SMP Template: April 2009

## FORMER FORD GARAGE ONTARIO COUNTY, NEW YORK

## Site Management Plan

**NYSDEC Site Number: B-00153-8** 

#### **Prepared for:**

The Town of Gorham. 4736 South Street PO Box 224 Gorham, New York 14461

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

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## SITE MANAGEMENT PLAN

# 1.0 INTRODUCTION AND DESCRIPTION OF REMEDIAL PROGRAM

#### 1.1 INTRODUCTION

This document is required as an element of the remedial program at the Former Ford Garage Site (hereinafter referred to as the "Site") under the New York State (NYS) Environmental Restoration Program (ERP) administered by New York State Department of Environmental Conservation (NYSDEC). The site was remediated in accordance with State Assistance Contract (SAC) #C303091, Site #B00153-8, which was executed on August 30, 2006.

#### 1.1.1 General

The Town of Gorham entered into a SAC with the NYSDEC to remediate a 0.385-acre property located in the Town of Gorham, New York. This SAC required the Remedial Party, the Town of Gorham, to investigate and remediate contaminated media at the site. Figures showing the site location and boundaries of this 0.385-acre Site is provided in Figure 1 and Figure 2. The boundaries of the site are more fully described in the metes and bounds site description that is part of the Environmental Easement, a draft version of which is attached as Appendix A to this plan.

After completion of the remedial work described in the Remedial Action Work Plan, some contamination was left in the subsurface at this site, which is hereafter referred to as 'remaining contamination." This Site Management Plan (SMP) was prepared to manage remaining contamination at the site until the Environmental Easement is extinguished in accordance with ECL Article 71, Title 36. All reports associated with the site can be viewed by contacting the NYSDEC or its successor agency managing environmental issues in New York State.

This SMP was prepared by Day Environmental, Inc., on behalf of the Town of Gorham, in accordance with the requirements in NYSDEC DER-10 Technical Guidance for Site Investigation and Remediation, dated May 2010, and the guidelines provided by NYSDEC. This SMP addresses the means for implementing the Institutional Controls (ICs) and Engineering Controls (ECs) that are required by the Environmental Easement for the site.

#### 1.1.2 Purpose

The site contains contamination left after completion of the remedial action. Engineering Controls have been incorporated into the site remedy to control exposure to remaining contamination during the use of the site to ensure protection of public health and the environment. An Environmental Easement granted to the NYSDEC, and recorded with the Ontario County Clerk, will require compliance with this SMP and all ECs and ICs placed on the site. The ICs place restrictions on site use, and mandate operation, maintenance, monitoring and reporting measures for all ECs and ICs. This SMP specifies the methods necessary ensure compliance with all ECs and ICs required by the Environmental Easement for contamination that remains at the site. 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.

This SMP provides a detailed description of all procedures required to manage remaining contamination at the site after completion of the Remedial Action, including: (1) implementation and management of all Engineering and Institutional Controls; (2) media monitoring; (3) operation and maintenance of all treatment, collection, containment, or recovery systems; (4) performance of periodic reviews, certification of results, and submittal of Periodic Review Reports; and (5) defining criteria for termination of treatment system operations.

To address these needs, this SMP includes three plans: (1) an Engineering and Institutional Control Plan for implementation and management of EC/ICs; (2) a Monitoring Plan for implementation of Site Monitoring; (3) an Operation and Maintenance Plan for implementation of remedial collection, containment, treatment, and recovery systems (including, where appropriate, preparation of an Operation and Maintenance Manual for complex systems).

This plan also includes a description of Periodic Review Reports for the periodic submittal of data, information, recommendations, and certifications to 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 environmental easement, which is grounds for revocation of the Certificate of Completion (COC);
- Failure to comply with this SMP is also a violation of Environmental Conservation Law, 6NYCRR Part 375 and the SAC (#C303091; Site #B00153-8) for the site, and thereby subject to applicable penalties.

#### 1.1.3 Revisions

Revisions to this SMP will be proposed in writing to the NYSDEC's project manager. 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.

#### 1.2 SITE BACKGROUND

#### 1.2.1 Site Location and Description

The site is located in the Town of Gorham County of Ontario, New York and is identified as Tax Map number 144.10-1-25. The site is an approximately 0.385-acre area bounded by residential property to the north, Main Street (NYS Rte. 245) to the south, commercial and residential properties to the east, and commercial property to the west (see Figure 2). The boundaries of the site are more fully described in Appendix A – Metes and Bounds.

#### 1.2.2 Site History

The Site was formerly improved with an approximate 3,600 square foot one-story building. The Site is currently vacant, and was formerly used as an automobile sales and service facility. It is understood that petroleum products were also formerly dispensed at the facility. The Town of Gorham acquired the Site in April 2001 and demolished the automobile sales and service building in October 2001.

As part of Environmental Restoration Project #B00153-8, Day Environmental, Inc. (DAY) completed a Phase I Environmental Site Assessment (Phase I ESA) report dated February 21, 2002 for the Site in general accordance with American Society for Testing and Materials (ASTM Practice E 1527-00).

Additionally, as part of Environmental Restoration Project #B00153-8, a Site Investigation/Remedial Alternatives (SI/RA) Report Work Plan dated March 2002 was prepared and subsequently implemented by DAY. The objectives of the scope-of-work outlined in the SI/RA work plan were to evaluate the nature and extent of contamination; evaluate the presence or absence of contamination at Recognized Environmental Conditions (RECs) identified in DAY's Phase I ESA report; identify potential routes of exposure and potential receptors to Site contaminants; and, identify and evaluate remedial alternatives for the Site.

#### 1.2.3 Geologic Conditions

Three geologic cross-sections (A-A', B-B' and C-C') developed for the Site (refer to Figure 2 for plan view), are designated as Figure 3, Figure 4 and Figure 5, respectively.

#### Bedrock

According to a map entitled "New York State Geological Highway Map", W.B Rogers et. al., 1990, and the Ontario and Yates Counties, New York Soil Survey, United States Department of Agriculture Soil Conservation Service, 1958, bedrock underlying the overburden deposits in proximity to the Site consists of Genesee Shale belonging to the Genesee Group, Upper Devonian Period, Paleozoic Era. Test Borings and test pits advanced as part of previous investigations at the Site encountered equipment refusal indicative of bedrock at depths ranging between approximately 5.0 feet and 17.0 feet. The top of shale bedrock encountered in test borings at three locations on the Site ranged between 10.5 feet and 17.0 feet below the ground surface.

#### Overburden

According to the Ontario and Yates Counties, New York Soil Survey, United States Department of Agriculture Soil Conservation Service, 1958, soils at the Site are comprised of Phelps gravelly silt loam (Pk). The typical profile for this soil type consists of silt loam, some deeper sandy clay, which is ultimately underlain by sand and gravel deposits that may contain considerable finer materials.

Based on a review of the New York State Geological Survey, "Surficial Geologic Map of New York - Fingerlakes Sheet", E.H. Muller and D.H. Cadwell, 1986, soils in the area of the Site predominantly consist of till moraine deposits (i.e., deposits placed adjacent to moving glacial ice). This soil type is described as varying in texture, sorting and drainage and exhibiting poor to moderate permeability.

Based on the work performed to date at the Site and nearby parcels, heterogeneous fill material generally consisting of reworked soil (e.g., silt, sand, gravel, and clay) with lesser amounts of brick, glass, ash, slag, concrete, wood, miscellaneous metal objects, empty metal containers, and automobile parts (oil filters, etc.) is present from the ground surface to depths ranging between approximately 1.5 feet and 15.5 feet at 51 of 59 test locations (i.e., test borings, test pits, wells).

At most test locations, the uppermost layer of indigenous soil predominantly consists of sandy silt with lesser amounts of gravel and clay. Occasionally, the uppermost layer of indigenous soil consists of varying mixtures of sand, silt, clay and gravel that differ from that described above. Rock fragments predominantly consisting of shale were observed near the bottom of the overburden at about 19 of the test locations.

#### **Hydrogeology**

Figure 6 and Figure 7 show groundwater elevations and illustrate groundwater flow conditions at the Site on February 18, 2009, and July 22, 2009, respectively. As shown, groundwater generally flows west/northwest toward Flint Creek as measured on these dates.

#### 1.3 SUMMARY OF REMEDIAL INVESTIGATION FINDINGS

A Remedial Investigation (RI) was performed to characterize the nature and extent of contamination at the site. The results of the RI are described in detail in the following reports:

- Environmental Site Investigation, Remedial Alternatives Report, Former Ford Garage (2624 Main Street) Gorham, New York, Environmental Restoration Project #B00153-8, dated December, 2004.
- "Indoor Air Sampling and Analysis Report; Ford Garage Site (2624 Main Street), Gorham, New York; Environmental Restoration Project #B00153-8" dated January 31, 2006.

Generally, the RI determined that contamination detected in surface soil, subsurface soil or groundwater at the Site primarily consists of petroleum-related VOCs and SVOCs that are attributable to historic operations at the Site including storage of petroleum products and use of the Site as an automobile sales and service facility. Apparent sources of contamination identified include underground storage tank systems, staining on surface soils north of the former building, and an in-ground hydraulic lift. Suspected sources of contamination identified include abandoned drums, containers, aboveground storage tank, waste oil dumping, septic system/floor drain, and fill material. In addition, data suggest that documented petroleum contamination on the adjoining gasoline station to the east has migrated westward onto the Site.

A co-mingled plume consisting of petroleum contamination attributable to past Site operations and the adjoining gasoline station likely exists and has migrated west of the Site. The majority of petroleum-type contamination is located in the saturated zone.

Data suggest indoor air of the adjoining Old Mill Restaurant building west of the Site has the potential to be impacted by this subsurface petroleum contamination plume (i.e., VOCs were detected in groundwater samples from wells on the east and west sides of this adjoining building).

The Remedial Investigation identified multiple on-site areas of concern in the unsaturated zone where petroleum contaminated soil would require remediation. These areas were located in proximity to: former pump dispensers, former underground storage tanks (USTs), the former in-ground hydraulic lift, the dug well, and along the southernmost portion of the Site.

Additionally, off-site areas of concern requiring remediation include contamination in groundwater west of the Site and contamination in the soil vapor beneath the adjoining Old Mill House Restaurant west of the Site.

Below is a summary of site conditions when the RI was performed in 2001 through 2005.

#### 1.3.1 Soil

Contamination detected in surface soil and subsurface soil at the Site primarily consists of petroleum-related VOCs and SVOCs that are attributable to historic operations at the Site including storage of petroleum products and use of the Site as an automobile sales and service facility. The majority of petroleum-type contamination is present in the saturated zone. In addition, past operations at the Site may have contributed to intermittent concentrations of some heavy metals detected in soil samples. The nature and extent of contamination encountered in soil at the Site during the RI are summarized on Table A. Distribution patterns for these constituents of concern in on-site surface and subsurface soils are presented on the following figures:

- Figure 8 shows the distribution of SVOCs that were detected at surface soil sample locations.
- Figure 9 shows the types of metals that exceeded standards, criteria and guidance (SCG) values at surface soil sample locations.
- Figure 10 shows the distribution of total VOCs that were detected at subsurface soil sample locations.
- Figure 11 shows the distribution of total SVOCs that were detected at subsurface soil sample locations.

#### 1.3.2 On-Site and Off-Site Groundwater

Contamination detected in groundwater at the Site primarily consists of petroleum-related VOCs and SVOCs that are attributable to historic operations at the Site including storage of petroleum products and use of the Site as an automobile sales and service facility. In addition, past operations at the Site may have contributed to intermittent concentrations of some heavy metals detected in groundwater samples. The nature and extent of contamination encountered in groundwater at the Site during the RI are summarized on Table A. Distribution patterns for these constituents of concern in onsite and off-site groundwater are presented on the following figures:

- Figure 12 shows a distribution of total VOCs that were detected at groundwater sample locations.
- Figure 13 shows a distribution of total SVOCs that were detected at groundwater sample locations.

Evidence of light non-aqueous phase liquid (LNAPL) or dense non-aqueous phase liquid (DNAPL) was not detected at test pit, test boring or groundwater monitoring well locations during the RI. However, a layer of thick viscous LNAPL was encountered on water inside the dug well on the northwest corner of the property.

#### 1.3.3 On-Site and Off-Site Soil Vapor

Based on the presence and concentrations of VOCs in soil and groundwater documented at the Site during the RI, it is likely that volatilized VOCs are present in the soil vapor on the Site. However, since no buildings are located on the Site, and no plans to develop the Site exist at the time of the writing of this plan, a soil vapor study has not been conducted on-site.

The volatilization of VOCs from soil or groundwater into indoor air was evaluated and documented for the adjoining Old Mill House Restaurant building to the west. Vapor intrusion of Site contaminants was documented in the basement of the a Old Mill House Restaurant during a December 2005 air sampling study completed with input from the NYSDEC and the New York State Department of Health (NYSDOH). A summary of the analytical laboratory test results from the sampling event is located in Table B.

#### 1.3.4 Underground Storage Tanks

Information obtained as part of the Phase I ESA indicated that the Site was formerly utilized as a gasoline station and an auto repair facility; however, no records pertaining to the installation or the removal of storage tanks were available. The NYSDEC Petroleum Bulk Storage (PBS) records indicated that three USTs used to store gasoline are listed as "closed prior to DEC computer conversion". [Note: This listing means there are no records indicating how the tanks were closed (i.e., closed in-place versus removed)] An apparent former gasoline pump dispenser location and five apparent vent pipes were observed during the Phase I ESA in the area of the southeast corner of the former building. An apparent vent pipe was also observed in the northeastern interior portion of the former building next to the stairs leading into the partial unfinished basement where a boiler was located. [Note: It was reported that the former building once had a fuel oil heating system, and this particular pipe may have been associated with the boiler exhaust.]

As part of the SI/RA, a magnetic locator survey was performed, and one 550 gallon UST was documented at an area of magnetic anomaly. The tank contained approximately 112 gallons of liquid containing diesel range organic total petroleum hydrocarbons with lesser amounts of gasoline range organic total petroleum hydrocarbons. This UST was permanently closed (i.e., tank and contents removed and disposed) in accordance with applicable regulations on August 12, 2004.

The known or reported locations of the former USTs, pump dispensers, and vent piping are shown on Figure 8 and Figure 9.

#### 1.4 SUMMARY OF REMEDIAL ACTIONS

The site was remediated in accordance with the NYSDEC-approved Remedial Work Plan (RWP) dated July 2006 and a Vapor Intrusion (VI) Work Plan dated November 2006.

The following is a summary of the Remedial Actions performed at the site:

- Limited removal and off-site disposal of petroleum-contaminated soils in source areas to prevent further groundwater contamination;
- Decommissioning (excavation, removal and off-site disposal) of an abandoned dug well at the Site that evidently was used for waste oil disposal;
- Excavation of floor drainage system piping;
- In-situ bioremediation of soils and groundwater to reduce contaminant concentrations in the saturated zone;
- Covering the Site with asphalt pavement and soil cover system to limit exposure to contaminants in surface soils;
- Design, installation, and operation of a basement floor slab and sub-slab depressurization system at the adjoining Old Mill House Restaurant building;
- Development of this SMP to address the residual contamination and any use restrictions;
- Imposition of ICs in the form of an environmental easement; and
- Certification of the ICs and ECs; and development of an operation, maintenance and monitoring program to track remedial progress and confirm its effectiveness.

Physical remedial activities were completed at the site in October 2009.

#### 1.4.1 Removal of Contaminated Materials from the Site

Petroleum-contaminated soil in the unsaturated zone was removed from accessible source areas on the Site (i.e., from former UST locations, the former hydraulic lift location, and in proximity to the dug well). Areas of petroleum-contaminated soil that were removed from the three source areas are shown on Figure 14 and Figure 15. Restricted commercial soil cleanup objectives (SCOs) used for this project are outlined in Table 375-6.8(b) of the NYSDEC document entitled "6 NYCRR Part 375, Environmental Remediation Programs Subparts 375-1 to 375-4 and 375-6, (effective December 14, 2006).

The amount of contaminated soil that was removed from the three areas specified above was 986.44 tons. The petroleum-impacted soil was loaded and transported to Ontario County Landfill (A Division of Casella Waste Systems) located at 1879 NYS Route 5&20, Stanley, New York for disposal as a non-hazardous waste.

Approximately 5,610 gallons of groundwater was removed from the former UST Area in order to facilitate backfilling. Standing water in the excavation was pumped into a vacuum truck and transported off-site by Paragon Environmental Construction, Inc. and disposed at the City of Canandaigua POTW.

Viscous oil and impacted water inside a dug well were removed and disposed offsite by Solvents and Petroleum Service, Inc. located in Syracuse, New York in accordance with applicable regulations. The dug well was subsequently decommissioned via removal with an excavator, and was disposed off-site at the Ontario County Landfill with the petroleum-impacted soil described above in this section.

Approximately 125 linear feet of piping associated with the former floor drain was excavated and removed off site. This piping, and also one foot of underlying oily soil that had a peak PID reading of 6 ppm beneath where the two types of piping came together, were removed for off-site disposal. No associated sub-grade structures (e.g., buried oil-water separator or sump) or system contents were encountered during the piping excavation and removal. Five empty crushed metal drums encountered in the excavation were removed from the Site for recycling as scrap metal.

#### 1.4.2 Quality of Backfill Placed in Excavated Areas

In order to access underlying petroleum-contaminated soil that was to be removed, it is estimated that over 732 cubic yards (CY) of overburden material that was not impacted with petroleum was removed and staged on-site as work progressed. A total of five samples of this staged material were tested for VOCs and SVOCs. Based on the test results, the NYSDEC allowed the staged soil material to be re-used as backfill within the excavations.

Select geotechnical fill materials (i.e., 895.89 tons of bank run, 192.34 tons of washed oversized stone, and 126.44 tons of crusher run) were imported from offsite for use as backfill to replace the petroleum-contaminated soil that was removed from the large excavation, the former hydraulic lift excavation, the former dug well excavation and the former floor drain discharge piping excavation. The washed oversized stone and bank run were from the Lake Road Pit of the Ricelli Enterprises, Inc. facility in Phelps, New York, which is identified as Source No 4-71F on the New York State Department of Transportation (NYSDOT) Approved List of Fine and Coarse Aggregates. The crusher run was from the Dolomite Products Company, Inc. facility in Phelps, New York, which is identified as Source No 4-11R on the NYSDOT Approved List of Fine and Coarse Aggregates. Documentation showing the fill was "clean" was provided to the NYSDEC prior to its use at the Site.

#### 1.4.3 On-Site and Off-Site Treatment Systems

Subsequent to completing the tasks described in Section 1.4.1, in-situ remediation was conducted to enhance bioremediation of contamination in saturated soils and groundwater over a majority of the plume area on-site and off-site at accessible locations where contamination had been detected above SCGs.

Twenty-two injection wells designated as IW-1 through IW-22, were installed at the Site in November, 2006. A total of approximately 32 units of Petrox 1<sup>TM</sup> (each unit is comprised of about 4.5 pounds of freeze-dried Pseudomonas microbes) and 3,328 pounds of ORC Advanced® were injected into the injection wells and/or into seventy-nine injection points (designated O-1 through O-54 and P-1 through P-25) during a total of 10 injection events conducted between December 2006 and September 2008. The approximate locations of the injection wells and injection points are shown on Figure 14.

Cl Solutions Petrox 1<sup>TM</sup> contains highly concentrated solutions of live, lyophilized (freeze-dried), patented strains of naturally occurring microscopic organisms. When hydrated and injected into the sub-surface, these organisms break down BTEX compounds (Benzene, Toluene, Ethylbenzene, Xylene), Dichlorotoluene (2,5-), Di-noctylphthalate (common plasticizer), Fuels (gasoline, diesel and heating oils), Methyl Ethyl Ketone (MEK, 2-butanone), Methylene Chloride, Mineral spirits, Naphthalene, Stoddard solvents, Polycyclic Aromatic Hydrocarbons (PAHs), and Trimethylbenzene isomers.

ORC-Advanced® is a proprietary formulation of calcium oxy-hydroxide that produces a controlled release of oxygen for a period of up to 12 months. After being hydrated, the patented Controlled Release Technology (CRT<sup>TM</sup>) associated with ORC-Advanced® delivers oxygen consistently over an extended period of time, which is used to accelerate the rate of naturally occurring aerobic contaminant biodegradation in groundwater and saturated soils.

Post-treatment performance monitoring showed a reduction in petroleum contamination in soil and groundwater associated with the Site. The test results for post-treatment (i.e., confirmatory) soil samples and groundwater samples collected in July 2009 are summarized on Table C and Table D, respectively. Test borings (TBC-1 through TBC-10) and groundwater monitoring wells where the post-treatment samples were collected are shown on Figure 15. In September 2009, the NYSDEC determined that no further treatment was required.

#### 1.4.4 Remaining Contamination

Former surface soil at the Site contains elevated concentrations of some SVOCs and Metals above SCGs. Engineering Controls consisting of a cover system described in Section 2.2.1.1 are currently in place to address remaining contamination in the former surface soil.

Subsequent to the source area removals and in-situ bioremediation treatments, residual petroleum contamination remains in the subsurface saturated zone on portions of the Site and on the property adjacent to the west of the Site. Long-term groundwater monitoring indicates that residual petroleum contamination in the saturated zone has been reduced to concentrations that do not require further remediation, and are being managed with ECs and ICs.

Unsaturated residual petroleum-contaminated subsurface soil along the southernmost portion of the Site was left in-place, due to the recently installed Site improvements (sidewalk) and buried utilities that are present in this area. Long-term groundwater

monitoring indicates that this area of unsaturated residual petroleum-contaminated soil is not re-contaminating groundwater. As such, remediation is not warranted; however, the area of unsaturated residual petroleum-contaminated soil is being managed with ECs and ICs.

Buried utilities (refer to Figure 2) are located in the area of the petroleum plume. It is likely that contaminated soil or groundwater at concentrations above SCGs could be encountered around these utilities. Future work required in the area of these buried utilities is to be completed in accordance with ECs and ICs.

Table E (VOCs), Table F (SVOCs), Table G (Pesticides), Table H (Metals), and Figure 16 summarize the analytical sample results of soils remaining at the site after completion of Remedial Action that exceed the Track 1 (Unrestricted) SCOs. As shown, this includes surface soil, subsurface soil or historic subsurface fill at test pit, test boring and post-treatment sample locations for samples collected during the remedial investigation and the remedial work. A cover system has been placed over the entire site (refer to Section 2.2.1.1). As shown on the tables and figure referenced above, various surface soil samples across the Site exceeded Track 1 (Unrestricted) SCOs. As such, soil across the entire Site immediately beneath the cover system should be presumed to contain constituents exceeding Track 1 (Unrestricted) SCOs, unless proved otherwise via appropriate analytical laboratory testing. In addition, constituents exceeding Track 1 (Unrestricted) SCOs are present on areas of the Site where active buried utilities are located. This includes within the boundary of a permanent sewer easement shown on Figure 16 where a gray water system and water service exist, and also buried utilities, such as electric and natural gas, beneath the sidewalk area along the southern boundary of the Site.

Figure 16 also summarizes the results of all soil samples remaining at the site after completion of the remedial action that meet the Track 1 (Unrestricted) SCOs.

## 2.0 ENGINEERING AND INSTITUTIONAL CONTROL PLAN

#### 2.1 INTRODUCTION

#### 2.1.1 General

Since remaining contaminated soil, groundwater, and soil vapor exists beneath the Site, Engineering Controls and Institutional Controls (EC/ICs) are required to protect human health and the environment. This Engineering and Institutional Control Plan describes the procedures for the implementation and management of EC/ICs at the Site. The EC/IC Plan is one component of the SMP and is subject to revision by NYSDEC.

#### 2.1.2 Purpose

This plan provides:

- A description of on-site and off-site EC/ICs associated with the Site;
- The basic implementation and intended role of each EC/IC;
- A description of the key components of the ICs set forth in the Environmental Easement;
- A description of the features to be evaluated during each required inspection and periodic review;
- A description of plans and procedures to be followed for implementation of EC/ICs, such as the implementation of the Excavation Work Plan 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 EC/ICs required by the site remedy, as determined by the NYSDEC.

#### 2.2 ENGINEERING CONTROLS

#### **2.2.1 Engineering Control Systems**

An on-site cover system and off-site sub-slab depressurization system for an adjoining building to the west have been implemented as engineering controls for this Site. These ECs are further discussed below. Procedures for operating and maintaining the cover system and SSDS are documented in the Operation and Maintenance Plan (Section 4.0 of this SMP). Procedures for monitoring these systems are included in the Monitoring Plan (Section 3.0 and Appendix C of this SMP). The Monitoring Plan also addresses severe condition observations in the event that a severe condition, which may affect controls at the site, occurs.

#### 2.2.1.1 Cover System

Exposure to remaining contamination in soil and groundwater at the Site is prevented by a cover system placed over the Site. This cover system is comprised of an asphalt pavement (six inches of sub-base course Type 2, two inches of asphalt concrete Type 3 binder, and 1.5 inches of asphalt top cover) over an approximate 13,575 square foot area of the Site, and a minimum of 12 inches of clean soil underlain by an orange demarcation layer (plastic barrier fencing), over an approximate 40' x 80' (3,200 square foot) area on the remaining northern end of the Site, (refer to Figure 17). The Excavation Work Plan in Appendix B outlines the procedures required to be implemented in the event the cover system is breached, penetrated or temporarily removed, and any underlying remaining contamination is disturbed. Procedures for the inspection and maintenance of this cover system are referred to in the Monitoring Plan included in Section 4.0 of this SMP.

#### 2.2.1.2 Sub-Slab Depressurization System

A sub-slab depressurization system (SSDS) was installed in the Old Mill House Restaurant building located on the adjacent property west of the Site. The SSDS was installed in accordance with the VI Work Plan dated November 2006, and is intended to prevent vapors from residual subsurface petroleum contaminated soil or groundwater from entering this adjoining building.

The SSDS installed in the building at the Old Mill House Restaurant property includes the following components:

- An active (mechanical) ventilation system, installed beneath a solid vapor barrier on the floor of the basement;
- A concrete floor slab in the basement and crawlspace above the vapor barrier;
- A covered and vented groundwater collection sump with treatment and discharge to the exterior ground surface; and
- An exterior in-line fan exhausts the sub-slab vapors above the roof of the building, and the system is equipped with an alarm in the event of system malfunction.

Details concerning the SSDS are included on Figure 3 [Record Drawing: Sub-Slab Depressurization System (Plan, Sections, Details and Notes)] of the Operation, Maintenance, and Monitoring Plan for Engineering Controls at the Old Mill House Restaurant Building included as Appendix C. Procedures for operating and maintaining the sub-slab depressurization system are also included in the Operation, Maintenance, and Monitoring Plan. Procedures for the observation and maintenance of this SSDS are provided in the Monitoring Plan included in Section 4.0 and Appendix C of this SMP.

#### 2.2.2 Criteria for Completion of Remediation/Termination of Remedial Systems

Generally, remedial processes are considered completed when effectiveness monitoring indicates that the remedy has achieved the remedial action objectives identified by the decision document. The framework for determining when remedial processes are complete is provided in Section 6.6 of NYSDEC DER-10.

#### 2.2.2.1 Cover System

The cover system is a permanent control and the quality and integrity of this system will be inspected at defined, regular intervals in perpetuity.

#### 2.2.2.2 Sub-Slab Depressurization System (SSDS)

The active SSDS will not be discontinued unless prior written approval is granted by the NYSDEC. In the event that monitoring data indicates that the SSDS is no longer required, a proposal to discontinue the SSDS will be submitted by the property owner to the NYSDEC and NYSDOH.

#### 2.2.2.3 Monitored Natural Attenuation

Groundwater monitoring activities to assess natural attenuation will continue, as determined by the NYSDEC, until residual groundwater concentrations are found to be consistently below NYSDEC standards or have become asymptotic at an acceptable level over an extended period. Monitoring will continue until permission to discontinue is granted in writing by the NYSDEC.

#### 2.3 INSTITUTIONAL CONTROLS

A series of Institutional Controls is required by the RWP to: (1) implement, maintain and monitor Engineering Control systems; (2) prevent future exposure to remaining contamination by controlling disturbances of the subsurface contamination; and, (3) limit the use and development of the site to commercial uses only. Adherence to these Institutional Controls on the Site is required by the Environmental Easement and will be implemented under this Site Management Plan. These Institutional Controls are:

- Compliance with the Environmental Easement and this SMP by the Grantor and the Grantor's successors and assigns;
- Engineering Controls must be operated and maintained as specified in this SMP;
- Engineering Controls on the Controlled Property must be inspected at a frequency and in a manner defined in the SMP.
- Groundwater and other environmental or public health monitoring must be performed as defined in this SMP;

• Data and information pertinent to Site Management of the Controlled Property must be reported at the frequency and in a manner defined in this SMP;

Institutional Controls identified in the Environmental Easement may not be discontinued without an amendment to or extinguishment of the Environmental Easement.

The site has a series of Institutional Controls in the form of site restrictions. Adherence to these Institutional Controls is required by the Environmental Easement. Site restrictions that apply to the Controlled Property are:

- The Site may only be used for commercial use provided that the long-term Engineering and Institutional Controls included in this SMP are employed.
- The property may not be used for a higher level of use, such as unrestricted use, residential use, or restricted residential use without additional remediation and amendment of the Environmental Easement, as approved by the NYSDEC:
- Future activities on the Site that will disturb remaining contaminated material must be conducted in accordance with this SMP;
- The use of the groundwater underlying the Site is prohibited without treatment rendering it safe for intended use;
- The potential for vapor intrusion must be evaluated for new buildings developed on the Site, and any potential impacts that are identified must be monitored or mitigated;
- Vegetable gardens and farming on the Site are prohibited;
- The Site owner will submit to NYSDEC a written statement that certifies, under penalty of perjury, that: (1) controls employed at the Controlled Property are unchanged from the previous certification or that any changes to the controls were approved by the NYSDEC; and, (2) nothing has occurred that impairs the ability of the controls to protect public health and environment or that constitute a violation or failure to comply with the SMP. NYSDEC retains the right to access such Controlled Property at any time in order to evaluate the continued maintenance of any and all controls. This certification shall be submitted annually, or an alternate period of time that NYSDEC may allow and will be made by an expert that the NYSDEC finds acceptable.

#### 2.3.1 Excavation Work Plan

The site has been remediated for restricted commercial use. Future intrusive work that will penetrate the cover system, or encounter or disturb the remaining contamination, including any modifications or repairs to the existing cover system will be performed in compliance with the Excavation Work Plan (EWP) that is attached as Appendix B to this

SMP. Work conducted pursuant to the EWP must also be conducted in accordance with the procedures defined in a Health and Safety Plan (HASP) and Community Air Monitoring Plan (CAMP) prepared for the site. A copy of the HASP is attached as Appendix D. This HASP is in current compliance with DER-10, and 29 CFR 1910, 29 CFR 1926, and other applicable Federal, State and local regulations. Based on future changes to State and federal health and safety requirements, and specific methods employed by future contractors, the HASP and CAMP will be updated and re-submitted with the notification provided in Section A-1 of the EWP. Intrusive construction work will be performed in compliance with the EWP, HASP and CAMP, and will be included in the periodic inspection and certification reports submitted under the Site Management Reporting Plan (See Section 5).

The site owner and associated parties preparing the remedial documents submitted to the State, and parties performing this work, are completely responsible for the safe performance of intrusive work, the structural integrity of excavations, proper disposal of excavation de-water, control of runoff from open excavations into remaining contamination, and for structures that may be affected by excavations (such as building foundations and bridge footings). The site owner will ensure that site development activities will not interfere with, or otherwise impair or compromise, the engineering controls described in this SMP.

#### 2.3.2 Soil Vapor Intrusion Evaluation

Prior to the construction of any enclosed structures on the Site that will be occupied, an SVI evaluation will be performed to determine whether any mitigation measures are necessary to eliminate potential exposure to vapors in the proposed structure. Alternatively, an SVI mitigation system may be installed as an element of the building foundation without first conducting an investigation. This mitigation system will include a vapor barrier and passive sub-slab depressurization system that is capable of being converted to an active system.

Prior to conducting an SVI investigation or installing a mitigation system, a work plan will be developed and submitted to the NYSDEC and NYSDOH for approval. This work plan will be developed in accordance with the State's most recent guidance on evaluating soil vapor intrusion". Measures to be employed to mitigate potential vapor intrusion will be evaluated, selected, designed, installed, monitored, and maintained based on the SVI evaluation, applicable guidance, and construction details of the proposed structure.

Preliminary (unvalidated) SVI sampling data will be forwarded to the NYSDEC and NYSDOH for initial review and interpretation. Upon validation, the final data will be transmitted to the agencies, along with a recommendation for follow-up action, such as mitigation.

SVI sampling results, evaluations, and follow-up actions will also be summarized in the next Periodic Review Report.

#### 2.4 INSPECTIONS AND NOTIFICATIONS

#### 2.4.1 Inspections

Inspections of remedial components installed at the Site will be conducted at the frequency specified in the SMP Monitoring Plan schedule. A comprehensive site-wide inspection will be conducted annually, regardless of the frequency of the Periodic Review Report. The inspection will determine and document the following:

- Whether Engineering Controls 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;
- Achievement of remedial performance criteria;
- Sampling and analysis of appropriate media during monitoring events;
- If site records are complete and up to date; and
- Changes, or needed changes, to the remedial or monitoring system;

Inspections will be conducted in accordance with the procedures set forth in the Monitoring Plan of this SMP (Section 3) and in the Operation, Maintenance, and Monitoring Plan for Engineering Controls at the Old Mill House Restaurant Building included in Appendix C. The observations will be recorded using the engineering controls checklist included in Appendix C, and the site-wide observation form located in Appendix E. The reporting requirements are outlined in the Periodic Review Reporting section of this plan (Section 5).

If an emergency, such as a natural disaster or an unforeseen failure of any of the ECs occurs, an inspection of the Site will be conducted within 5 days of the event to verify the effectiveness of the EC/ICs implemented at the Site by a qualified environmental professional as determined by NYSDEC.

#### 2.4.2 Notifications

Notifications will be submitted by the property owner to the NYSDEC as needed for the following reasons:

- 60-day advance notice of any proposed changes in Site use that are required under the terms of the State Assistance Contract (SAC) #C303091, 6NYCRR Part 375, and/or Environmental Conservation Law.
- 15-day advance notice of any proposed ground-intrusive activities pursuant to the Excavation Work Plan.
- Notice within 48-hours of any damage or defect to the foundations structures that reduces or has the potential to reduce the effectiveness of other Engineering Controls and likewise any action to be taken to mitigate the damage or defect.

- Notice within 48-hours of any emergency, such as a fire, flood, or earthquake that reduces or has the potential to reduce the effectiveness of Engineering Controls in place at the site, including 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 shall be submitted to the NYSDEC within 45 days and shall describe and document 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 has been provided with a copy of the SAC #C303091, 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.

#### 2.5 CONTINGENCY PLAN

Emergencies may include injury to personnel, fire or explosion, environmental release, or serious weather conditions.

#### **2.5.1** Emergency Telephone Numbers

In the event of any environmentally related situation or unplanned occurrence requiring assistance, the Owner or Owner's representative(s) should contact the appropriate party from the contact list below. For emergencies, appropriate emergency response personnel should be contacted. Prompt contact should also be made to Day Environmental, Inc or other qualified environmental professional. These emergency contact lists must be maintained in an easily accessible location at the site.

**Table 2.5.1-A: Emergency Contact Numbers** 

Medical, Fire, and Police:	911
One Call Center:	(800) 272-4480 (3 day notice required for utility markout)
Poison Control Center:	(800) 222-1222
Pollution Toxic Chemical Oil Spills:	(800) 424-8802
NYSDEC Spills Hotline	(800) 457-7362

**Table 2.5.1-B: Contact Numbers** 

Day Environmental Inc.	585-454-0210
Greg MacLean, P.E. NYSDEC Project Manager	585-226-5356
Richard Calabrese, Supervisor Town of Gorham	585-526-5231

<sup>\*</sup> Note: Contact numbers subject to change and should be updated as necessary

#### 2.5.2 Map and Directions to Nearest Health Facility

A map and directions to the nearest health facility are included in the HASP in Appendix D.

Nearest Hospital Name: F. F. Thomson Hospital

Hospital Location: 350 Parrish Street, Canandaigua, New York

Hospital Telephone: (585) 396-6000

#### 2.5.3 Response Procedures

As appropriate, the fire department and other emergency response group will be notified immediately by telephone of the emergency. The emergency telephone number list is found at the beginning of this Contingency Plan (Table 2.5.1-A). The list will also posted prominently at the Site and made readily available to all personnel at all times.

#### 3.0 SITE MONITORING PLAN

#### 3.1 INTRODUCTION

#### 3.1.1 General

The Monitoring Plan describes the measures for evaluating the performance and effectiveness of the cover system, the SSDS, and MNA. Monitoring of other Engineering Controls is described in Chapter 4, Operation, Monitoring and Maintenance Plan. The specific monitoring plan for the SSDS is located in the Operation, Maintenance, and Monitoring Plan included as Appendix C. This Monitoring Plan may only be revised with the approval of NYSDEC.

#### 3.1.2 Purpose and Schedule

This Monitoring Plan describes the methods to be used for:

- Sampling, analysis, and monitoring of appropriate media (groundwater, indoor air, soil vapor, soils)
- Assessing compliance with applicable NYSDEC standards, criteria and guidance, particularly ambient groundwater standards and Part 375 SCOs for soil;
- Assessing achievement of the remedial performance criteria.
- Evaluating Site information periodically to confirm that the remedy continues to be effective in protecting public health and the environment; and
- Preparing the necessary reports for the various monitoring activities.

To adequately address these issues, this Monitoring Plan provides information on:

- Sampling locations, protocol, and frequency;
- Information on monitoring systems (e.g., well logs);
- Analytical sampling program requirements;
- Reporting requirements;
- Quality Assurance/Quality Control (QA/QC) requirements;
- Inspection and maintenance requirements for monitoring wells;
- Monitoring well decommissioning procedures; and
- Annual inspection and periodic certification.

It is anticipated that monitoring of the performance of the remedy and overall reduction in contamination on-site and off-site will be conducted for the first eight years using 12 to 18 month intervals. The frequency thereafter will be determined by NYSDEC. Trends in contaminant levels in air, soil, and/or groundwater in the affected areas, will be evaluated to determine if the remedy continues to be effective in achieving remedial goals. Monitoring programs are summarized in Table 3.1.2-A] and outlined in detail in Sections 3.2 and 3.3 below.

