**Loohns Corning Site**
**Steuben County**
**Corning, New York**

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# SITE MANAGEMENT PLAN

**NYSDEC Site Number: 851028**

**Prepared for:**

35-55 East Pulteney Street, LLC
58 South Oakwood Drive
Painted Post, New York 14870

**Prepared by:**

Independent Environmental Scientists, Inc.
104 Eton Lane
Manlius, New York 13104

**Revisions to Final Approved Site Management Plan:**

| Revision No. | Date Submitted | Summary of Revision | NYSDEC Approval Date |
|---|---|---|---|
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**SEPTEMBER 2017**

CERTIFICATION STATEMENT

I EDWARD Hinchey certify that I am currently a Qualified Environmental Professional as in defined in 6 NYCRR Part 375 and that this Site Management Plan was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10).

Edward Hinchey P.G.

09 27 17 DATE

**Loohns Corning Site**
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## List of Acronyms

| | |
|---|---|
| AS | Air Sparging |
| ASP | Analytical Services Protocol |
| BCA | Brownfield Cleanup Agreement |
| BCP | Brownfield Cleanup Program |
| CERCLA | Comprehensive Environmental Response, Compensation and Liability Act |
| CAMP | Community Air Monitoring Plan |
| C/D | Construction and Demolition |
| CFR | Code of Federal Regulation |
| CLP | Contract Laboratory Program |
| COC | Certificate of Completion |
| CO2 | Carbon Dioxide |
| CP | Commissioner Policy |
| DER | Division of Environmental Remediation |
| EC | Engineering Control |
| ECL | Environmental Conservation Law |
| ELAP | Environmental Laboratory Approval Program |
| ERP | Environmental Restoration Program |
| EWP | Excavation Work Plan |
| GHG | Green House Gas |
| GWE&T | Groundwater Extraction and Treatment |
| HASP | Health and Safety Plan |
| IC | Institutional Control |
| NYSDEC | New York State Department of Environmental Conservation |
| NYSDOH | New York State Department of Health |
| NYCRR | New York Codes, Rules and Regulations |
| O&M | Operation and Maintenance |
| OM&M | Operation, Maintenance and Monitoring |
| OSHA | Occupational Safety and Health Administration |
| OU | Operable Unit |
| PID | Photoionization Detector |
| PRP | Potentially Responsible Party |
| PRR | Periodic Review Report |
| QA/QC | Quality Assurance/Quality Control |
| QAPP | Quality Assurance Project Plan |
| RAO | Remedial Action Objective |
| RAWP | Remedial Action Work Plan |
| RCRA | Resource Conservation and Recovery Act |
| RI/FS | Remedial Investigation/Feasibility Study |
| ROD | Record of Decision |

| | |
|---|---|
| RP | Remedial Party |
| RSO | Remedial System Optimization |
| SAC | State Assistance Contract |
| SCG | Standards, Criteria and Guidelines |
| SCO | Soil Cleanup Objective |
| SMP | Site Management Plan |
| SOP | Standard Operating Procedures |
| SOW | Statement of Work |
| SPDES | State Pollutant Discharge Elimination System |
| SSD | Sub-slab Depressurization |
| SVE | Soil Vapor Extraction |
| SVI | Soil Vapor Intrusion |
| TAL | Target Analyte List |
| TCL | Target Compound List |
| TCLP | Toxicity Characteristic Leachate Procedure |
| USEPA | United States Environmental Protection Agency |
| UST | Underground Storage Tank |
| VCA | Voluntary Cleanup Agreement |
| VCP | Voluntary Cleanup Program |

## ES EXECUTIVE SUMMARY

The following provides a brief summary of the controls implemented for the Site, as well as the inspections, monitoring, maintenance and reporting activities required by this Site Management Plan:

Site Identification: 851028 Loohns Corning Site

| | | |
|---|---|---|
| Institutional Controls: | 1. The property may be used for; restricted residential/commercial use or industrial; | |
| | 2. Environmental Easement (EE) | |
| Engineering Controls: | 1. Soil Vapor Extraction/Sub-Slab Depressurization System (SVE/SSD) | |
| Inspections: | | Frequency |
| 1. SVE/SSD Operations | | Monthly |
| 2. Site – Wide Inspection | | Annually |
| Monitoring: | | |
| 1. SVE/SSD Vacuum | | Monthly |
| 2. SVE/SSD VOC Screening | | Annually |
| 3. Groundwater Monitoring | | Annually |
| Maintenance: | | |
| 1. SVE/SSD | | As needed |
| Reporting: | | |
| 1. Periodic Review Report | | Annually |

Further descriptions of the above requirements are provided in detail in the latter sections of this Site Management Plan.

# 1.0 INTRODUCTION

## 1.1 General

This Site Management Plan (SMP) is a required element of the remedial program for the Loohns Corning Site located in Corning, New York (hereinafter referred to as the "Site"). See Figure 1. The Site is currently in the New York State (NYS) Inactive Hazardous Waste Disposal Site Remedial Program, Site No. 851028 which is administered by New York State Department of Environmental Conservation (NYSDEC).

35-55 East Pulteney Street, LLC entered into a Consent Decree (the "Consent Decree") with the NYSDEC to, among other things, maintain the remedy implemented by NYSDEC at the Site. A figure showing the site location and boundaries of this site is provided in Figure 1 and 2. The boundaries of the site are more fully described in the metes and bounds site description that is part of the Environmental Easement provided in Appendix A.

After completion of two Interim Remedial Measures (IRMs), some contamination was left at this site, which is hereafter referred to as "remaining contamination". Institutional and Engineering Controls (ICs and ECs) have been incorporated into the site remedy to control exposure to remaining contamination to ensure protection of public health and the environment. An Environmental Easement granted to the NYSDEC, and recorded with the Steuben County Clerk, requires compliance with this SMP and all ECs and ICs placed on the site.

This SMP was prepared to manage remaining contamination at the site until the Environmental Easement is extinguished in accordance with ECL

Article 71, Title 36. This plan has been approved by the NYSDEC, and compliance with this plan is required by the grantor of the Environmental Easement and the grantor's successors and assigns. This SMP may only be revised with the approval of the NYSDEC.

It is important to note that:

- This SMP details the site-specific implementation procedures that are required by the Environmental Easement. Failure to properly implement the SMP is a violation of the Consent Decree;

- Failure to comply with this SMP is also a violation of Environmental Conservation Law, 6NYCRR Part 375 and the Consent Decree for the Site.

All reports associated with the site can be viewed by contacting the NYSDEC or its successor agency managing environmental issues in New York State. A list of contacts for persons involved with the site is provided in Appendix B of this SMP.

This SMP was prepared by Independent Environmental Scientists, Inc. (IES), on behalf of 35-55 East Pulteney Street, LLC, in accordance with the requirements of the NYSDEC's DER-10 ("Technical Guidance for Site Investigation and Remediation"), dated June 2010, and the guidelines provided by the NYSDEC. This SMP addresses the means for implementing the ICs and/or ECs that are required by the Environmental Easement for the site.

## 1.2 Revisions

Revisions to this plan will be proposed in writing to the NYSDEC's project manager. Revisions will be necessary upon, but not limited to, the following occurring: a change in media monitoring requirements, upgrades to or shutdown of a remedial system, post-remedial removal of contaminated sediment or soil, or other significant change to the site conditions. In accordance with the Environmental Easement for the site, the NYSDEC will provide a notice of any approved changes to the SMP, and append these notices to the SMP that is retained in its files.

### 1.3 Notifications

Notifications will be submitted by the property owner to the NYSDEC, as needed, in accordance with NYSDEC's DER – 10 for the following reasons:

- 60-day advance notice of any proposed changes in site use that are required under the terms of the Agreement, 6NYCRR Part 375 and/or Environmental Conservation Law.
- 15-day advance notice of any proposed ground-intrusive activity pursuant to the Excavation Work Plan.
- Notice within 48-hours of any damage or defect to the foundation, structures or EC that reduces or has the potential to reduce the effectiveness of an EC, and likewise, any action to be taken to mitigate the damage or defect.
- Verbal notice by noon of the following day of any emergency, such as a fire; flood; or earthquake that reduces or has the potential to reduce the effectiveness of ECs in place at the site, with written confirmation within 7 days that includes a summary of actions taken, or to be taken, and the potential impact to the environment and the public.
- Follow-up status reports on actions taken to respond to any emergency event requiring ongoing responsive action submitted to the NYSDEC within 45 days describing and documenting actions taken to restore the effectiveness of the ECs.

Any change in the ownership of the site or the responsibility for implementing this SMP will include the following notifications:

- At least 60 days prior to the change, the NYSDEC will be notified in writing of the proposed change. This will include a certification that the prospective purchaser/Remedial Party has been provided with a copy of the Agreement and all approved work plans and reports, including this SMP.

- Within 15 days after the transfer of all or part of the site, the new owner's name, contact representative, and contact information will be confirmed in writing to the NYSDEC.

Table 1 on the following page includes contact information for the above notification. The information on this table will be updated as necessary to provide accurate contact information. A full listing of site-related contact information is provided in Appendix B.

**Table 1: Notifications***

| Name | Contact Information |
|---|---|
| Matt Dunham, Project Manager<br>New York State Department of Environmental Conservation<br>Division of Environmental Remediation<br>625 Broadway<br>Albany, NY 12233-7017 | Ph: 518-402-9813<br>email: matthew.dunham@dec.ny.gov |
| Kelly Lewandowski, Chief<br>Site Control Section<br>NYS Department of Environmental Conservation<br>Division of Environmental Remediation<br>625 Broadway<br>Albany, NY 12233 | Ph: 518-402-9553<br>email: kelly.lewandowski@dec.ny.gov |
| Bernette Schilling, Regional HW Engineer<br>Regional HW Engineer<br>New York State Department of Environmental Conservation<br>Region 8<br>Division of Environmental Remediation<br>6274 East Avon-Lima Road<br>Avon NY 14414-8519 | Ph: 585-226-5350<br>email: bernette.schilling@dec.ny.gov |

* Note: Notifications are subject to change and will be updated as necessary.

## 2.0 SUMMARY OF PREVIOUS INVESTIGATIONS AND REMEDIAL ACTIONS

### 2.1 Site Location and Description

The site is located in the city of Corning, Steuben County, New York and is identified as Section 299.84, Block 01 and Lot 043.000 on the Steuben County Tax Map (see Figure 2). The site is an approximately 0.5-acre area and is bounded by residential property to the north, East Pulteney Street to the south, a restaurant to the east, and commercial property to the west (see Figure 2 – Tax Parcel Map). The boundaries of the site are more fully described in Appendix A –Environmental Easement. The owner(s) of the site parcel(s) at the time of issuance of this SMP is/are:

33-55 East Pulteney Street, LLC.

### 2.2 Physical Setting

#### 2.2.1 Land Use

The Site property consists of 0.5 acres including a single-story slab on grade retail building covering much of the rear (north) half of the lot with a paved parking area covering the front (south) portion of the lot. The property is zoned residential/commercial and according to the City of Corning Assessor's office, the Site building was constructed in 1971. The building is currently configured for four tenants.

### 2.2.2 Topography

The Site is located in the east-west oriented Chemung River Valley. The Site property is located at approximately 935 feet above mean sea level (amsl), slightly to the south. The Chemung River is located about 1,000 feet from the Site. The Chemung River is located at an elevation of approximately 920-feet a.m.s.l in this area. The topography to the north of the site is relatively flat for approximately 0.7 miles, and then rises out of the valley to an elevation of 1,700 feet a.m.s.l approximately 1.75-miles north of the Site.

### 2.2.3 Geology

Shallow overburden soils at the Site consist primarily of alluvial silts, sands and gravels. Surficial geology is mapped as oxidized, non calcareous, fine sand to gravel (Muller et al., 1986). Overburden thickness is estimated to be 60-feet based on published data on the saturated thickness of the Corning Aquifer in the vicinity of the Site (USGS, 1982). Based on regional geologic mapping (Rickard and Fisher, 1970) bedrock is expected to consist of shale and siltstones associated with the Upper Devonian West Falls Group; specifically, the Gardeau Formation, consisting of shale and siltstone; and/or Roricks Glen shale (Rickard and Fisher, 1970).

### 2.2.4 Site Drainage and Hydrogeology

Surface drainage on the site flows to the south toward the municipal storm drains located on East Pulteney Street, which carry stormwater to the Chemung River.

The location of Site groundwater investigation samples is shown in Figure 3. The Site overlies the Corning Aquifer, a contiguous valley-fill aquifer that extends along the Chemung River valley upstream and downstream of Corning, New York. The aquifer matrix consists of silts, sands and gravel of deposited by Pleistocene glaciers and Holocene river alluvium. Groundwater at the Site is located approximately 15-feet below grade. The water table aquifer is nearly flat with a slight component of groundwater flow to the south/southeast towards the Chemung River. The Chemung River is considered a local groundwater discharge area.

A groundwater elevation map is shown in Figure 4. Groundwater elevation data is provided in Table 2

Table 2 – Groundwater Elevation Data (From: MACTEC, 2007)

| Location | Northing | Easting | Casing Elevation | Riser Elevation | DTW 2/16/2006 | Water Elevation 2/16/06 |
|---|---|---|---|---|---|---|
| GW-1 | 784321.73 | 691285.11 | 930.81 | 930.55 | 16.35 | 914.20 |
| GW-6 | 784117.17 | 691201.44 | 929.79 | 929.50 | 15.37 | 914.13 |
| GW-10 | 784242.40 | 691196.54 | 929.99 | 929.73 | 15.55 | 914.18 |
| GW-11 | 784082.33 | 691386.76 | 929.16 | 928.99 | 15.11 | 913.88 |
| MW-1 | 784261.36 | 691273.53 | 929.83 | 929.70 | 15.50 | 914.20 |
| MW-2 | 784181.22 | 691279.00 | 929.96 | 929.64 | 15.46 | 914.18 |

Notes:
DTW = Depth to water as measured from top of PVC riser by MACTEC Engineering.
Wells surveyd by Lu Engineers -March 2006.

## 2.3 Investigation and Remedial History

The following narrative provides an investigation and remedial history timeline and a brief summary of the available project records to document key investigative and remedial milestones for the Site. Full titles for each of the reports referenced below are provided in Section 8.0 - References.

**Sear-Brown Phase II – March 1997**

A Phase II Site Assessment was conducted by Sear-Brown Group for Fleet Financial Group (Sear-Brown, 1997a). This investigation included soil sampling north of the building in the vicinity of the rear door of the former dry cleaners and installation of two monitoring wells. The water table was located at 15 feet bgs in these wells.

PCE was reported in soil from beneath the slab at 0.154 and 0.223 milligram per kilogram (mg/kg/ppm) and in soil samples from north of the building at concentrations ranging from 0.028 to 311 mg/kg. These concentrations exceeded the 1994 Technical Administration Guidance Memorandum 4046 soil cleanup objective of 1.4 mg/kg.

Groundwater sample results were 84.5 micrograms per liter (ug/L) PCE in MW-1 and 18.7 ug/L PCE in MW-2 exceeding the Class GA groundwater standard of 5 ug/L.

Results of this investigation indicated that a source of PCE existed north of the building, and that there was a minor component of PCE transport via groundwater to the south and beneath the building.

**Stantec Consulting Services – November 2005.**

In November 2005, Stantec Consulting Services, Inc. (Stantec) collected groundwater samples from MW-1 and MW-2 (Stantec, 2005). Stantec reported at a concentration of PCE of 41.3 μg/L in MW-1.

**Teeter Environmental Services, Inc. - May 2006.**

Teeter Environmental Services, Inc. (Teeter) performed a Phase II Site Assessment. Field work included the use of a Geoprobe® to collect soil and groundwater samples. No volatile organic compound (VOCs) were detected in the single soil sample analyzed. PCE was detected in two of the eight groundwater samples collected. PCE was reported in MW-1 at a concentration of 29.8 ug/L and in groundwater sample B-8 at a concentration of 8.8 ug/L. PCE was the sole VOC reported in the groundwater samples.

**MACTEC – 2006**

MACTEC Engineering and Consulting, P.C., (MACTEC) performed a Site Characterization at the Site in 2006. The results from the 2006 investigation and the results of additional subsurface investigation activities were presented in a report submitted to the NYSDEC in March 2007 (MACTEC, 2007). The Scope of Work for this investigation included field work performed in two rounds of exploration activities including the sampling and analysis of soils, groundwater, soil vapor, ambient air, and indoor air samples. Additionally, a survey of the Site and surrounding area was conducted to create a base map including relevant site features including four new micro-wells installed by MACTEC and two existing wells. The survey data was used to estimate groundwater flow direction.

A sub-slab soil vapor sample from the former Loohns Cleaners portion of the building detected PCE in excess of NYSDOH standards. PCE, trichloroethene (TCE) and 1,1,1-trichloroethane (1,1,1-TCA) were detected in the soil vapor samples collected outside of the building footprint.

**MACTEC – 2011**

The NYSDEC reclassified the Site as a Class 2 Inactive hazardous waste site (Site No. 851028). In June 2010 MACTEC initiated an RI/FS based on the presence of chlorinated VOCs, specifically PCE, in Site soil, groundwater and sub-slab vapor.

The NYSDEC identified a soil removal Interim Remedial Measure (IRM) as a priority and directed MACTEC to collect samples necessary to identify the area of PCE affected soil and provide supporting data needed to design a soil removal IRM.

MACTEC installed 14 additional soil borings, collected four surface soil samples, and collected three down gradient groundwater samples. Figure 4 shows the locations of the additional samples.

In December 2010, MACTEC completed the removal of all accessible PCE affected soil from an area near the back door in the rear of the former dry cleaners. MACTEC collected post removal samples to document the area of Site soil exceeding NYSDEC soil limits. As part of the soil IRM, MACTEC installed a soil vapor extraction well within the backfilled excavation that could be used for further source area contaminant reduction, if needed.

In June 2011, MACTEC collected groundwater samples from the two permanent monitoring wells and collected soil vapor samples from the exterior extraction well and from a sub-slab location within the former dry cleaner space. This sampling indicated reduced levels of impact to Site groundwater but persistent elevated levels of PCE in sub-slab vapor. Based on the results, the NYSDEC identified a soil vapor extraction/sub-slab depressurization (SVE/SSD) interim remedial measure (IRM) as a priority. The NYSDEC determined that installing a modified SVE/SSD system would be an appropriate remedial action to reduce residual source area impact in shallow soil beneath the building slab and to mitigate potential human exposure to potential soil vapor impact.

In January 2012, MACTEC installed a modified soil vapor extraction/sub-slab depressurization (SVE/SSD) system within the former dry cleaner. The system includes a single extraction point located in the rear hallway with a radon-type fan used to extract sub-slab vapor and maintain negative pressure beneath the concrete floor. The system began operation in 2012 and is currently operating.

## 2.4 Remedial Action Objectives

The Remedial Action Objectives (RAOs) for the Site as listed in the Record of Decision dated March 29, 2012 are as follows:

**Groundwater**

RAOs for Public Health Protection

- Prevent ingestion of groundwater with contaminant levels exceeding drinking water standards.

RAOs for Environmental Protection

- Restore ground water aquifer to pre-disposal/pre-release conditions, to the extent practicable.
- Remove the source of ground or surface water contamination.

**Soil**

RAOs for Public Health Protection

- Prevent ingestion/direct contact with contaminated soil.
- Prevent inhalation of or exposure from contaminants volatilizing from contaminants in soil.

RAOs for Environmental Protection

- Prevent migration of contaminants that would result in groundwater or surface water contamination.

**Soil Vapor**

RAOs for Public Health Protection

- Mitigate impacts to public health resulting from existing, or the potential for, soil vapor intrusion into buildings at a site.

## 2.5 Remaining Contamination

### 2.5.1 Soil

Soil samples collected during multiple rounds of investigation were compared to the applicable Soil Cleanup Objectives (SCOs) for unrestricted use and restricted use/protection of groundwater. The primary contaminants of concern on-site are VOCs, specifically PCE. Based on the soil sampling results a soil excavation IRM was conducted at the Site.

Following the soil removal IRM in 2010, all identified and accessible VOCs were removed and disposed offsite. Figure 5 shows the extent of the soil excavation. Following the IRM, one post-excavation sample located along the north wall at 4-feet below grade exceeded the Unrestricted use SCO of 1.3 mg/kg for Tetrachloroethene (PCE) as defined in Part 375-6 (Table 3; Figure 5). PCE is a chlorinated solvent typically used at dry cleaners.

Table 3 – IRM Post-Excavation Soil Exceedances

| Location | Frequency | Compound | Max. Concentration (mg/kg) |
|---|---|---|---|
| EX-07 | 1/7 | PCE | 6.3 |

The Unrestricted and Restricted SCG under Part 375-6.8 is 1.3 mg/kg

Based on site data, the remaining volume of affected soil is less than 1-cubic yard extending northward along a horizontal plane about 2-feet thick located at 4-feet below grade at the location of sample EX-07, Figure 5. A geotextile membrane marks the southern extent of the non-compliant area. The affected area is expected to extend 2-feet to the east and west, and 2-feet to the north. The affected area is not expected to be present beneath a depth of 5-feet below grade.

An area of potentially affected soil may be present beneath the concrete slab, most likely the building concrete footer of Loohns Cleaners south and east of the door located on north side of the building (Figure 5).

Table 3 summarize the results of soil samples collected that exceed the Unrestricted Use SCOs and the commercial Use SCOs at the site after completion of remedial action.

2.5.2 Groundwater

Samples were collected from overburden groundwater which was encountered approximately 10 to 12 feet below grade surface (bgs) initially but later investigations identified groundwater at approximately 15-feet bgs. The samples were collected to assess the groundwater conditions on-site in the vicinity of the former dry cleaner as well as off-site and down gradient of the site. The groundwater samples were submitted for analytical analysis for VOCs, SVOC and metals.

The groundwater sampling results indicate that the primary contaminants are VOCs in the overburden groundwater associated with the historic use of PCE at the former dry cleaner. An area of VOC affected groundwater has been delineated to originate at the rear of the site property and continues down gradient toward East Pulteney Street. The highest concentrations of contaminants were found at the rear of the site building. The concentrations of VOCs in down gradient groundwater well samples were all below NYS groundwater standards.

The post IRM groundwater sampling results indicate no groundwater standards are exceeded for tetrachloroethene (PCE) and its associated daughter products including cis 1,2-dichloroethene (cis-1,2-DCE), trichloroethene (TCE) and vinyl chloride (VC). Sodium was found at levels above SCGs, however sodium is naturally occurring and is not related to any on-site contamination. No SVOC, Pesticides or PCBs exceed their applicable SCGs.

Table 4 – Post-IRM Groundwater Concentrations

| Compound | Concentration Range (ug/L) | Number Exceeding SCG |
|---|---|---|
| PCE | 1.1 – 4.7 | 0/2 |

SCG is the NYS Ambient Groundwater Standards (TOGs 1.1.1), 6 NYSCRR Part 703 and 10 NYSCRR Part 5

The remaining area of affected groundwater is located immediately adjacent to MW-1. The concentrations of PCE is less than SCGs and is located in the center of the area of formerly affected soil, which has all been excavated. The Record of Decision document dated March 2012 determined No Further Action for the Site including Site groundwater.

### 2.5.3 Sub-Slab Vapor

The potential for soil vapor intrusion was evaluated by sampling on and off-site soil vapor, sub-slab vapor under the on-site building, and indoor air inside the on-site building.

The sampling detected PCE in the sub-slab vapor and in the indoor air of the former dry cleaner. Sample results were evaluated in accordance with the NYSDOH Soil Vapor Intrusion Guidance in order to determine whether actions were needed to address exposure via soil vapor intrusion. Based on the sampling results a soil vapor extraction system/sub-slab depressurization system (SVE/SSD) was installed beneath the slab of the former dry cleaner to address potential contamination under the slab and reduce possible exposure via soil vapor intrusion at the on-site building.

In January 2012, a SVE/SSD system was installed in the former dry cleaner. The system draws soil vapor from a sub-slab extraction point located within the former dry cleaner space (Figure 6) and serves to generate sub-slab depressurization and reduce residual PCE, a chlorinated solvent, concentrations.

Two Post IRM vapor samples were collected at the completion of the soil vapor IRM. Table 5 presents the one sample that exceeded SCGs for the Site. Figure 6 shows the location of the existing SVE/SSD extraction point and the approximate location of sub-slab vapor exceedances.

Table 5 – Post Soil Vapor IRM – Vapor Sample Exceedances

| Location | Compound | *Concentration ($ug/m^3$) |
|---|---|---|
| SV-02 | PCE | 130,000 |

The concentration exceeds Matrix 2 of the NYSDOH Soil Vapor Guidance, 2012

# 3.0 INSTITUTIONAL AND ENGINEERING CONTROL PLAN

## 3.1 General

Since remaining contamination exists at the site, Institutional Controls (ICs) and Engineering Controls (ECs) are required to protect human health and the environment. This IC/EC Plan describes the procedures for the implementation and management of all IC/ECs at the site. The IC/EC Plan is one component of the SMP and is subject to revision by the NYSDEC.

This plan provides:

- A description of all IC/ECs on the site;
- The basic implementation and intended role of each IC/EC;
- A description of the key components of the ICs set forth in the Environmental Easement;
- A description of the controls to be evaluated during each required inspection and periodic review;
- A description of plans and procedures to be followed for implementation of IC/ECs, such as the implementation of the Excavation Work Plan (EWP) (as provided in Appendix C) for the proper handling of remaining contamination that may be disturbed during maintenance or redevelopment work on the site; and
- Any other provisions necessary to identify or establish methods for implementing the IC/ECs required by the site remedy, as determined by the NYSDEC.

## 3.2 Institutional Controls

A series of ICs is required by the ROD to: (1) implement, maintain and monitor Engineering Control systems; (2) prevent future exposure to remaining contamination; and, (3) limit the use and development of the site to restricted residential, commercial and industrial uses only. Adherence to these ICs on the site is required by the Environmental Easement and will be implemented under this SMP. ICs identified in the Environmental Easement may not be discontinued without an amendment to or extinguishment of the Environmental Easement. The IC boundaries are shown on Figure 7. These ICs are:

- The property may be used for: restricted residential, commercial, and industrial use;
- All ECs must be operated and maintained as specified in this SMP;
- All ECs must be inspected at a frequency and in a manner defined in the SMP.
- The use of groundwater underlying the property is prohibited without necessary water quality treatment as determined by the NYSDOH or the Steuben County Department of Health to render it safe for use as drinking water or for industrial purposes, and the user must first notify and obtain written approval to do so from the Department.
- Data and information pertinent to site management must be reported at the frequency and in a manner as defined in this SMP;
- All future activities that will disturb remaining contaminated material must be conducted in accordance with this SMP;
- Access to the site must be provided to agents, employees or other representatives of the State of New York with reasonable prior notice to the property owner to assure compliance with the restrictions identified by the Environmental Easement.
- The potential for vapor intrusion must be evaluated for any buildings developed in the area within the IC boundaries noted on Figure 7, and any potential impacts that are identified must be monitored or mitigated; and

## 3.3 Engineering Control

### 3.3.1 SVE/SSD Systems

Procedures for operating and maintaining the SVE/SSD system are documented in the Operation and Maintenance Plan (Section 5.0 of this SMP; Appendix F). As built information, signed by Nicholas E. Mouganis, a certified mitigation specialist. (EPA listing # 15415-I; NEHA ID# 100722), are included in Appendix F – SVE/SSD O & M Manual. Figure 6 shows the location of the ECs for the site.

### 3.3.2 Criteria for Termination of SVE/SSD

The SVE/SSD operation will be considered complete when field screening indicates that sub-slab depressurization is no longer required to manage sub-slab vapors. The framework for determining when remedial processes are complete is provided in Section 6.4 of NYSDEC DER-10.

The active SVE/SSD system will not be discontinued unless prior written approval is granted by the NYSDEC and the NYSDOH. In the event that monitoring data indicates that the SVE/SSD system may no longer be required, a proposal to discontinue the SVE/SSD system will be submitted by the remedial party to the NYSDEC and NYSDOH.

## 4.0 INSPECTION AND SCREENING PLAN

### 4.1 General

This Inspection and Screening Plan describes the measures for evaluating the overall performance and effectiveness of the ongoing SVE/SSD. Since the Site ROD determined no further action with continued operation of the SVE/SSD, this Inspection and Screening Plan is specific to monitoring the continuing operation of the SVE/SSD.

This Inspection and screening describes the methods to be used for:

- Inspecting and confirming the SVE/SSD is operating and performing adequately.

To adequately address these issues, this Inspection and Screening Plan provides information on:

- Inspection and screening locations, protocol and frequency;
- Information on all designed systems;
- Monitoring well decommissioning procedures; and
- Annual inspection and periodic certification.

Reporting requirements are provided in Section 7.0 of this SMP.

### 4.2 Site – Wide Inspection

Site-wide inspections will be performed once per year. Modification to the frequency or duration of the inspections will require approval from the NYSDEC. Site-wide inspections will also be performed after all severe weather conditions that may affect ECs or monitoring devices. During these inspections, an inspection form will be completed as provided in Appendix E – Site Management Forms. The form will compile sufficient information to assess the following:

- Compliance with all ICs, including site usage;
- An evaluation of the condition and continued effectiveness of ECs;
- General site conditions at the time of the inspection; and
- Confirm that site records are up to date.

Inspections of all remedial components installed at the site will be conducted. A comprehensive site-wide inspection will be conducted and documented according to the SMP schedule, regardless of the frequency of the Periodic Review Report. The inspections will determine and document the following:

- Whether ECs continue to perform as designed;
- If these controls continue to be protective of human health and the environment;
- Compliance with requirements of this SMP and the Environmental Easement; and
- If site records are complete and up to date; and

Reporting requirements are outlined in Section 7.0 of this plan.

Inspections will also be performed in the event of an emergency. If an emergency, such as a natural disaster or an unforeseen failure of any of the ECs occurs that reduces or has the potential to reduce the effectiveness of ECs in place at the site, verbal notice to the NYSDEC must be given by noon of the following day. In addition, an inspection of the site will be conducted within 5 days of the event to verify the effectiveness of the IC/ECs implemented at the site by a qualified environmental professional, as determined by the NYSDEC. Written confirmation must be provided to the NYSDEC within 7 days of the event that includes a summary of actions taken, or to be taken, and the potential impact to the environment and the public.

## 4.3 SVE/SSD System Monitoring and Screening

### 4.3.1 SVE/SSD System Monitoring

Monitoring of the SVE/SSD will be performed on a routine basis, as identified in Table 6 SVE/SSD System Monitoring Requirements and Schedule. Modification to the frequency will require approval from the NYSDEC. A visual inspection of the complete system will be conducted during each monitoring event. Unscheduled inspections and/or sampling may take place when a suspected failure of the SVE/SSD system has been reported or an emergency occurs that is deemed likely to affect the operation of the system. System components to be monitored include, but are not limited to, the components included in Table 6 below.

**Table 6 – SVE/SSD System Monitoring and Schedule**

| System Component | Monitoring Parameter | Operating Range | Monitoring Schedule |
|---|---|---|---|
| Visual inspection of extraction pump and piping | Power condition, system piping attachments and discharge port | Power on/off, pipe fittings, discharge obstructions | Monthly |
| Manometer | Vacuum | 0.01 – 3.5 w.i.c. | Monthly |
| Vacuum and discharge pipe | Piping leak-free, floor penetration secure, discharge pipe secure | All systems air tight and fixtures secure | Monthly |

A complete list of components to be inspected is provided in the Inspection Checklist, provided in Appendix E - Site Management Forms. If any equipment readings are not within their specified operation range, any equipment is observed to be malfunctioning or the system is not performing within specifications; maintenance and repair, as per the Operation and Maintenance Plan, is required immediately.

#### 4.3.2 SVE/SSD System Screening

Extracted sub-slab air shall be screened with a photoionization detector (PID) at the location of the screening port located on the riser pipe (See Appendix G for specific location of screening port) on an annual basis. The screening locations and schedule are provided in Table 7. Modification to the frequency or sampling requirements will require approval from the NYSDEC.

**Table 7 – SVE/SSD Screening Requirements and Schedule**

| Screen Location | Parameter | Frequency |
|---|---|---|
| SVE/SSD Measuring Port | Total VOCs as Measured with a P.I.D. | Annually |

## 4.4 Groundwater Monitoring

Groundwater monitoring will be performed annually to assess the performance of the remedy. Modification to the frequency or sampling requirements will require approval from the NYSDEC.

The network of monitoring wells has been installed to monitor upgradient, on-site and downgradient groundwater conditions at the site. The network of on-site wells has been designed based on the following criteria: one monitoring well is located north and one south of Loohns Cleaners.

Table 8 summarizes the wells identification number, as well as the purpose, location, depths, diameter and screened intervals of the wells. As part of the groundwater monitoring, one upgradient and one downgradient well are sampled to evaluate the effectiveness of the remedial system.

**Table 8 – Monitoring Well Construction Details**

| Monitoring Well ID | Well Location | Coordinates (longitude/ latitude) | Well Diameter (inches) | Elevation (above mean sea level) | | | |
|---|---|---|---|---|---|---|---|
| | | | | Casing | Surface | Screen Top | Screen Bottom |
| MW-1 | Upgradient | 691273.53 /784261.36 | 2 | 929.70 | 929.83 | 919.83 | 909.83 |
| MW-2 | Downgradient | 691279.00 /784181.22 | 2 | 929.70 | 929.96 | 919.70 | 909.70 |

Monitoring well locations are shown on Figures 3 and 4 of this report. The wells were placed upgradient and downgradient of the area of affected soil. The wells are approximately 20-feet deep, screened from 10 to 20-feet below grade. Depth to water varies between 15 and 16-feet. The water table is nearly flat with a difference 0.03- feet of elevation between the two wells. There is an apparent groundwater flow to the south/southeast. The wells are completed in an alluvial sand and gravel from the ground surface to the bottom of the well.
Both wells will be sampled for chlorinated volatile organic compounds (CVOCs) by method USEPA 8260B.

If biofouling or silt accumulation occurs in the on-site and/or off-site monitoring wells, the wells will be physically agitated/surged and redeveloped. Additionally, monitoring wells will be properly decommissioned and replaced, if an event renders the wells unusable.

Repairs and/or replacement of wells in the monitoring well network will be performed based on assessments of structural integrity and overall performance.

The NYSDEC will be notified prior to any repair or decommissioning of any monitoring well for the purpose of replacement, and the repair or decommissioning and replacement process will be documented in the subsequent Periodic Review Report. Well decommissioning without replacement will be done only with the prior approval of the NYSDEC. Well abandonment will be performed in accordance with NYSDEC's guidance entitled "CP-43: Groundwater Monitoring Well Decommissioning Procedures." Monitoring wells that are decommissioned because they have been rendered unusable will be replaced in kind in the nearest available location, unless otherwise approved by the NYSDEC.

The sampling frequency may only be modified with the approval of the NYSDEC. This SMP will be modified to reflect changes in sampling plans approved by the NYSDEC.

Deliverables for the groundwater monitoring program are specified in Section 7.0 – Reporting Requirements.

## 5.0 OPERATION AND MAINTENANCE PLAN

### 5.1 General

This Operation and Maintenance Plan provides a brief description of the measures necessary to operate, monitor and maintain the mechanical components of the ongoing operation of the SVE/SSD system at the site. This Operation and Maintenance Plan:

- Includes the procedures necessary to allow individuals unfamiliar with the site to operate and maintain the SVE/SSD system;
- Will be updated periodically to reflect changes in site conditions or the manner in which the SVE/SSD systems are operated and maintained.

Further detail regarding the Operation and Maintenance of the SVE/SSD is provided in Appendix H - Operation and Maintenance Manual. A copy of this Operation and Maintenance Manual, along with the complete SMP, is to be maintained at the site. This Operation and Maintenance Plan is not to be used as a stand-alone document, but as a component document of this SMP.

### 5.2 SVE/SSD Performance Criteria

The SVE/SSD vacuum fan was installed at the rear of the building approximately 10-feet above grade. The exhaust pipe extends vertically to about 2-feet above the roof line. The vacuum fan, model RADONAWAY GP 501 is controlled by an adjacent weatherproof switch installed with Sealtite™ conduit connected to a new breaker at the electrical panel near the rear entrance. The estimated power consumption is 150w when the fan is creating a vacuum of approximately 3.5 wci (water column inch) and is removing about 30 CFM from the sub- slab.

## 5.3 Operation and Maintenance of the SVE/SSD System

The following sections provide a description of the operations and maintenance of the SVE/SSD. The installation record including the recommended system Operation and Maintenance is provided in Appendix F -

### 5.3.1 System Startup

The SVE/SSD was designed for continuous operation. The installer recommends the following procedures for system Start-up.

1. Become familiar with the Sub-Slab Depressurization (SSD) System which has been permanently installed in this building to mitigate the potential intrusion of harmful soil vapor. This system consists of a vacuum fan, pipes, indicator gauge and other components designed to create vacuum beneath the concrete slab.
2. Leave fan in continuous operation, except for emergency conditions. Fans restart automatically in event of power loss.
3. The fan has an on/off switch mounted near the fan on the exterior of the building. In the event of unusual fan noise, failure to start, or repeated circuit breaker trip, turn fan off and call a certified technician for service.
4. Inspect fan vacuum gauge to verify that the value, indicated by a mark on the gauge, has not changed significantly from the position of the mark. Gauge is inspected by observing the level of colored fluid. Record level in log book.

### 5.3.2 Routine System Operation and Maintenance

Routine system maintenance includes periodic visual inspection of the vent fan, piping, seals between pipes and the concrete floor. Inspect all components for excessive noise or wear. Inspect discharge point to verify unobstructed operation.

### 5.3.3 System Monitoring Devices and Alarms

The SVE/SSD is not equipped with warning devices to indicate that the system is not operating properly. In the event the system is observed inoperable contact the appropriate technician to evaluate the system.

## 6.0 PERIODIC ASSESSMENTS/EVALUATIONS

### 6.1 Climate Change Vulnerability Assessment

A climate change vulnerability assessment has not been conducted for this Site. The system is currently operating and is expected to remain in continuous operation as long as there is power to the building. The system will auto-start after a temporary loss of power.

### 6.2 Green Remediation Evaluation

NYSDEC's DER-31 Green Remediation requires that green remediation concepts and techniques be considered during all stages of the remedial program including site management, with the goal of improving the sustainability of the cleanup and summarizing the net environmental benefit of any implemented green technology.

The system utilizes a highly efficient vacuum blower requiring less than 150w of power to effectively control sub-slab vapors.

## 7.0. REPORTING REQUIREMENTS

### 7.1 Site Management Reports

All site management inspection, maintenance and monitoring events will be recorded on the appropriate site management forms provided in Appendix E These forms are subject to NYSDEC revision.

All applicable inspection reports and other records, including system maintenance records, generated for the site during the reporting period will be provided in electronic format to the NYSDEC in an Annual Periodic Review Report in accordance with the requirements of Table 9 and summarized in the Annual Periodic Review Report.

**Table 9: Schedule of Monitoring and Inspection Reports**

| Task | Reporting Frequency* |
|---|---|
| Periodic Review Report | Annually, or as otherwise determined by the Department |

All Periodic Review Reports reports will include:

- Date of event or reporting period;
- Name, company, and position of person(s) conducting monitoring/inspection activities;
- Description of the activities performed;
- Where appropriate, color photographs or sketches showing the approximate location of any problems or incidents noted (included either on the checklist/form or on an attached sheet);
- Type of samples, if collected (e.g., sub-slab vapor, indoor air, outdoor air, etc);

- Copies of all field monthly and quarterly forms completed (e.g., SVE/SSD inspection, etc.);
- Any observations, conclusions, or recommendations; and
- A determination as to whether contaminant conditions have changed since the last reporting event.

Routine maintenance event reporting forms will include, at a minimum:

- Date of event;
- Name, company, and position of person(s) conducting maintenance activities;
- Description of maintenance activities performed;
- Any modifications to the system;
- Where appropriate, color photographs or sketches showing the approximate location of any problems or incidents noted (included either on the checklist/form or on an attached sheet); and,
- Other documentation such as copies of invoices for maintenance work, receipts for replacement equipment, etc., (attached to the checklist/form).

Non-routine maintenance event reporting forms will include, at a minimum:

- Date of event;
- Name, company, and position of person(s) conducting non-routine maintenance/repair activities;
- Description of non-routine activities performed;
- Where appropriate, color photographs or sketches showing the approximate location of any problems or incidents (included either on the form or on an attached sheet); and
- Other documentation such as copies of invoices for repair work, receipts for replacement equipment, etc. (attached to the checklist/form).

Data will be reported in digital format as determined by the NYSDEC. Currently, data is to be supplied electronically and submitted to the NYSDEC EQuIS™ database in accordance with the requirements found at this link http://www.dec.ny.gov/chemical/62440.html.

## 7.2 Periodic Review Report

The Periodic Review Report (PRR) will be submitted to the Department beginning sixteen (16) months after the No Further Action Letter is issued. After submittal of the initial Periodic Review Report, the next PRR shall be submitted annually to the Department or at another frequency as may be required by the Department. In the event that the site is subdivided into separate parcels with different ownership, a single Periodic Review Report will be prepared that addresses the site described in Appendix A - Environmental Easement. The report will be prepared in accordance with NYSDEC's DER-10 and submitted within 30 days of the end of each certification period. Media sampling results will also be incorporated into the Periodic Review Report. The report will include:

- Identification, assessment and certification of all ECs/ICs required by the remedy for the site.
- Results of the required annual site inspections and severe condition inspections, if applicable.
- All applicable site management forms and other records generated for the site during the reporting period in the NYSDEC-approved electronic format, if not previously submitted.
- A summary of any discharge monitoring data and/or information generated during the reporting period, with comments and conclusions.

- A site evaluation, which includes the following:
  - The compliance of the SVE/SSD with the requirements of the site-specific ROD;
  - The operation and the effectiveness of SVE/SSD including identification of any needed repairs or modifications, if necessary;
  - The overall performance and effectiveness of the remedy.

### 7.2.1 Certification of Institutional and Engineering Controls

Following the last inspection of the reporting period, a Qualified Environmental Professional licensed to practice in New York State will prepare, and include in the Periodic Review Report, the following certification as per the requirements of NYSDEC DER-10:

*"For each institutional or engineering control identified for the site, I certify that all of the following statements are true:*

- *The inspection of the site to confirm the effectiveness of the institutional and engineering controls required by the remedial program was performed under my direction;*
- *The institutional control and/or engineering control employed at this site is unchanged from the date the control was put in place, or last approved by the Department;*
- *Nothing has occurred that would impair the ability of the control to protect the public health and environment;*
- *Nothing has occurred that would constitute a violation or failure to comply with any site management plan for this control;*
- *Access to the site will continue to be provided to the Department to evaluate the remedy, including access to evaluate the continued maintenance of this control;*

- *If a financial assurance mechanism is required under the oversight document for the site, the mechanism remains valid and sufficient for the intended purpose under the document;*
- *Use of the site is compliant with the environmental easement;*
- *The engineering control systems are performing as designed and are effective;*
- *To the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program; and*
- *The information presented in this report is accurate and complete.*

*I certify that all information and statements in this certification form are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law. I, [name], of [business address], am certifying as [Owner/Remedial Party or Owner's/Remedial Party's Designated Site Representative]* and *[I have been authorized and designated by all site owners/remedial parties to sign this certification] for the site."*

## 7.3 Corrective Measures Work Plan

If any component of the remedy is found to have failed, or if the periodic certification cannot be provided due to the failure of an institutional or engineering control, a Corrective Measures Work Plan will be submitted to the NYSDEC for approval. This plan will explain the failure and provide the details and schedule for performing work necessary to correct the failure. Unless an emergency condition exists, no work will be performed pursuant to the Corrective Measures Work Plan until it has been approved by the NYSDEC.

## 8.0 REFERENCES


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6 NYCRR Part 375, Environmental Remediation Programs. December 14, 2006.

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Sear-Brown, 1997a. The Sear-Brown Group, Phase II environmental Site Assessment, Loohns Convenient Plaza, March 19, 1997

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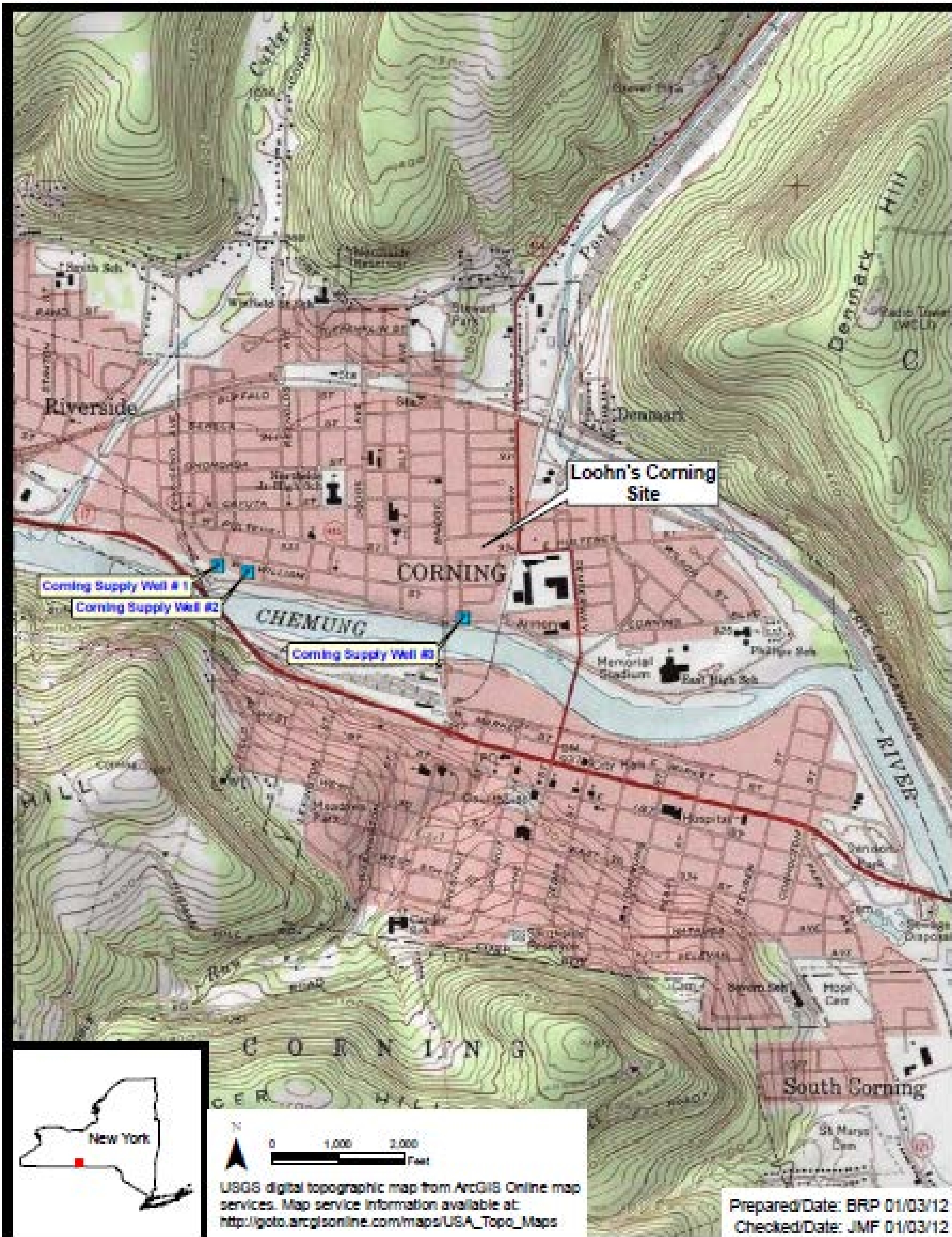
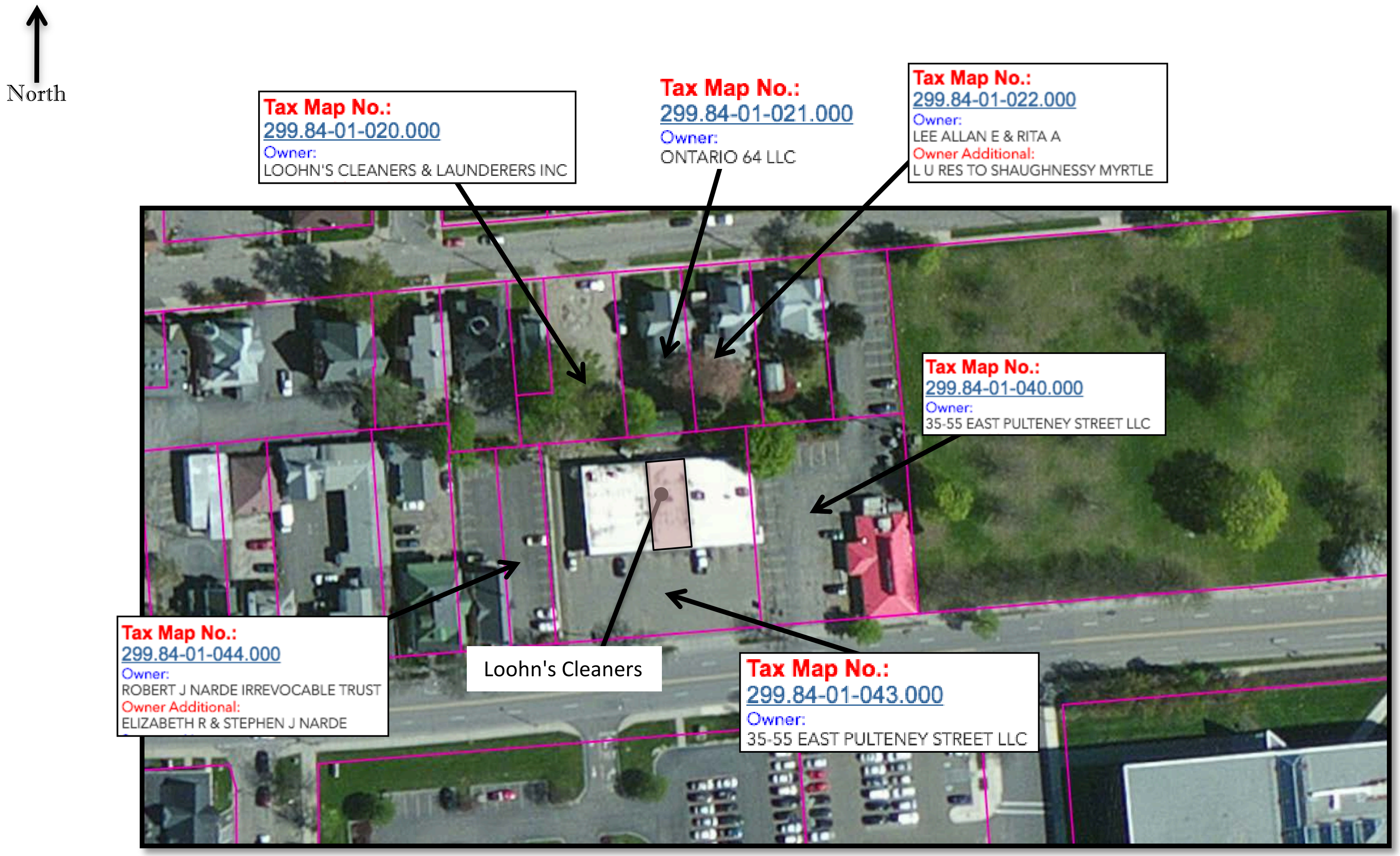
# REPORT FIGURES




Adapted from MACTEC Figure 1.1 RI/FS Report dated 03 January 2012.

**Independent Environmental Scientists, Inc.**
104 Eton Lane, Manlius, NY 13104

| Site Location Map | | 1 |
|---|---|---|
| Prepared for: 35-55 East Pulteney Street, LLC | | |
| Date: 15 June 2017 | Scale: As Shown | |




(Steuben County Online GIS Map)

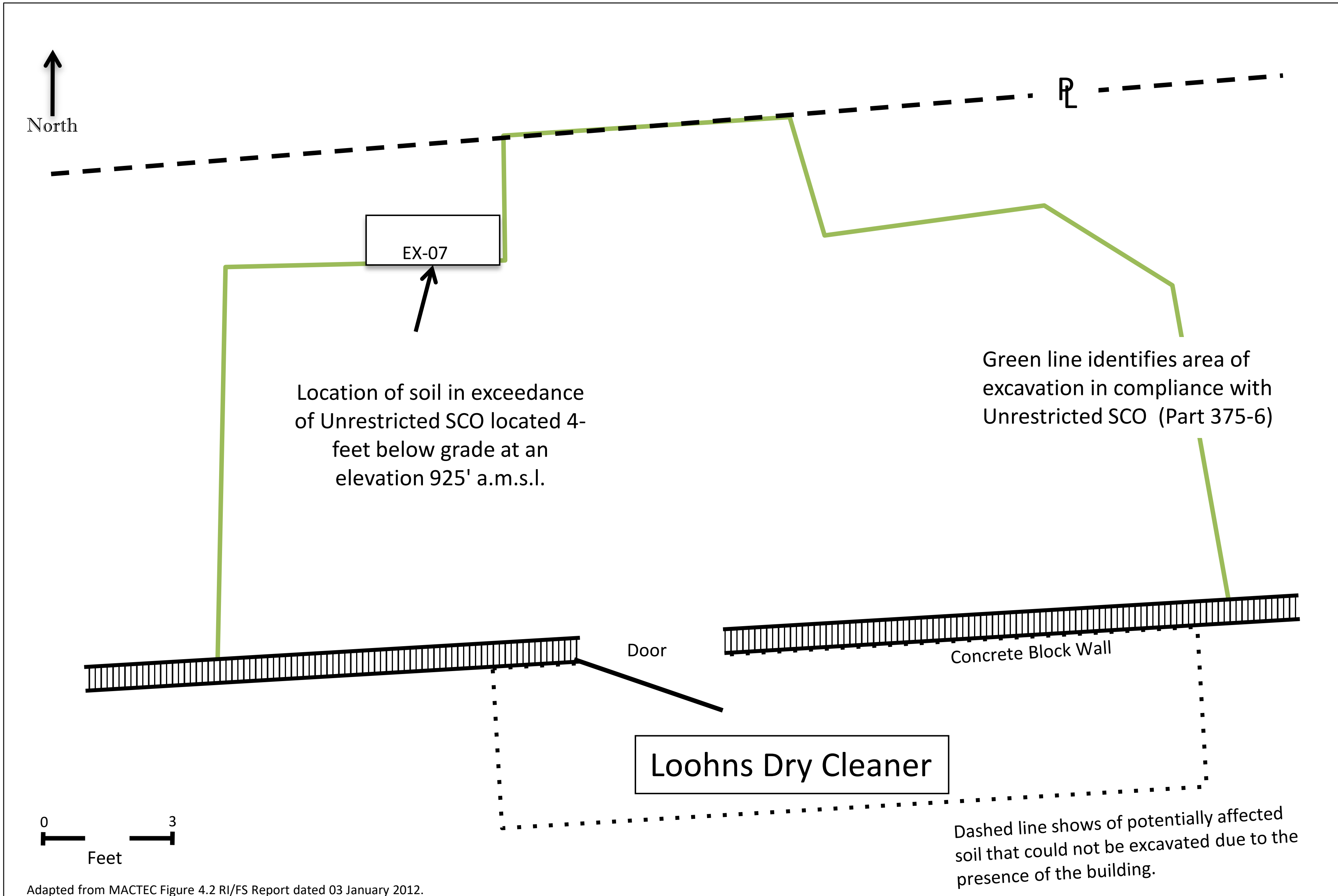

(Adapted from MACTEC Figure 4.3 RI/FS Report dated 03 January 2012 and Figure 4.1 Final Site characterization Report dated March 2007)

| | | |
|---|---|---|
| **Independent Environmental Scientist, Inc.**<br>104 Eton Lane, Manlius, NY 13104 | Groundwater Sample Locations<br>Prepared for: 35-55 East Pulteney Street, LLC<br>Date: 13 June 2017 — Scale: *no scale* | 3 |


(Adapted from MACTEC Figure 4.3 RI/FS Report dated 03 January 2012 and Figure 4.1 Final Site characterization Report dated March 2007)

**Independent Environmental Scientist, Inc.**
104 Eton Lane, Manlius, NY 13104

| | |
|---|---|
| Groundwater Elevation & Flow Direction | 4 |
| Prepared for: 35-55 East Pulteney Street, LLC | |
| Date: 13 June 2017 | Scale: *no scale* |




Adapted from MACTEC Figure 4.2 RI/FS Report dated 03 January 2012.

**Independent Environmental Scientist, Inc.**
104 Eton Lane, Manlius, NY 13104

Remaining Soil Sample Exceedances

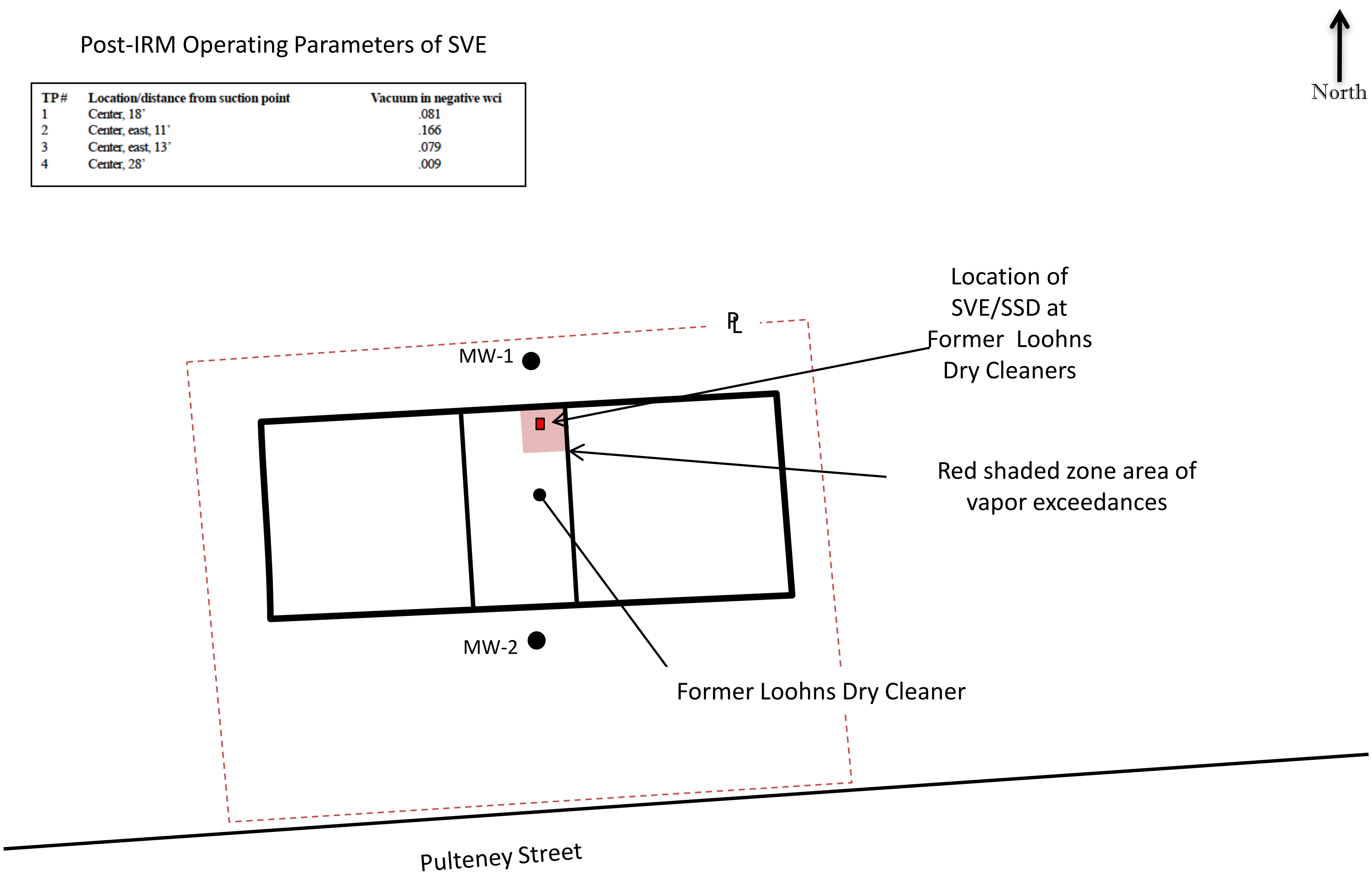
Prepared for: 35-55 East Pulteney Street, LLC

Date: 13 June 2017 | Scale: *as shown*

5

Post-IRM Operating Parameters of SVE

| TP # | Location/distance from suction point | Vacuum in negative wci |
|---|---|---|
| 1 | Center, 18' | .081 |
| 2 | Center, east, 11' | .166 |
| 3 | Center, east, 13' | .079 |
| 4 | Center, 28' | .009 |





**Independent Environmental Scientist, Inc.**
104 Eton Lane, Manlius, NY 13104

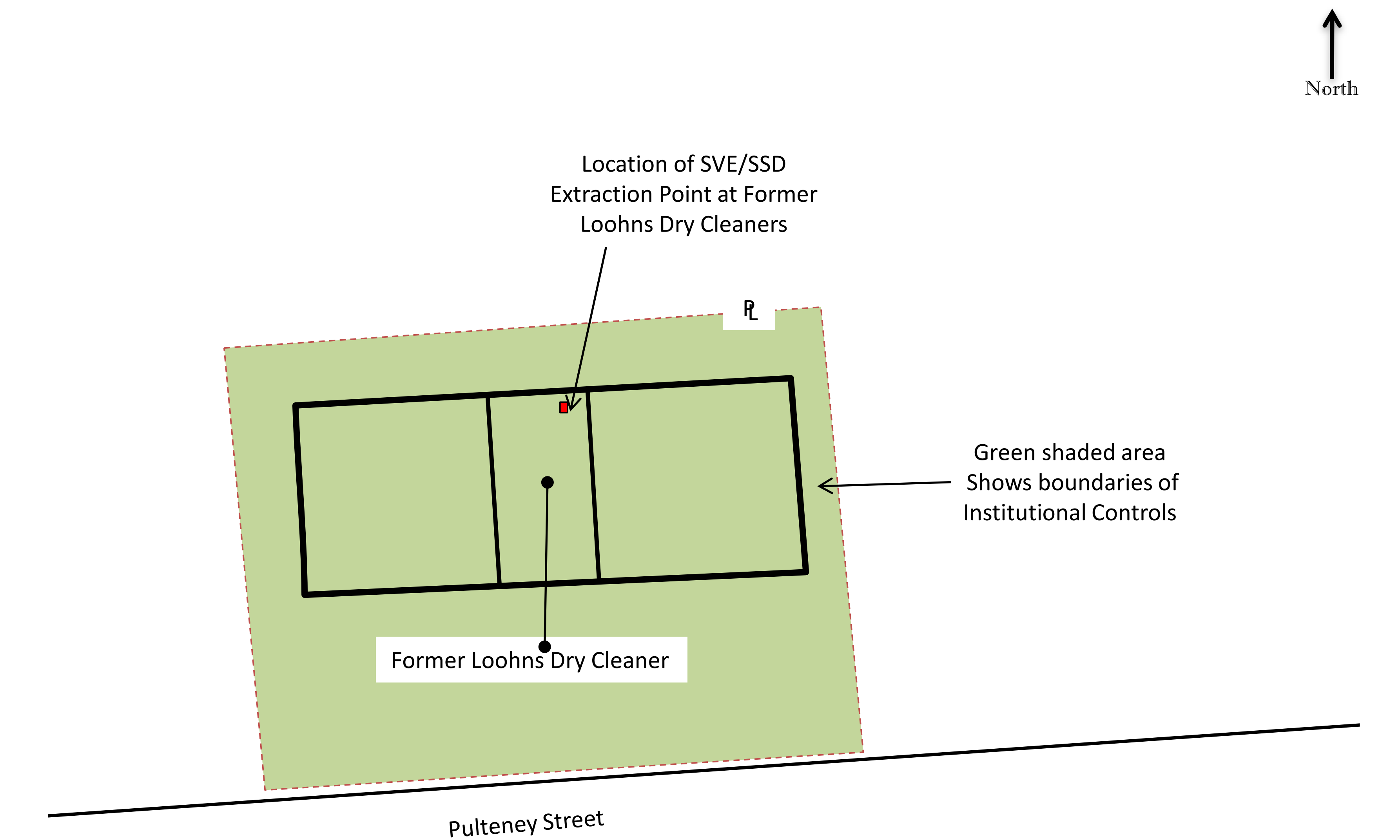

Remaining Soil Vapor Sample Exceedances

Prepared for: 35-55 East Pulteney Street, LLC

Date: 13 June 2017

Scale: *no scale*

6




**Independent Environmental Scientist, Inc.**
104 Eton Lane, Manlius, NY 13104

| Institutional Control Boundaries | | 7 |
|---|---|---|
| Prepared for: 35-55 East Pulteney Street, LLC | | |
| Date: 13 June 2017 | Scale: *no scale* | |

# APPENDIX A – Environmental Easement
# (To be provided by Counsel)

# APPENDIX B – LIST OF SITE CONTACTS

| Name | Phone/Email Address |
|---|---|
| 35-55 East Pulteney Street, LLC, Owner | 58 South Oakwood Drive<br>Painted Post, NY 14870 |
| Doug Zamelis, Esq., Attorney for Owner | 315-858-6002<br>dzamelis@windstream.net |
| Edward J. Hinchey, P.G. | (315)256-5355<br>ehinchey@indieScientists.com |
| Matt Dunham, Project Manager | (518)402-9643<br>matthew.dunham@dec.ny.gov |
| Bernette Schilling, Regional HW Engineer | (585) 226-5350<br>bernette.schilling@dec.ny.gov |
| Kelly Lewandowski, Chief Site Control | (518) 402-9553<br>kelly.lewandowski@dec.ny.gov |
| Tenants:<br>(Variable) | |

## APPENDIX C – EXCAVATION WORK PLAN (EWP)

### C-1 NOTIFICATION

At least 15 days prior to the start of any activity that is anticipated to encounter remaining contamination, the site owner or their representative will notify the NYSDEC. Table 1 includes contact information for the above notification. The information on this table will be updated as necessary to provide accurate contact information. A full listing of site-related contact information is provided in Appendix A.

**Table 1: Notifications***

| | |
|---|---|
| Matt Dunham, Project Manager | (518)402-9643<br>matthew.dunham@dec.ny.gov |
| Bernette Schilling,<br>Regional HW Engineer | (585)226-5350<br>bernette.schilling@dec.ny.gov |
| Kelly Lewandowski, Chief Site Control | (518)402-9553<br>kelly.lewandowski@dec.ny.gov |

* Note: Notifications are subject to change and will be updated as necessary.

This notification will include:

- A detailed description of the work to be performed, including the location and areal extent of excavation, plans/drawings for site re-grading, intrusive elements or utilities to be installed below the soil cover, estimated volumes of contaminated soil to be excavated and any work that may impact an engineering control;

- A summary of environmental conditions anticipated to be encountered in the work areas, including the nature and concentration levels of contaminants of concern, potential presence of grossly contaminated media, and plans for any pre-construction sampling;
- A schedule for the work, detailing the start and completion of all intrusive work;
- A summary of the applicable components of this EWP;
- A statement that the work will be performed in compliance with this EWP and 29 CFR 1910.120;
- Identification of disposal facilities for potential waste streams; and
- Identification of sources of any anticipated backfill, along with all required chemical testing results.

## C-2 SOIL SCREENING METHODS

Visual, olfactory and instrument-based (e.g. photoionization detector) soil screening will be performed by a qualified environmental professional during all excavations into known or potentially contaminated material (remaining contamination). Soil screening will be performed when invasive work is done and will include all excavation and invasive work performed during development, such as excavations for foundations and utility work, after issuance of the COC.

Soils will be segregated based on previous environmental data and screening results into material that requires off-site disposal and material that requires testing to determine if the material can be reused on-site as soil beneath a cover or if the material can be used as cover soil. Further discussion of off-site disposal of materials and on-site reuse is provided in Section C-6 of this Appendix.

## C-3 SOIL STAGING METHODS

Soil stockpiles will be continuously encircled with a berm and/or silt fence. Hay bales will be used as needed near catch basins, surface waters and other discharge points.

Stockpiles will be kept covered at all times with appropriately anchored tarps. Stockpiles will be routinely inspected and damaged tarp covers will be promptly replaced.

Stockpiles will be inspected at a minimum once each week and after every storm event. Results of inspections will be recorded in a logbook and maintained at the site and available for inspection by the NYSDEC.

## C-4 MATERIALS EXCAVATION AND LOAD-OUT

A qualified environmental professional or person under their supervision will oversee all invasive work and the excavation and load-out of all excavated material.

The owner of the property and remedial party (if applicable) and its contractors are responsible for safe execution of all invasive and other work performed under this Plan.

The presence of utilities and easements on the site will be investigated by the qualified environmental professional. It will be determined whether a risk or impediment to the planned work under this SMP is posed by utilities or easements on the site.

Loaded vehicles leaving the site will be appropriately lined, tarped, securely covered, manifested, and placarded in accordance with appropriate Federal, State, local, and NYSDOT requirements (and all other applicable transportation requirements).

A truck wash will be operated on-site, as appropriate. The qualified environmental professional will be responsible for ensuring that all outbound trucks will be washed at the truck wash before leaving the site until the activities performed under this section are complete Truck wash waters will be collected and disposed of off-site in an appropriate manner.

Locations where vehicles enter or exit the site shall be inspected daily for evidence of off-site soil tracking.

The qualified environmental professional will be responsible for ensuring that all egress points for truck and equipment transport from the site are clean of dirt and other materials derived from the site during intrusive excavation activities. Cleaning of the adjacent streets will be performed as needed to maintain a clean condition with respect to site-derived materials.

## C-5 MATERIALS TRANSPORT OFF-SITE

All transport of materials will be performed by licensed haulers in accordance with appropriate local, State, and Federal regulations, including 6 NYCRR Part 364. Haulers will be appropriately licensed and trucks properly placarded.

Material transported by trucks exiting the site will be secured with tight-fitting covers. Loose-fitting canvas-type truck covers will be prohibited. If loads contain wet material capable of producing free liquid, truck liners will be used.

Truck transport routes are as follows: hauling company will determine route in consultation with the NYSDEC and County Highway Officials. All trucks loaded with site materials will exit the vicinity of the site using only these approved truck routes. This is the most appropriate route and takes into account: (a) limiting transport through residential areas and past sensitive sites; (b) use of city mapped truck routes; (c) prohibiting off-site queuing of trucks entering the facility; (d) limiting total distance to major highways; (e) promoting safety in access to highways; and (f) overall safety in transport; and (g) community input, as necessary

Trucks will be prohibited from stopping and idling in the neighborhood outside the project site.

Egress points for truck and equipment transport from the site will be kept clean of dirt and other materials during site remediation and development.

Queuing of trucks will be performed on-site in order to minimize off-site disturbance. Off-site queuing will be prohibited.

## C-6 MATERIALS DISPOSAL OFF-SITE

All material excavated and removed from the site will be treated as contaminated and regulated material and will be transported and disposed in accordance with all local, State (including 6NYCRR Part 360) and Federal regulations. If disposal of material from this site is proposed for unregulated off-site disposal (i.e. clean soil removed for development purposes), a formal request with an associated plan will be made to the NYSDEC. Unregulated off-site management of materials from this site will not occur without formal NYSDEC approval.

Off-site disposal locations for excavated soils will be identified in the pre-excavation notification. This will include estimated quantities and a breakdown by class of disposal facility if appropriate, i.e. hazardous waste disposal facility, solid waste landfill, petroleum treatment facility, C/D recycling facility, etc. Actual disposal quantities and associated documentation will be reported to the NYSDEC in the Periodic Review Report. This documentation will include: waste profiles, test results, facility acceptance letters, manifests, bills of lading and facility receipts.

Non-hazardous historic fill and contaminated soils taken off-site will be handled, at minimum, as a Municipal Solid Waste per 6NYCRR Part 360-1.2. Material that does not meet Unrestricted SCOs is prohibited from being taken to a New York State recycling facility (6NYCRR Part 360-16 Registration Facility).

## C-7 MATERIALS REUSE ON-SITE

The qualified environmental professional will ensure that procedures defined for materials reuse in this SMP are followed and that unacceptable material does not remain on-site. Contaminated on-site material, including historic fill and contaminated soil, that is acceptable for reuse on-site will be placed below the demarcation layer or impervious surface, and will not be reused within a cover soil layer, within landscaping berms, or as backfill for subsurface utility lines.

