Former Scolite Site

TROY, RENSSELAER COUNTY, NEW YORK

Interim Site Management Plan

NYSDEC Site Number: ***E442037***

Prepared for:
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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 Former Scolite 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 Interim Site Management Plan (ISMP) is prepared in accordance with State Assistance Contract (SAC) C303736, Site # E442037, which was executed on February 26, 2008.

1.1.1 General

The City of Troy entered into a SAC with the NYSDEC to remediate a 5.7 acre property located in Troy, New York. This SAC required the Remedial Party, City of Troy, to investigate and remediate contaminated media at the site. A figure showing the site location and boundaries of this 5.7-acre "site" is provided in Figure 1. The boundaries of the site are more fully described in the metes and bounds site description that is part of the Environmental Easement.

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 Interim Site Management Plan (ISMP) 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 ISMP was prepared by HRP Engineering, P.C., on behalf of the City of Troy, in accordance with the requirements in NYSDEC DER-10 Technical Guidance for Site Investigation and Remediation, dated May 3, 2010, and the guidelines provided by NYSDEC. This ISMP 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 Rensselaer County Clerk, will require compliance with this ISMP 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 ISMP specifies the methods necessary to 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 ISMP may only be revised with the approval of the NYSDEC.

This ISMP 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 inspections, certification of results, and submittal of Monthly Inspection Reports; and (5) defining criteria for termination of treatment system operations.

To address these needs, this ISMP includes two plans: (1) an Engineering and Institutional Control Plan for implementation and management of EC/ICs; and (2) a Monitoring Plan for implementation of Site Monitoring.

It is important to note that:

- This ISMP details the site-specific implementation procedures that are required by the Environmental Easement; and
- Failure to comply with this ISMP is a violation of Environmental Conservation Law, 6NYCRR Part 375 and the SAC (Index C303736; Site 442037) for the site, and thereby subject to applicable penalties.

1.1.3 Revisions

Revisions to this plan 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 ISMP, and append these notices to the ISMP that is retained in its files.

1.2 SITE BACKGROUND

1.2.1 Site Location and Description

The site is located in the City of Troy, County of Rensselaer, New York and is identified as Section/ Block/ Lot 111.28-4-1 on the City of Troy Tax Map. The site is an approximately 5.7-acre area bounded by Poestenkill Creek to the north, Madison Street to the south, railroad tracks to the east, and the Hudson River to the west (see Figure 1). The boundaries of the site are more fully described in Appendix B - Metes and Bounds.

1.2.2 Site History

Reportedly, the iron former foundry on-site opened in 1846. In 1869, the property was occupied by the Rensselaer Iron Works and by 1888, the property was occupied by the Albany Rensselaer Iron Works. According to Sanborn maps of the area, a new steel foundry was under construction on-site in 1904. By 1904 and through 1930, the property was occupied by the Ludlow Valve Manufacturing Co. By 1955 and through at least 1965 the property was occupied by the Ludlow Rensselaer Valve Foundry. Reportedly, these two companies manufactured valves and fire hydrants. While used as a steel foundry, the site was broken out to processing areas, an engine room, a scratch room, a tumbling room, a furnace room and several storage areas.

The site was purchased by Scolite International after 1971 and was used to manufacture and store bags of Perlite in one building. Mixing machinery and conveyers were installed and used by Scolite at that time for the packaging of Perlite. The property was utilized as a roofing company warehouse in the 1990s, which stored drums containing asphalt and tanker truckers containing asphalt. From 1999 to 2008, the area near the bulkhead along the Hudson River was leased by Hudson Deepwater Development (HDD) to manage scrap metal prior to loading on barges for shipment. The only remaining building currently on-site was used for HDD office space and for minor equipment storage. Also, in the past the foundry building was used as a log sawmill and splitting operation. In 2001, the City of Troy purchased the site.

In May 2008, a fire consumed the majority of the buildings on-site. During the demolition of the building remnants, friable asbestos from the transite roofing was mixed in with

the brick rubble. The brick and debris mixed with asbestos, was stockpiled on the northern end of the site. Drums containing petroleum based oils located near the stockpile leaked and soaked a portion of the brick debris pile. The drums and petroleum impacted bricks were removed as part of an Interim Remedial Measure (IRM) in October and November of 2008.

1.2.3 Geologic Conditions

The underlying bedrock is thinly bedded, weathered, black shale of Upper Ordovician age (D. Fisher, "Geologic Map of New York, Hudson Mohawk Street", 1970). Regional geology suggests that this inclined, faulted and folded shale is of either the Normanskill or Snake Hill formations. Bedrock was not encountered during field operations.

The Former Scolite Site is located in a region described as a small delta outwash deposit in the Hudson Champlain Lowland (D. Fisher, "Geologic Map of New York, Hudson Mohawk Street", 1970). These deltaic deposits consist primarily of sand and gravel. The deltaic deposits overlie lacustrine silt and clay deposited in proglacial lakes.

During soil boring and monitoring well installation HRP observed the surficial soils to be predominately dark fill materials that included stained soils, slag, ash, and brick fragments. The fill materials were relatively consistent throughout the subject site ranging from a depth of 8-12'bgs. Clay soils were observed below the fill materials. During the installation of test pits, overburden soils were encountered from the ground surface to 10.5 feet below grade. In general, overburden soils consisted of brown to black, loamy to sandy loam to granular loam fill soils, with trace pebbles, slag, metal fragments, woody debris, plastic materials, and bricks. Soil observations were consistent between the soil boring installations and test pit installations.

Based on the results of the groundwater elevation survey in January 2010, in general the groundwater flow is estimated to be westerly towards the Hudson River. Along the northern portion of the property, the groundwater flow is northwesterly towards the confluence of Hudson River and the Poestenkill Creek. Based on the results of the groundwater elevation survey in June 2010, in general, the flow is similar to the first survey, and estimated to be westerly-southwesterly towards the Hudson River. Along the northern portion of the property the groundwater flow is northerly towards the Poestenkill Creek. As mentioned in the previous reports by Sterling, HRP expects the groundwater elevation at the site to fluctuate with the Hudson River tides, which reportedly vary from four to six feet in magnitude.

A groundwater flow figure is shown in Figure 2.

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:

- Site Investigation Report, Former Scolite Property, prepared by HRP Associates, Inc. and dated February 2011
- Alternatives Analysis Report, former Scolite Property, prepared by HRP Associates, Inc. and dated January 2011

Generally, the RI determined the nature and extent of any contamination resulting from previous activities at the site. The SI was conducted between March 2009 and August 2010. Waste /Source materials identified at the site included the following:

Tar-like Petroleum Wastes

Containerized viscous petroleum materials had been stored in and around the foundry building prior to the 2008 fire that necessitated its razing. The materials appeared to be confined to the building however after the firefighting efforts were complete, several tons of demolition material on the concrete slab had been impacted by the waste with the potential for the waste to migrate off the slab into the site soils. The petroleum contaminated debris was removed in phases determined by accessibility as an IRM from late summer and continuing through the fall of 2008 preventing future releases to soil or surface waters.

Asbestos Containing Material (ACM)

The demolition waste resulting from the fire was determined to contain more than 1% asbestos, meeting threshold in the definition of ACM and is, therefore, regulated by the New York State Department of Labor. The ACM was removed as an IRM preventing exposure to the local population via airborne asbestos fibers.

Below is a summary of site conditions when the RI was performed in 2009 and 2010:

Soil

Surface Soil

Surface soil samples were collected from the top 2 inches of the Site to assess the potential for direct human exposure. The results of the analyses indicate there is a broad range of contaminants present at highly variable concentrations that are consistent with the activities known to have taken place. The most prominent types of contaminants that exceed unrestricted and commercial SCGs include SVOCs, metals and PCBs.

Subsurface Soil

Subsurface soil samples were collected at the site from soil borings installed with a direct push drill rig and during the performance of test pitting. Samples were collected from the depth interval deemed to be the most likely to be contaminated or the depth corresponding to the groundwater table at each location. The most likely contaminated depth was determined using field instrumentation or through observations by the field staff. The range of contaminants narrows dramatically from that exhibited by the surface soil samples. Arsenic is the only contaminant that consistently exceeds SCGs in the subsurface.

Contaminants in the soils that exceed unrestricted and commercial SCGs primarily include SVOCs, metals and PCBs and are concentrated in the surface soils. Arsenic is the only contaminant found consistently in the subsurface and can be assumed to be a component of the historic fill material present. The contaminants present at the surface are consistent with the Site's history of industrial and commercial uses. The pattern of detections of PCBs indicate the contamination is likely a result of discrete spills or localized deposition of contaminated soil and not a single, large release that has contaminated a large and contiguous volume of soil. SVOCs, mostly in the form of benzo(a)pyrene, are found in nearly all of the surface soil samples and are likely related to the long history of disturbed fill at the site as well as poor housekeeping during the various activities that have occurred at the Site. The metal contaminants are likely due to operations at the surface and are not a component of the fill. Cadmium is the most frequently occurring metal. Though the source is unknown, it is possible the contamination is due to historical processes related to the iron and steel industry at the Site including the combustion of coal.

Based on the findings of the Remedial Investigation, the disposal of hazardous waste has resulted in the contamination of soil. The site contaminants identified in soil which are considered to be the primary contaminants of concern, to be addressed by the remedy selection process are, SVOCs, metals and PCBs.

Site-Related Groundwater

Groundwater samples were collected from eight overburden monitoring wells (Figure 2) that were installed during the SI. No bedrock wells were installed as data from the overburden wells indicates that contamination on the surface has not migrated downward and would not have reached bedrock. Analytical data from the groundwater samples indicate there are no significant impacts to the on-site groundwater. There were minor detections of one VOC, two SVOCs, a pesticide and some metals including aluminum, iron and manganese. The metals and one pesticide were the only constituents to exceed groundwater standards.

The metals that exceed groundwater standards are likely due to the surrounding geology and the historic fill present at the site. They do not create a concern because their effects tend to be aesthetic and groundwater in the area is not utilized. The pesticide that was detected during sampling, heptachlor epoxide, is not present consistently. It was found in only one of the sampling events and the sample was collected from the monitoring well on the extreme east edge of the Site, the location most hydraulically upgradient on the Site. This indicates that the contaminant is not likely to be site-related. No site-related groundwater contamination of concern was identified during the SI. Therefore, no remedial alternatives need to be evaluated for groundwater and the protection of groundwater SCGs will not be applicable.

Site-Related Soil Vapor Intrusion

The evaluation of the potential for soil vapor intrusion resulting from the presence of site related soil or groundwater contamination was evaluated by the sampling of soil vapor. At this site one building remains. Soil vapor was collected and analyzed as a field screening method to determine the location of areas with sources of contamination in addition to documenting the potential for soil vapor intrusion.

Soil vapor samples were collected from nine locations, including several locations below former building slabs located on-site. Since no buildings are immediately available for occupation, no indoor air samples were collected. Soil vapor sample results indicate significant impacts to on-site soil vapor from VOC contamination; which would be expected on a property utilized for scrap metal processing including air conditioning refrigerants, such as trichloromonoflouromethane (Freon 11), and petroleum related compounds such as benzene, toluene, ethylbenzene and xylenes (BTEX). Other likely petroleum related compounds that were detected frequently in the soil vapor include heptane and hexane hydrocarbons. While these compounds were commonly found in the soil vapor, there was no discernible correlation with contamination found in the other environmental media. Because there are no SCGs for contamination in soil vapor except in the context of vapor intrusion, there is no table provided to illustrate exceedances.

Petroleum related hydrocarbons and other compounds commonly expected to be present at a scrap metal salvage facility were the primary contaminants in soil vapor. There is no significant correlation with the soil vapor and contamination found in other media including soil and groundwater. Therefore, the potential for vapor intrusion in future on-site structures should be evaluated as appropriate.

1.4 SUMMARY OF INTERIM REMEDIAL ACTIONS

The remedy selected as part of the Record of Decision has not been completed to date. However, interim remedial measures (IRMS) were conducted in accordance with the NYSDEC-approved Site Investigation Work Plan dated March 2009 to address sources of hazardous materials. The following is a summary of the IRMs performed at the site:

An IRM was completed to address the petroleum wastes after the main foundry building burned. Containers and materials impacted by spilled petroleum wastes were consolidated and removed from the site for proper disposal. In areas where the liquid waste had spilled to the concrete pad, absorbent materials such as Speedy Dri were used to collect those wastes and were then containerized and disposed. The IRM was intended to remove pure product and site materials that were in the immediate vicinity. Approximately 200 cubic yards of petroleum impacted waste were removed from the site and properly disposed of off-site. The removal task was very effective at preventing additional impacts to on-site soils and groundwater.

A second IRM was initiated to address ACM (comprised of demolition debris) resulting from the destruction of the main foundry building that was not impacted by the petroleum wastes. The ACM was first covered with heavy duty tarps to prevent it from becoming airborne and migrating off-site. The owner is still in the process of removing the ACM from the site. All ACM that has been removed has been disposed of in a solid waste facility permitted to accept such waste.

1.4.1 Remaining Contamination

The remedy selected as part of the Record of Decision has not been implemented to date. Therefore the contamination described in Section 1.3 above, remains within the surface soils, and subsurface soils.

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 all EC/ICs at the site. The EC/IC Plan is one component of the ISMP and is subject to revision by NYSDEC.

2.1.2 Purpose

This plan provides:

- A description of all EC/ICs on 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;
- 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

2.2.1.1 Soil Cover

Currently, access to the site and exposure to contaminated soils is limited by a chain-link fence on the eastern and southern property boundaries. Access to the site is naturally restricted to the north by Poestenkill Creek and to the west by the Hudson River. In addition, concrete barriers prevent access via the driveway on Madison Street. Contact with soil is prevented by the concrete foundations and slabs present on the eastern portion of the site. Exposure to remaining contamination in soil/fill at the site will be prevented by a soil cover system placed

over the site as required by the ROD. The cover system required by the ROD is comprised of a minimum of 12 inches of clean soil, or 6 inches of asphalt pavement, concrete-covered sidewalks, and concrete building slabs. The Excavation Work Plan that appears in Appendix A outlines the procedures required to be implemented in the event the required cover system is breached, penetrated or temporarily removed, and any underlying remaining contamination is disturbed. Procedures for the inspection and maintenance of this cover will be addressed in the future prior to the placement of the soil cover.

2.2.1.2 Soil Vapor Mitigation System

Soil vapor intrusion evaluations are required prior to re-use of the existing structure and design of new structures so that vapor intrusion of on-site soil gas contaminants can be prevented or mitigated where appropriate. Evaluation will be performed in accordance with approved Work Plan and reviewed by the NYSDEC and NYSDOH. Any mitigation systems will be implemented upon approval of the NYSDEC and NYSDOH.

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 Composite Cover System

The composite cover system allowed by the ROD is a permanent control and the quality and integrity of this system will be inspected at defined, regular intervals in perpetuity in the future if implemented as part of the site remedy.

2.2.2.2 Future Sub-slab Depressurization System (SSDS)

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

2.3 INSTITUTIONAL CONTROLS

A series of Institutional Controls is required by the ROD 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 or industrial uses only. Adherence to these Institutional Controls on the site is required by the Environmental Easement and will be implemented under this ISMP. These Institutional Controls are:

- Compliance with the Environmental Easement and this ISMP by the Grantor and the Grantor's successors and assigns;
- All Engineering Controls must be operated and maintained as specified in this ISMP;
- All Engineering Controls on the Controlled Property must be inspected at a frequency and in a manner defined in the ISMP.
- Soil vapor and other environmental or public health monitoring must be performed as defined in this ISMP;
- Data and information pertinent to Site Management of the Controlled Property must be reported at the frequency and in a manner defined in this ISMP;

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:

- In the future the property may only be used for restricted commercial or industrial use upon implementation of the final remedy provided that the long-term Engineering and Institutional Controls included in this ISMP are employed.
- The property may not be used for a higher level of use, such as unrestricted or restricted residential use without additional remediation and amendment of the Environmental Easement, as approved by the NYSDEC;
- All future activities on the property that will disturb remaining contaminated material must be conducted in accordance with this ISMP;
- The use of the groundwater underlying the property is prohibited without treatment rendering it safe for intended use;
- The potential for vapor intrusion must be evaluated for any buildings developed in the area noted on Figure 5, and any potential impacts that are identified must be monitored or mitigated;

- Vegetable gardens and farming on the property are prohibited;
- The site owner or remedial party 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 ISMP. 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 will be remediated for restricted commercial or industrial future use. Any future intrusive work that will penetrate the soil cover or cap, 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 A to this ISMP. Any 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 sample HASP is attached as Appendix D to this ISMP that is in current compliance with DER-10, and 29 CFR 1910, 29 CFR 1926, and all 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. Any 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 all 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 ISMP.

2.3.2 Soil Vapor Intrusion Evaluation

Prior to the construction of any enclosed structures located over areas that contain remaining contamination and the potential for soil vapor intrusion (SVI) has been identified (see Figure 5), 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 most recent NYSDOH "Guidance for Evaluating Vapor Intrusion in the State of New York". Measures to be employed to mitigate potential vapor intrusion will be evaluated, selected, designed, installed, and maintained based on the SVI evaluation, the NYSDOH 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. Validated SVI data will be transmitted to the property owner within 30 days of validation. If any indoor air test results exceed NYSDOH guidelines, relevant NYSDOH fact sheets will be provided to all tenants and occupants of the property (if occupied) within 15 days of receipt of validated data.

2.4 INSPECTIONS AND NOTIFICATIONS

2.4.1 Inspections

Inspections of all remedial components installed at the site will be conducted at the frequency specified in the ISMP Monitoring Plan schedule. A comprehensive site-wide inspection will be conducted monthly, regardless of the frequency of the Annual Inspection Report. The inspections 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 ISMP 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 ISMP (Section 3).

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), 6NYCRR Part 375, and/or Environmental Conservation Law.
- 7-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.
- Verbal notice by noon of the following day of any emergency, such as a fire, flood, or earthquake that reduces or has the potential to reduce the effectiveness of Engineering Controls in place at the site, with written confirmation within 7 days that includes a summary of actions taken, or to be taken, and the potential impact to the environment and the public.
- Follow-up status reports on actions taken to respond to any emergency event requiring ongoing responsive action 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 ISMP 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 State Assistance Contract (SAC), and all approved work plans and reports, including this ISMP.

- 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 HRP Engineering, P.C. These emergency contact lists must be maintained in an easily accessible location at the site.

Table 26: 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 27: Contact Numbers

HRP Associates Inc. (Cailyn Locci)	518-877-7101 x108

* Note: Contact numbers subject to change and should be updated as necessary

2.5.2 Map and Directions to Nearest Health Facility

Site Location: Former Scolite Site, 2 Madison St Troy NY

Nearest Hospital Name: Samaritan Hospital

Hospital Location: 2215 Burdett Ave, Troy NY

Hospital Telephone: (518) 271-3300

Directions to the Hospital:

1. Head **east** on **Madison St** toward **Harrison St**	0.3 mi
2. Turn **left** at **4th St/US-4 N**	0.6 mi
urn **right** at **Ferry St/RT-2 E, co**ntinue to follow RT-2 E	0.7 mi
4. Turn **left** at **15th St**	0.9 mi
5. Turn **right** at **Peoples St**	0.1 mi
6. Turn **left**	410 ft

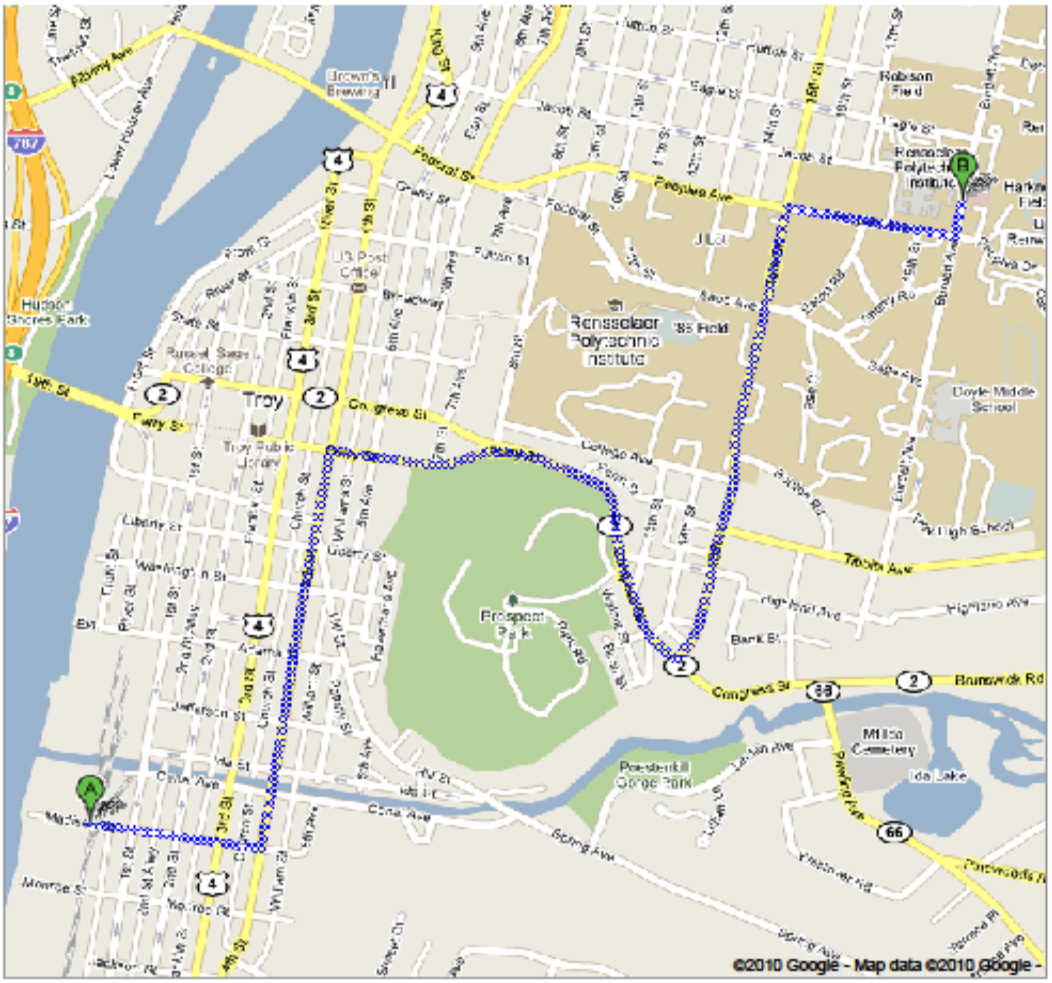
Total Distance: 2.8 miles

Total Estimated Time: 10 minutes

Map Showing Route from the site to the Hospital:

Google maps

Directions to 2215 Burdett Ave, Troy, NY 12180
2.7 mi – about 8 mins
Map and directions to Samaritan Hospital
2215 Burdett Avenue
Troy, New York



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 26). The list will also be posted prominently at the site and made readily available to all personnel at all times.

If a spill should occur onsite, the NYSDEC Spills Hotline (Table 1) should be called within two (2) hours of the release. The spill should be contained with proper materials (i.e. absorbent pads, booms) to the best ability of onsite personnel without compromising the health and safety of those personnel. If needed, the Fire Department should be contacted for assistance in additional containment.

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 remedy to reduce or mitigate contamination at the site, the soil cover system, and all affected site media identified below. Monitoring of other Engineering Controls is described in Chapter 4, Operation, Monitoring and Maintenance Plan. 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 and analysis of all appropriate media (e.g., 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 all designed 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
- Monthly inspection and periodic certification.

Monthly monitoring of the condition and performance of the engineering controls and institutional controls will be conducted the first year. The frequency thereafter will be determined by NYSDEC. Until the remedy is implemented, the monthly inspections will include monitoring of the existing fencing and concrete barriers to ensure access is restricted and visual observation of surface soils for erosion and off-site migration after storm events.

3.3 MEDIA MONITORING PROGRAM

3.3.1 Groundwater Monitoring

Groundwater monitoring will not be performed on a periodic basis to assess the performance of the remedy.

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 month. Site-wide inspections will also be performed after all severe weather conditions that may affect Engineering Controls or monitoring devices. During these inspections, an inspection form will be completed (Appendix H). 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, including site security and effectiveness of fencing and concrete barriers;
- 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

All future sampling and analyses will be performed in accordance with the requirements of the Quality Assurance Project Plan (QAPP) prepared for the site (Appendix G). Main Components of the QAPP include:

- QA/QC Objectives for Data Measurement;
- 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.
    - Field QC samples (e.g., trip blanks, coded field duplicates, and matrix spike/matrix spike duplicates) will be collected as necessary.
- Sample Tracking and Custody;
- Calibration Procedures:
    - All 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 all calibration procedures and schedules as specified in USEPA SW-846 and subsequent updates that apply to the instruments used for the analytical methods.
- Analytical Procedures;
- Preparation of a Data Usability Summary Report (DUSR), which will present the results of data validation, including a summary assessment of laboratory data packages, sample preservation and chain of custody procedures, and a summary

assessment of precision, accuracy, representativeness, comparability, and completeness for each analytical method.

- Internal QC and Checks;
- QA Performance and System Audits;
- Preventative Maintenance Procedures and Schedules;
- Corrective Action Measures.

3.6 MONITORING REPORTING REQUIREMENTS

Forms and any other information generated during regular monitoring events and inspections will be kept on file on-site. All 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 Annual Inspection Report, as specified in the Reporting Plan of this ISMP.

All monitoring results will be reported to NYSDEC on a periodic basis in the Annual Inspection Report. A letter report will also be prepared subsequent to each sampling event. The letter will include, at a minimum:

- Date of event;
- Personnel conducting inspections ;
- Description of the activities performed;
- Copies of all field forms completed (e.g., well sampling logs, chain-of-custody documentation, etc.); and
- Any observations, conclusions, or recommendations.

Data will be reported in hard copy or digital format as determined by NYSDEC.

4.0 OPERATION AND MAINTENANCE PLAN

4.1 INTRODUCTION

Currently, the site remedy does not rely on any mechanical systems, such as sub-slab depressurization systems or air sparge/ soil vapor extraction systems to protect public health and the environment. Therefore, the operation and maintenance of such components is not included in this ISMP.

5.0 INSPECTIONS, REPORTING AND CERTIFICATIONS

5.1 SITE INSPECTIONS

5.1.1 Inspection Frequency

All inspections will be conducted at the frequency specified in the schedules provided in Section 3 Monitoring Plan. At a minimum, a site-wide inspection will be conducted monthly. Inspections of remedial components will also be conducted when a breakdown of any treatment system 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

All inspections and monitoring events will be recorded on the appropriate forms for their respective system which are contained in Appendix I. Additionally, a general site-wide inspection form will be completed during the site-wide inspection (see Appendix H). These forms are subject to NYSDEC revision.

All applicable inspection forms and other records, including all media sampling data and system maintenance reports, generated for the site during the reporting period will be provided in electronic format in the Annual Inspection 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,
- The site remedy continues to be protective of public health and the environment and is performing as designed in the RAWP and FER.

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; and
- The information presented in this report is accurate and complete.
- I certify that all information and statements in this certification form are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law. I, [enter name, of [enter business address], am certifying as [Owner or Owner's Designated Site Representative].): [I have been authorized and designated by all site owners to sign this certification] for the site.

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

- The institutional 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 information presented in this report is accurate and complete.
- I certify that all information and statements in this certification form are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law. I, [enter name], of [enter business address], am certifying as Owner or Owner's Designated Site Representative.): [and I have been authorized and designated by all site owners to sign this certification] for the site.
- No new information has come to my attention, including groundwater monitoring data from wells located at the site boundary, if any, to indicate that the assumptions made in the qualitative exposure assessment of off-site contamination are no longer valid.

Every five years the following certification will be added:

- The assumptions made in the qualitative exposure assessment remain valid.

The signed certification will be included in the Annual Inspection Report described below.

5.3 ANNUAL INSPECTION REPORT

An Annual Inspection Report will be submitted to the Department every year, beginning eighteen months after the Satisfactory Completion Letter is issued. In the event that the site is subdivided into separate parcels with different ownership, a single Annual Inspection Report will be prepared that addresses the site described in Appendix B (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 Annual Inspection Report. The report will include:

- Identification, assessment and certification of all ECs/ICs required by the remedy for the site;
- Results of the required monthly site inspections and severe condition inspections, if applicable;
- All 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 all compounds analyzed, along with the applicable standards, with all exceedances highlighted. These will include a presentation of past data as part of an evaluation of contaminant concentration trends;
- Results of all analyses, copies of all laboratory data sheets, and the required laboratory data deliverables for all 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 RAWP, ROD or Decision Document;
    - The operation and the effectiveness of all 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.

The Monthly Inspection 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 1
Summary of Subsurface Soil Sample Analytical Results
TCL VOCs
Former Scolite Site
Troy, New York
All values are in ug/kg

Paramter	Table 375-6 Soil Cleanup Objectives			Sample ID & Depth (ft.), Collection Date & Dilution Factor																	
	Protection of Public Health			SB-01(6-8)	SB-01(16-18)	SB-02(2-4)	SB-02(18-20)	SB-03(14-16)	SB-04(4-8)	SB-05(0-4)	SB-06(8-12)	SB-07(8-10)	SB-07(8-10)RE	SB-08(2-4)	SB-08(18-20)	SB-09(8-10)	SB-10(6-8)	SB-10(6-8)RE	SB-11(16-20)	SB-12(8-10)	SB-13(12-14)	SB-14(10-12)
	Unrestricted	Restricted-Residential	Commercial	6/15/2009	6/15/2009	6/15/2009	6/15/2009	6/15/2009	6/15/2009	6/15/2009	6/15/2009	6/15/2009	6/15/2009	6/15/2009	6/15/2009	6/16/2009	6/16/2009	6/16/2009	6/16/2009	6/16/2009	6/16/2009	6/16/2009
				1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1,2,4-Trichlorobenzene	NE	NE	NE	<28	<33	<28	<32	<32	**6.8**	<27	<29	<27	<28	<28	<30	<30	<28	<28	<29	<27	<28	<29
Carbon disulfide	NE	NE	NE	<28	<33	<28	<32	<32	<28	<27	<29	**15**	**7.4**	<28	<30	<30	<28	<28	<29	<27	<28	<29
Toluene	700	100,000	500,000	**9.6**	<33	**82**	**6.6**	<32	**38**	<27	**15**	**8.2**	**9.4**	**27**	**11**	**37**	**38**	**33**	**16**	<27	<28	**84**

Sample Exceeds Unrestricted Objective
Sample Exceeds Restricted-Residential Objective
Sample exceeds Commercial Objective

TABLE 2
Summary of Subsurface Soil Sample Analytical Results
TCL SVOCs
Former Scolite Site
Troy, New York
All values are in ug/kg

Parameter	Unit	Table 375-6 Soil Cleanup Objectives			Sample ID & Depth (ft.), Collection Date & Dilution Factor																	
		Protection of Public Health			SB-01(6-8)	SB-01(16-18)	SB-02(2-4)	SB-02(18-20)	SB-03(14-16)	SB-04(4-8)	SB-05(0-4)	SB-06(8-12)	SB-07(8-10)	SB-08(2-4)	SB-08(18-20)	SB-09(8-10)	SB-10(6-8)	SB-11(16-20)	SB-12(8-10)	SB-13(12-14)	SB-14(10-12)	SB-15(4-8)	DUP-1/SB-13 (12-14)
		Unrestricted	Restricted-Residential	Commercial	6/15/2009	6/15/2009	6/15/2009	6/15/2009	6/15/2009	6/15/2009	6/15/2009	6/15/2009	6/15/2009	6/15/2009	6/15/2009	6/16/2009	6/16/2009	6/16/2009	6/16/2009	6/16/2009	6/16/2009	6/16/2009	6/16/2009
					1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2-Methylnaphthalene	ug/kg	NE	NE	NE	<370	<440	<370	<430	<420	<380	<360	<390	<370	<370	<400	<390	<370	<390	<1800	**60**	<390	<1800	**41**
Acenaphthene	ug/kg	20,000	100,000	500,000	<370	<440	<370	<430	<420	<380	<360	<390	<370	<370	<400	<390	<370	<390	<1800	**92**	<390	<1800	**73**
Anthracene	ug/kg	100,000	100,000	500,000	**60**	<440	<370	<430	<420	<380	<360	<390	**69**	<370	<400	**49**	<370	<390	<1800	**170**	<390	<1800	**120**
Benzo(a)anthracene	ug/kg	1,000	1,000	5,600	**220**	<440	<370	<430	<420	**80**	**44**	**200**	**460**	**150**	<400	**200**	**42**	**110**	**990**	**520**	<390	<1800	**540**
Benzo(a)pyrene	ug/kg	1,000	1,000	1,000	**200**	<440	<370	<430	<420	**130**	**38**	**200**	**380**	**130**	<400	**200**	**45**	**76**	**1700**	**570**	<390	<1800	**630**
Benzo(b)fluoranthene	ug/kg	1,000	1,000	5,600	**270**	<440	<370	<430	<420	**210**	**56**	**300**	**750**	**190**	<400	**280**	**69**	**100**	**2800**	**830**	<390	**250**	**880**
Benzo(ghi)perylene	ug/kg	100,000	100,000	500,000	**110**	<440	<370	<430	<420	**490**	<360	**140**	**310**	**81**	<400	**140**	<370	<390	**2000**	**440**	<390	<1800	**500**
Benzo(k)fluoranthene	ug/kg	800	3,900	56,000	**85**	<440	<370	<430	<420	**60**	<360	**100**	**200**	**59**	<400	**91**	<370	<390	**800**	**240**	<390	<1800	**300**
Bis(2-ethylhexyl)phthala	ug/kg	NE	NE	NE	**50**	<440	<370	<430	**66**	**53**	<360	**39**	230	<370	<400	**97**	<370	<390	<1800	**64**	<390	**360**	**49**
Butylbenzyl phthalate	ug/kg	NE	NE	NE	<370	<440	<370	<430	<420	<380	<360	<390	<370	<370	<400	<390	<370	<390	<1800	<370	<390	**240**	<370
Carbazole	ug/kg	NE	NE	NE	**51**	<440	<370	<430	<420	<380	<360	<390	<370	<370	<400	<390	<370	<390	<1800	**77**	<390	<1800	**64**
Chrysene	ug/kg	1,000	3,900	56,000	**280**	<440	**47**	<430	<420	**100**	**50**	**220**	**600**	**210**	<400	**230**	**50**	**99**	**1200**	**540**	<390	**210**	**590**
Dibenzo(a,H)anthracen	ug/kg	330	330	560	<370	<440	<370	<430	<420	**57**	<360	**41**	**100**	<370	<400	<390	<370	<390	**460**	**110**	(<390)	<1800	**130**
Dibenzofuran	ug/kg	NE	NE	NE	<370	<440	<370	<430	<420	<380	<360	<390	<370	<370	<400	<390	<370	<390	<1800	**56**	<390	<1800	<370
Dimethyl phthalate	ug/kg	NE	NE	NE	**440**	**280**	**190**	**200**	**230**	**b**	**170**	**220**	**190**	**180**	**110**	**170**	**160**	<390	**180**	**150**	**120**	**260**	**130**
Fluoranthene	ug/kg	100,000	100,000	500,000	**450**	<440	**48**	<430	<420	**110**	**48**	**280**	**790**	**300**	<400	**360**	**49**	**140**	**1100**	**820**	**70**	**330**	**780**
Fluorene	ug/kg	30,000	100,000	500,000	<370	<440	<370	<430	<420	<380	<360	<390	<370	<370	<400	<390	<370	**890**	<1800	**72**	<390	<1800	**38**
Indeno(1,2,3-cd)pyrene	ug/kg	500	500	5,600	**100**	<440	<370	<430	<420	**270**	<360	**130**	**290**	**70**	<400	**140**	<370	<390	**1800**	**410**	<390	<1800	**480**
Naphthalene	ug/kg	12,000	100,000	500,000	<370	<440	<370	<430	<420	<380	<360	<390	<370	<370	<400	<390	<370	<390	<1800	**82**	<390	<1800	**58**
Phenanthrene	ug/kg	100,000	100,000	500,000	**380**	<440	**54**	<430	<420	**120**	**37**	**130**	**540**	**230**	<400	**220**	**48**	<390	**650**	**640**	**61**	**230**	**460**
Phenol	ug/kg	330	100,000	500,000	<370	<440	<370	<430	<420	<380	<360	(<390)	<370	<370	<400	<390	<370	**40**	(<1800)	(<370)	(<390)	**1500**	(<370)
Pyrene	ug/kg	100,000	100,000	500,000	**370**	<440	**42**	<430	<420	**110**	**43**	**280**	**630**	**280**	<400	**320**	**51**	**150**	**870**	**690**	**52**	**300**	**640**

