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February 2, 2006

Mr. Anthony Karwiel
Project Manager
Remedial Bureau C, 11th Floor
Division of Environmental remediation
New York State Department of Environmental Conservation
625 Broadway
Albany, New York 12233-7014

Subject: Norwich Former MGP Site, Norwich, New York
Site No: 7-09-011
Final Supplemental Remedial Investigation (SRI) Report

Dear Mr. Karwiel:

On behalf of our client, New York State Electric & Gas Corporation (NYSEG), Ish Inc. is pleased to submit the replacement pages to finalize the Supplemental Remedial Investigation (SRI) Report for the Norwich Former MGP Site. I have also enclosed the CD containing the pdf version of this final report and have directly sent one copy of the replacement pages for the final report to Mr. Nate Walz at the NYSDOH.

If you have any questions regarding this submittal, please do not hesitate to contact me on my cell phone 408-892-3233. Any official comments from the agency should be directed to NYSEG's project manager, Mr. Tracy Blazicek, at 607-762-8839.

Best regards,

Sincerely,

Ishwar P. Murarka, Ph.D.
Executive Scientist

Encl: Replacement Inserts for the Final SRI Report for Norwich Former MGP Site and CD

CC: Mr. Nate Walz, NYSDOH (one copy of replacement inserts)
Mr. Tracy Blazicek, NYSEG (one copy of replacement inserts)
Mr. Joe Simone, NYSEG (w/o encl)
Mr. Pete DeClercq, Ish Inc. team (one copy of replacement inserts)

FINAL
SUPPLEMENTAL REMEDIAL INVESTIGATION (SRI) REPORT
NORWICH FORMER MGP SITE
NORWICH, NEW YORK

Prepared for:

New York State Electric & Gas Corporation
18 Link Drive
Binghamton, NY 13904

Prepared by:

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

META Environmental, Inc.
49 Clarendon Street
Watertown, MA 02472

October 2006

EnergyEast

Ish Inc.

New York State Department of Environmental Conservation
Division of Environmental Remediation
Remedial Bureau 'C', 11th Floor
625 Broadway, Albany, New York 12233-7014
Phone: (518) 402-9662 • **FAX:** (518) 402-9679
Website: www.dec.state.ny.us

Denise Sheehan
Commissioner

December 26, 2006

RECEIVED
2 006
Environmental
Compliance Dept.

Mr. Tracy Blazicek
Project Manager
NYSEG
Corporate Drive
Kirkwood Industrial Park
P.O. Box 5224
Binghamton, N.Y. 13902-5224

RECEIVED
JAN 02 2006
Environmental
Compliance Dept.

Re: Draft Supplemental Remedial Investigation (SRI) Report
Norwich Former MGP site, Site # 7-09-011
Birdsall Road, Chenango County
Norwich, New York

Dear Mr. Blazicek:

The New York State Department of Environmental Conservation (Department) and the New York State Department of Health (DOH) have reviewed the draft Supplemental Remedial Investigation.

The Draft Supplemental Remedial Investigation is approved with the following comments:

- Page 6-12, third paragraph discusses QC measures not meeting acceptable criteria, please discuss this issue further,
- Page 6-19, section <u>6.5.2.1 BTEX in Vapor and Air Samples</u>, last sentence; please clarify.

The supplemental remedial investigation has adequately delineated the extent of contamination encountered onsite and offsite. NYSEG should initiate procedures to generate a Feasibility Study (FS) as directed in New York State Electric & Gas Corporation multisite Order on Consent Index # D0-0002-9309. The Order indicates that within 150 days, after receipt of this notice of the Department's approval of the Remedial Investigation Report, NYSEG shall submit a Feasibility Study evaluating remedial actions to eliminate, to the maximum extent practicable, all health and environmental hazards and potential hazards attributable to hazardous substance disposal at the Site.

If you have any questions please contact me at (518) 402-9662.

Sincerely,

Anthony Karwiel

Anthony Karwiel
Project Manager

cc: I. Murarka, Ish Inc.

FINAL
SUPPLEMENTAL REMEDIAL INVESTIGATION (SRI) REPORT FOR THE NORWICH FORMER MGP SITE NORWICH, NEW YORK

Prepared for:

New York State Electric & Gas Corporation
Kirkwood Industrial Park
Binghamton, NY 13902

Prepared by:

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

META Environmental, Inc.
49 Clarendon Street
Watertown, MA 02472

October 2006

EXECUTIVE SUMMARY

Introduction and Background

The report describes the supplemental remedial investigation (SRI) program that was performed for New York State Electric and Gas Corporation (NYSEG) at the Norwich former manufactured gas plant (MGP) site (site) located at 20 Birdsall Street in the City of Norwich, New York. The planned activities for this SRI were detailed in the Work Plan for the Supplemental Remedial Investigation, Former MGP Site, Norwich, New York (Work Plan), prepared by Ish Inc. in October 2004, and subsequently approved by the New York State Department of Environmental Conservation (NYSDEC). As a result of the initial SRI findings, the extent of the investigation expanded beyond the original scope, to include additional investigation work, especially off-site to the south.

Objectives of the SRI

There were two primary objectives for the SRI work. The first objective was to delineate the nature and extent of the residual source material in the subsurface at the site that is contributing to the onsite groundwater plume. The second objective was to delineate the off-site extent of the plume of dissolved MGP constituents in groundwater.

Scope of Field Work Performed

As part of the SRI, 65 direct push borings were installed across the site and the surrounding area between October 2004 and October 2005. Numerous subsurface soil samples were collected and analyzed for organic compounds associated with former MGP site residues, particularly benzene, toluene, ethylbenzene, xylenes (BTEX) and polycyclic aromatic hydrocarbons (PAHs). In addition, site soils were subjected to the synthetic precipitation leaching procedure (SPLP) and analyzed for volatile organic compounds (VOCs) and semivolatile organic compounds (SVOCs).

To evaluate groundwater quality conditions, 39 piezometers and one monitoring well were installed at the site and surrounding off-site areas. One synoptic groundwater sampling round was performed at the vast majority of existing wells and the newly installed groundwater monitoring locations for measuring VOCs, SVOCs, and total cyanide.

SVI evaluation samples were collected from 14 off-site properties from March 22 to 24, 2006 and March 28 and 29, 2006. At each location, indoor air samples were collected in the basement (except for two locations that did not have basements) and the lowest floor that is occupied by people (living area). In addition, sub-slab or sub-slab equivalent samples (locations with dirt floor basements) were collected from each building. These samples were analyzed for VOCs.

Results

Evidence of coal tar NAPL, in the form of sheens and small NAPL globules, was observed in the subsurface soil across the majority of the Norwich former MGP site, as well as downgradient of the site, to the south. The NAPL observed was reddish-brown in color and was intermixed with water within the pore spaces of the relatively loose sand and gravel outwash present in the shallow aquifer above the silt and clay confining layer, which was encountered at depths of 8 to 25 feet below grade across the study area. The silt and clay layer appears to have prevented further downward migration of the NAPL, which has spread laterally and with the flow of groundwater to the south. Exceedances for regulated organic compounds associated with MGP residues coincided with the observed NAPL presence.

Shallow groundwater at the site has been impacted by VOCs and SVOCs related to MGP residuals in the saturated sand and gravel outwash layer, present above the silt and clay confining layer. Specifically, BTEX, isopropylbenzene, and SVOC concentrations exceeded NYSDEC Class GA groundwater standards or guidance values in groundwater at sampling locations covering most of the site and in a plume extending approximately 700 feet to the south. The depth to groundwater at the site and surrounding area varies from approximately 4 to 14 feet below grade with an aquifer thickness of generally 10 to 15 feet thick.

Soil vapor intrusion potential was examined at 14 locations. While VOCs were detected in most of the samples collected, the levels were within the expected ranges based on the NYSDOH background database and the chemical product inventory specific for each home. Although it was not possible to determine a specific source of the chemicals due to their ubiquitous nature, it was determined that vapors from the Norwich MGP site are not affecting indoor air quality in the test locations.

Recommendation

Based on the site data collected during previous investigations and this SRI, Ish Inc. recommends that it is now appropriate to perform a focused feasibility study (FFS) to determine what remedial measure(s) would be necessary to achieve remedial goals that NYSEG and NYSDEC agree to pursue for the Norwich site.

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1
INTRODUCTION

1.1 OVERVIEW OF REPORT

This report describes the supplemental remedial investigation (SRI) program that was performed for New York State Electric and Gas Corporation (NYSEG) at the Norwich former manufactured gas plant (MGP) site (site) located at 20 Birdsall Street in the City of Norwich, New York. The planned activities for this SRI were detailed in the Work Plan for the Supplemental Remedial Investigation, Former MGP Site, Norwich, New York (Work Plan), prepared by Ish Inc. in October 2004, and subsequently approved by the New York State Department of Environmental Conservation (NYSDEC). In addition, constant contact was maintained with the NYSDEC during the course of field efforts. Summaries of results and findings were provided periodically and telephone conversations with NYSDEC, NYSEG and the Ish Inc. team occurred throughout the progress of the SRI work. As a result of the initial SRI findings, the extent of the investigation expanded beyond the original scope, to include more investigation work, especially off-site.

After the horizontal and vertical extent of impacts to soil and groundwater were defined, a soil vapor intrusion (SVI) study was performed off-site to evaluate the concentrations of MGP residuals in sub-slab vapor and indoor air of homes located within the groundwater plume emanating from the site. The SVI work plan was prepared by the Ish Inc. team and submitted in December 2005 to NYSDEC for approval. The NYSDEC approved the work plan for the SVI evaluation in January 2006 before its implementation in March 2006.

1.2 SRI OBJECTIVES

There were two primary objectives for the planned work, which can be summarized as follows:

1. The first objective was to delineate the nature and extent of the remaining source materials in the subsurface of the site that were responsible for the ongoing groundwater plume.

2. The second objective was to delineate the off-site extent of the plume of dissolved MGP constituents in groundwater.

1.3 SRI REPORT ORGANIZATION

This SRI report has seven remaining sections. Section 2 presents the site background, including operational history and a summary of previous investigations and knowledge for the site. The overall approach for the project, including a discussion of data gaps that were targeted for this SRI, is discussed in Section 3. The procedures used during the implementation of the SRI are presented in Section 4, while a summary of the field work performed is provided in Section 5. Section 6 presents the results of the field activities. Conclusions and recommendations are discussed in Section 7 and the references used in the preparation of this report are listed in Section 8.

2
SITE BACKGROUND

2.1 OPERATIONAL HISTORY

The former MGP site occupies approximately 1 acre and is located at 24 Birdsall Street in the City of Norwich, Chenango County, New York (see Figure A-1). The site is bounded to the north by a plaza with retail shops, to the east by a NYSEG substation and residences, to the south by the former Aero Products property (now owned by NYSEG), and to the west by railroad tracks. The northern part of the site has been encroached by the plaza located to the north of the site. NYSEG purchased the former Aero Products facility and then used the building for storage. During the summer of 2006, NYSEG demolished the former Aero Products building. Although the property is now owned by NYESG, it is not part of the area referenced as the “site” in the report, which refers to the former MGP site only.

Although it is unknown exactly when the operations at the MGP began, Sanborn maps suggest that the plant operations started sometime between 1863 and 1887. MGP operations ceased in 1953 and the gas plant structures were subsequently razed. The site base map is shown on Figure A-2. NYSEG acquired the property in 1939 after two steel gas holders, three oil tanks, a purifier building, and an additional coal storage facility were added to the MGP site. The gas manufacturing process and the feed fuels were changed several times during the operational history of the MGP. Oil, coal and coke were used at various times during the plant’s operation as feed fuels for the coal gasification, water gas and/or carbureted water gas processes used at the plant. Gas production generally increased during the operating life of the plant. Little is known about the generation and disposal practices of residues from the MGP, except that two tar storage vessels existed in the subsurface until they were removed in 1997. In addition, a potential purifier box chips disposal area was identified by NUS Corporation in 1990 through an interview with a former employee. Subsequent site investigation activities did not find any buried purifier box wastes at the Norwich former MGP site.

Historical Sanborn maps from 1887 show that the gas works facility operated by Norwich Gas Light Company consisted of a large coal storage area, a 35,000-cubic-foot gas holder or gasometer, and a main production building situated over a tar well. At this time, coke storage facilities and several other buildings were present on-site. In 1892, the name of the facility operator was changed to Norwich Illuminating Company, which was later changed again in 1917 to Norwich Gas and Electric Company. At this time, major expansions were made to the facility and the presence of both a water gas plant and an electric power plant can be seen on the Sanborn map. Modifications included the construction of two steel gas holders, three oil tanks, a purifier building, and additional coal storage. NYSEG acquired the property by 1939 and Sanborn maps from this time indicate a tar pit on the west side of the purifier building and an oxide storage area in the purifier building, indicating that the gas cleansing process was used. Gas plant structures were razed after gas works operations ceased in 1953.

In the years following cessation of gas production, NYSEG has used the site for equipment storage. In addition, a substation exists on the eastern portion of the site. Today, much of the property is paved with asphalt or covered with compacted gravel.

2.2 SUMMARY OF PREVIOUS INVESTIGATIONS AND ACTIVITIES

A number of previous investigations and remedial actions had been performed at the site over the 14 years preceding this SRI and reports had been prepared by the various organizations involved. These reports were reviewed for the preparation of this work plan and a brief summary of each is presented below.

2.2.1 Task II Investigation Report for the Former Manufactured Gas Plant Site, Norwich, New York, by Engineering-Science, Inc. (ES) in July 1992

In 1990, ES assessed data from seven subsurface soil samples collected and analyzed by NUS Corporation, under contract to the U.S. EPA. Based on this assessment, ES developed the Task II investigation plan to address the potential presence of MGP residues in the subsurface and the potential for migration of MGP constituents into groundwater. Task II activities included an expanded historical search, a geophysical investigation (EM-31 survey), soil investigation (41 soil borings and two surface soil samples), hydrogeologic investigation (installation of eight monitoring wells, including two well pairs and slug testing), groundwater quality investigation (two rounds of sampling), soil vapor survey (47 samples), and a preliminary risk assessment. The results of these activities found benzene, ethylbenzene, toluene, and xylenes (BTEX) and polycyclic aromatic hydrocarbons (PAHs) in subsurface soils on-site at concentrations above background, with the most highly contaminated soils occurring at depths from 1 to 6 feet below grade, particularly beneath and immediately downgradient of the former relief and distribution holders, the tar well, and former above ground oil tanks. BTEX and PAHs were also detected above NYSDEC Class GA standards or guidance values in groundwater samples during two rounds of groundwater sampling. In addition, BTEX and PAH compounds were detected in the upgradient well GW91-2D. These groundwater quality results were attributed to an abandoned underground storage tank (UST) discovered immediately upgradient of the well GW91-2D during drilling activities. Although soil and groundwater contamination was found on-site, it was concluded that no imminent health or environmental threats existed based on the Task II investigation due to remote potential for exposure to these contaminated materials.

2.2.2 Task III Investigation Report for the Former Manufactured Gas Plant Site, Norwich, New York, by Engineering-Science, Inc. in June 1993 (final issued July 1997)

The Task III investigation plan was designed by ES to address data gaps identified during the Task II investigation, including assessing the potential presence of surface soil contamination in backyards adjoining the site, defining the lateral extent of groundwater contamination, particularly south of the site, and determining the location and size of the former tar well and relief holder. Task III investigation activities included a surface and subsurface soil investigation (five surface soils, 17 soil borings, and seven test pits), groundwater investigation (installation of eight new monitoring wells, including two well pairs; sampling of all existing wells, and an upgradient supply well and groundwater from the basement of a local residence), and preliminary qualitative risk assessment.

Surface soil sample results showed no detectable concentrations of cyanide or BTEX compounds, and PAHs were detected below published background concentrations for urban soils. Subsurface soil results confirmed the presence of a suspected MGP residue source beneath the former relief holder. MGP residues were found in two borings near the holder and in borings to the north and west of the holder. Off-site subsurface soil samples had little or no detected BTEX or PAH compounds. However, the measured groundwater concentrations of BTEX, PAHs and total cyanide in downgradient wells were above background levels and NYSDEC Class GA groundwater standards or guidance values. The conclusion of the preliminary risk assessment was that no imminent health or environmental threats were identified.

2.2.3 Final Report Phase III Interim Remedial Measures Work Plan for Norwich Former MGP Site, by Fluor Daniel GTI, Inc. in October 1997

The objective of this interim remedial measure (IRM) was to remove MGP residues from source areas at the site to achieve a site-wide soil clean-up goal of 0.1 mg/kg for benzene and 500 mg/kg for total PAHs. During the IRM, approximately 11,500 tons of soil were excavated and removed from the site, of which approximately 6,800 tons were considered source material. The excavation included the former relief holder (654 tons) and the soils surrounding it (3,649 tons), the tar well (427 tons), related piping (3,412 tons), and shallow soils (3,305 tons). In addition, the below-ground portions of the vertical air sparging and horizontal SVE systems were installed at that time.

2.2.4 Semi-Annual Status Report – January 2003 to June 2003, Air Sparge/SVE System – Operation & Maintenance, Norwich Former MGP Site, by Shaw Environmental, Inc. in July 2003

This was the last semi-annual report for the air sparging/SVE system, prior to its shut down at the end of June 9, 2003. The SVE system began operating in December 1999 and the vertical air sparging system was activated in January 2000. There were four legs to the air-sparging/SVE system with the one closest to nearby residences in constant operation and the other three operated in shifts of 8 hours during the last six months of the operation. For monitoring the system's performance, two pairs of Sparge Point Monitoring Points (SPMPs) and two Vapor Point Monitoring Points (VPMPs) were installed. Based on Shaw's calculations, a total of approximately 586 pounds of BTEX and approximately 761 pounds of total volatile organic compounds (VOCs) were removed by the system during its operation from startup to shut down.

2.3 SUMMARY OF PREVIOUS SITE KNOWLEDGE

Based on previously completed work, it was believed that there may have been residual source materials in the subsurface of the site that were contributing to the continuing presence of the dissolved groundwater plume off-site to the south/southwest. Source material, for the purposes of relating to the persistent groundwater plume at the Norwich site, can be defined as subsurface soil that contains non-aqueous phase liquid (NAPL) and/or significant concentrations of chemical constituents that leach sufficient amounts to sustain the groundwater plume over a long period of time.

2.3.1 Site Geology

Prior to the 1997 IRM that included the removal of approximately 11,500 tons of impacted soils, the unconsolidated materials under the site were described as consisting of Quaternary glacial lacustrine deposits overlain by a thin layer of alluvial sediments and fill. Across the site, the depth of fill varied from less than 1 foot to the south and west of the site to greater than 6 feet near the former above ground oil tank. The fill inside former structures primarily consisted of demolition debris, bricks, concrete and wood, while the fill outside the structures was characterized by brown to black medium sand, gravel, silt, brick, ash, and glass.

The alluvium consisted of sand and silt varying from 1 to 8 feet in thickness. The alluvium is underlain by a layer of glacial outwash sand and gravel varying from 7 to 15 feet in thickness. The glacial outwash is underlain by the lacustrine deposits of silt and clay. No borings to date fully penetrated the lacustrine layer and therefore its thickness is unknown. The elevation of the lacustrine layer was found to be lowest in the center of the site, increasing in elevation to both the west and east of the site. Because of the 1997 IRM activities, more of the site now consists of fill that was emplaced after removal of impacted soils.

2.3.2 Site Hydrogeology

Based on historical well gauging data, the water table is normally found at 7 to 10 feet below ground surface. The flow direction of groundwater at the site and surrounding area is generally to the south, based on recorded piezometric measurements made in the existing shallow and deep wells. The maximum horizontal hydraulic gradient for the unconfined aquifer was found to be

0.01 ft/ft. Through slug tests and calculations, hydraulic conductivities were determined to range from 153 ft/day to 4.22 ft/day with a geometric mean of 25.8 ft/day and an arithmetic mean of 51.2 ft/day. Based on an assumed porosity of 0.30 for the sand and gravel layer at the site, the horizontal groundwater flow velocity using the geometric mean of the hydraulic conductivities was estimated to be 313 feet per year. Comparisons of water levels in the deep and shallow wells at each well pair indicated that the vertical groundwater flow is negligible. This observation was true at all well pairs during all sampling rounds.

In response to the NYSDEC comments on the Work Plan dated August 13, 2004, NYSEG immediately obtained one complete round of water level measurements from the existing monitoring wells to reconfirm the groundwater flow conditions. On September 2, 2004, NYSEG completed water level measurements for the wells at the site and surrounding area. The resulting groundwater elevation contour map of the site and surrounding area suggested a more westerly/south westerly flow direction which appeared to be somewhat different than the historical interpretation indicating flow direction generally to the south. However, many additional piezometers were installed as part of this SRI to clarify the groundwater flow regime. In addition, the original proposed location of PZ03 was shifted to the west to provide better coverage in the area of former well G92-10.

2.3.3 Summary of Impacts

2.3.3.1 Surface Soils

Eleven composite surface soil samples were collected from on- and off-site locations; six (five on-site and one off-site) during the Task II investigation and five (all off-site) during Task III investigation. The Task II samples were collected from 0 to 1 foot below ground surface (bgs) while the Task III samples were collected from 0 to 0.5 feet bgs.

2.3.3.1.1 On-site

During Task II, five on-site soil samples were analyzed for VOCs, SVOCs, and total cyanide. On-site, the concentrations of total BTEX ranged from not detected to approximately 0.010 mg/kg, while total PAHs ranged from approximately 30 to 230 mg/kg. These concentrations were described by ES as above background in the areas associated with the former relief and distribution holders. On-site, the surface soils had very low levels of total cyanide, with concentrations ranging from not detected to approximately 0.016 mg/kg of total cyanide. The IRM soil removal performed in 1997 included approximately 3,300 tons of on-site surface soils.

2.3.3.1.2 Off-site

One off-site sample was collected during Task II, to the northeast of the site, while five off-site surface soil samples were collected during Task III, mainly in residential backyards downgradient from the site, based on the groundwater flow direction. These surface soil samples were analyzed for VOCs, SVOCs, and cyanide. In addition, three soil samples collected nearest to the electrical substation were analyzed for polychlorinated biphenyls (PCBs). No BTEX compounds or PCBs were detected in any off-site surface soil samples. Only one off-site surface soil, collected just to the northeast of the site, had detectable results (approximately 0.022 mg/kg) for total cyanide. Relatively low levels of PAHs were found, with concentrations ranging from approximately 4.7 to 21 mg/kg. The PAH concentrations were characterized by ES as below published background concentrations for urban soil.

2.3.3.2 Subsurface Soils

Subsurface soil conditions were evaluated by ES during the Task II and Task III investigations through the advancement of 58 soil borings and the excavation of seven test pits. During Task II, 32 on-site borings (two were completed as wells) and nine off-site borings (six were completed as wells) were installed. Samples were collected from depths of 1 to 4 feet (ten samples), 4 to 6 feet (ten samples), 6 to 10 feet (ten samples), and greater than 10 feet bgs (six samples). During Task III, three on-site borings and 14 off-site borings (eight completed as wells) were installed to further characterize soil conditions. Samples were collected from depths of 2 to 4 feet (two samples), 4 to 6 feet (four samples), 6 to10 feet (three samples), and greater than 10 feet bgs (ten samples from nine borings).

2.3.3.2.1 On-site

During Task III, seven test pits were excavated on-site. The test pits identified several existing on-site structures including the former relief holder and the tar well. The contents of the structures were described as fill and several structures were holding water to some extent. Low viscosity coal tar was observed in test pits located inside the holder. The tar well contained silty gravel fill, overlying tar-stained wood chips, overlying tar-stained rounded gravel. Three test pits which were excavated in the suspected purifier box chips disposal area found no evidence of purifier box wood chips, but did find coal tar-stained material and perched water.

During the advancement of the Task II and Task III soil borings, eight on-site samples from 1 to 4 feet below grade were collected. Four of the samples were analyzed for VOCs, SVOCs, and total cyanide, three were analyzed for SVOCs only, and one was analyzed for VOCs only. The on-site sample results for BTEX ranged from approximately 3 to 350 mg/kg, while total PAH concentrations ranged from approximately 16 to 37,000 mg/kg. The highest concentrations were near the former holders and the tar well. The concentrations for total cyanide in on-site samples ranged from not detected to approximately 0.088 mg/kg.

During both investigations, eleven samples were collected on-site from depths of 4 to 6 feet bgs from ten boring locations in the areas of former MGP operations. Six samples were analyzed for VOCs, SVOCs and total cyanide, four were analyzed for PAHs only, and one sample was analyzed for VOCs only. The sample results for BTEX ranged from 0.014 to 10,300 mg/kg, while total PAH concentrations ranged from 1.3 to 35,000 mg/kg. Total cyanide results ranged from not detected to 2.9 mg/kg.

A total of eight on-site samples from depth of 6 to 10 feet bgs were collected during the investigations. One on-site sample was analyzed for VOCs, SVOCs, and cyanide, while the remaining seven were analyzed for SVOCs only. In general, PAHs were detected at lower levels than samples from 1 to 4 feet or 4 to 6 feet bgs, with total PAH concentrations ranging from 0.79 to 1,000 mg/kg. The one sample analyzed for BTEX yielded a total BTEX concentration of 1.9 mg/kg, at the location of the former gas oil tank. This sample was also analyzed for total cyanide, but total cyanide was not detected.

Four on-site samples from greater than 10 feet bgs were collected from three borings during both investigations. Three of the samples were analyzed for VOCs, SVOCs, and total cyanide, while one sample was analyzed for VOCs only. Total BTEX concentrations ranged from not detected to approximately 117 mg/kg, while total PAH concentrations ranged from approximately 0.86 to 216 mg/kg. Total cyanide concentrations ranged from not detected to approximately 2 mg/kg. The maximum concentrations were measured in the same sample, which was collected from 20 to 22 feet below grade just to the northwest of the former gas plant building.

Because of the IRM excavation activities performed in 1997 and the subsequent air sparging and SVE system installation and operation from 1999 to 2003, prior to the SRI, it was not certain what concentrations of MGP constituents remained in on-site subsurface soils and to what depth.

2.3.3.2.2 Off-site

During the advancement of the Task II and Task III borings, four soil samples were collected from depth of 1 to 4 feet bgs and analyzed for VOCs, SVOCs, and total cyanide. One sample was collected just to the northeast of the site, one was collected just to the north of the property on the western side, and two were collected to the south of the NYSEG substation. Only two of the samples had detectable BTEX compounds, with very low total BTEX concentrations of 0.001 mg/kg (south of the substation) and 0.007 mg/kg (northeast of the site). Low levels of total PAHs were measured in each sample, with a maximum concentration of 1.3 mg/kg measured south of the substation. Total cyanide was not detected in any of these samples.

During both investigations, a total of three off-site soil samples were analyzed from depth of 4 to 6 feet bgs. One sample, just to the north of the site was analyzed for VOCs only and had a total BTEX concentration of 54.4 mg/kg. In addition, two samples from 4 to 6 feet bgs, one just to the southwest of the site and one to the southeast of the site were found to contain no detectable BTEX, PAHs, or total cyanide.

During the Task II and Task III investigations, five off-site soil samples at depths ranging from 6 to 10 feet bgs were collected. All of the samples were analyzed for VOCs, SVOCs, and total cyanide. Four samples, two collected to the north of the site and two collected downgradient of the site, had total PAH concentrations ranging from approximately 3.4 to 50 mg/kg, but no measurable amounts of BTEX or cyanide were found. The other sample, collected to the west of the site, did not show any detectable levels of BTEX, PAHs, or total cyanide.

A total of twelve off-site soil samples were collected from greater than 10 feet below grade. All of these samples were analyzed for VOCs, SVOCs, and total cyanide. Ten of the twelve samples had no detectable concentrations of BTEX. The two locations with total BTEX measured above detection limit were downgradient from the site and the measured concentrations were 0.012 mg/kg and 0.72 mg/kg. Total PAH concentrations ranged from not detected (at three locations) to approximately 210 mg/kg, which was measured in the sample just to the northwest of the site. The maximum downgradient total PAH concentration was approximately 17 mg/kg, just downgradient of the former Norwich Aero Products building, which was demolished by the NYSEG in 2006. Total cyanide was detected in only two of the twelve samples analyzed with 0.002 mg/kg measured in a sample just to the northeast of the site and 0.003 mg/kg measured in a sample just downgradient of the former Norwich Aero Products building.

Because of the IRM excavation activities performed in 1997 and the subsequent air sparging and SVE system installation and operation from 1999 to 2003, prior to the SRI, it was not certain what concentrations of MGP constituents remained in off-site subsurface soils and to what depth.

2.3.3.3 Groundwater

Twenty monitoring wells and four Sparge Point Monitoring Points (SPMPs) were installed during previous site investigation activities. Eight wells (GW91-1, GW91-2SH, GW91-2D, GW91-4SH, GW91-4D, GW91-5, GW91-6, and GW91-7) were installed in 1991 by ES during the Task II investigation and an additional eight wells (GW92-8, GW92-9SH, GW92-9D, GW92-10, GW92-11SH, GW92-11D, GW92-12, and GW92-13) were installed during Task III. GW91-3 was abandoned and does not exist. In addition, GW91-1, GW91-2D, GW91-2SH, GW92-9D, GW92-9SH, and GW92-10 had been lost prior to this SRI, during construction activities in the area. In 2001, three more wells (GW01-14, GW01-15SH, and GW01-15D) were installed to examine the groundwater response to the IRM, as well as to monitor the air sparging/SVE system performance. A total of thirteen monitoring wells still exist at the site from the previous investigations. Six of these monitoring wells form three well pairs containing a shallow and a deep well. These wells were installed to evaluate vertical flow. It should be noted that the shallow and deep wells are installed within the same zone of the relatively thin aquifer. In addition, the four SPMPs (SPMP-1S, SPMP-1D, SPMP-2S, and SPMP-2D) were installed to monitor groundwater during the air sparging/SVE system operation.

2.3.3.3.1 Pre-Remediation Groundwater Data

During the Task II investigation performed by ES, the eight GW91 monitoring wells were sampled for two rounds and analyzed for VOCs, SVOCs, total cyanide, PCBs and metals (Round 2 only). In addition, one sample was collected from an upgradient supply well used by Victory Markets for making ice. Two of the wells, GW91-7 and the Victory Markets well, had no detectable BTEX compounds, PAHs, or total cyanide. BTEX compounds were measured in at least one round in six wells (GW91-1, GW91-2D, GW91-4SH, GW91-4D, GW91-5, and GW91-6), with the highest concentration of 1.24 mg/L measured at GW91-2D during the second round. This well was located upgradient from the site, but just downgradient from a former UST on the Victory Markets property. The source of the BTEX in groundwater in this well was suspected to be from leaking of the petroleum product stored in the nearby UST. Total BTEX was found in the on-site and downgradient monitoring wells, with 1.19 mg/L measured in groundwater from GW91-6, just downgradient of the former Norwich Aero Products building. Similarly, total PAHs were found at the same six wells, with the highest concentration of 52.4 mg/L measured at GW91-4D, in the area of the former gas oil tank.

During Task II, total PAHs were measured upgradient, on-site and downgradient from the site. Total cyanide was also measured in groundwater samples from six wells (GW91-1, GW91-2SH, GW91-4SH, GW91-4D, GW91-5, and GW91-6) with the only concentrations of total cyanide above the NYSDEC Class GA groundwater standard of 0.2 mg/L measured at the GW91-4SH and GW91-4D well pair. The maximum total cyanide concentration was 0.95 mg/L, measured in the groundwater sample from GW91-4D during the second round of sampling. PCBs were not detected in any samples. Elevated levels of metals were found in samples from upgradient, on-site and downgradient, including several metals that were measured above NYSDEC Class GA standards or guidance values. The Task II report concluded that metals were widespread, may have been attributable to turbidity in the samples, and that no obvious upgradient or on-site source of metals was identified.

During the Task III investigation, two more rounds of samples were collected from the eight monitoring wells installed during Task II, the eight new monitoring wells, and the Victory Markets supply well and analyzed for VOCs, SVOCs, metals, and total cyanide. The concentrations in the eight Task II wells were similar to what were measured in the second round of sampling. A well pair (GW92-9SH and GW92-9D) was installed upgradient of the former UST located upgradient from the site. Low levels (0.001 to 0.004 mg/L) of total PAHs were detected in the deeper well and total cyanide was detected in the shallow well at 0.015 mg/L during one round of sampling and analysis.

During Task III, three wells (GW92-10, GW92-12, and GW92-13) were installed to the southwest and southeast of the site (not directly downgradient). Groundwater was collected from these three locations and samples had no detectable BTEX, PAHs or total cyanide during both rounds. Lastly, three wells (GW92-8, GW92-11SH, and GW92-11D) were installed further downgradient from GW91-5 and GW91-6. For groundwater samples from these three wells, the maximum concentration of total BTEX was 0.45 mg/L (GW92-11D); while the maximum measured concentration of total PAHs was 0.32 mg/L (GW92-8). The maximum total cyanide concentration for these wells of 0.073 mg/L was measured in GW92-8.

2.3.3.3.2 Recent Groundwater Trends

Although there were multiple rounds of groundwater data collected during the 1990s, those data predate the IRM performed in 1997 and the subsequent air sparging/SVE system operation from 1999 to 2003. As a result, the SRI Work Plan relied on the more recent and likely to be more pertinent groundwater data, which were collected from 1999 through 2003.

Table B-1 and Table B-2 show the groundwater results for the June 2003 sampling round which was the last event preceding the SRI activities. As shown in the tables, one or more compounds were measured above the NYSDEC Class GA standards or guidance values at eight of the ten wells where samples were analyzed by EPA Method 8021 and EPA Method 625. The only two wells with no exceedances of groundwater standards were GW91-5 and GW92-12. The monitoring wells most impacted by VOCs were GW91-6, GW01-14, GW01-15S, SPMP-1S, and SPMP-2S, each of which had several VOCs measured above the NYSDEC Class GA standards and guidance values. The monitoring wells most impacted by PAHs were SPMP-1S and SPMP-2S, which both had several PAHs measured above the NYSDEC Class GA groundwater standards or guidance values. In addition, four other monitoring wells, GW91-5, GW92-11SH, GW01-14, and GW01-15S, had exceedances for acenaphthene or naphthalene. From these results, it was evident that the groundwater quality was impacted on-site and downgradient of the site from source material in the subsurface. During the September 2, 2004 water level gauging event, the field technician noted presence of NAPL (brown/orange color) in SMPM-1S and VPMP-1, as well as very viscous tar in monitoring well GW01-15D.

Because of the recent remedial activities, including the source removal excavation in 1997 and the air sparging/SVE system that operated from 1999 to 2003, one might expect to see a decreasing trend of chemical concentrations in groundwater. Figure A-3 and Figure A-4 depict benzene and naphthalene concentrations measured in groundwater samples from monitoring well GW-01-15S. Figure A-5 and Figure A-6 show the corresponding total VOC and total SVOC concentrations data for this monitoring well. These concentration data showed some fluctuations in the measured levels of benzene, naphthalene, total VOC, and total SVOC but no discernable decreasing trend over time. Figure A-7 and Figure A-8 show the benzene and naphthalene concentrations from 1999 to 2003 in downgradient well GW91-6. As shown in these two figures, there appeared to be a downward trend in benzene and naphthalene concentrations in this monitoring well. However, as shown in Figure A-9 and Figure A-10, the total VOC and total SVOC concentrations did not exhibit this same downward trend over time.

Figure A-11 and Figure A-12 show time-series plot of measured benzene and naphthalene in groundwater samples from monitoring well GW01-14. Total VOC and total SVOC data for this well are presented in the time series plots shown in Figure A-13 and Figure A-14. These figures suggested that there was essentially no decrease or reduction in groundwater concentrations for these constituents in this well. The benzene concentrations in groundwater from 1999 to 2003 in monitoring well GW92-11D are shown in Figure A-15, which showed fluctuations in benzene concentrations over time but did not indicate a decreasing trend over time. In contrast, Figure A-16 shows a decreasing trend in benzene concentrations in groundwater at GW92-8 from 1999 to 2003. Monitoring well GW92-8 is located cross-gradient from GW92-11D and appeared to be closer to the edge of the dissolved plume.

Overall, the groundwater concentrations did not consistently show a decrease in dissolved MGP constituents over time. As a result, additional investigation to determine the nature and extent of potential source material remaining in the subsurface was warranted. In addition, the full extent of the off-site groundwater plume had not been delineated, particularly to the west and south of GW92-11SH and GW92-11D. Therefore, additional investigations were necessary to delineate the boundaries of the groundwater plume, which are the focus of this SRI.

2.3.3.4 Soil Gas

During Task II, 47 soil vapor samples were collected from across the site and around its perimeter by ES. The objectives of the soil gas survey were to identify sources of VOC contamination in the unsaturated zone beneath the site, and to determine if a groundwater contaminant plume was present, and if so, to determine its lateral extent. Three of these samples were sent to a laboratory and analyzed to confirm field results. Field samples were analyzed in-situ using a portable Photovac GC unit. The results of these analyses indicated benzene detects in 21 samples, with total BTEX ranging from 0 parts per million (ppm) to 65 ppm. In general, the highest soil vapor concentrations were in areas where there was visual evidence of stained soil or oily residue on the soil vapor probes. The highest concentration of BTEX occurred at the north property line in the center of the site, but a line of sample points 50 feet north of that property line did not have detects for any BTEX in the soil gas samples, indicating that the VOC source was localized, but may have extended off-site to the north to some extent. Laboratory samples also detected BTEX compounds, as well as chlorinated solvents, hexanes, heptane, butane, and pentane. Laboratory and field results were not directly comparable. Based on the age of the soil gas samples and the remedial activities that have occurred since the collection of the soil gas samples, the soil gas results were not relied upon in developing the scope of this SRI.

3
PROJECT APPROACH

This section of the report presents the data gaps that were addressed by this SRI to satisfy the project objectives discussed in Section 1.2. The additional data needs were identified based on a review of available information for the site, including the Task II and Task III reports written by ES, the Phase III IRM report written by Fluor Daniel, a semi-annual status report prepared by Shaw for the air sparging/SVE system, and groundwater monitoring results collected between 1991 and 2003.

During the preparation of the Work Plan for this SRI, the Ish Inc. team completed a review of the documents and data provided by NYSEG for the Norwich former MGP site. Based on this review and understanding of the site, areas for further investigation were identified, along with the rationale for additional/supplemental investigation activities to delineate the "nature and extent" of sources and impacts that may warrant potential remediation following the completion of this SRI. This approach was approved by NYSDEC prior to implementation.

Figure A-17 shows the previously installed monitoring wells at the site along with the suspected/extrapolated extent of the groundwater plume based on the pre-SRI data. Figure A-18 shows the proposed SRI sampling locations for delineating the nature and extent of source materials as well as the extent of groundwater plume. The proposed additional piezometers were intended to clarify the groundwater flow field at the site and surrounding areas. The investigation rationale and the original scope of the proposed effort from the Work Plan are presented below. The scope of the investigation was expanded during the execution of the SRI work, as described in Section 5, which summarizes the field activities that were performed.

3.1 DELINEATE NATURE AND EXTENT OF SOURCE MATERIALS REMAINING IN SUBSURFACE

Based on the persistent groundwater plume and the estimated extent of the plume shown in Figure A-17, there was a need to examine the subsurface for potential source materials. There was a source removal IRM in 1997 that included 11,500 tons of on-site material and subsequently an air sparging/SVE system was operated from 1999 to 2003. Yet, the groundwater concentrations in monitoring wells from 1999 to 2003 did not consistently show a decreasing trend over time for dissolved MGP constituents. Therefore, additional investigation was warranted to determine the nature and extent of residual source material in the subsurface and its leaching potential.

Between 20 and 30 direct push soil borings were proposed by Ish Inc. for this SRI work effort. Figure A-18 shows 22 of the proposed direct push boring locations and it was anticipated that up to eight more may have been needed to fully delineate the nature and extent of impacts to the soil. These borings were proposed at both on-site and off-site locations within the suspected plume to search for presence of NAPL and/or heavy PAHs contamination in the subsurface.

3.2 GROUNDWATER PLUME DELINEATION

The extent of the groundwater plume had not been delineated during previous investigations. In particular, additional information was needed for on-site and downgradient areas of the former Norwich Aero Products building (recently demolished by NYSEG). As a result, up to ten piezometer locations were proposed to characterize the thin shallow water bearing zone at the site and surrounding area (see Figure A-18).

3.3 SOIL GAS/SOIL VAPOR ASSESSMENT

Prior to implementing the SRI, NYSEG recognized that there would likely be a need to conduct a soil-vapor/soil gas sampling program in the delineated groundwater plume. However, NYSEG believed it was prudent to first complete the residual source identification and groundwater plume delineation work proposed in the SRI Work Plan and then design, and carry out soil gas/soil vapor work, as needed. Based on the results of the SRI, a soil vapor intrusion (SVI) evaluation was warranted and an SVI assessment work plan was prepared by Ish Inc. and approved by the NYSDEC in March 2006. The purpose of the SVI assessment was to

- Collect soil vapor samples from underneath the slabs of identified buildings and analyze for volatile organic compounds (VOCs),

- Collect indoor air sample within the identified residences and commercial buildings to be analyzed for VOCs, and
- Collect outdoor ambient air samples for VOC analysis.

4
INVESTIGATION METHODS

This section summarizes the field methods and sample collection techniques used during the execution of this SRI, including sample identification, sample handling, equipment decontamination, field quality assurance and quality control procedures, and health and safety procedures. In addition, the analytical methods used are discussed in this section. For more details on the procedures followed, please refer to the Work Plan.

4.1 FIELD METHODS

4.1.1 Underground Utilities

Prior to performing any subsurface investigations in Norwich, Dig Safely New York (formerly UFPO) was contacted at least two full days before excavation activities were scheduled to begin. All underground utilities, including electric, telephone, cable TV, sewers, water, etc., were identified and marked. In addition, before working at any location, a visual survey for signs of potential underground utilities was made. Other potential on-site hazards, such as sharp objects, overhead power lines, and building hazards, were also noted and any necessary safety precautions were taken to ensure the safety of site workers and the public.

4.1.2 Subsurface Soil Investigation

4.1.2.1 Direct Push Soil Borings

All of the soil borings were advanced using direct push techniques, which involved using a hydraulic hammer mounted on a conventional drill rig or a trailer (for limited access locations) to drive Geoprobe® Macro-Core samplers. The Macro-Core samplers are approximately 2 inches in diameter and 4 feet long. For each 4-foot depth interval, a new approximately 1.5-inch diameter acrylic liner was inserted into the sampler to hold the soil core as the sampler was advanced. All borings were sampled continuously to depth.

After the maximum depth of the boring was reached at each location, it was either completed as a monitoring well or a piezometer, or properly abandoned by grouting to grade from the bottom up. NYSEG personnel surveyed the locations and elevations of all the soil borings (Appendix C).

All remaining soils from each core after sampling were containerized in Department of Transportation (DOT)-approved 55-gallon drums. Following analysis of soil samples from the drums, NYSEG arranged for disposal of the soils at an approved facility.

4.1.2.2 Soil Sampling

All Macro-Core acrylic sleeves were opened and immediately screened with a photoionization detector (PID) for organic vapors in an undisturbed portion of the liner. The soils were geologically logged and the pertinent information was recorded, including the recovery in the sampler, soil color, moisture content, density, soil description, staining, and PID readings. If NAPL was present, the locations and quantity observed was also noted. In general, borings were advanced until there was apparent decrease, based on visual and olfactory evidence, in the degree of contamination present. Sample intervals were identified based on field observations and judgment. The soils from these intervals were collected using clean stainless steel spoons and appropriate sample jars. The sample jars were labeled and notes regarding the samples were recorded in the field log book.

4.1.3 Groundwater Monitoring Installations

4.1.3.1 Monitoring Well Installation

In one instance, a direct push soil boring was completed as a NAPL collection monitoring well. In this case, conventional 4.25-inch hollow stem augers (HSAs) were used to overdrill the direct push boring. The well was constructed of 2-inch diameter flush-threaded PVC pipe, with a 10-foot, 20-slot screen, and a 2-foot long DNAPL sump. An appropriately-sized silica sand pack was placed such that it extended 2 to 3 feet above the top of the screen. Then, a bentonite/grout seal was placed above the sand pack, and the annular space was filled to near the surface with grout (Appendix C). The monitoring well was protected at the surface by a stand pipe emplaced in concrete. A lock was used to secure the cap of the stand pipe and NYSEG personnel surveyed the location and elevation of the monitoring well (Appendix C).

Following installation, the monitoring well was developed to establish hydraulic connection between the well and surrounding soils. The well was developed through a combination of surging and pumping to remove suspended sediments from the water column until the purge water was relatively clear and free of sediment. Development water was contained in DOT-approved 55-gallon drums or polyethylene aqueous storage tanks, pending sampling and analysis by the Ish Inc. team and proper disposal by NYSEG.

4.1.3.2 Temporary Piezometer Installation

Piezometers were installed using direct-push methodology to a depth determined by previous boring logs, direct push soil sampling performed near that location and/or groundwater gauging information from existing wells as well as by examining current direct-push boreholes. Specifically, 2.125-inch probe rods were fitted with an expendable tip and driven into the ground using a hydraulic hammer mounted on a conventional drill rig or a trailer. After the casing was driven to the appropriate depth, 1-inch schedule 40 polyvinyl chloride (PVC) pipe was inserted inside the drive casing. The piezometers were screened using 1-inch flush-joint PVC with 0.010-inch slotted screens and O-rings between riser connections and were completed with enough riser pipe to reach the ground surface. After inserting the PVC into the casing, the probe rods were pulled up while the PVC was held in place. Then, a sand pack was placed in the annular space that remained after any caving, such that the sand level was at least 2 feet above the top of the screen. Then, a bentonite/grout seal was placed above the sand pack, and the annular space was filled to near the surface with grout. Finally, flush-mount curb boxes were installed at each piezometer location and a locking cap was placed on the top of the PVC riser. NYSEG personnel surveyed the locations and elevations of the piezometers.

Following installation, the piezometers were developed to establish hydraulic connection between the piezometer screens and surrounding aquifer material. They were developed through a combination of surging and pumping to remove suspended sediments from the water column, until the purge water was clear and relatively free of sediment. Development water was contained in DOT-approved 55-gallon drums or polyethylene aqueous storage tanks, pending analysis and appropriate disposal.

4.1.4 Groundwater Sampling

Groundwater sampling at piezometers and monitoring wells was performed using low-flow purging methodology. Although the Work Plan stated that the Grundfos Redi-flo2 or another comparable submersible pump would be used for monitoring wells, very cold conditions during the full groundwater sampling event in December 2005 caused the submersible pumps to freeze. Ish Inc. suggested and NYSDEC approved (via email correspondence) a change to using peristaltic pumps for well sampling during the full groundwater sampling round. As planned for the piezometers, peristaltic pumps were used for purging and collecting groundwater samples.

Prior to sampling, each piezometer or well was gauged to determine the water level in the well and calculate the water in one well volume. The sample tubing was placed approximately 2 feet above the bottom of the screened interval. Then, purging and sampling were performed at a rate of 150 mL/min. Details concerning temperature, pH, and conductivity were recorded after every one-half well volume was removed during the purging process (Appendix D). Sampling was performed after three consecutive readings for pH, conductivity, and temperature had stabilized to within 10% and a minimum of two well volumes had been removed.

4.1.5 SVI Evaluation

4.1.5.1 Site Survey and Inventory

Site surveys and chemical inventories were completed prior to the SVI sampling for each of the buildings included in the sampling program. The purpose of the survey and inventory was to determine the use and status of the location, to interview the occupant or owner and to complete an inventory of potential chemical sources stored at the location. The occupant or owner was interviewed for most locations using the NYSDOH Indoor Air Quality Questionnaire and Building Inventory from the NYSDOH Soil Vapor Intrusion Guidance. Inventories were completed for the basement (where present) and first floors of the sampling location areas. Also locations with dirt floor basements were identified. The site survey field forms are included in Appendix E.

4.1.5.2 SVI Sample Collection

4.1.5.2.1 Indoor and Outdoor Air Samples

During the collection of indoor air samples, the intake was placed in the breathing zone, at approximately 3 to 5 feet above the floor. To the extent possible, based on the building features, the samples were collected in a central location away from outside windows or doors. At the time of retrieval, any noticeable changes in the condition of the sampling area, such as open windows or doors, operation of the heating/ventilation system, or condition or location of items in proximity to the canister were noted on the sampling form.

The outdoor ambient air samples were collected concurrent with the indoor air sampling from three locations in proximity to the buildings being sampled each day. The intake of the sample was placed at the breathing zone height, approximately 3 to 5 feet above grade.

The sampling procedure for collecting both indoor and outdoor ambient air was essentially the same. First, the brass plug was removed from canister fitting. Then, a pre-calibrated/certified 24-hour flow controller with particulate filter was attached to the Summa® Canister and the initial vacuum of -30 PSI was confirmed. Next, the field team opened the canister valve to initiate sample collection and recorded the start time and the initial vacuum. After 24 hours, the final pressure was checked and if within specifications, recorded. Then, the valve was closed and the end time recorded. All relevant information was filled out on the Summa® Canister Sampling Field Data Sheet (Appendix F).

4.1.5.2.2 Sub-slab Samples

For the sub-slab samples where a concrete floor was present, a 1-inch hole was drilled in the concrete slab. The hole, which served as the sampling port, was extended approximately 2 inches deeper than the bottom of the slab. Teflon tubing was inserted into the hole and sealed at the floor surface using non VOC-containing modeling clay. A bucket equipped with a fitting for a Tedlar bag was placed over each sub-slab sampling port. A 1-liter Tedlar bag was filled with helium and attached to the bucket creating a helium enriched atmosphere around the sampling port. The integrity of the sampling port was tested by measuring the concentration of helium in the sample tubing after purging using a Dielectric Technologies helium detector. If the measured helium concentration was less than 20%, the sampling port was considered to have sufficient integrity, and was sampled. All samples were collected using 6-liter summa canisters with flow controllers that allowed filling over a period of 24 hours. The filling procedure for sub-slab sample canisters was generally the same as described above for the indoor and outdoor air samples.

For basements where a concrete floor was not present or only covered a small portion of the basement, a soil probe was installed to collect a sub-slab equivalent sample. To collect these samples, a 1 inch Geoprobe® rod was fitted with a PRT adapter tip holder and expendable tip driven to a depth of 3 feet below the basement floor. Then, a 4-foot by 4-foot sheet of plastic was placed around the soil probe. Hydrated bentonite clay was used to seal the edges to the ground and a thin layer of sand was used to weigh it down. The probe rod was sealed to the surrounding soil using hydrated bentonite. Next, a smaller sheet of plastic (approximately 18 inches by 18 inches) was placed over the probe and sealed with hydrated bentonite around the edge. The helium tracer testing was performed by introducing helium underneath this plastic sheet from a filled 1 liter Tedlar bag via a piece of tubing. Similar to the procedure for concrete slabs, if the measured helium concentration was less than 20%, the sampling port was considered to have sufficient integrity, and was sampled.

At each of the sub-slab sampling locations, field measurements were collected for CO_2, CH_4, O_2, and total VOCs. Measurements for CO_2, CH_4 and O_2 were collected using a portable multi gas meter (Landtec GEM 2000) and total VOCs were determined using a portable PID meter (ppb RAE).

4.1.6 Sample Identification

Each soil and groundwater sample was assigned a unique field sample ID according to the following scheme:

NO-DP10(16.5-17.5), where:

NO	Norwich Former MGP Site
DP10	Sequential number for Direct Push (DP) boring, Piezometer (PZ), or Monitoring Well (GW04-16, with 04 representing the year installed)
(16.5-17.5)	Sample interval in feet below grade (for direct push locations only)

Each soil gas, sub-slab, and indoor air sample was assigned a unique field sample ID according to the following naming system:

NO-12BAB, where:

NO	Norwich Former MGP Site
12BA	Street address location – 12 Baldwin
B	Sample location, B - basement sample, F – first floor sample, S- sub-slab sample

Each outdoor air sample was assigned a unique field sample ID according to the following naming system:

NO-UP062803, where:

NO	Norwich Former MGP Site
UP	Two-digit code for sample location – upwind (UP), background or cross wind (BK), and in the middle or center of the sampling area (MI and CE)
06	Two-digit code for year when the sample collected
28	Two-digit code for day when the sample collected
03	Two-digit code for month when the sample collected

4.1.7 Sample Handling

All soil sample containers were QC-acceptable, pre-cleaned glass containers with Teflon-lined lids. Water samples were collected in QC-acceptable, glass jars for organic compounds (preserved with hydrochloric acid for VOCs) or plastic bottles preserved with sodium hydroxide for total cyanide analysis. Vapor and air samples were collected in batch-certified cleaned 6-liter summa canisters provided by the laboratory. All containers were labeled with the sample ID, date and time of collection, the analysis to be performed, and the personnel performing the sampling.

All soil and groundwater samples were placed on ice immediately after sampling and then maintained at approximately 4^{o}C throughout the chain-of-custody (COC). Sample containers were carefully packed in foam and/or bubble wrap to prevent breakage or damage during shipment. Complete and accurate COC forms (Appendix G) were filled out and shipped with the samples to the appropriate laboratory via an overnight carrier.

4.1.8 Decontamination Procedures

During soil sampling, two decontamination areas were set up for the decontamination of field equipment. All decontamination of equipment occurred in these areas. The first area was set up for drilling equipment decontamination and the second area was set up for the decontamination of sampling equipment. A new sampling equipment decontamination area was located in the vicinity of each boring.

All non-disposable field sampling equipment used for the collection of soil samples, such as spatulas and split-spoons, were decontaminated prior to each use by 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, and
- air dry on a clean surface.

Drilling equipment was decontaminated between each boring using a pressure washer or steam cleaner. All decontamination fluids were collected and containerized, pending analysis and appropriate disposal.

4.1.9 Waste Handling

The investigation-derived waste (IDW) generated during the SRI field activities consisted of solid waste such as sample liners, soil cuttings from borings, groundwater purged from sampling locations, and wastewater from decontamination of reusable drilling and soil sampling equipment. Solid waste, soil, and wastewater were contained in DOT-approved 55-gallon drums. Composite samples were collected for the wastewater and soil samples to characterize the wastes for disposal. The wastewater samples were analyzed for total benzene and flashpoint (ignitability), while the soil samples were analyzed for TCLP benzene, reactivity, and pH. Waste materials were disposed of properly by NYSEG.

4.1.10 Quality Assurance and Quality Control

Appropriate 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 sample analysis. For example, for field work, all methods and materials were documented. All sample containers were pre-cleaned, QC-acceptable vessels and all samples were packed, shipped, and stored in accordance with the QAPP procedures to ensure sample integrity.

Once samples were collected for shipment, COC procedures were used to document sample possession. In addition, field rinsate blanks, matrix spikes, and duplicate samples were analyzed to provide checks regarding the impacts of sampling and sample handling on analytical results, variation among samples, and analytical precision and accuracy.

4.1.11 Health and Safety

A project-specific Health and Safety Plan (HASP) was prepared for this SRI. The HASP contained project-specific information including emergency contacts, the route to the nearest hospital, project-specific hazards, and details of the Community Air Monitoring Plan (CAMP), which was implemented during the SRI. Based on remedial investigation experiences at other MGP sites, modified Level D personnel protection was planned and implemented. The level of protection required by site workers would have been upgraded as discussed in the HASP, if conditions warranted such a modification. However, conditions during the SRI activities did not warrant an upgrade beyond modified Level D at any time during field activities. Similarly, no vapor or particulate response actions were required during implementation of the CAMP.

4.2 SAMPLE ANALYSIS

The potential constituents of concern at the site and surrounding area were those related to the residuals from former MGP processes, including BTEX, PAHs, petroleum fuels, and cyanide. Therefore, soil and groundwater samples were analyzed for various analytical parameters, including Target Compound List (TCL) VOCs, TCL SVOCs, and total cyanide. Additionally, four soil samples were collected and analyzed for total organic carbon (TOC). Selected soil samples were also subjected to Synthetic Precipitation Leaching Procedure (SPLP) leaching tests (EPA Method 1312) to obtain data on the release potentials for BTEX and PAH compounds from the impacted soils from the Norwich site and surrounding area. During the SVI evaluation, samples were collected in 6-liter Summa canisters and analyzed for VOCs by EPA Method TO-15 by STL. Lastly, wastewater samples were analyzed for total benzene, flashpoint (ignitability) and pH, while the soil IDW samples were analyzed for TCLP benzene, reactivity, and pH. The analytical methods used during the investigation are summarized in Table 4-1.

Table 4-1
Analytical Methodologies

Parameter	Method	Description
TCL VOCs	EPA 8260	VOCs by GC/MS Capillary Column Technique
TCL SVOCs	EPA 8270	SVOCs by GC/MS Capillary Column Technique
SPLP TCL VOCs	EPA 1312/8260	Aqueous Leaching with GC/MS Analysis for VOCs
SPLP TCL SVOCs	EPA 1312/8270	Aqueous Leaching with GC/MS Analysis for SVOCs
Total Cyanide	335.2/9010B	Acid Distillation and Colorimetric
TOC	EPA 9060	Total Organic Carbon Analyzer
VOCs in Air	EPA TO-15	Summa Canisters with GC/MS Analysis
TCLP Benzene	EPA 1311/8260	Aqueous Leaching with GC/MS Analysis for Benzene
Reactivity	SW846 Ch. 7	
pH Soil/Water	EPA 9045/150.1	Capillary Ion Electrophoresis
Ignitability	EPA 1020	Setaflash Closed Tester

Ish Inc.'s analytical laboratory subcontractors for chemical analyses, Chemtech Laboratories (Chemtech), Accutest Laboratories (Accutest), and Severn Trent Laboratories (STL) - Knoxville are certified by the ELAP and are participating members of the NYSDOH ASP-CLP.

4.2.1 Data Quality Objectives

Laboratory analyses of environmental samples were conducted in accordance with NYSDOH ASP protocols, with Category B deliverables. As part of the ASP analyses, Chemtech, Accutest, and STL generated analytical data packages for review following the "Guidance for the Development of Data Usability Summary Reports", as documented by the NYSDEC Division of Environmental Remediation.

4.2.2 Quality Assurance and Quality Control (QA/QC) Samples

An integral part of the overall analytical program was the collection of appropriate QA/QC samples. Field blanks were collected to verify the effectiveness of field decontamination procedures for reusable sampling equipment and analyzed for the same parameters as the associated environmental samples. Trip blanks accompanied groundwater samples to be analyzed for TCL VOCs.

Field duplicate samples were analyzed at a frequency of one per 20 per environmental media, for the same parameters as parent media samples. The reproducibility and homogeneity of the samples was assessed by determining the Relative Percent Difference (RPD) for duplicate samples. Matrix spike/matrix spike duplicate (MS/MSD) samples were analyzed at a frequency of one per 20 field samples or one per week.

4.2.3 Data Validation Screening

The Ish Inc. team performed a review of QA/QC data generated by Chemtech, Accutest, and STL. This validation included a review of pertinent QA/QC data such as sample extraction and analysis, holding times, calibration, a review of laboratory blanks and QA/QC sample results, and a review of the analytical case narrative. A Data Usability Summary Report (DUSR) was prepared which includes a compliance chart, a list of samples included in each sample delivery group and recalculations of sample results (Appendix H). Nonconforming QA/QC results were evaluated with respect to their implications for data reliability and usability, and data results were flagged accordingly on the results sheets. These qualifiers were entered into the project-specific database and appear in the summary tables presented in Appendix B of this report.

5
SUPPLEMENTAL REMEDIAL INVESTIGATION (SRI) FIELD ACTIVITY SUMMARY

The Work Plan for the SRI was intended to be a guide for the field activities to be undertaken. Field judgment and discussions of results with NYSDEC and NYSEG as work progressed modified and adjusted the field investigation activities, as needed, in order to meet the project objectives. The field investigation for this SRI was performed in multiple phases and this section presents a summary of the field activities that were completed, including significant additional work beyond what was put forth in the Work Plan.

Ish Inc. mobilized to the site and provided all personnel and equipment for the field and analytical tasks completed for this SRI and summarized in the following subsections. The direct push activities were subcontracted to Lyon Drilling Company. The chemical analyses were subcontracted to Chemtech of Sheffield, New Jersey and Accutest of Marlborough, Massachusetts and STL of Knoxville, Tennessee.

5.1 SUBSURFACE SOIL INVESTIGATION

A focused direct push sampling program was used to generate geologic and soil quality data to address the project objectives. Based on the results of the previous work at the site and surrounding area, it appeared that a subsurface source of BTEX and PAHs remained after the remedial activities that were conducted from approximately 1997 to 2003. A summary of the sampling locations is discussed in the following subsections.

5.1.1 Direct Push Soil Borings

In the Work Plan, 20 to 30 direct-push soil borings were planned to determine the nature and extent of remaining source materials in the subsurface. Twenty-two of these proposed locations (DP01 through DP22) were identified specifically on a map of the site and surrounding area, as shown on Figure A-18. As the off-site work expanded, 39 additional direct push borings (DP23 through DP61) were installed as part of the field effort.

Table 5-1 lists the 65 direct push borings with their locations and rationale and they are shown on Figure A-19. The installation of direct push soil borings was performed in phases. As more data was gathered, investigation activities expanded and access agreements were obtained to perform the work on public and private property. Locations DP05 through DP18, DP20, DP21A, DP21B, DP23 and DP24 were installed from October 25 to 29, 2004, while DP01 and DP03, DP04A, DP04B, DP04C, DP19, DP22, DP25 through DP33, DP35 and DP36 were installed from April 25 to 30, 2005. Later, DP37, DP30, DP40, DP40A, DP41, and DP43 were installed on May 19 and 20, 2005. DP34, DP39, DP42, DP44 through DP50 were installed from June 13 to 16, 2005. Lastly, DP51 through DP61 were installed on from October 10 to 12, 2005.

Table 5-1
Direct Push Boring Locations and Rationales

Direct Push Boring (Depth)	Location/Rationale
DP01 (24 feet)	Within footprint of former relief holder, to collect soil samples and examine for the presence of NAPL
DP02 (24 feet)	Within footprint of former relief holder, to collect soil samples and examine for the presence of NAPL
DP03 (28 feet)	Southwest of former above ground distribution holder, to collect soil samples and examine for the presence of NAPL
DP04A (3.7 feet)	Within the former above ground distribution holder, to collect soil samples and examine for the presence of NAPL
DP04B (3.6 feet)	Within the former above ground distribution holder, to collect soil samples and examine for the presence of NAPL
DP04C (24 feet)	Just southeast of former above ground distribution holder, to collect soil samples and examine for the presence of NAPL
DP05 (20 feet)	Southwest of former relief holder and just north of the former gas plant building, to collect soil samples and examine for the presence of NAPL
DP06 (24 feet)	Just south of former relief holder, to collect soil samples and examine for the presence of NAPL
DP07 (24 feet)	Southwest of former above ground distribution holder, to collect soil samples and examine for the presence of NAPL

Table 5-1 (cont.)
Direct Push Boring Locations and Rationales

Direct Push Boring (Depth)	Location/Rationale
DP08 (16 feet)	Southeast of former above ground distribution holder, to collect soil samples and examine for the presence of NAPL
DP09 (20 feet)	Western portion of site, just east of former above ground oil tanks, to collect soil samples and examine for the presence of NAPL
DP10 (24 feet)	East of the former tar wells and west of the purifier house, to collect soil samples and examine for the presence of NAPL
DP11 (17.2 feet)	East of the former purifier house, to collect soil samples and examine for the presence of NAPL
DP12 (24 feet)	Eastern portion of site, southwest of circular above ground oil tank, to collect soil samples and examine for the presence of NAPL
DP13 (17.8 feet)	Just south of southwestern corner of former Aero Products building, to collect soil samples and examine for the presence of NAPL
DP14 (20 feet)	Just south of central portion of former Aero Products building, to collect soil samples and examine for the presence of NAPL
DP15 (20 feet)	Just south of southeastern corner of former Aero Products building, to install PZ04, collect soil samples and examine for the presence of NAPL
DP16 (20 feet)	Just northwest of northwestern corner of former Aero Products building, to collect soil samples and examine for the presence of NAPL
DP17 (20 feet)	Western edge of site, between former coal sheds, to collect soil samples and examine for the presence of NAPL
DP18 (28 feet)	Northwest of former gas plant building, to collect soil samples and examine for the presence of NAPL, well GW04-16 installed with DNAPL sump
DP19 (20 feet)	East of former above ground distribution holder, to install PZ11, collect soil samples and examine for the presence of NAPL
DP20 (24 feet)	Northeast of former relief holder, to collect soil samples and examine for the presence of NAPL
DP21A (2.1 feet)	West of former electric plant, to collect soil samples and examine for the presence of NAPL
DP21B (7.4 feet)	West of former electric plant, to collect soil samples and examine for the presence of NAPL
DP22 (24 feet)	West of former relief holder in footprint of former oil tank, to collect soil samples and examine for the presence of NAPL
DP23 (24 feet)	Backyard of 37 Front Street, to install PZ06, collect soil samples and examine for the presence of NAPL

Table 5-1 (cont.)
Direct Push Boring Locations and Rationales

Direct Push Boring (Depth)	Location/Rationale
DP24 (24 feet)	Backyard of 37 Front Street, to install PZ05, collect soil samples and examine for the presence of NAPL
DP25 (20 feet)	Backyard of 43 Front Street, to install PZ10, collect soil samples and examine for the presence of NAPL
DP26 (24 feet)	West of 40 Front Street on railroad property, to install PZ09, collect soil samples and examine for the presence of NAPL
DP27 (32 feet)	Northwest of former electric plant building in plaza parking lot, to install PZ12, collect soil samples and examine for the presence of NAPL
DP28 (28 feet)	North of former MGP plant facilities in plaza parking lot, to collect soil samples and examine for the presence of NAPL
DP29 (24 feet)	North of former MGP plant facilities right in front of plaza building, to collect soil samples and examine for the presence of NAPL
DP30 (24 feet)	Southeast of former Aero Product building in the backyard of 47 Front Street, to collect soil samples and examine for the presence of NAPL
DP31 (24 feet)	Southeast of former Aero Product building in the backyard of 47 Front Street, to collect soil samples and examine for the presence of NAPL
DP32 (16 feet)	ROW on north side of Front Street at intersection with Columbia, to install PZ13, collect soil samples and examine for the presence of NAPL
DP33 (20 feet)	ROW on Columbia Street east of house at 42 Front Street, to install PZ14, collect soil samples and examine for the presence of NAPL
DP34 (24 feet)	Backyard of 40 Front Street, to install PZ15, collect soil samples and examine for the presence of NAPL
DP35 (24 feet)	West of plaza entrance off of Front Street , to install PZ16, collect soil samples and examine for the presence of NAPL
DP36 (20 feet)	West of plaza entrance off of Front Street , to install PZ17, collect soil samples and examine for the presence of NAPL
DP37 (32 feet)	West of 40 Front Street on railroad property, to collect soil samples and examine for the presence of NAPL
DP38 (28 feet)	East of 30 Front Street on railroad property, to install PZ20, collect soil samples and examine for the presence of NAPL
DP39 (26 feet)	In front of 10 Baldwin Street, to install PZ21, collect soil samples and examine for the presence of NAPL
DP40 (31.5 feet)	East of 12 Baldwin Street on railroad property, to collect soil samples and examine for the presence of NAPL

Table 5-1 (cont.)
Direct Push Boring Locations and Rationales

Direct Push Boring (Depth)	Location/Rationale
DP40A (8.2 feet)	East of 12 Baldwin Street on railroad property, to collect soil samples and examine for the presence of NAPL
DP41 (24 feet)	West of 10 Columbia Street on railroad property, to install PZ18, collect soil samples and examine for the presence of NAPL
DP42 (28 feet)	In front of 12 Baldwin Street, to install PZ22, collect soil samples and examine for the presence of NAPL
DP43 (24 feet)	Southwest of 12 Columbia Street on railroad property, to install PZ19, collect soil samples and examine for the presence of NAPL
DP44 (28 feet)	Northwest of former electric plant building in plaza parking lot, to install PZ27, collect soil samples and examine for the presence of NAPL
DP45 (28 feet)	Northwest of former coal sheds in plaza parking lot, to collect soil samples and examine for the presence of NAPL
DP46 (24 feet)	Southeast corner of 45 Front Street yard, to install PZ23, collect soil samples and examine for the presence of NAPL
DP47 (28 feet)	North of former MGP plant facilities right in front of plaza building, to install PZ26, collect soil samples and examine for the presence of NAPL
DP48 (28 feet)	East of 12 Baldwin Street on railroad property, to install PZ24, collect soil samples and examine for the presence of NAPL
DP49 (28 feet)	West of 20 Columbia Street on railroad property, to install PZ25, collect soil samples and examine for the presence of NAPL
DP50 (28 feet)	West of 18 Columbia Street on railroad property, to install PZ28, collect soil samples and examine for the presence of NAPL
DP51 (20 feet)	ROW on Columbia Street northeast of house at 12 Columbia Street, to install PZ29, collect soil samples and examine for the presence of NAPL
DP52 (20 feet)	ROW in front of 20 Columbia Street, to install PZ30, collect soil samples and examine for the presence of NAPL
DP53 (20 feet)	ROW at northwest corner of Columbia Street and Brown Avenue intersection, to install PZ31, collect soil samples and examine for the presence of NAPL
DP54 (20 feet)	ROW in front of 19 Brown Street, to install PZ32, collect soil samples and examine for the presence of NAPL
DP55 (24 feet)	Behind building at 13 Brown Street, to install PZ33, collect soil samples and examine for the presence of NAPL
DP56 (20 feet)	Southeast of building at 13 Brown Street, to install PZ34, collect soil samples and examine for the presence of NAPL

Table 5-1 (cont.)
Direct Push Boring Locations and Rationales

Direct Push Boring (Depth)	Location/Rationale
DP57 (20 feet)	ROW in front of 13 Brown Street, to install PZ35, collect soil samples and examine for the presence of NAPL
DP58 (20 feet)	ROW in front of 35 Brown Avenue, to install PZ36, collect soil samples and examine for the presence of NAPL
DP59 (20 feet)	ROW in front of 31 Brown Avenue, to install PZ37, collect soil samples and examine for the presence of NAPL
DP60 (20 feet)	ROW in front of 21 Brown Avenue, to install PZ38, collect soil samples and examine for the presence of NAPL
DP61 (16 feet)	Backyard of 16 Baldwin Street, to install PZ39, collect soil samples and examine for the presence of NAPL

5.2 SUBSURFACE SOIL SAMPLING

During the subsurface soil investigation (direct push soil borings), special care was taken to identify and record soil zones that contained NAPL. Evidence of NAPL included NAPL-saturated soil, visible NAPL droplets, and/or sheens. During the advancement of the soil borings, soils of interest for chemical analysis were collected and submitted for TCL VOCs, and TCL SVOCs. In addition, selected samples were collected and subjected to Synthetic Precipitation Leaching Procedure (SPLP) leaching test (EPA Method 1312) to obtain data on the release potentials for BTEX and naphthalene from soils serving as a potential source of groundwater impacts at the site and surrounding area. Subsurface soil samples were collected where there was visual or field instrument evidence of contamination. Specifically, a worst-case sample was analyzed from each location based on visual, olfactory and PID screening observations in the field. In addition, samples were collected for analysis to characterize different waste types, staining at a different depth interval or to document “clean” soils at the bottom of the boring. A summary of the analyses performed by sample matrix are presented in Table B-3.

In addition to chemical analyses, four subsurface soil samples were analyzed for total organic carbon (TOC). Only samples representative of native materials were collected for TOC analysis.

This parameter is helpful for evaluating and designing potential remedial alternatives including in-situ chemical oxidation and monitored natural attenuation.

5.3 GROUNDWATER MONITORING PROGRAM

To delineate the impacts in groundwater, the Ish Inc. team installed a network of piezometers using direct push methodology to supplement the existing monitoring wells. In addition, one DNAPL collection well (GW04-16) was installed in an area with significant NAPL in the saturated zone. Details of the groundwater monitoring program for this SRI are presented below.

5.3.1 Piezometer and Monitoring Well Installation

In the NYSDEC-approved Work Plan, 10 piezometers were planned, as shown on Figure A-18. All of the locations were installed as planned, also soil borings were added at some locations (PZ04, PZ05, PZ06, PZ09, and PZ10) to obtain additional data on soil conditions. In addition, 29 piezometers with direct push soil borings were added to the scope of the work to fully delineate the extent of the groundwater plume. A total of 39 piezometers (PZ01 through PZ39) were installed to monitor groundwater quality and are shown on Figure A-19. In addition, Table 5-2 shows the screen intervals of the piezometers, as well as describes their locations and rationales. Each piezometer was screened to intersect the impacted zone at that location.

Table 5-2
Piezometer Locations and Rationales

Piezometer (Screen Interval)	Location/Rationale
PZ01 (7.3 to 17.3 feet)	North of former purifier house, to examine on groundwater quality in the central portion of site
PZ02 (5 to 15 feet)	Southeast of former relief holder, to examine groundwater quality in the central portion of site
PZ03 (7.5 to 17.5 feet)	West of former Aero Products building, to examine groundwater quality near the western edge of the site
PZ04 (7 to 17 feet)	Just south of southeastern corner of former Aero Products building, to examine groundwater quality near the eastern edge of the site
PZ05 (11 to 21 feet)	Backyard of 37 Front Street, to examine groundwater quality downgradient of the site

Table 5-2 (cont.)
Piezometer Locations and Rationales

Piezometer (Screen Interval)	Location/Rationale
PZ06 (11 to 21 feet)	Backyard of 37 Front Street, to examine groundwater quality downgradient of the site
PZ07 (10 to 20 feet)	ROW in front of 37 Front Street, to examine groundwater quality downgradient of the site
PZ08 (10 to 20 feet)	ROW in front of 41 Front Street, to examine groundwater quality downgradient of the site
PZ09 (12.5 to 22.5 feet)	West of 40 Front Street on railroad property, to examine groundwater quality downgradient of the site
PZ10 (9 to 19 feet)	Backyard of 43 Front Street, to examine groundwater quality downgradient of the site
PZ11 (9.5 to 19.5 feet)	East of former above ground distribution holder, to examine groundwater quality near the eastern edge of the site
PZ12 (14 to 24 feet)	Northwest of former electric plant building in plaza parking lot, to examine groundwater quality upgradient of the site
PZ13 (5.5 to 15.5 feet)	ROW on north side of Front Street at intersection with Columbia, to examine groundwater quality near the eastern edge of the plume
PZ14 (8 to 18 feet)	ROW on Columbia Street east of house at 42 Front Street, to examine groundwater quality near the eastern edge of the plume
PZ15 (9.8 to 19.8 feet)	Backyard of 40 Front Street, to examine groundwater quality downgradient of the site
PZ16 (6 to 16 feet)	West of plaza entrance off of Front Street, to examine groundwater quality near the western edge of the plume
PZ17 (6 to 16 feet)	West of plaza entrance off of Front Street, to examine groundwater quality near the western edge of the plume
PZ18 (8 to 18 feet)	West of 10 Columbia Street on railroad property, to examine groundwater quality downgradient of the site
PZ19 (9 to 19 feet)	Southwest of 12 Columbia Street on railroad property, to examine groundwater quality downgradient of the site
PZ20 (10 to 20 feet)	East of 30 Front Street on railroad property, to examine groundwater quality near the western edge of the plume
PZ21 (9 to 19 feet)	In front of 10 Baldwin Street, to examine groundwater quality downgradient of the site
PZ22 (9 to 19 feet)	In front of 12 Baldwin Street, to examine groundwater quality downgradient of the site

Table 5-2 (cont.)
Piezometer Locations and Rationales

Piezometer (Screen Interval)	Location/Rationale
PZ23 (8 to 18 feet)	Southeast corner of 45 Front Street yard, to examine groundwater quality near the eastern edge of the plume
PZ24 (11 to 21 feet)	East of 12 Baldwin Street on railroad property, to examine groundwater quality downgradient of the site
PZ25 (11 to 21 feet)	West of 20 Columbia Street on railroad property, to examine groundwater quality downgradient of the site
PZ26 (14 to 24 feet)	North of former MGP plant facilities right in front of plaza building, to examine groundwater quality upgradient of the site
PZ27 (14 to 24 feet)	Northwest of former electric plant building in plaza parking lot, to examine groundwater quality upgradient of the site
PZ28 (9 to 19 feet)	West of 18 Columbia Street on railroad property, to examine groundwater quality downgradient of the site
PZ29 (6 to 16 feet)	ROW on Columbia Street northeast of house at 12 Columbia Street, to examine groundwater quality near the eastern edge of the plume
PZ30 (6 to 16 feet)	ROW in front of 20 Columbia Street, to examine groundwater quality near the eastern edge of the plume
PZ31 (6 to 16 feet)	ROW at northwest corner of Columbia Street and Brown Avenue, to examine groundwater quality near the eastern edge of the plume
PZ32 (8 to 18 feet)	ROW in front of 19 Brown Street, to examine groundwater quality near the downgradient edge of the plume
PZ33 (9 to 19 feet)	Behind building at 13 Brown Street, to examine groundwater quality near the western edge of the plume
PZ34 (6 to 16 feet)	Southeast of building at 13 Brown Street, to examine groundwater quality near the downgradient edge of the plume
PZ35 (5 to 15 feet)	ROW in front of 13 Brown Street, to examine groundwater quality near the downgradient edge of the plume
PZ36 (6 to 16 feet)	ROW in front of 35 Brown Avenue, to examine groundwater quality near the eastern edge of the plume
PZ37 (6 to 16 feet)	ROW in front of 31 Brown Avenue, to examine groundwater quality near the downgradient edge of the plume
PZ38 (7.5 to 17.5 feet)	ROW in front of 21 Brown Avenue, to examine groundwater quality near the downgradient edge of the plume
PZ39 (6 to 16 feet)	Backyard of 16 Baldwin Street, to examine groundwater quality near the downgradient edge of the plume

In addition to the piezometer network, one monitoring well (GW04-16) was installed with a 2-foot sump for NAPL collection in the western portion of the site, based on the observation of significant NAPL in the subsurface during the installation of DP18. Since NAPL did not collect in this well, no other installations were completed in this manner.

Table 5-3
Monitoring Well Locations and Rationales

Monitoring Well (Screen Interval)	Location/Rationale
GW04-16 (11 to 21 feet)	Northwest of former gas plant building, to attempt to collect NAPL

5.3.2 Piezometer and Monitoring Well Sampling

As part of these SRI field activities, the newly installed piezometers were used to form a network of groundwater monitoring locations to delineate the shallow groundwater plume at the site and surrounding area.

Piezometers and monitoring wells were installed during five different field mobilizations, which occurred in October 2004, and in April, May, June and October 2005. Two partial rounds of groundwater sampling were conducted in November 2004 and July 2005, to provide chemical data to guide the further installation of soil borings and piezometers. A full synoptic groundwater sampling event was performed in December 2005. A summary of total numbers of groundwater samples analyzed is shown in Table B-3.

On November 22, 2004, piezometers PZ03, PZ04, PZ07, and PZ08 had groundwater samples collected and analyzed for BTEX and naphthalene. On July 25 and 26, 2005, piezometers PZ03 and PZ10 through PZ28, along with existing monitoring well GW92-12 had samples collected and analyzed for VOCs and SVOCs. These rounds were used to guide the further selection of additional piezometer locations to fully delineate the groundwater plume.

A full synoptic round of groundwater sampling was performed from December 6 to 13, 2005, in which all 39 piezometers (PZ01 through PZ39) and 12 existing monitoring wells (Existing Well,

GW91-4SH, GW91-4D, GW91-6, GW91-7, GW92-8, GW92-11SH, GW92-11D, GW92-12, GW92-13, GW01-14, and GW04-16) were sampled and analyzed for VOCs, SVOCs, and total cyanide. The “Existing Well” is a well that was found in the plaza parking lot north of the former MGP site that was not previously known to NYSEG. The “Existing Well” does not match up with the location of any previously known wells, so the origin of this well is not known.

A total of five groundwater elevation and NAPL thickness gauging events were performed as part of this SRI. Partial gauging events were performed on September 2, 2004 (during Work Plan finalization), December 2, 2004, January 20, 2005 and June 17, 2005, while a full gauging was performed as part of the synoptic gauging event on December 5 and 6, 2005. The partial rounds were used in combination with groundwater quality results to guide further investigation activities.

5.4 SVI EVALUATION

The area of interest for the SVI evaluation is mostly located downgradient of the site to the south. The off-site plume area is covered by mostly residential housing and extends approximately 800 feet to the south with a width of approximately 300 feet east to west. In addition, a commercial plaza is located just to the north of the site and occupies part of the footprint of the former MGP facilities. The residential neighborhood to the south is comprised of two story, one and two family homes. At the southern end of the potentially impacted area is a vacant one story commercial building. The western side of the potentially impacted area includes a Railroad right-of-way.

A total of 19 buildings were proposed in the SVI Work Plan for inclusion in the SVI evaluation (Figure A-20). Permission to perform the sampling was obtained from 14 of these properties and Table 5-4 summarizes the locations sampled as part of the SVI evaluation. The buildings sampled for the SVI assessment are shown on Figure A-21.

Table 5-4
Summary of SVI Sampling Locations

Location	Description
12 Baldwin St.	Downgradient residence near western edge of groundwater plume
14 Baldwin St.	Downgradient residence near western edge of groundwater plume
35 Brown Ave.	Downgradient vacant commercial building near edge of groundwater plume
10 Columbia St.	Downgradient residence near eastern edge of groundwater plume
16 Columbia St.	Downgradient residence near eastern edge of groundwater plume
18 Columbia St.	Downgradient residence near eastern edge of groundwater plume
20 Columbia St.	Downgradient residence near eastern edge of groundwater plume
30 Front St.	Downgradient residence near western edge of groundwater plume
37 Front St.	Downgradient residence near centerline of groundwater plume
41 Front St.	Downgradient residence near centerline of groundwater plume
42 Front St.	Downgradient residence near eastern edge of groundwater plume
43 Front St.	Downgradient residence near eastern edge of groundwater plume
45 Front St.	Downgradient residence near eastern edge of groundwater plume
Little Caesar's	Pizza restaurant situated on footprint of former distribution holder

5.4.1 Initial Site Survey and Inventory

Site surveys and inventories were completed on March 16, 17 and 24, 2006, by the Ish Inc. team for the properties listed in Table 5-4 in order to determine the use and status of the location, to interview the occupant or owner and to complete an inventory of potential chemical sources used or stored at the location.

5.4.2 SVI Sample Collection

SVI evaluation samples were collected from 14 properties included in the SVI assessment from March 22 to 24, 2006 and March 28 and 29, 2006. At each location, indoor air samples were collected in the basement (except for two locations that did not have basements) and the lowest floor that is occupied by people (living area). In addition, sub-slab or sub-slab equivalent samples (locations with dirt floor basements) were collected from each building. Table 5-5 shows the numbers of each type of sample collected. On each day of SVI evaluation fieldwork, three outdoor air samples were collected concurrently with the indoor air and sub-slab samples. The samples collected as part of the SVI assessment are summarized in Table B-4.

Table 5-5
Number of SVI Samples Analyzed

Sample Type	Number of Samples	Field Duplicates	Total Number of Samples
Lowest Living Area Air	14	1	15
Basement Air	12	1	13
Sub-slab Gas (or equivalent)	14	2	16
Outdoor Air	12	1	13

5.5 WASTE HANDLING

Composite samples were collected to represent for the wastewater and soil drums to characterize the wastes for disposal. These results were provided to NYSEG, which used the results to dispose of the IDW in accordance with applicable regulations.

5.6 SURVEY

NYSEG personnel performed the land surveying required for the execution of the SRI. The location and elevation of all direct push soil borings, piezometers and monitoring wells were surveyed immediately following completion of each phase of the field effort and an AutoCAD map was provided to the Ish Inc. team.

6
SUPPLEMENTAL RI RESULTS

This section presents the results of the SRI completed by the Ish Inc. team as described in Section 5. Information on sampling and analysis procedures is presented in Section 4, while Section 3 contains the general project approach. The analytical results for samples collected during this work are presented in tables included in Appendix B.

6.1 GEOLOGY

In addition to the geologic information that was gathered during previous investigations and discussed in Section 2.3.1, supplemental information was obtained regarding the lithology of the site and surrounding area from the 65 direct push soil borings (DP01, DP02, DP03, DP04A, DP04B, DP04C, DP05 through DP20, DP21A, DP21B, DP22 through DP40, DP40A, and DP41 through DP61) completed as part of this SRI. The direct push borings were completed to depths ranging from 2.1 to 32 feet below ground surface (bgs).

Prior to the 1997 IRM that included the removal of approximately 11,500 tons of impacted soils, the unconsolidated materials under the site were described as consisting of Quaternary glacial lacustrine deposits overlain by a thin layer of alluvial sediments and fill. For the area investigated during this SRI, the depth of fill varied from less than 1 foot off-site to the south, east and west of the site to greater than 11 feet on-site, within the former excavation area, which covered the area from the former relief holder to the tar wells and gas plant building to the southwest.

The fill at the site generally consisted of varying quantities of silt, sand and gravel. The alluvium consisted of sand and silt and was found at thicknesses ranging from 1 to 8 feet. The alluvium is underlain by a layer of glacial outwash sand and gravel varying from 7 to 15 feet in thickness. The glacial outwash is underlain by glacial lacustrine deposits of silt and clay. No borings to date fully penetrated the lacustrine layer and therefore its thickness is unknown. The elevation of the lacustrine layer was found to be lowest in the center of the site, increasing in elevation to both the west and east of the site.

Boring logs and piezometer/monitoring well construction diagrams are included in Appendix C. Using the previously gathered geologic information, along with results from the soil borings installed as part of this SRI work, four geologic cross-sections were constructed for the site and surrounding area (Figure A-22). Geologic cross section A-A' is presented on Figure A-23, and runs along the approximate centerline of the groundwater plume from the north to the south. Cross section A-A' starts in the north (DP28) and continues to the south, ending at the (DP48/PZ25). In addition, geologic cross-section B-B' is shown on Figure A-24, and runs across the site from southwest to northeast, from DP16 to DP19/PZ11. Geologic cross-section C-C' (Figure A-25) runs approximately east/west just south of the site, from DP36/PZ17 to DP30. Lastly, geologic cross-section D-D' (Figure A-26) runs generally east west, south of Front Street, from DP35/PZ16 to DP33/PZ14.

Since the top of the silt and clay surface is behaving as a continuous confining layer beneath the thin shallow aquifer, a silt and clay confining layer elevation contour map was generated to help understand both the groundwater flow and the potential migration of denser than water non-aqueous phase liquid (DNAPL). The contour of the top of the silty clay surface is shown on Figure A-27. The fine silty clay layer was generally encountered between 8 and 25 feet below grade.

It should be noted that soil recovery in direct push cores is, by its nature, somewhat imprecise. Therefore, the depths to the silty clay layer should be considered approximate to within plus or minus 5 feet. In addition, at many borings during the direct push boring program, the driller noted a change in stratigraphy that was likely the clay layer. Because of the nature of the glacial outwash sand and gravel, the depth of the clay noted in logging the soil cores did not always match the driller observations. As a result, there are areas where the silt and clay layer may be a few feet shallower than represented on the confining layer contour and geologic cross-sections. The observations of the driller are noted on the boring logs in Appendix C.

As shown on the silt and clay surface contour map (Figure A-27), the surface of the confining layer on the site generally slopes toward the center of the site from the east and west, with a dip to the south on the southern portion of the site and a dip to the north on the northern portion of the site. There is a low just to the north of site at DP28. In addition, south of the site near Front Street, there is another low in the contour, highlighted by the 980' contour surrounding DP23, DP37, DP26, and DP40. As discussed later in Section 6.3.1, this contour is consistent with the NAPL observed at downgradient locations in this area and the generally north to south flow of groundwater from the site. Beyond this low to the south, the silt and clay layer rises slightly to the approximate elevation found on-site. The contour is generally consistent with the groundwater flow as discussed below.

6.2 HYDROGEOLOGY

The shallow aquifer at the site and surrounding area has been impacted by dissolved MGP residuals and is the focus of this hydrogeologic evaluation. The aquifer in the area is shallow with the depth to water ranging from approximately 4 to 14 feet below grade. The silt and clay confining layer is present at depths ranging from approximately 8 to 25 feet across the study area. Observations from borings indicate that the thickness of the aquifer is generally 10 to 15 feet thick, but it is thinner in some areas where the silty clay layer is relatively shallow. Because the aquifer of concern is relatively thin, piezometers, as part of this effort, were installed to intersect the observed impacted zone of the aquifer with a 10-foot screen.

As part of the investigation, one additional monitoring well (GW04-16) and 39 piezometers (PZ01 through PZ39) were installed to examine groundwater quality and provide water level information for evaluating the groundwater flow direction and hydraulic gradients on-site. During this SRI, all of the new piezometers and the monitoring wells were installed with 10-foot screens to avoid potential dilution of groundwater quality results. The screen intervals (feet bgs) for selected monitoring wells and piezometers are shown in Table 6-1 and Table 6-2, respectively. As shown in the table, the screen intervals ranged from 6 to 26 feet bgs, in order to intersect the impacted groundwater zone, as discussed above.

Table 6-1
Approximate Screened Intervals of Selected Monitoring Wells

Monitoring Well	Top of Screen (ft. bgs)	Bottom of Screen (ft. bgs)
GW91-4D	15	20
GW91-4SH	8	13
GW91-5	6	16
GW91-6	7	17
GW91-7	6	11
GW92-8	5	15
GW92-11D	15	20
GW92-11SH	4.4	9.4
GW92-12	6	16
GW92-13	5	15
GW04-16	11	21

Table 6-2
Approximate Screened Intervals of Piezometers

Piezometer	Top of Screen (ft. bgs)	Bottom of Screen (ft. bgs)
PZ01	7.3	17.3
PZ02	5	15
PZ03	7.5	17.5
PZ04	7	17
PZ05	11	21
PZ06	11	21
PZ07	10	20
PZ08	10	20
PZ09	12.5	22.5
PZ10	9	19
PZ11	9.5	19.5
PZ12	14	24
PZ13	5.5	15.5
PZ14	8	18
PZ15	9.8	19.8
PZ16	6	16
PZ17	6	16
PZ18	8	18
PZ19	9	19
PZ20	10	20
PZ21	9	19
PZ22	9	19
PZ23	8	18
PZ24	11	21

Table 6-2 (cont.)
Approximate Screened Intervals of Piezometers

PZ25	11	21
PZ26	14	24
PZ27	14	24
PZ28	9	19
PZ29	6	16
PZ30	6	16
PZ31	6	16
PZ32	8	18
PZ33	9	19
PZ34	6	16
PZ35	5	15
PZ36	6	16
PZ37	6	16
PZ38	7.5	17.5
PZ39	6	16

As part of the SRI activities, one full and four partial groundwater gauging events were performed. The groundwater elevations from these five gauging events are shown in Table 6-3. The depth to water varied from approximately 4 to 14 feet bgs.

Table 6-3
Summary of Selected Groundwater Elevation Data

Well or Piezometer	Elevation of TOC (MSL)	Groundwater Elevations above MSL				
		9/2/04	12/2/04	1/20/05	6/17/05	12/6/05
GW91-4D	1005.50	NM	994.35	994.98	993.79	994.69
GW91-4SH	1006.40	NM	994.42	994.88	993.76	994.69
GW91-5	1000.68	994.56	994.25	994.53	Dry	NM
GW91-6	1001.31	994.69	994.47	994.61	987.59	994.34
GW91-7	1005.14	996.19	996.52	996.82	996.16	996.03
GW92-8	1000.45	994.42	994.15	994.35	993.53	994.17
GW92-11D	1001.31	994.36	994.21	994.39	NM	994.19
GW92-11SH	1001.66	994.43	994.39	994.37	993.49	994.15
GW92-12	999.09	995.22	995.70	995.26	994.14	995.24
GW92-13	1001.86	995.76	995.78	996.36	995.25	995.65
GW01-14	1001.05	994.53	994.25	994.55	993.63	994.37
GW01-15D	1004.29	994.97	994.31	994.97	993.79	NM
GW01-15SH	1004.01	994.94	994.34	994.86	993.77	NM
GW04-16	1006.85	--	993.65	994.73	993.75	994.56

Table 6-3 (cont.)
Summary of Selected Groundwater Elevation Data

Well or Piezometer	Elevation of TOC (MSL)	Groundwater Elevations above MSL				
		9/2/04	12/2/04	1/20/05	6/17/05	12/6/05
PZ01	1003.74	--	994.24	994.84	993.76	994.64
PZ02	1003.91	--	994.26	994.86	993.70	994.64
PZ03	1003.35	--	994.50	994.93	994.19	994.73
PZ04	1001.55	--	994.35	994.60	993.70	994.46
PZ05	1002.86	--	994.26	994.50	993.65	994.27
PZ06	1001.82	--	994.22	994.41	993.55	994.21
PZ07	1001.91	--	994.27	994.35	993.54	994.16
PZ08	1000.85	--	994.22	994.32	993.50	994.13
PZ09	1000.49	--	--	--	993.42	993.99
PZ10	1000.51	--	--	--	993.55	994.21
PZ11	1003.86	--	--	--	993.76	994.73
PZ12	1003.45	--	--	--	993.79	994.78
PZ13	1000.52	--	--	--	993.48	994.12
PZ14	999.96	--	--	--	993.42	994.06
PZ15	999.81	--	--	--	993.43	994.00
PZ16	1004.49	--	--	--	993.74	994.19
PZ17	1003.68	--	--	--	993.66	994.36
PZ18	999.15	--	--	--	993.38	993.97
PZ19	999.51	--	--	--	993.36	993.93
PZ20	1003.64	--	--	--	993.47	993.99
PZ21	1001.25	--	--	--	993.42	994.02
PZ22	1000.55	--	--	--	993.33	993.97
PZ23	1001.21	--	--	--	993.56	994.27
PZ24	1003.27	--	--	--	993.37	993.92
PZ25	1002.43	--	--	--	993.11	993.59
PZ26	1004.18	--	--	--	993.81	994.77
PZ27	1003.37	--	--	--	993.85	994.76
PZ28	998.79	--	--	--	992.95	993.65
PZ29	998.91	--	--	--	--	993.86
PZ30	998.23	--	--	--	--	992.84
PZ31	997.93	--	--	--	--	991.22
PZ32	1000.62	--	--	--	--	993.39
PZ33	1003.00	--	--	--	--	994.06
PZ34	1000.02	--	--	--	--	991.91
PZ35	1001.25	--	--	--	--	994.10
PZ36	999.82	--	--	--	--	991.95
PZ37	999.44	--	--	--	--	992.75
PZ38	1000.18	--	--	--	--	992.96
PZ39	999.05	--	--	--	--	993.65

MSL = Mean Sea Level; TOC = Top of casing; NM = Elevation Not Measured
-- = location not present at that time
All measurements are in feet.

6.2.1 Horizontal Groundwater Flow Direction and Hydraulic Gradients

Groundwater contour maps were generated utilizing the data from the June 17, 2005 and December 5 to 6, 2005 gauging events performed as part of this SRI field work. The contours for the piezometer and monitoring well locations, which are all installed in the shallow unconfined aquifer present above the silt and clay confining layer, are shown on Figure A-28 and Figure A-29. As shown on these contours, groundwater in the area flows generally to the south, with some convergence of groundwater from the east and west immediately around the site.

Horizontal hydraulic gradients for the shallow aquifer were determined for the June 2005 and December 2005 groundwater gauging events by using the groundwater elevation contours. We first measured the distance from PZ01 to PZ28 along the groundwater flow path on each contour. For the June 2005 contour, the straight-line distance between PZ01 and PZ28 was used since the precise flow path is not apparent, with only one contour line between the two piezometers. By dividing the drop in hydraulic head (change in water table elevation) over the distance along each flow path, average horizontal hydraulic gradients were calculated, as shown in Table 6-4. The groundwater gradients for the gauging events were calculated as 0.0011 ft/ft and 0.0013 ft/ft in the shallow aquifer along the approximate centerline of the plume.

Table 6-4
Average Horizontal Hydraulic Gradients

	Drop in Head (ft)	Length of Flow Path (ft)	Gradient (ft/ft)
Shallow Saturated Zone (Gravel and Sand)			
6/17/05	0.81	740	0.0011
12/5/05	0.99	750	0.0013

6.2.2 Hydraulic Conductivity

Hydraulic conductivity testing was performed by ES as part of the Task II investigation activities in 1992. Hydraulic conductivity values were determined by ES using the Bouwer and Rice method for analyzing slug test method. Hydraulic conductivities were determined by ES to be between 4.22 and 153 ft/day for the shallow water bearing zone, with a geometric mean of 25.8 ft/day and an arithmetic mean of 51.2 ft/day. The geology of the aquifer is mostly outwash sand

and gravel and the range of hydraulic conductivity values measured are consistent with those expected for unconsolidated deposits of silty to clean sand (Freeze and Cherry, 1979). According to several authors, including Domenico and Schwartz (1990), the average hydraulic conductivity of a lithologic unit is better represented by the geometric rather than the arithmetic mean of measured values from that unit. As a result, the value of 25.8 ft/day (9,420 ft/yr) will be used for the calculations of groundwater velocities in Section 6.3.1. The individual hydraulic conductivity values from those measurements are presented in Table 6-5. No new/additional hydraulic conductivity tests were conducted during the current SRI work.

Table 6-5
Horizontal Hydraulic Conductivity (K) Results from Previous ES Work - 1992

Well	K (ft/day)	K (ft/yr)
GW91-1	91.9	33,500
GW91-4D	33.6	12,200
GW91-4SH	12.8	4,680
GW91-5	153	55,700
GW91-6	11.5	4,210
GW91-7	4.22	1,540

6.2.3 Specific Discharge and Groundwater Seepage Velocity

In order to estimate the specific discharge and groundwater seepage velocity along the centerline of the plume, some assumptions were made. As shown in the boring logs (Appendix C), the lithology of the shallow aquifer is sand and gravel. Using this value, along with an estimated effective porosity (Freeze and Cherry, 1979) for the sand and gravel of 0.35 and the average horizontal hydraulic gradient calculated in Section 6.2.1 (0.0012 ft/ft), specific discharge and seepage velocity were calculated, as shown in Table 6-6.

Table 6-6
Estimated Specific Discharges and Seepage Velocities

Source of K	K (ft/yr)	Effective Porosity[1]	Specific Discharge (ft/yr)[2]	Seepage Velocity (ft/yr)[3]
ES Testing	9,420	0.35	11.3	32.3

[1] Estimated from Freeze and Cherry, 1979
[2] Specific discharge is equal to hydraulic conductivity multiplied by hydraulic gradient.
[3] Seepage velocity is equal to specific discharge divided by effective porosity.

Based on the assumptions indicated above, the estimated specific discharge for the site was 11.3 ft/yr, while the estimated seepage velocity was 32.3 ft/year. The specific discharge is a macroscopic number that indicates how long it takes for groundwater to flow through the soil and can be used to calculate the time of travel for groundwater to move from one point to another. The groundwater seepage velocity is an estimate of the linear measure of the actual velocity of groundwater as it flows through the pore spaces in porous media.

6.3 SUBSURFACE SOIL CONDITIONS

Information on subsurface soil conditions was gathered through the installation of soil borings by direct push methodologies. In addition to visual observations during geologic logging and PID measurements, samples were collected for chemical analysis. This subsection summarizes the subsurface soil conditions observed during this SRI.

6.3.1 Visual Observations of Sheens or NAPL in Subsurface Soils

The boring logs for the 65 borings completed on the site and surrounding area during this SRI are attached in Appendix C and a summary of the observations made during the logging of the soil borings is presented in Table B-5. Figure A-30 displays the qualitative field observations of the field geologist regarding the quantity of actual NAPL in the subsurface: sheens, slight NAPL, moderate NAPL, and substantial NAPL. In general, the NAPL observed was reddish-brown in color and was intermixed with water within the pore spaces of the relatively loose sand and gravel outwash present in the shallow aquifer above the silt and clay confining layer. On-site and on the former Aero Products building property (now owned by NYSEG), scattered NAPL impacts were present in a 5 to 10 feet thick soil zone. Further to the south, the soils observed with some NAPL present were less than 5 feet thick. When observed, NAPL was found at depths ranging from approximately 7 to 26 feet bgs at the site and surrounding area.

As shown on Figure A-30, NAPL was observed in subsurface soil across the site with moderate to substantial NAPL observed at almost all locations within the footprint of former MGP operations. In addition, sheens were noted at one location (DP27/PZ12) upgradient (north) of the site. NAPL has also migrated along the silt and clay confining unit to the south of the site, in the direction of groundwater flow. Moderate or substantial quantities of NAPL were observed in DP13, DP14, DP37, DP26 and DP40, moving from the site toward the south. In addition, slight quantities of NAPL or sheens were observed in soils from DP15, DP25, DP23, DP32, DP41, and DP43. The clay contour (Figure A-27) shows a depression in the area of DP23, DP37, DP26, and DP40, which is consistent with the NAPL observed in this area.

Cross-sectional representations of the site geology with areas where NAPL and sheens were observed during the logging of soil borings are shown on Geologic Cross-Section A-A' (Figure A-23) through Geologic Cross-Section D-D' (Figure A-26). As shown on cross section A-A', which runs along the general groundwater flow path, NAPL was observed in the shallow saturated glacial outwash at DP14, DP26, DP34, and DP41, which is consistent with a southerly migration of NAPL and groundwater flow from the site. It is very important to note that the impacts were observed above the silty clay layer, which by all indications is acting as a confining layer to vertical migration at the site and surrounding area.

Geologic cross-section B-B', which runs across the former MGP from the southwest to the northeast (Figure A-24), shows several locations where NAPL and/or sheens were observed in the shallow saturated zone on-site, including (moving from west to east) DP16, DP17, DP09, DP18, DP05, DP22, DP01, DP06, DP02, DP20, DP07, DP03, DP08, and DP04C. Similarly, cross-section C-C' shows observed NAPL globules at DP23, DP24, and DP25. Lastly, cross-section D-D' shows observed NAPL globules at DP26 and DP37. These figures again show that the sheens and NAPL globules do not extend into the confining silt and clay layer.

In addition to NAPL observed within the soil matrix during the advancement of soil borings, there was also some accumulation of NAPL noted in monitoring wells and piezometers during well gauging. Table 6-7 lists only the monitoring wells and piezometers that contained at least trace evidence of NAPL (sheens excluded), as noted during the three groundwater elevation gauging events performed in December 2004, June 2005, and December 2005. As shown by these data, substantial NAPL has accumulated in GW01-15D, GW04-16, and PZ09. The two wells are located on-site and PZ09 is located in the low area of the clay contour south of Front Street, where substantial NAPL was observed during soil boring activities.

Table 6-7
NAPL Observations in Monitoring Wells and Piezometers

Monitoring Well/Piezometer	NAPL Observations
GW01-15D	Up to 0.9 feet of DNAPL, measured June 2005
GW04-16	Substantial NAPL, too smeared to measure
PZ01	Trace DNAPL, measured December 2005
PZ02	Trace DNAPL, measured June 2005
PZ06	Trace DNAPL, measured June 2005
PZ09	Up to 2.0 feet of DNAPL, measured June 2005

6.3.2 Chemical Analysis Results for Subsurface Soil

This subsection presents a summary of the results for chemical analyses performed on subsurface soil samples as part of this SRI. The results for chemical analyses performed on subsurface soils are presented in Table B-6 and Table B-7 for VOCs, Table B-8 for BTEX compounds only, Table B-9 and Table B-10 for SVOCs, and Table B-11 for PAHs. The tables for the soil analysis results also include a column containing appropriate standards, criteria and guidelines (SCGs), the NYSDEC Technical and Administrative Guidance Memorandum (TAGM) #4046 Recommended Soil Cleanup Objectives (RSCOs). In addition, the subsurface soil results are presented graphically on Figure A-31.

6.3.2.1 VOCs in Subsurface Soil Samples

Benzene, toluene, ethyl benzene, and xylene (BTEX) are a group of VOCs commonly found in MGP residuals. Also, they are commonly found as groundwater contaminants from the release of petroleum products and other industrial products/residues. The BTEX concentrations found in subsurface soil are presented Table B-6, Table B-7, and Table B-8, while benzene concentrations are plotted on Figure A-31.

BTEX compounds were detected in many subsurface soil samples from the saturated soils above the silt and clay layer (see Table B-5) at levels above New York State (NYS) Technical and Administrative Guidance Memorandum (TAGM) #4046 Recommended Soil Cleanup Objectives (RSCOs), including DP01, DP02, DP03, DP04C, DP05, DP06, DP13, DP22, DP26, DP29, DP37, and DP40 (Table B-6 and Table B-7). The shallower sample from DP37 (there were two samples collected from this location) was the only sample with BTEX exceedances that was significantly below the top of the clay layer (the sample was collected from 26.5 to 27.5, below the top of the clay and sand at 24 feet). However, the sample from DP37 collected from 31.5 to 32 feet bgs had levels well below the RSCOs. The highest BTEX concentrations were measured in the sample from 20 to 21.5 feet bgs at DP26, which is located in a depression on the silt and clay confining layer. Of all of the samples with BTEX exceedances, each were collected from borings where NAPL was observed, except for the sample from 23 to 24 feet below grade at DP29, which had only slight odors noted. In general, the BTEX data correspond very well to the field observations of NAPL.

BTEX compounds were not detected and no sheens or NAPL were observed in soil samples from borings DP19, DP28, DP31, DP33, DP35, DP36, DP42, DP44, DP45 and DP50. In addition, the samples from borings DP30, DP46, DP47, DP51, and DP52 also had no visual observations of impacts, but these samples did have some rejected (“R” flagged) results because of low internal standard recoveries (Appendix H). The results for BTEX compounds in DP30 (23-24), as well as ethylbenzene and xylenes (total) in DP46 (22-24), DP47 (26-27), DP51 (19-20), and DP52 (19-20) were rejected for not meeting the internal standard recoveries. However, benzene and toluene were not detected in the samples from DP46, DP47, DP51 and DP52. Based on nearby soil results, results from piezometers installed at some of the locations discussed above, and the visual observations from the field logging of the soil borings, these rejected data do not affect the overall evaluation of the site.

Other than BTEX, isopropylbenzene, which is a constituent of coal tar, was detected in samples with high BTEX concentrations. No other VOCs were detected with any regularity or at elevated levels. No VOC other than BTEX were detected above RSCOs.

6.3.2.2 SVOCs in Subsurface Soil Samples

The SVOC concentrations in subsurface soils are shown in Table B-9 and Table B-10, while results for some samples analyzed for PAHs only are presented Table B-11. In addition, the total SVOCs, total carcinogenic PAHs (CPAHs), and naphthalene concentrations measured in subsurface soils are plotted on Figure A-31. As can be seen in Table B-9 and Table B-10, the vast majority of the SVOCs detected at the site were PAHs. In addition to PAHs, dibenzofuran was the only other SVOC detected in any samples above its RSCO of 6,200 µg/kg.

Similar to the BTEX in soil results, a number of soil samples collected from the saturated soils above the silt and clay layer contained one or more SVOCs (specifically PAHs and dibenzofuran) at concentrations above TAGM #4046 RSCOs. The borings where samples collected had exceedances of RSCOs for PAHs or dibenzofuran were DP01, DP02, DP03, DP04C, DP05, DP06, DP08, DP09, DP10, DP14, DP15, DP17, DP18, DP19, DP20, DP22, DP23, DP25, DP26, DP29, DP32, DP37, DP40, DP41, and DP46 (Table B-9, Table B-10, and Table B-11). These data are consistent with visual observations made during logging of the soil borings (Appendix C).

The only samples from within the clay layer that had exceedances measured for one or more PAHs were collected from the upper few feet of the clay layer at borings DP26, DP29, and DP37. These data, along with the observations of NAPL in the subsurface indicate that there is NAPL present across the site in the shallow saturated soils that is confined from moving downward by the silt and clay layer but has moved off-site to the south and into the depression in the confining layer to the south of Front Street.

In samples collected well into the silty clay layer, SVOCs were generally present at relatively low levels or not measured above reporting limits. The lack of significant concentrations of SVOCs in samples from the silt and clay layer is consistent with observations made during soil borings (Appendix C) that indicated that NAPL had not migrated into this confining layer.

There were no detects for SVOCs and no sheens or NAPL were observed in soil samples from borings DP30, DP31, DP33, DP35, DP36, DP45 and DP47. In addition, samples borings DP51 through DP61 were visually clean and analyzed for PAHs only. PAHs were not detected in any of the soil samples from these borings. These borings are located around the perimeter of the study area.

6.3.3 Total Organic Carbon in Soil

In addition to analyses for chemical characterization, four samples were collected and analyzed for TOC (Table B-12). Three samples were collected from native materials representative of the stratigraphy observed during the advancement of soil borings. The TOC concentrations for these samples ranged from <1,100 to 12,800 mg/kg.

6.3.4 SPLP Leaching Tests for VOCs and SVOCs in Soil

In order to evaluate the potential leaching of MGP residuals (BTEX and PAHs) from subsurface site soils, six samples from soil borings DP01, DP02, DP03, DP08, DP18, and DP22 were subjected to EPA Method 1312, SPLP. The leachates from these tests were then analyzed for VOC and SVOCs. SPLP leaching conditions are designed to mimic acid precipitation and can be used to estimate the leaching potential for chemicals of concern in the natural environment. The results for the SPLP analyses are shown on Table B-13 for VOCs and Table B-14 for SVOCs. Most of the samples subjected to the SPLP leaching procedure had observations of NAPL in the sampling zone. The exceptions were DP18(27.4-27.9), which was analyzed for SPLP VOCs and SVOCs, and DP26(10-11), which was analyzed for SPLP SVOCs only.

The SPLP VOC results show that four of the six samples had VOCs detected above the Class GA groundwater standards or guidance values, which were placed in the table for reference purposes, since SPLP results do not have SCGs in for direct comparison. The four samples with exceedances all had NAPL observed, as indicated on the boring logs in Appendix C. The other two samples from DP08 and DP18 did not have measurable concentrations of VOCs in the leachate. While the sample from 12 to 14 feet bgs at DP08 did have NAPL observed, the SPLP sample did not have detected VOC constituents nor were exceedances measured for individual total VOCs in this sample (Table B-6). These data suggest that the NAPL at this location may have been lower in VOC content than at some other locations, especially since both the total SVOCs and SPLP SVOCs samples from this sample interval showed elevated PAHs (Table B-9 and Table B-14). The VOCs that were present in the SPLP leachates above the Class GA groundwater standard or guidance values were benzene, ethylbenzene, isopropylbenzene, MTBE, styrene, and toluene. All of these compounds, except for the MTBE found in one sample, are constituents of MGP tar. MTBE is an oxygenate in gasoline, suggesting there may be some gasoline impacts in this particular sample.

Of the three samples subjected to the SPLP leaching procedure for SVOC analysis, DP08 had NAPL observed, while DP18 and DP26 did not. The results for the samples DP08 and DP28 exceed the Class GA standards or guidance values. As mentioned in the preceding paragraph, SVOCs were found in the samples submitted for both total SVOC analysis and SPLP leaching from DP18, which was collected at 27.4 to 27.9 feet bgs. These samples were collected from the upper portion of the silt and clay layer at a location that had substantial NAPL in the saturated sand and gravel outwash present just above the sample interval. These data suggest that PAH constituents had leached from overlying tarry NAPL into the upper portion of the silt and clay layer. The SVOCs measured above the Class GA standards or guidance values in the SPLP samples were acenaphthene, fluorene, naphthalene, phenanthrene, 1-1'biphenyl, and 4-nitroaniline. All of these compounds, except for 4-nitroaniline, are constituents of coal tar.

In general, the SPLP results for VOCs and SVOCs suggest that the tarry NAPL observed in the subsurface of the site is responsible for the dissolved phased constituents that had been measured historically and during this SRI at the site and the surrounding area.

6.4 GROUNDWATER QUALITY

This section presents a summary of the results for chemical analyses performed on groundwater samples as part of this SRI. The results for BTEX and naphthalene analyses performed on groundwater samples from four piezometers sampled in November 2004 are presented in Table B-15. The results for samples collected from monitoring wells and piezometers are presented in Table B-16 and Table B-15 for VOCs from July 2005 and December 2005, respectively; Table B-18 and Table B-19 for SVOCs from July and December 2005, respectively; and Table B-20 for total cyanide from December 2005. The July sampling event was a partial round of sampling to guide further investigation activities, while the December 2005 sampling included all of the piezometers (DP01 through DP39) and most of the monitoring wells (all monitoring wells, except for GW01-15SH and GW01-15D, which are in close proximity to PZ02) that exist at the site. In order to compare the groundwater results to appropriate SCGs, the NYSDEC Class GA groundwater standards and guidance values are included in these tables. In addition, the groundwater results for all three rounds are presented graphically on Figure A-32.

Although, there were shallow and deep wells installed during previous investigation of the site and surrounding area, these wells are screened within the same relatively thin aquifer, which ranges from approximately 10 to 15 feet thick. The newly installed piezometers and monitoring wells were screened across the vertical zone of worst-case impacts at each location to accurately delineate the groundwater plume areally. When discussing shallow groundwater quality, this SRI report is referring to the relatively thin aquifer that is present above the silt and clay confining layer, which is found from approximately 8 to 25 feet below grade across the study area. The observations from soil borings, as well as the results from chemical analysis of soil samples well into the silt and clay indicate that impacts are limited to the shallow aquifer and the upper portion of the silt and clay layer.

6.4.1 VOCs in Shallow Groundwater

The VOC concentrations measured in groundwater are presented in Table B-15 for BTEX for four piezometers sampled in November 2004; and in Table B-16 and Table B-15 for VOCs measured from July 2005 and December 2005, respectively. In addition, total VOCs and benzene concentrations are shown graphically on Figure A-32.

VOC compounds were present in shallow groundwater samples above the NYSDEC Class GA drinking water standards or guidance values in at least one sample from many locations across the site and surrounding area (GW01-14, GW04-16, GW91-6, GW92-8, GW92-11D, GW92-11SH PZ01, PZ02, PZ05, PZ06, PZ07, PZ08, PZ09, PZ10, PZ15, PZ19, PZ20, PZ21, PZ22, PZ24, PZ25, and PZ28). The VOC compounds measured above the Class GA groundwater standards or guidance values included BTEX and isopropylbenzene. The exceedances were found across the site and extending to the south through 37 and 41 Front Street to north of 35 Brown Avenue. These results are consistent with NAPL globules/sheens observed in the borings when wells/piezometers were installed at these locations as well as inference derived from the groundwater flow direction at the site, which is to the south.

VOCs were not detected in groundwater at many of the perimeter sampling locations, such as PZ11, PZ12, PZ26, PZ27 and GW91-7 north of the site, GW92-12, GW92-13, PZ29, PZ30, PZ31 to the east of the plume, PZ03, PZ16, PZ17, PZ32, PZ33, PZ34 and PZ39 to the west of the plume, and PZ36 and PZ37 to the south of the plume. Again, these data are consistent with observed soil impacts and the groundwater flow direction, which is generally to the south.

6.4.2 SVOCs in Shallow Groundwater

SVOC concentrations measured in groundwater are presented in Table B-15 for naphthalene for four piezometers sampled in November 2004; and in Table B-18 and Table B-19 for SVOCs measured from July 2005 and December 2005, respectively. In addition, total SVOCs, total CPAHs, and naphthalene concentrations are shown graphically on Figure A-32.

SVOCs were detected in shallow groundwater samples at levels above NYSDEC Class GA standards or guidance values across the site and to the south following the groundwater direction. Specifically groundwater samples from GW01-14, GW04-16, GW91-4SH, GW92-8, GW92-11D, GW92-13, PZ01, PZ02, PZ05, PZ06, PZ07, PZ08, PZ09, PZ10, PZ15, PZ19, PZ20, PZ21, PZ22, PZ23, PZ24, PZ25, and PZ28 had SVOCs measured above Class GA standards or guidance values. The compounds measured above the standards in groundwater at these locations included various PAHs as well as 1,1'-biphenyl, bis(2-ethylhexyl)phthalate, 2,4-dinitrophenol, pentachlorophenol, phenol. Both 1,1'-biphenyl and phenol are constituents of coal tar, while bis(2-ethylhexyl)phthalate is a common laboratory artifact. Pentachlorophenol is a wood preservative chemical and is not associated with former MGP operations. The concentrations of some of the heavier weight PAHs suggest that some sheens may have been present in these samples, which is consistent with the observations of NAPL or sheens at these locations during the logging of soils when the wells/piezometers were installed.

SVOCs were not detected in groundwater samples from many perimeter locations, such as PZ12 and PZ27 to the of north of the site, PZ18, PZ30 and PZ31 to the east of the plume, PZ16, PZ33, PZ34, PZ35, PZ38, and PZ39 to the west of the plume.

6.4.3 Total Cyanide in Shallow Groundwater

During the full round of groundwater sampling in December 2005, each location was sampled and analyzed for total cyanide. The results for total cyanide in groundwater are shown in Table B-20 and on Figure A-32. Total cyanide was detected in groundwater above its NYSDEC Class GA groundwater standard of 200 µg/L at only two locations, GW91-4D and PZ02. These two locations are in close proximity on the eastern portion of the site. In addition to the total cyanide exceedances, there were widespread low level detections of total cyanide from the eastern portion of the site south to Brown Avenue. The total cyanide concentrations found at the vast majority of these locations were well below the NYSDEC Class GA standard of 200 µg/L, which is based on the EPA maximum contaminant level (MCL) for free cyanide of 200 µg/L.

6.5 SVI EVALUATION

The properties included in the SVI evaluation are listed in Table 5-4. The use and status of each location was determined by interviewing the occupant or owner of the property and an inventory of potential chemical sources at each location was conducted prior to sampling. At one location, 45 Front Street, only the landlord was present for the survey/inventory. At the vacant building at 35 Brown Avenue, no one was present or available for the interview/survey and the key for access was obtained from the real estate office. For the active commercial establishment a worker was present for the survey/inventory. The site survey field forms are included in Appendix E.

Eleven of the locations are residential, one is used as a child day care (41 Front Street), one is an active commercial establishment (Little Caesar's is a take out restaurant) and one is a vacant commercial building (35 Brown Avenue). In general, most of the residential basements were not finished and if used at all were used for storage and laundry. Most of the basements did not have a complete concrete floor if a concrete floor was present. Four locations only had dirt floors present in the basement (37 Front Street, 41 Front Street, 43 Front Street and 18 Columbia Street).

The following sub-sections summarize the results of the SVI field sampling program, which was performed following the procedures described in Section 4.1.5.

6.5.1 Field Screening Results for Sub-slab and Soil Vapor Samples

As part of the sampling procedure, sub-slab vapor samples were screened in the field prior to the collection of the vapor samples for laboratory analysis. The field screening results are summarized in Table B-21. The concentration for CH_4 at all sample locations was 0%. The detected concentrations of carbon dioxide (CO_2) ranged from 0.1 – 2.4%. The range detected for O_2 was 17.8 – 20.2% and the range of PID readings for total VOCs was 1,010 - > 199,000 ppb. The highest PID readings were recorded at the sample locations along Front Street (39 Front Street, 41 Front Street, and 43 Front Street) where the measured concentrations exceeded 10,000 ppb.

6.5.2 Chemical Analysis Results for Air and Vapor Samples

The frequency of detection and range of detected concentrations for the sub-slab, indoor and outdoor air samples are shown in Table B-22. Summary of results for all of the sub-slab samples, indoor air and outdoor air samples are presented in Table B-23.

6.5.2.1 BTEX in Vapor and Air Samples

Benzene was detected in 12 of 14 sub-slab sample locations and 24 of 26 indoor air samples collected. The concentrations in the sub-slab samples ranged from 1.2 to 15 $\mu g/m^3$ and in the indoor air samples from 0.67 to 30 $\mu g/m^3$. Toluene was detected in 14 sub-slab and 24 indoor air samples and ethylbenzene was detected in 10 sub-slab and 9 indoor air samples. In addition, toluene was detected at concentrations ranging from 4.6 to 37 µg/m^3 in the sub-slab samples and 1.4 to 65 µg/m^3 in the indoor air samples, while ethylbenzene concentrations range from 2.6 to 18 µg/m^3 in the sub-slab and 0.87 to 8.6 µg/m^3 in the indoor air. In addition, m/p-xylene and o-xylene were each detected in 14 sub-slab samples, as well as in 23 (m/p-xylene) and 11 (o-xylene) indoor air samples. Concentrations ranged from 3.6 to 45 µg/m^3 for m/p-xylene and 2.8 to 22 µg/m^3 for o-xylene in the sub-slab samples and 0.96 to 31 µg/m^3 for m/p-xylene and 0.95 to 10 µg/m^3 for o-xylene in the indoor air samples.

BTEX compounds were also detected in ambient air, which were collected at three locations on each day of sampling. Benzene was detected in all of the outdoor ambient air samples collected at concentrations ranging from 0.77 to 2.6 µg/m^3, while ethylbenzene was detected in 2 of the 12 samples at concentrations of 1.1 and 1.2 µg/m^3. In addition, m/p-xylene was detected in 8 of the 12 outdoor air samples collected at concentrations ranging from 0.95 to 3.3 µg/m^3 and o-xylene was detected in 3 samples from 1.1 to 1.3 µg/m^3. Lastly, toluene was detected in 11 samples with concentrations ranging from 1 to 7.2 µg/m^3.

6.5.2.2 Solvents and Chlorinated VOCs in Vapor and Air Samples

Chlorinated solvent compounds were detected in a limited number of sub-slab and indoor air samples. Tetrachloroethene was measured at 550 µg/m^3 in the first floor indoor air sample from one location (14 Baldwin Street), while 4.0 µg/m^3 was measured in the basement and none was detected in the sub-slab gas at this location. In addition, methylene chloride was detected in 9 of 14 sub-slab samples at concentrations ranging from 3.5 to 25 µg/m^3 and in 3 of 26 indoor air samples at concentrations ranging from 7.1 to 63 µg/m^3.

Chlorinated solvents were not detected in the outdoor ambient air samples collected during the SVI evaluation sampling.

6.5.2.3 Other VOCs Detected in Vapor and Air Samples

In addition to BTEX, solvents and chlorinated VOCs, other compounds detected in the sub-slab and indoor air samples included methylated benzenes, alkanes, and chlorofluorocarbons.

1,2,4-trimethylbenzene was detected in 1 of 12 outdoor air samples collected at a concentration of 1 $\mu g/m^3$. Chloromethane was detected in 9 of 12 outdoor air samples at concentrations ranging from 1.1 to 1.7 $\mu g/m^3$. Dichlorodifluoromethane was detected in all 12 outdoor air samples at concentrations ranging from 2 – 3.1 $\mu g/m^3$. n-butane was detected in 12 outdoor air samples (1.1 to 8.1 $\mu g/m^3$), n-hexane was detected in one sample at 2.1 $\mu g/m^3$, nonane was detected in 4 samples (2.6 to 4.9 $\mu g/m^3$) and pentane was detected in one sample at 3.6 $\mu g/m^3$.

6.5.3 Interpretation of the SVI Data

As discussed in the preceding paragraphs, BTEX and other VOCs were detected in indoor air and vapor samples collected from the site. The presence of these compounds in indoor air samples is not unexpected given their widespread use in common household products like paints, stains, varnishes, furniture polish, air fresheners, cleaning products, and others.

The extent to which they are present in soil vapor samples is determined by a number of factors, including: the sample point's proximity (both horizontally and vertically) to a contaminant source; the degree of contamination present (i.e. free-phase vs. residual vs. dissolved phase); whether the contaminant source is above or below the groundwater table; the soil type; and the heterogeneity of the soil.

The presence of volatile compounds in soil vapor does not mean that indoor air quality is being adversely affected. Without soil vapor intrusion (i.e. the migration of soil vapors into a structure such as a home or commercial building) there is no migration pathway for contaminants in soil vapor to enter the home or building. Factors unique to each building such as its foundation type and depth and its HVAC (heating/ventilating/air conditioning) system along with certain atmospheric conditions affect the degree to which soil vapor intrusion occurs.

In some instances, soil vapor intrusion can be significant while in other instances it may be intermittent or altogether absent. The NYSDOH has determined that the likely worst-case scenario for soil vapor intrusion for impacting indoor air occurs when heating systems are running continuously and doors and windows are closed. Therefore, soil vapor intrusion investigations are routinely conducted in the winter months to measure indoor air quality for the worst-case scenario.

To determine if soil vapor intrusion is occurring, one must compare sample results from samples collected simultaneously from sub-slab vapor, from ambient air in the basement, and from ambient air in the first floor living space. When chemical concentrations are higher in the basement and/or first floor air samples than in the sub-slab vapor samples it is generally accepted that soil vapor intrusion is not occurring. In such situations, it is usually possible to explain the presence of chemicals in the basement and/or first floor air samples based on the presence of chemical products found in the inventory that was conducted prior to the sampling.

When chemicals are present in basement and/or first floor indoor air samples at concentrations similar to or lower than in the sub-slab vapor sample, soil vapor intrusion is potentially occurring. In these circumstances the basement and first floor indoor air results are compared to the NYSDOH database of background chemical concentrations. This database presents a range of concentrations for each chemical that has been detected in fuel-oil heated homes that are not close to contaminated sites.

For all of the locations sampled as part of this soil vapor intrusion evaluation, every chemical detected in basement and first floor air was determined to be within the expected range for that chemical, with only two exceptions. At one home, tetrachloroethene (PCE) and trichloroethene (TCE) were present at concentrations of 550 $\mu g/m^3$ and 6.5 $\mu g/m^3$, respectively, in the first floor indoor air sample. Those concentrations far exceeded the concentrations of those same chemicals in the basement and sub-slab samples. The presence of those chemicals is likely attributable to dry-cleaned clothing in the home. At another home, several chemicals were detected in the basement and first floor indoor air samples that were in excess of the expected range based on the NYSDOH database. However, at that location, gasoline was stored in the basement and was the likely source of those chemicals.

Except for the two situations described immediately above, because of the ubiquitous nature of volatile organic compounds it was not possible during this soil vapor intrusion evaluation to determine a particular source for the chemicals detected in soil vapor, basement indoor air and first floor indoor air. However, since the chemical concentrations detected were generally within the ranges expected based on the use of common household products containing the chemicals, it is concluded that vapors generated in the subsurface from the residues associated with former MGP site are not affecting indoor air quality inside any of the locations that were part of this soil vapor intrusion evaluation.

6.6 QUALITY ASSURANCE/QUALITY CONTROL

As part of the chemical analyses performed for this SRI, Chemtech, Accutest, and STL performed all of the quality assurance and quality control (QA/QC) procedures required by the individual methods and sufficient to produce New York State ASP Category B deliverables packages. Internal laboratory QA/QC samples included but were not limited to initial calibrations, continuing calibrations, interference check samples, calibration checks, calibration blanks, preparation blanks, spike samples, laboratory duplicates and serial dilution samples.

The Ish Inc. team performed a review of QA/QC data generated by Chemtech, Accutest, and STL. This review included pertinent QA/QC data such as sample extraction and analysis methodology, holding times, calibration, a review of laboratory blanks and QA/QC sample results, and a review of the analytical case narrative. A Data Usability Summary Report (DUSR) was prepared according to NYS guidance which included a compliance chart, a list of samples included in each sample delivery group and recalculations of sample results, if needed. Nonconforming QA/QC results were evaluated with respect to their implications for data reliability and usability, and data results were flagged accordingly on the results sheets. These qualifiers were entered into the site-specific electronic database and appear in the summary tables presented in Appendix B of this report.

In addition to the laboratory QC measures described above, field QC samples were collected and analyzed to monitor the field sampling procedures. The field samples collected for the soil and groundwater investigation included equipment rinsate blanks, field duplicates and trip blanks. Equipment rinsate blanks were collected to monitor the effectiveness of field decontamination procedures. To verify the consistency of the sample collection procedures, field duplicates were collected. In addition, trip blanks were analyzed for shipments of groundwater samples analyzed for VOCs only to determine if any samples were compromised during sample handling or shipment. For the SVI evaluation, the field QC samples collected were field duplicate samples to verify the consistency of the sample collection procedures.

The results for the field QC samples are presented in Appendix B. The equipment rinsate and trip blank results for VOCs are presented in Table B-24, while the SVOC results for the equipment rinsate blanks and one trip blank analyzed for naphthalene are presented in Table B-25. Results for field duplicate soil samples are presented in Table B-26 for VOCs and Table B-27 for SVOCs. Similarly, the field duplicate results for groundwater samples are presented in Table B-28 for VOCs, Table B-29 for SVOCs and Table B-30 for total cyanide.

VOCs were detected in two of the eight trip blank samples; one trip blank for a shipment on 12/14/05 had toluene at 0.55 µg/L, while a second trip blank from that day had 0.35 µg/L of ethylbenzene, indicating that there was only minimal cross-contamination during sample handling and shipment. On trip blank from November 19, 2004 was analyzed for naphthalene, but none was detected. No VOC or SVOC target compounds were detected in the two equipment rinsate blank samples collected. These results indicate that the decontamination procedures were effective.

The results for field duplicates of soil samples are shown in Table B-26 and Table B-27. In general, relative percent differences (RPDs) of less than 50% for 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 5 to 58%, while the RPDs for individual SVOCs ranged from 1 to 60%. The RPDs were generally less than 50%, with a few exceptions. Overall, the RPDs for duplicate samples indicate that the sampling procedures and analytical precision are of sufficient quality.

The results for field duplicates of groundwater samples are shown in Table B-28 through Table B-30. A total of four groundwater duplicates were collected (GW04-16, PZ05, PZ09, and PZ10) over three rounds of sampling. The sample from PZ10 was analyzed for VOCs and SVOCs only. For VOCs and SVOCs the RPDs were all found to be less than 50%. Similarly, the RPDs for total cyanide were less than 30%. The groundwater duplicate results indicate that the sampling and analytical procedures met the data quality objectives.

The field duplicate samples from the SVI evaluation are shown in Table B-31. Many of the compounds were not detected and others were detected slightly above the detection limit, so they were estimated (J flag). A total of four compounds across three duplicate pairs had RPDs greater than 50. In general, the RPDs for duplicate air and vapor samples indicate that the sampling procedures and analytical precision are of sufficient quality.

7
CONCLUSIONS AND RECOMMENDATIONS

This section provides a summary of the site conditions, as determined by the completion of the SRI work. This section also presents some recommendations.

7.1 SUMMARY OF IMPACTS AT THE SITE

The following subsections briefly summarize the environmental impacts at the Norwich former MGP site, organized by areas of potential concern for the site.

7.1.1 NAPL and MGP-related VOCs and SVOCs in the Subsurface Soils

As shown on Figure A-30, evidence of coal tar NAPL, in the form of sheens and small NAPL globules, was observed in the subsurface soil across the majority of the Norwich former MGP site, as well as downgradient of the site, to the south. There is a significant amount of coal tar NAPL globules in the subsurface at the site based on observations recorded the logging of the 65 soil borings completed at the site and surrounding area.

In general, the NAPL observed was reddish-brown in color and was intermixed with water within the pore spaces of the relatively loose sand and gravel outwash present in the shallow aquifer above the silt and clay confining layer. In all of the borings where impacts were noted in the outwash layer and the silt and clay layer was recovered, the confining layer appeared to be preventing further downward migration of the NAPL, which has spread laterally and with the flow of groundwater to the south. On-site and on the former Aero Products building property (now owned by NYSEG), the thickness of the NAPL was generally 5 to 10 feet thick. Further south, NAPL thicknesses, when present, were less than 5 feet. When observed, NAPL was found at depths ranging from approximately 7 to 26 feet bgs at the site and surrounding area. Figure A-34 shows the estimated extent of the NAPL and sheens at the site and surrounding area.

Substantial NAPL was observed in GW01-15D, GW04-16, and PZ09 during monitoring well and piezometer gauging events. GW01-15D and GW04-16 are located on-site and PZ09 is located in the low area of the clay contour south of Front Street, where substantial NAPL was observed during soil boring activities. These data indicate that in some areas on-site and in one area downgradient from the site, there is sufficient NAPL present in the subsurface to collect in monitoring wells or piezometers.

To confirm the visual observations and PID measurements made during the logging of soil borings in the field, soil samples were collected for chemical analysis. There were more than 75 subsurface soil samples collected and analyzed for VOCs and SVOCs. Many of these samples had concentrations above NYSDEC TAGM #4046 RSCOs for either individual compounds, total VOCs, or total SVOCs (Table B-6, Table B-7, Table B-8, Table B-9, Table B-10, and Table B-11). There were elevated concentrations for BTEX, isopropylbenzene, PAHs and dibenzofuran, which are all attributable to MGP residuals and these elevated concentrations corresponded very well to visual observations of staining, sheens and NAPL in the subsurface.

The VOC and SVOC results in subsurface soils confirm that the impacts from MGP residuals (coal tar) that are present in the sand and gravel outwash layer are not migrating deep into the silt and clay confining unit. While there are some exceedances for BTEX, PAHs, and dibenzofuran in the upper few feet of the silt and clay layer (the sample at DP37 was collected from 2.5 to 3.5 feet below the top of the clay layer and had BTEX exceedances), soil samples collected from beyond this depth into the lacustrine unit did not show elevated concentrations of VOCs and SVOCs related to MGP residuals. Both the field observations and chemical data suggest that NAPL and dissolved constituents are not migrating downward into the silt and clay confining unit.

7.1.2 MGP-related VOCs and SVOCs in Groundwater

Shallow groundwater at the site has been impacted by VOCs and SVOCs related to MGP residuals in the saturated sand and gravel outwash layer, present above the silt and clay confining unit. This conclusion is supported by the data for VOCs and SVOCs obtained from the monitoring wells and piezometers (Table B-15, Table B-16, Table B-17, Table B-18, and Table

B-19). Specifically, BTEX, isopropylbenzene, and SVOC concentrations exceeded NYSDEC Class GA groundwater standards or guidance values in groundwater at sampling locations covering most of the site and in a plume extending approximately 700 feet to the south, across Front Street to the north of 35 Brown Avenue. These results are consistent with NAPL observations in the borings when wells/piezometers were installed at these locations as well as inference derived from the groundwater flow direction at the site, which is to the south. The approximate extent of NYSDEC Class GA groundwater standard or guidance values exceedances related to MGP residuals (BTEX, isopropylbenzene, PAHs, and dibenzofuran) is shown on Figure A-35.

The depth to groundwater at the site and surrounding area varies from approximately 4 to 14 feet below grade. As part of the SRI work, the vapor intrusion pathway was examined to determine if the contaminated groundwater in the shallow zone presents a pathway for vapor phase migration into the surrounding residences and buildings.

7.1.3 Total Cyanide in Groundwater

Total cyanide was detected above the NYSDEC Class GA groundwater standard of 200 µg/L at two locations, GW91-4D and PPZ02, at 400 and 220 µg/L, respectively. In addition, lower level concentrations of total cyanide were measured at several other locations (GW01-14, GW91-4SH, GW91-6, GW92-11D, GW92-8, PZ01, PZ04, PZ05, PZ06, PZ08, PZ09, PZ10, PZ11, PZ14, PZ15, PZ19, PZ25, PZ28, PZ30, PZ31, and PZ36) below the Class GA standard. No off-site groundwater locations had total cyanide measured above the Class GA groundwater standard.

7.1.4 SVI Evaluation

Soil vapor or indoor air samples were collected over a period of 24 hours from the sub-slab, from the basement (where present) and from the first floor of each of the 14 buildings investigated. Basement and first floor air samples were collected from the breathing zone height (i.e. 3-5 above the floor). First floor air samples were collected from a living space. For each day of sampling, three outdoor air samples were collected.

Volatile organic compounds were detected in each of the samples collected. The presence of these compounds in indoor air samples is not unexpected given their widespread use in common household products like paints, stains, varnishes, furniture polish, air fresheners, cleaning products, and others. Because of the ubiquitous nature of these chemicals it was not possible from this SVI evaluation to attribute them to any particular source.

Because all of the chemicals detected in all of the basement and first floor indoor air samples at each location were generally within their expected ranges based on the NYSDOH background data base (except for two exceptions as discussed in Section 6.5.3), it has been determined that soil vapors generated from the residues from the former MGP site are not affecting indoor air quality inside any of the test locations.

7.2 RECOMMENDATIONS

7.2.1 Perform Focused Feasibility Study

Based on the site data collected during previous investigations and this SRI, Ish Inc. recommends that it is now appropriate to perform a focused feasibility study (FFS) to determine what remedial measure(s) would be necessary to achieve remedial goals that NYSEG and NYSDEC agree to pursue.

8
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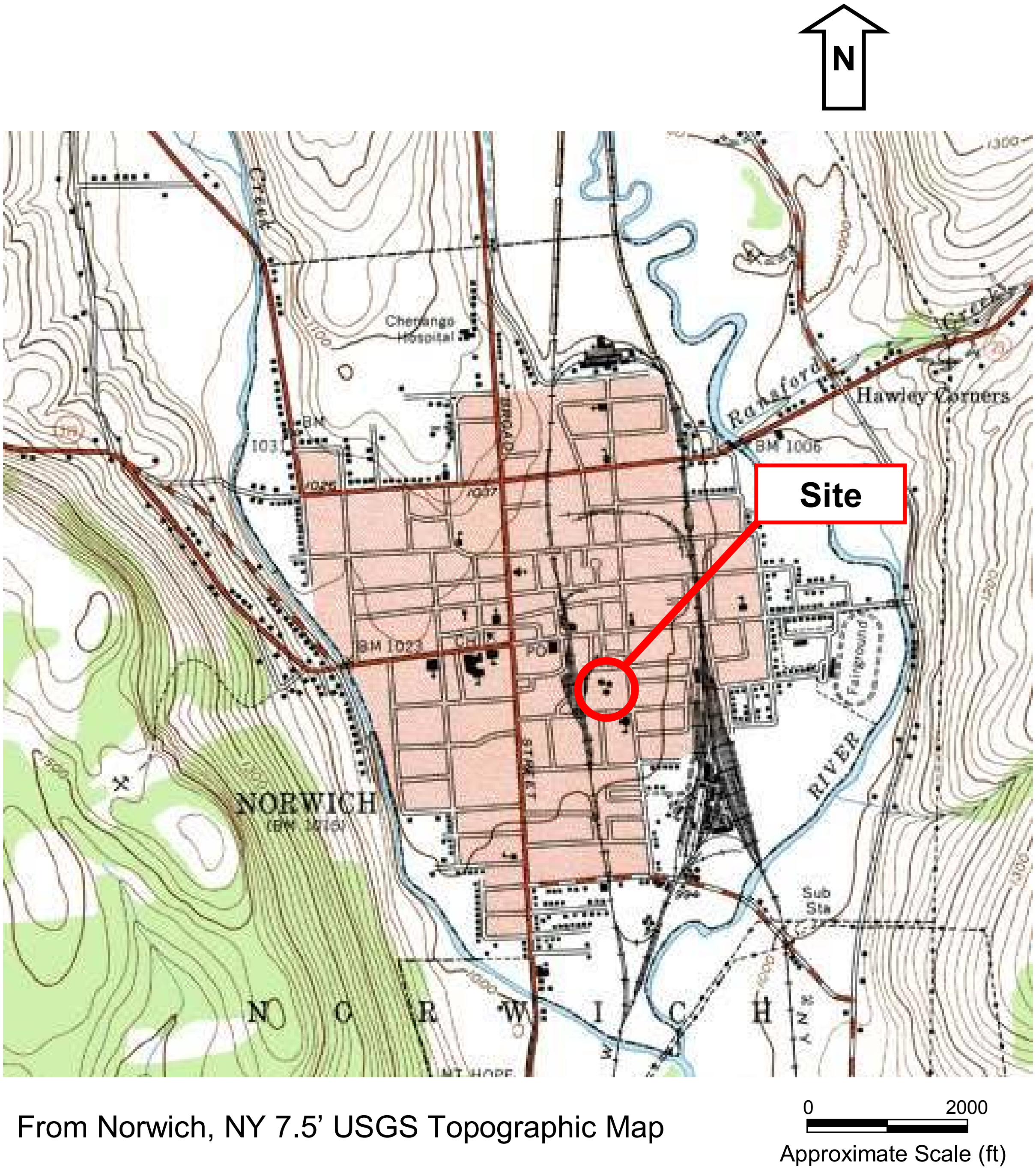
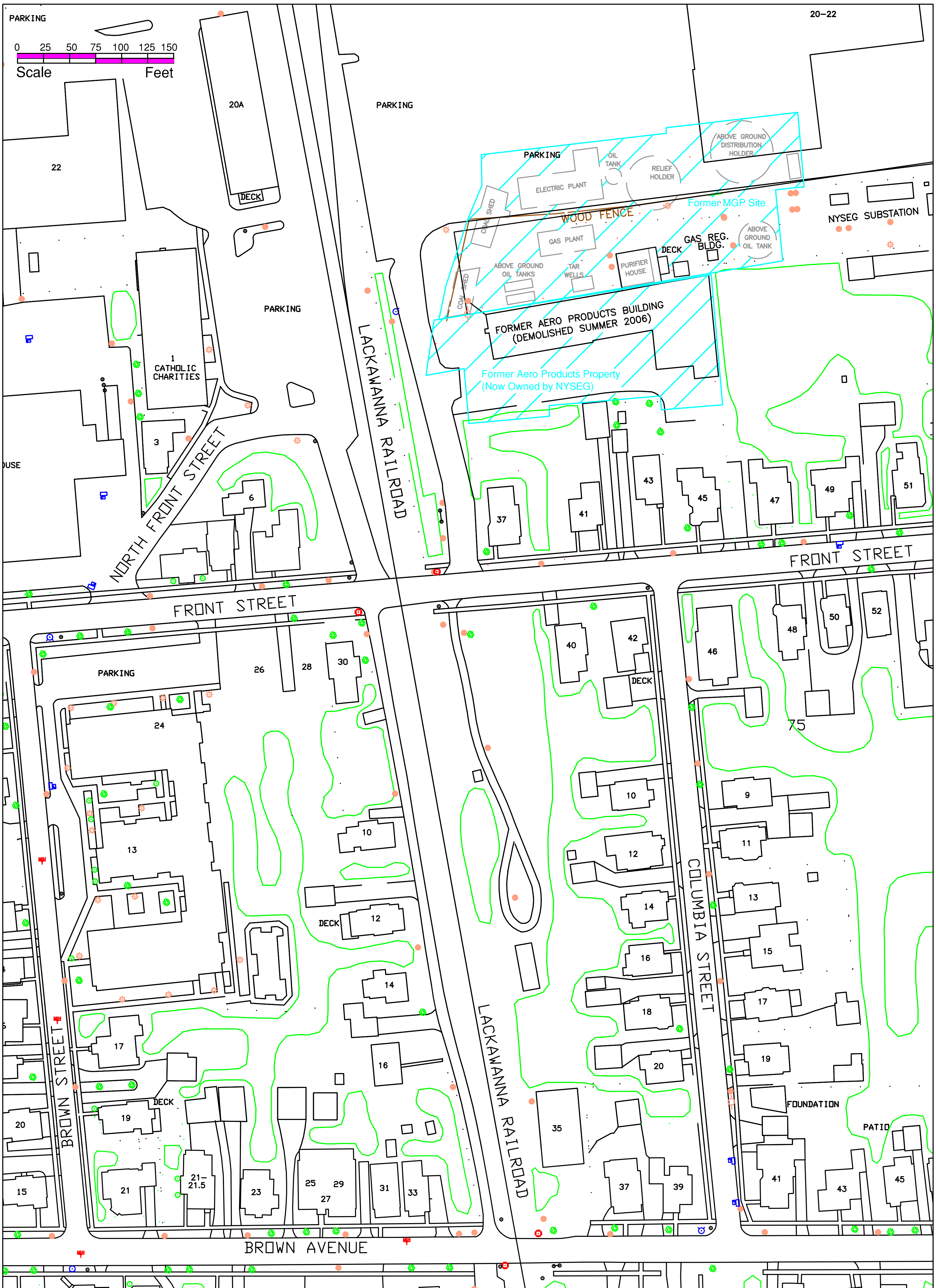
A
FIGURES

Figure A-1 Site Locus Map



From Norwich, NY 7.5' USGS Topographic Map



LEGEND

- Location of Former Facility Structures
- Site Boundary
- Power Pole
- Tree or Shrub
- Man Hole
- Utility Pole
- Catch Basin
- Fire Hydrant

Note:

Field surveying completed by NYSEG on September 14th and 15th, November 1st 2004, May 5th, June 17th and December 19th and 20th 2005.

Base map drawn by NYSEG 12/30/2005

Supplemental Remediation Investigation (SRI) Report
Norwich Former MGP Site
24 Birdsall Street, Norwich, New York

Project: Norwich SRI	Client: NYSEG	lsh/META

Figure A-2
Site Base Map

Filename: SRIREPORTFIGURES	Drawn By: AJB	Approved By: PJD	Date: 10/06/2006

Figure A-3
Benzene Concentrations in Monitoring Well GW01-15S, 2002 through 2003 (µg/L)

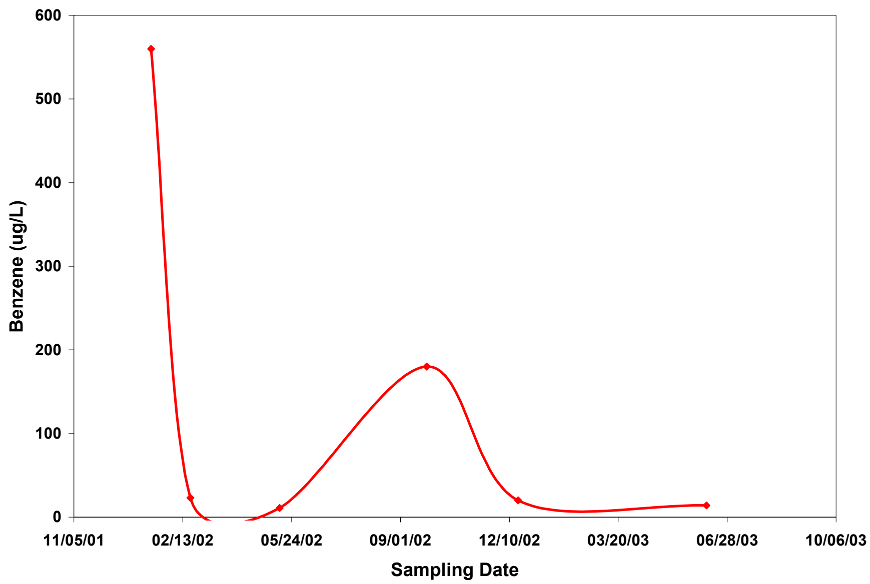


Figure A-4
Naphthalene Concentrations in Monitoring Well GW01-15S, 2002 through 2003 (µg/L)

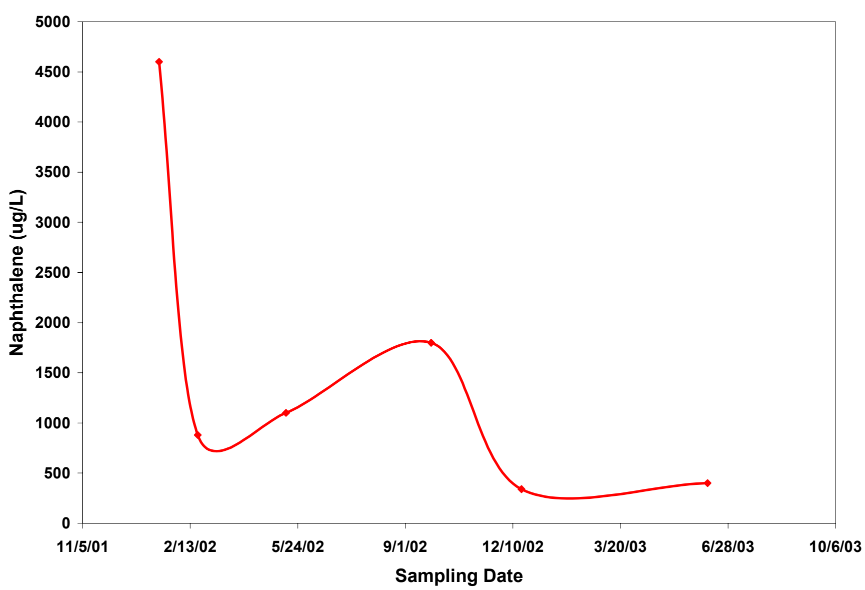


Figure A-5
Total VOC Concentrations in Monitoring Well GW01-15S, 2002 through 2003 (µg/L)

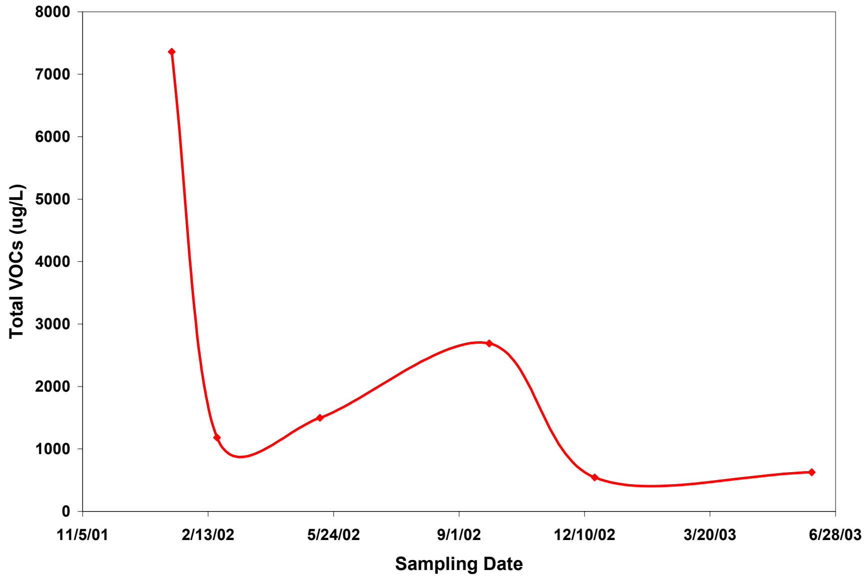


Figure A-6
Total SVOC Concentrations in Monitoring Well GW01-15S, 2002 through 2003 (µg/L)

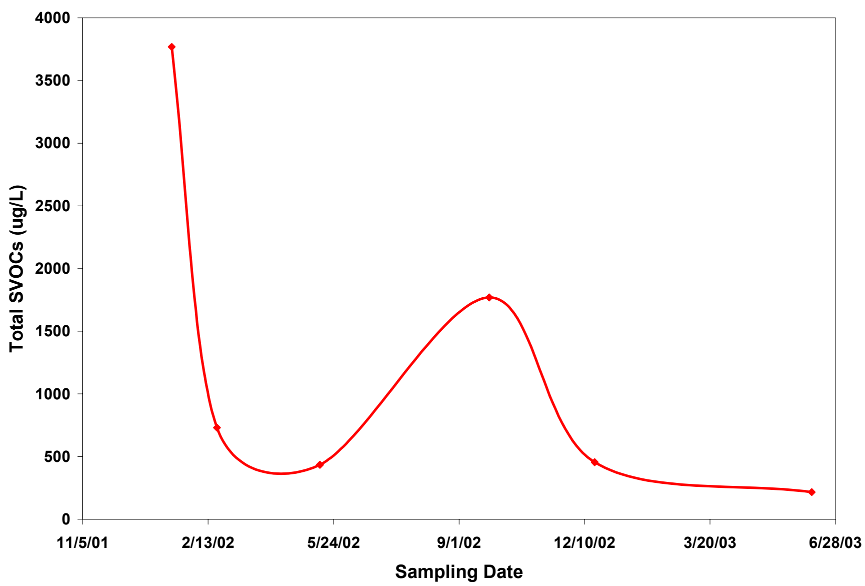


Figure A-7
Benzene Concentrations in Monitoring Well GW91-6. 1999 through 2003 (µg/L)

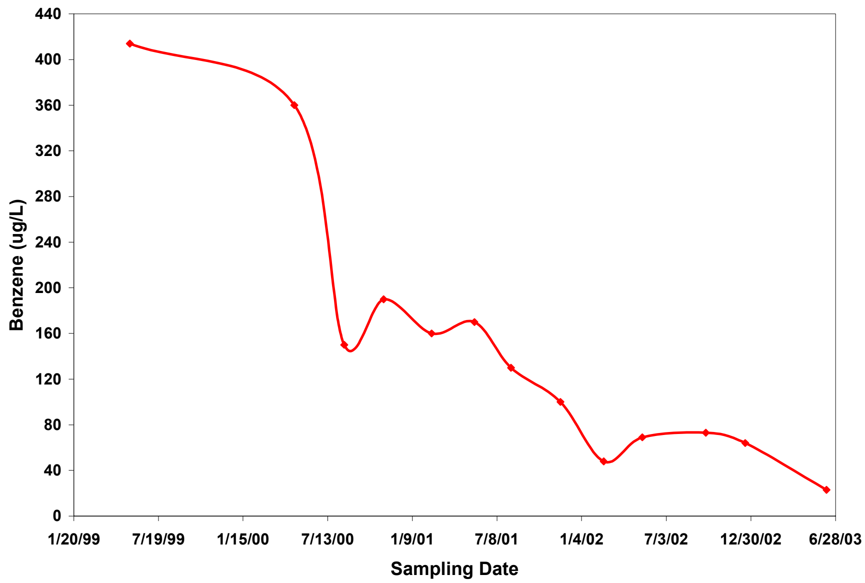


Figure A-8
Naphthalene Concentrations in Monitoring Well GW91-6, 1999 through 2003 (µg/L)

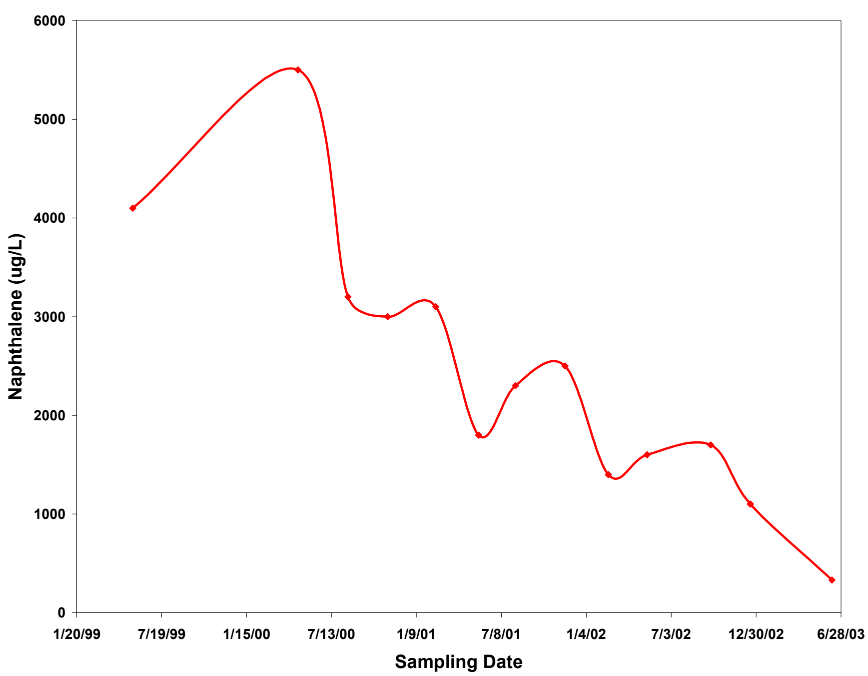


Figure A-9
Total VOC Concentrations in Monitoring Well GW91-6, 1999 through 2003 (µg/L)

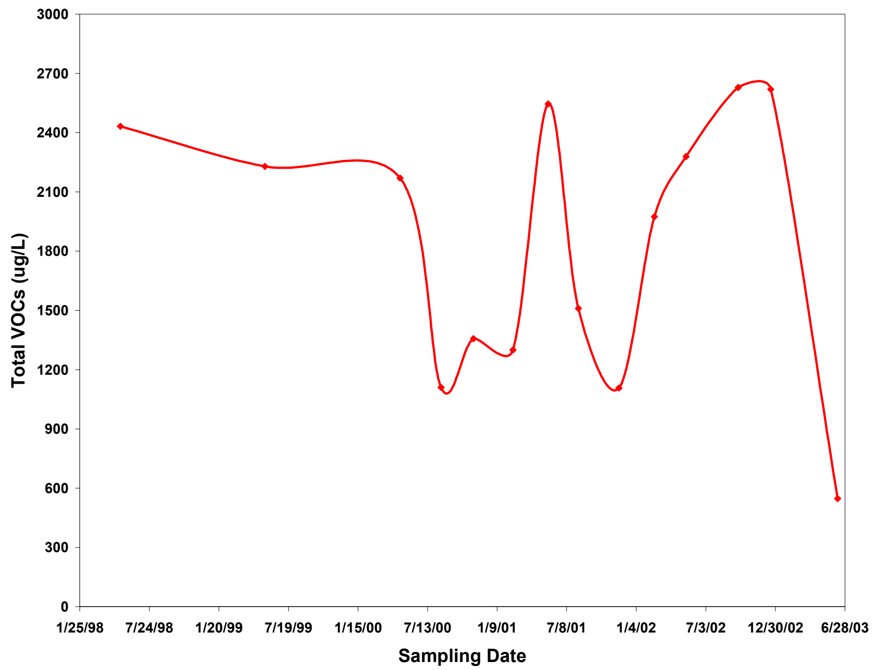


Figure A-10
Total SVOC Concentrations in Monitoring Well GW91-6, 1999 through 2003 (µg/L)

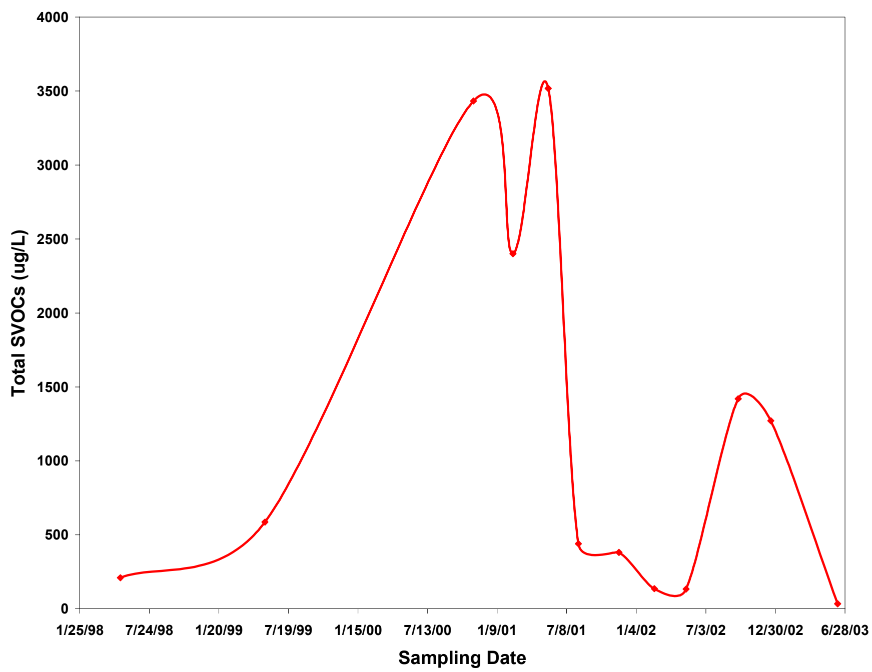


Figure A-11
Benzene Concentrations in Monitoring Well GW01-14, 2002 through 2003 (µg/L)

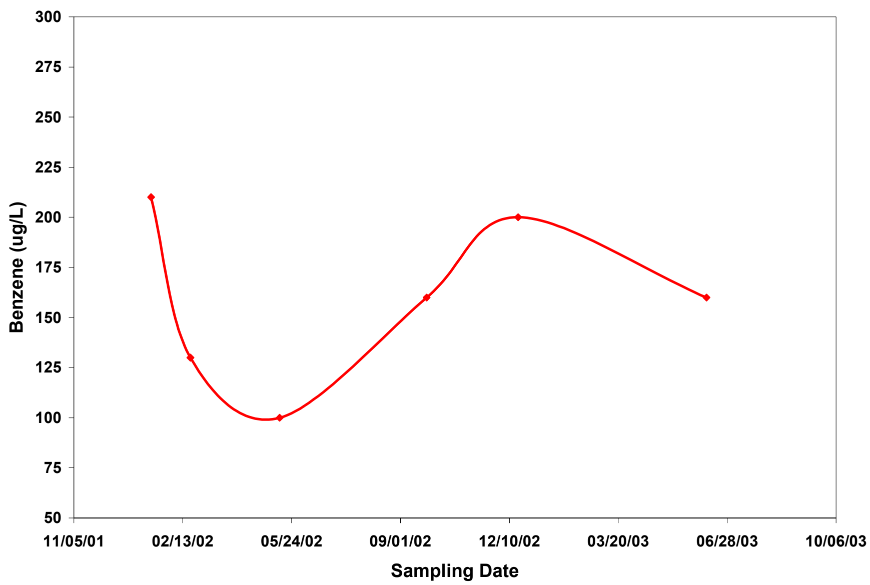


Figure A-12
Naphthalene Concentrations in Monitoring Well GW01-14, 2002 through 2003 (µg/L)

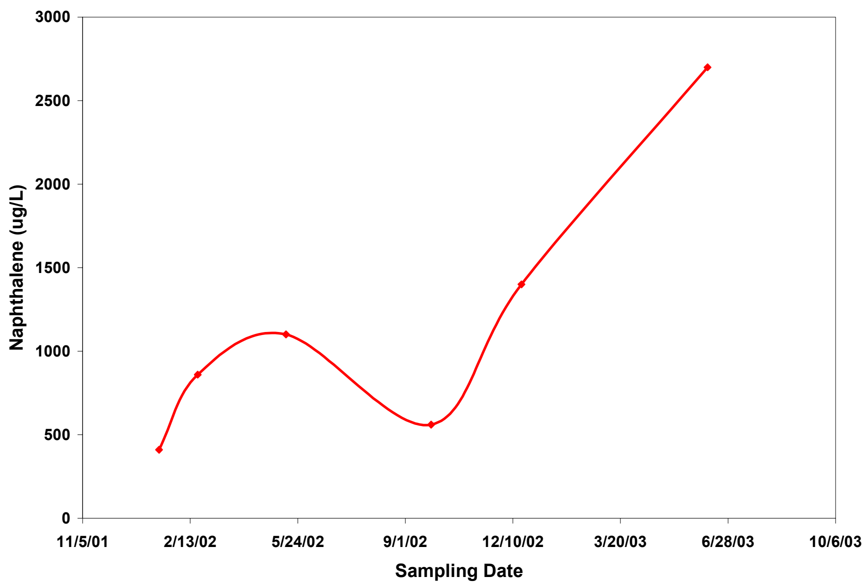


Figure A-13
Total VOC Concentrations in Monitoring Well GW01-14, 2002 through 2003 (µg/L)

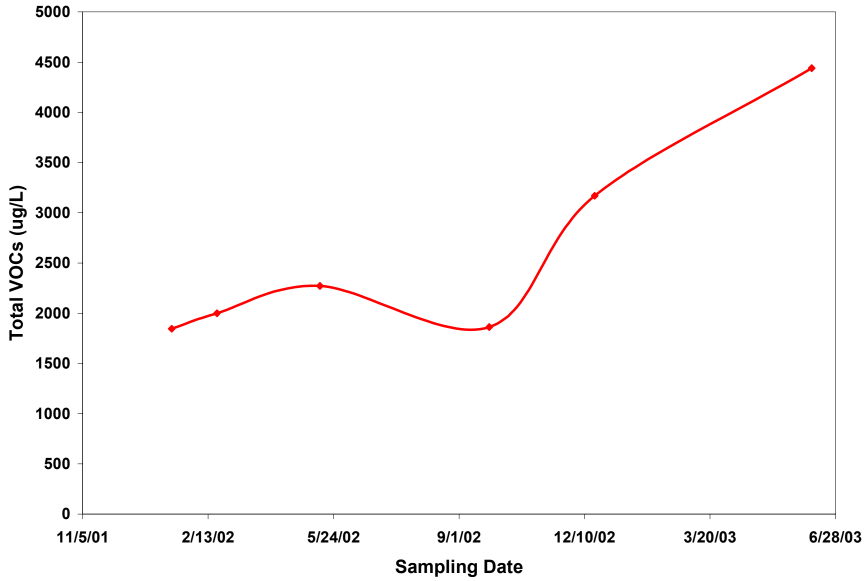


Figure A-14
Total SVOC Concentrations in Monitoring Well GW01-14, 2002 through 2003 (µg/L)

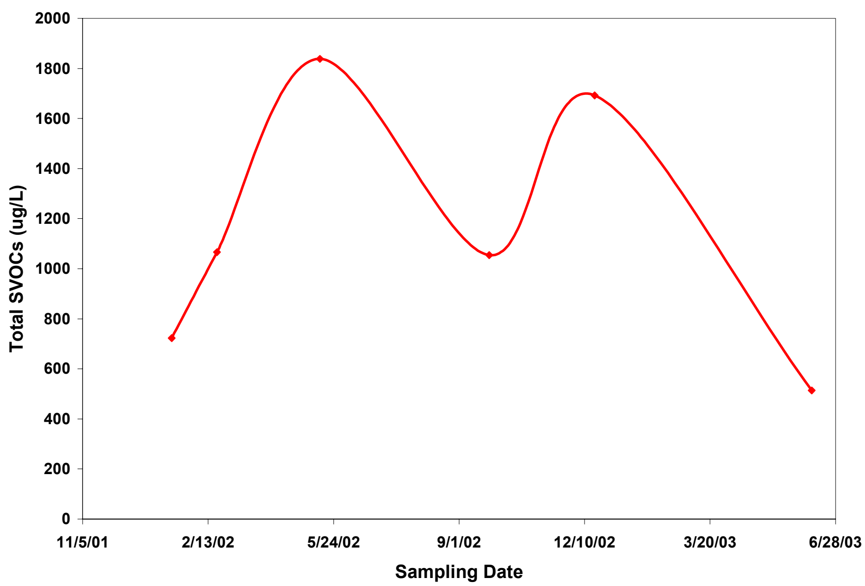


Figure A-15
Benzene Concentrations in Monitoring Well GW92-11D, 1999 through 2003 (µg/L)

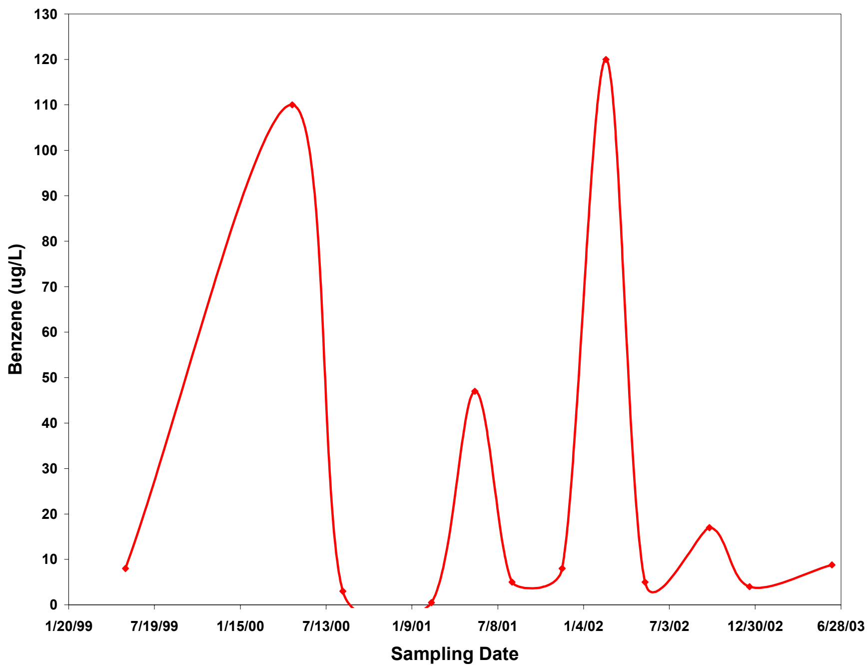
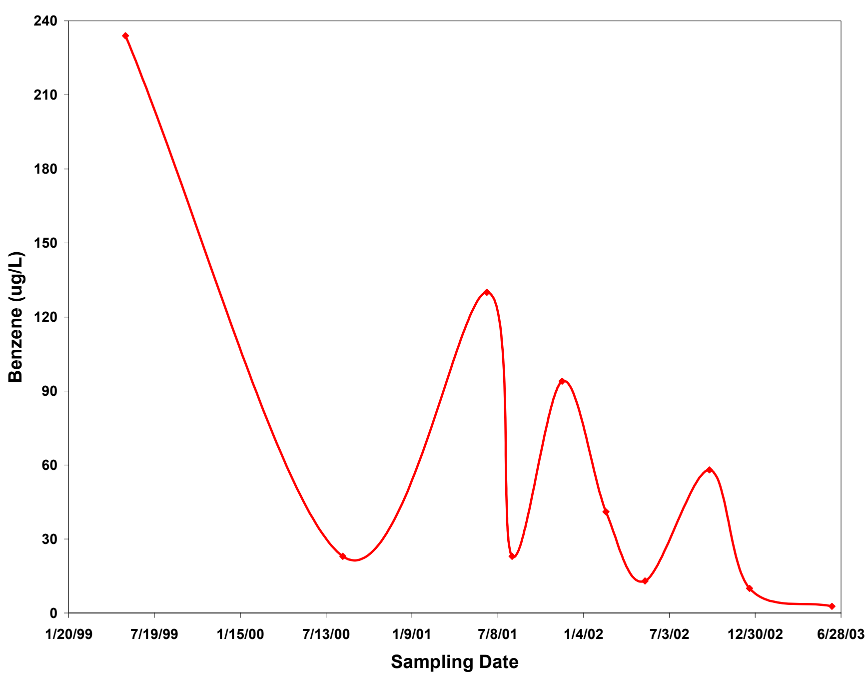
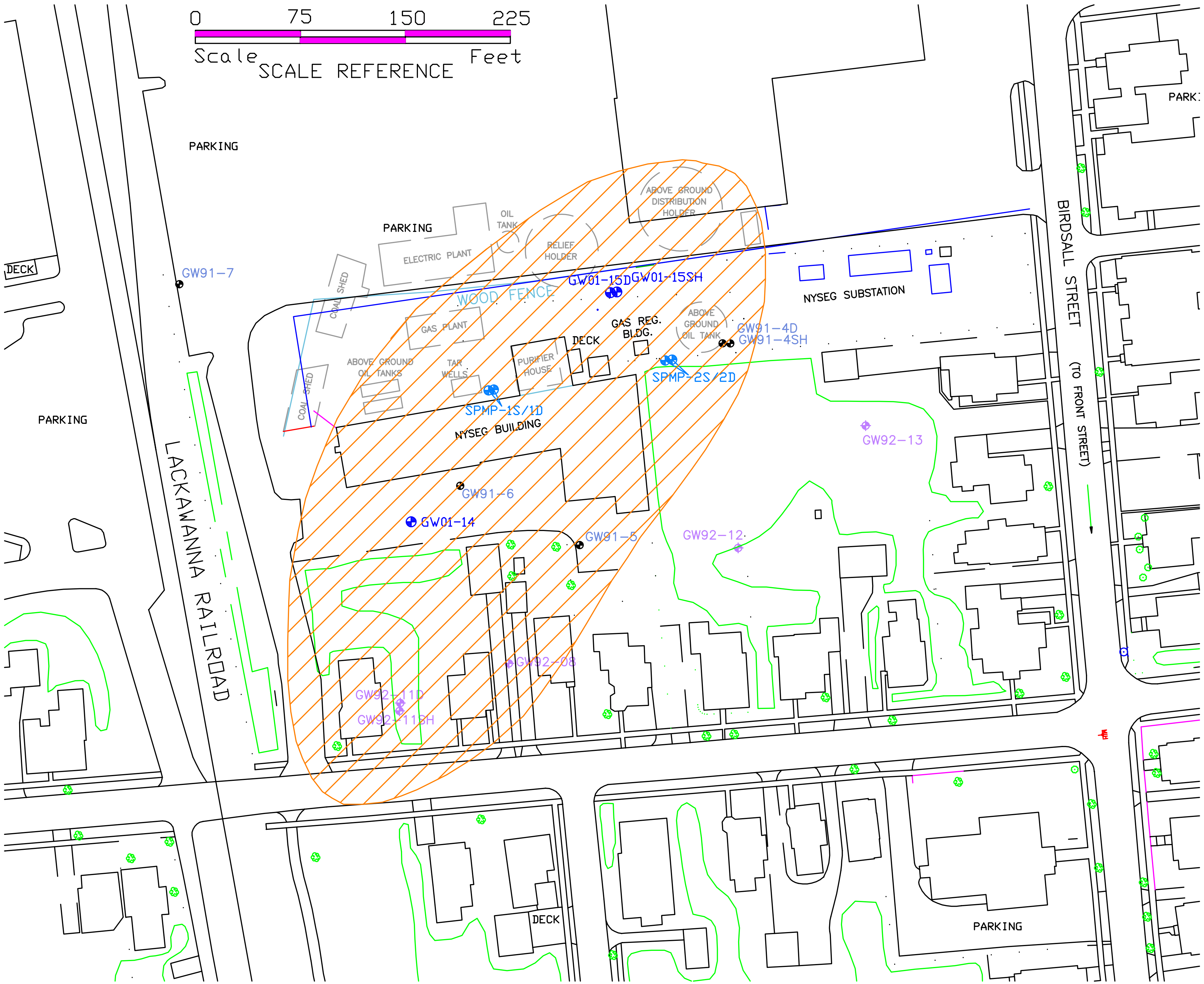


Figure A-16
Benzene Concentrations in Monitoring Well GW92-8, 1999 through 2003 (µg/L)





LEGEND

- Location of Former Facility
- Groundwater Monitoring Well (1991 Installation)
- Groundwater Monitoring Well (1992 Installation)
- Groundwater Monitoring Well (2001 Installation)
- Sparge Point Monitoring Points
- Approximate Plume Boundary

Note:
Base map drawn by NYSEG Engineering Services
Binghamton, NY 6/02/2000

Supplemental Remediation Investigation (SRI) Report
Norwich Former MGP Site
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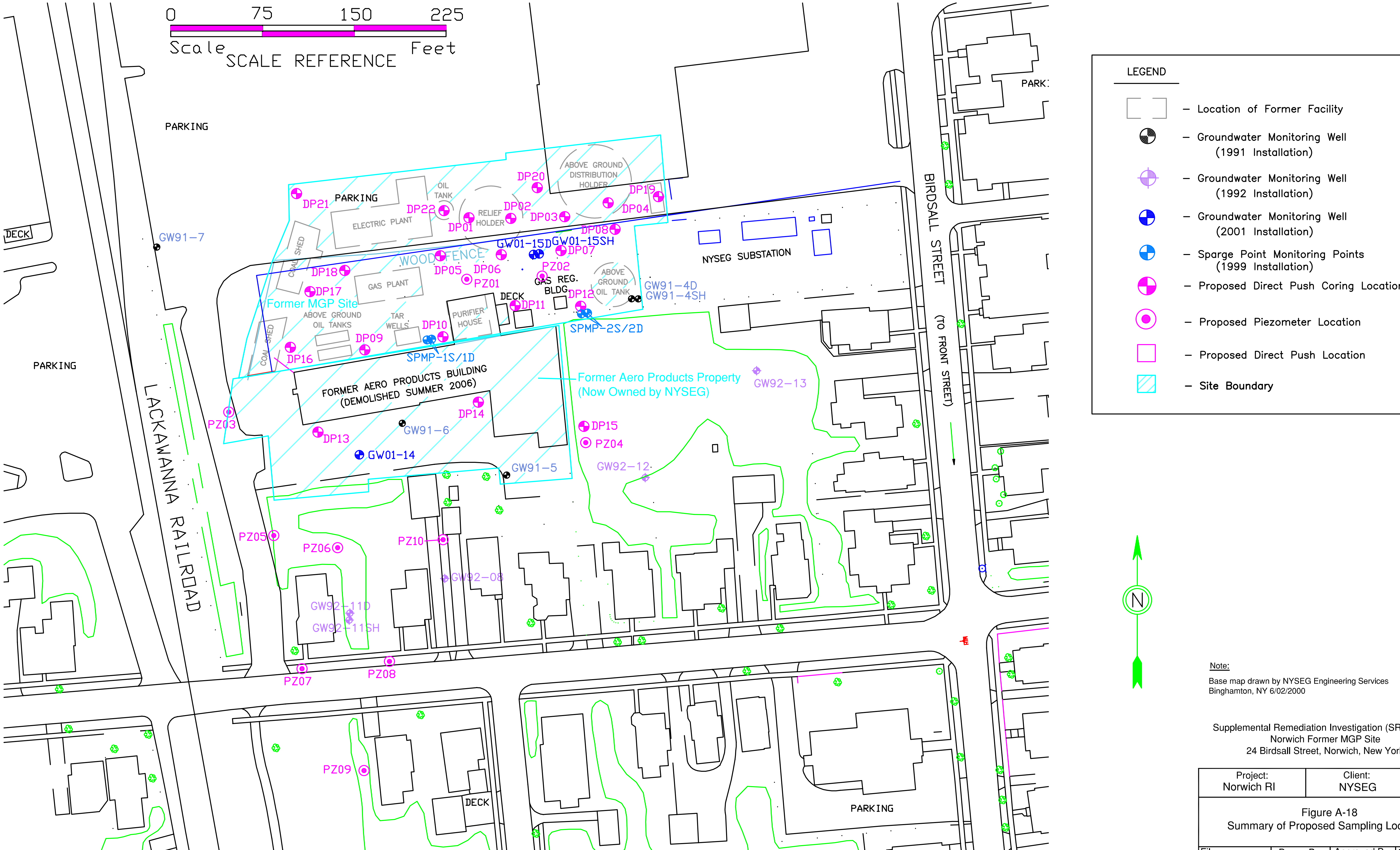
Project: Norwich RI	Client: NYSEG	lsh/META

Figure A-17
Estimated Extent of Plume Prior to SRI

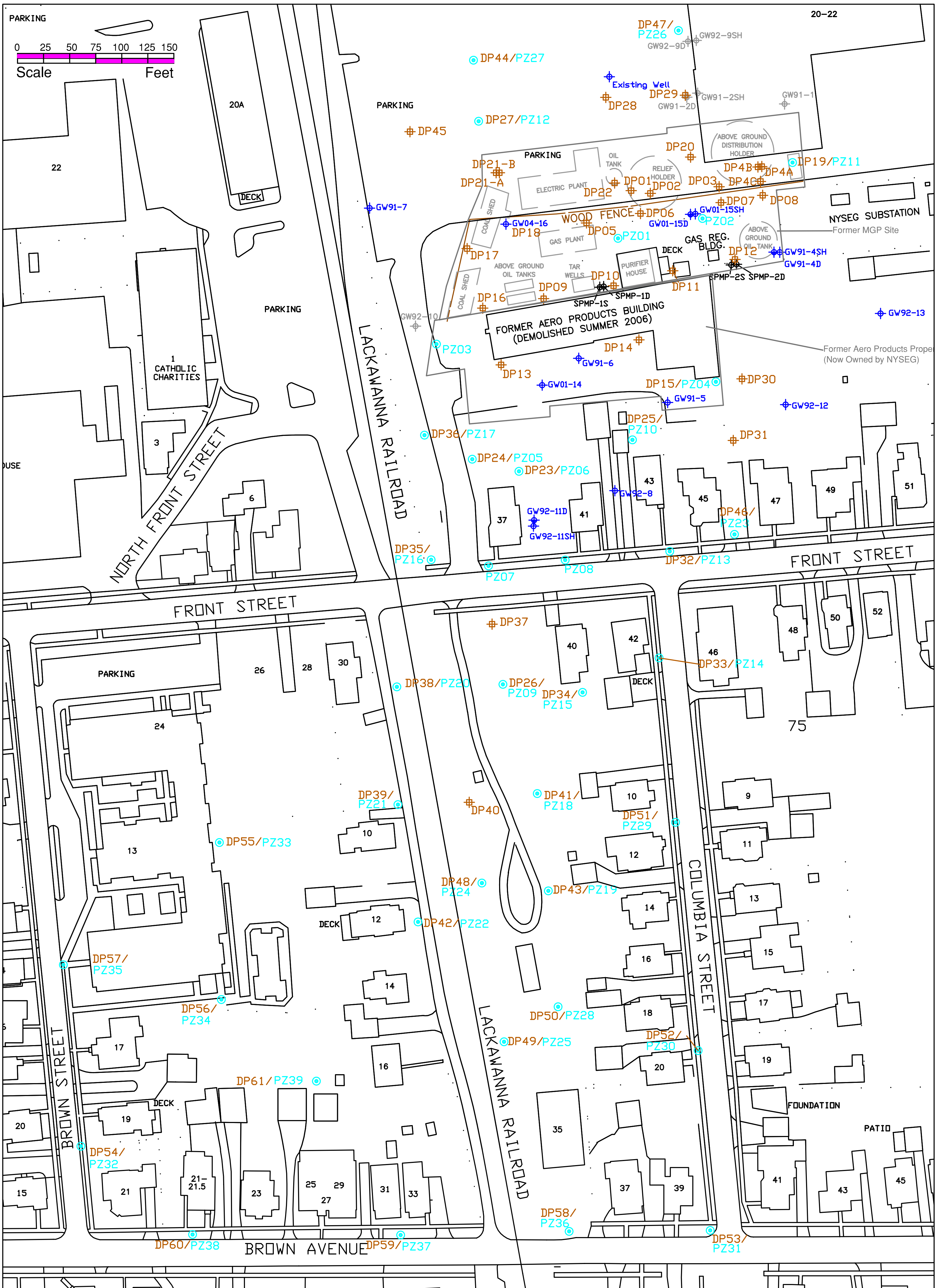
Filename:	Drawn By:	Approved By:	Date:
WorkPlanFigs.	AJB	PJD	10/06/06



Note:
Base map drawn by NYSEG Engineering Services
Binghamton, NY 6/02/2000

Supplemental Remediation Investigation (SRI) Report
Norwich Former MGP Site
24 Birdsall Street, Norwich, New York

Project: Norwich RI	Client: NYSEG	Ish/META	
Figure A-18 Summary of Proposed Sampling Locations			
Filename: WorkPlanFigs.	Drawn By: AJB	Approved By: PJD	Date: 10/06/06



LEGEND

- Location of Former Facility Structures
- Site Boundary
- Piezometer
- Monitoring Well Shallow
- Monitoring Well Deep
- Direct Push Sampling Location
- Sparge Point Monitoring Point
- Former Wells Destroyed During Construction

Note:

Field surveying completed by NYSEG on September 14th and 15th, November 1st 2004, May 5th, June 17th and December 19th and 20th 2005.

Base map drawn by NYSEG 12/30/2005

Supplemental Remediation Investigation (SRI) Report
Norwich Former MGP Site
24 Birdsall Street, Norwich, New York

Project: Norwich SRI	Client: NYSEG	lsh/META

Figure A-19
Summary of All Sample Locations

Filename: SRIREPORTFIGURES	Drawn By: AJB	Approved By: PJD	Date: 10/09/2006

LEGEND

- Location of Former Facility Structures
- Site Boundary
- Proposed SVI Study Sample Locations

Note:

Field surveying completed by NYSEG on September 14th and 15th, November 1st 2004, May 5th, June 17th and December 19th and 20th 2005.

Base map drawn by NYSEG 12/30/2005

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Supplemental Remediation Investigation (SRI) Report
Norwich Former MGP Site
24 Birdsall Street, Norwich, New York

Project: Norwich SRI	Client: NYSEG	lsh/META

Figure A-20
Proposed SVI Assessment Locations for the Norwich Neighborhood

Filename: SRIREPORTFIGURES	Drawn By: AJB	Approved By: PJD	Date: 10/06/2006

LEGEND

- Location of Former Facility Structures
- Site Boundary
- Completed SVI Study Sample Locations

Note:

Field surveying completed by NYSEG on September 14th and 15th, November 1st 2004, May 5th, June 17th and December 19th and 20th 2005.

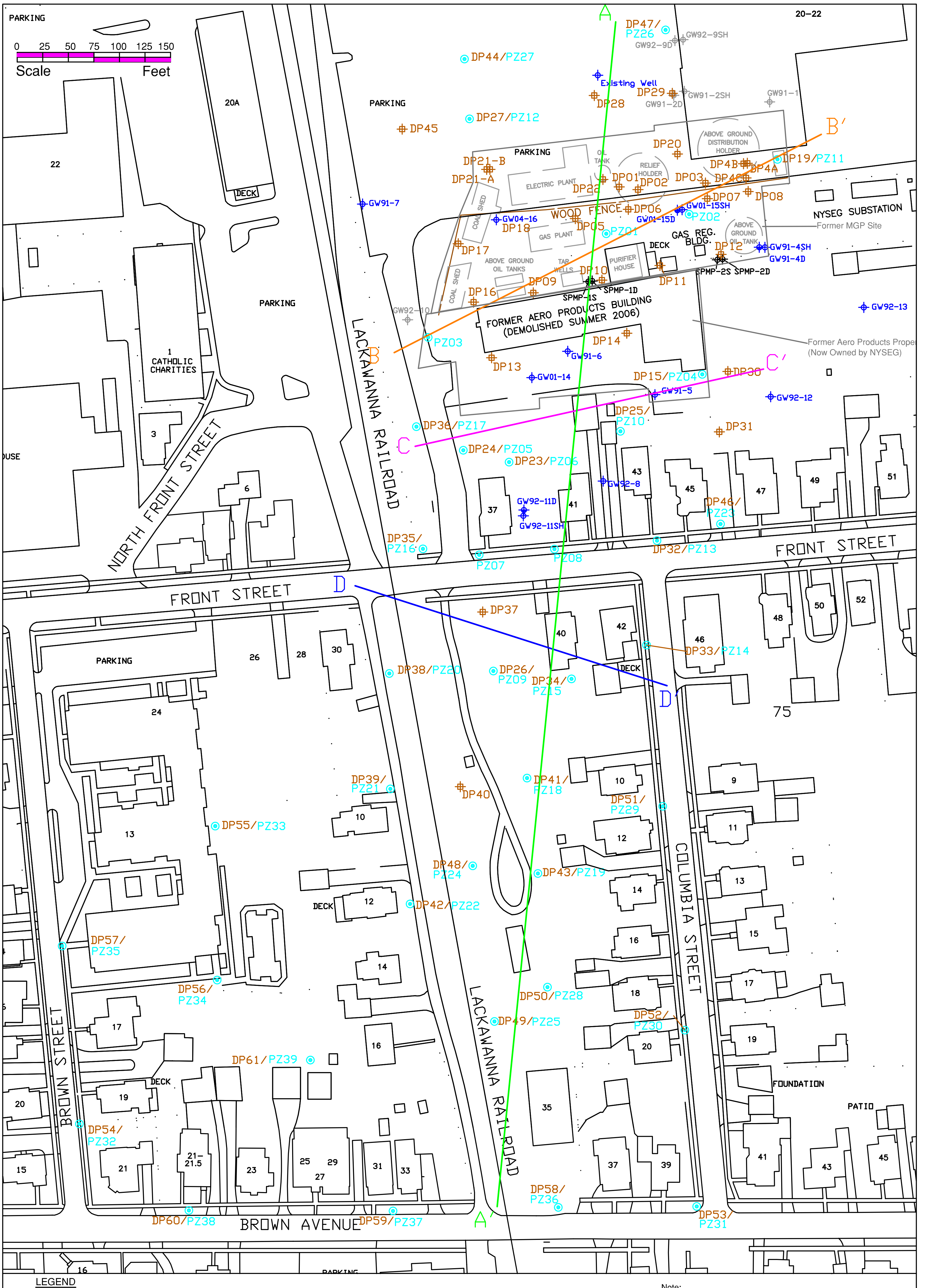
Base map drawn by NYSEG 12/30/2005

Supplemental Remediation Investigation (SRI) Report
Norwich Former MGP Site
24 Birdsall Street, Norwich, New York

Project: Norwich SRI	Client: NYSEG	lsh/META

Figure A-21
Summary of SVI Sample Locations

Filename: SRIREPORTFIGURES	Drawn By: AJB	Approved By: PJD	Date: 10/06/2006



LEGEND

- Location of Former Facility Structures
- Site Boundary
- Piezometer
- Monitoring Well Shallow
- Monitoring Well Deep
- Direct Push Sampling Location
- Sparge Point Monitoring Point
- Former Wells Destroyed During Construction

Note:

Field surveying completed by NYSEG on September 14th and 15th, November 1st 2004, May 5th, June 17th and December 19th and 20th 2005.