Monitoring **Program** Frequency\* Matrix **Analysis** TCL VOCs and SVOCs (ASP 12 to 18 month intervals; in Method OLM04.3), and possibly conjunction with site wide Groundwater MNA TAL metals (ASP Method periodic review ILM04.1), and plate counts. Annually; in conjunction with Cover System Soil/Pavement None – System monitoring only site wide periodic review System Sump system influent and Annually; in conjunction with Components, effluent - TCL VOCs (ASP SSDS site wide periodic review Sump Water, Method OLM04.3) every two and Air years

Table 3.1.2-A]: Monitoring/Inspection Schedule

#### 3.2 ENGINEERING CONTROL MONITORING

#### 3.2.1 Cover System Monitoring

Observation of the cover system will be conducted annually. The following observation components are required during each event:

- Check asphalt pavement for sloughing, cracks, or settlement. If compromised, repair as necessary;
- Check integrity of the soil cover. If eroded or compromised, repair as necessary;
- Observe that grass has been seeded over the soil cover area. If bare, re-seed as necessary.

The observations made will be recorded on the Site-Wide Observation Form included in Appendix E.

<sup>\*</sup> The frequency of events will be conducted as specified until otherwise approved by NYSDEC and NYSDOH

#### 3.2.2 SSDS Monitoring

A separate monitoring plan, checklist, and record drawing for the SSDS are located in the Operation, Maintenance, and Monitoring Plan included as Appendix C and further discussed in Section 4.

#### 3.3 MEDIA MONITORING PROGRAM

#### 3.3.1 Groundwater Monitoring

Groundwater monitoring will be performed on a periodic basis to assess the performance of the remedy.

The network of monitoring wells has been installed to monitor both up-gradient and down-gradient groundwater conditions at the site. The network of on-site and off-site monitoring wells shown on Figure 6 and Figure 7 has been designed based on the following criteria:

- Wells MW-9 and MW-11 are at upgradient positions from former on-site petroleum source areas (i.e., fuel dispensers and underground storage tanks).
   Well MW-11 also provides information on contaminants that may be migrating onto the Site from the adjoining property to the east that formerly used as a gasoline station and was remediated to the satisfaction of the NYSDEC.
- Well MW-1 is located cross-gradient of former on-site petroleum source areas.
- Wells MW-2, MW-3, MW-5, MW-6A, MW-7, MW-8 and MW-10 are located downgradient of the former on-site petroleum source areas, and are within or near the leading edge of the residual petroleum plume.

Monitoring well boring and construction logs for monitoring wells MW-1 through MW-3, MW-5, MW-6A, and MW-7 through MW-11 are included in Appendix F. Although groundwater elevations vary seasonally, the groundwater flow patterns presented on Figure 6 and Figure 7 are typical for the Site.

At the time of this writing, the monitoring wells MW-2, MW-3 and MW-6A contain the highest concentrations of residual petroleum contaminants.

At the time of the writing of this monitoring plan, groundwater monitoring has been conducted at the Site for a period of two years. It is anticipated that the groundwater monitoring may be conducted for an additional period of up to eight years. It is assumed that groundwater monitoring will be conducted over 12 to 18 month intervals for those years. The sampling duration and frequency, the sampling technique for subsequent monitoring events, the number of wells sampled during subsequent monitoring events, and the test parameters for samples collected during subsequent

monitoring events may be modified with the approval NYSDEC, based on the test results of samples from previous monitoring events. The SMP will be modified to reflect changes in sampling plans approved by NYSDEC.

Deliverables for the groundwater monitoring program are specified below.

#### 3.3.1.1 Sampling Event Protocol

Monitoring well sampling activities will be recorded in a field book and a low-flow groundwater purging and sampling log presented in Appendix G. Other observations (e.g., well integrity, etc.) will be noted on the well sampling log. The well sampling log will serve as the inspection form for the groundwater monitoring well network.

Each groundwater monitoring event will consist of the following actions at each well that is selected for sampling:

- Prior to purging and sampling, static water level measurements will be taken from each well (i.e. MW-1 through MW-3, MW-5, MW-6A, and MW-7 through MW-11) using an oil/water interface meter. A technician will also look for LNAPL by using visual observations and the oil/water interface meter at each well location, and will document the results of this work in the field.
- In order to minimize the potential re-suspension of solids in the bottom of the well, well depths will <u>not</u> be measured prior to or during low-flow purging and sampling. Well depth information will be obtained from previous measurements or will be measured after sampling is completed.
- Subsequent to obtaining static water level measurements and monitoring the wells for LNAPL, the following low-flow purge and sample techniques will be used to collect a groundwater sample from monitoring wells MW-2, MW-3, MW-5, MW-6A, MW-9 and MW-11.
- Low-flow purging and sampling will be conducted generally as described in ASTM D6771-02, "Standard Practice for Low-Flow Purging and Sampling for Wells and Devices Used for Ground-Water Quality Investigations" and as outlined below:
  - A portable bladder pump connected to new disposable polyethylene tubing
    will be lowered and positioned at or slightly above the mid-point of the well
    screen when the screened interval is set in relatively homogeneous material.
    When the screened interval is set in heterogeneous materials, the pump will be
    positioned adjacent to the zone of highest hydraulic conductivity (as defined
    by geologic samples). Care will be taken to install and lower the bladder
    pump slowly in order to minimize disturbance of the water column.

- The pump will be connected to a control box that is operated on compressed gas (nitrogen, air, etc.) and is capable of varying pumping rates. An in-line flow-through cell attached to a Horiba U-22 water quality meter (or similar equipment) will be connected to the bladder pump effluent tubing to measure water quality data.
- The pump will be started at a low pumping rate of 100 ml/min or less (for pumps that can not achieve a flow rate this low, the pump will be started at the lowest pump rate possible). The water level in the well will be measured and the pump rate will be adjusted (i.e., increased or decreased) until the drawdown is stabilized. In order to establish the optimum flow-rate for purging and sampling, the water level in the well will be measured on a periodic basis (i.e., every one or two minutes) using an electronic water level meter or the Heron Model HO1.L oil/water interface meter (or equivalent). The pumping rate will not exceed 500 ml/min during purging. When the water level in the well has stabilized (i.e., use goal of < 0.33 ft of constant drawdown), the water level measurements will be collected less frequently. If the water level does not stabilize at the lowest pump rate available, care will be taken to ensure the volume purge exceeds the well drawdown volume.
- While purging the well at the stabilized water level, water quality indicator parameters will be monitored on a three to five minute basis with a Horiba U-22 water quality meter (or similar equipment). Water quality indicator parameters will be considered stabilized after three consecutive readings for each of the following parameters are generally achieved:
  - pH (+ 0.1);
  - Specific Conductance (+ 3%);
  - Dissolved Oxygen (DO) (+ 10 %);
  - Oxidation-Reduction potential (ORP) (± 10 mV);
  - Temperature (+3%); and
  - Turbidity ( $\pm$  10%, when turbidity is greater than 10 NTUs)
- Following stabilization of the water quality parameters, the flow-through cell will be disconnected and a groundwater sample will be collected from the bladder pump effluent tubing. The pumping rate during sampling will remain at the established purging rate or it may be adjusted downward to minimize aeration, bubble formation, or turbulent filling of sample containers. A pumping rate below 250 ml/min will be used when collecting volatile organic compound (VOC) samples.
- Prior to use and between wells, the portable bladder pump and any other reusable equipment (e.g., support cable) that come in contact with groundwater will be decontaminated using the following procedures:
  - A wash in a mixture of potable water and Alconox<sup>®</sup>-type soap;
  - A rinse of the pump until soap is no longer visible; and

- A rinse of the pump with distilled water and allowing the cleaned equipment to air dry or drying with a paper towel.
- Purge water generated during well sampling will be either 1) run through a portable column with unspent granular activated carbon of sufficient volume, tested for any parameters required by the Publicly Owned Treatment Works, and subsequently discharged to the sanitary manhole located along the southern portion line of the Site with approval from the Publicly Owned Treatment Works; or 2) containerized in a New York State Department of Transportation approved 55-gallon drum(s) and disposed off-site in accordance with applicable regulations.
- The procedures and equipment used during the low-flow purging and groundwater sampling, and the field measurement data will be documented in the field on a low-flow groundwater purging and sampling log (Appendix G).

Each of the groundwater samples collected as part of a routine sampling event will be submitted for testing by a New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP)-certified analytical laboratory. It is anticipated that during each monitoring event, groundwater samples collected from the wells would be tested for TCL VOCs and SVOCs (ASP Method OLM04.3), TAL metals (ASP Method ILM04.1), and total aerobic plate count and *Pseudomonads* plate count (Method 9215C). The test results will be compared to available and applicable SCGs.

#### 3.3.1.2 Monitoring Well Repairs, Replacement And Decommissioning

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 (as per the Monitoring Plan), 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 monitoring wells for the purpose of replacement, and the repair or decommissioning and replacement process will be documented in the subsequent periodic report. Well decommissioning without replacement will be done only with the prior approval of NYSDEC. Well abandonment will be performed in accordance with NYSDEC's "Groundwater Monitoring Well Decommissioning Procedures." Monitoring wells that are decommissioned because they have been rendered unusable will be reinstalled in the nearest available location, unless otherwise approved by the NYSDEC.

#### 3.4 SITE-WIDE INSPECTION

Site-wide inspections will be performed on a regular schedule at a minimum of once a year. Site-wide inspections will also be performed after severe weather conditions that may affect Engineering Controls or monitoring devices. During these inspections, an inspection form will be completed (Appendix E). 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;
- The site management activities being conducted including, where appropriate, confirmation sampling and a health and safety inspection;
- Compliance with permits and schedules included in the Operation and Maintenance Plan; and
- Confirm that site records are up to date.

#### 3.5 MONITORING QUALITY ASSURANCE/QUALITY CONTROL

Sampling and analyses will be performed in accordance with the following Quality Assurance/Quality Control (QA/QC) criteria:

#### • Sampling Program:

- Sample containers will be properly washed, decontaminated, and appropriate preservative will be added (if applicable) prior to their use by the analytical laboratory. Containers with preservative will be tagged as such.
- Sample holding times will be in accordance with the NYSDEC ASP requirements.
- During the long-term groundwater monitoring, one trip blank will be included per 20 liquid samples, or per shipment if less than 20 samples, when the shipment contains liquid field samples (i.e., groundwater samples) that are to be analyzed for VOCs. Trip blanks will be analyzed for VOCs.
- One matrix spike/matrix spike duplicate (MS/MSD) will be analyzed during each long-term groundwater sampling event. Specific parameters that MS/MSD samples will be tested for will be dependent upon the test parameters of the samples that are being analyzed.
- One field blank (i.e., rinsate sample) will be collected from reusable groundwater sampling equipment. It is anticipated that this equipment rinsate will be tested for the test parameters of the samples that are being analyzed.

• Sample Tracking and Chain-of-Custody control will be maintained during each sampling event.

- Calibration Procedures:
  - Field analytical equipment will be calibrated immediately prior to each day's use. Calibration procedures will conform to manufacturer's standard instructions.
  - The laboratory will follow calibration procedures and schedules as specified in USEPA SW-846 and subsequent updates that apply to the instruments used for the analytical methods.
- The analytical laboratory must be ELAP-certified for the parameters to be tested.

#### 3.6 MONITORING REPORTING REQUIREMENTS

Forms and any other information generated during regular monitoring events and inspections will be kept on file at the Town of Gorham office. Forms, and other relevant reporting formats used during the monitoring/inspection events, will be (1) subject to approval by NYSDEC and (2) submitted at the time of the Periodic Review Report, as specified in the Reporting Plan of this SMP.

Monitoring results will be reported to NYSDEC on a periodic basis in the Periodic Review Report. These reports will include, at a minimum:

- Date of event;
- Personnel conducting sampling;
- Description of the activities performed;
- Type of samples collected (e.g., groundwater, sump water, etc);
- Copies of appropriate field forms completed (e.g., well sampling logs, chain-of-custody documentation, etc.);
- Sampling results in comparison to appropriate standards/criteria;
- A figure illustrating sample type and sampling locations;
- Copies of laboratory data sheets and the required laboratory data deliverables required for the points sampled (to be submitted electronically in the NYSDEC-identified format);
- Relevant observations, conclusions, or recommendations; and
- A determination as to whether groundwater conditions have changed since the last reporting event.

Data will be reported in hard copy or digital format as determined by NYSDEC. A summary of the monitoring program deliverables are summarized in Table 3.6-A below

Table 3.6-A: Schedule of Monitoring/Inspection Reports

Task	Reporting Frequency*
Periodic Review Report	Annually

<sup>\*</sup> The frequency of events will be conducted as specified until otherwise approved by NYSDEC

#### 4.0 OPERATION AND MAINTENANCE PLAN

A separate operation and maintenance plan for the SSDS located in the Old Mill House Restaurant building on the adjoining property to the west is included in the Operation, Maintenance, and Monitoring Plan that is attached as Appendix C. This attached Operation and Maintenance Plan describes the measures necessary to operate, monitor and maintain the mechanical components of the SSDS. This Operation and Maintenance Plan:

- Includes the steps necessary to allow individuals unfamiliar with the Site to operate and maintain the SSDS;
- Includes an operation and maintenance contingency plan; and,
- Will be updated periodically to reflect changes in site conditions or the manner in which the SSDS is operated and maintained.
- Information on the non-mechanical cover system engineering control is provided in Section 2 and 3. A copy of this Operation and Maintenance Plan, along with the complete SMP, will be kept at the Site. This Operation and Maintenance Plan is not to be used as a stand-alone document, but as a component document of the SMP.

#### 5.0 INSPECTIONS, REPORTING AND CERTIFICATIONS

#### **5.1 SITE INSPECTIONS**

#### **5.1.1 Inspection Frequency**

Inspections will be conducted at the frequency specified in the schedules provided in Section 3 Monitoring Plan and Section 4 Operation and Maintenance Plan of this SMP. At a minimum, a site-wide inspection will be conducted annually. Inspections of EC components will also be conducted when a breakdown of any component has occurred or whenever a severe condition has taken place, such as an erosion or flooding event that may affect the ECs.

#### 5.1.2 Inspection Forms, Sampling Data, and Maintenance Reports

Inspections and monitoring events will be recorded on the appropriate forms for their respective system, which are contained in Appendix C (Operation, Maintenance and Monitoring Plan and Appendix G (Low-Flow Groundwater Purging and Sampling Log). Additionally, a general Site-Wide Inspection Form will be completed during the site-wide inspection, including observation of the non-mechanical cover system (see Appendix E). These forms are subject to NYSDEC revision.

Applicable inspection forms and other records, including media sampling data and system maintenance reports, generated for the site during the reporting period will be provided in electronic format in the Periodic Review Report.

#### 5.1.3 Evaluation of Records and Reporting

The results of the inspection and site monitoring data will be evaluated as part of the EC/IC certification to confirm that the:

- EC/ICs are in place, are performing properly, and remain effective;
- The Monitoring Plan is being implemented;
- Operation and maintenance activities are being conducted properly; and, based on the above items; and
- The site remedy continues to be protective of public health and the environment and is performing as designed in the RWP and FER.

SMP Template: May 2009

### 5.2 CERTIFICATION OF ENGINEERING AND INSTITUTIONAL CONTROLS

After the last inspection of the reporting period, a qualified environmental professional or Professional Engineer licensed to practice in New York State will prepare the following certification:

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 generally accepted engineering practices;
- The information presented in this report is accurate and complete; and
- 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 or Owner's Designated Site Representative] for the Site.

The signed certification will be included in the Periodic Review Report described below.

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### 5.3 PERIODIC REVIEW REPORT

A Periodic Review Report will be submitted to the Department every year, beginning eighteen months after a Certificate of Completion or equivalent document (e.g., Satisfactory Completion Letter, No Further Action Letter, etc.) is issued. 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 as described in Appendix A (Metes and Bounds). The report will be prepared in accordance with NYSDEC DER-10 and submitted within 45 days of the end of each certification period. Media sampling results will also 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;
- Applicable inspection forms and other records generated for the Site during the reporting period in electronic format;
- A summary of any discharge monitoring data and/or information generated during the reporting period with comments and conclusions;
- Data summary tables and graphical representations of contaminants of concern by media (groundwater, soil vapor), which include a listing of compounds analyzed, along with the applicable standards, with exceedances highlighted. These will include a presentation of past data as part of an evaluation of contaminant concentration trends:
- Results of analyses, copies of laboratory data sheets, and the required laboratory data deliverables for samples collected during the reporting period will be submitted electronically in a NYSDEC-approved format;
- A Site evaluation, which includes the following:
  - The compliance of the remedy with the requirements of the site-specific RWP;
  - The operation and the effectiveness of treatment units, etc., including identification of any needed repairs or modifications;
  - Any new conclusions or observations regarding Site contamination based on inspections or data generated by the Monitoring Plan for the media being monitored:
  - Recommendations regarding any necessary changes to the remedy and/or Monitoring Plan; and
  - The overall performance and effectiveness of the remedy.

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The Periodic Review Report will be submitted, in hard-copy format, to the NYSDEC Central Office and Regional Office in which the site is located, and in electronic format to NYSDEC Central Office, Regional Office and the NYSDOH Bureau of Environmental Exposure Investigation.

### 5.4 CORRECTIVE MEASURES 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 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 plan until it is approved by the NYSDEC.

### **TABLES**

# TABLE A Nature and Extent of Contamination Former Ford Garage Site

### 2624 Main Street, Gorham, New York Samples Collected May 2002 through January 2004

SURFACE SOIL	Contaminants of Concern	Concentration Range Detected (ppm) <sup>a</sup>	SCG <sup>c</sup> (ppm) <sup>a</sup>	Frequency of Exceeding SCG
Semi-Volatile	Benzo(a)pyrene	ND - 33	0.061 or MDL	16 of 26
Organic Compounds	Benzo(k)fluoranthene	ND – 28	0.220 or MDL	6 of 26
(SVOCs)	Benzo(b)fluoranthene	ND – 35	0.220 or MDL	10 of 26
	Benzo(a)anthracene	ND – 37	0.224 or MDL	8 of 26
	Chrysene	ND - 42	0.4	6 of 26
	Dibenzofuran	ND – 17	6.2	1 of 26
	Dibenz(a,h)anthracene	ND - 0.37	0.014 or MDL	2 of 26
	Indeno(1,2,3-cd)pyrene	ND – 20	3.2	2 of 26
	Naphthalene	ND – 31	13	1 of 26
	Pyrene	ND – 71	50	1 of 26
	Phenanthrene	ND – 100	50	1 of 26
	Fluoranthene	ND - 83	50	1 of 26
	Total SVOCs & TICs	190 – 942.2	500	2 of 26
Pesticides	Aldrin	ND - 0.091	0.041	1 of 6
Inorganics	Arsenic	1.4 – 30.7	3-12(7.5)	1 of 24 <sup>d</sup>
	Barium	41.2 – 475	15-600(300)	0 of 24 <sup>d</sup>
	Cadmium	ND – 23.5	0-0.1(1) or (10) <sup>1</sup>	2 of 24 <sup>d</sup>
	Calcium	12,100 - 162,000	130-35,000	11 of 24 <sup>d</sup>
	Chromium	3.1 – 51.2	1.5-40(10) or (50) <sup>2</sup>	1 of 24 <sup>d</sup>
	Copper	7.7 – 1,310	1-50(25)	6 of 24 <sup>d</sup>
	Lead	5.8 – 2,210	200-500	6 of 24 <sup>d</sup>
	Magnesium	3,860 – 67,900	100-5,000	21 of 24 <sup>d</sup>
	Mercury	ND - 0.92	0.001-0.2(0.1)	11 of 24 <sup>d</sup>
	Nickel	5.2 – 46.8	0.5-25(13)	2 of 24 <sup>d</sup>
	Thallium	ND - 5.2	NA	0 of 24 <sup>d</sup>
	Zinc	28.7 – 1,010	9-50(20)	23 of 24 <sup>d</sup>

Day Environmental, Inc. CAH0093 / 3729R-05

## TABLE A (Continued) Nature and Extent of Contamination

# Former Ford Garage Site 2624 Main Street, Gorham, New York

### Samples Collected May 2002 through January 2004

SUBSURFACE SOIL	Contaminants of Concern	Concentration Range Detected (ppm) <sup>a</sup>	SCG <sup>c</sup> (ppm) <sup>a</sup>	Frequency of Exceeding SCG
Volatile Organic	Ethylbenzene	ND – 27	5.5	6 of 41
Compounds (VOCs)	Toluene	ND – 38	1.5	1 of 41
	Total Xylenes	ND – 430	1.2	14 of 41
	1,2,4-Trimethylbenzene*	ND – 140	10	4 of 41
	1,3,5-Trimethylbenzene*	ND – 21	3.3	1 of 41
	Total VOCs & TICs	ND – 1,309	10	16 of 41
SVOCs	Benzo(a)pyrene	ND – 40	0.061 or MDL	4 of 38
	Benzo(k)fluoranthene	ND – 14	0.220 or MDL	2 of 38
	Benzo(b)fluoranthene	ND - 72	0.220 or MDL	2 of 38
	Benzo(a)anthracene	ND – 48	0.224 or MDL	3 of 38
	Chrysene	ND – 44	0.4	3 of 38
	Dibenz(a,h)anthracene	ND – 0.66	0.014 or MDL	1 of 38
	Indeno(1,2,3-cd)pyrene	ND – 9	3.2	2 of 38
	Naphthalene	ND – 54	13	4 of 38
	2-Methylnaphthalene	ND – 79	36.4	4 of 38
	Pyrene	ND – 68	50	1 of 38
	Fluoranthene	ND – 72	50	1 of 38
	Total SVOC & TICs	270 – 1,898	500	1 of 38
Inorganics	Arsenic	2.7 – 14.5	3-12(7.5)	2 of 16 <sup>d</sup>
	Barium	23.9 – 230	15-600(300)	0 of 16 <sup>d</sup>
	Calcium	ND – 47,600	130-35,000	3 of 16 <sup>d</sup>
	Copper	8.7 – 219	1-50(25)	1 of 16 <sup>d</sup>
	Lead	3.5 – 1,510	200-500	1 of 34 <sup>d</sup>
	Magnesium	1,700 – 28,000	100-5,000	8 of 16 <sup>d</sup>
	Mercury	ND - 0.28	0.001-0.2(0.1)	1 of 16 <sup>d</sup>
	Nickel	10 – 57.5	0.5-25(13)	8 of 16 <sup>d</sup>
	Thallium	ND – 4.1	NA	0 of 16 <sup>d</sup>
	Zinc	ND – 2,070	9-50(20)	9 of 16 <sup>d</sup>

Day Environmental, Inc.

## TABLE A (Continued) Nature and Extent of Contamination

### Former Ford Garage Site

### 2624 Main Street, Gorham, New York Samples Collected May 2002 through January 2004

GROUNDWATER	Contaminants of Concern	Concentration Range Detected (ppb) <sup>b</sup>	SCG <sup>c</sup> (ppb) <sup>b</sup>	Frequency of Exceeding SCG
VOCs	Benzene	ND – 520	1	9 of 20
æ	Ethylbenzene	ND – 1,300	5	9 of 20
	Isopropylbenzene	ND - 89	5	7 of 20
	Methyl tert-butyl ether	ND – 440	10	13 of 20
	Toluene	ND – 90	5	6 of 20
	Total Xylenes	ND - 4,380	5	8 of 20
	1,2,3-Trimethylbenzene*	ND – 350	5	3 of 20
	1,3,5-Trimethylbenzene*	ND – 220	5	2 of 20
	1,2,4-Trimethylbenzene*	ND – 1,100	5	2 of 20
SVOCs	Naphthalene	ND – 150	10	7 of 15
	Bis(2- ethylhexyl)phthalate	ND – 1,500	5	3 of 15
Inorganics	Barium	332 – 1,100	1000	1 of 4
	Iron	868 – 37,300	300	4 of 4
	Magnesium	33,500 – 86,400	35,000	3 of 4
	Manganese	254 – 3960	300	3 of 4
	Sodium	25,100 – 63,900	20,000	4 of 4
	Thallium	ND – 10.4	0.5	3 of 4

### **TABLE A (Continued)**

### Nature and Extent of Contamination

### Former Ford Garage Site 2624 Main Street, Gorham, New York

### Samples Collected May 2002 through January 2004

NAPL Sample	Contaminants of Concern	Concentration Range Detected (ppb) <sup>b</sup>	SCG <sup>c</sup> (ppb) <sup>b</sup>	Frequency of Exceeding SCG
VOCs	Acetone	1,200	50	1 of 1
b	2-Butanone	370	50	1 of 1
	Toluene	310	5	1 of 1
	Total Xylenes	19	5	1 of 1
Inorganics	Iron	1,230	300	1 of 1
	Lead	714	25	1 of 1

<sup>&</sup>lt;sup>a</sup> ppm = parts per million, which is equivalent to milligrams per kilogram (mg/Kg) in soil

ND = Not detected above reported analytical laboratory detection limit

\* = Compound was listed as a tentatively identified compound (TIC)

MDL = Method Detection Limit

b ppb = parts per billion, which is equivalent to micrograms per liter (ug/L) in water

<sup>&</sup>lt;sup>c</sup> SCG = standards, criteria and guidance: NYSDEC TAGM 4046 for soil; NYSDEC TOG 1.1.1 for groundwater and NAPL

<sup>&</sup>lt;sup>d</sup> = Evaluated against the higher of the recommended soil cleanup objective or typical background range referenced in NYSDEC TAGM 4046 or in 1995 "proposed" TAGM 4046

<sup>&</sup>lt;sup>1</sup> = 1995 TAGM 4046 "proposed RSCO for cadmium of 10ppm

<sup>&</sup>lt;sup>2</sup> = 1995 TAGM 4046 "proposed RSCO for chromium of 50ppm"

### Table B

### **Vapor Intrusion Sample Test Results**

## 2626 Main Street, Gorham, New York Summary of Detected Volatile Organic Compounds Reported in ug/m³ Air Samples Collected December 13, 2005

				Sample	Location	
Detected Constituent	NYSDOH Indoor (ug/m3) <sup>(1)</sup>	NYSDOH Outdoor (ug/m3) <sup>(2)</sup>	B-1 Outdoor Background (NW Corner)	I-1 Indoor First Floor	I-2 Indoor NE Comer Basement	I-3 Indoor SE Comer Basement
Acetone	115.15	29.9	7.1	12	U (<0.4)	40
Benzene	13.1	4.6	U (<0.5)	U (<0.5)	1.7	ND (<0.5)
2-Butanone (MEK)	16.15	5.3	2.8	5.2	13	19
Carbon Disulfide	NA	NA	U (<0.5)	U (<0.5)	4.5	9.8
Chloromethane	4.125	4.125	1.2	1.1	U (<0.4)	1.1
Cyclohexane	6.125	0.625	U (<0.6)	U (<0.6)	U (<0.6)	60
Ethanol	1309.50	35.05	U 0.3)	70	12	15
Ethylbenzene	6.4	0.875	U (<0.7)	U (<0.7)	9.6	ND (<0.7)
4-Ethyl Toluene	NA	NA	5	U (<0.8)	3.2	ND (<0.8)
n-Heptane	17.5	4.375	U (<0.7)	U (<0.7)	2.4	15
Hexane	13.85	2.125	4.3	2.7	7.5	670
Isopropanol	NA	NA	3.3	4.2	14	16
Methylene Chloride	16.05	1.375	U (<1)	U (<1)	2.5	7.8
4-Methyl-2-Pentanone (MIBK)	1.875	0.25	U (<0.7)	U (<0.7)	U (<0.7)	2.7
Tetrachloroethylene	2.375	0.375	U (<1.1)	U (<1.1)	5.2	ND (<1.1)
Tetrahydrofuran	0.625	0.25	U (<0.5)	U (<0.5)	2.1	1.7
Toluene	57.25	5.1	15	14	110	ND (<0.6)
Trichloroethylene	0.25	0.25	0.28	0.56	1.3	1.5
1,2,4 - Trimethylbenzene	9.7	1.625	U (<0.8)	U (<0.8)	11	ND (<0.8)
1,3,5 - Trimethylbenzene	3.8	0.375	U (<0.8)	U (<0.8)	2.8	ND (<0.8)
m/p-Xylene	10.75	0.875	3	U (<0.7)	38	ND (<0.7)
o-Xylene	7.15	1.375	U (<0.7)	U (<0.7)	12	U (<0.7)

U = Not detected at concentration above analytical laboratory reporting limit noted in parentheses.

NA = Not Available.

Percentiles that are reported as a detection limit (I.e., <0.25 ug/m³) were assumed to equal an actual detected value (i.e., 0.25 ug/m³) when calculating the Upper Fence values.

9.6 = exceeds Indoor Air Upper Fence Value

4.3 = exceeds Outdoor Air Upper Fence Value

Sub-Slab results are not compared to Upper Fence values.

<sup>(1)</sup> Indoor Air Upper Fence value calculated as 1.5 times the interquartile range (difference between the 25th and 75th percentile values) above the 75th percentile value of the specified compound as set forth in Section 3.2.4 of the New York State Department of Health (NYSDOH) document titled "Final Guidance for Evaluating Soil Vapor Intrusion in the State of New York" dated October 2006 (used to for comparison to indoor air sample results).

<sup>(2)</sup> Outdoor Air Upper Fence value calculated as 1.5 times the interquartile range (difference between the 25th and 75th percentile values) above the 75th percentile value of the specified compound as set forth in Section 3.2.4 of the New York State Department of Health (NYSDOH) document titled "Final Guidance for Evaluating Soil Vapor Intrusion in the State of New York" dated October 2006 (used for comparison to outdoor air background sample results).

Former Ford Garage 2624 Main St, Gorham, NY NYSDEC Site #B00153-8 Table C

Summary of Detected VOCs and SVOCs in mg/Kg or Parts Per Million (ppm)

Post In-Situ Treatment Confirmatory Soil Samples (Collected July 23, 2009)

Detected Compound	Commercial SCO (1)	085 TBC-1 (8-12')	086 TBC-2 (8-12')	087 TBC-3 (4-8')	088 TBC-4 (4-8')	089 TBC-5 (8-12')	090 TBC-6 (8-12")	091 TBC-7 (8-12')	092 TBC-8 (12-16')	093 TBC-9 (8-12')	094 TBC-10 (8-11.5')
VOCs											
Acetone	200	nin	0.02 <b>6</b> J	n O	0.045 J	ΓŊ	D	0.025	0.014	n n	rin n
Methylene Chloride	200	n	n	n	0.0037 J	D	n	0.0022 J	n	n	n
Methyl tert-butyl ether	200	0.017	n	0.03 J	0.041	n	n	0.019	0.0068	D	ñ
2-Butanone	200	n j	ρ'n	r n	n n	r n	Э	0.013 J	ρŊ	n	C O
Cyclohexane	NA	n	0.01 J	0.15	0.051	0.23	4.2	0.0061 J	D	n	) D
Benzene	44	n	n	n		n	0.041 J	0.013	D	D	Ď
1,2-Dichloroethane	240	n	Ωį	ñ		n	D	Б	D	D	D
Methylcyclohexane	NA	0.0025	0.017 J	0.094	0.084	0.22	8.5	0.02	0.0026	n	n
1,2-Dichloropropane	ΝA	n	n	n	n	n	0.11 J	n	n	D	D
Toluene	200	n	n	0.039 J		n	0.029	'n	n	n	ō
Ethylbenzene	390	n	n	1.1		0.15	0.27 J	0.081	Ď	n	n
Xylene (Total)	200	n	n	4.2	0.0044	0.39	0.14 J	0.22	D	D	n
Isopropylbenzene	NA	n	Ď	0.073	0.0052 J	0.068	3.6	0.018	Þ	D	n
TOTAL VOCS	NA	0.0195	0.053 J	5.686.J	0.2343.J	1.058 J	16.89 J	0.4173.J	0.0234	Ϋ́Ω	ñ
TOTAL TICS	NA	n	LN 776.1	14.366 NJ	4.026 NJ	6.6 N	1101 NJ	1.7771 NJ	ō	n	1.822 NJ
TOTAL VOCS AND TICS	NA	0.0195 J	2.03 NJ	20.052 NJ	4.2603 NJ	10.958 NJ	1117.89 NJ	2.1944 NJ	0.0234 J	ſΩ	1.822 NJ
SVOCs											
Benzaldehyde	NA	1.5.J	Γ'n	r n	0.18 J	ΓN	r:n	C:N	r:n	0.13.J	ΓΩ
Acetophenone	NA	0.04 J	n	n	0.2 J	n	Ď	n	Ď	Ω	n
Naphthalene	200	n	0.26 J	3.9 D	0.051 J	2 D	=	n	Þ	n	D
2-Methylnaphthalene	NA	n	0.3 J	4.5 D	n	11 D	33 D	n	Ď	n	n
1,1-Biphenyl	NA NA	n	0.065 J	n	n	0.65	4.1	n	Ď	D	n
Acenaphthene	200	n	Ď	0.043 J	n	0.15 J	2.1	n	Э	D	Э
Dibenzofuran	350	n	D	D	Ď	0.13 J	1.4 J	n	'n	n	D
Fluorene	200	n	0.053 J	0.077 J	D	0.15 J	2.8	n	n	n	Ö
Phenanthrene	200	Ď	0.079 U	0.0 <b>9</b> 7	Ö	0.12 J	4.6	n	n	n	Ď
Anthracene	200	D	D	n	D	D	0.69	n	n	n	Ď
Di-n-buty/phthalate	ΑA	n	D	n	n	n	n	n	n	n	n
Fluoranthene	200	D	D	n	n	D	Ö	n	n	0.04 J	n
Pyrene	200	D	D	D	0.058 J	Ϊn	0.56 J	n	n	n	Ď
Benzo(a)anthracene	5.6	n	Ď	Ď	'n	n	n	n	n	n	n
Chrysene	56	n	D	D	n	D	D	n	n	n	n
bis(2-Ethylhexyl)phthalate	¥.	0.051 J	n	0.058 J	0.11 J	0.077	Ď	n	0.11]	0.065 J	n
TOTAL SVOCS	NA	1.591 J	0.757 J	8.675 JD	0.599 J	17.277 JD	60.25 J	U.J.	0.11 J	0.235 J	ΓΩ
TOTAL TICS	AA	6.75 NJ	14.27 NJ	218.18 NJ	10.42 NJ	96.4 NJD	1401 NJ	0.694 NJ	1.282 NJ	0.93 NJ	2.665 NJ
TOTAL SVOCS AND TICS	ΑN	8.341 NJ	15.027 NJ	226.855 NJD	11.019 UN	113.677 NJD	1461.25 NJ	0.694 NJ	1.392 NJ	1.165 NJ	2.665įNJ

U = Not detected at concentration above reported analytical laboratory detection limit

D = Compound identified in an analysis at a secondary dilution factor Results of Data Usability Summary Report are incorporated

TIC = Tentatively identified compound

N = Indicates presumptive evidence of tentatively identified compound

SVOC = Semi-Volatile Organic Compound

VOC = Volatile Organic Compound NA = Not available

J = Estimated value

(1) = Commercial soil cleanup objective (SCO) as referenced in 6 NYCRR Part 375 dated December 14, 2006.

# Table D Former Ford Garage, Gorham, New York NYSDEC Site #B00153-8

Detected VOCs in ug/l or Parts Per Billion (ppb)

Post In-Situ Treatment Groundwater Samples (Collected July 22, 2009)

Detected Compound	Groundwater Standard or Guidance Value (1)	079 MW-2	082 MW-3	084 MW-5	080 MW-6A	081 MW-9	083 MW-11
Acetone	50	n	20 J	n	22.1	n	Ö
Methyl tert-Butyl Ether	10	280 □	34	8.3 J	2.5 J	D	26
Cyclohexane	NA	9/	33	4.9 J	51	D	Ö
Benzene	-	09	40	5.2 J	10	Þ	7.4
1,2-Dichloroethane	9.0	2.3 J	Ď	n	Þ	Þ	Þ
Methylcyclohexane	NA	41	34	4.3 J	31	Þ	Þ
Toluene	5	7.3 J	2.1 J	n	3.6 J	D	Þ
Ethylbenzene	5	240 D	27	6.5	2121255	Þ	D
Xylene (Total)	5	310	25	3.3 J	16	Þ	D
Isopropylbenzene	5	30	26	2.8 J	47	Ŋ	n
TOTAL TCL VOCS	NA	1046.6 JD	241.1 J	35.3 J	200.1 J	n	33.4
TOTAL TICS	ΝΑ	2510 NJ	1435.6 NJ	216.6 NJ	1423.4 NJ	n	ر ا
TOTAL VOCS AND TICS	NA	3556.6 NJD	1676.7 NJ	251.9 NJ	1623.5 NJ	n	39.4

(1) = Groundwater standard or guidance value as referenced in NYSDEC TOGS 1.1.1dated June 1998 as amended by the NYSDEC's supplemental table dated April 2000

30 = Exceeds groundwater standard or guidance value

TCL = Target compound list

U = Not detected at concentrations above reported analytical laboratory detection limits

D = Compound concentration was obtained from a diluted analysis.