Sample Exceeds Unrestricted Objective
Sample Exceeds Restricted-Residential Objective
Sample exceeds Commercial Objective

TABLE 3
Summary of Subsurface Soil Sample Analytical Results
TAL Metals
Former Scolite Site
Troy, New York
All values are in mg/kg

Parameter	Table 375-6 Soil Cleanup Objectives			Sample ID & Depth (ft.), Collection Date & Dilution Factor																	
	Protection of Public Health			SB-01(6-8)	SB-01(16-18)	SB-02(2-4)	SB-02(18-20)	SB-03(14-16)	SB-04(4-8)	SB-05(0-4)	SB-06(8-12)	SB-07(8-10)	SB-08(2-4)	SB-08(18-20)	SB-09(8-10)	SB-10(6-8)	SB-11(16-20)	SB-11(16-20)D	SB-12(8-10)	SB-13(12-14)	SB-14(10-12)	SB-15(4-8)	DUP-1/SB-13 (12-14)
	Unrestricted	Restricted-Residential	Commercial	6/15/2009	6/15/2009	6/15/2009	6/15/2009	6/15/2009	6/15/2009	6/15/2009	6/15/2009	6/15/2009	6/15/2009	6/15/2009	6/16/2009	6/16/2009	6/16/2009	6/16/2009	6/16/2009	6/16/2009	6/16/2009	6/16/2009	6/16/2009
				1	1	1	1	1	1	1	1	1	1	1	5	1	1	10	1	1	1	1	1
Aluminum	NE	NE	NE	**2710**	**9370**	**4960**	**8960**	**7780**	**4500**	**5850**	**3480**	**2450**	**3150**	**7110**	**2470**	**3930**	**3790**	**5130**	**3560**	**4730**	**4760**	**4220**	**4250**
Antimony	NE	NE	NE	<1.9	<2.21	**1.87**	<2.12	<2.1	**4.75**	**8.09**	**2.85**	**2.36**	**5.44**	<2.04	**28.1**	<1.88	**2.39**	<19.6	<1.79	<1.89	<1.96	**1.99**	<1.86
Arsenic	13	16	16	**6.49**	**2.13**	**16.6**	**2.27**	**2.2**	**24.3**	**31**	**13**	**9.05**	**16.8**	**1.04**	**39.1**	**15.3**	**13.8**	**17.7**	**1.21**	**2.67**	**3.26**	**3.29**	**2.25**
Barium	350	400	400	**26.6**	**86.4**	**30.4**	**104**	**90.1**	**40.5**	**32.1**	**37.1**	**25.8**	**27.4**	**48.9**	**109**	**31.5**	**23.1**	<39.1	**16.5**	**28.1**	**27.6**	**26.9**	**26.8**
Beryllium	7.2	72	590	**0.45**	**0.5**	**0.76**	**0.53**	**0.41**	**0.6**	**0.73**	**0.53**	**0.58**	**0.42**	**0.75**	**0.71**	**0.75**	**2.23**	**2.56**	<0.21	**0.28**	**0.3**	**0.3**	**0.26**
Cadmium	2.5	4.3	9.3	**1.06**	<0.27	**3.39**	<0.25	**0.26**	**3.1**	**6.77**	**1.33**	**1.89**	**1.2**	<0.24	**6.94**	**3.3**	**10.9**	<2.35	<0.21	<0.23	**0.69**	**1.8**	**0.23**
Calcium	NE	NE	NE	**3800**	**1990**	**40500**	**2060**	**2340**	**17000**	**5960**	**6150**	**12600**	**1980**	**1060**	**6570**	**13800**	**5880**	**8810**	**3680**	**2110**	**8980**	**3180**	**2270**
Chromium	1	110	400	**11.8**	**12**	**16.3**	**11.4**	**9.84**	**14.1**	**15.7**	**11**	**22.1**	**9.23**	**8.07**	**30.6**	**17.6**	**65.4**	**80.8**	**6.45**	**10**	**15.1**	**14.2**	**11.5**
Cobalt	NE	NE	NE	**9.27**	**9.15**	**10.9**	**9.29**	**8.22**	**17.5**	**30.4**	**11.8**	**10.6**	**15.8**	**5.97**	**13.9**	**12.7**	**13.1**	**14.4**	**2.18**	**3.61**	**2.91**	**3.84**	**3.13**
Copper	50	270	270	**98**	**13.5**	**72.6**	**15.6**	**14.6**	**142**	**228**	**147**	**53.6**	**143**	**10.3**	**252**	**65.9**	**89.7**	**90.9**	**16.7**	**40**	**97.1**	**168**	**40.9**
Iron	NE	NE	NE	**55200**	**21600**	**70400**	**20400**	**18600**	**71300**	**117000**	**57600**	**63800**	**57300**	**12300**	**112000**	**79000**	**154955.9**	**225000**	**15300**	**22600**	**36700**	**39500**	**21200**
Lead	63	400	1,000	**44.6**	**8.9**	**30.7**	**9.75**	**9.4**	**85.8**	**66.8**	**47.2**	**42.1**	**64.4**	**6.49**	**488**	**89.7**	**14**	**20.1**	**9.28**	**24.8**	**26.2**	**59.6**	**39.2**
Magnesium	NE	NE	NE	**860**	**3410**	**1890**	**3450**	**3010**	**5220**	**2960**	**2090**	**883**	**890**	**2610**	**877**	**2660**	**862**	**2660**	**740**	**1300**	**924**	**996**	**1050**
Manganese	1,600	2,000	10,000	**406**	**668**	**508**	**821**	**689**	**655**	**852**	**527**	**510**	**757**	**97.9**	**683**	**533**	**1160**	**1420**	**425**	**368**	**945**	**657**	**418**
Mercury	0.18	0.81	2.8	**0.087**	**0.015**	**0.03**	**0.02**	**0.025**	**0.094**	**0.054**	**0.082**	**0.261**	**0.065**	**0.016**	**1.5**	**0.073**	**0.019**	NA	**0.016**	**0.259**	**0.013**	**0.284**	**0.051**
Nickel	30	310	310	**14.3**	**15.4**	**19.2**	**16.7**	**14.6**	**28.1**	**53.6**	**18.9**	**23.1**	**19.2**	**15.6**	**38.5**	**21.2**	**26.4**	**21**	**5.87**	**9.29**	**8.12**	**14.1**	**9.41**
Potassium	NE	NE	NE	**324**	**563**	**487**	**593**	**525**	**581**	**540**	**449**	**336**	**412**	**360**	**268**	**375**	**221**	<783	**428**	**513**	**462**	**416**	**477**
Selenium	3.9	180	1,500	<0.76	<0.88	<0.75	<0.85	<0.84	<0.77	<0.73	**0.84**	<0.74	**0.82**	<0.81	<0.8	<0.75	<0.78	(<7.83)	<0.72	**0.82**	**0.8**	<0.73	**0.81**
Sodium	NE	NE	NE	**111**	**133**	**381**	**85.9**	**123**	**279**	**115**	**143**	**173**	**113**	**105**	**204**	**132**	**189**	<783	**233**	**130**	**128**	**128**	**139**
Vanadium	NE	NE	NE	**34**	**15.4**	**37**	**13.8**	**12.4**	**28.5**	**29.2**	**21.4**	**21.7**	**17.8**	**11.2**	**51.2**	**62.8**	**258**	**285**	**10.4**	**15.7**	**26.6**	**21.3**	**15.9**
Zinc	109	10,000	10,000	**26.5**	**54.6**	**24.1**	**59**	**54.3**	**54.2**	**53.3**	**36.1**	**42**	**41**	**57.1**	**275**	**28.5**	**51.3**	**178**	**20.8**	**38.3**	**26.1**	**99.4**	**47.1**

Sample Exceeds Unrestricted Objective
Sample Exceeds Restricted-Residential Objective
Sample exceeds Commercial Objective

TABLE 4
Summary of Subsurface Soil Sample Analytical Results
Pesticides
Former Scolite Site
Troy, New York
All values are in mg/kg

Paramter	Table 375-6 Soil Cleanup Objectives			Sample ID & Depth (ft.), Collection Date & Dilution Factor																				
	Protection of Public Health			SB-01(6-8)	SB-01(16-18)	SB-02(2-4)	SB-02(18-20)	SB-03(14-16)	SB-04(4-8)	SB-05(0-4)	SB-06(8-12)	SB-07(8-10)	SB-08(2-4)	SB-08(2-4)RE	SB-08(18-20)	SB-09(8-10)	SB-09(8-10)RE	SB-10(6-8)	SB-11(16-20)	SB-11(16-20)RE	SB-12(8-10)	SB-13(12-14)	SB-14(10-12)	SB-15(4-8)	DUP-1/SB-13 (12-14)
	Unrestricted	Restricted-Residential	Commercial	6/15/2009	6/15/2009	6/15/2009	6/15/2009	6/15/2009	6/15/2009	6/15/2009	6/15/2009	6/15/2009	6/15/2009	6/15/2009	6/15/2009	6/16/2009	6/16/2009	6/16/2009	6/16/2009	6/16/2009	6/16/2009	6/16/2009	6/16/2009	6/16/2009	6/16/2009
				1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
4,4'-DDD	0.0033	13	92	<0.002	<0.0023	<0.0019	<0.0022	<0.0022	<0.002	<0.0019	<0.002	<0.0019	<0.0019	<0.0019	<0.0021	<0.002	<0.002	<0.0019	<0.002	<0.002	<0.0018	<0.0019	<0.002	<0.0018	<0.0019
4,4'-DDE	0.0033	8.9	62	<0.002	<0.0023	<0.0019	<0.0022	<0.0022	<0.002	<0.0019	<0.002	<0.0019	<0.0019	<0.0019	<0.0021	<0.002	<0.002	<0.0019	<0.002	<0.002	<0.0018	<0.0019	<0.002	<0.0018	<0.0019
4,4'-DDT	0.0033	7.9	47	<0.002	<0.0023	<0.0019	<0.0022	<0.0022	<0.002	<0.0019	<0.002	<0.0019	<0.0019	<0.0019	<0.0021	<0.002	<0.002	<0.0019	<0.002	<0.002	<0.0018	<0.0019	<0.002	<0.0018	<0.0019
Aldrin	0.005	0.097	0.68	<0.002	<0.0023	<0.0019	<0.0022	<0.0022	<0.002	<0.0019	<0.002	<0.0019	<0.0019	<0.0019	<0.0021	<0.002	<0.002	<0.0019	<0.002	<0.002	<0.0018	<0.0019	<0.002	<0.0018	<0.0019
alpha-BHC	0.02	0.48	3	<0.002	<0.0023	<0.0019	<0.0022	<0.0022	<0.002	<0.0019	<0.002	<0.0019	<0.0019	<0.0019	<0.0021	<0.002	<0.002	<0.0019	<0.002	<0.002	<0.0018	<0.0019	<0.002	<0.0018	<0.0019
beta-BHC	0.036	0.36	3	<0.002	<0.0023	<0.0019	<0.0022	<0.0022	<0.002	<0.0019	<0.002	<0.0019	<0.0019	<0.0019	<0.0021	<0.002	<0.002	<0.0019	<0.002	<0.002	<0.0018	<0.0019	<0.002	<0.0018	<0.0019
Chlordane	NE	4.2	NE	<0.02	<0.023	<0.019	<0.022	<0.022	<0.02	<0.019	<0.02	<0.019	<0.019	<0.019	<0.021	<0.02	<0.02	<0.019	<0.02	<0.02	<0.018	<0.019	<0.02	<0.018	<0.019
delta-BHC	0.04	100	500	<0.002	<0.0023	<0.0019	<0.0022	<0.0022	<0.002	<0.0019	<0.002	<0.0019	<0.0019	<0.0019	<0.0021	<0.002	<0.002	<0.0019	<0.002	<0.002	<0.0018	<0.0019	<0.002	<0.0018	<0.0019
Dieldrin	0.005	0.2	1.4	<0.002	<0.0023	<0.0019	<0.0022	<0.0022	<0.002	<0.0019	<0.002	<0.0019	<0.0019	<0.0019	<0.0021	<0.002	<0.002	<0.0019	<0.002	<0.002	<0.0018	<0.0019	<0.002	<0.0018	<0.0019
Endosulfan I	2.4	24	200	<0.002	<0.0023	<0.0019	<0.0022	<0.0022	<0.002	<0.0019	<0.002	<0.0019	<0.0019	<0.0019	<0.0021	<0.002	<0.002	<0.0019	<0.002	<0.002	<0.0018	<0.0019	<0.002	<0.0018	<0.0019
Endosulfan II	2.4	24	200	<0.002	<0.0023	<0.0019	<0.0022	<0.0022	<0.002	<0.0019	<0.002	<0.0019	<0.0019	<0.0019	<0.0021	<0.002	<0.002	<0.0019	<0.002	<0.002	<0.0018	<0.0019	<0.002	<0.0018	<0.0019
Endosulfan Sulfate	2.4	24	200	<0.002	<0.0023	<0.0019	<0.0022	<0.0022	<0.002	<0.0019	<0.002	<0.0019	<0.0019	<0.0019	<0.0021	<0.002	<0.002	<0.0019	<0.002	<0.002	<0.0018	<0.0019	<0.002	<0.0018	<0.0019
Endrin	0.014	11	89	<0.002	<0.0023	<0.0019	<0.0022	<0.0022	<0.002	<0.0019	<0.002	<0.0019	<0.0019	<0.0019	<0.0021	<0.002	<0.002	<0.0019	<0.002	<0.002	<0.0018	<0.0019	<0.002	<0.0018	<0.0019
Endrin Aldehyde	NE	NE	NE	<0.002	<0.0023	<0.0019	<0.0022	<0.0022	<0.002	<0.0019	<0.002	<0.0019	<0.0019	<0.0019	<0.0021	<0.002	<0.002	<0.0019	<0.002	<0.002	<0.0018	<0.0019	<0.002	<0.0018	<0.0019
gamma-BHC (Lindane)	NE	NE	NE	<0.002	<0.0023	<0.0019	<0.0022	<0.0022	<0.002	<0.0019	<0.002	<0.0019	<0.0019	<0.0019	<0.0021	<0.002	<0.002	<0.0019	<0.002	<0.002	<0.0018	<0.0019	<0.002	<0.0018	<0.0019
Heptachlor	0.042	2.1	15	<0.002	<0.0023	<0.0019	<0.0022	<0.0022	<0.002	<0.0019	<0.002	<0.0019	<0.0019	<0.0019	<0.0021	<0.002	<0.002	<0.0019	<0.002	<0.002	<0.0018	<0.0019	<0.002	<0.0018	<0.0019
Heptachlor Epoxide	NE	NE	NE	<0.002	<0.0023	<0.0019	<0.0022	<0.0022	<0.002	<0.0019	<0.002	<0.0019	<0.0019	<0.0019	<0.0021	<0.002	<0.002	<0.0019	<0.002	<0.002	<0.0018	<0.0019	<0.002	<0.0018	<0.0019
Toxaphene	NE	NE	NE	<0.02	<0.023	<0.019	<0.022	<0.022	<0.020	<0.019	<0.020	<0.019	<0.019	<0.019	<0.021	<0.020	<0.020	<0.019	<0.020	<0.020	<0.018	<0.019	<0.020	<0.018	<0.019

Sample Exceeds Unrestricted Objective
Sample Exceeds Restricted-Residential Objective
Sample exceeds Commercial Objective

TABLE 5
Summary of Subsurface Soil Sample Analytical Results
Polychlorinated Biphenyls (PCBs)
Former Scolite Site
Troy, New York
All values are in mg/kg

Parameter	CAS #	Unit	Table 375-6 Soil Cleanup Objectives			Sample ID & Depth (ft.), Collection Date & Dilution Factor																	
			Protection of Public Health			SB-01(6-8)	SB-01(16-18)	SB-02(2-4)	SB-02(18-20)	SB-03(14-16)	SB-04(4-8)	SB-05(0-4)	SB-06(8-12)	SB-07(8-10)	SB-08(2-4)	SB-08(18-20)	SB-09(8-10)	SB-10(6-8)	SB-11(16-20)	SB-12(8-10)	SB-13(12-14)	SB-14(10-12)	SB-15(4-8)	DUP-1/SB-13 (12-14)
			Unrestricted	Restricted-Residential	Commercial	6/15/2009	6/15/2009	6/15/2009	6/15/2009	6/15/2009	6/15/2009	6/15/2009	6/15/2009	6/15/2009	6/15/2009	6/15/2009	6/15/2009	6/16/2009	6/16/2009	6/16/2009	6/16/2009	6/16/2009	6/16/2009	6/16/2009
						1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Aroclor-1248	12672-29-6	mg/kg	NE	NE	NE	<0.019	<0.023	<0.019	<0.022	<0.021	<0.02	<0.019	<0.02	<0.019	<0.019	<0.021	<0.02	<0.019	<0.02	<0.018	<0.019	<0.02	**0.32**	<0.019
Aroclor-1260	11096-82-5	mg/kg	NE	NE	NE	<0.019	<0.023	<0.019	<0.022	<0.021	<0.02	<0.019	<0.02	<0.019	<0.019	<0.021	**0.36**	<0.019	<0.02	<0.018	<0.019	<0.02	<0.018	<0.019
PCBs-Total		mg/kg	0.1	1	1	<0.133	<0.161	<0.133	<0.154	<0.147	<0.14	<0.133	<0.14	<0.133	<0.133	<0.147	**0.36**	<0.133	<0.14	<0.126	<0.133	<0.14	**0.32**	<0.133

Sample Exceeds Unrestricted Objective
Sample Exceeds Restricted-Residential Objective
Sample exceeds Commercial Objective

TABLE 6
Summary of Subsurface Soil Sample Analytical Results
Total Organic Carbon (TOC)
Former Scolite Site
Troy, New York
All values are in mg/kg

Parameter	Table 375-6 Soil Cleanup Objectives			Sample ID & Depth (ft.), Collection Date & Dilution Factor																	
	Protection of Public Health			SB-01(6-8)	SB-01(16-18)	SB-02(2-4)	SB-02(18-20)	SB-03(14-16)	SB-04(4-8)	SB-05(0-4)	SB-06(8-12)	SB-07(8-10)	SB-08(2-4)	SB-08(18-20)	SB-09(8-10)	SB-10(6-8)	SB-11(16-20)	SB-12(8-10)	SB-13(12-14)	SB-14(10-12)	SB-15(4-8)	DUP-1/SB-13 (12-14)
	Unrestricted	Restricted-Residential	Commercial	6/15/2009	6/15/2009	6/15/2009	6/15/2009	6/15/2009	6/15/2009	6/15/2009	6/15/2009	6/15/2009	6/15/2009	6/15/2009	6/15/2009	6/16/2009	6/16/2009	6/16/2009	6/16/2009	6/16/2009	6/16/2009	6/16/2009
				1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
TOC	NE	NE	NE	7,000	3,200	7,000	3,400	3,900	7,400	5,900	7,100	7,400	7,400	4,000	7,200	7,400	7,400	7,300	6,700	6,000	7,000	6,800

Sample Exceeds Unrestricted Objective
Sample Exceeds Restricted-Residential Objective
Sample exceeds Commercial Objective

TABLE 1A
Summary of Subsurface Soil Sample Analytical Results
TCL VOCs
Former Scolite Site
Troy, New York
All values are in ug/kg

Paramter	CAS #	Unit	Table 375-6 Soil Cleanup Objectives			Sample ID & Depth (ft.), Collection Date & Dilution Factor							
			Protection of Public Health			TP-1 (0-2)	TP-2 (8-10)	TP-3 (8-10)	TP-4 (8-10)	TP-5 (4-6)	TP-6 (2-4)	TP-7 (8-10)	DUP-1 / TP-1 (0-2)
			Unrestricted	Restricted-Residential	Commercial	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010
						1	1	1	1	1	1	1	1
1,2-Dichloroethane	107-06-2	ug/kg	20	3,100	30,000	<65.3	<68.8	<5.9	<67.5	<92.1	<58.2	<4	<60.2
Acetone	67-64-1	ug/kg	50	100,000	500,000	<634	<669	<57.1	<656	<895	<566	<39.2	<585
Ethylbenzene	100-41-4	ug/kg	1,000	41,000	390,000	**443**	<66	<5.6	<70	<88	<55.8	<3.9	**325**
Isopropylbenzene	98-82-8	ug/kg	NE	NE	NE	**111**	<46	<3.9	<45	<61.4	<38.8	<2.7	74
m/p-Xylenes	179601-23-1	ug/kg	NE	NE	NE	**4220**	<115	<9.8	<113	<153	<97	<6.7	**4070**
Methylene chloride	75-09-2	ug/kg	50	100,000	500,000	<136	<143	<12.2	<141	<192	<121	<8.4	<125
o-Xylene	95-47-6	ug/kg	260,000		500,000,000	**2980**	<72	<3.9	<44	<60	<38.2	<2.6	**2940**
Styrene	100-42-5	ug/kg	NE	NE	NE	**101**	<36	<3.1	<35	<48	<30	<2.1	**123**
Tetrachloroethylene	127-18-4	ug/kg	1,300	19,000	150,000	**109**	<62.4	<5.3	<61.2	105	<52.8	<3.7	**70.9**
Toluene	108-88-3	ug/kg	700	100,000	500,000	**776**	<64.5	<5.5	<63.3	<86	<54.6	<3.8	<56.4
Trichlorofluoromethane	75-69-4	ug/kg	NE	NE	NE	**6070**	<58	<5	<57	**129**	<48.5	<3.4	**1070**
Vinyl chloride	75-01-4	ug/kg	20	900	13,000	<55	<57.4	<4.9	<56.3	<76.7	<48.5	<3.4	<50.2
1,2,4-Trimethylbenzene	95-63-6	ug/kg	3,600		190,000	**6600**	<56	<4.8	<55	<74.8	<47.3	<3.3	**4870**
1,3,5-Trimethylbenzene	108-67-8	ug/kg	8,400		190,000	**3750**	<68	<5.8	<67	<92	<58	<4	**2540**
4-Isopropyltoluene / p-Isopropyltoluene	99-87-6	ug/kg	NE		NE	**126**	<59	<5	<58	<77	<50	<4	**53.3**
n-Butylbenzene	104-51-8	ug/kg	NE		NE	**235**	<59	<5	<58	<79	<50	<3.4	**132**
n-Propylbenzene	103-65-1	ug/kg	3,900		500,000	**355**	<53	<4.5	<52	<70	<45	<3.1	**223**
sec-Butylbenzene	135-98-8	ug/kg	11,000		500,000	**94.5**	<50	<4.2	<48.5	<66.2	<41.8	<4.2	**50.8**

Sample Exceeds Unrestricted Objective
Sample Exceeds Restricted-Residential Objective
Sample exceeds Commercial Objective

TABLE 2A
Summary of Subsurface Soil Sample Analytical Results
TCL SVOCs
Former Scolite Site
Troy, New York
All values are in ug/kg

Parameter	CAS #	Unit	Table 375-6 Soil Cleanup Objectives			Sample ID & Depth (ft.), Collection Date & Dilution Factor							
			Protection of Public Health			TP-1 (0-2)	TP-2 (8-10)	TP-3 (8-10)	TP-4 (8-10)	TP-5 (4-6)	TP-6 (2-4)	TP-7 (8-10)	DUP-1 / TP-1 (0-2)
			Unrestricted	Restricted-Residential	Commercial	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010
						1	1	1	1	1	1	1	1
Acenaphthene	83-32-9	ug/kg	20,000	100,000	500,000	<459	<93	<9.4	<9.4	<119	687	**105**	<449
Acenaphthylene	208-96-8	ug/kg	100,000	100,000	500,000	<574	<116	<11.7	<11.7	<149	<219	**118**	<562
Anthracene	120-12-7	ug/kg	100,000	100,000	500,000	<574	<116	**83.6**	<11.7	**872**	**3350**	**597**	<9270
Benzo(a)anthracene	56-55-3	ug/kg	1,000	1,000	5,600	**2120**	**376**	**183**	**27.7**	**1580**	**7310**	**1170**	**1950**
Benzo(a)pyrene	50-32-8	ug/kg	1,000	1,000	1,000	**1670**	**333**	**171**	<13.2	**1090**	**5890**	**1020**	**1630**
Benzo(b)fluoranthene	205-99-2	ug/kg	1,000	1,000	5,600	**2700**	<512	175	<52	**1320**	**7510**	**1030**	**2620**
Benzo(ghi)perylene	191-24-2	ug/kg	100,000	100,000	500,000	**1110**	**302**	**70.4**	<11	**411**	**2070**	**520**	**1030**
Benzo(k)fluoranthene	207-08-9	ug/kg	800	3,900	56,000	**2660**	233	194	20.7	**1630**	**6810**	**1240**	**2750**
Bis(2-ethylhexyl)phthalate	117-81-7	ug/kg	NE	NE	NE	**39400**	<738	<74	<74	<942	<1390	<357	**5340**
Butylbenzyl phthalate	85-68-7	ug/kg	NE	NE	NE	**3390**	<442	<44	<45	<565	<833	<214	<2130
Carbazole	86-74-8	ug/kg	NE	NE	NE	<689	<140	**27.7**	<14	**258**	**1670**	**167**	<674
Chrysene	218-01-9	ug/kg	1,000	3,900	56,000	**2260**	**675**	**274**	**35.9**	**1800**	**7380**	**1280**	**2550**
Dibenzo(a,H)anthracene	53-70-3	ug/kg	330	330	560	<304	<62	<6	<6	<79	**489**	**128**	<298
Dibenzofuran	132-64-9	ug/kg	NE	NE	NE	<230	<47	<5	<5	<60	**526**	**105**	<225
Di-n-octyl phthalate	117-84-0	ug/kg	NE	NE	NE	<919	<186	<19	<19	<238	<351	<90	**1220**
Fluoranthene	206-44-0	ug/kg	100,000	100,000	500,000	**3560**	**380**	**382**	**24.6**	**3260**	**16800**	**2370**	**3310**
Fluorene	86-73-7	ug/kg	30,000	100,000	500,000	<459	<93	<9	<9	<119	**796**	**103**	<449
Indeno(1,2,3-cd)pyrene	193-39-5	ug/kg	500	500	5,600	**1050**	<178	**70**	<18	**466**	**2040**	**495**	**993**
Pentachlorophenol	87-86-5	ug/kg	800	6,700	6,700	**<1220**	<248	<25	<387	<317	<467	<120	**<1200**
Phenanthrene	85-01-8	ug/kg	100,000	100,000	500,000	**1400**	**570**	**316**	**37.5**	**1980**	**9840**	**1320**	**1540**
Phenol	108-95-2	ug/kg	330	100,000	500,000	**<383**	<8	<8	<99	<136	<38	<0.11	<375
Pyrene	129-00-0	ug/kg	100,000	100,000	500,000	**3460**	**415**	**375**	<28	**3000**	**14100**	**2270**	**3200**
Naphthalene	91-20-3	ug/kg	12000		500,000	**879**	<59	<5	<57.7	<78.6	**365**	<3.4	**556**

Sample Exceeds Unrestricted Objective
Sample Exceeds Restricted-Residential Objective
Sample exceeds Commercial Objective

TABLE 3A
Summary of Subsurface Soil Sample Analytical Results
TAL Metals
Former Scolite Site
Troy, New York
All values are in mg/kg

Parameter	CAS #	Unit	Table 375-6 Soil Cleanup Objectives			Sample ID & Depth (ft.), Collection Date & Dilution Factor							
			Protection of Public Health			TP-1 (0-2)	TP-2 (8-10)	TP-3 (8-10)	TP-4 (8-10)	TP-5 (4-6)	TP-6 (2-4)	TP-7 (8-10)	DUP-1 / TP-1 (0-2)
			Unrestricted	Restricted-Residential	Commercial	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010
						1	1	1	1	1	1	1	
Aluminum	7429-90-5	mg/kg	NE	NE	NE	10800	3690	3300	7220	7090	5890	2470	9160
Antimony	7440-36-0	mg/kg	NE	NE	NE	10.6	1.46	1.48	<0.5	1.65	2.04	0.718	3.59
Arsenic	7440-38-2	mg/kg	13	16	16	**21.5**	**24.8**	**44.3**	3.57	**20.7**	**14.5**	**13.3**	**16**
Barium	7440-39-3	mg/kg	350	400	400	183	43.7	45.8	33.5	109	46.1	28.7	169
Beryllium	7440-41-7	mg/kg	7.2	72	590	0.46	0.513	0.49	0.327	0.7	0.455	0.55	0.432
Cadmium	7440-43-9	mg/kg	2.5	4.3	9.3	**12.2**	1.37	**2.5**	1.04	**3.57**	2.35	**2.59**	**9.14**
Calcium	7440-70-2	mg/kg	NE	NE	NE	17500	1490	2550	5590	15900	7070	2560	24600
Chromium	7440-47-3	mg/kg	1	110	400	**716**	**11.8**	**21.4**	**13.1**	**33.1**	**22.2**	**16.6**	**126**
Cobalt	7440-48-4	mg/kg	NE	NE	NE	15	14.2	10.6	2.76	14.3	7.04	5.91	12.7
Copper	7440-50-8	mg/kg	50	270	270	**747**	**1260**	**135**	32.3	**263**	**2760**	**124**	**518**
Iron	7439-89-6	mg/kg	NE	NE	NE	142000	41600	84100	16500	71800	80100	137000	79900
Lead	7439-92-1	mg/kg	63	400	1,000	**579**	**84.7**	**103**	13.6	**212**	**228**	**64.1**	**681**
Magnesium	7439-95-4	mg/kg	NE	NE	NE	3750	1370	635	1420	2620	2220	724	10100
Manganese	7439-96-5	mg/kg	1,600	2,000	10,000	1170	321	**1980**	808	581	810	1410	862
Mercury	7439-97-6	mg/kg	0.18	0.81	2.8	**1.1**	0.09	0.143	<0.0068	**0.747**	**0.239**	0.118	**1.05**
Nickel	7440-02-0	mg/kg	30	310	310	**167**	29.1	16.5	6.85	**42.8**	**40.5**	10.5	**121**
Potassium	7440-09-7	mg/kg	NE	NE	NE	1130	698	501	997	1110	653	340	1070
Selenium	7782-49-2	mg/kg	3.9	180	1,500	**4.52**	3.25	**8.06**	<0.28	2.96	2.25	2.29	2.3
Silver	7440-22-4	mg/kg	2	180	1,500	**3.13**	0.769	0.424	<0.23	0.415	1.55	0.313	**2.46**
Sodium	7440-23-5	mg/kg	NE	NE	NE	464	68.7	127	128	145	75.1	81.6	286
Thallium	7440-28-0	mg/kg	NE	NE	NE	<0.56	<0.5	0.848	<0.5	<0.67	<0.54	<0.54	<0.5
Vanadium	7440-62-2	mg/kg	NE	NE	NE	176	19.1	55.2	24.5	45.8	50.7	49.6	32
Zinc	7440-66-6	mg/kg	109	10,000	10,000	**2050**	68	11.2	**320**	**397**	**283**	69.1	**2290**

Sample Exceeds Unrestricted Objective
Sample Exceeds Restricted-Residential Objective
Sample exceeds Commercial Objective