Base map drawn by NYSEG 12/30/2005

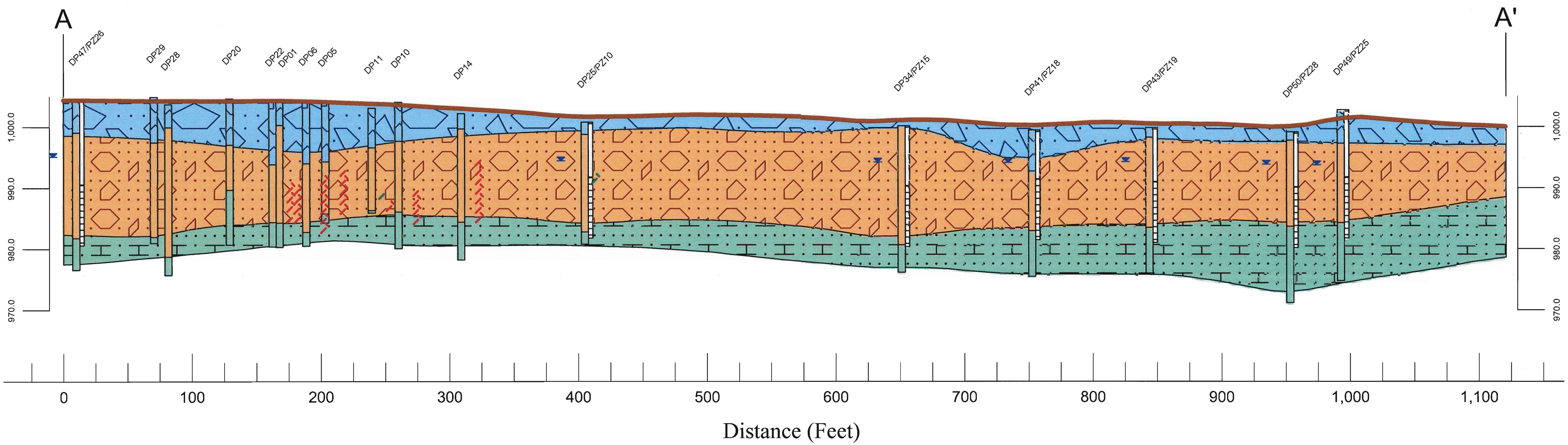
Supplemental Remediation Investigation (SRI) Report
Norwich Former MGP Site
24 Birdsall Street, Norwich, New York

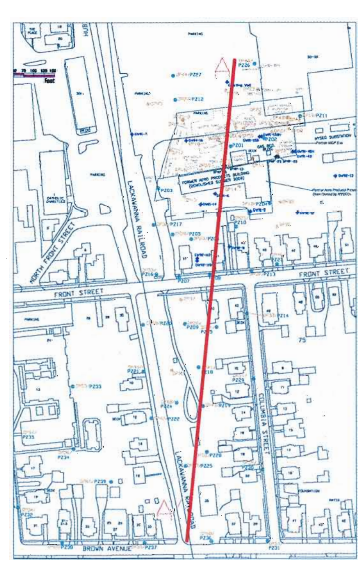
Project: Norwich SRI	Client: NYSEG	lsh/META

Figure A-22
Location of Geologic Cross-Sections

Filename: SRIREPORTFIGURES	Drawn By: AJB	Approved By: PJD	Date: 10/09/2006

Cross Section A-A'





LEGEND

Water Level (12/6/2005)

Piezometer/Monitoring Well

Fill

Alluvial Sediments

Glacial Lacustrine Deposits

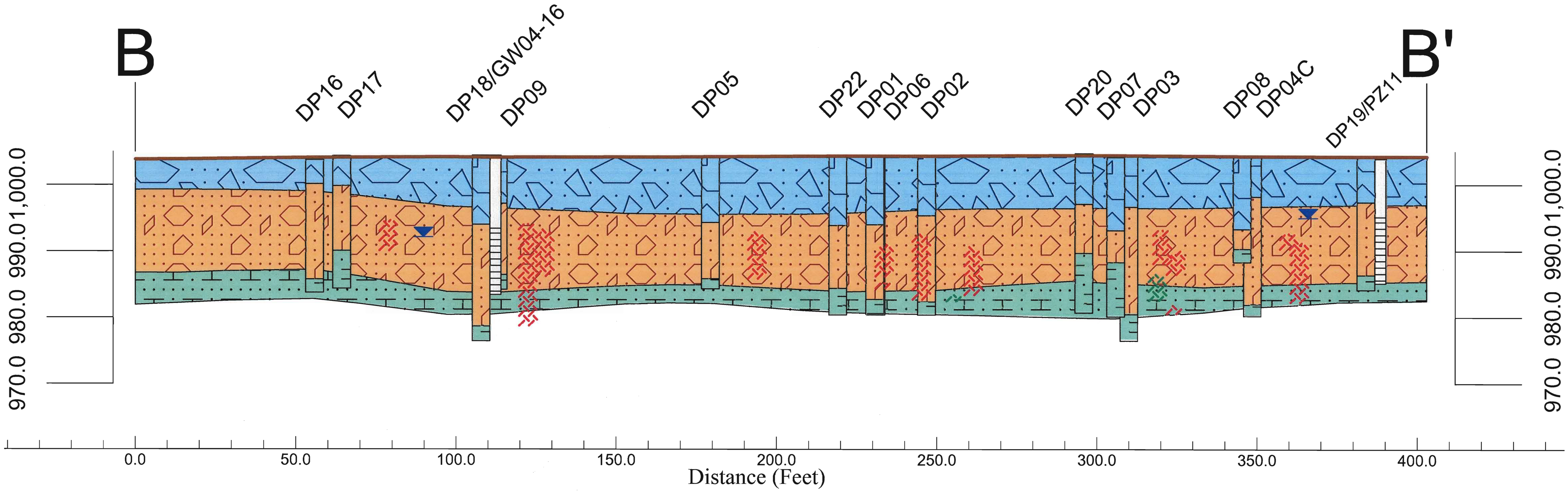
NAPL

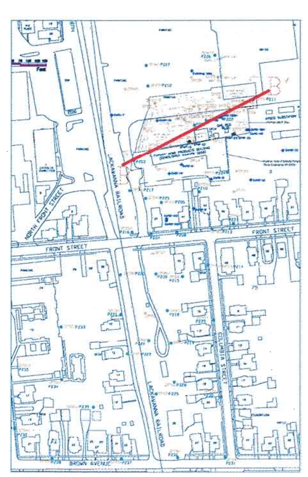
Sheens

Tar-Like Material

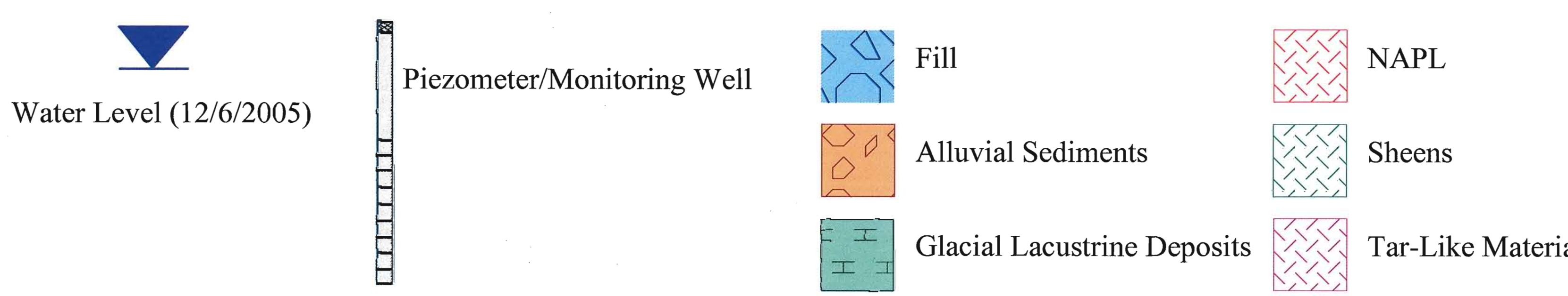
Project: Norwich SRI	Client: NYSEG	Ish / META
Figure A-23 Geologic Cross Section A-A'		
Drawn by: AJB	Approved by: PJD	Date: 10/30/2006

Cross Section B-B'

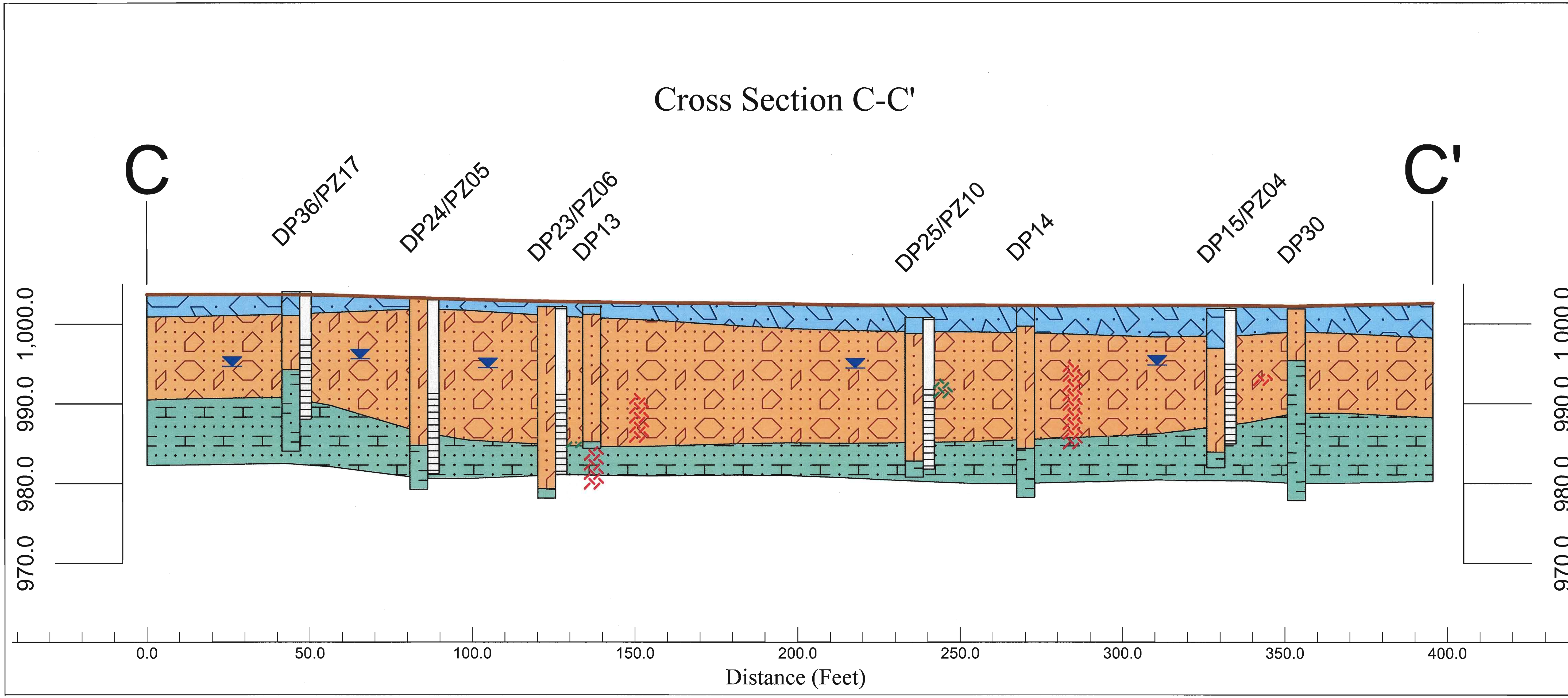


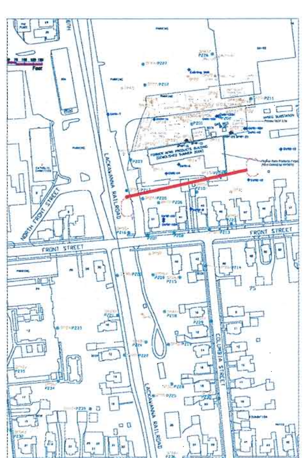


LEGEND



Project: Norwich SRI	Client: NYSEG	Ish / META
Figure A-24 Geologic Cross Section B-B'		
Drawn by: AJB	Approved by: PJD	Date: 10/30/2006





LEGEND

Water Level (12/6/2005)

Piezometer/Monitoring Well

Fill

Alluvial Sediments

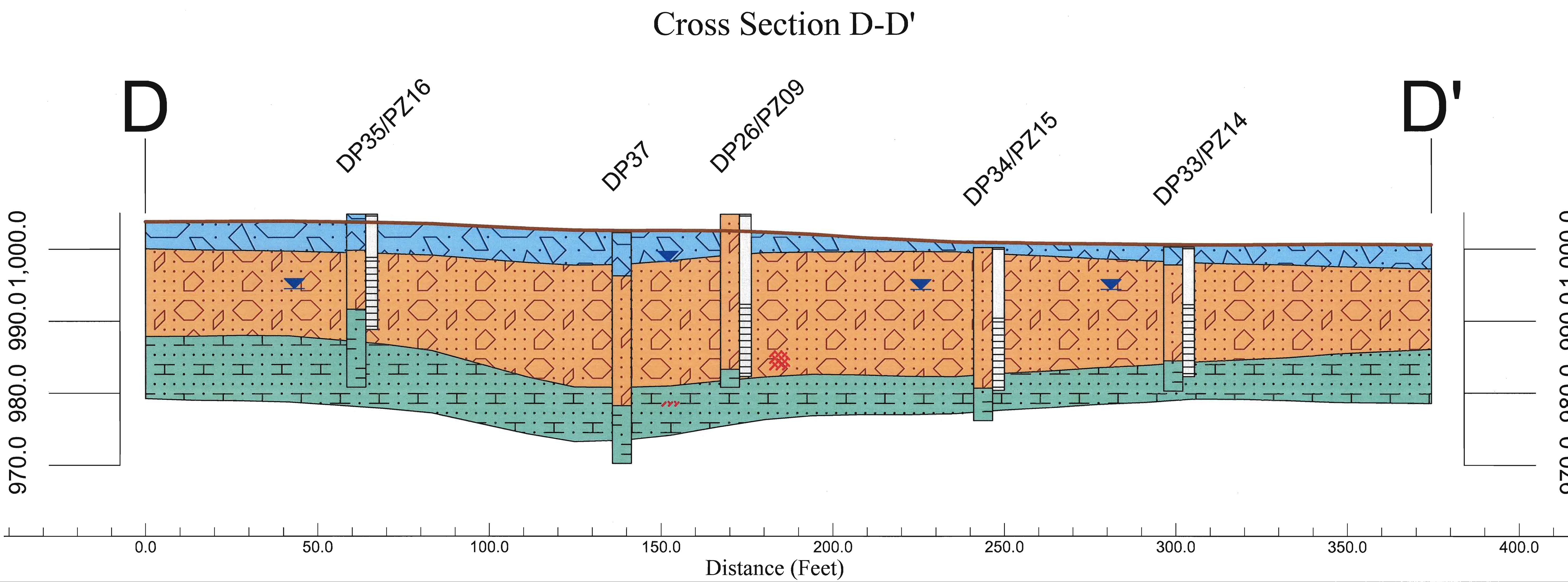
Glacial Lacustrine Deposits

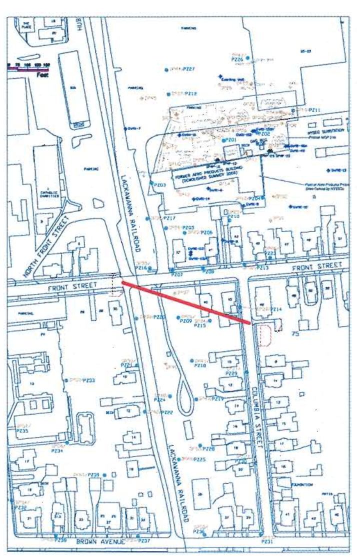
NAPL

Sheens

Tar-Like Material

Project: Norwich SRI	Client: NYSEG	Ish / META
Figure A-25 Geologic Cross Section C-C'		
Drawn by: AJB	Approved by: PJD	Date: 10/30/2006





LEGEND

Water Level (12/6/2005)

Piezometer/Monitoring Well

Fill

Alluvial Sediments

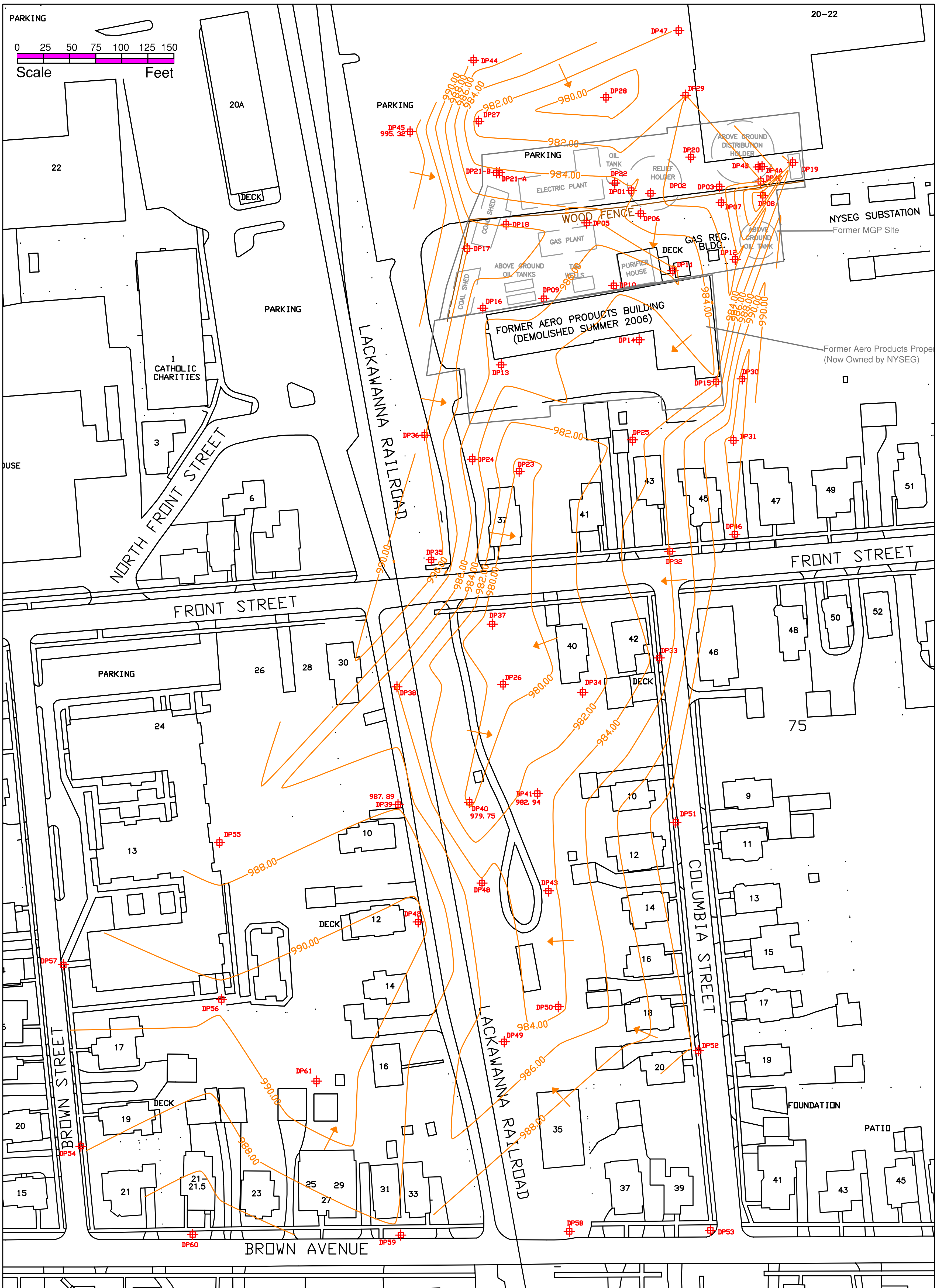
Glacial Lacustrine Deposits

NAPL

Sheens

Tar-Like Material

Project: Norwich SRI	Client: NYSEG	Ish / META
Figure A-26 Geologic Cross Section D-D'		
Drawn by: AJB	Approved by: PJD	Date: 10/30/2006



LEGEND

- Location of Former Facility Structures
- Site Boundary
- Direct Push Sampling Location with Silty Clay Interval Elevation (900.00 feet above MSL)
- Silty Clay Contour Line and Slope Direction

Note:

Field surveying completed by NYSEG on September 14th and 15th, November 1st 2004, May 5th, June 17th and December 19th and 20th 2005.

Base map drawn by NYSEG 12/30/2005

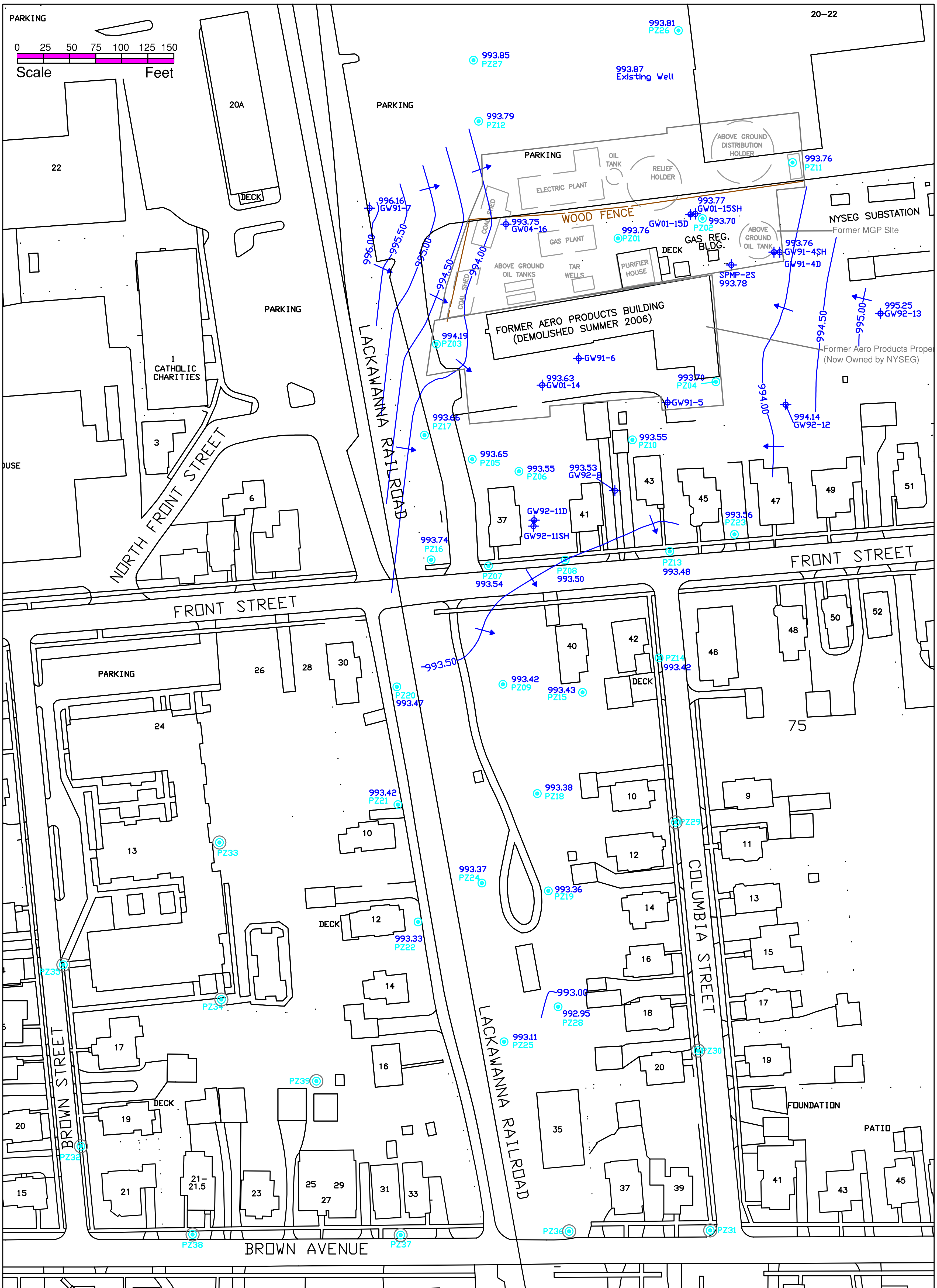
N

Supplemental Remediation Investigation (SRI) Report
Norwich Former MGP Site
24 Birdsall Street, Norwich, New York

Project: Norwich SRI	Client: NYSEG	lsh/META

Figure A-27
Silty Clay Layer Elevation Contour

Filename: SRIREPORTFIGURES	Drawn By: AJB	Approved By: PJD	Date: 10/17/2006



LEGEND

- Location of Former Facility Structures
- Site Boundary
- Piezometer with groundwater Elevation (900.00 feet above MSL)
- Piezometer not installed at time of gauging
- Wells with groundwater Elevation (900.00 feet above MSL)
- Groundwater Contour Line and Flow Direction

Note:

Field surveying completed by NYSEG on September 14th and 15th, November 1st 2004, May 5th, June 17th and December 19th and 20th 2005.

Base map drawn by NYSEG 12/30/2005

Supplemental Remediation Investigation (SRI) Report
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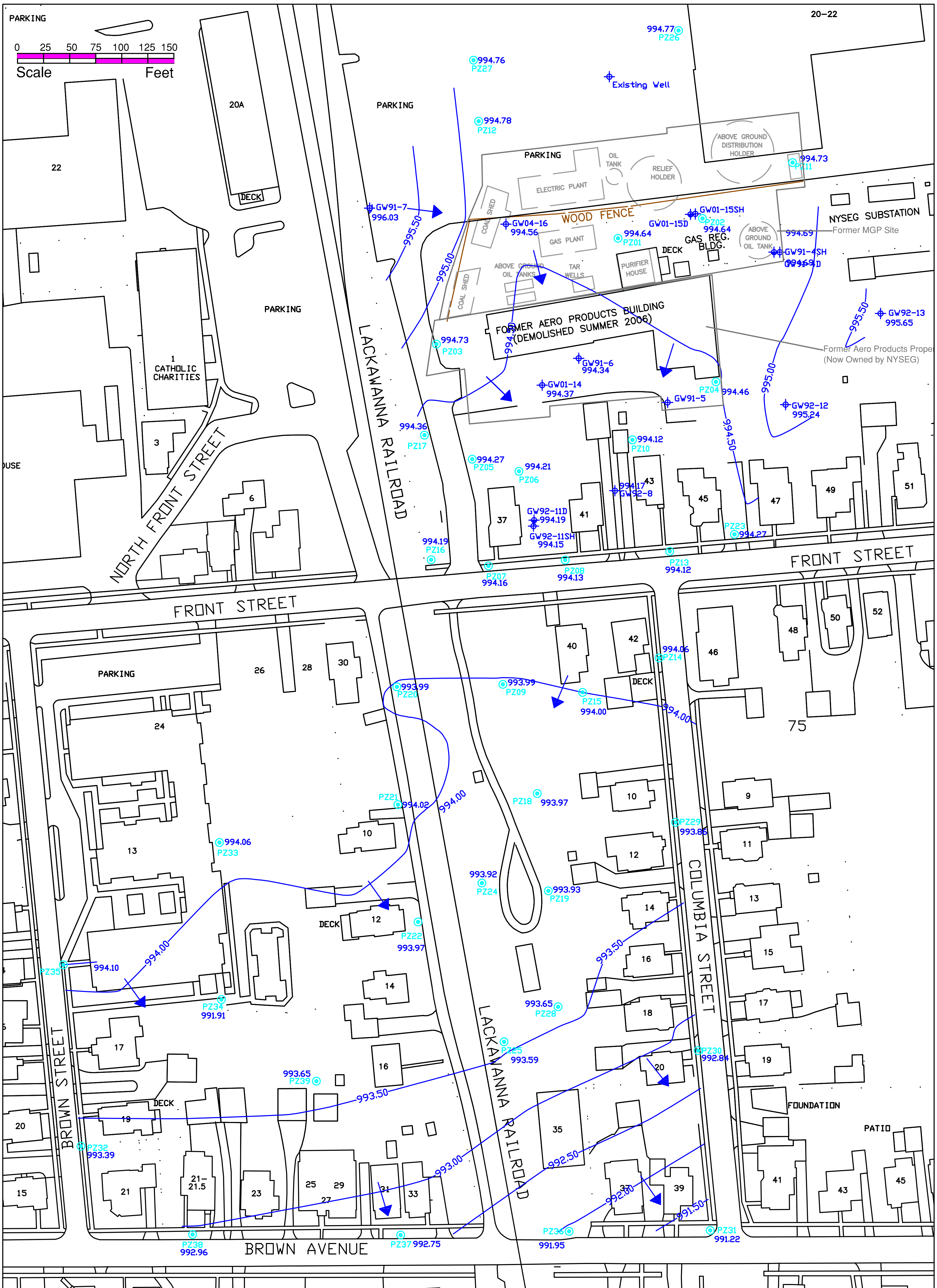
24 Birdsall Street, Norwich, New York

Project: Norwich SRI	Client: NYSEG	lsh/META

Figure A-28
Groundwater Elevation Contour
June 17, 2005

Filename: SRIREPORTFIGURES	Drawn By: AJB	Approved By: PJD	Date: 10/09/2006



LEGEND

- Location of Former Facility Structures
- Site Boundary
- Piezometer with Groundwater Elevation (900.00 feet above MSL)
- Wells with Groundwater Elevation (900.00 feet above MSL)
- Groundwater Contour Line and Flow Direction

Note:

Field surveying completed by NYSEG on September 14th and 15th, November 1st 2004, May 5th, June 17th and December 19th and 20th 2005.

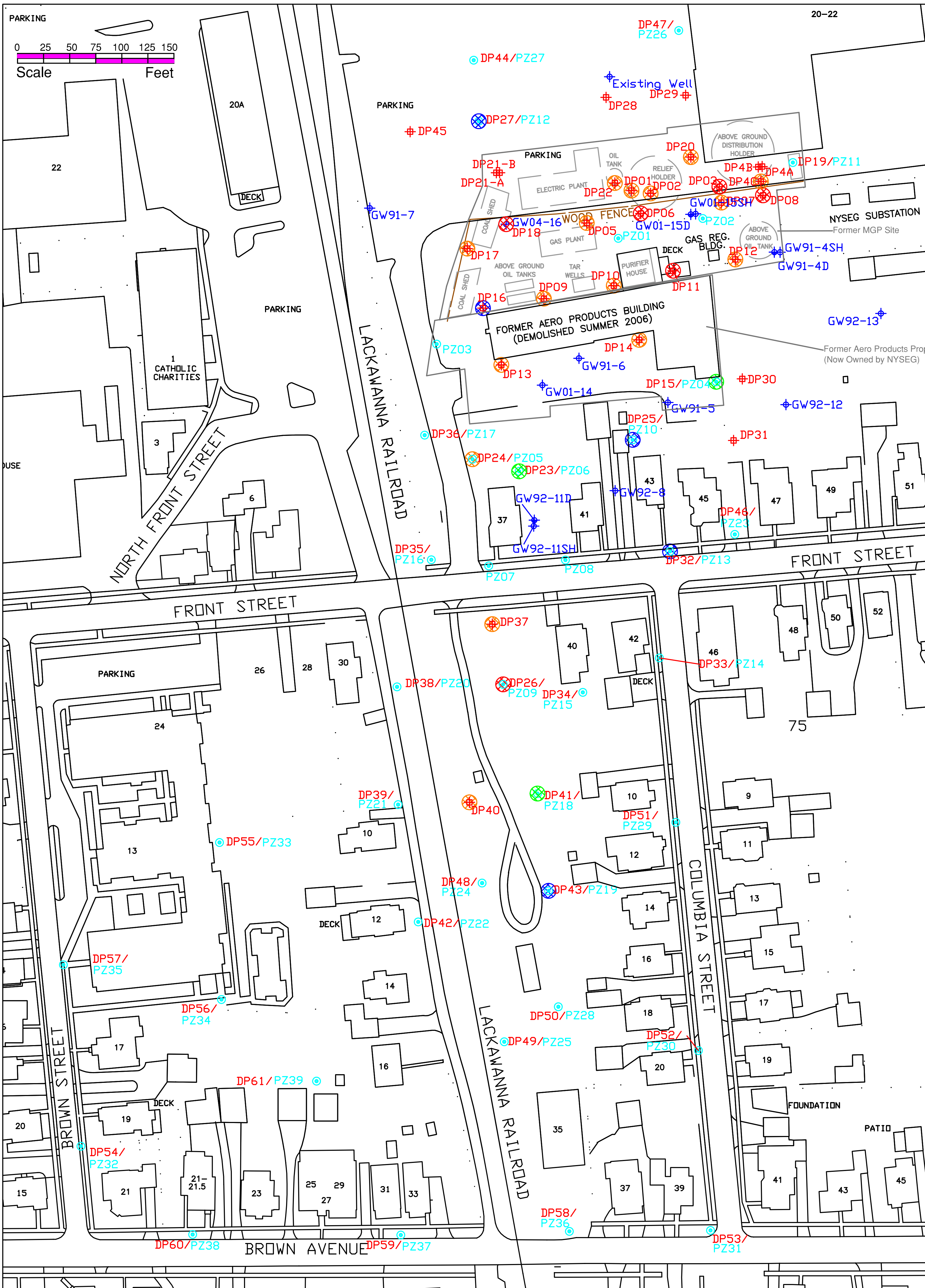
Base map drawn by NYSEG 12/30/2005

Supplemental Remediation Investigation (SRI) Report
Norwich Former MGP Site
24 Birdsall Street, Norwich, New York

Project: Norwich SRI	Client: NYSEG	lsh/META

Figure A-29
Groundwater Elevation Contour
December 5, 2005

Filename: SRIREPORTFIGURES	Drawn By: AJB	Approved By: PJD	Date: 10/09/2006



LEGEND

- Location of Former Facility Structures
- Site Boundary
- Piezometer
- Monitoring Well Shallow
- Monitoring Well Deep
- Direct Push Sampling Location

NOTES:

- All visual observations were made during the logging of soil borings, except for sheens at DP43/PZ19, which were noted during piezometer development.

Summary of Visual Observations in Soil

- Substantial NAPL
- Moderate NAPL
- Slight NAPL
- Sheens

Note:

Field surveying completed by NYSEG on September 14th and 15th, November 1st 2004, May 5th, June 17th and December 19th and 20th 2005.

Base map drawn by NYSEG 12/30/2005

Supplemental Remediation Investigation (SRI) Report
Norwich Former MGP Site
24 Birdsall Street, Norwich, New York

Project: Norwich SRI	Client: NYSEG	lsh/META

Figure A-30
Visual Observations of Sheen or NAPL
in Subsurface Soil

Filename: SRIREPORTFIGURES	Drawn By: AJB	Approved By: PJD	Date: 10/09/2006

NO-DP06	15-16	19-20	22-22.3
Total VOCS	46,000	NA	NA
Total SVOCS	280,000	130,000	4,700
Total CPAHS	24,000	11,000	ND
Benzene	280	NA	NA
Naphthalene	69,000	36,000	4,400

NO-DP01	15-16	23-24
Total VOCS	73,000	ND
Total SVOCS	2,600,000	2,100
Total CPAHS	260,000	ND
Benzene	ND	ND
Naphthalene	675,000	1,050

NO-DP02	18-19	23-24
Total VOCS	36,000	6,000
Total SVOCS	1,000,000	720
Total CPAHS	140,000	ND
Benzene	ND	5,510
Naphthalene	194,000	723

NO-DP20	NAPL Zone
Total VOCS	NA
Total SVOCS	18,000
Total CPAHS	2,100
Benzene	NA
Naphthalene	3,900

NO-DP29	22.5-23	23-24
Total VOCS	300	18,000
Total SVOCS	680	14,000
Total CPAHS	ND	ND
Benzene	41.1	2,690
Naphthalene	675	13,500

NO-DP04C	13.5-14.5	18-19	23-24
Total VOCS	370	11,000	ND
Total SVOCS	140,000	3,400,000	ND
Total CPAHS	63,000	410,000	ND
Benzene	ND	ND	ND
Naphthalene	ND	550,000	ND

NO-DP45	10.8-11.3
Total VOCS	1.4
Total SVOCS	ND
Total CPAHS	ND
Benzene	ND
Naphthalene	ND

NO-DP27	17.5-18	31-32
Total VOCS	5.8	ND
Total SVOCS	ND	ND
Total CPAHS	ND	ND
Benzene	ND	ND
Naphthalene	ND	ND

NO-DP44	15-16	25-26
Total VOCS	ND	1.6
Total SVOCS	ND	110
Total CPAHS	ND	ND
Benzene	ND	ND
Naphthalene	ND	ND

NO-DP22	14.5-15.5	21.5-22.5
Total VOCS	18,000	ND
Total SVOCS	2,100,000	330
Total CPAHS	260,000	ND
Benzene	ND	ND
Naphthalene	470,000	332

NO-DP28	14-15
Total VOCS	ND
Total SVOCS	580
Total CPAHS	ND
Benzene	ND
Naphthalene	ND

NO-DP47	21.5-22.5	26-27
Total VOCS	ND	3.1
Total SVOCS	ND	ND
Total CPAHS	ND	ND
Benzene	ND	ND
Naphthalene	ND	ND

NO-DP03	15-16
Total VOCS	38,000
Total SVOCS	720,000
Total CPAHS	92,000
Benzene	ND
Naphthalene	148,000

NO-DP08	12-14	14.7-15.7
Total VOCS	1,900	18
Total SVOCS	38,000	ND
Total CPAHS	6,200	ND
Benzene	6.6	ND
Naphthalene	2,300	ND

NO-DP05	15-16	19-20
Total VOCS	4,400	67
Total SVOCS	85,000	840
Total CPAHS	12,000	ND
Benzene	19	ND
Naphthalene	7,700	840

NO-DP18	11.5-12	15.5-16	19-20
Total VOCS	460	NA	21
Total SVOCS	NA	76,000	NA
Total CPAHS	NA	7,700	NA
Benzene	3.8	NA	ND
Naphthalene	NA	7,100	NA

NO-DP17	11.5-12	13.5-14.3	18.9-20
Total VOCS	NA	690	24
Total SVOCS	62,000	NA	52
Total CPAHS	11,000	NA	ND
Benzene	NA	ND	ND
Naphthalene	470	NA	ND

NO-DP10	19-20
Total VOCS	350
Total SVOCS	7,700
Total CPAHS	1,100
Benzene	4.6
Naphthalene	1,400

NO-DP09	15-16	18.8-20
Total VOCS	1,400	ND
Total SVOCS	100,000	150
Total CPAHS	12,000	ND
Benzene	ND	ND
Naphthalene	8,200	ND

NO-DP16	11-12	19-20
Total VOCS	7.9	21
Total SVOCS	ND	ND
Total CPAHS	ND	ND
Benzene	ND	ND
Naphthalene	ND	ND

NO-DP13	14.5-16	17.2-17.8
Total VOCS	51	1,500
Total SVOCS	580	NA
Total CPAHS	ND	NA
Benzene	ND	1,300
Naphthalene	99	NA

NO-DP36	8.9-9.7	13-13.9
Total VOCS	ND	NA
Total SVOCS	NA	ND
Total CPAHS	NA	ND
Benzene	ND	NA
Naphthalene	NA	ND

NO-DP23	22.6-22.8
Total VOCS	NA
Total SVOCS	110,000
Total CPAHS	4,050
Benzene	NA
Naphthalene	49,000

NO-DP25	7.8-8.0	10-12	19-20
Total VOCS	ND	NA	8.8
Total SVOCS	NA	60,000	ND
Total CPAHS	NA	20,000	ND
Benzene	ND	NA	8.8
Naphthalene	NA	ND	ND

NO-DP35	12-12.5	23-24
Total VOCS	5.3	15
Total SVOCS	NA	ND
Total CPAHS	NA	ND
Benzene	ND	ND
Naphthalene	NA	ND

NO-DP37	26.5-27.5	31.5-32
Total VOCS	590,000	730
Total SVOCS	6,100,000	1,600
Total CPAHS	570,000	ND
Benzene	21,000	27.3
Naphthalene	1,720,000	788

NO-DP38	19.6-20	27-28
Total VOCS	140	ND
Total SVOCS	NA	340
Total CPAHS	NA	ND
Benzene	116	ND
Naphthalene	NA	176

NO-DP57	19-20
Total BTEX	27
Total PAHS	ND
Total CPAHS	ND
Benzene	16.4
Naphthalene	ND

NO-DP55	23-24
Total BTEX	R
Total PAHS	ND
Total CPAHS	ND
Benzene	R
Naphthalene	ND

NO-DP26	20-21.5	23-24
Total VOCS	1,500,000	320
Total SVOCS	17,000,000	35,000
Total CPAHS	ND	4,100
Benzene	27,100	300
Naphthalene	6,230,000	6,560

NO-DP39	13-13.5	24-25
Total VOCS	12	8.8
Total SVOCS	1,100	180
Total CPAHS	ND	ND
Benzene	4.0	ND
Naphthalene	230	ND

NO-DP19	14-15	18-19
Total VOCS	2.1	2.7
Total SVOCS	110,000	ND
Total CPAHS	62,000	ND
Benzene	ND	ND
Naphthalene	ND	ND

NO-DP12	22.6-24
Total VOCS	24
Total SVOCS	54
Total CPAHS	ND
Benzene	ND
Naphthalene	ND

NO-DP14	18.7-20	23-24
Total VOCS	57	1.8
Total SVOCS	58,000	76
Total CPAHS	11,000	ND
Benzene	ND	ND
Naphthalene	491	ND

NO-DP15	8.2-8.8	19.5-20
Total VOCS	NA	NA
Total SVOCS	2,000	ND
Total CPAHS	750	ND
Benzene	NA	NA
Naphthalene	ND	ND

NO-DP30	23-24
Total VOCS	8
Total SVOCS	ND
Total CPAHS	ND
Benzene	R
Naphthalene	ND

NO-DP31	6.5-7.5	19-20
Total VOCS	ND	4.6
Total SVOCS	ND	ND
Total CPAHS	ND	ND
Benzene	ND	ND
Naphthalene	ND	ND

NO-DP46	9-9.6	22-24
Total VOCS	ND	10
Total SVOCS	5,200	120
Total CPAHS	1,300	ND
Benzene	ND	ND
Naphthalene	322	ND

NO-DP32	10-11	15-16
Total VOCS	ND	ND
Total SVOCS	8,000	ND
Total CPAHS	1,900	ND
Benzene	ND	ND
Naphthalene	ND	ND

NO-DP33	15
Total VOCS	ND
Total SVOCS	ND
Total CPAHS	ND
Benzene	ND
Naphthalene	ND

NO-DP34	19-19.3	22-23
Total VOCS	3.8	ND
Total SVOCS	1,400	73
Total CPAHS	ND	ND
Benzene	1.8	ND
Naphthalene	ND	ND

NO-DP41	16-16.5	23-23.7
Total VOCS	1,300	ND
Total SVOCS	32,000	81
Total CPAHS	5,400	ND
Benzene	18.6	ND
Naphthalene	1,560	47

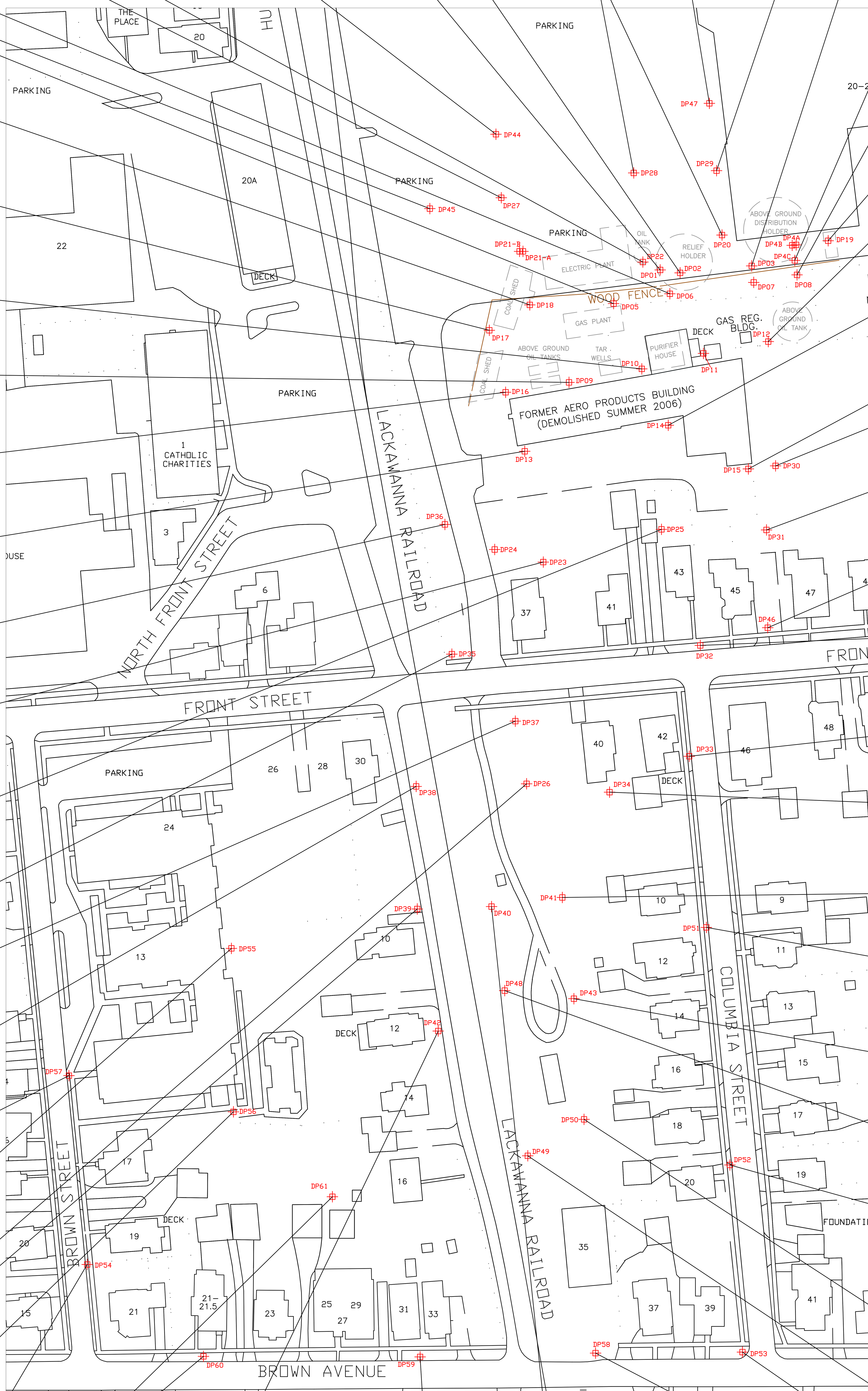
NO-DP51	19-20
Total BTEX	ND
Total PAHS	ND
Total CPAHS	ND
Benzene	ND
Naphthalene	ND

NO-DP43	7.5-8	23-23.8
Total VOCS	5.2	ND
Total SVOCS	NA	350
Total CPAHS	NA	ND
Benzene	ND	ND
Naphthalene	NA	273

NO-DP48	18-19	26-27
Total VOCS	230	9.3
Total SVOCS	760	ND
Total CPAHS	ND	ND
Benzene	24.7	ND
Naphthalene	141	ND

NO-DP52	19-20
Total BTEX	ND
Total PAHS	ND
Total CPAHS	ND
Benzene	ND
Naphthalene	ND

NO-DP50	13.7-15.5	14.5-15.5	25-26
Total VOCS	NA	66	2.1
Total SVOCS	46	NA	ND
Total CPAHS	ND	NA	ND
Benzene	NA	ND	ND
Naphthalene	ND	NA	ND



NO-DP56	19-20
Total BTEX	6.9
Total PAHS	ND
Total CPAHS	ND
Benzene	2.6
Naphthalene	ND

NO-DP54	19-20
Total BTEX	ND
Total PAHS	ND
Total CPAHS	ND
Benzene	ND
Naphthalene	ND

NO-DP61	15-16
Total BTEX	2.5
Total PAHS	ND
Total CPAHS	ND
Benzene	1.1
Naphthalene	ND

NO-DP60	19-20
Total BTEX	6.5
Total PAHS	ND
Total CPAHS	ND
Benzene	2.8
Naphthalene	ND

NO-DP42	9-10	26-27
Total VOCS	ND	7.0
Total SVOCS	1,000	160
Total CPAHS	30	ND
Benzene	ND	ND
Naphthalene	263	ND

NO-DP59	19-20
Total BTEX	3
Total PAHS	ND
Total CPAHS	ND
Benzene	3
Naphthalene	ND

NO-DP40	21.5-23.5	26.5-27.5
Total VOCS	70,000	ND
Total SVOCS	1,500,000	920
Total CPAHS	130,000	ND
Benzene	1,420	ND
Naphthalene	426,000	303

NO-DP58	19-20
Total BTEX	6.3
Total PAHS	ND
Total CPAHS	ND
Benzene	3.1
Naphthalene	ND

NO-DP53	19-20
Total BTEX	2.5
Total PAHS	ND
Total CPAHS	ND
Benzene	2.5
Naphthalene	ND

NO-DP49	17-18	26-27
Total VOCS	17	11
Total SVOCS	240	ND
Total CPAHS	ND	ND
Benzene	5.7	ND
Naphthalene	ND	ND

LEGEND

Location of Former Facility

Location of Direct Push Boring

NOTES

NA- Not Analyzed

ND- Not Detected

R-the result was rejected because one or more QC measures did not meet acceptable criteria by validator during the review process.

Values shown in RED exceed TAGM 4046 applicable NYS Recommended Soil Clean Up Objectives

Sample Box

Boring Location	Depth in ft. bgs
Total VOCS/BTEX	ug/Kg
Total SVOCS/PAHS	ug/Kg
Total CPAHS	ug/Kg
Benzene	ug/Kg
Naphthalene	ug/Kg

N

Project: Norwich RI	Client: NYSEG	Ish/META
Figure A-31 Summary of Chemical Results in Subsurface Soil		
Filename: PHASE1RESULTSSUMMARY	Drawn By: AJB	Approved By: PJD	Date: 9/25/2006

NO-GW91-7	12/12/05
Total VOCS	ND
Total SVOCS	2.3
Total CPAHS	ND
Benzene	ND
Naphthalene	ND
Total Cyanide	ND

NO-GW04-16	12/13/05
Total VOCS	120
Total SVOCS	570
Total CPAHS	2.8
Benzene	7.7
Naphthalene	317
Total Cyanide	ND

NO-PZ12	7/25/05	12/08/05
Total VOCS	ND	ND
Total SVOCS	ND	NA
Total CPAHS	ND	NA
Benzene	ND	ND
Naphthalene	ND	NA
Total Cyanide	NA	ND

NO-Existing Well	12/14/05
Total VOCS	1.1
Total SVOCS	9.6
Total CPAHS	ND
Benzene	ND
Naphthalene	ND
Total Cyanide	ND

NO-PZ02	12/13/05
Total VOCS	240
Total SVOCS	840
Total CPAHS	6.1
Benzene	12.5
Naphthalene	526
Total Cyanide	220

NO-PZ03	11/22/04
Total BTEX	ND
Total PAHS	NA
Total CPAHS	NA
Benzene	ND
Naphthalene	ND
Total Cyanide	NA

NO-PZ03	7/25/05	12/08/05
Total VOCS	ND	ND
Total SVOCS	ND	11
Total CPAHS	ND	ND
Benzene	ND	ND
Naphthalene	ND	ND
Total Cyanide	NA	ND

NO-PZ10	7/26/05	12/09/05
Total VOCS	270	49
Total SVOCS	280	39
Total CPAHS	ND	ND
Benzene	20.6	2.7
Naphthalene	21.9	1.3
Total Cyanide	NA	80

NO-GW91-6	12/14/05
Total VOCS	890
Total SVOCS	6.4
Total CPAHS	ND
Benzene	67.2
Naphthalene	2.8
Total Cyanide	31

NO-PZ27	7/25/05	12/08/05
Total VOCS	ND	ND
Total SVOCS	ND	ND
Total CPAHS	ND	ND
Benzene	ND	ND
Naphthalene	ND	ND
Total Cyanide	NA	ND

NO-PZ01	12/13/05
Total VOCS	180
Total SVOCS	350
Total CPAHS	ND
Benzene	41.9
Naphthalene	189
Total Cyanide	12

NO-PZ26	7/25/05	12/07/05
Total VOCS	ND	ND
Total SVOCS	1.5	ND
Total CPAHS	ND	ND
Benzene	ND	ND
Naphthalene	ND	ND
Total Cyanide	NA	ND

NO-PZ11	7/25/05	12/07/05
Total VOCS	ND	ND
Total SVOCS	2.1	ND
Total CPAHS	ND	ND
Benzene	ND	ND
Naphthalene	ND	ND
Total Cyanide	NA	13

NO-GW91-4D	12/13/05
Total VOCS	5.6
Total SVOCS	4.0
Total CPAHS	ND
Benzene	0.41
Naphthalene	ND
Total Cyanide	400

NO-GW01-14	12/14/05
Total VOCS	1,600
Total SVOCS	3,400
Total CPAHS	ND
Benzene	202
Naphthalene	2,810
Total Cyanide	54

NO-GW92-8	12/14/05
Total VOCS	260
Total SVOCS	160
Total CPAHS	ND
Benzene	19.9
Naphthalene	9.2
Total Cyanide	160

NO-PZ06	12/08/05
Total VOCS	1,400
Total SVOCS	2,300
Total CPAHS	ND
Benzene	206
Naphthalene	1,780
Total Cyanide	29

NO-PZ17	7/25/05	12/08/05
Total VOCS	ND	ND
Total SVOCS	ND	0.65
Total CPAHS	ND	ND
Benzene	ND	ND
Naphthalene	ND	ND
Total Cyanide	NA	ND

NO-PZ05	12/08/05
Total VOCS	190
Total SVOCS	180
Total CPAHS	ND
Benzene	54
Naphthalene	64.6
Total Cyanide	29

NO-GW92-11D	12/14/05
Total VOCS	520
Total SVOCS	240
Total CPAHS	ND
Benzene	236
Naphthalene	105
Total Cyanide	15

NO-GW92-11SH	12/14/05
Total VOCS	17
Total SVOCS	3.9
Total CPAHS	ND
Benzene	5.9
Naphthalene	ND
Total Cyanide	ND

NO-PZ16	7/25/05	12/08/05
Total VOCS	ND	ND
Total SVOCS	ND	ND
Total CPAHS	ND	ND
Benzene	ND	ND
Naphthalene	ND	ND
Total Cyanide	NA	ND

NO-PZ20	7/25/05	12/07/05
Total VOCS	ND	140
Total SVOCS	2.2	96
Total CPAHS	ND	ND
Benzene	ND	87.4
Naphthalene	ND	93.8
Total Cyanide	NA	ND

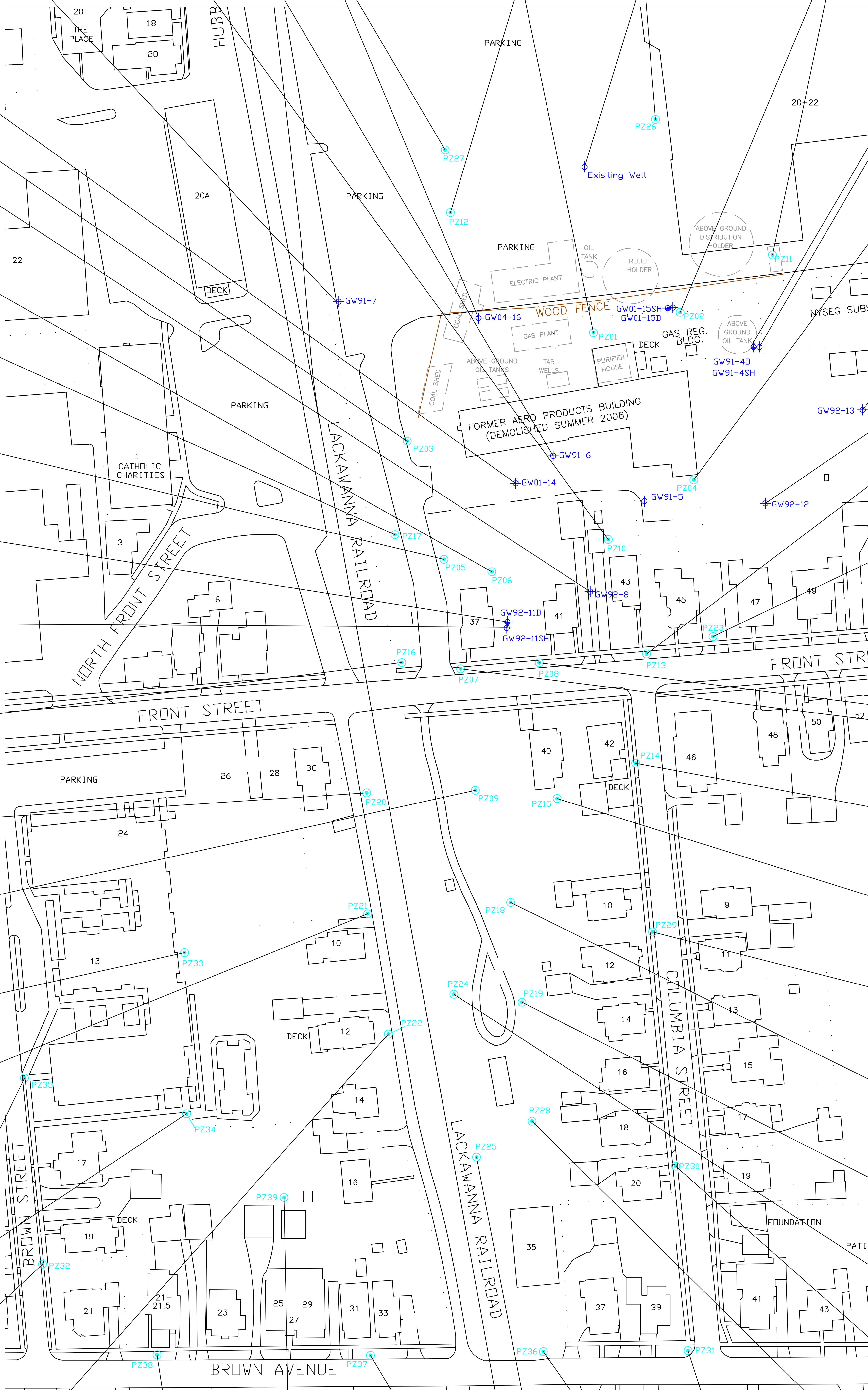
NO-PZ09	12/09/05
Total VOCS	1,100
Total SVOCS	980
Total CPAHS	7.3
Benzene	272
Naphthalene	647
Total Cyanide	20

NO-PZ33	12/07/05
Total VOCS	ND
Total SVOCS	ND
Total CPAHS	ND
Benzene	ND
Naphthalene	ND
Total Cyanide	ND

NO-PZ21	7/26/05	12/07/05
Total VOCS	1,100	1,200
Total SVOCS	370	1,300
Total CPAHS	ND	ND
Benzene	225	207
Naphthalene	186	994
Total Cyanide	NA	ND

NO-PZ35	12/07/05
Total VOCS	0.3
Total SVOCS	ND
Total CPAHS	ND
Benzene	ND
Naphthalene	ND
Total Cyanide	ND

NO-PZ34	12/07/05
Total VOCS	ND
Total SVOCS	ND
Total CPAHS	ND
Benzene	ND
Naphthalene	ND
Total Cyanide	ND



NO-GW91-4SH	12/13/05
Total VOCS	1.4
Total SVOCS	45
Total CPAHS	ND
Benzene	ND
Naphthalene	ND
Total Cyanide	99

NO-PZ04	11/22/04
Total BTEX	3.4
Total PAHS	NA
Total CPAHS	NA
Benzene	0.32
Naphthalene	0.54
Total Cyanide	NA

NO-PZ04	12/12/05
Total VOCS	0.83
Total SVOCS	1.3
Total CPAHS	ND
Benzene	ND
Naphthalene	ND
Total Cyanide	42

NO-GW92-13	12/13/05
Total VOCS	ND
Total SVOCS	55
Total CPAHS	ND
Benzene	ND
Naphthalene	41.9
Total Cyanide	ND

NO-GW92-12	7/26/05	12/12/05
Total VOCS	ND	ND
Total SVOCS	ND	1.3
Total CPAHS	ND	ND
Benzene	ND	ND
Naphthalene	ND	ND
Total Cyanide	NA	ND

NO-PZ13	7/26/05	12/08/05
Total VOCS	9.3	0.68
Total SVOCS	26	ND
Total CPAHS	ND	ND
Benzene	1.1	ND
Naphthalene	ND	ND
Total Cyanide	NA	ND

NO-PZ23	7/26/05	12/09/05
Total VOCS	23	ND
Total SVOCS	15	ND
Total CPAHS	ND	ND
Benzene	ND	ND
Naphthalene	ND	ND
Total Cyanide	NA	ND

NO-PZ08	11/22/04
Total BTEX	540
Total PAHS	NA
Total CPAHS	NA
Benzene	120
Naphthalene	95
Total Cyanide	NA

NO-PZ08	12/08/05
Total VOCS	370
Total SVOCS	210
Total CPAHS	ND
Benzene	90
Naphthalene	53.3
Total Cyanide	76

NO-PZ07	11/22/04
Total BTEX	0.84
Total PAHS	NA
Total CPAHS	NA
Benzene	0.59
Naphthalene	0.92
Total Cyanide	NA

NO-PZ07	12/08/05
Total VOCS	120
Total SVOCS	43
Total CPAHS	ND
Benzene	77
Naphthalene	33.3
Total Cyanide	ND

NO-PZ14	7/26/05	12/09/05
Total VOCS	5.7	0.91
Total SVOCS	17	4.3
Total CPAHS	ND	ND
Benzene	1.0	ND
Naphthalene	ND	ND
Total Cyanide	NA	16

NO-PZ15	7/26/05	12/09/05
Total VOCS	290	270
Total SVOCS	210	160
Total CPAHS	ND	ND
Benzene	60.4	48
Naphthalene	14.4	28.1
Total Cyanide	NA	56

NO-PZ29	12/06/05
Total VOCS	ND
Total SVOCS	1.2
Total CPAHS	ND
Benzene	ND
Naphthalene	ND
Total Cyanide	ND

NO-PZ18	7/26/05	12/09/05
Total VOCS	0.85	0.27
Total SVOCS	ND	ND
Total CPAHS	ND	ND
Benzene	ND	ND
Naphthalene	ND	ND
Total Cyanide	NA	ND

NO-PZ19	7/26/05	12/09/05
Total VOCS	120	140
Total SVOCS	130	120
Total CPAHS	ND	ND
Benzene	31.6	27.8
Naphthalene	3.5	4.4
Total Cyanide	NA	70

NO-PZ24	7/25/05	12/09/05
Total VOCS	540	650
Total SVOCS	550	790
Total CPAHS	ND	ND
Benzene	106	122
Naphthalene	406	611
Total Cyanide	NA	ND

NO-PZ32	12/07/05
Total VOCS	ND
Total SVOCS	1.2
Total CPAHS	ND
Benzene	ND
Naphthalene	ND
Total Cyanide	ND

NO-PZ22	7/26/05	12/07/05
Total VOCS	180	1,300
Total SVOCS	90	630
Total CPAHS	ND	ND
Benzene	59.3	378
Naphthalene	14.7	475
Total Cyanide	NA	ND

NO-PZ38	12/06/05
Total VOCS	0.55
Total SVOCS	ND
Total CPAHS	ND
Benzene	ND
Naphthalene	ND
Total Cyanide	ND

NO-PZ39	12/07/05
Total VOCS	ND
Total SVOCS	ND
Total CPAHS	ND
Benzene	ND
Naphthalene	ND
Total Cyanide	ND

NO-PZ37	12/06/05
Total VOCS	ND
Total SVOCS	3.6
Total CPAHS	0.93
Benzene	ND
Naphthalene	ND
Total Cyanide	ND

NO-PZ25	7/25/05	12/09/05
Total VOCS	160	130
Total SVOCS	86	97
Total CPAHS	ND	ND
Benzene	49.5	46
Naphthalene	2.9	4.3
Total Cyanide	NA	51

NO-PZ36	12/06/05
Total VOCS	ND
Total SVOCS	1.3
Total CPAHS	ND
Benzene	ND
Naphthalene	ND
Total Cyanide	15

NO-PZ31	12/06/05
Total VOCS	ND
Total SVOCS	ND
Total CPAHS	ND
Benzene	ND
Naphthalene	ND
Total Cyanide	27

NO-PZ28	7/26/05	12/09/05
Total VOCS	61	68
Total SVOCS	91	68
Total CPAHS	ND	ND
Benzene	23.8	22.6
Naphthalene	1.6	1.7
Total Cyanide	NA	69

NO-PZ30	12/06/05
Total VOCS	ND
Total SVOCS	ND
Total CPAHS	ND
Benzene	ND
Naphthalene	ND
Total Cyanide	29

LEGEND

- Location of Former Facility
- Piezometers
- Monitoring Well Shallow
- Monitoring Well Deep

NOTES

NA - Not Analyzed

ND - Not Detected

Values shown in Red exceed NYSDEC TOGS 1.1.1 Class GA applicable drinking water standard or guidance value

Sample Box

Well Identification	Date Sampled
Total VOCS/BTEX	ug/L
Total SVOCS/PAHS	ug/L
Total CPAHS	ug/L
Benzene	ug/L
Naphthalene	ug/L
Total Cyanide	ug/L

N

Project: Norwich RI	Client: NYSEG	lsh/META
Figure A-32 Summary of Chemical Results in Groundwater		
Filename: PHASEI/RESULTSSUMMARY	Drawn By: AJB	Approved By: PJD	Date: 9/25/2006

45 Front St.	B	F	S
124–Trimethylbenzene	ND	ND	6.3
Benzene	30	22	14
Ethylbenzene	ND	ND	4.6
m–&p–Xylene	31	25	15
n–Heptane	ND	ND	13
n–Hexane	ND	ND	19
n–Octane	ND	ND	20
Nonane	ND	ND	16
o–Xylene	ND	ND	4.8
Toluene	64	52	28

43 Front St.	B	F	S
124–Trimethylbenzene	ND	1.7	5.3
Ethylbenzene	ND	1.1	5.5
m–&p–Xylene	2.2	3.4	14
n–Octane	ND	6.1	ND
Nonane	19	43	110
o–Xylene	0.95	1.2	4.9

41 Front St.	B	F	S
124–Trimethylbenzene	ND	1.0	5.0
Ethylbenzene	ND	ND	6.1
Methylene Chloride	ND	ND	15
m–&p–Xylene	ND	1.6	15
n–Octane	ND	ND	4.5
Nonane	ND	ND	19
o–Xylene	ND	ND	5.1
Styrene	ND	ND	31

37 Front St.	B	F	S
Dichlorodifluoromethane	4.6	5.2	ND
m–&p–Xylene	ND	1.0	19

30 Front St.	B	F	S
124–Trimethylbenzene	ND	ND	41
135–Trimethylbenzene	ND	ND	5.9
m–&p–Xylene	1.1	2.0	7.4
Nonane	ND	ND	6.3
Styrene	ND	ND	7.0

42 Front St.	B	F	S
111–Trichloroethane	ND	ND	1.2
124–Trimethylbenzene	ND	1.7	7.9
12–Dichloroethane	ND	1.6	ND
135–Trimethylbenzene	ND	ND	1.8
Chloroform	ND	1.9	1.4
Chloromethane	1.2	3.7	ND
Ethylbenzene	ND	3.2	6.5
Methylene Chloride	ND	ND	25
m–&p–Xylene	0.96	8.7	17
n–Hexane	ND	ND	7.5
n–Octane	ND	ND	16
Nonane	ND	ND	22
o–Xylene	ND	2.4	6.0
Styrene	ND	2.0	2.8
Trichloroethene	ND	2.0	1.2

12 Baldwin St.	B	F	S
124–Trimethylbenzene	ND	ND	7.3
135–Trimethylbenzene	ND	ND	2.2
Chloroform	ND	ND	1.0
Chloroethane	ND	ND	2.7
Dichlorodifluoromethane	3.0	4.9	3.2
Ethylbenzene	ND	ND	6.4
Methylene Chloride	ND	ND	11
m–&p–Xylene	1.1	1.5	20
n–Octane	ND	ND	15
Nonane	ND	ND	18
o–Xylene	ND	ND	8.1
Styrene	ND	ND	2.6

14 Baldwin St.	B	F	S
cis–12–Dichloroethene	ND	12	1.8
n–Undecane	ND	ND	28
Tetrachloroethene	4.0	550	ND
Trichloroethene	ND	6.5	ND

Little Ceasar's	F	S
111–Trichloroethane	ND	67
124–Trimethylbenzene	1.4	10
Benzene	1.2	15
Dichlorodifluoromethane	2.7	38
m–&p–Xylene	4.2	25
n–Heptane	ND	22
n–Octane	ND	28
Nonane	2.7	27
o–Xylene	1.7	10
Trichlorofluoromethane	2.4	180

10 Columbia St.	B	F	S
1122–Tetrachloroethane	ND	ND	2.9
124–Trimethylbenzene	2.4	1.0	8.3
135–Trimethylbenzene	ND	ND	2.3
Chloroform	ND	ND	1.4
Chloromethane	1.9	1.3	ND
Ethylbenzene	3.5	ND	18
Methylene Chloride	11	ND	18
m–&p–Xylene	10	1.2	45
n–Heptane	4.6	ND	7.6
n–Hexane	75	ND	2.5
n–Octane	ND	ND	4.0
Nonane	ND	ND	16
o–Xylene	3.5	ND	22
Styrene	1.2	ND	3.6
Tetrachloroethene	8.5	ND	ND
Toluene	65	3.0	37
Trichloroethene	2.1	ND	ND
Trichlorofluoromethane	6.2	7.0	1.3

16 Columbia St.	B	F	S
124–Trimethylbenzene	1.2	ND	6.1
135–Trimethylbenzene	ND	ND	2.0
Chloroform	ND	ND	1.6
Chloroethane	ND	ND	1.7
Ethylbenzene	0.87	ND	7.4
Methylene Chloride	ND	ND	15
m–&p–Xylene	2.7	1.5	20
n–Octane	ND	ND	4.4
Nonane	3.0	ND	14
o–Xylene	1.1	ND	7.7
Styrene	ND	ND	2.1

18 Columbia St.	B	F	S
124–Trimethylbenzene	ND	2.8	4.5
12–Dichloroethane	8.9	ND	ND
Chloroform	ND	1.5	ND
Chloromethane	ND	1.9	ND
m–&p–Xylene	3.3	8.6	7.6
n–Dodecane	ND	ND	28
Nonane	ND	7.8	ND
o–Xylene	1.5	3.6	ND

20 Columbia St.	B	F	S
124–Trimethylbenzene	0.98	2.7	5.2
Ethylbenzene	1.2	ND	4.6
Methylene Chloride	63	7.1	3.5
m–&p–Xylene	6.9	3.7	15
n–Hexane	6.0	ND	ND
Nonane	ND	ND	25
o–Xylene	2.8	1.8	5.9
Styrene	ND	ND	2.0
Toluene	25	8.3	14

35 Brown St.	B	S
124–Trimethylbenzene	7.4	3.3
135–Trimethylbenzene	2.9	ND
Benzene	6.6	2.4
Chloromethane	1.8	ND
Ethylbenzene	8.6	3.8
m–&p–Xylene	28	9.4
n–Heptane	7.9	6.1
n–Hexane	8.7	9.7
n–Octane	3.8	3.8
Nonane	4.3	17
o–Xylene	10	3.5
Toluene	51	14

LEGEND

- Location of Former Facility

- SVI Study Sample Locations

Sample Box

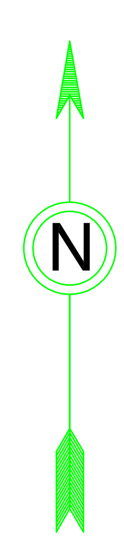
Sample Location	B-Basement	F-First Floor	S-Sub-Slab
Parameter	ug/m3	ug/m3	ug/m3

NOTES:

1. Summarized results are for compounds where at least one sample per location exceeded the NYSDOH 75% Indoor Background value.

2. ND - not detected above method detection limit

3. Values in red exceed the NYS DOH 75% Indoor Background values

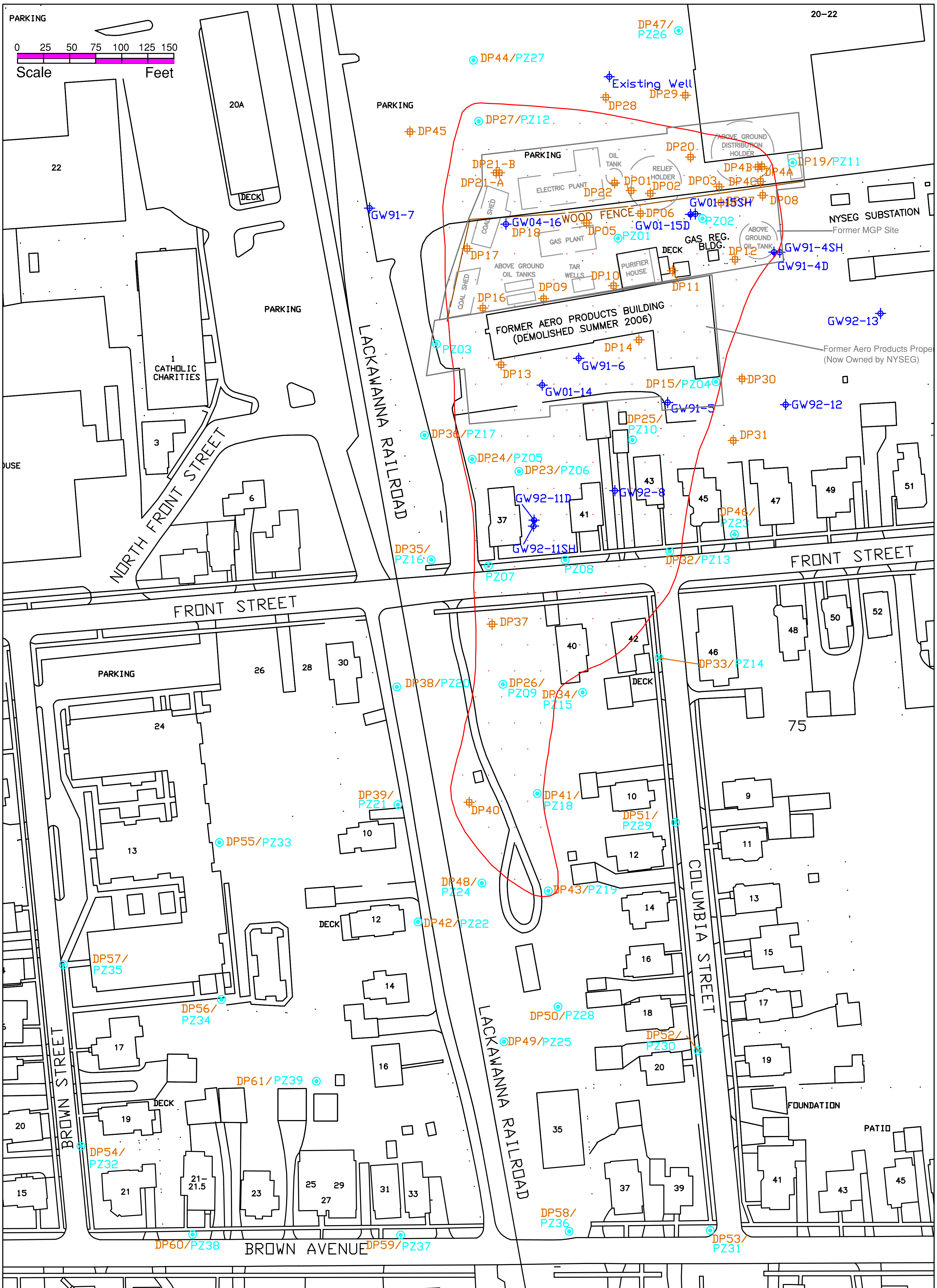


Norwich Former MGP Site
Norwich, New York

Project: Norwich RI	Client: NYSEG	Ish/META

Figure A-33
Draft Chemical Results for Air Samples
March 2006

Filename: SRIREPORTFIGURES	Drawn By: AJB	Approved By: PJD	Date: 9/25/2006



LEGEND

- Location of Former Facility Structures
- Site Boundary
- Piezometer
- Monitoring Well Shallow
- Monitoring Well Deep
- Direct Push Sampling Location
- Extent of NAPL and Sheens

Note:

Field surveying completed by NYSEG on September 14th and 15th, November 1st 2004, May 5th, June 17th and December 19th and 20th 2005.

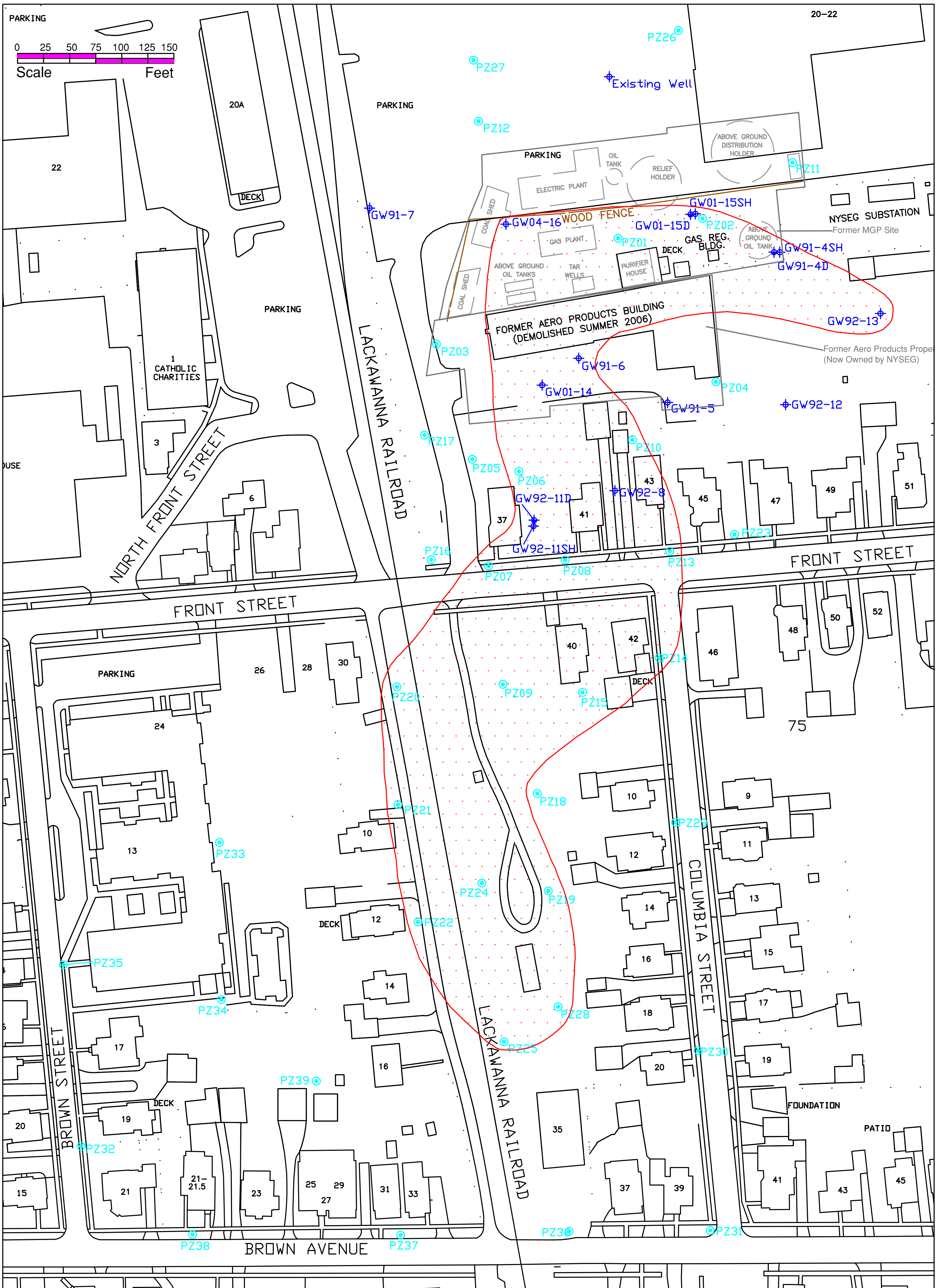
Base map drawn by NYSEG 12/30/2005

Supplemental Remediation Investigation (SRI) Report
Norwich Former MGP Site
24 Birdsall Street, Norwich, New York

Project: Norwich SRI	Client: NYSEG	lsh/META

Figure A-34
Extent of NAPL and Sheens in Subsurface Soil

Filename: SRIREPORTFIGURES	Drawn By: AJB	Approved By: PJD	Date: 10/17/2006



LEGEND

- Location of Former Facility Structures
- Site Boundary
- Pizometer
- Monitoring Well Shallow
- Monitoring Well Deep
- Estimated Extent of MGP-related impacts

Notes:

- Sampling locations inside the "plume" had one or more MGP-related compounds measured above NYSDEC Class GA standards or guidance values
- Groundwater plume based on groundwater sampling in July and December 2005

N

Note:

Field surveying completed by NYSEG on September 14th and 15th, November 1st 2004, May 5th, June 17th and December 19th and 20th 2005.

Base map drawn by NYSEG 12/30/2005

Supplemental Remediation Investigation (SRI) Report
Norwich Former MGP Site
24 Birdsall Street, Norwich, New York

Project: Norwich SRI	Client: NYSEG	lsh/META

Figure A-35
Estimated Extent of MGP-Related
Groundwater Impacts

Filename: SRIREPORTFIGURES	Drawn By: AJB	Approved By: PJD	Date: 10/09/2006

B
TABLES

Table B-1
EPA Method 8021 Groundwater Results from June 2003 (ug/L)
Norwich Former MGP Site
Norwich, New York

Compound	NYSDEC Class GA Standard	GW91-5	GW91-6	GW92-8	GW92-11SH	GW92-11D	GW92-12	GW01-14	GW01-15S	SPMP-1S	SPMP-2S
Benzene	1	<0.5	**23**	**2.7**	**8.8**	**8.8**	<0.5	**160**	**14**	**3.5**	<1.0
Toluene	5	<1.0	2.2	<1.0	<1.0	<1.0	<1.0	<20	<5.0	<2.0	<2.0
Ethylbenzene	5	<1.0	**72**	**12**	**6.8**	<1.0	<1.0	**630**	**76**	**5.9**	**50**
m,p-Xylene	10	<1.0	7	<1.0	<1.0	<1.0	<1.0	69	15	4.3	3.3
o-Xylene	5	<1.0	**49**	3.5	**5.3**	2.3	<1.0	**240**	**40**	**21**	**43**
Isopropylbenzene	5	<1.0	**7.8**	1.2	2.5	<1.0	<1.0	**60**	<5.0	<2.0	7
n-Propylbenzene	5	<1.0	1.9	<1.0	<1.0	<1.0	<1.0	**23**	<5.0	<2.0	2.8
1,3,5-Trimethylbenzene	5	<1.0	3.2	<1.0	<1.0	<1.0	<1.0	**61**	**12**	**11**	3.2
tert-Butylbenzene	5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<20	<5.0	<2.0	<2.0
1,2,4-Trimethylbenzene	5	<1.0	**40**	<1.0	2.2	<1.0	<1.0	**330**	**43**	**13**	**82**
sec-Butylbenzene	5	<1.0	**8.2**	<1.0	<1.0	<1.0	<1.0	**98**	**16**	**14**	**26**
4-Isopropyltoluene	5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<20	<5.0	2.2	<2.0
n-Butylbenzene	5	<1.0	2.5	<1.0	<1.0	<1.0	<1.0	**69**	**10**	**31**	**8.5**
Naphthalene	10	<5.0	**330**	<5.0	<5.0	<5.0	<5.0	**2,700**	**400**	**140**	**59**
Methyl tert-butyl ether	NA	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<40	<10	<4.0	<4.0

NA – indicates that no standard is available
< means the compound was not detected above the concentration shown
Bolded results indicate concentrations above the NYSDEC Class GA standards or guidance values

Table B-2
EPA Method 625 Groundwater Results from June 2003 (ug/L)
Norwich Former MGP Site
Norwich, New York

Compound	NYSDEC Class GA Standard	GW91-5	GW91-6	GW92-8	GW92-11SH	GW92-11D	GW92-12	GW01-14	GW01-15S	SPMP-1S	SPMP-2S
2-Methylnaphthalene	NA	<10	<10	12	46	<10	<11	44	18	33	150
Acenaphthene	20	<10	**34**	10	**24**	<10	<11	**110**	**77**	**280**	**86**
Acenaphthylene	NA	<10	<10	<10	<11	<10	<11	<21	<10	37	37
Anthracene	50	<10	<10	<10	<11	<10	<11	<21	14	**120**	30
Benz(a)anthracene	0.002	<10	<10	<10	<11	<10	<11	<21	<10	<12	<11
Benzo(a)pyrene	ND	<10	<10	<10	<11	<10	<11	<21	<10	**93**	**12**
Benzo(b)fluoranthene	0.002	<10	<10	<10	<11	<10	<11	<21	<10	**49**	<11
Benzo(g,h,i)perylene	NA	<10	<10	<10	<11	<10	<11	<21	<10	39	<11
Benzo(k)fluoranthene	0.002	<10	<10	<10	<11	<10	<11	<21	<10	**55**	<11
Chrysene	0.002	<10	<10	<10	<11	<10	<11	<21	<10	**100**	**14**
Dibenz(a,h)anthracene	NA	<10	<10	<10	<11	<10	<11	<21	<10	<12	<11
Dibenzofuran	NA	<10	<10	<10	<11	<10	<11	<21	<10	16	<11
Fluoranthene	50	<10	<10	<10	<11	<10	<11	<21	<10	**190**	34
Fluorene	50	<10	<10	<10	<11	<10	<11	29	22	**120**	44
Indeno(1,2,3-cd)pyrene	0.002	<10	<10	<10	<11	<10	<11	<21	<10	**38**	<11
Naphthalene	10	<10	<10	<10	<11	<10	<11	**290**	**49**	**73**	**47**
Phenanthrene	50	<10	<10	<10	<11	<10	<11	41	24	**220**	**97**
Pyrene	50	<10	<10	<10	<11	<10	<11	<21	13	**250**	48

NA – indicates that no standard is available
< means the compound was not detected above the concentration shown
Bolded results indicate concentrations above the NYSDEC Class GA standards or guidance values

Table B-3
Summary of Samples Analyzed
Norwich Former MGP Site
Norwich, NY

Parameter	Subsurface Soil Samples	Groundwater Samples	QA/QC Duplicate Samples (soil)	QA/QC Duplicate Samples (water)	Field Blanks and Trip Blanks	Total Number of Samples
Chemical Analysis						
TCL VOCs	79	73	3	3	10	168
TCL SVOCs	79	74	3	3	2	161
SPLP TCL VOCs	7					7
SPLP TCL SVOCs	6					6
Cyanide (Total)		52	1	3		56
Total Organic Carbon	4					
BTEX		4			1	5
PAHs	11					
Naphthalene	11	4			1	16
Waste Characterization						
Ignitability		2				2
Benzene	2	3				5
CN, Sulfide Reactivity, pH	2					2
pH		2				2

Table B-4
Summary of SVI Evaluation Samples
(Indoor Air and Building Sub-slab Samples)

Sample Location	Sample Type	Sample Date	Notes, Sampling Duration
NO-14BAS	Sub-slab	3/22/06	24 hr sample
NO-14BAB Dup	Basement	3/22/06	Field duplicate sample, 24 hr sample
NO-14BAB	Basement	3/22/06	24 hr sample
NO-14BAF	First Floor	3/22/06	24 hr sample
NO-10COS	Sub-slab	3/22/06	24 hr sample
NO-10COB	Basement	3/22/06	24 hr sample
NO-10COF	First Floor	3/22/06	24 hr sample
NO-12BAS	Sub-slab	3/22/06	24 hr sample
NO-12BAS Dup	Sub-slab	3/22/06	Field duplicate sample, 24 hr sample
NO-12BAB	Basement	3/22/06	24 hr sample
NO-12BAF	First Floor	3/22/06	24 hr sample
NO-16COS	Sub-slab	3/22/06	24 hr sample
NO-16COB	Basement	3/22/06	24 hr sample
NO-16COF	First Floor	3/22/06	24 hr sample
NO-42FRS	Sub-slab	3/24/06	24 hr sample
NO-42FRB	Basement	3/24/06	24 hr sample
NO-42FRF	First Floor	3/24/06	24 hr sample
NO-30FRS	Sub-slab	3/24/06	24 hr sample
NO-30FRS Dup	Sub-slab	3/24/06	Field duplicate sample, 24 hr sample
NO-30FRB	Basement	3/24/06	24 hr sample
NO-30FRF	First Floor	3/24/06	24 hr sample
NO-41FRS	Sub-slab	3/24/06	Dirt floor basement, 24 hr sample
NO-41FRB	Basement	3/24/06	24 hr sample
NO-41FRF	First Floor	3/24/06	24 hr sample
NO-41FRF Dup	First Floor	3/24/06	Field duplicate sample, 24 hr sample
NO45FRS	Sub-slab	3/28/06	24 hr sample
NO-45FRB	Basement	3/28/06	24 hr sample
NO-45FRF	First Floor	3/28/06	24 hr sample
NO-35BRS	Sub-slab	3/28/06	24 hr sample
NO-35BRF	First Floor	3/28/06	24 hr sample
NO-43FRS	Sub-slab	3/28/06	Dirt floor basement, 24 hr sample
NO-43FRB	Basement	3/28/06	24 hr sample
NO-43FRF	First Floor	3/28/06	24 hr sample
NO-LCS	Sub-slab	3/29/06	24 hr sample
NO-LCF	First Floor	3/29/06	24 hr sample
NO-37FRS	Sub-slab	3/29/06	Dirt floor basement, 24 hr sample
NO-37FRB	Basement	3/29/06	24 hr sample
NO-37FRF	First Floor	3/29/06	24 hr sample
NO-18COS	Sub-slab	3/29/06	Dirt floor basement, 24 hr sample
NO-18COB	Basement	3/29/06	24 hr sample
NO-18COF	First Floor	3/29/06	24 hr sample
NO-20COS	Sub-slab	3/29/06	24 hr sample
NO-20COB	Basement	3/29/06	Window in the basement had been open prior to the start of sample collection, 24 hr sample
NO-20COF	First Floor	3/29/06	24 hr sample

Table B-4
Summary of SVI Evaluation Samples
(Ambient Air Samples)

Sample Location	Sample Type	Sample Date	Notes, Sampling Duration
NO-UP062203	Upwind sample	3/22/06	Along fence at north side of NYSEG property, 24 hr sample
NO-CE062203	Site area sample	3/22/06	Located on fence at 10 Columbia, 24 hr sample
NO-BK062203	Background sample	3/22/06	Located at 35 Brown, 24 hr sample
NO-BK062403	Background sample	3/24/06	Located on fence at Birdsall St substation, 24 hr sample
NO-MI062403	Site area sample	3/24/06	Located at 42 Front St, 24 hr sample
NO-UP062403	Upwind sample	3/24/06	Located at 35 Brown, 24 hr sample
NO-MI062803	Site area sample	3/28/06	Located between NYSEG and Front St, 24 hr sample
NO-UP062803	Upwind sample	3/28/06	Located at 35 Brown, 24 hr sample
NO-UP062803 Dup	Upwind sample	3/28/06	Field duplicate sample, Located at 35 Brown, 24 hr sample
NO-BK062803	Background sample	3/28/06	On fence at Birdsall substation, 24 hr sample
NO-BK062903	Background sample	3/29/06	On fence at Birdsall substation, 24 hr sample
NO-MI062903	Site area sample	3/29/06	Located between NYSEG and Front St, 24 hr sample
NO-UP062903	Upwind sample	3/29/06	Located at 35 Brown, 24 hr sample

Table B-5
Field Observations of Possible MGP Residuals in Boring Logs
Norwich Former MGP Site
Norwich, New York

Location	Depth Interval (ft)	Soil Description	Discussion of NAPL
DP01	0-0.3	asphalt	no observed MGP residuals
	0.3-4	fill	no observed MGP residuals
	4-4.8	gravel	no observed MGP residuals
	4.8-11.5	sand and silt	tar-like material at 6.1 bgs
	11.5-13.5	sand and silt	black staining and a tar-like odor
	13.5-20	gravel and sand	NAPL globules, odor and sheens
	20-24	clay	no observed MGP residuals
DP02	0-0.3	asphalt	no observed MGP residuals
	0.3-5.6	fill	no observed MGP residuals
	5.6-9	fill	some coal-like material with a slight odor at 5.6' bgs
	9-11	sand and silt	no observed MGP residuals
	11-13.75	sand and gravel	some black staining and a tar-like odor
	13.75-21	sand and gravel	moderate sheens, odor and NAPL globules
	21-22	sand and gravel	sheens
	22-24	clay and sand	no observed MGP residuals
DP03	0-0.3	asphalt	no observed MGP residuals
	0.3-6	fill	no observed MGP residuals
	6-7.8	fill	some coal-like material
	7.8-11.8	sand, silt and gravel	no observed MGP residuals
	11.8-14.5	gravel and sand	slight odor with black staining
	14.5-18	gravel	tar-like odor, sheens and NAPL globules
	18-22	gravel and sand	tar-like odor and sheens
	22-22.75	gravel	no observed MGP residuals
	22.75-24	gravel and sand	moderate sheens, strong odor and NAPL globules
	24-28	clay	no observed MGP residuals
DP04A	0-0.3	asphalt	no observed MGP residuals
	0.3-3.7	fill	no observed MGP residuals
DP04B	0-0.3	asphalt	no observed MGP residuals
	0.3-3.6	fill	odor and staning at 3.6' bgs
DP04C	0-0.3	asphalt	no observed MGP residuals
	0.3-6	fill	very slight odor at 4' bgs
	6-6.3	silt	slight black staining and odor
	6.3-10	sand and silt	no observed MGP residuals
	10-13	sand and silt	slight black staining and sheens at 12' bgs
	13-22	gravel and sand	sheens and NAPL globules
	22-22.3	gravel	no observed MGP residuals
	22.3-24	clay and sand	no observed MGP residuals
DP05	0-11.5	fill	no observed MGP residuals
	11.5-18.5	sand and gravel	NAPL globules
	18.5-20	clay and silt	no observed MGP residuals
DP06	0-10.4	fill	no observed MGP residuals
	10.4-12	silt, sand and gravel	black staining and slight odor
	12-21.8	silt, sand and gravel	NAPL globules throughout
	21.8-24	clay and silt	no observed MGP residuals
DP07	0-11	fill	no observed MGP residuals
	11-11.75	silt, sand and gravel	NAPL globules
	11.75-12	silt, sand and gravel	black staining
	12-16	sand and gravel	NAPL globules
	16-24	no recovery	

Table B-5
Field Observations of Possible MGP Residuals in Boring Logs
Norwich Former MGP Site
Norwich, New York

Location	Depth Interval (ft)	Soil Description	Discussion of NAPL
DP08	0-0.4	fill	very slight odor
	0.4-11	fill	no observed MGP residuals
	11-11.7	silt, sand and gravel	no observed MGP residuals
	11.7-14	silt and gravel	NAPL globules and a strong odor
	14-16	clay and silt	no observed MGP residuals
DP09	0-3	fill	coal-like material
	3-7	fill	no observed MGP residuals
	7-8	silt	slight odor and staining
	8-11	silt, sand and gravel	slight tar-like odor
	11-18	silt, sand and gravel	NAPL globules
	18-20	clay and silt	no observed MGP residuals
DP10	0-6	fill	no observed MGP residuals
	6-6.4	fill	slight odor
	6.4-12	silt, sand and gravel	no observed MGP residuals
	12-14	silt, sand and gravel	some black staining and a faint odor
	14-20	silt, sand and gravel	black staining and NAPL globules
	20-24	no recovery	
DP11	0-6.3	fill	no observed MGP residuals
	6.3-7	silt	no observed MGP residuals
	7-13.7	silt and gravel	some staining and odor
	13.7-14.8	silt, sand and gravel	sheen and odor
	14.8-16.8	silt and gravel	NAPL globules and black staining
	16.8-17.2	clay	no observed MGP residuals
DP12	0-8	fill	some coal-like material at 6.0' bgs
	8-11.2	silt and gravel	no observed MGP residuals
	11.2-15	silt, sand and gravel	no observed MGP residuals
	15-22.1	silt, sand and gravel	NAPL globules
	22.1-24	clay	no observed MGP residuals
DP13	0-1	fill	no observed MGP residuals
	1-7	silt	no observed MGP residuals
	7-11	silt, sand and gravel	no observed MGP residuals
	11-17	silt, sand and gravel	some NAPL globules
	17-17.8	clay	no observed MGP residuals
DP14	0-0.75	asphalt	no observed MGP residuals
	0.75-2.5	fill	coal-like material
	2.5-7	sand and gravel	no observed MGP residuals
	7-17.8	gravel and sand	sheens, odor and NAPL globules
	17.8-24	clay and silt	no observed MGP residuals
DP15/PZ04	0-0.75	fill	coal-like material
	0.75-4.75	fill	no observed MGP residuals
	4.75-7.2	silt, sand and gravel	no observed MGP residuals
	7.2-8.3	sand	no observed MGP residuals
	8.3-9.6	sand	NAPL globules and sheens
	9.6-18.1	no recovery	
	18.1-20	clay and silt	no observed MGP residuals
DP16	0-3.6	fill	no observed MGP residuals
	3.6-9.75	silt	no observed MGP residuals
	9.75-11	silt, sand and gravel	no observed MGP residuals
	11-14	silt, sand and gravel	slight MGP odor
	14-15	silt, sand and gravel	slight sheen and NAPL globules from 14.5-15
	15-18	silt, sand and gravel	no observed MGP residuals
	18-20	clay	no observed MGP residuals

Table B-5
Field Observations of Possible MGP Residuals in Boring Logs
Norwich Former MGP Site
Norwich, New York

Location	Depth Interval (ft)	Soil Description	Discussion of NAPL
DP17	0-3.5	fill	no observed MGP residuals
	3.6-4	fill	slight MGP odor
	4-4.5	fill	black, residual tar-like material
	4.5-5.9	clay and silt	black to gray staining and an MGP odor
	5.9--9.75	clay and silt	no observed MGP residuals
	9.75-14.3	silt and gravel	black staining, MGP odor and NAPL globules
	14.3-20	clay and silt	no observed MGP residuals
DP18/GW04-16	0-4	fill	no observed MGP residuals
	4-8	fill	some black staining at 8.0' bgs
	8-10.4	wood	no observed MGP residuals
	10.4-25.75	silt, sand and gravel	NAPL globules throughout
	25.75-28	clay	no observed MGP residuals
DP19/PZ11	0-0.3	asphalt	no observed MGP residuals
	0.3-2	fill	no observed MGP residuals
	2-5.75	fill	ash-like and coal-like material, black staining and a slight odor
	5.75-17.75	gravel and sand	no observed MGP residuals
	17.75-20	clay and sand	no observed MGP residuals
DP20	0-0.4	asphalt	no observed MGP residuals
	0.4-7.6	fill	no observed MGP residuals
	7.6-8	silt	no observed MGP residuals
	8-12	gravel and sand	no observed MGP residuals
	12-16	no recovery	
	16-24	gravel and sand	NAPL present on bottom of sleeve
DP21A	0-0.4	asphalt	no observed MGP residuals
	0.4-2.1	fill	no observed MGP residuals
DP21B	0-0.4	asphalt	no observed MGP residuals
	0.4-3	fill	no observed MGP residuals
	3-4.3	fill	coal-like material
	4.3-7.4	no recovery	
DP22	0-0.3	asphalt	no observed MGP residuals
	0.3-5.5	fill	no observed MGP residuals
	5.5-10.5	fill	small amount of coal-like material and black staining
	10.5-13.5	sand and silt	sheens, staining and NAPL globules from 11.8-12' bgs
	13.5-18.2	gravel and sand	sheens, NAPL globules and odor present
	18.2-19.2	gravel	no observed MGP residuals
	19.2-20	gravel and sand	sheens and slight NAPL globules
	20-24	clay	no observed MGP residuals
DP23/PZ06	0-11.6	silt and gravel	no observed MGP residuals
	11.6-15	sand	no observed MGP residuals
	15-17.6	gravel and sand	slight MGP odor and sheen on bottom of sleeve
	17.6-22.8	gravel and sand	NAPL globules from 22.6-22.8' bgs
	22.8-24	clay and silt	no observed MGP residuals
DP24/PZ05	0-5.75	fill	some coal-like material between 3.1 and 3.3' bgs
	5.75-12	silt, sand and gravel	no observed MGP residuals
	12-20	no recovery	
	20-24	no recovery	NAPL present on outside of sample sleeve
DP25/PZ10	0-0.5	topsoil	no observed MGP residuals
	0.5-2	fill	coal-like material
	2-6	sand and silt	no observed MGP residuals
	6-7.8	gravel and sand	no observed MGP residuals
	7.8-10	gravel and sand	sheens and a fuel-like odor
	10-18	gravel and sand	slight fuel-like odor
	18-20	clay	no observed MGP residuals

Table B-5
Field Observations of Possible MGP Residuals in Boring Logs
Norwich Former MGP Site
Norwich, New York

Location	Depth Interval (ft)	Soil Description	Discussion of NAPL
DP26/PZ09	0-0.75	topsoil	no observed MGP residuals
	0.75-7.3	sand, silt and gravel	no observed MGP residuals
	7.3-19	gravel and sand	no observed MGP residuals
	19-21.5	gravel and sand	sheens and NAPL globules
	21.5-24	clay	no observed MGP residuals
DP27/PZ12	0-0.2	asphalt	no observed MGP residuals
	0.2-7.8	fill	no observed MGP residuals
	7.8-10	silt	no observed MGP residuals
	10-17.5	sand and gravel	no observed MGP residuals
	17.5-18	sand	NAPL present on tip of sampling sleeve
	18-23	gravel	no observed MGP residuals
	23-24	clay	no observed MGP residuals
	24-28	no recovery	
	28-32	clay and sand	no observed MGP residuals
DP28	0-0.3	asphalt	no observed MGP residuals
	0.3-3	fill	no observed MGP residuals
	3-3.75	fill	ash-like and coal-like material
	3.75-10	sand and silt	no observed MGP residuals
	10-25	gravel and sand	no observed MGP residuals
	25-28	clay and sand	no observed MGP residuals
DP29	0-0.3	asphalt	no observed MGP residuals
	0.3-3.2	fill	no observed MGP residuals
	3.2-7.5	fill	ash-like and coal-like material
	7.5-14	sand, silt and gravel	no observed MGP residuals
	14-18.5	gravel and sand	no observed MGP residuals
	18.5-20	sand and silt	no observed MGP residuals
	20-23	sand and silt	very slight odor
	23-24	clay and sand	no observed MGP residuals
DP30	0-2	topsoil	no observed MGP residuals
	2-5	sand and silt	no observed MGP residuals
	5-6.5	gravel and sand	no observed MGP residuals
	6.5-13	clay and silt	no observed MGP residuals
	13-20	clay and sand	no observed MGP residuals
	20-24	clay and silt	no observed MGP residuals
DP31	0-0.5	topsoil	no observed MGP residuals
	0.5-3.8	sand and silt	no observed MGP residuals
	3.8-7.5	gravel and sand	no observed MGP residuals
	7.5-8.5	clay and silt	no observed MGP residuals
	8.5-24	clay and silt	no observed MGP residuals
DP32/PZ13	0-0.3	topsoil	no observed MGP residuals
	0.3-2.8	fill	coal-like material at 2.3'
	2.8-5.8	silt	no observed MGP residuals
	5.8-6.8	sand	no observed MGP residuals
	6.8-10	sand	no observed MGP residuals
	10-11	gravel and sand	sheens
	11-14.8	gravel and sand	no observed MGP residuals
	14.8-16	clay and sand	no observed MGP residuals

Table B-5
Field Observations of Possible MGP Residuals in Boring Logs
Norwich Former MGP Site
Norwich, New York

Location	Depth Interval (ft)	Soil Description	Discussion of NAPL
DP33/PZ14	0-0.2	topsoil	no observed MGP residuals
	0.2-2.2	fill	no observed MGP residuals
	2.2-2.5	fill	ash-like and coal-like material
	2.5-6.5	sand and silt	no observed MGP residuals
	6.5-15.8	sand and gravel	no observed MGP residuals
	15.8-20	clay and sand	no observed MGP residuals
DP34/PZ15	0-0.8	topsoil	no observed MGP residuals
	0.8-6.6	sand and silt	no observed MGP residuals
	6.6-14	gravel and sand	no observed MGP residuals
	14-19.3	gravel	slight odor from 19-19.3' bgs
	19.3-24	clay, silt and sand	no observed MGP residuals
DP35/PZ16	0-5	fill	no observed MGP residuals
	5-7	silt	no observed MGP residuals
	7-11.5	sand and silt	no observed MGP residuals
	11.5-11.8	gravel and sand	no observed MGP residuals
	11.8-13.2	sand and silt	no observed MGP residuals
	13.2-24	clay	no observed MGP residuals
DP36/PZ17	0-0.5	topsoil	no observed MGP residuals
	0.5-3	fill	coal-like material
	3-9	silt	no observed MGP residuals
	9-9.8	sand and silt	no observed MGP residuals
	9.8-16	clay and sand	no observed MGP residuals
	16-20	no recovery	
DP37	0-4	no recovery	
	4-5.75	fill	no observed MGP residuals
	5.75-15.5	sand and gravel	no observed MGP residuals
	15.5-18.5	sand	no observed MGP residuals
	18.5-20	gravel	slight odor
	20-24	gravel	strong odor, sheens and NAPL globules from 23.5-24' bgs
	24-32	clay and sand	no observed MGP residuals
DP38/PZ20	0-1.8	fill	coal-like material
	1.8-4	fill	no observed MGP residuals
	4-6.5	sand	slight odor at 6' bgs
	6.5-16	gravel and sand	no observed MGP residuals
	16-20	no recovery	
	20-28	clay	no observed MGP residuals
DP39/PZ21	0-2.9	fill	no observed MGP residuals
	2.9-8	sand and silt	no observed MGP residuals
	8-12	gravel and sand	no observed MGP residuals
	12-13.8	gravel	very slight odor
	13.8-26	clay, silt and sand	no observed MGP residuals
DP40	0-9	no recovery-auger to 9'	no observed MGP residuals
	9-11	fill	coal-like material
	11-13.5	sand and silt	no observed MGP residuals
	13.5-20	gravel and sand	no observed MGP residuals
	20-24.5	gravel and sand	sheens and NAPL globules
	24.5-31.5	clay	no observed MGP residuals
DP40A	0-1.5	fill	no observed MGP residuals
	1.5-8	fill	coal-like material and a musty odor
	8-8.2	concrete-refusal	no observed MGP residuals

Table B-5
Field Observations of Possible MGP Residuals in Boring Logs
Norwich Former MGP Site
Norwich, New York

Location	Depth Interval (ft)	Soil Description	Discussion of NAPL
DP41/PZ18	0-0.75	topsoil	no observed MGP residuals
	0.75-6.75	fill	no observed MGP residuals
	6.75-12	sand and gravel	slight odor between 11.5-12' bgs
	12-16.5	gravel	slight sheens and NAPL globules from 16-16.5' bgs
	16.5-17.5	clay and silt	very slight odor
	17.5-24	clay	no observed MGP residuals
DP42/PZ22	0-1	topsoil	no observed MGP residuals
	1-1.75	fill	no observed MGP residuals
	1.75-7.8	sand and silt	no observed MGP residuals
	7.8-10.3	gravel and sand	no observed MGP residuals
	10.3-28	clay, silt and sand	no observed MGP residuals
DP43/PZ19	0-0.5	topsoil	no observed MGP residuals
	0.5-1.75	fill	coal-like material and wood pieces
	1.75-5.6	sand and silt	no observed MGP residuals
	5.6-12	gravel and sand	slight odor from 7.3-8' bgs
	12-16.5	gravel and sand	no observed MGP residuals
	16.5-24	clay, silt and sand	no observed MGP residuals
DP44/PZ27	0-0.5	asphalt	no observed MGP residuals
	0.5-4.4	fill	coal-like material
	4.4-9.8	silt and clay	no observed MGP residuals
	9.8-16.5	gravel and sand	no observed MGP residuals
	16.5-28	clay and silt	no observed MGP residuals
DP45	0-0.5	asphalt	no observed MGP residuals
	0.5-4	fill	coal-like material
	4-9.2	gravel and sand	no observed MGP residuals
	9.2-28	clay and silt	no observed MGP residuals
DP46/PZ23	0-1.5	topsoil	no observed MGP residuals
	1.5-8	sand and gravel	no observed MGP residuals
	8-9.6	gravel	no observed MGP residuals
	9.6-24	clay, silt and sand	no observed MGP residuals
DP47/PZ26	0-0.5	asphalt	no observed MGP residuals
	0.5-5.5	fill	no observed MGP residuals
	5.5-9.3	silt and clay	no observed MGP residuals
	9.3-22.8	gravel and sand	no observed MGP residuals
	22.8-28	clay and silt	no observed MGP residuals
DP48/PZ24	0-4	fill	ash-like and coal-like material and wood
	4-11.75	sand and silt	no observed MGP residuals
	11.75-18	gravel and sand	no observed MGP residuals
	18-19.3	gravel and sand	slight odor
	19.3-28	clay, silt and sand	no observed MGP residuals
DP49/PZ25	0-1.5	topsoil	no observed MGP residuals
	1.5-5.5	fill	ash-like and coal-like material and wood
	5.5-9.75	sand and silt	no observed MGP residuals
	9.75-17	gravel and sand	no observed MGP residuals
	17-18.5	gravel and sand	very slight odor
	18.5-28	clay, silt and sand	no observed MGP residuals

Table B-5
Field Observations of Possible MGP Residuals in Boring Logs
Norwich Former MGP Site
Norwich, New York

Location	Depth Interval (ft)	Soil Description	Discussion of NAPL
DP50/PZ28	0-0.5	topsoil	no observed MGP residuals
	0.5-1.5	fill	ash-like and coal-like material
	1.5-8	gravel and sand	no observed MGP residuals
	8-12	gravel and sand	very slight odor from 10-10.5' bgs
	12-15.5	gravel and sand	no observed MGP residuals
	15.5-28	clay and silt	no observed MGP residuals
DP51/PZ29	0-0.5	asphalt	no observed MGP residuals
	0.5-6.3	fill	coal-like material
	6.3-7.75	gravel and sand	no observed MGP residuals
	7.75-20	clay, silt and sand	no observed MGP residuals
DP52/PZ30	0-1.8	topsoil	no observed MGP residuals
	1.8-2.9	fill	no observed MGP residuals
	2.9-8.2	gravel and sand	no observed MGP residuals
	8.2-20	clay and sand	no observed MGP residuals
DP53/PZ31	0-1	topsoil	no observed MGP residuals
	1-3.2	fill	no observed MGP residuals
	3.2-8.9	gravel and sand	no observed MGP residuals
	8.9-20	clay and sand	no observed MGP residuals
DP54/PZ32	0-1.75	topsoil	no observed MGP residuals
	1.75-3.4	fill	no observed MGP residuals
	3.4-12.8	gravel and sand	no observed MGP residuals
	12.8-20	clay and sand	no observed MGP residuals
DP55/PZ33	0-1.5	topsoil	no observed MGP residuals
	1.5-3.8	fill	no observed MGP residuals
	3.8-6.1	sand and silt	no observed MGP residuals
	6.1-16.3	gravel and sand	no observed MGP residuals
	16.3-24	clay and sand	no observed MGP residuals
DP56/PZ34	0-1	topsoil	no observed MGP residuals
	1-5	fill	coal-like material
	5-8	sand	no observed MGP residuals
	8-12	gravel and sand	no observed MGP residuals
	12-20	clay and sand	no observed MGP residuals
DP57/PZ35	0-1.75	topsoil	no observed MGP residuals
	1.75-5.6	fill	no observed MGP residuals
	5.6-10.5	gravel and sand	no observed MGP residuals
	10.5-20	clay and sand	no observed MGP residuals
DP58/PZ36	0-1.3	fill	no observed MGP residuals
	1.3-2.3	fill	coal-like material
	2.3-9.8	gravel and sand	no observed MGP residuals
	9.8-20	clay, silt and sand	no observed MGP residuals
DP59/PZ37	0-1.4	topsoil	no observed MGP residuals
	1.4-4	fill	no observed MGP residuals
	4-8	sand and gravel	no observed MGP residuals
	8-12	no recovery	
	12-20	clay and sand	no observed MGP residuals
DP60/PZ38	0-1.8	topsoil	no observed MGP residuals
	1.8-4	fill	no observed MGP residuals
	4-16	gravel and sand	no observed MGP residuals
	16-20	clay and sand	no observed MGP residuals
DP61/PZ39	0-2	topsoil	no observed MGP residuals
	2-4	fill	no observed MGP residuals
	4-7.75	gravel and sand	no observed MGP residuals
	7.75-16	clay, silt and sand	no observed MGP residuals

Table B-6
Subsurface Soil VOC Results - Part 1
Norwich Former MGP Site, Norwich, New York

Sample ID (Depth in Feet) / Laboratory Identification / Date Sampled	NYSDEC Recommended Soil Cleanup Objective[1]	NO-DP05(15.0-16.0) S5497-01 10/26/04	NO-DP05(19.0-20.0) S5497-02RE 10/26/04	NO-DP06(15.0-16.0) S5497-03 10/27/04	NO-DP08(12.0-14.0) S5497-06 10/27/04	NO-DP08(14.7-15.7) S5497-07 10/27/04	NO-DP09(15.0-16.0) S5497-08RE 10/26/04	NO-DP09(18.8-20.0) S5497-09 10/26/04	NO-DP10(19.0-20.0) S5497-10 10/26/04	NO-DP12(22.6-24.0) S5497-11 10/28/04
Volatile Organic Compounds (µg/kg)										
1,1,1-Trichloroethane	800	56 U	12 U	1,400 U	11 U	13 U	1,400 U	13 U	11 U	13 UJ
1,1,2,2-Tetrachloroethane	600	56 U	12 UJ	1,400 U	11 U	13 U	1,400 U	13 U	11 U	13 UJ
1,1,2-Trichloroethane	NL	56 U	12 U	1,400 U	11 U	13 U	1,400 U	13 U	11 U	13 UJ
1,1,2-Trichlorotrifluoroethane	6,000	56 U	12 UJ	1,400 U	11 U	13 U	1,400 U	13 U	11 U	13 UJ
1,1-Dichloroethane	200	56 U	12 UJ	1,400 U	11 U	13 U	1,400 U	13 U	11 U	13 UJ
1,1-Dichloroethene	400	56 U	12 UJ	1,400 U	11 U	13 U	1,400 U	13 U	11 U	13 UJ
1,2,4-Trichlorobenzene	3,400	56 U	12 UJ	1,400 U	11 U	13 U	1,400 U	13 U	11 U	13 UJ
1,2-Dibromo-3-Chloropropane	NL	56 U	12 UJ	1,400 U	11 U	13 U	1,400 U	13 U	11 U	13 UJ
1,2-Dibromoethane	NL	56 U	12 U	1,400 U	11 U	13 U	1,400 U	13 U	11 U	13 UJ
1,2-Dichlorobenzene	7,900	56 U	12 UJ	1,400 U	11 U	13 U	1,400 U	13 U	11 U	13 UJ
1,2-Dichloroethane	100	56 U	12 U	1,400 U	11 U	13 U	1,400 U	13 U	11 U	13 UJ
1,2-Dichloropropane	NL	56 U	12 U	1,400 U	11 U	13 U	1,400 U	13 U	11 U	13 UJ
1,3-Dichlorobenzene	1,600	56 U	12 UJ	1,400 U	11 U	13 U	1,400 U	13 U	11 U	13 UJ
1,4-Dichlorobenzene	8,500	56 U	12 UJ	1,400 U	11 U	13 U	1,400 U	13 U	11 U	13 UJ
2-Butanone	300	280 U	62 U	7,200 U	56 U	66 U	7,100 U	64 U	57 U	66 UJ
2-Hexanone	NL	280 U	62 UJ	7,200 U	56 UJ	66 U	7,100 U	64 UJ	57 UJ	66 UJ
4-Methyl-2-Pentanone	1,000	280 U	62 UJ	7,200 U	56 U	66 U	7,100 U	64 U	57 U	66 UJ
Acetone	200	280 U	62 UJ	7,200 U	56 U	18 J	7,100 U	64 U	57 U	19 J
Benzene	60	19 J	12 U	**280 J**	6.6 J	13 U	1,400 U	13 U	4.6 J	13 UJ
Bromodichloromethane	NL	56 U	12 U	1,400 U	11 U	13 U	1,400 U	13 U	11 U	13 UJ
Bromoform	NL	56 U	12 U	1,400 U	11 U	13 U	1,400 U	13 U	11 U	13 UJ
Bromomethane	NL	56 U	12 UJ	1,400 U	11 U	13 U	1,400 U	13 U	11 U	13 UJ
Carbon Disulfide	2,700	13 J	12 UJ	1,400 U	11 UJ	13 U	1,400 U	13 UJ	11 J	3.5 J
Carbon Tetrachloride	600	56 U	12 U	1,400 U	11 U	13 U	1,400 U	13 U	11 U	13 UJ
Chlorobenzene	1,700	56 U	12 UJ	1,400 U	11 U	13 U	1,400 U	13 U	11 U	13 UJ
Chloroethane	1,900	56 U	12 UJ	1,400 U	R	13 U	R	R	R	13 UJ
Chloroform	300	56 U	12 UJ	1,400 U	11 U	13 U	1,400 U	13 U	11 U	13 UJ
Chloromethane	NL	56 U	12 UJ	1,400 U	11 U	13 U	1,400 U	13 U	11 U	13 UJ
cis-1,2-Dichloroethene	NL	56 U	12 UJ	1,400 U	11 U	13 U	1,400 U	13 U	11 U	13 UJ
cis-1,3-Dichloropropene	NL	56 U	12 U	1,400 U	11 U	13 U	1,400 U	13 U	11 U	13 UJ
Cyclohexane	NL	56 U	12 UJ	1,400 U	11 UJ	13 U	1,400 U	13 UJ	11 UJ	13 UJ
Dibromochloromethane	NL	56 U	12 U	1,400 U	11 U	13 U	1,400 U	13 U	11 U	13 UJ
Dichlorodifluoromethane	NL	56 U	12 UJ	1,400 U	11 U	13 U	1,400 U	13 U	11 U	13 UJ
Ethyl Benzene	5,500	1,500 D	2.0 J	**23,000**	1,000 JD	13 U	1,400 U	13 U	190 J	13 UJ
Isopropylbenzene	NL	920 J	12 UJ	5,700	220 J	13 U	410 J	13 U	42 J	13 UJ
m/p-Xylenes	NL	280	39 J	8,800	63 J	13 U	180 J	13 U	24 J	13 UJ
Methyl Acetate	NL	56 U	12 UJ	1,400 U	11 U	13 U	1,400 U	13 U	11 U	13 UJ
Methyl tert-butyl Ether	NL	56 U	12 UJ	1,400 U	11 U	13 U	1,400 U	13 U	11 U	13 UJ
Methylcyclohexane	NL	510	12 U	1,400 U	72 J	13 U	1,400 U	13 U	11 U	13 UJ
Methylene Chloride	100	56 U	12 UJ	1,400 U	11 U	13 U	1,400 U	13 U	11 U	1.7 J
o-Xylene	NL	1,100	26 J	6,800	550 JD	13 U	780 J	13 U	71 J	13 UJ
Styrene	NL	56 U	12 UJ	1,400 U	11 U	13 U	1,400 U	13 U	11 U	13 UJ
t-1,3-Dichloropropene	NL	56 U	12 U	1,400 U	11 U	13 U	1,400 U	13 U	11 U	13 UJ
Tetrachloroethene	1,400	56 U	12 UJ	1,400 U	11 UJ	13 U	1,400 U	13 UJ	11 UJ	13 UJ
Toluene	1,500	50 J	12 UJ	940 J	27 J	13 U	1,400 U	13 U	5.7 J	13 UJ
trans-1,2-Dichloroethene	300	56 U	12 UJ	1,400 U	11 UJ	13 U	1,400 U	13 UJ	11 UJ	13 UJ
Trichloroethene	700	56 U	12 U	1,400 U	11 U	13 U	1,400 U	13 U	11 U	13 UJ
Trichlorofluoromethane	NL	56 U	12 UJ	1,400 U	11 UJ	13 U	1,400 U	13 UJ	11 UJ	13 UJ
Vinyl Chloride	200	56 U	12 UJ	1,400 U	11 U	13 U	1,400 U	13 U	11 U	13 UJ
Xylene (total)	1,200	**1,380**	65	**15,600**	613	ND	960	ND	95	ND
Total VOCs (µg/kg)	10,000	4,400	67	**46,000**	1,900	18	1,400	ND	350	24

Notes:
NA = Not Analyzed
NL = Not Listed
ND = Not Detected
MDL - Method Detection Limit
D = The concentration indicated was obtained from a diluted analytical run.
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.
R = The result was rejected because one or more QC measures did not meet acceptable criteria by validator during the review process
Bold value - compound detected above regulatory standard or guidance value.
[1]NYSDEC TAGM HWR-94-4046 - Determination of Soil Cleanup Objectives and Cleanup Levels [NYSDEC, Jan. 1994]

Table B-6
Subsurface Soil VOC Results - Part 1
Norwich Former MGP Site, Norwich, New York

Sample ID (Depth in Feet)	NYSDEC	NO-DP13(14.5-16.0)		NO-DP13(17.2-17.8)		NO-DP16(11.0-12.0)		NO-DP16(19.0-20.0)		NO-DP17(13.5-14.3)		NO-DP17(18.9-20.0)		NO-DP18(11.5-12.0)		NO-DP18(19.0-20.0)	
Laboratory Identification	Recommended Soil	S5497-12		S5497-13DL		S5497-14		S5497-15		S5497-17RE		S5497-18		S5497-21		S5497-23	
Date Sampled	Cleanup Objective[1]	10/27/04		10/27/04		10/26/04		10/26/04		10/26/04		10/26/04		10/25/04		10/25/04	
Volatile Organic Compounds (µg/kg)																	
1,1,1-Trichloroethane	800	12	U	64	UD	11	U	13	UJ	120	U	13	UJ	12	UJ	13	UJ
1,1,2,2-Tetrachloroethane	600	12	U	64	UD	11	U	13	UJ	120	U	13	UJ	12	UJ	13	UJ
1,1,2-Trichloroethane	NL	12	U	64	UD	11	U	13	UJ	120	U	13	UJ	12	UJ	13	UJ
1,1,2-Trichlorotrifluoroethane	6,000	12	U	64	UD	11	U	13	UJ	120	U	13	UJ	12	UJ	13	UJ
1,1-Dichloroethane	200	12	U	64	UD	11	U	13	UJ	120	U	13	UJ	12	UJ	13	UJ
1,1-Dichloroethene	400	12	U	64	UD	11	U	13	UJ	120	U	13	UJ	12	UJ	13	UJ
1,2,4-Trichlorobenzene	3,400	12	U	64	UD	11	U	13	UJ	120	U	13	UJ	12	UJ	13	UJ
1,2-Dibromo-3-Chloropropane	NL	12	U	64	UD	11	U	13	UJ	120	U	13	UJ	12	UJ	13	UJ
1,2-Dibromoethane	NL	12	U	64	UD	11	U	13	UJ	120	U	13	UJ	12	UJ	13	UJ
1,2-Dichlorobenzene	7,900	12	U	64	UD	11	U	13	UJ	120	U	13	UJ	12	UJ	13	UJ
1,2-Dichloroethane	100	12	U	64	UD	11	U	13	UJ	120	U	13	UJ	12	UJ	13	UJ
1,2-Dichloropropane	NL	12	U	64	UD	11	U	13	UJ	120	U	13	UJ	12	UJ	13	UJ
1,3-Dichlorobenzene	1,600	12	U	64	UD	11	U	13	UJ	120	U	13	UJ	12	UJ	13	UJ
1,4-Dichlorobenzene	8,500	12	U	64	UD	11	U	13	UJ	120	U	13	UJ	12	UJ	13	UJ
2-Butanone	300	58	U	320	UD	57	U	63	UJ	600	U	64	UJ	60	UJ	63	UJ
2-Hexanone	NL	58	UJ	320	UJD	57	UJ	63	UJ	600	UJ	64	UJ	60	UJ	63	UJ
4-Methyl-2-Pentanone	1,000	58	U	320	UD	57	U	63	UJ	600	U	64	UJ	60	UJ	63	UJ
Acetone	200	58	U	320	UD	57	U	19	J	600	U	21	J	60	UJ	21	J
Benzene	60	12	U	**1,300**	**JD**	11	U	13	UJ	120	U	13	UJ	3.8	J	13	UJ
Bromodichloromethane	NL	12	U	64	UD	11	U	13	UJ	120	U	13	UJ	12	UJ	13	UJ
Bromoform	NL	12	U	64	UD	11	U	13	UJ	120	U	13	UJ	12	UJ	13	UJ
Bromomethane	NL	12	U	64	UD	11	U	13	UJ	120	U	13	UJ	12	UJ	13	UJ
Carbon Disulfide	2,700	9.2	J	56	JD	7.9	J	2.4	J	120	UJ	3.3	J	12	UJ	13	UJ
Carbon Tetrachloride	600	12	U	64	UD	11	U	13	UJ	120	U	13	UJ	12	UJ	13	UJ
Chlorobenzene	1,700	12	U	64	UD	11	U	13	UJ	120	U	13	UJ	12	UJ	13	UJ
Chloroethane	1,900		R	13	UJ		R	13	UJ		R	13	UJ		R	13	UJ
Chloroform	300	12	U	64	UD	11	U	13	UJ	120	U	13	UJ	12	UJ	13	UJ
Chloromethane	NL	12	U	64	UD	11	U	13	UJ	120	U	13	UJ	12	UJ	13	UJ
cis-1,2-Dichloroethene	NL	12	U	64	UD	11	U	13	UJ	120	U	13	UJ	12	UJ	13	UJ
cis-1,3-Dichloropropene	NL	12	U	64	UD	11	U	13	UJ	120	U	13	UJ	12	UJ	13	UJ
Cyclohexane	NL	12	UJ	64	UJD	11	UJ	13	UJ	120	UJ	13	UJ	12	UJ	13	UJ
Dibromochloromethane	NL	12	U	64	UD	11	U	13	UJ	120	U	13	UJ	12	UJ	13	UJ
Dichlorodifluoromethane	NL	12	U	64	UD	11	U	13	UJ	120	U	13	UJ	12	UJ	13	UJ
Ethyl Benzene	5,500	11	J	36	JD	11	U	13	UJ	15	J	13	UJ	89	J	13	UJ
Isopropylbenzene	NL	7.0	J	64	UD	11	U	13	UJ	49	J	13	UJ	27	J	13	UJ
m/p-Xylenes	NL	6.5	J	21	JD	11	U	13	UJ	390	J	13	UJ	130	J	13	UJ
Methyl Acetate	NL	12	U	64	UD	11	U	13	UJ	120	U	13	UJ	12	UJ	13	UJ
Methyl tert-butyl Ether	NL	12	U	64	UD	11	U	13	UJ	120	U	13	UJ	12	UJ	13	UJ
Methylcyclohexane	NL	12	U	64	UD	11	U	13	UJ	120	U	13	UJ	12	UJ	13	UJ
Methylene Chloride	100	12	U	13	JD	11	U	13	UJ	120	U	13	UJ	12	UJ	13	UJ
o-Xylene	NL	17	J	20	JD	11	U	13	UJ	220	J	13	UJ	200	J	13	UJ
Styrene	NL	12	U	64	UD	11	U	13	UJ	120	U	13	UJ	1.2	J	13	UJ
t-1,3-Dichloropropene	NL	12	U	64	UD	11	U	13	UJ	120	U	13	UJ	12	UJ	13	UJ
Tetrachloroethene	1,400	12	UJ	64	UJD	11	UJ	13	UJ	120	UJ	13	UJ	12	UJ	13	UJ
Toluene	1,500	12	U	75	JD	11	U	13	UJ	13	J	13	UJ	4.5	J	13	UJ
trans-1,2-Dichloroethene	300	12	UJ	64	UJD	11	UJ	13	UJ	120	UJ	13	UJ	12	UJ	13	UJ
Trichloroethene	700	12	U	64	UD	11	U	13	UJ	120	U	13	UJ	12	UJ	13	UJ
Trichlorofluoromethane	NL	12	UJ	64	UJD	11	UJ	13	UJ	120	UJ	13	UJ	12	UJ	13	UJ
Vinyl Chloride	200	12	U	64	UD	11	U	13	UJ	120	U	13	UJ	12	UJ	13	UJ
Xylene (total)	1,200	24		41		ND		ND		610		ND		330		ND	
Total VOCs (µg/kg)	10,000	51		1,500		7.9		21		690		24		460		21	

Notes:
NA = Not Analyzed
NL = Not Listed
ND = Not Detected
MDL - Method Detection Limit
D = The concentration indicated was obtained from a diluted analytical run.
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.
R = The result was rejected because one or more QC measures did not meet acceptable criteria by validator during the review process
Bold value - compound detected above regulatory standard or guidance value.
[1]NYSDEC TAGM HWR-94-4046 - Determination of Soil Cleanup Objectives and Cleanup Levels [NYSDEC, Jan. 1994]

Table B-7
Subsurface Soil VOC Results - Part 2
Norwich Former MGP Site, Norwich, New York

Sample ID (Depth in Feet) Laboratory Identification Date Sampled	NYSDEC Recommended Soil Cleanup Objective[1]	NO-DP01(15-16) M46810-4 04/25/2005	NO-DP01(23-24) M46810-6 04/25/2005	NO-DP02(18-19) M46810-8 04/25/2005	NO-DP02(23-24) M46810-9 04/25/2005	NO-DP03(15-16) M46810-10 04/25/2005	NO-DP04C(13.5-14.5) M46906-7 04/26/2005	NO-DP04C(18-19) M46906-8 04/26/2005	NO-DP04C(23-24) M46906-9 04/26/2005	NO-DP14(18.7-20) M48323-9 06/16/2005
Volatile Organic Compounds (µg/kg)										
1,1,1-Trichloroethane	800	1,200 U	160 U	530 U	160 U	490 U	71 U	490 U	160 U	73 U
1,1,2,2-Tetrachloroethane	600	1,200 U	160 U	530 U	160 U	490 U	71 U	490 U	160 U	73 U
1,1,2-Trichloroethane	NL	1,200 U	160 U	530 U	160 U	490 U	71 U	490 U	160 U	73 U
1,1-Dichloroethane	200	1,200 U	160 U	530 U	160 U	490 U	71 U	490 U	160 U	73 U
1,1-Dichloroethene	400	1,200 U	160 U	530 U	160 U	490 U	71 U	490 U	160 U	73 U
1,2,4-Trichlorobenzene	3,400	3,100 U	410 U	1,300 U	400 U	1,200 U	180 U	1,200 U	400 U	180 U
1,2-Dibromo-3-chloropropane	NL	3,100 UJ	410 UJ	1,300 UJ	400 UJ	1,200 UJ	180 U	1,200 U	400 U	180 U
1,2-Dibromoethane	NL	1,200 U	160 U	530 U	160 U	490 U	71 U	490 U	160 U	73 U
1,2-Dichlorobenzene	7,900	1,200 U	160 U	530 U	160 U	490 U	71 U	490 U	160 U	73 U
1,2-Dichloroethane	100	1,200 UJ	160 UJ	530 UJ	160 UJ	490 UJ	71 U	490 U	160 U	73 U
1,2-Dichloropropane	NL	1,200 U	160 U	530 U	160 U	490 U	71 U	490 U	160 U	73 U
1,3-Dichlorobenzene	1,600	1,200 U	160 U	530 U	160 U	490 U	71 U	490 U	160 U	73 U
1,4-Dichlorobenzene	8,500	1,200 U	160 U	530 U	160 U	490 U	71 U	490 U	160 U	73 U
2-Butanone (MEK)	300	3,100 U	410 U	1,300 U	400 U	1,200 U	180 U	1,200 U	400 U	180 UJ
2-Hexanone	NL	3,100 U	410 U	1,300 U	400 U	1,200 U	180 U	1,200 U	400 U	180 UJ
4-Methyl-2-pentanone (MIBK)	1,000	3,100 U	410 U	1,300 U	400 U	1,200 U	180 U	1,200 U	400 U	180 U
Acetone	200	3,100 U	410 U	1,300 U	400 U	1,200 U	180 UJ	1,200 UJ	400 UJ	180 U
Benzene	60	310 U	41 U	130 U	**5,510**	120 U	18 U	120 U	40 U	18 U
Bromodichloromethane	NL	1,200 U	160 U	530 U	160 U	490 U	71 U	490 U	160 U	73 U
Bromoform	NL	1,200 U	160 U	530 U	160 U	490 U	71 U	490 U	160 U	73 U
Bromomethane	NL	1,200 U	160 U	530 U	160 U	490 U	71 U	490 U	160 U	73 U
Carbon disulfide	2,700	3,100 U	410 U	1,300 U	400 U	1,200 U	180 U	1,200 U	400 U	180 UJ
Carbon tetrachloride	600	1,200 U	160 U	530 U	160 U	490 U	71 U	490 U	160 U	73 U
Chlorobenzene	1,700	1,200 U	160 U	530 U	160 U	490 U	71 U	490 U	160 U	73 U
Chloroethane	1,900	3,100 U	410 U	1,300 U	400 U	1,200 U	180 U	1,200 U	400 U	180 UJ
Chloroform	300	1,200 U	160 U	530 U	160 U	490 U	71 U	490 U	160 U	73 U
Chloromethane	NL	3,100 U	410 U	1,300 U	400 U	1,200 U	180 U	1,200 U	400 U	180 U
cis-1,2-Dichloroethene	NL	1,200 U	160 U	530 U	160 U	490 U	71 U	490 U	160 U	73 U
cis-1,3-Dichloropropene	NL	1,200 U	160 U	530 U	160 U	490 U	71 U	490 U	160 U	73 U
Cyclohexane	NL	3,100 U	410 U	1,300 U	400 U	1,200 U	180 U	1,200 U	400 U	180 UJ
Dibromochloromethane	NL	1,200 U	160 U	530 U	160 U	490 U	71 U	490 U	160 U	73 U
Dichlorodifluoromethane	NL	1,200 UJ	160 UJ	530 UJ	160 UJ	490 UJ	71 U	490 U	160 U	73 UJ
Ethylbenzene	5,500	**34,000**	160 U	**16,400**	202	**23,300**	139	4,660	160 U	10 J
Freon 113	6,000	3,100 U	410 U	1,300 U	400 U	1,200 U	180 U	1,200 U	400 U	180 U
Isopropylbenzene	NL	9,810	410 U	5,690	400 U	2,890	180 U	1,780	400 U	17.1 J
Methyl Acetate	NL	3,100 U	410 U	1,300 U	400 U	1,200 U	180 U	1,200 U	400 U	180 U
Methyl Tert Butyl Ether	NL	1,200 U	160 U	530 U	160 U	490 U	71 U	490 U	160 U	73 U
Methylcyclohexane	NL	3,100 U	410 U	1,300 U	400 U	1,200 U	180 U	1,200 U	400 U	180 UJ
Methylene chloride	100	1,200 U	160 U	530 U	160 U	490 U	71 U	490 U	160 U	73 U
Styrene	NL	3,100 U	410 U	1,300 U	400 U	1,200 U	180 U	1,200 U	400 U	180 UJ
Tetrachloroethene	1,400	1,200 U	160 U	530 U	160 U	490 U	71 U	490 U	160 U	73 U
Toluene	1,500	1,200 U	160 U	530 U	160 U	657	71 U	490 U	160 U	73 U
trans-1,2-Dichloroethene	300	1,200 U	160 U	530 U	160 U	490 U	71 U	490 U	160 U	73 U
trans-1,3-Dichloropropene	NL	1,200 UJ	160 UJ	530 UJ	160 UJ	490 UJ	71 U	490 U	160 U	73 UJ
Trichloroethene	700	1,200 U	160 U	530 U	160 U	490 U	71 U	490 U	160 U	73 U
Trichlorofluoromethane	NL	1,200 U	160 U	530 U	160 U	490 U	71 U	490 U	160 U	73 UJ
Vinyl chloride	200	1,200 U	160 U	530 U	160 U	490 U	71 U	490 U	160 U	73 U
Xylene (total)	1,200	**29,300**	160 U	**14,100**	240	**11,100**	229	**4,210**	160 U	29.7 J
Total VOCs (µg/kg)	10,000	**73,000**	ND	**36,000**	6,000	**38,000**	370	**11,000**	ND	57

Notes:
NA = Not Analyzed
NL = Not Listed
ND = Not Detected
MDL - Method Detection Limit
D = The concentration indicated was obtained from a diluted analytical run.
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.
R = The result was rejected because one or more QC measures did not meet acceptable criteria by validator during the review process
Bold value - compound detected above regulatory standard or guidance value.
[1]NYSDEC TAGM HWR-94-4046 - Determination of Soil Cleanup Objectives and Cleanup Levels [NYSDEC, Jan. 1994]

Table B-7
Subsurface Soil VOC Results - Part 2
Norwich Former MGP Site, Norwich, New York

Sample ID (Depth in Feet) Laboratory Identification Date Sampled	NYSDEC Recommended Soil Cleanup Objective[1]	NO-DP14(23-24) M48323-11 06/16/2005	NO-DP19(14-15) M46906-5 04/26/2005	NO-DP19(18-19) M46906-6 04/26/2005	NO-DP22(14.5-15.5) M46810-2 04/25/2005	NO-DP22(21.5-22.5) M46810-3 04/25/2005	NO-DP25(7.8-8) M46966-9 04/29/2005	NO-DP25(19-20) M46966-11 04/29/2005	NO-DP26(20-21.5) M46966-6 04/28/2005	NO-DP26(23-24) M46966-8 04/28/2005
Volatile Organic Compounds (µg/kg)										
1,1,1-Trichloroethane	800	2.4 UJ	2.1 UJ	2.0 U	590 U	75 U	59 U	2.4 UJ	1,300 U	2.6 UJ
1,1,2,2-Tetrachloroethane	600	R	2.1 U	2.0 UJ	590 U	75 U	59 U	R	1,300 U	2.6 UJ
1,1,2-Trichloroethane	NL	2.4 UJ	2.1 U	2.0 U	590 U	75 U	59 U	2.4 UJ	1,300 U	2.6 UJ
1,1-Dichloroethane	200	2.4 UJ	2.1 UJ	2.0 U	590 U	75 U	59 U	2.4 UJ	1,300 U	2.6 UJ
1,1-Dichloroethene	400	2.4 UJ	2.1 UJ	2.0 U	590 U	75 U	59 U	2.4 UJ	1,300 U	2.6 UJ
1,2,4-Trichlorobenzene	3,400	R	5.2 U	5.1 UJ	1,500 U	190 U	150 U	R	3,200 U	6.6 UJ
1,2-Dibromo-3-chloropropane	NL	R	5.2 U	5.1 UJ	1,500 UJ	190 UJ	150 U	R	3,200 U	6.6 UJ
1,2-Dibromoethane	NL	2.4 UJ	2.1 UJ	2.0 UJ	590 U	75 U	59 U	2.4 UJ	1,300 U	2.6 UJ
1,2-Dichlorobenzene	7,900	R	2.1 U	2.0 UJ	590 U	75 U	59 U	R	1,300 U	2.6 UJ
1,2-Dichloroethane	100	2.4 UJ	2.1 U	2.0 U	590 UJ	75 UJ	59 U	2.4 UJ	1,300 U	2.6 UJ
1,2-Dichloropropane	NL	2.4 UJ	2.1 U	2.0 U	590 U	75 U	59 U	2.4 UJ	1,300 U	2.6 UJ
1,3-Dichlorobenzene	1,600	R	2.1 U	2.0 UJ	590 U	75 U	59 U	R	1,300 U	2.6 UJ
1,4-Dichlorobenzene	8,500	R	2.1 U	2.0 UJ	590 U	75 U	59 U	R	1,300 U	2.6 UJ
2-Butanone (MEK)	300	6.0 UJ	5.2 UJ	5.1 U	1,500 U	190 U	150 U	6.1 UJ	3,200 U	6.6 UJ
2-Hexanone	NL	6.0 UJ	5.2 UJ	5.1 UJ	1,500 U	190 U	150 UJ	6.1 UJ	3,200 UJ	6.6 UJ
4-Methyl-2-pentanone (MIBK)	1,000	6.0 UJ	5.2 U	5.1 U	1,500 U	190 U	150 U	6.1 UJ	3,200 U	6.6 UJ
Acetone	200	36.9 UJ	9.3 UJ	5.1 U	1,500 U	190 U	150 UJ	33.4 UJ	3,200 UJ	38.1 UJ
Benzene	60	0.6 UJ	0.52 U	0.51 U	150 U	19 U	15 U	8.8 J	**27,100**	**300 J**
Bromodichloromethane	NL	2.4 UJ	2.1 U	2.0 U	590 U	75 U	59 U	2.4 UJ	1,300 U	2.6 UJ
Bromoform	NL	2.4 UJ	2.1 UJ	2.0 UJ	590 U	75 U	59 U	2.4 UJ	1,300 U	2.6 UJ
Bromomethane	NL	2.4 UJ	2.1 UJ	2.0 U	590 U	75 U	59 U	2.4 UJ	1,300 U	2.6 UJ
Carbon disulfide	2,700	0.94 J	5.2 UJ	5.1 U	1,500 U	190 U	150 U	6.1 UJ	3,200 U	6.6 UJ
Carbon tetrachloride	600	2.4 UJ	2.1 U	2.0 U	590 U	75 U	59 U	2.4 UJ	1,300 U	2.6 UJ
Chlorobenzene	1,700	2.4 UJ	2.1 UJ	2.0 UJ	590 U	75 U	59 U	2.4 UJ	1,300 U	2.6 UJ
Chloroethane	1,900	6.0 UJ	5.2 UJ	5.1 U	1,500 U	190 U	150 U	6.1 UJ	3,200 U	6.6 UJ
Chloroform	300	2.4 UJ	2.7 UJ	2.7 B	590 U	75 U	59 U	3.1 UJ	1,300 U	2.6 UJ
Chloromethane	NL	6.0 UJ	5.2 UJ	5.1 U	1,500 U	190 U	150 U	6.1 UJ	3,200 U	6.6 UJ
cis-1,2-Dichloroethene	NL	2.4 UJ	2.1 UJ	2.0 U	590 U	75 U	59 U	2.4 UJ	1,300 U	2.6 UJ
cis-1,3-Dichloropropene	NL	2.4 UJ	2.1 U	2.0 U	590 U	75 U	59 U	2.4 UJ	1,300 U	2.6 UJ
Cyclohexane	NL	6.0 UJ	5.2 U	5.1 U	1,500 U	190 U	150 U	6.1 UJ	3,200 U	6.6 UJ
Dibromochloromethane	NL	2.4 UJ	2.1 UJ	2.0 UJ	590 U	75 U	59 U	2.4 UJ	1,300 U	2.6 UJ
Dichlorodifluoromethane	NL	2.4 UJ	2.1 UJ	2.0 U	590 UJ	75 UJ	59 UJ	2.4 UJ	1,300 UJ	2.6 UJ
Ethylbenzene	5,500	2.4 UJ	2.1 UJ	2.0 UJ	**9,770**	75 U	59 U	2.4 UJ	**668,000**	2.6 UJ
Freon 113	6,000	0.82 J	5.2 UJ	5.1 U	1,500 U	190 U	150 U	6.1 UJ	3,200 U	6.6 UJ
Isopropylbenzene	NL	R	5.2 U	5.1 UJ	2,850	190 U	150 U	R	62,700	6.6 UJ
Methyl Acetate	NL	6.0 UJ	5.2 UJ	5.1 UJ	1,500 U	190 U	150 U	6.1 UJ	3,200 U	6.6 UJ
Methyl Tert Butyl Ether	NL	2.4 UJ	2.1 UJ	2.0 U	590 U	75 U	59 U	2.4 UJ	1,300 U	2.6 UJ
Methylcyclohexane	NL	6.0 UJ	5.2 U	5.1 U	1,630	190 U	150 U	6.1 UJ	3,200 U	6.6 UJ
Methylene chloride	100	2.4 UJ	2.1 UJ	2.0 U	590 U	75 U	59 U	2.4 UJ	1,300 U	24.3 J
Styrene	NL	6.0 UJ	5.2 UJ	5.1 UJ	1,500 U	190 U	150 U	6.1 UJ	3,340	6.6 UJ
Tetrachloroethene	1,400	2.4 UJ	2.1 J	2.0 UJ	590 U	75 U	59 U	2.4 UJ	1,300 U	2.6 UJ
Toluene	1,500	2.4 UJ	2.1 U	2.0 U	590 U	75 U	59 U	2.4 UJ	**193,000 J**	2.6 UJ
trans-1,2-Dichloroethene	300	2.4 UJ	2.1 UJ	2.0 U	590 U	75 U	59 U	2.4 UJ	1,300 U	2.6 UJ
trans-1,3-Dichloropropene	NL	2.4 UJ	2.1 U	2.0 U	590 UJ	75 UJ	59 U	2.4 UJ	1,300 U	2.6 UJ
Trichloroethene	700	2.4 UJ	2.1 U	2.0 U	590 U	75 U	59 U	2.4 UJ	1,300 U	2.6 UJ
Trichlorofluoromethane	NL	2.4 UJ	2.1 UJ	2.0 U	590 U	75 U	59 U	2.4 UJ	1,300 U	2.6 UJ
Vinyl chloride	200	2.4 UJ	2.1 UJ	2.0 U	590 U	75 U	59 U	2.4 UJ	1,300 U	2.6 UJ
Xylene (total)	1,200	2.4 UJ	2.1 UJ	2.0 UJ	**3,910**	75 U	59 U	2.4 UJ	**519,000**	2.6 UJ
Total VOCs (µg/kg)	10,000	1.8	2.1	2.7	**18,000**	ND	ND	8.8	**1,500,000**	320

Notes:
NA = Not Analyzed
NL = Not Listed
ND = Not Detected
MDL - Method Detection Limit
D = The concentration indicated was obtained from a diluted analytical run.
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.
R = The result was rejected because one or more QC measures did not meet acceptable criteria by validator during the review process
Bold value - compound detected above regulatory standard or guidance value.
[1]NYSDEC TAGM HWR-94-4046 - Determination of Soil Cleanup Objectives and Cleanup Levels [NYSDEC, Jan. 1994]

Table B-7
Subsurface Soil VOC Results - Part 2
Norwich Former MGP Site, Norwich, New York

Sample ID (Depth in Feet) Laboratory Identification Date Sampled	NYSDEC Recommended Soil Cleanup Objective[1]	NO-DP27(17.5-18) M46906-2 04/26/2005		NO-DP27(31-32) M46906-4 04/26/2005		NO-DP28(14-15) M46906-11 04/27/2005		NO-DP29(22.5-23) M46906-12 04/27/2005		NO-DP29(23-24) M46906-13 04/27/2005		NO-DP30(23-24) M46966-12 04/29/2005		NO-DP31(6.5-7.5) M46966-13 04/29/2005		NO-DP31(19-20) M46966-14 04/29/2005		NO-DP32(10-11) M46906-16 04/27/2005	
Volatile Organic Compounds (µg/kg)																			
1,1,1-Trichloroethane	800	2.5	U	2.4	U	1.9	UJ	1.7	U	130	U		R	2.2	UJ	2.3	UJ	1.7	U
1,1,2,2-Tetrachloroethane	600	2.5	U	2.4	U	1.9	UJ	1.7	UJ	130	U		R	2.2	UJ		R	1.7	UJ
1,1,2-Trichloroethane	NL	2.5	U	2.4	UJ	1.9	UJ	1.7	U	130	U		R	2.2	UJ	2.3	UJ	1.7	U
1,1-Dichloroethane	200	2.5	U	2.4	U	1.9	UJ	1.7	U	130	U		R	2.2	UJ	2.3	UJ	1.7	U
1,1-Dichloroethene	400	2.5	U	2.4	U	1.9	UJ	1.7	U	130	U		R	2.2	UJ	2.3	UJ	1.7	U
1,2,4-Trichlorobenzene	3,400	6.3	U	6.1	U	4.6	UJ	4.3	UJ	320	U		R	5.5	UJ		R	4.1	UJ
1,2-Dibromo-3-chloropropane	NL	6.3	U	6.1	U	4.6	UJ	4.3	UJ	320	U		R	5.5	UJ		R	4.1	UJ
1,2-Dibromoethane	NL	2.5	U	2.4	UJ	1.9	UJ	1.7	U	130	U		R	2.2	UJ	2.3	UJ	1.7	U
1,2-Dichlorobenzene	7,900	2.5	U	2.4	U	1.9	UJ	1.7	UJ	130	U		R	2.2	UJ		R	1.7	UJ
1,2-Dichloroethane	100	2.5	U	2.4	UJ	1.9	UJ	1.7	U	130	U		R	2.2	UJ	2.3	UJ	1.7	U
1,2-Dichloropropane	NL	2.5	U	2.4	UJ	1.9	UJ	1.7	U	130	U		R	2.2	UJ	2.3	UJ	1.7	U
1,3-Dichlorobenzene	1,600	2.5	U	2.4	U	1.9	UJ	1.7	UJ	130	U		R	2.2	UJ		R	1.7	UJ
1,4-Dichlorobenzene	8,500	2.5	U	2.4	U	1.9	UJ	1.7	UJ	130	U		R	2.2	UJ		R	1.7	UJ
2-Butanone (MEK)	300	6.3	U	6.1	U	4.6	UJ	4.3	U	320	U		R	5.5	UJ	5.7	UJ	4.1	U
2-Hexanone	NL	6.3	U	6.1	UJ	4.6	UJ	4.3	U	320	U		R	5.5	UJ	5.7	UJ	4.1	U
4-Methyl-2-pentanone (MIBK)	1,000	6.3	U	6.1	UJ	4.6	UJ	4.3	U	320	U		R	5.5	UJ	5.7	UJ	4.1	U
Acetone	200	14.1	U	15.5	U	7.9	UJ	15.9	U	320	UJ	40.3	UJ	5.5	UJ	22.8	UJ	14.7	U
Benzene	60	0.63	U	0.61	UJ	0.46	UJ	41.1		**2,690**			R	0.55	UJ	0.57	UJ	0.41	U
Bromodichloromethane	NL	2.5	U	2.4	UJ	1.9	UJ	1.7	U	130	U		R	2.2	UJ	2.3	UJ	1.7	U
Bromoform	NL	2.5	U	2.4	UJ	1.9	UJ	1.7	U	130	U		R	2.2	UJ	2.3	UJ	1.7	U
Bromomethane	NL	2.5	U	2.4	U	1.9	UJ	1.7	U	130	U		R	2.2	UJ	2.3	UJ	1.7	U
Carbon disulfide	2,700	6.3	U	6.1	U	4.6	UJ	4.3	U	320	U		R	5.5	UJ	5.7	UJ	4.1	U
Carbon tetrachloride	600	2.5	U	2.4	UJ	1.9	UJ	1.7	U	130	U		R	2.2	UJ	2.3	UJ	1.7	U
Chlorobenzene	1,700	2.5	U	2.4	UJ	1.9	UJ	1.7	U	130	U		R	2.2	UJ	2.3	UJ	1.7	U
Chloroethane	1,900	6.3	U	6.1	U	4.6	UJ	4.3	U	320	U		R	5.5	UJ	5.7	UJ	4.1	U
Chloroform	300	3.3	U	3.1	U	2.3	UJ	2.2	U	130	U	2.5	UJ	2.2	UJ	2.3	UJ	2.1	U
Chloromethane	NL	6.3	U	6.1	U	4.6	UJ	4.3	U	320	U		R	5.5	UJ	5.7	UJ	4.1	U
cis-1,2-Dichloroethene	NL	2.5	U	2.4	U	1.9	UJ	1.7	U	130	U		R	2.2	UJ	2.3	UJ	1.7	U
cis-1,3-Dichloropropene	NL	2.5	U	2.4	UJ	1.9	UJ	1.7	U	130	U		R	2.2	UJ	2.3	UJ	1.7	U
Cyclohexane	NL	6.3	U	6.1	UJ	4.6	UJ	4.3	U	320	U		R	5.5	UJ	5.7	UJ	4.1	U
Dibromochloromethane	NL	2.5	U	2.4	UJ	1.9	UJ	1.7	U	130	U		R	2.2	UJ	2.3	UJ	1.7	U
Dichlorodifluoromethane	NL	2.5	U	2.4	U	1.9	UJ	1.7	U	130	U		R	2.2	UJ	2.3	UJ	1.7	U
Ethylbenzene	5,500	2.5	U	2.4	UJ	1.9	UJ	134		**5,950**			R	2.2	UJ	2.3	UJ	1.7	U
Freon 113	6,000	6.3	U	6.1	U	4.6	UJ	4.3	U	320	U		R	5.5	UJ	5.7	UJ	4.1	U
Isopropylbenzene	NL	6.3	U	6.1	U	4.6	UJ	6.9	J	320	U		R	5.5	UJ		R	4.1	UJ
Methyl Acetate	NL	6.3	U	6.1	UJ	4.6	UJ	4.3	UJ	320	U		R	5.5	UJ	5.7	UJ	4.1	UJ
Methyl Tert Butyl Ether	NL	2.5	U	2.4	U	1.9	UJ	1.7	U	130	U		R	2.2	UJ	2.3	UJ	1.7	U
Methylcyclohexane	NL	6.3	U	6.1	UJ	4.6	UJ	4.3	U	320	U		R	5.5	UJ	5.7	UJ	4.1	U
Methylene chloride	100	2.5	U	2.4	U	1.9	UJ	1.7	U	130	U	8.0	J	2.2	UJ	4.6	J	1.7	U
Styrene	NL	6.3	U	6.1	UJ	4.6	UJ	4.3	U	686			R	5.5	UJ	5.7	UJ	4.1	U
Tetrachloroethene	1,400	2.8		2.4	UJ	1.9	UJ	1.7	U	130	U		R	2.2	UJ	2.3	UJ	1.7	U
Toluene	1,500	2.5	U	2.4	UJ	1.9	UJ	36.3		**2,580**	**J**		R	2.2	UJ	2.3	UJ	1.7	U
trans-1,2-Dichloroethene	300	2.5	U	2.4	U	1.9	UJ	1.7	U	130	U		R	2.2	UJ	2.3	UJ	1.7	U
trans-1,3-Dichloropropene	NL	2.5	U	2.4	UJ	1.9	UJ	1.7	U	130	U		R	2.2	UJ	2.3	UJ	1.7	U
Trichloroethene	700	2.5	U	2.4	UJ	1.9	UJ	1.7	U	130	U		R	2.2	UJ	2.3	UJ	1.7	U
Trichlorofluoromethane	NL	2.5	U	2.4	U	1.9	UJ	1.7	U	130	U		R	2.2	UJ	2.3	UJ	1.7	U
Vinyl chloride	200	2.5	U	2.4	U	1.9	UJ	1.7	U	130	U		R	2.2	UJ	2.3	UJ	1.7	U
Xylene (total)	1,200	3.0		2.4	UJ	1.9	UJ	75.6		**6,100**			R	2.2	UJ	2.3	UJ	1.7	U
Total VOCs (µg/kg)	10,000	5.8		ND		ND		300		**18,000**		8.0		ND		4.6		ND	

Notes:
NA = Not Analyzed
NL = Not Listed
ND = Not Detected
MDL - Method Detection Limit
D = The concentration indicated was obtained from a diluted analytical run.
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.
R = The result was rejected because one or more QC measures did not meet acceptable criteria by validator during the review process
Bold value - compound detected above regulatory standard or guidance value.
[1]NYSDEC TAGM HWR-94-4046 - Determination of Soil Cleanup Objectives and Cleanup Levels [NYSDEC, Jan. 1994]

Table B-7
Subsurface Soil VOC Results - Part 2
Norwich Former MGP Site, Norwich, New York

Sample ID (Depth in Feet) Laboratory Identification Date Sampled	NYSDEC Recommended Soil Cleanup Objective[1]	NO-DP32(15-16) M46906-17 04/27/2005	NO-DP33(15-15.0) M46906-14 04/27/2005	NO-DP34(19-19.3) M48220-7 06/14/2005	NO-DP34(22-23) M48220-8 06/14/2005	NO-DP35(12-12.5) M46966-3 04/28/2005	NO-DP35(23-24) M46966-4 04/28/2005	NO-DP36(8.9-9.7) M46966-1 04/28/2005	NO-DP37(26.5-27.5) M47558-1 05/19/2005	NO-DP37(31.5-32) M47558-2 05/19/2005
Volatile Organic Compounds (µg/kg)										
1,1,1-Trichloroethane	800	2.3 U	2.1 U	2.4 U	5.1 UJ	2.6 U	2.5 UJ	1.9 U	13,000 U	78 U
1,1,2,2-Tetrachloroethane	600	2.3 UJ	2.1 U	2.4 U	R	2.6 U	R	1.9 U	13,000 U	78 U
1,1,2-Trichloroethane	NL	2.3 UJ	2.1 U	2.4 U	5.1 UJ	2.6 U	2.5 UJ	1.9 U	13,000 U	78 U
1,1-Dichloroethane	200	2.3 U	2.1 U	2.4 U	5.1 UJ	2.6 U	2.5 UJ	1.9 U	13,000 U	78 U
1,1-Dichloroethene	400	2.3 U	2.1 U	2.4 U	5.1 UJ	2.6 U	2.5 UJ	1.9 U	13,000 U	78 U
1,2,4-Trichlorobenzene	3,400	R	5.2 U	5.9 U	R	6.5 U	R	4.9 U	32,000 U	190 U
1,2-Dibromo-3-chloropropane	NL	5.8 UJ	5.2 U	5.9 U	R	6.5 U	R	4.9 U	32,000 U	190 U
1,2-Dibromoethane	NL	2.3 UJ	2.1 U	2.4 U	R	2.6 U	R	1.9 U	13,000 U	78 U
1,2-Dichlorobenzene	7,900	2.3 UJ	2.1 U	2.4 U	R	2.6 U	R	1.9 U	13,000 U	78 U
1,2-Dichloroethane	100	2.3 UJ	2.1 U	2.4 U	5.1 UJ	2.6 U	2.5 UJ	1.9 U	13,000 U	78 U
1,2-Dichloropropane	NL	2.3 UJ	2.1 U	2.4 U	5.1 UJ	2.6 U	2.5 UJ	1.9 U	13,000 U	78 U
1,3-Dichlorobenzene	1,600	2.3 UJ	2.1 U	2.4 U	R	2.6 U	R	1.9 U	13,000 U	78 U
1,4-Dichlorobenzene	8,500	2.3 UJ	2.1 U	2.4 U	R	2.6 U	R	1.9 U	13,000 U	78 U
2-Butanone (MEK)	300	5.8 U	5.2 U	5.9 UJ	13 UJ	6.5 U	6.2 UJ	4.9 U	32,000 U	190 U
2-Hexanone	NL	5.8 U	5.2 U	5.9 U	R	6.5 U	R	4.9 U	32,000 U	190 U
4-Methyl-2-pentanone (MIBK)	1,000	5.8 U	5.2 U	5.9 UJ	13 UJ	6.5 U	6.2 UJ	4.9 U	32,000 U	190 U
Acetone	200	20.2 U	9.9 U	15.2 UJ	74.7 UJ	6.5 U	27.6 UJ	4.9 U	32,000 U	190 U
Benzene	60	41 UJ	0.52 U	1.8	1.3 UJ	0.65 U	0.62 UJ	0.49 U	**21,000**	27.3
Bromodichloromethane	NL	2.3 UJ	2.1 U	2.4 U	5.1 UJ	2.6 U	2.5 UJ	1.9 U	13,000 U	78 U
Bromoform	NL	2.3 UJ	2.1 U	2.4 U	R	2.6 U	R	1.9 U	13,000 U	78 U
Bromomethane	NL	2.3 U	2.1 U	2.4 U	5.1 UJ	2.6 U	2.5 UJ	1.9 U	13,000 U	78 U
Carbon disulfide	2,700	5.8 U	5.2 U	2.0 J	13 UJ	6.5 U	6.2 UJ	4.9 U	32,000 U	190 U
Carbon tetrachloride	600	2.3 U	2.1 U	2.4 U	5.1 UJ	2.6 U	2.5 UJ	1.9 U	13,000 U	78 U
Chlorobenzene	1,700	2.3 UJ	2.1 U	2.4 U	R	2.6 U	R	1.9 U	13,000 U	78 U
Chloroethane	1,900	5.8 U	5.2 U	5.9 U	13 UJ	6.5 U	6.2 UJ	4.9 U	32,000 U	190 U
Chloroform	300	2.9 U	2.6 U	2.4 U	5.1 UJ	2.6 U	2.5 UJ	2.5 U	13,000 U	78 U
Chloromethane	NL	5.8 UJ	5.2 U	5.9 UJ	13 UJ	6.5 U	6.2 UJ	4.9 U	32,000 U	190 U
cis-1,2-Dichloroethene	NL	2.3 UJ	2.1 U	2.4 U	5.1 UJ	2.6 U	2.5 UJ	1.9 U	13,000 U	78 U
cis-1,3-Dichloropropene	NL	2.3 UJ	2.1 U	2.4 U	5.1 UJ	2.6 U	2.5 UJ	1.9 U	13,000 U	78 U
Cyclohexane	NL	5.8 U	5.2 U	5.9 U	13 UJ	6.5 U	6.2 UJ	4.9 U	32,000 U	190 U
Dibromochloromethane	NL	2.3 UJ	2.1 U	2.4 U	R	2.6 U	R	1.9 U	13,000 U	78 U
Dichlorodifluoromethane	NL	2.3 U	2.1 U	2.4 UJ	5.1 UJ	2.6 U	2.5 UJ	1.9 U	R	R
Ethylbenzene	5,500	2.3 UJ	2.1 U	2.4 U	R	2.6 U	R	1.9 U	**159,000**	137
Freon 113	6,000	5.8 U	5.2 U	5.9 U	13 UJ	6.5 U	6.2 UJ	4.9 U	32,000 U	190 U
Isopropylbenzene	NL	5.8 UJ	5.2 U	5.9 U	R	6.5 U	R	4.9 U	9,150 J	10.1 J
Methyl Acetate	NL	5.8 U	5.2 UJ	5.9 UJ	13 UJ	6.5 U	6.2 UJ	4.9 U	32,000 U	190 U
Methyl Tert Butyl Ether	NL	2.3 U	2.1 U	2.4 U	5.1 UJ	2.6 U	2.5 UJ	1.9 U	13,000 U	78 U
Methylcyclohexane	NL	5.8 U	5.2 U	5.9 U	13 UJ	6.5 U	6.2 UJ	4.9 U	32,000 U	190 U
Methylene chloride	100	2.3 UJ	2.1 U	2.4 U	5.1 UJ	5.3	15.3 J	1.9 U	13,000 U	78 U
Styrene	NL	5.8 UJ	5.2 U	5.9 U	R	6.5 U	R	4.9 U	32,000 U	120
Tetrachloroethene	1,400	2.3 U	2.1 U	2.4 U	R	2.6 U	R	1.9 U	13,000 U	78 U
Toluene	1,500	2.3 UJ	2.1 U	2.4 U	5.1 UJ	2.6 U	2.5 UJ	1.9 U	**134,000**	155
trans-1,2-Dichloroethene	300	2.3 U	2.1 U	2.4 U	5.1 UJ	2.6 U	2.5 UJ	1.9 U	13,000 U	78 U
trans-1,3-Dichloropropene	NL	2.3 UJ	2.1 U	2.4 U	5.1 UJ	2.6 U	2.5 UJ	1.9 U	13,000 U	78 U
Trichloroethene	700	2.3 UJ	2.1 U	2.4 U	5.1 UJ	2.6 U	2.5 UJ	1.9 U	13,000 U	78 U
Trichlorofluoromethane	NL	2.3 U	2.1 U	2.4 U	5.1 UJ	2.6 U	2.5 UJ	1.9 U	13,000 U	78 U
Vinyl chloride	200	2.3 U	2.1 U	2.4 U	5.1 UJ	2.6 U	2.5 UJ	1.9 U	13,000 U	78 U
Xylene (total)	1,200	2.3 UJ	2.1 U	2.4 U	R	2.6 U	R	1.9 U	**266,000**	277
Total VOCs (µg/kg)	10,000	ND	ND	3.8	ND	5.3	15	ND	**590,000**	730

Notes:
NA = Not Analyzed
NL = Not Listed
ND = Not Detected
MDL - Method Detection Limit
D = The concentration indicated was obtained from a diluted analytical run.
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.
R = The result was rejected because one or more QC measures did not meet acceptable criteria by validator during the review process
Bold value - compound detected above regulatory standard or guidance value.
[1]NYSDEC TAGM HWR-94-4046 - Determination of Soil Cleanup Objectives and Cleanup Levels [NYSDEC, Jan. 1994]

Table B-7
Subsurface Soil VOC Results - Part 2
Norwich Former MGP Site, Norwich, New York

Sample ID (Depth in Feet) Laboratory Identification Date Sampled	NYSDEC Recommended Soil Cleanup Objective[1]	NO-DP38(19.6-20) M47558-7 05/20/2005	NO-DP38(27-28) M47558-8 05/20/2005	NO-DP39(13-13.5) M48220-1 06/13/2005	NO-DP39(24-25) M48220-2 06/13/2005	NO-DP40(21.5-23.5) M47558-9 05/20/2005	NO-DP40(26.5-27.5) M47558-10 05/20/2005	NO-DP41(16-16.5) M47558-3 05/19/2005	NO-DP41(23-23.7) M47558-4 05/19/2005	NO-DP42(9-10) M48220-3 06/13/2005
Volatile Organic Compounds (µg/kg)										
1,1,1-Trichloroethane	800	75 U	80 U	2.4 U	5.3 UJ	1,000 U	84 U	130 U	78 U	2.2 U
1,1,2,2-Tetrachloroethane	600	75 U	80 U	2.4 U	R	1,000 U	84 U	130 U	78 U	2.2 U
1,1,2-Trichloroethane	NL	75 U	80 U	2.4 U	5.3 U	1,000 U	84 U	130 U	78 U	2.2 U
1,1-Dichloroethane	200	75 U	80 U	2.4 U	5.3 UJ	1,000 U	84 U	130 U	78 U	2.2 U
1,1-Dichloroethene	400	75 U	80 U	2.4 U	5.3 UJ	1,000 U	84 U	130 U	78 U	2.2 U
1,2,4-Trichlorobenzene	3,400	190 U	200 U	6.0 U	R	2,600 U	210 U	310 U	200 U	5.5 U
1,2-Dibromo-3-chloropropane	NL	190 U	200 U	6.0 U	R	2,600 U	210 U	310 U	200 U	5.5 U
1,2-Dibromoethane	NL	75 U	80 U	2.4 U	5.3 UJ	1,000 U	84 U	130 U	78 U	2.2 U
1,2-Dichlorobenzene	7,900	75 U	80 U	2.4 U	R	1,000 U	84 U	130 U	78 U	2.2 U
1,2-Dichloroethane	100	75 U	80 U	2.4 U	5.3 U	1,000 U	84 U	130 U	78 U	2.2 U
1,2-Dichloropropane	NL	75 U	80 U	2.4 U	5.3 U	1,000 U	84 U	130 U	78 U	2.2 U
1,3-Dichlorobenzene	1,600	75 U	80 U	2.4 U	R	1,000 U	84 U	130 U	78 U	2.2 U
1,4-Dichlorobenzene	8,500	75 U	80 U	2.4 U	R	1,000 U	84 U	130 U	78 U	2.2 U
2-Butanone (MEK)	300	190 U	200 U	6.0 UJ	13 UJ	2,600 U	210 U	310 U	200 U	5.5 UJ
2-Hexanone	NL	190 U	200 U	6.0 U	13 UJ	2,600 U	210 U	310 U	200 U	5.5 U
4-Methyl-2-pentanone (MIBK)	1,000	190 U	200 U	6.0 UJ	13 UJ	2,600 U	210 U	310 U	200 U	5.5 UJ
Acetone	200	190 U	200 U	17 UJ	51.6 UJ	2,600 UJ	210 U	310 U	200 UJ	8.3 UJ
Benzene	60	**116**	20 U	4.0	1.3 U	**1,420**	21 U	18.6 J	20 U	0.55 U
Bromodichloromethane	NL	75 U	80 U	2.4 U	5.3 U	1,000 U	84 U	130 U	78 U	2.2 U
Bromoform	NL	75 U	80 U	2.4 U	5.3 UJ	1,000 U	84 U	130 U	78 U	2.2 U
Bromomethane	NL	75 U	80 U	2.4 U	5.3 UJ	1,000 U	84 U	130 U	78 U	2.2 U
Carbon disulfide	2,700	190 U	200 U	6.0 U	8.8 J	2,600 U	210 U	310 U	200 U	5.5 U
Carbon tetrachloride	600	75 U	80 U	2.4 U	5.3 U	1,000 U	84 U	130 U	78 U	2.2 U
Chlorobenzene	1,700	75 U	80 U	2.4 U	5.3 UJ	1,000 U	84 U	130 U	78 U	2.2 U
Chloroethane	1,900	190 U	200 U	6.0 U	13 UJ	2,600 U	210 U	310 U	200 U	5.5 U
Chloroform	300	75 U	80 U	2.4 U	5.3 UJ	1,000 U	84 U	130 U	78 U	2.2 U
Chloromethane	NL	190 U	200 U	6.0 UJ	13 UJ	2,600 U	210 U	310 U	200 U	5.5 UJ
cis-1,2-Dichloroethene	NL	75 U	80 U	2.4 U	5.3 UJ	1,000 U	84 U	130 U	78 U	2.2 U
cis-1,3-Dichloropropene	NL	75 U	80 U	2.4 U	5.3 U	1,000 U	84 U	130 U	78 U	2.2 U
Cyclohexane	NL	190 U	200 U	6.0 U	13 U	2,600 U	210 U	310 U	200 U	5.5 U
Dibromochloromethane	NL	75 U	80 U	2.4 U	5.3 UJ	1,000 U	84 U	130 U	78 U	2.2 U
Dichlorodifluoromethane	NL	R	R	2.4 UJ	5.3 UJ	R	R	R	R	2.2 UJ
Ethylbenzene	5,500	14.3 J	80 U	5.0	5.3 UJ	**28,100**	84 U	604	78 U	2.2 U
Freon 113	6,000	190 U	200 U	6.0 U	13 UJ	2,600 U	210 U	310 U	200 U	5.5 U
Isopropylbenzene	NL	190 U	200 U	6.0 U	R	3,110	210 U	234	200 U	5.5 U
Methyl Acetate	NL	190 U	200 U	6.0 UJ	13 UJ	2,600 U	210 U	310 U	200 U	5.5 UJ
Methyl Tert Butyl Ether	NL	75 U	80 U	2.4 U	5.3 UJ	1,000 U	84 U	130 U	78 U	2.2 U
Methylcyclohexane	NL	190 U	200 U	6.0 U	13 U	2,600 U	210 U	310 U	200 U	5.5 U
Methylene chloride	100	75 U	80 U	2.4 U	5.3 UJ	1,000 U	84 U	130 U	78 U	2.2 U
Styrene	NL	190 U	200 U	6.0 U	13 UJ	2,600 U	210 U	310 U	200 U	5.5 U
Tetrachloroethene	1,400	75 U	80 U	2.4 U	5.3 UJ	1,000 U	84 U	130 U	78 U	2.2 U
Toluene	1,500	14 J	80 U	2.4 U	5.3 U	**8,910**	84 U	130 U	78 U	2.2 U
trans-1,2-Dichloroethene	300	75 U	80 U	2.4 U	5.3 UJ	1,000 U	84 U	130 U	78 U	2.2 U
trans-1,3-Dichloropropene	NL	75 U	80 U	2.4 U	5.3 U	1,000 U	84 U	130 U	78 U	2.2 U
Trichloroethene	700	75 U	80 U	2.4 U	5.3 U	1,000 U	84 U	130 U	78 U	2.2 U
Trichlorofluoromethane	NL	75 U	80 U	2.4 U	5.3 UJ	1,000 U	84 U	130 U	78 U	2.2 U
Vinyl chloride	200	75 U	80 U	2.4 U	5.3 UJ	1,000 U	84 U	130 U	78 U	2.2 U
Xylene (total)	1,200	75 U	80 U	3.3	5.3 UJ	**28,500**	84 U	419	78 U	2.2 U
Total VOCs (µg/kg)	10,000	140	ND	12	8.8	**70,000**	ND	1,300	ND	ND

Notes:
NA = Not Analyzed
NL = Not Listed
ND = Not Detected
MDL - Method Detection Limit
D = The concentration indicated was obtained from a diluted analytical run.
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.
R = The result was rejected because one or more QC measures did not meet acceptable criteria by validator during the review process
Bold value - compound detected above regulatory standard or guidance value.
[1]NYSDEC TAGM HWR-94-4046 - Determination of Soil Cleanup Objectives and Cleanup Levels [NYSDEC, Jan. 1994]

Table B-7
Subsurface Soil VOC Results - Part 2
Norwich Former MGP Site, Norwich, New York

Sample ID (Depth in Feet) Laboratory Identification Date Sampled	NYSDEC Recommended Soil Cleanup Objective[1]	NO-DP42(26-27) M48220-4 06/13/2005	NO-DP43(7.5-8) M47558-5 05/19/2005	NO-DP43(23-23.8) M47558-6 05/19/2005	NO-DP44(15-16) M48323-3 06/15/2005	NO-DP44(25-26) M48323-4 06/15/2005	NO-DP45(10.8-11.3) M48323-5 06/15/2005	NO-DP46(9-9.6) M48220-5 06/14/2005	NO-DP46(22-24) M48220-6 06/14/2005	NO-DP47(21.5-22.5) M48323-1 06/15/2005
Volatile Organic Compounds (µg/kg)										
1,1,1-Trichloroethane	800	5.3 UJ	2.3 U	80 U	2.3 U	2.2 UJ	2.5 U	2.3 U	4.7 UJ	2.3 U
1,1,2,2-Tetrachloroethane	600	R	2.3 U	80 U	2.3 U	R	R	2.3 U	R	2.3 U
1,1,2-Trichloroethane	NL	5.3 U	2.3 U	80 U	2.3 U	2.2 UJ	2.5 U	2.3 U	4.7 UJ	2.3 U
1,1-Dichloroethane	200	5.3 UJ	2.3 U	80 U	2.3 U	2.2 UJ	2.5 U	2.3 U	4.7 UJ	2.3 U
1,1-Dichloroethene	400	5.3 UJ	2.3 U	80 U	2.3 U	2.2 UJ	2.5 U	2.3 U	4.7 UJ	2.3 U
1,2,4-Trichlorobenzene	3,400	R	5.8 U	200 U	5.8 U	R	R	5.7 U	R	5.8 U
1,2-Dibromo-3-chloropropane	NL	R	5.8 U	200 U	5.8 U	R	R	5.7 U	R	5.8 U
1,2-Dibromoethane	NL	5.3 UJ	2.3 U	80 U	2.3 U	2.2 UJ	2.5 UJ	2.3 U	R	2.3 U
1,2-Dichlorobenzene	7,900	R	2.3 U	80 U	2.3 U	R	R	2.3 U	R	2.3 U
1,2-Dichloroethane	100	5.3 U	2.3 U	80 U	2.3 U	2.2 UJ	2.5 U	2.3 U	4.7 UJ	2.3 U
1,2-Dichloropropane	NL	5.3 U	2.3 U	80 U	2.3 U	2.2 UJ	2.5 U	2.3 U	4.7 UJ	2.3 U
1,3-Dichlorobenzene	1,600	R	2.3 U	80 U	2.3 U	R	R	2.3 U	R	2.3 U
1,4-Dichlorobenzene	8,500	R	2.3 U	80 U	2.3 U	R	R	2.3 U	R	2.3 U
2-Butanone (MEK)	300	13 UJ	5.8 U	200 U	5.8 U	5.5 UJ	6.1 U	5.7 UJ	12 UJ	5.8 U
2-Hexanone	NL	13 UJ	5.8 U	200 U	5.8 U	5.5 UJ	6.1 UJ	5.7 U	R	5.8 U
4-Methyl-2-pentanone (MIBK)	1,000	13 UJ	5.8 U	200 U	5.8 U	5.5 UJ	6.1 U	5.7 UJ	12 UJ	5.8 U
Acetone	200	38.7 UJ	5.2 J	200 UJ	5.8 U	13.9 UJ	10.8 U	5.7 UJ	58.7 UJ	5.8 U
Benzene	60	1.3 U	0.58 U	20 U	0.58 U	0.55 UJ	0.61 U	0.57 U	1.2 UJ	0.58 U
Bromodichloromethane	NL	5.3 U	2.3 U	80 U	2.3 U	2.2 UJ	2.5 U	2.3 U	4.7 UJ	2.3 U
Bromoform	NL	5.3 UJ	2.3 U	80 U	2.3 U	2.2 UJ	2.5 UJ	2.3 U	R	2.3 U
Bromomethane	NL	5.3 UJ	2.3 U	80 U	2.3 U	2.2 UJ	2.5 U	2.3 U	4.7 UJ	2.3 U
Carbon disulfide	2,700	7 J	5.8 U	200 U	5.8 U	1.6 J	1.4 J	5.7 U	9.7 J	5.8 U
Carbon tetrachloride	600	5.3 U	2.3 U	80 U	2.3 U	2.2 UJ	2.5 U	2.3 U	4.7 UJ	2.3 U
Chlorobenzene	1,700	5.3 UJ	2.3 U	80 U	2.3 U	2.2 UJ	2.5 UJ	2.3 U	R	2.3 U
Chloroethane	1,900	13 UJ	5.8 U	200 U	5.8 U	5.5 UJ	6.1 U	5.7 U	12 UJ	5.8 U
Chloroform	300	5.3 UJ	2.3 U	80 U	2.3 U	2.2 UJ	2.5 U	2.3 U	4.7 UJ	2.3 U
Chloromethane	NL	13 UJ	5.8 U	200 U	5.8 U	5.5 UJ	6.1 U	5.7 UJ	12 UJ	5.8 U
cis-1,2-Dichloroethene	NL	5.3 UJ	2.3 U	80 U	2.3 U	2.2 UJ	2.5 U	2.3 U	4.7 UJ	2.3 U
cis-1,3-Dichloropropene	NL	5.3 U	2.3 U	80 U	2.3 U	2.2 UJ	2.5 U	2.3 U	4.7 UJ	2.3 U
Cyclohexane	NL	13 U	5.8 U	200 U	5.8 U	5.5 UJ	6.1 U	5.7 U	12 UJ	5.8 U
Dibromochloromethane	NL	5.3 UJ	2.3 U	80 U	2.3 U	2.2 UJ	2.5 UJ	2.3 U	R	2.3 U
Dichlorodifluoromethane	NL	5.3 UJ	2.3 U	R	2.3 U	2.2 UJ	2.5 U	2.3 UJ	4.7 UJ	2.3 U
Ethylbenzene	5,500	5.3 UJ	2.3 U	80 U	2.3 U	2.2 UJ	2.5 UJ	2.3 U	R	2.3 U
Freon 113	6,000	13 UJ	5.8 U	200 U	5.8 U	5.5 UJ	6.1 U	5.7 U	12 UJ	5.8 U
Isopropylbenzene	NL	R	5.8 U	200 U	5.8 U	R	R	5.7 U	R	5.8 U
Methyl Acetate	NL	13 UJ	5.8 U	200 U	5.8 U	5.5 UJ	6.1 U	5.7 UJ	12 UJ	5.8 U
Methyl Tert Butyl Ether	NL	5.3 UJ	2.3 U	80 U	2.3 U	2.2 UJ	2.5 U	2.3 U	4.7 UJ	2.3 U
Methylcyclohexane	NL	13 U	5.8 U	200 U	5.8 U	5.5 UJ	6.1 U	5.7 U	12 UJ	5.8 U
Methylene chloride	100	5.3 UJ	2.3 U	80 U	5 U	4.4 UJ	16.6 U	2.3 U	4.7 UJ	5.1 U
Styrene	NL	13 UJ	5.8 U	200 U	5.8 U	5.5 UJ	6.1 UJ	5.7 U	R	5.8 U
Tetrachloroethene	1,400	5.3 UJ	2.3 U	80 U	2.3 U	2.2 UJ	2.5 UJ	2.3 U	R	2.3 U
Toluene	1,500	5.3 U	2.3 U	80 U	2.3 U	2.2 UJ	2.5 U	2.3 U	4.7 UJ	2.3 U
trans-1,2-Dichloroethene	300	5.3 UJ	2.3 U	80 U	2.3 U	2.2 UJ	2.5 U	2.3 U	4.7 UJ	2.3 U
trans-1,3-Dichloropropene	NL	5.3 U	2.3 U	80 U	2.3 U	2.2 UJ	2.5 U	2.3 U	4.7 UJ	2.3 U
Trichloroethene	700	5.3 U	2.3 U	80 U	2.3 U	2.2 UJ	2.5 U	2.3 U	4.7 UJ	2.3 U
Trichlorofluoromethane	NL	5.3 UJ	2.3 U	80 U	2.3 U	2.2 UJ	2.5 U	2.3 U	4.7 UJ	2.3 U
Vinyl chloride	200	5.3 UJ	2.3 U	80 U	2.3 U	2.2 UJ	2.5 U	2.3 U	4.7 UJ	2.3 U
Xylene (total)	1,200	5.3 UJ	2.3 U	80 U	2.3 U	2.2 UJ	2.5 UJ	2.3 U	R	2.3 U
Total VOCs (µg/kg)	10,000	7.0	5.2	ND	ND	1.6	1.4	ND	10	ND

Notes:
NA = Not Analyzed
NL = Not Listed
ND = Not Detected
MDL - Method Detection Limit
D = The concentration indicated was obtained from a diluted analytical run.
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.
R = The result was rejected because one or more QC measures did not meet acceptable criteria by validator during the review process
Bold value - compound detected above regulatory standard or guidance value.
[1]NYSDEC TAGM HWR-94-4046 - Determination of Soil Cleanup Objectives and Cleanup Levels [NYSDEC, Jan. 1994]

Table B-7
Subsurface Soil VOC Results - Part 2
Norwich Former MGP Site, Norwich, New York

Sample ID (Depth in Feet) Laboratory Identification Date Sampled	NYSDEC Recommended Soil Cleanup Objective[1]	NO-DP47(26-27) M48323-2 06/15/2005		NO-DP48(18-19) M48220-9 06/14/2005		NO-DP48(26-27) M48220-10 06/14/2005		NO-DP49(17-18) M48220-11 06/14/2005		NO-DP49(26-27) M48220-12 06/14/2005		NO-DP50(14.5-15.5) M48323-6 06/16/2005		NO-DP50(25-26) M48323-8 06/16/2005	
Volatile Organic Compounds (µg/kg)															
1,1,1-Trichloroethane	800	2.5	UJ	2.3	U	2.5	UJ	2.3	U	5.1	UJ	2.4	U	2.5	UJ
1,1,2,2-Tetrachloroethane	600		R	2.3	U		R	2.3	U		R	2.4	U		R
1,1,2-Trichloroethane	NL	2.5	UJ	2.3	U	2.5	U	2.3	U	5.1	UJ	2.4	U	2.5	UJ
1,1-Dichloroethane	200	2.5	UJ	2.3	U	2.5	UJ	2.3	U	5.1	UJ	2.4	U	2.5	UJ
1,1-Dichloroethene	400	2.5	UJ	2.3	U	2.5	UJ	2.3	U	5.1	UJ	2.4	U	2.5	UJ
1,2,4-Trichlorobenzene	3,400		R	5.7	U		R	5.8	U		R	6.1	UJ		R
1,2-Dibromo-3-chloropropane	NL		R	5.7	U		R	5.8	U		R	6.1	U		R
1,2-Dibromoethane	NL		R	2.3	U	2.5	UJ	2.3	U		R	2.4	U	2.5	UJ
1,2-Dichlorobenzene	7,900		R	2.3	U		R	2.3	U		R	2.4	U		R
1,2-Dichloroethane	100	2.5	UJ	2.3	U	2.5	U	2.3	U	5.1	UJ	2.4	U	2.5	UJ
1,2-Dichloropropane	NL	2.5	UJ	2.3	U	2.5	U	2.3	U	5.1	UJ	2.4	U	2.5	UJ
1,3-Dichlorobenzene	1,600		R	2.3	U		R	2.3	U		R	2.4	U		R
1,4-Dichlorobenzene	8,500		R	2.3	U		R	2.3	U		R	2.4	U		R
2-Butanone (MEK)	300	6.3	UJ	5.7	UJ	6.2	UJ	5.8	UJ	13	UJ	6.1	U	6.3	UJ
2-Hexanone	NL		R	5.7	U	6.2	UJ	5.8	U		R	6.1	U	6.3	UJ
4-Methyl-2-pentanone (MIBK)	1,000	6.3	UJ	5.7	UJ	6.2	UJ	5.8	UJ	13	UJ	6.1	U	6.3	UJ
Acetone	200	27	UJ	12	UJ	20.7	UJ	11.6	UJ	63.6	UJ	33	U	39.6	UJ
Benzene	60	0.63	UJ	24.7		0.62	U	5.7		1.3	UJ	0.61	U	0.63	UJ
Bromodichloromethane	NL	2.5	UJ	2.3	U	2.5	U	2.3	U	5.1	UJ	2.4	U	2.5	UJ
Bromoform	NL		R	2.3	U	2.5	UJ	2.3	U		R	2.4	U	2.5	UJ
Bromomethane	NL	2.5	UJ	2.3	U	2.5	UJ	2.3	U	5.1	UJ	2.4	U	2.5	UJ
Carbon disulfide	2,700	2.5	J	1.7	J	6.2	UJ	5.8	U	10.6	J	6.1	U	1.4	J
Carbon tetrachloride	600	2.5	UJ	2.3	U	2.5	U	2.3	U	5.1	UJ	2.4	U	2.5	UJ
Chlorobenzene	1,700		R	2.3	U	2.5	UJ	2.3	U		R	2.4	U	2.5	UJ
Chloroethane	1,900	6.3	UJ	5.7	U	6.2	UJ	5.8	U	13	UJ	6.1	U	6.3	UJ
Chloroform	300	2.5	UJ	2.3	U	2.5	UJ	2.3	U	5.1	UJ	2.4	U	2.5	UJ
Chloromethane	NL	6.3	UJ	5.7	UJ	6.2	UJ	5.8	UJ	13	UJ	6.1	U	6.3	UJ
cis-1,2-Dichloroethene	NL	2.5	UJ	2.3	U	2.5	UJ	2.3	U	5.1	UJ	2.4	U	2.5	UJ
cis-1,3-Dichloropropene	NL	2.5	UJ	2.3	U	2.5	U	2.3	U	5.1	UJ	2.4	U	2.5	UJ
Cyclohexane	NL	6.3	UJ	5.7	U	6.2	U	5.8	U	13	UJ	6.1	U	6.3	UJ
Dibromochloromethane	NL		R	2.3	U	2.5	UJ	2.3	U		R	2.4	U	2.5	UJ
Dichlorodifluoromethane	NL	2.5	UJ	2.3	UJ	2.5	UJ	2.3	UJ	5.1	UJ	2.4	U	2.5	UJ
Ethylbenzene	5,500		R	116		2.5	UJ	5.8			R	2.4	U	2.5	UJ
Freon 113	6,000	0.6	J	5.7	U	6.2	UJ	5.8	U	13	UJ	7.5		0.65	J
Isopropylbenzene	NL		R	8.1			R	2.1	J		R	6.1	U		R
Methyl Acetate	NL	6.3	UJ	5.7	UJ	6.2	UJ	5.8	UJ	13	UJ	6.1	U	6.3	UJ
Methyl Tert Butyl Ether	NL	2.5	UJ	2.3	U	2.5	UJ	2.3	U	5.1	UJ	2.4	U	2.5	UJ
Methylcyclohexane	NL	6.3	UJ	5.7	U	6.2	U	5.8	U	13	UJ	6.1	U	6.3	UJ
Methylene chloride	100	19.1	UJ	2.3	U	9.3	J	2.3	U	5.1	UJ	58.1		2.5	UJ
Styrene	NL		R	5.7	U	6.2	UJ	5.8	U		R	6.1	U	6.3	UJ
Tetrachloroethene	1,400		R	2.3	U	2.5	UJ	2.3	U		R	2.4	U	2.5	UJ
Toluene	1,500	2.5	UJ	19.6		2.5	U	2.3	U	5.1	UJ	2.4	U	2.5	UJ
trans-1,2-Dichloroethene	300	2.5	UJ	2.3	U	2.5	UJ	2.3	U	5.1	UJ	2.4	U	2.5	UJ
trans-1,3-Dichloropropene	NL	2.5	UJ	2.3	U	2.5	U	2.3	U	5.1	UJ	2.4	U	2.5	UJ
Trichloroethene	700	2.5	UJ	2.3	U	2.5	U	2.3	U	5.1	UJ	2.4	U	2.5	UJ
Trichlorofluoromethane	NL	2.5	UJ	2.3	U	2.5	UJ	2.3	U	5.1	UJ	2.4	U	2.5	UJ
Vinyl chloride	200	2.5	UJ	2.3	U	2.5	UJ	2.3	U	5.1	UJ	2.4	U	2.5	UJ
Xylene (total)	1,200		R	59.2		2.5	UJ	3.1			R	2.4	U	2.5	UJ
Total VOCs (µg/kg)	10,000	3.1		230		9.3		17		11		66		2.1	

Notes:
NA = Not Analyzed
NL = Not Listed
ND = Not Detected
MDL - Method Detection Limit
D = The concentration indicated was obtained from a diluted analytical run.
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.
R = The result was rejected because one or more QC measures did not meet acceptable criteria by validator during the review process
Bold value - compound detected above regulatory standard or guidance value.
[1]NYSDEC TAGM HWR-94-4046 - Determination of Soil Cleanup Objectives and Cleanup Levels [NYSDEC, Jan. 1994]

Table B-8
Subsurface Soil BTEX Results
Norwich Former MGP Site
Norwich, New York

Sample ID (Depth in Feet) Laboratory Identification Date Sampled	NYSDEC Recommended Soil Cleanup Objective[1]	NO-DP51 (19-20) M51636-1 10/10/2005		NO-DP52 (19-20) M51636-2 10/10/2005		NO-DP53 (19-20) M51636-3 10/10/2005		NO-DP54 (19-20) M51636-4 10/11/2005		NO-DP55 (23-24) M51636-5 10/11/2005		NO-DP56 (19-20) M51738-1 10/11/2005	
Volatile Organic Compounds (µg/kg)													
Benzene	60	0.61	UJ	0.6	UJ	2.5	J	0.67	J		R	2.6	J
Ethylbenzene	5,500		R		R		R	2.7	J		R		R
Toluene	1,500	2.5	UJ	2.4	UJ	6.4	UJ	2.7	J		R	4.3	J
Xylene (total)	1,200		R		R		R	2.7	J		R		R

Notes:
NA = Not Analyzed
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.
R = The result was rejected because one or more QC measures did not meet acceptable criteria by validator during the review process.
Bold value - compound detected above regulatory standard or guidance value.
[1]NYSDEC TAGM HWR-94-4046 - Determination of Soil Cleanup Objectives and Cleanup Levels [NYSDEC, Jan. 1994]

Table B-8
Subsurface Soil BTEX Results
Norwich Former MGP Site
Norwich, New York

Sample ID (Depth in Feet) Laboratory Identification Date Sampled	NYSDEC Recommended Soil Cleanup Objective[1]	NO-DP57 (19-20) M51738-2 10/11/2005		NO-DP58 (19-20) M51738-3 10/12/2005		NO-DP59 (19-20) M51738-4 10/12/2005		NO-DP60 (19-20) M51738-5 10/12/2005		NO-DP61 (15-16) M51738-6 10/12/2005	
Volatile Organic Compounds (µg/kg)											
Benzene	60	16.4	J	3.1	J	3	J	2.8	J	1.1	J
Ethylbenzene	5,500		R		R		R		R		R
Toluene	1,500	10.9	J	3.2	J		R	3.7	J	1.4	J
Xylene (total)	1,200		R		R		R		R		R

Notes:
NA = Not Analyzed
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.
R = The result was rejected because one or more QC measures did not meet acceptable criteria by validator during the review process.
Bold value - compound detected above regulatory standard or guidance value.
[1]NYSDEC TAGM HWR-94-4046 - Determination of Soil Cleanup Objectives and Cleanup Levels [NYSDEC, Jan. 1994]

Table B-9
Subsurface Soil SVOC Results - Part 1
Norwich Former MGP Site
Norwich, New York

Sample ID Laboratory Identification Date Sampled	NYSDEC Cleanup Objective[1] Recommended Soil	NO-DP05(15.0-16.0) S5497-01 10/26/2004	NO-DP05(19.0-20.0) S5497-02 10/26/2004	NO-DP06(15.0-16.0) S5497-03 10/27/2004	NO-DP06(19.0-20.0) S5497-04 10/27/2004	NO-DP06(22.0-22.3) S5497-05 10/27/2004	NO-DP08(12.0-14.0) S5497-06 10/27/2004	NO-DP08(14.7-15.7) S5497-07 10/27/2004	NO-DP09(15.0-16.0) S5497-08 10/26/2004	NO-DP09(18.8-20.0) S5497-09 10/26/2004	NO-DP10(19.0-20.0) S5497-10 10/26/2004	NO-DP12(22.6-24.0) S5497-11 10/28/2004	NO-DP13(14.5-16.0) S5497-12 10/27/2004	NO-DP15(8.2-8.8) S5497-19 10/29/2004
Semi-volatile Organic Compounds (µg/L)														
2-Methylnaphthalene	36,400	8,100 D	410 U	**47,000 D**	24,000	250 J	1,100	430 U	6,300 D	420 U	170 J	430 U	65 J	94 J
Acenaphthene	50,000	10,000 D	410 U	25,000	9,600	410 U	4,100 D	430 U	13,000 D	54 J	300 J	430 U	110 J	97 J
Acenaphthylene	41,000	1,400	410 U	4,800	2,400 J	410 U	640	430 U	1,500	420 U	85 J	430 U	380 U	78 J
Anthracene	50,000	6,000 D	410 U	14,000	5,400	410 U	1,900 JD	430 U	7,300 D	420 U	530	430 U	53 J	120 J
Benzo(a)anthracene	224/MDL	**3,300 D**	410 U	**7,100**	**3,200 J**	410 U	**1,600**	430 U	**3,000 JD**	420 U	**330 J**	430 U	380 U	**240 J**
Benzo(a)pyrene	61/MDL	**1,900 J**	410 U	**4,100**	**2,000 J**	410 U	**1,100**	430 U	**1,900 J**	420 U	**200 J**	430 U	380 U	**160 J**
Benzo(b)fluoranthene	1,100	**2,300 J**	410 U	**3,500 J**	**1,800 J**	410 U	1,100 J	430 U	**2,900 J**	420 U	130 J	430 U	380 U	120 J
Benzo(g,h,i)perylene	50,000	290 J	410 U	3,800 U	3,800 U	410 U	210 J	430 U	270 J	420 U	380 UJ	430 U	380 U	390 UJ
Benzo(k)fluoranthene	1,100	**1,100 J**	410 U	**2,100 J**	**1,400 J**	410 U	560	430 U	**1,200 J**	420 U	150 J	430 U	380 U	390 U
Chrysene	400	**2,700 D**	410 U	**5,400**	**2,500 J**	410 U	**1,500**	430 U	**2,400 JD**	420 U	290 J	430 U	380 U	230 J
Dibenzo(a,h)anthracene	14/MDL	**140 J**	410 U	3,800 U	3,800 U	410 U	370 UJ	430 U	**150 J**	420 U	380 UJ	430 U	380 U	390 UJ
Fluoranthene	50,000	6,000 D	410 U	15,000	7,000	410 U	3,300 JD	430 U	7,600 D	420 U	820	430 U	77 J	200 J
Fluorene	50,000	5,200 D	410 U	12,000	5,100	410 U	2,900	430 U	7,700 D	420 U	230 J	430 U	380 U	82 J
Indeno(1,2,3-cd)pyrene	3,200	490 J	410 U	1,300 J	3,800 U	410 U	340 J	430 U	510 J	420 U	380 UJ	430 U	380 U	390 UJ
Naphthalene	13,000	7,700 D	840	**69,000 D**	**36,000 D**	4,400 D	2,300	430 U	8,200 D	420 U	1,400	430 U	99 J	390 U
Phenanthrene	50,000	16,000 D	410 U	36,000 JD	21,000	410 U	9,400 D	430 U	27,000 D	96 J	2,000	54 J	180 J	280 J
Pyrene	50,000	7,400 D	410 U	18,000	8,400	410 U	4,300 D	430 U	7,700 D	420 U	990	430 U	380 U	340 J
Total PAHs (µg/L)	500,000	80,000	840	260,000	130,000	4,700	36,000	ND	99,000	150	7,600	54	580	2,000
Total CPAHs (µg/L)	NL	12,000	ND	24,000	11,000	ND	6,200	ND	12,000	ND	1,100	ND	ND	750
1,1'-Biphenyl	NL	2,700 D	410 U	6,800	3,000 J	410 U	1,100	430 U	3,200 JD	420 U	380 U	430 U	380 U	390 U
2,2-oxybis(1-Chloropropane)	100	370 U	410 U	3,800 U	3,800 U	410 U	370 U	430 U	370 U	420 U	380 U	430 U	380 U	390 U
2,4,5-Trichlorophenol	NL	930 U	1,000 U	9,500 U	9,500 U	1,000 U	930 U	1,100 U	940 U	1,100 U	950 U	1,100 U	960 U	980 U
2,4,6-Trichlorophenol	400	370 U	410 U	3,800 U	3,800 U	410 U	370 U	430 U	370 U	420 U	380 U	430 U	380 U	390 U
2,4-Dichlorophenol	NL	370 U	410 U	3,800 U	3,800 U	410 U	370 U	430 U	370 U	420 U	380 U	430 U	380 U	390 U
2,4-Dimethylphenol	200/MDL	370 U	410 U	3,800 U	3,800 U	410 U	370 U	430 U	370 U	420 U	380 U	430 U	380 U	390 U
2,4-Dinitrophenol	NL	930 UJ	1,000 UJ	9,500 U	9,500 U	1,000 UJ	930 UJ	1,100 UJ	940 UJ	1,100 UJ	950 UJ	1,100 UJ	960 UJ	980 UJ
2,4-Dinitrotoluene	1,000	370 U	410 U	3,800 U	3,800 U	410 U	370 U	430 U	370 U	420 U	380 U	430 U	380 U	390 U
2,6-Dinitrotoluene	NL	370 U	410 U	3,800 U	3,800 U	410 U	370 U	430 U	370 U	420 U	380 U	430 U	380 U	390 U
2-Chloronaphthalene	800	370 U	410 U	3,800 U	3,800 U	410 U	370 U	430 U	370 U	420 U	380 U	430 U	380 U	390 U
2-Chlorophenol	100/MDL	370 U	410 U	3,800 U	3,800 U	410 U	370 U	430 U	370 U	420 U	380 U	430 U	380 U	390 U
2-Methylphenol	430/MDL	370 U	410 U	3,800 U	3,800 U	410 U	370 U	430 U	370 U	420 U	380 U	430 U	380 U	390 U
2-Nitroaniline	330/MDL	930 U	1,000 U	9,500 U	9,500 U	1,000 U	930 U	1,100 U	940 U	1,100 U	950 U	1,100 U	960 U	980 U
2-Nitrophenol	NL	370 U	410 U	3,800 U	3,800 U	410 U	370 U	430 U	370 U	420 U	380 U	430 U	380 U	390 U
3&4-Methylphenol	NL	370 U	410 U	3,800 U	3,800 U	410 U	370 U	430 U	370 U	420 U	380 U	430 U	380 U	390 U
3,3'-Dichlorobenzidine	500/MDL	370 U	410 U	3,800 U	3,800 U	410 U	370 U	430 U	370 U	420 U	380 U	430 U	380 U	390 U
3-Nitroaniline	NL	930 U	1,000 U	9,500 U	9,500 U	1,000 U	930 U	1,100 U	940 U	1,100 U	950 U	1,100 U	960 U	980 U
4,6-Dinitro-o-cresol	NL	930 U	1,000 UJ	9,500 U	9,500 U	1,000 UJ	930 U	1,100 UJ	940 U	1,100 UJ	950 U	1,100 UJ	960 UJ	980 U
4-Bromophenyl phenyl ether	240/MDL	370 U	410 U	3,800 U	3,800 U	410 U	370 U	430 U	370 U	420 U	380 U	430 U	380 U	390 U
4-Chloro-3-methylphenol	220/MDL	370 U	410 U	3,800 U	3,800 U	410 U	370 U	430 U	370 U	420 U	380 U	430 U	380 U	390 U
4-Chloroaniline	NL	370 U	410 U	3,800 U	3,800 U	410 U	370 U	430 U	370 U	420 U	380 U	430 U	380 U	390 U
4-Chlorophenyl phenyl ether	NL	370 U	410 U	3,800 U	3,800 U	410 U	370 U	430 U	370 U	420 U	380 U	430 U	380 U	390 U
4-Nitroaniline	100/MDL	930 U	1,000 U	9,500 U	9,500 U	1,000 U	930 U	1,100 U	940 U	1,100 U	950 U	1,100 U	960 U	980 U
4-Nitrophenol	NL	930 UJ	1,000 UJ	9,500 UJ	9,500 UJ	1,000 UJ	930 UJ	1,100 UJ	940 UJ	1,100 UJ	950 UJ	1,100 UJ	960 UJ	980 UJ
Acetophenone	NL	710 J	410 U	3,600 J	3,800 U	410 U	370 UJ	430 U	1,800 J	420 U	380 UJ	430 U	380 U	390 UJ
Atrazine	NL	370 U	410 U	3,800 U	3,800 U	410 U	370 U	430 U	370 U	420 U	380 U	430 U	380 U	390 U
Benzaldehyde	NL	110 J	410 U	3,800 U	3,800 U	410 U	370 UJ	430 U	370 UJ	420 U	380 UJ	430 U	380 U	390 UJ
Bis(2-chloroethoxy) methane	NL	370 U	410 UJ	3,800 UJ	3,800 UJ	410 UJ	370 U	430 UJ	370 U	420 UJ	380 U	430 UJ	380 UJ	390 U
Bis(2-chloroethyl) ether	NL	370 UJ	410 U	3,800 U	3,800 U	410 U	370 UJ	430 U	370 UJ	420 U	380 UJ	430 U	380 U	390 UJ
Bis(2-ethylhexyl) phthalate	50,000	370 U	410 UJ	3,800 U	3,800 U	410 UJ	370 U	430 UJ	370 U	420 UJ	380 U	430 UJ	380 UJ	390 U
Butyl benzyl phthalate	50,000	370 U	410 U	3,800 U	3,800 U	410 U	370 U	430 U	370 U	420 U	380 U	430 U	380 U	390 U
Caprolactam	NL	370 UJ	410 U	3,800 U	3,800 U	410 U	370 UJ	430 U	370 UJ	420 U	380 UJ	430 U	380 U	390 UJ
Carbazole	NL	370 U	410 U	450 J	3,800 U	410 U	370 U	430 U	510	420 U	380 U	430 U	380 U	390 U
Dibenzofuran	6,200	1,400	410 U	3,200 J	1,400 J	410 U	550	430 U	4,100 D	420 U	53 J	430 U	380 U	390 U
Diethyl phthalate	7,100	370 U	410 U	3,800 U	3,800 U	410 U	370 U	430 U	370 U	420 U	380 U	430 U	380 U	390 U
Dimethyl phthalate	2,000	370 U	410 U	3,800 U	3,800 U	410 U	370 U	430 U	370 U	420 U	380 U	430 U	380 U	390 U
Di-n-butyl phthalate	8,100	370 UJ	410 UJ	3,800 UJ	3,800 UJ	410 UJ	370 UJ	430 UJ	370 UJ	420 UJ	380 UJ	430 UJ	380 UJ	390 UJ
Di-n-octyl phthalate	50,000	370 UJ	410 U	3,800 U	3,800 U	410 U	370 UJ	430 U	370 UJ	420 U	380 UJ	430 U	380 U	390 UJ
Hexachlorobenzene	410	370 UJ	410 UJ	3,800 UJ	3,800 UJ	410 UJ	370 UJ	430 UJ	370 UJ	420 UJ	380 UJ	430 UJ	380 UJ	390 UJ
Hexachlorobutadiene	NL	370 U	410 U	3,800 U	3,800 U	410 U	370 U	430 U	370 U	420 U	380 U	430 U	380 U	390 U
Hexachlorocyclopentadiene	NL	370 U	410 U	3,800 U	3,800 U	410 U	370 U	430 U	370 U	420 U	380 U	430 U	380 U	390 U
Hexachloroethane	NL	370 U	410 UJ	3,800 UJ	3,800 UJ	410 UJ	370 U	430 UJ	370 U	420 UJ	380 U	430 UJ	380 UJ	390 U
Isophorone	4,400	370 U	410 U	3,800 UJ	3,800 UJ	410 U	370 U	430 U	370 U	420 U	380 U	430 U	380 U	390 U
Nitrobenzene	200/MDL	370 U	410 U	3,800 U	3,800 U	410 U	370 U	430 U	370 U	420 U	380 U	430 U	380 U	390 U
N-Nitroso-Di-n-propylamine	NL	370 U	410 U	3,800 U	3,800 U	410 U	370 U	430 U	370 U	420 U	380 U	430 U	380 U	390 U
N-nitrosodiphenylamine	NL	370 U	410 U	3,800 U	3,800 U	410 U	370 U	430 U	370 U	420 U	380 U	430 U	380 U	390 U
Pentachlorophenol	1,000/MDL	930 U	1,000 U	9,500 U	9,500 U	1,000 U	930 U	1,100 U	940 U	1,100 U	950 U	1,100 U	960 U	980 U
Phenol	30/MDL	370 UJ	410 U	3,800 U	3,800 U	410 U	370 UJ	430 U	370 UJ	420 U	380 UJ	430 U	380 U	390 UJ
Total SVOCs (µg/L)[2]	500,000	85,000	840	280,000	130,000	4,700	38,000	ND	100,000	150	7,700	54	580	2,000

Notes:
NA = Not Analyzed
NL = Not Listed
ND = Not Detected
MDL - Method Detection Limit
D = The concentration indicated was obtained from a diluted analytical run.
J = The associated numerical value is an estimated quantity.
R = The result was rejected because one or more QC measures did not meet acceptable criteria by validator during the review process
U = The material was analyzed for but not detected at or above the MDL. The associated numerical value is the sample reporting limit.

