U	14,000	610	83 U	1,500	420	540	3,100	12,000	12,000	10,000	5,300
Anthracene	28,000	190 U	20,000	130	17 J	300	55 J	760	6,800	20,000	11,000	18,000	380 J
Benzo(a)anthracene	14,000	190 U	10,000	120	83 U	220	100	670	4,500	15,000	4,900	8,800	3,600 U
Benzo(a)pyrene	8,800	190 U	6,900	320	83 U	920	550	610	3,500	12,000	3,000	5,700	1,400 J
Benzo(b)fluoranthene	7,600	190 U	4,500	210	83 U	630	360	500	3,000	11,000	2,800	4,000	940 J
Benzo(g,h)perylene	4,300	190 U	2,600 J	610	83 U	1,900	740	500	1,800	8,100	1,400	2,200	3,900
Benzo(k)fluoranthene	600 U	190 U	1,800 J	72 U	83 U	76 U	78 U	77 U	240 U	450 U	300 U	1,200 J	170 J
Chrysene	13,000	190 U	8,600	140	83 U	350	250	640	4,300	14,000	4,900	6,100	3,600 U
Dibenzo(a,h)anthracene	1,100	190 U	200 J	62 J	83 U	210	73 J	75 J	410	1,600	210 J	450 J	610 J
Fluoranthene	32,000	190 U	21,000	110	83 U	210	47 J	1,300	10,000	29,000	11,000	17,000	3,600 U
Fluorene	16,000	190 U	19,000	55 J	83 U	130	38 J	820	6,500	25,000	14,000	18,000	3,600 U
Indeno(1,2,3-cd)pyrene	3,000	190 U	2,200 J	220	83 U	720	330	260	1,300	5,300	1,100	1,800 J	1,800 J
Naphthalene	190 J	35 J	9,300	54 J	83 U	43 J	78 U	470	7,700	48,000	14,000	14,000	3,600 U
Phenanthrene	82,000	190 U	69,000	140	16 J	120	36 J	3,400	24,000	65,000	33,000	58,000	180 J
Pyrene	35,000	190 U	26,000	180	83 U	310	150	1,700	12,000	34,000	13,000	22,000	390 J
<b>Total PAHs (µg/kg)</b>	270,000	47	240,000	3,100	33	7,600	3,100	14,000	100,000	370,000	140,000	220,000	15,000
<b>Total CPAHs (µg/kg)</b>	48,000	ND	34,000	1,100	ND	3,100	1,700	2,800	17,000	59,000	17,000	28,000	4,900
2,2'-Oxybis(1-Chloropropane)	600 U	190 U	3,900 U	72 U	83 U	76 U	78 U	77 U	240 U	450 U	300 U	1,900 U	3,600 U
2,4,5-Trichlorophenol	2,900 U	190 U	3,900 U	360 U	410 U	370 U	380 U	380 U	1,200 U	2,200 U	1,500 U	1,900 U	3,600 U
2,4,6-Trichlorophenol	2,900 U	190 U	3,900 U	360 U	410 U	370 U	380 U	380 U	1,200 U	2,200 U	1,500 U	1,900 U	3,600 U
2,4-Dichlorophenol	600 U	190 U	3,900 U	72 U	83 U	76 U	78 U	77 U	240 U	450 U	300 U	1,900 U	3,600 U
2,4-Dimethylphenol	2,900 U	190 U	3,900 U	360 U	410 U	370 U	380 U	380 U	1,200 U	2,200 U	1,500 U	1,900 U	3,600 U
2,4-Dinitrophenol	15,000 U	370 U	7,600 U	1,800 U	2,100 U	1,900 U	2,000 U	1,900 U	6,200 U	11,000 U	7,700 U	3,700 U	6,900 U
2,4-Dinitrotoluene	2,900 U	190 U	3,900 U	360 U	410 U	370 U	380 U	380 U	1,200 U	2,200 U	1,500 U	1,900 U	3,600 U
2,6-Dinitrotoluene	2,900 U	190 U	3,900 U	360 U	410 U	370 U	380 U	380 U	1,200 U	2,200 U	1,500 U	1,900 U	3,600 U
2-Chloronaphthalene	600 U	190 U	3,900 U	72 U	83 U	76 U	78 U	77 U	240 U	450 U	300 U	1,900 U	3,600 U
2-Chlorophenol	2,900 U	190 U	3,900 U	360 U	410 U	370 U	380 U	380 U	1,200 U	2,200 U	1,500 U	1,900 U	3,600 U
2-Methylphenol	2,900 U	190 U	3,900 U	360 U	410 U	370 U	380 U	380 U	1,200 U	2,200 U	1,500 U	1,900 U	3,600 U
2-Nitroaniline	15,000 U	370 U	7,600 U	1,800 U	2,100 U	1,900 U	2,000 U	1,900 U	6,200 U	11,000 U	7,700 U	3,700 U	6,900 U
2-Nitrophenol	2,900 U	190 U	3,900 U	360 U	410 U	370 U	380 U	380 U	1,200 U	2,200 U	1,500 U	1,900 U	3,600 U
3,3'-Dichlorobenzidine	2,900 U	190 U	3,900 U	360 U	410 U	370 U	380 U	380 U	1,200 U	2,200 U	1,500 U	1,900 U	3,600 U
3-Nitroaniline	15,000 U	370 U	7,600 U	1,800 U	2,100 U	1,900 U	2,000 U	1,900 U	6,200 U	11,000 U	7,700 U	3,700 U	6,900 U
4,6-Dinitro-2-methylphenol	15,000 U	370 U	7,600 U	1,800 U	2,100 U	1,900 U	2,000 U	1,900 U	6,200 U	11,000 U	7,700 U	3,700 U	6,900 U
4-Bromophenyl phenyl ether	2,900 U	190 U	3,900 U	360 U	410 U	370 U	380 U	380 U	1,200 U	2,200 U	1,500 U	1,900 U	3,600 U
4-Chloro-3-methylphenol	2,900 U	190 U	3,900 U	360 U	410 U	370 U	380 U	380 U	1,200 U	2,200 U	1,500 U	1,900 U	3,600 U
4-Chloroaniline	2,900 U	190 U	3,900 U	360 U	410 U	370 U	380 U	380 U	1,200 U	2,200 U	1,500 U	1,900 U	3,600 U
4-Chlorophenyl phenyl ether	2,900 U	190 U	3,900 U	360 U	410 U	370 U	380 U	380 U	1,200 U	2,200 U	1,500 U	1,900 U	3,600 U
4-Methylphenol	2,900 U	190 U	3,900 U	360 U	410 U	370 U	380 U	380 U	1,200 U	2,200 U	1,500 U	1,900 U	3,600 U
4-Nitroaniline	15,000 U	370 U	7,600 U	1,800 U	2,100 U	1,900 U	2,000 U	1,900 U	6,200 U	11,000 U	7,700 U	3,700 U	6,900 U
4-Nitrophenol	15,000 U	370 U	7,600 U	1,800 U	2,100 U	1,900 U	2,000 U	1,900 U	6,200 U	11,000 U	7,700 U	3,700 U	6,900 U
Acetophenone	2,900 U	190 U	3,900 U	360 U	410 U	370 U	380 U	380 U	1,200 U	2,200 U	1,500 U	1,900 U	3,600 U
Atrazine	2,900 U	190 U	3,900 U	360 U	410 U	370 U	380 U	380 U	1,200 U	2,200 U	1,500 U	1,900 U	3,600 U
Benzaldehyde	2,900 U	190 U	3,900 U	360 U	410 U	370 U	380 U	380 U	1,200 U	2,200 U	1,500 U	1,900 U	3,600 U
Biphenyl	3,500	190 U	6,500	24 J	410 U	370 U	380 U	320 J	2,200	7,300	4,200	7,000	3,600 U
bis(2-chloroethoxy) methane	2,900 U	190 U	3,900 U	360 U	410 U	370 U	380 U	380 U	1,200 U	2,200 U	1,500 U	1,900 U	3,600 U
bis(2-chloroethyl) ether	600 U	190 U	3,900 U	72 U	83 U	76 U	78 U	77 U	240 U	450 U	300 U	1,900 U	3,600 U
bis(2-ethylhexyl) phthalate	2,900 U	190 U	3,900 U	360 U	410 U	370 U	380 U	160 J	1,200 U	200 J	1,500 U	1,900 U	3,600 U
Butyl benzyl phthalate	2,900 U	190 U	3,900 U	360 U	410 U	370 U	380 U	380 U	1,200 U	2,200 U	1,500 U	1,900 U	3,600 U
Caprolactam	15,000 U	190 U	3,900 U	1,800 U	2,100 U	1,900 U	2,000 U	1,900 U	6,200 U	11,000 U	7,700 U	3,700 U	6,900 U
Carbazole	600 U	190 U	3,900 U	72 U	83 U	76 U	78 U	77 U	220 J	810	460	110 J	3,600 U
Dibenzofuran	2,900 U	190 U	1,200 J	360 U	410 U	370 U	380 U	70 J	670 J	3,900	1,500 U	1,000 J	3,600 U
Diethyl phthalate	2,900 U	190 U	3,900 U	85 J	410 U	370 U	380 U	380 U	1,200 U	2,200 U	1,500 U	1,900 U	3,600 U
Dimethyl phthalate	2,900 U	190 U	3,900 U	360 U	410 U	370 U	380 U	380 U	1,200 U	2,200 U	1,500 U	1,900 U	3,600 U
Di-n-butyl phthalate	2,900 U	190 U	3,900 U	360 U	410 U	370 U	380 U	380 U	1,200 U	2,200 U	1,500 U	1,900 U	3,600 U
Di-n-octyl phthalate	2,900 U	190 U	3,900 U	360 U	410 U	370 U	380 U	380 U	1,200 U	2,200 U	1,500 U	1,900 U	3,600 U
Hexachlorobenzene	600 U	190 U	3,900 U	72 U	83 U	76 U	78 U	77 U	240 U	450 U	300 U	1,900 U	3,600 U
Hexachlorobutadiene	600 U	190 U	3,900 U	72 U	83 U	76 U	78 U	77 U	240 U	450 U	300 U	1,900 U	3,600 U
Hexachlorocyclopentadiene	2,900 U	190 U	3,900 U	360 U	410 U	370 U	380 U	380 U	1,200 U	2,200 U	1,500 U	1,900 U	3,600 U
Hexachloroethane	2,900 U	190 U	3,900 U	360 U	410 U	370 U	380 U	380 U	1,200 U	2,200 U	1,500 U	1,900 U	3,600 U
Isoophorone	2,900 U	190 U	3,900 U	360 U	410 U	370 U	380 U	380 U	1,200 U	2,200 U	1,500 U	1,900 U	3,600 U
Nitrobenzene	600 U	190 U	3,900 U	72 U	83 U	76 U	78 U	77 U	240 U	450 U	300 U	1,900 U	3,600 U
N-Nitroso-Di-n-propylamine	600 U	190 U	3,900 U	72 U	83 U	76 U	78 U	77 U	240 U	450 U	300 U	1,900 U	3,600 U
N-nitrosodiphenylamine	600 U	190 U	1,300 J	72 U	83 U	76 U	78 U	77 U	240 U	450 U	300 U	850 J	3,600 U
Pentachlorophenol	2,900 U	370 U	7,600 U	360 U	410 U	370 U	380 U	380 U	1,200 U	2,200 U	1,500 U	3,700 U	6,900 U
Phenol	600 U	190 U	3,900 U	72 U	83 U	76 U	78 U	77 U	240 U	450 U	300 U	1,900 U	3,600 U
<b>Total SVOCs (µg/kg)</b>	270,000	47	250,000	3,200	33	7,900	3,100	14,000	110,000	380,000	150,000	230,000	15,000

Notes:

NI = Not Listed

ND = Not Detected

MDL = Method Detection Limit

U = The material was analyzed for but not detected at or above the MDL. The associated numerical value is the sample reporting limit.

J = The associated numerical value is an estimated quantity.

D = The concentration indicated was obtained from a diluted analytical run.

\*The total SVOC values include all PAH compounds

Carcinogenic PAHs are shown in bold

TABLE 5-3  
PDI SUBSURFACE SOIL SVOC RESULTS  
NYSEG FORMER MGP SITE  
DANVILLE, NEW YORK

Sample ID(Depth in Feet)	WC01(11-13) A054412 11/13/2008	WC02(6-7) A054413 11/13/2008	WC02(8-13.5) A054414 11/13/2008	WC03(6-9) A054415 11/13/2008	WC03(10.5-11.5) A054416 11/13/2008	WC04(6-10) A054417 11/14/2008	WC04(10-12.5) A054418 11/14/2008	WC05(5-8) A054419 11/14/2008	WC05(10-12.5) A054420 11/14/2008	WC06(10-13.5) A054421 11/14/2008	WC06(8-9) A054422 11/14/2008
<b>Semivolatile Organic Compounds (µg/kg)</b>											
2-Methylnaphthalene	31,000	700 J	18,000	3,700 U	1,100 J	2,500	140,000	490 J	4,100	3,900 U	85 J
Acenaphthene	18,000	4,700	28,000	3,700 U	6,400	5,200	100,000	600 J	7,200	10,000	110 J
Acenaphthylene	2,500 J	1,300 J	5,700	780 J	710 J	1,600 J	18,000 J	6,600	2,800	9,600	900 J
Anthracene	9,700	3,300 J	14,000	3,700 U	2,600	4,700	56,000	1,200 J	7,300	16,000	180 J
Benzo(a)anthracene	4,800	2,200 J	8,000	4,000	1,900 J	2,700	34,000	3,900 U	4,700	9,200	1,900 U
Benzo(a)pyrene	3,700 J	2,000 J	6,800	4,000	1,800 J	1,800	23,000	8,000	4,600	6,200	960 J
Benzo(b)fluoranthene	2,600 J	1,600 J	5,100	3,700	1,100 J	1,300 J	17,000 J	4,900	3,200	4,300	640 J
Benzo(ghi)perylene	1,800 J	1,500 J	4,200	2,900 J	1,000 J	730 J	11,000 J	8,600	2,200	2,500 J	1,300 J
Benzo(k)fluoranthene	670 J	430 J	1,700 J	1,400 J	310 J	490 J	5,700 J	1,600 J	770 J	1,100 J	130 J
Chrysene	4,200	2,200 J	6,600	3,700	1,600 J	2,400	23,000	1,600 J	4,200	6,300	480 J
Dibenz(a,h)anthracene	410 J	3,900 U	990 J	680 J	230 J	260 J	2,600 J	1,200 J	480 J	540 J	1,900 U
Fluoranthene	9,900	3,700 J	17,000	5,000	3,800	5,200	62,000	950 J	9,000	17,000	340 J
Fluorene	10,000	3,500 J	15,000	3,700 U	2,800	4,100	56,000	390 J	4,700	12,000	150 J
Indeno(1,2,3-cd)pyrene	1,300 J	940 J	3,100 J	2,400 J	760 J	580 J	8,000 J	5,700	1,600 J	1,800 J	670 J
Naphthalene	56,000	780 J	48,000	3,700 U	4,200	4,600	280,000	700 J	8,200	450 J	150 J
Phenanthrene	32,000	11,000	46,000	490 J	8,100	12,000	180,000	1,000 J	23,000	49,000	350 J
Pyrene	13,000	5,500	21,000	8,300	5,200	6,800	85,000	1,500 J	12,000	22,000	540 J
<b>Total PAHs (µg/kg)</b>	200,000	45,000	250,000	37,000	44,000	57,000	1,100,000	45,000	100,000	170,000	7,000
<b>Total CPAHs (µg/kg)</b>	18,000	9,400	32,000	20,000	7,700	9,500	110,000	23,000	20,000	29,000	2,900
2,2'-Oxybis(1-Chloropropane)	3,900 U	3,900 U	3,800 U	3,700 U	2,000 U	1,800 U	19,000 U	3,900 U	1,900 U	3,900 U	1,900 U
2,4,5-Trichlorophenol	3,900 U	3,900 U	3,800 U	3,700 U	2,000 U	1,800 U	19,000 U	3,900 U	1,900 U	3,900 U	1,900 U
2,4,6-Trichlorophenol	3,900 U	3,900 U	3,800 U	3,700 U	2,000 U	1,800 U	19,000 U	3,900 U	1,900 U	3,900 U	1,900 U
2,4-Dichlorophenol	3,900 U	3,900 U	3,800 U	3,700 U	2,000 U	1,800 U	19,000 U	3,900 U	1,900 U	3,900 U	1,900 U
2,4-Dimethylphenol	3,900 U	3,900 U	3,800 U	3,700 U	2,000 U	1,800 U	19,000 U	3,900 U	1,900 U	3,900 U	1,900 U
2,4-Dinitrophenol	7,500 U	7,600 U	7,500 U	7,200 U	3,900 U	3,600 U	36,000 U	7,500 U	3,800 U	7,500 U	3,600 U
2,4-Dinitrotoluene	3,900 U	3,900 U	3,800 U	3,700 U	2,000 U	1,800 U	19,000 U	3,900 U	1,900 U	3,900 U	1,900 U
2,6-Dinitrotoluene	3,900 U	3,900 U	3,800 U	3,700 U	2,000 U	1,800 U	19,000 U	3,900 U	1,900 U	3,900 U	1,900 U
2-Chloronaphthalene	3,900 U	3,900 U	3,800 U	3,700 U	2,000 U	1,800 U	19,000 U	3,900 U	1,900 U	3,900 U	1,900 U
2-Chlorophenol	3,900 U	3,900 U	3,800 U	3,700 U	2,000 U	1,800 U	19,000 U	3,900 U	1,900 U	3,900 U	1,900 U
2-Methylphenol	3,900 U	3,900 U	3,800 U	3,700 U	2,000 U	1,800 U	19,000 U	3,900 U	1,900 U	3,900 U	1,900 U
2-Nitroaniline	7,500 U	7,600 U	7,500 U	7,200 U	3,900 U	3,600 U	36,000 U	7,500 U	3,800 U	7,500 U	3,600 U
2-Nitrophenol	3,900 U	3,900 U	3,800 U	3,700 U	2,000 U	1,800 U	19,000 U	3,900 U	1,900 U	3,900 U	1,900 U
3,3'-Dichlorobenzidine	3,900 U	3,900 U	3,800 U	3,700 U	2,000 U	1,800 U	19,000 U	3,900 U	1,900 U	3,900 U	1,900 U
3-Nitroaniline	7,500 U	7,600 U	7,500 U	7,200 U	3,900 U	3,600 U	36,000 U	7,500 U	3,800 U	7,500 U	3,600 U
4,6-Dinitro-2-methylphenol	7,500 U	7,600 U	7,500 U	7,200 U	3,900 U	3,600 U	36,000 U	7,500 U	3,800 U	7,500 U	3,600 U
4-Bromophenyl phenyl ether	3,900 U	3,900 U	3,800 U	3,700 U	2,000 U	1,800 U	19,000 U	3,900 U	1,900 U	3,900 U	1,900 U
4-Chloro-3-methylphenol	3,900 U	3,900 U	3,800 U	3,700 U	2,000 U	1,800 U	19,000 U	3,900 U	1,900 U	3,900 U	1,900 U
4-Chloroaniline	3,900 U	3,900 U	3,800 U	3,700 U	2,000 U	1,800 U	19,000 U	3,900 U	1,900 U	3,900 U	1,900 U
4-Chlorophenyl phenyl ether	3,900 U	3,900 U	3,800 U	3,700 U	2,000 U	1,800 U	19,000 U	3,900 U	1,900 U	3,900 U	1,900 U
4-Methylphenol	3,900 U	3,900 U	3,800 U	3,700 U	2,000 U	1,800 U	19,000 U	3,900 U	1,900 U	3,900 U	1,900 U
4-Nitroaniline	7,500 U	7,600 U	7,500 U	7,200 U	3,900 U	3,600 U	36,000 U	7,500 U	3,800 U	7,500 U	3,600 U
4-Nitrophenol	7,500 U	7,600 U	7,500 U	7,200 U	3,900 U	3,600 U	36,000 U	7,500 U	3,800 U	7,500 U	3,600 U
Acetophenone	3,900 U	3,900 U	3,800 U	3,700 U	2,000 U	1,800 U	19,000 U	3,900 U	1,900 U	3,900 U	1,900 U
Atrazine	3,900 U	3,900 U	3,800 U	3,700 U	2,000 U	1,800 U	19,000 U	3,900 U	1,900 U	3,900 U	1,900 U
Benzaldehyde	3,900 U	3,900 U	3,800 U	3,700 U	2,000 U	1,800 U	19,000 U	3,900 U	1,900 U	3,900 U	1,900 U
Biphenyl	3,800 J	570 J	4,800	3,700 U	660 J	920 J	26,000	3,900 U	1,800 J	3,600 J	1,900 U
bis(2-chloroethoxy) methane	3,900 U	3,900 U	3,800 U	3,700 U	2,000 U	1,800 U	19,000 U	3,900 U	1,900 U	3,900 U	1,900 U
bis(2-chloroethyl) ether	3,900 U	3,900 U	3,800 U	3,700 U	2,000 U	1,800 U	19,000 U	3,900 U	1,900 U	3,900 U	1,900 U
bis(2-ethylhexyl) phthalate	3,900 U	3,900 U	3,800 U	3,700 U	2,000 U	1,800 U	19,000 U	3,900 U	1,900 U	3,900 U	1,900 U
Butyl benzyl phthalate	3,900 U	3,900 U	3,800 U	3,700 U	2,000 U	1,800 U	19,000 U	3,900 U	1,900 U	3,900 U	1,900 U
Caprolactam	3,900 U	8,800	3,800 U	3,700 U	2,300	1,800 U	19,000 U	3,900 U	1,900 U	3,900 U	1,900 U
Carbazole	3,900 U	3,900 U	770 J	3,700 U	2,000 U	1,800 U	1,500 J	3,900 U	82 J	3,900 U	1,900 U
Dibenzofuran	990 J	3,900 U	3,100 J	3,700 U	410 J	400 J	8,900 J	3,900 U	620 J	930 J	1,900 U
Diethyl phthalate	3,900 U	3,900 U	3,800 U	3,700 U	2,000 U	1,800 U	19,000 U	3,900 U	1,900 U	3,900 U	1,900 U
Dimethyl phthalate	3,900 U	3,900 U	3,800 U	3,700 U	2,000 U	1,800 U	19,000 U	3,900 U	1,900 U	3,900 U	1,900 U
Di-n-butyl phthalate	3,900 U	3,900 U	3,800 U	3,700 U	2,000 U	1,800 U	19,000 U	3,900 U	1,900 U	3,900 U	1,900 U
Di-n-octyl phthalate	3,900 U	3,900 U	3,800 U	3,700 U	2,000 U	1,800 U	19,000 U	3,900 U	1,900 U	3,900 U	1,900 U
Hexachlorobenzene	3,900 U	3,900 U	3,800 U	3,700 U	2,000 U	1,800 U	19,000 U	3,900 U	1,900 U	3,900 U	1,900 U
Hexachlorobutadiene	3,900 U	3,900 U	3,800 U	3,700 U	2,000 U	1,800 U	19,000 U	3,900 U	1,900 U	3,900 U	1,900 U
Hexachlorocyclopentadiene	3,900 U	3,900 U	3,800 U	3,700 U	2,000 U	1,800 U	19,000 U	3,900 U	1,900 U	3,900 U	1,900 U
Hexachloroethane	3,900 U	3,900 U	3,800 U	3,700 U	2,000 U	1,800 U	19,000 U	3,900 U	1,900 U	3,900 U	1,900 U
Isophorone	3,900 U	3,900 U	3,800 U	3,700 U	2,000 U	1,800 U	19,000 U	3,900 U	1,900 U	3,900 U	1,900 U
Nitrobenzene	3,900 U	3,900 U	3,800 U	3,700 U	2,000 U	1,800 U	19,000 U	3,900 U	1,900 U	3,900 U	1,900 U
N-Nitroso-Di-n-propylamine	3,900 U	3,900 U	3,800 U	3,700 U	2,000 U	1,800 U	19,000 U	3,900 U	1,900 U	3,900 U	1,900 U
N-Nitrosodiphenylamine	600 J	1,200 J	2,100 J	3,700 U	350 J	350 J	2,600 J	3,900 U	1,900 U	1,500 J	1,900 U
Pentachlorophenol	7,500 U	7,600 U	7,500 U	7,200 U	3,900 U	3,600 U	36,000 U	7,500 U	3,800 U	7,500 U	3,600 U
Phenol	3,900 U	3,900 U	3,800 U	3,700 U	2,000 U	1,800 U	19,000 U	3,900 U	1,900 U	3,900 U	1,900 U
<b>Total SVOCs (µg/kg)<sup>1</sup></b>	210,000	56,000	260,000	37,000	47,000	59,000	1,100,000	45,000	100,000	170,000	7,000

Notes:

ND = Not Listed

NL = Not Detected

MDL = Method Detection Limit

U = The material was analyzed for but not detected at or above the MDL. The associated numerical value is the sample reporting limit.

J = The associated numerical value is an estimated quantity.

D = The concentration indicated was obtained from a diluted analytical run.

<sup>1</sup>The total SVOC values include all PAH compounds

Carcinogenic PAHs are shown in bold

**TABLE 5-4**  
**PDI SUBSURFACE SOIL TCLP VOC RESULTS**  
**NYSEG FORMER MGP SITE**  
**DANSVILLE, NEW YORK**

Sample ID(Depth in Feet) Laboratory Identification Date Sampled	SD33(9-11) A8F06310 11/24/2008	WC01(7-10) A8E54411 11/13/2008	WC01(11-13) A8E54412 11/13/2008	WC02(6-7) A8E54413 11/13/2008	WC02(8-13.5) A8E54414 11/13/2008	WC03(6-9) A8E54415 11/13/2008	WC03(10.5-11.5) A8E54416 11/13/2008
<b>Volatile Organic Compounds (µg/L)</b>							
Benzene	50 U	10 U	17	10 U	22	10 U	10 U
2-Butanone	10 U	50 U	50 U	50 U	50 U	50 U	50 U
Carbon Tetrachloride	140	10 U	10 U	10 U	10 U	10 U	10 U
Chlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chloroform	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethane	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Tetrachloroethene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Trichloroethene	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Vinyl chloride	10 U	10 U	10 U	10 U	10 U	10 U	10 U

**Notes:**

U = The material was analyzed for but not detected at or above the MDL. The associated numerical value is the sample reporting limit.

**TABLE 5-4**  
**PDI SUBSURFACE SOIL TCLP VOC RESULTS**  
**NYSEG FORMER MGP SITE**  
**DANSVILLE, NEW YORK**

Sample ID(Depth in Feet) Laboratory Identification Date Sampled	WC04(6-10) A8E60801 11/14/2008	WC04(10-12.5) A8E60802 11/14/2008	WC05(5-9) A8E60805 11/14/2008	WC05(10-12.5) A8E60806 11/14/2008	WC06(6-9) A8E60807 11/14/2008	WC06(10-13.5) A8E60808 11/14/2008
<b>Volatile Organic Compounds (µg/L)</b>						
Benzene	50 U	50 U	50 U	50 U	50 U	50 U
2-Butanone	10 U	10 U	10 U	10 U	10 U	10 U
Carbon Tetrachloride	10 U	10 U	10 U	10 U	10 U	10 U
Chlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U
Chloroform	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethane	10 U	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethene	10 U	10 U	10 U	10 U	10 U	10 U
Tetrachloroethene	10 U	170	150	66	25	10 U
Trichloroethene	10 U	320	5.1 J	7.2 J	10 U	10 U
Vinyl chloride	10 U	10 U	10 U	10 U	10 U	10 U

**Notes:**

U = The material was analyzed for but not detected at or above the MDL. The associated numerical value is the sample reporting limit.

**TABLE 5-5**  
**PDI SUBSURFACE SOIL TPH AND GENERAL CHEMISTRY RESULTS**  
**NYSEG FORMER MGP SITE**  
**DANSVILLE, NEW YORK**

Sample ID(Depth in Feet)	WC01(11-13)	WC02(6-7)	WC02(8-13.5)	WC03(10.5-11.5)	WC04(10-12.5)	WC05(10-12.5)	WC06(10-13.5)
Laboratory Identification	A8E54412	A8E54413	A8E54414	A8E54416	A8E60802	A8E60806	A8E60808
Date Sampled	11/13/2008	11/13/2008	11/13/2008	11/13/2008	11/14/2008	11/14/2008	11/14/2008
<b>TPH DRO (mg/kg)</b>	410	2,100	3,600	260	7,300	630	2,200
<b>General Chemistry Parameters</b>							
BTU Content (BTU/lb)	100 U	100 U	100 U	100 U	200 U	200 U	200 U
Sulfate (%)	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
Sulfur (%)	0.0166 U	0.0166 U	0.0166 U	0.0166 U	0.0166 U	0.0166 U	0.0166 U

**Notes:**

U = The material was analyzed for but not detected at or above the MDL. The associated numerical value is the sample reporting limit.



**TABLE 5-6**  
**PDI SUBSURFACE SOIL VOC DUPLICATE RESULTS**  
**NYSEG FORMER MGP SITE**  
**DANVILLE, NEW YORK**

Sample ID(Depth in Feet) Laboratory ID Date Sampled	SD11(13-14) A8E39909 11/11/2008	FD111108 A8E39910 11/11/2008	RPD	SD23(14-15) A8E39905 11/10/2008	FD111008 A8E39906 11/10/2008	RPD	SD27(11-13) A8E60810 11/14/2008	FD111408 A8E60811 11/14/2008	RPD
<b>Volatile Organic Compounds (µg/kg)</b>									
1,1,1-Trichloroethane	140 U	130 U		150 U	160 U		22 U	26 U	
1,1,2,2-Tetrachloroethane	140 U	130 U		150 U	160 U		17 J	26 U	
1,1,2-Trichloro-1,2,2-trifluoroethane	140 U	130 U		150 U	160 U		22 U	26 U	
1,1,2-Trichloroethane	140 U	130 U		150 U	160 U		22 U	26 U	
1,1-Dichloroethane	140 U	130 U		150 U	160 U		22 U	26 U	
1,1-Dichloroethene	140 U	130 U		150 U	160 U		22 U	26 U	
1,2,4-Trichlorobenzene	140 U	130 U		150 U	160 U		22 U	26 U	
1,2-Dibromo-3-chloropropane	140 U	130 U		150 U	160 U		22 U	26 U	
1,2-Dibromoethane	140 U	130 U		150 U	160 U		22 U	26 U	
1,2-Dichlorobenzene	140 U	130 U		150 U	160 U		22 U	26 U	
1,2-Dichloroethane	140 U	130 U		150 U	160 U		22 U	26 U	
1,2-Dichloropropane	140 U	130 U		150 U	160 U		22 U	26 U	
1,3-Dichlorobenzene	140 U	130 U		150 U	160 U		22 U	26 U	
1,4-Dichlorobenzene	140 U	130 U		150 U	160 U		22 U	26 U	
2-Butanone	220 BJ	190 BJ	15	230 BJ	240 BJ	4	110 U	130 U	
2-Hexanone	690 U	640 U		760 U	780 U		110 U	130 U	
4-Methyl-2-pentanone	690 U	640 U		760 U	780 U		110 U	130 U	
Acetone	690 U	640 U		760 U	780 U		62 J	58 J	7
Benzene	140 U	130 U		150 U	160 U		34	29	16
Bromodichloromethane	140 U	130 U		150 U	160 U		22 U	26 U	
Bromoform	140 U	130 U		150 U	160 U		22 U	26 U	
Bromomethane	140 U	130 U		150 U	160 U		22 U	26 U	
Carbon disulfide	140 U	130 U		150 U	160 U		16 J	15 J	6
Carbon tetrachloride	140 U	130 U		150 U	160 U		22 U	26 U	
Chlorobenzene	140 U	130 U		150 U	160 U		22 U	26 U	
Chloroethane	140 U	130 U		150 U	160 U		22 U	26 U	
Chloroform	140 U	130 U		150 U	160 U		22 U	26 U	
Chloromethane	140 U	130 U		150 U	160 U		22 U	26 U	
cis-1,2-Dichloroethene	140 U	130 U		150 U	160 U		630	550	14
cis-1,3-Dichloropropene	140 U	130 U		150 U	160 U		22 U	26 U	
Cyclohexane	140 U	130 U		150 U	160 U		7 J	26 U	
Dibromochloromethane	140 U	130 U		150 U	160 U		22 U	26 U	
Dichlorodifluoromethane	140 U	130 U		150 U	160 U		22 U	26 U	
Ethylbenzene	700	2,000	96	160	49 J	106	710	580	20
Isopropylbenzene	360	1,000	94	150 U	160 U		480	340	34
Methyl acetate	140 U	130 U		150 U	160 U		22 U	26 U	
Methylcyclohexane	960	1,700	56	72 J	160 U		33	25 J	28
Methylene chloride	140 U	130 U		150 U	160 U		12 J	25 J	70
Methyl-t-Butyl Ether (MTBE)	140 U	130 U		150 U	160 U		22 U	26 U	
Styrene	140 U	130 U		150 U	160 U		22 U	26 U	
Tetrachloroethene	140 U	130 U		150 U	160 U		830	730	13
Toluene	140 U	130 U		150 U	160 U		86	71	19
Total Xylenes	870	2,800	105	150 J	470 U		670	530	23
Trans-1,2-Dichloroethene	140 U	130 U		150 U	160 U		63	52	19
Trans-1,3-Dichloropropene	140 U	130 U		150 U	160 U		22 U	26 U	
Trichloroethene	140 U	130 U		150 U	160 U		160	200	22
Trichlorofluoromethane	140 U	130 U		150 U	160 U		22 U	26 U	
Vinyl chloride	280 U	260 U		300 U	310 U		76	97	24
<b>Total VOCs (µg/kg)</b>	<b>3,100</b>	<b>7,700</b>	<b>85</b>	<b>610</b>	<b>290</b>	<b>71</b>	<b>3,900</b>	<b>3,300</b>	<b>17</b>

**Notes:**

ND = Not Detected

RPD = Relative Percent Difference

MDL = Method Detection Limit

U = The material was analyzed for but not detected at or above the MDL. The associated numerical value is the sample reporting limit.

J = The associated numerical value is an estimated quantity.

B = Blank contamination was present in one or more quality control samples

D = The concentration indicated was obtained from a diluted analytical run.

**TABLE 5-7  
PDI SUBSURFACE SOIL SVOC DUPLICATE RESULTS  
NYSEG FORMER MGP SITE  
DANVILLE, NEW YORK**

Sample ID(Depth in Feet) Laboratory ID Date Sampled	SD11(13-14) A8E39909 11/11/2008	FD111108 A8E39910 11/11/2008	RPD	SD23(14-15) A8E39905 11/10/2008	FD111008 A8E39906 11/10/2008	RPD	SD35(10-12) CBK260329008 12/3/2008	FD111408 A8E60811 11/14/2008	RPD
<b>Semivolatile Organic Compounds (µg/kg)</b>									
2-Methylnaphthalene	13,000	8,700	40	480	660	36	7,300	5,700	25
Acenaphthene	17,000	23,000	30	330	570	53	7,300	25,000	110
Acenaphthylene	4,800	7,100	39	36 J	60 J	50	12,000	10,000	18
Anthracene	18,000	38,000	71	68 J	120 J	55	11,000	18,000	48
Benzo(a)anthracene	11,000	26,000	81	52 J	80 J	42	4,900	8,800	57
Benzo(a)pyrene	8,500	20,000	81	41 J	66 J	47	3,000	5,700	62
Benzo(b)fluoranthene	6,200	15,000	83	30 J	49 J	48	2,800	4,000	35
Benzo(ghi)perylene	4,200	10,000	82	24 J	34 J	34	1,400	2,200	44
Benzo(k)fluoranthene	1,800 J	4,200	80	11 J	9 J	20	300 U	1,200 J	120
Chrysene	9,100	22,000	83	41 J	66 J	47	4,900	6,100	22
Dibenzo(a,h)anthracene	1,000 J	2,500 J	86	210 U	210 U		210 J	450 J	
Fluoranthene	22,000	47,000	72	85 J	130 J	42	11,000	17,000	43
Fluorene	14,000	19,000	30	120 J	240	67	14,000	18,000	25
Indeno(1,2,3-cd)pyrene	3,000	7,500	86	17 J	24 J	34	1,100	1,800 J	37
Naphthalene	24,000	15,000	46	1,600	2,400	40	14,000	14,000	0
Phenanthrene	55,000	98,000	56	300	600	67	33,000	5,000	55
Pyrene	28,000	62,000	76	120 J	200 J	50	13,000	22,000	51
<b>Total PAHs (µg/kg)</b>	<b>240,000</b>	<b>430,000</b>	<b>57</b>	<b>3,300</b>	<b>5,300</b>	<b>47</b>	<b>140,000</b>	<b>220,000</b>	<b>44</b>
<b>Total CPAHs (µg/kg)</b>	<b>41,000</b>	<b>97,0</b>	<b>81</b>	<b>400</b>	<b>290</b>	<b>32</b>	<b>17,000</b>	<b>28,000</b>	<b>49</b>
2,2'-Oxybis(1-Chloropropane)	1,900 U	3,800 U		210 U	210 U		300 U	1,900 U	
2,4,5-Trichlorophenol	1,900 U	3,800 U		210 U	210 U		1,500 U	1,900 U	
2,4,6-Trichlorophenol	1,900 U	3,800 U		210 U	210 U		1,500 U	1,900 U	
2,4-Dichlorophenol	1,900 U	3,800 U		210 U	210 U		300 U	1,900 U	
2,4-Dimethylphenol	1,900 U	3,800 U		210 U	210 U		1,500 U	1,900 U	
2,4-Dinitrophenol	3,600 U	7,400 U		400 U	400 U		7,700 U	3,700 U	
2,4-Dinitrotoluene	1,900 U	3,800 U		210 U	210 U		1,500 U	1,900 U	
2,6-Dinitrotoluene	1,900 U	3,800 U		210 U	210 U		1,500 U	1,900 U	
2-Chloronaphthalene	1,900 U	3,800 U		210 U	210 U		300 U	1,900 U	
2-Chlorophenol	1,900 U	3,800 U		210 U	210 U		1,500 U	1,900 U	
2-Methylphenol	1,900 U	3,800 U		210 U	210 U		1,500 U	1,900 U	
2-Nitroaniline	3,600 U	7,400 U		400 U	400 U		7,700 U	3,700 U	
2-Nitrophenol	1,900 U	3,800 U		210 U	210 U		1,500 U	1,900 U	
3,3'-Dichlorobenzidi	1,900 U	3,800 U		210 U	210 U		1,500 U	1,900 U	
3-Nitroaniline	3,600 U	7,400 U		400 U	400 U		7,700 U	3,700 U	
4,6-Dinitro-2-methylphenol	3,600 U	7,400 U		400 U	400 U		7,700 U	3,700 U	
4-Bromophenyl phenyl ether	1,900 U	3,800 U		210 U	210 U		1,500 U	1,900 U	
4-Chloro-3-methylphenol	1,900 U	3,800 U		210 U	210 U		1,500 U	1,900 U	
4-Chloroaniline	1,900 U	3,800 U		210 U	210 U		1,500 U	1,900 U	
4-Chlorophenyl phenyl ether	1,900 U	3,800 U		210 U	210 U		1,500 U	1,900 U	
4-Methylphenol	1,900 U	3,800 U		210 U	210 U		1,500 U	1,900 U	
4-Nitroaniline	3,600 U	7,400 U		400 U	400 U		7,700 U	3,700 U	
4-Nitrophenol	3,600 U	7,400 U		400 U	400 U		7,700 U	3,700 U	
Acetophenone	1,900 U	3,800 U		210 U	210 U		1,500 U	1,900 U	
Atrazine	1,900 U	3,800 U		210 U	210 U		1,500 U	1,900 U	
Benzaldehyde	1,900 U	3,800 U		210 U	210 U		1,500 U	1,900 U	
Biphenyl	5,400	6,400	17	96 J	150 J	44	4,200	7,000	50
bis(2-chloroethoxy) methane	1,900 U	3,800 U		210 J	210 U		1,500 U	1,900 U	
bis(2-chloroethyl) ether	1,900 U	3,800 U		210 J	210 U		300 U	1,900 U	
bis(2-ethylhexyl) phthalate	1,900 U	3,800 U		210 J	210 U		1,500 U	1,900 U	
Butyl benzyl phthalate	1,900 U	3,800 U		210 J	210 U		1,500 U	1,900 U	
Caprolactam	1,900 U	3,800 U		160 J	190 J	17	7,700 U	1,900 U	
Carbazole	1,900 U	3,800 U		28 J	36 J	25	460	110 J	123
Dibenzo(furan)	870 J	1,200 J	32	27 J	39 J	36	1,500 U	1,000 J	
Diethyl phthalate	1,900 U	3,800 U		210 U	210 U		1,500 U	1,900 U	
Dimethyl phthalate	1,900 U	3,800 U		210 U	210 U		1,500 U	1,900 U	
Di-n-butyl phthalate	1,900 U	3,800 U		210 U	210 U		1,500 U	1,900 U	
Di-n-octyl phthalate	1,900 U	320 J		210 U	210 U		1,500 U	1,900 U	
Hexachlorobenzene	1,900 U	3,800 U		210 U	210 U		300 U	1,900 U	
Hexachlorobutadiene	1,900 U	3,800 U		210 U	210 U		300 U	1,900 U	
Hexachlorocyclopentadiene	1,900 U	3,800 U		210 U	210 U		1,500 U	1,900 U	
Hexachloroethane	1,900 U	3,800 U		210 U	210 U		1,500 U	1,900 U	
Isophorone	1,900 U	3,800 U		210 U	210 U		1,500 U	1,900 U	
Nitrobenzene	1,900 U	3,800 U		210 U	210 U		300 U	1,900 U	
N-Nitroso-Di-n-propylamine	1,900 U	3,800 U		210 U	210 U		300 U	1,900 U	
N-nitrosodiphenylamine	670 J	1,200 J	57	210 U	20 J		300 U	850 J	
Pentachlorophenol	3,600 U	7,400 U		400 U	400 U		1,500 U	3,700 U	
Phenol	1,900 U	3,800 U		210 U	210 U		300 U	1,900 U	
<b>Total SVOCs (µg/kg)<sup>1</sup></b>	<b>250,000</b>	<b>430,000</b>	<b>53</b>	<b>3,800</b>	<b>5,700</b>	<b>45</b>	<b>150,000</b>	<b>230,000</b>	<b>42</b>

**Notes:**

NL = Not Listed

ND = Not Detected

MDL = Method Detection Limit

RPD = Relative Percent Difference

U = The material was analyzed for but not detected at or above the MDL. The associated numerical value is the sample reporting limit.

J = The associated numerical value is an estimated quantity.

D = The concentration indicated was obtained from a diluted analytical run.