TABLE 4A
Summary of Subsurface Soil Sample Analytical Results
Pesticides
Former Scolite Site
Troy, New York
All values are in mg/kg

Paramter	CAS #	Unit	Table 375-6 Soil Cleanup Objectives			Sample ID & Depth (ft.), Collection Date & Dilution Factor							
			Protection of Public Health			TP-1 (0-2)	TP-2 (8-10)	TP-3 (8-10)	TP-4 (8-10)	TP-5 (4-6)	TP-6 (2-4)	TP-7 (8-10)	DUP-1 / TP-1 (0-2)
			Unrestricted	Restricted-Residential	Commercial	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010
						1	1	1	1	1	1	1	1
4,4'-DDD	72-54-8	mg/kg	0.0033	13	92	<0.0027	<0.0026	<0.0026	<0.0026	<0.0034	<0.024	<0.0025	<0.0024
4,4'-DDE	72-55-9	mg/kg	0.0033	8.9	62	<0.0022	<0.0022	<0.0022	<0.0022	<0.0028	<0.002	<0.0021	<0.002
4,4'-DDT	50-29-3	mg/kg	0.0033	7.9	47	<0.0032	<0.0032	<0.0032	<0.0032	<0.004	<0.003	<0.0031	<0.003
Aldrin	309-00-2	mg/kg	0.005	0.097	0.68	<0.0012	<0.0012	<0.0012	<0.0012	<0.0015	<0.001	<0.0012	<0.0011
alpha-BHC	319-84-6	mg/kg	0.02	0.48	3	<0.0012	<0.0012	<0.0012	<0.0012	<0.0015	<0.001	<0.0012	<0.0011
beta-BHC	319-85-7	mg/kg	0.036	0.36	3	<0.0014	<0.0014	<0.0014	<0.0014	<0.0018	<0.0013	<0.0013	<0.0013
Chlordane	57-74-9	mg/kg	NE	4.2	NE	<0.0054	<0.0053	<0.005	<0.0053	<0.0069	<0.005	<0.0052	<0.005
delta-BHC	319-86-8	mg/kg	0.04	100	500	<0.014	<0.0013	<0.0014	<0.0013	<0.0017	<0.0013	<0.0013	<0.0013
Dieldrin	60-57-1	mg/kg	0.005	0.2	1.4	<0.0017	<0.0017	<0.0018	<0.0017	<0.0023	<0.0016	<0.0017	<0.0016
Endosulfan I	959-98-8	mg/kg	2.4	24	200	<0.0014	<0.0014	<0.0014	<0.0014	<0.0018	<0.0013	<0.0014	<0.0014
Endosulfan II	9	mg/kg	2.4	24	200	<0.0027	<0.0027	<0.0027	<0.003	<0.0035	<0.0025	<0.0026	<0.0025
Endosulfan Sulfate	1031-07-8	mg/kg	2.4	24	200	<0.003	<0.003	<0.003	<0.0029	<0.0039	<0.0028	<0.0029	<0.0028
Endrin	72-20-8	mg/kg	0.014	11	89	<0.0016	<0.0016	<0.0016	<0.0016	<0.0021	<0.0015	<0.0015	<0.0015
Endrin Aldehyde	7421-93-4	mg/kg	NE	NE	NE	<0.0026	<0.0026	<0.0026	<0.0026	<0.0034	<0.0024	<0.0025	<0.025
gamma-BHC (Lindane)	58-89-9	mg/kg	NE	NE	NE	<0.0012	<0.0012	<0.0012	<0.0013	<0.0016	<0.0011	<0.0012	<0.0014
Heptachlor	76-44-8	mg/kg	0.042	2.1	15	<0.0013	<0.0013	<0.0013	<0.0013	<0.0016	<0.0012	<0.0012	<0.0012
Heptachlor Epoxide	1024-57-3	mg/kg	NE	NE	NE	<0.0014	<0.0014	<0.0014	<0.0014	<0.0018	<0.0013	<0.0014	<0.0013
Toxaphene	8001-35-2	mg/kg	NE	NE	NE	<0.044	<0.043	<0.044	<0.043	<0.055	<0.04	<0.042	<0.04

Sample Exceeds Unrestricted Objective
Sample Exceeds Restricted-Residential Objective
Sample exceeds Commercial Objective

TABLE 5A
Summary of Subsurface Soil Sample Analytical Results
Polychlorinated Biphenyls (PCBs)
Former Scolite Site
Troy, New York
All values are in mg/kg

Parameter	CAS #	Unit	Table 375-6 Soil Cleanup Objectives			Sample ID & Depth (ft.), Collection Date & Dilution Factor							
			Protection of Public Health			TP-1 (0-2)	TP-2 (8-10)	TP-3 (8-10)	TP-4 (8-10)	TP-5 (4-6)	TP-6 (2-4)	TP-7 (8-10)	DUP-1 / TP-1 (0-2)
			Unrestricted	Restricted-Residential	Commercial	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010
						1	1	1	1	1	1	1	1
Aroclor-1016	12674-11-2	mg/kg	NE	NE	NE	<0.0099	<0.0098	<0.0098	<0.0096	<0.01269	<0.009	<0.009	<9.76
Aroclor-1221	11104-28-2	mg/kg	NE	NE	NE	<0.0133	<0.013	<0.013	<0.0129	0.0169	<0.012	<0.0126	<13.1
Aroclor-1232	11141-16-5	mg/kg	NE	NE	NE	<0.0135	<0.0132	<0.0134	<0.0132	<0.0172	<0.012	<0.0128	<13.4
Aroclor-1242	53469-21-9	mg/kg	NE	NE	NE	<0.00767	<0.0075	<0.00763	<0.00747	<0.00978	<0.007	<0.0073	<7.59
Aroclor-1248	12672-29-6	mg/kg	NE	NE	NE	3.46	<0.00913	<0.00929	<0.00909	0.108	<0.0086	<0.008	4560
Aroclor-1254	11097-69-1	mg/kg	NE	NE	NE	<0.0137	<0.0134	<0.0136	<0.0133	<0.0174	<0.0126	<0.013	<13.5
Aroclor-1260	11096-82-5	mg/kg	NE	NE	NE	0.293	<0.0159	<0.00949	<0.0159	0.05	0.0649	<0.009	501
PCBs-Total		mg/kg	0.1	1	1	**3.753**	<102.1	<103.81	<101.65	158.2	64.9	<99.24	**5.061**

Sample Exceeds Unrestricted Objective
Sample Exceeds Restricted-Residential Objective
Sample exceeds Commercial Objective

TABLE 6A
Summary of Subsurface Soil Sample Analytical Results
Total Organic Carbon (TOC)
Former Scolite Site
Troy, New York
All values are in mg/kg

Parameter	CAS #	Unit	Table 375-6 Soil Cleanup Objectives			Sample ID & Depth (ft.), Collection Date & Dilution Factor							
			Protection of Public Health			TP-1 (0-2)	TP-2 (8-10)	TP-3 (8-10)	TP-4 (8-10)	TP-5 (4-6)	TP-6 (2-4)	TP-7 (8-10)	DUP-1 / TP-1 (0-2)
			Unrestricted	Restricted-Residential	Commercial	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010
						1	1	1	1	1	1	1	1
TOC	TOC	mg/kg	NE	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA
TOC	10-35-5	mg/kg	NE	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA

Sample Exceeds Unrestricted Objective
Sample Exceeds Restricted-Residential Objective
Sample exceeds Commercial Objective

TABLE 7
Summary of Surface Soil Sample Analytical Results
TCL & STARs VOCs
Former Scolite Site
Troy, New York
All values are in ug/kg

Parameter	Table 375-6 Soil Cleanup Objectives			Sample ID & Depth (in.) Collection Date & Dilution Factor																									
	Protection of Public Health			SS-01(0-2)	SS-01(0-2)RE	SS-02(0-2)	SS-02(0-2)RE	SS-03(0-2)	SS-03(0-2)RE	SS-04(0-2)	SS-05(0-2)	SS-05(0-2)RE	SS-06(0-2)	SS-07(0-2)	SS-07(0-2)RE	SS-08(0-2)	SS-08(0-2)RE	SS-09(0-2)	SS-09(0-2)RE	SS-10(0-2)	SS-10(0-2)RE	SS-11(0-2)	SS-11(0-2)RE	SS-12(0-2)	SS-12(0-2)RE	SS-13(0-2)	SS-14(0-2)	SS-14(0-2)RE	DUP-2/SS-01 (0-2)	DUP-2RE
	Unrestricted	Restricted-Residential	Commercial	6/17/2009	6/17/2009	6/17/2009	6/17/2009	6/18/2009	6/18/2009	6/18/2009	6/18/2009	6/18/2009	6/18/2009	6/18/2009	6/18/2009	6/18/2009	6/18/2009	6/18/2009	6/18/2009	6/18/2009	6/18/2009	6/18/2009	6/18/2009	6/18/2009	6/18/2009	6/18/2009	6/18/2009	6/18/2009	6/18/2009	6/18/2009
				1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
TCL VOCs																													
Ethylbenzene	1000	41,000	390000	<27	<27	**3.2**	**2.5**	<6	<6	<40	<6.6	<6.2	<29	<6	<5.7	<6	<6	<6.2	<6.2	<6.7	<6.3	<5.9	<5.8	<5.9	<5.7	<32	<6	<5.9	<28	<28
m/p-Xylenes	NE	NE	NE	<54	<54	**3.3**	**2.7**	<12	<12	<81	<13	<12	<58	<12	<11	<12	<12	<12	<12	<13	<13	<12	<12	<12	<11	<65	<12	<12	<56	<56
Methylene chloride	50	100,000	500,000	<27	<27	NA	NA	NA	NA	<40	NA	NA	<29	NA	NA	NA	NA	NA	NA	NA	NA	<5.9	<5.8	NA	NA	<32	NA	NA	**8**	<28
Toluene	700	100,000	500,000	**5.7**	<27	**75**	**54**	**61**	**60**	25	<6.6	<6.2	**8**	**5.2**	**42**	**11**	**8.9**	**23**	**7.3**	**3.9**	**7.2**	<5.9	<5.8	**12**	**31**	<32	**24**	**29**	**9.3**	<28
STARs VOCs																													
Ethyl Benzene	1000	41,000	390000	NA	NA	**3.2**	**2.5**	<6	<6	NA	<6.6	<6.2	NA	<6	<5.7	<6	<6	<6.2	<6.2	<6.7	<6.3	NA	NA	<5.9	<5.7	NA	<6	<5.9	NA	NA
m/p-Xylenes	NE	NE	NE	NA	NA	**3.3**	**2.7**	<12	<12	NA	<13	<12	NA	<12	<11	<12	<12	<12	<12	<13	<13	NA	NA	<12	<11	NA	<12	<12	NA	NA
Toluene	700	100,000	500,000	NA	NA	**75**	**54**	**61**	**60**	NA	<6.6	<6.2	NA	**5.2**	**42**	**11**	**8.9**	**23**	**7.3**	**3.9**	**7.2**	NA	NA	**12**	**31**	NA	**24**	**29**	NA	NA

Sample Exceeds Unrestricted Objective
Sample Exceeds Restricted-Residential Objective
Sample exceeds Commercial Objective

TABLE 8
Summary of Surface Soil Sample Analytical Results
TCL & STARs SVOCs
Former Scolite Site
Troy, New York
All values are in ug/kg

Parameter	Table 375-6 Soil Cleanup Objectives			Sample ID & Depth (in.), Collection Date & Dilution Factor																		
	Protection of Public Health			SS-01(0-2)	SS-02(0-2)	SS-03(0-2)	SS-04(0-2)	SS-05(0-2)	SS-05(0-2)RE	SS-06(0-2)	SS-07(0-2)	SS-07(0-2)RE	SS-08(0-2)	SS-09(0-2)	SS-10(0-2)	SS-10(0-2)RE	SS-11(0-2)	SS-12(0-2)	SS-12(0-2)RE	SS-13(0-2)	SS-14(0-2)	SS-14(0-2)RE	DUP-2/SS-01 (0 2)
	Unrestricted	Restricted Residential	Commercial	6/17/2009	6/17/2009	6/18/2009	6/18/2009	6/18/2009	6/18/2009	6/18/2009	6/18/2009	6/18/2009	6/18/2009	6/18/2009	6/18/2009	6/18/2009	6/18/2009	6/18/2009	6/18/2009	6/18/2009	6/18/2009	6/18/2009	6/17/2009
				5	10	10	20	20	20	20	10	10	20	10	1	1	20	5	5	1	20	20	5
TCL SVOCs																							
2-Methylnaphthalene	NE	NE	NE	**240**	NA	NA	<53000	NA	NA	<7600	NA	NA	NA	NA	NA	NA	<7700	NA	NA	<430	NA	NA	<1800
Acenaphthene	20,000	100,000	500,000	**510**	**1100**	**430**	<53000	<8200	<8200	**2700**	<3800	<3800	<7900	<4100	<420	<420	<7700	<1900	<1900	<430	<7700	<7700	<1800
Anthracene	100,000	100,000	500,000	**1200**	<3600	720	<53000	<8200	<8200	**7100**	**450**	**440**	<7900	**800**	<420	<420	<7700	**250**	**240**	<430	**910**	**930**	**210**
Benzo(a)anthracene	1,000	1,000	5,600	**3000**	**2400**	**3800**	**5600**	<8200	<8200	**16000**	**1900**	**1900**	**2000**	**2700**	**230**	**230**	<7700	**950**	**850**	**44**	**2800**	**2800**	**1100**
Benzo(a)pyrene	1,000	1,000	1,000	**2600**	**4200**	**4400**	<53000	<8200	<8200	**13000**	**1900**	**1800**	**1900**	**2200**	**280**	**290**	<7700	**1000**	**980**	<430	**2000**	**1900**	**1200**
Benzo(b)fluoranthene	1,000	1,000	5,600	**4000**	**4700**	**6900**	**7300**	<8200	<8200	**19000**	**2600**	**2500**	**2600**	**3100**	**360**	**380**	<7700	**1600**	**1500**	**47**	**2900**	**3000**	**1600**
Benzo(ghi)perylene	100,000	100,000	500,000	**1900**	**4300**	**4200**	<53000	<8200	<8200	**9100**	**1700**	**1800**	**1400**	**1600**	**200**	**260**	<7700	**910**	**940**	<430	**1600**	**1300**	**950**
Benzo(k)fluoranthene	800	3,900	56,000	**1200**	**1700**	**1600**	<53000	<8200	<8200	**5600**	**1100**	**1000**	**1100**	**930**	**130**	**110**	<7700	**590**	**570**	<430	**1100**	**940**	**610**
Bis(2-ethylhexyl)phthalate	NE	NE	NE	<1800	NA	NA	<53000	NA	NA	<7600	NA	NA	NA	NA	NA	NA	**6800**	NA	NA	<430	NA	NA	<1800
Butylbenzyl phthalate	NE	NE	NE	<1800	NA	NA	<53000	NA	NA	<7600	NA	NA	NA	NA	NA	NA	**5700**	NA	NA	<430	NA	NA	<1800
Carbazole	NE	NE	NE	**800**	NA	NA	<53000	NA	NA	**3500**	NA	NA	NA	NA	NA	NA	<7700	NA	NA	<430	NA	NA	<1800
Chrysene	1,000	3,900	56,000	**2800**	**2300**	**3900**	**5500**	<8200	<8200	**15000**	**2000**	**1900**	**2100**	**2500**	**300**	**290**	<7700	**990**	**980**	**44**	**2900**	**2800**	**1100**
Dibenzo(a,H)anthracene	330	330	560	**490**	**580**	**820**	<53000	<8200	<8200	**2600**	**400**	**440**	<7900	<4100	**51**	**61**	<7700	**210**	**270**	<430	<7700	<7700	**250**
Dimethyl phthalate	NE	NE	NE	**350**	NA	NA	<53000	NA	NA	<7600	NA	NA	NA	NA	NA	NA	**2000**	NA	NA	340	NA	NA	**390**
Di-n-octyl phthalate	NE	NE	NE	<1800	NA	NA	<53000	NA	NA	<7600	NA	NA	NA	NA	NA	NA	**2300**	NA	NA	<430	NA	NA	<1800
Fluoranthene	100,000	100,000	500,000	**6600**	**2900**	**6400**	**11000**	<8200	<8200	**38000**	**3200**	**3100**	**4000**	**5500**	**330**	**310**	<7700	**1500**	**1300**	**75**	**5400**	**4900**	**1900**
Fluorene	30,000	100,000	500,000	**680**	<3600	<4000	<53000	<8200	<8200	**2800**	<3800	<3800	<7900	<4100	<420	<420	<7700	<1900	<1900	<430	<7700	<7700	<1800
Indeno(1,2,3-cd)pyrene	500	500	5600	**1400**	**2900**	**3000**	<53000	<8200	<8200	**6500**	**1200**	**1200**	**930**	**1300**	**200**	**190**	<7700	**700**	**680**	<430	**1200**	**950**	**670**
Naphthalene	12,000	100,000	500,000	**550**	NA	NA	<53000	NA	NA	**870**	NA	NA	NA	NA	NA	NA	<7700	NA	NA	<430	NA	NA	<1800
Phenanthrene	100,000	100,000	500,000	**6000**	**1400**	**3200**	**6800**	<8200	<8200	**34000**	**2100**	**2200**	**3500**	**3600**	**270**	**280**	<7700	**1000**	**990**	**63**	**4400**	**4400**	**990**
Pyrene	100,000	100,000	500,000	**5300**	**3000**	**5500**	**9400**	<8200	<8200	**30000**	**3100**	**3300**	**4000**	**4800**	**300**	**360**	<7700	**1300**	**1400**	**72**	**5400**	**5200**	**1800**
STARs SVOCs																							
Acenaphthene	20,000	100,000	500,000	NA	**1100**	**430**	NA	<8200	<8200	NA	<3800	<3800	<7900	<4100	<420	<420	<7700	<1900	<1900	NA	<7700	<7700	NA
Anthracene	100,000	100,000	500,000	NA	<3600	**720**	NA	<8200	<8200	NA	**450**	**440**	**<7900**	**800**	<420	<420	<7700	**250**	**240**	NA	**910**	**930**	NA
Benzo(a)anthracene	1,000	1,000	5,600	NA	**2400**	**3800**	NA	<8200	<8200	NA	**1900**	**1900**	**2000**	**2700**	**230**	**230**	<7700	**950**	**850**	NA	**2800**	**2800**	NA
Benzo(a)pyrene	1,000	1,000	1,000	NA	**4200**	**4400**	NA	<8200	<8200	NA	**1900**	**1800**	**1900**	**2200**	**280**	**290**	<7700	**1000**	**980**	NA	**2000**	**1900**	NA
Benzo(b)fluoranthene	1,000	1,000	5,600	NA	**4700**	**6900**	NA	<8200	<8200	NA	**2600**	**2500**	**2600**	**3100**	**360**	**380**	<7700	**1600**	**1500**	NA	**2900**	**3000**	NA
Benzo(g,h,i)perylene	100,000	100,000	500,000	NA	**4300**	**4200**	NA	<8200	<8200	NA	**1700**	**1800**	**1400**	**1600**	**200**	**260**	<7700	**910**	**940**	NA	**1600**	**1300**	NA
Benzo(k)fluoranthene	800	3,900	56,000	NA	**1700**	**1600**	NA	<8200	<8200	NA	**1100**	**1000**	**1100**	**930**	**130**	**110**	<7700	**590**	**570**	NA	**1100**	**940**	NA
Chrysene	1,000	3,900	56,000	NA	**2300**	**3900**	NA	<8200	<8200	NA	**2000**	**1900**	**2100**	**2500**	**300**	**290**	<7700	**990**	**980**	NA	**2900**	**2800**	NA
Dibenz(a,h)anthracene	330	330	560	NA	**580**	**820**	NA	<8200	<8200	NA	**400**	**440**	<7900	<4100	**51**	**61**	<7700	**210**	**270**	NA	<7700	<7700	NA
Fluoranthene	100,000	100,000	500,000	NA	**2900**	**6400**	NA	<8200	<8200	NA	**3200**	**3100**	**4000**	**5500**	**330**	**310**	<7700	**1500**	**1300**	NA	**5400**	**4900**	NA
Indeno(1,2,3-cd)pyrene	500	500	5,600	NA	**2900**	**3000**	NA	<8200	<8200	NA	**1200**	**1200**	**930**	**1300**	**200**	**190**	<7700	**700**	**680**	NA	**1200**	**950**	NA
Phenanthrene	100,000	100,000	500,000	NA	**1400**	**3200**	NA	<8200	<8200	NA	**2100**	**2200**	**3500**	**3600**	**270**	**280**	<7700	**1000**	**990**	NA	**4400**	**4400**	NA
Pyrene	100,000	100,000	500,000	NA	**3000**	**5500**	NA	<8200	<8200	NA	**3100**	**3300**	**4000**	**4800**	**300**	**360**	<7700	**1300**	**1400**	NA	**5400**	**5200**	NA

Sample Exceeds Unrestricted Objective
Sample Exceeds Restricted-Residential Objective
Sample exceeds Commercial Objective

TABLE 9
Summary of Surface Soil Sample Analytical Results
TAL & RCRA Metals
Former Scolite Site
Troy, New York
All values are in mg/kg

Parameter	Table 375-6 Soil Cleanup Objectives			Sample ID & Depth (in.), Collection Date & Dilution Factor																
	Protection of Public Health			SS-01(0-2)	SS-01(0-2)D	SS-02(0-2)	SS-03(0-2)	SS-04(0-2)	SS-05(0-2)	SS-06(0-2)	SS-07(0-2)	SS-08(0-2)	SS-09(0-2)	SS-10(0-2)	SS-11(0-2)	SS-11(0-2)D	SS-12(0-2)	SS-13(0-2)	SS-14(0-2)	DUP-2/SS-01 (0-2)
	Unrestricted	Restricted-Residential	Commercial	6/17/2009	6/17/2009	6/17/2009	6/18/2009	6/18/2009	6/18/2009	6/18/2009	6/18/2009	6/18/2009	6/18/2009	6/18/2009	6/18/2009	6/18/2009	6/18/2009	6/18/2009	6/18/2009	6/17/2009
				1	10	1	1	1	1	1	1	1	1	1	1	10	1	1	1	1
Aluminum	NE	NE	NE	**3820**	**3620**	NA	NA	**2460**	NA	**3750**	NA	NA	NA	NA	**10600**	**10200**	NA	**14900**	NA	**3550**
Antimony	NE	NE	NE	**3.49**	<18.2	NA	NA	<2.7	NA	**5.27**	NA	NA	NA	NA	**16.5**	**20.3**	NA	**16.1**	NA	**3.37**
Arsenic	13	16	16	**25.9**	**30.2**	**16.1**	**2.76**	**4.29**	**11.4**	**13.7**	**18.3**	**11.8**	**7.94**	**4.87**	**18.1**	**25.1**	**3.69**	**10.1**	**7.74**	**20.8**
Barium	350	400	400	**40.7**	**44**	**25.7**	57	**53.8**	**144**	**88.6**	**127**	**159**	**93.8**	**29**	**136**	**149**	**53.3**	**728**	**168**	**38**
Beryllium	7.2	72	590	**1.02**	<2.18	NA	NA	<0.32	NA	**0.62**	NA	NA	NA	NA	**1.03**	<2.35	NA	**0.56**	NA	**1**
Cadmium	2.5	4.3	9.3	**6.77**	<2.18	**11.2**	**0.57**	**1.42**	**20.5**	**10.9**	**10.7**	**5.72**	**4.33**	<0.25	**57.1**	**43.1**	**1.51**	**29**	**11.1**	**5.61**
Calcium	NE	NE	NE	**8450**	**9660**	NA	NA	**6430**	NA	**3270**	NA	NA	NA	NA	**13000**	**16100**	NA	**26400**	NA	**7510**
Chromium	1	110	400	**21.1**	**37**	**36.8**	**17.9**	**33.5**	**257**	**40.3**	**39.8**	**44.4**	**41.3**	**5.13**	**6812**	**8640**	**47.3**	**146**	**188**	**33.5**
Cobalt	NE	NE	NE	**21.3**	**21.6**	NA	NA	**4.39**	NA	**10.5**	NA	NA	NA	NA	**37.8**	**40.9**	NA	**15.8**	NA	**17.8**
Copper	50	270	270	**150**	**149**	NA	NA	**557**	NA	**174**	NA	NA	NA	NA	**891**	**939**	NA	**823**	NA	**152**
Iron	NE	NE	NE	**122496.5**	**163000**	NA	NA	**32700**	NA	**122000**	NA	NA	NA	NA	**192360.8**	**310000**	NA	**72100**	NA	**115000**
Lead	63	400	1000	**85.2**	**86.2**	**34.9**	**60.4**	**255**	**826**	**156**	**736**	**549**	**320**	**19.8**	**589**	**634**	**207**	**1410**	**1230**	**97.1**
Magnesium	NE	NE	NE	**1060**	**1220**	NA	NA	**1050**	NA	**1490**	NA	NA	NA	NA	**2160**	**2710**	NA	**6270**	NA	**1170**
Manganese	1600	2000	10000	**701**	**812**	NA	NA	**420**	NA	**1570**	NA	NA	NA	NA	**1950**	**2480**	NA	**854**	NA	**699**
Mercury	0.18	0.81	2.8	**0.225**	NA	**0.081**	**0.064**	**0.147**	**2.1**	**0.068**	**0.964**	**6.2**	**0.903**	**0.049**	**1.5**	**1.5**	**0.374**	**2.3**	**1**	**0.306**
Nickel	30	310	310	**38.2**	**34.8**	NA	NA	**33**	NA	**63.1**	NA	NA	NA	NA	**843**	**908**	NA	**174**	NA	**32.8**
Potassium	NE	NE	NE	**343**	<728	NA	NA	**378**	NA	**369**	NA	NA	NA	NA	**335**	<784	NA	**887**	NA	**324**
Selenium	3.9	180	1500	<0.73	<7.28	<0.73	**0.92**	**2.18**	<0.83	<0.77	<0.77	**5.64**	**1.4**	**1.1**	<0.78	**12.5**	**0.88**	<0.87	<0.78	<0.74
Silver	2	180	1500	<0.36	<3.64	<0.37	<0.4	<0.54	<0.41	<0.39	<0.38	<0.4	<0.42	<0.42	<0.39	<3.92	<0.38	**3.42**	**21.1**	<0.37
Sodium	NE	NE	NE	**259**	<728	NA	NA	**232**	NA	**146**	NA	NA	NA	NA	**354**	<784	NA	**351**	NA	**151**
Vanadium	NE	NE	NE	**54.1**	**58.2**	NA	NA	**40.6**	NA	**87.7**	NA	NA	NA	NA	**198**	**222**	NA	**36.3**	NA	**49.7**
Zinc	109	10000	10000	**65.7**	**80.3**	NA	NA	**445**	NA	**325**	NA	NA	NA	NA	**1230**	**1650**	NA	**2540**	NA	**72.1**

Sample Exceeds Unrestricted Objective
Sample Exceeds Restricted-Residential Objective
Sample exceeds Commercial Objective

TABLE 10
Summary of Surface Soil Sample Analytical Results
Pesticides
Former Scolite Site
Troy, New York
All values are in mg/kg

Parameter	Table 375-6 Soil Cleanup Objectives			Sample ID & Depth (in.), Collection Date & Dilution Factor											
	Protection of Public Health			SS-01(0-2)	SS-01(0-2)RE	SS-04(0-2)	SS-04(0-2)RE	SS-06(0-2)	SS-06(0-2)RE	SS-11(0-2)	SS-11(0-2)RE	SS-13(0-2)	SS-13(0-2)RE	DUP-2/SS-01(0-2)	DUP-2RE
	Unrestricted	Restricted-Residential	Commercial	6/17/2009	6/17/2009	6/18/2009	6/18/2009	6/18/2009	6/18/2009	6/18/2009	6/18/2009	6/18/2009	6/18/2009	6/18/2009	6/18/2009
				1	1	5	5	5	5	5	5	1	1	1	1
4,4'-DDT	0.0033	7.9	47	**0.0044**	0.0018	(<0.014)	(<0.014)	**0.012**	**0.0062**	(<0.01)	(<0.01)	<0.0022	<0.0022	<0.0019	<0.0019

Sample Exceeds Unrestricted Objective
Sample Exceeds Restricted-Residential Objective
Sample exceeds Commercial Objective

TABLE 11
Summary of Surface Soil Sample Analytical Results
Polychlorinated Biphenyls (PCBs)
Former Scolite Site
Troy, New York
All values are in mg/kg

Parameter	Table 375-6 Soil Cleanup Objectives			Sample ID & Depth (in.), Collection Date & Dilution Factor																			
	Protection of Public Health			SS-01(0-2)	SS-02(0-2)	SS-03(0-2)	SS-04(0-2)	SS-05(0-2)	SS-05(0-2)DL	SS-06(0-2)	SS-07(0-2)	SS-07(0-2)DL	SS-08(0-2)	SS-09(0-2)	SS-09(0-2)DL	SS-10(0-2)	SS-11(0-2)	SS-11(0-2)DL	SS-12(0-2)	SS-13(0-2)	SS-13(0-2)DL	SS-14(0-2)	SS-14(0-2)DL	DUP-2/SS-01(0-2)
	Unrestricted	Restricted-Residential	Commercial	6/17/2009	6/17/2009	6/18/2009	6/18/2009	6/18/2009	6/18/2009	6/18/2009	6/18/2009	6/18/2009	6/18/2009	6/18/2009	6/18/2009	6/18/2009	6/18/2009	6/18/2009	6/18/2009	6/18/2009	6/18/2009	6/18/2009	6/18/2009	6/17/2009
				1	1	1	1	1	10	1	1	20	1	1	2	1	1	10	1	1	20	1	20	1
Aroclor-1016	NE	NE	NE	<0.019	<0.019	<0.02	<0.027	<0.021	<0.21	<0.02	<0.019	<0.39	<0.02	<0.021	<0.042	<0.021	<0.02	<0.2	<0.019	<0.022	<0.44	<0.02	<0.4	<0.019
Aroclor-1248	NE	NE	NE	<0.019	<0.019	<0.02	<0.027	**1.2**	**1.6**	<0.02	**4.5**	**7.3**	**0.3**	**0.46**	**0.51**	<0.021	**1.9**	**2.4**	**0.2**	**1.5**	**3**	**3.1**	**4.6**	<0.019
Aroclor-1254	NE	NE	NE	<0.019	<0.019	<0.02	**0.044**	<0.021	<0.21	0.063	<0.019	<0.39	<0.02	<0.021	<0.042	<0.021	<0.02	<0.2	<0.019	<0.022	<0.44	<0.02	<0.4	<0.019
Aroclor-1260	NE	NE	NE	<0.019	<0.019	<0.02	<0.027	<0.021	<0.21	<0.02	<0.019	<0.39	<0.02	<0.021	<0.042	<0.021	<0.02	<0.2	<0.019	<0.022	<0.44	<0.02	<0.4	<0.019
PCBs-Total	0.1	1	1	(<0.133)	(<0.133)	(<0.14)	**0.044**	**1.2**	**1.6**	0.063	**4.5**	**7.3**	**0.3**	**0.46**	**0.51**	<0.147	**1.9**	**2.4**	**0.2**	**1.5**	**3**	**3.1**	**4.6**	(<0.133)

Sample Exceeds Unrestricted Objective
Sample Exceeds Restricted-Residential Objective
Sample exceeds Commercial Objective

TABLE 12
Summary of Surface Soil Sample Analytical Results
Total Organic Carbon (TOC)
Former Scolite Site
Troy, New York
All values are in mg/kg

Parameter	Table 375-6 Soil Cleanup Objectives			Sample ID & Depth (in.), Collection Date & Dilution Factor					
	Protection of Public Health			SS-01(0-2)	SS-04(0-2)	SS-06(0-2)	SS-11(0-2)	SS-13(0-2)	DUP-2/SS-01(0-2)
	Unrestricted	Restricted-Residential	Commercial	6/17/2009	6/18/2009	6/18/2009	6/18/2009	6/18/2009	6/17/2009
				1	1	1	1	1	1
TOC	NE	NE	NE	**7,500**	**7,500**	**6,900**	**7,400**	**7,400**	**7,200**

Sample Exceeds Unrestricted Objective
Sample Exceeds Restricted-Residential Objective
Sample exceeds Commercial Objective

TABLE 13
Summary of Background Surface Soil Sample Analytical Results
TCL VOCs
Former Scolite Site
Troy, New York
All values are in ug/kg

Parameter	Table 375-6 Soil Cleanup Objectives			Sample ID & Depth (in.), Collection Date & Dilution Factor				
	Protection of Public Health			BS-01(0-2)	BS-02(0-2)	BS-02(0-2)RE	BS-03(0-2)	BS-03(0-2)RE
	Unrestricted	Restricted-Residential	Commercial	6/17/2009	6/17/2009	6/17/2009	6/17/2009	6/17/2009
				1	1	1	1	1
Methylene chloride	50	100,000	500,000	<28	<30	<30	**10**	<29
Toluene	700	100,000	500,000	<28	**11**	<30	**130**	**39**

Sample Exceeds Unrestricted Objective
Sample Exceeds Restricted-Residential Objective
Sample exceeds Commercial Objective

TABLE 14
Summary of Background Surface Soil Sample Analytical Results
TCL SVOCs
Former Scolite Site
Troy, New York
All values are in ug/kg