TIC = Tentatively Identified Compound

N = Analyte passed identification criteria and is considered to be positively identified

Table E
Former Ford Garage, Gorham, New York
VOCs In Soil Samples Exceeding Unrestricted Use SCOs

Contaminant	CAS Number	A Unrestricted Use SCO	Sample # TBC-3 (4		Sample # TBC-5 (8-	
Ethylbenzene	100-41-4	1	1.1	A	0.15	
Toluene	108-88-3	0.7	0.039 J		U	
Xylene (mixed)	1330-20-7	0.26	4.2	A	0.39	A

Values are in milligrams per kilogram (mg/kg) or parts per million (ppm)

Soil Cleanup Objectives (SCOs) as referenced in 6 NYCRR Part 375-6, Remedial Program Soil Cleanup Objectives, dated December 14, 2006

J = Estimated Value

U = Not Detected

A = Exceeds Unrestricted Use SCO

VOC = Volatile organic compound

Table F
Former Ford Garage, Gorham, New York
SVOCs In Soil Samples Exceeding Unrestricted Use SCOs

Contaminant	CAS Number	A Unrestricted Use SCO	Sample # SS-2 (0-		Sample SS-3 (0		Sample # SS-4 (0-		Sample # SS-3a (6-		Sample # TP-10 (1	
Benzo(a)anthracene	56-55-3	1	0.61		37	A	<b>15</b> D	Α	<b>7.8</b> D	Α	<b>4.7</b> J	A
Benzo(a)pyrene	50-32-8	1	0.74 J		33	Α	<b>11</b> D	Α	<b>6.1</b> D	Α	<b>5.3</b> J	Α
Benzo(b)fluoranthene	205-99-2	1	0.98 J		35	Α	<b>14</b> D	Α	<b>6.9</b> D	Α	<b>7.3</b> J	Α
Benzo(k)fluoranthene	207-08-9	0.8	<b>0.93</b> J	Α	28	Α	<b>9.7</b> D	Α	<b>3.7</b> JD	Α	<b>6.3</b> J	A
Chrysene	218-01-9	1	0.84		14	Α	<b>13</b> D	Α	<b>8.3</b> D	Α	<b>6.9</b> J	Α
Dibenz(a,h)anthracene	53-70-3	0.33	U		U		<b>0.37</b> J	Α	0.15 J		U	
Indeno(1,2,3-cd)pyrene	193-39-5	0.5	0.39 J		20	Α	<b>3.3</b> J	A	1.3	Α	<b>5.3</b> J	A
Naphthalene	91-20-3	12	0.086 J		31	Α	0.091 J		0.88		25	Α

Values are in milligrams per kilogram (mg/kg) or parts per million (ppm)

Soil Cleanup Objectives (SCOs) as referenced in 6 NYCRR Part 375-6, Remedial Program Soil Cleanup Objectives, dated December 14, 2006

D = Diluted Sample

J = Estimated Value

U = Not Detected

A = Exceeds Unrestricted Use SCO

SVOC = Semi-volatile organic compound

Table G
Former Ford Garage, Gorham, New York
Pesticides In Soil Samples Exceeding Unrestricted Use SCOs

Contaminant	CAS Number	A Unrestricted Use SCO	Sample #0 SS-3 (0-2	
Aldrin	309-00-2	0.005	0.091	A

Values are in milligrams per kilogram (mg/kg) or parts per million (p Soil Cleanup Objectives (SCOs) as referenced in 6 NYCRR Part 375-6, Remedial Program Soil Cleanup Objectives, dated December 14, 2006

# Table H (Page 1 of 3) Former Ford Garage, Gorham, New York Metals In Soil Samples Exceeding Unrestricted Use SCOs

	CAS Unrestricted Number SCO	Sample #015 SS-1 (0-2")	15	Sample #016 SS-2 (0-2")	Sample #017 SS-3 (0-2")	#017 J-2")	Sample #018 SS-4 (0-2")	18	Sample #019 SS-5 (0-2")		Sample #020 SS-6 (0-2*)	Sample #057 SS-14 (0-6")	t057 -6")	Sample #058 SS-4a (6-12")	2")
Arsenic 7440-38-2	3-2 13	8.3		4.6	8.1		6.3		6.2	-	5.3	5	_	5.4	T
Barium 7440-39-3	9-3 350	196		65.5	381	V	120		94.4	<u> </u>	509	283		105	Π
Cadmium 7440-43-9	3-9 2.5	4.2	A	1.6	21.4	V	0.48 B	$\vdash$	0.23 B	-	0.7 B	5.5	A	0.63 J	Π
Chromium, trivalent 16065-83-1	3-1 30	21		8	41.7	٧	13.9		9.7	F	10.5	51.2	4	9	
Copper 7440-50-8	)-8 50	1310 JE	A	41.1 JE	251 JE	E A	31.3 JE		29.8 JE	<u> ۳</u>	31.5 JE	33.5 JN		29.4 JN	
Lead 7439-92-1	2-1 63	1770	A	296 A	2120	A	319	A	122 A		601 A	992	A	237	4
Manganese 7439-96-5	3-5 1600	230 E		329 E	440 E		452 E		504 E	Ļ	436 E	645 JN		440 JN	
Total Mercury NA	0.18	n		n	0.25 J*	A	Ω	$\vdash$	0.27 J* A		0.31 J* A	)		0.2	4
Nickel 7440-02-0	2-0 30	22.5		11.5	43.4	A	13.4	_	15.7	F	13.4	12.9		14.1	
Selenium 7782-49-2	9-2 3	n		n	1.1 B	<u> </u>	1 B		0.89 B	L	0.81 B	1.7 J		1.7 J	
Zinc 7440-66-6	3-6 109	981	A	252 A	944	A	359	A	121 A	Щ	284 A	787	٧	248	A

Values are in milligrams per kilogram (mg/kg) or parts per million (ppm)

Soil Cleanup Objectives (SCOs) as referenced in 6 NYCRR Part 375-6, Remedial Program Soil Cleanup Objectives, dated December 14, 2006

B = Trace Concentration Below Reporting Limit And Equal To Or Above Detection Limit

E or J = Estimated Concentration

N = Matrix Spike Recovery Falls Outside Control Limit

U = Not Detected

\* = RPD Duplicate Analyses Outside Control Limit

# Table H (Page 2 of 3) Former Ford Garage, Gorham, New York Metals In Soil Samples Exceeding Unrestricted Use SCOs

Contaminant	CAS	A Unrestricted Use SCO	Sample #059 SS-16 (0-6")	Sample #060 SS-13 (0-4")	Sample #060 SS-13 (0-4")	Sample #061 SS-18 (0-6")	f061  -6")	Sample #062 SS-19 (0-6")	3,0	Sample #063 SS-10 (0-4")	8 🗊	Sample #064 SS-9 (0-4")	<b> </b>	Sample #065 SS-15 (0-6")	Sample #066 SS-17 (0-6")	)66 6")
Arsenic	7440-38-2	13	9.7	7.3	_	30.7	4	9		3.9		8.8	-	9	9	
Barium	7440-39-3	350	83.5	75.6		475	4	145		48.7		139	$\vdash$	77.9	107	
Cadmium	7440-43-9	2.5	0.69 J	0.85 J		9.3	4	2.2 J		1.4 J		1.7 J		0.41 J	ח	
Chromium, trivalent	16065-83-1	30	9.7	11.3		32.9	A	15.2		17.4		თ	-	11.8	10.7	
Copper	7440-50-8	20	31.6 JN	36 JN	z	205 JN	A	NC 8.67	4	NC 9.07	4	147 JN	4	29.8 JN	33.7 JN	
Lead	7439-92-1	63	111 A	179	A	559	A	255	A	155	A	310	V	123 A	148	4
Manganese	7439-96-5	1600	372 JN	473 JN	z	3440 JN	A	415 JN	$\vdash$	446 JN	$\vdash$	484 JN	-	NC 764	NC 853	
Total Mercury	NA	0.18	0.18	0.16		0.26	A	0.92	4	0.14		0.91	4	0.22 A	0.31	4
Nickel	7440-02-0	30	18	22.1		46.8	A	21.9	$\vdash$	12.5		14.3	<del> </del>	16.7	18.9	
Selenium	7782-49-2	3	1.6 J	1.5 J		3.8 J	A	2.2 J		0.59 J		1.1 J	<del>                                     </del>	1.9 J	1.5 J	
Zinc	7440-66-6	109	140 A	171	A	1010	A	367	A	165	A	627	•	164 A	112	×

Values are in milligrams per kilogram (mg/kg) or parts per million (ppm)

Soil Cleanup Objectives (SCOs) as referenced in 6 NYCRR Part 375-6, Remedial Program Soil Cleanup Objectives, dated December 14, 2006

B = Trace Concentration Below Reporting Limit And Equal To Or Above Detection Limit

E or J = Estimated Concentration

N = Matrix Spike Recovery Falls Outside Control Limit

U = Not Detected

\* = RPD Duplicate Analyses Outside Control Limit

# Table H (Page 3 of 3) Former Ford Garage, Gorham, New York Metals In Soil Samples Exceeding Unrestricted Use SCOs

Contaminant	CAS	A Unrestricted Use SCO	Sample #069 SS-12 (0-6")	Sample #072 SS-1a (6-12")	72 2")	Sample #006 TP-5 (5')	99	Sample #010 TP-9 (4.5')	Sample #011 TP-10 (1.5')	#011 1.5')	Sample #023 TB-4 (6-8')	Sample #028 TB-13 (8-10')	028 10')
Arsenic	7440-38-2	13	1.4 J	6.7		4.2		9.8	12.8	_	7.5 J	10.8 J	
Barium	7440-39-3	350	50.1	117		63.9		93.8	184		23.9 B	230	
Cadmium	7440-43-9	2.5	n	23.5	4	ם		D	3.2	4	0.43 B	כ	
Chromium, trivalent	16065-83-1	30	4.3	19.8		10.4		17.6	15.6	_	14.3	18.2	
Copper	7440-50-8	20	15.6	244	Ø	25		42.6 JE	219 JE	4	46 JE	46.6 JE	
Lead	7439-92-1	63	66.6 A	1120	A	187	A	70.4 A	1510	4	20	93.2	4
Manganese	7439-96-5	1600	307	355		)	$\vdash$	D	כ	_	253	564	
Total Mercury	۷A	0.18	n	0.59	4	0.15 J*	_	D	0.28 J*	4	ס	כ	
Nickel	7440-02-0	30	7.7	24.5		21.3		39.8 A	16.9		29.3	45.4	A
Selenium	7782-49-2	3	n	1.7		n	_	D	1.2 B		1.6 J	כ	
Zinc	7440-66-6	109	81.8	722	A	ח	$\exists$	n	2070	A	281 A	370	A

Values are in milligrams per kilogram (mg/kg) or parts per million (ppm)

Soil Cleanup Objectives (SCOs) as referenced in 6 NYCRR Part 375-6, Remedial Program Soil Cleanup Objectives, dated December 14, 2006

B = Trace Concentration Below Reporting Limit And Equal To Or Above Detection Limit

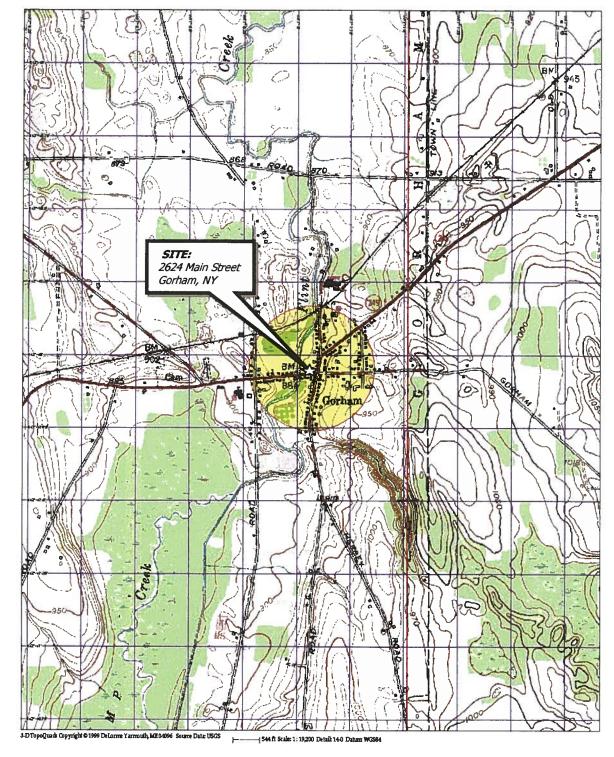
E or J = Estimated Concentration

N = Matrix Spike Recovery Falls Outside Control Limit

U = Not Detected

\* = RPD Duplicate Analyses Outside Control Limit





Drawing Produced From: 3-D TopoQuads, DeLorme Map Co., referencing USGS quad maps Stanley (NY) 1990; and Rushville (NY) 1990. Site Lat/Long: N42°47.95' – W79°7.73'

DATE **06-17-2009** 

DRAWN BY

SCALE 1" = 2000'



DAY ENVIRONMENTAL, INC. ENVIRONMENTAL CONSULTANTS ROCHESTER, NEW YORK 14614-1008 NEW YORK. NEW YORK 10165-1617 PROJECT TITLE

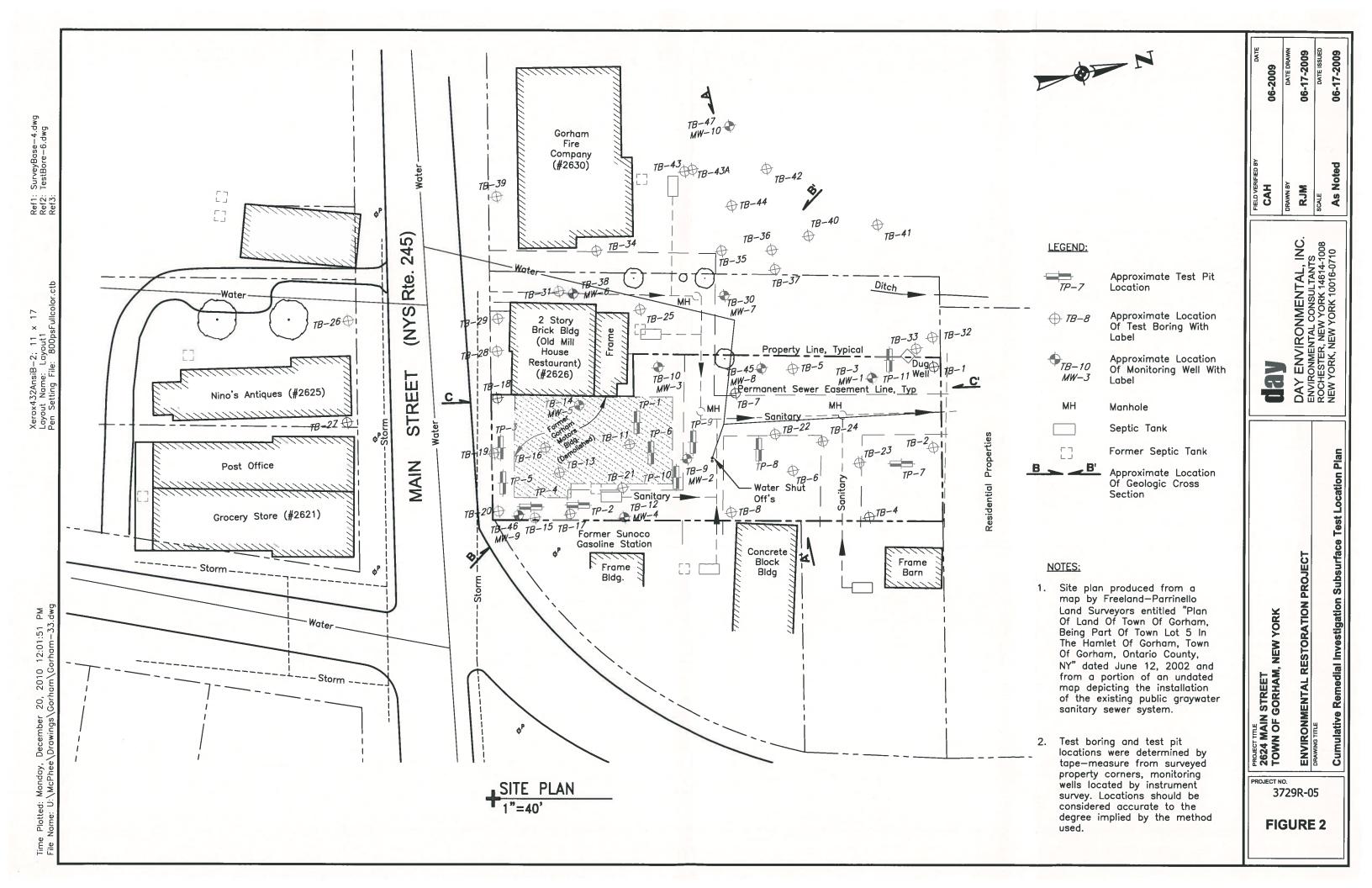
2624 MAIN STREET TOWN OF GORHAM, NEW YORK

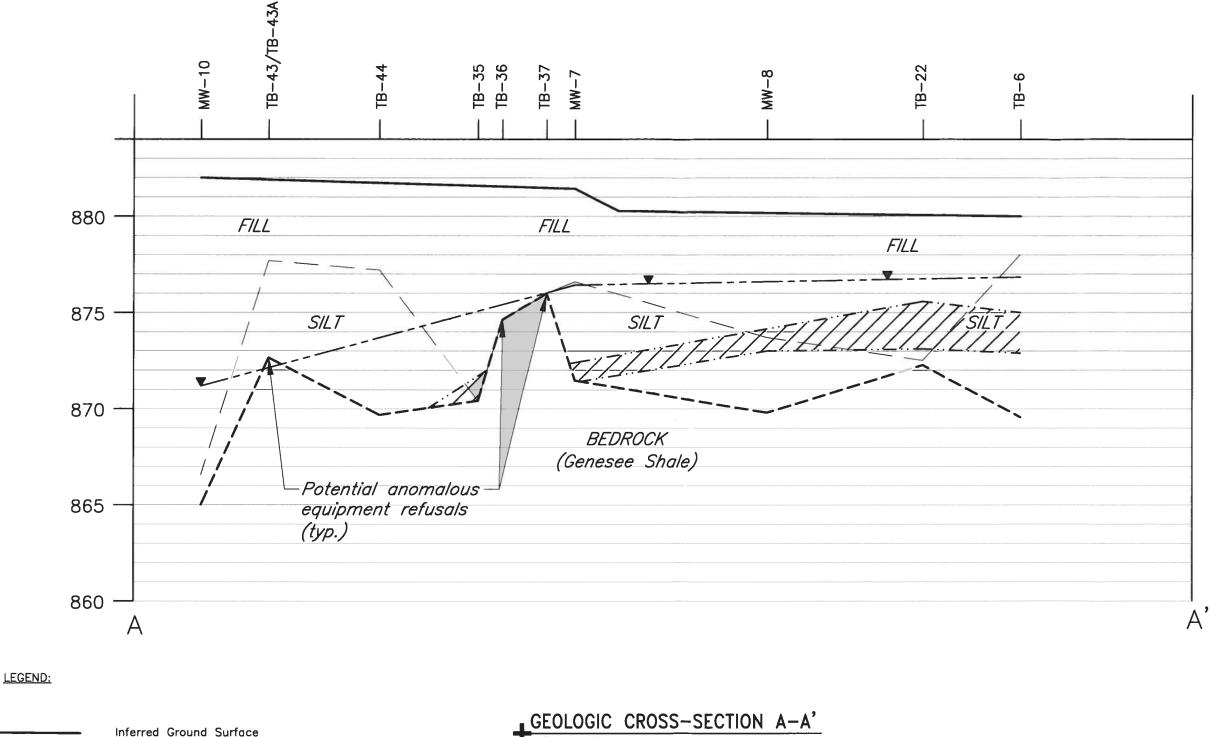
**ENVIRONMENTAL RESTORATION PROJECT** 

PROJECT LOCUS MAP

PROJECT NO.

3729R-05





1" = 20' Horizontal 1" = 5' Vertical

2003

Inferred Extent of Petroleum Contamination is Subsurface Soils Exceeding 50.0 ppm on a PID, Exceeding TAGM 4046 RSCOs or Exhibiting Evidence of Staining/Odors

Inferred Boundary Between Fill Material and Overburden Soil

Inferred Boundary Between Overburden and Bedrock

Inferred Groundwater Elevation Based on State Water Level Measurements Collected from Monitoring Wells on November 19,

Surveyed ground elevation data for wells used on this figure. Ground elevations inferred for test boring locations due to lack of elevation data.

ENVIRONMENTAL RESTORATION PROJECT PROJECT TITLE
2624 MAIN STREET
TOWN OF GORHAM, NEW YORK

06-17-2009 DATE ISSUED

RJM

CAH

As Noted

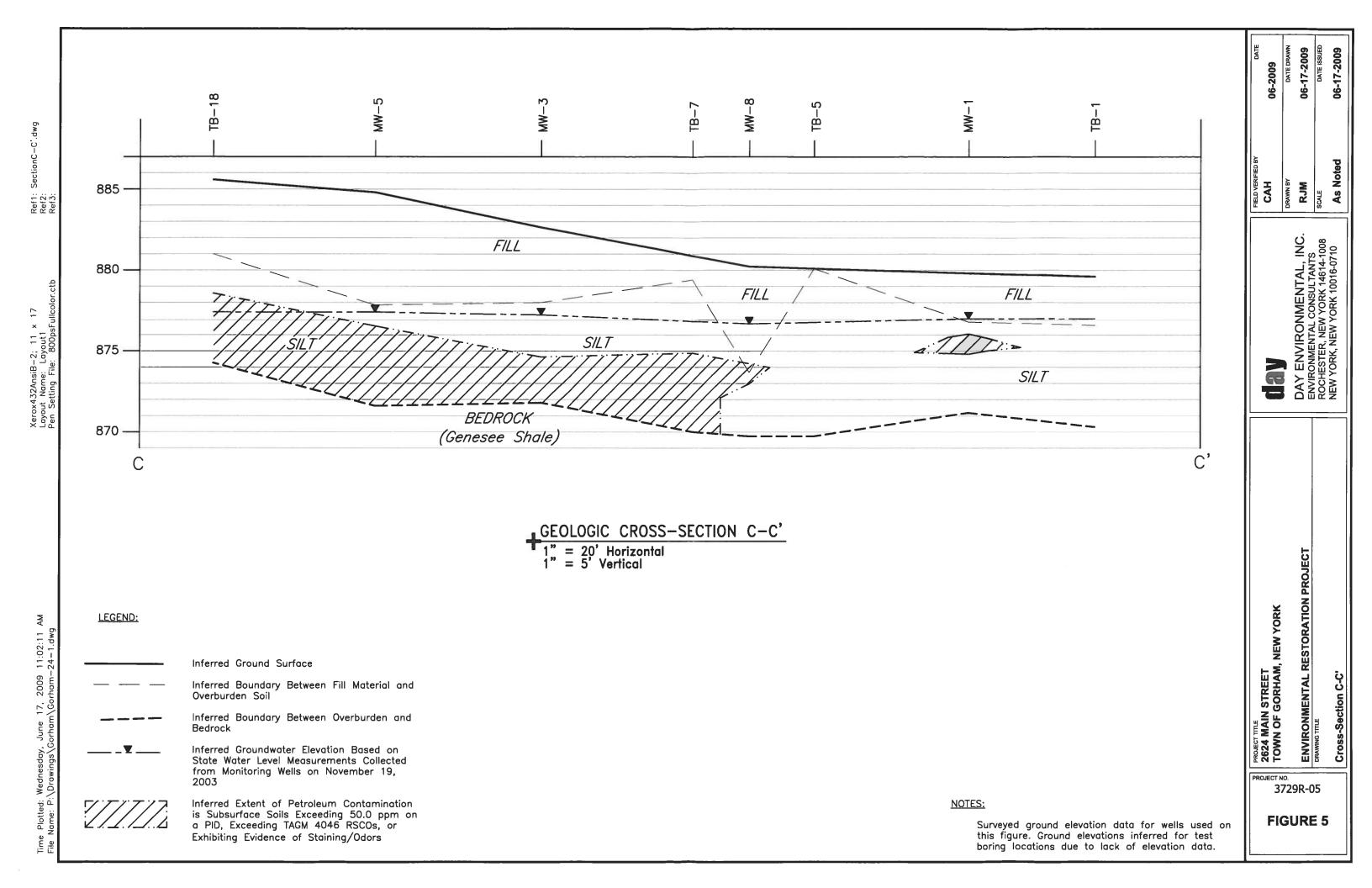
PROJECT NO. 3729R-05

**06-17-2009**DATE ISSUED TB-36 TB-40 TB-37 6-WM CAH PRAWN BY RJM 885 FILL FILL 880 FILL 875 day SILT 870 -BEDROCK Potential anomalous equipment refusals B' (Genesee Shale) В (typ.) ■ GEOLOGIC CROSS-SECTION B-B' = 20' Horizontal = 5' Vertical PROJECT TITLE
2624 MAIN STREET
TOWN OF GORHAM, NEW YORK LEGEND: Inferred Ground Surface Inferred Boundary Between Fill Material and Inferred Boundary Between Overburden and Inferred Groundwater Elevation Based on State Water Level Measurements Collected from Monitoring Wells on November 19, 2003 3729R-05 Inferred Extent of Petroleum Contamination is Subsurface Soils Exceeding 50.0 ppm on a PID, Exceeding TAGM 4046 RSCOs or Exhibiting Evidence of Staining/Odors FIGURE 4 Surveyed ground elevation data for wells used on this figure. Ground elevations inferred for test boring locations due to lack of elevation data.

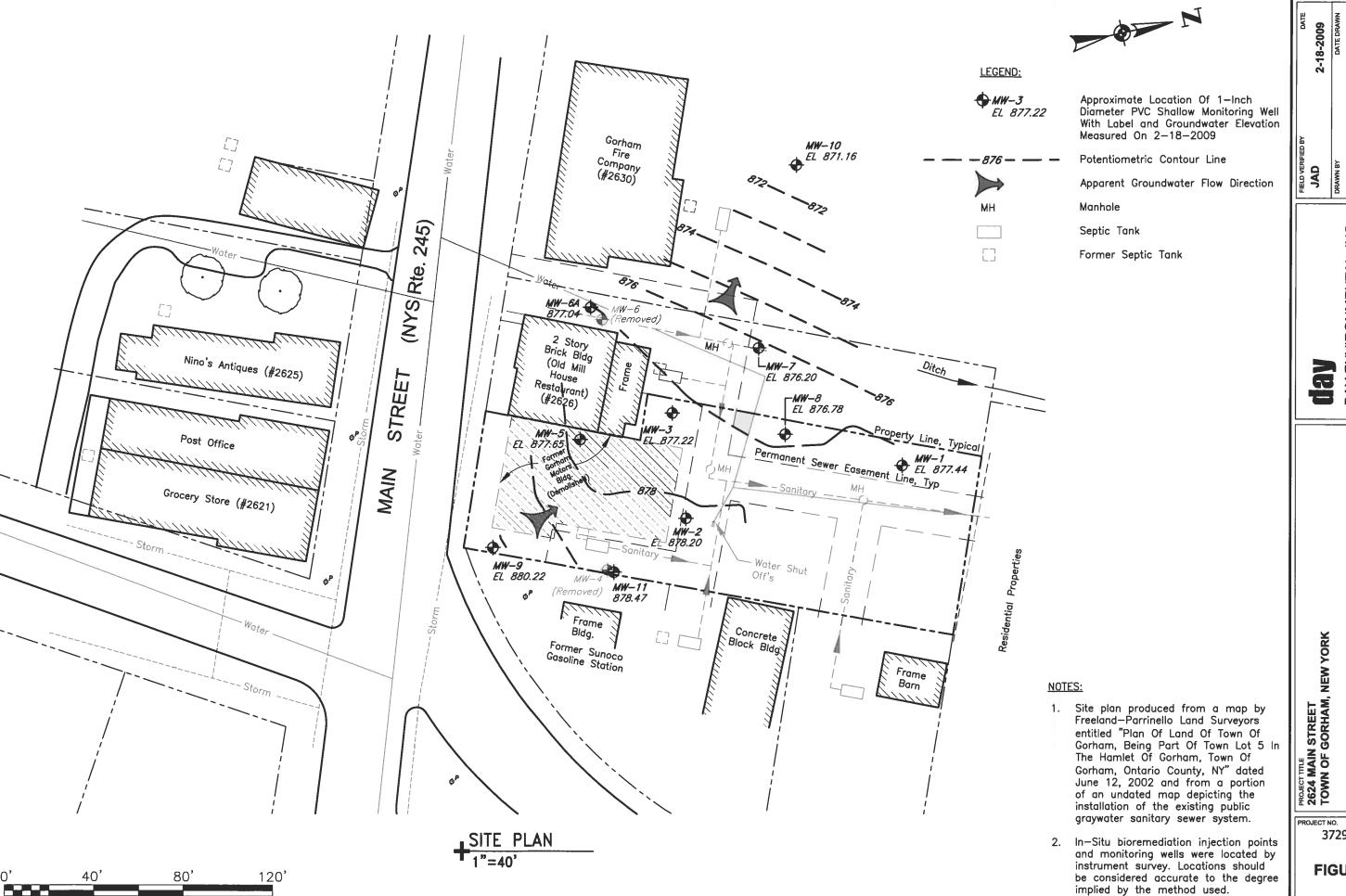
As Noted

ENVIRONMENTAL RESTORATION PROJECT DRAWING TITLE

Time Plotted: Wednesday, June 17, 2009 10:52:53 AM File Name: P:\Drawings\Gorham\Gorham-23-1.dwg





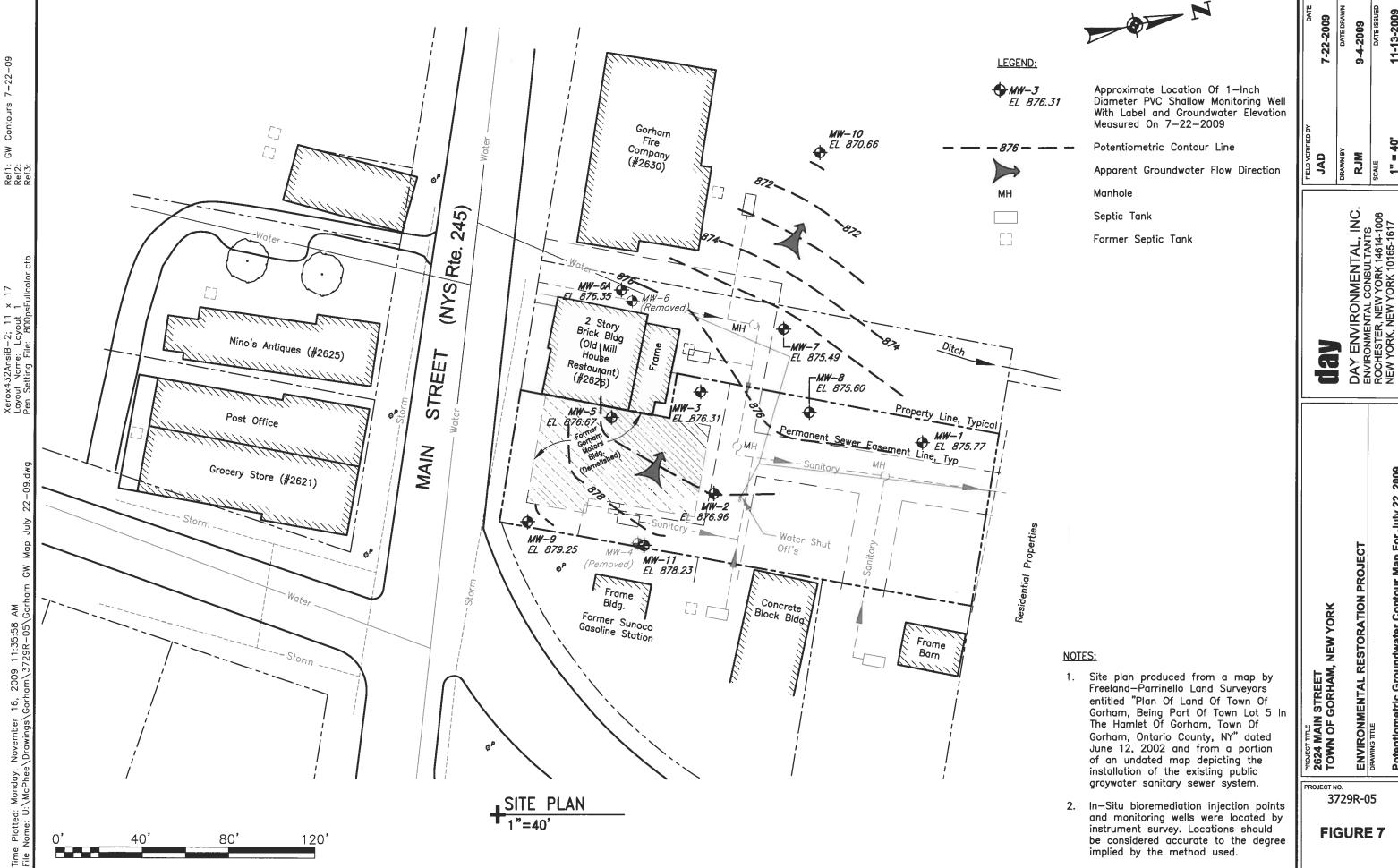


11-13-2009 2-18-2009 DATE DRAW 3-20-2009 DATE ISSUE

DAY ENVIRONMENTAL, INC. ENVIRONMENTAL CONSULTANTS ROCHESTER, NEW YORK 14614-1008 NEW YORK, NEW YORK 10165-1617

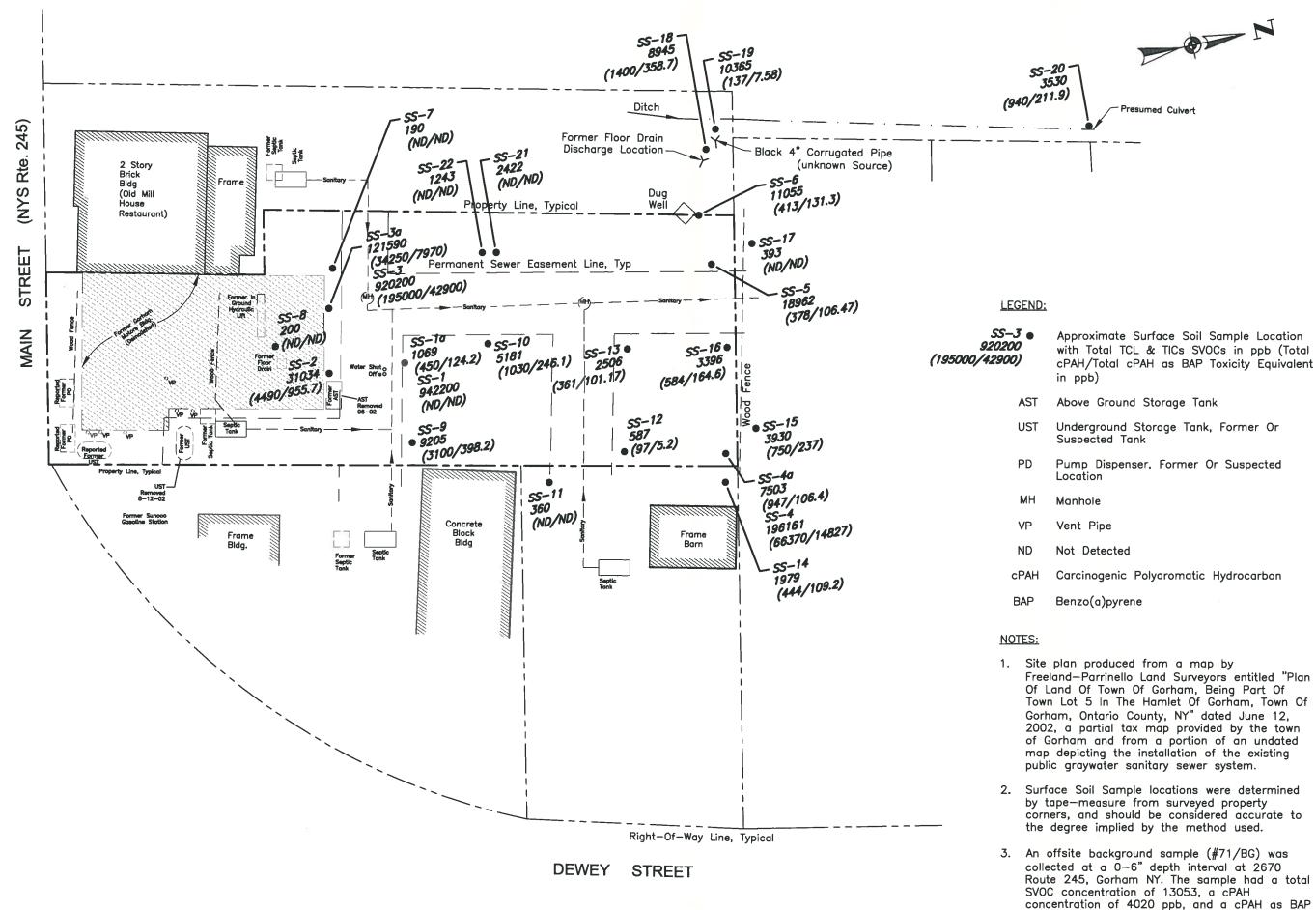
ENVIRONMENTAL RESTORATION PROJECT DRAWING TITLE

3729R-05



11-13-2009





06-17-2009 CAH CAH

RJM DAY ENVIRONMENTAL, INC. ENVIRONMENTAL CONSULTANTS ROCHESTER, NEW YORK 14614-1008 NEW YORK, NEW YORK 10016-0710

Detected In Surface Soil Samples From Remedial Investigation

ENVIRONMENTAL RESTORATION PROJECT DRAWING TITLE

2624 MAIN STREET TOWN OF GORHAM, NEW YORK

3729R-05

toxicity equivalent of 862.8 ppb.

interval at 2670 Route 245, Gorham NY. The sample had elevated

concentrations of zinc with respect to SCGs.