<sup>1</sup>The total SVOC values include all PAH compounds

Carcinogenic PAHs are shown in bold



**TABLE 5-8**  
**GEOTECHNICAL TEST RESULTS**  
**NYSEG FORMER MGP SITE**  
**DANVILLE, NEW YORK**

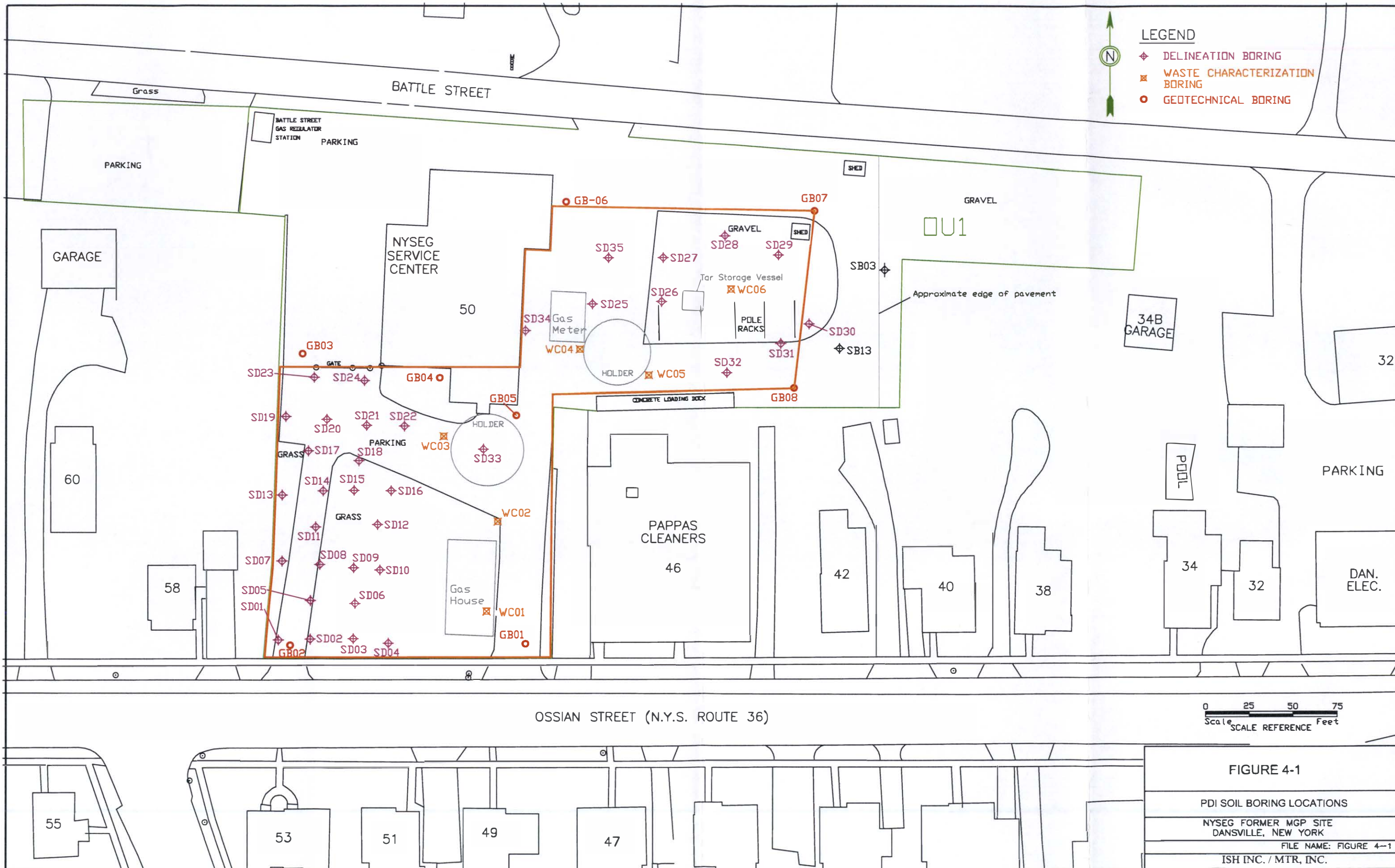
	Depth (ft)					Triaxial Test				Atterberg Limits					Gradation			
Sample No.	From	To	Sample Type	Natural Moisture (%)	Dry Density (pcf)	Total		Effective		LL	PL	PI	% Gravel	% Sand	% Fines	Specific Gravity	Permeability, K (cm/sec) at 20°C	
						C (psi)	Phi (°)	C (psi)	Phi (°)									
GB-01	6	8	Jar	7.6	---	---	---	---	---	---	---	---	62.8	20.7	16.5	---	---	
GB-02	30	32	Jar	16.5	---	---	---	---	---	NP	NP	NP	1	13	86	---	---	
GB-03	2	4	Jar	18.9	---	---	---	---	---	---	---	---	0	45.9	54	---	---	
GB-04	2	4	Jar	14.7	---	---	---	---	---	---	---	---	5.2	53.1	41.7	---	---	
GB-04	10	12	Jar	8.2	---	---	---	---	---	---	---	---	48.8	31.1	20.1	---	---	
GB-05	35	37	Jar	13.8	---	---	---	---	---	NP	NP	NP	0.4	52.1	47.5	---	---	
GB-06	16	18	Jar	21.4	---	---	---	---	---	NP	NP	NP	0	6.5	93.5	---	---	
GB-06	24	26	Jar	26.5	---	---	---	---	---	34	19	15	0	2.4	97.6	---	---	
GB-08	35	37	Jar	21.2	---	---	---	---	---	31	19	12	0	2.1	97.9	---	---	
GB-04	20	22	Tube	26.25	98.55	4.16	25.9	0.49	29.3	NP	NP	NP	0.3	0.2	99.5	2.72	3.66E-07	
GB-05	14	16	Tube	23.05	104.12	8.65	26.5	2.07	26.8	NP	NP	NP	0	0.1	99.9	2.73	2.69E-07	
GB-07	40	42	Tube	16.51	117.4	33.48	11.8	24.83	17	NP	NP	NP	1.6	22.7	75.7	2.73	---	

Notes:

LL - Liquid Limit

PL - Plastic Limit

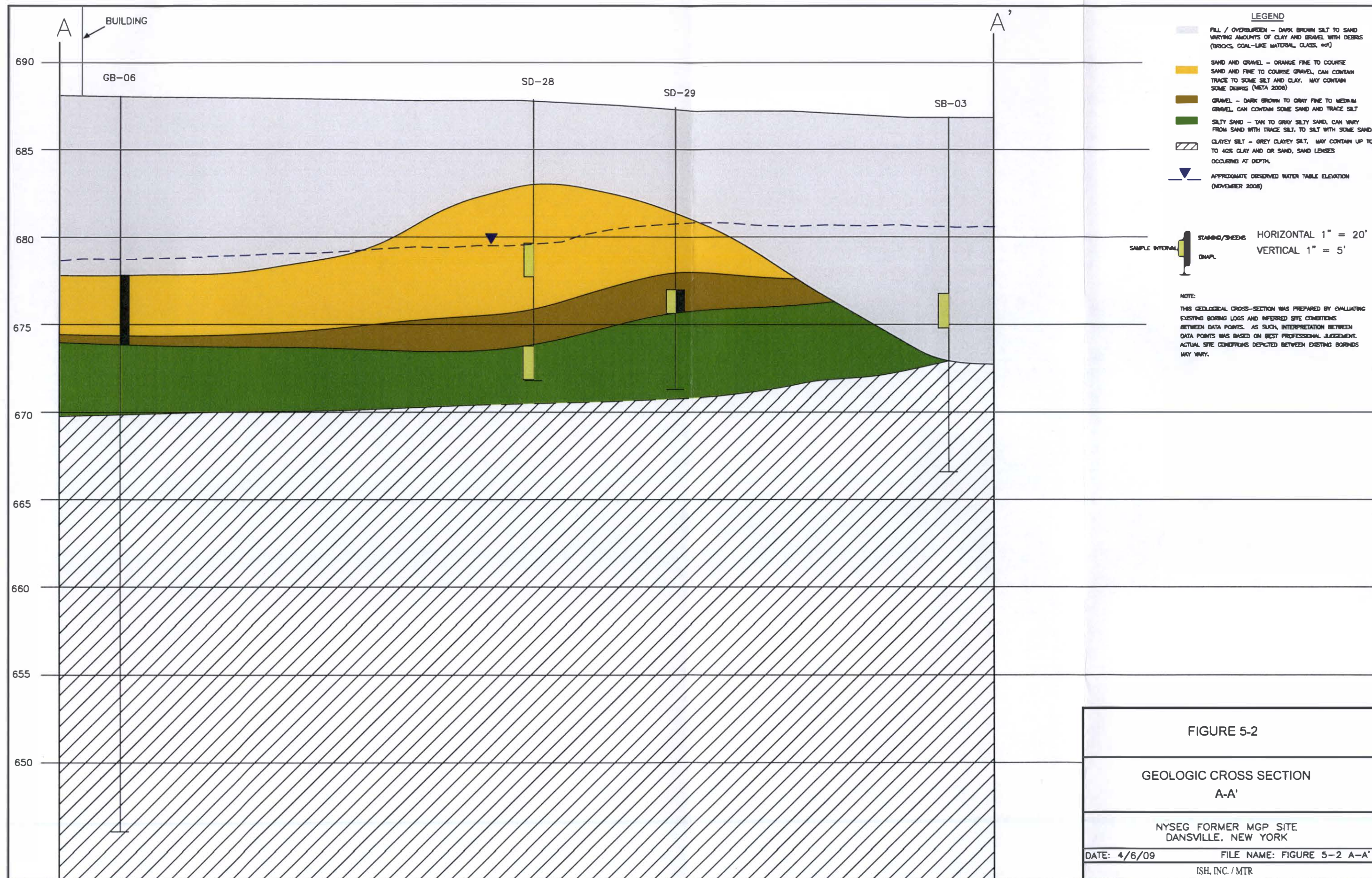
PI - Plasticity Index



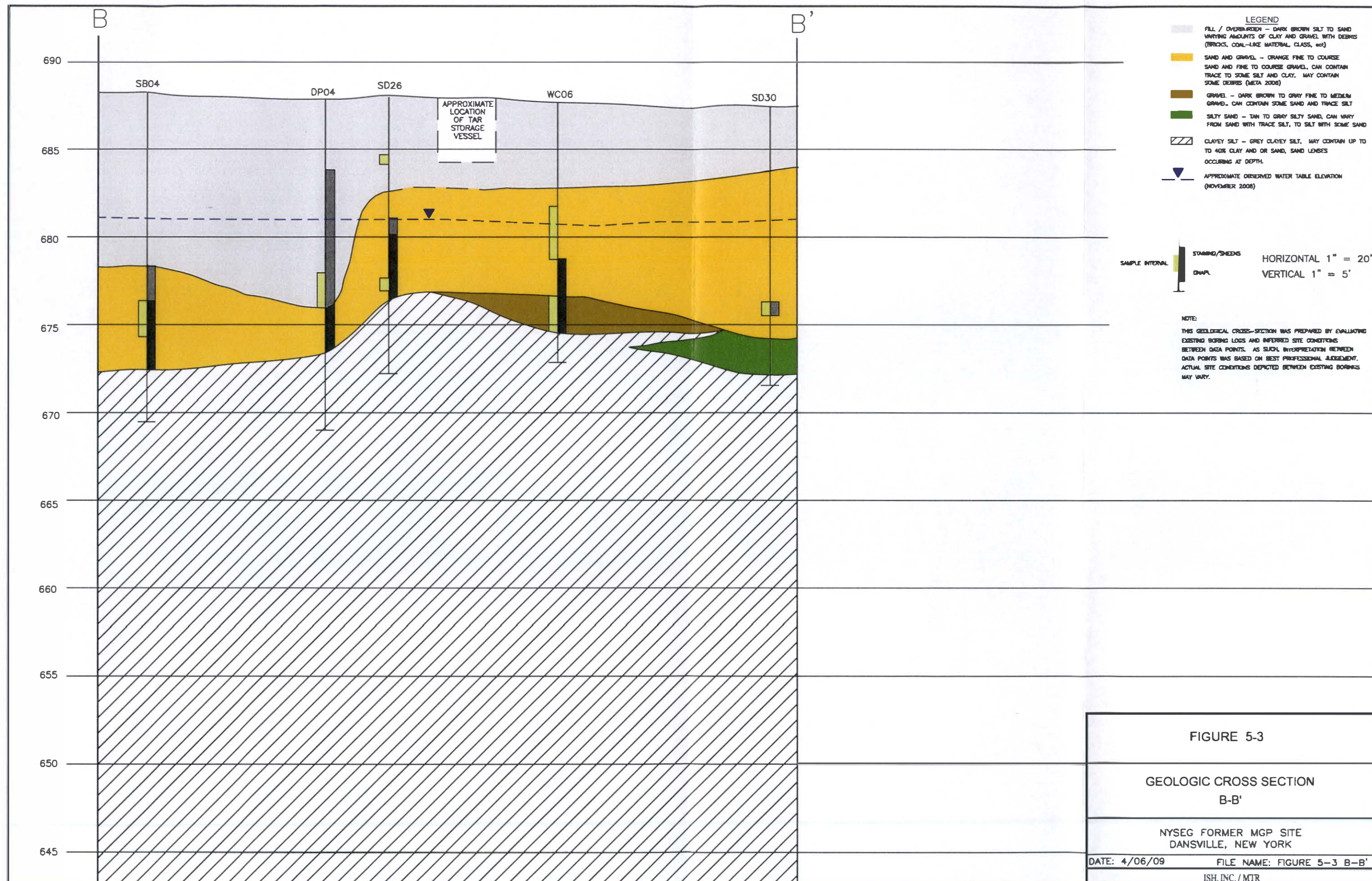




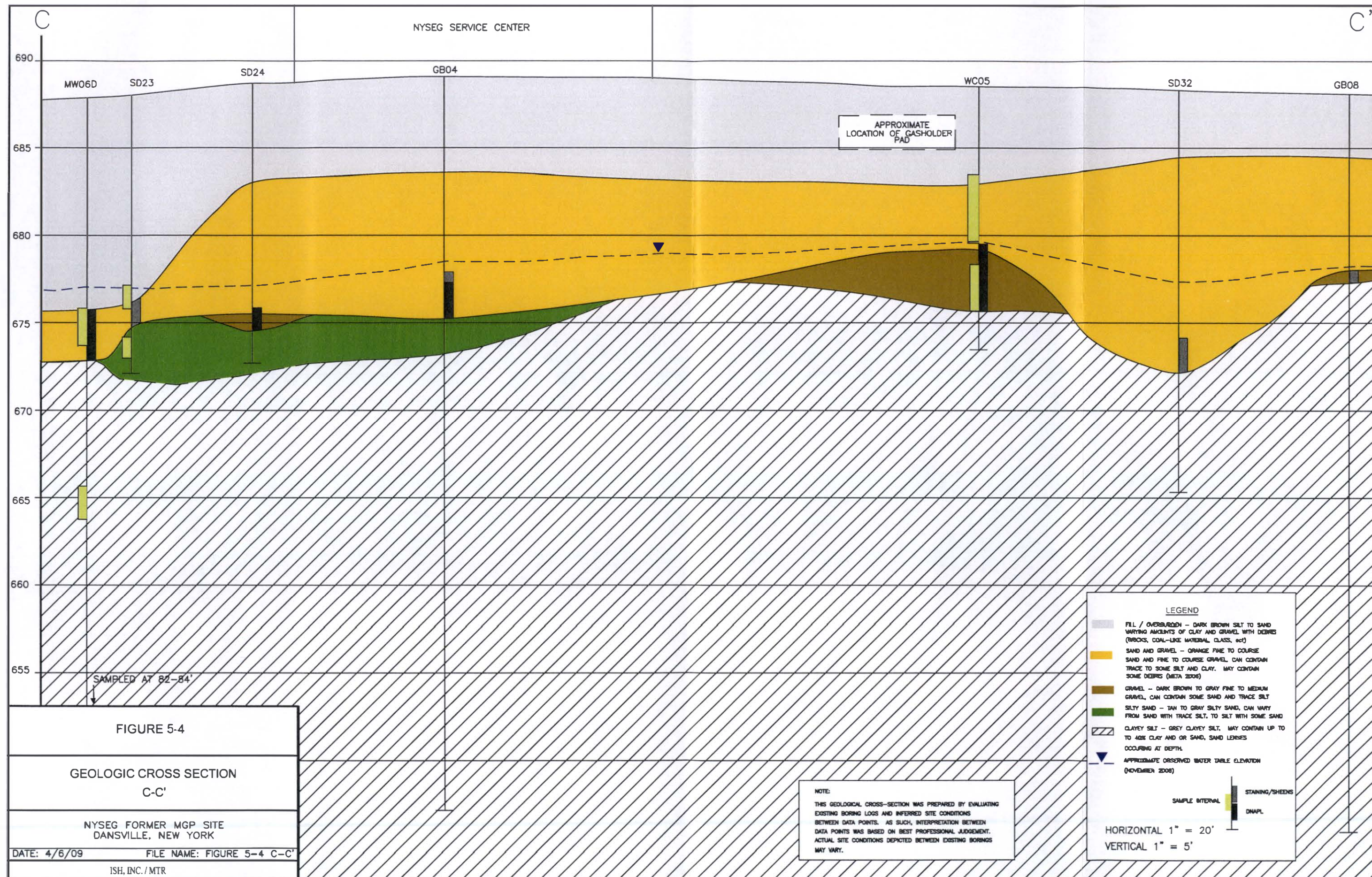




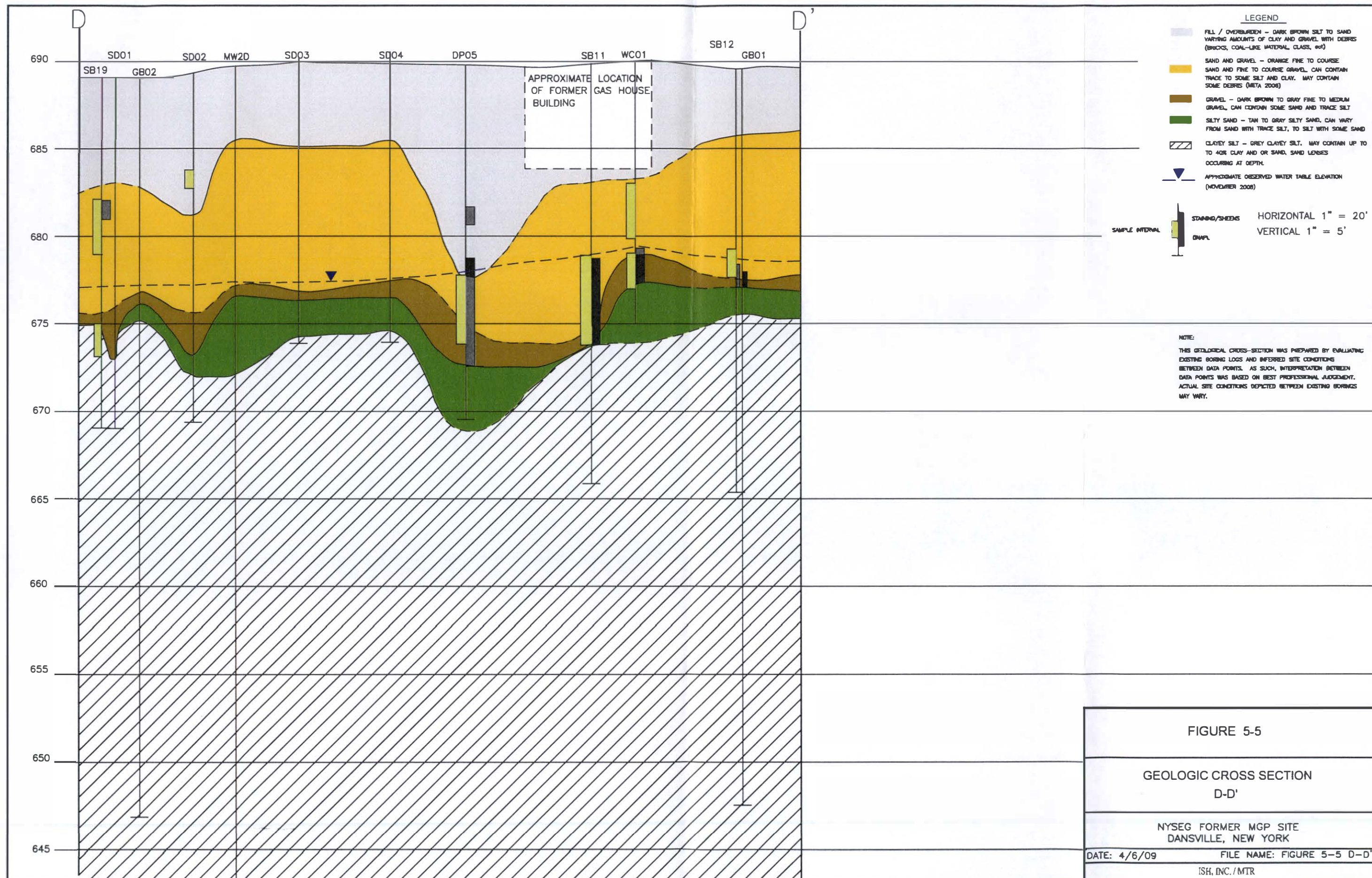




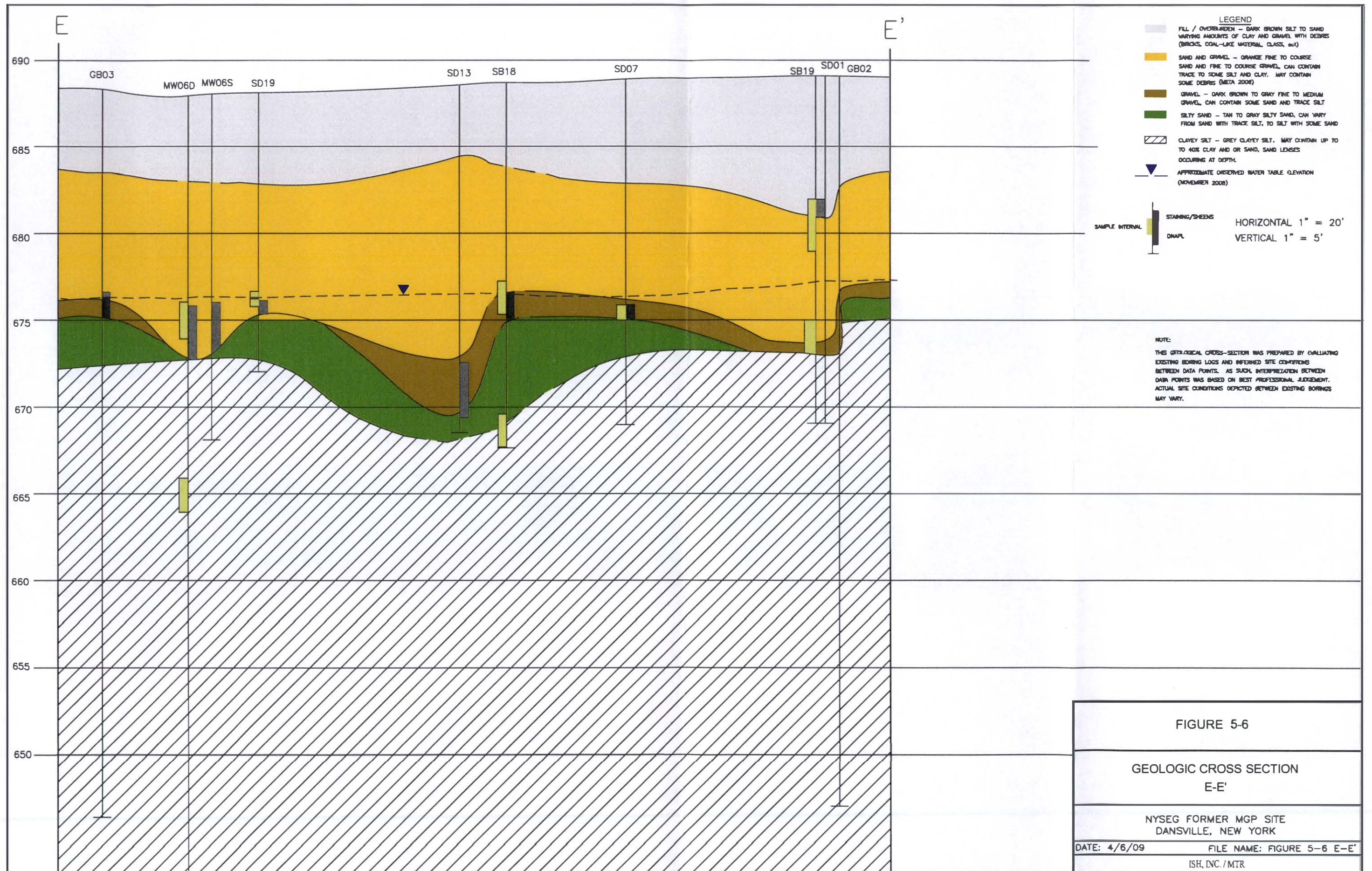




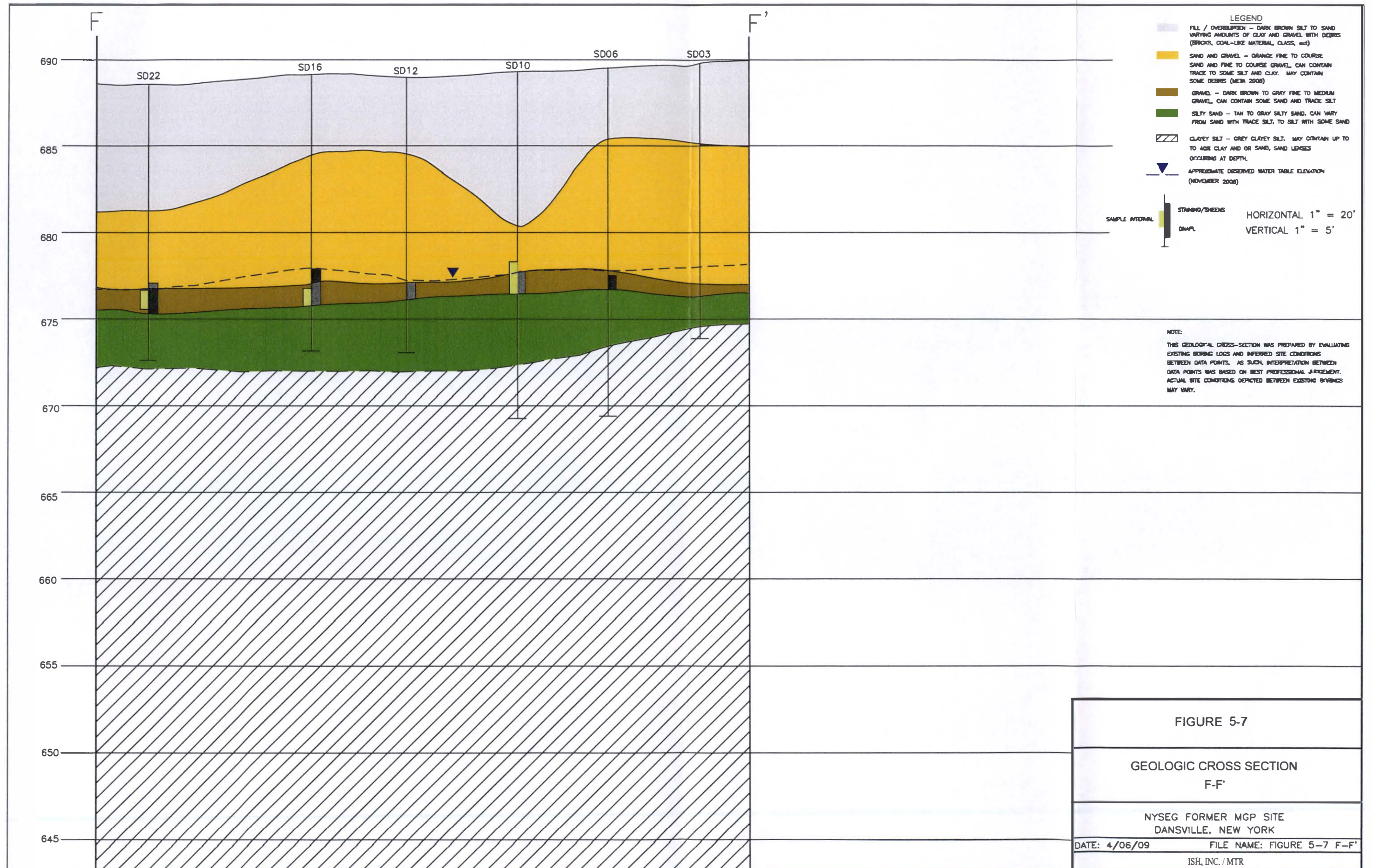




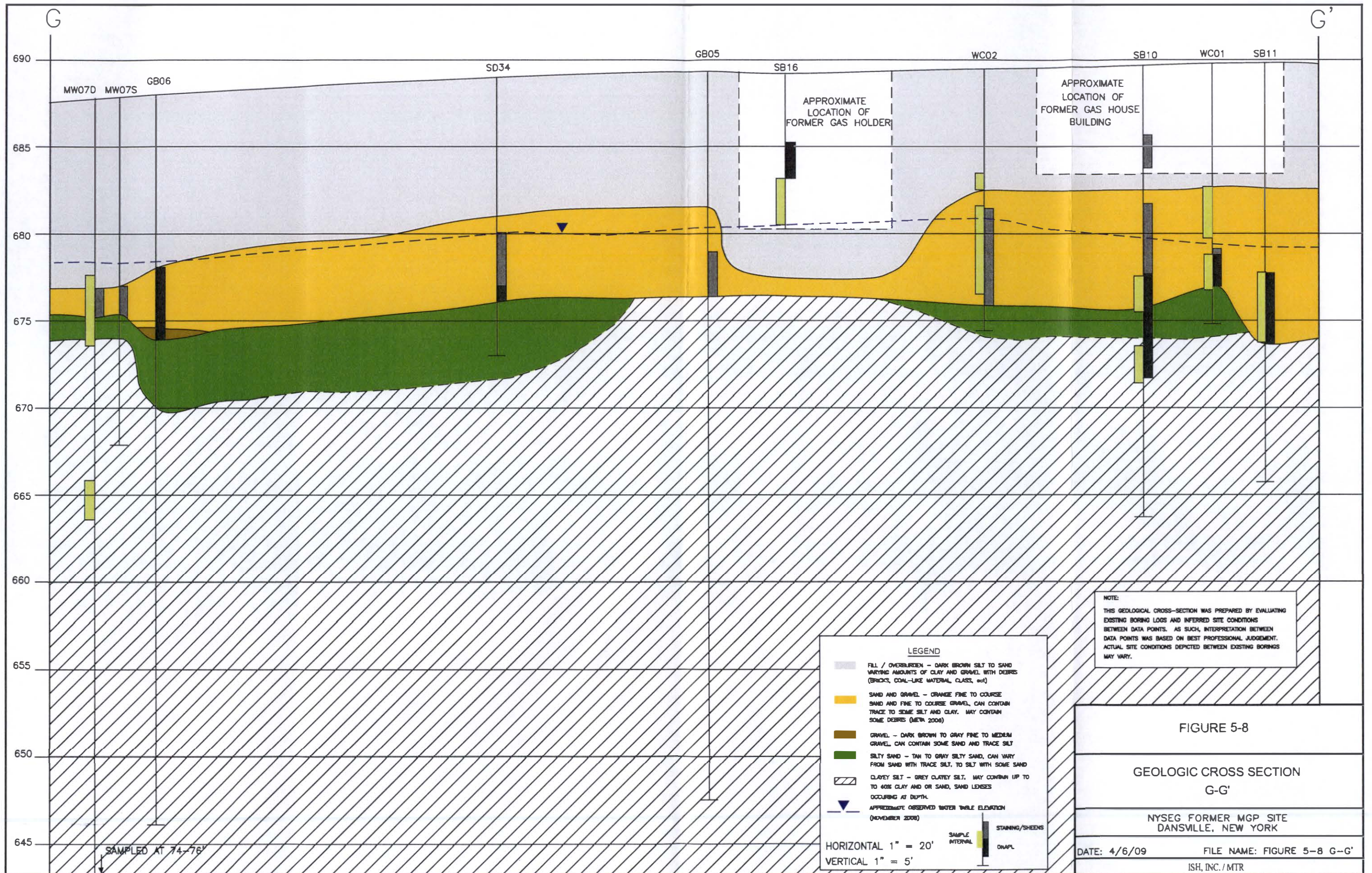




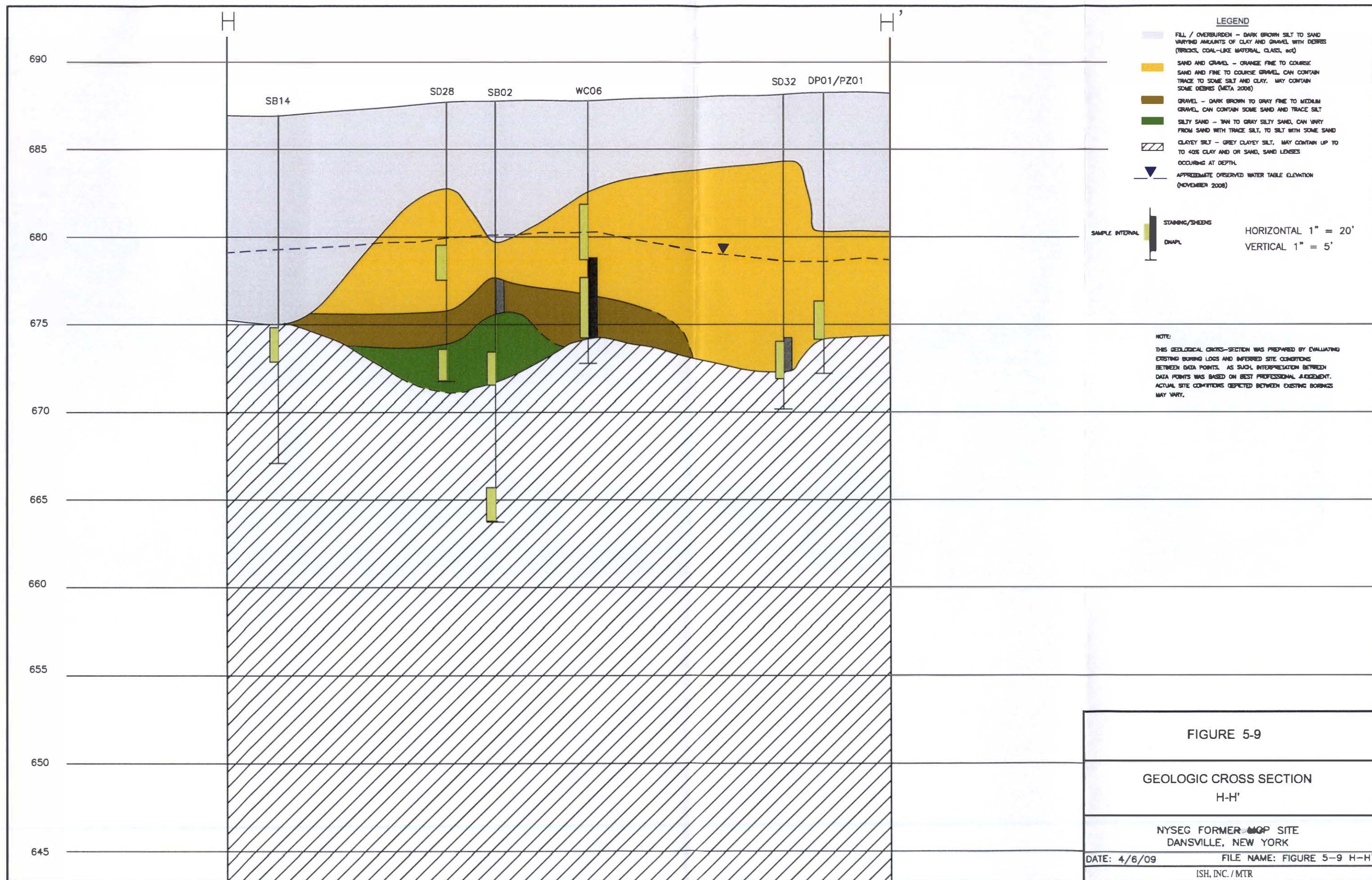














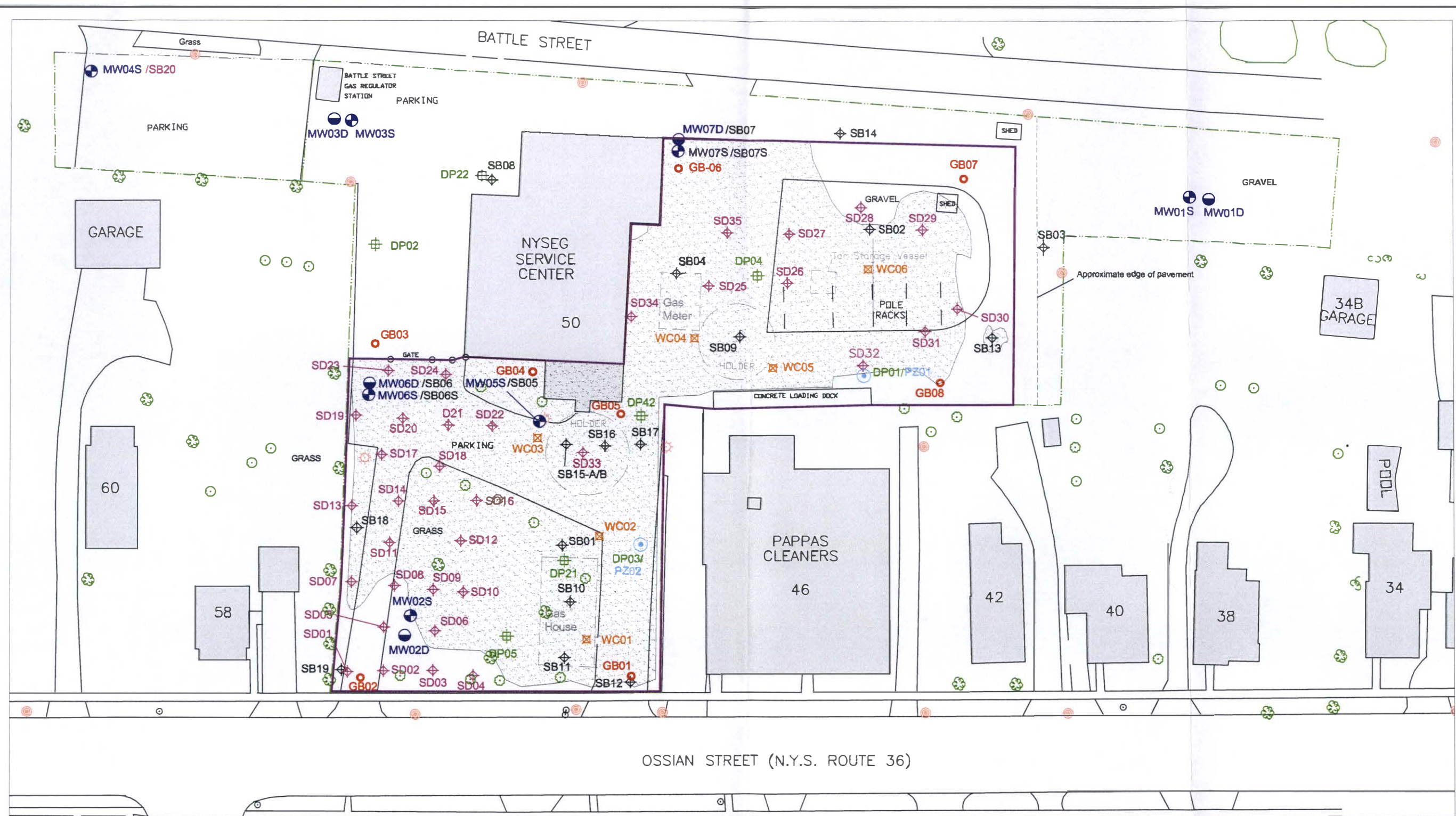






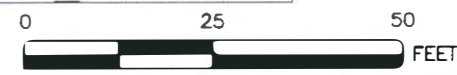


F:\Users\jburaville\ou1 limits.dwg Last Saved By: Sooner 6/25/2009 3:43 PM Plotted By: Shelly Conner 6/25/2009 3:46 PM Scale: 1:1



LEGEND

- OPERABLE UNIT 1 (OU1) EXPANDED
- DELINEATION BORING
- SOIL BORING
- DIRECT PUSH
- WASTE CHARACTERIZATION BORING
- GEOTECHNICAL BORING
- DEEP MONITORING WELL
- SHALLOW MONITORING WELL
- PIEZOMETER
- UTILITY POLE
- EDGE OF PAVEMENT
- APPROXIMATE SITE BOUNDARY
- UTILITY POLE W/GUY
- POWER POLE
- LIGHT POLE
- TREE
- LIMIT OF IMPACTED SOIL REQUIRING REMEDIATION IN OU1
- FORMER STRUCTURES
- EXISTING STRUCTURES



REV #	DATE	DESCRIPTION	APPD

REFERENCE:

ISSUE DATE:  
06/24/09  
KEY ENVIRONMENTAL, INC.  
200 THIRD AVENUE  
CARLEIZE, PA 15106

ISH, INC.  
RALEIGH, NORTH CAROLINA

DRWN: DJB	DATE: 06/24/09
CHKD: BTS	DATE: 06/24/09
APPD: BTS	DATE: 06/24/09
SCALE: AS SHOWN	

**KEY** ENVIRONMENTAL  
INCORPORATED

PRE-DESIGN INVESTIGATION REPORT  
FOR OPERABLE UNIT 1  
FORMER MGP SITE  
DANVILLE, NEW YORK

EXTENT OF IMPACTED SOIL REQUIRING REMEDIATION AND EXPANDED OU1 LIMITS	PROJECT NO: 08717 <b>FIGURE 6-3</b>
---	--

**APPENDIX A**

**CHAIN-OF-CUSTODY FORMS**

# Chain of Custody Record

Temperature on Receipt \_\_\_\_\_

# TestAmerica

Drinking Water? Yes ☐ No ☐

THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124 (1007)

Client <b>NYSEG / META</b>		Project Manager <b>Pete DeCina</b>		Date <b>11-11-08</b>	Chain of Custody Number <b>098059</b>
Address <b>44 Davidson St</b>		Telephone Number (Area Code)/Fax Number <b>(617) 523-4662</b>		Lab Number	Page <b>1</b> of <b>2</b>

City <b>Watertown</b>	State <b>MA</b>	Zip Code <b>02472</b>	Site Contact	Lab Contact	Analysis (Attach list if more space is needed)
Project Name and Location (State) <b>Denville NY</b>			Carrier/Waybill Number		

Contract/Purchase Order/Quote No. <b>B:11 to NYSEG</b>	Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix				Containers & Preservatives						Analysis (Attach list if more space is needed)	Special Instructions/Conditions of Receipt		
				Air	Aqueous	Sed.	Soil	Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH				
	SD-07 (13.2-13.7)	11-10-08	1130				X	X									
	SD-14 (11.5-12)		1315				X	X									
	SD-14 (12-12.5)		1330				X	X									
	SD-23 (11.5-13)		1415				X	X									
	SD-23 (14-15)		1430				X	X									
	FD111008		1430				X	X									
	SD-02 (5.5-6.5)	11-10-08	1515				X	X									
	SD-08 (15-16)	11-11-08	1000				X	X									
	SD-11 (13-14)		1100				X	X									
	FD111008		1100				X	X									
	SD-17 (12-12.9)		1230				X	X									
	SD-17 (15-16) add vol for MS/HS	11-11-08	1245				X	X									

Possible Hazard Identification	Sample Disposal	(A fee may be assessed if samples are retained longer than 1 month)
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown	<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months	