Parameter	Table 375-6 Soil Cleanup Objectives			Sample ID & Depth (in.), Collection Date & Dilution Factor		
	Protection of Public Health			BS-01(0-2)	BS-02(0-2)	BS-03(0-2)
	Unrestricted	Restricted-Residential	Commercial	6/17/2009	6/17/2009	6/17/2009
				10	1	5
2-Methylnaphthalene	NE	NE	NE	<3700	**53**	<2000
Acenaphthene	20,000	100,000	500,000	<3700	**130**	<2000
Benzo(a)anthracene	1,000	1,000	5,600	**410**	**860**	**1600**
Benzo(a)pyrene	1,000	1,000	1,000	<3700	**750**	**1900**
Benzo(b)fluoranthene	1,000	1,000	5,600	**430**	**1000**	**3600**
Benzo(ghi)perylene	100,000	100,000	500,000	<3700	**540**	**1800**
Benzo(k)fluoranthene	800	3,900	56,000	<3700	**350**	**940**
Bis(2-ethylhexyl)phthalate	NE	NE	NE	<3700	**48**	<2000
Carbazole	NE	NE	NE	<3700	**190**	<2000
Chrysene	1,000	3,900	56,000	**390**	**880**	**2100**
Dibenzo(a,H)anthracene	330	330	560	<3700	**130**	**450**
Dibenzofuran	NE	NE	NE	<3700	**100**	<2000
Dimethyl phthalate	NE	NE	NE	**440**	**390**	**450**
Fluoranthene	100,000	100,000	500,000	**940**	**2200**	**2000**
Fluorene	30,000	100,000	500,000	<3700	**120**	<2000
Indeno(1,2,3-cd)pyrene	500	500	5,600	<3700	**370**	**1200**
Naphthalene	12,000	100,000	500,000	<3700	**76**	<2000
Phenanthrene	100,000	100,000	500,000	**800**	**1900**	**750**
Pyrene	100,000	100,000	500,000	**910**	**2000**	**1900**

Sample Exceeds Unrestricted Objective
Sample Exceeds Restricted-Residential Objective
Sample exceeds Commercial Objective

TABLE 15
Summary of Background Surface Soil Sample Analytical Results
TAL Metals
Former Scolite Site
Troy, New York
All values are in mg/kg

Parameter	Table 375-6 Soil Cleanup Objectives			Sample ID & Depth (in.), Collection Date & Dilution Factor		
	Protection of Public Health			BS-01(0-2)	BS-02(0-2)	BS-03(0-2)
	Unrestricted	Restricted-Residential	Commercial	6/17/2009	6/17/2009	6/17/2009
				1	1	1
Aluminum	NE	NE	NE	**9560**	**3110**	**4010**
Antimony	NE	NE	NE	**2.58**	<1.98	**2.18**
Arsenic	13	16	16	**4.13**	**5.81**	**7.45**
Barium	350	400	400	**112**	**46.5**	**1,100**
Beryllium	7.2	72	590	**0.93**	**0.27**	**0.26**
Cadmium	2.5	4.3	9.3	**1.76**	<0.24	**1.17**
Calcium	NE	NE	NE	**32,400**	**2,830**	**4,920**
Chromium	1	110	400	**17.1**	**10.3**	**128**
Cobalt	NE	NE	NE	**5.46**	**4.13**	**5.62**
Copper	50	270	270	**135**	**56.2**	**623**
Iron	NE	NE	NE	**36500**	**24000**	**23500**
Lead	63	400	1000	**90.2**	**89.7**	**2590**
Magnesium	NE	NE	NE	**7730**	**1020**	**1050**
Manganese	1,600	2000	10,000	**1360**	**323**	**579**
Mercury	0.18	0.81	2.8	**0.036**	**0.119**	**0.837**
Nickel	30	310	310	**16.7**	**9.67**	**18.9**
Potassium	NE	NE	NE	**923**	**456**	**524**
Selenium	3.9	180	1,500	<0.75	**1.43**	**2.19**
Sodium	NE	NE	NE	**582**	<79.4	106
Vanadium	NE	NE	NE	**45.2**	**18.6**	**16.1**
Zinc	109	10000	10,000	**267**	**88.5**	**1060**

Sample Exceeds Unrestricted Objective
Sample Exceeds Restricted-Residential Objective
Sample exceeds Commercial Objective

TABLE 16
Summary of Background Surface Soil Sample Analytical Results
Pesticides
Former Scolite Site
Troy, New York
All values are in mg/kg

Parameter	Table 375-6 Soil Cleanup Objectives			Sample ID & Depth (in.), Collection Date & Dilution Factor					
	Protection of Public Health			BS-01(0-2)	BS-01(0-2)RE	BS-02(0-2)	BS-02(0-2)RE	BS-03(0-2)	BS-03(0-2)RE
	Unrestricted	Restricted-Residential	Commercial	6/17/2009	6/17/2009	6/17/2009	6/17/2009	6/17/2009	6/17/2009
				1	1	1	1	1	1
4,4'-DDE	0.0033	8.9	62	<0.0019	<0.0019	<0.002	<0.002	**0.016**	**0.012**
4,4'-DDT	0.0033	7.9	47	**0.0037**	0.0029	<0.002	<0.002	**0.012**	**0.014**

Sample Exceeds Unrestricted Objective
Sample Exceeds Restricted-Residential Objective
Sample exceeds Commercial Objective

TABLE 17
Summary of Background Surface Soil Sample Analytical Results
PCBs
Former Scolite Site
Troy, New York
All values are in mg/kg

Parameter	CAS #	Unit	Table 375-6 Soil Cleanup Objectives			Sample ID & Depth (in.), Collection Date & Dilution Factor		
			Protection of Public Health			BS-01(0-2)	BS-02(0-2)	BS-03(0-2)
			Unrestricted	Restricted-Residential	Commercial	6/17/2009	6/17/2009	6/17/2009
						1	1	1
Aroclor-1016	12674-11-2	mg/kg	NE	NE	NE	<0.019	<0.02	<0.02
Aroclor-1221	11104-28-2	mg/kg	NE	NE	NE	<0.019	<0.02	<0.02
Aroclor-1232	11141-16-5	mg/kg	NE	NE	NE	<0.019	<0.02	<0.02
Aroclor-1242	53469-21-9	mg/kg	NE	NE	NE	<0.019	<0.02	<0.02
Aroclor-1248	12672-29-6	mg/kg	NE	NE	NE	<0.019	<0.02	<0.02
Aroclor-1254	11097-69-1	mg/kg	NE	NE	NE	<0.019	<0.02	<0.02
Aroclor-1260	11096-82-5	mg/kg	NE	NE	NE	<0.019	<0.02	<0.02
Aroclor-Total		mg/kg	0.1	1	1	(<0.133)	(<0.14)	(<0.14)

Sample Exceeds Unrestricted Objective
Sample Exceeds Restricted-Residential Objective
Sample exceeds Commercial Objective

TABLE 18
Summary of Background Surface Soil Sample Analytical Results
Total Organic Carbon (TOC)
Former Scolite Site
Troy, New York
All values are in mg/kg

Parameter	Table 375-6 Soil Cleanup Objectives				Sample ID & Depth (in.), Collection Date & Dilution Factor		
	Protection of Public Health				BS-01(0-2)	BS-02(0-2)	BS-03(0-2)
	Unrestricted	Restricted-Residential	Commercial	Industrial	6/17/2009	6/17/2009	6/17/2009
					1	1	1
TOC	NE	NE	NE	NE	**6,400**	**7,400**	**7,500**

Sample Exceeds Unrestricted Objective
Sample Exceeds Restricted-Residential Objective
Sample exceeds Commercial Objective

TABLE 19
Summary of Groundwater Sample Analytical Results
TCL VOCs
Former Scolite Site
Troy, New York
All values are in ug/L

Parameters	NYSDEC Class GA Criteria	Sample ID, Collection Date & Dilution Factor																	
		MW-1	MW-1	MW-2	MW-2	MW-3	MW-3	MW-4	MW-4	MW-5	MW-5	MW-6	MW-6	MW-7	MW-7	MW-8	MW-8	DUP-1/MW-2	DUP-1
		8/11/2009	7/1/10	8/11/2009	6/30/10	8/11/2009	6/30/10	8/11/2009	6/30/10	8/11/2009	6/30/10	8/12/2009	6/30/10	8/12/2009	6/30/10	8/12/2009	7/1/10	8/11/2009	7/1/10
		1		1		1		1		1		1		1		1		1	1
Methyltertbutyl ether	NA	**1**	**0.9**	<1	<1	**1**	**1.2**	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1

Sample Exceeds NYSDEC Class GA Standards

TABLE 20
Summary of Groundwater Sample Analytical Results
TCL SVOCs
Former Scolite Site
Troy, New York
All values are in ug/L

Paramater	NYSDEC Class GA Criteria	Sample ID, Collection Date & Dilution Factor																	
		MW-1	MW-1	MW-2	MW-2	MW-3	MW-3	MW-4	MW-4	MW-5	MW-5	MW-6	MW-6	MW-7	MW-7	MW-8	MW-8	DUP-1/MW-2	DUP-1
		8/11/2009	7/1/10	8/11/2009	6/30/10	8/11/2009	6/30/10	8/11/2009	6/30/10	8/11/2009	6/30/10	8/12/2009	6/30/10	8/12/2009	6/30/10	8/12/2009	7/1/10	8/11/2009	7/1/10
		1		1		1		1		1		1		1		1		1	
2-Pentanone, 4-hydroxy-4-methyl-	NE	**3.8**	**3.9**	**3.9**	NA	**3.9**	NA	**3.8**	NA	**4.2**	NA	**3.4**	NA	**3.5**	NA	**3.7**	NA	**3.9**	NA
Butane, 2-methoxy-2-methyl	NE	**9.6**	**11**	**11**	NA	**12**	NA	**8.8**	NA	NA	NA	**12**	NA	**10**	NA	**11**	NA	**11**	NA

Sample Exceeds NYSDEC Class GA Standards

TABLE 21
Summary of Groundwater Sample Analytical Results
TAL Metals (Total & Dissolved)
Former Scolite Site
Troy, New York
All values are in mg/L

Parameter	NYSDEC Class GA Criteria	Sample ID, Collection Date & Dilution Factor																	
		Total Metals (Unfiltered)																	
		MW-1	MW-1	MW-2	MW-2	MW-3	MW-3	MW-4	MW-4	MW-5	MW-5	MW-6	MW-6	MW-7	MW-7	MW-8	MW-8	DUP-1/MW-2	DUP-1
		8/11/2009	7/1/2010	8/11/2009	6/30/2010	8/11/2009	6/30/2010	8/11/2009	6/30/2010	8/11/2009	6/30/2010	8/12/2009	6/30/2010	8/12/2009	6/30/2010	8/12/2009	7/1/2010	8/11/2009	7/1/2010
		1		1		1		1		1		1		1		1		1	
Aluminum	0.1	**0.129**	<0.003	**0.0148**	**0.145**	**0.0652**	<0.003	**1.55**	**0.0213**	**0.421**	**0.0532**	**0.0996**	**0.0147**	**1.79**	0.042	**0.51**	0.0208	**0.0189**	0.0096
Antimony	0.003	(<0.025)	<0.003	(<0.025)		(<0.025)		(<0.025)	<0.003	(<0.025)		(<0.025)	<0.0028	(<0.025)	<0.0028	(<0.025)	<0.0028	(<0.025)	<0.0028
Arsenic	0.025	<0.01	<0.002	<0.01	<0.002	<0.01	<0.002	<0.01	<0.002	<0.01	<0.002	<0.01	<0.0021	<0.01	<0.0021	<0.01	<0.0021	<0.01	<0.0021
Barium	1	**0.262**	**0.27**	**0.235**	**0.283**	**0.206**	**0.272**	**0.167**	**0.121**	**0.165**	**0.0474**	**0.184**	**0.196**	**0.191**	**0.121**	**0.147**	**0.121**	**0.235**	**0.13**
Beryllium	0.003	<0.003	0.0006	<0.003	<0.0006	<0.003	0.0006	<0.003	<0.0006	<0.003	<0.0006	<0.003	<0.0006	<0.003	<0.0006	<0.003	<0.0006	<0.003	<0.0006
Cadmium	0.005	<0.003	<0.0002	<0.003	<0.0002	<0.003	<0.0002	<0.003	<0.0002	<0.003	<0.0002	<0.003	<0.0002	<0.003	<0.0002	<0.003	<0.0002	<0.003	<0.0002
Calcium	NE	**104**	**104**	**96.3**	**89.3**	**85.4**	**101**	**58**	**72.8**	**95**	**116**	**88.2**	**117**	**98.3**	84.8	**105**	126	**97.5**	132
Chromium	0.5	<0.005	<0.002	<0.005	<0.002	<0.005	<0.002	**0.00281**	**<0.0023**	<0.005	<0.0023	<0.005	<0.0023	0.00286	<0.0023	<0.005	<0.0023	<0.005	<0.0023
Cobalt	NE	<0.015	0.0008	<0.015	0.0004	<0.015	0.007	<0.015	0.0014	<0.015	0.0004	<0.015	0.0004	<0.015	0.0004	<0.015	0.0002	<0.015	0.0002
Copper	2	<0.01	<0.002	<0.01	<0.002	<0.01	<0.002	**0.00796**	**<0.0018**	<0.01	<0.0018	<0.01	<0.0018	<0.01	<0.0018	<0.01	<0.0018	<0.01	<0.0018
Iron	0.3	**6.92**	**6.24**	**9.88**	**42.3**	**1.49**	**11.2**	**13.5**	**15.5**	**5.98**	**0.544**	**0.955**	**1.14**	**3.23**	**0.0694**	**0.92**	**0.135**	**9.66**	**0.148**
Lead	0.025	**0.00968**	<0.003	**0.00751**	<0.003	**0.00484**	<0.003	**0.0128**	<0.003	**0.00862**	<0.003	**0.0062**	<0.003	**0.00938**	<0.0030	**0.00944**	<0.0030	**0.00613**	<0.0030
Magnesium	35	**20.5**	**20.7**	**15.5**	**16.6**	**15.8**	**19.8**	**11**	**13.7**	**26.1**	**26.5**	**29.2**	**26.9**	**17.4**	**14.5**	**17.1**	**20.3**	**15.6**	**21.8**
Manganese	0.6	**1.43**	**0.974**	**1.39**	**0.866**	**0.683**	**1.45**	**4.03**	**4.28**	**1.35**	**0.685**	**0.608**	**1.96**	**0.856**	**0.481**	**1.43**	**0.535**	**1.39**	**0.661**
Mercury	0.0014	<0.0002	<0.00007	<0.0002	<0.0007	<0.0002	<0.00007	<0.0002	<0.00007	<0.0002	<0.00007	<0.0002	<0.00007	<0.0002	NA	<0.0002	NA	<0.0002	NA
Nickel	0.2	<0.02	0.001	<0.02	<0.0009	<0.02	0.0009	<0.02	0.0011	<0.02	0.0012	<0.02	0.0016	<0.02	<0.0009	<0.02	<0.0009	<0.02	<0.0009
Potassium, Total	NE	**4.57**	**4.81**	**9.45**	**8.92**	**13**	**7.66**	**4.41**	**3.29**	**3.06**	**2.63**	**14**	**8.1**	**3.28**	2.6	**3.59**	3.89	**9.52**	4.17
Selenium	0.02	<0.01	<0.003	<0.01	<0.0029	<0.01	<0.003	<0.01	<0.0029	**0.0097**	**<0.0029**	0.00507	<0.0029	<0.01	<0.0029	<0.01	<0.0029	<0.01	<0.0029
Silver	0.1	<0.005	0.0026	<0.005	0.0014	<0.005	<0.0012	<0.005	0.0012	<0.005	<0.0012	<0.005	<0.0012	<0.005	<0.0012	<0.005	<0.0012	<0.005	<0.0012
Sodium	NE	**48.3**	**61**	**41**	**39.9**	**86**	**65.6**	**19.1**	**29.3**	**17.9**	**34.9**	**11.7**	**22.1**	**41.2**	**39.5**	**32.2**	**59**	**41.2**	**59.7**
Thallium	0.0005	(<0.02)	0.004	(<0.02)	0.0041	(<0.02)	0.0039	(<0.02)	0.009	(<0.02)	0.0033	(<0.02)	0.004	(<0.02)	(<0.0023)	(<0.02)	(<0.0023)	(<0.02)	(<0.0023)
Vanadium	NE	<0.02	<0.002	<0.02	0.002	<0.02	<0.0017	<0.02	<0.0017	<0.02	<0.0017	<0.02	<0.0017	<0.02	<0.0017	<0.02	<0.0017	<0.02	<0.0017
Zinc	5	**0.0174**	**0.0162**	**0.0129**	**0.0189**	**0.0104**	**0.0172**	**0.0177**	**0.0102**	**0.0142**	**0.0163**	**0.0135**	**0.0248**	**0.024**	0.0124	**0.0193**	0.0097	**0.00727**	0.013

Parameter	NYSDEC Class GA Criteria	Dissolved Metals (Filtered)																	
		MW-1	MW-1	MW-2	MW-2	MW-3	MW-3	MW-4	MW-4	MW-5	MW-5	MW-6	MW-6	MW-7	MW-7	MW-8	MW-8	DUP-1/MW-2	Field Blank-1
		8/11/2009	7/1/2010	8/11/2009	6/30/2010	8/11/2009	6/30/2010	8/11/2009	6/30/2010	8/11/2009	6/30/2010	8/12/2009	6/30/2010	8/12/2009	6/30/2010	8/12/2009	7/1/2010	8/11/2009	8/11/2009
		1		1		1		1		1		1		1		1		1	1
Aluminum	0.1	**0.017**	<0.003	**0.0178**	**0.25**	**0.0152**	<0.003	**0.061**	<0.003	**0.0148**	**0.0532**	**0.0143**	**0.228**	**0.129**	**0.0447**	**0.0449**	**0.0214**	**0.0108**	**0.0202**
Antimony	0.003	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.0028	<0.025	<0.0028	<0.025	<0.0028	<0.025	<0.025
Arsenic	0.025	<0.01	0.0026	<0.01	<0.002	<0.01	<0.002	<0.01	<0.002	<0.01	<0.002	<0.01	<0.0021	<0.01	<0.0021	<0.01	<0.0021	<0.01	<0.01
Barium	1	**0.243**	**0.271**	**0.192**	**0.292**	**0.199**	**0.283**	**0.152**	**0.131**	**0.159**	**0.0474**	**0.184**	**0.218**	**0.172**	**0.126**	**0.141**	**0.121**	**0.187**	<0.05
Beryllium	0.003	<0.003	0.0006	<0.003	<0.0006	<0.003	<0.0006	<0.003	<0.0006	<0.003	<0.0006	<0.003	<0.0006	<0.003	<0.0006	<0.003	<0.0006	<0.003	<0.003
Cadmium	0.005	<0.003	<0.0002	<0.003	<0.0002	<0.003	<0.0002	<0.003	<0.0002	<0.003	<0.0002	<0.003	<0.0002	<0.003	<0.0002	<0.003	<0.0002	<0.003	<0.003
Calcium	NE	**104**	**104**	**92**	**90.5**	**85.1**	**104**	**57.6**	**78.5**	**95.9**	**116**	**89.5**	125	**98.6**	86.2	**104**	124	**90.4**	**0.681**
Chromium	0.5	<0.005	<0.002	<0.005	<0.0023	<0.005	<0.0023	<0.005	<0.0023	<0.005	<0.0023	<0.005	<0.0023	<0.005	<0.0023	<0.005	<0.0023	<0.005	<0.005
Cobalt	NE	<0.015	<0.001	<0.015	<0.0011	<0.015	<0.0011	<0.015	0.0015	<0.015	0.0004	<0.015	<0.0011	<0.015	<0.0011	<0.015	<0.0011	<0.015	<0.015
Copper	2	<0.01	<0.002	<0.01	<0.0018	<0.01	<0.0018	<0.01	<0.0018	<0.01	<0.0018	<0.01	<0.0018	<0.01	<0.0018	<0.01	<0.0018	<0.01	<0.01
Iron	0.3	**0.518**	**6.33**	**0.995**	**42.9**	**0.249**	**11.4**	**0.735**	**16.6**	**0.977**	**0.544**	**0.186**	**1.73**	**0.22**	**0.0819**	**0.0687**	**0.144**	**0.416**	<0.05
Lead	0.025	**0.00554**	**0.0037**	**0.00842**	<0.003	**0.0045**	**<0.003**	**0.00718**	<0.003	**0.0047**	<0.003	**0.00879**	<0.0030	**0.00329**	<0.0030	**0.00396**	<0.0030	**0.0046**	<0.006
Magnesium	35	**20.3**	**20.6**	**14.8**	**16.9**	**15.7**	**20.4**	**10.3**	**14.9**	**26.1**	**26.5**	**28.9**	**28.7**	**16.8**	**14.9**	**16.6**	**20.2**	**14.5**	**0.037**
Manganese	0.6	**1.39**	**0.977**	**1.28**	**0.884**	**0.68**	**1.49**	**3.85**	**4.63**	**1.34**	**0.685**	**0.622**	**2.15**	**0.798**	**0.464**	**1.31**	**0.449**	**1.26**	<0.01
Mercury	0.0014	<0.0002	<0.00007	<0.0002	<0.00007	<0.0002	<0.00007	<0.0002	<0.00007	<0.0002	<0.00007	<0.0002	NA	<0.0002	NA	<0.0002	NA	<0.0002	<0.0002
Nickel	0.2	<0.02	0.0012	<0.02	<0.0009	<0.02	<0.0009	<0.02	0.001	<0.02	0.0012	<0.02	0.0019	<0.02	<0.0009	<0.02	<0.0009	<0.02	<0.02
Potassium, Total	NE	**4.6**	**4.79**	**9.1**	**9.08**	**13.1**	**7.94**	**4.14**	**3.53**	**3.04**	**2.63**	**14**	8.36	**2.82**	2.57	**3.41**	3.74	**8.92**	<1
Selenium	0.02	<0.01	<0.003	<0.01	<0.003	<0.01	<0.0029	<0.01	<0.0029	**0.0126**	**<0.0029**	<0.01	<0.0029	<0.01	<0.0029	<0.01	<0.0029	<0.01	<0.01
Silver	0.1	<0.005	0.0012	<0.005	<0.0012	<0.005	0.0014	<0.005	<0.0012	<0.005	<0.0012	<0.005	0.0013	<0.005	<0.0012	<0.005	<0.0012	<0.005	<0.005
Sodium	NE	**49.3**	**60.4**	**39.9**	**40.7**	**86**	**67**	**19**	**29.6**	**18.4**	**34.9**	**12.6**	**23.8**	**41.5**	**40.8**	**32.3**	**56.8**	**39.1**	**0.867**
Thallium	0.0005	(<0.02)	0.004	(<0.02)	0.0028	(<0.02)	0.0038	(<0.02)	0.0091	(<0.02)	0.0033	(<0.02)	**0.0045**	(<0.02)	(<0.0023)	(<0.02)	(<0.0023)	(<0.02)	(<0.02)
Vanadium	NE	<0.02	<0.002	<0.02	0.0017	<0.02	0.0018	<0.02	<0.0017	<0.02	<0.0017	<0.02	<0.0017	<0.02	<0.0017	<0.02	<0.0017	<0.02	<0.02
Zinc	5	**0.0247**	**0.0176**	**0.0178**	**0.0164**	**0.0221**	**0.0192**	**0.0148**	**0.0094**	**0.0206**	**0.0163**	**0.018**	0.0232	**0.0146**	0.0118	**0.0188**	0.0116	**0.0136**	**0.0121**

Sample Exceeds NYSDEC Class GA Standards

TABLE 22
Summary of Groundwater Sample Analytical Results
Pesticides
Former Scolite Site
Troy, New York
All values are in ug/L

Parameter	NYSDEC Class GA Criteria	Sample ID, Collection Date & Dilution Factor																			
		MW-1	MW-1	MW-2	MW-2	MW-3	MW-3	MW-4	MW-4	MW-5	MW-5	MW-6	MW-6	MW-7	MW-7	MW-8	MW-8	DUP-1/MW-2	DUP-1/MW-3	DUP-1/MW-4	DUP-1
		8/11/2009	7/1/2010	8/11/2009	6/30/2010	8/11/2009	6/30/2010	8/11/2009	6/30/2010	8/11/2009	6/30/2010	8/12/2009	6/30/2010	8/12/2009	6/30/2010	8/12/2009	6/30/2010	8/11/2009	8/11/2010	8/11/2011	7/1/2010
		1		1		1		1		1		1		1		1		1	2	3	
4,4'-DDD	0.3	<0.056	<0.029	<0.056	<0.028	<0.056	<0.028	<0.056	<0.029	<0.056	<0.035	<0.056	<0.036	<0.056	<0.028	<0.057	<0.028	<0.056	<0.056	<0.056	<0.028
4,4'-DDE	0.2	<0.056	<0.014	<0.056	<0.013	<0.056	<0.013	<0.056	<0.014	<0.056	<0.016	<0.056	<0.017	<0.056	<0.013	<0.057	<0.013	<0.056	<0.056	<0.056	<0.013
4,4'-DDT	0.2	<0.056	<0.035	<0.056	<0.034	<0.056	<0.034	<0.056	<0.035	<0.056	<0.042	<0.056	<0.044	<0.056	<0.034	<0.057	<0.034	<0.056	<0.056	<0.056	<0.034
Aldrin	NE	<0.056	<0.011	<0.056	<0.011	<0.056	<0.011	<0.056	<0.011	<0.056	<0.014	<0.056	<0.014	<0.056	<0.011	<0.057	<0.011	<0.056	<0.056	<0.056	<0.011
alpha-BHC	0.01	<0.056	<0.011	<0.056	<0.011	<0.056	<0.011	<0.056	<0.011	<0.056	<0.014	<0.056	<0.014	<0.056	<0.011	<0.057	<0.011	<0.056	<0.056	<0.056	<0.011
Alpha-chlordane	0.05	<0.056	<0.012	<0.056	<0.012	<0.056	<0.012	<0.056	<0.012	<0.056	<0.015	<0.056	<0.015	<0.056	<0.012	<0.057	<0.012	<0.056	<0.056	<0.056	<0.012
beta-BHC	0.04	<0.056	<0.014	<0.056	<0.013	<0.056	<0.013	<0.056	<0.014	<0.056	<0.017	<0.056	<0.017	<0.056	<0.013	<0.057	<0.013	<0.056	<0.056	<0.056	<0.013
delta-BHC	0.04	<0.056	<0.011	<0.056	<0.010	<0.056	<0.010	<0.056	<0.011	<0.056	<0.013	<0.056	<0.013	<0.056	<0.010	<0.057	<0.010	<0.056	<0.056	<0.056	<0.010
Dieldrin	0.004	<0.056	<0.014	<0.056	<0.013	<0.056	<0.013	<0.056	<0.014	<0.056	<0.017	<0.056	<0.017	<0.056	<0.013	<0.057	<0.013	<0.056	<0.056	<0.056	<0.013
Endosulfan I	0.1	<0.056	<0.011	<0.056	<0.010	<0.056	<0.010	<0.056	<0.011	<0.056	<0.013	<0.056	<0.014	<0.056	<0.010	<0.057	<0.010	<0.056	<0.056	<0.056	<0.010
Endosulfan II	0.1	<0.056	<0.018	<0.056	<0.017	<0.056	<0.017	<0.056	<0.018	<0.056	<0.022	<0.056	<0.023	<0.056	<0.017	<0.057	<0.017	<0.056	<0.056	<0.056	<0.017
Endosulfan Sulfate	0.1	<0.056	<0.024	<0.056	<0.023	<0.056	<0.023	<0.056	<0.024	<0.056	<0.029	<0.056	<0.030	<0.056	<0.023	<0.057	<0.023	<0.056	<0.056	<0.056	<0.023
Endrin	5	<0.056	<0.032	<0.056	<0.031	<0.056	<0.031	<0.056	<0.032	<0.056	<0.039	<0.056	<0.040	<0.056	<0.031	<0.057	<0.031	<0.056	<0.056	<0.056	<0.031
Endrin Aldehyde	5	<0.056	<0.014	<0.056	<0.014	<0.056	<0.014	<0.056	<0.014	<0.056	<0.017	<0.056	<0.018	<0.056	<0.014	<0.057	<0.014	<0.056	<0.056	<0.056	<0.014
Endrin ketone	5	<0.056	<0.028	<0.056	<0.027	<0.056	<0.027	<0.056	<0.028	<0.056	<0.034	<0.056	<0.035	<0.056	<0.027	<0.057	<0.027	<0.056	<0.056	<0.056	<0.027
gamma-BHC (Lindane)	0.05	<0.056	<0.013	<0.056	<0.012	<0.056	<0.012	<0.056	<0.013	<0.056	<0.015	<0.056	<0.016	<0.056	<0.012	<0.057	<0.012	<0.056	<0.056	<0.056	<0.012
gamma-Chlordane	0.05	<0.056	<0.014	<0.056	<0.014	<0.056	<0.014	<0.056	<0.014	<0.056	<0.017	<0.056	<0.018	<0.056	<0.014	<0.057	<0.014	<0.056	<0.056	<0.056	<0.014
Heptachlor	0.04	<0.056	<0.011	<0.056	<0.010	<0.056	<0.010	<0.056	<0.011	<0.056	<0.013	<0.056	<0.013	<0.056	<0.010	<0.057	<0.010	<0.056	<0.056	<0.056	<0.010
Heptachlor Epoxide	0.03	<0.056	<0.011	<0.056	<0.011	<0.056	<0.011	<0.056	<0.011	<0.056	<0.013	<0.056	<0.014	<0.056	<0.011	<0.057	**0.062**	<0.056	<0.056	<0.056	0.011
Methoxychlor	35	<0.056	<0.023	<0.056	<0.022	<0.056	<0.022	<0.056	<0.023	<0.056	<0.028	<0.056	<0.029	<0.056	<0.022	<0.057	<0.022	<0.056	<0.056	<0.056	<0.022
Toxaphene	0.06	<0.056	<0.483	<0.056	<0.459	<0.056	<0.459	<0.056	<0.478	<0.056	<0.581	<0.056	<0.596	<0.056	<0.459	<0.057	<0.459	<0.056	<0.056	<0.056	<0.459
trans-Chlordane		<0.056		<0.056		<0.056		<0.056		<0.056		<0.056		<0.056		<0.057		<0.056	<0.056	<0.056	

Sample Exceeds NYSDEC Class GA Standards

TABLE 23
Summary of Groundwater Sample Analytical Results
Polychlorinated Biphenyls (PCBs)
Former Scolite Site
Troy, New York
All values are in ug/L

Parameter	NYSDEC Class GA Criteria	Sample ID, Collection Date & Dilution Factor																			
		MW-1	MW-1	MW-2	MW-2	MW-3	MW-3	MW-4	MW-4	MW-5	MW-5	MW-6	MW-6	MW-7	MW-7	MW-8	MW-8	DUP-1/MW-2	DUP-1/MW-3	DUP-1/MW-4	DUP-1
		8/11/2009	7/1/2010	8/11/2009	6/30/2010	8/11/2009	6/30/2010	8/11/2009	6/30/2010	8/11/2009	6/30/2010	8/12/2009	6/30/2010	8/12/2009	6/30/2010	8/12/2009	7/1/2010	8/11/2009	8/11/2010	8/11/2011	7/1/10
		1		1		1		1		1		1		1		1		1	2	3	4
Aroclor-1016	NE	<0.5	<0.0943	<0.5	<0.0896	<0.5	<0.0896	<0.5	<0.0934	<0.5	<0.113	<0.5	<0.116	<0.5	<0.0896	<0.5	<0.0896	<0.5	<0.5	<0.5	<0.0896
Aroclor-1221	NE	<0.5	<0.0997	<0.5	<0.0947	<0.5	<0.0947	<0.5	<0.0986	<0.5	<0.120	<0.5	<0.123	<0.5	<0.0947	<0.5	<0.0947	<0.5	<0.5	<0.5	<0.0947
Aroclor-1232	NE	<0.5	<0.0781	<0.5	<0.0742	<0.5	<0.0742	<0.5	<0.0773	<0.5	<0.0939	<0.5	<0.0963	<0.5	<0.0742	<0.5	<0.0742	<0.5	<0.5	<0.5	<0.0742
Aroclor-1242	NE	<0.5	<0.110	<0.5	<0.104	<0.5	<0.104	<0.5	<0.108	<0.5	<0.132	<0.5	<0.135	<0.5	<0.104	<0.5	<0.104	<0.5	<0.5	<0.5	<0.104
Aroclor-1248	NE	<0.5	<0.0868	<0.5	<0.0825	<0.5	<0.0825	<0.5	<0.0859	<0.5	<0.104	<0.5	<0.107	<0.5	<0.0825	<0.5	<0.0825	<0.5	<0.5	<0.5	<0.0825
Aroclor-1254	NE	<0.5	<0.146	<0.5	<0.139	<0.5	<0.139	<0.5	<0.145	<0.5	<0.176	<0.5	<0.181	<0.5	<0.139	<0.5	<0.139	<0.5	<0.5	<0.5	<0.139
Aroclor-1260	NE	<0.5	<0.113	<0.5	<0.107	<0.5	<0.107	<0.5	<0.112	<0.5	<0.136	<0.5	<0.139	<0.5	<0.107	<0.5	<0.107	<0.5	<0.5	<0.5	<0.107
PCBs-Total	0.09	<3.5	<0.8505	<3.5	<0.8074	<3.5	<0.8074	<3.5	<0.8415	<3.5	<1.0223	<3.5	<1.0486	<3.5	<0.8074	<3.5	<0.8074	<3.5	<3.6	<3.7	<0.8074

Sample Exceeds NYSDEC Class GA Standards

TABLE 24
Summary of Soil Vapor Sample Analytical Results
TO-15
Former Scolite Site
Troy, New York
All values are in ug/m3

Parameter	NYSDOH Guidance Values	Sample ID, Collection Date & Dilution Factor									
		SSSV-1	SSSV-2	SSSV-3	SSSV-4	SSSV-5	DUP SSSV-1	SV - 1	SV - 2	SV - 3	SV - 4
		6/17/2009	6/17/2009	6/17/2009	6/17/2009	6/17/2009	6/17/2009	6/17/2009	6/17/2009	6/17/2009	6/17/2009
1,2,4-Trimethylbenzene	*	**8.0**	**8.2**	**12**	**9.2**	**81**	**8.0**	**2.6**	**2.8**	**7.0**	<0.75
1,3,5-Trimethylbenzene	*	**4.1**	**3.0**	**4.9**	**2.3**	**19**	**3.7**	**2.5**	**1.0**	**3.1**	<0.75
2,2,4-Trimethylpentane	*	**5.7**	**5.5**	**17**	**2.7**	**10**	**6.1**	<0.71	<0.71	**52**	<0.71
4-Ethyltoluene	*	**6.1**	**2.5**	<0.75	**2.1**	**11**	**2.8**	**1.3**	**3.5**	**5.2**	<0.75
Acetone	*	**210**	**200**	**160**	**190**	**200**	**210**	**91**	**110**	**40**	**130**
Benzene	*	**11**	**26**	**44**	**5.9**	**26**	**10**	**1.6**	**1.4**	**24**	**3.5**
Carbon disulfide	*	**22**	**14**	**26**	**22**	**50**	**24**	**15**	**34**	**16**	**13**
Chloroform	*	<0.74	<0.74	<0.74	<0.74	<0.74	<0.74	**2.9**	<0.74	**16**	**7.0**
Chloromethane	*	<0.31	**0.42**	<0.31	<0.31	<0.31	<0.31	**0.25**	<0.31	**0.88**	<0.31
Cyclohexane	*	**66**	**110**	**260**	**5.2**	**240**	**63**	**54**	**130**	**230**	**180**
Ethyl Acetate	*	<0.92	<0.92	<0.92	**5.9**	<0.92	<0.92	<0.92	**7.5**	<0.92	<0.92
Ethylbenzene	*	**3.7**	**3.7**	**8.6**	**1.8**	**4.3**	**4.1**	**11**	**1.1**	**11**	**2.2**
Freon 11	*	**11**	**38**	**5.3**	**4.9**	**270**	**10**	**37**	**520**	**2100**	**4.8**
Freon 113	*	**2.6**	**1.6**	**4.1**	**4.9**	**3**	**2.5**	<1.2	<1.2	**5.9**	**3.7**
Freon 12	*	**4.1**	**8.6**	**5.3**	**4.8**	**21**	**4.2**	**7.0**	**18**	**280**	**3.2**
Heptane	*	**15**	**71**	**250**	**16**	**240**	**15**	**29**	**62**	**180**	**260**
Hexane	*	**40**	**160**	**520**	**60**	**700**	**36**	**57**	**170**	**760**	**810**
m/p-Xylene	*	**11**	**9**	**15**	**6.4**	**11**	**12**	**2.6**	**2.5**	**34**	**4.2**
Methyl Butyl Ketone	*	**14**	<1.2	<1.2	**22**	<1.2	**15**	<1.2	<1.2	<1.2	<1.2
Methyl Ethyl Ketone	*	**22**	<0.90	<0.90	**29**	<0.90	**22**	<0.90	<0.90	<0.90	<0.90
Methyl Isobutyl Ketone	*	**12**	**18**	**46**	**21**	**23**	**11**	**9.2**	<1.2	<1.2	<1.2
Methylene Chloride	60	**1.1**	<0.53	<0.53	<0.53	<0.53	<0.53	<0.53	<0.53	<0.53	<0.53
o-Xylene	*	**3.9**	**3.6**	**6.0**	**2.2**	**5.2**	**4.1**	**0.84**	**0.79**	**9.3**	**1.6**
Styrene	*	**1.0**	<0.65	<0.65	<0.65	<0.65	**1.0**	<0.65	<0.65	<0.65	<0.65
Tetrachloroethene	100	**8.8**	**1.6**	**1.4**	<1.0	<1.0	**1.9**	<1.0	**0.83**	**8.3**	<1.0
Toluene	*	**50**	**45**	**57**	**12**	**20**	**49**	**6.5**	**8.0**	**280**	**9.2**
Trichloroethene	5	**1.7**	**0.82**	<82	**1.2**	<0.82	**0.71**	**1.7**	**1.6**	<0.82	<0.82
Total VOCs		522.8	570.5	1396.6	431.5	1934.5	516.1	333.0	1075.0	4062.7	1432.4

NOTES:
VOCs: Volatile Organic Compounds
Samples Analyzed via United States Environmental Protection Agency (USEPA) Method TO-15
Bold indicates parameter detected above reporting limit

Table 25
Allowable Constituent Levels for Imported Fill or Soil
Subdivision 5.4(e)

Source: This table is derived from soil cleanup objective (SCO) tables in 6 NYCRR 375. Table 375-6.8(a) is the source for unrestricted use and Table 375-6.8(b) is the source for restricted use.