55-19 55-20 245) Ca,Mg,Zn. Former Floor Drain Discharge Location Black 4" Corrugated Pipe (NYS Rte. 2 Story (unknown Source) Bldg (Old Mill Property Line, Typical House Restaurant) LEGEND: SS-22 SS-21 55-7 No NT Permanent Sewer Easement Line, Typ *SS-7* ● STREET Approximate Surface Soil Sample Location with Ca,Mg,Zn Inorganic Compounds Exceeding SCG •S5-3<sup>MH</sup>, Sp. Hg. Ni, Zn. Cd, Cu, Pb, Mg, Hg. Ni, Zn. **AST** Above Ground Storage Tank UST Underground Storage Tank, Former Or Suspected Tank 55-8 •Ca,Mg MAIN PD Pump Dispenser, Former Or Suspected Location 55-13 55-16 MH Manhole Mg.Zn VΡ Vent Pipe As Arsenic Ca Calcium • SS-9 Ca, Cu, Mg, Hg, Zn Cd Cadmium Cr Chromium Cu Copper 55-11 Hg Mercury Mg. Zn РЬ Lead Concrete Block Ма Frame Magnesium Bldg Former Septic Tank Ni Nickel Zn Zinc SCG Standards, Criteria, and Guidance Value Based On Higher Of Typical Background Range Or Recommended Soil Cleanup Objective Referenced In NYSDEC TAGM 4046 NT Not Tested **NOTES:** 1. Site plan produced from a map by Freeland-Parrinello Land Surveyors entitled "Plan Of Land Of Town Of Gorham, Being Part Of Town Lot 5 In The Hamlet Of Gorham, Town Of Gorham, Ontario County, NY" dated June 12, 2002, a partial tax map provided by the town of Gorham and from a portion of an undated map depicting the installation of the existing public graywater sanitary sewer system. 2. Surface Soil Sample locations were determined by tape—measure from surveyed property corners, and should be considered accurate to the degree implied by the method used. Right-Of-Way Line, Typical 3. Standard, criteria, typical background ranges and guidance values as referenced in TAGM 4046 and the "proposed" 1995 TAGM 4046 for cadmium DEWEY STREET and chromium. 4. An offsite background sample (#71/BG) was collected at a 0-6" depth

06-17-2009

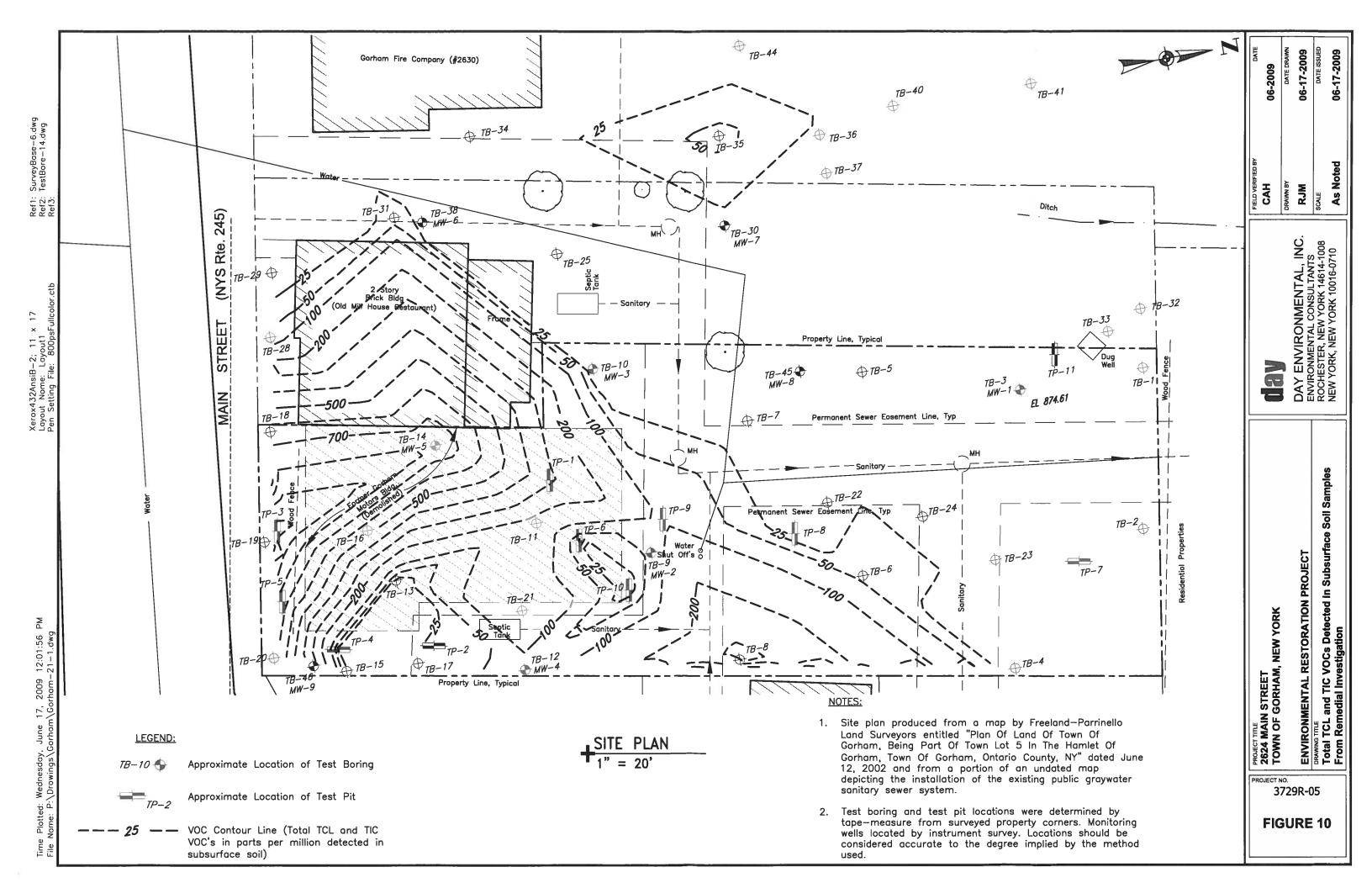
RJM

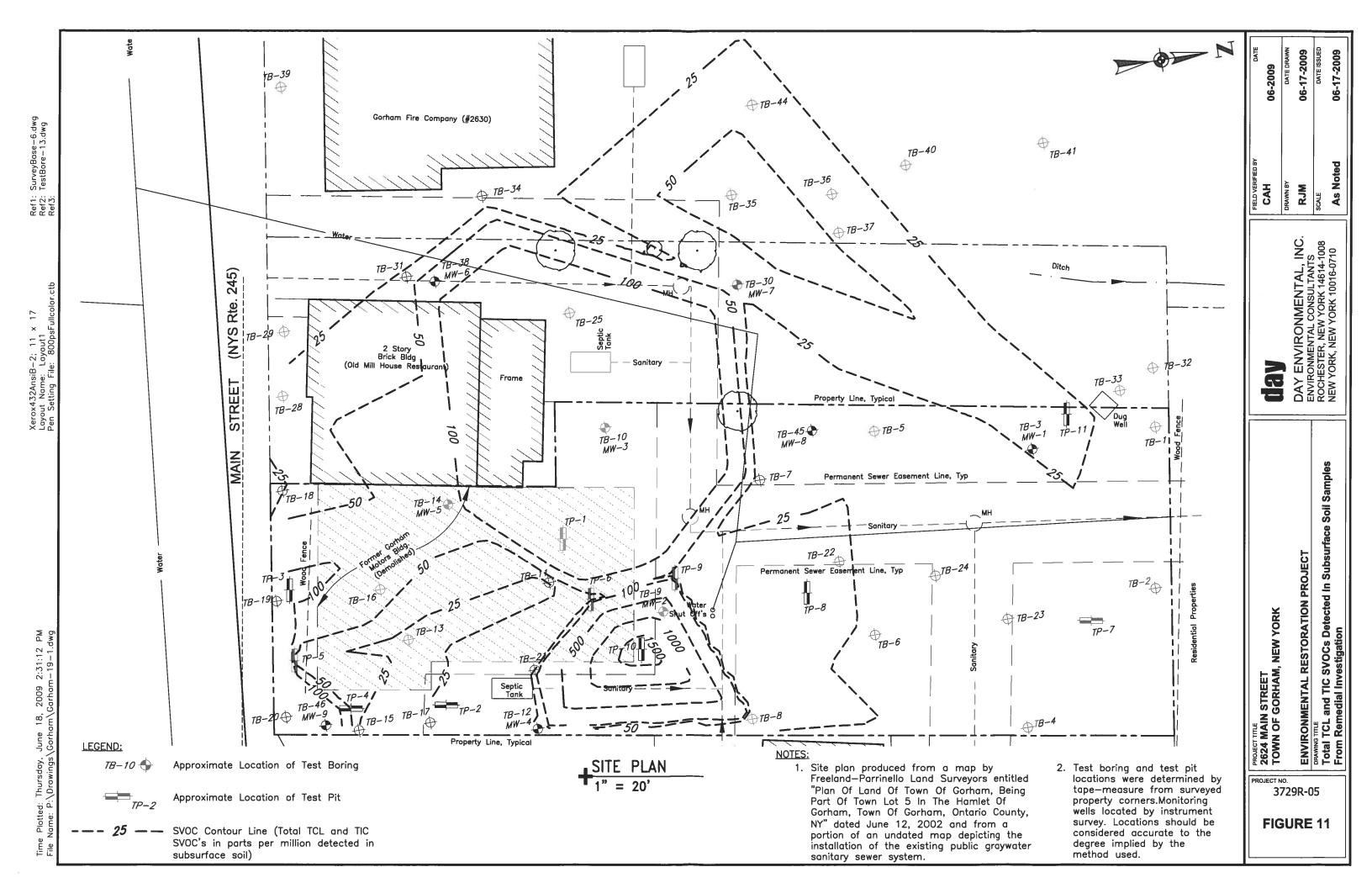
CAH

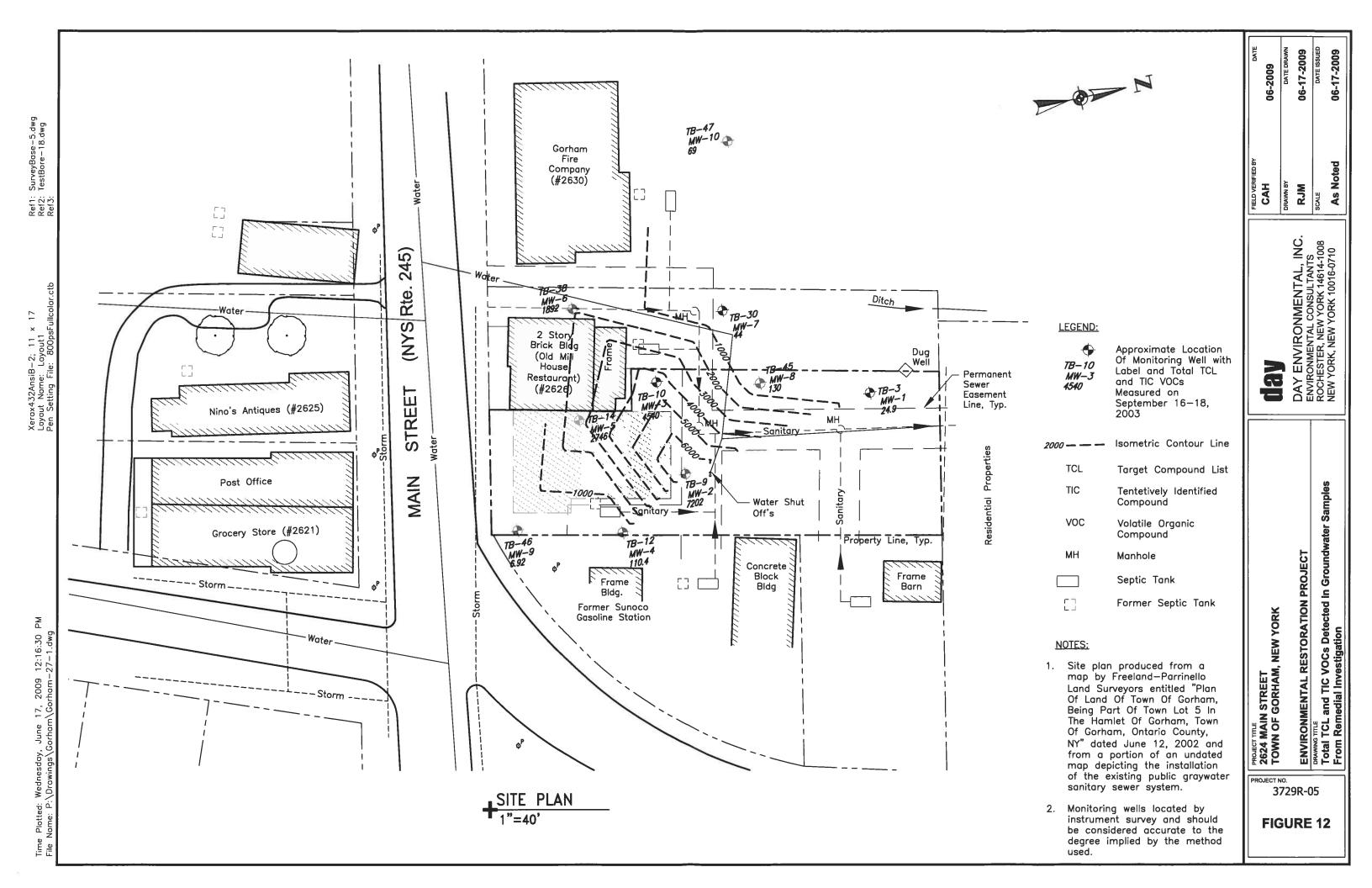
DAY ENVIRONMENTAL, INC. ENVIRONMENTAL CONSULTANTS ROCHESTER, NEW YORK 14614-1008 NEW YORK, NEW YORK, 10016-0710

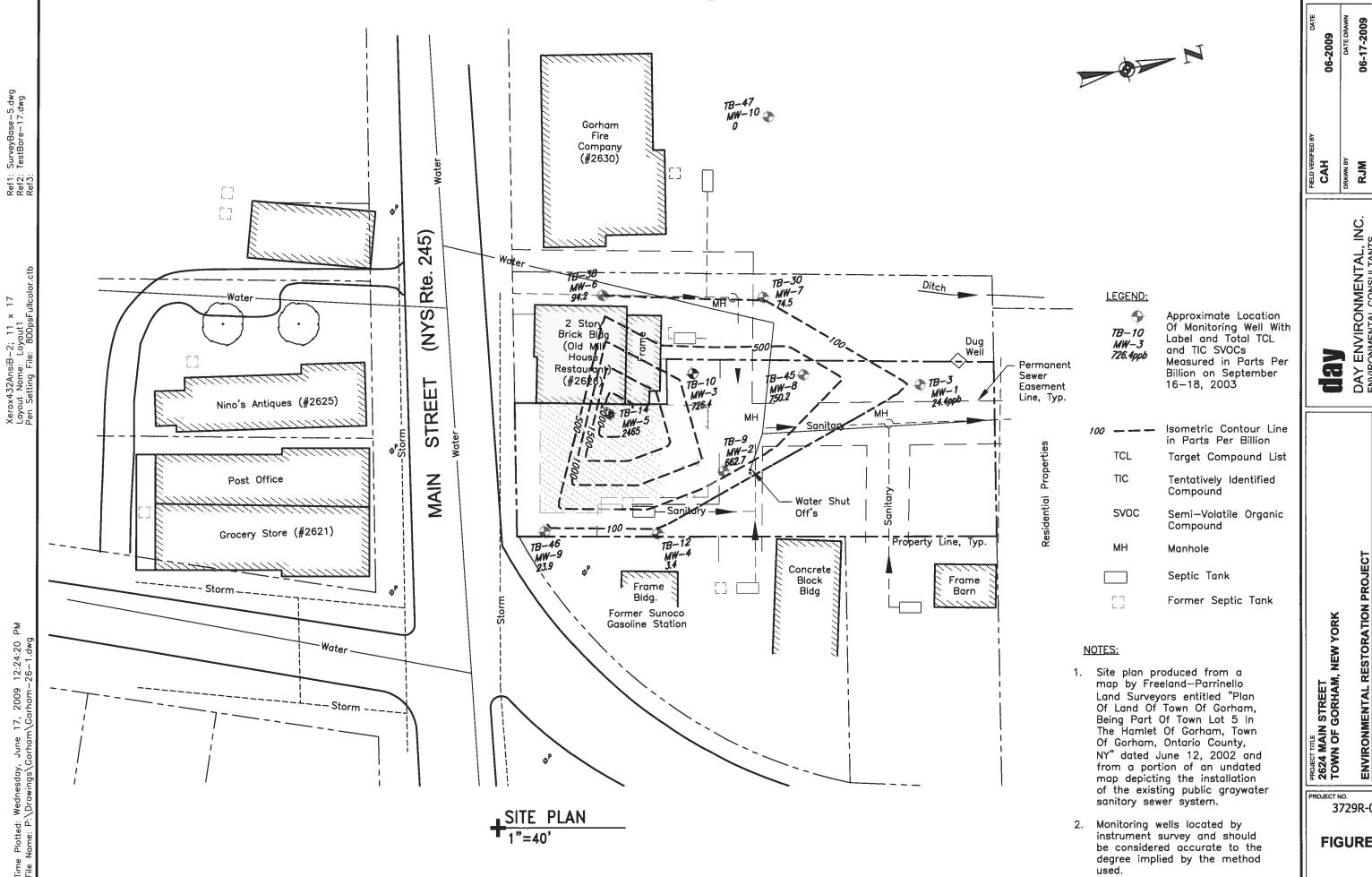
Samples Soil **ENVIRONMENTAL RESTORATION PROJECT** In Surface 2624 MAIN STREET TOWN OF GORHAM, NEW YORK TAL Metals Exceeding SCGs From Remedial Investigation

PROJECT NO. 3729R-05







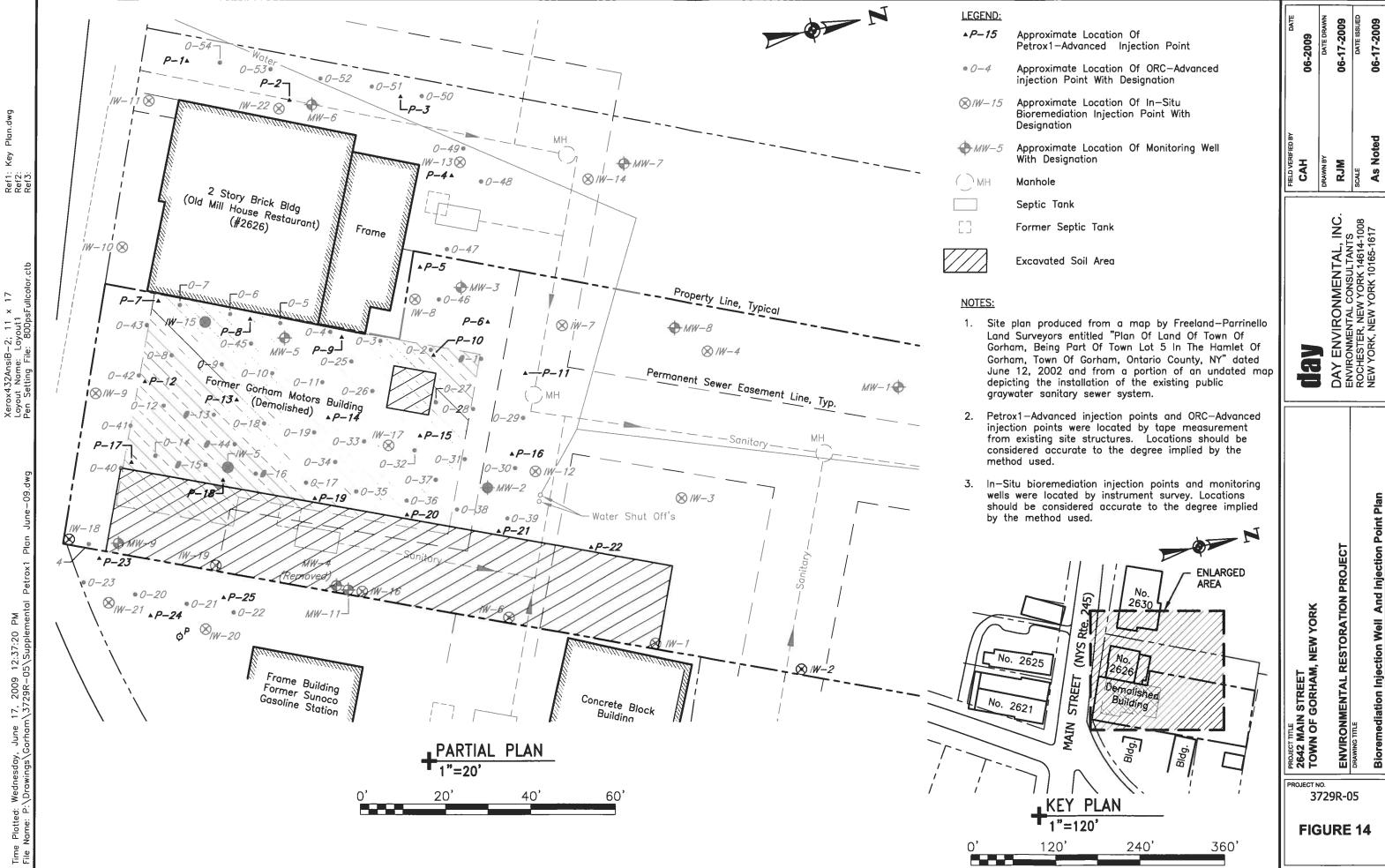


**06-17-2009**DATE ISSUED

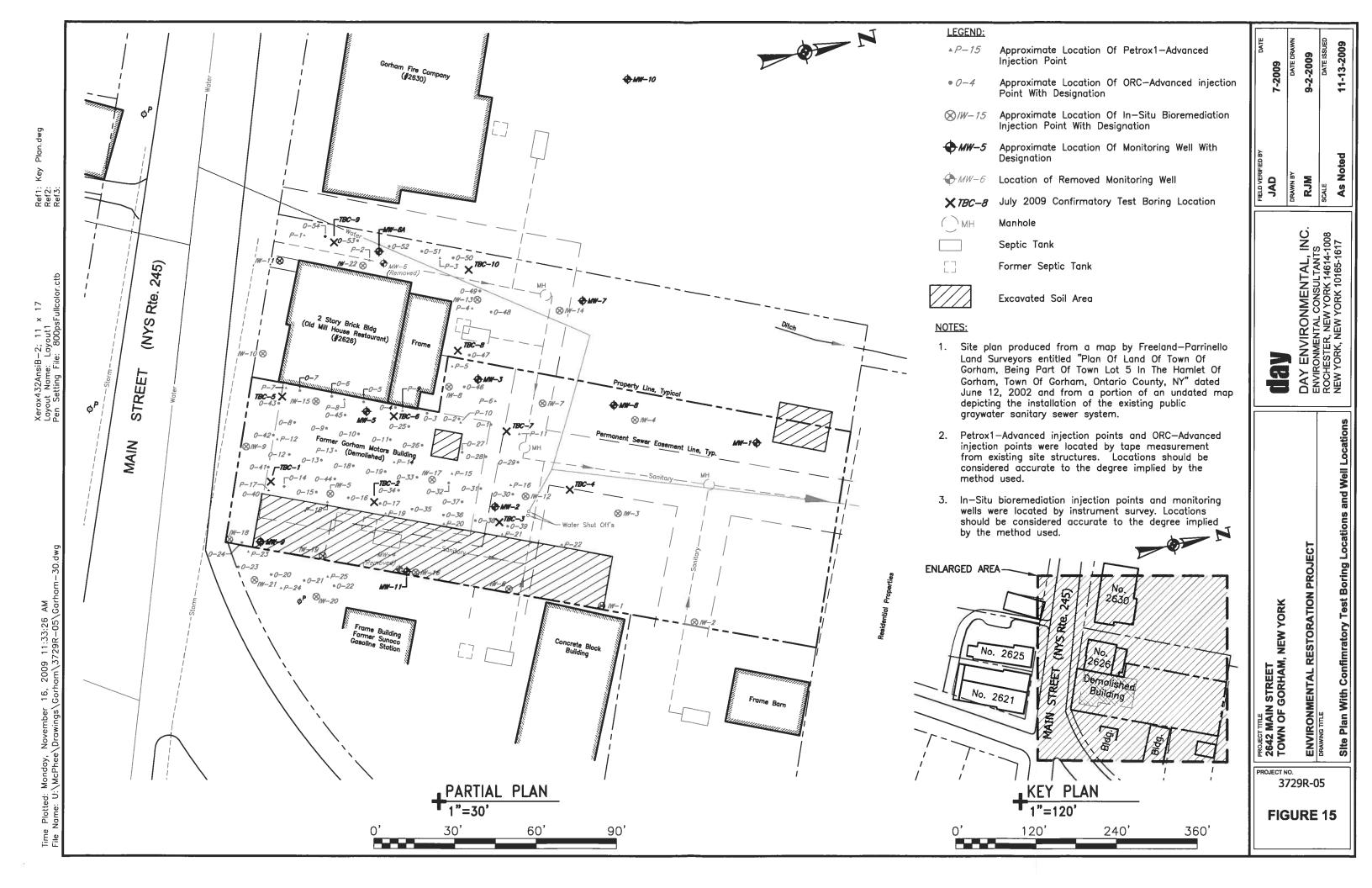
DAY ENVIRONMENTAL, INC. ENVIRONMENTAL CONSULTANTS ROCHESTER, NEW YORK 14614-1008 NEW YORK, NEW YORK 10016-0710

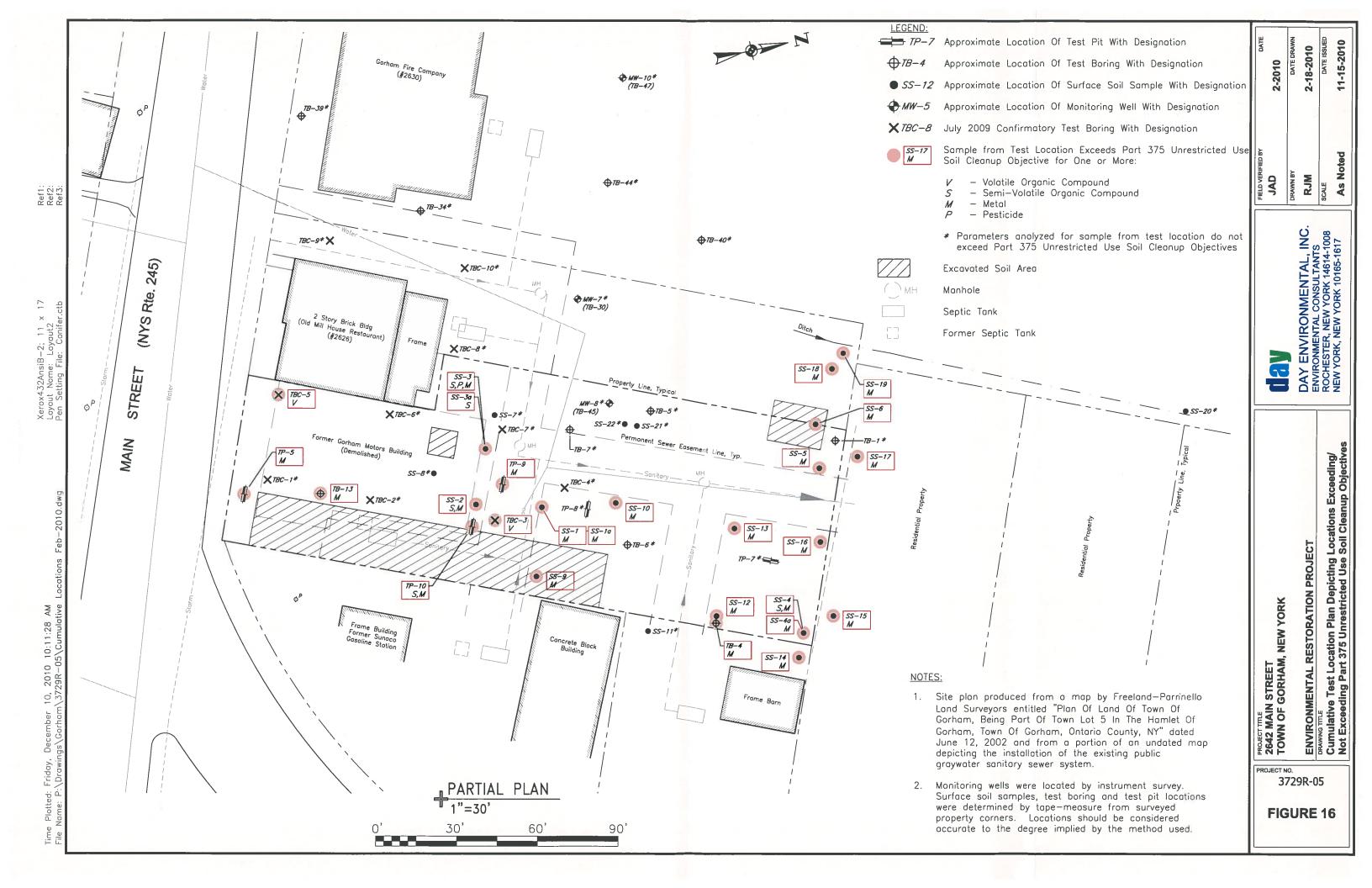
ENVIRONMENTAL RESTORATION PROJECT DRAWING TITLE TOTAL TCL and TIC SVOCs Detected in Ground From Remedial Investigation

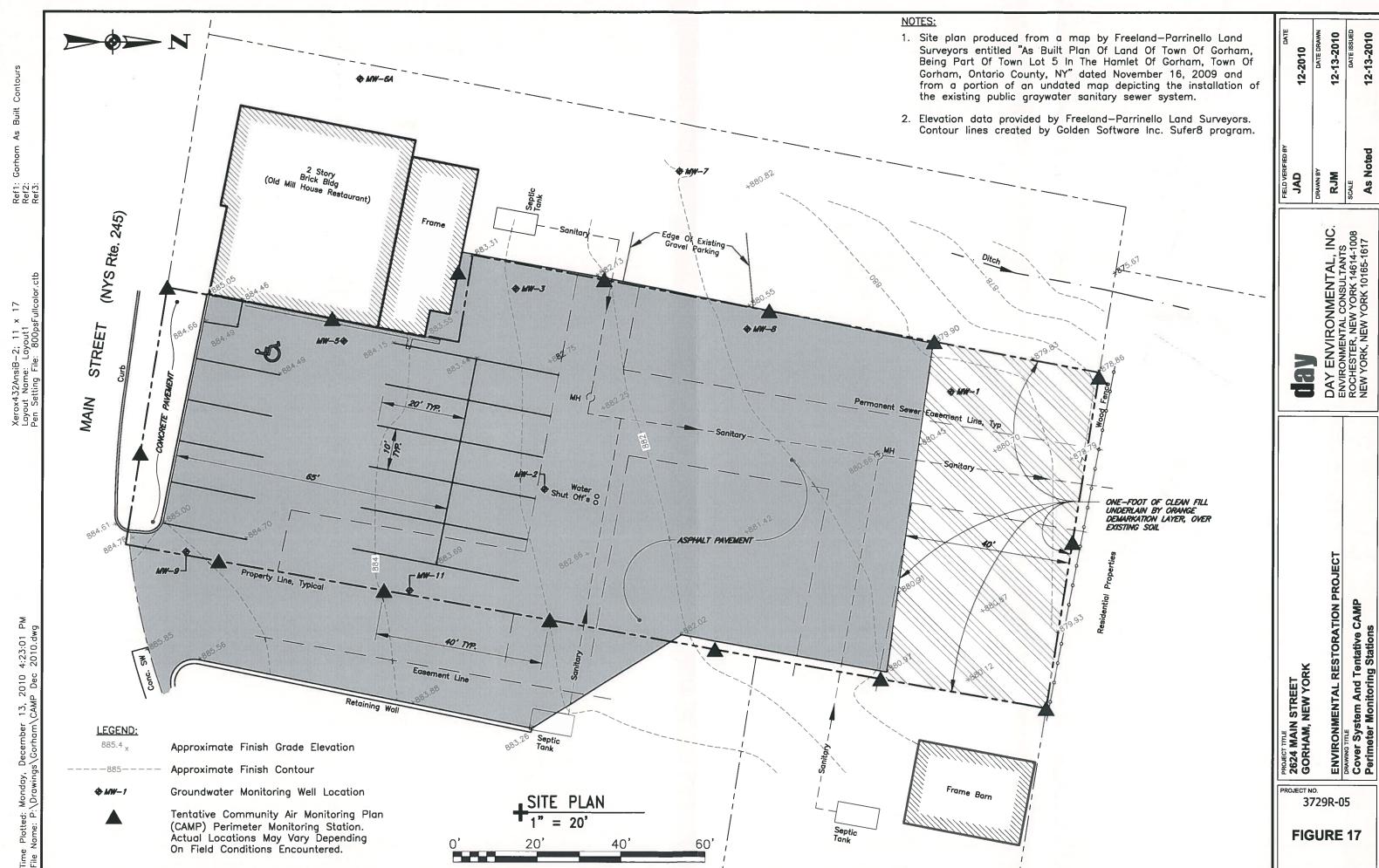
3729R-05



06-17-2009







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### APPENDIX A

**Draft Environmental Easement** 

# ENVIRONMENTAL EASEMENT GRANTED PURSUANT TO ARTICLE 71, TITLE 36 OF THE NEW YORK STATE ENVIRONMENTAL CONSERVATION LAW

THIS INDENTURE made this \_\_\_\_\_day of \_\_\_\_\_\_\_, 2010, between Owner Town of Gorham, having an office at 4736 South Street, Gorham, New York, (the "Grantor"), and The People of the State of New York (the "Grantee."), acting through their Commissioner of the Department of Environmental Conservation (the "Commissioner", or "NYSDEC" or "Department" as the context requires) with its headquarters located at 625 Broadway, Albany, New York 12233,

WHEREAS, the Legislature of the State of New York has declared that it is in the public interest to encourage the remediation of abandoned and likely contaminated properties ("sites") that threaten the health and vitality of the communities they burden while at the same time ensuring the protection of public health and the environment; and

WHEREAS, the Legislature of the State of New York has declared that it is in the public interest to establish within the Department a statutory environmental remediation program that includes the use of Environmental Easements as an enforceable means of ensuring the performance of operation, maintenance, and/or monitoring requirements and of ensuring the potential restriction of future uses of the land, when an environmental remediation project leaves residual contamination at levels that have been determined to be safe for a specific use, but not all uses, or which includes engineered structures that must be maintained or protected against damage to perform properly and be effective, or which requires groundwater use or soil management restrictions; and

WHEREAS, the Legislature of the State of New York has declared that Environmental Easement shall mean an interest in real property, created under and subject to the provisions of Article 71, Title 36 of the New York State Environmental Conservation Law ("ECL") which contains a use restriction and/or a prohibition on the use of land in a manner inconsistent with engineering controls, which are intended to ensure the long-term effectiveness of a site remedial program or eliminate potential exposure pathways to hazardous waste or petroleum; and

WHEREAS, Grantor, is the owner of real property located at the address of 2624 Main Street in the Town of Gorham, Ontario County, New York, known and designated on the tax map of the Town of Gorham as tax map parcel number 144, Section 10, Block 1, Lot 25, commonly known as the Former Ford Garage Site, being the same as that property conveyed to Grantor by deed on November 1, 2000, and recorded on December 18, 2000, in the Land Records of the Ontario County Clerk at Liber 01047 Page 0369 of Deeds, comprised of approximately 0.385 acres, and hereinafter more fully described in Schedule "A" attached hereto and made a part hereof ( the "Controlled Property"); and

\_\_\_\_\_

**WHEREAS**, the Commissioner does hereby acknowledge that the Department accepts this Environmental Easement in order to ensure the protection of human health and the environment and to achieve the requirements for remediation established at this Controlled Property until such time as this Environmental Easement is extinguished pursuant to ECL Article 71, Title 36; and

**NOW THEREFORE**, in consideration of the covenants and mutual promises contained herein and the terms and conditions of State Assistance Contract Number C303091, Grantor grants, conveys and releases to Grantee a permanent Environmental Easement pursuant to Article 71, Title 36 of the ECL in, on, over, under, and upon the Controlled Property as more fully described herein ("Environmental Easement").

- 1. <u>Purposes</u>. Grantor and Grantee acknowledge that the Purposes of this Environmental Easement are: to convey to Grantee real property rights and interests that will run with the land in perpetuity in order to provide an effective and enforceable means of encouraging the reuse and redevelopment of this Controlled Property at a level that has been determined to be safe for a specific use while ensuring the performance of operation, maintenance, and/or monitoring requirements; and to ensure the potential restriction of future uses of the land that are inconsistent with the above-stated purpose.
- 2. <u>Institutional and Engineering Controls</u>. The following controls apply to the use of the Controlled Property, run with the land, are binding on the Grantor and the Grantor's successors and assigns, and are enforceable in law or equity against any owner of the Controlled Property, any lessees, and any person using the Controlled Property:
  - A. The Controlled Property may be used for restricted **commercial or industrial** use as long as the following long-term engineering controls are employed:
  - (i) any soil on the property must be covered by a barrier layer approved by the Department such as concrete, asphalt, structures, or a minimum one (1) foot soil cover underlain by a demarcation barrier (.e.g. geotextile) for vegetated areas;
  - (ii) any future activities, including subgrade utility line repair/relocation, and new construction, which will cause a disturbance of soil below concrete, asphalt, structures, or the demarcation barrier (e.g. geotextile) must be conducted in accordance with the Department approved Site Management Plan (SMP);
  - (iii) vegetable gardens and farming on the Controlled Property is prohibited;
  - (iv) The use of groundwater underlying the Controlled Property is prohibited;
  - (v) The potential for vapor intrusion must be evaluated for any buildings developed on the Controlled Property, and any potential impacts that are identified must be monitored or mitigated in accordance with the SMP and applicable guidance in effect at the time of the investigation;
  - (vi) monitor, maintain and replace as necessary groundwater monitoring wells required to be monitored as set forth in the SMP.

The Grantor hereby acknowledges receipt of a copy of the NYSDEC-approved Site Management Plan, dated February 2011 ("SMP"). The SMP describes obligations that Grantor assumes on behalf of Grantor, its successors and assigns. The Grantor's assumption of the obligations contained in the SMP which may include sampling, monitoring, and/or operating a treatment system on the Controlled Property, and providing certified reports to the NYSDEC, is and remains a fundamental element of the Department's determination that the Controlled Property is safe for a specific use, but not all uses. Upon notice of not less than thirty (30) days the Department in exercise of its discretion and consistent with applicable law may revise the SMP. The notice shall be a final agency determination. The Grantor and all successors and assigns, assume the burden of complying with the SMP and obtaining an up-to-date version of the SMP from:

Regional Remediation Engineer: or Site Control Section

Region 8 Division of Environmental Remediation

NYSDEC
6274 East Avon-Lima Road
625 Broadway
Avon, New York 14414
Albany, NY 12233

B. The Controlled Property may not be used for a higher level of use such as **unrestricted or restricted residential** use and the above-stated engineering controls may not be discontinued without an amendment or extinguishment of this Environmental Easement.

C. Grantor covenants and agrees that until such time as the Environmental Easement is extinguished in accordance with the requirements of Article 71, Title 36 of the ECL, the property deed and all subsequent instruments of conveyance relating to the Controlled Property shall state in at least fifteen-point bold-faced type:

This property is subject to an environmental easement held by the New York State Department of Environmental Conservation pursuant to Title 36 of Article 71 of the Environmental Conservation Law.

- D. Grantor covenants and agrees that this Environmental Easement shall be incorporated in full or by reference in any leases, licenses, or other instruments granting a right to use the Controlled Property.
- E. Grantor covenants and agrees that it shall annually, or such time as NYSDEC may allow, submit to NYSDEC a written statement by an expert the NYSDEC may find acceptable certifying under penalty of perjury that the controls employed at the Controlled Property are unchanged from the previous certification or that any changes to the controls employed at the Controlled Property were approved by the NYSDEC, and that nothing has occurred that would impair the ability of such control to protect the public health and environment or constitute a violation or failure to comply with any Site Management Plan for such controls and giving access to such Controlled Property to evaluate continued maintenance of such controls.