Turn Around Time Required	QC Requirements (Specify)
<input type="checkbox"/> 24 Hours <input type="checkbox"/> 48 Hours <input type="checkbox"/> 7 Days <input type="checkbox"/> 14 Days <input type="checkbox"/> 21 Days <input type="checkbox"/> Other _____	

1. Relinquished By <b>[Signature]</b>	Date <b>11-11-08</b>	Time <b>1600</b>	1. Received By	Date	Time
2. Relinquished By	Date	Time	2. Received By	Date	Time
3. Relinquished By	Date	Time	3. Received By	Date	Time

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy



# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

THE LEADER IN ENVIRONMENTAL TESTING

Client <b>NYSEG/META</b>			Project Manager <b>Pete DeClary</b>					Date <b>11-11-08</b>		Chain of Custody Number <b>J98057</b>									
Address <b>49 Clarendon St.</b>			Telephone Number (Area Code)/Fax Number <b>(617) 423-4662</b>					Lab Number		Page <b>2</b> of <b>2</b>									
City <b>Watertown</b>		State <b>MA</b>	Zip Code <b>02472</b>		Site Contact		Lab Contact		Analysis (Attach list if more space is needed)										
Project Name and Location (State) <b>Dansville NY</b>				Carrier/Waybill Number															
Contract/Purchase Order/Quote No. <b>Bill to NYSEG</b>				Matrix			Containers & Preservatives					Special Instructions/ Conditions of Receipt							
Sample I.D. No. and Description (Containers for each sample may be combined on one line)			Date	Time	Air	Aqueous	Sediment	Soil	Unpres.	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>			HCl	NaOH	ZnAc/NaOH			
<b>SD-20(12-12.7)</b>			<b>11-11-08</b>	<b>1345</b>				X	X									TCL VOC (B26)	TCL SVOC (C17)
Possible Hazard Identification					Sample Disposal					(A fee may be assessed if samples are retained longer than 1 month)									
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown					<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months														
Turn Around Time Required										QC Requirements (Specify)									
<input type="checkbox"/> 24 Hours <input type="checkbox"/> 48 Hours <input type="checkbox"/> 7 Days <input type="checkbox"/> 14 Days <input type="checkbox"/> 21 Days <input type="checkbox"/> Other _____																			
1. Relinquished By <b>[Signature]</b>					Date <b>11-11-08</b>		Time <b>1600</b>		1. Received By			Date		Time					
2. Relinquished By					Date		Time		2. Received By			Date		Time					
3. Relinquished By					Date		Time		3. Received By			Date		Time					

**DISTRIBUTION:** WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

## TAL-4124 (1007)

Drinking Water? Yes ☐ No ☐

THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124 (1007)

**DISTRIBUTION:** WHITE - Returned to Client with Report, GRAY/ART - Stays with the Sample, PINK - Field Copy

# Chain of Custody Record

Temperature on Receipt \_\_\_\_\_

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124 (1007)

Client <b>NYSEG / META</b>		Project Manager <b>Pete DeChary</b>		Date <b>11-13-08</b>	Chain of Custody Number <b>093056</b>
Address <b>49 Clarendon St</b>		Telephone Number (Area Code)/Fax Number <b>(617) 923-4662</b>		Lab Number	Page <b>2</b> of <b>2</b>

City <b>Watertown</b>	State <b>MA</b>	Zip Code <b>02472</b>	Site Contact	Lab Contact	Analysis (Attach list if more space is needed)
--------------------------	--------------------	--------------------------	--------------	-------------	--

Project Name and Location (State) <b>Densville NY</b>	Car ter/Waybill Number
--	------------------------

Contract/Purchase Order/Quote No. <b>Bill to NYSEG</b>	Matrix	Containers & Preservatives	Special Instructions/ Conditions of Receipt
---	--------	----------------------------	--

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix					Containers & Preservatives																			
			Air	Aqueous	Sed.	Soil		Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc2	NaOH				VOX (426)	GLAC (825)	710 VOC (714)	BTU	TPH	Sulfur				
WC-2 (6-7)	11-13-08	1200				X		3										X	X	X	X	X	X				
WC-2 (8-12.5)		1220				X		3										X	X	X	X	X	X				
WC-3 (6-9)		1400				X		3										X	X	X							
WC-3 (10.5-11.5)		1430				X		3										X	X	X	X	X					

Possible Hazard Identification	Sample Disposal	(A fee may be assessed if samples are retained longer than 1 month)
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown	<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months	

Turn Around Time Required	QC Requirements (Specify)
<input type="checkbox"/> 24 Hours <input type="checkbox"/> 48 Hours <input type="checkbox"/> 7 Days <input type="checkbox"/> 14 Days <input type="checkbox"/> 21 Days <input type="checkbox"/> Other _____	

1. Relinquished By <b>[Signature]</b>	Date <b>11-13-08</b>	Time <b>1600</b>	1. Received By	Date	Time
2. Relinquished By	Date	Time	2. Received By	Date	Time
3. Relinquished By	Date	Time	3. Received By	Date	Time

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

# Chain of Custody Record

Temperature on Receipt \_\_\_\_\_

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Drinking Water? Yes ☐ No ☐

TAL-4124 (1007)

Client <b>NYSEG / META</b>		Project Manager <b>Pete DeLong</b>		Date <b>11-14-08</b>	Chain of Custody Number <b>098055</b>
Address <b>44 Clarkson St</b>		Telephone Number (Area Code)/Fax Number <b>(617) 923-4662</b>		Lab Number	Page <b>1</b> of <b>1</b>

City <b>Watertown</b>	State <b>MA</b>	Zip Code <b>02472</b>	Site Contact	Lab Contact	Analysis (Attach list if more space is needed)	Special Instructions/ Conditions of Receipt
Project Name and Location (State) <b>Denville NY</b>			Carrier/Waybill Number			

Contract/Purchase Order/Quote No. <b>Bill to NYSEG</b>			Matrix				Containers & Preservatives										
Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Air	Aqueous	Sed.	Soil	Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc2	NaOH				
WC-4 (1-10)	11-14-08	830				X	X										
WC-4 (10-12.5)	11-14-08	900				X	X										
SD-25 (10-12)	11-13-08	1545				X	X										
SD-25 (14-16)	11-13-08	1600				X	X										
WC-5 (9-6)	11-14-08	945				X	X										
WC-5 (10-12.5)	11-14-08	1010				X	X										
WC-6 (6-4)	11-14-08	1045				X	X										
WC-6 (10-13.5)	11-14-08	1110				X	X										
SD-27 (2-4)	11-14-08	1230				X	X										
SD-27 (11-13)	11-14-08	1245				X	X										
FD111-108	11-14-08	1245				X	X										
	11-14-08																

Possible Hazard Identification			Sample Disposal			(A fee may be assessed if samples are retained longer than 1 month)		
<input type="checkbox"/> Non-Hazard	<input type="checkbox"/> Flammable	<input type="checkbox"/> Skin Irritant	<input type="checkbox"/> Poison B	<input type="checkbox"/> Unknown	<input type="checkbox"/> Return To Client	<input type="checkbox"/> Disposal By Lab	<input type="checkbox"/> Archive For _____ Months	

Turn Around Time Required				QC Requirements (Specify)			
<input type="checkbox"/> 24 Hours	<input type="checkbox"/> 48 Hours	<input type="checkbox"/> 7 Days	<input type="checkbox"/> 14 Days	<input type="checkbox"/> 21 Days	<input type="checkbox"/> Other _____		

1. Relinquished By <b>[Signature]</b>	Date <b>11-14-08</b>	Time <b>1430</b>	1. Received By	Date	Time
2. Relinquished By	Date	Time	2. Received By	Date	Time
3. Relinquished By	Date	Time	3. Received By	Date	Time

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

TAL-4124 (1007)

Drinking Water? Yes ☐ No ☐

THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124 (1007)

Client <b>NWEG / META</b>	Project Manager <b>Pete DeClary</b>	Date <b>11-24-08</b>	Chain of Custody Number <b>098053</b>
Address <b>49 Clarendon St</b>	Telephone Number (Area Code)/Fax Number <b>(617) 923-4662</b>	Lab Number	Page <b>1</b> of <b>1</b>

<b>City</b>	<b>State</b>	<b>Zip Code</b>	<b>Site Contact</b>	<b>Lab Contact</b>	<b>Analysis (Attach list if more space is needed)</b>								
Watertown	MA	02472											
<b>Project Name and Location (State)</b>			<b>Carrier/Waybill Number</b>										

Contract/Purchase Order/Quote No.

*Sample I.D. No. and Description*  
(Containers for each sample may be combined on one line)

Date \_\_\_\_\_

Time

### Matrix

### Containers & Preservatives

[illegible]

### Possible Hazard Identification

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

### Sample Disposal

☐ Return To Client☐ Disposal By Lab


 **Archive For**

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

### Turn Around Time Required

☐ 24 Hours    ☐ 48 Hours    ☐ 7 Days    ☐ 14 Days    ☐ 21 Days    ☐ Other

QC Requirements (Specify)

1. Relinquished By 	Date 11-24-08	Time 1600	1. Received By	Date	Time
2. Relinquished By	Date	Time	2. Received By	Date	Time
3. Relinquished By	Date	Time	3. Received By	Date	Time

---

**Comments**

**DISTRIBUTION:** WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

**COMMUNITY AIR MONITORING PLAN REPORTS**

**APPENDIX B**

**DANVILLE PRE-DESIGN INVESTIGATION**  
 New York State Electric and Gas  
 DANVILLE, N. Y.  
 COMMUNITY AIR MONITORING PLAN (CAMP) - SUMMARY REPORT

Monday, November 10, 2008

Location:	Down-Gradient - 1 <sup>(6)</sup>		Down-Gradient - 2 <sup>(6)</sup>	
Approximate Time Period	Average <sup>(1,2)</sup> VOCs (ppm) <sup>(4)</sup>	Average <sup>(1,3)</sup> Particulate (mg/m <sup>3</sup> ) <sup>(5)</sup>	Average <sup>(1,2)</sup> VOCs (ppm) <sup>(4)</sup>	Average <sup>(1,3)</sup> Particulate (mg/m <sup>3</sup> ) <sup>(5)</sup>
10:15	0.8	0.000	0.0	0.000
10:30	0.9	0.000	0.0	0.000
10:45	0.8	0.001	0.0	0.000
11:00	0.9	0.000	0.0	0.006
11:15	1.0	0.000	0.0	0.001
11:30	1.0	0.000	0.0	0.001
11:45	1.1	0.000	0.0	0.002
12:00	1.1	0.000	0.0	0.003
12:15	1.1	0.000	0.0	0.009
12:30	1.2	0.000	0.0	0.004
12:45	1.1	0.000	0.0	0.003
13:00	1.1	0.000	0.0	0.004
13:15	1.0	0.000	0.0	0.008
13:30	0.9	0.000	0.0	0.008
13:45	0.9	0.000	0.0	0.007
14:00	0.9	0.000	0.0	0.005
14:15	0.9	0.000	0.0	0.005
14:30	0.9	0.000	0.0	0.005
14:45	0.9	0.000	0.0	0.006
15:00	0.9	0.001	0.0	0.01
15:15	--	0.000	--	0.01
<b>Action Levels</b>				
VOCs	5.0 ppm (Above Down-Gradient Levels)			
Particulate	0.1 mg/m <sup>3</sup> (Above Down-Gradient Levels)			

**Observations:**

Ambient air monitoring activities on this date indicated that 15-minute TWA concentrations of Volatile Organic Compounds (VOCs) and particulate matter did not, at any time, exceed the established action levels at the perimeter of the site.

**Notes:**

- (1) All values shown are 15-minute Time Weighted Averages (TWA) for the period ending at the approximate time indicated.
- (2) VOC measurements were obtained with two MiniRAE 2000 PGM-7600 photoionization detectors with a 10.6 eV electrodeless ultraviolet discharge lamp.
- (3) Particulate measurements were obtained with two DataRam PDR-1000 portable particle sizing aerosol monitors. All particulate concentrations listed are for particulate matter less than 10 micrometers in size (PM-10).
- (4) Parts Per Million (ppm).
- (5) Milligrams Per Cubic Meter (mg/m<sup>3</sup>).
- (6) The designation of the downgradient monitoring locations were adjusted based upon the generalized wind direction observed throughout the monitoring period.



# DANSVILLE PRE-DESIGN INVESTIGATION

New York State Electric and Gas

DANSVILLE, N. Y.

## COMMUNITY AIR MONITORING PLAN (CAMP) - SUMMARY REPORT

Tuesday, November 11, 2008

Location:	Down-Gradient - 1 <sup>(6)</sup>		Down-Gradient - 2 <sup>(6)</sup>	
Approximate Time Period	Average <sup>(1,2)</sup> VOCs (ppm) <sup>(4)</sup>	Average <sup>(1,3)</sup> Particulate (mg/m <sup>3</sup> ) <sup>(5)</sup>	Average <sup>(1,2)</sup> VOCs (ppm) <sup>(4)</sup>	Average <sup>(1,3)</sup> Particulate (mg/m <sup>3</sup> ) <sup>(5)</sup>
8:45	0.2	0.000	0.4	0.009
9:00	0.4	0.000	0.7	0.011
9:15	0.5	0.000	1.5	0.013
9:30	0.5	0.001	1.0	0.291
9:45	0.5	0.000	1.1	0.013
10:00	0.6	0.000	1.1	0.019
10:15	0.7	0.000	1.2	0.016
10:30	0.7	0.000	1.2	0.017
10:45	0.7	0.000	1.3	0.015
11:00	0.7	0.000	1.3	0.017
11:15	0.7	0.000	1.4	0.014
11:30	0.7	0.000	1.3	0.016
11:45	0.7	0.000	1.2	0.015
12:00	0.7	0.000	1.2	0.015
12:15	0.7	0.000	1.2	0.019
12:30	0.7	0.000	1.2	0.016
12:45	0.7	0.000	1.3	0.018
13:00	0.7	0.000	1.1	0.016
13:15	0.7	0.000	1.1	0.017
13:30	0.7	0.000	1.0	0.018
13:45	0.7	0.000	1.2	0.018
14:00	0.8	0.000	1.2	0.024
14:15	0.7	0.000	1.3	0.039
14:30	0.8	0.000	1.3	0.022
14:45	--	0.000	--	0.038
<b>Action Levels</b>				
VOCs		5.0 ppm (Above Down-Gradient Levels)		
Particulate		0.1 mg/m <sup>3</sup> (Above Down-Gradient Levels)		

### Observations:

Ambient air monitoring activities on this date indicated that 15-minute TWA concentrations of Volatile Organic Compounds (VOCs) and particulate matter did not, at any time, exceed the established action levels at the perimeter of the site.

### Notes:

- (1) All values shown are 15-minute Time Weighted Averages (TWA) for the period ending at the approximate time indicated.
- (2) VOC measurements were obtained with two MiniRAE 2000 PGM-7600 photoionization detectors with a 10.6 eV electrodeless ultraviolet discharge lamp.
- (3) Particulate measurements were obtained with two DataRam PDR-1000 portable particle sizing aerosol monitors. All particulate concentrations listed are for particulate matter less than 10 micrometers in size (PM-10).
- (4) Parts Per Million (ppm).
- (5) Milligrams Per Cubic Meter (mg/m<sup>3</sup>).
- (6) The designation of the downgradient monitoring locations were adjusted based upon the generalized wind direction observed throughout the monitoring period.

**DANSVILLE PRE-DESIGN INVESTIGATION**  
 New York State Electric and Gas  
 DANSVILLE, N. Y.  
**COMMUNITY AIR MONITORING PLAN (CAMP) - SUMMARY REPORT**  
 Wednesday, November 12, 2008

Location:	Down-Gradient - 1 <sup>(6)</sup>		Down-Gradient - 2 <sup>(6)</sup>	
Approximate Time Period	Average <sup>(1,2)</sup> VOCs (ppm) <sup>(4)</sup>	Average <sup>(1,3)</sup> Particulate (mg/m <sup>3</sup> ) <sup>(5)</sup>	Average <sup>(1,2)</sup> VOCs (ppm) <sup>(4)</sup>	Average <sup>(1,3)</sup> Particulate (mg/m <sup>3</sup> ) <sup>(5)</sup>
8:00	0.2	0.004	0.2	0.022
8:15	0.3	0.007	0.5	0.023
8:30	0.4	0.004	0.7	0.015
8:45	0.5	0.003	0.7	0.012
9:00	0.7	0.003	0.7	0.011
9:15	0.8	0.003	0.7	0.014
9:30	0.8	0.002	0.7	0.017
9:45	0.8	0.001	0.7	0.017
10:00	0.9	0.006	0.8	0.016
10:15	0.9	0.002	0.9	0.017
10:30	0.9	0.013	0.8	0.014
10:45	0.9	0.019	0.8	0.011
11:00	1.1	0.014	0.7	0.01
11:15	1.1	0.022	0.7	0.013
11:30	1.0	0.028	0.7	0.015
11:45	1.0	0.016	0.7	0.018
12:00	1.0	0.012	0.7	0.015
12:15	1.0	0.011	0.6	0.014
12:30	1.0	0.022	0.5	0.01
12:45	1.0	0.05	0.5	0.01
13:00	--	0.052	0.4	0.01
13:15	--	--	0.4	0.011
13:30	--	--	0.5	0.01
13:45	--	--	0.4	0.017
14:00	--	--	0.4	0.015
14:15	--	--	0.5	0.015
14:30	--	--	--	0.015
<b>Action Levels</b>				
<b>VOCs</b>		<b>5.0 ppm (Above Down-Gradient Levels)</b>		
<b>Particulate</b>		<b>0.1 mg/m<sup>3</sup> (Above Down-Gradient Levels)</b>		

**Observations:**

Ambient air monitoring activities on this date indicated that 15-minute TWA concentrations of Volatile Organic Compounds (VOCs) and particulate matter did not, at any time, exceed the established action levels at the perimeter of the site.

**Notes:**

- (1) All values shown are 15-minute Time Weighted Averages (TWA) for the period ending at the approximate time indicated.
- (2) VOC measurements were obtained with two MiniRAE 2000 PGM-7600 photoionization detectors with a 10.6 eV electrodeless ultraviolet discharge lamp.
- (3) Particulate measurements were obtained with two DataRam PDR-1000 portable particle sizing aerosol monitors. All particulate concentrations listed are for particulate matter less than 10 micrometers in size (PM-10).
- (4) Parts Per Million (ppm).
- (5) Milligrams Per Cubic Meter (mg/m<sup>3</sup>).
- (6) The designation of the downgradient monitoring locations were adjusted based upon the generalized wind direction observed throughout the monitoring period.

**DANSVILLE PRE-DESIGN INVESTIGATION**  
**New York State Electric and Gas**  
**DANSVILLE, N. Y.**  
**COMMUNITY AIR MONITORING PLAN (CAMP) - SUMMARY REPORT**  
**Wednesday, November 12, 2008**

<b>Location:</b>	<b>Down-Gradient - 1<sup>(6)</sup></b>	
<b>Approximate Time Period</b>	<b>Average<sup>(1,2)</sup> VOCs (ppm)<sup>(4)</sup></b>	<b>Average<sup>(1,3)</sup> Particulate (mg/m<sup>3</sup>)<sup>(5)</sup></b>
13:15	0.0	--
13:30	0.1	0.017
13:45	0.0	0.017
14:00	0.0	0.016
14:15	0.0	0.018
14:30	--	0.018
<b>Action Levels</b>		
VOCs	<b>5.0 ppm (Above Down-Gradient Levels)</b>	
Particulate	<b>0.1 mg/m3 (Above Down-Gradient Levels)</b>	

**Observations:**

Ambient air monitoring activities on this date indicated that 15-minute TWA concentrations of Volatile Organic Compounds (VOCs) and particulate matter did not, at any time, exceed the established action levels at the perimeter of the site.

**Notes:**

- (1) All values shown are 15-minute Time Weighted Averages (TWA) for the period ending at the approximate time indicated.
- (2) VOC measurements were obtained with one MiniRAE 2000 PGM-7600 photoionization detectors with a 10.6 eV electrodeless ultraviolet discharge lamp.
- (3) Particulate measurements were obtained with one DataRam PDR-1000 portable particle sizing aerosol monitors. All particulate concentrations listed are for particulate matter less than 10 micrometers in size (PM-10).
- (4) Parts Per Million (ppm).
- (5) Milligrams Per Cubic Meter (mg/m3).
- (6) The designation of the downgradient monitoring locations were adjusted based upon the generalized wind direction observed throughout the monitoring period.

**DANSVILLE PRE-DESIGN INVESTIGATION**  
 New York State Electric and Gas  
 DANSVILLE, N. Y.  
**COMMUNITY AIR MONITORING PLAN (CAMP) - SUMMARY REPORT**  
 Thursday, November 13, 2008

Location:	Down-Gradient - 1 <sup>(6)</sup>		Down-Gradient - 2 <sup>(6)</sup>	
Approximate Time Period	Average <sup>(1,2)</sup> VOCs (ppm) <sup>(4)</sup>	Average <sup>(1,3)</sup> Particulate (mg/m <sup>3</sup> ) <sup>(5)</sup>	Average <sup>(1,2)</sup> VOCs (ppm) <sup>(4)</sup>	Average <sup>(1,3)</sup> Particulate (mg/m <sup>3</sup> ) <sup>(5)</sup>
8:00	0.4	0.02	1.4	0.008
8:15	0.6	0.025	1.9	0.004
8:30	0.6	0.024	2.4	0.01
8:45	0.5	0.011	4.3	0.004
9:00	0.5	0.001	1.5	0.009
9:15	0.5	0.001	1.9	0.003
9:30	0.5	0.000	2.0	0.003
9:45	0.7	0.000	2.1	0.000
10:00	0.8	0.001	1.5	0.000
10:15	0.8	0.000	2.2	0.000
10:30	0.8	0.000	2.3	0.000
10:45	0.8	0.000	2.4	0.000
11:00	0.9	0.000	2.4	0.000
11:15	0.9	0.000	2.3	0.000
11:30	0.9	0.000	2.3	0.000
11:45	0.9	0.000	2.3	0.000
12:00	1.0	0.000	2.3	0.000
12:15	1.0	0.000	2.3	0.000
12:30	1.0	0.000	2.2	0.000
12:45	1.0	0.000	2.1	0.000
13:00	1.0	0.000	2.1	0.000
13:15	1.1	0.000	2.1	0.000
13:30	--	0.000	--	0.000
13:45	--	0.003	--	0.000
14:00	--	0.006	--	0.000
14:15	--	0.007	--	0.001
14:30	--	0.006	--	0.002
14:45	--	0.006	--	0.003
15:00	--	0.000	--	0.004
15:15	--	0.004	--	0.002
15:30	--	0.002	--	0.000
15:45	--	0.000	--	0.000
16:00	--	0.000	--	0.000
16:15	--	0.000	--	0.000
<b>Action Levels</b>				
VOCs	5.0 ppm (Above Down-Gradient Levels)			
Particulate	0.1 mg/m <sup>3</sup> (Above Down-Gradient Levels)			

**Observations:**

Ambient air monitoring activities on this date indicated that 15-minute TWA concentrations of Volatile Organic Compounds (VOCs) and particulate matter did not, at any time, exceed the established action levels at the perimeter of the site.

**Notes:**

- (1) All values shown are 15-minute Time Weighted Averages (TWA) for the period ending at the approximate time indicated.
- (2) VOC measurements were obtained with two MiniRAE 2000 PGM-7600 photoionization detectors with a 10.6 eV electrodeless ultraviolet discharge lamp.
- (3) Particulate measurements were obtained with two DataRam PDR-1000 portable particle sizing aerosol monitors. All particulate concentrations listed are for particulate matter less than 10 micrometers in size (PM-10).
- (4) Parts Per Million (ppm).
- (5) Milligrams Per Cubic Meter (mg/m<sup>3</sup>).
- (6) The designation of the downgradient monitoring locations were adjusted based upon the generalized wind direction observed throughout the monitoring period.

**DANSVILLE PRE-DESIGN INVESTIGATION**  
 New York State Electric and Gas  
 DANSVILLE, N. Y.  
**COMMUNITY AIR MONITORING PLAN (CAMP) - SUMMARY REPORT**  
 Thursday, November 13, 2008

Location:	Down-Gradient - 1 <sup>(6)</sup>	Down-Gradient - 2 <sup>(6)</sup>
Approximate Time Period	Average <sup>(1,2)</sup> VOCs (ppm) <sup>(4)</sup>	Average <sup>(1,2)</sup> VOCs (ppm) <sup>(4)</sup>
13:40	0.0	0.0
13:45	0.0	0.0
14:00	0.0	0.0
14:15	0.0	0.0
14:30	0.1	0.0
14:45	0.1	0.0
15:00	0.1	0.0
15:15	0.2	0.0
15:30	0.2	0.0
15:45	0.2	0.0
<b>Action Levels</b>		
VOCs	5.0 ppm (Above Down-Gradient Levels)	
Particulate	0.1 mg/m <sup>3</sup> (Above Down-Gradient Levels)	

**Observations:**

Ambient air monitoring activities on this date indicated that 15-minute TWA concentrations of Volatile Organic Compounds (VOCs) and particulate matter did not, at any time, exceed the established action levels at the perimeter of the site.

**Notes:**

- (1) All values shown are 15-minute Time Weighted Averages (TWA) for the period ending at the approximate time indicated.
- (2) VOC measurements were obtained with two MiniRAE 2000 PGM-7600 photoionization detectors with a 10.6 eV electrodeless ultraviolet discharge lamp.
- (4) Parts Per Million (ppm).
- (5) Milligrams Per Cubic Meter (mg/m<sup>3</sup>).
- (6) The designation of the downgradient monitoring locations were adjusted based upon the generalized wind direction observed throughout the monitoring period.

**DANVILLE PRE-DESIGN INVESTIGATION**  
 New York State Electric and Gas  
 DANVILLE, N. Y.  
**COMMUNITY AIR MONITORING PLAN (CAMP) - SUMMARY REPORT**  
 Friday, November 14, 2008

Location:	Down-Gradient - 1 <sup>(6)</sup>		Down-Gradient - 2 <sup>(6)</sup>	
Approximate Time Period	Average <sup>(1,2)</sup> VOCs (ppm) <sup>(4)</sup>	Average <sup>(1,3)</sup> Particulate (mg/m <sup>3</sup> ) <sup>(5)</sup>	Average <sup>(1,2)</sup> VOCs (ppm) <sup>(4)</sup>	Average <sup>(1,3)</sup> Particulate (mg/m <sup>3</sup> ) <sup>(5)</sup>
8:00	0.0	0	0.8	0.054
8:15	0.0	0	1.1	0.03
8:30	0.1	0.001	1.1	0.037
8:45	0.2	0.032	1.3	0.048
9:00	0.2	0.061	1.3	0.167
9:15	0.3	0.165	1.4	0.15
9:30	0.3	0.078	1.4	0.237
9:45	0.3	0.026	1.6	0.108
10:00	0.3	0.003	1.7	0.056
10:15	0.4	0	1.7	0.021
10:30	0.4	0	1.6	0.013
10:45	0.4	0	1.5	0.007
11:00	0.4	0	1.5	0.008
11:15	0.4	0	1.3	0.01
11:30	0.3	0	1.3	0.006
11:45	0.3	0	1.2	0.005
12:00	0.4	0	1.1	0.006
12:15	0.2	0	1.0	0.007
12:30	--	0	--	0.008
<b>Action Levels</b>				
<b>VOCs</b>	<b>5.0 ppm (Above Down-Gradient Levels)</b>			
<b>Particulate</b>	<b>0.1 mg/m<sup>3</sup> (Above Down-Gradient Levels)</b>			

**Observations:**

Ambient air monitoring activities on this date indicated that 15-minute TWA concentrations of Volatile Organic Compounds (VOCs) and particulate matter did not, at any time, exceed the established action levels at the perimeter of the site.

**Notes:**

- (1) All values shown are 15-minute Time Weighted Averages (TWA) for the period ending at the approximate time indicated.
- (2) VOC measurements were obtained with two MiniRAE 2000 PGM-7600 photoionization detectors with a 10.6 eV electrodeless ultraviolet discharge lamp.
- (3) Particulate measurements were obtained with two DataRam PDR-1000 portable particle sizing aerosol monitors. All particulate concentrations listed are for particulate matter less than 10 micrometers in size (PM-10).
- (4) Parts Per Million (ppm).
- (5) Milligrams Per Cubic Meter (mg/m<sup>3</sup>).
- (6) The designation of the downgradient monitoring locations were adjusted based upon the generalized wind direction observed throughout the monitoring period.

**DANSVILLE PRE-DESIGN INVESTIGATION**  
 New York State Electric and Gas  
 DANSVILLE, N. Y.  
**COMMUNITY AIR MONITORING PLAN (CAMP) - SUMMARY REPORT**  
 Monday, November 17, 2008

<b>Location:</b>	<b>Down-Gradient - 1<sup>(6)</sup></b>	<b>Down-Gradient - 2<sup>(6)</sup></b>
<b>Approximate Time Period</b>	<b>Average<sup>(1,2)</sup> VOCs (ppm)<sup>(4)</sup></b>	<b>Average<sup>(1,2)</sup> VOCs (ppm)<sup>(4)</sup></b>
8:00	0.40	0.3
8:15	0.40	0.7
8:30	0.30	0.7
8:45	0.20	0.7
9:00	0.10	0.7
9:15	0.20	0.7
9:30	0.20	0.8
9:45	0.20	0.9
10:00	0.20	0.9
10:15	0.40	1.0
10:30	0.40	0.9
10:45	0.30	0.9
11:00	0.40	0.9
11:15	0.40	0.9
11:30	0.50	0.9
11:45	0.50	0.9
12:00	0.50	0.9
12:15	0.50	0.8
12:30	0.50	0.8
12:45	0.50	0.8
13:00	0.60	0.8
13:15	0.60	0.8
13:30	0.60	1.0
13:45	0.60	1.0
14:00	0.60	1.1
14:15	0.60	1.0
14:30	0.60	1.0
14:45	0.60	1.1
15:00	0.60	1.1
15:15	0.50	0.9
15:30	0.40	0.7
15:45	0.30	0.3
<b>Action Levels</b>		
<b>VOCs</b>	<b>5.0 ppm (Above Down-Gradient Levels)</b>	
<b>Particulate</b>	<b>0.1 mg/m<sup>3</sup> (Above Down-Gradient Levels)</b>	

**Observations:**

Ambient air monitoring activities on this date indicated that 15-minute TWA concentrations of Volatile Organic Compounds (VOCs) and particulate matter did not, at any time, exceed the established action levels at the perimeter of the site.

**Notes:**

- (1) All values shown are 15-minute Time Weighted Averages (TWA) for the period ending at the approximate time indicated.
- (2) VOC measurements were obtained with two MiniRAE 2000 PGM-7600 photoionization detectors with a 10.6 eV electrodeless ultraviolet discharge lamp.
- (4) Parts Per Million (ppm).
- (5) Milligrams Per Cubic Meter (mg/m<sup>3</sup>).
- (6) The designation of the downgradient monitoring locations were adjusted based upon the generalized wind direction observed throughout the monitoring period.



**DANSVILLE PRE-DESIGN INVESTIGATION**  
 New York State Electric and Gas  
 DANSVILLE, N. Y.  
**COMMUNITY AIR MONITORING PLAN (CAMP) - SUMMARY REPORT**  
 Tuesday, November 18, 2008

Location:	Down-Gradient - 1 <sup>(6)</sup>	
Approximate Time Period	Average <sup>(1,2)</sup> VOCs (ppm) <sup>(4)</sup>	Average <sup>(1,3)</sup> Particulate (mg/m <sup>3</sup> ) <sup>(5)</sup>
10:15	0.2	0.002
10:30	0.2	0.005
10:45	0.1	0.000
11:00	0.2	0.000
11:15	0.3	0.000
11:30	0.3	0.000
11:45	0.3	0.000
12:00	0.3	0.001
12:15	0.4	0.004
12:30	0.3	0.001
12:45	0.3	0.000
13:00	--	0.000
<b>Action Levels</b>		
<b>VOCs</b>	<b>5.0 ppm (Above Down-Gradient Levels)</b>	
<b>Particulate</b>	<b>0.1 mg/m<sup>3</sup> (Above Down-Gradient Levels)</b>	

**Observations:**

Ambient air monitoring activities on this date indicated that 15-minute TWA concentrations of Volatile Organic Compounds (VOCs) and particulate matter did not, at any time, exceed the established action levels at the perimeter of the site.

**Notes:**

- (1) All values shown are 15-minute Time Weighted Averages (TWA) for the period ending at the approximate time indicated.
- (2) VOC measurements were obtained with one MiniRAE 2000 PGM-7600 photoionization detectors with a 10.6 eV electrodeless ultraviolet discharge lamp.
- (3) Particulate measurements were obtained with one DataRam PDR-1000 portable particle sizing aerosol monitors. All particulate concentrations listed are for particulate matter less than 10 micrometers in size (PM-10).
- (4) Parts Per Million (ppm).
- (5) Milligrams Per Cubic Meter (mg/m<sup>3</sup>).
- (6) The designation of the downgradient monitoring locations were adjusted based upon the generalized wind direction observed throughout the monitoring period.

**DANVILLE PRE-DESIGN INVESTIGATION**  
 New York State Electric and Gas  
 DANVILLE, N. Y.  
 COMMUNITY AIR MONITORING PLAN (CAMP) - SUMMARY REPORT  
 Wednesday, November 19, 2008

Location:	Down-Gradient - 1 <sup>(6)</sup>		Down-Gradient - 2 <sup>(6)</sup>	
Approximate Time Period	Average <sup>(1,2)</sup> VOCs (ppm) <sup>(4)</sup>	Average <sup>(1,3)</sup> Particulate (mg/m <sup>3</sup> ) <sup>(5)</sup>	Average <sup>(1,2)</sup> VOCs (ppm) <sup>(4)</sup>	Average <sup>(1,3)</sup> Particulate (mg/m <sup>3</sup> ) <sup>(5)</sup>
7:45	0.0	0.004	2.0	0.016
8:00	0.0	0.006	2.5	0.017
8:15	0.0	0.02	2.7	0.009
8:30	0.0	0.021	2.9	0.025
8:45	0.0	0.028	3.0	0.019
9:00	0.0	0.027	2.8	0.005
9:15	0.1	0.034	2.6	0.004
9:30	0.1	0.041	2.3	0.008
9:45	0.1	0.044	2.0	0.001
10:00	0.1	0.045	2.1	0.000
10:15	0.2	0.042	1.7	0.000
10:30	0.2	0.025	1.5	0.000
10:45	--	0.014	--	0.000
<b>Action Levels</b>				
VOCs	5.0 ppm (Above Down-Gradient Levels)			
Particulate	0.1 mg/m <sup>3</sup> (Above Down-Gradient Levels)			

**Observations:**

Ambient air monitoring activities on this date indicated that 15-minute TWA concentrations of Volatile Organic Compounds (VOCs) and particulate matter did not, at any time, exceed the established action levels at the perimeter of the site.

**Notes:**

- (1) All values shown are 15-minute Time Weighted Averages (TWA) for the period ending at the approximate time indicated.
- (2) VOC measurements were obtained with two MiniRAE 2000 PGM-7600 photoionization detectors with a 10.6 eV electrodeless ultraviolet discharge lamp.
- (3) Particulate measurements were obtained with two DataRam PDR-1000 portable particle sizing aerosol monitors. All particulate concentrations listed are for particulate matter less than 10 micrometers in size (PM-10).
- (4) Parts Per Million (ppm).
- (5) Milligrams Per Cubic Meter (mg/m<sup>3</sup>).
- (6) The designation of the downgradient monitoring locations were adjusted based upon the generalized wind direction observed throughout the monitoring period.

**DANSVILLE PRE-DESIGN INVESTIGATION**  
 New York State Electric and Gas  
 DANSVILLE, N. Y.  
**COMMUNITY AIR MONITORING PLAN (CAMP) - SUMMARY REPORT**  
 Wednesday, November 19, 2008

<b>Location:</b>		<b>Down-Gradient - 1<sup>(6)</sup></b>		<b>Down-Gradient - 2<sup>(6)</sup></b>	
Approximate Time Period	Average <sup>(1,2)</sup> VOCs (ppm) <sup>(4)</sup>	Average <sup>(1,3)</sup> Particulate (mg/m <sup>3</sup> ) <sup>(5)</sup>	Average <sup>(1,2)</sup> VOCs (ppm) <sup>(4)</sup>	Average <sup>(1,3)</sup> Particulate (mg/m <sup>3</sup> ) <sup>(5)</sup>	
13:15	0.0	0.02	0.0	0.001	
13:30	0.0	0.023	0.0	0.001	
13:45	0.0	0.004	0.0	0.000	
14:00	0.0	0.009	0.0	0.001	
14:15	0.0	0.012	0.1	0.000	
14:30	0.0	0.002	0.1	0.000	
14:45	0.0	0.008	0.1	0.000	
15:00	0.0	0.011	0.1	0.000	
15:15	0.0	0.011	0.2	0.018	
<b>Action Levels</b>					
<b>VOCs</b>		<b>5.0 ppm (Above Down-Gradient Levels)</b>			
<b>Particulate</b>		<b>0.1 mg/m<sup>3</sup> (Above Down-Gradient Levels)</b>			

**Observations:**

Ambient air monitoring activities on this date indicated that 15-minute TWA concentrations of Volatile Organic Compounds (VOCs) and particulate matter did not, at any time, exceed the established action levels at the perimeter of the site.

**Notes:**

- (1) All values shown are 15-minute Time Weighted Averages (TWA) for the period ending at the approximate time indicated.
- (2) VOC measurements were obtained with two MiniRAE 2000 PGM-7600 photoionization detectors with a 10.6 eV electrodeless ultraviolet discharge lamp.
- (3) Particulate measurements were obtained with two DataRam PDR-1000 portable particle sizing aerosol monitors. All particulate concentrations listed are for particulate matter less than 10 micrometers in size (PM-10).
- (4) Parts Per Million (ppm).
- (5) Milligrams Per Cubic Meter (mg/m<sup>3</sup>).
- (6) The designation of the downgradient monitoring locations were adjusted based upon the generalized wind direction observed throughout the monitoring period.

**DANSVILLE PRE-DESIGN INVESTIGATION**  
 New York State Electric and Gas  
 DANSVILLE, N. Y.  
**COMMUNITY AIR MONITORING PLAN (CAMP) - SUMMARY REPORT**  
 Thursday, November 20, 2008

Location:	Down-Gradient - 1 <sup>(6)</sup>		Down-Gradient - 2 <sup>(6)</sup>	
Approximate Time Period	Average <sup>(1,2)</sup> VOCs (ppm) <sup>(4)</sup>	Average <sup>(1,3)</sup> Particulate (mg/m <sup>3</sup> ) <sup>(5)</sup>	Average <sup>(1,2)</sup> VOCs (ppm) <sup>(4)</sup>	Average <sup>(1,3)</sup> Particulate (mg/m <sup>3</sup> ) <sup>(5)</sup>
7:45	0.2	0.000	0.6	0.000
8:00	0.3	0.000	0.8	0.000
8:15	0.4	0.000	1.1	0.000
8:30	0.3	0.000	1.1	0.002
8:45	0.3	0.000	1.3	0.004
9:00	0.3	0.000	1.3	0.001
9:15	0.3	0.000	1.4	0.000
9:30	0.3	0.000	1.5	0.000
9:45	0.4	0.000	1.5	0.000
10:00	0.4	0.000	1.5	0.000
10:15	0.4	0.000	1.6	0.000
10:30	0.5	0.000	1.5	0.003
10:45	0.5	0.000	1.5	0.000
11:00	0.5	0.000	1.7	0.002
11:15	0.5	0.000	1.7	0.007
11:30	0.5	0.000	1.7	0.007
11:45	0.5	0.000	1.8	0.009
12:00	0.5	0.000	1.9	0.009
12:15	0.5	0.000	1.9	0.013
12:30	0.5	0.000	1.8	0.01
12:45	0.5	0.000	1.8	0.008
13:00	0.6	0.000	1.8	0.018
13:15	0.6	0.000	1.9	0.012
13:30	0.6	0.000	2.1	0.004
13:45	0.5	0.000	2.1	0.001
14:00	0.5	0.000	2.1	0.000
14:15	0.5	0.000	2.1	0.000
14:30	0.5	0.000	2.1	0.000
14:45	--	0.000	--	0.000
15:00	--	0.000	--	--
<b>Action Levels</b>				
VOCs	5.0 ppm (Above Down-Gradient Levels)			
Particulate	0.1 mg/m <sup>3</sup> (Above Down-Gradient Levels)			

**Observations:**

Ambient air monitoring activities on this date indicated that 15-minute TWA concentrations of Volatile Organic Compounds (VOCs) and particulate matter did not, at any time, exceed the established action levels at the perimeter of the site.

**Notes:**

- (1) All values shown are 15-minute Time Weighted Averages (TWA) for the period ending at the approximate time indicated.
- (2) VOC measurements were obtained with two MiniRAE 2000 PGM-7600 photoionization detectors with a 10.6 eV electrodeless ultraviolet discharge lamp.
- (3) Particulate measurements were obtained with two DataRam PDR-1000 portable particle sizing aerosol monitors. All particulate concentrations listed are for particulate matter less than 10 micrometers in size (PM-10).
- (4) Parts Per Million (ppm).
- (5) Milligrams Per Cubic Meter (mg/m<sup>3</sup>).
- (6) The designation of the downgradient monitoring locations were adjusted based upon the generalized wind direction observed throughout the monitoring period.

**DANSVILLE PRE-DESIGN INVESTIGATION**  
 New York State Electric and Gas  
 DANSVILLE, N. Y.  
**COMMUNITY AIR MONITORING PLAN (CAMP) - SUMMARY REPORT**  
 Friday, November 21, 2008

Location:	Down-Gradient - 1 <sup>(6)</sup>		Down-Gradient - 2 <sup>(6)</sup>	
Approximate Time Period	Average <sup>(1,2)</sup> VOCs (ppm) <sup>(4)</sup>	Average <sup>(1,3)</sup> Particulate (mg/m <sup>3</sup> ) <sup>(5)</sup>	Average <sup>(1,2)</sup> VOCs (ppm) <sup>(4)</sup>	Average <sup>(1,3)</sup> Particulate (mg/m <sup>3</sup> ) <sup>(5)</sup>
7:45	0.1	--	0.1	--
8:00	0.1	--	0.5	--
8:15	0.1	--	1.0	--
8:30	0.1	0.000	1.2	0.000
8:45	0.1	0.000	1.3	0.000
9:00	0.2	0.000	1.4	0.000
9:15	0.2	0.000	1.6	0.000
9:30	0.2	0.000	1.7	0.000
9:45	--	0.000	--	0.000
10:00	--	0.000	--	0.000
<b>Action Levels</b>				
VOCs	5.0 ppm (Above Down-Gradient Levels)			
Particulate	0.1 mg/m <sup>3</sup> (Above Down-Gradient Levels)			

**Observations:**

Ambient air monitoring activities on this date indicated that 15-minute TWA concentrations of Volatile Organic Compounds (VOCs) and particulate matter did not, at any time, exceed the established action levels at the perimeter of the site.