Any demolition material proposed for reuse on-site will be sampled for asbestos and the results will be reported to the NYSDEC for acceptance. Concrete crushing or processing on-site will not be performed without prior NYSDEC approval. Organic matter (wood, roots, stumps, etc.) or other solid waste derived from clearing and grubbing of the site will not be reused on-site.

## C-8 FLUIDS MANAGEMENT

All liquids to be removed from the site, including but not limited to, excavation dewatering, decontamination waters and groundwater monitoring well purge and development waters, will be handled, transported and disposed in accordance with applicable local, State, and Federal regulations. Dewatering, purge and development fluids will not be recharged back to the land surface or subsurface of the site, and will be managed off-site, unless prior approval is obtained from NYSDEC.

Discharge of water generated during large-scale construction activities to surface waters (i.e. a local pond, stream or river) will be performed under a SPDES permit.

## C-9 COVER SYSTEM RESTORATION

After the completion of soil removal and any other invasive activities the cover system will be restored in a manner that complies with the NYSDEC DER-10 and the Record of Decision. There is no engineered cover system currently on the Site; however, a site building and native soil cover an existing area of soil exceedance and the footers of Loohns Cleaners cover an area of vapor exceedance. Any excavation in these areas will require a cover system comprised of a demarcation layer and new fill. If the type of cover system changes from that which exists prior to the excavation (i.e., a soil cover is replaced by asphalt), this will constitute a modification of the cover element of the remedy and the upper surface of the remaining contamination. A figure showing the modified surface will be included in the subsequent Periodic Review Report and in an updated SMP.

## C-10 BACKFILL FROM OFF-SITE SOURCES

All materials proposed for import onto the site will be approved by the qualified environmental professional and will be in compliance with provisions in this SMP prior to receipt at the site. A Request to Import/Reuse Fill or Soil form, which can be found at http://www.dec.ny.gov/regulations/67386.html, will be prepared and submitted to the NYSDEC project manager allowing a minimum of 5 business days for review.

Material from industrial sites, spill sites, or other environmental remediation sites or potentially contaminated sites will not be imported to the site.

All imported soils will meet the backfill and cover soil quality standards established in 6NYCRR 375-6.7(d). Soils that meet 'exempt' fill requirements under 6 NYCRR Part 360, but do not meet backfill or cover soil objectives for this site, will not be imported onto the site without prior approval by NYSDEC. Solid waste will not be imported onto the site.

Trucks entering the site with imported soils will be securely covered with tight fitting covers. Imported soils will be stockpiled separately from excavated materials and covered to prevent dust releases.

## C-11 STORMWATER POLLUTION PREVENTION

Barriers and hay bale checks will be installed and inspected once a week and after every storm event. Results of inspections will be recorded in a logbook and maintained at the site and available for inspection by the NYSDEC. All necessary repairs shall be made immediately.

Accumulated sediments will be removed as required to keep the barrier and hay bale check functional.

All undercutting or erosion of the silt fence toe anchor shall be repaired immediately with appropriate backfill materials.

Manufacturer's recommendations will be followed for replacing silt fencing damaged due to weathering.

Erosion and sediment control measures identified in the SMP shall be observed to ensure that they are operating correctly. Where discharge locations or points are accessible, they shall be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving waters.

Silt fencing or hay bales will be installed around the entire perimeter of the construction area.

## C-12 EXCAVATION CONTINGENCY PLAN

All soil excavation required at the Site was completed during the Soil-IRM. If additional soil excavation is required due to the identification of previously unknown conditions, the following procedures will be followed.

Sampling will be performed on product, sediment and surrounding soils, etc. as necessary to determine the nature of the material and proper disposal method. Chemical analysis will be performed for a full list of analytes (TAL metals; TCL volatiles and semi-volatiles, TCL pesticides and PCBs), unless the site history and previous sampling results provide a sufficient justification to limit the list of analytes. In this case, a reduced list of analytes will be proposed to the NYSDEC for approval prior to sampling.

Identification of unknown or unexpected contaminated media identified by screening during invasive site work will be promptly communicated by phone to NYSDEC's Project Manager. Reportable quantities of petroleum product will also be reported to the NYSDEC spills hotline. These findings will be also included in the Periodic Review Report.

## C-13 COMMUNITY AIR MONITORING PLAN

In the event of soil excavation in the future, a Community Air Monitoring Plan (CAMP) will be prepared from the CAMP developed and implemented during the Soil-IRM. A copy of the CAMP is located with the project files of the NYSDEC and/or NYSDOH

## C-14 ODOR CONTROL PLAN

An odor control plan is capable of controlling emissions of nuisance odors on and off-site. Specific odor control methods to be used on a routine basis will be developed as necessary and required by the NYSDEC and he NYSDOH. If nuisance odors are identified at the site boundary, or if odor complaints are received, work will be halted and the source of odors will be identified and corrected. Work will not resume until all nuisance odors have been abated. NYSDEC and NYSDOH will be notified of all odor events and of any other complaints about the project. Implementation of all odor controls, including the halt of work, is the responsibility of the remedial party's Remediation Engineer, and any measures that are implemented will be discussed in the Periodic Review Report.

All necessary means will be employed to prevent on- and off-site nuisances.

If nuisance odors develop during intrusive work that cannot be corrected, or where the control of nuisance odors cannot otherwise be achieved due to on-site conditions or close proximity to sensitive receptors, odor control will be achieved by sheltering the excavation and handling areas in a temporary containment structure equipped with appropriate air venting/filtering systems.

## C-15 DUST CONTROL PLAN

A dust suppression plan that addresses dust management during invasive on-site work will be developed prior to excavation. At a minimum, the items listed below:

- Dust suppression will be achieved though the use of a dedicated on-site water truck for road wetting. The truck will be equipped with a water cannon capable of spraying water directly onto off-road areas including excavations and stockpiles.

- Clearing and grubbing of larger sites will be done in stages to limit the area of exposed, un-vegetated soils vulnerable to dust production.
- Gravel will be used on roadways to provide a clean and dust-free road surface.
- On-site roads will be limited in total area to minimize the area required for water truck sprinkling.

## C-16 OTHER NUISANCES

A plan for rodent control will be developed and utilized by the contractor, if necessary, prior to and during site clearing and site grubbing, and during all remedial work.

A plan will be developed and utilized by the contractor for all remedial work to ensure compliance with local noise control ordinances.

**APPENDIX D**

**RESPONSIBILITIES of OWNER**

The responsibilities for implementing the Site Management Plan ("SMP") for the Loohns Cleaners site (the "site"), number 851028 are the site owner(s), as defined below. The owner(s) is/are currently listed as:

> 35-55 Pulteney Street, LLC, 58 South Oakwood Drive Painted Post, New York 14870 (the "owner").

Nothing on this page shall supersede the provisions of an Environmental Easement, or Consent Decree, or other legally binding document that affects rights and obligations relating to the site.

**<u>Site Owner's Responsibilities:</u>**

1) The owner shall follow the provisions of the SMP as they relate to future construction and excavation at the site.

2) In accordance with a periodic time frame determined by the NYSDEC, the owner shall periodically certify, in writing, that all Institutional Controls set forth in a(n) Environmental Easement remain in place and continue to be complied with. The owner shall include the certification in the site's Periodic Review Report (PRR) certification to the NYSDEC.

3) In the event the site is delisted, the owner remains bound by the Environmental Easement and shall submit, upon request by the NYSDEC, a written certification that the Environmental Easement is still in place and has been complied with.

4) The owner shall perform activities required under the SMP, assuring compliance with the SMP.

5) The owner is responsible for assuring the security of the remedial components located on its property to the best of its ability. In the event that damage to the

remedial components or vandalism is evident, the owner shall notify the NYSDEC in accordance with the timeframes indicated in Section 1.3 - Notifications.

6) In the event some action or inaction by the owner adversely impacts the site, the owner must notify the NYSDEC in accordance with the time frame indicated in 1.3 - Notifications and (ii) coordinate the performance of necessary corrective actions.

7) The owner must notify the NYSDEC of any change in ownership of the site property (identifying the tax map numbers in any correspondence) and provide contact information for the new owner of the site property. 6 NYCRR Part contains notification requirements applicable to any construction or activity changes and changes in ownership. Among the notification requirements is the following: Sixty days prior written notification must be made to the NYSDEC. Notification is to be submitted to the NYSDEC Division of Environmental Remediation's Site Control Section. Notification requirements for a change in use are detailed in Section 2.4 of the SMP. A 60-Day Advance Notification Form and Instructions are found at http://www.dec.ny.gov/chemical/76250.html.

8) The Owner remains ultimately responsible for maintaining the engineering controls.

9) Until such time as the NYSDEC deems the vapor mitigation system unnecessary, the owner shall operate the system, pay for the utilities for the system's operation, and report any maintenance issues to the RP and the NYSDEC.

10) In accordance with the tenant notification law, within 15 days of receipt, the owner must supply a copy of any vapor intrusion data, that is produced with respect to structures and that exceeds NYSDOH or OSHA guidelines on the site, whether produced by the NYSDEC, RP, or owner, to the tenants on the property. The owner must otherwise comply with the tenant and occupant notification provisions of Environmental Conservation Law Article 27, Title 24.

# APPENDIX E

# SITE MANAGEMENT FORMS

Loohn's Corning Site
NYSDEC Site # 851028

# Form 1: SVE/SSD Monthly Inspection & Monitoring

**Please read the Standard Operating Procedure on page two of the Construction Completion Report (Site Management Plan - Appendix F) before completing this inspection. Please keep all completed inspection forms with the SMP binder.**

Date: _________________ Name of Inspector: __________________________________

Weather Conditions: ____________________________________________________________

1. Have there been any changes in structure, HVAC, slab conditions, etc. to the building?
   ☐ Yes ☐ No
   If yes, describe the changes: _______________________________________________________

   ________________________________________________________________________________

2. Table 6 of the SMP (page 23) lists system components and monitoring parameters. Visually inspect all components of the system for proper operation and/or leaks.
   Are there any visible leaks? ☐ Yes ☐ No
   If yes, describe: ____________________________________________________________________

   ________________________________________________________________________________

3. Visually inspect the discharge point outside the building.
   Are there any visible obstructions? ☐ Yes ☐ No
   If yes, describe: ____________________________________________________________________

   ________________________________________________________________________________

4. Carefully inspect the concrete floor.
   Are there any freshly drilled holes or cracks? ☐ Yes ☐ No
   If yes, describe location: ______________________________________________________________

   ________________________________________________________________________________

**IF yes is answered to any of the above questions, please contact Edward J. Hinchey, P.G. at (315) 256-5355. (Qualified Environmental Professional with IES, Inc.).**

5. Is the Blower running? ☐ Yes ☐ No

| FAN/Blower ID: | Current Reading | Expected Value | % Difference | Comments |
|---|---|---|---|---|
| Vacuum (in-wc) | | | | |
| Airflow (CFM) | | | | |

# Form 2: Annual Site Wide Inspection

**This inspection should be performed annually. Please keep all inspection forms with the SMP binder.**

Date: ________________ Name of Inspector: ________________________________________

Weather Conditions: ______________________________________________________________

1. Have there been any changes to site usage (i.e. new tenants, construction) on the property in the last year?
   ☐ Yes ☐ No
   If yes, describe the changes: ______________________________________________________

   ______________________________________________________________________________

2. Have there been any changes in ownership of the property?
   ☐ Yes ☐ No
   If yes, describe: _______________________________________________________________

   ______________________________________________________________________________

3. Is there a hard copy of the Site Management Plan (SMP) on site?
   ☐ Yes ☐ No

4. Visually inspect the SVE/SDE System. Does it appear to be working properly?
   ☐ Yes ☐ No

5. Are there completed records of monthly inspections of the SVE/SSD system on site?
   ☐ Yes ☐ No

6. Please review all records of monthly inspections. If "yes" was answered to any questions, please contact Ed Hinchey before moving on to item 7.

7. Sign and date the statement below (to be submitted with the Periodic Review Report to the NYSDEC).

---

I ________________________________, certify that all Institutional Controls set forth in the Environmental Easement remain in place and continue to be complied with.

1. The property may be used for: restricted residential/ commercial or industrial use.
2. There have been no changes to the Environmental Easement.

Signature: __________________________________________ date: ________________

Loohn's Corning Site
NYSDEC Site # 851028

# Form 2A: Operations and Maintenance Inspection

**This inspection should be performed after system maintenance and/or severe weather events or storms that may have impacted site conditions (i.e., loss of power, fallen trees, ice damage). Please keep all inspections forms in the SMP binder.**

Date: _________________ Name of Inspector: __________________________________

Weather Conditions: ____________________________________________________________

1. What event caused the need for this inspection (i.e. maintenance, severe storm)?
   Describe how the event impacted the property in any way: _______________________________

   ___________________________________________________________________________________

   ___________________________________________________________________________________

2. Is the SVE/SSD system running? ☐ Yes ☐ No
   If no, how long has it been down? ____________________________________________________

3. Did the system lose power? ☐ Yes ☐ No
   If yes, how long was it down for? _____________________________________________________

   ___________________________________________________________________________________

4. Was there any damage to the SVE/SSD system? ☐ Yes ☐ No
   If yes, describe: ___________________________________________________________________

   ___________________________________________________________________________________

5. Visually inspect the SVE/SSD system. Is the system currently operating according to the Site Management Plan (SMP)?
   ☐ Yes ☐ No
   **If no, please contact Ed Hinchey, P.G. at (315)256-5355 (Qualified Environmental Professional).**

# APPENDIX F

# SVE/SSD O&M MANUAL

# CONSTRUCTION COMPLETION REPORT

April 2, 2012

Eric C. Sandin
Project Manager
AMEC Environment & Infrastructure
511 Congress Street | Suite 200
Portland, Maine 04101
*Via email: eric.sandin@amec.com*

Re: Former Loohns Cleaners Site # 3-44-055, 34 East Pulteny St., Corning, NY
Contract# D004434-35
Construction Report for sub-slab depressurization system
Date of Completion: January 25, 2012

This document presents a construction report, performance evaluation, O&M advice and certification of effectiveness for the sub-slab depressurization (SSD) system installed at 34 East Pulteny St., Corning, NY

**Overview**

The subject area includes an approximately 600 square foot portion of a commercial use building, consisting of slab on grade one story construction. The area is bounded on the rear by an alley and on the east and west sides by active businesses. Based on an analysis of sub-slab air communication data and a general building assessment, a single suction point SSD System was installed using principles and equipment typically used for radon mitigation in buildings. The primary objective of implementing this measure was to mitigate potential intrusion of vapors related to former dry cleaning operations that could migrate into occupied space from beneath the slab. This would be achieved by maintaining a negative pressure of at least .004 water column inches (wci) below the concrete slab relative to the air pressure above the slab in the subject area. All work is in compliance with the NYS DOH document, "Guidance for Evaluating Soil Vapor Intrusion in the State of New York, October 2006".

**Work Description**

Work began with a general building assessment to determine appropriate and likely locations for fan, suction cavity and other SSD system components. Sub-slab air communication testing, supported by observations during slab drilling, suggested that a properly positioned single suction cavity would provide minimum acceptable vacuum influence to the subject area.
.

A suction cavity was constructed in the rear utility area near the furnace. The cavity consisted of approximately two cubic foot of excavated material, accessed through a 16” x 16” cut in the slab. The cavity was excavated to a depth of 22” with the intent of modifying its primary sub-slab depressurizing function to include also a limited degree of soil vapor extraction. Excavated material was coarse sand mixed with fine gravel. Cavity was backfilled with coarse gravel. Suction cavity was connected by 3” SCH 40 PVC risers to an appropriately sloped horizontal pipe exiting the rear sidewall of the building. All pipe was secured by metal hardware.

The vacuum fan was located at the rear of the building about 10’ above grade and has an exhaust extending about two feet above the roof line. The fan model is a RADONAWAY GP-501, selected after testing as a good combination of performance, efficiency and durability. The fan has an adjacent weatherproof switch with *Sealtite* conduit connected to new breaker at the electrical panel near the rear entrance. The fan is held in place by 3” x 3” Fernco rubber couplings and is not audible in the building interior. Estimated power consumption is 150w. The fan is creating a vacuum of approximately 3.5 wci (water column inch) and is removing about 30 CFM from the sub-slab. Discharge is direct to atmosphere. A U-tube style manometer was installed on the pipe to indicate the presence of vacuum. Floor cracks and other slab penetrations were inspected for air leakage and polyurethane sealant applied where necessary. The fan was painted on site to resist yellowing.

The SSD System was energized and inspected for leaks, backdrafting, labeling and proper component operation. In order to verify system effectiveness and as a performance evaluation, four test points (TP) were established at distances from the suction cavities suitable to determine that the sub-slab of the subject area was being depressurized at least to the objective, as shown in the following table:

| **TP#** | **Location/distance from suction point** | **Vacuum in negative wci** |
|---|---|---|
| 1 | Center, 18’ | .081 |
| 2 | Center, east, 11’ | .166 |
| 3 | Center, east, 13’ | .079 |
| 4 | Center, 28’ | .009 |

Test points consist of a 5/8” drill hole through the slab, cleaned by vacuuming, and semi-permanently closed with closed cell backer rod and polyurethane sealant. Readings were by a Fluke Model 922 Micromanometer.

Work concluded about 6:00 PM on January 25, 2012, and system was left in operating condition. Site was cleaned and items restored to original positions. All debris and unused materials were removed from site.

See attached schematic for component locations

## Standard Operating Procedure

1. Become familiar with the Sub-Slab Depressurization (SSD) System which has been permanently installed in this building to mitigate the potential intrusion of harmful soil vapor. This system consists of a vacuum fan, pipes, indicator gauge and other components designed to create vacuum beneath the concrete slab.
2. Leave fan in continuous operation, except for emergency conditions. Fans restart automatically in event of power loss. The fan has an on/off switch mounted near the fan on the exterior of the building. In the event of unusual fan noise, failure to start, or repeated circuit breaker trip, turn fan off and call for service.
3. Regularly inspect fan gauge to verify that the value, indicated by a mark on the gauge, has not changed significantly from the position of the mark. Gauge is inspected by observing the level of colored fluid.

4. Normal system operation requires unchanged structural conditions. Report any changes in structure, HVAC systems, slab conditions, etc., so that the change can be evaluated for impact on the SSD System. For service, call MITIGATION TECH at 1-800-637-9228
5. Ensure that a periodic inspection is performed, to include the following:
   - Visual inspection of the complete Sub-Slab Depressurization System (e.g., vent fan, piping, vacuum gauge, labeling, etc.)
   - Inspection of all components for condition and proper operation
   - Identification of any leaks in accordance with Sections 4.3.1(a) of the NYS DOH Guidance
   - Inspection of the discharge point to verify that no air intakes have been located nearby
   - Performance of pressure field extension testing (to ensure that the system is maintaining a vacuum beneath the slab)

**Annual Maintenance Procedure**

1. Conduct a visual inspection of the complete System (e.g., vent fan, piping, warning devices, labeling on system, etc.);
2. Conduct an inspection of all surfaces to which vacuum is applied;
3. Inspect all components for condition and proper operation;
4. Identify and repair any leaks in accordance with Sections 4.3.1(a) and 4.3.4(a) of the Guidance (i.e.; with the systems running, smoke tubes will used to check for leaks through concrete cracks, floor joints and at the suction points and any leaks will be resealed until smoke is no longer observed flowing through the opening).
5. Inspect the exhaust or discharge point(s) to verify that no air intakes have been located nearby;
6. Conduct pressure field extension testing (to ensure that the system is maintaining a vacuum beneath the entire slab) ; and
7. Interview an appropriate occupant seeking comments and observations regarding the operation of the System.

**Certification**

I hereby certify that the SSD System at this location is installed properly and is effective in achieving its above stated purpose.

Nicholas E. Mouganis EPA listing # 15415-I; NEHA ID# 100722

# OPERATION AND MAINTENANCE INSTRUCTIONS

Former Loohns Cleaners Site # 3-44-055

34 East Pulteny St., Corning, NY

### Standard Operating Procedure

1. Become familiar with the Sub-Slab Depressurization (SSD) System which has been permanently installed in this building to mitigate the potential intrusion of harmful soil vapor. This system consists of a vacuum fan, pipes, indicator gauge and other components designed to create vacuum beneath the concrete slab.
2. Leave fan in continuous operation, except for emergency conditions. Fans restart automatically in event of power loss. The fan has an on/off switch mounted near the fan on the exterior of the building. In the event of unusual fan noise, failure to start, or repeated circuit breaker trip, turn fan off and call for service.
3. Regularly inspect fan gauge to verify that the value, indicated by a mark on the gauge, has not changed significantly from the position of the mark. Gauge is inspected by observing the level of colored fluid.
4. Normal system operation requires unchanged structural conditions. Report any changes in structure, HVAC systems, slab conditions, etc., so that the change can be evaluated for impact on the SSD System. For service, call MITIGATION TECH at 1-800-637-9228
5. Ensure that a periodic inspection is performed, to include the following:
   - Visual inspection of the complete Sub-Slab Depressurization System (e.g., vent fan, piping, vacuum gauge, labeling, etc.)
   - Inspection of all components for condition and proper operation
   - Identification of any leaks in accordance with Sections 4.3.1(a) of the NYS DOH Guidance
   - Inspection of the discharge point to verify that no air intakes have been located nearby
   - Performance of pressure field extension testing (to ensure that the system is maintaining a vacuum beneath the slab)

**For service, call MITIGATION TECH**
**1-800-637-9228**

**Annual Maintenance Procedure**

1. Conduct a visual inspection of the complete System (e.g., vent fan, piping, warning devices, labeling on system, etc.);
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3. Inspect all components for condition and proper operation;
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5. Inspect the exhaust or discharge point(s) to verify that no air intakes have been located nearby;
6. Conduct pressure field extension testing (to ensure that the system is maintaining a vacuum beneath the entire slab) ; and
7. Interview an appropriate occupant seeking comments and observations regarding the operation of the System.

**For service, call MITIGATION TECH**
**1-800-637-9228**

**55 SHUMWAY ROAD, BROCKPORT, NEW YORK, 14420 * OFFICE/FAX 585-637-7430**

# APPENDIX G

## Construction Completion Report – SVE, May 2012

# CONSTRUCTION COMPLETION REPORT
# SOIL VAPOR EXTRACTION IRM
# LOOHNS CORNING SITE
# SITE # 851028

**WORK ASSIGNMENT NO. D004434-35**

**Prepared for:**

**New York State Department of Environmental Conservation**
**Albany, New York**

**Prepared by:**

**MACTEC Engineering and Consulting, PC**
**Portland, Maine**

**MACTEC No: 3612102148**

**MAY 2012**

CONSTRUCTION COMPLETION REPORT
SOIL VAPOR EXTRACTION IRM
LOOHNS CORNING SITE
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MACTEC No: 3612102148

MAY 2012

| Submitted by: | Approved by: |
|---|---|
| ______________________________ | ______________________________ |
| Eric C. Sandin | Mark J. Stelmack, P.E. |
| Project Manager | Principal Professional |

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# GLOSSARY OF ACRONYMS AND ABBREVIATIONS

| | |
|---|---|
| CCR | Construction Completion Report |
| FS | Feasibility Study |
| IRM | Interim Remedial Measure |
| MACTEC | MACTEC Engineering and Consulting, P.C. |
| NYS | New York State |
| NYSDEC | New York State Department of Environmental Conservation |
| NYSDOH | New York State Department of Health |
| PCE | tetrachloroethene |
| PVC | polyvinyl chloride |
| RI | Remedial Investigation |
| SC | Site Characterization |
| Site | Loohns Corning site |
| SVE | soil vapor extraction |
| $\mu g/m^3$ | microgram(s) per cubic meter |
| VOC | volatile organic compound |
| wci | water column (inches) |

# 1.0 INTRODUCTION AND SITE BACKGROUND

MACTEC Engineering and Consulting, P.C. (MACTEC) under contract to the New York State Department of Environmental Conservation (NYSDEC), is conducting a Remedial Investigation/Feasibility Study (RI/FS) at the Loohns Corning site (Site), a former dry cleaner in Corning, New York (Figure 1.1). The Site is listed as Class 2 Inactive Hazardous Waste Site No. 8-51-028 in the Registry of Hazardous Waste Sites in New York State (NYS).

MACTEC prepared this Construction Completion Report (CCR) to document an Interim Remedial Measure (IRM) performed in January 2012.

This CCR has been prepared in accordance with the NYSDEC requirements in work assignment No. D004434-35 dated February 19, 2010; with the July 2005 Superfund Standby Contract between MACTEC and the NYSDEC; and with DER-10/Technical Guidance for the Completion of Site Investigation and Remediation (NYSDEC, 2010).

## 1.1 SITE LOCATION

The Site is located at 37 East Pulteney Street in the City of Corning, Steuben County, New York. (Figure 1.1). The Site property consists of 0.5 acres including a light commercial/retail building with a large front parking lot. According to the City of Corning Assessor's office, the Site building was constructed in 1971. A former dry cleaner occupied one of the center commercial spaces. The building is one story and is slab-on-grade.

## 1.2 RI/FS AND IRM OVERVIEW

Based on the findings from a Site Characterization (SC) completed by MACTEC (MACTEC, 2007) and other prior environmental investigations, the NYSDEC reclassified the Site as a Class 2 Inactive hazardous waste site (Site No. 851028), and in 2010 directed MACTEC to perform a RI/FS.

The RI investigation was conducted based on the presence of chlorinated volatile organic compounds (VOCs), specifically tetrachloroethene (PCE), in Site media. PCE is a listed hazardous waste under

Title 6 of the New York Codes, Rules, and Regulations Part 371 (NYS, 1999). Based on SC and historical data, PCE is present in groundwater, soil, soil vapor (sub-slab and exterior soils), and indoor air at the Site. As a result of reported concentrations of PCE in soil, groundwater, sub-slab soil vapor, and indoor air samples, NYSDEC recommended further action. Although concentrations and locations of PCE detected in groundwater indicate a release at the Site, results do not indicate that PCE contamination is migrating off-site in groundwater at concentrations above the NYS GA standard.

During the RI, the NYSDEC identified a soil removal IRM as a priority. The NYSDEC determined that removing accessible contaminated soil would be an appropriate remedial action to mitigate residual soil contamination and potentially reduce levels of PCE in sub-slab vapor beneath the Site structure.

In June 2010, MACTEC conducted a sampling investigation to further evaluate the area of impacted soils and provide supporting data needed to design a soil removal IRM (MACTEC, 2011). In December 2010, removal of accessible impacted soil from the apparent release area to the rear of the former dry cleaners was completed. As part of the soil IRM, MACTEC installed a soil vapor extraction (SVE) well within the backfilled excavation that could be used for further source area contaminant reduction, if needed.

In June 2011, MACTEC collected groundwater samples from the two permanent monitoring wells and collected soil vapor samples from the exterior extraction well and from a sub-slab location within the former dry cleaner space. This sampling indicated reduced levels of impact to Site groundwater, but persistent elevated levels of PCE in sub-slab vapor. Based on the results, the NYSDEC identified a SVE IRM as a priority. The NYSDEC determined that installing a modified SVE system would be an appropriate remedial action to reduce residual source area impact in shallow soil beneath the building slab and to mitigate potential human exposure to potential soil vapor impact.

In January 2012, MACTEC installed a modified SVE system within the former dry cleaner. The system includes a single extraction point located in the rear hallway with a radon-type fan used to extract sub-slab vapor and vent above the structure roof. The system is currently operating. In February 2012, MACTEC collected sub-slab and indoor air samples to document post-SVE IRM conditions. A RI/FS Report was submitted to NYSDEC in February 2012 (MACTEC, 2012). The report identified the completion of the SVE IRM but did not include system specifics or post-IRM results. The SVE IRM and post-IRM sampling is presented in this CCR.

## 1.3 IRM BIDDING INFORMATION AND AWARD

The NYSDEC identified the scope of the SVE IRM. MACTEC issued Request for Quotations on November 11, 2011. Bids were received from three responsive bidders. MACTEC reviewed the bids and recommended award to Mitigation Tech of Brockport, New York based on price, technical capability, and their ability to meet the project schedule. The NYSDEC authorized the award and MACTEC executed a subcontract agreement with mitigation Tech for the SVE IRM. Mitigation Tech's bid price was $4,650.00.

The SVE IRM was performed in January 2012.

# 2.0 IRM SCOPE OF WORK

## 2.1 DESCRIPTION OF IRM

The NYSDEC determined that an IRM consisting of a Modified Sub-Slab Vapor Extraction System was required at the Loohns Site. The IRM included the installation of a vapor point in a rear utility room in the former dry cleaner space. The vapor point was installed within a cavity excavated to a depth of 22 inches to provide a local vapor extraction function as well as general sub-slab depressurization.

The elements of the 2012 IRM included:

- a 16 x 16-inch saw cut opening in the concrete slab, excavated to a depth of 22 inches
- a vertical perforated 3-inch polyvinyl chloride (PVC) vapor point installed within the excavated cavity and surrounded by washed crushed stone backfill
- three-inch solid PVC riser extending vertically from floor opening and piped horizontally through the building wall at a height of 10-feet above grade
- one Radonaway GP-501 in-line fan mounted on the exterior wall with 3-inch PVC riser extending two feet above the roofline to vent extracted air
- an exterior electrical switch in the vicinity of the fan
- waterproof electrical conduit extending from the fan housing to the existing electrical panel on the rear wall of the building
- new concrete installed to seal the floor opening around solid PVC.
- a U-tube vacuum indicator on the vertical pipe run
- a test port on the exhaust stack
- sealing of observed slab joints, penetrations, and cracks in the vicinity of the suction point

## 2.2 PROJECT PREPARATION AND GOVERNING DOCUMENTS

MACTEC prepared project plans detailing the work elements, submittals, schedule, and project requirements. These were provided to bidders during the contractor selection process. Once the NYSDEC approved the subcontract award, MACTEC worked with the selected bidder (Mitigation Tech) to develop and review project plans for execution of the work.

Mitigation Tech submitted a Work Plan that was accepted by MACTEC in final form on January 17, 2012. The work plan provided descriptions of the methods, procedures, equipment and materials to be used to complete the project.

## 2.3 IRM EXECUTION

### 2.3.1 IRM Construction

The IRM construction was completed on January 25, 2012. Mitigation Tech completed all elements required in the Scope of Work. A Construction Report provided by the contractor is included in Appendix A.

After the fan was installed and operating, the vacuum was checked at the vapor test points that were installed in November 2011. The results, in inches of water column (wci) were:

TP-1 0.081 wci
TP-2 0.166 wci
TP-3 0.079 wci
TP-4 0.009 wci

The manometer reading at the suction point was 3.5”wci.

The system was determined to be operating successfully. Operation and Maintenance Instructions provided by Mitigation Tech are included in Appendix B.

### 2.3.2 Post-Construction Air and Vapor Surveys

As directed by the NYSDEC, MACTEC returned to the site on February 29, 2012 to collect indoor air and soil vapor samples to document conditions after the SVE system had been operating for a month. Samples were collected from the former dry cleaner space and the adjoining businesses located on either side of the former cleaner.

**Table 2.1: IRM Documentation Samples**

| Structure | Location | Date | Sample ID | Media |
|---|---|---|---|---|
| 03 (Tanning Salon) | IA-03 | 2/29/2012 | LCIA003001 | Air |
| 03 (Tanning Salon) | SV-03 | 2/29/2012 | LCSV003001 | Vapor |
| 04 (former Loohns Cleaner) | IA-04 | 2/29/2012 | LCIA004001 | Air |
| 04 (former Loohns Cleaner) | SV-04 | 2/29/2012 | LCSV004001 | Vapor |
| 05 (Tattoo Parlor) | IA-05 | 2/29/2012 | LCIA005001 | Air |
| 05 (Tattoo Parlor) | SV-05 | 2/29/2012 | LCSV005001 | Vapor |

Sample locations are shown in Figure 2.1. Structure 03 is an active business (tanning salon). The indoor air sample was obtained from the utility room at the rear (north) of the structure. The soil vapor sample was obtained from a closet within the utility room. At the former dry cleaner (Structure 04), that soil vapor sample was collected from the central hallway leading to the rear (north) exit. It is located near former soil vapor sample SV-01 collected during the RI. The indoor air sample was collected from a central location. At Structure 05, the indoor air and soil vapor samples were obtained from a storage room in the north portion of the business space and near the west wall shared with the former dry cleaner. MACTEC conducted a survey at each structure using the New York State Department of Health (NYSDOH) “Indoor Air Quality Questionnaire and Building Inventory” form. The completed surveys include sketches of the structure layout and the locations of the air and sub-slab samples. The survey forms and sampling field records are provided in Appendix C. Photographs of the IRM and post-IRM activities are included in Appendix D.

The air and sub-slab samples were collected into 6-liter SUMMA-type canisters over a 24-hour period. The air and vapor sample were analyzed by Enalytic, LLC of Syracuse for VOCs by United States Environmental Protection Agency Method TO-15.

The sample results are shown in Table 2.2. The results indicate that the IRM is effectively controlling vapor intrusion into the building interior and that modified SVE system is removing contaminants from under the slab. The concentration of PCE in sub-slab vapor at the former dry cleaner dropped from 130,000 micrograms per cubic meter (µg/m$^3$) in June 2011, as reported in the RI/FS Report (MACTEC, 2012), to 290 µg/m$^3$. PCE concentrations in sub-slab vapor in the samples from the adjoining structures were 48 µg/m$^3$ (SV-03) and 990 µg/m$^3$ (SV-05). Concentrations of PCE in indoor air samples were low, ranging from 7.2 $\mu g/m^3$ (IA-03) to 11 $\mu g/m^3$ (IA-05). These concentrations are well below the NYSDOH guideline for PCE in indoor air of 100 $\mu g/m^3$ (NYSDOH, 2006).

### 2.3.3 Health and Safety

Work was performed by Mitigation Tech under a Site-specific Health and Safety Plan. MACTEC's Site engineer, Mr. David Lovejoy, oversaw and documented the IRM activities and served as MACTEC's Health and Safety Officer. Mr. Lovejoy conducted a work plan/safety meeting before the work commenced to review the planned tasks and associated safety hazards.

All work was accomplished under Level D personal protective equipment. The outdoor air temperature during the period of construction was consistently slightly above freezing. This served to minimize the potential for volatile organic release to air. No VOCs were recorded in the breathing zone or near the excavation faces during the excavation. Dust monitoring was not deemed necessary by the NYSDEC due to the limited nature of the excavation, the weather, and on-site conditions.

All work was accomplished safely and there were no safety or health incidents during the course of the project.

# 3.0 REFERENCES

MACTEC, 2007. Final Site Characterization Report, Region 8 Dry Cleaning Sites, Loohns Corning Site, Corning, New York, March 2007.

MACTEC, 2011. Construction Completion Report Loohns Corning Site # 851028, MACTEC Engineering and Consulting, P.C., February 2011.

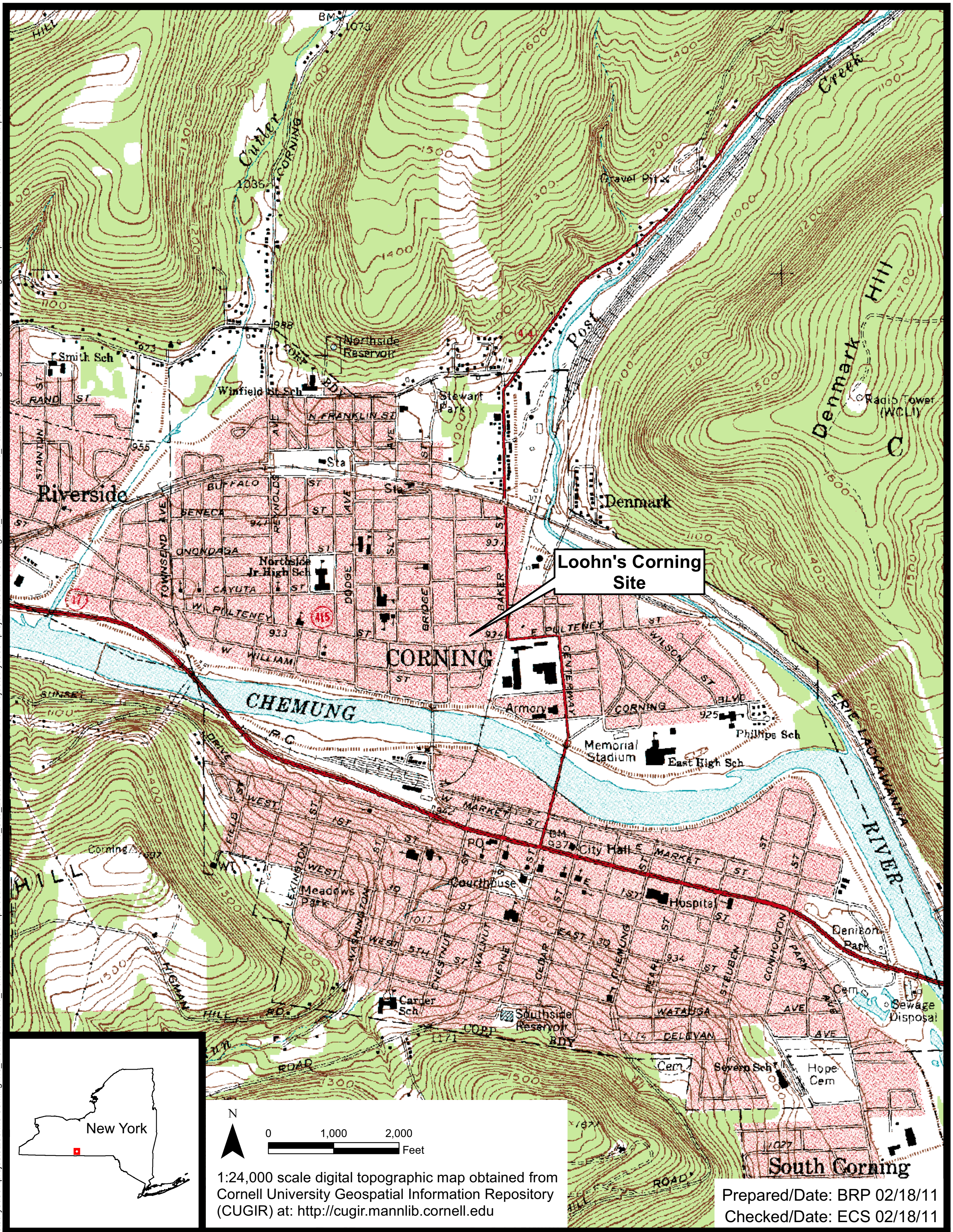
MACTEC, 2012. Remedial Investigation / Feasibility Study Report Loohns Corning Site #851028, February 2012.

NYS, 1999. New York Codes, Rules, and Regulations, Title 6, Part 371- Identification and Listing of Hazardous Wastes. Amended November 1999.

NYSDEC, 2010. DER-10/Technical Guidance for Site Investigation and Remediation, FINAL, May 3 2010

NYSDOH, 2006. Guidance for Evaluating Soil Vapor Intrusion in the State of New York. Final, October 2006.

**FIGURES**




1:24,000 scale digital topographic map obtained from Cornell University Geospatial Information Repository (CUGIR) at: http://cugir.mannlib.cornell.edu

Prepared/Date: BRP 02/18/11
Checked/Date: ECS 02/18/11

CONSTRUCTION COMPLETION REPORT
LOOHNS CORNING SITE
CORNING, NEW YORK

MACTEC

SITE LOCATION

Project 3612-10-2148 Figure 1.1

Document: P:\Projects\nysdec1\projects\Loohns Corning\4.0_Deliverables\4.5_Databases\GIS\MapDocuments\Loohns_Site_Location.mxd PDF: P:\Projects\nysdec1\projects\Loohns Corning\4.0_Deliverables\4.5_Databases\GIS\Figures\Loohns - CCR\Figure 1.1.pdf 02/18/2011 8:18 AM brpeters


Steuben County color digital orthoimagery (2002) obtained from New York State GIS Clearinghouse at: http://www.nysgis.state.ny.us

Prepared/Date: BRP 04/06/12
Checked/Date: BAS 04/06/12

CONSTRUCTION COMPLETION REPORT
LOOHNS CORNING SITE
CORNING, NEW YORK

MACTEC

SOIL VAPOR INTRUSION SAMPLE LOCATIONS
Project 3612-10-2148 Figure 2.1

**TABLES**

**Table 2.2: IRM Indoor Air and Sub-slab Vapor Sample Results**

| **Structure ID** | Structure 3 | | | | Structure 4 | | | | Structure 5 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Location** | IA-03 | | SV-03 | | IA-04 | | SV-04 | | IA-05 | | SV-05 | |
| **Sample Date** | 2/29/2012 | | 2/29/2012 | | 2/29/2012 | | 2/29/2012 | | 2/29/2012 | | 2/29/2012 | |
| **Sample ID** | LCIA003001 | | LCSV003001 | | LCIA004001 | | LCSV004001 | | LCIA005001 | | LCSV005001 | |
| **QC Code** | FS | | FS | | FS | | FS | | FS | | FS | |
| **Parameter Name** | Result | Qualifier | Result | Qualifier | Result | Qualifier | Result | Qualifier | Result | Qualifier | Result | Qualifier |
| 1,2,4-Trimethylbenzene | 1 | U | **1.6** | | 1 | U | 1 | U | 1 | U | **9.1** | |
| 1,2-Dichloroethane | 0.82 | U | 0.82 | U | 0.82 | U | 0.82 | U | **0.91** | | 0.82 | U |
| 1,3,5-Trimethylbenzene | **0.5** | J | **2.6** | | 1 | U | **0.6** | J | 1 | U | **17** | |
| 2-Butanone | **3.8** | | **2.7** | | **2.1** | | **1.6** | | **1.9** | | **16** | |
| 2-Propanol | **21** | | **31** | | **28** | | **16** | | **14000** | | **110** | |
| 4-Ethyltoluene | 1 | U | **1.6** | | 1 | U | 1 | U | 1 | U | **9.7** | |
| 4-Methyl-2-pentanone | 0.83 | U | **0.5** | J | 0.83 | U | 0.83 | U | **0.8** | J | **4.9** | |
| Acetone | **23** | | **26** | | **24** | | **15** | | **240** | | **130** | |
| Benzene | **0.91** | | **1.9** | | **0.88** | | **0.6** | J | **0.91** | | **11** | |
| Carbon disulfide | 0.63 | U | **1.5** | | 0.63 | U | 0.63 | U | **0.5** | J | **5.4** | |
| Carbon tetrachloride | **0.51** | | 1.3 | U | **0.51** | | 1.3 | U | **0.51** | | 1.3 | U |
| Chloromethane | **1.4** | | 0.42 | U | **1.5** | | 0.42 | U | **1.6** | | 0.42 | U |
| Dichlorodifluoromethane | **2.5** | | **4.5** | | **2.6** | | **2.5** | | **2.6** | | **2.6** | |
| Ethyl benzene | **0.7** | J | **1** | | 0.88 | U | 0.88 | U | 0.88 | U | **5.2** | |
| Heptane | 0.83 | U | **13** | | 0.83 | U | 0.83 | U | 0.83 | U | **110** | |
| Hexane | 0.72 | U | **9.5** | | 0.72 | U | 0.72 | U | 0.72 | U | **110** | |
| Styrene | 0.87 | U | **1.3** | | 0.87 | U | 0.87 | U | 0.87 | U | 0.87 | U |
| Tetrachloroethene | **7.2** | | **48** | | **4.6** | | **290** | | **11** | | **990** | |
| Tetrahydrofuran | 0.6 | U | 0.6 | U | **1.6** | | 0.6 | U | **1.4** | | 0.6 | U |
| Toluene | **2.8** | | **5.1** | | **2.1** | | **3.4** | | **3.3** | | **110** | |
| Trichloroethene | **0.2** | J | 1.1 | U | 0.22 | U | 1.1 | U | **0.2** | J | **1.4** | |
| Trichlorofluoromethane | **1.4** | | **1.4** | | **3.4** | | **3.4** | | **2.3** | | **2.5** | |
| Xylene, o | **0.8** | J | **1.6** | | **0.5** | J | **0.5** | J | **0.5** | J | **12** | |
| Xylenes (m&p) | **1.8** | | **4.9** | | **1** | J | **1** | J | **1** | J | **40** | |

**Notes:**
SVI = Soil Vapor Intrusion
VOCs = volatile organic compounds

Samples analyzed by EPA Method TO-15
Results in micrograms per cubic meter (µg/m3).
Detected compounds shown in **bold.**

Qualifiers
U = not detected at the reporting limit
J = estimated concentration

FS = Field Sample
IA = indoor air
SV = sub-slab soil vapor



Created by: BJS 4/25/2012
Checked by: BAS 4/25/2012

# APPENDIX A

# MITIGATION TECH CONSTRUCTION COMPLETION REPORT

mitigation tech *vapor intrusion specialists*

# CONSTRUCTION COMPLETION REPORT

April 2, 2012

Eric C. Sandin
Project Manager
AMEC Environment & Infrastructure
511 Congress Street | Suite 200
Portland, Maine 04101
*Via email: eric.sandin@amec.com*

Re: Former Loohns Cleaners Site # 3-44-055, 34 East Pulteny St., Corning, NY
Contract# D004434-35
Construction Report for sub-slab depressurization system
Date of Completion: January 25, 2012

This document presents a construction report, performance evaluation, O&M advice and certification of effectiveness for the sub-slab depressurization (SSD) system installed at 34 East Pulteny St., Corning, NY

**Overview**

The subject area includes an approximately 600 square foot portion of a commercial use building, consisting of slab on grade one story construction. The area is bounded on the rear by an alley and on the east and west sides by active businesses. Based on an analysis of sub-slab air communication data and a general building assessment, a single suction point SSD System was installed using principles and equipment typically used for radon mitigation in buildings. The primary objective of implementing this measure was to mitigate potential intrusion of vapors related to former dry cleaning operations that could migrate into occupied space from beneath the slab. This would be achieved by maintaining a negative pressure of at least .004 water column inches (wci) below the concrete slab relative to the air pressure above the slab in the subject area. All work is in compliance with the NYS DOH document, "Guidance for Evaluating Soil Vapor Intrusion in the State of New York, October 2006".

**Work Description**

Work began with a general building assessment to determine appropriate and likely locations for fan, suction cavity and other SSD system components. Sub-slab air communication testing, supported by observations during slab drilling, suggested that a properly positioned single suction cavity would provide minimum acceptable vacuum influence to the subject area.
.

A suction cavity was constructed in the rear utility area near the furnace. The cavity consisted of approximately two cubic foot of excavated material, accessed through a 16" x 16" cut in the slab. The cavity was excavated to a depth of 22" with the intent of modifying its primary sub-slab depressurizing function to include also a limited degree of soil vapor extraction. Excavated material was coarse sand mixed with fine gravel. Cavity was backfilled with coarse gravel. Suction cavity was connected by 3" SCH 40 PVC risers to an appropriately sloped horizontal pipe exiting the rear sidewall of the building. All pipe was secured by metal hardware.

The vacuum fan was located at the rear of the building about 10' above grade and has an exhaust extending about two feet above the roof line. The fan model is a RADONAWAY GP-501, selected after testing as a good combination of performance, efficiency and durability. The fan has an adjacent weatherproof switch with *Sealtite* conduit connected to new breaker at the electrical panel near the rear entrance. The fan is held in place by 3" x 3" Fernco rubber couplings and is not audible in the building interior. Estimated power consumption is 150w. The fan is creating a vacuum of approximately 3.5 wci (water column inch) and is removing about 30 CFM from the sub-slab. Discharge is direct to atmosphere. A U-tube style manometer was installed on the pipe to indicate the presence of vacuum. Floor cracks and other slab penetrations were inspected for air leakage and polyurethane sealant applied where necessary. The fan was painted on site to resist yellowing.

The SSD System was energized and inspected for leaks, backdrafting, labeling and proper component operation. In order to verify system effectiveness and as a performance evaluation, four test points (TP) were established at distances from the suction cavities suitable to determine that the sub-slab of the subject area was being depressurized at least to the objective, as shown in the following table:

| TP# | Location/distance from suction point | Vacuum in negative wci |
|---|---|---|
| 1 | Center, 18' | .081 |
| 2 | Center, east, 11' | .166 |
| 3 | Center, east, 13' | .079 |
| 4 | Center, 28' | .009 |

Test points consist of a 5/8" drill hole through the slab, cleaned by vacuuming, and semi-permanently closed with closed cell backer rod and polyurethane sealant. Readings were by a Fluke Model 922 Micromanometer.

Work concluded about 6:00 PM on January 25, 2012, and system was left in operating condition. Site was cleaned and items restored to original positions. All debris and unused materials were removed from site.

See attached schematic for component locations

## Standard Operating Procedure

1. Become familiar with the Sub-Slab Depressurization (SSD) System which has been permanently installed in this building to mitigate the potential intrusion of harmful soil vapor. This system consists of a vacuum fan, pipes, indicator gauge and other components designed to create vacuum beneath the concrete slab.
2. Leave fan in continuous operation, except for emergency conditions. Fans restart automatically in event of power loss. The fan has an on/off switch mounted near the fan on the exterior of the building. In the event of unusual fan noise, failure to start, or repeated circuit breaker trip, turn fan off and call for service.
3. Regularly inspect fan gauge to verify that the value, indicated by a mark on the gauge, has not changed significantly from the position of the mark. Gauge is inspected by observing the level of colored fluid.

4. Normal system operation requires unchanged structural conditions. Report any changes in structure, HVAC systems, slab conditions, etc., so that the change can be evaluated for impact on the SSD System. For service, call MITIGATION TECH at 1-800-637-9228
5. Ensure that a periodic inspection is performed, to include the following:
   - Visual inspection of the complete Sub-Slab Depressurization System (e.g., vent fan, piping, vacuum gauge, labeling, etc.)
   - Inspection of all components for condition and proper operation
   - Identification of any leaks in accordance with Sections 4.3.1(a) of the NYS DOH Guidance
   - Inspection of the discharge point to verify that no air intakes have been located nearby
   - Performance of pressure field extension testing (to ensure that the system is maintaining a vacuum beneath the slab)

**Annual Maintenance Procedure**

1. Conduct a visual inspection of the complete System (e.g., vent fan, piping, warning devices, labeling on system, etc.);
2. Conduct an inspection of all surfaces to which vacuum is applied;
3. Inspect all components for condition and proper operation;
4. Identify and repair any leaks in accordance with Sections 4.3.1(a) and 4.3.4(a) of the Guidance (i.e.; with the systems running, smoke tubes will used to check for leaks through concrete cracks, floor joints and at the suction points and any leaks will be resealed until smoke is no longer observed flowing through the opening).
5. Inspect the exhaust or discharge point(s) to verify that no air intakes have been located nearby;
6. Conduct pressure field extension testing (to ensure that the system is maintaining a vacuum beneath the entire slab) ; and
7. Interview an appropriate occupant seeking comments and observations regarding the operation of the System.

**Certification**

I hereby certify that the SSD System at this location is installed properly and is effective in achieving its above stated purpose.

Nicholas E. Mouganis EPA listing # 15415-I; NEHA ID# 100722

# APPENDIX B

# OPERATION AND MAINTENANCE INSTRUCTIONS

# OPERATION AND MAINTENANCE INSTRUCTIONS

Former Loohns Cleaners Site # 3-44-055

34 East Pulteny St., Corning, NY

**Standard Operating Procedure**

1. Become familiar with the Sub-Slab Depressurization (SSD) System which has been permanently installed in this building to mitigate the potential intrusion of harmful soil vapor. This system consists of a vacuum fan, pipes, indicator gauge and other components designed to create vacuum beneath the concrete slab.
2. Leave fan in continuous operation, except for emergency conditions. Fans restart automatically in event of power loss. The fan has an on/off switch mounted near the fan on the exterior of the building. In the event of unusual fan noise, failure to start, or repeated circuit breaker trip, turn fan off and call for service.
3. Regularly inspect fan gauge to verify that the value, indicated by a mark on the gauge, has not changed significantly from the position of the mark. Gauge is inspected by observing the level of colored fluid.
4. Normal system operation requires unchanged structural conditions. Report any changes in structure, HVAC systems, slab conditions, etc., so that the change can be evaluated for impact on the SSD System. For service, call MITIGATION TECH at 1-800-637-9228
5. Ensure that a periodic inspection is performed, to include the following:
   - Visual inspection of the complete Sub-Slab Depressurization System (e.g., vent fan, piping, vacuum gauge, labeling, etc.)
   - Inspection of all components for condition and proper operation
   - Identification of any leaks in accordance with Sections 4.3.1(a) of the NYS DOH Guidance
   - Inspection of the discharge point to verify that no air intakes have been located nearby
   - Performance of pressure field extension testing (to ensure that the system is maintaining a vacuum beneath the slab)

**For service, call MITIGATION TECH**
**1-800-637-9228**

**Annual Maintenance Procedure**

1. Conduct a visual inspection of the complete System (e.g., vent fan, piping, warning devices, labeling on system, etc.);
2. Conduct an inspection of all surfaces to which vacuum is applied;
3. Inspect all components for condition and proper operation;
4. Identify and repair any leaks in accordance with Sections 4.3.1(a) and 4.3.4(a) of the Guidance (i.e.; with the systems running, smoke tubes will used to check for leaks through concrete cracks, floor joints and at the suction points and any leaks will be resealed until smoke is no longer observed flowing through the opening).
5. Inspect the exhaust or discharge point(s) to verify that no air intakes have been located nearby;
6. Conduct pressure field extension testing (to ensure that the system is maintaining a vacuum beneath the entire slab) ; and
7. Interview an appropriate occupant seeking comments and observations regarding the operation of the System.

**For service, call MITIGATION TECH**
**1-800-637-9228**

**55 SHUMWAY ROAD, BROCKPORT, NEW YORK, 14420 * OFFICE/FAX 585-637-7430**

# APPENDIX C

# INDOOR AIR AND SUB-SLAB VAPOR SURVEY AND SAMPLING RECORDS

# INDOOR AIR SAMPLING RECORD

| | | | |
|---|---|---|---|
| PROJECT NAME: | Loohn's Corning | LOCATION ID: Structure 03 | DATE: 2/28/2012 |
| PROJECT NO./TASK NO.: | 3612102148 | CLIENT: | NYSDEC |
| PROJECT LOCATION: | Corning, New York | SAMPLER NAME: | Brandon Shaw |
| WEATHER CONDITIONS (AM): | 36°F, overcast | SAMPLER SIGNATURE: | |
| WEATHER CONDITIONS (PM): | 27°F, snowing | CHECKED BY: RCM | DATE: 3/7/12 |

## SUMMA Canister Record Information

| SUB-SLAB SOIL VAPOR SAMPLE | | BASEMENT INDOOR AIR SAMPLE | | FIRST FLOOR AIR SAMPLE | | AMBIENT AIR SAMPLE | |
|---|---|---|---|---|---|---|---|
| Flow Regulator Number: | 2716 | Flow Regulator Number: | 3952 | Flow Regulator Number: | | Flow Regulator Number: | |
| Flow Rate (mL/min): | | Flow Rate (mL/min): | | Flow Rate (mL/min): | | Flow Rate (mL/min): | |
| Canister Serial Number: | 282 | Canister Serial Number: | 304 | Canister Serial Number: | | Canister Serial Number: | |
| Start Date/Time | 02-28-12 @ 1053 | Start Date/Time | 02-28-12 @ 1055 | Start Date/Time | | Start Date/Time | |
| Start Pressure ("Hg): | -29 | Start Pressure ("Hg): | -30 | Start Pressure ("Hg): | | Start Pressure ("Hg): | |
| Stop Date/Time | 02-29-12 @ 1021 | Stop Date/Time | 02-29-12 @ 1019 | Stop Date/Time | | Stop Date/Time | |
| Stop Pressure ("Hg): | -1 | Stop Pressure ("Hg): | -2 | Stop Pressure ("Hg): | | Stop Pressure ("Hg): | |
| Sample ID: LCSV003001 | | Sample ID: LCIA003001 | | Sample ID: | | Sample ID: | |

## Other Sampling Information:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Finished Basement, Crawl Space, Unfinished | Closet | Story/Level: | 1st | Story/Level: | | Direction from Building | |
| Floor Slab Thickness: | ~6" | Room: | laundry | Room: | | Distance from Building: | |
| Potential Vapor Entry Points: | none | Potential Vapor Entry Points: | door-leak | Potential Vapor Entry Points: | | Distance from Roadway: | |
| Floor Surface: | Concrete | Floor Surface: | tile | Floor Surface: | | Ground Surface: | |
| Noticable Odor: | none | Noticable Odor: | tumming related | Noticable Odor: | | Noticable Odor: | |
| PID Reading (ppb): | 498 | PID Reading (ppb): | 550 | PID Reading (ppb): | | PID Reading (ppb): | |
| Intake Depth/Height: | ~8" | Intake Height: | 45' | Intake Height: | | Intake Height above Ground Surface: | |
| Helium Test Conducted? Breakthrough %: | No | Indoor Air Temp | ~70°F | Indoor Air Temp | | Intake tubing? | |

**Comments/Location Sketch:**

MACTEC

511 Congress Street, Portland, ME 04101

**FIGURE 4.19**
**INDOOR AIR SAMPLING RECORD**
**NYSDEC QUALITY ASSURANCE PROJECT PLAN**

**NEW YORK STATE DEPARTMENT OF HEALTH**
**INDOOR AIR QUALITY QUESTIONNAIRE AND BUILDING INVENTORY**
**CENTER FOR ENVIRONMENTAL HEALTH**

Structure 03

This form must be completed for each residence involved in indoor air testing.

Preparer's Name Brandon Shaw Date/Time Prepared 2-28-12

Preparer's Affiliation AMEC - portland, ME Phone No. (207) 828-3367

Purpose of Investigation Soil vapor Intrusion Investigation - Loohn's post mitigation Testing

**1. OCCUPANT:**

**Interviewed: Y / N**

Last Name: ______ First Name: ______

Address: ______

County: ______

Home Phone: ______ Office Phone: ______

Number of Occupants/persons at this location ______ Age of Occupants ______

RAS

**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: ______ |

Checked For Completeness: RCM 3/7/12

Structure 03

**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?** 4

**If the property is commercial, type?**

Business Type(s) H+R Block, Tatoo parlor, vacant, ~~tanning~~ salon

Does it include residences (i.e., multi-use)? Y / N     If yes, how many? NA

**Other characteristics:**

Number of floors 1     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

________________________________________

Airflow near source

________________________________________

Outdoor air infiltration

________________________________________

Infiltration into air ducts

________________________________________

Structure 07

## 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 none |
| c. Basement floor: | concrete | dirt | stone | other None |
| d. Basement floor: | uncovered | covered | covered with none | |
| e. Concrete floor: | unsealed | sealed | sealed with ______ | |
| f. Foundation walls: | poured | block | stone | other ______ |
| g. Foundation walls: | unsealed | sealed | sealed with paint | |
| h. The basement is: | wet | damp | dry | moldy NA |
| i. The basement is: | finished | unfinished | partially finished | NA |
| j. Sump present? | Y / N | | | |
| k. Water in sump? | Y / N / not applicable | | | |

Rem

**Basement/Lowest level depth below grade:** Ø (feet)

**Identify potential soil vapor entry points and approximate size (e.g., cracks, utility ports, drains)**

leaky door (drafty),

## 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 |

Structure 03

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.

Cold air return; duct work tight (newer) and wrapped in insulation + duct taped,

## 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 | N/A |
| 1st Floor | tanning salons, waiting area, storage, bathroom |
| 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? ________

i. Have cosmetic products been used recently? Y / N When & Type? ________

Structure 03

j. **Has painting/staining been done in the last 6 months?** Y / N Where & When? inside areas

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? 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: tanning related odors

**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: January 2012
**Is the system active or passive?** Active/Passive → adjacent structure

## 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

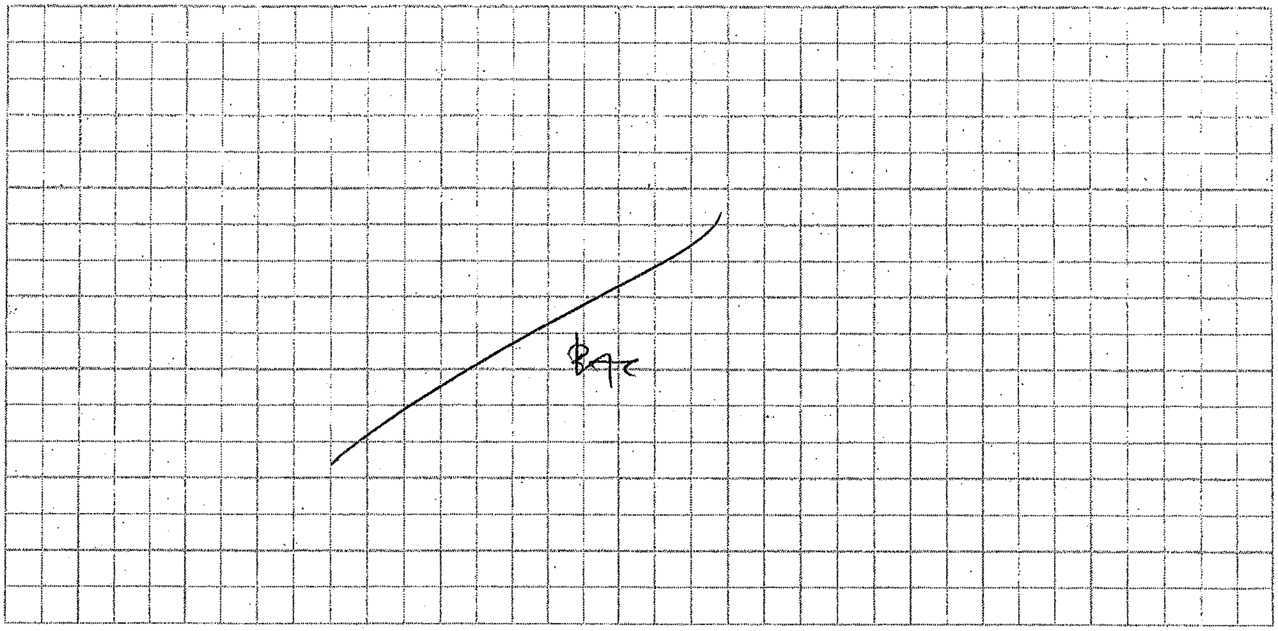
d. **Relocation package provided and explained to residents?** Y / N

Structure 03

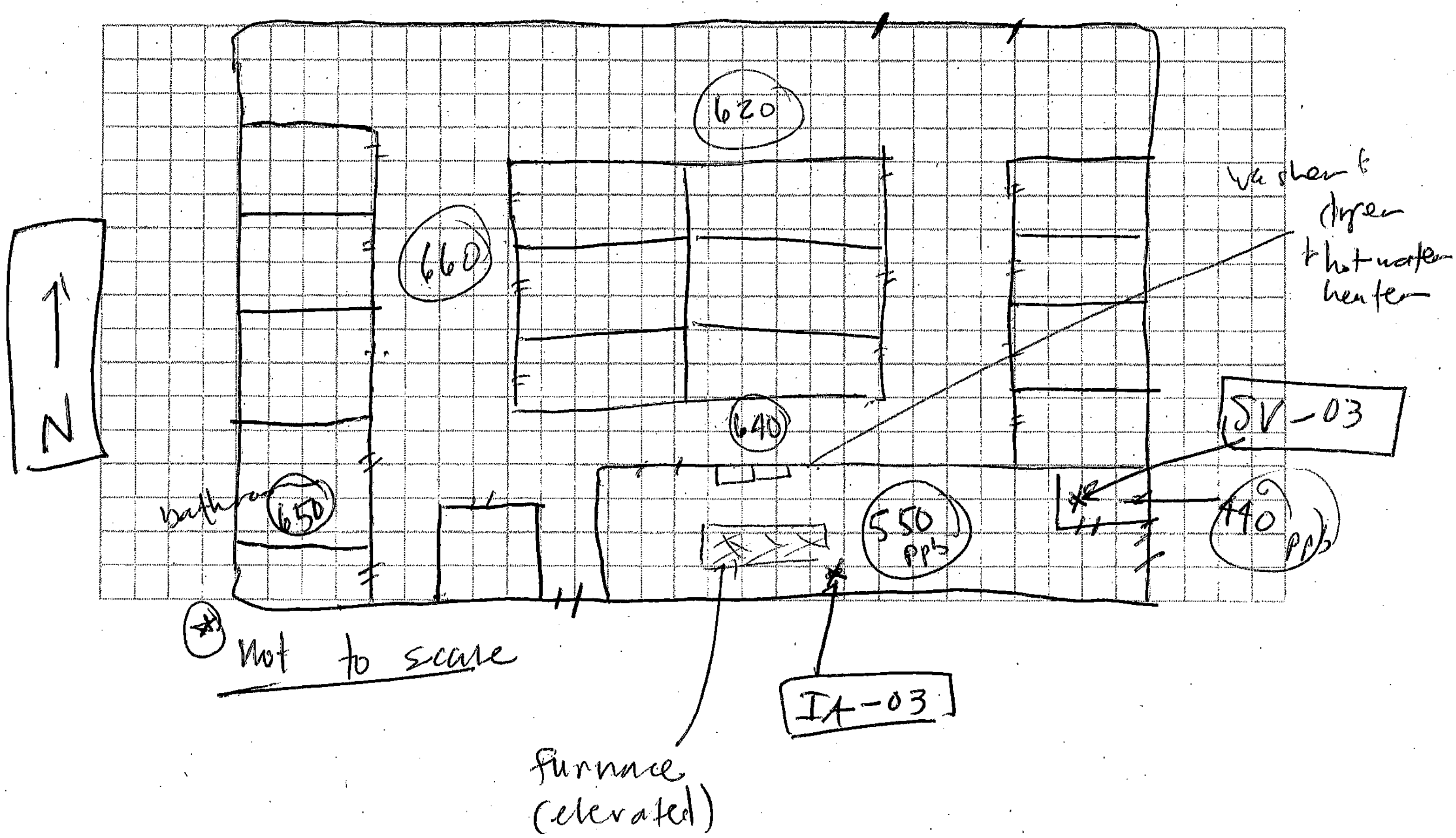
## 11. FLOOR PLANS

**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:**

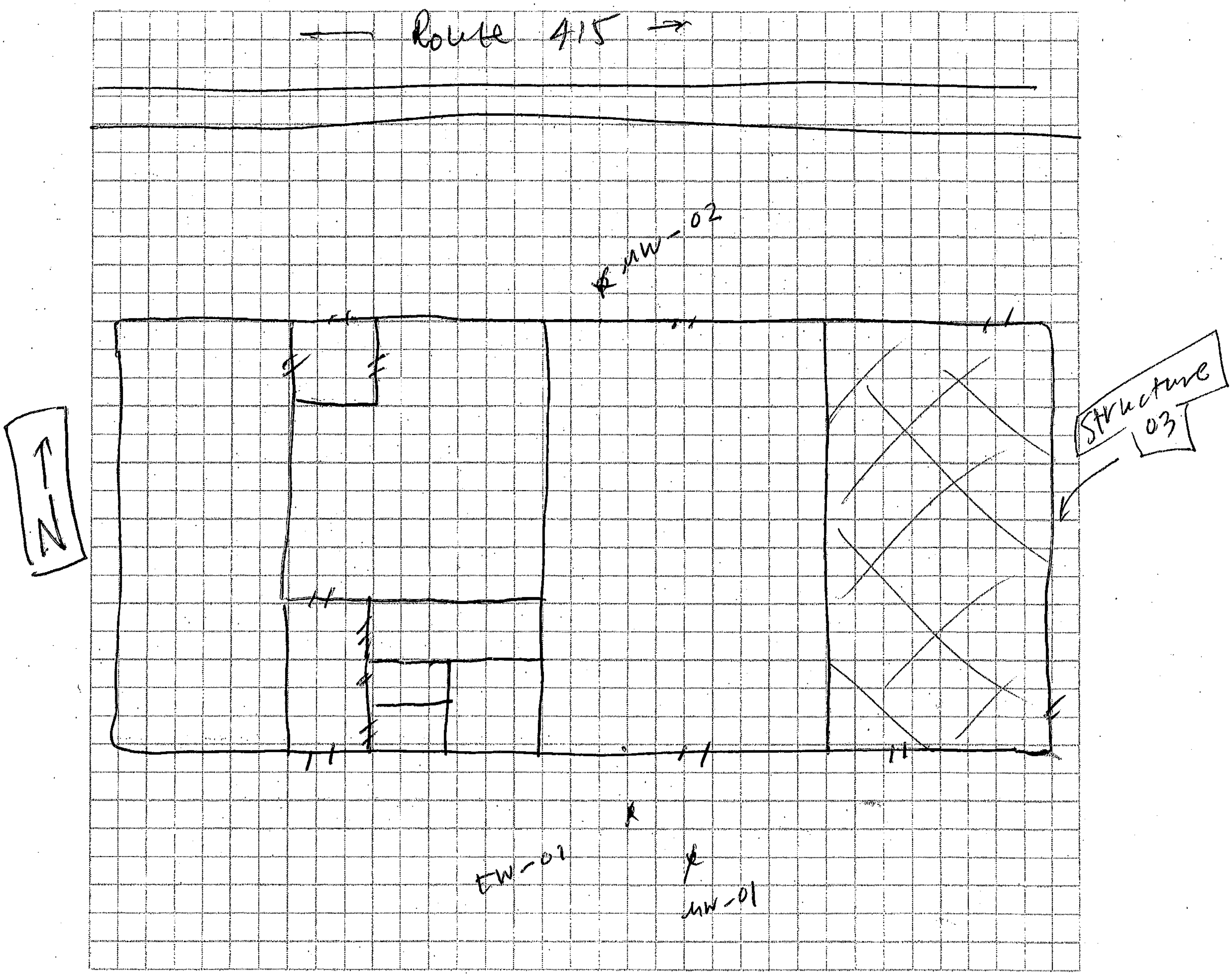


## 12. OUTDOOR PLOT

structure 03

**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.**



Structure 03

**13. PRODUCT INVENTORY FORM**

**Make & Model of field instrument used:** ppb mini Rae - Pike

**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 |
|---|---|---|---|---|---|---|
| Storage Laundry | Roundup | 1 gal | U | – | 562 (ppb) | Y |
| | Great stuff | 12 oz | UO | – | 598 | |
| | grout/tile sealer | 2 gal | U | | 622 | |
| | Tub grout | (2) 10 oz | U | | 622 | |
| | waterbase Acrylic industrial enamel | 1 gal | U | | 663 | |
| | Minwax Polyurethane | 12 oz | U | | 621 | |
| | spray paint | 12 oz | U | Acetone, xylene, toluene | 702 | |
| | Denatured Alcohol Solvent | 64 oz | U | Alcohols | 2130 | |
| | Goof be off | 4.5 oz | U | Acetone, xylene | 741 | |
| | Lysol Cleaner | 2 gal | U | | 520 | |
| | Australian gold Disinfectant Cleaner | 2 gal | U | didecyl dimethyl amonium chloride | 760 | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
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| | | | | | | |

BAS

* 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.