\_\_\_\_\_

3. <u>Right to Enter and Inspect</u>. Grantee, its agents, employees, or other representatives of the State may enter and inspect the Controlled Property in a reasonable manner and at reasonable times to assure compliance with the above-stated restrictions.

- 4. <u>Reserved Grantor's Rights</u>. Grantor reserves for itself, its assigns, representatives, and successors in interest with respect to the Property, all rights as fee owner of the Controlled Property, including:
- A. Use of the Controlled Property for all purposes not inconsistent with, or limited by the terms of this Environmental Easement;
- B. The right to give, sell, assign, or otherwise transfer the underlying fee interest to the Controlled Property by operation of law, by deed, or by indenture, subject and subordinate to this Environmental Easement;

### 5. Enforcement

- A. This Environmental Easement is enforceable in law or equity in perpetuity by Grantor, Grantee, or any affected local government, as defined in ECL Section 71-3603, against the owner of the Property, any lessees, and any person using the land. Enforcement shall not be defeated because of any subsequent adverse possession, laches, estoppel, or waiver. It is not a defense in any action to enforce this Environmental Easement that: it is not appurtenant to an interest in real property; it is not of a character that has been recognized traditionally at common law; it imposes a negative burden; it imposes affirmative obligations upon the owner of any interest in the burdened property; the benefit does not touch or concern real property; there is no privity of estate or of contract; or it imposes an unreasonable restraint on alienation.
- B. If any person intentionally violates this Environmental Easement, the Grantee may revoke the Certificate of Completion provided under ECL Article 27, Title 14, or Article 56, Title 5 with respect to the Controlled Property.
- C. Grantee shall notify Grantor of a breach or suspected breach of any of the terms of this Environmental Easement. Such notice shall set forth how Grantor can cure such breach or suspected breach and give Grantor a reasonable amount of time from the date of receipt of notice in which to cure. At the expiration of such period of time to cure, or any extensions granted by Grantee, the Grantee shall notify Grantor of any failure to adequately cure the breach or suspected breach. Grantor shall then have a reasonable amount of time from receipt of such notice to cure. At the expiration of said second period, Grantee may commence any proceedings and take any other appropriate action reasonably necessary to remedy any breach of this Environmental Easement in accordance with applicable law to require compliance with the terms of this Environmental Easement.
- D. The failure of Grantee to enforce any of the terms contained herein shall not be deemed a waiver of any such term nor bar its enforcement rights in the event of a subsequent breach of or noncompliance with any of the terms of this Environmental Easement.

6. <u>Notice</u>. Whenever notice to the State (other than the annual certification) or approval from the State is required, the Party providing such notice or seeking such approval shall identify the Controlled Property by referencing the following information: County, NYSDEC Site Number, NYSDEC Contract or Order Number, and the County tax map number or the Liber and Page or computerized system identification number.

Parties shall address correspondence to: Site No:B00153-8

**Environmental Easement Attorney** 

Office of General Counsel

NYSDEC 625 Broadway

Albany New York 12233-1500

Such correspondence shall be delivered by hand, or by registered mail or by Certified mail and return receipt requested. The Parties may provide for other means of receiving and communicating notices and responses to requests for approval.

- 7. <u>Recordation</u>. Grantor shall record this instrument, within thirty (30) days of execution of this instrument by the Commissioner or her/his authorized representative in the office of the recording officer for the county or counties where the Property is situated in the manner prescribed by Article 9 of the Real Property Law.
- 8. <u>Amendment</u>. This Environmental Easement may be amended only by an amendment executed by the Commissioner of the New York State Department of Environmental Conservation and filed with the office of the recording officer for the county or counties where the Property is situated in the manner prescribed by Article 9 of the Real Property Law.
- 9. <u>Extinguishment</u>. This Environmental Easement may be extinguished only by a release by the Commissioner of the New York State Department of Environmental Conservation and filed with the office of the recording officer for the county or counties where the Property is situated in the manner prescribed by Article 9 of the Real Property Law.
- 10. <u>Joint Obligation</u>. If there are two or more parties identified as Grantor herein, the obligations imposed by this instrument upon them shall be joint and several.

**Town of Gorham** 

**IN WITNESS WHEREOF,** Grantor has caused this instrument to be signed in its name.

By:	
Print Name: <u>Richard M. Calabrese</u>	
Title: Town of Gorham Supervisor  Environmental Easement Page 5 of 9	_ Date:

### **Grantor's Acknowledgment**

STATE OF NEW YORK ) ) ss:
COUNTY OF )
On the day of, in the year 20, before me, the undersigned personally appeared, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.
THIS ENVIRONMENTAL EASEMENT IS HEREBY ACCEPTED BY THE PEOPLE OF THE STATE OF NEW YORK, Acting By and Through the Department of Environmental Conservation as Designee of the Commissioner,
By: Dale A. Desnoyers, Director Division of Remediation
Grantee s Acknowledgment
STATE OF NEW YORK ) ) ss: COUNTY OF ALBANY )
On the day of, in the year 20, before me, the undersigned personally appeared Dale Desnoyers, personally known to me or proved to me on the basis o satisfactory evidence to be the individual(s) whose name is (are) subscribed to the within instrument and acknowledged to me that he/she/ executed the same in his/her/ capacity at Designee of the Commissioner of the State of New York Department of Environmenta Conservation, and that by his/her/ signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.
Notary Public - State of New York

\_\_\_\_\_

# Schedule "A" Property Description

THAT TRACT OR PARCEL OF LAND situate in the Town of Gorham, County of Ontario and State of New York, situate, lying and being on the north side of the highway running east and west through the hamlet of Gorham, known as the Main Street, and bounded on the south by the center of said highway or Street; On the east by the west line of premises formerly known and designated as the Gorham Hotel Lot, formerly owned and occupied by Martin B. Bain; on the north by the south line of premises known as the Gorham Mill Lot, formerly owned by the Gorham Mill Company, and on the west by the line of said Mill Lot, and the east line of a Store lot formerly owned by Bowen Cook; together with the one-half of the cellar wall on the west side of said premises.

The above premises hereby intended to be conveyed are more particularly described according to a survey thereof made by John Handrahan, C.E., October 7, 1925, as follows: Beginning at an iron pin in the northerly line of the highway running east and west through said Village, known as Main Street, in the easterly line of lands of said Whyte, and running thence northerly in the easterly line of lands of said Whyte and of the Gorham Mill property, one hundred sixty-two and two-tenths (162.2) feet to an iron pin; thence easterly in the southerly line of the Gorham Mill property, sixty and six tenths (60.6) feet to an iron pin; thence southerly in the west line of lands of one Lewis, and along other lands of Shepherd and Teece, one hundred sixty-two and two tenths (162.2) feet to an iron pin in the northerly line of said highway and running thence westerly in the northerly line of said highway, sixty-two and one-tenth (62.1) feet to the place of beginning, together with the right, title and interest of Shepherd and Teece in and to the highway running along the southerly side of said premises.

Also a right of way in common with others over a strip of land sixteen (16) feet in width and one hundred thirty (130) feet in depth, along the easterly side of the premises hereby conveyed for the passage of pedestrians and vehicles there over, and for the storage of cars thereon, without interfering with access to the barn at the rear of said right of way.

Being and intending to describe the same premises conveyed to Alexander M. Lane by deed recorded in Ontario County Clerk's Office on June 9, 1937 in Liber 390 of Deeds, page 500.

ALSO ALL THAT TRACT OR PARCEL OF LAND situate in the Town of Gorham, County of Ontario, and State of New York, described as follows: Beginning at the northwest corner of the above described parcel conveyed to Alexander M. Lane, recorded in Ontario County Clerk's Office in Liber 390 of Deeds at page 500; thence northerly along the prolongation of said Lane's west line as described in said deed to its intersection with the south line of lands now or formerly of Charles Thomas; thence easterly along the south line of said Thomas land to its intersection with the westerly line of lands now or formerly of James Lewis; thence southerly about 61 feet with the westerly line of lands now or formerly of James Lewis; thence southerly about 61 feet along said westerly line Lewis' land and the westerly line of lands of Gorham Oil Company to the northeast corner of Lane's land as described in said deed; thence westerly about 60.6 feet along the north line of said Lane's land as described in said deed to the place of beginning.

Being and intending to describe and convey the same premises conveyed to Alexander M. Lane by deed recorded in the Ontario County Clerk's Office on June 3, 1948 in Liber 463 of Deeds, page 496.

ALSO ALL THAT TRACT OR PARCEL OF LAND situate in the Town of Gorham, Ontario County, New York, bounded and described as follows: Beginning at the northwest corner of the second above described parcel conveyed to Alexander M. Lane by deed recorded in Ontario County Clerk's Office in Liber 463 of Deeds, page 496; thence southerly along the west line of the above described parcel 152 feet to the north line of premises on which is located the U.S. Post Office; thence westerly along said north line approximately 21 feet; thence northerly and parallel with the east line of this parcel a distance of approximately 152 feet to the south line of premises now or formerly of Charles Thomas; thence easterly along said south line approximately 21 feet to the place of beginning.

Being and intending to describe and convey the same premises conveyed to Alexander M. Lane by deed recorded in Ontario County Clerk's Office on January 11, 1950 in Liber 487 of Deeds, page 324.

The above premises are conveyed subject to public utility easements of record.

Being and intending to describe the same premises conveyed to the Town of Gorham by said David Lane by Deed dated November 1, 2000 and recorded in the Ontario County Clerk's Office on December 18, 2000 at Liber 01047 of Deeds, at page 0369.

# **Survey**

#### Reference

DEED: Liber 1047, page 369 MAP: "Plan of land of John E. & Corojn A. Gilliam" Filed October 17, 1989 as filed map no. 17436 MAP: "Map Showing Lands of Gorham Oil Company, Inc. 4710 Main Street" Filed August 20, 1999 as filed map no. 25171 MAP: "...Roy L. Stahlman..." by Freeland-Parrinello Job No. 97–268 dated October 17. 1997 ABSTRACT: Keuka Abstract Corp. search no. OT—369 dated to October 19, 2000

### Legal Description

ALL THAT TRACT OR PARCEL OF LAND situate in the Town of Gorham, County of Ontario and State of New York, situate, lying and being on the north side of the highway running east and west through the Hamlet of Gorham, known as the Main Street; on the east by the west line of premises formerly known and designated as the Gorham Hotel Lot, formerly owned and occupied by Mortin E. Bain; on the north by the south line of premises known as the Gorham Mill Lot, formerly owned by the Gorham Mill Company, and on the west by the line of said Mill Lot, and on the east line of a store lot formerly owned by Bowen Cook; tagether with the one-half of the cellar wall on the west side of said premises.

The above premises hereby intended to be conveyed are more particularly described according to a survey thereof made by John Handrahan, C.E., October 7, 1925, as follows: Beginning at an iron pin in the northerly line of the highway running east and west through said Village, known as Main Street, in the easterly line of lands of said Whyte, and running thence northerly in the easterly line of lands of said Whyte and of the Gorham Milli Property, one hundred sixty two and two— tenths (162.2) feet to an iron pin; thence easterly in the southerly line of the Gorham Milli Property, sixty and six tenths (60.6) feet to an iron pin; thence southerly in the west line of lands of one Lewis, and along other lands of Shepherd and Teece, one hundred sixty two and two—tenths (162.2) feet to an iron pin in the northerly line of said highway, sixty two and ane—tenth (62.1) feet to the place of beginning, together with the right, title and interest of Shepperd and Teece in and to the highway running along the southerly side of said premises

Also a right of way in common with others over a strip of land sixteen (16) feet in width and one hundred thirty (130) feet in depth, along the easterly side of the premises hereby conveyed for the passage of pedestrians and vehicles thereover, and for the storage of cars thereon, without interfering with the access to the barn at the rear of said right of way.

ALSO ALL THAT TRACT OR PARCEL OF LAND situate in the Town of Gorham, ALSO ALL IHAT IRRACT OR PARECE OF LAND situate in the lown of Gorham, county of Ontario, and Stote of New York, described so follows: Beginning at the northwest corner of the above described parcel conveyed to Alexander M. Lane, recorded in Ontario County Clerk's Office in Liber 390 of Deeds at page 500; thence northerly along the prolongation of said Lane's west line as described in said deed to its intersection with the south line of lands now or formerly of Charles Thomas; thence easterly along the south line of said the said of t nomas and to its intersection with the westerly line of lands now or formerly of James Lewis; thence southerly about 61 feet along said westerly line Lewis land and the westerly line of lands of Gorham Oil Company to the northeast corner of Lane's land as described in said deed; thence westerly about 60.6 feet along the north line of said Lane's land as described in said deed to the place of beginning.

ALSO ALL THAT TRACT OR PARCEL OF LAND situate in the Town of Gorham, County of Ontorio, and State of New York, described as follows: Beginning at the northwest corner of the second above described parcel conveyed to Alexander M. Lane, recorded in Ontorio County Clark's Office in Liber 463 of Deeds, page 496; thence southerly along the west line of the above described parcel 152 feet to the north line of premises on which is located the U.S. Postoffice; thence westerly along the north line approximately 21 feet; thence northerly and parallel with the east line of this parcel a distance of approximately 152 feet to the south line of premises now or formerly of Charles Thomas; thence easterly along said south line approximately 21 feet to the place of beginning.

#### Survey Description

SURVEY DESCRIPTION

ALL THAT TRACT OR PARCEL OF LAND, situate in the Town of Gorham, County of Ontario, and State of New York being more particularly described as follows: Beginning at a point in the north line of Main Street, said point being the southeast corner of lands of 625 Holdings LLC, Liber 1183 of Deeds at page 137, and proceeding thence, N 10 35' 12' E, along the east line of said 625 Holdings LLC, for a distance of 70.45 feet to a point; thence, N 81 01' 00' W, along the north line of 625 Holdings LLC, for a distance of 21.00 feet to a point; thence, N 10 35' 12' E, along the east line of 625 Holdings LLC, for a distance of 152.00 feet to a point in the south line of lands of Scott V. and Tracy A. Kelly, the south line of Scott V. and Tracy A. Kelly, for a distance of 81.04 feet to a point in the west line of lands of Roy L. Stahlman, Liber 625 of Deeds at page 228; thence, S 10 03' 25' W, along the west line of Roy L. Stahlman, Liber 625 of Deeds at page 570, for a distance of 222.41 feet to a point in the north line of Main Street, for a distance, N 10' 00' W, along the north line of Main Street, for a distance, S 62.10 feet to the point and place of beginning and containing 0.385 acre of land.

l certify that this plan was prepared on November 5, 2010, from notes of a field instrument survey completed on November 3, 2010, and from materials

David A. Freeland LS 49172

Certification extended to: New York State Department of Environmental Conservation

#### Environmental Legend

- "Denotes" area subject to environmental easement, which encompasses the Brownfield Site designated as B00153-8
- "Denotes" use restriction for restricted commercial and/or industrial for the
- "Denotes" area subject to being covered by a barrier layer (i.e. cover system) such as concrete, asphalt, structure, or minimum one (1) foot soil cover underlain by demarcation layer in accordance with the Site Management Plan.
- "Denotes" vegetable gardening/farming restriction covers entire environmental easement area.
- "Denotes" groundwater use restriction covers entire environmental easement area.
- Monitoring Well. On—site and off—site monitoring wells listed below and shown on this survey shall be monitored, maintained and replaced as required in the Site Management Plan.

# ELEVATIONS Well# MW-1 MW-2 MW-3 MW-5 MW-6A MW-7 MW-8 MW-9 Casing 883.10 882.56 883.10 882.56 882.84 882.72 882.89 882.73 884.29 884.08 883.77 883.37 881.10 880.96 880.74 880.52 885.05 884.87 881.51 881.39 883.81 883.74

NOTE: Elevations are approximate USGS Datum

Legend D catch basin  $\bigcirc$ sewer manhole existing asphalt pavement existing one—foot of clean fill underlain by orange demarcation layer over existing soil

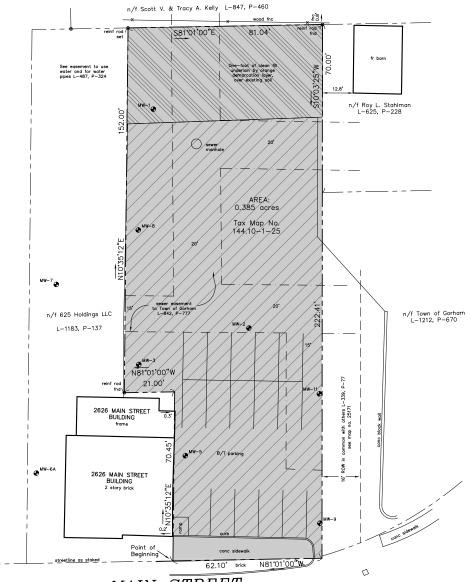
### Notes:

- 1. Shaded area denotes easement to the people of the State of New York acting through their Commissioner of the Department of Environmental Conservation.
- 2. Environmental Easement Area decription is the same as the Legal Description provided on this Survey Plan.
- 3. Base map prepared by Freeland-Parrinello.
- 4. Environmental / Institutional controls were prepared by Day Environmental, Inc. and are subject to the restrictions of the environmental easement.
- 5. The engineering and institutional controls for the Environmental Easement are set forth in the Site Management Plan (SMP). A copy of the SMP must be obtained by any party with interest in the property. The SMP can be obtained from the NYS Department Of Environmental Conservation, Division Of Environmental Remediation, Site Control Section, 625 Broadway, Albany, New York 12233 or at decweb@gw.dec.state.ny.us
- 6. The engineering controls in the 2626 Main Street Building on the adjoining parcel west of the site shall be operated and maintained in accordance with the SMP.

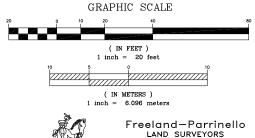
DAY ENVIRONMENTAL, INC. DATE

# PLAN OF LAND TOWN OF GORHAM

being part of Town Lot 5 in the Hamlet of Gorham, Town of Gorham, Ontario County, New York Scale: 1 inch = 20 feet February 2, 2011



MAIN STREET N.Y.S. Route 245



LAND SURVEYORS
42 Beeman Street
Canandaigua, New York 14424
(585)394-5110 2002-194F
www.freeporr.com

# APPENDIX B

**Excavation Work Plan** 

### APPENDIX B – EXCAVATION WORK PLAN

### **B-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 Department. Currently, this notification will be made to:

Batholomew H. Putzig, Regional Hazardous Waste Remediation Engineer 6274 East Avon-Lima Road, Avon, NY 14414

### This notification will include:

- A detailed description of the work to be performed, including the location and areal extent, plans for site re-grading, intrusive elements or utilities to be installed below the cover system, estimated volumes of contaminated soil to be excavated and any work that may impact an engineering control,
- A summary of environmental conditions anticipated 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 intrusive work that may encounter potentially impacted fill, soil and/or groundwater,
- A summary of the applicable components of this Excavation Work Plan (EWP),
- A statement that the work will be performed in compliance with this EWP and 29 CFR 1910.120,
- A copy of the contractor's health and safety plan, in electronic format, if it differs from the HASP provided in Appendix D of this document,
- Identification of disposal facilities for potential waste streams,
- Identification of sources of any anticipated backfill, along with required chemical testing results.

#### **B-2 SOIL SCREENING METHODS**

Visual, olfactory and instrument-based soil screening (i.e., monitoring with a photoionization detector and a particulate meter, if warranted) will be performed by a qualified environmental professional during remedial and development excavations into known or potentially contaminated material (remaining contamination). Soil screening will be performed regardless of when the 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, material that requires testing, material that can be returned to the subsurface, and material that can be used as cover soil.

#### **B-3 STOCKPILE METHODS**

Depending upon the quantity of material excavated, impacted materials may be loaded directly into trucks for transport off-site for disposal, placed within roll-off containers and/or placed in a soil stockpile. 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 or plastic sheeting. Stockpiles will be routinely inspected, and damaged 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 NYSDEC.

#### **B-4 MATERIALS EXCAVATION AND LOAD OUT**

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

The owner of the property and its contractors are solely responsible for safe execution of 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 other applicable transportation requirements).

If required based on the type and extent of invasive work proposed, a truck wash will be operated on-site. The qualified environmental professional will be responsible for ensuring that outbound trucks are free of debris before leaving the site until the activities performed under this section are complete.

Locations where vehicles enter or exit the Site shall be observed 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.

#### **B-5 MATERIALS TRANSPORT OFF-SITE**

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. [Note: To the extent possible, wet soil may be allowed to drain in an aboveground location on the Site prior to off-site transport of the material. Samples of accumulated drainage water will be collected for analysis and will be handled, transported and disposed of in accordance with applicable local, State, and Federal regulations.]

As necessary, trucks will be washed prior to leaving the Site. Truck wash waters will be collected and disposed of off-site in an appropriate manner.

A map and directions to/from the Site for approved truck transport routes will be obtained by the transporter prior to transporting contaminated materials off-site. 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; [(g) community input [where necessary]]

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

#### **B-6 MATERIALS DISPOSAL OFF-SITE**

As determined by characterization test results, soil, fill, and/or solid waste deemed to be contaminated that is excavated and removed from the site will be treated as contaminated material and will be transported and disposed in accordance with applicable local, State (including 6NYCRR Part 360) and Federal regulations. If disposal of soil/fill 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 preexcavation 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 Track 1 unrestricted SCOs is prohibited from being taken to a New York State recycling facility (6NYCRR Part 360-16 Registration Facility).

#### **B-7 MATERIALS REUSE**

In the event that excavation activities at the Site encounter potentially contaminated materials, the materials may be re-used on-site in accordance with guidelines as set forth below in this SMP. Chemical criteria for on-site re-use have been approved by NYSDEC and are included in Appendix H also presented within the text provided below. 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. Since this Site utilizes a cover system as an engineering control, contaminated on-site material (including historic fill and contaminated soil that is acceptable for re-use on-site) does not require analytical testing, 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.

In order to qualify for on-site re-use as cover or off-site re-use, the material must:

- Comply with the remedial action objectives identified in the RWP.
- Be free of extraneous debris or solid waste
- Consist of soil or other unregulated material as set for in 6NYCRR Part 360
- Be tested at the rate outlined in table B-7(a)

Table B-7(a)  Required number of Soil Samples to determine re-use suitability of excavated on-site soils.					
Contaminant	VOCs	SVOCs, Inorganics & PCBs/Pesticides			
Soil Quantity (yd <sup>3)</sup>	Discrete Samples	Composite	Discrete Samples/Composite		
0-50	1	1			
50-100	2	1	3-5 discrete samples from		
100-200	3	1	different locations in the fill or		
200-300	4	1	soil to be re-used will comprise a		
300-400	4	2	composite sample for analysis		
400-500	5	2			
500-800	6	2			
800-1000	7	2			
> 1000	Add an additional 2 VOC and 1 composite for each additional 1,000 cubic yards,				
	or consult with NYSDEC DER Project Manager				

Based on the testing outcome, soil may be re-used on-site as cover or off-site in the following manner:

- Soil that complies with unrestricted soil SCOs set forth in 6 NYCRR Part 375 Table 375-6.8(a) may be re-used without restriction on-site (backfill, cover, etc.) or off-site. Table 375-6.8(a) is included in Appendix H.
- Soil that exceed unrestricted soil SCOs set forth in 6 NYCRR Part 375 Table 375-6.8(a) may not be re-used off-site, unless first approved by the NYSDEC for re-use at a property with Institutional Control subject to a 6 NYCRR Part 360 Beneficial Use Determination. Table 375-6.8(a) is included in Appendix H.
- Soil that complies with the more stringent of the Restricted Commercial SCOs or the Protection of Groundwater SCOs [set forth in 6 NYCRR Part 375 Table 375-6.8(b)] may be re-used on-site as cover material or backfill. Table 375-6.8(b) is included in Appendix H.

In the event that building demolition material is proposed for reuse on-site, it 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.

### **B-8 FLUIDS MANAGEMENT**

Liquids to be removed from the Site, including excavation dewatering 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 be managed off-site, or appropriately treated and discharged on-site in accordance with applicable regulations.

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.

### **B-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 RWP and SMP. The demarcation layer, consisting of orange plastic fencing material, filter fabric, or equivalent material will be replaced to provide a visual reference to the top of the 'Remaining Contamination Zone', the zone that requires adherence to special conditions for disturbance of remaining contaminated soils defined in this Site Management Plan. 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 any updates to the Site Management Plan.

#### B-10 BACKFILL FROM OFF-SITE SOURCES

Materials proposed for import onto the site that will be used as backfill materials will be approved by the qualified environmental professional and will be in compliance with provisions in this SMP prior to receipt at the Site.

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

Imported soils will meet the backfill and cover soil quality standards established in 6NYCRR 375-6.7(d). Based on an evaluation of the land use, protection of groundwater and protection of ecological resources criteria, the resulting soil quality standards for imported backfill and cover soil at this Site is the lesser of the SCOs for Restricted Commercial Use and the Protection of Groundwater as referenced in 6 NYCRR 375-6.8(b). 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.

#### **B-11 STORMWATER POLLUTION PREVENTION**

During activities that have the potential to encounter contaminated fill or soil, 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 NYSDEC. All necessary repairs shall be made immediately.

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

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

Depending upon the size of the excavation, silt fencing or hay bales will be installed around the entire perimeter of the construction area.

#### **B-12 CONTINGENCY PLAN**

In the event that underground tanks or other previously unidentified contaminant sources are found during post-remedial subsurface excavations or development related construction, excavation activities will be suspended until sufficient equipment is mobilized to address the condition.

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 full 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 reports prepared pursuant to Section 5 of the SMP.

### **B-13 COMMUNITY AIR MONITORING PLAN**

The CAMP is included in the HASP that has been developed for the Site (refer to Appendix D). The CAMP will be implemented during excavation at the Site beneath the cover system. The location of air monitoring stations based on generally prevailing wind conditions is shown in Figure 17. These air monitoring stations will be adjusted on a daily or more frequent basis based on actual wind directions to provide an upwind and at least two downwind monitoring stations. Two residential parcels bound the northern portion of the Site, which are considered sensitive receptors. Regardless of wind direction, a fixed monitoring station will be located at the northeast perimeter of the site. Exceedances of action levels listed in the CAMP will be reported to NYSDEC and NYSDOH Project Managers.

#### **B-14 ODOR CONTROL PLAN**

This odor control plan is capable of controlling emissions of nuisance odors offsite. Specific odor control methods to be used on a routine basis will include limiting the extent of open excavations, the use of physical barriers or ventilation systems (i.e., in the event interior excavations are required) or other methods deemed appropriate at the time of excavation. 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 to the extent possible and acceptable to the impacted parties. NYSDEC and NYSDOH will be notified of odor events. Implementation of odor controls, including the halt of work, is the responsibility of the property owner's Remediation Engineer, and any measures that are implemented will be discussed in the Periodic Review Report.

Necessary means will be employed to prevent on-site and off-site nuisances. At a minimum, these measures will include: (a) limiting the area of open excavations and size of soil stockpiles; (b) shrouding open excavations with tarps and other covers; and (c) using foams to cover exposed odorous soils. If odors develop and cannot be otherwise controlled, additional means to eliminate odor nuisances will include: (d) direct load-out of soils to trucks for off-site disposal; (e) use of chemical odorants in spray or misting systems; and, (f) use of staff to monitor odors in surrounding neighborhoods.

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.

### **B-15 DUST CONTROL PLAN**

A dust suppression plan that addresses dust management during invasive on-site work will include, at a minimum, the items listed below:

- Dust suppression will be achieved though the use of a dedicated on-site water truck, or other available water source of sufficient volume, for road wetting. The equipment will be 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, unvegetated 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.

### **B-16 OTHER NUISANCES**

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

As necessary, a plan will be developed and utilized by the contractor for remedial work to ensure compliance with local noise control ordinances.

### APPENDIX C

Operation, Maintenance, and Monitoring Plan for Engineering Controls at Old Mill House Restaurant Building

### OPERATION, MAINTENANCE AND MONITORING PLAN FOR ENGINEERING CONTROLS AT OLD MILL HOUSE RESTAURANT BUILDING 2626 MAIN STREET, GORHAM, NEW YORK

# (ADJACENT TO FORMER FORD GARAGE PROPERTY AT 2624 MAIN STREET)

# NYSDEC ENVIRONMENTAL RESTORATION PROGRAM PROJECT #B00153-8

Prepared for:

The Town of Gorham

4736 South Street PO Box 224

Gorham, New York 14461

Prepared by:

Day Environmental, Inc. 40 Commercial Street

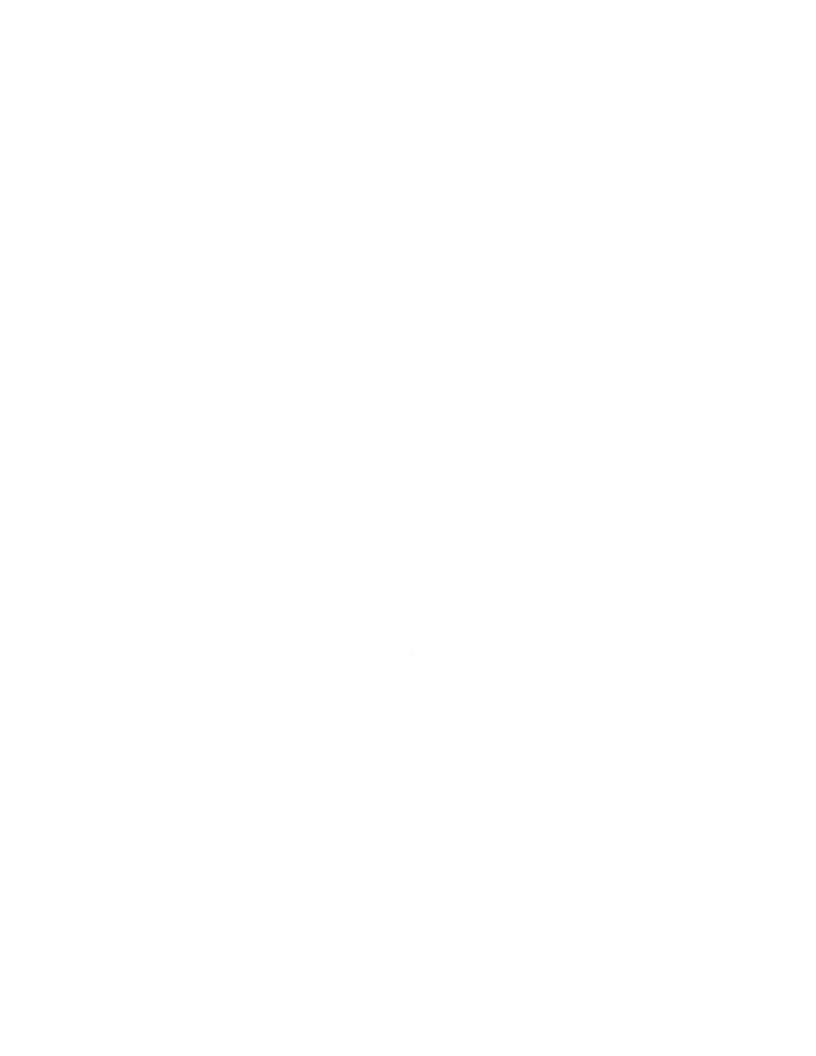
Rochester, New York 14614

**Project No.:** 

3729R-05

Date:

December 2010



### OPERATION, MAINTENANCE AND MONITORING PLAN FOR ENGINEERING CONTROLS AT OLD MILL HOUSE RESTAURANT BUILDING 2626 MAIN STREET, GORHAM, NEW YORK

# (ADJACENT TO FORMER FORD GARAGE PROPERTY AT 2624 MAIN STREET)

### NYSDEC ENVIRONMENTAL RESTORATION PROGRAM PROJECT #B00153-8

Jeffrey A. Danzinger Project Manager Date: <u>Pecember</u> 22, 2010

Date Date

Date: DECEMBER 22, 2010

Barton F. Kline, P.E. Senior Engineer

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Attachment A - Photographs

Attachment B – Vender Literature for Primary System Components

Attachment C - Annual Operation, Maintenance and Monitoring Checklist

### 1.0 INTRODUCTION

This Operation, Maintenance and Monitoring (OM&M) Plan was developed as required by the New York State Department of Environmental Conservation (NYSDEC). Further information concerning the OM&M Plan is outlined herein. This OM&M Plan was developed following the protocols outlined in the NYSDEC document titled "Draft DER-10 Technical Guidance for Site Investigation and Remediation" dated December 2003, and the New York State Department of Health (NYSDOH) document titled "Final Guidance for Evaluating Soil Vapor Intrusion in the State of New York" dated October 2006.

### 1.1 Project

The Town of Gorham entered into a State Assistance Contract (SAC) with the New York State Department of Environmental Conservation (NYSDEC) to perform remedial work at the Former Ford Garage property located at 2624 Main Street, Town of Gorham, County of Monroe, New York (Project #B00153-8) under the NYSDEC 1996 Clean Water/Clean Air Bond Act - Environmental Restoration Program ("Brownfield" program).

### 1.2 Purpose of OM&M Plan

The purpose of this OM&M Plan is to maintain proper operation, maintenance and monitoring of engineering controls that were installed in the basement of the Old Mill House Restaurant building addressed as 2626 Main Street, Town of Gorham, County of Ontario, New York (Old Mill House Restaurant Property) located immediately west of the former Ford Garage property. The primary component of the engineering controls was the installation of a Sub-Slab Depressurization System (SSDS).

### 1.3 Records Management

Records associated with implementation of this OM&M Plan will be maintained at the Town of Gorham offices located at 4736 South Street, PO Box 224, Gorham, New York 14461 and also at Day Environmental, Inc. (DAY) located at 40 Commercial Street, Rochester, New York 14614.

### 2.0 PROPERTY DESCRIPTION

The Former Ford Garage property is an approximate 0.385-acre vacant parcel that is currently used an open public paved parking lot. The location of the Former Ford Garage property is shown on Figure 1 (Project Locus Map) and Figure 2 (Site Plan).

The former Ford Garage property is currently bounded to the north by residential property, to the south by Main Street with commercial properties (small grocery, post office and antique shop) beyond, to the east by parkland (formerly a gasoline station) and a residential property, and to the west by the Old Mill House Restaurant property. The first floor of the building on the Old Mill House Restaurant Building is used for the restaurant, and the second floor is improved with two residential apartments.

### 2.1 History and Recognized Environmental Conditions

The former Ford Garage property was formerly improved with an approximate 3,600 square foot one-story building. The former Ford Garage property is currently vacant, and was formerly used as an automobile sales and service facility. Petroleum products were also formerly dispensed at the facility.

Commencing on June 20, 2001, the Town of Gorham managed or performed various activities at the former Ford Garage property in preparation for the demolition of the building. The building was subsequently demolished in October 2001.

As part of Environmental Restoration Project #B00153-8, DAY completed a Phase I Environmental Site Assessment (Phase I ESA) report dated February 21, 2002 for the former Ford Garage property in general accordance with American Society for Testing and Materials (ASTM) Practice E 1527-00. The Phase I ESA identified the following recognized environmental conditions (RECs):

- 1. Underground storage tank systems
- 2. Abandoned drums/containers/aboveground storage tank
- 3. Staining
- 4. Suspected waste oil dumping
- 5. In-ground hydraulic lift
- 6. Apparent fill material
- 7. Septic system/floor drain
- 8. Adjoining gasoline station

### Site Investigation and Findings

As part of Environmental Restoration Project #B00153-8, a Site Investigation was implemented by DAY. Contamination detected in surface soil, subsurface soil or groundwater at the former Ford Garage property primarily consists of volatile organic compounds (VOCs) and semi-volatile organic compounds (SVOCs) that are attributable to historic operations at the former Ford Garage property including storage of petroleum products and use of the former Ford Garage

property as an automobile sales and service facility. The majority of petroleum-type contamination is present in the saturated zone. In addition, past operations at the former Ford Garage property may have contributed to intermittent concentrations of some heavy metals detected in soil and groundwater samples.

The data obtained suggests that documented petroleum contamination on the adjoining vacant gasoline station to the east may have migrated westward onto the former Ford Garage property. Based on this possibility, a co-mingled plume consisting of petroleum contamination attributable to past operations at the former Ford Garage property and the adjoining vacant gasoline station likely exists and is migrating west of the former Ford Garage property, including onto the adjoining Old Mill House Restaurant Property.

The volatilization of VOCs from soil or groundwater into indoor air has been evaluated for the building on the adjoining Old Mill House Restaurant property located west of the former Ford Garage property. The results indicated that some of the VOCs detected in the indoor air samples from the adjoining Old Mill House Restaurant building may be attributable to VOCs vapor intrusion from contaminated soil or groundwater that is associated with the Former Ford Garage property.

### 3.0 REMEDIAL ACTION

The components of remedial actions for the environmental restoration project include:

- Limited removal and off-site disposal of petroleum-contaminated soils in source areas at the former Ford Garage property to prevent further groundwater contamination;
- Decommissioning (excavation, removal and off-site disposal) of an abandoned dug well at the former Ford Garage property that evidently was used for waste oil disposal;
- Excavation of floor drainage system piping at the former Ford Garage property to determine the
  possible presence of a buried oil/water separator or sump, including their removal and off-site
  disposal, if present;
- In-situ bioremediation of soils and groundwater on and off the former Ford Garage property to reduce contaminant concentrations in the saturated zone;
- Covering the majority of the former Ford Garage property with asphalt pavement and the remaining northern portion of the property with a one-foot thick layer of clean soil underlain by a demarcation layer to limit exposure to contaminants in surface soils;
- Development of a site management plan to address the residual contamination and any use restrictions at the former Ford Garage property;
- Imposition of institutional controls in the form of an environmental easement for the former Ford Garage property;
- Certification of the institutional controls and engineering controls; and development of an operation, maintenance and monitoring program to track remedial progress and confirm its effectiveness; and
- Design and installation of a basement floor slab and sub-slab ventilation system (i.e., sub-slab depressurization system) for the building at the adjoining Old Mill Restaurant property.
- The previous bulleted remedial action is the basis for this OM&M Plan. In order to address the potential for vapor intrusion at the Old Mill House Restaurant property, an Engineering Controls Work Plan dated November 2006 was developed, approved by regulatory agencies, and implemented on behalf of the Town of Gorham. Specifically, this plan entailed the installation of engineering controls within the building on the Old Mill House Restaurant property.