**Notes:**

- (1) All values shown are 15-minute Time Weighted Averages (TWA) for the period ending at the approximate time indicated.
- (2) VOC measurements were obtained with two MiniRAE 2000 PGM-7600 photoionization detectors with a 10.6 eV electrodeless ultraviolet discharge lamp.
- (3) Particulate measurements were obtained with two DataRam PDR-1000 portable particle sizing aerosol monitors. All particulate concentrations listed are for particulate matter less than 10 micrometers in size (PM-10).
- (4) Parts Per Million (ppm).
- (5) Milligrams Per Cubic Meter (mg/m<sup>3</sup>).
- (6) The designation of the downgradient monitoring locations were adjusted based upon the generalized wind direction observed throughout the monitoring period.

**DANSVILLE PRE-DESIGN INVESTIGATION**  
New York State Electric and Gas  
**DANSVILLE, N. Y.**  
**COMMUNITY AIR MONITORING PLAN (CAMP) - SUMMARY REPORT**  
Monday, November 24, 2008

Location:	Down-Gradient - 1 <sup>(6)</sup>		Down-Gradient - 2 <sup>(6)</sup>	
Approximate Time Period	Average <sup>(1,2)</sup> VOCs (ppm) <sup>(4)</sup>	Average <sup>(1,3)</sup> Particulate (mg/m <sup>3</sup> ) <sup>(5)</sup>	Average <sup>(1,2)</sup> VOCs (ppm) <sup>(4)</sup>	Average <sup>(1,3)</sup> Particulate (mg/m <sup>3</sup> ) <sup>(5)</sup>
7:45	0.1	0.001	0.5	0.002
8:00	0.2	0.004	0.9	0.002
8:15	0.2	0.003	1.0	0.002
8:30	0.3	0.001	1.2	0.001
8:45	0.3	0.004	1.4	0.000
9:00	0.4	0.002	1.5	0.011
9:15	0.4	0.004	1.7	0.002
9:30	0.4	0.002	1.6	0.000
9:45	0.4	0.001	1.6	0.000
10:00	0.5	0.001	1.6	0.000
10:15	0.5	0.002	1.5	0.001
10:30	0.5	0.001	1.4	0.002
10:45	0.6	0.009	1.3	0.000
11:00	0.6	0.006	1.3	0.000
11:15	0.7	0.007	1.3	0.000
11:30	0.9	0.005	1.2	0.000
11:45	0.9	0.012	1.4	0.000
12:00	0.8	0.006	1.5	0.000
12:15	0.8	0.006	1.5	0.000
12:30	0.8	0.004	1.5	0.000
12:45	0.9	0.007	1.5	0.003
13:00	1.0	0.011	1.5	0.000
13:15	0.9	0.014	1.7	0.000
13:30	0.9	0.019	1.8	0.001
13:45	0.9	0.015	1.8	0.000
14:00	--	0.015	--	0.000
<b>Action Levels</b>				
VOCs	5.0 ppm (Above Down-Gradient Levels)			
Particulate	0.1 mg/m <sup>3</sup> (Above Down-Gradient Levels)			

**Observations:**

Ambient air monitoring activities on this date indicated that 15-minute TWA concentrations of Volatile Organic Compounds (VOCs) and particulate matter did not, at any time, exceed the established action levels at the perimeter of the site.

**Notes:**

- (1) All values shown are 15-minute Time Weighted Averages (TWA) for the period ending at the approximate time indicated.
- (2) VOC measurements were obtained with two MiniRAE 2000 PGM-7600 photoionization detectors with a 10.6 eV electrodeless ultraviolet discharge lamp.
- (3) Particulate measurements were obtained with two DataRam PDR-1000 portable particle sizing aerosol monitors. All particulate concentrations listed are for particulate matter less than 10 micrometers in size (PM-10).
- (4) Parts Per Million (ppm).
- (5) Milligrams Per Cubic Meter (mg/m<sup>3</sup>).
- (6) The designation of the downgradient monitoring locations were adjusted based upon the generalized wind direction observed throughout the monitoring period.

**APPENDIX C**

**GEOLOGIC SOIL BORING LOGS**



# GB01

PROJECT: Dansville MGP-NYSEG

PROJECT NO: I03033

LOCATION: Dansville, NY

DATE: 11/19/2008

DRILLING CONTRACTOR: Nothnagle Drilling

DRILLER: Steve Gelser

DRILLING METHOD: 3.25" Hollow Stem Auger

SAMPLING METHOD: 2" by 24" Split Spoons

WELL ELEVATION: N/A

GROUND ELEVATION: 689.64 ft. above MSL

OUTER CASING ELEVATION: N/A

DEPTH TO WATER: N/A

BOREHOLE DEPTH: 42 ft. bgs

WEATHER: Not recorded

GEOLOGIST: S. Pesch

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	BLOW COUNT	SOIL DESCRIPTION and LITHOLOGIC SYMBOL
-------------	-----------------------	------------	-----------	-------------------	------------	--

0							0
-1	0-2	47	0		7,7,7	ASPHALT	-1
-2						SAND: Orange/brown, fine to coarse sand, with some round gravel	-2
-3	2-4	35	0		3,3,3,5	SAND: Moist to wet, orange/brown, fine to coarse sand, with some round gravel, trace clay	-3
-4							-4
-5	4-6	50	0		6,8,12,10	SAND: Moist, orange/brown coarse sand, with trace fine gravel	-5
-6							-6
-7	6-8	60	0		7,9,8,9		-7
-8							-8
-9	8-10	65	0		7,12,14,10	SAND: Wet at 11.7 ft bgs, orange brown, coarse sand and gravel, with trace to some silt and clay, stained silver at 11.6 ft bgs, with moderate MGP-like odor, and trace NAPL globules	-9
-10							-10
-11	10-12	60	17.6		8,8,10,10		-11
-12							-12
-13	12-14	95	18.2		7,5,5,6	GRAVEL: Fine to coarse, angular gravel, moderate MGP-like odor, sheen, trace to some NAPL globules	-13
-14							-14
-15	14-16	85	0		wor,2,3,4	CLAY: Brown to gray, silty clay, with trace fine sand, slight odor	-15
-16							-16
-17	16-18	100	0		6,6,8,7	CLAY: Moist, gray clay, with some silt, trace fine to medium gravel	-17
-18							-18
-19	18-20	80	0		2,4,5,5	CLAY: Moist, gray clay, with some silt, trace fine gravel	-19
-20							-20
-21	20-22	80	0		4,5,6,7	SILT: Wet, gray, silt and clay, with trace gravel	-21
-22							-22

PID (ppm) = Photo-Ionization Detector, readings in parts per million

wor = weight of rod

# GB02

PROJECT: Dansville MGP-NYSEG

PROJECT NO: I03033

LOCATION: Dansville, NY

DATE: 11/18/2008

DRILLING CONTRACTOR: Nothnagle Drilling

DRILLER: Steve Gelser

DRILLING METHOD: 3.25" Hollow Stem Auger

SAMPLING METHOD: 2" by 24" Split Spoons

WELL ELEVATION: N/A

GROUND ELEVATION: 689.02 ft. above MSL

OUTER CASING ELEVATION: N/A

DEPTH TO WATER: N/A

BOREHOLE DEPTH: 42 ft. bgs

WEATHER: Not recorded

GEOLOGIST: S. Pesch

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	BLOW COUNT	SOIL DESCRIPTION and LITHOLOGIC SYMBOL
-------------	-----------------------	------------	-----------	-------------------	------------	--

-22							-22
-23	22-24	100	0		7,12,12,10	SAND: Wet, gray, fine to medium sand, with some silt	-23
-24							-24
-25	24-26	95	0		4,6,5,6	CLAY: Wet, gray, clay, with some sand and silt	-25
-26						CLAY: Wet, gray, silty clay, with trace to some fine to medium sand, trace fine gravel	-26
-27							-27
-28							-28
-29							-29
-30							-30
-31	30-32	90	0		2,5,7,10	CLAY: Moist, gray, clay, with trace to no silt, trace fine gravel	-31
-32							-32
-33							-33
-34							-34
-35							-35
-36	35-37	70	0		4,5,7	SAND: Wet, gray, silty, fine to medium sand, with trace fine gravel and clay	-36
-37							-37
-38							-38
-39							-39
-40							-40
-41	40-42	-	-			Attempted shelly tube. no recovery	-41
-42						End of Boring	-42

PID (ppm) = Photo-Ionization Detector, readings in parts per million

wor = weight of rod

sh  
inc.





# GB03

PROJECT: Dansville MGP-NYSEG

PROJECT NO: I03033

LOCATION: Dansville, NY

DATE: 11/20/2008

DRILLING CONTRACTOR: Nothnagle Drilling

DRILLER: Steve Gelser

DRILLING METHOD: 3.25" Hollow Stem Auger

SAMPLING METHOD: 2" by 24" Split Spoons

WELL ELEVATION: N/A

GROUND ELEVATION: 688.39 ft. above MSL

OUTER CASING ELEVATION: N/A

DEPTH TO WATER: N/A

BOREHOLE DEPTH: 42 ft. bgs

WEATHER: Not recorded

GEOLOGIST: S. Pesch

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	BLOW COUNT	SOIL DESCRIPTION and LITHOLOGIC SYMBOL
-------------	-----------------------	------------	-----------	-------------------	------------	--

0						0
-1	0-2	80	0		4,4,3	ASPHALT
-2						GRAVEL: Brown/orange/red, medium gravel, with silt and sand, trace bricks and coal-like material
-3	2-4	60	0		2,3,4,4	SILT: Moist, brown silt, with some fine to medium sand
-4						
-5	4-6	35	0		3,6,7,7	GRAVEL: Brown/orange, fine to medium gravel, with some medium to coarse sand and clay, wet at 11.8, moderate MGP-like odor, sheen
-6						
-7	6-8	10	0		7,10,10,13	
-8						
-9	8-10	70	0		6,7,10,16	
-10						
-11	10-12	55	67.5		5,23,19,15	
-12						
-13	12-14	75	274		13,9,8,11	GRAVEL: Fine to medium gravel, with trace to some sand, wet, moderate to strong MGP-like odor, some NAPL stringers
-14						
-15	14-16	85	3.5		2,4,6,4	SILT: Wet, brown/orange, clayey silt, with some fine sand, slight odor
-16						
-17	16-18	100	0		1,4,5,5	SAND: Gray, fine to medium sand, with trace clay
-18						SILT: wet, gray, clayey silt
-19	18-20	100	0		2,2,2,4	SAND: Wet, gray, fine sand, with some silt
-20						SILT: Wet, gray silt, with some fine sand, trace clay
-21	20-22	100	0		1,1,2,3	CLAY: Gray clay, with trace silt, fine sand lenses (0.01-0.15 ft thick) throughout
-22						

PID (ppm) = Photo-Ionization Detector, readings in parts per million

wor = weight of rod

# GB01

PROJECT: Dansville MGP-NYSEG

PROJECT NO: I03033

LOCATION: Dansville, NY

DATE: 11/19/2008

DRILLING CONTRACTOR: Nothnagle Drilling

DRILLER: Steve Gelser

DRILLING METHOD: 3.25" Hollow Stem Auger

SAMPLING METHOD: 2" by 24" Split Spoons

WELL ELEVATION: N/A

GROUND ELEVATION: 689.64 ft. above MSL

OUTER CASING ELEVATION: N/A

DEPTH TO WATER: N/A

BOREHOLE DEPTH: 42 ft. bgs

WEATHER: Not recorded

GEOLOGIST: S. Pesch

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	BLOW COUNT	SOIL DESCRIPTION and LITHOLOGIC SYMBOL
-------------	-----------------------	------------	-----------	-------------------	------------	--

-22							-22
-23	22-24	100	0		5,6,6,7	SAND: Wet, gray, clayey, medium sand, with some medium sand lenses up to 0.2 ft thick	-23
-24							-24
-25	24-26	5	0		3,5,7,8	SAND: Gray, medium sandy, silt, with some clay	-25
-26							-26
-27							-27
-28							-28
-29							-29
-30							-30
-31	30-32	-	-			NO RECOVERY: Attempted Shelby tube, no recovery	-31
-32							-32
-33							-33
-34							-34
-35							-35
-36	35-37	100	0		wor, wor,1,5	SAND: Wet, gray, fine to medium sand, with some silt	-36
-37							-37
-38							-38
-39							-39
-40							-40
-41	40-42	70	0		5,7,8,7	SAND: Wet, gray, silty, fine to medium sand	-41
-42						End of Boring	-42

PID (ppm) = Photo-Ionization Detector, readings in parts per million

wor = weight of rod



# GB02

PROJECT: Dansville MGP-NYSEG

PROJECT NO: I03033

LOCATION: Dansville, NY

DATE: 11/18/2008

DRILLING CONTRACTOR: Nothnagle Drilling

DRILLER: Steve Gelser

DRILLING METHOD: 3.25" Hollow Stem Auger

SAMPLING METHOD: 2" by 24" Split Spoons

WELL ELEVATION: N/A

GROUND ELEVATION: 689.02 ft. above MSL

OUTER CASING ELEVATION: N/A

DEPTH TO WATER: N/A

BOREHOLE DEPTH: 42 ft. bgs

WEATHER: Not recorded

GEOLOGIST: S. Pesch

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	BLOW COUNT	SOIL DESCRIPTION and LITHOLOGIC SYMBOL
-------------	-----------------------	------------	-----------	-------------------	------------	--

0						0
-1	0-2	80	0		15,17,13	ASPHALT FILL: Dark brown, sand, silt, and fine gravel
-2						
-3	2-4	20	0		7,7,5,10	SAND: Tan/brown, loose, fine to coarse sand and fine gravel
-4						
-5	4-6	60	0		3,5,7,3	SILT: Moist, orange, clay and silt, with some sand and gravel
-6						
-7	6-8	25	0		5,6,6,6	GRAVEL: Brown, coarse sandy, fine to medium gravel, with some trace clay, moist no odor
-8						
-9	8-10	20	0			Inadvertently augered through interval
-10					5,6	GRAVEL: Gravel, with some clay and trace sand
-11	10-12	15	0		6,7,12,15	
-12						
-13	12-14	75	0		10,5,5,4	GRAVEL: Wet, orange/tan, fine to medium gravel, with some medium to coarse sand, trace silt
-14						
-15	14-16	80	0		3,5,5,4	SILT: Wet, orange/tan, silt, with trace to some clay
-16						
-17	16-18	70	0		5,6,12,13	SILT: Wet, gray, silt, with some clay, no odor CLAY: Wet, gray clay, with some silt and trace sand
-18						
-19	18-20	80	0		5,6,8,9	SAND: Wet, gray medium sand, with trace silt CLAY: Wet, gray clay, with some silt and trace sand
-20						
-21	20-22	75	0		5,7,7,7	CLAY: Wet, gray clay, with trace to no silt
-22						CLAY: Wet, gray, silty clay, with some fine sand

PID (ppm) = Photo-Ionization Detector, readings in parts per million

wor = weight of rod





# GB03

PROJECT: Dansville MGP-NYSEG

PROJECT NO: I03033

LOCATION: Dansville, NY

DATE: 11/20/2008

DRILLING CONTRACTOR: Nothnagle Drilling

DRILLER: Steve Gelser

DRILLING METHOD: 3.25" Hollow Stem Auger

SAMPLING METHOD: 2" by 24" Split Spoons

WELL ELEVATION: N/A

GROUND ELEVATION: 688.39 ft. above MSL

OUTER CASING ELEVATION: N/A

DEPTH TO WATER: N/A

BOREHOLE DEPTH: 42 ft. bgs

WEATHER: Not recorded

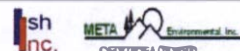
GEOLOGIST: S. Pesch

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	BLOW COUNT	SOIL DESCRIPTION and LITHOLOGIC SYMBOL
-------------	-----------------------	------------	-----------	-------------------	------------	--

-22							-22
-23	22-24	65	0		3,3,4,5	SILT: Wet, gray, clayey silt	-23
-24						CLAY: Wet to moist, gray clay, with some silt, trace gravel	-24
-25	24-26	50	0		3,5,6,6	CLAY: Wet, gray, silty clay	-25
-26							-26
-27							-27
-28							-28
-29							-29
-30							-30
-31	30-32	100	0		wor,3,4,5	CLAY: Moist, gray clay, with trace silt and very fine sand	-31
-32							-32
-33							-33
-34							-34
-35							-35
-36	35-37	100	0		wor,wor,4,7	CLAY: Moist to wet, gray, clay, with some silt, trace very fine sand and fine gravel	-36
-37							-37
-38							-38
-39							-39
-40							-40
-41	40-42	100	0		wor, wor, 2,4	CLAY: Wet, gray clay, with some silt and sand, trace fine to medium gravel	-41
-42						End of Boring	-42

PID (ppm) = Photo-Ionization Detector, readings in parts per million

wor = weight of rod



# GB04

PROJECT: Dansville MGP-NYSEG

PROJECT NO: I03033

LOCATION: Dansville, NY

DATE: 11/17/2008

DRILLING CONTRACTOR: Nothnagle Drilling

DRILLER: Steve Gelser

DRILLING METHOD: 3.25" Hollow Stem Auger

SAMPLING METHOD: 2" by 24" Split Spoons

WELL ELEVATION: N/A

GROUND ELEVATION: 689.25 ft. above MSL

OUTER CASING ELEVATION: N/A

DEPTH TO WATER: N/A

BOREHOLE DEPTH: 42 ft. bgs

WEATHER: Not recorded

GEOLOGIST: S. Pesch

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	BLOW COUNT	SOIL DESCRIPTION and LITHOLOGIC SYMBOL
-------------	-----------------------	------------	-----------	-------------------	------------	--

0							0
-1	0-2	50	0		wor,wor,2,7	FILL: moist, brown, silty sand, coal-like material from 2 to 2.2 ft bgs	-1
-2							-2
-3	2-4	60	0		2,2,2,2	SAND: Tan/Brown, silty sand, moist, no odor	-3
-4							-4
-5	4-6	45	0		2,2,4,4	SAND: Brown/Tan, very fine to fine sand, with some silt	-5
-6							-6
-7	6-8	50	0		5,7,6,6	GRAVEL: Tan/brown, fine to medium sand and fine to medium gravel, with trace silt, moist to 11.6 ft bgs, then wet, no odor or visual to 11.4, then sheens, moderate MGP odor	-7
-8							-8
-9	8-10	25	0		5,8,7,9		-9
-10							-10
-11	10-12	70	49.8		9,10,7,7		-11
-12							-12
-13	12-14	0	-		17,20,8,10	No recovery, sheen and NAPL globules on rods and spoon	-13
-14							-14
-15	14-16	20	5.6		2,4,5,9	SAND: Wet, gray, silty fine sand, with trace clay, slight odor	-15
-16							-16
-17	16-18	100	6.9		10,5,10,9	SAND: Wet, gray, very fine sand, with some clay and trace silt	-17
-18						SAND: wet, gray, fine sand, no visual	-18
-19	18-20	80	0		2,4,5,5	CLAY: Moist gray, fine sand and clay	-19
-20						SAND: Wet, gray, fine to medium sand, with trace silt	-20
-21	20-22	-	-	20-22	-	SILT: Wet, gray, fine sand and silt, with some clay, no odor	-21
-22							-22

PID (ppm) = Photo-Ionization Detector, readings in parts per million

wor = weight of rod



# GB04

PROJECT: Dansville MGP-NYSEG

PROJECT NO: I03033

LOCATION: Dansville, NY

DATE: 11/17/2008

DRILLING CONTRACTOR: Nothnagle Drilling

DRILLER: Steve Gelser

DRILLING METHOD: 3.25" Hollow Stem Auger

SAMPLING METHOD: 2" by 24" Split Spoons

WELL ELEVATION: N/A

GROUND ELEVATION: 689.25 ft. above MSL

OUTER CASING ELEVATION: N/A

DEPTH TO WATER: N/A

BOREHOLE DEPTH: 42 ft. bgs

WEATHER: Not recorded

GEOLOGIST: S. Pesch

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	BLOW COUNT	SOIL DESCRIPTION and LITHOLOGIC SYMBOL
-------------	-----------------------	------------	-----------	-------------------	------------	--

-22						
-23	22-24	100	0		2,2,3,3	CLAY: Collected shelby tube, gray clay with trace to some fine sand in top and bottom of tube
-24						
-25	24-26	100	0		wor,2,2,3	CLAY: Wet, gray clay, with trace to some fine sand and silt, trace fine gravel
-26						
-27						
-28						
-29						
-30						
-31	30-32	100	0		2,4,5,6	
-32						
-33						
-34						
-35						
-36	35-37	65	0		5,6,7,12	
-37						
-38						
-39						
-40						
-41	40-42	85	0		6,9,10,13	
-42						CLAY: Wet, gray clay, with some coarse sand, no odor End of Boring

PID (ppm) = Photo-Ionization Detector, readings in parts per million

wor = weight of rod



# GB05

PROJECT: Dansville MGP-NYSEG

PROJECT NO: I03033

LOCATION: Dansville, NY

DATE: 11/19/2008

DRILLING CONTRACTOR: Nothnagle Drilling

DRILLER: Steve Gelser

DRILLING METHOD: 3.25" Hollow Stem Auger

SAMPLING METHOD: 2" by 24" Split Spoons

WELL ELEVATION: N/A

GROUND ELEVATION: 689.47 ft. above MSL

OUTER CASING ELEVATION: N/A

DEPTH TO WATER: N/A

BOREHOLE DEPTH: 42 ft. bgs

WEATHER: Not recorded

GEOLOGIST: S. Pesch

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	BLOW COUNT	SOIL DESCRIPTION and LITHOLOGIC SYMBOL
-------------	-----------------------	------------	-----------	-------------------	------------	--

0							0
-1	0-2	73	0		5,4,3	ASPHALT	-1
-2						SAND: Dark brown, medium to coarse sand, with some silt, gravel, and glass, coal-like material from 1.8 - 2 ft bgs	-2
-3	2-4	45	0		1,2,2,1		-3
-4						SILT: Moist, dark brown silt, with trace to some gravel, slag, coal-like material, bricks, and concrete fragments	-4
-5	4-6	25	0		1,1,2,4		-5
-6							-6
-7	6-8	20	0		5,3,4,6		-7
-8							-8
-9	8-10	40	0.5		6,14,14,13	GRAVEL: Fine to medium gravel, with some medium to coarse sand and clay, stained black from 10.6 - 12 ft bgs, wet at 11.6 ft bgs with a moderate diesel odor	-9
-10							-10
-11	10-12	70	363		10,12,10,10		-11
-12							-12
-13	12-14	65	134		14,9,9,12	GRAVEL: Wet, medium to coarse sand and fine to medium gravel, moderate MGP-like odor, sheen, stained black	-13
-14							-14
-15	14-16	-	-			CLAY: Moist, brown, silty clay, slight odor	-15
-16						Collected Shelby tube	-16
-17	16-18	75	3.5		3,4,8,8	CLAY: Wet, gray, silty clay, trace sand, fine sand lens at 17.5-17.6 ft bgs	-17
-18							-18
-19	18-20	95	11.4		4,4,4,5	CLAY: Wet, gray, fine sandy clay, with some silt	-19
-20							-20
-21	20-22	100	4.5		2,2,7,6		-21
-22							-22
-23	22-24	100	0		5,4,7,8	SAND: Wet, gray, clayey, fine sand	-23

PID (ppm) = Photo-Ionization Detector, readings in parts per million

wor = weight of rod



# GB05

PROJECT: Dansville MGP-NYSEG

PROJECT NO: I03033

LOCATION: Dansville, NY

DATE: 11/19/2008

DRILLING CONTRACTOR: Nothnagle Drilling

DRILLER: Steve Gelser

DRILLING METHOD: 3.25" Hollow Stem Auger

SAMPLING METHOD: 2" by 24" Split Spoons

WELL ELEVATION: N/A

GROUND ELEVATION: 689.47 ft. above MSL

OUTER CASING ELEVATION: N/A

DEPTH TO WATER: N/A

BOREHOLE DEPTH: 42 ft. bgs

WEATHER: Not recorded

GEOLOGIST: S. Pesch

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	BLOW COUNT	SOIL DESCRIPTION and LITHOLOGIC SYMBOL
-------------	-----------------------	------------	-----------	-------------------	------------	--

-23							-23
-24						CLAY: Moist, gray, fine sandy clay, with trace to some silt, trace fine gravel	-24
-25	24-26	90	0		5,9,10,8		-25
-26							-26
-27							-27
-28							-28
-29							-29
-30							-30
-31	30-32	90	0		5,4,5,6	SAND: Wet, gray, fine to medium sand, with trace silt	-31
-32						CLAY: Moist to dry, gray clay, with trace silt and fine gravel	-32
-33						SAND: Wet, gray fine sand and clay	-33
-34							-34
-35							-35
-36	35-37	80	0		wor for all	SAND: Wet, gray, fine to medium sand, with trace silt and fine gravels	-36
-37							-37
-38							-38
-39							-39
-40							-40
-41	40-42	100	0		5,8,7,8	CLAY: Wet, gray clay, with trace silt and fine gravel	-41
-42						SAND: Wet, gray, medium sand	-42
						CLAY: Moist, gray clay, with some silt, trace fine gravel	
						End of Boring	

PID (ppm) = Photo-Ionization Detector, readings in parts per million

wor = weight of rod

# GB06

PROJECT: Dansville MGP-NYSEG

PROJECT NO: I03033

LOCATION: Dansville, NY

DATE: 11/20/2008

DRILLING CONTRACTOR: Nothnagle Drilling

DRILLER: Steve Gelser

DRILLING METHOD: 3.25" Hollow Stem Auger

SAMPLING METHOD: 2" by 24" Split Spoons

WELL ELEVATION: N/A

GROUND ELEVATION: 688.02 ft. above MSL

OUTER CASING ELEVATION: N/A

DEPTH TO WATER: N/A

BOREHOLE DEPTH: 42 ft. bgs

WEATHER: Not recorded

GEOLOGIST: S. Pesch

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	BLOW COUNT	SOIL DESCRIPTION and LITHOLOGIC SYMBOL
-------------	-----------------------	------------	-----------	-------------------	------------	--

0						0
-1	0-2	80	0		14,12,10	ASPHALT
-2						GRAVEL: Brown/tan/black, medium to fine gravel, with some sand, silt, clay, bricks, and coal-like material
-3	2-4	55	0		7,5,6,5	
-4						GRAVEL: Moist, tan/orange, medium to coarse, sandy, fine to coarse gravel, with trace silt
-5	4-6	0	-		2,2,3,2	No recovery, gravel stuck in tip of shoe
-6						
-7	6-8	40	0		2,2,2,2	SAND: Moist, tan, silty, medium to coarse sand, with some fine to medium gravel
-8						
-9	8-10	40	0		4,7,11,15	GRAVEL: Wet, tan/orange, fine to coarse, sandy, fine to coarse gravel, with trace silt and clay
-10						
-11	10-12	50	56.2		4,10,12,50	GRAVEL: Fine to coarse gravel, with some medium to coarse sand, trace silt, moderate MGP-like odor, sheens, some NAPL globules to stringers, NAPL on rods at 11 ft bgs
-12						
-13	12-14	60	82		18,13,9,9	
-14						GRAVEL: Medium to coarse sand and fine gravel, moderate to strong MGP-like odor, heavy sheen (NAPL in water), heavy staining, and some NAPL globules
-15	14-16	95	-		3,6,4,3	
-16						
-17	16-18	40	-		10,10,11,13	SILT: Tan/brown to gray, silt and clay, fine sand lenses at 14.4-14.8 and 15.3-15.5 ft bgs, slight odor
-18						
-19	18-20	100	-		3,3,4,4	SILT: Wet, gray silt, with some fine sand and clay
-20						
-21	20-22	100	-		1,3,6,6	CLAY: Gray, silty clay, with some very fine to fine sand, sand lenses throughout (up to 40%)
-22						

PID (ppm) = Photo-Ionization Detector, readings in parts per million

wor = weight of rod



# GB06

PROJECT: Dansville MGP-NYSEG

PROJECT NO: I03033

LOCATION: Dansville, NY

DATE: 11/20/2008

DRILLING CONTRACTOR: Nothnagle Drilling

DRILLER: Steve Gelser

DRILLING METHOD: 3.25" Hollow Stem Auger

SAMPLING METHOD: 2" by 24" Split Spoons

WELL ELEVATION: N/A

GROUND ELEVATION: 688.02 ft. above MSL

OUTER CASING ELEVATION: N/A

DEPTH TO WATER: N/A

BOREHOLE DEPTH: 42 ft. bgs

WEATHER: Not recorded

GEOLOGIST: S. Pesch

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	BLOW COUNT	SOIL DESCRIPTION and LITHOLOGIC SYMBOL
-------------	-----------------------	------------	-----------	-------------------	------------	--

-22							-22
-23	22-24	100	0		6,12,13,15	Gray, silty clay, with some very fine to fine sand, sand lenses throughout (up to 40%)	-23
-24							-24
-25	24-26	100	0		4,4,6,9	CLAY: Wet, gray clay, with trace silt, very fine sand, and gravel	-25
-26							-26
-27							-27
-28							-28
-29							-29
-30							-30
-31	30-32	-	-			Collected Shelby tube	-31
-32							-32
-33							-33
-34							-34
-35							-35
-36	35-37	100	0		4,4,6,10	CLAY: Moist, gray clay, with trace silt and fine gravel	-36
-37						CLAY: Moist, gray clay, with some very fine sand, trace silt and fine gravel	-37
-38							-38
-39							-39
-40							-40
-41	40-42	75	0		3,7,9,12	SILT: Moist, gray, very fine to fine, sandy silt, with trace clay	-41
-42						End of Boring	-42

PID (ppm) = Photo-Ionization Detector, readings in parts per million

wor = weight of rod

sh  
inc.



# GB07

PROJECT: Dansville MGP-NYSEG

PROJECT NO: I03033

LOCATION: Dansville, NY

DATE: 11/20/2008

DRILLING CONTRACTOR: Nothnagle Drilling

DRILLER: Steve Gelser

DRILLING METHOD: 3.25" Hollow Stem Auger

SAMPLING METHOD: 2" by 24" SplitSpoons

WELL ELEVATION: N/A

GROUND ELEVATION: 686.95 ft. above MSL

OUTER CASING ELEVATION: N/A

DEPTH TO WATER: N/A

BOREHOLE DEPTH: 42 ft. bgs

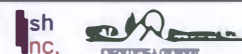
WEATHER: Not recorded

GEOLOGIST: S. Pesch

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	BLOW COUNT	SOIL DESCRIPTION and LITHOLOGIC SYMBOL
0						
-1	0-2	85	0		7,8,8	ASPHALT
-2						SAND: Tan, medium to coarse sand and fine to medium rounded gravel
-3	2-4	45	0		1,1,2,1	SILT: Moist, dark brown silt, with trace sand, clay, and coal-like material
-4						
-5	4-6	50	0		1,1,2,3	CLAY: Moist, dark gray clay, with trace to some silt
-6						
-7	6-8	80	2.6		5,4,4,6	CLAY: Brown/gray clay, medium sand, and fine to medium gravel
-8						
-9	8-10	65	0		14,10,9,5	CLAY: Moist, brown and gray clay, with some silt and gravel
-10						
-11	10-12	70	0		6,5,3,6	GRAVEL: Brown, fine to coarse gravel, with some medium to coarse sand, trace silt and clay, wet at 9.7 ft bgs
-12						
-13	12-14	60	0		9,8,10,11	SAND: Wet, brown, medium to coarse sand, with trace gravel
-14						
-15	14-16	75	0		3,8,6,6	GRAVEL: Wet, brown, fine to medium gravel, with some medium to coarse sand
-16						
-17	16-18	80	0		9,7,9,10	SILT: Wet, tan, fine sandy silt, with trace clay
-18						
-19	18-20	90	0		2,4,5,8	CLAY: Wet, Tan/gray, silty clay, with some 0.1 ft thick fine to medium sand lenses
-20						
-21	20-22	100	0		4,4,6,7	SILT: Wet, gray, fine to medium, sandy silt
-22						
						CLAY: Gray, silty clay, with trace to some fine to medium sand, wet
						CLAY: Gray, fine to medium, sandy clay, sand lenses from 16.4-16.6 and 17.6-17.7 ft bgs, wet
						CLAY: Gray clay, with trace silt, interbedded with thin (0.02 - 0.08 ft thick) sand lenses

PID (ppm) = Photo-Ionization Detector, readings in parts per million

wor = weight of rod



# GB07

PROJECT: Dansville MGP-NYSEG

PROJECT NO: I03033

LOCATION: Dansville, NY

DATE: 11/20/2008

DRILLING CONTRACTOR: Nothnagle Drilling

DRILLER: Steve Gelser

DRILLING METHOD: 3.25" Hollow Stem Auger

SAMPLING METHOD: 2" by 24" Split Spoons

WELL ELEVATION: N/A

GROUND ELEVATION: 686.95 ft. above MSL

OUTER CASING ELEVATION: N/A

DEPTH TO WATER: N/A

BOREHOLE DEPTH: 42 ft. bgs

WEATHER: Not recorded

GEOLOGIST: S. Pesch

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	BLOW COUNT	SOIL DESCRIPTION and LITHOLOGIC SYMBOL
-------------	-----------------------	------------	-----------	-------------------	------------	--

-23	22-24	75	0		5,5,6,5			-23
-24								-24
-25	24-26	100	0		wor,wor,4,4	CLAY: Gray clay, with trace to some silt, trace fine gravel, wet		-25
-26								-26
-27								-27
-28								-28
-29								-29
-30								-30
-31	30-32	100	0		4,5,5,4	CLAY: Gray clay, with trace to some silt, trace fine gravel, medium to coarse sand lens at 31.6-31.7 ft bgs, wet		-31
-32								-32
-33								-33
-34								-34
-35								-35
-36	35-37	100	0		wor,3,4,5	CLAY: Gray clay, with trace to some silt, trace fine gravel, wet		-36
-37								-37
-38								-38
-39								-39
-40								-40
-41	40-42	-	-		-	Attempted Shelby tube		-41
-42						End of Boring		-42

PID (ppm) = Photo-Ionization Detector, readings in parts per million

wor = weight of rod

sh  
inc.





# GB08

PROJECT: Dansville MGP-NYSEG

PROJECT NO: I03033

LOCATION: Dansville, NY

DATE: 11/17/2008

DRILLING CONTRACTOR: Nothnagle Drilling

DRILLER: Steve Gelser

DRILLING METHOD: 3.25" Hollow Stem Auger

SAMPLING METHOD: 2" by 24" Split Spoons

WELL ELEVATION: N/A

GROUND ELEVATION: 688.06 ft. above MSL

OUTER CASING ELEVATION: N/A

DEPTH TO WATER: N/A

BOREHOLE DEPTH: 42 ft. bgs

WEATHER: Not recorded

GEOLOGIST: S. Pesch

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	BLOW COUNT	SOIL DESCRIPTION and LITHOLOGIC SYMBOL
-------------	-----------------------	------------	-----------	-------------------	------------	--

0							0
-1	0-2	80	0		3,3,5,4	Fill: Dark brown, silt, sand, and gravel	-1
-2							-2
-3	2-4	30	0		3,2,2,3	Gravel: Brown, sandy gravel, with some silt, no odor, no visual	-3
-4							-4
-5	4-6	55	0.2		6,7,7,6		-5
-6							-6
-7	6-8	40	0		6,5,7,11	Gravel: Wet, fine to medium gravel, with some brown sand, no odor, very slight sheen on water in spoon	-7
-8							-8
-9	8-10	35	0		6,8,10,8		-9
-10							-10
-11	10-12	85	0		10,12,8,7	Clay: Wet, brown clay, with trace to some fine sand, trace silt, no odor, gray color in tip of spoon	-11
-12							-12
-13	12-14	0	0		4,5,7,8	No recovery	-13
-14							-14
-15	14-16	90	0		3,4,5,7	Clay: Wet, gray clay, with some sand and silt, 0.1 ft thick sand lenses at 14.3, 15.2 and 15.8 ft bgs, from 16 to 18 ft bgs trace sand and silt, no odor	-15
-16							-16
-17	16-18	80	0		1,5,5,7	Clay: Wet, brown/gray clay, with trace silt, sand, and fine gravels, no odor	-17
-18							-18
-19	18-20	80	0		2,1,2,3		-19
-20							-20
-21	20-22	100	0		wor,3,3,4		-21
-22							-22

PID (ppm) = Photo-Ionization Detector, readings in parts per million

wor = weight of rod



# GB08

PROJECT: Dansville MGP-NYSEG

PROJECT NO: I03033

LOCATION: Dansville, NY

DATE: 11/17/2008

DRILLING CONTRACTOR: Nothnagle Drilling

DRILLER: Steve Gelser

DRILLING METHOD: 3.25" Hollow Stem Auger

SAMPLING METHOD: 2" by 24" Split Spoons

WELL ELEVATION: N/A

GROUND ELEVATION: 688.06 ft. above MSL

OUTER CASING ELEVATION: N/A

DEPTH TO WATER: N/A

BOREHOLE DEPTH: 42 ft. bgs

WEATHER: Not recorded

GEOLOGIST: S. Pesch

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	BLOW COUNT	SOIL DESCRIPTION and LITHOLOGIC SYMBOL
-------------	-----------------------	------------	-----------	-------------------	------------	--

-22							-22
-23	22-24	100	0		wor,2,3,4	Clay: Wet, gray, soft clay, with trace to some silt and fine gravels, dry to moist at 35 to 37 ft bgs, no odor	-23
-24							-24
-25	24-26	100	0		1,3,3,6		-25
-26							-26
-27							-27
-28							-28
-29							-29
-30							-30
-31	30-32	100	0		wor,3,4,5		-31
-32							-32
-33							-33
-34							-34
-35							-35
-36	35-37	100	0		3,6,9,9		-36
-37							-37
-38							-38
-39							-39
-40							-40
-41	40-42	100	0		wor,2,5,5		-41
-42							-42

End of Boring

PID (ppm) = Photo-Ionization Detector, readings in parts per million

wor = weight of rod





# SD01

PROJECT: Dansville MGP-NYSEG

PROJECT NO: I03033

LOCATION: Dansville, NY

DATE: 11/10/2008

DRILLING CONTRACTOR: Nothnagle Drilling

DRILLER: Steve Gelser

DRILLING METHOD: Direct Push

SAMPLING METHOD: 4 ft. Geoprobe Macro-Cores

WELL ELEVATION: N/A

GROUND ELEVATION: 688.96 ft. above MSL

OUTER CASING ELEVATION: N/A

DEPTH TO WATER: N/A

BOREHOLE DEPTH: 20 ft. bgs

WEATHER: Not recorded

GEOLOGIST: S. Pesch

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	BLOW COUNT	SOIL DESCRIPTION and LITHOLOGIC SYMBOL
-------------	-----------------------	------------	-----------	-------------------	------------	--

0									0
-1			0				FILL: Gray, fine to medium sand, silt, angular gravel, and brick fragments, dry		-1
-2	0-4	75					SAND: Dry, light brown, medium to coarse sand and rounded gravel		-2
-3			0				CLAY: Moist, brown, clay and silt. Sand and gravel lens from 4.6 to 4.8 ft bgs		-3
-4									-4
-5			0						-5
-6	4-8	65							-6
-7			0				GRAVEL: Light brown, medium to coarse sand, silt, clay, and angular gravel. Clay content increasing from 12 to 16 ft bgs, wet at 15.6 ft bgs		-7
-8									-8
-9			0						-9
-10	8-12	45							-10
-11			0						-11
-12									-12
-13			0						-13
-14	12-16	38							-14
-15			0						-15
-16							CLAY: Wet, gray clay and fine angular gravel		-16
-17			0				CLAY: Wet, gray clay, with some silt		-17
-18	16-20	80							-18
-19			0				End of Boring		-19
-20									-20

PID (ppm) = Photo-Ionization Detector, readings in parts per million



# SD02

PROJECT: Dansville MGP-NYSEG

PROJECT NO: I03033

LOCATION: Dansville, NY

DATE: 11/10/2008

DRILLING CONTRACTOR: Nothnagle Drilling

DRILLER: Steve Gelser

DRILLING METHOD: Direct Push

SAMPLING METHOD: 4 ft. Geoprobe Macro-Cores

WELL ELEVATION: N/A

GROUND ELEVATION: 689.38 ft. above MSL

OUTER CASING ELEVATION: N/A

DEPTH TO WATER: N/A

BOREHOLE DEPTH: 20 ft. bgs

WEATHER: Not recorded

GEOLOGIST: S. Pesch

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	BLOW COUNT	SOIL DESCRIPTION and LITHOLOGIC SYMBOL
-------------	-----------------------	------------	-----------	-------------------	------------	--

0						SILT: Dark brown silt, with trace clay, with gravel from 0.5-1.0 ft bgs	0
-1			0				-1
-2	0-4	63				SAND: Light brown/tan, silty, very fine to fine sand, with trace clay	-2
-3			0				-3
-4							-4
-5			1.7			SAND: Brown sand and gravel, quartz cobble from 6.5-7.0	-5
-6	4-8	68		5.5-6.5			-6
-7			0.7				-7
-8						SAND: Moist, dark brown, medium to coarse sand with some gravel	-8
-9			1.2				-9
-10	8-12	50				GRAVEL: Wet, brown, medium to very coarse sand and angular gravel, trace silt and clay. Very slight odor from 10.0-12.0 ft bgs. Poor recovery from 12.0-16.0 ft bgs.	-10
-11			3.1				-11
-12							-12
-13	12-16	13	0				-13
-14			0				-14
-15			0				-15
-16						CLAY: Brown clay and angular medium gravel, with some silt and sand, very slight odor	-16
-17	16-20	80	0				-17
-18						CLAY: Wet gray clay, with trace silt and very fine sand. Very fine sand lens at 19.0-19.3 ft bgs.	-18
-19			0			End of Boring	-19
-20							-20

PID (ppm) = Photo-Ionization Detector, readings in parts per million

# SD03

PROJECT: Dansville MGP-NYSEG

PROJECT NO: I03033

LOCATION: Dansville, NY

DATE: 11/11/2008

DRILLING CONTRACTOR: Nothnagle Drilling

DRILLER: Steve Gelser

DRILLING METHOD: Direct Push

SAMPLING METHOD: 4 ft. Geoprobe Macro-Cores

WELL ELEVATION: N/A

GROUND ELEVATION: 689.85 ft. above MSL

OUTER CASING ELEVATION: N/A

DEPTH TO WATER: N/A

BOREHOLE DEPTH: 16 ft. bgs

WEATHER: Not recorded

GEOLOGIST: S. Pesch

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	BLOW COUNT	SOIL DESCRIPTION and LITHOLOGIC SYMBOL
-------------	-----------------------	------------	-----------	-------------------	------------	--

0						SILT: Dark brown silt, with some clay and sand	0
-1			0			SILT: Black organic material (appears to be charred wood)	-1
-2	0-4	50				SAND: Tan, medium to coarse sand and angular gravel, dry	-2
-3			0				-3
-4						SAND: Moist, tan/brown, silty, fine sand, with trace clay	-4
-5			0				-5
-6	4-8	65				GRAVEL: Medium to coarse sand and fine to medium gravel, with trace silt and clay, moist at 11.8 ft bgs	-6
-7			0				-7
-8							-8
-9			0				-9
-10	8-12	88					-10
-11			0				-11
-12							-12
-13			0			GRAVEL: Wet, medium to coarse sand and fine gravel	-13
-14	12-16	98				SILT: Wet, tan/brown, fine sandy silt, with trace clay	-14
-15			0				-15
-16						CLAY: Moist, dark brown clay, with some silt End of Boring	-16