Bold value - compound detected above regulatory guidance value.
[1]NYSDEC TAGM HWR-94-4046 - Determination of Soil Cleanup Objectives and Cleanup Levels [NYSDEC, Jan. 1994]
[2]The total SVOC values include all PAH compounds
CPAHs - Carcinogenic PAHs which are shown in bold and italics

Table B-9
Subsurface Soil SVOC Results - Part 1
Norwich Former MGP Site
Norwich, New York

Sample ID Laboratory Identification Date Sampled	NYSDEC Cleanup Objective[1] Recommended Soil	NO-DP15(19.5-20.0) S5497-20 10/29/2004		NO-DP16(11.0-12.0) S5497-14 10/26/2004		NO-DP16(19.0-20.0) S5497-15 10/26/2004		NO-DP17(11.5-12.0) S5497-16 10/26/2004		NO-DP17(18.9-20.0) S5497-18 10/26/2004		NO-DP18(15.5-16.0) S5497-22 10/25/2004		NO-DP20(NAPL ZONE) S5497-25 10/29/2004		NO-DP23(22.6-22.8) S5497-26 10/28/2004	
Semi-volatile Organic Compounds (µg/L)																	
2-Methylnaphthalene	36,400	440	U	380	U	420	U	7,600	D	420	U	18,000	D	2,400	JD	24,000	D
Acenaphthene	50,000	440	U	380	U	420	U	4,400	D	420	U	6,700	D	740		1,500	J
Acenaphthylene	41,000	440	U	380	U	420	U	1,100		420	U	1,100		770		3,500	
Anthracene	50,000	440	U	380	U	420	U	4,500	D	420	U	3,500	JD	830		2,300	
Benzo(a)anthracene	224/MDL	440	U	380	U	420	U	**2,400**	**JD**	420	U	**2,100**		**590**		**1,200**	**J**
Benzo(a)pyrene	61/MDL	440	U	380	U	420	U	**1,800**		420	U	**1,200**		**340**	**J**	**730**	**J**
Benzo(b)fluoranthene	1,100	440	U	380	U	420	U	**2,600**	**J**	420	U	**1,400**	**J**	270	J	500	J
Benzo(g,h,i)perylene	50,000	440	U	380	U	420	U	290	J	420	U	190	J	87	J	1,900	U
Benzo(k)fluoranthene	1,100	440	U	380	U	420	U	1,000		420	U	750		240	J	680	J
Chrysene	400	440	U	380	U	420	U	**2,800**		420	U	**1,800**		**520**		**940**	**J**
Dibenzo(a,h)anthracene	14/MDL	440	U	380	U	420	U	**130**	**J**	420	U	**85**	**J**	370	UJ	1,900	U
Fluoranthene	50,000	440	U	380	U	420	U	5,800	D	420	U	3,900	D	1,200		2,700	
Fluorene	50,000	440	U	380	U	420	U	4,100	D	420	U	4,100	D	730		2,400	
Indeno(1,2,3-cd)pyrene	3,200	440	U	380	U	420	U	520	J	420	U	330	J	140	J	1,900	U
Naphthalene	13,000	440	U	380	U	420	U	470		420	U	7,100	D	3,900	D	**49,000**	**D**
Phenanthrene	50,000	440	U	380	U	420	U	14,000	D	52	J	14,000	D	2,900		8,800	
Pyrene	50,000	440	U	380	U	420	U	6,900	D	420	U	5,100	D	1,600		3,300	J
Total PAHs (µg/L)	500,000	ND		ND		ND		60,000		52		71,000		17,000		100,000	
Total CPAHs (µg/L)	NL	ND		ND		ND		11,000		ND		7,700		2,100		4,050	
1,1'-Biphenyl	NL	440	U	380	U	420	U	1,200		420	U	2,400		390		1,500	J
2,2-oxybis(1-Chloropropane)	100	440	U	380	U	420	U	360	U	420	U	370	U	370	U	1,900	U
2,4,5-Trichlorophenol	NL	1,100	U	950	U	1,000	U	910	U	1,100	U	940	U	940	U	4,800	U
2,4,6-Trichlorophenol	400	440	U	380	U	420	U	360	U	420	U	370	U	370	U	1,900	U
2,4-Dichlorophenol	NL	440	U	380	U	420	U	360	U	420	U	370	U	370	U	1,900	U
2,4-Dimethylphenol	200/MDL	440	U	380	U	420	U	360	U	420	U	370	U	370	U	1,900	U
2,4-Dinitrophenol	NL	1,100	UJ	950	UJ	1,000	UJ	910	UJ	1,100	UJ	940	UJ	940	UJ	4,800	U
2,4-Dinitrotoluene	1,000	440	U	380	U	420	U	360	U	420	U	370	U	370	U	1,900	U
2,6-Dinitrotoluene	NL	440	U	380	U	420	U	360	U	420	U	370	U	370	U	1,900	U
2-Chloronaphthalene	800	440	U	380	U	420	U	360	U	420	U	370	U	370	U	1,900	U
2-Chlorophenol	100/MDL	440	U	380	U	420	U	360	U	420	U	370	U	370	U	1,900	U
2-Methylphenol	430/MDL	440	U	380	U	420	U	360	U	420	U	370	U	370	U	1,900	U
2-Nitroaniline	330/MDL	1,100	U	950	U	1,000	U	910	U	1,100	U	940	U	940	U	4,800	U
2-Nitrophenol	NL	440	U	380	U	420	U	360	U	420	U	370	U	370	U	1,900	U
3&4-Methylphenol	NL	440	U	380	U	420	U	360	U	420	U	370	U	370	U	1,900	U
3,3'-Dichlorobenzidine	500/MDL	440	U	380	U	420	U	360	U	420	U	370	U	370	U	1,900	U
3-Nitroaniline	NL	1,100	U	950	U	1,000	U	910	U	1,100	U	940	U	940	U	4,800	U
4,6-Dinitro-o-cresol	NL	1,100	UJ	950	UJ	1,000	UJ	910	U	1,100	UJ	940	U	940	U	4,800	U
4-Bromophenyl phenyl ether	240/MDL	440	U	380	U	420	U	360	U	420	U	370	U	370	U	1,900	U
4-Chloro-3-methylphenol	220/MDL	440	U	380	U	420	U	360	U	420	U	370	U	370	U	1,900	U
4-Chloroaniline	NL	440	U	380	U	420	U	360	U	420	U	370	U	370	U	1,900	U
4-Chlorophenyl phenyl ether	NL	440	U	380	U	420	U	360	U	420	U	370	U	370	U	1,900	U
4-Nitroaniline	100/MDL	1,100	U	950	U	1,000	U	910	U	1,100	U	940	U	940	U	4,800	U
4-Nitrophenol	NL	1,100	UJ	950	UJ	1,000	UJ	910	UJ	1,100	UJ	940	UJ	940	UJ	4,800	UJ
Acetophenone	NL	440	U	380	U	420	U	360	UJ	420	U	370	UJ	370	UJ	1,700	J
Atrazine	NL	440	U	380	U	420	U	360	U	420	U	370	U	370	U	1,900	U
Benzaldehyde	NL	440	U	380	U	420	U	360	UJ	420	U	370	UJ	370	UJ	1,900	U
Bis(2-chloroethoxy) methane	NL	440	UJ	380	UJ	420	UJ	360	U	420	UJ	370	U	370	U	1,900	UJ
Bis(2-chloroethyl) ether	NL	440	U	380	U	420	U	360	UJ	420	U	370	UJ	370	UJ	1,900	U
Bis(2-ethylhexyl) phthalate	50,000	440	UJ	380	UJ	420	UJ	360	U	420	UJ	370	U	370	U	1,900	U
Butyl benzyl phthalate	50,000	440	U	380	U	420	U	360	U	420	U	370	U	370	U	1,900	U
Caprolactam	NL	440	U	380	U	420	U	360	UJ	420	U	370	UJ	370	UJ	1,900	U
Carbazole	NL	440	U	380	U	420	U	360	U	420	U	57	J	370	U	1,900	U
Dibenzofuran	6,200	440	U	380	U	420	U	360	U	420	U	1,800		190	J	750	J
Diethyl phthalate	7,100	440	U	380	U	420	U	360	U	420	U	370	U	370	U	1,900	U
Dimethyl phthalate	2,000	440	U	380	U	420	U	360	U	420	U	370	U	370	U	1,900	U
Di-n-butyl phthalate	8,100	440	UJ	380	UJ	420	UJ	360	UJ	420	UJ	370	UJ	370	UJ	1,900	UJ
Di-n-octyl phthalate	50,000	440	U	380	U	420	U	360	UJ	420	U	370	UJ	370	UJ	1,900	U
Hexachlorobenzene	410	440	UJ	380	UJ	420	UJ	360	UJ	420	UJ	370	UJ	370	UJ	1,900	UJ
Hexachlorobutadiene	NL	440	U	380	U	420	U	360	U	420	U	370	U	370	U	1,900	U
Hexachlorocyclopentadiene	NL	440	U	380	U	420	U	360	U	420	U	370	U	370	U	1,900	U
Hexachloroethane	NL	440	UJ	380	UJ	420	UJ	360	U	420	UJ	370	U	370	U	1,900	UJ
Isophorone	4,400	440	U	380	U	420	U	360	U	420	U	370	U	370	U	1,900	UJ
Nitrobenzene	200/MDL	440	U	380	U	420	U	360	U	420	U	370	U	370	U	1,900	U
N-Nitroso-Di-n-propylamine	NL	440	U	380	U	420	U	360	U	420	U	370	U	370	U	1,900	U
N-nitrosodiphenylamine	NL	440	U	380	U	420	U	360	U	420	U	370	U	370	U	1,900	U
Pentachlorophenol	1,000/MDL	1,100	U	950	U	1,000	U	910	U	1,100	U	940	U	940	U	4,800	U
Phenol	30/MDL	440	U	380	U	420	U	360	UJ	420	U	370	UJ	370	UJ	1,900	U
Total SVOCs (µg/L)[2]	500,000	ND		ND		ND		62,000		52		76,000		18,000		110,000	

Notes:
NA = Not Analyzed
NL = Not Listed
ND = Not Detected
MDL - Method Detection Limit
D = The concentration indicated was obtained from a diluted analytical run.
J = The associated numerical value is an estimated quantity.
R = The result was rejected because one or more QC measures did not meet acceptable criteria by validator during the review process
U = The material was analyzed for but not detected at or above the MDL. The associated numerical value is the sample reporting limit.

Bold value - compound detected above regulatory guidance value.
[1]NYSDEC TAGM HWR-94-4046 - Determination of Soil Cleanup Objectives and Cleanup Levels [NYSDEC, Jan. 1994]
[2]The total SVOC values include all PAH compounds
CPAHs - Carcinogenic PAHs which are shown in bold and italics

Table B-10
Subsurface Soil SVOC Results - Part 2
Norwich Former MGP Site
Norwich, New York

Sample ID (Depth in Feet)	NYSDEC	NO-DP01(15-16)	NO-DP01(23-24)	NO-DP02(18-19)	NO-DP02(23-24)	NO-DP03(15-16)	NO-DP04C(13.5-14.5)	NO-DP04C(18-19)	NO-DP04C(23-24)	NO-DP14(18.7-20)	NO-DP14(23-24)	NO-DP19(14-15)	NO-DP19(18-19)	NO-DP22(14.5-15.5)	NO-DP22(21.5-22.5)	NO-DP25(10-12)
Laboratory Identification	Cleanup Objective[1]	M46810-4	M46810-6	M46810-8	M46810-9	M46810-10	M46906-7	M46906-8	M46906-9	M48323-9	M48323-11	M46906-5	M46906-6	M46810-2	M46810-3	M46966-10
Date Sampled	Recommended Soil	04/25/2005	04/25/2005	04/25/2005	04/25/2005	04/25/2005	04/26/2005	04/26/2005	04/26/2005	06/16/2005	06/16/2005	04/26/2005	04/26/2005	04/25/2005	04/25/2005	04/29/2005
Semi-volatile Organic Compounds (µg/kg)																
2-Methylnaphthalene	36,400	**417,000**	593	**138,000**	310 U	**54,100**	2,900 U	**336,000**	310 U	1,480	320 U	2,900 U	320 U	**173,000**	300 U	1,400 U
Acenaphthene	50,000	**201,000**	320 U	**68,600**	310 U	**55,800**	2,900 U	**195,000**	310 U	4,210	320 U	2,900 U	320 U	**220,000**	300 U	2,550
Acenaphthylene	41,000	34,900	320 U	24,700	310 U	12,200	8,820 J	**158,000**	310 U	1,230	320 U	2,900 U	320 U	25,000	300 U	2,500
Anthracene	50,000	**88,500**	320 U	45,600	310 U	35,500	4,780 J	**162,000**	310 U	4,150	320 U	3,200	320 U	**80,200**	300 U	5,180
Benz(a)anthracene	224/MDL	**58,400**	320 U	**31,800**	310 U	**21,400**	**8,630 J**	**81,500**	310 U	**2,640**	320 U	**12,300**	320 U	**55,300**	300 U	**4,290**
Benzo(a)pyrene	61/MDL	**56,500**	320 U	**32,900**	310 U	**21,500**	**19,000 J**	**92,900**	310 U	**2,550**	320 U	**12,200**	320 U	**56,600**	300 U	**3,820**
Benzo(b)fluoranthene	1,100	**30,500**	320 U	**19,300**	310 U	**9,850**	**9,060 J**	**60,800**	310 U	**1,130**	320 U	**11,400**	320 U	**32,700**	300 U	**2,150**
Benzo(g,h,i)perylene	50,000	27,000 J	320 U	14,700 J	310 U	9,710 J	11,700 J	43,300 J	310 U	950	320 U	6,970 J	320 U	26,700 J	300 U	1,710 J
Benzo(k)fluoranthene	1,100	**35,000**	320 UJ	**13,700 J**	310 UJ	**11,500 J**	**8,490 J**	**47,800**	310 UJ	**1,230**	320 U	**7,510 J**	320 UJ	**34,300**	300 UJ	**1,730 J**
Chrysene	400	**50,000**	320 U	**27,100**	310 U	**19,800**	**8,780 J**	**77,600**	310 U	**2,350**	320 U	**11,000**	320 U	**48,100**	300 U	**3,850**
Dibenz(a,h)anthracene	14/MDL	**7,980 J**	320 U	**3,800 J**	310 U	2,700 U	2,900 U	**9,920 J**	310 U	**308 J**	320 UJ	2,900 U	320 U	**7,360 J**	300 U	1,400 U
Fluoranthene	50,000	**145,000**	320 U	**64,100**	310 U	**54,100**	13,300 J	**273,000**	310 U	5,230 J	320 U	19,800	320 U	**146,000**	300 U	7,510
Fluorene	50,000	**146,000**	320 U	47,700	310 U	39,500	2,900 U	**202,000**	310 U	5,040	320 U	2,900 U	320 U	**138,000**	300 U	2,780
Indeno(1,2,3-cd)pyrene	3,200	**22,800 J**	320 U	**12,400 J**	310 U	**8,020 J**	**9,110 J**	**35,000 J**	310 U	706	320 U	**7,080 J**	320 U	**22,500 J**	300 U	1,400 U
Naphthalene	13,000	**675,000**	1,050	**194,000**	723	**148,000**	2,900 U	**550,000**	310 U	491	320 U	2,900 U	320 U	**470,000**	332	1,400 U
Phenanthrene	50,000	**341,000**	437	**154,000**	310 U	**130,000**	11,600 J	**582,000**	310 U	15,800	76	4,080	320 U	**348,000**	300 U	11,500
Pyrene	50,000	**177,000**	320 U	**74,000**	310 U	**66,400**	21,400 J	**345,000**	310 U	7,400 J	320 U	16,100	320 U	**182,000**	300 U	10,400
Total PAHs (µg/kg)	500,000	**2,500,000**	2,100	**970,000**	720	**700,000**	140,000	**3,300,000**	ND	57,000	76	110,000	ND	**2,100,000**	330	60,000
Total CPAHs (µg/kg)	NL	260,000	ND	140,000	ND	92,000	63,000	410,000	ND	11,000	ND	62,000	ND	260,000	ND	20,000
1,1'-Biphenyl	NL	55,700	630 U	24,200	630 U	16,000	5,800 U	82,800	630 U	1,050	650 U	5,800 U	640 U	46,100	610 U	2,800 U
1,2-Diphenylhydrazine	NL	2,800 U	320 U	2,800 U	310 U	2,700 U	2,900 U	2,700 U	310 U	300 U	320 U	2,900 U	320 U	2,700 U	300 U	1,400 U
2,4,5-Trichlorophenol	100	5,600 U	630 U	5,600 U	630 U	5,500 U	5,800 U	5,400 U	630 U	610 U	650 U	5,800 U	640 U	5,500 U	610 U	2,800 U
2,4,6-Trichlorophenol	NL	5,600 U	630 U	5,600 U	630 U	5,500 U	5,800 U	5,400 U	630 U	610 U	650 U	5,800 U	640 U	5,500 U	610 U	2,800 U
2,4-Dichlorophenol	400	5,600 U	630 U	5,600 U	630 U	5,500 U	5,800 U	5,400 U	630 U	610 U	650 U	5,800 U	640 U	5,500 U	610 U	2,800 U
2,4-Dimethylphenol	NL	5,600 U	630 U	5,600 U	630 U	5,500 U	5,800 U	5,400 U	630 U	610 U	650 U	5,800 U	640 U	5,500 U	610 U	2,800 U
2,4-Dinitrophenol	200/MDL	11,000 U	1,300 U	11,000 U	1,300 U	11,000 U	12,000 U	11,000 U	1,300 U	1,200 U	1,300 U	12,000 U	1,300 U	11,000 U	1,200 U	5,600 UJ
2,4-Dinitrotoluene	NL	5,600 U	630 U	5,600 U	630 U	5,500 U	5,800 U	5,400 U	630 U	610 U	650 U	5,800 U	640 U	5,500 U	610 U	2,800 U
2,6-Dinitrotoluene	1,000	5,600 U	630 U	5,600 U	630 U	5,500 U	5,800 U	5,400 U	630 U	610 U	650 U	5,800 U	640 U	5,500 U	610 U	2,800 U
2-Chloronaphthalene	NL	2,800 U	320 U	2,800 U	310 U	2,700 U	2,900 U	2,700 U	310 U	300 U	320 U	2,900 U	320 U	2,700 U	300 U	1,400 U
2-Chlorophenol	800	2,800 U	320 U	2,800 U	310 U	2,700 U	2,900 U	2,700 U	310 U	300 U	320 U	2,900 U	320 U	2,700 U	300 U	1,400 U
2-Methylphenol	100/MDL	5,600 U	630 U	5,600 U	630 U	5,500 U	5,800 U	5,400 U	630 U	610 U	650 U	5,800 U	640 U	5,500 U	610 U	2,800 U
2-Nitroaniline	430/MDL	5,600 U	630 U	5,600 U	630 U	5,500 U	5,800 U	5,400 U	630 U	610 U	650 U	5,800 U	640 U	5,500 U	610 U	2,800 U
2-Nitrophenol	330/MDL	5,600 U	630 U	5,600 U	630 U	5,500 U	5,800 U	5,400 U	630 U	610 U	650 U	5,800 U	640 U	5,500 U	610 U	2,800 U
3&4-Methylphenol	NL	5,600 U	630 U	5,600 U	630 U	5,500 U	5,800 U	5,400 U	630 U	610 U	650 U	5,800 U	640 U	5,500 U	610 U	2,800 U
3,3'-Dichlorobenzidine	NL	2,800 U	320 U	2,800 U	310 U	2,700 U	2,900 U	2,700 U	310 U	300 U	320 U	2,900 U	320 U	2,700 U	300 U	1,400 U
3-Nitroaniline	500/MDL	5,600 U	630 U	5,600 U	630 U	5,500 U	5,800 U	5,400 U	630 U	610 U	650 U	5,800 U	640 U	5,500 U	610 U	2,800 U
4,6-Dinitro-o-cresol	NL	5,600 U	630 U	5,600 U	630 U	5,500 U	5,800 U	5,400 U	630 U	610 U	650 U	5,800 U	640 U	5,500 U	610 U	2,800 U
4-Bromophenyl phenyl ether	NL	2,800 U	320 U	2,800 U	310 U	2,700 U	2,900 U	2,700 U	310 U	300 U	320 U	2,900 U	320 U	2,700 U	300 U	1,400 U
4-Chloro-3-methyl phenol	240/MDL	5,600 U	630 U	5,600 U	630 U	5,500 U	5,800 U	5,400 U	630 U	610 U	650 U	5,800 U	640 U	5,500 U	610 U	2,800 U
4-Chloroaniline	220/MDL	5,600 U	630 U	5,600 U	630 U	5,500 U	5,800 U	5,400 U	630 U	610 UJ	650 UJ	5,800 U	640 U	5,500 U	610 U	2,800 UJ
4-Chlorophenyl phenyl ether	NL	2,800 U	320 U	2,800 U	310 U	2,700 U	2,900 U	2,700 U	310 U	300 U	320 U	2,900 U	320 U	2,700 U	300 U	1,400 U
4-Nitroaniline	NL	5,600 U	630 U	5,600 U	630 U	5,500 U	5,800 U	5,400 U	630 U	610 U	650 U	5,800 U	640 U	5,500 U	610 U	2,800 U
4-Nitrophenol	100/MDL	11,000 U	1,300 U	11,000 U	1,300 U	11,000 U	12,000 U	11,000 U	1,300 U	1,200 U	1,300 U	12,000 U	1,300 U	11,000 U	1,200 U	5,600 U
Acetophenone	NL	5,600 U	630 U	5,600 U	630 U	5,500 U	5,800 U	5,400 U	630 U	610 U	650 U	5,800 U	640 U	5,500 U	610 U	2,800 U
Aniline	100	5,600 U	630 U	5,600 U	630 U	5,500 U	5,800 U	5,400 U	630 U	610 UJ	650 UJ	5,800 U	640 U	5,500 U	610 U	2,800 U
Atrazine	NL	5,600 U	630 U	5,600 U	630 U	5,500 U	5,800 U	5,400 U	630 U	610 UJ	650 UJ	5,800 U	640 U	5,500 U	610 U	2,800 U
Benzaldehyde	NL	11,000 U	1,300 U	11,000 U	1,300 U	11,000 U	12,000 U	11,000 U	1,300 U	1,200 U	1,300 U	12,000 U	1,300 U	11,000 U	1,200 U	5,600 U
Benzoic acid	NL	5,600 U	630 U	5,600 U	630 U	5,500 U	5,800 U	5,400 U	630 U	610 U	650 U	5,800 U	640 U	5,500 U	610 U	2,800 U
bis(2-Chloroethoxy)methane	NL	2,800 U	320 U	2,800 U	310 U	2,700 U	2,900 U	2,700 U	310 U	300 U	320 U	2,900 U	320 U	2,700 U	300 U	1,400 U
bis(2-Chloroethyl)ether	NL	2,800 U	320 U	2,800 U	310 U	2,700 U	2,900 U	2,700 U	310 U	300 U	320 U	2,900 U	320 U	2,700 U	300 U	1,400 U
bis(2-Chloroisopropyl)ether	NL	2,800 U	320 U	2,800 U	310 U	2,700 U	2,900 U	2,700 U	310 U	300 U	320 U	2,900 U	320 U	2,700 U	300 U	1,400 U
bis(2-Ethylhexyl)phthalate	50,000	5,600 U	630 U	5,600 U	630 U	5,500 U	5,800 U	5,400 U	630 U	610 U	650 U	5,800 U	640 U	5,500 U	610 U	2,800 U
Butyl benzyl phthalate	50,000	5,600 U	630 U	5,600 U	630 U	5,500 U	5,800 U	5,400 U	630 U	610 U	650 U	5,800 U	640 U	5,500 U	610 U	2,800 U
Caprolactam	NL	5,600 U	630 U	5,600 U	630 U	5,500 U	5,800 U	5,400 U	630 U	610 U	650 U	5,800 U	640 U	5,500 U	610 U	2,800 U
Carbazole	NL	7,030	320 U	2,800 U	310 U	2,700 U	2,900 U	2,700 U	310 U	300 U	320 U	2,900 U	320 U	3,730	300 U	1,400 U
Dibenzofuran	6,200	**26,100**	320 U	**11,600**	310 U	**6,910**	2,900 U	**29,500**	310 U	300 U	320 U	2,900 U	320 U	**21,100**	300 U	1,400 U
Diethyl phthalate	7,100	5,600 U	630 U	5,600 U	630 U	5,500 U	5,800 U	5,400 U	630 U	610 U	650 U	5,800 U	640 U	5,500 U	610 U	2,800 U
Dimethyl phthalate	2,000	5,600 U	630 U	5,600 U	630 U	5,500 U	5,800 U	5,400 U	630 U	610 U	650 U	5,800 U	640 U	5,500 U	610 U	2,800 U
Di-n-butyl phthalate	8,100	5,600 U	630 U	5,600 U	630 U	5,500 U	5,800 U	5,400 U	630 U	610 U	650 U	5,800 U	640 U	5,500 U	610 U	2,800 U
Di-n-octyl phthalate	50,000	5,600 U	630 U	5,600 U	630 U	5,500 U	5,800 U	5,400 U	630 U	610 U	650 U	5,800 U	640 U	5,500 U	610 U	2,800 U
Hexachlorobenzene	410	2,800 U	320 U	2,800 U	310 U	2,700 U	2,900 U	2,700 U	310 U	300 U	320 U	2,900 U	320 U	2,700 U	300 U	1,400 U
Hexachlorobutadiene	NL	2,800 U	320 U	2,800 U	310 U	2,700 U	2,900 U	2,700 U	310 U	300 U	320 U	2,900 U	320 U	2,700 U	300 U	1,400 U
Hexachlorocyclopentadiene	NL	5,600 UJ	630 UJ	5,600 UJ	630 UJ	5,500 UJ	5,800 UJ	5,400 UJ	630 UJ	610 U	650 U	5,800 UJ	640 UJ	5,500 UJ	610 UJ	2,800 UJ
Hexachloroethane	NL	2,800 U	320 U	2,800 U	310 U	2,700 U	2,900 U	2,700 U	310 U	300 U	320 U	2,900 U	320 U	2,700 U	300 U	1,400 U
Isophorone	4,400	2,800 U	320 U	2,800 U	310 U	2,700 U	2,900 U	2,700 U	310 U	300 U	320 U	2,900 U	320 U	2,700 U	300 U	1,400 U
Nitrobenzene	200/MDL	2,800 U	320 U	2,800 U	310 U	2,700 U	2,900 U	2,700 U	310 U	300 U	320 U	2,900 U	320 U	2,700 U	300 U	1,400 U
N-Nitroso-di-n-propylamine	NL	2,800 U	320 U	2,800 U	310 U	2,700 U	2,900 U	2,700 U	310 U	300 U	320 U	2,900 U	320 U	2,700 U	300 U	1,400 U
N-Nitrosodiphenylamine	NL	2,800 U	320 U	2,800 U	310 U	2,700 U	2,900 U	2,700 U	310 U	300 U	320 U	2,900 U	320 U	2,700 U	300 U	1,400 U
Pentachlorophenol	1,000/MDL	5,600 U	630 U	5,600 U	630 U	5,500 U	5,800 U	5,400 U	630 U	610 U	650 U	5,800 U	640 U	5,500 U	610 U	2,800 U
Phenol	30/MDL	2,800 U	320 U	2,800 U	310 U	2,700 U	2,900 U	2,700 U	310 U	300 U	320 U	2,900 U	320 U	2,700 U	300 U	1,400 U
Total SVOCs (µg/Kg)[2]	500,000	**2,600,000**	2,100	**1,000,000**	720	**720,000**	140,000	**3,400,000**	ND	58,000	76	110,000	ND	**2,100,000**	330	60,000

Notes:
NA = Not Analyzed
NL = Not Listed
ND = Not Detected
MDL - Method Detection Limit
D = The concentration indicated was obtained from a diluted analytical run.
J = The associated numerical value is an estimated quantity.
R = The result was rejected because one or more QC measures did not meet acceptable criteria by validator during the review process
U = The material was analyzed for but not detected at or above the MDL. The associated numerical value is the sample reporting limit.

Bold value - compound detected above regulatory guidance value.
[1]NYSDEC TAGM HWR-94-4046 - Determination of Soil Cleanup Objectives and Cleanup Levels [NYSDEC, Jan. 1994]
[2]The total SVOC values include all PAH compounds
CPAHs - Carcinogenic PAHs which are shown in bold and italics

Table B-10
Subsurface Soil SVOC Results - Part 2
Norwich Former MGP Site
Norwich, New York

Sample ID (Depth in Feet) / Laboratory Identification / Date Sampled	NYSDEC Cleanup Objective[1] Recommended Soil	NO-DP25(19-20) M46966-11 04/29/2005	NO-DP26(20-21.5) M46966-6 04/28/2005	NO-DP26(23-24) M46966-8 04/28/2005	NO-DP27(17.5-18) M46906-2 04/26/2005	NO-DP27(31-32) M46906-4 04/26/2005	NO-DP28(14-15) M46906-11 04/27/2005	NO-DP29(22.5-23) M46906-12 04/27/2005	NO-DP29(23-24) M46906-13 04/27/2005	NO-DP30(23-24) M46966-12 04/29/2005	NO-DP31(19-20) M46966-14 04/29/2005	NO-DP31(6.5-7.5) M46966-13 04/29/2005	NO-DP32(10-11) M46906-16 04/27/2005	NO-DP32(15-16) M46906-17 04/27/2005	NO-DP33(15-15.0) M46906-14 04/27/2005	NO-DP34(19-19.3) M48220-7 06/14/2005
Semi-volatile Organic Compounds (µg/kg)																
2-Methylnaphthalene	36,400	320 U	**3,650,000**	5,430	320 U	310 U	280 U	290 U	434	320 U	310 U	280 U	290 U	300 U	280 U	300 U
Acenaphthene	50,000	320 U	**899,000**	2,050	320 U	310 U	280 U	290 U	280 U	320 U	310 U	280 U	290 U	300 U	280 U	43.4 J
Acenaphthylene	41,000	320 U	**679,000**	1,490	320 U	310 U	280 U	290 U	280 U	320 U	310 U	280 U	683	300 U	280 U	300 U
Anthracene	50,000	320 U	**611,000**	1,680	320 U	310 U	280 U	290 U	280 U	320 U	310 U	280 U	816	300 U	280 U	300 U
Benz(a)anthracene	224/MDL	320 U	590,000 U	**1,020**	320 U	310 U	280 U	290 U	280 U	320 U	310 U	280 U	**521**	300 U	280 U	300 U
Benzo(a)pyrene	61/MDL	320 U	590,000 U	**890**	320 U	310 U	280 U	290 U	280 U	320 U	310 U	280 U	**533**	300 U	280 U	300 U
Benzo(b)fluoranthene	1,100	320 U	590,000 U	544	320 U	310 U	280 U	290 U	280 U	320 U	310 U	280 U	290 U	300 U	280 U	300 U
Benzo(g,h,i)perylene	50,000	320 U	590,000 U	425 J	320 U	310 U	280 U	290 U	280 U	320 U	310 U	280 U	644 J	300 U	280 U	300 U
Benzo(k)fluoranthene	1,100	320 UJ	590,000 U	465	320 UJ	310 UJ	280 UJ	290 UJ	280 UJ	320 U	310 U	280 U	290 UJ	300 UJ	280 UJ	300 U
Chrysene	400	320 U	590,000 U	**822**	320 U	310 U	280 U	290 U	280 U	320 U	310 U	280 U	**505**	300 U	280 U	300 U
Dibenz(a,h)anthracene	14/MDL	320 U	590,000 U	320 U	320 U	310 U	280 U	290 U	280 U	320 U	310 U	280 U	290 U	300 U	280 U	300 UJ
Fluoranthene	50,000	320 U	**764,000**	2,200	320 U	310 U	289	290 U	280 U	320 U	310 U	280 U	1,010	300 U	280 U	56.1 J
Fluorene	50,000	320 U	**890,000**	1,900	320 U	310 U	280 U	290 U	280 U	320 U	310 U	280 U	290 U	300 U	280 U	300 U
Indeno(1,2,3-cd)pyrene	3,200	320 U	590,000 U	358 J	320 U	310 U	280 U	290 U	280 U	320 U	310 U	280 U	318 J	300 U	280 U	300 U
Naphthalene	13,000	320 U	**6,230,000**	6,560	320 U	310 U	280 U	675	**13,500**	320 U	310 U	280 U	290 U	300 U	280 U	300 U
Phenanthrene	50,000	320 U	**2,010,000**	5,240	320 U	310 U	280 U	290 U	280 U	320 U	310 U	280 U	1,640	300 U	280 U	114
Pyrene	50,000	320 U	**924,000**	2,620	320 U	310 U	295	290 U	280 U	320 U	310 U	280 U	1,300	300 U	280 U	71.8
Total PAHs (µg/kg)	500,000	ND	**17,000,000**	34,000	ND	ND	580	680	14,000	ND	ND	ND	8,000	ND	ND	290
Total CPAHs (µg/kg)	NL	ND	ND	4,100	ND	ND	ND	ND	ND	ND	ND	ND	1,900	ND	ND	ND
1,1'-Biphenyl	NL	640 U	1,200,000 U	908	650 U	610 U	570 U	580 U	570 U	640 U	620 U	550 U	570 U	590 U	560 U	600 U
1,2-Diphenylhydrazine	NL	320 U	590,000 U	320 U	320 U	310 U	280 U	290 U	280 U	320 U	310 U	280 U	290 U	300 U	280 U	300 U
2,4,5-Trichlorophenol	100	640 U	1,200,000 U	640 U	650 U	610 U	570 U	580 U	570 U	640 U	620 U	550 U	570 U	590 U	560 U	600 U
2,4,6-Trichlorophenol	NL	640 U	1,200,000 U	640 U	650 U	610 U	570 U	580 U	570 U	640 U	620 U	550 U	570 U	590 U	560 U	600 U
2,4-Dichlorophenol	400	640 U	1,200,000 U	640 U	650 U	610 U	570 U	580 U	570 U	640 U	620 U	550 U	570 U	590 U	560 U	600 U
2,4-Dimethylphenol	NL	640 U	1,200,000 U	640 U	650 U	610 U	570 U	580 U	570 U	640 U	620 U	550 U	570 U	590 U	560 U	600 U
2,4-Dinitrophenol	200/MDL	1,300 UJ	2,400,000 UJ	1,300 UJ	1,300 U	1,200 U	1,100 U	1,200 U	1,100 U	1,300 UJ	1,200 UJ	1,100 UJ	1,100 U	1,200 U	1,100 U	1,200 U
2,4-Dinitrotoluene	NL	640 U	1,200,000 U	640 U	650 U	610 U	570 U	580 U	570 U	640 U	620 U	550 U	570 U	590 U	560 U	600 U
2,6-Dinitrotoluene	1,000	640 U	1,200,000 U	640 U	650 U	610 U	570 U	580 U	570 U	640 U	620 U	550 U	570 U	590 U	560 U	600 U
2-Chloronaphthalene	NL	320 U	590,000 U	320 U	320 U	310 U	280 U	290 U	280 U	320 U	310 U	280 U	290 U	300 U	280 U	300 U
2-Chlorophenol	800	320 U	590,000 U	320 U	320 U	310 U	280 U	290 U	280 U	320 U	310 U	280 U	290 U	300 U	280 U	300 U
2-Methylphenol	100/MDL	640 U	1,200,000 U	640 U	650 U	610 U	570 U	580 U	570 U	640 U	620 U	550 U	570 U	590 U	560 U	600 U
2-Nitroaniline	430/MDL	640 U	1,200,000 U	640 U	650 U	610 U	570 U	580 U	570 U	640 U	620 U	550 U	570 U	590 U	560 U	600 U
2-Nitrophenol	330/MDL	640 U	1,200,000 U	640 U	650 U	610 U	570 U	580 U	570 U	640 U	620 U	550 U	570 U	590 U	560 U	600 U
3&4-Methylphenol	NL	640 U	1,200,000 U	640 U	650 U	610 U	570 U	580 U	570 U	640 U	620 U	550 U	570 U	590 U	560 U	600 U
3,3'-Dichlorobenzidine	NL	320 U	590,000 U	320 U	320 U	310 U	280 U	290 U	280 U	320 U	310 U	280 U	290 U	300 U	280 U	300 U
3-Nitroaniline	500/MDL	640 U	1,200,000 U	640 U	650 U	610 U	570 U	580 U	570 U	640 U	620 U	550 U	570 U	590 U	560 U	600 U
4,6-Dinitro-o-cresol	NL	640 U	1,200,000 U	640 U	650 U	610 U	570 U	580 U	570 U	640 U	620 U	550 U	570 U	590 U	560 U	600 U
4-Bromophenyl phenyl ether	NL	320 U	590,000 U	320 U	320 U	310 U	280 U	290 U	280 U	320 U	310 U	280 U	290 U	300 U	280 U	300 U
4-Chloro-3-methyl phenol	240/MDL	640 U	1,200,000 U	640 U	650 U	610 U	570 U	580 U	570 U	640 U	620 U	550 U	570 U	590 U	560 U	600 U
4-Chloroaniline	220/MDL	640 UJ	1,200,000 UJ	640 UJ	650 U	610 U	570 U	580 U	570 U	640 UJ	620 UJ	550 UJ	570 U	590 U	560 U	600 UJ
4-Chlorophenyl phenyl ether	NL	320 U	590,000 U	320 U	320 U	310 U	280 U	290 U	280 U	320 U	310 U	280 U	290 U	300 U	280 U	300 U
4-Nitroaniline	NL	640 U	1,200,000 U	640 U	650 U	610 U	570 U	580 U	570 U	640 U	620 U	550 U	570 U	590 U	560 U	600 U
4-Nitrophenol	100/MDL	1,300 U	2,400,000 U	1,300 U	1,300 U	1,200 U	1,100 U	1,200 U	1,100 U	1,300 U	1,200 U	1,100 U	1,100 U	1,200 U	1,100 U	1,200 U
Acetophenone	NL	640 U	1,200,000 U	640 U	650 U	610 U	570 U	580 U	570 U	640 U	620 U	550 U	570 U	590 U	560 U	600 U
Aniline	100	640 U	1,200,000 U	640 U	650 U	610 U	570 U	580 U	570 U	640 U	620 U	550 U	570 U	590 U	560 U	600 U
Atrazine	NL	640 U	1,200,000 U	640 U	650 U	610 U	570 U	580 U	570 U	640 U	620 U	550 U	570 U	590 U	560 U	600 UJ
Benzaldehyde	NL	1,300 U	2,400,000 U	1,300 U	1,300 U	1,200 U	1,100 U	1,200 U	1,100 U	1,300 U	1,200 U	1,100 U	1,100 U	1,200 U	1,100 U	1,200 UJ
Benzoic acid	NL	640 U	1,200,000 U	640 U	650 U	610 U	570 U	580 U	570 U	640 U	620 U	550 U	570 U	590 U	560 U	600 U
bis(2-Chloroethoxy)methane	NL	320 U	590,000 U	320 U	320 U	310 U	280 U	290 U	280 U	320 U	310 U	280 U	290 U	300 U	280 U	300 U
bis(2-Chloroethyl)ether	NL	320 U	590,000 U	320 U	320 U	310 U	280 U	290 U	280 U	320 U	310 U	280 U	290 U	300 U	280 U	300 U
bis(2-Chloroisopropyl)ether	NL	320 U	590,000 U	320 U	320 U	310 U	280 U	290 U	280 U	320 U	310 U	280 U	290 U	300 U	280 U	300 U
bis(2-Ethylhexyl)phthalate	50,000	640 U	1,200,000 U	640 U	650 U	610 U	570 U	580 U	570 U	640 U	620 U	550 U	570 U	590 U	560 U	97.4
Butyl benzyl phthalate	50,000	640 U	1,200,000 U	640 U	650 U	610 U	570 U	580 U	570 U	640 U	620 U	550 U	570 U	590 U	560 U	600 U
Caprolactam	NL	640 U	1,200,000 U	640 U	650 U	610 U	570 U	580 U	570 U	640 U	620 U	550 U	570 U	590 U	560 U	600 U
Carbazole	NL	320 U	590,000 U	320 U	320 U	310 U	280 U	290 U	280 U	320 U	310 U	280 U	290 U	300 U	280 U	300 U
Dibenzofuran	6,200	320 U	590,000 U	557	320 U	310 U	280 U	290 U	280 U	320 U	310 U	280 U	290 U	300 U	280 U	300 U
Diethyl phthalate	7,100	640 U	1,200,000 U	640 U	650 U	610 U	570 U	580 U	570 U	640 U	620 U	550 U	570 U	590 U	560 U	600 U
Dimethyl phthalate	2,000	640 U	1,200,000 U	640 U	650 U	610 U	570 U	580 U	570 U	640 U	620 U	550 U	570 U	590 U	560 U	600 U
Di-n-butyl phthalate	8,100	640 U	1,200,000 U	640 U	650 U	610 U	570 U	580 U	570 U	640 U	620 U	550 U	570 U	590 U	560 U	600 U
Di-n-octyl phthalate	50,000	640 U	1,200,000 U	640 U	650 U	610 U	570 U	580 U	570 U	640 U	620 U	550 U	570 U	590 U	560 U	600 U
Hexachlorobenzene	410	320 U	590,000 U	320 U	320 U	310 U	280 U	290 U	280 U	320 U	310 U	280 U	290 U	300 U	280 U	300 U
Hexachlorobutadiene	NL	320 U	590,000 U	320 U	320 U	310 U	280 U	290 U	280 U	320 U	310 U	280 U	290 U	300 U	280 U	300 U
Hexachlorocyclopentadiene	NL	R	1,200,000 U	640 U	650 UJ	610 U	570 UJ	580 UJ	570 UJ	640 U	620 U	550 U	570 UJ	590 U	560 UJ	600 U
Hexachloroethane	NL	320 U	590,000 U	320 U	320 U	310 U	280 U	290 U	280 U	320 U	310 U	280 U	290 U	300 U	280 U	300 U
Isophorone	4,400	320 U	590,000 U	320 U	320 U	310 U	280 U	290 U	280 U	320 U	310 U	280 U	290 U	300 U	280 U	300 U
Nitrobenzene	200/MDL	320 U	590,000 U	320 U	320 U	310 U	280 U	290 U	280 U	320 U	310 U	280 U	290 U	300 U	280 U	300 U
N-Nitroso-di-n-propylamine	NL	320 U	590,000 U	320 U	320 U	310 U	280 U	290 U	280 U	320 U	310 U	280 U	290 U	300 U	280 U	300 U
N-Nitrosodiphenylamine	NL	320 U	590,000 U	320 U	320 U	310 U	280 U	290 U	280 U	320 U	310 U	280 U	290 U	300 U	280 U	300 U
Pentachlorophenol	1,000/MDL	640 U	1,200,000 U	640 U	650 U	610 U	570 U	580 U	570 U	640 U	620 U	550 U	570 U	590 U	560 U	600 U
Phenol	30/MDL	320 U	590,000 U	320 U	320 U	310 U	280 U	290 U	280 U	320 U	310 U	280 U	290 U	300 U	280 U	300 U
Total SVOCs (µg/Kg)[2]	500,000	ND	**17,000,000**	35,000	ND	ND	580	680	14,000	ND	ND	ND	8,000	ND	ND	1,400

Notes:
NA = Not Analyzed
NL = Not Listed
ND = Not Detected
MDL - Method Detection Limit
D = The concentration indicated was obtained from a diluted analytical run.
J = The associated numerical value is an estimated quantity.
R = The result was rejected because one or more QC measures did not meet acceptable criteria by validator during the review process
U = The material was analyzed for but not detected at or above the MDL. The associated numerical value is the sample reporting limit.

Bold value - compound detected above regulatory guidance value.
[1]NYSDEC TAGM HWR-94-4046 - Determination of Soil Cleanup Objectives and Cleanup Levels [NYSDEC, Jan. 1994]
[2]The total SVOC values include all PAH compounds
CPAHs - Carcinogenic PAHs which are shown in bold and italics

Table B-10
Subsurface Soil SVOC Results - Part 2
Norwich Former MGP Site
Norwich, New York

Sample ID (Depth in Feet) Laboratory Identification Date Sampled	NYSDEC Cleanup Objective[1] Recommended Soil	NO-DP34(22-23) M48220-8 06/14/2005	NO-DP35(23-24) M46966-4 04/28/2005	NO-DP36(13-13.9) M46966-2 04/28/2005	NO-DP37(26.5-27.5) M47558-1 05/19/2005	NO-DP37(31.5-32) M47558-2 05/19/2005	NO-DP38(27-28) M47558-8 05/20/2005	NO-DP39(13-13.5) M48220-1 06/13/2005	NO-DP39(24-25) M48220-2 06/13/2005	NO-DP40(21.5-23.5) M47558-9 05/20/2005	NO-DP40(26.5-27.5) M47558-10 05/20/2005	NO-DP41(16-16.5) M47558-3 05/19/2005	NO-DP41(23-23.7) M47558-4 05/19/2005	NO-DP42(26-27) M48220-4 06/13/2005	NO-DP42(9-10) M48220-3 06/13/2005	NO-DP43(23-23.8) M47558-6 05/19/2005
Semi-volatile Organic Compounds (µg/kg)																
2-Methylnaphthalene	36,400	330 U	310 U	310 U	**1,070,000**	281	90.4	44.2 J	340 U	**280,000**	171	3,410	34.3 J	330 U	280 U	75.7
Acenaphthene	50,000	330 U	310 U	310 U	**70,900**	320 U	320 U	88.2	340 U	**57,700**	42.6 J	3,220	320 U	330 U	69.3	320 U
Acenaphthylene	41,000	330 U	310 U	310 U	**529,000**	111	320 U	300 U	340 U	**85,300**	70.3	669	320 U	330 U	43.7 J	320 U
Anthracene	50,000	330 U	310 U	310 U	**234,000**	43.1 J	320 U	66.6	340 U	**58,800**	37.2 J	2,170	320 U	330 U	48.6 J	320 U
Benz(a)anthracene	224/MDL	330 U	310 U	310 U	**134,000**	320 U	320 U	300 U	340 U	**32,600**	330 U	**1,250**	320 U	330 U	280 U	320 U
Benzo(a)pyrene	61/MDL	330 U	310 U	310 U	**131,000**	320 U	320 U	300 U	340 U	**24,400**	330 U	**1,150**	320 U	330 U	280 U	320 U
Benzo(b)fluoranthene	1,100	330 U	310 U	310 U	**63,600**	320 U	320 U	300 U	340 U	**15,800**	330 U	564	320 U	330 U	280 U	320 U
Benzo(g,h,i)perylene	50,000	330 U	310 U	310 U	**62,200**	320 U	320 U	300 U	340 U	8,680	330 U	506	320 U	330 U	280 U	320 U
Benzo(k)fluoranthene	1,100	330 U	310 UJ	310 UJ	**80,100**	320 U	320 U	300 U	340 U	**18,100**	330 U	735	320 U	330 U	280 U	320 U
Chrysene	400	330 U	310 U	310 U	**110,000**	320 U	320 U	300 U	340 U	**25,600**	330 U	**1,020**	320 U	330 U	30.1 J	320 U
Dibenz(a,h)anthracene	14/MDL	330 UJ	310 U	310 U	**16,000 J**	320 UJ	320 UJ	300 UJ	340 UJ	**4,000 J**	330 UJ	**222 J**	320 UJ	330 UJ	280 UJ	320 UJ
Fluoranthene	50,000	330 U	310 U	310 U	**285,000**	60.1 J	320 U	81	340 U	**66,200**	42.4 J	2,530	320 U	330 U	88.6	320 U
Fluorene	50,000	330 U	310 U	310 U	**281,000**	76.6	320 U	300 U	340 U	**84,700**	59.9 J	2,190	320 U	330 U	280 U	320 U
Indeno(1,2,3-cd)pyrene	3,200	330 U	310 U	310 U	**30,500**	320 U	320 U	300 U	340 U	**8,080**	330 U	427	320 U	330 U	280 U	320 U
Naphthalene	13,000	330 U	310 U	310 U	**1,720,000**	788	176	230 J	340 U	**426,000**	303	1,560	47 J	330 U	263 J	273
Phenanthrene	50,000	330 U	310 U	310 U	**718,000**	183	72.9	271 J	340 U	**173,000**	135	5,790	320 U	330 U	154 J	320 U
Pyrene	50,000	330 U	310 U	310 U	**355,000**	73	320 U	90	340 U	**83500**	55.6 J	3,120	320 U	330 U	103	320 U
Total PAHs (µg/kg)	500,000	ND	ND	ND	**5,900,000**	1,600	340	870	ND	**1,500,000**	920	31,000	81	ND	800	350
Total CPAHs (µg/kg)	NL	ND	ND	ND	570,000	ND	ND	ND	ND	130,000	ND	5,400	ND	ND	30	ND
1,1'-Biphenyl	NL	660 U	610 U	630 U	151,000	640 U	5,800 U	600 U	690 U	37,100	670 U	906	640 U	670 U	560 U	650 U
1,2-Diphenylhydrazine	NL	NA	310 U	310 U	3,000 U	320 U	2,900 U	300 U	340 U	1,500 U	330 U	280 U	320 U	330 U	280 U	320 U
2,4,5-Trichlorophenol	100	660 U	610 U	630 U	5,900 U	640 U	5,800 U	600 U	690 U	3,000 U	670 U	560 U	640 U	670 U	560 U	650 U
2,4,6-Trichlorophenol	NL	660 U	610 U	630 U	5,900 U	640 U	5,800 U	600 U	690 U	3,000 U	670 U	560 U	640 U	670 U	560 U	650 U
2,4-Dichlorophenol	400	660 U	610 U	630 U	5,900 U	640 U	5,800 U	600 U	690 U	3,000 U	670 U	560 U	640 U	670 U	560 U	650 U
2,4-Dimethylphenol	NL	660 U	610 U	630 U	5,900 U	640 U	5,800 U	600 U	690 U	3,000 U	670 U	560 U	640 U	670 U	560 U	650 U
2,4-Dinitrophenol	200/MDL	1,300 U	1,200 UJ	1,300 UJ	12,000 U	1,300 U	12,000 U	1,200 U	1,400 U	6,000 U	1,300 U	1,100 U	1,300 U	1,300 U	1,100 U	1,300 U
2,4-Dinitrotoluene	NL	660 U	610 U	630 U	5,900 U	640 U	5,800 U	600 U	690 U	3,000 U	670 U	560 U	640 U	670 U	560 U	650 U
2,6-Dinitrotoluene	1,000	660 U	610 U	630 U	5,900 U	640 U	5,800 U	600 U	690 U	3,000 U	670 U	560 U	640 U	670 U	560 U	650 U
2-Chloronaphthalene	NL	330 U	310 U	310 U	3,000 U	320 U	2,900 U	300 U	340 U	1,500 U	330 U	280 U	320 U	330 U	280 U	320 U
2-Chlorophenol	800	330 U	310 U	310 U	3,000 U	320 U	2,900 U	300 U	340 U	1,500 U	330 U	280 U	320 U	330 U	280 U	320 U
2-Methylphenol	100/MDL	660 U	610 U	630 U	5,900 U	640 U	5,800 U	600 U	690 U	3,000 U	670 U	560 U	640 U	670 U	560 U	650 U
2-Nitroaniline	430/MDL	660 U	610 U	630 U	5,900 U	640 U	5,800 U	600 U	690 U	3,000 U	670 U	560 U	640 U	670 U	560 U	650 U
2-Nitrophenol	330/MDL	660 U	610 U	630 U	5,900 U	640 U	5,800 U	600 U	690 U	3,000 U	670 U	560 U	640 U	670 U	560 U	650 U
3&4-Methylphenol	NL	660 U	610 U	630 U	5,900 U	640 U	5,800 U	600 U	690 U	3,000 U	670 U	560 U	640 U	670 U	560 U	650 U
3,3'-Dichlorobenzidine	NL	330 U	310 U	310 U	3,000 U	320 U	2,900 U	300 U	340 U	1,500 U	330 U	280 U	320 U	330 U	280 U	320 U
3-Nitroaniline	500/MDL	660 U	610 U	630 U	5,900 U	640 U	5,800 U	600 U	690 U	3,000 U	670 U	560 U	640 U	670 U	560 U	650 U
4,6-Dinitro-o-cresol	NL	660 U	610 U	630 U	5,900 U	640 U	5,800 U	600 U	690 U	3,000 U	670 U	560 U	640 U	670 U	560 U	650 U
4-Bromophenyl phenyl ether	NL	330 U	310 U	310 U	3,000 U	320 U	2,900 U	300 U	340 U	1,500 U	330 U	280 U	320 U	330 U	280 U	320 U
4-Chloro-3-methyl phenol	240/MDL	660 U	610 U	630 U	5,900 U	640 U	5,800 U	600 U	690 U	3,000 U	670 U	560 U	640 U	670 U	560 U	650 U
4-Chloroaniline	220/MDL	660 UJ	610 UJ	630 UJ	5,900 UJ	640 UJ	5,800 UJ	600 UJ	690 UJ	3,000 UJ	670 UJ	560 UJ	640 UJ	670 UJ	560 UJ	650 UJ
4-Chlorophenyl phenyl ether	NL	330 U	310 U	310 U	3,000 U	320 U	2,900 U	300 U	340 U	1,500 U	330 U	280 U	320 U	330 U	280 U	320 U
4-Nitroaniline	NL	660 U	610 U	630 U	5,900 U	640 U	5,800 U	600 U	690 U	3,000 U	670 U	560 U	640 U	670 U	560 U	650 U
4-Nitrophenol	100/MDL	1,300 U	1,200 U	1,300 U	12,000 U	1,300 U	12,000 U	1,200 U	1,400 U	6,000 U	1,300 U	1,100 U	1,300 U	1,300 U	1,100 U	1,300 U
Acetophenone	NL	660 U	610 U	630 U	5,900 U	640 U	5,800 U	600 U	690 U	3,000 U	670 U	560 U	640 U	670 U	560 U	650 U
Aniline	100	NA	610 U	630 U	5,900 U	640 U	5,800 U	600 U	690 U	3,000 U	670 U	560 U	640 U	670 U	560 U	650 U
Atrazine	NL	660 UJ	610 U	630 U	5,900 U	640 U	5,800 U	600 UJ	690 UJ	3,000 U	670 U	560 U	640 U	670 UJ	560 UJ	650 U
Benzaldehyde	NL	1,300 UJ	1,200 U	1,300 U	12,000 U	1,300 U	12,000 U	1,200 UJ	1,400 UJ	6,000 U	1,300 U	1,100 U	1,300 U	1,300 UJ	1,100 UJ	1,300 U
Benzoic acid	NL	660 U	610 U	630 U	R	R	5,800 R	600 U	690 U	R	R	R	R	670 U	560 U	R
bis(2-Chloroethoxy)methane	NL	330 U	310 U	310 U	3,000 U	320 U	2,900 U	300 U	340 U	1,500 U	330 U	280 U	320 U	330 U	280 U	320 U
bis(2-Chloroethyl)ether	NL	330 U	310 U	310 U	3,000 U	320 U	2,900 U	300 U	340 U	1,500 U	330 U	280 U	320 U	330 U	280 U	320 U
bis(2-Chloroisopropyl)ether	NL	330 U	310 U	310 U	3,000 U	320 U	2,900 U	300 U	340 U	1,500 U	330 U	280 U	320 U	330 U	280 U	320 U
bis(2-Ethylhexyl)phthalate	50,000	73	610 U	630 U	5,900 U	640 U	5,800 U	139	177	1,420	670 U	560 U	640 U	164	170	650 U
Butyl benzyl phthalate	50,000	660 U	610 U	630 U	5,900 U	640 U	5,800 U	600 U	690 U	3,000 U	670 U	560 U	640 U	670 U	560 U	650 U
Caprolactam	NL	660 U	610 U	630 U	5,900 U	640 U	5,800 U	600 U	690 U	3,000 U	670 U	560 U	640 U	670 U	560 U	650 U
Carbazole	NL	330 U	310 U	310 U	21,500	320 U	2,900 U	300 U	340 U	4,860	330 U	153	320 U	330 U	280 U	320 U
Dibenzofuran	6,200	330 U	310 U	310 U	**58,000**	320 U	2,900 U	300 U	340 U	**17,900**	330 U	617	320 U	330 U	38 J	320 U
Diethyl phthalate	7,100	660 U	610 U	630 U	5,900 U	640 U	5,800 U	600 U	690 U	3,000 U	670 U	560 U	640 U	670 U	560 U	650 U
Dimethyl phthalate	2,000	660 U	610 U	630 U	5,900 U	640 U	5,800 U	600 U	690 U	3,000 U	670 U	560 U	640 U	670 U	560 U	650 U
Di-n-butyl phthalate	8,100	660 U	610 U	630 U	5,900 U	640 U	5,800 U	38 J	690 U	3,000 U	670 U	560 U	640 U	670 U	560 U	650 U
Di-n-octyl phthalate	50,000	660 U	610 U	630 U	5,900 U	640 U	5,800 U	600 U	690 U	3,000 U	670 U	560 U	640 U	670 U	560 U	650 U
Hexachlorobenzene	410	330 U	310 U	310 U	3,000 U	320 U	2,900 U	300 U	340 U	1,500 U	330 U	280 U	320 U	330 U	280 U	320 U
Hexachlorobutadiene	NL	330 U	310 U	310 U	3,000 U	320 U	2,900 U	300 U	340 U	1,500 U	330 U	280 U	320 U	330 U	280 U	320 U
Hexachlorocyclopentadiene	NL	660 U	610 UJ	630 UJ	5,900 U	640 U	5,800 U	600 U	690 U	3,000 U	670 U	560 U	640 U	670 U	560 U	650 U
Hexachloroethane	NL	330 U	310 U	310 U	3,000 U	320 U	2,900 U	300 U	340 U	1,500 U	330 U	280 U	320 U	330 U	280 U	320 U
Isophorone	4,400	330 U	310 U	310 U	3,000 U	320 U	2,900 U	300 U	340 U	1,500 U	330 U	280 U	320 U	330 U	280 U	320 U
Nitrobenzene	200/MDL	330 U	310 U	310 U	3,000 U	320 U	2,900 U	300 U	340 U	1,500 U	330 U	280 U	320 U	330 U	280 U	320 U
N-Nitroso-di-n-propylamine	NL	330 U	310 U	310 U	3,000 U	320 U	2,900 U	300 U	340 U	1,500 U	330 U	280 U	320 U	330 U	280 U	320 U
N-Nitrosodiphenylamine	NL	330 U	310 U	310 U	3,000 U	320 U	2,900 U	300 U	340 U	1,500 U	330 U	280 U	320 U	330 U	280 U	320 U
Pentachlorophenol	1,000/MDL	660 U	610 U	630 U	5,900 U	640 U	5,800 U	600 U	690 U	3,000 U	670 U	560 U	640 U	670 U	560 U	650 U
Phenol	30/MDL	330 U	310 U	310 U	3,000 U	320 U	2,900 U	300 U	340 U	1,500 U	330 U	280 U	320 U	330 U	280 U	320 U
Total SVOCs (µg/Kg)[2]	500,000	73	ND	ND	**6,100,000**	1,600	340	1,100	180	**1,500,000**	920	32,000	81	160	1,000	350

Notes:
NA = Not Analyzed
NL = Not Listed
ND = Not Detected
MDL - Method Detection Limit
D = The concentration indicated was obtained from a diluted analytical run.
J = The associated numerical value is an estimated quantity.
R = The result was rejected because one or more QC measures did not meet acceptable criteria by validator during the review process
U = The material was analyzed for but not detected at or above the MDL. The associated numerical value is the sample reporting limit.

Bold value - compound detected above regulatory guidance value.
[1]NYSDEC TAGM HWR-94-4046 - Determination of Soil Cleanup Objectives and Cleanup Levels [NYSDEC, Jan. 1994]
[2]The total SVOC values include all PAH compounds
CPAHs - Carcinogenic PAHs which are shown in bold and italics

Table B-10
Subsurface Soil SVOC Results - Part 2
Norwich Former MGP Site
Norwich, New York

Sample ID (Depth in Feet) Laboratory Identification Date Sampled	NYSDEC Cleanup Objective[1] Recommended Soil	NO-DP44(15-16) M48323-3 06/15/2005	NO-DP44(25-26) M48323-4 06/15/2005	NO-DP45(10.8-11.3) M48323-5 06/15/2005	NO-DP46(9-9.6) M48220-5 06/14/2005	NO-DP46(22-24) M48220-6 06/14/2005	NO-DP47(21.5-22.5) M48323-1 06/15/2005	NO-DP47(26-27) M48323-2 06/15/2005	NO-DP48(18-19) M48220-9 06/14/2005	NO-DP48(26-27) M48220-10 06/14/2005	NO-DP49(17-18) M48220-11 06/14/2005	NO-DP49(26-27) M48220-12 06/14/2005	NO-DP50(13.7-15.5) M48323-7 06/16/2005	NO-DP50(25-26) M48323-8 06/16/2005
Semi-volatile Organic Compounds (µg/kg)														
2-Methylnaphthalene	36,400	300 U	320 U	320 U	366	320 U	300 U	310 U	63.8	320 U	290 U	330 U	290 U	330 U
Acenaphthene	50,000	300 U	320 U	320 U	290 U	320 U	300 U	310 U	74.8	320 U	290 U	330 U	290 U	330 U
Acenaphthylene	41,000	300 U	320 U	320 U	1,180	320 U	300 U	310 U	290 U	320 U	290 U	330 U	290 U	330 U
Anthracene	50,000	300 U	320 U	320 U	190	320 U	300 U	310 U	53.7 J	320 U	290 U	330 U	290 U	330 U
Benz(a)anthracene	224/MDL	300 U	320 U	320 U	290 U	320 U	300 U	310 U	290 U	320 U	290 U	330 U	290 U	330 U
Benzo(a)pyrene	61/MDL	300 U	320 U	320 U	**347**	320 U	300 U	310 U	290 U	320 U	290 U	330 U	290 U	330 U
Benzo(b)fluoranthene	1,100	300 U	320 U	320 U	142	320 U	300 U	310 U	290 U	320 U	290 U	330 U	290 U	330 U
Benzo(g,h,i)perylene	50,000	300 U	320 U	320 U	1,270	320 U	300 U	310 U	290 U	320 U	290 U	330 U	290 U	330 U
Benzo(k)fluoranthene	1,100	300 U	320 U	320 U	81.4	320 U	300 U	310 U	290 U	320 U	290 U	330 U	290 U	330 U
Chrysene	400	300 U	320 U	320 U	290 U	320 U	300 U	310 U	290 U	320 U	290 U	330 U	290 U	330 U
Dibenz(a,h)anthracene	14/MDL	300 UJ	320 UJ	320 UJ	290 UJ	320 UJ	300 UJ	310 UJ	290 UJ	320 UJ	290 UJ	330 UJ	290 UJ	330 UJ
Fluoranthene	50,000	300 U	320 U	320 U	290 U	320 U	300 U	310 U	68	320 U	31.3 J	330 U	290 U	330 U
Fluorene	50,000	300 U	320 U	320 U	126 J	320 U	300 U	310 U	290 U	320 U	290 U	330 U	290 U	330 U
Indeno(1,2,3-cd)pyrene	3,200	300 U	320 U	320 U	766	320 U	300 U	310 U	290 U	320 U	290 U	330 U	290 U	330 U
Naphthalene	13,000	300 U	320 U	320 U	322	320 U	300 U	310 U	141	320 U	290 U	330 U	290 U	330 U
Phenanthrene	50,000	300 U	320 U	320 U	290 U	320 U	300 U	310 U	194 J	320 U	53.3 J	330 U	290 U	330 U
Pyrene	50,000	300 U	320 U	320 U	223 J	320 U	300 U	310 U	93.9	320 U	79.2	330 U	46 J	330 U
Total PAHs (µg/kg)	500,000	ND	ND	ND	5,000	ND	ND	ND	690	ND	160	ND	46	ND
Total CPAHs (µg/kg)	NL	ND	ND	ND	1,300	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1'-Biphenyl	NL	600 U	630 U	630 U	580 U	640 U	600 U	630 U	580 U	630 U	580 U	650 U	590 U	650 U
1,2-Diphenylhydrazine	NL	300 U	320 U	320 U	290 U	320 U	300 U	310 U	290 U	NA	290 U	330 U	290 U	330 U
2,4,5-Trichlorophenol	100	600 U	630 U	630 U	580 U	640 U	600 U	630 U	580 U	630 U	580 U	650 U	590 U	650 U
2,4,6-Trichlorophenol	NL	600 U	630 U	630 U	580 U	640 U	600 U	630 U	580 U	630 U	580 U	650 U	590 U	650 U
2,4-Dichlorophenol	400	600 U	630 U	630 U	580 U	640 U	600 U	630 U	580 U	630 U	580 U	650 U	590 U	650 U
2,4-Dimethylphenol	NL	600 U	630 U	630 U	580 U	640 U	600 U	630 U	580 U	630 U	580 U	650 U	590 U	650 U
2,4-Dinitrophenol	200/MDL	1,200 U	1,300 U	1,300 U	1,200 U	1,300 U	1,200 U	1,300 U	1,200 U	1,300 U	1,200 U	1,300 U	1,200 U	1,300 U
2,4-Dinitrotoluene	NL	600 U	630 U	630 U	580 U	640 U	600 U	630 U	580 U	630 U	580 U	650 U	590 U	650 U
2,6-Dinitrotoluene	1,000	600 U	630 U	630 U	580 U	640 U	600 U	630 U	580 U	630 U	580 U	650 U	590 U	650 U
2-Chloronaphthalene	NL	300 U	320 U	320 U	290 U	320 U	300 U	310 U	290 U	320 U	290 U	330 U	290 U	330 U
2-Chlorophenol	800	300 U	320 U	320 U	290 U	320 U	300 U	310 U	290 U	320 U	290 U	330 U	290 U	330 U
2-Methylphenol	100/MDL	600 U	630 U	630 U	580 U	640 U	600 U	630 U	580 U	630 U	580 U	650 U	590 U	650 U
2-Nitroaniline	430/MDL	600 U	630 U	630 U	580 U	640 U	600 U	630 U	580 U	630 U	580 U	650 U	590 U	650 U
2-Nitrophenol	330/MDL	600 U	630 U	630 U	580 U	640 U	600 U	630 U	580 U	630 U	580 U	650 U	590 U	650 U
3&4-Methylphenol	NL	600 U	630 U	630 U	580 U	640 U	600 U	630 U	580 U	630 U	580 U	650 U	590 U	650 U
3,3'-Dichlorobenzidine	NL	300 U	320 U	320 U	290 U	320 U	300 U	310 U	290 U	320 U	290 U	330 U	290 U	330 U
3-Nitroaniline	500/MDL	600 U	630 U	630 U	580 U	640 U	600 U	630 U	580 U	630 U	580 U	650 U	590 U	650 U
4,6-Dinitro-o-cresol	NL	600 U	630 U	630 U	580 U	640 U	600 U	630 U	580 U	630 U	580 U	650 U	590 U	650 U
4-Bromophenyl phenyl ether	NL	300 U	320 U	320 U	290 U	320 U	300 U	310 U	290 U	320 U	290 U	330 U	290 U	330 U
4-Chloro-3-methyl phenol	240/MDL	600 U	630 U	630 U	580 U	640 U	600 U	630 U	580 U	630 U	580 U	650 U	590 U	650 U
4-Chloroaniline	220/MDL	600 UJ	630 UJ	630 UJ	580 UJ	640 UJ	600 UJ	630 UJ	580 UJ	630 UJ	580 UJ	650 UJ	590 UJ	650 UJ
4-Chlorophenyl phenyl ether	NL	300 U	320 U	320 U	290 U	320 U	300 U	310 U	290 U	320 U	290 U	330 U	290 U	330 U
4-Nitroaniline	NL	600 U	630 U	630 U	580 U	640 U	600 U	630 U	580 U	630 U	580 U	650 U	590 U	650 U
4-Nitrophenol	100/MDL	1,200 U	1,300 U	1,300 U	1,200 U	1,300 U	1,200 U	1,300 U	1,200 U	1,300 U	1,200 U	1,300 U	1,200 U	1,300 U
Acetophenone	NL	600 U	630 U	630 U	580 U	640 U	600 U	630 U	580 U	630 U	580 U	650 U	590 U	650 U
Aniline	100	600 UJ	630 UJ	630 UJ	580 U	640 U	600 UJ	630 UJ	580 U	NA	580 U	650 U	590 UJ	650 UJ
Atrazine	NL	600 UJ	630 UJ	630 UJ	580 UJ	640 UJ	600 UJ	630 UJ	580 UJ	630 UJ	580 UJ	650 UJ	590 UJ	650 UJ
Benzaldehyde	NL	1,200 U	1,300 U	1,300 U	1,200 UJ	1,300 UJ	1,200 U	1,300 U	1,200 UJ	1,300 UJ	1,200 UJ	1,300 UJ	1,200 U	1,300 U
Benzoic acid	NL	600 U	630 U	630 U	580 U	640 U	R	630 U	580 U	R	580 U	650 U	590 U	650 U
bis(2-Chloroethoxy)methane	NL	300 U	320 U	320 U	290 U	320 U	300 U	310 U	290 U	320 U	290 U	330 U	290 U	330 U
bis(2-Chloroethyl)ether	NL	300 U	320 U	320 U	290 U	320 U	300 U	310 U	290 U	320 U	290 U	330 U	290 U	330 U
bis(2-Chloroisopropyl)ether	NL	300 U	320 U	320 U	290 U	320 U	300 U	310 U	290 U	320 U	290 U	330 U	290 U	330 U
bis(2-Ethylhexyl)phthalate	50,000	600 U	114	630 U	150 J	122	600 U	630 U	72.2	630 U	80.4	650 U	590 U	650 U
Butyl benzyl phthalate	50,000	600 U	630 U	630 U	580 U	640 U	600 U	630 U	580 U	630 U	580 U	650 U	590 U	650 U
Caprolactam	NL	600 U	630 U	630 U	580 U	640 U	600 U	630 U	580 U	630 U	580 U	650 U	590 U	650 U
Carbazole	NL	300 U	320 U	320 U	290 U	320 U	300 U	310 U	290 U	320 U	290 U	330 U	290 U	330 U
Dibenzofuran	6,200	300 U	320 U	320 U	290 U	320 U	300 U	310 U	290 U	320 U	290 U	330 U	290 U	330 U
Diethyl phthalate	7,100	600 U	630 U	630 U	580 U	640 U	600 U	630 U	580 U	630 U	580 U	650 U	590 U	650 U
Dimethyl phthalate	2,000	600 U	630 U	630 U	580 U	640 U	600 U	630 U	580 U	630 U	580 U	650 U	590 U	650 U
Di-n-butyl phthalate	8,100	600 U	630 U	630 U	580 U	640 U	600 U	630 U	580 U	630 U	580 U	650 U	590 U	650 U
Di-n-octyl phthalate	50,000	600 U	630 U	630 U	580 U	640 U	600 U	630 U	580 U	630 U	580 U	650 U	590 U	650 U
Hexachlorobenzene	410	300 U	320 U	320 U	290 U	320 U	300 U	310 U	290 U	320 U	290 U	330 U	290 U	330 U
Hexachlorobutadiene	NL	300 U	320 U	320 U	290 U	320 U	300 U	310 U	290 U	320 U	290 U	330 U	290 U	330 U
Hexachlorocyclopentadiene	NL	600 U	630 U	630 U	580 U	640 U	600 U	630 U	580 U	630 U	580 U	650 U	590 U	650 U
Hexachloroethane	NL	300 U	320 U	320 U	290 U	320 U	300 U	310 U	290 U	320 U	290 U	330 U	290 U	330 U
Isophorone	4,400	300 U	320 U	320 U	290 U	320 U	300 U	310 U	290 U	320 U	290 U	330 U	290 U	330 U
Nitrobenzene	200/MDL	300 U	320 U	320 U	290 U	320 U	300 U	310 U	290 U	320 U	290 U	330 U	290 U	330 U
N-Nitroso-di-n-propylamine	NL	300 U	320 U	320 U	290 U	320 U	300 U	310 U	290 U	320 U	290 U	330 U	290 U	330 U
N-Nitrosodiphenylamine	NL	300 U	320 U	320 U	290 U	320 U	300 U	310 U	290 U	320 U	290 U	330 U	290 U	330 U
Pentachlorophenol	1,000/MDL	600 U	630 U	630 U	580 U	640 U	600 U	630 U	580 U	630 U	580 U	650 U	590 U	650 U
Phenol	30/MDL	300 U	320 U	320 U	290 U	320 U	300 U	310 U	290 U	320 U	290 U	330 U	290 U	330 U
Total SVOCs (µg/Kg)[2]	500,000	ND	110	ND	5,200	120	ND	ND	760	ND	240	ND	46	ND

Notes:
NA = Not Analyzed
NL = Not Listed
ND = Not Detected
MDL - Method Detection Limit
D = The concentration indicated was obtained from a diluted analytical run.
J = The associated numerical value is an estimated quantity.
R = The result was rejected because one or more QC measures did not meet acceptable criteria by validator during the review process
U = The material was analyzed for but not detected at or above the MDL. The associated numerical value is the sample reporting limit.

Bold value - compound detected above regulatory guidance value.
[1]NYSDEC TAGM HWR-94-4046 - Determination of Soil Cleanup Objectives and Cleanup Levels [NYSDEC, Jan. 1994]
[2]The total SVOC values include all PAH compounds
CPAHs - Carcinogenic PAHs which are shown in bold and italics

Table B-11
Subsurface Soil PAH Results
Norwich Former MGP Site
Norwich, New York

Sample ID (Depth in Feet) Laboratory Identification Date Sampled	NYSDEC Cleanup Objective[1] Recommended Soil	NO-DP51 (19-20') M51636-1 10/10/2005		NO-DP52 (19-20') M51636-2 10/10/2005		NO-DP53 (19-20') M51636-3 10/10/2005		NO-DP54 (19-20') M51636-4 10/11/2005		NO-DP55 (23-24') M51636-5 10/11/2005		NO-DP56 (19-20) M51738-1 10/11/2005	
Semi-volatile Organic Compounds (µg/kg)													
2-Methylnaphthalene	36,400	340	U	320	U	330	U	320	U	330	U	320	U
Acenaphthene	50,000	340	U	320	U	330	U	320	U	330	U	320	U
Acenaphthylene	41,000	340	U	320	U	330	U	320	U	330	U	320	U
Anthracene	50,000	340	U	320	U	330	U	320	U	330	U	320	U
Benzo(a)anthracene	224/MDL	340	U	320	U	330	U	320	U	330	U	320	U
Benzo(a)pyrene	61/MDL	340	U	320	U	330	U	320	U	330	U	320	U
Benzo(b)fluoranthene	1,100	340	U	320	U	330	U	320	U	330	U	320	U
Benzo(g,h,i)perylene	50,000	340	U	320	U	330	U	320	U	330	U	320	U
Benzo(k)fluoranthene	1,100	340	U	320	U	330	U	320	U	330	U	320	U
Chrysene	400	340	U	320	U	330	U	320	U	330	U	320	U
Dibenzo(a,h)anthracene	14/MDL	340	U	320	U	330	U	320	U	330	U	320	U
Fluoranthene	50,000	340	U	320	U	330	U	320	U	330	U	320	U
Fluorene	50,000	340	U	320	U	330	U	320	U	330	U	320	U
Indeno(1,2,3-cd)pyrene	3,200	340	U	320	U	330	U	320	U	330	U	320	U
Naphthalene	13,000	340	U	320	U	330	U	320	U	330	U	320	U
Phenanthrene	50,000	340	U	320	U	330	U	320	U	330	U	320	U
Pyrene	50,000	340	U	320	U	330	U	320	U	330	U	320	U
Total PAHs (µg/kg)	500,000	ND		ND		ND		ND		ND		ND	
Total CPAHs (µg/kg)	NL	ND		ND		ND		ND		ND		ND	

Notes:
NA = Not Analyzed
NL = Not Listed
ND = Not Detected
MDL - Method Detection Limit
D = The concentration indicated was obtained from a diluted analytical run.
J = The associated numerical value is an estimated quantity.
R = The result was rejected because one or more QC measures did not meet acceptable criteria by validator during the review process.
U = The material was analyzed for but not detected at or above the MDL. The associated numerical value is the sample reporting limit.
Bold value - compound detected above regulatory guidance value.
[1]NYSDEC TAGM HWR-94-4046 - Determination of Soil Cleanup Objectives and Cleanup Levels [NYSDEC, Jan. 1994]
CPAHs - Carcinogenic PAHs which are shown in bold and italics

Table B-11
Subsurface Soil PAH Results
Norwich Former MGP Site
Norwich, New York

Sample ID (Depth in Feet) Laboratory Identification Date Sampled	NYSDEC Cleanup Objective[1] Recommended Soil	NO-DP57 (19-20) M51738-2 10/11/2005		NO-DP58 (19-20) M51738-3 10/12/2005		NO-DP59 (19-20) M51738-4 10/12/2005		NO-DP60 (19-20) M51738-5 10/12/2005		NO-DP61 (15-16) M51738-6 10/12/2005	
Semi-volatile Organic Compounds (µg/kg)											
2-Methylnaphthalene	36,400	310	U	320	U	330	U	320	U	320	U
Acenaphthene	50,000	310	U	320	U	330	U	320	U	320	U
Acenaphthylene	41,000	310	U	320	U	330	U	320	U	320	U
Anthracene	50,000	310	U	320	U	330	U	320	U	320	U
Benzo(a)anthracene	224/MDL	310	U	320	U	330	U	320	U	320	U
Benzo(a)pyrene	61/MDL	310	U	320	U	330	U	320	U	320	U
Benzo(b)fluoranthene	1,100	310	U	320	U	330	U	320	U	320	U
Benzo(g,h,i)perylene	50,000	310	U	320	U	330	U	320	U	320	U
Benzo(k)fluoranthene	1,100	310	U	320	U	330	U	320	U	320	U
Chrysene	400	310	U	320	U	330	U	320	U	320	U
Dibenzo(a,h)anthracene	14/MDL	310	U	320	U	330	U	320	U	320	U
Fluoranthene	50,000	310	U	320	U	330	U	320	U	320	U
Fluorene	50,000	310	U	320	U	330	U	320	U	320	U
Indeno(1,2,3-cd)pyrene	3,200	310	U	320	U	330	U	320	U	320	U
Naphthalene	13,000	310	U	320	U	330	U	320	U	320	U
Phenanthrene	50,000	310	U	320	U	330	U	320	U	320	U
Pyrene	50,000	310	U	320	U	330	U	320	U	320	U
Total PAHs (µg/kg)	500,000	ND		ND		ND		ND		ND	
Total CPAHs (µg/kg)	NL	ND		ND		ND		ND		ND	

Notes:
NA = Not Analyzed
NL = Not Listed
ND = Not Detected
MDL - Method Detection Limit
D = The concentration indicated was obtained from a diluted analytical run.
J = The associated numerical value is an estimated quantity.
R = The result was rejected because one or more QC measures did not meet acceptable criteria by validator during the review process.
U = The material was analyzed for but not detected at or above the MDL. The associated numerical value is the sample reporting limit.
Bold value - compound detected above regulatory guidance value.
[1]NYSDEC TAGM HWR-94-4046 - Determination of Soil Cleanup Objectives and Cleanup Levels [NYSDEC, Jan. 1994]
CPAHs - Carcinogenic PAHs which are shown in bold and italics

Table B-12
Subsurface Soil TOC Results
Norwich Former MGP Site
Norwich, New York

Sample ID (Depth in Feet) Laboratory Identification Date Sampled	NO-DP27 (13-13.5) M46906-1 04/26/2005		NO-DP27 (18-18.5) M46906-3 04/26/2005		NO-DP28 (7-8) M46906-10 04/27/2005		NO-DP33 (17-18.0) M46906-15 04/27/2005	
Total Organic Carbon (mg/kg)	12,800		1,100	U	2,360		4,900	
Field Description	Moist to wet, fine sand and gravel		Wet, medium to coarse gravel		Dry to moist, fine sand and silt		Moist to wet clay and fine sand	

Notes:
NA = Not Analyzed
NL = Not Listed
ND = Not Detected
MDL - Method Detection Limit
D = The concentration indicated was obtained from a diluted analytical run.
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.
R = The result was rejected because one or more QC measures did not meet acceptable criteria by validator during the review process

Table B-13
Synthetic Precipitation Leaching Procedure (SPLP) VOC Results
Norwich Former MGP Site Norwich, New York

Sample ID Laboratory Identification Date Sampled	NYSDEC TOGS 1.1.1 Class GA[1]	NO-DP01(14-15) M46810-5 04/25/2005		NO-DP02(15-16) M46810-7 04/25/2005		NO-DP03(23-24) M46810-11 04/25/2005		NO-DP08(12.0-14.0) S5497-28 10/30/2004		NO-DP18(27.4-27.9) S5497-24 10/25/2004		NO-DP22(11.5-12) M46810-1 04/25/2005	
Volatile Organic Compounds (µg/L)													
Acetone	50**	10.4	UJ	14.2	UJ	13.3	UJ	120	U	120	U	19	UJ
Benzene	1	**4.8**		**34**		**39.2**		25	U	25	UJ	**6.7**	
Bromodichloromethane	50**	2	U	2	U	2	U	25	U	25	U	2	U
Bromoform	50**	2	U	2	U	2	U	25	U	25	U	2	U
Bromomethane	5*	2	U	2	U	2	U	25	U	25	U	2	U
2-Butanone (MEK)	50**	5	U	5	U	5	U	120	U	120	U	5	U
Carbon disulfide	NL	5	U	5	U	5	U	25	U	25	U	5.7	
Carbon tetrachloride	NL	2	U	2	U	2	U	25	U	25	U	2	U
Chlorobenzene	5*	2	U	2	U	2	U	25	U	25	UJ	2	U
Chloroethane	5*	5	U	5	U	5	U	25	U	25	U	5	U
Chloroform	7	2	U	2	U	2	U	25	U	25	U	2	U
Chloromethane	NL	5	U	5	U	5	U	25	U	25	U	5	U
Cyclohexane	NL	50	U	50	U	50	U	25	U	25	U	50	U
1,2-Dibromo-3-chloropropane	0.04	5	U	5	U	5	U	25	U	25	U	5	U
Dibromochloromethane	50**	2	U	2	U	2	U	25	U	25	U	2	U
1,2-Dibromoethane	NL	2	U	2	U	2	U	25	U	25	U	2	U
1,2-Dichlorobenzene	3	2	U	2	U	2	U	25	U	25	U	2	U
1,3-Dichlorobenzene	3	2	U	2	U	2	U	25	U	25	U	2	U
1,4-Dichlorobenzene	3	2	U	2	U	2	U	25	U	25	U	2	U
Dichlorodifluoromethane	5*	2	UJ	2	UJ	2	UJ	25	U	25	U	2	UJ
1,1-Dichloroethane	5*	2	U	2	U	2	U	25	U	25	U	2	U
1,2-Dichloroethane	0.6	2	U	2	U	2	U	25	U	25	U	2	U
1,1-Dichloroethene	5*	2	U	2	U	2	U	25	U	25	UJ	2	U
cis-1,2-Dichloroethene	5*	2	U	2	U	2	U	25	U	25	U	2	U
trans-1,2-Dichloroethene	5*	2	U	2	U	2	U	25	U	25	U	2	U
1,2-Dichloropropane	1	2	U	2	U	2	U	25	U	25	U	2	U
cis-1,3-Dichloropropene	0.4	5	U	5	U	5	U	25	U	25	U	5	U
trans-1,3-Dichloropropene	5*	5	U	5	U	5	U	25	U	25	U	5	U
Ethylbenzene	5*	**466**		**511**		**824**		25	U	25	U	**725**	
Freon 113	NL	5	U	5	U	5	U	NA		NA		5	U
2-Hexanone	50**	5	U	5	U	5	U	120	U	120	U	5	U
Isopropylbenzene	5*	**75.3**		**63.2**		**48.3**		25	U	25	U	**65.8**	
Methyl Acetate	NL	5	U	5	U	5	U	25	U	25	U	5	U
Methylcyclohexane	NL	5	U	5	U	5	U	25	U	25	U	5	U
Methyl Tert Butyl Ether	10	2	U	**48.2**		2	U	25	U	25	U	2	U
4-Methyl-2-pentanone (MIBK)	5*	5	U	5	U	5	U	120	U	120	U	5	U
Methylene chloride	5*	4.6	U	2.2	U	2	U	25	U	25	U	2.9	U
Styrene	5*	5	U	5	U	**76.3**		25	U	25	U	5	U
1,1,2,2-Tetrachloroethane	5*	2	U	2	U	2	U	25	U	25	U	2	U
Tetrachloroethene	5*	2	U	2	U	2	U	25	U	25	U	2	U
Toluene	5*	**24.7**		**95.1**		**382**		25	U	25	U	**32.3**	
1,2,4-Trichlorobenzene	NL	5	U	5	U	5	U	25	U	25	U	5	U
1,1,1-Trichloroethane	5*	2	U	2	U	2	U	25	U	25	U	2	U
1,1,2-Trichloroethane	1	2	U	2	U	2	U	25	U	25	U	2	U
1,1,2-Trichlorotrifluoroethane	NL	NA		NA		NA		25	U	25	U	NA	
Trichloroethene	5*	2	U	2	U	2	U	25	U	25	U	2	U
Trichlorofluoromethane	5*	2	U	2	U	2	U	25	U	25	U	2	U
Vinyl chloride	2	2	U	2	U	2	U	25	U	25	U	2	U
Xylene (total)	5*	401		439		871		ND		ND		729	
Total VOCs (µg/L)	NL	1,000		1,200		2,200		ND		ND		1,600	

Notes:
NA = Not Analyzed
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.
Bold value - compound detected above NYSDEC Class GA groundwater standard or guidance value, comparison for reference purposes.
[1]Class GA Drinking Water Standard or Guidance Value
*Principal Organic Contaminant Standard
**Class GA Guidance Value

Table B-14
Synthetic Precipitation Leaching Procedure (SPLP) SVOC Results
Norwich Former MGP Site
Norwich, New York

Sample ID Laboratory Identification Date Sampled	NYSDEC TOGS 1.1.1 Class GA[1]	NO-DP08(12.0-14.0) S5497-28 10/30/2004		NO-DP18(27.4-27.9) S5497-24 10/25/2004		NO-DP26 (10-11) M46966-5 04/28/2005	
Semi-volatile Organic Compounds (µg/L)							
2-Methylnaphthalene	NL	87		1,500	EJ	10	U
Acenaphthene	20**	**510**	**EJ**	**550**	**EJ**	5	U
Acenaphthylene	NL	54		98		5	U
Anthracene	50**	42	J	48	J	5	U
Benzo(a)anthracene	0.002**	50	U	50	U	5	U
Benzo(a)pyrene	ND	50	U	50	U	5	U
Benzo(b)fluoranthene	0.002**	50	U	50	U	5	U
Benzo(g,h,i)perylene	NL	50	U	50	U	5	U
Benzo(k)fluoranthene	0.002**	50	U	50	U	5	UJ
Chrysene	0.002**	50	U	50	U	5	U
Dibenzo(a,h)anthracene	NL	50	U	50	U	5	U
Fluoranthene	50**	20	J	17	J	5	U
Fluorene	50**	**170**		**200**		5	U
Indeno(1,2,3-cd)pyrene	0.002**	50	U	50	U	5	U
Naphthalene	10**	**830**	**EJ**	**1,700**	**EJ**	5	U
Phenanthrene	50**	**250**		**250**		5	U
Pyrene	50**	25	J	22	J	5	U
Total PAHs (µg/L)	NL	2,000		4,400		ND	
Total CPAHs (µg/L)	NL	ND		ND		ND	
1,1'-Biphenyl	5*	**120**		**200**		10	U
1,2-Diphenylhydrazine	NL	NA		NA		10	U
2,2-oxybis(1-Chloropropane)	NL	50	U	50	U	NA	
2,4,5-Trichlorophenol	1	50	UJ	50	U	10	U
2,4,6-Trichlorophenol	NL	50	UJ	50	U	10	U
2,4-Dichlorophenol	5*	50	U	50	U	10	U
2,4-Dimethylphenol	50**	50	U	50	U	20	U
2,4-Dinitrophenol	10**	50	U	50	U	20	U
2,4-Dinitrotoluene	5*	50	UJ	50	U	10	U
2,6-Dinitrotoluene	5*	50	U	50	U	10	U
2-Chloronaphthalene	10**	50	U	50	U	10	U
2-Chlorophenol	NL	50	U	50	U	10	U
2-Methylphenol	NL	50	U	50	U	10	U
2-Nitroaniline	5*	50	U	50	U	10	U
2-Nitrophenol	NL	50	U	50	U	10	U
3&4-Methylphenol	NL	50	U	50	U	10	U
3,3'-Dichlorobenzidine	5*	50	U	50	U	5	U
3-Nitroaniline	NL	50	U	50	U	10	U
4,6-Dinitro-o-cresol	NL	NA		NA		10	U
4,6-Dinitro-2-methylphenol	NL	50	U	50	U	NA	
4-Bromophenyl phenyl ether	NL	50	U	50	U	10	U
4-Chloro-3-methylphenol	NL	50	U	50	U	20	U
4-Chloroaniline	5*	50	U	50	U	10	U
4-Chlorophenyl phenyl ether	NL	50	U	50	U	10	U
4-Nitroaniline	5*	**7.9**	**J**	50	U	10	U
4-Nitrophenol	NL	50	U	50	U	50	U
Acetophenone	NL	50	U	50	U	10	U
Aniline	5*	NA		NA		10	UJ
Atrazine	7.5	50	U	50	U	10	U
Benzaldehyde	NL	50	U	50	U	20	U
Benzoic acid	NL	NA		NA		10	U
Bis(2-chloroethoxy) methane	0.002**	50	U	50	U	10	U
Bis(2-chloroethyl) ether	5*	50	U	50	U	10	U
bis(2-Chloroisopropyl)ether	NL	NA		NA		10	U
Bis(2-ethylhexyl) phthalate	5	50	U	50	U	10	U
Butyl benzyl phthalate	NL	50	U	50	U	10	U
Caprolactam	NL	50	U	50	U	10	U
Carbazole	NL	8.4	J	27	J	10	U
Dibenzofuran	NL	32	J	79		10	U
Diethyl phthalate	NL	50	U	50	U	10	U
Dimethyl phthalate	NL	50	U	50	U	10	U
Di-n-butyl phthalate	NL	50	U	50	U	10	U
Di-n-octyl phthalate	50**	50	U	50	U	10	U
Hexachlorobenzene	0.04	50	UJ	50	U	10	U
Hexachlorobutadiene	0.5	50	UJ	50	U	10	U
Hexachlorocyclopentadiene	5*	50	U	50	U	10	U
Hexachloroethane	5*	50	U	50	U	10	U
Isophorone	50**	50	U	50	U	10	U
Nitrobenzene	0.4	50	UJ	50	U	10	U
N-Nitroso-Di-n-propylamine	NL	50	U	50	U	10	U
N-nitrosodiphenylamine	50**	50	U	50	U	10	U
Pentachlorophenol	1***	50	U	50	U	10	U
Phenol	1***	50	U	50	U	10	U
Total SVOCs (µg/L)[2]	NL	2,200		4,700		ND	

Notes:
NA = Not Analyzed
NL = Not Listed
ND = Not Detected
MDL - Method Detection Limit
E= Result is greater than the highest analytical calibration standard.
J = The associated numerical value is an estimated quantity.
U = The material was analyzed for but not detected at or above the MDL. The associated numerical value is the sample reporting limit.
Bold value - compound detected above NYSDEC Class GA groundwater standard or guidance value, comparison for reference purposes.
[1]Class GA Drinking Water Standard or Guidance Value
[2]The total SVOC values include all PAH compounds
*Principal Organic Contaminant Standard
**Class GA Guidance Value
***Applies to total chlorinated phenolic compounds
CPAHs - Carcinogenic PAHs which are shown in bold and italics

Table B-15
Groundwater BTEX and Naphthalene Results - November 2004
Norwich Former MGP Site
Norwich, New York

Sample ID Laboratory Identification Date Sampled	NYSDEC TOGS 1.1.1 Class GA[1]	NO-PZ03 S5893-01 11/22/2004		NO-PZ04 S5893-02 11/22/2004		NO-PZ07 S5893-03 11/22/2004		NO-PZ08 S5893-04 11/22/2004	
Volatile Organic Compounds (µg/L)									
Benzene	1	0.20	U	0.32	J	0.59	J	**120**	**D**
Ethyl Benzene	5*	0.18	U	1.50		0.18	U	**320**	**D**
Toluene	5*	0.19	U	0.19	U	0.19	U	**11**	
m&p-Xylenes	5*	0.36	U	0.36	U	0.36	U	**15**	
o-Xylene	5*	0.17	U	1.60		0.25	J	**75**	**D**
Naphthalene	10**	0.13	U	0.54	J	0.92	J	**95**	**D**

Notes:
NA = Not Analyzed
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.
D = The concentration indicated was obtained from a diluted analytical run.
J = The associated numerical value is an estimated quantity.
R = The result was rejected because one or more QC measures did not meet acceptable criteria by validator during the review process
Bold value - compound detected above regulatory standard or guidance value.
[1]Class GA Drinking Water Standard or Guidance Value
*Principal Organic Contaminant Standard
**Class GA Guidance Value

Table B-16
Groundwater VOC Results - July 2005
Norwich Former MGP Site, Norwich, New York

Sample ID / Laboratory Identification / Date Sampled	NYSDEC TOGS 1.1.1 Class GA[1]	NO-GW92-12 M49539-21 07/26/2005	NO-PZ03 M49539-3 07/25/2005	NO-PZ10 M49539-13 07/26/2005	NO-PZ11 M49539-2 07/25/2005	NO-PZ12 M49539-1 07/25/2005	NO-PZ13 M49539-22 07/26/2005	NO-PZ14 M49539-23 07/26/2005	NO-PZ15 M49539-16 07/26/2005	NO-PZ16 M49539-9 07/25/2005	NO-PZ17 M49539-6 07/25/2005	NO-PZ18 M49539-24 07/26/2005
Volatile Organic Compounds (µg/L)												
Acetone	50**	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzene	1	0.5 U	0.5 U	**20.6**	0.5 U	0.5 U	**1.1**	**1.0**	**60.4**	0.5 U	0.5 U	0.5 U
Bromodichloromethane	50**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	50**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane	5*	2.0 U	2.0 UJ	2.0 U	2.0 UJ	2.0 UJ	2.0 U	2.0 U	2.0 U	2.0 UJ	2.0 UJ	2.0 U
2-Butanone (MEK)	50**	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon disulfide	NL	5.0 U	5.0 UJ	1.1	5.0 UJ	5.0 UJ	5.0 U	5.0 U	0.65 J	5.0 UJ	5.0 UJ	5.0 U
Carbon tetrachloride	NL	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	5*	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 UJ	1.0 U
Chloroethane	5*	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Chloroform	7	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	NL	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Cyclohexane	NL	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U
1,2-Dibromo-3-chloropropane	0.04	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U
Dibromochloromethane	50**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane	NL	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,2-Dichlorobenzene	3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane	5*	2.0 U	2.0 UJ	2.0 U	2.0 UJ	2.0 UJ	2.0 U	2.0 U	2.0 U	2.0 UJ	2.0 UJ	2.0 U
1,1-Dichloroethane	5*	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	0.6	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	5*	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	5*	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	5*	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	1	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
cis-1,3-Dichloropropene	0.4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
trans-1,3-Dichloropropene	5*	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Ethylbenzene	5*	1.0 U	1.0 U	**174**	1.0 U	1.0 U	3.9	0.7	**160**	1.0 U	1.0 U	0.85 J
Freon 113	NL	5.0 U	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Hexanone	50**	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U
Isopropylbenzene	5*	5.0 U	5.0 U	**22.6**	5.0 U	5.0 U	1.6 J	1.9	**24.4**	5.0 U	5.0 U	5.0 U
Methyl Acetate	NL	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U
Methylcyclohexane	NL	5.0 U	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methyl Tert Butyl Ether	10	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
4-Methyl-2-pentanone (MIBK)	5*	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U
Methylene chloride	5*	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Styrene	5*	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	5*	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	5*	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	5*	1.0 U	1.0 U	2.6	1.0 U	1.0 U	1.0 U	1.0 U	2.8	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	NL	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,1-Trichloroethane	5*	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	5*	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane	5*	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	2	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylene (total)	5*	1.0 U	1.0 U	**49.8**	1.0 U	1.0 U	2.7	2.1	**41.4**	1.0 U	1.0 U	1.0 U
Total VOCs (µg/L)	NL	ND	ND	270	ND	ND	9.3	5.7	290	ND	ND	0.85

Notes:
NA = Not Analyzed
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.
D = The concentration indicated was obtained from a diluted analytical run.
J = The associated numerical value is an estimated quantity.

Bold value - compound detected above regulatory standard or guidance value.
[1]Class GA Drinking Water Standard or Guidance Value
*Principal Organic Contaminant Standard
**Class GA Guidance Value

Table B-16
Groundwater VOC Results - July 2005
Norwich Former MGP Site, Norwich, New York

Sample ID / Laboratory Identification / Date Sampled	NYSDEC TOGS 1.1.1 Class GA[1]	NO-PZ19 M49539-18 07/26/2005		NO-PZ20 M49539-7 07/25/2005		NO-PZ21 M49539-25 07/26/2005		NO-PZ22 M49539-26 07/26/2005		NO-PZ23 M49539-15 07/26/2005		NO-PZ24 M49539-8 07/25/2005		NO-PZ25 M49539-10 07/25/2005		NO-PZ26 M49539-4 07/25/2005		NO-PZ27 M49539-5 07/25/2005		NO-PZ28 M49539-17 07/26/2005	
Volatile Organic Compounds (µg/L)																					
Acetone	50**	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
Benzene	1	**31.6**		0.5	U	**225**		**59.3**		0.5	U	**106**		**49.5**		0.5	U	0.5	U	**23.8**	
Bromodichloromethane	50**	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1	U	1.0	U	1.0	U	1.0	U
Bromoform	50**	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Bromomethane	5*	2.0	U	2.0	UJ	2.0	U	2.0	U	2.0	U	2.0	UJ	2.0	UJ	2.0	UJ	2.0	UJ	2.0	U
2-Butanone (MEK)	50**	5.0	U	5.0	U	5.0	U	5.0	U	22.5		5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
Carbon disulfide	NL	5.0	U	5.0	UJ	5.0	U	5.0	U	5.0	U	5.0	UJ	5.0	UJ	5.0	UJ	5.0	UJ	5.0	U
Carbon tetrachloride	NL	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Chlorobenzene	5*	1.0	U	1.0	UJ	1.0	U	1.0	U	1.0	U	1.0	UJ	1.0	UJ	1.0	UJ	1.0	UJ	1.0	U
Chloroethane	5*	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U
Chloroform	7	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Chloromethane	NL	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U
Cyclohexane	NL	5.0	U	5.0	UJ	5.0	U	5.0	U	5.0	U	5.0	UJ	5.0	UJ	5.0	UJ	5.0	UJ	5.0	U
1,2-Dibromo-3-chloropropane	0.04	5.0	U	5.0	UJ	5.0	U	5.0	U	5.0	U	5.0	UJ	5.0	UJ	5.0	UJ	5.0	UJ	5.0	U
Dibromochloromethane	50**	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,2-Dibromoethane	NL	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U
1,2-Dichlorobenzene	3	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,3-Dichlorobenzene	3	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,4-Dichlorobenzene	3	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Dichlorodifluoromethane	5*	2.0	U	2.0	UJ	2.0	U	2.0	U	2.0	U	2.0	UJ	2.0	UJ	2.0	UJ	2.0	UJ	2.0	U
1,1-Dichloroethane	5*	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,2-Dichloroethane	0.6	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,1-Dichloroethene	5*	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
cis-1,2-Dichloroethene	5*	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
trans-1,2-Dichloroethene	5*	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,2-Dichloropropane	1	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U
cis-1,3-Dichloropropene	0.4	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	5*	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	5*	**53.9**		1.0	U	**595**		**75.1**		0.49	J	**236**		**36.1**		1.0	U	1.0	U	**14.4**	
Freon 113	NL	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
2-Hexanone	50**	5.0	U	5.0	UJ	5.0	U	5.0	U	5.0	U	5.0	UJ	5.0	UJ	5.0	UJ	5.0	UJ	5.0	U
Isopropylbenzene	5*	**11.4**		5.0	U	**36.1**		**9.4**		5.0	U	**17.4**		**18.1**		5.0	U	5.0	U	**9.3**	
Methyl Acetate	NL	5.0	U	5.0	UJ	5.0	U	5.0	U	5.0	U	5.0	UJ	5.0	UJ	5.0	UJ	5.0	UJ	5.0	U
Methylcyclohexane	NL	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
Methyl Tert Butyl Ether	10	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
4-Methyl-2-pentanone (MIBK)	5*	5.0	U	5.0	UJ	5.0	U	5.0	U	5.0	U	5.0	UJ	5.0	UJ	5.0	UJ	5.0	UJ	5.0	U
Methylene chloride	5*	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U
Styrene	5*	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
1,1,2,2-Tetrachloroethane	5*	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Tetrachloroethene	5*	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Toluene	5*	1.3		1.0	U	**32.2**		2.9		1.0	U	**48.3**		1.0	U	1.0	U	1.0	U	0.86	J
1,2,4-Trichlorobenzene	NL	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
1,1,1-Trichloroethane	5*	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,1,2-Trichloroethane	1	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Trichloroethene	5*	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Trichlorofluoromethane	5*	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Vinyl chloride	2	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Xylene (total)	5*	**16.7**		1.0	U	**236**		**30.2**		1.0	U	**130**		**51.6**		1.0	U	1.0	U	**12.1**	
Total VOCs (µg/L)	NL	120		ND		1,100		180		23		540		160		ND		ND		61	

Notes:
NA = Not Analyzed
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.
D = The concentration indicated was obtained from a diluted analytical run.
J = The associated numerical value is an estimated quantity.

Bold value - compound detected above regulatory standard or guidance value.
[1]Class GA Drinking Water Standard or Guidance Value
*Principal Organic Contaminant Standard
**Class GA Guidance Value

Table B-17
Groundwater VOC Results - December 2005
Norwich Former MGP Site, Norwich, New York

Sample ID	NYSDEC	NO-EXISTING WELL		NO-GW01-14		NO-GW04-16		NO-GW91-4D		NO-GW91-4SH		NO-GW91-6		NO-GW91-7		NO-GW92-8		NO-GW92-11D		NO-GW92-11SH	
Laboratory Identification	TOGS 1.1.1	M53280-10		M53280-8		M53253-7		M53280-2		M53280-1		M53280-7		M53253-2		M53280-9		M53280-4		M53280-5	
Date Sampled	Class GA[1]	12/14/2005		12/14/2005		12/13/2005		12/13/2005		12/13/2005		12/14/2005		12/12/2005		12/14/2005		12/14/2005		12/14/2005	
Volatile Organic Compounds (µg/L)																					
Acetone	50**	5.0	UJ	5.0	UJ	5.0	UJ	5.0	UJ	5.0	UJ	5.0	UJ	5.0	UJ	5.0	UJ	5.0	UJ	5.0	UJ
Benzene	1	0.5	U	**202**		**7.7**		0.41	J	0.5	U	**67.2**		0.5	U	**19.9**		**236**		**5.9**	
Bromodichloromethane	50**	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Bromoform	50**	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Bromomethane	5*	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U
2-Butanone (MEK)	50**	5.0	U	5.0	UJ	5.0	UJ	5.0	UJ	5.0	UJ	5.0	UJ	5.0	UJ	5.0	UJ	5.0	UJ	5.0	UJ
Carbon disulfide	NL	5.0	UJ	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	UJ	5.0	U	5.0	U
Carbon tetrachloride	NL	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Chlorobenzene	5*	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Chloroethane	5*	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U
Chloroform	7	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Chloromethane	NL	2.0	UJ	2.0	UJ	2.0	UJ	2.0	UJ	2.0	UJ	2.0	UJ	2.0	UJ	2.0	UJ	2.0	UJ	2.0	UJ
Cyclohexane	NL	5.0	U	1.1		5.0	U	5.0	U	5.0	U	0.72	J	5.0	U	0.54	J	0.6	J	5.0	U
1,2-Dibromo-3-chloropropane	0.04	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
Dibromochloromethane	50**	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,2-Dibromoethane	NL	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U
1,2-Dichlorobenzene	3	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	0.33	J	1.0	U	1.0	U	1.0	U	1.0	U
1,3-Dichlorobenzene	3	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	0.35	J	1.0	U	1.0	U	1.0	U	1.0	U
1,4-Dichlorobenzene	3	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	0.34	J	1.0	U	1.0	U	1.0	U	1.0	U
Dichlorodifluoromethane	5*	2.0	UJ	2.0	UJ	2.0	UJ	2.0	UJ	2.0	UJ	2.0	UJ	2.0	UJ	2.0	UJ	2.0	UJ	2.0	UJ
1,1-Dichloroethane	5*	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,2-Dichloroethane	0.6	1.0	UJ	1.0	UJ	1.0	UJ	1.0	UJ	1.0	UJ	1.0	UJ	1.0	UJ	1.0	UJ	1.0	UJ	1.0	UJ
1,1-Dichloroethene	5*	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
cis-1,2-Dichloroethene	5*	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
trans-1,2-Dichloroethene	5*	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,2-Dichloropropane	1	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U
cis-1,3-Dichloropropene	0.4	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	5*	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	5*	1.0	U	**758**		**36.1**		1.0	U	1.0	U	**485**		1.0	U	**161**		**154**		3.6	
Freon 113	NL	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
2-Hexanone	50**	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	UJ	5.0	U	5.0	U
Isopropylbenzene	5*	5.0	U	**73.2**		**5.0**		1.3		5.0	U	**49.3**		5.0	U	**26.1**		**35.3**		1.8	
Methyl Acetate	NL	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	UJ	5.0	U	5.0	U
Methylcyclohexane	NL	5.0	U	2.8		5.0	U	5.0	U	5.0	U	2.2		5.0	U	2.0		1.1		5.0	U
Methyl Tert Butyl Ether	10	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
4-Methyl-2-pentanone (MIBK)	5*	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
Methylene chloride	5*	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U
Styrene	5*	5.0	U	1.5		5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
1,1,2,2-Tetrachloroethane	5*	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Tetrachloroethene	5*	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	UJ	1.0	U	1.0	U
Toluene	5*	1.0	U	**83.9**		4.3		1.0	U	1.0	U	**46.8**		1.0	U	3.7	U	4.4	U	1.0	U
1,2,4-Trichlorobenzene	NL	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
1,1,1-Trichloroethane	5*	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,1,2-Trichloroethane	1	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Trichloroethene	5*	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Trichlorofluoromethane	5*	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Vinyl chloride	2	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Xylene (total)	5*	1.1		**489**		**70.8**		3.9		1.4		**242**		1.0	U	**45.1**	**J**	**96.2**		**5.5**	
Total VOCs (µg/L)	NL	1.1		1,600		120		5.6		1.4		890		ND		260		520		17	

Notes:
NA = Not Analyzed
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.

Bold value - compound detected above regulatory standard or guidance value.
[1]Class GA Drinking Water Standard or Guidance Value
*Principal Organic Contaminant Standard
**Class GA Guidance Value

Table B-17
Groundwater VOC Results - December 2005
Norwich Former MGP Site, Norwich, New York

Sample ID	NYSDEC	NO-GW92-12		NO-GW92-13		NO-PZ01		NO-PZ02		NO-PZ03		NO-PZ04		NO-PZ05		NO-PZ06		NO-PZ07		NO-PZ08	
Laboratory Identification	TOGS 1.1.1	M53253-1		M53280-3		M53253-5		M53253-6		M53200-4		M53253-3		M53162-6		M53200-3		M53200-1		M53200-2	
Date Sampled	Class GA[1]	12/12/2005		12/13/2005		12/13/2005		12/13/2005		12/08/2005		12/12/2005		12/08/2005		12/08/2005		12/08/2005		12/08/2005	
Volatile Organic Compounds (µg/L)																					
Acetone	50**	5.0	UJ	5.0	UJ	5.0	UJ	5.0	UJ	5.0	U	5.0	UJ	5.0	U	5.0	UJ	5.0	UJ	5.0	UJ
Benzene	1	0.5	U	0.5	U	**41.9**		**12.5**		0.5	U	0.5	U	**54**		**206**		**77**		**50**	
Bromodichloromethane	50**	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Bromoform	50**	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Bromomethane	5*	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	UJ	2.0	U	2.0	U	2.0	U
2-Butanone (MEK)	50**	5.0	UJ	5.0	UJ	5.0	UJ	5.0	UJ	5.0	U	5.0	UJ	5.0	U	5.0	U	5.0	U	5.0	U
Carbon disulfide	NL	5.0	U	5.0	U	5.0	U	0.47	J	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
Carbon tetrachloride	NL	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Chlorobenzene	5*	1.0	U	1.0	U	1.0	U	1.0	U	1.2	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Chloroethane	5*	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U
Chloroform	7	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Chloromethane	NL	2.0	UJ	2.0	UJ	2.0	UJ	2.0	UJ	2.0	U	2.0	UJ	2.0	U	2.0	U	2.0	U	2.0	U
Cyclohexane	NL	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	1.1		5.0	U	0.5	J
1,2-Dibromo-3-chloropropane	0.04	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
Dibromochloromethane	50**	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,2-Dibromoethane	NL	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U
1,2-Dichlorobenzene	3	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,3-Dichlorobenzene	3	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,4-Dichlorobenzene	3	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Dichlorodifluoromethane	5*	2.0	UJ	2.0	UJ	2.0	UJ	2.0	UJ	2.0	U	2.0	UJ	2.0	UJ	2.0	U	2.0	U	2.0	U
1,1-Dichloroethane	5*	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,2-Dichloroethane	0.6	1.0	UJ	1.0	UJ	1.0	UJ	1.0	UJ	1.0	UJ	1.0	UJ	1.0	UJ	1.0	UJ	1.0	UJ	1.0	UJ
1,1-Dichloroethene	5*	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
cis-1,2-Dichloroethene	5*	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
trans-1,2-Dichloroethene	5*	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,2-Dichloropropane	1	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U
cis-1,3-Dichloropropene	0.4	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	5*	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	5*	1.0	U	1.0	U	**76.9**		**137**		1.0	U	1.0	U	**44**		**597**		1.0	U	**221**	
Freon 113	NL	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
2-Hexanone	50**	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	UJ	5.0	U	5.0	U	5.0	U
Isopropylbenzene	5*	5.0	U	5.0	U	4.7		**14.6**		5.0	U	5.0	U	**19**		**60**		**8**		**31**	
Methyl Acetate	NL	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
Methylcyclohexane	NL	5.0	U	5.0	U	0.7	J	1.5		5.0	UJ	5.0	U	5.0	U	2.6	J	5.0	UJ	2.0	J
Methyl Tert Butyl Ether	10	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
4-Methyl-2-pentanone (MIBK)	5*	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
Methylene chloride	5*	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U
Styrene	5*	5.0	U	5.0	U	5.0	U	2.1		5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
1,1,2,2-Tetrachloroethane	5*	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Tetrachloroethene	5*	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Toluene	5*	1.0	U	1.0	U	**6.0**		**7.0**		1.0	U	0.83	J	**20**		**126**		1.7	U	**5.2**	
1,2,4-Trichlorobenzene	NL	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
1,1,1-Trichloroethane	5*	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,1,2-Trichloroethane	1	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Trichloroethene	5*	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Trichlorofluoromethane	5*	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Vinyl chloride	2	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Xylene (total)	5*	1.0	U	1.0	U	**52.3**		**63.4**		1.0	U	1.0	U	**55**		**399**		**33**		**61**	
Total VOCs (µg/L)	NL	ND		ND		180		240		ND		0.83		190		1,400		120		370	

Notes:
NA = Not Analyzed
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.

Bold value - compound detected above regulatory standard or guidance value.
[1]Class GA Drinking Water Standard or Guidance Value
*Principal Organic Contaminant Standard
**Class GA Guidance Value

Table B-17
Groundwater VOC Results - December 2005
Norwich Former MGP Site, Norwich, New York

Sample ID Laboratory Identification Date Sampled	NYSDEC TOGS 1.1.1 Class GA[1]	NO-PZ09 M53200-9 12/09/2005		NO-PZ10 M53200-17 12/09/2005		NO-PZ11 M53162-4 12/07/2005		NO-PZ12 M53162-10 12/08/2005		NO-PZ13 M53200-5 12/08/2005		NO-PZ14 M53200-18 12/09/2005		NO-PZ15 M53200-16 12/09/2005		NO-PZ16 M53162-8 12/08/2005		NO-PZ17 M53162-9 12/08/2005		NO-PZ18 M53200-8 12/09/2005	
Volatile Organic Compounds (µg/L)																					
Acetone	50**	5.0	UJ	5.0	UJ	5.0	U	5.0	U	5.0	UJ	5.0	UJ	5.0	UJ	5.0	U	5.0	U	5.0	UJ
Benzene	1	**272**		**2.7**		0.5	U	0.5	U	0.5	U	0.5	U	**48**		0.5	U	0.5	U	0.5	U
Bromodichloromethane	50**	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Bromoform	50**	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Bromomethane	5*	2.0	U	2.0	U	2.0	UJ	2.0	UJ	2.0	U	2.0	U	2.0	U	2.0	UJ	2.0	UJ	2.0	U
2-Butanone (MEK)	50**	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
Carbon disulfide	NL	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
Carbon tetrachloride	NL	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Chlorobenzene	5*	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Chloroethane	5*	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U
Chloroform	7	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Chloromethane	NL	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U
Cyclohexane	NL	0.6	J	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	0.5	J	5.0	U	5.0	U	5.0	U
1,2-Dibromo-3-chloropropane	0.04	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
Dibromochloromethane	50**	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,2-Dibromoethane	NL	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	UJ	2.0	U	2.0	U	2.0	U	2.0	U
1,2-Dichlorobenzene	3	0.3	J	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,3-Dichlorobenzene	3	0.3	J	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,4-Dichlorobenzene	3	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Dichlorodifluoromethane	5*	2.0	U	2.0	U	2.0	UJ	2.0	UJ	2.0	U	2.0	U	2.0	U	2.0	UJ	2.0	UJ	2.0	U
1,1-Dichloroethane	5*	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,2-Dichloroethane	0.6	1.0	UJ	1.0	UJ	1.0	UJ	1.0	UJ	1.0	UJ	1.0	UJ	1.0	UJ	1.0	UJ	1.0	UJ	1.0	UJ
1,1-Dichloroethene	5*	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
cis-1,2-Dichloroethene	5*	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
trans-1,2-Dichloroethene	5*	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,2-Dichloropropane	1	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U
cis-1,3-Dichloropropene	0.4	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	5*	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	5*	**388**		**30**		1.0	U	1.0	U	0.36	J	0.3	J	**153**		1.0	U	1.0	U	1.0	U
Freon 113	NL	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
2-Hexanone	50**	5.0	U	5.0	U	5.0	UJ	5.0	UJ	5.0	U	5.0	U	5.0	U	5.0	UJ	5.0	UJ	5.0	U
Isopropylbenzene	5*	**40**		**5.5**		5.0	U	5.0	U	5.0	U	0.3	J	**24**		5.0	U	5.0	U	5.0	U
Methyl Acetate	NL	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
Methylcyclohexane	NL	1.3	J	0.7	J	5.0	U	5.0	U	5.0	UJ	5.0	UJ	1.6	J	5.0	U	5.0	U	5.0	UJ
Methyl Tert Butyl Ether	10	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
4-Methyl-2-pentanone (MIBK)	5*	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
Methylene chloride	5*	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U
Styrene	5*	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
1,1,2,2-Tetrachloroethane	5*	0.3	J	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Tetrachloroethene	5*	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Toluene	5*	**125**		1.2	U	1.0	U	1.0	U	1.0	U	1.0	U	3.7	U	1.0	U	1.0	U	1.0	U
1,2,4-Trichlorobenzene	NL	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
1,1,1-Trichloroethane	5*	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,1,2-Trichloroethane	1	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Trichloroethene	5*	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Trichlorofluoromethane	5*	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Vinyl chloride	2	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Xylene (total)	5*	**261**		**11**		1.0	U	1.0	U	0.32	J	0.30	J	**45**		1.0	U	1.0	U	0.27	J
Total VOCs (µg/L)	NL	1,100		49		ND		ND		0.68		0.91		270		ND		ND		0.27	

Notes:
NA = Not Analyzed
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.

Bold value - compound detected above regulatory standard or guidance value.
[1]Class GA Drinking Water Standard or Guidance Value
*Principal Organic Contaminant Standard
**Class GA Guidance Value

Table B-17
Groundwater VOC Results - December 2005
Norwich Former MGP Site, Norwich, New York

Sample ID	NYSDEC	NO-PZ19		NO-PZ20		NO-PZ21		NO-PZ22		NO-PZ23		NO-PZ24		NO-PZ25		NO-PZ26		NO-PZ27		NO-PZ28	
Laboratory Identification	TOGS 1.1.1	M53200-7		M53135-7		M53135-8		M53162-1		M53200-19		M53200-12		M53200-13		M53162-2		M53162-5		M53200-14	
Date Sampled	Class GA[1]	12/09/2005		12/07/2005		12/07/2005		12/07/2005		12/09/2005		12/09/2005		12/09/2005		12/07/2005		12/08/2005		12/09/2005	
Volatile Organic Compounds (µg/L)																					
Acetone	50**	5.0	UJ	5.0	U	5.0	U	5.0	U	5.0	U	5.0	UJ	5.0	UJ	5.0	U	5.0	U	5.0	UJ
Benzene	1	**27.8**		**87.4**	**J**	**207**		**378**		0.5	U	**122**		**46**		0.5	U	0.5	U	**22.6**	
Bromodichloromethane	50**	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Bromoform	50**	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Bromomethane	5*	2.0	U	2.0	UJ	2.0	UJ	2.0	UJ	2.0	U	2.0	U	2.0	U	2.0	UJ	2.0	UJ	2.0	U
2-Butanone (MEK)	50**	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
Carbon disulfide	NL	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
Carbon tetrachloride	NL	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Chlorobenzene	5*	1.0	U	1.0	U	1.0	U	1.0	U	1.1	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Chloroethane	5*	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U
Chloroform	7	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Chloromethane	NL	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U
Cyclohexane	NL	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
1,2-Dibromo-3-chloropropane	0.04	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
Dibromochloromethane	50**	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,2-Dibromoethane	NL	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U
1,2-Dichlorobenzene	3	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,3-Dichlorobenzene	3	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,4-Dichlorobenzene	3	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Dichlorodifluoromethane	5*	2.0	U	2.0	UJ	2.0	UJ	2.0	UJ	2.0	U	2.0	U	2.0	U	2.0	UJ	2.0	UJ	2.0	U
1,1-Dichloroethane	5*	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	UJ
1,2-Dichloroethane	0.6	1.0	UJ	1.0	U	1.0	U	1.0	UJ	1.0	UJ	1.0	UJ	1.0	UJ	1.0	UJ	1.0	UJ	1.0	U
1,1-Dichloroethene	5*	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
cis-1,2-Dichloroethene	5*	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
trans-1,2-Dichloroethene	5*	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,2-Dichloropropane	1	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U
cis-1,3-Dichloropropene	0.4	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	5*	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	5*	**69.2**		1.0	U	**687**		**558**		1.0	U	**269**		**38**		1.0	U	1.0	U	**17.8**	
Freon 113	NL	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
2-Hexanone	50**	5.0	U	5.0	U	5.0	U	5.0	UJ	5.0	U	5.0	U	5.0	U	5.0	UJ	5.0	UJ	5.0	U
Isopropylbenzene	5*	**16**		**7.9**		**40.9**		**43.3**		5.0	U	**22.8**		**17.8**		5.0	U	5.0	U	**12.7**	
Methyl Acetate	NL	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
Methylcyclohexane	NL	1.1	J	5.0	UJ	0.7	J	5.0	U	5.0	UJ	0.71	J	0.75	J	5.0	U	5.0	U	0.7	J
Methyl Tert Butyl Ether	10	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
4-Methyl-2-pentanone (MIBK)	5*	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
Methylene chloride	5*	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U
Styrene	5*	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	1.1		5.0	U	5.0	U	5.0	U	5.0	U
1,1,2,2-Tetrachloroethane	5*	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Tetrachloroethene	5*	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Toluene	5*	2.1	U	4.1	U	**18.6**	**J**	**60.6**		1.0	U	**73.6**		2.3	U	1.0	U	1.0	U	1.7	U
1,2,4-Trichlorobenzene	NL	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
1,1,1-Trichloroethane	5*	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,1,2-Trichloroethane	1	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Trichloroethene	5*	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Trichlorofluoromethane	5*	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Vinyl chloride	2	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Xylene (total)	5*	**22**		**42.6**		**200**		**253**		1.0	U	**159**		**23.2**		1.0	U	1.0	U	**14.4**	
Total VOCs (µg/L)	NL	140		140		1,200		1,300		ND		650		130		ND		ND		68	

Notes:
NA = Not Analyzed
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.

Bold value - compound detected above regulatory standard or guidance value.
[1]Class GA Drinking Water Standard or Guidance Value
*Principal Organic Contaminant Standard
**Class GA Guidance Value

Table B-17
Groundwater VOC Results - December 2005
Norwich Former MGP Site, Norwich, New York

Sample ID	NYSDEC	NO-PZ29		NO-PZ30		NO-PZ31		NO-PZ32		NO-PZ33		NO-PZ34		NO-PZ35		NO-PZ36		NO-PZ37		NO-PZ38	
Laboratory Identification	TOGS 1.1.1	M53135-6		M53135-1		M53135-2		M53135-9		M53135-10		M53135-11		M53135-12		M53135-5		M53135-3		M53135-4	
Date Sampled	Class GA[1]	12/06/2005		12/06/2005		12/06/2005		12/07/2005		12/07/2005		12/07/2005		12/07/2005		12/06/2005		12/06/2005		12/06/2005	
Volatile Organic Compounds (µg/L)																					
Acetone	50**	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
Benzene	1	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	50**	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Bromoform	50**	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Bromomethane	5*	2.0	UJ	2.0	UJ	2.0	UJ	2.0	U	2.0	UJ	2.0	UJ	2.0	UJ	2.0	UJ	2.0	UJ	2.0	UJ
2-Butanone (MEK)	50**	5.0	U	5.0	U	5.0	U	5.0	UJ	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
Carbon disulfide	NL	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
Carbon tetrachloride	NL	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Chlorobenzene	5*	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Chloroethane	5*	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U
Chloroform	7	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	0.3	J	1.0	U	1.0	U	0.55	J
Chloromethane	NL	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U
Cyclohexane	NL	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
1,2-Dibromo-3-chloropropane	0.04	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
Dibromochloromethane	50**	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,2-Dibromoethane	NL	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U
1,2-Dichlorobenzene	3	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,3-Dichlorobenzene	3	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,4-Dichlorobenzene	3	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Dichlorodifluoromethane	5*	2.0	UJ	2.0	UJ	2.0	UJ	2.0	U	2.0	UJ	2.0	UJ	2.0	UJ	2.0	UJ	2.0	UJ	2.0	UJ
1,1-Dichloroethane	5*	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,2-Dichloroethane	0.6	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,1-Dichloroethene	5*	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
cis-1,2-Dichloroethene	5*	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
trans-1,2-Dichloroethene	5*	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,2-Dichloropropane	1	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U
cis-1,3-Dichloropropene	0.4	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	5*	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	5*	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Freon 113	NL	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
2-Hexanone	50**	5.0	U	5.0	U	5.0	U	5.0	UJ	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
Isopropylbenzene	5*	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
Methyl Acetate	NL	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
Methylcyclohexane	NL	5.0	UJ	5.0	UJ	5.0	UJ	5.0	U	5.0	UJ	5.0	UJ	5.0	UJ	5.0	UJ	5.0	UJ	5.0	UJ
Methyl Tert Butyl Ether	10	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
4-Methyl-2-pentanone (MIBK)	5*	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
Methylene chloride	5*	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U
Styrene	5*	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
1,1,2,2-Tetrachloroethane	5*	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Tetrachloroethene	5*	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Toluene	5*	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,2,4-Trichlorobenzene	NL	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
1,1,1-Trichloroethane	5*	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,1,2-Trichloroethane	1	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Trichloroethene	5*	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Trichlorofluoromethane	5*	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Vinyl chloride	2	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Xylene (total)	5*	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Total VOCs (µg/L)	NL	ND		ND		ND		ND		ND		ND		0.3		ND		ND		0.55	

Notes:
NA = Not Analyzed
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.

Bold value - compound detected above regulatory standard or guidance value.
[1]Class GA Drinking Water Standard or Guidance Value
*Principal Organic Contaminant Standard
**Class GA Guidance Value

Table B-17
Groundwater VOC Results - December 2005
Norwich Former MGP Site, Norwich, New York

Sample ID Laboratory Identification Date Sampled	NYSDEC TOGS 1.1.1 Class GA[1]	NO-PZ39 M53162-3 12/07/2005	
Volatile Organic Compounds (µg/L)			
Acetone	50**	5.0	U
Benzene	1	0.5	U
Bromodichloromethane	50**	1.0	U
Bromoform	50**	1.0	U
Bromomethane	5*	2.0	UJ
2-Butanone (MEK)	50**	5.0	U
Carbon disulfide	NL	5.0	U
Carbon tetrachloride	NL	1.0	U
Chlorobenzene	5*	1.0	U
Chloroethane	5*	2.0	U
Chloroform	7	1.0	U
Chloromethane	NL	2.0	U
Cyclohexane	NL	5.0	U
1,2-Dibromo-3-chloropropane	0.04	5.0	U
Dibromochloromethane	50**	1.0	U
1,2-Dibromoethane	NL	2.0	U
1,2-Dichlorobenzene	3	1.0	U
1,3-Dichlorobenzene	3	1.0	U
1,4-Dichlorobenzene	3	1.0	U
Dichlorodifluoromethane	5*	2.0	UJ
1,1-Dichloroethane	5*	1.0	U
1,2-Dichloroethane	0.6	1.0	UJ
1,1-Dichloroethene	5*	1.0	U
cis-1,2-Dichloroethene	5*	1.0	U
trans-1,2-Dichloroethene	5*	1.0	U
1,2-Dichloropropane	1	2.0	U
cis-1,3-Dichloropropene	0.4	0.5	U
trans-1,3-Dichloropropene	5*	0.5	U
Ethylbenzene	5*	1.0	U
Freon 113	NL	5.0	U
2-Hexanone	50**	5.0	UJ
Isopropylbenzene	5*	5.0	U
Methyl Acetate	NL	5.0	U
Methylcyclohexane	NL	5.0	U
Methyl Tert Butyl Ether	10	1.0	U
4-Methyl-2-pentanone (MIBK)	5*	5.0	U
Methylene chloride	5*	2.0	U
Styrene	5*	5.0	U
1,1,2,2-Tetrachloroethane	5*	1.0	U
Tetrachloroethene	5*	1.0	U
Toluene	5*	1.0	U
1,2,4-Trichlorobenzene	NL	5.0	U
1,1,1-Trichloroethane	5*	1.0	U
1,1,2-Trichloroethane	1	1.0	U
Trichloroethene	5*	1.0	U
Trichlorofluoromethane	5*	1.0	U
Vinyl chloride	2	1.0	U
Xylene (total)	5*	1.0	U
Total VOCs (µg/L)	NL	ND	

Notes:
NA = Not Analyzed
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.

Bold value - compound detected above regulatory standard or guidance value.
[1]Class GA Drinking Water Standard or Guidance Value
*Principal Organic Contaminant Standard
**Class GA Guidance Value

Table B-18
Groundwater SVOC Results - July 2005
Norwich Former MGP Site, Norwich, New York

Sample ID / Laboratory Identification / Date Sampled	NYSDEC TOGS 1.1.1 Class GA[1]	NO-GW92-12 M49539-21 07/26/2005	NO-PZ03 M49539-3 07/25/2005	NO-PZ10 M49539-13 07/26/2005	NO-PZ11 M49539-2 07/25/2005	NO-PZ12 M49539-1 07/25/2005	NO-PZ13 M49539-22 07/26/2005	NO-PZ14 M49539-23 07/26/2005	NO-PZ15 M49539-16 07/26/2005	NO-PZ16 M49539-9 07/25/2005	NO-PZ17 M49539-6 07/25/2005	NO-PZ18 M49539-24 07/26/2005	NO-PZ19 M49539-18 07/26/2005	NO-PZ20 M49539-7 07/25/2005	NO-PZ21 M49539-25 07/26/2005	NO-PZ22 M49539-26 07/26/2005	NO-PZ23 M49539-15 07/26/2005	NO-PZ24 M49539-8 07/25/2005
Semi-volatile Organic Compounds (µg/L)																		
2-Methylnaphthalene	NL	5.0 U	5.1 U	101 J	5.1 U	5.1 U	9.5	4.0	54.1	5.0 U	5.1 U	5.0 U	22.7	5.1 U	34.3	2.1	5.1 U	45.6
Acenaphthene	20**	5.0 U	5.1 U	**53.2**	5.1 U	5.1 U	5.4	5.9	**49.3**	5.0 U	5.1 U	5.0 U	**38.3**	5.1 U	**56.4**	**25.8**	5.1 U	**34.7**
Acenaphthylene	NL	5.0 U	5.1 U	9	5.1 U	5.1 U	3.4	3.9	7.1	5.0 U	5.1 U	5.0 U	7.2	5.1 U	9.1	5.0	5.1 U	8.8
Anthracene	50**	5.0 U	5.1 U	4.2	5.1 U	5.1 U	5.0 U	5.0 U	2.2	5.0 U	5.1 U	5.0 U	1.2	5.1 U	3.3	3.0	5.1 U	2.7
Benzo(a)anthracene	0.002**	5.0 U	5.1 U	5.1 U	5.1 U	5.1 U	5.0 U	5.0 U	5.1 U	5.0 U	5.1 U	5.0 U	5.1 U	5.1 U	5.0 U	5.0 U	5.1 U	5.1 U
Benzo(a)pyrene	ND	5.0 U	5.1 U	5.1 U	5.1 U	5.1 U	5.0 U	5.0 U	5.1 U	5.0 U	5.1 U	5.0 U	5.1 U	5.1 U	5.0 U	5.0 U	5.1 U	5.1 U
Benzo(b)fluoranthene	0.002**	5.0 U	5.1 U	5.1 U	5.1 U	5.1 U	5.0 U	5.0 U	5.1 U	5.0 U	5.1 U	5.0 U	5.1 U	5.1 U	5.0 U	5.0 U	5.1 U	5.1 U
Benzo(g,h,i)perylene	NL	5.0 U	5.1 U	5.1 U	5.1 U	5.1 U	5.0 U	5.0 U	5.1 U	5.0 U	5.1 U	5.0 U	5.1 U	5.1 U	5.0 U	5.0 U	5.1 U	5.1 U
Benzo(k)fluoranthene	0.002**	5.0 U	5.1 U	5.1 U	5.1 U	5.1 U	5.0 U	5.0 U	5.1 U	5.0 U	5.1 U	5.0 U	5.1 U	5.1 U	5.0 U	5.0 U	5.1 U	5.1 U
Chrysene	0.002**	5.0 U	5.1 U	5.1 U	5.1 U	5.1 U	5.0 U	5.0 U	5.1 U	5.0 U	5.1 U	5.0 U	5.1 U	5.1 U	5.0 U	5.0 U	5.1 U	5.1 U
Dibenzo(a,h)anthracene	NL	5.0 U	5.1 U	5.1 U	5.1 U	5.1 U	5.0 U	5.0 U	5.1 U	5.0 U	5.1 U	5.0 U	5.1 U	5.1 U	5.0 U	5.0 U	5.1 U	5.1 U
Fluoranthene	50**	5.0 U	5.1 U	3.2	5.1 U	5.1 U	5.0 U	0.7 J	2.3	5.0 U	5.1 U	5.0 U	1.7	5.1 U	1.0	1.5	5.1 U	1.0
Fluorene	50**	5.0 U	5.1 U	20.2	5.1 U	5.1 U	3.6	1.3	15.9	5.0 U	5.1 U	5.0 U	11.6	5.1 U	19.8	10.7	5.1 U	14.4
Indeno(1,2,3-cd)pyrene	0.002**	5.0 U	5.1 U	5.1 U	5.1 U	5.1 U	5.0 U	5.0 U	5.1 U	5.0 U	5.1 U	5.0 U	5.1 U	5.1 U	5.0 U	5.0 U	5.1 U	5.1 U
Naphthalene	10**	5.0 U	5.1 U	**21.9**	5.1 U	5.1 U	5.0 U	5.0 U	**14.4**	5.0 U	5.1 U	5.0 U	3.5	5.1 U	**186**	**14.7**	5.1 U	**406**
Phenanthrene	50**	5.0 U	5.1 U	24.7	5.1 U	5.1 U	3.9	5.0 U	21.4	5.0 U	5.1 U	5.0 U	14	5.1 U	17.9	13.3	5.1 U	12.7
Pyrene	50**	5.0 U	5.1 U	3.7	5.1 U	5.1 U	5.0 U	1.6	2.4	5.0 U	5.1 U	5.0 U	2.3	5.1 U	0.99 J	1.6	5.1 U	1.1
Total PAHs (µg/L)	NL	ND	ND	240	ND	ND	26	17	170	ND	ND	ND	100	ND	330	78	ND	530
Total CPAHs (µg/L)	NL	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1'-Biphenyl	5*	10 UJ	10 UJ	**21.7 J**	10 UJ	10 UJ	10 UJ	10 UJ	**20.2 J**	10 UJ	10 UJ	10 UJ	**17.3 J**	10 UJ	**25.1 J**	10 UJ	10 UJ	10 UJ
1,2-Diphenylhydrazine	NL	NA	5.1 U	NA	5.1 U	5.1 U	NA	NA	NA	5.0 U	5.1 U	NA	NA	5.1 U	NA	NA	NA	5.1 U
2,4,5-Trichlorophenol	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	R	10 U	10 U	10 U
2,4,6-Trichlorophenol	NL	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	R	10 U	10 U	10 U
2,4-Dichlorophenol	5*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	R	10 U	10 U	10 U
2,4-Dimethylphenol	50**	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	R	10 U	10 U	10 U
2,4-Dinitrophenol	10**	20 UJ	20 U	20 UJ	20 U	20 U	20 UJ	20 UJ	20 UJ	20 U	20 U	20 UJ	20 UJ	20 U	R	20 UJ	20 UJ	20 U
2,4-Dinitrotoluene	5*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,6-Dinitrotoluene	5*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Chloronaphthalene	10**	5.0 UJ	5.1 UJ	5.1 UJ	5.1 UJ	5.1 UJ	5.0 UJ	5.0 UJ	5.1 UJ	5.0 UJ	5.1 UJ	5.0 UJ	5.1 UJ	5.1 UJ	5.0 UJ	5.0 UJ	5.1 UJ	5.1 UJ
2-Chlorophenol	NL	5.0 U	5.1 U	5.1 U	5.1 U	5.1 U	5.0 U	5.0 U	5.1 U	5.0 U	5.1 U	5.0 U	5.1 U	5.1 U	R	5.0 U	5.1 U	5.1 U
2-Methylphenol	NL	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	R	10 U	10 U	1.4
2-Nitroaniline	5*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitrophenol	NL	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	R	10 U	10 U	10 U
3&4-Methylphenol	NL	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	R	10 U	10 U	10 U
3,3'-Dichlorobenzidine	5*	5.0 UJ	5.1 UJ	5.1 UJ	5.1 UJ	5.1 UJ	5.0 UJ	5.0 UJ	5.1 UJ	5.0 UJ	5.1 UJ	5.0 UJ	5.1 UJ	5.1 UJ	5.0 UJ	5.0 UJ	5.1 UJ	5.1 UJ
3-Nitroaniline	NL	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4,6-Dinitro-o-cresol	NL	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	R	10 U	10 U	10 U
4-Bromophenyl phenyl ether	NL	5.0 U	5.1 U	5.1 U	5.1 U	5.1 U	5.0 U	5.0 U	5.1 U	5.0 U	5.1 U	5.0 U	5.1 U	5.1 U	5.0 U	5.0 U	5.1 U	5.1 U
4-Chloro-3-methylphenol	NL	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	R	10 U	10 U	10 U
4-Chloroaniline	5*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chlorophenyl phenyl ether	NL	5.0 U	5.1 U	5.1 U	5.1 U	5.1 U	5.0 U	5.0 U	5.1 U	5.0 U	5.1 U	5.0 U	5.1 U	5.1 U	5.0 U	5.0 U	5.1 U	5.1 U
4-Nitroaniline	5*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Nitrophenol	NL	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	R	20 U	20 U	20 U
Acetophenone	NL	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Aniline	5*	NA	10 U	NA	10 U	10 U	NA	NA	NA	10 U	10 U	NA	NA	10 U	NA	NA	NA	10 U
Atrazine	7.5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzaldehyde	NL	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Benzoic acid	NL	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bis(2-chloroethoxy) methane	0.002**	5.0 U	5.1 U	5.1 U	5.1 U	5.1 U	5.0 U	5.0 U	5.1 U	5.0 U	5.1 U	5.0 U	5.1 U	5.1 U	5.0 U	5.0 U	5.1 U	5.1 U
Bis(2-chloroethyl) ether	5*	5.0 U	5.1 U	5.1 U	5.1 U	5.1 U	5.0 U	5.0 U	5.1 U	5.0 U	5.1 U	5.0 U	5.1 U	5.1 U	5.0 U	5.0 U	5.1 U	5.1 U
bis(2-Chloroisopropyl)ether	NL	5.0 U	5.1 U	5.1 U	5.1 U	5.1 U	5.0 U	5.0 U	5.1 U	5.0 U	5.1 U	5.0 U	5.1 U	5.1 U	5.0 U	5.0 U	5.1 U	5.1 U
Bis(2-ethylhexyl) phthalate	5	10 U	10 U	10 U	2.1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	2.2	10 U	10 U	**14.5**	10 U
Butyl benzyl phthalate	NL	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Caprolactam	NL	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Carbazole	NL	5.0 U	5.1 U	10.8	5.1 U	5.1 U	5.0 U	5.0 U	11.6	5.0 U	5.1 U	5.0 U	6.6	5.1 U	15.2	7.2	5.1 U	7.5
Dibenzofuran	NL	5.0 U	5.1 U	4.3	5.1 U	5.1 U	5.0 U	5.0 U	5.0	5.0 U	5.1 U	5.0 U	4.1	5.1 U	6.0	3.4	5.1 U	4.0
Diethyl phthalate	NL	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Dimethyl phthalate	NL	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Di-n-butyl phthalate	NL	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Di-n-octyl phthalate	50**	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobenzene	0.04	5.0 U	5.1 U	5.1 U	5.1 U	5.1 U	5.0 U	5.0 U	5.1 U	5.0 U	5.1 U	5.0 U	5.1 U	5.1 U	5.0 U	5.0 U	5.1 U	5.1 U
Hexachlorobutadiene	0.5	5.0 U	5.1 U	5.1 U	5.1 U	5.1 U	5.0 U	5.0 U	5.1 U	5.0 U	5.1 U	5.0 U	5.1 U	5.1 U	5.0 U	5.0 U	5.1 U	5.1 U
Hexachlorocyclopentadiene	5*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachloroethane	5*	5.0 U	5.1 U	5.1 U	5.1 U	5.1 U	5.0 U	5.0 U	5.1 U	5.0 U	5.1 U	5.0 U	5.1 U	5.1 U	5.0 U	5.0 U	5.1 U	5.1 U
Isophorone	50**	5.0 U	5.1 U	5.1 U	5.1 U	5.1 U	5.0 U	5.0 U	5.1 U	5.0 U	5.1 U	5.0 U	5.1 U	5.1 U	5.0 U	5.0 U	5.1 U	5.1 U
Nitrobenzene	0.4	5.0 U	5.1 U	5.1 U	5.1 U	5.1 U	5.0 U	5.0 U	5.1 U	5.0 U	5.1 U	5.0 U	5.1 U	5.1 U	5.0 U	5.0 U	5.1 U	5.1 U
N-Nitroso-Di-n-propylamine	NL	5.0 U	5.1 U	5.1 U	5.1 U	5.1 U	5.0 U	5.0 U	5.1 U	5.0 U	5.1 U	5.0 U	5.1 U	5.1 U	5.0 U	5.0 U	5.1 U	5.1 U
N-nitrosodiphenylamine	50**	5.0 U	5.1 U	5.1 U	5.1 U	5.1 U	5.0 U	5.0 U	5.1 U	5.0 U	5.1 U	5.0 U	5.1 U	5.1 U	5.0 U	5.0 U	5.1 U	5.1 U
Pentachlorophenol	1***	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	R	10 U	10 U	10 U
Phenol	1***	5.0 U	5.1 U	5.1 U	5.1 U	5.1 U	5.0 U	5.0 U	5.1 U	5.0 U	5.1 U	5.0 U	5.1 U	5.1 U	R	**1.9**	5.1 U	**11.5**
Total SVOCs (µg/L)[2]	NL	ND	ND	280	2.1	ND	26	17	210	ND	ND	ND	130	2.2	370	90	15	550

Notes:
NA = Not Analyzed
NL = Not Listed
ND = Not Detected
MDL - Method Detection Limit
D = The concentration indicated was obtained from a diluted analytical run.
J = The associated numerical value is an estimated quantity.
R = The result was rejected because one or more QC measures did not meet acceptable criteria by validator during the review process
U = The material was analyzed for but not detected at or above the MDL. The associated numerical value is the sample reporting limit.

Bold value - compound detected above regulatory guidance value.
[1]Class GA Drinking Water Standard or Guidance Value
[2]The total SVOC values include all PAH compounds
*Principal Organic Contaminant Standard
**Class GA Guidance Value
***Applies to total chlorinated phenolic compounds
CPAHs - Carcinogenic PAHs which are shown in bold and italics

Table B-18
Groundwater SVOC Results - July 2005
Norwich Former MGP Site, Norwich, New York

Sample ID Laboratory Identification Date Sampled	NYSDEC TOGS 1.1.1 Class GA[1]	NO-PZ25 M49539-10 07/25/2005		NO-PZ26 M49539-4 07/25/2005		NO-PZ27 M49539-5 07/25/2005		NO-PZ28 M49539-17 07/26/2005	
Semi-volatile Organic Compounds (µg/L)									
2-Methylnaphthalene	NL	19.3		5.1	U	5.0	U	12.3	
Acenaphthene	20**	**35.9**		5.1	U	5.0	U	**30.1**	
Acenaphthylene	NL	5.3		5.1	U	5.0	U	5.6	
Anthracene	50**	5.1	U	5.1	U	5.0	U	0.8	J
Benzo(a)anthracene	0.002**	5.1	U	5.1	U	5.0	U	5.1	U
Benzo(a)pyrene	ND	5.1	U	5.1	U	5.0	U	5.1	U
Benzo(b)fluoranthene	0.002**	5.1	U	5.1	U	5.0	U	5.1	U
Benzo(g,h,i)perylene	NL	5.1	U	5.1	U	5.0	U	5.1	U
Benzo(k)fluoranthene	0.002**	5.1	U	5.1	U	5.0	U	5.1	U
Chrysene	0.002**	5.1	U	5.1	U	5.0	U	5.1	U
Dibenzo(a,h)anthracene	NL	5.1	U	5.1	U	5.0	U	5.1	U
Fluoranthene	50**	1.7		5.1	U	5.0	U	2.1	
Fluorene	50**	4.7		5.1	U	5.0	U	7.7	
Indeno(1,2,3-cd)pyrene	0.002**	5.1	U	5.1	U	5.0	U	5.1	U
Naphthalene	10**	2.9		5.1	U	5.0	U	1.6	
Phenanthrene	50**	4.3		5.1	U	5.0	U	9.0	
Pyrene	50**	1.9		5.1	U	5.0	U	2.3	
Total PAHs (µg/L)	NL	76		ND		ND		72	
Total CPAHs (µg/L)	NL	ND		ND		ND		ND	
1,1'-Biphenyl	5*	10	UJ	10	UJ	10	UJ	**11**	**J**
1,2-Diphenylhydrazine	NL	NA		5.1	U	5.0	U	NA	
2,4,5-Trichlorophenol	1	10	U	10	U	10	U	10	U
2,4,6-Trichlorophenol	NL	10	U	10	U	10	U	10	U
2,4-Dichlorophenol	5*	10	U	10	U	10	U	10	U
2,4-Dimethylphenol	50**	10	U	10	U	10	U	10	U
2,4-Dinitrophenol	10**	20	UJ	20	U	20	U	20	UJ
2,4-Dinitrotoluene	5*	10	U	10	U	10	U	10	U
2,6-Dinitrotoluene	5*	10	U	10	U	10	U	10	U
2-Chloronaphthalene	10**	5.1	UJ	5.1	UJ	5.0	UJ	5.1	UJ
2-Chlorophenol	NL	5.1	U	5.1	U	5.0	U	5.1	U
2-Methylphenol	NL	10	U	10	U	10	U	10	U
2-Nitroaniline	5*	10	U	10	U	10	U	10	U
2-Nitrophenol	NL	10	U	10	U	10	U	10	U
3&4-Methylphenol	NL	10	U	10	U	10	U	10	U
3,3'-Dichlorobenzidine	5*	5.1	UJ	5.1	UJ	5.0	UJ	5.1	UJ
3-Nitroaniline	NL	10	U	10	U	10	U	10	U
4,6-Dinitro-o-cresol	NL	10	U	10	U	10	U	10	U
4-Bromophenyl phenyl ether	NL	5.1	U	5.1	U	5.0	U	5.1	U
4-Chloro-3-methylphenol	NL	10	U	10	U	10	U	10	U
4-Chloroaniline	5*	10	U	10	U	10	U	10	U
4-Chlorophenyl phenyl ether	NL	5.1	U	5.1	U	5.0	U	5.1	U
4-Nitroaniline	5*	10	U	10	U	10	U	10	U
4-Nitrophenol	NL	20	U	20	U	20	U	20	U
Acetophenone	NL	10	U	10	U	10	U	10	U
Aniline	5*	NA		10	U	10	U	NA	
Atrazine	7.5	10	U	10	U	10	U	10	U
Benzaldehyde	NL	20	U	20	U	20	U	20	U
Benzoic acid	NL	10	U	10	U	10	U	10	U
Bis(2-chloroethoxy) methane	0.002**	5.1	U	5.1	U	5.0	U	5.1	U
Bis(2-chloroethyl) ether	5*	5.1	U	5.1	U	5.0	U	5.1	U
bis(2-Chloroisopropyl)ether	NL	5.1	U	5.1	U	5.0	U	5.1	U
Bis(2-ethylhexyl) phthalate	5	10	U	1.5		10	U	10	U
Butyl benzyl phthalate	NL	10	U	10	U	10	U	10	U
Caprolactam	NL	10	U	10	U	10	U	10	U
Carbazole	NL	5.5		5.1	U	5.0	U	4.0	
Dibenzofuran	NL	3.6		5.1	U	5.0	U	4.1	
Diethyl phthalate	NL	10	U	10	U	10	U	10	U
Dimethyl phthalate	NL	10	U	10	U	10	U	10	U
Di-n-butyl phthalate	NL	10	U	10	U	10	U	10	U
Di-n-octyl phthalate	50**	10	U	10	U	10	U	10	U
Hexachlorobenzene	0.04	5.1	U	5.1	U	5.0	U	5.1	U
Hexachlorobutadiene	0.5	5.1	U	5.1	U	5.0	U	5.1	U
Hexachlorocyclopentadiene	5*	10	U	10	U	10	U	10	U
Hexachloroethane	5*	5.1	U	5.1	U	5.0	U	5.1	U
Isophorone	50**	5.1	U	5.1	U	5.0	U	5.1	U
Nitrobenzene	0.4	5.1	U	5.1	U	5.0	U	5.1	U
N-Nitroso-Di-n-propylamine	NL	5.1	U	5.1	U	5.0	U	5.1	U
N-nitrosodiphenylamine	50**	5.1	U	5.1	U	5.0	U	5.1	U
Pentachlorophenol	1***	10	U	10	U	10	U	10	U
Phenol	1***	**1.3**		5.1	U	5.0	U	5.1	U
Total SVOCs (µg/L)[2]	NL	86		1.5		ND		91	

Notes:
NA = Not Analyzed
NL = Not Listed
ND = Not Detected
MDL - Method Detection Limit
D = The concentration indicated was obtained from a diluted analytical run.
J = The associated numerical value is an estimated quantity.
R = The result was rejected because one or more QC measures did not meet acceptable criteria by validator during the review process
U = The material was analyzed for but not detected at or above the MDL. The associated numerical value is the sample reporting limit.

Bold value - compound detected above regulatory guidance value.
[1]Class GA Drinking Water Standard or Guidance Value
[2]The total SVOC values include all PAH compounds
*Principal Organic Contaminant Standard
**Class GA Guidance Value
***Applies to total chlorinated phenolic compounds
CPAHs - Carcinogenic PAHs which are shown in bold and italics

Table B-19
Groundwater SVOC Results - December 2005
Norwich Former MGP Site, Norwich, New York

Sample ID Laboratory Identification Date Sampled	NYSDEC TOGS 1.1.1 Class GA[1]	NO-EXISTING WELL M53280-10 12/14/2005	NO-GW01-14 M53280-8 12/14/2005	NO-GW04-16 M53253-7 12/13/2005	NO-GW91-4D M53280-2 12/13/2005	NO-GW91-4SH M53280-1 12/13/2005	NO-GW91-6 M53280-7 12/14/2005	NO-GW91-7 M53253-2 12/12/2005	NO-GW92-8 M53280-9 12/14/2005	NO-GW92-11D M53280-4 12/14/2005	NO-GW92-11SH M53280-5 12/14/2005	NO-GW92-12 M53253-1 12/12/2005	NO-GW92-13 M53280-3 12/13/2005	NO-PZ01 M53253-5 12/13/2005	NO-PZ02 M53253-6 12/13/2005
Semi-volatile Organic Compounds (µg/L)															
2-Methylnaphthalene	NL	5.0 U	333	84.3	5.1 U	5.2 U	5.0 U	5.9 U	5.1 U	5.1 U	5.0 U	5.0 U	5.2	45.2	78
Acenaphthene	20**	5.0 U	**161**	**54.2**	5.1 U	5.2 U	5.0 U	5.9 U	**58.1**	**58.7**	5.0 U	5.0 U	3.2	**41.3**	**83.9**
Acenaphthylene	NL	5.0 U	10.4	10.4	5.1 U	5.2 U	5.0 U	5.9 U	8.8	15.4	5.0 U	5.0 U	5.1 U	3.2	11.1
Anthracene	50**	5.0 U	10.6	7.4	5.1 U	5.2 U	5.0 U	5.9 U	4.9	2.4	5.0 U	5.0 U	5.1 U	6.6	10.5
Benzo(a)anthracene	0.002**	5.0 U	5.0 U	**1.2 J**	5.1 U	5.2 U	5.0 U	5.9 U	5.1 U	5.1 U	5.0 U	5.0 U	5.1 U	5.1 U	**1.9 J**
Benzo(a)pyrene	ND	5.0 U	5.0 U	**0.71 J**	5.1 U	5.2 U	5.0 U	5.9 U	5.1 U	5.1 U	5.0 U	5.0 U	5.1 U	5.1 U	**1.3**
Benzo(b)fluoranthene	0.002**	5.0 U	5.0 U	5.1 U	5.1 U	5.2 U	5.0 U	5.9 U	5.1 U	5.1 U	5.0 U	5.0 U	5.1 U	5.1 U	**0.58 J**
Benzo(g,h,i)perylene	NL	5.0 U	5.0 U	5.1 U	5.1 U	5.2 U	5.0 U	5.9 U	5.1 U	5.1 U	5.0 U	5.0 UJ	5.1 U	5.1 U	0.71 J
Benzo(k)fluoranthene	0.002**	5.0 U	5.0 U	5.1 U	5.1 U	5.2 U	5.0 U	5.9 U	5.1 U	5.1 U	5.0 U	5.0 U	5.1 U	5.1 U	**0.78 J**
Chrysene	0.002**	5.0 U	5.0 U	**0.89 J**	5.1 U	5.2 U	5.0 U	5.9 U	5.1 U	5.1 U	5.0 U	5.0 U	5.1 U	5.1 U	**1.5 J**
Dibenzo(a,h)anthracene	NL	5.0 U	5.0 U	5.1 U	5.1 U	5.2 U	5.0 U	5.9 U	5.1 U	5.1 U	5.0 U	5.0 U	5.1 U	5.1 U	5.2 U
Fluoranthene	50**	5.0 U	3.6	5.2	5.1 U	5.2 U	5.0 U	5.9 U	2.3	0.74 J	5.0 U	5.0 U	5.1 U	4.3	7.0
Fluorene	50**	5.0 U	44.4	17.4	5.1 U	5.2 U	5.0 U	5.9 U	14.8	1.5	5.0 U	5.0 U	5.1 U	12.4	26.7
Indeno(1,2,3-cd)pyrene	0.002**	5.0 U	5.0 U	5.1 U	5.1 U	5.2 U	5.0 U	5.9 U	5.1 U	5.1 U	5.0 U	5.0 U	5.1 U	5.1 U	5.2 U
Naphthalene	10**	5.0 U	**2,810**	**317 J**	5.1 U	5.2 U	2.8	5.9 U	9.2	**105**	5.0 U	5.0 U	**41.9**	**189**	**526**
Phenanthrene	50**	5.0 U	**51.6**	28.1	5.1 U	5.2 U	5.0 U	5.9 U	24.5	11.6	5.0 U	5.0 U	0.97 J	22.7	43.7
Pyrene	50**	5.0 U	3.6 J	6.9 J	5.1 U	5.2 U	5.0 U	5.9 U	2.6 J	0.81 J	5.0 U	5.0 U	5.1 U	5.6 J	9.8 J
Total PAHs (µg/L)	NL	ND	3,400	530	ND	ND	2.8	ND	130	200	ND	ND	51	330	800
Total CPAHs (µg/L)	NL	ND	ND	2.8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	6.1
1,1'-Biphenyl	5*	10 U	**55.8**	**11.5**	10 U	10 U	10 U	12 U	**16.8**	**21.5**	10 U	10 U	1.1	**6.6**	**21.2**
2,4,5-Trichlorophenol	1	10 U	10 U	10 U	10 U	10 U	10 U	12 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4,6-Trichlorophenol	NL	10 U	10 U	10 U	10 U	10 U	10 U	12 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dichlorophenol	5*	10 U	10 U	10 U	10 U	10 U	10 U	12 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dimethylphenol	50**	10 U	10 U	1.8	10 U	10 U	10 U	12 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrophenol	10**	20 U	20 U	20 U	20 U	**23.8 J**	20 U	24 U	20 U	20 U	20 U	20 U	20 U	20 U	21 U
2,4-Dinitrotoluene	5*	10 U	10 U	10 U	10 U	10 U	10 U	12 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,6-Dinitrotoluene	5*	10 U	10 U	10 U	10 U	10 U	10 U	12 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Chloronaphthalene	10**	5.0 U	5.0 U	5.1 U	5.1 U	5.2 U	5.0 U	5.9 U	5.1 U	5.1 U	5.0 U	5.0 U	5.1 U	5.1 U	5.2 U
2-Chlorophenol	NL	5.0 U	5.0 U	5.1 U	5.1 U	5.2 U	5.0 U	5.9 U	5.1 U	5.1 U	5.0 U	5.0 U	5.1 U	5.1 U	5.2 U
2-Methylphenol	NL	10 U	10 U	10 U	10 U	10 U	10 U	12 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitroaniline	5*	10 U	10 U	10 U	10 U	10 U	10 U	12 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitrophenol	NL	10 U	10 U	10 U	10 U	10 U	10 U	12 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
3&4-Methylphenol	NL	10 U	10 U	4.9	10 U	10 U	10 U	12 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
3,3'-Dichlorobenzidine	5*	5.0 U	5.0 U	5.1 U	5.1 U	5.2 U	5.0 U	5.9 U	5.1 U	5.1 U	5.0 U	5.0 U	5.1 U	5.1 U	5.2 U
3-Nitroaniline	NL	10 U	10 U	10 U	10 U	10 U	10 U	12 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4,6-Dinitro-o-cresol	NL	10 U	10 U	10 U	10 U	11.4	10 U	12 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Bromophenyl phenyl ether	NL	5.0 U	5.0 U	5.1 U	5.1 U	5.2 U	5.0 U	5.9 U	5.1 U	5.1 U	5.0 U	5 U	5.1 U	5.1 U	5.2 U
4-Chloro-3-methylphenol	NL	10 U	10 U	10 U	10 U	10 U	10 U	12 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloroaniline	5*	10 U	10 U	10 U	10 U	10 U	10 U	12 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chlorophenyl phenyl ether	NL	5.0 U	5.0 U	5.1 U	5.1 U	5.2 U	5.0 U	5.9 U	5.1 U	5.1 U	5.0 U	5.0 U	5.1 U	5.1 U	5.2 U
4-Nitroaniline	5*	10 U	10 U	10 U	10 U	10 U	10 U	12 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Nitrophenol	NL	20 U	20 U	20 U	20 U	21 U	20 U	24 U	20 U	20 U	20 U	20 U	20 U	20 U	21 U
Acetophenone	NL	10 U	10 U	2.1	10 U	10 U	10 U	12 U	10 U	10 U	10 U	10 U	10 U	3.1	2.8
Atrazine	7.5	10 U	10 U	10 U	10 U	10 U	10 U	12 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzaldehyde	NL	R	R	R	1.2 J	R	R	R	R	R	R	R	R	R	R
Bis(2-chloroethoxy) methane	0.002**	5.0 U	5.0 U	5.1 U	5.1 U	5.2 U	5.0 U	5.9 U	5.1 U	5.1 U	5.0 U	5.0 U	5.1 U	5.1 U	5.2 U
Bis(2-chloroethyl) ether	5*	5.0 U	5.0 U	5.1 U	5.1 U	5.2 U	5.0 U	5.9 U	5.1 U	5.1 U	5.0 U	5.0 U	5.1 U	5.1 U	5.2 U
bis(2-Chloroisopropyl)ether	NL	5.0 U	5.0 U	5.1 U	5.1 U	5.2 U	5.0 U	5.9 U	5.1 U	5.1 U	5.0 U	5.0 U	5.1 U	5.1 U	5.2 U
Bis(2-ethylhexyl) phthalate	5	2.5 J	1.1 J	10 U	0.68 J	0.65 J	10 U	12 U	0.99 J	0.53 J	0.59 J	10 U	10 U	10 U	1.1 J
Butyl benzyl phthalate	NL	10 U	10 U	10 U	10 U	10 U	10 U	0.65 J	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Caprolactam	NL	2.5 J	10 U	10 U	10 U	10 U	10 U	12 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Carbazole	NL	5.0 U	35.5	4.6	5.1 U	5.2 U	5.0 U	5.9 U	11.4	11.9	5.0 U	5.0 U	0.58 J	2.4	3.8
Dibenzofuran	NL	5.0 U	18.4	10.2	5.1 U	5.2 U	5.0 U	5.9 U	4.1	8.3	5.0 U	5.0 U	5.1 U	3.7	6.8
Diethyl phthalate	NL	10 U	10 U	10 U	10 U	10 U	10 U	12 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Dimethyl phthalate	NL	10 U	10 U	10 U	10 U	10 U	10 U	12 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Di-n-butyl phthalate	NL	4.6	4.6	2.0	2.1	1.7	3.6	1.6	5.2	3.4	3.3	1.3	2.1	1.6	2.8
Di-n-octyl phthalate	50**	10 U	10 U	10 U	10 U	10 U	10 U	12 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobenzene	0.04	5.0 U	5.0 U	5.1 U	5.1 U	5.2 U	5.0 U	5.9 U	5.1 U	5.1 U	5.0 U	5.0 U	5.1 U	5.1 U	5.2 U
Hexachlorobutadiene	0.5	5.0 U	5.0 U	5.1 U	5.1 U	5.2 U	5.0 U	5.9 U	5.1 U	5.1 U	5.0 U	5.0 U	5.1 U	5.1 U	5.2 U
Hexachlorocyclopentadiene	5*	10 U	10 U	10 U	10 U	10 U	10 U	12 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachloroethane	5*	5.0 U	5.0 U	5.1 U	5.1 U	5.2 U	5.0 U	5.9 U	5.1 U	5.1 U	5.0 U	5.0 U	5.1 U	5.1 U	5.2 U
Isophorone	50**	5.0 U	5.0 U	5.1 U	5.1 U	5.2 U	5.0 U	5.9 U	5.1 U	5.1 U	5.0 U	5.0 U	5.1 U	5.1 U	5.2 U
Nitrobenzene	0.4	5.0 U	5.0 U	5.1 U	5.1 U	5.2 U	5.0 U	5.9 U	5.1 U	5.1 U	5.0 U	5.0 U	5.1 U	5.1 U	5.2 U
N-Nitroso-Di-n-propylamine	NL	5.0 U	5.0 U	5.1 U	5.1 U	5.2 U	5.0 U	5.9 U	5.1 U	5.1 U	5.0 U	5.0 U	5.1 U	5.1 U	5.2 U
N-nitrosodiphenylamine	50**	5.0 U	5.0 U	5.1 U	5.1 U	5.2 U	5.0 U	5.9 U	5.1 U	5.1 U	5.0 U	5.0 U	5.1 U	5.1 U	5.2 U
Pentachlorophenol	1***	10 U	10 U	10 U	10 U	**7.6 J**	10 U	12 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Phenol	1***	5.0 U	5.0 U	5.1 U	5.1 U	5.2 U	5.0 U	5.9 U	5.1 U	5.1 U	5.0 U	5.0 U	5.1 U	5.1 U	5.2 U
Total SVOCs (µg/L)[2]	NL	9.6	3,500	570	4.0	45	6.4	2.3	160	240	3.9	1.3	55	350	840

Notes:
NA = Not Analyzed
NL = Not Listed
ND = Not Detected
MDL - Method Detection Limit
D = The concentration indicated was obtained from a diluted analytical run.
J = The associated numerical value is an estimated quantity.
R = The result was rejected because one or more QC measures did not meet acceptable criteria by validator during the review process
U = The material was analyzed for but not detected at or above the MDL. The associated numerical value is the sample reporting limit.

Bold value - compound detected above regulatory guidance value.
[1]Class GA Drinking Water Standard or Guidance Value
[2]The total SVOC values include all PAH compounds
*Principal Organic Contaminant Standard
**Class GA Guidance Value
***Applies to total chlorinated phenolic compounds
CPAHs - Carcinogenic PAHs which are shown in bold and italics

Table B-19
Groundwater SVOC Results - December 2005
Norwich Former MGP Site, Norwich, New York

Sample ID	NYSDEC	NO-PZ03		NO-PZ04		NO-PZ05		NO-PZ06		NO-PZ07		NO-PZ08	
Laboratory Identification	TOGS 1.1.1	M53200-4		M53253-3		M53162-6		M53200-3		M53200-1		M53200-2	
Date Sampled	Class GA[1]	12/08/2005		12/12/2005		12/08/2005		12/08/2005		12/08/2005		12/08/2005	
Semi-volatile Organic Compounds (µg/L)													
2-Methylnaphthalene	NL	5.5	U	5.1	U	9.3		158		0.79	J	5.0	U
Acenaphthene	20**	5.5	U	5.1	U	**39.6**		**134**		3.9		**67.7**	
Acenaphthylene	NL	5.5	U	5.1	U	10.4		16.9		1.7		8.7	
Anthracene	50**	5.5	U	5.1	U	1.4		8.6		5.0	U	5.4	
Benzo(a)anthracene	0.002**	5.5	U	5.1	U	5.1	U	5.0	U	5.0	U	5.0	U
Benzo(a)pyrene	ND	5.5	U	5.1	U	5.1	U	5.0	U	5.0	U	5.0	U
Benzo(b)fluoranthene	0.002**	5.5	U	5.1	U	5.1	U	5.0	U	5.0	U	5.0	U
Benzo(g,h,i)perylene	NL	5.5	UJ	5.1	U	5.1	UJ	5.0	UJ	5.0	UJ	5.0	UJ
Benzo(k)fluoranthene	0.002**	5.5	U	5.1	U	5.1	U	5.0	U	5.0	U	5.0	U
Chrysene	0.002**	5.5	U	5.1	U	5.1	U	5.0	U	5.0	U	5.0	U
Dibenzo(a,h)anthracene	NL	5.5	U	5.1	U	5.1	U	5.0	U	5.0	U	5.0	U
Fluoranthene	50**	5.5	U	5.1	U	0.74	J	2.9		5.0	U	2.8	
Fluorene	50**	5.5	U	5.1	U	3.0		36.3		5.0	U	5.0	U
Indeno(1,2,3-cd)pyrene	0.002**	5.5	U	5.1	U	5.1	U	5.0	U	5.0	U	5.0	U
Naphthalene	10**	5.5	U	5.1	U	**64.6**		**1,780**		**33.3**		**53.3**	
Phenanthrene	50**	5.5	U	5.1	U	5.7		41.6		5.0	U	27.9	
Pyrene	50**	5.5	U	5.1	U	0.96	J	3.3	J	5.0	U	3.5	J
Total PAHs (µg/L)	NL	ND		ND		140		2,200		40		170	
Total CPAHs (µg/L)	NL	ND		ND		ND		ND		ND		ND	
1,1'-Biphenyl	5*	11	U	10	U	**16.8**	**J**	**48.7**		2.2		**21**	
2,4,5-Trichlorophenol	1	11	U	10	U	10	U	10	U	10	U	10	U
2,4,6-Trichlorophenol	NL	11	U	10	U	10	U	10	U	10	U	10	U
2,4-Dichlorophenol	5*	11	U	10	U	10	U	10	U	10	U	10	U
2,4-Dimethylphenol	50**	11	U	10	U	10	U	10	U	10	U	10	U
2,4-Dinitrophenol	10**	22	U	20	U	20	U	20	U	20	U	20	U
2,4-Dinitrotoluene	5*	11	U	10	U	10	U	3.6	J	10	U	10	U
2,6-Dinitrotoluene	5*	11	U	10	U	10	U	10	U	10	U	10	U
2-Chloronaphthalene	10**	5.5	U	5.1	U	5.1	U	5.0	U	5.0	U	5.0	U
2-Chlorophenol	NL	5.5	U	5.1	U	5.1	U	5.0	U	5.0	U	5.0	U
2-Methylphenol	NL	11	U	10	U	10	U	10	U	10	U	10	U
2-Nitroaniline	5*	11	U	10	U	10	U	10	U	10	U	10	U
2-Nitrophenol	NL	11	U	10	U	10	U	10	U	10	U	10	U
3&4-Methylphenol	NL	11	U	10	U	10	U	10	U	10	U	10	U
3,3'-Dichlorobenzidine	5*	5.5	UJ	5.1	U	5.1	U	5.0	UJ	5.0	UJ	5.0	UJ
3-Nitroaniline	NL	11	U	10	U	10	U	10	U	10	U	10	U
4,6-Dinitro-o-cresol	NL	11		10	U	10	U	10	U	10	U	10	U
4-Bromophenyl phenyl ether	NL	5.5	U	5.1	U	5.1	U	5	U	5.0	U	5.0	U
4-Chloro-3-methylphenol	NL	11	U	10	U	10	U	10	U	10	U	10	U
4-Chloroaniline	5*	11	UJ	10	U	10	U	10	UJ	10	UJ	10	UJ
4-Chlorophenyl phenyl ether	NL	5.5	U	5.1	U	5.1	U	5.0	U	5.0	U	5.0	U
4-Nitroaniline	5*	11	U	10	U	10	U	10	U	10	U	10	U
4-Nitrophenol	NL	22	U	20	U	20	U	20	U	20	U	20	U
Acetophenone	NL	11	U	10	U		R	10	U	10	U	10	U
Atrazine	7.5	11	U	10	U		R	10	U	10	U	10	U
Benzaldehyde	NL	22	UJ		R		R	20	UJ	20	UJ	20	UJ
Bis(2-chloroethoxy) methane	0.002**	5.5	U	5.1	U	5.1	U	5.0	U	5.0	U	5.0	U
Bis(2-chloroethyl) ether	5*	5.5	U	5.1	U	5.1	U	5.0	U	5.0	U	5.0	U
bis(2-Chloroisopropyl)ether	NL	5.5	U	5.1	U	5.1	U	5.0	U	5.0	U	5.0	U
Bis(2-ethylhexyl) phthalate	5	11	U	10	U	10	U	10	U	10	U	10	U
Butyl benzyl phthalate	NL	11	U	10	U	1.6	J	10	U	10	U	10	U
Caprolactam	NL	11	U	10	U		R	10	U	10	U	10	U
Carbazole	NL	5.5	U	5.1	U	14.1		31.8		1.1		14.8	
Dibenzofuran	NL	5.5	U	5.1	U	6.8		16.9		5.0	U	6.3	
Diethyl phthalate	NL	11	U	10	U	10	U	10	U	10	U	10	U
Dimethyl phthalate	NL	11	U	10	U	10	U	10	U	10	U	10	U
Di-n-butyl phthalate	NL	11	U	1.3		10	U	10	U	10	U	10	U
Di-n-octyl phthalate	50**	11	U	10	U	10	U	10	U	10	U	10	U
Hexachlorobenzene	0.04	5.5	U	5.1	U	5.1	U	5.0	U	5.0	U	5.0	U
Hexachlorobutadiene	0.5	5.5	U	5.1	U	5.1	U	5.0	U	5.0	U	5.0	U
Hexachlorocyclopentadiene	5*	11	U	10	U	10	U	10	U	10	U	10	U
Hexachloroethane	5*	5.5	U	5.1	U	5.1	U	5.0	U	5.0	U	5.0	U
Isophorone	50**	5.5	U	5.1	U	5.1	U	5.0	U	5.0	U	5.0	U
Nitrobenzene	0.4	5.5	U	5.1	U	5.1	U	5.0	U	5.0	U	5.0	U
N-Nitroso-Di-n-propylamine	NL	5.5	U	5.1	U	5.1	U	5.0	U	5.0	U	5.0	U
N-nitrosodiphenylamine	50**	5.5	U	5.1	U	5.1	U	5.0	U	5.0	U	5.0	U
Pentachlorophenol	1***	11	U	10	U	10	U	**6.8**	**J**	10	U	10	U
Phenol	1***	5.5	U	5.1	U	5.1	U	5.0	U	5.0	U	5.0	U
Total SVOCs (µg/L)[2]	NL	11		1.3		180		2,300		43		210	

Sample ID	NO-PZ09		NO-PZ10		NO-PZ11		NO-PZ13		NO-PZ14		NO-PZ15		NO-PZ16		NO-PZ17	
Laboratory Identification	M53200-9		M53200-17		M53162-4		M53200-5		M53200-18		M53200-16		M53162-8		M53162-9	
Date Sampled	12/09/2005		12/09/2005		12/07/2005		12/08/2005		12/09/2005		12/09/2005		12/08/2005		12/08/2005	
Semi-volatile Organic Compounds (µg/L)																
2-Methylnaphthalene	134		5.0	U	5.1	U	5.0	U	5.0	U	5.0	U	5.1	U	5.1	U
Acenaphthene	**55**		13.7		5.1	U	5.0	U	2.0		**52.1**		5.1	U	5.1	U
Acenaphthylene	24.7		3.0		5.1	U	5.0	U	1.4		7.3		5.1	U	5.1	U
Anthracene	7.5		1.1		5.1	U	5.0	U	5.0	U	2.1		5.1	U	5.1	U
Benzo(a)anthracene	**1.9**	**J**	5.0	U	5.1	U	5.0	U	5.0	U	5.0	U	5.1	U	5.1	U
Benzo(a)pyrene	**1.5**		5.0	U	5.1	U	5.0	U	5.0	U	5.0	U	5.1	U	5.1	U
Benzo(b)fluoranthene	**0.71**	**J**	5.0	U	5.1	U	5.0	U	5.0	U	5.0	U	5.1	U	5.1	U
Benzo(g,h,i)perylene	0.86	J	5.0	UJ	5.1	UJ	5.0	UJ	5.0	UJ	5.0	UJ	5.1	UJ	5.1	UJ
Benzo(k)fluoranthene	**0.95**	**J**	5.0	U	5.1	U	5.0	U	5.0	U	5.0	U	5.1	U	5.1	U
Chrysene	**1.5**	**J**	5.0	U	5.1	U	5.0	U	5.0	U	5.0	U	5.1	U	5.1	U
Dibenzo(a,h)anthracene	5.0	U	5.0	U	5.1	U	5.0	U	5.0	U	5.0	U	5.1	U	5.1	U
Fluoranthene	5.4		1.2		5.1	U	5.0	U	5.0	U	2.2		5.1	U	5.1	U
Fluorene	18.1		3.9		5.1	U	5.0	U	5.0	U	11.5		5.1	U	5.1	U
Indeno(1,2,3-cd)pyrene	**0.69**	**J**	5.0	U	5.1	U	5.0	U	5.0	U	5.0	U	5.1	U	5.1	U
Naphthalene	**647**		1.3		5.1	U	5.0	U	5.0	U	**28.1**		5.1	U	5.1	U
Phenanthrene	31.9		6.0		5.1	U	5.0	U	5.0	U	20.5		5.1	U	5.1	U
Pyrene	7.6	J	2.1	J	5.1	U	5.0	U	5.0	U	2.9	J	5.1	U	5.1	U
Total PAHs (µg/L)	940		32		ND		ND		3.4		130		ND		ND	
Total CPAHs (µg/L)	7.3		ND		ND		ND		ND		ND		ND		ND	
1,1'-Biphenyl	**23.4**		3.6			R	10	U	0.9	J	**16.4**			R		R
2,4,5-Trichlorophenol	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
2,4,6-Trichlorophenol	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
2,4-Dichlorophenol	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
2,4-Dimethylphenol	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
2,4-Dinitrophenol	20	U	20	U	20	U	20	U	20	U	20	U	20	U	20	U
2,4-Dinitrotoluene	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
2,6-Dinitrotoluene	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
2-Chloronaphthalene	5.0	U	5.0	U	5.1	U	5.0	U	5.0	U	5.0	U	5.1	U	5.1	U
2-Chlorophenol	5.0	U	5.0	U	5.1	U	5.0	U	5.0	U	5.0	U	5.1	U	5.1	U
2-Methylphenol	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
2-Nitroaniline	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
2-Nitrophenol	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
3&4-Methylphenol	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
3,3'-Dichlorobenzidine	5.0	UJ	5.0	UJ	5.1	U	5.0	UJ	5.0	UJ	5.0	UJ	5.1	U	5.1	U
3-Nitroaniline	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
4,6-Dinitro-o-cresol	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
4-Bromophenyl phenyl ether	5.0	U	5.0	U	5.1	U	5.0	U	5.0	U	5.0	U	5.1	U	5.1	U
4-Chloro-3-methylphenol	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
4-Chloroaniline	10	UJ	10	UJ	10	U	10	UJ	10	UJ	10	UJ	10	U	10	U
4-Chlorophenyl phenyl ether	5.0	U	5.0	U	5.1	U	5.0	U	5.0	U	5.0	U	5.1	U	5.1	U
4-Nitroaniline	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
4-Nitrophenol	20	U	20	U	20	U	20	U	20	U	20	U	20	U	20	U
Acetophenone	10	U	10	U		R	10	U	10	U	10	U		R		R
Atrazine	10	U	10	U		R	10	U	10	U	10	U		R		R
Benzaldehyde	20	UJ	20	UJ		R	20	UJ	20	UJ	20	UJ		R		R
Bis(2-chloroethoxy) methane	5.0	U	5.0	U	5.1	U	5.0	U	5.0	U	5.0	U	5.1	U	5.1	U
Bis(2-chloroethyl) ether	5.0	U	5.0	U	5.1	U	5.0	U	5.0	U	5.0	U	5.1	U	5.1	U
bis(2-Chloroisopropyl)ether	5.0	U	5.0	U	5.1	U	5.0	U	5.0	U	5.0	U	5.1	U	5.1	U
Bis(2-ethylhexyl) phthalate	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Butyl benzyl phthalate	10	U	10	U	10	U	10	U	10	U	10	U	10	U	0.65	J
Caprolactam	10	U	10	U		R	10	U	10	U	10	U		R		R
Carbazole	8.3		2.4		5.1	U	5.0	U	5.0	U	11		5.1	U	5.1	U
Dibenzofuran	8.1		1.1		5.1	U	5.0	U	5.0	U	5.3		5.1	U	5.1	U
Diethyl phthalate	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Dimethyl phthalate	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Di-n-butyl phthalate	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Di-n-octyl phthalate	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Hexachlorobenzene	5.0	U	5.0	U	5.1	U	5.0	U	5.0	U	5.0	U	5.1	U	5.1	U
Hexachlorobutadiene	5.0	U	5.0	U	5.1	U	5.0	U	5.0	U	5.0	U	5.1	U	5.1	U
Hexachlorocyclopentadiene	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Hexachloroethane	5.0	U	5.0	U	5.1	U	5.0	U	5.0	U	5.0	U	5.1	U	5.1	U
Isophorone	5.0	U	5.0	U	5.1	U	5.0	U	5.0	U	5.0	U	5.1	U	5.1	U
Nitrobenzene	5.0	U	5.0	U	5.1	U	5.0	U	5.0	U	5.0	U	5.1	U	5.1	U
N-Nitroso-Di-n-propylamine	5.0	U	5.0	U	5.1	U	5.0	U	5.0	U	5.0	U	5.1	U	5.1	U
N-nitrosodiphenylamine	5.0	U	5.0	U	5.1	U	5.0	U	5.0	U	5.0	U	5.1	U	5.1	U
Pentachlorophenol	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Phenol	5.0	U	5.0	U	5.1	U	5.0	U	5.0	U	5.0	U	5.1	U	5.1	U
Total SVOCs (µg/L)[2]	980		39		ND		ND		4.3		160		ND		0.65	

Notes:
NA = Not Analyzed
NL = Not Listed
ND = Not Detected
MDL - Method Detection Limit
D = The concentration indicated was obtained from a diluted analytical run.
J = The associated numerical value is an estimated quantity.
R = The result was rejected because one or more QC measures did not meet acceptable criteria by validator during the review process
U = The material was analyzed for but not detected at or above the MDL. The associated numerical value is the sample reporting limit.