Note: For constituents not included in this table, refer to the contaminant for supplemental soil cleanup objectives (SSCOs) in the Commissioner Policy on ~~*Soil Cleanup Guidance*~~. If an SSCO is not provided for a constituent, contact the DER PM to determine a site-specific level.

Constituent	Unrestricted Use	Residential Use	Restricted Residential Use	Commercial or Industrial Use	If Ecological Resources are Present
Metals					
Arsenic	13	16	16	16	13
Barium	350	350	400	400	433
Beryllium	7.2	14	47	47	10
Cadmium	2.5	2.5	4.3	7.5	4
Chromium, Hexavalent[1]	1 [3]	19	19	19	1 [3]
Chromium, Trivalent[1]	30	36	180	1500	41
Copper	50	270	270	270	50
Cyanide	27	27	27	27	NS
Lead	63	400	400	450	63
Manganese	1600	2000	2000	2000	1600
Mercury (total)	0.18	0.73	0.73	0.73	0.18
Nickel	30	130	130	130	30
Selenium	3.9	4	4	4	3.9
Silver	2	8.3	8.3	8.3	2
Zinc	109	2200	2480	2480	109
PCBs/Pesticides					
2,4,5-TP Acid (Silvex)	3.8	3.8	3.8	3.8	NS
4,4'-DDE	0.0033 [3]	1.8	8.9	17	0.0033 [3]
4,4'-DDT	0.0033 [3]	1.7	7.9	47	0.0033 [3]
4,4'-DDD	0.0033 [3]	2.6	13	14	0.0033 [3]
Aldrin	0.005	0.019	0.097	0.19	0.14
Alpha-BHC	0.02	0.02	0.02	0.02	0.04 [4]
Beta-BHC	0.036	0.072	0.09	0.09	0.6
Chlordane (alpha)	0.094	0.91	2.9	2.9	1.3
Delta-BHC	0.04	0.25	0.25	0.25	0.04 [4]
Dibenzofuran	7	14	59	210	NS
Dieldrin	0.005	0.039	0.1	0.1	0.006
Endosulfan I	2.4[2]	4.8	24	102	NS
Endosulfan II	2.4[2]	4.8	24	102	NS
Endosulfan sulfate	2.4[2]	4.8	24	200	NS
Endrin	0.014	0.06	0.06	0.06	0.014
Heptachlor	0.042	0.38	0.38	0.38	0.14
Lindane	0.1	0.1	0.1	0.1	6
Polychlorinated biphenyls	0.1	1	1	1	1

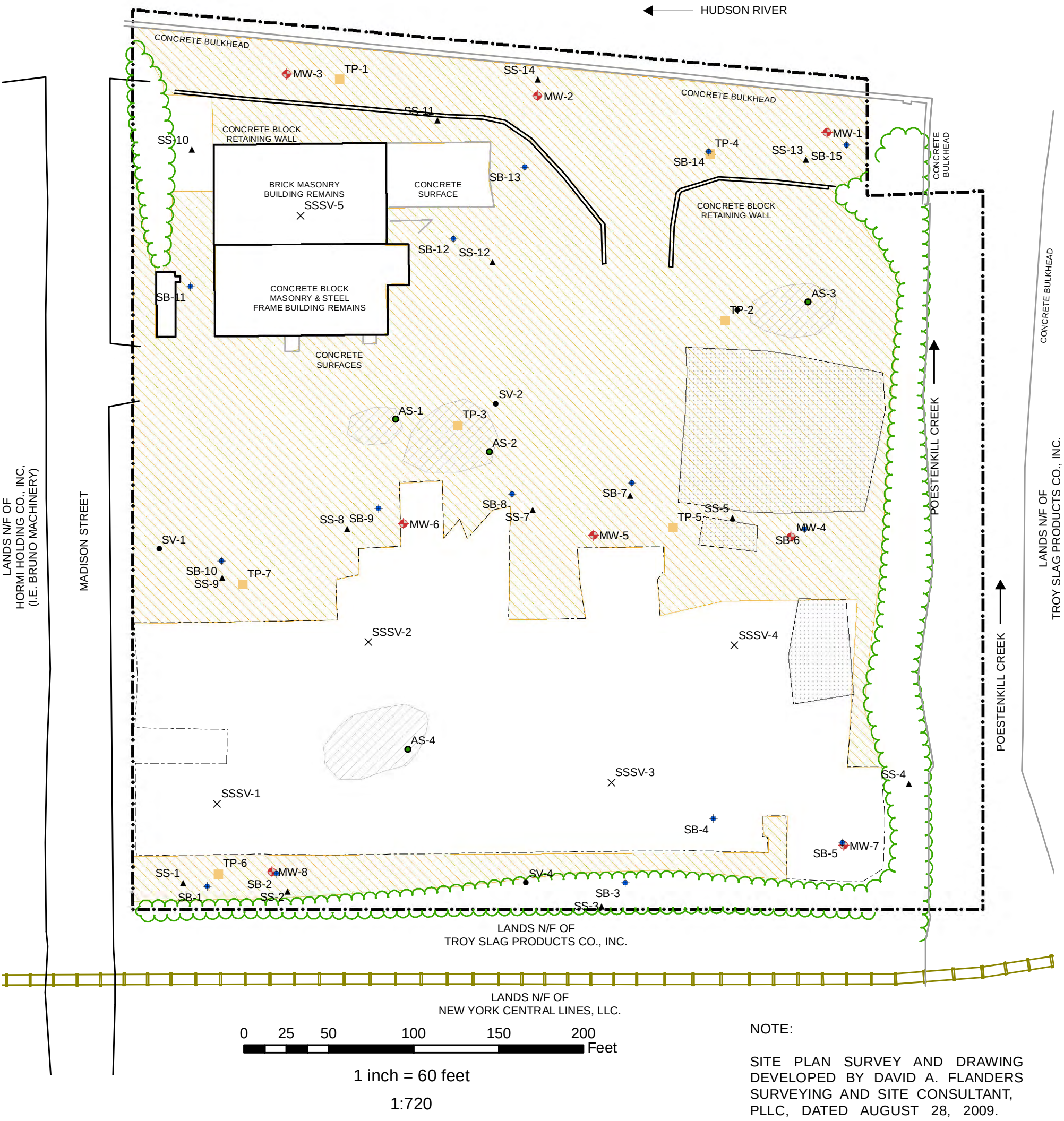
Constituent	Unrestricted Use	Residential Use	Restricted Residential Use	Commercial or Industrial Use	If Ecological Resources are Present
Semi-volatile Organic Compounds					
Acenaphthene	20	98	98	98	20
Acenaphthylene	100	100	100	107	NS
Anthracene	100	100	100	500	NS
Benzo(a)anthracene	1	1	1	1	NS
Benzo(a)pyrene	1	1	1	1	2.6
Benzo(b)fluoranthene	1	1	1	1.7	NS
Benzo(g,h,i)perylene	100	100	100	500	NS
Benzo(k)fluoranthene	0.8	1	1.7	1.7	NS
Chrysene	1	1	1	1	NS
Dibenz(a,h)anthracene	0.33 [3]	0.33 [3]	0.33 [3]	0.56	NS
Fluoranthene	100	100	100	500	NS
Fluorene	30	100	100	386	30
Indeno(1,2,3-cd)pyrene	0.5	0.5	0.5	5.6	NS
m-Cresol(s)	0.33 [3]	0.33 [3]	0.33 [3]	0.33 [3]	NS
Naphthalene	12	12	12	12	NS
o-Cresol(s)	0.33 [3]	0.33 [3]	0.33 [3]	0.33 [3]	NS
p-Cresol(s)	0.33	0.33	0.33	0.33	NS
Pentachlorophenol	0.8 [3]	0.8 [3]	0.8 [3]	0.8 [3]	0.8 [3]
Phenanthrene	100	100	100	500	NS
Phenol	0.33 [3]	0.33 [3]	0.33 [3]	0.33 [3]	30
Pyrene	100	100	100	500	NS
Volatile Organic Compounds					
1,1,1-Trichloroethane	0.68	0.68	0.68	0.68	NS
1,1-Dichloroethane	0.27	0.27	0.27	0.27	NS
1,1-Dichloroethene	0.33	0.33	0.33	0.33	NS
1,2-Dichlorobenzene	1.1	1.1	1.1	1.1	NS
1,2-Dichloroethane	0.02	0.02	0.02	0.02	10
1,2-Dichloroethene(cis)	0.25	0.25	0.25	0.25	NS
1,2-Dichloroethene(trans)	0.19	0.19	0.19	0.19	NS
1,3-Dichlorobenzene	2.4	2.4	2.4	2.4	NS
1,4-Dichlorobenzene	1.8	1.8	1.8	1.8	20
1,4-Dioxane	0.1 [3]	0.1 [3]	0.1 [3]	0.1 [3]	0.1
Acetone	0.05	0.05	0.05	0.05	2.2
Benzene	0.06	0.06	0.06	0.06	70
Butylbenzene	12	12	12	12	NS
Carbon tetrachloride	0.76	0.76	0.76	0.76	NS
Chlorobenzene	1.1	1.1	1.1	1.1	40
Chloroform	0.37	0.37	0.37	0.37	12
Ethylbenzene	1	1	1	1	NS
Hexachlorobenzene	0.33 [3]	0.33 [3]	1.2	3.2	NS
Methyl ethyl ketone	0.12	0.12	0.12	0.12	100
Methyl tert-butyl ether	0.93	0.93	0.93	0.93	NS
Methylene chloride	0.05	0.05	0.05	0.05	12

Volatile Organic Compounds (continued)					
Propylbenzene-n	3.9	3.9	3.9	3.9	NS
Sec-Butylbenzene	11	11	11	11	NS
Tert-Butylbenzene	5.9	5.9	5.9	5.9	NS
Tetrachloroethene	1.3	1.3	1.3	1.3	2
Toluene	0.7	0.7	0.7	0.7	36
Trichloroethene	0.47	0.47	0.47	0.47	2
Trimethylbenzene-1,2,4	3.6	3.6	3.6	3.6	NS
Trimethylbenzene-1,3,5	8.4	8.4	8.4	8.4	NS
Vinyl chloride	0.02	0.02	0.02	0.02	NS
Xylene (mixed)	0.26	1.6	1.6	1.6	0.26

All concentrations are in parts per million (ppm)
NS = Not Specified

Footnotes:
[1] The SCO for Hexavalent or Trivalent Chromium is considered to be met if the analysis for the total species of this contaminant is below the specific SCO for Hexavalent Chromium.
[2] The SCO is the sum of endosulfan I, endosulfan II and endosulfan sulfate.
[3] 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.
[4] This SCO is derived from data on mixed isomers of BHC.

Figures



Legend

- Asphalt Sample
- Sub-Slab Soil Vapor
- Soil Borings
- Monitoring Wells
- Surface Soil
- Soil Vapor
- Test Pits
- Concrete Foundation of Former Building
- Vegetation
- Asphalt Piles
- Buildings
- Property Boundary
- Alternative 2: Proposed Contaminated Media Removal Area (Depth of 2ft.)
- Tarp Covered Building Debris

NOTE:

SITE PLAN SURVEY AND DRAWING DEVELOPED BY DAVID A. FLANDERS SURVEYING AND SITE CONSULTANT, PLLC, DATED AUGUST 28, 2009.

ENTIRE SITE IS LITTERED WITH DEBRIS FROM THE BUILDINGS AND RELATED INFRASTRUCTURE WHICH FORMERLY OCCUPIED THIS SITE. PHYSICAL FEATURES SHOWN HEREON ARE THOSE WHICH ARE MOST PROMINENT. NO ATTEMPT HAS BEEN MADE TO SHOW ALL THE PATIAL BUILDING REMAINS, BURIED WALLS, AND RELATED ITEMS THAT MAY EXIST WITHIN THE SITE.

ASPHALT SAMPLE AND POLYGON LOCATIONS INTEGRATED INTO SITE PLAN THROUGH INTERPRETATION OF NYSIMG 2007 ORTHOPHOTO. THESE LOCATIONS ARE APPROXIMATE.

FIGURE 1
SITE AND SITE BOUNDARIES
FORMER SCOLITE PROPERTY
2 MADISON STREET
TROY, NEW YORK
HRP # TRO2004.P2
SCALE: 1"=60'

N

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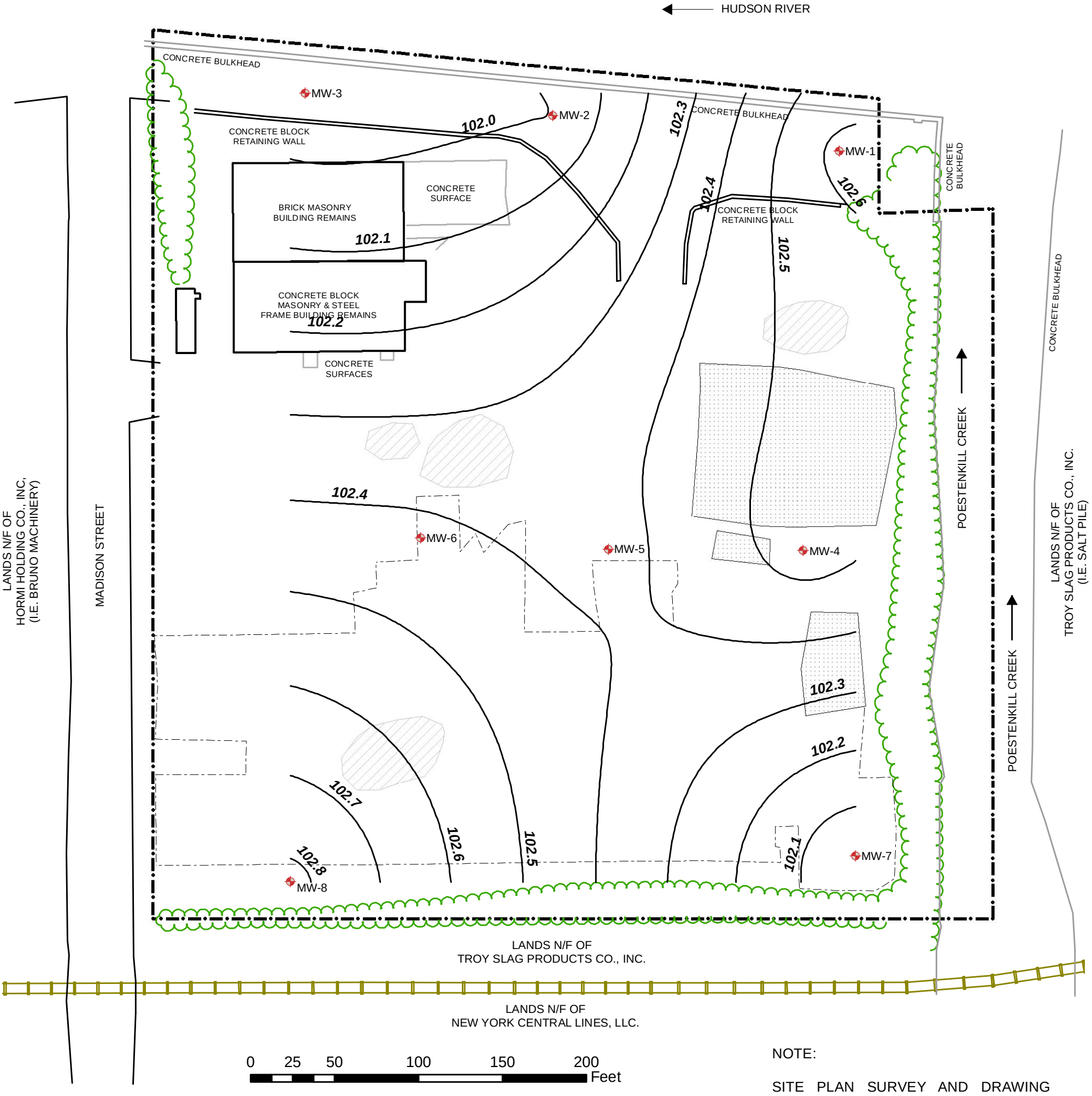

0 25 50 100 150 200 Feet

1 inch = 63 feet

1:750

Legend

- Monitoring Wells
- Groundwater Elevation
- Buildings
- Vegetation
- Asphalt Piles
- Property Boundary
- Tarp Covered Building Debris
- Concrete Foundation of Former Building

NOTE:

SITE PLAN SURVEY AND DRAWING DEVELOPED BY DAVID A. FLANDERS SURVEYING AND SITE CONSULTANT, PLLC, DATED AUGUST 28, 2009.

ENTIRE SITE IS LITTERED WITH DEBRIS FROM THE BUILDINGS AND RELATED INFRASTRUCTURE WHICH FORMERLY OCCUPIED THIS SITE. PHYSICAL FEATURES SHOWN HEREON ARE THOSE WHICH ARE MOST PROMINENT. NO ATTEMPT HAS BEEN MADE TO SHOW ALL THE PATIAL BUILDING REMAINS, BURIED WALLS, AND RELATED ITEMS THAT MAY EXIST WITHIN THE SITE.

GROUNDWATER ELEVATIONS MEASURED ON 6/30/2010. ELEVATIONS REFERENCED TO 100 FEET ABOVE ACTUAL MEAN SEA LEVEL. WELL ELEVATIONS DERIVED FROM THE AUGUST 28, 2009 SURVEY OF SITE.

FIGURE 2
GROUNDWATER FLOW 6/30/2010
FORMER SCOLITE PROPERTY
2 MADISON STREET
TROY, NEW YORK
HRP # TRO2004.P2
CONTOUR INTERVAL = 0.1 FEET

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FIGURE 3
REMEDIAL INVESTIGATION
SURFACE SOIL AND GROUNDWATER CONTAMINATION SUMMARY
FORMER SCOLITE PROPERTY
2 MADISON STREET
TROY, NEW YORK
HRP # TRO2004.P2

MAP REFERENCE:
"FIGURE 3, EXCEEDANCES OF ALL COMPOUNDS IN GROUNDWATER & SURFACE SOILS (COMMERCIAL SCOs) CREATED BY NYSDEC 10.19.2010

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MAP REFERENCE:
"FIGURE 4, EXCEEDANCES OF ALL COMPOUNDS IN SUBSURFACE SOILS (COMMERCIAL SCOs) CREATED BY NYSDEC 10.19.2010

FIGURE 4
REMEDIAL INVESTIGATION
SUBSURFACE SOIL
CONTAMINATION SUMMARY
FORMER SCOLITE PROPERTY
2 MADISON STREET
TROY, NEW YORK
HRP # TRO2004.P2

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FIGURE 5
REMEDIAL INVESTIGATION
SOIL VAPOR DATA
FORMER SCOLITE PROPERTY
2 MADISON STREET
TROY, NEW YORK
HRP # TRO2004.P2

MAP REFERENCE:
"FIGURE 5, SIGNIFICANT DETECTIONS OF VOLATILE ORGANIC COMPOUNDS IN SOIL VAPOR" CREATED BY NYSDEC 10.19.2010

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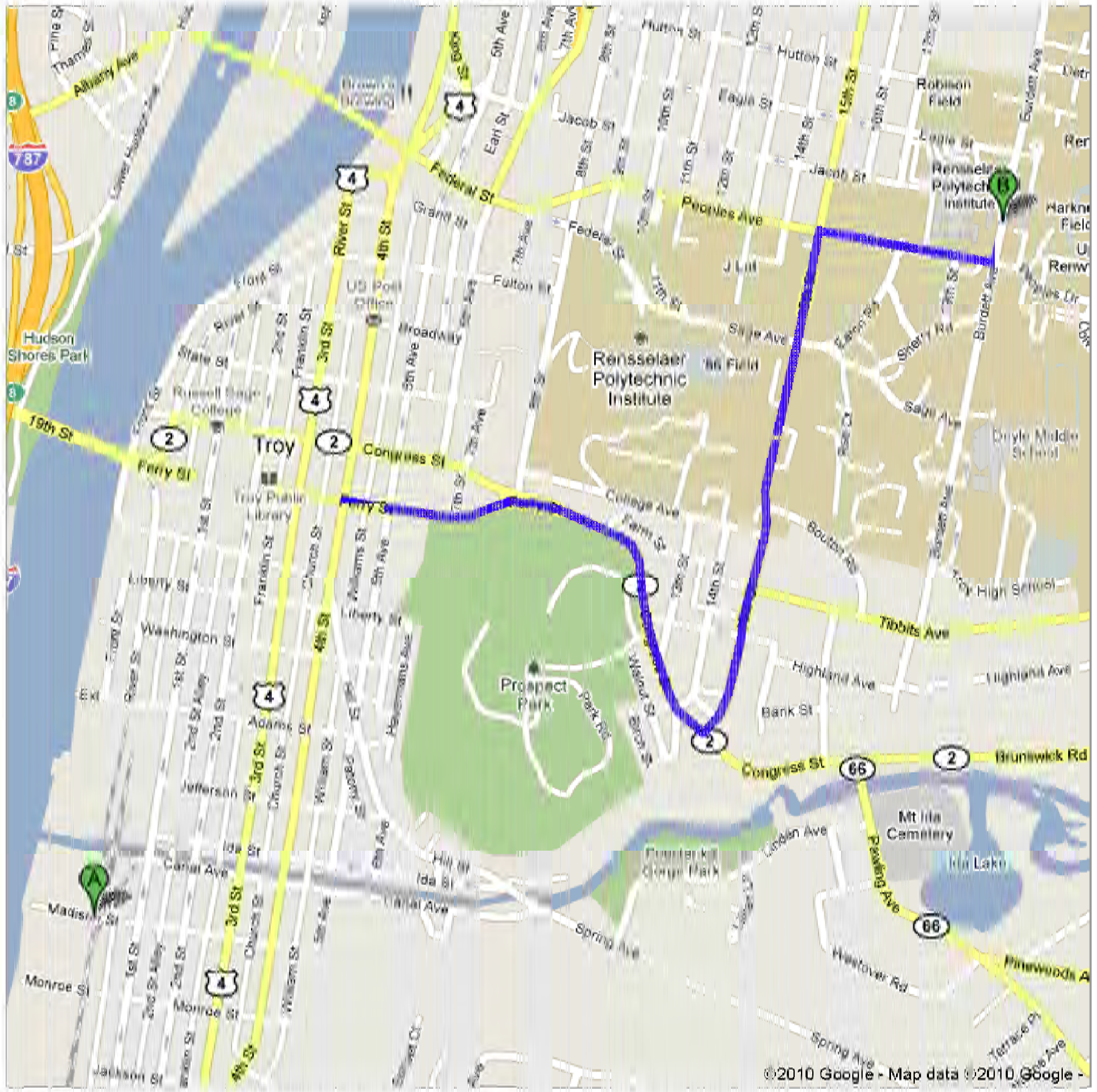
Google maps

Directions to 2215 Burdett Ave, Troy, NY 12180
2.7 mi – about 8 mins
Map and directions to Samaritan Hospital
2215 Burdett Avenue
Troy, New York



2 Madison St, Troy, NY 12180

1. Head **east** on **Madison St** toward **1st St Alley** About 2 mins	go 0.3 mi total 0.3 mi
2. Turn **left** at **4th St** About 2 mins	go 0.6 mi total 0.9 mi
3. Turn **right** at **Ferry St** About 1 min	go 0.3 mi total 1.2 mi
4. Continue onto **Congress St**	go 0.4 mi total 1.6 mi
5. Turn **left** at **15th St** About 2 mins	go 0.7 mi total 2.3 mi
6. Turn **right** at **Peoples Ave** About 1 min	go 0.3 mi total 2.6 mi
7. Take the 2nd **left** onto **Burdett Ave** Destination will be on the left	go 308 ft total 2.7 mi

2215 Burdett Ave, Troy, NY 12180

These directions are for planning purposes only. You may find that construction projects, traffic, weather, or other events may cause conditions to differ from the map results, and you should plan your route accordingly. You must obey all signs or notces regarding your route.

Map data ©2010 Google

Directons weren't right? Please find your route on maps.google.com and click "Report a problem" at the bottom left.

FIGURE 6
MAP OF ROUTE FROM SITE TO HOSPITAL
FORMER SCOLITE PROPERTY
2 MADISON STREET
TROY, NEW YORK
HRP # TRO2004.P2
NOT TO SCALE

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APPENDIX A

Excavation Work Plan

APPENDIX A – EXCAVATION WORK PLAN

A-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:

Ian Beilby, NYSDEC Project Manager
Regional Hazardous Waste Remediation Engineer
New York State Department of Environmental Conservation
625 Broadway, Albany, New York 12233-7016

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 soil cover, estimated volumes of contaminated soil to be excavated and any work that may impact an engineering control,
- A summary of environmental conditions anticipated in the work areas, including the nature and concentration levels of contaminants of concern, potential presence of grossly contaminated media, and plans for any pre-construction sampling;
- A schedule for the work, detailing the start and completion of all intrusive work,
- A summary of the applicable components of this EWP,
- A statement that the work will be performed in compliance with this EWP and 29 CFR 1910.120,
- 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 all required chemical testing results.

A-2 SOIL SCREENING METHODS

Visual, olfactory and instrument-based soil screening will be performed by a qualified environmental professional during all 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.

A-3 STOCKPILE METHODS

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

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

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

A-4 MATERIALS EXCAVATION AND LOAD OUT

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

The owner of the property and its contractors are solely responsible for safe execution of all invasive and other work performed under this Plan.

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

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

A truck wash will be operated on-site. The qualified environmental professional will be responsible for ensuring that all outbound trucks will be washed at the truck wash before leaving the site until the activities performed under this section are complete.

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

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

A-5 MATERIALS TRANSPORT OFF-SITE

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

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

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

Truck transport routes are as follows: From North - take Route 4, Right onto Madison Ave, site will be on right side at the end of Madison; From South - take Route 4, Left onto Madison Ave, site will be on right side at the end of Madison. All trucks loaded with site materials will exit the vicinity of the site using only these approved truck routes. This is the most appropriate route and takes into account: (a) limiting transport through residential areas and past sensitive sites; (b) use of city mapped truck routes; (c) prohibiting off-site queuing of trucks entering the facility; (d) limiting total distance to major highways; (e) promoting safety in access to highways; and (f) overall safety in transport; [(g) community input [where necessary]]

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

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

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

A-6 MATERIALS DISPOSAL OFF-SITE

All soil/fill/solid waste excavated and removed from the site will be treated as contaminated and regulated material and will be transported and disposed in accordance with all local, State (including 6NYCRR Part 360) and Federal regulations. If disposal of 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 pre-excavation notification. This will include estimated quantities and a breakdown by class of disposal facility if appropriate, i.e. hazardous waste disposal facility, solid waste landfill, petroleum treatment facility, C/D recycling facility, etc. Actual disposal quantities and associated documentation will be reported to the NYSDEC in the Monthly Inspection 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).

A-7 MATERIALS REUSE ON-SITE

Chemical criteria for on-site reuse of material have been approved by NYSDEC and are listed in Table 25. The qualified environmental professional will ensure that procedures defined for materials reuse in this ISMP are followed and that unacceptable material does not remain on-site. Contaminated on-site material, including historic fill and contaminated soil, that is acceptable for re-use on-site will be placed below the demarcation layer or impervious surface, and will not be reused within a cover soil layer, within landscaping berms, or as backfill for subsurface utility lines.

Any soil or demolition material proposed for reuse on-site will be sampled for asbestos and the results will be reported to the NYSDEC for acceptance. Concrete crushing or processing on-site will not be performed without prior NYSDEC approval. Organic matter (wood, roots,

stumps, etc.) or other solid waste derived from clearing and grubbing of the site will not be reused on-site.

A-8 FLUIDS MANAGEMENT

All 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 not be recharged back to the land surface or subsurface of the site, but will be managed off-site.

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.

A-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 RAWP. The demarcation layer, consisting of orange snow fencing material 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 Interim 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 Monthly Inspection Report and in any updates to the Interim Site Management Plan.

A-10 BACKFILL FROM OFF-SITE SOURCES

All materials proposed for import onto the site will be approved by the qualified environmental professional and will be in compliance with provisions in this ISMP 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.

All 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 are listed in Table 25. 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.

A-11 STORMWATER POLLUTION PREVENTION

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

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

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

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

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

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

A-12 CONTINGENCY PLAN

If 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 monthly inspection reports prepared pursuant to Section 5 of the ISMP.

A-13 COMMUNITY AIR MONITORING PLAN

A figure showing the location of air sampling stations based on generally prevailing wind conditions will be provided if necessary. These locations 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. Exceedances of action levels listed in the CAMP will be reported to NYSDEC and NYSDOH Project Managers.

A-14 ODOR CONTROL PLAN

This odor control plan is capable of controlling emissions of nuisance odors off-site. Specific odor control methods to be used on a routine basis will include limiting the size of open excavations and soil stockpiles, covering open excavations and stockpiles with tarps and other covers. If necessary, spraying of active excavations and stockpiles with detergents or odor-suppressing foams will be conducted. If nuisance odors are identified at the site boundary, or if odor complaints are received, work will be halted and the source of odors will be identified and corrected. Work will not resume until all nuisance odors have been abated. NYSDEC and NYSDOH will be notified of all odor events and of any other complaints about the project. Implementation of all odor controls, including the halt of work, is the responsibility of the property owner's Remediation Engineer, and any measures that are implemented will be discussed in the Monthly Inspection Report.

All necessary means will be employed to prevent on- 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.

A-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 for road wetting. The truck will be equipped with a water cannon capable of spraying water directly onto off-road areas including excavations and stockpiles.
- Clearing and grubbing of larger sites will be done in stages to limit the area of exposed, 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.