### 3.1 Goals for Engineering Controls

The primary goal of the engineering controls is to preclude VOCs from entering indoor spaces of the building on the Old Mill House Restaurant property. As a result, the engineering controls are intended to mitigate exposure to VOC vapors in soil or groundwater that have the potential to enter indoor air space of this adjoining building.

### 3.2 Engineering Control Details

The engineering controls installed in the building at the Old Mill House Restaurant property include the following components:

 An active (mechanical) ventilation system, installed beneath a solid vapor barrier on the floor of the basement;

- A concrete floor slab in the basement and crawlspace above the vapor barrier; and
- A covered and vented groundwater collection sump with treatment and discharge to the exterior ground surface.

Details concerning the engineering controls are included on Figure 3 [Record Drawing: Sub-Slab Depressurization System (Plan, Sections, Details and Notes)]. Photographs of portions of the SSDS are included in Appendix A, and major components of the engineering controls are further outlined below.

- The earthen floor of the basement was leveled. Perforated PVC pipe was then installed within a new floor sub-base consisting of three or more inches of stone.
- An air-tight groundwater collection sump and pump was installed to maintain a groundwater level below that of the sub-slab vent piping. Water removed from the sump is pumped through an installed low-pressure drop carbon filter that was installed. The carbon filter contains approximately 200 pounds of carbon media specifically recommended by the manufacturer for potential removal of petroleum-related VOCs. Discharge water from the carbon filter is directed to the ground surface outside of the building. The drainage line was sloped to drain and prevent freezing. Since VOCs associated with the petroleum plume have not been detected in sump water in the past, the carbon filter was installed for precautionary measures only, and no SPDES permit is currently necessary for discharge of water from this source.
- A 6-mil polyethylene vapor barrier was placed over the floor sub-base, and then three inches of synthetic fiber concrete mix was installed on top of the vapor barrier.
- An in-line fan was installed outside of the building to maintain a vacuum beneath the slab and within the sub-slab ventilation piping located inside the basement of the building. This ventilation system discharges above the roofline of the building. A control box and alarm were also installed to continuously monitor operation of the ventilation fan.

Vendor literature for primary system components is provided in Appendix B.

### 4.0 ANNUAL OBSERVATION, MAINTENANCE AND MONITORING

Observation and monitoring of the SSDS engineering controls must be conducted on an annual basis. The following observation and monitoring components are required at a minimum of a yearly basis:

- Check that the exterior in-line fan is operating. The location of the in-line fan is shown on Figure 3. If the unit is not operating or is making unusual sound, the system should be serviced, which may include repair or replacement of the in-line fan or associated components.
- Check integrity of interior and exterior aboveground vent piping, including insulation on exterior piping. If damaged or leaking, repair or replace as deemed necessary.
- Check silicone sealant along walls and penetrations, and repair as deemed necessary
- Check concrete floor for cracks, and repair/seal as deemed necessary.
- Check for measurable vacuum at Vacuum Monitoring Points No. 1 and No. 2. The location of these vacuum monitoring points are shown on Figure 3. If there is no measurable vacuum, then take the following actions:
  - Re-confirm integrity of silicone sealant, concrete floor, and grout. Repair/seal as deemed necessary.
  - Check sump cover and pipe penetrations for air-tight seal. If not tight, repair or replace as deemed necessary.
  - Re-measure vacuum at Vacuum Monitoring Points No. 1 and No. 2. If measurable vacuum, then no further action required. If no measurable vacuum, then proceed to actions below.
    - Increase fan speed
  - Re-measure vacuum at Vacuum Monitoring Points No. 1 and No. 2. If measurable vacuum, then no further action required. If still no measurable vacuum, continue troubleshooting system until condition is corrected.
- Trip the alarm and check that visual and audible components of system alarm are operating. The alarm is located in the kitchen north of the top of the staircase that leads to the basement. If not operating correctly, service the system, which may include repair or replacement of the alarm or associated components.
- Check labeling on aboveground system piping, control box and alarm. Details concerning labeling are included on Figure 3. Replace labeling if observed to be damaged or missing.
- Check for leaks from piping associated with the groundwater sump discharge. This includes piping between the sump and the carbon treatment drum, discharge piping connected to the carbon treatment drum. If leaks are observed, repair accordingly.

- Observe exterior air vent discharge point associated with the SSDS to verify no air intakes
  have been installed nearby. If air intake has been installed nearby, then discontinue or relocate the air intake, or re-locate the SSDS air vent discharge point.
- The carbon filter container and other components of the system should be observed for signs of wear or corrosion. Such conditions should be repaired or replaced as deemed necessary.
- Visually check sediment pre-filter for debris. Remove and clean filter as needed.
- Trip the sump pump to ensure it is operational. If sump is determined to not be operating correctly, then repair or replace as deemed necessary. Every two years, run the sump pump for at least one minute, and then collect a water sample from the influent and effluent sample ports located on either side of the carbon filter. Analyze the two water samples at a New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP)-certified analytical laboratory for target compound list (TCL) volatile organic compounds (VOCs) using NYSDEC Analytical Services Protocol (ASP) Method OLM04.2. In consultation with the NYSDEC, increase frequency of water sampling and analysis if VOC concentrations of concern are detected, and change out carbon in carbon filter accordingly.

### 5.0 RECORDS AND REPORTING

Document the annual observation, monitoring and corrective actions using the checklist included in Appendix C. Copies of completed annual OM&M checklists will be kept at the Town of Gorham office and the NYSDEC Region 8 office.

After five years of observation and monitoring are completed, a 5-Year Review Report will be prepared that includes the annual OM&M checklists and summarizes the work performed.

### 6.0 CITIZEN PARTICIPATION

A copy of the OM&M Plan will be provided to the owner and occupant of the Old Mill House Restaurant property. In addition, a copy of the OM&M Plan will be maintained at the following document repositories:

Town of Gorham 4742 South Street Gorham, New York 14461 (585) 526-6317 Hours: Tue-Sat (9AM -1PM); Wed (6PM - 8PM)

Gorham Free Library 2664 Route 245 Gorham, New York 14461 (585) 526-6655

Hours: Tue-Fri (2PM-8PM); Sat (10AM-2PM)

NYS Department of Environmental Conservation Region 8 Offices 6274 East Avon-Lima Road Avon, New York 14414 (585) 226-5326

Hours: Mon-Fri 8:30 - 4:45

### 7.0 PERSONNEL

When the SSDS is required to be operating, the Town of Gorham will be responsible for implementation of this OM&M Plan. Town of Gorham personnel or an outside entity (e.g., consultant or contractor) retained by the Town of Gorham can perform the tasks required by the OM&M. The NYSDEC must approve the entity(s) that implements the OM&M Plan.

The entity performing the tasks required by the OM&M Plan must fully understand aspects concerning the construction, operation, observation, maintenance, and monitoring of the SSDS.

### 8.0 EMERGENCY CONTINGENCY PLAN

One or more of the entities listed below should be notified immediately if the following conditions occur:

- The SSDS alarm is triggered;
- The SSDS is not operating and the alarm is not triggered;
- Components of the SSDS appear damaged, leaking, etc.; and
- Petroleum odors are detected inside the building at the Old Mill House Restaurant property.

### Day Environmental, Inc.

40 Commercial Street

Rochester, New York 14614

Jeff Danzinger, Project Manager (585) 454-0210 x114

### Town of Gorham

4736 South Street

Gorham, New York 14461

Richard Calabrese, Town Supervisor (585) 526-6317

### New York State Department of Environmental Conservation

6274 East Avon-Lima Road

Avon, NY 14414-9519

Greg MacLean, Project Manager (585) 226-5356

You can also call toll-free 1-800-342-9296. Leave your name, number and a brief message and someone will get back to you shortly.

### New York State Department of Health

335 East Main Street

Rochester, NY 14604

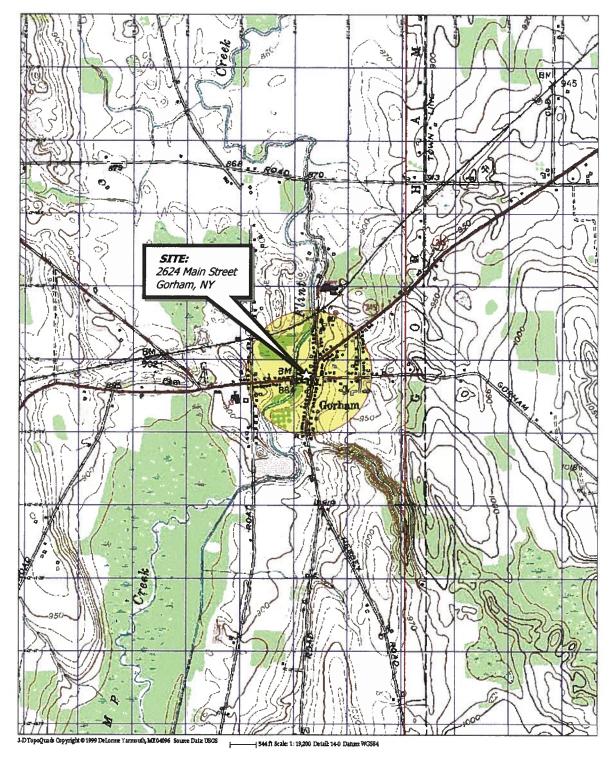
Debbie McNaughton (585) 423-8069

Public Health Specialist II

# **FIGURES**

Day Environmental, Inc.





Drawing Produced From: 3-D TopoQuads, DeLorme Map Co., referencing USGS quad maps Stanley (NY) 1990; and Rushville (NY) 1990. Site Lat/Long: N42°47.95' - W79°7.73'

01-23-2006

DRAWN BY Tww

SCALE 1" = 2000'

DAY ENVIRONMENTAL, INC. **ENVIRONMENTAL CONSULTANTS** ROCHESTER, NEW YORK 14614-1008 **NEW YORK. NEW YORK 10165-1617** 

PROJECT TITLE

2624 MAIN STREET TOWN OF GORHAM, NEW YORK

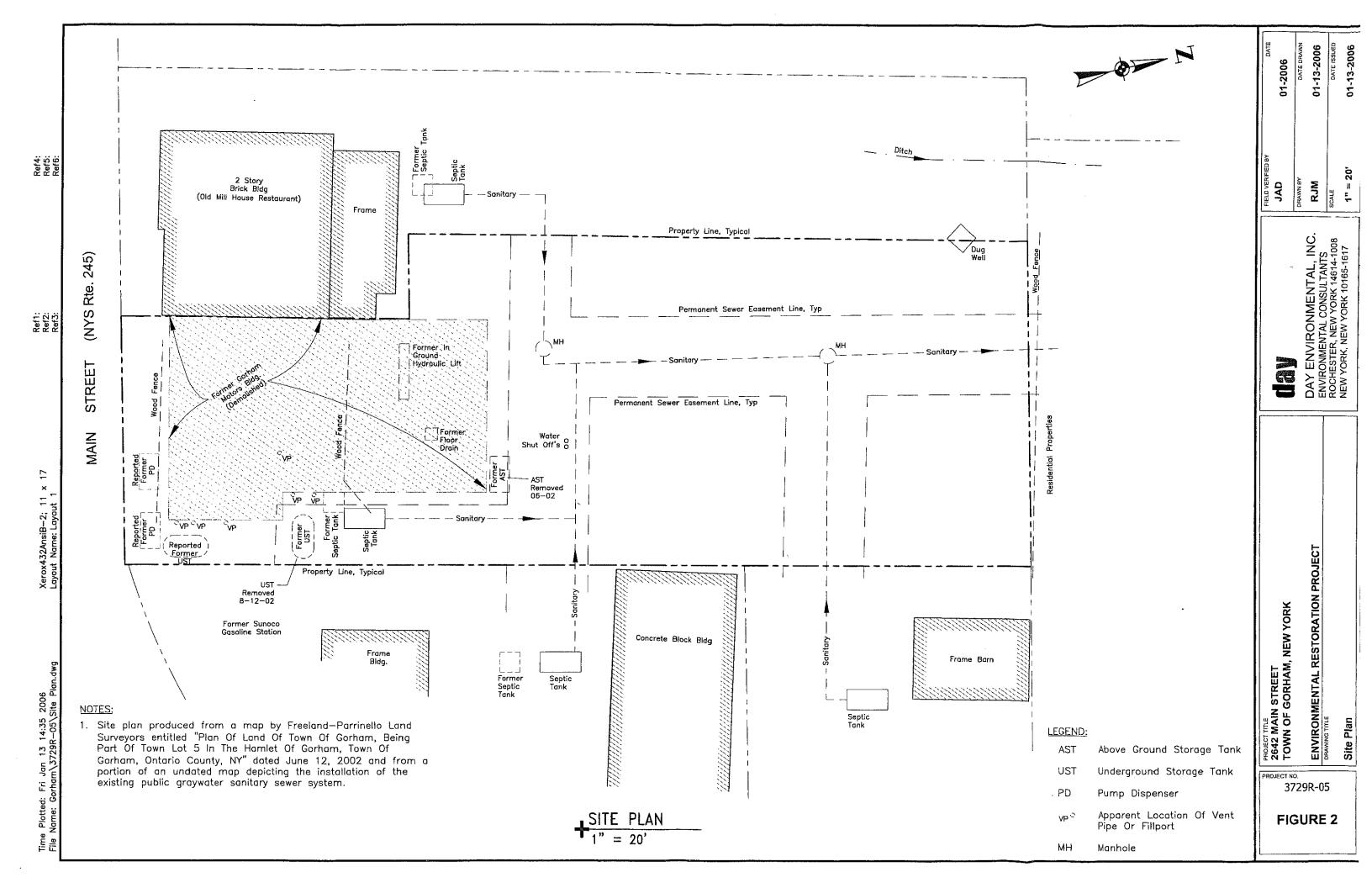
**ENVIRONMENTAL RESTORATION PROJECT** 

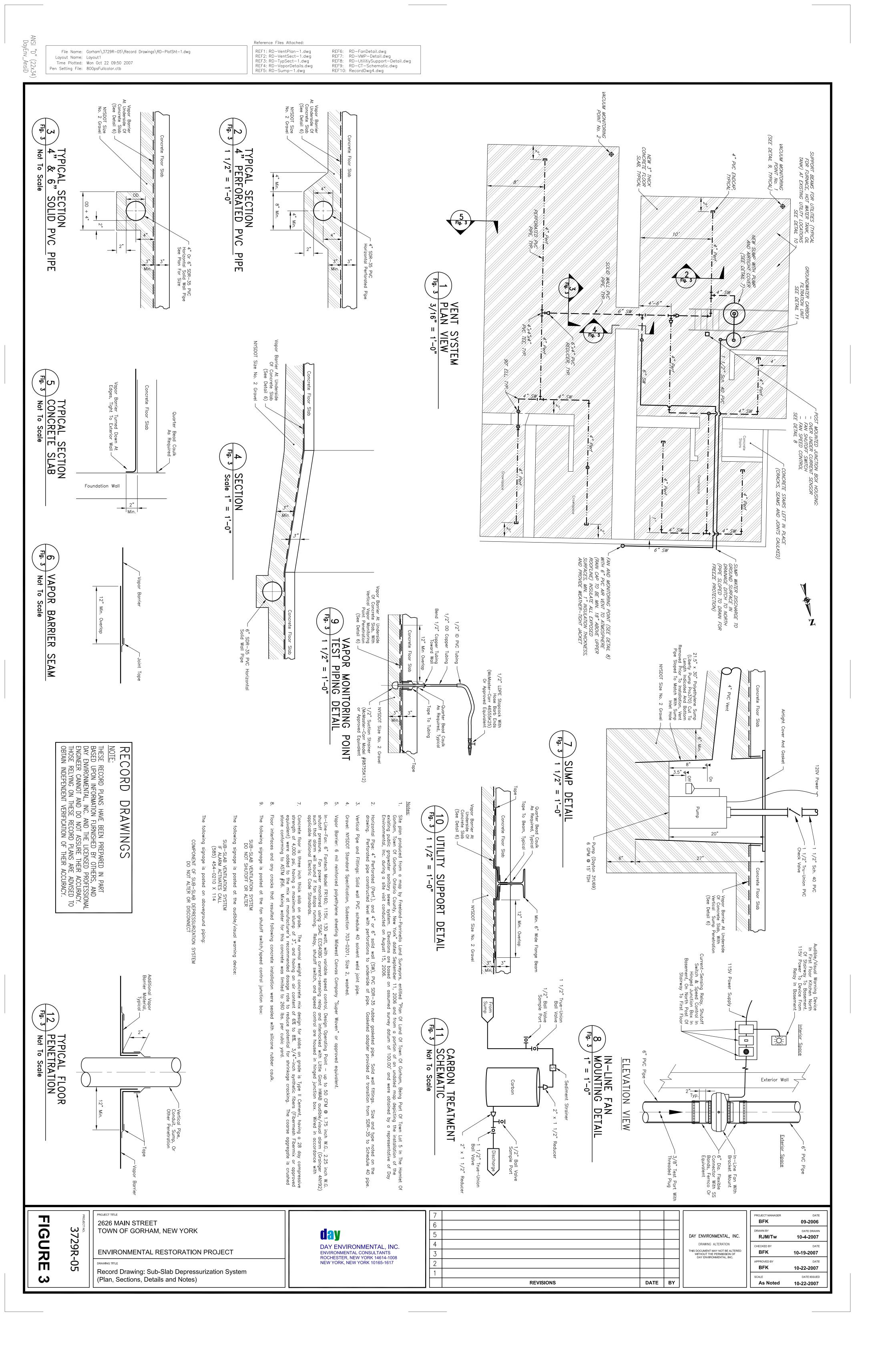
PROJECT LOCUS MAP

PROJECT NO.

3729R-05

FIGURE 1





# **ATTACHMENT A**

Photographs



SSDS control box in basement



SSDS alarm in first-floor kitchen area



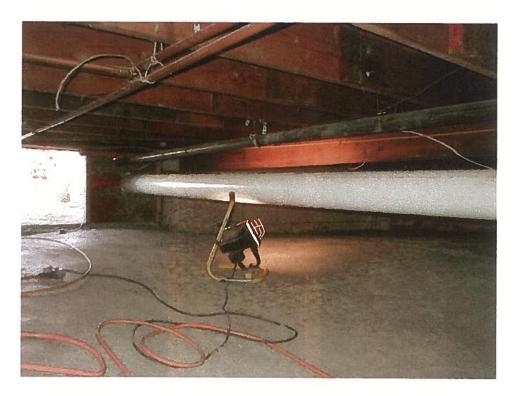
Basement sump with influent and effluent sample ports on each side of carbon filter drum



Sediment pre-filter on basement sump discharge in front of carbon filter



Aboveground SSDS vent piping connected to sub-slab perforated piping



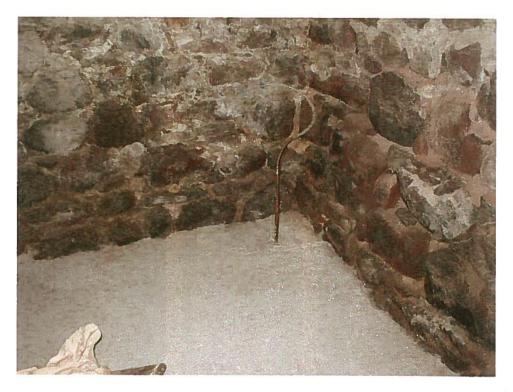
Aboveground SSDS vent piping leading out north wall of building though crawlspace



Aboveground exterior SSDS vent piping and in-line fan on north wall of building



Aboveground exterior SSDS vent piping extending above roofline



SSDS Vacuum Monitoring Point No. 2 located in eastern portion of basement

### ATTACHMENT B

**Vender Literature for Primary System Components** 



## LC30-100 LC55-200 LC85-300 LC110-400

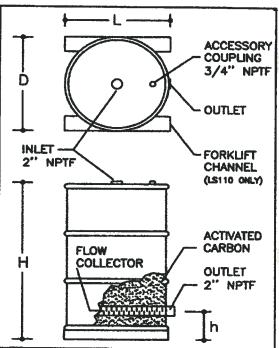
Cameron canister units are filled with high quality granular activated carbon and designed for effective purification of liquid waste or process streams. Our canister units have a proven ability to remove organic contaminants to non-detectable levels.

Units are constructed of heavy-duty mild steel and lined with doubled-layered epoxy coatings. (Forklift channels are provided on the LC110-400 model only). Internal fitments consist of a PVC underdrain, designed for even flow distribution and complete carbon bed use. Downflow operation is standard.

When the units become exhausted they can be conveniently serviced on site by removing the vessel top head. Spent carbon is then easily removed from the units either by hand or vacuum. Alternatively, the exhausted unit can be shipped off site for reactivation service or disposal.

Model LC	30-100	55-200	85-300	110-400
H - height in	30	36	40	46
D - diameter in	19	24_	26	32
L - length in	na.	na	na	42
h - height in	43	6 10	5	8
Design Flow gpm*	5	10	15	20
Pressure Drop at Design Flow (psi)	0.8	7,0	1.2	1.3
Max Pressure psig	8	8	8	8
Max Temp F	125	125	125	125
Carbon Capacity Weight 1b	100	(200)	300	400
Volume ft <sup>3</sup>	3.9	7.1	10.0	16.1
Shipping Weight Ib	150	270	380	640





SIEFE SIEF

Refer to packet for operating instructions.
For technical assistance, please call (800) 777-4044

Depending on the contaminant absorbed onto the activated carbon, the storage, state and local regulations as a hazardous waste. Hangle in accordance with local,

CAMERON/GREAT LAKES, INC.

ACTIVATED CARBON, WASTEWATER TREATHERT, GAS/LIQUE FUTRATION EQUIPMENT
FOR PROCESS & ENVIRONMENTAL APPLICATIONS

4.21.2001

P 1010010

# Liberty Pumps

# NEW!

# **Pro370-Series**



# with QuickTree™ Technology

The most advanced residential sewage package available

#### Features:

- NEW! separate access cover
- NEW! QuickTree™ float system.
   Allows easy removal of floats without pulling the pump.
  - Large 41 gallon capacity
    - Anti-fiotation collar
    - Molded torque-stops
  - Integrally moided handles
    - Unique Integrated cord seal technology
  - Integral rubber cover seals

Shipped with Clear Construction Cover



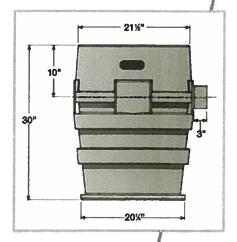
Clear disposable cover protects the system during masonry work and rough-in.

# **Pro370**

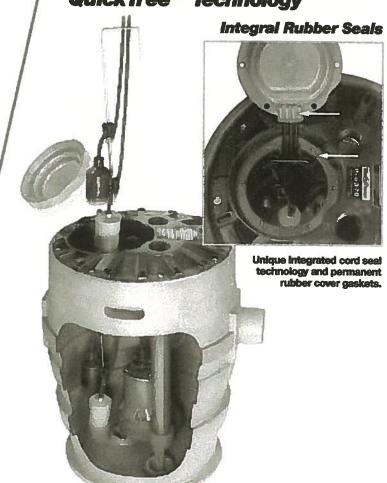
QuickTree™ Technology

#### Features:

- NEW! QuickTree™ system allows easy access and removal of switches without disturbing pump or plumbing.
- NEW! Integral rubber seals permanently attached to cover.
- NEW! Unique cord seal technology.
- NEW! Inspection/Access cover.
- Larger basin 40% more capacity than standard 18" X 30" basins – decreases switch cycles, improves pump life.
- Integrally molded torque stops secure the pump in its proper position.
- Integrally molded anti-flotation collar.
- Integrally molded handles to ease transportation and installation.
- Durable polyethylene construction with radial ribs for added strength.
- Completely assembled.
- Available with any of Liberty's 2" solidshandling sewage pumps.



# QuickTree™ Technology



# Specifications: 2" Discharge Systems

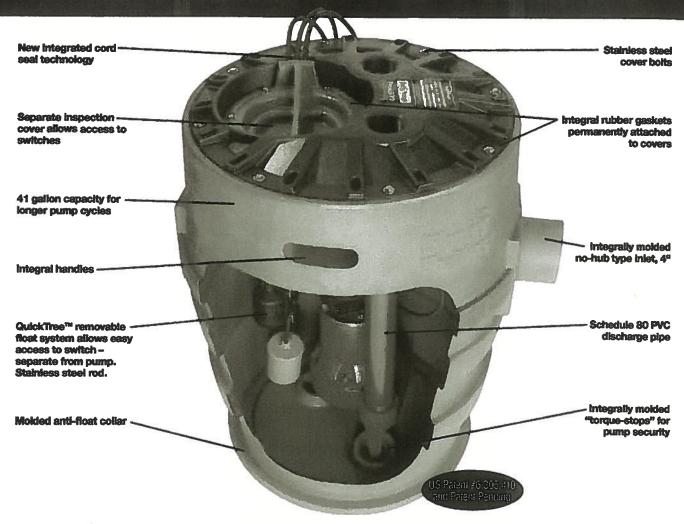
MODEL	HP	VOLTS	PHASE	DISCHARGE	WGT. LBS.
P372LE41	4/10	115	1	2ª	60
P372LE51	1/2	115	1	2"	64
P372LE52	1/2	208-230	1	2"	63
P372LE71	3/4	115	1	2"	83
P372LE72	3/4	208-230	1	<b>2</b> <sup>n</sup>	83
P372LE102*	1	208-230	1	<b>2</b> "	86
P372LEH102*	1	208-230	1	2 <sup>n</sup>	86
For 3" discharg EXAMPLE: P37		ms change r	nodel num	ber from "372"	

See specific LE-Series literature for complete pump performance and specifications.

\* High head applications only. Consult factory for proper pump sizing.



# **Pro370-Series** 21" x 30" – 41 Gallons



# New! P370XL Series - IAPMO Listed

The P370XL systems are specifically designed to pass a 10' stack test and are IAPMO listed.

The P370XL-Series has all the same features as the standard P370 except for a 16 bolt cover.

To order, simply ad "X" to any standard P370 system. Example: P372XLE41



### QuickTree™ Kit

installed your Pro370 empty? Simply order a QuickTree™ Kit and manual LE-Series pump.

QuickTree™ Kit comes complete with stainless steel rod, pump float and clamps pre-mounted.

Need to install a Liberty pump in an empty Pro370 basin? ...No-Problem! QuickTree™ Kits make addition of a pump easy! Simply install a manual LE-Series pump and a matching QuickTree™ Kit. Kits include stainless steel float tree, pre-mounted pump float and additional clamp for an alarm float. Simply hang the QuickTree™ from its holder underneath the access cover and your ready to go.

#### MODEL DESCRIPTION

QT370-115-10 QuickTree for PRO370, 115V, 10' cord QT370-115-25 QuickTree for PRO370, 115V, 25' cord QT370-230-10 QuickTree for PRO370, 230V, 10' cord QT370-230-25 QuickTree for PRO370, 230V, 25' cord

Please read and save these instructions. Read carefully before attempting to assemble, install, operate or maintain the product described. protect yourself and others by abserving all safety information. Fallure to comply with instructions could result in personal injury and/or property demage! Retain instructions for future reference.

# ton™ Residential Submersible Sump Pum

#### Description

These Residential Submersible Sump Pumps are designed for drainage of sump pits and flooded basements, dewatering flooded areas, and to provide laundry drainage. They operate automatically or manually (except Model 3YU65, manual only). Pumps have 115V, 60 Hz., single phase, permanent split capacitor motors. Permanently lubricated ball bearings never need lubrication. Automatic thermal overload protection. Units are equipped with a 10' 18/3 grounding-type power cord. Models 3YU66, 3YU67, and 3YU68 have tethered float switches. Models 3YU69, 3YU70, and 3YU71 have vertical float switches. Model 3YU65 is manually operated.

Housing and base are made of high impact corrosion resistant plastic. Non-clog composite impeller and two Buna-N lip seais. Motor casing, shaft, and external hardware are stainless steel.

#### **Specifications**

Power supply required	115V, 60 HZ.
Motor duty	intermittent
Liquid Temp. Range	
Dedicated Circuit Requirement (minimum)	
Pump Discharge	1X* MNPT
Discharge Adapters:	
	1X" FNPT x 1X" FNPT

#### **Performance**

		GPM (	GPM of Water @ Total Feet of Head				
Model	HP	5′	10'	15′	20'	(Ft.)	
3YU66	1/4	16.7	11.3	6.7		20'	
3YU69	1/4	16.7	11.3	6.7	7.	20	
3YU65	1/3	32.9	23.8	14.2	5.0	22	
<b>3YU67</b>	1/3	32.9	23.8	14.2	5.0	22	
3YU70	1/3	32.9	23.8	14.2	5.0	22	
3YU68	1/2	41.7	31.7	22.0	12.5	25	
3YU71	1/2	41.7	31.7	22.0	12.5	25	

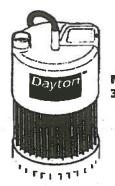
#### **Specifications**

Model	HP	Motor Full Load Amps	RPM	Minimum Circuit Req. (Amps)	Swit Setti On		Min. Pumping Level
3YU66	1/4	1.5	3450	15	11.5"	6.0*	3/8*
<b>3YU69</b>	1/4	1.5	3450	15	8.0	3.5	3/8
3YU65*	1/3	2.6	3450	15	_	- "	3/8
<b>3YU67</b>	1/3	2.6	3450	15	11.5	6.0	3/8
3YU70	1/3	2.6	3450	15	8.0	3.5	3/8
3YU68	1/2	3.0	3450	15	11.5	6.0	3/8
3YU71	1/2	3.0	3450	15	8.0	3.5	3/8

(\*) Model 3YU65 is manually operated only.

# **Unpacking and Inspection**

Handle with care. Check items received against packing list to be sure that all equipment has been received. Inspect for shipping damage. If found, file claim with carrier immediately.



Model **3YU65** 







Models 3YU69. 3YU70. **3YU71** 

253P6260 WIC006







### Alarm, High Water, 120 V

Indoor High Water Alarm, Switch Tether, Alarm Type Auto Reset, Audio Alarm 87dB @10 Ft, Volts @60Hz 120, Max Amps 1, Power Cord Length 6 Ft, Cord Size 18/2, Cable Length Remote Switch 15 Ft, Battery Backup 9 VDC, For Areas Requiring High Water Monitoring, Sounds When Potentially Threatening Liquid Level Condition Occurs, Dia 2 1/4 In, Height 6 In, Width 4 In

Grainger Item #	4NY92
Price (ea.)	<b>\$75.30</b>
Brand	LITTLE GIANT
Mfr. Model #	HWAB
Ship Qty.	1
Sell Qty. (Will-Call)	1
Ship Weight (lbs.)	2.7
Usually Ships	Today
Catalog Page No.	3436
Price shown may not reflect your price. Lo	o lo or register.

#### Additional info

#### **Indoor High Water Alarm**

Helps safeguard against flooding by setting off an audio and visual alarm when water reaches a threatening level.

Dual alarm consists of a loud horn that sounds at 87 dB at 10 ft. and a light that remains lit until condition is remedied. Silence switch turns horn off while situation is corrected. Once corrected, alarm automatically resets.

NEMA 1 enclosure, rated for indoor use, allows easy installation. 9VDC battery backup with low battery chirp ensures alarm system remains operational if primary power fails. Features external terminal block for easy float installation and test switch to check proper operation of alarm system. 6-ft., 18/2 power cord and remote float switch with 15-ft. cord.

#### **Tech Specs**

Item: Indoor High Water Alarm

Function: Sounds When Potentially Threatening Liquid Level

Condition Occurs Alarm Type: Auto Reset Audio Alarm: 87dB @10 Ft. Battery Backup: 9 VDC

Cable Length (Ft.): 15' Remote Switch

Cord Size: 18/2 Max. Amps: 5

Power Cord Length (Ft.): 6

Switch: Tether Voltage: 120 Width (In.): 4 Height (In.): 6

#### **Optional Accessories**



Clamp, Hose, SS, Pk10

Item #: 2W402 Brand: IDEAL Usually Ships: Today Price (ea): \$9.60



Clamp, Hose, Pk10

Item #: 4XZ77 Brand: IDEAL Lieually Shine: Today



- Toroidal Through Hole Wiring
- 0.5...50 A Trip Point
- Adjustable or Factory Fixed Trip Delays
- 10 A SPDT Isolated Output Contacts
- 5% Trip Point Hysteresis (Dead Band)

Approvals: 91 68





#### Description

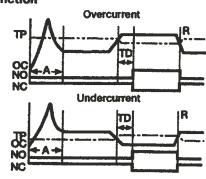
The ECS Series of Single Phase AC Current Sensors is a universal, overcurrent or undercurrent sensing control. Its built-in toroidal sensor eliminates the inconvenience of installing a stand-alone current transformer. Includes onboard adjustments for current sensing mode, trip point, and trip delay. Detects over or under current events like locked rotor, loss of load, an open heater or lamp load, or proves an operation is taking place or has ended.

#### Operation

Input voltage must be supplied at all times for proper operation. When a fault is sensed throughout the trip delay, the output relay is energized. When the current returns to the normal run condition, the output and the delay are reset. If a fault is sensed and then corrected before the trip delay is completed, the relay will not energize and the trip delay is reset to zero. Adjustment

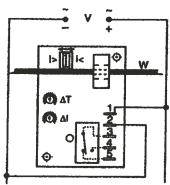
Select the desired function, over or under current sensing. Set the trip point and trip delay to approximate settings. Apply power to the ECS and the monitored load. Turn adjustment and watch the LED. LED will light; turn slightly in opposite direction until LED is off. Adjustment can be done while connected to the control circuitry if the trip delay is set at maximum.

#### **Function**



TP = Trip Point R = Reset OC = Monitored Current NO = Normally Open Contact NC = Normally Closed Contact A = Sensing Delay On Start Up TD = Trip Delay

#### Connection



Relay contacts are isolated. Dashed lines are internal connections.

≈ Voltage I> = Overcurrent I< = Undercurrent W = Insulated Wire Carrying Monitored Current



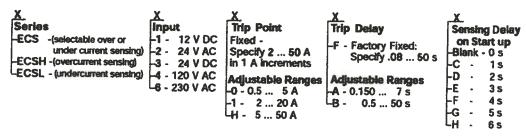
#### Accessories



P/Ns: P1015-13 (AWG 10/12) P1015-64 (AWG 14/16) P1015-14 (AWG 19/23)

See accessory pages for specifications.

#### **Ordering Table**



Example P/N: ECS41AC Fixed - ECSH610AD

Low Voltage Products & Systems

12.28.04

# Over/Under Current Sensing ECS Series Current Sensor

#### **Technical Data**

Sensor

Type Mode

Trip Point Range

Tolerance:

Adjustable Fixed

Maximum Allowable Current Trip Point Hysteresis Trip Point vs. Temperature

Response Time Frequency Type of Detection Trip Delay Type

Range:

ge: Adjustable Factory Fixed

Delay vs. Temperature Sensing Delay on Startup

Input Voltage

Tolerance 12 V DC & 24 V DC/AC

120 & 230 V AC

Line Frequency
Output
Type
Form
Rating
Life
Protection

Circuitry
Isolation Voltage
Insulation Resistance
Mechanical

Mechanica Mounting Termination Humidity

Operating/Storage Temperature Weight

Toroidal, through hole wiring

Over or under current, switch selectable on the unit or factory fixed

0.5 ... 50 A in 3 adjustable ranges or fixed

Guaranteed range

0.5 ... 25 A: 0.5 A or +/-5% whichever is less; 26 ... 50 A: +/-2.5%

Steady - 50 A turns; Inrush - 300 A turns for 10 s

≅ +/-5% +/-5% ≤ 75 ms

45 ... 500 Hz Peak detection

Analog

0.150 ... 7 s; 0.5 ... 50 s (Guaranteed ranges)

0.08 ... 50 s (+/-10%)

+/-15%

Factory fixed 0 ... 6 s: +40% ... 0%

24 , 120, or 230 V AC; 12 or 24 V DC

-15% ... +20% -20% ... +10% 50 ... 60 Hz

Electromechanical relay

Isolated single pole double throw (SPDT)

10 A resistive at 240 V AC; 1/4 hp at 125 V AC; 1/2 hp at 250 V AC

Mechanicai - 1 x 10°; Electricai - 1 x 10°

**Encapsulated** 

≥ 2500 V RMS input to output

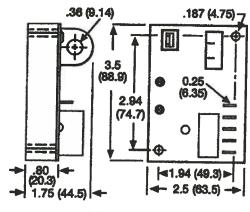
≥ 100 MQ

Surface mount with two #6 (M3.5 x 0.6) screws 0.25 in. (6.35 mm) male quick connect terminals (5)

95% relative, non-condensing -40°C ... +60°C / -40°C ... +85°C

≅ 6.4 oz (181 g)

### Mechanical View



Inches (Millimeters)

Multiple Turns To Increase Sensitivity

To increase sensitivity, multiple turns may be made through the ECS's toroidal sensor. The trip point range is divided by the number of turns through the toroidal sensor to create a new range.

Using an External Current Transformer (CT)

Select a 2 VA, 0 to 5 A output CT, rated for the current to be monitored. Select ECS adjustment range 0. Pass the CT's secondary wire lead through the ECS's toroid and connect both ends together.

Low Voltage Products & Systems

1228.04

# ATTACHMENT C

Annual Operation, Maintenance and Monitoring Checklist

Day Environmental, Inc.

# Annual Operation, Maintenance and Monitoring Checklist for Engineering Controls at the Old Mill House Restaurant Building 2626 Main Street, Gorham, New York NYSDEC ERP Project #B00153-8

Date of OM&M Site Visit:	
Personnel Performing OM&M:	
Affiliation of Personnel:	
1. Check that the exterior in-line fan is operating.	
Discuss observations and any corrective actions	
2. Check exterior air vent discharge point associated with the SSDS to verify no ai been installed nearby.	r intakes have
Discuss observations and any corrective actions	
3. Check integrity of interior and exterior aboveground vent piping, including insu	
Discuss observations and any corrective actions	
4. Check integrity of concrete floor, associated grout and silicone sealant along wa	lls and penetrations.
Discuss observations and any corrective actions	
5. Check for measurable vacuum at Vacuum Monitoring Points No. 1 and No. 2.	<del></del>
Document measurements and any corrective actions	<del></del>
6. Trip the alarm and check that visual and audible components of system alarm a	re operating.
Discuss visual and audible testing and any corrective actions	

# Annual Operation, Maintenance and Monitoring Checklist for Engineering Controls at the Old Mill House Restaurant Building 2626 Main Street, Gorham, New York NYSDEC ERP Project #B00153-8

7. Check labeling on interior and exterior aboveground system piping, control box and alarm. Discuss observations and any corrective actions 8. Check for leaks from piping associated with the groundwater sump discharge. Including piping between the sump and carbon treatment drum, and discharge piping from the carbon treatment drum. Discuss observations and any corrective actions 9. Check carbon filter container and other components of the system for signs of wear or corrosion. Discuss observations and any corrective actions 10. Check sediment pre-filter for debris. Discuss observations and any corrective actions 11. Trip the sump pump to ensure it is still operational. Discuss observations and any corrective actions 12. Every 2 years - collect water samples from influent and effluent sample ports on each side of the carbon filter. Last date samples collected Discuss if samples collected and any observations 13. Provide any other notes or observations of interest.