Bold value - compound detected above regulatory guidance value.
[1]Class GA Drinking Water Standard or Guidance Value
[2]The total SVOC values include all PAH compounds
*Principal Organic Contaminant Standard
**Class GA Guidance Value
***Applies to total chlorinated phenolic compounds
CPAHs - Carcinogenic PAHs which are shown in bold and italics

Table B-19
Groundwater SVOC Results - December 2005
Norwich Former MGP Site, Norwich, New York

Sample ID	NYSDEC	NO-PZ18	NO-PZ19	NO-PZ20	NO-PZ21	NO-PZ22	NO-PZ23	NO-PZ24	NO-PZ25	NO-PZ26	NO-PZ27	NO-PZ28	NO-PZ29	NO-PZ30	NO-PZ31
Laboratory Identification	TOGS 1.1.1	M53200-8	M53200-7	M53135-7	M53135-8	M53162-1	M53200-19	M53200-12	M53200-13	M53162-2	M53162-5	M53200-14	M53135-6	M53135-1	M53135-2
Date Sampled	Class GA[1]	12/09/2005	12/09/2005	12/07/2005	12/07/2005	12/07/2005	12/09/2005	12/09/2005	12/09/2005	12/07/2005	12/08/2005	12/09/2005	12/06/2005	12/06/2005	12/06/2005
Semi-volatile Organic Compounds (µg/L)															
2-Methylnaphthalene	NL	5.0 U	5.0 U	1.1	24.2	14.3	5.0 U	62.4	8.4	5.1 U	5.1 U	5.0 U	5.0 U	5.0 U	5.0 U
Acenaphthene	20**	5.0 U	**41.5**	1.0	**98.2**	**43.6**	5.0 U	**45.3**	**37.3**	5.1 U	5.1 U	**31**	5.0 U	5.0 U	5.0 U
Acenaphthylene	NL	5.0 U	7.2	5.0 U	13.8	11.3	5.0 U	10.2	5.5	5.1 U	5.1 U	5.0	5.0 U	5.0 U	5.0 U
Anthracene	50**	5.0 U	1.2	5.0 U	7.6 J	4.2	5.0 U	3.3	0.68 J	5.1 U	5.1 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(a)anthracene	0.002**	5.0 U	5.0 U	5.0 U	50 U	5.1 U	5.0 U	5.0 U	5.0 U	5.1 U	5.1 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(a)pyrene	ND	5.0 U	5.0 U	5.0 U	50 U	5.1 U	5.0 U	5.0 U	5.0 U	5.1 U	5.1 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(b)fluoranthene	0.002**	5.0 U	5.0 U	5.0 U	50 U	5.1 U	5.0 U	5.0 U	5.0 U	5.1 U	5.1 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(g,h,i)perylene	NL	5.0 UJ	5.0 UJ	5.0 U	50 U	5.1 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.1 UJ	5.1 UJ	5.0 UJ	5.0 U	5.0 U	5.0 U
Benzo(k)fluoranthene	0.002**	5.0 U	5.0 U	5.0 U	50 U	5.1 U	5.0 U	5.0 U	5.0 U	5.1 U	5.1 U	5.0 U	5.0 U	5.0 U	5.0 U
Chrysene	0.002**	5.0 U	5.0 U	5.0 U	50 U	5.1 U	5.0 U	5.0 U	5.0 U	5.1 U	5.1 U	5.0 U	5.0 U	5.0 U	5.0 U
Dibenzo(a,h)anthracene	NL	5.0 U	5.0 U	5.0 U	50 U	5.1 U	5.0 U	5.0 U	5.0 U	5.1 U	5.1 U	5.0 U	5.0 U	5.0 U	5.0 U
Fluoranthene	50**	5.0 U	2.0	5.0 U	50 U	1.9	5.0 U	1.3	1.4	5.1 U	5.1 U	1.7	5.0 U	5.0 U	5.0 U
Fluorene	50**	5.0 U	8.0	5.0 U	24	10.5	5.0 U	11.5	4.4	5.1 U	5.1 U	3.6	5.0 U	5.0 U	5.0 U
Indeno(1,2,3-cd)pyrene	0.002**	5.0 U	5.0 U	5.0 U	50 U	5.1 U	5.0 U	5.0 U	5.0 U	5.1 U	5.1 U	5.0 U	5.0 U	5.0 U	5.0 U
Naphthalene	10**	5.0 U	4.4	**93.8**	**994**	**475**	5.0 U	**611**	4.3	5.1 U	5.1 U	1.7	5.0 U	5.0 U	5.0 U
Phenanthrene	50**	5.0 U	16.1	5.0 U	37.2	19.8	5.0 U	16.3	9.7	5.1 U	5.1 U	6.7	5.0 U	5.0 U	5.0 U
Pyrene	50**	5.0 U	3.0 J	5.0 U	50 U	2.0 J	5.0 U	1.6 J	1.9 J	5.1 U	5.1 U	2.4 J	5.0 U	5.0 U	5.0 U
Total PAHs (µg/L)	NL	ND	83	96	1,200	580	ND	760	74	ND	ND	52	ND	ND	ND
Total CPAHs (µg/L)	NL	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1'-Biphenyl	5*	10 U	**13.4**	10 U	**33.7**	**17.1 J**	10 U	**14.6**	**12.3**	R	R	**8.7**	10 U	10 U	10 U
2,4,5-Trichlorophenol	1	10 U	10 U	10 U	100 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4,6-Trichlorophenol	NL	10 U	10 U	10 U	100 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dichlorophenol	5*	10 U	10 U	10 U	100 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dimethylphenol	50**	10 U	10 U	10 U	100 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrophenol	10**	20 U	20 U	20 U	200 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
2,4-Dinitrotoluene	5*	10 U	10 U	10 U	100 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,6-Dinitrotoluene	5*	10 U	10 U	10 U	100 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Chloronaphthalene	10**	5.0 U	5.0 U	5.0 U	50 U	5.1 U	5.0 U	5.0 U	5.0 U	5.1 U	5.1 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Chlorophenol	NL	5.0 U	5.0 U	5.0 U	50 U	5.1 U	5.0 U	5.0 U	5.0 U	5.1 U	5.1 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Methylphenol	NL	10 U	10 U	10 U	100 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitroaniline	5*	10 U	10 U	10 U	100 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitrophenol	NL	10 U	10 U	10 U	100 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
3&4-Methylphenol	NL	10 U	10 U	10 U	100 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
3,3'-Dichlorobenzidine	5*	5.0 UJ	5.0 UJ	5.0 U	50 U	5.1 U	5.0 UJ	5.0 UJ	5.0 UJ	5.1 U	5.1 U	5.0 UJ	5.0 U	5.0 U	5.0 U
3-Nitroaniline	NL	10 U	10 U	10 U	100 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4,6-Dinitro-o-cresol	NL	10 U	10 U	10 U	100 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Bromophenyl phenyl ether	NL	5.0 U	5.0 U	5.0 U	50 U	5.1 U	5.0 U	5.0 U	5.0 U	5.1 U	5.1 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Chloro-3-methylphenol	NL	10 U	10 U	10 U	100 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloroaniline	5*	10 UJ	10 UJ	10 U	100 U	10 U	10 UJ	10 UJ	10 UJ	10 U	10 U	10 UJ	10 U	10 U	10 U
4-Chlorophenyl phenyl ether	NL	5.0 U	5.0 U	5.0 U	50 U	5.1 U	5.0 U	5.0 U	5.0 U	5.1 U	5.1 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Nitroaniline	5*	10 U	10 U	10 U	100 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Nitrophenol	NL	20 U	20 U	20 U	200 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Acetophenone	NL	10 U	10 U	10 U	100 U	R	10 U	10 U	10 U	R	R	10 U	10 U	10 U	10 U
Atrazine	7.5	10 U	10 U	10 U	100 U	R	10 U	10 U	10 U	R	R	10 U	10 U	10 U	10 U
Benzaldehyde	NL	20 UJ	20 UJ	20 UJ	200 UJ	R	20 UJ	20 UJ	20 UJ	R	R	20 UJ	1.2 J	20 UJ	20 UJ
Bis(2-chloroethoxy) methane	0.002**	5.0 U	5.0 U	5.0 U	50 U	5.1 U	5.0 U	5.0 U	5.0 U	5.1 U	5.1 U	5.0 U	5.0 U	5.0 U	5.0 U
Bis(2-chloroethyl) ether	5*	5.0 U	5.0 U	5.0 U	50 U	5.1 U	5.0 U	5.0 U	5.0 U	5.1 U	5.1 U	5.0 U	5.0 U	5.0 U	5.0 U
bis(2-Chloroisopropyl)ether	NL	5.0 U	5.0 U	5.0 U	50 U	5.1 U	5.0 U	5.0 U	5.0 U	5.1 U	5.1 U	5.0 U	5.0 U	5.0 U	5.0 U
Bis(2-ethylhexyl) phthalate	5	10 U	10 U	10 U	100 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Butyl benzyl phthalate	NL	10 U	10 U	10 U	100 U	0.75 J	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Caprolactam	NL	10 U	10 U	10 U	100 U	R	10 U	10 U	10 U	R	R	10 U	10 U	10 U	10 U
Carbazole	NL	5.0 U	7.6	5.0 U	19.7	11.8	5.0 U	9.5	6.9	5.1 U	5.1 U	3.8	5.0 U	5.0 U	5.0 U
Dibenzofuran	NL	5.0 U	4.3	5.0 U	10.3	5.6	5.0 U	5.1	4.0	5.1 U	5.1 U	3.8	5.0 U	5.0 U	5.0 U
Diethyl phthalate	NL	10 U	10 U	10 U	100 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Dimethyl phthalate	NL	10 U	10 U	10 U	100 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Di-n-butyl phthalate	NL	10 U	10 U	10 U	100 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Di-n-octyl phthalate	50**	10 U	10 U	10 U	100 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobenzene	0.04	5.0 U	5.0 U	5.0 U	50 U	5.1 U	5.0 U	5.0 U	5.0 U	5.1 U	5.1 U	5.0 U	5.0 U	5.0 U	5.0 U
Hexachlorobutadiene	0.5	5.0 U	5.0 U	5.0 U	50 U	5.1 U	5.0 U	5.0 U	5.0 U	5.1 U	5.1 U	5.0 U	5.0 U	5.0 U	5.0 U
Hexachlorocyclopentadiene	5*	10 U	10 U	10 U	100 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachloroethane	5*	5.0 U	5.0 U	5.0 U	50 U	5.1 U	5.0 U	5.0 U	5.0 U	5.1 U	5.1 U	5.0 U	5.0 U	5.0 U	5.0 U
Isophorone	50**	5.0 U	5.0 U	5.0 U	50 U	5.1 U	5.0 U	5.0 U	5.0 U	5.1 U	5.1 U	5.0 U	5.0 U	5.0 U	5.0 U
Nitrobenzene	0.4	5.0 U	5.0 U	5.0 U	50 U	5.1 U	5.0 U	5.0 U	5.0 U	5.1 U	5.1 U	5.0 U	5.0 U	5.0 U	5.0 U
N-Nitroso-Di-n-propylamine	NL	5.0 U	5.0 U	5.0 U	50 U	5.1 U	5.0 U	5.0 U	5.0 U	5.1 U	5.1 U	5.0 U	5.0 U	5.0 U	5.0 U
N-nitrosodiphenylamine	50**	5.0 U	5.0 U	5.0 U	50 U	5.1 U	5.0 U	5.0 U	5.0 U	5.1 U	5.1 U	5.0 U	5.0 U	5.0 U	5.0 U
Pentachlorophenol	1***	10 U	**6.8 J**	10 U	100 U	**6.7 J**	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Phenol	1***	5.0 U	5.0 U	5.0 U	50.0 U	5.1 U	5.0 U	5.0 U	5.0 U	5.1 U	5.1 U	5.0 U	5.0 U	5.0 U	5.0 U
Total SVOCs (µg/L)[2]	NL	ND	120	96	1,300	630	ND	790	97	ND	ND	68	1.2	ND	ND

Notes:
NA = Not Analyzed
NL = Not Listed
ND = Not Detected
MDL - Method Detection Limit
D = The concentration indicated was obtained from a diluted analytical run.
J = The associated numerical value is an estimated quantity.
R = The result was rejected because one or more QC measures did not meet acceptable criteria by validator during the review process
U = The material was analyzed for but not detected at or above the MDL. The associated numerical value is the sample reporting limit.

Bold value - compound detected above regulatory guidance value.
[1]Class GA Drinking Water Standard or Guidance Value
[2]The total SVOC values include all PAH compounds
*Principal Organic Contaminant Standard
**Class GA Guidance Value
***Applies to total chlorinated phenolic compounds
CPAHs - Carcinogenic PAHs which are shown in bold and italics

Table B-19
Groundwater SVOC Results - December 2005
Norwich Former MGP Site, Norwich, New York

Sample ID Laboratory Identification Date Sampled	NYSDEC TOGS 1.1.1 Class GA[1]	NO-PZ32 M53135-9 12/07/2005		NO-PZ33 M53135-10 12/07/2005		NO-PZ34 M53135-11 12/07/2005		NO-PZ35 M53135-12 12/07/2005		NO-PZ36 M53135-5 12/06/2005		NO-PZ37 M53135-3 12/06/2005		NO-PZ38 M53135-4 12/06/2005		NO-PZ39 M53162-3 12/07/2005	
Semi-volatile Organic Compounds (µg/L)																	
2-Methylnaphthalene	NL	5.0	U	5.0	U	5.0	U	5.0	U	5.4	U	5.0	U	5.0	U	5.1	U
Acenaphthene	20**	5.0	U	5.0	U	5.0	U	5.0	U	5.4	U	5.0	U	5.0	U	5.1	U
Acenaphthylene	NL	5.0	U	5.0	U	5.0	U	5.0	U	5.4	U	0.93	J	5.0	U	5.1	U
Anthracene	50**	5.0	U	5.0	U	5.0	U	5.0	U	5.4	U	5.0	U	5.0	U	5.1	U
Benzo(a)anthracene	0.002**	5.0	U	5.0	U	5.0	U	5.0	U	5.4	U	5.0	U	5.0	U	5.1	U
Benzo(a)pyrene	ND	5.0	U	5.0	U	5.0	U	5.0	U	5.4	U	5.0	U	5.0	U	5.1	U
Benzo(b)fluoranthene	0.002**	5.0	U	5.0	U	5.0	U	5.0	U	5.4	U	5.0	U	5.0	U	5.1	U
Benzo(g,h,i)perylene	NL	5.0	U	5.0	U	5.0	U	5.0	U	5.4	U	5.0	U	5.0	U	5.1	UJ
Benzo(k)fluoranthene	0.002**	5.0	U	5.0	U	5.0	U	5.0	U	5.4	U	5.0	U	5.0	U	5.1	U
Chrysene	0.002**	5.0	U	5.0	U	5.0	U	5.0	U	5.4	U	5.0	U	5.0	U	5.1	U
Dibenzo(a,h)anthracene	NL	5.0	U	5.0	U	5.0	U	5.0	U	5.4	U	5.0	U	5.0	U	5.1	U
Fluoranthene	50**	5.0	U	5.0	U	5.0	U	5.0	U	5.4	U	5.0	U	5.0	U	5.1	U
Fluorene	50**	5.0	U	5.0	U	5.0	U	5.0	U	5.4	U	5.0	U	5.0	U	5.1	U
Indeno(1,2,3-cd)pyrene	0.002**	5.0	U	5.0	U	5.0	U	5.0	U	5.4	U	5.0	U	5.0	U	5.1	U
Naphthalene	10**	5.0	U	5.0	U	5.0	U	5.0	U	5.4	U	5.0	U	5.0	U	5.1	U
Phenanthrene	50**	5.0	U	5.0	U	5.0	U	5.0	U	5.4	U	5.0	U	5.0	U	5.1	U
Pyrene	50**	5.0	U	5.0	U	5.0	U	5.0	U	5.4	U	5.0	U	5.0	U	5.1	U
Total PAHs (µg/L)	NL	ND		ND		ND		ND		ND		0.93		ND		ND	
Total CPAHs (µg/L)	NL	ND		ND		ND		ND		ND		ND		ND		ND	
1,1'-Biphenyl	5*	10	U	10	U	10	U	10	U	11	U	1.7		10	U		R
2,4,5-Trichlorophenol	1	10	U	10	U	10	U	10	U	11	U	10	U	10	U	10	U
2,4,6-Trichlorophenol	NL	10	U	10	U	10	U	10	U	11	U	10	U	10	U	10	U
2,4-Dichlorophenol	5*	10	U	10	U	10	U	10	U	11	U	10	U	10	U	10	U
2,4-Dimethylphenol	50**	10	U	10	U	10	U	10	U	11	U	10	U	10	U	10	U
2,4-Dinitrophenol	10**	20	U	20	U	20	U	20	U	22	U	20	U	20	U	20	U
2,4-Dinitrotoluene	5*	10	U	10	U	10	U	10	U	11	U	10	U	10	U	10	U
2,6-Dinitrotoluene	5*	10	U	10	U	10	U	10	U	11	U	10	U	10	U	10	U
2-Chloronaphthalene	10**	5.0	U	5.0	U	5.0	U	5.0	U	5.4	U	5.0	U	5.0	U	5.1	U
2-Chlorophenol	NL	5.0	U	5.0	U	5.0	U	5.0	U	5.4	U	5.0	U	5.0	U	5.1	U
2-Methylphenol	NL	10	U	10	U	10	U	10	U	11	U	10	U	10	U	10	U
2-Nitroaniline	5*	10	U	10	U	10	U	10	U	11	U	10	U	10	U	10	U
2-Nitrophenol	NL	10	U	10	U	10	U	10	U	11	U	10	U	10	U	10	U
3&4-Methylphenol	NL	10	U	10	U	10	U	10	U	11	U	10	U	10	U	10	U
3,3'-Dichlorobenzidine	5*	5.0	U	5.0	U	5.0	U	5.0	U	5.4	U	5.0	U	5.0	U	5.1	U
3-Nitroaniline	NL	10	U	10	U	10	U	10	U	11	U	10	U	10	U	10	U
4,6-Dinitro-o-cresol	NL	10	U	10	U	10	U	10	U	11	U	10	U	10	U	10	U
4-Bromophenyl phenyl ether	NL	5.0	U	5.0	U	5.0	U	5.0	U	5.4	U	5.0	U	5.0	U	5.1	U
4-Chloro-3-methylphenol	NL	10	U	10	U	10	U	10	U	11	U	10	U	10	U	10	U
4-Chloroaniline	5*	10	U	10	U	10	U	10	U	11	U	10	U	10	U	10	U
4-Chlorophenyl phenyl ether	NL	5.0	U	5.0	U	5.0	U	5.0	U	5.4	U	5.0	U	5.0	U	5.1	U
4-Nitroaniline	5*	10	U	10	U	10	U	10	U	11	U	10	U	10	U	10	U
4-Nitrophenol	NL	20	U	20	U	20	U	20	U	22	U	20	U	20	U	20	U
Acetophenone	NL	10	U	10	U	10	U	10	U	11	U	10	U	10	U		R
Atrazine	7.5	10	U	10	U	10	U	10	U	11	U	10	U	10	U		R
Benzaldehyde	NL	1.2	J	20	UJ	20	UJ	20	UJ	1.3	J	20	UJ	20	UJ		R
Bis(2-chloroethoxy) methane	0.002**	5.0	U	5.0	U	5.0	U	5.0	U	5.4	U	5.0	U	5.0	U	5.1	U
Bis(2-chloroethyl) ether	5*	5.0	U	5.0	U	5.0	U	5.0	U	5.4	U	5.0	U	5.0	U	5.1	U
bis(2-Chloroisopropyl)ether	NL	5.0	U	5.0	U	5.0	U	5.0	U	5.4	U	5.0	U	5.0	U	5.1	U
Bis(2-ethylhexyl) phthalate	5	10	U	10	U	10	U	10	U	11	U	10	U	10	U	10	U
Butyl benzyl phthalate	NL	10	U	10	U	10	U	10	U	11	U	10	U	10	U	10	U
Caprolactam	NL	10	U	10	U	10	U	10	U	11	U	10	U	10	U		R
Carbazole	NL	5.0	U	5.0	U	5.0	U	5.0	U	5.4	U	5.0	U	5.0	U	5.1	U
Dibenzofuran	NL	5.0	U	5.0	U	5.0	U	5.0	U	5.4	U	1.0		5.0	U	5.1	U
Diethyl phthalate	NL	10	U	10	U	10	U	10	U	11	U	10	U	10	U	10	U
Dimethyl phthalate	NL	10	U	10	U	10	U	10	U	11	U	10	U	10	U	10	U
Di-n-butyl phthalate	NL	10	U	10	U	10	U	10	U	11	U	10	U	10	U	10	U
Di-n-octyl phthalate	50**	10	U	10	U	10	U	10	U	11	U	10	U	10	U	10	U
Hexachlorobenzene	0.04	5.0	U	5.0	U	5.0	U	5.0	U	5.4	U	5.0	U	5.0	U	5.1	U
Hexachlorobutadiene	0.5	5.0	U	5.0	U	5.0	U	5.0	U	5.4	U	5.0	U	5.0	U	5.1	U
Hexachlorocyclopentadiene	5*	10	U	10	U	10	U	10	U	11	U	10	U	10	U	10	U
Hexachloroethane	5*	5.0	U	5.0	U	5.0	U	5.0	U	5.4	U	5.0	U	5.0	U	5.1	U
Isophorone	50**	5.0	U	5.0	U	5.0	U	5.0	U	5.4	U	5.0	U	5.0	U	5.1	U
Nitrobenzene	0.4	5.0	U	5.0	U	5.0	U	5.0	U	5.4	U	5.0	U	5.0	U	5.1	U
N-Nitroso-Di-n-propylamine	NL	5.0	U	5.0	U	5.0	U	5.0	U	5.4	U	5.0	U	5.0	U	5.1	U
N-nitrosodiphenylamine	50**	5.0	U	5.0	U	5.0	U	5.0	U	5.4	U	5.0	U	5.0	U	5.1	U
Pentachlorophenol	1***	10	U	10	U	10	U	10	U	11	U	10	U	10	U	10	U
Phenol	1***	5.0	U	5.0	U	5.0	U	5.0	U	5.4	U	5.0	U	5.0	U	5.1	U
Total SVOCs (µg/L)[2]	NL	1.2		ND		ND		ND		1.3		3.6		ND		ND	

Notes:
NA = Not Analyzed
NL = Not Listed
ND = Not Detected
MDL - Method Detection Limit
D = The concentration indicated was obtained from a diluted analytical run.
J = The associated numerical value is an estimated quantity.
R = The result was rejected because one or more QC measures did not meet acceptable criteria by validator during the review process
U = The material was analyzed for but not detected at or above the MDL. The associated numerical value is the sample reporting limit.

Bold value - compound detected above regulatory guidance value.
[1]Class GA Drinking Water Standard or Guidance Value
[2]The total SVOC values include all PAH compounds
*Principal Organic Contaminant Standard
**Class GA Guidance Value
***Applies to total chlorinated phenolic compounds
CPAHs - Carcinogenic PAHs which are shown in bold and italics

Table B-20
Groundwater Cyanide Results - December 2005
Norwich Former MGP Site
Norwich, New York

Sample ID Laboratory Identification Date Sampled	NYSDEC TOGS 1.1.1 Class GA[1]	NO-EXISTING WELL M53280-10 12/14/2005		NO-GW01-14 M53280-8 12/14/2005		NO-GW04-16 M53253-7 12/13/2005		NO-GW91-4D M53280-2 12/13/2005		NO-GW91-4SH M53280-1 12/13/2005		NO-GW91-6 M53280-7 12/14/2005		NO-GW91-7 M53253-2 12/12/2005		NO-GW92-11D M53280-4 12/14/2005	
Total Cyanide (µg/L)	200	10	U	54		10	U	**400**		99		31		10	U	15	

Notes:
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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.
R = The result was rejected because one or more QC measures did not meet acceptable criteria by validator during the review process
Bold - compound detected above regulatory guidance value.
[1]Class GA Drinking Water Standard or Guidance Value

Table B-20
Groundwater Cyanide Results - December 2005
Norwich Former MGP Site
Norwich, New York

Sample ID Laboratory Identification Date Sampled	NYSDEC TOGS 1.1.1 Class GA[1]	NO-GW92-11SH M53280-5 12/14/2005		NO-GW92-12 M53253-1 12/12/2005		NO-GW92-13 M53280-3 12/13/2005		NO-GW92-8 M53280-9 12/14/2005		NO-PZ01 M53253-5 12/13/2005		NO-PZ02 M53253-6 12/13/2005		NO-PZ03 M53200-4 12/08/2005		NO-PZ04 M53253-3 12/12/2005	
Total Cyanide (µg/L)	200	10	U	10	U	10	U	160		12		**220**		10	U	42	

Notes:
NA = Not Analyzed
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.
R = The result was rejected because one or more QC measures did not meet acceptable criteria by validator during the review process
Bold - compound detected above regulatory guidance value.
[1]Class GA Drinking Water Standard or Guidance Value

Table B-20
Groundwater Cyanide Results - December 2005
Norwich Former MGP Site
Norwich, New York

Sample ID Laboratory Identification Date Sampled	NYSDEC TOGS 1.1.1 Class GA[1]	NO-PZ05 M53162-6 12/08/2005		NO-PZ06 M53200-3 12/08/2005		NO-PZ07 M53200-1 12/08/2005		NO-PZ08 M53200-2 12/08/2005		NO-PZ09 M53200-9 12/09/2005		NO-PZ10 M53200-17 12/09/2005		NO-PZ11 M53162-4 12/07/2005		NO-PZ12 M53162-10 12/08/2005	
Total Cyanide (µg/L)	200	29		29		10	U	76		20		80		13		10	U

Notes:
NA = Not Analyzed
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.
R = The result was rejected because one or more QC measures did not meet acceptable criteria by validator during the review process
Bold - compound detected above regulatory guidance value.
[1]Class GA Drinking Water Standard or Guidance Value

Table B-20
Groundwater Cyanide Results - December 2005
Norwich Former MGP Site
Norwich, New York

Sample ID Laboratory Identification Date Sampled	NYSDEC TOGS 1.1.1 Class GA[1]	NO-PZ13 M53200-5 12/08/2005		NO-PZ14 M53200-18 12/09/2005		NO-PZ15 M53200-16 12/09/2005		NO-PZ16 M53162-8 12/08/2005		NO-PZ17 M53162-9 12/08/2005		NO-PZ18 M53200-8 12/09/2005		NO-PZ19 M53200-7 12/09/2005		NO-PZ20 M53135-7 12/07/2005	
Total Cyanide (µg/L)	200	10	U	16		56		10	U	10	U	10	U	70		10	U

Notes:
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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.
R = The result was rejected because one or more QC measures did not meet acceptable criteria by validator during the review process
Bold - compound detected above regulatory guidance value.
[1]Class GA Drinking Water Standard or Guidance Value

Table B-20
Groundwater Cyanide Results - December 2005
Norwich Former MGP Site
Norwich, New York

Sample ID	NYSDEC	NO-PZ21		NO-PZ22		NO-PZ23		NO-PZ24		NO-PZ25		NO-PZ26		NO-PZ27		NO-PZ28	
Laboratory Identification	TOGS 1.1.1	M53135-8		M53162-1		M53200-19		M53200-12		M53200-13		M53162-2		M53162-5		M53200-14	
Date Sampled	Class GA[1]	12/07/2005		12/07/2005		12/09/2005		12/09/2005		12/09/2005		12/07/2005		12/08/2005		12/09/2005	
Total Cyanide (µg/L)	200	10	U	10	U	10	U	10	U	51		10	U	10	U	69	

Notes:
NA = Not Analyzed
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.
R = The result was rejected because one or more QC measures did not meet acceptable criteria by validator during the review process
Bold - compound detected above regulatory guidance value.
[1]Class GA Drinking Water Standard or Guidance Value

Table B-20
Groundwater Cyanide Results - December 2005
Norwich Former MGP Site
Norwich, New York

Sample ID Laboratory Identification Date Sampled	NYSDEC TOGS 1.1.1 Class GA[1]	NO-PZ29 M53135-6 12/06/2005		NO-PZ30 M53135-1 12/06/2005		NO-PZ31 M53135-2 12/06/2005		NO-PZ32 M53135-9 12/07/2005		NO-PZ33 M53135-10 12/07/2005		NO-PZ34 M53135-11 12/07/2005		NO-PZ35 M53135-12 12/07/2005		NO-PZ36 M53135-5 12/06/2005	
Total Cyanide (µg/L)	200	10	U	29		27		10	U	10	U	10	U	10	U	15	

Notes:
NA = Not Analyzed
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.
R = The result was rejected because one or more QC measures did not meet acceptable criteria by validator during the review process
Bold - compound detected above regulatory guidance value.
[1]Class GA Drinking Water Standard or Guidance Value

Table B-20
Groundwater Cyanide Results - December 2005
Norwich Former MGP Site
Norwich, New York

Sample ID	NYSDEC	NO-PZ37		NO-PZ38		NO-PZ39	
Laboratory Identification	TOGS 1.1.1	M53135-3		M53135-4		M53162-3	
Date Sampled	Class GA[1]	12/06/2005		12/06/2005		12/07/2005	
Total Cyanide (µg/L)	200	10	U	10	U	10	U

Notes:
NA = Not Analyzed
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.
R = The result was rejected because one or more QC measures did not meet acceptable criteria by validator during the review process
Bold - compound detected above regulatory guidance value.
[1]Class GA Drinking Water Standard or Guidance Value

Table B-21
SVI Sub-slab Sample Field Measurement Summary
Norwich Former MGP Site
Norwich, New York

Sample Location	CH_4	CO_2	O_2	PID (ppb)	Rel pressure (“H_2O)	Start Vacuum	End Vacuum
NO-12BAS	0.0%	0.4%	19.3%	6,266	-0.04	27	5.25
NO-14BAS	0.0%	0.9%	18.9%	4,932	-0.06	28	0
NO-35BRS	0.0%	0.8%	18.8%	1,010	-0.03	29	7.5
NO-10COS	0.0%	0.5%	20.2%	6,856	-0.03	29	7
NO-16COS	0.0%	0.3%	19.3%	5,451	-0.05	29	7.5
NO-18COS	0.0%	0.7%	20.0%	2,321	0.01	28	6.5
NO-20COS	0.0%	0.8%	19.9%	2,761	0.00	30	9
NO-30FRS	0.0%	0.3%	19.7%	5,135	-0.04	30	6.5
NO-37FRS	0.0%	1.5%	19.1%	>199,000	-0.03	29	6
NO-41FRS	0.0%	0.7%	19.8%	> 10,000	-0.03	29	8
NO-42FRS	0.0%	0.4%	19.0%	6,654	-0.01	29.5	8
NO-43FRS	0.0%	2.4%	17.8%	19,500	-0.05	28.5	6
NO-45FRS	0.0%	0.1%	20.1%	1,836	-0.00	30	0.5
NO-LCS	0.0%	0.4%	19.4%	3,440	-0.04	29.5	4.0

Table B-22
SVI Sample Detection Frequency and Concentration Ranges
Norwich Former MGP Site
Norwich, New York

Compound	Indoor Air				Sub-slab				Outdoor air			
	samples	detects	min	max	samples	detects	min	max	samples	detects	min	max
1,1,1-trichloroethane	26	0	na	na	14	2	1.2	6.7	12	0	na	na
1,1,2,2-tetrachloroethane	26	0	na	na	14	1	2.9	2.9	12	0	na	na
1,2,4-trimethylbenzene	26	12	0.98	7.4	14	13	3	41	12	1	3.2	3.2
1,2-dichloroethane	26	2	1.6	8.9	14	0	NA	NA	12	0	na	na
1,3,5-trimethylbenzene	26	2	1.1	2.9	14	6	1.3	5.9	12	1	1	1
benzene	26	24	0.67	30	14	12	1.2	15	12	12	0.77	2.6
chloroethane	26	0	na	na	14	2	1.7	2.7	12	0	na	na
chloroform	26	2	1.5	1.9	14	4	1	1.6	12	0	na	na
chloromethane	26	18	1.1	3.7	14	1	1.6	1.6	12	9	1.1	1.7
cis-1,2-dichloroethene	26	1	12	12	14	1	1.8	1.8	12	0	na	na
dichlorodifluoromethane	26	22	1.7	5.2	14	10	2.1	38	12	12	2	3.1
ethylbenzene	26	9	0.87	8.6	14	10	2.6	18	12	2	1.1	1.2
methylene chloride	26	3	7.1	63	14	9	3.5	25	12	0	na	na
m/p-xylene	26	23	0.96	31	14	14	3.6	45	12	8	0.95	3.3
n-butane	26	26	1	420	14	13	0.96	120	12	12	1.1	8.1
n-dodecane	26	0	na	na	14	1	28	28	12	0	na	na
n-heptane	26	7	2.1	7.9	14	8	4.2	22	12	0	na	na
n-hexane	26	5	3	75	14	7	2.4	19	12	1	2.1	2.1
n-octane	26	2	3.8	6.1	14	8	3.8	28	12	0	na	na
nonane	26	6	2.7	43	14	11	6.2	110	12	4	2.6	4.9
n-undecane	26	0	na	na	14	1	28	28	12	0	na	na
o-xylene	26	11	0.95	10	14	11	2.8	22	12	3	1.1	1.3
pentane	26	11	3	64	14	6	3.5	30	12	1	3.6	3.6
styrene	26	2	1.2	2	14	7	2	3.6	12	0	na	na
tetrachloroethene	26	3	4	550	14	0	na	na	12	0	na	na
toluene	26	24	1.4	65	14	14	4.6	37	12	11	1	7.2
trichloroethene	26	3	2	6.5	14	1	1.2	1.2	12	0	na	na
trichlorofluoromethane	26	23	1.1	7	14	7	1.2	180	12	9	1.2	1.5

Notes:
Sample numbers do not include field duplicate samples
na – not applicable if compound not detected in any of the samples.

Table B-23
Soil Vapor Intrusion VOC Results
Norwich Former MGP Site, Norwich, New York

Sample	NYSDOH	NYSDOH	USEPA	USEPA	NO-12BAB			NO-12BAF			NO-12BAS			NO-14BAB		
Sample Type	Background	Background	Indoor	Outdoor	Basement			1st Floor			Sub-slab			Basement		
Sample Depth/Height	75% Indoor[1]	75% Outdoor[1]	Background[2]	Background[2]	3 ft. above ground			3 ft. above ground			2 in. below slab			3 ft. above ground		
Sample Date					3/23/2006 10:45			3/23/2006 10:48			3/23/2006 10:45			3/22/2006 3:50		
Dilution Factor					1			1			1			1		
Volatile Organic Compounds (µg/m3)					Conc	Q	RL	Conc	Q	RL	Conc	Q	RL	Conc	Q	RL
1,1,1-Trichloroethane	1.1	0.33	2.6 - 11	< 0.6 - 1.7	1.1	U	1.1	1.1	U	1.1	1.1	U	1.1	1.1	U	1.1
1,1,2,2-Tetrachloroethane	<0.25	<0.25	NL	NL	1.4	U	1.4	1.4	U	1.4	1.4	U	1.4	1.4	U	1.4
1,1,2-Trichloro-1,2,2-trifluoroethane	1.1	1.1	NL	NL	1.5	U	1.5	1.5	U	1.5	1.5	U	1.5	1.5	U	1.5
1,1,2-Trichloroethane	<0.25	<0.25	< 1.3	< 12	1.1	U	1.1	1.1	U	1.1	1.1	U	1.1	1.1	U	1.1
1,1-Dichloroethane	<0.25	<0.25	< 0.5	< 0.4	0.81	U	0.81	0.81	U	0.81	0.81	U	0.81	0.81	U	0.81
1,1-Dichloroethene	< 0.25	< 0.25	< 1.1	< 1.0	0.79	U	0.79	0.79	U	0.79	0.79	U	0.79	0.79	U	0.79
1,2,4-Trichlorobenzene	<0.25	< 0.25	NL	NL	7.4	U	7.4	7.4	U	7.4	7.4	U	7.4	7.4	U	7.4
1,2,4-Trimethylbenzene	4.3	0.81	1.7 - 5.1	< 1.6 - 3.1	0.98	U	0.98	0.98	U	0.98	**7.3**		0.98	1.9	J	0.98
1,2-Dibromoethane (EDB)	<0.25	<0.25	< 1.3	< 1.2	1.5	U	1.5	1.5	U	1.5	1.5	U	1.5	1.5	U	1.5
1,2-Dichloro-1,1,2,2-tetrafluoroethane	< 0.25	< 0.25	NL	NL	1.4	U	1.4	1.4	U	1.4	1.4	U	1.4	1.4	U	1.4
1,2-Dichlorobenzene	< 0.25	< 0.25	< 0.9	< 1.0	1.2	U	1.2	1.2	U	1.2	1.2	U	1.2	1.2	U	1.2
1,2-Dichloroethane	< 0.25	<0.25	< 0.6	< 0.6	0.81	U	0.81	0.81	U	0.81	0.81	U	0.81	0.81	U	0.81
1,2-Dichloropropane	<0.25	<0.25	< 1.4	< 1.4	0.92	U	0.92	0.92	U	0.92	0.92	U	0.92	0.92	U	0.92
1,3,5-Trimethylbenzene	1.7	0.34	< 1.5	< 1.4	0.98	U	0.98	0.98	U	0.98	**2.2**		0.98	0.98	U	0.98
1,3-Dichlorobenzene	< 0.25	< 0.25	< 0.8	< 0.8	1.2	U	1.2	1.2	U	1.2	1.2	U	1.2	1.2	U	1.2
1,4-Dichlorobenzene	0.54	< 0.25	NL	NL	1.2	U	1.2	1.2	U	1.2	1.2	U	1.2	1.2	U	1.2
Benzene	5.9	2.3	2.1 - 5.1	1.2 - 3.7	0.67		0.64	0.73		0.64	2.0		0.64	0.67		0.64
Bromomethane	<0.25	<0.25	< 0.9	< 1.0	0.78	U	0.78	0.78	U	0.78	0.78	U	0.78	0.78	U	0.78
Carbon tetrachloride	0.59	0.6	< 0.9	< 1.0	1.3	U	1.3	1.3	U	1.3	1.3	U	1.3	1.3	U	1.3
Chlorobenzene	<0.25	<0.25	< 0.7	< 0.8	0.92	U	0.92	0.92	U	0.92	0.92	U	0.92	0.92	U	0.92
Chloroethane	< 0.25	< 0.25	NL	NL	0.53	U	0.53	0.53	U	0.53	**2.7**		0.53	0.53	U	0.53
Chloroform	0.54	< 0.25	< 0.5	< 0.4	0.98	U	0.98	0.98	U	0.98	**1.0**		0.98	0.98	U	0.98
Chloromethane	1.8	1.8	2.1 - 3.1	2.0 - 3.0	1.5		1.0	1.0	U	1.0	1.6		1.0	1.2		1.0
cis-1,2-Dichloroethene	<0.25	<0.25	< 1.0	< 1.0	0.79	U	0.79	0.79	U	0.79	0.79	U	0.79	0.79	U	0.79
cis-1,3-Dichloropropene	< 0.25	< 0.25	NL	NL	0.91	U	0.91	0.91	U	0.91	0.91	U	0.91	0.91	U	0.91
Dichlorodifluoromethane	4.1	4.2	NL	NL	3.0		0.99	**4.9**		0.99	3.2		0.99	2.9		0.99
Ethylbenzene	2.8	0.48	< 1.6 - 3.4	< 1.4 - 1.6	0.87	U	0.87	0.87	U	0.87	**6.4**		0.87	0.87	U	0.87
Hexachlorobutadiene	<0.25	<0.25	NL	NL	11	U	11	11	U	11	11	U	11	11	U	11
Isopropylbenzene	0.4	< 0.25	NL	NL	2.0	U	2.0	2.0	U	2.0	2.0	U	2.0	2.0	U	2.0
Methyl tert-butyl ether	5.6	0.86	< 1.7 - 12	< 1.8	3.6	U	3.6	3.6	U	3.6	3.6	U	3.6	3.6	U	3.6
Methylene chloride	6.6	0.73	< 1.7 - 5.0	< 1.8 - 3.0	1.7	U	1.7	1.7	U	1.7	**11**	J	1.7	1.7	U	1.7
m-Xylene & p-Xylene	4.6	0.48	4.1 - 12	< 3.6 - 7.3	1.1		0.87	1.5		0.87	**20**		0.87	1.7		0.87
Naphthalene	NL	NL	< 2.5	< 2.4	2.6	U	2.6	2.6	U	2.6	2.6	U	2.6	2.6	UJ	2.6
n-Butane	NL	NL	NL	NL	1.8		0.95	3.8		0.95	3.7		0.95	1.2	J	0.95
n-Decane	6.6	2	NL	NL	5.8	U	5.8	5.8	U	5.8	5.8	U	5.8	5.8	U	5.8
n-Dodecane	3.9	1.9	NL	NL	7.0	UJ	7.0	7.0	UJ	7.0	7.0	UJ	7.0	7.0	UJ	7.0
n-Heptane	7.6	1.0	NL	NL	2.0	U	2.0	2.1		2.0	5.4		2.0	2.0	U	2.0
n-Hexane	6.0	0.88	1.6 - 6.4	< 1.2 - 2.7	1.8	U	1.8	1.8	U	1.8	2.4		1.8	1.8	U	1.8
n-Octane	2.3	0.65	NL	NL	1.9	U	1.9	1.9	U	1.9	**15**		1.9	1.9	U	1.9
Nonane	3.4	0.37	NL	NL	2.6	U	2.6	2.6	U	2.6	**18**		2.6	2.6	U	2.6
n-Undecane	5.0	0.67	NL	NL	6.4	U	6.4	6.4	U	6.4	6.4	U	6.4	6.4	U	6.4
o-Xylene	3.1	0.56	< 2.4 - 4.4	< 1.4 - 2.6	0.87	U	0.87	0.87	U	0.87	**8.1**		0.87	0.87	U	0.87
Pentane	NL	NL	NL	NL	3.0	U	3.0	3.2		3.0	3.5		3.0	3.0	U	3.0
Styrene	0.64	<0.25	< 1.8	< 1.6	0.85	U	0.85	0.85	U	0.85	**2.6**	J	0.85	0.85	U	0.85
Tetrachloroethene	1.1	0.34	< 1.9 - 5.9	< 1.4 - 3.0	1.4	U	1.4	1.4	U	1.4	1.4	U	1.4	**4.0**		1.4
Toluene	24.8	2.4	10.7 - 26	5.9 - 16	1.4		0.75	2.6		0.75	21		0.75	1.5	J	0.75
trans-1,3-Dichloropropene	< 0.25	< 0.25	NL	NL	0.91	U	0.91	0.91	U	0.91	0.91	U	0.91	0.91	U	0.91
Trichloroethene	<0.25	<0.25	< 1.2 - 1.2	< 1.5	1.1	U	1.1	1.1	U	1.1	1.1	U	1.1	1.1	U	1.1
Trichlorofluoromethane	5.4	2.2	NL	NL	1.7		1.1	2.0		1.1	1.6		1.1	1.4		1.1
Vinyl chloride	<0.25	<0.25	< 0.9	< 1.0	0.51	U	0.51	0.51	U	0.51	0.51	U	0.51	0.51	U	0.51
Tentatively Identified Compounds (TICs)																
1,2,3-Trimethylbenzene	1.1	< 0.25	NL	NL	ND		*	ND		*	ND		*	ND		*
1-Methylnaphthalene	NL	NL	NL	NL	ND		*	ND		*	ND		*	ND		*
2,2,4-Trimethylpentane	NL	NL	NL	NL	ND		*	ND		*	ND		*	ND		*
2,3-Dimethylheptane	NL	NL	NL	NL	ND		*	ND		*	ND		*	ND		*
2,3-Dimethylpentane	2.2	0.31	NL	NL	ND		*	ND		*	ND		*	ND		*
2-Methylnaphthalene	NL	NL	NL	NL	ND		*	ND		*	ND		*	ND		*
Butylcyclohexane	NL	NL	NL	NL	ND		*	ND		*	ND		*	ND		*
Indane	NL	NL	NL	NL	ND		*	ND		*	ND		*	ND		*
Indene	NL	NL	NL	NL	ND		*	ND		*	ND		*	ND		*
Isopentane	NL	NL	NL	NL	ND		*	ND		*	ND		*	ND		*
Total VOCs (µg/m^3)					11			21			140			16		

Sample	NO-14BAF			NO-14BAS			NO-35BRF			NO-35BRS			NO-10COB		
Sample Type	1st Floor			Sub-slab			1st Floor			Sub-slab			Basement		
Sample Depth/Height	3 ft. above ground			2 in. below slab			3 ft. above ground			2 in. below slab			3 ft. above ground		
Sample Date	3/22/2006 3:55			3/22/2006 3:50			3/28/2006 4:35			3/28/2006 4:30			3/23/2006 8:55		
Dilution Factor	4			2			1			2			1		
Volatile Organic Compounds (µg/m3)	Conc	Q	RL	Conc	Q	RL	Conc	Q	RL	Conc	Q	RL	Conc	Q	RL
1,1,1-Trichloroethane	4.4	U	4.4	2.2	U	2.2	1.1	U	1.1	2.2	U	2.2	1.1	U	1.1
1,1,2,2-Tetrachloroethane	5.5	U	5.5	2.7	U	2.7	1.4	U	1.4	2.7	U	2.7	1.4	U	1.4
1,1,2-Trichloro-1,2,2-trifluoroethane	6.1	U	6.1	3.1	U	3.1	1.5	U	1.5	3.1	U	3.1	1.5	U	1.5
1,1,2-Trichloroethane	4.4	U	4.4	2.2	U	2.2	1.1	U	1.1	2.2	U	2.2	1.1	U	1.1
1,1-Dichloroethane	3.2	U	3.2	1.6	U	1.6	0.81	U	0.81	1.6	U	1.6	0.81	U	0.81
1,1-Dichloroethene	3.2	U	3.2	1.6	U	1.6	0.79	U	0.79	1.6	U	1.6	0.79	U	0.79
1,2,4-Trichlorobenzene	30	U	30	15	U	15	7.4	U	7.4	15	U	15	7.4	U	7.4
1,2,4-Trimethylbenzene	3.9	U	3.9	3.0		2.0	**7.4**		0.98	3.3		2.0	2.4		0.98
1,2-Dibromoethane (EDB)	6.1	U	6.1	3.1	U	3.1	1.5	U	1.5	3.1	U	3.1	1.5	U	1.5
1,2-Dichloro-1,1,2,2-tetrafluoroethane	5.6	U	5.6	2.8	U	2.8	1.4	U	1.4	2.8	U	2.8	1.4	U	1.4
1,2-Dichlorobenzene	4.8	U	4.8	2.4	U	2.4	1.2	U	1.2	2.4	U	2.4	1.2	U	1.2
1,2-Dichloroethane	3.2	U	3.2	1.6	U	1.6	0.81	U	0.81	1.6	U	1.6	0.81	U	0.81
1,2-Dichloropropane	3.7	U	3.7	1.8	U	1.8	0.92	U	0.92	1.8	U	1.8	0.92	U	0.92
1,3,5-Trimethylbenzene	3.9	U	3.9	2.0	U	2.0	**2.9**		0.98	2	U	2	0.98	U	0.98
1,3-Dichlorobenzene	4.8	U	4.8	2.4	U	2.4	1.2	U	1.2	2.4	U	2.4	1.2	U	1.2
1,4-Dichlorobenzene	4.8	U	4.8	2.4	U	2.4	1.2	U	1.2	2.4	U	2.4	1.2	U	1.2
Benzene	2.6	U	2.6	1.3	U	1.3	**6.6**		0.64	2.4		1.3	2.5		0.64
Bromomethane	3.1	U	3.1	1.6	U	1.6	0.78	U	0.78	1.6	U	1.6	0.78	U	0.78
Carbon tetrachloride	5.0	U	5.0	2.5	U	2.5	1.3	U	1.3	2.5	U	2.5	1.3	U	1.3
Chlorobenzene	3.7	U	3.7	1.8	U	1.8	0.92	U	0.92	1.8	U	1.8	0.92	U	0.92
Chloroethane	2.1	U	2.1	1.1	U	1.1	0.53	U	0.53	1.1	U	1.1	0.53	U	0.53
Chloroform	3.9	U	3.9	2.0	U	2.0	0.98	U	0.98	2.0	U	2.0	0.98	U	0.98
Chloromethane	4.1	U	4.1	2.1	U	2.1	**1.8**		1.0	2.1	U	2.1	**1.9**		1.0
cis-1,2-Dichloroethene	**12**		3.2	**1.8**		1.6	0.79	U	0.79	1.6	U	1.6	0.79	U	0.79
cis-1,3-Dichloropropene	3.6	U	3.6	1.8	U	1.8	0.91	U	0.91	1.8	U	1.8	0.91	U	0.91
Dichlorodifluoromethane	4.0	U	4.0	2.9		2.0	2.7		0.99	2.8		2.0	2.9		0.99
Ethylbenzene	3.5	U	3.5	1.7	U	1.7	**8.6**		0.87	**3.8**		1.7	**3.5**		0.87
Hexachlorobutadiene	43	U	43	21	U	21	11	U	11	21	U	21	11	U	11
Isopropylbenzene	7.9	U	7.9	3.9	U	3.9	2.0	U	2.0	3.9	U	3.9	2.0	U	2.0
Methyl tert-butyl ether	14	U	14	7.2	U	7.2	3.6	U	3.6	7.2	U	7.2	3.6	U	3.6
Methylene chloride	6.9	U	6.9	4.9		3.5	1.7	U	1.7	4.6		3.5	**11**		1.7
m-Xylene & p-Xylene	3.5	U	3.5	3.6		1.7	**28**		0.87	**9.4**		1.7	**10**		0.87
Naphthalene	10	U	10	5.2	U	5.2	2.6	U	2.6	5.2	U	5.2	2.6	U	2.6
n-Butane	7.7		3.8	2.1		1.9	26		0.95	34		1.9	12		0.95
n-Decane	23	U	23	12	U	12	5.8	U	5.8	12	U	12	5.8	U	5.8
n-Dodecane	28	UJ	28	14	UJ	14	7.0	UJ	7.0	14	UJ	14.0	7.0	UJ	7.0
n-Heptane	8.2	U	8.2	4.1	U	4.1	**7.9**		2.0	6.1		4.1	4.6		2.0
n-Hexane	7.0	U	7.0	3.5	U	3.5	**8.7**		1.8	**9.7**		3.5	**75**		1.8
n-Octane	7.5	U	7.5	3.7	U	3.7	**3.8**		1.9	**3.8**		3.7	1.9	U	1.9
Nonane	10	U	10	5.2	U	5.2	**4.3**		2.6	**17**		5.2	2.6	U	2.6
n-Undecane	26	U	26	**28**		13	6.4	U	6.4	13	U	13	6.4	U	6.4
o-Xylene	3.5	U	3.5	1.7	U	1.7	**10**		0.87	**3.5**		1.7	**3.5**		0.87
Pentane	12.0	U	12.0	5.9	U	5.9	15		3.0	19		5.9	58		3.0
Styrene	3.4	U	3.4	1.7	U	1.7	0.85	U	0.85	1.7	U	1.7	**1.2**		0.85
Tetrachloroethene	**550**		5.4	2.7	U	2.7	1.4	U	1.4	2.7	U	2.7	**8.5**		1.4
Toluene	3.0	U	3.0	4.6		1.5	**51**		0.75	14		1.5	**65**		0.75
trans-1,3-Dichloropropene	3.6	U	3.6	1.8	U	1.8	0.91	U	0.91	1.8	U	1.8	0.91	U	0.91
Trichloroethene	**6.5**		4.3	2.1	U	2.1	1.1	U	1.1	2.1	U	2.1	**2.1**		1.1
Trichlorofluoromethane	4.5	U	4.5	2.2	U	2.2	1.6		1.1	2.2	U	2.2	**6.2**		1.1
Vinyl chloride	2.0	U	2.0	1.0	U	1.0	0.51	U	0.51	1.0	U	1.0	0.51	U	0.51
Tentatively Identified Compounds (TICs)															
1,2,3-Trimethylbenzene	ND		*	ND		*	ND		*	ND		*	ND		*
1-Methylnaphthalene	ND		*	ND		*	ND		*	ND		*	ND		*
2,2,4-Trimethylpentane	ND		*	ND		*	12	NJ	*	ND		*	ND		*
2,3-Dimethylheptane	ND		*	ND		*	ND		*	ND		*	ND		*
2,3-Dimethylpentane	ND		*	ND		*	ND		*	ND		*	ND		*
2-Methylnaphthalene	ND		*	ND		*	ND		*	ND		*	ND		*
Butylcyclohexane	ND		*	ND		*	ND		*	ND		*	ND		*
Indane	ND		*	ND		*	ND		*	ND		*	ND		*
Indene	ND		*	ND		*	ND		*	ND		*	ND		*
Isopentane	ND		*	ND		*	44	NJ	*	ND		*	210	NJ	*
Total VOCs (µg/m^3)	580			51			240			130			480		

Sample	NO-10COF			NO-10COS			NO-16COB			NO-16COF			NO-16COS		
Sample Type	1st Floor			Sub-slab			Basement			1st Floor			Sub-slab		
Sample Depth/Height	3 ft. above ground			2 in. below slab			3 ft. above ground			3 ft. above ground			2 in. below slab		
Sample Date	3/23/2006 9:00			3/23/2006 8:55			3/22/2006 1:40			3/22/2006 1:42			3/22/2006 1:40		
Dilution Factor	1			1			1			1			1		
Volatile Organic Compounds (µg/m3)	Conc	Q	RL	Conc	Q	RL	Conc	Q	RL	Conc	Q	RL	Conc	Q	RL
1,1,1-Trichloroethane	1.1	U	1.1	1.1	U	1.1	1.1	U	1.1	1.1	U	1.1	1.1	U	1.1
1,1,2,2-Tetrachloroethane	1.4	U	1.4	**2.9**		1.4	1.4	U	1.4	1.4	U	1.4	1.4	U	1.4
1,1,2-Trichloro-1,2,2-trifluoroethane	1.5	U	1.5	1.5	U	1.5	1.5	U	1.5	1.5	U	1.5	1.5	U	1.5
1,1,2-Trichloroethane	1.1	U	1.1	1.1	U	1.1	1.1	U	1.1	1.1	U	1.1	1.1	U	1.1
1,1-Dichloroethane	0.81	U	0.81	0.81	U	0.81	0.81	U	0.81	0.81	U	0.81	0.81	U	0.81
1,1-Dichloroethene	0.79	U	0.79	0.79	U	0.79	0.79	U	0.79	0.79	U	0.79	0.79	U	0.79
1,2,4-Trichlorobenzene	7.4	U	7.4	7.4	U	7.4	7.4	U	7.4	7.4	U	7.4	7.4	U	7.4
1,2,4-Trimethylbenzene	1.0		0.98	**8.3**		0.98	1.2		0.98	0.98	U	0.98	**6.1**		0.98
1,2-Dibromoethane (EDB)	1.5	U	1.5	1.5	U	1.5	1.5	U	1.5	1.5	U	1.5	1.5	U	1.5
1,2-Dichloro-1,1,2,2-tetrafluoroethane	1.4	U	1.4	1.4	U	1.4	1.4	U	1.4	1.4	U	1.4	1.4	U	1.4
1,2-Dichlorobenzene	1.2	U	1.2	1.2	U	1.2	1.2	U	1.2	1.2	U	1.2	1.2	U	1.2
1,2-Dichloroethane	0.81	U	0.81	0.81	U	0.81	0.81	U	0.81	0.81	U	0.81	0.81	U	0.81
1,2-Dichloropropane	0.92	U	0.92	0.92	U	0.92	0.92	U	0.92	0.92	U	0.92	0.92	U	0.92
1,3,5-Trimethylbenzene	0.98	U	0.98	**2.3**		0.98	0.98	U	0.98	0.98	U	0.98	**2**		0.98
1,3-Dichlorobenzene	1.2	U	1.2	1.2	U	1.2	1.2	U	1.2	1.2	U	1.2	1.2	U	1.2
1,4-Dichlorobenzene	1.2	U	1.2	1.2	U	1.2	1.2	U	1.2	1.2	U	1.2	1.2	U	1.2
Benzene	1.0		0.64	1.6		0.64	0.77		0.64	0.79		0.64	2.1		0.64
Bromomethane	0.78	U	0.78	0.78	U	0.78	0.78	U	0.78	0.78	U	0.78	0.78	U	0.78
Carbon tetrachloride	1.3	U	1.3	1.3	U	1.3	1.3	U	1.3	1.3	U	1.3	1.3	U	1.3
Chlorobenzene	0.92	U	0.92	0.92	U	0.92	0.92	U	0.92	0.92	U	0.92	0.92	U	0.92
Chloroethane	0.53	U	0.53	0.53	U	0.53	0.53	U	0.53	0.53	U	0.53	**1.7**		0.53
Chloroform	0.98	U	0.98	**1.4**		0.98	0.98	U	0.98	0.98	U	0.98	**1.6**		0.98
Chloromethane	1.3		1.0	1.0	U	1.0	1.1		1.0	1.2		1.0	1.0	U	1.0
cis-1,2-Dichloroethene	0.79	U	0.79	0.79	U	0.79	0.79	U	0.79	0.79	U	0.79	0.79	U	0.79
cis-1,3-Dichloropropene	0.91	U	0.91	0.91	U	0.91	0.91	U	0.91	0.91	U	0.91	0.91	U	0.91
Dichlorodifluoromethane	3.0		0.99	2.5		0.99	2.9		0.99	2.6		0.99	2.8		0.99
Ethylbenzene	0.87	U	0.87	**18**		0.87	0.87		0.87	0.87	U	0.87	**7.4**		0.87
Hexachlorobutadiene	11	U	11	11	U	11	11	U	11	11	U	11	11	U	11
Isopropylbenzene	2.0	U	2.0	2.0	U	2.0	2.0	U	2.0	2.0	U	2.0	2.0	U	2.0
Methyl tert-butyl ether	3.6	U	3.6	3.6	U	3.6	3.6	U	3.6	3.6	U	3.6	3.6	U	3.6
Methylene chloride	1.7	U	1.7	**18**		1.7	1.7	U	1.7	1.7	U	1.7	**15**		1.7
m-Xylene & p-Xylene	1.2		0.87	**45**		0.87	2.7		0.87	1.5		0.87	**20**		0.87
Naphthalene	2.6	U	2.6	2.6	U	2.6	2.6	UJ	2.6	2.6	UJ	2.6	2.6	UJ	2.6
n-Butane	18		0.95	1.6		0.95	1.0	J	0.95	1.3	J	0.95	7.1	J	0.95
n-Decane	5.8	U	5.8	5.8	U	5.8	5.8	U	5.8	5.8	U	5.8	5.8	U	5.8
n-Dodecane	7.0	UJ	7.0	7.0	UJ	7.0	7.0	UJ	7.0	7.0	UJ	7.0	7.0	UJ	7.0
n-Heptane	2.0	U	2.0	**7.6**		2.0	2.1		2.0	2.0	U	2.0	4.7		2.0
n-Hexane	1.8	U	1.8	2.5		1.8	1.8	U	1.8	1.8	U	1.8	3.9		1.8
n-Octane	1.9	U	1.9	**4.0**		1.9	1.9	U	1.9	1.9	U	1.9	**4.4**		1.9
Nonane	2.6	U	2.6	**16**		2.6	3.0		2.6	2.6	U	2.6	**14**		2.6
n-Undecane	6.4	U	6.4	6.4	U	6.4	6.4	U	6.4	6.4	U	6.4	6.4	U	6.4
o-Xylene	0.87	U	0.87	**22**		0.87	1.1		0.87	0.87	U	0.87	**7.7**		0.87
Pentane	3.0	U	3.0	4.3		3.0	3.0	U	3.0	3.0	U	3.0	7.5		3.0
Styrene	0.85	U	0.85	**3.6**		0.85	0.85	U	0.85	0.85	U	0.85	**2.1**		0.85
Tetrachloroethene	1.4	U	1.4	1.4	U	1.4	1.4	U	1.4	1.4	U	1.4	1.4	U	1.4
Toluene	3.0		0.75	**37**		0.75	1.6		0.75	1.7		0.75	24		0.75
trans-1,3-Dichloropropene	0.91	U	0.91	0.91	U	0.91	0.91	U	0.91	0.91	U	0.91	0.91	U	0.91
Trichloroethene	1.1	U	1.1	1.1	U	1.1	1.1	U	1.1	1.1	U	1.1	1.1	U	1.1
Trichlorofluoromethane	**7.0**		1.1	1.3		1.1	1.4		1.1	1.3		1.1	1.2		1.1
Vinyl chloride	0.51	U	0.51	0.51	U	0.51	0.51	U	0.51	0.51	U	0.51	0.51	U	0.51
Tentatively Identified Compounds (TICs)															
1,2,3-Trimethylbenzene	ND		*	ND		*	ND		*	ND		*	ND		*
1-Methylnaphthalene	ND		*	ND		*	ND		*	ND		*	ND		*
2,2,4-Trimethylpentane	ND		*	ND		*	ND		*	ND		*	ND		*
2,3-Dimethylheptane	ND		*	ND		*	ND		*	ND		*	ND		*
2,3-Dimethylpentane	ND		*	ND		*	ND		*	ND		*	ND		*
2-Methylnaphthalene	ND		*	ND		*	ND		*	ND		*	ND		*
Butylcyclohexane	ND		*	ND		*	ND		*	ND		*	ND		*
Indane	ND		*	ND		*	ND		*	ND		*	ND		*
Indene	ND		*	ND		*	ND		*	ND		*	ND		*
Isopentane	ND		*	ND		*	ND		*	ND		*	ND		*
Total VOCs (µg/m^3)	36			200			20			10			140		

Notes:
NL - Not Listed
ND - Not Detected
MDL = Method Detection Limit
Q - Qualifier
U - Compound was analyzed for but not detected at or above the MDL. The associated numerical value is the sample reporting limit
J - Associated numerical value is an estimated quantity
R - Result was rejected because one or more QC measures did not meet acceptance criteria
RL - Reporting limit
N - compound identified as a tentatively identified compound (TIC)
* - compounds reported as TICs are not calibrated for and do not have a reporting limit
Bolded results exceed the NYSDOH 75% Indoor Background values from homes with fuel oil heat

[1] NY DOH Background values from the NYSDOH Study of Volatile Organic Chemicals in Air of Fuel Oil Heated Homes, 1997 - 2003
[2] USEPA Background values from the NYSDOH Vapor Intrusion Guidance - Table 3 1994 - 1998

Table B-23
Soil Vapor Intrusion VOC Results
Norwich Former MGP Site, Norwich, New York

Sample	NYSDOH	NYSDOH	USEPA	USEPA	NO-18COB			NO-18COF			NO-18COS			NO-20COB		
Sample Type	Background	Background	Indoor	Outdoor	Basement			1st Floor			Sub-slab			Basement		
Sample Depth/Height	75% Indoor[1]	75% Outdoor[1]	Background[2]	Background[2]	3 ft. above ground			3 ft. above ground			3 ft. below ground			3 ft. above ground		
Sample Date					3/29/2006 11:40			3/29/2006 11:49			3/29/2006 11:38			3/29/2006 13:27		
Dilution Factor					1			1			4			1		
Volatile Organic Compounds (µg/m3)					Conc	Q	RL	Conc	Q	RL	Conc	Q	RL	Conc	Q	RL
1,1,1-Trichloroethane	1.1	0.33	2.6 - 11	< 0.6 - 1.7	1.1	U	1.1	1.1	U	1.1	4.4	U	4.4	1.1	U	1.1
1,1,2,2-Tetrachloroethane	<0.25	<0.25	NL	NL	1.4	U	1.4	1.4	U	1.4	5.5	U	5.5	1.4	U	1.4
1,1,2-Trichloro-1,2,2-trifluoroethane	1.1	1.1	NL	NL	1.5	U	1.5	1.5	U	1.5	6.1	U	6.1	1.5	U	1.5
1,1,2-Trichloroethane	<0.25	<0.25	< 1.3	< 12	1.1	U	1.1	1.1	U	1.1	4.4	U	4.4	1.1	U	1.1
1,1-Dichloroethane	<0.25	<0.25	< 0.5	< 0.4	0.81	U	0.81	0.81	U	0.81	3.2	U	3.2	0.81	U	0.81
1,1-Dichloroethene	< 0.25	< 0.25	< 1.1	< 1.0	0.79	U	0.79	0.79	U	0.79	3.2	U	3.2	0.79	U	0.79
1,2,4-Trichlorobenzene	<0.25	< 0.25	NL	NL	7.4	U	7.4	7.4	U	7.4	30	U	30	7.4	U	7.4
1,2,4-Trimethylbenzene	4.3	0.81	1.7 - 5.1	< 1.6 - 3.1	0.98	U	0.98	2.8		0.98	**4.5**		3.9	0.98		0.98
1,2-Dibromoethane (EDB)	<0.25	<0.25	< 1.3	< 1.2	1.5	U	1.5	1.5	U	1.5	6.1	U	6.1	1.5	U	1.5
1,2-Dichloro-1,1,2,2-tetrafluoroethane	< 0.25	< 0.25	NL	NL	1.4	U	1.4	1.4	U	1.4	5.6	U	5.6	1.4	UJ	1.4
1,2-Dichlorobenzene	< 0.25	< 0.25	< 0.9	< 1.0	1.2	U	1.2	1.2	U	1.2	4.8	U	4.8	1.2	U	1.2
1,2-Dichloroethane	< 0.25	<0.25	< 0.6	< 0.6	**8.9**		0.81	0.81	U	0.81	3.2	U	3.2	0.81	U	0.81
1,2-Dichloropropane	<0.25	<0.25	< 1.4	< 1.4	0.92	U	0.92	0.92	U	0.92	3.7	U	3.7	0.92	U	0.92
1,3,5-Trimethylbenzene	1.7	0.34	< 1.5	< 1.4	0.98	U	0.98	1.1		0.98	3.9	U	3.9	0.98	U	0.98
1,3-Dichlorobenzene	< 0.25	< 0.25	< 0.8	< 0.8	1.2	U	1.2	1.2	U	1.2	4.8	U	4.8	1.2	U	1.2
1,4-Dichlorobenzene	0.54	< 0.25	NL	NL	1.2	U	1.2	1.2	U	1.2	4.8	U	4.8	1.2	U	1.2
Benzene	5.9	2.3	2.1 - 5.1	1.2 - 3.7	2.4		0.64	3.2		0.64	2.9		2.6	2.8		0.64
Bromomethane	<0.25	<0.25	< 0.9	< 1.0	0.78	U	0.78	0.78	U	0.78	3.1	U	3.1	0.78	U	0.78
Carbon tetrachloride	0.59	0.6	< 0.9	< 1.0	1.3	U	1.3	1.3	U	1.3	5.0	U	5.0	1.3	U	1.3
Chlorobenzene	<0.25	<0.25	< 0.7	< 0.8	0.92	U	0.92	0.92	U	0.92	3.7	U	3.7	0.92	U	0.92
Chloroethane	< 0.25	< 0.25	NL	NL	0.53	U	0.53	0.53	U	0.53	2.1	U	2.1	0.53	U	0.53
Chloroform	0.54	< 0.25	< 0.5	< 0.4	0.98	U	0.98	**1.5**		0.98	3.9	U	3.9	0.98	U	0.98
Chloromethane	1.8	1.8	2.1 - 3.1	2.0 - 3.0	1.0	U	1.0	**1.9**		1.0	4.1	U	4.1	1.2	J	1.0
cis-1,2-Dichloroethene	<0.25	<0.25	< 1.0	< 1.0	0.79	U	0.79	0.79	U	0.79	3.2	U	3.2	0.79	U	0.79
cis-1,3-Dichloropropene	< 0.25	< 0.25	NL	NL	0.91	U	0.91	0.91	U	0.91	3.6	U	3.6	0.91	U	0.91
Dichlorodifluoromethane	4.1	4.2	NL	NL	1.9		0.99	2.5		0.99	4.0	U	4.0	1.7		0.99
Ethylbenzene	2.8	0.48	< 1.6 - 3.4	< 1.4 - 1.6	0.98		0.87	2.6		0.87	3.5	U	3.5	1.2		0.87
Hexachlorobutadiene	<0.25	<0.25	NL	NL	11	U	11	11	U	11	43	U	43	11	U	11
Isopropylbenzene	0.4	< 0.25	NL	NL	2.0	U	2.0	2.0	U	2.0	7.9	U	7.9	2.0	U	2.0
Methyl tert-butyl ether	5.6	0.86	< 1.7 - 12	< 1.8	3.6	U	3.6	3.6	U	3.6	14	U	14	3.6	UJ	3.6
Methylene chloride	6.6	0.73	< 1.7 - 5.0	< 1.8 - 3.0	1.7	U	1.7	1.7	U	1.7	6.9	U	6.9	**63**		1.7
m-Xylene & p-Xylene	4.6	0.48	4.1 - 12	< 3.6 - 7.3	3.3		0.87	**8.6**		0.87	**7.6**		3.5	**6.9**		0.87
Naphthalene	NL	NL	< 2.5	< 2.4	2.6	U	2.6	2.6	U	2.6	10	U	10	2.6	U	2.6
n-Butane	NL	NL	NL	NL	19		0.95	37		0.95	24		3.8	23	J	0.95
n-Decane	6.6	2	NL	NL	5.8	U	5.8	5.8	U	5.8	23	U	23	5.8	U	5.8
n-Dodecane	3.9	1.9	NL	NL	7.0	U	7.0	7.0	U	7.0	**28**		28	7.0	U	7.0
n-Heptane	7.6	1.0	NL	NL	2.0	U	2.0	2.6		2.0	8.2	U	8.2	4.3		2.0
n-Hexane	6.0	0.88	1.6 - 6.4	< 1.2 - 2.7	3.0		1.8	3.3		1.8	7	U	7.0	**6.0**		1.8
n-Octane	2.3	0.65	NL	NL	1.9	U	1.9	1.9	U	1.9	7.5	U	7.5	1.9	U	1.9
Nonane	3.4	0.37	NL	NL	2.6	U	2.6	**7.8**		2.6	10	U	10	2.6	U	2.6
n-Undecane	5.0	0.67	NL	NL	6.4	U	6.4	6.4	U	6.4	26	U	26	6.4	U	6.4
o-Xylene	3.1	0.56	< 2.4 - 4.4	< 1.4 - 2.6	1.5		0.87	**3.6**		0.87	3.5	U	3.5	2.8		0.87
Pentane	NL	NL	NL	NL	7.1		3.0	7.6		3.0	12	U	12	3.6		3.0
Styrene	0.64	<0.25	< 1.8	< 1.6	0.85	U	0.85	0.85	U	0.85	3.4	U	3.4	0.85	U	0.85
Tetrachloroethene	1.1	0.34	< 1.9 - 5.9	< 1.4 - 3.0	1.4	U	1.4	1.4	U	1.4	5.4	U	5.4	1.4	U	1.4
Toluene	24.8	2.4	10.7 - 26	5.9 - 16	7.0		0.75	15		0.75	9.2		3	**25**		0.75
trans-1,3-Dichloropropene	< 0.25	< 0.25	NL	NL	0.91	U	0.91	0.91	U	0.91	3.6	U	3.6	0.91	U	0.91
Trichloroethene	<0.25	<0.25	< 1.2 - 1.2	< 1.5	1.1	U	1.1	1.1	U	1.1	4.3	U	4.3	1.1	U	1.1
Trichlorofluoromethane	5.4	2.2	NL	NL	1.7		1.1	2.0		1.1	4.5	U	4.5	1.1		1.1
Vinyl chloride	<0.25	<0.25	< 0.9	< 1.0	0.51	U	0.51	0.51	U	0.51	2.0	U	2.0	0.51	UJ	0.51
Tentatively Identified Compounds (TICs)																
1,2,3-Trimethylbenzene	1.1	< 0.25	NL	NL	ND		*	ND		*	ND		*	ND		*
1-Methylnaphthalene	NL	NL	NL	NL	ND		*	ND		*	ND		*	ND		*
2,2,4-Trimethylpentane	NL	NL	NL	NL	ND		*	ND		*	ND		*	61	NJ	*
2,3-Dimethylheptane	NL	NL	NL	NL	ND		*	ND		*	ND		*	ND		*
2,3-Dimethylpentane	2.2	0.31	NL	NL	ND		*	ND		*	ND		*	18	NJ	*
2-Methylnaphthalene	NL	NL	NL	NL	ND		*	ND		*	ND		*	ND		*
Butylcyclohexane	NL	NL	NL	NL	ND		*	ND		*	ND		*	ND		*
Indane	NL	NL	NL	NL	ND		*	ND		*	ND		*	ND		*
Indene	NL	NL	NL	NL	ND		*	ND		*	ND		*	ND		*
Isopentane	NL	NL	NL	NL	32	NJ	*	38	NJ	*	ND		*	16	NJ	*
Total VOCs (µg/m3)					89			150			76			240		

Sample	NO-20COF			NO-20COS			NO-30FRB			NO-30FRF			NO-30FRS		
Sample Type	1st Floor			Sub-slab			Basement			1st Floor			Sub-slab		
Sample Depth/Height	3 ft. above ground			2 in. below slab			3 ft. above ground			3 ft. above ground			2 in. below slab		
Sample Date	3/29/2006 13:37			3/29/2006 13:25			3/24/2006 11:30			3/24/2006 11:35			3/24/2006 11:30		
Dilution Factor	2			2			1			1			1		
Volatile Organic Compounds (µg/m3)	Conc	Q	RL	Conc	Q	RL	Conc	Q	RL	Conc	Q	RL	Conc	Q	RL
1,1,1-Trichloroethane	2.2	U	2.2	2.2	U	2.2	1.1	U	1.1	1.1	U	1.1	1.1	U	1.1
1,1,2,2-Tetrachloroethane	2.7	U	2.7	2.7	U	2.7	1.4	U	1.4	1.4	U	1.4	1.4	U	1.4
1,1,2-Trichloro-1,2,2-trifluoroethane	3.1	U	3.1	3.1	U	3.1	1.5	U	1.5	1.5	U	1.5	1.5	U	1.5
1,1,2-Trichloroethane	2.2	U	2.2	2.2	U	2.2	1.1	U	1.1	1.1	U	1.1	1.1	U	1.1
1,1-Dichloroethane	1.6	U	1.6	1.6	U	1.6	0.81	U	0.81	0.81	U	0.81	0.81	U	0.81
1,1-Dichloroethene	1.6	U	1.6	1.6	U	1.6	0.79	U	0.79	0.79	U	0.79	0.79	U	0.79
1,2,4-Trichlorobenzene	15	U	15	15	U	15	7.4	U	7.4	7.4	U	7.4	7.4	U	7.4
1,2,4-Trimethylbenzene	2.7		2.0	**5.2**		2.0	0.98	U	1.0	0.98	U	1.0	**41**	J	1.0
1,2-Dibromoethane (EDB)	3.1	U	3.1	3.1	U	3.1	1.5	U	1.5	1.5	U	1.5	1.5	U	1.5
1,2-Dichloro-1,1,2,2-tetrafluoroethane	2.8	UJ	2.8	2.8	UJ	2.8	1.4	U	1.4	1.4	U	1.4	1.4	U	1.4
1,2-Dichlorobenzene	2.4	U	2.4	2.4	U	2.4	1.2	U	1.2	1.2	U	1.2	1.2	U	1.2
1,2-Dichloroethane	1.6	U	1.6	1.6	U	1.6	0.81	U	0.81	0.81	U	0.81	0.81	U	0.81
1,2-Dichloropropane	1.8	U	1.8	1.8	U	1.8	0.92	U	0.92	0.92	U	0.92	0.92	U	0.92
1,3,5-Trimethylbenzene	2.0	U	2.0	2.0	U	2.0	0.98	U	0.98	0.98	U	1.0	**5.9**		1.0
1,3-Dichlorobenzene	2.4	U	2.4	2.4	U	2.4	1.2	U	1.2	1.2	U	1.2	1.2	U	1.2
1,4-Dichlorobenzene	2.4	U	2.4	2.4	U	2.4	1.2	U	1.2	1.2	U	1.2	1.2	U	1.2
Benzene	1.6		1.3	2.4		1.3	1.6		0.64	1.6		0.64	1.2		0.64
Bromomethane	1.6	U	1.6	1.6	U	1.6	0.78	U	0.78	0.78	U	0.78	0.78	U	0.78
Carbon tetrachloride	2.5	U	2.5	2.5	U	2.5	1.3	U	1.3	1.3	U	1.3	1.3	U	1.3
Chlorobenzene	1.8	U	1.8	1.8	U	1.8	0.92	U	0.92	0.92	U	0.92	0.92	U	0.92
Chloroethane	1.1	U	1.1	1.1	U	1.1	0.53	U	0.53	0.53	U	0.53	0.53	U	0.53
Chloroform	2.0	U	2.0	2.0	U	2.0	0.98	U	1.0	0.98	U	1.0	0.98	U	1.0
Chloromethane	2.1	UJ	2.1	2.1	UJ	2.1	1.0	U	1.0	1.7		1.0	1.0	U	1.0
cis-1,2-Dichloroethene	1.6	U	1.6	1.6	U	1.6	0.79	U	0.79	0.79	U	0.79	0.79	U	0.79
cis-1,3-Dichloropropene	1.8	U	1.8	1.8	U	1.8	0.91	U	0.91	0.91	U	0.91	0.91	U	0.91
Dichlorodifluoromethane	2.0	U	2.0	2.1		2.0	3.2		1.0	3.0		1.0	3.1		1.0
Ethylbenzene	1.7	U	1.7	**4.6**		1.7	0.87	U	0.87	0.87	U	0.87	2.6		0.87
Hexachlorobutadiene	21	U	21	21	U	21	11	U	11	11	U	11	11	U	11
Isopropylbenzene	3.9	U	3.9	3.9	U	3.9	2.0	U	2.0	2.0	U	2.0	2.0	U	2.0
Methyl tert-butyl ether	7.2	UJ	7.2	7.2	UJ	7.2	3.6	U	3.6	3.6	U	3.6	3.6	U	3.6
Methylene chloride	**7.1**		3.5	3.5		3.5	1.7	U	1.7	1.7	U	1.7	5.3		1.7
m-Xylene & p-Xylene	3.7		1.7	**15**		1.7	1.1		0.87	2.0		0.87	**7.4**		0.87
Naphthalene	5.2	U	5.2	5.2	U	5.2	2.6	U	2.6	2.6	U	2.6	2.6	U	2.6
n-Butane	90	J	1.9	4.1	J	1.9	10		1.0	8.7		1.0	4.6		1.0
n-Decane	12	U	12	12	U	12	5.8	U	5.8	5.8	U	5.8	5.8	U	5.8
n-Dodecane	14	U	14	14	U	14	7.0	UJ	7.0	7.0	UJ	7.0	7.0	UJ	7.0
n-Heptane	4.1	U	4.1	4.1	U	4.1	2.0	U	2.0	2.0	U	2.0	2.0	U	2.0
n-Hexane	3.5	U	3.5	3.5	U	3.5	1.8	U	1.8	1.8	U	1.8	1.8	U	1.8
n-Octane	3.7	U	3.7	3.7	U	3.7	1.9	U	1.9	1.9	U	1.9	1.9	U	1.9
Nonane	5.2	U	5.2	**25**		5.2	2.6	U	2.6	2.6	U	2.6	**6.3**		2.6
n-Undecane	13	U	13	13	U	13	6.4	U	6.4	6.4	U	6.4	6.4	U	6.4
o-Xylene	1.8		1.7	**5.9**		1.7	0.87	U	0.87	0.87	U	0.87	2.8		0.87
Pentane	5.9	U	5.9	5.9	U	5.9	4.2		3.0	4.9		3.0	3.0	U	3.0
Styrene	1.7	U	1.7	**2.0**		1.7	0.85	U	0.85	0.85	U	0.85	**7.0**	J	0.85
Tetrachloroethene	2.7	U	2.7	2.7	U	2.7	1.4	U	1.4	1.4	U	1.4	1.4	U	1.4
Toluene	8.3		1.5	14		1.5	2.1		0.75	4.7		0.75	7.8		0.75
trans-1,3-Dichloropropene	1.8	U	1.8	1.8	U	1.8	0.91	U	0.91	0.91	U	0.91	0.91	U	0.91
Trichloroethene	2.1	U	2.1	2.1	U	2.1	1.1	U	1.1	1.1	U	1.1	1.1	U	1.1
Trichlorofluoromethane	2.9		2.2	2.2	U	2.2	1.6		1.1	1.5		1.1	1.6		1.1
Vinyl chloride	1.0	UJ	1.0	1.0	UJ	1.0	0.51	U	0.51	0.51	U	0.51	0.51	U	0.51
Tentatively Identified Compounds (TICs)															
1,2,3-Trimethylbenzene	ND		*	ND		*	ND		*	ND		*	ND		*
1-Methylnaphthalene	ND		*	ND		*	ND		*	ND		*	ND		*
2,2,4-Trimethylpentane	ND		*	ND		*	ND		*	ND		*	ND		*
2,3-Dimethylheptane	ND		*	ND		*	ND		*	ND		*	ND		*
2,3-Dimethylpentane	ND		*	ND		*	ND		*	ND		*	ND		*
2-Methylnaphthalene	ND		*	ND		*	ND		*	ND		*	ND		*
Butylcyclohexane	ND		*	ND		*	ND		*	ND		*	ND		*
Indane	ND		*	ND		*	ND		*	ND		*	ND		*
Indene	ND		*	ND		*	ND		*	ND		*	ND		*
Isopentane	ND		*	ND		*	9.44	NJ		10.92	NJ		ND		*
Total VOCs (µg/m3)	120			84			33			39			90		

Sample	NO-37FRB			NO-37FRF			NO-37FRS			NO-41FRB		
Sample Type	Basement			1st Floor			Sub-slab			Basement		
Sample Depth/Height	3 ft. above ground			3 ft. above ground			3 ft. below ground			3 ft. above ground		
Sample Date	3/29/2006 9:50			3/29/2006 9:56			3/29/2006 9:53			3/24/2006 6:15		
Dilution Factor	1			1			18.18			1		
Volatile Organic Compounds (µg/m3)	Conc	Q	RL	Conc	Q	RL	Conc	Q	RL	Conc	Q	RL
1,1,1-Trichloroethane	1.1	U	1.1	1.1	U	1.1	20	U	20	1.1	U	1.1
1,1,2,2-Tetrachloroethane	1.4	U	1.4	1.4	U	1.4	25	U	25	1.4	U	1.4
1,1,2-Trichloro-1,2,2-trifluoroethane	1.5	U	1.5	1.5	U	1.5	28	U	28	1.5	U	1.5
1,1,2-Trichloroethane	1.1	U	1.1	1.1	U	1.1	20	U	20	1.1	U	1.1
1,1-Dichloroethane	0.81	U	0.81	0.81	U	0.81	15	U	15	0.81	U	0.81
1,1-Dichloroethene	0.79	U	0.79	0.79	U	0.79	14	U	14	0.79	U	0.79
1,2,4-Trichlorobenzene	7.4	U	7.4	7.4	U	7.4	130	U	130	7.4	U	7.4
1,2,4-Trimethylbenzene	0.98	U	0.98	0.98	U	0.98	18	U	18	0.98	U	0.98
1,2-Dibromoethane (EDB)	1.5	U	1.5	1.5	U	1.5	28	U	28	1.5	U	1.5
1,2-Dichloro-1,1,2,2-tetrafluoroethane	1.4	U	1.4	1.4	U	1.4	25	U	25	1.4	U	1.4
1,2-Dichlorobenzene	1.2	U	1.2	1.2	U	1.2	22	U	22	1.2	U	1.2
1,2-Dichloroethane	0.81	U	0.81	0.81	U	0.81	15	U	15	0.81	U	0.81
1,2-Dichloropropane	0.92	U	0.92	0.92	U	0.92	17	U	17	0.92	U	0.92
1,3,5-Trimethylbenzene	0.98	U	0.98	0.98	U	0.98	18	U	18	0.98	U	0.98
1,3-Dichlorobenzene	1.2	U	1.2	1.2	U	1.2	22	U	22	1.2	U	1.2
1,4-Dichlorobenzene	1.2	U	1.2	1.2	U	1.2	22	U	22	1.2	U	1.2
Benzene	0.64	U	0.64	1.4		0.64	12	U	12	0.94		0.64
Bromomethane	0.78	U	0.78	0.78	U	0.78	14	U	14	0.78	U	0.78
Carbon tetrachloride	1.3	U	1.3	1.3	U	1.3	23	U	23	1.3	U	1.3
Chlorobenzene	0.92	U	0.92	0.92	U	0.92	17	U	17	0.92	U	0.92
Chloroethane	0.53	U	0.53	0.53	U	0.53	9.6	U	9.6	0.53	U	0.53
Chloroform	0.98	U	0.98	0.98	U	0.98	18	U	18	0.98	U	0.98
Chloromethane	1.3		1.0	1.2		1.0	19.0	U	19.0	1.0	U	1.0
cis-1,2-Dichloroethene	0.79	U	0.79	0.79	U	0.79	14	U	14	0.79	U	0.79
cis-1,3-Dichloropropene	0.91	U	0.91	0.91	U	0.91	17	U	17	0.91	U	0.91
Dichlorodifluoromethane	**4.6**		0.99	**5.2**		0.99	18	U	18	2.5		0.99
Ethylbenzene	0.87	U	0.87	0.87	U	0.87	16	U	16	0.87	U	0.87
Hexachlorobutadiene	11	U	11	11	U	11	190	U	190	11	U	11
Isopropylbenzene	2.0	U	2.0	2.0	U	2.0	36	U	36	2.0	U	2.0
Methyl tert-butyl ether	3.6	U	3.6	3.6	U	3.6	66	U	66	3.6	U	3.6
Methylene chloride	1.7	U	1.7	1.7	U	1.7	32	U	32	1.7	U	1.7
m-Xylene & p-Xylene	0.87	U	0.87	1.0		0.87	**19**		16	0.87	U	0.87
Naphthalene	2.6	U	2.6	2.6	U	2.6	48	U	48	2.6	U	2.6
n-Butane	6.0		0.95	5.5		0.95	17	U	17	1.7		0.95
n-Decane	5.8	U	5.8	5.8	U	5.8	110	U	110	5.8	U	5.8
n-Dodecane	7.0	UJ	7.0	7.0	UJ	7.0	130	U	130	7.0	UJ	7.0
n-Heptane	2.0	U	2.0	2.0	U	2.0	37	U	37	2.0	U	2.0
n-Hexane	1.8	U	1.8	1.8	U	1.8	32	U	32	1.8	U	1.8
n-Octane	1.9	U	1.9	1.9	U	1.9	34	U	34	1.9	U	1.9
Nonane	2.6	U	2.6	2.6	U	2.6	48	U	48	2.6	U	2.6
n-Undecane	6.4	U	6.4	6.4	U	6.4	120	U	120	6.4	U	6.4
o-Xylene	0.87	U	0.87	0.87	U	0.87	16	U	16	0.87	U	0.87
Pentane	3.0	U	3.0	3.0	U	3.0	54	U	54.0	3.0	U	3.0
Styrene	0.85	U	0.85	0.85	U	0.85	15	U	15	0.85	U	0.85
Tetrachloroethene	1.4	U	1.4	1.4	U	1.4	25	U	25	1.4	U	1.4
Toluene	0.75	U	0.75	6.3		0.75	21		14	1.7		0.75
trans-1,3-Dichloropropene	0.91	U	0.91	0.91	U	0.91	17	U	17	0.91	U	0.91
Trichloroethene	1.1	U	1.1	1.1	U	1.1	20	U	20	1.1	U	1.1
Trichlorofluoromethane	1.5		1.1	2.2		1.1	20	U	20	1.3		1.1
Vinyl chloride	0.51	U	0.51	0.51	U	0.51	9.3	U	9.3	0.51	U	0.51
Tentatively Identified Compounds (TICs)												
1,2,3-Trimethylbenzene	ND		*	ND		*	ND		*	ND		*
1-Methylnaphthalene	ND		*	ND		*	ND		*	ND		*
2,2,4-Trimethylpentane	ND		*	ND		*	ND		*	ND		*
2,3-Dimethylheptane	ND		*	ND		*	ND		*	ND		*
2,3-Dimethylpentane	ND		*	ND		*	ND		*	ND		*
2-Methylnaphthalene	ND		*	ND		*	ND		*	ND		*
Butylcyclohexane	ND		*	ND		*	ND		*	ND		*
Indane	ND		*	ND		*	ND		*	ND		*
Indene	ND		*	ND		*	ND		*	ND		*
Isopentane	ND		*	ND		*	ND		*	ND		*
Total VOCs (µg/m3)	13			23			40			8.1		

Notes:
NL - Not Listed
ND - Not Detected
MDL = Method Detection Limit
Q - Qualifier
U - Compound was analyzed for but not detected at or above the MDL. The associated numerical value is the sample reporting limit
J - Associated numerical value is an estimated quantity
R - Result was rejected because one or more QC measures did not meet acceptance criteria
RL - Reporting limit
N - compound identified as a tentatively identified compound (TIC)
* - compounds reported as TICs are not calibrated for and do not have a reporting limit
Bolded results exceed the NYSDOH 75% Indoor Background values from homes with fuel oil heat

[1] NY DOH Background values from the NYSDOH Study of Volatile Organic Chemicals in Air of Fuel Oil Heated Homes, 1997 - 2003
[2] USEPA Background values from the NYSDOH Vapor Intrusion Guidance - Table 3 1994 - 1998

Table B-23
Soil Vapor Intrusion VOC Results
Norwich Former MGP Site, Norwich, New York

Sample	NYSDOH	NYSDOH	USEPA	USEPA	NO-41 FRF			NO-41FRS			NO-42FRB		
Sample Type	Background	Background	Indoor	Outdoor	1st Floor			Sub-slab			Basement		
Sample Depth/Height	75% Indoor[1]	75% Outdoor[1]	Background[2]	Background[2]	3 ft. above ground			3 ft. below ground			3 ft. above ground		
Sample Date					3/24/2006 6:20			3/24/2006 6:15			3/24/2006 9:30		
Dilution Factor					1			1			1		
Volatile Organic Compounds (µg/m3)					Conc	Q	RL	Conc	Q	RL	Conc	Q	RL
1,1,1-Trichloroethane	1.1	0.33	2.6 - 11	< 0.6 - 1.7	1.1	U	1.1	1.1	U	1.1	1.1	U	1.1
1,1,2,2-Tetrachloroethane	<0.25	<0.25	NL	NL	1.4	U	1.4	1.4	U	1.4	1.4	U	1.4
1,1,2-Trichloro-1,2,2-trifluoroethane	1.1	1.1	NL	NL	1.5	U	1.5	1.5	U	1.5	1.5	U	1.5
1,1,2-Trichloroethane	<0.25	<0.25	< 1.3	< 12	1.1	U	1.1	1.1	U	1.1	1.1	U	1.1
1,1-Dichloroethane	<0.25	<0.25	< 0.5	< 0.4	0.81	U	0.81	0.81	U	0.81	0.81	U	0.81
1,1-Dichloroethene	< 0.25	< 0.25	< 1.1	< 1.0	0.79	U	0.79	0.79	U	0.79	0.79	U	0.79
1,2,4-Trichlorobenzene	<0.25	< 0.25	NL	NL	7.4	U	7.4	7.4	U	7.4	7.4	U	7.4
1,2,4-Trimethylbenzene	4.3	0.81	1.7 - 5.1	< 1.6 - 3.1	1.0		0.98	**5.0**		0.98	0.98	U	0.98
1,2-Dibromoethane (EDB)	<0.25	<0.25	< 1.3	< 1.2	1.5	U	1.5	1.5	U	1.5	1.5	U	1.5
1,2-Dichloro-1,1,2,2-tetrafluoroethane	< 0.25	< 0.25	NL	NL	1.4	U	1.4	1.4	U	1.4	1.4	U	1.4
1,2-Dichlorobenzene	< 0.25	< 0.25	< 0.9	< 1.0	1.2	U	1.2	1.2	U	1.2	1.2	U	1.2
1,2-Dichloroethane	< 0.25	<0.25	< 0.6	< 0.6	0.81	U	0.81	0.81	U	0.81	0.81	U	0.81
1,2-Dichloropropane	<0.25	<0.25	< 1.4	< 1.4	0.92	U	0.92	0.92	U	0.92	0.92	U	0.92
1,3,5-Trimethylbenzene	1.7	0.34	< 1.5	< 1.4	0.98	U	0.98	1.3		0.98	0.98	U	0.98
1,3-Dichlorobenzene	< 0.25	< 0.25	< 0.8	< 0.8	1.2	U	1.2	1.2	U	1.2	1.2	U	1.2
1,4-Dichlorobenzene	0.54	< 0.25	NL	NL	1.2	U	1.2	1.2	U	1.2	1.2	U	1.2
Benzene	5.9	2.3	2.1 - 5.1	1.2 - 3.7	1.5		0.64	1.5		0.64	1.2		0.64
Bromomethane	<0.25	<0.25	< 0.9	< 1.0	0.78	U	0.78	0.78	U	0.78	0.78	U	0.78
Carbon tetrachloride	0.59	0.6	< 0.9	< 1.0	1.3	U	1.3	1.3	U	1.3	1.3	U	1.3
Chlorobenzene	<0.25	<0.25	< 0.7	< 0.8	0.92	U	0.92	0.92	U	0.92	0.92	U	0.92
Chloroethane	< 0.25	< 0.25	NL	NL	0.53	U	0.53	0.53	U	0.53	0.53	U	0.53
Chloroform	0.54	< 0.25	< 0.5	< 0.4	0.98	U	0.98	0.98	U	0.98	0.98	U	0.98
Chloromethane	1.8	1.8	2.1 - 3.1	2.0 - 3.0	1.5		1.0	1.0	U	1.0	1.2		1.0
cis-1,2-Dichloroethene	<0.25	<0.25	< 1.0	< 1.0	0.79	U	0.79	0.79	U	0.79	0.79	U	0.79
cis-1,3-Dichloropropene	< 0.25	< 0.25	NL	NL	0.91	U	0.91	0.91	U	0.91	0.91	U	0.91
Dichlorodifluoromethane	4.1	4.2	NL	NL	3.1		0.99	2.6		0.99	3		0.99
Ethylbenzene	2.8	0.48	< 1.6 - 3.4	< 1.4 - 1.6	0.87	U	0.87	**6.1**		0.87	0.87	U	0.87
Hexachlorobutadiene	<0.25	<0.25	NL	NL	11	U	11	11	U	11	11	U	11
Isopropylbenzene	0.4	< 0.25	NL	NL	2.0	U	2.0	2.0	U	2.0	2.0	U	2.0
Methyl tert-butyl ether	5.6	0.86	< 1.7 - 12	< 1.8	3.6	U	3.6	3.6	U	3.6	3.6	U	3.6
Methylene chloride	6.6	0.73	< 1.7 - 5.0	< 1.8 - 3.0	1.7	U	1.7	**15**		1.7	1.7	U	1.7
m-Xylene & p-Xylene	4.6	0.48	4.1 - 12	< 3.6 - 7.3	1.6		0.87	**15**		0.87	0.96		0.87
Naphthalene	NL	NL	< 2.5	< 2.4	2.6	U	2.6	2.6	U	2.6	2.6	U	2.6
n-Butane	NL	NL	NL	NL	5.1	J	0.95	0.96		0.95	4.2		0.95
n-Decane	6.6	2	NL	NL	5.8	U	5.8	5.8	U	5.8	5.8	U	5.8
n-Dodecane	3.9	1.9	NL	NL	7.0	UJ	7.0	7.0	UJ	7.0	7.0	UJ	7.0
n-Heptane	7.6	1.0	NL	NL	2.0	U	2.0	2.3		2.0	2.0	U	2.0
n-Hexane	6.0	0.88	1.6 - 6.4	< 1.2 - 2.7	1.8	U	1.8	1.9		1.8	1.8	U	1.8
n-Octane	2.3	0.65	NL	NL	1.9	U	1.9	**4.5**		1.9	1.9	U	1.9
Nonane	3.4	0.37	NL	NL	2.6	U	2.6	**19**		2.6	2.6	U	2.6
n-Undecane	5.0	0.67	NL	NL	6.4	U	6.4	6.4	U	6.4	6.4	U	6.4
o-Xylene	3.1	0.56	< 2.4 - 4.4	< 1.4 - 2.6	0.87	U	0.87	**5.1**		0.87	0.87	U	0.87
Pentane	NL	NL	NL	NL	3.0	U	3.0	3.0	U	3.0	3.0	U	3.0
Styrene	0.64	<0.25	< 1.8	< 1.6	0.85	U	0.85	**3.1**		0.85	0.85	U	0.85
Tetrachloroethene	1.1	0.34	< 1.9 - 5.9	< 1.4 - 3.0	1.4	U	1.4	1.4	U	1.4	1.4	U	1.4
Toluene	24.8	2.4	10.7 - 26	5.9 - 16	3.8		0.75	22		0.75	2.4		0.75
trans-1,3-Dichloropropene	< 0.25	< 0.25	NL	NL	0.91	U	0.91	0.91	U	0.91	0.91	U	0.91
Trichloroethene	<0.25	<0.25	< 1.2 - 1.2	< 1.5	1.1	U	1.1	1.1	U	1.1	1.1	U	1.1
Trichlorofluoromethane	5.4	2.2	NL	NL	1.8		1.1	1.2		1.1	1.5		1.1
Vinyl chloride	<0.25	<0.25	< 0.9	< 1.0	0.51	U	0.51	0.51	U	0.51	0.51	U	0.51
Tentatively Identified Compounds (TICs)													
1,2,3-Trimethylbenzene	1.1	< 0.25	NL	NL	ND		*	ND		*	ND		*
1-Methylnaphthalene	NL	NL	NL	NL	ND		*	ND		*	ND		*
2,2,4-Trimethylpentane	NL	NL	NL	NL	ND		*	ND		*	ND		*
2,3-Dimethylheptane	NL	NL	NL	NL	ND		*	ND		*	ND		*
2,3-Dimethylpentane	2.2	0.31	NL	NL	ND		*	ND		*	ND		*
2-Methylnaphthalene	NL	NL	NL	NL	ND		*	ND		*	ND		*
Butylcyclohexane	NL	NL	NL	NL	ND		*	ND		*	ND		*
Indane	NL	NL	NL	NL	ND		*	ND		*	ND		*
Indene	NL	NL	NL	NL	ND		*	ND		*	ND		*
Isopentane	NL	NL	NL	NL	ND		*	ND		*	ND		*
Total VOCs (µg/m^3)					19			110			14		

Sample	NO-42FRF			NO-42FRS			NO-43FRB			NO-43FRF			NO-43FRS		
Sample Type	1st Floor			Sub-slab			Basement			1st Floor			Sub-slab		
Sample Depth/Height	3 ft. above ground			2 in. below slab			3 ft. above ground			3 ft. above ground			3 ft. below ground		
Sample Date	3/24/2006 9:42			3/24/2006 9:35			3/28/2006 5:24			3/28/2006 5:30			3/28/2006 5:24		
Dilution Factor	1			1			1			1			4		
Volatile Organic Compounds (µg/m3)	Conc	Q	RL	Conc	Q	RL	Conc	Q	RL	Conc	Q	RL	Conc	Q	RL
1,1,1-Trichloroethane	1.1	U	1.1	**1.2**		1.1	1.1	U	1.1	1.1	U	1.1	4.4	U	4.4
1,1,2,2-Tetrachloroethane	1.4	U	1.4	1.4	U	1.4	1.4	U	1.4	1.4	U	1.4	5.5	U	5.5
1,1,2-Trichloro-1,2,2-trifluoroethane	1.5	U	1.5	1.5	U	1.5	1.5	U	1.5	1.5	U	1.5	6.1	U	6.1
1,1,2-Trichloroethane	1.1	U	1.1	1.1	U	1.1	1.1	U	1.1	1.1	U	1.1	4.4	U	4.4
1,1-Dichloroethane	0.81	U	0.81	0.81	U	0.81	0.81	U	0.81	0.81	U	0.81	3.2	U	3.2
1,1-Dichloroethene	0.79	U	0.79	0.79	U	0.79	0.79	U	0.79	0.79	U	0.79	3.2	U	3.2
1,2,4-Trichlorobenzene	7.4	U	7.4	7.4	U	7.4	7.4	U	7.4	7.4	U	7.4	30	U	30
1,2,4-Trimethylbenzene	1.7		0.98	**7.9**		0.98	0.98	U	0.98	1.7		0.98	**5.3**		3.9
1,2-Dibromoethane (EDB)	1.5	U	1.5	1.5	U	1.5	1.5	U	1.5	1.5	U	1.5	6.1	U	6.1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	1.4	U	1.4	1.4	U	1.4	1.4	U	1.4	1.4	U	1.4	5.6	U	5.6
1,2-Dichlorobenzene	1.2	U	1.2	1.2	U	1.2	1.2	U	1.2	1.2	U	1.2	4.8	U	4.8
1,2-Dichloroethane	**1.6**		0.81	0.81	U	0.81	0.81	U	0.81	0.81	U	0.81	3.2	U	3.2
1,2-Dichloropropane	0.92	U	0.92	0.92	U	0.92	0.92	U	0.92	0.92	U	0.92	3.7	U	3.7
1,3,5-Trimethylbenzene	0.98	U	0.98	**1.8**		1.0	0.98	U	0.98	0.98	U	0.98	3.9	U	3.9
1,3-Dichlorobenzene	1.2	U	1.2	1.2	U	1.2	1.2	U	1.2	1.2	U	1.2	4.8	U	4.8
1,4-Dichlorobenzene	1.2	U	1.2	1.2	U	1.2	1.2	U	1.2	1.2	U	1.2	4.8	U	4.8
Benzene	3.9		0.64	5.6		0.64	1.3		0.64	2.3		0.64	3.3		2.6
Bromomethane	0.78	U	0.78	0.78	U	0.78	0.78	U	0.78	0.78	U	0.78	3.1	U	3.1
Carbon tetrachloride	1.3	U	1.3	1.3	U	1.3	1.3	U	1.3	1.3	U	1.3	5	U	5
Chlorobenzene	0.92	U	0.92	0.92	U	0.92	0.92	U	0.92	0.92	U	0.92	3.7	U	3.7
Chloroethane	0.53	U	0.53	0.53	U	0.53	0.53	U	0.53	0.53	U	0.53	2.1	U	2.1
Chloroform	**1.9**		0.98	**1.4**		1.0	0.98	U	0.98	0.98	U	0.98	3.9	U	3.9
Chloromethane	**3.7**		1.0	1.0	U	1.0	1.2		1.0	1.4		1.0	4.1	U	4.1
cis-1,2-Dichloroethene	0.79	U	0.79	0.79	U	0.79	0.79	U	0.79	0.79	U	0.79	3.2	U	3.2
cis-1,3-Dichloropropene	0.91	U	0.91	0.91	U	0.91	0.91	U	0.91	0.91	U	0.91	3.6	U	3.6
Dichlorodifluoromethane	3.2		0.99	2.9		0.99	2.5		0.99	2.8		0.99	4	U	4.0
Ethylbenzene	**3.2**		0.87	**6.5**		0.87	0.87	U	0.87	1.1		0.87	**5.5**		3.5
Hexachlorobutadiene	11	U	11	11	U	11	11	U	11	11	U	11	43	U	43
Isopropylbenzene	2.0	U	2.0	2.0	U	2.0	2.0	U	2.0	2.0	U	2.0	7.9	U	7.9
Methyl tert-butyl ether	3.6	U	3.6	3.6	U	3.6	3.6	U	3.6	3.6	U	3.6	14	U	14
Methylene chloride	1.7	U	1.7	**25**		1.7	1.7	U	1.7	1.7	U	1.7	6.9	U	6.9
m-Xylene & p-Xylene	**8.7**		0.87	**17**		0.87	2.2		0.87	3.4		0.87	**14**		3.5
Naphthalene	2.6	U	2.6	2.6	U	2.6	2.6	U	2.6	2.6	U	2.6	10	U	10
n-Butane	10		0.95	11		1.0	4.8		0.95	11		0.95	9.2		3.8
n-Decane	5.8	U	5.8	5.8	U	5.8	5.8	U	5.8	5.8	U	5.8	23	U	23
n-Dodecane	7.0	UJ	7.0	7.0	UJ	7.0	7.0	UJ	7.0	7.0	UJ	7.0	28.0	UJ	28
n-Heptane	2.0	U	2.0	6.7		2.0	2.0	U	2.0	6.0		2.0	8.2	U	8.2
n-Hexane	1.8	U	1.8	**7.5**		1.8	1.8	U	1.8	1.8	U	1.8	7	U	7
n-Octane	1.9	U	1.9	**16**		1.9	1.9	U	1.9	**6.1**		1.9	7.5	U	7.5
Nonane	2.6	U	2.6	**22**		2.6	**19**		2.6	**43**		2.6	**110**		10
n-Undecane	6.4	U	6.4	6.4	U	6.4	6.4	U	6.4	6.4	U	6.4	26	U	26
o-Xylene	2.4		0.87	**6**		0.87	0.95		0.87	1.2		0.87	**4.9**		3.5
Pentane	3.0		3.0	8.3		3.0	3.0	U	3.0	3.0	U	3.0	12.0	U	12.0
Styrene	**2.0**		0.85	**2.8**		0.85	0.9	U	0.85	0.9	U	0.85	3.4	U	3.4
Tetrachloroethene	1.4	U	1.4	1.4	U	1.4	1.4	U	1.4	1.4	U	1.4	5.4	U	5.4
Toluene	22		0.75	24		0.75	4.1		0.75	11		0.75	23		3.0
trans-1,3-Dichloropropene	0.91	U	0.91	0.91	U	0.91	0.91	U	0.91	0.91	U	0.91	3.6	U	3.6
Trichloroethene	**2.0**		1.1	**1.2**		1.1	1.1	U	1.1	1.1	U	1.1	4.3	U	4.3
Trichlorofluoromethane	1.6		1.1	1.3		1.1	1.4		1.1	2.3		1.1	4.5	U	4.5
Vinyl chloride	0.51	U	0.51	0.51	U	0.51	0.51	U	0.51	0.51	U	0.51	2	U	2.0
Tentatively Identified Compounds (TICs)															
1,2,3-Trimethylbenzene	ND		*	ND		*	ND		*	ND		*	ND		*
1-Methylnaphthalene	ND		*	ND		*	ND		*	ND		*	ND		*
2,2,4-Trimethylpentane	ND		*	ND		*	ND		*	ND		*	ND		*
2,3-Dimethylheptane	ND		*	ND		*	ND		*	ND		*	ND		*
2,3-Dimethylpentane	ND		*	ND		*	ND		*	ND		*	ND		*
2-Methylnaphthalene	ND		*	ND		*	ND		*	ND		*	ND		*
Butylcyclohexane	ND		*	ND		*	ND		*	ND		*	ND		*
Indane	ND		*	ND		*	ND		*	ND		*	ND		*
Indene	ND		*	ND		*	ND		*	ND		*	ND		*
Isopentane	19	NJ		ND		*	ND		*	18	NJ	*	ND		*
Total VOCs (µg/m^3)	91			180			37			110			180		

Sample	NO-45FRB			NO-45FRF			NO-45FRS			NO-LCF			NO-LCS		
Sample Type	Basement			1st Floor			Sub-slab			1st Floor			Sub-slab		
Sample Depth/Height	3 ft. above ground			3 ft. above ground			2 in. below slab			3 ft. above ground			2 in. below slab		
Sample Date	3/28/2006 2:29			3/28/2006 2:40			3/28/2006 2:29			3/29/2006 10:40			3/29/2006 10:40		
Dilution Factor	20			11.76			4			1			10		
Volatile Organic Compounds (µg/m3)	Conc	Q	RL	Conc	Q	RL	Conc	Q	RL	Conc	Q	RL	Conc	Q	RL
1,1,1-Trichloroethane	22	U	22	13	U	13	4.4	U	4.4	1.1	U	1.1	**67**		11
1,1,2,2-Tetrachloroethane	27	U	27	16	U	16	5.5	U	5.5	1.4	U	1.4	14	U	14
1,1,2-Trichloro-1,2,2-trifluoroethane	31	U	31	18	U	18	6.1	U	6.1	1.5	U	1.5	15	U	15
1,1,2-Trichloroethane	22	U	22	13	U	13	4.4	U	4.4	1.1	U	1.1	11	U	11
1,1-Dichloroethane	16	U	16	9.5	U	9.5	3.2	U	3.2	0.81	U	0.81	8.1	U	8.1
1,1-Dichloroethene	16	U	16	9.3	U	9.3	3.2	U	3.2	0.79	U	0.79	7.9	U	7.9
1,2,4-Trichlorobenzene	150	U	150	87	U	87	30	U	30	7.4	U	7.4	74	U	74
1,2,4-Trimethylbenzene	20	U	20	12	U	12	**6.3**		3.9	1.4		0.98	**10**		9.8
1,2-Dibromoethane (EDB)	31	U	31	18	U	18	6.1	U	6.1	1.5	U	1.5	15	U	15
1,2-Dichloro-1,1,2,2-tetrafluoroethane	28	U	28	16	U	16	5.6	U	5.6	1.4	U	1.4	14	U	14
1,2-Dichlorobenzene	24	U	24	14	U	14	4.8	U	4.8	1.2	U	1.2	12	U	12
1,2-Dichloroethane	16	U	16	9.5	U	9.5	3.2	U	3.2	0.81	U	0.81	8.1	U	8.1
1,2-Dichloropropane	18	U	18	11	U	11	3.7	U	3.7	0.92	U	0.92	9.2	U	9.2
1,3,5-Trimethylbenzene	20	U	20	12	U	12	3.9	U	3.9	0.98	U	0.98	9.8	U	9.8
1,3-Dichlorobenzene	24	U	24	14	U	14	4.8	U	4.8	1.2	U	1.2	12	U	12
1,4-Dichlorobenzene	24	U	24	14	U	14	4.8	U	4.8	1.2	U	1.2	12	U	12
Benzene	**30**		13	**22**		7.5	**14**		2.6	1.2		0.64	**15**		6.4
Bromomethane	16	U	16	9.1	U	9.1	3.1	U	3.1	0.78	U	0.78	7.8	U	7.8
Carbon tetrachloride	25	U	25	15	U	15	5	U	5	1.3	U	1.3	13	U	13
Chlorobenzene	18	U	18	11	U	11	3.7	U	3.7	0.92	U	0.92	9.2	U	9.2
Chloroethane	11	U	11	6.2	U	6.2	2.1	U	2.1	0.53	U	0.53	5.3	U	5.3
Chloroform	20	U	20	11	U	11	3.9	U	3.9	0.98	U	0.98	9.8	U	9.8
Chloromethane	21.0	U	21	12.0	U	12	4.1	U	4.1	1.3		1.0	10.0	U	10
cis-1,2-Dichloroethene	16	U	16	9.3	U	9.3	3.2	U	3.2	0.79	U	0.79	7.9	U	7.9
cis-1,3-Dichloropropene	18	U	18	11	U	11	3.6	U	3.6	0.91	U	0.91	9.1	U	9.1
Dichlorodifluoromethane	20	U	20	12	U	12	4	U	4.0	2.7		0.99	**38**		9.9
Ethylbenzene	17	U	17	10	U	10	**4.6**		3.5	1.2		0.87	8.7	U	8.7
Hexachlorobutadiene	210	U	210	130	U	130	43	U	43	11	U	11	110	U	110
Isopropylbenzene	39.0	U	39	23.0	U	23	7.9	U	7.9	2.0	U	2.0	20.0	U	20
Methyl tert-butyl ether	72	U	72	42	U	42	14	U	14	3.6	U	3.6	36	U	36
Methylene chloride	35	U	35	20	U	20	6.9	U	6.9	1.7	U	1.7	17	U	17
m-Xylene & p-Xylene	**31**		17	**25**		10	**15**		3.5	4.2		0.87	**25**		8.7
Naphthalene	52	U	52	31	U	31	10	U	10	2.6	U	2.6	26	U	26
n-Butane	420		19	270		11	120		3.8	15		0.95	19		9.5
n-Decane	120	U	120	68	U	68	23	U	23	5.8	U	5.8	58	U	58
n-Dodecane	140.0	UJ	140	82.0	UJ	82	28.0	U	28	7.0	UJ	7.0	70.0	UJ	70
n-Heptane	41.0	U	41	24.0	U	24	**13.0**		8.2	2.0	U	2.0	**22.0**		20
n-Hexane	35	U	35	21	U	21	**19**		7	1.8	U	1.8	18	U	18
n-Octane	37	U	37	22	U	22	**20**		7.5	1.9	U	1.9	**28**		19
Nonane	52	U	52	31	U	31	**16**		10	2.7		2.6	**27**		26
n-Undecane	130	U	130	75	U	75	26	U	26	6.4	U	6.4	64	U	64
o-Xylene	17	U	17	10	U	10	**4.8**		3.5	1.7		0.87	**10**		8.7
Pentane	64.0		59.0	45.0		35.0	30.0		12.0	3.0	U	3.0	30.0	U	30
Styrene	17.0	U	17	10.0	U	10	3.4	U	3.4	0.9	U	0.85	8.5	U	8.5
Tetrachloroethene	27	U	27	16	U	16	5.4	U	5.4	1.4	U	1.4	14	U	14
Toluene	**64**		15	**52**		8.9	**28**		3	4.9		0.75	23		7.5
trans-1,3-Dichloropropene	18	U	18	11	U	11	3.6	U	3.6	0.91	U	0.91	9.1	U	9.1
Trichloroethene	21.0	U	21	13.0	U	13	4.3	U	4.3	1.1	U	1.1	11.0	U	11
Trichlorofluoromethane	22	U	22	13	U	13	4.5	U	4.5	2.4		1.1	**180**		11
Vinyl chloride	10	U	10	6	U	6.0	2	U	2.0	0.51	U	0.51	5.1	U	5.1
Tentatively Identified Compounds (TICs)															
1,2,3-Trimethylbenzene	ND		*	ND		*	ND		*	ND		*	ND		*
1-Methylnaphthalene	ND		*	ND		*	ND		*	ND		*	ND		*
2,2,4-Trimethylpentane	ND		*	ND		*	ND		*	ND		*	ND		*
2,3-Dimethylheptane	ND		*	ND		*	ND		*	ND		*	ND		*
2,3-Dimethylpentane	ND		*	ND		*	ND		*	ND		*	ND		*
2-Methylnaphthalene	ND		*	ND		*	ND		*	ND		*	ND		*
Butylcyclohexane	ND		*	ND		*	ND		*	ND		*	ND		*
Indane	ND		*	ND		*	ND		*	ND		*	ND		*
Indene	ND		*	ND		*	ND		*	ND		*	ND		*
Isopentane	210	NJ	*	150	NJ	*	ND		*	ND		*	ND		*
Total VOCs (µg/m^3)	820			570			290			39			460		

Notes:
NL - Not Listed
ND - Not Detected
MDL = Method Detection Limit
Q - Qualifier
U - Compound was analyzed for but not detected at or above the MDL. The associated numerical value is the sample reporting limit
J - Associated numerical value is an estimated quantity
R - Result was rejected because one or more QC measures did not meet acceptance criteria
RL - Reporting limit
N - compound identified as a tentatively identified compound (TIC)
* - compounds reported as TICs are not calibrated for and do not have a reporting limit
Bolded results exceed the NYSDOH 75% Indoor Background values from homes with fuel oil heat

[1] NY DOH Backgrou [1] NY DOH Background values from the NYSDOH Study of Volatile Organic Chemicals in Air of Fuel Oil Heated Homes, 1997 - 2003
[2] USEPA Backgrou [2] USEPA Background values from the NYSDOH Vapor Intrusion Guidance - Table 3 1994 - 1998

Table B-23
Soil Vapor Intrusion VOC Results
Norwich Former MGP Site, Norwich, New York

Sample	NYSDOH	NYSDOH	USEPA	USEPA	NO-BK-062203			NO-BK062403			NO-BK062803			NO-BK062903		
Sample Type	Background	Background	Indoor	Outdoor	Ambient Air			Ambient Air			Ambient Air			Ambient Air		
Sample Depth/Height	75% Indoor[1]	75% Outdoor[1]	Background[2]	Background[2]	3 ft above ground			3 ft. above ground			3 ft. above ground			3 ft. above ground		
Sample Date					3/23/2006 9:25			3/24/2006 8:48			3/28/2006 1:53			3/29/2006 14:02		
Dilution Factor					1			1			1			1		
Volatile Organic Compounds (µg/m3)					Conc	Q	RL	Conc	Q	RL	Conc	Q	RL	Conc	Q	RL
1,1,1-Trichloroethane	1.1	0.33	2.6 - 11	< 0.6 - 1.7	1.1	U	1.1	1.1	U	1.1	1.1	U	1.1	1.1	U	1.1
1,1,2,2-Tetrachloroethane	<0.25	<0.25	NL	NL	1.4	U	1.4	1.4	U	1.4	1.4	U	1.4	1.4	U	1.4
1,1,2-Trichloro-1,2,2-trifluoroethane	1.1	1.1	NL	NL	1.5	U	1.5	1.5	U	1.5	1.5	U	1.5	1.5	U	1.5
1,1,2-Trichloroethane	<0.25	<0.25	< 1.3	< 12	1.1	U	1.1	1.1	U	1.1	1.1	U	1.1	1.1	U	1.1
1,1-Dichloroethane	<0.25	<0.25	< 0.5	< 0.4	0.81	U	0.81	0.81	U	0.81	0.81	U	0.81	0.81	U	0.81
1,1-Dichloroethene	< 0.25	< 0.25	< 1.1	< 1.0	0.79	U	0.79	0.79	U	0.79	0.79	U	0.79	0.79	U	0.79
1,2,4-Trichlorobenzene	<0.25	< 0.25	NL	NL	7.4	U	7.4	7.4	U	7.4	7.4	U	7.4	7.4	U	7.4
1,2,4-Trimethylbenzene	4.3	0.81	1.7 - 5.1	< 1.6 - 3.1	0.98	U	0.98	3.2		0.98	0.98	U	0.98	0.98	U	0.98
1,2-Dibromoethane (EDB)	<0.25	<0.25	< 1.3	< 1.2	1.5	U	1.5	1.5	U	1.5	1.5	U	1.5	1.5	U	1.5
1,2-Dichloro-1,1,2,2-tetrafluoroethane	< 0.25	< 0.25	NL	NL	1.4	U	1.4	1.4	U	1.4	1.4	U	1.4	1.4	UJ	1.4
1,2-Dichlorobenzene	< 0.25	< 0.25	< 0.9	< 1.0	1.2	U	1.2	1.2	U	1.2	1.2	U	1.2	1.2	U	1.2
1,2-Dichloroethane	< 0.25	<0.25	< 0.6	< 0.6	0.81	U	0.81	0.81	U	0.81	0.81	U	0.81	0.81	U	0.81
1,2-Dichloropropane	<0.25	<0.25	< 1.4	< 1.4	0.92	U	0.92	0.92	U	0.92	0.92	U	0.92	0.92	U	0.92
1,3,5-Trimethylbenzene	1.7	0.34	< 1.5	< 1.4	0.98	U	0.98	1		0.98	0.98	U	0.98	0.98	U	0.98
1,3-Dichlorobenzene	< 0.25	< 0.25	< 0.8	< 0.8	1.2	U	1.2	1.2	U	1.2	1.2	U	1.2	1.2	U	1.2
1,4-Dichlorobenzene	0.54	< 0.25	NL	NL	1.2	U	1.2	1.2	U	1.2	1.2	U	1.2	1.2	U	1.2
Benzene	5.9	2.3	2.1 - 5.1	1.2 - 3.7	0.77		0.64	1.5		0.64	1.3		0.64	1.3		0.64
Bromomethane	<0.25	<0.25	< 0.9	< 1.0	0.78	U	0.78	0.78	U	0.78	0.78	U	0.78	0.78	U	0.78
Carbon tetrachloride	0.59	0.6	< 0.9	< 1.0	1.3	U	1.3	1.3	U	1.3	1.3	U	1.3	1.3	U	1.3
Chlorobenzene	<0.25	<0.25	< 0.7	< 0.8	0.92	U	0.92	0.92	U	0.92	0.92	U	0.92	0.92	U	0.92
Chloroethane	< 0.25	< 0.25	NL	NL	0.53	U	0.53	0.53	U	0.53	0.53	U	0.53	0.53	U	0.53
Chloroform	0.54	< 0.25	< 0.5	< 0.4	0.98	U	0.98	0.98	U	0.98	0.98	U	0.98	0.98	U	0.98
Chloromethane	1.8	1.8	2.1 - 3.1	2.0 - 3.0	1.2		1.0	1.2		1.0	1.0	U	1.0	1.0	UJ	1.0
cis-1,2-Dichloroethene	<0.25	<0.25	< 1.0	< 1.0	0.79	U	0.79	0.79	U	0.79	0.79	U	0.79	0.79	U	0.79
cis-1,3-Dichloropropene	< 0.25	< 0.25	NL	NL	0.91	U	0.91	0.91	U	0.91	0.91	U	0.91	0.91	U	0.91
Dichlorodifluoromethane	4.1	4.2	NL	NL	2.5		0.99	3.1		0.99	2.1		0.99	2.1		0.99
Ethylbenzene	2.8	0.48	< 1.6 - 3.4	< 1.4 - 1.6	0.87	U	0.87	1.1		0.87	0.87	U	0.87	0.87	U	0.87
Hexachlorobutadiene	<0.25	<0.25	NL	NL	11	U	11	11	U	11	11	U	11	11	U	11
Isopropylbenzene	0.4	< 0.25	NL	NL	2.0	U	2.0	2.0	U	2.0	2.0	U	2.0	2.0	U	2.0
Methyl tert-butyl ether	5.6	0.86	< 1.7 - 12	< 1.8	3.6	U	3.6	3.6	U	3.6	3.6	U	3.6	3.6	UJ	3.6
Methylene chloride	6.6	0.73	< 1.7 - 5.0	< 1.8 - 3.0	1.7	U	1.7	1.7	U	1.7	1.7	U	1.7	1.7	U	1.7
m-Xylene & p-Xylene	4.6	0.48	4.1 - 12	< 3.6 - 7.3	0.87	U	0.87	3.3		0.87	1.6		0.87	1.5		0.87
Naphthalene	NL	NL	< 2.5	< 2.4	2.6	U	2.6	2.6	U	2.6	2.6	U	2.6	2.6	U	2.6
n-Butane	NL	NL	NL	NL	1.1		0.95	2.8		0.95	2.9		0.95	2.6	J	0.95
n-Decane	6.6	2	NL	NL	5.8	U	5.8	5.8	U	5.8	5.8	U	5.8	5.8	U	5.8
n-Dodecane	3.9	1.9	NL	NL	7.0	UJ	7.0	7.0	UJ	7.0	7.0	U	7.0	7.0	U	7.0
n-Heptane	7.6	1.0	NL	NL	2.0	U	2.0	2.0	U	2.0	2.0	U	2.0	2.0	U	2.0
n-Hexane	6.0	0.88	1.6 - 6.4	< 1.2 - 2.7	1.8	U	1.8	2.1		1.8	1.8	U	1.8	1.8	U	1.8
n-Octane	2.3	0.65	NL	NL	1.9	U	1.9	1.9	U	1.9	1.9	U	1.9	1.9	U	1.9
Nonane	3.4	0.37	NL	NL	2.6	U	2.6	2.6	U	2.6	2.6		2.6	3.2		2.6
n-Undecane	5.0	0.67	NL	NL	6.4	U	6.4	6.4	U	6.4	6.4	U	6.4	6.4	U	6.4
o-Xylene	3.1	0.56	< 2.4 - 4.4	< 1.4 - 2.6	0.87	U	0.87	1.3		0.87	0.87	U	0.87	0.87	U	0.87
Pentane	NL	NL	NL	NL	3.0	U	3.0	3.0	U	3.0	3.0	U	3.0	3.0	U	3.0
Styrene	0.64	<0.25	< 1.8	< 1.6	0.85	U	0.85	0.85	U	0.85	0.85	U	0.85	0.85	U	0.85
Tetrachloroethene	1.1	0.34	< 1.9 - 5.9	< 1.4 - 3.0	1.4	U	1.4	1.4	U	1.4	1.4	U	1.4	1.4	U	1.4
Toluene	24.8	2.4	10.7 - 26	5.9 - 16	1.0		0.75	5.3		0.75	3.2		0.75	2.9		0.75
trans-1,3-Dichloropropene	< 0.25	< 0.25	NL	NL	0.91	U	0.91	0.91	U	0.91	0.91	U	0.91	0.91	U	0.91
Trichloroethene	<0.25	<0.25	< 1.2 - 1.2	< 1.5	1.1	U	1.1	1.1	U	1.1	1.1	U	1.1	1.1	U	1.1
Trichlorofluoromethane	5.4	2.2	NL	NL	1.2		1.1	1.3		1.1	1.1	U	1.1	1.1	U	1.1
Vinyl chloride	<0.25	<0.25	< 0.9	< 1.0	0.51	U	0.51	0.51	U	0.51	0.51	U	0.51	0.51	UJ	0.51
Tentatively Identified Compounds (TICs)																
1,2,3-Trimethylbenzene	1.1	< 0.25	NL	NL	ND		*	ND		*	ND		*	ND		*
1-Methylnaphthalene	NL	NL	NL	NL	ND		*	ND		*	ND		*	ND		*
2,2,4-Trimethylpentane	NL	NL	NL	NL	ND		*	ND		*	ND		*	ND		*
2,3-Dimethylheptane	NL	NL	NL	NL	ND		*	ND		*	ND		*	ND		*
2,3-Dimethylpentane	2.2	0.31	NL	NL	ND		*	ND		*	ND		*	ND		*
2-Methylnaphthalene	NL	NL	NL	NL	ND		*	ND		*	ND		*	ND		*
Butylcyclohexane	NL	NL	NL	NL	ND		*	ND		*	ND		*	ND		*
Indane	NL	NL	NL	NL	ND		*	ND		*	ND		*	ND		*
Indene	NL	NL	NL	NL	ND		*	ND		*	ND		*	ND		*
Isopentane	NL	NL	NL	NL	ND		*	ND		*	8.6	NJ	*	ND		*
Total VOCs (µg/m³)					7.8			27			23			14		

Sample	NO-CE062203			NO-MI062403			NO-M1062803			NO-MI062903		
Sample Type	Ambient Air			Ambient Air			Ambient Air			Ambient Air		
Sample Depth/Height	3 ft. above ground			3 ft. above ground			3 ft. above ground			3 ft. above ground		
Sample Date	3/23/2006 9:15			3/24/2006 9:50			3/28/2006 5:50			3/29/2006 14:50		
Dilution Factor	1			1			1			1		
Volatile Organic Compounds (µg/m3)	Conc	Q	RL	Conc	Q	RL	Conc	Q	RL	Conc	Q	RL
1,1,1-Trichloroethane	1.1	U	1.1	1.1	U	1.1	1.1	U	1.1	1.1	U	1.1
1,1,2,2-Tetrachloroethane	1.4	U	1.4	1.4	U	1.4	1.4	U	1.4	1.4	U	1.4
1,1,2-Trichloro-1,2,2-trifluoroethane	1.5	U	1.5	1.5	U	1.5	1.5	U	1.5	1.5	U	1.5
1,1,2-Trichloroethane	1.1	U	1.1	1.1	U	1.1	1.1	U	1.1	1.1	U	1.1
1,1-Dichloroethane	0.81	U	0.81	0.81	U	0.81	0.81	U	0.81	0.81	U	0.81
1,1-Dichloroethene	0.79	U	0.79	0.79	U	0.79	0.79	U	0.79	0.79	U	0.79
1,2,4-Trichlorobenzene	7.4	U	7.4	7.4	U	7.4	7.4	U	7.4	7.4	U	7.4
1,2,4-Trimethylbenzene	0.98	U	0.98	0.98	U	0.98	0.98	U	0.98	0.98	U	0.98
1,2-Dibromoethane (EDB)	1.5	U	1.5	1.5	U	1.5	1.5	U	1.5	1.5	U	1.5
1,2-Dichloro-1,1,2,2-tetrafluoroethane	1.4	U	1.4	1.4	U	1.4	1.4	U	1.4	1.4	UJ	1.4
1,2-Dichlorobenzene	1.2	U	1.2	1.2	U	1.2	1.2	U	1.2	1.2	U	1.2
1,2-Dichloroethane	0.81	U	0.81	0.81	U	0.81	0.81	U	0.81	0.81	U	0.81
1,2-Dichloropropane	0.92	U	0.92	0.92	U	0.92	0.92	U	0.92	0.92	U	0.92
1,3,5-Trimethylbenzene	0.98	U	0.98	0.98	U	0.98	0.98	U	0.98	0.98	U	0.98
1,3-Dichlorobenzene	1.2	U	1.2	1.2	U	1.2	1.2	U	1.2	1.2	U	1.2
1,4-Dichlorobenzene	1.2	U	1.2	1.2	U	1.2	1.2	U	1.2	1.2	U	1.2
Benzene	0.8		0.64	1.2		0.64	2.6		0.64	1.2		0.64
Bromomethane	0.78	U	0.78	0.78	U	0.78	0.78	U	0.78	0.78	U	0.78
Carbon tetrachloride	1.3	U	1.3	1.3	U	1.3	1.3	U	1.3	1.3	U	1.3
Chlorobenzene	0.92	U	0.92	0.92	U	0.92	0.92	U	0.92	0.92	U	0.92
Chloroethane	0.53	U	0.53	0.53	U	0.53	0.53	U	0.53	0.53	U	0.53
Chloroform	0.98	U	0.98	0.98	U	0.98	0.98	U	0.98	0.98	U	0.98
Chloromethane	1.6		1.0	1.3		1.0	1.4		1.0	1.0	UJ	1.0
cis-1,2-Dichloroethene	0.79	U	0.79	0.79	U	0.79	0.79	U	0.79	0.79	U	0.79
cis-1,3-Dichloropropene	0.91	U	0.91	0.91	U	0.91	0.91	U	0.91	0.91	U	0.91
Dichlorodifluoromethane	2.9		0.99	2.9		0.99	2.9		0.99	2		0.99
Ethylbenzene	0.87	U	0.87	0.87	U	0.87	1.2		0.87	0.87	U	0.87
Hexachlorobutadiene	11	U	11	11	U	11	11	U	11	11	U	11
Isopropylbenzene	2.0	U	2.0	2.0	U	2.0	2.0	U	2.0	2.0	U	2.0
Methyl tert-butyl ether	3.6	U	3.6	3.6	U	3.6	3.6	U	3.6	3.6	UJ	3.6
Methylene chloride	1.7	U	1.7	1.7	U	1.7	1.7	U	1.7	1.7	U	1.7
m-Xylene & p-Xylene	0.87	U	0.87	1.0		0.87	3.3		0.87	1.4		0.87
Naphthalene	2.6	U	2.6	2.6	U	2.6	2.6	U	2.6	2.6	U	2.6
n-Butane	1.5		0.95	2.4		0.95	8.1		0.95	2	J	0.95
n-Decane	5.8	U	5.8	5.8	U	5.8	5.8	U	5.8	5.8	U	5.8
n-Dodecane	7.0	UJ	7.0	7.0	UJ	7.0	7.0	UJ	7.0	7.0	U	7.0
n-Heptane	2.0	U	2.0	2.0	U	2.0	2.0	U	2.0	2.0	U	2.0
n-Hexane	1.8	U	1.8	1.8	U	1.8	1.8	U	1.8	1.8	U	1.8
n-Octane	1.9	U	1.9	1.9	U	1.9	1.9	U	1.9	1.9	U	1.9
Nonane	2.6	U	2.6	2.6	U	2.6	2.6	U	2.6	**4.9**		2.6
n-Undecane	6.4	U	6.4	6.4	U	6.4	6.4	U	6.4	6.4	U	6.4
o-Xylene	0.87	U	0.87	0.87	U	0.87	1.2		0.87	0.87	U	0.87
Pentane	3.0	U	3.0	3.0	U	3.0	3.6		3.0	3.0	U	3.0
Styrene	0.85	U	0.85	0.85	U	0.85	0.85	U	0.85	0.9	U	0.85
Tetrachloroethene	1.4	U	1.4	1.4	U	1.4	1.4	U	1.4	1.4	U	1.4
Toluene	1.8		0.75	2.6		0.75	7.2		0.75	2.7		0.75
trans-1,3-Dichloropropene	0.91	U	0.91	0.91	U	0.91	0.91	U	0.91	0.91	U	0.91
Trichloroethene	1.1	U	1.1	1.1	U	1.1	1.1	U	1.1	1.1	U	1.1
Trichlorofluoromethane	1.3		1.1	1.4		1.1	1.5		1.1	1.1	U	1.1
Vinyl chloride	0.51	U	0.51	0.51	U	0.51	0.51	U	0.51	0.51	UJ	0.51
Tentatively Identified Compounds (TICs)												
1,2,3-Trimethylbenzene	ND		*	ND		*	ND		*	ND		*
1-Methylnaphthalene	ND		*	ND		*	ND		*	ND		*
2,2,4-Trimethylpentane	ND		*	ND		*	ND		*	ND		*
2,3-Dimethylheptane	ND		*	ND		*	ND		*	ND		*
2,3-Dimethylpentane	ND		*	ND		*	ND		*	ND		*
2-Methylnaphthalene	ND		*	ND		*	ND		*	ND		*
Butylcyclohexane	ND		*	ND		*	ND		*	ND		*
Indane	ND		*	ND		*	ND		*	ND		*
Indene	ND		*	ND		*	ND		*	ND		*
Isopentane	ND		*	ND		*	11	NJ	*	ND		*
Total VOCs (µg/m³)	9.9			13			44			14		

Sample	NO-UP062203			NO-UP062403			NO-UP062803			NO-UP062903		
Sample Type	Ambient Air			Ambient Air			Ambient Air			Ambient Air		
Sample Depth/Height	3 ft. above ground			3 ft. above ground			3 ft. above ground			3 ft. above ground		
Sample Date	3/22/2006 7:55			3/24/2006 10:25			3/28/2006 5:57			3/29/2006 14:58		
Dilution Factor	1			1			1			1		
Volatile Organic Compounds (µg/m3)	Conc	Q	RL	Conc	Q	RL	Conc	Q	RL	Conc	Q	RL
1,1,1-Trichloroethane	1.1	U	1.1	1.1	U	1.1	1.1	U	1.1	1.1	U	1.1
1,1,2,2-Tetrachloroethane	1.4	U	1.4	1.4	U	1.4	1.4	U	1.4	1.4	U	1.4
1,1,2-Trichloro-1,2,2-trifluoroethane	1.5	U	1.5	1.5	U	1.5	1.5	U	1.5	1.5	U	1.5
1,1,2-Trichloroethane	1.1	U	1.1	1.1	U	1.1	1.1	U	1.1	1.1	U	1.1
1,1-Dichloroethane	0.81	U	0.81	0.81	U	0.81	0.81	U	0.81	0.81	U	0.81
1,1-Dichloroethene	0.79	U	0.79	0.79	U	0.79	0.79	U	0.79	0.79	U	0.79
1,2,4-Trichlorobenzene	7.4	U	7.4	7.4	U	7.4	7.4	U	7.4	7.4	U	7.4
1,2,4-Trimethylbenzene	0.98	U	0.98	0.98	U	0.98	0.98	U	0.98	0.98	U	0.98
1,2-Dibromoethane (EDB)	1.5	U	1.5	1.5	U	1.5	1.5	U	1.5	1.5	U	1.5
1,2-Dichloro-1,1,2,2-tetrafluoroethane	1.4	U	1.4	1.4	U	1.4	1.4	U	1.4	1.4	U	1.4
1,2-Dichlorobenzene	1.2	U	1.2	1.2	U	1.2	1.2	U	1.2	1.2	U	1.2
1,2-Dichloroethane	0.81	U	0.81	0.81	U	0.81	0.81	U	0.81	0.81	U	0.81
1,2-Dichloropropane	0.92	U	0.92	0.92	U	0.92	0.92	U	0.92	0.92	U	0.92
1,3,5-Trimethylbenzene	0.98	U	0.98	0.98	U	0.98	0.98	U	0.98	0.98	U	0.98
1,3-Dichlorobenzene	1.2	U	1.2	1.2	U	1.2	1.2	U	1.2	1.2	U	1.2
1,4-Dichlorobenzene	1.2	U	1.2	1.2	U	1.2	1.2	U	1.2	1.2	U	1.2
Benzene	0.93		0.64	1.2		0.64	1.5		0.64	1.2		0.64
Bromomethane	0.78	U	0.78	0.78	U	0.78	0.78	U	0.78	0.78	U	0.78
Carbon tetrachloride	1.3	U	1.3	1.3	U	1.3	1.3	U	1.3	1.3	U	1.3
Chlorobenzene	0.92	U	0.92	0.92	U	0.92	0.92	U	0.92	0.92	U	0.92
Chloroethane	0.53	U	0.53	0.53	U	0.53	0.53	U	0.53	0.53	U	0.53
Chloroform	0.98	U	0.98	0.98	U	0.98	0.98	U	0.98	0.98	U	0.98
Chloromethane	1.4		1.0	1.7		1.0	1.1	J	1.0	1.2		1.0
cis-1,2-Dichloroethene	0.79	U	0.79	0.79	U	0.79	0.79	U	0.79	0.79	U	0.79
cis-1,3-Dichloropropene	0.91	U	0.91	0.91	U	0.91	0.91	U	0.91	0.91	U	0.91
Dichlorodifluoromethane	2.5		0.99	3.0		0.99	2.5		0.99	2.4		0.99
Ethylbenzene	0.87	U	0.87	0.87	U	0.87	0.87	U	0.87	0.87	U	0.87
Hexachlorobutadiene	11	U	11	11	U	11	11	U	11	11	UJ	11
Isopropylbenzene	2.0	U	2.0	2.0	U	2.0	2.0	U	2.0	2.0	U	2.0
Methyl tert-butyl ether	3.6	U	3.6	3.6	U	3.6	3.6	U	3.6	3.6	U	3.6
Methylene chloride	1.7	U	1.7	1.7	U	1.7	1.7	U	1.7	1.7	U	1.7
m-Xylene & p-Xylene	0.95		0.87	0.87	U	0.87	2.6		0.87	0.87	U	0.87
Naphthalene	2.6	U	2.6	2.6	U	2.6	2.6	U	2.6	2.6	U	2.6
n-Butane	1.3		0.95	2.0		0.95	4.9		0.95	3.8		0.95
n-Decane	5.8	U	5.8	5.8	U	5.8	5.8	U	5.8	5.8	U	5.8
n-Dodecane	7.0	UJ	7.0	7.0	UJ	7.0	7.0	UJ	7.0	7.0	U	7.0
n-Heptane	2.0	U	2.0	2.0	U	2.0	2.0	U	2.0	2.0	U	2.0
n-Hexane	1.8	U	1.8	1.8	U	1.8	1.8	U	1.8	1.8	U	1.8
n-Octane	1.9	U	1.9	1.9	U	1.9	1.9	U	1.9	1.9	U	1.9
Nonane	2.6	U	2.6	2.6	U	2.6	**4.2**		2.6	2.6	U	2.6
n-Undecane	6.4	U	6.4	6.4	U	6.4	6.4	U	6.4	6.4	U	6.4
o-Xylene	0.87	U	0.87	0.87	U	0.87	1.1		0.87	0.87	U	0.87
Pentane	3.0	U	3.0	3.0	U	3.0	3.0	U	3.0	3.0	U	3.0
Styrene	0.85	U	0.85	0.85	U	0.85	0.9	U	0.85	0.85	U	0.85
Tetrachloroethene	1.4	U	1.4	1.4	U	1.4	1.4	U	1.4	1.4	U	1.4
Toluene	1.5		0.75	2.1		0.75	4.3		0.75	0.75	U	0.75
trans-1,3-Dichloropropene	0.91	U	0.91	0.91	U	0.91	0.91	U	0.91	0.91	U	0.91
Trichloroethene	1.1	U	1.1	1.1	U	1.1	1.1	U	1.1	1.1	U	1.1
Trichlorofluoromethane	1.2		1.1	1.4		1.1	1.4		1.1	1.3		1.1
Vinyl chloride	0.51	U	0.51	0.51	U	0.51	0.51	U	0.51	0.51	U	0.51
Tentatively Identified Compounds (TICs)												
1,2,3-Trimethylbenzene	ND		*	ND		*	ND		*	ND		*
1-Methylnaphthalene	ND		*	ND		*	ND		*	ND		*
2,2,4-Trimethylpentane	ND		*	ND		*	ND		*	ND		*
2,3-Dimethylheptane	ND		*	ND		*	ND		*	ND		*
2,3-Dimethylpentane	ND		*	ND		*	ND		*	ND		*
2-Methylnaphthalene	ND		*	ND		*	ND		*	ND		*
Butylcyclohexane	ND		*	ND		*	ND		*	ND		*
Indane	ND		*	ND		*	ND		*	ND		*
Indene	ND		*	ND		*	ND		*	ND		*
Isopentane	ND		*	ND		*	ND		*	ND		*
Total VOCs (µg/m³)	9.8			11			24			9.9		

Notes:
NL - Not Listed
ND - Not Detected
MDL = Method Detection Limit
Q - Qualifier
U - Compound was analyzed for but not detected at or above the MDL. The associated numerical value is the sample reporting limit
J - Associated numerical value is an estimated quantity
R - Result was rejected because one or more QC measures did not meet acceptance criteria
RL - Reporting limit
N - compound identified as a tentatively identified compound (TIC)
* - compounds reported as TICs are not calibrated for and do not have a reporting limit
Bolded results exceed the NYSDOH 75% Indoor Background values from homes with fuel oil heat

[1] NY DOH Background values from the NYSDOH Study of Volatile Organic Chemicals in Air of Fuel Oil Heated Homes, 1997 - 2003
[2] USEPA Background values from the NYSDOH Vapor Intrusion Guidance - Table 3 1994 - 1998

Table B-24
Equipment Rinsate and Trip Blank VOC Results
Norwich Former MGP Site, Norwich, New York

Sample ID (Depth in Feet) / Laboratory Identification / Date Sampled	NO-RB102804 S5497-27 10/28/04	NO-FIELD BLANK 01 M46966-15 04/29/2005	TRIPBLANK S5893-05 11/19/2004	TRIP BLANK M46906-18 04/27/2005	NO-TB120905-01 M53200-11 12/09/2005	NO-TB120905-02 M53200-6 12/09/2005	NO-TB120905-03 M53200-15 12/09/2005	NO-TB121305 M53253-9 12/13/2005	NO-TB121405-01 M53280-6 12/14/2005	NO-TB121405-02 M53280-11 12/14/2005
Volatile Organic Compounds (µg/kg)										
1,1,1-Trichloroethane	10 U	2.0 U	NA	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	10 U	2.0 UJ	NA	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	10 U	2.0 U	NA	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichlorotrifluoroethane	10 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	10 U	2.0 U	NA	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	10 U	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	10 U	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dibromo-3-Chloropropane	10 U	5.0 UJ	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dibromoethane	10 U	2.0 U	NA	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,2-Dichlorobenzene	10 U	2.0 U	NA	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	10 U	2.0 U	NA	2.0 U	1.0 U	1.0 UJ	1.0 UJ	1.0 UJ	1.0 UJ	1.0 UJ
1,2-Dichloropropane	10 U	2.0 U	NA	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,3-Dichlorobenzene	10 U	2.0 U	NA	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	10 U	2.0 U	NA	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone	50 U	5.0 U	NA	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 UJ
2-Hexanone	50 U	5.0 UJ	NA	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Methyl-2-Pentanone	50 U	5.0 UJ	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acetone	50 U	5.0 UJ	NA	5.0 U	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ
Benzene	10 U	0.5 UJ	0.2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromodichloromethane	10 U	2.0 U	NA	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	10 U	2.0 U	NA	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane	10 U	2.0 U	NA	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Carbon Disulfide	10 U	5.0 U	NA	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon Tetrachloride	10 U	2.0 U	NA	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	10 U	2.0 UJ	NA	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	10 U	5.0 U	NA	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Chloroform	10 U	2.0 U	NA	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	10 U	5.0 U	NA	5.0 U	2.0 U	2.0 U	2.0 U	2.0 UJ	2.0 UJ	2.0 UJ
cis-1,2-Dichloroethene	10 U	2.0 U	NA	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	10 U	0.5 U	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Cyclohexane	10 U	5.0 U	NA	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dibromochloromethane	10 U	2.0 U	NA	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane	10 U	2.0 UJ	NA	2.0 U	2.0 UJ	2.0 U	2.0 U	2.0 UJ	2.0 UJ	2.0 UJ
Ethyl Benzene	10 U	1.0 U	0.18 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.35 J
Freon 113	NA	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Isopropylbenzene	10 U	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
m/p-Xylenes	10 U	NA	0.36 U	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	10 U	5.0 U	NA	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methyl tert-butyl Ether	10 U	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylcyclohexane	10 U	5.0 U	NA	5.0 U	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U	5.0 U	5.0 U
Methylene Chloride	10 J	2.0 U	NA	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
o-Xylene	10 U	NA	0.17 U	NA	NA	NA	NA	NA	NA	NA
Styrene	10 U	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
t-1,3-Dichloropropene	10 U	0.5 U	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	10 U	2.0 U	NA	2.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	10 U	1.0 U	0.19 U	1.0 U	1.4 U	1.0 U	1.0 U	1.0 U	0.55 J	1.0 U
trans-1,2-Dichloroethene	10 U	2.0 U	NA	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	NA	NA	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichloroethene	10 U	2.0 U	NA	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane	10 U	2.0 U	NA	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl Chloride	10 U	2.0 U	NA	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylene (total)	ND	1.0 U	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Total VOCs (µg/kg)	10	ND	ND	ND	ND	ND	ND	ND	ND	0.35

Notes:
NA = Not Analyzed
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.
Bold value - compound detected above regulatory standard or guidance value.

Sample ID Laboratory Identification Date Sampled	NO-RB102804 S5497-27 10/28/2004		NO-FIELD BLANK 01 M46966-15 04/29/2005		TRIPBLANK S5893-05 11/19/2004	
Semi-volatile Organic Compounds (µg/L)						
2-Methylnaphthalene	11	U	5.0	U	NA	
Acenaphthene	11	U	5.0	U	NA	
Acenaphthylene	11	U	5.0	U	NA	
Anthracene	11	U	5.0	U	NA	
Benzo(a)anthracene	11	U	5.0	U	NA	
Benzo(a)pyrene	11	U	5.0	U	NA	
Benzo(b)fluoranthene	11	U	5.0	U	NA	
Benzo(g,h,i)perylene	11	U	5.0	U	NA	
Benzo(k)fluoranthene	11	U	5.0	UJ	NA	
Chrysene	11	U	5.0	U	NA	
Dibenzo(a,h)anthracene	11	U	5.0	U	NA	
Fluoranthene	11	U	5.0	U	NA	
Fluorene	11	U	5.0	U	NA	
Indeno(1,2,3-cd)pyrene	11	U	5.0	U	NA	
Naphthalene	11	U	5.0	U	0.13	U
Phenanthrene	11	U	5.0	U	NA	
Pyrene	11	U	5.0	U	NA	
Total PAHs (µg/L)	ND		ND		ND	
Total CPAHs (µg/L)	ND		ND		ND	
1,1'-Biphenyl	11	U	10	U	NA	
1,2-Diphenylhydrazine	NA		5.0	U	NA	
2,2-oxybis(1-Chloropropane)	11	U	NA		NA	
2,4,5-Trichlorophenol	11	U	10	U	NA	
2,4,6-Trichlorophenol	11	U	10	U	NA	
2,4-Dichlorophenol	11	U	10	U	NA	
2,4-Dimethylphenol	11	U	10	U	NA	
2,4-Dinitrophenol	21	U	20	U	NA	
2,4-Dinitrotoluene	11	U	10	U	NA	
2,6-Dinitrotoluene	11	U	10	U	NA	
2-Chloronaphthalene	11	U	5.0	U	NA	
2-Chlorophenol	11	U	5.0	U	NA	
2-Methylphenol	11	U	10	U	NA	
2-Nitroaniline	11	U	10	U	NA	
2-Nitrophenol	11	U	10	U	NA	
3&4-Methylphenol	11	U	10	U	NA	
3,3'-Dichlorobenzidine	21	U	5.0	U	NA	
3-Nitroaniline	11	U	10	U	NA	
4,6-Dinitro-o-cresol	21	U	10	U	NA	
4-Bromophenyl phenyl ether	11	U	5.0	U	NA	
4-Chloro-3-methylphenol	11	U	10	U	NA	
4-Chloroaniline	11	U	10	U	NA	
4-Chlorophenyl phenyl ether	11	U	5.0	U	NA	
4-Nitroaniline	11	U	10	U	NA	
4-Nitrophenol	21	U	20	U	NA	
Acetophenone	11	U	10	U	NA	
Aniline	NA		10	UJ	NA	
Atrazine	11	U	10	U	NA	
Benzaldehyde	11	U	20	U	NA	
Benzoic Acid	NA		10	U	NA	
Bis(2-chloroethoxy) methane	11	U	5.0	U	NA	
Bis(2-chloroethyl) ether	11	U	5.0	U	NA	
Bis(2-Chloroisopropyl)ether	NA		5.0	U	NA	
Bis(2-ethylhexyl) phthalate	11	UJ	10	U	NA	
Butyl benzyl phthalate	11	U	10	U	NA	
Caprolactam	11	U	10	U	NA	
Carbazole	11	U	5.0	U	NA	
Dibenzofuran	11	U	5.0	U	NA	
Diethyl phthalate	11	U	10	U	NA	
Dimethyl phthalate	11	U	10	U	NA	
Di-n-butyl phthalate	11	U	10	U	NA	
Di-n-octyl phthalate	11	U	5.0	U	NA	
Hexachlorobenzene	11	U	5.0	U	NA	
Hexachlorobutadiene	11	U	10	U	NA	
Hexachlorocyclopentadiene	11	U	5.0	U	NA	
Hexachloroethane	11	U	5.0	U	NA	
Isophorone	11	U	5.0	U	NA	
Nitrobenzene	11	U	5.0	U	NA	
N-Nitroso-Di-n-propylamine	11	U	5.0	U	NA	
N-nitrosodiphenylamine	11	U	10	U	NA	
Pentachlorophenol	21	U	5.0	U	NA	
Phenol	11	U	NA		NA	
Total SVOCs (µg/L)[2]	ND		ND		ND	

Notes:
NA = Not Analyzed
NL = Not Listed
ND = Not Detected
MDL - Method Detection Limit
D = The concentration indicated was obtained from a diluted analytical run.
J = The associated numerical value is an estimated quantity.
R = The result was rejected because one or more QC measures did not meet acceptable criteria by validator during the review process
U = The material was analyzed for but not detected at or above the MDL. The associated numerical value is the sample reporting limit.

Table B-26
Field Duplicate VOC Results in Soil
Norwich Former MGP Site, Norwich, New York

Sample ID (Depth in Feet) Laboratory Identification Date Sampled	NO-DP14(18.7-20) M48323-9 06/16/2005		NO-DP14(18.7-20)DUP M48323-10 06/16/2005		**RPD**	NO-DP26(20-21.5) M46966-6 04/28/2005		NO-DP26(20-21.5)DUP M46966-7 04/28/2005		**RPD**
Volatile Organic Compounds (µg/kg)										
Acetone	180	U	180	U	NC	3,200	UJ	3,800	UJ	NC
Benzene	18	U	18	U	NC	27,100		29,300		8
Bromodichloromethane	73	U	70	U	NC	1,300	U	1,500	U	NC
Bromoform	73	U	70	U	NC	1,300	U	1,500	U	NC
Bromomethane	73	U	70	U	NC	1,300	U	1,500	U	NC
2-Butanone (MEK)	180	UJ	180	UJ	NC	3,200	U	3,800	U	NC
Carbon disulfide	180	UJ	180	UJ	NC	3,200	U	3,800	U	NC
Carbon tetrachloride	73	U	70	U	NC	1,300	U	1,500	U	NC
Chlorobenzene	73	U	70	U	NC	1,300	U	1,500	U	NC
Chloroethane	180	UJ	180	UJ	NC	3,200	U	3,800	U	NC
Chloroform	73	U	70	U	NC	1,300	U	1,500	U	NC
Chloromethane	180	U	180	U	NC	3,200	U	3,800	U	NC
Cyclohexane	180	UJ	180	UJ	NC	3,200	U	3,800	U	NC
1,2-Dibromo-3-chloropropane	180	U	180	U	NC	3,200	U	3,800	U	NC
Dibromochloromethane	73	U	70	U	NC	1,300	U	1,500	U	NC
1,2-Dibromoethane	73	U	70	U	NC	1,300	U	1,500	U	NC
1,2-Dichlorobenzene	73	U	70	U	NC	1,300	U	1,500	U	NC
1,3-Dichlorobenzene	73	U	70	U	NC	1,300	U	1,500	U	NC
1,4-Dichlorobenzene	73	U	70	U	NC	1,300	U	1,500	U	NC
Dichlorodifluoromethane	73	UJ	70	UJ	NC	1,300	UJ	1,500	UJ	NC
1,1-Dichloroethane	73	U	70	U	NC	1,300	U	1,500	U	NC
1,2-Dichloroethane	73	U	70	U	NC	1,300	U	1,500	U	NC
1,1-Dichloroethene	73	U	70	U	NC	1,300	U	1,500	U	NC
cis-1,2-Dichloroethene	73	U	70	U	NC	1,300	U	1,500	U	NC
trans-1,2-Dichloroethene	73	U	70	U	NC	1,300	U	1,500	U	NC
1,2-Dichloropropane	73	U	70	U	NC	1,300	U	1,500	U	NC
cis-1,3-Dichloropropene	73	U	70	U	NC	1,300	U	1,500	U	NC
trans-1,3-Dichloropropene	73	UJ	70	UJ	NC	1,300	U	1,500	U	NC
Ethylbenzene	10	J	15	J	40	668,000		581,000		14
Freon 113	180	U	180	U	NC	3,200	U	3,800	U	NC
2-Hexanone	180	UJ	180	UJ	NC	3,200	UJ	3,800	UJ	NC
Isopropylbenzene	17.1	J	31	J	58	62,700		66,300		6
Methyl Acetate	180	U	180	U	NC	3,200	U	3,800	U	NC
Methylcyclohexane	180	UJ	259	J	NC	3,200	U	3,800	U	NC
Methyl Tert Butyl Ether	73	U	70	U	NC	1,300	U	1,500	U	NC
4-Methyl-2-pentanone (MIBK)	180	U	180	U	NC	3,200	U	3,800	U	NC
Methylene chloride	73	U	70	U	NC	1,300	U	1,500	U	NC
Styrene	180	UJ	180	UJ	NC	3,340		3,800	U	NC
1,1,2,2-Tetrachloroethane	73	U	70	U	NC	1,300	U	1,500	U	NC
Tetrachloroethene	73	U	70	U	NC	1,300	U	1,500	U	NC
Toluene	73	U	70	U	NC	193,000	J	205,000	J	6
1,2,4-Trichlorobenzene	180	U	180	U	NC	3,200	U	3,800	U	NC
1,1,1-Trichloroethane	73	U	70	U	NC	1,300	U	1,500	U	NC
1,1,2-Trichloroethane	73	U	70	U	NC	1,300	U	1,500	U	NC
Trichloroethene	73	U	70	U	NC	1,300	U	1,500	U	NC
Trichlorofluoromethane	73	UJ	70	UJ	NC	1,300	U	1,500	U	NC
Vinyl chloride	73	U	70	U	NC	1,300	U	1,500	U	NC
Xylene (total)	29.7	J	46.3	J	44	519,000		546,000		5
Total VOCs (µg/kg)	57		350		144	1,500,000		1,400,000		7

Notes:
RPD = Relative Percent Difference
NC = Not Calculated
NA = Not Analyzed
ND = Not Detected
MDL - Minimum 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.

Table B-27
Field Duplicate SVOC Results in Soil
Norwich Former MGP Site, Norwich, New York

Sample ID (Depth in Feet) Laboratory Identification Date Sampled	NO-DP14(18.7-20) M48323-9 06/16/2005		NO-DP14(18.7-20)DUP M48323-10 06/16/2005		**RPD**	NO-DP26(20-21.5) M46966-6 04/28/2005		NO-DP26(20-21.5)DUP M46966-7 04/28/2005		**RPD**
Semi-volatile Organic Compounds (µg/kg)										
2-Methylnaphthalene	1,480		2,730		59	3,650,000		3,360,000		8
Acenaphthene	4,210		6,430		42	899,000		893,000		1
Acenaphthylene	1,230		2,000		48	679,000		645,000		5
Anthracene	4,150		5,820		34	611,000		620,000	U	NC
Benz(a)anthracene	2,640		4,210		46	590,000	U	620,000	U	NC
Benzo(a)pyrene	2,550		4,030		45	590,000	U	620,000	U	NC
Benzo(b)fluoranthene	1,130		1,960		54	590,000	U	620,000	U	NC
Benzo(g,h,i)perylene	950		1,540		47	590,000	U	620,000	U	NC
Benzo(k)fluoranthene	1,230		1,760		35	590,000	U	620,000	U	NC
Chrysene	2,350		3,470		38	590,000	U	620,000	U	NC
Dibenz(a,h)anthracene	308	J	549	J	56	590,000	U	620,000	U	NC
Fluoranthene	5,230	J	9,420	J	57	764,000		723,000		6
Fluorene	5,040		9,340		60	890,000		864,000		3
Indeno(1,2,3-cd)pyrene	706		1,170		49	590,000	U	620,000	U	NC
Naphthalene	491		1,170		82	6,230,000		5,740,000		8
Phenanthrene	15,800		25,700		48	2,010,000		1,970,000		2
Pyrene	7,400	J	13,100	J	56	924,000		902,000		2
Total PAHs (µg/kg)	57,000		94,000		49	17,000,000		15,000,000		13
Total CPAHs (µg/kg)	11,000		17,000		43	ND		ND		NC
1,1'-Biphenyl	1,050		1,810		53	1,200,000	U	1,200,000	U	NC
1,2-Diphenylhydrazine	300	U	300	U	NC	590,000	U	620,000	U	NC
2,4,5-Trichlorophenol	610	U	600	U	NC	1,200,000	U	1,200,000	U	NC
2,4,6-Trichlorophenol	610	U	600	U	NC	1,200,000	U	1,200,000	U	NC
2,4-Dichlorophenol	610	U	600	U	NC	1,200,000	U	1,200,000	U	NC
2,4-Dimethylphenol	610	U	600	U	NC	1,200,000	U	1,200,000	U	NC
2,4-Dinitrophenol	1,200	U	1,200	U	NC	2,400,000	UJ	2,500,000	UJ	NC
2,4-Dinitrotoluene	610	U	600	U	NC	1,200,000	U	1,200,000	U	NC
2,6-Dinitrotoluene	610	U	600	U	NC	1,200,000	U	1,200,000	U	NC
2-Chloronaphthalene	300	U	300	U	NC	590,000	U	620,000	U	NC
2-Chlorophenol	300	U	300	U	NC	590,000	U	620,000	U	NC
2-Methylphenol	610	U	600	U	NC	1,200,000	U	1,200,000	U	NC
2-Nitroaniline	610	U	600	U	NC	1,200,000	U	1,200,000	U	NC
2-Nitrophenol	610	U	600	U	NC	1,200,000	U	1,200,000	U	NC
3&4-Methylphenol	610	U	600	U	NC	1,200,000	U	1,200,000	U	NC
3,3'-Dichlorobenzidine	300	U	300	U	NC	590,000	U	620,000	U	NC
3-Nitroaniline	610	U	600	U	NC	1,200,000	U	1,200,000	U	NC
4,6-Dinitro-o-cresol	610	U	600	U	NC	1,200,000	U	1,200,000	U	NC
4-Bromophenyl phenyl ether	300	U	300	U	NC	590,000	U	620,000	U	NC
4-Chloro-3-methyl phenol	610	U	600	U	NC	1,200,000	U	1,200,000	U	NC
4-Chloroaniline	610	UJ	600	UJ	NC	1,200,000	UJ	1,200,000	UJ	NC
4-Chlorophenyl phenyl ether	300	U	300	U	NC	590,000	U	620,000	U	NC
4-Nitroaniline	610	U	600	U	NC	1,200,000	U	1,200,000	U	NC
4-Nitrophenol	1,200	U	1,200	U	NC	2,400,000	U	2,500,000	U	NC
Acetophenone	610	U	600	U	NC	1,200,000	U	1,200,000	U	NC
Aniline	610	UJ	600	UJ	NC	1,200,000	U	1,200,000	U	NC
Atrazine	610	UJ	600	UJ	NC	1,200,000	U	1,200,000	U	NC
Benzaldehyde	1,200	U	1,200	U	NC	2,400,000	U	2,500,000	U	NC
Benzoic acid	610	U	600	U	NC	1,200,000	U	1,200,000	U	NC
bis(2-Chloroethoxy)methane	300	U	300	U	NC	590,000	U	620,000	U	NC
bis(2-Chloroethyl)ether	300	U	300	U	NC	590,000	U	620,000	U	NC
bis(2-Chloroisopropyl)ether	300	U	300	U	NC	590,000	U	620,000	U	NC
bis(2-Ethylhexyl)phthalate	610	U	600	U	NC	1,200,000	U	1,200,000	U	NC
Butyl benzyl phthalate	610	U	600	U	NC	1,200,000	U	1,200,000	U	NC
Caprolactam	610	U	600	U	NC	1,200,000	U	1,200,000	U	NC
Carbazole	300	U	300	U	NC	590,000	U	620,000	U	NC
Dibenzofuran	300	U	391		NC	590,000	U	620,000	U	NC
Diethyl phthalate	610	U	600	U	NC	1,200,000	U	1,200,000	U	NC
Dimethyl phthalate	610	U	600	U	NC	1,200,000	U	1,200,000	U	NC
Di-n-butyl phthalate	610	U	600	U	NC	1,200,000	U	1,200,000	U	NC
Di-n-octyl phthalate	610	U	600	U	NC	1,200,000	U	1,200,000	U	NC
Hexachlorobenzene	300	U	300	U	NC	590,000	U	620,000	U	NC
Hexachlorobutadiene	300	U	300	U	NC	590,000	U	620,000	U	NC
Hexachlorocyclopentadiene	610	U	600	U	NC	1,200,000	U	1,200,000	U	NC
Hexachloroethane	300	U	300	U	NC	590,000	U	620,000	U	NC
Isophorone	300	U	300	U	NC	590,000	U	620,000	U	NC
Nitrobenzene	300	U	300	U	NC	590,000	U	620,000	U	NC
N-Nitroso-di-n-propylamine	300	U	300	U	NC	590,000	U	620,000	U	NC
N-Nitrosodiphenylamine	300	U	300	U	NC	590,000	U	620,000	U	NC
Pentachlorophenol	610	U	600	U	NC	1,200,000	U	1,200,000	U	NC
Phenol	300	U	300	U	NC	590,000	U	620,000	U	NC
Total SVOCs (µg/Kg)[2]	58,000		97,000		50	17,000,000		15,000,000		13

Notes:
RPD = Relative Percent Difference
NC = Not Calculated
NA = Not Analyzed
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.
CPAHs - Carcinogenic PAHs which are shown in bold and italics

Table B-28
Field Duplicate VOC Results in Groundwater
Norwich Former MGP Site, Norwich, New York

Sample ID	NO-GW04-16		NO-GW04-16DUP		**RPD**	NO-PZ05		NO-PZ05DUP		**RPD**	NO-PZ09		NO-PZ09DUP		**RPD**	NO-PZ10		NO-PZ10DUP		**RPD**
Laboratory Identification	M53253-7		M53253-8			M53162-6		M53162-7			M53200-9		M53200-10			M49539-13		M49539-14		
Date Sampled	12/13/2005		12/13/2005			12/08/2005		12/08/2005			12/09/2005		12/09/2005			07/26/2005		07/26/2005		
Volatile Organic Compounds (µg/L)																				
Acetone	5.0	UJ	5.0	UJ	NC	5.0	U	5.0	U	NC	5.0	UJ	5.0	UJ	NC	5.0	U	5.0	U	NC
Benzene	7.7		7.4		4	**54**		**56**		3	**272**		**277**		2	20.6		**22.1**		7
Bromodichloromethane	1.0	U	1.0	U	NC	1.0	U	1.0	U	NC	1.0	U	1.0	U	NC	1.0	U	1.0	U	NC
Bromoform	1.0	U	1.0	U	NC	1.0	U	1.0	U	NC	1.0	U	1.0	U	NC	1.0	U	1.0	U	NC
Bromomethane	2.0	U	2.0	U	NC	2.0	UJ	2.0	UJ	NC	2.0	U	2.0	U	NC	2.0	U	2.0	U	NC
2-Butanone (MEK)	5.0	UJ	5.0	UJ	NC	5.0	U	5.0	U	NC	5.0	U	5.0	U	NC	5.0	U	5.0	U	NC
Carbon disulfide	5.0	U	5.0	U	NC	5.0	U	5.0	U	NC	5.0	U	5.0	U	NC	1.1		0.81	J	30
Carbon tetrachloride	1.0	U	1.0	U	NC	1.0	U	1.0	U	NC	1.0	U	1.0	U	NC	1.0	U	1.0	U	NC
Chlorobenzene	1.0	U	1.0	U	NC	1.0	U	1.0	U	NC	1.0	U	1.0	U	NC	1.0	U	1.0	UJ	NC
Chloroethane	2.0	U	2.0	U	NC	2.0	U	2.0	U	NC	2.0	U	2.0	U	NC	2.0	U	2.0	U	NC
Chloroform	1.0	U	1.0	U	NC	1.0	U	1.0	U	NC	1.0	U	1.0	U	NC	1.0	U	1.0	U	NC
Chloromethane	2.0	UJ	2.0	UJ	NC	2.0	U	2.0	U	NC	2.0	U	2.0	U	NC	2.0	U	2.0	U	NC
Cyclohexane	5.0	U	5.0	U	NC	5.0	U	5.0	U	NC	0.59	J	0.58	J	2	5.0	U	5.0	U	NC
1,2-Dibromo-3-chloropropane	5.0	U	5.0	U	NC	5.0	U	5.0	U	NC	5.0	U	5.0	U	NC	5.0	U	5.0	U	NC
Dibromochloromethane	1.0	U	1.0	U	NC	1.0	U	1.0	U	NC	1.0	U	1.0	U	NC	1.0	U	1.0	U	NC
1,2-Dibromoethane	2.0	U	2.0	U	NC	2.0	U	2.0	U	NC	2.0	U	2.0	U	NC	2.0	U	2.0	U	NC
1,2-Dichlorobenzene	1.0	U	1.0	U	NC	1.0	U	1.0	U	NC	0.34	J	1.0	U	NC	1.0	U	1.0	U	NC
1,3-Dichlorobenzene	1.0	U	1.0	U	NC	1.0	U	1.0	U	NC	0.30	J	1.0	U	NC	1.0	U	1.0	U	NC
1,4-Dichlorobenzene	1.0	U	1.0	U	NC	1.0	U	1.0	U	NC	1.0	U	1.0	U	NC	1.0	U	1.0	U	NC
Dichlorodifluoromethane	2.0	UJ	2.0	UJ	NC	2.0	UJ	2.0	UJ	NC	2.0	U	2.0	U	NC	2.0	U	2.0	U	NC
1,1-Dichloroethane	1.0	U	1.0	U	NC	1.0	U	1.0	U	NC	1.0	U	1.0	U	NC	1.0	U	1.0	U	NC
1,2-Dichloroethane	1.0	UJ	1.0	UJ	NC	1.0	UJ	1.0	UJ	NC	1.0	UJ	1.0	UJ	NC	1.0	U	1.0	U	NC
1,1-Dichloroethene	1.0	U	1.0	U	NC	1.0	U	1.0	U	NC	1.0	U	1.0	U	NC	1.0	U	1.0	U	NC
cis-1,2-Dichloroethene	1.0	U	1.0	U	NC	1.0	U	1.0	U	NC	1.0	U	1.0	U	NC	1.0	U	1.0	U	NC
trans-1,2-Dichloroethene	1.0	U	1.0	U	NC	1.0	U	1.0	U	NC	1.0	U	1.0	U	NC	1.0	U	1.0	U	NC
1,2-Dichloropropane	2.0	U	2.0	U	NC	2.0	U	2.0	U	NC	2.0	U	2.0	U	NC	2.0	U	2.0	U	NC
cis-1,3-Dichloropropene	0.50	U	0.50	U	NC	0.50	U	0.50	U	NC	0.50	U	0.50	U	NC	0.50	U	0.50	U	NC
trans-1,3-Dichloropropene	0.50	U	0.50	U	NC	0.50	U	0.50	U	NC	0.50	U	0.50	U	NC	0.50	U	0.50	U	NC
Ethylbenzene	36.1		35.4		2	44		46		4	**388**		**392**		1	174		**200**		14
Freon 113	5.0	U	5.0	U	NC	5.0	U	5.0	U	NC	5.0	U	5.0	U	NC	5.0	U	5.0	U	NC
2-Hexanone	5.0	U	5.0	U	NC	5.0	UJ	5.0	UJ	NC	5.0	U	5.0	U	NC	5.0	U	5.0	U	NC
Isopropylbenzene	5.0		4.9		2	19		19		3	**40**		**40**		0	22.6		**26.6**		16
Methyl Acetate	5.0	U	5.0	U	NC	5.0	U	5.0	U	NC	5.0	U	5.0	U	NC	5.0	U	5.0	U	NC
Methylcyclohexane	5.0	U	5.0	U	NC	5.0	U	5.0	U	NC	1.3	J	1.2	J	8	5.0	U	5.0	U	NC
Methyl Tert Butyl Ether	1.0	U	1.0	U	NC	1.0	U	1.0	U	NC	1.0	U	1.0	U	NC	1.0	U	1.0	U	NC
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	U	NC	5.0	U	5.0	U	NC	5.0	U	5.0	U	NC	5.0	U	5.0	U	NC
Methylene chloride	2.0	U	2.0	U	NC	2.0	U	2.0	U	NC	2.0	U	2.0	U	NC	2.0	U	2.0	U	NC
Styrene	5.0	U	5.0	U	NC	5.0	U	5.0	U	NC	5.0	U	5.0	U	NC	5.0	U	5.0	U	NC
1,1,2,2-Tetrachloroethane	1.0	U	1.0	U	NC	1.0	U	1.0	U	NC	0.3	J	1.0	U	NC	1.0	U	1.0	U	NC
Tetrachloroethene	1.0	U	1.0	U	NC	1.0	U	1.0	U	NC	1.0	U	1.0	U	NC	1.0	U	1.0	U	NC
Toluene	**4.3**		**4.2**		2	**20**		**22**		8	**125**		**127**		2	2.6		**2.9**		11
1,2,4-Trichlorobenzene	5.0	U	5.0	U	NC	5.0	U	5.0	U	NC	5.0	U	5.0	U	NC	5.0	U	5.0	U	NC
1,1,1-Trichloroethane	1.0	U	1.0	U	NC	1.0	U	1.0	U	NC	1.0	U	1.0	U	NC	1.0	U	1.0	U	NC
1,1,2-Trichloroethane	1.0	U	1.0	U	NC	1.0	U	1.0	U	NC	1.0	U	1.0	U	NC	1.0	U	1.0	U	NC
Trichloroethene	1.0	U	1.0	U	NC	1.0	U	1.0	U	NC	1.0	U	1.0	U	NC	1.0	U	1.0	U	NC
Trichlorofluoromethane	1.0	U	1.0	U	NC	1.0	U	1.0	U	NC	1.0	U	1.0	U	NC	1.0	U	1.0	U	NC
Vinyl chloride	1.0	U	1.0	U	NC	1.0	U	1.0	U	NC	1.0	U	1.0	U	NC	1.0	U	1.0	U	NC
Xylene (total)	**70.8**		**70.2**		1	**55**		**58**		6	**261**		**267**		2	49.8		**57.4**		14
Total VOCs (µg/L)	120		120		0	190		200		5	1,100		1,100		0	270		310		14

Notes:
RPD = Relative Percent Difference
NC = Not Calculated
NA = Not Analyzed
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.

Table B-29
Field Duplicate SVOC Results in Groundwater
Norwich Former MGP Site, Norwich, New York

Sample ID Laboratory Identification Date Sampled	NO-GW04-16 M53253-7 12/13/2005		NO-GW04-16DUP M53253-8 12/13/2005		**RPD**	NO-PZ05 M53162-6 12/08/2005		NO-PZ05DUP M53162-7 12/08/2005		**RPD**	NO-PZ09 M53200-9 12/09/2005		NO-PZ09DUP M53200-10 12/09/2005		**RPD**	NO-PZ10 M49539-13 07/26/2005		NO-PZ10DUP M49539-14 07/26/2005		**RPD**
Semi-volatile Organic Compounds (µg/L)																				
2-Methylnaphthalene	84.3		77.1		9	9.3		8.0		15	134		145		8	101	J	72.8	J	32
Acenaphthene	54.2		50.9		6	39.6		36.3		9	55		58.9		7	53.2		41.9		24
Acenaphthylene	10.4		9.9		5	10.4		9.4		10	24.7		27.6		11	9.0		7.2		22
Anthracene	7.4		6.7		10	1.4		1.3		7	7.5		6.7		11	4.2		3.5		18
Benzo(a)anthracene	1.2	J	0.83	J	36	5.1	U	5.1	U	NC	1.9	J	5.0	U	NC	5.1	U	5.1	U	NC
Benzo(a)pyrene	0.71	J	5.1	U	NC	5.1	U	5.1	U	NC	1.5		5.0	U	NC	5.1	U	5.1	U	NC
Benzo(b)fluoranthene	5.1	U	5.1	U	NC	5.1	U	5.1	U	NC	0.71	J	5.0	U	NC	5.1	U	5.1	U	NC
Benzo(g,h,i)perylene	5.1	U	5.1	U	NC	5.1	UJ	5.1	UJ	NC	0.86	J	5.0	UJ	NC	5.1	U	5.1	U	NC
Benzo(k)fluoranthene	5.1	U	5.1	U	NC	5.1	U	5.1	U	NC	0.95	J	5.0	U	NC	5.1	U	5.1	U	NC
Chrysene	0.89	J	5.1	U	NC	5.1	U	5.1	U	NC	1.5	J	5.0	U	NC	5.1	U	5.1	U	NC
Dibenzo(a,h)anthracene	5.1	U	5.1	U	NC	5.1	U	5.1	U	NC	5.0	U	5.0	U	NC	5.1	U	5.1	U	NC
Fluoranthene	5.2		4.4		17	0.74	J	5.1	U	NC	5.4		3.5		43	3.2		2.7		17
Fluorene	17.4		16.6		5	3.0		2.7		11	18.1		18.7		3	20.2		16.2		22
Indeno(1,2,3-cd)pyrene	5.1	U	5.1	U	NC	5.1	U	5.1	U	NC	0.69	J	5.0	U	NC	5.1	U	5.1	U	NC
Naphthalene	317	J	203	J	44	64.6		56.6		13	647		775		18	21.9		16.9		26
Phenanthrene	28.1		25.5		10	5.7		4.9		15	31.9		29.8		7	24.7		20.6		18
Pyrene	6.9	J	5.8	J	17	0.96	J	0.75	J	25	7.6	J	4.7	J	47	3.7		3.3		11
Total PAHs (µg/L)	530		400		28	140		120		15	940		1,100		16	240		190		23
Total CPAHs (µg/L)	2.8		0.83		109	ND		ND		NC	7.3		ND		NC	ND		ND		NC
1,1'-Biphenyl	11.5		11.1		4	16.8	J	15.5	J	8	23.4		24.7		5	21.7	J	15.9	J	31
1,2-Diphenylhydrazine	NA		NA		NC	NA		NA		NC	NA		NA		NC	NA		NA		NC
2,4,5-Trichlorophenol	10	U	10	U	NC	10	U	10	U	NC	10	U	10	U	NC	10	U	10	U	NC
2,4,6-Trichlorophenol	10	U	10	U	NC	10	U	10	U	NC	10	U	10	U	NC	10	U	10	U	NC
2,4-Dichlorophenol	10	U	10	U	NC	10	U	10	U	NC	10	U	10	U	NC	10	U	10	U	NC
2,4-Dimethylphenol	1.8		10	U	NC	10	U	10	U	NC	10	U	10	U	NC	10	U	10	U	NC
2,4-Dinitrophenol	20	U	20	U	NC	20	U	20	U	NC	20	U	20	U	NC	20	UJ	20	UJ	NC
2,4-Dinitrotoluene	10	U	10	U	NC	10	U	10	U	NC	10	U	10	U	NC	10	U	10	U	NC
2,6-Dinitrotoluene	10	U	10	U	NC	10	U	10	U	NC	10	U	10	U	NC	10	U	10	U	NC
2-Chloronaphthalene	5.1	U	5.1	U	NC	5.1	U	5.1	U	NC	5.0	U	5.0	U	NC	5.1	UJ	5.1	UJ	NC
2-Chlorophenol	5.1	U	5.1	U	NC	5.1	U	5.1	U	NC	5.0	U	5.0	U	NC	5.1	U	5.1	U	NC
2-Methylphenol	10	U	10	U	NC	10	U	10	U	NC	10	U	10	U	NC	10	U	10	U	NC
2-Nitroaniline	10	U	10	U	NC	10	U	10	U	NC	10	U	10	U	NC	10	U	10	U	NC
2-Nitrophenol	10	U	10	U	NC	10	U	10	U	NC	10	U	10	U	NC	10	U	10	U	NC
3&4-Methylphenol	4.9		4.1		18	10	U	10	U	NC	10	U	10	U	NC	10	U	10	U	NC
3,3'-Dichlorobenzidine	5.1	U	5.1	U	NC	5.1	U	5.1	U	NC	5.0	UJ	5.0	UJ	NC	5.1	UJ	5.1	UJ	NC
3-Nitroaniline	10	U	10	U	NC	10	U	10	U	NC	10	U	10	U	NC	10	U	10	U	NC
4,6-Dinitro-o-cresol	10	U	10	U	NC	10	U	10	U	NC	10	U	10	U	NC	10	U	10	U	NC
4-Bromophenyl phenyl ether	5.1	U	5.1	U	NC	5.1	U	5.1	U	NC	5.0	U	5.0	U	NC	5.1	U	5.1	U	NC
4-Chloro-3-methylphenol	10	U	10	U	NC	10	U	10	U	NC	10	U	10	U	NC	10	U	10	U	NC
4-Chloroaniline	10	U	10	U	NC	10	U	10	U	NC	10	UJ	10	UJ	NC	10	U	10	U	NC
4-Chlorophenyl phenyl ether	5.1	U	5.1	U	NC	5.1	U	5.1	U	NC	5.0	U	5.0	U	NC	5.1	U	5.1	U	NC
4-Nitroaniline	10	U	10	U	NC	10	U	10	U	NC	10	U	10	U	NC	10	U	10	U	NC
4-Nitrophenol	20	U	20	U	NC	20	U	20	U	NC	20	U	20	U	NC	20	U	20	U	NC
Acetophenone	2.1		2.0		5		R		R	NC	10	U	10	U	NC	10	U	10	U	NC
Aniline	NA		NA		NC	NA		NA		NC	NA		NA		NC	NA		NA		NC
Atrazine	10	U	10	U	NC		R		R	NC	10	U	10	U	NC	10	U	10	U	NC
Benzaldehyde		R		R	NC		R		R	NC	20	UJ	20	UJ	NC	20	U	20	U	NC
Benzoic acid	NA		NA		NC	NA		NA		NC	NA		NA		NC	10	U	10	U	NC
Bis(2-chloroethoxy) methane	5.1	U	5.1	U	NC	5.1	U	5.1	U	NC	5.0	U	5.0	U	NC	5.1	U	5.1	U	NC
Bis(2-chloroethyl) ether	5.1	U	5.1	U	NC	5.1	U	5.1	U	NC	5.0	U	5.0	U	NC	5.1	U	5.1	U	NC
bis(2-Chloroisopropyl)ether	5.1	U	5.1	U	NC	5.1	U	5.1	U	NC	5.0	U	5.0	U	NC	5.1	U	5.1	U	NC
Bis(2-ethylhexyl) phthalate	10	U	10	U	NC	10	U	10	U	NC	10	U	10	U	NC	10	U	10	U	NC
Butyl benzyl phthalate	10	U	10	U	NC	1.6	J	10	U	NC	10	U	10	U	NC	10	U	10	U	NC
Caprolactam	10	U	10	U	NC		R		R	NC	10	U	10	U	NC	10	U	10	U	NC
Carbazole	4.6		4.3		7	14.1		13		8	8.3		11.9		36	10.8		9.6		12
Dibenzofuran	10.2		9.9		3	6.8		6.3		8	8.1		8.3		2	4.3		3.3		26
Diethyl phthalate	10	U	10	U	NC	10	U	10	U	NC	10	U	10	U	NC	10	U	10	U	NC
Dimethyl phthalate	10	U	10	U	NC	10	U	10	U	NC	10	U	10	U	NC	10	U	10	U	NC
Di-n-butyl phthalate	2.0		2.0		0	10	U	10	U	NC	10	U	10	U	NC	10	U	10	U	NC
Di-n-octyl phthalate	10	U	10	U	NC	10	U	10	U	NC	10	U	10	U	NC	10	U	10	U	NC
Hexachlorobenzene	5.1	U	5.1	U	NC	5.1	U	5.1	U	NC	5.0	U	5.0	U	NC	5.1	U	5.1	U	NC
Hexachlorobutadiene	5.1	U	5.1	U	NC	5.1	U	5.1	U	NC	5.0	U	5.0	U	NC	5.1	U	5.1	U	NC
Hexachlorocyclopentadiene	10	U	10	U	NC	10	U	10	U	NC	10	U	10	U	NC	10	U	10	U	NC
Hexachloroethane	5.1	U	5.1	U	NC	5.1	U	5.1	U	NC	5.0	U	5.0	U	NC	5.1	U	5.1	U	NC
Isophorone	5.1	U	5.1	U	NC	5.1	U	5.1	U	NC	5.0	U	5.0	U	NC	5.1	U	5.1	U	NC
Nitrobenzene	5.1	U	5.1	U	NC	5.1	U	5.1	U	NC	5.0	U	5.0	U	NC	5.1	U	5.1	U	NC
N-Nitroso-Di-n-propylamine	5.1	U	5.1	U	NC	5.1	U	5.1	U	NC	5.0	U	5.0	U	NC	5.1	U	5.1	U	NC
N-nitrosodiphenylamine	5.1	U	5.1	U	NC	5.1	U	5.1	U	NC	5.0	U	5.0	U	NC	5.1	U	5.1	U	NC
Pentachlorophenol	10	U	10	U	NC	10	U	10	U	NC	10	U	10	U	NC	10	U	10	U	NC
Phenol	5.1	U	5.1	U	NC	5.1	U	5.1	U	NC	5.0	U	5.0	U	NC	5.1	U	5.1	U	NC
Total SVOCs (µg/L)[2]	570		430		28	180		160		12	980		1,100		12	280		210		29

Notes:
RPD = Relative Percent Difference
NC = Not Calculated
NA = Not Analyzed
NL = Not Listed
ND = Not Detected
MDL - Method Detection Limit
J = The associated numerical value is an estimated quantity.
U = The material was analyzed for but not detected at or above the MDL. The associated numerical value is the sample reporting limit.
R = The result was rejected because one or more QC measures did not meet acceptable criteria by validator during the review process
CPAHs - Carcinogenic PAHs which are shown in bold and italics

Table B-30
Field Duplicate Total Cyanide Results in Groundwater
Norwich Former MGP Site, Norwich, New York

Sample ID	NO-GW04-16		NO-GW04-16DUP		**RPD**	NO-PZ05		NO-PZ05DUP		**RPD**	NO-PZ09		NO-PZ09DUP		**RPD**
Laboratory Identification	M53253-7		M53253-8			M53162-6		M53162-7			M53200-9		M53200-10		
Date Sampled	12/13/2005		12/13/2005			12/08/2005		12/08/2005			12/09/2005		12/09/2005		
Total Cyanide (µg/L)	10	U	10	U	NC	29		23		23	20		15		29

Notes:
RPD = Relative Percent Difference
NC = Not Calculated
NA = Not Analyzed
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.