# INDOOR AIR SAMPLING RECORD

| | | | |
|---|---|---|---|
| PROJECT NAME: | Loohn's Corning | LOCATION ID: Structure 04 | DATE: 2/28/2012 |
| PROJECT NO./TASK NO.: | 3612102148 | CLIENT: | NYSDEC |
| PROJECT LOCATION: | Corning, New York | SAMPLER NAME: | Brandon Shaw |
| WEATHER CONDITIONS (AM): | 40°F, overcast | SAMPLER SIGNATURE: | |
| WEATHER CONDITIONS (PM): | 29°F, snowing | CHECKED BY: RCM | DATE: 3/7/12 |

## SUMMA Canister Record Information

| SUB-SLAB SOIL VAPOR SAMPLE | | BASEMENT INDOOR AIR SAMPLE | | FIRST FLOOR AIR SAMPLE | | AMBIENT AIR SAMPLE | |
|---|---|---|---|---|---|---|---|
| Flow Regulator Number: | 2660 | Flow Regulator Number: | 3957 | Flow Regulator Number: | | Flow Regulator Number: | |
| Flow Rate (mL/min): | | Flow Rate (mL/min): | | Flow Rate (mL/min): | | Flow Rate (mL/min): | |
| Canister Serial Number: | 320 | Canister Serial Number: | 308 | Canister Serial Number: | | Canister Serial Number: | |
| Start Date/Time | 02-28-12 @ 1135 | Start Date/Time | 02-28-12 @ 1131 | Start Date/Time | | Start Date/Time | |
| Start Pressure ("Hg): | -29 | Start Pressure ("Hg): | -30 | Start Pressure ("Hg): | | Start Pressure ("Hg): | |
| Stop Date/Time | 02-29-12 @ 1110 | Stop Date/Time | 02-29-12 @ 1105 | Stop Date/Time | | Stop Date/Time | |
| Stop Pressure ("Hg): | -10 | Stop Pressure ("Hg): | -5 | Stop Pressure ("Hg): | | Stop Pressure ("Hg): | |
| Sample ID: LCSV004001 | | Sample ID: LCIA004001 | | Sample ID: | | Sample ID: | |

## Other Sampling Information:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Finished Basement, Crawl Space, Unfinished B | On grade | Story/Level: | Main | Story/Level: | | Direction from Building | |
| Floor Slab Thickness: | ~6" | Room: | Kitchen storage | Room: | | Distance from Building: | |
| Potential Vapor Entry Points: | none | Potential Vapor Entry Points: | Fan, door | Potential Vapor Entry Points: | | Distance from Roadway: | |
| Floor Surface: | concrete | Floor Surface: | tile | Floor Surface: | | Ground Surface: | |
| Noticable Odor: | none | Noticable Odor: | none | Noticable Odor: | | Noticable Odor: | |
| PID Reading (ppb): | 128 | PID Reading (ppb): | 21 | PID Reading (ppb): | | PID Reading (ppb): | |
| Intake Depth/Height: | ~8" | Intake Height: | ~4' | Intake Height: | | Intake Height above Ground Surface: | |
| Helium Test Conducted? Breakthrough %: | No | Indoor Air Temp | ~60F | Indoor Air Temp | | Intake tubing? | |

**Comments/Location Sketch:**

MACTEC

511 Congress Street, Portland, ME 04101

**FIGURE 4.19**
**INDOOR AIR SAMPLING RECORD**
**NYSDEC QUALITY ASSURANCE PROJECT PLAN**

**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 Brandon Shaw Date/Time Prepared 02-28-12 @

Preparer's Affiliation AMEC - Portland, ME Phone No. (207) 807-7353

Purpose of Investigation Soil Vapor Intrusion Investigation - Loohn's Post Mitigation Testing

Structure 04

**1. OCCUPANT:**

**Interviewed:** Y / N

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: ______ |

Checked For Completeness: RCM 3/7/12

**If the property is residential, type?** (Circle appropriate response)

Structure 04

| | | |
|---|---|---|
| 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?** 4

**If the property is commercial, type?**

Business Type(s) H+R Block, tattoo parlor, vacant, tanning salon

Does it include residences (i.e., multi-use)? Y / N  If yes, how many? –

**Other characteristics:**

Number of floors 1  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

________________________________

Airflow near source

________________________________

Outdoor air infiltration

________________________________

Infiltration into air ducts

________________________________

Structure 04

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 none |
| **c. Basement floor:** | concrete | dirt | stone | other none |
| **d. Basement floor:** | uncovered | covered | covered with None | |
| **e. Concrete floor:** | unsealed | sealed | sealed with ______ | |
| **f. Foundation walls:** | poured | block | stone | other ______ |
| **g. Foundation walls:** | unsealed | sealed | sealed with paint | |
| **h. The basement is:** | wet | damp | dry | moldy NA |
| **i. The basement is:** | finished | unfinished | partially finished NA | |
| **j. Sump present?** | Y / N | | | |
| **k. Water in sump?** | Y / N / not applicable | | | |

**Basement/Lowest level depth below grade:** Ø (feet)

**Identify potential soil vapor entry points and approximate size (e.g., cracks, utility ports, drains)**

leaky/drafty front door,

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:** unknown

| | | | | |
|---|---|---|---|---|
| **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

Structure 04

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.

new furnace just installed; air ducts are v. tight.

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 | |
| 1st Floor | storage, bathrooms, sales floor |
| 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? ________

i. Have cosmetic products been used recently? Y / N When & Type? ________

Structure 04

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? 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: NA

**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? Vacant

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: January 2012
**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

structure 04

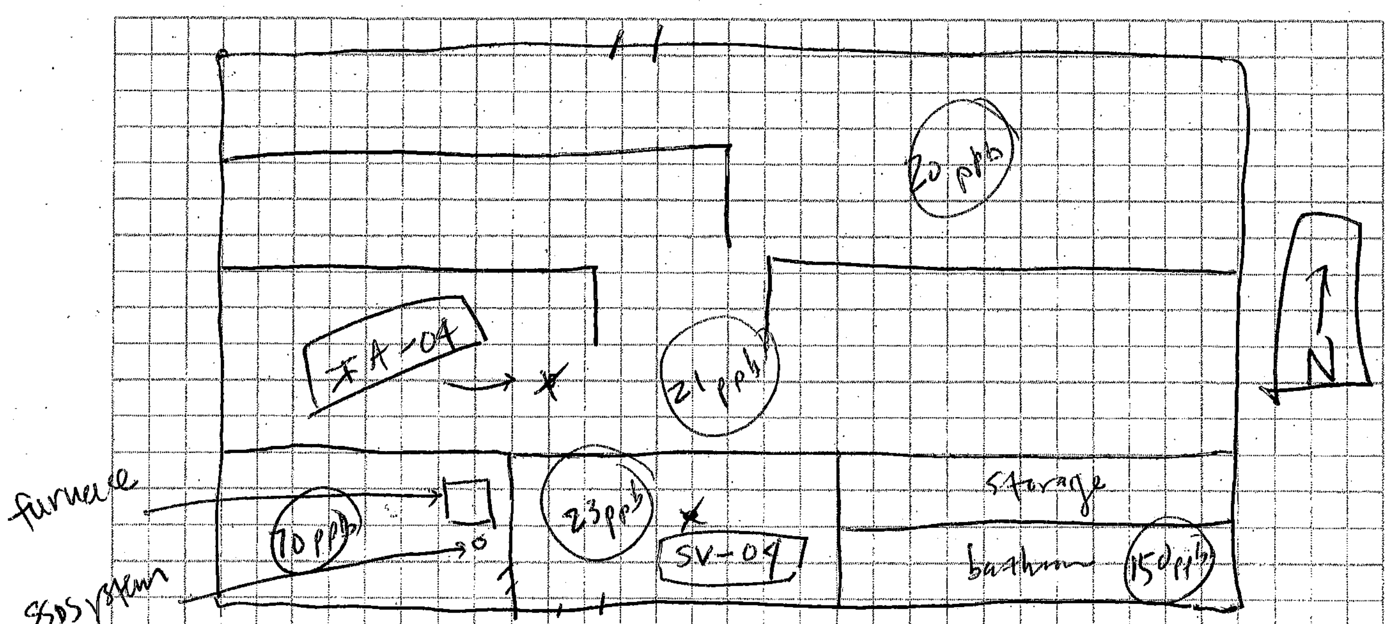
## 11. FLOOR PLANS

**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:**

BAZ

**First Floor:**



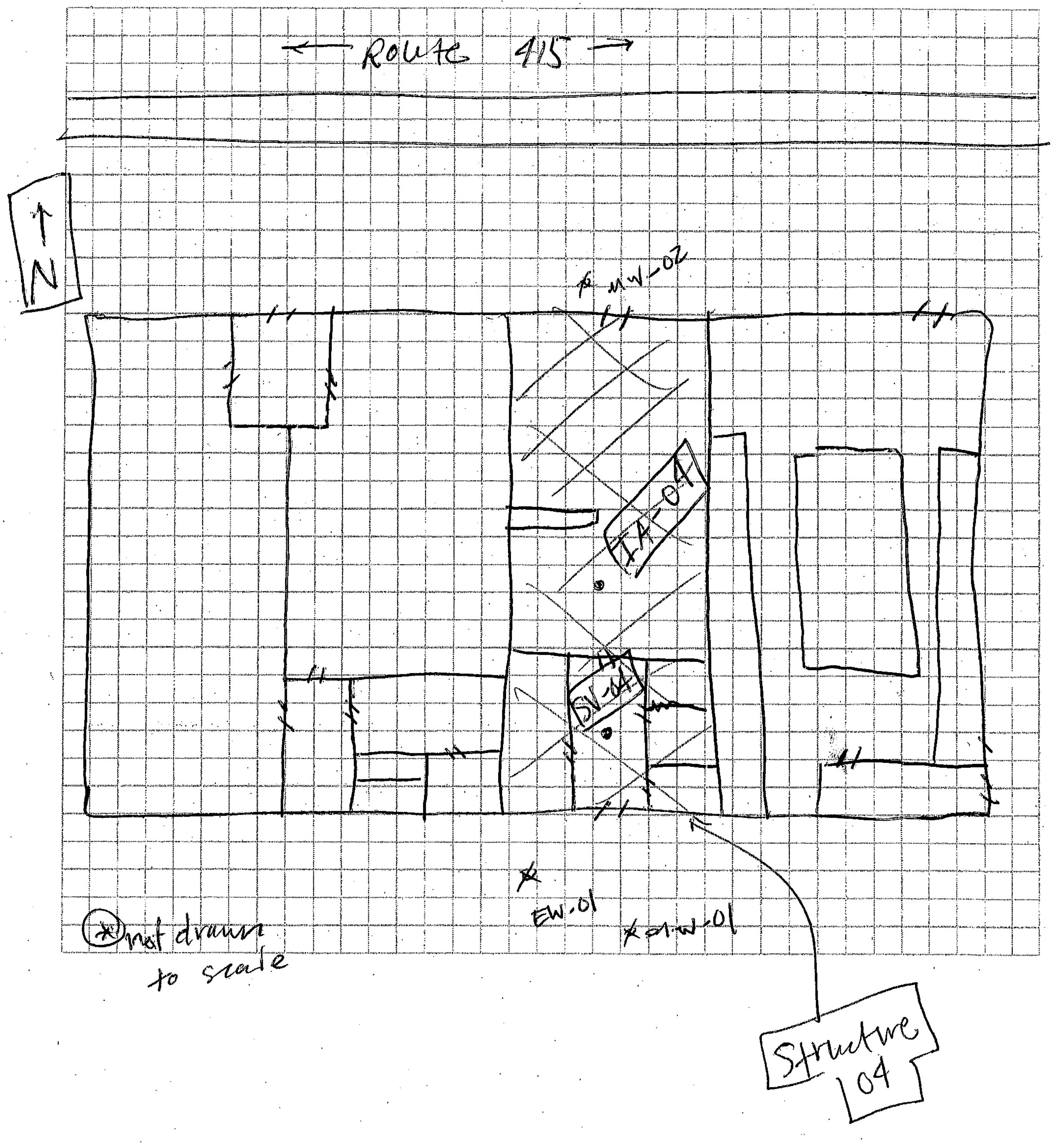

⊗ not drawn to scale

## 12. OUTDOOR PLOT

structure 04

**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

Structure 04

Make & Model of field instrument used: ppb-MiniRae-Pine

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 |
|---|---|---|---|---|---|---|
| Kitchen | glass cleaner | 1 gal | u | — | 120 ppb | Y |
| " " | Stainless Steel Cleaner | 2 16 oz | u | mineral oil | 311 | |
| Storage | Mineral spirits | 32 oz | u | | 496 | |
| | WD-40 | 2 cans | u | | 26 | |
| | Drywall corner bead | 16 oz | u | Acetone, heptane | 483 | |
| | Propane Fuel | — | u | | 29 | |
| | Latex paint | 6 gal | u | | 110 | |
| Bath | Hand soap | — | u | | — | |
| Closet | CLR | 1 gal | u | | 22 | |
| Kitchen | goo gone | — | u | | 26 | |
| ↓ | Simple green | — | u | | 15 | |
| SSDS | System Hole | — | — | | 898 ppb | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

BC

* 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.

# INDOOR AIR SAMPLING RECORD

| | | | |
|---|---|---|---|
| PROJECT NAME: | Loohn's Corning | LOCATION ID: Structure 05 | DATE: 2/28/2012 |
| PROJECT NO./TASK NO.: | 3612102148 | CLIENT: | NYSDEC |
| PROJECT LOCATION: | Corning, New York | SAMPLER NAME: | Brandon Shaw |
| WEATHER CONDITIONS (AM): | 40°F, overcast | SAMPLER SIGNATURE: | |
| WEATHER CONDITIONS (PM): | 33°F, raining / snow | CHECKED BY: RLM | DATE: 3/7/12 |

**SUMMA Canister Record Information**

| SUB-SLAB SOIL VAPOR SAMPLE | | BASEMENT INDOOR AIR SAMPLE | | FIRST FLOOR AIR SAMPLE | | AMBIENT AIR SAMPLE | |
|---|---|---|---|---|---|---|---|
| Flow Regulator Number: | 4970 | Flow Regulator Number: | 2708 | Flow Regulator Number: | | Flow Regulator Number: | |
| Flow Rate (mL/min): | | Flow Rate (mL/min): | | Flow Rate (mL/min): | | Flow Rate (mL/min): | |
| Canister Serial Number: | 130 | Canister Serial Number: | 333 | Canister Serial Number: | | Canister Serial Number: | |
| Start Date/Time | 02-28-12 @ 1159 | Start Date/Time | 02-28-12 @ 1156 | Start Date/Time | | Start Date/Time | |
| Start Pressure ("Hg): | -29 | Start Pressure ("Hg): | -29 | Start Pressure ("Hg): | | Start Pressure ("Hg): | |
| Stop Date/Time | 02-29-12 @ 1134 | Stop Date/Time | 02-29-12 @ 1135 | Stop Date/Time | | Stop Date/Time | |
| Stop Pressure ("Hg): | -1 | Stop Pressure ("Hg): | -2 | Stop Pressure ("Hg): | | Stop Pressure ("Hg): | |
| Sample ID: LCSV005001 | | Sample ID: LCIA005001 | | Sample ID: | | Sample ID: | |

**Other Sampling Information:**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Finished Basement, Crawl Space, Unfinished | on grade Finished | Story/Level: | Main | Story/Level: | | Direction from Building | |
| Floor Slab Thickness: | ~6" | Room: | storage | Room: | | Distance from Building: | |
| Potential Vapor Entry Points: | none | Potential Vapor Entry Points: | leaky door | Potential Vapor Entry Points: | | Distance from Roadway: | |
| Floor Surface: | concrete | Floor Surface: | tile | Floor Surface: | | Ground Surface: | |
| Noticable Odor: | none | Noticable Odor: | tattoo cleaning product | Noticable Odor: | | Noticable Odor: | |
| PID Reading (ppb): | 329 | PID Reading (ppb): | 1680 ppb | PID Reading (ppb): | | PID Reading (ppb): | |
| Intake Depth/Height: | ~9" | Intake Height: | ~4' | Intake Height: | | Intake Height above Ground Surface: | |
| Helium Test Conducted? Breakthrough %: | No | Indoor Air Temp | ~68°F | Indoor Air Temp | | Intake tubing? | |

**Comments/Location Sketch:**

MACTEC

511 Congress Street, Portland, ME 04101

**FIGURE 4.19**
**INDOOR AIR SAMPLING RECORD**
**NYSDEC QUALITY ASSURANCE PROJECT PLAN**

**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 Brandon Shaw Date/Time Prepared 02-28-12 @ 1540

Preparer's Affiliation AMEC - Portland, ME Phone No. (207) 828-3367

Purpose of Investigation Soil vapor intrusion investigation - Lobhn's post mitigation Testing

**1. OCCUPANT:**

**Interviewed: Y / N**

Structure 05

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: ______ |

checked for completeness: RLM 3/7/12

Structure 05

**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?** 4

**If the property is commercial, type?**

Business Type(s) H+R Block, vacant, tattoo parlor, tanning salon

Does it include residences (i.e., multi-use)? Y / N If yes, how many? —

**Other characteristics:**

Number of floors 1 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

________________________________________

Airflow near source

________________________________________

Outdoor air infiltration

________________________________________

Infiltration into air ducts

________________________________________

Structure 05

## 5. BASEMENT AND CONSTRUCTION CHARACTERISTICS (Circle all that apply)

ncm

| | | | | |
|---|---|---|---|---|
| **a. Above grade construction:** | wood frame | concrete | stone | brick |
| **b. Basement type:** | full | crawlspace | slab | other None |
| **c. Basement floor:** | concrete | dirt | stone | other None |
| **d. Basement floor:** | uncovered | covered | covered with None | |
| **e. Concrete floor:** | unsealed | sealed | sealed with tile | |
| **f. Foundation walls:** | poured | block | stone | other ______ |
| **g. Foundation walls:** | unsealed | sealed | sealed with paint | |
| **h. The basement is:** | wet | damp | dry | moldy na |
| **i. The basement is:** | finished | unfinished | partially finished | na |
| **j. Sump present?** | Y / N | | | |
| **k. Water in sump?** | Y / N / not applicable | | | |

**Basement/Lowest level depth below grade:** Ø (feet)

**Identify potential soil vapor entry points and approximate size (e.g., cracks, utility ports, drains)**

leaky / drafty door

## 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:** unknown

| | | | | |
|---|---|---|---|---|
| **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

Structure 05

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.

cannot view due to being in drop ceiling

## 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 | |
| 1st Floor | tattoo shop, bathroom, storage, office |
| 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?

i. **Have cosmetic products been used recently?** Y / N When & Type?

structure 05

**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? 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: NA

**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? NA

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: January 2012
**Is the system active or passive?** Active/Passive

adjacent unit in the structure.

**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

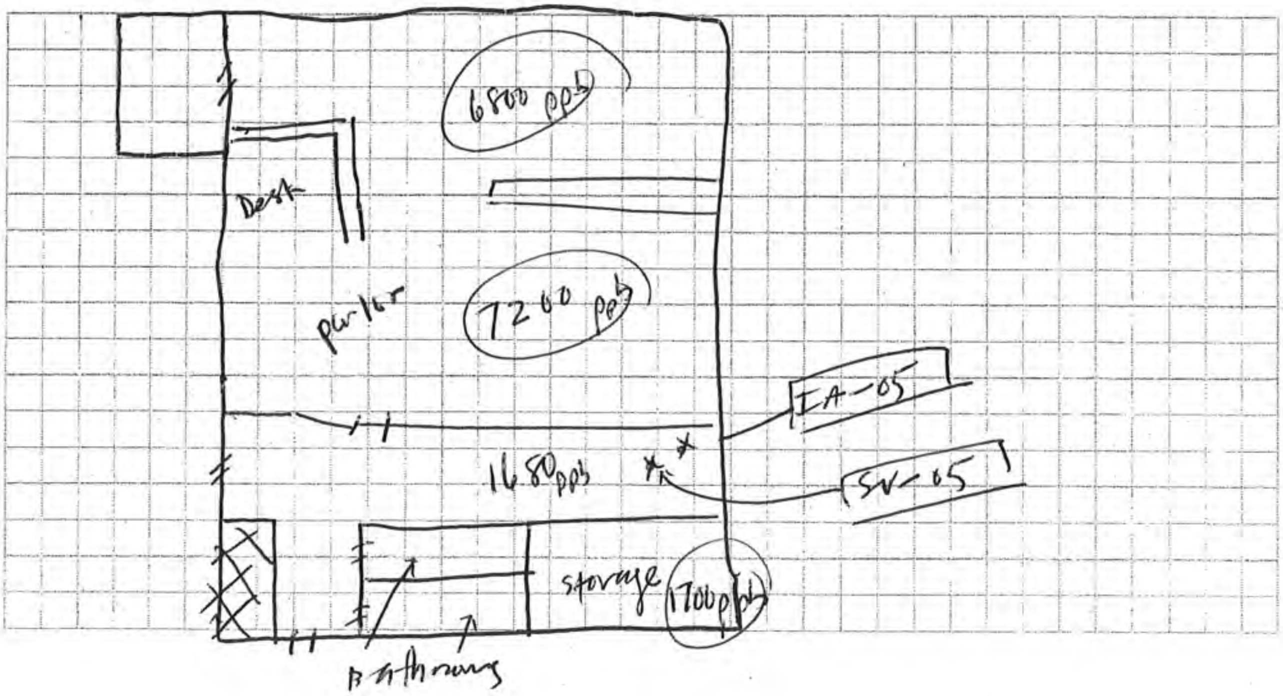
## 11. FLOOR PLANS

Structure 05

**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:**

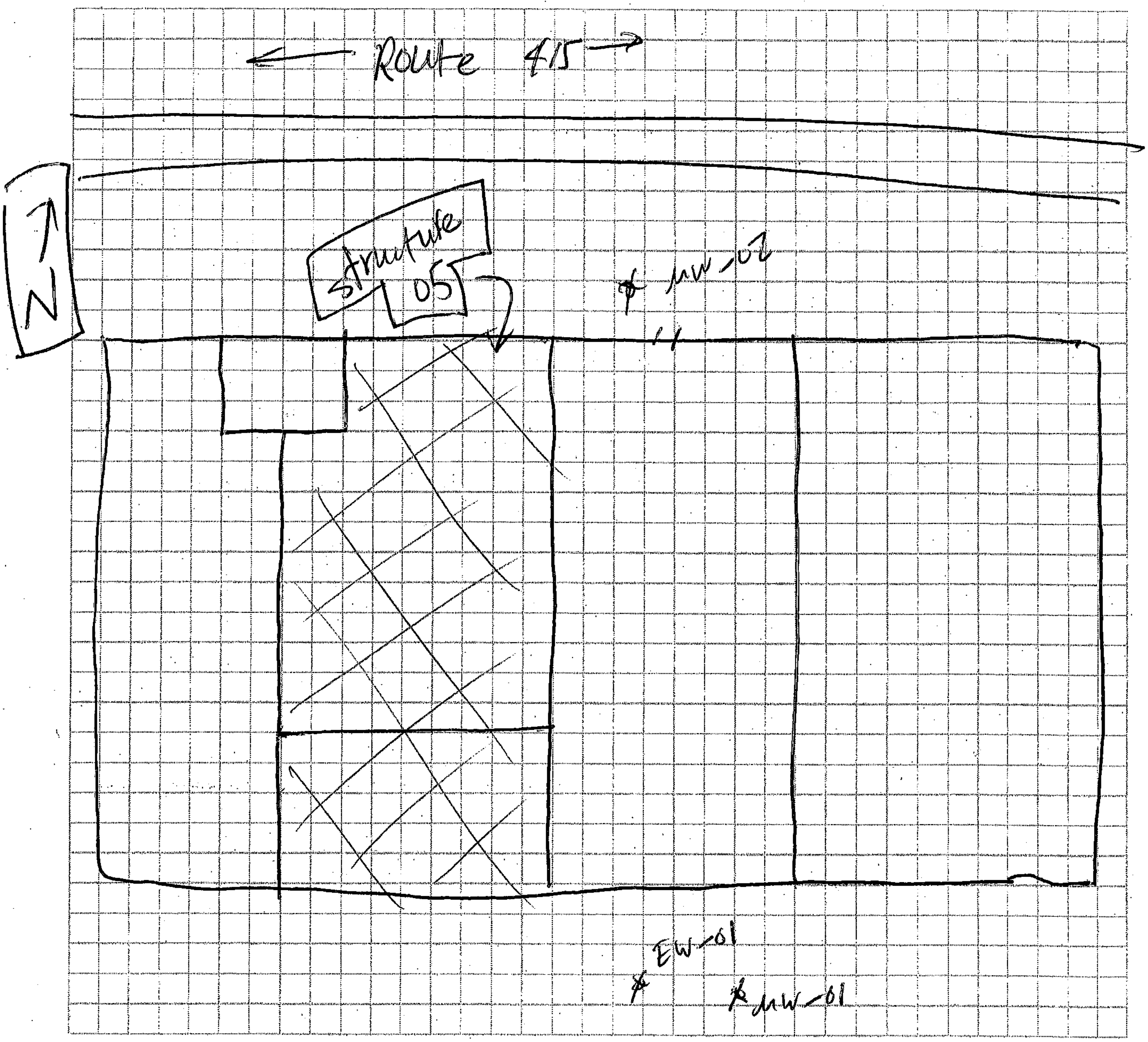


## 12. OUTDOOR PLOT

structure 05

**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.**



**APPENDIX D**

**PHOTOGRAPHS**

**SVE PHOTOGRAPHS**

SVE Floor Cut Opening

SVE Riser with Stone Fill

## SVE PHOTOGRAPHS

SVE Riser with Grout Seal

Installed Manometer

# SVE PHOTOGRAPHS

Radonaway GP501 Fan


Installed Fan Exterior

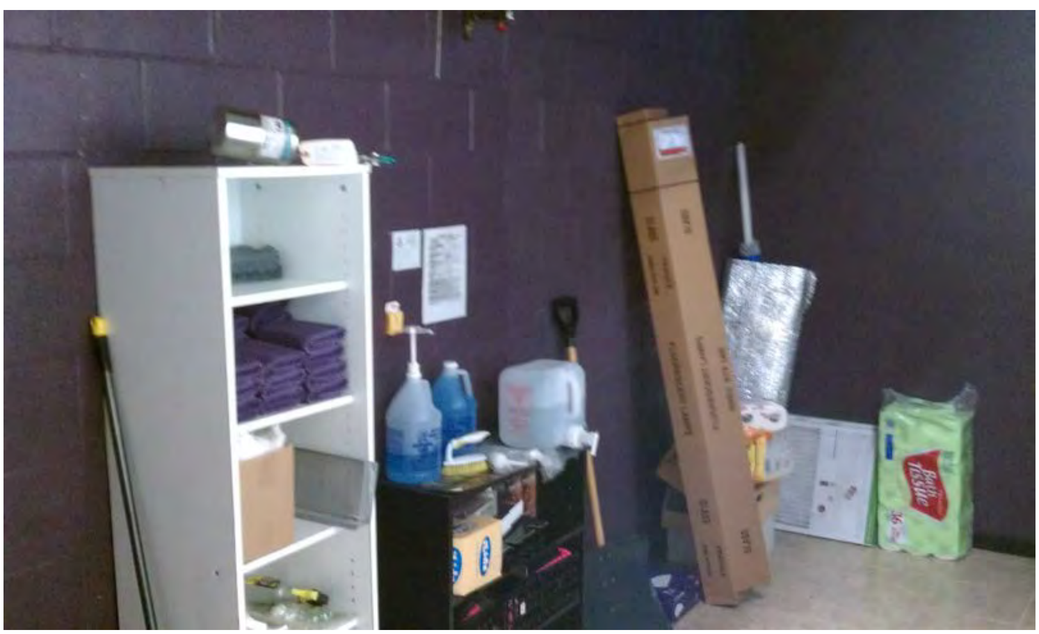
## SVE PHOTOGRAPHS

Electrical Panel with SVE Breaker Marked

**STRUCTURE 3 PHOTOGRAPHS (2/28/2012)**

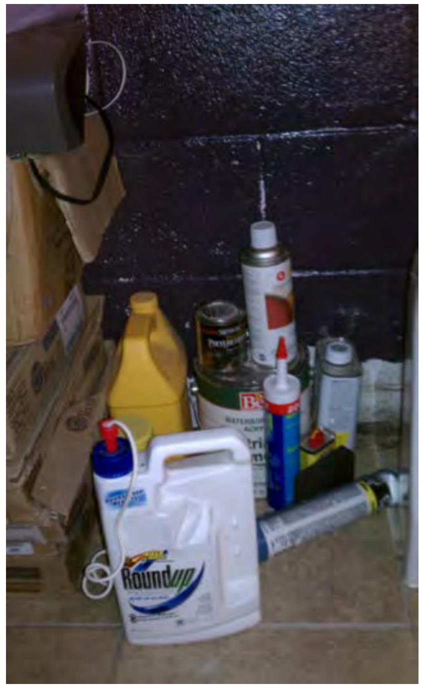
Indoor Air Sample Location at Structure 3.

Indoor Air Sample Location at Structure 3.

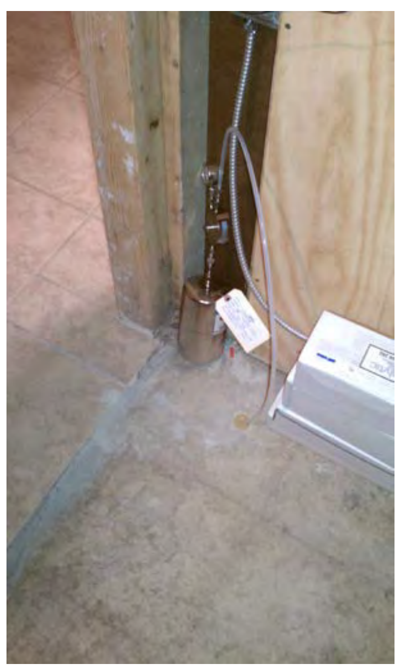


**STRUCTURE 3 PHOTOGRAPHS (2/28/2012)**

Chemical Inventory Near Sample Location at Structure 3



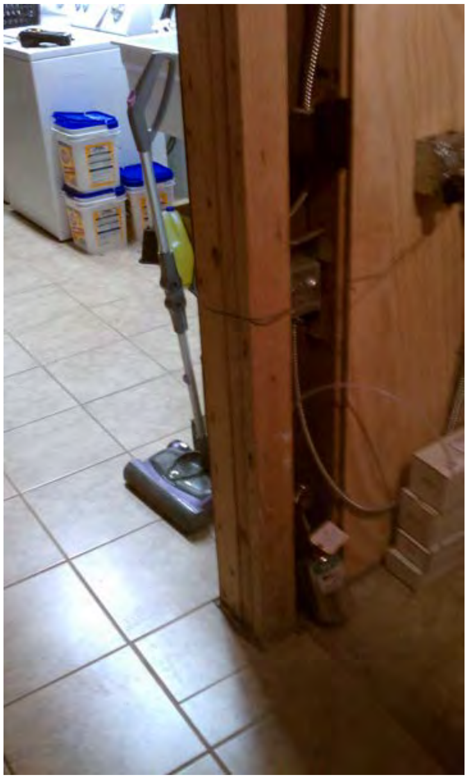

Sub-Slab Soil Vapor Sample Location at Structure 3



**STRUCTURE 3 PHOTOGRAPHS (2/28/2012)**

Sub-Slab Soil Vapor Sample Location at Structure 3


Sub-Slab Soil Vapor Sample Location at Structure 3



**STRUCTURE 04 PHOTOGRAPHS (2/28/2012)**

Indoor Air Sample Location at Structure 4


Indoor Air Sample Location at Structure 4

**STRUCTURE 04 PHOTOGRAPHS (2/28/2012)**

Sub-Slab Soil Vapor Sample Location at Structure 4


Sub-Slab Soil Vapor Sample Location at Structure 4

## STRUCTURE 04 PHOTOGRAPHS (2/28/2012)

Sub-Slab Soil Vapor Sample Location at Structure 4

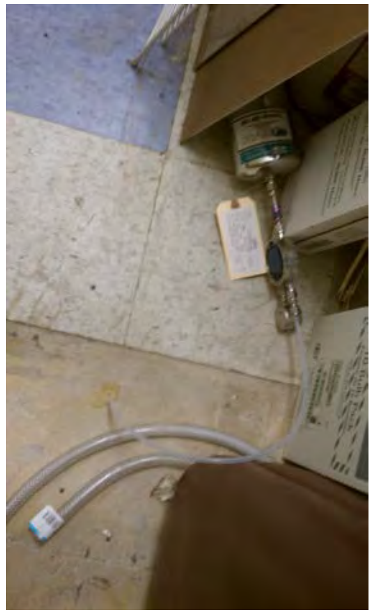
Area Near Sample Location at Structure 4

**STRUCTURE 04 PHOTOGRAPHS (2/28/2012)**

Chemical Inventory Near Sample Location at Structure 4

**STRUCTURE 05 PHOTOGRAPHS (2/28/2012)**

Sub-Slab Soil Vapor Sample Location at Structure 5.



Sub-Slab Soil Vapor Sample Location at Structure 5.

**STRUCTURE 05 PHOTOGRAPHS (2/28/2012)**

Indoor Air Sample Location at Structure 5.

Indoor Air Sample Location at Structure 5.

**STRUCTURE 05 PHOTOGRAPHS (2/28/2012)**

Indoor Air Sample Location at Structure 5.

# APPENDIX H

## Construction Completion Report – Soil, February 2011

# CONSTRUCTION COMPLETION REPORT
# LOOHNS CORNING SITE
# SITE # 851028

**WORK ASSIGNMENT NO. D004434-35**

**Prepared for:**

**New York State Department of Environmental Conservation**
**Albany, New York**

**Prepared by:**

**MACTEC Engineering and Consulting, P.C.**
**Portland, Maine**

**MACTEC: 3612102148**

**FEBRUARY 2011**

CONSTRUCTION COMPLETION REPORT
LOOHNS CORNING SITE
SITE # 851028

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Prepared for:

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Portland, Maine

MACTEC: 3612102148

FEBRUARY 2011

Submitted by:

Eric C. Sandin
Project Manager

Approved by:

Mark J. Stelmack, P.E.
Principal Professional

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## GLOSSARY OF ACRONYMS AND ABBREVIATIONS

| | |
|---|---|
| A/C | air conditioning |
| bgs | below ground surface |
| CCR | Construction Completion Report |
| ChemTech | ChemTech Environmental Laboratories |
| DDD | dichlorodiphenyldichloroethane |
| DDE | dichlorodiphenyldichloroethylene |
| DDT | dichlorodiphenyltrichloroethane |
| FAP | Field Activities Plan |
| FS | Feasibility Study |
| HASP | Health and Safety Plan |
| HDPE | high-density polyethylene |
| HSO | Health and Safety Officer |
| IRM | Interim Remedial Measure |
| Lu | Lu Engineers, Inc |
| MACTEC | MACTEC Engineering and Consulting, P.C. |
| mg/kg | milligram(s) per kilogram |
| mg/L | milligram(s) per liter |
| NYS | New York State |
| NYSDEC | New York State Department of Environmental Conservation |
| Op-Tech | Op-Tech Environmental Services, Inc. |

**GLOSSARY OF ACRONYMS AND ABBREVIATIONS (CONTINUED)**

| | |
|---|---|
| PCBs | polychlorinated biphenyls |
| PCE | tetrachloroethene |
| PID | photoionization detector |
| RI | Remedial Investigation |
| SC | Site Characterization |
| Site | Loohns Corning site |
| SVOC | semi volatile organic compound |
| TCE | trichloroethene |
| µg/L | microgram(s) per liter |
| VOC | volatile organic compound |

# 1.0 INTRODUCTION AND SITE BACKGROUND

MACTEC Engineering and Consulting, P.C. (MACTEC), under contract to the New York State Department of Environmental Conservation (NYSDEC), is conducting a Remedial Investigation/Feasibility Study (RI/FS) at the Loohns Corning site (Site), a former dry cleaner in Corning, New York (Figure 1.1). The Site is currently listed as Class 2 Inactive Hazardous Waste Site No. 8-51-028, in the Registry of Hazardous Waste Sites in New York State (NYS).

MACTEC has prepared this Construction Completion Report (CCR) to document an Interim Remedial Measure (IRM) performed in December 2010.

This CCR has been prepared in accordance with the NYSDEC requirements in work assignment No. D004434-35 dated February 19, 2010; with the July 2005 Superfund Standby Contract between MACTEC and the NYSDEC; and with DER-10/Technical Guidance for the Completion of Site Investigation and Remediation (NYSDEC, 2010). Activities described in this CCR include RI sampling conducted in accordance with a Field Activities Plan (FAP) (MACTEC, 2010)

## 1.1 SITE LOCATION AND HISTORY

The Site is located at 37 East Pulteney Street in the City of Corning, Steuben County, New York. (Figure 1.1). The Site property consists of 0.5 acres including a light commercial/retail building with a large front parking lot. According to the City of Corning Assessor's office, the Site building was constructed in 1971. A former dry cleaner occupied one of the center commercial spaces. The building is one story and is slab-on-grade.

Although it is not known if a dry cleaner was one of the original tenants in 1971, Gilliam's One Hour Cleaners was listed at the location in the 1975 city directory. The 1981 and 1989 directories reviewed listed Loohns Cleaners Launderers, Inc. at the location. The date the dry cleaner ceased operation is not known. The former dry cleaner space is now being leased and used as a delicatessen.

Various environmental studies conducted between 1997 and 2010 identified tetrachloroethene (PCE) in groundwater and in shallow soil located in an alley directly north of the former dry cleaner space. PCE in shallow soil was reported in several samples above the current soil cleanup objective for unrestricted use of 1.3 milligrams per kilogram (mg/kg). A permanent monitoring well (MW-1) located in the alley opposite the rear door of the former cleaners contains PCE at concentrations up to 41 milligrams per liter (mg/L), above the Class GA groundwater standard of 5 micrograms per liter (µg/L). Additional details related to these prior investigations can be found in the FAP. The data indicates that dry cleaning solvents were likely released to the ground surface outside of the rear door of the former dry cleaner space.

Based on the findings from a Site Characterization (SC) completed by MACTEC in 2007 (MACTEC, 2007) and prior environmental investigations, the NYSDEC reclassified the Site as a Class 2 Inactive hazardous waste site and, in 2010, directed MACTEC to perform a RI/FS.

## 1.2 2010 RI AND IRM OVERVIEW

Previous studies had identified PCE in surficial and shallow unpaved soils behind the former dry cleaner. Prior soil vapor and indoor air sampling identified PCE in soil vapor beneath the dry cleaner. The NYSDEC identified a soil removal IRM as a priority for the RI. The NYSDEC determined that removing accessible contaminated soil would be an appropriate remedial action to mitigate residual soil contamination and potentially reduce levels of PCE in sub-slab vapor beneath the Site structure.

MACTEC developed additional investigation tasks that were presented in the 2010 FAP. These included:

- a direct-push (Geoprobe) soil sampling program to better define the lateral and vertical extent of impacted soil and provide geotechnical data for remedial design
- surface soil sampling from locations outside of the impacted soils to evaluate naturally occurring levels of metals and organic constituents
- groundwater grab sampling from direct-push borings located south (downgradient) from the former dry cleaner
- property survey to establish boundaries and structure relationships.

The results of these activities are discussed in Section 2.0.

Based on the RI results and prior studies, MACTEC designed and executed a soil removal IRM. The IRM included excavation of accessible impacted soils located at the rear of the former dry cleaner and construction of a potential vapor extraction well.

## 1.3 IRM BIDDING INFORMATION AND AWARD

MACTEC prepared project plans and specifications and issued Request for Quotations on October 13, 2010. A pre-bid meeting was held at the Site on October 15, 2010 for interested bidders to review the Site setting and access. A single correction to the contract documents, specifically items and/or quantities on the Bid Schedule, was issued to interested bidders on October 28, 2010.

MACTEC solicited bids from six firms and received bids from four responsive bidders on October 29, 2010. The low bidder was Op-Tech Environmental Services, Inc. (Op-Tech) of Syracuse, New York, with a total bid of $38,282. MACTEC reviewed the responding bids and recommended award to Op-Tech based on price and technical capability. The NYSDEC authorized the award, and MACTEC executed a subcontract agreement with Op-Tech for the IRM.

The IRM was performed in December 2010, and waste disposal was completed in January 2011. The Scope of Work and findings for the IRM are presented in Section 3.0.

# 2.0 2010 REMEDIAL INVESTIGATION

In June 2010, MACTEC conducted a sampling investigation to further evaluate the area of impacted soils and provide supporting data needed to design a soil removal IRM. The investigation included additional sampling to characterize groundwater downgradient of the area of soil impact.

## 2.1 SOIL SAMPLING

### 2.1.1 Scope of Work

To establish current conditions and better define the areal and vertical extent of PCE impact, MACTEC completed a soil sampling program along the north side of the former dry cleaners where prior sampling indicated the presence of PCE in shallow soils. MACTEC subcontracted Nothnagle Drilling of Scottsville, New York to perform the drilling. Field work was completed during the week of June 8, 2010. ChemTech Environmental Laboratories (ChemTech), a New York State Department of Environmental Health Environmental Laboratory Approval Program-certified laboratory analyzed the soil and groundwater samples.

The field investigation included:

- eleven direct-push soil borings (PDI-01 to PDI-09, PDI-12, PDI-13),
- three hand borings with shallow soil samples (PDI-10, PDI-11 and PDI-14),
- one surface soil location (SS-1)
- three offsite soil samples (BKSS-01, BKSS-02 and BKSS-03)

Exploration locations are shown on Figure 2.1. Figure 2.2 provides a more detailed map of sampling locations in the area of impacted soil, and includes prior sampling locations.

Nothnagle, under the direction of MACTEC, completed the soil borings to depths of between 16 and 22 feet below ground surface (bgs). Samples were retrieved continuously via 4-foot long sampling liners and each soil interval was logged and examined. Soil boring logs are provided in Appendix A. The logs include soil description, sample depths and IDs and measurements of the soil column using a photo-ionization meter (PID). Hand sampling was accomplished at three locations (PDI-10, PDI-11 and PDI-14) due to the presence of overhead utilities. Field data records for these samples are provided as surface soil logs in Appendix A. A total of 26 soil samples, plus quality assurance/quality control samples were collected from PDI-01 through PDI-14. Sample locations were selected based on PID response and to provide spatial coverage to assess the levels of PCE in soils laterally and vertically in the area of impact. Samples were analyzed by ChemTech for volatile organic compounds (VOCs).

One surface soil sample was collected to characterize surficial soil for environmental constituents other than VOCs. SS-1 was collected from soil near the elbow of the natural gas feeder line that enters the rear of the building (see Figure 2.2). This sample was analyzed by ChemTech for semi-volatile organic compounds (SVOCs), pesticides, polychlorinated biphenyls (PCBs) and inorganics (metals).

Three surface soil samples were obtained at locations apart from the area of impact from dry cleaning solvent (Figure 2.1). Sample BKSS-01 is located south of the Site from the grass strip bordering East Pulteney Street and within the town right-of-way. BKSS-02 was collected from an unpaved vacant lot to the northwest of the former dry cleaner space. BKSS-03 was collected from the grass strip along the south side of Ontario Street, to the north of the Site. These samples were analyzed by ChemTech for SVOCs, pesticides, PCBs and metals. Field data records for the surface soil samples are also provided in Appendix A.

### 2.1.2 Analytical Findings

Analytical results from the 2010 RI sampling are summarized on Table 2.1 (Soil VOCs) and Table 2.2 (Soil Metals, Pesticides, and SVOCs). These tables show only those compounds reporting in one or more samples. Full data tables and a discussion of data usability are provided in Appendix B.

PCE was reported in all VOC soil samples at concentrations ranging from 0.0026 mg/kg (PDI-3 at 13 ft bgs) to 63 mg/kg (PDI-9 at 1 foot bgs). PCE was reported above the soil criteria of 1.3 mg/kg in two samples (one interval each at boring PDI-8 and PDI-9). Figure 2.2 includes the 2010 result as well results from prior soil analyses to show the historical distribution of PCE in Site soil. PCE reported as a tentatively identified compound in those samples where SVOCs were analyzed and there was no corresponding VOC analysis and these have also been included on Figure 2.2.

Other chlorinated solvent-type compounds detected in soil include trichloroethene (TCE) and cis-1,2-dichloroethene; however, they were only identified in two of the samples and were reported at concentrations below their respective soil criteria.

Levels of metals reported in soils from behind the building (samples from PDI-6, PDI-11 and SS-01) were consistent with concentrations reported in the three off-site soil samples. No onsite results exceeded criteria. Therefore, metals were not interpreted to be contaminants of concern in the area where dry cleaning solvents were present.

Levels of SVOCs reported in soils behind the building were consistent with the offsite background samples, and no onsite SVOC was reported above criteria. SVOCs were also not interpreted to be contaminants of concern related to the solvent release.

PCBs were not detected in any onsite or offsite background soil sample.

Three pesticides were reported in one or more of the onsite samples (4,4-dichlorodiphenyldichloroethane [4,4-DDD], 4,4-dichlorodiphenyldichloroethylene [4,4-DDE], 4,4-dichlorodiphenyltrichloroethane [4,4-DDT]) at levels above criteria. Pesticides were also detected in one of the three offsite background samples. The onsite samples with PCBs were located within the area of soil excavation and were therefore removed during the IRM. The occurrence of pesticides in shallow soils is interpreted by MACTEC to be coincidental and not likely related to the release of the dry cleaning solvents.

The 2010 soil sampling and analysis confirmed that the dry cleaning solvent PCE was the principal Site-related contaminant of concern and that it was still present locally at levels above soil criteria. The sampling array from the 2010 and prior environmental studies were used to develop a proposed area of excavation for the IRM. The proposed area used for remedial design and contract award is represented on Figure 2.2.

## 2.2 GROUNDWATER SAMPLING

### 2.2.1 Scope of Work

Prior investigations included the installation of permanent monitoring wells MW-01 and MW-02 at the Site. MW-01 is located directly behind the former dry cleaner within the area of impacted shallow soils. MW-02 is located south and downgradient of the area of impact in the front parking lot of the Site. Groundwater flow direction has been interpreted to be southerly or south-southeasterly towards the Chemung River. Sampling in 2006 had established that PCE was present in groundwater at MW-01 at 37j µg/L and at MW-02 at 2.5j µg/L (MACTEC, 2007). The Class GA groundwater criterion for PCE is 5 mg/L.

As part of the 2010 RI, MACTEC collected groundwater grab samples from three direct push borings (GW-13, GW-14 and GW-15) located in a line to the east of MW-02 (Figure 2.1). The sampling array was designed to provide data from a more comprehensive transect across groundwater flow direction.

Nothnagle used direct-push technique to advance borings and collect groundwater grab samples from the water table. Samples were obtained from a depth of 19 feet bgs in each of the three borings.

### 2.2.2 Analytical Findings

PCE was detected at low concentrations in two of the three groundwater samples. PCE at GW-014 was reported at 1.2 µg/L and at GW-015 at 1.8 µg/L. PCE was not detected at GW-013. These results are all below the criteria of 5 µg/L and are consistent with the level of PCE reported in nearby MW-02. Results for detected compounds are provided in Table 2.3. Relatively low levels of fuel-related compounds (e.g. benzene, ethyl benzene, toluene, xylene) were also present in the groundwater grab samples.

## 2.3 SURVEY

Lu Engineers (Lu) of Rochester, NY, under contract to MACTEC, provided survey services at the Site. As part of the SC, Lu had previously surveyed the Site in March 2006 and produced a survey plot of the Site structures and explorations. In 2010, Lu updated the survey to identify property boundaries and abutters. Horizontal locations were tied to the NYS Plane Coordinate System using North American Datum of 1983. Vertical elevations were tied to mean sea level using National Geodetic Vertical Datum of 1988. Survey details for the IRM area are provided on Figure 2.3.

# 3.0 IRM SCOPE OF WORK

## 3.1 DESCRIPTION OF IRM

The NYSDEC determined that the IRM should include removal of accessible impacted soil between from the apparent release area to the rear of the former dry cleaners. MACTEC developed a proposed area of soil removal based on historic and RI sampling data. Due to proximity of both the Site structure (a slab-on-grade brick and block building with the former dry cleaner space) and a wood-frame barn on a loose fieldstone foundation, there were limits on the depth and slope that the excavation could achieve without potentially compromising structural stability. MACTEC developed design documents and consulted with the interested subcontractors to determine practical limits of excavation.

As part of the IRM, the NYSDEC required that existing monitoring well MW-01 be preserved. NYSDEC also requested the construction of a vapor extraction well, to be located within the excavation. This well could be used to mitigate residual PCE impact, if determined to be needed, after the soil removal phase of the IRM.

The elements of the 2010 IRM included:

- excavation of soils within a footprint of approximately 200 square feet
- removal of a central area of soils to an approximate depth of 6 feet, with the final configuration of the hole to be determined on-site while considering adjacent structure foundation stability
- backfill with crushed stone
- construction of a 4-inch diameter vapor well
- emplacement of a geotechnical membrane extending across the entire excavation creating a surficial seal around the potential vapor well to prevent entrainment of surface vapor.
- transport and disposal of excavated soil to a NYSDEC-approved landfill
- site restoration including restoration of storage structures, rain down sprouts, a free-standing air conditioning (A/C) unit, and removal of construction trash

Photo documentation of the field activities is provided in Appendix C.

## 3.2 PROJECT PREPARATION AND GOVERNING DOCUMENTS

MACTEC prepared project plans detailing the work elements, submittals, schedule, and project requirements. These were provided to bidders during the contractor selection process. The Civil Site Plan, Excavation plan, and Section and Details plan are provided in Appendix D. Once the NYSDEC approved the subcontract award, MACTEC worked with Op-Tech to develop and review project plans for the execution of the work.

Op-Tech submitted a Work Plan and Health and Safety Plan (HASP). These were accepted in final form on December 2, 2010, and field start was planned for December 6, 2010. The work plan provided descriptions of the methods, procedures, equipment and materials to be used to complete the project. While finalizing the work plan, Op-Tech pre-planned and coordinated the field elements to be able to perform the field tasks in the most efficient time. The majority of field tasks were scheduled and executed during a 6-day period, a significant reduction in the planned three-week schedule that resulted in labor savings for MACTEC and the NYSDEC.

## 3.3 IRM EXECUTION

### 3.1.1 Site Mobilization and Preparation

The following tasks were completed by Op-Tech before soil excavation commenced on December 7, 2010.

Container Staging. Op-Tech brought three 20-yard steel containers to the Site and staged them at a designated location to the north and west of the excavation area.

Brush removal. Op-Tech grubbed weeds and brush from the alley behind the Site building and placed the organic material in one of the containers. Miscellaneous paper trash and debris was bagged and would be disposed of as municipal trash during Site restoration.

Relocation of A/C Unit. The IRM included the temporary removal of an above ground A/C unit that was staged on the ground at the rear of the Site structure. Op-Tech used a subcontractor (Gene's Air

Conditioning/Heating of Corning, NY) to depower and disconnect the unit, and then Op-Tech moved the unit and floating concrete pad off of the work area.

Utility Clearance. Op-Tech contacted Dig-Safe NY and had utilities in the area marked. Utilities within or near the work area included a buried natural gas line and overhead power lines. Op-Tech also met with the gas company to mark the line and review excavation safety requirements in the vicinity of the line. The Work Plan included hand excavation of the gas line at the commencement of excavation to expose its run within the work area.

Shed relocation. A small storage shed and its contents were temporarily relocated to allow equipment access between the soil excavation and the staged containers.

### 3.1.2 Soil Excavation

Op-Tech began the excavation on December 7, 2010. The excavation proceeded generally from east to west with removal of shallow (upper two feet of soil) and then deeper (2 to 6 feet) where practical based on the design plans. Hand-digging was used to expose the natural gas line and to confirm the depth of the Site building's footing which was found at approximately 2.5 feet bgs. Existing monitoring well MW-01 was preserved in place and its cement collar was exposed by hand. The excavation proceeded as planned and reached an approximate depth of six feet below grade. The excavation north of MW-01 was limited to approximately three feet below grade, as planned, due to the nearby presence of the loose fieldstone foundation of the adjacent wood barn.

With the exception of material that was hand-dug, soils were removed using a Volvo EC35 mini-excavator and transported to the containers using a Volvo MC60 skid steer. Due to the constricted working area, care was taken to protect the structure foundations and avoid overhead and in-ground utilities.

Once the excavation had reached the approximate design lateral and vertical limits, as judged by the Op-Tech and MACTEC engineer onsite, documentation soil samples were collected by MACTEC (see Section 3.1.5) and a survey of the excavation limits was completed by a licensed surveyor subcontracted to Op-Tech.

Orange safety fencing material was then placed along the bottom and side slopes of the excavation to demarcate the limit of soil removal.

### 3.1.3 Vapor Well Construction

A perforated high-density polyethylene (HDPE) well pipe was installed for potential future use as a vacuum extraction well. As shown on MACTEC's Civil Section and Details Plan (Appendix D) the well consists of 4-inch diameter HDPE with a three-foot long slotted section with 0.020-inch well screen installed on the bottom of the excavation. The well was completed with a solid riser section that terminates within a 12-inch road box. A concrete apron was constructed around the roadbox.

### 3.1.4 Imported Backfill

The excavation was backfilled as a layered installation due to the design requirements including the placement of a geomembrane surrounding the potential vapor extraction well. Crushed stone was employed as backfill and compacted in lifts. The stone was brought to an elevation approximately 6-inches above the top of the extraction well screen. Non-woven geotextile (GEOTEX 311) was placed across the top of the crushed stone, and a 4-inch to 6-inch sand lift was placed on the geotextile.

A geomembrane was then constructed around the extraction well and across the entire excavation. The geomembrane consists of 40-mil thick HDPE smooth liner by Agru America, Inc. The liner covers the entire excavation footprint and is sealed around the monitoring well and vapor extraction well risers. A second sand lift was placed on top of the geomembrane to protect it from puncture, and then crushed stone was used as the surficial fill to restore the excavation area to its original elevation. Vertical section details can be seen on the Civil Sections and Details Plan (Appendix D).

The geomembrane installation was completed by Chenango Contractors of Johnson City, NY, a manufacturer-certified installer under contract to Op-Tech, and all seams were welded in accordance with the manufacturer's recommendations.

### 3.1.5 Documentation Samples

MACTEC collected documentation samples from the excavation consistent with DER-10, Technical Guidance for Site Investigation and Remediation (NYSDEC, 2010) to determine the levels of PCE in Site soils at the limits of the remedy. A total of seven samples (EX-01 to EX-07) were collected by MACTEC on December 7, 2010 and analyzed by ChemTech for VOCs. Locations are shown on Figure 3.1. Samples EX-01 through EX-05 were collected from the bottom of the excavation. EX-06 and EX-07 were collected from the north sidewall, approximately 4-feet below original grade.

Results for PCE are also plotted on Figure 3.1. TCE was reported in one sample (EX-06 at 3.1j micrograms per kilogram). PCE was only reported in one location (EX-07) at a level above soil criteria.

A data usability review for these analyses is included in Appendix E. PCE and TCE results are summarized below:

**Table 3.1 PCE and TCE Results: IRM Documentation Samples**
**(reported in µg/kg)**

| Location | PCE | TCE |
|---|---|---|
| EX-01 | 15 | ND (5.4U) |
| EX-02 | 79 | ND (4.8U) |
| EX-03 | 29 | ND (4.7U) |
| EX-04 | 110 | ND (4.4U) |
| EX-05 | 42 | ND (4.3U) |
| EX-06 | 170 | 3.1 J |
| EX-07 | 6300 D | ND (4.4U) |

ND = Not detected (reporting limit); D = Diluted run; J = estimated value; U = non-detect

### 3.1.6 Soil Transport and Disposal

Samples were obtained from each of the three roll-offs on December 7, 2010. The samples, including one duplicate for quality assurance were analyzed by ChemTech for VOCs. Results for PCE and TCE are shown in the table below.

**Table 3.2 PCE and TCE Results: Excavated Soil Samples**
**(reported in µg/kg)**

| Location | Sample ID | PCE | TCE |
|---|---|---|---|
| Container 1 | SC2520 | 14 | ND (5.7 U) |
| Container 2 | SC2509 | 640 D | 2.1 J |
| Container 3 | SC2513 | 200 | ND (5.8 U) |

MACTEC provided the results to the NYSDEC and requested a ‘contained-in’ determination. The NYSDEC approved the request which allowed the waste soil to be disposed of as non-hazardous solid waste. The NYSDEC approval letter is provided in Appendix F.

Op-tech engaged Page Transportation, a New York certified woman-owned business enterprise as the waste transporter. Page removed the three containers on January 11, 2011. The material was accepted for disposal at the Steuben County Bath Landfill in Bath, New York, also on January 11, 2010. Copies of the Non-hazardous Waste Manifests are provided in Appendix F.

### 3.1.7 Site Restoration

After completion of excavation, backfill and construction activities, Op-Tech restored the Site to its original conditions. Activities included:

- restoring the A/C unit to its original location and re-connecting the power
- restoring the shed and contents to their original position
- removing miscellaneous contractor waste with disposal as local municipal solid waste
- restoring building rain downspouts and a protective bollard.

### 3.1.8 Construction Surveys

Op-Tech subcontracted James Evans, Licensed Land Surveyor, Corning New York to survey the work site. James Evans performed the following surveys:

Pre-Excavation Survey. On November 29, 2010 to establish a construction baseline and elevations of the ground surface in the planned excavation and staging area.

Limits of Excavation Survey. On December 8, 2010, while the excavation was open, to document the boundary and depth of the excavation.

Post-Excavation Survey. On December 15, 2010 to document final ground elevations after Site restoration and to provide rim elevations for the flush-to-grade monitoring well and vapor extraction well.

The survey plots provided by Op-Tech are located in Appendix G.

#### 3.1.9 Health and Safety

Work was performed by Op-Tech under a Site-specific HASP. Op-Tech's designated Health and Safety Officer (HSO) was Mr. Ken Hugo. MACTEC's Site engineer, Mr. David Lovejoy, oversaw and documented the IRM activities and served as MACTEC's HSO. Mr. Hugo or Mr. Lovejoy conducted daily work plan/safety meetings before the work commenced to review the planned tasks and any associated safety hazards.

All work was accomplished under Level D personal protective equipment. Weather during the period of excavation and restoration was consistently below freezing. This served to minimize the potential for volatile organic release to air. No VOCs were recorded in the breathing zone or near the excavation faces during the excavation. Dust monitoring was not deemed necessary by the NYSDEC due to the limited nature of the excavation, the weather, and on-site conditions.

All work was accomplished safely and there were no safety or health incidents during the course of the project. Daily work logs are provided in Appendix H.

# 4.0 ISSUES AND CHANGES TO THE CONTRACT

## 4.1 CONTRACTOR

### 4.1.1 Project Schedule

During the project bidding phase, MACTEC asked bidders to commit to a field start date of November 29, 2010. MACTEC worked with the winning bidder, Op-Tech, to ensure that their project plans were adequate to govern the execution of the IRM and document its performance. MACTEC approved Op-Tech's Work Plan on December 2, 2010 and therefore field start did not occur until December 6, 2010.

Field work was executed professionally and in a timely manner. All construction tasks with the exception of transport and disposal of the containerized waste were completed within a two week timeframe instead of MACTEC's project estimate of three weeks.

MACTEC received a 'contained-in' designation for all waste from the NYSDEC dated December 14, 2010. Op-Tech incurred some delay while waiting for authorization from the receiving landfill and promptly transported the waste once this was issued. The containers were removed and received by the disposal facility on January 11, 2011, designated as the IRM completion date.

## 4.2 CONSTRUCTION ISSUES

There were no changes to Op-Tech's scope of work. No Change Orders were issued during the project.

# 5.0 ENGINEER'S CONSTRUCTION CERTIFICATION

## 5.1 CONCLUSIONS AND CERTIFICATION

I, Mark Stelmack, certify that I am currently a NYS registered professional engineer. I had primary direct responsibility for the implementation of the subject construction program, and I certify that the Remedial Design Plans and Specifications were implemented and that all construction activities were completed in substantial conformance with the DER-approved Remedial Design Plans and Specifications.


Signature: Mark Stelmack

Mark J. Stelmack, P.E.
Principal Engineer

Date: Feb. 28, 2011



4.2 report.hw851028.2011-02-28.Loohns_CCR.docx

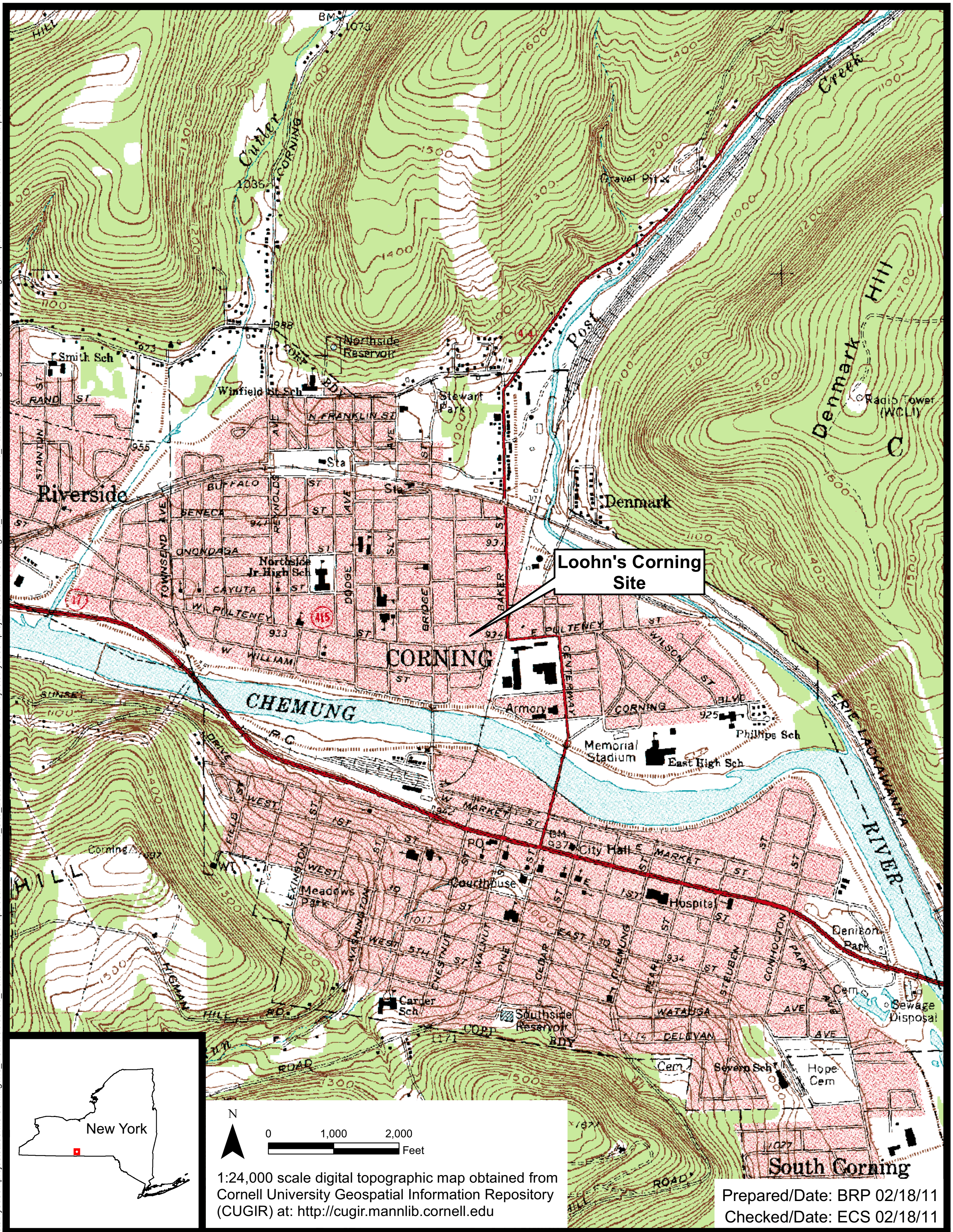
## 6.0 REFERENCES

MACTEC Engineering and Consulting, Inc. P.C. (MACTEC) 2007. Final Site Characterization Report, Region 8 Dry Cleaning Sites, Loohns Corning Site, Corning, New York, March 2007.

MACTEC 2010. Field Activities Plan, Loohns Corning Site: Site # 851028; Work Assignment No. D004434-35, May 2010.

NYSDEC 2010. DER-10 / Technical Guidance for Site Investigation and Remediation, Issued May 3, 2010.

**FIGURES**




1:24,000 scale digital topographic map obtained from Cornell University Geospatial Information Repository (CUGIR) at: http://cugir.mannlib.cornell.edu

Prepared/Date: BRP 02/18/11
Checked/Date: ECS 02/18/11

CONSTRUCTION COMPLETION REPORT
LOOHN'S CORNING SITE
CORNING, NEW YORK

MACTEC

SITE LOCATION

Project 3612-10-2148 Figure 1.1

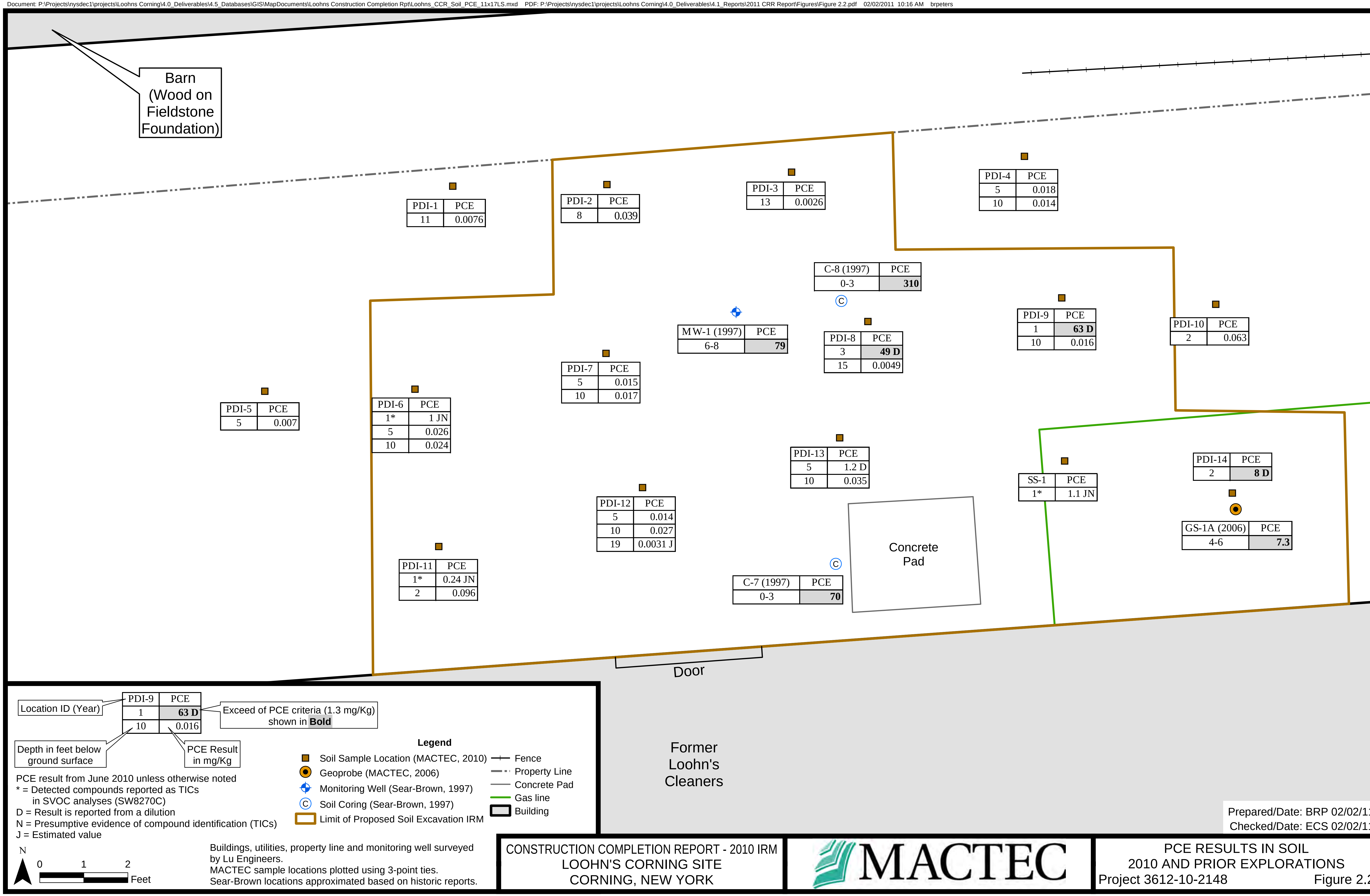

Prepared/Date: BRP 02/18/11
Checked/Date: ECS 02/18/11

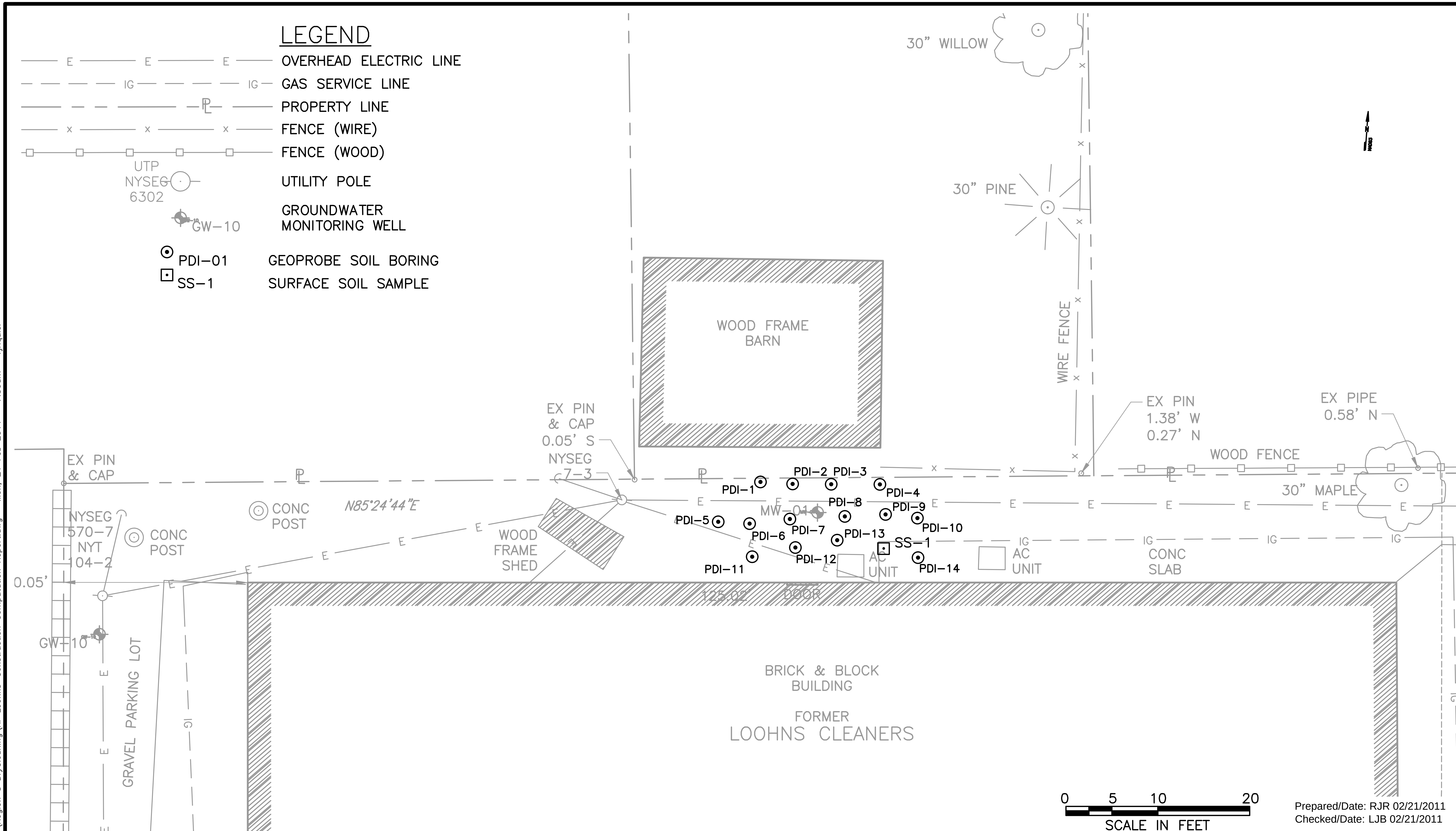
CONSTRUCTION COMPLETION REPORT - 2010 IRM
LOOHN'S CORNING SITE
CORNING, NEW YORK

MACTEC

SITE MAP WITH 2010
ENVIRONMENTAL SAMPLING LOCATIONS
Project 3612-10-2148 Figure 2.1

Document: P:\Projects\nysdec1\projects\Loohns Corning\4.0_Deliverables\4.5_Databases\GIS\MapDocuments\Loohns Construction Completion Rpt\Loohns_CCR_Soil_PCE_11x17LS.mxd PDF: P:\Projects\nysdec1\projects\Loohns Corning\4.0_Deliverables\4.1_Reports\2011 CRR Report\Figures\Figure 2.2.pdf 02/02/2011 10:16 AM brpeters






Prepared/Date: RJR 02/21/2011
Checked/Date: LJB 02/21/2011

NOTES:

1. BASE SURVEY FROM DRAWING "ENVIRONMENTAL MAP" DATED: 3-10-06, BY JOSEPH C. LU ENGINEERS AND LAND SURVEYING, P.C., PENFIELD, NEW YORK.