A-16 OTHER NUISANCES

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

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

APPENDIX B

Metes and Bounds

Place Holder

Metes and Bounds will be inserted at a later date

APPENDIX C

Environmental Easement

Place Holder

Environmental Easement will be inserted at a later date

APPENDIX D

Health and Safety Plan and Community Air Monitoring Plan

SITE-SPECIFIC
HEALTH AND SAFETY PLAN

FOR

FORMER SCOLITE SITE
2 MADISON STREET
TROY, NY 12180

HRP # TRO2004.P2

JUNE 2010

Prepared by:

HRP *Associates, Inc.*

Engineering and Geology
Malta Business Commons
100 Saratoga Village Blvd., Suite 27
Malta, New York 12020

Disclaimer

HRP ASSOCIATES DOES NOT GUARANTEE THE HEALTH OR SAFETY OF ANY PERSON ENTERING THIS SITE. DUE TO THE POTENTIAL HAZARDS OF THIS SITE AND THE ACTIVITY OCCURRING THEREON, IT IS NOT POSSIBLE TO DISCOVER, EVALUATE, AND PROVIDE PROTECTION FOR ALL POSSIBLE HAZARDS WHICH MAY BE ENCOUNTERED. STRICT ADHERENCE TO THE HEALTH AND SAFETY GUIDELINES SET FORTH HEREIN WILL REDUCE, BUT NOT ELIMINATE, THE POTENTIAL FOR INJURY AT THIS SITE. THE HEALTH AND SAFETY GUIDELINES IN THIS PLAN WERE PREPARED SPECIFICALLY FOR THIS SITE FOR USE UNDER DIRECT HRP SUPERVISION AND SHOULD NOT BE USED ON ANY OTHER SITE.

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B Supervisor's Investigation Report
C Equipment Calibration Log
D Scope of Work

1.0 EMERGENCY PHONE NUMBERS

Site Name: Scolite

Address: 2 Madison Street

City, State: Troy, NY 12180

Site Contact: Bill Roehr
Deputy Planning Commissioner, City of Troy
Troy City Hall, One Monument Square, Troy NY 12180
(518) 378-8439

In case of emergency, the following phone numbers should be used. Site personnel should familiarize themselves with the location of the nearest telephones. The Emergency Action Plan is contained in Section 8.0.

NOTE: **When contacting the local authorities be sure to give: your name, facility name, full address, telephone number, and the nature of the emergency.**

Troy Fire Department, Ambulance, Police Department:	911
Troy Police Station (361 3rd Street – 0.3 mile away)	911 or (518-270-5157)
Upstate NY Poison Control Center:	(800) 222-1222
NYSDEC Spill Hotline:	(800) 457-7362
National Response Center:	(800) 424-8802
U.S. EPA (Region 2)	(212) 637-3000
NY State Police Barracks Troop G:	(518) 279-4426

Local Hospital: Samaritan Hospital

Address: 2215 Burdett Avenue, Troy NY 12180

Hospital Telephone: (518) 271-3300

Travel Distance (approx.): 2.8 miles Travel Time (approx.): 10 minutes

Directions (Map attached, as Figure 3):

1. Head **east** on **Madison St** toward **Harrison St**	0.3 mi
2. Turn **left** at **4th St/US-4 N**	0.6 mi
3. Turn **right** at **Ferry St/RT-2 E, co**ntinue to follow RT-2 E	0.7 mi
4. Turn **left** at **15th St**	0.9 mi
5. Turn **right** at **Eagle St**	0.1 mi
6. Turn **right**	410 ft

2.0 INTRODUCTION

2.1 Purpose and Scope

This Site Specific Health and Safety Plan (HASP) addresses the health and safety practices that will be employed by all HRP Associates, Inc. (HRP). The scope of the project will include the installation of test pits and sampling of existing groundwater monitoring wells on the subject property. Potential contaminants include several semi-volatile organic compounds (SVOCs) and metals detected at levels exceeding guidance values in subsurface soils, surface soils, and groundwater.

This HASP has been developed in accordance with HRP's Corporate Safety and Health Program as required under OSHA's Hazardous Waste Operations standard (29 CFR 1910.120). As previously mentioned, this Plan has been developed to establish minimum standards for project oversight and environment sampling activities to protect the health and safety of HRP personnel and HRP's subcontractors. All HRP site personnel have received the required level of training and field experience as required under subpart (e) of the standard, and have received medical examinations in accordance with HRP's medical surveillance program as required under subpart (f) of the standard. Non-HRP personnel will not be permitted in the Exclusion Zones unless they have received training and medical surveillance under the standard.

This Plan is to be used only for project oversight conducted by HRP at the Scoltie site located at 2 Madison Street, Troy, NY. All HRP personnel shall be familiar with this HASP prior to conducting proposed site work. This plan must be present on-site and be available for reference/inspection when the subject site work is being conducted.

2.2 General Information

Site Name:	SCOLITE
Site Address:	2 MADISON STREET, TROY, NY 12180
Site Contact:	Bill Roehr, Deputy Planning Commissioner, City of Troy Troy City Hall, One Monument Square
Phone Number:	(518) 378-8439

2.3 Site Description

The site comprises 5.7 acres at the corner of First and Madison Streets in the City of Troy, Rensselaer County. The site is located in an urban and industrial area and is bordered by the Hudson River to the west, the Poestenkill Canal to the north, and the CSX railroad tracks to the east. A portion of the site is proposed as the location for the Upper Hudson Rivers and Estuaries Satellite Center (UHRESC).

In May 2008, a fire consumed the majority of the buildings onsite. During the demolition of the building remnants, friable asbestos from the transite roofing was mixed in with the brick rubble. The brick and debris mixed with asbestos, was stockpiled on the northern end of the site. Drums containing petroleum based oils located near the stockpile leaked and soaked a portion of the brick debris pile.

2.4 Personnel Designations

The following HRP personnel are designated to perform the stated project activities and to assure that the requirements of the HASP are met. Table 2 provided an outline of the designated personnel and their responsibilities.

Site Personnel:

Project Manager:	Jeffrey R. Sotek, P.E. C.S.P., CIH
Health and Safety Manager (HSM):	Jeffrey R. Sotek, P.E. C.S.P., CIH
Health and Safety Officers (HSO):	Matt Finkenbinder, Primary Corinna Martino, Alternate
Security Officer/Recordkeeper:	Matt Finkenbinder, HRP
Field Team members/Company:	Matt Finkenbinder, HRP Corinna Martino, HRP

Public Information Officer: Bill Roehr, Deputy Planning Comm., City of Troy

3.0 AREAS OF ENVIRONMENTAL CONCERN

3.1 Scope of Work

Based on HRP's proposal and discussions with the City of Troy representatives, the Scope of Work consists of the installation of six (6) test pits across the subject site and the sampling of the existing eight (8) groundwater monitoring wells. HRP will collect one representative soil sample from each test pit and one duplicate sample. The soil samples will subsequently be submitted to a state-certified analytical laboratory for analysis of Target Compound List (TCL) VOCs + Tentatively Identified Compounds (TICs), TCL SVOCs + TICs, TAL Metals (Total and Dissolved) + TICs, PCBs/Pesticides + TICs, and Total Organic Carbon. Groundwater samples, plus one duplicate sample, will be collected via Environmental Protection Agency (EPA) Low-Flow Techniques. Groundwater samples will be submitted for analysis of TCL VOCs, SVOCs, TAL Metals (Total and Dissolved), PCBs/Pesticides, and Total Organic Carbon.

4.0 HAZARD ANALYSIS

The overall health & safety risk for HRP personnel from environmental investigation activities is considered low due to the minimal contact personnel will have with potentially contaminated soil and groundwater during the investigation activities. Hazards are most likely to be encountered by HRP personnel during the installation of test pits and during monitoring well sampling. Suspected hazards are summarized below.

4.1 Physical Hazards

A. Slip, trip, fall
B. Cold/Heat stress
C. Traffic
D. Heavy Machinery
E. Elevated Noise
F. Underground Utilities
G. Adverse Weather
H. Excavation Instability
I. Petroleum/Chemical Vapors
J. Dust
K. Vectors (e.g. vagrants, small wild animals)
L. Drowning
M. Illumination

4.2 Chemical Hazards

Presented in Table 1 is a list of chemical substances potentially present on site, along with odor threshold, permissible exposure limit (PEL), threshold limit value (TLV), OSHA ceiling, IDLH concentration, route of exposure and symptoms of acute exposure, if any. Additional substances can be referenced in the *Niosh Pocket Guide to Chemical Hazards*, which will be provided on-site by the Health and Safety Officer

4.3 Environmental Hazards

The environmental hazards that have been identified on-site are slip/trip/fall, cold/heat stress, traffic, heavy machinery, elevated noise, underground utilities, adverse weather, dust, and vectors.

4.4 Additional Hazards

Drowning is a potential physical hazard at the site. HRP personnel will remain at least ten (10) feet away from the Hudson River and Poestenkill Creek water line/bulkhead on-site. No other potential hazards have been identified.

4.5 Confined Space Entry

HRP personnel are not authorized or trained to enter confined spaces. Confined space work is not part of the scope of work for this project.

4.6 Hazard Analysis Summary/Minimization

See the Hazard Analysis Summary presented in Section 4.1 through 4.5 for a listing of the various physical, chemical, and environmental hazards presumed to exist on-site. The risk of these hazards will be minimized by:

- Engineering controls;
- The use of the buddy system;
- Postponement of work during poor weather conditions;
- Maintenance of a clean, organized work area;
- Avoid extended, direct exposure to contaminated soil, groundwater or soil gas;
- Air quality monitoring with PID and Dust Tracker;
- Utilizing experienced personnel trained in both their job functions and health and safety protocols;
- Use cold/heat stress reduction techniques, including drinking adequate fluids, work scheduling; and
- Utilization of personal protective equipment.

In addition to the hazard minimization techniques listed above, additional hazard minimization information can be found in the following sections of HRP's (Standard Operating Procedure) SOPs:

- SOP 6.2.2 Engineering Controls/Work Practices
- SOP 6.2.4 Illumination/Sanitation
- SOP 6.2.5 Site Communications
- SOP 6.2.6 Site Hazard Communication

- SOP 6.2.7 Personal Protective Equipment
- SOP 6.2.8 Community Relations
- SOP 6.3.2 Excavations
- SOP 6.3.5 Buddy System
- SOP 6.3.6 Donning/Doffing Equipment
- SOP 6.3.7 Noise
- SOP 6.3.8 Heat Stress Control
- SOP 6.3.9 Cold Stress Control
- SOP 6.3.10 Control/Disposal of Contaminated/Waste Materials
- SOP 6.3.11 Rain/Electrical Storms/Snow/Ice
- SOP 6.3.14 Utility Markouts

The full text of the SOPs can be found in HRP Associates' Corporate Safety and Health Program.

4.7 Monitoring Procedures

The following environmental monitoring instruments/procedures shall be used on-site at the specified intervals.

Instrument/Procedure	Sampling Interval
• Photoionization Detector (PID) in the breathing zone	Periodically as deemed by HSO
• Dust Tracker	Programmable

Background ambient air levels will be established outside the exclusion zone prior to commencement of site work. Ambient air sampling will occur in the breathing zone of site workers for comparison to the action levels (described below). Additionally, air sampling will be conducted in the vicinity of any intrusive exploration (i.e. near excavations, test borings, etc.) to determine if any contaminants are present.

The following Action Levels will be used:

Instrument	Action Level	Level of Protection or Action Required
PID	No reading above background	▪ No action required. ▪ Continue PID monitoring. ▪ Level D protection.
PID	Up to 5 ppm above background	▪ Evacuate exclusion zone. ▪ Recheck levels after 15 minutes. ▪ If levels are sustained, contact Health and Safety Manager. ▪ Use engineering controls to lower breathing zone vapors. ▪ Level C protection (at the Health & Safety Manager's direction).
PID	>5 ppm above background	▪ Evacuate exclusion zone. ▪ Recheck levels after 15 minutes. ▪ Use engineering controls to lower breathing zone vapors. ▪ If levels are sustained, contact Health and Safety Manager, and re-evaluate HASP.

When an action level is equaled or exceeded, the work area should be evacuated and the area re-tested with the sampling device. If the appropriate action level continues to be exceeded, the HSO will have to assess the use of engineering controls to lower vapor levels or availability of required increased personal protection equipment before authorizing re-entry.

Calibration of all instruments will occur at least once per day. A calibration log has been included in Appendix C.

5.0 ENGINEERING CONTROL MEASURES

5.1 Air Monitoring

In order to determine potential health hazards and to determine the level of personal protection needed during sampling activities within the areas of concern, a photo-ionization detector will be periodically operated to monitor air quality for the purpose of ensuring minimal exposure to volatile organic compounds. Please refer to Section 4.7 of this plan for specific air monitoring procedures/action levels.

5.2 Protective Zones

Protective zones will be established by the Health and Safety Officer and Martin Environmental Services, Inc. prior to the start of field work associated with those phases of the Plan. The purpose of the protective zones is to prevent potential cross-contamination of adjacent areas as well as to protect project personnel from exposure to contaminated areas.

Protective zones shall be delineated in the field prior to work as follows:

- *Exclusion Zone*: This is the contaminated area in which intrusive activities are performed. The exclusion zone is an area surrounding the excavator or drill rig and sampling activities. A single access point for entrance and exit should be established and maintained, if possible.

- *Support Zone*: This zone will be utilized by equipment and vehicle storage and will be kept free of contaminated material. The Site Safety Officer will determine the location of this zone.

- *Contaminant Reduction Zone*: This zone is a transition zone located between the Exclusion Zone and the Support Zone and is utilized to decontaminate personnel and equipment.

6.0 PERSONAL PROTECTIVE EQUIPMENT (PPE)

6.1 Level of Protection

As previously discussed in Section 4.0, the overall health and safety risk associated with chemical hazards for HRP personnel are considered minimal/low. This is primarily due to the low concentrations of chemical contaminants expected based on results of previous sampling of site soils and groundwater as well as the expected minimal contact personnel will have with any potentially contaminated media. Therefore, the minimal level of protection for HRP during the conduct of all the environmental work performed at the site will be modified Level D. Modified Level D PPE includes:

- Work gloves,
- Steel toe work boots,
- Hard hat,
- Safety vests
- Hearing protection
- Safety glasses
- Disposable outer boots or boot coverings
- Nitrite or latex gloves

If site conditions warrant, an upgrade to Level C (refer to Section 4.7 for the appropriate action levels). Level C includes:

- Half or Full face air purifying respirator
- Same as Level D, but also includes tyvek taped pant/boot and glove/shirt

If it is determined protection beyond Level C is required, HRP will re-evaluate the HASP as well as the site conditions and may revise the HASP as necessary.

7.0 DECONTAMINATION

7.1 Decontamination Procedures

All personnel and equipment leaving the exclusion zone must be properly cleaned and decontaminated. When there is evidence of chemical contamination during the site operations, all personnel will be decontaminated under the direction of the HSO. Cleanup and/or decontamination of personnel shall consist of washing off excessively soiled PPE with an Alconox detergent scrub and water. At the very least, all personnel should wash their hands and face before leaving the exclusion zone. After washing, all disposable clothing (tyvek, gloves, etc.) will be removed and placed in a double lined plastic bag. Waste paper towels will also be placed in the double lined plastic bag.

7.2 Emergency Decontamination

If immediate medical attention is required in an emergency, decontamination will be performed after the victim has been stabilized. If a worker has been exposed to an extremely toxic or corrosive material, then emergency decontamination will consist of flushing with copious amounts of water. If the victim can not be decontaminated because it will interfere with emergency medical aid being administered, then the victim should be wrapped with plastic or other available items (i.e. an uncontaminated coverall) to reduce potential contamination of other personnel or medical equipment.

If a site worker has been overcome by heat related illness, then any protective clothing should be removed immediately. In the case of non-medical emergency evacuation, decontamination should be performed as quickly as possible, unless instant evacuation is necessary to save life or prevent injury.

8.0 EMERGENCY ACTION PLAN

In the event of a worker injury, fire, explosion, spill, flood, or other emergency that threatens the safety and health of site workers, the following procedure will be followed.

1. If the emergency originates within the work area covered by this Plan, HRP's HSO shall act as the Emergency Coordinator. The emergency evacuation signal is an air horn or a loud yell. All emergency situations (including worker injuries, no matter how small) will be reported to the HSO, who will determine the appropriate emergency response, up to and including evacuation. Only the HSO may initiate evacuation of the work area. The HSO will be responsible for reporting any emergency situation to the appropriate authorities, using a telephone or other appropriate method.

2. In the case of an evacuation, site workers will exit the site along the safest route(s) and assemble with team members at the rally point (Figure 2). Those workers in the Exclusion Zone will follow the emergency decontamination procedures outlined in Section 7.2. Accounting of all site personnel will be conducted by the HSO using the personnel log at a location determined by the HSO.

3. HRP personnel are not permitted to participate in handling the emergency. Fire and medical emergencies will be handled by the local fire department and ambulance service. In the case of a spill of hazardous materials, one of the following commercial spill clean-up firms should be contacted:

    1. Op-tech Environmental
       Albany, NY (518) 452-9641

    2. Marcor Environmental
       Albany, NY (518) 456-5909

    3. Clean Harbors Environmental Services
       Glenmont, NY (518) 434-0149

    In addition, the HSO/Project Manager must advise the site contact that the NYS Spill hotline should be contacted and, if the spill quantity is greater than the Reportable Quantity (RQ) under CERCLA and/or SARA, the National Response Center and Local Emergency Planning Committee should also be contacted.

    If the spill begins to flow overland and threatens to contaminate a storm drain or surface water, HRP personnel may attempt to contain and isolate the spill using any available resources, but only if, in the judgement of the HSO, such action will not expose the workers to dangerous levels of hazardous substances and is necessary to preserve life or property.

4. Once initial emergency procedures to protect worker safety and health and control the emergency have been completed, the HSO will apprise the site contact and the HRP project manager of the nature of the emergency and the control actions taken. The HSO will also complete a Supervisor's Investigation Report form (a blank investigation report form is included as Appendix B) and submit this form to HRP's Project Manager and Health and Safety Manager within 24 hours.

5. All site workers will be familiarized with the above procedures during the pre-entry briefing to be conducted before site work begins.

9.0 TRAINING/MEDICAL SURVEILLANCE

9.1 Training Requirements

All HRP personnel who enter the work zone and/or Exclusion Zone must have successfully completed the 40 hour or 24 hour training requirement outlined in 29 CFR 1910(e). If the 40 hour or 24 hour training of any person occurred more than 12 months prior to commencement of work, then that person must have attended an 8 hour refresher course within the 12 months prior to commencement of work. If respirators are in use in the Exclusion Zone, then all personnel must have undergone respirator training and a fit test within the last 12 months. Training certificates and records for each HRP employee are on file at HRP.

9.2 Pre-Entry Briefing

Prior to commencement of work in area of suspected contamination, HRP's Health and Safety officer will conduct a pre-entry briefing with on-site HRP personnel:

- Name of the HSO and person responsible for the personnel log.
- Description of the parcel as well as location of emergency telephones and the location/boundaries of the Exclusion Zone, Contamination Reduction Zone, and Support Zone, if established.
- Review of hospital locations and directions.
- Review of tasks to be conducted within the parcel by the Contractor's personnel.
- Review of the Emergency Action Plan and rally point (Figure 2), including the nearest emergency communications and telephone numbers.
- The nature, level, and degree of anticipated hazards (physical, chemical, environmental, etc.) involved in the site work.
- Required personal protective equipment.
- Decontamination procedures.

The HSO should also, at this time, ensure that all on-site HRP personnel have read the HASP and signed the last page of the original (Section 11.0). If additional information on the site becomes available, the HSO will call additional briefings as necessary.

9.3 Medical Surveillance

All HRP personnel entering the Exclusion Zone must have had a physical within the 12 months prior to commencement of site work. A physician's written opinion regarding fitness for work for each HRP employee including work limitations, if any, is on file at HRP. Any work limitations for site personnel, or relevant medical information (i.e. allergic reactions to medication) should be listed below.

Limitations:

None known.

10.0 AUTHORIZATIONS

Personnel authorized to enter the Exclusion Zone include the personnel listed in Section 3.0. Persons not listed in Section 3.0 may enter the exclusion Zone only if the appropriate training and medical fitness certifications have been supplied to either the HRP Project Manager or the Health and Safety Manager and the HSO or his designee on-site has approved site entry. All personnel entering or leaving the Exclusion Zone must sign in and sign out with the record keeper. A personnel log is included in Appendix A.

11.0 FIELD TEAM REVIEW

All HRP personnel shall sign below after reading the HASP and before entering any exclusion zones as set forth by the contractor's site safety officer. Personnel shall agree with the following statement:

"I have read and understand this site specific Health and Safety Plan. I will comply with the provisions set forth therein."

Printed Name	Signature	Date

12.0 APPROVALS

By their signature, the undersigned certify that this HASP is approved and will be utilized during the installation of test pits and groundwater sampling at the Scolite site located at 2 Madison Street in Troy.

_____ _____

Health and Safety Officer Date

_____ _____

Project Manager Date

_____ _____

Health and Safety Manager Date

ADDITIONAL APPROVALS (OR RE-APPROVALS)	
NAME	DATE

APPENDIX A

PERSONNEL LOG

PERSONNEL LOG

NAME	REPRESENTING	DATE	TIME IN	TIME OUT

PERSONNEL LOG

NAME	REPRESENTING	DATE	TIME IN	TIME OUT

APPENDIX B

SUPERVISOR'S INVESTIGATION REPORT

HRP ASSOCIATES, INC.
SUPERVISOR'S INVESTIGATION REPORT

<table>
<tr><td>Name</td><td>Age</td><td>Time</td><td>Date</td></tr>
<tr><td>Department/Project Manager</td><td colspan="3">Site Name/Location</td></tr>
<tr><td>WHAT HAPPENED?</td><td colspan="3">Describe what took place or what caused you to make this investigation.</td></tr>
<tr><td>WHY DID IT HAPPEN?</td><td colspan="3">Get all the facts by studying the job and situation involved. Question by use of
WHY – WHAT – WHERE –
WHEN – WHO- HOW</td></tr>
<tr><td rowspan="2">WHAT SHOULD BE DONE?</td><td colspan="3">Determine which of the 12 items under EMP require additional attention.</td></tr>
<tr><td><u>Equipment</u>
Select
Arrange
Use
Maintain</td><td><u>Material</u>
Select
Place
Handle
Process</td><td><u>People</u>
Select
Place
Train
Lead</td></tr>
<tr><td>WHAT HAVE YOU DONE THUS FAR?</td><td colspan="3">Take or recommend action, depending upon your authority. Follow up – was action effective?</td></tr>
<tr><td>HOW WILL THIS IMPROVE OPERATIONS?</td><td colspan="3">OBJECTIVE
Eliminate job hindrances</td></tr>
<tr><td>Investigated by:</td><td>Date</td><td><u>Reviewed By</u></td><td>Date</td></tr>
</table>

TABLE 1.0

CHEMICAL HAZARDS KNOWN OR SUSPECTED ON-SITE

CONTAMINANT	ODOR THRESHOLD	OSHA PEL[1]	TLV (ACGIH)	OSHA CEILING[2] /STEL	IDLH CONC.	ROUTES OF EXPOSURE	SYMPTOMS OF ACUTE EXPOSURE[3]
1,1,1 Trichloroethane	44 ppm	350 ppm	350 ppm	---	700 ppm	Inh, Ing, Con	Head, Lass, CNS, Derm
1,1,2-Trichloroethane	---	10 ppm	10 ppm	----	[100 ppm]	Inh, Ing, Abs, Con	Eyes, Nose Irrit, Resp Irrit, CNS, Liver, Kidney Damage, Derm, [Carc]
1,2,4 Trimethylbenzene 1,3,5 Trimethylbenzene		25 mg/m^3	25 ppm	25 mg/m^3	ND	Inh, Ing, Con	Irrit Eyes, Skin, Nose, Throat, Resp Sys, Bron, Hyprochronic Anemia, Head, Drow, Ftg, Dizz, Nau, Inco, Vomit, Conf, Chemical Pneu (aspir lig)
1,1' Biphenyl	0.0062 mg/m^3	0.2 ppm	0.2 ppm	---	100 mg/m^3	Inh	
1,1-Dichloroethane	120 ppm	100 ppm	100 ppm	---	3,000 ppm	Inh, Ing, Con	CNS Depres, Skin Irrit, Liver, Lung and Kidney Damage
1,1-Dichloroethylene	500 ppm	---	5 ppm	---	---	Inh, Con	CNS depress, Resp, [Carc]
1,2-Dichlorobenzene	50 ppm	50 ppm	25 ppm		200 ppm	Inh, Ing, Abs, Con	Irrit, Resp
1,2-Dichloroethylene	26-87 ppm	200 ppm	200 ppm	---	1,000 ppm	Inh, Ing, Con	Vomit, Irrit Eyes, Resp Sys; CNS Depres
1,2-Dichloropropane	130-190 ppm	75 ppm	75 ppm	---	[400 ppm]	Inh, Con, Ing	Eye irritation, Drow, light-headedness; irritated skin, [Carc]
1,3-Dichlorobenzene	---	----	---	----	---	----	----
1,4-Dichlorobenzene	20 ppm	75 ppm	10 ppm	----	[150 ppm]	Inh, Ing	[Carc], Eye Irrit, swelling around eye, headache, nausea, vomiting
1-Methylnaphthalene	0.02 ppm	---	---	---	---	---	---
2,4-Dichlorophenol	1.4007 mg/m^3	---	---	---	---	---	---
2,4-Dimethylphenol	0.001 mg/m^3	---	---	---	---	---	---
2-Methylnaphthalene	0.01 ppm	---	---	---	---	---	---
2-Methylphenol (o-cresol) [skin]	1.4 mg/L	5 ppm	5 ppm	---	250 ppm	Inh, Abs, Ing, Con	Confusion, depression, Resp Fail; difficulty breathing, irregular rapid respiration, weak pulse; skin, eye burns; dermatitis
3, 3'-Dichlorobenzidine	---	None	**---**	---	---	Inh, Abs, Ing, Con	Sens, Derm, Head, Dizz, Burns, GI Upset, [Carc]
4-Isopropyltoluene	---	---	---	---	---	Con, Inh, Ing	Defat, Eryt
Acenephthene	0.5048 mg/m^3	---	---	---	---	---	---
Acenaphthylene	---	---	---	---	---	---	---

TABLE 1.0

CHEMICAL HAZARDS KNOWN OR SUSPECTED ON-SITE

CONTAMINANT	ODOR THRESHOLD	OSHA PEL[1]	TLV (ACGIH)	OSHA CEILING[2] /STEL	IDLH CONC.	ROUTES OF EXPOSURE	SYMPTOMS OF ACUTE EXPOSURE[3]
Acetone	47.5 mg/m^3	1,000 ppm	500 ppm		2,500 ppm	Ing, Inh, Con	Head, Dizz; Irrit Eyes, Nose, Throat; Derm, CNS, Depress, Derm
Acetonitrile	70 mg/m^3	40 ppm	20 ppm	---	500 ppm	Inh, Ing, Abs, Con	Asphy; Nau, Vomit; Chest Pain; Weak, Stupor, Convuls; Eye Irrit
Aldrin	---	0.25 mg/m^3	0.25 mg/m^3	---	25 mg/m^3	Inh, Abs, Ing, Con	Head, Dizz, Nau, Vomit, Mal, Myo, [Carc]
Anthracene (Coal Tar Pitch)	---	0.2 mg/m^3			[80 mg/m^3]	Inh, Con	Derm, bron, [carc]
Antifreeze		50 ppm	100 mg/m^3 (aerosol)	---	ND	Inh, Ing, Con	Irrit Eyes, Skin, Nose, Throat, Nau, Vomit, Abdom Pain, Lass, Dizz, Stup, Conv, CNS, Depres, Skin Sen
Arsenic	----	0.010 mg/m^3	0.01 mg/m^3	----	[5 mg/m^3]	Abs, Inh, Con, Ing	Derm; GI; Resp Irrit; ulceration of nasal septum; Resp, Irrit, Hyper Pig of Skin, [Carc]
Asbestos	----	0.1 f/cc	0.1 f/cc	----	----	Inh, Ing	Shortness of Breath, chest or abdominal pain, and irritation to the skin or eyes. [Carc]
Barium (elemental)	---	0.5 mg/m^3	0.5 mg/m^3		50 mg/m^3 (barium components)	Inh, Ing, Con	Resp. Irrit, GI, Muscle Spasm, Eye Irrit, Slow Pulse; skin burns
Benzene	4.7 ppm	1 ppm	0.5 ppm	5 ppm	[500 ppm]	Inh, Ing, Abs, Con	Irrit Eyes, Nose, Throat; Head, Nau, Derm, Ftg, Anor, Lass, [Carc]
Benzo(a)anthracene (coal tar pitch)	---	0.2 mg/m^3			[80 mg/m^3]	Inh, Con	[Carc], Derm, Bron
Benzo(a)pyrene (coal tar pitch)	---	0.2 mg/m^3	---		[80 mg/m^3]	Inh, Con	[Carc], Derm, Bron
Benzo(b)fluoranthene (coal tar pitch)	---	0.2 mg/m^3	---		[80 mg/m^3]	Inh, Con	[Carc], Derm, Bron
Benzo(g,h,i)perylene (coal tar pitch)	---	0.2 mg/m^3			[80 mg/m^3]	Inh, Con	[Carc], Derm, Bron
Benzo(k)fluoranthene (coal tar pitch)	---	0.2 mg/m^3			[80 mg/m^3]	Inh, Con	[Carc], Derm, Bron
Bis (2-ethylhexyl) Phthalate	N/A	5 mg/m^3	5 mg/m^3	10 mg/m^3	[5,000 mg/m^3]	Inh, Ing, Con	[Carc], Irrit Eyes

TABLE 1.0

CHEMICAL HAZARDS KNOWN OR SUSPECTED ON-SITE

CONTAMINANT	ODOR THRESHOLD	OSHA PEL[1]	TLV (ACGIH)	OSHA CEILING[2] /STEL	IDLH CONC.	ROUTES OF EXPOSURE	SYMPTOMS OF ACUTE EXPOSURE[3]
Cadmium (dust)	---	0.005 mg/m^3	Lowest concentration feasible 0.01 mg/m^3	---	[9 mg/m^3]	Inh, Ing	CNS, Resp, Irrit, Vomit, Cough, Head, Chills, Nau, Diarr, Pulm Edema, Dysp, Chest Tight, [Carc]
Carbazole	---	---	---	---	---	Inh	---
Carbon disulfide	0.1-0.2 ppm	20 ppm	1 ppm	30 ppm	500 ppm	Inh, Abs, Ing, Con	Diz, Head,Ftg, Ner, anorexia, trembling hands, loss of fine motor coord, gastritis, eye, skin burns, Derm
Carbon Tetrachloride	21.4 ppm	10 ppm	5 ppm	25 ppm	[200 ppm]	Inh, Abs, Con, Ing	CNS Depres, Nau, Vomit, Irrit, Irrit Eyes, Skin, Drow, Dizz, [Carc]
Chlorobenzene	0.98 mg/m^3	75 ppm	10 ppm	---	1,000 ppm	Inh, Ing, Con	Irrit, Drow, CNS, Depres, Eyes, Skin, Nose, Inco.
Chloroform	85 ppm	50 ppm	10 ppm	50 ppm	[500 ppm]	Inh, Ing. Con, Abs	Dizz, Dullness, Nau, Head, Ftg, Irrit Eyes, Skin, Conf, [Carc]
Chromium	---	1 mg/m^3	0.5 mg/m^3	---	250 mg/m^3	Inh, Ing, Con	Irrit Eyes, Sens Derm
Chrysene (coal tar pitch)		0.2 mg/m^3	---		[80 mg/m^3]	Inh, Con	Derm, Bron, [Carc]
Cis-1-2-Dichloroethylene	---	200 ppm	200 ppm	----	1000 ppm	Inh, Con, Ing	Irrit Eyes, Resp, CNS Depress
Copper (dusts and mists) (fumes)		1 mg/m^3 0.1 mg/m^3	1 mg/m^3 0.2 mg/m^3	----	100 mg/m^3	Inh, Ing, Con	Vomit, Derm, CNS, Irrit, Derm, Nau, Taste (metallic)
Cyanide	0.9 mg/m^3	5 mg/m^3	5 mg/m^3 (10 min)	5 mg/m^3	25 mg/m^3	Inh, Ing, Abs, Con	Weak, Head, Nau, Conf, Cyan
Dibenzo(a,h)anthracene						Inh, Ing	
Dichloromethane	540 mg/m^3	25 ppm	50 ppm	125 ppm	[2,300 ppm]	Inh, Abs, Ing, Con	Irrit Eyes, Skin, lass, drow, dizz, Numb, tingl, Nau, [Carc]
Diethylphthalate	---	None	5 mg/m^3	---	N.D.	Inh, Ing, Con	Irrit Eyes, Skin, Nose, Throat, Head, Dizz, Nau, Lac, Possible Polyneur, Vestibular Dysfunc, Pain, Numb, lass, Spasms in Arms and Legs
Di-n-octylphthalate	---	---	---	---	---	Inh, Ing, Con	---
Dimethylpthalate	---	5 mg/m^3	5 mg/m^3	---	2,000 mg/m^3	Inh, Ing, Con	Irrit, Resp, Abdom
Ethyl Benzene	8.7 mg/m^3	100 ppm	100 ppm	125 ppm	700 ppm	Inh, Abs, Con	Head. Irrit, Derm, Narc., Irrit Eyes, Skin; Coma
Fluoranthene		0.2 mg/m^3	0.2 mg/m^3			Ing, Inh	[Carc]
Fluorine	6 mg/m^3	0.1 ppm	1 ppm	2 ppm	25 ppm	Inh, Con	