Table B-31
Field Duplicate SVI Results in Air and Vapor
Norwich Former MGP Site, Norwich, New York

Sample	NO-12BAS			NO-12BAS DUP			RPD	NO-14BAB			NO-14BAB DUP			RPD	NO-30FRS			NO-30FRS DUP			RPD	NO-41 FRF			NO-41 FRF DUP			RPD	NO-UP062803			NO-UP062803 DUP			RPD
Sample Type	Sub-slab			Sub-slab				Basement			Basement				Sub-slab			Sub-slab				1st Floor			1st Floor				Ambient Air			Ambient Air			
Sample Depth/Height	2 in. below slab			2 in. below slab				3 ft. above ground			3 ft. above ground				2 in. below slab			2 in. below slab				3 ft. above ground			3 ft. above ground				3 ft. above ground			3 ft. above ground			
Sample Date	3/23/2006 10:45			3/23/2006 10:45				3/22/2006 3:50			3/22/2006 3:50				3/24/2006 11:30			3/24/2006 11:30				3/24/2006 6:20			3/24/2006 6:20				3/28/2006 5:57			3/28/2006 5:57			
Dilution Factor	1			1				1			1				1			1				1			1				1			1			
Volatile Organic Compounds (µg/m3)	Conc	Q	RL	Conc	Q	RL		Conc	Q	RL	Conc	Q	RL		Conc	Q	RL	Conc	Q	RL		Conc	Q	RL	Conc	Q	RL		Conc	Q	RL	Conc	Q	RL	
1,1,1-Trichloroethane	1.1	U	1.1	1.1	U	1.1	NC	1.1	U	1.1	1.1	U	1.1	NC	1.1	U	1.1	1.1	U	1.1	NC	1.1	U	1.1	1.1	U	1.1	NC	1.1	U	1.1	1.1	U	1.1	NC
1,1,2,2-Tetrachloroethane	1.4	U	1.4	1.4	U	1.4	NC	1.4	U	1.4	1.4	U	1.4	NC	1.4	U	1.4	1.4	U	1.4	NC	1.4	U	1.4	1.4	U	1.4	NC	1.4	U	1.4	1.4	U	1.4	NC
1,1,2-Trichloro-1,2,2-trifluoroethane	1.5	U	1.5	1.5	U	1.5	NC	1.5	U	1.5	1.5	U	1.5	NC	1.5	U	1.5	1.5	U	1.5	NC	1.5	U	1.5	1.5	U	1.5	NC	1.5	U	1.5	1.5	U	1.5	NC
1,1,2-Trichloroethane	1.1	U	1.1	1.1	U	1.1	NC	1.1	U	1.1	1.1	U	1.1	NC	1.1	U	1.1	1.1	U	1.1	NC	1.1	U	1.1	1.1	U	1.1	NC	1.1	U	1.1	1.1	U	1.1	NC
1,1-Dichloroethane	0.81	U	0.81	0.81	U	0.81	NC	0.81	U	0.81	0.81	U	0.81	NC	0.81	U	0.81	0.81	U	0.81	NC	0.81	U	0.81	0.81	U	0.81	NC	0.81	U	0.81	0.81	U	0.81	NC
1,1-Dichloroethene	0.79	U	0.79	0.79	U	0.79	NC	0.79	U	0.79	0.79	U	0.79	NC	0.79	U	0.79	0.79	U	0.79	NC	0.79	U	0.79	0.79	U	0.79	NC	0.79	U	0.79	0.79	U	0.79	NC
1,2,4-Trichlorobenzene	7.4	U	7.4	7.4	U	7.4	NC	7.4	U	7.4	7.4	U	7.4	NC	7.4	U	7.4	7.4	U	7.4	NC	7.4	U	7.4	7.4	U	7.4	NC	7.4	U	7.4	7.4	U	7.4	NC
1,2,4-Trimethylbenzene	7.3		0.98	5.9		0.98	21	1.9	J	0.98	1.3	J	0.98	38	41	J	1.0	1.9	J	1.0	182	1.0		0.98	0.98	U	0.98	NC	0.98	U	0.98	1.1		0.98	NC
1,2-Dibromoethane (EDB)	1.5	U	1.5	1.5	U	1.5	NC	1.5	U	1.5	1.5	U	1.5	NC	1.5	U	1.5	1.5	U	1.5	NC	1.5	U	1.5	1.5	U	1.5	NC	1.5	U	1.5	1.5	U	1.5	NC
1,2-Dichloro-1,1,2,2-tetrafluoroethane	1.4	U	1.4	1.4	U	1.4	NC	1.4	U	1.4	1.4	U	1.4	NC	1.4	U	1.4	1.4	U	1.4	NC	1.4	U	1.4	1.4	U	1.4	NC	1.4	U	1.4	1.4	U	1.4	NC
1,2-Dichlorobenzene	1.2	U	1.2	2.9		1.2	NC	1.2	U	1.2	1.2	U	1.2	NC	1.2	U	1.2	1.2	U	1.2	NC	1.2	U	1.2	1.2	U	1.2	NC	1.2	U	1.2	1.2	U	1.2	NC
1,2-Dichloroethane	0.81	U	0.81	0.81	U	0.81	NC	0.81	U	0.81	0.81	U	0.81	NC	0.81	U	0.81	0.81	U	0.81	NC	0.81	U	0.81	0.81	U	0.81	NC	0.81	U	0.81	0.81	U	0.81	NC
1,2-Dichloropropane	0.92	U	0.92	0.92	U	0.92	NC	0.92	U	0.92	0.92	U	0.92	NC	0.92	U	0.92	0.92	U	0.92	NC	0.92	U	0.92	0.92	U	0.92	NC	0.92	U	0.92	0.92	U	0.92	NC
1,3,5-Trimethylbenzene	2.2		0.98	1.9		0.98	15	0.98	U	0.98	0.98	U	0.98	NC	5.9		1.0	0.98	U	1.0	NC	0.98	U	0.98	0.98	U	0.98	NC	0.98	U	0.98	0.98	U	0.98	NC
1,3-Dichlorobenzene	1.2	U	1.2	1.2	U	1.2	NC	1.2	U	1.2	1.2	U	1.2	NC	1.2	U	1.2	1.2	U	1.2	NC	1.2	U	1.2	1.2	U	1.2	NC	1.2	U	1.2	1.2	U	1.2	NC
1,4-Dichlorobenzene	1.2	U	1.2	1.2	U	1.2	NC	1.2	U	1.2	1.2	U	1.2	NC	1.2	U	1.2	1.2	U	1.2	NC	1.2	U	1.2	1.2	U	1.2	NC	1.2	U	1.2	1.2	U	1.2	NC
Benzene	2.0		0.64	1.7		0.64	16	0.67		0.64	0.71		0.64	6	1.2		0.64	1.2		0.64	0	1.5		0.64	1.3		0.64	14	1.5		0.64	1.4		0.64	7
Bromomethane	0.78	U	0.78	0.78	U	0.78	NC	0.78	U	0.78	0.78	U	0.78	NC	0.78	U	0.78	0.78	U	0.78	NC	0.78	U	0.78	0.78	U	0.78	NC	0.78	U	0.78	0.78	U	0.78	NC
Carbon tetrachloride	1.3	U	1.3	1.3	U	1.3	NC	1.3	U	1.3	1.3	U	1.3	NC	1.3	U	1.3	1.3	U	1.3	NC	1.3	U	1.3	1.3	U	1.3	NC	1.3	U	1.3	1.3	U	1.3	NC
Chlorobenzene	0.92	U	0.92	0.92	U	0.92	NC	0.92	U	0.92	0.92	U	0.92	NC	0.92	U	0.92	0.92	U	0.92	NC	0.92	U	0.92	0.92	U	0.92	NC	0.92	U	0.92	0.92	U	0.92	NC
Chloroethane	2.7		0.53	2.4		0.53	12	0.53	U	0.53	0.53	U	0.53	NC	0.53	U	0.53	0.53	U	0.53	NC	0.53	U	0.53	0.53	U	0.53	NC	0.53	U	0.53	0.53	U	0.53	NC
Chloroform	1.0		0.98	0.98	U	0.98	NC	0.98	U	0.98	0.98	U	0.98	NC	0.98	U	1.0	0.98	U	1.0	NC	0.98	U	0.98	0.98	U	0.98	NC	0.98	U	0.98	0.98	U	0.98	NC
Chloromethane	1.6		1.0	1.2		1.0	29	1.2		1.0	1.0	U	1.0	NC	1.0	U	1.0	1.0	U	1.0	NC	1.5		1.0	1.0	U	1.0	NC	1.1	J	1.0	1.6	J	1.0	37
cis-1,2-Dichloroethene	0.79	U	0.79	0.79	U	0.79	NC	0.79	U	0.79	0.79	U	0.79	NC	0.79	U	0.79	0.79	U	0.79	NC	0.79	U	0.79	0.79	U	0.79	NC	0.79	U	0.79	0.79	U	0.79	NC
cis-1,3-Dichloropropene	0.91	U	0.91	0.91	U	0.91	NC	0.91	U	0.91	0.91	U	0.91	NC	0.91	U	0.91	0.91	U	0.91	NC	0.91	U	0.91	0.91	U	0.91	NC	0.91	U	0.91	0.91	U	0.91	NC
Dichlorodifluoromethane	3.2		0.99	3.0		0.99	6	2.9		0.99	2.4		0.99	19	3.1		1.0	3.0		1.0	3	3.1		0.99	2.8		0.99	10	2.5		0.99	2.7		0.99	8
Ethylbenzene	6.4		0.87	5.7		0.87	12	0.87	U	0.87	0.87	U	0.87	NC	2.6		0.87	2.9		0.87	11	0.87	U	0.87	0.87	U	0.87	NC	0.87	U	0.87	0.87	U	0.87	NC
Hexachlorobutadiene	11	U	11	11	U	11	NC	11	U	11	11	U	11	NC	11	U	11	11	U	11	NC	11	U	11	11	U	11	NC	11	U	11	11	U	11	NC
Isopropylbenzene	2.0	U	2.0	2.0	U	2.0	NC	2.0	U	2.0	2.0	U	2.0	NC	2.0	U	2.0	2.0	U	2.0	NC	2.0	U	2.0	2.0	U	2.0	NC	2.0	U	2.0	2.0	U	2.0	NC
Methyl tert-butyl ether	3.6	U	3.6	3.6	U	3.6	NC	3.6	U	3.6	3.6	U	3.6	NC	3.6	U	3.6	3.6	U	3.6	NC	3.6	U	3.6	3.6	U	3.6	NC	3.6	U	3.6	3.6	U	3.6	NC
Methylene chloride	11	J	1.7	20	J	1.7	58	1.7	U	1.7	1.7	U	1.7	NC	5.3		1.7	5.3		1.7	0	1.7	U	1.7	1.7	U	1.7	NC	1.7	U	1.7	1.7	U	1.7	NC
m-Xylene & p-Xylene	20		0.87	17		0.87	16	1.7		0.87	1.4		0.87	19	7.4		0.87	7.5		0.87	1	1.6		0.87	1.2		0.87	29	2.6		0.87	2.4		0.87	8
Naphthalene	2.6	U	2.6	2.6	U	2.6	NC	2.6	UJ	2.6	2.6	UJ	2.6	NC	2.6	U	2.6	2.6	U	2.6	NC	2.6	U	2.6	2.6	U	2.6	NC	2.6	U	2.6	2.6	U	2.6	NC
n-Butane	3.7		0.95	3.2		0.95	14	1.2	J	0.95	2	J	0.95	50	4.6		1.0	4.7		1.0	2	5.1	J	0.95	3.7	J	0.95	32	4.9		0.95	4.5		0.95	9
n-Decane	5.8	U	5.8	5.8	U	5.8	NC	5.8	U	5.8	5.8	U	5.8	NC	5.8	U	5.8	5.8	U	5.8	NC	5.8	U	5.8	5.8	U	5.8	NC	5.8	U	5.8	5.8	U	5.8	NC
n-Dodecane	7.0	UJ	7.0	7.0	UJ	7.0	NC	7.0	UJ	7.0	7.0	UJ	7.0	NC	7.0	UJ	7.0	7.0	UJ	7.0	NC	7.0	UJ	7.0	7.0	UJ	7.0	NC	7.0	UJ	7.0	7.0	UJ	7.0	NC
n-Heptane	5.4		2.0	4.4		2.0	20	2.0	U	2.0	2.0	U	2.0	NC	2.0	U	2.0	2.0	U	2.0	NC	2.0	U	2.0	2.0	U	2.0	NC	2.0	U	2.0	2.0	U	2.0	NC
n-Hexane	2.4		1.8	3.1		1.8	25	1.8	U	1.8	1.8	U	1.8	NC	1.8	U	1.8	1.8	U	1.8	NC	1.8	U	1.8	1.8	U	1.8	NC	1.8	U	1.8	1.8	U	1.8	NC
n-Octane	15		1.9	12		1.9	22	1.9	U	1.9	1.9	U	1.9	NC	1.9	U	1.9	1.9		1.9	NC	1.9	U	1.9	1.9	U	1.9	NC	1.9	U	1.9	1.9	U	1.9	NC
Nonane	18		2.6	14		2.6	25	2.6	U	2.6	2.6	U	2.6	NC	6.3		2.6	6.1		2.6	3	2.6	U	2.6	2.6	U	2.6	NC	4.2		2.6	4.4		2.6	5
n-Undecane	6.4	U	6.4	6.4	U	6.4	NC	6.4	U	6.4	6.4	U	6.4	NC	6.4	U	6.4	6.4	U	6.4	NC	6.4	U	6.4	6.4	U	6.4	NC	6.4	U	6.4	6.4	U	6.4	NC
o-Xylene	8.1		0.87	7.1		0.87	13	0.87	U	0.87	0.87	U	0.87	NC	2.8		0.87	2.6		0.87	7	0.87	U	0.87	0.87	U	0.87	NC	1.1		0.87	0.96		0.87	14
Pentane	3.5		3.0	4.3		3.0	21	3.0	U	3.0	3.0	U	3.0	NC	3.0	U	3.0	3.0	U	3.0	NC	3.0	U	3.0	3.0	U	3.0	NC	3.0	U	3.0	3.0	U	3.0	NC
Styrene	2.6	J	0.85	1.9	J	0.85	31	0.85	U	0.85	0.85	U	0.85	NC	7.0	J	0.85	1.0	J	0.85	150	0.85	U	0.85	0.85	U	0.85	NC	0.85	U	0.85	0.85	U	0.85	NC
Tetrachloroethene	1.4	U	1.4	1.4	U	1.4	NC	4.0		1.4	1.4	U	1.4	NC	1.4	U	1.4	1.4	U	1.4	NC	1.4	U	1.4	1.4	U	1.4	NC	1.4	U	1.4	1.4	U	1.4	NC
Toluene	21		0.75	20		0.75	5	1.5	J	0.75	5.0	J	0.75	108	7.8		0.75	7.7		0.75	1	3.8		0.75	3		0.75	24	4.3		0.75	3.8		0.75	12
trans-1,3-Dichloropropene	0.91	U	0.91	0.91	U	0.91	NC	0.91	U	0.91	0.91	U	0.91	NC	0.91	U	0.91	0.91	U	0.91	NC	0.91	U	0.91	0.91	U	0.91	NC	0.91	U	0.91	0.91	U	0.91	NC
Trichloroethene	1.1	U	1.1	1.1	U	1.1	NC	1.1	U	1.1	1.1	U	1.1	NC	1.1	U	1.1	1.1	U	1.1	NC	1.1	U	1.1	1.1	U	1.1	NC	1.1	U	1.1	1.1	U	1.1	NC
Trichlorofluoromethane	1.6		1.1	1.8		1.1	12	1.4		1.1	1.2		1.1	15	1.6		1.1	1.6		1.1	0	1.8		1.1	1.7		1.1	6	1.4		1.1	1.4		1.1	0
Vinyl chloride	0.51	U	0.51	0.51	U	0.51	NC	0.51	U	0.51	0.51	U	0.51	NC	0.51	U	0.51	0.51	U	0.51	NC	0.51	U	0.51	0.51	U	0.51	NC	0.51	U	0.51	0.51	U	0.51	NC
Tentatively Identified Compounds (TICs)																																			
1,2,3-Trimethylbenzene	ND		*	ND		*	NC	ND		*	ND		*	NC	ND		*	ND		*	NC	ND		*	ND		*	NC	ND		*	ND		*	NC
1-Methylnaphthalene	ND		*	ND		*	NC	ND		*	ND		*	NC	ND		*	ND		*	NC	ND		*	ND		*	NC	ND		*	ND		*	NC
2,2,4-Trimethylpentane	ND		*	ND		*	NC	ND		*	ND		*	NC	ND		*	ND		*	NC	ND		*	ND		*	NC	ND		*	ND		*	NC
2,3-Dimethylheptane	ND		*	ND		*	NC	ND		*	ND		*	NC	ND		*	ND		*	NC	ND		*	ND		*	NC	ND		*	ND		*	NC
2,3-Dimethylpentane	ND		*	ND		*	NC	ND		*	ND		*	NC	ND		*	ND		*	NC	ND		*	ND		*	NC	ND		*	ND		*	NC
2-Methylnaphthalene	ND		*	ND		*	NC	ND		*	ND		*	NC	ND		*	ND		*	NC	ND		*	ND		*	NC	ND		*	ND		*	NC
Butylcyclohexane	ND		*	ND		*	NC	ND		*	ND		*	NC	ND		*	ND		*	NC	ND		*	ND		*	NC	ND		*	ND		*	NC
Indane	ND		*	ND		*	NC	ND		*	ND		*	NC	ND		*	ND		*	NC	ND		*	ND		*	NC	ND		*	ND		*	NC
Indene	ND		*	ND		*	NC	ND		*	ND		*	NC	ND		*	ND		*	NC	ND		*	ND		*	NC	ND		*	ND		*	NC
Isopentane	ND		*	ND		*	NC	ND		*	ND		*	NC	ND		*	ND		*	NC	ND		*	ND		*	NC	ND		*	ND		*	NC
Total VOCs (µg/m^3)	140			130			7	16			14			13	90			47			62	19			14			34	24			24			0

Notes:
RPD = Relative Percent Difference
NC = Not Calculated
ND - Not Detected
MDL = Method Detection Limit
Q - Qualifier

U - Compound was analyzed for but not detected at or above the MDL. The associated numerical value is the sample reporting limit
J - Associated numerical value is an estimated quantity
RL - Reporting limit
N - compound identified as a tentatively identified compound (TIC)
* - compounds reported as TICs are not calibrated for and do not have a reporting limit

C
SUBSURFACE BORING LOGS AND WELL CONSTRUCTION RECORDS

NO-DP01

PROJECT: Norwich - NYSEG
PROJECT NO: I03032
LOCATION: Norwich, NY
DATE: 4/25/2005
DRILLING CONTRACTOR: Lyon Drilling
DRILLER: Harry Lyon
DRILLING METHOD: Direct Push with CME55

SAMPLING METHOD: 4 ft. Geoprobe macrocores
GROUND ELEVATION: 1004.28 ft. above MSL
WELL ELEVATION: NA
OUTER CASING ELEVATION: NA
DEPTH TO WATER: NA
BOREHOLE DEPTH: 24 ft. below grade
WEATHER: Rainy
GEOLOGIST: Lara Gray

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	SOIL DESCRIPTION and LITHOLOGIC SYMBOL	WELL CONSTRUCTION	REMARKS
0 to -1	0-4	100	0.0		ASPHALT; FILL: Dry, light brown silt, sand, gravel and concrete pieces		
-1 to -2			0.0				
-2 to -3			0.0				
-3 to -4			0.0				
-4 to -5	4-8	100	0.7		GRAVEL: Wet, loosely packed gravel		
-5 to -6			12		SAND AND SILT: Moist to wet, brown, fine sand and silt with some gravel and rock clasts. Slight tar-like material (TLM) at 6.1'.		
-6 to -9							
-8 to -12	8-12	60					
-9 to -10			0.0				
-10 to -11			0.0				
-11 to -12			36		SAND AND SILT: As above with black staining and moderate tar-like odor		
-12 to -13			100				
-13							

NO-DP01

PROJECT: Norwich - NYSEG
PROJECT NO: I03032
LOCATION: Norwich, NY
DATE: 4/25/2005
DRILLING CONTRACTOR: Lyon Drilling
DRILLER: Harry Lyon
DRILLING METHOD: Direct Push with CME55

SAMPLING METHOD: 4 ft. Geoprobe macrocores
GROUND ELEVATION: 1004.28 ft. above MSL
WELL ELEVATION: NA
OUTER CASING ELEVATION: NA
DEPTH TO WATER: NA
BOREHOLE DEPTH: 24 ft. below grade
WEATHER: Rainy
GEOLOGIST: Lara Gray

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	SOIL DESCRIPTION and LITHOLOGIC SYMBOL	WELL CONSTRUCTION	REMARKS
-14	12-16	50	225		GRAVEL AND SAND: Wet, brown, coarse sand and gravel with angular rock clasts. Moderate odor, sheen, and substantial NAPL globules present.		
-15			125	14-15			
-16			150	15-16			
-17	16-20	40	50				
-18			200				
-19			150		GRAVEL AND SAND: As above with less NAPL present		
-20			100		GRAVEL: Wet, brown, small to medium gravel, rounded and poorly sorted. Moderate odor, sheen, and NAPL globules present		
-21	20-24	100	150				
-22			20		CLAY AND SAND: Moist, reddish-brown, compact clay with fine sand		
-23			10		CLAY AND SAND: Moist, light gray clay with fine sand. Slight sheen on outside from gravel layer above.		
-24			10	23-24			

NO-DP02

PROJECT: Norwich - NYSEG
PROJECT NO: I03032
LOCATION: Norwich, NY
DATE: 4/25/2005
DRILLING CONTRACTOR: Lyon Drilling
DRILLER: Harry Lyon
DRILLING METHOD: Direct Push with CME55

SAMPLING METHOD: 4 ft. Geoprobe macrocores
GROUND ELEVATION: 1004.35 ft. above MSL
WELL ELEVATION: NA
OUTER CASING ELEVATION: NA
DEPTH TO WATER: NA
BOREHOLE DEPTH: 24 ft. below grade
WEATHER: Cloudy with rain
GEOLOGIST: Lara Gray

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	SOIL DESCRIPTION and LITHOLOGIC SYMBOL	WELL CONSTRUCTION	REMARKS
0	0-4	100	2.0		ASPHALT		
-1			10		FILL: Dry, light brown silt with gravel and concrete pieces		
-2			10				
-3			12				
-4	4-8	95	8.0				
-5			28		FILL: Dry to moist, medium brown silt and fine sand with gravel and some coal-like material (CLM) with a slight odor at 5.6'		
-6			50				
-7			18				
-8	8-12	75	6.0				
-9			1.0		SAND AND SILT: Moist, dark brown silt, sand and gravel		
-10			160				
-11			130		SAND AND GRAVEL: Moist, brown sand and gravel with some black staining and tar-like odor		
-12			5.0				
-13			25				

NO-DP02

PROJECT: Norwich - NYSEG
PROJECT NO: I03032
LOCATION: Norwich, NY
DATE: 4/25/2005
DRILLING CONTRACTOR: Lyon Drilling
DRILLER: Harry Lyon
DRILLING METHOD: Direct Push with CME55

SAMPLING METHOD: 4 ft. Geoprobe macrocores
GROUND ELEVATION: 1004.35 ft. above MSL
WELL ELEVATION: NA
OUTER CASING ELEVATION: NA
DEPTH TO WATER: NA
BOREHOLE DEPTH: 24 ft. below grade
WEATHER: Cloudy with rain
GEOLOGIST: Lara Gray

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	SOIL DESCRIPTION and LITHOLOGIC SYMBOL	WELL CONSTRUCTION	REMARKS
-14	12-16	60	30		SAND AND GRAVEL: As above with moderate sheen, odor and NAPL globules		
-15			25	15-16			
-16	16-20	50	60				
-17			150				
-18			50	18-19			
-19			100				
-20	20-24	75	2.0				
-21			2.0		SAND AND GRAVEL: Wet, brown sand and gravel with sheen		
-22			1.0		CLAY AND SAND: Moist, reddish-brown to gray clay with fine sand		
-23			0.0	23-24			
-24							

NO-DP03

PROJECT: Norwich - NYSEG
PROJECT NO: I03032
LOCATION: Norwich, NY
DATE: 4/25/2005
DRILLING CONTRACTOR: Lyon Drilling
DRILLER: Harry Lyon
DRILLING METHOD: Direct Push with CME55

SAMPLING METHOD: 4 ft. Geoprobe macrocores
GROUND ELEVATION: NA
WELL ELEVATION: NA
OUTER CASING ELEVATION: NA
DEPTH TO WATER: NA
BOREHOLE DEPTH: 28 ft. below grade
WEATHER: Cool and rainy
GEOLOGIST: Lara Gray

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	SOIL DESCRIPTION and LITHOLOGIC SYMBOL	WELL CONSTRUCTION	REMARKS
0	0-4	90	0.0		ASPHALT		
-1			0.0		FILL: Dry, light brown silt, sand, gravel and concrete pieces		
-2			0.0				
-3			0.0				
-4	4-8	50	0.0				
-5			0.0				
-6			0.0		FILL: Dry to moist, medium brown, fine to medium sand and gravel with a little coal-like material (CLM) and iron staining		
-7			0.0				
-8	8-12	60	0.0		SAND: Moist, orange and brown, fine sand with some iron staining		
-9			0.0		SAND AND SILT: Moist, dark brown silt and fine sand with trace clay		
-10			0.0				
-11			0.0				
-12	12-16	40	25		SAND AND GRAVEL: Moist, brown, fine sand with a little gravel		
-13			5.0		GRAVEL AND SAND: Moist, brown sand and gravel with a few rock clasts and a slight odor with black staining		
-14			51				

NO-DP03

PROJECT: Norwich - NYSEG
PROJECT NO: I03032
LOCATION: Norwich, NY
DATE: 4/25/2005
DRILLING CONTRACTOR: Lyon Drilling
DRILLER: Harry Lyon
DRILLING METHOD: Direct Push with CME55

SAMPLING METHOD: 4 ft. Geoprobe macrocores
GROUND ELEVATION: NA
WELL ELEVATION: NA
OUTER CASING ELEVATION: NA
DEPTH TO WATER: NA
BOREHOLE DEPTH: 28 ft. below grade
WEATHER: Cool and rainy
GEOLOGIST: Lara Gray

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	SOIL DESCRIPTION and LITHOLOGIC SYMBOL	WELL CONSTRUCTION	REMARKS
-15 to -16			115	15-16	GRAVEL: Wet gravel and large rock clasts with a few sand lenses. Moderate tar-like odor, sheen, and NAPL globules present.		
-16 to -17	16-20	30	55				
-17 to -18							
-18 to -19			10		GRAVEL AND SAND: Wet, medium to coarse, loosely packed sand and gravel with tar-like odor and sheen		
-19 to -20			2.0				
-20 to -21	20-24	50	150				
-21 to -22							
-22 to -23					GRAVEL: Wet, small, rounded gravel		
-23 to -24				23-24	GRAVEL AND SAND: Wet sand and gravel with moderate sheen and NAPL globules present. Substantial reddish NAPL with a very strong odor present from 23.75-24'.		
-24 to -28	24-28	100			CLAY AND SAND: Moist, reddish-brown to light gray clay with fine sand. NAPL on outside from layer above.		

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NO-DP04A

PROJECT: Norwich - NYSEG
PROJECT NO: I03032
LOCATION: Norwich, NY
DATE: 4/26/2005
DRILLING CONTRACTOR: Lyon Drilling
DRILLER: Harry Lyon
DRILLING METHOD: Direct Push with CME55

SAMPLING METHOD: 4 ft. Geoprobe macrocores
GROUND ELEVATION: 1004.16 ft. above MSL
WELL ELEVATION: NA
OUTER CASING ELEVATION: NA
DEPTH TO WATER: NA
BOREHOLE DEPTH: 3.7 ft. below grade
WEATHER: Warm, sunny, breezy
GEOLOGIST: Lara Gray

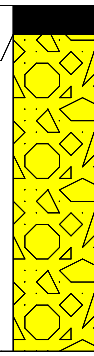
DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	SOIL DESCRIPTION and LITHOLOGIC SYMBOL	WELL CONSTRUCTION	REMARKS
0	0-3.7	95	0.0		ASPHALT		
-1			0.0		FILL: Dry, light brown silt, sand, gravel and concrete pieces. Refusal at 3.7'.		
-2			0.2				
-3			0.0				

NO-DP04B

PROJECT: Norwich - NYSEG
PROJECT NO: I03032
LOCATION: Norwich, NY
DATE: 4/26/2005
DRILLING CONTRACTOR: Lyon Drilling
DRILLER: Harry Lyon
DRILLING METHOD: Direct Push with CME55

SAMPLING METHOD: 4 ft. Geoprobe macrocores
GROUND ELEVATION: 1004.16 ft. above MSL
WELL ELEVATION: NA
OUTER CASING ELEVATION: NA
DEPTH TO WATER: NA
BOREHOLE DEPTH: 3.6 ft. below grade
WEATHER: Warm, sunny, breezy
GEOLOGIST: Lara Gray

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	SOIL DESCRIPTION and LITHOLOGIC SYMBOL	WELL CONSTRUCTION	REMARKS
0	0-3.6	100	0.0		ASPHALT		
-1			0.0		FILL: Dry, light brown silt, sand, gravel and concrete pieces. Slight tar-like odor and black staining at 3.6'. Refusal at 3.6'.		
-2			0.0				
-3			0.0				



NO-DP04C

PROJECT: Norwich - NYSEG
PROJECT NO: I03032
LOCATION: Norwich, NY
DATE: 4/26/2005
DRILLING CONTRACTOR: Lyon Drilling
DRILLER: Harry Lyon
DRILLING METHOD: Direct Push with CME55

SAMPLING METHOD: 4 ft. Geoprobe macrocores
GROUND ELEVATION: 1004.19 ft. above MSL
WELL ELEVATION: NA
OUTER CASING ELEVATION: NA
DEPTH TO WATER: NA
BOREHOLE DEPTH: 24 ft. below grade
WEATHER: Warm, sunny, breezy
GEOLOGIST: Lara Gray

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	SOIL DESCRIPTION and LITHOLOGIC SYMBOL	WELL CONSTRUCTION	REMARKS
0	0-4	85	0.1		ASPHALT		
-1			0.2		FILL: Dry, light to medium brown silt, sand, gravel and concrete pieces. Very slight odor at 4'.		
-2			0.1				
-3			4.0				
-4	4-8	50	2.0				
-5			1.2				
-6			0.3		SILT: Moist, medium brown silt with slight black staining and odor		
-7			0.2		SAND AND SILT: Moist, medium brown, fine sand and silt with some gravel and iron staining		
-8	8-12	50	0.3				
-9			2.6				
-10			1.1		SAND AND SILT: As above with slight black staining and sheen at 12'. Wet at 12'.		
-11			1.2				
-12			2.8				
-13							

NO-DP04C

PROJECT: Norwich - NYSEG
PROJECT NO: I03032
LOCATION: Norwich, NY
DATE: 4/26/2005
DRILLING CONTRACTOR: Lyon Drilling
DRILLER: Harry Lyon
DRILLING METHOD: Direct Push with CME55

SAMPLING METHOD: 4 ft. Geoprobe macrocores
GROUND ELEVATION: 1004.19 ft. above MSL
WELL ELEVATION: NA
OUTER CASING ELEVATION: NA
DEPTH TO WATER: NA
BOREHOLE DEPTH: 24 ft. below grade
WEATHER: Warm, sunny, breezy
GEOLOGIST: Lara Gray

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	SOIL DESCRIPTION and LITHOLOGIC SYMBOL	WELL CONSTRUCTION	REMARKS
-14	12-16	60	4.0		GRAVEL AND SAND: Wet, brown, loosely packed gravel and coarse sand with a sheen and very small NAPL globules		
			4.0				
-15			2.5				
-16	16-20	65	20				
-17			15				
-18			32	18-19	GRAVEL AND SAND: Wet, brown, fine to medium sand with gravel. Substantial NAPL globules present.		
-19			25				
-20	20-24	60	10				
-21			1.5				
-22			0.5		GRAVEL: Wet rounded gravel		
-23			0.3	23-24	CLAY AND SAND: Moist, gray clay with fine sand		
-24							

NO-DP05

PROJECT: Norwich - NYSEG
PROJECT NO: I03032
LOCATION: Norwich, NY
DATE: 10/26/2004
DRILLING CONTRACTOR: Lyon Drilling
DRILLER: Harry Lyon
DRILLING METHOD: Direct Push with CME55

SAMPLING METHOD: 4 ft. Geoprobe macrocores
GROUND ELEVATION: 1004.30 ft. above MSL
WELL ELEVATION: N/A
OUTER CASING ELEVATION: N/A
DEPTH TO WATER: N/A
BOREHOLE DEPTH: 20 ft. below grade
WEATHER: Not recorded
GEOLOGIST: Pete DeClercq

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	SOIL DESCRIPTION and LITHOLOGIC SYMBOL	WELL CONSTRUCTION	REMARKS
0 to -1	0-4	78	0.0		FILL: Dry, brown silt		
-1 to -2			0.0				
-2 to -3			0.0				
-3 to -4			0.0				
-4 to -5	4-8	55	0.0		FILL: Moist, brown silt with sand and gravel		
-5 to -6			0.0				
-6 to -7			0.0				
-7 to -8			0.0				
-8 to -9	8-12	58	0.0				
-9 to -10			2.3				
-10 to -11			26		SAND AND GRAVEL: Moist to wet, brown silt with sand and gravel		
-11 to -12			33				
-12 to -13	12-16	55	16		FILL: Wet, brown silt, sand and gravel and NAPL globules		
-13 to -14			24				
-14 to -15			38				
-15 to -16			33	15-16			
-16 to -17	16-20	73	8.0				
-17 to -18			0.0				Driller felt clay at 17.4
-18 to -19			0.0				
-19 to -20			0.0	19-20	CLAY AND SILT: Moist, dark brown clay and interbedded silt		

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NO-DP06

PROJECT: Norwich - NYSEG
PROJECT NO: I03032
LOCATION: Norwich, NY
DATE: 10/27/2004
DRILLING CONTRACTOR: Lyon Drilling
DRILLER: Harry Lyon
DRILLING METHOD: Direct Push with CME55

SAMPLING METHOD: 4 ft. Geoprobe macrocores
GROUND ELEVATION: 1004.48 ft. above MSL
WELL ELEVATION: N/A
OUTER CASING ELEVATION: N/A
DEPTH TO WATER: N/A
BOREHOLE DEPTH: 24 ft. below grade
WEATHER: Not recorded
GEOLOGIST: Pete DeClercq

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	SOIL DESCRIPTION and LITHOLOGIC SYMBOL	WELL CONSTRUCTION	REMARKS
0 to -1	0-4	50	0.5		FILL: Dry to moist, brown silt and gravel		
-1 to -2			1				
-2 to -3			1.5				
-3 to -4			0.0				
-4 to -5	4-8	80	0.0		FILL: Dry, brown silt, sand and gravel		
-5 to -6			0.0				
-6 to -7			0.0				
-7 to -8			0.0				
-8 to -9	8-12	53	0.0				
-9 to -10			0.0				
-10 to -11			0.0		SILT, SAND AND GRAVEL: Moist, brown silt, sand and gravel with black staining and a slight odor		
-11 to -12			1.3				
-12 to -13	12-16	55	73				
-13 to -14			170		SILT, SAND AND GRAVEL: Wet, brown silt, sand and gravel with NAPL throughout		
-14 to -15			70				
-15 to -16			130	15-16			
-16 to -17	16-20	58	47				
-17 to -18			60				
-18 to -19			50				
-19 to -20			75				
-20 to -22	20-24	93					
-22 to -23			6.0	22-23	CLAY AND SILT: Moist, dark brown to gray clay and interbedded silt		
-23 to -24							

NO-DP07

PROJECT: Norwich - NYSEG
PROJECT NO: I03032
LOCATION: Norwich, NY
DATE: 10/27/2004
DRILLING CONTRACTOR: Lyon Drilling
DRILLER: Harry Lyon
DRILLING METHOD: Direct Push with CME55

SAMPLING METHOD: 4 ft. Geoprobe macrocores
GROUND ELEVATION: 1004.08 ft. above MSL
WELL ELEVATION: N/A
OUTER CASING ELEVATION: N/A
DEPTH TO WATER: N/A
BOREHOLE DEPTH: 24 ft. below grade
WEATHER: Not recorded
GEOLOGIST: Pete DeClercq

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	SOIL DESCRIPTION and LITHOLOGIC SYMBOL	WELL CONSTRUCTION	REMARKS
0 to -1	0-4	65	0.1.16		FILL: Moist, brown silt, sand and gravel with some debris		
-1 to -2			1.6				
-2 to -3			2.1				
-3 to -4			0.0				
-4 to -5	4-8	58	0.0		FILL: Moist, brown , sand and gravel		
-5 to -6			0.0				
-6 to -7			0.0				
-7 to -8			0.0				
-8 to -9	8-12	55	0.0				
-9 to -10			0.0				
-10 to -11			42				
-11 to -12			20		SILT, SAND AND GRAVEL: Wet, brown silt, sand and gravel with some NAPL		
-12 to -16	12-16	20			SILT, SAND AND GRAVEL: Wet, brown silt, sand and gravel with black staining		Driller felt clay at 15.8'
-16 to -20	16-20	0			SAND AND GRAVEL: Wet, brown sand and gravel with little silt and NAPL		
					NO RECOVERY: Hole caving- No representative material sampled from 16-24' bgs		
-20 to -24	20-24	0					

NO-DP08

PROJECT: Norwich - NYSEG
PROJECT NO: I03032
LOCATION: Norwich, NY
DATE: 10/27/2004
DRILLING CONTRACTOR: Lyon Drilling
DRILLER: Harry Lyon
DRILLING METHOD: Direct Push with CME55

SAMPLING METHOD: 4 ft. Geoprobe macrocores
GROUND ELEVATION: 1004.29 ft. above MSL
WELL ELEVATION: N/A
OUTER CASING ELEVATION: N/A
DEPTH TO WATER: N/A
BOREHOLE DEPTH: 16 ft. below grade
WEATHER: Not recorded
GEOLOGIST: Pete DeClercq

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	SOIL DESCRIPTION and LITHOLOGIC SYMBOL	WELL CONSTRUCTION	REMARKS
0 to -1	0-4	55	0.2		FILL: Dry, brown silt with sand and gravel, very slight odor present from the surface to 0.4' bgs.		
-1 to -2			0.7				
-2 to -3			1.2				
-3 to -4			1.7				
-4 to -5	4-8	34	0.0				
-5 to -6			0.0				
-6 to -7			0.0				
-7 to -8			0.0				
-8 to -9	8-12	23	0.0				
-9 to -10			0.0				
-10 to -11			0.0				
-11 to -12			0.0		SILT, SAND AND GRAVEL: Moist, brown silt with some sand and gravel		
-12 to -13	12-16	58	55	12-14	SILT AND GRAVEL: Wet, gray silt and gravel with a strong odor and light brown NAPL throughout		
-13 to -14			35				
-14 to -15			16	14.7-15.7	CLAY AND SILT: Moist, brown to dark grayish brown, clay and interbedded silt		
-15 to -16			0.0				

NO-DP09

PROJECT: Norwich - NYSEG
PROJECT NO: I03032
LOCATION: Norwich, NY
DATE: 10/26/2004
DRILLING CONTRACTOR: Lyon Drilling
DRILLER: Harry Lyon
DRILLING METHOD: Direct Push with CME55

SAMPLING METHOD: 4 ft. Geoprobe macrocores
GROUND ELEVATION: 1007.18 ft. above MSL
WELL ELEVATION: N/A
OUTER CASING ELEVATION: N/A
DEPTH TO WATER: N/A
BOREHOLE DEPTH: 20 ft. below grade
WEATHER: Not recorded
GEOLOGIST: Pete DeClercq

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	SOIL DESCRIPTION and LITHOLOGIC SYMBOL	WELL CONSTRUCTION	REMARKS
0 to -4	0-4	50	0.0, 0.5, 1.5, 2.0		FILL: Moist, brown silt with some sand, gravel and coal-like material		
-4 to -8	4-8	63	0.0, 0.0, 0.0, 0.9		FILL: Moist, brown silt with sand and gravel; SILT: Dry, brown silt with a slight odor and staining from 7.6'-8.0'		
-8 to -12	8-12	58	0.0, 0.0, 13, 139		SILT, SAND AND GRAVEL: Moist, brown silt with sand , gravel and a slight tar-like odor; SILT, SAND AND GRAVEL: Wet, brown silt with sand, gravel and a tar-like odor		
-12 to -16	12-16	60	69, 65, 61, 72	15-16	SILT, SAND AND GRAVEL: Wet, brown silt with sand, gravel and NAPL throughout		
-16 to -20	16-20	100	65, 14, 4.3, 0.0, 0.0, 0.0, 0.0	18.8-20.0	SILT, SAND AND GRAVEL: Wet, brown silt with sand, gravel, and some NAPL; CLAY AND SILT: Moist to dry, dark brown to gray clay and interbedded silt		

NO-DP10

PROJECT: Norwich - NYSEG
PROJECT NO: I03032
LOCATION: Norwich, NY
DATE: 10/26/2004
DRILLING CONTRACTOR: Lyon Drilling
DRILLER: Harry Lyon
DRILLING METHOD: Direct Push with CME55

SAMPLING METHOD: 4 ft. Geoprobe macrocores
GROUND ELEVATION: 1004.07 ft. above MSL
WELL ELEVATION: N/A
OUTER CASING ELEVATION: N/A
DEPTH TO WATER: N/A
BOREHOLE DEPTH: 24 ft. below grade
WEATHER: Not recorded
GEOLOGIST: Pete DeClercq

SAMPLE INTERVAL (ft.)	% RECOVERY	REMARKS
0-4	40	
4-8	75	
8-12	48	
12-16	50	
16-20	63	Driller felt clay at 18' bgs
20-24	0.0	

DEPTH (ft.)	PID (ppm)	ANALYTICAL SAMPLE
0 to -1	0.1	
-1 to -2	0.6	
-2 to -3	1.1	
-3 to -4	0.0	
-4 to -5	0.0	
-5 to -6	0.0	
-6 to -7	0.0	
-7 to -8	0.0	
-8 to -9	0.0	
-9 to -10	0.0	
-10 to -11	0.0	
-11 to -12	1.3	
-12 to -13	1.1	
-13 to -14	834	
-14 to -15	15	
-15 to -16	32	
-16 to -18		
-18 to -19	7.4	
-19 to -20	4.1	19-20

SOIL DESCRIPTION and LITHOLOGIC SYMBOL	WELL CONSTRUCTION
FILL: Dry silt, clay and sand with some organic matter	
FILL: Dry silt with sand and gravel	
FILL: Moist silt with sand, gravel and a slight odor	
SAND AND SILT: Moist, brown silt with sand with some iron staining	
SILT, SAND AND GRAVEL: Moist, brown silt with sand, gravel	
SILT, SAND AND GRAVEL: Wet, brown silt with sand and gravel	
SILT, SAND AND GRAVEL: Wet, brown silt, sand and gravel with some black staining and a faint odor	
SILT, SAND AND GRAVEL: Wet, brown silt, sand and gravel, with black staining and NAPL throughout	
NO RECOVERY: Hole caving, no representative recovery	

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NO-DP11

PROJECT: Norwich - NYSEG
PROJECT NO: I03032
LOCATION: Norwich, NY
DATE: 10/27/2004
DRILLING CONTRACTOR: Lyon Drilling
DRILLER: Harry Lyon
DRILLING METHOD: Direct Push with CME55

SAMPLING METHOD: 4 ft. Geoprobe macrocores
GROUND ELEVATION: 1003.10 ft. above MSL
WELL ELEVATION: N/A
OUTER CASING ELEVATION: N/A
DEPTH TO WATER: N/A
BOREHOLE DEPTH: 17.2 ft. below grade
WEATHER: Not recorded
GEOLOGIST: Pete DeClercq

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	SOIL DESCRIPTION and LITHOLOGIC SYMBOL	WELL CONSTRUCTION	REMARKS
0 to -1	0-4	43	0.2		FILL: Moist to wet, brown silt, sand and gravel		
-1 to -2			0.7				
-2 to -3			1.2				
-3 to -4							
-4 to -6	4-8	43					
-6 to -7			0.7		SILT: Moist, brown silt		
-7 to -8			0.5		SILT AND GRAVEL: Moist, brown silt with gravel and a very slight odor		
-8 to -9	8-12	48	0.5				
-9 to -10							
-10 to -11			0.0				
-11 to -12			0.0		SILT AND GRAVEL: Wet, brown silt and gravel with some staining and a moderate odor		
-12 to -13	12-16	58	5.3				
-13 to -14			5.0				
-14 to -15			3.8		SILT, SAND AND GRAVEL: Wet, brown silt, sand and gravel with a sheen and odor		
-15 to -16			12		SILT AND GRAVEL: Wet silt and gravel with black staining and some NAPL		
-16 to -17.2	16-17.2	12	12		CLAY: Moist, brown clay		

NO-DP12

PROJECT: Norwich - NYSEG
PROJECT NO: I03032
LOCATION: Norwich, NY
DATE: 10/28/2004
DRILLING CONTRACTOR: Lyon Drilling
DRILLER: Harry Lyon
DRILLING METHOD: Direct Push with CME55

SAMPLING METHOD: 4 ft. Geoprobe macrocores
GROUND ELEVATION: 1003.34 ft. above MSL
WELL ELEVATION: N/A
OUTER CASING ELEVATION: N/A
DEPTH TO WATER: N/A
BOREHOLE DEPTH: 24 ft. below grade
WEATHER: Not recorded
GEOLOGIST: Pete DeClercq

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	SOIL DESCRIPTION and LITHOLOGIC SYMBOL	WELL CONSTRUCTION	REMARKS
0 to -1	0-4	25			FILL: Moist, brown silt, sand and gravel with some coal-like material at 6.0' bgs		
-1 to -2			1.2				
-5 to -6	4-8	58	0.0				
-6 to -7			0.0				
-7 to -8			0.0				
-8 to -9	8-12	23	0.0		SILT AND GRAVEL: Moist to wet, brown silt and gravel		
-11 to -12			0.0		SILT, SAND AND GRAVEL: Wet, brown, loosely packed silt, sand and gravel		
-12 to -16	12-16	25					
-15 to -17.7					SILT, SAND AND GRAVEL: Wet, very loose, brown sand with silt and gravel with NAPL globules		
-16 to -17	16-20	25	19				
-17.7 to -22					SILT, SAND AND GRAVEL: Wet, brown silt, sand and gravel with some NAPL		Clay suspected to be at 18' below grade
-20 to -21	20-24	48	2.0				
-22 to -24				22.6-24.0	CLAY: Dry, brown to dark brownish gray clay		
-23 to -24			0.0				

NO-DP13

PROJECT: Norwich - NYSEG
PROJECT NO: I03032
LOCATION: Norwich, NY
DATE: 10/26/2004
DRILLING CONTRACTOR: Lyon Drilling
DRILLER: Harry Lyon
DRILLING METHOD: Direct Push with CME55

SAMPLING METHOD: 4 ft. Geoprobe macrocores
GROUND ELEVATION: 1002.20 ft. above MSL
WELL ELEVATION: N/A
OUTER CASING ELEVATION: N/A
DEPTH TO WATER: N/A
BOREHOLE DEPTH: 17.8 ft. below grade
WEATHER: Not recorded
GEOLOGIST: Pete DeClercq

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	SOIL DESCRIPTION and LITHOLOGIC SYMBOL	WELL CONSTRUCTION	REMARKS
0 to -1	0-4	83	0.3		FILL: Dry, brown silt and gravel		
-1 to -2			0.8		SILT: Dry, dark brown silt with clay and some iron staining		
-2 to -3			1.3				
-3 to -4			1.8				
-4 to -5	4-8	75	2.3				
-5 to -6			2.8				
-6 to -7			0.0				
-7 to -8			0.0		SILT, SAND AND GRAVEL: Dry to moist, brown silt, sand and gravel		
-8 to -9	8-12	43	0.0				
-9 to -10			0.7				
-10 to -11			15				
-11 to -12			95		SILT AND GRAVEL: Wet, dark brown to gray silt and gravel with some NAPL		
-12 to -14	12-16	48					
-14 to -15			13	14.5-16.0			
-15 to -16			13				
-16 to -17	16-17.8	48	10		SILT, SAND AND GRAVEL: Wet, brown to gray silt, sand and gravel with some NAPL		
-17 to -17.8			0.0	17.2-17.8	CLAY AND SILT: Moist, dark brown to gray clay and interbedded silt		

NO-DP14

PROJECT: Norwich - NYSEG
PROJECT NO: I03032
LOCATION: Norwich, NY
DATE: 6/16/2005
DRILLING CONTRACTOR: Lyon Drilling
DRILLER: Harry Lyon
DRILLING METHOD: Direct Push with CME55

SAMPLING METHOD: 4 ft. Geoprobe macrocores
GROUND ELEVATION: 1002.19 ft. above MSL
WELL ELEVATION: NA
OUTER CASING ELEVATION: NA
DEPTH TO WATER: NA
BOREHOLE DEPTH: 24 ft. below grade
WEATHER: Cool, cloudy, rainy
GEOLOGIST: Amanda Bissell

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	SOIL DESCRIPTION and LITHOLOGIC SYMBOL	WELL CONSTRUCTION	REMARKS
0 to -1	0-4	80	0.0		ASPHALT (0 to -0.7)		
-1 to -2			0.0		FILL: Dry to moist, brown, fine sand with gravel and coal-like material (CLM) (-0.7 to -2.5)		
-2 to -3			0.0				
-3 to -4			0.0		SAND AND GRAVEL: Dry to moist, brown, fine to coarse sand and gravel with trace clay and iron staining (-2.5 to -4)		
-4 to -5	4-8	60	0.0		SAND AND GRAVEL: As above with an odor and sheen from 7-8' (-4 to -8)		
-5 to -6			0.0				
-6 to -7			10.4				
-7 to -8			16.5				
-8 to -9	8-12	50	35		GRAVEL AND SAND: Wet, dark gray, gravel and coarse sand with strong odor and NAPL (-8 to -12)		
-9 to -10			51				
-10 to -11			29				
-11 to -12			11.1				

NO-DP14

PROJECT: Norwich - NYSEG
PROJECT NO: I03032
LOCATION: Norwich, NY
DATE: 6/16/2005
DRILLING CONTRACTOR: Lyon Drilling
DRILLER: Harry Lyon
DRILLING METHOD: Direct Push with CME55

SAMPLING METHOD: 4 ft. Geoprobe macrocores
GROUND ELEVATION: 1002.19 ft. above MSL
WELL ELEVATION: NA
OUTER CASING ELEVATION: NA
DEPTH TO WATER: NA
BOREHOLE DEPTH: 24 ft. below grade
WEATHER: Cool, cloudy, rainy
GEOLOGIST: Amanda Bissell

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	SOIL DESCRIPTION and LITHOLOGIC SYMBOL	WELL CONSTRUCTION	REMARKS
-12	12-16	50	1.1		GRAVEL AND SAND: Wet, dark gray, gravel and coarse sand with strong odor and NAPL		
-13			1.6				
-14			3.2				
-15			19.7				
-16	16-20	50	36.5				
-17			16.7				
-18			15.5		CLAY: Moist, brown compact clay. NAPL on outside from layer above.		
-19			17.5	18.7-20			
-20	20-24	100	5.7				
-21			5.4		CLAY AND SILT: Moist, gray, interbedded clay and silt		
-22			1.7				
-23			1.1	23-24			
-24							

NO-DP15/PZ04

PROJECT: Norwich - NYSEG
PROJECT NO: I03032
LOCATION: Norwich, NY
DATE: 10/29/2004
DRILLING CONTRACTOR: Lyon Drilling
DRILLER: Harry Lyon
DRILLING METHOD: Direct Push with CME55

SAMPLING METHOD: 4 ft. Geoprobe macrocores
GROUND ELEVATION: 1001.94 ft. above MSL
WELL ELEVATION: 1001.55 ft. above MSL
OUTER CASING ELEVATION: N/A
DEPTH TO WATER: 7.85 below TOC (6/17/05)
BOREHOLE DEPTH: 20 ft. below grade
WEATHER: Not recorded
GEOLOGIST: Pete DeClercq

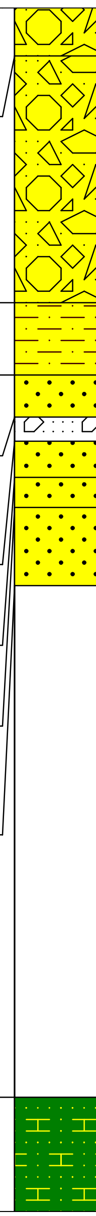
DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY
0 to -4	0-4	35
-4 to -8	4-8	75
-8 to -12	8-12	45
-12 to -16	12-16	0
-16 to -20	16-20	50

DEPTH (ft.)	PID (ppm)
-2 to -3	0.4
-3 to -4	0.9
-4 to -5	0.4
-5 to -6	0.1
-6 to -7	0.8
-7 to -8	1.5
-8 to -9	1.3
-9 to -10	2.1
-19 to -20	0.0

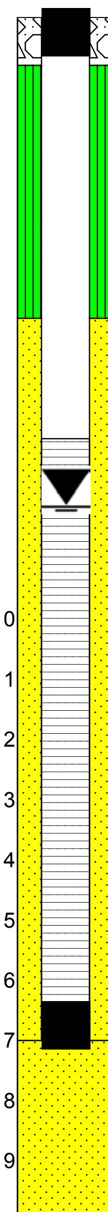
ANALYTICAL SAMPLE
8.2-8.8
19.5-20

SOIL DESCRIPTION and LITHOLOGIC SYMBOL

- FILL: Dry, dark brown silt, sand and gravel with some coal-like material (CLM)
- FILL: Dry, brown silt, sand and gravel
- SILT: Dry, brown silt with clay
- SAND: Dry, gray, fine to medium sand
- SAND AND GRAVEL: Dry, brown sand and gravel with some silt
- SAND: Dry, brown, medium to coarse sand
- SAND: Wet, brown, medium to coarse sand
- SAND: Wet, brown, medium to coarse sand with a sheen and NAPL globules
- NO RECOVERY
- CLAY AND SILT: Wet, brown clay and interbedded silt



WELL CONSTRUCTION



REMARKS

- Flush mount curb box
- Sand and Concrete
- Bentonite Seal
- 1-inch PVC riser
- Water level (12/6/05)
- Sand pack
- 0.010-inch slotted screen
- Well cap

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NO-DP16

PROJECT: Norwich - NYSEG
PROJECT NO: I03032
LOCATION: Norwich, NY
DATE: 10/26/2004
DRILLING CONTRACTOR: Lyon Drilling
DRILLER: Harry Lyon
DRILLING METHOD: Direct Push with CME55

SAMPLING METHOD: 4 ft. Geoprobe macrocores
GROUND ELEVATION: 1003.73 ft. above MSL
WELL ELEVATION: NA
OUTER CASING ELEVATION: NA
DEPTH TO WATER: NA
BOREHOLE DEPTH: 20 ft. below grade
WEATHER: Not recorded
GEOLOGIST: Pete DeClercq

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	SOIL DESCRIPTION and LITHOLOGIC SYMBOL	WELL CONSTRUCTION	REMARKS
0 to -1	0-4	70	0.8		FILL: Dry gravel, sand, and silt with brick and other debris at 3.4'		
-1 to -2			1.3				
-2 to -3			1.8				
-3 to -4			2.3				
-4 to -6	4-8	50			SILT: Wet brown silt with some sand and iron staining		
-6 to -7			0.0		SILT: Moist, brown silt with iron staining		
-7 to -8			0.0		SILT: Dry, brown silt with iron staining		
-8 to -9	8-12	58	0.0				
-9 to -10			0.0				
-10 to -11			0.0		SILT, SAND AND GRAVEL: Dry, brown silt with sand and gravel		
-11 to -12			4.1		SILT, SAND AND GRAVEL: Wet, brown silt with sand, gravel and a slight MGP odor		
-12 to -13	12-16	50	1.9				
-13 to -14			0.0				
-14 to -15			0.0		SILT, SAND AND GRAVEL: Wet, brown silt, sand and gravel. Very slight sheen and a few small NAPL globules from 14.5 to 15.0'.		
-15 to -16			0.0				
-16 to -17	16-20	88	0.4				
-17 to -18			0.0		SILT, SAND AND GRAVEL: Wet, brown silt, sand and gravel		Driller felt clay at 17.5'
-18 to -19			0.0		CLAY AND SILT: Moist, dark brown to gray clay and silt		
-19 to -20			0.0	19-20			

NO-DP17

PROJECT: Norwich - NYSEG
PROJECT NO: I03032
LOCATION: Norwich, NY
DATE: 10/26/2004
DRILLING CONTRACTOR: Lyon Drilling
DRILLER: Harry Lyon
DRILLING METHOD: Direct Push with CME55

SAMPLING METHOD: 4 ft. Geoprobe macrocores
GROUND ELEVATION: 1004.34 ft. above MSL
WELL ELEVATION: NA
OUTER CASING ELEVATION: NA
DEPTH TO WATER: NA
BOREHOLE DEPTH: 20 ft. below grade
WEATHER: Not recorded
GEOLOGIST: Pete DeClercq

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE
0 to -1	0-4	75	0.5	
-1 to -2			1	
-2 to -3			1.5	
-3 to -4			2	
-4 to -5	4-8	100	70	
-5 to -6			2.1	
-6 to -7			0.0	
-7 to -8			0.0	
-8 to -9	8-12	58	8.2	
-9 to -10			1.4	
-10 to -11			2.0	
-11 to -12			13	11.5-12
-12 to -13	12-16	63		
-13 to -14			0.9	13.5-14.3
-14 to -15			1.3	
-15 to -16			0.3	
-16 to -17	16-20	75	0.0	
-17 to -18			0.0	
-18 to -19			0.0	
-19 to -20			0.0	18.9-20

SOIL DESCRIPTION and LITHOLOGIC SYMBOL

- FILL: Dry, brown silt and gravel with slight staining and a very slight MGP odor from 3.5 to 4.0'
- FILL: Dry, brown silt and gravel with some black residual tar-like material (TLM)
- CLAY AND SILT: Moist clay and silt with some black to gray staining and MGP odor
- CLAY AND SILT: Dry, brown clay and silt
- SILT: Dry, brown silt with gravel and clay
- SILT AND GRAVEL: Moist silt with some black staining and MGP odor
- SILT AND GRAVEL: Wet silt with gravel, clay and NAPL globules
- CLAY AND SILT: Moist, brown clay and interbedded silt
- CLAY AND SILT: Dry, dark brown to gray clay and interbedded silt

WELL CONSTRUCTION

REMARKS

NO-DP18/GW04-16

PROJECT: Norwich - NYSEG
PROJECT NO: I03032
LOCATION: Norwich, NY
DATE: 10/25/2004
DRILLING CONTRACTOR: Lyon Drilling
DRILLER: Harry Lyon
DRILLING METHOD: Direct Push with CME55

SAMPLING METHOD: 4 ft. Geoprobe macrocores
GROUND ELEVATION: 1004.40 ft. above MSL
WELL ELEVATION: 1006.85 ft. above MSL
OUTER CASING ELEVATION: 1006.95 ft. above MSL
DEPTH TO WATER: 13.10 depth below TOC
BOREHOLE DEPTH: 28 ft. below grade
WEATHER: Not recorded
GEOLOGIST: Pete DeClercq

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	SOIL DESCRIPTION and LITHOLOGIC SYMBOL
0 to -1	0-4	50	0.2		FILL: Dry, brown silt with sand and gravel
-1 to -2			0.7		
-2 to -3			1.2		
-3 to -4			1.7		
-4 to -6	4-8	15			FILL: Dry to moist, brown silt with sand and gravel with some black staining at 8.0'.
-6 to -7			7.5		
-7 to -8			7.9		
-8 to -9	8-12	85	2.9		WOOD: Wood, solid piece with longitudnal grain
-9 to -10					
-10 to -11			5.5		SILT, SAND AND GRAVEL: Wet, brown silt, sand and gravel with NAPL
-11 to -12			9.4	11.5-12	
-12 to -13	12-16	60	19		
-13 to -14			22		
-14 to -15			13		
-15 to -16			15	15.5-16	

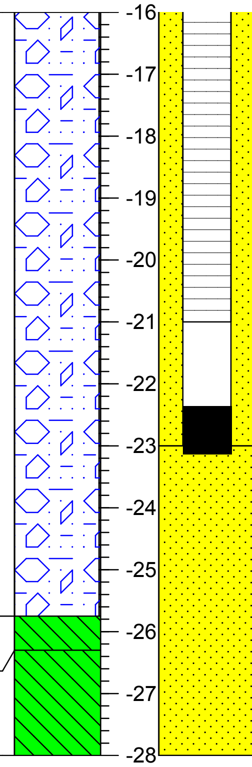
WELL CONSTRUCTION	REMARKS
+2 to 0	Outer steel casing
0 to -6	Bentonite grout
	2-inch PVC riser
-6 to -16	Bentonite seal
	Sand pack
-11 to -16	0.020-inch slotted screen
-13	Water level (12/6/05)

NO-DP18/GW04-16

PROJECT: Norwich - NYSEG
PROJECT NO: I03032
LOCATION: Norwich, NY
DATE: 10/25/2004
DRILLING CONTRACTOR: Lyon Drilling
DRILLER: Harry Lyon
DRILLING METHOD: Direct Push with CME55

SAMPLING METHOD: 4 ft. Geoprobe macrocores
GROUND ELEVATION: 1004.40 ft. above MSL
WELL ELEVATION: 1006.85 ft. above MSL
OUTER CASING ELEVATION: 1006.95 ft. above MSL
DEPTH TO WATER: 13.10 depth below TOC
BOREHOLE DEPTH: 28 ft. below grade
WEATHER: Not recorded
GEOLOGIST: Pete DeClercq

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	SOIL DESCRIPTION and LITHOLOGIC SYMBOL	WELL CONSTRUCTION	REMARKS
-16 to -17	16-20	25	20		SILT, SAND AND GRAVEL: Wet, brown gravel and sand with NAPL throughout		
-17 to -18			66				
-18 to -19			59				
-19 to -20				19-20			
-20 to -21	20-24	48	43				
-21 to -23							Driller felt clay at 21'
-23 to -24			34				Well cap
-24 to -26	24-28	100					
-26 to -26.9					CLAY: Wet, brown clay		
-26.9 to -28				27.4-27.9	CLAY: Dry, dark brownish-gray clay and interbedded silt		

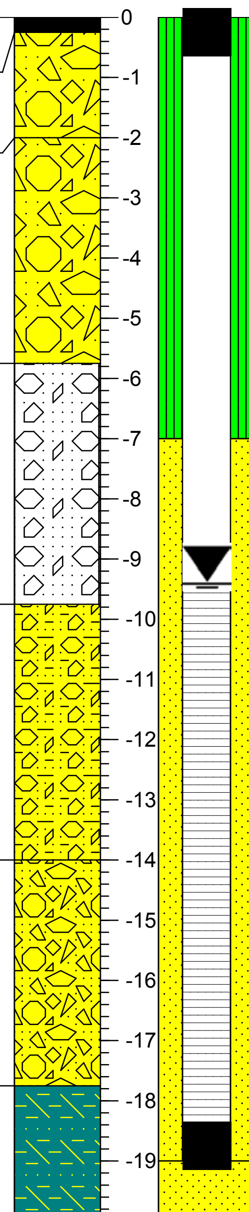


NO-DP19/PZ11

PROJECT: Norwich - NYSEG
PROJECT NO: I03032
LOCATION: Norwich, NY
DATE: 4/26/2005
DRILLING CONTRACTOR: Lyon Drilling
DRILLER: Harry Lyon
DRILLING METHOD: Direct Push with CME55

SAMPLING METHOD: 4 ft. Geoprobe macrocores
GROUND ELEVATION: 1004.13 ft. above MSL
WELL ELEVATION: 1003.86 ft. above MSL
OUTER CASING ELEVATION: NA
DEPTH TO WATER: 9.13 ft. below TOC
BOREHOLE DEPTH: 20 ft. below grade
WEATHER: Warm, sunny, breezy
GEOLOGIST: Lara Gray

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	SOIL DESCRIPTION and LITHOLOGIC SYMBOL	REMARKS
0 to -1	0-4	60	0.0		ASPHALT	Flush mount curb box
-1 to -2			0.0		FILL: Dry, light brown silt, sand, gravel and concrete pieces	
-2 to -3			0.0		FILL: Dry to moist, dark brown clay, sand, ash-like material, and coal-like material (CLM) with a few wood chips, black staining, and slight odor	1-inch PVC riser
-3 to -4			0.0			
-4 to -5	4-8	75	0.0			
-5 to -6			0.0			Bentonite grout
-6 to -7			0.0		SAND AND GRAVEL: Dry to moist, orangey-brown, fine sand with some small gravel and iron staining	
-7 to -8			0.0			
-8 to -9	8-12	60	0.0			
-9 to -10			0.0			Water level (12/6/05)
-10 to -11			0.0		GRAVEL AND SAND: Moist to wet, orangey-brown, fine to medium sand with fine to large gravel. Unit is poorly sorted and some iron staining is present.	
-11 to -12			0.0			Sand pack
-12 to -13	12-16	50	0.0			
-13 to -14			0.0			
-14 to -15			0.0	14-15	GRAVEL: Wet, fine to large, poorly sorted, rounded gravel	
-15 to -16			0.0			0.010-inch slotted screen
-16 to -17	16-20	70	0.0			
-17 to -18			0.0			
-18 to -19			0.0	18-19	CLAY AND SAND: Moist, gray clay with fine sand	
-19 to -20			0.0			Well cap



NO-DP20

PROJECT: Norwich - NYSEG
PROJECT NO: I03032
LOCATION: Norwich, NY
DATE: 10/29/2004
DRILLING CONTRACTOR: Lyon Drilling
DRILLER: Harry Lyon
DRILLING METHOD: Direct Push with CME55

SAMPLING METHOD: 4 ft. Geoprobe macrocores
GROUND ELEVATION: 1004.67 ft. above MSL
WELL ELEVATION: NA
OUTER CASING ELEVATION: NA
DEPTH TO WATER: NA
BOREHOLE DEPTH: 24 ft. below grade
WEATHER: Not recorded
GEOLOGIST: Pete DeClercq

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	SOIL DESCRIPTION and LITHOLOGIC SYMBOL	WELL CONSTRUCTION	REMARKS
0 to -1	0-4	78	0.6		ASPHALT		
-1 to -2			1.1		FILL: Dry, brown sand and gravel with some silt		
-2 to -3			1.6				
-3 to -4			2.1				
-4 to -5	4-8	53	2.6				
-5 to -6							
-6 to -7			0.0				
-7 to -8			0.0		SILT: Moist, brown silt with trace clay and some iron staining		
-8 to -10	8-12	65			GRAVEL AND SAND: Moist, brown gravel and sand with some silt		
-10 to -11			0.0				
-11 to -12			0.0				

NO-DP20

PROJECT: Norwich - NYSEG
PROJECT NO: I03032
LOCATION: Norwich, NY
DATE: 10/29/2004
DRILLING CONTRACTOR: Lyon Drilling
DRILLER: Harry Lyon
DRILLING METHOD: Direct Push with CME55

SAMPLING METHOD: 4 ft. Geoprobe macrocores
GROUND ELEVATION: 1004.67 ft. above MSL
WELL ELEVATION: NA
OUTER CASING ELEVATION: NA
DEPTH TO WATER: NA
BOREHOLE DEPTH: 24 ft. below grade
WEATHER: Not recorded
GEOLOGIST: Pete DeClercq

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	SOIL DESCRIPTION and LITHOLOGIC SYMBOL	WELL CONSTRUCTION	REMARKS
-12 to -16	12-16	5	0.0	NAPL Zone (-14 to -15)	NO RECOVERY: No recovery due to boring hole caving in		Driller felt clay at 15' below grade
-16 to -20	16-20	40			NO RECOVERY: No recovery, boring hole caving in. NAPL present on bottom of sample sleeve.		
-20 to -24	20-24	12	25				

NO-DP21A

PROJECT: Norwich - NYSEG
PROJECT NO: I03032
LOCATION: Norwich, NY
DATE: 10/29/2004
DRILLING CONTRACTOR: Lyon Drilling
DRILLER: Harry Lyon
DRILLING METHOD: Direct Push with CME55

SAMPLING METHOD: 4 ft. Geoprobe macrocores
GROUND ELEVATION: 1004.13 ft. above MSL
WELL ELEVATION: NA
OUTER CASING ELEVATION: NA
DEPTH TO WATER: NA
BOREHOLE DEPTH: 2.1 ft. below grade
WEATHER: Not recorded
GEOLOGIST: Pete DeClercq

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	SOIL DESCRIPTION and LITHOLOGIC SYMBOL	WELL CONSTRUCTION	REMARKS
0	0-2.1				ASPHALT		
-1					FILL: Dry, brown sand and gravel with some silt. Refusal at 2.1 ft. Moved ~3' west (see DP21B)		
-2							

NO-DP21B

PROJECT: Norwich - NYSEG
PROJECT NO: I03032
LOCATION: Norwich, NY
DATE: 10/29/2004
DRILLING CONTRACTOR: Lyon Drilling
DRILLER: Harry Lyon
DRILLING METHOD: Direct Push with CME55

SAMPLING METHOD: 4 ft. Geoprobe macrocores
GROUND ELEVATION: 1004.12 ft. above MSL
WELL ELEVATION: NA
OUTER CASING ELEVATION: NA
DEPTH TO WATER: NA
BOREHOLE DEPTH: 7.4 ft. below grade
WEATHER: Not recorded
GEOLOGIST: Pete DeClercq

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	SOIL DESCRIPTION and LITHOLOGIC SYMBOL	WELL CONSTRUCTION	REMARKS
0	0-4	80	1.2		ASPHALT		
-1			1.7		FILL: Dry, brown sand and gravel with some silt		
-2			2.2				
-3			2.7		FILL: Dry, brown sand and gravel with some coal like material (CLM) and brick pieces		
-4	4-7.4	0			NO RECOVERY: Refusal at 7.4'		
-5							
-6							
-7							

NO-DP22

PROJECT: Norwich - NYSEG
PROJECT NO: I03032
LOCATION: Norwich, NY
DATE: 4/25/2005
DRILLING CONTRACTOR: Lyon Drilling
DRILLER: Harry Lyon
DRILLING METHOD: Direct Push with CME55

SAMPLING METHOD: 4 ft. Geoprobe macrocores
GROUND ELEVATION: 1004.36 ft. above MSL
WELL ELEVATION: NA
OUTER CASING ELEVATION: NA
DEPTH TO WATER: NA
BOREHOLE DEPTH: 24 ft. below grade
WEATHER: Cool with flurries
GEOLOGIST: Lara Gray

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	SOIL DESCRIPTION and LITHOLOGIC SYMBOL	WELL CONSTRUCTION	REMARKS
0	0-4	100	0.0		ASPHALT		
-1			0.1		FILL: Dry, light brown silt, sand, gravel and concrete pieces		
-2			0.2				
-3			0.5				
-4	4-8	75	0.1				
-5			0.2				
-6			0.2		FILL: Moist, medium brown silt and fine sand with small to medium gravel and a few coal-like flecks. Slight black staining present.		
-7			0.5				
-8	8-12	75	0.4				
-9			20				
-10			50				
-11			100	11.5-12	SAND AND SILT: Moist to wet, medium brown, fine sand and silt with some gravel. Sheen and staining present throughout. NAPL globules present from 11.8-12.0'.		
-12			25				
-13							

NO-DP22

PROJECT: Norwich - NYSEG
PROJECT NO: I03032
LOCATION: Norwich, NY
DATE: 4/25/2005
DRILLING CONTRACTOR: Lyon Drilling
DRILLER: Harry Lyon
DRILLING METHOD: Direct Push with CME55

SAMPLING METHOD: 4 ft. Geoprobe macrocores
GROUND ELEVATION: 1004.36 ft. above MSL
WELL ELEVATION: NA
OUTER CASING ELEVATION: NA
DEPTH TO WATER: NA
BOREHOLE DEPTH: 24 ft. below grade
WEATHER: Cool with flurries
GEOLOGIST: Lara Gray

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	SOIL DESCRIPTION and LITHOLOGIC SYMBOL	WELL CONSTRUCTION	REMARKS
-14	12-16	60	75		GRAVEL AND SAND: Wet, brown, fine to medium sand and gravel. NAPL globules, sheen, and moderate odor present throughout.		
-15			26	14.5-15.5			
			46				
-16	16-20	70	35				
-17			25				
-18			36		GRAVEL AND SAND: As above with slight sheen and NAPL globules		
-19			1.5		GRAVEL: Wet, brown, small to medium gravel		
-20	20-24	100	1.5		GRAVEL AND SAND: Wet, brown, medium to coarse sand and gravel with sheen and slight NAPL globules present		
-21			0.5		CLAY AND SAND: Moist, reddish-brown, compact clay with fine sand		
-22			0.3				
-23			0.1		CLAY AND SAND: Moist to dry, gray clay with fine sand		
-24							

NO-DP23/PZ06

PROJECT: Norwich - NYSEG
PROJECT NO: I03032
LOCATION: Norwich, NY
DATE: 10/28/2004
DRILLING CONTRACTOR: Lyon Drilling
DRILLER: Harry Lyon
DRILLING METHOD: Direct Push with CME55

SAMPLING METHOD: 4 ft. Geoprobe macrocores
GROUND ELEVATION: 1002.13 ft. above MSL
WELL ELEVATION: 1001.82 ft. above MSL
OUTER CASING ELEVATION: NA
DEPTH TO WATER: 8.27 ft. below TOC
BOREHOLE DEPTH: 24 ft. below grade
WEATHER: Not recorded
GEOLOGIST: Pete DeClercq

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	SOIL DESCRIPTION and LITHOLOGIC SYMBOL	WELL CONSTRUCTION	REMARKS
0 to -2	0-4	57	1.2		SILT AND GRAVEL: Dry, brown silt and gravel with sand		Flush mount curb box Sand and concrete
-2 to -3			1.7				
-3 to -4							Bentonite seal
-4 to -5	4-8	63	1.6				
-5 to -6			1.4				1-inch PVC riser
-6 to -7			1.3				
-7 to -8			1.2				
-8 to -9	8-12	50					Water level (12/6/05)
-9 to -10			3.4				Sand pack
-10 to -11			1.6				
-11 to -12			1.6		SILT AND GRAVEL: Wet, brown silt and gravel with sand		
-12 to -15	12-16	25			SAND: Wet, brown sand with trace silt		0.010-inch slotted screen

NO-DP23/PZ06

PROJECT: Norwich - NYSEG
PROJECT NO: I03032
LOCATION: Norwich, NY
DATE: 10/28/2004
DRILLING CONTRACTOR: Lyon Drilling
DRILLER: Harry Lyon
DRILLING METHOD: Direct Push with CME55

SAMPLING METHOD: 4 ft. Geoprobe macrocores
GROUND ELEVATION: 1002.13 ft. above MSL
WELL ELEVATION: 1001.82 ft. above MSL
OUTER CASING ELEVATION: NA
DEPTH TO WATER: 8.27 ft. below TOC
BOREHOLE DEPTH: 24 ft. below grade
WEATHER: Not recorded
GEOLOGIST: Pete DeClercq

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	SOIL DESCRIPTION and LITHOLOGIC SYMBOL	WELL CONSTRUCTION	REMARKS
-15			1.5		GRAVEL AND SAND: Wet, gray sand and gravel with some silt and a slight MGP odor. Sheen present on bottom of sample sleeve.		
-16							
-17			1.2		GRAVEL AND SAND: Wet, brown gravel with sand and some silt. NAPL globules from 22.6-22.8' bgs.		
-18	16-20	60	1.3				
-19			1.1				
-20							
-21							Well cap
-22	20-24	58	5.4	22.6-22.8			
-23			1.8		CLAY AND SILT: Moist, brown clay and interbedded silt		
-24					CLAY AND SILT: Moist, dark brownish gray clay and interbedded silt		

NO-DP24/PZ05

PROJECT: Norwich - NYSEG
PROJECT NO: I03032
LOCATION: Norwich, NY
DATE: 10/28/2004
DRILLING CONTRACTOR: Lyon Drilling
DRILLER: Harry Lyon
DRILLING METHOD: Direct Push with CME55

SAMPLING METHOD: 4 ft. Geoprobe macrocores
GROUND ELEVATION: 1003.24 ft. above MSL
WELL ELEVATION: 1002.86 ft. above MSL
OUTER CASING ELEVATION: NA
DEPTH TO WATER: 9.21 ft. below TOC
BOREHOLE DEPTH: 24 ft. below grade
WEATHER: Not recorded
GEOLOGIST: Pete DeClercq

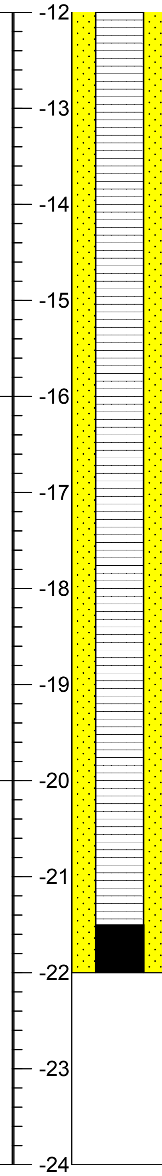
DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	SOIL DESCRIPTION and LITHOLOGIC SYMBOL	WELL CONSTRUCTION	REMARKS
0 to -2	0-4	68			SILT, SAND AND GRAVEL: Moist, brown silt with sand, gravel and a little coal-like material (CLM) from 3.1 to 3.3' bgs		Flush mount curb box Sand and concrete
-2 to -3			0.0				
-3 to -4			0.0				Bentonite seal
-4 to -5.5	4-8	58					1-inch PVC riser
-5.5 to -6			0.9				
-6 to -6.5			0.9		SILT AND GRAVEL: Moist, brown silt and gravel with sand		
-6.5 to -7			0.8				
-7 to -7.5			0.9				
-7.5 to -9.5	8-12	55			SAND AND SILT: Moist, brown silt and sand with gravel		Water level (12/6/05)
-9.5 to -10			0.9				
-10 to -10.5			0.7		SILT AND GRAVEL: Moist, brown silt and gravel with sand		Sand pack
-10.5 to -11			0.8				
-11 to -11.5			0.7		SILT AND GRAVEL: Wet, brown silt and gravel with sand		
-11.5 to -12							

NO-DP24/PZ05

PROJECT: Norwich - NYSEG
PROJECT NO: I03032
LOCATION: Norwich, NY
DATE: 10/28/2004
DRILLING CONTRACTOR: Lyon Drilling
DRILLER: Harry Lyon
DRILLING METHOD: Direct Push with CME55

SAMPLING METHOD: 4 ft. Geoprobe macrocores
GROUND ELEVATION: 1003.24 ft. above MSL
WELL ELEVATION: 1002.86 ft. above MSL
OUTER CASING ELEVATION: NA
DEPTH TO WATER: 9.21 ft. below TOC
BOREHOLE DEPTH: 24 ft. below grade
WEATHER: Not recorded
GEOLOGIST: Pete DeClercq

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	SOIL DESCRIPTION and LITHOLOGIC SYMBOL	WELL CONSTRUCTION	REMARKS
-12 to -16	12-16	0			NO RECOVERY		0.010-inch slotted screen
-16 to -20	16-20	0			NO RECOVERY: Core filled with slough from above		Driller felt clay at 18.5'
-20 to -24	20-24	0			NO RECOVERY: Core filled with slough from above and NAPL present on outside of sample sleeve		Well cap



NO-DP25/PZ10

PROJECT: Norwich - NYSEG
PROJECT NO: I03032
LOCATION: Norwich, NY
DATE: 4/29/2005
DRILLING CONTRACTOR: Lyon Drilling
DRILLER: Harry Lyon
DRILLING METHOD: Direct Push with CME55

SAMPLING METHOD: 4 ft. Geoprobe macrocores
GROUND ELEVATION: 1000.75 ft. above MSL
WELL ELEVATION: 1000.51 ft. above MSL
OUTER CASING ELEVATION: NA
DEPTH TO WATER: 6.30 ft. below TOC
BOREHOLE DEPTH: 20 ft. below grade
WEATHER: Cool, sunny, slight breeze
GEOLOGIST: Lara Gray

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE
0 to -1	0-4	100	0.0	
-1 to -2			0.0	
-2 to -3			0.0	
-3 to -4			0.0	
-4 to -5	4-8	75	0.0	
-5 to -6			0.0	
-6 to -7			0.0	
-7 to -8			0.0	7.8-8.0
-8 to -10	8-12	50	12	
-10 to -12			10	10-12
-12 to -14	12-16	40	15	
-14 to -16			6.0	
-16 to -17	16-20	75	2.0	
-17 to -18			0.0	
-18 to -19			0.0	
-19 to -20			0.0	19-20

SOIL DESCRIPTION and LITHOLOGIC SYMBOL

TOPSOIL: Grass and dark brown silty topsoil

FILL: Dry, dark brown silt with a little gravel and coal-like material (CLM)

SAND AND SILT: Dry, light orangy-brown silt and fine sand with a little gravel and iron staining

GRAVEL AND SAND: Dry to wet, brown, loosely packed silt, sand and gravel

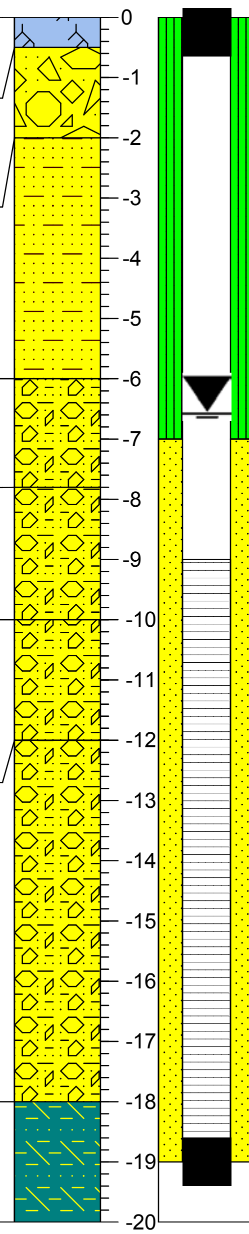
GRAVEL AND SAND: Wet, gray-stained sand and gravel with a sheen and fuel-like odor

GRAVEL AND SAND: Wet, brown, coarse sand grading to rounded and poorly sorted gravel and sand with a very slight fuel-like odor

GRAVEL AND SAND: As above

CLAY AND SAND: Moist, orangy-brown grading to gray clay with fine sand

WELL CONSTRUCTION



REMARKS

Flush mount curb box

1-inch PVC riser

Bentonite grout

Water level (12/6/05)

Sand Pack

0.010-inch slotted screen

Well cap

NO-DP26/PZ09

PROJECT: Norwich - NYSEG
PROJECT NO: I03032
LOCATION: Norwich, NY
DATE: 4/28/2005
DRILLING CONTRACTOR: Lyon Drilling
DRILLER: Harry Lyon
DRILLING METHOD: Direct Push with CME55

SAMPLING METHOD: 4 ft. Geoprobe macrocores
GROUND ELEVATION: 1004.79 ft. above MSL
WELL ELEVATION: 1004.49 ft. above MSL
OUTER CASING ELEVATION: NA
DEPTH TO WATER: 6.50 ft. below TOC
BOREHOLE DEPTH: 24 ft. below grade
WEATHER: Cool, cloudy, windy
GEOLOGIST: Lara Gray

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	SOIL DESCRIPTION and LITHOLOGIC SYMBOL	WELL CONSTRUCTION	REMARKS
0 to -1	0-4	100	0.0		TOPSOIL: Grass and dry, dark brown silty topsoil		Flush mount curb box
-1 to -2			0.0		SAND AND SILT: Dry, medium brown silt and fine sand with a little gravel		
-2 to -3			0.0				1-inch PVC riser
-3 to -4			0.0		SAND: Dry to moist, medium brown, fine to medium sand with some iron staining		
-4 to -5	4-8	75	0.0				Bentonite grout
-5 to -6			0.0				
-6 to -7			0.0		SAND AND SILT: Dry to moist, brown silt and sand with some gravel		Water level (12/6/05)
-7 to -8			0.0		GRAVEL AND SAND: Wet, brown, loosely packed sand and gravel		
-8 to -9	8-12	60	0.0				
-9 to -10			0.0				
-10 to -11			0.0	10-11			Sand pack
-11 to -12			0.0				

NO-DP26/PZ09

PROJECT: Norwich - NYSEG
PROJECT NO: I03032
LOCATION: Norwich, NY
DATE: 4/28/2005
DRILLING CONTRACTOR: Lyon Drilling
DRILLER: Harry Lyon
DRILLING METHOD: Direct Push with CME55

SAMPLING METHOD: 4 ft. Geoprobe macrocores
GROUND ELEVATION: 1004.79 ft. above MSL
WELL ELEVATION: 1004.49 ft. above MSL
OUTER CASING ELEVATION: NA
DEPTH TO WATER: 6.50 ft. below TOC
BOREHOLE DEPTH: 24 ft. below grade
WEATHER: Cool, cloudy, windy
GEOLOGIST: Lara Gray

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	SOIL DESCRIPTION and LITHOLOGIC SYMBOL	REMARKS
-12 to -13	12-16	60	0.0		GRAVEL AND SAND: Wet, brown, loosely packed sand and gravel	
-13 to -14			0.0			0.010-inch slotted screen
-14 to -15			0.0			
-15 to -16			0.0		GRAVEL AND SAND: As above	
-16 to -17	16-20	50	0.0			
-17 to -18			0.0			
-18 to -19			0.0			
-19 to -20			1.5		GRAVEL: Wet, small to medium, rounded gravel with sheen. NAPL globules on sample sleeve.	
-20 to -21	20-24	100	150	20.0-21.5	GRAVEL AND SAND: Wet, loosely packed sand and gravel with substantial NAPL present	
-21 to -22			200		CLAY AND SAND: Moist, orangy-brown clay and fine sand	
-22 to -23			40		CLAY AND SAND: Moist, gray clay with fine sand. NAPL smearing on outside from gravel layer above.	Well cap
-23 to -24			40	23-24		

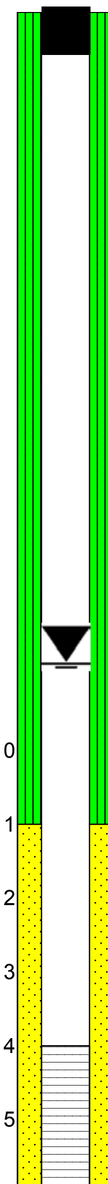
NO-DP27/PZ12

PROJECT: Norwich - NYSEG
PROJECT NO: I03032
LOCATION: Norwich, NY
DATE: 4/26/2005
DRILLING CONTRACTOR: Lyon Drilling
DRILLER: Harry Lyon
DRILLING METHOD: Direct Push with CME55

SAMPLING METHOD: 4 ft. Geoprobe macrocores
GROUND ELEVATION: 1003.82 ft. above MSL
WELL ELEVATION: 1003.45 ft. above MSL
OUTER CASING ELEVATION: NA
DEPTH TO WATER: 8.67 ft. below TOC
BOREHOLE DEPTH: 32 ft. below grade
WEATHER: Warm, sunny, breezy
GEOLOGIST: Lara Gray

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	SOIL DESCRIPTION and LITHOLOGIC SYMBOL	REMARKS
0 to -1	0-4	50	0.0		ASPHALT FILL: Dry, light brown silt, sand, gravel and concrete pieces	Flush mount curb box
-1 to -2			0.0			
-2 to -3			0.0			
-3 to -4			0.0			Bentonite grout
-4 to -5	4-8	20	0.0			
-5 to -6			0.0			
-6 to -7			0.0			1-inch PVC riser
-7 to -8			0.0			
-8 to -9	8-12	75	0.0		SILT: Moist, light brown silt with a little iron staining	Water level (12/6/05)
-9 to -10			0.0			
-10 to -11			0.0		SAND AND GRAVEL: Moist to wet, brown, fine sand with small to medium gravel and some iron staining	
-11 to -12			0.0			
-12 to -13	12-16	80	0.0			Sand pack
-13 to -14			0.0	13-13.5	GRAVEL AND SAND: Moist to wet, brown, fine sand with fine to medium gravel and some iron staining	
-14 to -15			0.0			0.010-inch slotted screen
-15 to -16			0.0			

WELL CONSTRUCTION



NO-DP27/PZ12

PROJECT: Norwich - NYSEG
PROJECT NO: I03032
LOCATION: Norwich, NY
DATE: 4/26/2005
DRILLING CONTRACTOR: Lyon Drilling
DRILLER: Harry Lyon
DRILLING METHOD: Direct Push with CME55

SAMPLING METHOD: 4 ft. Geoprobe macrocores
GROUND ELEVATION: 1003.82 ft. above MSL
WELL ELEVATION: 1003.45 ft. above MSL
OUTER CASING ELEVATION: NA
DEPTH TO WATER: 8.67 ft. below TOC
BOREHOLE DEPTH: 32 ft. below grade
WEATHER: Warm, sunny, breezy
GEOLOGIST: Lara Gray

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	SOIL DESCRIPTION and LITHOLOGIC SYMBOL	WELL CONSTRUCTION	REMARKS
-16	16-20	60	0.0		GRAVEL AND SAND: As above		
-17			0.0	17.5-18	SAND: Wet, brown, coarse sand with a slight sheen. NAPL present on tip of sampling sleeve.		
-18			0.0	18-183.5			
-19			0.0		GRAVEL: Wet, medium to coarse gravel		
-20	20-24	60	0.0		GRAVEL: Wet, small to coarse, angular gravel		
-21			0.0				
-22			0.0				Driller felt clay at 23' bgs
-23			0.0				
-24	24-28	0			NO RECOVERY		Well cap
-28	28-32	100	0.0		CLAY AND SAND: Moist, gray clay with some fine sand		
-29			0.0				
-30			0.0				
-31			0.0	31-32			
-32							

NO-DP28

PROJECT: Norwich - NYSEG
PROJECT NO: I03032
LOCATION: Norwich, NY
DATE: 4/27/2005
DRILLING CONTRACTOR: Lyon Drilling
DRILLER: Harry Lyon
DRILLING METHOD: Direct Push with CME55

SAMPLING METHOD: 4 ft. Geoprobe macrocores
GROUND ELEVATION: 1003.73 ft. above MSL
WELL ELEVATION: NA
OUTER CASING ELEVATION: NA
DEPTH TO WATER: NA
BOREHOLE DEPTH: 28 ft. below grade
WEATHER: Cool, cloudy, light rain
GEOLOGIST: Lara Gray

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	SOIL DESCRIPTION and LITHOLOGIC SYMBOL	WELL CONSTRUCTION	REMARKS
0 to -1	0-4	90	0.0		ASPHALT		
-1 to -2			0.0		FILL: Dry, light brown silt, sand, gravel and concrete pieces		
-2 to -3			0.0				
-3 to -4			0.0		FILL: Dry, black ash-like material with some coal-like material (CLM) and broken rock pieces		
-4 to -5	4-8	90	0.0		SILT: Dry, dark reddish-brown silt with a little gravel		
-5 to -6			0.0				
-6 to -7			0.0		SAND AND SILT: Dry to moist, light brown, fine sand and silt with some iron staining		
-7 to -8			0.0	7-8			
-8 to -9	8-12	50	0.				
-9 to -10			0.0				
-10 to -11			0.0		GRAVEL AND SAND: Moist to wet, brown, poorly sorted sand with small to large gravel and some iron staining		
-11 to -12			0.0				
-12 to -13	12-16	50	0.0				
-13 to -14			0.0				
-14 to -15			0.0	14-15			
-15 to -16			0.0				

NO-DP28

PROJECT: Norwich - NYSEG
PROJECT NO: I03032
LOCATION: Norwich, NY
DATE: 4/27/2005
DRILLING CONTRACTOR: Lyon Drilling
DRILLER: Harry Lyon
DRILLING METHOD: Direct Push with CME55

SAMPLING METHOD: 4 ft. Geoprobe macrocores
GROUND ELEVATION: 1003.73 ft. above MSL
WELL ELEVATION: NA
OUTER CASING ELEVATION: NA
DEPTH TO WATER: NA
BOREHOLE DEPTH: 28 ft. below grade
WEATHER: Cool, cloudy, light rain
GEOLOGIST: Lara Gray

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	SOIL DESCRIPTION and LITHOLOGIC SYMBOL	WELL CONSTRUCTION	REMARKS
-16 to -17	16-20	2	0.0		GRAVEL AND SAND: Wet, brown, very loosely packed sand and gravel. Poor recovery.		
-18 to -19			0.0				
-20 to -21	20-24	35	0.0				
-21 to -22			0.1		GRAVEL: Wet, very fine to medium, well sorted, rounded gravel		
-22 to -23			0.0				
-23 to -24			0.0		GRAVEL AND SAND: Wet, brown, fine sand with fine to large angular gravel		
-24 to -25	24-28	90	0.0				
-25 to -26			0.0		CLAY AND SAND: Moist, gray clay with fine sand		
-26 to -27			0.0				
-27 to -28			0.0				

NO-DP29

PROJECT: Norwich - NYSEG
PROJECT NO: I03032
LOCATION: Norwich, NY
DATE: 4/27/2005
DRILLING CONTRACTOR: Lyon Drilling
DRILLER: Harry Lyon
DRILLING METHOD: Direct Push with CME55

SAMPLING METHOD: 4 ft. Geoprobe macrocores
GROUND ELEVATION: 1004.96 ft. above MSL
WELL ELEVATION: NA
OUTER CASING ELEVATION: NA
DEPTH TO WATER: NA
BOREHOLE DEPTH: 24 ft. below grade
WEATHER: Cool, cloudy, light rain
GEOLOGIST: Lara Gray

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	SOIL DESCRIPTION and LITHOLOGIC SYMBOL	WELL CONSTRUCTION	REMARKS
0	0-4	80	0.0		ASPHALT		
-1			0.0		FILL: Dry, medium brown sand and gravel		
-2			0.0				
-3			0.0		FILL: Broken concrete pieces FILL: Dry, black sand, ash-like material, coal-like material (CLM) and brick pieces		
-4	4-8	50	0.0				
-5			0.0				
-6			0.0				
-7			0.0		SAND AND SILT: Dry to moist, brown, fine sand and silt with some iron staining		
-8	8-12	80	0.0				
-9			0.0		SAND AND SILT: As above with some gravel		
-10			0.0				
-11			0.0				
-12			0.0		SAND AND SILT: As above		
-13			0.0				

NO-DP29

PROJECT: Norwich - NYSEG
PROJECT NO: I03032
LOCATION: Norwich, NY
DATE: 4/27/2005
DRILLING CONTRACTOR: Lyon Drilling
DRILLER: Harry Lyon
DRILLING METHOD: Direct Push with CME55

SAMPLING METHOD: 4 ft. Geoprobe macrocores
GROUND ELEVATION: 1004.96 ft. above MSL
WELL ELEVATION: NA
OUTER CASING ELEVATION: NA
DEPTH TO WATER: NA
BOREHOLE DEPTH: 24 ft. below grade
WEATHER: Cool, cloudy, light rain
GEOLOGIST: Lara Gray

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	SOIL DESCRIPTION and LITHOLOGIC SYMBOL	WELL CONSTRUCTION	REMARKS
-14	12-16	50	0.0		GRAVEL AND SAND: Wet, brown, loosely packed, poorly sorted, medium to coarse sand and angular gravel		
-15			0.0				
-16	16-20	40	0.0				
-17			0.0				
-18			0.0		SAND AND SILT: Wet, brown, sand and silt with small to medium gravel and some iron staining		
-19			0.0				
-20	20-24	60	0.0		SAND AND SILT: As above with a very slight odor		
-21			6.2				
-22			2.6	22.5-23			
-23			0.0	23-24	CLAY AND SAND: Moist, reddish-brown to gray clay with fine sand		
-24							

NO-DP30

PROJECT: Norwich - NYSEG
PROJECT NO: I03032
LOCATION: Norwich, NY
DATE: 4/29/2005
DRILLING CONTRACTOR: Lyon Drilling
DRILLER: Harry Lyon
DRILLING METHOD: Direct Push with CME55

SAMPLING METHOD: 4 ft. Geoprobe macrocores
GROUND ELEVATION: 1001.87 ft. above MSL
WELL ELEVATION: NA
OUTER CASING ELEVATION: NA
DEPTH TO WATER: NA
BOREHOLE DEPTH: 24 ft. below grade
WEATHER: Warm, sunny, slight breeze
GEOLOGIST: Lara Gray

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	SOIL DESCRIPTION and LITHOLOGIC SYMBOL	WELL CONSTRUCTION	REMARKS
0 to -1	0-4	50	0.0		TOPSOIL: Moist, dark brown, silty topsoil with some organic material		
-1 to -2			0.0				
-2 to -3			0.0		SAND AND SILT: Dry, medium to dark brown sand and silt with some gravel and iron staining		
-3 to -4			0.0				
-4 to -5	4-8	75	0.0				
-5 to -6			0.0		GRAVEL AND SAND: Dry to moist, brown sand with some angular gravel and iron staining		
-6 to -7			0.0				
-7 to -8			0.0		CLAY AND SILT: Moist, orangy-brown silt and clay		
-8 to -9	8-12	75	0.0				
-9 to -10			0.0		CLAY AND SILT: Dry to moist, gray, compact clay and silt		
-10 to -11			0.0				
-11 to -12			0.0				
-12 to -13	12-16	80	0.0				
-13 to -14			0.0		CLAY AND SAND: Moist, gray clay with fine sand		
-14 to -15			0.0				
-15 to -16			0.0				
-16 to -17	16-20	100	0.0				
-17 to -18			0.0				
-18 to -19			0.0				
-19 to -20			0.0				
-20 to -21	20-24	100	0.0		CLAY AND SILT: Moist, gray clay with fine silt		
-21 to -22			0.0				
-22 to -23			0.0				
-23 to -24			0.0	23-24			

NO-DP31

PROJECT: Norwich - NYSEG
PROJECT NO: I03032
LOCATION: Norwich, NY
DATE: 4/29/2005
DRILLING CONTRACTOR: Lyon Drilling
DRILLER: Harry Lyon
DRILLING METHOD: Direct Push with CME55

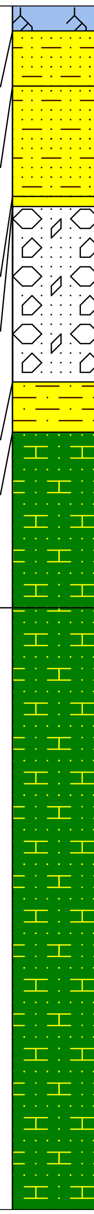
SAMPLING METHOD: 4 ft. Geoprobe macrocores
GROUND ELEVATION: 1001.30 ft. above MSL
WELL ELEVATION: NA
OUTER CASING ELEVATION: NA
DEPTH TO WATER: NA
BOREHOLE DEPTH: 24 ft. below grade
WEATHER: Warm, sunny, slight breeze
GEOLOGIST: Lara Gray

SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	WELL CONSTRUCTION	REMARKS
0-4	90	0.0, 0.0, 0.0, 0.0			
4-8	60	0.0, 0.0, 0.0, 0.0	6.5-7.5		
8-12	100	0.0, 0.0, 0.0, 0.0			
12-16	100	0.0, 0.0, 0.0, 0.0			
16-20	100	0.0, 0.0, 0.0, 0.0	19-20		
20-24	60	0.0, 0.0, 0.0, 0.0			

DEPTH (ft.): 0 to -24

SOIL DESCRIPTION and LITHOLOGIC SYMBOL

- TOPSOIL: Moist, black, sandy topsoil
- SAND AND SILT: Dry, dark brown silt and fine sand
- SAND AND SILT: Dry, orangey-brown silt and fine sand with a little gravel
- SAND: Moist, medium sand
- SAND AND GRAVEL: Moist to wet, brown sand and gravel with some silt
- SILT: Moist, brown silt with clay
- CLAY AND SILT: Moist, gray clay with silt
- CLAY AND SILT: Moist, gray clay with silt

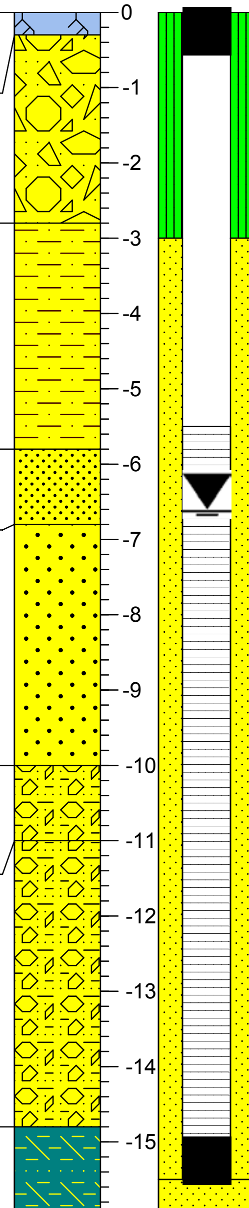


NO-DP32/PZ13

PROJECT: Norwich - NYSEG
PROJECT NO: I03032
LOCATION: Norwich, NY
DATE: 4/27/2005
DRILLING CONTRACTOR: Lyon Drilling
DRILLER: Harry Lyon
DRILLING METHOD: Direct Push with CME55

SAMPLING METHOD: 4 ft. Geoprobe macrocores
GROUND ELEVATION: 1000.88 ft. above MSL
WELL ELEVATION: 1000.52 ft. above MSL
OUTER CASING ELEVATION: NA
DEPTH TO WATER: 6.40 ft. below TOC
BOREHOLE DEPTH: 16 ft. below grade
WEATHER: Cool, cloudy, light rain
GEOLOGIST: Lara Gray

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	SOIL DESCRIPTION and LITHOLOGIC SYMBOL	REMARKS
0 to -1	0-4	100	0.0		TOPSOIL: Grass and silty topsoil	Flush mount curb box
-1 to -2			0.0		FILL: Dry, medium brown silt and fine sand with a little coal-like material (CLM) at 2.3'	
-2 to -3			0.0			Bentonite grout
-3 to -4			0.0		SILT: Dry, light brown silt and fine sand with some iron staining	1-inch PVC riser
-4 to -5	4-8	75	0.0			Sand pack
-5 to -6			0.0		FINE SAND: Moist, brown, fine sand with some iron staining	
-6 to -7			0.0		SAND: Moist, brown, fine sand with small gravel	Water level (12/6/05)
-7 to -8			0.0			
-8 to -9	8-12	50	0.0			
-9 to -10			3.0			0.010-inch slotted screen
-10 to -11			3.0	10-11	GRAVEL AND SAND: Wet, brown loosely packed sand and gravel with a sheen	
-11 to -12			3.0		GRAVEL AND SAND: As above - no sheen	
-12 to -13	12-16	50	0.0			
-13 to -14			0.0	13-16		
-14 to -15			0.0		CLAY AND SAND: Moist to wet, gray clay with fine sand	
-15 to -16			0.0			Well cap



NO-DP33/PZ14

PROJECT: Norwich - NYSEG
PROJECT NO: I03032
LOCATION: Norwich, NY
DATE: 4/27/2005
DRILLING CONTRACTOR: Lyon Drilling
DRILLER: Harry Lyon
DRILLING METHOD: Direct Push with CME55

SAMPLING METHOD: 4 ft. Geoprobe macrocores
GROUND ELEVATION: 1000.25 ft. above MSL
WELL ELEVATION: 999.96 ft. above MSL
OUTER CASING ELEVATION: NA
DEPTH TO WATER: 5.90 ft. below TOC
BOREHOLE DEPTH: 20 ft. below grade
WEATHER: Cool, cloudy, light rain
GEOLOGIST: Lara Gray

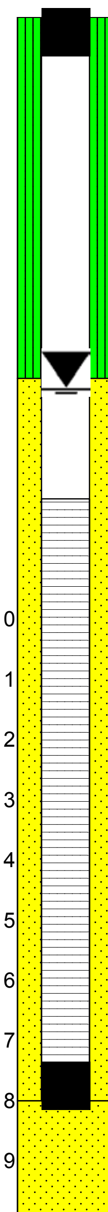
SAMPLE INTERVAL (ft.)	% RECOVERY
0-4	80
4-8	50
8-12	30
12-16	50
16-20	100

DEPTH (ft.)	PID (ppm)	ANALYTICAL SAMPLE
0 to -1	0.0	
-1 to -2	0.0	
-2 to -3	0.0	
-3 to -4	0.0	
-4 to -5	0.0	
-5 to -6	0.0	
-6 to -7	0.0	
-7 to -8	0.0	
-8 to -9	0.0	
-9 to -10	0.0	
-10 to -11	0.0	
-11 to -12	0.0	
-12 to -13	0.0	
-13 to -14	0.0	
-14 to -15	0.0	
-15 to -16	0.0	15-15.8
-16 to -17	0.0	
-17 to -18	0.0	
-18 to -19	0.0	
-19 to -20	0.0	

SOIL DESCRIPTION and LITHOLOGIC SYMBOL

- TOPSOIL: Grass and silty topsoil
- FILL: Moist, medium brown silt
- FILL: Moist, brown silt with coal-like material (CLM) and white ash-like material
- SAND AND SILT: Dry to moist, light brown, fine sand and silt with some iron staining
- SAND AND GRAVEL: Moist to wet, fine to medium sand with fine to medium angular gravel
- GRAVEL AND SAND: Wet, brown, loosely packed, rounded, medium to coarse sand and gravel
- CLAY AND SAND: Wet, brown clay with sand and gravel
- CLAY AND SAND: Moist to wet, gray clay with fine sand

WELL CONSTRUCTION



REMARKS

- Flush mount curb box
- Bentonite grout
- 1-inch PVC riser
- Sand pack
- Water level (12/6/05)
- 0.010-inch slotted screen
- Well cap

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NO-DP34/PZ15

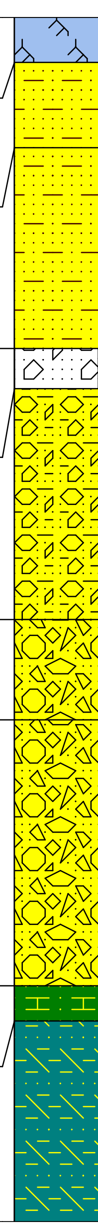
PROJECT: Norwich - NYSEG
PROJECT NO: I03032
LOCATION: Norwich, NY
DATE: 6/14/2005
DRILLING CONTRACTOR: Lyon Drilling
DRILLER: Harry Lyon
DRILLING METHOD: Direct Push with CME55

SAMPLING METHOD: 4 ft. Geoprobe macrocores
GROUND ELEVATION: 1000.17 ft. above MSL
WELL ELEVATION: 999.81 ft. above MSL
OUTER CASING ELEVATION: NA
DEPTH TO WATER: 5.81 ft. below TOC
BOREHOLE DEPTH: 24 ft. below grade
WEATHER: Hot, humid, few showers
GEOLOGIST: Lara Gray

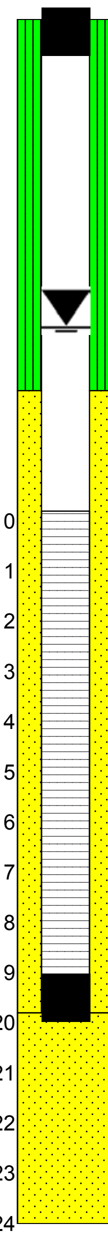
DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE
0 to -1	0-4	95	0.0	
-1 to -2			0.0	
-2 to -3			0.0	
-3 to -4			0.0	
-4 to -5	4-8	70	0.0	
-5 to -6			0.0	
-6 to -7			0.0	
-7 to -8			0.0	
-8 to -9	8-12	50	0.0	
-9 to -10			0.0	
-10 to -11			0.0	
-11 to -12			0.0	
-12 to -13	12-16	30	0.0	
-13 to -14			0.6	
-14 to -15			1.6	
-15 to -16			1.0	15-16
-16 to -17	16-20	50	1.0	
-17 to -18			2.0	
-18 to -19			0.0	
-19 to -20			0.0	19-19.3
-20 to -21	20-24	100	0.0	
-21 to -22			0.0	
-22 to -23			0.0	22-23
-23 to -24			0.0	

SOIL DESCRIPTION and LITHOLOGIC SYMBOL

- TOPSOIL: Moist, dark brown silt and sand with root material
- SAND AND SILT: Moist, brown, fine sand and silt with some gravel and root material
- SAND AND SILT: Dry, light brown, fine sand, silt, and gravel with iron staining
- SAND AND GRAVEL: Moist to wet, brown, medium to coarse sand with small gravel
- GRAVEL AND SAND: Wet, brown, loosely packed, coarse sand and gravel
- GRAVEL: Wet, small to medium, rounded, well sorted gravel
- GRAVEL: Wet, small to medium, rounded, well sorted gravel with a very slight odor from 19-19.3'
- CLAY AND SILT: Moist, brown silt and clay with iron staining
- CLAY AND SAND: Moist, gray clay with fine sand



WELL CONSTRUCTION



REMARKS

- Flush mount curb box
- Bentonite grout
- 1-inch PVC riser
- Water level (12/6/05)
- Sand pack
- 0.010-inch slotted screen
- Well cap

NO-DP35/PZ16

PROJECT: Norwich - NYSEG
PROJECT NO: I03032
LOCATION: Norwich, NY
DATE: 4/28/2005
DRILLING CONTRACTOR: Lyon Drilling
DRILLER: Harry Lyon
DRILLING METHOD: Direct Push with CME55

SAMPLING METHOD: 4 ft. Geoprobe macrocores
GROUND ELEVATION: 1004.81 ft. above MSL
WELL ELEVATION: 1004.49 ft. above MSL
OUTER CASING ELEVATION: NA
DEPTH TO WATER: 10.30 ft. belowTOC
BOREHOLE DEPTH: 24 ft. below grade
WEATHER: Cool, cloudy, showers
GEOLOGIST: Lara Gray

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE
0 to -1	0-4	50	0.0	
-1 to -2			0.0	
-2 to -3			0.0	
-3 to -4			0.0	
-4 to -5	4-8	100	0.0	
-5 to -6			0.0	
-6 to -7			0.0	
-7 to -8			0.0	
-8 to -9	8-12	100	0.0	
-9 to -10			0.0	
-10 to -11			0.0	
-11 to -12			0.0	
-12 to -13	12-16	100	0.0	12.0-12.5
-13 to -14			0.0	
-14 to -15			0.0	
-15 to -16			0.0	
-16 to -17	16-20	100	0.0	
-17 to -18			0.0	
-18 to -19			0.0	
-19 to -20			0.0	
-20 to -21	20-24	100	0.0	
-21 to -22			0.0	
-22 to -23			0.0	
-23 to -24			0.0	

SOIL DESCRIPTION and LITHOLOGIC SYMBOL

FILL: Dry to moist, dark brown silt, sand and gravel

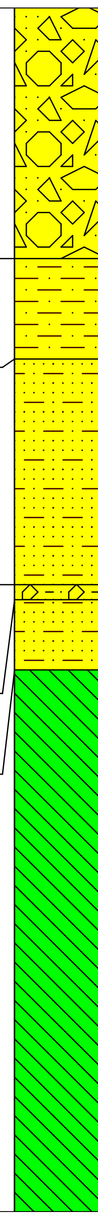
SILT: Dry, medium brown silt with a little iron staining and root material

SAND AND SILT: Dry to moist, light brown silt and fine sand with some angular gravel

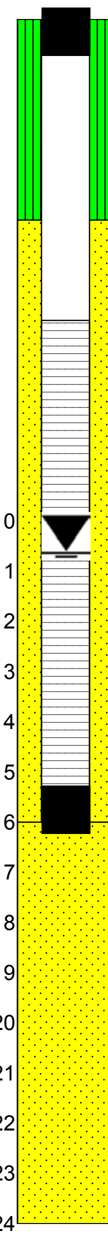
GRAVEL AND SAND: Wet, brown, loosely packed sand and gravel

SAND AND SILT: Moist, brown, very fine sand and silt

CLAY: Moist, gray clay with fine sand



WELL CONSTRUCTION



REMARKS

Flush mount curb box

1-inch PVC riser

Bentonite grout

Sand pack

Water level (12/6/05)

0.010-inch slotted screen

Well cap

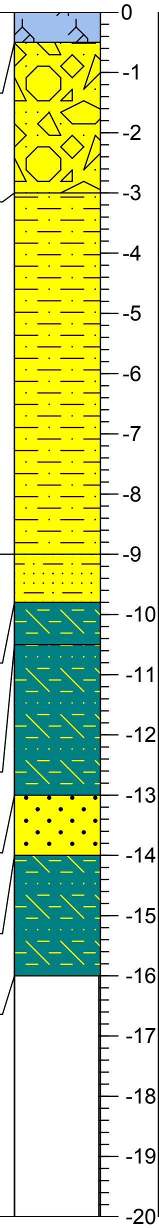
NO-DP36/PZ17

PROJECT: Norwich - NYSEG
PROJECT NO: I03032
LOCATION: Norwich, NY
DATE: 4/28/2005
DRILLING CONTRACTOR: Lyon Drilling
DRILLER: Harry Lyon
DRILLING METHOD: Direct Push with CME55

SAMPLING METHOD: 4 ft. Geoprobe macrocores
GROUND ELEVATION: 1004.04 ft. above MSL
WELL ELEVATION: 1003.68 ft. above MSL
OUTER CASING ELEVATION: NA
DEPTH TO WATER: 9.32 ft. below TOC
BOREHOLE DEPTH: 20 ft. below grade
WEATHER: Warm, sunny, windy
GEOLOGIST: Lara Gray

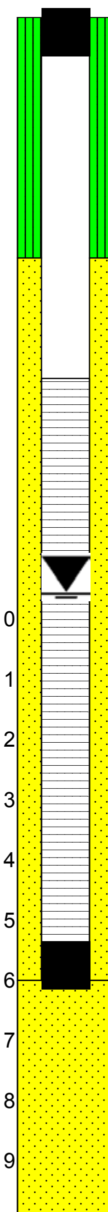
DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE
0 to -1	-4	75	0.0	
-1 to -2			0.0	
-2 to -3			0.0	
-3 to -4			0.0	
-4 to -5	-8	50	0.0	
-5 to -6			0.0	
-6 to -7			0.0	
-7 to -8			0.0	
-8 to -9	-12	100	0.0	
-9 to -10			0.0	8.8-9.7
-10 to -11			0.0	
-11 to -12			0.0	
-12 to -13	-16	100	0.0	
-13 to -14			0.0	13.0-13.9
-14 to -15			0.0	
-15 to -16			0.0	
-16 to -17	-20	0	0.0	
-17 to -18			0.0	
-18 to -19			0.0	
-19 to -20			0.0	

SOIL DESCRIPTION and LITHOLOGIC SYMBOL



- TOPSOIL: Grass and medium brown silty topsoil
- FILL: Dry, medium brown silt with some gravel and coal-like material (CLM)
- SILT: Dry, orangy-brown silt with a little rounded gravel
- SAND AND SILT: Dry, medium brown, compact silt and sand with some gravel
- CLAY AND SAND: Moist, orangy-brown gray clay and fine sand
- CLAY AND SAND: Moist, gray clay and fine sand
- SAND: Wet, gray fine sand with a little clay
- CLAY AND SAND: Moist, gray clay with very fine sand
- NO RECOVERY

WELL CONSTRUCTION



REMARKS

- Flush mount curb box
- Bentonite grout
- 1-inch PVC riser
- Water level (12/6/05)
- 0.010-inch slotted screen
- Well cap

NO-DP37

PROJECT: Norwich - NYSEG
PROJECT NO: I03032
LOCATION: Norwich, NY
DATE: 5/19/2005
DRILLING CONTRACTOR: Lyon Drilling
DRILLER: Harry Lyon
DRILLING METHOD: Direct Push with CME55

SAMPLING METHOD: 4 ft. Geoprobe macrocores
GROUND ELEVATION: 1002.25 ft. above MSL
WELL ELEVATION: NA
OUTER CASING ELEVATION: NA
DEPTH TO WATER: NA
BOREHOLE DEPTH: 32 ft. below grade
WEATHER: Warm, partly sunny
GEOLOGIST: Lara Gray

SAMPLE INTERVAL (ft.)	% RECOVERY
0-4	5
4-8	90
8-12	50
12-16	60
16-20	50
20-24	40
24-28	100
28-32	100

DEPTH (ft.)	PID (ppm)
-4 to -5	0.0
-5 to -6	0.0
-6 to -7	0.0
-7 to -8	0.0
-8 to -9	0.0
-9 to -10	0.0
-10 to -11	0.0
-11 to -12	0.0
-12 to -13	0.0
-13 to -14	0.0
-14 to -15	0.0
-15 to -16	0.0
-16 to -17	0.0
-17 to -18	0.0
-18 to -19	0.6
-19 to -20	1.0
-20 to -21	1.0
-21 to -22	1.0
-22 to -23	1.0
-23 to -24	82
-24 to -25	66
-25 to -26	110
-26 to -27	290
-27 to -28	344
-28 to -29	113
-29 to -30	60
-30 to -31	20
-31 to -32	2.0

ANALYTICAL SAMPLE: 26.5-27.5; 31.5-32

SOIL DESCRIPTION and LITHOLOGIC SYMBOL:

NO RECOVERY: Very little recovery - only a small amount of grass and topsoil

FILL: Dry, brown, very fine sand with some small gravel and brick pieces

SAND AND GRAVEL: Dry to moist, tightly packed, fine to medium sand with angular gravel

GRAVEL: Wet, small to large gravel

SAND: Wet, medium to coarse sand

GRAVEL: Wet, small to large, rounded gravel with a slight odor in shoe

GRAVEL: As above with strong odor and sheen. NAPL blebs from 23.5-24

CLAY: Moist, brown to gray clay. NAPL on outside from layer above.

CLAY AND SAND: Moist, gray, interbedded clay and sand. NAPL on outside from layer above.

WELL CONSTRUCTION | REMARKS

NO-DP38/PZ20

PROJECT: Norwich - NYSEG
PROJECT NO: I03032
LOCATION: Norwich, NY
DATE: 5/20/2005
DRILLING CONTRACTOR: Lyon Drilling
DRILLER: Harry Lyon
DRILLING METHOD: Direct Push with CME55

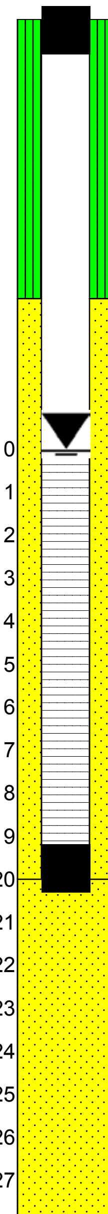
SAMPLING METHOD: 4 ft. Geoprobe macrocores
GROUND ELEVATION: 1003.97 ft. above MSL
WELL ELEVATION: 1003.64 ft. above MSL
OUTER CASING ELEVATION: NA
DEPTH TO WATER: 9.65 ft. below TOC
BOREHOLE DEPTH: 28 ft. below grade
WEATHER: Warm, cloudy, light breeze
GEOLOGIST: Lara Gray

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE
0 to -4	0-4	75	0.7, 0.7, 0.4, 0.7	
-4 to -8	4-8	75	0.2, 0.5, 1.0, 0.7	
-8 to -12	8-12	50	0.2, 0.2, 0.4, 0.4	
-12 to -16	12-16	40	0.2, 0.5	
-16 to -20	16-20	5	0.8	19.6-20
-20 to -24	20-24	25	0.2, 0.2, 0.2, 0.2	
-24 to -28	24-28	30	0.0, 0.0, 0.0, 0.0	27-28

SOIL DESCRIPTION and LITHOLOGIC SYMBOL

- FILL: Dry, dark brown to black sand, gravel and coal-like material (CLM)
- FILL: Dry, orangey-brown, fine sand and silt with angular clasts and concrete pieces
- SAND: Dry, brown, medium to coarse sand with a very slight odor at 6'
- SAND AND GRAVEL: Dry to moist, brown, fine to medium sand with gravel
- GRAVEL AND SAND: Wet, loosely packed, coarse sand and gravel
- NO RECOVERY: Recovery in shoe only - wet gray clay and sand
- CLAY: Wet, gray clay

WELL CONSTRUCTION



REMARKS

- Flush mount curb box
- Bentonite grout
- 1-inch PVC riser
- Sand pack
- Water level (12/6/05)
- 0.010-inch slotted screen
- Well cap

NO-DP39/PZ21

PROJECT: Norwich - NYSEG
PROJECT NO: I03032
LOCATION: Norwich, NY
DATE: 6/16/2005
DRILLING CONTRACTOR: Lyon Drilling
DRILLER: Harry Lyon
DRILLING METHOD: Direct Push with CME55

SAMPLING METHOD: 4 ft. Geoprobe macrocores
GROUND ELEVATION: 1001.69 ft. above MSL
WELL ELEVATION: 1001.25 ft. above MSL
OUTER CASING ELEVATION: NA
DEPTH TO WATER: 7.23 ft. below TOC
BOREHOLE DEPTH: 26 ft. below grade
WEATHER: Hot, humid, sunny, slight breeze
GEOLOGIST: Lara Gray

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE
0 to -1	0-4	40	0.0	
-1 to -2			0.0	
-2 to -3			0.0	
-3 to -4			0.0	
-4 to -5	4-8	75	1.0	
-5 to -6			1.0	
-6 to -7			2.0	
-7 to -8			2.0	
-8 to -9	8-12	30	0.6	
-9 to -10			0.8	
-10 to -11			0.0	
-11 to -12			0.0	
-12 to -13	12-16	75	2.0	
-13 to -14			1.0	13-13.5
-14 to -15			3.0	
-15 to -16			0.0	
-16 to -17	16-20	100	0.0	
-17 to -18			0.0	
-18 to -19			0.0	
-19 to -20			0.0	
-20 to -21	20-23	100	0.0	
-21 to -22			0.0	
-22 to -23			0.0	
-23 to -24	23-26	100	0.0	
-24 to -25			0.0	24-25
-25 to -26			0.0	

SOIL DESCRIPTION and LITHOLOGIC SYMBOL

FILL: Moist, black sand, gravel, and asphalt-like material (ALM)

SAND AND SILT: Dry to moist, dark brown silt and sand with a little gravel

GRAVEL AND SAND: Moist to wet, brown, rounded gravel with fine to medium sand

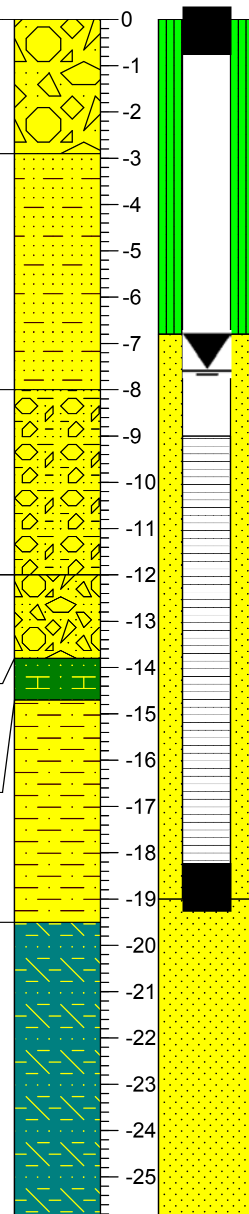
GRAVEL: Wet, brown, rounded, small to medium gravel with a very slight odor

CLAY AND SILT: Moist, reddish-brown clay and silt with a little coarse sand and gravel

SILT: Moist, brown silt with a little clay and fine sand

CLAY AND SAND: Moist, gray clay with fine sand

WELL CONSTRUCTION



REMARKS

Flush mount curb box
Bentonite grout
1-inch PVC riser
Water level (12/6/05)
Sand pack
0.010-inch slotted screen
Well cap

NO-DP40

PROJECT: Norwich - NYSEG
PROJECT NO: I03032
LOCATION: Norwich, NY
DATE: 5/20/2005
DRILLING CONTRACTOR: Lyon Drilling
DRILLER: Harry Lyon
DRILLING METHOD: Direct Push with CME55

SAMPLING METHOD: 4 ft. Geoprobe macrocores
GROUND ELEVATION: 1004.25 ft. above MSL
WELL ELEVATION: NA
OUTER CASING ELEVATION: NA
DEPTH TO WATER: NA
BOREHOLE DEPTH: 31.5 ft. below grade
WEATHER: Warm, partly sunny, light breeze
GEOLOGIST: Lara Gray

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	SOIL DESCRIPTION and LITHOLOGIC SYMBOL	WELL CONSTRUCTION	REMARKS
0 to -9					NO RECOVERY: Auger to 9' - see DP40A for lithology - concrete from 8.2-8.8'		
-9 to -10	9-11.5	40	17		FILL: Wet, black sand, gravel, coal-like material (CLM), and concrete pieces		
-10 to -11			3.0				
-11 to -12	11.5-15.5	50	0.5		SAND AND SILT: Moist, orangey-brown sand and silt with trace clay		
-12 to -13			0.5				
-13 to -14			0.5		SAND AND GRAVEL: Wet, orangey-brown, loosely packed, fine to coarse sand and gravel		
-14 to -15			0.0				
-15 to -16	15.5-19.5	35	0.4				
-16 to -17			0.0				
-17 to -18			0.0				
-18 to -19			0.0				
-19 to -20	19.5-23.5	50	0.0				
-20 to -21			138		GRAVEL AND SAND: Wet coarse sand and gravel with sheen and NAPL		
-21 to -22			63	21.5-23.5			
-22 to -23			135				
-23 to -24	23.5-27.5	80	142				
-24 to -25			110				
-25 to -26			11		CLAY AND SILT: Moist, gray clay with NAPL on outside from layer above		
-26 to -27			22	26.5-27.5			
-27 to -28	27.5-31.5	80	70				
-28 to -29			80				
-29 to -30			70				
-30 to -31			10				

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NO-DP40A

PROJECT: Norwich - NYSEG
PROJECT NO: I03032
LOCATION: Norwich, NY
DATE: 5/19/2005
DRILLING CONTRACTOR: Lyon Drilling
DRILLER: Harry Lyon
DRILLING METHOD: Direct Push with CME55

SAMPLING METHOD: 4 ft. Geoprobe macrocores
GROUND ELEVATION: 1004.25 ft. above MSL
WELL ELEVATION: NA
OUTER CASING ELEVATION: NA
DEPTH TO WATER: NA
BOREHOLE DEPTH: 8.2 ft. below grade
WEATHER: Hot, sunny, slight breeze
GEOLOGIST: Lara Gray

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	SOIL DESCRIPTION and LITHOLOGIC SYMBOL	WELL CONSTRUCTION	REMARKS
0 to -1.6	0-4	60			FILL: Dry, light brown sand and gravel		
-1.6 to -8					FILL: Dry, black sand, gravel, coal-like material (CLM), and wood chips with a musty odor.		
-4 to -8	4-8	55					
-8 to -8.2					CONCRETE: Refusal at 8.2'. Concrete dust in sample shoe.		

NO-DP41/PZ18

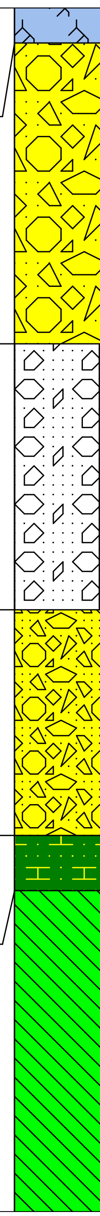
PROJECT: Norwich - NYSEG
PROJECT NO: I03032
LOCATION: Norwich, NY
DATE: 5/19/2005
DRILLING CONTRACTOR: Lyon Drilling
DRILLER: Harry Lyon
DRILLING METHOD: Direct Push with CME55

SAMPLING METHOD: 4 ft. Geoprobe macrocores
GROUND ELEVATION: 999.44 ft. above MSL
WELL ELEVATION: 999.15 ft. above MSL
OUTER CASING ELEVATION: NA
DEPTH TO WATER: 5.18 ft. below TOC
BOREHOLE DEPTH: 24 ft. below grade
WEATHER: Warm, sunny, slight breeze
GEOLOGIST: Lara Gray

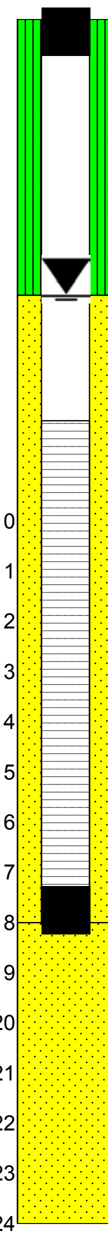
DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE
0 to -1	0-4	75	0.0	
-1 to -2			0.0	
-2 to -3			0.0	
-3 to -4			0.0	
-4 to -5	4-8	60	0.0	
-5 to -6			0.0	
-6 to -7			0.0	
-7 to -8			0.0	
-8 to -9	8-12	90	0.0	
-9 to -10			0.0	
-10 to -11			0.0	
-11 to -12			0.0	
-12 to -13	12-16	50	1.0	
-13 to -14			1.0	
-14 to -15			1.0	
-15 to -16			1.0	
-16 to -17	16-20	100	9.0	16-16.5
-17 to -18			4.0	
-18 to -19			3.0	
-19 to -20			1.0	
-20 to -21	20-24	90	3.0	
-21 to -22			3.0	
-22 to -23			1.0	
-23 to -24			1.0	23-23.7

SOIL DESCRIPTION and LITHOLOGIC SYMBOL

- (0 to ~-2) TOPSOIL: Dry, dark brown, fine sand and angular gravel with grass and root material
- (~-2 to ~-6.7) FILL: Dry, medium brown, fine sand with small to medium rounded gravel and a few angular clasts
- (~-6.7 to -12) SAND AND GRAVEL: Wet, brown, loosely packed sand and gravel with a very slight odor and gray staining from 11.5-12'
- (-12 to ~-16.5) GRAVEL: Wet, gray, small to medium gravel with a slight sheen and NAPL from 16-16.5'
- (~-16.5 to ~-18.7) CLAY AND SILT: Moist, brown silt and clay with a very slight odor
- (~-18.7 to -24) CLAY: Moist, gray clay with some silt and a slight sheen on outside from layer above



WELL CONSTRUCTION



REMARKS

- Flush mount curb box
- Bentonite grout
- Water level (12/6/05)
- 1-inch PVC riser
- Sand pack
- 0.010-inch slotted screen
- Well cap

NO-DP42/PZ22

PROJECT: Norwich - NYSEG
PROJECT NO: I03032
LOCATION: Norwich, NY
DATE: 6/13/2005
DRILLING CONTRACTOR: Lyon Drilling
DRILLER: Harry Lyon
DRILLING METHOD: Direct Push with CME55

SAMPLING METHOD: 4 ft. Geoprobe macrocores
GROUND ELEVATION: 1000.88 ft. above MSL
WELL ELEVATION: 1000.55 ft. above MSL
OUTER CASING ELEVATION: NA
DEPTH TO WATER: 6.58 ft. below TOC
BOREHOLE DEPTH: 28 ft. below grade
WEATHER: Hot, humid, sunny, slight breeze
GEOLOGIST: Lara Gray

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE
0 to -4	0-4	85	0.0, 0.0, 0.0, 0.0	
-4 to -8	4-8	75	0.0, 0.0, 0.0, 0.0	
-8 to -12	8-12	75	0.0, 0.0, 0.0, 0.0	9-10
-12 to -16	12-16	100	0.0, 0.0, 0.0, 0.0	
-16 to -20	16-20	80	0.0, 0.0, 0.0, 0.0	
-20 to -24	20-24	80	0.0, 0.0, 0.0, 0.0	
-24 to -28	24-28	90	0.0, 0.0, 0.0, 0.0	26-27

SOIL DESCRIPTION and LITHOLOGIC SYMBOL

TOPSOIL: Dry, brown silt and sand with grass

FILL: Dry, brown to black sand and rock clasts

SAND AND SILT: Dry, light brown silt and fine sand with a little gravel and iron staining

SAND AND SILT: Dry to moist medium to coarse sand and silt

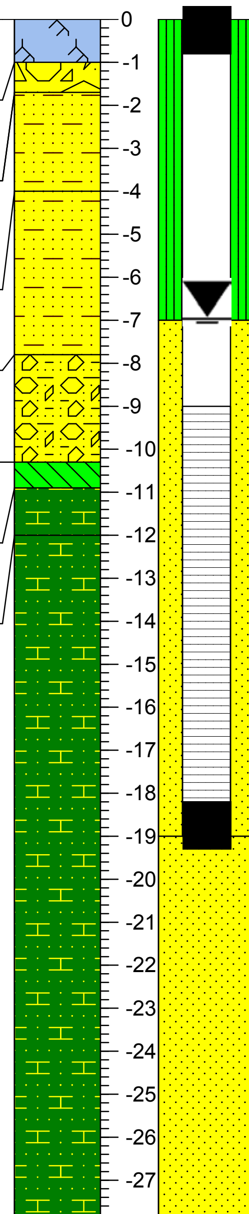
GRAVEL AND SAND: Wet, brown, coarse sand and gravel

CLAY: Moist, soft, reddish-brown clay

CLAY AND SILT: Moist, stiff, gray clay and silt

CLAY AND SILT: Moist, gray clay and silt with a little fine sand

WELL CONSTRUCTION



REMARKS

Flush mount curb box

Bentonite grout

1-inch PVC riser

Water level (12/6/05)

Sand pack

0.010-inch slotted screen

Well cap

NO-DP43/PZ19

PROJECT: Norwich - NYSEG
PROJECT NO: I03032
LOCATION: Norwich, NY
DATE: 5/19/2005
DRILLING CONTRACTOR: Lyon Drilling
DRILLER: Harry Lyon
DRILLING METHOD: Direct Push with CME55

SAMPLING METHOD: 4 ft. Geoprobe macrocores
GROUND ELEVATION: 999.99 ft. above MSL
WELL ELEVATION: 999.51 ft. above MSL
OUTER CASING ELEVATION: NA
DEPTH TO WATER: 5.58 ft. below TOC
BOREHOLE DEPTH: 24 ft. below grade
WEATHER: Warm, sunny, slight breeze
GEOLOGIST: Lara Gray

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE
0 to -1	0-4	100	0.0	
-1 to -2			0.0	
-2 to -3			0.0	
-3 to -4			0.0	
-4 to -5	4-8	60	0.0	
-5 to -6			0.0	
-6 to -7			0.0	
-7 to -8			0.5	7.5-8
-8 to -9	8-12	40	0.2	
-9 to -10			0.2	
-10 to -11			0.2	
-11 to -12			0.2	
-12 to -13	12-16	40	0.0	
-13 to -14			0.0	
-14 to -15			0.0	
-15 to -16			0.0	
-16 to -17	16-20	100	0.0	
-17 to -18			0.0	
-18 to -19			0.0	
-19 to -20			0.0	
-20 to -21	20-24	100	0.0	
-21 to -22			0.0	
-22 to -23			0.0	
-23 to -24			0.0	23-23.8

SOIL DESCRIPTION and LITHOLOGIC SYMBOL

TOPSOIL: Dry, dark brown fine sand and gravel with grass and root material

FILL: Dry, black sand, coal-like material (CLM) and wood pieces

SAND AND SILT: Dry, light brown sand and silt with some iron staining

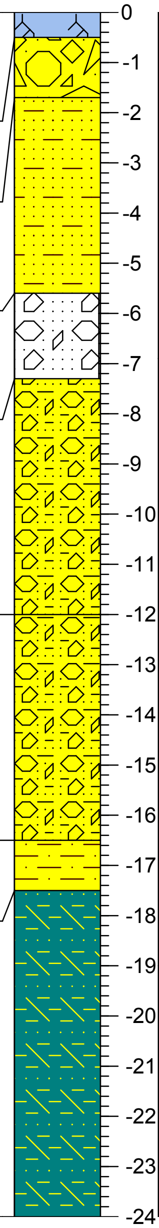
SAND AND GRAVEL: Dry to moist, light brown, fine sand and small gravel

GRAVEL AND SAND: Moist to wet, loosely packed gravel and coarse sand with a slight odor from 7.3-8'

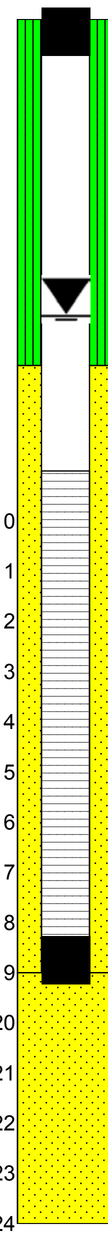
GRAVEL AND SAND: Wet gravel and coarse sand

SILT: Moist, light brown silt with a little fine sand and clay

CLAY AND SAND: Moist, gray clay with a little fine sand



WELL CONSTRUCTION



REMARKS

Flush mount curb box

Bentonite grout

Water level (12/6/05)

1-inch PVC riser

Sand pack

0.010-inch slotted screen

Well cap

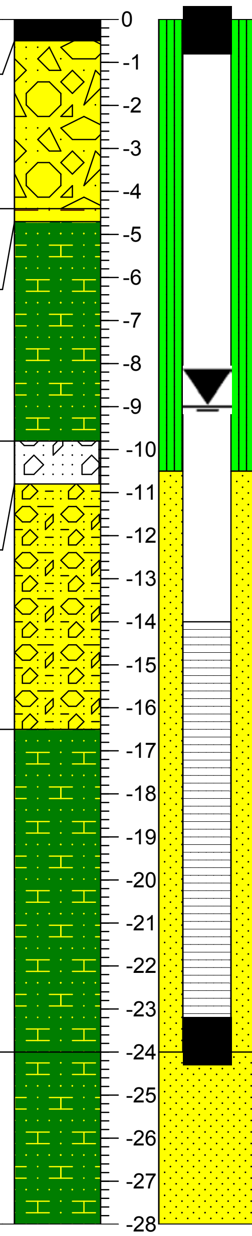
NO-DP44/PZ27

PROJECT: Norwich - NYSEG
PROJECT NO: I03032
LOCATION: Norwich, NY
DATE: 6/15/2006
DRILLING CONTRACTOR: Lyon Drilling
DRILLER: Harry Lyon
DRILLING METHOD: Direct Push with CME55

SAMPLING METHOD: 4 ft. Geoprobe macrocores
GROUND ELEVATION: 1003.78 ft. above MSL
WELL ELEVATION: 1003.37 ft. above MSL
OUTER CASING ELEVATION: NA
DEPTH TO WATER: 8.61 ft. below TOC
BOREHOLE DEPTH: 28 ft. below grade
WEATHER: Hot, partly cloudy
GEOLOGIST: Amanda Bissell

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	SOIL DESCRIPTION and LITHOLOGIC SYMBOL	REMARKS
0 to -1	0-4	100	0.0		ASPHALT	Flush mount curb box
-1 to -2			0.0		FILL: Dry, black, medium sand with gravel and some coal-like material	
-2 to -3			0.0			
-3 to -4			0.0			Bentonite grout
-4 to -5	4-8	100	0.0		SILT: Dry, brown, compact silt with some gravel	1-inch PVC riser
-5 to -6			0.0		CLAY AND SILT: Dry, brown, compact silt and clay with iron staining and a little gravel	
-6 to -7			0.0			
-7 to -8			0.0			
-8 to -9	8-12	80	0.0			Water level (12/6/05)
-9 to -10			0.0			
-10 to -11			0.0		SAND AND GRAVEL: Moist, brown, medium sand with small gravel and some clay	
-11 to -12			0.0			
-12 to -13	12-16	60	0.0		GRAVEL AND SAND: Moist to wet, brown, loosely packed gravel with coarse sand	Sand pack
-13 to -14			0.0			
-14 to -15			0.0			0.010-inch slotted screen
-15 to -16			0.0	15-16		
-16 to -17	16-20	100	0.0		CLAY AND SILT: Moist, brown to gray clay and interbedded silt with iron staining	
-17 to -18			0.0			
-18 to -19			0.0			
-19 to -20			0.0			
-20 to -21	20-24	25	0.0			
-21 to -22			0.0			
-22 to -23			0.0			
-23 to -24			0.0			Well cap
-24 to -25	24-28	100	0.0		CLAY AND SILT: Moist, gray, compact clay with interbedded silt	
-25 to -26			0.0	25-26		
-26 to -27			0.0			
-27 to -28			0.0			

WELL CONSTRUCTION



NO-DP45

PROJECT: Norwich - NYSEG
PROJECT NO: I03032
LOCATION: Norwich, NY
DATE: 6/15/2005
DRILLING CONTRACTOR: Lyon Drilling
DRILLER: Harry Lyon
DRILLING METHOD: Direct Push with CME55

SAMPLING METHOD: 4 ft. Geoprobe macrocores
GROUND ELEVATION: 1004.52 ft. above MSL
WELL ELEVATION: NA
OUTER CASING ELEVATION: NA
DEPTH TO WATER: NA
BOREHOLE DEPTH: 28 ft. below grade
WEATHER: Warm, cloudy, few showers
GEOLOGIST: Amanda Bissell

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE
0 to -1	0-4	95	0.0	
-1 to -2			0.0	
-2 to -3			4.5	
-3 to -4			0.0	
-4 to -5	4-8	75	0.0	
-5 to -6			4.5	
-6 to -7			5.7	
-7 to -8			0.0	
-8 to -9	8-12	95	0.0	
-9 to -10			1.5	
-10 to -11			1.1	10.8-11.3
-11 to -12			0.0	
-12 to -13	12-16	95	0.0	
-13 to -14			0.0	
-14 to -15			0.0	
-15 to -16			0.0	
-16 to -17	16-20	100	0.0	
-17 to -18			0.2	
-18 to -19			0.0	
-19 to -20			1.3	
-20 to -21	20-24	98	0.0	
-21 to -22			0.5	
-22 to -23			0.0	
-23 to -24			0.0	
-24 to -25	24-28	80	0.0	
-25 to -26			0.0	
-26 to -27			0.0	26-27
-27 to -28			0.0	

SOIL DESCRIPTION and LITHOLOGIC SYMBOL

DEPTH (ft.)	SOIL DESCRIPTION
0 to -0.5	ASPHALT
-0.5 to -4	FILL: Dry, black, medium sand with gravel and some coal-like material
-4 to -9	SAND AND GRAVEL: Dry to moist, brown, fine to coarse sand and gravel with trace clay and iron staining
-9 to -10	CLAY AND SILT: Dry, brown, compact silt and clay with iron staining and a little gravel
-10 to -28	CLAY AND SILT: Moist, dark gray, interbedded clay and silt

WELL CONSTRUCTION

REMARKS

NO-DP46/PZ23

PROJECT: Norwich - NYSEG
PROJECT NO: I03032
LOCATION: Norwich, NY
DATE: 6/14/2005
DRILLING CONTRACTOR: Lyon Drilling
DRILLER: Harry Lyon
DRILLING METHOD: Direct Push with CME55

SAMPLING METHOD: 4 ft. Geoprobe macrocores
GROUND ELEVATION: 1001.56 ft. above MSL
WELL ELEVATION: 1001.21 ft. above MSL
OUTER CASING ELEVATION: NA
DEPTH TO WATER: 6.94 ft. below TOC
BOREHOLE DEPTH: 24 ft. below grade
WEATHER: Hot, humid, few showers
GEOLOGIST: Lara Gray

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE
0 to -1	0-4	60	0.0	
-1 to -2			0.0	
-2 to -3			0.0	
-3 to -4			0.0	
-4 to -5	4-8	60	0.0	
-5 to -6			0.0	
-6 to -7			0.0	
-7 to -8			0.0	
-8 to -9	8-12	80	0.0	
-9 to -10			0.0	9-9.6
-10 to -11			0.0	
-11 to -12			0.0	
-12 to -13	12-16	100	0.0	
-13 to -14			0.0	
-14 to -15			0.0	
-15 to -16			0.0	
-16 to -17	16-20	100	0.0	
-17 to -18			0.0	
-18 to -19			0.0	
-19 to -20			0.0	
-20 to -21	20-24	100	0.0	
-21 to -22			0.0	
-22 to -23			0.0	22-24
-23 to -24			0.0	

SOIL DESCRIPTION and LITHOLOGIC SYMBOL

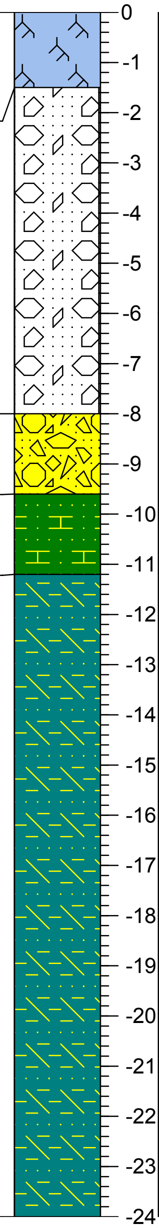
TOPSOIL: Dry to moist, black silt and sand with some root material

SAND AND GRAVEL: Moist, brown, fine to medium sand with some gravel

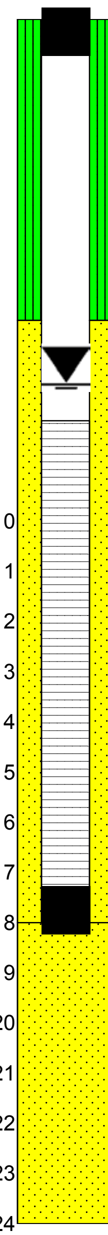
GRAVEL: Wet, brown, small gravel with some clay

CLAY AND SILT: Moist, brown to gray silt and clay

CLAY AND SAND: Moist, gray clay with fine sand



WELL CONSTRUCTION



REMARKS

Flush mount curb box

Bentonite grout

1-inch PVC riser

Water level (12/6/05)

Sand pack

0.010-inch slotted screen

Well cap

NO-DP47/PZ26

PROJECT: Norwich - NYSEG
PROJECT NO: I03032
LOCATION: Norwich, NY
DATE: 6/15/2005
DRILLING CONTRACTOR: Lyon Drilling
DRILLER: Harry Lyon
DRILLING METHOD: Direct Push with CME55

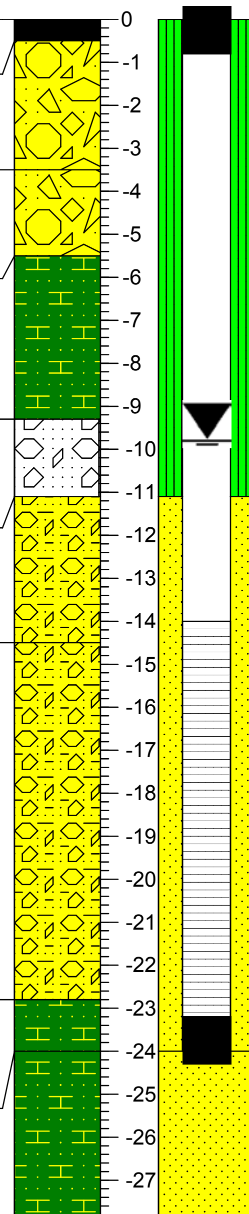
SAMPLING METHOD: 4 ft. Geoprobe macrocores
GROUND ELEVATION: 1004.61 ft. above MSL
WELL ELEVATION: 1004.18 ft. above MSL
OUTER CASING ELEVATION: NA
DEPTH TO WATER: 9.41 ft. below TOC
BOREHOLE DEPTH: 28 ft. below grade
WEATHER: Hot, humid, sunny
GEOLOGIST: Amanda Bissell

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE
0 to -1	0-4	100	0.0	
-1 to -2			0.0	
-2 to -3			0.0	
-3 to -4			0.0	
-4 to -5	4-8	100	0.0	
-5 to -6			0.0	
-6 to -7			0.0	
-7 to -8			0.0	
-8 to -9	8-12	80	0.0	
-9 to -10			0.3	
-10 to -11			0.0	
-11 to -12			0.0	
-12 to -13	12-16	50	0.0	
-13 to -14			0.0	
-14 to -15			0.0	
-15 to -16			0.0	
-16 to -17	16-20	50	0.0	
-17 to -18			0.0	
-18 to -19			0.0	
-19 to -20			0.0	
-20 to -21	20-24	60	0.0	
-21 to -22			0.0	21.5-22.5
-22 to -23			0.0	
-23 to -24			0.0	
-24 to -25	24-28	100	0.0	
-25 to -26			0.0	
-26 to -27			0.0	26-27
-27 to -28			0.0	

SOIL DESCRIPTION and LITHOLOGIC SYMBOL

- ASPHALT
- FILL: Dry, loose, coarse sand and gravel
- FILL: Dry, black, medium to coarse sand with gravel and some asphalt-like material
- CLAY AND SILT: Dry, brown, compact silt and clay with iron staining
- SAND AND GRAVEL: Dry to moist, brown, medium to coarse sand and small gravel
- GRAVEL AND SAND: Wet, brown, loosely packed gravel with coarse sand
- GRAVEL AND SAND: Wet, brown, loosely packed gravel with coarse sand
- CLAY AND SILT: Moist, brown to gray clay and interbedded silt with iron staining
- CLAY AND SILT: Moist, gray, compact clay with interbedded silt

WELL CONSTRUCTION



REMARKS

- Flush mount curb box
- Bentonite grout
- 1-inch PVC riser
- Water level (12/6/05)
- Sand pack
- 0.010-inch slotted screen
- Well cap

NO-DP48/PZ24

PROJECT: Norwich - NYSEG
PROJECT NO: I03032
LOCATION: Norwich, NY
DATE: 6/14/2005
DRILLING CONTRACTOR: Lyon Drilling
DRILLER: Harry Lyon
DRILLING METHOD: Direct Push with CME55

SAMPLING METHOD: 4 ft. Geoprobe macrocores
GROUND ELEVATION: 1003.60 ft. above MSL
WELL ELEVATION: 1003.27 ft. above MSL
OUTER CASING ELEVATION: NA
DEPTH TO WATER: 9.35 ft. below TOC
BOREHOLE DEPTH: 28 ft. below grade
WEATHER: Hot, partly sunny, humid
GEOLOGIST: Lara Gray

SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE
0-4	75		
4-8	80		
8-12	50		
12-16	40		
16-20	50		18-19
20-24	100		
24-28	100		26-27

SOIL DESCRIPTION and LITHOLOGIC SYMBOL
FILL: Dry, brown to black, sand, gravel, wood, ash-like material, and coal-like material
SAND AND SILT: Dry to moist, light brown, fine sand and silt with iron staining
SAND AND SILT: Moist, brown silt and sand with a little gravel and red iron staining
GRAVEL AND SAND: Wet, reddish-brown, coarse sand and gravel
GRAVEL AND SAND: Wet, reddish-brown, coarse sand and gravel
GRAVEL AND SAND: As above with a slight odor
CLAY AND SILT: Moist, reddish-brown clay and silt
CLAY: Moist, gray clay
CLAY AND SAND: Moist, gray clay with fine sand

WELL CONSTRUCTION / REMARKS:

- Flush mount curb box
- Bentonite grout
- 1-inch PVC riser
- Water level (12/6/05)
- Sand pack
- 0.010-inch slotted screen
- Well cap

NO-DP49/PZ25

PROJECT: Norwich - NYSEG
PROJECT NO: I03032
LOCATION: Norwich, NY
DATE: 6/14/2005
DRILLING CONTRACTOR: Lyon Drilling
DRILLER: Harry Lyon
DRILLING METHOD: Direct Push with CME55

SAMPLING METHOD: 4 ft. Geoprobe macrocores
GROUND ELEVATION: 1002.78 ft. above MSL
WELL ELEVATION: 1002.43 ft. above MSL
OUTER CASING ELEVATION: NA
DEPTH TO WATER: 8.84 ft. below TOC
BOREHOLE DEPTH: 28 ft. below grade
WEATHER: Hot, humid, sunny
GEOLOGIST: Lara Gray

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE
0 to -1	0-4	70	0.0	
-1 to -2			0.3	
-2 to -3			0.0	
-3 to -4			0.0	
-4 to -5	4-8	75	0.0	
-5 to -6			0.0	
-6 to -7			0.0	
-7 to -8			0.0	
-8 to -9	8-12	65	0.0	
-9 to -10			4.0	
-10 to -11			0.0	
-11 to -12			0.0	
-12 to -13	12-16	60	0.0	
-13 to -14			0.0	
-14 to -15			0.0	
-15 to -16			0.0	
-16 to -17	16-20	75	0.0	
-17 to -18			0.2	17-18
-18 to -19			0.5	
-19 to -20			0.0	
-20 to -21	20-24	100	0.0	
-21 to -22			0.0	
-22 to -23			0.0	
-23 to -24			0.0	
-24 to -25	24-28	100	0.0	
-25 to -26			0.0	
-26 to -27			0.0	26-27
-27 to -28			0.0	

SOIL DESCRIPTION and LITHOLOGIC SYMBOL

TOPSOIL: Dry, brown silt and sand with grass

FILL: Dry to moist, black sand, wood, ash-like material, and coal-like material

SAND AND SILT: Dry to moist, light brown silt with fine sand and iron staining

SAND: Moist to wet, brown, medium to coarse sand

SAND AND GRAVEL: Moist to wet, brown, medium to coarse sand with a little gravel

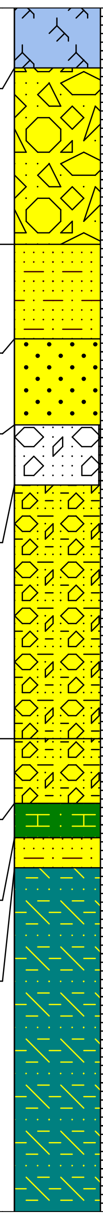
GRAVEL AND SAND: Wet, brown, loosely packed, coarse sand and gravel

GRAVEL AND SAND: As above with a very slight odor

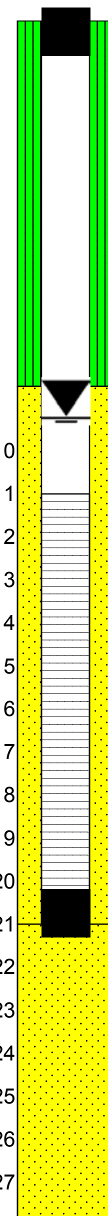
CLAY AND SILT: Moist, reddish-brown clay and silt

SAND AND SILT: Moist, gray, fine sand and silt

CLAY AND SAND: Moist, gray clay and fine sand



WELL CONSTRUCTION



REMARKS

Flush mount curb box

Bentonite grout

1-inch PVC riser

Water level (12/6/05)

Sand pack

0.010-inch slotted screen

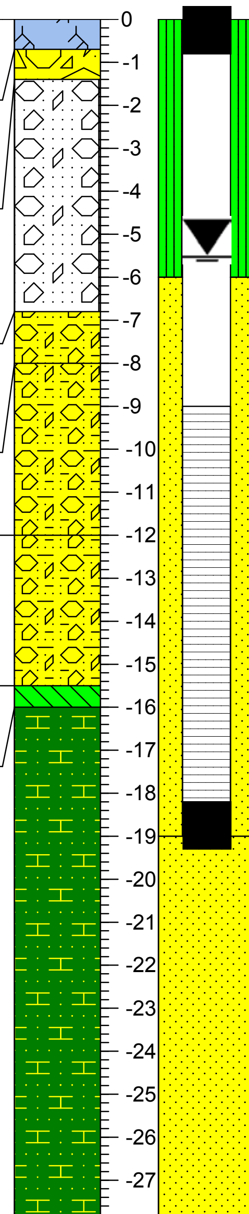
Well cap

NO-DP50/PZ28

PROJECT: Norwich - NYSEG
PROJECT NO: I03032
LOCATION: Norwich, NY
DATE: 6/16/2005
DRILLING CONTRACTOR: Lyon Drilling
DRILLER: Harry Lyon
DRILLING METHOD: Direct Push with CME55

SAMPLING METHOD: 4 ft. Geoprobe macrocores
GROUND ELEVATION: 999.17 ft. above MSL
WELL ELEVATION: 998.79 ft. above MSL
OUTER CASING ELEVATION: NA
DEPTH TO WATER: 5.14 ft. below TOC
BOREHOLE DEPTH: 28 ft. below grage
WEATHER: Warm, cloudy, breezy
GEOLOGIST: Amanda Bissell

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	SOIL DESCRIPTION and LITHOLOGIC SYMBOL	REMARKS
0 to -1	0-4	80	0.0		TOPSOIL: Dry, brown silt and fine sand with grass	Flush mount curb box
-1 to -2			2.2			
-2 to -3			1.6		FILL: Dry, black gravel with ash-like material, coal-like material and some root material	Bentonite grout
-3 to -4			1.3			1-inch PVC riser
-4 to -5	4-8	60	0.6		SAND AND GRAVEL: Dry to moist, brown, fine to coarse sand and gravel with trace clay and iron staining	Water level (12/6/05)
-5 to -6			1.6			
-6 to -7			1.3			
-7 to -8			1.1		GRAVEL AND SAND: Wet, brown, gravel and coarse sand with trace clay	
-8 to -9	8-12	70	0.4			Sand pack
-9 to -10			0.0			
-10 to -11			0.0		GRAVEL AND SAND: As above with a slight odor from 10-10.5'	
-11 to -12			0.0			
-12 to -13	12-16	75	0.0		GRAVEL AND SAND: Wet, brown, gravel and fine to coarse sand	0.010-inch slotted screen
-13 to -14			0.0			
-14 to -15			0.0	13.7-15.5		
-15 to -16			0.0		CLAY: Moist, brown compact clay	
-16 to -17	16-20	100	0.0			
-17 to -18			0.0		CLAY AND SILT: Moist, gray, interbedded clay and silt	
-18 to -19			0.0			Well cap
-19 to -20			0.0			
-20 to -21	20-24	100	0.0			
-21 to -22			0.0			
-22 to -23			0.0			
-23 to -24			0.0			
-24 to -25	24-28	100	0.0			
-25 to -26			0.0	25-26		
-26 to -27			0.0			
-27 to -28			0.0			



NO-DP51/PZ29

PROJECT: Norwich - NYSEG
PROJECT NO: I03032
LOCATION: Norwich, NY
DATE: 10/10/2005
DRILLING CONTRACTOR: Lyon Drilling
DRILLER: Harry Lyon
DRILLING METHOD: Direct Push with CME55

SAMPLING METHOD: 4 ft. Geoprobe macrocores
GROUND ELEVATION: 999.29 ft. above MSL
WELL ELEVATION: 998.91 ft. above MSL
OUTER CASING ELEVATION: NA
DEPTH TO WATER: 5.05 ft. below TOC
BOREHOLE DEPTH: 20 ft. below grade
WEATHER: Cool, overcast, misty
GEOLOGIST: Lara Gray

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE
0 to -1	0-4	50	0.0	
-1 to -2			0.0	
-2 to -3			0.0	
-3 to -4			0.0	
-4 to -5	4-8	50	0.0	
-5 to -6			0.0	
-6 to -7			0.0	
-7 to -8			0.0	
-8 to -9	8-12	80	0.0	
-9 to -10			0.0	
-10 to -11			0.0	
-11 to -12			0.0	
-12 to -13	12-16	100	0.0	
-13 to -14			0.0	
-14 to -15			0.0	
-15 to -16			0.0	
-16 to -17	16-20	100	0.0	
-17 to -18			0.0	
-18 to -19			0.0	
-19 to -20			0.0	19-20

SOIL DESCRIPTION and LITHOLOGIC SYMBOL

ASPHALT

FILL: Moist, brown silt, sand, gravel, coal-like material and iron staining

SAND AND GRAVEL: Moist to wet, medium to coarse sand and gravel

CLAY AND SILT: Moist, brown to gray clay with some silt

CLAY AND SAND: Moist, gray clay with fine sand

WELL CONSTRUCTION / REMARKS

Flush mount curb box

Bentonite grout

1-inch PVC riser

Water level (12/6/05)

Sand pack

0.010-inch slotted screen

Well cap

NO-DP52/PZ30

PROJECT: Norwich - NYSEG
PROJECT NO: I03032
LOCATION: Norwich, NY
DATE: 10/10/2005
DRILLING CONTRACTOR: Lyon Drilling
DRILLER: Harry Lyon
DRILLING METHOD: Direct Push with CME55

SAMPLING METHOD: 4 ft. Geoprobe macrocores
GROUND ELEVATION: 998.53 ft. above MSL
WELL ELEVATION: 998.23 ft. above MSL
OUTER CASING ELEVATION: NA
DEPTH TO WATER: 5.39 ft. below TOC
BOREHOLE DEPTH: 20 ft. below grade
WEATHER: Cool, overcast
GEOLOGIST: Lara Gray

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	SOIL DESCRIPTION and LITHOLOGIC SYMBOL	WELL CONSTRUCTION	REMARKS
0	0-4	70	0.0		TOPSOIL: Moist, dark brown silt, fine sand, and gravel with root material		Flush mount curb box
-1			0.0				
-2			0.0		FILL: Moist, brown silt, sand, gravel, and concrete		Bentonite grout
-3			0.0		SAND AND GRAVEL: Moist, light orangey-brown sand and silt with gravel and some iron staining		1-inch PVC riser
-4	4-8	80	0.0				
-5			0.0				Water level (12/6/05)
-6			0.0				Sand pack
-7			0.0		GRAVEL AND SAND: Wet, brown gravel and medium to coarse sand		
-8	8-12	100	0.0				
-9			0.0		CLAY AND SAND: Moist to wet, reddish-brown clay with fine sand and silt		
-10			0.0				
-11			0.0		CLAY AND SAND: Moist, gray clay with some fine sand		
-12	12-16	95	0.0				0.010-inch slotted screen
-13			0.0				
-14			0.0				
-15			0.0				Well cap
-16	16-20	50	0.0				
-17			0.0				
-18			0.0				
-19			0.0	19-20			
-20							

NO-DP53/PZ31

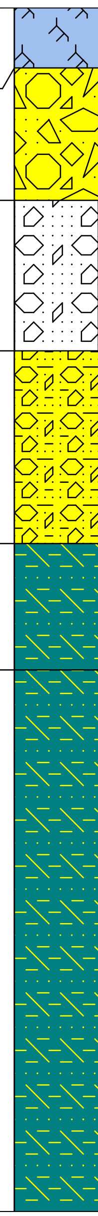
PROJECT: Norwich - NYSEG
PROJECT NO: I03032
LOCATION: Norwich, NY
DATE: 10/10/2005
DRILLING CONTRACTOR: Lyon Drilling
DRILLER: Harry Lyon
DRILLING METHOD: Direct Push with CME55

SAMPLING METHOD: 4 ft. Geoprobe macrocores
GROUND ELEVATION: 998.34 ft. above MSL
WELL ELEVATION: 997.93 ft. above MSL
OUTER CASING ELEVATION: NA
DEPTH TO WATER: 6.71 ft. below TOC
BOREHOLE DEPTH: 20 ft. below grade
WEATHER: Cool, overcast
GEOLOGIST: Lara Gray

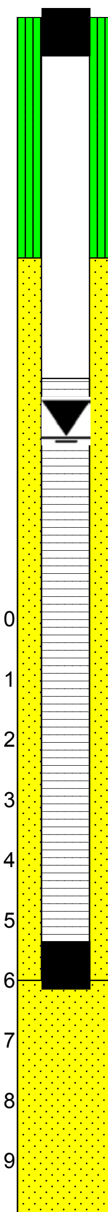
DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE
0 to -1	0-4	80	0.0	
-1 to -2			0.0	
-2 to -3			0.0	
-3 to -4			0.0	
-4 to -5	4-8	70	0.0	
-5 to -6			0.0	
-6 to -7			0.0	
-7 to -8			0.0	
-8 to -9	8-12	100	0.0	
-9 to -10			0.0	
-10 to -11			0.0	
-11 to -12			0.0	
-12 to -13	12-16	100	0.0	
-13 to -14			0.0	
-14 to -15			0.0	
-15 to -16			0.0	
-16 to -17	16-20	100	0.0	
-17 to -18			0.0	
-18 to -19			0.0	
-19 to -20			0.0	19-20

SOIL DESCRIPTION and LITHOLOGIC SYMBOL

Depth (ft.)	Soil Description
0 to -1	TOPSOIL: Moist, dark brown silt and fine sand with root material
-1 to -3.2	FILL: Moist, brown silt, sand, and gravel
-3.2 to -5.7	SAND AND GRAVEL: Moist, brown, medium to coarse sand and gravel
-5.7 to -8.9	GRAVEL AND SAND: Wet, brown gravel and medium to coarse sand
-8.9 to -11	CLAY AND SAND: Moist, reddish-brown clay with fine sand and silt
-11 to -20	CLAY AND SAND: Moist, gray clay with some fine sand



WELL CONSTRUCTION



REMARKS

Flush mount curb box

Bentonite grout

1-inch PVC riser

Sand pack
Water level (12/6/05)

0.010-inch slotted screen

Well cap

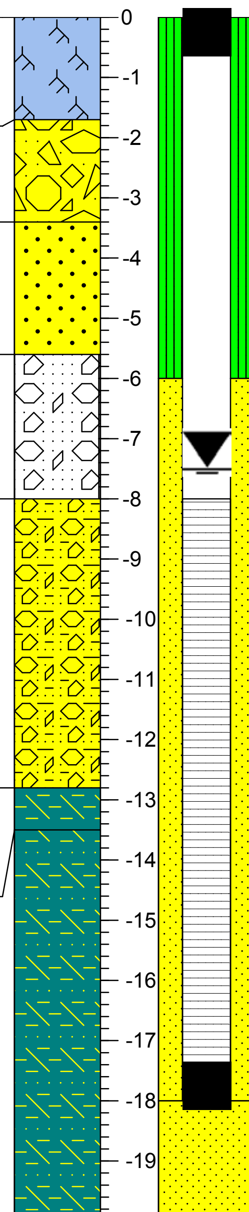
NO-DP54/PZ32

PROJECT: Norwich - NYSEG
PROJECT NO: I03032
LOCATION: Norwich, NY
DATE: 10/11/2005
DRILLING CONTRACTOR: Lyon Drilling
DRILLER: Harry Lyon
DRILLING METHOD: Direct Push with CME55

SAMPLING METHOD: 4 ft. Geoprobe macrocores
GROUND ELEVATION: 1000.99 ft. above MSL
WELL ELEVATION: 1000.62 ft. above MSL
OUTER CASING ELEVATION: NA
DEPTH TO WATER: 7.23 ft. below TOC
BOREHOLE DEPTH: 20 ft. below grade
WEATHER: Cool, overcast, slight breeze
GEOLOGIST: Lara Gray

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE
0 to -1	0-4	75	0.0	
-1 to -2			0.0	
-2 to -3			0.0	
-3 to -4			0.0	
-4 to -5	4-8	65	0.0	
-5 to -6			0.0	
-6 to -7			0.0	
-7 to -8			0.0	
-8 to -9	8-12	50	0.0	
-9 to -10			0.0	
-10 to -11			0.0	
-11 to -12			0.0	
-12 to -13	12-16	100	0.0	
-13 to -14			0.0	
-14 to -15			0.0	
-15 to -16			0.0	
-16 to -17	16-20	100	0.0	
-17 to -18			0.0	
-18 to -19			0.0	
-19 to -20			0.0	19-20

SOIL DESCRIPTION and LITHOLOGIC SYMBOL
TOPSOIL: Moist, dark brown silt, fine sand, and gravel with root material
FILL: Moist, brown silt, sand, and gravel
SAND: Moist, grayish-brown, fine sand with trace gravel
SAND AND GRAVEL: Moist to wet, orangey-brown, fine to coarse sand and gravel
GRAVEL AND SAND: Wet, brown gravel and medium to coarse sand
CLAY AND SAND: Moist, reddish-brown clay with fine sand and silt
CLAY AND SAND: Moist, gray clay with some fine sand



WELL CONSTRUCTION	REMARKS
	Flush mount curb box
	Bentonite grout
	1-inch PVC riser
	Sand pack
	Water level (12/6/05)
	0.010-inch slotted screen
	Well cap

NO-DP55/PZ33

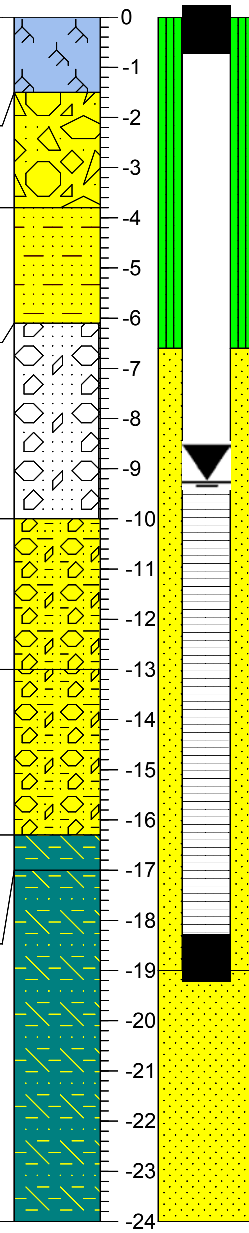
PROJECT: Norwich - NYSEG
PROJECT NO: I03032
LOCATION: Norwich, NY
DATE: 10/11/2005
DRILLING CONTRACTOR: Lyon Drilling
DRILLER: Harry Lyon
DRILLING METHOD: Direct Push with CME55

SAMPLING METHOD: 4 ft. Geoprobe macrocores
GROUND ELEVATION: 1003.40 ft. above MSL
WELL ELEVATION: 1003.00 ft. above MSL
OUTER CASING ELEVATION: NA
DEPTH TO WATER: 8.94 ft. below TOC
BOREHOLE DEPTH: 24 ft. below grade
WEATHER: Cool, overcast, slight breeze
GEOLOGIST: Lara Gray

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE
0 to -4	0-4	60		
-4 to -8	4-8	75		
-8 to -12	8-12	70		
-12 to -16	12-16	55		
-16 to -20	16-20	100		
-20 to -24	20-24	100		23-24

SOIL DESCRIPTION and LITHOLOGIC SYMBOL
TOPSOIL: Moist, dark brown silt, fine sand, and gravel with root material
FILL: Moist, orangey-brown silt, sand, and gravel
SAND AND SILT: Moist, orangey-brown silt and fine sand with trace gravel and iron staining
SAND AND GRAVEL: Moist, brown, medium to coarse sand and gravel with iron staining
GRAVEL AND SAND: Wet, brown gravel and medium to coarse sand
GRAVEL AND SAND: Wet, brown gravel and medium to coarse sand
CLAY AND SAND: Moist, reddish-brown clay with fine sand and silt
CLAY AND SAND: Moist, gray clay with some fine sand

WELL CONSTRUCTION



REMARKS

Flush mount curb box
Bentonite grout
1-inch PVC riser
Sand pack
Water level (12/6/05)
0.010-inch slotted screen
Well cap

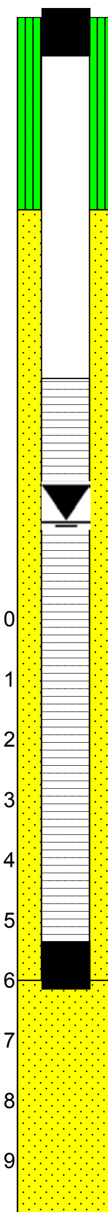
NO-DP56/PZ34

PROJECT: Norwich - NYSEG
PROJECT NO: I03032
LOCATION: Norwich, NY
DATE: 10/11/2005
DRILLING CONTRACTOR: Lyon Drilling
DRILLER: Harry Lyon
DRILLING METHOD: Direct Push with CME55

SAMPLING METHOD: 4 ft. Geoprobe macrocores
GROUND ELEVATION: 1002.41 ft. above MSL
WELL ELEVATION: 1002.02 ft. above MSL
OUTER CASING ELEVATION: NA
DEPTH TO WATER: 8.11 ft. below TOC
BOREHOLE DEPTH: 20 ft. below grade
WEATHER: Cool, overcast, slight breeze
GEOLOGIST: Lara Gray

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	SOIL DESCRIPTION and LITHOLOGIC SYMBOL	REMARKS
0 to -1	0-4	100	0.0		TOPSOIL: Moist, dark brown silt, fine sand, and gravel with root material	Flush mount curb box
-1 to -2			0.0			
-2 to -3			0.0		FILL: Dry, brown silt, sand, gravel, coal-like material, and concrete	Bentonite grout
-3 to -4			0.0			1-inch PVC riser
-4 to -5	4-8	90	0.0			
-5 to -6			0.0		SAND: Dry to moist, brown, fine sand with trace gravel and iron staining	
-6 to -7			0.0			Sand pack
-7 to -8			0.0			
-8 to -9	8-12	40	0.0		SAND AND GRAVEL: Moist, brown, medium to coarse sand and gravel with iron staining	Water level (12/6/05)
-9 to -10			0.0			
-10 to -11			0.0			
-11 to -12			0.0			
-12 to -13	12-16	80	0.0		CLAY AND SAND: Moist, gray clay with some fine sand	0.010-inch slotted screen
-13 to -14			0.0			
-14 to -15			0.0			
-15 to -16			0.0			Well cap
-16 to -17	16-20	80	0.0			
-17 to -18			0.0			
-18 to -19			0.0			
-19 to -20			0.0	19-20		

WELL CONSTRUCTION



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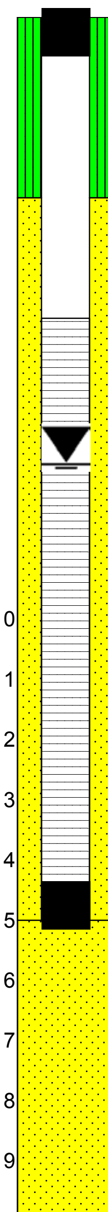
NO-DP57/PZ35

PROJECT: Norwich - NYSEG
PROJECT NO: I03032
LOCATION: Norwich, NY
DATE: 10/11/2005
DRILLING CONTRACTOR: Lyon Drilling
DRILLER: Harry Lyon
DRILLING METHOD: Direct Push with CME55

SAMPLING METHOD: 4 ft. Geoprobe macrocores
GROUND ELEVATION: 1001.52 ft. above MSL
WELL ELEVATION: 1001.25 ft. above MSL
OUTER CASING ELEVATION: NA
DEPTH TO WATER: 7.15 ft. below TOC
BOREHOLE DEPTH: 20 ft. below grade
WEATHER: Cool, overcast, slight breeze
GEOLOGIST: Lara Gray

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	SOIL DESCRIPTION and LITHOLOGIC SYMBOL
0	0-4	50	0.0		TOPSOIL: Moist, dark brown silt, fine sand, and gravel with root material
-1			0.0		
-2			0.0		FILL: Moist, brown silt, sand, and gravel
-3			0.0		
-4	4-8	65	0.0		
-5			0.0		
-6			0.0		SAND AND GRAVEL: Wet, brown, medium to coarse sand and gravel with iron staining
-7			0.0		
-8	8-12	65	0.0		
-9			0.0		
-10			0.0		
-11			0.0		CLAY AND SAND: Moist, gray clay with some fine sand
-12	12-16	75	0.0		
-13			0.0		
-14			0.0		
-15			0.0		
-16	16-20	90	0.0		
-17			0.0		
-18			0.0		
-19			0.0	19-20	
-20					

WELL CONSTRUCTION



REMARKS

- Flush mount curb box
- Bentonite grout
- 1-inch PVC riser
- Sand pack
- Water level (12/6/05)
- 0.010-inch slotted screen
- Well cap

NO-DP58/PZ36

PROJECT: Norwich - NYSEG
PROJECT NO: I03032
LOCATION: Norwich, NY
DATE: 10/12/2005
DRILLING CONTRACTOR: Lyon Drilling
DRILLER: Harry Lyon
DRILLING METHOD: Direct Push with CME55

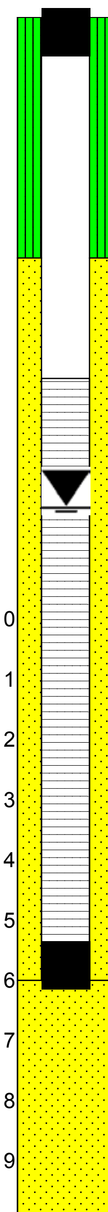
SAMPLING METHOD: 4 ft. Geoprobe macrocores
GROUND ELEVATION: 1000.10 ft. above MSL
WELL ELEVATION: 999.82 ft. above MSL
OUTER CASING ELEVATION: NA
DEPTH TO WATER: 7.87 ft. below TOC
BOREHOLE DEPTH: 20 ft. below grade
WEATHER: Cool, overcast, few showers
GEOLOGIST: Lara Gray

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE
0 to -1	0-4	90	0.0	
-1 to -2			0.0	
-2 to -3			0.0	
-3 to -4			0.0	
-4 to -5	4-8	80	0.0	
-5 to -6			0.0	
-6 to -7			0.0	
-7 to -8			0.0	
-8 to -9	8-12	70	0.0	
-9 to -10			0.0	
-10 to -11			0.0	
-11 to -12			0.0	
-12 to -13	12-16	100	0.0	
-13 to -14			0.0	
-14 to -15			0.0	
-15 to -16			0.0	
-16 to -17	16-20	100	0.0	
-17 to -18			0.0	
-18 to -19			0.0	
-19 to -20			0.0	19-20

SOIL DESCRIPTION and LITHOLOGIC SYMBOL

- FILL: Dry, brown sand and gravel
- FILL: Dry, dark brown sand, gravel, and coal-like material
- SAND AND GRAVEL: Dry to moist, orangey-brown, fine sand and gravel
- GRAVEL AND SAND: Wet, brown gravel and coarse sand
- CLAY AND SILT: Moist, reddish-brown clay and silt
- CLAY AND SAND: Moist, gray clay with fine sand

WELL CONSTRUCTION



REMARKS

- Flush mount curb box
- Bentonite grout
- 1-inch PVC riser
- Sand pack
- Water level (12/6/05)
- 0.010-inch slotted screen
- Well cap

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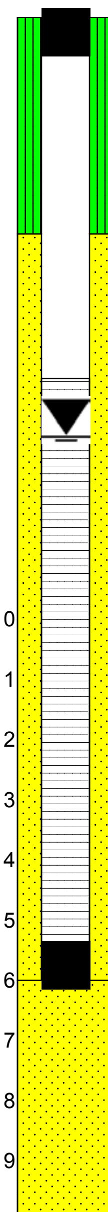
NO-DP59/PZ37

PROJECT: Norwich - NYSEG
PROJECT NO: I03032
LOCATION: Norwich, NY
DATE: 10/12/2005
DRILLING CONTRACTOR: Lyon Drilling
DRILLER: Harry Lyon
DRILLING METHOD: Direct Push with CME55

SAMPLING METHOD: 4 ft. Geoprobe macrocores
GROUND ELEVATION: 999.71 ft. above MSL
WELL ELEVATION: 999.44 ft. above MSL
OUTER CASING ELEVATION: NA
DEPTH TO WATER: 6.69 ft. below TOC
BOREHOLE DEPTH: 20 ft. below grade
WEATHER: Cool, overcast, few showers
GEOLOGIST: Lara Gray

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	SOIL DESCRIPTION and LITHOLOGIC SYMBOL	WELL CONSTRUCTION	REMARKS
0 to -4	0-4	75	0.0, 0.0, 0.0, 0.0		TOPSOIL: Moist, dark brown silt and fine sand with root material (0 to -1.4); FILL: Dry to moist, gray sand and gravel (-1.4 to -4)		Flush mount curb box; Bentonite grout; 1-inch PVC riser
-4 to -8	4-8	75	0.0, 0.0, 0.0, 0.0		SAND AND GRAVEL: Moist to wet, orangey-brown, fine to medium sand and gravel with iron staining		Water level (12/6/05)
-8 to -12	8-12	0			NO RECOVERY		Sand pack
-12 to -16	12-16	100	0.0, 0.0, 0.0, 0.0		CLAY AND SAND: Moist, gray clay with fine sand		0.010-inch slotted screen; Well cap
-16 to -20	16-20	100	0.0, 0.0, 0.0, 0.0	19-20			



NO-DP60/PZ38

PROJECT: Norwich - NYSEG
PROJECT NO: I03032
LOCATION: Norwich, NY
DATE: 10/12/2005
DRILLING CONTRACTOR: Lyon Drilling
DRILLER: Harry Lyon
DRILLING METHOD: Direct Push with CME55

SAMPLING METHOD: 4 ft. Geoprobe macrocores
GROUND ELEVATION: 1000.37 ft. above MSL
WELL ELEVATION: 1000.18 ft. above MSL
OUTER CASING ELEVATION: NA
DEPTH TO WATER: 7.22 ft. below TOC
BOREHOLE DEPTH: 20 ft. below grade
WEATHER: Cool, overcast, heavy rain
GEOLOGIST: Lara Gray

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	SOIL DESCRIPTION and LITHOLOGIC SYMBOL	WELL CONSTRUCTION	REMARKS
0 to -1	0-4	80	0.0		TOPSOIL: Moist, dark brown silt and fine sand with root material		Flush mount curb box
-1 to -2			0.0				
-2 to -3			0.0		FILL: Moist, brown silt, sand, and gravel		Bentonite grout
-3 to -4			0.0				1-inch PVC riser
-4 to -5	4-8	70	0.0		SAND AND GRAVEL: Moist, brown sand and gravel		
-5 to -6			0.0				
-6 to -7			0.0				Sand pack
-7 to -8			0.0				Water level (12/6/05)
-8 to -9	8-12	25	0.0		GRAVEL AND SAND: Wet, orangey-brown gravel and sand		
-9 to -10			0.0				
-10 to -11			0.0				
-11 to -12			0.0				
-12 to -13	12-16	15	0.0		GRAVEL AND SAND: Wet, orangey-brown gravel and sand		0.010-inch slotted screen
-13 to -14			0.0				
-14 to -15			0.0				
-15 to -16			0.0				
-16 to -17	16-20	90	0.0		CLAY AND SAND: Moist, gray clay with fine sand		Well cap
-17 to -18			0.0				
-18 to -19			0.0				
-19 to -20			0.0	19-20			

NO-DP61/PZ39

PROJECT: Norwich - NYSEG
PROJECT NO: I03032
LOCATION: Norwich, NY
DATE: 10/12/2005
DRILLING CONTRACTOR: Lyon Drilling
DRILLER: Harry Lyon
DRILLING METHOD: Direct Push with CME55

SAMPLING METHOD: 4 ft. Geoprobe macrocores
GROUND ELEVATION: 999.41 ft. above MSL
WELL ELEVATION: 999.05 ft. above MSL
OUTER CASING ELEVATION: NA
DEPTH TO WATER: 5.40 ft. below TOC
BOREHOLE DEPTH: 16 ft. below grade
WEATHER: Cool, overcast, heavy rain
GEOLOGIST: Lara Gray

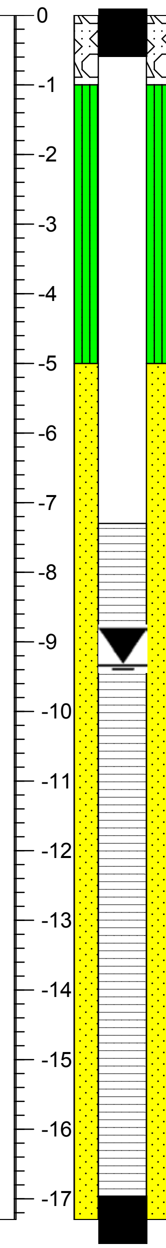
DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	SOIL DESCRIPTION and LITHOLOGIC SYMBOL	WELL CONSTRUCTION	REMARKS
0 to -2	0-4	95			TOPSOIL: Moist, dark brown silt and fine sand with root material		Flush mount curb box
-2 to -4					FILL: Dry, brown silt, sand, and gravel		Bentonite grout; 1-inch PVC riser
-4 to -7.5	4-8	70			SAND AND GRAVEL: Dry, brown sand and gravel		Water level (12/6/05); Sand pack
-7.5 to -8					CLAY AND SILT: Moist, brown clay and silt		
-8 to -16	8-12	90			CLAY AND SAND: Moist, gray clay with fine sand		0.010-inch slotted screen
	12-16	90		15-16			Well cap

NO-PZ01

PROJECT: Norwich - NYSEG
PROJECT NO: I03032
LOCATION: Norwich, NY
DATE: 10/27/2004
DRILLING CONTRACTOR: Lyon Drilling
DRILLER: Harry Lyon
DRILLING METHOD: Direct Push with CME55

SAMPLING METHOD: 4 ft. Geoprobe macrocores
GROUND ELEVATION: 1004.30 ft. above MSL
WELL ELEVATION: 1003.74 ft. above MSL
OUTER CASING ELEVATION: NA
DEPTH TO WATER: 9.10 ft. below TOC
BOREHOLE DEPTH: 17.3 ft. below grade
WEATHER: Not recorded
GEOLOGIST: Pete DeClercq

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	SOIL DESCRIPTION and LITHOLOGIC SYMBOL	WELL CONSTRUCTION	REMARKS
0 to -17					NOTE: PZ01 was installed without soil sampling. A change in lithology from sand and gravel to clay at 17.3' below grade was estimated by the driller.		Flush mount curb box Sand and Concrete Bentonite seal 1-inch PVC riser Sand pack Water level (12/6/05) 0.010-inch slotted screen Driller felt clay at 17.3 ft. Well cap

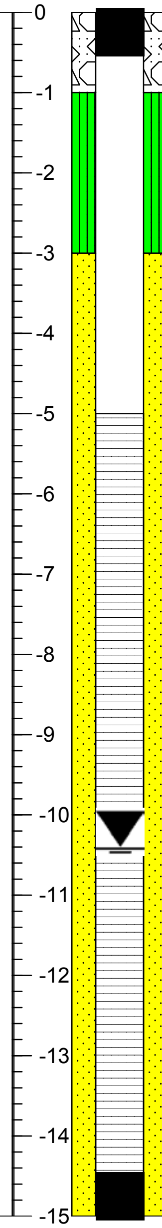


NO-PZ02

PROJECT: Norwich - NYSEG
PROJECT NO: I03032
LOCATION: Norwich, NY
DATE: 10/27/2004
DRILLING CONTRACTOR: Lyon Drilling
DRILLER: Harry Lyon
DRILLING METHOD: Direct Push with CME55

SAMPLING METHOD: 4 ft. Geoprobe macrocores
GROUND ELEVATION: 1004.18 ft. above MSL
WELL ELEVATION: 1003.91 ft. above MSL
OUTER CASING ELEVATION: NA
DEPTH TO WATER: 10.21 ft. below TOC
BOREHOLE DEPTH: 15 ft. below grade
WEATHER: Not recorded
GEOLOGIST: Pete DeClercq

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	SOIL DESCRIPTION and LITHOLOGIC SYMBOL	WELL CONSTRUCTION	REMARKS
0					NOTE: PZ02 was installed without soil sampling. A change in lithology from sand and gravel to clay at 14.5' below grade was estimated by the driller		Flush mount curb box Sand and Concrete
-1							
-2							Bentonite seal
-3							
-4							1-inch PVC riser
-5							
-6							0.010-inch slotted screen
-7							
-8							Sand pack
-9							
-10							Water level (12/6/05)
-11							
-12							
-13							
-14							Driller felt clay at 14.5 ft.
-15							Well cap

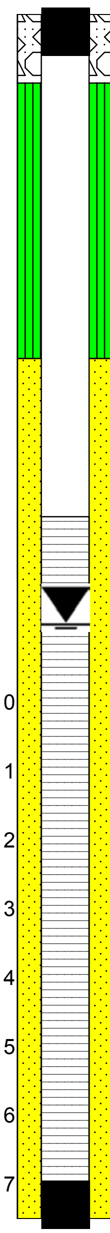


NO-PZ03

PROJECT: Norwich - NYSEG
PROJECT NO: I03032
LOCATION: Norwich, NY
DATE: 10/27/2004
DRILLING CONTRACTOR: Lyon Drilling
DRILLER: Harry Lyon
DRILLING METHOD: Direct Push with CME55

SAMPLING METHOD: 4 ft. Geoprobe macrocores
GROUND ELEVATION: 1003.63 ft. above MSL
WELL ELEVATION: 1003.35 ft. above MSL
OUTER CASING ELEVATION: NA
DEPTH TO WATER: 8.62 ft. below TOC
BOREHOLE DEPTH: 17.5 ft. below grade
WEATHER: Not recorded
GEOLOGIST: Pete DeClercq

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	SOIL DESCRIPTION and LITHOLOGIC SYMBOL	WELL CONSTRUCTION	REMARKS
0					NOTE: PZ03 was installed without soil sampling. A change in lithology from sand and gravel to clay at 17.5' below grade was estimated by the driller.		Flush mount curb box Sand and Concrete
-1							
-2							Bentonite seal
-3							
-4							1-inch PVC riser
-5							
-6							
-7							
-8							
-9							Water level (12/6/05)
-10							Sand pack
-11							
-12							0.010-inch slotted screen
-13							
-14							
-15							
-16							
-17							Driller felt clay at 17.5 ft. Well cap

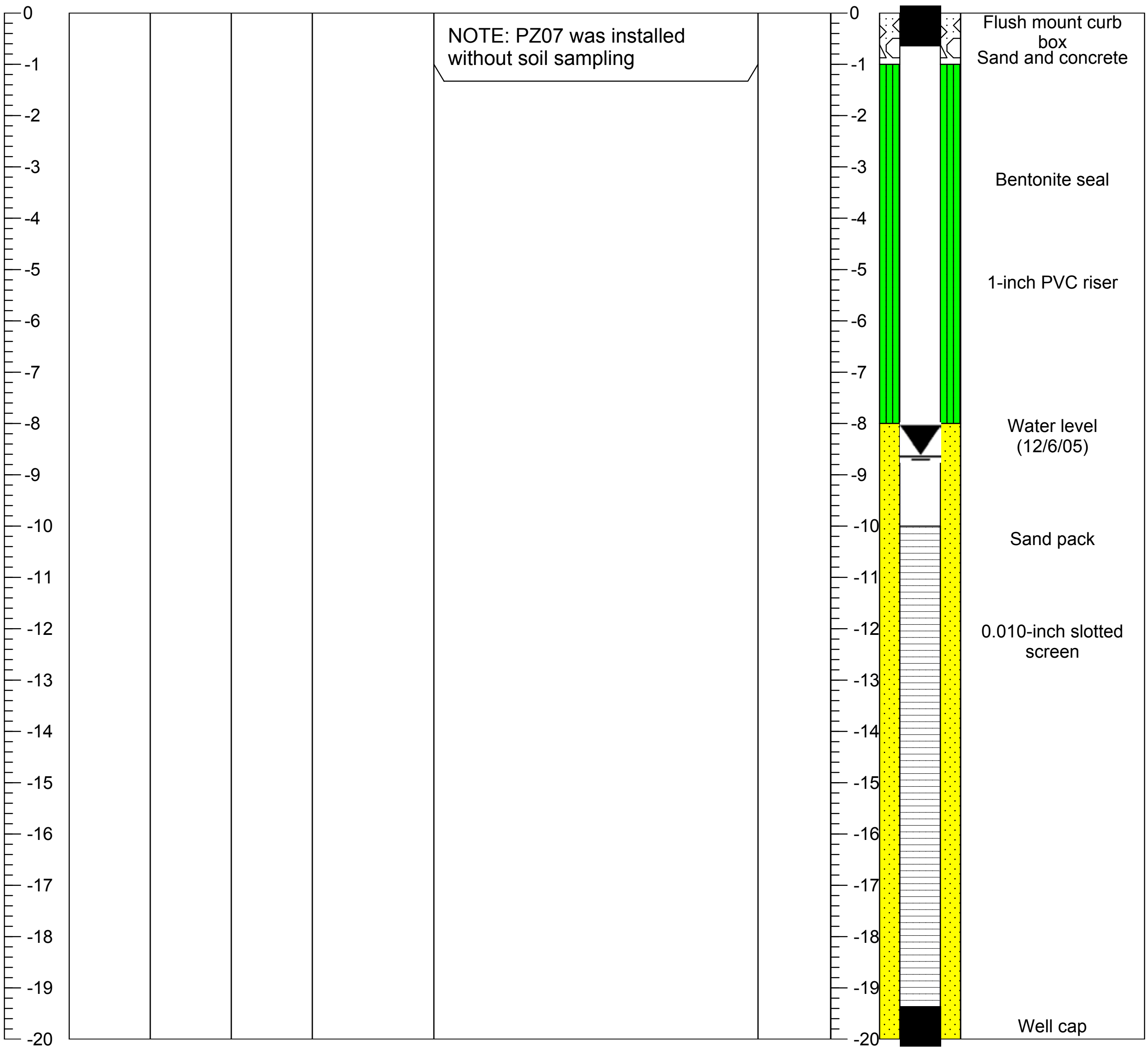


NO-PZ07

PROJECT: Norwich - NYSEG
PROJECT NO: I03032
LOCATION: Norwich, NY
DATE: 10/28/2004
DRILLING CONTRACTOR: Lyon Drilling
DRILLER: Harry Lyon
DRILLING METHOD: Trailer-mounted Direct Push Rig

SAMPLING METHOD:4 ft. Geoprobe macrocores
GROUND ELEVATION: 1002.19 ft. above MSL
WELL ELEVATION:1001.91 ft. above MSL
OUTER CASING ELEVATION:NA
DEPTH TO WATER: 8.37 ft. below TOC
BOREHOLE DEPTH: 20 ft. below grade
WEATHER: Not recorded
GEOLOGIST: Pete DeClercq

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	SOIL DESCRIPTION and LITHOLOGIC SYMBOL	WELL CONSTRUCTION	REMARKS

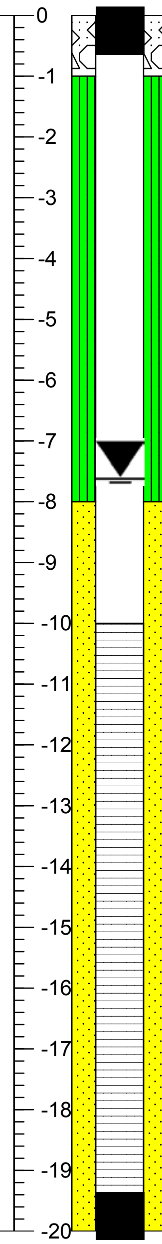


NO-PZ08

PROJECT: Norwich - NYSEG
PROJECT NO: I03032
LOCATION: Norwich, NY
DATE: 10/28/2004
DRILLING CONTRACTOR: Lyon Drilling
DRILLER: Harry Lyon
DRILLING METHOD: Trailer-mounted Direct Push Rig

SAMPLING METHOD:4 ft. Geoprobe macrocores
GROUND ELEVATION: 1001.11 ft. above MSL
WELL ELEVATION:1000.85 ft. above MSL
OUTER CASING ELEVATION:NA
DEPTH TO WATER: 7.35 ft. below TOC
BOREHOLE DEPTH: 20 ft. below grade
WEATHER: Not recorded
GEOLOGIST: Pete DeClercq

DEPTH (ft.)	SAMPLE INTERVAL (ft.)	% RECOVERY	PID (ppm)	ANALYTICAL SAMPLE	SOIL DESCRIPTION and LITHOLOGIC SYMBOL	WELL CONSTRUCTION	REMARKS
0					NOTE: PZ08 was installed without soil sampling		Flush mount curb box Sand and Concrete
-1							
-2							
-3							Bentonite seal
-4							
-5							1-inch PVC riser
-6							
-7							Water level (12/6/05)
-8							
-9							
-10							Sand pack
-11							
-12							0.010-inch slotted screen
-13							
-14							
-15							
-16							
-17							
-18							
-19							
-20							Well cap



D
GROUNDWATER SAMPLING SHEETS

Water Level Work Sheet

Site: NORWICH Date: 6/17/05

	Well Number	Depth to Bottom	Depth to Water	Feet of Water	Depth to NAPL	PID
	PZ11	18.24	10.10			
	PZ26	22.82	10.37			
	PZ17	15.23	10.02			
silty	PZ16	14.77	10.75			
	PZ20	18.55	10.17			
silty*	PZ21	17.22	7.83			
silty*	PZ22	17.40	7.22		Note VERY SOFT BOTTOM but probe not as silty as others	
silty*	PZ23	15.85	7.65		very soft bottom but probe not too silty	
	PZ14	17.20	6.54			
	PZ13	14.83	7.04			
	PZ08	19.71	7.35			
	PZ07	19.50	8.37			
Master Lock	GW92-11SH	9.90	8.17			
slip cap	PZ05	21.65	9.21			
slip cap	PZ06	20.61	8.27		Trace DNAPL	
	PZ03	16.77	9.16			
NUSEG Lock	GW91-7	10.64	8.98			
	PZ12	23.17	9.66			
slip cap	PZ04	16.58	7.85		odor	
	PZ 10	18.76	6.96		odor	
J plug loose master lock	GW92-8	12.61	6.92		odor	
water in box	SW20	13.06	8.03			
	SW21	couldn't	open			
	SW22	Couldn't	open			

* was developed yesterday

Water Level Work Sheet 2 of 2

Site: NORWICH Date: 6/17/05

Well Number	Depth to Bottom	Depth to Water	Feet of Water	Depth to NAPL	PID
GW01-14	15.82	7.42		silt w/ odor	
Spmp-2S	14.85	11.89		odor	
Spmp-2D	18.70	11.91		silt w/sheen and odor	
GW91-4Sh	15.60	12.64			
GW91-4D	20.07	11.71			
PZ02	14.63	10.21		Trace DNAPL	
PZ01	16.91	9.98		sheen and strong odor	
GW91-5	7.00	—			
GW92-12	13.05	4.95			
GW92-13	14.91	6.61		silt - no odor	
PZ19	17.80	6.15		silt - slight odor	
PZ18	17.08	5.77		Silt, some odor	
PZ09	20.85	7.07		2' of DNAPL sheen on top of water	
GW01-15SH	13.09	10.24		Sediment Sheen	
GW01-15 Deep	not gauged	10.50		0.91' of DNAPL	
GW04-16	not measured	13.10		LNAPL present but not measurable	
GW19-06	7.66	13.72		slight odor	
Existing Well	15.99	9.61		Sediment	
	1				

~8 ft LNAPL ~6 ft DNAPL

Water in box (GW19-06)

water in box (Existing Well)

Well Sampling Data Sheet

Well Number: GW9²-12

Client: ISH/Meta Site: Norwich, NY

Personnel: TJ/AB Weather: Sunny 70° Date: 7/26/05

PUMPING PARAMETERS

Casing inner diameter (gal/foot):
✓ 2" (0.16) ___ 4" (0.65) ___ 5" (1.02) ___ Other ___

	Previous Report	Measured Depth	Ref. Location
Height of casing reference above grade			
Depth of well from top of casing		13.05	
Water level from top of casing		5.93	
Feet of water in casing		7.12	
NAPL level from top of casing(if present)		N/A	Type:
NAPL thickness		N/A	

Min gallons of purge (feet of water X gal/ft X 3 well vols.) 7.12 X 0.16 = 1.16

Purging Method: X Peris. Pump ___ Bailer ___ Pos. Pump (Grundfos) ___ Other ___
Sampling Method: X Peris. Pump ___ Bailer ___ Pos. Pump (Grundfos) ___ Other ___

Type of Tubing:	Pumphead	Downhole
Tygon		
~~Teflon~~ silicon	X	
Polyethylene		X

1/2 vol = 0.58 gal 3700 ml/gal ÷ 150 ml/min = 14.3

Bailer Type: ___ Teflon ___ Stainless Steel ___ Disposable

CHEMICAL PARAMETERS

TDS: 0.264, 0.284

Time	Volume (gallons)	Eh (mV)	Turbidity (NTU)	Temp (°C)	pH (SU)	Conductivity (indicate units) m s/cm	DO
08:18	0 (0.00)	-61	240	13.4	7.64	0.408	4.31
08:30	0.5 (0.58)	-74	28.9	11.1	7.34	0.415	0.00
08:38	1 (1.16)	-107	40.8	11.2	7.33	0.412	0.00
08:50	1.5 (1.74)	-127	22.4	11.2	7.37	0.423	0.00
09:02	2 (2.32)	-131	36.8	11.2	7.42	0.430	0.00
09:14	2.5 (2.90)	-133	64.5	11.2	7.52	0.437	0.00
09:27	3 (3.48)	-131	163.0	10.9	7.53	0.441	0.00
09:40	3.5 (4.06)	-135	286.0	11.1	7.57	0.446	0.00
	4 (4.64)						
	4.5 (5.22)						
	5 (5.80)						

% Difference between final 3 readings:
(highest-lowest)/ ((highest + lowest)/2)

Well Sampling Data Sheet

Well Number: GW92-12

SAMPLE APPEARANCE

	Turbidity	Color	Odor
Initial Volumes	Low	clear	None
Final Volumes	Low	clear	slight

SAMPLES COLLECTED Sample List:_______

ID	Analysis	Quantity	Volume
GW92-12	8260/8270	2, 2	40mL/1L

PUMPING RATES

Average Purge______ mL/min Average Sampling______ mL/min

OTHER READINGS

DO (mg/L) ________ PID (ppm) ________ CO_2 (mg/L) ________

PURGE WATER DISPOSAL

On-site storage pending analysis _____

Relinquished to licensed hauler _____

Discharge in sewer (previous analysis completed) _____

Discharge on ground (previous analysis completed) _____

** The Project Manager will instruct the Field Team as to which disposal method is applicable.

COMMENTS (difficulties, condition of casing, etc.)