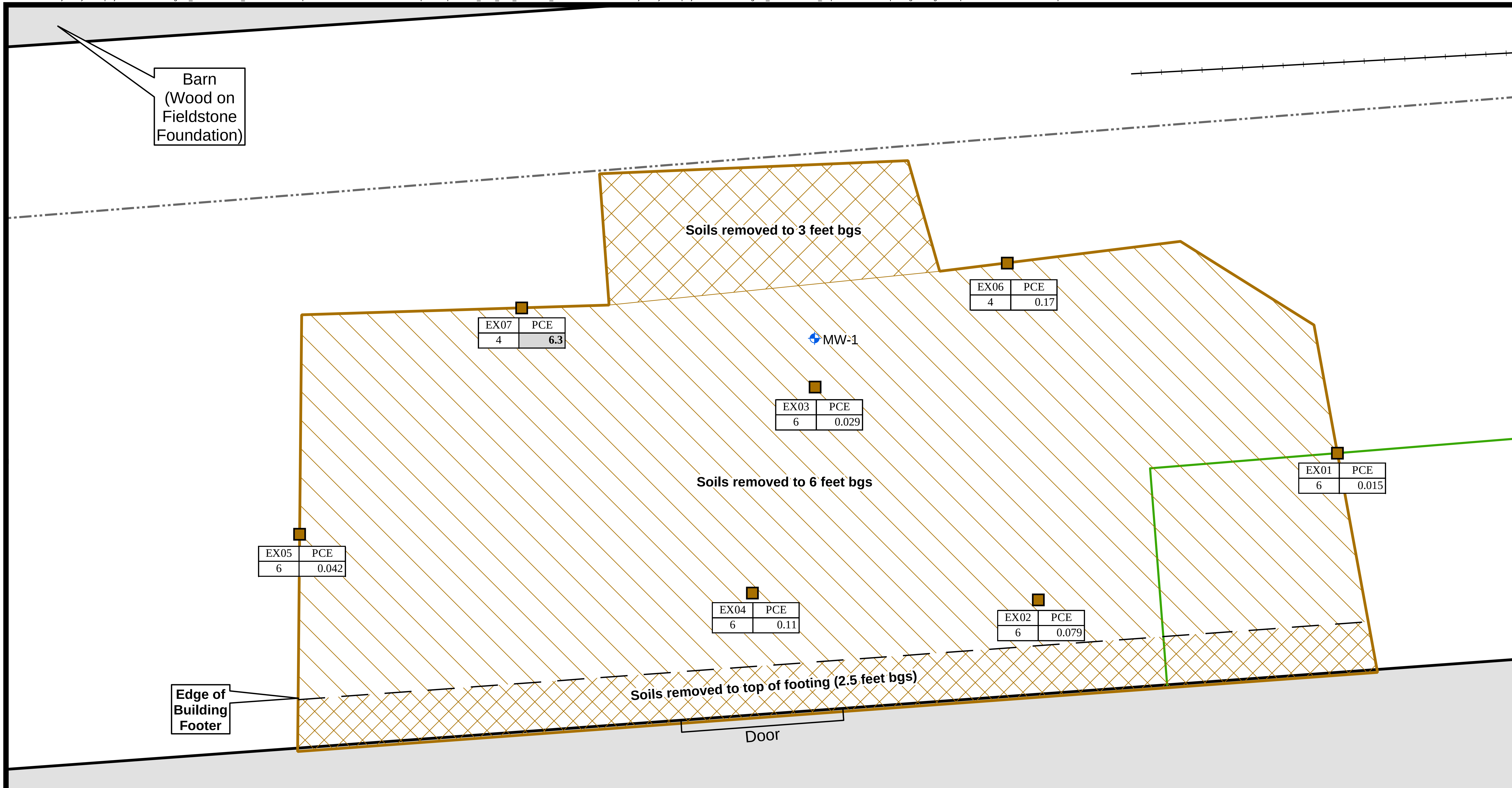
Construction Computation Report - 2010 IRM
Loohn's Corning Site
Corning, New York

MACTEC

RI Survey and Exploration Details
Project 3612-10-2148
Figure 2.3

M:\Projects\nysdec1\Region 8 DryCleaning\RI-Loohns-Construction Computation Report.dwg Mon, 21 Feb 2011 - 7:30am rjriquier

Document: P:\Projects\nysdec1\projects\Loohns Corning\4.0_Deliverables\4.5_Databases\GIS\MapDocuments\Loohns Construction Completion Rpt\Loohns_CCR_Post_Excavation_11x17LS.mxd PDF: P:\Projects\nysdec1\projects\Loohns Corning\4.0_Deliverables\4.1_Reports\2011 CCR Report\Figures\Figure 3.1.pdf 02/25/2011 11:15 AM brpeters




**Legend**

- Documentation Sample Location
- Monitoring Well (Sear-Brown, 1997)
- Actual Limit of Excavation
- Fence
- Property Line
- Gas line
- Building

| EX07 | PCE |
|---|---|
| 4 | **6.3** |

Location ID
Depth in feet below ground surface
Exceed of PCE criteria (1.3 mg/Kg) shown in **Bold**
PCE Result in mg/Kg

N
0 1 2 Feet

Buildings, utilities, property line and monitoring well surveyed by Lu Engineers.
Excavation and sample locations surveyed by James D. Evans

Prepared/Date: BRP 02/25/11
Checked/Date: ECS 02/25/11

CONSTRUCTION COMPLETION REPORT - 2010 IRM
LOOHN'S CORNING SITE
CORNING, NEW YORK

MACTEC

EXCAVATION DOCUMENTATION SAMPLES

Project 3612-10-2148

Figure 3.1

**TABLES**

## Table 2.1: 2010 Soil Results - VOCs



| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Sample Location** | PDI-001 | | PDI-001 | | PDI-002 | | PDI-003 | | PDI-004 | | PDI-004 | |
| | | **Sample ID** | LCPDI00101110XD | | LCPDI00101110XX | | LCPDI00200810XX | | LCPDI00301310XX | | LCPDI00400510XX | | LCPDI00401010XX | |
| | | **QC Code** | FD | | FS | | FS | | FS | | FS | | FS | |
| | | **Sample Depth** | 11 ft bgs | | 11 ft bgs | | 8 ft bgs | | 13 ft bgs | | 5 ft bgs | | 10 ft bgs | |
| | | **Sample Date** | 06/08/10 | | 06/08/10 | | 06/08/10 | | 06/09/10 | | 06/09/10 | | 06/09/10 | |
| **Method** | **Parameter** | **Criteria** | **Result** | **Qualifier** | **Result** | **Qualifier** | **Result** | **Qualifier** | **Result** | **Qualifier** | **Result** | **Qualifier** | **Result** | **Qualifier** |
| SW8260B | 1,2-Dichlorobenzene | 1 | 0.0048 | U | 0.0041 | U | 0.0053 | U | 0.0057 | U | 0.0045 | U | 0.0074 | U |
| SW8260B | 1,4-Dichlorobenzene | 1.8 | 0.0048 | U | 0.0041 | U | 0.0053 | U | 0.0057 | U | 0.0045 | U | 0.0074 | U |
| SW8260B | Acetic acid, methyl ester | NC | 0.0048 | U | 0.0041 | U | 0.0053 | U | **0.0032** | J | 0.0045 | U | **0.0076** | |
| SW8260B | Acetone | 0.05 | 0.024 | U | 0.021 | U | 0.026 | UJ | 0.028 | U | **0.016** | J | **0.023** | J |
| SW8260B | Cis-1,2-Dichloroethene | 0.25 | 0.0048 | U | 0.0041 | U | 0.0053 | U | 0.0057 | U | 0.0045 | U | 0.0074 | U |
| SW8260B | Cyclohexane | NC | 0.0048 | U | 0.0041 | U | 0.0053 | U | 0.0057 | U | 0.0045 | U | 0.0074 | U |
| SW8260B | Methyl cyclohexane | NC | 0.0048 | U | 0.0041 | U | 0.0053 | U | 0.0057 | U | **0.0027** | J | 0.0074 | U |
| SW8260B | Methylene chloride | 0.05 | 0.0048 | U | 0.0041 | U | 0.0056 | U | **0.0067** | | **0.0031** | J | **0.0078** | |
| SW8260B | Tetrachloroethene | 1.3 | **0.0062** | | **0.0073** | | **0.039** | | **0.0026** | J | **0.018** | | **0.014** | |
| SW8260B | Toluene | 0.7 | 0.0048 | U | **0.0012** | J | 0.0053 | U | 0.0057 | U | 0.0045 | U | 0.0074 | U |
| SW8260B | Trichloroethene | 0.47 | 0.0048 | U | 0.0041 | U | 0.0053 | U | 0.0057 | U | 0.0045 | U | 0.0074 | U |
| SW8260B | Xylene, m/p | 0.26 | 0.0095 | U | 0.0082 | U | 0.011 | U | 0.011 | U | 0.0091 | U | 0.015 | U |

**Notes:**
VOCs = Volatile organic compounds
* = Detected compounds reported as TIC
in SVOC analyses (SW8270C)
TICs = Tentatively Identified Compunds
SVOCs = Semi-volatile organic compounds
Results in milligrams per kilogram (mg/Kg)
ft bgs = feet below ground surface
Only detected compounds shown.
"--" = Parameter not analyzed
QC Code:
FS = Field Sample
FD = Field Duplicate
Qualifiers:
U = Not detected greater than the reporting limit
D = Result is reported from a dilution
N = Presumptive evidence of compound
identification (TICs)
J = Estimated value
Criteria - 6 NYCRR 375 Soil Cleanup Objectives
for unrestricted use.
NC = no criteria available
Detections are indicated in **BOLD**
**Highlighted results exceed criteria**

*Prepared By/Date: LJB 8/19/2010*
*Check By/Date: CRS 8/20/2010*

# Table 2.1: 2010 Soil Results - VOCs



| | | **Sample Location** | PDI-005 | | PDI-006* | | PDI-006 | | PDI-006 | | PDI-007 | | PDI-007 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Sample ID** | LCPDI00500510XX | | LCPDI00600110XX | | LCPDI00600510XX | | LCPDI00601010XX | | LCPDI00700510XX | | LCPDI00701010XX | |
| | | **QC Code** | FS | | FS | | FS | | FS | | FS | | FS | |
| | | **Sample Depth** | 5 ft bgs | | 1 ft bgs | | 5 ft bgs | | 10 ft bgs | | 5 ft bgs | | 10 ft bgs | |
| | | **Sample Date** | 06/08/10 | | 06/08/10 | | 06/08/10 | | 06/08/10 | | 06/08/10 | | 06/08/10 | |
| **Method** | **Parameter** | **Criteria** | **Result** | **Qualifier** | **Result** | **Qualifier** | **Result** | **Qualifier** | **Result** | **Qualifier** | **Result** | **Qualifier** | **Result** | **Qualifier** |
| SW8260B | 1,2-Dichlorobenzene | 1 | 0.0047 | U | -- | | 0.0047 | U | 0.0049 | U | 0.0049 | U | 0.0043 | U |
| SW8260B | 1,4-Dichlorobenzene | 1.8 | 0.0047 | U | -- | | 0.0047 | U | 0.0049 | U | 0.0049 | U | 0.0043 | U |
| SW8260B | Acetic acid, methyl ester | NC | 0.0047 | U | -- | | 0.0047 | U | 0.0049 | U | **0.0028** | J | **0.0087** | |
| SW8260B | Acetone | 0.05 | 0.023 | U | -- | | 0.024 | U | 0.025 | U | 0.025 | U | 0.026 | U |
| SW8260B | Cis-1,2-Dichloroethene | 0.25 | 0.0047 | U | -- | | 0.0047 | U | 0.0049 | U | 0.0049 | U | 0.0043 | U |
| SW8260B | Cyclohexane | NC | 0.0047 | U | -- | | 0.0047 | U | 0.0049 | U | 0.0049 | U | 0.0043 | U |
| SW8260B | Methyl cyclohexane | NC | 0.0047 | U | -- | | 0.0047 | U | 0.0049 | U | 0.0049 | U | 0.0043 | U |
| SW8260B | Methylene chloride | 0.05 | 0.0047 | U | -- | | 0.0047 | U | 0.0049 | U | 0.0049 | U | 0.0044 | U |
| SW8260B | Tetrachloroethene | 1.3 | **0.007** | | **1** | JN | **0.026** | | **0.024** | | **0.015** | | **0.017** | |
| SW8260B | Toluene | 0.7 | 0.0047 | U | -- | | 0.0047 | U | 0.0049 | U | 0.0049 | U | **0.001** | J |
| SW8260B | Trichloroethene | 0.47 | 0.0047 | U | -- | | 0.0047 | U | 0.0049 | U | 0.0049 | U | 0.0043 | U |
| SW8260B | Xylene, m/p | 0.26 | 0.0093 | U | -- | | 0.0094 | U | 0.0098 | U | 0.0098 | U | 0.0087 | U |

**Notes:**
VOCs = Volatile organic compounds
* = Detected compounds reported as TIC
in SVOC analyses (SW8270C)
TICs = Tentatively Identified Compunds
SVOCs = Semi-volatile organic compounds
Results in milligrams per kilogram (mg/Kg)
ft bgs = feet below ground surface
Only detected compounds shown.
"--" = Parameter not analyzed
QC Code:
FS = Field Sample
FD = Field Duplicate
Qualifiers:
U = Not detected greater than the reporting limit
D = Result is reported from a dilution
N = Presumptive evidence of compound
identification (TICs)
J = Estimated value
Criteria - 6 NYCRR 375 Soil Cleanup Objectives
for unrestricted use.
NC = no criteria available
Detections are indicated in **BOLD**
**Highlighted results exceed criteria**

# Table 2.1: 2010 Soil Results - VOCs



| | | **Sample Location** | PDI-008 | | PDI-008 | | PDI-009 | | PDI-009 | | PDI-010 | | PDI-011* | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Sample ID** | LCPDI00800310XX | | LCPDI00801510XX | | LCPDI00900110XX | | LCPDI00901010XX | | LCPDI01000210XX | | LCPDI01100110XX | |
| | | **QC Code** | FS | | FS | | FS | | FS | | FS | | FS | |
| | | **Sample Depth** | 3 ft bgs | | 15 ft bgs | | 1 ft bgs | | 10 ft bgs | | 2 ft bgs | | 1 ft bgs | |
| | | **Sample Date** | 06/08/10 | | 06/08/10 | | 06/09/10 | | 06/09/10 | | 06/09/10 | | 06/09/10 | |
| **Method** | **Parameter** | **Criteria** | **Result** | **Qualifier** | **Result** | **Qualifier** | **Result** | **Qualifier** | **Result** | **Qualifier** | **Result** | **Qualifier** | **Result** | **Qualifier** |
| SW8260B | 1,2-Dichlorobenzene | 1 | **0.027** | | 0.0046 | U | **0.0052** | J | 0.0045 | U | 0.0048 | U | -- | |
| SW8260B | 1,4-Dichlorobenzene | 1.8 | **0.012** | | 0.0046 | U | **0.0023** | J | 0.0045 | U | 0.0048 | U | -- | |
| SW8260B | Acetic acid, methyl ester | NC | 0.0051 | U | **0.0042** | J | 0.0068 | U | **0.0023** | J | 0.0048 | U | -- | |
| SW8260B | Acetone | 0.05 | 0.025 | U | 0.023 | UJ | **0.012** | J | **0.012** | J | 0.024 | U | -- | |
| SW8260B | Cis-1,2-Dichloroethene | 0.25 | **0.19** | | 0.0046 | U | **0.0028** | J | 0.0045 | U | 0.0048 | U | -- | |
| SW8260B | Cyclohexane | NC | 0.0051 | U | 0.0046 | U | 0.0068 | U | 0.0045 | U | 0.0048 | U | -- | |
| SW8260B | Methyl cyclohexane | NC | 0.0051 | U | 0.0046 | U | 0.0068 | U | 0.0045 | U | 0.0048 | U | -- | |
| SW8260B | Methylene chloride | 0.05 | 0.0077 | U | 0.0051 | U | **0.0042** | J | **0.0046** | | **0.004** | J | -- | |
| SW8260B | Tetrachloroethene | 1.3 | **49** | D | **0.0049** | | **63** | D | **0.016** | | **0.063** | | **0.24** | JN |
| SW8260B | Toluene | 0.7 | 0.0051 | U | **0.0014** | J | 0.0068 | U | 0.0045 | U | 0.0048 | U | -- | |
| SW8260B | Trichloroethene | 0.47 | **0.18** | | 0.0046 | U | **0.0093** | | 0.0045 | U | 0.0048 | U | -- | |
| SW8260B | Xylene, m/p | 0.26 | 0.01 | U | 0.0091 | U | 0.014 | U | 0.0091 | U | 0.0096 | U | -- | |

**Notes:**
VOCs = Volatile organic compounds
* = Detected compounds reported as TIC
in SVOC analyses (SW8270C)
TICs = Tentatively Identified Compunds
SVOCs = Semi-volatile organic compounds
Results in milligrams per kilogram (mg/Kg)
ft bgs = feet below ground surface
Only detected compounds shown.
"--" = Parameter not analyzed
QC Code:
FS = Field Sample
FD = Field Duplicate
Qualifiers:
U = Not detected greater than the reporting limit
D = Result is reported from a dilution
N = Presumptive evidence of compound
identification (TICs)
J = Estimated value
Criteria - 6 NYCRR 375 Soil Cleanup Objectives
for unrestricted use.
NC = no criteria available
Detections are indicated in **BOLD**
**Highlighted results exceed criteria**

# Table 2.1: 2010 Soil Results - VOCs



| | | **Sample Location** | PDI-011 | | PDI-012 | | PDI-012 | | PDI-012 | | PDI-013 | | PDI-013 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Sample ID** | LCPDI01100210XX | | LCPDI01200510XX | | LCPDI01201010XX | | LCPDI01201910XX | | LCPDI01300510XX | | LCPDI01301010XX | |
| | | **QC Code** | FS | | FS | | FS | | FS | | FS | | FS | |
| | | **Sample Depth** | 2 ft bgs | | 5 ft bgs | | 10 ft bgs | | 19 ft bgs | | 5 ft bgs | | 10 ft bgs | |
| | | **Sample Date** | 06/09/10 | | 06/08/10 | | 06/08/10 | | 06/08/10 | | 06/08/10 | | 06/08/10 | |
| **Method** | **Parameter** | **Criteria** | **Result** | **Qualifier** | **Result** | **Qualifier** | **Result** | **Qualifier** | **Result** | **Qualifier** | **Result** | **Qualifier** | **Result** | **Qualifier** |
| SW8260B | 1,2-Dichlorobenzene | 1 | 0.0041 | U | 0.0045 | U | 0.0044 | U | 0.0041 | U | **0.0012** | J | 0.0044 | U |
| SW8260B | 1,4-Dichlorobenzene | 1.8 | 0.0041 | U | 0.0045 | U | 0.0044 | U | 0.0041 | U | 0.0045 | U | 0.0044 | U |
| SW8260B | Acetic acid, methyl ester | NC | 0.0041 | U | **0.0019** | J | 0.0044 | U | 0.0041 | U | 0.0045 | U | 0.0044 | U |
| SW8260B | Acetone | 0.05 | 0.02 | U | 0.022 | U | 0.022 | U | 0.025 | U | 0.022 | UJ | 0.022 | U |
| SW8260B | Cis-1,2-Dichloroethene | 0.25 | 0.0041 | U | 0.0045 | U | 0.0044 | U | 0.0041 | U | **0.0016** | J | 0.0044 | U |
| SW8260B | Cyclohexane | NC | 0.0041 | U | 0.0045 | U | 0.0044 | U | **0.0025** | J | 0.0045 | U | 0.0044 | U |
| SW8260B | Methyl cyclohexane | NC | 0.0041 | U | 0.0045 | U | 0.0044 | U | **0.0028** | J | 0.0045 | U | 0.0044 | U |
| SW8260B | Methylene chloride | 0.05 | **0.003** | J | 0.0045 | U | 0.0055 | U | 0.0053 | U | 0.0045 | U | 0.0044 | U |
| SW8260B | Tetrachloroethene | 1.3 | **0.096** | | **0.014** | | **0.027** | | **0.0031** | J | **1.2** | D | **0.035** | |
| SW8260B | Toluene | 0.7 | 0.0041 | U | 0.0045 | U | 0.0044 | U | **0.0022** | J | **0.00091** | J | 0.0044 | U |
| SW8260B | Trichloroethene | 0.47 | 0.0041 | U | 0.0045 | U | 0.0044 | U | 0.0041 | U | 0.0045 | U | 0.0044 | U |
| SW8260B | Xylene, m/p | 0.26 | 0.0081 | U | 0.009 | U | 0.0088 | U | **0.0015** | J | 0.0089 | U | 0.0088 | U |

**Notes:**
VOCs = Volatile organic compounds
* = Detected compounds reported as TIC
in SVOC analyses (SW8270C)
TICs = Tentatively Identified Compunds
SVOCs = Semi-volatile organic compounds
Results in milligrams per kilogram (mg/Kg)
ft bgs = feet below ground surface
Only detected compounds shown.
"--" = Parameter not analyzed
QC Code:
FS = Field Sample
FD = Field Duplicate
Qualifiers:
U = Not detected greater than the reporting limit
D = Result is reported from a dilution
N = Presumptive evidence of compound
identification (TICs)
J = Estimated value
Criteria - 6 NYCRR 375 Soil Cleanup Objectives
for unrestricted use.
NC = no criteria available
Detections are indicated in **BOLD**
**Highlighted results exceed criteria**

# Table 2.1: 2010 Soil Results - VOCs



| | | **Sample Location** | PDI-014 | | SS-001* | |
|---|---|---|---|---|---|---|
| | | **Sample ID** | LCPDI01400210XX | | LCSS00100110XX | |
| | | **QC Code** | FS | | FS | |
| | | **Sample Depth** | 2 ft bgs | | 1 ft bgs | |
| | | **Sample Date** | 06/09/10 | | 06/08/10 | |
| **Method** | **Parameter** | **Criteria** | **Result** | **Qualifier** | **Result** | **Qualifier** |
| SW8260B | 1,2-Dichlorobenzene | 1 | **0.00079** | J | -- | |
| SW8260B | 1,4-Dichlorobenzene | 1.8 | 0.0042 | U | -- | |
| SW8260B | Acetic acid, methyl ester | NC | 0.0042 | U | -- | |
| SW8260B | Acetone | 0.05 | 0.021 | U | -- | |
| SW8260B | Cis-1,2-Dichloroethene | 0.25 | 0.0042 | U | -- | |
| SW8260B | Cyclohexane | NC | 0.0042 | U | -- | |
| SW8260B | Methyl cyclohexane | NC | 0.0042 | U | -- | |
| SW8260B | Methylene chloride | 0.05 | **0.0045** | | -- | |
| SW8260B | Tetrachloroethene | 1.3 | **8** | D | **1.1** | JN |
| SW8260B | Toluene | 0.7 | 0.0042 | U | -- | |
| SW8260B | Trichloroethene | 0.47 | **0.0051** | | -- | |
| SW8260B | Xylene, m/p | 0.26 | 0.0084 | U | -- | |

**Notes:**
VOCs = Volatile organic compounds
* = Detected compounds reported as TIC
in SVOC analyses (SW8270C)
TICs = Tentatively Identified Compunds
SVOCs = Semi-volatile organic compounds
Results in milligrams per kilogram (mg/Kg)
ft bgs = feet below ground surface
Only detected compounds shown.
"--" = Parameter not analyzed
QC Code:
FS = Field Sample
FD = Field Duplicate
Qualifiers:
U = Not detected greater than the reporting limit
D = Result is reported from a dilution
N = Presumptive evidence of compound
identification (TICs)
J = Estimated value
Criteria - 6 NYCRR 375 Soil Cleanup Objectives
for unrestricted use.
NC = no criteria available
Detections are indicated in **BOLD**
**Highlighted results exceed criteria**

## Table 2.2: 2010 Soil Results - Metals, Pesticides and SVOCs

| | **Sample Location** | BKSS-001 | | BKSS-002 | | BKSS-003 | | BKSS-003 | | PDI-006 | | PDI-011 | | SS-001 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **Sample ID** | LCBKSS00100110XX | | LCBKSS00200110XX | | LCBKSS00300110XD | | LCBKSS00300110XX | | LCPDI00600110XX | | LCPDI01100110XX | | LCSS00100110XX | |
| | **Qc Code** | FS | | FS | | FD | | FS | | FS | | FS | | FS | |
| | **Sample Depth** | 1 ft bgs | | 1 ft bgs | | 1 ft bgs | | 1 ft bgs | | 1 ft bgs | | 1 ft bgs | | 1 ft bgs | |
| | **Sample Date** | 06/09/10 | | 06/09/10 | | 06/09/10 | | 06/09/10 | | 06/08/10 | | 06/09/10 | | 06/08/10 | |
| **Parameter** | **Criteria** | **Result** | **Qualifier** | **Result** | **Qualifier** | **Result** | **Qualifier** | **Result** | **Qualifier** | **Result** | **Qualifier** | **Result** | **Qualifier** | **Result** | **Qualifier** |
| **Metals by USEPA Method 6010** | | | | | | | | | | | | | | | |
| Aluminum | NC | **7050** | J | **5430** | J | **6400** | J | **5470** | J | **5420** | | **6180** | J | **8240** | |
| Antimony | NC | **0.7** | J | 2.58 | U | **1.37** | J | **1.08** | J | 2.76 | U | **0.58** | J | 2.89 | U |
| Arsenic | 13 | **5.67** | | **3.94** | | **9.37** | | **7.69** | | **4.22** | | **4.34** | | **6** | |
| Barium | 350 | **83.2** | J | **36.7** | J | **106** | J | **93.6** | J | **49.1** | | **66.6** | J | **97.3** | |
| Beryllium | 7.2 | **0.42** | | **0.26** | J | **0.46** | | **0.36** | J | **0.26** | J | **0.3** | | **0.41** | |
| Cadmium | 2.5 | **1.09** | | **0.66** | | **1.37** | | **0.96** | | **0.61** | | **0.79** | | **1.16** | |
| Calcium | NC | **3400** | J | **13000** | J | **12600** | J | **2060** | J | **1050** | | **6320** | J | **2570** | |
| Chromium | 30 | **12.6** | | **7.69** | | **9.65** | | **8.8** | | **7.63** | | **8.64** | | **10.7** | |
| Cobalt | NC | **8.35** | | **5.57** | | **7.74** | | **6.87** | | **4.68** | | **5.79** | | **7.13** | |
| Copper | 50 | **15.6** | | **18.1** | | **37.5** | | **32.8** | | **11.8** | | **21** | | **25.2** | |
| Iron | NC | **16600** | J | **13500** | J | **15700** | J | **13100** | J | **12000** | | **13900** | J | **17400** | |
| Lead | 63 | **47.9** | | **12.1** | | **190** | | **144** | | **28.8** | | **44.1** | | **38.8** | |
| Magnesium | NC | **2480** | J | **4840** | J | **2290** | J | **1540** | J | **1450** | | **1790** | J | **2380** | |
| Manganese | 1,600 | **488** | J | **317** | J | **467** | J | **415** | J | **405** | | **343** | J | **413** | |
| Nickel | 30 | **17.8** | | **13** | | **14.9** | | **12.3** | | **9.78** | | **12.8** | | **16.3** | |
| Potassium | NC | **767** | J | **382** | J | **584** | J | **507** | J | **407** | | **400** | J | **671** | |
| Selenium | 3.9 | **2.28** | J | **1.68** | J | **2.73** | J | **2.32** | J | **1.88** | | **1.92** | J | **2.45** | |
| Sodium | NC | **605** | J | **96.8** | J | **211** | J | **188** | J | **225** | | **120** | J | **119** | |
| Vanadium | NC | **11.2** | | **9.13** | | **11.3** | | **9.9** | | **10.4** | | **9.88** | | **13.9** | |
| Zinc | 109 | **77.1** | J | **58.1** | J | **137** | J | **113** | J | **59.2** | | **76.4** | J | **105** | |
| Mercury | 0.18 | **0.088** | J | **0.017** | J | **0.164** | J | **0.193** | J | **0.106** | J | **0.134** | J | **0.081** | J |
| **Pesticides by USEPA Method 8081** | | | | | | | | | | | | | | | |
| 4,4`-DDD | 0.0033 | 0.0021 | U | 0.00394 | U | 0.0021 | U | 0.0021 | U | 0.0019 | U | **0.0013** | J | **0.016** | |
| 4,4`-DDE | 0.0033 | 0.0021 | U | 0.0367 | U | **0.0027** | JP | **0.003** | JP | 0.0019 | U | **0.0047** | | **0.01** | |
| 4,4`-DDT | 0.0033 | 0.0021 | U | 0.00026 | U | **0.0029** | | **0.0031** | | **0.017** | | **0.0057** | | **0.036** | |
| Dieldrin | 0.005 | 0.0021 | U | 0.00066 | U | 0.0021 | U | 0.0021 | U | 0.0019 | U | **0.0032** | JP | 0.0039 | U |
| Methoxychlor | NC | 0.0021 | U | 13 | U | 0.0021 | U | 0.0021 | U | 0.0019 | U | **0.012** | | **0.038** | J |
| **SVOCs by USEPA Method 8270** | | | | | | | | | | | | | | | |
| Benzo(a)anthracene | 1 | **0.21** | J | 0.00769 | U | **0.1** | J | **0.11** | J | 0.38 | U | 0.39 | U | **0.054** | J |
| Benzo(a)pyrene | 1 | **0.22** | J | 0.00557 | U | **0.11** | J | **0.1** | J | 0.38 | U | 0.39 | U | **0.055** | J |
| Benzo(b)fluoranthene | 1 | **0.29** | J | 0.0181 | U | **0.16** | J | **0.15** | J | 0.38 | U | 0.39 | U | **0.087** | J |
| Benzo(ghi)perylene | 100 | **0.16** | J | 13.5 | U | **0.083** | J | **0.078** | J | 0.38 | U | 0.39 | U | **0.093** | J |
| Benzo(k)fluoranthene | 0.8 | **0.13** | J | 0.0121 | U | **0.054** | J | 0.41 | U | 0.38 | U | 0.39 | U | 0.38 | U |
| Bis(2-Ethylhexyl)phthalate | NC | 0.41 | U | 4.84 | U | 0.41 | U | 0.41 | U | **0.13** | J | **0.34** | J | **1.8** | |
| Butylbenzylphthalate | NC | 0.41 | U | 0.317 | U | 0.41 | U | 0.41 | U | 0.38 | U | 0.39 | U | **0.13** | J |
| Chrysene | 1 | **0.24** | J | 0.013 | U | **0.13** | J | **0.13** | J | 0.38 | U | 0.39 | U | **0.08** | J |
| Di-n-butylphthalate | NC | 0.41 | U | 0.382 | U | 0.41 | U | 0.41 | U | 0.38 | U | 0.39 | U | **0.063** | J |
| Di-n-octylphthalate | NC | 0.41 | U | 0.00168 | U | 0.41 | U | 0.41 | U | 0.38 | U | 0.39 | U | **0.055** | J |
| Fluoranthene | 100 | **0.48** | | 0.0968 | U | **0.24** | J | **0.26** | J | 0.38 | U | **0.056** | J | **0.16** | J |
| Indeno(1,2,3-cd)pyrene | 0.5 | **0.14** | J | 0.00913 | U | **0.072** | J | **0.068** | J | 0.38 | U | 0.39 | U | **0.049** | J |
| Phenanthrene | 100 | **0.16** | J | 0.0581 | U | **0.11** | J | **0.14** | J | 0.38 | U | 0.39 | U | **0.061** | J |
| Pyrene | 100 | **0.35** | J | 0.000017 | U | **0.19** | J | **0.2** | J | 0.38 | U | 0.39 | U | **0.13** | J |

**Notes:**
SVOCs = Semi-volatile organic compounds
Results in milligrams per kilogram (mg/Kg
ft bgs = feet below ground surface
Only detected compounds shown.
NC = no criteria available
QC Code:
FS = Field Sample
FD = Field Duplicate

Qualifiers:
U = Not detected greater than the reporting limit
P = Indicates >25% difference for detected concentrations between the two GC columns.
J = Estimated value
Criteria - 6 NYCRR 375 Soil Cleanup Objectives for unrestricted use.
Detections are indicated in **BOLD**
**Highlighted results exceed criteria**


Prepared By/Date: LJB 8/19/2010
Check By/Date: CRS 8/20/2010

## Table 2.3 - 2010 Groundwater Results - VOCs

| | **Sample Location** | GW-013 | | GW-014 | | GW-015 | |
|---|---|---|---|---|---|---|---|
| | **Sample ID** | LCGW01302010XX | | LCGW01402010XX | | LCGW01502010XX | |
| | **Sample Date** | 06/09/10 | | 06/09/10 | | 06/09/10 | |
| | **Qc Code** | FS | | FS | | FS | |
| | **Sample Depth** | 19 ft bgs | | 19 ft bgs | | 19 ft bgs | |
| **Parameter** | **GA Criteria** | **Result** | **Qualifier** | **Result** | **Qualifier** | **Result** | **Qualifier** |
| Benzene | 1 | 1 | U | 1 | U | **2** | |
| Cyclohexane | NC | 1 | U | 1 | U | **1.8** | |
| Ethyl benzene | 5 | 1 | U | 1 | U | **0.57** | J |
| Methyl cyclohexane | NC | 1 | U | **0.76** | J | **1.2** | |
| Tetrachloroethene | 5 | 1 | U | **1.2** | | **1.8** | |
| Toluene | 5 | **0.91** | J | **0.88** | J | **3.8** | |
| Xylene, m/p | 5 | **1.2** | J | 2 | U | **2.9** | |
| Xylene, o | 5 | **0.51** | J | 1 | U | **1.2** | |

**Notes:**

Samples analyzed for volatile organic compounds (VOCs) by USEPA Method 8260

Results reported in micrograms per liter (µg/L)

Only detected compounds shown.

ft bgs = feet below ground surface

QC Code:

FS = Field Sample;

Qualifiers:

U = Not detected greater than the reporting limit

J = Estimated value

Criteria = New York State GA Standards, part 703.

NC = no criteria established

Detections are indicated in **BOLD**

**Highlighted results exceed criteria**



Prepared By/Date: LJB 8/19/2010
Check By/Date: CRS 8/20/2010

# APPENDIX A

# 2010 RI FIELD DATA RECORDS

# SOIL BORING LOG

MACTEC

511 Congress Street, Portland Maine 04101

| | | | |
|---|---|---|---|
| Project Name: Loohn's Corning | | Boring ID: PDI-1 | |
| Project Location: Corning, New York | | Page No. 1 | |
| Project No.: 3612102148 | Client: NYSDEC | of: 1 | |
| Boring Location: See Site Plan | Refusal Depth: — | Total Depth: 16' | Bore Hole ID/OD: 4" OD |
| Weather: SUNNY, CALM, 50s | Soil Drilled: 16' | Method: Direct Push | Casing Size: NA |
| Subcontractor: Nothnagle Drilling | P.I.D (eV): 10.6 | Protection Level: Level D | Sampler: Macrocore |
| Driller: Jeff, Larry (assistant) | Date Started: 6/8/10 | Date Completed: 6/8/10 | Sampler ID/OD: 1.85"/4" |
| Rig Type/Model: Geoprobe 6610DT | Logged By: LJB | Checked By: RJM 6/22/10 | Hammer Wt/Fall: 130/30" NA |
| Reference Elevation: Grade | Water Level: >16' | Time: 1155 LJB 6/22/10 | Hammer Type: 130/30" NA |

| Depth (feet bgs) | Sample Number | Penetration/ Recovery (feet) | SPT Blows/6" | N Value | PID Field Scan | PID Headspace | Lab Tests Performed | Lab Sample ID | Sample Description and Classification | USCS Group Symbol | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1–4 | S-1 | 4.0' / 2.0' 50% | — | — | 0 ↓ | | — | — | 0.0 - 0.4 TSOM (SM) TOPSOIL AND ORGANIC MATERIAL (LJB)<br>0.4 - 1.0 SANDY SILT w/ CLAY (ML-~~CL~~), BROWN, MOIST, SILT, SOME SAND, FINE TO COARSE, LITTLE TO SOME GRAVEL, NP, ANGULAR TO ROUNDED (FILL) TRACE TO LITTLE CLAY.<br>1.0 - 2.0 GRAVELLY SAND w/ SILT (SM) BROWN, MOIST, SAND, FINE TO COARSE, SOME FINE TO COARSE GRAVEL, LITTLE SILT, NP, ANGULAR TO ROUNDED WET AT 1.5' (ISOLATED) | SM<br>ML-~~CL~~ (LJB)<br>SM | |
| 5–8 | S-2 | 4.0' / 2.5' 63% | — | — | 0 ↓ | | | | 4.0 - 6.5 SAME AS ABOVE. COLOR (LJB) ~~VARYA~~ VARIATIONS BROWN / GRAYISH BROWN; ISOLATED WET INTERVAL AT 5.0' | SM | |
| 9–12 | S-3 | 4.0' / 3.5' 88% | — | — | 0, 0, 0, 0, 1.9, 1.9, 0.0, 0.0 | 1.9 | YES | (LJB) | 8.0 - 11.5 SAME AS ABOVE<br>PID SCREEN @ 11.0' (1.9 PPM)<br>REDDISH BROWN @ 9.0'; 10.5' | SM | (LJB) LCPDI0010110XX VOCs<br>LCPDI0010110XD VOCs (DUP) |
| 13–16 | S-4 | 4.0' / 3.0' 75% | — | — | 0 ↓ | | | | 12 - 16 SAME AS ABOVE<br><br>BOE @ 16.0', NOT REFUSAL | SM | |

NOTES:

FIGURE 4-4
SOIL BORING LOG
NYSDEC QUALITY ASSURANCE PROGRAM PLAN

# SOIL BORING LOG

| | | | |
|---|---|---|---|
| **MACTEC**<br>511 Congress Street, Portland Maine 04101 | Project Name: Loohn's Corning | | Boring ID: PDI-2 |
| | Project Location: Corning, New York | | Page No. 1 of: 1 |
| | Project No.: 3612102148 | Client: NYSDEC | |
| Boring Location: See Site Plan | Refusal Depth: — | Total Depth: 16' | Bore Hole ID/OD: 4" OD |
| Weather: SUNNY, CALM, 50s | Soil Drilled: 16' | Method: Direct Push | Casing Size: NA |
| Subcontractor: Nothnagle Drilling | P.I.D (eV): 10.6 | Protection Level: Level D | Sampler: Macrocore |
| Driller: Jeff, Larry (assistant) | Date Started: 6/8/10 | Date Completed: 6/8/10 | Sampler ID/OD: 1.85"/4" |
| Rig Type/Model: Geoprobe 6610DT | Logged By: LJB | Checked By: RLM 6/22/10 | Hammer Wt/Fall: ~~130/30"~~ NA |
| Reference Elevation: Grade | Water Level: 18.48' (MW-1) | Time: 1300 | Hammer Type: ~~Auto~~ NA |

| Depth (feet bgs) | Sample Number | Penetration/ Recovery (feet) | SPT Blows/6" | N Value | PID Field Scan | PID Headspace | Lab Tests Performed | Lab Sample ID | Sample Description and Classification | USCS Group Symbol | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1–4 | S-1 | 4.0' / 2.0' 50% | – | – | 0 | | – | – | 0.0 - 0.4 TSOM<br>0.4 - 2.0 SILTY SAND w/ GRAVEL (SM). MOIST, BROWN TO ORANGEISH BROWN, SAND, FINE TO COARSE, LITTLE TO SOME SILT AND GRAVEL, NP, ANGULAR TO ROUNDED, TRACE ORGANICS (ROOTS) | TSOM<br>SM | |
| 5–8 | S-2 | 4.0' / 2.5' 63% | – | – | 0 | | – | – | 4.0 - 6.5 GRAVELLY SAND (SM-GM) MOIST, BROWN TO GRAY BROWN SAND, FINE TO COARSE, SOME FINE TO COARSE GRAVEL, FEW SILT, NP, ANGULAR TO SUBROUNDED | SM-GM | |
| 9–12 | S-3 | 4.0' / 4.0' 100% | – | – | 4.8<br>0 | 0.9 | X | X | 8-12 SAME AS ABOVE | SM-GM | X LCPDI00200810XX 1330 BASED ON PID HIT |
| 13–16 | S-4 | 4.0 / 3.0 75% | – | – | 0 | | – | – | 12-15 SAME AS ABOVE<br><br>BOE @ 16'; NOT REFUSAL | SM-GM | |

NOTES:

FIGURE 4-4
SOIL BORING LOG
NYSDEC QUALITY ASSURANCE PROGRAM PLAN

# SOIL BORING LOG

MACTEC
511 Congress Street, Portland Maine 04101

| | | | |
|---|---|---|---|
| Project Name: Loohn's Corning | | | Boring ID: PDI-3 |
| Project Location: Corning, New York | | | Page No. 1 of: 1 |
| Project No.: 3612102148 | Client: NYSDEC | | |
| Boring Location: See Site Plan | Refusal Depth: — | Total Depth: 16' | Bore Hole ID/OD: 4" OD |
| Weather: ~~SUNNY, CALM, 50s~~ RAIN | Soil Drilled: 16' | Method: Direct Push | Casing Size: NA |
| Subcontractor: Nothnagle Drilling | P.I.D (eV): 10.6 | Protection Level: Level D | Sampler: Macrocore |
| Driller: Jeff, Larry (assistant) | Date Started: 6/9/10 | Date Completed: 6/9/10 | Sampler ID/OD: 1.85"/4" |
| Rig Type/Model: Geoprobe 6610DT | Logged By: LJB | Checked By: RLM 6/22/10 | Hammer Wt/Fall: 130/30" NA |
| Reference Elevation: Grade | Water Level: 18.48' (MW-1) | Time: 1300 ~~6/8/10~~ 6/8/10 6/9/10 | Hammer Type: Auto NA |

| Depth (feet bgs) | Sample Number | Penetration/ Recovery (feet) | SPT Blows/6" | N Value | PID Field Scan | PID Headspace | Lab Tests Performed | Lab Sample ID | Sample Description and Classification | USCS Group Symbol | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1–4 | S-1 | 4.0' / 1.5' 38% | – | – | 0 | | – | – | 0.0-0.3 TOPSOIL AND ORGANIC MATERIAL (TSOM) (SM) | SM | |
| | | | | | | | | | 0.3-1.5 SILTY SAND w/ GRAVEL (SM) BROWN, MOIST, SAND, FINE TO COARSE, SOME SILT, LITTLE TO SOME FINE TO COARSE GRAVEL, NP, ANGULAR TO SUBROUNDED (FILL) | SM | |
| 5–8 | S-2 | 4.0' / 2.5' 63% | – | – | 0 | | – | – | 4.0-6.5 GRAVELLY SAND w/ SILT (SP-GP) BROWN TO GRAYISH BROWN, MOIST, SAND, FINE TO COARSE, SOME FINE TO COARSE GRAVEL, LITTLE SILT, NP, ANGULAR TO SUBROUNDED; (ALLUVIAL DEPOSITS). OCCASIONAL COBBLES > 2" | SP-GP | |
| 9–12 | S-3 | 4.0' / 3.0' 75% | – | – | 0 | | – | – | 8-11 SAME AS ABOVE | SP-GP | |
| 13 | S-4 | 4.0' / 3.0' 75% | – | – | 0 | | | | 12-15 SAME AS ABOVE | SP-GP | |
| 13 | | | | | 5.8 | 0.2 | ⓐ | ⓧ | PID SCREEN AT ~~15~~ 13'. SAMPLE TAKEN | | ⓐ LCPDI003013 10XX VOCs 0830 |
| 14 | | | | | 1.7 | | | | | | |
| 14 | | | | | 0 | | | | | | |
| 15 | | | | | 0 | | | | | | |
| 15 | | | | | 0 | | | | | | |
| 16 | | | | | | | | | BOE @ 16'; NOT REFUSAL | | |

NOTES:

FIGURE 4-4
SOIL BORING LOG
NYSDEC QUALITY ASSURANCE PROGRAM PLAN

# SOIL BORING LOG

MACTEC

511 Congress Street, Portland Maine 04101

| | | | |
|---|---|---|---|
| Project Name: Loohn's Corning | | | Boring ID: P01-4 |
| Project Location: Corning, New York | | | Page No. 1 |
| Project No.: 3612102148 | Client: NYSDEC | | of: 2 |
| Boring Location: See Site Plan | Refusal Depth: — | Total Depth: 22' | Bore Hole ID/OD: 2.75"/6" |
| Weather: RAIN | Soil Drilled: 20' | Method: HSA | Casing Size: NA |
| Subcontractor: Nothnagle Drilling | P.I.D (eV): 10.6 | Protection Level: Level D | Sampler: SPLIT BARREL (24") |
| Driller: Jeff, Larry (assistant) | Date Started: 6/9/10 | Date Completed: 6/9/10 | Sampler ID/OD: 1.63" / 2" |
| Rig Type/Model: Geoprobe 6610DT | Logged By: LJB | Checked By: BAS 06/21/10 | Hammer Wt/Fall: 130# / 30" ~~NA~~ |
| Reference Elevation: Grade | Water Level: 18.48' (MW-1) | Time: 1300 (6/8/10) | Hammer Type: AUTO ~~NA~~ |

| Depth (feet bgs) | Sample Number | Penetration/ Recovery (feet) | SPT Blows/6" | N Value | PID Field Scan | PID Headspace | Lab Tests Performed | Lab Sample ID | Sample Description and Classification | USCS Group Symbol | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | S-1 | 2.0 / 0.7 / 35% | 1, 1, 2, 3 | 3 | ⓢ | | — | — | 0.0 - 0.2 TSOM<br>0.2 - 0.7 SILTY SAND W/ GRAVEL (SM); LOOSE, MOIST, BROWN SAND, FINE TO COARSE, SOME SILT, LITTLE GRAVEL, NP-LP. -(FILL) | SM<br>SM | ⓢ NO PID USED FOR S-1 (TOO WET) - NO ODOR, VISUAL EVIDENCE OF IMPACT. |
| 2 | | | | | | | | | | | |
| 3 | | | | | | | | | CUTTINGS CONSISTENT W/ OTHER BORINGS. EASILY ADVANCED TO 5' BGS | | |
| 4 | | | | | | | | | | | |
| 5 | | | | | | | | | | | |
| 6 | S-2 | 2.0 / 0.7 / 35% | 1, 4, 8, 9 | 12 | 0 | 0 | ⓢ | ⓢ | 5.0 - 5.7 GRAVELLY SAND W/ SILT (SM) COMPACT, WET, BROWN SAND, FINE TO COARSE, SOME GRAVEL, LITTLE SILT, NP, ANGULAR TO ROUNDED (ALLUVIAL DEPOSITS) | SM | ⓢ LCPD1004005/0XX VOCs |
| 7 | | | | | | | | | | | |
| 8 | | | | | | | | | • HARD DRILLING FROM 5-10' (NOTABLE AT 8' BGS). FREQUENT COBBLES (ROUNDED) IN EXCESS OF 4" | | |
| 9 | | | | | | | | | | | |
| 10 | | | | | | | | | | | |
| 11 | S-3 | 2.0 / 1.0 / 50% | 20, 16, 9, 4 | 25 | ⓢ | | | | 10 - 11 SAME AS ABOVE; MOIST, COMPACT | SM | ⓢ PID NOT USED (RAINING TOO HARD) NO EVIDENCE OF IMPACT.<br>ⓢ LCPD1004010/0XX VOCs |
| 12 | | | | | | | | | | | |
| 13 | | | | | | | | | • CUTTINGS TRANSITION TO MORE SANDY GRAVEL, LESSER SANDS AND SILTS<br>• DIFFICULT DRILLING<br>• PID SCREEN OF BOREHOLE / CUTTINGS PILE 0.0 - 1.9; AMBIENT 0.0 - 1.9 BASED ON RAIN. WILL NOT CONTAINERIZE. | - - -<br>SP-SM | |
| 14 | | | | | | | | | | | |
| 15 | | | | | | | | | | | |

**NOTES:**

**FIGURE 4-4**
**SOIL BORING LOG**
**NYSDEC QUALITY ASSURANCE PROGRAM PLAN**

# SOIL BORING LOG

MACTEC
511 Congress Street, Portland Maine 04101

| | | |
|---|---|---|
| Project Name: Loohn's Corning | | Boring ID: PDI-4 |
| Project Location: Corning, New York | | Page No. 2 |
| Project No.: 3612102148 | Client: NYSDEC | of: 2 |
| Boring Location: See Site Plan | Refusal Depth: — | Total Depth: 22' | Bore Hole ID/OD: 2.75" / 6" |
| Weather: RAIN | Soil Drilled: 20' | Method: HSA | Casing Size: NA |
| Subcontractor: Nothnagle Drilling | P.I.D (eV): 10.6 | Protection Level: Level D | Sampler: SPLIT BARREL (24") |
| Driller: Jeff, Larry (assistant) | Date Started: 6/9/10 | Date Completed: 6/9/10 | Sampler ID/OD: 1.63" / 2" |
| Rig Type/Model: Geoprobe 6610DT | Logged By: LJB | Checked By: BAS (06/21/10) | Hammer Wt/Fall: 130# / 30" ~~NA~~ |
| Reference Elevation: Grade | Water Level: 18.48 (MW-1) | Time: 1300 (06/08/10) | Hammer Type: AUTO ~~NA~~ |

| Depth (feet bgs) | Sample Number | Penetration/ Recovery (feet) | SPT Blows/6" | N Value | PID Field Scan | PID Headspace | Lab Tests Performed | Lab Sample ID | Sample Description and Classification | USCS Group Symbol | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 16 | S-4 | ~~2.0~~ ~~1.25~~ 1.25/0.4 32% | 18 18 50/3" | >68 | | | | | ~~SM~~ 15-15.4 SAND w/ SILT AND GRAVEL (SP-SM) VERY DENSE, WET, SAND, FINE TO COARSE, LITTLE SILT AND GRAVEL, NP, SUBROUNDED TO ROUNDED | SP-SM | PID NOT USED |
| 17 | | | | | | | | | | | |
| 18 | | | | | | | | | | | |
| 19 | | | | | | | | | HARD DRILLING | | |
| 20 | | | | | | | | | ~~20-22~~ 20-21 GRAVELLY SAND w/ SILT (SM-~~GM~~) VERY DENSE, WET, GRAY BROWN SAND, FINE TO COARSE, SOME FINE TO COARSE GRAVEL, LITTLE SILT, NP, ANGULAR TO ROUNDED | SM-GM | |
| 21 | S-5 | 2.0 1.0 50% | 33 36 30 32 | 66 | | | | | | | PID NOT USED (TOO MUCH RAIN) |
| 22 | | | | | | | | | | | |

• HOLE OPEN AFTER REMOVAL OF AUGERS. COLLAPSED TO 9' BGS. BACKFILLED w/ CUTTINGS

BOE @ 22'; NOT REFUSAL

NOTES:

FIGURE 4-4
SOIL BORING LOG
NYSDEC QUALITY ASSURANCE PROGRAM PLAN

# SOIL BORING LOG

MACTEC
511 Congress Street, Portland Maine 04101

| | | | | | |
|---|---|---|---|---|---|
| Project Name: | Loohn's Corning | | | Boring ID: | PDI-5 |
| Project Location: | Corning, New York | | | Page No. | 1 |
| Project No.: | 3612102148 | Client: | NYSDEC | of: | 1 |
| Boring Location: See Site Plan | | | | | |
| Refusal Depth: | — | Total Depth: | 16' | Bore Hole ID/OD: | 4" OD |
| Weather: Sunny, Calm, 50s | Soil Drilled: 16' | Method: | Direct Push | Casing Size: | NA |
| Subcontractor: Nothnagle Drilling | P.I.D (eV): 10.6 | Protection Level: | Level D | Sampler: | Macrocore |
| Driller: Jeff, Larry (assistant) | Date Started: 6/8/10 | Date Completed: | 6/8/10 | Sampler ID/OD: | 1.85"/4" |
| Rig Type/Model: Geoprobe 6610DT | Logged By: LJB | Checked By: | RCM 6/22/10 | Hammer Wt/Fall: | 130/30 ~~NA~~ |
| Reference Elevation: Grade | Water Level: 18.48 (MW-1) | Time: | 1300 | Hammer Type: | Auto ~~NA~~ |

| Depth (feet bgs) | Sample Number | Penetration/ Recovery (feet) | SPT Blows/6" | N Value | PID Field Scan | PID Headspace | Lab Tests Performed | Lab Sample ID | Sample Description and Classification | USCS Group Symbol | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | S-1 | 4.0 / 2.0 50% | — | — | 0 ↓ | | — | — | 0.0-0.4 TSOM, MOIST, DK BROWN, FINE TO MEDIUM SAND, LITTLE COARSE SAND, SOME SILT, TRACE GRAVEL, FREQUENT ORGANICS, ROOTS | | |
| 2 | | | | | | | | | 0.4-2.0 GRAVELLY SAND W/ SILT (SM-GM) MOIST, BROWN, SAND, FINE TO COARSE, SOME FINE TO COARSE GRAVEL, TRACE TO LITTLE SILT, NP, POORLY SORTED, ANGULAR TO SUBROUNDED | | |
| 3 | | | | | | | | | | | |
| 4 | | | | | | | | | | | |
| 5 | S-2 | 4.0 / 2.0 50% | — | — | 0 | | | | | | ① 2CPDI0050051054C VOCS ~~1045~~ ⓪ 1115 |
| 5 | | | | | 0 | | | | | | |
| 6 | | | | | 0.9 | 0.0 | ① | ① | 2.0-4.0 SAME AS ABOVE. COLOR VARIATIONS (GRAY BROWN TO BROWN) | | |
| 6 | | | | | 0 | | | | | | |
| 7 | | | | | 0 | | | | PID HITS AT 5' AND 6' (LOW LEVEL) | | |
| 7 | | | | | 0.4 | | | | | | |
| 8 | | | | | | | | | | | |
| 9 | S-3 | 4.0' / 3.5' 88% | — | — | 0 ↓ | | — | — | 8-11.5 SAME AS ABOVE | | |
| 10 | | | | | | | | | | | |
| 11 | | | | | | | | | | | |
| 12 | | | | | | | | | | | |
| 13 | S-4 | 4.0 / 3.0 75% | — | — | 0 ↓ | | — | — | 12-15 SAME AS ABOVE | | |
| 14 | | | | | | | | | | | |
| 15 | | | | | | | | | | | |
| 16 | | | | | | | | | BOE @ 16'; NOT REFUSAL | | |

NOTES:

FIGURE 4-4
SOIL BORING LOG
NYSDEC QUALITY ASSURANCE PROGRAM PLAN

# SOIL BORING LOG

MACTEC

511 Congress Street, Portland Maine 04101

| | | | | | |
|---|---|---|---|---|---|
| Project Name: | Loohn's Corning | | | Boring ID: | PDI-6 |
| Project Location: | Corning, New York | | | Page No. | 1 |
| Project No.: | 3612102148 | Client: | NYSDEC | of: | 1 |
| Boring Location: See Site Plan | | | | | |
| Refusal Depth: | — | Total Depth: | 16' | Bore Hole ID/OD: | 4" OD |
| Weather: SUNNY, CALM, 50s | | | | | |
| Soil Drilled: | 16' | Method: | Direct Push | Casing Size: | NA |
| Subcontractor: Nothnagle Drilling | | | | | |
| P.I.D (eV): | 10.6 | Protection Level: | Level D | Sampler: | Macrocore |
| Driller: Jeff, Larry (assistant) | | | | | |
| Date Started: | 6/8/10 | Date Completed: | 6/8/10 | Sampler ID/OD: | 1.85"/4" |
| Rig Type/Model: Geoprobe 6610DT | | | | | |
| Logged By: | LJB | Checked By: | BAS 06/21/10 | Hammer Wt/Fall: | 130/30" ~~NA~~ |
| Reference Elevation: Grade | | | | | |
| Water Level: | 18.58' (MW-1) | Time: | 1300 | Hammer Type: | Auto ~~NA~~ |

| Depth (feet bgs) | Sample Number | Penetration/ Recovery (feet) | SPT Blows/6" | N Value | PID Field Scan | PID Headspace | Lab Tests Performed | Lab Sample ID | Sample Description and Classification | USCS Group Symbol | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1–4 | 1 S | 4.0'/2.0' 50% | — | — | 0 | | * | * | 0.0–0.4 TSOM<br>0.4–2.0 SILTY SAND W/ CLAY AND GRAVEL (SM) MOIST, BROWN, SAND, FINE TO COARSE, LITTLE TO SOME SILT, LITTLE FINE TO COARSE GRAVEL, FEW CLAY, NP-LP, ANGULAR TO SUBROUNDED, POORLY SORTED (POTENTIAL FILL MATERIAL) | SM<br>SM | * LCPDI00600110XX SVOC, PCB, PEST, METALS |
| 5–8 | 2 S | 4.0'/2.0' 50% | — | — | 0 | 0 | * * | * * | 4.0–6.0 SANDY GRAVEL W/ SILT (GP-GM) MOIST TO WET IN PLACES, BROWN, GRAVEL, FINE TO COARSE, LITTLE SAND, FINE TO COARSE, FEW TO LITTLE SILT, NP, ANGULAR TO SUBROUNDED, POORLY SORTED (ALLUVIAL DEPOSITS)<br>* GRADATION SAMPLE COLLECTED FROM REMAINING MATERIAL FOLLOWING SAMPLING AT 5' FOR VOCS | GP-GM<br>SP-SM | * LCPDI00600410XX GRADATION<br>* LCPDI00600510XX VOCS |
| 9–12 | 3 S | 4.0'/3.0' 75% | — | — | 0 | 0 | * | * | 8.0–8.4 GRAVELLY SAND W/ SILT (SP-SM) MOIST, BROWN TO GRAY BROWN, SAND, FINE TO COARSE, LITTLE GRAVEL, TRACE SILT, NP, POORLY SORTED<br>8.4–11 GRAVELLY SAND (SP) MOIST, BROWN, SAND, COARSE TO FINE, LITTLE TO SOME FINE TO COARSE GRAVEL, TRACE SILT, NP, ANGULAR TO SUBROUNDED, POORLY SORTED | SP | * LCPDI00601010XX VOCS |
| 13–16 | 4 S | 4.0/2.5 63% | — | — | 0 | | | | 12–14.5 SAME AS ABOVE<br><br>BOE @16'; NOT REFUSAL | SP | |

NOTES:

FIGURE 4-4
SOIL BORING LOG
NYSDEC QUALITY ASSURANCE PROGRAM PLAN

# SOIL BORING LOG

| | | | | | |
|---|---|---|---|---|---|
| MACTEC<br>511 Congress Street, Portland Maine 04101 | Project Name: | Loohn's Corning | | Boring ID: | PD1-7 |
| | Project Location: | Corning, New York | | Page No. | 1 |
| | Project No.: | 3612102148 | Client: NYSDEC | of: | 1 |
| Boring Location: See Site Plan | Refusal Depth: | — | Total Depth: 16' | Bore Hole ID/OD: | 4" OD |
| Weather: SUNNY, CALM, 50s | Soil Drilled: | 16' | Method: Direct Push | Casing Size: | NA |
| Subcontractor: Nothnagle Drilling | P.I.D (eV): | 10.6 | Protection Level: Level D | Sampler: | Macrocore |
| Driller: Jeff, Larry (assistant) | Date Started: | 6/8/10 | Date Completed: 6/8/10 | Sampler ID/OD: | 1.85"/4" |
| Rig Type/Model: Geoprobe 6610DT | Logged By: | LJB | Checked By: RLM 6/22/10 | Hammer Wt/Fall: | 140/30" ~~NA~~ |
| Reference Elevation: Grade | Water Level: | 18.58 (MW-1) | Time: 1300 | Hammer Type: | Auto ~~NA~~ |

| Depth (feet bgs) | Sample Number | Penetration/ Recovery (feet) | SPT Blows/6" | N Value | PID Field Scan | PID Headspace | Lab Tests Performed | Lab Sample ID | Sample Description and Classification | USCS Group Symbol | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1–4 | S-1 | 4.0 / 2.5 63% | — | — | 0 | | — | — | 0.0 - 0.5 TSOM<br>0.5 - 2.5 GRAVELLY SAND w/ SILT (SM) MOIST, BROWN TO GRAYISH BROWN, SAND COARSE TO FINE, LITTLE TO SOME FINE TO COARSE GRAVEL, LITTLE SILT, NP, POORLY SORTED, ANGULAR TO SUBROUNDED | SM | |
| 5–8 | S-2 | 4.0 / 3.0 75% | — | — | 0 | 0 | X | X | ~~2.5~~ 4.0 - 7.0 SAME AS ABOVE; DRY IN PLACES | | X LCPD10070005 10xx - VOCs |
| 9–12 | S-3 | 4.0 / 2.5 63% | — | — | 0 | 0 | X | X | 8.0 - 10.5 SAME AS ABOVE | | X LCPD10070101 0xx - VOCS |
| 13–16 | S-4 | 4.0 / 2.5 63% | — | — | 0 | | — | — | 12.0 - 14.5 SAME AS ABOVE<br>BOE @ 16'; NOT REFUSAL | | |

**NOTES:**

FIGURE 4-4
SOIL BORING LOG
NYSDEC QUALITY ASSURANCE PROGRAM PLAN

# SOIL BORING LOG

| | | | |
|---|---|---|---|
| **MACTEC** 511 Congress Street, Portland Maine 04101 | Project Name: Loohn's Corning | | Boring ID: PD1-8 |
| | Project Location: Corning, New York | | Page No. 1 |
| | Project No.: 3612102148 | Client: NYSDEC | of: 1 |
| Boring Location: See Site Plan | Refusal Depth: — | Total Depth: 16' | Bore Hole ID/OD: 4" OD |
| Weather: SUNNY CALM, 50s | Soil Drilled: 16' | Method: Direct Push | Casing Size: NA |
| Subcontractor: Nothnagle Drilling | P.I.D (eV): 10.6 | Protection Level: Level D | Sampler: Macrocore |
| Driller: Jeff, Larry (assistant) | Date Started: 6/8/10 | Date Completed: 6/8/10 | Sampler ID/OD: 1.85"/4" |
| Rig Type/Model: Geoprobe 6610DT | Logged By: LJB | Checked By: BAS (01/21/11) | Hammer Wt/Fall: 130/30 ~~NA~~ |
| Reference Elevation: Grade | Water Level: 10.48 (MW-1) | Time: 1300 | Hammer Type: AUTO ~~NA~~ |

| Depth (feet bgs) | Sample Number | Penetration/ Recovery (feet) | SPT Blows/6" | N Value | PID Field Scan | PID Headspace | Lab Tests Performed | Lab Sample ID | Sample Description and Classification | USCS Group Symbol | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | S-1 | 4.0/3.0 75% | — | — | 0, 0, 4.2, 1.9, 11.7 | 9.8 | ⊗ | ⊗ | 0.0 – 0.4 TSOIL<br>0.4 – 3.0 SILTY SAND w/GRAVEL AND CLAY (SM-ML) MOIST, BROWN, SAND, FINE TO COARSE, SOME SILT, TRACE TO LITTLE FINE GRAVEL, TRACE CLAY, NP – LP, POORLY SORTED, ANGULAR TO ROUNDED (FILL) | | ⊗ LCPD1008003010XX VOCS |
| 2 | | | | | | | | | | | |
| 3 | | | | | | | | | | | |
| 4 | | | | | | | | | | | |
| 5 | S-2 | 4.0/3.0 75% | — | — | 0.4, 0.9, 0.4, 0 | | — | — | 4.0 – 7.0 GRAVELLY SAND w/SILT (SM) MOIST, BROWN TO ORANGEISH RED BROWN SAND, FINE TO COARSE, LITTLE FINE TO COARSE GRAVEL, LITTLE SILT, NP, POORLY SORTED, ANGULAR TO ROUNDED (ALLUVIAL DEPOSITS) | | |
| 6 | | | | | | | | | | | |
| 7 | | | | | | | | | | | |
| 8 | | | | | | | | | | | |
| 9 | S-3 | 4.0/2.0 50% | — | — | 0 ↓ | | — | — | 8.0 – 10.0 SAME AS ABOVE | | |
| 10 | | | | | | | | | | | |
| 11 | | | | | | | | | | | |
| 12 | | | | | | | | | | | |
| 13 | S-4 | 4.0/3.5 ~~75%~~ 88% | — | — | 0, 0.2, ?, 2.4, 0 | 14 | ⊗ | ⊗ | 12.0 – 15.5 SAME AS ABOVE | | ⊗ LCPD1008015010XX VOCS |
| 14 | | | | | | | | | | | |
| 15 | | | | | | | | | | | |
| 16 | | | | | | | | | BOE @ 16'; NOT REFUSAL | | |

NOTES:

FIGURE 4-4
SOIL BORING LOG
NYSDEC QUALITY ASSURANCE PROGRAM PLAN

# SOIL BORING LOG

**MACTEC**
511 Congress Street, Portland Maine 04101

| | | | |
|---|---|---|---|
| Project Name: Loohn's Corning | | | Boring ID: PDI-9 |
| Project Location: Corning, New York | | | Page No. 1 |
| Project No.: 3612102148 | Client: NYSDEC | | of: 1 |
| Boring Location: See Site Plan | Refusal Depth: — | Total Depth: 16 | Bore Hole ID/OD: 4" OD |
| Weather: RAIN | Soil Drilled: 16 | Method: Direct Push | Casing Size: NA |
| Subcontractor: Nothnagle Drilling | P.I.D (eV): 10.6 | Protection Level: Level D | Sampler: Macrocore |
| Driller: Jeff, Larry (assistant) | Date Started: 6/9/10 | Date Completed: 6/9/10 | Sampler ID/OD: 1.85"/4" |
| Rig Type/Model: Geoprobe 6610DT | Logged By: LJB | Checked By: RLM 6/22/10 | Hammer Wt/Fall: 130/30" ~~NA~~ |
| Reference Elevation: Grade | Water Level: 18.48 (MW-1) | Time: 1300 ~~6/8/10~~ 6/8/10 ~~6/9/10~~ | Hammer Type: Auto ~~NA~~ |

| Depth (feet bgs) | Sample Number | Penetration/ Recovery (feet) | SPT Blows/6" | N Value | PID Field Scan | PID Headspace | Lab Tests Performed | Lab Sample ID | Sample Description and Classification | USCS Group Symbol | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 0 | | | | 0.0 - 0.3 TSOM | SM | |
| 1 | S-1 | 4.0 / 2.0 50% | — | — | 6.2 | 3.0 | a | a | 0.3 - 2.0 SILTY SAND w/ GRAVEL (SM) BROWN, MOIST, SAND, FINE TO COARSE, SOME SILT, LITTLE TO SOME FINE TO COARSE GRAVEL, NP, ANGULAR TO ROUNDED (FILL) | SM | a LCPD100900010XX VOCs (From 0.5' to 1.0') |
| 2 | | | | | 1.9 | | | | | | |
| | | | | | 0.4 | | | | | | |
| 3 | | | | | | | | | | | |
| 4 | | | | | | | | | | | |
| 5 | S-2 | 4.0 / 2.5 63% | — | — | 0 ↓ | | — | — | 4.0 - 6.5 GRAVELLY SAND w/ SILT (SP-GP) BROWN TO GRAYISH BROWN, MOIST, SAND, FINE TO COARSE, SOME FINE TO COARSE GRAVEL, LITTLE SILT, NP, ANGULAR TO SUBROUNDED, OCCASIONAL COBBLES > 2" (ALLUVIAL DEPOSITS) | | |
| 6 | | | | | | | | | | | |
| 7 | | | | | | | | | | | |
| 8 | | | | | | | | | | | |
| 9 | S-3 | 4.0 / 2.5 63% | — | — | 0 | | | | 8.0 - 10.5 SAME AS ABOVE | | |
| | | | | | 0 | | | | | | |
| 10 | | | | | 2.4 | 0.4 | b | b | | | b LCPD100901010XX VOCs |
| | | | | | 0.8 | | | | | | |
| 11 | | | | | 0.2 | | | | | | |
| 12 | | | | | | | | | | | |
| 13 | S-4 | 4.0 / 3.0 75% | — | — | 0 ↓ | | — | — | 12 - 15 SAME AS ABOVE | | |
| 14 | | | | | | | | | | | |
| 15 | | | | | | | | | | | |
| 16 | | | | | | | | | BOC @ 16'; NOT REFUSAL | | |

NOTES:

FIGURE 4-4
SOIL BORING LOG
NYSDEC QUALITY ASSURANCE PROGRAM PLAN

# SOIL BORING LOG

| | | | |
|---|---|---|---|
| **MACTEC** 511 Congress Street, Portland Maine 04101 | Project Name: Loohn's Corning | | Boring ID: P01-12 |
| | Project Location: Corning, New York | | Page No. 1 of: 2 |
| | Project No.: 3612102148 | Client: NYSDEC | |
| Boring Location: See Site Plan | Refusal Depth: — | Total Depth: 20' | Bore Hole ID/OD: 4" OD |
| Weather: SUNNY, CALM, 70s | Soil Drilled: 20' | Method: Direct Push | Casing Size: NA |
| Subcontractor: Nothnagle Drilling | P.I.D (eV): 10.6 | Protection Level: Level D | Sampler: Macrocore |
| Driller: Jeff, Larry (assistant) | Date Started: 6/8/10 | Date Completed: 6/8/10 | Sampler ID/OD: 1.85"/4" |
| Rig Type/Model: Geoprobe 6610DT | Logged By: LJB | Checked By: BAS (06/21/10) | Hammer Wt/Fall: 130 lb/30" ~~NA~~ |
| Reference Elevation: Grade | Water Level: 18.48' (MW-1) | Time: 1300 | Hammer Type: Auto ~~NA~~ |

| Depth (feet bgs) | Sample Number | Penetration/ Recovery (feet) | SPT Blows/6" | N Value | PID Field Scan | PID Headspace | Lab Tests Performed | Lab Sample ID | Sample Description and Classification | USCS Group Symbol | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1–4 | S-1 | 4.0 / 2.5 63% | – | – | 0 | | | | 0.0 – 0.4 TSOM<br>0.4 – 2.5 SILTY SAND w GRAVEL AND CLAY (SM – ML) MOIST, BROWN TO ORANGEISH BROWN, FINE TO COARSE SAND, LITTLE TO SOME ~~SREF~~ SILT, LITTLE GRAVEL, TRACE CLAY, NP – LP, POORLY SORTED, ANGULAR TO ROUNDED (FILL) | TSOM<br>SM-ML | |
| 5–8 | S-2 | 4.0 / 3.0 75% | – | – | 0 | 0 | * VS | * | 4.0 – 7.0 GRAVELLY SAND w/ SILT (SP-SM) MOIST, BROWN TO ORANGEISH BROWN / GRAYISH BROWN, SAND, FINE TO COARSE, LITTLE TO SOME FINE TO COARSE GRAVEL, FEW TO LITTLE SILT, NP, POORLY SORTED, ANGULAR TO ROUNDED (ALLUVIAL DEPOSITS) | SP – SM | * LCPD101200510xx VOCs |
| 9–12 | S-3 | 4.0 / 4.0 100% | – | – | 0 | 0 | * | * | 8.0 – 12.0 SAME AS ABOVE | SP-SM | * LCPD101201010xx VOCs |
| 13–16 | S-4 | 4.0 / 3.5 88% | – | – | 0 | | | | 12.0 – 15.5 SAME AS ABOVE | SP-SM | |

NOTES:

FIGURE 4-4
SOIL BORING LOG
NYSDEC QUALITY ASSURANCE PROGRAM PLAN

# SOIL BORING LOG

MACTEC
511 Congress Street, Portland Maine 04101

| | | | | | |
|---|---|---|---|---|---|
| Project Name: | Loohn's Corning | | | Boring ID: | PDI-12 |
| Project Location: | Corning, New York | | | Page No. | 2 of: 2 |
| Project No.: | 3612102148 | Client: | NYSDEC | | |
| Boring Location: See Site Plan | Refusal Depth: — | Total Depth: | 20' | Bore Hole ID/OD: | 4" OD |
| Weather: Sunny, Calm, 50s | Soil Drilled: 20' | Method: | Direct Push | Casing Size: | NA |
| Subcontractor: Nothnagle Drilling | P.I.D (eV): 10.6 | Protection Level: | Level D | Sampler: | Macrocore |
| Driller: Jeff, Larry (assistant) | Date Started: 6/8/10 | Date Completed: | 6/8/10 | Sampler ID/OD: | 1.85"/4" |
| Rig Type/Model: Geoprobe 6610DT | Logged By: LJB | Checked By: | BAS 6/21/10 | Hammer Wt/Fall: | 130/30" ~~NA~~ |
| Reference Elevation: Grade | Water Level: 18.48' (MW-1) | Time: | 1300 | Hammer Type: | Auto ~~NA~~ |

| Depth (feet bgs) | Sample Number | Penetration/ Recovery (feet) | SPT Blows/6" | N Value | PID Field Scan | PID Headspace | Lab Tests Performed | Lab Sample ID | Sample Description and Classification | USCS Group Symbol | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 17 | | 4.0 | | | 0 | | | | 16-20 SAME AS ABOVE | SP-SM | |
| 18 | S | 4.0 | – | – | | | | | | | |
| 19 | 5 | 100% | | | | 0 | ⊙ | ⊛ | | | ⊛LCPDI0120910XX VOCS |
| 20 | | | | | | | | | BOE @ 20'; NOT REFUSAL | | (1/2 OF INTERVAL BELOW WATER SURFACE (18'-20')) |

**NOTES:** WATER ESTIMATED AT ~18.0 FT BELOW GROUND SURFACE, CONSISTENT W DTW IN MW-1.

FIGURE 4-4
SOIL BORING LOG
NYSDEC QUALITY ASSURANCE PROGRAM PLAN

# SOIL BORING LOG

**MACTEC**
511 Congress Street, Portland Maine 04101

| | | | |
|---|---|---|---|
| Boring Location: See Site Plan | Project Name: Loohn's Corning | | Boring ID: PDI-13 |
| | Project Location: Corning, New York | | Page No. 1 |
| | Project No.: 3612102148 | Client: NYSDEC | of: 2 |
| Weather: Sunny, Calm, 50s | Refusal Depth: — | Total Depth: 20' | Bore Hole ID/OD: 4" OD |
| Subcontractor: Nothnagle Drilling | Soil Drilled: 20.0' | Method: Direct Push | Casing Size: NA |
| Driller: Jeff, Larry (assistant) | P.I.D (eV): 10.6 | Protection Level: Level D | Sampler: Macrocore |
| Rig Type/Model: Geoprobe 6610DT | Date Started: 6/8/10 | Date Completed: 6/8/10 | Sampler ID/OD: 1.85"/4" |
| Reference Elevation: Grade | Logged By: LJB | Checked By: BAS | Hammer Wt/Fall: 130/30" ~~NA~~ |
| | Water Level: 18.48 (MW-1) | Time: 1300 | Hammer Type: Auto ~~NA~~ |

| Depth (feet bgs) | Sample Number | Penetration/ Recovery (feet) | SPT Blows/6" | N Value | PID Field Scan | PID Headspace | Lab Tests Performed | Lab Sample ID | Sample Description and Classification | USCS Group Symbol | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1–4 | S-1 | 4.0 / 2.0 / 50% | – | – | 0 | | – | – | 0.0–0.4 TSOM<br>0.4–1.7 SILTY SAND w/ GRAVEL (SM) MOIST, BROWN, FINE TO COARSE SAND, SOME SILT, LITTLE FINE TO COARSE GRAVEL, NP, ANGULAR TO SUBROUNDED, POORLY SORTED (FILL)<br>1.7–2.0 GRAVELLY SAND w/ SILT (SP-SM) GRADES COARSER THAN ABOVE, LESSER FINES (SILT), INCREASED SAND FRACTION, NP, POORLY SORTED, (ALLUVIAL DEPOSITS) | | |
| 5–8 | S-2 | 4.0 / 3.0 / 75% | – | – | 0 | 0 | * | * | 4.0–7.0 SAME AS ABOVE; WET IN PLACES (ISOLATED) | | * LCPD101300510xx VOCS |
| 9–12 | S-3 | 4.0 / 2.5 / 63% | – | – | 0<br>19<br>0 | 1.4 | * | * | 8.0–10.5 SAME AS ABOVE | | * LCPD101301010xx VOCS |
| 13–16 | S-4 | 4.0 / 2.0 / 50% | – | – | 0 | | – | – | 12.0–14.0 SAME AS ABOVE | | |

NOTES:

FIGURE 4-4
SOIL BORING LOG
NYSDEC QUALITY ASSURANCE PROGRAM PLAN

# SOIL BORING LOG

MACTEC
511 Congress Street, Portland Maine 04101

| | | | | | |
|---|---|---|---|---|---|
| Project Name: | Loohn's Corning | | | Boring ID: | P01-13 |
| Project Location: | Corning, New York | | | Page No. | 2 |
| Project No.: | 3612102148 | Client: | NYSDEC | of: | 2 |
| Boring Location: See Site Plan | Refusal Depth: — | Total Depth: | 20' | Bore Hole ID/OD: | 4" OD |
| Weather: Sunny, Calm, 80s | Soil Drilled: 20.0 | Method: | Direct Push | Casing Size: | NA |
| Subcontractor: Nothnagle Drilling | P.I.D (eV): 10.6 | Protection Level: | Level D | Sampler: | Macrocore |
| Driller: Jeff, Larry (assistant) | Date Started: 6/8/10 | Date Completed: | 6/8/10 | Sampler ID/OD: | 1.85"/4" |
| Rig Type/Model: Geoprobe 6610DT | Logged By: LJB | Checked By: | BAS 06/21/10 | Hammer Wt/Fall: | 140/30" ~~NA~~ |
| Reference Elevation: Grade | Water Level: 18.48 (MW-1) | Time: | 1300 | Hammer Type: | Auto ~~NA~~ |

| Depth (feet bgs) | Sample Number | Penetration/ Recovery (feet) | SPT Blows/6" | N Value | PID Field Scan | PID Headspace | Lab Tests Performed | Lab Sample ID | Sample Description and Classification | USCS Group Symbol | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 17 | | | | | 0 | | | | 16-18.5 SAME AS ABOVE | | APPARENT DTW ~18.0' |
| 18 | 5 | 4.0' / 2.5 | | | ↓ | | | | | | |
| 19 | | 63% | | | ↓ | | | | | | |
| 20 | | | | | ↓ | | | | BOE @20.0') NOT REFUSAL | | |

NOTES:

FIGURE 4-4
SOIL BORING LOG
NYSDEC QUALITY ASSURANCE PROGRAM PLAN

# SURFACE SOIL SAMPLE FIELD DATA RECORD

Project: LOOHN'S CORNING
Project Number: 3612102148 / 02.01
Sample Location ID: LCBKSS00100110xx

Site: CORNING, NY
Date: 6/9/10
Time: Start: ~~1620~~ 1550 End: ~~1625~~ 1555
Signature of Sampler:

## SOIL SAMPLE

DEPTH OF SAMPLE INTERVAL: 0.5-1.0'
(Feet below ground surface)
reported to 1/10 foot

EQUIPMENT USED FOR COLLECTION:
[ ] HAND AUGER
[ ] S.S. SPLIT SPOON
[X] SHOVEL
[ ] HAND SPOON
[ ] ALUMINUM PANS
[ ] SS BUCKET
[ ] NA

TYPE OF SAMPLE COLLECTED:
[ ] DISCRETE
[X] COMPOSITE

SAMPLE OBSERVATIONS:
[X] ODOR NONE
[X] COLOR NONE
[ ] NA

DECONTAMINATION FLUIDS USED:
✓ ALL USED
[ ] ETHYL ALCOHOL
[ ] 25% METHANOL/ 75% ASTM TYPE II WATER
[X] DEIONIZED WATER
[X] LIQUINOX SOLUTION
[ ] HEXANE
[ ] $HNO_3$ SOLUTION
[X] POTABLE WATER
[ ] NONE

SOIL TYPE:
[ ] CLAY
[ ] SAND
[X] ORGANIC
[ ] GRAVEL

FIELD GC DATA: [ ] FIELD DUPLICATE COLLECTED
DUPLICATE ID: NA

SAMPLE LOCATION SKETCH:
[ ] YES
[X] NO SEE SITE PLAN

PID Reading 0.0 ppm

## SAMPLES COLLECTED

| ✓ IF REQUIRED AT THIS LOCATION | MATRIX: SURFACE SOIL | ✓ IF SAMPLE COLLECTED | ✓ IF PRESERVED | VOLUME COLLECTED/NOTES |
|---|---|---|---|---|
| | | | [ ] | SAMPLE LCBKSS00100110xx COLLECTED |
| [ ] VOC | [ ] | [ ] | [X] | ONE (1) 8OZ JAR FILLED FOR THE LISTED |
| [X] SVOC | [X] | [X] | [X] | ANALYSES |
| [X] PEST | [X] | [X] | 4°C [X] | |
| [X] PCB | [X] | [X] | [ ] | |
| [ ] INORGANICS | [ ] | [ ] | [X] | |
| [X] METALS | [X] | [X] | [ ] | |
| [ ] | [ ] | [ ] | [ ] | |
| [ ] | [ ] | [ ] | [ ] | |
| [ ] | [ ] | [ ] | [ ] | |
| [ ] | [ ] | [ ] | [ ] | |
| [ ] | [ ] | [ ] | [ ] | |

## NOTES/SKETCH

SAMPLE COLLECTED FROM 0.5-1.0'. SAMPLE DESCRIPTION:

0.0-0.5 TOPSOIL AND ORGANIC MATERIAL (TSOM), LITTLE TO SOME CLAY, MOIST, DARK BROWN, SILT, SOME FINE SAND, ~~(SAND)~~ ML) NP-LP, ABUNDANT ORGANIC FOUND (ROOTS).