PID (ppm) = Photo-Ionization Detector, readings in parts per million



# SD04

PROJECT: Dansville MGP-NYSEG

PROJECT NO: I03033

LOCATION: Dansville, NY

DATE: 11/12/2008

DRILLING CONTRACTOR: Nothnagle Drilling

DRILLER: Steve Gelser

DRILLING METHOD: Direct Push

SAMPLING METHOD: 4 ft. Geoprobe Macro-Cores

WELL ELEVATION: N/A

GROUND ELEVATION: 689.55 ft. above MSL

OUTER CASING ELEVATION: N/A

DEPTH TO WATER: N/A

BOREHOLE DEPTH: 16 ft. bgs

WEATHER: Not recorded

GEOLOGIST: S. Pesch

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	BLOW COUNT	SOIL DESCRIPTION and LITHOLOGIC SYMBOL
-------------	-----------------------	------------	-----------	-------------------	------------	--

0						SILT: Dark brown silt, with trace sand and plant-like material, coal-like material at 0.6 ft bgs	0
-1			0				-1
-2	0-4	63					-2
-3			0			SILT: Moist, tan/light brown, silt with some fine sand and trace to some clay	-3
-4							-4
-5			0			SAND: Dry, tan/brown, gravely, fine to very coarse sand	-5
-6	4-8	63					-6
-7			0				-7
-8							-8
-9			0				-9
-10	8-12	45					-10
-11			0			SAND: Moist, light brown/tan, fine to coarse sand with some fine to medium gravel and silt	-11
-12							-12
-13			0			GRAVEL: Wet, fine to medium angular gravel, with some sand	-13
-14	12-16	85				CLAY: Wet, tan/brown, silty clay, with trace fine sand	-14
-15			0			SAND: Wet, tan/brown, fine to medium sand, with trace silt	-15
-16						CLAY: Moist, tan to tan/gray clay, with trace silt and fine sand	-16
						End of Boring	

PID (ppm) = Photo-Ionization Detector, readings in parts per million



# SD05

PROJECT: Dansville MGP-NYSEG

PROJECT NO: I03033

LOCATION: Dansville, NY

DATE: 11/11/2008

DRILLING CONTRACTOR: Nothnagle Drilling

DRILLER: Steve Gelser

DRILLING METHOD: Direct Push

SAMPLING METHOD: 4 ft. Geoprobe Macro-Cores

WELL ELEVATION: N/A

GROUND ELEVATION: 689.09 ft. above MSL

OUTER CASING ELEVATION: N/A

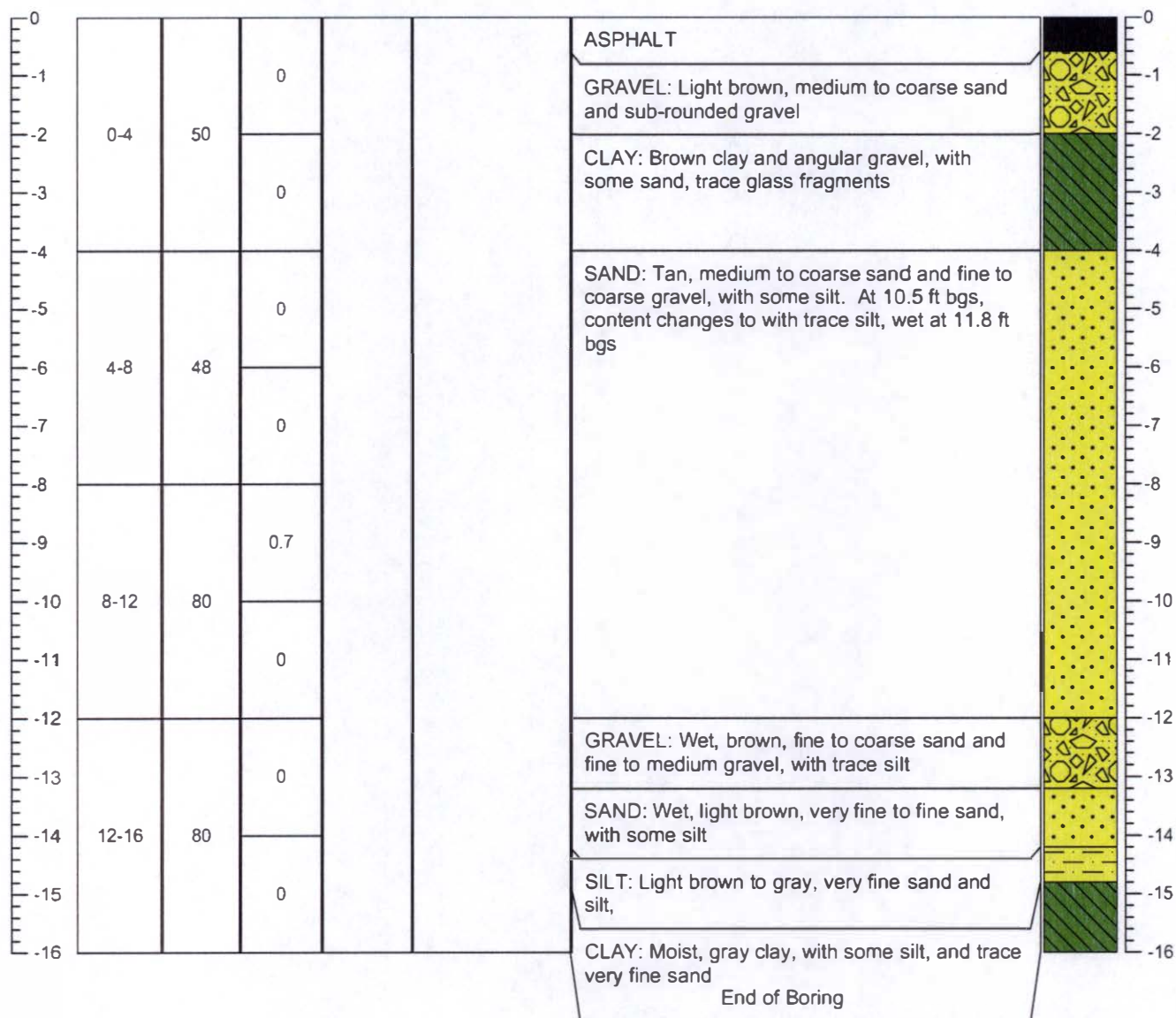
DEPTH TO WATER: N/A

BOREHOLE DEPTH: 16 ft. bgs

WEATHER: Not recorded

GEOLOGIST: S. Pesch

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	BLOW COUNT	SOIL DESCRIPTION and LITHOLOGIC SYMBOL
-------------	-----------------------	------------	-----------	-------------------	------------	--



PID (ppm) = Photo-Ionization Detector, readings in parts per million

# SD06

PROJECT: Dansville MGP-NYSEG

PROJECT NO: I03033

LOCATION: Dansville, NY

DATE: 11/12/2008

DRILLING CONTRACTOR: Nothnagle Drilling

DRILLER: Steve Gelser

DRILLING METHOD: Direct Push

SAMPLING METHOD: 4 ft. Geoprobe Macro-Cores

WELL ELEVATION: N/A

GROUND ELEVATION: 689.61 ft. above MSL

OUTER CASING ELEVATION: N/A

DEPTH TO WATER: N/A

BOREHOLE DEPTH: 20 ft. bgs

WEATHER: Not recorded

GEOLOGIST: S. Pesch

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	BLOW COUNT	SOIL DESCRIPTION and LITHOLOGIC SYMBOL
-------------	-----------------------	------------	-----------	-------------------	------------	--

0						SILT: Dry, dark brown silt, with trace sand		0
-1			0					-1
-2	0-4	35				GRAVEL: Dry, medium gravel, with some silt and sand		-2
-3			0					-3
-4						SAND: Dry, tan/brown, fine to medium sand, with trace to some silt		-4
-5			0					-5
-6	4-8	50				SAND: Dry, tan/brown, medium sand, with some fine to medium gravel, trace silt		-6
-7			0					-7
-8						COBBLES: Broken cobbles (possibly cause of poor recovery)		-8
-9			0					-9
-10	8-12	100				SAND: Tan/light brown, gravelly, fine to medium sand, with trace silt, moist at 11.5 ft bgs		-10
-11			0.3					-11
-12						GRAVEL: Gravel, with some tan/brown, fine to medium sand, wet at 12.2 ft bgs with some NAPL globules, moderate MGP-like odor		-12
-13	12-16	70	78					-13
-14						SILT: Tan/brown silt, with some clay and fine sand, slight MGP-like odor		-14
-15			12					-15
-16						SAND: Wet, tan/light brown, fine to medium sand, with trace silt		-16
-17			-			CLAY: Moist, tan to gray clay, with trace silt		-17
-18	16-20	83				CLAY: Wet, gray clay, with some silt, trace fine sand		-18
-19			-					-19
-20						End of Boring		-20

PID (ppm) = Photo-Ionization Detector, readings in parts per million





# SD07

PROJECT: Dansville MGP-NYSEG

PROJECT NO: I03033

LOCATION: Dansville, NY

DATE: 11/10/2008

DRILLING CONTRACTOR: Nothnagle Drilling

DRILLER: Steve Gelser

DRILLING METHOD: Direct Push

SAMPLING METHOD: 4 ft. Geoprobe Macro-Cores

WELL ELEVATION: N/A

GROUND ELEVATION: 688.98 ft. above MSL

OUTER CASING ELEVATION: N/A

DEPTH TO WATER: N/A

BOREHOLE DEPTH: 20 ft. bgs

WEATHER: Not recorded

GEOLOGIST: S. Pesch

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	BLOW COUNT	SOIL DESCRIPTION and LITHOLOGIC SYMBOL
-------------	-----------------------	------------	-----------	-------------------	------------	--

0						SILT: Dark Brown silt, with some clay and sand	0
-1			0				-1
-2	0-4	83				SILT: Moist, light brown silt, with some to trace clay	-2
-3			1.0				-3
-4							-4
-5			0			CLAY: Moist, light brown clay, with some medium to coarse sand and angular gravel	-5
-6	4-8	55					-6
-7			0			GRAVEL: Light brown, medium to coarse sand and gravel, with trace to some clay	-7
-8							-8
-9			0				-9
-10	8-12	50					-10
-11			0				-11
-12							-12
-13			18				-13
-14	12-16	73		13.2-13.7		GRAVEL: Wet, tan/brown, medium to coarse sand and fine gravel, trace silt and clay. Trace to some NAPL globules, and a slight to moderate MGP odor from 13.3 to 13.7 ft bgs.	-14
-15			1.5				-15
-16						SAND: Moist to wet, light brown to gray, very fine sand with some silt	-16
-17			2.0			CLAY: Moist, gray clay, with some silt	-17
-18	16-20	58					-18
-19			1.5				-19
-20						End of Boring	-20

PID (ppm) = Photo-Ionization Detector, readings in parts per million

# SD08

PROJECT: Dansville MGP-NYSEG

PROJECT NO: I03033

LOCATION: Dansville, NY

DATE: 11/11/2008

DRILLING CONTRACTOR: Nothnagle Drilling

DRILLER: Steve Gelser

DRILLING METHOD: Direct Push

SAMPLING METHOD: 4 ft. Geoprobe Macro-Cores

WELL ELEVATION: N/A

GROUND ELEVATION: 689.08 ft. above MSL

OUTER CASING ELEVATION: N/A

DEPTH TO WATER: N/A

BOREHOLE DEPTH: 20 ft. bgs

WEATHER: Not recorded

GEOLOGIST: S. Pesch

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	BLOW COUNT	SOIL DESCRIPTION and LITHOLOGIC SYMBOL
-------------	-----------------------	------------	-----------	-------------------	------------	--

0									0
-1			0						-1
-2	0-4	50					SILT: Dark brown silt, with some fine to medium sand		-2
-3			0				SAND: Brown/tan, fine to coars sand and angular gravel, trace silt		-3
-4									-4
-5			0.4				GRAVEL: Light brown, fine to coarse sand and gravel, with trace to some silt and clay (in lenses)		-5
-6	4-8	48							-6
-7			0						-7
-8									-8
-9			0						-9
-10	8-12	80							-10
-11			0						-11
-12									-12
-13			0						-13
-14	12-16	60							-14
-15			0.4			15-16	SILT: Moist, brown silt, with some clay, very slight MGP-like odor		-15
-16							SAND: Brown, very fine to fine sand, with trace silt, very slight MGP-like odor		-16
-17			-				No recovery		-17
-18	16-20	0							-18
-19			-						-19
-20							End of Boring		-20

PID (ppm) = Photo-Ionization Detector, readings in parts per million



# SD09

PROJECT: Dansville MGP-NYSEG

PROJECT NO: I03033

LOCATION: Dansville, NY

DATE: 11/12/2008

DRILLING CONTRACTOR: Nothnagle Drilling

DRILLER: Steve Gelser

DRILLING METHOD: Direct Push

SAMPLING METHOD: 4 ft. Geoprobe Macro-Cores

WELL ELEVATION: N/A

GROUND ELEVATION: 689.29 ft. above MSL

OUTER CASING ELEVATION: N/A

DEPTH TO WATER: N/A

BOREHOLE DEPTH: 16 ft. bgs

WEATHER: Not recorded

GEOLOGIST: S. Pesch

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	BLOW COUNT	SOIL DESCRIPTION and LITHOLOGIC SYMBOL
-------------	--------------------------	------------	-----------	----------------------	---------------	---

0						SILT: Dry, dark brown silt, with trace sand and brick fragments	0
-1			0				-1
-2	0-4	50					-2
-3			0			SAND: Dry, tan/light brown, fine sand, with some silt and gravel	-3
-4							-4
-5			0			SAND: Dry, tan, medium to coarse sand, with some fine to medium gravel	-5
-6	4-8	60					-6
-7			0			GRAVEL: Dry, fine to coarse gravel, with some medium to coarse sand and trace silt	-7
-8							-8
-9			0	8-10		GRAVEL: Dry, tan, medium to coarse sand and gravel, with trace to some silt	-9
-10	8-12	65					-10
-11			5.8				-11
-12						GRAVEL: Wet, gravel with trace to some medium to coarse sand, sheen, NAPL partially coating gravel, moderate odor	-12
-13			15				-13
-14	12-16	80				SAND: Wet, tan, fine sand, with trace to some silt, slight odor	-14
-15			10	14-16		SAND: Wet, tan, fine to medium sand, very slight odor	-15
-16						CLAY: Tan/gray, silt and clay, with trace sand End of Boring	-16

PID (ppm) = Photo-Ionization Detector, readings in parts per million



# SD10

PROJECT: Dansville MGP-NYSEG

PROJECT NO: I03033

LOCATION: Dansville, NY

DATE: 11/12/2008

DRILLING CONTRACTOR: Nothnagle Drilling

DRILLER: Steve Gelser

DRILLING METHOD: Direct Push

SAMPLING METHOD: 4 ft. Geoprobe Macro-Cores

WELL ELEVATION: N/A

GROUND ELEVATION: 689.33 ft. above MSL

OUTER CASING ELEVATION: N/A

DEPTH TO WATER: N/A

BOREHOLE DEPTH: 20 ft. bgs

WEATHER: Not recorded

GEOLOGIST: S. Pesch

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	BLOW COUNT	SOIL DESCRIPTION and LITHOLOGIC SYMBOL
-------------	-----------------------	------------	-----------	-------------------	------------	--

0								0
-1			0					-1
-2	0-4	55						-2
-3			0					-3
-4								-4
-5			0					-5
-6	4-8	45						-6
-7			1.1					-7
-8								-8
-9			2.0					-9
-10	8-12	55						-10
-11			328					-11
-12				11-13				-12
-13			370					-13
-14	12-16	28						-14
-15			370					-15
-16								-16
-17			-					-17
-18	16-20	0						-18
-19			-					-19
-20								-20

SILT: Dry, dark brown silt, with medium sand, brick in shoe

GRAVEL: Dry, angular limestone gravels, with some fine to coarse sand

SILT: Wet, black, silt, gravel, and medium to coarse sand

GRAVEL: Dry, tan/brown, medium to coarse sand and gravel

GRAVEL: Medium to coarse sandy gravel, moderate sheens, strong MGP-like odor

SAND: Wet, tan/brown, silty sand, slight odor

No recovery, acetate liner split with gravel slough

End of Boring

PID (ppm) = Photo-Ionization Detector, readings in parts per million



# SD11

PROJECT: Dansville MGP-NYSEG

PROJECT NO: I03033

LOCATION: Dansville, NY

DATE: 11/11/2008

DRILLING CONTRACTOR: Nothnagle Drilling

DRILLER: Steve Gelser

DRILLING METHOD: Direct Push

SAMPLING METHOD: 4 ft. Geoprobe Macro-Cores

WELL ELEVATION: N/A

GROUND ELEVATION: 688.92 ft. above MSL

OUTER CASING ELEVATION: N/A

DEPTH TO WATER: N/A

BOREHOLE DEPTH: 18 ft. bgs

WEATHER: Not recorded

GEOLOGIST: S. Pesch

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	BLOW COUNT	SOIL DESCRIPTION and LITHOLOGIC SYMBOL
-------------	-----------------------	------------	-----------	-------------------	------------	--

0						ASPHALT		0
-1			0			GRAVEL: Dry, light brown, medium to coarse sand and gravel		-1
-2	0-4	70				SAND: Brown, medium, well sorted sand, with trace silt and clay		-2
-3			0			SAND: Brown, medium sand, wet at 4.0 ft bgs		-3
-4								-4
-5			0			GRAVEL: Brown, medium to coarse sand and fine to coarse gravel, trace silt and clay, macrocore refusal at 7.7 ft bgs		-5
-6	4-7.7	59						-6
-7			0					-7
-8						Augered through interval		-8
-9								-9
-10								-10
-11			7.0			GRAVEL: Brown, fine to coarse sand and gravel, with trace silt and clay		-11
-12	10-14	58						-12
-13			210			GRAVEL: Wet, brown, medium to coarse sand and gravel, sheen, some NAPL globules, moderate MGP-like odor		-13
-14				13-14				-14
-15			31			SAND: Wet, brown, very fine to fine sand, with some silt, trace clay, slight MGP-like odor		-15
-16	14-18	95				CLAY: Wet, gray, silty clay, with trace very fine to fine sand		-16
-17			4.7					-17
-18						End of Boring		-18

PID (ppm) = Photo-Ionization Detector, readings in parts per million



# SD12

PROJECT: Dansville MGP-NYSEG

PROJECT NO: I03033

LOCATION: Dansville, NY

DATE: 11/12/2008

DRILLING CONTRACTOR: Nothnagle Drilling

DRILLER: Steve Gelser

DRILLING METHOD: Direct Push

SAMPLING METHOD: 4 ft. Geoprobe Macro-Cores

WELL ELEVATION: N/A

GROUND ELEVATION: 689.07 ft. above MSL

OUTER CASING ELEVATION: N/A

DEPTH TO WATER: N/A

BOREHOLE DEPTH: 16 ft. bgs

WEATHER: Not recorded

GEOLOGIST: S. Pesch

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	BLOW COUNT	SOIL DESCRIPTION and LITHOLOGIC SYMBOL
-------------	-----------------------	------------	-----------	-------------------	------------	--

0						SILT: Dark brown, medium to coarse sand and silt, dry	0
-1			0			SAND: Tan, fine sand, with trace silt, dry	-1
-2	0-4	85				CLAY: Tan, very fine to fine sandy clay, dry	-2
-3			0				-3
-4							-4
-5			0			SAND: Tan, medium to coarse sand and fine to medium gravel, dry. From 11.7-12 ft bgs, moist, with slight to moderate MGP-odor, slight sheen	-5
-6	4-8	68					-6
-7			0				-7
-8							-8
-9			0				-9
-10	8-12	63					-10
-11			20				-11
-12						GRAVEL: Gravel, with some sand, moderate MGP-like odor, sheen	-12
-13			74				-13
-14	12-16	20				The remainder of the 12-16 ft bgs interval fell out of the sampler, and no description was possible	-14
-15			74				-15
-16						End of Boring	-16

PID (ppm) = Photo-Ionization Detector, readings in parts per million



# SD13

PROJECT: Dansville MGP-NYSEG

PROJECT NO: I03033

LOCATION: Dansville, NY

DATE: 11/10/2008

DRILLING CONTRACTOR: Nothnagle Drilling

DRILLER: Steve Gelser

DRILLING METHOD: Direct Push

SAMPLING METHOD: 4 ft. Geoprobe Macro-Cores

WELL ELEVATION: N/A

GROUND ELEVATION: 688.54 ft. above MSL

OUTER CASING ELEVATION: N/A

DEPTH TO WATER: N/A

BOREHOLE DEPTH: 20 ft. bgs

WEATHER: Not recorded

GEOLOGIST: S.Pesch

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	BLOW COUNT	SOIL DESCRIPTION and LITHOLOGIC SYMBOL
-------------	-----------------------	------------	-----------	-------------------	------------	--

0									0
-1			0						-1
-2	0-4	68					SILT: Dark brown silt, with trace sand and clay, from 0.5-0.7 ft bgs, some coal-like material		-2
-3			0						-3
-4									-4
-5			0						-5
-6	4-8	50					GRAVEL: Moist, tan/light brown medium to coarse sand and fine to medium gravel. From 8 to 12 feet, increasing amount of gravel, wet at 12 feet bgs		-6
-7			0						-7
-8									-8
-9			0						-9
-10	8-12	38							-10
-11			0						-11
-12									-12
-13			0						-13
-14	12-16	13					GRAVEL: Poor recovery, gravel stuck in tip of shoe. Brown sand and gravel		-14
-15			0						-15
-16									-16
-17			1						-17
-18	16-20	83					SAND: Brown sand and fine gravel, with some silt, slight odor, slight sheen		-18
-19			7.8						-19
-20							SAND: Gray, very fine to fine sand, with some silt		-20
							End of Boring		

PID (ppm) = Photo-Ionization Detector, readings in parts per million



# SD14

PROJECT: Dansville MGP-NYSEG

PROJECT NO: I03033

LOCATION: Dansville, NY

DATE: 11/11/2008

DRILLING CONTRACTOR: Nothnagle Drilling

DRILLER: Steve Gelser

DRILLING METHOD: Direct Push

SAMPLING METHOD: 4 ft. Geoprobe Macro-Cores

WELL ELEVATION: N/A

GROUND ELEVATION: 688.71 ft. above MSL

OUTER CASING ELEVATION: N/A

DEPTH TO WATER: N/A

BOREHOLE DEPTH: 16 ft. bgs

WEATHER: Not recorded

GEOLOGIST: S. Pesch

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	BLOW COUNT	SOIL DESCRIPTION and LITHOLOGIC SYMBOL
-------------	-----------------------	------------	-----------	-------------------	------------	--

0						ASPHALT		0
-1			0					-1
-2	0-4	70				GRAVEL: Dry, dark brown to brown, medium to coarse sand and angular gravel		-2
-3			0					-3
-4						GRAVEL: Moist, light brown, medium to coarse sand and rounded gravel		-4
-5			0					-5
-6	4-8	53				SAND: Moist, medium to coarse sand and gravel, with some silt and clay		-6
-7			0					-7
-8								-8
-9			0					-9
-10	8-12	73						-10
-11			55.8					-11
-12						GRAVEL: Medium to coarse sandy gravel, trace NAPL globules, slight to moderate MGP-like odor		-12
-13			34					-13
-14	12-16	85				GRAVEL: Wet, fine to coarse sand and gravel, trace NAPL globules, slight to moderate odor		-14
-15			2.3			SILT: Moist, tan/light brown silt, with some clay		-15
-16						SILT: Wet, gray silt, with some clay and fine sand		-16
						SAND: Wet, gray, very fine to fine sand, with trace silt, very slight odor		
						CLAY: Moist, gray clay, with some silt and fine sand		
						End of Boring		

PID (ppm) = Photo-Ionization Detector, readings in parts per million



# SD15

PROJECT: Dansville MGP-NYSEG

PROJECT NO: I03033

LOCATION: Dansville, NY

DATE: 11/12/2008

DRILLING CONTRACTOR: Nothnagle Drilling

DRILLER: Steve Gelser

DRILLING METHOD: Direct Push

SAMPLING METHOD: 4 ft. Geoprobe Macro-Cores

WELL ELEVATION: N/A

GROUND ELEVATION: 689.07 ft. above MSL

OUTER CASING ELEVATION: N/A

DEPTH TO WATER: N/A

BOREHOLE DEPTH: 16 ft. bgs

WEATHER: Not recorded

GEOLOGIST: S. Pesch

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	BLOW COUNT	SOIL DESCRIPTION and LITHOLOGIC SYMBOL
-------------	-----------------------	------------	-----------	-------------------	------------	--

0									0
-1			0						-1
-2	0-4	35							-2
-3			0						-3
-4									-4
-5			0						-5
-6	4-8	60							-6
-7			0						-7
-8									-8
-9			-	8-10					-9
-10	8-12	58							-10
-11			-						-11
-12									-12
-13			17.3						-13
-14	12-16	95							-14
-15			5	14-16					-15
-16									-16

SILT: Dry, dark brown silt, with trace sand, trace bricks

SILT: Moist, brown, sandy silt, with some gravel

SILT: Brown silt, with trace sand and trace fine gravel

SAND: Dry, tan, medium to coarse sand and fine to coarse gravel

SILT: Moist, brown, clayey silt, with some fine gravel

GRAVEL: Gravel with some sand and trace silt, slight MGP-like odor, with sheens, and trace NAPL globules (12-12.8 ft bgs)

CLAY: Wet, tan clay, with some silt

CLAY: Wet, gray clay, with some silt

End of Boring

PID (ppm) = Photo-Ionization Detector, readings in parts per million





# SD16

PROJECT: Dansville MGP-NYSEG

PROJECT NO: I03033

LOCATION: Dansville, NY

DATE: 11/12/2008

DRILLING CONTRACTOR: Nothnagle Drilling

DRILLER: Steve Gelser

DRILLING METHOD: Direct Push

SAMPLING METHOD: 4 ft. Geoprobe Macro-Cores

WELL ELEVATION: N/A

GROUND ELEVATION: 689.32 ft. above MSL

OUTER CASING ELEVATION: N/A

DEPTH TO WATER: N/A

BOREHOLE DEPTH: 16 ft. bgs

WEATHER: Not recorded

GEOLOGIST: S. Pesch

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	BLOW COUNT	SOIL DESCRIPTION and LITHOLOGIC SYMBOL
-------------	-----------------------	------------	-----------	-------------------	------------	--

0						SILT: Moist, brown silt, with trace sand	0
-1			0				-1
-2	0-4	78					-2
-3			0			SILT: Moist, brown silt, with some fine sand and clay	-3
-4							-4
-5			0				-5
-6	4-8	60				SAND: Brown/tan, medium to coarse sand and fine to coarse gravel, wet at 11 feet bgs. From 11.4 - 12.0, moderate MGP-like odor, with sheen, and trace to some NAPL globules	-6
-7			0				-7
-8							-8
-9			0				-9
-10	8-12	73					-10
-11			79.3				-11
-12							-12
-13			-	12.5-13.5		GRAVEL: Wet, fine to medium gravel, with some silt and sand, moderate MGP-like odor, sheen	-13
-14	12-16	78				CLAY: Wet, light brown clay, with trace silt	-14
-15			-				-15
-16						SAND: Moist, light brown, silt and very fine to fine sand, with some clay End of Boring	-16

PID (ppm) = Photo-Ionization Detector, readings in parts per million



# SD17

PROJECT: Dansville MGP-NYSEG

PROJECT NO: I03033

LOCATION: Dansville, NY

DATE: 11/11/2008

DRILLING CONTRACTOR: Nothnagle Drilling

DRILLER: Steve Gelser

DRILLING METHOD: Direct Push

SAMPLING METHOD: 4 ft. Geoprobe Macro-Cores

WELL ELEVATION: N/A

GROUND ELEVATION: 688.53 ft. above MSL

OUTER CASING ELEVATION: N/A

DEPTH TO WATER: N/A

BOREHOLE DEPTH: 16 ft. bgs

WEATHER: Not recorded

GEOLOGIST: S. Pesch

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	BLOW COUNT	SOIL DESCRIPTION and LITHOLOGIC SYMBOL
-------------	-----------------------	------------	-----------	-------------------	------------	--

0						ASPHALT		0
-1			0			GRAVEL: Dry, dark to light brown, medium to coarse sand and angular gravel, with trace silt		-1
-2	0-4	85						-2
-3			0			SAND: Moist to very moist, light brown to brown, fine to medium sand, with trace to some silt		-3
-4								-4
-5			0			GRAVEL: Light brown, fine to coarse sand and fine to medium gravel, wet at 4.6 ft bgs		-5
-6	4-8	63						-6
-7			0					-7
-8								-8
-9			0					-9
-10	8-12	6				GRAVEL: Wet, medium to coarse sandy gravel, possible sheen, slight MGP-like odor		-10
-11			43					-11
-12				12-12.9		GRAVEL: Wet, brown, medium to coarse sandy fine to medium gravel, sheen, slight MGP-like odor		-12
-13			15					-13
-14	12-16	100				CLAY: Moist, brown, slity clay, slight odor		-14
-15			8.7			SILT: Gray, fine sandy silt, with trace to some clay		-15
-16				15-16		End of Boring		-16

PID (ppm) = Photo-Ionization Detector, readings in parts per million



# SD18

PROJECT: Dansville MGP-NYSEG

PROJECT NO: I03033

LOCATION: Dansville, NY

DATE: 11/13/2008

DRILLING CONTRACTOR: Nothnagle Drilling

DRILLER: Steve Gelser

DRILLING METHOD: Direct Push

SAMPLING METHOD: 4 ft. Geoprobe Macro-Cores

WELL ELEVATION: N/A

GROUND ELEVATION: 688.82 ft. above MSL

OUTER CASING ELEVATION: N/A

DEPTH TO WATER: N/A

BOREHOLE DEPTH: 16 ft. bgs

WEATHER: Not recorded

GEOLOGIST: S. Pesch

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	BLOW COUNT	SOIL DESCRIPTION and LITHOLOGIC SYMBOL
-------------	-----------------------	------------	-----------	-------------------	------------	--

0						SILT: Dark brown silt, with trace sand, coal like material from 0.6 - 0.8 ft bgs	0
-1			0			SAND: Moist, tan/brown, fine to medium sand	-1
-2	0-4	80				SAND: Moist, tan, very fine to fine sand, with some silt and clay	-2
-3			0	2-4			-3
-4							-4
-5			0				-5
-6	4-8	45				SAND: Brown, medium to coarse sand and gravel, wet at 11.2 ft bgs. Moderate MGP-like odor, with sheen in 11.2-12.0 ft bgs interval	-6
-7			0				-7
-8							-8
-9			0				-9
-10	8-12	70					-10
-11			61				-11
-12							-12
-13			377	12-13		GRAVEL: Fine to medium gravel, with some medium to coarse sand, strong MGP-like odor, sheen, some NAPL globules	-13
-14	12-16	83				SAND: Tan, very fine to fine sand, with trace to some silt	-14
-15			0				-15
-16						End of Boring	-16

PID (ppm) = Photo-Ionization Detector, readings in parts per million



# SD19

PROJECT: Dansville MGP-NYSEG

PROJECT NO: I03033

LOCATION: Dansville, NY

DATE: 11/10/2008

DRILLING CONTRACTOR: Nothnagle Drilling

DRILLER: Steve Gelser

DRILLING METHOD: Direct Push

SAMPLING METHOD: 4 ft. Geoprobe Macro-Cores

WELL ELEVATION: N/A

GROUND ELEVATION: 688.06 ft. above MSL

OUTER CASING ELEVATION: N/A

DEPTH TO WATER: N/A

BOREHOLE DEPTH: 16 ft. bgs

WEATHER: Not recorded

GEOLOGIST: S. Pesch

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	BLOW COUNT	SOIL DESCRIPTION and LITHOLOGIC SYMBOL
-------------	-----------------------	------------	-----------	-------------------	------------	--

0						ASPHALT	0
-1			0				-1
-2	0-4	55				SAND: Moist, brown to tan, very fine to medium sand, with trace silt and clay	-2
-3			0				-3
-4							-4
-5			0				-5
-6	4-8	43				GRAVEL: Moist, brown/tan, medium to very coarse sand and fine to medium gravels	-6
-7			0				-7
-8							-8
-9			1.8				-9
-10	8-12	60					-10
-11			7.8				-11
-12				11.5-12		GRAVEL: Wet, gray clay and angular gravel, with trace medium sand. Slight MGP-like odor from 12.0 to 12.8 feet bgs.	-12
-13				12-12.5			-13
-14	12-16	70	58.2			CLAY: Brown clay, with some silt and trace fine sand. Slight odor.	-14
-15			5.2			SAND: Wet, gray, very fine sand, with some silt, and trace to some clay, very slight odor.	-15
-16						CLAY: Wet, gray clay, with some silt and very fine to fine sand	-16
						End of Boring	

PID (ppm) = Photo-Ionization Detector, readings in parts per million



# SD20

PROJECT: Dansville MGP-NYSEG

PROJECT NO: I03033

LOCATION: Dansville, NY

DATE: 11/11/2008

DRILLING CONTRACTOR: Nothnagle Drilling

DRILLER: Steve Gelser

DRILLING METHOD: Direct Push

SAMPLING METHOD: 4 ft. Geoprobe Macro-Cores

WELL ELEVATION: N/A

GROUND ELEVATION: 688.33 ft. above MSL

OUTER CASING ELEVATION: N/A

DEPTH TO WATER: N/A

BOREHOLE DEPTH: 16 ft. bgs

WEATHER: Not recorded

GEOLOGIST: S. Pesch

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	BLOW COUNT	SOIL DESCRIPTION and LITHOLOGIC SYMBOL
-------------	-----------------------	------------	-----------	-------------------	------------	--

0						ASPHALT		0
-1			0			SAND: Dry, gray/brown, medium to coars sand with some gravel		-1
-2	0-4	78						-2
-3			0			CLAY: Moist, brown, silty clay		-3
-4								-4
-5			0			GRAVEL: Dry, brown/red, medium to coarse sand and fine to medium gravel, trace silt		-5
-6	4-8	65						-6
-7			0					-7
-8								-8
-9			0					-9
-10	8-12	83						-10
-11			52.8					-11
-12				12-12.7		GRAVEL: Fine to medium gravel, with some medium to coarse sand, moderate MGP-like odor		-12
-13			88					-13
-14	12-16	80				GRAY: Wet, gray (stained) sand and gravel, with trace to some silt and clay, trace small diameter NAPL globules, slight odor,		-14
-15			5.1			SILT: Wet, light brown, fine sandy silt, with trace clay		-15
-16						SAND: Wet, gray, very fine to fine sand, with some silt and trace clay End of Boring		-16

PID (ppm) = Photo-Ionization Detector, readings in parts per million



# SD21

PROJECT: Dansville MGP-NYSEG

PROJECT NO: I03033

LOCATION: Dansville, NY

DATE: 11/13/2008

DRILLING CONTRACTOR: Nothnagle Drilling

DRILLER: Steve Gelser

DRILLING METHOD: Direct Push

SAMPLING METHOD: 4 ft. Geoprobe Macro-Cores

WELL ELEVATION: N/A

GROUND ELEVATION: 688.39 ft. above MSL

OUTER CASING ELEVATION: N/A

DEPTH TO WATER: N/A

BOREHOLE DEPTH: 16 ft. bgs

WEATHER: Not recorded

GEOLOGIST: S. Pesch

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	BLOW COUNT	SOIL DESCRIPTION and LITHOLOGIC SYMBOL
-------------	-----------------------	------------	-----------	-------------------	------------	--

0						ASPHALT		0
-1			0			SILT: Dry, silt, sand, gravel, and bricks		-1
-2	0-4	85				CLAY: Tan, silty clay, dry to 2.4 ft bgs, then moist		-2
-3			0					-3
-4								-4
-5			0					-5
-6	4-8	50				SAND: Medium to coarse sand and fine to medium gravel, dry at 7.5 ft bgs, wet at 11.8 ft bgs. Slight MGP-like odor at 11.0 ft bgs, sheens and moderate MGP-like odor at 11.8 ft bgs.		-6
-7			0					-7
-8								-8
-9			1.5					-9
-10	8-12	60						-10
-11			132					-11
-12								-12
-13			101	12-13.5		GRAVEL: Wet, fine to medium gravel, with some sand, moderate to strong MPG-like odor, sheen		-13
-14	12-16	73				SILT: Wet, tan to gray, very fine sandy silt, with trace clay		-14
-15			8.1					-15
-16						End of Boring		-16

PID (ppm) = Photo-Ionization Detector, readings in parts per million





# SD22

PROJECT: Dansville MGP-NYSEG

PROJECT NO: I03033

LOCATION: Dansville, NY

DATE: 11/12/2008

DRILLING CONTRACTOR: Nothnagle Drilling

DRILLER: Steve Gelser

DRILLING METHOD: Direct Push

SAMPLING METHOD: 4 ft. Geoprobe Macro-Cores

WELL ELEVATION: N/A

GROUND ELEVATION: 688.48 ft. above MSL

OUTER CASING ELEVATION: N/A

DEPTH TO WATER: N/A

BOREHOLE DEPTH: 16 ft. bgs

WEATHER: Not recorded

GEOLOGIST: S. Pesch

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	BLOW COUNT	SOIL DESCRIPTION and LITHOLOGIC SYMBOL
-------------	-----------------------	------------	-----------	-------------------	------------	--

0						ASPHALT	
-1			0			SILT: Dark brown, silt and fine gravel, dry	
-2	0-4	100				FILL: Brick	
-3			0			SILT: Tan silt, with some clay, dry	
-4						SILT: Tan silt, with trace fine sand and clay	
-5			0.8				
-6	4-8	75				CLAY: Moist, brown clay, with some sand and gravel	
-7			1.2				
-8						SAND: Moist to wet, tan, medium to coarse sand and gravel. Moderate MGP-like odor from 11.5-11.7 ft bgs	
-9			3.2				
-10	8-12	55					
-11			75				
-12				12-13		GRAVEL: Wet, gravel, with some sand, moderate MGP-like odor, sheen	
-13			68			GRAVEL: Wet, sandy, fine gravel, trace NAPL globules, with a moderate to strong MGP-like odor	
-14	12-16	78				SAND: Wet, tan, fine sand, with trace silt	
-15			7.5			SILT: Wet, tan silt, with trace to some fine sand and clay	
-16						End of Boring	

PID (ppm) = Photo-Ionization Detector, readings in parts per million



# SD23

PROJECT: Dansville MGP-NYSEG

PROJECT NO: I03033

LOCATION: Dansville, NY

DATE: 11/10/2008

DRILLING CONTRACTOR: Nothnagle Drilling

DRILLER: Steve Gelser

DRILLING METHOD: Direct Push

SAMPLING METHOD: 4 ft. Geoprobe Macro-Cores

WELL ELEVATION: N/A

GROUND ELEVATION: 688.15 ft. above MSL

OUTER CASING ELEVATION: N/A

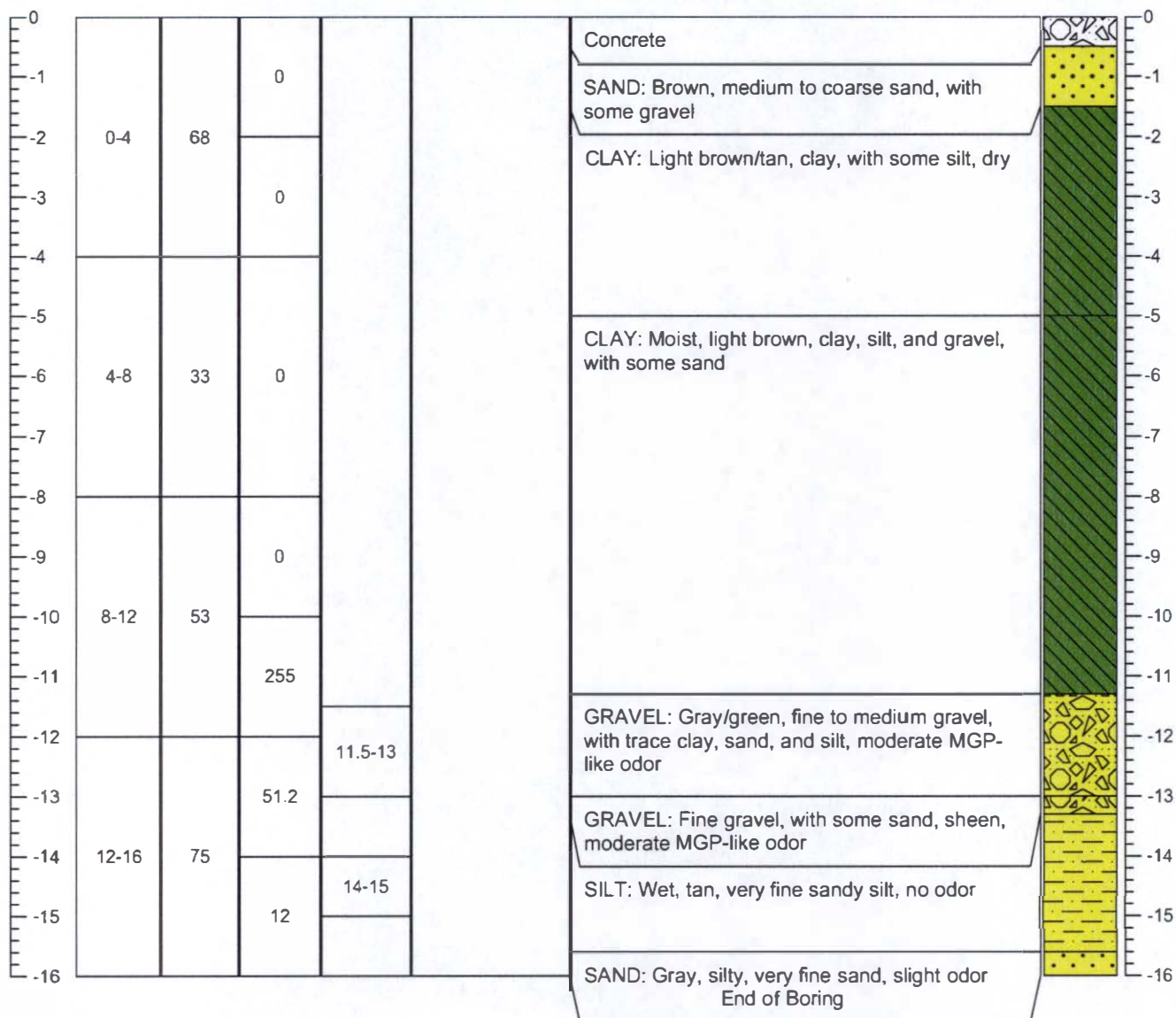
DEPTH TO WATER: N/A

BOREHOLE DEPTH: 16 ft. bgs

WEATHER: Not recorded

GEOLOGIST: S. Pesch

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	BLOW COUNT	SOIL DESCRIPTION and LITHOLOGIC SYMBOL
-------------	-----------------------	------------	-----------	-------------------	------------	--