Sampled @ 09:45 7/26/05. Bailer located inside well, did not have any H_2O in it, nor was it in the H_2O.

Well Sampling Data Sheet

Well Number: PZ-03

Client: BH/NYSEG Site: Norwich, NY

Personnel: TJ/AB Weather: P/Cloudy 85° Date: 7-25-05

PUMPING PARAMETERS

Casing inner diameter (gal/foot):
___ 2" (0.16) ___ 4" (0.65) ___ 5" (1.02) 1" Other 0.041

	Previous Report	Measured Depth	Ref. Location
Height of casing reference above grade			
Depth of well from top of casing		16.76	
Water level from top of casing		9.02	
Feet of water in casing		7.74	
NAPL level from top of casing(if present)		N/A	Type:
NAPL thickness		N/A	

Min gallons of purge (feet of water X gal/ft X 3 well vols.) 7.74 X 0.041 = 0.317

Purging Method: X Peris. Pump ___ Bailer ___ Pos. Pump (Grundfos) ___ Other ___
Sampling Method: X Peris. Pump ___ Bailer ___ Pos. Pump (Grundfos) ___ Other ___

Type of Tubing:	Pumphead	Downhole
Tygon		
~~Teflon~~ silican	X	
Polyethylene		X

1/2 vol = 0.15

$\frac{0.15 gal}{} \frac{3700 ml}{gal} \div \frac{150 ml}{min}$

≅ 3.90 min

Bailer Type: ___ Teflon ___ Stainless Steel ___ Disposable

CHEMICAL PARAMETERS

TDS: 0.268 m S/cm

Time	Volume (gallons)	Eh/ORP (mV)	Turbidity (NTU)	Temp (°C)	pH (SU)	Conductivity (indicate units)	DO
12:54	0 (0.00)	0	0	16.6	7.79	0.416	4.36
12:57	0.5 (0.15)	+11	0	16.9	7.64	0.425	3.60
13:00	1 (0.30)	+45	0	16.5	7.37	0.436	3.08
13:03	1.5 (0.45)	+91	0	18.4	6.88	0.434	5.49
13:06	2 (0.60)						
	2.5 (0.75)						
	3 (0.90)						
	3.5 (1.05)						
	4 (1.20)						
	4.5 (1.35)						
	5 (1.50)						

% Difference between final 3 readings:
(highest-lowest)/ ((highest + lowest)/2)

Well Sampling Data Sheet

Well Number: PZ-03

SAMPLE APPEARANCE

	Turbidity	Color	Odor
Initial Volumes	High	Brown	None
Final Volumes	Low	Brown	None

SAMPLES COLLECTED

Sample List: ________

ID	Analysis	Quantity	Volume
PZ-03	8260/8270	2, 2	40mL/1L

PUMPING RATES

Average Purge ______ mL/min   Average Sampling ______ mL/min

OTHER READINGS

DO (mg/L) ________   PID (ppm) ________ CO_2 (mg/L) ________

PURGE WATER DISPOSAL

On-site storage pending analysis _____

Relinquished to licensed hauler _____

Discharge in sewer (previous analysis completed) _____

Discharge on ground (previous analysis completed) _____

** The Project Manager will instruct the Field Team as to which disposal method is applicable.

COMMENTS (difficulties, condition of casing, etc.)

Well started to have air bubbles come up into the flow thru cell, indicating a dry well. Will sample @ 13:15 on 7/25/05. Removed 1.5 volumes from the well.

Well Sampling Data Sheet

Well Number: PZ-10

Client: ISH/NYSEG   Site: Norwich, NY

Personnel: AJB   Weather: warm, partly cloudy   Date: 7/26/05

PUMPING PARAMETERS

Casing inner diameter (gal/foot):
___ 2" (0.16)   ___ 4" (0.65)   ___ 5" (1.02)   1" Other (0.041)

	Previous Report	Measured Depth	Ref. Location
Height of casing reference above grade			mark TOC
Depth of well from top of casing		18.73	
Water level from top of casing		7.0	
Feet of water in casing		11.73	
NAPL level from top of casing(if present)			Type:
NAPL thickness			

Min gallons of purge (feet of water X gal/ft X 3 well vols.) 11.73 × 0.041 = 0.48 ~ 0.5

Purging Method: ___Peris. Pump ___Bailer ___Pos. Pump (Grundfos) ___Other___
Sampling Method: X Peris. Pump ___Bailer ___Pos. Pump (Grundfos) ___Other___

Type of Tubing:	Pumphead	Downhole
Tygon		
Teflon	X	
Polyethylene		X

1/2 vol = 0.25 gal

0.25 gal × 3700 ml / gal ÷ 1 min / 150 ml = 6.16 ~ 6 min

Bailer Type: ___Teflon ___Stainless Steel ___Disposable

CHEMICAL PARAMETERS

TDS: 1.09, 1.11 g/L

Time	Volume (gallons)	Eh (mV)	Turbidity (NTU)	Temp (°C)	pH (SU)	Conductivity (indicate units)	DO
9:35	0 (0.0)	-7	999.0	15.00	6.88	1.69	7.49
9:37	0.5 (0.25)	-16	890.0	13.99	6.53	1.73	4.12
9:40	1 (0.5)	-26	291.0	13.78	6.49	1.74	3.52
9:44	1.5 (0.75)	-36	138.0	13.79	6.47	1.74	3.05
9:48	2 (1.0)	-43	68.7	13.73	6.47	1.74	2.92
9:53	2.5 (1.25)	-48	53.6	13.75	6.47	1.75	2.77
9:57	3 (1.5)	-52	49.3	13.73	6.47	1.75	2.72

% Difference between final 3 readings: (highest-lowest)/ ((highest + lowest)/2)   Temp: 0.15%   pH: 0%   Conductivity: 0.6%

Well Sampling Data Sheet

Well Number: PZ-10

SAMPLE APPEARANCE

	Turbidity	Color	Odor
Initial Volumes	moderate	brown	slight, sheen present
Final Volumes	low	clear	moderate

SAMPLES COLLECTED Sample List:________

ID	Analysis	Quantity	Volume
NO-PZ10	TCL VOCs	2	40 ml
↓	TCL SVOCs	↓	1 L
NO-PZ10 DUP	TCL VOCs	↓	40 ml
↓	TCL SVOCs	↓	1 L

PUMPING RATES

Average Purge 150 mL/min Average Sampling______ mL/min

OTHER READINGS

DO (mg/L) ________ PID (ppm) ________ CO_2 (mg/L) ________

PURGE WATER DISPOSAL

On-site storage pending analysis ✗

Relinquished to licensed hauler _____

Discharge in sewer (previous analysis completed) _____

Discharge on ground (previous analysis completed) _____

** The Project Manager will instruct the Field Team as to which disposal method is applicable.

COMMENTS (difficulties, condition of casing, etc.)

Well Sampling Data Sheet

Well Number: PZ 11

Client: ISH/NYSEG Site: Norwich

Personnel: AJB Weather: Cloudy, warm, breezy Date: 7/25/05

PUMPING PARAMETERS

Casing inner diameter (gal/foot):
__ 2" (0.16) __ 4" (0.65) __ 5" (1.02) X Other 1" (0.041)

	Previous Report	Measured Depth	Ref. Location
Height of casing reference above grade			
Depth of well from top of casing		18.2	
Water level from top of casing		9.81	
Feet of water in casing		8.39	
NAPL level from top of casing(if present)			Type:
NAPL thickness			

Min gallons of purge (feet of water X gal/ft X 3 well vols.) 8.39 × 0.041 = 0.35 gal

Purging Method: __Peris. Pump __Bailer __Pos. Pump (Grundfos) __Other__
Sampling Method: __Peris. Pump __Bailer __Pos. Pump (Grundfos) __Other__

Type of Tubing: Pumphead Downhole ½ vol = 0.175 gal

	Pumphead	Downhole
Tygon		
Teflon		
Polyethylene		

0.175 · 3700 ÷ 150 = 4.3
4.3 min

Bailer Type: __Teflon __Stainless Steel __Disposable

~~ORP: -0.4~~
TDS: 1.3 g/L

CHEMICAL PARAMETERS

Time	Volume (gallons)	Eh (mV)	Turbidity (NTU)	Temp (°C)	pH (SU)	Conductivity S/cm (indicate units)	DO
10:17	0 (0.0)	226	999.0	21.24	7.14	1.92	7.28
10:24	0.5 (0.175)	229	482.0	19.00	6.47	2.09	5.86
10:29	1.0 (0.35)	231	238.0	18.19	6.30	2.04	4.45
10:33	1.5 (0.525)	233	129.0	18.06	6.31	2.02	3.89
10:37	2.0 (0.7)	233	98.8	17.95	6.35	2.02	3.64
10:41	2.5 (0.875)	232	84.2	17.92	6.34	2.02	3.53
10:45	3.0 (1.05)	231	81.3	17.94	6.34	2.02	3.49

% Difference between final 3 readings: (highest-lowest)/ ((highest + lowest)/2) — Temp: 0.16% pH: 1.5% Conductivity: 0%

Well Sampling Data Sheet

Well Number: PZ-11

SAMPLE APPEARANCE

	Turbidity	Color	Odor
Initial Volumes	high	brown	none
Final Volumes	low	clear	none

SAMPLES COLLECTED

Sample List:________

ID	Analysis	Quantity	Volume
NO-PZ11	TCL VOCS	2	40ml
↓	TCL SVOCS	2	1L

PUMPING RATES

Average Purge 150 mL/min Average Sampling______ mL/min

OTHER READINGS

DO (mg/L) ________ PID (ppm) ________ CO_2 (mg/L) ________

PURGE WATER DISPOSAL

On-site storage pending analysis ✓

Relinquished to licensed hauler _____

Discharge in sewer (previous analysis completed) _____

Discharge on ground (previous analysis completed) _____

** The Project Manager will instruct the Field Team as to which disposal method is applicable.

COMMENTS (difficulties, condition of casing, etc.)

Well Sampling Data Sheet

Well Number: PZ-12

Client: ISHINYSEG Site: Norwich

Personnel: ASB Weather: Partly cloudy, warm breezy Date: 7/25/05

PUMPING PARAMETERS

Casing inner diameter (gal/foot):

___ 2" (0.16) ___ 4" (0.65) ___ 5" (1.02) 1" Other (0.041)

	Previous Report	Measured Depth	Ref. Location
Height of casing reference above grade			
Depth of well from top of casing		23.40	
Water level from top of casing		9.15	
Feet of water in casing		14.25	
NAPL level from top of casing(if present)			Type:
NAPL thickness			

Min gallons of purge (feet of water X gal/ft X 3 well vols.) 14.25 × 0.041 = 0.58 ~ 0.6 gal

Purging Method: X Peris. Pump ___ Bailer ___ Pos. Pump (Grundfos) ___ Other___

Sampling Method: ___ Peris. Pump ___ Bailer ___ Pos. Pump (Grundfos) ___ Other___

½ vol = 0.3

0.3 × 3700ml / gal ÷ 150 mL/min

7.4 min

Type of Tubing:	Pumphead	Downhole
Tygon		
Teflon	X	
Polyethylene		X

Bailer Type: ___ Teflon ___ Stainless Steel ___ Disposable

TDS = 1.49 g/L

CHEMICAL PARAMETERS

1.59, 1.69, 1.72

Time	Volume (gallons)	Eh (mV)	Turbidity (NTU)	Temp (°C)	pH (SU)	Conductivity (indicate units) S/cm	DO
11:41	0 (0.0)	291	999.0	~~12.66~~ 17.63	6.45	2.31	12.66
11:46	0.5 (0.3)	298	726.0	16.38	6.24	2.48	8.74
11:50	1 (0.6)	300	349.0	15.88	6.34	2.63	8.11
11:55	1.5 (0.9)	301	227.0	15.90	6.43	2.68	7.95
12:00	2 (1.2)	302	162.0	15.81	6.45	2.72	7.74
12:06	2.5 (1.5)	302	106.0	16.36	6.44	2.75	7.61
12:12	3 (1.8)	302	86.9	16.35	6.46	2.78	7.67

% Difference between final 3 readings: (highest-lowest)/ ((highest + lowest)/2) — Temp: 3.4% pH: 3.2% Conductivity: 2.2%

Well Sampling Data Sheet

Well Number: PZ-12

SAMPLE APPEARANCE

	Turbidity	Color	Odor
Initial Volumes	high	brown	none
Final Volumes	low	clear	none

SAMPLES COLLECTED Sample List: ________

ID	Analysis	Quantity	Volume
NO-PZ12	TCL VOCs	2	40ml
↓	TCL SVOCs	2	1L

PUMPING RATES

Average Purge 150 mL/min Average Sampling ______ mL/min

OTHER READINGS

DO (mg/L) ________ PID (ppm) ________ CO_2 (mg/L) ________

PURGE WATER DISPOSAL

On-site storage pending analysis ✓

Relinquished to licensed hauler _____

Discharge in sewer (previous analysis completed) _____

Discharge on ground (previous analysis completed) _____

** The Project Manager will instruct the Field Team as to which disposal method is applicable.

COMMENTS (difficulties, condition of casing, etc.)

____

____

____

____

____

Well Sampling Data Sheet

Well Number: PZ-13

Client: ISH/Meta Site: Norwich, NY

Personnel: TJ/AB Weather: Sunny 75° Date: 7/26/05

PUMPING PARAMETERS

Casing inner diameter (gal/foot):

___ 2" (0.16) ___ 4" (0.65) ___ 5" (1.02) 1" Other 0.041

	Previous Report	Measured Depth	Ref. Location
Height of casing reference above grade			
Depth of well from top of casing		14.80	
Water level from top of casing		7.12	
Feet of water in casing		7.68	
NAPL level from top of casing(if present)		N/A	Type:
NAPL thickness		N/A	

Min gallons of purge (feet of water X gal/ft X 3 well vols.) 7.68 X 0.041 = .31

Purging Method: X Peris. Pump ___ Bailer ___ Pos. Pump (Grundfos) ___ Other ___

Sampling Method: X Peris. Pump ___ Bailer ___ Pos. Pump (Grundfos) ___ Other ___

Type of Tubing: Pumphead Downhole 1/2 vol = .15

	Pumphead	Downhole
Tygon		
~~Teflon~~ Silicon	X	
Polyethylene		X

gal X 3700 mL / gal ÷ 150 mL / min

~ 3.88 min

Bailer Type: ___ Teflon ___ Stainless Steel ___ Disposable

CHEMICAL PARAMETERS

TDS: 0.344, 0.339

Time	Volume (gallons)	Eh (mV)	Turbidity (NTU)	Temp (°C)	pH (SU)	Conductivity (indicate units) mS/cm	DO
10:26	0 (0.00)	-10	265	16.8	7.43	0.543	0.48
10:29	0.5 (0.15)	-7	106	16.7	7.32	0.534	0.11
10:32	1 (0.31)	-1	104	16.7	7.17	0.546	0.00
10:35	1.5 (0.47)	+4	43.6	16.5	7.07	0.531	0.00
10:38	2 (0.63)	+6	37.7	16.7	7.00	0.532	0.00
10:41	2.5 (0.78)	+7	33.8	16.6	6.95	0.530	0.00
10:44	3 (0.94)	+8	29.1	16.5	6.92	0.530	0.00
	3.5 (1.09)						
	4 (1.26)						
	4.5 (1.43)						
	5 (1.57)						

% Difference between final 3 readings:
(highest-lowest)/ ((highest + lowest)/2)

Well Sampling Data Sheet

Well Number: PZ-13

SAMPLE APPEARANCE

	Turbidity	Color	Odor
Initial Volumes	Moderate	Light Brown	~~None~~ Yes
Final Volumes	Low	Clear	Yes

SAMPLES COLLECTED Sample List:________

ID	Analysis	Quantity	Volume
PZ-13	8260/8270	2,2	40mL/1L

PUMPING RATES

Average Purge______ mL/min Average Sampling______ mL/min

OTHER READINGS

DO (mg/L) ________ PID (ppm) ________ CO_2 (mg/L) ________

PURGE WATER DISPOSAL

On-site storage pending analysis _____

Relinquished to licensed hauler _____

Discharge in sewer (previous analysis completed) _____

Discharge on ground (previous analysis completed) _____

** The Project Manager will instruct the Field Team as to which disposal method is applicable.

COMMENTS (difficulties, condition of casing, etc.)

Slight sheen in bucket from well. Collected sample @ 10:50 7/26/05. Well also had slight odor from H_2O.

Well Sampling Data Sheet

Well Number: PZ-14

Client: ISH/Meta Site: Norwich, NY

Personnel: TJ/AB Weather: Sunny 80° Date: 7-26-05

PUMPING PARAMETERS

Casing inner diameter (gal/foot):
___ 2" (0.16) ___ 4" (0.65) ___ 5" (1.02) 1" Other 0.041

	Previous Report	Measured Depth	Ref. Location
Height of casing reference above grade			
Depth of well from top of casing		17.20	
Water level from top of casing		6.64	
Feet of water in casing		10.56	
NAPL level from top of casing(if present)		N/A	Type:
NAPL thickness		N/A	

Min gallons of purge (feet of water X gal/ft X 3 well vols.) 10.56 X 0.041 = .433

Purging Method: X Peris. Pump ___ Bailer ___ Pos. Pump (Grundfos) ___ Other ___
Sampling Method: X Peris. Pump ___ Bailer ___ Pos. Pump (Grundfos) ___ Other ___

Type of Tubing: Pumphead Downhole 1/2 vol = .216

	Pumphead	Downhole
Tygon		
~~Teflon~~ silicon	X	
Polyethylene		X

gal x 3700 mL / gal ÷ 150 mL / min = 5.33 min

Bailer Type: ___ Teflon ___ Stainless Steel ___ Disposable

CHEMICAL PARAMETERS

TDS: 0.80, 0.82

Time	Volume (gallons)	Eh (mV)	Turbidity (NTU)	Temp (°C)	pH (SU)	Conductivity (indicate units) mS/cm	DO
11:47	0 (0.00)	+31	999	16.9	7.37	1.25	4.85
11:52	0.5 (0.22)	+6	318	16.2	7.05	1.24	0.21
11:57	1 (0.43)	+6	211	16.2	7.02	1.27	0.00
12:02	1.5 (0.65)	+5	110	16.1	7.03	1.28	0.00
12:07	2 (0.86)	+6	108	15.9	7.05	1.29	0.00
12:12	2.5 (1.08)	+6	93.4	15.6	7.08	1.29	0.00
12:17	3 (1.30)	+6	90.7	15.7	7.08	1.28	0.00
	3.5 (1.51)						
	4						
	4.5						
	5						

% Difference between final 3 readings:
(highest-lowest)/ ((highest + lowest)/2)

Well Sampling Data Sheet

Well Number: PZ-14

SAMPLE APPEARANCE

	Turbidity	Color	Odor
Initial Volumes	High	Brown	Yes
Final Volumes	Low	clear	Yes

SAMPLES COLLECTED Sample List:_______

ID	Analysis	Quantity	Volume
PZ-14	8260/8270	2, 2	40mL/1L

PUMPING RATES

Average Purge______ mL/min Average Sampling______ mL/min

OTHER READINGS

DO (mg/L) ________ PID (ppm) ________ CO_2 (mg/L) ________

PURGE WATER DISPOSAL

On-site storage pending analysis _____

Relinquished to licensed hauler _____

Discharge in sewer (previous analysis completed) _____

Discharge on ground (previous analysis completed) _____

** The Project Manager will instruct the Field Team as to which disposal method is applicable.

COMMENTS (difficulties, condition of casing, etc.)

Slight sheen on top of H_2O in bucket. Sampled @ 12:35 on 7/26/05.

Well Sampling Data Sheet

Well Number: PZ-15

Client: ISH/NYSEG Site: ~~hot, hazy, breezy~~ gB Norwich, NY

Personnel: AJB Weather: hot, hazy, breezy Date: 7/26/05

PUMPING PARAMETERS

Casing inner diameter (gal/foot):
___ 2" (0.16) ___ 4" (0.65) ___ 5" (1.02) 1'' Other (0.041)

	Previous Report	Measured Depth	Ref. Location
Height of casing reference above grade			mark N TOC
Depth of well from top of casing		19.35	
Water level from top of casing		6.90	
Feet of water in casing		12.45	
NAPL level from top of casing(if present)			Type:
NAPL thickness			

Min gallons of purge (feet of water X gal/ft X 3 well vols.) 12.45 x 0.041 = 0.5 gal

Purging Method: ___Peris. Pump ___Bailer ___Pos. Pump (Grundfos) ___Other___
Sampling Method: X Peris. Pump ___Bailer ___Pos. Pump (Grundfos) ___Other___

½ vol = 0.25 gal

0.25 gal x 3700ml/gal ÷ 1min/150ml = 6 min

Type of Tubing:	Pumphead	Downhole
Tygon		
Teflon	X	
Polyethylene		X

Bailer Type: ___Teflon ___Stainless Steel ___Disposable

TDS g/L = 1.2, 1.19

CHEMICAL PARAMETERS

Time	Volume (gallons)	Eh (mV)	Turbidity (NTU)	Temp (°C)	pH (SU)	Conductivity (indicate units)	DO S/L
12:40	0 (0.0)	-14	813.0	14.96	6.81	1.87	9.04
12:43	0.5 (0.25)	-35	653.0	13.84	6.62	1.89	5.06
12:49	1 (0.5)	-45	577.0	14.25	6.59	1.87	3.78
12:54	1.5 (0.75)	-52	449.0	14.44	6.59	1.86	3.27
13:00	2 (1.0)	-55	400.0	14.56	6.59	1.86	3.07
13:06	2.5 (1.25)	-58	394.0	14.30	6.60	1.86	3.02
13:12	3 (1.5)	-61	389.0	14.43	6.60	1.85	2.90

% Difference between final 3 readings: (highest-lowest)/ ((highest + lowest)/2) — Temp: 1.8% pH: 1.5% Conductivity: 0.54%

Well Sampling Data Sheet

Well Number: PZ-15

SAMPLE APPEARANCE

	Turbidity	Color	Odor / Sheen
Initial Volumes	modrate	light brown	moderate / slight sheen
Final Volumes	low	clear	slight / no sheen

SAMPLES COLLECTED

Sample List: ________

ID	Analysis	Quantity	Volume
NO-PZ15	TCL VOCs	2	40ml
↓	TCL SVOCs	2	1L

PUMPING RATES

Average Purge 150 mL/min

Average Sampling ______ mL/min

OTHER READINGS

DO (mg/L) ________ PID (ppm) ________ CO_2 (mg/L) ________

PURGE WATER DISPOSAL

On-site storage pending analysis X

Relinquished to licensed hauler ____

Discharge in sewer (previous analysis completed) ____

Discharge on ground (previous analysis completed) ____

** The Project Manager will instruct the Field Team as to which disposal method is applicable.

COMMENTS (difficulties, condition of casing, etc.)

Well Sampling Data Sheet

Well Number: PZ-16

Client: ISh/NYSEG Site: Norwich, NY

Personnel: TS/AB Weather: Sunny 85° Date: 7-25-05

PUMPING PARAMETERS

Casing inner diameter (gal/foot):
___ 2" (0.16) ___ 4" (0.65) ___ 5" (1.02) 1" Other 0.041

	Previous Report	Measured Depth	Ref. Location
Height of casing reference above grade			
Depth of well from top of casing		~~14.85~~ 15.00	
Water level from top of casing		10.91	
Feet of water in casing		4.09	
NAPL level from top of casing(if present)		N/A	Type:
NAPL thickness		N/A	

Min gallons of purge (feet of water X gal/ft X 3 well vols.) 4.09 X 0.041 = .167

Purging Method: X Peris. Pump ___Bailer ___Pos. Pump (Grundfos) ___Other___
Sampling Method: X Peris. Pump ___Bailer ___Pos. Pump (Grundfos) ___Other___

Type of Tubing:

	Pumphead	Downhole
Tygon		
~~Teflon~~ silicon	X	
Polyethylene		X

1/2 vol = .08

0.08 gal · 3700 ml / gal ÷ 150 ml / min = 2.06 min

Bailer Type: ____Teflon ____Stainless Steel ____Disposable

CHEMICAL PARAMETERS

TDS: 2.19-2.32

Time	Volume (gallons)	Eh ORP (mV)	Turbidity (NTU)	Temp (°C)	pH (SU)	Conductivity (indicate units) mS/cm	DO
14:52	0 (0.00)	+110	0	20.7	7.06	3.40	6.79
14:54	0.5 (.08)	+128	~~0~~ 999	19.4	7.02	3.54	5.84
14:56	1 (.16)	+134	999	18.7	6.98	3.63	5.74
~~14:58~~ 13:02	1.5 (.24)	+147	999	16.4	6.97	3.64	5.75
~~13:02~~ 13:04	2 (.32)	+149	959	16.0	6.95	3.69	5.69
13:06	2.5 (.40)	+153	557	16.0	6.94	3.67	5.56
13:08	3 (.48)	+158	203	15.9	6.93	3.64	5.45
	3.5 (.56)						
	4 (.64)						
	4.5 (.72)						
	5 (.80)						

% Difference between final 3 readings:
(highest-lowest)/ ((highest + lowest)/2)

Well Sampling Data Sheet

Well Number: PZ-16

SAMPLE APPEARANCE

	Turbidity	Color	Odor
Initial Volumes	High	Brown	None
Final Volumes	Low	clear	None

SAMPLES COLLECTED Sample List:_______

ID	Analysis	Quantity	Volume
PZ-16	8260/8270	2, 2	40mL/1L

PUMPING RATES

Average Purge______ mL/min Average Sampling______ mL/min

OTHER READINGS

DO (mg/L) ________ PID (ppm) ________ CO_2 (mg/L) ________

PURGE WATER DISPOSAL

On-site storage pending analysis _____

Relinquished to licensed hauler _____

Discharge in sewer (previous analysis completed) _____

Discharge on ground (previous analysis completed) _____

** The Project Manager will instruct the Field Team as to which disposal method is applicable.

COMMENTS (difficulties, condition of casing, etc.)

Around volume 1.5, I dumped out flow through cell because of the build-up of sediment in it. Was clear most of the time. Sampled @ 15:10 7/25/05. slight shun noticed in bucket

Well Sampling Data Sheet

Well Number: PZ-17

Client: ISH/NYSEG Site: Norwich

Personnel: AJB Weather: Partly cloudy, warm breezy Date: 7/26/05

PUMPING PARAMETERS

Casing inner diameter (gal/foot):
___ 2" (0.16) ___ 4" (0.65) ___ 5" (1.02) 1" Other (0.041)

	Previous Report	Measured Depth	Ref. Location
Height of casing reference above grade			
Depth of well from top of casing		15.28	
Water level from top of casing		10.00	
Feet of water in casing		5.28	
NAPL level from top of casing(if present)			Type:
NAPL thickness			

Min gallons of purge (feet of water X gal/ft X 3 well vols.) 5.28 × 0.041 = 0.217 ~ 0.22

Purging Method: ___Peris. Pump ___Bailer ___Pos. Pump (Grundfos) ___Other___
Sampling Method: X Peris. Pump ___Bailer ___Pos. Pump (Grundfos) ___Other___

½ vol = 0.1 gal

Type of Tubing:

	Pumphead	Downhole
Tygon		
Teflon	X	
Polyethylene		X

0.1 gal × 3700 ml/gal ÷ 150 ml/min = 2.71 min

Bailer Type: ___Teflon ___Stainless Steel ___Disposable

TDS: 0.255 g/L

CHEMICAL PARAMETERS

Time	Volume (gallons)	Eh (mV)	Turbidity (NTU)	Temp (°C)	pH (SU)	Conductivity (indicate units)	DO
13:11	0 (0.0)	183	999.0	16.76	6.96	0.398	6.79
13:14	0.5 (0.11)	66	999.0	16.07	6.77	0.408	3.06
13:18	1 (0.22)	53	999.0	17.34	6.74	0.427	3.52
13:21	1.5 (0.33)	52	999.0	18.60	6.75	0.438	4.58
	2 (0.44)						
	2.5 (0.55)						
	3 (0.66)						

% Difference between final 3 readings:
(highest-lowest)/ ((highest + lowest)/2)

Well Sampling Data Sheet

Well Number: PZ-17

SAMPLE APPEARANCE

	Turbidity	Color	Odor
Initial Volumes	high	gray	none
Final Volumes			

SAMPLES COLLECTED

Sample List: ________

ID	Analysis	Quantity	Volume
ND-PZ17	TCL VOCs	2	40 ml
NO-PZ17	TCL SVOCs	2	1 L

PUMPING RATES

Average Purge 150 mL/min   Average Sampling ______ mL/min

OTHER READINGS

DO (mg/L) ________   PID (ppm) ________ CO_2 (mg/L) ________

PURGE WATER DISPOSAL

On-site storage pending analysis ✓

Relinquished to licensed hauler _____

Discharge in sewer (previous analysis completed) _____

Discharge on ground (previous analysis completed) _____

** The Project Manager will instruct the Field Team as to which disposal method is applicable.

COMMENTS (difficulties, condition of casing, etc.)

Well ran dry after 1.5 volumes of water was removed. Sampling commenced after well recharged, no further readings w/ the water quality meter were taken.

Well Sampling Data Sheet

Well Number: PZ-18

Client: BH/Meta Site: Norwich, NY

Personnel: TS/AB Weather: Sunny 90° Date: 7-26-05

PUMPING PARAMETERS

Casing inner diameter (gal/foot):
___ 2" (0.16) ___ 4" (0.65) ___ 5" (1.02) 1" Other 0.041

	Previous Report	Measured Depth	Ref. Location
Height of casing reference above grade			
Depth of well from top of casing		17.25	
Water level from top of casing		5.88	
Feet of water in casing		11.37	
NAPL level from top of casing(if present)		N/A	Type:
NAPL thickness		N/A	

Min gallons of purge (feet of water X gal/ft X 3 well vols.) 11.37 X 0.041 = 0.466

Purging Method: X Peris. Pump ___Bailer ___Pos. Pump (Grundfos) ___Other___
Sampling Method: X Peris. Pump ___Bailer ___Pos. Pump (Grundfos) ___Other___

Type of Tubing:

	Pumphead	Downhole
Tygon		
~~Teflon~~ silicone	X	
Polyethylene		X

1/2 gal = 0.233

1 gal x 3700 ml / gal ÷ 150 ml / min = 5.75 min

Bailer Type: ____Teflon ____Stainless Steel ____Disposable

CHEMICAL PARAMETERS

Time	Volume (gallons)	Eh (mV)	Turbidity (NTU)	TDS! Temp (°C)	pH (SU)	Conductivity (indicate units)	DO
	0 (0.00)						
	0.5 (0.23)						
	1 (0.46)						
	1.5 (0.70						
	2 (0.93)						
	2.5 (1.17)						
	3 (1.40)						
	3.5						
	4						
	4.5						
	5						

% Difference between final 3 readings:
(highest-lowest)/ ((highest + lowest)/2)

Well Sampling Data Sheet

Well Number: PZ-18

SAMPLE APPEARANCE

	Turbidity	Color	Odor
Initial Volumes	High	Brown/Black	Yes
Final Volumes	Low	Clear	Yes

SAMPLES COLLECTED

Sample List: ______

ID	Analysis	Quantity	Volume
PZ-18	8260/8270	2, 2	40mL/1L

PUMPING RATES

Average Purge ______ mL/min   Average Sampling ______ mL/min

OTHER READINGS

DO (mg/L) ________   PID (ppm) ________ CO_2 (mg/L) ________

PURGE WATER DISPOSAL

On-site storage pending analysis _____

Relinquished to licensed hauler _____

Discharge in sewer (previous analysis completed) _____

Discharge on ground (previous analysis completed) _____

** The Project Manager will instruct the Field Team as to which disposal method is applicable.

COMMENTS (difficulties, condition of casing, etc.)

Will not record ph, cond, turb etc... because of apparent DNAPL/LNAPL coming out of well. Strong tar like odor & product. Will remove volumes at rate & sample after 3 volumes removed. Sampled @ 17:15 7/26/05.

Well Sampling Data Sheet

Well Number: PZ-19

Client: ISHJNYSEG Site: Norwich, NY

Personnel: AJB Weather: Hot, hazy, no breeze humid Date: 7/26/05

PUMPING PARAMETERS

Casing inner diameter (gal/foot):

___ 2" (0.16) ___ 4" (0.65) ___ 5" (1.02) 1" Other (0.041)

	Previous Report	Measured Depth	Ref. Location
Height of casing reference above grade			Mark N TOC
Depth of well from top of casing		17.82	
Water level from top of casing		6.27	
Feet of water in casing		11.55	
NAPL level from top of casing(if present)			Type:
NAPL thickness			

Min gallons of purge (feet of water X gal/ft X 3 well vols.) 11.55 • 0.041 = 0.47 ~0.5 gal

Purging Method: ___Peris. Pump ___Bailer ___Pos. Pump (Grundfos) ___Other___

Sampling Method: X Peris. Pump ___Bailer ___Pos. Pump (Grundfos) ___Other___

Type of Tubing:	Pumphead	Downhole
Tygon		
Teflon	X	
Polyethylene		X

1/2 vol = 0.25 gal

6.25 gal • 3700 ml / 1 gal ÷ 1 min / 150 ml = 6 min

Bailer Type: ___Teflon ___Stainless Steel ___Disposable

CHEMICAL PARAMETERS

TDS: 0.98, 1.02

Time	Volume (gallons)	Eh (mV)	Turbidity (NTU)	Temp (°C)	pH (SU)	Conductivity (indicate units)	DO
16:36	0(0.0)	71	10.0	13.64	7.07	1.54	9.20
16:40	0.5 (0.25)	28	999.0	13.06	6.72	1.57	4.92
16:43	1 (0.5)	1	999.0	13.31	6.63	1.57	3.57
16:47	1.5 (0.75)	-10	919.0	13.44	6.61	1.56	3.05
16:52	2 (1.0)	-20	525.0	13.43	6.59	1.57	2.83
16:57	2.5 (1.25)	-25	421.0	13.32	6.60	1.57	2.72
17:02	3 (1.5)	-28	309.0	13.25	6.60	1.58	2.63

% Difference between final 3 readings: (highest-lowest)/ ((highest + lowest)/2)

Temp: 1.35% pH: 1.5% Conductivity: 0.63%

Well Sampling Data Sheet

Well Number: Pz-19

SAMPLE APPEARANCE	Turbidity	Color	Odor
Initial Volumes	v.high	brown	none
Final Volumes	low	clear-cloudy	moderate

SAMPLES COLLECTED Sample List:________

ID	Analysis	Quantity	Volume
NO-PZ19	TCL VOCS	2	40ml
↓	TCL SVOCS	2	1L

PUMPING RATES

Average Purge 150 mL/min Average Sampling______ mL/min

OTHER READINGS

DO (mg/L) ________ PID (ppm) ________ CO_2 (mg/L) ________

PURGE WATER DISPOSAL

On-site storage pending analysis X

Relinquished to licensed hauler _____

Discharge in sewer (previous analysis completed) _____

Discharge on ground (previous analysis completed) _____

** The Project Manager will instruct the Field Team as to which disposal method is applicable.

COMMENTS (difficulties, condition of casing, etc.)

Well Sampling Data Sheet

Well Number: PZ-20

Client: ISH/NYSEG Site: Norwich, NY

Personnel: ASB Weather: Hot, partly cloudy breezy Date: 7/25/05

PUMPING PARAMETERS

Casing inner diameter (gal/foot):
___ 2" (0.16) ___ 4" (0.65) ___ 5" (1.02) 1" Other (0.041)

	Previous Report	Measured Depth	Ref. Location
Height of casing reference above grade			
Depth of well from top of casing		18.22	
Water level from top of casing		10.52	
Feet of water in casing		7.70	
NAPL level from top of casing(if present)			Type:
NAPL thickness			

Min gallons of purge (feet of water X gal/ft X 3 well vols.) 7.70 × (0.041) = 0.32 gal

Purging Method: ___Peris. Pump ___Bailer ___Pos. Pump (Grundfos) ___Other___
Sampling Method: X Peris. Pump ___Bailer ___Pos. Pump (Grundfos) ___Other___

Type of Tubing:	Pumphead	Downhole
Tygon		
Teflon	X	
Polyethylene		X

1/2 vol = 0.16 gal
0.16 × 3700 ÷ 150 = 3.9
gal 4 min

Bailer Type: ___Teflon ___Stainless Steel ___Disposable

TDS: 1.9 g/L
2.04

CHEMICAL PARAMETERS

Time	Volume (gallons)	Eh (mV)	Turbidity (NTU)	Temp (°C)	pH (SU)	Conductivity (indicate units)	DO
15:18	0 (0.0)	257	-100	19.88	6.71	2.94	10.19
15:21	0.5 (0.16)	267	999.0	18.92	6.27	3.19	8.15
15:29	1 (0.32)	276	999.0	17.35	6.58	3.37	7.26
15:33	1.5 (0.48)	280	999.0	17.18	6.58	3.38	7.09
15:37	2 (0.64)	283	747.0	17.41	6.58	3.39	6.12
15:40	2.5 (0.80)	285	551.0	17.38	6.58	3.39	6.58
15:45	3 (0.96)	287	3820	17.61	6.58	3.38	6.30

% Difference between final 3 readings: (highest-lowest)/ ((highest + lowest)/2)

	Temp	pH	Conductivity
	1.3%	0%	0.3%

Well Sampling Data Sheet

Well Number: PZ20

SAMPLE APPEARANCE

	Turbidity	Color	Odor
Initial Volumes	V. high	brown	none
Final Volumes	low	light gray	none

SAMPLES COLLECTED

Sample List: ________

ID	Analysis	Quantity	Volume
NO-PZ20	TCL VOCs	2	40ml
↓	TCL SVOCs	2	1L

PUMPING RATES

Average Purge 150 mL/min Average Sampling ______ mL/min

OTHER READINGS

DO (mg/L) ________ PID (ppm) ________ CO_2 (mg/L) ________

PURGE WATER DISPOSAL

On-site storage pending analysis ✓

Relinquished to licensed hauler _____

Discharge in sewer (previous analysis completed) _____

Discharge on ground (previous analysis completed) _____

** The Project Manager will instruct the Field Team as to which disposal method is applicable.

COMMENTS (difficulties, condition of casing, etc.)

Well Sampling Data Sheet

Well Number: PZ-21

Client: ISH/Meta Site: Norwich, NY

Personnel: TS/AB Weather: Sunny 90° Date: 7-26-05

PUMPING PARAMETERS

Casing inner diameter (gal/foot):
___ 2" (0.16) ___ 4" (0.65) ___ 5" (1.02) 1" Other 0.041

	Previous Report	Measured Depth	Ref. Location
Height of casing reference above grade			
Depth of well from top of casing		17.40	
Water level from top of casing		7.97	
Feet of water in casing		9.43	
NAPL level from top of casing(if present)		N/A	Type:
NAPL thickness		N/A	

Min gallons of purge (feet of water X gal/ft X 3 well vols.) 9.43 X 0.041 = .386

Purging Method: ✓ Peris. Pump ___Bailer ___Pos. Pump (Grundfos) ___Other___
Sampling Method: x Peris. Pump ___Bailer ___Pos. Pump (Grundfos) ___Other___

Type of Tubing:	Pumphead	Downhole
Tygon		
~~Teflon~~ silicon	X	
Polyethylene		X

1/2 vol = .193 gal X 3700 mL / gal ÷ 150 mL / min

~~9.52~~ min
4.76

Bailer Type: ____Teflon ____Stainless Steel ____Disposable

CHEMICAL PARAMETERS

TDS: 1.78, 2.13

Time	Volume (gallons)	Eh (mV)	Turbidity (NTU)	Temp (°C)	pH (SU)	Conductivity (indicate units) mS/cm	DO
15:29	0 (0.00)	-39	0	18.3	7.38	2.89	3.76
15:33 ~~15:38~~	0.5 ~~(0.39)~~ .19	-97	999	15.6	7.23	3.31	0.00
15:37 ~~15:48~~	1 ~~(0.77)~~ .39	-110	999	16.4	7.14	3.31	0.00
15:41 ~~15:57~~	1.5 ~~(1.16)~~ .58	-119	999	16.4	7.16	3.32	0.00
15:45 ~~16:06~~	2. ~~(1.54)~~ .77	-123	570	16.7	7.16	3.33	0.00
15:48 ~~16:15~~	2.5 ~~(1.93)~~ .97	-125	281	16.5	7.16	3.33	0.00
15:51 ~~16:24~~	3 ~~(2.32)~~ 1.15	-125	999	16.9	7.16	3.33	0.00
	3.5						
	4						
	4.5						
	5						

% Difference between final 3 readings:
(highest-lowest)/ ((highest + lowest)/2)

Well Sampling Data Sheet

Well Number: PZ-21

SAMPLE APPEARANCE

	Turbidity	Color	Odor
Initial Volumes	High	Brown	yes
Final Volumes	Low	Clear	yes

SAMPLES COLLECTED Sample List:________

ID	Analysis	Quantity	Volume
PZ-21	8260/8270	2, 2	40mL/1L

PUMPING RATES

Average Purge______ mL/min Average Sampling______ mL/min

OTHER READINGS

DO (mg/L) ________ PID (ppm) ________ CO_2 (mg/L) ________

PURGE WATER DISPOSAL

On-site storage pending analysis _____

Relinquished to licensed hauler _____

Discharge in sewer (previous analysis completed) _____

Discharge on ground (previous analysis completed) _____

** The Project Manager will instruct the Field Team as to which disposal method is applicable.

COMMENTS (difficulties, condition of casing, etc.)

Slight sheen in H_2O bucket. A lot of sediment in flow through cell, emptied it out, still pretty brown. H_2O through tubing is clear though. Sampled @ 16:15 7/26/05

Well Sampling Data Sheet

Well Number: PZ-22

Client: ISH/Meta Site: Norwich, NY

Personnel: TJ/AB Weather: Sunny 85° Date: 7-26-05

PUMPING PARAMETERS

Casing inner diameter (gal/foot):

___ 2" (0.16) ___ 4" (0.65) ___ 5" (1.02) 1" Other 0.041

	Previous Report	Measured Depth	Ref. Location
Height of casing reference above grade			
Depth of well from top of casing		17.00	
Water level from top of casing		7.38	
Feet of water in casing		10.38	
NAPL level from top of casing(if present)		N/A	Type:
NAPL thickness		N/A	

Min gallons of purge (feet of water X gal/ft X 3 well vols.) 10.38 X 0.041 = 0.425

Purging Method: X Peris. Pump ___ Bailer ___ Pos. Pump (Grundfos) ___ Other ___

Sampling Method: X Peris. Pump ___ Bailer ___ Pos. Pump (Grundfos) ___ Other ___

Type of Tubing:

	Pumphead	Downhole
Tygon		
~~Teflon~~ silicone	X	
Polyethylene		X

1/2 vol = 0.212

gal X 3700 mL / gal ÷ 150 mL / min = 5.25 min

Bailer Type: ___ Teflon ___ Stainless Steel ___ Disposable

CHEMICAL PARAMETERS

TDS: 1.42, 1.83

Time	Volume (gallons)	Eh (mV)	Turbidity (NTU)	Temp (°C)	pH (SU)	Conductivity (indicate units) mS/cm	DO
13:56	0 (0.00)	+35	0	18.1	7.48	2.13	3.10
14:01	0.5 (0.21)	+15	0	16.7	7.11	2.63	0.56
14:06	1 (0.43)	-22	999	16.4	7.03	2.75	0.00
14:11	1.5 (0.64)	-48	999	16.2	6.98	2.80	0.00
14:16	2 (0.85)	-64	674	16.1	6.99	2.84	0.00
14:21	2.5 (1.06)	-70	400	16.3	7.01	2.85	0.00
14:26	3 (1.27)	-77	211	16.1	7.03	2.86	0.00
	3.5						
	4						
	4.5						
	5						

% Difference between final 3 readings:
(highest-lowest)/ ((highest + lowest)/2)

Well Sampling Data Sheet

Well Number: PZ-22

SAMPLE APPEARANCE

	Turbidity	Color	Odor
Initial Volumes	High	Brown	Yes
Final Volumes	Low	Clear	Yes

SAMPLES COLLECTED

Sample List: _______

ID	Analysis	Quantity	Volume
PZ-22	8260, 8270	2, 2	40mL/1L

PUMPING RATES

Average Purge______ mL/min   Average Sampling______ mL/min

OTHER READINGS

DO (mg/L) ________   PID (ppm) ________ CO_2 (mg/L) ________

PURGE WATER DISPOSAL

On-site storage pending analysis _____

Relinquished to licensed hauler _____

Discharge in sewer (previous analysis completed) _____

Discharge on ground (previous analysis completed) _____

** The Project Manager will instruct the Field Team as to which disposal method is applicable.

COMMENTS (difficulties, condition of casing, etc.)

Slight sheen in bucket from the well. Also flushed out flow through cell, but did not help turbidity. H_2O was fairly clear after 1st volume, even though reading turb. is high. Did not dump of flow cell. Sampled @ 14:30 on 7/26/05

Well Sampling Data Sheet

Well Number: PZ-23

Client: ISH/NYSEG Site: Norwich, NY

Personnel: ASB Weather: hot, partly cloudy breezy Date: 7-26-05

PUMPING PARAMETERS

Casing inner diameter (gal/foot):
___ 2" (0.16) ___ 4" (0.65) ___ 5" (1.02) 1" Other (0.041)

	Previous Report	Measured Depth	Ref. Location
Height of casing reference above grade			
Depth of well from top of casing		15.64	
Water level from top of casing		7.78	
Feet of water in casing		7.86	
NAPL level from top of casing(if present)			Type:
NAPL thickness			

Min gallons of purge (feet of water X gal/ft X 3 well vols.) 7.86 × 0.041 = 0.32 ~ 0.3gal

Purging Method: ___Peris. Pump ___Bailer ___Pos. Pump (Grundfos) ___Other___
Sampling Method: ___Peris. Pump ___Bailer ___Pos. Pump (Grundfos) ___Other___

½ vol = 0.15 gal

0.15gal × 3700ml/gal ÷ 1 min/150ml = 3.7 min ~ 4min

Type of Tubing:	Pumphead	Downhole
Tygon		
Teflon		
Polyethylene		

Bailer Type: ____Teflon ____Stainless Steel ____Disposable

TDS g/L = 0.274, 0.249, 0.236, 0.220

CHEMICAL PARAMETERS

Time	Volume (gallons)	Eh (mV)	Turbidity (NTU)	Temp (°C)	pH (SU)	Conductivity (indicate units)	DO
11:16	0 (0.0)	174	999.0	15.00	7.39	0.417	6.86
11:18	0.5 (0.15)	162	999.0	15.17	7.35	0.433	4.75
11:23	1.0 (0.3)	162	963.0	15.02	6.96	0.387	4.99
11:27	1.5 (0.45)	164	672.0	15.02	6.82	0.365	4.80
11:31	2.0 (0.6)	169	463.0	15.25	6.77	0.350	4.67
11:34	2.5 (.75)	175	384.0	15.22	6.75	0.341	4.61
11:38	3.0 (.90)	182	360.0	15.14	6.73	0.332	4.50

% Difference between final 3 readings: 0.73% 5.9% 5.3%
(highest-lowest)/ ((highest + lowest)/2)

Well Sampling Data Sheet

Well Number: PZ-23

SAMPLE APPEARANCE

	Turbidity	Color	Odor
Initial Volumes	V. high	brown	none
Final Volumes	moderate-low	light brown	none

SAMPLES COLLECTED

Sample List: ________

ID	Analysis	Quantity	Volume
NO-PZ23	TCL VOCs	2	40 ml
↓	TCL SVOCs	2	1 L

PUMPING RATES

Average Purge 150 mL/min   Average Sampling ______ mL/min

OTHER READINGS

DO (mg/L) ________   PID (ppm) ________ CO_2 (mg/L) ________

PURGE WATER DISPOSAL

On-site storage pending analysis ✓
Relinquished to licensed hauler _____
Discharge in sewer (previous analysis completed) _____
Discharge on ground (previous analysis completed) _____

** The Project Manager will instruct the Field Team as to which disposal method is applicable.

COMMENTS (difficulties, condition of casing, etc.)

Well Sampling Data Sheet

Well Number: PZ-24

Client: ISH/NYSEG Site: Norwich, NY

Personnel: AJB Weather: hot, breezy Date: 7/25/05

PUMPING PARAMETERS

Casing inner diameter (gal/foot):
___ 2" (0.16) ___ 4" (0.65) ___ 5" (1.02) 1" Other (0.041)

	Previous Report	Measured Depth	Ref. Location
Height of casing reference above grade			
Depth of well from top of casing		19.38	
Water level from top of casing		~~9.3~~ 10.00	
Feet of water in casing		9.38	
NAPL level from top of casing(if present)			Type:
NAPL thickness			

Min gallons of purge (feet of water X gal/ft X 3 well vols.) 9.38 × 0.041 = 0.38 ~ $\boxed{0.4\text{gal}}$

Purging Method: ___Peris. Pump ___Bailer ___Pos. Pump (Grundfos) ___Other___
Sampling Method: X Peris. Pump ___Bailer ___Pos. Pump (Grundfos) ___Other___

½ vol = 0.2
0.2gal 3700ml/150min = 4.9
5min

Type of Tubing:	Pumphead	Downhole
Tygon		
Teflon	X	
Polyethylene		X

Bailer Type: ___Teflon ___Stainless Steel ___Disposable

TDS = 1.05
1.17, 120

CHEMICAL PARAMETERS

Time	Volume (gallons)	Eh (mV)	Turbidity (NTU)	Temp (°C)	pH (SU)	Conductivity (indicate units)	DO %/L
16:48	0 (0.0)	90	999.0	14.41	6.94	1.64	10.78
16:50	0.5 (0.2)	80	934.0	13.45	6.70	1.72	8.62
16:54	1.0 (0.4)	67	781.0	13.37	6.62	1.78	6.68
16:58	1.5 (0.6)	59	726.0	13.28	6.60	1.81	5.94
17:01	2.0 (0.8)	54	697.0	13.20	6.58	1.85	5.59
17:04	2.5 ~~3.0~~ (1.0)	52	640.0	13.16	6.57	1.86	5.45
17:09	3.0 (1.2)	49	638.0	12.91	6.57	1.86	5.19

% Difference between final 3 readings: (highest-lowest)/ ((highest + lowest)/2) — Temp: 2.2% pH: 1.5% Conductivity: 0.54%

Well Sampling Data Sheet

Well Number: PZ-24

SAMPLE APPEARANCE

	Turbidity	Color	Odor
Initial Volumes	moderate	gray	strong
Final Volumes	low	clear	strong

SAMPLES COLLECTED Sample List:________

ID	Analysis	Quantity	Volume
NO-PZ24	TCL VOCs	2	40ml
↓	TCL SVOCs	2	1L
ajB ~~NO-PZ24 DUP~~	~~TCL VOCs~~		
↓			

PUMPING RATES

Average Purge 150 mL/min Average Sampling______ mL/min

OTHER READINGS

DO (mg/L) ________ PID (ppm) ________ CO_2 (mg/L) ________

PURGE WATER DISPOSAL

On-site storage pending analysis X

Relinquished to licensed hauler ____

Discharge in sewer (previous analysis completed) ____

Discharge on ground (previous analysis completed) ____

** The Project Manager will instruct the Field Team as to which disposal method is applicable.

COMMENTS (difficulties, condition of casing, etc.)

Well Sampling Data Sheet

Well Number: PZ-25

Client: ISH/NYSEG Site: Norwich, NY

Personnel: TJ/AB Weather: Sunny - 85° Date: 7-25-05

PUMPING PARAMETERS

Casing inner diameter (gal/foot):
___ 2" (0.16) ___ 4" (0.65) ___ 5" (1.02) 1" Other 0.041

	Previous Report	Measured Depth	Ref. Location
Height of casing reference above grade			
Depth of well from top of casing		19.75	
Water level from top of casing		9.50	
Feet of water in casing		10.25	
NAPL level from top of casing(if present)		N/A	Type:
NAPL thickness		N/A	

Min gallons of purge (feet of water X gal/ft X 3 well vols.) 10.25 X 0.041 = 0.420

Purging Method: X Peris. Pump ___ Bailer ___ Pos. Pump (Grundfos) ___ Other ___
Sampling Method: X Peris. Pump ___ Bailer ___ Pos. Pump (Grundfos) ___ Other ___

1/2 vol = .21

Type of Tubing:

	Pumphead	Downhole
Tygon		
~~Teflon~~ silicon	X	
Polyethylene		X

gal 3700 ml / gal ÷ 150 ml / min = 5.18 min

Bailer Type: ___ Teflon ___ Stainless Steel ___ Disposable

CHEMICAL PARAMETERS

TDS: 1.13, 1.18

Time	Volume (gallons)	Eh ORP (mV)	Turbidity (NTU)	Temp (°C)	pH (SU)	Conductivity (indicate units) m s/cm	DO
16:16	0 (0.00)	+61	0	15.7	7.38	1.74	4.82
16:21 ~~16:21~~	0.5 (.21)	+27	176	14.2	6.80	1.84	0.22
16:26	1 (.42)	+21	121	14.0	6.80	1.84	0.00
16:31	1.5 (.63)	+15	90.5	14.4	6.81	1.84	0.00
16:36	2 (.84)	+12	81.2	14.4	6.80	1.84	0.00
16:41	2.5 (1.05)	+17	79.5	14.2	6.83	1.84	0.00
16:46	3 (1.26)	+20	104.0	13.7	6.84	1.84	0.00
	3.5 (1.47)						
	4 (1.68)						
	4.5 (1.89)						
	5. (2.10)						

% Difference between final 3 readings:
(highest-lowest)/ ((highest + lowest)/2)

Well Sampling Data Sheet

Well Number: PZ-25

SAMPLE APPEARANCE

	Turbidity	Color	Odor
Initial Volumes	High	Brown	~~None~~ yes
Final Volumes	Low	Clear	~~None~~ yes

SAMPLES COLLECTED Sample List:________

ID	Analysis	Quantity	Volume
PZ-25	8260/8270	2,2	40mL/1L

PUMPING RATES

Average Purge_______ mL/min Average Sampling_______ mL/min

OTHER READINGS

DO (mg/L) _________ PID (ppm) _________ CO_2 (mg/L) _________

PURGE WATER DISPOSAL

On-site storage pending analysis _____
Relinquished to licensed hauler _____
Discharge in sewer (previous analysis completed) _____
Discharge on ground (previous analysis completed) _____

** The Project Manager will instruct the Field Team as to which disposal method is applicable.

COMMENTS (difficulties, condition of casing, etc.)

At beginning of purging, too much sediment ended up in flow through cell & forced me to clean it out to get correct turbidity. Collected sample @ 16:50 7/25/05. Slight sheen noticed in bucket

Well Sampling Data Sheet

Well Number: PZ 26

Client: ISH/NYSEG Site: Norwich, NY

Personnel: TJoos, ABB Weather: Cloudy, warm Date: 7/25/05

PUMPING PARAMETERS

Casing inner diameter (gal/foot):

___ 2" (0.16) ___ 4" (0.65) ___ 5" (1.02) 1" Other 0.041

	Previous Report	Measured Depth	Ref. Location
Height of casing reference above grade			
Depth of well from top of casing		23.15	
Water level from top of casing		10.12	
Feet of water in casing		13.03	
NAPL level from top of casing(if present)		N/A	Type:
NAPL thickness		N/A	

Min gallons of purge (feet of water X gal/ft X 3 well vols.) 13.03 x 0.041 = 0.53

Purging Method: X Peris. Pump ___ Bailer ___ Pos. Pump (Grundfos) ___ Other ___

Sampling Method: ___ Peris. Pump ___ Bailer ___ Pos. Pump (Grundfos) ___ Other ___

Type of Tubing:	Pumphead	Downhole
Tygon		
~~Teflon~~ silicon	X	
Polyethylene		X

½ vol = 0.267

0.267 gal $\frac{3700 \text{ ml}}{\text{gal}} \div \frac{150 \text{ ml}}{\text{min}}$ = 6.58 min

Bailer Type: ___ Teflon ___ Stainless Steel ___ Disposable

CHEMICAL PARAMETERS

Time	Volume (gallons)	Eh (mV) ORP +198	Turbidity (NTU)	Temp (°C)	pH (SU)	Conductivity (indicate units) mS/cm	DO
09:19	0 0.00	1.61	975	14.7	6.84	2.48	2.28
09:23	0.5 ~~0.53~~ 0.267	1.66	415	14.3	6.80	2.57	1.76
09:26	1 (0.53)	1.71	211	14.2	6.77	2.67	1.17
09:32	1.5 (0.79)	1.73	160	14.2	6.74	2.71	0.91
09:36	2 (1.05)	1.74	176	14.1	6.74	2.72	0.77
09:40	2.5 (1.31)	1.76	161	14.0	6.74	2.74	0.71
09:46	3 (1.57)	1.76	138	14.0	6.75	2.75	0.68
	3.5 (1.83)						
	4.0 (2.09)						
	4.5 (2.35)						
	5 (2.61)						

% Difference between final 3 readings:
(highest-lowest)/ ((highest + lowest)/2)

Well Sampling Data Sheet

Well Number: P2 26

SAMPLE APPEARANCE	Turbidity	Color	Odor
Initial Volumes	Mod	Brown	None
Final Volumes	Low	clear	None

SAMPLES COLLECTED Sample List: ______

ID	Analysis	Quantity	Volume
P2-26	8260, 8270	2, 2	40, 1L

PUMPING RATES

Average Purge ______ mL/min Average Sampling ______ mL/min

OTHER READINGS

DO (mg/L) ________ PID (ppm) ________ CO_2 (mg/L) ________

PURGE WATER DISPOSAL

On-site storage pending analysis _____

Relinquished to licensed hauler _____

Discharge in sewer (previous analysis completed) _____

Discharge on ground (previous analysis completed) _____

** The Project Manager will instruct the Field Team as to which disposal method is applicable.

COMMENTS (difficulties, condition of casing, etc.)

Sample time 09:50

Well Sampling Data Sheet

Well Number: PZ-27

Client: ISH/NYSEG Site: Norwich, NY

Personnel: TJ / AB Weather: Cloudy, Warm Date: 7/25/05

PUMPING PARAMETERS

Casing inner diameter (gal/foot):

___ 2" (0.16) ___ 4" (0.65) ___ 5" (1.02) 1" Other 0.041

	Previous Report	Measured Depth	Ref. Location
Height of casing reference above grade			
Depth of well from top of casing		23.48	
Water level from top of casing		9.30	
Feet of water in casing		14.18	
NAPL level from top of casing(if present)		N/A	Type:
NAPL thickness		N/A	

Min gallons of purge (feet of water X gal/ft X 3 well vols.) 14.18 x 0.041 = 0.58

Purging Method: X Peris. Pump ___ Bailer ___ Pos. Pump (Grundfos) ___ Other ___

Sampling Method: X Peris. Pump ___ Bailer ___ Pos. Pump (Grundfos) ___ Other ___

Type of Tubing:	Pumphead	Downhole
Tygon		
~~Teflon~~ Silicon	X	
Polyethylene		X

½ vol = 0.29

0.29 gal (3760 ml / gal) ÷ 150 ml / min = 7.15 min

Bailer Type: ___ Teflon ___ Stainless Steel ___ Disposable

CHEMICAL PARAMETERS

TDS: 0.269, 0.483

Time	Volume (gallons)	Eh ORP (mV)	Turbidity (NTU)	Temp (°C)	pH (SU)	Conductivity (indicate units) mS/cm	DO
10:47	0.00 (0.00)	+27	999	14.5	7.82	0.418	0.16
10:52	0.5 (0.29)	+23	999	14.5	7.65	0.451	0.00
10:58	1 (0.58)	+37	671	14.8	7.30	0.587	0.00
11:05	1.5 (0.87)	+49	500	14.7	7.25	0.658	0.00
11:09	2 (1.16)	+58	125	14.7	7.22	0.716	0.00
11:16	2.5 (1.45)	+70	83.7	15.2	7.24	0.740	0.00
11:23	3 (1.74)	+78	126	15.1	7.25	0.750	0.00
11:30	3.5 (2.03)	+85	171	15.1	7.27	0.752	0.00
	4 (2.32)						
	4.5 (2.61)						
	5 (2.90)						

% Difference between final 3 readings:
(highest-lowest)/ ((highest + lowest)/2)

Well Sampling Data Sheet

Well Number: PZ-27

SAMPLE APPEARANCE

	Turbidity	Color	Odor
Initial Volumes	High	Brown	None
Final Volumes	Low	Clear	None

SAMPLES COLLECTED Sample List:________

ID	Analysis	Quantity	Volume
PZ-27	8260/8270	2, 2	40mL/1L.

PUMPING RATES

Average Purge______ mL/min Average Sampling______ mL/min

OTHER READINGS

DO (mg/L) ________ PID (ppm) ________ CO_2 (mg/L) ________

PURGE WATER DISPOSAL

On-site storage pending analysis _____

Relinquished to licensed hauler _____

Discharge in sewer (previous analysis completed) _____

Discharge on ground (previous analysis completed) _____

** The Project Manager will instruct the Field Team as to which disposal method is applicable.

COMMENTS (difficulties, condition of casing, etc.)

Sampled @ 11:35 7/15/05

Well Sampling Data Sheet

Well Number: PZ 28

Client: IGH/NYSEG   Site: Norwich, NY

Personnel: AJB   Weather: warm, hazy breezy   Date: 7-26-05

PUMPING PARAMETERS

Casing inner diameter (gal/foot):

___ 2" (0.16)   ___ 4" (0.65)   ___ 5" (1.02)   1" Other (0.041)

	Previous Report	Measured Depth	Ref. Location
Height of casing reference above grade			mark N TOC
Depth of well from top of casing		16.79	
Water level from top of casing		5.80	
Feet of water in casing		10.99	
NAPL level from top of casing(if present)			Type:
NAPL thickness			

Min gallons of purge (feet of water X gal/ft X 3 well vols.) 10.99 x (0.041) = 0.45 gal ~0.5gl

Purging Method: ___ Peris. Pump ___ Bailer ___ Pos. Pump (Grundfos) ___ Other ___

Sampling Method: X Peris. Pump ___ Bailer ___ Pos. Pump (Grundfos) ___ Other ___

½ vol = 0.25

0.25 · 3700ml/1 gal ÷ 150 ml/min = 6min

Type of Tubing:	Pumphead	Downhole
Tygon		
Teflon	X	
Polyethylene		X

Bailer Type: ___ Teflon ___ Stainless Steel ___ Disposable

CHEMICAL PARAMETERS

TDS g/L = 0.97, 1.00

Time	Volume (gallons)	Eh (mV)	Turbidity (NTU)	Temp (°C)	pH (SU)	Conductivity (indicate units) S/cm	DO g/L
15:02	0 (0.0)	55	-10.0	15.69	6.86	1.50	7.57
15:08	0.5 (0.25)	34	999.0	15.11	6.68	1.56	5.03
15:16	1.0 (0.5)	17	999.0	14.16	6.57	1.56	3.83
15:22	1.5 (0.75)	22	278.0	13.97	6.57	1.57	3.86
15:29	2.0 (1.0)	10	999.0	13.22	6.58	1.57	3.51
15:32	2.5 (1.25)	4	920.0	13.09	6.56	1.58	3.22
15:37	3.0 (1.5)	-0	309.0	13.26	6.55	1.57	3.05

% Difference between final 3 readings: (highest-lowest)/ ((highest + lowest)/2) — Temp: 1.3% pH: 4.6% Conductivity: 0.63%

Well Sampling Data Sheet

Well Number: PZ-28

SAMPLE APPEARANCE	Turbidity	Color	Odor
Initial Volumes	v. high	brown	none
Final Volumes	low	clear	slight

SAMPLES COLLECTED Sample List: _______

ID	Analysis	Quantity	Volume
NU-PZ28	TCL VOCs	2	40 ml
↓	TCL SVOCs	2	1L

PUMPING RATES

Average Purge 150 mL/min Average Sampling ______ mL/min

OTHER READINGS

DO (mg/L) ________ PID (ppm) ________ CO_2 (mg/L) ________

PURGE WATER DISPOSAL

On-site storage pending analysis X

Relinquished to licensed hauler _____

Discharge in sewer (previous analysis completed) _____

Discharge on ground (previous analysis completed) _____

** The Project Manager will instruct the Field Team as to which disposal method is applicable.

COMMENTS (difficulties, condition of casing, etc.)

First attempt to purge failed due to heavy sediment (silt) clogging the tubing. A new piece of tubing was used and worked.

Water Level Work Sheet

Site: NORWICH Date: 12/5/05

Well Number	Depth to Bottom	Depth to Water	Feet of Water	Depth to NAPL	PID
PZ-35	14.64	7.15			–
PZ34	15.42	8.11			
PZ33	18.56	8.94			
PZ32	17.47	7.23			
PZ38	16.55	7.22			
PZ37	15.51	6.69			
PZ36	15.60	7.87			
PZ31	15.56	6.71			
PZ30	15.53	5.39			
PZ29	15.10	5.05			
PZ14	17.19	5.90			
PZ23	15.72	6.94			
PZ20	18.74	9.65			
PZ21	17.84	7.23			
little silt w/ slight odor – PZ22	17.71	6.58			
PZ39	15.47	5.40			
PZ17	15.18	9,32			
PZ16	14.98	10.30			
GW91-7	10.71	9.11	1.60		
PZ12	23.13	8.67			
PZ27	23.41	8.61			
PZ26	23.02	9.41			
PZ11	18.58	9.13			
bailer removed + 1 bailer full of water – GW91-6	13.71	6.97	6.74		

Empty bailer removed GW01-14 15.81 6.68 9.13

Water Level Work Sheet

Site: NORWICH Date: 12/6/05

	Well Number	Depth to Bottom	Depth to Water	Feet of Water	Depth to NAPL	PID
	PZ07	19.46	7.75			
	PZ08	19.66	6.72			
	PZ18	17.10	5.18			
	PZ19	18.03	5.58			
	PZ28	17.27	5.14			
	PZ25	20.15	8.84			
	PZ24	20.27	9.35			
	PZ09	Not measured	6.50		DNAPL present ~1.5' ✓ again when sampling	
water in box no j plug bailer removed	GW92-11sh	9.90	7.51	2.39		
bailer removed	GW92-11D	19.39	7.12	12.27		
slip cap no lock	PZ06	20.57	7.61			
	PZ05	21.61	8.59			
	PZ03	18.26	8.62			
	PZ04	16.53	7.09			
bailer removed	GW92-12	12.54	3.85	8.69		
	GW91-5	couldn't locate (mud and leaves + parked car)				
	PZ13	14.77	6.40			
bailer removed	GW92-8	12.62	6.28	6.34		
	PZ10	18.68	6.30			
	PZ15	19.29	5.81			
	GW92-13	14.88	6.21	8.67		
	GW91-4D	20.06	10.81	9.25		
	GW91-4sh	15.58	11.71	3.87		
	PZ02	14.58	9.27			
	PZ01	16.86	9.10		Trace DNAPL on probe	
	GW04-16	NM	12.29		12.15 LNAPL 14.4' of DNAPL?	

Well Sampling Data Sheet

Well Number: Existing Well

Client: Ish/NYSEG Site: Norwich, NY

Personnel: KG/ LMG Weather: very cold, clear Date: 12/14/05

PUMPING PARAMETERS

Casing inner diameter (gal/foot):
X 2" (0.16) ___ 4" (0.65) ___ 5" (1.02) ___ Other ___

	Previous Report	Measured Depth	Ref. Location
Height of casing reference above grade			
Depth of well from top of casing		15.61	
Water level from top of casing		9.25	
Feet of water in casing		6.36	
NAPL level from top of casing(if present)			Type:
NAPL thickness			

Min gallons of purge (feet of water X gal/ft X 3 well vols.) 6.36 x 0.16 = 1.02 g

Purging Method: X Peris. Pump ___ Bailer ___ Pos. Pump (Grundfos) ___ Other ___
Sampling Method: ✓ Peris. Pump ___ Bailer ___ Pos. Pump (Grundfos) ___ Other ___

1/2 vol. = 0.51 g
0.51 g x $\frac{3700 \text{ mL}}{g} \div \frac{1 \text{ min}}{150 \text{ mL}}$
~13 mins

Type of Tubing:

	Pumphead	Downhole
Tygon	X	
Teflon		
Polyethylene		X

Bailer Type: ___ Teflon ___ Stainless Steel ___ Disposable

CHEMICAL PARAMETERS

Time	Volume (gallons)	Eh (mV)	Turbidity (NTU)	Temp (°C)	pH (SU)	Conductivity (indicate units)
8:31	0 (0)					
8:44	0.5 (0.51)					
8:57	1 (1.02)					
9:10	1.5 (1.53)					
9:23	2 (2.04)					
9:36	2.5 (2.55)					
9:49	3 (3.06)					

% Difference between final 3 readings:
(highest-lowest)/ ((highest + lowest)/2)

Well Sampling Data Sheet

Well Number: Existing Well

SAMPLE APPEARANCE

	Turbidity	Color	Odor
Initial Volumes	high	dark gray	MGP waste
Final Volumes	low	clear	MGP waste

SAMPLES COLLECTED

Sample List: 9:55

ID	Analysis	Quantity	Volume
NO-Existing Well	TCL VOCs	2	40 mL
↓	TCL SVOCs	2	1000 mL
↓	Cyanide	1	250 mL

PUMPING RATES

Average Purge 150 mL/min

Average Sampling 150 mL/min

OTHER READINGS

DO (mg/L) ________ PID (ppm) ________ CO_2 (mg/L) ________

PURGE WATER DISPOSAL

On-site storage pending analysis _____

Relinquished to licensed hauler _____

Discharge in sewer (previous analysis completed) _____

Discharge on ground (previous analysis completed) _____

** The Project Manager will instruct the Field Team as to which disposal method is applicable.

COMMENTS (difficulties, condition of casing, etc.)

No water quality readings taken due to frozen water quality meter. Purged 3 well volumes then sampled.

Well Sampling Data Sheet

Well Number: GW91-4S

Client: Ish/NYSEG   Site: Norwich, NY

Personnel: KG/LMG   Weather: cold, clear   Date: 12/13/05

PUMPING PARAMETERS

Casing inner diameter (gal/foot):
X 2" (0.16)   ___ 4" (0.65)   ___ 5" (1.02)   ___ Other___

	Previous Report	Measured Depth	Ref. Location
Height of casing reference above grade			
Depth of well from top of casing		15.58	
Water level from top of casing		11.71	
Feet of water in casing		3.87	
NAPL level from top of casing(if present)			Type:
NAPL thickness			

Min gallons of purge (feet of water X gal/ft X 3 well vols.) 3.87x 0.16= 0.62g

Purging Method: X Peris. Pump ___Bailer ___Pos. Pump (Grundfos) ___Other___
Sampling Method: X Peris. Pump ___Bailer ___Pos. Pump (Grundfos) ___Other___

1/2 vol. = 0.31
0.31 g × 3700 mL/g ÷ 1 min/150 mL
~ 8 mins.

Type of Tubing:

	Pumphead	Downhole
Tygon	X	
Teflon		
Polyethylene		X

Bailer Type: ___Teflon ___Stainless Steel ___Disposable

CHEMICAL PARAMETERS

Time	Volume (gallons)	Eh (mV)	Turbidity (NTU)	Temp (°C)	pH (SU)	Conductivity (indicate units)	D.O.
3:13	0(0)	117	242	3.78	6.47	0.194	1.82
3:21	0.5(0.31)	150	109	6.09	5.90	0.162	1.13
3:29	1 (0.62)	131	22.4	6.15	6.03	0.162	0.44
3:37	1.5(0.93)	140	12.4	6.13	6.02	0.161	0.09
3:45	2(1.24)	137	8.6	6.13	6.02	0.162	0.05

% Difference between final 3 readings: 0.3% 0.2% 0.6%
(highest-lowest)/ ((highest + lowest)/2)

Well Sampling Data Sheet

Well Number: GW91-045

SAMPLE APPEARANCE

	Turbidity	Color	Odor
Initial Volumes	low	clear	MGP waste
Final Volumes	low	clear	MGP waste

SAMPLES COLLECTED

Sample List: 4-00

ID	Analysis	Quantity	Volume
NO-GW91-045	TCL VOCs	2	40 mL
↓	TCL SVOCs	2	1000 mL
↓	Cyanide	1	250 mL

PUMPING RATES

Average Purge 150 mL/min   Average Sampling 150 mL/min

OTHER READINGS

DO (mg/L) ______   PID (ppm) ______ CO_2 (mg/L) ______

PURGE WATER DISPOSAL

On-site storage pending analysis _____

Relinquished to licensed hauler _____

Discharge in sewer (previous analysis completed) _____

Discharge on ground (previous analysis completed) _____

** The Project Manager will instruct the Field Team as to which disposal method is applicable.

COMMENTS (difficulties, condition of casing, etc.)

Well Sampling Data Sheet

Well Number: GW91-4D

Client: ISH/NYSEG Site: NORWICH

Personnel: LMG Weather: very cold -3°F ~6" snow on ground Date: 12/17/05

PUMPING PARAMETERS

Casing inner diameter (gal/foot):
X 2" (0.16) ___ 4" (0.65) ___ 5" (1.02) ___ Other___

	Previous Report	Measured Depth	Ref. Location
Height of casing reference above grade			
Depth of well from top of casing		20.06	
Water level from top of casing		10.81	
Feet of water in casing		9.25	
NAPL level from top of casing(if present)			Type:
NAPL thickness			

Min gallons of purge (feet of water X gal/ft X 3 well vols.) 9.25 x 0.16 = 1.5 gal

Purging Method: ___Peris. Pump ___Bailer ___Pos. Pump (Grundfos) X Other bladder pump
Sampling Method: ___Peris. Pump ___Bailer ___Pos. Pump (Grundfos) X Other bladder pump

Type of Tubing:	Pumphead	Downhole
Tygon		
Teflon		
Polyethylene		X

1/2 vol = 0.75 gal
@ 150 ml/min
= 18 min

Bailer Type: ___Teflon ___Stainless Steel ___Disposable

CHEMICAL PARAMETERS

TDS = 0.24

Time	Volume (gallons)	Eh (mV)	Turbidity (NTU)	Temp (°C)	pH (SU)	Conductivity (indicate units)	DO
2:30	0 (0)	134	223	6.92	6.41	0.367	0.49
2:48	0.5 (0.75)	88	192	5.9	6.55	0.413	0.00
3:06	1 (1.5)	70	111	5.9	6.55	0.432	0.00
3:24	1.5 (2.25)	41	86	5.7	6.55	0.440	0.00
3:42	2 (3.00)	20	61.9	5.8	6.56	0.438	0.00
4:00	2.5 (3.75)	9	59.6	5.9	6.55	0.438	0.00

% Difference between final 3 readings: 3.4% 0% 0.5%
(highest-lowest)/ ((highest + lowest)/2)

Well Sampling Data Sheet

Well Number: GW91-4D

SAMPLE APPEARANCE

	Turbidity	Color	Odor
Initial Volumes	low	clear	MGP Waste
Final Volumes	low	clear	MGP waste

SAMPLES COLLECTED Sample List: 4:15

ID	Analysis	Quantity	Volume
NO-GW91-4D	TCL VOCs	2	40 mL
↓	TCL SVOCs	2	1000 mL
↓	Cyanide	1	250 mL

PUMPING RATES

Average Purge 150 mL/min Average Sampling 150 mL/min

OTHER READINGS

DO (mg/L) ________ PID (ppm) ________ CO_2 (mg/L) ________

PURGE WATER DISPOSAL

On-site storage pending analysis _____

Relinquished to licensed hauler _____

Discharge in sewer (previous analysis completed) _____

Discharge on ground (previous analysis completed) _____

** The Project Manager will instruct the Field Team as to which disposal method is applicable.

COMMENTS (difficulties, condition of casing, etc.)

Well Sampling Data Sheet

Well Number: GW91-6

Client: Ish/NYSEG Site: Norwich

Personnel: LMG Weather: Very cold (-8°F) clear, 6" of snow on ground Date: 12/14/05

PUMPING PARAMETERS

Casing inner diameter (gal/foot):

X 2" (0.16) ___ 4" (0.65) ___ 5" (1.02) ___ Other ___

	Previous Report	Measured Depth	Ref. Location
Height of casing reference above grade			
Depth of well from top of casing		13.71	
Water level from top of casing		6.97	
Feet of water in casing		6.74	
NAPL level from top of casing(if present)			Type:
NAPL thickness			

Min gallons of purge (feet of water X gal/ft X 3 well vols.) 6.74 x 0.16 = 1.1 gal

Approved by DEC

Purging Method: X Peris. Pump ___ Bailer ___ Pos. Pump (Grundfos) ___ Other ___

Sampling Method: X Peris. Pump ___ Bailer ___ Pos. Pump (Grundfos) ___ Other ___

Type of Tubing:	Pumphead	Downhole
Tygon	Silicon	
Teflon		
Polyethylene		X

1/2 vol = 0.55 gal @ 150 ml/min = 13.5 min

Bailer Type: ___ Teflon ___ Stainless Steel ___ Disposable

TDS = 1.1 g/L

CHEMICAL PARAMETERS

Time	Volume (gallons)	Eh (mV)	Turbidity (NTU)	Temp (°C)	pH (SU)	Conductivity (indicate units)	DO mg/L
8:36	0(0)	5	145	12.1	6.64	1.78	0.87
8:45	0.5(0.55)	-26	50.9	11.7	6.61	1.85	0.11
8:54	1(1.1)	-44	25.6	11.2	6.63	1.83	0.06
9:11	1.5(1.65)	-59	20.5	11.4	6.68	1.84	0.01
9:34	~~2(2.2)~~ LMG 2.5(2.75)	-66	13.6	11.0	6.70	1.86	0.03

% Difference between final 3 readings:
(highest-lowest)/ ((highest + lowest)/2)

Well Sampling Data Sheet

Well Number: GW91-6

SAMPLE APPEARANCE

	Turbidity	Color	Odor
Initial Volumes	mod-low	light brown	mod nGP odor
Final Volumes			

SAMPLES COLLECTED Sample List: ______

ID	Analysis	Quantity	Volume

PUMPING RATES

Average Purge______ mL/min Average Sampling______ mL/min

OTHER READINGS

DO (mg/L) ________ PID (ppm) ________ CO_2 (mg/L) ________

PURGE WATER DISPOSAL

On-site storage pending analysis _____

Relinquished to licensed hauler _____

Discharge in sewer (previous analysis completed) _____

Discharge on ground (previous analysis completed) _____

** The Project Manager will instruct the Field Team as to which disposal method is applicable.

COMMENTS (difficulties, condition of casing, etc.)

Well Sampling Data Sheet

Well Number: GW91-7

Client: ISH/NYSEG Site: NORWICH

Personnel: LMG Weather: cold, clear Date: 12/8/05

PUMPING PARAMETERS

Casing inner diameter (gal/foot):

X 2" (0.16) ___ 4" (0.65) ___ 5" (1.02) ___ Other ___

	Previous Report	Measured Depth	Ref. Location
Height of casing reference above grade			
Depth of well from top of casing		10.71	
Water level from top of casing		9.11	
Feet of water in casing		1.60	
NAPL level from top of casing(if present)			Type:
NAPL thickness			

Min gallons of purge (feet of water X gal/ft X 3 well vols.) ___

Purging Method: ___Peris. Pump ___Bailer X Pos. Pump ~~(Grundfos)~~ bladder pump ___Other___

Sampling Method: ___Peris. Pump ___Bailer ___Pos. Pump (Grundfos) ___Other___

Type of Tubing:	Pumphead	Downhole
Tygon		
Teflon		
Polyethylene		X

Bailer Type: ___Teflon ___Stainless Steel ___Disposable

CHEMICAL PARAMETERS

TDS=.08

Time	Volume (gallons)	Eh (mV)	Turbidity (NTU)	Temp (°C)	pH (SU)	Conductivity (indicate units)	DO.
8:21	0(0)	78	448	7.8	7.21	1.30	4.23

Well went dry after ~ 1/3 gallon removed.

% Difference between final 3 readings:
(highest-lowest)/ ((highest + lowest)/2)

Well Sampling Data Sheet

Well Number: ________

SAMPLE APPEARANCE

	Turbidity	Color	Odor
Initial Volumes	________	________	________
Final Volumes	________	________	________

SAMPLES COLLECTED Sample List:________

ID	Analysis	Quantity	Volume

PUMPING RATES

Average Purge_______ mL/min Average Sampling_______ mL/min

OTHER READINGS

DO (mg/L) _________ PID (ppm) _________ CO_2 (mg/L) _________

PURGE WATER DISPOSAL

On-site storage pending analysis _____

Relinquished to licensed hauler _____

Discharge in sewer (previous analysis completed) _____

Discharge on ground (previous analysis completed) _____

** The Project Manager will instruct the Field Team as to which disposal method is applicable.

COMMENTS (difficulties, condition of casing, etc.)

____

____

____

____

____

Well Sampling Data Sheet

Well Number: GW-92-8

Client: Tch/NYSEG   Site: Norwich, NY

Personnel: KG/LMG   Weather: very cold, clear   Date: 12/14/05

PUMPING PARAMETERS

Casing inner diameter (gal/foot):

X 2" (0.16)   ___ 4" (0.65)   ___ 5" (1.02)   ___ Other___

	Previous Report	Measured Depth	Ref. Location
Height of casing reference above grade			
Depth of well from top of casing		12.66	
Water level from top of casing		6.74	
Feet of water in casing		5.92	
NAPL level from top of casing(if present)			Type:
NAPL thickness			

Min gallons of purge (feet of water X gal/ft X 3 well vols.) 5.92 x 0.16 = 0.94 g

Purging Method: X Peris. Pump ___Bailer ___Pos. Pump (Grundfos) ___Other___
Sampling Method: X Peris. Pump ___Bailer ___Pos. Pump (Grundfos) ___Other___

1/2 vol. = 0.47 g

0.47 x 3700 mL/g ÷ 1 min/150 mL

~12 mins

Type of Tubing:

	Pumphead	Downhole
Tygon	X	
Teflon		
Polyethylene		X

Bailer Type: ___Teflon ___Stainless Steel ___Disposable

CHEMICAL PARAMETERS

TDS = 0.51

Time	Volume (gallons)	Eh (mV)	Turbidity (NTU)	Temp (°C)	pH (SU)	Conductivity (indicate units)	D.O.
11:34	0 (0)	-19	138	8.89	6.61	0.790	0.11
11:46	0.5 (0.47)	-38	22.6	10.21	6.60	0.813	0.00
11:58	1 (0.94)	-43	18.6	10.04	6.60	0.818	0.00
12:10	1.5 (1.41)	-48	16.5	10.06	6.59	0.819	0.00
12:22	2 (1.88)	-51	16.6	10.06	6.59	0.818	0.00

% Difference between final 3 readings: (highest-lowest)/ ((highest + lowest)/2)   0.2%   0.2%   0.1%

Well Sampling Data Sheet

Well Number: GW92-8

SAMPLE APPEARANCE

	Turbidity	Color	Odor
Initial Volumes	low	clear	MGP Waste
Final Volumes			

SAMPLES COLLECTED

Sample List:________

ID	Analysis	Quantity	Volume
NO-GW92-8	TCL VOCs	2	40 mL
↓	TCL SVOCs	2	1000 mL
↓	Cyanide	1	250 mL

PUMPING RATES

Average Purge 150 mL/min   Average Sampling 150 mL/min

OTHER READINGS

DO (mg/L) ________   PID (ppm) ________ CO_2 (mg/L) ________

PURGE WATER DISPOSAL

On-site storage pending analysis _____

Relinquished to licensed hauler _____

Discharge in sewer (previous analysis completed) _____

Discharge on ground (previous analysis completed) _____

** The Project Manager will instruct the Field Team as to which disposal method is applicable.

COMMENTS (difficulties, condition of casing, etc.)

Well Sampling Data Sheet

Well Number: GW92-115h

Client: Ish/NYSEG   Site: Norwich

Personnel: LMG   Weather: v. cold (-7°F) clear   Date: 12/14/05

PUMPING PARAMETERS

Casing inner diameter (gal/foot):

X 2" (0.16)   ___ 4" (0.65)   ___ 5" (1.02)   ___ Other______

	Previous Report	Measured Depth	Ref. Location
Height of casing reference above grade			
Depth of well from top of casing		9.90	
Water level from top of casing		7.51	
Feet of water in casing		2.39	
NAPL level from top of casing(if present)			Type:
NAPL thickness			

Min gallons of purge (feet of water X gal/ft X 3 well vols.) 2.39 x 0.16 = 0.4 gal

Approved by DEC

Purging Method: X Peris. Pump ___Bailer ___Pos. Pump (Grundfos) ___Other___

Sampling Method: X Peris. Pump ___Bailer ___Pos. Pump (Grundfos) ___Other___

Type of Tubing:	Pumphead	Downhole
Tygon	silicon	
Teflon		
Polyethylene		X

½ vol = 0.2 gal @ 150 mL/min ≈ 5 min

Bailer Type: ___Teflon ___Stainless Steel ___Disposable

CHEMICAL PARAMETERS

	Time	Volume (gallons)	Eh (mV)	Turbidity (NTU)	Temp (°C)	pH (SU)	Conductivity (indicate units)
Start	12:10	0 (0)					
END	12:18	2 (0.8)					

% Difference between final 3 readings:
(highest-lowest)/ ((highest + lowest)/2)

Well Sampling Data Sheet

Well Number: GW92-11sh

SAMPLE APPEARANCE

	Turbidity	Color	Odor
Initial Volumes	high	brown	v. slight mgp
Final Volumes	low	clear	NONE

SAMPLES COLLECTED

Sample List: 12:20

ID	Analysis	Quantity	Volume
NO·GW92-11sh	TCL VOCs	2	40 ml
↓	TCL SVOCs	2	1L
↓	Total Cn	1	200ml

PUMPING RATES

Average Purge_______ mL/min   Average Sampling_______ mL/min

OTHER READINGS

DO (mg/L) _________   PID (ppm) _________ CO_2 (mg/L) _________

PURGE WATER DISPOSAL

On-site storage pending analysis X

Relinquished to licensed hauler _____

Discharge in sewer (previous analysis completed) _____

Discharge on ground (previous analysis completed) _____

** The Project Manager will instruct the Field Team as to which disposal method is applicable.

COMMENTS (difficulties, condition of casing, etc.)

Well Sampling Data Sheet

Well Number: GW92-11D

Client: ISH/NYSEG Site: Norwich

Personnel: LMG Weather: v. cold (-7°F) clear Date: 12/14/05

PUMPING PARAMETERS

Casing inner diameter (gal/foot):

X 2" (0.16) ___ 4" (0.65) ___ 5" (1.02) ___ Other ___

	Previous Report	Measured Depth	Ref. Location
Height of casing reference above grade			
Depth of well from top of casing		19.39	
Water level from top of casing		LMG 7.12	
Feet of water in casing		12.27	
NAPL level from top of casing(if present)			Type:
NAPL thickness			

Min gallons of purge (feet of water X gal/ft X 3 well vols.) 12.27 x 0.16 = 2 gal

Approved by DEC

Purging Method: X Peris. Pump ___ Bailer ___ Pos. Pump (Grundfos) ___ Other ___

Sampling Method: X Peris. Pump ___ Bailer ___ Pos. Pump (Grundfos) ___ Other ___

Type of Tubing:	Pumphead	Downhole
Tygon	Silicon	
Teflon		
Polyethylene		X

1/2 vol = 1 gal @ 150 ml/min 25 min

Bailer Type: ___ Teflon ___ Stainless Steel ___ Disposable

TDS = 1.2 g/L

CHEMICAL PARAMETERS

Time	Volume (gallons)	Eh (mV)	Turbidity (NTU)	Temp (°C)	pH (SU)	Conductivity (indicate units)	DO mg/L
11:35	0 (0)	121	LMG ~~7.88~~ 64.2	9.6	6.91	1.87	2.97
11:45	0.5 (1)	66	19.8	11.3	6.79	2.02	0.18
11:58	1 (2)	63	18.3	10.9	6.77	2.05	0.12
12:11	1.5 (3)	56	18.6	10.8	6.76	2.06	0.07
12:23	2 (4)	51	20.5	11.0	6.76	2.06	0.01
12:32	2.25 (4.5)	51	21.3	11.1	6.76	2.06	0.00

% Difference between final 3 readings:
(highest-lowest)/ ((highest + lowest)/2) ___ ___ ___

Well Sampling Data Sheet

Well Number: GW92-11D

SAMPLE APPEARANCE

	Turbidity	Color	Odor
Initial Volumes	low	clear	v. slight MTBE odor
Final Volumes	"	"	"

SAMPLES COLLECTED Sample List:________

ID	Analysis	Quantity	Volume
NSO - GW92-11D	TCL VOCs	2	40 mL
↓	TCL SVOCs	2	1 L
↓	Total Cr	1	200 mL

PUMPING RATES

Average Purge_______ mL/min Average Sampling_______ mL/min

OTHER READINGS

DO (mg/L) _________ PID (ppm) _________ CO_2 (mg/L) _________

PURGE WATER DISPOSAL

On-site storage pending analysis X

Relinquished to licensed hauler _____

Discharge in sewer (previous analysis completed) _____

Discharge on ground (previous analysis completed) _____

** The Project Manager will instruct the Field Team as to which disposal method is applicable.

COMMENTS (difficulties, condition of casing, etc.)

Well Sampling Data Sheet

Well Number: GW92-12

Client: Ish/NYSEG Site: Norwich

Personnel: LMG/KG Weather: cold, sunny ~3" of snow on ground Date: 12/12/05

PUMPING PARAMETERS

Casing inner diameter (gal/foot):

X 2" (0.16) ___ 4" (0.65) ___ 5" (1.02) ___ Other___

	Previous Report	Measured Depth	Ref. Location
Height of casing reference above grade			
Depth of well from top of casing		13.05	
Water level from top of casing		3.91	
Feet of water in casing		9.14	
NAPL level from top of casing(if present)			Type:
NAPL thickness			

Min gallons of purge (feet of water X gal/ft X 3 well vols.) 9.14 x 0.16 = 1.5 gal

Purging Method: ___Peris. Pump ___Bailer ___Pos. Pump (Grundfos) ___Other___

Sampling Method: ___Peris. Pump ___Bailer ___Pos. Pump (Grundfos) ___Other___

Type of Tubing: Pumphead Downhole

Tygon ___ ___

Teflon ___ ___

Polyethylene ___ ___

1/2 vol = 0.75 gal @ 150 mL/min = 18.5 min

Bailer Type: ___Teflon ___Stainless Steel ___Disposable

CHEMICAL PARAMETERS

Time	Volume (gallons)	Eh (mV)	Turbidity (NTU)	Temp (°C)	pH (SU)	Conductivity (indicate units)	DO mg/L
13:20	0 (0)	170	385	10.72	7.41	0.257	2.29
13:38	0.5 (0.75)	75	58.3	8.95	7.31	0.257	0.29
13:57	1 (1.5)	-93	30.3	9.10	7.31	0.264	0.08
14:15	1.5 (2.25)	-118	42.2	9.70	7.33	0.276	0.08
14:34	2 (3.0)	-99	67.3	LMG ~~8.~~ 9.25	7.34	0.276	0.00

% Difference between final 3 readings: (highest-lowest)/ ((highest + lowest)/2) 6% 4% 4%

Well Sampling Data Sheet

Well Number: GW92-12

SAMPLE APPEARANCE

	Turbidity	Color	Odor
Initial Volumes	med-low	slightly cloudy brown	none
Final Volumes	low	clear	none

SAMPLES COLLECTED

Sample List: 14:40

ID	Analysis	Quantity	Volume
NO-GW92-12	TCL VOCs	2	40 mL
↓	TCL SVOCs	2	1 L
↓	Total Cr	1	200 mL

PUMPING RATES

Average Purge 150 mL/min   Average Sampling 150 mL/min

OTHER READINGS

DO (mg/L) ________ PID (ppm) ________ CO_2 (mg/L) ________

PURGE WATER DISPOSAL

On-site storage pending analysis X

Relinquished to licensed hauler _____

Discharge in sewer (previous analysis completed) _____

Discharge on ground (previous analysis completed) _____

** The Project Manager will instruct the Field Team as to which disposal method is applicable.

COMMENTS (difficulties, condition of casing, etc.)

Well Sampling Data Sheet

Well Number: GW92-13

Client: ISh/ANY SEG Site: NORWICH

Personnel: LMG Weather: very cold ~15°F 6" of snow on ground clear and sunny Date: 12/13/05

PUMPING PARAMETERS

Casing inner diameter (gal/foot):
X 2" (0.16) ___ 4" (0.65) ___ 5" (1.02) ___ Other___

	Previous Report	Measured Depth	Ref. Location
Height of casing reference above grade			
Depth of well from top of casing		14.88	
Water level from top of casing		6.21	
Feet of water in casing		8.67	
NAPL level from top of casing(if present)			Type:
NAPL thickness			

Min gallons of purge (feet of water X gal/ft X 3 well vols.) 8.67 X 0.16 = 1.4 gal

Purging Method: X Peris. Pump (Approved by DEC) ___Bailer ___Pos. Pump (Grundfos) ___Other___
Sampling Method: X Peris. Pump ___Bailer ___Pos. Pump (Grundfos) ___Other___

Type of Tubing:

	Pumphead	Downhole
Tygon	silicon	
Teflon		
Polyethylene		X

1/2 vol = 0.7 gal @ 150 ml/min = 17 min

Bailer Type: ___Teflon ___Stainless Steel ___Disposable

CHEMICAL PARAMETERS

TDS = 0.27 g/L

Time	Volume (gallons)	Eh (mV)	Turbidity (NTU)	Temp (°C)	pH (SU)	Conductivity (indicate units)	DO mg/L
15:10	0 (0)	290	75.6	7.4	7.36	0.409	2.11
15:27	0.5 (0.7)	109	15.8	8.1	7.26	0.365	5.48
15:44	1 (1.4)	152	13.7	8.1	7.25	0.369	4.25
16:01	1.5 (2.1)	194	17.7	8.1	7.28	0.388	2.78
16:18	2 (2.8)	214	11.5	8.2	7.33	0.414	1.49

% Difference between final 3 readings: (highest-lowest)/ ((highest + lowest)/2) — Temp: 1% pH: 10% Conductivity: 11%

Well Sampling Data Sheet

Well Number: GW92-13

SAMPLE APPEARANCE

	Turbidity	Color	Odor
Initial Volumes	low	clear	none
Final Volumes	low	clear	none

SAMPLES COLLECTED

Sample List: 16:20

ID	Analysis	Quantity	Volume
NO-GW92-13	TCL VOCs	2	40mL
	TCL SVOCs	2	1L
	Total Cr	1	200 mL

PUMPING RATES

Average Purge 150 mL/min

Average Sampling 150 mL/min

OTHER READINGS

DO (mg/L) ________ PID (ppm) ________ CO_2 (mg/L) ________

PURGE WATER DISPOSAL

On-site storage pending analysis X

Relinquished to licensed hauler _____

Discharge in sewer (previous analysis completed) _____

Discharge on ground (previous analysis completed) _____

** The Project Manager will instruct the Field Team as to which disposal method is applicable.

COMMENTS (difficulties, condition of casing, etc.)

Well Sampling Data Sheet

Well Number: GW01-14

Client: ISH/NYSEG Site: NORWICH

Personnel: LMG Weather: very cold (-8°F) clear, 6" of snow on ground Date: 12/14/05

PUMPING PARAMETERS

Casing inner diameter (gal/foot):
X 2" (0.16) ___ 4" (0.65) ___ 5" (1.02) ___ Other ___

	Previous Report	Measured Depth	Ref. Location
Height of casing reference above grade			
Depth of well from top of casing		15.81	
Water level from top of casing		6.68	
Feet of water in casing		9.13	
NAPL level from top of casing(if present)			Type:
NAPL thickness			

Min gallons of purge (feet of water X gal/ft X 3 well vols.) 9.13 x 0.16 = 1.5 gal

Purging Method: X Peris. Pump (Approved by DEC) ___Bailer ___Pos. Pump (Grundfos) ___Other___
Sampling Method: X Peris. Pump ___Bailer ___Pos. Pump (Grundfos) ___Other___

Type of Tubing: Pumphead Downhole

1/2 vol = 0.75 gal @ 150 mL/min = 18.5 min

	Pumphead	Downhole
Tygon		
Teflon		
Polyethylene		

Bailer Type: ___Teflon ___Stainless Steel ___Disposable

CHEMICAL PARAMETERS

Time	Volume (gallons)	Eh (mV)	Turbidity (NTU)	Temp (°C)	pH (SU)	Conductivity (indicate units)	DO mg/L
8:10	0 (0)	-61	>999	11.18	6.73	1.17	0.38
8:25	0.5 (0.75)	-117	90.2	11.07	6.79	1.18	0.00
8:~~40~~ 35 LMG	1 (1.5)	-133	33.4	10.69	6.78	1.18	0.00
8:53	1.5 (2.25)	-152	24.7	10.58	6.75	1.18	0.00
9:07	2 (3)	-163	23.2	10.83	6.74	1.18	0.00

% Difference between final 3 readings:
(highest-lowest)/ ((highest + lowest)/2) ___ ___ ___

Well Sampling Data Sheet

Well Number: GW01-14

SAMPLE APPEARANCE

	Turbidity	Color	Odor
Initial Volumes	high	brown	strong MGP odor
Final Volumes			

SAMPLES COLLECTED Sample List:________

ID	Analysis	Quantity	Volume

PUMPING RATES

Average Purge______ mL/min Average Sampling______ mL/min

OTHER READINGS

DO (mg/L) ________ PID (ppm) ________ CO_2 (mg/L) ________

PURGE WATER DISPOSAL

On-site storage pending analysis _____

Relinquished to licensed hauler _____

Discharge in sewer (previous analysis completed) _____

Discharge on ground (previous analysis completed) _____

** The Project Manager will instruct the Field Team as to which disposal method is applicable.

COMMENTS (difficulties, condition of casing, etc.)

Well Sampling Data Sheet

Well Number: GW04-16

Client: ISH/NYSEG Site: NORWICH

Personnel: LMG Weather: very cold 2°F ~6" of snow on ground Date: 12/13/05

PUMPING PARAMETERS

Casing inner diameter (gal/foot):
X 2" (0.16) ___ 4" (0.65) ___ 5" (1.02) ___ Other ___

	Previous Report	Measured Depth	Ref. Location
Height of casing reference above grade			
Depth of well from top of casing		23.0	assumed from field log
Water level from top of casing		12.29	
Feet of water in casing		10.71	
NAPL level from top of casing(if present)		12.15	Type:
NAPL thickness			also DNAPL - string coated 14.4'

Min gallons of purge (feet of water X gal/ft X 3 well vols.) 10.71 x 0.16 = 1.7 gal

used peris. pump due to heavy NAPL presence

Purging Method: X Peris. Pump ___ Bailer ___ Pos. Pump (Grundfos) ___ Other ___
Sampling Method: X Peris. Pump ___ Bailer ___ Pos. Pump (Grundfos) ___ Other ___

Type of Tubing:	Pumphead	Downhole
Tygon	silicon	
Teflon		
Polyethylene		X

1/2 vol = 0.85 gal @ 150 mL/min = ~21 min

Bailer Type: ___ Teflon ___ Stainless Steel ___ Disposable

CHEMICAL PARAMETERS

Time	Volume (gallons)	Eh (mV)	Turbidity (NTU)	Temp (°C)	pH (SU)	Conductivity (indicate units)
start: 10:24	0 (0)	Water quality meter not used due				
	3 (5.1)	to presence of NAPL				

% Difference between final 3 readings:
(highest-lowest)/ ((highest + lowest)/2)

Well Sampling Data Sheet

Well Number: GW04-16

SAMPLE APPEARANCE

	Turbidity	Color	Odor
Initial Volumes	high	brown	MGP odor w/sheen and NAPL present
Final Volumes	low	clear	

SAMPLES COLLECTED Sample List: 12:00

ID	Analysis	Quantity	Volume
NO-GW04-16	TCL VOCs	2	40ml
↓	TCL SVOCs	2	1L
↓	Total Cr	1	200ml
NO-GW04-16 dup	TCL VOCs	2	40ml
↓	TCL SVOCs	2	1L
↓	Total Cr	1	200ml

PUMPING RATES

Average Purge 150 mL/min Average Sampling 150 mL/min

OTHER READINGS

DO (mg/L) ______ PID (ppm) ______ CO_2 (mg/L) ______

PURGE WATER DISPOSAL

On-site storage pending analysis X

Relinquished to licensed hauler ____

Discharge in sewer (previous analysis completed) ____

Discharge on ground (previous analysis completed) ____

** The Project Manager will instruct the Field Team as to which disposal method is applicable.

COMMENTS (difficulties, condition of casing, etc.)

Well Sampling Data Sheet

Well Number: PZ-01

Client: ISh/NY566 Site: Norwich, NY

Personnel: KG/LMG Weather: cold, clear Date: 12/13/05

PUMPING PARAMETERS

Casing inner diameter (gal/foot):

___ 2" (0.16) ___ 4" (0.65) ___ 5" (1.02) X Other 1" (0.041)

	Previous Report	Measured Depth	Ref. Location
Height of casing reference above grade			
Depth of well from top of casing		16.86	
Water level from top of casing		9.10	
Feet of water in casing		7.76	
NAPL level from top of casing(if present)			Type:
NAPL thickness			

Min gallons of purge (feet of water X gal/ft X 3 well vols.) 7.76 x 0.041 = 0.32

Purging Method: X Peris. Pump ___ Bailer ___ Pos. Pump (Grundfos) ___ Other ___
Sampling Method: X Peris. Pump ___ Bailer ___ Pos. Pump (Grundfos) ___ Other ___

Type of Tubing:

	Pumphead	Downhole
Tygon	X	
Teflon		
Polyethylene		X

1/2 vol. = 0.16
0.16 g x 3700 ml / g ÷ 1 min / 150 ml
~ 4 mins.

Bailer Type: ___ Teflon ___ Stainless Steel ___ Disposable

CHEMICAL PARAMETERS

TDS = 1.4

Time	Volume (gallons)	Eh (mV)	Turbidity (NTU)	Temp (°C)	pH (SU)	Conductivity (indicate units)	D.O.
10:32	0 (0)	322	59.7	8.0	6.34	2.28	2.77
10:36	0.5 (0.16)	326	31.8	8.7	6.50	2.48	0.00
10:40	1 (0.32)	-28	20.9	9.1	6.54	2.46	0.00
10:44	1.5 (0.48)	-35	(KG) ~~4.75~~ 17.3	8.8	6.55	2.55	0.00
10:48	2 (0.64)	-41	14.5	8.9	6.57	2.53	0.00
10:52	2.5 (0.80)	-43	13.0	9.0	6.57	2.53	0.00

% Difference between final 3 readings: (highest-lowest)/ ((highest + lowest)/2) — Temp: 2.2% — pH: 0.3% — Conductivity: 0.8%

Well Sampling Data Sheet

Well Number: PZ-01

SAMPLE APPEARANCE

	Turbidity	Color	Odor
Initial Volumes	low	clear	MGP waste/sheen present
Final Volumes	low	clear	MGP waste/sheen present

SAMPLES COLLECTED

Sample List: 11:00

ID	Analysis	Quantity	Volume
NO-PZ01	TCL VOCs	2	40 mL
↓	TCL SVOCs	2	1000 mL
↓	Cyanide	1	250 mL

PUMPING RATES

Average Purge 150 mL/min Average Sampling 150 mL/min

OTHER READINGS

DO (mg/L) _________ PID (ppm) _________ CO_2 (mg/L) _________

PURGE WATER DISPOSAL

On-site storage pending analysis _____

Relinquished to licensed hauler _____

Discharge in sewer (previous analysis completed) _____

Discharge on ground (previous analysis completed) _____

** The Project Manager will instruct the Field Team as to which disposal method is applicable.

COMMENTS (difficulties, condition of casing, etc.)

Well Sampling Data Sheet

Well Number: PZ-02

Client: Ish/NYSEG Site: Norwich, NY

Personnel: KG/LMG Weather: very cold, clear Date: 12/13/05

PUMPING PARAMETERS

Casing inner diameter (gal/foot):

___ 2" (0.16) ___ 4" (0.65) ___ 5" (1.02) x Other 1" (0.041)

	Previous Report	Measured Depth	Ref. Location
Height of casing reference above grade			
Depth of well from top of casing		14.58	
Water level from top of casing		9.27	
Feet of water in casing		5.31	
NAPL level from top of casing(if present)			Type:
NAPL thickness			

Min gallons of purge (feet of water X gal/ft X 3 well vols.) 5.31 x 0.041 = 0.22

Purging Method: x Peris. Pump ___Bailer ___Pos. Pump (Grundfos) ___Other___

Sampling Method: x Peris. Pump ___Bailer ___Pos. Pump (Grundfos) ___Other___

1/2 vol. = 0.11 g

Type of Tubing:	Pumphead	Downhole
Tygon	x	
Teflon		
Polyethylene		x

$0.11\, g \times \frac{3700\, ml}{g} \div \frac{1\, min}{150\, ml}$

~ 3 mins.

Bailer Type: ___Teflon ___Stainless Steel ___Disposable

CHEMICAL PARAMETERS

TDS = 1.3

Time	Volume (gallons)	Eh (mV)	Turbidity (NTU)	Temp (°C)	pH (SU)	Conductivity (indicate units)	D.O.
8:28	0(0)	701	21.9	7.8	5.68	2.06	0.89
8:31	0.5(0.11)	680	13.6	8.2	5.64	2.03	0.00
8:34	1 (0.22)	669	11.3	8.2	5.67	2.03	0.00
8:37	1.5(0.33)	658	9.9	8.1	5.69	2.04	0.00
8:40	2(0.44)	648	8.9	8.2	5.68	2.04	0.00

% Difference between final 3 readings: (highest-lowest)/ ((highest + lowest)/2) Temp: 1.2% pH: 0.4% Conductivity: 0.5%

Well Sampling Data Sheet

Well Number: P2-02

SAMPLE APPEARANCE

	Turbidity	Color	Odor
Initial Volumes	low	clear	MGP waste/sheen present
Final Volumes	low	clear	MGP waste/sheen present

SAMPLES COLLECTED Sample List: 8:50

ID	Analysis	Quantity	Volume
NO-P202	TCL VOCs	2	40 mL
↓	TCL SVOCs	2	1000 mL
↓	Cyanide	1	250 mL

PUMPING RATES

Average Purge 150 mL/min   Average Sampling 150 mL/min

OTHER READINGS

DO (mg/L) ________   PID (ppm) ________ CO_2 (mg/L) ________

PURGE WATER DISPOSAL

On-site storage pending analysis _____

Relinquished to licensed hauler _____

Discharge in sewer (previous analysis completed) _____

Discharge on ground (previous analysis completed) _____

** The Project Manager will instruct the Field Team as to which disposal method is applicable.

COMMENTS (difficulties, condition of casing, etc.)

Well Sampling Data Sheet

Well Number: PZ03

Client: Ish/NYSEG Site: Norwich

Personnel: LMG Weather: cold, clear (7°F) Date: 12/8/05

PUMPING PARAMETERS

Casing inner diameter (gal/foot):
___ 2" (0.16) ___ 4" (0.65) ___ 5" (1.02) X Other 1" (0.041)

	Previous Report	Measured Depth	Ref. Location
Height of casing reference above grade			
Depth of well from top of casing		18.26	
Water level from top of casing		8.62	
Feet of water in casing		9.64	
NAPL level from top of casing(if present)			Type:
NAPL thickness			

Min gallons of purge (feet of water X gal/ft X 3 well vols.) 9.64 x 0.041 = 0.4 gal

Purging Method: X Peris. Pump ___ Bailer ___ Pos. Pump (Grundfos) ___ Other ___
Sampling Method: X Peris. Pump ___ Bailer ___ Pos. Pump (Grundfos) ___ Other ___

Type of Tubing:

	Pumphead	Downhole
Tygon	Silicon	
Teflon		
Polyethylene		x

1/2 vol = 0.2 gal
0.2 @ 150 mL/min = ~5 min

Bailer Type: ___ Teflon ___ Stainless Steel ___ Disposable

CHEMICAL PARAMETERS

TDS = 0.32 g/L

Time	Volume (gallons)	Eh (mV)	Turbidity (NTU)	Temp (°C)	pH (SU)	Conductivity (indicate units)	DO mg/L
10:35	0 (0)	235	>999	11.1	7.36	0.480	0.98
10:40	0.5 (0.2)	180	>999	10.8	7.28	0.505	0.74
10:45	1 (0.4)	115	>999	9.6	7.14	0.516	4.18
LMG ~~10:50~~	~~1.5 (0.6)~~	WELL DRY @ 10:45 after removing					
LMG ~~10:55~~	~~2 (0.8)~~	~ 0.4 gallons. Recarge a little and pump slower!					
10:52	1 (0.4)	112	>999	9.7	7.23	0.520	2.72
11:00	2 ~~1.5 (0.6)~~ 0.8	90	>999	10.3	7.19	0.521	3.35
11:02	~~2.5 (0.8)~~ T2 LMG	Well Dry again after removeing ~1 gallon of water.					

% Difference between final 3 readings:
(highest-lowest)/ ((highest + lowest)/2)

Well Sampling Data Sheet

Well Number: PZ-03

SAMPLE APPEARANCE

	Turbidity	Color	Odor
Initial Volumes	high	brown	none
Final Volumes			

SAMPLES COLLECTED

Sample List: 1530

ID	Analysis	Quantity	Volume
NO-PZ03	TCL VOCs	2	40 mL
↓	TCL SVOCs	2	1L
↓	Total CN	1	200 mL

PUMPING RATES

Average Purge 150 mL/min   Average Sampling 150 mL/min

OTHER READINGS

DO (mg/L) ______   PID (ppm) ______ CO_2 (mg/L) ______

PURGE WATER DISPOSAL

On-site storage pending analysis X

Relinquished to licensed hauler ____

Discharge in sewer (previous analysis completed) ____

Discharge on ground (previous analysis completed) ____

** The Project Manager will instruct the Field Team as to which disposal method is applicable.

COMMENTS (difficulties, condition of casing, etc.)

Well Sampling Data Sheet

Well Number: PZ-04

Client: Ish/NYSEG Site: Norwich, NY

Personnel: KG/LMG Weather: cold, cloudy Date: 12/12/05

PUMPING PARAMETERS

Casing inner diameter (gal/foot):
___ 2" (0.16) ___ 4" (0.65) ___ 5" (1.02) x Other 1" (0.041)

	Previous Report	Measured Depth	Ref. Location
Height of casing reference above grade			
Depth of well from top of casing		16.54	
Water level from top of casing		7.43	
Feet of water in casing		9.11	
NAPL level from top of casing(if present)			Type:
NAPL thickness			

Min gallons of purge (feet of water X gal/ft X 3 well vols.) 9.11 × 0.041 = 0.38 g

Purging Method: X Peris. Pump ___Bailer ___Pos. Pump (Grundfos) ___Other___
Sampling Method: X Peris. Pump ___Bailer ___Pos. Pump (Grundfos) ___Other___

V2 vol. ≈ 0.19 g

$0.19\ g \times \frac{3700\ mL}{g} \div \frac{1\ min}{150\ mL}$

~5 mins.

Type of Tubing:	Pumphead	Downhole
Tygon	X	
Teflon		
Polyethylene		X

Bailer Type: ___Teflon ___Stainless Steel ___Disposable

CHEMICAL PARAMETERS

TDS = 0.23

Time	Volume (gallons)	Eh (mV)	Turbidity (NTU)	Temp (°C)	pH (SU)	Conductivity (indicate units)	D.O.
1:42	0 (0)	38	496	9.2	7.24	0.378	2.74
1:47	0.5 (0.19)	102	166	9.2	6.74	0.354	1.37
1:52	1 (0.38)	128	77.4	9.1	6.66	0.351	1.32
1:57	1.5 (0.57)	140	29.6	9.2	6.64	0.349	1.32
2:02	2 (0.76)	146	31.7	9.1	6.64	0.348	1.27

% Difference between final 3 readings: (highest-lowest)/ ((highest + lowest)/2)

	Temp	pH	Conductivity
% Difference	1.1%	0.3%	5.7%

Well Sampling Data Sheet

Well Number: PZ-04

SAMPLE APPEARANCE

	Turbidity	Color	Odor
Initial Volumes	low	clear	none
Final Volumes	low	clear	none

SAMPLES COLLECTED

Sample List: 2:10

ID	Analysis	Quantity	Volume
NO-PZ04	TCL VOCs	2	40 mL
↓	TCL SVOCs	2	1000 ml
↓	Cyanide	1	250 ml

PUMPING RATES

Average Purge 150 mL/min   Average Sampling 150 mL/min

OTHER READINGS

DO (mg/L) ________   PID (ppm) ________ CO_2 (mg/L) ________

PURGE WATER DISPOSAL

On-site storage pending analysis _____

Relinquished to licensed hauler _____

Discharge in sewer (previous analysis completed) _____

Discharge on ground (previous analysis completed) _____

** The Project Manager will instruct the Field Team as to which disposal method is applicable.

COMMENTS (difficulties, condition of casing, etc.)

Well Sampling Data Sheet

Well Number: PZ05

Client: Isch/NYSEG Site: NORWICH

Personnel: LMG Weather: cold, clear Date: 12/8/05

PUMPING PARAMETERS

Casing inner diameter (gal/foot):

___ 2" (0.16) ___ 4" (0.65) ___ 5" (1.02) X Other 1" (0.041)

	Previous Report	Measured Depth	Ref. Location
Height of casing reference above grade			
Depth of well from top of casing		21.61	
Water level from top of casing		8.59	
Feet of water in casing		13.02	
NAPL level from top of casing(if present)			Type:
NAPL thickness			

Min gallons of purge (feet of water X gal/ft X 3 well vols.) 13.02 x 0.041 = 0.5 gal = 1 vol

Purging Method: X Peris. Pump ___ Bailer ___ Pos. Pump (Grundfos) ___ Other___
Sampling Method: X Peris. Pump ___ Bailer ___ Pos. Pump (Grundfos) ___ Other___

Type of Tubing:	Pumphead	Downhole
Tygon	silicon	
Teflon		
Polyethylene		X

1/2 vol = 0.25 gal
@ 150 ml/min
= 6 min

Bailer Type: ___ Teflon ___ Stainless Steel ___ Disposable

TDS = 1.5 g/L

CHEMICAL PARAMETERS

Time	Volume (gallons)	Eh (mV)	Turbidity (NTU)	Temp (°C)	pH (SU)	Conductivity (indicate units)	DO mg/L
11:24	0 (0)	637	280	8.9	6.73	2.44	2.08
11:30	0.5 (0.25)	10	55.9	9.5	6.66	2.24	0.00
11:36	1 (0.5)	21	11.8	LMG ~~11.8~~ 10.0	6.62	2.17	0.00
11:42	1.5 (0.75)	22	7.6	10.2	6.61	2.16	0.00
11:48	2 (1.0)	22	5.2	10.2	6.61	2.16	0.00

% Difference between final 3 readings: (highest-lowest)/ ((highest + lowest)/2)

Temp	pH	Conductivity
2%	1.5%	0.5%

Well Sampling Data Sheet

Well Number: PZ05

SAMPLE APPEARANCE

	Turbidity	Color	Odor
Initial Volumes	low	clear	slight-mod mgp
Final Volumes	low	Clear	slight mgp

SAMPLES COLLECTED

Sample List: 11:55

ID	Analysis	Quantity	Volume
NO-PZ05	TCL VOCs	2	40 mL
↓	TCL SVOCs	2	1 L
↓	Total Cn	1	200 mL
NO-PZ05 dup	TCL VOCs	2	40 mL
↓	TCL SVOCs	2	1 L
↓	Total Cn	1	200 mL

PUMPING RATES

Average Purge 150 mL/min   Average Sampling 150 mL/min

OTHER READINGS

DO (mg/L) ________   PID (ppm) ________ CO_2 (mg/L) ________

PURGE WATER DISPOSAL

On-site storage pending analysis X

Relinquished to licensed hauler _____

Discharge in sewer (previous analysis completed) _____

Discharge on ground (previous analysis completed) _____

** The Project Manager will instruct the Field Team as to which disposal method is applicable.

COMMENTS (difficulties, condition of casing, etc.)

Well Sampling Data Sheet

Well Number: PZ06

Client: ISH/NYSEG Site: NORWICH

Personnel: LMG Weather: cold, clear Date: 12/8/05

PUMPING PARAMETERS

Casing inner diameter (gal/foot):

___ 2" (0.16) ___ 4" (0.65) ___ 5" (1.02) X Other 1" (0.041)

	Previous Report	Measured Depth	Ref. Location
Height of casing reference above grade			
Depth of well from top of casing		20.57	
Water level from top of casing		7.61	
Feet of water in casing		12.96	
NAPL level from top of casing(if present)			Type:
NAPL thickness			

Min gallons of purge (feet of water X gal/ft X 3 well vols.) 12.96x0.041= 0.5 gal

Purging Method: X Peris. Pump ___Bailer ___Pos. Pump (Grundfos) ___Other___

Sampling Method: X Peris. Pump ___Bailer ___Pos. Pump (Grundfos) ___Other___

Type of Tubing:	Pumphead	Downhole
Tygon	silicon	
Teflon		
Polyethylene		X

1/2 vol = 0.25 gal
@ 150 mL/min
= 6 min

Bailer Type: ___Teflon ___Stainless Steel ___Disposable

TDS = 1.6 g/L

CHEMICAL PARAMETERS

Time	Volume (gallons)	Eh (mV)	Turbidity (NTU)	Temp (°C)	pH (SU)	Conductivity (indicate units)	DO mg/L
14:33	0 (0)	655	539	9.3	6.85	2.50	2.03
14:39	0.5 (0.25)	634	78.3	10.0	6.72	2.42	0.00
14:45	1 (0.5)	633	25.9	10.1	6.71	2.40	0.00
14:51	1.5 (0.75)	631	42.6	10.4	6.70	2.40	0.00
14:57	2 (1)	627	38.2	10.4	6.70	2.40	0.00

% Difference between final 3 readings: (highest-lowest)/ ((highest + lowest)/2) — Temp: 3%, pH: 1.5%, Conductivity: 0%

Well Sampling Data Sheet

Well Number: PZ06

SAMPLE APPEARANCE

	Turbidity	Color	Odor
Initial Volumes	mod	lt. gray	mod. MGP
Final Volumes			

SAMPLES COLLECTED Sample List: 15:00

ID	Analysis	Quantity	Volume
NO-PZ06	TCL VOCs	2	40 mL
↓	TCL SVOCs	2	1 L
↓	Total Cr	1	200 mL

PUMPING RATES

Average Purge 150 mL/min Average Sampling 150 mL/min

OTHER READINGS

DO (mg/L) ________ PID (ppm) ________ CO_2 (mg/L) ________

PURGE WATER DISPOSAL

On-site storage pending analysis X

Relinquished to licensed hauler _____

Discharge in sewer (previous analysis completed) _____

Discharge on ground (previous analysis completed) _____

** The Project Manager will instruct the Field Team as to which disposal method is applicable.

COMMENTS (difficulties, condition of casing, etc.)

Well Sampling Data Sheet

Well Number: PZ-7

Client: ISH/NYSEG Site: Norwich, NY

Personnel: KG/LMG Weather: cold, sunny Date: 12/8/05

PUMPING PARAMETERS

Casing inner diameter (gal/foot):
___ 2" (0.16) ___ 4" (0.65) ___ 5" (1.02) X Other 1" (0.041)

	Previous Report	Measured Depth	Ref. Location
Height of casing reference above grade			
Depth of well from top of casing		19.46	
Water level from top of casing		7.75	
Feet of water in casing		11.71	
NAPL level from top of casing(if present)			Type:
NAPL thickness			

Min gallons of purge (feet of water X gal/ft X 3 well vols.) 11.71 × 0.041 = 0.48 g

Purging Method: X Peris. Pump ___ Bailer ___ Pos. Pump (Grundfos) ___ Other ___
Sampling Method: X Peris. Pump ___ Bailer ___ Pos. Pump (Grundfos) ___ Other ___

1/2 vol. = 0.24

0.24 g × 3700 mL / g ÷ 1 min / 150 mL

~ 6 mins.

Type of Tubing:	Pumphead	Downhole
Tygon	X	
Teflon		
Polyethylene		X

Bailer Type: ___ Teflon ___ Stainless Steel ___ Disposable

CHEMICAL PARAMETERS

TDS = 1.6

Time	Volume (gallons)	Eh (mV)	Turbidity (NTU)	Temp (°C)	pH (SU)	Conductivity (indicate units)	D.O.
2:34	0 (0)	264	121	10.7	6.60	2.55	6.53
2:40	0.5 (0.24)	259	63.2	11.0	6.54	2.78	0.42
2:46	1 (0.48)	255	58.9	11.5	6.54	2.76	0.32
2:52	1.5 (0.76)	253	53.7	11.3	6.54	2.75	0.27
2:58	2 (1.00)	252	53.3	11.4	6.54	2.74	0.23

% Difference between final 3 readings: (highest-lowest)/ ((highest + lowest)/2) — Temp: 1.8% — pH: 0% — Conductivity: 0.7%

Well Sampling Data Sheet

Well Number: P2-7

SAMPLE APPEARANCE

	Turbidity	Color	Odor
Initial Volumes	low	clear	none
Final Volumes	low	clear	none

SAMPLES COLLECTED

Sample List: 3:05

ID	Analysis	Quantity	Volume
ND-P27	TCL VOCs	2	40 mL
↓	TCL SVOCs	2	1000 ml
↓	Cyanide	1	250 mL

PUMPING RATES

Average Purge 150 mL/min

Average Sampling 160 mL/min

OTHER READINGS

DO (mg/L) ________ PID (ppm) ________ CO_2 (mg/L) ________

PURGE WATER DISPOSAL

On-site storage pending analysis _____

Relinquished to licensed hauler _____

Discharge in sewer (previous analysis completed) _____

Discharge on ground (previous analysis completed) _____

** The Project Manager will instruct the Field Team as to which disposal method is applicable.

COMMENTS (difficulties, condition of casing, etc.)

Well Sampling Data Sheet

Well Number: P2-08

Client: Ish/NYSEG   Site: Norwich, NY

Personnel: KG/LMG   Weather: cold, sunny   Date: 12/8/05

PUMPING PARAMETERS

Casing inner diameter (gal/foot):
__ 2" (0.16)   __ 4" (0.65)   __ 5" (1.02)   X Other 1" (0.041)

	Previous Report	Measured Depth	Ref. Location
Height of casing reference above grade			
Depth of well from top of casing		19.66	
Water level from top of casing		6.72	
Feet of water in casing		12.94	
NAPL level from top of casing(if present)			Type:
NAPL thickness			

Min gallons of purge (feet of water X gal/ft X 3 well vols.) 12.94 x 0.041 = 0.52 g

Purging Method: X Peris. Pump   __ Bailer   __ Pos. Pump (Grundfos)   __ Other__
Sampling Method: X Peris. Pump   __ Bailer   __ Pos. Pump (Grundfos)   __ Other__

1/2 vol. = ~~2.03~~ (KG) 0.26

0.26 g x 3700 mL / g ÷ 1 min / 150 mL

~ 6 mins.

Type of Tubing:	Pumphead	Downhole
Tygon	X	
Teflon		
Polyethylene		X

Bailer Type: __ Teflon   __ Stainless Steel   __ Disposable

CHEMICAL PARAMETERS

TDS = 1.2

Time	Volume (gallons)	Eh (mV)	Turbidity (NTU)	Temp (°C)	pH (SU)	Conductivity (indicate units)	DO
3:51	0 (0)	-66	1.9	10.7	6.64	1.79	4.00
3:57	0.5 (0.26)	-117	0.0	11.5	6.48	1.83	0.06
4:03	1 (0.52)	-133	0.0	11.6	6.47	1.84	0.00
4:09	1.5 (0.78)	-145	0.0	11.7	6.47	1.84	0.00
4:15	2 (1.04)	-153	0.0	11.8	6.47	1.84	

% Difference between final 3 readings: (highest-lowest)/ ((highest + lowest)/2)   Temp: 1.7%   pH: 0%   Conductivity: 0%

Well Sampling Data Sheet

Well Number: PZ-08

SAMPLE APPEARANCE	Turbidity	Color	Odor
Initial Volumes	low	clear	NAPL
Final Volumes	low	clear	NAPL

SAMPLES COLLECTED

Sample List: 4:25

ID	Analysis	Quantity	Volume
NO-PZ08	TCL VOCs	2	40 mL
NO-PZ08	TCL SVOCs	3	1000 mL
NO-PZ08	Cyanide	1	250 mL

PUMPING RATES

Average Purge 150 mL/min Average Sampling 150 mL/min

OTHER READINGS

DO (mg/L) ________ PID (ppm) ________ CO_2 (mg/L) ________

PURGE WATER DISPOSAL

On-site storage pending analysis _____

Relinquished to licensed hauler _____

Discharge in sewer (previous analysis completed) _____

Discharge on ground (previous analysis completed) _____

** The Project Manager will instruct the Field Team as to which disposal method is applicable.

COMMENTS (difficulties, condition of casing, etc.)

Well Sampling Data Sheet

Well Number: PZ09

Client: Ish/NYSEG Site: NORWICH

Personnel: LMG Weather: cold, snowing ~6" on ground 25°F Date: 12/9/05

PUMPING PARAMETERS

Casing inner diameter (gal/foot):
___ 2" (0.16) ___ 4" (0.65) ___ 5" (1.02) X Other 1" (0.041)

	Previous Report	Measured Depth	Ref. Location
Height of casing reference above grade			
Depth of well from top of casing		~18'	
Water level from top of casing		6.50	
Feet of water in casing		11.5	
NAPL level from top of casing(if present)			Type:
NAPL thickness			

Min gallons of purge (feet of water X gal/ft X 3 well vols.) 11.5 X 0.041 = 0.5 gal

Purging Method: X Peris. Pump ___ Bailer ___ Pos. Pump (Grundfos) ___ Other ___
Sampling Method: X Peris. Pump ___ Bailer ___ Pos. Pump (Grundfos) ___ Other ___

Type of Tubing:

	Pumphead	Downhole
Tygon	silicon	
Teflon		
Polyethylene		X

1/2 vol = 0.25 gal @ 150 mL/min = ~6 min

Bailer Type: ___ Teflon ___ Stainless Steel ___ Disposable

CHEMICAL PARAMETERS

	Time	Volume (gallons)	Eh (mV)	Turbidity (NTU)	Temp (°C)	pH (SU)	Conductivity (indicate units)
start	10:54	0 (0)	Water quality meter not used				
End	11:30	3 (1.5)	due to presence of NAPL.				

% Difference between final 3 readings:
(highest-lowest)/ ((highest + lowest)/2)

Well Sampling Data Sheet

Well Number: PZ09

SAMPLE APPEARANCE

	Turbidity	Color	Odor
Initial Volumes	low	clear w/ sheen and NAPL blebs	mod. MGP
Final Volumes	"	"	"

SAMPLES COLLECTED

Sample List: 11:30

ID	Analysis	Quantity	Volume
NO PZ09	TCL VOCs	2	40 mL
↓	TCL SVOCs	2	1L
↓	Total CN	1	200 mL
NOPZ09dup	TCL VOCs	2	40 mL
↓	TCL SVOCs	2	1 L
↓	Total CN	1	200 mL

PUMPING RATES

Average Purge 150 mL/min Average Sampling 150 mL/min

OTHER READINGS

DO (mg/L) _________ PID (ppm) _________ CO_2 (mg/L) _________

PURGE WATER DISPOSAL

On-site storage pending analysis X

Relinquished to licensed hauler _____

Discharge in sewer (previous analysis completed) _____

Discharge on ground (previous analysis completed) _____

** The Project Manager will instruct the Field Team as to which disposal method is applicable.

COMMENTS (difficulties, condition of casing, etc.)

Well Sampling Data Sheet

Well Number: PZ-10

Client: Ish/NYSEG Site: Norwich, NY

Personnel: KG/LMG Weather: cold, snowy Date: 12/9/05

PUMPING PARAMETERS

Casing inner diameter (gal/foot):

___ 2" (0.16) ___ 4" (0.65) ___ 5" (1.02) X Other 1" (0.041)

	Previous Report	Measured Depth	Ref. Location
Height of casing reference above grade			
Depth of well from top of casing		18.68	
Water level from top of casing		6.30	
Feet of water in casing		12.38	
NAPL level from top of casing(if present)			Type:
NAPL thickness			

Min gallons of purge (feet of water X gal/ft X 3 well vols.) 12.38 × 0.041 = 0.50 g

Purging Method: X Peris. Pump ___ Bailer ___ Pos. Pump (Grundfos) ___ Other ___

Sampling Method: X Peris. Pump ___ Bailer ___ Pos. Pump (Grundfos) ___ Other ___

Type of Tubing:	Pumphead	Downhole
Tygon	X	
Teflon		
Polyethylene		X

1/2 vol. = 0.25 g

0.25 g × 3700 mL/g · 1 min/750 mL

~6 mins.

Bailer Type: ___ Teflon ___ Stainless Steel ___ Disposable

CHEMICAL PARAMETERS

TDS = 0.32

Time	Volume (gallons)	Eh (mV)	Turbidity (NTU)	Temp (°C)	pH (SU)	Conductivity (indicate units)	D.O.
4:12	0(0)	369	274	6.2	6.79	0.489	0.90
4:18	0.5(0.25)	370	8.6	KG ~~8.6~~ 7.0	6.52	0.573	0.00
4:24	1(0.50)	369	4.9	7.7	6.50	0.712	0.00
4:30	1.5(0.75)	368	2.6	7.8	6.50	0.714	0.00
4:36	2(1.00)	368	2.4	7.7	6.50	0.713	0.00

% Difference between final 3 readings: (highest-lowest)/ ((highest + lowest)/2) — Temp: 1.3% pH: 0% Conductivity: 0.3%

Well Sampling Data Sheet

Well Number: PZ-10

SAMPLE APPEARANCE

	Turbidity	Color	Odor
Initial Volumes	low	clear	slight MGP Waste
Final Volumes	low	clear	slight MGP Waste

SAMPLES COLLECTED Sample List: 4:45

ID	Analysis	Quantity	Volume
ND-PZ10	TCL VOCs	2	40 mL
↓	TCL SVOCs	2	1000 mL
↓	Cyanide	1	250 mL

PUMPING RATES

Average Purge 150 mL/min Average Sampling 150 mL/min

OTHER READINGS

DO (mg/L) ________ PID (ppm) ________ CO_2 (mg/L) ________

PURGE WATER DISPOSAL

On-site storage pending analysis _____

Relinquished to licensed hauler _____

Discharge in sewer (previous analysis completed) _____

Discharge on ground (previous analysis completed) _____

** The Project Manager will instruct the Field Team as to which disposal method is applicable.

COMMENTS (difficulties, condition of casing, etc.)

Well Sampling Data Sheet

Well Number: P2-11

Client: Ish/NYSEG Site: Norwich, NY

Personnel: KG/LMG Weather: cold, flurries Date: 12/7/05

PUMPING PARAMETERS

Casing inner diameter (gal/foot):

___ 2" (0.16) ___ 4" (0.65) ___ 5" (1.02) x Other 1" (0.041)

	Previous Report	Measured Depth	Ref. Location
Height of casing reference above grade			
Depth of well from top of casing		18.58	
Water level from top of casing		9.13	
Feet of water in casing		9.45	
NAPL level from top of casing(if present)			Type:
NAPL thickness			

Min gallons of purge (feet of water X gal/ft X 3 well vols.) 9.45 x 0.041 = 0.38 g

Purging Method:	x Peris. Pump	Bailer	Pos. Pump (Grundfos)	Other
Sampling Method:	x Peris. Pump	Bailer	Pos. Pump (Grundfos)	Other

1/2 vol. = 0.19 g

0.19 g x 3700 mL / g ÷ 1 min / 150 mL

~ 5 mins.

Type of Tubing:

	Pumphead	Downhole
Tygon	x	
Teflon		
Polyethylene		x

Bailer Type: ___ Teflon ___ Stainless Steel ___ Disposable

CHEMICAL PARAMETERS

TDS = 1.4

Time	Volume (gallons)	Eh (mV)	Turbidity (NTU)	Temp (°C)	pH (SU)	Conductivity (indicate units)	DO.
2:59	0(0)	725	28.4	7.2	6.68	2.24	2.67
3:04	0.5(0.19)	562	6.4	9.4	6.49	2.27	0.00
3:09	1(0.38)	310	3.8	9.2	6.48	2.30	0.00
3:14	1.5(0.57)	311	0.5	9.4	6.47	2.32	0.00
3:19	2(0.76)	318	0.4	9.5	6.47	2.33	0.11
3:24							

% Difference between final 3 readings: (highest-lowest)/ ((highest + lowest)/2) — Temp: 3.4% — pH: 0.2% — Conductivity: 1.2%

Well Sampling Data Sheet

Well Number: PZ-11

SAMPLE APPEARANCE

	Turbidity	Color	Odor
Initial Volumes	low	clear	none
Final Volumes	low	clear	none

SAMPLES COLLECTED Sample List: 3:30

ID	Analysis	Quantity	Volume
MD-PZ11	TCL VOCs	2	40 mL
↓	TCL SVOCs	2	1000 ml
↓	Cyanide	1	250 mL

PUMPING RATES

Average Purge 150 mL/min   Average Sampling 150 mL/min

OTHER READINGS

DO (mg/L) ________   PID (ppm) ________ CO_2 (mg/L) ________

PURGE WATER DISPOSAL

On-site storage pending analysis _____

Relinquished to licensed hauler _____

Discharge in sewer (previous analysis completed) _____

Discharge on ground (previous analysis completed) _____

** The Project Manager will instruct the Field Team as to which disposal method is applicable.

COMMENTS (difficulties, condition of casing, etc.)

Well Sampling Data Sheet

Well Number: PZ-12

Client: Ish/NYSEG Site: Norwich, NY

Personnel: KG/LMG Weather: cold, flurries Date: 12/8/05

PUMPING PARAMETERS

Casing inner diameter (gal/foot):
___ 2" (0.16) ___ 4" (0.65) ___ 5" (1.02) X Other 1" (0.041)

	Previous Report	Measured Depth	Ref. Location
Height of casing reference above grade			
Depth of well from top of casing		23.13	
Water level from top of casing		8.67	
Feet of water in casing		14.46	
NAPL level from top of casing(if present)			Type:
NAPL thickness			

Min gallons of purge (feet of water X gal/ft X 3 well vols.) 14.46 × 0.041 = 0.60 g

Purging Method: X Peris. Pump ___ Bailer ___ Pos. Pump (Grundfos) ___ Other ___
Sampling Method: X Peris. Pump ___ Bailer ___ Pos. Pump (Grundfos) ___ Other ___

1/2 vol. = 0.30 g

$0.30\ g \times \frac{3700\ mL}{g} \div \frac{1\ min}{150\ mL}$

~ 7 mins.

Type of Tubing:

	Pumphead	Downhole
Tygon	X	
Teflon		
Polyethylene		X

Bailer Type: ___ Teflon ___ Stainless Steel ___ Disposable

CHEMICAL PARAMETERS

TDS = 1.6

Time	Volume (gallons)	Eh (mV)	Turbidity (NTU)	Temp (°C)	pH (SU)	Conductivity (indicate units)	D.O.
9:01	0 (0)	255	999	9.8	6.64	2.53	6.69
9:08	0.5 (0.30)	267	999	11.6	6.51	2.42	5.24
9:15	1 (0.60)	272	999	10.8	6.54	2.46	5.20
9:22	1.5 (0.90)	273	21.6	12.2	6.51	2.40	5.18
9:29	2 (1.20)	274	0.0	12.1	6.48	2.38	5.05
9:36	2.5 (1.50)	274	0.0	12.1	6.49	2.39	5.01

% Difference between final 3 readings: Temp 0.8% pH 0.5% Conductivity 0.8%
(highest-lowest)/ ((highest + lowest)/2)

Well Sampling Data Sheet

Well Number: PZ-12

SAMPLE APPEARANCE

	Turbidity	Color	Odor
Initial Volumes	high	brown	slight NAPL
Final Volumes	low	clear	none

SAMPLES COLLECTED

Sample List: 9:45

ID	Analysis	Quantity	Volume
ND-PZ12	TCL VOCs	2	40 mL
↓	TCL SVOCs	2	1000 mL
↓	Cyanide	1	250 mL

PUMPING RATES

Average Purge 150 mL/min   Average Sampling 150 mL/min

OTHER READINGS

DO (mg/L) ______   PID (ppm) ______ CO_2 (mg/L) ______

PURGE WATER DISPOSAL

On-site storage pending analysis _____

Relinquished to licensed hauler _____

Discharge in sewer (previous analysis completed) _____

Discharge on ground (previous analysis completed) _____

** The Project Manager will instruct the Field Team as to which disposal method is applicable.

COMMENTS (difficulties, condition of casing, etc.)

Well Sampling Data Sheet

Well Number: PZ13

Client: Ish/NYSEG Site: Norwich

Personnel: LMG Weather: cold, clear Date: 12/8/05

PUMPING PARAMETERS

Casing inner diameter (gal/foot):
___ 2" (0.16) ___ 4" (0.65) ___ 5" (1.02) X Other 1" (0.041)

	Previous Report	Measured Depth	Ref. Location
Height of casing reference above grade			
Depth of well from top of casing		14.~~85~~ 77 (known)	
Water level from top of casing		6.40	
Feet of water in casing		8.37	
NAPL level from top of casing(if present)			Type:
NAPL thickness			

Min gallons of purge (feet of water X gal/ft X 3 well vols.) 8.37 x 0.041 = 0.34 gal

Purging Method: X Peris. Pump ___ Bailer ___ Pos. Pump (Grundfos) ___ Other ___
Sampling Method: X Peris. Pump ___ Bailer ___ Pos. Pump (Grundfos) ___ Other ___

Type of Tubing:	Pumphead	Downhole
Tygon	silicon	
Teflon		
Polyethylene		X

1/2 vol = 0.17 gal
@ 150 mL/min =
~4 min

Bailer Type: ___ Teflon ___ Stainless Steel ___ Disposable

CHEMICAL PARAMETERS

TDS = 0.31 g/L

Time	Volume (gallons)	Eh (mV)	Turbidity (NTU)	Temp (°C)	pH (SU)	Conductivity (indicate units)	DO mg/L
16:11	0 (~~0.17~~) (well)	233	25.8	7.3	7.16	0.473	3.20
16:15	0.5 (0.17)	137	16.7	7.7	6.84	0.474	1.90
16:19	1 (0.34)	139	11.5	8.0	6.73	0.470	1.64
16:23	1.5 (.51)	142	8.9	8.1	6.69	0.468	1.57
16:27	2 (0.68)	145	6.8	8.2	6.67	0.469	1.54

% Difference between final 3 readings: (highest-lowest)/ ((highest + lowest)/2) — Temp: 2% pH: 8% Conductivity: 4%

Well Sampling Data Sheet

Well Number: PZ-13

SAMPLE APPEARANCE

	Turbidity	Color	Odor
Initial Volumes	low	clear	slight MGP
Final Volumes	low	clear	v. slight MGP

SAMPLES COLLECTED

Sample List: 1630

ID	Analysis	Quantity	Volume
NO-PZ13	TCL VOCs	2	40 mL
↓	TCL SVOCs	2	1 L
↓	Total Cn	1	200 mL

PUMPING RATES

Average Purge 150 mL/min

Average Sampling 150 mL/min

OTHER READINGS

DO (mg/L) ________ PID (ppm) ________ CO_2 (mg/L) ________

PURGE WATER DISPOSAL

On-site storage pending analysis X

Relinquished to licensed hauler _____

Discharge in sewer (previous analysis completed) _____

Discharge on ground (previous analysis completed) _____

** The Project Manager will instruct the Field Team as to which disposal method is applicable.

COMMENTS (difficulties, condition of casing, etc.)

Well Sampling Data Sheet

Well Number: PZ-14

Client: ISH/NYSEG Site: Norwich

Personnel: LMC Weather: cold, snowing 30°F 6-8" on ground Date: 12/9/05

PUMPING PARAMETERS

Casing inner diameter (gal/foot):
___ 2" (0.16) ___ 4" (0.65) ___ 5" (1.02) X Other 1" (0.041)

	Previous Report	Measured Depth	Ref. Location
Height of casing reference above grade			
Depth of well from top of casing		17.19	
Water level from top of casing		5.90	
Feet of water in casing		11.29	
NAPL level from top of casing(if present)			Type:
NAPL thickness			

Min gallons of purge (feet of water X gal/ft X 3 well vols.) 11.29 x 0.041 = 0.46 gal

Purging Method: X Peris. Pump ___Bailer ___Pos. Pump (Grundfos) ___Other___
Sampling Method: X Peris. Pump ___Bailer ___Pos. Pump (Grundfos) ___Other___

Type of Tubing:	Pumphead	Downhole
Tygon	silicon	
Teflon		
Polyethylene		X

1/2 vol = 0.23 gal @ 150 mL/min = 5.6 min

Bailer Type: ___Teflon ___Stainless Steel ___Disposable

TDS = 0.7 g/L

CHEMICAL PARAMETERS

Time	Volume (gallons)	Eh (mV)	Turbidity (NTU)	Temp (°C)	pH (SU)	Conductivity (indicate units)	DO mg/L
14:41	0 (0)	88	11.2	11.2	6.68	1.15	2.20
14:46	0.5 (0.23)	52	0.0	11.7	6.58	1.23	0.80
14:52	1 (0.46)	43	"0.0" flashing	12.0	6.57	1.24	0.81
14:57	1.5 (0.69)	41	"0.0"	11.9	6.57	1.23	0.81
15:03	2 (0.92)	39	"0.0"	12.1	6.57	1.22	0.74

% Difference between final 3 readings: (highest-lowest)/ ((highest + lowest)/2) — Temp: 1.6% pH: 0% Conductivity: 1.6%

Well Sampling Data Sheet

Well Number: PZ14

SAMPLE APPEARANCE

	Turbidity	Color	Odor
Initial Volumes	low	clear	v. slight nibp
Final Volumes			

SAMPLES COLLECTED Sample List: ______

ID	Analysis	Quantity	Volume
NO-PZ14	TCL VOCs	2	40ml
↓	TCL SVOCs	2	1 L
↓	Total Cr	1	200 ml

PUMPING RATES

Average Purge 150 mL/min Average Sampling 150 mL/min

OTHER READINGS

DO (mg/L) ______ PID (ppm) ______ CO_2 (mg/L) ______

PURGE WATER DISPOSAL

On-site storage pending analysis X

Relinquished to licensed hauler ______

Discharge in sewer (previous analysis completed) ______

Discharge on ground (previous analysis completed) ______

** The Project Manager will instruct the Field Team as to which disposal method is applicable.

COMMENTS (difficulties, condition of casing, etc.)

Well Sampling Data Sheet

Well Number: PZ-15

Client: Ishl NYSEG Site: Norwich, NY

Personnel: KG/LAG Weather: cold, snowy Date: 12/9/05

PUMPING PARAMETERS

Casing inner diameter (gal/foot):
___ 2" (0.16) ___ 4" (0.65) ___ 5" (1.02) X Other 1" (0.041)

	Previous Report	Measured Depth	Ref. Location
Height of casing reference above grade			
Depth of well from top of casing		19.29	
Water level from top of casing		5.81	
Feet of water in casing		13.48	
NAPL level from top of casing(if present)			Type:
NAPL thickness			

Min gallons of purge (feet of water X gal/ft X 3 well vols.) 13.48 x 0.041 = 0.54 g

Purging Method: X Peris. Pump ___ Bailer ___ Pos. Pump (Grundfos) ___ Other ___
Sampling Method: X Peris. Pump ___ Bailer ___ Pos. Pump (Grundfos) ___ Other ___

1/2 vol. = 0.27 g

$0.27 \times \frac{3700\ mL}{g} \div \frac{1\ min}{150\ mL}$

~7 mins.

Type of Tubing:

	Pumphead	Downhole
Tygon	X	
Teflon		
Polyethylene		X

Bailer Type: ___ Teflon ___ Stainless Steel ___ Disposable

TDS = 0.8

CHEMICAL PARAMETERS

Time	Volume (gallons)	Eh (mV)	Turbidity (NTU)	Temp (°C)	pH (SU)	Conductivity (indicate units)	D.O.
2:44	0 (0)	597	290	7.7	6.82	1.76	1.42
2:51	0.5 (0.27)	536	2.9	8.5	6.68	1.74	0.00
2:58	1 (0.54)	502	3.7	8.6	6.66	1.79	0.00
3:05	1.5 (0.81)	235	2.6	8.7	6.65	1.81	0.00
3:12	2 (1.08)	34	2.2	8.7	6.65	1.81	0.00

% Difference between final 3 readings: (highest-lowest)/ ((highest + lowest)/2) — Temp: 1.1%, pH: 0.2%, Conductivity: 1.1%

Well Sampling Data Sheet

Well Number: PZ-15

SAMPLE APPEARANCE

	Turbidity	Color	Odor
Initial Volumes	low	clear	MGP Waste
Final Volumes	low	clear	MGP Waste

SAMPLES COLLECTED Sample List: 3:25

ID	Analysis	Quantity	Volume
NO-PZ15	TCL VOCs	2	40 mL
↓	TCL SVOCs	2	1000 ml
↓	Cyanide	1	250 ml

PUMPING RATES

Average Purge 150 mL/min Average Sampling 150 mL/min

OTHER READINGS

DO (mg/L) ________ PID (ppm) ________ CO_2 (mg/L) ________

PURGE WATER DISPOSAL

On-site storage pending analysis _____

Relinquished to licensed hauler _____

Discharge in sewer (previous analysis completed) _____

Discharge on ground (previous analysis completed) _____

** The Project Manager will instruct the Field Team as to which disposal method is applicable.

COMMENTS (difficulties, condition of casing, etc.)

Well Sampling Data Sheet

Well Number: PZ-16

Client: Ish/NYSEG Site: Norwich, NY

Personnel: KG/LMG Weather: cold, sunny Date: 12/8/05

PUMPING PARAMETERS

Casing inner diameter (gal/foot):

___ 2" (0.16) ___ 4" (0.65) ___ 5" (1.02) X Other 1" (0.041)

	Previous Report	Measured Depth	Ref. Location
Height of casing reference above grade			
Depth of well from top of casing		14.98	
Water level from top of casing		10.30	
Feet of water in casing		4.68	
NAPL level from top of casing(if present)			Type:
NAPL thickness			

Min gallons of purge (feet of water X gal/ft X 3 well vols.) 4.68 x 0.041 = 0.18 g

Purging Method: X Peris. Pump ___Bailer ___Pos. Pump (Grundfos) ___Other___

Sampling Method: X Peris. Pump ___Bailer ___Pos. Pump (Grundfos) ___Other___

1/2 vol. = 0.09 g

$0.09\ g \times \frac{3700\ mL}{g} \div \frac{1\ min}{150\ mL}$

~2 mins.

Type of Tubing:	Pumphead	Downhole
Tygon	X	
Teflon		
Polyethylene		X

Bailer Type: ____Teflon ____Stainless Steel ____Disposable

CHEMICAL PARAMETERS

TDS = 1.5

Time	Volume (gallons)	Eh (mV)	Turbidity (NTU)	Temp (°C)	pH (SU)	Conductivity (indicate units)	D.O.
12:10	0 (0)	236	22.9	10.4	6.85	2.32	7.97
12:12	0.5 (0.09)	235	21.7	11.0	6.54	2.31	6.36
12:14	1 (0.18)	236	19.0	11.4	6.50	2.40	6.18
12:16	1.5 (0.27)	239	12.5	11.6	6.48	2.43	6.09
12:18	2 (0.36)	240	9.7	11.7	6.49	2.42	6.09

% Difference between final 3 readings: (highest-lowest)/ ((highest + lowest)/2) Temp: 2.6% pH: 0.3% Conductivity: 1.2%

Well Sampling Data Sheet

Well Number: PZ16

SAMPLE APPEARANCE

	Turbidity	Color	Odor
Initial Volumes	low	clear	none
Final Volumes	low	clear	none

SAMPLES COLLECTED

Sample List: 12:30

ID	Analysis	Quantity	Volume
NO-PZ16	TCL VOCs	2	40 mL
↓	TCL SVOCs	2	1000 mL
↓	Cyanide	1	250 mL

PUMPING RATES

Average Purge 150 mL/min

Average Sampling 150 mL/min

OTHER READINGS

DO (mg/L) ________ PID (ppm) ________ CO_2 (mg/L) ________

PURGE WATER DISPOSAL

On-site storage pending analysis _____

Relinquished to licensed hauler _____

Discharge in sewer (previous analysis completed) _____

Discharge on ground (previous analysis completed) _____

** The Project Manager will instruct the Field Team as to which disposal method is applicable.

COMMENTS (difficulties, condition of casing, etc.)

Well Sampling Data Sheet

Well Number: PZ-17

Client: Ish/NYSEG   Site: Norwich, NY

Personnel: KG/LMG   Weather: Cold, Sunny   Date: 12/8/05

PUMPING PARAMETERS

Casing inner diameter (gal/foot):
___ 2" (0.16)   ___ 4" (0.65)   ___ 5" (1.02)   X Other 1" (0.041)

	Previous Report	Measured Depth	Ref. Location
Height of casing reference above grade			
Depth of well from top of casing		15.18	
Water level from top of casing		9.32	
Feet of water in casing		5.86	
NAPL level from top of casing(if present)			Type:
NAPL thickness			

Min gallons of purge (feet of water X gal/ft X 3 well vols.) 5.86 x 0.041 = 0.24 g

Purging Method: X Peris. Pump ___ Bailer ___ Pos. Pump (Grundfos) ___ Other ___
Sampling Method: X Peris. Pump ___ Bailer ___ Pos. Pump (Grundfos) ___ Other ___

½ vol. = 0.12 g

$0.12 g \times \frac{3780 mL}{g} \div \frac{1 min}{150 mL}$

~ 3 mins.

Type of Tubing:	Pumphead	Downhole
Tygon	X	
Teflon		
Polyethylene		X

Bailer Type: ___ Teflon ___ Stainless Steel ___ Disposable

TDS = 0.42

CHEMICAL PARAMETERS

Time	Volume (gallons)	Eh (mV)	Turbidity (NTU)	Temp (°C)	pH (SU)	Conductivity (indicate units)	DO
10:32	0 (0)	258	244	9.6	6.90	0.658	6.73
10:35	0.5 (0.12)	123	197	10.7	6.84	0.686	2.66
10:38	1 (0.24)	69	210	10.6	6.82	0.699	2.85
10:41	1.5 (0.36)	63	68	10.6	6.82	0.697	2.91
10:44	2 (0.48)	64	21.2	10.5	6.81	0.697	2.90

% Difference between final 3 readings: (highest-lowest)/ ((highest + lowest)/2)   0.9%   0.1%   0.3%

Well Sampling Data Sheet

Well Number: P2-17

SAMPLE APPEARANCE

	Turbidity	Color	Odor
Initial Volumes	low	clear	none
Final Volumes	low	clear	none

SAMPLES COLLECTED Sample List: 10:55

ID	Analysis	Quantity	Volume
NO-PZ17	TCL VOCs	2	40 mL
↓	TCL SVOCs	2	1000 mL
↓	Cyanide	1	250 mL

PUMPING RATES

Average Purge 150 mL/min Average Sampling 150 mL/min

OTHER READINGS

DO (mg/L) _____ PID (ppm) _____ CO_2 (mg/L) _____

PURGE WATER DISPOSAL

On-site storage pending analysis _____
Relinquished to licensed hauler _____
Discharge in sewer (previous analysis completed) _____
Discharge on ground (previous analysis completed) _____

** The Project Manager will instruct the Field Team as to which disposal method is applicable.

COMMENTS (difficulties, condition of casing, etc.)

Well Sampling Data Sheet

Well Number: PZ18

Client: ISh/NYSEG Site: Norwich

Personnel: LMG Weather: cold, snowing ~6" on ground 25°F Date: 12/9/05

PUMPING PARAMETERS

Casing inner diameter (gal/foot):
__ 2" (0.16) __ 4" (0.65) __ 5" (1.02) X Other 1" (0.041)

	Previous Report	Measured Depth	Ref. Location
Height of casing reference above grade			mark on pvc (north side)
Depth of well from top of casing		17.10	
Water level from top of casing		5.18	
Feet of water in casing		11.92	
NAPL level from top of casing(if present)			Type:
NAPL thickness			

Min gallons of purge (feet of water X gal/ft X 3 well vols.) 11.92 x 0.041 = 0.5 gal

Purging Method: X Peris. Pump __ Bailer __ Pos. Pump (Grundfos) __ Other __
Sampling Method: X Peris. Pump __ Bailer __ Pos. Pump (Grundfos) __ Other __

Type of Tubing:

	Pumphead	Downhole
Tygon	silicon	
Teflon		
Polyethylene		X

1/2 vol = 0.25 gal
@ 150 mL/min
= ~6 min

Bailer Type: __ Teflon __ Stainless Steel __ Disposable

CHEMICAL PARAMETERS

Time	Volume (gallons)	Eh (mV)	Turbidity (NTU)	Temp (°C)	pH (SU)	Conductivity (indicate units)	DO mg/L
9:53	0 (0)	188	11.2	9.6	7.08	1.16	4.55
9:59	0.5 (0.25)	198	7.1	9.7	6.85	1.17	2.62
10:05	1 (0.5)	210	6.8	9.4	6.84	1.16	2.62
10:11	1.5 (0.75)	219	5.0	9.6	6.84	1.15	2.57
10:17	2 (1)	232	4.2	9.3	6.85	1.15	2.61

% Difference between final 3 readings: (highest-lowest)/ ((highest + lowest)/2)

	Temp	pH	Conductivity
	3%	1%	0.9%

Well Sampling Data Sheet

Well Number: PZ18

SAMPLE APPEARANCE

	Turbidity	Color	Odor
Initial Volumes	low	clear	none
Final Volumes	"	"	"

SAMPLES COLLECTED Sample List: 10:25

ID	Analysis	Quantity	Volume
NO-PZ18	TCL VOCs	2	40 mL
↓	TCL SVOCs	2	1 L
↓	Total Cn	1	200 mL

PUMPING RATES

Average Purge 150 mL/min Average Sampling 150 mL/min

OTHER READINGS

DO (mg/L) ________ PID (ppm) ________ CO_2 (mg/L) ________

PURGE WATER DISPOSAL

On-site storage pending analysis X

Relinquished to licensed hauler ____

Discharge in sewer (previous analysis completed) ____

Discharge on ground (previous analysis completed) ____

** The Project Manager will instruct the Field Team as to which disposal method is applicable.

COMMENTS (difficulties, condition of casing, etc.)

Well Sampling Data Sheet

Well Number: PZ19

Client: ISh/NYSEG Site: Norwich

Personnel: LMG Weather: cold, snowing 25°F ~6" on ground Date: 12/9/05

PUMPING PARAMETERS

Casing inner diameter (gal/foot):
___ 2" (0.16) ___ 4" (0.65) ___ 5" (1.02) X Other 1" (0.041)

	Previous Report	Measured Depth	Ref. Location
Height of casing reference above grade			
Depth of well from top of casing		18.03	
Water level from top of casing		5.58	
Feet of water in casing		12.45	
NAPL level from top of casing(if present)			Type:
NAPL thickness			

Min gallons of purge (feet of water X gal/ft X 3 well vols.) 12.45 x 0.041 = 0.5 gal

Purging Method: ___Peris. Pump ___Bailer ___Pos. Pump (Grundfos) ___Other___
Sampling Method: ___Peris. Pump ___Bailer ___Pos. Pump (Grundfos) ___Other___

Type of Tubing:	Pumphead	Downhole
Tygon		
Teflon		
Polyethylene		

1/2 vol = 0.25 gal @ 150 ml/min = 6 min

Bailer Type: ___Teflon ___Stainless Steel ___Disposable

CHEMICAL PARAMETERS

Time	Volume (gallons)	Eh (mV)	Turbidity (NTU)	Temp (°C)	pH (SU)	Conductivity (indicate units)
	0(0)	Water quality meter not working.				
	0.5(0.25)	Called Pine - unable to help.				
	1(0.5)		Error: WST, CHE.			
	1.5(0.75)					
	2(1.0)					
	3(1.5)					
8:55	Sampled after removing ~1.75 gallons					

% Difference between final 3 readings:
(highest-lowest)/ ((highest + lowest)/2)

Well Sampling Data Sheet

Well Number: PZ19

SAMPLE APPEARANCE

	Turbidity	Color	Odor
Initial Volumes	low	clear	slight MGP
Final Volumes	"	"	"

SAMPLES COLLECTED

Sample List: 8:55

ID	Analysis	Quantity	Volume
NO-PZ19	TCL VOCs	2	40ml
↓	TCL SVOCs	2	1L
↓	Total Cn	1	200ml

PUMPING RATES

Average Purge 150 mL/min

Average Sampling 150 mL/min

OTHER READINGS

DO (mg/L) ________ PID (ppm) ________ CO_2 (mg/L) ________

PURGE WATER DISPOSAL

On-site storage pending analysis X

Relinquished to licensed hauler _____

Discharge in sewer (previous analysis completed) _____

Discharge on ground (previous analysis completed) _____

** The Project Manager will instruct the Field Team as to which disposal method is applicable.

COMMENTS (difficulties, condition of casing, etc.)

Well Sampling Data Sheet

Well Number: PZ20

Client: ISh/NYSEG Site: NORWICH

Personnel: LMG Weather: cold, flurries Date: 12/7/05

PUMPING PARAMETERS

Casing inner diameter (gal/foot):
___ 2" (0.16) ___ 4" (0.65) ___ 5" (1.02) X Other 1" (0.041)

	Previous Report	Measured Depth	Ref. Location
Height of casing reference above grade			
Depth of well from top of casing		18.74	
Water level from top of casing		9.65	
Feet of water in casing		9.09	
NAPL level from top of casing(if present)			Type:
NAPL thickness			

Min gallons of purge (feet of water X gal/ft X 3 well vols.) 9.09x0.041 = 0.37 gal = 1 vol

Purging Method: X Peris. Pump ___ Bailer ___ Pos. Pump (Grundfos) ___ Other ___
Sampling Method: X Peris. Pump ___ Bailer ___ Pos. Pump (Grundfos) ___ Other ___

Type of Tubing:

	Pumphead	Downhole
Tygon	Silicon	
Teflon		
Polyethylene		X

1/2 vol = 0.185 gal @ 150 mL/min = 4.5 min

Bailer Type: ___ Teflon ___ Stainless Steel ___ Disposable

CHEMICAL PARAMETERS

Time	Volume (gallons)	Eh (mV)	Turbidity (NTU)	Temp (°C)	pH (SU)	Conductivity (indicate units)	DO mg/L
9:20	0 (0)	296	5.4	10.4	6.76	2.24	1.93
9:24	0.5 (0.185)	295	5.0	11.0	6.78	2.19	0.50
9:29	1 (0.37)	294	7.8	11.7	6.81	2.16	0.28
9:33	1.5 (0.555)	294	9.9	12.3	6.81	2.14	0.23
9:38	2 (0.74)	293	11.9	12.4	6.81	2.13	0.18

% Difference between final 3 readings: (highest-lowest)/ ((highest + lowest)/2) — Temp: 5.8% pH: 0% Conductivity: 1.4%

Well Sampling Data Sheet

Well Number: PZ20

SAMPLE APPEARANCE

	Turbidity	Color	Odor
Initial Volumes	Low	clear	slight mgp
Final Volumes	Low	clear	very slight mgp

SAMPLES COLLECTED Sample List: ________

ID	Analysis	Quantity	Volume
NO-PZ20	TCL VOCs	2	40 mL
↓	TCL SVOCs	2	1 L
↓	Total Cr	1	200 mL

PUMPING RATES

Average Purge 150 mL/min Average Sampling 150 mL/min

OTHER READINGS

DO (mg/L) ________ PID (ppm) ________ CO_2 (mg/L) ________

PURGE WATER DISPOSAL

On-site storage pending analysis X

Relinquished to licensed hauler _____

Discharge in sewer (previous analysis completed) _____

Discharge on ground (previous analysis completed) _____

** The Project Manager will instruct the Field Team as to which disposal method is applicable.

COMMENTS (difficulties, condition of casing, etc.)

Well Sampling Data Sheet

Well Number: PE21

Client: Ish/NYSEG Site: Norwich

Personnel: LMG Weather: cold, sunny Date: 12/7/05

PUMPING PARAMETERS

Casing inner diameter (gal/foot):

___ 2" (0.16) ___ 4" (0.65) ___ 5" (1.02) X Other 1" (0.041)

	Previous Report	Measured Depth	Ref. Location
Height of casing reference above grade			
Depth of well from top of casing		17.84	
Water level from top of casing		7.23	
Feet of water in casing		10.61	
NAPL level from top of casing(if present)			Type:
NAPL thickness			

Min gallons of purge (feet of water X gal/ft X 3 well vols.) 10.61 x 0.041 = 0.4 gal = 1 vol.

Purging Method: X Peris. Pump ___ Bailer ___ Pos. Pump (Grundfos) ___ Other ___

Sampling Method: X Peris. Pump ___ Bailer ___ Pos. Pump (Grundfos) ___ Other ___

Type of Tubing:	Pumphead	Downhole
Tygon	Silicon	
Teflon		
Polyethylene		X

1/2 vol = 0.2 gal @ 150 mL/min = ~5 min

Bailer Type: ___ Teflon ___ Stainless Steel ___ Disposable

CHEMICAL PARAMETERS

Time	Volume (gallons)	Eh (mV)	Turbidity (NTU)	Temp (°C)	pH (SU)	Conductivity (indicate units)	DO mg/L
10:21	0 (0)	-6	37.7	10.4	6.94	2.33	3.17
10:26	0.5 (0.2)	-55	18.3	11.1	6.93	2.46	0.48
10:31	1 (0.4)	-93	12.5	11.4	6.93	2.49	0.22
10:36	1.5 (0.6)	-120	3.6	11.1	6.93	2.53	0.12
10:41	2 (0.8)	-136	2.7	11.0	6.93	2.53	0.07

% Difference between final 3 readings: (highest-lowest)/ ((highest + lowest)/2) Temp: 3.6% pH: 0% Conductivity: 1.6%

$\frac{0.04}{2.51}$

Well Sampling Data Sheet

Well Number: PZ21

SAMPLE APPEARANCE

	Turbidity	Color	Odor
Initial Volumes	low	clear	slight MGP
Final Volumes	low	clear	v. slight MGP

SAMPLES COLLECTED

Sample List: ______

ID	Analysis	Quantity	Volume
NO-PZ21	TCL VOCs	2	40mL
↓	TCL SVOCs	2	1L
↓	Total Cr	1	200mL

PUMPING RATES

Average Purge 150 mL/min   Average Sampling 150 mL/min

OTHER READINGS

DO (mg/L) ______   PID (ppm) ______ CO_2 (mg/L) ______

PURGE WATER DISPOSAL

On-site storage pending analysis X

Relinquished to licensed hauler _____

Discharge in sewer (previous analysis completed) _____

Discharge on ground (previous analysis completed) _____

** The Project Manager will instruct the Field Team as to which disposal method is applicable.

COMMENTS (difficulties, condition of casing, etc.)

Well Sampling Data Sheet

Well Number: PZ 22

Client: ISh/AMSEG Site: NORWICH

Personnel: LMG Weather: cold, flurries Date: 12/7/05

PUMPING PARAMETERS

Casing inner diameter (gal/foot):

___ 2" (0.16) ___ 4" (0.65) ___ 5" (1.02) X Other 1" (0.041)

	Previous Report	Measured Depth	Ref. Location
Height of casing reference above grade			
Depth of well from top of casing		17.71	
Water level from top of casing	~~17.~~ LMG	6.58	
Feet of water in casing		11.13	
NAPL level from top of casing(if present)			Type:
NAPL thickness			

Min gallons of purge (feet of water X gal/ft X 3 well vols.) 11.13 x 0.041 = 0.46 gal = 1 vol

Purging Method: X Peris. Pump ___ Bailer ___ Pos. Pump (Grundfos) ___ Other ___

Sampling Method: X Peris. Pump ___ Bailer ___ Pos. Pump (Grundfos) ___ Other ___

Type of Tubing:	Pumphead	Downhole
Tygon	silicon	
Teflon		
Polyethylene		X

1/2 vol = 0.23 gal @ 150 mL/min = ~ 5.6 min

Bailer Type: ___ Teflon ___ Stainless Steel ___ Disposable

CHEMICAL PARAMETERS

Time (started LMG)	Volume (gallons)	Eh (mV)	Turbidity (NTU)	Temp (°C)	pH (SU)	Conductivity (indicate units)	DO mg/L
14 ~~13~~:24	0 (0)	8	"-5.0"	10.3	6.95	2.29	3.51
14 ~~13~~:29	0.5 (0.23)	-46	280	11.4	6.91	2.47	0.49
14 ~~13~~:33	1 (0.46)	-66	181	11.1	6.90	2.48	0.27
14 ~~13~~:38	1.5 (0.69)	-85	96.7	11.0	6.90	2.49	0.20
14 ~~13~~:44	2 (0.92)	-105	67.7	11.1	6.89	2.49	0.12

% Difference between final 3 readings: (highest-lowest)/ ((highest + lowest)/2) — Temp: 0.9% — pH: 1.5% — Conductivity: 0.4%

Well Sampling Data Sheet

Well Number: PZ22

difficult to start pumping/flow due to silt

SAMPLE APPEARANCE

	Turbidity	Color	Odor
Initial Volumes	mod-high	light brown	slight MGP
Final Volumes	Low	clear	v. slight MGP

SAMPLES COLLECTED Sample List: 13:50

ID	Analysis	Quantity	Volume
NO-PZ22	TCLVOCs	2	40 mL
↓	TCLSVOCs	2	1 L
↓	Total Cn	1	200 mL

PUMPING RATES

Average Purge 150 mL/min Average Sampling 150 mL/min

OTHER READINGS

DO (mg/L) ________ PID (ppm) ________ CO_2 (mg/L) ________

PURGE WATER DISPOSAL

On-site storage pending analysis X

Relinquished to licensed hauler _____

Discharge in sewer (previous analysis completed) _____

Discharge on ground (previous analysis completed) _____

** The Project Manager will instruct the Field Team as to which disposal method is applicable.

COMMENTS (difficulties, condition of casing, etc.)

Well Sampling Data Sheet

Well Number: PZ23

Client: ISN/NYSEG Site: Norwich

Personnel: LWG Weather: cold, snowing 6-8" on ground 30°F Date: 12/9/05

PUMPING PARAMETERS

Casing inner diameter (gal/foot):
___ 2" (0.16) ___ 4" (0.65) ___ 5" (1.02) X Other 1" (0.041)

	Previous Report	Measured Depth	Ref. Location
Height of casing reference above grade			
Depth of well from top of casing		15.72	
Water level from top of casing		6.94	
Feet of water in casing		8.78	
NAPL level from top of casing(if present)			Type:
NAPL thickness			

Min gallons of purge (feet of water X gal/ft X 3 well vols.) 8.78 x 0.041 = 0.36 gal

Purging Method: X Peris. Pump ___ Bailer ___ Pos. Pump (Grundfos) ___ Other ___
Sampling Method: X Peris. Pump ___ Bailer ___ Pos. Pump (Grundfos) ___ Other ___

Type of Tubing:

	Pumphead	Downhole
Tygon	Silicon	
Teflon		
Polyethylene		X

1/2 vol = 0.18 gal @ 150 ml/min = 4.4 min

Bailer Type: ___ Teflon ___ Stainless Steel ___ Disposable

CHEMICAL PARAMETERS

TDS = 0.40 g/L

Time	Volume (gallons)	Eh (mV)	Turbidity (NTU)	Temp (°C)	pH (SU)	Conductivity (indicate units)	DO mg/L
3:39	0(0)	121	139	10.6	7.04	0.626	2.57
3:43	0.5(0.18)	135	20.0	10.5	6.86	0.462	1.79
3:47	1(0.36)	144	12.2	10.4	6.77	0.432	2.16
3:52	1.5(0.54)	156	4.1	10.4	6.68	0.396	2.50
3:57	2(0.72)	165	0.1	10.3	6.64	0.380	2.71
4:01	2.5(0.9)	172	0.0	10.4	6.62	0.372	2.84

% Difference between final 3 readings: (highest-lowest)/ ((highest + lowest)/2) — Temp: 1% pH: 9% Conductivity: 6%

Well Sampling Data Sheet

Well Number: PZ23

SAMPLE APPEARANCE

	Turbidity	Color	Odor
Initial Volumes	low	slightly cloudy	none
Final Volumes	"	clear	"

SAMPLES COLLECTED

Sample List: 1600

ID	Analysis	Quantity	Volume
NO-PZ23	TCL VOCs	2	40 mL
↓	TCL SVOCs	2	1 L
↓	Total Cu	1	200 mL

PUMPING RATES

Average Purge 150 mL/min

Average Sampling 150 mL/min

OTHER READINGS

DO (mg/L) ________ PID (ppm) ________ CO_2 (mg/L) ________

PURGE WATER DISPOSAL

On-site storage pending analysis X

Relinquished to licensed hauler _____

Discharge in sewer (previous analysis completed) _____

Discharge on ground (previous analysis completed) _____

** The Project Manager will instruct the Field Team as to which disposal method is applicable.

COMMENTS (difficulties, condition of casing, etc.)

Well Sampling Data Sheet

Well Number: PZ-24

Client: Ish / NYSEG Site: Norwich, NY

Personnel: KG / LMG Weather: cold, partly cloudy, snowy Date: 12/9/05

PUMPING PARAMETERS

Casing inner diameter (gal/foot):
___ 2" (0.16) ___ 4" (0.65) ___ 5" (1.02) _X_ Other 1" (0.041)

	Previous Report	Measured Depth	Ref. Location
Height of casing reference above grade			
Depth of well from top of casing		20.27	
Water level from top of casing		9.35	
Feet of water in casing		10.92	
NAPL level from top of casing(if present)			Type:
NAPL thickness			

Min gallons of purge (feet of water X gal/ft X 3 well vols.) 10.92 × 0.041 = 0.44 g

Purging Method: _X_ Peris. Pump ___ Bailer ___ Pos. Pump (Grundfos) ___ Other___
Sampling Method: _X_ Peris. Pump ___ Bailer ___ Pos. Pump (Grundfos) ___ Other___

Type of Tubing:

	Pumphead	Downhole
Tygon	X	
Teflon		
Polyethylene		x

1/2 vol. = 0.22 g
0.22 g × 3700 mL / g ÷ 1 min / 150 mL
~ 5 mins

Bailer Type: ___ Teflon ___ Stainless Steel ___ Disposable

CHEMICAL PARAMETERS

TDS = 1.3

Time	Volume (gallons)	Eh (mV)	Turbidity (NTU)	Temp (°C)	pH (SU)	Conductivity (indicate units)	D.O.
11:29	0 (0)	594	246	8.6	6.86	2.07	2.30
11:34	0.5 (0.22)	594	79.2	8.5	6.76	1.99	0.41
11:39	1 (0.44)	597	36.5	8.6	6.73	1.99	0.31
11:44	1.5 (0.66)	598	29.1	8.7	6.71	2.01	0.18
11:49	2 (0.88)	598	16.3	8.7	6.71	2.01	0.12

% Difference between final 3 readings: Temp 1.1% pH 0.3% Conductivity 1.0%
(highest-lowest)/ ((highest + lowest)/2)

Well Sampling Data Sheet

Well Number: PZ-24

SAMPLE APPEARANCE	Turbidity	Color	Odor
Initial Volumes	low	clear	NAPL
Final Volumes	low	Clear	NAPL

SAMPLES COLLECTED Sample List: 12:00

ID	Analysis	Quantity	Volume
NO-PZ24	TCL VOCs	2	40 mL
↓	TCL SVOCs	2	1000 mL
	Cyanide	1	250 mL

PUMPING RATES

Average Purge 150 mL/min Average Sampling 150 mL/min

OTHER READINGS

DO (mg/L) ________ PID (ppm) ________ CO_2 (mg/L) ________

PURGE WATER DISPOSAL

On-site storage pending analysis _____

Relinquished to licensed hauler _____

Discharge in sewer (previous analysis completed) _____

Discharge on ground (previous analysis completed) _____

** The Project Manager will instruct the Field Team as to which disposal method is applicable.

COMMENTS (difficulties, condition of casing, etc.)

Well Sampling Data Sheet

Well Number: PZ-25

Client: Ish/NYSEG Site: Norwich, NY

Personnel: KG / LMG Weather: cold, snowy Date: 12/9/05

PUMPING PARAMETERS

Casing inner diameter (gal/foot):
___ 2" (0.16) ___ 4" (0.65) ___ 5" (1.02) X Other 1" (0.041)

	Previous Report	Measured Depth	Ref. Location
Height of casing reference above grade			
Depth of well from top of casing		20.15	
Water level from top of casing		8.84	
Feet of water in casing		11.31	
NAPL level from top of casing(if present)			Type:
NAPL thickness			

Min gallons of purge (feet of water X gal/ft X 3 well vols.) 11.31 x 0.041 = 0.46 g

Purging Method: X Peris. Pump ___ Bailer ___ Pos. Pump (Grundfos) ___ Other ___
Sampling Method: X Peris. Pump ___ Bailer ___ Pos. Pump (Grundfos) ___ Other ___

1/2 vol. = 0.23 g
$0.23\,g \times \frac{3700\,mL}{g} \div \frac{1\,min}{150\,mL}$
~ 6 mins.

Type of Tubing:

	Pumphead	Downhole
Tygon	X	
Teflon		
Polyethylene		X

Bailer Type: ___ Teflon ___ Stainless Steel ___ Disposable

CHEMICAL PARAMETERS

TDS = 1.1

Time	Volume (gallons)	Eh (mV)	Turbidity (NTU)	Temp (°C)	pH (SU)	Conductivity (indicate units)	D.O.
9:47	0 (0)	608	999	7.5	6.81	1.79	3.71
9:53	0.5 (0.23)	608	577	8.1	6.66	1.78	0.00
9:59	1 (0.46)	611	74.2	8.1	6.65	1.79	0.00
10:05	1.5 (0.69)	610	26.8	8.3	6.64	1.78	0.00
10:11	2 (0.92)	609	31.7	8.2	6.63	1.79	0.01

% Difference between final 3 readings: (highest-lowest)/ ((highest + lowest)/2) — Temp: 2.4% pH: 0.3% Conductivity: 0.6%

Well Sampling Data Sheet

Well Number: P2-25

SAMPLE APPEARANCE

	Turbidity	Color	Odor
Initial Volumes	high	light gray	NAPL
Final Volumes	low	clear	NAPL

SAMPLES COLLECTED

Sample List: 10:20

ID	Analysis	Quantity	Volume
NO-P225	TCL VOCs	2	40 ml
↓	TCL SVOCs	2	1000 mL
↓	Cyanide	1	250 mL

PUMPING RATES

Average Purge 150 mL/min

Average Sampling 150 mL/min

OTHER READINGS

DO (mg/L) ________

PID (ppm) ________

CO_2 (mg/L) ________

PURGE WATER DISPOSAL

On-site storage pending analysis _____

Relinquished to licensed hauler _____

Discharge in sewer (previous analysis completed) _____

Discharge on ground (previous analysis completed) _____

** The Project Manager will instruct the Field Team as to which disposal method is applicable.

COMMENTS (difficulties, condition of casing, etc.)

Well Sampling Data Sheet

Well Number: P226

Client: Ish/NYSEG Site: Norwich

Personnel: LMG Weather: Cold, flurries, windy Date: 12/7/05

PUMPING PARAMETERS

Casing inner diameter (gal/foot):

___ 2" (0.16) ___ 4" (0.65) ___ 5" (1.02) X Other 1" (0.041)

	Previous Report	Measured Depth	Ref. Location
Height of casing reference above grade			
Depth of well from top of casing		23.02	
Water level from top of casing		9.41	
Feet of water in casing		13.61	
NAPL level from top of casing(if present)			Type:
NAPL thickness			

Min gallons of purge (feet of water X gal/ft X 3 well vols.) 13.61 x 0.041 = 0.55 gal

Purging Method: X Peris. Pump ___Bailer ___Pos. Pump (Grundfos) ___Other___
Sampling Method: X Peris. Pump ___Bailer ___Pos. Pump (Grundfos) ___Other___

Type of Tubing:

	Pumphead	Downhole
Tygon	silicon	
Teflon		
Polyethylene		X

1/2 vol = 0.275 gal
@ 150 ml/min
= 6.8 min

Bailer Type: ___Teflon ___Stainless Steel ___Disposable

CHEMICAL PARAMETERS

Time	Volume (gallons)	Eh (mV)	Turbidity (NTU)	Temp (°C)	pH (SU)	Conductivity (indicate units)	DO mg/L
14:34	0 (0)	192	22.8	12.6	6.75	1.48	3.21
14:41	0.5 (0.275)	193	5.3	13.0	6.70	1.66	1.27
14:48	1 (0.55)	199	3.1	12.8	6.69	1.71	1.18
14:55	1.5 (0.825)	207	1.6	13.3	6.67	1.75	1.14
15:02	2 (1.1)	209	1.0	13.5	6.67	1.82	1.18

% Difference between final 3 readings: (highest-lowest)/ ((highest + lowest)/2) — Temp: 5% — pH: 3% — Conductivity: 6%

Well Sampling Data Sheet

Well Number: PZ26

SAMPLE APPEARANCE

	Turbidity	Color	Odor
Initial Volumes	Low	clear	none
Final Volumes	low	clear	none

SAMPLES COLLECTED

Sample List: 15:05

ID	Analysis	Quantity	Volume
NO-PZ26	TCL VOCs	2	40mL
↓	TCL SVOCs	2	1L
↓	Total Cr	1	200mL

PUMPING RATES

Average Purge 150 mL/min   Average Sampling 150 mL/min

OTHER READINGS

DO (mg/L) ________   PID (ppm) ________ CO_2 (mg/L) ________

PURGE WATER DISPOSAL

On-site storage pending analysis X

Relinquished to licensed hauler _____

Discharge in sewer (previous analysis completed) _____

Discharge on ground (previous analysis completed) _____

** The Project Manager will instruct the Field Team as to which disposal method is applicable.

COMMENTS (difficulties, condition of casing, etc.)

Well Sampling Data Sheet

Well Number: PZ27

Client: Ish/NYSEG Site: Norwich

Personnel: LMG Weather: cold, clear (5°F) Date: 12/8/05

PUMPING PARAMETERS

Casing inner diameter (gal/foot):
___ 2" (0.16) ___ 4" (0.65) ___ 5" (1.02) X Other 1" (0.041)

	Previous Report	Measured Depth	Ref. Location
Height of casing reference above grade			
Depth of well from top of casing		23.41	
Water level from top of casing		8.61	
Feet of water in casing		14.8	
NAPL level from top of casing(if present)			Type:
NAPL thickness			

Min gallons of purge (feet of water X gal/ft X 3 well vols.) 14.8 x 0.041 = 0.6 gal = 1 vol

Purging Method: X Peris. Pump ___ Bailer ___ Pos. Pump (Grundfos) ___ Other___
Sampling Method: X Peris. Pump ___ Bailer ___ Pos. Pump (Grundfos) ___ Other___

Type of Tubing:	Pumphead	Downhole
Tygon	silicon	
Teflon		
Polyethylene		X

1/2 vol = 0.3 gal
@ 150 mL/min
= 7.4 min

Bailer Type: ___ Teflon ___ Stainless Steel ___ Disposable

TDS = 0.33 g/L
0.44

CHEMICAL PARAMETERS

Time	Volume (gallons)	Eh (mV)	Turbidity (NTU)	Temp (°C)	pH (SU)	Conductivity (indicate units)	DO mg/L
9:01	0 (0)	194	81.4	8.5	7.30	0.508	0.27
9:08	0.5 (0.3)	191	51.7	10.3	6.93	0.674	0.00
9:16	1 (0.6)	190	13.3	11.3	6.80	0.763	0.00
9:23	1.5 (0.9)	191	3.3	11.4	6.75	0.835	0.00
9:30	2 (1.2)	192	1.5	11.3	6.72	0.869	0.00
9:38	2.5 (1.5)	193	0.7	11.1	6.70	0.896	0.00

% Difference between final 3 readings: (highest-lowest)/ ((highest + lowest)/2)

Temp: 2.6% pH: 7% Conductivity: 7%

0.061
~~0.815~~ 0.86

Well Sampling Data Sheet

Well Number: PZ27

SAMPLE APPEARANCE

	Turbidity	Color	Odor
Initial Volumes	low	v. light brown	none
Final Volumes	low	clear	none

SAMPLES COLLECTED

Sample List: 9:40

ID	Analysis	Quantity	Volume
NO-PZ27	TCL VOCs	2	40 mL
↓	TCL SVOCs	2	1L
↓	Total Cr	1	200 mL

SVOC portion resampled on 12/12/05 at 15:45 ~~14:10~~ by KG
Both 1L jars broke during shipment.