0.5-1.0 SAME AS ABOVE. NO ORGANICS AT THIS DEPTH. TRACE FINE GRAVEL.

CHECKED BY: ACM 6/22/10

SAMPLED BY: CJB

# SURFACE SOIL SAMPLE FIELD DATA RECORD

Project: LOOHN'S CORNING

Project Number: 3612102148 / 02.01

Sample Location ID: LCBKSS00700110 xx

Site: CORNING, NY

Date: 6/9/10

Time: Start: 1620 End: 1825

Signature of Sampler:

## SOIL SAMPLE

DEPTH OF SAMPLE INTERVAL: 0.5FT-1.0FT
(Feet below ground surface)
reported to 1/10 foot

EQUIPMENT USED FOR COLLECTION:
[ ] HAND AUGER
[ ] S.S. SPLIT SPOON
[X] SHOVEL
[X] HAND SPOON
[ ] ALUMINUM PANS
[ ] SS BUCKET
[ ] N/A

TYPE OF SAMPLE COLLECTED:
[ ] DISCRETE
[X] COMPOSITE

SAMPLE OBSERVATIONS:
[X] ODOR NONE
[X] COLOR NONE
[ ] NA

DECONTAMINATION FLUIDS USED:
✓ ALL USED
[ ] ETHYL ALCOHOL
[ ] 25% METHANOL/ 75% ASTM TYPE II WATER
[X] DEIONIZED WATER
[X] LIQUINOX SOLUTION
[ ] HEXANE
[ ] $HNO_3$ SOLUTION
[ ] POTABLE WATER
[ ] NONE

SOIL TYPE:
[ ] CLAY
[X] SAND
[ ] ORGANIC
[X] GRAVEL

FIELD GC DATA: [ ] FIELD DUPLICATE COLLECTED
DUPLICATE ID: N/A

SAMPLE LOCATION SKETCH:
[ ] YES
[X] NO
SEE SITE PLAN

PID Reading 0.0 PPM

## SAMPLES COLLECTED

| ✓ IF REQUIRED AT THIS LOCATION | MATRIX: SURFACE SOIL | ✓ IF SAMPLE COLLECTED | ✓ IF PRESERVED | VOLUME COLLECTED/NOTES |
|---|---|---|---|---|
| [ ] VOC | [ ] | [ ] | [ ] | SAMPLE LCBKSS00200110xx COLLECTED |
| [X] SVOC | [X] | [X] | [X] | ONE (1) 8 OZ JAR FILLED |
| [X] PEST | [X] | [X] | Yes [X] | |
| [X] PCB | [X] | [X] | [X] | |
| [ ] INORGANICS | [ ] | [ ] | [ ] | |
| [X] METALS | [X] | [X] | [X] | |
| [ ] | [ ] | [ ] | [ ] | |
| [ ] | [ ] | [ ] | [ ] | |
| [ ] | [ ] | [ ] | [ ] | |
| [ ] | [ ] | [ ] | [ ] | |
| [ ] | [ ] | [ ] | [ ] | |

## NOTES/SKETCH

SOIL DESCRIPTION

0.0 – 0.1 TOPSOIL AND ORGANIC MATERIAL (TSOM)
0.1 – 1.0 SILTY SAND W/ GRAVEL (SM-GM)
MOIST, BROWN TO GRAYISH BROWN SAND, FINE TO COARSE, AND GRAVEL, FINE TO COARSE, LITTLE SILT, NP, ANGULAR TO ROUNDED. (NO PID 0.0 ppm)

SAMPLED BY: LJA

CHECKED BY: ACM 6/22/10

# SURFACE SOIL SAMPLE FIELD DATA RECORD

Project: LOOHN'S CORNING
Project Number: 3612102148
Sample Location ID: BCBKSS00300110xx
LCBKSS00300110XD

Site: CORNING, NY
Date: 6/9/10
Time: Start: 1630 End: 1635
Signature of Sampler:

## SOIL SAMPLE

DEPTH OF SAMPLE INTERVAL: 0.5'-1.0'
(Feet below ground surface)
reported to 1/10 foot

EQUIPMENT USED FOR COLLECTION:
[ ] HAND AUGER
[ ] S.S. SPLIT SPOON
[X] SHOVEL
[X] HAND SPOON
[ ] ALUMINUM PANS
[ ] SS BUCKET
[ ] N/A

TYPE OF SAMPLE COLLECTED:
[ ] DISCRETE
[X] COMPOSITE

SAMPLE OBSERVATIONS:
[X] ODOR NONE
[X] COLOR NONE
[ ] NA

DECONTAMINATION FLUIDS USED:
✓ ALL USED
[ ] ETHYL ALCOHOL
[ ] 25% METHANOL/ 75% ASTM TYPE II WATER
[X] DEIONIZED WATER
[X] LIQUINOX SOLUTION
[ ] HEXANE
[ ] $HNO_3$ SOLUTION
[X] POTABLE WATER
[ ] NONE

SOIL TYPE:
[ ] CLAY
[ ] SAND
[X] ORGANIC
[ ] GRAVEL

FIELD GC DATA: [X] FIELD DUPLICATE COLLECTED
DUPLICATE ID: LCBKSS00300110XD

SAMPLE LOCATION SKETCH:
[ ] YES
[X] NO
SEE SITE PLAN

PID Reading 0.0 PPM.

## SAMPLES COLLECTED

| ✓ IF REQUIRED AT THIS LOCATION | MATRIX: SURFACE SOIL | ✓ IF SAMPLE COLLECTED | ✓ IF PRESERVED | VOLUME COLLECTED/NOTES |
|---|---|---|---|---|
| [ ] VOC | [ ] | [ ] | [ ] | SAMPLE LCBKSS00300110XX AND |
| [X] SVOC | [X] | [X] | [X] | LCBKSS00300110XD COLLECTED |
| [X] PEST | [X] | [X] | [X] | TWO (2) 8 OZ JARS FILLED. |
| [X] PCB | [X] | [X] | 4°C [X] | |
| [ ] INORGANICS | [ ] | [ ] | [ ] | |
| [X] METALS | [X] | [X] | [X] | |
| [ ] | [ ] | [ ] | [ ] | |
| [ ] | [ ] | [ ] | [ ] | |
| [ ] | [ ] | [ ] | [ ] | |
| [ ] | [ ] | [ ] | [ ] | |
| [ ] | [ ] | [ ] | [ ] | |

## NOTES/SKETCH

SOIL DESCRIPTION: SOILS DESCRIBED AS SIMILAR TO BKSS-1
SANDY SILT w/ CLAY (ML) BROWN TO DARK BROWN, MOIST, SILT, LITTLE TO SOME FINE SAND, LITTLE CLAY, NP TO LP, TRACE FINE GRAVEL

SAMPLED BY: LOB

CHECKED BY ~~EJ~~ CB
RCM 6/22/10

# SURFACE SOIL SAMPLE FIELD DATA RECORD

Project: LOOHN'S CORNING
Project Number: 3612102142 / 02.01 (RI)
Sample Location ID: L C S S 0 0 1 0 0 1 1 0 X X

Site: CORNING, NY   SS-1
Date: 6/8/10
Time: Start: 1030   End: 1030
Signature of Sampler:

## SOIL SAMPLE

DEPTH OF SAMPLE INTERVAL: 0.5-1.2
(Feet below ground surface)
reported to 1/10 foot

EQUIPMENT USED FOR COLLECTION:
[ ] HAND AUGER
[ ] S.S. SPLIT SPOON
[X] SHOVEL
[X] HAND SPOON
[ ] ALUMINUM PANS
[ ] SS BUCKET
[ ] NA RM

TYPE OF SAMPLE COLLECTED:
[ ] DISCRETE
[X] COMPOSITE

SAMPLE OBSERVATIONS:
[X] ODOR NONE
[X] COLOR NONE
[ ] NA RM

DECONTAMINATION FLUIDS USED:
✓ ALL USED
[ ] ETHYL ALCOHOL
[ ] 25% METHANOL/ 75% ASTM TYPE II WATER
[X] DEIONIZED WATER
[X] LIQUINOX SOLUTION
[ ] HEXANE
[ ] HNO $_3$ SOLUTION
[X] POTABLE WATER
[ ] NONE

SOIL TYPE:
[ ] CLAY
[X] SAND
[ ] ORGANIC
[X] GRAVEL

FIELD GC DATA: [ ] FIELD DUPLICATE COLLECTED
DUPLICATE ID: NA RM

SAMPLE LOCATION SKETCH:
[ ] YES
[X] NO   SEE SITE PLAN

PID Reading 0.0 PIB

## SAMPLES COLLECTED

| ✓ IF REQUIRED AT THIS LOCATION | MATRIX: SURFACE SOIL | ✓ IF SAMPLE COLLECTED | ✓ IF PRESERVED |
|---|---|---|---|
| | | [ ] | [ ] |
| [ ] VOC | [ ] | [X] | [ ] |
| [X] SVOC | [ ] | [X] | [ ] |
| [X] PEST | [ ] | [X] 6/24/10 | [ ] |
| [X] PCB | [ ] | [ ] | [ ] |
| [ ] INORGANICS | [ ] | [X] | [ ] |
| [X] METALS | [ ] | [ ] | [ ] |
| [ ] | [ ] | [ ] | [ ] |
| [ ] | [ ] | [ ] | [ ] |
| [ ] | [ ] | [ ] | [ ] |
| [ ] | [ ] | [ ] | [ ] |
| [ ] | [ ] | [ ] | [ ] |

VOLUME COLLECTED/NOTES

SAMPLE COLLECTED FOR SVOC PEST/PCB
METALS FROM GAS LINE EXCAVATION.
SAMPLE COLLECTED FROM 0.5"-14" (1.2')

SAMPLE COLLECTED @ 1030 LPB 6/24/10

## NOTES/SKETCH

RLM 6/22/10

# SURFACE SOIL SAMPLE FIELD DATA RECORD

Project: LOUHN'S CORNING
Project Number: 3612102148 /02.01 (25)
Sample Location ID: LCPD1010002 10XX

Site: CORNING NY [PDI-10]
Date: 6/9/10
Time: Start: 1620 End: 1650
Signature of Sampler:

## SOIL SAMPLE

DEPTH OF SAMPLE INTERVAL: 2.0'
(Feet below ground surface)
reported to 1/10 foot

EQUIPMENT USED FOR COLLECTION:
[ ] HAND AUGER
[ ] S.S. SPLIT SPOON
[X] SHOVEL
~~[X] HAND SPOON~~
[ ] ALUMINUM PANS
[ ] SS BUCKET
[X] TERRA CORE

TYPE OF SAMPLE COLLECTED:
[X] DISCRETE
[ ] COMPOSITE

SAMPLE OBSERVATIONS:
[X] ODOR NONE
[X] COLOR NONE
[ ]

DECONTAMINATION FLUIDS USED:
✓ ALL USED
[ ] ETHYL ALCOHOL
[ ] 25% METHANOL/ 75% ASTM TYPE II WATER
[X] DEIONIZED WATER
[X] LIQUINOX SOLUTION
[ ] HEXANE
[ ] HNO $_3$ SOLUTION
[X] POTABLE WATER
[ ] NONE

SOIL TYPE:
[ ] CLAY
[ ] SAND
[ ] ORGANIC
[ ] GRAVEL

FIELD GC DATA: [ ] FIELD DUPLICATE COLLECTED NA
DUPLICATE ID:

SAMPLE LOCATION SKETCH:
[ ] YES
[X] NO SEE SITE PLAN

PID Reading NOT USED (TOO WET)

## SAMPLES COLLECTED

| ✓ IF REQUIRED AT THIS LOCATION | MATRIX: SURFACE SOIL | ✓ IF SAMPLE COLLECTED | ✓ IF PRESERVED | VOLUME COLLECTED/NOTES |
|---|---|---|---|---|
| [X] VOC | [ ] | [X] | [X] | VOC / % SOLIDS SAMPLE COLLECTED |
| [ ] SVOC | [ ] | [ ] | [ ] | FROM 2' BGS AT THIS LOCATION |
| [ ] PEST | [ ] | [ ] | [ ] | |
| [ ] PCB | [ ] | [ ] | [ ] | |
| [ ] INORGANICS | [ ] | [ ] | [ ] | |
| [X] % SOLIDS | [ ] | [X] | [ ] | |
| [ ] | [ ] | [ ] | [ ] | |
| [ ] | [ ] | [ ] | [ ] | |
| [ ] | [ ] | [ ] | [ ] | |
| [ ] | [ ] | [ ] | [ ] | |
| [ ] | [ ] | [ ] | [ ] | |

NOTES/SKETCH

SEE SAMPLE DESCRIPTION / NOTES FOR PDI-11. NO ORGANICS, FABRIC ENCOUNTERED DURING ADVANCEMENT.

✓ BAS 11/2/2010

# SURFACE SOIL SAMPLE FIELD DATA RECORD

Project: LOOHNIS CORNING
Project Number: 8612102148 / 02.01 (RI)
Sample Location ID: L C P D 1 0 1 1 0 0 1 1 0 X X

Site: CORNING, NY PDI-11
Date: 6/9/10
Time: Start: 1300 End: 1405
Signature of Sampler:

## SOIL SAMPLE

DEPTH OF SAMPLE INTERVAL: 0.5 | 2.0
(Feet below ground surface)
reported to 1/10 foot

EQUIPMENT USED FOR COLLECTION:
[ ] HAND AUGER
[ ] S.S. SPLIT SPOON
[X] SHOVEL
[X] HAND SPOON
[ ] ALUMINUM PANS
[ ] SS BUCKET
[X] TERRACORE

TYPE OF SAMPLE COLLECTED:
[X] DISCRETE
[X] COMPOSITE

SAMPLE OBSERVATIONS:
[X] ODOR NONE
[X] COLOR NONE
[ ]

DECONTAMINATION FLUIDS USED:
✓ ALL USED
[ ] ETHYL ALCOHOL
[ ] 25% METHANOL/ 75% ASTM TYPE II WATER
[X] DEIONIZED WATER
[X] LIQUINOX SOLUTION
[ ] HEXANE
[ ] $HNO_3$ SOLUTION
[X] POTABLE WATER
[ ] NONE

SOIL TYPE:
[ ] CLAY
[X] SAND
[ ] ORGANIC
[X] GRAVEL

FIELD GC DATA: [X] FIELD DUPLICATE COLLECTED
DUPLICATE ID: LCPD1011002 10MS
LCPD1011002 10MSD

SAMPLE LOCATION SKETCH:
[ ] YES
[X] NO SEE SITE PLAN

PID Reading NOT SCREENED (TOO WET)

## SAMPLES COLLECTED

| ✓ IF REQUIRED AT THIS LOCATION | MATRIX: SURFACE SOIL | ✓ IF SAMPLE COLLECTED | ✓ IF PRESERVED | VOLUME COLLECTED/NOTES |
|---|---|---|---|---|
| [X] VOC | [ ] | [X] | [X] | FOUR (4) SAMPLES COLLECTED AT THIS LOCATION. |
| [X] SVOC | [X] | [X] | [ ] | LCPD1011 0011 0XX (SVOC, PEST/PCBs, METALS) |
| [X] PEST | [X] | [X] | [ ] | |
| [X] PCB | [X] | [X] | [ ] | LCPD1011 0021 0XX (VOCs, % SOLIDS) |
| [ ] INORGANICS | [ ] | [ ] | [ ] | LCPD1011002 10MS |
| [X] METALS | [X] | [X] | [ ] | LCPD1011002 10MSD |
| [X] % SOLIDS | [ ] | [X] | [ ] | |
| [ ] | [ ] | [ ] | [ ] | |
| [ ] | [ ] | [ ] | [ ] | |
| [ ] | [ ] | [ ] | [ ] | |
| [ ] | [ ] | [ ] | [ ] | |

## NOTES/SKETCH

* DUE TO ACCESS RESTRICTIONS (OVERHEAD UTILITIES) DISCOVERED AT THE SITE, BORING PDI-11 WAS ADVANCED BY HAND USING A STAINLESS STEEL SHOVEL. 4 SAMPLES COLLECTED (SEE ABOVE NOTATION)

SOIL DESCRIPTION IS AS FOLLOWS:

0.0 - 0.4 TSOM

0.4 - 1.5 SILTY SAND W/ GRAVEL AND CLAY (SM-ML)
SILTY SAND TO ORANGEISH BROWN SAND, FINE TO WET, BROWN TO ORANGEISH BROWN SAND, FINE TO COARSE, SOME SILT, LITTLE TO SOME GRAVEL, FEW CLAY, NP-LP. (FILL) ORGANICS (ROOTS [TREE]) FOUND AT 18" BGS. ALSO, DEBRIS (FABRIC) ENCOUNTERED. (FORMER GROUND SURFACE?)

1.5 - 2.0 GRAVELLY SAND W/ SILT (SM-GM) TRANSITIONS TO MORE GRANULAR, LESS FINES / GRAVEL, ANGULAR TO ROUNDED

✓ BAS 06/21/2010

# SURFACE SOIL SAMPLE FIELD DATA RECORD

Project: LOWHN'S CORNING
Project Number: 3612102148 / 02.01 (RI)
Sample Location ID: L C P 0 1 0 Φ 4 0 0 2 1 0 X X

Site: CORNING, NY (PDI-14)
Date: 6/9/10
Time: Start: 1620 End: 1655
Signature of Sampler: [signature]

## SOIL SAMPLE

DEPTH OF SAMPLE INTERVAL: 2'
(Feet below ground surface)
reported to 1/10 foot

EQUIPMENT USED FOR COLLECTION:
[ ] HAND AUGER
[ ] S.S. SPLIT SPOON
[X] SHOVEL
[ ] HAND SPOON
[ ] ALUMINUM PANS
[ ] SS BUCKET
[X] TERRACORE

TYPE OF SAMPLE COLLECTED:
[✓] DISCRETE
[ ] COMPOSITE

SAMPLE OBSERVATIONS:
[X] ODOR NONE
[X] COLOR NONE
[ ]

DECONTAMINATION FLUIDS USED:
✓ ALL USED
[ ] ETHYL ALCOHOL
[ ] 25% METHANOL/ 75% ASTM TYPE II WATER
[X] DEIONIZED WATER
[X] LIQUINOX SOLUTION
[ ] HEXANE
[ ] $HNO_3$ SOLUTION
[X] POTABLE WATER
[ ] NONE

SOIL TYPE:
[ ] CLAY
[X] SAND
[ ] ORGANIC
[X] GRAVEL

FIELD GC DATA: [ ] FIELD DUPLICATE COLLECTED
DUPLICATE ID: NA

SAMPLE LOCATION SKETCH:
[ ] YES
[X] NO SEE SITE PLAN

PID Reading NOT USED (TOO WET)

## SAMPLES COLLECTED

| ✓ IF REQUIRED AT THIS LOCATION | MATRIX: SURFACE SOIL | ✓ IF SAMPLE COLLECTED | ✓ IF PRESERVED | VOLUME COLLECTED/NOTES |
|---|---|---|---|---|
| [X] VOC | [ ] | [X] | [X] | VOC SAMPLE COLLECTED AT 2' BAS |
| [ ] SVOC | [ ] | [ ] | [ ] | % SOLIDS AS PART OF VOC ANALYSIS |
| [ ] PEST | [ ] | [ ] | [ ] | |
| [ ] PCB | [ ] | [ ] | [ ] | |
| [ ] INORGANICS | [ ] | [ ] | [ ] | |
| [X] % SOLIDS | [ ] | [X] | [ ] | |
| [ ] | [ ] | [ ] | [ ] | |
| [ ] | [ ] | [ ] | [ ] | |
| [ ] | [ ] | [ ] | [ ] | |
| [ ] | [ ] | [ ] | [ ] | |
| [ ] | [ ] | | | |

NOTES/SKETCH SOIL DESCRIPTION SIMILAR TO LOCATION PDI-11 WITHOUT ORGANIC INTERVAL / DEBRIS ENCOUNTERED

√ BAS 06/21/2010

# GROUNDWATER SAMPLING RECORD

**MACTEC**

511 Congress Street, Portland Maine 04101

| | | | |
|---|---|---|---|
| PROJECT NAME: Loohn's Corning Site | | LOCATION ID: GW-13 Corning, NY | DATE: 6/9/10 |
| PROJECT NUMBER/TASK: 3612102148/02.01 | | START TIME: 1525 | END TIME: 1530 |
| SAMPLE ID: LCGW0130201 0XX | SAMPLE TIME: 1530 | SITE NAME/NUMBER: 851028 | FILE TYPE: NYSDEC |

**SAMPLE TYPE** [ ] LOW FLOW [X] GRAB [ ] MICROWELL [ ] MONITORING WELL [X] GEOPROBE [ ] PORE WATER

**WELL DIAMETER** [X] 1-IN. [ ] 2-IN. [ ] 4-IN. [ ] 6-IN. [ ] 8-IN. [ ] OTHER ______

**MEASUREMENT POINT** [ ] TOP OF RISER (TOR) [ ] TOP OF CASING (TOC) [X] OTHER Ground Surface

**WELL INTEGRITY**

| | YES | NO | N/A |
|---|---|---|---|
| CAP | NA | NA | NA |
| CASING | NA | NA | NA |
| LOCKED | NA | NA | NA |
| COLLAR | NA | NA | NA |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| INITIAL DTW (TOR) | — FT | FINAL DTW (TOR) | — FT | PROT. CASING STICKUP (AGS) | NA FT | TOC/TOR DIFFERENCE | — FT |
| WELL DEPTH (TOR) | — FT | SCREEN LENGTH | 4 FT | PID AMBIENT AIR | 0.0 PPM | REFILL TIMER SETTING | NA SEC |
| WATER COLUMN (TOR) | — FT | DRAWDOWN VOLUME (initial - final x 0.16 {2 in.} or x 0.65 {4 in.}) | — GAL | PID WELL MOUTH | 0.0 PPM | DISCH. TIMER SETTING | NA SEC |
| CALCULATED GAL/VOL (column x well rad. squared {2 in.$^2$} x 0.041) | — | TOTAL VOL. PURGED (mL per minute x total minutes x 0.00026 gal/mL) | <0.1 GAL | DRAWDOWN/ TOTAL PURGED | — | PRESSURE TO PUMP | NA PSI |

**FIELD PARAMETERS WITH STABILIZATION CRITERIA**

| TIME | DEPTH TO WATER (FT) | PURGE RATE (mL/min) | TEMP. (°C) (+/- 10 degrees) | SP. CONDUCTANCE (ms/cm) (+/- 3%) | pH (units) (+/- 3%) | DISS. $O_2$ (mg/L) (+/- 10%) | TURBIDITY (ntu) (+/- 10% <10 ntu) | REDOX (mv) (+/- 10 mv) | PUMP INTAKE DEPTH (ft) | COMMENTS |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 20 | |
| 1525 | — | — | 16.0 | 1.17 | 8.27 | 5.19 | — | — | | |
| 1530 | SAMPLE COLLECTED | | | LCGW0130201 0XX | | | | | | |
| | | | | FINAL VALUES | | | | | | |
| — | — | — | 16 | 1.2 | 8.3 | 5.2 | — | — | — | |

**EQUIPMENT DOCUMENTATION**

TYPE OF PUMP
- [ ] PERISTALTIC PUMP
- [ ] SUBMERSIBLE PUMP
- [ ] BLADDER PUMP
- [ ] WATTERA PUMP
- [X] OTHER CHECK VALVE

DECON FLUIDS USED
- [X] LIQUINOX
- [X] DEIONIZED WATER
- [ ] POTABLE WATER
- [ ] NITRIC ACID
- [ ] HEXANE
- [ ] METHANOL Am
- [ ] OTHER ______

TUBING/PUMP/BLADDER MATERIALS
- [ ] SILICON TUBING
- [ ] TEFLON TUBING
- [ ] TEFLON LINED TUBING
- [ ] HDPE TUBING
- [X] LDPE TUBING
- [X] S. STEEL PUMP MATERIAL
- [ ] PVC PUMP MATERIAL
- [ ] GEOPROBE SCREEN
- [ ] TEFLON BLADDER
- [ ] OTHER ______

ADDITIONAL EQUIPMENT USED
- [ ] ELECTRIC WATER LEVEL METER
- [ ] FLOAT ACTIVATED WL METER
- [ ] INTERFACE PROBE
- [X] PID NYSDEC #2
- [ ] TURB. METER ______
- [ ] FILTERS NUMBER ______ TYPE ______

**ANALYTICAL PARAMETERS**

| PARAMETER | METHOD NUMBER | FIELD FILTERED | PRESERVATION METHOD | VOLUME REQUIRED | SAMPLE COLLECTED | SAMPLE BOTTLE ID NUMBERS |
|---|---|---|---|---|---|---|
| [X] VOCs | VOC-TAL VOA-10 ~~SW846 8260B~~ | N | HCl / 4° C | 3 X 40 ML | Y | LCGW0130201 0XX |
| [ ] SVOCs | SW846 8270C | | 4° C | 2 X 1 L AG | | |
| [ ] PESTICIDES/PCBs | SW846 8081/8082 | | 4° C | 2 X 1 L AG | | |
| [ ] METALS | SW846 6010 | | $HNO_3$ to pH <2 | 1 X 500 ML P | | |
| [ ] OTHER | | | | | | |
| [ ] OTHER | | | | | | |
| [ ] OTHER | | | | | | |
| [ ] OTHER | | | | | | |

**PURGE OBSERVATIONS**

PURGE WATER CONTAINERIZED YES (NO) NUMBER OF GALLONS GENERATED <0.1

**NOTES** CHECK VALVE / TUBING PROVIDED BY NOTHNAGLE. HORIBA U-10 (M014-10) USED.

Sampler Signature: [signature] Print Name: LUCAS BENEDICT

Sampled By: LSB Checked By: RLM 6/22/10

**LOCATION SKETCH**

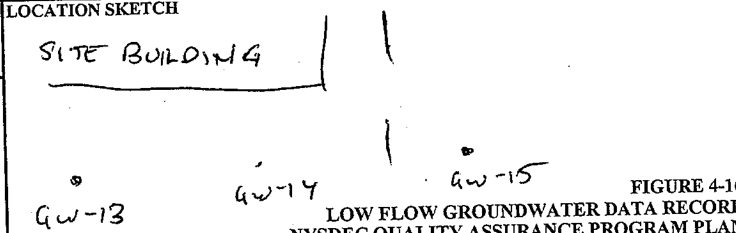



FIGURE 4-16
LOW FLOW GROUNDWATER DATA RECORD
NYSDEC QUALITY ASSURANCE PROGRAM PLAN

# APPENDIX B

# 2010 RI ANALYTICAL RESULTS TABLES AND DATA USABILITY REPORT

# DATA USABILITY SUMMARY REPORT
# 2010 REMEDIAL INVESTIGATION SAMPLING PROGRAM
# LOOHNS CORNING SITE
# CORNING, NEW YORK

## 1.0 INTRODUCTION

Thirty-three soil samples were collected from June 8th, 2010 to June 9th, 2010 at the Loohns Corning Site (Site) in Corning, New York. Sample analyses were completed by Chemtech laboratory located in Mountainside, New Jersey. Results were reported in sample delivery groups (SDGs) B2618 and B2643. A listing of samples included in this Data Usability Summary Report is presented in Table 1. A summary of the analytical results is presented in Table 2. Samples were analyzed for:

- Volatile organic compounds (VOCs) by USEPA Method 8260B,
- Semi volatile organic compounds (SVOCs) by USEPA Method 8270C,
- Pesticides by USEPA Method 8081,
- Aroclors (PCBs) by USEPA Method 8082,
- Metals by USEPA Method 6010B/7471,

Deliverables for the off-site laboratory analyses included a Category B deliverable as defined in the New York State Department of Environmental Conservation (NYSDEC) Analytical Services Protocols (NYSDEC, 2005).

A project chemist review was completed based on the NYSDEC "Technical Guidance for Site Investigation and Remediation-Appendix 2B"; DER-10; Division of Environmental Remediation; May 2010. Quality control (QC) limits from USEPA Region II data validation guidelines and laboratory QC limits were used during the data evaluation. The project chemist review included evaluations of sample collection, data package completeness, holding times, QC data (blanks, instrument calibrations, duplicates, surrogate recovery, and spike recovery), internal standard response, data transcription, electronic data reporting, calculations, and data qualification.

The following laboratory or data validation qualifiers are used in the final data presentation.

U = target analyte is not detected at the reported detection limit
J = concentration is estimated

Results are interpreted to be usable as reported by the laboratory unless discussed in the following sections.

## 2.0 VOCs

<u>Blanks</u>

**SDG B2618:** Acetone (13 μg/kg) and methylene chloride (8.5 μg/kg) were reported in the trip blank. Action levels were established at ten times the reported blank concentrations. Reported detections for acetone and methylene chloride were less than the action level and were qualified non-detect (U) if greater than the reporting limit, or if less than the reporting limit, were qualified non-detect (U) at the reporting limit.

Initial Calibration

**SDG B2618:** For a subset of samples, the percent relative standard deviation (RSD) for dichlorodifluoromethane (25) exceeded the QC limit of 20. Associated sample results for dichlorodifluoromethane were non-detect, and the reporting limits were qualified estimated (UJ).

For a subset of samples, the RSD for dichlorodifluoromethane (24) and acetone (22) exceeded the QC limit of 20. Associated sample results for dichlorodifluoromethane and acetone were non-detect, and the reporting limits were qualified estimated (UJ).

**SDG B2643:** For a subset of samples, the RSD for dichlorodifluoromethane (29) and acetone (22) exceeded the QC limit of 20. Associated sample results for dichlorodifluoromethane and acetone were non-detect, and the reporting limits were qualified estimated (UJ).

For a subset of samples, the RSD for chloroethane (24) exceeded the QC limit of 20. Associated sample results for chloroethane were non-detect, and the reporting limits were qualified estimated (UJ).

Continuing Calibration

**SDG B2618:** For a subset of samples, the percent difference for chloroethane (24) exceeded the QC limit of 20. Associated sample results for chloroethane were non-detect, and the reporting limits were qualified estimated (UJ).

For a subset of samples, the percent difference for dichlorodifluoromethane (50), chloromethane (27), vinyl chloride (28), chloroethane (31), trichlorofluoromethane (23), carbon disulfide (21), and 1,1,2-trichloro-1,2,2-trifluoroethane (24) exceeded the QC limit of 20. Associated sample results for dichlorodifluoromethane were non-detect and were qualified previously under the initial calibration criteria. Associated sample results for chloromethane, vinyl chloride, chloroethane, trichlorofluoromethane, carbon disulfide, and 1,1,2-trichloro-1,2,2-trifluoroethane were non-detect, and the reporting limits were qualified estimated (UJ).

**SDG B2643:** For a subset of samples, the percent difference for dichlorodifluoromethane (34), trichlorofluoromethane (24), acetone (27), 1,2-dichloropropane (22), bromodichloromethane (21), 4-methyl-2-pentanone (26), toluene (21), trans-1,3-dichloropropene (24), cis-1,3-dichloropropene (21), 1,1,2-trichloroethane (27), 2-hexanone (38), 1,2-dibromoethane (25), and styrene (22) exceeded the QC limit of 20. Associated sample results for dichlorodifluoromethane and acetone were qualified previously under the initial calibration criteria. Associated sample results for trichlorofluoromethane, 1,2-dichloropropane, bromodichloromethane, 4-methyl-2-pentanone, toluene, trans-1,3-dichloropropene, cis-1,3-dichloropropene, 1,1,2-trichloroethane, 2-hexanone, 1,2-dibromoethane, and styrene were non-detect, and the reporting limits were qualified estimated (UJ).

For a subset of samples, the percent difference for dichlorodifluoromethane (50), chloromethane (27), vinyl chloride (28), chloroethane (31), trichlorofluoromethane (23), carbon disulfide (21), and 1,1,2-trichloro-1,2,2-trifluoroethane (24) exceeded the QC limit of 20. The associated sample result for chloroethane was non-detect and was qualified previously under the initial calibration criteria. Associated sample results for dichlorodifluoromethane , chloromethane, vinyl chloride, chloroethane, trichlorofluoromethane, carbon disulfide, and 1,1,2-trichloro-1,2,2-trifluoroethane were non-detect, and the reporting limits were qualified estimated (UJ).

For a subset of samples, the percent difference for chloroethane (47) exceeded the QC limit of 20. The associated sample results for chloroethane were non-detect and were qualified previously under the initial calibration criteria.

Laboratory Control Sample

**SDG B2618:** For a subset of samples, the LCS percent recovery of chloroethane (145) exceeded the QC limit of 130. Sample results for chloroethane were non-detect and no qualification action was required.

**SDG B2643:** For a subset of samples, the LCS percent recovery of chloroethane (145) exceeded the QC limit of 130. Sample results for chloroethane were non-detect and no qualification action was required.

Tentatively Identified Compounds (TICs)

TICs were reported by the laboratory if detected in samples. TICs reported in associated blanks were rejected in the final data set. A summary of TICs detected in samples is presented on Table 3.

## 3.0 SVOCs

Blanks

**SDG B2618 and SDG B2643:** Dimethylphthalate (200 and 210 μg/kg) was reported in the method blanks. An action level was established at ten times the reported concentration in the blanks. Reported detections of dimethylphthalate in the samples were less than the action level and were qualified non-detect (U).

Initial Calibration

**SDG B2618 and SDG B2643:** In the initial calibration the RSD for 2,4-dinitrophenol (56), 4,6-dinitro-2-methylphenol (41), and pentachlorophenol (19) exceeded the QC limit of 15. 2,4-Dinitrophenol, 4,6-dinitro-2-methylphenol, and pentachlorophenol were not detected in samples, and the reporting limits for these compounds were qualified estimated (UJ).

Continuing Calibration

**SDG B2618:** In the continuing calibration the percent difference for 2,4-dinitrophenol (-22) exceeded the QC limit of 20. Sample results for 2,4-dinitrophenol were qualified previously under the initial calibration criteria.

**SDG B2618:** In the continuing calibration the percent difference for 2,4-dinitrophenol (-140), 4,6-dinitro-2-methylphenol (-61), and pentachlorophenol (-27) exceeded the QC limit of 20. Sample results for 2,4-dinitrophenol, 4,6-dinitro-2-methylphenol, and pentachlorophenol were qualified previously under the initial calibration criteria.

Laboratory Control Sample

**SDG B2618:** The LCS percent recovery of benzaldehyde (11), 4-chloroaniline (44), and 3,3-dichlorobenzidine (22) were less than the lower QC limit of 50. Benzaldehyde, 4-chloroaniline, and 3,3-dichlorobenzidine were not detected in samples, and the reporting limits were qualified estimated (UJ).

Matrix Spike/Matrix Spike Duplicate

**SDG B2618:** Sample LCPDI00600110XX was analyzed as an MS/MSD by the laboratory. The MS/MSD percent recoveries of benzaldehyde (13 and 13) and 4-chloroaniline (31 and 44) were less than the lower QC limit of 50. Results for benzaldehyde and 4-chloroaniline were qualified previously under the LCS criteria.

**SDG B2643:** Sample LCPDI01100110XX was analyzed as an MS/MSD by the laboratory. The MS/MSD percent recoveries of benzaldehyde (11 and 10) and 4-chloroaniline (47) were less than the lower QC limit of 50. The result for benzaldehyde was qualified previously under the LCS criteria. The result for 4-chloroaniline was non-detect and the reporting limit was qualified estimated (UJ).

Tentatively Identified Compounds (TICs)

TICs were reported by the laboratory if detected in samples. TICs reported in associated blanks were rejected in the final data set. A summary of TICs detected in samples is presented on Table 3.

## 4.0 Pesticides

Quantitation

**SDG B2643:** The percent difference between the primary and confirmatory column results for 4,4-DDE in samples LCBKSS00300110XD (35) and LCBKSS00300110XX (43), and dieldrin in sample LCPD101100110XX (46) exceeded the QC limit of 25. The results for 4,4-DDE in samples LCBKSS00300110XD and LCBKSS00300110XX, and dieldrin in sample LCPD101100110XX were qualified estimated (J).

Matrix Spike/Matrix Spike Duplicate

**SDG B2618:** Sample LCPDI00600110XX was analyzed as an MS/MSD by the laboratory. The MS/MSD relative percent difference (RPD) for methoxychlor (24) exceeded the laboratory limit of 20. The unspiked sample result for methoxychlor was qualified estimated (J).

## 5.0 PCBs

Matrix Spike/Matrix Spike Duplicate

**SDG B2618:** Sample LCPDI00600110XX was analyzed as an MS/MSD by the laboratory. The MSD percent recovery of Aroclor 1260 (144) exceeded the upper QC limit of 129. Aroclor 1260 was not detected in the unspiked sample, and no further action was required.

## 6.0 Metals

Blanks

**SDG B2643:** Aluminum, calcium, and iron were reported in the continuing calibration blanks. Action levels were established at five times the highest reported blank concentration for aluminum, calcium, and iron. Sample results for aluminum, calcium, and iron were greater than the action levels, and no further action was required.

Serial Dilution

**SDG B2643:** The serial dilution percent difference for calcium (13), iron (14), magnesium (12), manganese (14), potassium (12), and zinc (13) exceeded the QC limit of 10. Sample results for calcium, iron, magnesium, manganese, potassium, and zinc were qualified estimated (J).

Laboratory Control Sample

**SDG B2643:** The LCS percent recovery of aluminum (76), calcium (78), iron (78), mercury (73), potassium (67), selenium (74), and sodium (70), were less than the lower QC limit of 80. Sample results for aluminum, calcium, iron, mercury, potassium, selenium, and sodium were qualified estimated (J).

Matrix Spike/Matrix Spike Duplicate

**SDG B2618:** The MS/MSD percent recoveries of aluminum (348 and 323), calcium (246 and 237), iron (402 and 371), magnesium (157 and 154), and manganese (207 and 195) exceeded the upper QC limit of 125. The unspiked sample concentrations of aluminum, calcium, iron, magnesium, and manganese were greater than four times the spike concentration, and no further action was required.

**SDG B2643:** The MS percent recovery of barium (147) exceeded the upper QC limit of 125. Sample results for barium were qualified estimated (J) and were potentially biased high.

Field Duplicate

**SDG B2643:** The field duplicate RPD for magnesium (39) and calcium (144) exceeded the QC limit of 35. Sample results for magnesium and calcium were qualified estimated (J).

**Reference:**

New York State Department of Environmental Conservation (NYSDEC), 2005. "Analytical Services Protocols"; July 2005.

New York State Department of Environmental Conservation (NYSDEC), 2010. "Technical Guidance for Site Investigation and Remediation-Appendix 2B"; DER-10; Division of Environmental Remediation; May 2010.

Data Validator: Wolfgang D. Calicchio

Date: August 6, 2010

Reviewed by Chris Ricardi, NRCC-EAC

Chr Ricardi

Date: August 16, 2010

# TABLE 1 - DUSR – LOOHNS CORNING SITE
# DATA USABILITY SUMMARY REPORT
# 2010 REMEDIAL INVESTIGATION SAMPLING PROGRAM
# LOOHNS CORNING SITE
# CORNING, NEW YORK

| | | | | Class | VOCs | SVOCs | PEST | PCB | Metals |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Method | 8260B | 8270 | 8081 | 8082 | 6010B/7470A |
| | | | | Fraction | N | N | N | N | N |
| **SDG** | **Sample ID** | **Lab ID** | **Sample Date** | **QC Code** | | | | | |
| B2618 | LCPDI00500510XX | B2618-01 | 6/8/2010 | FS | X | | | | |
| B2618 | LCPDI00101110XX | B2618-02 | 6/8/2010 | FS | X | | | | |
| B2618 | LCPDI00101110XD | B2618-03 | 6/8/2010 | FD | X | | | | |
| B2618 | LCSS00100110XX | B2618-04 | 6/8/2010 | FS | | X | X | X | X |
| B2618 | LCPDI00600510XX | B2618-05 | 6/8/2010 | FS | X | | | | |
| B2618 | LCPDI00601010XX | B2618-06 | 6/8/2010 | FS | X | | | | |
| B2618 | LCPDI00200810XX | B2618-07 | 6/8/2010 | FS | X | | | | |
| B2618 | LCPDI00700510XX | B2618-08 | 6/8/2010 | FS | X | | | | |
| B2618 | LCPDI00701010XX | B2618-09 | 6/8/2010 | FS | X | | | | |
| B2618 | LCPDI01200510XX | B2618-10 | 6/8/2010 | FS | X | | | | |
| B2618 | LCPDI01201010XX | B2618-11 | 6/8/2010 | FS | X | | | | |
| B2618 | LCPDI01201910XX | B2618-12 | 6/8/2010 | FS | X | | | | |
| B2618 | LCPDI01300510XX | B2618-13 | 6/8/2010 | FS | X | | | | |
| B2618 | LCPDI01301010XX | B2618-14 | 6/8/2010 | FS | X | | | | |
| B2618 | LCPDI00800310XX | B2618-15 | 6/8/2010 | FS | X | | | | |
| B2618 | LCPDI00801510XX | B2618-16 | 6/8/2010 | FS | X | | | | |
| B2618 | LCPDI00600110XX | B2618-17 | 6/8/2010 | FS | | X | X | X | X |
| B2618 | TRIPBLANK-1 | B2618-18 | 6/8/2010 | TB | X | | | | |
| B2643 | LCPDI00301310XX | B2643-01 | 6/9/2010 | FS | X | | | | |
| B2643 | LCPDI00900110XX | B2643-02 | 6/9/2010 | FS | X | | | | |
| B2643 | LCPDI00901010XX | B2643-03 | 6/9/2010 | FS | X | | | | |
| B2643 | LCPDI00400510XX | B2643-04 | 6/9/2010 | FS | X | | | | |
| B2643 | LCPDI00401010XX | B2643-05 | 6/9/2010 | FS | X | | | | |
| B2643 | LCPDI01100110XX | B2643-06 | 6/9/2010 | FS | | X | X | X | X |
| B2643 | LCPDI01100210XX | B2643-07 | 6/9/2010 | FS | X | | | | |
| B2643 | LCGW01502010XX | B2643-10 | 6/9/2010 | FS | X | | | | |
| B2643 | LCGW01402010XX | B2643-11 | 6/9/2010 | FS | X | | | | |
| B2643 | LCGW01302010XX | B2643-12 | 6/9/2010 | FS | X | | | | |
| B2643 | LCBKSS00100110XX | B2643-13 | 6/9/2010 | FS | | X | X | X | X |
| B2643 | LCBKSS00200110XX | B2643-14 | 6/9/2010 | FS | | X | X | X | X |
| B2643 | LCBKSS00300110XX | B2643-15 | 6/9/2010 | FS | | X | X | X | X |
| B2643 | LCBKSS00300110XD | B2643-16 | 6/9/2010 | FD | | X | X | X | X |
| B2643 | LCPDI01000210XX | B2643-17 | 6/9/2010 | FS | X | | | | |
| B2643 | LCPDI01400210XX | B2643-18 | 6/9/2010 | FS | X | | | | |
| B2643 | TRIPBLANK | B2643-20 | 6/2/2010 | TB | X | | | | |

# TABLE 2 - RESULTS SUMMARY
## DATA USABILITY SUMMARY REPORT
## JUNE 2010 SOIL SAMPLING
## LOOHNS CORNING SITE
## CORNING, NEW YORK

| | | Sample Delivery Group | B2618 | | B2618 | | B2618 | | B2618 | | B2618 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Location | PDI-005 | | PDI-001 | | PDI-001 | | PDI-006 | | PDI-006 | |
| | | Sample Date | 6/8/2010 11:15 | | 6/8/2010 11:45 | | 6/8/2010 11:45 | | 6/8/2010 12:45 | | 6/8/2010 12:55 | |
| | | Sample ID | LCPDI00500510XX | | LCPDI00101110XX | | LCPDI00101110XD | | LCPDI00600510XX | | LCPDI00601010XX | |
| | | Qc Code | FS | | FS | | FD | | FS | | FS | |
| Analysis | Param Name | Units | Result | Qualifier | Result | Qualifier | Result | Qualifier | Result | Qualifier | Result | Qualifier |
| SW8260B | 1,1,1-Trichloroethane | ug/Kg | 4.7 | U | 4.1 | U | 4.8 | U | 4.7 | U | 4.9 | U |
| SW8260B | 1,1,2,2-Tetrachloroethane | ug/Kg | 4.7 | U | 4.1 | U | 4.8 | U | 4.7 | U | 4.9 | U |
| SW8260B | 1,1,2-Trichloro-1,2,2-Trifluoroethane | ug/Kg | 4.7 | U | 4.1 | U | 4.8 | U | 4.7 | U | 4.9 | U |
| SW8260B | 1,1,2-Trichloroethane | ug/Kg | 4.7 | U | 4.1 | U | 4.8 | U | 4.7 | U | 4.9 | U |
| SW8260B | 1,1-Dichloroethane | ug/Kg | 4.7 | U | 4.1 | U | 4.8 | U | 4.7 | U | 4.9 | U |
| SW8260B | 1,1-Dichloroethene | ug/Kg | 4.7 | U | 4.1 | U | 4.8 | U | 4.7 | U | 4.9 | U |
| SW8260B | 1,2,4-Trichlorobenzene | ug/Kg | 4.7 | U | 4.1 | U | 4.8 | U | 4.7 | U | 4.9 | U |
| SW8260B | 1,2-Dibromo-3-chloropropane | ug/Kg | 4.7 | U | 4.1 | U | 4.8 | U | 4.7 | U | 4.9 | U |
| SW8260B | 1,2-Dibromoethane | ug/Kg | 4.7 | U | 4.1 | U | 4.8 | U | 4.7 | U | 4.9 | U |
| SW8260B | 1,2-Dichlorobenzene | ug/Kg | 4.7 | U | 4.1 | U | 4.8 | U | 4.7 | U | 4.9 | U |
| SW8260B | 1,2-Dichloroethane | ug/Kg | 4.7 | U | 4.1 | U | 4.8 | U | 4.7 | U | 4.9 | U |
| SW8260B | 1,2-Dichloropropane | ug/Kg | 4.7 | U | 4.1 | U | 4.8 | U | 4.7 | U | 4.9 | U |
| SW8260B | 1,3-Dichlorobenzene | ug/Kg | 4.7 | U | 4.1 | U | 4.8 | U | 4.7 | U | 4.9 | U |
| SW8260B | 1,4-Dichlorobenzene | ug/Kg | 4.7 | U | 4.1 | U | 4.8 | U | 4.7 | U | 4.9 | U |
| SW8260B | 2-Butanone | ug/Kg | 23 | U | 21 | U | 24 | U | 24 | U | 25 | U |
| SW8260B | 2-Hexanone | ug/Kg | 23 | U | 21 | U | 24 | U | 24 | U | 25 | U |
| SW8260B | 4-Methyl-2-pentanone | ug/Kg | 23 | U | 21 | U | 24 | U | 24 | U | 25 | U |
| SW8260B | Acetic acid, methyl ester | ug/Kg | 4.7 | U | 4.1 | U | 4.8 | U | 4.7 | U | 4.9 | U |
| SW8260B | Acetone | ug/Kg | 23 | U | 21 | U | 24 | U | 24 | U | 25 | U |
| SW8260B | Benzene | ug/Kg | 4.7 | U | 4.1 | U | 4.8 | U | 4.7 | U | 4.9 | U |
| SW8260B | Bromodichloromethane | ug/Kg | 4.7 | U | 4.1 | U | 4.8 | U | 4.7 | U | 4.9 | U |
| SW8260B | Bromoform | ug/Kg | 4.7 | U | 4.1 | U | 4.8 | U | 4.7 | U | 4.9 | U |
| SW8260B | Bromomethane | ug/Kg | 4.7 | U | 4.1 | U | 4.8 | U | 4.7 | U | 4.9 | U |
| SW8260B | Carbon disulfide | ug/Kg | 4.7 | U | 4.1 | U | 4.8 | U | 4.7 | U | 4.9 | U |
| SW8260B | Carbon tetrachloride | ug/Kg | 4.7 | U | 4.1 | U | 4.8 | U | 4.7 | U | 4.9 | U |
| SW8260B | Chlorobenzene | ug/Kg | 4.7 | U | 4.1 | U | 4.8 | U | 4.7 | U | 4.9 | U |
| SW8260B | Chlorodibromomethane | ug/Kg | 4.7 | U | 4.1 | U | 4.8 | U | 4.7 | U | 4.9 | U |
| SW8260B | Chloroethane | ug/Kg | 4.7 | UJ | 4.1 | UJ | 4.8 | UJ | 4.7 | UJ | 4.9 | UJ |
| SW8260B | Chloroform | ug/Kg | 4.7 | U | 4.1 | U | 4.8 | U | 4.7 | U | 4.9 | U |
| SW8260B | Chloromethane | ug/Kg | 4.7 | U | 4.1 | U | 4.8 | U | 4.7 | U | 4.9 | U |
| SW8260B | Cis-1,2-Dichloroethene | ug/Kg | 4.7 | U | 4.1 | U | 4.8 | U | 4.7 | U | 4.9 | U |
| SW8260B | cis-1,3-Dichloropropene | ug/Kg | 4.7 | U | 4.1 | U | 4.8 | U | 4.7 | U | 4.9 | U |
| SW8260B | Cyclohexane | ug/Kg | 4.7 | U | 4.1 | U | 4.8 | U | 4.7 | U | 4.9 | U |
| SW8260B | Dichlorodifluoromethane | ug/Kg | 4.7 | UJ | 4.1 | UJ | 4.8 | UJ | 4.7 | UJ | 4.9 | UJ |
| SW8260B | Ethyl benzene | ug/Kg | 4.7 | U | 4.1 | U | 4.8 | U | 4.7 | U | 4.9 | U |

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Reviewed by: WDC
Date: 8/13/10

**TABLE 2 - RESULTS SUMMARY**
**DATA USABILITY SUMMARY REPORT**
**JUNE 2010 SOIL SAMPLING**
**LOOHNS CORNING SITE**
**CORNING, NEW YORK**

| | Sample Delivery Group | | B2618 | | B2618 | | B2618 | | B2618 | | B2618 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Location | | PDI-005 | | PDI-001 | | PDI-001 | | PDI-006 | | PDI-006 | |
| | Sample Date | | 6/8/2010 11:15 | | 6/8/2010 11:45 | | 6/8/2010 11:45 | | 6/8/2010 12:45 | | 6/8/2010 12:55 | |
| | Sample ID | | LCPDI00500510XX | | LCPDI00101110XX | | LCPDI00101110XD | | LCPDI00600510XX | | LCPDI00601010XX | |
| | Qc Code | | FS | | FS | | FD | | FS | | FS | |
| **Analysis** | **Param Name** | **Units** | Result | Qualifier | Result | Qualifier | Result | Qualifier | Result | Qualifier | Result | Qualifier |
| SW8260B | Isopropylbenzene | ug/Kg | 4.7 | U | 4.1 | U | 4.8 | U | 4.7 | U | 4.9 | U |
| SW8260B | Methyl cyclohexane | ug/Kg | 4.7 | U | 4.1 | U | 4.8 | U | 4.7 | U | 4.9 | U |
| SW8260B | Methyl Tertbutyl Ether | ug/Kg | 4.7 | U | 4.1 | U | 4.8 | U | 4.7 | U | 4.9 | U |
| SW8260B | Methylene chloride | ug/Kg | 4.7 | U | 4.1 | U | 4.8 | U | 4.7 | U | 4.9 | U |
| SW8260B | Styrene | ug/Kg | 4.7 | U | 4.1 | U | 4.8 | U | 4.7 | U | 4.9 | U |
| SW8260B | Tetrachloroethene | ug/Kg | 7 | | 7.3 | | 6.2 | | 26 | | 24 | |
| SW8260B | Toluene | ug/Kg | 4.7 | U | 1.2 | J | 4.8 | U | 4.7 | U | 4.9 | U |
| SW8260B | trans-1,2-Dichloroethene | ug/Kg | 4.7 | U | 4.1 | U | 4.8 | U | 4.7 | U | 4.9 | U |
| SW8260B | trans-1,3-Dichloropropene | ug/Kg | 4.7 | U | 4.1 | U | 4.8 | U | 4.7 | U | 4.9 | U |
| SW8260B | Trichloroethene | ug/Kg | 4.7 | U | 4.1 | U | 4.8 | U | 4.7 | U | 4.9 | U |
| SW8260B | Trichlorofluoromethane | ug/Kg | 4.7 | U | 4.1 | U | 4.8 | U | 4.7 | U | 4.9 | U |
| SW8260B | Vinyl chloride | ug/Kg | 4.7 | U | 4.1 | U | 4.8 | U | 4.7 | U | 4.9 | U |
| SW8260B | Xylene, m/p | ug/Kg | 9.3 | U | 8.2 | U | 9.5 | U | 9.4 | U | 9.8 | U |
| SW8260B | Xylene, o | ug/Kg | 4.7 | U | 4.1 | U | 4.8 | U | 4.7 | U | 4.9 | U |

Notes:
µg/Kg = micorgrams per kilogram
mg/Kg = milligrams per kilogram
Qualifiers
U = not detected at the reporting limit
J = estimated concentration
QC Code
FS = Field Sample
FD = Field Duplicate
TB = Trip Blank

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Date: 8/05/10
Reviewed by: WDC
Date: 8/13/10

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June 2010 soils Table 2 Final Results.xls

**TABLE 2 - RESULTS SUMMARY**
**DATA USABILITY SUMMARY REPORT**
**JUNE 2010 SOIL SAMPLING**
**LOOHNS CORNING SITE**
**CORNING, NEW YORK**

| | Sample Delivery Group | | B2618 | | B2618 | | B2618 | | B2618 | | B2618 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Location | | PDI-002 | | PDI-007 | | PDI-007 | | PDI-012 | | PDI-012 | |
| | Sample Date | | 6/8/2010 13:30 | | 6/8/2010 13:45 | | 6/8/2010 13:55 | | 6/8/2010 14:55 | | 6/8/2010 14:55 | |
| | Sample ID | | LCPDI00200810XX | | LCPDI00700510XX | | LCPDI00701010XX | | LCPDI01200510XX | | LCPDI01201010XX | |
| | Qc Code | | FS | | FS | | FS | | FS | | FS | |
| **Analysis** | **Param Name** | **Units** | Result | Qualifier | Result | Qualifier | Result | Qualifier | Result | Qualifier | Result | Qualifier |
| SW8260B | 1,1,1-Trichloroethane | ug/Kg | 5.3 | U | 4.9 | U | 4.3 | U | 4.5 | U | 4.4 | U |
| SW8260B | 1,1,2,2-Tetrachloroethane | ug/Kg | 5.3 | U | 4.9 | U | 4.3 | U | 4.5 | U | 4.4 | U |
| SW8260B | 1,1,2-Trichloro-1,2,2-Trifluoroethane | ug/Kg | 5.3 | UJ | 4.9 | U | 4.3 | U | 4.5 | U | 4.4 | U |
| SW8260B | 1,1,2-Trichloroethane | ug/Kg | 5.3 | U | 4.9 | U | 4.3 | U | 4.5 | U | 4.4 | U |
| SW8260B | 1,1-Dichloroethane | ug/Kg | 5.3 | U | 4.9 | U | 4.3 | U | 4.5 | U | 4.4 | U |
| SW8260B | 1,1-Dichloroethene | ug/Kg | 5.3 | U | 4.9 | U | 4.3 | U | 4.5 | U | 4.4 | U |
| SW8260B | 1,2,4-Trichlorobenzene | ug/Kg | 5.3 | U | 4.9 | U | 4.3 | U | 4.5 | U | 4.4 | U |
| SW8260B | 1,2-Dibromo-3-chloropropane | ug/Kg | 5.3 | U | 4.9 | U | 4.3 | U | 4.5 | U | 4.4 | U |
| SW8260B | 1,2-Dibromoethane | ug/Kg | 5.3 | U | 4.9 | U | 4.3 | U | 4.5 | U | 4.4 | U |
| SW8260B | 1,2-Dichlorobenzene | ug/Kg | 5.3 | U | 4.9 | U | 4.3 | U | 4.5 | U | 4.4 | U |
| SW8260B | 1,2-Dichloroethane | ug/Kg | 5.3 | U | 4.9 | U | 4.3 | U | 4.5 | U | 4.4 | U |
| SW8260B | 1,2-Dichloropropane | ug/Kg | 5.3 | U | 4.9 | U | 4.3 | U | 4.5 | U | 4.4 | U |
| SW8260B | 1,3-Dichlorobenzene | ug/Kg | 5.3 | U | 4.9 | U | 4.3 | U | 4.5 | U | 4.4 | U |
| SW8260B | 1,4-Dichlorobenzene | ug/Kg | 5.3 | U | 4.9 | U | 4.3 | U | 4.5 | U | 4.4 | U |
| SW8260B | 2-Butanone | ug/Kg | 26 | U | 25 | U | 22 | U | 22 | U | 22 | U |
| SW8260B | 2-Hexanone | ug/Kg | 26 | U | 25 | U | 22 | U | 22 | U | 22 | U |
| SW8260B | 4-Methyl-2-pentanone | ug/Kg | 26 | U | 25 | U | 22 | U | 22 | U | 22 | U |
| SW8260B | Acetic acid, methyl ester | ug/Kg | 5.3 | U | 2.8 | J | 8.7 | | 1.9 | J | 4.4 | U |
| SW8260B | Acetone | ug/Kg | 26 | UJ | 25 | U | 26 | U | 22 | U | 22 | U |
| SW8260B | Benzene | ug/Kg | 5.3 | U | 4.9 | U | 4.3 | U | 4.5 | U | 4.4 | U |
| SW8260B | Bromodichloromethane | ug/Kg | 5.3 | U | 4.9 | U | 4.3 | U | 4.5 | U | 4.4 | U |
| SW8260B | Bromoform | ug/Kg | 5.3 | U | 4.9 | U | 4.3 | U | 4.5 | U | 4.4 | U |
| SW8260B | Bromomethane | ug/Kg | 5.3 | U | 4.9 | U | 4.3 | U | 4.5 | U | 4.4 | U |
| SW8260B | Carbon disulfide | ug/Kg | 5.3 | UJ | 4.9 | U | 4.3 | U | 4.5 | U | 4.4 | U |
| SW8260B | Carbon tetrachloride | ug/Kg | 5.3 | U | 4.9 | U | 4.3 | U | 4.5 | U | 4.4 | U |
| SW8260B | Chlorobenzene | ug/Kg | 5.3 | U | 4.9 | U | 4.3 | U | 4.5 | U | 4.4 | U |
| SW8260B | Chlorodibromomethane | ug/Kg | 5.3 | U | 4.9 | U | 4.3 | U | 4.5 | U | 4.4 | U |
| SW8260B | Chloroethane | ug/Kg | 5.3 | UJ | 4.9 | UJ | 4.3 | UJ | 4.5 | UJ | 4.4 | UJ |
| SW8260B | Chloroform | ug/Kg | 5.3 | U | 4.9 | U | 4.3 | U | 4.5 | U | 4.4 | U |
| SW8260B | Chloromethane | ug/Kg | 5.3 | UJ | 4.9 | U | 4.3 | U | 4.5 | U | 4.4 | U |
| SW8260B | Cis-1,2-Dichloroethene | ug/Kg | 5.3 | U | 4.9 | U | 4.3 | U | 4.5 | U | 4.4 | U |
| SW8260B | cis-1,3-Dichloropropene | ug/Kg | 5.3 | U | 4.9 | U | 4.3 | U | 4.5 | U | 4.4 | U |
| SW8260B | Cyclohexane | ug/Kg | 5.3 | U | 4.9 | U | 4.3 | U | 4.5 | U | 4.4 | U |
| SW8260B | Dichlorodifluoromethane | ug/Kg | 5.3 | UJ | 4.9 | UJ | 4.3 | UJ | 4.5 | UJ | 4.4 | UJ |
| SW8260B | Ethyl benzene | ug/Kg | 5.3 | U | 4.9 | U | 4.3 | U | 4.5 | U | 4.4 | U |

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Reviewed by: WDC
Date: 8/13/10

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June 2010 soils Table 2 Final Results.xls

**TABLE 2 - RESULTS SUMMARY**
**DATA USABILITY SUMMARY REPORT**
**JUNE 2010 SOIL SAMPLING**
**LOOHNS CORNING SITE**
**CORNING, NEW YORK**

| | Sample Delivery Group | | B2618 | | B2618 | | B2618 | | B2618 | | B2618 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Location | | PDI-002 | | PDI-007 | | PDI-007 | | PDI-012 | | PDI-012 | |
| | Sample Date | | 6/8/2010 13:30 | | 6/8/2010 13:45 | | 6/8/2010 13:55 | | 6/8/2010 14:55 | | 6/8/2010 14:55 | |
| | Sample ID | | LCPDI00200810XX | | LCPDI00700510XX | | LCPDI00701010XX | | LCPDI01200510XX | | LCPDI01201010XX | |
| | Qc Code | | FS | | FS | | FS | | FS | | FS | |
| **Analysis** | **Param Name** | **Units** | Result | Qualifier | Result | Qualifier | Result | Qualifier | Result | Qualifier | Result | Qualifier |
| SW8260B | Isopropylbenzene | ug/Kg | 5.3 | U | 4.9 | U | 4.3 | U | 4.5 | U | 4.4 | U |
| SW8260B | Methyl cyclohexane | ug/Kg | 5.3 | U | 4.9 | U | 4.3 | U | 4.5 | U | 4.4 | U |
| SW8260B | Methyl Tertbutyl Ether | ug/Kg | 5.3 | U | 4.9 | U | 4.3 | U | 4.5 | U | 4.4 | U |
| SW8260B | Methylene chloride | ug/Kg | 5.6 | U | 4.9 | U | 4.4 | U | 4.5 | U | 5.5 | U |
| SW8260B | Styrene | ug/Kg | 5.3 | U | 4.9 | U | 4.3 | U | 4.5 | U | 4.4 | U |
| SW8260B | Tetrachloroethene | ug/Kg | 39 | | 15 | | 17 | | 14 | | 27 | |
| SW8260B | Toluene | ug/Kg | 5.3 | U | 4.9 | U | 1 | J | 4.5 | U | 4.4 | U |
| SW8260B | trans-1,2-Dichloroethene | ug/Kg | 5.3 | U | 4.9 | U | 4.3 | U | 4.5 | U | 4.4 | U |
| SW8260B | trans-1,3-Dichloropropene | ug/Kg | 5.3 | U | 4.9 | U | 4.3 | U | 4.5 | U | 4.4 | U |
| SW8260B | Trichloroethene | ug/Kg | 5.3 | U | 4.9 | U | 4.3 | U | 4.5 | U | 4.4 | U |
| SW8260B | Trichlorofluoromethane | ug/Kg | 5.3 | UJ | 4.9 | U | 4.3 | U | 4.5 | U | 4.4 | U |
| SW8260B | Vinyl chloride | ug/Kg | 5.3 | UJ | 4.9 | U | 4.3 | U | 4.5 | U | 4.4 | U |
| SW8260B | Xylene, m/p | ug/Kg | 11 | U | 9.8 | U | 8.7 | U | 9 | U | 8.8 | U |
| SW8260B | Xylene, o | ug/Kg | 5.3 | U | 4.9 | U | 4.3 | U | 4.5 | U | 4.4 | U |

Notes:
µg/Kg = micorgrams per kilogram
mg/Kg = milligrams per kilogram
Qualifiers
U = not detected at the reporting limit
J = estimated concentration
QC Code
FS = Field Sample
FD = Field Duplicate
TB = Trip Blank