PID (ppm) = Photo-Ionization Detector, readings in parts per million



# SD24

PROJECT: Dansville MGP-NYSEG

PROJECT NO: I03033

LOCATION: Dansville, NY

DATE: 11/13/2008

DRILLING CONTRACTOR: Nothnagle Drilling

DRILLER: Steve Gelser

DRILLING METHOD: Direct Push

SAMPLING METHOD: 4 ft. Geoprobe Macro-Cores

WELL ELEVATION: N/A

GROUND ELEVATION: 688.81 ft. above MSL

OUTER CASING ELEVATION: N/A

DEPTH TO WATER: N/A

BOREHOLE DEPTH: 16 ft. bgs

WEATHER: Not recorded

GEOLOGIST: S. Pesch

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	BLOW COUNT	SOIL DESCRIPTION and LITHOLOGIC SYMBOL
-------------	-----------------------	------------	-----------	-------------------	------------	--

0						No recovery, rock stuck in tip of shoe	0
-1			-				-1
-2	0-4	0					-2
-3			-				-3
-4						SILT: Tan, fine sandy silt, with trace clay	-4
-5			0				-5
-6	4-8	58				SAND: Brown, fine to coarse sand and gravel, with trace clay, moist, wet at 11.8 ft bgs. Slight MGP-like odor in 11.8 - 12 ft bgs interval	-6
-7			0				-7
-8							-8
-9			0				-9
-10	8-12	85					-10
-11			0				-11
-12							-12
-13			157			SAND: Medium to coarse sand and gravel, with slight MGP-like odor. Trace NAPL globules from 12.9 - 13.1 ft bgs.	-13
-14	12-16	90				GRAVEL: Fine to medium gravel, with some medium to coarse sand, moderate MGP-like odor, and trace to some NAPL globules	-14
-15			1.5			SAND: Wet, tan, fine sand, with some silt	-15
-16						SAND: Wet, gray, fine sand, with trace silt End of Boring	-16

PID (ppm) = Photo-Ionization Detector, readings in parts per million





# SD25

PROJECT: Dansville MGP-NYSEG

PROJECT NO: I03033

LOCATION: Dansville, NY

DATE: 11/13/2008

DRILLING CONTRACTOR: Nothnagle Drilling

DRILLER: Steve Gelser

DRILLING METHOD: Direct Push

SAMPLING METHOD: 4 ft. Geoprobe Macro-Cores

WELL ELEVATION: N/A

GROUND ELEVATION: 688.26 ft. above MSL

OUTER CASING ELEVATION: N/A

DEPTH TO WATER: N/A

BOREHOLE DEPTH: 20 ft. bgs

WEATHER: Not recorded

GEOLOGIST: S. Pesch

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	BLOW COUNT	SOIL DESCRIPTION and LITHOLOGIC SYMBOL
-------------	-----------------------	------------	-----------	-------------------	------------	--

0						ASPHALT		0
-1			0					-1
-2	0-4	33				SILT: Dry, dark brown silt, with trace sand and clay		-2
-3			0					-3
-4						CLAY: Dry, brown clay, with some silt and gravel		-4
-5			0					-5
-6	4-8	58				SAND: Brown to tan, medium to coarse sand and fine to medium gravel, moist at 7.7, wet at 9.5 ft bgs. Strong odor, sheen, and trace NAPL globules from 9.5 - 12 ft bgs.		-6
-7			0					-7
-8								-8
-9			182					-9
-10	8-12	55						-10
-11			680	10-12				-11
-12								-12
-13			132			GRAVEL: Fine to medium gravel, with some sand, moderate odor, heavy sheen, and trace to some NAPL globules		-13
-14	12-16	55						-14
-15			110	14-16				-15
-16								-16
-17			-					-17
-18	16-20	100				CLAY: Gray clay, with some silt, moist, slight odor		-18
-19			-					-19
-20						End of Boring		-20

PID (ppm) = Photo-Ionization Detector, readings in parts per million



# SD26

PROJECT: Dansville MGP-NYSEG

PROJECT NO: I03033

LOCATION: Dansville, NY

DATE: 11/24/2008

DRILLING CONTRACTOR: Nothnagle Drilling

DRILLER: Steve Gelser

DRILLING METHOD: Direct Push

SAMPLING METHOD: 4 ft. Geoprobe Macro-Cores

WELL ELEVATION: N/A

GROUND ELEVATION: 688.14 ft. above MSL

OUTER CASING ELEVATION: N/A

DEPTH TO WATER: N/A

BOREHOLE DEPTH: 16 ft. bgs

WEATHER: Not recorded

GEOLOGIST: S. Pesch

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	BLOW COUNT	SOIL DESCRIPTION and LITHOLOGIC SYMBOL
-------------	-----------------------	------------	-----------	-------------------	------------	--

0						GRAVEL: Gray, medium to coarse gravel, with some sand	0
-1			0			SAND: Tan, fine to coarse sand, with some gravel	-1
-2	0-4	65				CLAY: Clay, sand, silt, and coal-like material, moist	-2
-3			0				-3
-4				3.5-4		SAND: Brown, fine to medium sand, with some silt, trace wood chips, wet, slight odor	-4
-5			3.6				-5
-6	4-8	38				SAND: Tan/brown, medium to coarse sand and fine to coarse gravel, wet at 7 ft bgs, slight MGP-like odor from 7 - 8 ft bgs. From 8 -11.6 ft bgs, sheen, trace NAPL globules throughout, NAPL stringers from 11.2 - 11.4 ft bgs.	-6
-7			13.9				-7
-8							-8
-9			7.8				-9
-10	8-12	53					-10
-11			110		10.6-11.6		-11
-12						SILT: Tan/light brown, silt and clay, with trace fine sand	-12
-13			-			No recovery, slough	-13
-14	12-16	0					-14
-15			-				-15
-16						End of Boring	-16

PID (ppm) = Photo-Ionization Detector, readings in parts per million



# SD27

PROJECT: Dansville MGP-NYSEG

PROJECT NO: I03033

LOCATION: Dansville, NY

DATE: 11/14/2008

DRILLING CONTRACTOR: Nothnagle Drilling

DRILLER: Steve Gelser

DRILLING METHOD: Direct Push

SAMPLING METHOD: 4 ft. Geoprobe Macro-Cores

WELL ELEVATION: N/A

GROUND ELEVATION: 687.92 ft. above MSL

OUTER CASING ELEVATION: N/A

DEPTH TO WATER: N/A

BOREHOLE DEPTH: 20 ft. bgs

WEATHER: Not recorded

GEOLOGIST: S. Pesch

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	BLOW COUNT	SOIL DESCRIPTION and LITHOLOGIC SYMBOL
-------------	-----------------------	------------	-----------	-------------------	------------	--

0						
-1			0			GRAVEL: Dry, gray, medium to coarse gravel, with some sand
-2	0-4	90				SILT: Dry, dark brown silt, with some sand, clay, and bricks
-3			1.3	2-4		SILT: Dry to moist, tan/light brown silt, with some sand and trace fine gravel
-4						
-5			2.6			
-6	4-8	85				SAND: Tan, medium to coarse sand and fine to coarse gravel, wet at 10.5 ft bgs
-7			15.8			
-8						
-9			18.7			
-10	8-12	70				GRAVEL: Fine to coarse gravel, with some medium to coarse sand, slight to moderate odor, sheens, NAPL stringers, liquid NAPL in sleeve.
-11			33.8	11-13		
-12						
-13			38.4			
-14	12-16	20				
-15			27.3			
-16						CLAY: Wet, gray clay, with some fine sand and silt
-17			-			
-18	16-20	100				
-19			-			
-20						End of Boring

PID (ppm) = Photo-Ionization Detector, readings in parts per million





# SD28

PROJECT: Dansville MGP-NYSEG

PROJECT NO: I03033

LOCATION: Dansville, NY

DATE: 11/24/2008

DRILLING CONTRACTOR: Nothnagle Drilling

DRILLER: Steve Gelser

DRILLING METHOD: Direct Push

SAMPLING METHOD: 4 ft. Geoprobe Macro-Cores

WELL ELEVATION: N/A

GROUND ELEVATION: 687.68 ft. above MSL

OUTER CASING ELEVATION: N/A

DEPTH TO WATER: N/A

BOREHOLE DEPTH: 16 ft. bgs

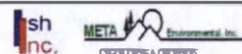
WEATHER: Not recorded

GEOLOGIST: S. Pesch

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	BLOW COUNT	SOIL DESCRIPTION and LITHOLOGIC SYMBOL
-------------	-----------------------	------------	-----------	-------------------	------------	--

0									0
-1			0				GRAVEL: Gray, angular gravel and medium to coarse sand		-1
-2	0-4	58					SILT: Moist, dark brown silt and medium to coarse sand, some gravel, trace coal-like material		-2
-3			0				SAND: Moist, brown/tan, medium to coarse sand, with some gravel, trace silt		-3
-4									-4
-5			1.8				GRAVEL: Brown, medium to coarse sandy gravel, with trace silt, wet at 7.7 ft bgs		-5
-6	4-8	45							-6
-7			3.2						-7
-8									-8
-9			6.6	8-10					-9
-10	8-12	40							-10
-11			7.4						-11
-12									-12
-13			3.1				GRAVEL: Wet, brown/tan gravel and medium to coarse sand, with trace silt		-13
-14	12-16	58							-14
-15			1.9	14-16			SAND: Wet, brown/tan sand and silt, with trace clay, turning gray at 15.8 ft bgs		-15
-16							End of Boring		-16

PID (ppm) = Photo-Ionization Detector, readings in parts per million



# SD29

PROJECT: Dansville MGP-NYSEG

PROJECT NO: I03033

LOCATION: Dansville, NY

DATE: 11/24/2008

DRILLING CONTRACTOR: Nothnagle Drilling

DRILLER: Steve Gelser

DRILLING METHOD: Direct Push

SAMPLING METHOD: 4 ft. Geoprobe Macro-Cores

WELL ELEVATION: N/A

GROUND ELEVATION: 687.38 ft. above MSL

OUTER CASING ELEVATION: N/A

DEPTH TO WATER: N/A

BOREHOLE DEPTH: 16 ft. bgs

WEATHER: Not recorded

GEOLOGIST: S. Pesch

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	BLOW COUNT	SOIL DESCRIPTION and LITHOLOGIC SYMBOL
-------------	-----------------------	------------	-----------	-------------------	------------	--

0						GRAVEL: Dry, gray, angular gravel and medium to coarse sand	0
-1			0			SAND: Dry, gray, fine sand, with some silt and clay, trace gravel	-1
-2	0-4	90				SAND: Moist, tan/brown, fine to medium sand, with trace silt and clay	-2
-3			0				-3
-4							-4
-5			0.7				-5
-6	4-8	53				GRAVEL: Dry, brown, fine to medium gravel, with trace sand	-6
-7			3			SILT: Wet, brown/tan silt, with some clay and fine sand	-7
-8						GRAVEL: Moist, brown, medium to coarse sandy, fine to coarse gravel	-8
-9			4.8				-9
-10	8-12	60				GRAVEL: Wet, brown, medium to coarse sand and fine to medium gravel, slight sheen, trace NAPL globules	-10
-11			5.3	10.3-11.6		SILT: Wet, tan/brown, fine sandy silt, with trace clay	-11
-12							-12
-13			0.7				-13
-14	12-16	100				SAND: Wet, gray, fine to medium sand, with trace silt and clay	-14
-15			0			End of Boring	-15
-16							-16

PID (ppm) = Photo-Ionization Detector, readings in parts per million

# SD30

PROJECT: Dansville MGP-NYSEG

PROJECT NO: I03033

LOCATION: Dansville, NY

DATE: 11/24/2008

DRILLING CONTRACTOR: Nothnagle Drilling

DRILLER: Steve Gelser

DRILLING METHOD: Direct Push

SAMPLING METHOD: 4 ft. Geoprobe Macro-Cores

WELL ELEVATION: N/A

GROUND ELEVATION: 687.55 ft. above MSL

OUTER CASING ELEVATION: N/A

DEPTH TO WATER: N/A

BOREHOLE DEPTH: 16 ft. bgs

WEATHER: Not recorded

GEOLOGIST: S. Pesch

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	BLOW COUNT	SOIL DESCRIPTION and LITHOLOGIC SYMBOL
-------------	-----------------------	------------	-----------	-------------------	------------	--

0						GRAVEL: Moist, gray, angular gravel, with some medium to coarse sand	0
-1			0				-1
-2	0-4	75				SILT: Dry, gray silt and sand, with trace clay and fine gravel	-2
-3			0			SAND: Tan/brown, silty fine sand, with trace gravel, wet at 3.3 ft bgs	-3
-4							-4
-5			0.5			SAND: Wet, brown, fine to coarse sand and fine to coarse gravel, with trace silt	-5
-6	4-8	33					-6
-7			0.4				-7
-8							-8
-9			1.2				-9
-10	8-12	45					-10
-11			1.4				-11
-12				11.3-12			-12
-13			0			SAND: Wet, brown, medium to coarse sand and fine to medium gravel, trace silt	-13
-14	12-16	58				CLAY: Wet, tan clay, with some silt and trace fine sand	-14
-15			0				-15
-16						SAND: Wet, gray, fine to medium sand, with trace silt and clay	-16
						CLAY: Wet, gray clay, with some silt and trace fine sand	
						End of Boring	

PID (ppm) = Photo-Ionization Detector, readings in parts per million





# SD31

PROJECT: Dansville MGP-NYSEG

PROJECT NO: I03033

LOCATION: Dansville, NY

DATE: 11/24/2008

DRILLING CONTRACTOR: Nothnagle Drilling

DRILLER: Steve Gelser

DRILLING METHOD: Direct Push

SAMPLING METHOD: 4 ft. Geoprobe Macro-Cores

WELL ELEVATION: N/A

GROUND ELEVATION: 687.59 ft. above MSL

OUTER CASING ELEVATION: N/A

DEPTH TO WATER: N/A

BOREHOLE DEPTH: 16 ft. bgs

WEATHER: Not recorded

GEOLOGIST: S. Pesch

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	BLOW COUNT	SOIL DESCRIPTION and LITHOLOGIC SYMBOL
-------------	-----------------------	------------	-----------	-------------------	------------	--

0						ASPHALT		0
-1			0			SILT: Dry to moist, dark brown/tan, fine sandy silt, with trace clay		-1
-2	0-4	83						-2
-3			0			SAND: Wet, tan, fine to coarse sand, with some silt, trace clay		-3
-4								-4
-5			1.7			GRAVEL: Tan/brown, fine to coarse gravel, with some medium to coarse sand and silt, wet at 10 ft bgs. Slight MGP-like odor, moderate sheen, and trace to some NAPL globules from 10 - 12.7 ft bgs.		-5
-6	4-8	43						-6
-7			1.0					-7
-8								-8
-9			3.2					-9
-10	8-12	38						-10
-11			0.7					-11
-12								-12
-13			4.9			CLAY: Wet, gray, silty clay, with trace fine sand and gravel		-13
-14	12-16	83						-14
-15			2.4					-15
-16						End of Boring		-16

PID (ppm) = Photo-Ionization Detector, readings in parts per million

# SD32

PROJECT: Dansville MGP-NYSEG

PROJECT NO: I03033

LOCATION: Dansville, NY

DATE: 11/24/2008

DRILLING CONTRACTOR: Nothnagle Drilling

DRILLER: Steve Gelser

DRILLING METHOD: Direct Push

SAMPLING METHOD: 4 ft. Geoprobe Macro-Cores

WELL ELEVATION: N/A

GROUND ELEVATION: 688.19 ft. above MSL

OUTER CASING ELEVATION: N/A

DEPTH TO WATER: N/A

BOREHOLE DEPTH: 18 ft. bgs

WEATHER: Not recorded

GEOLOGIST: S. Pesch

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	BLOW COUNT	SOIL DESCRIPTION and LITHOLOGIC SYMBOL
-------------	-----------------------	------------	-----------	-------------------	------------	--

0						ASPHALT	0
-1			0				-1
-2	0-4	68				GRAVEL: Dry, gray, medium to coarse, sandy, fine to medium, angular gravel	-2
-3			0			SILT: Black silt, medium sand, and coal-like material	-3
-4						CLAY: Dry, tan/brown, silty clay, with trace fine sand	-4
-5			1.2				-5
-6	4-8	35				GRAVEL: Dry, tan, fine to coarse, sandy, medium to coarse gravel, with trace silt and clay	-6
-7			3.7				-7
-8							-8
-9			1.2				-9
-10	8-12	40				SAND: Tan, medium to coarse, sand and fine to coarse gravel, wet at 11 ft bgs, moderate sheen from 14 - 16 ft bgs	-10
-11			2.4				-11
-12							-12
-13			3.3				-13
-14	12-16	28					-14
-15			16.5	14-16			-15
-16							-16
-17	18-20	100	0			SILT: Wet, gray, fine sandy silt, with trace clay	-17
-18						End of Boring	-18

PID (ppm) = Photo-Ionization Detector, readings in parts per million

# SD33

PROJECT: Dansville MGP-NYSEG

PROJECT NO: I03033

LOCATION: Dansville, NY

DATE: 11/24/2008

DRILLING CONTRACTOR: Nothnagle Drilling

DRILLER: Steve Gelser

DRILLING METHOD: Direct Push

SAMPLING METHOD: 4 ft. Geoprobe Macro-Cores

WELL ELEVATION: N/A

GROUND ELEVATION: 689.1 ft. above MSL

OUTER CASING ELEVATION: N/A

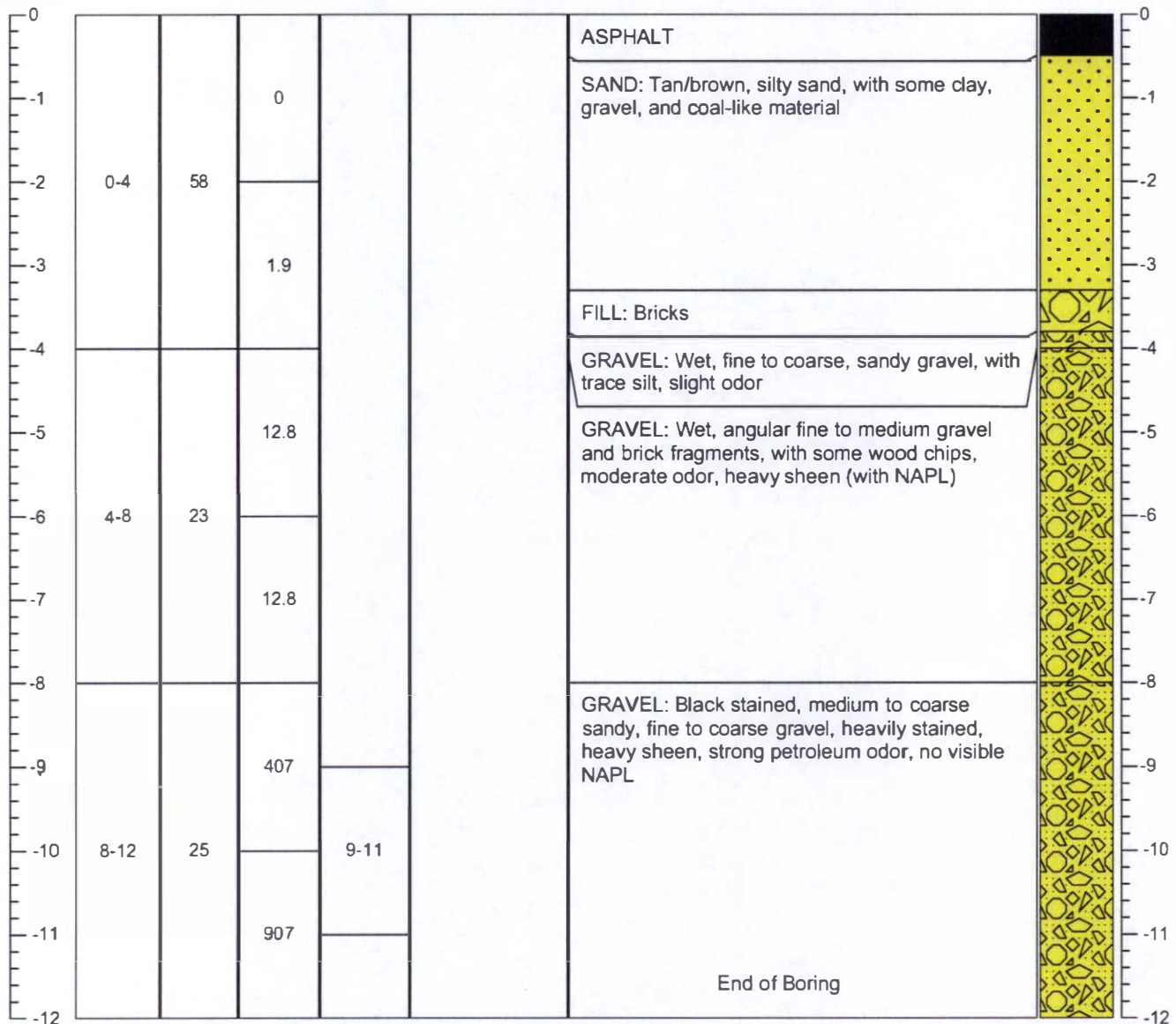
DEPTH TO WATER: N/A

BOREHOLE DEPTH: 12 ft. bgs

WEATHER: Not recorded

GEOLOGIST: S. Pesch

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	BLOW COUNT	SOIL DESCRIPTION and LITHOLOGIC SYMBOL
-------------	-----------------------	------------	-----------	-------------------	------------	--



PID (ppm) = Photo-Ionization Detector, readings in parts per million





# SD34

PROJECT: Dansville MGP-NYSEG

PROJECT NO: I03033

LOCATION: Dansville, NY

DATE: 11/24/2008

DRILLING CONTRACTOR: Nothnagle Drilling

DRILLER: Steve Gelser

DRILLING METHOD: Direct Push

SAMPLING METHOD: 4 ft. Geoprobe Macro-Cores

WELL ELEVATION: N/A

GROUND ELEVATION: 688.95 ft. above MSL

OUTER CASING ELEVATION: N/A

DEPTH TO WATER: N/A

BOREHOLE DEPTH: 16 ft. bgs

WEATHER: Not recorded

GEOLOGIST: S. Pesch

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	BLOW COUNT	SOIL DESCRIPTION and LITHOLOGIC SYMBOL
-------------	-----------------------	------------	-----------	-------------------	------------	--

0						ASPHALT		0
-1			0					-1
-2	0-4	75				SILT: Brown, sand/silt/clay, with some gravel, trace bricks and coal-like material, moist at 3 ft bgs		-2
-3			0					-3
-4								-4
-5			0					-5
-6	4-8	80				CLAY: Tan/orange, silty clay, with trace fine sand, dry at 5.3 ft bgs		-6
-7			0					-7
-8						SAND: Moist, tan/orange, silty, clayey, fine sand, with some fine to coarse gravel		-8
-9			17.1					-9
-10	8-12	33				GRAVEL: Fine to coarse gravel, with some medium to coarse sand, trace silt and clay, wet at 9 ft bgs, moderate MGP-like odor, sheen. NAPL with some stringers from 12 - 12.8 ft bgs		-10
-11			1051					-11
-12				12-12.8				-12
-13			214					-13
-14	12-16	68				SAND: Wet, tan to gray, silty, fine sand, with some clay, slight odor		-14
-15			8.2					-15
-16						End of Boring		-16

PID (ppm) = Photo-Ionization Detector, readings in parts per million



# SD35

PROJECT: Dansville MGP-NYSEG

PROJECT NO: I03033

LOCATION: Dansville, NY

DATE: 11/24/2008

DRILLING CONTRACTOR: Nothnagle Drilling

DRILLER: Steve Gelser

DRILLING METHOD: Direct Push

SAMPLING METHOD: 4 ft. Geoprobe Macro-Cores

WELL ELEVATION: N/A

GROUND ELEVATION: 687.97 ft. above MSL

OUTER CASING ELEVATION: N/A

DEPTH TO WATER: N/A

BOREHOLE DEPTH: 16 ft. bgs

WEATHER: Not recorded

GEOLOGIST: S. Pesch

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	BLOW COUNT	SOIL DESCRIPTION and LITHOLOGIC SYMBOL
-------------	-----------------------	------------	-----------	-------------------	------------	--

0						ASPHALT	
-1			0			SAND: Dry, medium to coarse sand and fine to medium angular gravel	
-2	0-4	83				SILT: Dry, tan/brown/gray, sand, silt, clay, fine to medium gravel, trace bricks and coal-like material	
-3			0			FILL: Dry, coal-like material	
-4						SILT: Tan/light brown, silt, with some fine sand, trace clay, wet at 4 ft bgs	
-5			1.8				
-6	4-8	63				GRAVEL: Brown, fine to coarse gravel, with some sand, trace silt, wet at 9.8 ft bgs. Moderate MGP-like odor, sheen, trace to some NAPL globules and stringers from 9.8 - 12 ft bgs	
-7			2.3				
-8							
-9			48				
-10	8-12	63					
-11			384	10-12			
-12							
-13			158			GRAVEL: Gray, fine to medium gravel, and medium to coarse sand, moderate to strong MGP-like odor, sheen (NAPL in sheen)	
-14	12-16	78				SILT: Tan/gray, clayey silt, with trace fine sand, slight odor	
-15			65.5				
-16						End of Boring	

PID (ppm) = Photo-Ionization Detector, readings in parts per million

# WC01

PROJECT: Dansville MGP-NYSEG

PROJECT NO: I03033

LOCATION: Dansville, NY

DATE: 11/13/2008

DRILLING CONTRACTOR: Nothnagle Drilling

DRILLER: Steve Gelser

DRILLING METHOD: 3.25" Hollow Stem Auger

SAMPLING METHOD: 2" by 24" Split Spoons

WELL ELEVATION: N/A

GROUND ELEVATION: 689.89 ft. above MSL

OUTER CASING ELEVATION: N/A

DEPTH TO WATER: N/A

BOREHOLE DEPTH: 15 ft. bgs

WEATHER: Not recorded

GEOLOGIST: S.Pesch

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	BLOW COUNT	SOIL DESCRIPTION and LITHOLOGIC SYMBOL
-------------	-----------------------	------------	-----------	-------------------	------------	--

0						Augered through interval	0
-1							-1
-2							-2
-3							-3
-4							-4
-5							-5
-6	5-7	45	0		8,18,18,19	FILL: Concrete and debris from above, gravel stuck in tip of spoon	-6
-7							-7
-8	7-9	80	2.1	7-10	11,13,12,20	GRAVEL: Medium to coarse sand, and fine to medium gravel. Sheen and moderate MGP odor from 10.7-11.0	-8
-9							-9
-10	9-11	65	89.2		11,14,13,16		-10
-11							-11
-12	11-13	55	184	11-13	11,12,21,9	GRAVEL: Gravel, with some medium to coarse sand. Sheen, trace NAPL globules, strong MGP odor	-12
-13							-13
-14	13-15	85	4.2		3,4,3,2	SILT: Brown/gray, silt, with some sand and trace clay, slight MGP odor	-14
-15						End of Boring	-15

PID (ppm) = Photo-Ionization Detector, readings in parts per million

wor = weight of rod





# WC02

PROJECT: Dansville MGP-NYSEG

PROJECT NO: I03033

LOCATION: Dansville, NY

DATE: 11/13/2008

DRILLING CONTRACTOR: Nothnagle Drilling

DRILLER: Steve Gelser

DRILLING METHOD: 3.25" Hollow Stem Auger

SAMPLING METHOD: 2" by 24" Split Spoons

WELL ELEVATION: N/A

GROUND ELEVATION: 689.47 ft. above MSL

OUTER CASING ELEVATION: N/A

DEPTH TO WATER: N/A

BOREHOLE DEPTH: 15 ft. bgs

WEATHER: Not recorded

GEOLOGIST: S. Pesch

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	BLOW COUNT	SOIL DESCRIPTION and LITHOLOGIC SYMBOL
-------------	-----------------------	------------	-----------	-------------------	------------	--

0						Augered through interval	0
-1							-1
-2							-2
-3							-3
-4							-4
-5							-5
-6	5-7	60	203	6-7	3,2,2,2	Silt: Brown, silt, with some sand, stained black from 5.3-7 ft bgs, strong diesel-like odor	-6
-7							-7
-8	7-9	60	208		4,5,9,6	Gravel: Medium to coarse sand and gravel, silver staining, sheens, and moderate odor from 8 to 11 ft bgs wet at 9 ft bgs	-8
-9							-9
-10	9-11	45	NR	8-13.5	7,11,11,19		-10
-11							-11
-12	11-13	40	184		6,23,10,10	Gravel: Wet, fine to medium gravel, with some medium to coarse sand. Heavy staining, heavy sheen, moderate to strong, MGP-like odor	-12
-13							-13
-14	13-15	100	-		6,5,3,2	Silt: Wet, tan to gray, silt, with some fine sand and clay, slight odor End of Boring	-14
-15							-15

PID (ppm) = Photo-Ionization Detector, readings in parts per million

wor = weight of rod

# WC03

PROJECT: Dansville MGP-NYSEG

PROJECT NO: I03033

LOCATION: Dansville, NY

DATE: 11/13/2008

DRILLING CONTRACTOR: Nothnagle Drilling

DRILLER: Steve Gelser

DRILLING METHOD: 3.25" Hollow Stem Auger

SAMPLING METHOD: 2" by 24" Split Spoons

WELL ELEVATION: N/A

GROUND ELEVATION: 688.85 ft. above MSL

OUTER CASING ELEVATION: N/A

DEPTH TO WATER: N/A

BOREHOLE DEPTH: 15 ft. bgs

WEATHER: Not recorded

GEOLOGIST: S. Pesch

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	BLOW COUNT	SOIL DESCRIPTION and LITHOLOGIC SYMBOL
-------------	-----------------------	------------	-----------	-------------------	------------	--

0						Augered through interval	0
-1							-1
-2							-2
-3							-3
-4							-4
-5							-5
-6	5-7	55	0		8,7,5,5	CLAY: Dry, brown clay, with some silt, no odor	-6
-7						GRAVEL: Brown, medium to coarse sand and fine to medium gravel, wet at 10.5 ft bgs. Sheens and slight MGP odor from 10.5 to 11 ft bgs	-7
-8	7-9	5	0	6-9	5,6,10,19		-8
-9							-9
-10	9-11	45	2.0		12,11,9,10		-10
-11							-11
-12	11-13	75	38.7	10.5-11.5	3,5,7,10	GRAVEL: Wet, gravel, with some sand, with sheens and slight MGP odor	-12
-13						CLAY: Moist to wet, tan clay, with trace to some silt, slight MGP odor	-13
-14	13-15	100	-		3,3,3,4	SAND: Wet, gray, fine sand, with some silt, slight MGP odor	-14
-15						SAND: Moist to wet, gray, very fine sand, no odor	-15
						SAND: Wet, gray sand, with trace to some silt and clay, no odor	
						End of Boring	

PID (ppm) = Photo-Ionization Detector, readings in parts per million

wor = weight of rod

sh  
inc.



# WC04

PROJECT: Dansville MGP-NYSEG

PROJECT NO: I03033

LOCATION: Dansville, NY

DATE: 11/14/2008

DRILLING CONTRACTOR: Nothnagle Drilling

DRILLER: Steve Gelser

DRILLING METHOD: 3.25" Hollow Stem Auger

SAMPLING METHOD: 2" by 24" Split Spoons

WELL ELEVATION: N/A

GROUND ELEVATION: 688.65 ft. above MSL

OUTER CASING ELEVATION: N/A

DEPTH TO WATER: N/A

BOREHOLE DEPTH: 14 ft. bgs

WEATHER: Not recorded

GEOLOGIST: S. Pesch

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	BLOW COUNT	SOIL DESCRIPTION and LITHOLOGIC SYMBOL
-------------	-----------------------	------------	-----------	-------------------	------------	--

0						Augered through innterval, cuttings stained black at 1 ft bgs	0
-1							-1
-2							-2
-3	2-4	0	-		Augered	Refusal on concrete at 2.5 ft bgs, augered to 4 feet	-3
-4							-4
-5	4-6	5	7.8		4,4,4,6	Sand: Medium to coarse sand and gravel in tip of spoon, slight odor, possibly chlorinated	-5
-6							-6
-7	6-8	65	15.7		4,10,6,9	Silt: Moist, brown, sandy silt, slight odor	-7
-8				6-10		Gravel: Brown, medium to coarse sand and fine to medium gravel, wet at 8 ft bgs and odor from approximately 8 to 10 ft bgs. Strong MGP-like odor, heavy staining, sheens, and NAPL from 10 to 12 ft bgs. Significant NAPL from 10.7 to 10.9 and 11.2 to 11.8 ft bgs	-8
-9	8-10	50	134		3,10,10,8		-9
-10							-10
-11	10-12	65	1,637	10-12.5	7,8,10,11		-11
-12							-12
-13	12-14	80	334		7,6,4,4	Gravel: Wet, fine to medium gravel, with some sand, some NAPL globules, sheens, moderated MGP-like odor	-13
-14						Clay: Moist, gray clay, with some silt, slight odor End of Boring	-14

PID (ppm) = Photo-Ionization Detector, readings in parts per million

wor = weight of rod



# WC05

PROJECT: Dansville MGP-NYSEG

PROJECT NO: I03033

LOCATION: Dansville, NY

DATE: 11/14/2008

DRILLING CONTRACTOR: Nothnagle Drilling

DRILLER: Steve Gelser

DRILLING METHOD: 3.25" Hollow Stem Auger

SAMPLING METHOD: 2" by 24" Split Spoons

WELL ELEVATION: N/A

GROUND ELEVATION: 688.52 ft. above MSL

OUTER CASING ELEVATION: N/A

DEPTH TO WATER: N/A

BOREHOLE DEPTH: 15 ft. bgs

WEATHER: Not recorded

GEOLOGIST: S. Pesch

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	BLOW COUNT	SOIL DESCRIPTION and LITHOLOGIC SYMBOL
-------------	--------------------------	------------	-----------	----------------------	---------------	---

0						Augered through interval	0
-1							-1
-2							-2
-3							-3
-4							-4
-5							-5
-6	5-7	55	14.3	5-9	6,4,3,4	Sand: Dark brown, medium sand, with some silt and fine gravel, slight odor, no visual	-6
-7						Gravel: Tan/Brown, medium to coarse sand and gravel, moist, slight odor	-7
-8	7-9	40	79.8		5,6,12,11		-8
-9							-9
-10	9-11	30	40	10-12.5	19,21,13,12	Gravel: Wet, fine to medium gravels, with some medium to coarse sand, sheen, trace NAPL globules. From 11 to 12.8 ft bgs, heavy sheen, strong odor, some NAPL globules	-10
-11							-11
-12	11-13	65	179		9,6,4,6		-12
-13							-13
-14	13-15	75	17.2		4,5,7,6	Clay: Wet, gray clay, with some silt, slight to moderate odor	-14
-15						End of Boring	-15

PID (ppm) = Photo-Ionization Detector, readings in parts per million

wor = weight of rod



# WC06

PROJECT: Dansville MGP-NYSEG

PROJECT NO: I03033

LOCATION: Dansville, NY

DATE: 11/14/2008

DRILLING CONTRACTOR: Nothnagle Drilling

DRILLER: Steve Gelser

DRILLING METHOD: 3.25" Hollow Stem Auger

SAMPLING METHOD: 2" by 24" Split Spoons

WELL ELEVATION: N/A

GROUND ELEVATION: 687.73 ft. above MSL

OUTER CASING ELEVATION: N/A

DEPTH TO WATER: N/A

BOREHOLE DEPTH: 15 ft. bgs

WEATHER: Not recorded

GEOLOGIST: S. Pesch

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	BLOW COUNT	SOIL DESCRIPTION and LITHOLOGIC SYMBOL
-------------	-----------------------	------------	-----------	-------------------	------------	--

0						Augered through interval	0
-1							-1
-2							-2
-3							-3
-4							-4
-5							-5
-6	5-7	40	1.4		6,5,7,9	Gravel: Medium to coarse sand and fine to medium gravel, moist to 7 ft then wet, no odor or visual to 9 ft bgs. From 9 to 11 ft bgs, some NAPL stringers, slight odor, and sheen	-6
-7				6-9			-7
-8	7-9	45	5.3		4,5,7,20		-8
-9							-9
-10	9-11	50	44		17,9,7,7		-10
-11							-11
-12	11-13	75	30	10-13.5	4,4,6,6	Gravel: Very wet, fine to coarse gravel, with some sand, heavy sheen (NAPL on sheen), slight MGP-like odor	-12
-13							-13
-14	13-15	85	41.2		4,7,9,10	Clay: Wet to moist, gray, silty clay, slight MGP-like odor	-14
-15						End of Boring	-15

PID (ppm) = Photo-Ionization Detector, readings in parts per million  
wor = weight of rod

# **GEOTECHNICAL AND ANALYTICAL LABORATORY DATA**

## **APPENDIX D**





**LABORATORIES, INC.**

GEOTECHNICAL, GEOSYNTHETIC AND MATERIALS TESTING AND RESEARCH

December 31, 2008  
08LS1805.01

Key Environmental, Inc.  
200 3<sup>rd</sup> Avenue  
Carnegie, PA 15106

Attn: Benjamin T. Staud, P.E.

**RE: GEOTECHNICAL TEST RESULTS  
DANVILLE, NY PROJECT  
PO: 08-717**

Dear Mr. Staud:

Submitted herein are the results of geotechnical tests performed on nine (9) jar samples and three (3) Shelby Tube samples from the subject project. All testing was performed per the referenced ASTM Standards and subject to JLT's internal QA / QC and data validation procedures.

We appreciate the opportunity to provide our services and look forward to working with you again. Should you have any questions, comments or require additional information, please do not hesitate to call. Thank you.

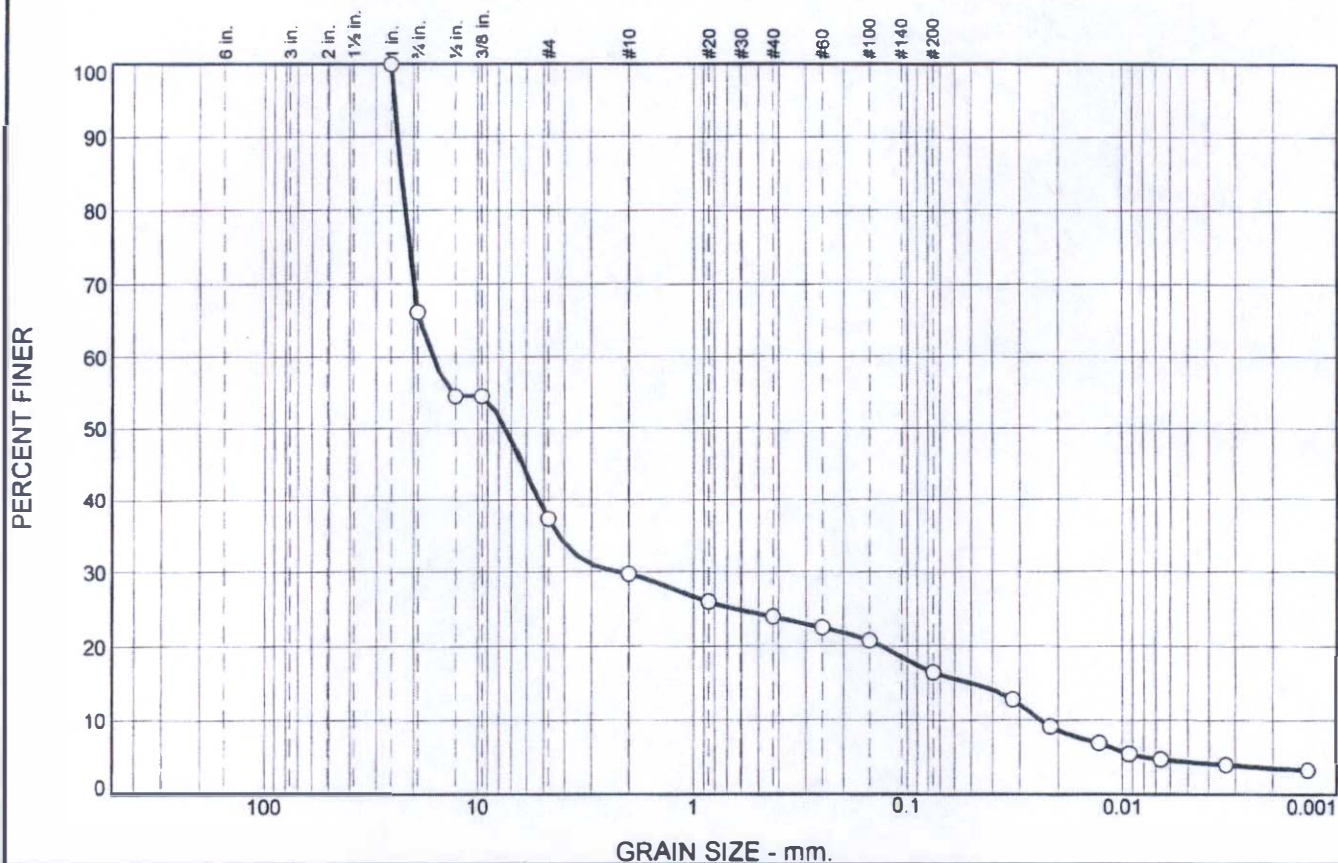
Sincerely,

**JLT LABORATORIES, INC.**

John Boschuk, Jr., P.E.  
President

Enclosures  
JB/mlb  
\\wp10\letter\08431  
Inv # 3699

# Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	33.9	28.9	7.5	5.7	7.5	12.1	4.4

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
.75	66.1		
.50	54.5		
.375	54.5		
#4	37.2		
#10	29.7		
#20	26.0		
#40	24.0		
#60	22.5		
#100	20.7		
#200	16.5		

\* (no specification provided)

## Material Description

### Atterberg Limits (ASTM D 4318)

PL= LL= PI=

### Classification

USCS= GM AASHTO=

### Coefficients

D<sub>85</sub>= 22.6898 D<sub>60</sub>= 16.2796 D<sub>50</sub>= 7.4351  
D<sub>30</sub>= 2.2258 D<sub>15</sub>= 0.0491 D<sub>10</sub>= 0.0238  
C<sub>u</sub>= 683.12 C<sub>c</sub>= 12.77

Date Tested: 12/18/08 Tested By: RL

### Remarks

As-Rec'd M/C = 7.6%

Sample No.: GB-01 Source of Sample:  
Location: Danville, NY  
Checked By: JB

Date Sampled:  
Elev./Depth: 6-8

Title: Lab Manager

JLT Laboratories, Inc.