PUMPING RATES

Average Purge 150 mL/min   Average Sampling 150 mL/min

OTHER READINGS

DO (mg/L) ________   PID (ppm) ________ CO_2 (mg/L) ________

PURGE WATER DISPOSAL

On-site storage pending analysis X

Relinquished to licensed hauler _____

Discharge in sewer (previous analysis completed) _____

Discharge on ground (previous analysis completed) _____

** The Project Manager will instruct the Field Team as to which disposal method is applicable.

COMMENTS (difficulties, condition of casing, etc.)

Well Sampling Data Sheet

Well Number: PZ-28

Client: ISH/NYSEG Site: Norwich, NY

Personnel: KG/LMG Weather: cold, snowy Date: 12/9/05

PUMPING PARAMETERS

Casing inner diameter (gal/foot):
___ 2" (0.16) ___ 4" (0.65) ___ 5" (1.02) x Other 1" (0.041)

	Previous Report	Measured Depth	Ref. Location
Height of casing reference above grade			
Depth of well from top of casing		17.27	
Water level from top of casing		5.14	
Feet of water in casing		12.13	
NAPL level from top of casing(if present)			Type:
NAPL thickness			

Min gallons of purge (feet of water X gal/ft X 3 well vols.) 12.13 x 0.041 = 0.50

Purging Method: X Peris. Pump ___ Bailer ___ Pos. Pump (Grundfos) ___ Other ___
Sampling Method: X Peris. Pump ___ Bailer ___ Pos. Pump (Grundfos) ___ Other ___

Type of Tubing:

	Pumphead	Downhole
Tygon	X	
Teflon		
Polyethylene		X

1/2 vol. = 0.25
0.25 x 3700 mL / 1g ÷ 1 min / 150 mL
~6 mins

Bailer Type: ___ Teflon ___ Stainless Steel ___ Disposable

CHEMICAL PARAMETERS

TDS = 1.0

Time	Volume (gallons)	Eh (mV)	Turbidity (NTU)	Temp (°C)	pH (SU)	Conductivity (indicate units)	D.O.
8:21	0(0)	704	29.1	8.1	6.73	1.52	3.11
8:27	0.5(0.25)	584	10.5	8.3	6.64	1.51	0.00
8:33	1(0.50)	661	8.1	8.5	6.61	1.51	0.00
8:39	1.5(0.75)	643	5.3	8.6	6.61	1.52	0.00
8:45	2(1.00)	634	4.6	8.5	6.61	1.52	0.00

% Difference between final 3 readings: 1.2% 0% 0.7%
(highest-lowest)/ ((highest + lowest)/2)

Well Sampling Data Sheet

Well Number: PZ-28

SAMPLE APPEARANCE

	Turbidity	Color	Odor
Initial Volumes	low	clear	NAPL
Final Volumes	low	clear	NAPL

SAMPLES COLLECTED Sample List: 8:55

ID	Analysis	Quantity	Volume
NO-PZ28	TCL VOCs	2	40 mL
↓	TCL SVOCs	2	1000 mL
↓	Cyanide	1	250 mL

PUMPING RATES

Average Purge 150 mL/min Average Sampling 150 mL/min

OTHER READINGS

DO (mg/L) _____ PID (ppm) _____ CO_2 (mg/L) _____

PURGE WATER DISPOSAL

On-site storage pending analysis _____

Relinquished to licensed hauler _____

Discharge in sewer (previous analysis completed) _____

Discharge on ground (previous analysis completed) _____

** The Project Manager will instruct the Field Team as to which disposal method is applicable.

COMMENTS (difficulties, condition of casing, etc.)

Well Sampling Data Sheet

Well Number: PZ29

Client: NUSEG/ISh Site: NORWICH

Personnel: LMG/KG Weather: cold, flurries Date: 12/6/05

PUMPING PARAMETERS

Casing inner diameter (gal/foot):
___ 2" (0.16) ___ 4" (0.65) ___ 5" (1.02) X Other 1" (0.041)

	Previous Report	Measured Depth	Ref. Location
Height of casing reference above grade			
Depth of well from top of casing		15.10	
Water level from top of casing		5.05	
Feet of water in casing		10.05	
NAPL level from top of casing(if present)			Type:
NAPL thickness			

Min gallons of purge (feet of water X gal/ft X 3 well vols.) 10.05 × 0.041 = 0.42

Purging Method: X Peris. Pump ___ Bailer ___ Pos. Pump (Grundfos) ___ Other ___
Sampling Method: X Peris. Pump ___ Bailer ___ Pos. Pump (Grundfos) ___ Other ___

Type of Tubing:	Pumphead	Downhole
Tygon	X	
Teflon		
Polyethylene		X

1/2 vol. = 0.21
0.21 g × 3700 mL / 1 g ÷ 1 min / 150 mL
~ 5 mins.

Bailer Type: ___ Teflon ___ Stainless Steel ___ Disposable

TD 6 = 0.9

CHEMICAL PARAMETERS

Time	Volume (gallons)	Eh (mV)	Turbidity (NTU)	Temp (°C)	pH (SU)	Conductivity (indicate units)	D.O.
1:08	0 (0)	202	30.6	8.1	7.00	1.43	0.83
1:13	0.5 (0.21)	201	17.0	9.8	6.99	1.44	0.11
1:18	1 (0.42)	206	7.2	10.6	6.87	1.39	0.65
1:23	1.5 (0.63)	213	1.3	10.2	6.77	1.35	0.95
1:28	2 (0.84)	205	0.0	10.4	6.72	1.32	1.22
1:33	2.5 (1.05)	204	0.0	10.5	6.67	1.30	1.37
1:38	3 (1.26)	208	0.0	10.3	6.65	1.29	1.39

% Difference between final 3 readings: (highest-lowest)/ ((highest + lowest)/2)

	Temp	pH	Conductivity
% Difference	1.9%	1.0%	2.2%

Well Sampling Data Sheet

Well Number: PZ-29

SAMPLE APPEARANCE

	Turbidity	Color	Odor
Initial Volumes	low	clear	none
Final Volumes	low	clear	none

SAMPLES COLLECTED

Sample List: 1:46 pm

ID	Analysis	Quantity	Volume
MO-PZ29	TCL VOCs	2	40 mL
↓	TCL SVOCs	2	1000 mL
↓	Cyanide	1	250 mL

PUMPING RATES

Average Purge 150 mL/min   Average Sampling 150 mL/min

OTHER READINGS

DO (mg/L) ______   PID (ppm) ______ CO_2 (mg/L) ______

PURGE WATER DISPOSAL

On-site storage pending analysis _____

Relinquished to licensed hauler _____

Discharge in sewer (previous analysis completed) _____

Discharge on ground (previous analysis completed) _____

** The Project Manager will instruct the Field Team as to which disposal method is applicable.

COMMENTS (difficulties, condition of casing, etc.)

Well Sampling Data Sheet

Well Number: PZ30

Client: JSK/NYSEG Site: NORWICH

Personnel: LMG/KG Weather: cold, flurries Date: 12/6/05

PUMPING PARAMETERS

Casing inner diameter (gal/foot):

___ 2" (0.16) ___ 4" (0.65) ___ 5" (1.02) X Other 1" (0.041)

	Previous Report	Measured Depth	Ref. Location
Height of casing reference above grade			Mark on PVC
Depth of well from top of casing		15.53	
Water level from top of casing		5.39	
Feet of water in casing		10.14	
NAPL level from top of casing(if present)			Type:
NAPL thickness			

Min gallons of purge (feet of water X gal/ft X 3 well vols.) 10.14 x 0.041 = 0.4 gal = 1 vol

Purging Method: X Peris. Pump ___ Bailer ___ Pos. Pump (Grundfos) ___ Other ___

Sampling Method: X Peris. Pump ___ Bailer ___ Pos. Pump (Grundfos) ___ Other ___

Type of Tubing:	Pumphead	Downhole
Tygon	silicon	
Teflon		
Polyethylene		X

1/2 vol = 0.2 gal

$0.2\text{ gal} \times \frac{3700\text{ mL}}{1\text{ gal}} \times \frac{\text{min}}{150\text{ mL}}$ = 5 minutes

Bailer Type: ___ Teflon ___ Stainless Steel ___ Disposable

CHEMICAL PARAMETERS

Time	Volume (gallons)	Eh (mV)	Turbidity (NTU)	Temp (°C)	pH (SU)	Conductivity (indicate units)	DO mg/L
13:11	0 (0)	307	29.8	10.8	6.87	1.07	4.0
13:16	0.5 (0.2)	310	27.1	10.4	6.83	1.03	3.95
13:21	1 (0.4)	314	12.1	10.4	6.84	1.00	4.09
13:26	1.5 (0.6)	316	10.9	10.3	6.85	1.00	4.08
13:31	2 (0.8)	318	11.3	10.5	6.85	1.00	4.09
	~~2.5 (1.0)~~ LMG						
	~~3 (1.2)~~ LMG						

% Difference between final 3 readings: (highest-lowest)/ ((highest + lowest)/2) — Temp: 1.9% — pH: ~~0.1~~ 1.0 % LMG — Conductivity: 0%

Well Sampling Data Sheet

Well Number: PZ30

SAMPLE APPEARANCE

	Turbidity	Color	Odor
Initial Volumes	Low	clear	none
Final Volumes	Low	clear	none

SAMPLES COLLECTED

Sample List: 13:35

ID	Analysis	Quantity	Volume
NO-PZ30	TCL VOCs	2	40 mL
↓	TCL SVOCs	2	500 mL
	Total Cn	1	200 mL

PUMPING RATES

Average Purge 150 mL/min

Average Sampling 150 mL/min

OTHER READINGS

DO (mg/L) ________ PID (ppm) ________ CO_2 (mg/L) ________

PURGE WATER DISPOSAL

On-site storage pending analysis X

Relinquished to licensed hauler _____

Discharge in sewer (previous analysis completed) _____

Discharge on ground (previous analysis completed) _____

** The Project Manager will instruct the Field Team as to which disposal method is applicable.

COMMENTS (difficulties, condition of casing, etc.)

Well Sampling Data Sheet

Well Number: PZ31

Client: Tsh/NYSEG Site: NORWICH

Personnel: LMG Weather: cold, flurries Date: 12/6/05

PUMPING PARAMETERS

Casing inner diameter (gal/foot):
___ 2" (0.16) ___ 4" (0.65) ___ 5" (1.02) X Other 1" (0.041)

	Previous Report	Measured Depth	Ref. Location
Height of casing reference above grade			mark on pvc
Depth of well from top of casing		15.56	
Water level from top of casing		6.71	
Feet of water in casing		8.85	
NAPL level from top of casing(if present)			Type:
NAPL thickness			

Min gallons of purge (feet of water X gal/ft X 3 well vols.) 8.85 x 0.041 = 0.36 gal = 1 vol

Purging Method: X Peris. Pump ___ Bailer ___ Pos. Pump (Grundfos) ___ Other ___
Sampling Method: X Peris. Pump ___ Bailer ___ Pos. Pump (Grundfos) ___ Other ___

Type of Tubing:	Pumphead	Downhole
Tygon	Silicon	
Teflon		
Polyethylene		X

0.5 vol = 0.18 gal
0.18 gal x 3700 mL / gal x min / 150 mL
= 4.4 min

Bailer Type: ___ Teflon ___ Stainless Steel ___ Disposable

CHEMICAL PARAMETERS

Time	Volume (gallons)	Eh (mV)	Turbidity (NTU)	Temp (°C)	pH (SU)	Conductivity (indicate units)	DO mg/L
14:22	0(0)	330	26.9	10.2	6.83	1.18	6.50
14:26	0.5(0.18)	332	6.5	9.4	6.77	1.17	5.57
14:31	1(0.36)	333	5.1	10.2	6.78	1.16	5.43
14:35	1.5(0.54)	334	3.6	10.4	6.78 LMG	1.16	5.39
14:40	2(0.72)	336	1.6	9.8	6.78	1.16	5.44

% Difference between final 3 readings: 5.9% 0% 0%
(highest-lowest)/ ((highest + lowest)/2) $\frac{0.6}{10.1}$

Well Sampling Data Sheet

Well Number: PZ31

SAMPLE APPEARANCE

	Turbidity	Color	Odor
Initial Volumes	Low	clear	none
Final Volumes	Low	clear	none

SAMPLES COLLECTED Sample List: 14:45

ID	Analysis	Quantity	Volume
NO-PZ31	TCL VOCs	2	40 mL
	TCL SVOCs	2	[illegible] ~~500 mL~~ 1L
	Total Cr	1	200 ml

PUMPING RATES

Average Purge 150 mL/min Average Sampling 150 mL/min

OTHER READINGS

DO (mg/L) ______ PID (ppm) ______ CO_2 (mg/L) ______

PURGE WATER DISPOSAL

On-site storage pending analysis X

Relinquished to licensed hauler ____

Discharge in sewer (previous analysis completed) ____

Discharge on ground (previous analysis completed) ____

** The Project Manager will instruct the Field Team as to which disposal method is applicable.

COMMENTS (difficulties, condition of casing, etc.)

Well Sampling Data Sheet

Well Number: PZ32

Client: Ish/NYSEG Site: NORWICH

Personnel: LMG Weather: cold Date: 12/7/05

PUMPING PARAMETERS

Casing inner diameter (gal/foot):
___ 2" (0.16) ___ 4" (0.65) ___ 5" (1.02) X Other 1" (0.041)

	Previous Report	Measured Depth	Ref. Location
Height of casing reference above grade			
Depth of well from top of casing		17.47	
Water level from top of casing		7.23	
Feet of water in casing		10.24	
NAPL level from top of casing(if present)			Type:
NAPL thickness			

Min gallons of purge (feet of water X gal/ft X 3 well vols.) 10.24 x 0.041 = 0.4 gal

Purging Method: X Peris. Pump ___ Bailer ___ Pos. Pump (Grundfos) ___ Other ___
Sampling Method: X Peris. Pump ___ Bailer ___ Pos. Pump (Grundfos) ___ Other ___

Type of Tubing:

	Pumphead	Downhole
Tygon	silicon	
Teflon		
Polyethylene		X

1/2 vol = 0.2 gal
at 150 ml/min
~5 min

Bailer Type: ___ Teflon ___ Stainless Steel ___ Disposable

CHEMICAL PARAMETERS

Time	Volume (gallons)	Eh (mV)	Turbidity (NTU)	Temp (°C)	pH (SU)	Conductivity (indicate units)	DO mg/L
8:06	0(0)	237	154	11.4	6.97	2.21	5.24
8:11	.5(0.2)	261	41.0	11.4	6.91	2.20	4.17
8:16	1(0.4)	277	14.5	11.2	6.90	2.21	4.14
8:21	1.5(0.6)	286	9.2	11.1	6.89	2.21	4.13 ~~9.2~~
8:26	2.0(0.8)	292	8.0	11.1	6.89	2.21	4.11

% Difference between final 3 readings: 0.9% 1.4% 0%
(highest-lowest)/ ((highest + lowest)/2)

Well Sampling Data Sheet

Well Number: PZ32

SAMPLE APPEARANCE

	Turbidity	Color	Odor
Initial Volumes	low	clear	none
Final Volumes	low	clear	none

SAMPLES COLLECTED Sample List:________

ID	Analysis	Quantity	Volume
NO-PZ32	TCL VOCs	2	40mL
↓	TCL SVOCs	2	1 L
↓	Total Cr	1	200 mL

PUMPING RATES

Average Purge 150 mL/min Average Sampling 150 mL/min

OTHER READINGS

DO (mg/L) ________ PID (ppm) ________ CO_2 (mg/L) ________

PURGE WATER DISPOSAL

On-site storage pending analysis X

Relinquished to licensed hauler _____

Discharge in sewer (previous analysis completed) _____

Discharge on ground (previous analysis completed) _____

** The Project Manager will instruct the Field Team as to which disposal method is applicable.

COMMENTS (difficulties, condition of casing, etc.)

Well Sampling Data Sheet

Well Number: P2-33

Client: ISW/NYSEG   Site: Norwich, NY

Personnel: KG/LMG   Weather: cold, flurries   Date: 12/7/05

PUMPING PARAMETERS

Casing inner diameter (gal/foot):

___ 2" (0.16)   ___ 4" (0.65)   ___ 5" (1.02)   x Other 1" (0.041)

	Previous Report	Measured Depth	Ref. Location
Height of casing reference above grade			
Depth of well from top of casing		18.56	
Water level from top of casing		8.94	
Feet of water in casing		9.62	
NAPL level from top of casing(if present)			Type:
NAPL thickness			

Min gallons of purge (feet of water X gal/ft X 3 well vols.) 9.62 × 0.041 = 0.40 g

Purging Method: x Peris. Pump ___Bailer ___Pos. Pump (Grundfos) ___Other___
Sampling Method: x Peris. Pump ___Bailer ___Pos. Pump (Grundfos) ___Other___

1/2 vol. = 0.20 g

0.20 g × 3700 mL / 1 g ÷ 1 min / 150 mL

~ 5 mins

Type of Tubing:	Pumphead	Downhole
Tygon	X	
Teflon		
Polyethylene		x

Bailer Type: ___Teflon ___Stainless Steel ___Disposable

CHEMICAL PARAMETERS

TDS = 1.7

Time	Volume (gallons)	Eh (mV)	Turbidity (NTU)	Temp (°C)	pH (SU)	Conductivity (indicate units)	D.O.
10:17	0 (0)	736	1.6	10.8	6.79	2.56	6.46
10:22	0.5 (0.20)	738	1.2	11.1	6.66	2.62	5.73
10:27	1 (0.40)	741	1.9	10.9	6.65	2.66	5.80
10:32	1.5 (0.60)	743	1.7	11.1	6.65	2.66	5.66
10:37	2 (0.80)	742	1.3	10.9	6.65	2.67	5.62

% Difference between final 3 readings: (highest-lowest)/ ((highest + lowest)/2)   Temp: 1.8%   pH: 0%   Conductivity: 0.4%

Well Sampling Data Sheet

Well Number: P2-33

SAMPLE APPEARANCE

	Turbidity	Color	Odor
Initial Volumes	low	clear	none
Final Volumes	low	clear	none

SAMPLES COLLECTED

Sample List: ________

ID	Analysis	Quantity	Volume
NO-PZ33	TCL VOCs	2	40 mL
↓	TCL SVOCs	2	1000 mL
	Total Cyanide	1	250 mL

PUMPING RATES

Average Purge 150 mL/min Average Sampling 150 mL/min

OTHER READINGS

DO (mg/L) ________ PID (ppm) ________ CO_2 (mg/L) ________

PURGE WATER DISPOSAL

On-site storage pending analysis _____

Relinquished to licensed hauler _____

Discharge in sewer (previous analysis completed) _____

Discharge on ground (previous analysis completed) _____

** The Project Manager will instruct the Field Team as to which disposal method is applicable.

COMMENTS (difficulties, condition of casing, etc.)

Well Sampling Data Sheet

Well Number: PZ-34

Client: Ish / NYSEG   Site: Norwich, NY

Personnel: KG/LMG   Weather: cold, flurries   Date: 12/7/05

PUMPING PARAMETERS

Casing inner diameter (gal/foot):
___ 2" (0.16)   ___ 4" (0.65)   ___ 5" (1.02)   x Other 1" (0.041)

	Previous Report	Measured Depth	Ref. Location
Height of casing reference above grade			
Depth of well from top of casing		15.42	
Water level from top of casing		9.11	
Feet of water in casing			
NAPL level from top of casing(if present)			Type:
NAPL thickness			

Min gallons of purge (feet of water X gal/ft X 3 well vols.) 8.11 x 3 (.041) = 0.34 g

Purging Method: x Peris. Pump ___Bailer ___Pos. Pump (Grundfos) ___Other___
Sampling Method: x Peris. Pump ___Bailer ___Pos. Pump (Grundfos) ___Other___

1/2 vol. = 0.17 g

$0.17\text{ g} \times \frac{3700\text{ mL}}{\text{g}} \div \frac{1\text{ min}}{150\text{ mL}}$

~4 mins.

Type of Tubing:	Pumphead	Downhole
Tygon	x	
Teflon		
Polyethylene		x

Bailer Type: ___Teflon ___Stainless Steel ___Disposable

CHEMICAL PARAMETERS

TDS = 1.6

Time	Volume (gallons)	Eh (mV)	Turbidity (NTU)	Temp (°C)	pH (SU)	Conductivity (indicate units)	D.O.
9:06	0(0)	266	126	8.6	6.87	2.54	7.30
9:10	0.5(0.17)	263	36.9	8.7	6.83	2.55	6.37
9:14	1(0.34)	261	16.9	9.2	6.82	2.57	6.40
9:18	1.5(0.51)	261	7.0	9.4	6.82	2.56	6.30
9:22	2(0.68)	259	2.6	9.5	6.82	2.57	6.34

% Difference between final 3 readings: (highest-lowest)/ ((highest + lowest)/2)   Temp: 3.2%   pH: 0%   Conductivity: 0.4%

Well Sampling Data Sheet

Well Number: P2-34

SAMPLE APPEARANCE

	Turbidity	Color	Odor
Initial Volumes	low	clear	none
Final Volumes	low	clear	none

SAMPLES COLLECTED

Sample List: ________

ID	Analysis	Quantity	Volume
ND-P234	TCL VOCs	2	40 mL
↓	TCL SVOCs	2	1000 mL
↓	Total Cyanide	1	250 mL

PUMPING RATES

Average Purge 180 mL/min

Average Sampling 150 mL/min

OTHER READINGS

DO (mg/L) ________ PID (ppm) ________ CO_2 (mg/L) ________

PURGE WATER DISPOSAL

On-site storage pending analysis _____

Relinquished to licensed hauler _____

Discharge in sewer (previous analysis completed) _____

Discharge on ground (previous analysis completed) _____

** The Project Manager will instruct the Field Team as to which disposal method is applicable.

COMMENTS (difficulties, condition of casing, etc.)

Well Sampling Data Sheet

Well Number: PZ-3S

Client: ISH/NYSEG Site: Norwich, NY

Personnel: KG/LMG Weather: cold, flurries Date: 12/7/05

PUMPING PARAMETERS

Casing inner diameter (gal/foot):
___ 2" (0.16) ___ 4" (0.65) ___ 5" (1.02) X Other 1" (0.041)

	Previous Report	Measured Depth	Ref. Location
Height of casing reference above grade			
Depth of well from top of casing		14.64	
Water level from top of casing		7.15	
Feet of water in casing		7.49	
NAPL level from top of casing(if present)			Type:
NAPL thickness			

Min gallons of purge (feet of water X gal/ft X 3 well vols.) 7.49 x 0.041 = 0.30 g

Purging Method: X Peris. Pump ___ Bailer ___ Pos. Pump (Grundfos) ___ Other___
Sampling Method: X Peris. Pump ___ Bailer ___ Pos. Pump (Grundfos) ___ Other___

½ vol = 0.15 g
$0.15\,g \times \frac{3700\ ml}{g} \div \frac{1\ min}{150\ ml}$
~ 4 mins

Type of Tubing:	Pumphead	Downhole
Tygon	✓	
Teflon		
Polyethylene		X

Bailer Type: ___ Teflon ___ Stainless Steel ___ Disposable

TDS = 0.7

CHEMICAL PARAMETERS

Time	Volume (gallons)	Eh (mV)	Turbidity (NTU)	Temp (°C)	pH (SU)	Conductivity (indicate units)	D.O.
7:59	0(0)	249	0.0	9.7	6.40	2.63	5.94
8:03	0.5(0.15)	243	0.8	9.8	6.63	2.67	4.68
8:07	1 (0.30)	244	0.1	9.9	6.67	2.70	4.44
8:11	1.5(0.45)	245	0.3	9.9	6.69	2.71	4.27
8:15	2 (0.60)	241	0.6	9.9	6.69	2.71	4.19

% Difference between final 3 readings:
(highest-lowest)/ ((highest + lowest)/2) Temp: 0% pH: 0.3% Conductivity: 0.4%

Well Sampling Data Sheet

Well Number: PZ-35

SAMPLE APPEARANCE

	Turbidity	Color	Odor
Initial Volumes	low	clear	none
Final Volumes	low	clear	none

SAMPLES COLLECTED

Sample List: 8:25

ID	Analysis	Quantity	Volume
NO-PZ35	TCL VOCs	2	40 mL
↓	TCL SVOCs	2	1000 mL
	Total Cyanide	1	250 mL

PUMPING RATES

Average Purge 150 mL/min

Average Sampling 150 mL/min

OTHER READINGS

DO (mg/L) ________ PID (ppm) ________ CO_2 (mg/L) ________

PURGE WATER DISPOSAL

On-site storage pending analysis _____

Relinquished to licensed hauler _____

Discharge in sewer (previous analysis completed) _____

Discharge on ground (previous analysis completed) _____

** The Project Manager will instruct the Field Team as to which disposal method is applicable.

COMMENTS (difficulties, condition of casing, etc.)

Well Sampling Data Sheet

Well Number: PZ-36

Client: Ish/NYSEG   Site: Norwich NY

Personnel: KG/LMG   Weather: Cold, flurries   Date: 12/6/05

PUMPING PARAMETERS

Casing inner diameter (gal/foot):
___ 2" (0.16)   ___ 4" (0.65)   ___ 5" (1.02)   X Other 0.041 (1")

	Previous Report	Measured Depth	Ref. Location
Height of casing reference above grade			
Depth of well from top of casing		15.60	
Water level from top of casing		7.87	
Feet of water in casing		7.73	
NAPL level from top of casing(if present)			Type:
NAPL thickness			

Min gallons of purge (feet of water X gal/ft X 3 well vols.) 7.73 × 0.041 = 0.32 g

Purging Method: ___Peris. Pump ___Bailer ___Pos. Pump (Grundfos) ___Other___
Sampling Method: ___Peris. Pump ___Bailer ___Pos. Pump (Grundfos) ___Other___

1/2 vol. = 0.16 g

0.16 g × 3700 mL / g ÷ 1 min / 160 mL

~4 mins

Type of Tubing:

	Pumphead	Downhole
Tygon		
Teflon		
Polyethylene		

Bailer Type: ____Teflon ____Stainless Steel ____Disposable

CHEMICAL PARAMETERS

TDS = 0.7

Time	Volume (gallons)	Eh (mV)	Turbidity (NTU)	Temp (°C)	pH (SU)	Conductivity (indicate units)	D.O.
2:22	0 (0)	241	238	9.7	6.53	1.05	4.84
2:26	0.5 (0.16)	243	122	9.9	6.41	1.09	2.36
2:30	1 (0.32)	244	58.2	10.4	6.42	1.10	2.78
2:34	1.5 (0.48)	242	35.1	10.6	6.42	1.10	2.70
2:38	2 (0.64)	240	21.6	10.6	6.41	1.10	2.63
2:42	2.5 (0.80)						
2:46	3 (1.06)						

% Difference between final 3 readings: (highest-lowest)/ ((highest + lowest)/2)   Temp: 1.9%   pH: 0.1%   Conductivity: 0%

Well Sampling Data Sheet

Well Number: D2-36

SAMPLE APPEARANCE

	Turbidity	Color	Odor
Initial Volumes	low	clear	slight NAPL
Final Volumes	low	clear	slight NAPL

SAMPLES COLLECTED Sample List: 3:00

ID	Analysis	Quantity	Volume
NO-D236	TCL VOCs	2	40 mL
↓	TCL SVOCs	2	1000 mL
↓	Total Cyanide	1	250 mL

PUMPING RATES

Average Purge 150 mL/min Average Sampling 150 mL/min

OTHER READINGS

DO (mg/L) ________ PID (ppm) ________ CO_2 (mg/L) ________

PURGE WATER DISPOSAL

On-site storage pending analysis _____

Relinquished to licensed hauler _____

Discharge in sewer (previous analysis completed) _____

Discharge on ground (previous analysis completed) _____

** The Project Manager will instruct the Field Team as to which disposal method is applicable.

COMMENTS (difficulties, condition of casing, etc.)

Well Sampling Data Sheet

Well Number: PZ37

Client: ISW/NYSEG Site: NORWICH

Personnel: LMG Weather: cold, flurries Date: 12/6/05

PUMPING PARAMETERS

Casing inner diameter (gal/foot):
___ 2" (0.16) ___ 4" (0.65) ___ 5" (1.02) X Other 1" (0.041)

	Previous Report	Measured Depth	Ref. Location
Height of casing reference above grade			mark on pvc
Depth of well from top of casing		15.51	
Water level from top of casing		6.69	
Feet of water in casing		8.82	
NAPL level from top of casing(if present)			Type:
NAPL thickness			

Min gallons of purge (feet of water X gal/ft X 3 well vols.) 8.82×0.041= 0.36 gal

Purging Method: X Peris. Pump ___Bailer ___Pos. Pump (Grundfos) ___Other___
Sampling Method: X Peris. Pump ___Bailer ___Pos. Pump (Grundfos) ___Other___

Type of Tubing:	Pumphead	Downhole
Tygon	silicon	
Teflon		
Polyethylene		X

1/2 vol = ~~0~~ 0.18 gal
at 150 mL/min
~ 4.4 min

Bailer Type: ____Teflon ____Stainless Steel ____Disposable

CHEMICAL PARAMETERS

Time	Volume (gallons)	Eh (mV)	Turbidity (NTU)	Temp (°C)	pH (SU)	Conductivity (indicate units)	DO mg/L
15:21	0 (0)	281	74.3	8.6	6.94	1.89	2.59
15:25	0.5 (0.18)	272	43.3	11.2	6.84	1.77	0.41
15:31	1 (0.36)	258	35.6	11.1	6.82	1.77	0.16
15:35	1.5 (0.54)	243	23.3	11.3	6.82	1.78	0.09
15:41	2 (0.72)	237	22.8	11.2	6.82	1.78	0.04

% Difference between final 3 readings: (highest-lowest)/ ((highest + lowest)/2) — Temp: 1.8% pH: 0% Conductivity: 0.6%

Well Sampling Data Sheet

Well Number: P237

SAMPLE APPEARANCE

	Turbidity	Color	Odor
Initial Volumes	low	clear	none
Final Volumes	Low	Clear	none

SAMPLES COLLECTED

Sample List: 15:45

ID	Analysis	Quantity	Volume
NO-P237	TCL VOCs	2	40 mL
↓	TCL SVOCs	2	1L
↓	Total Cn	1	200mL

PUMPING RATES

Average Purge 150 mL/min

Average Sampling 150 mL/min

OTHER READINGS

DO (mg/L) ________ PID (ppm) ________ CO_2 (mg/L) ________

PURGE WATER DISPOSAL

On-site storage pending analysis X

Relinquished to licensed hauler _____

Discharge in sewer (previous analysis completed) _____

Discharge on ground (previous analysis completed) _____

** The Project Manager will instruct the Field Team as to which disposal method is applicable.

COMMENTS (difficulties, condition of casing, etc.)

Well Sampling Data Sheet

Well Number: P2-38

Client: Ish/NYSEG Site: Norwich, NY

Personnel: KG/LMG Weather: cold, flurries Date: 12/6/05

PUMPING PARAMETERS

Casing inner diameter (gal/foot):
___ 2" (0.16) ___ 4" (0.65) ___ 5" (1.02) X Other 1" (0.041)

	Previous Report	Measured Depth	Ref. Location
Height of casing reference above grade			
Depth of well from top of casing		16.55	
Water level from top of casing		7.72	
Feet of water in casing		8.83	
NAPL level from top of casing(if present)			Type:
NAPL thickness			

Min gallons of purge (feet of water X gal/ft X 3 well vols.) 8.83 × 0.041= 0.36 g

Purging Method: ___Peris. Pump ___Bailer ___Pos. Pump (Grundfos) ___Other___
Sampling Method: ___Peris. Pump ___Bailer ___Pos. Pump (Grundfos) ___Other___

1/2 vol = 0.18 g

0.18 g × 3700 mL / 1 g ÷ 1 min / 150 mL

~4 mins.

Type of Tubing:

	Pumphead	Downhole
Tygon	X	
Teflon		
Polyethylene		X

Bailer Type: ____Teflon ____Stainless Steel ____Disposable

CHEMICAL PARAMETERS

TDS= 1.6

Time	Volume (gallons)	Eh (mV)	Turbidity (NTU)	Temp (°C)	pH (SU)	Conductivity (indicate units)	D.O.
3:23	0 (0)	249	999	9.9	6.66	2.48	8.54
3:27	0.5 (0.18g)	239	999	11.1	6.66	2.47	1.38
3:31	1 (0.32g)	234	198	11.7	6.66	2.42	1.13
3:35	1.5 (0.50)	231	21.3	12.1	6.66	2.40	1.06
3:39	2 (0.68	231	5.2	11.9	6.66	2.38	0.98

% Difference between final 3 readings: 3.4% 0% 1.7%
(highest-lowest)/ ((highest + lowest)/2)

Well Sampling Data Sheet

Well Number: P2-38

SAMPLE APPEARANCE

	Turbidity	Color	Odor
Initial Volumes	high	brown	none
Final Volumes	low	clear	none

SAMPLES COLLECTED

Sample List: 3*5D

ID	Analysis	Quantity	Volume
No-P238	TCL VOCs	2	40 mL
↓	TCL SVOCs	2	1000 mL
	Total Cyanide	1	250 mL

PUMPING RATES

Average Purge 150 mL/min

Average Sampling 150 mL/min

OTHER READINGS

DO (mg/L) ________ PID (ppm) ________ CO_2 (mg/L) ________

PURGE WATER DISPOSAL

On-site storage pending analysis _____

Relinquished to licensed hauler _____

Discharge in sewer (previous analysis completed) _____

Discharge on ground (previous analysis completed) _____

** The Project Manager will instruct the Field Team as to which disposal method is applicable.

COMMENTS (difficulties, condition of casing, etc.)

Well Sampling Data Sheet

Well Number: P2-39

Client: Ish/NYSEG   Site: Norwich, NY

Personnel: KG/LMG   Weather: cold, flurries   Date: 12/7/05

PUMPING PARAMETERS

Casing inner diameter (gal/foot):
___ 2" (0.16)   ___ 4" (0.65)   ___ 5" (1.02)   x Other 1" (0.041)

	Previous Report	Measured Depth	Ref. Location
Height of casing reference above grade			
Depth of well from top of casing		15.47	
Water level from top of casing		5.40	
Feet of water in casing		10.07	
NAPL level from top of casing(if present)			Type:
NAPL thickness			

Min gallons of purge (feet of water X gal/ft X 3 well vols.) 10.07 x 0.041 = 0.42 g

Purging Method: x Peris. Pump   ___ Bailer   ___ Pos. Pump (Grundfos)   ___ Other ___
Sampling Method: x Peris. Pump   ___ Bailer   ___ Pos. Pump (Grundfos)   ___ Other ___

Type of Tubing:	Pumphead	Downhole
Tygon	x	
Teflon		
Polyethylene		x

1/2 vol. = 0.21 g
$0.21\ g \times \frac{3700\ mL}{1\ g} \div \frac{1\ min}{150\ mL}$
~5 mins.

Bailer Type: ___ Teflon   ___ Stainless Steel   ___ Disposable

CHEMICAL PARAMETERS

TDS = 1.1

Time	Volume (gallons)	Eh (mV)	Turbidity (NTU)	Temp (°C)	pH (SU)	Conductivity (indicate units)	D.O.
1:10	0(0)	599	211	7.0	6.93	1.71	6.11
1:15	0.5 (0.21)	614	76.3	6.8	6.78	1.88	6.52
1:20	1 (0.42)	623	26.9	7.0	6.75	2.02	6.74
1:25	1.5 (0.63)	626	18.5	7.2	6.74	2.07	6.78
1:30	.2 (0.84)	625	7.6	7.1	6.74	2.06	6.77

% Difference between final 3 readings: (highest-lowest)/ ((highest + lowest)/2)   Temp: 2.8%   pH: 0.1%   Conductivity: 1.9%

Well Sampling Data Sheet

Well Number: P2-39

SAMPLE APPEARANCE

	Turbidity	Color	Odor
Initial Volumes	low	clear	none
Final Volumes	low	clear	none

SAMPLES COLLECTED

Sample List: 1:45

ID	Analysis	Quantity	Volume
NO-P239	TCL VOCs	2	40 mL
↓	TCL SVOCs	2	1000 mL
↓	Cyanide	1	250 mL

PUMPING RATES

Average Purge 150 mL/min Average Sampling 150 mL/min

OTHER READINGS

DO (mg/L) ________ PID (ppm) ________ CO_2 (mg/L) ________

PURGE WATER DISPOSAL

On-site storage pending analysis _____

Relinquished to licensed hauler _____

Discharge in sewer (previous analysis completed) _____

Discharge on ground (previous analysis completed) _____

** The Project Manager will instruct the Field Team as to which disposal method is applicable.

COMMENTS (difficulties, condition of casing, etc.)

E
SVI SITE SURVEY AND INVENTORY SHEETS

12 BALDWIN AVE

Appendix B
Indoor air quality questionnaire and building inventory

As discussed in Section 2.11, products in buildings must be inventoried every time indoor air is sampled to provide an accurate assessment of the potential contribution of volatile chemicals. In addition, the type of structure, floor layout and physical conditions of the building being studied must be noted to identify (and minimize) conditions that may interfere with the proposed testing. Toward this end, a blank copy of the NYSDOH Center for Environmental Health's Indoor Air Quality Questionnaire and Building Inventory is provided in this appendix. Also provided is an example that demonstrates how the form should be completed properly.

NEW YORK STATE DEPARTMENT OF HEALTH
INDOOR AIR QUALITY QUESTIONNAIRE AND BUILDING INVENTORY
CENTER FOR ENVIRONMENTAL HEALTH

This form must be completed for each residence involved in indoor air testing.

Preparer's Name Keir Craigie Date/Time Prepared 3/16/06

Preparer's Affiliation Ish Inc Phone No. 617 523 4862

Purpose of Investigation Norwich SVI

1. OCCUPANT:

Interviewed: Y / N

Last Name: Magistro First Name: Anthony

Address: 12 Baldwin Ave, Norwich, NY 13815

County: Chenango

Home Phone: 607-334-9242 Office Phone: –

Number of Occupants/persons at this location 2 Age of Occupants 50-60

2. OWNER OR LANDLORD: (Check if same as occupant X)

Interviewed: Y / N

Last Name: ____ First Name: ____

Address: ____

County: ____

Home Phone: ____ Office Phone: ____

3. BUILDING CHARACTERISTICS

Type of Building: (Circle appropriate response)

Residential	School	Commercial/Multi-use
Industrial	Church	Other: ____

If the property is residential, type? (Circle appropriate response)

Ranch	2-Family	3-Family
Raised Ranch	Split Level	Colonial
Cape Cod	Contemporary	Mobile Home
Duplex	Apartment House	Townhouses/Condos
Modular	Log Home	Other:______________

If multiple units, how many? 1

If the property is commercial, type?

Business Type(s) ________________________________

Does it include residences (i.e., multi-use)? Y / N If yes, how many? ______

Other characteristics:

Number of floors 2 Building age 1940

Is the building insulated? Y / N How air tight? Tight / Average / Not Tight

4. AIRFLOW

Use air current tubes or tracer smoke to evaluate airflow patterns and qualitatively describe:

Airflow between floors

Little flow between floors

Airflow near source

Upward diffusion

Outdoor air infiltration

No significant flow from outdoors

Infiltration into air ducts

No infiltration into air ducts

5. **BASEMENT AND CONSTRUCTION CHARACTERISTICS** (Circle all that apply)

a. Above grade construction:	wood frame	concrete	stone	brick
b. Basement type:	full	crawlspace	slab	other ________
c. Basement floor:	concrete	dirt	stone	other ________
d. Basement floor:	uncovered	covered	covered with ______________	
e. Concrete floor:	unsealed	sealed	sealed with ______________	
f. Foundation walls:	poured	block	stone	other ________
g. Foundation walls:	unsealed	sealed	sealed with ______________	
h. The basement is:	wet	damp	dry	moldy
i. The basement is:	finished	unfinished	partially finished	
j. Sump present?	Y / N			
k. Water in sump?	Y / N / not applicable			

Basement/Lowest level depth below grade: 4-5 (feet)

Identify potential soil vapor entry points and approximate size (e.g., cracks, utility ports, drains)

____

____

6. **HEATING, VENTING and AIR CONDITIONING** (Circle all that apply)

Type of heating system(s) used in this building: (circle all that apply – note primary)

Hot air circulation	Heat pump	Hot water baseboard	
Space Heaters	Stream radiation	Radiant floor	
Electric baseboard	Wood stove	Outdoor wood boiler	Other __________

The primary type of fuel used is:

Natural Gas	Fuel Oil	Kerosene
Electric	Propane	Solar
Wood	Coal	

Domestic hot water tank fueled by: electric

Boiler/furnace located in: Basement Outdoors Main Floor Other__________

Air conditioning: Central Air Window units Open Windows None

Are there air distribution ducts present? Y / N

Describe the supply and cold air return ductwork, and its condition where visible, including whether there is a cold air return and the tightness of duct joints. Indicate the locations on the floor plan diagram.

____

____

____

____

7. OCCUPANCY

Is basement/lowest level occupied? Full-time Occasionally Seldom Almost Never

Level	**General Use of Each Floor (e.g., familyroom, bedroom, laundry, workshop, storage)**
Basement	storage
1st Floor	Livin Space
2nd Floor	
3rd Floor	
4th Floor	

8. FACTORS THAT MAY INFLUENCE INDOOR AIR QUALITY

a. Is there an attached garage? Y / N

b. Does the garage have a separate heating unit? Y / N / NA

c. Are petroleum-powered machines or vehicles stored in the garage (e.g., lawnmower, atv, car) Y / N / NA Please specify________

d. Has the building ever had a fire? Y / N When?________

e. Is a kerosene or unvented gas space heater present? Y / N Where?________

f. Is there a workshop or hobby/craft area? Y / N Where & Type? 2nd floor

g. Is there smoking in the building? Y / N How frequently?________

h. Have cleaning products been used recently? Y / N When & Type?________

i. **Have cosmetic products been used recently?** Y / N When & Type? ____________

j. **Has painting/staining been done in the last 6 months?** Y / N Where & When? ____________

k. **Is there new carpet, drapes or other textiles?** Y / N Where & When? ____________

l. **Have air fresheners been used recently?** Y / N When & Type? ____________

m. **Is there a kitchen exhaust fan?** Y / N If yes, where vented? ____________

n. **Is there a bathroom exhaust fan?** Y / N If yes, where vented? ____________

o. **Is there a clothes dryer?** Y / N If yes, is it vented outside? Y / N

p. **Has there been a pesticide application?** Y / N When & Type? ____________

Are there odors in the building? Y / N
If yes, please describe: ____

Do any of the building occupants use solvents at work? Y / N
(e.g., chemical manufacturing or laboratory, auto mechanic or auto body shop, painting, fuel oil delivery, boiler mechanic, pesticide application, cosmetologist

If yes, what types of solvents are used? ____

If yes, are their clothes washed at work? Y / N

Do any of the building occupants regularly use or work at a dry-cleaning service? (Circle appropriate response)

Yes, use dry-cleaning regularly (weekly)
Yes, use dry-cleaning infrequently (monthly or less)
Yes, work at a dry-cleaning service

No
Unknown

Is there a radon mitigation system for the building/structure? Y / N Date of Installation: ____________
Is the system active or passive? Active/Passive

9. WATER AND SEWAGE

Water Supply: Public Water Drilled Well Driven Well Dug Well Other: _______

Sewage Disposal: Public Sewer Septic Tank Leach Field Dry Well Other: _______

10. RELOCATION INFORMATION (for oil spill residential emergency)

a. **Provide reasons why relocation is recommended:** ____

b. **Residents choose to:** remain in home relocate to friends/family relocate to hotel/motel

c. Responsibility for costs associated with reimbursement explained? Y / N

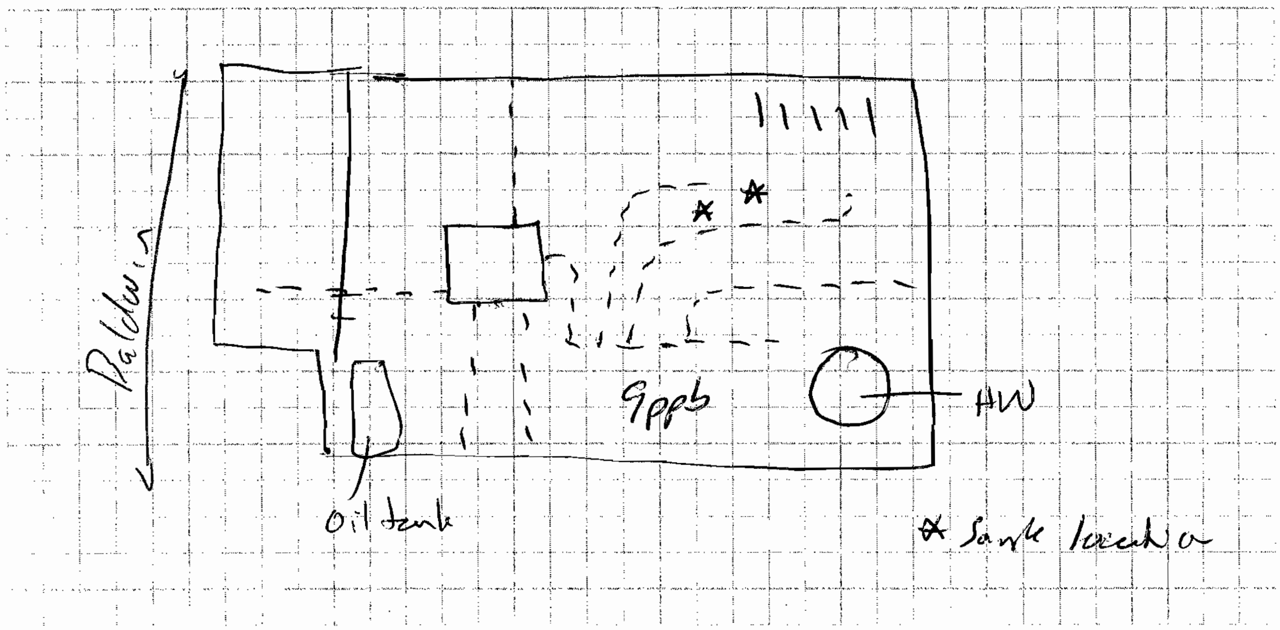
d. Relocation package provided and explained to residents? Y / N

6

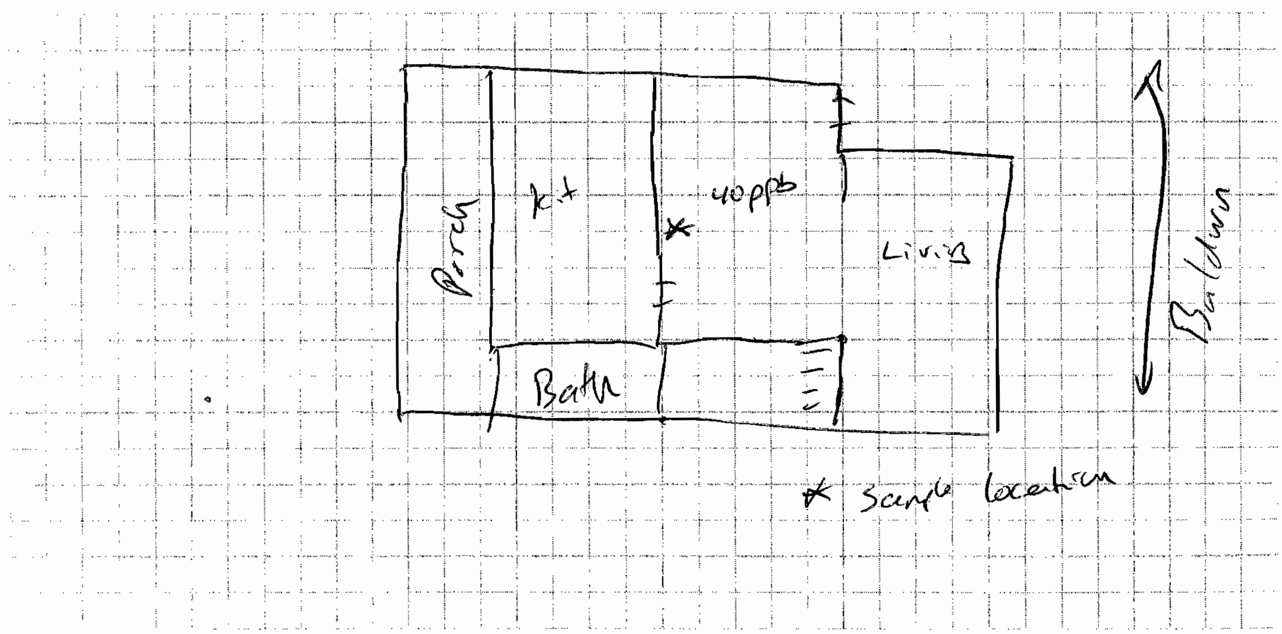
11. FLOOR PLANS

Draw a plan view sketch of the basement and first floor of the building. Indicate air sampling locations, possible indoor air pollution sources and PID meter readings. If the building does not have a basement, please note.

Basement:



First Floor:



13. PRODUCT INVENTORY FORM

Make & Model of field instrument used: ______________________________

List specific products found in the residence that have the potential to affect indoor air quality.

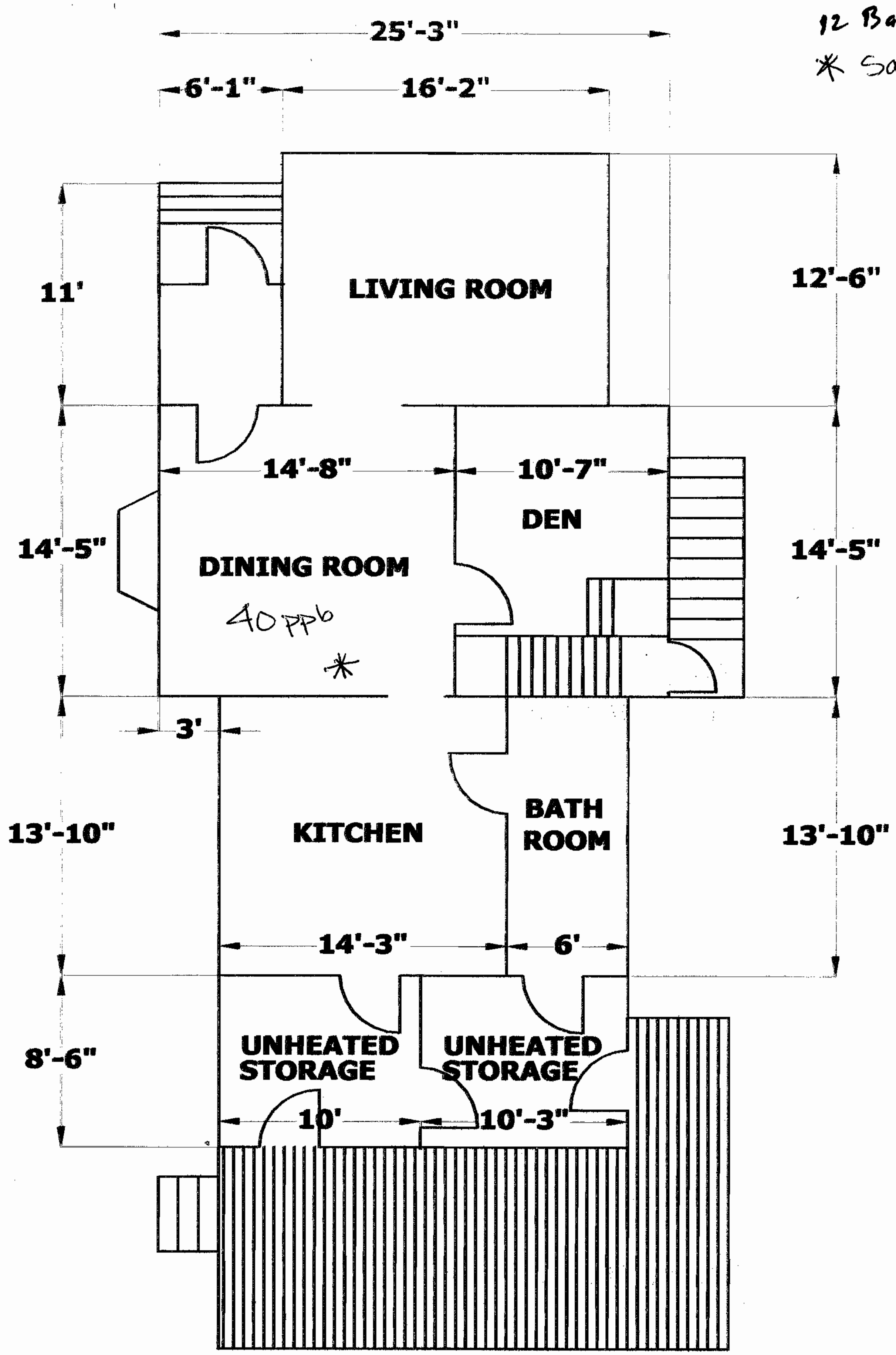
Location	Product Description	Size (units)	Condition*	Chemical Ingredients	Field Instrument Reading (units)	Photo ** Y / N
kit	Fume Free easy off oven cleaner	16oz	U	not listed	37 ppb	N
	Liquid Gold wood cleaner	16oz	U	not listed	10 ppb	N
	vinyl leather cleaner	16oz	U	ethoxylated linear alcohols	11 ppb	N
basemnt	indication stop solution - photo	16oz	U (old)	acetic acid	19 ppb	N
	kodak photo flo 200	16oz	U (old)	p-tertiary octylphenoxy alcohol	8 ppb	N.
	unmarked open containers	4L - multiple	U (old)	not listed	~~14 ppb~~ 18 ppb	N
	Linseed oil	1 qt.	U (old)	not listed	8 ppb	N
above Storage basement	Deck + Fence cleaner	1 gal	U	Sodium metalsilicate, PEG-15 -> Chromium chloride, Alcohol ethoxylates	11 ppb	N
	Armorall waterproof sealer x2	1 gal	U		11 ppb	N
	Roundup	24oz	U	glyposhate	9 ppb	N
	deck stain	1 gal	U	max VOC 550 g/L	22 ppb	N
	deck/phase	1 gal	U	~~Not list~~ unreadable	9	N
	Paint thinner	1 gal	U	mineral spirits	132 ppb	N
	exterior acrylic latex paint	1 qt	U	acrylic polymer ethylene glycol	8 ppb	N
	grout additive	1 qt	U	not listed	17 ppb	N
	spray starch	2 x 1oz	U	not listed	8 ppb	N
	roof tar - aluminum	5 gal	D	not viewable	32	N
	latex paint coatings	1 gal	U	"	30	N
	"	1 qt	"	"	5	"

* Describe the condition of the product containers as **Unopened (UO), Used (U),** or **Deteriorated (D)**

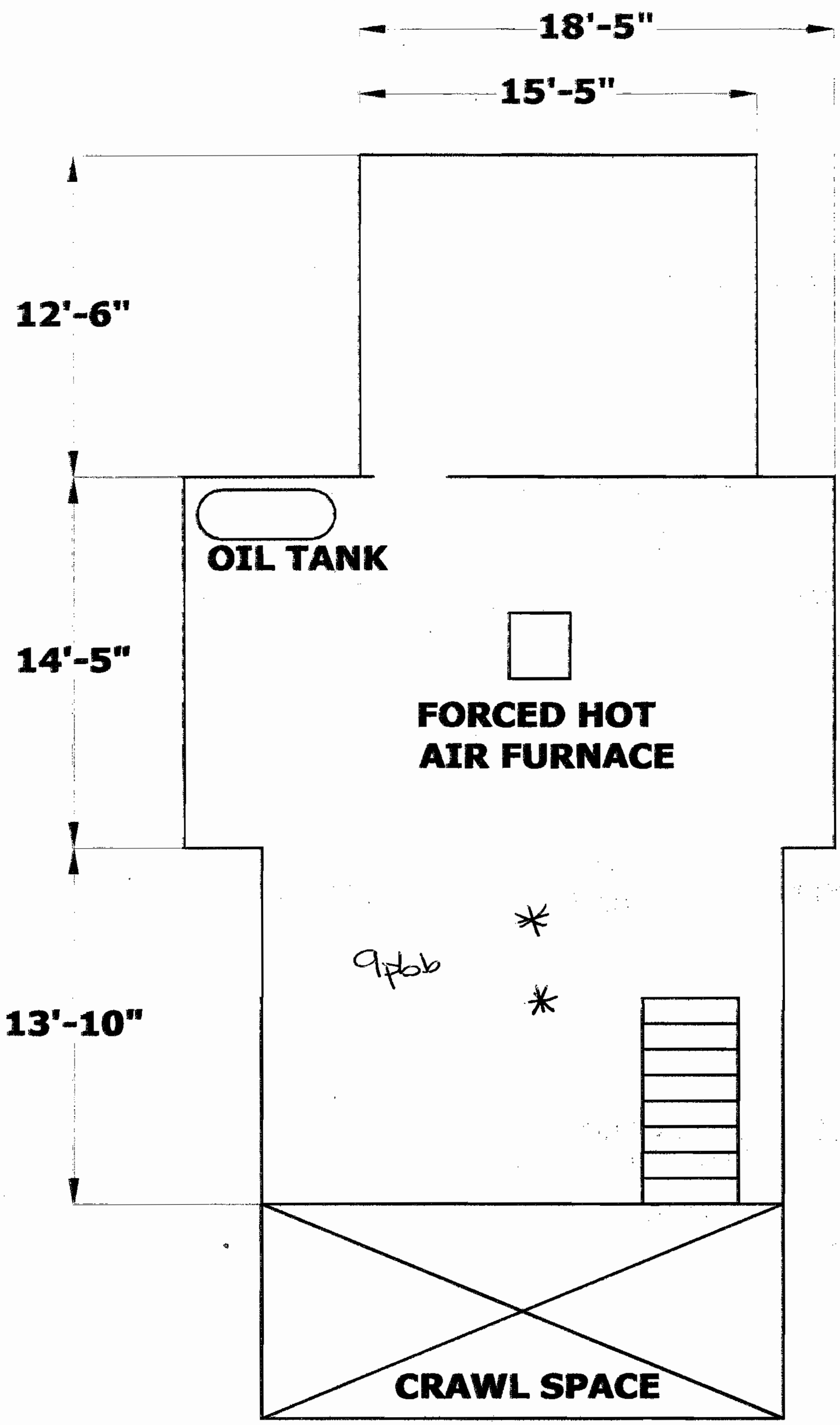
** Photographs of the **front and back** of product containers can replace the handwritten list of chemical ingredients. However, the photographs must be of good quality and ingredient labels must be legible.

12 Baldwin Ave

* Sample Location



FIRST FLOOR


18'-5"
15'-5"
12'-6"
14'-5"
13'-10"
OIL TANK
FORCED HOT
AIR FURNACE
CRAWL SPACE

Basement

14 BALDWIN AVE

Appendix B
Indoor air quality questionnaire and building inventory

As discussed in Section 2.11, products in buildings must be inventoried every time indoor air is sampled to provide an accurate assessment of the potential contribution of volatile chemicals. In addition, the type of structure, floor layout and physical conditions of the building being studied must be noted to identify (and minimize) conditions that may interfere with the proposed testing. Toward this end, a blank copy of the NYSDOH Center for Environmental Health's Indoor Air Quality Questionnaire and Building Inventory is provided in this appendix. Also provided is an example that demonstrates how the form should be completed properly.

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mornings are not good

NEW YORK STATE DEPARTMENT OF HEALTH
INDOOR AIR QUALITY QUESTIONNAIRE AND BUILDING INVENTORY
CENTER FOR ENVIRONMENTAL HEALTH

This form must be completed for each residence involved in indoor air testing.

Preparer's Name Keir Craigie Date/Time Prepared 3/16/06

Preparer's Affiliation Ish Inc Phone No.

Purpose of Investigation Norwich SVI

1. OCCUPANT:

Interviewed: Y N

Last Name: Cincotta First Name: Catherine

Address: ~~12~~ 14 Baldwin Ave

County:

Home Phone: 607 334 3551 Office Phone: NA

Number of Occupants/persons at this location 1 Age of Occupants 85

2. OWNER OR LANDLORD: (Check if same as occupant ✓)

Interviewed: Y / N

Last Name: First Name:

Address:

County:

Home Phone: Office Phone:

3. BUILDING CHARACTERISTICS

Type of Building: (Circle appropriate response)

Residential	School	Commercial/Multi-use
Industrial	Church	Other:

If the property is residential, type? (Circle appropriate response)

Ranch	2-Family	3-Family
Raised Ranch	Split Level	Colonial
Cape Cod	Contemporary	Mobile Home
Duplex	Apartment House	Townhouses/Condos
Modular	Log Home	Other:______

If multiple units, how many? 1

If the property is commercial, type?

Business Type(s) ______

Does it include residences (i.e., multi-use)? Y / N   If yes, how many? ______

Other characteristics:

Number of floors 2   Building age 100yrs

Is the building insulated? Y / N   How air tight? Tight / Average / Not Tight

4. AIRFLOW

Use air current tubes or tracer smoke to evaluate airflow patterns and qualitatively describe:

Airflow between floors

little noted air exchange between floors.

Airflow near source

no significant flow from around furnace or oil tank (odor noted around oil tank)

Outdoor air infiltration

open areas where oil comes into tank - little exchange noted

Infiltration into air ducts

Not found

5. BASEMENT AND CONSTRUCTION CHARACTERISTICS (Circle all that apply)

a. Above grade construction:	wood frame	concrete	stone	brick
b. Basement type:	full	crawlspace	slab	other ________
c. Basement floor:	concrete	dirt	stone	other ________
d. Basement floor:	uncovered	covered	covered with ____________	
e. Concrete floor:	unsealed	sealed	sealed with ____________	
f. Foundation walls:	poured	block	stone	other ________
g. Foundation walls:	unsealed	sealed	sealed with ____________	
h. The basement is:	wet	damp	dry	moldy
i. The basement is:	finished	unfinished	partially finished	
j. Sump present?	Y / N			
k. Water in sump?	Y / N / not applicable			

Basement/Lowest level depth below grade: 3 (feet)

Identify potential soil vapor entry points and approximate size (e.g., cracks, utility ports, drains)

- water in line (2x2), some cracks in slab area,

6. HEATING, VENTING and AIR CONDITIONING (Circle all that apply)

Type of heating system(s) used in this building: (circle all that apply – note primary)

Hot air circulation	Heat pump	Hot water baseboard	
Space Heaters	Stream radiation	Radiant floor	
Electric baseboard	Wood stove	Outdoor wood boiler	Other ________

The primary type of fuel used is:

Natural Gas	Fuel Oil	Kerosene
Electric	Propane	Solar
Wood	Coal	

Domestic hot water tank fueled by: electric

Boiler/furnace located in: Basement Outdoors Main Floor Other________

Air conditioning: Central Air Window units Open Windows None

Are there air distribution ducts present? Y / N

Describe the supply and cold air return ductwork, and its condition where visible, including whether there is a cold air return and the tightness of duct joints. Indicate the locations on the floor plan diagram.

Joints tight / duct work in basement going out all routes from furnance

7. OCCUPANCY

Is basement/lowest level occupied? Full-time Occasionally Seldom Almost Never

Level	**General Use of Each Floor (e.g., familyroom, bedroom, laundry, workshop, storage)**
Basement	storage
1st Floor	Living + bedroom
2nd Floor	Bedrooms - not used
3rd Floor	
4th Floor	

8. FACTORS THAT MAY INFLUENCE INDOOR AIR QUALITY

a. Is there an attached garage? Y / N

b. Does the garage have a separate heating unit? Y / N / NA

c. Are petroleum-powered machines or vehicles stored in the garage (e.g., lawnmower, atv, car) Y / N / NA
Please specify__________

d. Has the building ever had a fire? Y / N When?__________

e. Is a kerosene or unvented gas space heater present? Y / N Where?__________

f. Is there a workshop or hobby/craft area? Y / N Where & Type?__________

g. Is there smoking in the building? Y / N How frequently?__________

h. Have cleaning products been used recently? Y / N When & Type? furniture polish - this week

i. Have cosmetic products been used recently? Y / N When & Type? Nail polish - week
hairspray - weekly

j. Has painting/staining been done in the last 6 months? Y / N Where & When? ___________

k. Is there new carpet, drapes or other textiles? Y / N Where & When? ___________

l. Have air fresheners been used recently? Y / N When & Type? w/in week - febreeze

m. Is there a kitchen exhaust fan? Y / N If yes, where vented? outside

n. Is there a bathroom exhaust fan? Y / N If yes, where vented? ___________

o. Is there a clothes dryer? Y / N If yes, is it vented outside? Y / N

p. Has there been a pesticide application? Y / N When & Type? ___________

Are there odors in the building? Y / N
If yes, please describe: oil smell in basement

Do any of the building occupants use solvents at work? Y / N
(e.g., chemical manufacturing or laboratory, auto mechanic or auto body shop, painting, fuel oil delivery, boiler mechanic, pesticide application, cosmetologist

If yes, what types of solvents are used? ___________

If yes, are their clothes washed at work? Y / N

Do any of the building occupants regularly use or work at a dry-cleaning service? (Circle appropriate response)

Yes, use dry-cleaning regularly (weekly) No
Yes, use dry-cleaning infrequently (monthly or less) Unknown
Yes, work at a dry-cleaning service

Is there a radon mitigation system for the building/structure? Y / N Date of Installation: ___________
Is the system active or passive? Active/Passive

9. WATER AND SEWAGE

Water Supply: Public Water Drilled Well Driven Well Dug Well Other: _______

Sewage Disposal: Public Sewer Septic Tank Leach Field Dry Well Other: _______

10. RELOCATION INFORMATION (for oil spill residential emergency) NA

a. Provide reasons why relocation is recommended: ___________

b. Residents choose to: remain in home relocate to friends/family relocate to hotel/motel

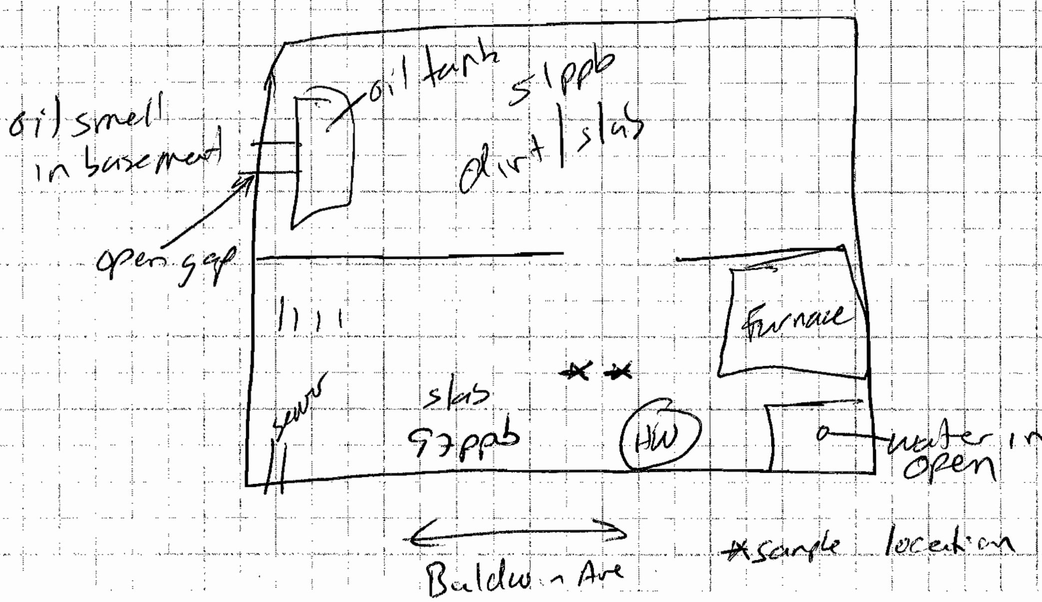
c. Responsibility for costs associated with reimbursement explained? Y / N

d. Relocation package provided and explained to residents? Y / N

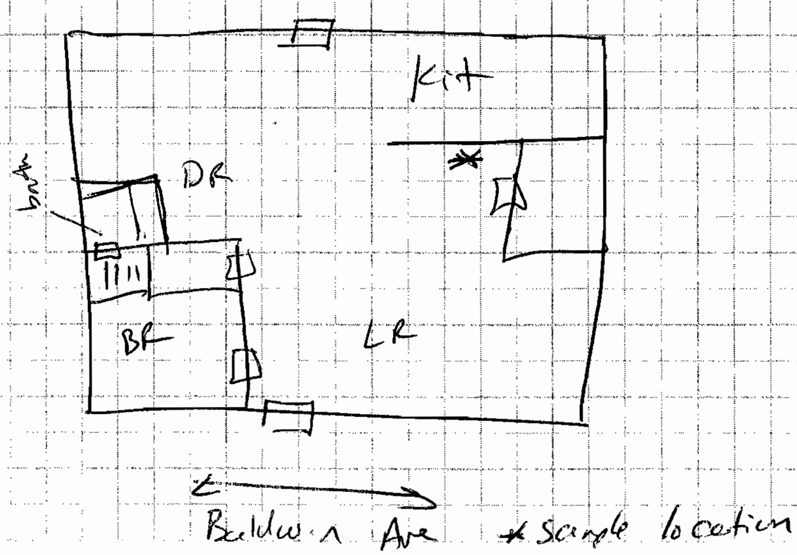
11. FLOOR PLANS

Draw a plan view sketch of the basement and first floor of the building. Indicate air sampling locations, possible indoor air pollution sources and PID meter readings. If the building does not have a basement, please note.

Basement:



First Floor:



12. OUTDOOR PLOT

Draw a sketch of the area surrounding the building being sampled. If applicable, provide information on spill locations, potential air contamination sources (industries, gas stations, repair shops, landfills, etc.), outdoor air sampling location(s) and PID meter readings.

Also indicate compass direction, wind direction and speed during sampling, the locations of the well and septic system, if applicable, and a qualifying statement to help locate the site on a topographic map.

13. PRODUCT INVENTORY FORM

Make & Model of field instrument used: ppbRAE

List specific products found in the residence that have the potential to affect indoor air quality.

Location	Product Description	Size (units)	Condition*	Chemical Ingredients	Field Instrument Reading (units)	Photo ** Y / N
basement	Floor wax	1/2 gall	u	Polystyrene	18ppb	N
	Chlorox-cleaner		u	not listed	34ppb	N
1st Fl	Aqua net hair spray	12oz	u		33ppb	Y
	No other products for potential chemical					
	sources found in basement or 1st floor					
	areas.					

* Describe the condition of the product containers as **Unopened (UO), Used (U),** or **Deteriorated (D)**
** Photographs of the **front and back** of product containers can replace the handwritten list of chemical ingredients. However, the photographs must be of good quality and ingredient labels must be legible.

35 BROWN AVE

Appendix B

Indoor air quality questionnaire and building inventory

As discussed in Section 2.11, products in buildings must be inventoried every time indoor air is sampled to provide an accurate assessment of the potential contribution of volatile chemicals. In addition, the type of structure, floor layout and physical conditions of the building being studied must be noted to identify (and minimize) conditions that may interfere with the proposed testing. Toward this end, a blank copy of the NYSDOH Center for Environmental Health's Indoor Air Quality Questionnaire and Building Inventory is provided in this appendix. Also provided is an example that demonstrates how the form should be completed properly.

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NEW YORK STATE DEPARTMENT OF HEALTH
INDOOR AIR QUALITY QUESTIONNAIRE AND BUILDING INVENTORY
CENTER FOR ENVIRONMENTAL HEALTH

This form must be completed for each residence involved in indoor air testing.

Preparer's Name Kevin Craige Date/Time Prepared 3/25/06

Preparer's Affiliation META Environmental Phone No. 617 923 4662

Purpose of Investigation Norwich SVI

1. OCCUPANT:

Interviewed: Y N Access arranged through realtor. No one present during survey or able to answer questions.

Last Name: ______ First Name: ______

Address: ______

County: ______

Home Phone: ______ Office Phone: ______

Number of Occupants/persons at this location ______ Age of Occupants ______

2. OWNER OR LANDLORD: (Check if same as occupant ___)

Interviewed: Y N

Last Name: ______ First Name: ______

Address: ______

County: ______

Home Phone: ______ Office Phone: ______

3. BUILDING CHARACTERISTICS

Type of Building: (Circle appropriate response)

Residential	School	Commercial/Multi-use
Industrial	Church	Other: ______

If the property is residential, type? (Circle appropriate response) N/A

Ranch	2-Family	3-Family
Raised Ranch	Split Level	Colonial
Cape Cod	Contemporary	Mobile Home
Duplex	Apartment House	Townhouses/Condos
Modular	Log Home	Other:______________

If multiple units, how many? ________

If the property is commercial, type?

Business Type(s) N/ Inactive

Does it include residences (i.e., multi-use)? Y / N   If yes, how many? ______

Other characteristics:

Number of floors 1   Building age unknown < 50 years

Is the building insulated? Y / N   How air tight? Tight / Average / Not Tight

4. AIRFLOW

Use air current tubes or tracer smoke to evaluate airflow patterns and qualitatively describe:

Airflow between floors

NA

Airflow near source

NA

Outdoor air infiltration

Infiltration into air ducts

NA

5. **BASEMENT AND CONSTRUCTION CHARACTERISTICS** (Circle all that apply)

a. Above grade construction:	wood frame	concrete	stone	brick	cinder block
b. Basement type: NA	full	crawlspace	slab	other ________	
c. Basement floor: NA	concrete	dirt	stone	other ________	
d. Basement floor: NA	uncovered	covered	covered with ____________		
e. Concrete floor:	unsealed	sealed	~~sealed with~~ partly covered w/ carpeting (see sketch)		
f. Foundation walls: NA	poured	block	stone	other ________	
g. Foundation walls: NA	unsealed	sealed	sealed with ____________		
h. The basement is: NA	wet	damp	dry	moldy	
i. The basement is: NA	finished	unfinished	partially finished		
j. Sump present? NA	Y / N				
k. Water in sump? NA	Y / N / not applicable				

Basement/Lowest level depth below grade: ___0___ (feet)

Identify potential soil vapor entry points and approximate size (e.g., cracks, utility ports, drains)

____

____

6. **HEATING, VENTING and AIR CONDITIONING** (Circle all that apply)

Type of heating system(s) used in this building: (circle all that apply – note primary)

Hot air circulation	Heat pump	Hot water baseboard	
Space Heaters	Stream radiation	Radiant floor	
Electric baseboard	Wood stove	Outdoor wood boiler	Other unknown

The primary type of fuel used is: unknown

Natural Gas	Fuel Oil	Kerosene
Electric	Propane	Solar
Wood	Coal	

Domestic hot water tank fueled by: unknown

Boiler/furnace located in: Basement Outdoors Main Floor Other unknown

Air conditioning: Central Air Window units Open Windows None Unknown

Are there air distribution ducts present? Y / N

Describe the supply and cold air return ductwork, and its condition where visible, including whether there is a cold air return and the tightness of duct joints. Indicate the locations on the floor plan diagram.

____

____

____

____

7. OCCUPANCY

Is basement/lowest level occupied? Full-time Occasionally Seldom Almost Never Currently Vacant

Level	**General Use of Each Floor (e.g., familyroom, bedroom, laundry, workshop, storage)**
Basement	NA
1st Floor	Uninhabited
2nd Floor	
3rd Floor	
4th Floor	

8. FACTORS THAT MAY INFLUENCE INDOOR AIR QUALITY

a. Is there an attached garage? Y / N

b. Does the garage have a separate heating unit? Y / N / NA

c. Are petroleum-powered machines or vehicles stored in the garage (e.g., lawnmower, atv, car) Y / N / NA Please specify__________

d. Has the building ever had a fire? Y / N When? Unknown

e. Is a kerosene or unvented gas space heater present? Y / N Where? __________

f. Is there a workshop or hobby/craft area? Y / N Where & Type? NA

g. Is there smoking in the building? Y / N How frequently? __________

h. Have cleaning products been used recently? Y / N When & Type? NA

i. **Have cosmetic products been used recently?** Y / N When & Type? ______________

5

j. **Has painting/staining been done in the last 6 months?** Y / N Where & When? NA

k. **Is there new carpet, drapes or other textiles?** Y / N Where & When? N/A

l. **Have air fresheners been used recently?** Y / N When & Type? N/A

m. **Is there a kitchen exhaust fan?** Y / N If yes, where vented? NA

n. **Is there a bathroom exhaust fan?** Y / N If yes, where vented? NA

o. **Is there a clothes dryer?** Y / N If yes, is it vented outside? Y / N

p. **Has there been a pesticide application?** Y / N When & Type? NA

Are there odors in the building? Y / N
If yes, please describe: Smells damp and moldy

Do any of the building occupants use solvents at work? Y / N NA
(e.g., chemical manufacturing or laboratory, auto mechanic or auto body shop, painting, fuel oil delivery, boiler mechanic, pesticide application, cosmetologist

If yes, what types of solvents are used? ______________________________

If yes, are their clothes washed at work? Y / N

Do any of the building occupants regularly use or work at a dry-cleaning service? (Circle appropriate response)

Yes, use dry-cleaning regularly (weekly)
Yes, use dry-cleaning infrequently (monthly or less)
Yes, work at a dry-cleaning service

No NA
Unknown

Is there a radon mitigation system for the building/structure? Y / N Date of Installation: __________
Is the system active or passive? Active/Passive

9. WATER AND SEWAGE

Water Supply:	Public Water	Drilled Well	Driven Well	Dug Well	Other: ______
Sewage Disposal:	Public Sewer	Septic Tank	Leach Field	Dry Well	Other: ______

10. RELOCATION INFORMATION (for oil spill residential emergency) NA

a. **Provide reasons why relocation is recommended:** ______________________________

b. **Residents choose to:** remain in home relocate to friends/family relocate to hotel/motel

c. Responsibility for costs associated with reimbursement explained? Y / N

d. Relocation package provided and explained to residents? Y / N

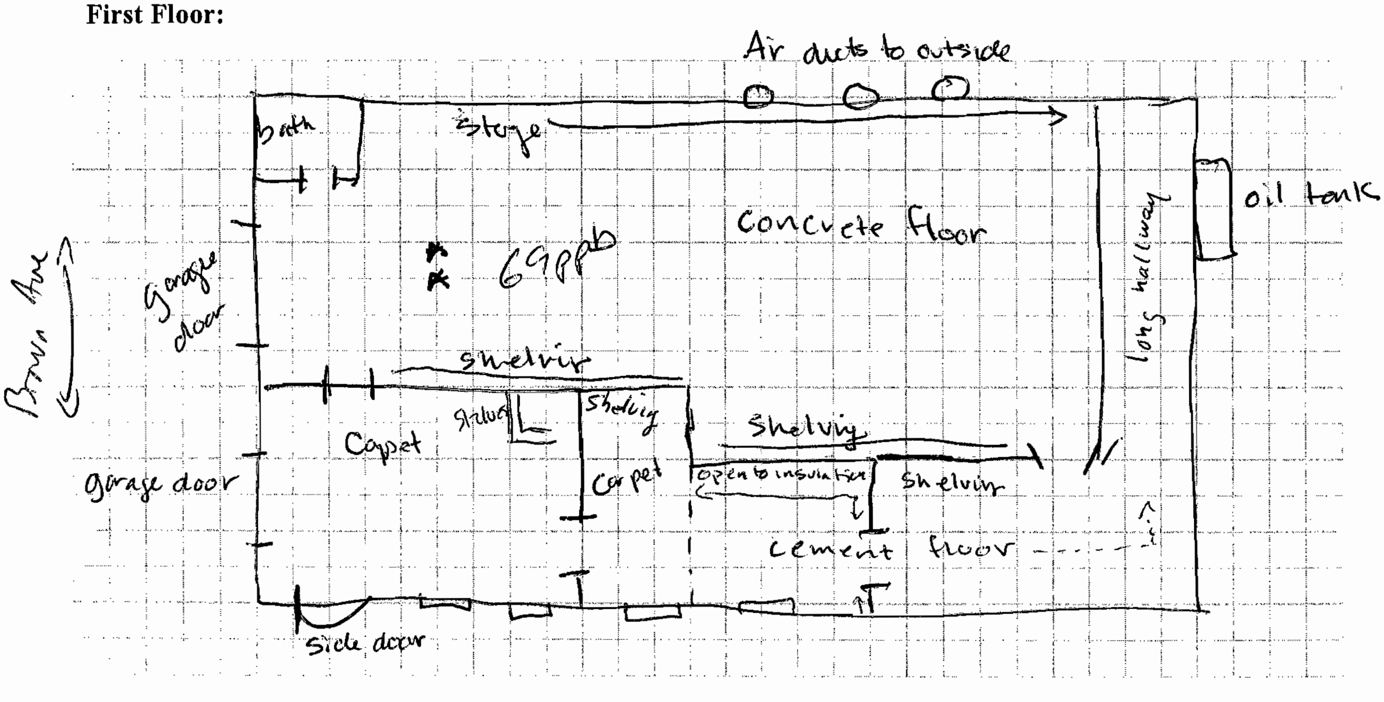
11. FLOOR PLANS

Draw a plan view sketch of the basement and first floor of the building. Indicate air sampling locations, possible indoor air pollution sources and PID meter readings. If the building does not have a basement, please note.

Basement:

No Basement

First Floor:



* sample location

12. OUTDOOR PLOT

Draw a sketch of the area surrounding the building being sampled. If applicable, provide information on spill locations, potential air contamination sources (industries, gas stations, repair shops, landfills, etc.), outdoor air sampling location(s) and PID meter readings.

Also indicate compass direction, wind direction and speed during sampling, the locations of the well and septic system, if applicable, and a qualifying statement to help locate the site on a topographic map.

13. PRODUCT INVENTORY FORM

Make & Model of field instrument used: ppbRAE

List specific products found in the residence that have the potential to affect indoor air quality.

Location	Product Description	Size (units)	Condition*	Chemical Ingredients	Field Instrument Reading (units)	Photo ** Y / N
1st Floor	Raid	8 oz	U			N
	Hearth + Stove cleaner	22oz	U	no listing (2 bottles)	25 ppb	N
	Cinch 2+1 cleaner	64oz	U	no listing	10 ppb	N
	Denatured Alchohol	32oz	U	methanol/ MIBK/ Acetone/	2 ppb	N
	PVC Piping Cleaner	16 oz	U	MEK/ Acetone	194 ppb	N
	Gun Treatment G96	12oz	U	no listing (2 cans)	11+11 ppb	N
	Roof + Flashing Sealent	1 gal	UD	mineral spirits	2 ppb	N
	Polyurethane Oil Enamel	1 Qt	U	~~polyurethane~~ No listing	12 ppb	N
	Gold Medal Latex paint	1 gal	U	No listing	20 ppb	N
	Liquid Nails (construction adhesive)	1qt	U	No listing	7 ppb	N
	Enamel Paint	1qt	U	petroleum distillate	17 ppb	N
	Latex Paint	1gal	U	vinyl acrylic (2 cans)	28 ppb	N
	Brushing Thinner	32oz	U	petroleum distillate mineral spirits/ naptha	2164 ppb	N
	Roundup	1 gal	U	no listing	12 ppb	N
	Glass Cleaner	22oz	U	no listing	26 ppb	N
	Brake + Part Cleaner	19oz	U	PCE/ Xylene/ Ethylbenzene	21 ppb	N
	All Purpose PVC cement	16oz	U	tetrahydrofuran/ MEK/ cyclohexanone	9,459 ppb	N
	Purple Primer	8 oz	U	MEK/ Cyclohexanone/ acetone tetrahydrofuran	> 200 ppm	N

* Describe the condition of the product containers as **Unopened (UO), Used (U),** or **Deteriorated (D)**
** Photographs of the **front and back** of product containers can replace the handwritten list of chemical ingredients. However, the photographs must be of good quality and ingredient labels must be legible.

10 COLUMBIA ST

Appendix B
Indoor air quality questionnaire and building inventory

As discussed in Section 2.11, products in buildings must be inventoried every time indoor air is sampled to provide an accurate assessment of the potential contribution of volatile chemicals. In addition, the type of structure, floor layout and physical conditions of the building being studied must be noted to identify (and minimize) conditions that may interfere with the proposed testing. Toward this end, a blank copy of the NYSDOH Center for Environmental Health's Indoor Air Quality Questionnaire and Building Inventory is provided in this appendix. Also provided is an example that demonstrates how the form should be completed properly.

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NEW YORK STATE DEPARTMENT OF HEALTH
INDOOR AIR QUALITY QUESTIONNAIRE AND BUILDING INVENTORY
CENTER FOR ENVIRONMENTAL HEALTH

This form must be completed for each residence involved in indoor air testing.

Preparer's Name Amanda Bissell Date/Time Prepared 3/16/06

Preparer's Affiliation Ish Inc. Phone No. 617-923-4662

Purpose of Investigation SVI Evaluation

1. OCCUPANT:

Interviewed: Y / N

Last Name: Wrightman First Name: Earl

Address: 10 Columbia Ave

County: Chenango

Home Phone: 607 334 9039 Office Phone: —

Number of Occupants/persons at this location 2 Age of Occupants 84 + 88

2. OWNER OR LANDLORD: (Check if same as occupant X)

Interviewed: Y / N

Last Name: _____ First Name: _____

Address: _____

County: _____

Home Phone: _____ Office Phone: _____

3. BUILDING CHARACTERISTICS

Type of Building: (Circle appropriate response)

Residential	School	Commercial/Multi-use
Industrial	Church	Other: _____

If the property is residential, type? (Circle appropriate response)

Ranch	2-Family	3-Family
Raised Ranch	Split Level	Colonial
Cape Cod	Contemporary	Mobile Home
Duplex	Apartment House	Townhouses/Condos
Modular	Log Home	Other:________

If multiple units, how many? NA

If the property is commercial, type?

Business Type(s) ________________

Does it include residences (i.e., multi-use)? Y / N If yes, how many? ______

Other characteristics:

Number of floors 2

Building age 1905 ~100 year old

Is the building insulated? Y / N

How air tight? Tight / Average / Not Tight

4. AIRFLOW

Use air current tubes or tracer smoke to evaluate airflow patterns and qualitatively describe:

Airflow between floors

water lines above washing machine, flow upstairs

Airflow near source

Little flow of air near furnace

Outdoor air infiltration

1 basement window has in-flow of air, vent at dryer to outside

Infiltration into air ducts

-no air infiltration to ducts found

5. **BASEMENT AND CONSTRUCTION CHARACTERISTICS** (Circle all that apply)

a. Above grade construction:	wood frame	concrete	stone	brick
b. Basement type:	full	crawlspace	slab	other ________
c. Basement floor:	concrete	dirt	stone	other ________
d. Basement floor:	uncovered	covered	covered with partially w/ rugs + linoleum	
e. Concrete floor:	unsealed	sealed	sealed with paint	
f. Foundation walls:	poured	block	stone	other ________
g. Foundation walls:	unsealed	sealed	sealed with paint	
h. The basement is:	wet	damp	dry	moldy
i. The basement is:	finished	unfinished	partially finished	
j. Sump present?	Y / N			
k. Water in sump?	Y / N / not applicable			

Basement/Lowest level depth below grade: ~3 (feet)

Identify potential soil vapor entry points and approximate size (e.g., cracks, utility ports, drains)

Part of basement has a crawl space

6. **HEATING, VENTING and AIR CONDITIONING** (Circle all that apply)

Type of heating system(s) used in this building: (circle all that apply – note primary)

Hot air circulation	Heat pump	Hot water baseboard	
Space Heaters	Stream radiation	Radiant floor	
Electric baseboard	Wood stove	Outdoor wood boiler	Other ________

The primary type of fuel used is:

Natural Gas	Fuel Oil	Kerosene
Electric	Propane	Solar
Wood	Coal	

Domestic hot water tank fueled by: Electric

Boiler/furnace located in: Basement Outdoors Main Floor Other________

NA

Air conditioning: Central Air Window units Open Windows None

Are there air distribution ducts present? Y / N – Furnace ducts

Describe the supply and cold air return ductwork, and its condition where visible, including whether there is a cold air return and the tightness of duct joints. Indicate the locations on the floor plan diagram.

good condition

7. OCCUPANCY

Is basement/lowest level occupied? Full-time Occasionally → Seldom – weekly laundry Almost Never

Level	**General Use of Each Floor (e.g., familyroom, bedroom, laundry, workshop, storage)**
Basement	laundry
1st Floor	living space
2nd Floor	– nothing / currently uninhabited
3rd Floor	
4th Floor	

8. FACTORS THAT MAY INFLUENCE INDOOR AIR QUALITY

a. Is there an attached garage? Y / N

b. Does the garage have a separate heating unit? Y / N / NA

c. Are petroleum-powered machines or vehicles stored in the garage (e.g., lawnmower, atv, car) Y / N / NA Please specify________

d. Has the building ever had a fire? Y / N When?________

e. Is a kerosene or unvented gas space heater present? Y / N Where?________

f. Is there a workshop or hobby/craft area? Y / N Where & Type? ________

g. Is there smoking in the building? Y / N How frequently? ________

h. Have cleaning products been used recently? Y / N When & Type? ________

i. Have cosmetic products been used recently? Y / N When & Type? ______________

j. Has painting/staining been done in the last 6 months? Y / N Where & When? ____________

k. Is there new carpet, drapes or other textiles? Y / N Where & When? ____________

l. Have air fresheners been used recently? Y / N When & Type? occaisonally

m. Is there a kitchen exhaust fan? Y / N If yes, where vented? inside

n. Is there a bathroom exhaust fan? Y / N If yes, where vented? outside

o. Is there a clothes dryer? Y / N If yes, is it vented outside? Y / N - in basement

p. Has there been a pesticide application? Y / N When & Type? ____________

Are there odors in the building? Y / N
If yes, please describe: ____

Do any of the building occupants use solvents at work? Y / N
(e.g., chemical manufacturing or laboratory, auto mechanic or auto body shop, painting, fuel oil delivery, boiler mechanic, pesticide application, cosmetologist

If yes, what types of solvents are used? ____________________________________

If yes, are their clothes washed at work? Y / N

Do any of the building occupants regularly use or work at a dry-cleaning service? (Circle appropriate response)

Yes, use dry-cleaning regularly (weekly) No
Yes, use dry-cleaning infrequently (monthly or less) Unknown 1/year
Yes, work at a dry-cleaning service

Is there a radon mitigation system for the building/structure? Y / N Date of Installation: __________
Is the system active or passive? Active/Passive

9. WATER AND SEWAGE

Water Supply: Public Water Drilled Well Driven Well Dug Well Other: ______

Sewage Disposal: Public Sewer Septic Tank Leach Field Dry Well Other: ______

10. RELOCATION INFORMATION (for oil spill residential emergency) NA

a. Provide reasons why relocation is recommended: ______________________

b. Residents choose to: remain in home relocate to friends/family relocate to hotel/motel

c. Responsibility for costs associated with reimbursement explained? Y / N

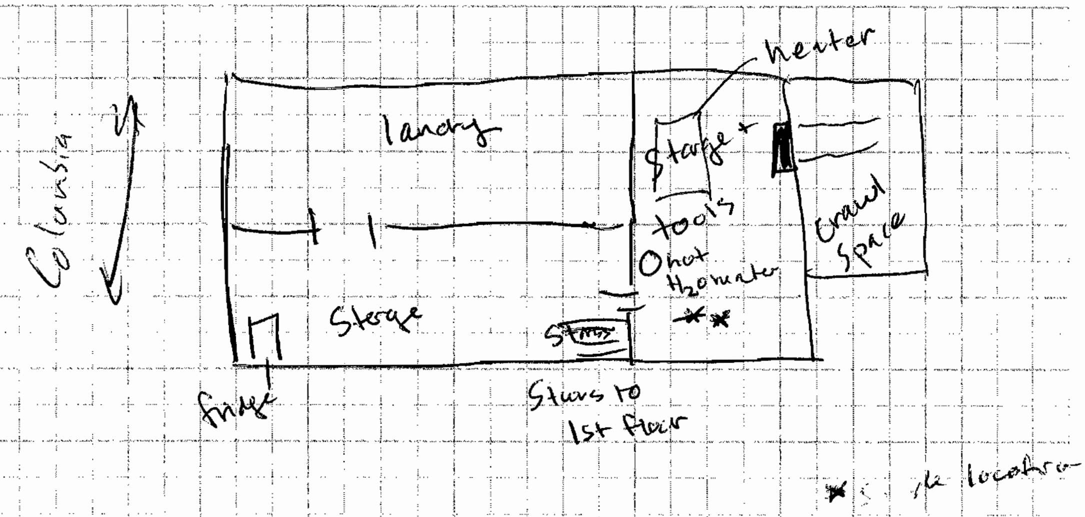
d. Relocation package provided and explained to residents? Y / N

6

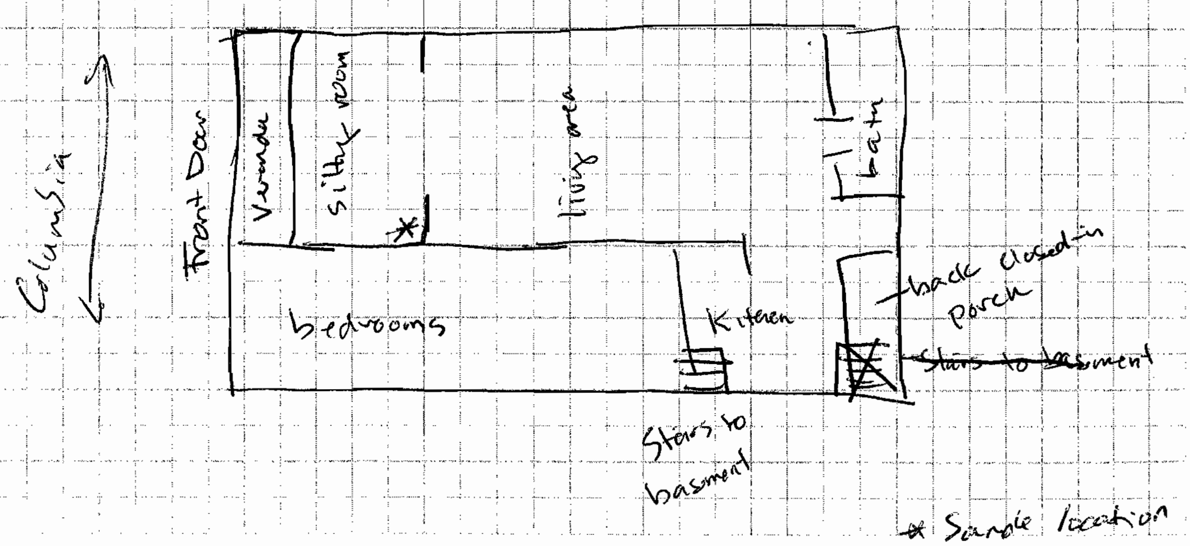
11. FLOOR PLANS

Draw a plan view sketch of the basement and first floor of the building. Indicate air sampling locations, possible indoor air pollution sources and PID meter readings. If the building does not have a basement, please note.

Basement:



First Floor:



12. OUTDOOR PLOT

Draw a sketch of the area surrounding the building being sampled. If applicable, provide information on spill locations, potential air contamination sources (industries, gas stations, repair shops, landfills, etc.), outdoor air sampling location(s) and PID meter readings.

Also indicate compass direction, wind direction and speed during sampling, the locations of the well and septic system, if applicable, and a qualifying statement to help locate the site on a topographic map.

13. PRODUCT INVENTORY FORM

Make & Model of field instrument used: ppb RAE

List specific products found in the residence that have the potential to affect indoor air quality.

Location	Product Description	Size (units)	Condition*	Chemical Ingredients	Field Instrument Reading (units)	Photo ** Y / N
First Floor	—— none found. Products present were general personal cleaning products (soaps etc)					
Basement	Fire extinguisher CO2 repellent	16 oz	U	none listed	25 ppb	N
	Aqway, Liquid Sevin 4F	8 oz	U	Carbaryl	8 ppb	
	Autobody undercoating	20 oz	U	none listed	8 ppb	
	Raid	17.5 oz	U	petroleum distillates	2 ppb	
	Insect Spray	12 oz	U	pyrethrins	1 ppb	
	Two Cycle engine oil	1 qt	U	not listed	15 ppb	
	CLR	1 qt	U		16 ppb	
	Presto Professional	14 oz	U	mineral spirits, propane-n-butane, xylene	11 ppb	
	Silicon spray	13 oz	U	petroleum distillates	4 ppb	
	Simoniz spray super polish-car polish	18 oz	U	not listed	8 ppb	
	engine oil	3.7 oz	U	not listed	10 ppb	
	house oil utility oil	8 oz	U	not listed	8 ppb	
	rust-o-leum varnish (7)	8 oz-16 oz	U	not listed	20 ppb	
	driveway crack sealer	1 gall	U	ashpalt, potash	11 ppb	
	Pothole patch	1 gal	U	asphalt, petroleum distillates	22 ppb	
	turpetene	1 qt	U	paint thinner	17 ppb	
	water repellent wood preservative	1 qt	U	Zinc naphthalene	104 ppb	
	Formbys furniture refinisher	1 qt	U	methyl alcohol, toluene, acet	113 ppb	

* Describe the condition of the product containers as **Unopened (UO), Used (U),** or **Deteriorated (D)**

** Photographs of the **front and back** of product containers can replace the handwritten list of chemical ingredients. However, the photographs must be of good quality and ingredient labels must be legible.

cont over next page

D-gloss liquid sander & cleaner	1qt	u	petroleum distillate toluol ketone	132ppb	N
Shoe polish	sm cans	u	not listed	13ppb	N
paint thinner	1qt	u	mineral spirits	23ppb	N
Parks gum turpentine	1pt	u	not listed	7ppb	N
Carpet shampoo	1qt	u	not listed	2ppb	N
rinse vac carpet clean	1qt	u	—	26ppb	N

16 COLUMBIA ST

Appendix B
Indoor air quality questionnaire and building inventory

As discussed in Section 2.11, products in buildings must be inventoried every time indoor air is sampled to provide an accurate assessment of the potential contribution of volatile chemicals. In addition, the type of structure, floor layout and physical conditions of the building being studied must be noted to identify (and minimize) conditions that may interfere with the proposed testing. Toward this end, a blank copy of the NYSDOH Center for Environmental Health's Indoor Air Quality Questionnaire and Building Inventory is provided in this appendix. Also provided is an example that demonstrates how the form should be completed properly.

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no conflicts w/ scheduling

NEW YORK STATE DEPARTMENT OF HEALTH
INDOOR AIR QUALITY QUESTIONNAIRE AND BUILDING INVENTORY
CENTER FOR ENVIRONMENTAL HEALTH

This form must be completed for each residence involved in indoor air testing.

Preparer's Name Amanda Bissell Date/Time Prepared 3/16/06

Preparer's Affiliation ISH Inc. Phone No. 617-923-4662

Purpose of Investigation Norwich SVI

1. OCCUPANT:

Interviewed: Y / N

Last Name: Brown First Name: Randy

Address: 16 Columbia St., Norwich, NY 13815

County: Chenango

Home Phone: 607-336-3454 Office Phone: —

Number of Occupants/persons at this location 6 Age of Occupants 35, 31, 16, 13, 9, 2

2. OWNER OR LANDLORD: (Check if same as occupant X)

Interviewed: Y / N

Last Name: ______ First Name: ______

Address: ______

County: ______

Home Phone: ______ Office Phone: ______

3. BUILDING CHARACTERISTICS

Type of Building: (Circle appropriate response)

Residential	School	Commercial/Multi-use
Industrial	Church	Other: ______

If the property is residential, type? (Circle appropriate response)

Ranch	2-Family	3-Family
Raised Ranch	Split Level	Colonial
Cape Cod	Contemporary	Mobile Home
Duplex	Apartment House	Townhouses/Condos
Modular	Log Home	Other:______________

If multiple units, how many? 1

If the property is commercial, type?

Business Type(s) ______________________________

Does it include residences (i.e., multi-use)? Y / N   If yes, how many? ______

Other characteristics:

Number of floors 4   Building age Built 1896 -> 110 yrs old

Is the building insulated? Y / N   How air tight? Tight / Average / Not Tight

Blown-in

4. AIRFLOW

Use air current tubes or tracer smoke to evaluate airflow patterns and qualitatively describe:

Airflow between floors

By backdoor in basement - there is a duct between the basement + 1st floor where there is a flow of air into a bathroom

Airflow near source

no significant flow

one unattached duct w flow into system towards furnace

Outdoor air infiltration

A couple of the windows and the door have flows coming in

Infiltration into air ducts

where broken (see above)

5. **BASEMENT AND CONSTRUCTION CHARACTERISTICS** (Circle all that apply)

a. Above grade construction:	wood frame	concrete	stone	brick
b. Basement type:	full	crawlspace	slab	other ________
c. Basement floor:	partial concrete	dirt	stone	other ________
d. Basement floor:	uncovered	covered	covered with ______________	
e. Concrete floor:	unsealed	sealed	sealed with ________________	
f. Foundation walls:	poured	block	stone	other ________
g. Foundation walls:	unsealed	sealed	sealed with Mortar - not all walls sealed	
h. The basement is:	wet	damp	dry	moldy - dirt floor damp
i. The basement is:	finished	unfinished	partially finished	
j. Sump present?	Y / N			
k. Water in sump?	Y / N / not applicable			

Basement/Lowest level depth below grade: ~7 (feet)

Identify potential soil vapor entry points and approximate size (e.g., cracks, utility ports, drains)

Floor cracks in slab, doorway and windows - not fully sealed.

6. **HEATING, VENTING and AIR CONDITIONING** (Circle all that apply)

Type of heating system(s) used in this building: (circle all that apply – note primary)

Hot air circulation	Heat pump	Hot water baseboard	
Space Heaters	Stream radiation	Radiant floor	
Electric baseboard	Wood stove	Outdoor wood boiler	Other __________

The primary type of fuel used is:

Natural Gas	Fuel Oil	Kerosene
Electric	Propane	Solar
Wood	Coal	

Domestic hot water tank fueled by: Natural Gas

Boiler/furnace located in: Basement Outdoors Main Floor Other__________

Air conditioning: Central Air Window units Open Windows None

Are there air distribution ducts present? Y N

Describe the supply and cold air return ductwork, and its condition where visible, including whether there is a cold air return and the tightness of duct joints. Indicate the locations on the floor plan diagram.

___

___

___

___

7. OCCUPANCY

Is basement/lowest level occupied? Full-time Occasionally Seldom Almost Never

Level	**General Use of Each Floor (e.g., familyroom, bedroom, laundry, workshop, storage)**
Basement	storage
1st Floor	Living Space
2nd Floor	Bedrooms
3rd Floor	
4th Floor	

8. FACTORS THAT MAY INFLUENCE INDOOR AIR QUALITY

a. Is there an attached garage? Y / N

b. Does the garage have a separate heating unit? Y / N / NA

c. Are petroleum-powered machines or vehicles stored in the garage (e.g., lawnmower, atv, car) Y / N / NA
Please specify___

d. Has the building ever had a fire? Y / N When?___

e. Is a kerosene or unvented gas space heater present? Y / N Where?___

f. Is there a workshop or hobby/craft area? Y / N Where & Type?___

g. Is there smoking in the building? Y / N How frequently?___

h. Have cleaning products been used recently? Y / N When & Type? ~1 week / wood polish window cleaner

i. Have cosmetic products been used recently? Y / N When & Type? ______________

j. Has painting/staining been done in the last 6 months? Y / N Where & When? Kitchen in October

k. Is there new carpet, drapes or other textiles? Y / N Where & When? ______________

l. Have air fresheners been used recently? Y / N When & Type? Scented candles

m. Is there a kitchen exhaust fan? Y / N If yes, where vented? ___________

n. Is there a bathroom exhaust fan? Y / N If yes, where vented? ___________

o. Is there a clothes dryer? Y / N If yes, is it vented outside? Y / N

p. Has there been a pesticide application? Y / N When & Type? ______________

Are there odors in the building? Y / N
If yes, please describe: ____

Do any of the building occupants use solvents at work? Y / N
(e.g., chemical manufacturing or laboratory, auto mechanic or auto body shop, painting, fuel oil delivery, boiler mechanic, pesticide application, cosmetologist

If yes, what types of solvents are used? Degreaser, varnish, paint, poly

If yes, are their clothes washed at work? Y / N washed at home

Do any of the building occupants regularly use or work at a dry-cleaning service? (Circle appropriate response)

Yes, use dry-cleaning regularly (weekly) No
Yes, use dry-cleaning infrequently (monthly or less) Unknown
Yes, work at a dry-cleaning service

Is there a radon mitigation system for the building/structure? Y / N Date of Installation: ___________
Is the system active or passive? Active/Passive

9. WATER AND SEWAGE

Water Supply:	Public Water	Drilled Well	Driven Well	Dug Well	Other: _______
Sewage Disposal:	Public Sewer	Septic Tank	Leach Field	Dry Well	Other: _______

10. RELOCATION INFORMATION (for oil spill residential emergency)

a. Provide reasons why relocation is recommended: ______________________________

b. Residents choose to: remain in home relocate to friends/family relocate to hotel/motel

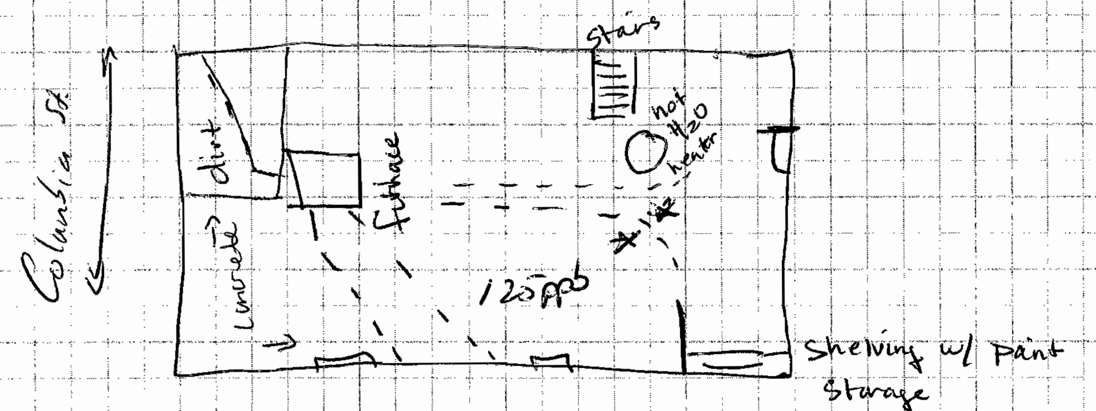
c. Responsibility for costs associated with reimbursement explained? Y / N

d. Relocation package provided and explained to residents? Y / N

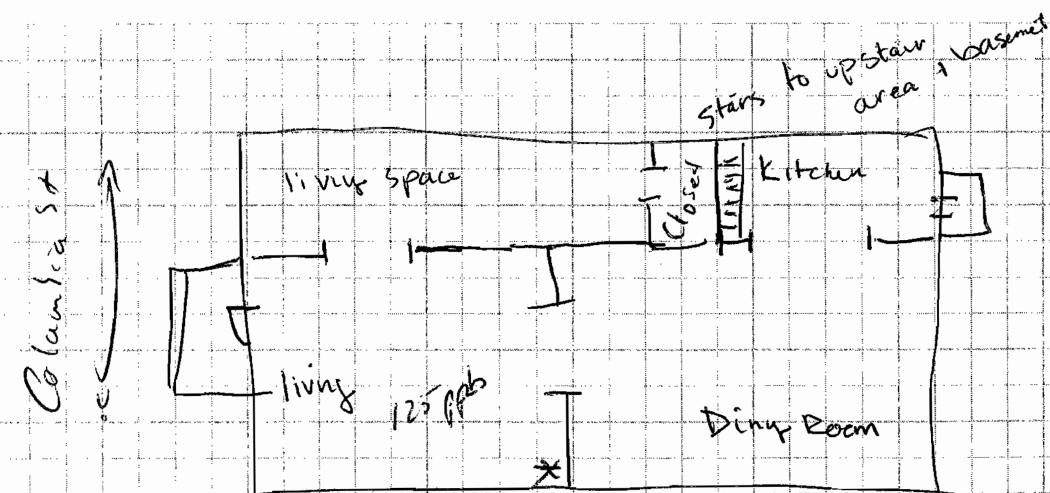
11. FLOOR PLANS

Draw a plan view sketch of the basement and first floor of the building. Indicate air sampling locations, possible indoor air pollution sources and PID meter readings. If the building does not have a basement, please note.

Basement:



First Floor:



12. OUTDOOR PLOT

Draw a sketch of the area surrounding the building being sampled. If applicable, provide information on spill locations, potential air contamination sources (industries, gas stations, repair shops, landfills, etc.), outdoor air sampling location(s) and PID meter readings.

Also indicate compass direction, wind direction and speed during sampling, the locations of the well and septic system, if applicable, and a qualifying statement to help locate the site on a topographic map.

13. PRODUCT INVENTORY FORM

Make & Model of field instrument used: ____________________

List specific products found in the residence that have the potential to affect indoor air quality.

Location	Product Description	Size (units)	Condition*	Chemical Ingredients	Field Instrument Reading (units)	Photo ** Y / N
Basement	latex paint 6x	1gall	u		77ppb	N
	latex paint 11x	1gall	D		77ppb	N
	latex paint enamel paint 6x	1gall	D		33ppb	N
	solvent alcohol	1qt	u	methanol	4500ppb	N
	waterloo-coating	1qt	u	not listed	6ppb	N
	wood finisher wax	1/2 gall	u	not readable	1ppb	N
1st fl	Paint	5gall	u		17ppb	N
	latex paint 2x	1gall	u		29	N

* Describe the condition of the product containers as **Unopened (UO), Used (U),** or **Deteriorated (D)**
** Photographs of the **front and back** of product containers can replace the handwritten list of chemical ingredients. However, the photographs must be of good quality and ingredient labels must be legible.

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Appendix B
Indoor air quality questionnaire and building inventory

As discussed in Section 2.11, products in buildings must be inventoried every time indoor air is sampled to provide an accurate assessment of the potential contribution of volatile chemicals. In addition, the type of structure, floor layout and physical conditions of the building being studied must be noted to identify (and minimize) conditions that may interfere with the proposed testing. Toward this end, a blank copy of the NYSDOH Center for Environmental Health's Indoor Air Quality Questionnaire and Building Inventory is provided in this appendix. Also provided is an example that demonstrates how the form should be completed properly.

anytime
-after 9AM
-second shift work

336-2757

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NEW YORK STATE DEPARTMENT OF HEALTH
INDOOR AIR QUALITY QUESTIONNAIRE AND BUILDING INVENTORY
CENTER FOR ENVIRONMENTAL HEALTH

This form must be completed for each residence involved in indoor air testing.

Preparer's Name Keir Craigie Date/Time Prepared 3/17/06 1130

Preparer's Affiliation Ish Inc Phone No. 617 523 4662

Purpose of Investigation Norwich SVI

1. OCCUPANT:

Interviewed: Y / N

Last Name: Hall First Name: Kellie

Address: 18 Columbia St, Norwich, NY 13815

County: Chenango

Home Phone: 607 336 2757 Office Phone: —

Number of Occupants/persons at this location 3 Age of Occupants 5-25

2. OWNER OR LANDLORD: (Check if same as occupant ___)

Interviewed: Y / N

Last Name: Cleary First Name: Thomas

Address: 1331 County Road 31, Guilford, NY 13815

County: ______

Home Phone: 607-895-6034 Office Phone: —

3. BUILDING CHARACTERISTICS

Type of Building: (Circle appropriate response)

Residential School Commercial/Multi-use
Industrial Church Other: ______

If the property is residential, type? (Circle appropriate response)

Ranch	2-Family	3-Family
Raised Ranch	Split Level	Colonial
Cape Cod	Contemporary	Mobile Home
Duplex	Apartment House	Townhouses/Condos
Modular	Log Home	Other:______________

If multiple units, how many? 2

If the property is commercial, type?

Business Type(s) ______________________________

Does it include residences (i.e., multi-use)? Y / N   If yes, how many? ______

Other characteristics:

Number of floors 2   Building age unknown

Is the building insulated? Y / N   How air tight? Tight / Average / Not Tight

4. AIRFLOW

Use air current tubes or tracer smoke to evaluate airflow patterns and qualitatively describe:

Airflow between floors

No significant flow noted

Airflow near source

no significant

Outdoor air infiltration

at window => inward flow

Infiltration into air ducts

where ducts meet foundation walls inward leak

5. BASEMENT AND CONSTRUCTION CHARACTERISTICS (Circle all that apply)

a. Above grade construction:	wood frame	concrete	stone	brick
b. Basement type:	full	crawlspace	slab	other ________
c. Basement floor:	concrete	dirt	stone	other ________
d. Basement floor:	uncovered	covered	covered with ______________	
e. Concrete floor:	unsealed	sealed	sealed with ______________	
f. Foundation walls:	poured	block	stone	other ________
g. Foundation walls:	unsealed	sealed	sealed with ______________	
h. The basement is:	wet	damp	dry	moldy
i. The basement is:	finished	unfinished	partially finished	
j. Sump present?	Y / N			
k. Water in sump?	Y / N / not applicable			

Basement/Lowest level depth below grade: 5 (feet)

Identify potential soil vapor entry points and approximate size (e.g., cracks, utility ports, drains)

Dirt basement floor

6. HEATING, VENTING and AIR CONDITIONING (Circle all that apply)

Type of heating system(s) used in this building: (circle all that apply – note primary)

Hot air circulation	Heat pump	Hot water baseboard	
Space Heaters	Stream radiation	Radiant floor	
Electric baseboard	Wood stove	Outdoor wood boiler	Other ________

The primary type of fuel used is:

Natural Gas	Fuel Oil	Kerosene
Electric	Propane	Solar
Wood	Coal	

Domestic hot water tank fueled by: Natural Gas

Boiler/furnace located in: Basement Outdoors Main Floor Other________

Air conditioning: Central Air Window units Open Windows None

4

Are there air distribution ducts present? Y / N

Describe the supply and cold air return ductwork, and its condition where visible, including whether there is a cold air return and the tightness of duct joints. Indicate the locations on the floor plan diagram.

ducts in good condition

7. OCCUPANCY

Is basement/lowest level occupied? Full-time Occasionally Seldom Almost Never

drier downstair

Level	**General Use of Each Floor (e.g., familyroom, bedroom, laundry, workshop, storage)**
Basement	Strage
1st Floor	Living
2nd Floor	Living space
3rd Floor	
4th Floor	

8. FACTORS THAT MAY INFLUENCE INDOOR AIR QUALITY

a. **Is there an attached garage?** Y / N

b. **Does the garage have a separate heating unit?** Y / N / NA

c. **Are petroleum-powered machines or vehicles stored in the garage** (e.g., lawnmower, atv, car) Y / N / NA
Please specify________

d. **Has the building ever had a fire?** Y / N When?________

e. **Is a kerosene or unvented gas space heater present?** Y / N Where?________

f. **Is there a workshop or hobby/craft area?** Y / N Where & Type?________

g. **Is there smoking in the building?** Y / N How frequently?________

h. **Have cleaning products been used recently?** Y / N When & Type?________

i. **Have cosmetic products been used recently?** Y / N When & Type? ______

j. **Has painting/staining been done in the last 6 months?** Y / N Where & When? ______

k. **Is there new carpet, drapes or other textiles?** Y / N Where & When? Oren rug

l. **Have air fresheners been used recently?** Y / N When & Type? neutral air wizard

m. **Is there a kitchen exhaust fan?** Y / N If yes, where vented? not outside

n. **Is there a bathroom exhaust fan?** Y / N If yes, where vented? not out

o. **Is there a clothes dryer?** Y / N If yes, is it vented outside? Y / N

p. **Has there been a pesticide application?** Y / N When & Type? Something in basement not known

Are there odors in the building? Y / N
If yes, please describe: ______

Do any of the building occupants use solvents at work? Y / N
(e.g., chemical manufacturing or laboratory, auto mechanic or auto body shop, painting, fuel oil delivery, boiler mechanic, pesticide application, cosmetologist

If yes, what types of solvents are used? ______

If yes, are their clothes washed at work? Y / N

Do any of the building occupants regularly use or work at a dry-cleaning service? (Circle appropriate response)

Yes, use dry-cleaning regularly (weekly) No
Yes, use dry-cleaning infrequently (monthly or less) Unknown
Yes, work at a dry-cleaning service

Is there a radon mitigation system for the building/structure? Y / N Date of Installation: ______
Is the system active or passive? Active/Passive

9. WATER AND SEWAGE

Water Supply: Public Water Drilled Well Driven Well Dug Well Other: ______

Sewage Disposal: Public Sewer Septic Tank Leach Field Dry Well Other: ______

10. RELOCATION INFORMATION (for oil spill residential emergency)

a. **Provide reasons why relocation is recommended:** ______

b. **Residents choose to:** remain in home relocate to friends/family relocate to hotel/motel

c. Responsibility for costs associated with reimbursement explained? Y / N

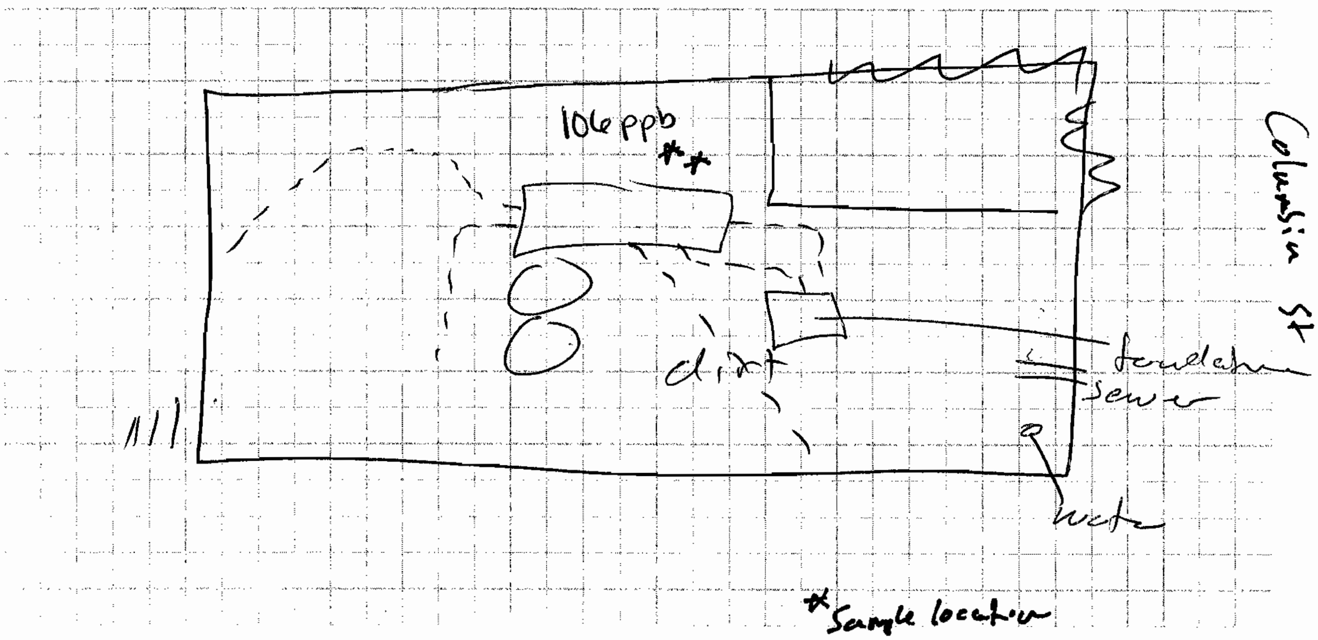
d. Relocation package provided and explained to residents? Y / N

6

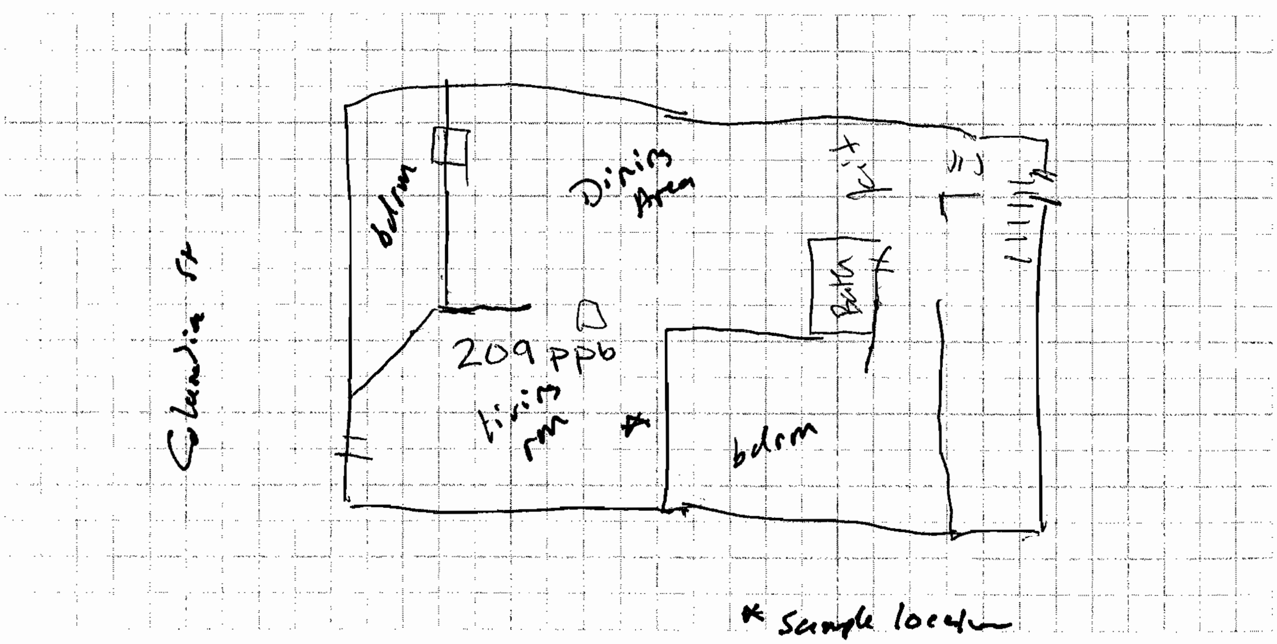
11. FLOOR PLANS

Draw a plan view sketch of the basement and first floor of the building. Indicate air sampling locations, possible indoor air pollution sources and PID meter readings. If the building does not have a basement, please note.

Basement:



First Floor:



12. OUTDOOR PLOT

Draw a sketch of the area surrounding the building being sampled. If applicable, provide information on spill locations, potential air contamination sources (industries, gas stations, repair shops, landfills, etc.), outdoor air sampling location(s) and PID meter readings.

Also indicate compass direction, wind direction and speed during sampling, the locations of the well and septic system, if applicable, and a qualifying statement to help locate the site on a topographic map.

13. PRODUCT INVENTORY FORM

Make & Model of field instrument used: ______________________

List specific products found in the residence that have the potential to affect indoor air quality.

Location	Product Description	Size (units)	Condition*	Chemical Ingredients	Field Instrument Reading (units)	Photo ** Y / N
stairway basement	Charcoal starter	2x1Q	U	petroleum distillates	0ppb	N
				~~methyl propene~~		
kit	3 in one	2x22oz	U		0ppb	N
	degreaser	22oz	U	not listed	0ppb	N
	spray paint	11oz	U	not listed	0ppb	N
	torch fuel	64oz	U	not listed	26ppb	N
	vacuum foam carpet cleaner	525g	U	not listed	0ppb	N

* Describe the condition of the product containers as **Unopened (UO), Used (U), or Deteriorated (D)**
** Photographs of the **front and back** of product containers can replace the handwritten list of chemical ingredients. However, the photographs must be of good quality and ingredient labels must be legible.

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Appendix B
Indoor air quality questionnaire and building inventory

As discussed in Section 2.11, products in buildings must be inventoried every time indoor air is sampled to provide an accurate assessment of the potential contribution of volatile chemicals. In addition, the type of structure, floor layout and physical conditions of the building being studied must be noted to identify (and minimize) conditions that may interfere with the proposed testing. Toward this end, a blank copy of the NYSDOH Center for Environmental Health's Indoor Air Quality Questionnaire and Building Inventory is provided in this appendix. Also provided is an example that demonstrates how the form should be completed properly.

available
- next week not good
- afternoons, early
- tues/wed.

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OSR – 3

NEW YORK STATE DEPARTMENT OF HEALTH
INDOOR AIR QUALITY QUESTIONNAIRE AND BUILDING INVENTORY
CENTER FOR ENVIRONMENTAL HEALTH

This form must be completed for each residence involved in indoor air testing.

Preparer's Name Keir Craigie Date/Time Prepared 3/7/06

Preparer's Affiliation Ish Inc Phone No. 617 923 4662

Purpose of Investigation Norwich 311

1. OCCUPANT:

Interviewed: Y / N

Last Name: Tubbs First Name: Linda

Address: 20 Columbia

County: ____

Home Phone: 607 336 5387 Office Phone: —

Number of Occupants/persons at this location 2 Age of Occupants 30 - 60

2. OWNER OR LANDLORD: (Check if same as occupant ✓)

Interviewed: Y / N

Last Name: ____ First Name: ____

Address: ____

County: ____

Home Phone: ____ Office Phone: ____

3. BUILDING CHARACTERISTICS

Type of Building: (Circle appropriate response)

Residential	School	Commercial/Multi-use
Industrial	Church	Other: ____

If the property is residential, type? (Circle appropriate response)

Ranch	2-Family	3-Family
Raised Ranch	Split Level	Colonial
Cape Cod	Contemporary	Mobile Home
Duplex	Apartment House	Townhouses/Condos
Modular	Log Home	Other:______________

If multiple units, how many? 1

If the property is commercial, type? NA

Business Type(s) ______________________________

Does it include residences (i.e., multi-use)? Y / N   If yes, how many? ______

Other characteristics:

Number of floors 2   Building age >100 yrs

Is the building insulated? Y / N   How air tight? Tight / Average / Not Tight
original windows

4. AIRFLOW

Use air current tubes or tracer smoke to evaluate airflow patterns and qualitatively describe:

Airflow between floors
Upward flow from basement to 1st at one end near furnace at edge (wall)

Airflow near source
No significant flow ~~from~~ around furnace

Outdoor air infiltration
No significant flow between indoor/outdoor
- note Ms Tubbs vents basement daily (Radon)

Infiltration into air ducts
NA

5. **BASEMENT AND CONSTRUCTION CHARACTERISTICS** (Circle all that apply)

a. Above grade construction:	wood frame	concrete	stone	brick
b. Basement type:	full	crawlspace	slab	other ________
c. Basement floor:	concrete	dirt	stone	other ________
d. Basement floor:	uncovered	covered	covered with Carpets most areas	
e. Concrete floor:	unsealed	sealed	sealed with ________	
f. Foundation walls:	poured	block	stone	other ________
g. Foundation walls:	unsealed	sealed	sealed with ________	
h. The basement is:	wet	damp	dry	moldy
i. The basement is:	finished	unfinished	partially finished	
j. Sump present?	Y / N			
k. Water in sump?	Y / N / not applicable			

Basement/Lowest level depth below grade: 4 (feet)

Identify potential soil vapor entry points and approximate size (e.g., cracks, utility ports, drains)

dirt floor, stone floor areas

6. **HEATING, VENTING and AIR CONDITIONING** (Circle all that apply)

Type of heating system(s) used in this building: (circle all that apply – note primary)

Hot air circulation	Heat pump	Hot water ~~baseboard~~	
Space Heaters	Stream radiation	~~Radiant floor~~	
Electric baseboard	Wood stove	Outdoor wood boiler	Other ________

The primary type of fuel used is:

~~Natural Gas~~	Fuel Oil	Kerosene
Electric	Propane	Solar
Wood	Coal	

Domestic hot water tank fueled by: Natural Gas

Boiler/furnace located in: Basement Outdoors Main Floor Other________

Air conditioning: Central Air Window units Open Windows None

Are there air distribution ducts present? Y / N

Describe the supply and cold air return ductwork, and its condition where visible, including whether there is a cold air return and the tightness of duct joints. Indicate the locations on the floor plan diagram.

____

____

____

____

7. OCCUPANCY

Is basement/lowest level occupied? Full-time Occasionally Seldom Almost Never

washing, storage, daily

Level	**General Use of Each Floor (e.g., familyroom, bedroom, laundry, workshop, storage)**
Basement	Storage, washing
1st Floor	Living
2nd Floor	Living bedroom
3rd Floor	
4th Floor	

8. FACTORS THAT MAY INFLUENCE INDOOR AIR QUALITY

a. Is there an attached garage? Y / N

b. Does the garage have a separate heating unit? Y / N / NA

c. Are petroleum-powered machines or vehicles stored in the garage (e.g., lawnmower, atv, car) Y / N / NA Please specify________

d. Has the building ever had a fire? Y / N When? 7 yrs / charred wood from possible earlier

e. Is a kerosene or unvented gas space heater present? Y / N Where? ________

f. Is there a workshop or hobby/craft area? Y / N Where & Type? basement

g. Is there smoking in the building? Y / N How frequently? ________

h. Have cleaning products been used recently? Y / N When & Type? ________

i. Have cosmetic products been used recently? Y / N When & Type? Nail polish occasionally

j. Has painting/staining been done in the last 6 months? Y / N Where & When? ______

k. Is there new carpet, drapes or other textiles? Y / N Where & When? ______

l. Have air fresheners been used recently? Y / N When & Type? disinfectant spray citrus

m. Is there a kitchen exhaust fan? Y / N If yes, where vented? ______

n. Is there a bathroom exhaust fan? Y / N If yes, where vented? outside

o. Is there a clothes dryer? Y / N If yes, is it vented outside? Y / N

p. Has there been a pesticide application? Y / N When & Type? ______

Are there odors in the building? Y / N
If yes, please describe: ______

Do any of the building occupants use solvents at work? Y / N
(e.g., chemical manufacturing or laboratory, auto mechanic or auto body shop, painting, fuel oil delivery, boiler mechanic, pesticide application, cosmetologist

If yes, what types of solvents are used? ______

If yes, are their clothes washed at work? Y / N

Do any of the building occupants regularly use or work at a dry-cleaning service? (Circle appropriate response)

Yes, use dry-cleaning regularly (weekly) — No
Yes, use dry-cleaning infrequently (monthly or less) — Unknown
Yes, work at a dry-cleaning service

Is there a radon mitigation system for the building/structure? Y / N Date of Installation: ______
Is the system active or passive? Active/Passive

9. WATER AND SEWAGE

Water Supply: Public Water Drilled Well Driven Well Dug Well Other: ______

Sewage Disposal: Public Sewer Septic Tank Leach Field Dry Well Other: ______

10. RELOCATION INFORMATION (for oil spill residential emergency) NA

a. Provide reasons why relocation is recommended: ______

b. Residents choose to: remain in home relocate to friends/family relocate to hotel/motel

20 Columbia

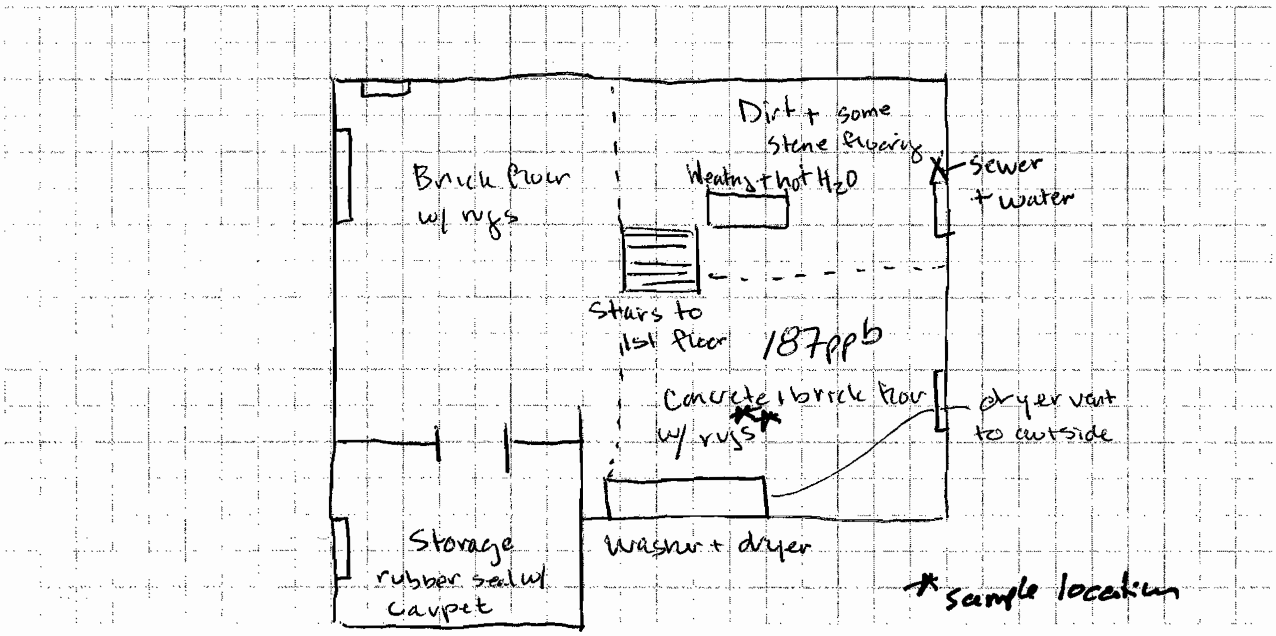
c. **Responsibility for costs associated with reimbursement explained?** Y / N

d. **Relocation package provided and explained to residents?** Y / N

11. FLOOR PLANS

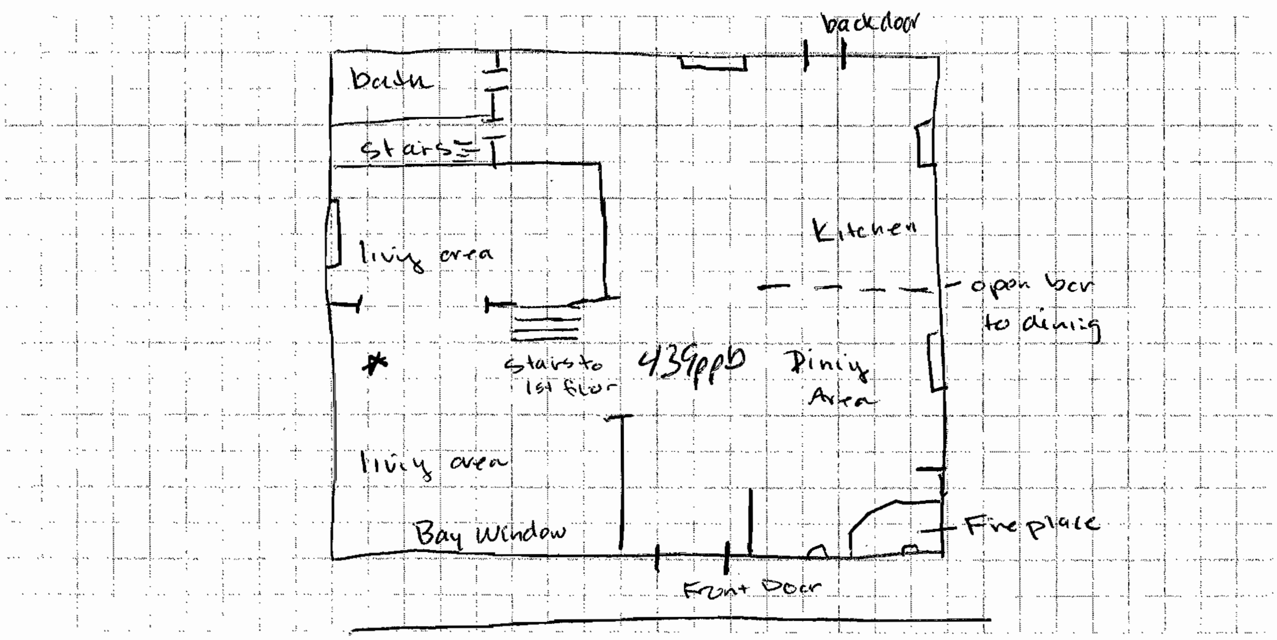
Draw a plan view sketch of the basement and first floor of the building. Indicate air sampling locations, possible indoor air pollution sources and PID meter readings. If the building does not have a basement, please note.

Basement:



Columbia St

First Floor:



* Sample location

Columbia St

20 Columbia

12. OUTDOOR PLOT

Draw a sketch of the area surrounding the building being sampled. If applicable, provide information on spill locations, potential air contamination sources (industries, gas stations, repair shops, landfills, etc.), outdoor air sampling location(s) and PID meter readings.

Also indicate compass direction, wind direction and speed during sampling, the locations of the well and septic system, if applicable, and a qualifying statement to help locate the site on a topographic map.

20 Columbia

13. PRODUCT INVENTORY FORM

Make & Model of field instrument used: ppb RAE

List specific products found in the residence that have the potential to affect indoor air quality.

Location	Product Description	Size (units)	Condition*	Chemical Ingredients	Field Instrument Reading (units)	Photo ** Y / N
Basement	Exterior latex paint	1 gal	U	Acrylic Polymer, Titanium Dioxide (13 cans)	15 ppb	N
	Elastic Roof Sealer	1 gal	U	Petroleum Distillate, asphalt,	0 ppb	N
	Super Strip Paint + Varnish Remover	1 gal	U	methanol, ~~MEK~~, methylene chloride	40 ppb	N
	Min Wax Wood Finish	1 qt	U	aliphatic hydrocarbons	0 ppb	N
	Wet Surface Roof Cement	1 qt	U	Stoddard Solvent	0 ppb	N
	Steam clean/defoamer	32 oz	U	no listing	0 ppb	N
	Bissell Wall to Wall Shampoo	32 oz	U	Formalin	0 ppb	N
	Poly Eurothane	1 qt	U	poly eurothane, naptha, petrol. distillates, MEK + 1-8 oz can (3 cans)	0 ppb	N
	Rust-oleum	8 oz	U	Petroleum distillates	0 ppb	N
	Latex Enamel Spray Paint	~~8~~ 12 oz cp	U	no listing	25 ppb	N
	Wasp + Hornet Spray	15 oz	U	petroleum distillates	0 ppb	N
	Water-Lox	1 qt	U	Mineral Spirits phenolic resin	0 ppb	N
	Wood Preen	1 qt	U	no listing	0 ppb	N
	Gear Lubricant	1 qt	U	no listing	0 ppb	N
	Weed-Be-Gone	1 qt	U	2-4-D, silvex	0 ppb	N
	Isotox Insect Spray	1 pint	U	no volatiles listed	0 ppb	N
	Ashels 2-Cycle oil	8 oz	UO	no listing	0 ppb	N
	Brasso	8 oz	U/UO	Petroleum distillates (2 cans)	~~0 ppb~~ 322 ppb	N
	Hoppe's Moisture Displacing Lubricant	8 oz	U	no listing	0 ppb	N

* Describe the condition of the product containers as **Unopened (UO), Used (U),** or **Deteriorated (D)**
** Photographs of the **front and back** of product containers can replace the handwritten list of chemical ingredients. However, the photographs must be of good quality and ingredient labels must be legible.

Cont. next page over

Basement cont.

					Photo
Hoppe's Nitro-power solvent	2oz	Kerosene	U	0ppb	N
Naval Jelly-Rust Dissolver	8 oz	no listing	U	0ppb	N
Auto spray paint	5oz	toluene, ketones	U	0ppb	N
Rain-X De-icer	1gal	methyl alchohol	U	0ppb	N
Paint + Varnish Remover	1gal	no listing (2 jugs)	U	0ppb	N
Pot-Hole Patch	15 lbs	no listing	U	0ppb	N

1st Floor: No chemical sources found. Products present included general personnal cleaning products (Dish and hand soaps)

30 Front St.

Appendix B
Indoor air quality questionnaire and building inventory

As discussed in Section 2.11, products in buildings must be inventoried every time indoor air is sampled to provide an accurate assessment of the potential contribution of volatile chemicals. In addition, the type of structure, floor layout and physical conditions of the building being studied must be noted to identify (and minimize) conditions that may interfere with the proposed testing. Toward this end, a blank copy of the NYSDOH Center for Environmental Health's Indoor Air Quality Questionnaire and Building Inventory is provided in this appendix. Also provided is an example that demonstrates how the form should be completed properly.

weekends heat
- downstairs open to outdoor.

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30 Front

NEW YORK STATE DEPARTMENT OF HEALTH
INDOOR AIR QUALITY QUESTIONNAIRE AND BUILDING INVENTORY
CENTER FOR ENVIRONMENTAL HEALTH

This form must be completed for each residence involved in indoor air testing.

Preparer's Name Kevin Craigie Date/Time Prepared 3/17/06 1530

Preparer's Affiliation META Environmental Phone No.__________

Purpose of Investigation Norwich SVI

1. OCCUPANT:

Interviewed: Y / N

Last Name: Reynolds First Name: Rachael

Address: 30 Front St.

County: __________

Home Phone: 607 343 3204 Office Phone: NA

Number of Occupants/persons at this location 1/3-4 Age of Occupants <10 - 30

downstairs 2nd fl

2. OWNER OR LANDLORD: (Check if same as occupant ___)

Interviewed: Y / N

Last Name: Stroh First Name: —

Address: 120 W. Shore Rd

County: __________

Home Phone: 607 334 6530 Office Phone: __________

3. BUILDING CHARACTERISTICS

Type of Building: (Circle appropriate response)

Residential	School	Commercial/Multi-use
Industrial	Church	Other: __________

30 Front

If the property is residential, type? (Circle appropriate response)

Units - 1st Floor - 1
2nd Floor - 1

Ranch	2-Family	3-Family
Raised Ranch	Split Level	Colonial
Cape Cod	Contemporary	Mobile Home
Duplex	Apartment House	Townhouses/Condos
Modular	Log Home	Other:______________

If multiple units, how many? 2

If the property is commercial, type?

Business Type(s) ________________________________

Does it include residences (i.e., multi-use)? Y / N If yes, how many? ______

Other characteristics:

Number of floors 2 Building age unknown

Is the building insulated? Y / N unsure How air tight? Tight / Average / Not Tight

4. AIRFLOW

Use air current tubes or tracer smoke to evaluate airflow patterns and qualitatively describe:

Airflow between floors

no significant flow

Airflow near source

NA, no significant flow around oil tank

Outdoor air infiltration

door and windows not sealed, significant flow across

Infiltration into air ducts

No flow into ducts, some sealed w insulation

30 Front

5. **BASEMENT AND CONSTRUCTION CHARACTERISTICS** (Circle all that apply)

a. Above grade construction:	wood frame	concrete	stone	brick
b. Basement type:	full	crawlspace	slab	other ________
c. Basement floor:	concrete	dirt	stone	other ________
d. Basement floor:	uncovered	covered	covered with ____________	
e. Concrete floor:	unsealed	sealed	sealed with ____________	
f. Foundation walls:	poured	block	stone	other ________
g. Foundation walls:	unsealed	sealed	sealed with ____________	
h. The basement is:	wet	damp	dry	moldy
i. The basement is:	finished	unfinished	partially finished	
j. Sump present?	Y / N			
k. Water in sump?	Y / N / not applicable			

Basement/Lowest level depth below grade: 4 (feet)

Identify potential soil vapor entry points and approximate size (e.g., cracks, utility ports, drains)

hole in concrete near stairs ~3" dia.

some cracks in floor

6. **HEATING, VENTING and AIR CONDITIONING** (Circle all that apply)

Type of heating system(s) used in this building: (circle all that apply – note primary)

Hot air circulation	Heat pump	Hot water baseboard	
Space Heaters	Stream radiation	Radiant floor	
Electric baseboard	Wood stove	Outdoor wood boiler	Other ________

The primary type of fuel used is:

Natural Gas	Fuel Oil	Kerosene
Electric	Propane	Solar
Wood	Coal	

Domestic hot water tank fueled by: Natural gas

Boiler/furnace located in: Basement Outdoors Main Floor Other ________

30 Front

Air conditioning: Central Air Window units Open Windows None

Are there air distribution ducts present? Y N

Describe the supply and cold air return ductwork, and its condition where visible, including whether there is a cold air return and the tightness of duct joints. Indicate the locations on the floor plan diagram.

inoperative system in place. Gas furnace in basement not used, ducts some not joined. Units upstairs with individual gas heating system (space heaters)

7. OCCUPANCY

Is basement/lowest level occupied? Full-time Occasionally Seldom Almost Never

Level	**General Use of Each Floor (e.g., familyroom, bedroom, laundry, workshop, storage)**
Basement	st.
1st Floor	Living
2nd Floor	Living
3rd Floor	
4th Floor	

8. FACTORS THAT MAY INFLUENCE INDOOR AIR QUALITY

a. Is there an attached garage? Y / N

b. Does the garage have a separate heating unit? Y / N / NA

c. Are petroleum-powered machines or vehicles stored in the garage (e.g., lawnmower, atv, car) Y / N / NA Please specify________

d. Has the building ever had a fire? Y / N When?________

e. Is a kerosene or unvented gas space heater present? Y / N Where? both units

f. Is there a workshop or hobby/craft area? Y / N Where & Type?________

g. Is there smoking in the building? Y / N How frequently?________

h. Have cleaning products been used recently? Y / N When & Type? Awesome cleaner weekly

30 Front

i. Have cosmetic products been used recently? Y / N When & Type? hair spray 1-2/wk

j. Has painting/staining been done in the last 6 months? Y / N Where & When? ____________

k. Is there new carpet, drapes or other textiles? Y / N Where & When? ____________

l. Have air fresheners been used recently? Y / N When & Type? Glade plug in (in wall)

m. Is there a kitchen exhaust fan? Y / N If yes, where vented? outside

n. Is there a bathroom exhaust fan? Y / N If yes, where vented? outside

o. Is there a clothes dryer? Y / N If yes, is it vented outside? Y / N

p. Has there been a pesticide application? Y / N When & Type? ____________

Are there odors in the building? Y / N
If yes, please describe: ____________

Do any of the building occupants use solvents at work? Y / N
(e.g., chemical manufacturing or laboratory, auto mechanic or auto body shop, painting, fuel oil delivery, boiler mechanic, pesticide application, cosmetologist

If yes, what types of solvents are used? ____________

If yes, are their clothes washed at work? Y / N

Do any of the building occupants regularly use or work at a dry-cleaning service? (Circle appropriate response)

Yes, use dry-cleaning regularly (weekly) No
Yes, use dry-cleaning infrequently (monthly or less) Unknown
Yes, work at a dry-cleaning service

Is there a radon mitigation system for the building/structure? Y / N Date of Installation: ____________
Is the system active or passive? Active/Passive

9. WATER AND SEWAGE

Water Supply: Public Water Drilled Well Driven Well Dug Well Other: ______

Sewage Disposal: Public Sewer Septic Tank Leach Field Dry Well Other: ______

10. RELOCATION INFORMATION (for oil spill residential emergency) NA

a. Provide reasons why relocation is recommended: ____________

b. Residents choose to: remain in home relocate to friends/family relocate to hotel/motel

30 Front St

c. Responsibility for costs associated with reimbursement explained? Y / N

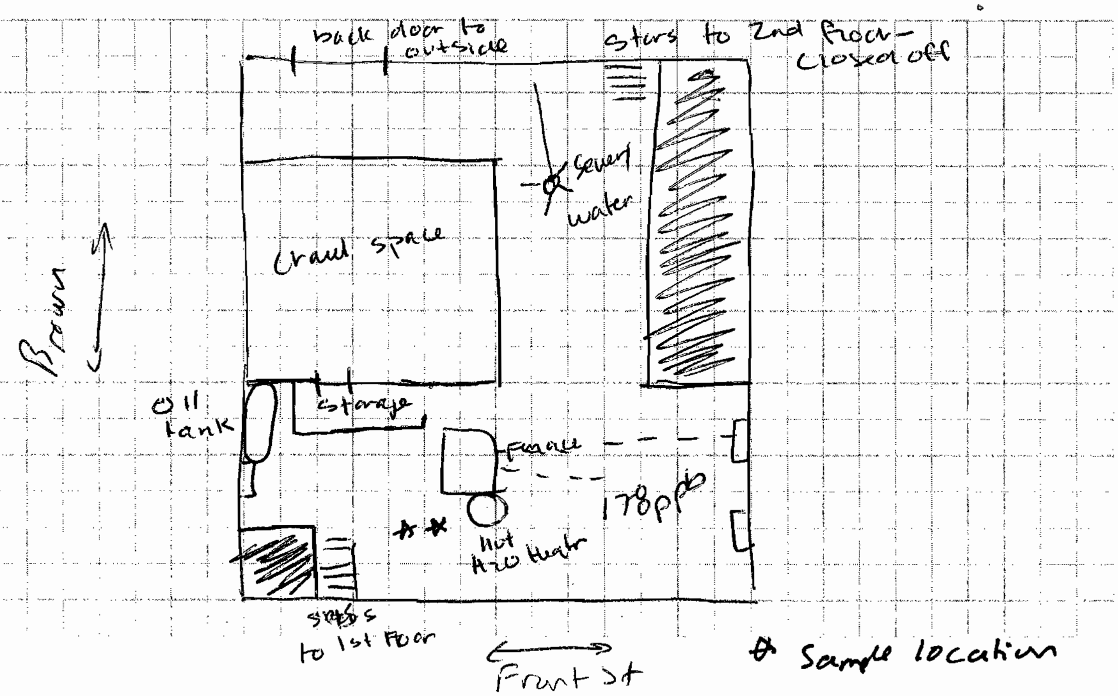
d. Relocation package provided and explained to residents? Y / N

6

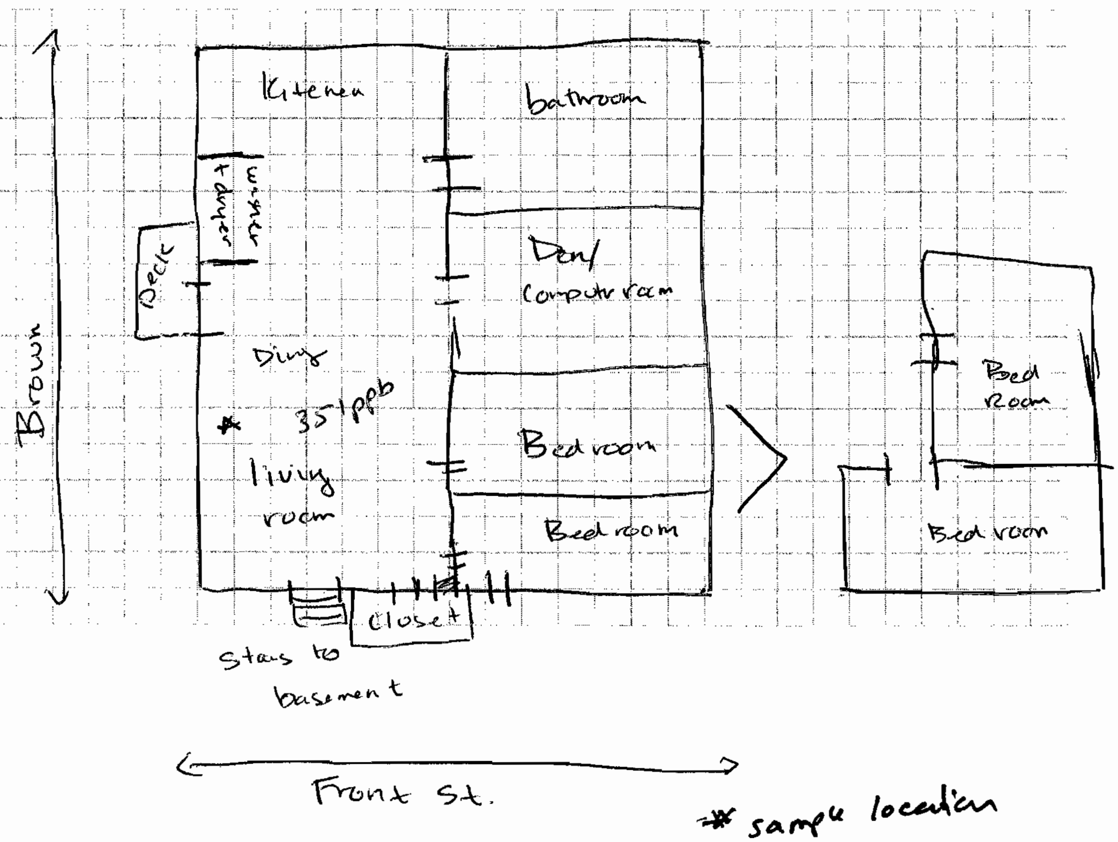
11. FLOOR PLANS

Draw a plan view sketch of the basement and first floor of the building. Indicate air sampling locations, possible indoor air pollution sources and PID meter readings. If the building does not have a basement, please note.

Basement:



First Floor:



30 Front St

12. OUTDOOR PLOT

Draw a sketch of the area surrounding the building being sampled. If applicable, provide information on spill locations, potential air contamination sources (industries, gas stations, repair shops, landfills, etc.), outdoor air sampling location(s) and PID meter readings.

Also indicate compass direction, wind direction and speed during sampling, the locations of the well and septic system, if applicable, and a qualifying statement to help locate the site on a topographic map.

13. PRODUCT INVENTORY FORM

Make & Model of field instrument used: ppbRAE

List specific products found in the residence that have the potential to affect indoor air quality.

Location	Product Description	Size (units)	Condition*	Chemical Ingredients	Field Instrument Reading (units)	Photo ** Y / N
basement	acrylic latex	5x1gal	UO	ethylene glycol	0 ppb	N
	exterior paint		1 U	trimethyl pentyl butyrate	0ppb	N
	exterior acrylic	6x5gal	3 U		0ppb	N
	latex paint		3 UO		0ppb	N
	Oil tank	250g	U	Oil	0ppb	N
1st Fl.	No chemical sources found in First Floor apartment. General laundry and ~~cleaning~~ personal cleaning products.					

* Describe the condition of the product containers as **Unopened (UO), Used (U),** or **Deteriorated (D)**
** Photographs of the **front and back** of product containers can replace the handwritten list of chemical ingredients. However, the photographs must be of good quality and ingredient labels must be legible.

37 FRONT ST

Appendix B
Indoor air quality questionnaire and building inventory

As discussed in Section 2.11, products in buildings must be inventoried every time indoor air is sampled to provide an accurate assessment of the potential contribution of volatile chemicals. In addition, the type of structure, floor layout and physical conditions of the building being studied must be noted to identify (and minimize) conditions that may interfere with the proposed testing. Toward this end, a blank copy of the NYSDOH Center for Environmental Health's Indoor Air Quality Questionnaire and Building Inventory is provided in this appendix. Also provided is an example that demonstrates how the form should be completed properly.

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next wk a good wk

NEW YORK STATE DEPARTMENT OF HEALTH
INDOOR AIR QUALITY QUESTIONNAIRE AND BUILDING INVENTORY
CENTER FOR ENVIRONMENTAL HEALTH

This form must be completed for each residence involved in indoor air testing.

Preparer's Name KEIR CRAIGIE Date/Time Prepared 3/16/06

Preparer's Affiliation ish Inc Phone No. 617 923 4662

Purpose of Investigation Norwich SVI

1. OCCUPANT:

Interviewed: Y N

Last Name: CROSBY First Name: DALE

Address: 37 FRONT ST, Norwich, NY 13815

County: Chenango

Home Phone: 607-334-4285 Office Phone: —

Number of Occupants/persons at this location 2 Age of Occupants 50-60

2. OWNER OR LANDLORD: (Check if same as occupant X)

Interviewed: Y N

Last Name: ______ First Name: ______

Address: ______

County: ______

Home Phone: ______ Office Phone: ______

3. BUILDING CHARACTERISTICS

Type of Building: (Circle appropriate response)

Residential	School	Commercial/Multi-use
Industrial	Church	Other: ______

If the property is residential, type? (Circle appropriate response)

Ranch	2-Family	3-Family
Raised Ranch	Split Level	Colonial
Cape Cod	Contemporary	Mobile Home
Duplex	Apartment House	Townhouses/Condos
Modular	Log Home	Other:____________

If multiple units, how many? 1

If the property is commercial, type?

Business Type(s) ________________________

Does it include residences (i.e., multi-use)? Y / N If yes, how many? ______

Other characteristics:

Number of floors 2 Building age 1869

Is the building insulated? Y / N How air tight? Tight / Average / Not Tight

4. AIRFLOW

Use air current tubes or tracer smoke to evaluate airflow patterns and qualitatively describe:

Airflow between floors

yes - open door to basement

Airflow near source

flow into ducts is fan

Outdoor air infiltration

Some

Infiltration into air ducts

yes - fan above stove

5. **BASEMENT AND CONSTRUCTION CHARACTERISTICS** (Circle all that apply)

a. Above grade construction:	wood frame	concrete	stone	brick
b. Basement type:	full	crawlspace	slab	other ________
c. Basement floor:	concrete	dirt	stone	other ________
d. Basement floor:	uncovered	covered	covered with ______________	
e. Concrete floor:	unsealed	sealed	sealed with ______________	
f. Foundation walls:	poured	block	stone	other ________
g. Foundation walls:	~~unsealed~~	sealed	sealed with ______________	
h. The basement is:	wet	damp	dry	moldy
i. The basement is:	finished	~~unfinished~~	partially finished	
j. Sump present?	Y / N			
k. Water in sump?	Y / N / not applicable			

Basement/Lowest level depth below grade: 5-7 (feet)

Identify potential soil vapor entry points and approximate size (e.g., cracks, utility ports, drains)

dirt floor

6. **HEATING, VENTING and AIR CONDITIONING** (Circle all that apply)

Type of heating system(s) used in this building: (circle all that apply – note primary)

Hot air circulation	Heat pump	Hot water baseboard	
Space Heaters	Stream radiation	Radiant floor	
Electric baseboard	Wood ~~stove~~	Outdoor wood boiler	Other ________

The primary type of fuel used is:

* Natural Gas	Fuel Oil	Kerosene
Electric	Propane	Solar
Wood	Coal	

Domestic hot water tank fueled by: Gas

Boiler/furnace located in: Basement Outdoors Main Floor Other ________

Air conditioning: Central Air Window units Open Windows None

Are there air distribution ducts present? Y / N

Describe the supply and cold air return ductwork, and its condition where visible, including whether there is a cold air return and the tightness of duct joints. Indicate the locations on the floor plan diagram.

yes

7. OCCUPANCY

Is basement/lowest level occupied? Full-time Occasionally Seldom Almost Never

Level	**General Use of Each Floor (e.g., familyroom, bedroom, laundry, workshop, storage)**
Basement	Storage
1st Floor	Living Space
2nd Floor	
3rd Floor	
4th Floor	

8. FACTORS THAT MAY INFLUENCE INDOOR AIR QUALITY

a. Is there an attached garage? Y / N

b. Does the garage have a separate heating unit? Y / N / NA

c. Are petroleum-powered machines or vehicles stored in the garage (e.g., lawnmower, atv, car) Y / N / NA Please specify__________

d. Has the building ever had a fire? Y / N When?__________

e. Is a kerosene or unvented gas space heater present? Y / N Where?__________

f. Is there a workshop or hobby/craft area? Y / N Where & Type?__________

g. Is there smoking in the building? Y / N How frequently?__________

h. Have cleaning products been used recently? Y / N When & Type? weekly

i. Have cosmetic products been used recently? Y / N When & Type? ______________

j. Has painting/staining been done in the last 6 months? Y / N Where & When? 1st hallway 3 weeks

k. Is there new carpet, drapes or other textiles? Y / N Where & When? ______________

l. Have air fresheners been used recently? Y / N When & Type? Glade plug ins

m. Is there a kitchen exhaust fan? Y / N If yes, where vented? ____________

n. Is there a bathroom exhaust fan? Y / N If yes, where vented? ____________

o. Is there a clothes dryer? Y / N If yes, is it vented outside? Y / N

p. Has there been a pesticide application? Y / N When & Type? ______________

Are there odors in the building? Y / N
If yes, please describe: ____

Do any of the building occupants use solvents at work? Y / N
(e.g., chemical manufacturing or laboratory, auto mechanic or auto body shop, painting, fuel oil delivery, boiler mechanic, pesticide application, cosmetologist

If yes, what types of solvents are used? ____

If yes, are their clothes washed at work? Y / N

Do any of the building occupants regularly use or work at a dry-cleaning service? (Circle appropriate response)

Yes, use dry-cleaning regularly (weekly) No
Yes, use dry-cleaning infrequently (monthly or less) Unknown
Yes, work at a dry-cleaning service

Is there a radon mitigation system for the building/structure? Y / N Date of Installation: ___________
Is the system active or passive? Active/Passive

9. WATER AND SEWAGE

Water Supply: Public Water Drilled Well Driven Well Dug Well Other: _______

Sewage Disposal: Public Sewer Septic Tank Leach Field Dry Well Other: _______

10. RELOCATION INFORMATION (for oil spill residential emergency)

a. Provide reasons why relocation is recommended: NA

b. Residents choose to: remain in home relocate to friends/family relocate to hotel/motel

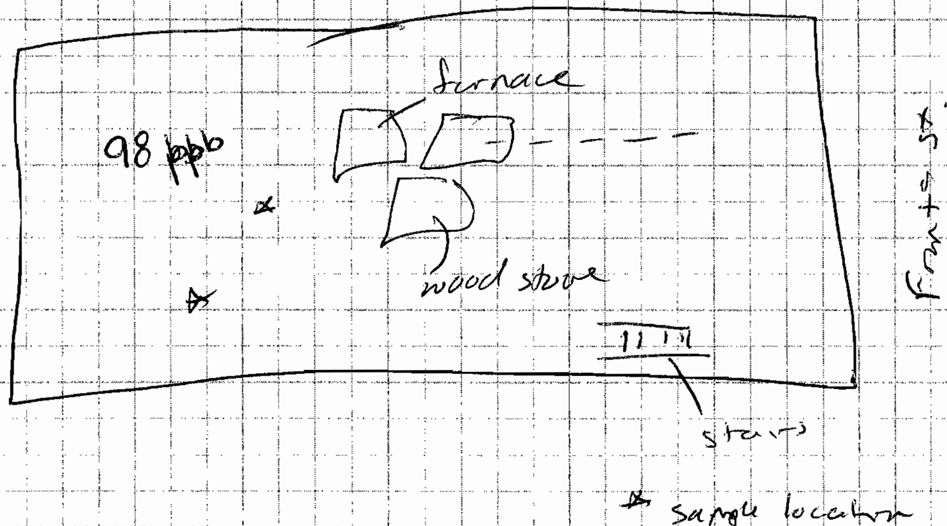
c. Responsibility for costs associated with reimbursement explained? Y / N

d. Relocation package provided and explained to residents? Y / N

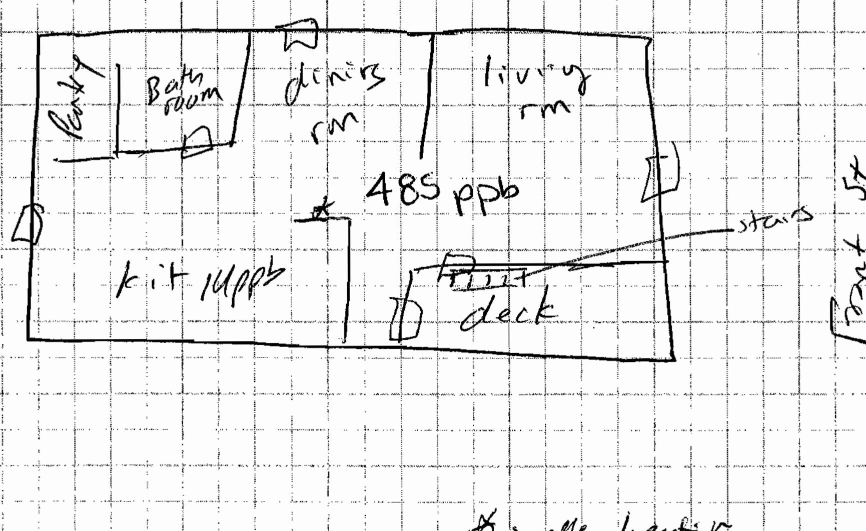
11. FLOOR PLANS

Draw a plan view sketch of the basement and first floor of the building. Indicate air sampling locations, possible indoor air pollution sources and PID meter readings. If the building does not have a basement, please note.

Basement:



First Floor:



12. OUTDOOR PLOT

Draw a sketch of the area surrounding the building being sampled. If applicable, provide information on spill locations, potential air contamination sources (industries, gas stations, repair shops, landfills, etc.), outdoor air sampling location(s) and PID meter readings.

Also indicate compass direction, wind direction and speed during sampling, the locations of the well and septic system, if applicable, and a qualifying statement to help locate the site on a topographic map.

13. PRODUCT INVENTORY FORM

Make & Model of field instrument used: ppbRAE PID

List specific products found in the residence that have the potential to affect indoor air quality.

Location	Product Description	Size (units)	Condition*	Chemical Ingredients	Field Instrument Reading (units)	Photo ** Y / N
kit	Foot Locker Sneaker Protector	10.5oz	U	Petroleum Distillates	44ppb	N
	Lemon Scent Pine Power	12.5oz	U	Petroleum Distillate	54ppb	N
	Spectracide Wasp + hornet killer	20oz	U	Tralomerin d-trans allethrin	36ppb	N
	Pledge Furniture Polish	12.5oz	U		47ppb	N
	Latex wall paint acrylic	1gall	U	ethanol acetate propenic acid	29ppb	N
	Latex wall paint semi-gloss enamel	1gall	U	vinyl polymer acrylic polymer	59ppb	N
Basement	Behr Primer sealer	1Qt	U	xylene, mineral spirits methyl propyl ketone	26ppb	
				1,2,4 trimethylbenzene Naptha		
	John Deere Paint	1Qt	U	mineral spirits, naptha, xylene, ethylbenzene	27ppb	
	Rust Oleum rust o acrylic	1Qt	U		15ppb	
	Floor Porch trim enamel	1gall	U	Soya alkyd polymer, mineral spirits, CaCo, iron oxide, cobalt-2 ethyl hexonate	20ppb	
	TEC-adhesive for Ceramic tile	1gal	U	limestone, acrylic resin, ethyl glycol, VOC/L of material = 83.5grams	17ppb	
	Exterior house paint	1gal	U	mineral spirits, alkyd polymer, titanium dioxide, Soya alkyd, SiO_2, xylene	595ppb	
	Exterior house paint	1gal	U/D	mineral spirits, alkyd resin, Fe silicate, titanium dioxide, yellow oxide	35ppb	
	Grease Master	1lb.	U	petroleum hydrocarbon	101ppb	
	Exterior/Interior Floor Enamel	1gal	U	Mineral spirits, alkyd resin, titanium dioxide, silicate, yellow Fe oxide	38ppb	
	Pure Silicon spray	10oz	U		19ppb	
	Rust-Oleum	12oz	U	toluol, xylol	67ppb	

* Describe the condition of the product containers as **Unopened (UO), Used (U),** or **Deteriorated (D)**
** Photographs of the **front and back** of product containers can replace the handwritten list of chemical ingredients. However, the photographs must be of good quality and ingredient labels must be legible.

List continued on back →

Basement Products Cont.

Rust-oleum Gloss protective enamel	12 oz	U		270ppb	

41 Front St

Appendix B
Indoor air quality questionnaire and building inventory

As discussed in Section 2.11, products in buildings must be inventoried every time indoor air is sampled to provide an accurate assessment of the potential contribution of volatile chemicals. In addition, the type of structure, floor layout and physical conditions of the building being studied must be noted to identify (and minimize) conditions that may interfere with the proposed testing. Toward this end, a blank copy of the NYSDOH Center for Environmental Health's Indoor Air Quality Questionnaire and Building Inventory is provided in this appendix. Also provided is an example that demonstrates how the form should be completed properly.

Timing
Fri-Sat.
late Fri til
9
600 PM

Contact and
Aaare or worki

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OSR – 3

NEW YORK STATE DEPARTMENT OF HEALTH
INDOOR AIR QUALITY QUESTIONNAIRE AND BUILDING INVENTORY
CENTER FOR ENVIRONMENTAL HEALTH

This form must be completed for each residence involved in indoor air testing.

Preparer's Name Keir Craigie Date/Time Prepared ~~3/~~ 3/16/06 KC

Preparer's Affiliation Ish Inc Phone No. 617 923 4662

Purpose of Investigation Norwich SVI

1. OCCUPANT:

Interviewed: Y / N

Last Name: Gonzalez First Name: John and Jennie

Address: 41 Front St

County: ______

Home Phone: 334-5386 Office Phone: —

Number of Occupants/persons at this location 5/15 (5 residents, 15 daycare) Age of Occupants 2, 4, 14, 16, 22, 40-50, 1-6 yrs

2. OWNER OR LANDLORD: (Check if same as occupant ✓)

Interviewed: Y / N

Last Name: ______ First Name: ______

Address: ______

County: ______

Home Phone: ______ Office Phone: ______

3. BUILDING CHARACTERISTICS

Type of Building: (Circle appropriate response)

Residential	School	Commercial/Multi-use
Industrial	Church	Other: ______

If the property is residential, type? (Circle appropriate response)

Ranch	2-Family	3-Family
Raised Ranch	Split Level	Colonial
Cape Cod	Contemporary	Mobile Home
Duplex	Apartment House	Townhouses/Condos
Modular	Log Home	Other:________

If multiple units, how many? 1

If the property is commercial, type?

Business Type(s) Day Care

Does it include residences (i.e., multi-use)? Y / N   If yes, how many? 1

Other characteristics:

Number of floors 2   Building age >100

Is the building insulated? Y / N   How air tight? Tight / Average / Not Tight

one rm - unknown

4. AIRFLOW

Use air current tubes or tracer smoke to evaluate airflow patterns and qualitatively describe:

Airflow between floors

at old open duct location flow from basement to 1st fl.

Airflow near source

no significant flow around furnace

Outdoor air infiltration

In from window in foundation (8 windows)

Infiltration into air ducts

NA

5. **BASEMENT AND CONSTRUCTION CHARACTERISTICS** (Circle all that apply)

a. Above grade construction:	wood frame	concrete	stone	brick
b. Basement type:	full	crawlspace	slab	other ________
c. Basement floor:	some concrete	dirt	stone	other ________
d. Basement floor:	uncovered	covered	covered with ______________	
e. Concrete floor:	unsealed	sealed	sealed with ______________	
f. Foundation walls:	poured	block	stone	other ________
g. Foundation walls:	unsealed	sealed	sealed with ______________	
h. The basement is:	wet	damp	dry	moldy
i. The basement is:	finished	unfinished	partially finished	
j. Sump present?	Y / N			
k. Water in sump?	Y / N / not applicable			

Basement/Lowest level depth below grade: 4 (feet)

Identify potential soil vapor entry points and approximate size (e.g., cracks, utility ports, drains)

Gas line (minor gaps)

____

6. **HEATING, VENTING and AIR CONDITIONING** (Circle all that apply)

Type of heating system(s) used in this building: (circle all that apply – note primary)

Hot air circulation	Heat pump	Hot water baseboard	
Space Heaters	Stream radiation	~~Radiant floor~~	
Electric baseboard	Wood stove	Outdoor wood boiler	Other __________

The primary type of fuel used is:

Natural Gas	Fuel Oil	Kerosene
~~Electric~~	Propane	Solar
Wood	Coal	

Domestic hot water tank fueled by: gas

Boiler/furnace located in: Basement Outdoors Main Floor Other__________

Air conditioning: Central Air Window units Open Windows None

4

Are there air distribution ducts present? Y / N

Describe the supply and cold air return ductwork, and its condition where visible, including whether there is a cold air return and the tightness of duct joints. Indicate the locations on the floor plan diagram.

____

____

____

____

7. OCCUPANCY

Is basement/lowest level occupied? Full-time Occasionally Seldom Almost Never

Level	General Use of Each Floor (e.g., familyroom, bedroom, laundry, workshop, storage)
Basement	Some storage
1st Floor	Child Day Care - kitchen
2nd Floor	Living Space
3rd Floor	
4th Floor	

8. FACTORS THAT MAY INFLUENCE INDOOR AIR QUALITY

a. Is there an attached garage? Y / N

b. Does the garage have a separate heating unit? Y / N / NA

c. Are petroleum-powered machines or vehicles stored in the garage (e.g., lawnmower, atv, car) Y / N / NA
Please specify______

d. Has the building ever had a fire? Y / N When?______

e. Is a kerosene or unvented gas space heater present? Y / N Where?______

f. Is there a workshop or hobby/craft area? Y / N Where & Type?______

g. Is there smoking in the building? Y / N How frequently?______

h. Have cleaning products been used recently? Y / N When & Type? 409 daily

i. Have cosmetic products been used recently? Y / N When & Type? ______________

j. Has painting/staining been done in the last 6 months? Y / N Where & When? ______________

k. Is there new carpet, drapes or other textiles? Y / N Where & When? ______________

l. Have air fresheners been used recently? Y / N When & Type? Lysol occasionally

m. Is there a kitchen exhaust fan? Y / N If yes, where vented? ______________

n. Is there a bathroom exhaust fan? Y / N If yes, where vented? Outside

o. Is there a clothes dryer? Y / N If yes, is it vented outside? Y / N

p. Has there been a pesticide application? Y / N When & Type? ______________

Are there odors in the building? Y / N
If yes, please describe: ____

Do any of the building occupants use solvents at work? Y / N
(e.g., chemical manufacturing or laboratory, auto mechanic or auto body shop, painting, fuel oil delivery, boiler mechanic, pesticide application, cosmetologist

If yes, what types of solvents are used? ______________________________________

If yes, are their clothes washed at work? Y / N

Do any of the building occupants regularly use or work at a dry-cleaning service? (Circle appropriate response)

Yes, use dry-cleaning regularly (weekly) — No
Yes, use dry-cleaning infrequently (monthly or less) — Unknown
Yes, work at a dry-cleaning service

Is there a radon mitigation system for the building/structure? Y / N Date of Installation: ___________
Is the system active or passive? Active/Passive

9. WATER AND SEWAGE

Water Supply:	Public Water	Drilled Well	Driven Well	Dug Well	Other: _______
Sewage Disposal:	Public Sewer	Septic Tank	Leach Field	Dry Well	Other: _______

10. RELOCATION INFORMATION (for oil spill residential emergency) NA

a. Provide reasons why relocation is recommended: ______________________________

b. Residents choose to: remain in home relocate to friends/family relocate to hotel/motel

c. Responsibility for costs associated with reimbursement explained? Y / N

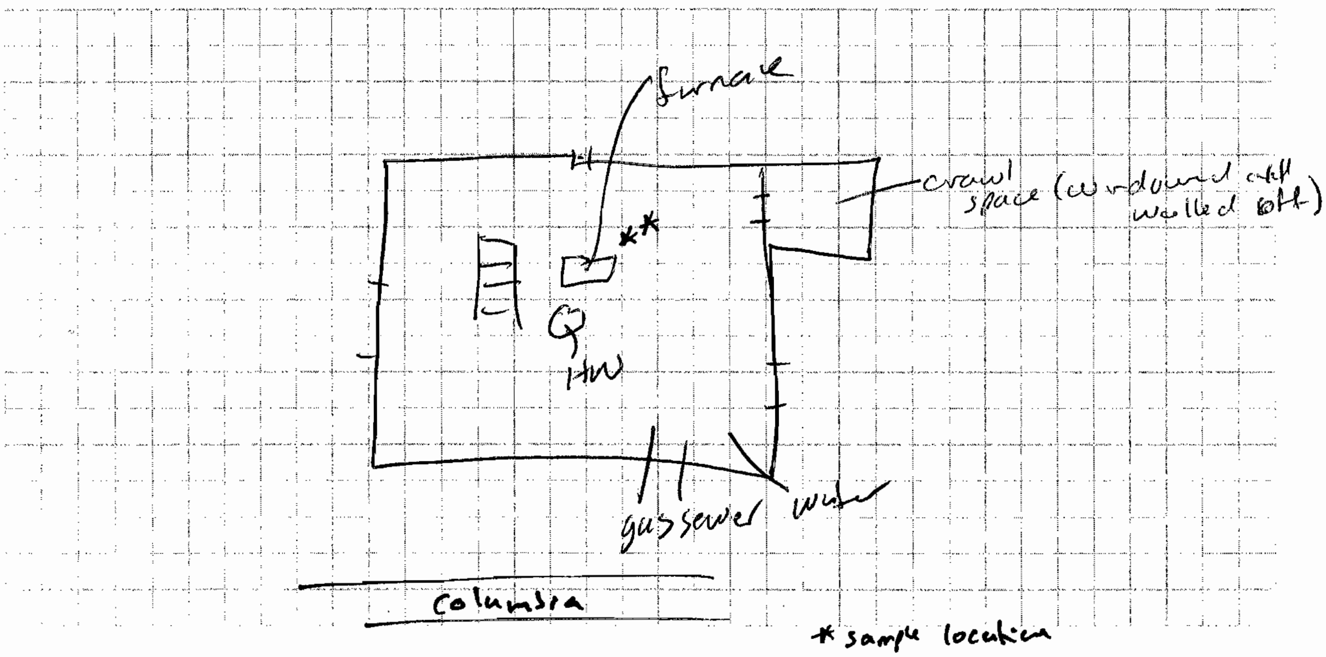
d. Relocation package provided and explained to residents? Y / N

6

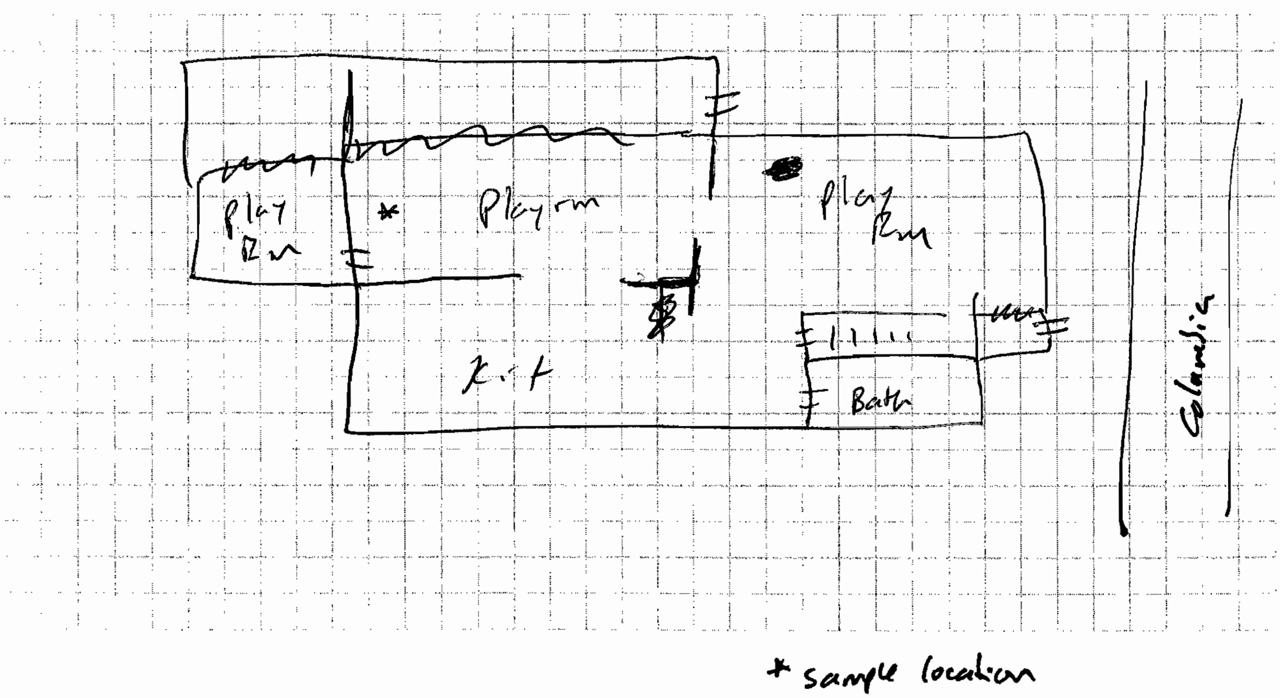
11. FLOOR PLANS

Draw a plan view sketch of the basement and first floor of the building. Indicate air sampling locations, possible indoor air pollution sources and PID meter readings. If the building does not have a basement, please note.

Basement:



First Floor:



12. OUTDOOR PLOT

Draw a sketch of the area surrounding the building being sampled. If applicable, provide information on spill locations, potential air contamination sources (industries, gas stations, repair shops, landfills, etc.), outdoor air sampling location(s) and PID meter readings.

Also indicate compass direction, wind direction and speed during sampling, the locations of the well and septic system, if applicable, and a qualifying statement to help locate the site on a topographic map.

13. PRODUCT INVENTORY FORM

Make & Model of field instrument used: ppb RAE

List specific products found in the residence that have the potential to affect indoor air quality.

Location	Product Description	Size (units)	Condition*	Chemical Ingredients	Field Instrument Reading (units)	Photo ** Y / N
	No chemical		containing	product		
	located		in Basement	or		
	1st	Floor		other than hand soap		
	and	toilet		supplies.		

* Describe the condition of the product containers as **Unopened (UO), Used (U),** or **Deteriorated (D)**
** Photographs of the **front and back** of product containers can replace the handwritten list of chemical ingredients. However, the photographs must be of good quality and ingredient labels must be legible.

42 FRONT ST

Appendix B

Indoor air quality questionnaire and building inventory

As discussed in Section 2.11, products in buildings must be inventoried every time indoor air is sampled to provide an accurate assessment of the potential contribution of volatile chemicals. In addition, the type of structure, floor layout and physical conditions of the building being studied must be noted to identify (and minimize) conditions that may interfere with the proposed testing. Toward this end, a blank copy of the NYSDOH Center for Environmental Health's Indoor Air Quality Questionnaire and Building Inventory is provided in this appendix. Also provided is an example that demonstrates how the form should be completed properly.

As quick as possible

- Fri/Sat AM
- has renter coming in

-Change in home ownership? need new address of current residents

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NEW YORK STATE DEPARTMENT OF HEALTH
INDOOR AIR QUALITY QUESTIONNAIRE AND BUILDING INVENTORY
CENTER FOR ENVIRONMENTAL HEALTH

This form must be completed for each residence involved in indoor air testing.

Preparer's Name Kev Craigie Date/Time Prepared 3/17/06

Preparer's Affiliation /sh Inc Phone No. 617 923 4662

Purpose of Investigation Norwich SVI

1. OCCUPANT:

Interviewed: Y / N

Last Name: Tefft First Name: Dawn

note: owner sold and moving end of March 2006

Address: 42 Front St

County:

Home Phone: 336-4119 Office Phone: —

Number of Occupants/persons at this location 4 Age of Occupants 36 – 11

2. OWNER OR LANDLORD: (Check if same as occupant ✓)

Interviewed: Y / N

Last Name: First Name:

Address:

County:

Home Phone: Office Phone:

3. BUILDING CHARACTERISTICS

Type of Building: (Circle appropriate response)

Residential	School	Commercial/Multi-use
Industrial	Church	Other:

If the property is residential, type? (Circle appropriate response)

Ranch	2-Family	3-Family
Raised Ranch	Split Level	Colonial
Cape Cod	Contemporary	Mobile Home
Duplex	Apartment House	Townhouses/Condos
Modular	Log Home	Other:____________

If multiple units, how many? 2

If the property is commercial, type?

Business Type(s) ________________________

Does it include residences (i.e., multi-use)? Y / N If yes, how many? ______

Other characteristics:

Number of floors 2 Building age 100+

Is the building insulated? Y / N How air tight? Tight / Average / Not Tight

4. AIRFLOW

Use air current tubes or tracer smoke to evaluate airflow patterns and qualitatively describe:

Airflow between floors

no significant exchange between floors

Airflow near source

no significant flow around furnace

Outdoor air infiltration

no significant infiltration / exchange

Infiltration into air ducts

no infiltration

5. **BASEMENT AND CONSTRUCTION CHARACTERISTICS** (Circle all that apply)

a. Above grade construction:	wood frame	concrete	stone	brick
b. Basement type:	full with	crawlspace	slab	other ________
c. Basement floor:	concrete	dirt same	stone	other ________
d. Basement floor:	~~uncovered~~	covered	covered with ____________	
e. Concrete floor:	unsealed	sealed	sealed with ____________	
f. Foundation walls:	poured	block	stone card	other ________
g. Foundation walls:	unsealed	sealed	sealed with concrete plaster	
h. The basement is:	wet	damp	dry	moldy
i. The basement is:	finished	unfinished	partially finished	
j. Sump present?	Y / N			
k. Water in sump?	Y / N / not applicable			

Basement/Lowest level depth below grade: 4' (feet)

Identify potential soil vapor entry points and approximate size (e.g., cracks, utility ports, drains)

Area where floor does not have concrete slab, compact dirt.

6. **HEATING, VENTING and AIR CONDITIONING** (Circle all that apply)

Type of heating system(s) used in this building: (circle all that apply – note primary)

Hot air circulation	Heat pump	Hot water baseboard	
Space Heaters	Stream radiation	Radiant floor	
Electric baseboard	Wood stove	Outdoor wood boiler	Other cast iron water

The primary type of fuel used is:

Natural Gas	Fuel Oil	Kerosene
~~Electric~~	Propane	Solar
Wood	Coal	

Domestic hot water tank fueled by: natural gas

Boiler/furnace located in: Basement   Outdoors   Main Floor   Other__________

Air conditioning: Central Air Window units Open Windows None

4

Are there air distribution ducts present? Y / N

Describe the supply and cold air return ductwork, and its condition where visible, including whether there is a cold air return and the tightness of duct joints. Indicate the locations on the floor plan diagram.

____

____

____

____

7. OCCUPANCY

Is basement/lowest level occupied? Full-time Occasionally Seldom Almost Never

Level	**General Use of Each Floor (e.g., familyroom, bedroom, laundry, workshop, storage)**
Basement	Storage
1st Floor	Living
2nd Floor	Living / bedrooms
3rd Floor	
4th Floor	

8. FACTORS THAT MAY INFLUENCE INDOOR AIR QUALITY

a. Is there an attached garage? Y / N – attached, direct access no

b. Does the garage have a separate heating unit? Y / N / NA

c. Are petroleum-powered machines or vehicles stored in the garage (e.g., lawnmower, atv, car) Y / N / NA
Please specify car, lawnmower

d. Has the building ever had a fire? Y / N When? ____________

e. Is a kerosene or unvented gas space heater present? Y / N Where? ____________

f. Is there a workshop or hobby/craft area? Y / N Where & Type? ____________

g. Is there smoking in the building? Y / N How frequently? regular

h. Have cleaning products been used recently? Y / N When & Type? ____________

i. Have cosmetic products been used recently? Y / N When & Type? daily, hair spray nail polish

j. Has painting/staining been done in the last 6 months? Y/N Where & When? Front rm/3 months

k. Is there new carpet, drapes or other textiles? Y/N Where & When? ______

l. Have air fresheners been used recently? Y/N When & Type? ______

m. Is there a kitchen exhaust fan? Y/N If yes, where vented? next rm/former porch now enclosed

n. Is there a bathroom exhaust fan? Y/N If yes, where vented? ______

o. Is there a clothes dryer? Y/N If yes, is it vented outside? Y/N

p. Has there been a pesticide application? Y/N When & Type? ______

Are there odors in the building? Y/N
If yes, please describe: ______

Do any of the building occupants use solvents at work? Y/N
(e.g., chemical manufacturing or laboratory, auto mechanic or auto body shop, painting, fuel oil delivery, boiler mechanic, pesticide application, cosmetologist

If yes, what types of solvents are used? cleans parts/degreasers

If yes, are their clothes washed at work? Y/N

Do any of the building occupants regularly use or work at a dry-cleaning service? (Circle appropriate response)

Yes, use dry-cleaning regularly (weekly) | No
Yes, use dry-cleaning infrequently (monthly or less) | Unknown
Yes, work at a dry-cleaning service

Is there a radon mitigation system for the building/structure? Y/N Date of Installation: ______
Is the system active or passive? Active/Passive

9. WATER AND SEWAGE

Water Supply: Public Water Drilled Well Driven Well Dug Well Other: ______

Sewage Disposal: Public Sewer Septic Tank Leach Field Dry Well Other: ______

10. RELOCATION INFORMATION (for oil spill residential emergency) NA

a. Provide reasons why relocation is recommended: ______

b. Residents choose to: remain in home relocate to friends/family relocate to hotel/motel

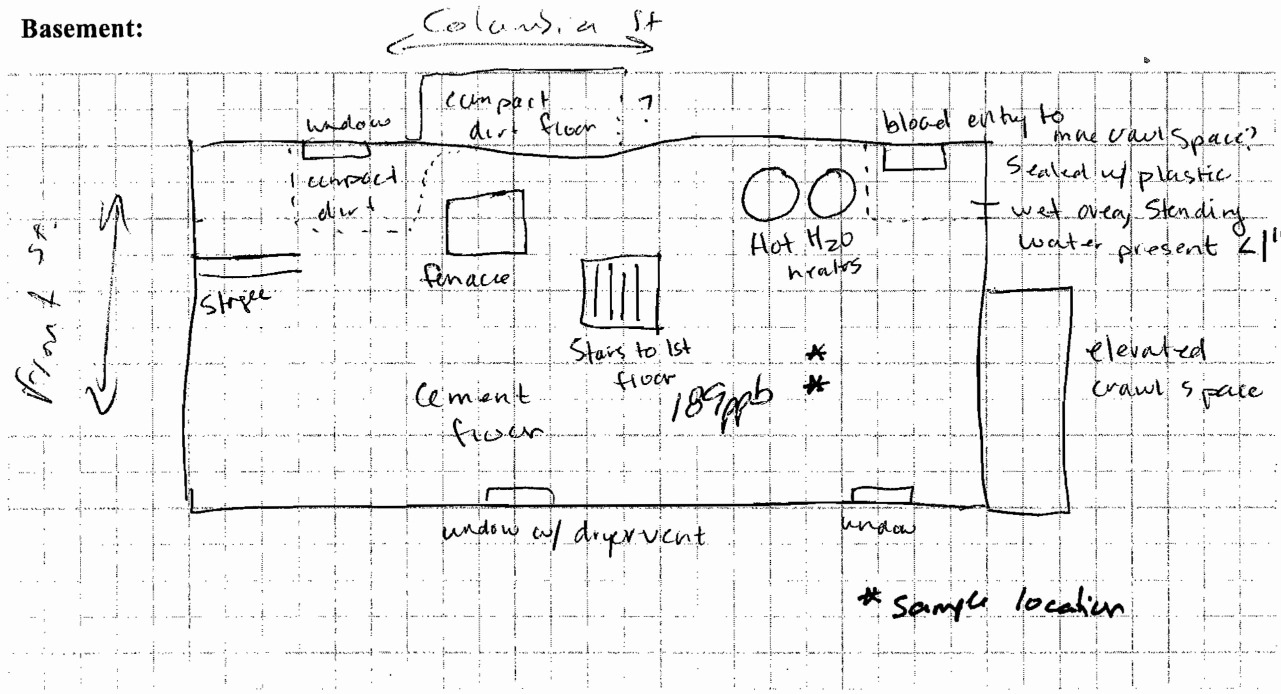
c. **Responsibility for costs associated with reimbursement explained?** Y / N

d. **Relocation package provided and explained to residents?** Y / N

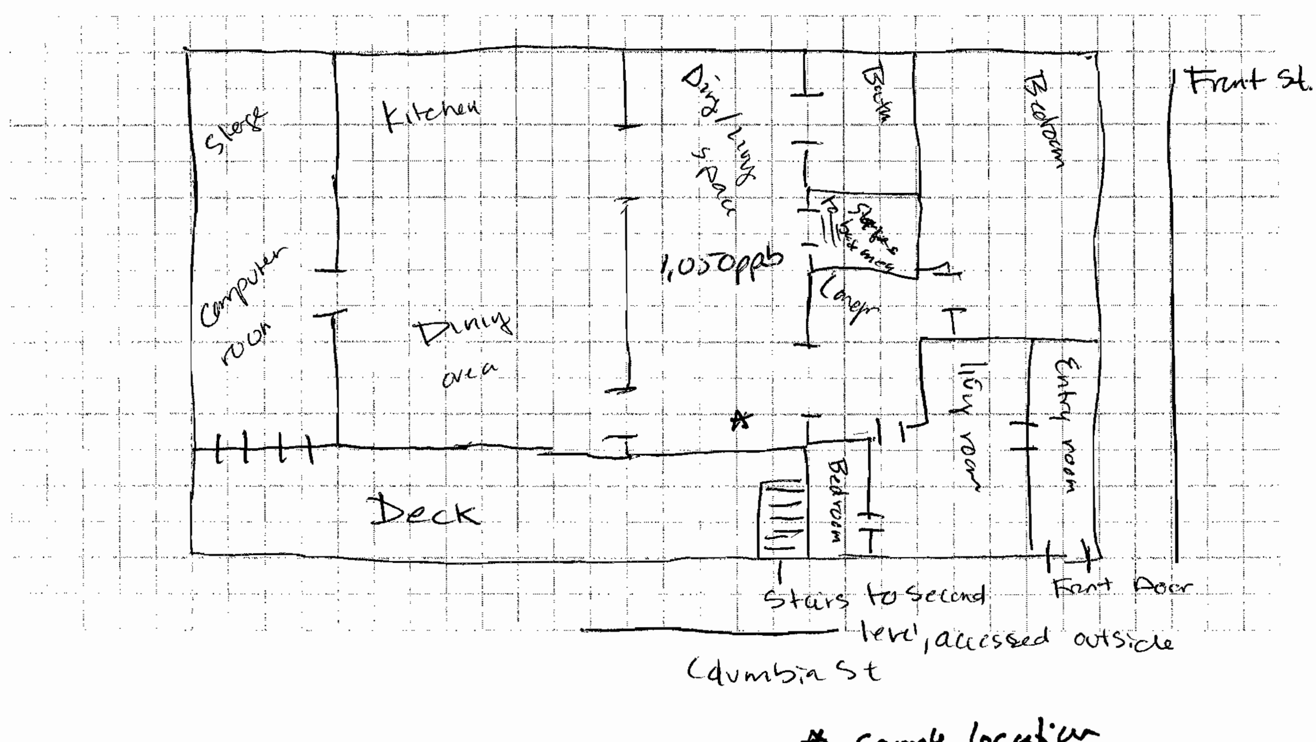
11. FLOOR PLANS

Draw a plan view sketch of the basement and first floor of the building. Indicate air sampling locations, possible indoor air pollution sources and PID meter readings. If the building does not have a basement, please note.