Created by: BJS
Date: 8/05/10
Reviewed by: WDC
Date: 8/13/10

**TABLE 2 - RESULTS SUMMARY**
**DATA USABILITY SUMMARY REPORT**
**JUNE 2010 SOIL SAMPLING**
**LOOHNS CORNING SITE**
**CORNING, NEW YORK**

| | Sample Delivery Group | | B2618 | | B2618 | | B2618 | | B2618 | | B2618 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Location | | PDI-012 | | PDI-013 | | PDI-013 | | PDI-008 | | PDI-008 | |
| | Sample Date | | 6/8/2010 14:55 | | 6/8/2010 15:30 | | 6/8/2010 15:30 | | 6/8/2010 16:00 | | 6/8/2010 16:00 | |
| | Sample ID | | LCPDI01201910XX | | LCPDI01300510XX | | LCPDI01301010XX | | LCPDI00800310XX | | LCPDI00801510XX | |
| | Qc Code | | FS | | FS | | FS | | FS | | FS | |
| Analysis | Param Name | Units | Result | Qualifier | Result | Qualifier | Result | Qualifier | Result | Qualifier | Result | Qualifier |
| SW8260B | 1,1,1-Trichloroethane | ug/Kg | 4.1 | U | 4.5 | U | 4.4 | U | 5.1 | U | 4.6 | U |
| SW8260B | 1,1,2,2-Tetrachloroethane | ug/Kg | 4.1 | U | 4.5 | U | 4.4 | U | 5.1 | U | 4.6 | U |
| SW8260B | 1,1,2-Trichloro-1,2,2-Trifluoroethane | ug/Kg | 4.1 | U | 4.5 | UJ | 4.4 | U | 5.1 | U | 4.6 | UJ |
| SW8260B | 1,1,2-Trichloroethane | ug/Kg | 4.1 | U | 4.5 | U | 4.4 | U | 5.1 | U | 4.6 | U |
| SW8260B | 1,1-Dichloroethane | ug/Kg | 4.1 | U | 4.5 | U | 4.4 | U | 5.1 | U | 4.6 | U |
| SW8260B | 1,1-Dichloroethene | ug/Kg | 4.1 | U | 4.5 | U | 4.4 | U | 5.1 | U | 4.6 | U |
| SW8260B | 1,2,4-Trichlorobenzene | ug/Kg | 4.1 | U | 4.5 | U | 4.4 | U | 5.1 | U | 4.6 | U |
| SW8260B | 1,2-Dibromo-3-chloropropane | ug/Kg | 4.1 | U | 4.5 | U | 4.4 | U | 5.1 | U | 4.6 | U |
| SW8260B | 1,2-Dibromoethane | ug/Kg | 4.1 | U | 4.5 | U | 4.4 | U | 5.1 | U | 4.6 | U |
| SW8260B | 1,2-Dichlorobenzene | ug/Kg | 4.1 | U | 1.2 | J | 4.4 | U | 27 | | 4.6 | U |
| SW8260B | 1,2-Dichloroethane | ug/Kg | 4.1 | U | 4.5 | U | 4.4 | U | 5.1 | U | 4.6 | U |
| SW8260B | 1,2-Dichloropropane | ug/Kg | 4.1 | U | 4.5 | U | 4.4 | U | 5.1 | U | 4.6 | U |
| SW8260B | 1,3-Dichlorobenzene | ug/Kg | 4.1 | U | 4.5 | U | 4.4 | U | 5.1 | U | 4.6 | U |
| SW8260B | 1,4-Dichlorobenzene | ug/Kg | 4.1 | U | 4.5 | U | 4.4 | U | 12 | | 4.6 | U |
| SW8260B | 2-Butanone | ug/Kg | 20 | U | 22 | U | 22 | U | 25 | U | 23 | U |
| SW8260B | 2-Hexanone | ug/Kg | 20 | U | 22 | U | 22 | U | 25 | U | 23 | U |
| SW8260B | 4-Methyl-2-pentanone | ug/Kg | 20 | U | 22 | U | 22 | U | 25 | U | 23 | U |
| SW8260B | Acetic acid, methyl ester | ug/Kg | 4.1 | U | 4.5 | U | 4.4 | U | 5.1 | U | 4.2 | J |
| SW8260B | Acetone | ug/Kg | 25 | U | 22 | UJ | 22 | U | 25 | U | 23 | UJ |
| SW8260B | Benzene | ug/Kg | 4.1 | U | 4.5 | U | 4.4 | U | 5.1 | U | 4.6 | U |
| SW8260B | Bromodichloromethane | ug/Kg | 4.1 | U | 4.5 | U | 4.4 | U | 5.1 | U | 4.6 | U |
| SW8260B | Bromoform | ug/Kg | 4.1 | U | 4.5 | U | 4.4 | U | 5.1 | U | 4.6 | U |
| SW8260B | Bromomethane | ug/Kg | 4.1 | U | 4.5 | U | 4.4 | U | 5.1 | U | 4.6 | U |
| SW8260B | Carbon disulfide | ug/Kg | 4.1 | U | 4.5 | UJ | 4.4 | U | 5.1 | U | 4.6 | UJ |
| SW8260B | Carbon tetrachloride | ug/Kg | 4.1 | U | 4.5 | U | 4.4 | U | 5.1 | U | 4.6 | U |
| SW8260B | Chlorobenzene | ug/Kg | 4.1 | U | 4.5 | U | 4.4 | U | 5.1 | U | 4.6 | U |
| SW8260B | Chlorodibromomethane | ug/Kg | 4.1 | U | 4.5 | U | 4.4 | U | 5.1 | U | 4.6 | U |
| SW8260B | Chloroethane | ug/Kg | 4.1 | UJ | 4.5 | UJ | 4.4 | UJ | 5.1 | UJ | 4.6 | UJ |
| SW8260B | Chloroform | ug/Kg | 4.1 | U | 4.5 | U | 4.4 | U | 5.1 | U | 4.6 | U |
| SW8260B | Chloromethane | ug/Kg | 4.1 | U | 4.5 | UJ | 4.4 | U | 5.1 | U | 4.6 | UJ |
| SW8260B | Cis-1,2-Dichloroethene | ug/Kg | 4.1 | U | 1.6 | J | 4.4 | U | 190 | | 4.6 | U |
| SW8260B | cis-1,3-Dichloropropene | ug/Kg | 4.1 | U | 4.5 | U | 4.4 | U | 5.1 | U | 4.6 | U |
| SW8260B | Cyclohexane | ug/Kg | 2.5 | J | 4.5 | U | 4.4 | U | 5.1 | U | 4.6 | U |
| SW8260B | Dichlorodifluoromethane | ug/Kg | 4.1 | UJ | 4.5 | UJ | 4.4 | UJ | 5.1 | UJ | 4.6 | UJ |
| SW8260B | Ethyl benzene | ug/Kg | 4.1 | U | 4.5 | U | 4.4 | U | 5.1 | U | 4.6 | U |

Created by: BJS
Date: 8/05/10
Reviewed by: WDC
Date: 8/13/10

**TABLE 2 - RESULTS SUMMARY**
**DATA USABILITY SUMMARY REPORT**
**JUNE 2010 SOIL SAMPLING**
**LOOHNS CORNING SITE**
**CORNING, NEW YORK**

| | | Sample Delivery Group | B2618 | | B2618 | | B2618 | | B2618 | | B2618 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Location | PDI-012 | | PDI-013 | | PDI-013 | | PDI-008 | | PDI-008 | |
| | | Sample Date | 6/8/2010 14:55 | | 6/8/2010 15:30 | | 6/8/2010 15:30 | | 6/8/2010 16:00 | | 6/8/2010 16:00 | |
| | | Sample ID | LCPDI01201910XX | | LCPDI01300510XX | | LCPDI01301010XX | | LCPDI00800310XX | | LCPDI00801510XX | |
| | | Qc Code | FS | | FS | | FS | | FS | | FS | |
| Analysis | Param Name | Units | Result | Qualifier | Result | Qualifier | Result | Qualifier | Result | Qualifier | Result | Qualifier |
| SW8260B | Isopropylbenzene | ug/Kg | 4.1 | U | 4.5 | U | 4.4 | U | 5.1 | U | 4.6 | U |
| SW8260B | Methyl cyclohexane | ug/Kg | 2.8 | J | 4.5 | U | 4.4 | U | 5.1 | U | 4.6 | U |
| SW8260B | Methyl Tertbutyl Ether | ug/Kg | 4.1 | U | 4.5 | U | 4.4 | U | 5.1 | U | 4.6 | U |
| SW8260B | Methylene chloride | ug/Kg | 5.3 | U | 4.5 | U | 4.4 | U | 7.7 | U | 5.1 | U |
| SW8260B | Styrene | ug/Kg | 4.1 | U | 4.5 | U | 4.4 | U | 5.1 | U | 4.6 | U |
| SW8260B | Tetrachloroethene | ug/Kg | 3.1 | J | 1200 | D | 35 | | 49000 | D | 4.9 | |
| SW8260B | Toluene | ug/Kg | 2.2 | J | 0.91 | J | 4.4 | U | 5.1 | U | 1.4 | J |
| SW8260B | trans-1,2-Dichloroethene | ug/Kg | 4.1 | U | 4.5 | U | 4.4 | U | 5.1 | U | 4.6 | U |
| SW8260B | trans-1,3-Dichloropropene | ug/Kg | 4.1 | U | 4.5 | U | 4.4 | U | 5.1 | U | 4.6 | U |
| SW8260B | Trichloroethene | ug/Kg | 4.1 | U | 4.5 | U | 4.4 | U | 180 | | 4.6 | U |
| SW8260B | Trichlorofluoromethane | ug/Kg | 4.1 | U | 4.5 | UJ | 4.4 | U | 5.1 | U | 4.6 | UJ |
| SW8260B | Vinyl chloride | ug/Kg | 4.1 | U | 4.5 | UJ | 4.4 | U | 5.1 | U | 4.6 | UJ |
| SW8260B | Xylene, m/p | ug/Kg | 1.5 | J | 8.9 | U | 8.8 | U | 10 | U | 9.1 | U |
| SW8260B | Xylene, o | ug/Kg | 4.1 | U | 4.5 | U | 4.4 | U | 5.1 | U | 4.6 | U |

Notes:
µg/Kg = micorgrams per kilogram
mg/Kg = milligrams per kilogram
Qualifiers
U = not detected at the reporting limit
J = estimated concentration
QC Code
FS = Field Sample
FD = Field Duplicate
TB = Trip Blank

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Reviewed by: WDC
Date: 8/13/10

**TABLE 2 - RESULTS SUMMARY**
**DATA USABILITY SUMMARY REPORT**
**JUNE 2010 SOIL SAMPLING**
**LOOHNS CORNING SITE**
**CORNING, NEW YORK**

| | Sample Delivery Group | | B2618 | |
|---|---|---|---|---|
| | Location | | QC | |
| | Sample Date | | 6/8/2010 17:45 | |
| | Sample ID | | TRIPBLANK-1 | |
| | Qc Code | | TB | |
| **Analysis** | **Param Name** | **Units** | Result | Qualifier |
| SW8260B | 1,1,1-Trichloroethane | ug/Kg | 5 | U |
| SW8260B | 1,1,2,2-Tetrachloroethane | ug/Kg | 5 | U |
| SW8260B | 1,1,2-Trichloro-1,2,2-Trifluoroethane | ug/Kg | 5 | U |
| SW8260B | 1,1,2-Trichloroethane | ug/Kg | 5 | U |
| SW8260B | 1,1-Dichloroethane | ug/Kg | 5 | U |
| SW8260B | 1,1-Dichloroethene | ug/Kg | 5 | U |
| SW8260B | 1,2,4-Trichlorobenzene | ug/Kg | 5 | U |
| SW8260B | 1,2-Dibromo-3-chloropropane | ug/Kg | 5 | U |
| SW8260B | 1,2-Dibromoethane | ug/Kg | 5 | U |
| SW8260B | 1,2-Dichlorobenzene | ug/Kg | 5 | U |
| SW8260B | 1,2-Dichloroethane | ug/Kg | 5 | U |
| SW8260B | 1,2-Dichloropropane | ug/Kg | 5 | U |
| SW8260B | 1,3-Dichlorobenzene | ug/Kg | 5 | U |
| SW8260B | 1,4-Dichlorobenzene | ug/Kg | 5 | U |
| SW8260B | 2-Butanone | ug/Kg | 25 | U |
| SW8260B | 2-Hexanone | ug/Kg | 25 | U |
| SW8260B | 4-Methyl-2-pentanone | ug/Kg | 25 | U |
| SW8260B | Acetic acid, methyl ester | ug/Kg | 5 | U |
| SW8260B | Acetone | ug/Kg | 13 | J |
| SW8260B | Benzene | ug/Kg | 5 | U |
| SW8260B | Bromodichloromethane | ug/Kg | 5 | U |
| SW8260B | Bromoform | ug/Kg | 5 | U |
| SW8260B | Bromomethane | ug/Kg | 5 | U |
| SW8260B | Carbon disulfide | ug/Kg | 5 | U |
| SW8260B | Carbon tetrachloride | ug/Kg | 5 | U |
| SW8260B | Chlorobenzene | ug/Kg | 5 | U |
| SW8260B | Chlorodibromomethane | ug/Kg | 5 | U |
| SW8260B | Chloroethane | ug/Kg | 5 | U |
| SW8260B | Chloroform | ug/Kg | 5 | U |
| SW8260B | Chloromethane | ug/Kg | 5 | U |
| SW8260B | Cis-1,2-Dichloroethene | ug/Kg | 5 | U |
| SW8260B | cis-1,3-Dichloropropene | ug/Kg | 5 | U |
| SW8260B | Cyclohexane | ug/Kg | 5 | U |
| SW8260B | Dichlorodifluoromethane | ug/Kg | 5 | U |
| SW8260B | Ethyl benzene | ug/Kg | 5 | U |



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Reviewed by: WDC
Date: 8/13/10

**TABLE 2 - RESULTS SUMMARY**
**DATA USABILITY SUMMARY REPORT**
**JUNE 2010 SOIL SAMPLING**
**LOOHNS CORNING SITE**
**CORNING, NEW YORK**

| | | Sample Delivery Group | B2618 | |
|---|---|---|---|---|
| | | Location | QC | |
| | | Sample Date | 6/8/2010 17:45 | |
| | | Sample ID | TRIPBLANK-1 | |
| | | Qc Code | TB | |
| Analysis | Param Name | Units | Result | Qualifier |
| SW8260B | Isopropylbenzene | ug/Kg | 5 | U |
| SW8260B | Methyl cyclohexane | ug/Kg | 5 | U |
| SW8260B | Methyl Tertbutyl Ether | ug/Kg | 5 | U |
| SW8260B | Methylene chloride | ug/Kg | 8.5 | |
| SW8260B | Styrene | ug/Kg | 5 | U |
| SW8260B | Tetrachloroethene | ug/Kg | 5 | U |
| SW8260B | Toluene | ug/Kg | 5 | U |
| SW8260B | trans-1,2-Dichloroethene | ug/Kg | 5 | U |
| SW8260B | trans-1,3-Dichloropropene | ug/Kg | 5 | U |
| SW8260B | Trichloroethene | ug/Kg | 5 | U |
| SW8260B | Trichlorofluoromethane | ug/Kg | 5 | U |
| SW8260B | Vinyl chloride | ug/Kg | 5 | U |
| SW8260B | Xylene, m/p | ug/Kg | 10 | U |
| SW8260B | Xylene, o | ug/Kg | 5 | U |

Notes:
µg/Kg = micorgrams per kilogram
mg/Kg = milligrams per kilogram
Qualifiers
U = not detected at the reporting limit
J = estimated concentration
QC Code
FS = Field Sample
FD = Field Duplicate
TB = Trip Blank



Created by: BJS
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Reviewed by: WDC
Date: 8/13/10

**TABLE 2 - RESULTS SUMMARY**
**DATA USABILITY SUMMARY REPORT**
**JUNE 2010 SOIL SAMPLING**
**LOOHNS CORNING SITE**
**CORNING, NEW YORK**

| | Sample Delivery Group | B2643 | | B2643 | | B2643 | | B2643 | | B2643 | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Location | PDI-003 | | PDI-009 | | PDI-009 | | PDI-004 | | PDI-004 | |
| | Sample Date | 6/9/2010 8:30 | | 6/9/2010 9:20 | | 6/9/2010 9:20 | | 6/9/2010 10:55 | | 6/9/2010 11:05 | |
| | Sample ID | LCPDI00301310XX | | LCPDI00900110XX | | LCPDI00901010XX | | LCPDI00400510XX | | LCPDI00401010XX | |
| | Qc Code | FS | | FS | | FS | | FS | | FS | |
| | Units | ug/kg | | ug/kg | | ug/kg | | ug/kg | | ug/kg | |
| **Analysis** | **Param Name** | Result | Qualifier | Result | Qualifier | Result | Qualifier | Result | Qualifier | Result | Qualifier |
| SW8260B | 1,1,1-Trichloroethane | 5.7 | U | 6.8 | U | 4.5 | U | 4.5 | U | 7.4 | U |
| SW8260B | 1,1,2,2-Tetrachloroethane | 5.7 | U | 6.8 | U | 4.5 | U | 4.5 | U | 7.4 | U |
| SW8260B | 1,1,2-Trichloro-1,2,2-Trifluoroethane | 5.7 | U | 6.8 | U | 4.5 | U | 4.5 | U | 7.4 | U |
| SW8260B | 1,1,2-Trichloroethane | 5.7 | U | 6.8 | U | 4.5 | U | 4.5 | U | 7.4 | U |
| SW8260B | 1,1-Dichloroethane | 5.7 | U | 6.8 | U | 4.5 | U | 4.5 | U | 7.4 | U |
| SW8260B | 1,1-Dichloroethene | 5.7 | U | 6.8 | U | 4.5 | U | 4.5 | U | 7.4 | U |
| SW8260B | 1,2,4-Trichlorobenzene | 5.7 | U | 6.8 | U | 4.5 | U | 4.5 | U | 7.4 | U |
| SW8260B | 1,2-Dibromo-3-chloropropane | 5.7 | U | 6.8 | U | 4.5 | U | 4.5 | U | 7.4 | U |
| SW8260B | 1,2-Dibromoethane | 5.7 | U | 6.8 | U | 4.5 | U | 4.5 | U | 7.4 | U |
| SW8260B | 1,2-Dichlorobenzene | 5.7 | U | 5.2 | J | 4.5 | U | 4.5 | U | 7.4 | U |
| SW8260B | 1,2-Dichloroethane | 5.7 | U | 6.8 | U | 4.5 | U | 4.5 | U | 7.4 | U |
| SW8260B | 1,2-Dichloropropane | 5.7 | U | 6.8 | U | 4.5 | U | 4.5 | U | 7.4 | U |
| SW8260B | 1,3-Dichlorobenzene | 5.7 | U | 6.8 | U | 4.5 | U | 4.5 | U | 7.4 | U |
| SW8260B | 1,4-Dichlorobenzene | 5.7 | U | 2.3 | J | 4.5 | U | 4.5 | U | 7.4 | U |
| SW8260B | 2-Butanone | 28 | U | 34 | U | 23 | U | 23 | U | 37 | U |
| SW8260B | 2-Hexanone | 28 | U | 34 | U | 23 | U | 23 | U | 37 | U |
| SW8260B | 4-Methyl-2-pentanone | 28 | U | 34 | U | 23 | U | 23 | U | 37 | U |
| SW8260B | Acetic acid, methyl ester | 3.2 | J | 6.8 | U | 2.3 | J | 4.5 | U | 7.6 | |
| SW8260B | Acetone | 28 | U | 12 | J | 12 | J | 16 | J | 23 | J |
| SW8260B | Benzene | 5.7 | U | 6.8 | U | 4.5 | U | 4.5 | U | 7.4 | U |
| SW8260B | Bromodichloromethane | 5.7 | U | 6.8 | U | 4.5 | U | 4.5 | U | 7.4 | U |
| SW8260B | Bromoform | 5.7 | U | 6.8 | U | 4.5 | U | 4.5 | U | 7.4 | U |
| SW8260B | Bromomethane | 5.7 | U | 6.8 | U | 4.5 | U | 4.5 | U | 7.4 | U |
| SW8260B | Carbon disulfide | 5.7 | U | 6.8 | U | 4.5 | U | 4.5 | U | 7.4 | U |
| SW8260B | Carbon tetrachloride | 5.7 | U | 6.8 | U | 4.5 | U | 4.5 | U | 7.4 | U |
| SW8260B | Chlorobenzene | 5.7 | U | 6.8 | U | 4.5 | U | 4.5 | U | 7.4 | U |
| SW8260B | Chlorodibromomethane | 5.7 | U | 6.8 | U | 4.5 | U | 4.5 | U | 7.4 | U |
| SW8260B | Chloroethane | 5.7 | UJ | 6.8 | UJ | 4.5 | UJ | 4.5 | UJ | 7.4 | UJ |
| SW8260B | Chloroform | 5.7 | U | 6.8 | U | 4.5 | U | 4.5 | U | 7.4 | U |
| SW8260B | Chloromethane | 5.7 | U | 6.8 | U | 4.5 | U | 4.5 | U | 7.4 | U |
| SW8260B | Cis-1,2-Dichloroethene | 5.7 | U | 2.8 | J | 4.5 | U | 4.5 | U | 7.4 | U |
| SW8260B | cis-1,3-Dichloropropene | 5.7 | U | 6.8 | U | 4.5 | U | 4.5 | U | 7.4 | U |
| SW8260B | Cyclohexane | 5.7 | U | 6.8 | U | 4.5 | U | 4.5 | U | 7.4 | U |
| SW8260B | Dichlorodifluoromethane | 5.7 | UJ | 6.8 | UJ | 4.5 | UJ | 4.5 | UJ | 7.4 | UJ |

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Date: 8/13/10

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**TABLE 2 - RESULTS SUMMARY**
**DATA USABILITY SUMMARY REPORT**
**JUNE 2010 SOIL SAMPLING**
**LOOHNS CORNING SITE**
**CORNING, NEW YORK**

| | Sample Delivery Group | B2643 | | B2643 | | B2643 | | B2643 | | B2643 | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Location | PDI-003 | | PDI-009 | | PDI-009 | | PDI-004 | | PDI-004 | |
| | Sample Date | 6/9/2010 8:30 | | 6/9/2010 9:20 | | 6/9/2010 9:20 | | 6/9/2010 10:55 | | 6/9/2010 11:05 | |
| | Sample ID | LCPDI00301310XX | | LCPDI00900110XX | | LCPDI00901010XX | | LCPDI00400510XX | | LCPDI00401010XX | |
| | Qc Code | FS | | FS | | FS | | FS | | FS | |
| | Units | ug/kg | | ug/kg | | ug/kg | | ug/kg | | ug/kg | |
| **Analysis** | **Param Name** | Result | Qualifier | Result | Qualifier | Result | Qualifier | Result | Qualifier | Result | Qualifier |
| SW8260B | Ethyl benzene | 5.7 | U | 6.8 | U | 4.5 | U | 4.5 | U | 7.4 | U |
| SW8260B | Isopropylbenzene | 5.7 | U | 6.8 | U | 4.5 | U | 4.5 | U | 7.4 | U |
| SW8260B | Methyl cyclohexane | 5.7 | U | 6.8 | U | 4.5 | U | 2.7 | J | 7.4 | U |
| SW8260B | Methyl Tertbutyl Ether | 5.7 | U | 6.8 | U | 4.5 | U | 4.5 | U | 7.4 | U |
| SW8260B | Methylene chloride | 6.7 | | 4.2 | J | 4.6 | | 3.1 | J | 7.8 | |
| SW8260B | Styrene | 5.7 | U | 6.8 | U | 4.5 | U | 4.5 | U | 7.4 | U |
| SW8260B | Tetrachloroethene | 2.6 | J | 63000 | D | 16 | | 18 | | 14 | |
| SW8260B | Toluene | 5.7 | U | 6.8 | U | 4.5 | U | 4.5 | U | 7.4 | U |
| SW8260B | trans-1,2-Dichloroethene | 5.7 | U | 6.8 | U | 4.5 | U | 4.5 | U | 7.4 | U |
| SW8260B | trans-1,3-Dichloropropene | 5.7 | U | 6.8 | U | 4.5 | U | 4.5 | U | 7.4 | U |
| SW8260B | Trichloroethene | 5.7 | U | 9.3 | | 4.5 | U | 4.5 | U | 7.4 | U |
| SW8260B | Trichlorofluoromethane | 5.7 | U | 6.8 | U | 4.5 | U | 4.5 | U | 7.4 | U |
| SW8260B | Vinyl chloride | 5.7 | U | 6.8 | U | 4.5 | U | 4.5 | U | 7.4 | U |
| SW8260B | Xylene, m/p | 11 | U | 14 | U | 9.1 | U | 9.1 | U | 15 | U |
| SW8260B | Xylene, o | 5.7 | U | 6.8 | U | 4.5 | U | 4.5 | U | 7.4 | U |

Notes:
µg/Kg = micorgrams per kilogram
mg/Kg = milligrams per kilogram
Qualifiers
U = not detected at the reporting limit
J = estimated concentration
QC Code
FS = Field Sample
FD = Field Duplicate
TB = Trip Blank

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Date: 8/05/10
Reviewed by: WDC
Date: 8/13/10

**TABLE 2 - RESULTS SUMMARY**
**DATA USABILITY SUMMARY REPORT**
**JUNE 2010 SOIL SAMPLING**
**LOOHNS CORNING SITE**
**CORNING, NEW YORK**

| | **Sample Delivery Group** | B2643 | | B2643 | | B2643 | | B2643 | | B2643 | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | **Location** | PDI-011 | | GW-015 | | GW-014 | | GW-013 | | PDI-010 | |
| | **Sample Date** | 6/9/2010 14:05 | | 6/9/2010 14:20 | | 6/9/2010 15:15 | | 6/9/2010 15:30 | | 6/9/2010 16:50 | |
| | **Sample ID** | LCPDI01100210XX | | LCGW01502010XX | | LCGW01402010XX | | LCGW01302010XX | | LCPDI01000210XX | |
| | **Qc Code** | FS | | FS | | FS | | FS | | FS | |
| | **Units** | ug/kg | | ug/l | | ug/l | | ug/l | | ug/kg | |
| **Analysis** | **Param Name** | Result | Qualifier | Result | Qualifier | Result | Qualifier | Result | Qualifier | Result | Qualifier |
| SW8260B | 1,1,1-Trichloroethane | 4.1 | U | 1 | U | 1 | U | 1 | U | 4.8 | U |
| SW8260B | 1,1,2,2-Tetrachloroethane | 4.1 | U | 1 | U | 1 | U | 1 | U | 4.8 | U |
| SW8260B | 1,1,2-Trichloro-1,2,2-Trifluoroethane | 4.1 | UJ | 1 | U | 1 | U | 1 | U | 4.8 | U |
| SW8260B | 1,1,2-Trichloroethane | 4.1 | U | 1 | U | 1 | U | 1 | U | 4.8 | U |
| SW8260B | 1,1-Dichloroethane | 4.1 | U | 1 | U | 1 | U | 1 | U | 4.8 | U |
| SW8260B | 1,1-Dichloroethene | 4.1 | U | 1 | U | 1 | U | 1 | U | 4.8 | U |
| SW8260B | 1,2,4-Trichlorobenzene | 4.1 | U | 1 | U | 1 | U | 1 | U | 4.8 | U |
| SW8260B | 1,2-Dibromo-3-chloropropane | 4.1 | U | 1 | U | 1 | U | 1 | U | 4.8 | U |
| SW8260B | 1,2-Dibromoethane | 4.1 | U | 1 | U | 1 | U | 1 | U | 4.8 | U |
| SW8260B | 1,2-Dichlorobenzene | 4.1 | U | 1 | U | 1 | U | 1 | U | 4.8 | U |
| SW8260B | 1,2-Dichloroethane | 4.1 | U | 1 | U | 1 | U | 1 | U | 4.8 | U |
| SW8260B | 1,2-Dichloropropane | 4.1 | U | 1 | U | 1 | U | 1 | U | 4.8 | U |
| SW8260B | 1,3-Dichlorobenzene | 4.1 | U | 1 | U | 1 | U | 1 | U | 4.8 | U |
| SW8260B | 1,4-Dichlorobenzene | 4.1 | U | 1 | U | 1 | U | 1 | U | 4.8 | U |
| SW8260B | 2-Butanone | 20 | U | 5 | U | 5 | U | 5 | U | 24 | U |
| SW8260B | 2-Hexanone | 20 | U | 5 | U | 5 | U | 5 | U | 24 | U |
| SW8260B | 4-Methyl-2-pentanone | 20 | U | 5 | U | 5 | U | 5 | U | 24 | U |
| SW8260B | Acetic acid, methyl ester | 4.1 | U | 1 | U | 1 | U | 1 | U | 4.8 | U |
| SW8260B | Acetone | 20 | U | 5 | U | 5 | U | 5 | U | 24 | U |
| SW8260B | Benzene | 4.1 | U | 2 | | 1 | U | 1 | U | 4.8 | U |
| SW8260B | Bromodichloromethane | 4.1 | U | 1 | U | 1 | U | 1 | U | 4.8 | U |
| SW8260B | Bromoform | 4.1 | U | 1 | U | 1 | U | 1 | U | 4.8 | U |
| SW8260B | Bromomethane | 4.1 | U | 1 | U | 1 | U | 1 | U | 4.8 | U |
| SW8260B | Carbon disulfide | 4.1 | UJ | 1 | U | 1 | U | 1 | U | 4.8 | U |
| SW8260B | Carbon tetrachloride | 4.1 | U | 1 | U | 1 | U | 1 | U | 4.8 | U |
| SW8260B | Chlorobenzene | 4.1 | U | 1 | U | 1 | U | 1 | U | 4.8 | U |
| SW8260B | Chlorodibromomethane | 4.1 | U | 1 | U | 1 | U | 1 | U | 4.8 | UJ |
| SW8260B | Chloroethane | 4.1 | UJ | 1 | U | 1 | U | 1 | U | 4.8 | U |
| SW8260B | Chloroform | 4.1 | U | 1 | U | 1 | U | 1 | U | 4.8 | U |
| SW8260B | Chloromethane | 4.1 | UJ | 1 | U | 1 | U | 1 | U | 4.8 | U |
| SW8260B | Cis-1,2-Dichloroethene | 4.1 | U | 1 | U | 1 | U | 1 | U | 4.8 | U |
| SW8260B | cis-1,3-Dichloropropene | 4.1 | U | 1 | U | 1 | U | 1 | U | 4.8 | U |
| SW8260B | Cyclohexane | 4.1 | U | 1.8 | | 1 | U | 1 | U | 4.8 | U |
| SW8260B | Dichlorodifluoromethane | 4.1 | UJ | 1 | UJ | 1 | UJ | 1 | UJ | 4.8 | UJ |

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Date: 8/05/10
Reviewed by: WDC
Date: 8/13/10

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# TABLE 2 - RESULTS SUMMARY
## DATA USABILITY SUMMARY REPORT
## JUNE 2010 SOIL SAMPLING
## LOOHNS CORNING SITE
## CORNING, NEW YORK

| | Sample Delivery Group | B2643 | | B2643 | | B2643 | | B2643 | | B2643 | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Location | PDI-011 | | GW-015 | | GW-014 | | GW-013 | | PDI-010 | |
| | Sample Date | 6/9/2010 14:05 | | 6/9/2010 14:20 | | 6/9/2010 15:15 | | 6/9/2010 15:30 | | 6/9/2010 16:50 | |
| | Sample ID | LCPDI01100210XX | | LCGW01502010XX | | LCGW01402010XX | | LCGW01302010XX | | LCPDI01000210XX | |
| | Qc Code | FS | | FS | | FS | | FS | | FS | |
| | Units | ug/kg | | ug/l | | ug/l | | ug/l | | ug/kg | |
| Analysis | Param Name | Result | Qualifier | Result | Qualifier | Result | Qualifier | Result | Qualifier | Result | Qualifier |
| SW8260B | Ethyl benzene | 4.1 | U | 0.57 | J | 1 | U | 1 | U | 4.8 | U |
| SW8260B | Isopropylbenzene | 4.1 | U | 1 | U | 1 | U | 1 | U | 4.8 | U |
| SW8260B | Methyl cyclohexane | 4.1 | U | 1.2 | | 0.76 | J | 1 | U | 4.8 | U |
| SW8260B | Methyl Tertbutyl Ether | 4.1 | U | 1 | U | 1 | U | 1 | U | 4.8 | U |
| SW8260B | Methylene chloride | 3 | J | 1 | U | 1 | U | 1 | U | 4 | J |
| SW8260B | Styrene | 4.1 | U | 1 | U | 1 | U | 1 | U | 4.8 | U |
| SW8260B | Tetrachloroethene | 96 | | 1.8 | | 1.2 | | 1 | U | 63 | |
| SW8260B | Toluene | 4.1 | U | 3.8 | | 0.88 | J | 0.91 | J | 4.8 | U |
| SW8260B | trans-1,2-Dichloroethene | 4.1 | U | 1 | U | 1 | U | 1 | U | 4.8 | U |
| SW8260B | trans-1,3-Dichloropropene | 4.1 | U | 1 | U | 1 | U | 1 | U | 4.8 | U |
| SW8260B | Trichloroethene | 4.1 | U | 1 | U | 1 | U | 1 | U | 4.8 | U |
| SW8260B | Trichlorofluoromethane | 4.1 | UJ | 1 | U | 1 | U | 1 | U | 4.8 | U |
| SW8260B | Vinyl chloride | 4.1 | UJ | 1 | U | 1 | U | 1 | U | 4.8 | U |
| SW8260B | Xylene, m/p | 8.1 | U | 2.9 | | 2 | U | 1.2 | J | 9.6 | U |
| SW8260B | Xylene, o | 4.1 | U | 1.2 | | 1 | U | 0.51 | J | 4.8 | U |

Notes:
µg/Kg = micorgrams per kilogram
mg/Kg = milligrams per kilogram
Qualifiers
U = not detected at the reporting limit
J = estimated concentration
QC Code
FS = Field Sample
FD = Field Duplicate
TB = Trip Blank

Created by: BJS
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Date: 8/13/10

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June 2010 soils Table 2 Final Results.xls

**TABLE 2 - RESULTS SUMMARY**
**DATA USABILITY SUMMARY REPORT**
**JUNE 2010 SOIL SAMPLING**
**LOOHNS CORNING SITE**
**CORNING, NEW YORK**

| | Sample Delivery Group | B2643 | | B2643 | | B2643 | |
|---|---|---|---|---|---|---|---|
| | Location | PDI-014 | | QC | | QC | |
| | Sample Date | 6/9/2010 16:05 | | 6/2/2010 10:30 | | 6/2/2010 10:30 | |
| | Sample ID | LCPDI01400210XX | | TRIPBLANK | | TRIPBLANK | |
| | Qc Code | FS | | TB | | TB | |
| | Units | ug/kg | | ug/l | | ug/l | |
| **Analysis** | **Param Name** | Result | Qualifier | Result | Qualifier | Result | Qualifier |
| SW8260B | 1,1,1-Trichloroethane | 4.2 | U | 1 | U | 1 | U |
| SW8260B | 1,1,2,2-Tetrachloroethane | 4.2 | U | 1 | U | 1 | U |
| SW8260B | 1,1,2-Trichloro-1,2,2-Trifluoroethane | 4.2 | U | 1 | U | 1 | U |
| SW8260B | 1,1,2-Trichloroethane | 4.2 | U | 1 | U | 1 | U |
| SW8260B | 1,1-Dichloroethane | 4.2 | U | 1 | U | 1 | U |
| SW8260B | 1,1-Dichloroethene | 4.2 | U | 1 | U | 1 | U |
| SW8260B | 1,2,4-Trichlorobenzene | 4.2 | U | 1 | U | 1 | U |
| SW8260B | 1,2-Dibromo-3-chloropropane | 4.2 | U | 1 | U | 1 | U |
| SW8260B | 1,2-Dibromoethane | 4.2 | U | 1 | U | 1 | U |
| SW8260B | 1,2-Dichlorobenzene | 0.79 | J | 1 | U | 1 | U |
| SW8260B | 1,2-Dichloroethane | 4.2 | U | 1 | U | 1 | U |
| SW8260B | 1,2-Dichloropropane | 4.2 | U | 1 | U | 1 | U |
| SW8260B | 1,3-Dichlorobenzene | 4.2 | U | 1 | U | 1 | U |
| SW8260B | 1,4-Dichlorobenzene | 4.2 | U | 1 | U | 1 | U |
| SW8260B | 2-Butanone | 21 | U | 5 | U | 5 | U |
| SW8260B | 2-Hexanone | 21 | U | 5 | U | 5 | U |
| SW8260B | 4-Methyl-2-pentanone | 21 | U | 5 | U | 5 | U |
| SW8260B | Acetic acid, methyl ester | 4.2 | U | 1 | U | 1 | U |
| SW8260B | Acetone | 21 | U | 5 | U | 5 | U |
| SW8260B | Benzene | 4.2 | U | 1 | U | 1 | U |
| SW8260B | Bromodichloromethane | 4.2 | U | 1 | U | 1 | U |
| SW8260B | Bromoform | 4.2 | U | 1 | U | 1 | U |
| SW8260B | Bromomethane | 4.2 | U | 1 | U | 1 | U |
| SW8260B | Carbon disulfide | 4.2 | U | 1 | U | 1 | U |
| SW8260B | Carbon tetrachloride | 4.2 | U | 1 | U | 1 | U |
| SW8260B | Chlorobenzene | 4.2 | U | 1 | U | 1 | U |
| SW8260B | Chlorodibromomethane | 4.2 | U | 1 | U | 1 | U |
| SW8260B | Chloroethane | 4.2 | UJ | 1 | U | 1 | U |
| SW8260B | Chloroform | 4.2 | U | 1 | U | 1 | U |
| SW8260B | Chloromethane | 4.2 | U | 1 | U | 1 | U |
| SW8260B | Cis-1,2-Dichloroethene | 4.2 | U | 1 | U | 1 | U |
| SW8260B | cis-1,3-Dichloropropene | 4.2 | U | 1 | U | 1 | U |
| SW8260B | Cyclohexane | 4.2 | U | 1 | U | 1 | U |
| SW8260B | Dichlorodifluoromethane | 4.2 | UJ | 1 | U | 1 | U |

# TABLE 2 - RESULTS SUMMARY
## DATA USABILITY SUMMARY REPORT
## JUNE 2010 SOIL SAMPLING
## LOOHNS CORNING SITE
## CORNING, NEW YORK

| | Sample Delivery Group | B2643 | | B2643 | | B2643 | |
|---|---|---|---|---|---|---|---|
| | Location | PDI-014 | | QC | | QC | |
| | Sample Date | 6/9/2010 16:05 | | 6/2/2010 10:30 | | 6/2/2010 10:30 | |
| | Sample ID | LCPDI01400210XX | | TRIPBLANK | | TRIPBLANK | |
| | Qc Code | FS | | TB | | TB | |
| | Units | ug/kg | | ug/l | | ug/l | |
| **Analysis** | **Param Name** | Result | Qualifier | Result | Qualifier | Result | Qualifier |
| SW8260B | Ethyl benzene | 4.2 | U | 1 | U | 1 | U |
| SW8260B | Isopropylbenzene | 4.2 | U | 1 | U | 1 | U |
| SW8260B | Methyl cyclohexane | 4.2 | U | 1 | U | 1 | U |
| SW8260B | Methyl Tertbutyl Ether | 4.2 | U | 1 | U | 1 | U |
| SW8260B | Methylene chloride | 4.5 | | 1 | U | 1 | U |
| SW8260B | Styrene | 4.2 | U | 1 | U | 1 | U |
| SW8260B | Tetrachloroethene | 8000 | D | 1 | U | 1 | U |
| SW8260B | Toluene | 4.2 | U | 1 | U | 1 | U |
| SW8260B | trans-1,2-Dichloroethene | 4.2 | U | 1 | U | 1 | U |
| SW8260B | trans-1,3-Dichloropropene | 4.2 | U | 1 | U | 1 | U |
| SW8260B | Trichloroethene | 5.1 | | 1 | U | 1 | U |
| SW8260B | Trichlorofluoromethane | 4.2 | U | 1 | U | 1 | U |
| SW8260B | Vinyl chloride | 4.2 | U | 1 | U | 1 | U |
| SW8260B | Xylene, m/p | 8.4 | U | 2 | U | 2 | U |
| SW8260B | Xylene, o | 4.2 | U | 1 | U | 1 | U |

Notes:
μg/Kg = micorgrams per kilogram
mg/Kg = milligrams per kilogram
Qualifiers
U = not detected at the reporting limit
J = estimated concentration
QC Code
FS = Field Sample
FD = Field Duplicate
TB = Trip Blank

Created by: BJS
Date: 8/05/10
Reviewed by: WDC
Date: 8/13/10

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**TABLE 2 - RESULTS SUMMARY**
**DATA USABILITY SUMMARY REPORT**
**JUNE 2010 SOIL SAMPLING**
**LOOHNS CORNING SITE**
**CORNING, NEW YORK**

| | | Sample Delivery Group | B2618 | | B2618 | |
|---|---|---|---|---|---|---|
| | | Location | SS-001 | | PDI-006 | |
| | | Sample Date | 6/8/2010 10:30 | | 6/8/2010 12:45 | |
| | | Sample ID | LCSS00100110XX | | LCPDI00600110XX | |
| | | Qc Code | FS | | FS | |
| Analysis | Param Name | Units | Result | Qualifier | Result | Qualifier |
| SW8270 | 2,4,5-Trichlorophenol | ug/Kg | 380 | U | 380 | U |
| SW8270 | 2,4,6-Trichlorophenol | ug/Kg | 380 | U | 380 | U |
| SW8270 | 2,4-Dichlorophenol | ug/Kg | 380 | U | 380 | U |
| SW8270 | 2,4-Dimethylphenol | ug/Kg | 380 | U | 380 | U |
| SW8270 | 2,4-Dinitrophenol | ug/Kg | 380 | UJ | 380 | UJ |
| SW8270 | 2,4-Dinitrotoluene | ug/Kg | 380 | U | 380 | U |
| SW8270 | 2,6-Dinitrotoluene | ug/Kg | 380 | U | 380 | U |
| SW8270 | 2-Chloronaphthalene | ug/Kg | 380 | U | 380 | U |
| SW8270 | 2-Chlorophenol | ug/Kg | 380 | U | 380 | U |
| SW8270 | 2-Methylnaphthalene | ug/Kg | 380 | U | 380 | U |
| SW8270 | 2-Methylphenol | ug/Kg | 380 | U | 380 | U |
| SW8270 | 2-Nitroaniline | ug/Kg | 380 | U | 380 | U |
| SW8270 | 2-Nitrophenol | ug/Kg | 380 | U | 380 | U |
| SW8270 | 3,3`-Dichlorobenzidine | ug/Kg | 380 | UJ | 380 | UJ |
| SW8270 | 3-Nitroaniline | ug/Kg | 380 | U | 380 | U |
| SW8270 | 4,6-Dinitro-2-methylphenol | ug/Kg | 380 | UJ | 380 | UJ |
| SW8270 | 4-Bromophenyl phenyl ether | ug/Kg | 380 | U | 380 | U |
| SW8270 | 4-Chloro-3-methylphenol | ug/Kg | 380 | U | 380 | U |
| SW8270 | 4-Chloroaniline | ug/Kg | 380 | UJ | 380 | UJ |
| SW8270 | 4-Chlorophenyl phenyl ether | ug/Kg | 380 | U | 380 | U |
| SW8270 | 4-Nitroaniline | ug/Kg | 380 | U | 380 | U |
| SW8270 | 4-Nitrophenol | ug/Kg | 380 | U | 380 | U |
| SW8270 | Acenaphthene | ug/Kg | 380 | U | 380 | U |
| SW8270 | Acenaphthylene | ug/Kg | 380 | U | 380 | U |
| SW8270 | Acetophenone | ug/Kg | 380 | U | 380 | U |
| SW8270 | Anthracene | ug/Kg | 380 | U | 380 | U |
| SW8270 | Atrazine | ug/Kg | 380 | U | 380 | U |
| SW8270 | Benzaldehyde | ug/Kg | 380 | UJ | 380 | UJ |
| SW8270 | Benzo(a)anthracene | ug/Kg | 54 | J | 380 | U |
| SW8270 | Benzo(a)pyrene | ug/Kg | 55 | J | 380 | U |
| SW8270 | Benzo(b)fluoranthene | ug/Kg | 87 | J | 380 | U |
| SW8270 | Benzo(ghi)perylene | ug/Kg | 93 | J | 380 | U |
| SW8270 | Benzo(k)fluoranthene | ug/Kg | 380 | U | 380 | U |
| SW8270 | Biphenyl | ug/Kg | 380 | U | 380 | U |
| SW8270 | Bis(2-Chloroethoxy)methane | ug/Kg | 380 | U | 380 | U |
| SW8270 | Bis(2-Chloroethyl)ether | ug/Kg | 380 | U | 380 | U |
| SW8270 | Bis(2-Chloroisopropyl)ether | ug/Kg | 380 | U | 380 | U |
| SW8270 | Bis(2-Ethylhexyl)phthalate | ug/Kg | 1800 | | 130 | J |
| SW8270 | Butylbenzylphthalate | ug/Kg | 130 | J | 380 | U |
| SW8270 | Caprolactum | ug/Kg | 380 | U | 380 | U |
| SW8270 | Carbazole | ug/Kg | 380 | U | 380 | U |
| SW8270 | Chrysene | ug/Kg | 80 | J | 380 | U |
| SW8270 | Di-n-butylphthalate | ug/Kg | 63 | J | 380 | U |
| SW8270 | Di-n-octylphthalate | ug/Kg | 55 | J | 380 | U |
| SW8270 | Dibenz(a,h)anthracene | ug/Kg | 380 | U | 380 | U |
| SW8270 | Dibenzofuran | ug/Kg | 380 | U | 380 | U |
| SW8270 | Diethylphthalate | ug/Kg | 380 | U | 380 | U |
| SW8270 | Dimethylphthalate | ug/Kg | 450 | U | 460 | U |
| SW8270 | Fluoranthene | ug/Kg | 160 | J | 380 | U |
| SW8270 | Fluorene | ug/Kg | 380 | U | 380 | U |

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Date: 8/05/10
Reviewed by: WDC
Date: 8/13/10

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**TABLE 2 - RESULTS SUMMARY**
**DATA USABILITY SUMMARY REPORT**
**JUNE 2010 SOIL SAMPLING**
**LOOHNS CORNING SITE**
**CORNING, NEW YORK**

| | | Sample Delivery Group | B2618 | | B2618 | |
|---|---|---|---|---|---|---|
| | | Location | SS-001 | | PDI-006 | |
| | | Sample Date | 6/8/2010 10:30 | | 6/8/2010 12:45 | |
| | | Sample ID | LCSS00100110XX | | LCPDI00600110XX | |
| | | Qc Code | FS | | FS | |
| **Analysis** | **Param Name** | **Units** | Result | Qualifier | Result | Qualifier |
| SW8270 | Hexachlorobenzene | ug/Kg | 380 | U | 380 | U |
| SW8270 | Hexachlorobutadiene | ug/Kg | 380 | U | 380 | U |
| SW8270 | Hexachlorocyclopentadiene | ug/Kg | 380 | U | 380 | U |
| SW8270 | Hexachloroethane | ug/Kg | 380 | U | 380 | U |
| SW8270 | Indeno(1,2,3-cd)pyrene | ug/Kg | 49 | J | 380 | U |
| SW8270 | Isophorone | ug/Kg | 380 | U | 380 | U |
| SW8270 | m+p-Methylphenol | ug/Kg | 380 | U | 380 | U |
| SW8270 | N-Nitrosodi-n-propylamine | ug/Kg | 380 | U | 380 | U |
| SW8270 | N-Nitrosodiphenylamine | ug/Kg | 380 | U | 380 | U |
| SW8270 | Naphthalene | ug/Kg | 380 | U | 380 | U |
| SW8270 | Nitrobenzene | ug/Kg | 380 | U | 380 | U |
| SW8270 | Pentachlorophenol | ug/Kg | 380 | UJ | 380 | UJ |
| SW8270 | Phenanthrene | ug/Kg | 61 | J | 380 | U |
| SW8270 | Phenol | ug/Kg | 380 | U | 380 | U |
| SW8270 | Pyrene | ug/Kg | 130 | J | 380 | U |

Notes:
µg/Kg = micorgrams per kilogram
mg/Kg = milligrams per kilogram
Qualifiers
U = not detected at the reporting limit
J = estimated concentration
QC Code
FS = Field Sample
FD = Field Duplicate
TB = Trip Blank



Created by: BJS
Date: 8/05/10
Reviewed by: WDC
Date: 8/13/10

# TABLE 2 - RESULTS SUMMARY
## DATA USABILITY SUMMARY REPORT
## JUNE 2010 SOIL SAMPLING
## LOOHNS CORNING SITE
## CORNING, NEW YORK

| | Sample Delivery Group | B2643 | | B2643 | | B2643 | |
|---|---|---|---|---|---|---|---|
| | Location | PDI-011 | | BKSS-001 | | BKSS-002 | |
| | Sample Date | 6/9/2010 13:10 | | 6/9/2010 15:55 | | 6/9/2010 16:25 | |
| | Sample ID | LCPDI01100110XX | | LCBKSS00100110XX | | LCBKSS00200110XX | |
| | Qc Code | FS | | FS | | FS | |
| | Units | ug/kg | | ug/kg | | ug/kg | |
| Analysis | Param Name | Result | Qualifier | Result | Qualifier | Result | Qualifier |
| SW8270 | 2,4,5-Trichlorophenol | 390 | U | 410 | U | 360 | U |
| SW8270 | 2,4,6-Trichlorophenol | 390 | U | 410 | U | 360 | U |
| SW8270 | 2,4-Dichlorophenol | 390 | U | 410 | U | 360 | U |
| SW8270 | 2,4-Dimethylphenol | 390 | U | 410 | U | 360 | U |
| SW8270 | 2,4-Dinitrophenol | 390 | UJ | 410 | UJ | 360 | UJ |
| SW8270 | 2,4-Dinitrotoluene | 390 | U | 410 | U | 360 | U |
| SW8270 | 2,6-Dinitrotoluene | 390 | U | 410 | U | 360 | U |
| SW8270 | 2-Chloronaphthalene | 390 | U | 410 | U | 360 | U |
| SW8270 | 2-Chlorophenol | 390 | U | 410 | U | 360 | U |
| SW8270 | 2-Methylnaphthalene | 390 | U | 410 | U | 360 | U |
| SW8270 | 2-Methylphenol | 390 | U | 410 | U | 360 | U |
| SW8270 | 2-Nitroaniline | 390 | U | 410 | U | 360 | U |
| SW8270 | 2-Nitrophenol | 390 | U | 410 | U | 360 | U |
| SW8270 | 3,3`-Dichlorobenzidine | 390 | U | 410 | U | 360 | U |
| SW8270 | 3-Nitroaniline | 390 | U | 410 | U | 360 | U |
| SW8270 | 4,6-Dinitro-2-methylphenol | 390 | UJ | 410 | UJ | 360 | UJ |
| SW8270 | 4-Bromophenyl phenyl ether | 390 | U | 410 | U | 360 | U |
| SW8270 | 4-Chloro-3-methylphenol | 390 | U | 410 | U | 360 | U |
| SW8270 | 4-Chloroaniline | 390 | UJ | 410 | U | 360 | U |
| SW8270 | 4-Chlorophenyl phenyl ether | 390 | U | 410 | U | 360 | U |
| SW8270 | 4-Nitroaniline | 390 | U | 410 | U | 360 | U |
| SW8270 | 4-Nitrophenol | 390 | U | 410 | U | 360 | U |
| SW8270 | Acenaphthene | 390 | U | 410 | U | 360 | U |
| SW8270 | Acenaphthylene | 390 | U | 410 | U | 360 | U |
| SW8270 | Acetophenone | 390 | U | 410 | U | 360 | U |
| SW8270 | Anthracene | 390 | U | 410 | U | 360 | U |
| SW8270 | Atrazine | 390 | U | 410 | U | 360 | U |
| SW8270 | Benzaldehyde | 390 | UJ | 410 | UJ | 360 | UJ |
| SW8270 | Benzo(a)anthracene | 390 | U | 210 | J | 360 | U |
| SW8270 | Benzo(a)pyrene | 390 | U | 220 | J | 360 | U |
| SW8270 | Benzo(b)fluoranthene | 390 | U | 290 | J | 360 | U |
| SW8270 | Benzo(ghi)perylene | 390 | U | 160 | J | 360 | U |
| SW8270 | Benzo(k)fluoranthene | 390 | U | 130 | J | 360 | U |
| SW8270 | Biphenyl | 390 | U | 410 | U | 360 | U |
| SW8270 | Bis(2-Chloroethoxy)methane | 390 | U | 410 | U | 360 | U |
| SW8270 | Bis(2-Chloroethyl)ether | 390 | U | 410 | U | 360 | U |
| SW8270 | Bis(2-Chloroisopropyl)ether | 390 | U | 410 | U | 360 | U |
| SW8270 | Bis(2-Ethylhexyl)phthalate | 340 | J | 410 | U | 360 | U |
| SW8270 | Butylbenzylphthalate | 390 | U | 410 | U | 360 | U |
| SW8270 | Caprolactum | 390 | U | 410 | U | 360 | U |
| SW8270 | Carbazole | 390 | U | 410 | U | 360 | U |
| SW8270 | Chrysene | 390 | U | 240 | J | 360 | U |
| SW8270 | Di-n-butylphthalate | 390 | U | 410 | U | 360 | U |
| SW8270 | Di-n-octylphthalate | 390 | U | 410 | U | 360 | U |
| SW8270 | Dibenz(a,h)anthracene | 390 | U | 410 | U | 360 | U |
| SW8270 | Dibenzofuran | 390 | U | 410 | U | 360 | U |
| SW8270 | Diethylphthalate | 390 | U | 410 | U | 360 | U |
| SW8270 | Dimethylphthalate | 460 | U | 410 | U | 400 | U |
| SW8270 | Fluoranthene | 56 | J | 480 | | 360 | U |

Created by: BJS
Date: 8/05/10
Reviewed by: WDC
Date: 8/13/10

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June 2010 soils Table 2 Final Results.xls

**TABLE 2 - RESULTS SUMMARY**
**DATA USABILITY SUMMARY REPORT**
**JUNE 2010 SOIL SAMPLING**
**LOOHNS CORNING SITE**
**CORNING, NEW YORK**

| | Sample Delivery Group | B2643 | | B2643 | | B2643 | |
|---|---|---|---|---|---|---|---|
| | Location | PDI-011 | | BKSS-001 | | BKSS-002 | |
| | Sample Date | 6/9/2010 13:10 | | 6/9/2010 15:55 | | 6/9/2010 16:25 | |
| | Sample ID | LCPDI01100110XX | | LCBKSS00100110XX | | LCBKSS00200110XX | |
| | Qc Code | FS | | FS | | FS | |
| | Units | ug/kg | | ug/kg | | ug/kg | |
| **Analysis** | **Param Name** | Result | Qualifier | Result | Qualifier | Result | Qualifier |
| SW8270 | Fluorene | 390 | U | 410 | U | 360 | U |
| SW8270 | Hexachlorobenzene | 390 | U | 410 | U | 360 | U |
| SW8270 | Hexachlorobutadiene | 390 | U | 410 | U | 360 | U |
| SW8270 | Hexachlorocyclopentadiene | 390 | U | 410 | U | 360 | U |
| SW8270 | Hexachloroethane | 390 | U | 410 | U | 360 | U |
| SW8270 | Indeno(1,2,3-cd)pyrene | 390 | U | 140 | J | 360 | U |
| SW8270 | Isophorone | 390 | U | 410 | U | 360 | U |
| SW8270 | m+p-Methylphenol | 390 | U | 410 | U | 360 | U |
| SW8270 | N-Nitrosodi-n-propylamine | 390 | U | 410 | U | 360 | U |
| SW8270 | N-Nitrosodiphenylamine | 390 | U | 410 | U | 360 | U |
| SW8270 | Naphthalene | 390 | U | 410 | U | 360 | U |
| SW8270 | Nitrobenzene | 390 | U | 410 | U | 360 | U |
| SW8270 | Pentachlorophenol | 390 | UJ | 410 | UJ | 360 | UJ |
| SW8270 | Phenanthrene | 390 | U | 160 | J | 360 | U |
| SW8270 | Phenol | 390 | U | 410 | U | 360 | U |
| SW8270 | Pyrene | 390 | U | 350 | J | 360 | U |

Notes:
µg/Kg = micorgrams per kilogram
mg/Kg = milligrams per kilogram
Qualifiers
U = not detected at the reporting limit
J = estimated concentration
QC Code
FS = Field Sample
FD = Field Duplicate
TB = Trip Blank

**TABLE 2 - RESULTS SUMMARY**
**DATA USABILITY SUMMARY REPORT**
**JUNE 2010 SOIL SAMPLING**
**LOOHNS CORNING SITE**
**CORNING, NEW YORK**

| | Sample Delivery Group | B2643 | | B2643 | |
|---|---|---|---|---|---|
| | Location | BKSS-003 | | BKSS-003 | |
| | Sample Date | 6/9/2010 16:35 | | 6/9/2010 16:35 | |
| | Sample ID | LCBKSS00300110XX | | LCBKSS00300110XD | |
| | Qc Code | FS | | FD | |
| | Units | ug/kg | | ug/kg | |
| **Analysis** | **Param Name** | Result | Qualifier | Result | Qualifier |
| SW8270 | 2,4,5-Trichlorophenol | 410 | U | 410 | U |
| SW8270 | 2,4,6-Trichlorophenol | 410 | U | 410 | U |
| SW8270 | 2,4-Dichlorophenol | 410 | U | 410 | U |
| SW8270 | 2,4-Dimethylphenol | 410 | U | 410 | U |
| SW8270 | 2,4-Dinitrophenol | 410 | UJ | 410 | UJ |
| SW8270 | 2,4-Dinitrotoluene | 410 | U | 410 | U |
| SW8270 | 2,6-Dinitrotoluene | 410 | U | 410 | U |
| SW8270 | 2-Chloronaphthalene | 410 | U | 410 | U |
| SW8270 | 2-Chlorophenol | 410 | U | 410 | U |
| SW8270 | 2-Methylnaphthalene | 410 | U | 410 | U |
| SW8270 | 2-Methylphenol | 410 | U | 410 | U |
| SW8270 | 2-Nitroaniline | 410 | U | 410 | U |
| SW8270 | 2-Nitrophenol | 410 | U | 410 | U |
| SW8270 | 3,3`-Dichlorobenzidine | 410 | U | 410 | U |
| SW8270 | 3-Nitroaniline | 410 | U | 410 | U |
| SW8270 | 4,6-Dinitro-2-methylphenol | 410 | UJ | 410 | UJ |
| SW8270 | 4-Bromophenyl phenyl ether | 410 | U | 410 | U |
| SW8270 | 4-Chloro-3-methylphenol | 410 | U | 410 | U |
| SW8270 | 4-Chloroaniline | 410 | U | 410 | U |
| SW8270 | 4-Chlorophenyl phenyl ether | 410 | U | 410 | U |
| SW8270 | 4-Nitroaniline | 410 | U | 410 | U |
| SW8270 | 4-Nitrophenol | 410 | U | 410 | U |
| SW8270 | Acenaphthene | 410 | U | 410 | U |
| SW8270 | Acenaphthylene | 410 | U | 410 | U |
| SW8270 | Acetophenone | 410 | U | 410 | U |
| SW8270 | Anthracene | 410 | U | 410 | U |
| SW8270 | Atrazine | 410 | U | 410 | U |
| SW8270 | Benzaldehyde | 410 | UJ | 410 | UJ |
| SW8270 | Benzo(a)anthracene | 110 | J | 100 | J |
| SW8270 | Benzo(a)pyrene | 100 | J | 110 | J |
| SW8270 | Benzo(b)fluoranthene | 150 | J | 160 | J |
| SW8270 | Benzo(ghi)perylene | 78 | J | 83 | J |
| SW8270 | Benzo(k)fluoranthene | 410 | U | 54 | J |
| SW8270 | Biphenyl | 410 | U | 410 | U |
| SW8270 | Bis(2-Chloroethoxy)methane | 410 | U | 410 | U |
| SW8270 | Bis(2-Chloroethyl)ether | 410 | U | 410 | U |
| SW8270 | Bis(2-Chloroisopropyl)ether | 410 | U | 410 | U |
| SW8270 | Bis(2-Ethylhexyl)phthalate | 410 | U | 410 | U |
| SW8270 | Butylbenzylphthalate | 410 | U | 410 | U |
| SW8270 | Caprolactum | 410 | U | 410 | U |
| SW8270 | Carbazole | 410 | U | 410 | U |
| SW8270 | Chrysene | 130 | J | 130 | J |
| SW8270 | Di-n-butylphthalate | 410 | U | 410 | U |
| SW8270 | Di-n-octylphthalate | 410 | U | 410 | U |
| SW8270 | Dibenz(a,h)anthracene | 410 | U | 410 | U |
| SW8270 | Dibenzofuran | 410 | U | 410 | U |
| SW8270 | Diethylphthalate | 410 | U | 410 | U |
| SW8270 | Dimethylphthalate | 440 | U | 450 | U |
| SW8270 | Fluoranthene | 260 | J | 240 | J |

Created by: BJS
Date: 8/05/10
Reviewed by: WDC
Date: 8/13/10

P:\Projects\nysdec1\projects\Loohns Corning\3.0_Site_Data\3.4_Test_Results\DUSR\
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**TABLE 2 - RESULTS SUMMARY**
**DATA USABILITY SUMMARY REPORT**
**JUNE 2010 SOIL SAMPLING**
**LOOHNS CORNING SITE**
**CORNING, NEW YORK**

| | | | | | |
|---|---|---|---|---|---|
| | **Sample Delivery Group** | B2643 | | B2643 | |
| | **Location** | BKSS-003 | | BKSS-003 | |
| | **Sample Date** | 6/9/2010 16:35 | | 6/9/2010 16:35 | |
| | **Sample ID** | LCBKSS00300110XX | | LCBKSS00300110XD | |
| | **Qc Code** | FS | | FD | |
| | **Units** | ug/kg | | ug/kg | |
| **Analysis** | **Param Name** | Result | Qualifier | Result | Qualifier |
| SW8270 | Fluorene | 410 | U | 410 | U |
| SW8270 | Hexachlorobenzene | 410 | U | 410 | U |
| SW8270 | Hexachlorobutadiene | 410 | U | 410 | U |
| SW8270 | Hexachlorocyclopentadiene | 410 | U | 410 | U |
| SW8270 | Hexachloroethane | 410 | U | 410 | U |
| SW8270 | Indeno(1,2,3-cd)pyrene | 68 | J | 72 | J |
| SW8270 | Isophorone | 410 | U | 410 | U |
| SW8270 | m+p-Methylphenol | 410 | U | 410 | U |
| SW8270 | N-Nitrosodi-n-propylamine | 410 | U | 410 | U |
| SW8270 | N-Nitrosodiphenylamine | 410 | U | 410 | U |
| SW8270 | Naphthalene | 410 | U | 410 | U |
| SW8270 | Nitrobenzene | 410 | U | 410 | U |
| SW8270 | Pentachlorophenol | 410 | UJ | 410 | UJ |
| SW8270 | Phenanthrene | 140 | J | 110 | J |
| SW8270 | Phenol | 410 | U | 410 | U |
| SW8270 | Pyrene | 200 | J | 190 | J |

Notes:
µg/Kg = micorgrams per kilogram
mg/Kg = milligrams per kilogram
Qualifiers
U = not detected at the reporting limit
J = estimated concentration
QC Code
FS = Field Sample
FD = Field Duplicate
TB = Trip Blank



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Date: 8/05/10
Reviewed by: WDC
Date: 8/13/10

**TABLE 2 - RESULTS SUMMARY**
**DATA USABILITY SUMMARY REPORT**
**JUNE 2010 SOIL SAMPLING**
**LOOHNS CORNING SITE**
**CORNING, NEW YORK**

| | | Sample Delivery Group | B2618 | | B2618 | |
|---|---|---|---|---|---|---|
| | | Location | SS-001 | | PDI-006 | |
| | | Sample Date | 6/8/2010 10:30 | | 6/8/2010 12:45 | |
| | | Sample ID | LCSS00100110XX | | LCPDI00600110XX | |
| | | Qc Code | FS | | FS | |
| **Analysis** | **Param Name** | **Units** | Result | Qualifier | Result | Qualifier |
| SW8081 | 4,4`-DDD | ug/Kg | 16 | | 1.9 | U |
| SW8081 | 4,4`-DDE | ug/Kg | 10 | | 1.9 | U |
| SW8081 | 4,4`-DDT | ug/Kg | 36 | | 17 | |
| SW8081 | Aldrin | ug/Kg | 3.9 | U | 1.9 | U |
| SW8081 | Alpha-BHC | ug/Kg | 3.9 | U | 1.9 | U |
| SW8081 | Alpha-Chlordane | ug/Kg | 3.9 | U | 1.9 | U |
| SW8081 | Beta-BHC | ug/Kg | 3.9 | U | 1.9 | U |
| SW8081 | Delta-BHC | ug/Kg | 3.9 | U | 1.9 | U |
| SW8081 | Dieldrin | ug/Kg | 3.9 | U | 1.9 | U |
| SW8081 | Endosulfan I | ug/Kg | 3.9 | U | 1.9 | U |
| SW8081 | Endosulfan II | ug/Kg | 3.9 | U | 1.9 | U |
| SW8081 | Endosulfan sulfate | ug/Kg | 3.9 | U | 1.9 | U |
| SW8081 | Endrin | ug/Kg | 3.9 | U | 1.9 | U |
| SW8081 | Endrin aldehyde | ug/Kg | 3.9 | U | 1.9 | U |
| SW8081 | Endrin ketone | ug/Kg | 3.9 | U | 1.9 | U |
| SW8081 | Gamma-BHC/Lindane | ug/Kg | 3.9 | U | 1.9 | U |
| SW8081 | Gamma-Chlordane | ug/Kg | 3.9 | U | 1.9 | U |
| SW8081 | Heptachlor | ug/Kg | 3.9 | U | 1.9 | U |
| SW8081 | Heptachlor epoxide | ug/Kg | 3.9 | U | 1.9 | U |
| SW8081 | Methoxychlor | ug/Kg | 38 | J | 1.9 | U |
| SW8081 | Toxaphene | ug/Kg | 39 | U | 19 | U |
| SW8082 | Aroclor-1016 | ug/Kg | 20 | U | 19 | U |
| SW8082 | Aroclor-1221 | ug/Kg | 20 | U | 19 | U |
| SW8082 | Aroclor-1232 | ug/Kg | 20 | U | 19 | U |
| SW8082 | Aroclor-1242 | ug/Kg | 20 | U | 19 | U |
| SW8082 | Aroclor-1248 | ug/Kg | 20 | U | 19 | U |
| SW8082 | Aroclor-1254 | ug/Kg | 20 | U | 19 | U |
| SW8082 | Aroclor-1260 | ug/Kg | 20 | U | 19 | U |

Notes:
µg/Kg = micorgrams per kilogram
mg/Kg = milligrams per kilogram
Qualifiers
U = not detected at the reporting limit
J = estimated concentration

QC Code
FS = Field Sample
FD = Field Duplicate
TB = Trip Blank

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Created by: BJS
Date: 8/05/10
Reviewed by: WDC
Date: 8/13/10

# TABLE 2 - RESULTS SUMMARY
## DATA USABILITY SUMMARY REPORT
## JUNE 2010 SOIL SAMPLING
## LOOHNS CORNING SITE
## CORNING, NEW YORK

| | Sample Delivery Group | B2643 | | B2643 | | B2643 | | B2643 | | B2643 | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Location | PDI-011 | | BKSS-001 | | BKSS-002 | | BKSS-003 | | BKSS-003 | |
| | Sample Date | 6/9/2010 13:10 | | 6/9/2010 15:55 | | 6/9/2010 16:25 | | 6/9/2010 16:35 | | 6/9/2010 16:35 | |
| | Sample ID | LCPDI01100110XX | | LCBKSS00100110XX | | LCBKSS00200110XX | | LCBKSS00300110XX | | LCBKSS00300110XD | |
| | Qc Code | FS | | FS | | FS | | FS | | FD | |
| | Units | ug/kg | | ug/kg | | ug/kg | | ug/kg | | ug/kg | |
| Analysis | Param Name | Result | Qualifier | Result | Qualifier | Result | Qualifier | Result | Qualifier | Result | Qualifier |
| SW8081 | 4,4`-DDD | 1.3 | J | 2.1 | U | 1.9 | U | 2.1 | U | 2.1 | U |
| SW8081 | 4,4`-DDE | 4.7 | | 2.1 | U | 1.9 | U | 3 | JP | 2.7 | JP |
| SW8081 | 4,4`-DDT | 5.7 | | 2.1 | U | 1.9 | U | 3.1 | | 2.9 | |
| SW8081 | Aldrin | 2 | U | 2.1 | U | 1.9 | U | 2.1 | U | 2.1 | U |
| SW8081 | Alpha-BHC | 2 | U | 2.1 | U | 1.9 | U | 2.1 | U | 2.1 | U |
| SW8081 | Alpha-Chlordane | 2 | U | 2.1 | U | 1.9 | U | 2.1 | U | 2.1 | U |
| SW8081 | Beta-BHC | 2 | U | 2.1 | U | 1.9 | U | 2.1 | U | 2.1 | U |
| SW8081 | Delta-BHC | 2 | U | 2.1 | U | 1.9 | U | 2.1 | U | 2.1 | U |
| SW8081 | Dieldrin | 3.2 | JP | 2.1 | U | 1.9 | U | 2.1 | U | 2.1 | U |
| SW8081 | Endosulfan I | 2 | U | 2.1 | U | 1.9 | U | 2.1 | U | 2.1 | U |
| SW8081 | Endosulfan II | 2 | U | 2.1 | U | 1.9 | U | 2.1 | U | 2.1 | U |
| SW8081 | Endosulfan sulfate | 2 | U | 2.1 | U | 1.9 | U | 2.1 | U | 2.1 | U |
| SW8081 | Endrin | 2 | U | 2.1 | U | 1.9 | U | 2.1 | U | 2.1 | U |
| SW8081 | Endrin aldehyde | 2 | U | 2.1 | U | 1.9 | U | 2.1 | U | 2.1 | U |
| SW8081 | Endrin ketone | 2 | U | 2.1 | U | 1.9 | U | 2.1 | U | 2.1 | U |
| SW8081 | Gamma-BHC/Lindane | 2 | U | 2.1 | U | 1.9 | U | 2.1 | U | 2.1 | U |
| SW8081 | Gamma-Chlordane | 2 | U | 2.1 | U | 1.9 | U | 2.1 | U | 2.1 | U |
| SW8081 | Heptachlor | 2 | U | 2.1 | U | 1.9 | U | 2.1 | U | 2.1 | U |
| SW8081 | Heptachlor epoxide | 2 | U | 2.1 | U | 1.9 | U | 2.1 | U | 2.1 | U |
| SW8081 | Methoxychlor | 12 | | 2.1 | U | 1.9 | U | 2.1 | U | 2.1 | U |
| SW8081 | Toxaphene | 20 | U | 21 | U | 19 | U | 21 | U | 21 | U |
| SW8082 | Aroclor-1016 | 20 | U | 21 | U | 19 | U | 21 | U | 21 | U |
| SW8082 | Aroclor-1221 | 20 | U | 21 | U | 19 | U | 21 | U | 21 | U |
| SW8082 | Aroclor-1232 | 20 | U | 21 | U | 19 | U | 21 | U | 21 | U |
| SW8082 | Aroclor-1242 | 20 | U | 21 | U | 19 | U | 21 | U | 21 | U |
| SW8082 | Aroclor-1248 | 20 | U | 21 | U | 19 | U | 21 | U | 21 | U |
| SW8082 | Aroclor-1254 | 20 | U | 21 | U | 19 | U | 21 | U | 21 | U |
| SW8082 | Aroclor-1260 | 20 | U | 21 | U | 19 | U | 21 | U | 21 | U |

Notes:

µg/Kg = micorgrams per kilogram
mg/Kg = milligrams per kilogram
Qualifiers
U = not detected at the reporting limit
J = estimated concentration