TABLE 1.0

CHEMICAL HAZARDS KNOWN OR SUSPECTED ON-SITE

CONTAMINANT	ODOR THRESHOLD	OSHA PEL[1]	TLV (ACGIH)	OSHA CEILING[2] /STEL	IDLH CONC.	ROUTES OF EXPOSURE	SYMPTOMS OF ACUTE EXPOSURE[3]
Fuel Oil/#2	----	----	300 ppm	----		Inh, Abs, Ins, Con	Irrit Eyes, Skin, Derm, Head, Ftg, Blurred Vision, Dizz, Conf
Ideno(1,2,3-cd)pyrene		0.2 mg/m^3				Ing, Inh	
Lead (inorganic forms and dust as Pb)		0.05 mg/m^3	0.05 mg/m^3		100 mg/m^3	Inh, Ing, Con	Irrit, Cns, Vomit, Narco, Weak, Pall, Insom, Lass, Abdom, Constip
Mercury (organic alkyl compounds) [skin]		0.01 mg/m^3	0.01 mg/m^3	0.03 mg/m^3	2 mg/m^3	Inh, Abs, Ing, Con	Irrit Eyes, Skin; Cough & Chest Pain, Bron Pneatis, Tremor, Insom, Irrty, Indecision, Head, Ftg, Weak, Stomatitis, Salv, GI Dist, Anor, Low-wgt, Ataxia
Mercury (compounds)	----	0.1 mg/m^3	0.025 mg/m^3	0.1 mg/m^3	10 mg/m^3	Inh, Abs, Ing, Con	Irrit Eyes, Skin; Cough & Chest Pain, Bron Pneatis, Tremor, Insom, Irrty, Indecision, Head, Ftg, Weak, Stomatitis, Salv, GI Dist, Anor, Low-wgt, Ataxia
Methanol	13.1150 mg/m^3	200 ppm	200 ppm	---	6,000 ppm	Inh, Abs, Ing, Con	Irrit Eyes, Skin, Resp, Head, drow, dizz, Nau, Vomit, vis dist, Optic, derm
Methyl Ether	----	----	---	----	---	Inh	Poison
Methyl Ethyl Ketone (2-Butanone)	0.7375 mg/m^3	200 ppm	200 ppm	300 ppm	3,000 ppm	Inh, Con, Ing	Irrit Eyes, Skin, Nose, Throat, Head, Dizz, Vomit, Derm
Methylene Chloride	540 mg/m^3	25 ppm	50 ppm	125 ppm	[2,300 ppm]	Inh, Ing, Con, Abs	Ftg, Weak, dizz, drow, Numb, Tingle [carc], Irrit Eyes, Skin, Nau
Mineral Spirit	20 ppm	500 ppm	100 ppm	---	20,000 mg/m^3	Inh, Ing, Con	Irrit Eyes, Nose, Throat, Dizz, Derm, Chemical pneu
Methyl tert butyl ether (MTBE)	---	---	50 ppm	---		Inh, Abs	
Naphtha	0.86 ppm	100 ppm	400 ppm	---	1,000 ppm	Inh, Con, Ing	Light Head, Drow, Irrit, Derm, Irrit Eyes, Skin, Nose
Naphthalene	0.084 ppm	10 ppm	10 ppm	15 ppm	250 ppm	Inh, Abs, Ing, Con	Eye irritation; headache; confusion, excitement, malaise (vague feeling of ill-being); nausea, vomiting, abdominal pain; irritated bladder; profuse sweating; renal shutdown; dermatitis

TABLE 1.0

CHEMICAL HAZARDS KNOWN OR SUSPECTED ON-SITE

CONTAMINANT	ODOR THRESHOLD	OSHA PEL[1]	TLV (ACGIH)	OSHA CEILING[2] /STEL	IDLH CONC.	ROUTES OF EXPOSURE	SYMPTOMS OF ACUTE EXPOSURE[3]
Nickel (metal)	---	1 mg/m^3	1.5 mg/m^3	---	[10 mg/m^3]	Inh, Ing, Con	Head, Vert, Nau, Vomit, Pain, Cough, Weak, Convuls, Delirium, Pheuitis, Hyperpneo,[Carc]
Nitrobenzene	0.0235 mg/m^3	1 ppm	1 ppm	---	200 ppm	Inh, Abs, Ing, Con	Irrit Eyes, Skin, Anoxia, Derm, Anem, Methem
n-Butylbenzene	---	---	---	---	---	---	---
n-Propylbenzene	---	---	---	---	---	---	---
PCBs 42% chlorine (Aroclor 1242)	---	1 mg/m^3 (skin)	1 mg/m^3 (skin)	---	[5 mg/m^3]	Inh, Abs, Ing, Con	Irrit Eyes, Chloracne, Liver Damage [carc]
PCBs 54% chlorine (Aroclor 1254)	---	0.5 mg/m^3 (skin)	0.5 mg/m^3 (skin)	---	[5 mg/m^3]	Inh, Abs, Ing, Con	Irrit Eyes; Chloracne, Liver Damage [carc]
Petroleum Distillates	---	500 ppm	100 ppm		[1,100 ppm]	Inh, Ing, Con	Dizz, Drow, Head, Dry Skin, Nau, Irrit Eyes, Nose, Throat, [Carc]
Phenanthrene (Coal Tar Pitch)		0.2 mg/m^3	0.2 mg/m^3		[80 mg/m^3]	Inh, Con	Derm, bron, (carc)
Phenol	0.1786 mg/m^3	5 ppm	5 ppm	---	250 ppm	Inh, Abs, Ing, Con	Irrit Eyes, Nose, Throat, Anor, Low Wgt, Weak Musc Ache, Pain, Dark Urine, Cyan, Liver, Kidney Damage, Skin, Burns, Derm, Chronosis, Tremor, Convuls, Twitch
Pyrene		0.2 mg/m^3			[80 mg/m^3]	Inh, Con	[Carc]
Sec-Butylbenzene	---	---	---	---	---	---	---
Selenium	N/A	0.2 mg/m^3	0.2 mg/m^3	Unknown	1 mg/m^3	Inh, Ing, Con	Irrit, Head, Fever, Chills, Skin/Eye Burns, Metallic Taste, GI, Dysp, Bron
Silver (metal and soluble compounds as Ag)	----	0.01 mg/m^3	Metal = 0.1 mg/m^3 Soluble 0.01 mg/m^3		10 mg/m^3	Inh, Ing, Con	Blue-gray Eyes, Nasal Septum, Throat, Skin; Irrit, Ulcer, Skin, GI Dist
Tetrachloroethylene (a.k.a. perchloroethylene)	4.68 ppm	100 ppm	25 ppm	200 ppm	[150 ppm]	Inh, Ing, Con, Abs	Irrit Eyes, Skin, Nose, throat, Resp. Nau, flush face, Neck, dizz, inco, head, drow, eryth, [Carc]
Toluene	2.14 ppm	200 ppm	50 ppm	300 ppm	500 ppm	Inh, Abs, Ins, Con	Resp, Irrit, Ftg, Conf, Dizz, Head, Derm, Euph, Head, Dilated Pupils, Lac, Ner, Musc FTs, Insom, Pares, Derm, lass

TABLE 1.0

CHEMICAL HAZARDS KNOWN OR SUSPECTED ON-SITE

CONTAMINANT	ODOR THRESHOLD	OSHA PEL[1]	TLV (ACGIH)	OSHA CEILING[2] /STEL	IDLH CONC.	ROUTES OF EXPOSURE	SYMPTOMS OF ACUTE EXPOSURE[3]
Petroleum Distillates (naphtha)	10 ppm	100 ppm	400 ppm	---	1,000 ppm	Con, Inh, Ing	---
Trans 1,2-Dichloroethylene	0.3357 mg/m^3	200 ppm	200 ppm	---	1,000 ppm	Inh, Con	Irrit, Resp, CNS depress
Trichloroethylene	21.4 ppm	100 ppm	50 ppm	200 ppm	[1,000 ppm]	Inh, Con, Abs, Ing	Head, Vert, Nau, Vomit, Derm, Vis Dist, Tremors, Som, Nau, Irrit Eyes, Skin, Card Acc., Ftg, [Carc]
Trichlorofluoromethane	28 mg/m^3	1,000 ppm	1,000 ppm		2,000 ppm	Inh, Con, Ing	Inco, trem, derm, card, asph, frost
Trichlorotrifluoroethane	45 ppm	1,000 ppm	1,000 ppm	1,250 ppm	2,000 ppm	Inh, Con, Ing	Irrit Skin, throat, Drow, Derm, CSN, Depress
Vinyl Chloride	10-20 ppm	1 ppm	1 ppm	5 ppm	ND	Inh, Con	Lass, Abdom, Gi Bleeding; Hepatomegaly; Pallor or Cyan of Extremities; Liq: Frostbite; [Carc]
VM&P Naphtha (petroleum naphtha)	---	---	300 ppm	---	ND	Con, Ing, Inh	Irrit Eyes, Nose, Throat, Dizz, drow, head, nau, dry skin, chem. Pneumonitis
Xylene	4.5 mg/m^3	100 ppm	100 ppm	150 ppm	900 ppm	Inh, Ing, Abs, Con	Dizz, Drow, Irrit, Excite, Nau, Vomit, Eyes, Skin, Nose, Throat
Zinc (oxide)	---	5 mg/m^3	2 mg/m^3	---	500 mg/m^3	Inh	Dry Throat, Cough, Chills, Tight Chest, Blurred Vision
4,4' DDD	---	---	---	---	---	Ing, Inh, Con	---
4,4' DDE	---	---	---	---	---	Ing, Inh, Con	---
4,4' DDT	5.0725 mg/m^3	1 mg/m^3	1 mg/m^3	---	[500 mg/m^3]	Inh, Abs, Ing, Con	Irrit Eyes, Skin, Pares, Tongue, Lips, Face, Trem, Anxi, Dizz, Conf, Mal, Head, Lass, Conv, Paresi Hands, Vomit, [Carc]
Aldrin		0.25 mg/m^3	0.25 mg/m^3	---	[25 mg/m^3]	Inh, Abs, Ing, Con	Head, Dizz, Nau, Vomit, Mal, Myo [Carc]
Chlordane [skin]	0.0084 mg/m^3	0.5 mg/m^3	0.5 mg/m^3		[100 mg/m^3]	Inh, Abs, Ing, Con	Blurred vision, confusion, delirium, cough; abdominal pian, nausea, vomiting diarrhea; irritability, tremor, convulsions [Carc]
EDB	76.8 mg/m^3	20 ppm		30 ppm	[100 ppm]	Inh, Abs	Resp. Irr, Eye Irr. [Carc]
Endosulfan I Endosulfan II	---	0.1 mg/m^3	0.1 mg/m^3	---	N.D.	Inh, Abs, Ing, Con	Irrit, Skin, Nau, Conf, Agit, Flush, Dry, Trem, Conv, Head

TABLE 1.0

CHEMICAL HAZARDS KNOWN OR SUSPECTED ON-SITE

CONTAMINANT	ODOR THRESHOLD	OSHA PEL[1]	TLV (ACGIH)	OSHA CEILING[2] /STEL	IDLH CONC.	ROUTES OF EXPOSURE	SYMPTOMS OF ACUTE EXPOSURE[3]
Endosulfan Sulfate		---	0.1 mg/m^3	---	---	Ing, Con	---
Endrin	1.8 x 10^{-2} ppm	0.1 mg/m^3	0.1 mg/m^{-3}	---	2 mg/m^3	Inh, Abs, Ing, Con	Epil Conv, Stup, Head, Dizz, Abdom, Nau, Vomit, Insom, Agress, Conf, Drow, Lass, Anor
Endrin Aldehyde	1.8 x 10^{-2} ppm	---	---	---	---	Inh, Con	---
Endrin Ketone	---	---	---	---	---	---	---
Heptachlor	0.02 ppm	0.5 mg/m^3	0.05 mg/m^3	---	[35 mg/m^3]	Inh, Abs, Ing, Con	In animals, Trem, Conv, [Carc]
Heptachlor epoxide	0.02 ppm	---	0.05 mg/m^3	---	---	Ing, Inh	Trem, Conv, [Carc]
Hydrogen Cyanide(Hydrocyanic Acid)	0.9 mg/m^3	10 ppm (11 mg/m^3)	4.7 ppm	4.7 ppm	50 ppm	Con, Inh, Ing, Abs	Asphy & death at high levels; Weak, Head, Conf, Nau, Vomit, Incr. Rate and Depth of Respiration or Respiration Slow and Gasping

NOTES

[1]PEL = Permissible Exposure Limit. If no PEL is available, then the NIOSH Threshold Limit Value (TLV) should be used, if available.

[2]Ceiling limit or Short Term Exposure Limit (STEL), if available. Again, the NIOSH TLV may be used if no OSHA standard exists.

[3]Abbreviations are contained on the next page

[ ] = Potential Occupational Carcinogen

ND = Not Been Determined

ABBREVIATIONS

abdom = Abdominal
abs = Absorption
aggress = Agressiveness
agit = Agitation
anor = Anorexia
anos = Anosmia (loss of the sense of smell)
Anxi = anxiety
anem – Anemia
aspir = Aspiration
asph – asphyxia
bron = Bronchitis
[carc] = Potential occupational carcinogen
Card = Cardiac arrhythmias
CNS = Central nervous system
conf = Confusion
constip = Constipation
con = Skin and/or eye contact
conv = Convulsions
corn = Corneal
defat = Defatting
depres = Depressant/Depression
derm = Dermatitis
diarr = Diarrhea
dist = Disturbance
dizz = Dizziness
drow = Drowsiness
dry = Dry mouth
dysp = Dyspnea (breathing difficulty)
emphy = Emphysema
epil-conv = Epileptiform convulsions
eryth = Erythema
euph = Euphoria
fib = Fibrosis
frost = frostbite
ftg = Fatigue
flush = Flushing
GI = Gastrointestinal
head = Headache
hyperpig = Hyperpigmentation
inco = Incoordination
ing = Ingestion
inh = Inhalation
inj = Injury
insom = Insomnia
irrit = Irritation
lac = Lacrimination (discharge of tears)
lass = Lassitude (weakness, exhaustion)
li-head = Lightheadedness
liq = Liquid
low-wgt = Weight loss
mal = Malaise (vague feeling of discomfort)
malnut = Malnutrition
methem = Methemoglobinemia
myo = Myochonic (jerks of limbs)
mg/m = milligrams/cubic meter
muc memb = Mucous membrane
narco = Narcosis
nau = Nausea
ner = Nervousness
numb = Numbness
optic = Optic nerve damage (blindness)
parap = Paralysis
ppm = Parts per million
pares = Paresthesia
paresi = Paresis
peri neur = Peripheral neuropathy
pneu = Pneumonia
prot = Proteinuria
pulm = Pulmonary
peri neur = Peripheral neuropathy
pneu = Pneumonia
prot = Proteinuria
pulm = Pulmonary
repro = Reproductive
resp = Respiratory
skin sen = skin sensitization
som = Somnolence (sleepiness unnatural drowsiness)
subs = Substernal (occurring beneath the sternum)
stup = Stupor
sys = System
tingle = tingle limbs
trem - Tremors
vis dist = Visual disturbance
vomit = Vomiting
weak = Weakness

TABLE 2.0 PERSONNEL ASSIGNMENTS					
Project Manager	**Health & Safety Officer (HSO)**	**Security Officer (SO) Recordkeeper**	**HSO/SO Designated Alternate**	**Field Team Members / Company**	**Public Information Officer**
Jeffrey R. Sotek	Matt Finkenbinder or designated alternate	Matt Finkenbinder or designated alternate	Corinna Martino	Matt Finkenbinder, HRP, Corinna Martino, HRP	Bill Roehr, Dept. Planning Commissioner, City of Troy
PERSONNEL RESPONSIBILITIES					
• General project supervisor and director of hazardous waste operations	• Implementation of HASP/CWP • Stop work if poor work practices or conditions endanger worker health & safety • Act as Emergency Coordinator if necessary • Provide pre-entry briefing	• Maintain site records • Enforce site control program	• Perform HSO/SO duties if so designated	• Perform site work tasks	• Provide public information as necessary

Modified level D personal protective equipment is suitable to protect against the anticipated hazards at this site. This equipment is listed below. ***Prior to entry and periodically throughout the duration of the project, the HSO must confirm that this level of protection is appropriate through air monitoring and evaluation of identified hazards.***

TABLE 3.0 – Personal Protective Equipment

WORK TASK	MINIMUM PROTECTIVE EQUIPMENT												
	Work Clothes	Steel Toe Shoes	Work Gloves	Chem. Resistant Gloves[1]	Saf ety Glasses	Hearing Protection	Tyvek	Apron	Hard Hat	Face Shield	Fall Protection[2]	Visibility Vest	Respirator
SAMPLING/ROUTINE TASKS													
Air Sampling	X	X		X									
Asbestos Remediation	X	X	X		X		X		X				X
Asbestos Sampling	X	X	X		X								X
Bridge Inspection/Const. Supervision	X	X				X			X				
Drilling	X	X		X	X	X			X				
Drum Sampling & Moving	X	X	X	X	X				X	X			
Ground Water Sampling (MW,RW)	X	X		X	X								
Hand Sampling (shovel, auger)	X	X	X	X									
Landfill Sampling (soil, sediment, gw, sw, leachate)	X	X		X	X		X						
Phase 1 Site Inspection	X	X											
Probing	X	X		X	X	X			X				
Product Sampling (RW)	X	X		X	X		X						
Remediation Monitoring (air systems)	X	X		X	X	X							
Remediation Monitoring (water systems)	X	X	X	X	X	X							
Soil Gas Sampling	X	X		X	X								
Stack Testing	X	X		X					X		X		
Stormwater Sampling	X	X		X									
Surface Water Sampling	X	X		X	X								
Surveying	X	X											
Wastewater Sampling	X	X		X	X								
Wastewater Benchmark Test	X	X		X	X			X		X			
CHEMICAL HANDLING													
Filling Decon Bottles	X	X			X			X					
Soil Sample Disposal	X	X		X	X								
POWER EQUIPMENT													
Circular Saw	X	X			X	X							
Concrete Core Machine	X	X	X		X	X							
Drill Press	X	X			X	X							
Generators	X	X	X		X	X							
Industrial Vacuum	X	X	X		X	X							
Pavement Saw	X	X	X		X	X							
Power Equipment (handrills, grinder, etc.)	X	X	X		X	X							
Power Washer	X	X		X	X	X							
Regenerative Blowers/Air Compressors	X	X	X		X	X							
Rotary Percussion Hammer	X	X	X		X	X							
Sawzall	X	X			X	X							

Notes: Minimum protective equipment means the minimally acceptable protective gear to be donned when performing or using the equipment listed above. Additional protective equipment (i.e. respirators) may be required as described in the site specific health and safety plan or based on the anticipated hazards associated with the project. Work clothes include long pants, short or long sleeve shirt and other winter clothing. If upgrade to level C respiratory protection is necessary the appropriate respirator cartridges will provide protection against hydrogen sulfide and volatile organics, but not oxygen deficient atmospheres due to methane gas displacement of ambient air.

[1]The type of chemical resistant glove (i.e. disposable rubber, nitrile, other) must be selected based on the anticipated chemical hazards.

[2]Must be reviewed on a case by case basis.

APPENDIX C

EQUIPMENT CALIBRATION LOG

EQUIPMENT CALIBRATION LOG		
Instrument	**Calibration Date**	**Calibrated By**

EQUIPMENT CALIBRATION LOG		
Instrument	**Calibration Date**	**Calibrated By**

Community Air Monitoring Plan
Former Scolite Site Troy, New York

This Community Air Monitoring Plan (CAMP) requires real-time monitoring for volatile organic compounds (VOCs) and particulates (i.e., dust) at the downwind perimeter of each designated work area when certain activities are in progress during Remedial Investigation (RI) activities at the former Scolite Site, located on 2 Madison Street in the City of Troy, NY (the site). The CAMP is not intended for use in establishing action levels for workers 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 investigative and remedial 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 work activities did not spread contamination 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.

Depending on the nature of known or potential contaminants at the site, real-time air monitoring for VOCs and/or particulate levels at the perimeter of the exclusion zone or work area will be necessary.

Continuous monitoring will be required for all ground intrusive activities. Ground intrusive activities include, but are not limited to, soil/waste excavation and handling, test pitting or trenching, and the installation of soil borings or monitoring wells.

Periodic monitoring for VOCs will be required during non-intrusive activities such as the collection of soil samples or the collection of groundwater samples from existing 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, continuing 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.

VOC Monitoring, Response Levels, and Actions

VOCs will be monitored at the downwind perimeter of the immediate work area (i.e., the exclusion zone) on a continuous basis or as otherwise specified. Upwind concentrations will be measured at the start of each workday and periodically thereafter to establish background conditions. The monitoring work will be performed using a photo ionization detector (PID) equipped with a 10.2 eV bulb. The PID will 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 area or exclusion zone exceeds 5 parts per million (ppm) above background for the 15-minute average, work activities must be temporarily halted and monitoring 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 area or exclusion zone persist at levels in excess of 5 ppm over background but less than 25 ppm, work activities will be halted, the source of the 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 will be shutdown.

All 15-minute readings will be recorded and be available for State (DEC and DOH) personnel to review. Instantaneous readings, if any, used for decision purposes will also be recorded.

Particulate Monitoring, Response Levels, and Actions

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

- If the downwind PM-10 particulate level is 100 micrograms per cubic meter (mcg/m^3) greater than the background (upwind perimeter) for the 15-minute period or if airborne dust is observed leaving the work area, then dust suppression techniques will be employed. Work may continue with dust suppression techniques 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 mcg/m^3 above the upwind level, work will 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 mcg/m^3 of the upwind level and in preventing visible dust migration.

All readings will be recorded and be available for State (DEC and DOH) personnel to review.

APPENDIX E

Monitoring Well Boring and Construction Logs

Project: TROY SCOLITE SITE
HRP Job #: TRO2004.P2
Contractor:

Type: SOIL BORING
I.D.:
Location: SOUTH EAST CORNER OF SUBJECT PROPERTY

HRP ASSOCIATES, INC.
ENGINEERING & GEOLOGY
DRILLING LOG

Date 6/15/2009
Rig Type: GEOPROBE

Hole # SB-01
Well #
Sheet

Start: 10:25AM
Finish: 10:45AM
Driller: ZEBRA
HRP Rep: ED BELL

Depth (6" intervals)	Macro-core Samples	Sample Interval	Recovery (ft)	Density or Consistency/ Moisture	Profile Change	Remarks (color, structure, grain size, staining, odor, PID)	PID (ppm)
1		0-2'	4'		Fill ↑	Materials consist of fill. Very dark slag and ash debris.	1530
2							
3		2-4'					1356
4							
5		4-6'	4'			Fill materials, dark stained soils. Same as in 0-4'. Fragments of coal. Chemical odor.	3182
6							
7		6-8'					7345
8							
9		8-12'	2.5'			Not a complete core. Brick and coal fill materials, stained soils, and ashy texture. Chemical odor.	2285
10							
11							
12							
13		12-14'	4'			Fill and ash layer to 14'. Uniform brown clay layer underneath. "native" soils.	2532
14				GW at 14'	Fill ↓ Clay ↑		
15		14-16'					412
16							
17		16-18'	4'			All clay. Very uniform.	113
18							
19		18-20'					3
20					Clay ↓		

GROUNDWATER OBSERVATIONS				SAMPLE PENETRATION RESISTANCE 140 lb. Wt. Falling 30" on 2" O.D. Sampler		Proportions
Depth	Date	Casing/ Screen	Stability Time	Cohesionless Density	Cohesive Consistence	
14'	6/15/2009			0 - 4 very loose 5 - 9 loose 10 - 29 med. dense 30 - 49 dense 50+ very dense	0 - 2 very soft 3 - 4 soft 5 - 8 m/stiff 9 - 15 stiff 16 - 30 v/stiff 31+ hard	trace 0-10% little 10-20% some 20-35% and 30-50%

Project: TROY SCOLITE SITE
HRP Job #: TRO2004.P2
Contractor:

Type: SOIL BORING
I.D.:
Location: SOUTHEAST CORNER OF PROPERTY ON CONCRETE

HRP ASSOCIATES, INC.
ENGINEERING & GEOLOGY
DRILLING LOG

Date 6/15/2009
Rig Type: GEOPROBE

Hole # SB-02
Well #
Sheet

Start: 10:50AM
Finish: 11:20 AM
Driller: ZEBRA
HRP Rep: ED BELL

Depth (6" intervals)	Macro-core Samples	Sample Interval	Recovery (ft)	Density or Consistency/ Moisture	Profile Change	Remarks (color, structure, grain size, staining, odor, PID)	PID (ppm)
1		0-2'	4'		Fill	2" of concrete. Slag and fill materials. Heavily stained soils with ash, coal, and brick fragments (typ.)	1.1
2							
3		2-4'					12
4							
5		4-6'	4'			Same black typ. Fill materials.	0
6							
7		6-8'					2.1
8							
9		8-10'	4'			Same black typ. Fill materials.	0
10							
11		10-12'					2.7
12							
13		12-14'	4'			12-14' typ. Fill. 14' clay soils.	0
14				GW at 14'	Fill		
15		14-16'			Clay		6.2
16							
17		16-18'	4'			Brown clay. Very uniform.	0
18							
19		18-20'					3
20					Clay		

GROUNDWATER OBSERVATIONS				SAMPLE PENETRATION RESISTANCE 140 lb. Wt. Falling 30" on 2" O.D. Sampler		Proportions
Depth	Date	Casing/ Screen	Stability Time	Cohesionless Density	Cohesive Consistence	
14'	6/15/2009			0 - 4 very loose 5 - 9 loose 10 - 29 med. dense 30 - 49 dense 50+ very dense	0 - 2 very soft 3 - 4 soft 5 - 8 m/stiff 9 - 15 stiff 16 - 30 v/stiff 31+ hard	trace 0-10% little 10-20% some 20-35% and 30-50%

Project: TROY SCOLITE SITE
HRP Job #: TRO2004.P2
Contractor:

Type: SOIL BORING
I.D.:
Location: EAST EDGE OF PROPERTY

HRP ASSOCIATES, INC.
ENGINEERING & GEOLOGY
DRILLING LOG

Date 6/15/2009
Rig Type: GEOPROBE

Hole # SB-03
Well #
Sheet

Start: 11:30AM
Finish: 11:50AM
Driller: ZEBRA
HRP Rep: ED BELL

Depth (6" intervals)	Macro-core Samples	Sample Interval	Recovery (ft)	Density or Consistency/ Moisture	Profile Change	Remarks (color, structure, grain size, staining, odor, PID)	PID (ppm)
1		0-2'	4'		Fill	Black fill materials. Slag and fill materials. Heavily stained soils with ash, coal, and brick fragments (typ.)	0
2							
3		2-4'					1.4
4							
5		4-6'	4'			Same black typ. Fill materials.	0
6							
7		6-8'					0
8							
9		8-10'	4'			Same black typ. Fill materials 8-10'. Sandy matrix below.	0
10							
11		10-12					0
12							
13		12-14'	4'			Sandy fill materials 12-14'. Clay layer at 14'. Reddish brown clay.	0
14				GW at 14'	Fill		
15		14-16'			Clay matrix		0
16							
17		16-18'	4'			Predominately clay soils. Very uniform.	0
18							
19		18-20'					0.1
20					Clay matrix		

GROUNDWATER OBSERVATIONS				SAMPLE PENETRATION RESISTANCE 140 lb. Wt. Falling 30" on 2" O.D. Sampler		Proportions
Depth	Date	Casing/ Screen	Stability Time	Cohesionless Density	Cohesive Consistence	
14'	6/15/2009			0 - 4 very loose 5 - 9 loose 10 - 29 med. dense 30 - 49 dense 50+ very dense	0 - 2 very soft 3 - 4 soft 5 - 8 m/stiff 9 - 15 stiff 16 - 30 v/stiff 31+ hard	trace 0-10% little 10-20% some 20-35% and 30-50%

Project: TROY SCOLITE SITE **HRP Job #:** TRO2004.P2 **Contractor:**	**HRP ASSOCIATES, INC.** **ENGINEERING & GEOLOGY** **DRILLING LOG**		**Hole #** SB-04 **Well #** **Sheet**
Type: SOIL BORING **I.D.:** **Location:** NORTHEAST SECTION OF SUBJECT PROPERTY ON CONRETE SLAB		**Date** 6/15/2009 **Rig Type:** GEOPROBE	**Start:** 1:40PM **Finish:** 2:00PM **Driller:** ZEBRA **HRP Rep:** ED BELL

Depth (6" intervals)	Macro-core Samples	Sample Interval	Recovery (ft)	Density or Consistency/ Moisture	Profile Change	Remarks (color, structure, grain size, staining, odor, PID)	PID (ppm)
1 2 3 4		0-4'	2.5'		Fill	3" of concrete. Limited recovery. Ash layer below concrete 4" thick. Core folded at bottom.	0
5 6 7 8		4-8'	3.0'			Black fill materials. Slag and fill materials. Heavily stained soils with ash, coal, and brick fragments (typ.)	2.1
9 10 11 12		8-12'	2.5'			Partial recovery. Typ. fill materials.	0
13 14		12-14'	4'	GW at 14'	Fill Clay	6" of typ. Fill materials on top of clay layer. Clay is brown and very uniform.	0
15 16		14-16'					0
17 18		16-18'	4'			Uniform brown clay layer.	0
19 20		18-20'			Clay		0

GROUNDWATER OBSERVATIONS				SAMPLE PENETRATION RESISTANCE 140 lb. Wt. Falling 30" on 2" O.D. Sampler		Proportions
Depth	Date	Casing/ Screen	Stability Time	Cohesionless Density	Cohesive Consistence	
14'	6/15/2009			0 - 4 very loose 5 - 9 loose 10 - 29 med. dense 30 - 49 dense 50+ very dense	0 - 2 very soft 3 - 4 soft 5 - 8 m/stiff 9 - 15 stiff 16 - 30 v/stiff 31+ hard	trace 0-10% little 10-20% some 20-35% and 30-50%

Project: TROY SCOLITE SITE
HRP Job #: TRO2004.P2
Contractor:

Type: SOIL BORING
I.D.:
Location: NORTHEAST CORNER OF PROPERTY

HRP ASSOCIATES, INC.
ENGINEERING & GEOLOGY
DRILLING LOG

Date 6/15/2009
Rig Type: GEOPROBE

Hole # SB-05
Well #
Sheet

Start: 2:15PM
Finish: 2:32PM
Driller: ZEBRA
HRP Rep: ED BELL

Depth (6" intervals)	Macro-core Samples	Sample Interval	Recovery (ft)	Density or Consistency/ Moisture	Profile Change	Remarks (color, structure, grain size, staining, odor, PID)	PID (ppm)
1		0-4'	2.5'		Fill	Partial recovery. 2-3" of concrete. Black fill materials. Slag and fill materials. Heavily stained soils with ash, coal, and brick fragments (typ.)	16.6
2							
3							
4							
5		4-8'	3'			Sandy fill materials. Brick fragments and dark stained soils.	0
6							
7							
8							
9		8-10'	4			Sandy matrix. Dark staining with some rock fragments.	3
10							
11		10-12'					0
12							
13		12-14'	4'		Fill	12-13' sandy matrix with brick and rock inclusions. Clay layer below.	0
14				GW at 14'	Clay matrix		
15		14-16'					2.4
16							
17		16-20'	4'			Uniform sandy clay soils. Brown in color with no inclusions.	0
18							
19							
20					Clay matrix		

GROUNDWATER OBSERVATIONS				SAMPLE PENETRATION RESISTANCE 140 lb. Wt. Falling 30" on 2" O.D. Sampler		Proportions
Depth	Date	Casing/ Screen	Stability Time	Cohesionless Density	Cohesive Consistence	
14'	6/15/2009			0 - 4 very loose	0 - 2 very soft	trace 0-10%
				5 - 9 loose	3 - 4 soft	little 10-20%
				10 - 29 med. dense	5 - 8 m/stiff	some 20-35%
				30 - 49 dense	9 - 15 stiff	and 30-50%
				50+ very dense	16 - 30 v/stiff	
					31+ hard	

Project: TROY SCOLITE SITE **HRP Job #:** TRO2004.P2 **Contractor:**	**HRP ASSOCIATES, INC.** **ENGINEERING & GEOLOGY** **DRILLING LOG**		**Hole #** SB-06 **Well #** **Sheet**
Type: SOIL BORING **I.D.:** **Location:** WEST OF FLY WHEEL	**Date** 6/15/2009 **Rig Type:** GEOPROBE		**Start:** 2:50PM **Finish:** 3:13PM **Driller:** ZEBRA **HRP Rep:** ED BELL

Depth (6" intervals)	Macro-core Samples	Sample Interval	Recovery (ft)	Density or Consistency/ Moisture	Profile Change	Remarks (color, structure, grain size, staining, odor, PID)	PID (ppm)
1 2 3 4		no sample	Limited		Fill	Partial recovery. 3" of concrete. Crush underneath. No sample collected. Core consisted of concrete and crush only.	N/A
5 6 7 8		4-8'	3'			Partial recovery. Black fill materials. Slag and fill materials. Heavily stained soils with ash, coal, and brick fragments (typ.)	0
9 10 11 12		8-12'	3'	Soils moist		Partial recovery. Dark stained soils. 10-12' sandy fill matrix. 2" band of black material at 12'. No odor.	0
13 14		12-14'	4'	GW at 14'	Fill	Typ. Fill material to 14'. Gray clay soils below. Clay soil moist and uniform. No odors.	0
15 16		14-16'			Clay matrix		0
17 18 19 20		16-20'	4'		Clay matrix	Unifom clay soils. Dark gray soils with organic stained inclusions.	0