Basement:



First Floor:



12. OUTDOOR PLOT

Draw a sketch of the area surrounding the building being sampled. If applicable, provide information on spill locations, potential air contamination sources (industries, gas stations, repair shops, landfills, etc.), outdoor air sampling location(s) and PID meter readings.

Also indicate compass direction, wind direction and speed during sampling, the locations of the well and septic system, if applicable, and a qualifying statement to help locate the site on a topographic map.

13. PRODUCT INVENTORY FORM

Make & Model of field instrument used: ppb RAE

List specific products found in the residence that have the potential to affect indoor air quality.

Location	Product Description	Size (units)	Condition*	Chemical Ingredients	Field Instrument Reading (units)	Photo ** Y / N
Basement	Interior Latex paint	1 gal	U	Propelene glycol, glycol, acrylic latex, ethalene (x11 Cans)	4 ppb	N
	Acrylic latex enamel	20 oz - plastic	U	no listing (x5 jugs)	0 ppb	N
	mini wax gel stain	8 oz	U	no listing	0 ppb	N
	Acrylic Latex paint	1 qt	U	latex pant (x 3 cans)	0 ppb	N
	Mini wax - polyeurethane	1 qt.	U	aliophatic hydrocarbons (x3 cans)	0 ppb	N
	Mini wax wood finish	1 qt	U	aliophatic hydrocarbons	0 ppb	N
	Driveway sealer	5 gal.	U	no listing	0 ppb	N

Note: Owners/occupants in process of moving much of first floor in boxes and unavailable for searching during survey and sampling. No chemical sources found on 1st floor during survey though moving boxes not searched.

* Describe the condition of the product containers as **Unopened (UO), Used (U),** or **Deteriorated (D)**
** Photographs of the **front and back** of product containers can replace the handwritten list of chemical ingredients. However, the photographs must be of good quality and ingredient labels must be legible.

43 FRONT ST

Appendix B
Indoor air quality questionnaire and building inventory

As discussed in Section 2.11, products in buildings must be inventoried every time indoor air is sampled to provide an accurate assessment of the potential contribution of volatile chemicals. In addition, the type of structure, floor layout and physical conditions of the building being studied must be noted to identify (and minimize) conditions that may interfere with the proposed testing. Toward this end, a blank copy of the NYSDOH Center for Environmental Health's Indoor Air Quality Questionnaire and Building Inventory is provided in this appendix. Also provided is an example that demonstrates how the form should be completed properly.

Schedule

late afternoon (after 3)

Tues/Wed

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43 Front

OSR – 3

NEW YORK STATE DEPARTMENT OF HEALTH
INDOOR AIR QUALITY QUESTIONNAIRE AND BUILDING INVENTORY
CENTER FOR ENVIRONMENTAL HEALTH

This form must be completed for each residence involved in indoor air testing.

Preparer's Name Keir Craigie Date/Time Prepared 3/17/06

Preparer's Affiliation ISH Inc Phone No.

Purpose of Investigation Norwich SVI

1. OCCUPANT:

Interviewed: Y N

Last Name: Meyer First Name: Keven / Lisa

Address: 43 Front St., Norwich, NY 13815

County: Chenango

Home Phone: 607-316-1852 Office Phone:

Number of Occupants/persons at this location 2 Age of Occupants 30-40

2. OWNER OR LANDLORD: (Check if same as occupant ✓)

Interviewed: Y / N

Last Name: First Name:

Address:

County:

Home Phone: Office Phone:

3. BUILDING CHARACTERISTICS

Type of Building: (Circle appropriate response)

Residential	School	Commercial/Multi-use
Industrial	Church	Other:

43 Front

If the property is residential, type? (Circle appropriate response)

Ranch	2-Family	3-Family
Raised Ranch	Split Level	Colonial
Cape Cod	Contemporary	Mobile Home
Duplex	Apartment House	Townhouses/Condos
Modular	Log Home	Other:______________

If multiple units, how many? 1

If the property is commercial, type?

Business Type(s) ________________________________

Does it include residences (i.e., multi-use)? Y / N If yes, how many? ______

Other characteristics:

Number of floors 2 Building age 100 yrs

Is the building insulated? Y / N How air tight? Tight / Average / Not Tight

4. AIRFLOW

Use air current tubes or tracer smoke to evaluate airflow patterns and qualitatively describe:

Airflow between floors

Not significant

Not completely determinable due to basement condition

Airflow near source

Not significant around furnace

Outdoor air infiltration

Not significant as determinable

Infiltration into air ducts

Not determinable due to condition of basement

43 Front

5. BASEMENT AND CONSTRUCTION CHARACTERISTICS (Circle all that apply)

a. Above grade construction:	wood frame	concrete	stone	brick
b. Basement type:	full	crawlspace	slab	other ________
c. Basement floor:	concrete	dirt	stone	other ________
d. Basement floor:	uncovered	covered	covered with ____________	
e. Concrete floor:	unsealed	sealed	sealed with ____________	
f. Foundation walls:	poured	block	stone	other ________
g. Foundation walls:	unsealed	sealed	sealed with ____________	
h. The basement is:	wet	damp	dry	moldy
i. The basement is:	finished	unfinished	partially finished	
j. Sump present?	Y / N			
k. Water in sump?	Y / N / not applicable			

Basement/Lowest level depth below grade: 4 (feet)

Identify potential soil vapor entry points and approximate size (e.g., cracks, utility ports, drains)

dirt floor

6. HEATING, VENTING and AIR CONDITIONING (Circle all that apply)

Type of heating system(s) used in this building: (circle all that apply – note primary)

Hot air circulation	Heat pump	Hot water baseboard	
Space Heaters	Stream radiation	Radiant floor	
Electric baseboard	Wood stove	Outdoor wood boiler	Other ________

The primary type of fuel used is:

Natural Gas	Fuel Oil	Kerosene
Electric	Propane	Solar
Wood	Coal	

Domestic hot water tank fueled by: electric

Boiler/furnace located in: Basement Outdoors Main Floor Other________

43 Grant

Air conditioning: Central Air Window units Open Windows None

Summer
4

Are there air distribution ducts present? Y N

Describe the supply and cold air return ductwork, and its condition where visible, including whether there is a cold air return and the tightness of duct joints. Indicate the locations on the floor plan diagram.

7. OCCUPANCY

Is basement/lowest level occupied? Full-time Occasionally Seldom Almost Never

Level	**General Use of Each Floor (e.g., familyroom, bedroom, laundry, workshop, storage)**
Basement	not
1st Floor	Living space
2nd Floor	Storage
3rd Floor	
4th Floor	

8. FACTORS THAT MAY INFLUENCE INDOOR AIR QUALITY

a. Is there an attached garage? Y / N

b. Does the garage have a separate heating unit? Y / N / NA

c. Are petroleum-powered machines or vehicles stored in the garage (e.g., lawnmower, atv, car) Y / N / NA
Please specify______________

d. Has the building ever had a fire? Y / N When?______________

e. Is a kerosene or unvented gas space heater present? Y / N Where?______________

f. Is there a workshop or hobby/craft area? Y / N Where & Type?______________

g. Is there smoking in the building? Y / N How frequently?______________

h. Have cleaning products been used recently? Y / N When & Type? weekend
windex
Floor polish

43 Grant

i. Have cosmetic products been used recently? Y / N When & Type? hair spray - daily

j. Has painting/staining been done in the last 6 months? Y / N Where & When? ______

k. Is there new carpet, drapes or other textiles? Y / N Where & When? ______

l. Have air fresheners been used recently? Y / N When & Type? thurs (Air Infusion)

m. Is there a kitchen exhaust fan? Y / N If yes, where vented?______

n. Is there a bathroom exhaust fan? Y / N If yes, where vented?______

o. Is there a clothes dryer? Y / N If yes, is it vented outside? Y / N

p. Has there been a pesticide application? Y / N When & Type?______

Are there odors in the building? Y / N
If yes, please describe: ______

Do any of the building occupants use solvents at work? Y / N
(e.g., chemical manufacturing or laboratory, auto mechanic or auto body shop, painting, fuel oil delivery, boiler mechanic, pesticide application, cosmetologist

If yes, what types of solvents are used? ______

If yes, are their clothes washed at work? Y / N

Do any of the building occupants regularly use or work at a dry-cleaning service? (Circle appropriate response)

Yes, use dry-cleaning regularly (weekly) — No
Yes, use dry-cleaning infrequently (monthly or less) — Unknown
Yes, work at a dry-cleaning service

Is there a radon mitigation system for the building/structure? Y / N Date of Installation: ______
Is the system active or passive? Active/Passive

9. WATER AND SEWAGE

Water Supply: Public Water Drilled Well Driven Well Dug Well Other: ______

Sewage Disposal: Public Sewer Septic Tank Leach Field Dry Well Other: ______

10. RELOCATION INFORMATION (for oil spill residential emergency)

a. Provide reasons why relocation is recommended: ______

b. Residents choose to: remain in home relocate to friends/family relocate to hotel/motel

43 Front

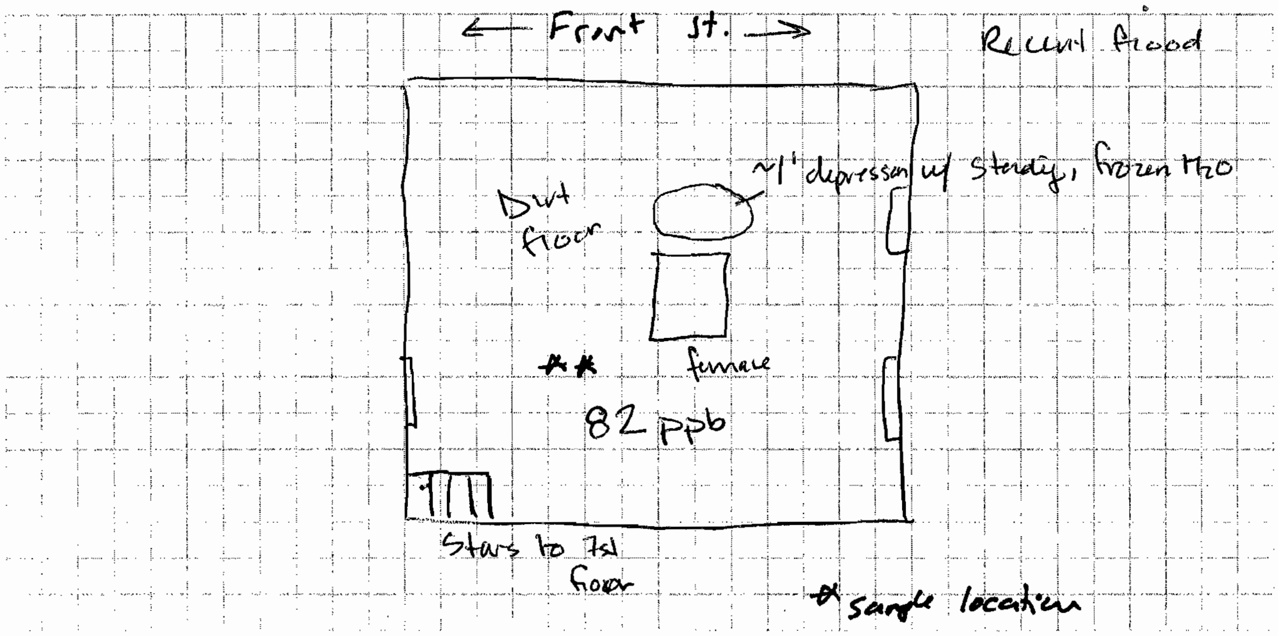
c. Responsibility for costs associated with reimbursement explained? Y / N

d. Relocation package provided and explained to residents? Y / N

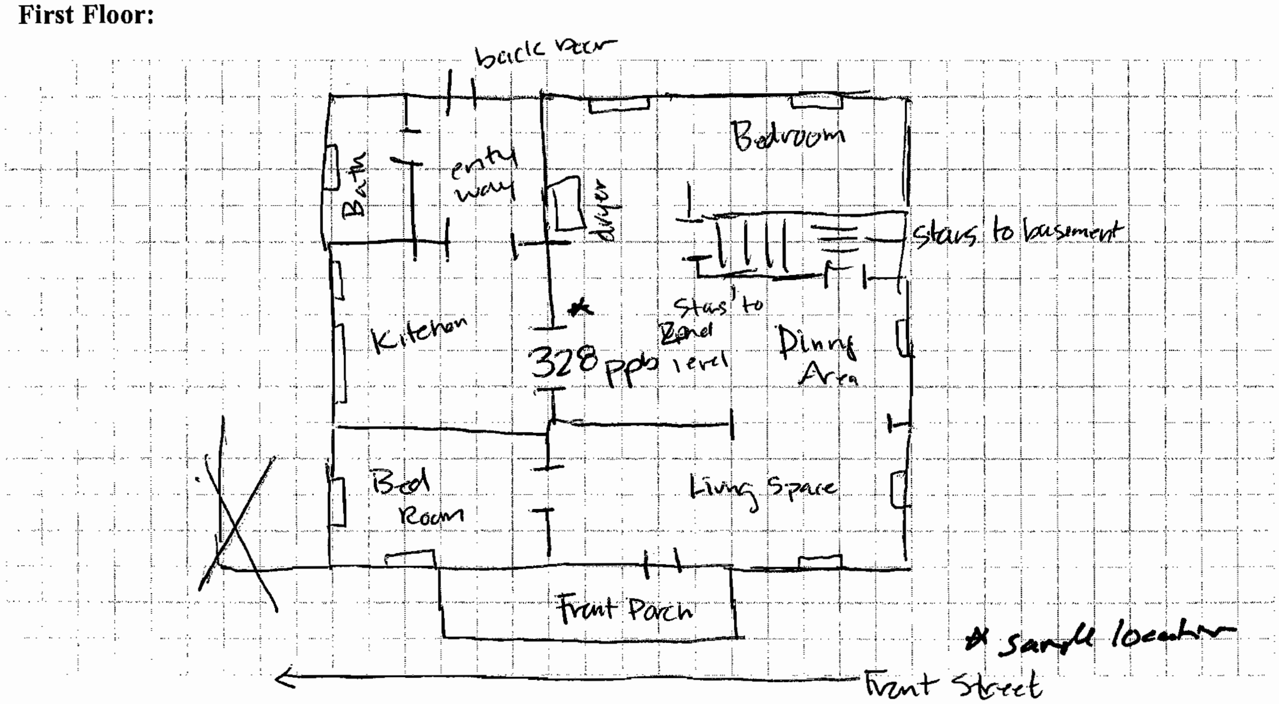
11. FLOOR PLANS

Draw a plan view sketch of the basement and first floor of the building. Indicate air sampling locations, possible indoor air pollution sources and PID meter readings. If the building does not have a basement, please note.

Basement:



First Floor:



43 Pratt

12. OUTDOOR PLOT

Draw a sketch of the area surrounding the building being sampled. If applicable, provide information on spill locations, potential air contamination sources (industries, gas stations, repair shops, landfills, etc.), outdoor air sampling location(s) and PID meter readings.

Also indicate compass direction, wind direction and speed during sampling, the locations of the well and septic system, if applicable, and a qualifying statement to help locate the site on a topographic map.

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13. PRODUCT INVENTORY FORM

Make & Model of field instrument used: ______________________

List specific products found in the residence that have the potential to affect indoor air quality.

Location	Product Description	Size (units)	Condition*	Chemical Ingredients	Field Instrument Reading (units)	Photo ** Y / N
1st Floor	Raid - Ant + Roach	17.5oz	U	Petroleum Distollates	0 ppb	N
↓	Great Stuff - Insulating Foam Sealant	12 oz	U	no listing	0 ppb	N
↓	Easy-Off - Fume free Max	16 oz	U	no listing (2 cans)	0 ppb	N
↓	Pledge - furniture polish	12.5oz	U	no listing	0 ppb	N
↓	Glade - air fusion	9 oz	U	no listing	0 ppb	N
Basement	Latex Redwood Stain	1 gal	U	Ethylene glycol, Vinyl Polymer	0 ppb	N
↓	Semi-Gloss enamel	1 gal	U	Vinyl Polymer	0 ppb	N
↓	Latex paint	1 gal	U	(4 cans + 1 qt)	0 ppb	N

* Describe the condition of the product containers as **Unopened (UO), Used (U),** or **Deteriorated (D)**
** Photographs of the **front and back** of product containers can replace the handwritten list of chemical ingredients. However, the photographs must be of good quality and ingredient labels must be legible.

45 FRONT ST

Appendix B
Indoor air quality questionnaire and building inventory

As discussed in Section 2.11, products in buildings must be inventoried every time indoor air is sampled to provide an accurate assessment of the potential contribution of volatile chemicals. In addition, the type of structure, floor layout and physical conditions of the building being studied must be noted to identify (and minimize) conditions that may interfere with the proposed testing. Toward this end, a blank copy of the NYSDOH Center for Environmental Health's Indoor Air Quality Questionnaire and Building Inventory is provided in this appendix. Also provided is an example that demonstrates how the form should be completed properly.

Well not used since '89

anytime is good
1st fl works

Well is a 2 inch steel pipe
no pid readings at casing opening
no connections to well

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NEW YORK STATE DEPARTMENT OF HEALTH
INDOOR AIR QUALITY QUESTIONNAIRE AND BUILDING INVENTORY
CENTER FOR ENVIRONMENTAL HEALTH

This form must be completed for each residence involved in indoor air testing.

Preparer's Name Ken Craigue Date/Time Prepared ____________

Preparer's Affiliation ASh Inc Phone No. ____________

Purpose of Investigation Norwich SVI

1. OCCUPANT:

Interviewed: Y/N

Last Name: ____________ First Name: ____________

Address: 45 Front St., Norwich NY 13815

County: Chenango

Home Phone: 607-334-4322 Office Phone: ____________

Number of Occupants/persons at this location 3/1 Age of Occupants 20s/3, 30s

2. OWNER OR LANDLORD: (Check if same as occupant ___)

Interviewed: Y/N

Last Name: Morse First Name: Donna

Address: 40 Division Street, Norwich, ~~NY~~ NY 13815

County: Chenango

Home Phone: 607-334-4322 Office Phone: —

3. BUILDING CHARACTERISTICS

Type of Building: (Circle appropriate response)

Residential	School	Commercial/Multi-use
Industrial	Church	Other: ____________

If the property is residential, type? (Circle appropriate response)

Ranch	2-Family	3-Family
Raised Ranch	Split Level	Colonial
Cape Cod	Contemporary	Mobile Home
Duplex	Apartment House	Townhouses/Condos
Modular	Log Home	Other:____________

If multiple units, how many? 2

If the property is commercial, type?

Business Type(s) ____________________

Does it include residences (i.e., multi-use)? Y / N   If yes, how many? ______

Other characteristics:

Number of floors 2   Building age 1940s-50

Is the building insulated? Y / N   How air tight? Tight / Average / Not Tight

4. AIRFLOW

Use air current tubes or tracer smoke to evaluate airflow patterns and qualitatively describe:

Airflow between floors

no significant flow between floors

Airflow near source

no significant flow around furnace

Outdoor air infiltration

- door to basement open and not sealed, no other sign. flow found

Infiltration into air ducts

Ducts sealed well and wrapped (insulation)

5. **BASEMENT AND CONSTRUCTION CHARACTERISTICS** (Circle all that apply)

a. Above grade construction:	wood frame	concrete	stone	brick
b. Basement type:	full	crawlspace	slab	other ________
c. Basement floor:	concrete	dirt	stone	other ________
d. Basement floor:	uncovered	covered	covered with ____________	
e. Concrete floor:	unsealed	sealed	sealed with ____________	
f. Foundation walls:	poured	block	stone	other ________
g. Foundation walls:	unsealed	sealed	sealed with ____________	
h. The basement is:	wet	damp	dry	moldy
i. The basement is:	finished	unfinished	partially finished	
j. Sump present?	Y / N			
k. Water in sump?	Y / N / not applicable			

Basement/Lowest level depth below grade: 4 (feet)

Identify potential soil vapor entry points and approximate size (e.g., cracks, utility ports, drains)

large cracks - gaps in stone at floor, areas of dirt coverage

6. **HEATING, VENTING and AIR CONDITIONING** (Circle all that apply)

Type of heating system(s) used in this building: (circle all that apply – note primary)

Hot air circulation	Heat pump	Hot water baseboard	
Space Heaters	Stream radiation	Radiant floor	
Electric baseboard	Wood stove	Outdoor wood boiler	Other ________

The primary type of fuel used is:

Natural Gas	Fuel Oil	Kerosene
Electric	Propane	Solar
Wood	Coal	

Domestic hot water tank fueled by: Natural Gas

Boiler/furnace located in: Basement Outdoors Main Floor Other________

Air conditioning: Central Air Window units Open Windows None

Are there air distribution ducts present? Y / N

Describe the supply and cold air return ductwork, and its condition where visible, including whether there is a cold air return and the tightness of duct joints. Indicate the locations on the floor plan diagram.

7. OCCUPANCY

Is basement/lowest level occupied? Full-time Occasionally Seldom Almost Never

Level	**General Use of Each Floor (e.g., familyroom, bedroom, laundry, workshop, storage)**
Basement	Storage
1st Floor	Living
2nd Floor	Living
3rd Floor	
4th Floor	

8. FACTORS THAT MAY INFLUENCE INDOOR AIR QUALITY

a. **Is there an attached garage?** Y / N

b. **Does the garage have a separate heating unit?** Y / N / NA

c. **Are petroleum-powered machines or vehicles stored in the garage** (e.g., lawnmower, atv, car) Y / N / NA Please specify_____

d. **Has the building ever had a fire?** Y / N When?_____

e. **Is a kerosene or unvented gas space heater present?** Y / N Where?_____

f. **Is there a workshop or hobby/craft area?** Y / N Where & Type?_____

g. **Is there smoking in the building?** Y / N How frequently?_____

h. **Have cleaning products been used recently?** Y / N When & Type? unknown

i. Have cosmetic products been used recently? Y / N When & Type? ________

j. Has painting/staining been done in the last 6 months? Y / N Where & When? ________

k. Is there new carpet, drapes or other textiles? Y / N Where & When? ________

l. Have air fresheners been used recently? Y / N When & Type? unknown

m. Is there a kitchen exhaust fan? Y / N If yes, where vented? ________

n. Is there a bathroom exhaust fan? Y / N If yes, where vented? ________

o. Is there a clothes dryer? Y / N If yes, is it vented outside? Y / N

p. Has there been a pesticide application? Y / N When & Type? ________

Are there odors in the building? Y / N

If yes, please describe: Yes- strong air freshner odor Present

Do any of the building occupants use solvents at work? Y / N

(e.g., chemical manufacturing or laboratory, auto mechanic or auto body shop, painting, fuel oil delivery, boiler mechanic, pesticide application, cosmetologist

If yes, what types of solvents are used? ________

If yes, are their clothes washed at work? Y / N

Do any of the building occupants regularly use or work at a dry-cleaning service? (Circle appropriate response)

Yes, use dry-cleaning regularly (weekly) — No
Yes, use dry-cleaning infrequently (monthly or less) — Unknown
Yes, work at a dry-cleaning service

Is there a radon mitigation system for the building/structure? Y / N Date of Installation: ________
Is the system active or passive? Active/Passive

9. WATER AND SEWAGE

Water Supply: Public Water Drilled Well Driven Well Dug Well Other: ______

Sewage Disposal: Public Sewer Septic Tank Leach Field Dry Well Other: ______

10. RELOCATION INFORMATION (for oil spill residential emergency)

a. Provide reasons why relocation is recommended: ________

b. Residents choose to: remain in home relocate to friends/family relocate to hotel/motel

45 Front

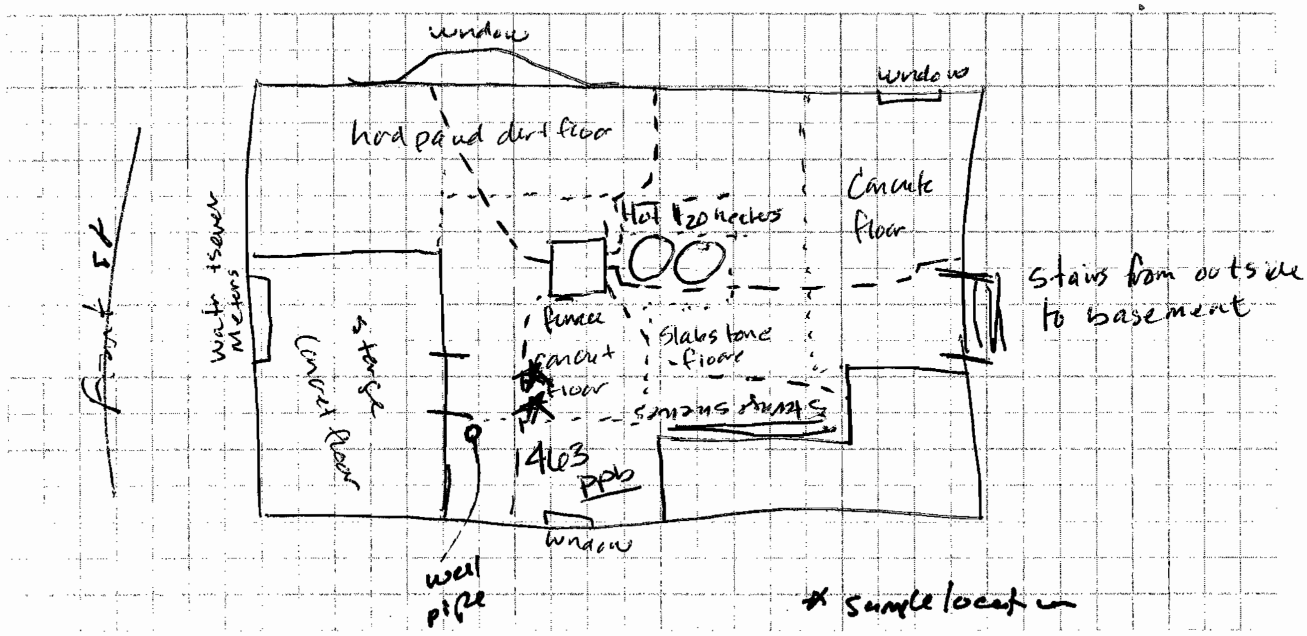
c. Responsibility for costs associated with reimbursement explained? Y / N

d. Relocation package provided and explained to residents? Y / N

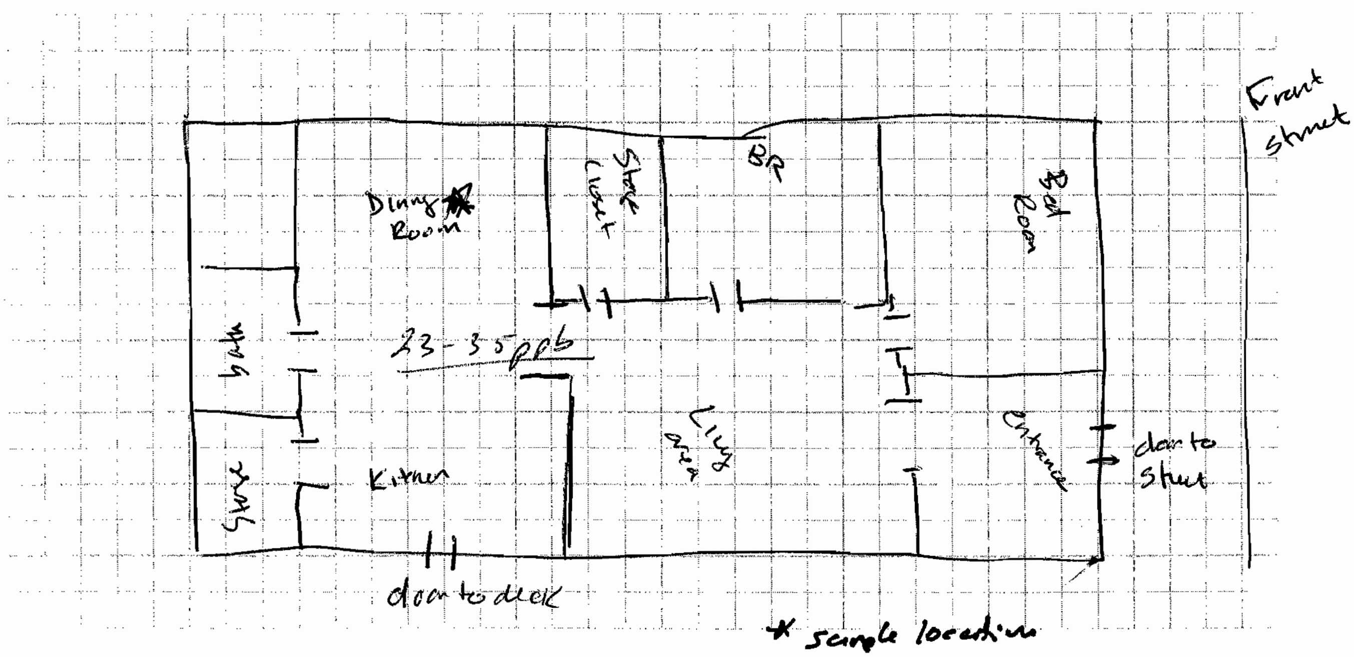
11. FLOOR PLANS

Draw a plan view sketch of the basement and first floor of the building. Indicate air sampling locations, possible indoor air pollution sources and PID meter readings. If the building does not have a basement, please note.

Basement:



First Floor:



US Front

12. OUTDOOR PLOT

Draw a sketch of the area surrounding the building being sampled. If applicable, provide information on spill locations, potential air contamination sources (industries, gas stations, repair shops, landfills, etc.), outdoor air sampling location(s) and PID meter readings.

Also indicate compass direction, wind direction and speed during sampling, the locations of the well and septic system, if applicable, and a qualifying statement to help locate the site on a topographic map.

 45 Frunt

13. PRODUCT INVENTORY FORM

Make & Model of field instrument used: ppbRAE

List specific products found in the residence that have the potential to affect indoor air quality.

Location	Product Description	Size (units)	Condition*	Chemical Ingredients	Field Instrument Reading (units)	Photo ** Y / N
Kit	Lysol w bleach	30oz	U	not listed	71ppb	N
	Spray wash stain remover	20oz	U	surfactant solvent	84ppb	N
	lemon oil	16oz	U	petroleum distillates	40ppb	N
	Mr Clean	22oz	U	dimethylbenzyl chloride	85ppb	N
	Fabric Refresher	33oz	U	perfume	97ppb	N
	Pledge clean and shine	12.5oz	U	not listed	107ppb	N
	Febreeze		U	not listed	51ppb	N
	Spot and Stain Cleaner	32oz	U	not listed	29ppb	N
Basmt	exterior latex paint	3x1s	U	not listed	0ppb	N
	unlabelled	3x1s	D	unreadable	0ppb	N
	ho Gasoline	5gp	U	not listed	70ppb	N

* Describe the condition of the product containers as **Unopened (UO), Used (U),** or **Deteriorated (D)**
** Photographs of the **front and back** of product containers can replace the handwritten list of chemical ingredients. However, the photographs must be of good quality and ingredient labels must be legible.

Little Ceasers

Appendix B
Indoor air quality questionnaire and building inventory

As discussed in Section 2.11, products in buildings must be inventoried every time indoor air is sampled to provide an accurate assessment of the potential contribution of volatile chemicals. In addition, the type of structure, floor layout and physical conditions of the building being studied must be noted to identify (and minimize) conditions that may interfere with the proposed testing. Toward this end, a blank copy of the NYSDOH Center for Environmental Health's Indoor Air Quality Questionnaire and Building Inventory is provided in this appendix. Also provided is an example that demonstrates how the form should be completed properly.

air sample in rear kitchen area

slab sample in rear near bathroom out of way since no replacement tile available.

Time
someone at 10AM Wed Mar ~~30~~ 29
10 - 10:15

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OSR – 3

NEW YORK STATE DEPARTMENT OF HEALTH
INDOOR AIR QUALITY QUESTIONNAIRE AND BUILDING INVENTORY
CENTER FOR ENVIRONMENTAL HEALTH

This form must be completed for each residence involved in indoor air testing.

Preparer's Name KEIR CRAIGIE Date/Time Prepared 3/24/06

Preparer's Affiliation ish Inc Phone No. 617 923 4662

Purpose of Investigation Norwich SVI

1. OCCUPANT: Little Ceasers

Interviewed: Y / N – Assistant Manager – unable to provide many details about building or occupants

Last Name: — First Name: —

Address:

County:

Home Phone: Office Phone:

Number of Occupants/persons at this location ____ Age of Occupants ____

2. OWNER OR LANDLORD: (Check if same as occupant ___)

Interviewed: Y / N

Last Name: Cummings First Name: Peter

Address: Developers Diversified – Regional Property Manager

County:

Home Phone: — Office Phone: 518-563-6701

3. BUILDING CHARACTERISTICS

Type of Building: (Circle appropriate response)

Residential	School	~~Commercial~~/Multi-use
Industrial	Church	Other:

If the property is residential, type? (Circle appropriate response)

Ranch	2-Family	3-Family
Raised Ranch	Split Level	Colonial
Cape Cod	Contemporary	Mobile Home
Duplex	Apartment House	Townhouses/Condos
Modular	Log Home	Other: Mall

If multiple units, how many? 1

If the property is commercial, type?

Business Type(s) Pizza Restaurant

Does it include residences (i.e., multi-use)? Y / N   If yes, how many? ______

Other characteristics:

Number of floors 1   Building age______

Is the building insulated? Y / N   How air tight? Tight / Average / Not Tight

4. AIRFLOW

Use air current tubes or tracer smoke to evaluate airflow patterns and qualitatively describe:

Airflow between floors

NA

Airflow near source

NA

Outdoor air infiltration

None ~~det~~ detected

Infiltration into air ducts

NA

5. BASEMENT AND CONSTRUCTION CHARACTERISTICS (Circle all that apply)

a. Above grade construction:		wood frame	concrete	stone	brick
b. Basement type:	NA	full	crawlspace	slab	other ________
c. Basement floor:	NA	concrete	dirt	stone	other ________
d. Basement floor:	NA	uncovered	covered	covered with ______________	
e. Concrete floor:	NA	unsealed	sealed	sealed with ______________	
f. Foundation walls:	NA	poured	block	stone	other ________
g. Foundation walls:	NA	unsealed	sealed	sealed with ______________	
h. The basement is:	NA	wet	damp	dry	moldy
i. The basement is:	NA	finished	unfinished	partially finished	
j. Sump present?		Y / N			
k. Water in sump?	Y / N / not applicable				

Basement/Lowest level depth below grade: 0 (feet)

Identify potential soil vapor entry points and approximate size (e.g., cracks, utility ports, drains)

Several drains in kitchen and bathroom area

6. HEATING, VENTING and AIR CONDITIONING (Circle all that apply)

Type of heating system(s) used in this building: (circle all that apply – note primary)

Hot air circulation	Heat pump	Hot water baseboard	
Space Heaters	Stream radiation	Radiant floor	
Electric baseboard	Wood stove	Outdoor wood boiler	Other __________

The primary type of fuel used is:

Natural Gas	Fuel Oil	Kerosene
Electric	Propane	Solar
Wood	Coal	

Domestic hot water tank fueled by: Electric

Boiler/furnace located in: Basement Outdoors Main Floor Other__________

Air conditioning: Central Air Window units Open Windows None

Are there air distribution ducts present? Y / N

Describe the supply and cold air return ductwork, and its condition where visible, including whether there is a cold air return and the tightness of duct joints. Indicate the locations on the floor plan diagram.

Overhead heat and air condition in drop ceiling

7. OCCUPANCY

Is basement/lowest level occupied? Full-time Occasionally Seldom Almost Never

Work

Level	General Use of Each Floor (e.g., familyroom, bedroom, laundry, workshop, storage)
Basement	NA
1st Floor	Business
2nd Floor	
3rd Floor	
4th Floor	

8. FACTORS THAT MAY INFLUENCE INDOOR AIR QUALITY

a. **Is there an attached garage?** Y / N

b. **Does the garage have a separate heating unit?** Y / N / NA

c. **Are petroleum-powered machines or vehicles stored in the garage** (e.g., lawnmower, atv, car) Y / N / NA Please specify________

d. **Has the building ever had a fire?** Y / N When? unknown

e. **Is a kerosene or unvented gas space heater present?** Y / N Where?________

f. **Is there a workshop or hobby/craft area?** Y / N Where & Type?________

g. **Is there smoking in the building?** Y / N How frequently?________

h. **Have cleaning products been used recently?** Y / N When & Type? unknown when or frequency

i. Have cosmetic products been used recently? Y / N When & Type? ________

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j. Has painting/staining been done in the last 6 months? Y / N Where & When? ________

k. Is there new carpet, drapes or other textiles? Y / N Where & When? ________

l. Have air fresheners been used recently? Y / N When & Type? unknown

m. Is there a kitchen exhaust fan? Y / N If yes, where vented? ________

n. Is there a bathroom exhaust fan? Y / N If yes, where vented? ________

o. Is there a clothes dryer? Y / N If yes, is it vented outside? Y / N

p. Has there been a pesticide application? Y / N When & Type? unknown

Are there odors in the building? Y / N
If yes, please describe: Pizza, cooking

Do any of the building occupants use solvents at work? Y / N
(e.g., chemical manufacturing or laboratory, auto mechanic or auto body shop, painting, fuel oil delivery, boiler mechanic, pesticide application, cosmetologist

If yes, what types of solvents are used? ________

If yes, are their clothes washed at work? Y / N

Do any of the building occupants regularly use or work at a dry-cleaning service? (Circle appropriate response)

Yes, use dry-cleaning regularly (weekly) — No
Yes, use dry-cleaning infrequently (monthly or less) — Unknown
Yes, work at a dry-cleaning service

Is there a radon mitigation system for the building/structure? Y / N Date of Installation: ________
Is the system active or passive? Active/Passive

9. WATER AND SEWAGE

Water Supply:	Public Water	Drilled Well	Driven Well	Dug Well	Other: ______
Sewage Disposal:	Public Sewer	Septic Tank	Leach Field	Dry Well	Other: ______

10. RELOCATION INFORMATION (for oil spill residential emergency) NA

a. Provide reasons why relocation is recommended: ________

b. Residents choose to: remain in home relocate to friends/family relocate to hotel/motel

c. Responsibility for costs associated with reimbursement explained? Y / N

d. Relocation package provided and explained to residents? Y / N

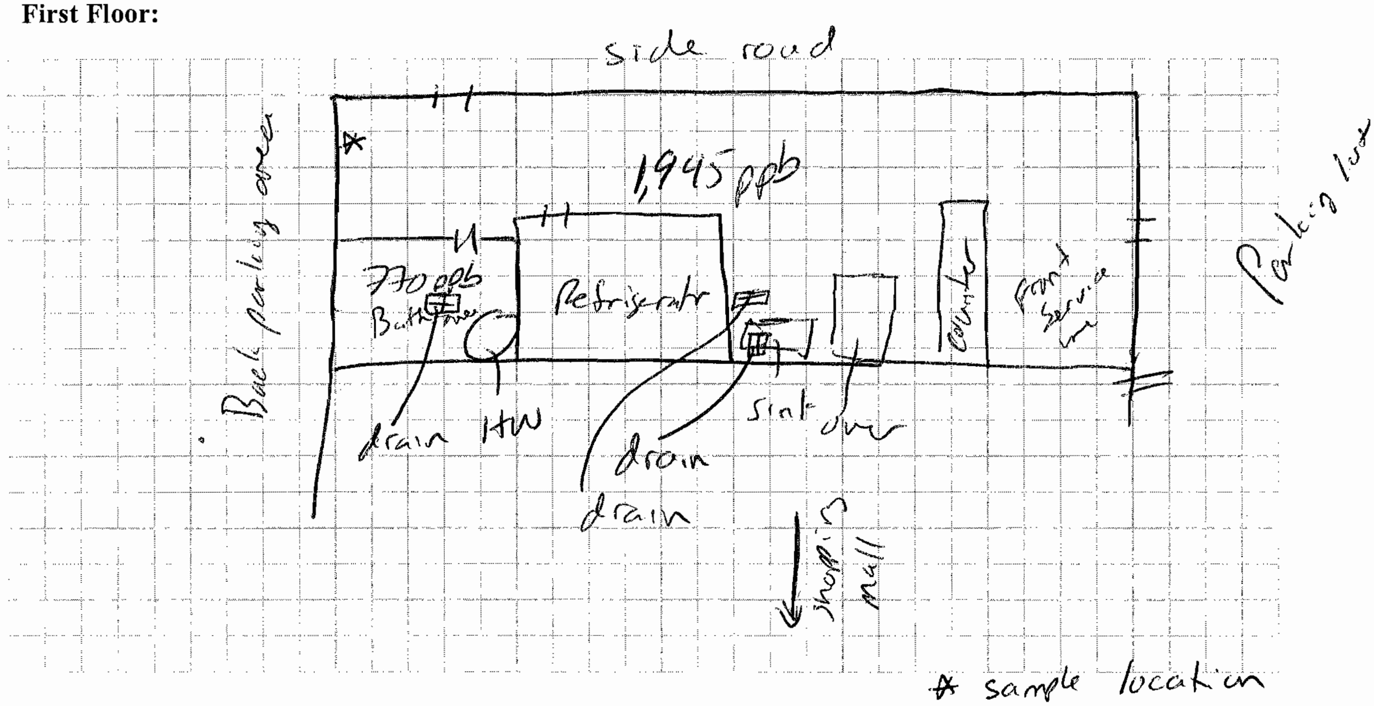
6

11. FLOOR PLANS

Draw a plan view sketch of the basement and first floor of the building. Indicate air sampling locations, possible indoor air pollution sources and PID meter readings. If the building does not have a basement, please note.

Basement:

First Floor:



12. OUTDOOR PLOT

Draw a sketch of the area surrounding the building being sampled. If applicable, provide information on spill locations, potential air contamination sources (industries, gas stations, repair shops, landfills, etc.), outdoor air sampling location(s) and PID meter readings.

Also indicate compass direction, wind direction and speed during sampling, the locations of the well and septic system, if applicable, and a qualifying statement to help locate the site on a topographic map.

13. PRODUCT INVENTORY FORM

Make & Model of field instrument used: ppbRAE

List specific products found in the residence that have the potential to affect indoor air quality.

Location	Product Description	Size (units)	Condition*	Chemical Ingredients	Field Instrument Reading (units)	Photo ** Y / N
kit	Stainless Steel Polish	2 x 1qt	U	white mineral oil	382 ~~269~~ ppb	N
kit	Presto Allpurpose cleaner	4 x 32oz	U	not specific	975	N
kit	Bio-Gel	1 x 1Qt	U	not specific	428	N
kit	Unlabeled (spray)		U	no label	722	N
kit	Dishwashing detergent	3.3 gal ~~7L~~	U	—	880	N
kit	Gloss cleaner	7L	U	—	~~7~~ 580	N
Bath	Disinfectant/Sanitizer sol'n	24oz	U	not listed	603	N
	Restroom cleanser	1 Qt	U	not listed	882	N
	unlabeled spray bottle		U	not listed	641	N
	Armstrong	1Qt	U	not listed	1581	N
	Window Cleaner - hand labelled		U	not listed	817	N

* Describe the condition of the product containers as **Unopened (UO), Used (U),** or **Deteriorated (D)**
** Photographs of the **front and back** of product containers can replace the handwritten list of chemical ingredients. However, the photographs must be of good quality and ingredient labels must be legible.

F
SVI FIELD SAMPLING SHEETS

Summa Canister Sampling Field Data Sheet

Site: Norwich Former MGP
Samplers: KC + AB
Date: 3/22/06

Sample #	NO-UP-062203 ~~NO-A01~~	NO-CE-062203 NO-A02	NO-BK-062203 NO-A03		
Location	upwind	mid area	downwind		
Summa Canister ID (Lab ID, if provided)	6381 STL-239	6382 K-108	6391 K122		
Additional Tubing Added	NO/ YES - How much	NO/ YES - How much	NO/ YES - How much	NO/ YES - How much	NO/ YES - How much
Purge Time (Start)	0	0	0		
Purge Time (Stop)	0	0	0		
Total Purge Time (min)	0	0	0		
Purge Volume	0	0	0		
Pressure Gauge - before sampling	28.5	25.5	27.0		
Sample Time (Start)	0750	0915	0925		
Sample Time (Stop)	0755	0915	0925		
Total Sample Time (min)	24hr	24hrs	24hr		
Pressure Gauge - after sampling	1.5	3.0	5.0		
Sample Volume	6L	6L	6L		
Canister Pressure Went To Ambient Pressure?	YES / NO	YES / NO	YES / NO	YES / NO	YES / NO

General Comments:

upwind - located along fence at NYSEG area
mid - located at 10 Columbia
downwind located at 35 Brown along fence

Summa Canister Sampling Field Data Sheet

Site: Norwich Former MGP site
Samplers: KC + AB
Date: 3/22/06

Sample #	~~NO-BA12~~ BA KC NO-12BAB	~~NO-BA12 SS~~	~~NO-BA12 SS~~ KC DUP NO-12BASDUP	~~NO-BA12 FF~~ KC NO-12BAF	~~BA~~ AB KC ~~NO-BA12 SS~~ NO-12BAS
Location	12 Baldwin Basement	~~12 Baldwin Sub-slab~~	12 Baldwin Sub-slab DUP	12 Baldwin First Floor	12 Baldwin Sub slab
Flow control ID / Summa Canister ID (Lab ID, if provided)	K113/ 6389	~~K161/ 12587~~ AB	K111/ 6390	K134/ 6392	K120/ 6378
Additional Tubing Added	NO/ YES - How much	~~NO/ YES - How much ~18"~~	NO/ YES - How much ~18"	NO/ YES - How much	NO/ YES - How much ~18"
Purge Time (Start)	0	↓	0	0	0
Purge Time (Stop)	0	Canister	0	0	0
Total Purge Time (min)	0	Failed	0	0	0
Purge Volume	0		0	0	0
Pressure Gauge - before sampling	27		27.5	28	27
Sample Time (Start)	01045	~~01035~~ AB	01045 ~~01035~~ AB	1050	01045
Sample Time (Stop)					
Total Sample Time (min)	1045		1045	1048	1045
Pressure Gauge - after sampling	0		5.5	8	5.25
Sample Volume					
Canister Pressure Went To Ambient Pressure?	YES / NO	YES / NO	YES / NO	YES / NO	YES / NO

General Comments: Sub-slab:
barometric pressure = 28.90 "Hg
relative pressure = -0.04 "H_2O
Methane/CH_4 = 0.0%

CO_2 = 0.4%
O_2 = 19.3%
He = 2.2%

PID = 62.66 ppb

Post Test He: 0

Summa Canister Sampling Field Data Sheet

Site: Norwich Former MGP
Samplers: KC + AB
Date: 3/22/06

Sample #	~~NO-BA14SS~~ KC NO-14BAS	~~NO-BA14 BA~~ KC NO-14BAB	~~NO-BA14 BA~~ KC DUP NO-14BABDUP	~~NO-BA14 FF~~ KC NO-14BAF	
Location	14 Baldwin Sub-slab basement	14 Baldwin ~~sub~~ basement	14 Baldwin basement	14 Baldwin living space	
Flow controller/ Summa Canister ID (Lab ID, if provided)	K210/ 12458	~~K131~~ K128/ 6384	K226/ 12346	K137/ 6379	
Additional Tubing Added	NO/ YES - How much ~12"	NO/ YES - How much ~	NO/ YES - How much	NO/ YES - How much	NO/ YES - How much
Purge Time (Start)	0	0	0	0	
Purge Time (Stop)	0	0	0	0	
Total Purge Time (min)	0	0	0	0	
Purge Volume	0	0	0	0	
Pressure Gauge - before sampling	28	27.5	30	28.5	
Sample Time (Start)	15:50	15:50	15:50	15:55	
Sample Time (Stop)	15:50	15:50	15:50	15:55	
Total Sample Time (min)	24hr	24hr	24hr	24hr	
Pressure Gauge - after sampling	0	6.0	7.0	9.5	
Sample Volume	6L	6L	6L	6L	
Canister Pressure Went To Ambient Pressure?	YES / NO	YES / NO	YES / NO	YES / NO	YES / NO

General Comments: Sub-Slab: Methane CH_4 - 0.0% PID - 4932 ppb
barometric pressure - 28.99" Hg CO_2 - 0.9%
relative pressure - -0.06" H_2O O_2 - 18.9%
He - 900 ppm He(post) >350ppm (bag full)

Summa Canister Sampling Field Data Sheet

Site: Norwich Former MGP
Samplers: KC + AB
Date: 3/22/2006

Sample #	NO-10COB ~~NO-C010BA~~ kc	NO-10COF ~~NO-C010FF~~ kc	NO-10COS ~~NO-C010SS~~ kc		
Location	10 Columbia	10 Columbia	10 Columbia		
Summa Canister ID (Lab ID, if provided)	Flow controller K257 6380	K243 6374	Flow controller K271 6394		
Additional Tubing Added	NO/ YES - How much	NO/ YES - How much	NO/ YES - How much	NO/ YES - How much	NO/ YES - How much
Purge Time (Start)	NA ~~8:55~~ kc	NA ~~9:00~~ kc	~~8:55~~ kc 8:50		
Purge Time (Stop)	NA	NA	8:51		
Total Purge Time (min)	NA	NA	1 min kc		
Purge Volume	—	—	0.3 L		
Pressure Gauge - before sampling	29	28	29		
Sample Time (Start)	8:55	9:00	8:55		
Sample Time (Stop)	8:55	9:00	8:55		
Total Sample Time (min)	24 hrs	24 hr	24 hr		
Pressure Gauge - after sampling	0	0	7		
Sample Volume	6L	6L	6L		
Canister Pressure Went To Ambient Pressure?	YES / NO	YES / NO	YES / NO	YES / NO	YES / NO

General Comments:

Sub-slab - barometric pressure = 28.85 " Hg
relative pressure = -0.03 " H_2O
Methane CH_4 = 0.0%

CO_2 = 0.5%
O_2 = 20.2%
He = 50 ppm

PID = 68.6 ppb

3/23/06
- post He OK

Summa Canister Sampling Field Data Sheet

Site: Norwich Former MGP
Samplers: KC + AB
Date: 3/22/05

Sample #	~~NO-CO16 BA~~ KC NO-16COB	~~NOCO16 SS~~ KC NO-16COS	~~NO-CO16 FF~~ KC NO-16COF		
Location	16 Columbia Basement	16 Columbia Basement	16 Columbia First Floor		
Flow controller / Summa Canister ID (Lab ID, if provided)	K093/ 6385	K255/ 93055	K241/ 11287		
Additional Tubing Added	NO/ YES - How much	NO/ YES - How much ~ 12"	NO/ YES - How much	NO/ YES - How much	NO/ YES - How much
Purge Time (Start)	0	0	0		
Purge Time (Stop)	0	0	0		
Total Purge Time (min)	0	0	0		
Purge Volume	0	0	0		
Pressure Gauge - before sampling	29	29	29.5		
Sample Time (Start)	13:40	13:40	13:42		
Sample Time (Stop)	13:45	13:45	1342		
Total Sample Time (min)	24hr	24hr	24hr		
Pressure Gauge - after sampling	8.0	7.5	0		
Sample Volume	6L	6L	6L		
Canister Pressure Went To Ambient Pressure?	YES / NO	YES / NO	YES / NO	YES / NO	YES / NO

General Comments: Sub-Slab:
barometric pressure = 28.95" Hg
relative pressure = -0.05" H_2O
Methane CH_4 = 0.0%
CO_2 = 0.3%
O_2 = 19.3%
He = 1.5%
He Post = 650 ppm (full bag)
PID = 5451 ppb

Summa Canister Sampling Field Data Sheet

Site: Norwich Former MGP
Samplers: KC + AB
Date: 3/24/06

Sample #	NO-41FR S	NO-41FR B	NO-41FR F	NO-41FR FDUP	
Location	41 Front st Basement	41 Front st Basement	41 Front st First Floor	41 Front st First Floor	
Flow controller/ Summa Canister ID (Lab ID, if provided)	K134/ Ø177	K243/ 1273 Ø	K113/ Ø148	K271/ Ø4419	
Additional Tubing Added	NO/ YES - How much ~5'	NO/ YES - How much	NO/ YES - How much	NO/ YES - How much	NO/ YES - How much
Purge Time (Start)	Ø 6:05	~~Ø6:05~~	0	0	
Purge Time (Stop)	Ø 6:07	~~Ø 6:07~~	0	0	
Total Purge Time (min)	Ø 2	~~Ø 2~~	0	0	
Purge Volume	Ø 0.4L	~~Ø 0.4L~~	0	0	
Pressure Gauge - before sampling	29.0	28.5	25.0	29	
Sample Time (Start)	6 15	6 15	~~6 20~~	6 20	
Sample Time (Stop)	18 18	18 18	18 17	18 17	
Total Sample Time (min)					
Pressure Gauge - after sampling	8	0	0	0	
Sample Volume					
Canister Pressure Went To Ambient Pressure?	YES / NO	YES / NO	YES / NO	YES / NO	YES / NO

General Comments:

basement press: 25.00
relative pres: -0.03
CH_4: 0.0
CO_2: 0.7
O_2: 19.8
PID: >10 ppm
He = 0 ppm/ 0ppm (bag full)

Summa Canister Sampling Field Data Sheet

Site: Norwich Former MGP
Samplers: Kier Craigie + Amanda Bissell
Date: 3-24-06

Sample #	NO-42FR B	NO-42FR S	NO-42FR F		
Location	42 Front St Basement	42 Front St Basement	42 Front St 1st Floor		
Flow Controller / Summa Canister ID (Lab ID, if provided)	K210/ 0077	K093/ 04407	K252/ 0151		
Additional Tubing Added	NO/ YES - How much	NO/ YES - How much ~18"	NO/ YES - How much	NO/ YES - How much	NO/ YES - How much
Purge Time (Start)	0	~~0~~ 930	0		
Purge Time (Stop)	0	~~0~~ 932	0		
Total Purge Time (min)	0	~~0~~ 2	0		
Purge Volume	0	~~0~~ 0.4L	0		
Pressure Gauge - before sampling	28.5	29.5	29.5		
Sample Time (Start)	935	935	0942		
Sample Time (Stop)	930	935	942		
Total Sample Time (min)	23hr 55min	24hr	24hr		
Pressure Gauge - after sampling	0	8.0	8.75		
Sample Volume	6L	6L	6L		
Canister Pressure Went To Ambient Pressure?	YES / NO	YES / NO	YES / NO	YES / NO	YES / NO

General Comments: Sub-slab:
barometric pressure: 29.13" Hg
relative pressure = 0.01" H_2O

Methane CH_4 = 0.0% PID = 665 ppb
CO_2 = 0.4%
O_2 = 19.0%
He = 325 ppm / 0 ppm (full bag)

Basement 189 ppb
1st Fl 1050 ppb

Summa Canister Sampling Field Data Sheet

Site: Norwich Former MGP
Samplers: KC + AB
Date: 3/24/2006

Sample #	NO-30FRB	NO-30FRS	NO-30FRS DUP	NO-30FRF	
Location	~~30~~ 30 Front st Basement	30 Front st Basement	30 Front st Basement	30 Front st First Floor	
Flow controller / Summa Canister ID (Lab ID, if provided)	~~K226~~ K178 / 04719	K229 ~~K178~~ / ~~03~~ 04399	K255 / 93008	STL-239 / 04420	
Additional Tubing Added	NO/ YES - How much	NO/ YES - How much ~24"	NO/ YES - How much ~24"	NO/ YES - How much	NO/ YES - How much
Purge Time (Start)	0	~~0~~ 1125	0	0	
Purge Time (Stop)	0	~~0~~ 1127	0	0	
Total Purge Time (min)	0	~~0~~ 2	0	0	
Purge Volume	0	~~0~~ 0.4L	0	0	
Pressure Gauge - before sampling	27	30	29	29.5	
Sample Time (Start)	1130	1130	1130	1135	
Sample Time (Stop)	1130	1130	1130	1135	
Total Sample Time (min)					
Pressure Gauge - after sampling	5.5	6.5	7.0	1.75	
Sample Volume	6L	6L	6L	6L	
Canister Pressure Went To Ambient Pressure?	YES / NO	YES / NO	YES / NO	YES / NO	YES / NO

General Comments:
barometric pressure 29.09
rel. pressure -0.04
CH_4 = 0.0
CO_2 = 0.3
O_2 = 19.7
He = 625 ppm / 0 ppm (Das full)
PID = 5135 ppb

Basement = 178 ppb
1st Fl = 351 ppb

Summa Canister Sampling Field Data Sheet

Site: Norwich former MGP
Samplers: KC/AB
Date: 3/24/06

Sample #	NO-BK062403	NO-MI062403	NO-UP062403		
Location	Birdsall substation	42 Front st	35 Brown		
Summa Canister ID (Lab ID, if provided)	6373 K131	04742 K137	K122/ 6395		
Additional Tubing Added	NO/ YES - How much	NO/ YES - How much	NO/ YES - How much	NO/ YES - How much	NO/ YES - How much
Purge Time (Start)	NA	NA	NA		
Purge Time (Stop)	-	-	-		
Total Purge Time (min)	-	-	-		
Purge Volume	-	-	-		
Pressure Gauge - before sampling	26.5	28.0	28.0		
Sample Time (Start)	848	0950	1025		
Sample Time (Stop)	0955	947	1025		
Total Sample Time (min)					
Pressure Gauge - after sampling	5.0	5.5	4.0		
Sample Volume	6L	6L	6L		
Canister Pressure Went To Ambient Pressure?	YES / NO	YES / NO	YES / NO	YES / NO	YES / NO

General Comments:

Summa Canister Sampling Field Data Sheet

Site: Norwich Former MGP

Samplers: KC + AB

Date: 3/28/06

Sample #	NO-43FRS	NO-43FRB	NO-43FRF		
Location	43 Front Basement	43 Front Basement	43 Front 1st Floor		
Flow controller/ Summa Canister ID (Lab ID, if provided)	K131/ 1330	K122/ 9461B	6134/ K108		
Additional Tubing Added	NO/ YES - How much	NO/ YES - How much	NO/ YES - How much	NO/ YES - How much	NO/ YES - How much
Purge Time (Start)	1720	—	—		
Purge Time (Stop)	1722	—	—		
Total Purge Time (min)	2	—	—		
Purge Volume	0.4L	—	—		
Pressure Gauge - before sampling	28.5	30	27.5		
Sample Time (Start)	1724	1724	1730		
Sample Time (Stop)	1727	1727	1730		
Total Sample Time (min)	~ 24hr 3min	24hr + 3min	24hr		
Pressure Gauge - after sampling	6	6	11		
Sample Volume	6L	6L	6L		
Canister Pressure Went To Ambient Pressure?	YES / NO	YES / NO	YES / NO	YES / NO	YES / NO

General Comments:

Barometric pressure 29.17" Hg CH_4 - 0.0% PID = 13.5 ppm

CO_2 - 2.4%

$PID_{basement}$ = ~~0 ppm~~ 82 ppm

Relative pressure - 0.05" H_2O O_2 - 17.8%

He - 25 ppm $PID_{1st\ Fl}$ = ~~0~~ ppm He (3/29/06) = 0 ppm

328 ppm

Summa Canister Sampling Field Data Sheet

Site: Norwich Former MGP
Samplers: Kier Craigie + Amanda Bissell
Date: 3/28/2006

Sample #	NO-45FRS	NO-45FRB	NO-45FRF	NO-35BRS	NO-35BRF
Location	45 Front St basement	45 Front St Basement	45 Front St 1st Floor	35 Brown Ave 1st Floor	35 Brown Ave 1st Fl
Flow controller/ Summa Canister ID (Lab ID, if provided)	STL-239/ 93001	K178/ 1497	K252/ S-1502	K093 53176	K210 2960
Additional Tubing Added	NO/ YES - How much ~18"	NO/ YES - How much	NO/ YES - How much	NO/ YES - How much 24"	NO/ YES - How much
Purge Time (Start)		0	0	1625	—
Purge Time (Stop)		0	0	1627	—
Total Purge Time (min)		0	0	2	—
Purge Volume		0	0	6.4L	—
Pressure Gauge - before sampling	30	28.5	30	29	24
Sample Time (Start)	1429	1429	1440	1630	1635
Sample Time (Stop)	1429	1429	1440	1630	1616
Total Sample Time (min)	24 hrs	24 hrs	24 hrs		
Pressure Gauge - after sampling	~~5.25~~ 0.5	~~0.5~~ 5.25	9	7.5	0
Sample Volume	6L	6L	6L	6L	6L
Canister Pressure Went To Ambient Pressure?	YES / NO	YES / NO	YES / NO	YES / NO	YES / NO

General Comments: Sub-slab: CH_4 = 0.0% PID = 1836 ppb
barometric pressure = 29.1 "Hg CO_2 = 0.1% PID basement = 463 ppb
relative pressure = 0.00 "H_2O O_2 = 20.1%
He = 4.1% PID 1st Floor =

Baro Press = 29.15
Rel Press = -0.02
CH_4 = 0.0
CO_2 = 0.8
O_2 = 18.8

He = 0ppm/0ppm
PID = 10 ppb

PID - Ambient = 69 ppb

He = 1700 ppm 3/29/06

Summa Canister Sampling Field Data Sheet

Site: Norwich Former MGP site
Samplers: Kier Craigie + Amanda Bissell
Date: 3/28/2006

Sample #	NO-BK062803	~~NO-BK99~~ NO-MI062803	NO-UP062803	NO-UP062803 DUP	
Location	Norwich / NYSEG Sub-Station 24 Birs.	Norwich / NYSEG - Front St	Norwich / 35 Brown	Norwich / 35 Brown	
Flow controller / Summa Canister ID (Lab ID, if provided)	K226 / S-1491	K161 / Ø4337	K137 / S-1536	K120 / 1499	
Additional Tubing Added	NO/ YES - How much	NO/ YES - How much	NO/ YES - How much	NO/ YES - How much	NO/ YES - How much
Purge Time (Start)	~~1353~~ kc	~~1750~~ kc	~~1757~~ kc	~~1757~~ kc	
Purge Time (Stop)	—	—	—	—	
Total Purge Time (min)	—	—	—	—	
Purge Volume	—	—	—	—	
Pressure Gauge - before sampling	30	29	28.5	27.5	
Sample Time (Start)	1353	1750	1757	1757	
Sample Time (Stop)	1354	1745	1757	1757	
Total Sample Time (min)	24hr	24hr	24hr	~~5.5~~ kc 24hr	
Pressure Gauge - after sampling	5.5	0	6.5	5.5	
Sample Volume	6L	6L	6L	6L	
Canister Pressure Went To Ambient Pressure?	YES / NO	YES / NO	YES / NO	YES / NO	YES / NO

General Comments:

Summa Canister Sampling Field Data Sheet

Site: Norwich Former MGP
Samplers: Kier Craigie + Amanda Bissell
Date: 3/29/2006

Sample #	NO-39FRS	NO-39FR B	NO-39FR F		
Location	39 Front St Basement	39 Front St Basement	39 Front St 1st Floor		
Flow controller/ Summa Canister ID (Lab ID, if provided)	K243/ Ø4397	K134/ 2992	K271/ Ø4747		
Additional Tubing Added	NO/ YES - How much ~4'	NO/ YES - How much	NO/ YES - How much	NO/ YES - How much	NO/ YES - How much
Purge Time (Start)	|	0	0		
Purge Time (Stop)	|	0	0		
Total Purge Time (min)	|	0	0		
Purge Volume	0.5L	0	0		
Pressure Gauge - before sampling	29	29	29		
Sample Time (Start)	953	950	956		
Sample Time (Stop)	956	956	955 ~~1055~~		
Total Sample Time (min)	24hr	24hr	24hr		
Pressure Gauge - after sampling	6	10.5	0		
Sample Volume	6L	6L	6L		
Canister Pressure Went To Ambient Pressure?	YES / NO	YES / NO	YES / NO	YES / NO	YES / NO

General Comments: Sub slab
Barometric pressure = 29.26" Hg
Relative pressure = -0.03" H_2O
CH_4 - 0.0%
CO_2 - 1.5%
O_2 - 19.1%
He - 0%/0
PID = 199 ppm (Over)
Basement background = 98 ppb
1st floor = 485 ppb

Summa Canister Sampling Field Data Sheet

Site: Norwich Former MGP
Samplers: Kier Craigie + Amanda Bissell
Date: 3/29/2006

Sample #	NO-1860 S	NO-1860 B	NO-1860 F		
Location	18 Columbia Basement	18 Columbia Basement	18 Columbia 1st Floor		
Flow Controller / Summa Canister ID (Lab ID, if provided)	~~Flow~~ K111/ 93063	K257/ 04388	K113/ 04176		
Additional Tubing Added	NO/ YES - How much ~4'	NO/ YES - How much	NO/ YES - How much	NO/ YES - How much	NO/ YES - How much
Purge Time (Start)	1130	0	0		
Purge Time (Stop)	1133	0	0		
Total Purge Time (min)	~2.5 min	0	0		
Purge Volume	0.4-0.5 L	0	0		
Pressure Gauge - before sampling	28.0	29.0	29.5		
Sample Time (Start)	1138	1140	1149		
Sample Time (Stop)	1139	1139	1148		
Total Sample Time (min)	24hr	24hr	24hr		
Pressure Gauge - after sampling	6.5	0	0		
Sample Volume	6 L	6 L	6 L		
Canister Pressure Went To Ambient Pressure?	YES / ~~NO~~	YES / NO	YES / NO	YES / NO	YES / NO

General Comments: Sub slab = CH_4 - 0.0% PID = 106 ppb Background Basement 1st Fl. 209 ppb
barometric pressure = 29.24" Hg CO_2 - 0.7%
relative pressure = +0.01" H_2O O_2 - 20.0%
He - 150 ppm PID = 2321 ppm
Backyard He = 225 ppm 150 ppm

Dryer in basement was running when samples retrieved. Vent is ~~to~~ into the basement

Summa Canister Sampling Field Data Sheet

Site: Norwich Former MGP site
Samplers: Keir Craigie + Amanda Bissell
Date: 3/29/2006

Sample #	NO-BK062903	NO-M1062903	NO-UP062903		
Location	Norwich NYSEG sub-station Birdsall	Norwich MID LOCATION	Norwich Upwind 35 Brown Ave		
Summa Canister ID (Lab ID, if provided)	K226 6120	STL-239 1115	K178 2989		
Additional Tubing Added	NO/ YES - How much	NO/ YES - How much	NO/ YES - How much	NO/ YES - How much	NO/ YES - How much
Purge Time (Start)	—	—	—		
Purge Time (Stop)	—	—	—		
Total Purge Time (min)	—	—	—		
Purge Volume	—	—	—		
Pressure Gauge - before sampling	30	30	29.5		
Sample Time (Start)	1402	1450	1458		
Sample Time (Stop)	~~1402~~ 1401	1442	1458		
Total Sample Time (min)	24hr	24hr	24hr		
Pressure Gauge - after sampling	5.5	0	6.5		
Sample Volume	6L	6L	6L		
Canister Pressure Went To Ambient Pressure?	YES / NO	YES / NO	YES / NO	YES / NO	YES / NO

General Comments:

Summa Canister Sampling Field Data Sheet

Site: Norwich Former MGP
Samplers: Ken Craigie + Amanda Bissell
Date: 3/29/2006

Sample #	NO-20C05	NO-20C0B	NO-20C0F		
Location	20 Columbia Basement	20 Columbia Basement	20 Columbia 1st Floor		
Flow controller/ Summa Canister ID (Lab ID, if provided)	~~K107~~/K168 S-1493	K107/ 11367	K255/ 02700		
Additional Tubing Added	NO/ YES - How much ~2'	NO/ YES - How much	NO/ YES - How much	NO/ YES - How much	NO/ YES - How much
Purge Time (Start)	|	0	0		
Purge Time (Stop)	|	0	0		
Total Purge Time (min)	2.5 min	0	0		
Purge Volume	~0.5 L	0	0		
Pressure Gauge - before sampling	30	30	29.5		
Sample Time (Start)	13~~25~~ 25	13~~25~~ 27	1337		
Sample Time (Stop)	1325	1325	1337		
Total Sample Time (min)	24 hr	~24 hr	24 hr		
Pressure Gauge - after sampling	9	9.5	8		
Sample Volume	6L	6L	6L		
Canister Pressure Went To Ambient Pressure?	YES / NO	YES / NO	YES / NO	YES / NO	YES / NO

General Comments: Sub-slab differential pressure = 0.00" H_2O
barometric pressure = 29.2" Hg
CH_4 - 0.0%
CO_2 - 0.8%
O_2 - 19.9%
He - 500 ppm
Basement PID = 187 ppb
PID (slab) = 2761 ppb
1st Floor PID = 439 ppb

He (3/30) = 0 ppm

Summa Canister Sampling Field Data Sheet

Site: Norwich Former MGP site
Samplers: Kier Craigie + Amanda Bissell
Date: 3/29/2006

Sample #	NO-LCS	NO-LCF			
Location	Norwich/ Little Ceasers - sub-slab	Norwich/ Little Ceasers			
Flow controller/ Summa Canister ID (Lab ID, if provided)	K219/ 2050	K224/ 1144			
Additional Tubing Added	NO/ YES - How much 18"	NO/ YES - How much	NO/ YES - How much	NO/ YES - How much	NO/ YES - How much
Purge Time (Start)	1035	0			
Purge Time (Stop)	1038	0			
Total Purge Time (min)	2.5	0			
Purge Volume	0.5 L	0			
Pressure Gauge - before sampling	29.5	29			
Sample Time (Start)	1040	1040			
Sample Time (Stop)	1840	1835			
Total Sample Time (min)	8hr	7hr 55min			
Pressure Gauge - after sampling	4.0	0			
Sample Volume	6L	6L			
Canister Pressure Went To Ambient Pressure?	YES / NO	YES / NO	YES / NO	YES / NO	YES / NO

General Comments: Sub-slab:
barometric pressure = 29.20"Hg
relative pressure = -0.04"H_2O
CH_4 - 0.0%
CO_2 - 0.4%
O_2 - 19.4%
He - 0/0
PID = 3400 ppb
$PID_{1st\ F1}$ = 97 ppb

G
CHAIN OF CUSTODY RECORDS

CHAIN OF CUSTODY

ACCUTEST Laboratories

495 TECHNOLOGY CENTER WEST • BUILDING ONE
MARLBOROUGH, MA 01752
TEL: 508-481-6200 • FAX: 508-481-7753

ACCUTEST JOB #:
ACCUTEST QUOTE #:

CLIENT INFORMATION

NAME: META Environmental
ADDRESS: 49 Clarendon St.
CITY, STATE ZIP: Watertown MA 02472
SEND REPORT TO: Pete Declercq
PHONE #: 617-923-4662

FACILITY INFORMATION

PROJECT NAME: Norwich Former MGP Site
LOCATION: Norwich, NY
PROJECT NO.: T03032
FAX #: 617-923-4610

ANALYTICAL INFORMATION: BTEX, PAHs

MATRIX CODES: DW - DRINKING WATER; GW - GROUND WATER; WW - WASTE WATER; SO - SOIL; SL - SLUDGE; OI - OIL; LIQ - OTHER LIQUID; SOL - OTHER SOLID

ACCUTEST SAMPLE #	FIELD ID / POINT OF COLLECTION	DATE	TIME	SAMPLED BY	MATRIX	# OF BOTTLES	HCl	NaOH	HNO3	H2SO4	NONE	BTEX	PAHs	LAB USE ONLY
	NO-DP56 (19-20)	10-11-05	15:00	LWG	SO	3					3	X	X	
	NO-DP57 (19-20)	10-11-05	16:40	LWG	SO	3					3	↓	↓	
	NO-DP58 (19-20)	10-12-05	9:15	LWG	SO	3					3	↓	↓	
	NO-DP59 (19-20)	↓	11:00	↓	↓	↓					↓	↓	↓	
	NO-DP60 (19-20)	↓	13:30	↓	↓	↓					↓	↓	↓	
	NO-DP61 ~~(16-17)~~ (15-16) LWG	↓	15:30	↓	↓	↓					↓	↓	↓	
														LWG
	NO-PZ29	10/13/05	8:35	LWG	GW	5	3				2	X	X	
	NO-PZ30	↓	10:30	↓	↓	↓	↓				↓	↓	↓	
	NO-PZ31	↓	11:40	↓	↓	↓	↓				↓	↓	↓	

DATA TURNAROUND INFORMATION

- ☐ 14 DAYS STANDARD
- ☐ 7 DAYS *RUSH*
- ☐ 48 HOUR EMERGENCY
- ☐ OTHER ______

APPROVED BY:

14 DAY TURNAROUND HARDCOPY. EMERGENCY OR RUSH IS FAX DATA UNLESS PREVIOUSLY APPROVED

DATA DELIVERABLE INFORMATION

- ☐ STANDARD
- ☐ COMMERCIAL "B"
- ☐ DISK DELIVERABLE
- ☐ STATE FORMS
- ☐ OTHER (SPECIFY) ______

COMMENTS/REMARKS

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESION, INCLUDING COURIER DELIVERY

RELINQUISHED BY	DATE TIME	RECEIVED BY	RELINQUISHED BY	DATE TIME	RECEIVED BY
1. [signature] (SAMPLER)	10/13/05 1300	1.	2.		2.
3.		3.	4.		4.
5.		5.	SEAL #	PRESERVE WHERE APPLICABLE ☐ / ON ICE ☐	TEMPERATURE ____ C

CHAIN OF CUSTODY

ACCUTEST Laboratories

495 TECHNOLOGY CENTER WEST • BUILDING ONE
MARLBOROUGH, MA 01752
TEL: 508-481-6200 • FAX: 508-481-7753

ACCUTEST JOB #:
ACCUTEST QUOTE #:

CLIENT INFORMATION

NAME: META Environmental
ADDRESS: 49 Clarendon St.
CITY, STATE, ZIP: Watertown MA 02472
SEND REPORT TO: Pete DeClercq
PHONE #: 617-923-4662

FACILITY INFORMATION

PROJECT NAME: Norwich Former MGP Site
LOCATION: Norwich, NY
PROJECT NO.: I03032
FAX #: 617-923-4662

ANALYTICAL INFORMATION: BTEX, PAHs

MATRIX CODES

DW - DRINKING WATER
GW - GROUND WATER
WW - WASTE WATER
SO - SOIL
SL - SLUDGE
OI - OIL
LIQ - OTHER LIQUID
SOL - OTHER SOLID

ACCUTEST SAMPLE #	FIELD ID / POINT OF COLLECTION	DATE	TIME	SAMPLED BY:	MATRIX	# OF BOTTLES	HCl	NaOH	HNO3	H2SO4	NONE	BTEX	PAHs	LAB USE ONLY
X	NO-PZ36	10/13/05	14:30	LMG	GW	5	3				2	X	X	PAH portion only delivered.
X	NO-PZ36dup	↓	↓	↓	↓	↓	↓				↓	X	X	
X	NO-PZ35	10/14/05	8:40	LMG	GW	5	3				2	X	X	
	~~NO-PZ34~~	↓	9:50	↓	↓	↓	↓				↓	X	X	
	~~NO-PZ37~~	↓	11:00	↓	↓	↓	↓				↓	X	X	
	~~NO-PZ38~~	10/14/05	12:20	LMG	GW	5	3				2	X	X	
	~~NO-Privwell01~~	10/14/05	12:50	↓	↓	↓	↓				↓	X	X	
	~~NO-PZ32~~	10/14/05	8:55	KG	GW	5	3				2	X	X	
	~~NO-PZ33~~	10/14/05	10:30	KG	GW	5	3				2	X	X	
	~~NO-PZ39~~	10/14/05	12:36	KG	GW	5	3				2	X	X	Samples lost by UPS

DATA TURNAROUND INFORMATION

☐ 14 DAYS STANDARD
☐ 7 DAYS *RUSH*
☐ 48 HOUR EMERGENCY
☐ OTHER ______

APPROVED BY:

14 DAY TURNAROUND HARDCOPY. EMERGENCY OR RUSH IS FAX DATA UNLESS PREVIOUSLY APPROVED

DATA DELIVERABLE INFORMATION

☐ STANDARD
☐ COMMERCIAL "B"
☐ DISK DELIVERABLE
☐ STATE FORMS
☐ OTHER (SPECIFY) ______

COMMENTS/REMARKS

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESION, INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER:	DATE TIME:	RECEIVED BY:	RELINQUISHED BY:	DATE TIME:	RECEIVED BY:
1. Laura Gray	10/14/05 1325	1.	2.		2.
RELINQUISHED BY: 3.	DATE TIME:	RECEIVED BY: 3.	RELINQUISHED BY: 4.	DATE TIME:	RECEIVED BY: 4.
RELINQUISHED BY: 5.	DATE TIME:	RECEIVED BY: 5.	SEAL #	PRESERVE WHERE APPLICABLE ☐	ON ICE ☐ TEMPERATURE ____ C

ACCUTEST. Laboratories

CHAIN OF CUSTODY

495 TECHNOLOGY CENTER WEST • BUILDING ONE
MARLBOROUGH, MA 01752
TEL: 508-481-6200 • FAX: 508-481-7753

ACCUTEST JOB #:
ACCUTEST QUOTE #:

CLIENT INFORMATION

NAME: META Environmental
ADDRESS: 49 Clarendon St.
CITY, STATE ZIP: Watertown, MA 02472
SEND REPORT TO: Pete Dellerco
PHONE #: 617-923-4662

FACILITY INFORMATION

PROJECT NAME: Norwich Former MGP
LOCATION: Norwich, NY
PROJECT NO.: I03039
FAX #: 617-923-4610

MATRIX CODES

DW - DRINKING WATER
GW - GROUND WATER
WW - WASTE WATER
SO - SOIL
SL - SLUDGE
OI - OIL
LIQ - OTHER LIQUID
SOL - OTHER SOLID

ACCUTEST SAMPLE #	FIELD ID / POINT OF COLLECTION	DATE	TIME	SAMPLED BY:	MATRIX	# OF BOTTLES	HCl	NaOH	HNO3	H2SO4	NONE	BTEX	PAHs	LAB USE ONLY
	NO-DP51 (19-20')	10/10/05	11:35	LWG	SO	3					3	X	X	
	NO-DP52 (19-20')	↓	14:05	↓	↓	↓					↓	↓	↓	
	NO-DP53 (19-20')	↓	16:35	↓	↓	↓					↓	↓	↓	
	NO-DP54 (19-20')	10/11/05	9:45	LWG	SO	3					3	X	X	
	NO-DP55 (23-24')	↓	12:00	↓	↓	↓					↓	↓	↓	

DATA TURNAROUND INFORMATION

☐ 14 DAYS STANDARD APPROVED BY:
☐ 7 DAYS *RUSH*
☐ 48 HOUR EMERGENCY
☐ OTHER

14 DAY TURNAROUND HARDCOPY. EMERGENCY OR RUSH IS FAX DATA UNLESS PREVIOUSLY APPROVED

DATA DELIVERABLE INFORMATION

☐ STANDARD
☐ COMMERCIAL "B"
☐ DISK DELIVERABLE
☐ STATE FORMS
☐ OTHER (SPECIFY)

COMMENTS/REMARKS

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESION, INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER:	DATE TIME:	RECEIVED BY:	RELINQUISHED BY:	DATE TIME:	RECEIVED BY:
1. [signature]	10/11/05 13:25	1.	2.		2.
RELINQUISHED BY: 3.	DATE TIME:	RECEIVED BY: 3.	RELINQUISHED BY: 4.	DATE TIME:	RECEIVED BY: 4.
RELINQUISHED BY: 5.	DATE TIME:	RECEIVED BY: 5.	SEAL #	PRESERVE WHERE APPLICABLE ☐ / ON ICE ☐	TEMPERATURE ____ C

CHEMTECH

IAIN OF CUSTODY RECORD

284 Sheffield Street, Mountainsi NJ 07092
(908) 789-8900 Fax (908) 789-8922
www.chemtech.net

CHEMTECH PROJECT NO.

COC Number 53790

CLIENT INFORMATION	PROJECT INFORMATION	BILLING INFORMATION
REPORT TO BE SENT TO:		
OMPANY: META ENVIRONMENTAL, INC.	PROJECT NAME: NORWICH	BILL TO: PO#:
DDRESS: 49 CLARENDON ST	PROJECT NO.: I03032/52 LOCATION: NORWICH, NY	ADDRESS:
ITY: WATERTOWN STATE: MA ZIP: 02472	PROJECT MANAGER: PETER DECLERCQ	CITY: STATE: ZIP:
TTENTION: PETER DECLERCQ	e-mail: PDECLERCQ@METAENV.COM	ATTENTION: PHONE:
HONE: 617 923 4662 FAX: 617 923 4610	PHONE: 617 923 4662 FAX: 617 923 4610	

DATA TURNAROUND INFORMATION	DATA DELIVERABLE INFORMATION
AX: ____ DAYS *	☐ RESULTS ONLY ☐ USEPA CLP
ARD COPY: ____ DAYS *	☐ RESULTS + QC ☒ New York State ASP "B"
DD: ____ DAYS *	☐ New Jersey REDUCED ☐ New York State ASP "A"
TO BE APPROVED BY CHEMTECH	☐ New Jersey CLP ☐ Other ____
STANDARD TURNAROUND TIME IS 10 BUSINESS DAYS	☐ EDD FORMAT ____

ANALYSIS: 1 TCL VOC'S; 2 TCL SVOC'S; 3 SPLP TCL VOC'S; 4 SPLP TCL SVOC'S; 5; 6; 7; 8; 9

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	COMP	GRAB	DATE	TIME	# OF BOTTLES	1	2	3	4	5	6	7	8	9	COMMENTS ← Specify Preservatives A-HCl B-HNO3 C-H2SO4 D-NaOH E-ICE F-Other
	NO-DP05 (15.0-16.0)	SOIL		X	10/26/04		2	X	X								
	NO-DP05 (19.0-20.0)	↓		↓	↓		2	X	X								
	NO-DP06 (15.0-16.0)				10/27/04		2	X	X								
	NO-DP06 (19.0-20.0)				↓		2	X	X								
	NO-DP06 (22.0-22.3)						1		X								
	NO-DP08 (12.6-14.0)						3	X	X	X	X						
	NO-DP08 (14.7-15.7)				↓		2	X	X								
	NO-DP09 (15.0-16.0)				10/26/04		2	X	X								
	NO-DP09 (18.8-20.0)						2	X	X								
	NO-DP10 (19.0-20.0)	↓		↓	↓		2	X	X								

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

NQUISHED BY SAMPLER: [signature]	DATE/TIME: 10/29 15:45	RECEIVED BY: 1.
NQUISHED BY:	DATE/TIME:	RECEIVED BY: 2.
NQUISHED BY:	DATE/TIME:	RECEIVED FOR LAB BY: 3.

Conditions of bottles or coolers at receipt: ☐ Compliant ☐ Non Compliant ☐ Cooler Temp. ____
MeOH extraction requires an additional 4 oz jar for percent solid.
Comments:

Page ____ of ____

SHIPPED VIA: CLIENT: ☐ HAND DELIVERED ☐ OVERNIGHT
CHEMTECH: ☐ PICKED UP ☐ OVERNIGHT

Shipment Complete: ☐ YES ☐ NO

/2004

WHITE - CHEMTECH COPY FOR RETURN TO CLIENT YELLOW - CHEMTECH COPY PINK - SAMPLER COPY

53790

CHEMTECH
AIN OF CUSTODY RECORD

284 Sheffield Street, Mountainsi... NJ 07092
(908) 789-8900 Fax (908) 789-8922
www.chemtech.net

CHEMTECH PROJECT NO.

COC Number 53798

CLIENT INFORMATION

REPORT TO BE SENT TO:

OMPANY: META ENVIRONMENTAL, INC.
DRESS: 49 CLARENDON ST
TY: WATERTOWN STATE: MA ZIP: 02472
TENTION: PETER DECLERCQ
ONE: 617 923 4662 FAX: 617 923 4610

PROJECT INFORMATION

PROJECT NAME: NORWICH
PROJECT NO.: 303032/52 LOCATION: NORWICH, NY
PROJECT MANAGER: PETER DECLERCQ
e-mail: PDECLERCQ@METAENV.COM
PHONE: 617 923 4662 FAX: 617 923 4610

BILLING INFORMATION

BILL TO: PO#:
ADDRESS:
CITY: STATE: ZIP:
ATTENTION: PHONE:

DATA TURNAROUND INFORMATION

X: ______ DAYS *
RD COPY: ______ DAYS *
D: ______ DAYS *
O BE APPROVED BY CHEMTECH
TANDARD TURNAROUND TIME IS 10 BUSINESS DAYS

DATA DELIVERABLE INFORMATION

☐ RESULTS ONLY ☐ USEPA CLP
☐ RESULTS + QC ☒ New York State ASP "B"
☐ New Jersey REDUCED ☐ New York State ASP "A"
☐ New Jersey CLP ☐ Other ______
☐ EDD FORMAT ______

ANALYSIS

1 TCL VOC'S
2 TCL SVOC'S
3 SPLP TCL VOC'S
4 SPLP TCL SVOC'S
5
6
7
8
9

PRESERVATIVES / **COMMENTS**

← Specify Preservatives
A–HCl B–HNO_3
C–H_2SO_4 D–NaOH
E–ICE F–Other

IEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# OF BOTTLES	1	2	3	4	5	6	7	8	9	COMMENTS
	NO-DP12 (22.6-24.0)	SOIL		X	10/28/04		2	X	X								
	NO-DP13 (14.5-16.0)	↓		↓	10/27/04		2	X	X								
	NO-DP13 (17.2-17.8)				↓		1	X									
	NO-DP16 (11.0-12.0)				10/26/04		2	X	X								
	NO-DP16 (19.0-20.0)				↓		2	X	X								
	NO-DP17 (11.5-12.0)						1		X								
	NO-DP17 (13.5-14.3)						1	X									
	NO-DP17 (18.9-20.0)				↓		2	X	X								
	NO-DP15 (8.2-8.8)				10/29/04		1		X								
	NO-DP15 (19.5-20.0)	↓		↓	↓		1		X								

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

IQUISHED BY SAMPLER: [signature]	DATE/TIME: 10/29 15:45	RECEIVED BY: 1.
IQUISHED BY:	DATE/TIME:	RECEIVED BY: 2.
IQUISHED BY:	DATE/TIME:	RECEIVED FOR LAB BY: 3.

Conditions of bottles or coolers at receipt: ☐ Compliant ☐ Non Compliant ☐ Cooler Temp. ______
MeOH extraction requires an additional 4 oz jar for percent solid.
Comments:

Page ______ of ______

SHIPPED VIA: CLIENT: ☐ HAND DELIVERED ☐ OVERNIGHT
CHEMTECH: ☐ PICKED UP ☐ OVERNIGHT

Shipment Complete: ☐ YES ☐ NO

2004

WHITE - CHEMTECH COPY FOR RETURN TO CLIENT YELLOW - CHEMTECH COPY PINK - SAMPLER COPY

53798

CHEMTECH
AIN OF CUSTODY RECORD

284 Sheffield Street, Mountainside, NJ 07092
(908) 789-8900 Fax (908) 789-8922
www.chemtech.net

CHEMTECH PROJECT NO.

COC Number 53797

CLIENT INFORMATION

REPORT TO BE SENT TO:

MPANY: META ENVIRONMENTAL, INC.
DRESS: 49 CLARENDON ST
Y: WATERTOWN STATE: MA ZIP: 02472
TENTION: PETER DECLERCQ
ONE: 617 923 4662 FAX: 617 923 4610

PROJECT INFORMATION

PROJECT NAME: NORWICH
PROJECT NO.: I03032/52 LOCATION: NORWICH, NY
PROJECT MANAGER: PETER DECLERCQ
e-mail: PDECLERCQ@METAENV.COM
PHONE: FAX:

BILLING INFORMATION

BILL TO: PO#:
ADDRESS:
CITY: STATE: ZIP:
ATTENTION: PHONE:

DATA TURNAROUND INFORMATION

:______ DAYS *
RD COPY:______ DAYS *
:______ DAYS *
O BE APPROVED BY CHEMTECH
TANDARD TURNAROUND TIME IS 10 BUSINESS DAYS

DATA DELIVERABLE INFORMATION

- ☐ RESULTS ONLY
- ☐ RESULTS + QC
- ☐ New Jersey REDUCED
- ☐ New Jersey CLP
- ☐ EDD FORMAT
- ☐ USEPA CLP
- ☒ New York State ASP "B"
- ☐ New York State ASP "A"
- ☐ Other

ANALYSIS

1. TCL VOC'S
2. TCL SVOC'S
3. SPLP TCL VOC'S
4. SPLP TCL SVOC'S
5.
6.
7.
8.
9.

EMTECH AMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	GRAB	SAMPLE COLLECTION DATE	TIME	# OF BOTTLES	1	2	3	4	5	6	7	8	9	COMMENTS
	~~D~~ NO-DP18 (11.5-12.0)	SOIL		X	10/25/04		1	X									
	NO-DP18 (15.5-16.0)	↓		↓	↓		1		X								
	NO-DP18 (19.0-20.0)						1	X									
	NO-DP18 (27.4-27.9)				↓		1			X	X						
	NO-DP20 (NAPL ZONE)				10/29/04		1		X								
	NO-DP23 (22.6-22.8)	↓		↓	10/28/04		1		X								
	NO-RB102804	WATER	X		↓	12:24	3	X	X								

PRESERVATIVES: ← Specify Preservatives A-HCl B-HNO_3 C-H_2SO_4 D-NaOH E-ICE F-Other

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

QUISHED BY SAMPLER:	DATE/TIME: 10/29 15:45	RECEIVED BY: 1.
QUISHED BY:	DATE/TIME:	RECEIVED BY: 2.
QUISHED BY:	DATE/TIME:	RECEIVED FOR LAB BY: 3.

Conditions of bottles or coolers at receipt: ☐ Compliant ☐ Non Compliant ☐ Cooler Temp. ______
MeOH extraction requires an additional 4 oz jar for percent solid.
Comments:

Page ______ of ______

SHIPPED VIA: CLIENT: ☐ HAND DELIVERED ☐ OVERNIGHT
CHEMTECH: ☐ PICKED UP ☐ OVERNIGHT

Shipment Complete: ☐ YES ☐ NO

004

WHITE - CHEMTECH COPY FOR RETURN TO CLIENT YELLOW - CHEMTECH COPY PINK - SAMPLER COPY

53797

Chain of Custody Record

Arcadis
[illegible]
Building 1
Marlborough, MA 01752

SEVERN TRENT STL
Severn Trent Laboratories, Inc.

Client: META Environmental	Project Manager: [illegible]	Date: 5/23/05
Address: 49 Clarendon St	Telephone Number (Area Code)/Fax Number: [illegible]	Lab Number:
City: Watertown	State: MA	Zip Code: 02472
Site Contact:	Lab Contact:	Chain of Custody Number: 193194
Project Name and Location (State): Norwich MGP Site, NY	Carrier/Waybill Number:	Page 1 of 1
Contract/Purchase Order/Quote No.:		

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	ZnAc/NaOH	Total VOAs	Total SVOs	Special Instructions/ Conditions of Receipt
NO-DP37 (26.5-27.5)	5/19/05	18:25				3		X						X	X	
NO-DP37 (31.5-32)	↓	18:35				2		↓						X	X	
NO-DP41 (16-16.5)		10:50				2								X	X	
NO-DP41 (23-23.7)		11:20				3								X	X	
NO-DP43 (7.5-8)		13:35				1								X		
NO-DP43 (23-23.8)	↓	14:10				2								X	X	
NO-DP38 (19.6-20)	5/20/05	10:10				1								X		
NO-DP38 (27-28)	↓	10:20				3								X	X	
NO-DP40 (21.5-23.5)		13:45				3								X	X	
NO-DP40 (26.5-27.5)	↓	14:00				2		↓						X	X	

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

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

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: Amanda Bruell	5/23/05	14:00	1. Received By: [signature]	5/23/05	14:00
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments

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

CHAIN OF CUSTODY

ACCUTEST Laboratories

495 TECHNOLOGY CENTER WEST • BUILDING ONE
MARLBOROUGH, MA 01752
TEL: 508-481-6200 • FAX: 508-481-7753

ACCUTEST JOB #:

ACCUTEST QUOTE #:

CLIENT INFORMATION

META Environmental
NAME
49 Clarendon St.
ADDRESS
Watertown MA 02472
CITY STATE ZIP
Mark Gray
SEND REPORT TO:
617-923-4662
PHONE #

FACILITY INFORMATION

Norwich Former MGP Site
PROJECT NAME
Norwich, NY
LOCATION
I02032
PROJECT NO.
Pete DeClercq
FAX # 617-923-4610

ANALYTICAL INFORMATION: TCL VOCs, TCL SVOCs, SPLP 8260, SPLP 8270

MATRIX CODES

DW - DRINKING WATER
GW - GROUND WATER
WW - WASTE WATER
SO - SOIL
SL - SLUDGE
OI - OIL
LIQ - OTHER LIQUID
SOL - OTHER SOLID

ACCUTEST SAMPLE #	FIELD ID / POINT OF COLLECTION	DATE	TIME	SAMPLED BY:	MATRIX	# OF BOTTLES	HCl	NaOH	HNO3	H2SO4	NONE	TCL VOCs	TCL SVOCs	SPLP 8260	SPLP 8270	LAB USE ONLY
	NO-DP22 (11.5-12)	4/25	11:00	LMG	Soil	2					X			X	X	
	NO-DP22 (14.5-15.5)		11:15									X	X			
	NO-DP22 (21.5-22.5)		11:45									X	X			
	NO-DP01 (15-16)		2:15									X	X			
	NO-DP01 (14-15)		2:15											X	X	
	NO-DP01 (23-24)		2:30									X	X			
	NO-DP02 (15-16)		3:45											X	X	
	NO-DP02 (18-19)		4:00									X	X			
	NO-DP02 (23-24)		4:20									X	X			
	NO-DP03 (15-16)		5:30									X	X			
	NO-DP03 (23-24)		5:45			1								X		

DATA TURNAROUND INFORMATION

14 DAYS STANDARD APPROVED BY:
7 DAYS *RUSH*
48 HOUR EMERGENCY
OTHER

DAY TURNAROUND HARDCOPY. EMERGENCY OR RUSH IS FAX DATA UNLESS PREVIOUSLY APPROVED

DATA DELIVERABLE INFORMATION

- ☐ STANDARD
- ☐ COMMERCIAL "B"
- ☐ DISK DELIVERABLE
- ☐ STATE FORMS
- ☐ OTHER (SPECIFY)

COMMENTS/REMARKS

Trip Blank for TCL VOCs

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESION, INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER:	DATE TIME:	RECEIVED BY:	RELINQUISHED BY:	DATE TIME:	RECEIVED BY:
Rosanna Gray	4/26 12:00	1.	2.		2.
RELINQUISHED BY:	DATE TIME:	RECEIVED BY: 3.	RELINQUISHED BY: 4.	DATE TIME:	RECEIVED BY: 4.
RELINQUISHED BY:	DATE TIME:	RECEIVED BY: 5.	SEAL #	PRESERVE WHERE APPLICABLE ☐ ON ICE ☐	TEMPERATURE ___ C

ACCUTEST Laboratories

CHAIN OF CUSTODY

495 TECHNOLOGY CENTER WEST • BUILDING ONE
MARLBOROUGH, MA 01752
TEL: 508-481-6200 • FAX: 508-481-7753

ACCUTEST JOB #:
ACCUTEST QUOTE #:

CLIENT INFORMATION

META Environmental
NAME
49 Clarendon St.
ADDRESS
Watertown MA 02472
CITY, STATE ZIP
Lora Gray
SEND REPORT TO:
PHONE # 617-923-4662

FACILITY INFORMATION

Norwich Former MGP Site
PROJECT NAME
Norwich, NY
LOCATION
I 05032
PROJECT NO.
Peter DeClercq
FAX # 617-923-4610

ANALYTICAL INFORMATION: TOC; TCL VOCs; TCL SVOCs

MATRIX CODES
DW - DRINKING WATER
GW - GROUND WATER
WW - WASTE WATER
SO - SOIL
SL - SLUDGE
OI - OIL
LIQ - OTHER LIQUID
SOL - OTHER SOLID

ACCUTEST SAMPLE #	FIELD ID / POINT OF COLLECTION	DATE	TIME	SAMPLED BY:	MATRIX	# OF BOTTLES	HCl	NaOH	HNO3	H2SO4	NONE	TOC	TCL VOCs	TCL SVOCs	LAB USE ONLY
	NO-DP27 (13-13.5)	4/26/05	10:00	LMG	SO	1					X	X			
	NO-DP27 (17.5-18)		10:15			2							X	X	
	NO-DP27 (18-18.5)		10:15			1						X			
	NO-DP27 (31-32)		11:30			2							X	X	
	NO-DP19 (14-15)		3:15			2							X	X	
	NO-DP19 (18-19)		3:25			2							X	X	
	NO-DP04C (13.5-14.5)		6:00			2							X	X	
	NO-DP04C (18-19)		6:15			2							X	X	
	NO-DP04C (23-24)		6:30			2							X	X	
	NO-DP28 (7-8)	4/27/05	9:00	LMG	SO	1					X	X			
	NO-DP28 (14-15)	4/27/05	9:05	LMG	SO	2					X		X	X	

DATA TURNAROUND INFORMATION

☐ 14 DAYS STANDARD
☐ 7 DAYS *RUSH*
☐ 48 HOUR EMERGENCY
☐ OTHER ______

APPROVED BY:

14 DAY TURNAROUND HARDCOPY. EMERGENCY OR RUSH IS FAX DATA UNLESS PREVIOUSLY APPROVED

DATA DELIVERABLE INFORMATION

☐ STANDARD
☐ COMMERCIAL "B"
☐ DISK DELIVERABLE
☐ STATE FORMS
☐ OTHER (SPECIFY) ______

COMMENTS/REMARKS

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESION, INCLUDING COURIER DELIVERY

RELINQUISHED BY	DATE TIME	RECEIVED BY	RELINQUISHED BY	DATE TIME	RECEIVED BY
RELINQUISHED BY SAMPLER: 1. Lora M Gray	4/28/05 11:00	1.	2.		2.
3.		3.	4.		4.
5.		5.	SEAL #	PRESERVE WHERE APPLICABLE ☐ ON ICE ☐	TEMPERATURE ___C

ACCUTEST Laboratories

CHAIN OF CUSTODY

495 TECHNOLOGY CENTER WEST • BUILDING ONE
MARLBOROUGH, MA 01752
TEL: 508-481-6200 • FAX: 508-481-7753

ACCUTEST JOB #:
ACCUTEST QUOTE #:

CLIENT INFORMATION

MEA Environmental
NAME: 49 Clarendon St
ADDRESS: Watertown MA 02472
CITY, STATE, ZIP: Lara Gray
SEND REPORT TO:
PHONE #: 617-923-4622

FACILITY INFORMATION

Norwich Former MGP Site
PROJECT NAME: Norwich, NY
LOCATION: I03032
PROJECT NO.: Pete De Clercq
FAX #: 617-927-4610

ANALYTICAL INFORMATION

MATRIX CODES
DW - DRINKING WATER
GW - GROUND WATER
WW - WASTE WATER
SO - SOIL
SL - SLUDGE
OI - OIL
LIQ - OTHER LIQUID
SOL - OTHER SOLID

ACCUTEST SAMPLE #	FIELD ID / POINT OF COLLECTION	DATE	TIME	SAMPLED BY:	MATRIX	# OF BOTTLES	HCl	NaOH	HNO3	H2SO4	NONE	TCL VOCs	TCL SVOCs	TOC	LAB USE ONLY
	NO-DP29 (22.5-23)	4/27/05	11:30	LMG	SO	2					X	X	X		
	NO-DP29 (23-24)	↓	11:35	↓	↓	2					↓	X	X		
	NO-DP33 (15-15.5)	↓	1:55	↓	↓	2					↓	X	X		
	NO-DP33 (17-18)	↓	2:05	↓	↓	1					↓	~~X~~	~~X~~	X	
	NO-DP32 (10-11)	↓	4:40	↓	↓	2					↓	X	X		
	NO-DP32 (15-16)	↓	4:45	↓	↓	2					↓	X	X		
	Trip Blank	4/27/05	–	–		1						X			

DATA TURNAROUND INFORMATION

14 DAYS STANDARD — APPROVED BY:
7 DAYS *RUSH*
48 HOUR EMERGENCY
OTHER
DAY TURNAROUND HARDCOPY. EMERGENCY OR RUSH IS FAX UNLESS PREVIOUSLY APPROVED

DATA DELIVERABLE INFORMATION

☐ STANDARD
☐ COMMERCIAL "B"
☐ DISK DELIVERABLE
☐ STATE FORMS
☐ OTHER (SPECIFY)

COMMENTS/REMARKS

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESION, INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER:	DATE TIME:	RECEIVED BY:	RELINQUISHED BY:	DATE TIME:	RECEIVED BY:
Lara Gray	4/28/05 11:00	1.	2.		2.
RELINQUISHED BY:	DATE TIME:	RECEIVED BY: 3.	RELINQUISHED BY: 4.	DATE TIME:	RECEIVED BY: 4.
RELINQUISHED BY:	DATE TIME:	RECEIVED BY: 5.	SEAL #	PRESERVE WHERE APPLICABLE ☐	ON ICE ☐ TEMPERATURE ____ C

ACCUTEST. Laboratories

CHAIN OF CUSTODY

495 TECHNOLOGY CENTER WEST • BUILDING ONE
MARLBOROUGH, MA 01752
TEL: 508-481-6200 • FAX: 508-481-7753

ACCUTEST JOB #:

ACCUTEST QUOTE #:

CLIENT INFORMATION

META Environmental
NAME 49 Clarendon St
ADDRESS Watertown MA 02472
CITY, STATE ZIP Lara Gray
SEND REPORT TO: 617-923-4662
PHONE #

FACILITY INFORMATION

Norwich Former MGP Site
PROJECT NAME Norwich, NY
LOCATION I03032
PROJECT NO. Pete DeClercq
FAX # 617-923-4610

ANALYTICAL INFORMATION: TCL VOCs, TCL SVOCs, SPLP 8260, SPLP 8270

MATRIX CODES

DW - DRINKING WATER
GW - GROUND WATER
WW - WASTE WATER
SO - SOIL
SL - SLUDGE
OI - OIL
LIQ - OTHER LIQUID
SOL - OTHER SOLID

ACCUTEST SAMPLE #	FIELD ID / POINT OF COLLECTION	DATE	TIME	SAMPLED BY:	MATRIX	# OF BOTTLES	HCl	NaOH	HNO3	H2SO4	NONE	TCL VOCs	TCL SVOCs	SPLP 8260	SPLP 8270	LAB USE ONLY
	NO-DP36 (8.9-9.7)	4/28/05	9:10	LMG	So	1					X	X				
	NO-DP36 (13-13.9)	↓	9:25	↓	↓	1					↓		X			
	NO-DP35 (12-12.5)		12:00			1						X				
	NO-DP35 (23-24)		12:25			2						X	X			
	NO-DP26 (10-11)		2:35			2								X	X	
	NO-DP26 (20-21.5)		3:20			2						X	X			
	NO-DP26 (20-21.5) dup		3:20			2						X	X			
	NO-DP26 (23-24)	↓	3:30	↓	↓	2					↓	X	X			

DATA TURNAROUND INFORMATION

14 DAYS STANDARD
7 DAYS *RUSH*
48 HOUR EMERGENCY
OTHER ______

APPROVED BY:

DAY TURNAROUND HARDCOPY. EMERGENCY OR RUSH IS FAX DATA UNLESS PREVIOUSLY APPROVED

DATA DELIVERABLE INFORMATION

☐ STANDARD
☐ COMMERCIAL "B"
☐ DISK DELIVERABLE
☐ STATE FORMS
☐ OTHER (SPECIFY) ______

COMMENTS/REMARKS

Page 1 of 2

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESION, INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER:	DATE TIME:	RECEIVED BY:	RELINQUISHED BY:	DATE TIME:	RECEIVED BY:
Amanda Brunell	5/2/05 4:50	1. [signature]	2.		2.
RELINQUISHED BY:	DATE TIME:	RECEIVED BY:	RELINQUISHED BY:	DATE TIME:	RECEIVED BY:
		3.	4.		4.
RELINQUISHED BY:	DATE TIME:	RECEIVED BY:	SEAL #	PRESERVE WHERE APPLICABLE ☐	ON ICE ☐ TEMPERATURE ____ C
		5.			

ACCUTEST Laboratories

CHAIN OF CUSTODY

495 TECHNOLOGY CENTER WEST • BUILDING ONE
MARLBOROUGH, MA 01752
TEL: 508-481-6200 • FAX: 508-481-7753

ACCUTEST JOB #:

ACCUTEST QUOTE #:

CLIENT INFORMATION

…ETA ENVIRONMENTAL
…ME
49 CLARENDON ST.
…DRESS
…ATERTOWN MA 02472
STATE ZIP
…LARA GRAY
… REPORT TO:
…NE # 617-923-4662

FACILITY INFORMATION

NORWICH FORMER MGP SITE
PROJECT NAME
NORWICH, NY
LOCATION
I03032
PROJECT NO.
PETE DeCLERCQ
FAX # 617-923-4610

ANALYTICAL INFORMATION

MATRIX CODES

DW - DRINKING WATER
GW - GROUND WATER
WW - WASTE WATER
SO - SOIL
SL - SLUDGE
OI - OIL
LIQ - OTHER LIQUID
SOL - OTHER SOLID

…UTEST …PLE #	FIELD ID / POINT OF COLLECTION	COLLECTION DATE	COLLECTION TIME	SAMPLED BY:	MATRIX	# OF BOTTLES	HCl	NaOH	HNO3	H2SO4	NONE	TCL VOCs	TCL SVOCs	LAB USE ONLY
	NO-DP25 (7.8-8)	4/29/05	9:30	LMG	SO	1					X	X		
	NO-DP25 (10-12)	↓	9:35	↓	↓	1					↓		X	
	NO-DP25 (19-20)	↓	10:10	↓	↓	2					↓	X	X	
	NO-DP30 (23-24)	↓	13:45	↓	↓	2					↓	X	X	
	NO-DP31 (6.5-7.5)	↓	14:50	↓	↓	2					↓	X	X	
	NO-DP31 (19-20)	↓	15:15	↓	↓	2					↓	X	X	
	NO-FIELD BLANK Ø1	↓	10:35	↓	H2O	2	X					X		
	NO-FIELD BLANK Ø1	↓	10:35	↓	H2O	2					X		X	

DATA TURNAROUND INFORMATION

…4 DAYS STANDARD APPROVED BY:
…7 DAYS *RUSH*
…8 HOUR EMERGENCY
…THER

…Y TURNAROUND HARDCOPY. EMERGENCY OR RUSH IS FAX UNLESS PREVIOUSLY APPROVED

DATA DELIVERABLE INFORMATION

- ☐ STANDARD
- ☐ COMMERCIAL "B"
- ☐ DISK DELIVERABLE
- ☐ STATE FORMS
- ☐ OTHER (SPECIFY)

COMMENTS/REMARKS

Page 2 of 2

Page 1 of 1

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESION, INCLUDING COURIER DELIVERY

…QUISHED BY SAMPLER:	DATE TIME:	RECEIVED BY:	RELINQUISHED BY:	DATE TIME:	RECEIVED BY:
Amanda Russell	5/2/05 14:50	1. [signature]	2.		2.
…QUISHED BY:	DATE TIME:	RECEIVED BY: 3.	RELINQUISHED BY: 4.	DATE TIME:	RECEIVED BY: 4.
…QUISHED BY:	DATE TIME:	RECEIVED BY: 5.	SEAL #	PRESERVE WHERE APPLICABLE ☐ ON ICE ☐	TEMPERATURE ____ C

ACCUTEST Laboratories

CHAIN OF CUSTODY

495 TECHNOLOGY CENTER WEST • BUILDING ONE
MARLBOROUGH, MA 01752
TEL: 508-481-6200 • FAX: 508-481-7753

ACCUTEST JOB #:
ACCUTEST QUOTE #:

CLIENT INFORMATION

META Environmental
NAME
49 Clarendon St.
ADDRESS
Watertown MA 02472
CITY STATE ZIP
Lora Gray
SEND REPORT TO:
PHONE # 617-923-4662

FACILITY INFORMATION

Norwich MGP Site
PROJECT NAME
Norwich, NY
LOCATION
T03032
PROJECT NO.

FAX # 617-923-9610

ANALYTICAL INFORMATION: TCL VOCs, TCL SVOCs

MATRIX CODES

DW - DRINKING WATER
GW - GROUND WATER
WW - WASTE WATER
SO - SOIL
SL - SLUDGE
OI - OIL
LIQ - OTHER LIQUID
SOL - OTHER SOLID

ACCUTEST SAMPLE #	FIELD ID / POINT OF COLLECTION	DATE	TIME	SAMPLED BY:	MATRIX	# OF BOTTLES	HCl	NaOH	HNO3	H2SO4	NONE	TCL VOCs	TCL SVOCs	LAB USE ONLY
	NO-DP45(26-27)	6/14/05	17:05	LNW	SO	3					X	X	X	

DATA TURNAROUND INFORMATION

14 DAYS STANDARD — APPROVED BY:
7 DAYS *RUSH*
48 HOUR EMERGENCY
OTHER

14 DAY TURNAROUND HARDCOPY. EMERGENCY OR RUSH IS FAX DATA UNLESS PREVIOUSLY APPROVED

DATA DELIVERABLE INFORMATION

☐ STANDARD
☐ COMMERCIAL "B"
☐ DISK DELIVERABLE
☐ STATE FORMS
☐ OTHER (SPECIFY)

COMMENTS/REMARKS

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESION, INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER:	DATE TIME:	RECEIVED BY:	RELINQUISHED BY:	DATE TIME:	RECEIVED BY:
[illegible signature]	6/15/05 12:00	1.	2.		2.
RELINQUISHED BY:	DATE TIME:	RECEIVED BY: 3.	RELINQUISHED BY: 4.	DATE TIME:	RECEIVED BY: 4.
RELINQUISHED BY:	DATE TIME:	RECEIVED BY: 5.	SEAL #	PRESERVE WHERE APPLICABLE ☐	ON ICE ☐ TEMPERATURE ____ C

ACCUTEST Laboratories

CHAIN OF CUSTODY

495 TECHNOLOGY CENTER WEST • BUILDING ONE
MARLBOROUGH, MA 01752
TEL: 508-481-6200 • FAX: 508-481-7753

ACCUTEST JOB #:

ACCUTEST QUOTE #:

CLIENT INFORMATION

META Environmental
NAME
49 Clarendon St.
ADDRESS
Watertown MA 02472
CITY, STATE ZIP
Lara Gray
SEND REPORT TO:
PHONE # 617-923-4667

FACILITY INFORMATION

Norwich MGP Site
PROJECT NAME
Norwich, NY
LOCATION
I03032
PROJECT NO.

FAX # 617-923-4610

ANALYTICAL INFORMATION: TCL VOCs; TCL SVOCs

MATRIX CODES: DW - DRINKING WATER; GW - GROUND WATER; WW - WASTE WATER; SO - SOIL; SL - SLUDGE; OI - OIL; LIQ - OTHER LIQUID; SOL - OTHER SOLID

ACCUTEST SAMPLE #	FIELD ID / POINT OF COLLECTION	DATE	TIME	SAMPLED BY:	MATRIX	# OF BOTTLES	HCl	NaOH	HNO3	H2SO4	NONE	TCL VOCs	TCL SVOCs	LAB USE ONLY
	NO-DP39 (13-13.5)	6/13/05	10:18	LWG	SO	2					X	X	X	
	NO-DP39 (24-25)	↓	10:55	↓	↓	3					↓	↓	↓	
	NO-DP42 (9-10)	↓	13:35	↓	↓	3					↓	↓	↓	
	NO-DP42 (26-27)	↓	14:35	↓	↓	3					↓	↓	↓	
	NO-DP46 (9-9.6)	6/14/05	8:25	LWG	SO	2					X	X	X	
	NO-DP46 (22-24)	↓	8:56	↓	↓	3					↓	↓	↓	
	NO-DP34 (19-19.3)	↓	10:37	↓	↓	2					↓	↓	↓	
	NO-DP34 (22-23)	↓	10:52	↓	↓	3					↓	↓	↓	
	NO-DP48 (18-19)	↓	14:05	↓	↓	3					↓	↓	↓	
	NO-DP48 (26-27)	↓	14:36	↓	↓	3					↓	↓	↓	
	NO-DP49 (17-18)	↓	16:46	↓	↓	2					↓	↓	↓	

DATA TURNAROUND INFORMATION

14 DAYS STANDARD — APPROVED BY:
7 DAYS *RUSH*
48 HOUR EMERGENCY
OTHER

DAY TURNAROUND HARDCOPY. EMERGENCY OR RUSH IS FAX DATA UNLESS PREVIOUSLY APPROVED

DATA DELIVERABLE INFORMATION

- ☐ STANDARD
- ☐ COMMERCIAL "B"
- ☐ DISK DELIVERABLE
- ☐ STATE FORMS
- ☐ OTHER (SPECIFY)

COMMENTS/REMARKS

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESION, INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER:	DATE TIME:	RECEIVED BY:	RELINQUISHED BY:	DATE TIME:	RECEIVED BY:
Lara Gray	6/15/05 1700	1.	2.		2.
RELINQUISHED BY:	DATE TIME:	RECEIVED BY: 3.	RELINQUISHED BY: 4.	DATE TIME:	RECEIVED BY: 4.
RELINQUISHED BY:	DATE TIME:	RECEIVED BY: 5.	SEAL #	PRESERVE WHERE APPLICABLE ☐ ON ICE ☐	TEMPERATURE ___ C

ACCUTEST Laboratories

CHAIN OF CUSTODY

495 TECHNOLOGY CENTER WEST • BUILDING ONE
MARLBOROUGH, MA 01752
TEL: 508-481-6200 • FAX: 508-481-7753

ACCUTEST JOB #:

ACCUTEST QUOTE #:

CLIENT INFORMATION

META Environmental
NAME
49 Clarendon St.
ADDRESS
Watertown MA 02472
CITY STATE ZIP
Lois Gray
REPORT TO:
PHONE # 617-923-4662

FACILITY INFORMATION

Norwich MGP Site
PROJECT NAME
Norwich, NY
LOCATION
T03032
PROJECT NO.

FAX # 617-923-4610

ANALYTICAL INFORMATION

MATRIX CODES

DW - DRINKING WATER
GW - GROUND WATER
WW - WASTE WATER
SO - SOIL
SL - SLUDGE
OI - OIL
LIQ - OTHER LIQUID
SOL - OTHER SOLID

ACCUTEST SAMPLE #	FIELD ID / POINT OF COLLECTION	COLLECTION DATE	COLLECTION TIME	SAMPLED BY:	MATRIX	# OF BOTTLES	HCl	NaOH	HNO3	H2SO4	NONE	TCL VOCs	TCL SVOCs	LAB USE ONLY
	NO-DP47 (21.5-22.5)	6/15/05	11:05	AJB	SO	3					X	X	X	
	NO-DP47 (26-27)	↓	11:15	↓	↓	3					↓	↓	↓	
	NO-DP44 (15-16)	↓	14:27	↓	↓	3					↓	↓	↓	
	NO-DP44 (25-26)	↓	15:11	↓	↓	3					↓	↓	↓	
	NO-DP45 (10.8-11.3)	↓	17:15	↓	↓	2					↓	↓	↓	
	NO-DP50 (14.5-15.5)	6/16/05	9:33	AJB	SO	2						X		
	NO-DP50 (13.7-15.5)	↓	9:33	↓	↓	1							X	
	NO-DP50 (25-26)	↓	10:00	↓	↓	3						X	X	
	NO-DP14 (18.7-20)	↓	13:35	↓	↓	2						X	X	
	NO-DP14 (18.7-20) dup	↓	13:35	↓	↓	2						X	X	
	NO-DP14 (23-24)	↓	13:51	↓	↓	3						X	X	

DATA TURNAROUND INFORMATION

14 DAYS STANDARD APPROVED BY:
7 DAYS *RUSH*
48 HOUR EMERGENCY
OTHER

14 DAY TURNAROUND HARDCOPY. EMERGENCY OR RUSH IS FAX DATA UNLESS PREVIOUSLY APPROVED

DATA DELIVERABLE INFORMATION

☐ STANDARD
☐ COMMERCIAL "B"
☐ DISK DELIVERABLE
☐ STATE FORMS
☐ OTHER (SPECIFY)

COMMENTS/REMARKS

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESION, INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER:	DATE TIME:	RECEIVED BY:	RELINQUISHED BY:	DATE TIME:	RECEIVED BY:
Lois M. Gray	6/17 13:36	1.	2.		2.
RELINQUISHED BY:	DATE TIME:	RECEIVED BY: 3.	RELINQUISHED BY: 4.	DATE TIME:	RECEIVED BY: 4.
RELINQUISHED BY:	DATE TIME:	RECEIVED BY: 5.	SEAL #	PRESERVE WHERE APPLICABLE ☐	ON ICE ☐ TEMPERATURE ____ C

EMTE H

OF CUSTODY RECORD

284 Sheffield Street, Mountainside, . 07092
(908) 789-8900 Fax (908) 789-8922
www.chemtech.net

CHEMTECH PROJECT NO. ______

COC Number 54204

CLIENT INFORMATION

REPORT TO BE SENT TO:
ANY: Meta Environmental
ESS: 49 Clarendon St.
Watertown STATE: MA ZIP: 02472
TION: Pete DeClercq
: 617-923-4662 FAX: 923-4610

PROJECT INFORMATION

PROJECT NAME: Norwich MGP
PROJECT NO.: LOCATION: Norwich NY
PROJECT MANAGER:
e-mail:
PHONE: FAX:

BILLING INFORMATION

BILL TO: Same As Client PO#:
ADDRESS:
CITY: STATE: ZIP:
ATTENTION: PHONE:

DATA TURNAROUND INFORMATION

______ DAYS *
COPY: ______ DAYS *
______ DAYS *
E APPROVED BY CHEMTECH
DARD TURNAROUND TIME IS 10 BUSINESS DAYS

DATA DELIVERABLE INFORMATION

☐ RESULTS ONLY ☐ USEPA CLP
☐ RESULTS + QC ☐ New York State ASP "B"
☐ New Jersey REDUCED ☐ New York State ASP "A"
☐ New Jersey CLP ☐ Other ______
☐ EDD FORMAT ______

ANALYSIS

1 BTEX, Napthalene 2 3 4 5 6 7 8 9

TECH PLE	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# OF BOTTLES	PRESERVATIVES 1 HCl	2	3	4	5	6	7	8	9	COMMENTS
	Norwich PZ03	Water		X	11/22/04	1240	2	2									
	Norwich PZ04	Water		X	11/22/04	1100	2	2									
	Norwich PZ07	Water		X	11/22/04	1215	2	2									
	Norwich PZ08	Water		X	11/22/04	1140	2	2									
	Trip Blank	Water		X	11/9/04		2	2									

← Specify Preservatives
A–HCl B–HNO_3
C–H_2SO_4 D–NaOH
E–ICE F–Other

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

HED BY SAMPLER:	DATE/TIME:	RECEIVED BY:
[signature]	11/23/04 1600	1.
HED BY:	DATE/TIME:	RECEIVED BY: 2.
HED BY:	DATE/TIME:	RECEIVED FOR LAB BY: 3.

Conditions of bottles or coolers at receipt: ☐ Compliant ☐ Non Compliant ☐ Cooler Temp. ______
MeOH extraction requires an additional 4 oz jar for percent solid.
Comments:

Page ______ of ______

SHIPPED VIA: CLIENT: ☐ HAND DELIVERED ☐ OVERNIGHT
CHEMTECH: ☐ PICKED UP ☐ OVERNIGHT

Shipment Complete: ☐ YES ☐ NO

WHITE - CHEMTECH COPY FOR RETURN TO CLIENT YELLOW - CHEMTECH COPY PINK - SAMPLER COPY

54204

CHAIN OF CUSTODY RECORD

PROJECT NAME Norwich MGP SRI
COMPANY META Environmental
ADDRESS
PHONE ( )

META Environmental, Inc.
49 Clarendon Street
Watertown, MA 02172
TEL: (617) 923-4662
FAX: (617) 923-4610

SAMPLED BY Peter DeClercq (Print Name) Signature
(Print Name) Signature
(Print Name) Signature

ANALYSES

SAMPLE NO.	DATE	TIME	SAMPLE LOCATION	CONTAINER SIZE	CONTAINER G/P	GRAB	COMP	NO. OF CONTAINERS	SAMPLE MATRIX	PRESERVATIVE	Method 1010-Ignitab.	Benzene by EPA 602								COMMENTS
1	10/29	16:00	NO-WWComp 102904	125	P		✓	1	Aq	4°C	✓									
↓	↓	↓	↓ ↓ ↓	40	G		✓	2	Aq	HCL		✓								

Relinquished by	Date/Time	Received by	Relinquished by	Date/Time	Received by
[signature]	11/2 15:30				
Relinquished by	**Date/Time**	**Received by**	**Relinquished by**	**Date/Time**	**Received for Laboratory by**

Method of Shipment: UPS Overnight

Remarks:

COPY

7/92 PT 1 - ORIGINAL PT 2 META Project Manager - Yellow

CHAIN OF CUSTODY

ACCUTEST Laboratories

495 TECHNOLOGY CENTER WEST • BUILDING ONE
MARLBOROUGH, MA 01752
TEL: 508-481-6200 • FAX: 508-481-7753

ACCUTEST JOB #:
ACCUTEST QUOTE #:

CLIENT INFORMATION

META Environmental
NAME
49 Clarendon Street
ADDRESS
Watertown MA ~~02143~~ 02472
CITY, STATE ZIP
Peter DeClerq
SEND REPORT TO:
PHONE # 617-923-4662

FACILITY INFORMATION

Norwich Former MGP site
PROJECT NAME
Norwich, NY
LOCATION
103032
PROJECT NO.
FAX # 617-923-4610

ANALYTICAL INFORMATION: Benzene; CN, sulfide React, PH; TCL VOCs; TCL SVOCs; TCN, PH

MATRIX CODES: DW - DRINKING WATER; GW - GROUND WATER; WW - WASTE WATER; SO - SOIL; SL - SLUDGE; OI - OIL; LIQ - OTHER LIQUID; SOL - OTHER SOLID

ACCUTEST SAMPLE #	FIELD ID / POINT OF COLLECTION	DATE	TIME	SAMPLED BY:	MATRIX	# OF BOTTLES	HCl	NaOH	HNO3	H2SO4	NONE	Benzene	CN, sulfide React, PH	TCL VOCs	TCL SVOCs	TCN, PH	LAB USE ONLY
	NO-DR25	7/25/05	18:42	TJoss	SO	4					X	2	2				
	NO-DR11	7/25/05	19:04	TJoss	↓	↓					X	2	2				
	NO-~~8~~PZ10	7/26/05	10:14	AJB	GW	4	2				2			X	X		
	NO-PZ10 DUP	7/26/05	10:14	AJB	GW	4	2				2			X	X		
	NO-PZ23	7/26/05	11:48	AJB	GW	4	2				2			X	X		
	NO-PZ15	7/26/05	13:17	AJB	GW	4	2				2			X	X		
	NO-PZ28	7/26/05	15:50	AJB	GW	4	2				2			X	X		
	NO-PZ19	7/26/05	17:10	AJB	GW	4	2				2			X	X		
	NO-DR01	7/26/05	18:00	TJoss	WW	3	2				1	X				X	
	NO-DR02	↓	18:10	↓	WW	↓	↓				↓	X				X	
	~~NO-DR03~~	~~↓~~	~~18:25~~	~~↓~~	~~WW~~	~~↓~~	~~↓~~				~~↓~~	~~X~~				~~X~~ AJB	

DATA TURNAROUND INFORMATION

- 14 DAYS STANDARD
- 7 DAYS *RUSH*
- 48 HOUR EMERGENCY
- OTHER

APPROVED BY:

14 DAY TURNAROUND HARDCOPY. EMERGENCY OR RUSH IS FAX DATA UNLESS PREVIOUSLY APPROVED

DATA DELIVERABLE INFORMATION

- ☐ STANDARD
- ☐ COMMERCIAL "B"
- ☐ DISK DELIVERABLE
- ☐ STATE FORMS
- ☐ OTHER (SPECIFY)

COMMENTS/REMARKS

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESION, INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER:	DATE TIME:	RECEIVED BY:	RELINQUISHED BY:	DATE TIME:	RECEIVED BY:
1.		1.	2.		2.
RELINQUISHED BY: 3. [signature]	DATE TIME: 7/28/05 14:45	RECEIVED BY: 3. [signature]	RELINQUISHED BY: 4.	DATE TIME:	RECEIVED BY: 4.
RELINQUISHED BY: 5.	DATE TIME:	RECEIVED BY: 5.	SEAL #	PRESERVE WHERE APPLICABLE ☐ / ON ICE ☐	TEMPERATURE ____ C

ACCUTEST. Laboratories

CHAIN OF CUSTODY

495 TECHNOLOGY CENTER WEST • BUILDING ONE
MARLBOROUGH, MA 01752
TEL: 508-481-6200 • FAX: 508-481-7753

ACCUTEST JOB #:

ACCUTEST QUOTE #:

CLIENT INFORMATION

META Environmental
NAME
49 Clarendon Street
ADDRESS
Watertown MA 02472
CITY, STATE ZIP
Peter LeClerq
SEND REPORT TO:
PHONE # 617-923-4662

FACILITY INFORMATION

Norwich Former MGP Site
PROJECT NAME
Norwich, NY
LOCATION
103032
PROJECT NO.

FAX # 617-923-4610

ANALYTICAL INFORMATION

MATRIX CODES

DW - DRINKING WATER
GW - GROUND WATER
WW - WASTE WATER
SO - SOIL
SL - SLUDGE
OI - OIL
LIQ - OTHER LIQUID
SOL - OTHER SOLID

ACCUTEST SAMPLE #	FIELD ID / POINT OF COLLECTION	COLLECTION DATE	COLLECTION TIME	SAMPLED BY:	MATRIX	# OF BOTTLES	PRESERVATION HCl	NaOH	HNO3	H2SO4	NONE		TCL SVOCS	TCL VOC'S	LAB USE ONLY
	NO-PZ12	7/25/05	12:15	AJB	H_2O	4	2				2		2	2	
	NO-PZ11	↓	10:55	AJB	GW	↓	↓				↓		↓	↓	
	NO-PZ03	↓	13:15	TJoss	↓	↓	↓				↓		↓	↓	
	NO-PZ26	↓	9:50	TJoss	↓	↓	↓				↓		↓	↓	
	NO-PZ27	↓	11:35	TJoss	↓	↓	↓				↓		↓	↓	
	NO-PZ17	↓	13:30	AJB	↓	↓	↓				↓		↓	↓	
	NO-PZ20	↓	15:50	AJB	GW	4	↓				↓		↓	↓	
	NO-PZ24	↓	17:15	AJB	↓	↓	↓				↓		↓	↓	
	NO-PZ16	↓	15:10	TJoss	↓	↓	↓				↓		↓	↓	
	NO-PZ25	↓	16:50	TJoss	↓	↓	↓				↓		↓	↓	

DATA TURNAROUND INFORMATION

☐ 14 DAYS STANDARD
☐ 7 DAYS *RUSH*
☐ 48 HOUR EMERGENCY
☐ OTHER ______

APPROVED BY: ______

14 DAY TURNAROUND HARDCOPY. EMERGENCY OR RUSH IS FAX DATA UNLESS PREVIOUSLY APPROVED

DATA DELIVERABLE INFORMATION

☐ STANDARD
☐ COMMERCIAL "B"
☐ DISK DELIVERABLE
☐ STATE FORMS
☐ OTHER (SPECIFY)

COMMENTS/REMARKS

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESION, INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER:	DATE TIME:	RECEIVED BY:	RELINQUISHED BY:	DATE TIME:	RECEIVED BY:
1.		1.	2.		2.
RELINQUISHED BY: 3. [signature]	DATE TIME: 7/28/05 14:45	RECEIVED BY: 3. [signature]	RELINQUISHED BY: 4.	DATE TIME:	RECEIVED BY: 4.
RELINQUISHED BY: 5.	DATE TIME:	RECEIVED BY: 5.	SEAL #	PRESERVE WHERE APPLICABLE ☐	ON ICE ☐ TEMPERATURE ____ C

CHAIN OF CUSTODY

ACCUTEST Laboratories

495 TECHNOLOGY CENTER WEST • BUILDING ONE
MARLBOROUGH, MA 01752
TEL: 508-481-6200 • FAX: 508-481-7753

ACCUTEST JOB #:

ACCUTEST QUOTE #:

CLIENT INFORMATION

NAME: META Environmental
ADDRESS: ~~Watertown~~ 49 Clarendon St
CITY, STATE, ZIP: Watertown MA 02472
SEND REPORT TO: Peter DeClerq
PHONE #: 617-923-4662

FACILITY INFORMATION

PROJECT NAME: Norwich Former MGP Site
LOCATION: Norwich, NY
PROJECT NO.: 103032
FAX #: 617-923-4610

ANALYTICAL INFORMATION: TCL VOCs; TCL SVOCs

MATRIX CODES
DW - DRINKING WATER
GW - GROUND WATER
WW - WASTE WATER
SO - SOIL
SL - SLUDGE
OI - OIL
LIQ - OTHER LIQUID
SOL - OTHER SOLID

ACCUTEST SAMPLE #	FIELD ID / POINT OF COLLECTION	DATE	TIME	SAMPLED BY:	MATRIX	# OF BOTTLES	HCl	NaOH	HNO3	H2SO4	NONE	TCL VOCs	TCL SVOCs	LAB USE ONLY
	NO-GW92-12	7/26/05	9:45	T10SS	GW	4	2				2	X	X	
	NO-PZ13	↓	10:50	↓	↓	↓	↓				↓	↓	↓	
	NO-PZ14	↓	12:25	↓	↓	↓	↓				↓	↓	↓	
	NO-PZ18	↓	17:50	↓	↓	↓	↓				↓	↓	↓	
	NO-PZ21	↓	16:15	↓	↓	↓	↓				↓	↓	↓	
	NO-PZ22	↓	14:30	↓	↓	↓	↓				↓	↓	↓	

DATA TURNAROUND INFORMATION

- ☐ 14 DAYS STANDARD
- ☐ 7 DAYS *RUSH*
- ☐ 48 HOUR EMERGENCY
- ☐ OTHER ______

APPROVED BY:

14 DAY TURNAROUND HARDCOPY. EMERGENCY OR RUSH IS FAX DATA UNLESS PREVIOUSLY APPROVED

DATA DELIVERABLE INFORMATION

- ☐ STANDARD
- ☐ COMMERCIAL "B"
- ☐ DISK DELIVERABLE
- ☐ STATE FORMS
- ☐ OTHER (SPECIFY) ______

COMMENTS/REMARKS

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESION, INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER:	DATE TIME:	RECEIVED BY:	RELINQUISHED BY:	DATE TIME:	RECEIVED BY:
1.		1.	2.		2.
RELINQUISHED BY: 3. [signature]	DATE TIME: 7/28/05 14:45	RECEIVED BY: 3. [signature]	RELINQUISHED BY: 4.	DATE TIME:	RECEIVED BY: 4.
RELINQUISHED BY: 5.	DATE TIME:	RECEIVED BY: 5.	SEAL #		

PRESERVE WHERE APPLICABLE ☐ ON ICE ☐ TEMPERATURE ______ C

ACCUTEST
Laboratories

CHAIN OF CUSTODY

495 TECHNOLOGY CENTER WEST • BUILDING ONE
MARLBOROUGH, MA 01752
TEL: 508-481-6200 • FAX: 508-481-7753

ACCUTEST JOB #:

ACCUTEST QUOTE #:

CLIENT INFORMATION

META Environmental
NAME
49 Clarendon St.
ADDRESS
Watertown MA 02472
CITY, STATE ZIP
Lara Gray
SEND REPORT TO:
PHONE # 617-923-4662

FACILITY INFORMATION

Norwich Former MGP Site
PROJECT NAME
Norwich, NY
LOCATION
I03032
PROJECT NO.

FAX # 617-923-4610

ANALYTICAL INFORMATION

MATRIX CODES

DW - DRINKING WATER
GW - GROUND WATER
WW - WASTE WATER
SO - SOIL
SL - SLUDGE
OI - OIL
LIQ - OTHER LIQUID
SOL - OTHER SOLID

ACCUTEST SAMPLE #	FIELD ID / POINT OF COLLECTION	COLLECTION DATE	COLLECTION TIME	SAMPLED BY:	MATRIX	# OF BOTTLES	PRESERVATION HCl	NaOH	HNO3	H2SO4	NONE	TCL VOCs	TCL SVOCs	Total Cyanide								LAB USE ONLY
	NO-PZ30	12/6/05	13:35	LWG	GW	5	2	1			2	X	X	X								
	NO-PZ31		14:45																			
	NO-PZ37		15:45																			
	NO-PZ38		15:50	KG																		
	NO-PZ36		15:00																			
	NO-PZ29		13:45																			
	NO-PZ20	12/7/05	9:35	LMG	GW	5	2	1			2	X	X	X								
	NO-PZ21		10:45																			
	NO-PZ32		8:30																			
	NO-PZ33		10:45	KG																		
	NO-PZ34		9:30																			

DATA TURNAROUND INFORMATION

☐ 14 DAYS STANDARD
☐ 7 DAYS *RUSH*
☐ 48 HOUR EMERGENCY
☐ OTHER ____________

APPROVED BY:

14 DAY TURNAROUND HARDCOPY. EMERGENCY OR RUSH IS FAX DATA UNLESS PREVIOUSLY APPROVED

DATA DELIVERABLE INFORMATION

☐ STANDARD
☐ COMMERCIAL "B"
☐ DISK DELIVERABLE
☐ STATE FORMS
☐ OTHER (SPECIFY) ____________

COMMENTS/REMARKS

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESION, INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER:	DATE TIME:	RECEIVED BY:	RELINQUISHED BY:	DATE TIME:	RECEIVED BY:
1. Laura Gray	12/7/05 1130	1.	2.		2.
RELINQUISHED BY: 3.	DATE TIME:	RECEIVED BY: 3.	RELINQUISHED BY: 4.	DATE TIME:	RECEIVED BY: 4.
RELINQUISHED BY: 5.	DATE TIME:	RECEIVED BY: 5.	SEAL #	PRESERVE WHERE APPLICABLE ☐ ON ICE ☐	TEMPERATURE ______ C

ACCUTEST Laboratories

CHAIN OF CUSTODY

495 TECHNOLOGY CENTER WEST • BUILDING ONE
MARLBOROUGH, MA 01752
TEL: 508-481-6200 • FAX: 508-481-7753

ACCUTEST JOB #:

ACCUTEST QUOTE #:

CLIENT INFORMATION

META Environmental
NAME
49 Clarendon St.
ADDRESS
Watertown MA 02472
CITY, STATE ZIP
Lara Gray
SEND REPORT TO:
PHONE # 617-923-4662

FACILITY INFORMATION

Norwich Former MGP Site
PROJECT NAME
Norwich, NY
LOCATION
I03032
PROJECT NO.

FAX # 617-923-4610

ANALYTICAL INFORMATION

TCL VOCs, TCL SVOCs, Total Cyanide

MATRIX CODES

DW - DRINKING WATER
GW - GROUND WATER
WW - WASTE WATER
SO - SOIL
SL - SLUDGE
OI - OIL
LIQ - OTHER LIQUID
SOL - OTHER SOLID

ACCUTEST SAMPLE #	FIELD ID / POINT OF COLLECTION	COLLECTION DATE	COLLECTION TIME	SAMPLED BY:	MATRIX	# OF BOTTLES	HCl	NaOH	HNO3	H2SO4	NONE	TCL VOCs	TCL SVOCs	Total Cyanide	LAB USE ONLY
	NO-PZ35	12/7/05	8:25	KG	GW	5	2	1			2	X	X	X	

DATA TURNAROUND INFORMATION

☐ 14 DAYS STANDARD
☐ 7 DAYS *RUSH*
☐ 48 HOUR EMERGENCY
☐ OTHER ______

APPROVED BY:

14 DAY TURNAROUND HARDCOPY. EMERGENCY OR RUSH IS FAX DATA UNLESS PREVIOUSLY APPROVED

DATA DELIVERABLE INFORMATION

☐ STANDARD
☐ COMMERCIAL "B"
☐ DISK DELIVERABLE
☐ STATE FORMS
☐ OTHER (SPECIFY) ______

COMMENTS/REMARKS

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESION, INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER:	DATE TIME:	RECEIVED BY:	RELINQUISHED BY:	DATE TIME:	RECEIVED BY:
1. Lara Gray	12/7 11:20	1.	2.		2.
RELINQUISHED BY: 3.	DATE TIME:	RECEIVED BY: 3.	RELINQUISHED BY: 4.	DATE TIME:	RECEIVED BY: 4.
RELINQUISHED BY: 5.	DATE TIME:	RECEIVED BY: 5.	SEAL #	PRESERVE WHERE APPLICABLE ☐ / ON ICE ☐	TEMPERATURE ____ C

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ACCUTEST Laboratories

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MARLBOROUGH, MA 01752
TEL: 508-481-6200 • FAX: 508-481-7753

ACCUTEST JOB #:

ACCUTEST QUOTE #:

CLIENT INFORMATION	FACILITY INFORMATION
META Environmental	Norwich Former MGP Site
NAME 49 Claremont St.	PROJECT NAME Norwich, NY
ADDRESS Watertown MA 02472	LOCATION I03032
CITY, STATE ZIP Lara Gray	PROJECT NO.
SEND REPORT TO: PHONE # 617-923-4662	FAX # 617-923-4610

ANALYTICAL INFORMATION: TCL VOCs, TCL SVOCs, Total Cyanide

MATRIX CODES: DW - DRINKING WATER; GW - GROUND WATER; WW - WASTE WATER; SO - SOIL; SL - SLUDGE; OI - OIL; LIQ - OTHER LIQUID; SOL - OTHER SOLID

ACCUTEST SAMPLE #	FIELD ID / POINT OF COLLECTION	DATE	TIME	SAMPLED BY:	MATRIX	# OF BOTTLES	HCl	NaOH	HNO3	H2SO4	NONE	TCL VOCs	TCL SVOCs	Total Cyanide								LAB USE ONLY
	NO-PZ05	12/8/05	11:55	LMG	GW	5	2	1			2	X	X	X								
	NO-PZ05 dup	↓	11:55	↓	↓	↓	↓	↓			↓	↓	↓	↓								
	NO-PZ16	↓	12:30	KG	↓	↓	↓	↓			↓	↓	↓	↓								
	NO-PZ17	↓	10:55	↓	↓	↓	↓	↓			↓	↓	↓	↓								
	NO-PZ12	↓	9:45	↓	↓	↓	↓	↓			↓	↓	↓	↓								

DATA TURNAROUND INFORMATION

☐ 14 DAYS STANDARD — APPROVED BY:
☐ 7 DAYS *RUSH*
☐ 48 HOUR EMERGENCY
☐ OTHER ______

14 DAY TURNAROUND HARDCOPY. EMERGENCY OR RUSH IS FAX DATA UNLESS PREVIOUSLY APPROVED

DATA DELIVERABLE INFORMATION

☐ STANDARD
☐ COMMERCIAL "B"
☐ DISK DELIVERABLE
☐ STATE FORMS
☐ OTHER (SPECIFY) ______

COMMENTS/REMARKS

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESION, INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER:	DATE TIME:	RECEIVED BY:	RELINQUISHED BY:	DATE TIME:	RECEIVED BY:
1. Lara M Gray	12/8 1:00	1.	2.		2.
RELINQUISHED BY: 3.	DATE TIME:	RECEIVED BY: 3.	RELINQUISHED BY: 4.	DATE TIME:	RECEIVED BY: 4.
RELINQUISHED BY: 5.	DATE TIME:	RECEIVED BY: 5.	SEAL #	PRESERVE WHERE APPLICABLE ☐	ON ICE ☐ TEMPERATURE ____ C

ACCUTEST Laboratories

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MARLBOROUGH, MA 01752
TEL: 508-481-6200 • FAX: 508-481-7753

ACCUTEST JOB #:

ACCUTEST QUOTE #:

CLIENT INFORMATION

NAME: META Environmental
ADDRESS: 49 Clarendon St.
CITY, STATE, ZIP: Watertown MA 02472
SEND REPORT TO: Lara Gray
PHONE #: 617-923-4662

FACILITY INFORMATION

PROJECT NAME: Norwich Former MGP Site
LOCATION: Norwich, NY
PROJECT NO.: I03032
FAX #: 617-923-4610

ANALYTICAL INFORMATION: TCL VOCs; TCL SVOCs; Total Cyanide

MATRIX CODES
DW - DRINKING WATER
GW - GROUND WATER
WW - WASTE WATER
SO - SOIL
SL - SLUDGE
OI - OIL
LIQ - OTHER LIQUID
SOL - OTHER SOLID

ACCUTEST SAMPLE #	FIELD ID / POINT OF COLLECTION	DATE	TIME	SAMPLED BY:	MATRIX	# OF BOTTLES	HCl	NaOH	HNO3	H2SO4	NONE	TCL VOCs	TCL SVOCs	Total Cyanide	LAB USE ONLY
	NO-PZ22	12/7/05	13:50	LMG	GW	5	2	1			2	X	X	X	
	NO-PZ26	↓	15:05	↓	↓	↓	↓	↓			↓	↓	↓	↓	
	NO-PZ39	↓	13:45	KCG	↓	↓	↓	↓			↓	↓	↓	↓	
	NO-PZ11	↓	15:30	↓	↓	↓	↓	↓			↓	↓	↓	↓	
	NO-PZ27	12/8/05	9:35	LMG	GW	5	2	1			2	X	X	X	

DATA TURNAROUND INFORMATION

- ☐ 14 DAYS STANDARD
- ☐ 7 DAYS *RUSH*
- ☐ 48 HOUR EMERGENCY
- ☐ OTHER ______

APPROVED BY: ______

14 DAY TURNAROUND HARDCOPY. EMERGENCY OR RUSH IS FAX DATA UNLESS PREVIOUSLY APPROVED

DATA DELIVERABLE INFORMATION

- ☐ STANDARD
- ☐ COMMERCIAL "B"
- ☐ DISK DELIVERABLE
- ☐ STATE FORMS
- ☐ OTHER (SPECIFY) ______

COMMENTS/REMARKS

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESION, INCLUDING COURIER DELIVERY

RELINQUISHED BY	DATE TIME	RECEIVED BY	RELINQUISHED BY	DATE TIME	RECEIVED BY
RELINQUISHED BY SAMPLER: 1. Lenard Gray	12/8/05 100	1.	2.		2.
3.		3.	4.		4.
5.		5.	SEAL #	PRESERVE WHERE APPLICABLE ☐ ON ICE ☐	TEMPERATURE ____ C

CHAIN OF CUSTODY

ACCUTEST Laboratories

495 TECHNOLOGY CENTER WEST • BUILDING ONE
MARLBOROUGH, MA 01752
TEL: 508-481-6200 • FAX: 508-481-7753

ACCUTEST JOB #:

ACCUTEST QUOTE #:

CLIENT INFORMATION

META Environmental
NAME
49 Clarendon St.
ADDRESS
Watertown MA 02472
CITY, STATE ZIP
Lara Gray
SEND REPORT TO:
PHONE # 617-923-4662

FACILITY INFORMATION

Norwich Former MGP Site
PROJECT NAME
Norwich, NY
LOCATION
I03032
PROJECT NO.

FAX # 617-923-4610

ANALYTICAL INFORMATION

TCL VOCs; TCL SVOCs; Total cyanide

MATRIX CODES

DW - DRINKING WATER
GW - GROUND WATER
WW - WASTE WATER
SO - SOIL
SL - SLUDGE
OI - OIL
LIQ - OTHER LIQUID
SOL - OTHER SOLID

ACCUTEST SAMPLE #	FIELD ID / POINT OF COLLECTION	COLLECTION DATE	COLLECTION TIME	SAMPLED BY:	MATRIX	# OF BOTTLES	HCl	NaOH	HNO3	H2SO4	NONE	TCL VOCs	TCL SVOCs	Total cyanide	LAB USE ONLY
	~~NO-PZ25~~	12/9/05	1020	KG	GW	5	2	1			2	X	X	X	
	NO-PZ28	↓	1355	KG	GW	5	2	1			2	X	X	X	
	NO-TB120905-03	12/9/05	1200	KG	GW	2						X			
	NO-PZ09 dup														

Note: PZ06 is in this cooler but on a different COC.

DATA TURNAROUND INFORMATION

☐ 14 DAYS STANDARD
☐ 7 DAYS *RUSH*
☐ 48 HOUR EMERGENCY
☐ OTHER ____________

APPROVED BY:

14 DAY TURNAROUND HARDCOPY. EMERGENCY OR RUSH IS FAX DATA UNLESS PREVIOUSLY APPROVED

DATA DELIVERABLE INFORMATION

☐ STANDARD
☐ COMMERCIAL "B"
☐ DISK DELIVERABLE
☐ STATE FORMS
☐ OTHER (SPECIFY) ____________

COMMENTS/REMARKS

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESION, INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER:	DATE TIME:	RECEIVED BY:	RELINQUISHED BY:	DATE TIME:	RECEIVED BY:
1. Lara Gray	12/9/05 1230	1.	2.		2.
RELINQUISHED BY: 3.	DATE TIME:	RECEIVED BY: 3.	RELINQUISHED BY: 4.	DATE TIME:	RECEIVED BY: 4.
RELINQUISHED BY: 5.	DATE TIME:	RECEIVED BY: 5.	SEAL #	PRESERVE WHERE APPLICABLE ☐ ON ICE ☐	TEMPERATURE ____ C

ACCUTEST Laboratories

CHAIN OF CUSTODY

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MARLBOROUGH, MA 01752
TEL: 508-481-6200 • FAX: 508-481-7753

ACCUTEST JOB #:

ACCUTEST QUOTE #:

CLIENT INFORMATION

NAME: META Environmental
ADDRESS: 49 Clarendon St.
CITY, STATE ZIP: Watertown MA 02472
SEND REPORT TO: Lara Gray
PHONE #: 617-923-4662

FACILITY INFORMATION

PROJECT NAME: Norwich Former MGP Site
LOCATION: Norwich, NY
PROJECT NO.: I03032
FAX #: 617-923-4610

ANALYTICAL INFORMATION: TCL VOCs, TCL SVOCs, Total Cyanide

MATRIX CODES: DW - DRINKING WATER; GW - GROUND WATER; WW - WASTE WATER; SO - SOIL; SL - SLUDGE; OI - OIL; LIQ - OTHER LIQUID; SOL - OTHER SOLID

ACCUTEST SAMPLE #	FIELD ID / POINT OF COLLECTION	DATE	TIME	SAMPLED BY:	MATRIX	# OF BOTTLES	HCl	NaOH	HNO3	H2SO4	NONE	TCL VOCs	TCL SVOCs	Total Cyanide	LAB USE ONLY
	NO-PZ07	12/8/05	1505	KG	GW	5	2	1			2	X	X	X	
	NO-PZ08	↓	1625	↓	↓	↓	↓	↓			↓	↓	↓	↓	
	NO-PZ06		1500	LMG											in other cooler
	NO-PZ03		1530												silty
	NO-PZ13	↓	1630	↓		↓		↓			↓		↓	↓	
	NO-TB120905-02	12/9/05	12:00	LMG	↓	2	↓					↓			

DATA TURNAROUND INFORMATION

☐ 14 DAYS STANDARD
☐ 7 DAYS *RUSH*
☐ 48 HOUR EMERGENCY
☐ OTHER ______

APPROVED BY:

14 DAY TURNAROUND HARDCOPY. EMERGENCY OR RUSH IS FAX DATA UNLESS PREVIOUSLY APPROVED

DATA DELIVERABLE INFORMATION

☐ STANDARD
☐ COMMERCIAL "B"
☐ DISK DELIVERABLE
☐ STATE FORMS
☐ OTHER (SPECIFY) ______

COMMENTS/REMARKS

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESION, INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER:	DATE TIME:	RECEIVED BY:	RELINQUISHED BY:	DATE TIME:	RECEIVED BY:
1.		1.	2.		2.
RELINQUISHED BY: 3.	DATE TIME:	RECEIVED BY: 3.	RELINQUISHED BY: 4.	DATE TIME:	RECEIVED BY: 4.
RELINQUISHED BY: 5. Lara M Gray	DATE TIME: 12/9/05 1730	RECEIVED BY: 5.	SEAL #	PRESERVE WHERE APPLICABLE ☐	ON ICE ☐ TEMPERATURE ______ C

ACCUTEST Laboratories

CHAIN OF CUSTODY

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MARLBOROUGH, MA 01752
TEL: 508-481-6200 • FAX: 508-481-7753

ACCUTEST JOB #:

ACCUTEST QUOTE #:

CLIENT INFORMATION

NAME: META Environmental
ADDRESS: 49 Clarendon St.
CITY, STATE ZIP: Watertown, MA 02472
SEND REPORT TO: Lara Gray
PHONE #: 617-923-4662

FACILITY INFORMATION

PROJECT NAME: Norwich Former MGP Site
LOCATION: Norwich, NY
PROJECT NO.: I03032
FAX #: 617-923-4610

ANALYTICAL INFORMATION

ACCUTEST SAMPLE #	FIELD ID / POINT OF COLLECTION	DATE	TIME	SAMPLED BY:	MATRIX	# OF BOTTLES	HCl	NaOH	HNO3	H2SO4	NONE	TCL VOCs	TCL SVOCs	Total CN	LAB USE ONLY
	NO-PZ19	12/9/05	8:55	LMG	GW	5	2	1			2	X	X	X	
	NO-PZ18	↓	10:25	↓	↓	↓	↓	↓			↓	↓	X	X	
	NO-PZ09	↓	11:30	↓	↓	↓	↓	↓			↓	↓	X	X	
	NO-PZ09 dup	↓	11:30	↓	↓	↓	↓	↓			↓	↓	X	X	
	NO-TB120905-01	↓	12:30	↓	↓	2	2					↓			
	NO-PZ24	↓	12:00	KG	↓	5	2	1			1	↓	X	X	

MATRIX CODES

DW - DRINKING WATER
GW - GROUND WATER
WW - WASTE WATER
SO - SOIL
SL - SLUDGE
OI - OIL
LIQ - OTHER LIQUID
SOL - OTHER SOLID

DATA TURNAROUND INFORMATION

☐ 14 DAYS STANDARD
☐ 7 DAYS *RUSH*
☐ 48 HOUR EMERGENCY
☐ OTHER ______

APPROVED BY: ______

14 DAY TURNAROUND HARDCOPY. EMERGENCY OR RUSH IS FAX DATA UNLESS PREVIOUSLY APPROVED

DATA DELIVERABLE INFORMATION

☐ STANDARD
☐ COMMERCIAL "B"
☐ DISK DELIVERABLE
☐ STATE FORMS
☐ OTHER (SPECIFY) ______

COMMENTS/REMARKS

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESION, INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER:	DATE TIME:	RECEIVED BY:	RELINQUISHED BY:	DATE TIME:	RECEIVED BY:
1. Lara M Gray	12/9/05 1230	1.	2.		2.
RELINQUISHED BY: 3.	DATE TIME:	RECEIVED BY: 3.	RELINQUISHED BY: 4.	DATE TIME:	RECEIVED BY: 4.
RELINQUISHED BY: 5.	DATE TIME:	RECEIVED BY: 5.	SEAL #	PRESERVE WHERE APPLICABLE ☐	ON ICE ☐ TEMPERATURE ____ C

ACCUTEST Laboratories

CHAIN OF CUSTODY

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MARLBOROUGH, MA 01752
TEL: 508-481-6200 • FAX: 508-481-7753

ACCUTEST JOB #:

ACCUTEST QUOTE #:

CLIENT INFORMATION

META Environmental
NAME
49 Clarendon St.
ADDRESS
Watertown, MA 02472
CITY, STATE ZIP
Lara Gray
SEND REPORT TO:
PHONE # 617-923-4662

FACILITY INFORMATION

Norwich Former MGP Site
PROJECT NAME
Norwich, NY
LOCATION
I03032
PROJECT NO.

FAX # 617-923-4610

ANALYTICAL INFORMATION

MATRIX CODES

DW - DRINKING WATER
GW - GROUND WATER
WW - WASTE WATER
SO - SOIL
SL - SLUDGE
OI - OIL
LIQ - OTHER LIQUID
SOL - OTHER SOLID

ACCUTEST SAMPLE #	FIELD ID / POINT OF COLLECTION	COLLECTION DATE	COLLECTION TIME	SAMPLED BY:	MATRIX	# OF BOTTLES	HCl	NaOH	HNO3	H2SO4	NONE	TCL VOCs	TCL SVOCs	Total Cyanide	LAB USE ONLY
	NO-PZ15	12/9/05	15:25	KG	GW	5	2	1			2	X	X	X	
	NO-PZ10	↓	16:45	↓	↓	↓	↓	↓			↓	↓	↓	↓	
	NO-PZ14	↓	15:10	LWG	↓	↓	↓	↓			↓	↓	↓	↓	
	NO-PZ23	↓	16:00	↓	↓	↓	↓	↓			↓	↓	↓	↓	

DATA TURNAROUND INFORMATION

- ☐ 14 DAYS STANDARD
- ☐ 7 DAYS *RUSH*
- ☐ 48 HOUR EMERGENCY
- ☐ OTHER ______

APPROVED BY:

14 DAY TURNAROUND HARDCOPY. EMERGENCY OR RUSH IS FAX DATA UNLESS PREVIOUSLY APPROVED

DATA DELIVERABLE INFORMATION

- ☐ STANDARD
- ☐ COMMERCIAL "B"
- ☐ DISK DELIVERABLE
- ☐ STATE FORMS
- ☐ OTHER (SPECIFY) ______

COMMENTS/REMARKS

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESION, INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER:	DATE TIME:	RECEIVED BY:	RELINQUISHED BY:	DATE TIME:	RECEIVED BY:
1. Lara Gray	12/9/05 1800	1.	2.		2.
RELINQUISHED BY: 3.	DATE TIME:	RECEIVED BY: 3.	RELINQUISHED BY: 4.	DATE TIME:	RECEIVED BY: 4.
RELINQUISHED BY: 5.	DATE TIME:	RECEIVED BY: 5.	SEAL #	PRESERVE WHERE APPLICABLE ☐	ON ICE ☐ TEMPERATURE ____ C

CHAIN OF CUSTODY

ACCUTEST Laboratories

495 TECHNOLOGY CENTER WEST • BUILDING ONE
MARLBOROUGH, MA 01752
TEL: 508-481-6200 • FAX: 508-481-7753

ACCUTEST JOB #:

ACCUTEST QUOTE #:

CLIENT INFORMATION

META Environmental
NAME
49 Clarendon St.
ADDRESS
Watertown MA 02472
CITY, STATE ZIP
Lara Gray
SEND REPORT TO:
PHONE # 617-923-4662

FACILITY INFORMATION

Norwich Former MGP Site
PROJECT NAME
Norwich, NY
LOCATION
I03032
PROJECT NO.

FAX # 617-923-4610

ANALYTICAL INFORMATION

TCL VOCs; TCL SVOCs; Total Cyanide

MATRIX CODES

DW - DRINKING WATER
GW - GROUND WATER
WW - WASTE WATER
SO - SOIL
SL - SLUDGE
OI - OIL
LIQ - OTHER LIQUID
SOL - OTHER SOLID

ACCUTEST SAMPLE #	FIELD ID / POINT OF COLLECTION	DATE	TIME	SAMPLED BY:	MATRIX	# OF BOTTLES	HCl	NaOH	HNO3	H2SO4	NONE	TCL VOCs	TCL SVOCs	Total Cyanide	LAB USE ONLY
	NO-GW92-12	12/12/05	14:40	LWG	GW	5	2	1			2	X	X	X	
	NO-GW91-7		15:30	↓		4	2	1			1	X	X	X	only 1 SVOC dry well
	NO-PZ04		14:10	KG		5	2	1			2	X	X	X	
	NO-PZ27	↓	15:45	↓	↓	2					2		X		
	NO-PZ01	12/13/05	[illegible]			5	2	1			2	X	X	X	
	NO-PZ02	12/13/05	8:50	↓	↓	5	2	1			2	X	X	X	
	NO-GW04-16		12:00	LWG		5	2	1			2	X	X	X	
	NO-GW04-16 Dup		12:00			5	2	1			2	X	X	X	
	NO-TB121305	↓	11:00	↓	↓	2	2					X			

DATA TURNAROUND INFORMATION

☐ 14 DAYS STANDARD
☐ 7 DAYS *RUSH*
☐ 48 HOUR EMERGENCY
☐ OTHER ____

APPROVED BY:

14 DAY TURNAROUND HARDCOPY. EMERGENCY OR RUSH IS FAX DATA UNLESS PREVIOUSLY APPROVED

DATA DELIVERABLE INFORMATION

☐ STANDARD
☐ COMMERCIAL "B"
☐ DISK DELIVERABLE
☐ STATE FORMS
☐ OTHER (SPECIFY) ____

COMMENTS/REMARKS

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESION, INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER:	DATE TIME:	RECEIVED BY:	RELINQUISHED BY:	DATE TIME:	RECEIVED BY:
1. Lara Gray	12/13/05 11:00	1.	2.		2.
RELINQUISHED BY: 3.	DATE TIME:	RECEIVED BY: 3.	RELINQUISHED BY: 4.	DATE TIME:	RECEIVED BY: 4.
RELINQUISHED BY: 5.	DATE TIME:	RECEIVED BY: 5.	SEAL #	PRESERVE WHERE APPLICABLE ☐ ON ICE ☐	TEMPERATURE ____ C

ACCUTEST Laboratories

CHAIN OF CUSTODY

495 TECHNOLOGY CENTER WEST • BUILDING ONE
MARLBOROUGH, MA 01752
TEL: 508-481-6200 • FAX: 508-481-7753

ACCUTEST JOB #:

ACCUTEST QUOTE #:

CLIENT INFORMATION

META Env.
NAME
49 Clarendon St.
ADDRESS
Watertown MA 02472
CITY, STATE ZIP
Lara Gray
SEND REPORT TO:
PHONE # 617-~~923~~-4662

FACILITY INFORMATION

Norwich Former MGP Site
PROJECT NAME
NORWICH, NY
LOCATION
IO2032
PROJECT NO.

FAX # 617-923-4610

ANALYTICAL INFORMATION: TCL VOCs, TCL SVOCs, Total Cyanide

MATRIX CODES

DW - DRINKING WATER
GW - GROUND WATER
WW - WASTE WATER
SO - SOIL
SL - SLUDGE
OI - OIL
LIQ - OTHER LIQUID
SOL - OTHER SOLID

ACCUTEST SAMPLE #	FIELD ID / POINT OF COLLECTION	DATE	TIME	SAMPLED BY:	MATRIX	# OF BOTTLES	HCl	NaOH	HNO3	H2SO4	NONE	TCL VOCs	TCL SVOCs	Total Cyanide	LAB USE ONLY
	NO-GW91-6	12/14	9:45	LMG	GW	5	2	1			2	X	X	X	
	NO-GW01-14	↓	9:10	↓	↓	↓	↓	↓			↓	↓	↓	↓	
	NO-GW92-8	↓	12:30	KG	↓	↓	↓	↓			↓	↓	↓	↓	
	NO-Exsisting Well	↓	9:55	KG	↓	↓	↓	↓			↓	↓	↓	↓	
	NO-TB121405-02	↓	1:00	LMG	↓	2	↓					↓			

DATA TURNAROUND INFORMATION

☐ 14 DAYS STANDARD — APPROVED BY:
☐ 7 DAYS *RUSH*
☐ 48 HOUR EMERGENCY
☐ OTHER ______

14 DAY TURNAROUND HARDCOPY. EMERGENCY OR RUSH IS FAX DATA UNLESS PREVIOUSLY APPROVED

DATA DELIVERABLE INFORMATION

☐ STANDARD
☐ COMMERCIAL "B"
☐ DISK DELIVERABLE
☐ STATE FORMS
☐ OTHER (SPECIFY) ______

COMMENTS/REMARKS

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESION, INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER:	DATE TIME:	RECEIVED BY:	RELINQUISHED BY:	DATE TIME:	RECEIVED BY:
1. Lara M Gray	12/14/05 14:00	1.	2.		2.
RELINQUISHED BY: 3.	DATE TIME:	RECEIVED BY: 3.	RELINQUISHED BY: 4.	DATE TIME:	RECEIVED BY: 4.
RELINQUISHED BY: 5.	DATE TIME:	RECEIVED BY: 5.	SEAL #	PRESERVE WHERE APPLICABLE ☐ ON ICE ☐	TEMPERATURE ____ C

ACCUTEST Laboratories

CHAIN OF CUSTODY

495 TECHNOLOGY CENTER WEST • BUILDING ONE
MARLBOROUGH, MA 01752
TEL: 508-481-6200 • FAX: 508-481-7753

ACCUTEST JOB #:
ACCUTEST QUOTE #:

CLIENT INFORMATION

NAME: META Environmental
ADDRESS: 49 Clarendon St.
CITY, STATE ZIP: Watertown MA 02472
SEND REPORT TO: Lara Gray
PHONE #: 617-923-4662

FACILITY INFORMATION

Norwich Former MGP Site
PROJECT NAME
LOCATION: Norwich, NY
PROJECT NO.: I 03022
FAX #: 617-923-4610

ANALYTICAL INFORMATION: TCL VOCs, TCL SVOCs, Total Cyanide

MATRIX CODES: DW - DRINKING WATER; GW - GROUND WATER; WW - WASTE WATER; SO - SOIL; SL - SLUDGE; OI - OIL; LIQ - OTHER LIQUID; SOL - OTHER SOLID

ACCUTEST SAMPLE #	FIELD ID / POINT OF COLLECTION	DATE	TIME	SAMPLED BY:	MATRIX	# OF BOTTLES	HCl	NaOH	HNO3	H2SO4	NONE	TCL VOCs	TCL SVOCs	Total Cyanide	LAB USE ONLY
	NO-GW91-4SH	12/13/05	16:00	KG	GW	5	2	1			2	X	X	X	
	NO-GW91-4D	↓	16:15	KG	↓	↓	↓	↓			↓	↓	↓	↓	
	NO-GW92-13	↓	16:20	LWG											
	NO-GW92-11D	12/14/05	12:35	LWG											
	NO-GW92-11SH	↓	12:20	↓		↓		↓			↓		↓	↓	
	NO-TB121405-01	↓	13:00	↓	↓	2	↓					↓			

DATA TURNAROUND INFORMATION

- ☐ 14 DAYS STANDARD
- ☐ 7 DAYS *RUSH*
- ☐ 48 HOUR EMERGENCY
- ☐ OTHER ______

APPROVED BY: ______

14 DAY TURNAROUND HARDCOPY. EMERGENCY OR RUSH IS FAX DATA UNLESS PREVIOUSLY APPROVED

DATA DELIVERABLE INFORMATION

- ☐ STANDARD
- ☐ COMMERCIAL "B"
- ☐ DISK DELIVERABLE
- ☐ STATE FORMS
- ☐ OTHER (SPECIFY) ______

COMMENTS/REMARKS

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESION, INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER:	DATE TIME:	RECEIVED BY:	RELINQUISHED BY:	DATE TIME:	RECEIVED BY:
1. Lara M Gray	12/14/05 1400	1.	2.		2.
RELINQUISHED BY: 3.	DATE TIME:	RECEIVED BY: 3.	RELINQUISHED BY: 4.	DATE TIME:	RECEIVED BY: 4.
RELINQUISHED BY: 5.	DATE TIME:	RECEIVED BY: 5.	SEAL #	PRESERVE WHERE APPLICABLE ☐ / ON ICE ☐	TEMPERATURE ______ C

STL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
phone 865-291-3000 fax 865-584-4315

Canister Samples Chain of Custody Record

Severn Trent Laboratories, Inc. (STL) assumes no liability with respect to the collection and shipment of these samples.

SEVERN TRENT STL

Client Contact Information	
Company: META ENVIRONMENTAL	Project Manager: PETE DECLERCQ
Address: 49 CLARENDON ST	Phone:
City/State/Zip: WATERTOWN MA	Site Contact: KEIR CRAIGIE
Phone: 617 923 4662	STL Contact: SCOTT HARRIS
FAX: 617 923 4610	
Project Name: NORWICH SVI	Analysis Turnaround Time
Site: NORWICH FORMER MGP	Standard (Specify) 21 DAY
PO #	Rush (Specify)

SAMPLED BY: [illegible] [illegible]

1 of 2 COCs

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, 'Hg (Stop)	Flow Controller ID	Canister ID	TO-15 MGP VOCs + HEBE	TO-14A	EPA 3C	EPA 25C	ASTM D-1946	Other (Please specify in notes section)		Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)
NO-UP-062203	3/22/06	0750	0755	28.5	1.5	STL-239	6381	X								X			
NO-CE-062203	3/23/06	0915	0915	25.5	3.0	K-108	6382	X								X			
NO-BK-062203	↓	0925	0925	27.0	5.0	K122	6391	X								X			
NO-10CO-B		0855	0855	29.0	0	K257	6380	X							X				
NO-10CO-F		0900	0900	28.0	0	K243	6374	X							X				
NO-10CO-S		0855	0855	29.0	7.0	K271	6394	X									X		

Temperature (Fahrenheit)

	Interior	Ambient	
Start			
Stop			

Pressure (inches of Hg)

	Interior	Ambient	
Start			
Stop			

Special Instructions/QC Requirements & Comments:

Canisters Shipped by:	Date/Time:	Canisters Received by:
Samples Relinquished by: [illegible]	Date/Time: 3/23/06 1330	Received by:
Relinquished by:	Date/Time:	Received by:

STL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
phone 865-291-3000 fax 865-584-4315

Canister Samples Chain of Custody Record

SEVERN TRENT **STL**

Severn Trent Laboratories, Inc. (STL) assumes no liability with respect to the collection and shipment of these samples.

Client Contact Information		
Company: META ENVIRONMENTAL	Project Manager: PETE DECLERCQ	Sampled by:
Address: 49 CLARENDON ST	Phone: 617 923 4662	
City/State/Zip WATERTOWN MA 02172	Site Contact: KEIR CRAIGIE	
Phone: 617 923 4662	STL Contact: SCOTT HARRIS	
FAX: 617 923 4610		
Project Name: NORWICH SVI	**Analysis Turnaround Time**	
Site: NORWICH FORMER MGP	Standard (Specify) 21 day	
PO #	Rush (Specify)	

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-15 MGP VOCs + MTBE	TO-14A	EPA 3C	EPA 25C	ASTM D-1946	Other (Please specify in notes section)		Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)
NO-12BAB	3/22/06-3/23/06	1045	1045	27	0	K113	6389	X							X				
NO-12BAS DUP	↓	1045	1045	27.5	5.5	K111	6390	X									X		
NO-12BAF	↓	1050	1048	28	8	K134	6392	X							X				
NO-12BAS	↓	1045	1045	27	5.25	K126	6378	X									X		

Temperature (Fahrenheit)	Interior	Ambient	
Start			
Stop			

Pressure (inches of Hg)	Interior	Ambient	
Start			
Stop			

Special Instructions/QC Requirements & Comments:

Canisters Shipped by:	Date/Time:	Canisters Received by:
Samples Relinquished by:	Date/Time: 3/27/06 1330	Received by:
Relinquished by:	Date/Time:	Received by:

STL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
phone 865-291-3000 fax 865-584-4315

Canister Samples Chain of Custody Record

SEVERN TRENT STL

Severn Trent Laboratories, Inc. (STL) assumes no liability with respect to the collection and shipment of these samples.

Client Contact Information		
Company: META ENVIRONMENTAL	Project Manager: PETE DECLERCQ	sampled by: Keir Craigie, Amanda Bissell
Address: 49 CLARENDON ST	Phone: 617 923 4662	1 of 2 COCs
City/State/Zip WATERTOWN MA 02172	Site Contact: KEIR CRAIGIE	
Phone: 617 923 4662	STL Contact: SCOTT HARRIS	
FAX: 617 923 4610		
Project Name: NORWICH SVI	Analysis Turnaround Time	
Site: NORWICH FORMER MGP	Standard (Specify) 21 days	
PO #	Rush (Specify)	

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-15 MGP VOC + MTBE	TO-14A	EPA 3C	EPA 25C	ASTM D-1946	Other (Please specify in notes section)		Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)
NO-16COB	3/22/06 - 3/23/06	1340	1345	29	8.0	K093	6385	X							X				
NO-16COS	↓	1340	1345	29	7.5	K255	93055	X									X		
NO-16COF		1342	1342	29.5	0	K241	11287	X							X				
NO-14BAS		1550	1550	28	0	K210	12458	X									X		
NO-14BAB		1550	1550	27.5	6.0	K178	6384	X							X				
NO-14BAB DUP		1550	1550	30	7.0	K226	12346	X							X				

Temperature (Fahrenheit)

	Interior	Ambient	
Start			
Stop			

Pressure (inches of Hg)

	Interior	Ambient	
Start			
Stop			

Special Instructions/QC Requirements & Comments:

Canisters Shipped by:	Date/Time:	Canisters Received by:
Samples Relinquished by: Keir Craigie	Date/Time: 3/23/06 1700	Received by:
Relinquished by:	Date/Time:	Received by:

[redacted]

STL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
phone 865-291-3000 fax 865-584-4315

Canister Samples Chain of Custody Record

SEVERN TRENT STL

Severn Trent Laboratories, Inc. (STL) assumes no liability with respect to the collection and shipment of these samples.

Sampled by: [signature] Amanda Bird

2 of 2 COCs

Client Contact Information	
Company: META ENVIRONMENTAL	Project Manager: PETE DECLERCQ
Address: 49 CLARENDON ST	Phone: 617 923 4662
City/State/Zip WATERTOWN MA 02172	Site Contact: KEIR CRAIGIE
Phone: 617 923 4662	STL Contact: SCOTT HARALS
FAX: 617 923 4610	
Project Name: NORWICH SVI	Analysis Turnaround Time
Site: NORWICH FORMER MGP	Standard (Specify) 21 day
PO #	Rush (Specify)

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, 'Hg (Stop)	Flow Controller ID	Canister ID	TO-15 MGP NOLMTHBE	TO-14A	EPA 3C	EPA 25C	ASTM D-1946	Other (Please specify in notes section)		Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)
NO-14BAF	3/22–3/23/06	1555	1555	28.5	9.5	K137	6379	X							X				

Temperature (Fahrenheit)

	Interior	Ambient	
Start			
Stop			

Pressure (inches of Hg)

	Interior	Ambient	
Start			
Stop			

Special Instructions/QC Requirements & Comments:

Canisters Shipped by:	Date/Time:	Canisters Received by:
Samples Relinquished by: [signature]	Date/Time: 3/23/06 1700	Received by:
Relinquished by:	Date/Time:	Received by:

Lab Use Only

STL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
phone 865-291-3000 fax 865-584-4315

Canister Samples Chain of Custody Record

SEVERN TRENT **STL**

Severn Trent Laboratories, Inc. (STL) assumes no liability with respect to the collection and shipment of these samples.

/

Client Contact Information	**Project Manager:** Pete DeClercq	Sampled by: Kier Craigie + Amanda Bissell
Company: META Environmental, Inc	Phone:	___ of ___ COCs
Address: 49 Clarendon St	Site Contact:	
City/State/Zip Watertown, MA 02472	STL Contact: Scott Harris	
Phone: (617) 923-4662		
FAX: (617) 923-4610		
Project Name: Norwich Former MGP	**Analysis Turnaround Time**	
Site: Norwich, NY	Standard (Specify) 21 Day	
PO #	Rush (Specify)	

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-15 MGP VOCs + MBTE	TO-14A	EPA 3C	EPA 25C	ASTM D-1946	Other (Please specify in notes section)		Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)
NO-BK062403	3/24-25/2006	8:48	9:55	26.5	5.0	K131	6373	X								X			
NO-MI062403	↓	9:50	9:47	28.0	5.5	K137	04742	X								X			
NO-UP062403	↓	10:25	10:25	28.0	4.0	K122	6395	X								X			
NO-42FR B	↓	9:35	9:30	28.5	0	K210	0077	X								X			
NO-42 FR S	↓	9:35	9:35	29.5	8.0	K093	04407	X								X			
NO-42 FR F	↓	9:42	9:42	29.5	8.75	K252	0151	X								X			

Temperature (Fahrenheit)

	Interior	Ambient	
Start			
Stop			

Pressure (inches of Hg)

	Interior	Ambient	
Start			
Stop			

Special Instructions/QC Requirements & Comments:

Canisters Shipped by:	Date/Time:	Canisters Received by:
Samples Relinquished by: Amanda Bissell	Date/Time: 3-25-06/12:00	Received by:
Relinquished by:	Date/Time:	Received by:

Lab Use Only Shipper Name: Opened by: Condition:

STL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
phone 865-291-3000 fax 865-584-4315

Canister Samples Chain of Custody Record

SEVERN TRENT STL

Client Contact Information
Company: META Environmental, Inc.
Address: 49 Clarendon St
City/State/Zip: Watertown, MA 02472
Phone: (617) 923-4662
FAX: (617) 923-4610
Project Name: Norwich Former MGP
Site: Norwich, NY
PO #

Project Manager: Pete DeClercq
Phone:
Site Contact:
STL Contact: Scott Harris

Sampled by: Kier Craigie + Amanda Bissell

___ of ___ COCs

Analysis Turnaround Time
Standard (Specify) ______
Rush (Specify) ______

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-15 MGP VOCs + MBTE	TO-14A	EPA 3C	EPA 25C	ASTM D-1946	Other (Please specify in notes section)		Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)
NO-3ØFR B	3/24-25/06	11:30	11:30	27	5.5	K178	Ø4719	X							X				
NO-3ØFR S	↓	11:30	11:30	30	6.5	K226	Ø4399	↓									X		
NO-3Ø FR S DUP	↓	11:30	11:30	29	7.0	K255	93ØØ8	↓									X		
NO-3Ø FR F	↓	11:35	11:35	29.5	1.75	239	Ø442Ø	↓							X				

Temperature (Fahrenheit)

	Interior	Ambient	
Start			
Stop			

Pressure (inches of Hg)

	Interior	Ambient	
Start			
Stop			

Special Instructions/QC Requirements & Comments:

Canisters Shipped by:	Date/Time:	Canisters Received by:	
Samples Relinquished by: Amanda Bissell	Date/Time: 3-25-06 / 12:00	Received by:	
Relinquished by:	Date/Time:	Received by:	

Lab Use Only Shipper Name: Opened by: Condition:

STL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
phone 865-291-3000 fax 865-584-4315

Canister Samples Chain of Custody Record

SEVERN TRENT **STL**

Severn Trent Laboratories, Inc. (STL) assumes no liability with respect to the collection and shipment of these samples.

Client Contact Information	Project Manager: Pete DeClercq	SAMpled by: Kier Craige / Amanda Bissell	1 of 1 COCs
Company: META Environmental	Phone:		
Address: 49 Clarendon St	Site Contact:		
City/State/Zip Watertown MA 02472	STL Contact: Scott Harris		
Phone: (617) 923-4662			
FAX: (617) 923-4610			
Project Name: Norwich Former MGP	Analysis Turnaround Time		
Site: Norwich, NY	Standard (Specify) 21 Day		
PO #	Rush (Specify)		

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-15 MGP VOCs + MBTE	TO-14A	EPA 3C	EPA 25C	ASTM D-1946	Other (Please specify in notes section)		Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)
NO-41FRS	3/24-25/06	18:15	1816	29	8	K134	Ø177	X									X		
NO-41FRB	↓	18:15	1816	28.5	0	K243	12730	X							X				
NO-41FRF		18:20	1818	25	0	K113	Ø148	X							X				
NO-41FRF DUP	↓	18:20	1818	29	0	K271	Ø4419	X							X				

Temperature (Fahrenheit)

	Interior	Ambient	
Start			
Stop			

Pressure (inches of Hg)

	Interior	Ambient	
Start			
Stop			

Special Instructions/QC Requirements & Comments:

Canisters Shipped by:	Date/Time:	Canisters Received by:
Samples Relinquished by: Amanda Bissell	Date/Time: 3-27-06 / 10:00	Received by:
Relinquished by:	Date/Time:	Received by:

Lab Use Only Shipper Name: Opened by: Condition:

STL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
phone 865-291-3000 fax 865-584-4315

Canister Samples Chain of Custody Record

SEVERN TRENT STL

Severn Trent Laboratories, Inc. (STL) assumes no liability with respect to the collection and shipment of these samples.

Client Contact Information	**Project Manager:** PETE DeCLERCQ	Sampled by: [signature] Amanda Bosell	1 of 1 COCs
Company: META ENVIRONMENTAL, Inc	Phone:		
Address: 49 CLARENDON St	Site Contact: KEIR CRAIGIE		
City/State/Zip WATERTOWN, MA 02472	STL Contact: SCOTT HARRIS		
Phone: 617 923 4662			
FAX: 617 924 3610			
Project Name: NORWICH FORMER MGP	**Analysis Turnaround Time**		
Site: NORWICH, NY	Standard (Specify) 21		
PO #	Rush (Specify)		

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, 'Hg (Stop)	Flow Controller ID	Canister ID	TO-15 MGP VOCs + [illegible]	TO-14A	EPA 3C	EPA 25C	ASTM D-1946	Other (Please specify in notes section)		Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)
NO-BK062803	3/28-3/29	1353	1354	30	5.5	K226	S-1491	X								X			
NO-45 FRS	↓	1429	1429	30	0.5	239	93001	↓									X		
NO-45 FRB		1429	1429	28.5	5.25	K178	1497								X				
NO-45 FRF		1440	1440	30	9.0	K252	S-1502								X				
NO-35 BRS		1630	1630	29	7.5	K093	93176										X		
NO-35 BRF	↓	1635	1616	24	0	K210	2960	↓							X				

Temperature (Fahrenheit)

	Interior	Ambient	
Start			
Stop			

Pressure (inches of Hg)

	Interior	Ambient	
Start			
Stop			

Special Instructions/QC Requirements & Comments:

Canisters Shipped by: [signature]	Date/Time: 3-8-06 16:00	Canisters Received by:
Samples Relinquished by: [signature]	Date/Time: 3/29/06 16:50	Received by:
Relinquished by:	Date/Time:	Received by:

Lab Use Only Shipper Name: Opened by:

STL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
phone 865-291-3000 fax 865-584-4315

Canister Samples Chain of Custody Record

SEVERN TRENT **STL**

Severn Trent Laboratories, Inc. (STL) assumes no liability with respect to the collection and shipment of these samples.

Client Contact Information	**Project Manager:** PETE DECLERCQ	Sampled by: Keir Craigie, Amanda Bissell	1 of 1 COCs
Company: META ENVIRONMENTAL	Phone:		
Address: 49 CLARENDON ST	Site Contact: Keir Craigie		
City/State/Zip WATERTOWN MA 02472	STL Contact: Scott Harris		
Phone: 617 923 4662			
FAX: 617 923 4610			
Project Name: NORWICH FORMER MGP	**Analysis Turnaround Time**		
Site: NORWICH, NY	Standard (Specify) 21 day		
PO #	Rush (Specify)		

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-15 MGPVOCs + MADEP	TO-14A	EPA 3C	EPA 25C	ASTM D-1946	Other (Please specify in notes section)		Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)
NO-39FRS	3/29-3/30	0953	0956	29	6	K243	04397	X									X		
NO-39FRB	↓	0950	0956	29	10.5	K134	2992	X							X				
NO-39FRF		0956	0955	29	0	K271	04747	X							X				
NO-18COS		1138	1139	28	6.5	K111	93063	X									X		
NO-18COB		1140	1139	29	0	K257	04388	X							X				
NO-18COF		1149	1148	29.5	0	K113	04176	X							X				

Temperature (Fahrenheit)

	Interior	Ambient	
Start			
Stop			

Pressure (inches of Hg)

	Interior	Ambient	
Start			
Stop			

Special Instructions/QC Requirements & Comments:

Canisters Shipped by:	Date/Time:	Canisters Received by:
Samples Relinquished by: [signature]	Date/Time: 3/30/06 1230	Received by:
Relinquished by:	Date/Time:	Received by:

STL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
phone 865-291-3000 fax 865-584-4315

Canister Samples Chain of Custody Record

SEVERN TRENT **STL**

Severn Trent Laboratories, Inc. (STL) assumes no liability with respect to the collection and shipment of these samples.

Client Contact Information	**Project Manager:** PETE DeCLERCQ	Sampled by: Keir Craige / Amanda Bissell
Company: META ENVIRONMENTAL INC	Phone:	___ of ___ COCs
Address: 49 CLARENDON ST	Site Contact: KEIR CRAIGE	
City/State/Zip WATERTOWN, MA 02472	STL Contact: SCOTT HARRIS	
Phone: 617 923 4662		
FAX: 617 923 4610		
Project Name: NORWICH FORMER MGP	**Analysis Turnaround Time**	
Site: NORWICH, NY	Standard (Specify) 21	
PO #	Rush (Specify)	

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, 'Hg (Stop)	Flow Controller ID	Canister ID	TO-15 MGP VOC + MTBE	TO-14A	EPA 3C	EPA 25C	ASTM D-1946	Other (Please specify in notes section)		Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)
NO-43FRS	3/28-3/29	1724	1727	28.5	6	K131	1330	X									X		
NO-43FRB	↓	1724	1727	30	6	K122	9461B	↓							X				
NO-43FRF		1730	1730	27.5	11	K108	6134								X				
NO-MIØ628Ø3		1750	1745	29	0	K161	Ø4337									X			
NO-UPØ628Ø3		1757	1757	28.5	6.5	K137	5-1530									X			
NO-UPØ628Ø3 DUP	↓	1757	1757	27.5	5.5	K12Ø	1499	↓								X			

Temperature (Fahrenheit)

	Interior	Ambient	
Start			
Stop			

Pressure (inches of Hg)

	Interior	Ambient	
Start			
Stop			

Special Instructions/QC Requirements & Comments:

Canisters Shipped by:	Date/Time:	Canisters Received by:
Samples Relinquished by: Amanda Bissell	Date/Time: 3/30/2006 / 930	Received by:
Relinquished by:	Date/Time:	Received by:

STL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
phone 865-291-3000 fax 865-584-4315

Canister Samples Chain of Custody Record

SEVERN TRENT **STL**

Severn Trent Laboratories, Inc. (STL) assumes no liability with respect to the collection and shipment of these samples.

Client Contact Information
Company: META Environmental
Address: 49 Clarendon St
City/State/Zip: Watertown, MA 02472
Phone: (617) 923-4662
FAX: (617) 923-4610
Project Name: Norwich Former MGP
Site: Norwich, NY
PO #

Project Manager: Pete DeClercq
Phone:
Site Contact:
STL Contact: Scott Harris

Sampled by: Keir Craigie / Amanda Bissell

____ of ____ COCs

Analysis Turnaround Time
Standard (Specify) 21 Days
Rush (Specify)

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-15	TO-14A	EPA 3C	EPA 25C	ASTM D-1946	Other (Please specify in notes section)		Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)
NO-LCS	3/29-3/29	1040	1840	29.5	4.0	K219	2050	X									X		
NO-LCF	↓	1040	1835	29	0	K224	1144	X							X				

Temperature (Fahrenheit)

	Interior	Ambient	
Start			
Stop			

Pressure (inches of Hg)

	Interior	Ambient	
Start			
Stop			

Special Instructions/QC Requirements & Comments:

Canisters Shipped by:	Date/Time:	Canisters Received by:
Samples Relinquished by: Amanda Bissell	Date/Time: 3/30/06 / 930	Received by:
Relinquished by:	Date/Time:	Received by:

Lab Use Only … Shipper Name … Condition

STL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
phone 865-291-3000 fax 865-584-4315

Canister Samples Chain of Custody Record

SEVERN TRENT **STL**

Severn Trent Laboratories, Inc. (STL) assumes no liability with respect to the collection and shipment of these samples.

Client Contact Information	**Project Manager:** Pete De Clercq	Sampled By: Keir Craigie, Amanda Bissell	1 of 1 COCs
Company: META Environmental, Inc.	Phone:		
Address: 49 Clarendon St	Site Contact:		
City/State/Zip Watertown, MA 02472	STL Contact: Scott Harris		
Phone: (617) 923-4662			
FAX: (617) 923-4610			
Project Name: Norwich Former MGP	**Analysis Turnaround Time**		
Site: Norwich, NY	Standard (Specify) 21 Day		
PO #	Rush (Specify)		

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-15 MGP VOCs+MBTE	TO-14A	EPA 3C	EPA 25C	ASTM D-1946	Other (Please specify in notes section)		Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)
NO-2ØCOS	3/29-3/30	1325	1325	30	9	K168	S-1493	X									X		
NO-2ØCCB	↓	1327	1325	30	9.5	K1Ø7	11367	X							X				
NO-2ØCOF		1337	1337	29.5	8	K255	Ø2700	X							X				
NO-BKØ62903		1402	1402	30	5.5	K226	612Ø	X								X			
N.-MIØ62903		1450	1442	30	0	STL-239	1115	X								X			
NO-UPØ62903	↓	1458	1458	29.5	6.5	K178	2989	X								X			

Temperature (Fahrenheit)

	Interior	Ambient	
Start			
Stop			

Pressure (inches of Hg)

	Interior	Ambient	
Start			
Stop			

Special Instructions/QC Requirements & Comments:

Canisters Shipped by:	Date/Time:	Canisters Received by:
Samples Relinquished by: [signature]	Date/Time: 3/30/06 1515	Received by:
Relinquished by:	Date/Time:	Received by:

Lab Use Only Shipper Name Opened by Condition

H
LABORATORY ANALYTICAL DATA PACKAGES AND DUSRs (CD)