QC Code
FS = Field Sample
FD = Field Duplicate
TB = Trip Blank

Created by: BJS
Date: 8/05/10
Reviewed by: WDC
Date: 8/13/10

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**TABLE 2 - RESULTS SUMMARY**
**DATA USABILITY SUMMARY REPORT**
**JUNE 2010 SOIL SAMPLING**
**LOOHNS CORNING SITE**
**CORNING, NEW YORK**

| | | Sample Delivery Group | B2618 | | B2618 | |
|---|---|---|---|---|---|---|
| | | Location | SS-001 | | PDI-006 | |
| | | Sample Date | 6/8/2010 10:30 | | 6/8/2010 12:45 | |
| | | Sample ID | LCSS00100110XX | | LCPDI00600110XX | |
| | | Qc Code | FS | | FS | |
| Analysis | Param Name | Units | Result | Qualifier | Result | Qualifier |
| SW6010 | Aluminum | mg/Kg | 8240 | | 5420 | |
| SW6010 | Antimony | mg/Kg | 2.89 | U | 2.76 | U |
| SW6010 | Arsenic | mg/Kg | 6 | | 4.22 | |
| SW6010 | Barium | mg/Kg | 97.3 | | 49.1 | |
| SW6010 | Beryllium | mg/Kg | 0.41 | | 0.26 | J |
| SW6010 | Cadmium | mg/Kg | 1.16 | | 0.61 | |
| SW6010 | Calcium | mg/Kg | 2570 | | 1050 | |
| SW6010 | Chromium | mg/Kg | 10.7 | | 7.63 | |
| SW6010 | Cobalt | mg/Kg | 7.13 | | 4.68 | |
| SW6010 | Copper | mg/Kg | 25.2 | | 11.8 | |
| SW6010 | Iron | mg/Kg | 17400 | | 12000 | |
| SW6010 | Lead | mg/Kg | 38.8 | | 28.8 | |
| SW6010 | Magnesium | mg/Kg | 2380 | | 1450 | |
| SW6010 | Manganese | mg/Kg | 413 | | 405 | |
| SW6010 | Nickel | mg/Kg | 16.3 | | 9.78 | |
| SW6010 | Potassium | mg/Kg | 671 | | 407 | |
| SW6010 | Selenium | mg/Kg | 2.45 | | 1.88 | |
| SW6010 | Silver | mg/Kg | 0.58 | U | 0.55 | U |
| SW6010 | Sodium | mg/Kg | 119 | | 225 | |
| SW6010 | Thallium | mg/Kg | 2.31 | U | 2.21 | U |
| SW6010 | Vanadium | mg/Kg | 13.9 | | 10.4 | |
| SW6010 | Zinc | mg/Kg | 105 | | 59.2 | |
| SW7471 | Mercury | mg/Kg | 0.081 | J | 0.106 | J |

Notes:
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FD = Field Duplicate
TB = Trip Blank

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Date: 8/05/10
Reviewed by: WDC
Date: 8/13/10

# TABLE 2 - RESULTS SUMMARY
# DATA USABILITY SUMMARY REPORT
# JUNE 2010 SOIL SAMPLING
# LOOHNS CORNING SITE
# CORNING, NEW YORK

| | Sample Delivery Group | B2643 | | B2643 | | B2643 | | B2643 | | B2643 | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Location | PDI-011 | | BKSS-001 | | BKSS-002 | | BKSS-003 | | BKSS-003 | |
| | Sample Date | 6/9/2010 13:10 | | 6/9/2010 15:55 | | 6/9/2010 16:25 | | 6/9/2010 16:35 | | 6/9/2010 16:35 | |
| | Sample ID | LCPDI01100110XX | | LCBKSS00100110XX | | LCBKSS00200110XX | | LCBKSS00300110XX | | LCBKSS00300110XD | |
| | Qc Code | FS | | FS | | FS | | FS | | FD | |
| | Units | mg/kg | | mg/kg | | mg/kg | | mg/kg | | mg/kg | |
| Analysis | Param Name | Result | Qualifier | Result | Qualifier | Result | Qualifier | Result | Qualifier | Result | Qualifier |
| SW6010 | Aluminum | 6180 | J | 7050 | J | 5430 | J | 5470 | J | 6400 | J |
| SW6010 | Antimony | 0.58 | J | 0.7 | J | 2.58 | U | 1.08 | J | 1.37 | J |
| SW6010 | Arsenic | 4.34 | | 5.67 | | 3.94 | | 7.69 | | 9.37 | |
| SW6010 | Barium | 66.6 | J | 83.2 | J | 36.7 | J | 93.6 | J | 106 | J |
| SW6010 | Beryllium | 0.3 | | 0.42 | | 0.26 | J | 0.36 | J | 0.46 | |
| SW6010 | Cadmium | 0.79 | | 1.09 | | 0.66 | | 0.96 | | 1.37 | |
| SW6010 | Calcium | 6320 | J | 3400 | J | 13000 | J | 2060 | J | 12600 | J |
| SW6010 | Chromium | 8.64 | | 12.6 | | 7.69 | | 8.8 | | 9.65 | |
| SW6010 | Cobalt | 5.79 | | 8.35 | | 5.57 | | 6.87 | | 7.74 | |
| SW6010 | Copper | 21 | | 15.6 | | 18.1 | | 32.8 | | 37.5 | |
| SW6010 | Iron | 13900 | J | 16600 | J | 13500 | J | 13100 | J | 15700 | J |
| SW6010 | Lead | 44.1 | | 47.9 | | 12.1 | | 144 | | 190 | |
| SW6010 | Magnesium | 1790 | J | 2480 | J | 4840 | J | 1540 | J | 2290 | J |
| SW6010 | Manganese | 343 | J | 488 | J | 317 | J | 415 | J | 467 | J |
| SW6010 | Nickel | 12.8 | | 17.8 | | 13 | | 12.3 | | 14.9 | |
| SW6010 | Potassium | 400 | J | 767 | J | 382 | J | 507 | J | 584 | J |
| SW6010 | Selenium | 1.92 | J | 2.28 | J | 1.68 | J | 2.32 | J | 2.73 | J |
| SW6010 | Silver | 0.4 | U | 0.42 | U | 0.52 | U | 0.63 | U | 0.5 | U |
| SW6010 | Sodium | 120 | J | 605 | J | 96.8 | J | 188 | J | 211 | J |
| SW6010 | Thallium | 1.6 | U | 1.7 | U | 2.06 | U | 2.51 | U | 2 | U |
| SW6010 | Vanadium | 9.88 | | 11.2 | | 9.13 | | 9.9 | | 11.3 | |
| SW6010 | Zinc | 76.4 | J | 77.1 | J | 58.1 | J | 113 | J | 137 | J |
| SW7471 | Mercury | 0.134 | J | 0.088 | J | 0.017 | J | 0.193 | J | 0.164 | J |

Notes:
µg/Kg = micorgrams per kilogram
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Qualifiers
U = not detected at the reporting limit
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FS = Field Sample
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Reviewed by: WDC
Date: 8/13/10

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# Table 3 - Tentatively Identified Compounds
## DATA USABILITY SUMMARY REPORT
## JUNE 2010 S0IL SAMPLING
## LOOHNS CORNING SITE
## CORNING, NEW YORK

| Sample ID | CAS # | Chemical Name | Result | Qual | Units |
|---|---|---|---|---|---|
| LCSS00100110XX | 72-56-0 | Benzene, 1,1-(2,2-dichloroethylid | 1200 | JN | ug/Kg |
| LCSS00100110XX | 4294-95-5 | 4-Methoxyanthranilic acid | 560 | JN | ug/Kg |
| LCSS00100110XX | 57-11-4 | Octadecanoic acid | 130 | JN | ug/Kg |
| LCSS00100110XX | 127-18-4 | Tetrachloroethylene | 1100 | JN | ug/Kg |
| LCSS00100110XX | 74579-34-3 | 3,4-Bis-(methylthio)-quinoline | 6600 | JN | ug/Kg |
| LCSS00100110XX | 1140-08-5 | 2-Methyl-7-phenylindole | 650 | JN | ug/Kg |
| LCSS00100110XX | 3910-35-8 | 1H-Indene, 2,3-dihydro-1,1,3-trime | 660 | JN | ug/Kg |
| LCSS00100110XX | 30020-98-5 | 1-Methyl-3-phenylindole | 170 | JN | ug/Kg |
| LCSS00100110XX | 1000147-85-5 | (E)-2-Hydroxy-4-cyano-stilbene | 6000 | JN | ug/Kg |
| LCSS00100110XX | 98-83-9 | .alpha.-Methylstyrene | 890 | JN | ug/Kg |
| LCSS00100110XX | 1000111-58-0 | 2,4-Diphenyl-4-methyl-1-pentene | 210 | JN | ug/Kg |
| LCPDI01201910XX | unknown1.95 | unknown1.95 | 7.1 | JN | ug/Kg |
| LCPDI01201910XX | 000109-66-0 | Pentane | 5.1 | JN | ug/Kg |
| LCPDI00600110XX | 74579-34-3 | 3,4-Bis-(methylthio)-quinoline | 740 | JN | ug/Kg |
| LCPDI00600110XX | 1000297-24-5 | 3-[(2-Methyl-5-nitro-phenylimino)- | 110 | JN | ug/Kg |
| LCPDI00600110XX | 630-02-4 | Octacosane | 92 | JN | ug/Kg |
| LCPDI00600110XX | 127-18-4 | Tetrachloroethylene | 1000 | JN | ug/Kg |
| LCPDI00600110XX | 3910-35-8 | 1H-Indene, 2,3-dihydro-1,1,3-trime | 280 | JN | ug/Kg |
| TRIPBLANK-1 | 000110-54-3 | Hexane | 17 | JN | ug/Kg |
| LCPDI01100110XX | 72-56-0 | Benzene, 1,1-(2,2-dichloroethylid | 160 | JN | ug/kg |
| LCPDI01100110XX | 74579-34-3 | 3,4-Bis-(methylthio)-quinoline | 510 | JN | ug/kg |
| LCPDI01100110XX | 1000297-24-5 | 3-[(2-Methyl-5-nitro-phenylimino)- | 150 | JN | ug/kg |
| LCPDI01100110XX | 84-61-7 | 1,2-Benzenedicarboxylic acid, dicy | 130 | JN | ug/kg |
| LCPDI01100110XX | 3910-35-8 | 1H-Indene, 2,3-dihydro-1,1,3-trime | 130 | JN | ug/kg |
| LCPDI01100110XX | 98-83-9 | .alpha.-Methylstyrene | 230 | JN | ug/kg |
| LCPDI01100110XX | 127-18-4 | Tetrachloroethylene | 240 | JN | ug/kg |
| LCPDI01100110XX | UNKNOWN17.8 | unknown17.8 | 130 | JN | ug/kg |
| LCPDI01100110XX | UNKNOWN19.75 | unknown19.75 | 1200 | JN | ug/kg |
| LCPDI01100110XX | UNKNOWN19.79 | unknown19.79 | 130 | JN | ug/kg |
| LCPDI01100110XX | UNKNOWN30.2 | unknown30.2 | 740 | JN | ug/kg |
| LCBKSS00100110XX | 192-97-2 | Benzo[e]pyrene | 180 | JN | ug/kg |
| LCBKSS00100110XX | 646-31-1 | Tetracosane | 210 | JN | ug/kg |
| LCBKSS00100110XX | UNKNOWN17.64 | unknown17.64 | 90 | JN | ug/kg |
| LCBKSS00200110XX | UNKNOWN17.63 | unknown17.63 | 99 | JN | ug/kg |
| LCBKSS00300110XX | UNKNOWN17.64 | unknown17.64 | 99 | JN | ug/kg |
| LCBKSS00300110XX | 7390-81-0 | Oxirane, hexadecyl- | 210 | JN | ug/kg |
| LCBKSS00300110XD | UNKNOWN17.64 | unknown17.64 | 100 | JN | ug/kg |
| LCBKSS00300110XD | 57-10-3 | n-Hexadecanoic acid | 100 | JN | ug/kg |
| LCBKSS00300110XD | 638-66-4 | Octadecanal | 490 | JN | ug/kg |
| TRIPBLANK | UNKNOWN1.22 | unknown1.22 | 5.1 | JN | ug/l |
| TRIPBLANK-1 | 141-78-6 | Ethyl Acetate | 24 | JN | ug/Kg |
| TRIPBLANK-1 | 60-29-7 | Diethyl Ether | 5.5 | JN | ug/Kg |
| LCGW01502010XX | 95-63-6 | 1,2,4-Trimethylbenzene | 1.4 | JN | ug/l |
| LCGW01302010XX | 95-63-6 | 1,2,4-Trimethylbenzene | 0.72 | JN | ug/l |

Prepared by: BJS 8/5/10
Checked by: WDC 8/13/10

SUMMIT
ENVIRONMENTAL TECHNOLOGIES, INC.
*Analytical Laboratories*

July 13, 2010

| | |
|---|---|
| Client: | Chemtech |
| Address: | 284 Sheffield Street<br>Mountainside, NJ 07092 |

| | |
|---|---|
| Date Collected: | 6/9/2010 |
| Date Received: | 6/10/2010 |
| Project #: | B2643 |
| Client ID #: | LCPD100600410XX |
| Laboratory ID #: | 1008966-01 |
| Matrix: | Solid |
| Analyst: | CET |

| Sieve Size | % Retained |
|---|---|
| #4 | 65.7% |
| #10 | 9.8% |
| #30 | 8.4% |
| #100 | 8.4% |
| #140 | 0.7% |
| #200 | 0.7% |
| Pass #200 | 6.3% |

Laboratory Manager ______________________

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3310 Win Street · Cuyahoga Falls, Ohio 44223 • Phone: 330-253-8211 · Fax: 330-253-4489
*Web Site: www.settek.com*

CHEMTECH
**CHAIN OF CUSTODY RECORD**

284 Sheffield Street, Mountainside, NJ 07092
(908) 789-8900 Fax (908) 789-8922
www.chemtech.net

Chemtech Project Number B2643
COC Number

## CLIENT INFORMATION

Report to be sent to
COMPANY: Chemtech
ADDRESS: 284 Sheffield St
CITY: Mountainside STATE: NJ ZIP:07092
ATTENTION: Kurt Hummler
PHONE: 908-728-3143 FAX:908-789-8922

## PROJECT INFORMATION

PROJECT NAME: B2643
PROJECT #: LOCATION:
PROJECT MANAGER:
E-MAIL: Khummler@chemtech.net
PHONE: FAX:

## BILLING INFORMATION

BILL TO: Same as client PO#
ADDRESS:
CITY: STATE: ZIP:
ATTENTION:
PHONE:

## DATA TURNAROUND INFORMATION

FAX: 10 DAYS*
HARD COPY: 10 DAYS*
EDD ___ DAYS*
* TO BE APPROVED BY CHEMTECH
STANDARD TURNAROUND TIME IS 10 BUSINESS DAYS

## DATA DELIVERABLE INFORMATION

- ☐ RESEULTS 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 Grain Size
2 Sieve &
3 Hydrometer
4
5
6
7
8
9

| CHEMTECH 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 <-- Specify Preservatives A-HCl B-HNO3 C-H2SO4 D-NaOH E-ICE F-OTHER |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. LCPD100600410XX | | soil | X | | 6/9/10 | 18:10 | 1 | X | | | | | | | | | |
| 2. | | | | | | | | | | | | | | | | | |
| 3. | | | | | | | | | | | | | | | | | |
| 4. | | | | | | | | | | | | | | | | | |
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| 9. | | | | | | | | | | | | | | | | | |
| 10. | | | | | | | | | | | | | | | | | |

1008966-01

**SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE PROSSESSION INCLUDING COURIER DELIVERY**

| RELINQUISHED BY SAMPLER | DATE/TIME | RECEIVED BY |
|---|---|---|
| 1. | | 1. |
| RELINQUISHED BY: KHummler | DATE/TIME 6/10/10 16:45 | RECEIVED BY 2. |
| | DATE/TIME 6/10/10 | RECEIVED FOR LAB BY 3. [signature] |

Conditions of bottles or coolers at receipt: ✈ COMPLIANT ✈ NON COMPLIANT ✈ COOLER TEMP____
MeOH extraction requires an additional 4oz. Jar for percent solid
Comments: ✱ Grain Size=Sieve & Hydrometer

Page 1 of 1

CLIENT: ✈ Hand Delivered ✈
Overnight
CHEMTECH: ✈ Picked Up ✈

Shipment Complete ☐ YES ✈ NO

WHITE - CHEMTECH COPYFOR RETURN TO CLIENT YELLOW - CHEMTECH COPY PINK - SAMPLER COPY

#

SUMMIT
ENVIRONMENTAL TECHNOLOGIES, INC.
*Analytical Laboratories*

# LABORATORY REPORT

**Client**
Chemtech
284 Sheffield Street
Mountainside, NJ 07092

**Order Number**
1008966

**Project Number**
B2643

**Issued**
Tuesday, August 24, 2010

**Total Number of Pages**
4 (excluding C.O.C. and cooler receipt form)

Approved By :

QA Manager

NELAC Accreditation #E87688

SUMMIT
ENVIRONMENTAL TECHNOLOGIES, INC.
Analytical Laboratories



## Sample Summary

Client: Chemtech
Order Number: 1008966

| Laboratory ID | Client ID | Matrix | Sampling Date |
|---|---|---|---|
| 1008966-01 | LCPD100600410XX | Solid | 6/9/2010 |

"Analytical Integrity" · EPA Certified · NELAP Certified
3310 Win Street · Cuyahoga Falls, Ohio 44223 • Phone: 330-253-8211 · Fax: 330-253-4489
Web Site: www.settek.com

SUMMIT
ENVIRONMENTAL TECHNOLOGIES, INC.
*Analytical Laboratories*



## Report Narrative

Client: Chemtech

Order Number: 1008966

Solid sample results are reported on a wet weight basis except as noted.
No problems were encountered during analysis of this order number, except as noted.

Data Qualifiers:
B = Analyte found in the method blank
J = Estimated concentration of analyte between MDL (LOD) and Reporting Limit (LOQ)
C = Analyte has been confirmed by another instrument or method
E = Analyte exceeds the upper limit of the calibration curve.
D = Sample or extract was analyzed at a higher dilution
X = User defined data qualifier.
S = Surrogate out of control limits
U = Undetected
a = Not Accredited by NELAC

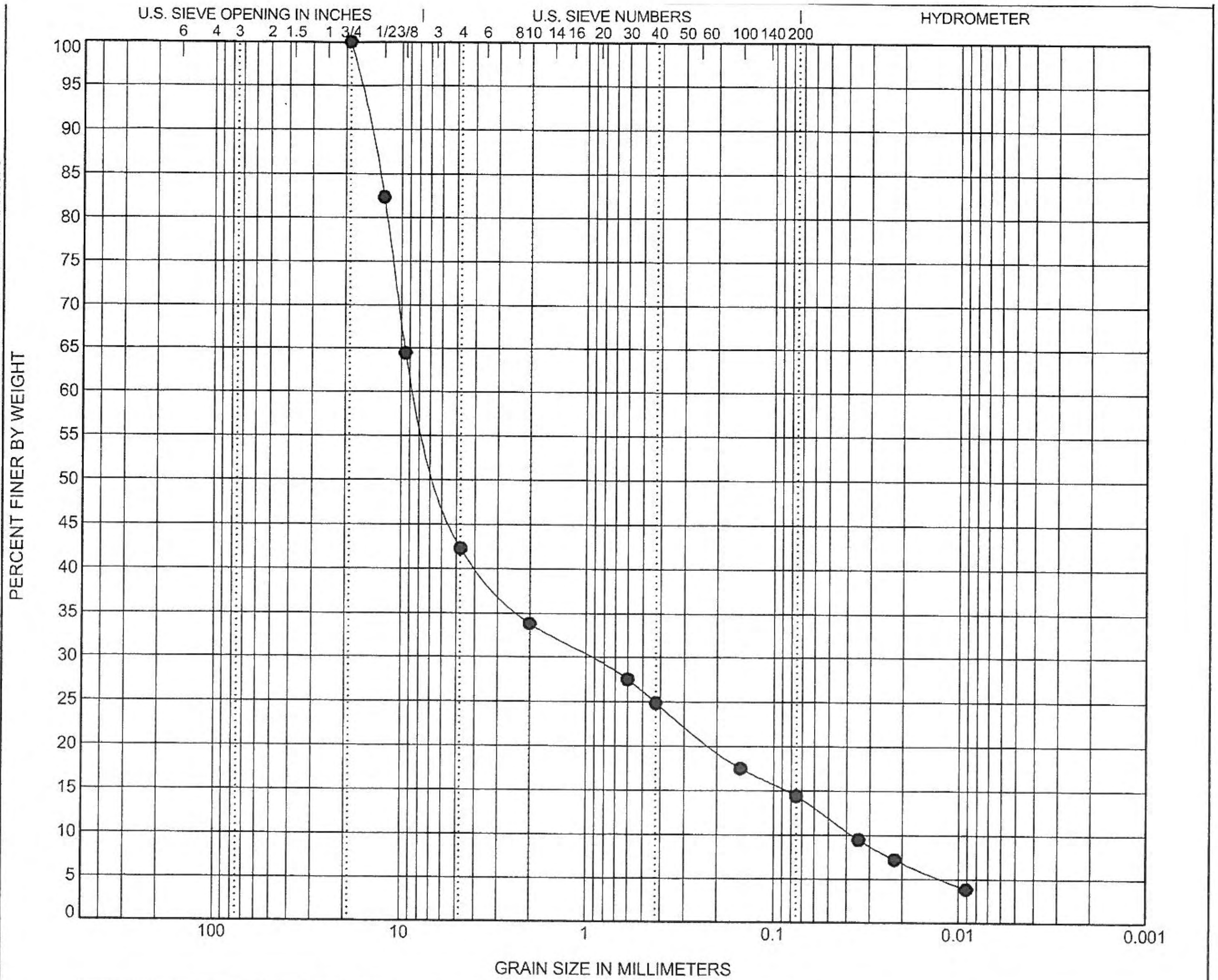
ND = Non Detected at LOQ
DF = Dilution Factor

Limit Of Quantitation (LOQ) = Laboratory Reporting Limit (not adjusted for dilution factor)
Limit Of Detection (LOD) = Laboratory Detection Limit

Matrices:
A = Air
C = Cream
DW = Drinking Water
L = Liquid
O = Oil
SL = Sludge
SO = Soil
S = Solid
T = Tablet
TC = TCLP Extract
WW = Waste Water
W = Wipe

Estimated uncertainty values are available upon request.

The test results meet the requirements of the NELAC standard, except where noted. The information contained in this analytical report is the sole property of Summit Environmental Technologies, Inc. and that of the client. It cannot be reproduced in any form without the consent of Summit Environmental Technologies, Inc. or the client for which this report was issued. The results contained in this report are only representative of the samples received. Conditions can vary at different times and at different sampling conditions. Summit Environmental Technologies, Inc. is not responsible for use or interpretation of the data included herein.




| COBBLES | GRAVEL | | SAND | | | SILT OR CLAY |
|---|---|---|---|---|---|---|
| | coarse | fine | coarse | medium | fine | |

| | Specimen Identification | | Classification | LL | PL | PI | Cc | Cu |
|---|---|---|---|---|---|---|---|---|
| ● | 1008966-01 | 1.0 | Visual Classification: Medium Coarse Sand and Gravel | | | | 3.00 | 220.52 |

| | Specimen Identification | | D100 | D60 | D30 | D10 | %Gravel | %Sand | %Silt | %Clay |
|---|---|---|---|---|---|---|---|---|---|---|
| ● | 1008966-01 | 1.0 | 19 | 8.27 | 0.964 | 0.038 | 57.7 | 27.9 | 14.4 | |

# APPENDIX C

# PHOTOGRAPHS

**APPENDIX C: PHOTOGRAPHS**

Front of strip mall (former dry cleaner occupied central space)

Bucking post removal (at NW corner of Site structure)

## APPENDIX C: PHOTOGRAPHS

AC unit after moving


Shed contents (before moving)

**APPENDIX C: PHOTOGRAPHS**


Barn foundation (SW corner)


Barn foundation (SE corner)

**APPENDIX C: PHOTOGRAPHS**

Non-containerized debris before removal (liner roll in foreground)

Hand digging for gas line (view towards east)

**APPENDIX C: PHOTOGRAPHS**

Hand digging for gas line

2” gas line

**APPENDIX C: PHOTOGRAPHS**

2" gas line


Excavating East to West

**APPENDIX C: PHOTOGRAPHS**

Work area (west to east)

Exposed Gas line and view of west end of excavation

**APPENDIX C: PHOTOGRAPHS**

View towards East end of excavation

Demarcation layer (view to west)

**APPENDIX C: PHOTOGRAPHS**


Demarcation layer (view to east)


Stone installation

**APPENDIX C: PHOTOGRAPHS**

Stone compaction

Sand installation (sand layer placed on geotextile)

**APPENDIX C: PHOTOGRAPHS**

Liner installation (1)

Liner installation (2)

**APPENDIX C: PHOTOGRAPHS**

Liner installation (3)

Welding seam around vapor well

**APPENDIX C: PHOTOGRAPHS**

Top sand layer placed on liner

Final grade stone (before trash removal)

## APPENDIX C: PHOTOGRAPHS

Shed relocated

Road boxes (forms still present)

## APPENDIX C: PHOTOGRAPHS

Final grade

# APPENDIX D

# IRM DESIGN CIVIL PLANS

## LEGEND

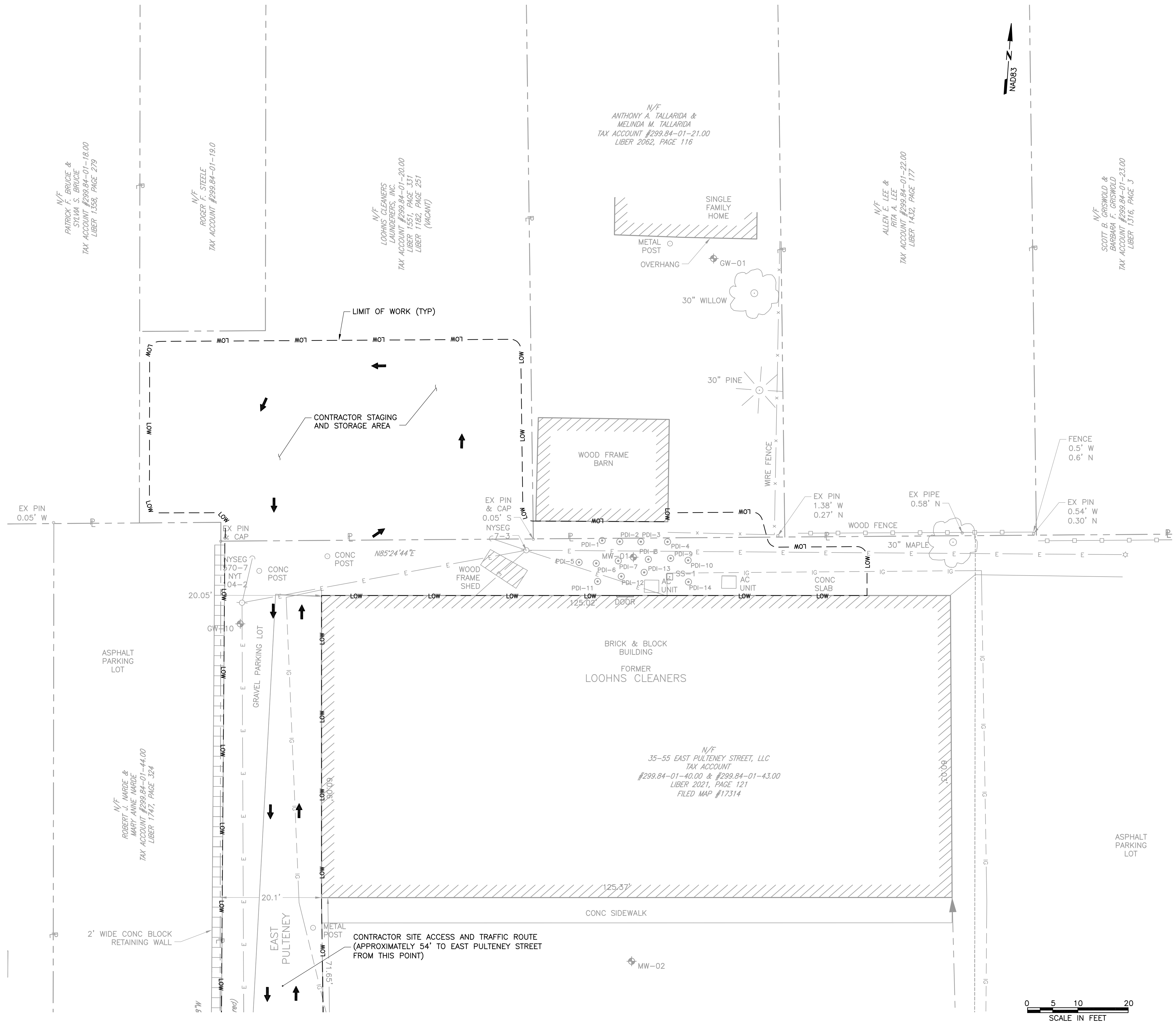
- OVERHEAD ELECTRIC LINE
- GAS SERVICE LINE
- PROPERTY LINE
- FENCE (WIRE)
- FENCE (WOOD)
- UTP NYSEG 6302 — UTILITY POLE
- GW-10 — GROUNDWATER MONITORING WELL
- PDI-01 — GEOPROBE SOIL BORING
- SS-1 — SURFACE SOIL SAMPLE
- LOW — LIMIT OF WORK
- SITE ACCESS
- AREA OF 2FT EXCAVATION
- AREA OF SOIL CLASSIFIED AS HAZARDOUS WASTE

## REFERENCE LEGEND:

- A — DETAIL LETTER
- C-103 C-301 — WHERE DETAIL APPEARS — WHERE DETAIL TAKEN
- DIRECTION OF SECTION
- 1 — DETAIL LETTER
- C-102 C-301 — WHERE DETAIL APPEARS — WHERE DETAIL TAKEN

## NOTES:

1. DRAWING SOURCES:
   A. "FORMER LOOHN'S CLEANERS BOUNDARY SURVEY," LOCATED IN THE CITY OF CORNING, COUNTY OF STEUBEN, NEW YORK, PREPARED FOR MACTEC ENGINEERING AND CONSULTING, INC., BY LU ENGINEERS, DATED 06-16-10 AND REVISED THROUGH 06-22-10.
   B. "ENVIRONMENTAL MAP, "LOOHN'S CLEANERS, EAST PULTENEY STREET, CORNING, NY, PREPARED FOR MACTEC ENGINEERING, INC., BY JOSEPH C. LU ENGINEERING AND LAND SURVEYING, P.C. AND DATED 03-10-06.
2. THE VERTICAL ELEVATIONS LISTED HEREON ARE REFERENCED TO NORTH AMERICAN VERTICAL DATUM (NAVD) OF 1988.
3. THE HORIZONTAL COORDINATES ARE REFERENCED TO THE NEW YORK STATE PLANE COORDINATES SYSTEM, CENTRAL ZONE. THEY ARE BASED ON THE NAD 1983 COORDINATE DATUM.
4. ALL ELEVATIONS ON GROUNDWATER MONITORING WELL PVC WAS TAKEN ON THE NORTH SIDE UNLESS OTHERWISE SPECIFIED.
5. UTILITIES SHOWN ARE DERIVED FROM MARKS ON THE GROUND FROM OTHERS. DEPTHS AND SIZES WERE NOT FIELD VERIFIED.




| NO. | DATE | REVISION | BY | APVD |
|---|---|---|---|---|
| 0 | 10/19/10 | ISSUED FOR BID | LNT | MJS |

DSGN Lyle N. Tracy — DR Jeff P McCrady — CHK Charles R Staples — APVD Mark J. Stelmack

New York State Department of Environmental Conservation

SOIL REMEDIATION
LOOHNS CORNING SITE
37 EAST PULTENEY STREET
CORNING, NEW YORK
NYSDEC SITE NUMBER 851028

MACTEC

MACTEC Engineering and Consulting, Inc.
P.O. Box 7050, 511 Congress Street
Portland, Maine 04112-7050
(207) 775-5401

CIVIL
SITE PLAN

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE 10/19/10
PROJ 3612-10-2148
DWG C-101
SHEET 1 OF 3



STATE OF NEW YORK — MARK JAMES STELMACK — LICENSED PROFESSIONAL ENGINEER — 10-19-10

# CONSTRUCTION NOTES:

1. THE WORK CONSISTS OF FURNISHING ALL LABOR, MATERIALS, EQUIPMENT, AND INCIDENTALS FOR THE REMOVAL AND DISPOSAL OF CONTAMINATED SOIL, AND BACKFILLING OF THE EXCAVATION. THE WORK CONSISTS OF THE FOLLOWING:
   A. PRE–CONSTRUCTION TOPOGRAPHIC GROUND SURVEY OF THE WORK AREA AND AREA 30 FEET OUTSIDE THE LIMITS OF THE WORK.
   B. INSTALLATION OF TEMPORARY EROSION AND SEDIMENTATION CONTROL AROUND THE PERIMETER OF THE WORK AREA.
   C. PERFORMANCE OF ONE EXPLORATION TEST PIT TO CHARACTERIZE THE DEPTH SHAPE AND DIMENSIONS OF BLOCK BUILDING FOUNDATION.
   D. REMOVAL OF ALL VEGETATION AND TREE GROWTH WITHIN THE LIMITS OF THE EXCAVATION.
   E. TEMPORARY RELOCATION AND REPLACEMENT OF ONE AIR CONDITIONING (AC) UNIT.
   F. EXCAVATION, STOCKPILING OR CONTAINERIZATION, AND TEMPORARY DISPOSAL OF CONTAMINATED SOILS.
   G. TOPOGRAPHIC GROUND SURVEY AFTER COMPLETION OF THE EXCAVATION TO ESTABLISH CUT VOLUMES. SURVEY TRANSECTS SHALL BE PERFORMED EVERY 10 FEET PERPENDICULAR TO THE CONSTRUCTION BASELINE.
   H. PROTECTION AND MAINTENANCE OF ALL GROUNDWATER MONITORING WELLS, UTILITIES, AND BUILDING UTILITY ATTACHMENTS DURING PERFORMANCE OF THE WORK.
   I. REMOVE, CONTAINERIZE, AND DISPOSE OF SURFACE WATER ENTERING THE EXCAVATION.
   J. PLACEMENT OF A HIGH VISIBILITY DEMARCATION LAYER ALONG THE BOTTOM OF THE EXCAVATION TO ESTABLISH THE LIMITS OF EXCAVATION IN THE EVENT THAT FUTURE EXCAVATION IS PERFORMED AT THE SITE.
   K. INSTALLATION OF A PERFORATED VACUUM EXTRACTION HDPE WELL PIPE IN THE EVENT THAT FUTURE REMEDIAL WORK IS PERFORMED AT THE SITE.
   L. PLACEMENT OF NEW BACKFILL, NON–WOVEN GEOTEXTILE, AND GEOMEMBRANE AS SHOWN TO MEET PRE–CONSTRUCTION GRADES.
   M. POST–CONSTRUCTION TOPOGRAPHIC GROUND SURVEY OF THE WORK AREA TO CONFIRM FINAL GRADES.
2. PRIOR TO PERFORMANCE OF THE WORK:
   A. THE CONTRACTOR SHALL PERFORM A GROUND SURVEY TO CONFIRM THE GRADES WITHIN THE LIMITS OF THE WORK. HORIZONTAL AND VERTICAL ACCURACY SHALL BE TO THE NEAREST 0.1 FEET.
   B. INSTALL TEMPORARY EROSION AND SEDIMENTATION CONTROL MEASURES AROUND THE PERIMETER OF THE WORK AREA.
   C. LOCATE AND CLEAR ALL UTILITIES WITHIN THE WORK AREA.
   D. DIVERT ALL ROOF DRAINS AWAY FROM THE WORK AREA.
   E. EXCAVATE ONE EXPLORATORY TEST PIT ADJACENT TO FORMER LOOHN'S CLEANERS BUILDING TO CHARACTERIZE THE BUILDING FOUNDATION.
3. WORK SHALL BE PERFORMED USING LEVEL D PERSONAL PROTECTION EQUIPMENT.
4. PERFORM THE WORK IN THE GENERAL SEQUENCE AND REQUIREMENTS DESCRIBED.
5. TEMPORARILY RELOCATE AC UNIT PRIOR TO EXCAVATION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROTECT THE AC UNIT AND ITS FOUNDATION SLAB/MAT FROM DAMAGE DURING PERFORMANCE OF THE WORK.
6. EXCAVATE TO THE DEPTHS AND LIMITS SHOWN.
7. EXCAVATION STABILITY AND SAFETY AND STRUCTURE FOUNDATION STABILITY IS THE RESPONSIBILITY OF THE CONTRACTOR. EXCAVATION SHALL BE PERFORMED IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL REQUIREMENTS. THE EXCAVATION SLOPES SHOWN ARE APPROXIMATIONS MADE BY THE ENGINEER OF THOSE EXPECTED TO BE STABLE. ACTUAL SLOPES MAY VARY DEPENDING UPON THE CONDITIONS ENCOUNTERED, AND BASED ON THE ASSESSMENT MADE BY THE CONTRACTOR.
8. VARIATIONS IN THE DEPTH AND SHAPE OF THE EXCAVATION MAY OCCUR DEPENDING UPON THE CONDITIONS ENCOUNTERED AND CONTAMINATION ENCOUNTERED. THE CONTRACTOR SHALL COORDINATE WITH THE ENGINEER REGARDING ANY VARIATIONS IN THE EXCAVATION FOOTPRINT, DEPTH, AND SHAPE.
9. EXCAVATED SOIL SHALL BE STOCKPILED OR CONTAINERIZED UNTIL DIRECTIONS REGARDING DISPOSAL ARE PROVIDED BY THE ENGINEER. THE CONTRACTOR SHALL SEPARATE SOIL CHARACTERIZED AS HAZARDOUS WASTE (NYCRR 370) FROM SOIL CHARACTERIZED AS SOLID WASTE (NYCRR 360). THE ENGINEER WILL SAMPLE AND PERFORM ANALYTICAL TESTING ON EACH STOCKPILE/CONTAINER TO CHARACTERIZE SOILS FOR DISPOSAL. ANTICIPATE TWO WEEKS FROM TIME OF STOCKPILING COMPLETION TO TIME ENGINEER GIVES DIRECTION ON DISPOSAL LOCATION REQUIREMENTS (TIME FOR LABORATORY ANALYSIS OF STOCKPILE AND RECEIPT OF "CONTAINED IN" LETTER FROM NYSDEC). ALL EXCAVATED SOILS WILL BE DISPOSED OFF–SITE IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REQUIREMENTS.
10. THE CONTRACTOR SHALL ASSIST THE ENGINEER IN COLLECTION OF DOCUMENTATION SAMPLING FROM THE EXCAVATION. DOCUMENTATION SAMPLE ANALYTICAL TESTING WILL BE PERFORMED BY THE ENGINEER.
11. DIRECT SURFACE RUNOFF FROM EXCAVATION, DEWATER EXCAVATION, AND CONTAINERIZE AND DISPOSE OF WATER REMOVED FROM EXCAVATION.
12. LINE THE BOTTOM AND SIDE SLOPES OF THE EXCAVATION WITH ORANGE SAFETY FENCING AS A DEMARCATION LAYER. PROVIDE A MINIMUM OF 24–INCH OVERLAP FOR EACH JOINT.
13. THE CONTRACTOR SHALL PROTECT AND MAINTAIN MONITORING WELL MW–01 DURING EXCAVATION AND BACKFILLING OPERATIONS.
14. INSTALL 4–INCH DIAMETER, PERFORATED, PVC PIPE AS SHOWN FOR POTENTIAL FUTURE VACUUM EXTRACTION WELL.
15. BACKFILL THE EXCAVATION WITH CRUSHED STONE IN LIFTS NOT EXCEEDING 12–INCHES. COMPACTION OF BACKFILL DEEPER THAN 4 FEET SHALL BE PERFORMED REMOTELY BY TAMPING WITH AN EXCAVATOR BUCKET. COMPACTION OF BACKFILL SHALLOWER THAN 4 FEET SHALL BE PERFORMED BY TRACKING WITH A 5,000 POUND (MINIMUM) FRONT END LOADER.
16. INSTALL NON–WOVEN GEOTEXTILE, GEOMEMBRANE, AND SAND CUSHION LAYER AS SHOWN. GEOMEMBRANE, GEOTEXTILE, AND SAND CUSHION LAYER SHALL EXTEND TO THE OUTER LIMITS OF THE EXCAVATION TO PROVIDE FULL COVERAGE OF EXCAVATION.
17. PLACE NON–WOVEN GEOTEXTILE AND GEOMEMBRANE IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION GUIDELINES. AT THE TIME OF INSTALLATION, NON–WOVEN GEOTEXTILE AND GEOMEMBRANE SHALL BE REJECTED IF IT HAS DEFECTS, RIPS, HOLES, FLAWS, OR DAMAGE INCURRED DURING MANUFACTURE, TRANSPORTATION, OR STORAGE. ALL GEOSYNTHETIC MATERIALS SHALL BE NEW.
18. PLACE NON–WOVEN GEOTEXTILE SMOOTH AND FREE OF TENSION, STRESS, FOLDS, WRINKLES, OR CREASES. THE NON–WOVEN GEOTEXTILE SHALL BE PLACED ON A SMOOTH SURFACE AND IN INTIMATE CONTACT WITH THE CRUSHED STONE SUBGRADE, SUCH THAT NO VOID SPACES EXIST BETWEEN THE SUBGRADE AND GEOTEXTILE, AND IN SUCH A MANNER THAT IT WILL NOT EXCESSIVELY STRETCH OR TEAR UPON PLACEMENT OF THE OVERLYING SAND CUSHION AND GEOMEMBRANE. PROVIDE A MINIMUM OF 36–INCH OVERLAP FOR EACH JOINT. REPAIR ANY TORN GEOTEXTILE, OR ANY OVERLAP THAT SEPARATES, BY PLACING ADDITIONAL GEOTEXTILE AS A PATCH OVER THE EXPOSED AREA. PROVIDE A MINIMUM OF 36–INCHES OVERLAP AT THE PATCH.
19. PLACE 6–INCHES OF SAND CUSHION LAYER OVER THE NON–WOVEN GEOTEXTILE.
20. PLACE THE GEOMEMBRANE SMOOTH AND FREE OF TENSION, STRESS, FOLDS, WRINKLES, OR CREASES ABOVE THE SAND CUSHION LAYER. THE GEOMEMBRANE SHALL BE PLACED ON A SMOOTH SURFACE AND IN INTIMATE CONTACT WITH THE SAND CUSHION, SUCH THAT NO VOID SPACES EXIST BETWEEN THE SUBGRADE AND GEOMEMBRANE, AND IN SUCH A MANNER THAT IT WILL NOT EXCESSIVELY STRETCH OR TEAR UPON PLACEMENT OF THE OVERLYING SAND CUSHION AND CRUSHED STONE.
21. GEOMEMBRANE SEAMS SHALL BE FABRICATED BY FUSION OR EXTRUSION WELDING IN ACCORDANCE WITH THE MANUFACTURER'S REQUIREMENTS. SEAMS SHALL HAVE A FINISHED MINIMUM OVERLAP OF 4 INCHES FOR FUSION WELDING AND 6 INCHES FOR EXTRUSION WELDING. CLEANING SOLVENTS MAY NOT BE USED UNLESS APPROVED BY THE MANUFACTURER AND ENGINEER.
22. INSTALL GEOMEMBRANE PENETRATION BOOT AT THE CONTACT WITH THE 4–INCH DIAMETER VACUUM EXTRACTION PIPE AND 2–INCH DIAMETER GROUNDWATER MONITORING WELL (MW–01).
23. COVER THE TOP SAND CUSHION LAYER WITH 1.5 FEET OF CRUSHED STONE, AND GRADE SURFACE TO MEET PRE–CONSTRUCTION GRADES.
24. INSTALL 12–INCH DIAMETER FLUSH MOUNT PROTECTIVE CASING ROADBOX FOR THE VACUUM EXTRACTION PIPE AS SHOWN.
25. REPLACE FLUSH MOUNT PROTECTIVE CASING ROADBOX FOR MW–01 AS NECESSARY.
26. RE–INSTALL TEMPORARILY RELOCATED AC UNIT TO ITS ORIGINAL LOCATION. REPLACE THE REINFORCED CONCRETE FOUNDATION MAT AS NECESSARY SHOULD DAMAGE OCCUR DURING ITS RELOCATION AND RE–INSTALLATION.
27. MATERIAL REQUIREMENTS.
   A. CRUSHED STONE SHALL CONSIST OF CLEAN, DURABLE, SHARP–ANGLED FRAGMENTS OF GRAVEL AND CONFORM TO THE REQUIREMENTS OF NEW YORK STATE DEPARTMENT OF TRANSPORTATION (NYSDOT) SPECIFICATION SECTION 703–0202, SIZE DESIGNATION 1 (NYSDOT TABLE 703–4). THE MATERIAL SHALL BE FROM A NYSDOT APPROVED SOURCE AND THE GRADATION SHALL BE AS FOLLOWS:

| SCREEN SIZE PASSING | PERCENTAGE BY WEIGHT |
|---|---|
| 1 INCH | 100 |
| ½ INCH | 90–100 |
| ¼ INCH | 0–15 |
| NO. 200 | 0–1.0 |

   B. CUSHION SAND SHALL CONSIST OF CLEAN, HARD, DURABLE UNCOATED PARTICLES, FREE FROM LUMPS OF CLAY AND ALL DELETERIOUS SUBSTANCES. DRY CUSHION SAND SHALL CONFORM TO THE REQUIREMENTS OF NYSDOT SPECIFICATION SECTION 703–06. THE MATERIAL SHALL BE FROM A NYSDOT APPROVED SOURCE AND THE GRADATION SHALL BE AS FOLLOWS::

| SCREEN SIZE PASSING | PERCENTAGE BY WEIGHT |
|---|---|
| 1/4 INCH | 100 |
| NO. 5 | 0–35 |
| NO. 200 | 0–10 |

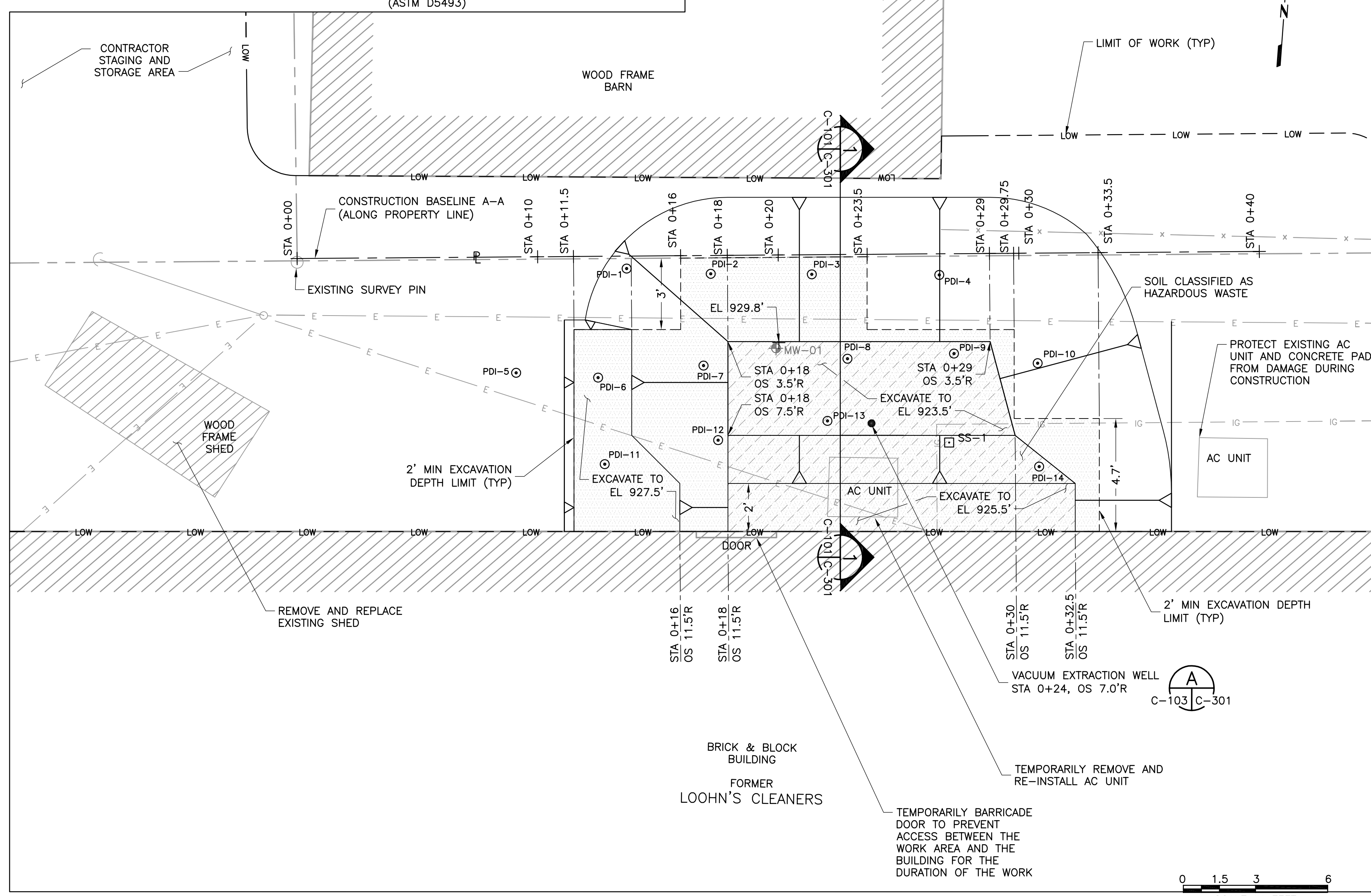
   C. NON–WOVEN GEOTEXTILE SHALL BE COMPOSED OF POLYPROPYLENE FIBERS FORMED INTO A STABLE NETWORK SUCH THAT THE FIBERS RETAIN THEIR RELATIVE POSITION. NON–WOVEN GEOTEXTILE SHALL CONSIST OF MIRAFI 140–N OR EQUAL AS APPROVED BY THE ENGINEER. NON–WOVEN GEOTEXTILE SHALL MEET THE FOLLOWING EQUIVALENT REQUIREMENTS:

| TEST METHOD | MINIMUM PERMISSIBLE VALUE |
|---|---|
| APPARENT OPENING SIZE (ASTM D4751) | 70 US STD SIEVE SIZE |
| GRAB TENSILE STRENGTH (ASTM D4632) | 20 LBS |
| GRAB TENSILE ELONGATION (ASTM D4632) | 50% PERCENT |
| PUNCTURE STRENGTH (ASTM D4833) | 65 LBS |
| MULLEN BURST STRENGTH (ASTM D3786) | 225 LBS |
| PERMITTIVITY (ASTM D5493) | 1.7 SEC–1 |

   D. GEOMEMBRANE SHALL CONSIST OF A HIGH DENSITY POLYETHYLENE MANUFACTURED OF POLYETHYLENE RESINS AND SHALL MEET THE FOLLOWING EQUIVALENT REQUIREMENTS:

| TEST METHOD | MINIMUM PERMISSIBLE VALUE |
|---|---|
| THICKNESS (ASTM D5199) | 40 MIL |
| SHEET DENSITY (ASTM D1505/D792) | 0.940 G/CC |
| YIELD STRENGTH (ASTM D6693) | 84 LB/IN |
| BREAK STRENGTH (ASTM D6693) | 152 LB/IN |
| YIELD ELONGATION (ASTM D6693) | 12% |
| BREAK ELONGATION (ASTM D6693) | 700% |
| TEAR RESISTANCE (ASTM D1004) | 28 LBS |
| PUNCTURE RESISTANCE (ASTM D4833) | 72 LBS |
| CARBON BLACK CONTENT (ASTM D1603) | 2.0 – 3.0% |

   E. DEMARCATION LAYER SHALL CONSIST OF ORANGE SAFETY FENCING, CONSTRUCTED OF POLYETHYLENE/POLYPROPYLENE WITH A MINIMUM TENSILE STRENGTH OF 250 LBS/FT.
28. THE CONTRACTOR SHALL PROVIDE THE FOLLOWING SUBMITTALS TO THE ENGINEER FOR REVIEW AND APPROVAL:
   A. EXCAVATION WORK PLAN DESCRIBING THE EXCAVATION METHODOLOGIES AND EQUIPMENT; EXCAVATION SLOPES; RESUME OF THE RESPONSIBLE PERSON IN CHARGE OF EXCAVATION STABILITY; METHODS OF COMPACTION; MEANS FOR INSPECTION, MONITORING, AND PROTECTION OF THE FORMER LOOHN'S CLEANERS BUILDING AND BARN; AND MEANS OF TEMPORARY STOCKPILING OR CONTAINERIZATION OF CONTAMINATED AND UNCONTAMINATED SOIL.
   B. SITE HEALTH AND SAFETY PLAN.
   C. GRADATIONS AND SOURCE OF PROPOSED SOIL/AGGREGATE BACKFILL MATERIALS (MINIMUM OF TWO GRADATIONS PER MATERIAL).
   D. MANUFACTURER'S DATA SHEET ON PROPOSED NON–WOVEN GEOTEXTILE, GEOMEMBRANE, AND ORANGE SAFETY FENCING.
   E. GEOTEXTILE AND GEOMEMBRANE MANUFACTURER'S INSTALLATION AND QUALITY ASSURANCE DETAILS.
   F. METHOD OF SEAMING AND TESTING OF JOINTS OF GEOMEMBRANE.
   G. PRE–CONSTRUCTION SURVEY.
   H. GROUND SURVEY OF EXCAVATION (SHOWING EXCAVATION LIMITS AND DEPTHS).
   I. POST–CONSTRUCTION GROUND SURVEY.




| NO. | DATE | REVISION | BY | APVD |
|---|---|---|---|---|
| 0 | 10/19/10 | ISSUED FOR BID | LNT | MJS |

DSGN Lyle N. Tracy DR Jeff P. McCrady CHK Charles R. Staples APVD Mark J. Stelmack

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New York State Department of Environmental Conservation

SOIL REMEDIATION
LOOHNS CORNING SITE
37 EAST PULTENEY STREET
CORNING, NEW YORK
NYSDEC SITE NUMBER 851028

MACTEC

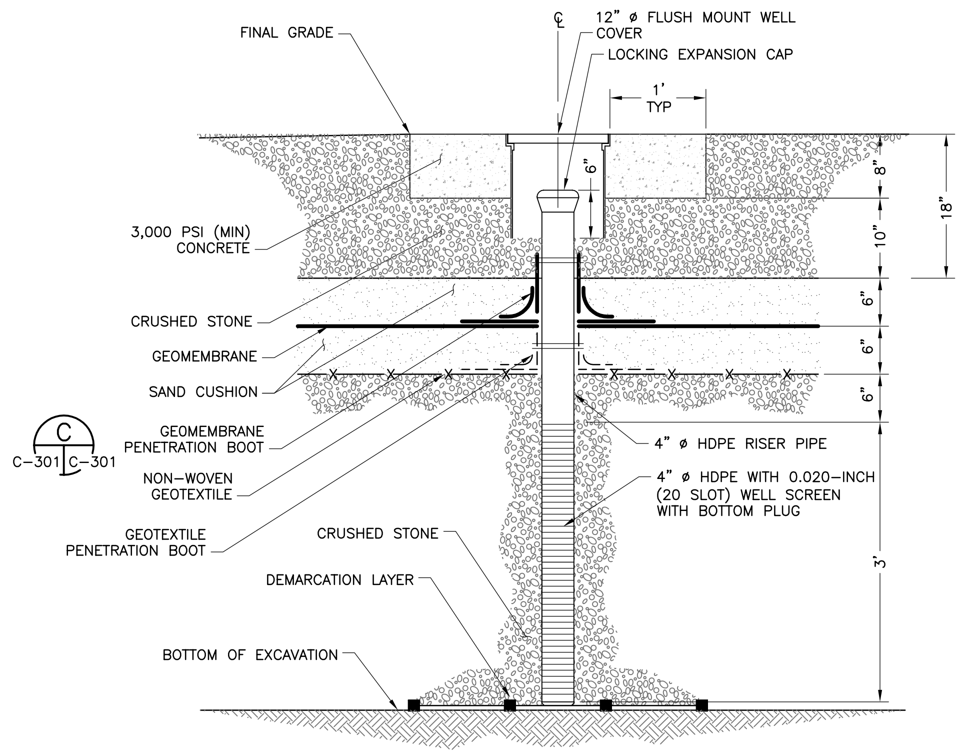
MACTEC Engineering and Consulting, Inc.
P.O. Box 7050, 511 Congress Street
Portland, Maine 04112–7050
(207) 775–5401

CIVIL
EXCAVATION PLAN

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

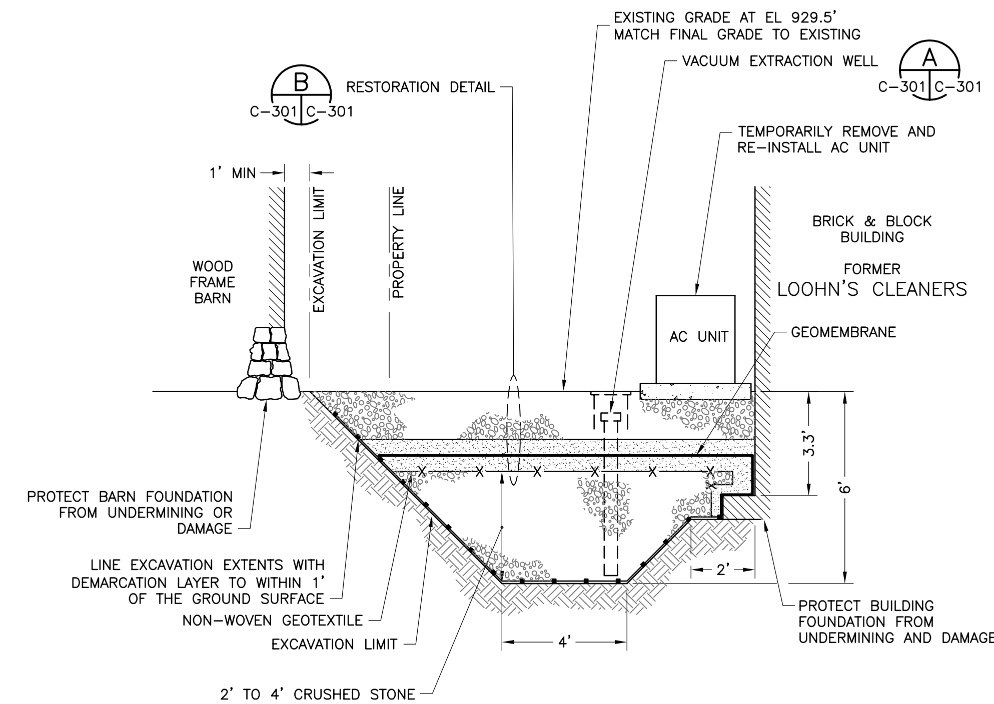
| | |
|---|---|
| DATE | 10/19/10 |
| PROJ | 3612-10-2148 |
| DWG | C-102 |
| SHEET | 2 OF 3 |

FILE NAME: P:\Projects\CADD-PORT\Projects\nysdec1\Region 8 DryCleaning\RI-Loohns-C102.dwg PLOT DATE: Tue, 19 Oct 2010 PLOT TIME: 5:27 PM



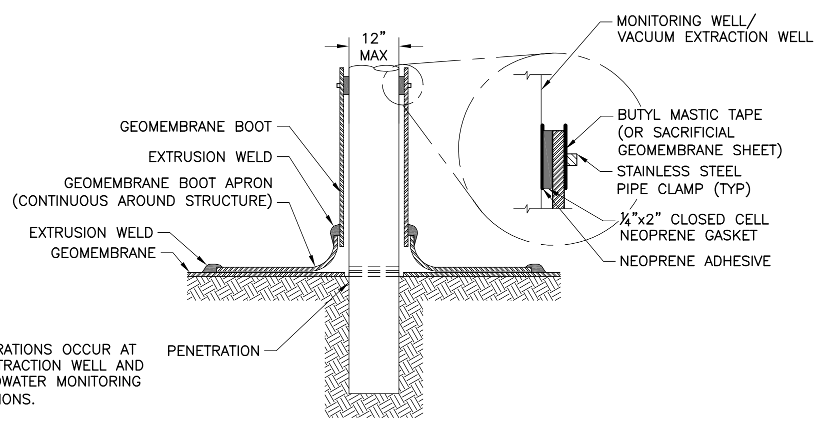

VACUUM EXTRACTION WELL (A, C-102 C-301 C-301)

NTS




TYPICAL SECTION (1, C-102 C-301)

SCALE: 1"=3'-0"

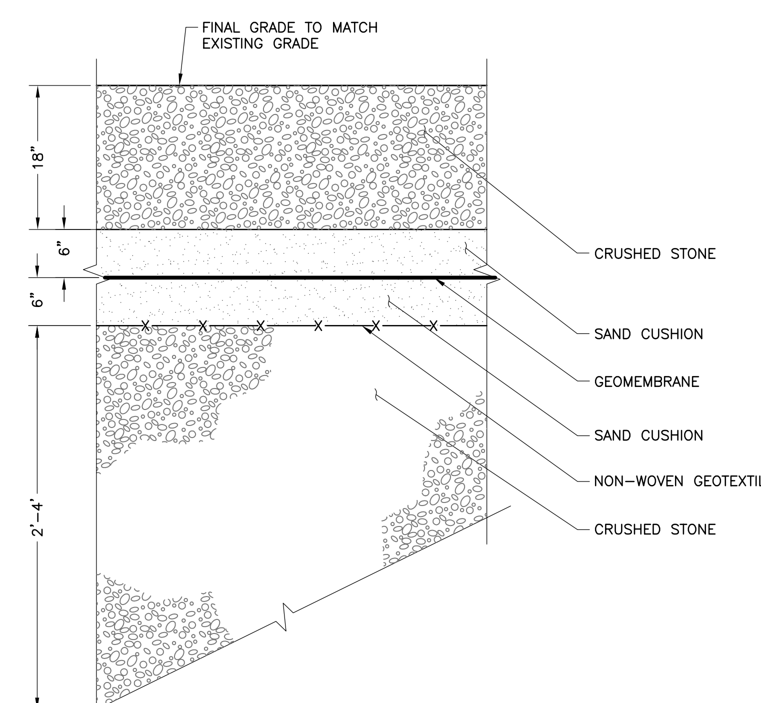



NOTE:

GEOMEMBRANE PENETRATIONS OCCUR AT THE NEW VACUUM EXTRACTION WELL AND THE EXISTING GROUNDWATER MONITORING WELL (MW-01) LOCATIONS.

GEOMEMBRANE PENETRATION BOOT (C, C-301 C-301)

NTS




RESTORATION DETAIL (B, C-301 C-301)

NTS

| NO. | DATE | REVISION | BY | APVD |
|---|---|---|---|---|
| 0 | 10/19/10 | ISSUED FOR BID | LNT | MJS |

DSGN Lyle N. Tracy | DR Jeff P. McCrady | CHK Charles R. Staples | APVD Mark J. Stelmack

New York State Department of Environmental Conservation

SOIL REMEDIATION
LOOHNS CORNING SITE
37 EAST PULTENEY STREET
CORNING, NEW YORK
NYSDEC SITE NUMBER 851028

MACTEC

MACTEC Engineering and Consulting, Inc.
P.O. Box 7050, 511 Congress Street
Portland, Maine 04112-7050
(207) 775-5401

CIVIL
SECTIONS AND DETAILS

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE 10/19/10
PROJ 3612-10-2148
DWG C-301
SHEET 3 OF 3

# APPENDIX E

# IRM SAMPLING DATA

**DATA USABILITY SUMMARY REPORT**
**2010 SOIL EXCAVATION SAMPLING**
**LOOHNS DRY CLEANERS SITE**
**CORNING, NEW YORK**

## 1.0 INTRODUCTION

Soil excavation samples were collected at the Ludlow Landfill Site (Site) in Paris, New York in December 2010 and submitted for off-site laboratory analysis. Samples were analyzed by Chemtech located in Mountainside, New Jersey. Results were reported in the following Sample Delivery Group (SDG): B4458.

A listing of samples included in SDG B4458 is presented in Table 1. Soil and waste samples were collected. Waste characterization samples identified on Table 1 were not included in this Data Usability Summary Report (DUSR) review, but results are included on Table 2. A summary of the analytical results is presented in Table 2. A summary of data qualification actions and validation action reason codes presented in Table 3. Tentatively Identified Compounds (TICs) are presented in Table 4. Samples were analyzed by the following method:

- Volatile organic compounds (VOCs) by USEPA Method 8260B

Deliverables for the off-site laboratory analyses included a Category B deliverable as defined in the New York State Department of Environmental Conservation (NYSDEC) Analytical Services Protocols (NYSDEC, 2005).

A project chemist review was completed based on NYSDEC Division of Environmental Remediation guidance for Data Usability Summary Reports (NYSDEC, 2010). USEPA Region 2 quality control (QC) limits were used during the data evaluation unless noted otherwise (USEPA, 2006). The DUSR review included the evaluations of the following items:

- lab package narrative
- data package completeness and chain of custody
- sample collection, preservation, and holding times
- instrument calibration
- QC data (blanks, lab control samples, and surrogate recovery)
- results transcription and calculation checks
- electronic data reporting
- lab data qualifiers

The following laboratory or data validation qualifiers are used in the final data presentation.

U = target analyte is not detected at the reported detection limit
J = concentration is estimated
UJ = target analyte is not detected at the reported detection limit and is estimated
D = concentration is from a diluted analysis of the sample

Results are interpreted to be usable as reported by the laboratory unless discussed in the following sections.

## 2.0 VOCS – METHOD 8260B

VOC - Initial and Continuing Calibration

**SDG B4458**

The continuing calibration (analyzed December 10, 2010) associated with a subset of samples had a percent difference between the initial calibration average relative response factor (RRF) and the continuing calibration RRF that was greater than the control limit of 20 for acetone (-23). Acetone was not detected in the samples and quantitation limits were qualified as estimated (UJ) in the following samples:

| |
|---|
| EX-06-04 |
| EX-07-04 |

The continuing calibration standards (analyzed December 9, 2010, and December 10, 2010) associated with all samples had percent differences between the initial calibration average RRF and the continuing calibration RRFs that were greater than the control limit of 20 for trichlorofluoromethane (-35, -22). Trichlorofluoromethane was not detected in any of the samples, and quantitation limits were qualified as estimated (UJ) in the following samples:

| | | |
|---|---|---|
| EX-01-06 | EX-04-06 | EX-07-04 |
| EX-02-06 | EX-05-06 | |
| EX-03-06 | EX-06-04 | |

Tentatively Identified Compounds

Tentatively identified compounds (TICs) were reported by the laboratory. TICs reported in samples are presented in Table 4. Only samples that had TICs reported are included on Table 4. If a sample is not listed, no TICs were reported in the sample.

**Reference:**

New York State Department of Environmental Conservation (NYSDEC), 2005. "Analytical Services Protocols"; July 2005.

New York State Department of Environmental Conservation (NYSDEC), 2010. "Technical Guidance for Site Investigation and Remediation-Appendix 2B"; DER-10; Division of Environmental Remediation; May 2010.

USEPA, 2006. "Validating Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry SW-846 Method 8260B"; SOP # HW-24, Revision 2, Hazardous Waste Support Branch; October 2006.