# APPENDIX D

Health and Safety Plan and Community Air Monitoring Plan

#### **HEALTH AND SAFETY PLAN**

## ENVIRONMENTAL RESTORATION PROJECT #B00153-8 2624 MAIN STREET GORHAM, NEW YORK

Prepared by:

Day Environmental, Inc.

40 Commercial Street

Rochester, New York 14614-1008

**Project No.:** 

3729R-05

Date:

December 2010

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# **ATTACHMENTS**

Attachment 1 Fig

Figure 1- Map to Hospital

#### 1.0 INTRODUCTION

This Health and Safety Plan (HASP) outlines the policies and procedures necessary to protect workers and the public from potential environmental hazards posed during remediation of an approximate 0.4-acre subject property located at 2624 Main Street, Town of Gorham, County of Ontario, New York (Site). As outlined in this HASP, project activities shall be conducted in a manner to minimize the probability of injury, accident, or incident occurrence.

Although the HASP focuses on the specific work activities planned for this Site, it must remain flexible because of the nature of this work. Conditions may change and unforeseen situations can arise that require deviations from the original HASP.

#### 1.1 Site History/Overview

An approximately 3,600 square-foot one-story building was constructed on the Site around 1919, and was used as an automobile sales and service facility. It is understood that petroleum products were also formerly dispensed at the facility. In 1994, the business was closed and the building had fallen into a state of disrepair. The building was demolished in October, 2001.

As part of this Environmental Restoration Project, impacts to surface soil, subsurface soil, and groundwater will be addressed in accordance with the selected remedy identified in the New York State Department of Environmental Conservation (NYSDEC) Record of Decision (ROD) dated March 2005.

A Site Investigation (SI) report was completed under the NYSDEC Environmental Restoration Program. As described in the SI report, many soil and groundwater samples were collected to characterize the nature and extent of contamination. The main categories of contaminants that exceed their Standards, Criteria, and Guidance (SCG) values are volatile organic compounds (VOCs) and semi-volatile organic compounds (SVOCs). The VOCs of concern are petroleum-related compounds. The SVOCs of concern are also primarily petroleum-related and include polycyclic aromatic hydrocarbons (PAHs). Inorganics (metals) were also detected at levels above SCGs, and appear attributable to naturally occurring conditions or possibly historic Site operations.

The following remedial components were implemented for this environmental restoration project:

- Performed a limited removal and off-site disposal of petroleum-contaminated soils in source areas at the former Ford Garage property to prevent further groundwater contamination;
- Decommissioned (excavation, removal and off-site disposal) an abandoned dug well at the former Ford Garage property that evidently was used for waste oil disposal;
- Removed and disposed a floor drainage system piping at the former Ford Garage property;
- Performed in-situ bioremediation of soils and groundwater on and off the former Ford Garage property to reduce contaminant concentrations in the saturated zone;
- Covered the majority of the former Ford Garage property with asphalt pavement and the remaining northern portion of the property with a one-foot thick layer of clean soil underlain by a demarcation layer to limit exposure to contaminants in surface soils;
- Developed a site management plan to address the residual contamination and any use restrictions at the former Ford Garage property;

- Developed institutional controls in the form of an environmental easement for the former Ford Garage property. This includes certification of the institutional controls and engineering controls; and development of an operation, maintenance and monitoring program to track remedial progress and confirm its effectiveness; and
- Designed and installed a basement floor slab and sub-slab ventilation system (i.e., sub-slab depressurization system) for the building at the adjoining Old Mill Restaurant property.

#### 1.2 Planned Activities Covered by HASP

This HASP is to be implemented during activities that are associated with performing the following tasks:

- Repairing the existing asphalt-paved and soil cover system;
- Conducting intrusive work beneath the cover system; and
- Implementing operation, maintenance, and monitoring program work to track remedial progress and confirm its effectiveness.

This HASP can be modified to cover other site activities when appropriate. The owner of the property, its contractors, and other site workers will be responsible for the development and/or implementation of health and safety provisions associated with normal construction activities or site activities.

#### 2.0 KEY PERSONNEL AND MANAGEMENT

The Project Manager (PM) and Site Safety Officer (SSO) are responsible for formulating and enforcing health and safety requirements, and implementing the HASP.

### 2.1 Project Manager

The PM has the overall responsibility for the project and to assure that the goals of the project are attained in a manner consistent with the HASP requirements. The PM will coordinate with the SSO to ensure that project goals are completed in a manner consistent with the HASP.

#### 2.2 Site Safety Officer

The SSO has responsibility for administering the HASP relative to site activities, and will be in the field full-time while site activities are in progress. The SSO's operational responsibilities will be monitoring, including personal and environmental monitoring, ensuring personal protective equipment maintenance, and assignment of protection levels. The SSO will be the main contact in any on-site emergency situation. The SSO will direct field activities involved with safety, and be responsible for stopping work when unacceptable health or safety risks exist. The SSO is responsible for ensuring that on-site personnel understand and comply with safety requirements.

#### 2.3 Employee Safety Responsibility

Each employee is responsible for personal safety as well as the safety of others in the area. The employee will use the equipment provided in a safe and responsible manner as directed by the SSO.

#### 2.4 OSHA Records

Required records are maintained at DAY's Rochester, New York office.

#### 2.5 Key Safety Personnel

The following individuals are anticipated to share responsibility for health and safety at the site for work being performed by DAY.

**Project Manager** 

Jeffrey A. Danzinger

Site Safety Officer

Nate Simon Kelly Crandall

Contractors, consultants, state or local agencies, or other parties, and their employees, involved with this Site will be required to designate their own entities or personnel that will provide PM and SSO duties on their behalf (refer to Section 3.0).

#### 3.0 SAFETY RESPONSIBILITY

Contractors, consultants, state or local agencies, or other parties, and their employees, involved with this Site will be responsible for their own safety while on-site. Their employees will be required to understand the information contained in this HASP, and must follow the recommendations that are made in this document. As an alternative, contractors, consultants, state or local agencies, or other parties, and their employees, involved with this Site can utilize their own health and safety plan for this project as long as it is found acceptable to the New York State Department of Health (NYSDOH) and/or NYSDEC.

#### 4.0 JOB HAZARD ANALYSIS

There are many hazards associated with intrusive work, and this HASP discusses some of the anticipated hazards for this Site. The hazards listed below deal specifically with those hazards associated with the management of potentially contaminated media (e.g., soil, groundwater, etc.).

#### 4.1 Chemical Hazards

Chemical substances can enter the unprotected body by inhalation, skin absorption, ingestion, or through a puncture wound (injection). A contaminant can cause damage to the point of contact or can act systemically, causing a toxic effect at a part of the body distant from the point of initial contact.

A list of selected site-specific contaminants that have been detected at the Site at concentrations that exceed regulatory criteria is presented below. The contaminants detected at the Site appear potentially attributable to past operations on the Site. This list also presents the permissible exposure limits (PELs) and levels that are considered immediately dangerous to life and health (IDLH).

CONSTITUENT	OSHA PEL	IDLH
Acetone	1,000 ppm	2,500 ppm
Benzene	l ppm	500 ppm
2-Butanone	200 ppm	3,000 ppm
Ethylbenzene	100 ppm	800 ppm
Methyl tert-butyl ether	NA	NA
1,2,4-Trimethylbenzene	NA	NA
1,3,5-Trimethylbenzene	NA	NA
Toluene	200 ppm	500 ppm
Mixed Xylenes	100 ppm	900 ppm
Benzo(a)pyrene <sup>1</sup>	0.2 mg/m <sup>3</sup>	80 mg/m³
Benzo(k)fluoranthene	NA	NA
Benzo(b)fluoranthene <sup>1</sup>	0.2 mg/m <sup>3</sup>	80 mg/m <sup>3</sup>
Benzo(a)anthracene <sup>1</sup>	0.2 mg/m <sup>3</sup>	80 mg/m <sup>3</sup>
Chrysene <sup>1</sup>	0.2 mg/m <sup>3</sup>	80 mg/m <sup>3</sup>
Naphthalene	10 ppm	250 ppm
Lead	0.05 mg/m <sup>3</sup>	100 mg/m <sup>3</sup>
Magnesium	15 mg/m³	750 mg/m <sup>3</sup>
Mercury	0.1 mg/m <sup>3</sup>	10 mg/m <sup>3</sup>
Nickel	1 mg/m³	10 mg/m <sup>3</sup>
Zinc	NA	NA

#### Notes:

PEL = OSHA Permissible Exposure Limits (TWA for 8-hour day)
IDLH = Immediately Dangerous to Life or Health Concentration

NA = Not Available (1) = As coal tar pitch The potential routes of exposure for these analytes and chemicals include inhalation, ingestion, skin absorption and skin/eye contact. The potential for exposure through any one of these routes will depend on the activity conducted. The most likely routes of exposure during intrusive activities include inhalation and skin contact.

#### 4.2 Physical Hazards

There are physical hazards associated with this Site, which might compound the chemical hazards. Hazard identification, training, adherence to the planned remediation measures, and careful housekeeping can prevent many problems or accidents arising from physical hazards. Potential physical hazards associated with this Site and suggested preventative measures include:

- <u>Slip/Trip/Fall Hazards</u> Some areas may have wet surfaces that will greatly increase the possibility of inadvertent slips. Caution must be exercised when using steps and stairs due to slippery surfaces in conjunction with the fall hazard. Good housekeeping practices are essential to minimize the trip hazards.
- <u>Small Quantity Flammable Liquids</u> Small quantities of flammable liquids will be stored in "safety" cans and labeled according to contents.
- Electrical Hazards Electrical devices and equipment shall be de-energized prior to working near them. All extension cords will be kept out of water, protected from crushing, and inspected regularly to ensure structural integrity. Temporary electrical circuits will be protected with ground fault circuit interrupters. Only qualified electricians are authorized to work on electrical circuits. Heavy equipment (e.g., backhoe, drill-rig) shall not be operated within 10 feet of high voltage lines, unless proper protection from the high voltage lines is provided by the appropriate utility company.
- <u>Noise</u> Work around large equipment often creates excessive noise. The effects of noise can include:
  - Workers being startled, annoyed, or distracted.
  - Physical damage to the ear resulting in pain, or temporary and/or permanent hearing loss.
  - Communication interference that may increase potential hazards due to the inability to warn of danger and proper safety precautions to be taken.

Proper hearing protection will be worn as deemed necessary. In general, feasible administrative or engineering controls shall be utilized when on-site personnel are subjected to noise exceeding an 8-hour time weighted average sound level of 90 d(B)A (decibels on the A-weighted scale). In addition, whenever employee noise exposures equal or exceed an 8-hour time weighted average sound level of 85 d(B)A, employers shall administer a continuing effective hearing conservation program as described in OSHA Regulation 29 CFR Part 1910.95.

 Heavy Equipment - Each morning before start-up, heavy equipment will be inspected to ensure safety equipment and devices are operational and ready for immediate use.  <u>Subsurface and Overhead Hazards</u> - Before any excavation activity, efforts will be made to determine whether underground utilities and potential overhead hazards will be encountered. Underground utility clearance must be obtained prior to subsurface work.

#### 4.3 Environmental Hazards

Environmental factors such as weather, wild animals, insects, and irritant plants can pose a hazard when performing outdoor tasks. The SSO and Site workers shall make every reasonable effort to alleviate these hazards should they arise.

#### 4.3.1 Heat Stress

The combination of warm ambient temperature and protective clothing increases the potential for heat stress. In particular:

- Heat rash
- Heat cramps
- Heat exhaustion
- Heat stroke

Site workers will be encouraged to increase consumption of water or electrolyte-containing beverages such as Gatorade® when the potential for heat stress exists. In addition, workers are encouraged to take rests whenever they feel any adverse effects that may be heat-related. The frequency of breaks may need to be increased upon worker recommendation to the SSO.

#### 4.3.2 Exposure to Cold

With outdoor work in the winter months, the potential exists for hypothermia and frostbite. Protective clothing greatly reduces the possibility of hypothermia in workers. However, personnel will be instructed to wear warm clothing and to stop work to obtain more clothing if they become too cold. Employees will also be advised to change into dry clothes if their clothing becomes wet from perspiration or from exposure to precipitation.

#### 5.0 SITE CONTROLS

To prevent migration of contamination caused through tracking by personnel or equipment, work areas, and personal protective equipment staging/decontamination areas will be specified prior to beginning operations.

#### 5.1 Site Zones

In the area where contaminated materials present the potential for worker exposure (work zone), personnel entering the area must wear the mandated level of protection for the area. A "transition zone" shall be established where personnel can begin personal and equipment decontamination procedures. This can reduce potential off-site migration of contaminated media. Contaminated equipment or clothing will not be allowed outside the transition zone (e.g., on clean portions of the Site) unless properly containerized for disposal. Operational support facilities will be located outside the transition zone (i.e., in a "support zone"), and normal work clothing and support equipment are appropriate in this area. If possible, the support zone should be located upwind of remediation activities.

#### 5.2 General

The following items will be requirements to protect the health and safety of workers during implementation of activities that disturb impacted material.

- Eating, drinking, chewing gum or tobacco, smoking, or any practice that increases
  the probability of hand to mouth transfer and ingestion of contamination shall not
  occur in the work zone and transition zone during disturbance of impacted material.
- Personnel admitted in the work zone shall be properly trained in health and safety techniques and equipment usage.
- No personnel shall be admitted in the work zone without the proper safety equipment.
- Proper decontamination procedures shall be followed before leaving the Site.

## 6.0 PROTECTIVE EQUIPMENT

This section addresses the various levels of PPE which are or may be required at this job site. Personnel entering the work zone and transition zone shall be trained in the use of the anticipated PPE to be utilized.

### **6.1** Anticipated Protection Levels

TASK	PROTECTION LEVEL	COMMENTS/MODIFICATIONS
Site mobilization	D	
Site prep/construction of engineering controls	D	
Extrusive work (e.g., surveying, etc.)	D	
Intrusive work (e.g., soil excavation, etc.)	C/Modified D/D	Based on air monitoring, and SSO discretion
Support zone	D	
Site breakdown and demobilization	D	

It is anticipated that intrusive work conducted at this Sites can be performed in Level D or modified Level D PPE. If conditions are encountered that require higher levels of PPE (e.g., Level C, B, or A), the work will immediately be stopped. The appropriate government agencies (e.g., NYSDEC, NYSDOH, etc.) will be notified, and the proper health and safety measures will be implemented (e.g., develop and implement engineering controls, upgrade in PPE, etc.).

## **6.2** Protection Level Descriptions

This section lists the minimum requirements for each protection level. Modifications to these requirements can be made upon approval of the SSO. If Level A, Level B, and/or Level C PPE is required, Site personnel that enter the work zone and/or transition zone must be properly trained and certified in the use of those levels of PPE.

#### **6.2.1** Level D

Level D consists of the following:

- Safety glasses
- Hard hat when working with heavy equipment
- Steel-toed or composite-toed work boots
- Protective gloves during sampling or handling of potentially contaminated media
- Work clothing as prescribed by weather

#### 6.2.2 Modified Level D

Modified Level D consists of the following:

- Safety glasses with side shields
- Hard hat
- Steel-toed or composite-toed work boots
- Work gloves
- Outer protective wear, such as Tyvek coverall [Tyveks (Sarans) and PVC acid gear will be required when workers have a potential to be exposed to impacted liquids or impacted particulates].

### **6.2.3** Level C

Level C consists of the following:

- Air-purifying respirator with appropriate cartridges
- Outer protective wear, such as Tyvek coverall [Tyveks (Sarans) and PVC acid gear will be required when workers have a potential to be exposed to impacted liquids or particulates].
- Hard hat
- Steel-toed or composite-toed work boots
- Nitrile, neoprene, or PVC overboots, if appropriate
- Nitrile, neoprene, or PVC gloves, if appropriate
- Face shield (when projectiles or splashes pose a hazard)

#### **6.2.4** Level B

Level B protection consists of the items required for Level C protection with the exception that an air-supplied respirator is used in place of the air-purifying respirator. Level B PPE is not anticipated to be required during this project. If the need for level B PPE becomes evident, project activities will be ceased until Site conditions are further evaluated, and any necessary modifications to the HASP have been approved by the Project Manager or SSO. Subsequently, the appropriate safety measures (including Level B PPE) must be implemented prior to commencing project activities.

#### 6.2.5 Level A

Level A protection consists of the items required for Level B protection with the addition of a fully-encapsulating, vapor-proof suit capable of maintaining positive pressure. Level A PPE is not anticipated to be required during this project. If the need for level A PPE becomes evident, project activities will be ceased until Site conditions are further evaluated, and any necessary modifications to the HASP have been approved by the Project Manager or SSO. Subsequently, the appropriate safety measures (including Level A PPE) must be implemented prior to commencing project activities.

## 6.3 Respiratory Protection

Any respirator used will meet the requirements of OSHA 29 CFR 1910.134. Both the respirator and cartridges specified shall be fit-tested prior to use in accordance with OSHA regulations (29 CFR 1910). Air purifying respirators shall not be worn if contaminant levels exceed designated use concentrations. The workers will wear respirators with approval for: organic vapors, dusts, fumes and mists. Respirator and cartridge selection must be acceptable to the SSO.

No personnel who have facial hair, which interferes with the respirator's sealing surface, will be permitted to wear a respirator and will not be permitted to work in areas requiring respirator use.

Only workers who have been certified by a physician as being physically capable of respirator usage shall be issued a respirator. Personnel unable to pass a respiratory fit test or without medical clearance for respirator use will not be permitted to enter or work in areas on-site that require respirator protection.

#### 7.0 DECONTAMINATION PROCEDURES

This section describes the procedures necessary to ensure that both personnel and equipment are free from contamination when they leave the work Site.

#### 7.1 Personnel Decontamination

Personnel involved with activities that involve disturbing impacted media will follow the decontamination procedures described herein to ensure that material which workers may have contacted in the work zone and/or transition zone does not result in personal exposure and is not spread to clean areas of the Site. This sequence describes the general decontamination procedure. The specific stages can vary depending on the Site, the task, and the protection level, etc.

- 1. Leave work zone and go to transition zone
- 2. Remove soil/debris from boots and gloves
- 3. Remove boots
- 4. Remove gloves
- 5. Remove Tyvek suit and discard, if applicable
- 6. Remove and wash respirator, if applicable
- 7. Go to support zone

## 7.2 Equipment Decontamination

Impacted equipment shall be decontaminated in the transition zone before leaving the Site. Decontamination procedures can vary depending upon the contaminant involved, but may include sweeping, wiping, scraping, hosing, or steam cleaning the exterior of the equipment. Personnel performing this task will wear the proper PPE.

## 7.3 Disposal

Disposable clothing will be treated as contaminated waste and be disposed of properly. Liquids (e.g., decontamination water, etc.) generated by intrusive activities will be disposed of in accordance with applicable regulations.

#### 8.0 AIR MONITORING

During intrusive activities that have the potential to disturb impacted media beneath the cover system, air monitoring will be conducted in order to determine airborne particulate and contamination levels. This ensures that respiratory protection is adequate to protect personnel against the chemicals that are encountered and that chemical contaminants are not migrating offsite. Additional air monitoring may be conducted at the discretion of the SSO.

The following chart describes the direct reading instrumentation that will be utilized and appropriate action levels.

Monitoring Device	Action level	Response/Level of PPE		
-	< 1 ppm in breathing zone, sustained 5 minutes	Level D		
	1-5 ppm in breathing zone, sustained 5 minutes; and benzene detector tubes below 1 ppm	Level D		
PID Volatile Organic Compound Meter	1-5 ppm in breathing zone, sustained 5 minutes; and benzene detector tubes between 1 and 5 ppm	<u>Level C</u>		
	6-25 ppm in breathing zone, sustained 5 minutes; and benzene detector tubes between 1 and 5 ppm	<u>Level C</u>		
	26-250 ppm in breathing zone, sustained 5 minutes	Level B, Stop work, evaluate the use of engineering controls		
	>250 ppm in breathing zone	Level A, Stop work, evaluate the use of engineering controls		
RTAM Particulate Meter	< 150 µg/m³ over an integrated period not to exceed 15 minutes.	Continue working		
	> 150 μg/m <sup>3</sup>	Cease work, implement dust suppression, change in way work performed, etc. If levels can not be brought below 150 µg/m³, then upgrade PPE to <u>Level C</u> .		

### 8.1 Particulate Monitoring

During activities where impacted materials beneath the cover system may be disturbed, air monitoring will include real-time monitoring for particulates using a real-time aerosol monitor (RTAM) particulate meter in accordance with the 1989 NYSDEC Technical and Administrative Guidance Memorandum (TAGM) #4031 entitled, "Fugitive Dust Suppression and Particulate Monitoring Program at Inactive Hazardous Waste Sites." The TAGM uses an action level of 150  $\mu$ g/m³ (0.15 mg/m³) over an integrated period not to exceed 15 minutes. If the action level is exceeded, or if visible dust is encountered, then intrusive work shall be discontinued until corrective actions are implemented. Corrective actions may include dust suppression, change in the way work is performed, and/or upgrade of personal protective equipment, etc. Readings will be recorded and be available for review.

## 8.2 Volatile Organic Compound Monitoring

During activities where impacted materials beneath the cover system may be disturbed, a photoionization detector (PID) will be used to monitor total VOCs in the ambient air. The PID will prove useful as a direct reading instrument to aid in determining if current respiratory protection is adequate or needs to be upgraded. The SSO will take measurements before operations begin in an area to determine the amount of VOCs naturally occurring in the air. This is referred to as a background level. Levels of VOCs will periodically be measured in the air at active work sites, and at the transition zone when levels are detected above background in the work zone.

## 8.3 Community Air Monitoring Plan

This Community Air Monitoring Plan (CAMP) includes real-time monitoring for VOCs and particulates (i.e., dust) at the downwind perimeter of each designated work area when activities with the potential to release VOCs or dust from intrusive activities involving disturbance of potentially impacted media beneath the cover system are in progress at the Site. This CAMP is based on the NYSDOH Generic CAMP included as Appendix 1A of the NYSDEC document titled "DER-10, Technical Guidance for Site Investigation and Remediation" dated May 2010. The CAMP is not intended for use in establishing action levels for worker respiratory protection. Rather, its intent is to provide a measure of protection for the downwind community (i.e., off-site receptors including residences and businesses and on-site workers not directly involved with the subject work activities) from potential airborne contaminant releases as a direct result of intrusive work activities. The action levels specified herein require increased monitoring, corrective actions to abate emissions, and/or work shutdown. Additionally, the CAMP helps to confirm that intrusive work activities did not spread contaminants off-site through the air. Reliance on the CAMP should not preclude simple, common sense measures to keep VOCs, dust, and odors at a minimum around the work areas.

<u>Continuous monitoring</u> will be conducted during ground intrusive activities. Ground intrusive activities include, but are not limited to, soil/waste excavation and handling, installation of buried utilities, repairs to cover system, etc.

**Periodic monitoring** for VOCs will be conducted during non-intrusive activities such as the collection of groundwater samples from monitoring wells. Periodic monitoring during sample collection might reasonably consist of taking a reading upon arrival at a sample location, monitoring while opening a well cap or overturning soil, monitoring during well baling/purging, and taking a reading prior to leaving a sample location. In some instances, depending upon the proximity of potentially exposed individuals, continuous monitoring may be required during sampling activities. Examples of such situations include groundwater sampling at wells on the curb of a busy urban street, in the midst of a public park, or adjacent to a school or residence.

#### 8.3.1 VOC Monitoring, Response Levels, and Actions

VOCs must be monitored at the downwind perimeter of the immediate work area (i.e., the work zone) on a continuous basis or as otherwise specified. Upwind concentrations should be measured at the start of each workday and periodically thereafter to establish background conditions.

The monitoring work should be performed using equipment appropriate to measure the types of contaminants known or suspected to be present. The equipment should be

calibrated at least daily for the contaminant(s) of concern or for an appropriate surrogate. The equipment should be capable of calculating 15-minute running average concentrations, which will be compared to the levels specified below.

- If the ambient air concentration of total organic vapors at the downwind perimeter of the work zone exceeds 5 ppm above background for the 15-minute average, work activities must be temporarily halted and monitoring must be continued. If the total organic vapor level readily decreases (per instantaneous readings) below 5 ppm over background, work activities can resume with continued monitoring.
- If total organic vapor levels at the downwind perimeter of the work zone persist at levels in excess of 5 ppm over background but less than 25 ppm, work activities must be halted, the source or vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities can resume provided that the total organic vapor level 200 feet downwind of the exclusion zone or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less (but in no case less than 20 feet), is below 5 ppm over background for the 15-minute average.
- If the organic vapor level is above 25 ppm at the perimeter of the work area, activities must be shutdown.

The 15-minute readings must be recorded and made available for NYSDEC and NYSDOH personnel to review. Instantaneous readings, if any, used for decision purposes should also be recorded.

## 8.3.2 Particulate Monitoring, Response Levels, and Actions

Particulate concentrations should be monitored continuously at the upwind and downwind perimeters of the work zone at temporary particulate monitoring stations. The particulate monitoring should be performed using real-time monitoring equipment capable of measuring particulate matter less than 10 micrometers in size (PM-l0) and capable of integrating over a period of 15 minutes (or less) for comparison to the airborne particulate action level. The equipment must be equipped with an audible alarm to indicate exceedance of the action level. In addition, fugitive dust migration should be visually assessed during all work activities.

- If the downwind PM-10 particulate level is 100 micrograms per cubic meter (µg/m³) greater than background (upwind perimeter) for the 15-minute period or if airborne dust is observed leaving the work area, then dust suppression techniques must be employed. Work may continue with dust suppression techniques provided that downwind PM-10 particulate levels do not exceed 150 µg/m³ above the upwind level and provided that no visible dust is migrating from the work area.
- If, after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater than 150 µg/m³ above the upwind level, work must be stopped and a re-evaluation of activities initiated. Work can resume provided that dust suppression measures and other controls are successful in reducing the downwind PM-10 particulate concentration to within 150 µg/m³ of the upwind level and in preventing visible dust migration.

Readings must be recorded and made available for NYSDEC and NYSDOH personnel to review.

#### 9.0 EMERGENCY RESPONSE

To provide first-line assistance to field personnel in the case of illness or injury, the following items will be made immediately available on the Site:

- First-aid kit
- Portable emergency eye wash
- Supply of clean water

## 9.1 Emergency Telephone Numbers

The following telephone numbers are listed in case there is an emergency at the Site:

Fire/Police Department:

911

Poison Control Center:

(800) 222-1222 (Emergency Phone)

(585) 273-4155 (Administration Phone)

**NYSDEC Spills** 

(800) 457-7362

(585) 226-2466

NYSDOH (Debbie McNaughton)

(585) 423-8069

Town of Gorham

(585) 526-6317

Nearest Hospital

F.F. Thompson Hospital

350 Parrish Street

Canandaigua, NY 14424

Hospital Phone Number:

(585) 396-6000

Directions to the Hospital

(refer to map in Attachment 2):

Turn right onto Route 245 (Main Street); travel west approximately 0.5 mile and turn right onto County Road 18; travel northwest approximately 4.5 miles and turn right onto Route 247; travel north approximately 2.0 miles and turn left onto Route 5 and 20; travel west approximately 3.3 miles and turn right onto Route 332 (Main Street); travel northwest approximately 0.2 mile and turn left onto Parrish Street; travel southwest approximately 0.7 mile and turn right into the hospital.

#### 9.2 Evacuation

A log of each individual entering and leaving the Site will be kept for emergency accounting practices. Although unlikely, it is possible that a site emergency could require evacuating all personnel from the site. If required, the SSO will give the appropriate signal for site evacuation (i.e., hand signals, alarms, etc.).

Personnel shall exit the site and shall congregate in an area designated by the SSO. The SSO shall ensure that personnel are accounted for. If someone is missing, the SSO will alert emergency personnel. The appropriate government agencies will be notified as soon as possible regarding the evacuation, and any necessary measures that may be required to mitigate the reason for the evacuation.

## 9.3 Medical Emergency

In the event of a medical emergency involving illness or injury to one of the on-site personnel, the site should be shut down and immediately secured. The appropriate government agencies should be notified immediately. The area in which the injury or illness occurred shall not be entered until the cause of the illness or injury is known. The nature of injury or illness shall be assessed. If the victim appears to be critically injured, administer first aid and/or CPR as needed. Instantaneous real-time air monitoring shall be done in accordance with air monitoring outlined in Section 8.0 of this HASP.

### 9.4 Contamination Emergency

It is unlikely that a contamination emergency will occur; however, if such an emergency does occur, the site shall be shut down and immediately secured. If an emergency rescue is needed, notify Police, Fire Department and EMS Units immediately. Advise them of the situation and request an expedient response. The appropriate government agencies shall be notified immediately. The area in which the contamination occurred shall not be entered until the arrival of trained personnel who are properly equipped with the appropriate PPE and monitoring instrumentation. (See also Section 8.0 of this HASP).

### 9.5 Fire Emergency

In the event of a fire on-site, the Site shall be shut down and immediately secured. The area in which the fire occurred shall not be entered until the cause can be determined. Non-essential site personnel shall be evacuated from the site to a safe, secure area. Notify the Fire Department immediately. Advise the Fire Department of the situation and the identity of any hazardous material involved. The appropriate government agencies shall be notified as soon as possible.

The four classes of fire along with their constituents are as follows:

Class A: Wood, cloth, paper, rubber, many plastics, and ordinary combustible materials.

Class B: Flammable liquids, gases and greases.

Class C: Energized electrical equipment.

Class D: Combustible metals such as magnesium, titanium, sodium, potassium.

Small fires on-site may be actively extinguished; however, extreme care shall be taken while in this operation. Approaches to the fire shall be done from the upwind side if possible. Distance from on-site personnel to the fire shall be close enough to ensure proper application of the extinguishing material, but far enough away to ensure that the personnel are safe. The proper extinguisher shall be utilized for the Class(s) of fire present on the site. If possible, the fuel source shall be cut off or separated from the fire. Care must be taken when performing operations involving the shut-off of valves and manifolds, if present.

Examples of proper extinguishing agent as follows:

Class A: Water

Water with 1% AFFF Foam (Wet Water)
Water with 6% AFFF or Fluorprotein Foam

**ABC Dry Chemical** 

Class B: ABC Dry Chemical

Purple K

Carbon Dioxide

Water with 6% AFFF Foam

Class C: ABC Dry Chemical

Carbon Dioxide

Class D: Metal-X Dry Powder

No attempt shall be made against large fires. These shall be handled by the Fire Department.

## 9.6 Spill or Air Release

In the event of a spill or air release of a hazardous material on-site, the Site shall be shut down and immediately secured. The area in which the spill or release occurred shall not be entered until the cause can be determined and site safety can be evaluated. Non-essential site personnel shall be evacuated from the Site to a safe, secure area. The appropriate government agencies shall be notified as soon as possible. The spilled or released material shall be immediately identified and appropriate containment measures shall be implemented, if possible. Real-time air monitoring shall be implemented as outlined in Section 8.0 of this HASP. If the material is unknown, Level B protection is mandatory. Samples of the material shall be acquired to facilitate identification of the material, if deemed necessary.

### 9.7 Locating Containerized Waste or Buried Tanks

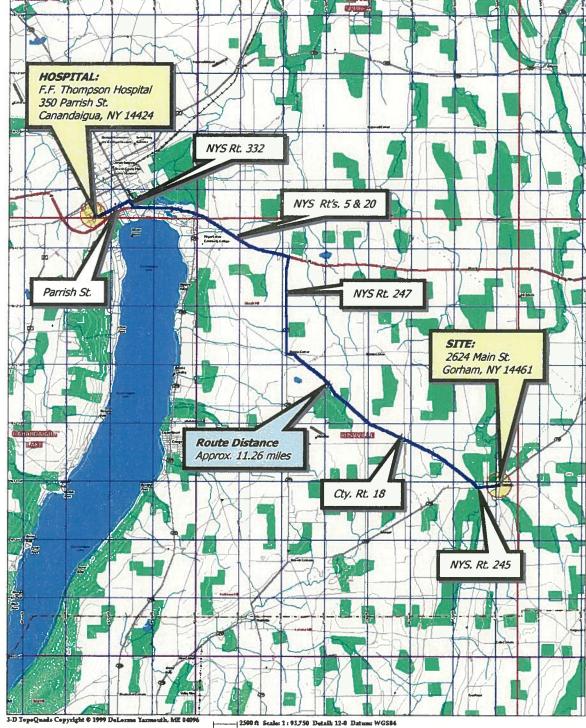
In the event that containerized waste (e.g., drums) or buried tanks are located during project activities, the site shall be shut down and immediately secured. The area in which containerized wastes and/or tanks are discovered shall not be entered until site safety can be evaluated. Non-essential site personnel shall be evacuated from the site to a safe, secure area. The appropriate government agencies shall be notified as soon as possible. The SSO shall monitor the area as outlined in Section 8.0 of this HASP.

Prior to any handling, containers and/or tanks will be visually assessed by the SSO to gain as much information as possible about their contents. As a precautionary measure, personnel shall assume that unlabelled containers contain hazardous materials until their contents are characterized. If the material is unknown, Level B protection is mandatory. To the extent possible based upon the nature of the containers encountered, actions may be taken to stabilize the area and prevent migration (e.g., placement of berms, etc.). Subsequent to initial visual assessment and any required stabilization, an environmental contractor will sample, test, remove, and dispose of any containers, tanks, and their contents.

# **ATTACHMENT 1**

Figure 1- Map to Hospital





Drawing Produced From: 3-D TopoQuads, DeLorme Map Co., referencing USGS quad maps Rushville (NY) 1990; Clifton Springs (NY) 1988; Canandaigua Lake (NY) 1978 and Canandaigua (NŶ) 1978.

01-30-2006

DRAWN BY **RJM** 

SCALE N.T.S.