Canonsburg, PA

Client: Key Environmental  
Project: Danville, NY  
PO No. 08-717

Project No: 08LS1805.01

Figure

# Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	1.0	1.0	2.0	10.0	55.3	30.7

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
.375	100.0		
#4	99.0		
#10	98.0		
#20	96.9		
#40	96.0		
#60	95.2		
#100	93.1		
#200	86.0		

\* (no specification provided)

## Material Description

### Atterberg Limits (ASTM D 4318)

PL= NP LL= NP PI= NP

### Classification

USCS= ML AASHTO=

### Coefficients

D<sub>85</sub>= 0.0690 D<sub>60</sub>= 0.0175 D<sub>50</sub>= 0.0135  
D<sub>30</sub>= 0.0045 D<sub>15</sub>= D<sub>10</sub>=  
C<sub>u</sub>= C<sub>c</sub>=

Date Tested: 12/18/08 Tested By: RL

### Remarks

As-Rec'd M/C = 16.5%

Sample No.: GB-02 Source of Sample:

Location: Danville, NY

Checked By: JB

Title: Lab Manager

Date Sampled:

Elev./Depth: 30-32

**JLT Laboratories, Inc.**

**Canonsburg, PA**

Client: Key Environmental

Project: Danville, NY

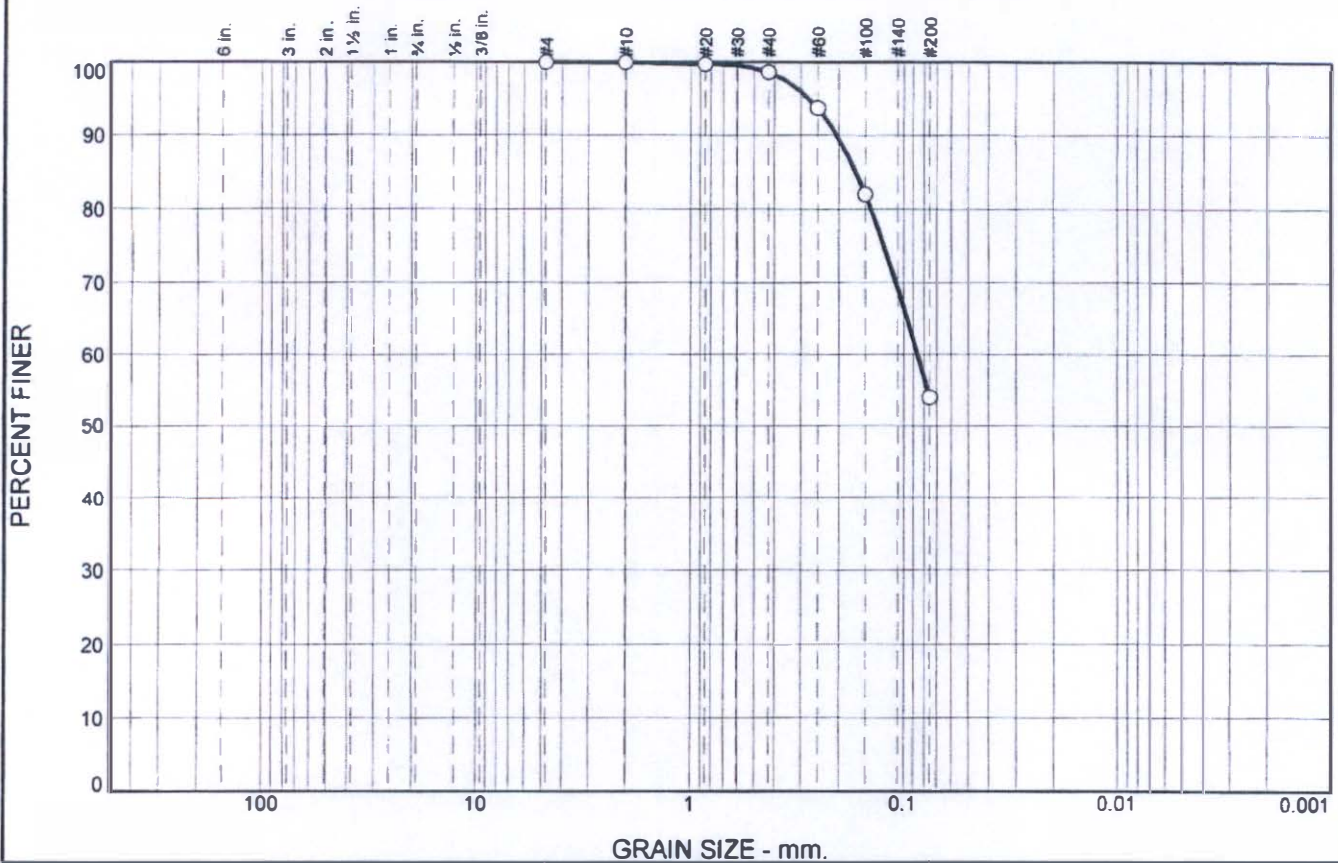
PO No. 08-717

Project No: 08LS1805.01

Figure



# Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	0.1	1.3	44.6	54.0	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#4	100.0		
#10	99.9		
#20	99.7		
#40	98.6		
#60	93.7		
#100	82.0		
#200	54.0		

\* (no specification provided)

## Material Description

### Atterberg Limits (ASTM D 4318)

PL= LL= PI=

### Classification

USCS= ML AASHTO=

### Coefficients

D<sub>85</sub>= 0.1658 D<sub>60</sub>= 0.0858 D<sub>50</sub>=  
D<sub>30</sub>= D<sub>15</sub>= D<sub>10</sub>=  
C<sub>u</sub>= C<sub>c</sub>=

Date Tested: 12/18/08 Tested By: RL

### Remarks

As-Rec'd M/C = 18.9%

Sample No.: GB-03 Source of Sample:  
Location: Danville, NY  
Checked By: JB

Date Sampled:  
Elev./Depth: 2-4

Title: Lab Manager

JLT Laboratories, Inc.

Canonsburg, PA

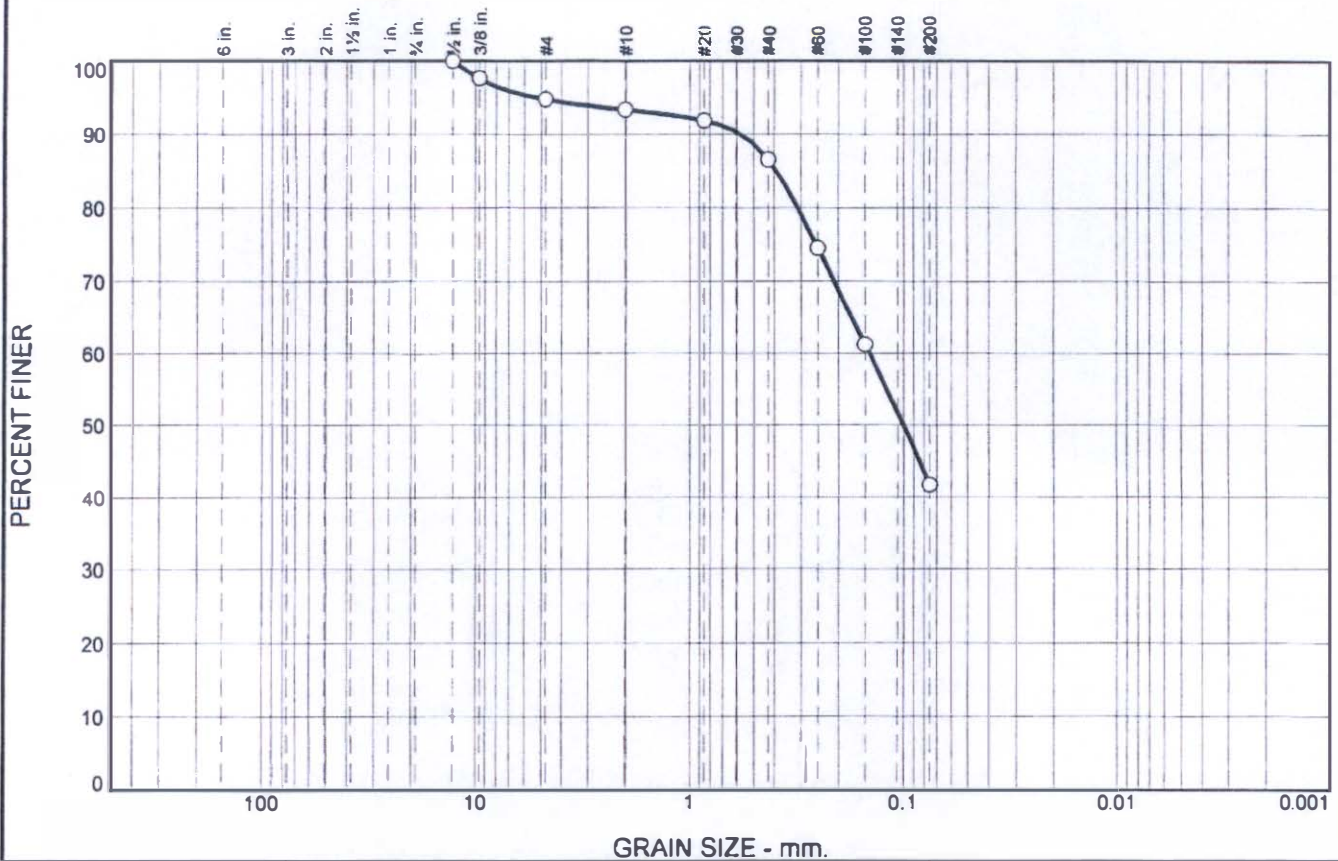
Client: Key Environmental

Project: Danville, NY  
PO No. 08-717

Project No: 08LS1805.01

Figure

# Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	5.2	1.5	6.7	44.9	41.7	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
.50	100.0		
.375	97.6		
#4	94.8		
#10	93.3		
#20	91.8		
#40	86.6		
#60	74.5		
#100	61.2		
#200	41.7		

\* (no specification provided)

## Material Description

### Atterberg Limits (ASTM D 4318)

PL= LL= PI=

### Classification

USCS= SM AASHTO=

### Coefficients

D<sub>85</sub>= 0.3888 D<sub>60</sub>= 0.1432 D<sub>50</sub>= 0.1001  
D<sub>30</sub>= D<sub>15</sub>= D<sub>10</sub>=  
C<sub>u</sub>= C<sub>c</sub>=

Date Tested: 12/18/08 Tested By: RL

### Remarks

As-Rec'd M/C = 14.7%

Sample No.: GB-04 Source of Sample:  
Location: Danville, NY  
Checked By: JB

Date Sampled:  
Elev./Depth: 2-4

Title: Lab Manager

**JLT Laboratories, Inc.**

**Canonsburg, PA**

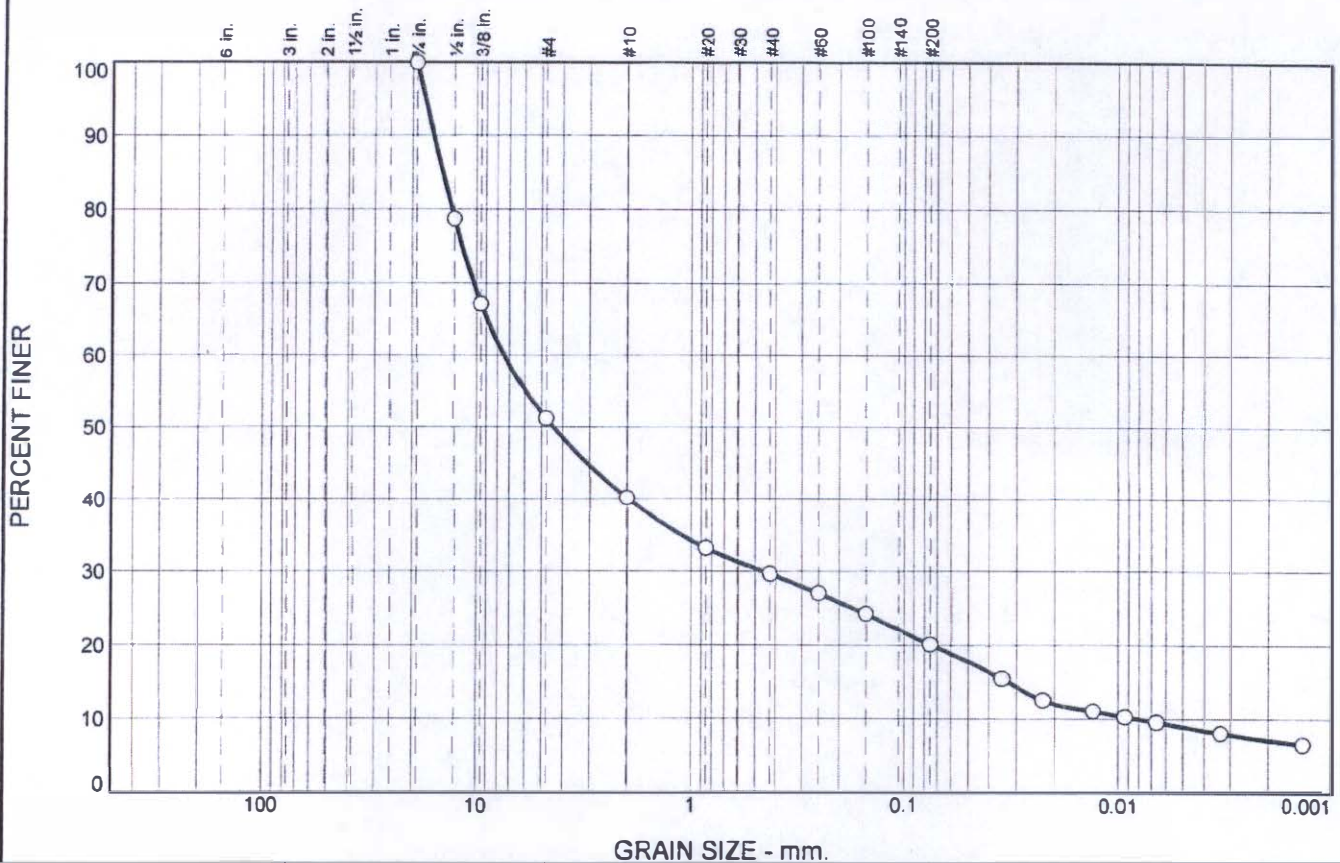
Client: Key Environmental  
Project: Danville, NY  
PO No. 08-717

Project No: 08LS1805.01

Figure



# Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	48.8	11.0	10.5	9.6	11.2	8.9

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
.75	100.0		
.50	78.7		
.375	67.2		
#4	51.2		
#10	40.2		
#20	33.1		
#40	29.7		
#60	27.0		
#100	24.2		
#200	20.1		

\* (no specification provided)

## Material Description

### Atterberg Limits (ASTM D 4318)

PL= LL= PI=

### Classification

USCS= GM AASHTO=

### Coefficients

D<sub>85</sub>= 14.4341 D<sub>60</sub>= 7.4527 D<sub>50</sub>= 4.3986  
D<sub>30</sub>= 0.4578 D<sub>15</sub>= 0.0326 D<sub>10</sub>= 0.0081  
C<sub>u</sub>= 917.37 C<sub>c</sub>= 3.46

Date Tested: 12/18/08 Tested By: RL

### Remarks

As-Rec'd M/C = 8.2%

Sample No.: GB-04 Source of Sample:  
Location: Danville, NY  
Checked By: JB

Date Sampled:  
Elev./Depth: 10-12

Title: Lab Manager

**JLT Laboratories, Inc.**

**Canonsburg, PA**

Client: Key Environmental

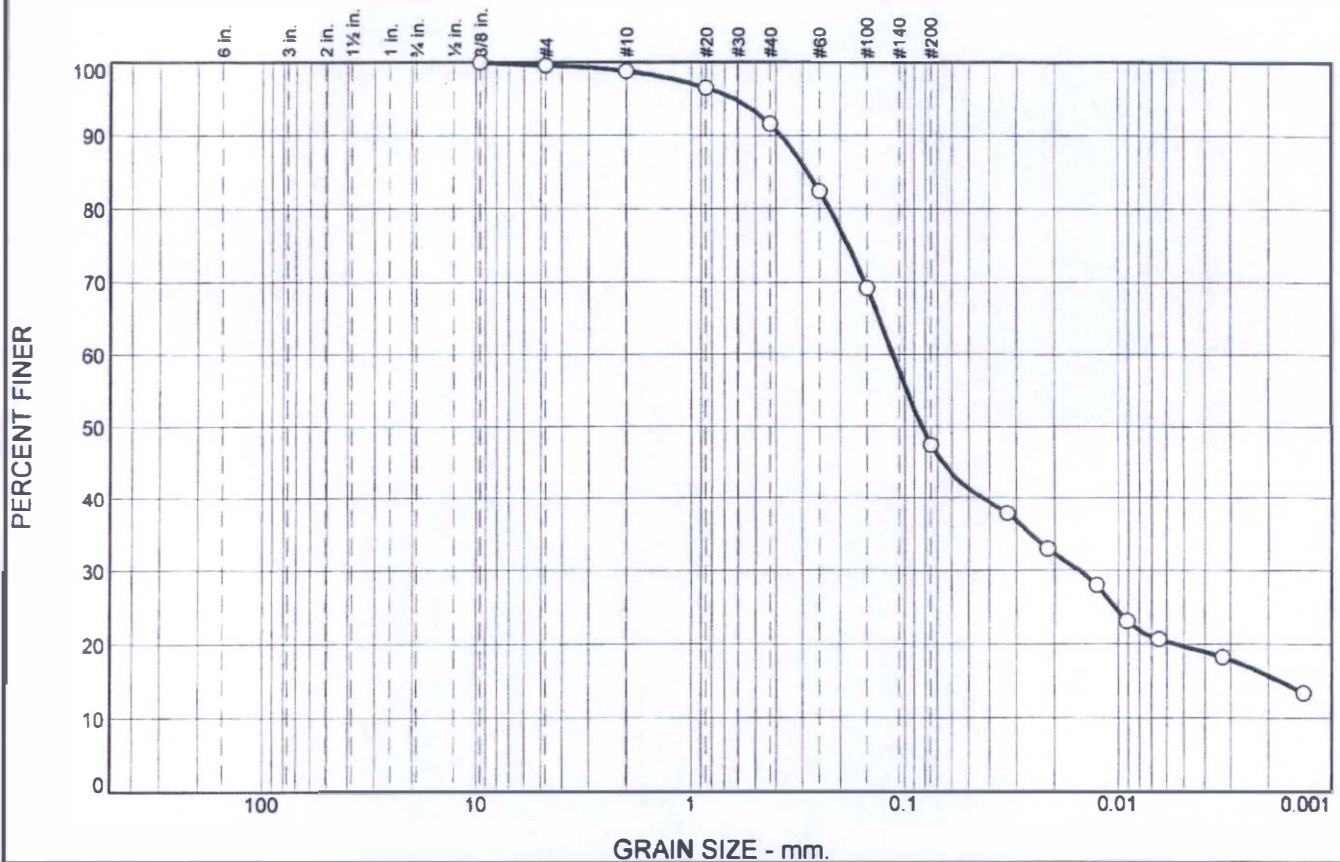
Project: Danville, NY  
PO No. 08-717

Project No: 08LS1805.01

Figure



# Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.4	0.8	7.2	44.1	27.8	19.7

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
.375	100.0		
#4	99.6		
#10	98.8		
#20	96.5		
#40	91.6		
#60	82.4		
#100	69.2		
#200	47.5		

\* (no specification provided)

## Material Description

### Atterberg Limits (ASTM D 4318)

PL= NP LL= NP PI= NP

### Classification

USCS= SM AASHTO=

### Coefficients

D<sub>85</sub>= 0.2835 D<sub>60</sub>= 0.1138 D<sub>50</sub>= 0.0829  
D<sub>30</sub>= 0.0151 D<sub>15</sub>= 0.0018 D<sub>10</sub>=  
C<sub>u</sub>= C<sub>c</sub>=

Date Tested: 12/18/08 Tested By: RL

### Remarks

As-Rec'd M/C = 13.8%

Sample No.: GB-05 Source of Sample:  
Location: Danville, NY  
Checked By: JB

Date Sampled:  
Elev./Depth: 35-37

Title: Lab Manager

JLT Laboratories, Inc.

Client: Key Environmental

Project: Danville, NY

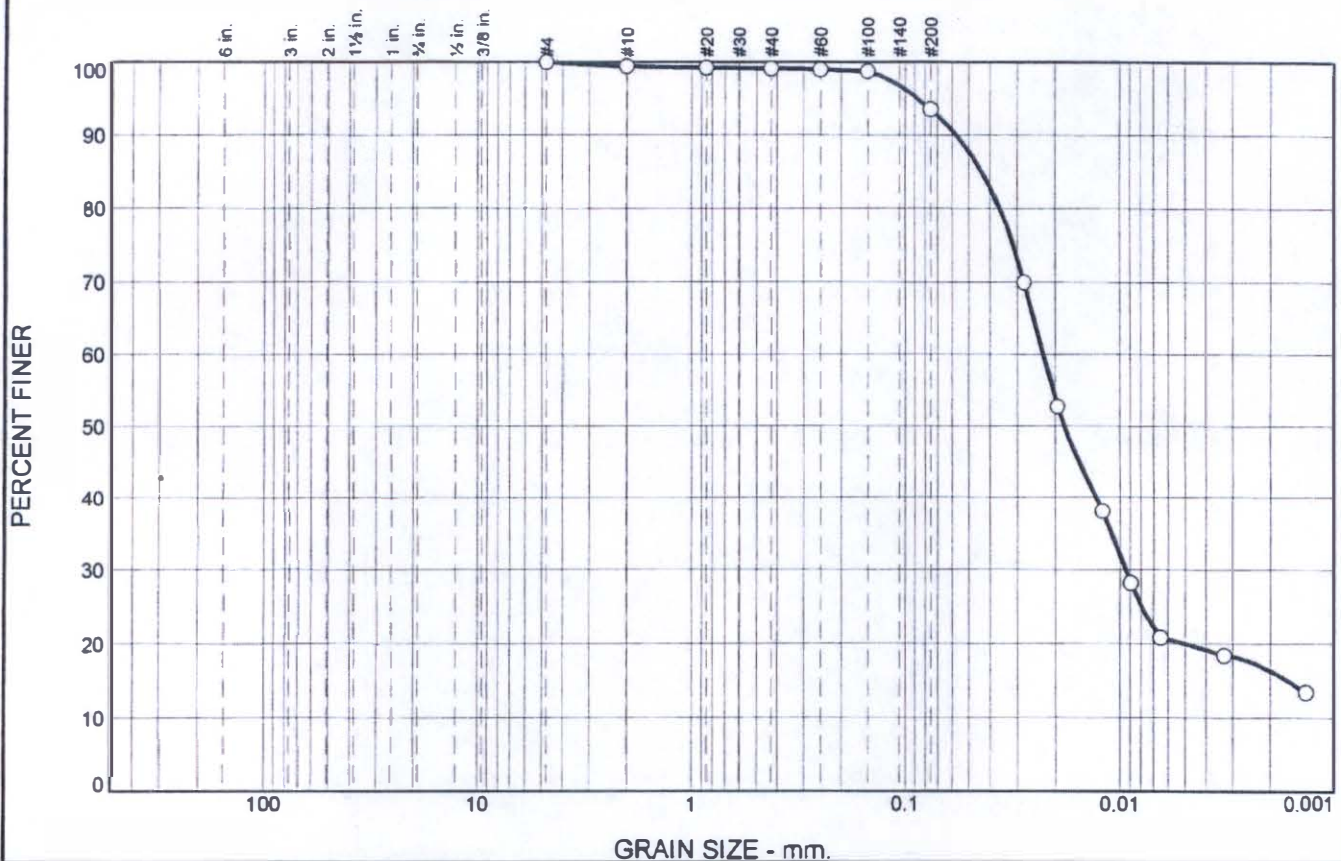
PO No. 08-717

Canonsburg, PA

Project No: 08LS1805.01

Figure

# Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	0.6	0.3	5.6	73.5	20.0

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#4	100.0		
#10	99.4		
#20	99.2		
#40	99.1		
#60	99.0		
#100	98.8		
#200	93.5		

\* (no specification provided)

## Material Description

### Atterberg Limits (ASTM D 4318)

PL= NP LL= NP PI= NP

### Classification

USCS= ML AASHTO=

### Coefficients

D<sub>85</sub>= 0.0434 D<sub>60</sub>= 0.0226 D<sub>50</sub>= 0.0180  
D<sub>30</sub>= 0.0094 D<sub>15</sub>= 0.0017 D<sub>10</sub>=  
C<sub>u</sub>= C<sub>c</sub>=

Date Tested: 12/18/08 Tested By: RL

### Remarks

As-Rec'd M/C = 21.4%

Sample No.: GB-06 Source of Sample:  
Location: Danville, NY  
Checked By: JB

Date Sampled:  
Elev./Depth: 16-18

Title: Lab Manager

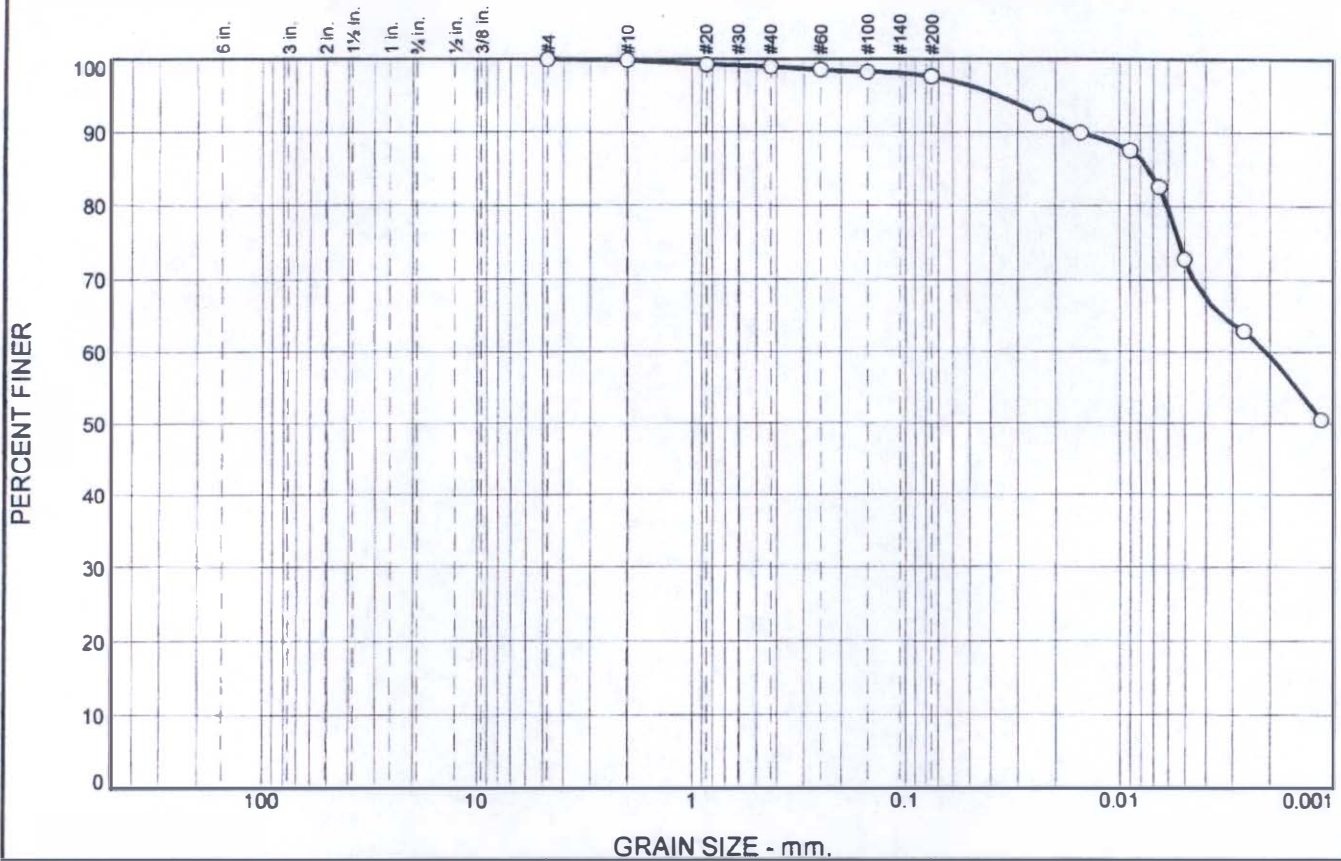
**JLT Laboratories, Inc.**  
**Canonsburg, PA**

Client: Key Environmental  
Project: Danville, NY  
PO No. 08-717  
Project No: 08LS1805.01

Figure



# Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	0.1	0.9	1.4	24.7	72.9

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#4	100.0		
#10	99.9		
#20	99.3		
#40	99.0		
#60	98.5		
#100	98.2		
#200	97.6		

\* (no specification provided)

## Material Description

### Atterberg Limits (ASTM D 4318)

PL= 19 LL= 34 PI= 15

### Classification

USCS= CL AASHTO=

### Coefficients

D<sub>85</sub>= 0.0072 D<sub>60</sub>= 0.0021 D<sub>50</sub>=  
D<sub>30</sub>= D<sub>15</sub>= D<sub>10</sub>=  
C<sub>u</sub>= C<sub>c</sub>=

Date Tested: 12/18/08 Tested By: RL

### Remarks

As-Rec'd M/C = 26.5%

Sample No.: GB-06 Source of Sample:  
Location: Danville, NY  
Checked By: JB

Date Sampled:  
Elev./Depth: 24-26

Title: Lab Manager

JLT Laboratories, Inc.

Canonsburg, PA

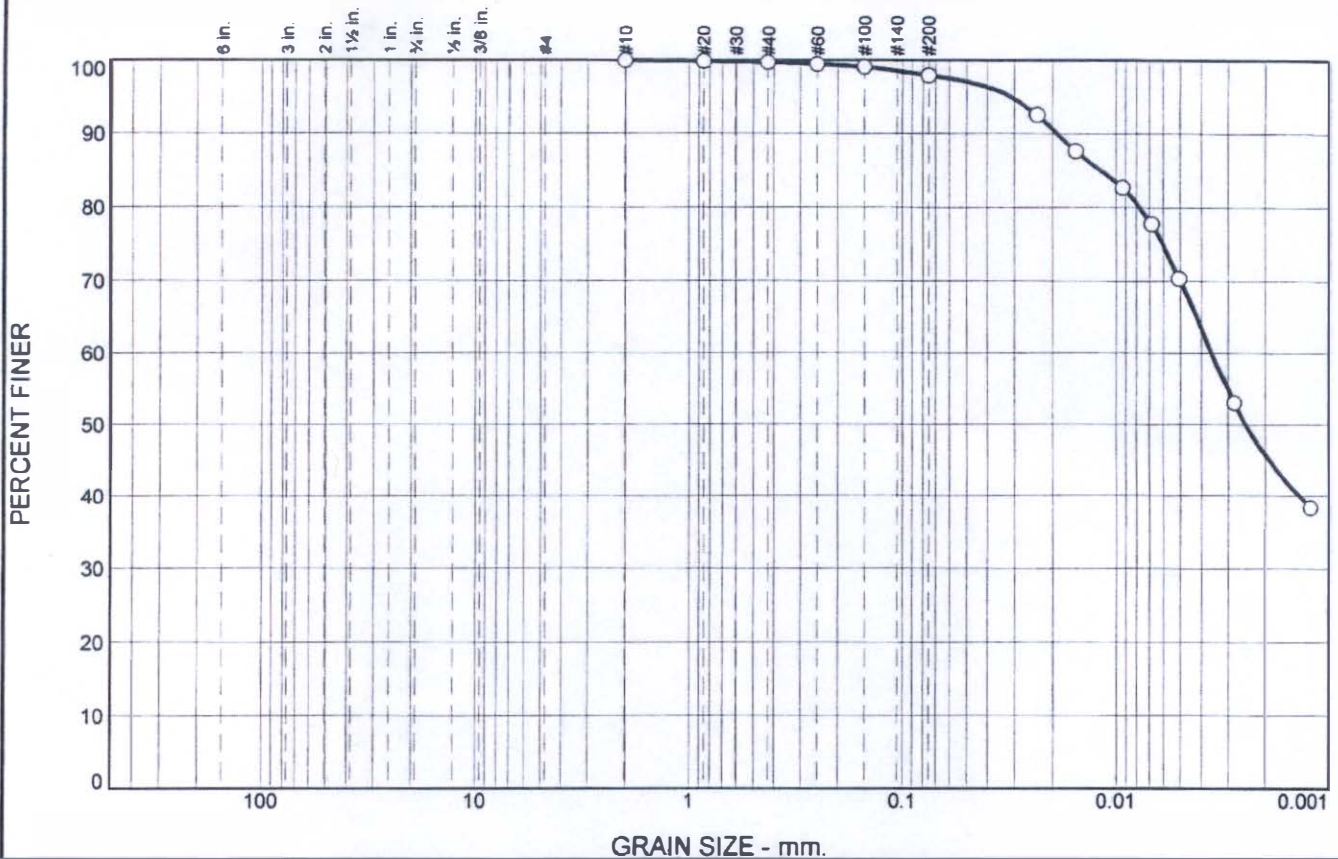
Client: Key Environmental  
Project: Danville, NY  
PO No. 08-717

Project No: 08LS1805.01

Figure



# Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	0.0	0.3	1.8	27.8	70.1

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#10	100.0		
#20	99.9		
#40	99.7		
#60	99.5		
#100	99.1		
#200	97.9		

\* (no specification provided)

## Material Description

### Atterberg Limits (ASTM D 4318)

PL= 19 LL= 31 PI= 12

### Classification

USCS= CL AASHTO=

### Coefficients

D<sub>85</sub>= 0.0116 D<sub>60</sub>= 0.0036 D<sub>50</sub>= 0.0025  
D<sub>30</sub>= C<sub>u</sub>= D<sub>15</sub>= C<sub>c</sub>=

Date Tested: 12/18/08 Tested By: RL

### Remarks

As-Rec'd M/C = 21.2%

Sample No.: GB-08 Source of Sample:  
Location: Danville, NY  
Checked By: JB

Date Sampled:  
Elev./Depth: 35-37

Title: Lab Manager

JLT Laboratories, Inc.

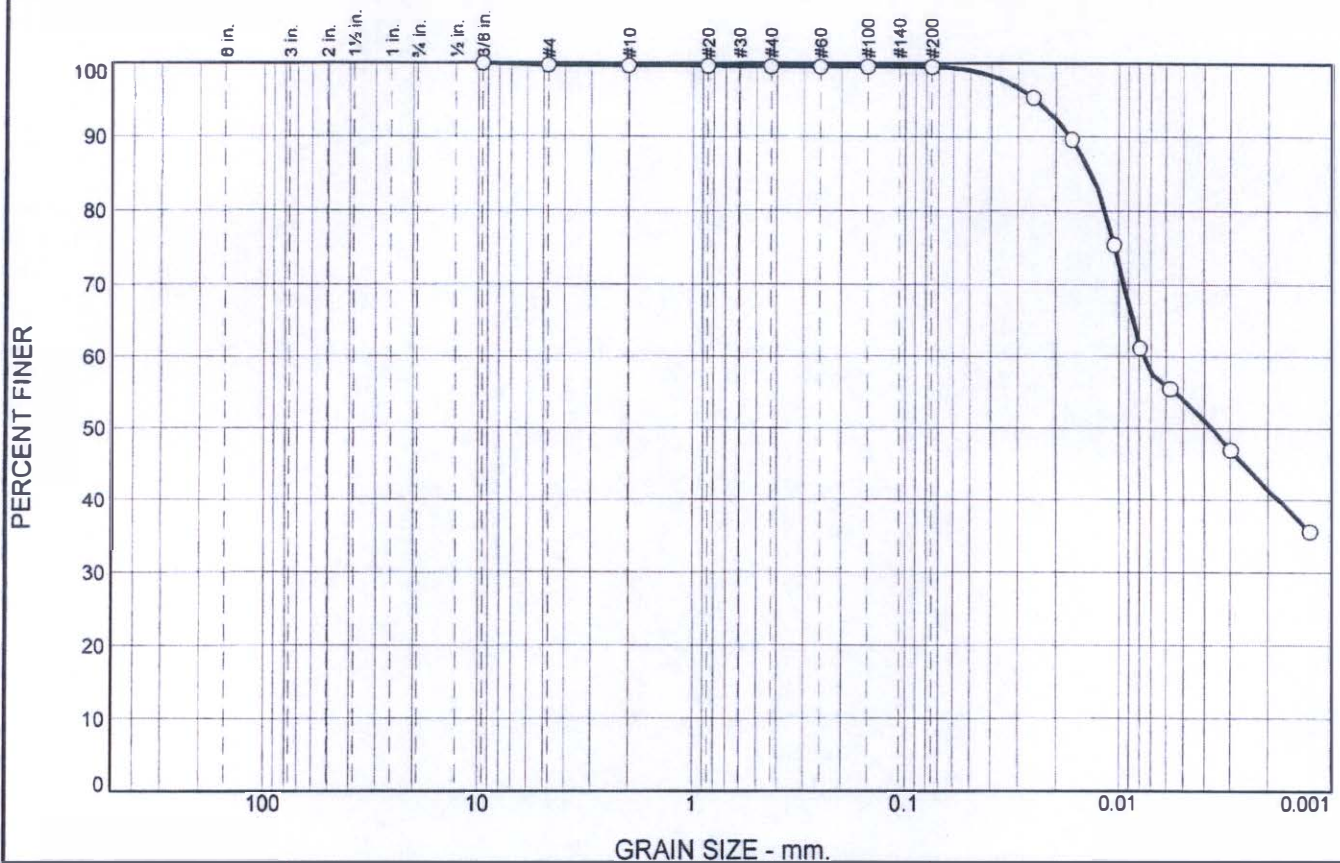
Canonsburg, PA

Client: Key Environmental  
Project: Danville, NY  
PO No. 08-717

Project No: 08LS1805.01

Figure

# Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.3	0.0	0.2	0.0	45.5	54.0

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
.375	100.0		
#4	99.7		
#10	99.7		
#20	99.6		
#40	99.5		
#60	99.5		
#100	99.5		
#200	99.5		

\* (no specification provided)

**Material Description**

Silt  
Shelby Tube

**Atterberg Limits (ASTM D 4318)**  
 PL= NP      LL= NP      PI= NP

**Classification**  
 USCS= ML      AASHTO=

**Coefficients**  
 D<sub>85</sub>= 0.0135      D<sub>60</sub>= 0.0077      D<sub>50</sub>= 0.0037  
 D<sub>30</sub>=      D<sub>15</sub>=      D<sub>10</sub>=  
 C<sub>u</sub>=      C<sub>c</sub>=

Date Tested: 12/29/08      Tested By: RL

**Remarks**

Sample No.: GB-04      Source of Sample:  
 Location: Danville, NY  
 Checked By: JB

Date Sampled:  
 Elev./Depth: 20-22

Title: Lab Manager

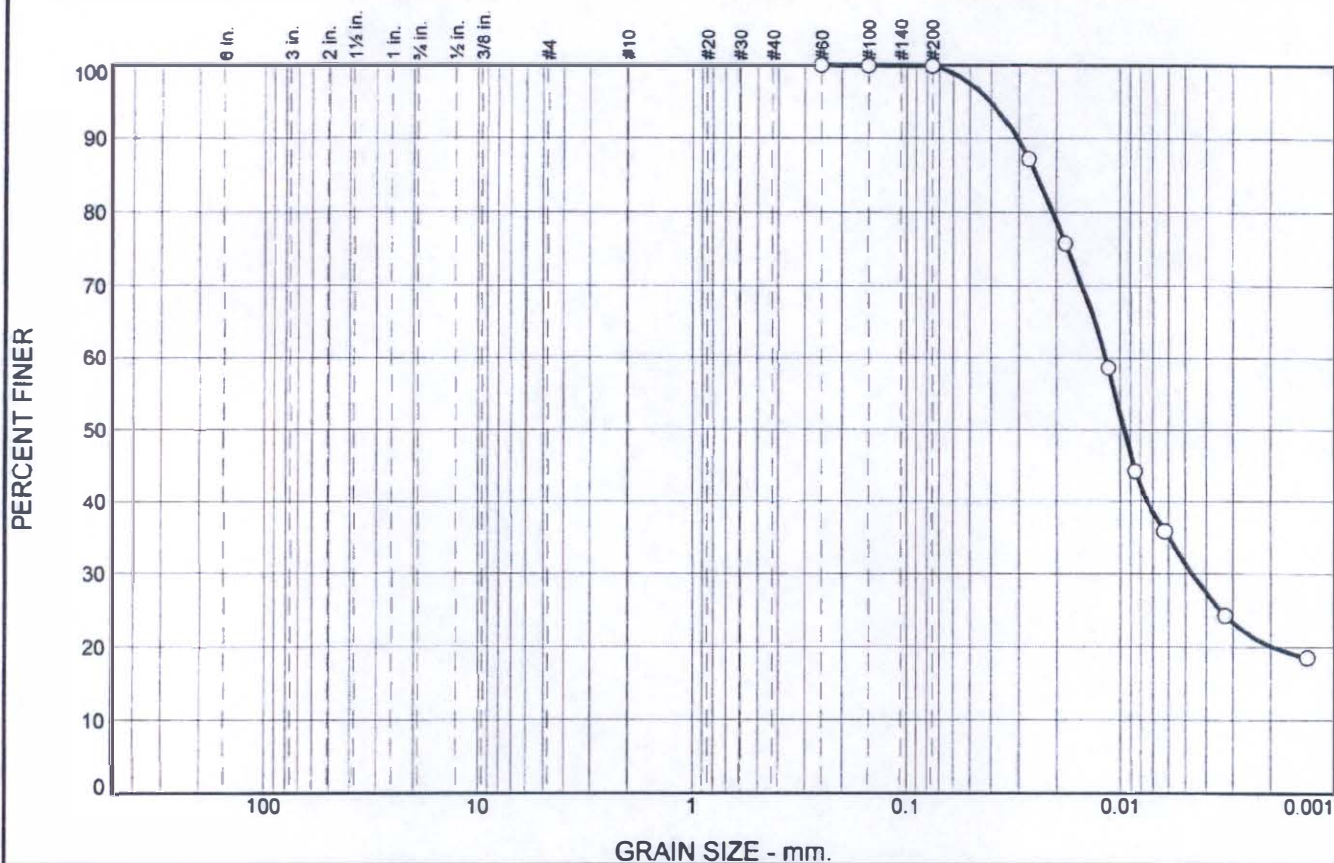
**JLT Laboratories, Inc.**  
**Canonsburg, PA**

Client: Key Environmental  
 Project: Danville, NY  
 PO No. 08-717  
 Project No: 08LS1805.01

Figure



# Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	0.0	0.0	0.1	68.5	31.4

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#60	100.0		
#100	99.9		
#200	99.9		

\* (no specification provided)

## Material Description

Silt

Shelby Tube

## Atterberg Limits (ASTM D 4318)

PL= NP

LL= NP

PI= NP

## Classification

USCS= ML

AASHTO=

## Coefficients

D<sub>85</sub>= 0.0246

D<sub>60</sub>= 0.0117

D<sub>50</sub>= 0.0096

D<sub>30</sub>= 0.0046

D<sub>15</sub>=

D<sub>10</sub>=

C<sub>u</sub>=

C<sub>c</sub>=

Date Tested: 12/29/08 Tested By: RL

## Remarks

Sample No.: GB-05 Source of Sample:

Location: Danville, NY

Checked By: JB

Title: Lab Manager

Date Sampled:

Elev./Depth: 14-16

**JLT Laboratories, Inc.**

**Canonsburg, PA**

Client: Key Environmental

Project: Danville, NY

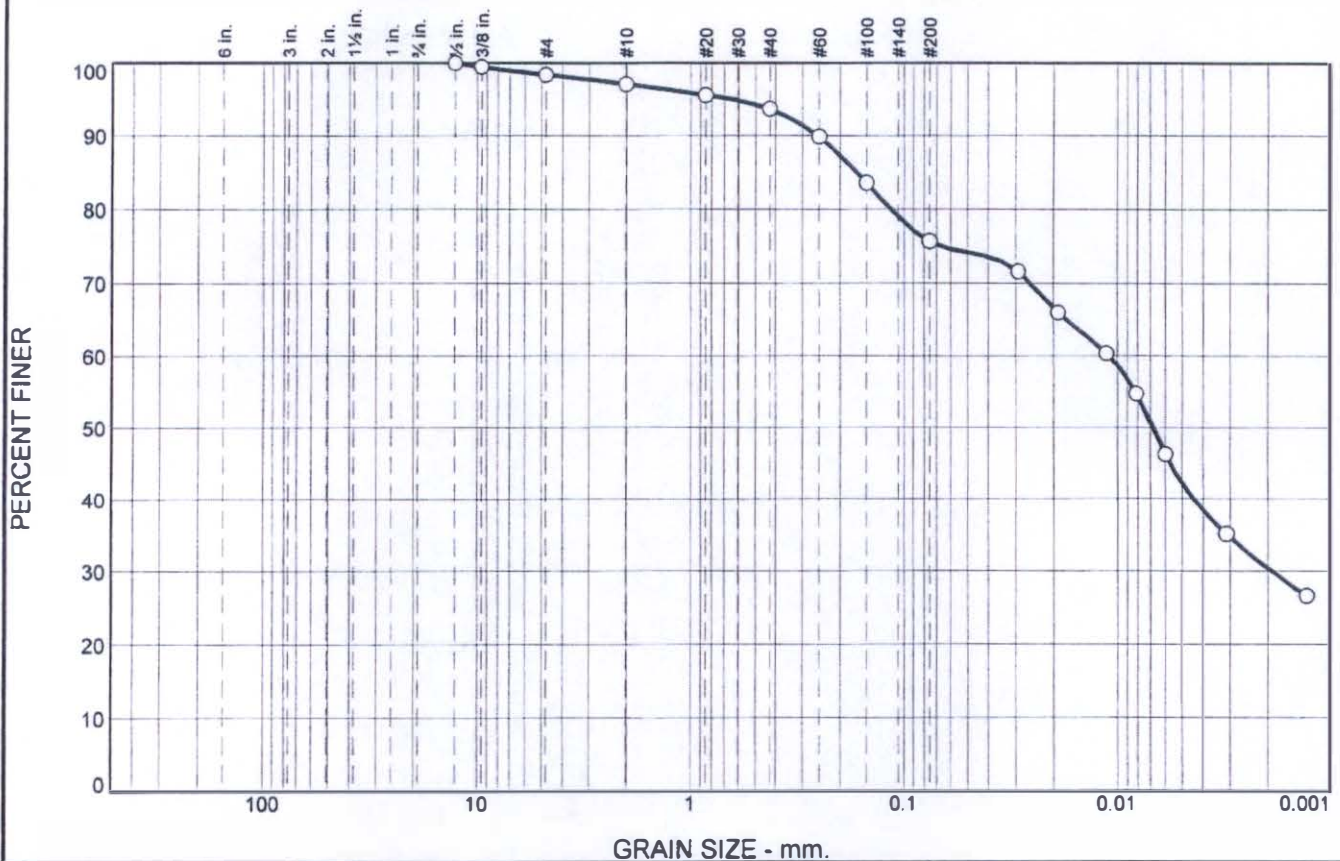
PO No. 08-717

Project No: 08LS1805.01

Figure



# Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	1.6	1.3	3.4	18.0	33.4	42.3

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
.50	100.0		
.375	99.5		
#4	98.4		
#10	97.1		
#20	95.6		
#40	93.7		
#60	89.9		
#100	83.6		
#200	75.7		

\* (no specification provided)

**Material Description**

Sandy Silt  
Shelby Tube

**Atterberg Limits (ASTM D 4318)**  
 PL= NP      LL= NP      PI= NP

**Classification**  
 USCS= ML      AASHTO=

**Coefficients**  
 D<sub>85</sub>= 0.1665      D<sub>60</sub>= 0.0109      D<sub>50</sub>= 0.0068  
 D<sub>30</sub>= 0.0019      D<sub>15</sub>=      D<sub>10</sub>=  
 C<sub>u</sub>=      C<sub>c</sub>=

**Date Tested:** 12/29/08    **Tested By:** RL

**Remarks**

**Sample No.:** GB-07    **Source of Sample:**  
**Location:** Danville, NY  
**Checked By:** JB

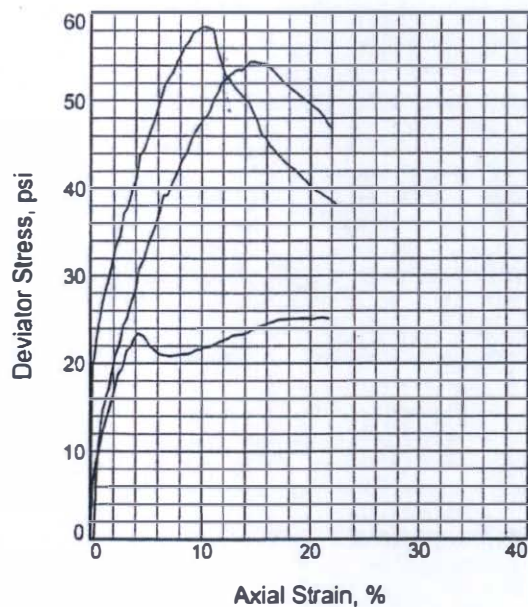
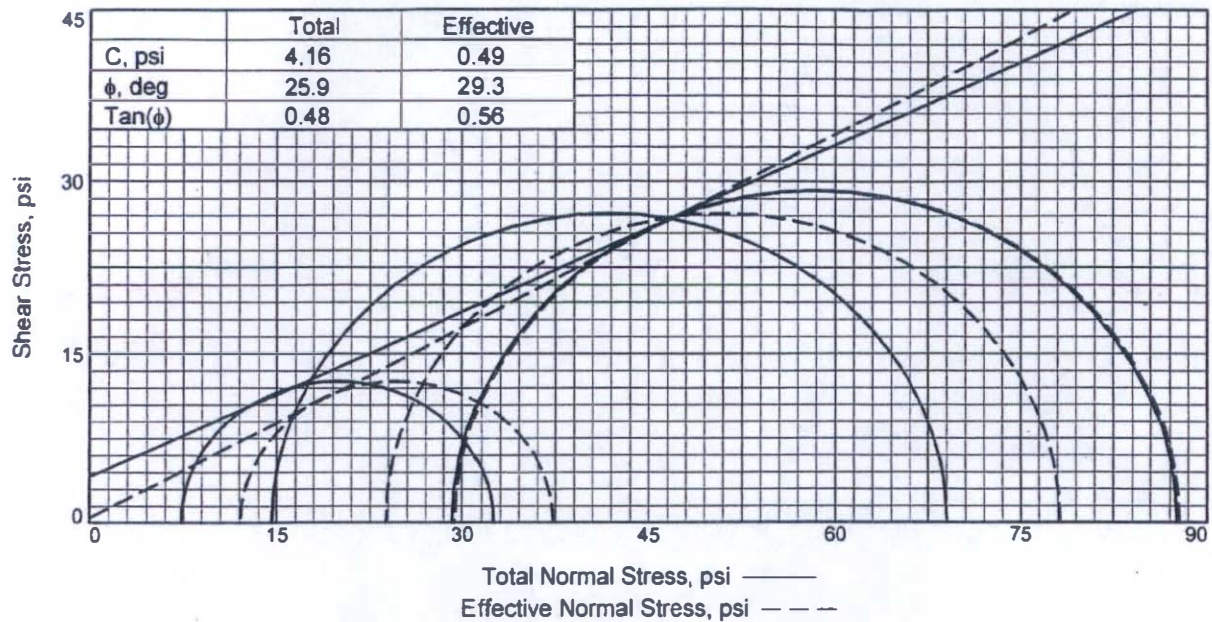
**Date Sampled:**  
**Elev./Depth:** 40-42

**Title:** Lab Manager

**JLT Laboratories, Inc.**  
  
**Canonsburg, PA**

**Client:** Key Environmental  
**Project:** Danville, NY  
 PO No. 08-717  
**Project No:** 08LS1805.01

**Figure**



Sample No.		1	2	3
Initial	Water Content,	27.26	25.96	26.40
	Dry Density, pcf	97.3	99.4	98.7
	Saturation,	99.7	99.8	99.9
	Void Ratio	0.744	0.708	0.719
	Diameter, in.	2.83	2.82	2.82
	Height, in.	5.65	5.59	5.54
At Test	Water Content,	25.69	24.50	24.45
	Dry Density, pcf	99.91	101.85	101.94
	Saturation,	100.0	100.0	100.0
	Void Ratio	0.699	0.666	0.665
	Diameter, in.	2.80	2.80	2.81
	Height, in.	5.63	5.54	5.43
Strain rate, in./min.		0.005	0.005	0.005
Eff. Cell Pressure, psi		7.3	14.6	29.2
Fail. Stress, psi		25.2	54.4	58.4
Total Pore Pr., psi		35.2	30.8	39.8
Strain, %		21.3	14.8	10.3
Ult. Stress, psi				
Total Pore Pr., psi				
Strain, %				
$\sigma_1$ Failure, psi		37.3	78.2	87.8
$\sigma_3$ Failure, psi		12.1	23.8	29.4
Client: Key Environmental				
Project: Danville, NY				
PO No. 08-717				
Location: Danville, NY				
Sample Number: GB-04			Depth: 20-22	
Proj. No.: 08LS1805.01			Date: 12/22/2008	
TRIAXIAL SHEAR TEST REPORT				
JLT Laboratories, Inc.				

#### Type of Test:

CU with Pore Pressures

Sample Type: Tube Sample

Description:

Assumed Specific Gravity= 2.72

Remarks:

Figure 001

Tested By: MLB

Checked By: JB



**SUMMARY OF FLEX WALL PERMEABILITY  
TEST RESULTS**  
ASTM D-5084 (Method A)



Client	:	Key Environmental	Date	:	12/31/08
Project Location	:	Danville, New York	Job No.	:	08LS1805.01
Sample Number	:	GB-4 at 20 to 22 ft	Tested By	:	RL
Description	:	Tube Sample	Checked By	:	JB
			Job Refer.	:	08-717
			Spec. Gravity	:	2.72 Assumed

**Physical Property Data**

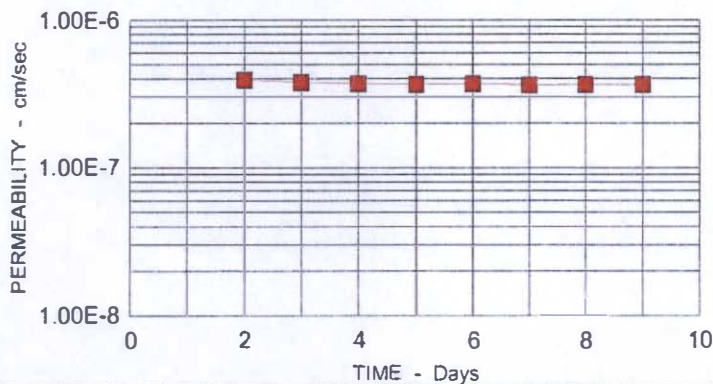
Initial Height ( in )	:	2.79	Final Height ( in )	:	2.70
Initial Diameter ( in )	:	2.83	Final Diameter ( in )	:	2.80
Initial Wet Weight ( g )	:	571.20	Final Wet Weight ( g )	:	560.80
Wet Density ( pcf )	:	123.88	Wet Density ( pcf )	:	128.39
Moisture Content %	:	25.37	Moisture Content %	:	23.05
Dry Density ( pcf )	:	98.81	Dry Density ( pcf )	:	104.34
Initial Void Ratio	:	0.7177	Final Void Ratio	:	0.6267
Saturation , %	:	96.2	Saturation , %	:	100.0

**Test Parameters**

Fluid	:	De-Aired Water	<b>Effective</b>		
Cell Pressure ( psi )	:	65.00	<b>Confining Pressure (psi)</b>	:	<b>10</b>
Head Water ( psi )	:	56.20	Gradient	:	24.53
Tail Water ( psi )	:	53.80			

**Permeability Input Data**

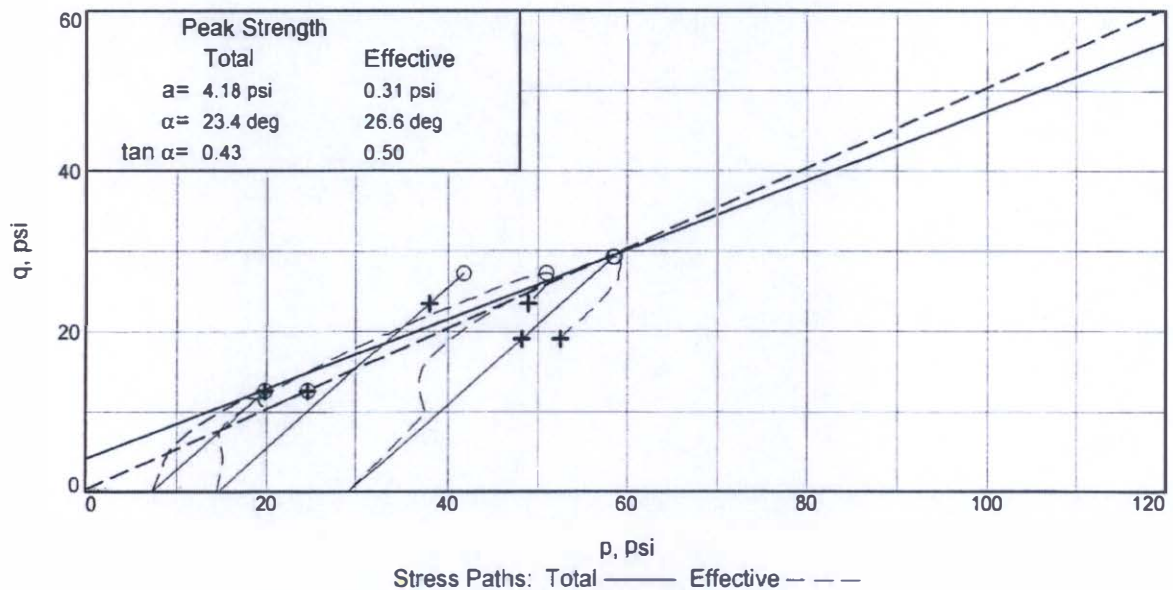
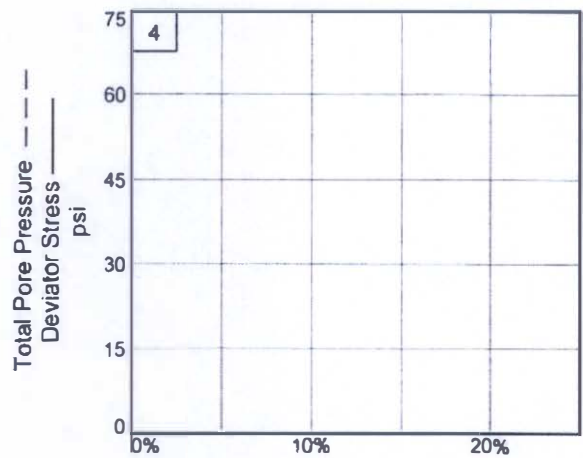
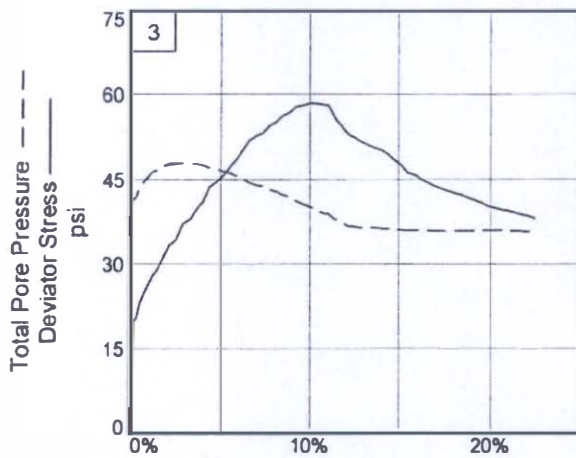
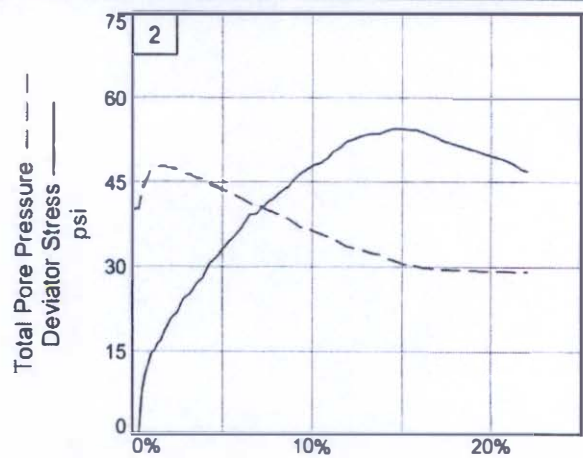
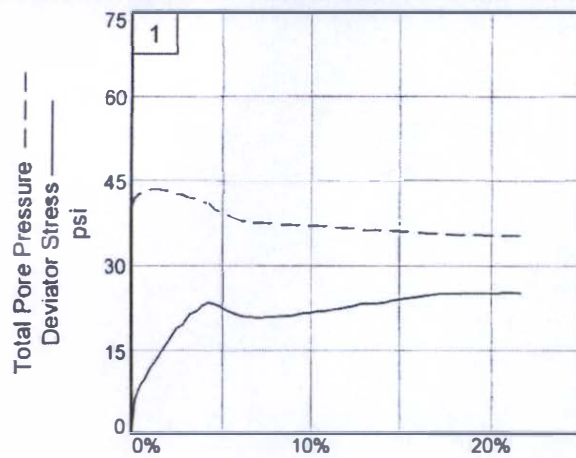
Flow, Q ( cc )	:	5.20
Length, L ( in )	:	2.70
Area, A ( sqin )	:	6.16
<b>Head, h ( psi )</b>	:	<b>2.40</b>
Time, t ( min )	:	240.00
Temp, T ( Deg C )	:	20.4



**Computed Permeability**

**PERMEABILITY, K = 3.66E-007 ( cm/sec ) at 20 Degrees C**





Client: Key Environmental

Project: Danville, NY

Location: Danville, NY

Project No.: 08LS1805.01

Depth: 20-22

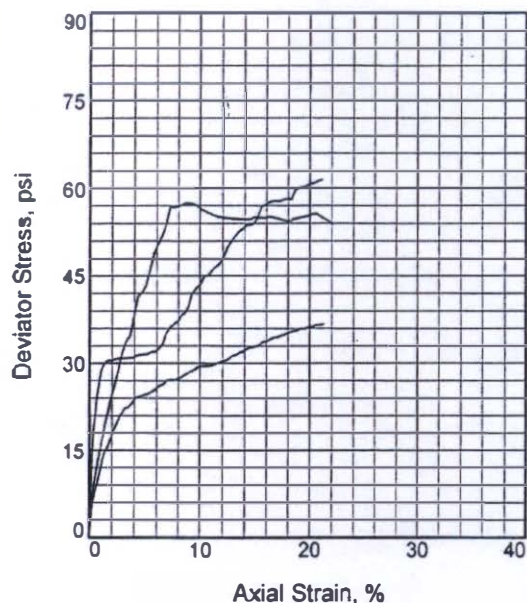
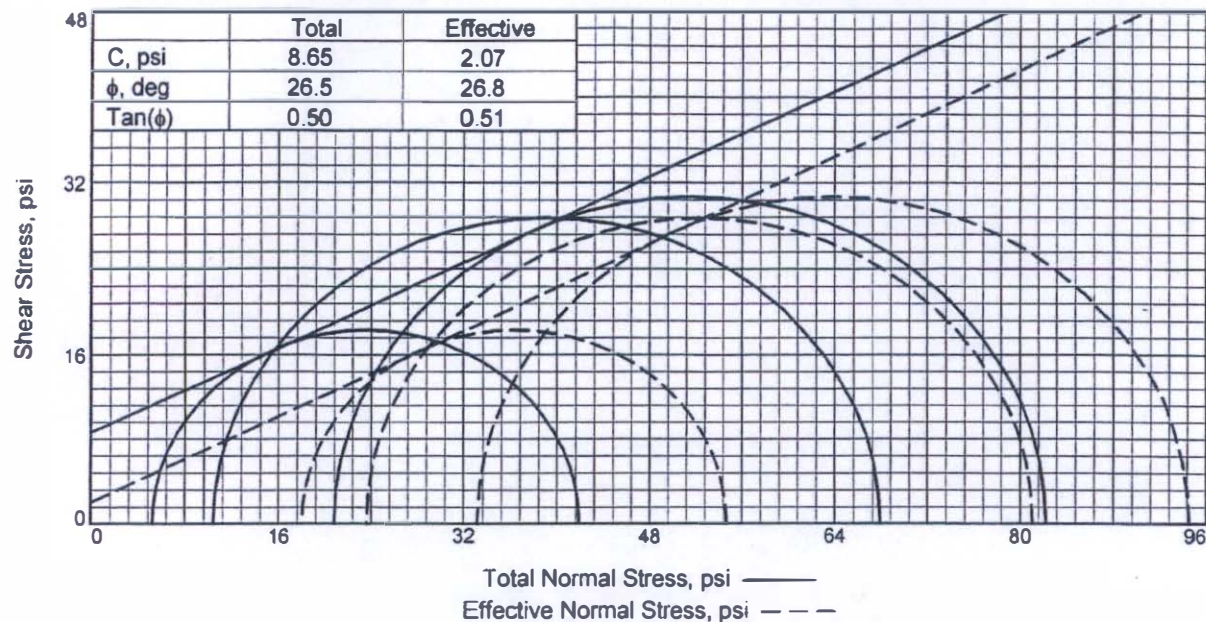
Sample Number: GB-04

Figure 001

JLT Laboratories, Inc.

Tested By: MLB

Checked By: JB



Sample No.		1	2	3
Initial	Water Content,	22.70	23.89	22.90
	Dry Density, pcf	104.9	102.9	104.7
	Saturation,	99.3	99.4	99.8
	Void Ratio	0.624	0.656	0.627
	Diameter, in.	2.83	2.83	2.83
	Height, in.	5.74	5.54	5.80
At Test	Water Content,	22.78	22.89	21.92
	Dry Density, pcf	105.03	104.84	106.58
	Saturation,	100.0	100.0	100.0
	Void Ratio	0.622	0.625	0.598
	Diameter, in.	2.81	2.77	2.81
	Height, in.	5.74	5.53	5.78
Strain rate, in./min.		0.005	0.005	0.005
Eff. Cell Pressure, psi		5.2	10.4	20.8
Fail. Stress, psi		36.7	57.5	61.5
Total Pore Pr., psi		27.2	26.8	27.7
Strain, %		21.3	8.7	21.1
Ult. Stress, psi				
Total Pore Pr., psi				
Strain, %				
$\bar{\sigma}_1$ Failure, psi		54.7	81.1	94.6
$\bar{\sigma}_3$ Failure, psi		18.0	23.6	33.1

**Type of Test:**

CU with Pore Pressures

**Sample Type:** Shelby Tube

**Description:**

**Assumed Specific Gravity=** 2.73

**Remarks:**

**Client:** Key Environmental

**Project:** Danville, NY

PO No. 08-717

**Location:** Danville, NY

**Sample Number:** GB-05

**Depth:** 14-16

**Proj. No.:** 08LS1805.01

**Date:** 12/22/2008

TRIAXIAL SHEAR TEST REPORT

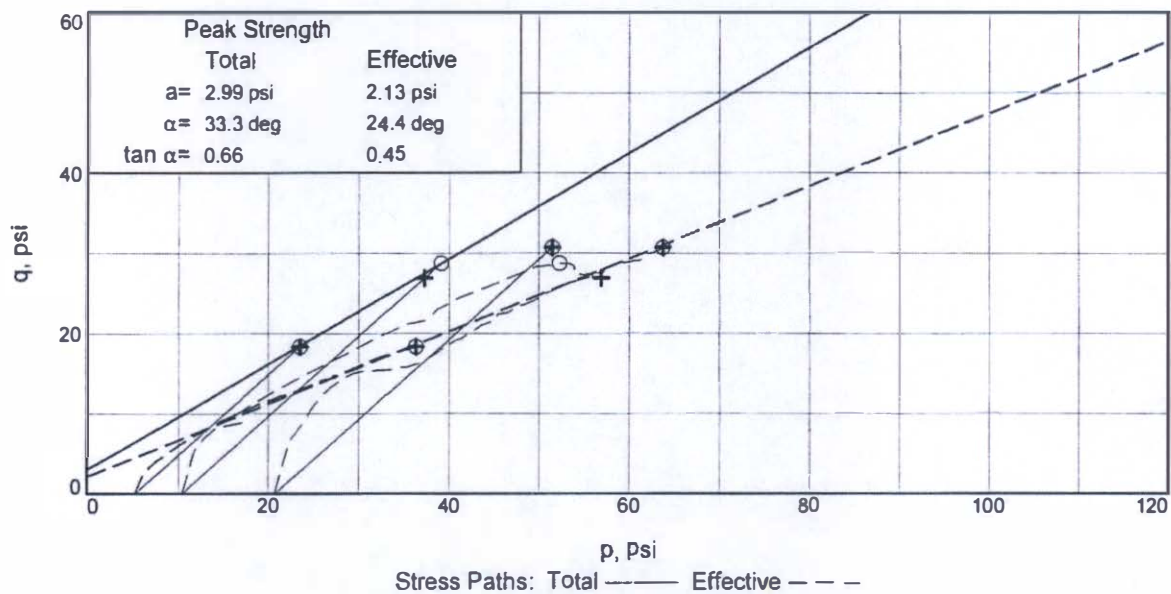
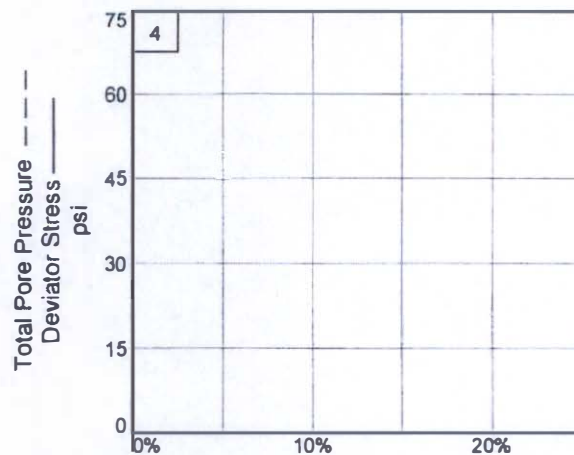
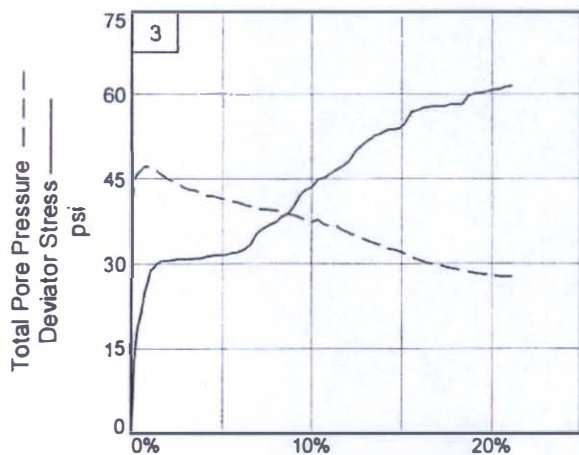
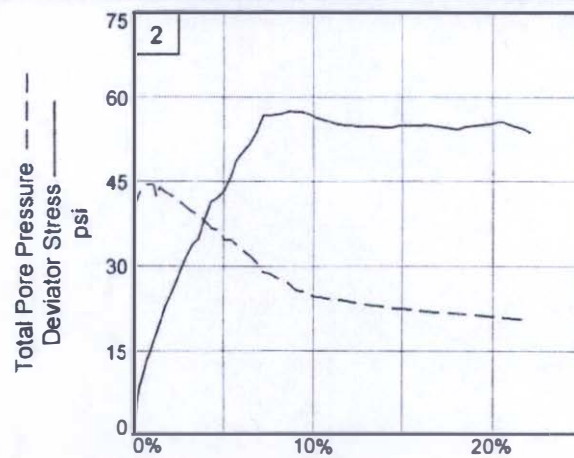
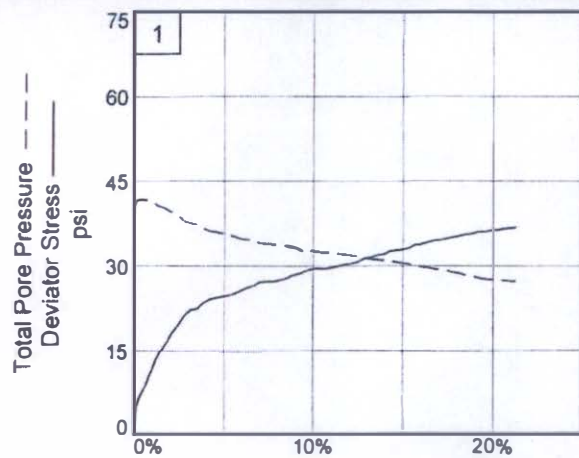
**JLT Laboratories, Inc.**

Figure 002

Tested By: MLB

Checked By: JB





**Client:** Key Environmental  
**Project:** Danville, NY  
**Location:** Danville, NY  
**Project No.:** 08LS1805.01

**Depth:** 14-16

**Sample Number:** GB-05

**Figure 002**

**JLT Laboratories, Inc.**

**Tested By:** MLB

**Checked By:** JB



**SUMMARY OF FLEX WALL PERMEABILITY  
TEST RESULTS**  
ASTM D-5084 (Method A)



Client	:	Key Environmental	Date	:	12/31/08
Project Location	:	Danville, New York	Job No.	:	08LS1805.01
Sample Number	:	GB-5 at 14 to 16 ft	Tested By	:	RL
Description	:	Tube Sample	Checked By	:	JB
			Job Refer.	:	08-717
			Spec. Gravity	:	2.72 Assumed

**Physical Property Data**

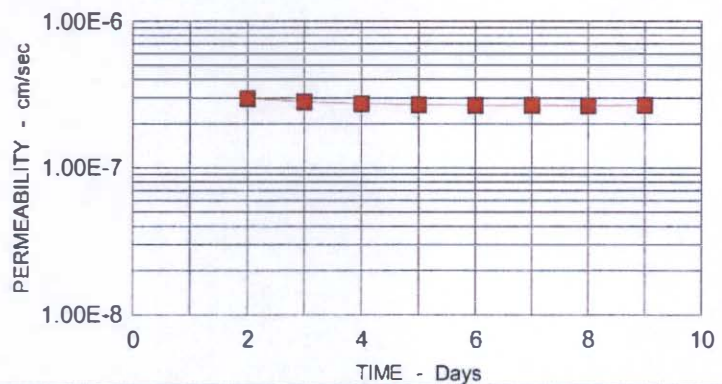
Initial Height ( in )	:	3.46	Final Height ( in )	:	3.39
Initial Diameter ( in )	:	2.83	Final Diameter ( in )	:	2.82
Initial Wet Weight ( g )	:	729.40	Final Wet Weight ( g )	:	722.08
Wet Density ( pcf )	:	127.56	Wet Density ( pcf )	:	130.17
Moisture Content %	:	22.69	Moisture Content %	:	21.46
Dry Density ( pcf )	:	103.97	Dry Density ( pcf )	:	107.17
Initial Void Ratio	:	0.6325	Final Void Ratio	:	0.5837
Saturation , %	:	97.6	Saturation , %	:	100.0

**Test Parameters**

Fluid	:	De-Aired Water	<b>Effective</b>		
Cell Pressure ( psi )	:	65.00	<b>Confining Pressure (psi)</b>	:	<b>10</b>
Head Water ( psi )	:	56.60	Gradient	:	26.05
Tail Water ( psi )	:	53.40			

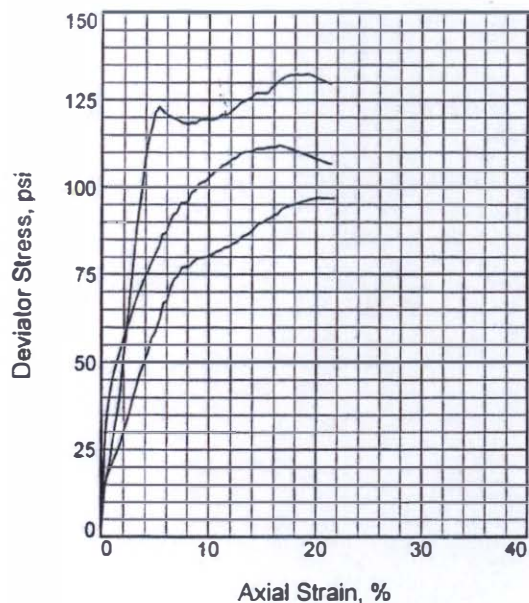
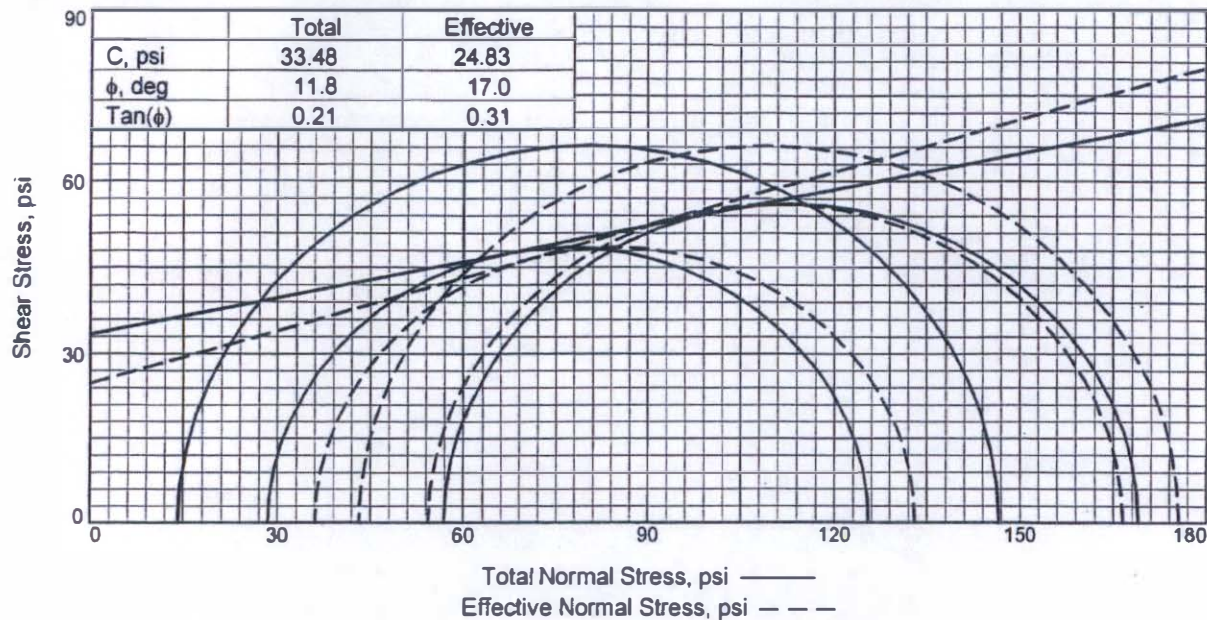
**Permeability Input Data**

Flow, Q ( cc )	:	4.10
Length, L ( in )	:	3.39
Area, A ( sqin )	:	6.23
<b>Head, h ( psi )</b>	:	<b>3.20</b>
Time, t ( min )	:	240.00
Temp, T ( Deg C )	:	20.4



**Computed Permeability**

**PERMEABILITY, K = 2.69E-007 ( cm/sec ) at 20 Degrees C**  
**Vertical**



Sample No.		1	2	3
Initial	Water Content,	16.58	16.61	16.34
	Dry Density, pcf	117.2	117.2	117.8
	Saturation,	99.8	99.9	99.9
	Void Ratio	0.454	0.454	0.446
	Diameter, in.	2.83	2.83	2.83
	Height, in.	5.71	5.63	5.72
At Test	Water Content,	15.61	14.25	14.11
	Dry Density, pcf	119.45	122.64	122.98
	Saturation,	100.0	100.0	100.0
	Void Ratio	0.426	0.389	0.385
	Diameter, in.	2.80	2.77	2.77
	Height, in.	5.71	5.62	5.70
Strain rate, in./min.		0.005	0.005	0.005
Eff. Cell Pressure, psi		14	29	57
Fail. Stress, psi		132	97	112
Total Pore Pr., psi		6	27	38
Strain, %		19.3	20.3	16.5
Ult. Stress, psi				
Total Pore Pr., psi				
Strain, %				
$\bar{\sigma}_1$ Failure, psi		176	133	166
$\bar{\sigma}_3$ Failure, psi		43	36	54

#### Type of Test:

CU with Pore Pressures

Sample Type: Shelby Tube

Description:

Assumed Specific Gravity= 2.73

Remarks:

Client: Key Environmental

Project: Danville, NY

PO No. 08-717

Location: Danville, NY

Sample Number: GB-07

Depth: 40-42

Proj. No.: 08LS1805.01

Date: 12/22/2008

TRIAXIAL SHEAR TEST REPORT

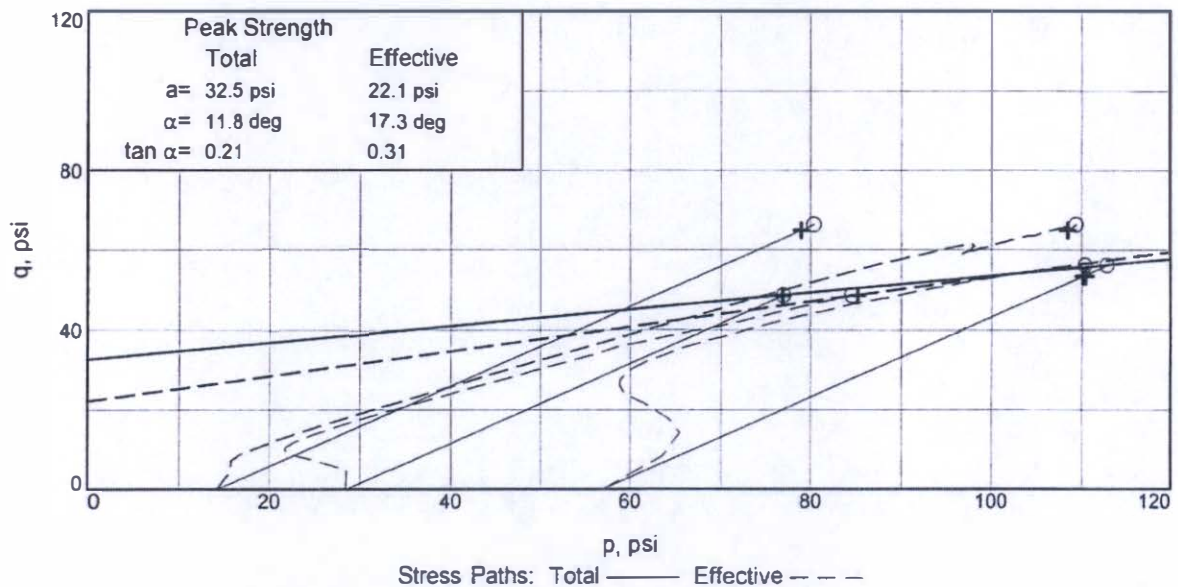
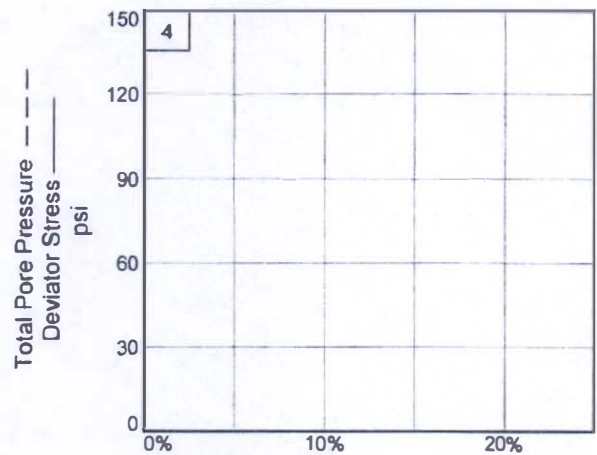
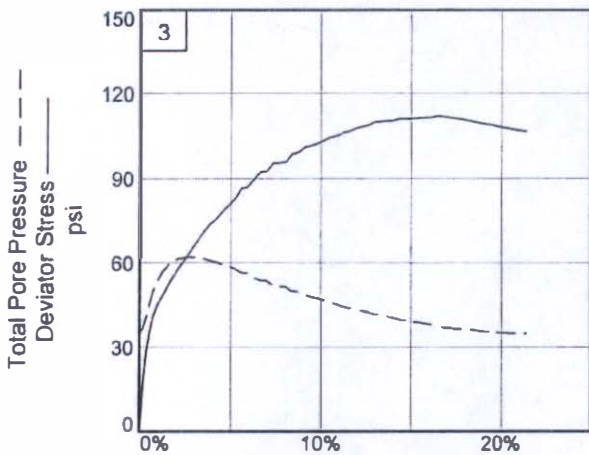
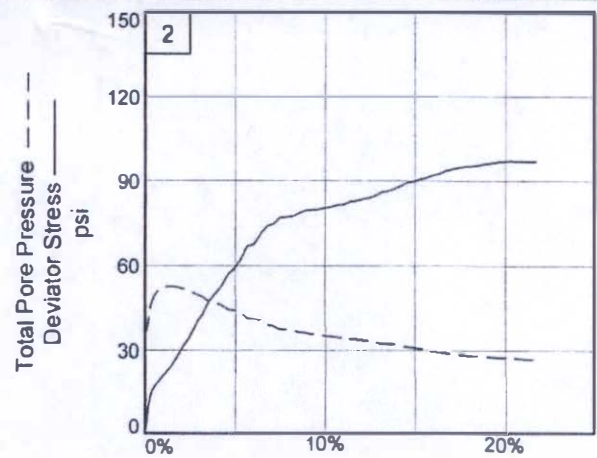
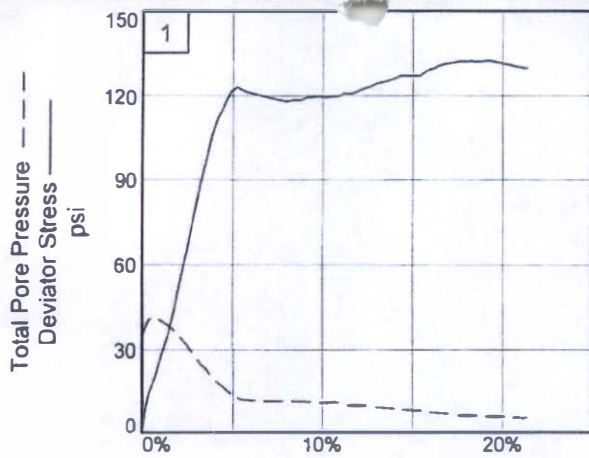
JLT Laboratories, Inc.

Figure 003

Tested By: MLB

Checked By: JB





Client: Key Environmental

Project: Danville, NY

Location: Danville, NY

Project No.: 08LS1805.01

Depth: 40-42

Sample Number: GB-07

Figure 003

JLT Laboratories, Inc.

Tested By: MLB

Checked By: JB