Data Validator: Julie Ricardi

Julie Ricardi

Date: 12/21/10

Reviewed by Chris Ricardi, NRCC-EAC
Quality Assurance Officer

Chris Ricardi

Date: 2/15/11

TABLE 2
SUMMARY OF ANALYTICAL RESULTS
DATA USABILITY SUMMARY REPORT
DECEMBER 2010 SOIL SAMPLING
LOOHNS DRY CLEANERS
CORNING, NEW YORK

| | | Location | EX-01 | | EX-02 | | EX-03 | | EX-04 | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Sample Date | 12/7/2010 | | 12/7/2010 | | 12/7/2010 | | 12/8/2010 | |
| | | Sample ID | EX-01-06 | | EX-02-06 | | EX-03-06 | | EX-04-06 | |
| | | Qc Code | FS | | FS | | FS | | FS | |
| **Analysis** | **Parameter** | **Units** | Result | Qualifier | Result | Qualifier | Result | Qualifier | Result | Qualifier |
| SW8260B | 1,1,1-Trichloroethane | ug/kg | 5.4 | U | 4.8 | U | 4.7 | U | 4.4 | U |
| SW8260B | 1,1,2,2-Tetrachloroethane | ug/kg | 5.4 | U | 4.8 | U | 4.7 | U | 4.4 | U |
| SW8260B | 1,1,2-Trichloro-1,2,2-Trifluoroethane | ug/kg | 5.4 | U | 4.8 | U | 4.7 | U | 4.4 | U |
| SW8260B | 1,1,2-Trichloroethane | ug/kg | 5.4 | U | 4.8 | U | 4.7 | U | 4.4 | U |
| SW8260B | 1,1-Dichloroethane | ug/kg | 5.4 | U | 4.8 | U | 4.7 | U | 4.4 | U |
| SW8260B | 1,1-Dichloroethene | ug/kg | 5.4 | U | 4.8 | U | 4.7 | U | 4.4 | U |
| SW8260B | 1,2,4-Trichlorobenzene | ug/kg | 5.4 | U | 4.8 | U | 4.7 | U | 4.4 | U |
| SW8260B | 1,2-Dibromo-3-chloropropane | ug/kg | 5.4 | U | 4.8 | U | 4.7 | U | 4.4 | U |
| SW8260B | 1,2-Dibromoethane | ug/kg | 5.4 | U | 4.8 | U | 4.7 | U | 4.4 | U |
| SW8260B | 1,2-Dichlorobenzene | ug/kg | 5.4 | U | 4.8 | U | 4.7 | U | 4.4 | U |
| SW8260B | 1,2-Dichloroethane | ug/kg | 5.4 | U | 4.8 | U | 4.7 | U | 4.4 | U |
| SW8260B | 1,2-Dichloropropane | ug/kg | 5.4 | U | 4.8 | U | 4.7 | U | 4.4 | U |
| SW8260B | 1,3-Dichlorobenzene | ug/kg | 5.4 | U | 4.8 | U | 4.7 | U | 4.4 | U |
| SW8260B | 1,4-Dichlorobenzene | ug/kg | 5.4 | U | 4.8 | U | 4.7 | U | 4.4 | U |
| SW8260B | 2-Butanone | ug/kg | 27 | U | 24 | U | 24 | U | 22 | U |
| SW8260B | 2-Hexanone | ug/kg | 27 | U | 24 | U | 24 | U | 22 | U |
| SW8260B | 4-Methyl-2-pentanone | ug/kg | 27 | U | 24 | U | 24 | U | 22 | U |
| SW8260B | Acetic acid, methyl ester | ug/kg | 5.4 | U | 4.8 | U | 4.7 | U | 4.4 | U |
| SW8260B | Acetone | ug/kg | 34 | | 24 | U | 29 | | 22 | U |
| SW8260B | Benzene | ug/kg | 5.4 | U | 4.8 | U | 4.7 | U | 4.4 | U |
| SW8260B | Bromodichloromethane | ug/kg | 5.4 | U | 4.8 | U | 4.7 | U | 4.4 | U |
| SW8260B | Bromoform | ug/kg | 5.4 | U | 4.8 | U | 4.7 | U | 4.4 | U |
| SW8260B | Bromomethane | ug/kg | 5.4 | U | 4.8 | U | 4.7 | U | 4.4 | U |
| SW8260B | Carbon disulfide | ug/kg | 5.4 | U | 4.8 | U | 4.7 | U | 4.4 | U |
| SW8260B | Carbon tetrachloride | ug/kg | 5.4 | U | 4.8 | U | 4.7 | U | 4.4 | U |
| SW8260B | Chlorobenzene | ug/kg | 5.4 | U | 4.8 | U | 4.7 | U | 4.4 | U |
| SW8260B | Chlorodibromomethane | ug/kg | 5.4 | U | 4.8 | U | 4.7 | U | 4.4 | U |
| SW8260B | Chloroethane | ug/kg | 5.4 | U | 4.8 | U | 4.7 | U | 4.4 | U |
| SW8260B | Chloroform | ug/kg | 5.4 | U | 4.8 | U | 4.7 | U | 4.4 | U |
| SW8260B | Chloromethane | ug/kg | 5.4 | U | 4.8 | U | 4.7 | U | 4.4 | U |
| SW8260B | Cis-1,2-Dichloroethene | ug/kg | 5.4 | U | 4.8 | U | 4.7 | U | 4.4 | U |
| SW8260B | cis-1,3-Dichloropropene | ug/kg | 5.4 | U | 4.8 | U | 4.7 | U | 4.4 | U |
| SW8260B | Cyclohexane | ug/kg | 5.4 | U | 4.8 | U | 4.7 | U | 4.4 | U |
| SW8260B | Dichlorodifluoromethane | ug/kg | 5.4 | U | 4.8 | U | 4.7 | U | 4.4 | U |
| SW8260B | Ethyl benzene | ug/kg | 5.4 | U | 4.8 | U | 4.7 | U | 4.4 | U |
| SW8260B | Isopropylbenzene | ug/kg | 5.4 | U | 4.8 | U | 4.7 | U | 4.4 | U |
| SW8260B | Methyl cyclohexane | ug/kg | 5.4 | U | 4.8 | U | 4.7 | U | 4.4 | U |
| SW8260B | Methyl Tertbutyl Ether | ug/kg | 5.4 | U | 4.8 | U | 4.7 | U | 4.4 | U |
| SW8260B | Methylene chloride | ug/kg | 13 | | 8.2 | | 6.2 | | 8.7 | |
| SW8260B | Styrene | ug/kg | 5.4 | U | 4.8 | U | 4.7 | U | 4.4 | U |
| SW8260B | Tetrachloroethene | ug/kg | 15 | | 79 | | 29 | | 110 | |
| SW8260B | Toluene | ug/kg | 5.4 | U | 4.8 | U | 4.7 | U | 1.1 | J |
| SW8260B | trans-1,2-Dichloroethene | ug/kg | 5.4 | U | 4.8 | U | 4.7 | U | 4.4 | U |
| SW8260B | trans-1,3-Dichloropropene | ug/kg | 5.4 | U | 4.8 | U | 4.7 | U | 4.4 | U |
| SW8260B | Trichloroethene | ug/kg | 5.4 | U | 4.8 | U | 4.7 | U | 4.4 | U |
| SW8260B | Trichlorofluoromethane | ug/kg | 5.4 | UJ | 4.8 | UJ | 4.7 | UJ | 4.4 | UJ |
| SW8260B | Vinyl chloride | ug/kg | 5.4 | U | 4.8 | U | 4.7 | U | 4.4 | U |
| SW8260B | Xylene, m/p | ug/kg | 11 | U | 9.6 | U | 9.4 | U | 8.7 | U |
| SW8260B | Xylene, o | ug/kg | 5.4 | U | 4.8 | U | 4.7 | U | 4.4 | U |

Notes:
ug/L = microgram per liter
mg/L = milligram per liter
Qualifiers
U = not detected at the reporting limit
J = estimated concentration
QC Code
FS = Field Sample, FD = Field Duplicate

TABLE 2
SUMMARY OF ANALYTICAL RESULTS
DATA USABILITY SUMMARY REPORT
DECEMBER 2010 SOIL SAMPLING
LOOHNS DRY CLEANERS
CORNING, NEW YORK

| | | Location | EX-05 | | EX-06 | | EX-07 | | SC2509 | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Sample Date | 12/8/2010 | | 12/8/2010 | | 12/8/2010 | | 12/7/2010 | |
| | | Sample ID | EX-05-06 | | EX-06-04 | | EX-07-04 | | SC2509 | |
| | | Qc Code | FS | | FS | | FS | | FS | |
| Analysis | Parameter | Units | Result | Qualifier | Result | Qualifier | Result | Qualifier | Result | Qualifier |
| SW8260B | 1,1,1-Trichloroethane | ug/kg | 4.3 | U | 5 | U | 4.4 | U | 5.8 | U |
| SW8260B | 1,1,2,2-Tetrachloroethane | ug/kg | 4.3 | U | 5 | U | 4.4 | U | 5.8 | U |
| SW8260B | 1,1,2-Trichloro-1,2,2-Trifluoroethane | ug/kg | 4.3 | U | 5 | U | 4.4 | U | 5.8 | U |
| SW8260B | 1,1,2-Trichloroethane | ug/kg | 4.3 | U | 5 | U | 4.4 | U | 5.8 | U |
| SW8260B | 1,1-Dichloroethane | ug/kg | 4.3 | U | 5 | U | 4.4 | U | 5.8 | U |
| SW8260B | 1,1-Dichloroethene | ug/kg | 4.3 | U | 5 | U | 4.4 | U | 5.8 | U |
| SW8260B | 1,2,4-Trichlorobenzene | ug/kg | 4.3 | U | 5 | U | 4.4 | U | 5.8 | U |
| SW8260B | 1,2-Dibromo-3-chloropropane | ug/kg | 4.3 | U | 5 | U | 4.4 | U | 5.8 | U |
| SW8260B | 1,2-Dibromoethane | ug/kg | 4.3 | U | 5 | U | 4.4 | U | 5.8 | U |
| SW8260B | 1,2-Dichlorobenzene | ug/kg | 4.3 | U | 5 | U | 2.5 | J | 5.8 | U |
| SW8260B | 1,2-Dichloroethane | ug/kg | 4.3 | U | 5 | U | 4.4 | U | 5.8 | U |
| SW8260B | 1,2-Dichloropropane | ug/kg | 4.3 | U | 5 | U | 4.4 | U | 5.8 | U |
| SW8260B | 1,3-Dichlorobenzene | ug/kg | 4.3 | U | 5 | U | 4.4 | U | 5.8 | U |
| SW8260B | 1,4-Dichlorobenzene | ug/kg | 4.3 | U | 5 | U | 0.91 | J | 5.8 | U |
| SW8260B | 2-Butanone | ug/kg | 21 | U | 25 | U | 22 | U | 29 | U |
| SW8260B | 2-Hexanone | ug/kg | 21 | U | 25 | U | 22 | U | 29 | U |
| SW8260B | 4-Methyl-2-pentanone | ug/kg | 21 | U | 25 | U | 22 | U | 29 | U |
| SW8260B | Acetic acid, methyl ester | ug/kg | 4.3 | U | 5 | U | 4.4 | U | 5.8 | U |
| SW8260B | Acetone | ug/kg | 18 | J | 25 | UJ | 22 | UJ | 29 | U |
| SW8260B | Benzene | ug/kg | 4.3 | U | 5 | U | 4.4 | U | 5.8 | U |
| SW8260B | Bromodichloromethane | ug/kg | 4.3 | U | 5 | U | 4.4 | U | 5.8 | U |
| SW8260B | Bromoform | ug/kg | 4.3 | U | 5 | U | 4.4 | U | 5.8 | U |
| SW8260B | Bromomethane | ug/kg | 4.3 | U | 5 | U | 4.4 | U | 5.8 | U |
| SW8260B | Carbon disulfide | ug/kg | 4.3 | U | 5 | U | 4.4 | U | 5.8 | U |
| SW8260B | Carbon tetrachloride | ug/kg | 4.3 | U | 5 | U | 4.4 | U | 5.8 | U |
| SW8260B | Chlorobenzene | ug/kg | 4.3 | U | 5 | U | 4.4 | U | 5.8 | U |
| SW8260B | Chlorodibromomethane | ug/kg | 4.3 | U | 5 | U | 4.4 | U | 5.8 | U |
| SW8260B | Chloroethane | ug/kg | 4.3 | U | 5 | U | 4.4 | U | 5.8 | U |
| SW8260B | Chloroform | ug/kg | 4.3 | U | 5 | U | 4.4 | U | 5.8 | U |
| SW8260B | Chloromethane | ug/kg | 4.3 | U | 5 | U | 4.4 | U | 5.8 | U |
| SW8260B | Cis-1,2-Dichloroethene | ug/kg | 4.3 | U | 2.6 | J | 4.4 | U | 5.8 | U |
| SW8260B | cis-1,3-Dichloropropene | ug/kg | 4.3 | U | 5 | U | 4.4 | U | 5.8 | U |
| SW8260B | Cyclohexane | ug/kg | 4.3 | U | 5 | U | 4.4 | U | 5.8 | U |
| SW8260B | Dichlorodifluoromethane | ug/kg | 4.3 | U | 5 | U | 4.4 | U | 5.8 | U |
| SW8260B | Ethyl benzene | ug/kg | 4.3 | U | 5 | U | 4.4 | U | 5.8 | U |
| SW8260B | Isopropylbenzene | ug/kg | 4.3 | U | 5 | U | 4.4 | U | 5.8 | U |
| SW8260B | Methyl cyclohexane | ug/kg | 4.3 | U | 5 | U | 4.4 | U | 5.8 | U |
| SW8260B | Methyl Tertbutyl Ether | ug/kg | 4.3 | U | 5 | U | 4.4 | U | 5.8 | U |
| SW8260B | Methylene chloride | ug/kg | 8.8 | | 8.7 | | 10 | | 5.8 | U |
| SW8260B | Styrene | ug/kg | 4.3 | U | 5 | U | 4.4 | U | 5.8 | U |
| SW8260B | Tetrachloroethene | ug/kg | 42 | | 170 | | 6300 | D | 640 | D |
| SW8260B | Toluene | ug/kg | 4.3 | U | 5 | U | 0.69 | J | 5.8 | U |
| SW8260B | trans-1,2-Dichloroethene | ug/kg | 4.3 | U | 5 | U | 4.4 | U | 5.8 | U |
| SW8260B | trans-1,3-Dichloropropene | ug/kg | 4.3 | U | 5 | U | 4.4 | U | 5.8 | U |
| SW8260B | Trichloroethene | ug/kg | 4.3 | U | 3.1 | J | 4.4 | U | 2.1 | J |
| SW8260B | Trichlorofluoromethane | ug/kg | 4.3 | UJ | 5 | UJ | 4.4 | UJ | 5.8 | U |
| SW8260B | Vinyl chloride | ug/kg | 4.3 | U | 5 | U | 4.4 | U | 5.8 | U |
| SW8260B | Xylene, m/p | ug/kg | 8.6 | U | 10 | U | 8.7 | U | 12 | U |
| SW8260B | Xylene, o | ug/kg | 4.3 | U | 5 | U | 4.4 | U | 5.8 | U |

Notes:
ug/L = microgram per liter
mg/L = milligram per liter
Qualifiers
U = not detected at the reporting limit
J = estimated concentration
QC Code
FS = Field Sample, FD = Field Duplicate

TABLE 2
SUMMARY OF ANALYTICAL RESULTS
DATA USABILITY SUMMARY REPORT
DECEMBER 2010 SOIL SAMPLING
LOOHNS DRY CLEANERS
CORNING, NEW YORK

| | | Location | SC2513 | | SC2513 | | SC2520 | |
|---|---|---|---|---|---|---|---|---|
| | | Sample Date | 12/8/2010 | | 12/8/2010 | | 12/8/2010 | |
| | | Sample ID | SC2513 | | SC2513DUP | | SC2520 | |
| | | Qc Code | FS | | FD | | FS | |
| **Analysis** | **Parameter** | **Units** | Result | Qualifier | Result | Qualifier | Result | Qualifier |
| SW8260B | 1,1,1-Trichloroethane | ug/kg | 5.8 | U | 5.9 | U | 5.7 | U |
| SW8260B | 1,1,2,2-Tetrachloroethane | ug/kg | 5.8 | U | 5.9 | U | 5.7 | U |
| SW8260B | 1,1,2-Trichloro-1,2,2-Trifluoroethane | ug/kg | 5.8 | U | 5.9 | U | 5.7 | U |
| SW8260B | 1,1,2-Trichloroethane | ug/kg | 5.8 | U | 5.9 | U | 5.7 | U |
| SW8260B | 1,1-Dichloroethane | ug/kg | 5.8 | U | 5.9 | U | 5.7 | U |
| SW8260B | 1,1-Dichloroethene | ug/kg | 5.8 | U | 5.9 | U | 5.7 | U |
| SW8260B | 1,2,4-Trichlorobenzene | ug/kg | 5.8 | U | 5.9 | U | 5.7 | U |
| SW8260B | 1,2-Dibromo-3-chloropropane | ug/kg | 5.8 | U | 5.9 | U | 5.7 | U |
| SW8260B | 1,2-Dibromoethane | ug/kg | 5.8 | U | 5.9 | U | 5.7 | U |
| SW8260B | 1,2-Dichlorobenzene | ug/kg | 5.8 | U | 5.9 | U | 5.7 | U |
| SW8260B | 1,2-Dichloroethane | ug/kg | 5.8 | U | 5.9 | U | 5.7 | U |
| SW8260B | 1,2-Dichloropropane | ug/kg | 5.8 | U | 5.9 | U | 5.7 | U |
| SW8260B | 1,3-Dichlorobenzene | ug/kg | 5.8 | U | 5.9 | U | 5.7 | U |
| SW8260B | 1,4-Dichlorobenzene | ug/kg | 5.8 | U | 5.9 | U | 5.7 | U |
| SW8260B | 2-Butanone | ug/kg | 29 | U | 29 | U | 29 | U |
| SW8260B | 2-Hexanone | ug/kg | 29 | U | 29 | U | 29 | U |
| SW8260B | 4-Methyl-2-pentanone | ug/kg | 29 | U | 29 | U | 29 | U |
| SW8260B | Acetic acid, methyl ester | ug/kg | 5.8 | U | 5.9 | U | 5.7 | U |
| SW8260B | Acetone | ug/kg | 29 | U | 29 | U | 29 | U |
| SW8260B | Benzene | ug/kg | 5.8 | U | 5.9 | U | 5.7 | U |
| SW8260B | Bromodichloromethane | ug/kg | 5.8 | U | 5.9 | U | 5.7 | U |
| SW8260B | Bromoform | ug/kg | 5.8 | U | 5.9 | U | 5.7 | U |
| SW8260B | Bromomethane | ug/kg | 5.8 | U | 5.9 | U | 5.7 | U |
| SW8260B | Carbon disulfide | ug/kg | 5.8 | U | 5.9 | U | 5.7 | U |
| SW8260B | Carbon tetrachloride | ug/kg | 5.8 | U | 5.9 | U | 5.7 | U |
| SW8260B | Chlorobenzene | ug/kg | 5.8 | U | 5.9 | U | 5.7 | U |
| SW8260B | Chlorodibromomethane | ug/kg | 5.8 | U | 5.9 | U | 5.7 | U |
| SW8260B | Chloroethane | ug/kg | 5.8 | U | 5.9 | U | 5.7 | U |
| SW8260B | Chloroform | ug/kg | 5.8 | U | 5.9 | U | 5.7 | U |
| SW8260B | Chloromethane | ug/kg | 5.8 | U | 5.9 | U | 5.7 | U |
| SW8260B | Cis-1,2-Dichloroethene | ug/kg | 5.8 | U | 5.9 | U | 5.7 | U |
| SW8260B | cis-1,3-Dichloropropene | ug/kg | 5.8 | U | 5.9 | U | 5.7 | U |
| SW8260B | Cyclohexane | ug/kg | 5.8 | U | 5.9 | U | 5.7 | U |
| SW8260B | Dichlorodifluoromethane | ug/kg | 5.8 | U | 5.9 | U | 5.7 | U |
| SW8260B | Ethyl benzene | ug/kg | 5.8 | U | 5.9 | U | 5.7 | U |
| SW8260B | Isopropylbenzene | ug/kg | 5.8 | U | 5.9 | U | 5.7 | U |
| SW8260B | Methyl cyclohexane | ug/kg | 5.8 | U | 5.9 | U | 5.7 | U |
| SW8260B | Methyl Tertbutyl Ether | ug/kg | 5.8 | U | 5.9 | U | 5.7 | U |
| SW8260B | Methylene chloride | ug/kg | 5.8 | U | 5.9 | U | 5.7 | U |
| SW8260B | Styrene | ug/kg | 5.8 | U | 5.9 | U | 5.7 | U |
| SW8260B | Tetrachloroethene | ug/kg | 200 | | 66 | | 14 | |
| SW8260B | Toluene | ug/kg | 5.8 | U | 5.9 | U | 5.7 | U |
| SW8260B | trans-1,2-Dichloroethene | ug/kg | 5.8 | U | 5.9 | U | 5.7 | U |
| SW8260B | trans-1,3-Dichloropropene | ug/kg | 5.8 | U | 5.9 | U | 5.7 | U |
| SW8260B | Trichloroethene | ug/kg | 5.8 | U | 5.9 | U | 5.7 | U |
| SW8260B | Trichlorofluoromethane | ug/kg | 5.8 | U | 5.9 | U | 5.7 | U |
| SW8260B | Vinyl chloride | ug/kg | 5.8 | U | 5.9 | U | 5.7 | U |
| SW8260B | Xylene, m/p | ug/kg | 12 | U | 12 | U | 11 | U |
| SW8260B | Xylene, o | ug/kg | 5.8 | U | 5.9 | U | 5.7 | U |

Notes:
ug/L = microgram per liter
mg/L = milligram per liter
Qualifiers
U = not detected at the reporting limit
J = estimated concentration
QC Code
FS = Field Sample, FD = Field Duplicate

TABLE 3
SUMMARY OF DATA VALIDATION ACTIONS
DATA USABILITY SUMMARY REPORT
DECEMBER 2010 SOIL SAMPLING
LOOHNS DRY CLEANERS
CORNING, NEW YORK

| SDG | Lab Sample Id | Analysis Method | Field Sample ID | Paramater Name | Lab Result | Lab Qualifier | Validated Result | Validation Qualifier | Val Reason Code | Result Units | Lab Id |
|---|---|---|---|---|---|---|---|---|---|---|---|
| B4458 | B4458-02 | SW8260B | EX-01-06 | Trichlorofluoromethane | 5.4 | U | 5.4 | UJ | CCV%D | ug/kg | CCGE |
| B4458 | B4458-03 | SW8260B | EX-02-06 | Trichlorofluoromethane | 4.8 | U | 4.8 | UJ | CCV%D | ug/kg | CCGE |
| B4458 | B4458-04 | SW8260B | EX-03-06 | Trichlorofluoromethane | 4.7 | U | 4.7 | UJ | CCV%D | ug/kg | CCGE |
| B4458 | B4458-06 | SW8260B | EX-04-06 | Trichlorofluoromethane | 4.4 | U | 4.4 | UJ | CCV%D | ug/kg | CCGE |
| B4458 | B4458-07 | SW8260B | EX-05-06 | Trichlorofluoromethane | 4.3 | U | 4.3 | UJ | CCV%D | ug/kg | CCGE |
| B4458 | B4458-08 | SW8260B | EX-06-04 | Acetone | 25 | U | 25 | UJ | CCV%D | ug/kg | CCGE |
| B4458 | B4458-08 | SW8260B | EX-06-04 | Trichlorofluoromethane | 5 | U | 5 | UJ | CCV%D | ug/kg | CCGE |
| B4458 | B4458-09 | SW8260B | EX-07-04 | Acetone | 22 | U | 22 | UJ | CCV%D | ug/kg | CCGE |
| B4458 | B4458-09 | SW8260B | EX-07-04 | Trichlorofluoromethane | 4.4 | U | 4.4 | UJ | CCV%D | ug/kg | CCGE |

Notes:

**Validation Qualifier Reason Codes-**

CCV%D = Continuing calibration percent difference limit exceeded

TABLE 4
SUMMARY OF TENTATIVELY IDENTIFIED COMPOUNDS
DATA USABILITY SUMMARY REPORT
DECEMBER 2010 SOIL SAMPLING
LOOHNS DRY CLEANERS
CORNING, NEW YORK

| SDG | Sample ID | Lab Sample ID | Analytical Method | CAS Number | Compound | Final Result (ug/kg) | Qualifier | Analysis Date |
|---|---|---|---|---|---|---|---|---|
| B4458 | EX-01-06 | B4458-02 | SW8260B | 000110-54-3 | Hexane | 6.6 | JN | 12/9/2010 |
| B4458 | EX-04-06 | B4458-06 | SW8260B | 000124-18-5 | Decane | 4.4 | JN | 12/9/2010 |
| B4458 | EX-07-04 | B4458-09 | SW8260B | 002847-72-5 | Decane, 4-methyl- | 47 | JN | 12/11/2010 |
| B4458 | EX-07-04 | B4458-09 | SW8260B | 004057-42-5 | 2-Octene, 2,6-dimethyl- | 41 | JN | 12/11/2010 |
| B4458 | EX-01-06 | B4458-02 | SW8260B | 60-29-7 | Diethyl ether | 8.7 | JN | 12/9/2010 |
| B4458 | EX-03-06 | B4458-04 | SW8260B | 60-29-7 | Diethyl ether | 4.6 | JN | 12/9/2010 |
| B4458 | EX-05-06 | B4458-07 | SW8260B | 60-29-7 | Diethyl ether | 6.6 | JN | 12/9/2010 |
| B4458 | EX-06-04 | B4458-08 | SW8260B | 60-29-7 | Diethyl ether | 5.3 | JN | 12/11/2010 |
| B4458 | EX-07-04 | B4458-09 | SW8260B | 95-63-6 | 1,2,4-Trimethylbenzene | 11 | JN | 12/11/2010 |
| B4458 | EX-07-04 | B4458-09 | SW8260B | 108-67-8 | 1,3,5-Trimethylbenzene | 43 | JN | 12/11/2010 |
| B4458 | EX-07-04 | B4458-09 | SW8260B | 622-96-8 | 4-Ethyltoluene | 5.9 | JN | 12/11/2010 |
| B4458 | EX-07-04 | B4458-09 | SW8260B | 99-87-6 | 4-iso-Propyltoluene | 13 | JN | 12/11/2010 |
| B4458 | EX-07-04 | B4458-09 | SW8260B | 95-93-2 | Benzene, 1,2,4,5-tetramethyl | 6.2 | JN | 12/11/2010 |
| B4458 | EX-07-04 | B4458-09 | SW8260B | 60-29-7 | Diethyl ether | 3.4 | JN | 12/11/2010 |
| B4458 | EX-07-04 | B4458-09 | SW8260B | 91-20-3 | Naphthalene | 0.98 | JN | 12/11/2010 |
| B4458 | EX-07-04 | B4458-09 | SW8260B | 104-51-8 | n-Butylbenzene | 14 | JN | 12/11/2010 |
| B4458 | EX-07-04 | B4458-09 | SW8260B | 135-98-8 | sec-Butylbenzene | 10 | JN | 12/11/2010 |

Notes:

**Qualifiers**

JN = estimated value with presumptive evidence that the compound is present in the sample

# APPENDIX F

# IRM SOIL TRANSPORT AND DISPOSAL DOCUMENTATION

**New York State Department of Environmental Conservation**
**Division of Environmental Remediation**
**Remedial Bureau A, 11th Floor**
625 Broadway, Albany, NY 12233-7015
**Phone:** (518) 402-9625 • **FAX:** (518) 402-9627
Website: **www.dec.ny.gov**

Peter M. Iwanowicz
Acting Commissioner

December 14, 2010

Mr. Eric Sandin, C.G.
Project Manager
MACTEC Engineering and Consulting
511 Congress St. Portland, ME 04101

RE: Hazardous Waste Determination Letter for Soil Cuttings
Loohns Corning Site (Site # 851028)

Dear Mr. Sandin:

We have completed our review of the data submitted with your December 13, 2010, request, via e mail, for a "contained in" determination at the referenced project site.

Concentration for tetrachloroethene and trichloroethene were below the soil "contained in" action level and the Land Disposal Restriction concentration. Therefore, the three (3) containers containing soil generated during the soil removal, approximately 50 tons of soil, at the referenced project site do not have to be managed as hazardous waste and can be transported off site to a Permitted Part 360 Solid Waste Facility with a liner and leachate collection system. Please provide the Department the name and address of the facility that will receive it.

Should you have any questions regarding the content of this letter, please do not hesitate to contact me at (518) 402-9622 or email me at hjwilkie@gw.dec.state.ny.us.

Sincerely,

Henry Wilkie
Environmental Engineer 1
Remedial Section B

ecc: M. Dunham

# NON-HAZARDOUS WASTE MANIFEST

Please print or type (Form designed for use on elite (12 pitch) typewriter)

| NON-HAZARDOUS WASTE MANIFEST | 1. Generator's US EPA ID No. NYD980773816 | Manifest Document No. 17321 | 2. Page 1 of 1 |
|---|---|---|---|

3. Generator's Name and Mailing Address
Loohns Cleaners & Launderers
37 East Pulteney Street
Corning, NY 14830

4. Generator's Phone ( ) 207-775-5401 Attn: Eric Sandin

| 5. Transporter 1 Company Name | 6. US EPA ID Number | A. State Transporter's ID |
|---|---|---|
| Page Transportation | NYD986969947 | B. Transporter 1 Phone 1-800-233-2126 |
| 7. Transporter 2 Company Name | 8. US EPA ID Number | C. State Transporter's ID |
| | | D. Transporter 2 Phone |
| 9. Designated Facility Name and Site Address | 10. US EPA ID Number | E. State Facility's ID |
| Bath Landfill<br>5632 Turnpike Road<br>Bath, NY 14810 | N / A | F. Facility's Phone (607) 776-9245 |

GENERATOR

| 11. WASTE DESCRIPTION | 12. Containers No. | Type | 13. Total Quantity | 14. Unit Wt./Vol. |
|---|---|---|---|---|
| a. Non Regulated Material (Solid) | 001 | DT | ~~EST.~~ 20 | T |
| b. | | | | |
| c. | | | | |
| d. | | | | |

G. Additional Descriptions for Materials Listed Above

a. Approval # c.

b d.

H. Handling Codes for Wastes Listed Above

a. L c

b. d.

15. Special Handling Instructions and Additional Information

**Emergency Response # 800-225-6750 Op-Tech Environmental Services, Inc. PA-AH 0599**
**Job # WMAE0007**

16. **GENERATOR'S CERTIFICATION:** I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this manifest are not subject to federal hazardous waste regulations.

| Printed/Typed Name | Signature | Date Month Day Year |
|---|---|---|
| Dennis Ritter | [signature] | 1 / 11 / 11 |

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

| Printed/Typed Name | Signature | Date Month Day Year |
|---|---|---|
| Larry L Denmen | Larry L Denmen | |

18. Transporter 2 Acknowledgement of Receipt of Materials

| Printed/Typed Name | Signature | Date Month Day Year |
|---|---|---|
| | | |

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of the waste materials covered by this manifest, except as noted in item 19.

| Printed/Typed Name | Signature | Date Month Day Year |
|---|---|---|
| [signature] | [signature] | 1 / 11 / 11 |

NON-HAZARDOUS WASTE

# NON-HAZARDOUS WASTE MANIFEST

Please print or type (Form designed for use on elite (12 pitch) typewriter)

| NON-HAZARDOUS WASTE MANIFEST | 1. Generator's US EPA ID No. NYD980773816 | Manifest Document No. 17320 | 2. Page 1 of 1 |
|---|---|---|---|

3. Generator's Name and Mailing Address
Loohns Cleaners & Launderers
37 East Pulteney Street
Corning, NY 14830

4. Generator's Phone ( ) 207-775-5401 Attn: Eric Sandin

| | | |
|---|---|---|
| 5. Transporter 1 Company Name: Page Transportation | 6. US EPA ID Number: N Y D 9 8 6 9 6 9 9 4 7 | A. State Transporter's ID |
| | | B. Transporter 1 Phone: 1-800-233-2126 |
| 7. Transporter 2 Company Name | 8. US EPA ID Number | C. State Transporter's ID |
| | | D. Transporter 2 Phone |
| 9. Designated Facility Name and Site Address: Bath Landfill, 5632 Turnpike Road, Bath, NY 14810 | 10. US EPA ID Number: N / A | E. State Facility's ID |
| | | F. Facility's Phone: (607) 776-9245 |

| 11. WASTE DESCRIPTION | Containers No. | Containers Type | 13. Total Quantity | 14. Unit Wt./Vol. |
|---|---|---|---|---|
| a. Non Regulated Material (Solid) | 001 | DT | ~~Est.~~ 20 | T |
| b. | | | | |
| c. | | | | |
| d. | | | | |

G. Additional Descriptions for Materials Listed Above

a. Approval # c.

b d.

H. Handling Codes for Wastes Listed Above

a. L c

b. d.

15. Special Handling Instructions and Additional Information

**Emergency Response # 800-225-6750 Op-Tech Environmental Services, Inc. PA-AH 0599**
**Job # WMAE0007**

**16. GENERATOR'S CERTIFICATION:** I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this manifest are not subject to federal hazardous waste regulations.

| Printed/Typed Name | Signature | Date Month / Day / Year |
|---|---|---|
| David Ritter | [signature] | 1 / 11 / 11 |

17. Transporter 1 Acknowledgement of Receipt of Materials

| Printed/Typed Name | Signature | Date Month / Day / Year |
|---|---|---|
| Larry L Denman | Larry L Denman | 1 / 11 / 11 |

18. Transporter 2 Acknowledgement of Receipt of Materials

| Printed/Typed Name | Signature | Date Month / Day / Year |
|---|---|---|
| | | |

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of the waste materials covered by this manifest, except as noted in item 19.

| Printed/Typed Name | Signature | Date Month / Day / Year |
|---|---|---|
| [signature] | [signature] | 1 / 11 / 11 |

GENERATOR — TRANSPORTER — FACILITY — NON-HAZARDOUS WASTE

# NON-HAZARDOUS WASTE MANIFEST

Please print or type (Form designed for use on elite (12 pitch) typewriter)

**NON-HAZARDOUS WASTE MANIFEST**

1. Generator's US EPA ID No. NYD980773816

Manifest Document No. 17319

2. Page 1 of 1

3. Generator's Name and Mailing Address
Loohns Cleaners & Launderers
37 East Pulteney Street
Corning, NY 14830

4. Generator's Phone ( ) 207-775-5401 Attn: Eric Sandin

5. Transporter 1 Company Name: Page Transportation

6. US EPA ID Number: YD986969947

A. State Transporter's ID

B. Transporter 1 Phone: 1-800-233-2126

7. Transporter 2 Company Name

8. US EPA ID Number

C. State Transporter's ID

D. Transporter 2 Phone

9. Designated Facility Name and Site Address
Bath Landfill
5632 Turnpike Road
Bath, NY 14810

10. US EPA ID Number: N / A

E. State Facility's ID

F. Facility's Phone: (607) 776-9245

| 11. WASTE DESCRIPTION | 12. Containers No. | Type | 13. Total Quantity | 14. Unit Wt./Vol. |
|---|---|---|---|---|
| a. Non Regulated Material (Solid) | 001 | DT | ~~EST.~~ 20 | T |
| b. | | | | |
| c. | | | | |
| d. | | | | |

GENERATOR

G. Additional Descriptions for Materials Listed Above

a. Approval #
b
c.
d.

H. Handling Codes for Wastes Listed Above

a. L
b.
c
d.

15. Special Handling Instructions and Additional Information

**Emergency Response # 800-225-6750 Op-Tech Environmental Services, Inc. PA-AH 0599**
**Job # WMAE0007**

16. **GENERATOR'S CERTIFICATION:** I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this manifest are not subject to federal hazardous waste regulations.

Printed/Typed Name: David Ritter
Signature: [signature]
Date: Month 1 Day 11 Year 11

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: Larry L Denman
Signature: Larry L Denman
Date: Month 1 Day 11 Year 11

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name
Signature
Date: Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of the waste materials covered by this manifest, except as noted in item 19.

Printed/Typed Name: [signature]
Signature: [signature]
Date: Month 1 Day 11 Year 11

NON-HAZARDOUS WASTE

# APPENDIX G

# IRM SURVEYS

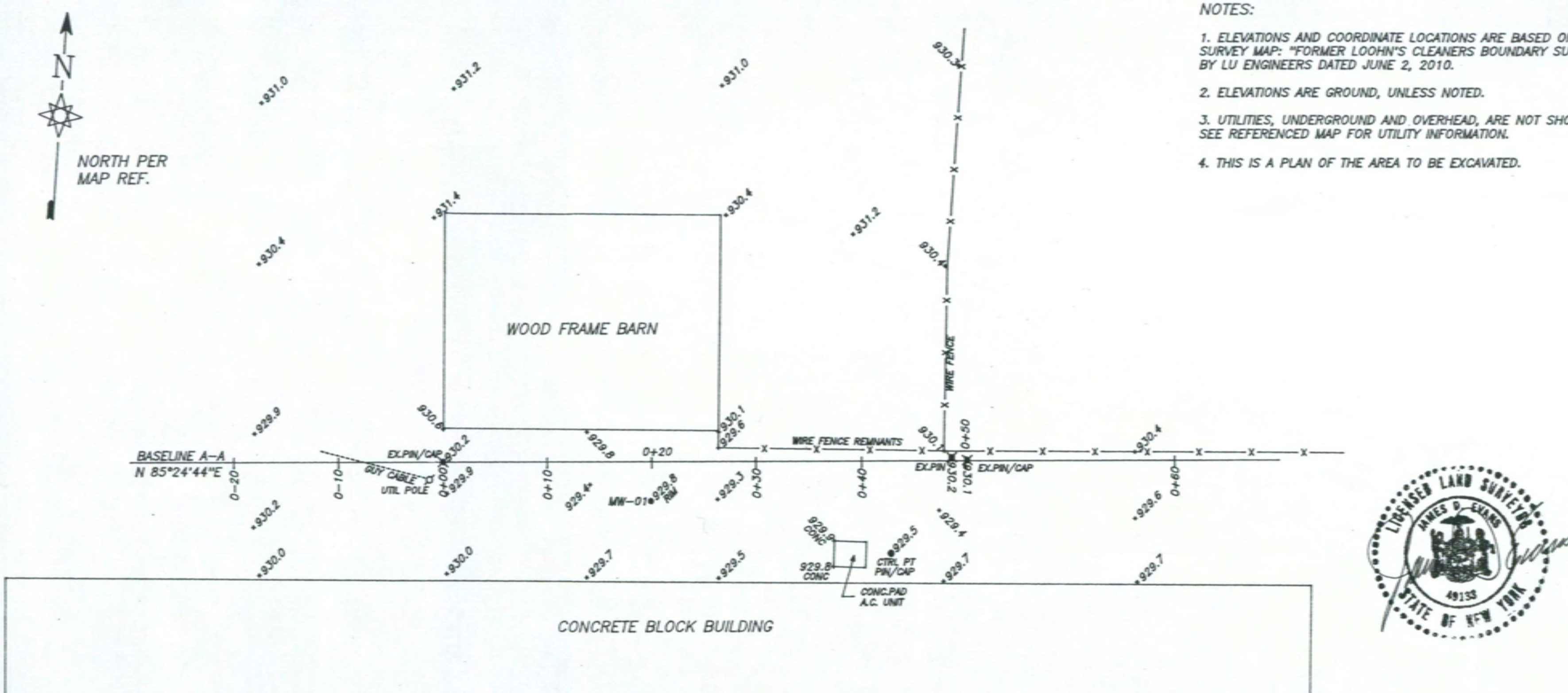
NOTES:

1. ELEVATIONS AND COORDINATE LOCATIONS ARE BASED ON SURVEY MAP: "FORMER LOOHN'S CLEANERS BOUNDARY SURVEY" BY LU ENGINEERS DATED JUNE 2, 2010.

2. ELEVATIONS ARE GROUND, UNLESS NOTED.

3. UTILITIES, UNDERGROUND AND OVERHEAD, ARE NOT SHOWN. SEE REFERENCED MAP FOR UTILITY INFORMATION.

4. THIS IS A PLAN OF THE AREA TO BE EXCAVATED.




CERTIFICATION :

THIS IS TO CERTIFY TO THE FOLLOWING THAT I AM A LICENSED LAND SURVEYOR AND THAT THIS PLAN WAS COMPLETED ON NOV. 30, 2010 USING FIELD NOTES FROM AN INSTRUMENT SURVEY COMPLETED ON NOV. 29, 2010.

SIGNED : James D. Evans
JAMES D. EVANS, L.S. #49133

10 0 10 20 30
GRAPHIC SCALE – FEET

UNAUTHORIZED ALTERATION OR ADDITION TO A SURVEY MAP BEARING A LICENSED LAND SURVEYOR'S SEAL IS A VIOLATION OF SECTION 7209, SUB-DIVISION 2, OF THE NEW YORK STATE EDUCATION LAW.

COPIES FROM THE ORIGINAL OF THIS SURVEY MAP NOT MARKED WITH AN ORIGINAL OF THE LAND SURVEYOR'S INKED SEAL OR HIS EMBOSSED SEAL SHALL NOT BE CONSIDERED TO BE A VALID TRUE COPY.

ELEVATION SURVEY ON LAND OF

35–55 EAST PULTENEY STREET, LLC

CITY OF CORNING
STEUBEN COUNTY, NEW YORK STATE.

JAMES D. EVANS

Licensed Land Surveyor
168 dodge ave., corning, n.y.

SCALE : 1" = 10'     JOB NO. 4262

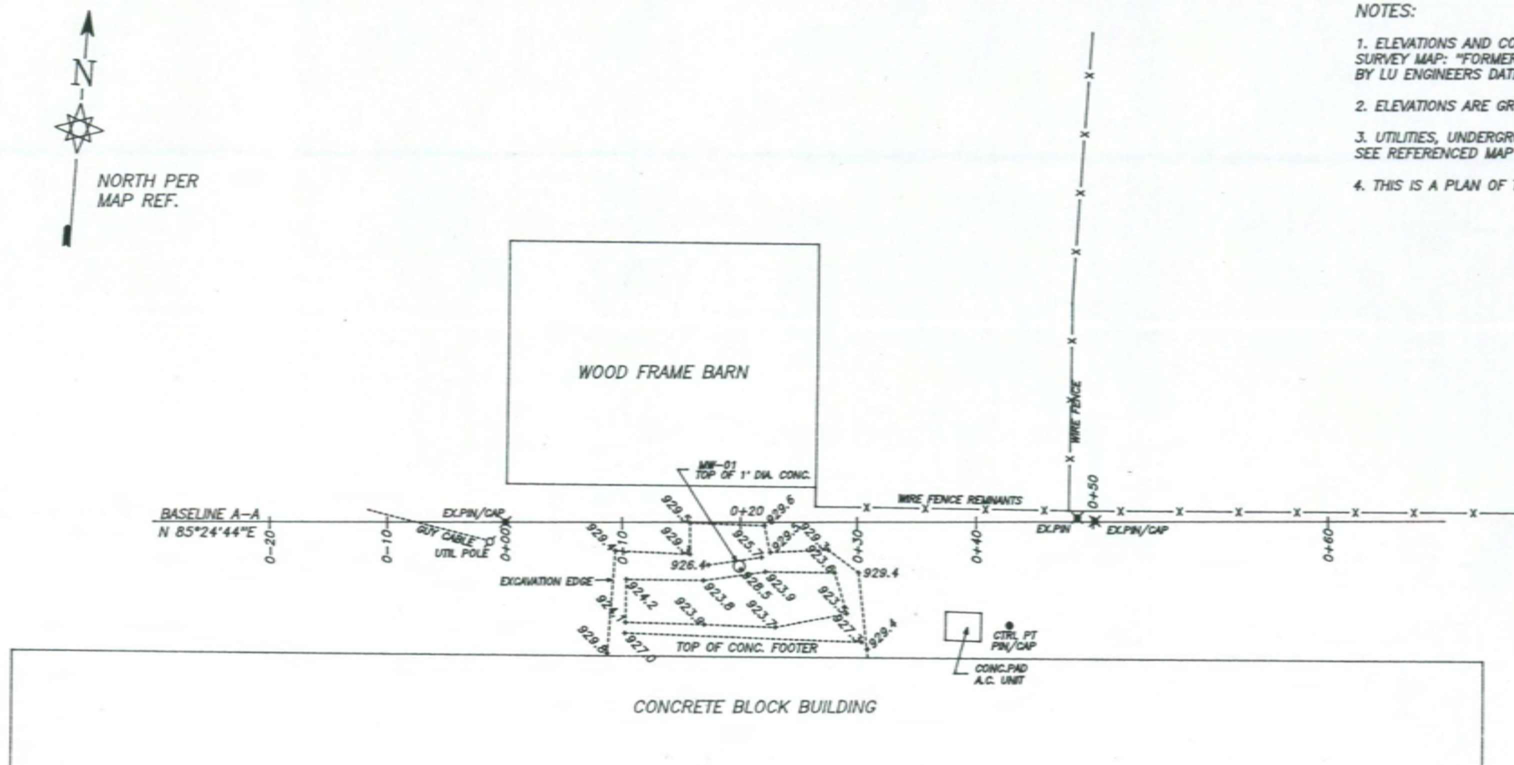
NOTES:

1. ELEVATIONS AND COORDINATE LOCATIONS ARE BASED ON SURVEY MAP: "FORMER LOOHN'S CLEANERS BOUNDARY SURVEY" BY LU ENGINEERS DATED JUNE 2, 2010.

2. ELEVATIONS ARE GROUND, UNLESS NOTED.

3. UTILITIES, UNDERGROUND AND OVERHEAD, ARE NOT SHOWN. SEE REFERENCED MAP FOR UTILITY INFORMATION.

4. THIS IS A PLAN OF THE EXCAVATED PIT.




CERTIFICATION :

THIS IS TO CERTIFY TO THE FOLLOWING THAT I AM A LICENSED LAND SURVEYOR AND THAT THIS PLAN WAS COMPLETED ON DEC. 9, 2010 USING FIELD NOTES FROM AN INSTRUMENT SURVEY COMPLETED ON DEC. 8, 2010.

SIGNED : James D. Evans

JAMES D. EVANS, L.S. #49133

10 0 10 20 30

GRAPHIC SCALE – FEET

UNAUTHORIZED ALTERATION OR ADDITION TO A SURVEY MAP BEARING A LICENSED LAND SURVEYOR'S SEAL IS A VIOLATION OF SECTION 7209, SUB-DIVISION 2, OF THE NEW YORK STATE EDUCATION LAW.

COPIES FROM THE ORIGINAL OF THIS SURVEY MAP NOT MARKED WITH AN ORIGINAL OF THE LAND SURVEYOR'S INKED SEAL OR HIS EMBOSSED SEAL SHALL NOT BE CONSIDERED TO BE A VALID TRUE COPY.

LICENSED LAND SURVEYOR JAMES D. EVANS 49133 STATE OF NEW YORK

ELEVATION SURVEY ON LAND OF

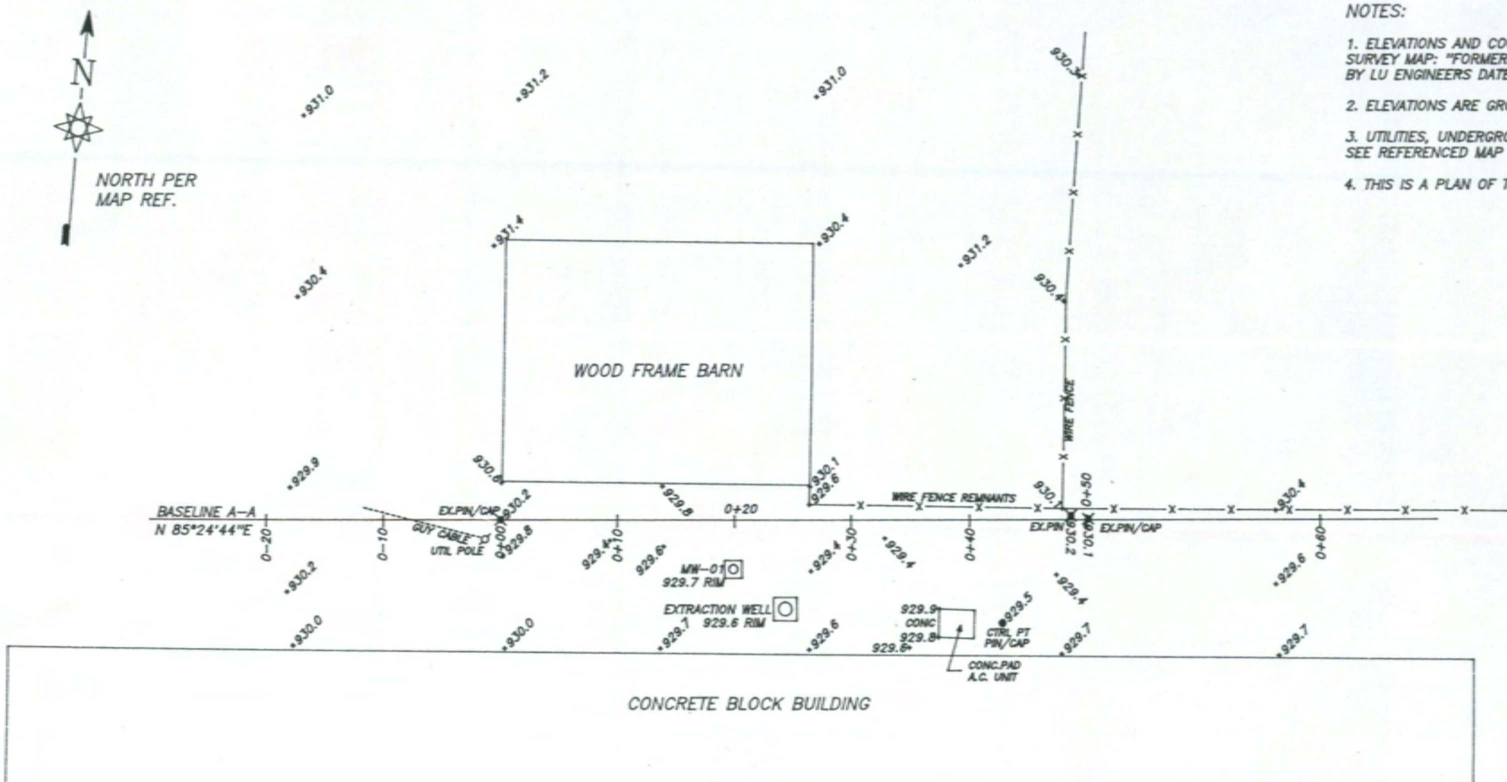
## 35–55 EAST PULTENEY STREET, LLC

CITY OF CORNING
STEUBEN COUNTY, NEW YORK STATE.

## JAMES D. EVANS

Licensed Land Surveyor
168 dodge ave., corning, n.y.

SCALE : 1" = 10'    JOB NO. 4262




NOTES:

1. ELEVATIONS AND COORDINATE LOCATIONS ARE BASED ON SURVEY MAP: "FORMER LOOHN'S CLEANERS BOUNDARY SURVEY" BY LU ENGINEERS DATED JUNE 2, 2010.

2. ELEVATIONS ARE GROUND, UNLESS NOTED.

3. UTILITIES, UNDERGROUND AND OVERHEAD, ARE NOT SHOWN. SEE REFERENCED MAP FOR UTILITY INFORMATION.

4. THIS IS A PLAN OF THE PROJECT AREA AFTER COMPLETION.

CERTIFICATION :

THIS IS TO CERTIFY TO THE FOLLOWING THAT I AM A LICENSED LAND SURVEYOR AND THAT THIS PLAN WAS COMPLETED ON DEC. 17, 2010 USING FIELD NOTES FROM AN INSTRUMENT SURVEY COMPLETED ON DEC. 15, 2010.

SIGNED : *James D. Evans*
JAMES D. EVANS, L.S. #49133

10 0 10 20 30
GRAPHIC SCALE – FEET

UNAUTHORIZED ALTERATION OR ADDITION TO A SURVEY MAP BEARING A LICENSED LAND SURVEYOR'S SEAL IS A VIOLATION OF SECTION 7209, SUB-DIVISION 2, OF THE NEW YORK STATE EDUCATION LAW.

COPIES FROM THE ORIGINAL OF THIS SURVEY MAP NOT MARKED WITH AN ORIGINAL OF THE LAND SURVEYOR'S INKED SEAL OR HIS EMBOSSED SEAL SHALL NOT BE CONSIDERED TO BE A VALID TRUE COPY.

LICENSED LAND SURVEYOR JAMES D. EVANS 49133 STATE OF NEW YORK

ELEVATION SURVEY ON LAND OF

**35–55 EAST PULTENEY STREET, LLC**

CITY OF CORNING
STEUBEN COUNTY, NEW YORK STATE.

JAMES D. EVANS

Licensed Land Surveyor
168 dodge ave., corning, n.y.

SCALE : 1" = 10' JOB NO. 4262

# APPENDIX H

# IRM FIELD LOGS

MACTEC, Inc.



# FIELD DATA RECORD - SURFACE SOIL SAMPLING / TEST PITS

PROJECT Loohns Corning IRM    JOB NUMBER 3612102148 03.01    DATE 12/7/2010

FIELD SAMPLE NUMBER SC2509    ACTIVITY TIME START    END    BOTTLE TIME 1320

QC SAMPLES COLLECTED

**SURFACE SOIL DATA**    ASSOCIATED TRIP BLANK    RINSATE BLANK

DEPTH OF SOIL

| TYPE OF SAMPLE | | TYPE OF SOIL: | | EQUIPMENT FOR COLLECTION | | DECON FLUIDS USED | |
|---|---|---|---|---|---|---|---|
| | DISCRETE | | ORGANIC | | HAND CORER | | DI WATER N2 PURGE |
| x | COMPOSITE | | SAND | x | S.S. SPOON | | POTABLE WATER |
| | | x | GRAVEL | x | ALUMINIUM PAN | | LIQUINOX |
| | | | CLAY | | S.S. SPATULA | | OTHER ___________________ |
| | | | OTHER_____________ | | OTHER _______________ | | |

SAMPLE OBSERVATIONS

ODOR ___ None

COLOR __ Dark Brown

**ANALYTICAL PARAMETERS**

| SOIL | METHOD NUMBER | PRESERVATION METHOD | BOTTLE TYPE VOLUME REQUIRED | SAMPLE COLLECTED |
|---|---|---|---|---|
| | TCL-VOA | 4 C | (1) 4 oz jar | x |
| | TCL-VOA | 4 C | 40 mL vial w/ DI Water | |
| | TCL-VOA | 4 C | 40 mL vial w/ MeOH | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

**NOTES/SKETCH:**

Sample from roll-off container SC2509
Dark brown silty gravel,(GM) damp, no odor
PID=0

SAMPLED BY: Dave Lovejoy

RECEIVED BY: ____________________

MACTEC, Inc.



# FIELD DATA RECORD - SURFACE SOIL SAMPLING / TEST PITS

PROJECT Loohns Corning IRM

JOB NUMBER 3612102148 03.01

DATE 12/7/2010

FIELD SAMPLE NUMBER EX-01-06

ACTIVITY TIME START END

BOTTLE TIME 1450

QC SAMPLES COLLECTED

**SURFACE SOIL DATA** ASSOCIATED TRIP BLANK RINSATE BLANK

DEPTH OF SOIL 6ft

| | TYPE OF SOIL: | EQUIPMENT FOR COLLECTION | DECON FLUIDS USED |
|---|---|---|---|
| TYPE OF SAMPLE [x] DISCRETE | [ ] ORGANIC | [ ] HAND CORER | [ ] DI WATER N2 PURGE |
| [ ] COMPOSITE | [ ] SAND | [x] S.S. SPOON | [ ] POTABLE WATER |
| SAMPLE OBSERVATIONS | [x] GRAVEL | [x] ALUMINIUM PAN | [ ] LIQUINOX |
| ODOR ___ None | [ ] CLAY | [ ] S.S. SPATULA | [ ] OTHER ___________________ |
| COLOR ___ Dark Brown | [ ] OTHER_____________ | [ ] OTHER _______________ | |

**ANALYTICAL PARAMETERS**

| SOIL | METHOD NUMBER | PRESERVATION METHOD | BOTTLE TYPE VOLUME REQUIRED | SAMPLE COLLECTED |
|---|---|---|---|---|
| [ ] | TCL-VOA | 4 C | (1) 4 oz jar | [ ] |
| [ ] | TCL-VOA | 4 C | 40 mL vial w/ DI Water | [x] |
| [ ] | TCL-VOA | 4 C | 40 mL vial w/ MeOH | [X] |
| [ ] | | | | [ ] |
| [ ] | | | | [ ] |
| [ ] | | | | [ ] |
| [ ] | | | | [ ] |

**NOTES/SKETCH:**

Bottom sample
Dark brown silty gravel,(GP) damp, no odor
PID=0

SAMPLED BY: Dave Lovejoy

RECEIVED BY: ______________________

MACTEC, Inc.



## FIELD DATA RECORD - SURFACE SOIL SAMPLING / TEST PITS

PROJECT: Loohns Corning IRM
JOB NUMBER: 3612102148 03.01
DATE: 12/7/2010

FIELD SAMPLE NUMBER: EX-02-06
ACTIVITY TIME: START END
BOTTLE TIME: 1500

QC SAMPLES COLLECTED:

**SURFACE SOIL DATA** ASSOCIATED TRIP BLANK RINSATE BLANK

DEPTH OF SOIL: 6ft

TYPE OF SAMPLE: [ ] DISCRETE [x] COMPOSITE

TYPE OF SOIL: [ ] ORGANIC [ ] SAND [x] GRAVEL [ ] CLAY [ ] OTHER____________

EQUIPMENT FOR COLLECTION: [ ] HAND CORER [x] S.S. SPOON [x] ALUMINIUM PAN [ ] S.S. SPATULA [ ] OTHER _______________

DECON FLUIDS USED: [ ] DI WATER N2 PURGE [ ] POTABLE WATER [ ] LIQUINOX [ ] OTHER __________________

SAMPLE OBSERVATIONS

ODOR ___ None

COLOR ___ Dark Brown

**ANALYTICAL PARAMETERS**

| SOIL | METHOD NUMBER | PRESERVATION METHOD | BOTTLE TYPE VOLUME REQUIRED | SAMPLE COLLECTED |
|---|---|---|---|---|
| [ ] | TCL-VOA | 4 C | (1) 4 oz jar | [ ] |
| [ ] | TCL-VOA | 4 C | 40 mL vial w/ DI Water | x |
| [ ] | TCL-VOA | 4 C | 40 mL vial w/ MeOH | x |
| [ ] | | | | [ ] |
| [ ] | | | | [ ] |
| [ ] | | | | [ ] |
| [ ] | | | | [ ] |

**NOTES/SKETCH:**

Bottom sample
Dark brown silty gravel,(GP) damp, no odor
PID=0

SAMPLED BY: Dave Lovejoy

RECEIVED BY: ______________________

MACTEC, Inc.

# FIELD DATA RECORD - SURFACE SOIL SAMPLING / TEST PITS

PROJECT: Loohns Corning IRM

JOB NUMBER: 3612102148 03.01

DATE: 12/7/2010

FIELD SAMPLE NUMBER: EX-03-06

ACTIVITY TIME: START END

BOTTLE TIME: 1520

QC SAMPLES COLLECTED:

**SURFACE SOIL DATA**

ASSOCIATED TRIP BLANK:

RINSATE BLANK:

DEPTH OF SOIL: 6ft

| TYPE OF SAMPLE | TYPE OF SOIL: | EQUIPMENT FOR COLLECTION | DECON FLUIDS USED |
|---|---|---|---|
| [X] DISCRETE | [ ] ORGANIC | [ ] HAND CORER | [ ] DI WATER N2 PURGE |
| [ ] COMPOSITE | [ ] SAND | [X] S.S. SPOON | [ ] POTABLE WATER |
| SAMPLE OBSERVATIONS | [X] GRAVEL | [X] ALUMINIUM PAN | [ ] LIQUINOX |
| ODOR ___ None | [ ] CLAY | [ ] S.S. SPATULA | [ ] OTHER ___________ |
| COLOR ___ Dark Brown | [ ] OTHER___________ | [ ] OTHER ___________ | |

**ANALYTICAL PARAMETERS**

| SOIL | METHOD NUMBER | PRESERVATION METHOD | BOTTLE TYPE VOLUME REQUIRED | SAMPLE COLLECTED |
|---|---|---|---|---|
| [ ] | TCL-VOA | 4 C | (1) 4 oz jar | [ ] |
| [ ] | TCL-VOA | 4 C | 40 mL vial w/ DI Water | [X] |
| [ ] | TCL-VOA | 4 C | 40 mL vial w/ MeOH | [X] |
| [ ] | | | | [ ] |
| [ ] | | | | [ ] |
| [ ] | | | | [ ] |
| [ ] | | | | [ ] |

**NOTES/SKETCH:**

Bottom sample
Dark brown silty gravel,(GP) damp, no odor
PID=0

SAMPLED BY: Dave Lovejoy

RECEIVED BY: ____________________

MACTEC, Inc.

# FIELD DATA RECORD - SURFACE SOIL SAMPLING / TEST PITS

PROJECT Loohns Corning IRM

JOB NUMBER 3612102148 03.01

DATE 12/8/2010

FIELD SAMPLE NUMBER EX-04-06

ACTIVITY TIME START END

BOTTLE TIME 920

QC SAMPLES COLLECTED

**SURFACE SOIL DATA** ASSOCIATED TRIP BLANK RINSATE BLANK

DEPTH OF SOIL 6ft

TYPE OF SAMPLE [X] DISCRETE [ ] COMPOSITE

TYPE OF SOIL: [ ] ORGANIC [ ] SAND [X] GRAVEL [ ] CLAY [ ] OTHER____________

EQUIPMENT FOR COLLECTION: [ ] HAND CORER [X] S.S. SPOON [X] ALUMINIUM PAN [ ] S.S. SPATULA [ ] OTHER _______________

DECON FLUIDS USED: [ ] DI WATER N2 PURGE [ ] POTABLE WATER [ ] LIQUINOX [ ] OTHER __________________

SAMPLE OBSERVATIONS

ODOR ___ None

COLOR ___ Dark Brown

**ANALYTICAL PARAMETERS**

| SOIL | METHOD NUMBER | PRESERVATION METHOD | BOTTLE TYPE VOLUME REQUIRED | SAMPLE COLLECTED |
|---|---|---|---|---|
| [ ] | TCL-VOA | 4 C | (1) 4 oz jar | [ ] |
| [ ] | TCL-VOA | 4 C | 40 mL vial w/ DI Water | X |
| [ ] | TCL-VOA | 4 C | 40 mL vial w/ MeOH | X |
| [ ] | | | | [ ] |
| [ ] | | | | [ ] |
| [ ] | | | | [ ] |
| [ ] | | | | [ ] |

**NOTES/SKETCH:**

Bottom sample
Dark brown silty gravel,(GP) damp, no odor
PID=0.1

SAMPLED BY: Dave Lovejoy

RECEIVED BY: ____________________

MACTEC, Inc.

# FIELD DATA RECORD - SURFACE SOIL SAMPLING / TEST PITS

PROJECT: Loohns Corning IRM
JOB NUMBER: 3612102148 03.01
DATE: 12/8/2010

FIELD SAMPLE NUMBER: EX-05-06
ACTIVITY TIME: START END
BOTTLE TIME: 1000

QC SAMPLES COLLECTED:

**SURFACE SOIL DATA** ASSOCIATED TRIP BLANK: RINSATE BLANK:

DEPTH OF SOIL: 6ft

TYPE OF SAMPLE: [X] DISCRETE [ ] COMPOSITE

TYPE OF SOIL: [ ] ORGANIC [ ] SAND [X] GRAVEL [ ] CLAY [ ] OTHER____________

EQUIPMENT FOR COLLECTION: [ ] HAND CORER [X] S.S. SPOON [X] ALUMINIUM PAN [ ] S.S. SPATULA [ ] OTHER _______________

DECON FLUIDS USED: [ ] DI WATER N2 PURGE [ ] POTABLE WATER [ ] LIQUINOX [ ] OTHER __________________

SAMPLE OBSERVATIONS

ODOR ___ None

COLOR ___ Dark Brown

**ANALYTICAL PARAMETERS**

| SOIL | METHOD NUMBER | PRESERVATION METHOD | BOTTLE TYPE VOLUME REQUIRED | SAMPLE COLLECTED |
|---|---|---|---|---|
| [ ] | TCL-VOA | 4 C | (1) 4 oz jar | [ ] |
| [ ] | TCL-VOA | 4 C | 40 mL vial w/ DI Water | X |
| [ ] | TCL-VOA | 4 C | 40 mL vial w/ MeOH | X |
| [ ] | | | | [ ] |
| [ ] | | | | [ ] |
| [ ] | | | | [ ] |
| [ ] | | | | [ ] |

**NOTES/SKETCH:**

Bottom sample
Dark brown silty gravel,(GP) damp, no odor
PID=0

SAMPLED BY: Dave Lovejoy

RECEIVED BY: ______________________

MACTEC, Inc.



# FIELD DATA RECORD - SURFACE SOIL SAMPLING / TEST PITS

PROJECT Loohns Corning IRM

JOB NUMBER 3612102148 03.01

DATE 12/8/2010

FIELD SAMPLE NUMBER EX-06-04

ACTIVITY TIME START END

BOTTLE TIME 1030

QC SAMPLES COLLECTED

**SURFACE SOIL DATA** ASSOCIATED TRIP BLANK RINSATE BLANK

DEPTH OF SOIL 4ft

TYPE OF SAMPLE: [X] DISCRETE [ ] COMPOSITE

TYPE OF SOIL: [ ] ORGANIC [ ] SAND [X] GRAVEL [ ] CLAY [ ] OTHER____________

EQUIPMENT FOR COLLECTION: [ ] HAND CORER [X] S.S. SPOON [X] ALUMINIUM PAN [ ] S.S. SPATULA [ ] OTHER _______________

DECON FLUIDS USED: [ ] DI WATER N2 PURGE [ ] POTABLE WATER [ ] LIQUINOX [ ] OTHER __________________

SAMPLE OBSERVATIONS

ODOR ___ None

COLOR ___ Dark Brown

**ANALYTICAL PARAMETERS**

| SOIL | METHOD NUMBER | PRESERVATION METHOD | BOTTLE TYPE VOLUME REQUIRED | SAMPLE COLLECTED |
|---|---|---|---|---|
| [ ] | TCL-VOA | 4 C | (1) 4 oz jar | [ ] |
| [ ] | TCL-VOA | 4 C | 40 mL vial w/ DI Water | X |
| [ ] | TCL-VOA | 4 C | 40 mL vial w/ MeOH | X |
| [ ] | | | | [ ] |
| [ ] | | | | [ ] |
| [ ] | | | | [ ] |
| [ ] | | | | [ ] |

**NOTES/SKETCH:**

Sidewall sample
Dark brown silty gravel,(GP) damp, no odor
PID=0.2

SAMPLED BY: Dave Lovejoy

RECEIVED BY: ____________________

MACTEC, Inc.



## FIELD DATA RECORD - SURFACE SOIL SAMPLING / TEST PITS

PROJECT: Loohns Corning IRM

JOB NUMBER: 3612102148 03.01

DATE: 12/8/2010

FIELD SAMPLE NUMBER: EX-07-06

ACTIVITY TIME: START ____ END ____

BOTTLE TIME: 1055

QC SAMPLES COLLECTED:

**SURFACE SOIL DATA**

ASSOCIATED TRIP BLANK:

RINSATE BLANK:

DEPTH OF SOIL: 4ft

| TYPE OF SAMPLE | TYPE OF SOIL: | EQUIPMENT FOR COLLECTION | DECON FLUIDS USED |
|---|---|---|---|
| [x] DISCRETE | [ ] ORGANIC | [ ] HAND CORER | [ ] DI WATER N2 PURGE |
| [ ] COMPOSITE | [ ] SAND | [x] S.S. SPOON | [ ] POTABLE WATER |
| | [x] GRAVEL | [x] ALUMINIUM PAN | [ ] LIQUINOX |
| | [ ] CLAY | [ ] S.S. SPATULA | [ ] OTHER ____ |
| | [ ] OTHER____ | [ ] OTHER ____ | |

SAMPLE OBSERVATIONS

ODOR ___ None

COLOR ___ Dark Brown

**ANALYTICAL PARAMETERS**

| SOIL | METHOD NUMBER | PRESERVATION METHOD | BOTTLE TYPE VOLUME REQUIRED | SAMPLE COLLECTED |
|---|---|---|---|---|
| [ ] | TCL-VOA | 4 C | (1) 4 oz jar | [ ] |
| [ ] | TCL-VOA | 4 C | 40 mL vial w/ DI Water | X |
| [ ] | TCL-VOA | 4 C | 40 mL vial w/ MeOH | X |
| [ ] | | | | [ ] |
| [ ] | | | | [ ] |
| [ ] | | | | [ ] |
| [ ] | | | | [ ] |

**NOTES/SKETCH:**

Sidewall sample
Dark brown silty gravel,(GP) damp, no odor
PID=0.2

SAMPLED BY: Dave Lovejoy

RECEIVED BY: ____

MACTEC, Inc.

# FIELD DATA RECORD - SURFACE SOIL SAMPLING / TEST PITS

PROJECT: Loohns Corning IRM
JOB NUMBER: 3612102148 03.01
DATE: 12/8/2010

FIELD SAMPLE NUMBER: SC2520
ACTIVITY TIME: START END
BOTTLE TIME: 0730

QC SAMPLES COLLECTED:

**SURFACE SOIL DATA** ASSOCIATED TRIP BLANK RINSATE BLANK

DEPTH OF SOIL

| TYPE OF SAMPLE | TYPE OF SOIL: | EQUIPMENT FOR COLLECTION | DECON FLUIDS USED |
|---|---|---|---|
| [ ] DISCRETE | [ ] ORGANIC | [ ] HAND CORER | [ ] DI WATER N2 PURGE |
| [x] COMPOSITE | [ ] SAND | [x] S.S. SPOON | [ ] POTABLE WATER |
| SAMPLE OBSERVATIONS | [x] GRAVEL | [x] ALUMINIUM PAN | [ ] LIQUINOX |
| ODOR ___ None | [ ] CLAY | [ ] S.S. SPATULA | [ ] OTHER ___ |
| COLOR ___ Dark Brown | [ ] OTHER___ | [ ] OTHER ___ | |

**ANALYTICAL PARAMETERS**

| SOIL | METHOD NUMBER | PRESERVATION METHOD | BOTTLE TYPE VOLUME REQUIRED | SAMPLE COLLECTED |
|---|---|---|---|---|
| [ ] | TCL-VOA | 4 C | (1) 4 oz jar | x |
| [ ] | TCL-VOA | 4 C | 40 mL vial w/ DI Water | [ ] |
| [ ] | TCL-VOA | 4 C | 40 mL vial w/ MeOH | [ ] |
| [ ] | | | | [ ] |
| [ ] | | | | [ ] |
| [ ] | | | | [ ] |
| [ ] | | | | [ ] |

**NOTES/SKETCH:**

Sample from roll-off container SC2520
Dark brown silty gravel,(GP) dry, no odor
PID=0

SAMPLED BY: Dave Lovejoy

RECEIVED BY: ___

MACTEC, Inc.

# FIELD DATA RECORD - SURFACE SOIL SAMPLING / TEST PITS

PROJECT Loohns Corning IRM
JOB NUMBER 3612102148 03.01
DATE 12/8/2010

FIELD SAMPLE NUMBER SC2513
ACTIVITY TIME START END
BOTTLE TIME 1115

QC SAMPLES COLLECTED SC2513Dup

**SURFACE SOIL DATA** ASSOCIATED TRIP BLANK RINSATE BLANK

DEPTH OF SOIL

TYPE OF SAMPLE
- [ ] DISCRETE
- [x] COMPOSITE

SAMPLE OBSERVATIONS

ODOR ___ None

COLOR ___ Dark Brown

TYPE OF SOIL:
- [ ] ORGANIC
- [ ] SAND
- [x] GRAVEL
- [ ] CLAY
- [ ] OTHER____________

EQUIPMENT FOR COLLECTION
- [ ] HAND CORER
- [x] S.S. SPOON
- [x] ALUMINIUM PAN
- [ ] S.S. SPATULA
- [ ] OTHER _______________

DECON FLUIDS USED
- [ ] DI WATER N2 PURGE
- [ ] POTABLE WATER
- [ ] LIQUINOX
- [ ] OTHER ___________________

**ANALYTICAL PARAMETERS**

| SOIL | METHOD NUMBER | PRESERVATION METHOD | BOTTLE TYPE VOLUME REQUIRED | SAMPLE COLLECTED |
|---|---|---|---|---|
| [ ] | TCL-VOA | 4 C | (1) 4 oz jar | x |
| [ ] | TCL-VOA | 4 C | 40 mL vial w/ DI Water | [ ] |
| [ ] | TCL-VOA | 4 C | 40 mL vial w/ MeOH | [ ] |
| [ ] | | | | [ ] |
| [ ] | | | | [ ] |
| [ ] | | | | [ ] |
| [ ] | | | | [ ] |

**NOTES/SKETCH:**

Sample from roll-off container SC2513
Dark brown silty gravel,(GP) damp, no odor
PID=0

SAMPLED BY: Dave Lovejoy

RECEIVED BY: ____________________

**NYDEC**
**LOOHN"S DRY CLEANER SITE**
**CORNING**
**NEW YORK**

**DAILY WORK REPORT**

| **DATE** | 12/6/2010 | **WEATHER** | Cloudy, snow showers |
|---|---|---|---|

**PERSONNEL ON SITE**

OP-Tech

| | |
|---|---|
| Dave | Foreman |
| Ken | |
| Gary | |

**SUBCONTRACTORS ON SITE**

None

**VISITORS**

| | |
|---|---|
| Matt Dunham | NYSDEC |
| Angela Hickey | Property Owner |

**WORK PERFORMED**

Cleared site of debris
Relocate shed and AC unit
Hand dig to expose gas line and building foundation
Set up roll-offs for soil and debris

**OTHER**

**PROBLEMS ENCOUNTERED**

**SUBMITTED BY:** Dave Lovejoy **MACTEC E&C**

**NYDEC**
**LOOHN"S DRY CLEANER SITE**
**CORNING**
**NEW YORK**

**DAILY WORK REPORT**

| **DATE** | 12/7/2010 | **WEATHER** | Cloudy, snow showers |
|---|---|---|---|

**PERSONNEL ON SITE**

OP-Tech

| | |
|---|---|
| Dave | Foreman |
| Ken | |
| Gary | |

**SUBCONTRACTORS ON SITE**

None

**VISITORS**

| | |
|---|---|
| Matt Dunham | NYSDEC |
| Angela Hickey | Property Owner |

**WORK PERFORMED**

Started excavation working west to east
Collected sample from roll-off container
Collected three bottom samples from excavation

**OTHER**

Discussed sampling w/E. Sandin.. Guidelines indicate we should collect more bottom samples than sidewall samples. Will try to get at least four bottom samples.

**PROBLEMS ENCOUNTERED**

None

| **SUBMITTED BY:** | Dave Lovejoy | **MACTEC E&C** |
|---|---|---|

**NYDEC**
**LOOHN"S DRY CLEANER SITE**
**CORNING**
**NEW YORK**

**DAILY WORK REPORT**

| **DATE** | 12/8/2010 | **WEATHER** | Cloudy, cold |
|---|---|---|---|

**PERSONNEL ON SITE**

OP-Tech

| | |
|---|---|
| Dave | Foreman |
| Ken | |
| Gary | |

**SUBCONTRACTORS ON SITE**

Surveyor

**VISITORS**

**WORK PERFORMED**

Excavation complete
Collected sample from roll-off container SC2513
Collected two bottom and two sidewall samples from excavation
Install demarkation material
Ship sample for overnight delivery

**OTHER**

**PROBLEMS ENCOUNTERED**

None

**SUBMITTED BY:** Dave Lovejoy **MACTEC E&C**

**NYDEC**
**LOOHN"S DRY CLEANER SITE**
**CORNING**
**NEW YORK**

**DAILY WORK REPORT**

| **DATE** | 12/9/2010 | **WEATHER** | Cloudy, cold |
|---|---|---|---|

**PERSONNEL ON SITE**

OP-Tech

| | |
|---|---|
| Dave | Foreman |
| Ken | |
| Gary | |

**SUBCONTRACTORS ON SITE**

None

**VISITORS**

**WORK PERFORMED**

Install vapor recovery well
Install and compact 3ft of stone
Install geotextile
Install and compact 3" of sand

**OTHER**

**PROBLEMS ENCOUNTERED**

None

| **SUBMITTED BY:** | Dave Lovejoy | **MACTEC E&C** |
|---|---|---|

**NYDEC**
**LOOHN"S DRY CLEANER SITE**
**CORNING**
**NEW YORK**

**DAILY WORK REPORT**

| **DATE** | 12/10/2010 | **WEATHER** | Cloudy, snow showers |
|---|---|---|---|

**PERSONNEL ON SITE**

OP-Tech

| | |
|---|---|
| Dave | Foreman |
| Ken | |
| Gary | |

**SUBCONTRACTORS ON SITE**

Chenango Contracting Inc. (liner installer)

**VISITORS**

None

**WORK PERFORMED**

Liner installed
Install 6" sand above liner
Install stone to original grade
Set roadboxes for monitoring and vapor well

**OTHER**

**PROBLEMS ENCOUNTERED**

None

| **SUBMITTED BY:** | Dave Lovejoy | **MACTEC E&C** |
|---|---|---|