DAY ENVIRONMENTAL, INC. **ENVIRONMENTAL CONSULTANTS** ROCHESTER, NEW YORK 14614-1008

PROJECT TITLE

2624 MAIN STREET GORHAM, NEW YORK

**HEALTH AND SAFETY PLAN** 

**ROUTE FOR EMERGENCY SERVICE** 

PROJECT NO. 3729R-05

FIGURE 1

# APPENDIX E

**Site-Wide Observation Form** 

# Site-Wide Inspection Form 2624 Main Street, Gorham, New York NYSDEC ERP Project #B00153-8

Date of Inspection Site Visit:
Personnel Performing Inspection Site Visit:
Affiliation of Personnel:
1. Check integrity of asphalt pavement cover, including whether any sloughing, cracks, settlement, damage, etc.
Discuss observations and any corrective actions
2. Check integrity of soil cover, including whether any erosion, settlement, damage, etc.
Discuss observations and any corrective actions
3. Check integrity of grass vegetation on soil cover area
Discuss observations and any corrective actions
4. Check integrity of monitoring wells, including whether any blockage, damage, etc.
Discuss observations and any corrective actions
5. Provide any other notes or observations of interest

# APPENDIX F

**Monitoring Well Boring and Construction Logs** 

Project: 2624 Main Street, Gorham, NY

**DAY Representative:** A. Farrell

**Drilling Contractor: SLC Environmental Services** 

Drilling Rig: Geoprobe 54LT
Sampling Method: Direct Push
Completion Method: 1" PVC Well

**BORING NUMBER: TB-3 (MW-1)** 

**Project No: 2751S-01** 

**Boring Location:** See Site Plan

**Ground Surface Elevation: 879.86'** 

Start Date: 09/30/02 Borehole Diameter: 2.25\* Datum: USGS

Completion Date: 09/30/02

Borehole Depth: 8.7'

Water Level: 5.25'

	inplation in	oulou.	I PVC Wei	'			water Lev	et; 0.20
Depth (feet)	Blows per 0.5'	Number	Depth (feet)	% Recovery	N-Value or RQD %	Peak PID Reading (ppm)	Well Installation Log	Sample Description
2-	NA	S-1	0-4	NA	NA	2.7		Sand, Silt, Gravel, Organics, damp (FILL)  Brown Sandy SILT, some Clay, damp
4-	NA	S-2	4-8	NA	NA	7.6		moist gray staining
10- 11- 12- 13- 14- 15- 16- 17- 18- 19-	NA	\$-3	8-8.7	NA .	NA	NA .		Refusal @ 8.7*

File: 2751stb3.log

Project: 2624 Main Street, Gorham, NY

**DAY Representative:** A. Farrell

**Drilling Contractor: SLC Environmental Services** 

Drilling Rig: Geoprobe 54LT

Sampling Method: Direct Push

Completion Method: 1" PVC Well

**BORING NUMBER: TB-9 (MW-2)** 

**Project No: 2751S-01** 

Boring Location: See Site Plan

**Ground Surface Elevation**; 882.15'

Start Date: 09/30/02

Borehole Diameter: 2.25"

Datum: USGS

Completion Date: 09/30/02

Borehole Depth: 10.7'

Water Level: 6.5'

							TYGUDI LAGY	
Depth (feet)	Blows per 0.5	Number	Depth (feet)	% Recovery	N-Value or RQD %	Peak PID Reading (ppm)	Well Installation Log	Sample Description
1	NA	S-1	0-4	80	NA	1.8		Gravel (FILL)  Dark Brown Sandy Silt and Gravel, moist (FILL)  Dark Brown Sandy Silt, some Clay, moist
5 6 7 7 7	NA	S-2	4-8	60	NA NA	699		some Grave!
9-1-1-1	NA	S-3	8-10.7	NA NA	NA	1274		fractured Rock and Gravel
11 - 12 - 13 - 14 - 15 - 17 - 18 - 19 - 19 - 120								Refusal @ 10.7*

File: 2751stb9.log

Project: 2624 Main Street, Gorham, NY

**DAY Representative:** A. Farrell

**Drilling Contractor: SLC Environmental Services** 

Drilling Rig: Geoprobe 54LT
Sampling Method: Direct Push
Completion Method: 1" PVC Well

**BORING NUMBER: TB-10 (MW-3)** 

**Project No: 2751S-01** 

Boring Location: See Site Pian

Ground Surface Elevation: 882.57'

Start Date: 09/30/02 Borehole Diameter: 2.25 Datum: USGS
Completion Date: 09/30/02

Borehole Depth: 10.7'

Water Level: 7.5'

Well Installation Log Peak PiD Reading (ppm) % Recovery Depth (feet) Depth (feet) N-Value or RQD % Blows per 0.5' Sample Description Number Brown Sand, Silt, Gravel, Brick, Ash, damp (FILL) 12.9 2 NA S-1 0-4 85 NA 3-8.3 4 5-Brown Sandy SILT, some Gravel, moist 13.9 6 NA S-2 4-8 50 NA 7= 27.8 ... wet 8-... Black staining 8.0 9-NA S-3 8-10.7 NA NA 10-9.0 11 Refusal @ 10.7 12 13 15 16-17-18-19 20

File: 2751s10.log

Project: 2624 Main Street, Gorham, NY

**DAY Representative:** A. Farrell

**Drilling Contractor: SLC Environmental Services** 

Drilling Rig: Geoprobe 54LT

Sampling Method: Direct Push

Completion Method: 1" PVC Well

**BORING NUMBER: TB-14 (MW-5)** 

**Project No: 2751S-01** 

**Boring Location:** See Site Plan

Ground Surface Elevation: 884.94

Start Date: 10/01/02 Borehole Diameter: 2.25\* Datum: USGS

Completion Date: 10/01/02

Borehole Depth: 13.3'

Water Level: 8.5'

	Т	T	T	Т			T	
Depth (feet)	Blows per 0.5	Number	Depth (feet)	% Recovery	N-Vatue or RQD %	Peak PID Reading (ppm)	Well Installation Log	Sample Description
2-	NA	S-1	0-4	50	NA	9.0		Sand, Silt, Gravel, Ash, Brick, Concrete, damp (FILL)
5-	NA	S-2	4-8	30	NA	7.8		Sandy SILT, trace Clay
9	NA	S-3	8-12	40	NA	1659		gray staining, strong petroleum-type odor wet
12-	NA	8-4	12-13.3	100	NA	932 271		fractured Shale throughout
14								Refusel @ 13,3'

File: 2751s14.log

da	V								Е	NVIRONMENTAL CONSULTANTS
II .		ONME	NTAL, II	NC.					AN AFFILI	ATE OF DAY ENGINEERING, P.C.
Projec	t #: t Addre	ss:	3729R-		et		-			TEST BORING MW-6A
			Gorham				•	Ground Elevation: 884.22 Datum: USGS		Page 1 of 1
DAY F	Represe	ntative:	M/. Dick				-	Date Started: 12/12/2008 Date Ended: 12/12/2008		_
Drilling	Contra	ctor:	TREC				_	Borehole Depth: 15.7' Borehole Diameter: 2.25"		-
Samp	ing Met	hod:	Direct P	ush			-		ckfilled with C	Cuttings
<u> </u>				,				Water Level (Date): 8.4' (12/12/08)		
Depth (ft)	Blows per 0.5 ft.	Sample Number	Sample Depth (ft)	% Recovery	N-Value or RQD%	Неаdspace PID (ррт)	PID Reading (ppm)	Sample Description		Notes
								ASPHALT		
				ĺ			0.0	Brown Silty SAND, some Gravel, moist.		
1								Brown Sitty Salver, Some Graver, most.	-	
			١.,				١.,			
2	NA	S-1	0-4	85	NA	0.0	0.0	'	-	
3			1							
ľ			ĺ				0.0			
4								Brown Clayey SILT, some Gravel, moist.		
							0.0	Diown Clayey Cit.1, Solite Crates, most.		
5							0.0		-	
6	NA	S-2	4-8	70	NA	1.2	0.0		-	
ľ										
7							0.4		-	
8			-	<u> </u>		<u> </u>	-		<del> -</del>	
								Brown/dark brown Silty SAND, some Gravel, wet		
9							13			
1									ļ	
	NA	S-3	8-12	20	NA	591	91		•	
10								Plant, wet	-	
								Black, wet.		
11									- Petroleum-	type odor, sheen
							277			
12									<b> </b> .	
'-										
							87			
13									[	
	NA	S-4	12-15.7	15	NA.	113	45			
14	INA	3-4	12-15.7	'3	110	'''	45		-	
15							19		ļ.	
"								Brown/tan Sandy SILT, some Clay, wet.		
		<del> </del>	-	-	$\vdash$			Refusal at 15.7'	†	
16									[	
Notes:	1) Wate	r levels w	ere made	at the tim	es and u	nder cond	litions stat	Fluctuations of groundwater levels may occur due to seasonal factors and other conditions.		
1	2) Stratit	fication lin	nes repres	ent appro	ximate bo	oundaries	. Transitio	ons may be gradual.		
l	3) PID readings are referenced to a benzene standard measured in the headspace above the sample using a MiniRae 2000 equipped with a 10.6 eV lamp.									TEST BORING MW-6A
1			able or No			thu make	ura			I E O LOCKING MIAA-OM
		CIAL ST	readings RFFT	may De li	miuencec	oy inoist	ure .			
ŀ			ORK 14	614-100	8					NEW YORK, NEW YORK 10165-1617
	I54-021				-					(212) 986-8645
F	85) 454							www.dayenvironmental.com		FAX (212) 986-8657

www.dayenvironmental.com

FAX (585) 454-0825

day		ENVIRONMENTAL CONSULTANTS
DAY ENVIRONMENTAL, INC.		LIATE OF DAY ENGINEERING, P.C.
	MONITORING WELL CONSTRUCTION DIAGRAM	1
Project #: 3729R-05 Project Address: 2624 Main Street		MONITORING WELL MW-6A
Gorham, NY DAY Representative: M. Dickinson Drilling Contractor: TREC	Ground Elevation:         884.22         Datum:           Date Started:         12/12/2008         Date Ended:           Water Level (Date):         8.4' (12/12/08)	USGS 12/12/2008
Refer to Test Boring Log MW-6A for Soil Description	Flush Mounted Roadbox	
Notes: 1) Water levels were made at the times and u	nder conditions stated. Fluctuations of groundwater levels may occur due to seasonal f	actors and other conditions.
2) NA = Not Available or Not Applicable		
		MONITORING WELL MW-6A

JD6367

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NEW YORK, NEW YORK 10165-1617 (212) 986-8645 FAX (212) 986-8657

Project: 2624 Main Street, Gorham, NY

**DAY Representative:** A. Farrell

**Drilling Contractor: SLC Environmental Services** 

Drilling Rig: Geoprobe 54LT

Sampling Method: Direct Push

Completion Method: 1" PVC Well

**BORING NUMBER: TB-30 (MW-7)** 

**Project No: 2751S-01** 

**Boring Location: See Site Plan** 

**Ground Surface Elevation: 881.54**°

Start Date: 05/01/03

Borehole Diameter: 2.25"

Datum: USGS

Completion Date: 05/01/03

Borehole Depth: 10.2'

Water Level: 5.0'

	ipietion an	eulou:	1 PVC Wei	· · · · · · · · · · · · · · · · · · ·			water Lev	91: 5.0
Depth (feet)	Blows per 0.5'	Number	Depth (feet)	% Recovery	N-Value or RQD %	Peak PID Reading (ppm)	Well Installation Log	Sample Description
2-3-3-4-4-4-4-4-4-4-4-4-4-4-4-4-4-4-4-4-	NA	S-1	0-4	80	NA	0.0 0.0 0.0		Brown Sand, Silt, Gravel, Clay, Wood, Brick (FILL), damp
5-	NA	S-2	4-8	80	NA	0.0 0.0 0.0		layer of small Gravel Brownish Gray Sandy SILT, wet Dark Brown Organics
9 10 1	NA	S-3	8-10.2	20	NA	20.7 72.3		strong petroleum-type odor, dark steining
11 12 13 13 14 15 16 17 17 18 19 19 11 19 19								Refusal @ 10.2*

File: 2751s30.log

Project: 2624 Main Street, Gorham, NY

DAY Representative: A. Farrell

**Drilling Contractor:** Target Drilling

**Drilling Rig: CME-75** 

Sampling Method: 2' Spiit Spoon

Completion Method: 2" PVC Well

**BORING NUMBER: TB-45 (MW-8)** 

**Project No: 2751S-01** 

Boring Location: See Site Plan

Ground Surface Elevation: 880.16'

Start Date: 08/19/03

Borehole Diameter: 8"

Datum: USGS

Completion Date: 08/19/03 Borehole Depth: 15.0'

r Lavali 45

Water Level: 4.5'

Depth (feet)	Blows per 0.5	Number	Depth (feet)	% Recovery	N-Value or RQD %	Peak PID Reading (ppm)	Well Installation Log	Sample Description
1-	6 11 8 9	8-1	0-2	70	19	0.0		Dark Brown Sand, Silt, Gravel (FILL), damp
3-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1	6 6 5 3	S-2	2-4	70	11	0.0		Brown Silty Sand and Gravel (FILL), moist
5-	8 6 7 12	S-3	4-6	50	13	7.0		very moist wet layer of fine gravel, dark staining, petroleum-type odor
7-	5 9 15 8	S-4	6-8	80	24	3.2		Brown Sandy SILT, trace Clay, some Gravel, wet
911	6 15 50-6"	S-5	8-9.5	80	NA	0.0		
10	NA	NA	9.5-10	NA	NA	-		
"	55-6"	S-6	10-10.5	NA	NA			Rock in cutting shoe
11 12 13 14 14 14 15	NA	NA	10.5-15	NA	NA			Dark Gray SHALE (Bedrock)
15								BOH @ 15.0°
16								

File: 2751s45.log

Project: 2624 Main Street, Gorham, NY DAY Representative: A. Farrell

**Drilling Contractor:** Target Drilling

**Drilling Rig: CME-75** 

Sampling Method: 2' Split Spoon Completion Method: 2" PVC Well **BORING NUMBER: TB-46 (MW-9)** 

**Project No: 2751S-01** 

Boring Location: See Site Plan

Ground Surface Elevation: 885.18'

Start Date: 08/19/03
Borehole Diameter: 8"

Datum: USGS

Completion Date: 08/19/03

Borehole Depth: 13.7'

Water Level: 8.0'

Depth (feet)	Blows per 0.5	Number	Depth (feet)	% Recovery	N-Value or RQD %	Peak PID Reading (ppm)	Well Installation Log	Sample Description
1-	19 9 8 8	S-1	0-2	85	17	0.0		Sand, Silt, Clay, Gravel, Brick, Slag, Ash, Coal (FILL), damp
3-	5 3 3 2	S-2	2-4	70	6	0.2		moist
5-	2 2 1 1	S-3	4-6	50	3	23.4		very moist Black staining, petroleum-type odor
7	1 1 1 2	8-4	6-8	70	2	561		petroleum-type odor  Dark brown Sandy SILT, trace small Gravel, very moist
9-	2 2 1 5	S-5	8-10	90	3	338		wet
10-	7 13 11 17	S-6	10-12	50	24	4.8		fractured rock
12	50-6"	8-7	12-12.5	NA	NA	-		Dark Gray SHALE (Bedrock)
13-	NA	NA NA	12.5-13.7	NA NA	NA NA			
14								BOH @ 13.7*

File: 2751s46.log

Project: 2624 Main Street, Gorham, NY

DAY Representative: A. Farrell

**Drilling Contractor:** Target Drilling

**Drilling Rig: CME-75** 

Sampling Method: 2' Split Spoon Completion Method: 2" PVC Well **BORING NUMBER: TB-47 (MW-10)** 

Project No: 2751S-01

**Boring Location:** See Site Plan

**Ground Surface Elevation: 882.01'** 

Start Date: 08/20/03

Datum: USGS

Completion Date: 08/20/03

Borehole Diameter: 8" Borehole Depth: 20.0"

Water Level: 12.5'

	·		· · · · · · · · · · · · · · · · · · ·				TOTAL STATE OF THE				
Depth (feet)	Blows per 0.5	Number	Depth (feet)	% Recovery	N-Value or RQD %	Peak PID Reading (ppm)	Well Installation Log	Sample Description			
1-	NA	NA	0-1	NA	NA	_					
2-	5 7 8	S-1	1-2.5	60	NA	0.0		Dark Brown Siit, trace Sand, trace Gravel (FILL), damp			
3-	4 29 11	S-2	2.5-4	20	NA	0.0		Light Brown Silty Sand, fine Gravel, Brick, Ash (FILL), damp			
5-		S-3	4-6	0	9	G-to-A		NO RECOVERY			
7-	2 4 4 5	S-4	6-8	100	8	0.0		Brown Silt, some Sand, trace Clay, trace Gravel (FILL), damp			
9-	2 4 5 5	S-5	8-10	70	9	0.0					
11-	2 2 3 4	S-6	10-12	90	5	0.0		Brown Silt, some Clay, trace Sand (FiLL), moist			
13-	3 8 5 4	S-7	12-14	40	13	0.0		wet			
15-	7 6 7 13	S-8	14-16	60	13	0.8		layer of Wood layer of fine Gravel Light Brown SILT, moist			
16-	28 50-6"	S-9	16-17	50	NA	0.0					
18-	NA	NA.	17-20	NA	NA	NA		Dark Gray SHALE (Bedrock)			
								BOH @ 20.0'			

File: 2751s47.log

da	W								E	ENVIRONMENTAL CONSULTANTS
ll .	_	ONME	NTAL, II	NC.					AN AFFILI	IATE OF DAY ENGINEERING, P.C.
				_						
II .	Project #: 3729R-05				-			TEST BORING MW-11		
			Gorham				-	Ground Elevation: 883.71' Datum: USGS		Page 1 of 1
DAY F	Represe	ntative:	G. Mille	r				Date Started: 9/24/2008 Date Ended: 9/24/2008		-
H	g Contra		TREC				-	Borehole Depth: 12.0' Borehole Diameter: 2.25"	Backfilled with 0	
Sampl	ling Met	hod:	Direct P	ush			-	Completion Method: Well Installed Backfilled with Grout E S.15' (9/24/08)	sackilled with c	Cuttings
	ar 0.5 ft.	Number	Depth (ff)	ery	N-Value or RQD%	Неаdspace PID (ppm)	PID Reading (ppπ)	Sample Description		Notes
Depth (ft)	Blows per 0.5 ff.	Sample Number	Sample Depth	% Recovery	N-Value	Headsp	PID Rea			
								Gravel		
1								Brown, medium SAND, trace Silt, dry	_	
2	NA	S-1	0-4	50	NA	0.4	5.2		-	
				İ						
3									-	
4			-	-			<u> </u>		- Petroleum-1	type odor at 4.0'
5									-	
	NA	S-2	4-8	10	NA NA	39.1	2.3			
6	140	] 3-2	4-0	'	"	33.1	2.5		-	
7									-	
8					<del>                                     </del>			Wet	-	
9								Gravel Lens, wet		
10	NA	S-3	8-12	50	NA	41	13.1	Brown, fine SAND, wet	_	
"										
11								Wet	- Black stain	ing at 11'
12					<u> </u>		<u> </u>	Fractured Rock		
								Refusal @ 12.0'	1	
13									-	
14									-	
15									-	
16									-	
Notes:								Led. Fluctuations of groundwater levels may occur due to seasonal factors and other conditions.		
								ons may be gradual. I in the headspace above the sample using a MiniRae 2000 equipped with a 10.6 eV lamp.		
II .	4) NA = 1	Not Avail	able or No	t Applical	ble					TEST BORING MW-11
			oreadings	may be i	Influenced	by moist	ture			
ll .	MMER(		KEET YORK 14	614-100	18					NEW YORK, NEW YORK 10165-1617
ll .	454-021									(212) 986-8645
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day  DAY ENVIRONMENTAL, INC.	AN AFFII	ENVIRONMENTAL CONSULTANTS LIATE OF DAY ENGINEERING, P.C.
DAT ENVIRONMENTAL, INC.	MONITORING WELL CONSTRUCTION DIAGRAM	
Project #: 3729R-05 Project Address: 2624 Main Street Gorham, NY DAY Representative: G. Miller Drilling Contractor: TREC	Ground Elevation: 883.71' Datum: Date Started: 9/24/2008 Date Ended:  Water Level (Date): 5.15' (9/24/09)	MONITORING WELL MW-11 USGS 9/24/2008
Refer to Test Boring Log MW-11 for Soil Description	Flush Mounted Roadbox  0.25 Depth to Top of Riser Pipe (ft)  0.6 Depth to Bottom of Cement Surface Patch (ft)  Backfill Type Concrete  0.6 Depth to Top of Bentonite Seal (ft)  2.0 Depth to Bottom of Bentonite Seal (ft)  3 Depth to Top of Well Screen (ft)  2.25 Diameter of Borehole (in)  Backfill Type Sand  1 Inside Diameter of Well (in)  Type of Pipe PVC Sch 40  Screen slot size 10  11 Depth to Bottom of Well Screen (ft)	
	and a small line stated. Check of the of groundwister levels may account due to seasonal fe	ectors and other conditions.
Notes: 1) Water levels were made at the times and 2) NA = Not Available or Not Applicable	under conditions stated. Fluctuations of groundwater levels may occur due to seasonal fa	COIS and Other Conditions.
		MONITORING WELL MW-11

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# APPENDIX G

**Low-Flow Groundwater Purging and Sampling Log** 

# LOW-FLOW GROUNDWATER PURGING AND SAMPLING LOG WELL MW-\_

		SE	CTION 1 -	SITE ANI	WELL IN	ORMATION					
SITE L	OCATION _2	624 Main Stree	t, Gorham, N	J	OB#						
PROJE	ECT NAME:	Former Ford	Garage	E	OATE:						
SAMP	LE COLLECTOR	(S):		v	VEATHER:						
PID RI	EADING IN WEL	L HEADSPAC	E (PPM): _		MEA	ASURING POINT	· .	тос			
CASIN	G TYPE: PVC	2		- w.·	WEI	LL DIAMETER (	INCHES):				
SCREE	ENED INTERVAL	. [FT]:			WA	TER LEVEL (SW	L) [FT]:				
	DEPTH [FT]: T Measure Well d	lepth Prior To				TH OF PUMP IN	TAKE [F	rj:			
LNAPI	.:		DNAPL: _		ОТН	ER OBSERVATIO	ONS:				
7 637			SECTION	2-SAM	PLING EQU	IPMENT					
CONTI	ROL BOX:				_ TUBI	NG TYPE:					
WATE	R QUALITY MET	TER:			WATER LEVEL METER:						
PUMP	ТҮРЕ:				PURG	E GAS:					
CONTI	ROL BOX DISCH	ARGE RATE:			_ CONT	ROL BOX REFI	LL RATE				
STABII	LIZED PUMP RA	TE (ml/min):		<u></u>	STABILIZEI	D DRAWDOWN	WATER I	EVEL [FT]:			
		SECTION	ON 3 – WA'	TER QUA	LITY DAT	A MONITORIN	G				
Time	Pumping Rate (ml/min)	Water Level (ft)	DO (mg/L)	ORP (mv)	Turbidity (NTU)	Conductivity (S/m)	рН	Temp. (C <sup>0</sup> )	Total Vol. Pumped (ml)		
							,				
1	SAMPLE OF	SERVATIO	NS:								
	SECTION 4 -	SAMPLE IDE	NTIFICAT	ION AND	ANALYTIC	CAL LABORAT	ORY PAI	RAMETERS			
SAMI	PLE ID#	DATE/	The second second	SAMPLING METHOD ANALYTICAL SCAN(S)							

# APPENDIX H

**NYSDEC Part 375 Soil Cleanup Objectives** 

# 375-6.8

Soil cleanup objective tables.
Unrestricted use soil cleanup objectives. (a)

Table 375-6.8(a): Unrestricted Use Soil Cleanup Objectives

Contaminant	CAS Number	Unrestricted Use								
Metals										
Arsenic	7440-38-2	13 °								
Barium	7440-39-3	350 °								
Beryllium	7440-41-7	7.2								
Cadmium	7440-43-9	2.5 °								
Chromium, hexavalent °	18540-29-9	1 <sup>b</sup>								
Chromium, trivalent °	16065-83-1	30 °								
Copper	7440-50-8	50								
Total Cyanide e, f		27								
Lead	7439-92-1	63 °								
Manganese	7439-96-5	1600 °								
Total Mercury		0.18 °								
Nickel	7440-02-0	30								
Selenium	7782-49-2	3.9°								
Silver	7440-22-4	2								
Zinc	7440-66-6	109 °								
	PCBs/Pesticides									
2,4,5-TP Acid (Silvex) f	93-72-1	3.8								
4,4'-DDE	72-55-9	0.0033 <sup>b</sup>								
4,4'-DDT	50-29-3	0.0033 b								
4,4'-DDD	72-54-8	0.0033 b								
Aldrin	309-00-2	0.005 °								
alpha-BHC	319-84-6	0.02								
beta-BHC	319-85-7	0.036								
Chlordane (alpha)	5103-71-9	0.094								

Table 375-6.8(a):Unrestricted Use Soil Cleanup Objectives

Contaminant	CAS Number	Unrestricted Use		
delta-BHC <sup>g</sup>	319-86-8	0.04		
Dibenzofuran <sup>f</sup>	132-64-9	7		
Dieldrin	60-57-1	0.005°		
Endosulfan I d, f	959-98-8	2.4		
Endosulfan II d, f	33213-65-9	2.4		
Endosulfan sulfate d, f	1031-07-8	2.4		
Endrin	72-20-8	0.014		
Heptachlor	76-44-8	0.042		
Lindane	58-89-9	0.1		
Polychlorinated biphenyls	1336-36-3	0.1		
Semivola	tile organic compo	ounds		
Acenaphthene	83-32-9	20		
Acenapthylene f	208-96-8	100 a		
Anthracene f	120-12-7	100 a		
Benz(a)anthracene f	56-55-3	1°		
Benzo(a)pyrene	50-32-8	1°		
Benzo(b)fluoranthene f	205-99-2	1°		
Benzo(g,h,i)perylene f	191-24-2	100		
Benzo(k)fluoranthene f	207-08-9	0.8 °		
Chrysene <sup>f</sup>	218-01-9	1°		
Dibenz(a,h)anthracene f	53-70-3	0.33 в		
Fluoranthene f	206-44-0	100 ª		
Fluorene	86-73-7	30		
Indeno(1,2,3-cd)pyrene f	193-39-5	0.5 °		
m-Cresol f	108-39-4	0.33 в		
Naphthalene f	91-20-3	12		
o-Cresol <sup>f</sup>	95-48-7	0.33 b		

Table 375-6.8(a):Unrestricted Use Soil Cleanup Objectives

Contaminant	CAS Number	Unrestricted Use
p-Cresol <sup>f</sup>	106-44-5	0.33 <sup>b</sup>
Pentachlorophenol	87-86-5	0.8 b
Phenanthrene f	85-01-8	100
Phenol	108-95-2	0.33 b
Pyrene <sup>f</sup>	129-00-0	100
Volatil	e organic compoui	nds
1,1,1-Trichloroethane f	71-55-6	0.68
1,1-Dichloroethane f	75-34-3	0.27
1,1-Dichloroethene f	75-35-4	0.33
1,2-Dichlorobenzene <sup>f</sup>	95-50-1	1.1
1,2-Dichloroethane	107-06-2	0.02°
cis -1,2-Dichloroethene f	156-59-2	0.25
trans-1,2-Dichloroethene f	156-60-5	0.19
1,3-Dichlorobenzene f	541-73-1	2.4
1,4-Dichlorobenzene	106-46-7	1.8
1,4-Dioxane	123-91-1	0.1 b
Acetone	67-64-1	0.05
Benzene	71-43-2	0.06
n-Butylbenzene f	104-51-8	12
Carbon tetrachloride f	56-23-5	0.76
Chlorobenzene	108-90-7	1.1
Chloroform	67-66-3	0.37
Ethylbenzene <sup>f</sup>	100-41-4	1
Hexachlorobenzene f	118-74-1	0.33 <sup>b</sup>
Methyl ethyl ketone	78-93-3	0.12
Methyl tert-butyl ether f	1634-04-4	0.93
Methylene chloride	75-09-2	0.05

Table 375-6.8(a): Unrestricted Use Soil Cleanup Objectives

Contaminant	CAS Number	Unrestricted Use
n - Propylbenzene <sup>f</sup>	103-65-1	3.9
sec-Butylbenzene f	135-98-8	11
tert-Butylbenzene f	98-06-6	5.9
Tetrachloroethene	127-18-4	1.3
Toluene	108-88-3	0.7
Trichloroethene	79-01-6	0.47
1,2,4-Trimethylbenzene <sup>f</sup>	95-63-6	3.6
1,3,5-Trimethylbenzene <sup>f</sup>	108-67-8	8.4
Vinyl chloride <sup>f</sup>	75-01-4	0.02
Xylene (mixed)	1330-20-7	0.26

All soil cleanup objectives (SCOs) are in parts per million (ppm).

#### **Footnotes**

<sup>&</sup>lt;sup>a</sup> The SCOs for unrestricted use were capped at a maximum value of 100 ppm. See Technical Support Document (TSD), section 9.3.

<sup>&</sup>lt;sup>b</sup> For constituents where the calculated SCO was lower than the contract required quantitation limit (CRQL), the CRQL is used as the Track 1 SCO value.

<sup>&</sup>lt;sup>c</sup> For constituents where the calculated SCO was lower than the rural soil background concentration, as determined by the Department and Department of Health rural soil survey, the rural soil background concentration is used as the Track 1 SCO value for this use of the site.

<sup>&</sup>lt;sup>d</sup> SCO is the sum of endosulfan I, endosulfan II and endosulfan sulfate.

<sup>&</sup>lt;sup>e</sup> The SCO for this specific compound (or family of compounds) is considered to be met if the analysis for the total species of this contaminant is below the specific SCO.

f Protection of ecological resources SCOs were not developed for contaminants identified in Table 375-6.8(b) with "NS". Where such contaminants appear in Table 375-6.8(a), the applicant may be required by the Department to calculate a protection of ecological resources SCO according to the TSD.

# (b) Restricted use soil cleanup objectives.

Table 375-6.8(b): Restricted Use Soil Cleanup Objectives

	CAS	)-0.0(b). Resi	Protection of 1	Protection of	Protection of		
Contaminant	Number	Residential	Restricted- Residential	Commercial	Industrial	Ecological Resources	Ground- water
Metals							
Arsenic	7440-38-2	16 <sup>f</sup>	16 <sup>f</sup>	16 <sup>f</sup>	16 <sup>f</sup>	13 <sup>f</sup>	16 <sup>f</sup>
Barium	7440-39-3	350 <sup>f</sup>	400	400	10,000 <sup>d</sup>	433	820
Beryllium	7440-41-7	14	72	590	2,700	10	47
Cadmium	7440-43-9	2.5 <sup>f</sup>	4.3	9.3	60	4	7.5
Chromium, hexavalent h	18540-29-9	22	110	400	800	1°	19
Chromium, trivalent h	16065-83-1	36	180	1,500	6,800	41	NS
Copper	7440-50-8	270	270	270	10,000 <sup>d</sup>	50	1,720
Total Cyanide h		27	27	27	10,000 <sup>d</sup>	NS	40
Lead	7439-92-1	400	400	1,000	3,900	63 <sup>f</sup>	450
Manganese	7439-96-5	2,000 <sup>f</sup>	2,000 <sup>f</sup>	10,000 <sup>d</sup>	10,000 <sup>d</sup>	1600 <sup>f</sup>	2,000 <sup>f</sup>
Total Mercury		0.81 <sup>j</sup>	0.81 <sup>j</sup>	2.8 <sup>j</sup>	5.7 <sup>j</sup>	0.18 <sup>f</sup>	0.73
Nickel	7440-02-0	140	310	310	10,000 <sup>d</sup>	30	130
Selenium	7782-49-2	36	180	1,500	6,800	3.9 <sup>f</sup>	4 <sup>f</sup>
Silver	7440-22-4	36	180	1,500	6,800	2	8.3
Zinc	7440-66-6	2200	10,000 <sup>d</sup>	10,000 <sup>d</sup>	10,000 <sup>d</sup>	109 <sup>f</sup>	2,480
PCBs/Pesticides				_			
2,4,5-TP Acid (Silvex)	93-72-1	58	100ª	500 <sup>b</sup>	1,000°	NS	3.8
4,4'-DDE	72-55-9	1.8	8.9	62	120	0.0033 °	17
4,4'-DDT	50-29-3	1.7	7.9	47	94	0.0033 °	136
4,4'- DDD	72-54-8	2.6	13	92	180	0.0033 °	14
Aldrin	309-00-2	0.019	0.097	0.68	1.4	0.14	0.19
alpha-BHC	319-84-6	0.097	0.48	3.4	6.8	0.04 <sup>g</sup>	0.02
beta-BHC	319-85-7	0.072	0.36	3	14	0.6	0.09
Chlordane (alpha)	5103-71-9	0.91	4.2	24	47	1.3	2.9

Table 375-6.8(b): Restricted Use Soil Cleanup Objectives

	CAS	)-0.8(b): Resi	Protection of	Protection of	Protection of		
Contaminant	Number	Residential	Restricted- Residential	Commercial	Industrial	Ecological Resources	Ground- water
delta-BHC	319-86-8	100ª	100ª	500 <sup>b</sup>	1,000°	0.04 <sup>g</sup>	0.25
Dibenzofuran	132-64-9	14	59	350	1,000°	NS	210
Dieldrin	60-57-1	0.039	0.2	1.4	2.8	0.006	0.1
Endosulfan I	959-98-8	4.8 <sup>i</sup>	24 <sup>i</sup>	200 <sup>i</sup>	920 <sup>i</sup>	NS	102
Endosulfan II	33213-65-9	4.8 <sup>i</sup>	24 <sup>i</sup>	200 <sup>i</sup>	920 <sup>i</sup>	NS	102
Endosulfan sulfate	1031-07-8	4.8 <sup>i</sup>	24 <sup>i</sup>	200 <sup>i</sup>	920 <sup>i</sup>	NS	1,000°
Endrin	72-20-8	2.2	11	89	410	0.014	0.06
Heptachlor	76-44-8	0.42	2.1	15	29	0.14	0.38
Lindane	58-89-9	0.28	1.3	9.2	23	6	0.1
Polychlorinated biphenyls	1336-36-3	1	1	1	25	1	3.2
Semivolatiles		•		-			
Acenaphthene	83-32-9	100ª	100ª	500 <sup>b</sup>	1,000°	20	98
Acenapthylene	208-96-8	100ª	100°	500 <sup>b</sup>	1,000°	NS	107
Anthracene	120-12-7	100°	100°	500 <sup>b</sup>	1,000°	NS	1,000°
Benz(a)anthracene	56-55-3	1 <sup>f</sup>	1 <sup>f</sup>	5.6	11	NS	1 <sup>f</sup>
Benzo(a)pyrene	50-32-8	1 <sup>f</sup>	$1^{f}$	1 <sup>f</sup>	1.1	2.6	22
Benzo(b)fluoranthene	205-99-2	1 <sup>f</sup>	1 <sup>f</sup>	5.6	11	NS	1.7
Benzo(g,h,i)perylene	191-24-2	100ª	100ª	500 <sup>b</sup>	1,000°	NS	1,000°
Benzo(k)fluoranthene	207-08-9	1	3.9	56	110	NS	1.7
Chrysene	218-01-9	1 <sup>f</sup>	3.9	56	110	NS	1 <sup>f</sup>
Dibenz(a,h)anthracene	53-70-3	0.33°	0.33°	0.56	1.1	NS	1,000°
Fluoranthene	206-44-0	100ª	100ª	500 <sup>b</sup>	1,000°	NS	1,000°
Fluorene	86-73-7	100ª	100ª	500 <sup>b</sup>	1,000°	30	386
Indeno(1,2,3-cd)pyrene	193-39-5	0.5 <sup>f</sup>	0.5 <sup>f</sup>	5.6	11	NS	8.2
m-Cresol	108-39-4	100ª	100ª	500 <sup>b</sup>	1,000°	NS	0.33e
Naphthalene	91-20-3	100ª	100ª	500 <sup>b</sup>	1,000°	NS	12

Table 375-6.8(b): Restricted Use Soil Cleanup Objectives

	CAS	<u> </u>	Protection of 1	Public Health	-	Protection of Ecological Resources	Protection of Ground- water
Contaminant	Number	Residential	Restricted- Residential	Commercial	Industrial		
o-Cresol	95-48-7	100ª	100ª	500 <sup>b</sup>	1,000°	NS	0.33 <sup>e</sup>
p-Cresol	106-44-5	34	100ª	500 <sup>b</sup>	1,000°	NS	0.33e
Pentachlorophenol	87-86-5	2.4	6.7	6.7	55	0.8e	0.8e
Phenanthrene	85-01-8	100ª	100°	500 <sup>b</sup>	1,000°	NS	1,000°
Phenol	108-95-2	100ª	100°	500 <sup>b</sup>	1,000°	30	0.33 <sup>e</sup>
Pyrene	129-00-0	100ª	100ª	500 <sup>b</sup>	1,000°	NS	1,000°
Volatiles		<del></del>					
1,1,1-Trichloroethane	71-55-6	100ª	100ª	500 <sup>b</sup>	1,000°	NS	0.68
1,1-Dichloroethane	75-34-3	19	26	240	480	NS	0.27
1,1-Dichloroethene	75-35-4	100°	100°	500 <sup>b</sup>	1,000°	NS	0.33
1,2-Dichlorobenzene	95-50-1	100°	100°	500 <sup>b</sup>	1,000°	NS	1.1
1,2-Dichloroethane	107-06-2	2.3	3.1	30	60	10	0.02 <sup>f</sup>
cis-1,2-Dichloroethene	156-59-2	59	100°	500 <sup>b</sup>	1,000°	NS	0.25
trans-1,2-Dichloroethene	156-60-5	100ª	100°	500 <sup>b</sup>	1,000°	NS	0.19
1,3-Dichlorobenzene	541-73-1	17	49	280	560	NS	2.4
1,4-Dichlorobenzene	106-46-7	9.8	13	130	250	20	1.8
1,4-Dioxane	123-91-1	9.8	13	130	250	0.1°	0.1°
Acetone	67-64-1	100ª	100 <sup>b</sup>	500 <sup>b</sup>	1,000°	2.2	0.05
Benzene	71-43-2	2.9	4.8	44	89	70	0.06
Butylbenzene	104-51-8	100ª	100ª	500 <sup>b</sup>	1,000°	NS	12
Carbon tetrachloride	56-23-5	1.4	2.4	22	44	NS	0.76
Chlorobenzene	108-90-7	100ª	100ª	500 <sup>b</sup>	1,000°	40	1.1
Chloroform	67-66-3	10	49	350	700	12	0.37
Ethylbenzene	100-41-4	30	41	390	780	NS	1
Hexachlorobenzene	118-74-1	0.33e	1.2	6	12	NS	3.2
Methyl ethyl ketone	78-93-3	100ª	100ª	500 <sup>b</sup>	1,000°	100ª	0.12

Table 375-6.8(b): Restricted Use Soil Cleanup Objectives

	CAS	)	Protection of 1	Protection	Protection of		
Contaminant	Number	Residential	Restricted- Residential	Commercial	Industrial	Ecological Resources	Ground- water
Methyl tert-butyl ether	1634-04-4	62	100°	500 <sup>b</sup>	1,000°	NS	0.93
Methylene chloride	75-09-2	51	100ª	500 <sup>b</sup>	1,000°	12	0.05
n-Propylbenzene	103-65-1	100ª	100ª	500 <sup>b</sup>	1,000°	NS	3.9
sec-Butylbenzene	135-98-8	100ª	100ª	500 <sup>b</sup>	1,000°	NS	11
tert-Butylbenzene	98-06-6	100ª	100°	500 <sup>b</sup>	1,000°	NS	5.9
Tetrachloroethene	127-18-4	5.5	19	150	300	2	1.3
Toluene	108-88-3	100ª	100ª	500 <sup>b</sup>	1,000°	36	0.7
Trichloroethene	79-01-6	10	21	200	400	2	0.47
1,2,4-Trimethylbenzene	95-63-6	47	52	190	380	NS	3.6
1,3,5- Trimethylbenzene	108-67-8	47	52	190	380	NS	8.4
Vinyl chloride	75-01-4	0.21	0.9	13	27	NS	0.02
Xylene (mixed)	1330-20-7	100ª	100ª	500 <sup>b</sup>	1,000°	0.26	1.6

All soil cleanup objectives (SCOs) are in parts per million (ppm). NS=Not specified. See Technical Support Document (TSD).

#### **Footnotes**

<sup>&</sup>lt;sup>a</sup> The SCOs for residential, restricted-residential and ecological resources use were capped at a maximum value of 100 ppm. See TSD section 9.3.

<sup>&</sup>lt;sup>b</sup> The SCOs for commercial use were capped at a maximum value of 500 ppm. See TSD section 9.3.

<sup>&</sup>lt;sup>c</sup> The SCOs for industrial use and the protection of groundwater were capped at a maximum value of 1000 ppm. See TSD section 9.3.

<sup>&</sup>lt;sup>d</sup> The SCOs for metals were capped at a maximum value of 10,000 ppm. See TSD section 9.3.

<sup>&</sup>lt;sup>e</sup> For constituents where the calculated SCO was lower than the contract required quantitation limit (CRQL), the CRQL is used as the SCO value.

<sup>&</sup>lt;sup>f</sup> For constituents where the calculated SCO was lower than the rural soil background concentration as determined by the Department and Department of Health rural soil survey, the rural soil background concentration is used as the Track 2 SCO value for this use of the site.

g This SCO is derived from data on mixed isomers of BHC.

<sup>&</sup>lt;sup>h</sup> The SCO for this specific compound (or family of compounds) is considered to be met if the analysis for the total species of this contaminant is below the specific SCO.

<sup>&</sup>lt;sup>1</sup> This SCO is for the sum of endosulfan I, endosulfan II, and endosulfan sulfate.

<sup>&</sup>lt;sup>j</sup> This SCO is the lower of the values for mercury (elemental) or mercury (inorganic salts). See TSD Table 5.6-1.