GROUNDWATER OBSERVATIONS				SAMPLE PENETRATION RESISTANCE 140 lb. Wt. Falling 30" on 2" O.D. Sampler		Proportions
Depth	Date	Casing/ Screen	Stability Time	Cohesionless Density	Cohesive Consistence	
14'	6/15/2009			0 - 4 very loose 5 - 9 loose 10 - 29 med. dense 30 - 49 dense 50+ very dense	0 - 2 very soft 3 - 4 soft 5 - 8 m/stiff 9 - 15 stiff 16 - 30 v/stiff 31+ hard	trace 0-10% little 10-20% some 20-35% and 30-50%

Project: TROY SCOLITE SITE
HRP Job #: TRO2004.P2
Contractor:

Type: SOIL BORING
I.D.:
Location: CENTER OF SUBJECT SITE AND SOUTH OF TARPED DEBRIS PILE

HRP ASSOCIATES, INC.
ENGINEERING & GEOLOGY
DRILLING LOG

Date 6/15/2009
Rig Type: GEOPROBE

Hole # SB-07
Well #
Sheet

Start: 3:35PM
Finish: 3:50PM
Driller: ZEBRA
HRP Rep: ED BELL

Depth (6" intervals)	Macro-core Samples	Sample Interval	Recovery (ft)	Density or Consistency/ Moisture	Profile Change	Remarks (color, structure, grain size, staining, odor, PID)	PID (ppm)
1		0-2'	4'		Fill ↑	Heavily stained dark sandy fill soils. Ash and fine debris. No odors.	0
2							
3		2-4'					7
4							
5		4-6'	4'			Black fill materials. Slag and fill materials. Heavily stained soils with ash, coal, and brick fragments (typ.)	0
6							
7		6-8'					0
8							
9		8-10'	4'			Typ. Fill materials. Sandy soils dispursed throughout.	24
10							
11		10-12'					1.7
12							
13		12-14'	4'		↓	Typ. Fill materials to 14'. Soils mosit to wet at 14'. Some brick fragments.	0
14				GW at 14'	Fill		
15		14-16'			sandy clay matrix ↑		0
16							
17		16-20'	4'			Sandy clay soils. Very uniform. Oxidized banded layers throughout.	0
18							
19							
20					sandy clay matrix ↓		

GROUNDWATER OBSERVATIONS

Depth	Date	Casing/ Screen	Stability Time
14'	6/15/2009		

SAMPLE PENETRATION RESISTANCE
140 lb. Wt. Falling 30" on 2" O.D. Sampler

Cohesionless Density	Cohesive Consistence
0 - 4 very loose	0 - 2 very soft
5 - 9 loose	3 - 4 soft
10 - 29 med. dense	5 - 8 m/stiff
30 - 49 dense	9 - 15 stiff
50+ very dense	16 - 30 v/stiff
	31+ hard

Proportions

trace 0-10%
little 10-20%
some 20-35%
and 30-50%

Project: TROY SCOLITE SITE
HRP Job #: TRO2004.P2
Contractor:

Type: SOIL BORING
I.D.:
Location: CENTER OF SUBJECT SITE

HRP ASSOCIATES, INC.
ENGINEERING & GEOLOGY
DRILLING LOG

Date 6/15/2009
Rig Type: GEOPROBE

Hole # SB-08
Well #
Sheet

Start: 4:05PM
Finish: 4:40PM
Driller: ZEBRA
HRP Rep: ED BELL

Depth (6" intervals)	Macro-core Samples	Sample Interval	Recovery (ft)	Density or Consistency/ Moisture	Profile Change	Remarks (color, structure, grain size, staining, odor, PID)	PID (ppm)
1		0-2'	4'		Fill ▲	Black fill materials. Slag and fill materials. Heavily stained soils with ash, coal, and brick fragments (typ.) Same ash layer around 4'.	0
2							
3		2-4'					21.6
4							
5		4-6'	4'			Typ. Fill materials. No odor.	10.4
6							
7		6-8'					5
8							
9		8-10'	4'			Typ. Fill materials. No odor.	8.3
10							
11		10-12'					6.7
12							
13		12-14'	4'			Typ. Fill materials for 6". Reddish brown sandy clay soil matrix. Some rock inclusions. No odors.	0
14							
15		14-16'					6.9
16							
17		16-18'	4'	GW at 17'	Fill ▼ Sandy clay matrix ▲	Dark fill 16-17'. "native" soils below composed of gray sandy clay. No odors.	3.5
18							
19		18-20'					0
20					Sandy clay matrix ▼		

GROUNDWATER OBSERVATIONS				SAMPLE PENETRATION RESISTANCE 140 lb. Wt. Falling 30" on 2" O.D. Sampler		Proportions
Depth	Date	Casing/ Screen	Stability Time	Cohesionless Density	Cohesive Consistence	
17'	6/15/2009			0 - 4 very loose 5 - 9 loose 10 - 29 med. dense 30 - 49 dense 50+ very dense	0 - 2 very soft 3 - 4 soft 5 - 8 m/stiff 9 - 15 stiff 16 - 30 v/stiff 31+ hard	trace 0-10% little 10-20% some 20-35% and 30-50%

Project: TROY SCOLITE SITE
HRP Job #: TRO2004.P2
Contractor:

Type: SOIL BORING
I.D.:
Location: CENTER OF SUBJECT SITE SOIUTH OF SB-08

HRP ASSOCIATES, INC.
ENGINEERING & GEOLOGY
DRILLING LOG

Date 6/16/2009
Rig Type: GEOPROBE

Hole # SB-09
Well #
Sheet

Start: 8:30AM
Finish: 8:50AM
Driller: ZEBRA
HRP Rep: ED BELL

Depth (6" intervals)	Macro-core Samples	Sample Interval	Recovery (ft)	Density or Consistency/ Moisture	Profile Change	Remarks (color, structure, grain size, staining, odor, PID)	PID (ppm)
1		0-2'	4'		Fill	Black fill materials. Slag and fill materials. Heavily stained soils with ash, coal, and brick fragments (typ.)	164
2							
3		2-4'					20.5
4							
5		4-6'	4'			Typ. Fill materials. Slight gray tint at 6' bgs. Dark coal layer at 8' bgs.	15.6
6							
7		6-8'					21
8							
9		8-10	4'			Typ Fill materials. Wet layer at 12' bgs that is 3-4".	156
10							
11		10-12					41
12				GW at 12'			
13		12-14	4'		Fill Sandy clay matrix	Dark fill materials 12-13' bgs. Sandy soil matrix. Sandy soil matrix at 16'.	48
14							
15		14-16					10
16							
17		16-20'	3'			Partial recovery. Sandy clay soil matrix. Brown clay with oxidized inclusions. PID in core 14.5 ppm. Soils moist.	8.5
18							
19							
20					Sandy clay matrix		

GROUNDWATER OBSERVATIONS				SAMPLE PENETRATION RESISTANCE 140 lb. Wt. Falling 30" on 2" O.D. Sampler		Proportions
Depth	Date	Casing/ Screen	Stability Time	Cohesionless Density	Cohesive Consistence	
12'	6/16/2009			0 - 4 very loose	0 - 2 very soft	trace 0-10%
				5 - 9 loose	3 - 4 soft	little 10-20%
				10 - 29 med. dense	5 - 8 m/stiff	some 20-35%
				30 - 49 dense	9 - 15 stiff	and 30-50%
				50+ very dense	16 - 30 v/stiff	
					31+ hard	

Project: TROY SCOLITE SITE
HRP Job #: TRO2004.P2
Contractor:

Type: SOIL BORING
I.D.:
Location: CENTER OF THE SUBJECT SITE. IN LINE WIH SOUTH SIDE OF DEEPWATER BLG.

HRP ASSOCIATES, INC.
ENGINEERING & GEOLOGY
DRILLING LOG

Date 6/16/2009
Rig Type: GEOPROBE

Hole # SB-10
Well #
Sheet

Start: 9:10AM
Finish: 9:27AM
Driller: ZEBRA
HRP Rep: ED BELL

Depth (6" intervals)	Macro-core Samples	Sample Interval	Recovery (ft)	Density or Consistency/ Moisture	Profile Change	Remarks (color, structure, grain size, staining, odor, PID)	PID (ppm)
1		0-4'	2'		Fill	Black fill materials. Slag and fill materials. Heavily stained soils with ash, coal, and brick fragments (typ.)	0
2							
3							
4							
5		4-6'	4'			Typ. Fill materials. White ash layer at 7' bgs.	4.5
6							
7		6-8'					8.3
8							
9		8-12'	4'			Typ. Dark fill material. White ash specks at 12' bgs.	0.3
10							
11							
12							
13		12-14'	4'			typ. Fill materials 12-14' bgs. Clay layers from 14-16' bgs that is brown with oxidized layering.	0
14				GW at 14'	Fill		
15		14-16'			Clay matrix		0.8
16							
17		16-20'	3'			Very uniform clay. Grayish brown with layering. No odors.	0
18							
19							
20					Clay matrix		

GROUNDWATER OBSERVATIONS				SAMPLE PENETRATION RESISTANCE 140 lb. Wt. Falling 30" on 2" O.D. Sampler		Proportions
Depth	Date	Casing/ Screen	Stability Time	Cohesionless Density	Cohesive Consistence	
14'	6/16/2009			0 - 4 very loose	0 - 2 very soft	trace 0-10%
				5 - 9 loose	3 - 4 soft	little 10-20%
				10 - 29 med. dense	5 - 8 m/stiff	some 20-35%
				30 - 49 dense	9 - 15 stiff	and 30-50%
				50+ very dense	16 - 30 v/stiff	
					31+ hard	

Project: TROY SCOLITE SITE **HRP Job #:** TRO2004.P2 **Contractor:**	**HRP ASSOCIATES, INC.** **ENGINEERING & GEOLOGY** **DRILLING LOG**	**Hole #** SB-11 **Well #** **Sheet**
Type: SOIL BORING **I.D.:** **Location:** ALLEY BEWEEN DEEPWATER AND SHED BLG.	**Date** 6/16/2009 **Rig Type:** GEOPROBE	**Start:** 9:40AM **Finish:** 9:55AM **Driller:** ZEBRA **HRP Rep:** ED BELL

Depth (6" intervals)	Macro-core Samples	Sample Interval	Recovery (ft)	Density or Consistency/ Moisture	Profile Change	Remarks (color, structure, grain size, staining, odor, PID)	PID (ppm)
1		0-4'	3'			Black fill materials. Slag and fill materials. Heavily stained soils with ash, coal, and brick fragments (typ.)	0
2							
3							
4							
5		4-8'	3'			Typ. Fill materials.	0
6							
7							
8							
9		8-10'				Typ. Fill materials 8-9.5' bgs. Clay layer 9.5-10' bgs 3" in thickness. Clay soils are dark in color. Coal slag last 2" of core. No odors.	4.3
10							
11		10-12'					0
12							
13		12-14'				Typ. Fill materials throughout.	0
14							
15		14-16'					102
16							
17		16-20'				Partial recovery. Typ. Black fill materials. **Diesel odor**. Very wet at 18' bgs,	242
18				GW at 18'			
19							
20							

GROUNDWATER OBSERVATIONS				SAMPLE PENETRATION RESISTANCE 140 lb. Wt. Falling 30" on 2" O.D. Sampler		Proportions
Depth	Date	Casing/ Screen	Stability Time	Cohesionless Density	Cohesive Consistence	
18'	6/16/2009			0 - 4 very loose 5 - 9 loose 10 - 29 med. dense 30 - 49 dense 50+ very dense	0 - 2 very soft 3 - 4 soft 5 - 8 m/stiff 9 - 15 stiff 16 - 30 v/stiff 31+ hard	trace 0-10% little 10-20% some 20-35% and 30-50%

Project: TROY SCOLITE SITE
HRP Job #: TRO2004.P2
Contractor:

Type: SOIL BORING
I.D.:
Location: NORTH OF DEEPWATER BLG.

HRP ASSOCIATES, INC.
ENGINEERING & GEOLOGY
DRILLING LOG

Date 6/16/2009
Rig Type: GEOPROBE

Hole # SB-12
Well #
Sheet

Start: 10:25AM
Finish: 10:45AM
Driller: ZEBRA
HRP Rep: ED BELL

Depth (6" intervals)	Macro-core Samples	Sample Interval	Recovery (ft)	Density or Consistency/ Moisture	Profile Change	Remarks (color, structure, grain size, staining, odor, PID)	PID (ppm)
1		0-4'	3'		Fill ↑	Black fill materials. Slag and fill materials. Heavily stained soils with ash, coal, and brick fragments (typ.)	0
2							
3							
4							
5		4-8'	3'			Typ. Fill materials. Large slag pieces.	14.6
6							
7							
8							
9		8-10'	4'			Typ. Fill materials.	55.1
10							
11		10-12'					0
12							
13		12-14'	4'			Typ. Fill materials. **Strong chemical odor**. Soils moist at 14-15' bgs.	6.9
14				GW at 14'			
15		14-16'					4.4
16							
17		16-28'	4'		↓	Typ. Black fill materials 16-18.5 bgs. Clay soils 18.5-20' bgs. No odors. Purple plastic shard at 16' bgs.	3.3
18							
19		18-20'			Fill Clay matrix		0
20					↕ Clay matrix		

GROUNDWATER OBSERVATIONS

Depth	Date	Casing/ Screen	Stability Time
14'	6/16/2009		

SAMPLE PENETRATION RESISTANCE
140 lb. Wt. Falling 30" on 2" O.D. Sampler

Cohesionless Density	Cohesive Consistence
0 - 4 very loose	0 - 2 very soft
5 - 9 loose	3 - 4 soft
10 - 29 med. dense	5 - 8 m/stiff
30 - 49 dense	9 - 15 stiff
50+ very dense	16 - 30 v/stiff
	31+ hard

Proportions

trace 0-10%
little 10-20%
some 20-35%
and 30-50%

Project: TROY SCOLITE SITE **HRP Job #:** TRO2004.P2 **Contractor:**	**HRP ASSOCIATES, INC.** **ENGINEERING & GEOLOGY** **DRILLING LOG**		**Hole #** SB-13 **Well #** **Sheet**
Type: SOIL BORING **I.D.:** **Location:** WEST EDGE OF SUBJECT PROPERTY NEAR BULKHEAR CURVE.		**Date** 6/16/2009 **Rig Type:** GEOPROBE	**Start:** 11:00AM **Finish:** 11:03AM **Driller:** ZEBRA **HRP Rep:** ED BELL

Depth (6" intervals)	Macro-core Samples	Sample Interval	Recovery (ft)	Density or Consistency/ Moisture	Profile Change	Remarks (color, structure, grain size, staining, odor, PID)	PID (ppm)
1 2 3 4		0-4'	3'		Fill ▲	Black fill materials. Slag and fill materials. Heavily stained soils with ash, coal, and brick fragments (typ.)	3.3
5 6 7 8		4-8'	3'			Typ. Fill Materials. Green Staining. **Chemical odor**.	17.8
9 10 11 12		8-12'	3'			Typ. Fill materials.	1
13 14		12-14'	4'			Typ. Fill materials. **DUP-1** collected from 12-14' bgs.	35.4
15 16		14-16'			▼		3.4
17 18 19 20		16-20'	2.5'	GW at 16.5'	Fill Clay matrix ▲ ▼ Clay matrix	Typ. Fill material first 5". Clay soil matrix below. No odors.	1.8

GROUNDWATER OBSERVATIONS				SAMPLE PENETRATION RESISTANCE 140 lb. Wt. Falling 30" on 2" O.D. Sampler		Proportions
Depth	Date	Casing/ Screen	Stability Time	Cohesionless Density	Cohesive Consistence	
16.5'	6/16/2009			0 - 4 very loose 5 - 9 loose 10 - 29 med. dense 30 - 49 dense 50+ very dense	0 - 2 very soft 3 - 4 soft 5 - 8 m/stiff 9 - 15 stiff 16 - 30 v/stiff 31+ hard	trace 0-10% little 10-20% some 20-35% and 30-50%

Project: TROY SCOLITE SITE
HRP Job #: TRO2004.P2
Contractor:

Type: SOIL BORING
I.D.:
Location: LOWER BULK HEAD
NORTHWEST CORNER

HRP ASSOCIATES, INC.
ENGINEERING & GEOLOGY
DRILLING LOG

Date 6/16/2009
Rig Type: GEOPROBE

Hole # SB-14
Well #
Sheet

Start: 11:42AM
Finish: 11:55AM
Driller: ZEBRA
HRP Rep: ED BELL

Depth (6" intervals)	Macro-core Samples	Sample Interval	Recovery (ft)	Density or Consistency/ Moisture	Profile Change	Remarks (color, structure, grain size, staining, odor, PID)	PID (ppm)
1		0-4'	3'			Balck stained sandy soils.	0
2							
3							
4							
5		4-6'	4'			Black and brown stained soils. Very dark soils. Some slag and ash.	21.7
6							
7		6-8'					1.1
8							
9		8-10'	4'			Very wet at 10' bgs. Black stained soils. Some fill materials. Chemical odor. **MSMSD** 10-12' bgs.	1.9
10				GW at 10'			
11		10-12'					7.8
12							
13		12-14'	4'			Entire sample saturated. Black clay matrix. Rocky matrix at 13-14' bgs. **Strong chemical odor.**	0
14							
15		14-16'					1.5
16							
17							
18							
19							
20							

GROUNDWATER OBSERVATIONS

Depth	Date	Casing/ Screen	Stability Time
10'	6/16/2009		

SAMPLE PENETRATION RESISTANCE
140 lb. Wt. Falling 30" on 2" O.D. Sampler

Cohesionless Density	Cohesive Consistence
0 - 4 very loose	0 - 2 very soft
5 - 9 loose	3 - 4 soft
10 - 29 med. dense	5 - 8 m/stiff
30 - 49 dense	9 - 15 stiff
50+ very dense	16 - 30 v/stiff
	31+ hard

Proportions

trace 0-10%
little 10-20%
some 20-35%
and 30-50%

Project: TROY SCOLITE SITE **HRP Job #:** TRO2004.P2 **Contractor:**	**HRP ASSOCIATES, INC. ENGINEERING & GEOLOGY DRILLING LOG**		**Hole #** SB-15 **Well #** **Sheet**
Type: SOIL BORING **I.D.:** **Location:** NORTHWEST CORNER OF PROPERTY		**Date** 6/16/2009 **Rig Type:** GEOPROBE	**Start:** 12:15PM **Finish:** 12:30PM **Driller:** ZEBRA **HRP Rep:** ED BELL

Depth (6" intervals)	Macro-core Samples	Sample Interval	Recovery (ft)	Density or Consistency/ Moisture	Profile Change	Remarks (color, structure, grain size, staining, odor, PID)	PID (ppm)
1 2 3 4		0-4'	4'		Fill	Black fill materials. Slag and fill materials. Heavily stained soils with ash, coal, and brick fragments (typ.) Pieces of glass.	44.1
5 6 7 8		4-8'	4'			Black stained soils. Fill materials. Slag and slate pieces. Brown sand layer at 7' bgs. No odors.	36.7
9 10 11 12		8-12'	4'	GW at 11'	Fill Clay matrix	Fill and slag matrix. Transition to clay matrix at 9' bgs. Earthy smell.	0
13 14 15 16		12-16'	4'		Clay matrix Pebble matrix Pebble matrix	Rounded stones at 12.5' bgs. Pebbly matrix Entire core saturated with water.	0
17 18							
19 20							

GROUNDWATER OBSERVATIONS				SAMPLE PENETRATION RESISTANCE 140 lb. Wt. Falling 30" on 2" O.D. Sampler		Proportions
Depth	Date	Casing/ Screen	Stability Time	Cohesionless Density	Cohesive Consistence	
11'	6/16/2009			0 - 4 very loose 5 - 9 loose 10 - 29 med. dense 30 - 49 dense 50+ very dense	0 - 2 very soft 3 - 4 soft 5 - 8 m/stiff 9 - 15 stiff 16 - 30 v/stiff 31+ hard	trace 0-10% little 10-20% some 20-35% and 30-50%

MONITOR WELL CONSTRUCTION L O G

HRP Associates, Inc.
Creating the Right Solutions Together

HRP Engineering, P.C.
1 Fairchild Square, Suite 110
Clifton Park, NY 12065 (518) 877-7101

PROJECT: Troy Scolite Site
HRP Job #: TRO2004.P2
LOCATION: Northwest corner of property, lower Bulkhead
DRILLING CO.: Aztech Technologies, Inc.
DRILLED BY: Zach Marty, Aztech Technologies
INSPECTED BY: HRP Engineering, P.C.

BORING NO. MW-1
PAGE 1 OF 1
DATE STARTED: 7/21/2009
DATE FINISHED: 7/21/2009
SURFACE ELEVATION: N/A
BOTTOM OF BORING ELEVATION: 25.00
GROUNDWATER REFERENCE ELEVATION: 14.00

GROUNDWATER OBSERVATIONS

DEPTH	Post-Development
14.00 feet	

WELL MATERIALS
TYPE: Polyvinyl Chloride Pipe
SIZE I.D.: 2"

SAMPLER
Ed Bell

DEPTH (FT.)	SAMPLING DEPTH (FT.) FROM - TO	SAMPLE DATA ID	RECOV. INCHES	BLOWS PER 6 INCHES	WELL DATA	STRATA CHANGE (FT.)	LITHOLOGY (DESCRIPTION OF MATERIALS)	FIELD TEST DATA PID - 10.2 eV (ppm)
0'								
5'							Dark sandy loam Fill Materials	N/A
10'								N/A
15'								N/A
20'							Drilled 3" borehole to 25' bgs. Installed 2" PVC well and (0.010-inch slot) screen from 10' to 25' bgs. Added 17 ' of clean quartz sand as a filter pack from 10' to 25' bgs. Added bentonite seal from 5' to 8' bgs. 2" PVC riser pipe from 10' bgs to approx. 2" bgs. Flush mount road boxes installed approximatly 2" below ground surface.	N/A
25'								N/A
30'								
35'								

WELL CONSTRUCTION DATA:
Well bottom set at 25 ' bgs
Borehole diameter 3.0 "
Well Screen Interval 10 ' to 25 ' bgs (15' screen legth)
Well Screen Slot Size 0.010" Mateiral Schedule 2-PVC Diameter 2 "
Sand Filter Pack Interval 8' to 25' bgs
Sand Size 5 Quantity 50lbs bags (bags, lbs, gallons)
Well Riser Interaval 10 ' to 2" bgs (10' riser length)
Well Riser Diameter 2" Material PVC
Bentonite Seal Above Fitler Pack 5' to 8' bgs
Backfill Interval 5' to 1' bgs
Backfill Material Clean Sand
Bentonite Top/Ground Surface Seal _____ to _____ bgs
Finishing/Well Protector: Flush-Mounted
Surface Finishing notes: NONE

Groundwater Reference Point Description: (Top of Riser, Standpipe, other)
Top of 2" PVC riser, marked with black marker.

GENERAL REMARKS:
1) ~_____ gallons of water was purged from following installation on _____2009
2) SAA = Same as Above / NA = Not Available
3) bgs = Below Ground Surface
4)Soil Boring _____ was logged & sampled at this location on _____ with by geoprobe

KEY:

Well & Strata		Filter Sand
		Bentonite
		Grout
		Clean Sand
		No data

Indication of where groundwater begins
Roadbox
Well Riser
Well Screen

KEY TO BLOWS PER 6-INCHES:

Granular Soils (Gravel & Sand) Blows/ft	Density	Cohesive Soils (Silt & Clay) Blows/ft	Density
0-4	V. Loose	<2	V. Soft
4-10	Loose	2-4	Soft
10-30	M. Dense	4-8	M. Stiff
30-50	Dense	8-15	Stiff
>50	V. Dense	15-30	V. Stiff
		>50	Hard

PROPORTIONS OF SOIL:
And = 35 to 50%
Some = 20 to 35%
Little = 10 to 20%
Trace = 0 to 10%

MONITOR WELL CONSTRUCTION L O G

HRP Associates, Inc.
Creating the Right Solutions Together

HRP Engineering, P.C.
1 Fairchild Square, Suite 110
Clifton Park, NY 12065 (518) 877-7101

PROJECT: Troy Scolite Site
HRP Job #: TRO2004.P2
LOCATION: Center of lower Bulkhead
DRILLING CO.: Aztech Technologies, Inc.
DRILLED BY: Zach Marty, Aztech Technologies
INSPECTED BY: HRP Engineering, P.C.

BORING NO. MW-2
PAGE 1 OF 1
DATE STARTED: 7/21/2009
DATE FINISHED: 7/21/2009
SURFACE ELEVATION: N/A
BOTTOM OF BORING ELEVATION: 25.00
GROUNDWATER REFERENCE ELEVATION: 14.00

GROUNDWATER OBSERVATIONS

DEPTH	Post-Development
14.00 feet bgs	

WELL MATERIALS
TYPE: Polyvinyl Chloride Pipe
SIZE I.D.: 2"

SAMPLER
Ed Bell

DEPTH (FT.)	SAMPLING DEPTH (FT.) FROM - TO	SAMPLE DATA ID	RECOV. INCHES	BLOWS PER 6 INCHES	WELL DATA	STRATA CHANGE (FT.)	LITHOLOGY (DESCRIPTION OF MATERIALS)	FIELD TEST DATA PID - 10.2 eV (ppm)
0'								
5'							Black stained sandy fill materials. Slag and fill materials. Heavily stained soils with ash, coal, and brick fragments (typ.)	N/A
10'								N/A
15'								N/A
20'							Drilled 3" borehole to 25' bgs. Installed 2" PVC well and (0.010-inch slot) screen from 10' to 25' bgs. Added 17 ' of clean quartz sand as a filter pack from 10' to 25' bgs. Added bentonite seal from 5' to 8' bgs. 2" PVC riser pipe from 10' bgs to approx. 2" bgs. Flush mount road boxes installed approximatly 2" below ground surface.	N/A
25'								N/A
30'								
35'								

WELL CONSTRUCTION DATA:
Well bottom set at 25 ' bgs
Borehole diameter 3.0 "
Well Screen Interval 10 ' to 25 ' bgs (15' screen legth)
Well Screen Slot Size 0.010" Mateiral Schedule 2-PVC Diameter 2 "
Sand Filter Pack Interval 8 to 25 bgs
Sand Size 50 lbs bags Quantity 6 (bags, lbs, gallons)
Well Riser Interaval 10 ' to 2" bgs (10' riser length)
Well Riser Diameter 2" Material PVC
Bentonite Seal Above Filter Pack 8' to 5' ' bgs
Backfill Interval 5' to 1' bgs
Backfill Material Clean Sand
Bentonite Top/Ground Surface Seal _____ to _____ bgs
Finishing/Well Protector: Flush-Mounted
Surface Finishing notes: NONE

Groundwater Reference Point Description: (Top of Riser, Standpipe, other)
Top of 2" PVC riser, marked with black marker.

GENERAL REMARKS:
1) ~_____ gallons of water was purged from following installation on _____2009
2) SAA = Same as Above / NA = Not Available
3) bgs = Below Ground Surface
4)Soil Boring _____ was logged & sampled at this location on _____ with by geoprobe

KEY:

Well & Strata:
- Filter Sand
- Bentonite
- Grout
- Clean Sand
- No data

- Indication of where groundwater begins
- Roadbox
- Well Riser
- Well Screen

KEY TO BLOWS PER 6-INCHES:

Granular Soils (Gravel & Sand) Blows/ft	Density	Cobesive Soils (Silt & Clay) Blows/ft	Density
0-4	V. Loose	<2	V. Soft
4-10	Loose	2-4	Soft
10-30	M. Dense	4-8	M. Stiff
30-50	Dense	8-15	Stiff
>50	V. Dense	15-30	V. Stiff
		>50	Hard

PROPORTIONS OF SOIL:
And = 35 to 50%
Some = 20 to 35%
Little = 10 to 20%
Trace = 0 to 10%

MONITOR WELL CONSTRUCTION L O G

HRP Associates, Inc.
Creating the Right Solutions Together

HRP Engineering, P.C.
1 Fairchild Square, Suite 110
Clifton Park, NY 12065 (518) 877-7101

PROJECT: Troy Scolite Site
HRP Job #: TRO2004.P2
LOCATION: Southwest corner of property, lower bulkhead
DRILLING CO.: Aztech Technologies, Inc.
DRILLED BY: Zach Marty, Aztech Technologies
INSPECTED BY: HRP Engineering, P.C.

BORING NO. MW-3
PAGE 1 OF 1
DATE STARTED: 7/21/2009
DATE FINISHED: 7/21/2009
SURFACE ELEVATION: N/A
BOTTOM OF BORING ELEVATION: 25.00
GROUNDWATER REFERENCE ELEVATION: 14' 3"

GROUNDWATER OBSERVATIONS

DEPTH	Post-Development
14.30 feet	

WELL MATERIALS
TYPE: Polyvinyl Chloride Pipe
SIZE I.D.: 2"

SAMPLER
Ed Bell

DEPTH (FT.)	SAMPLING DEPTH (FT.) FROM - TO	SAMPLE DATA ID	RECOV. INCHES	BLOWS PER 6 INCHES	WELL DATA	STRATA CHANGE (FT.)	LITHOLOGY (DESCRIPTION OF MATERIALS)	FIELD TEST DATA PID - 10.2 eV (ppm)
0'								
5'							Brown sandy soils fill with brick fragments and slag fill materials.	N/A
10'								N/A
15'								N/A
20'							Drilled 3" borehole to 25' bgs. Installed 2" PVC well and (0.010-inch slot) screen from 10' to 25' bgs. Added 17 ' of clean quartz sand as a filter pack from 10' to 25' bgs. Added bentonite seal from 5' to 8' bgs. 2" PVC riser pipe from 10' bgs to approx. 2" bgs. Flush mount road boxes installed approximatly 2" below ground surface.	N/A
25'								N/A
30'								
35'								

WELL CONSTRUCTION DATA:
Well bottom set at 25 ' bgs
Borehole diameter 3.0 "
Well Screen Interval 10 ' to 25 ' bgs (15' screen legth)
Well Screen Slot Size 0.010" Mateiral Schedule 2-PVC Diameter 2 "
Sand Filter Pack Interval 8 to 25 bgs
Sand Size 50 lbs bags Quantity 6 (bags, lbs, gallons)
Well Riser Interaval 10 ' to 2" bgs (10' riser length)
Well Riser Diameter 2" Material PVC
Bentonite Seal Above Fitler Pack 8' to 5' ' bgs
Backfill Interval 5' to 1' bgs
Backfill Material Clean Sand
Bentonite Top/Ground Surface Seal _____ to _____ bgs
Finishing/Well Protector: Flush-Mounted
Surface Finishing notes: NONE

Groundwater Reference Point Description: (Top of Riser, Standpipe, other)
Top of 2" PVC riser, marked with black marker.

GENERAL REMARKS:
1) ~____ gallons of water was purged from following installation on _____2009
2) SAA = Same as Above / NA = Not Available
3) bgs = Below Ground Surface
4)Soil Boring _____was logged & sampled at this location on _____with by geoprobe

KEY:

Well & Strata	Filter Sand	Indication of where groundwater begins
	Bentonite	Roadbox
	Grout	Well Riser
	Clean Sand	Well Screen
	No data	

KEY TO BLOWS PER 6-INCHES:

Granular Soils (Gravel & Sand) Blows/ft	Density	Cohesive Soils (Silt & Clay) Blows/ft	Density
0-4	V. Loose	<2	V. Soft
4-10	Loose	2-4	Soft
10-30	M. Dense	4-8	M. Stiff
30-50	Dense	8-15	Stiff
>50	V. Dense	15-30	V. Stiff
		>50	Hard

PROPORTIONS OF SOIL:
And = 35 to 50%
Some = 20 to 35%
Little = 10 to 20%
Trace = 0 to 10%

MONITOR WELL CONSTRUCTION L O G

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1 Fairchild Square, Suite 110
Clifton Park, NY 12065 (518) 877-7101

PROJECT: Troy Scolite Site
HRP Job #: TRO2004.P2
LOCATION: Northern property boundary

DRILLING CO.: Aztech Technologies, Inc.
DRILLED BY: Zach Marty, Aztech Technologies
INSPECTED BY: HRP Engineering, P.C.

BORING NO. MW-4
PAGE 1 OF 1
DATE STARTED: 7/23/2009
DATE FINISHED: 7/23/2009
SURFACE ELEVATION: N/A
BOTTOM OF BORING ELEVATION: 30'
GROUNDWATER REFERENCE ELEVATION: 19.50'

GROUNDWATER OBSERVATIONS

DEPTH	Post-Development
19.50 feet	

WELL MATERIALS
TYPE: Polyvinyl Chloride Pipe
SIZE I.D.: 2"

SAMPLER
Ed Bell

DEPTH (FT.)	SAMPLING DEPTH (FT.) FROM - TO	SAMPLE DATA ID	RECOV. INCHES	BLOWS PER 6 INCHES	WELL DATA	STRATA CHANGE (FT.)	LITHOLOGY (DESCRIPTION OF MATERIALS)	FIELD TEST DATA PID - 10.2 eV (ppm)
0'								
5'							Black stained sandy fill materials. Slag and fill materials. Heavily stained soils with ash, coal, and brick fragments (typ.)	N/A
10'								N/A
15'								N/A
20'							Brown sandy soils with brick fragments +/- 10' to 25' bgs. Clay soils +/- 25' to 30' bgs. Drilled 3" borehole to 30' bgs. Installed 2" PVC well and (0.010-inch slot) screen from 15' to 30' bgs. Added 17' of clean quartz sand as a filter pack from 13' to 30' bgs. Added bentonite seal from 13' to 11' bgs. 2" PVC riser pipe from 15' bgs to approx. 2" bgs. Flush mount road boxes installed approximatly 2" below ground surface.	N/A
25'								N/A
30'								
35'								

WELL CONSTRUCTION DATA:
Well bottom set at 30 ' bgs
Borehole diameter 3.0 "
Well Screen Interval 15 ' to 30' bgs (15' screen legth)
Well Screen Slot Size 0.010" Mateiral Schedule 2-PVC Diameter 2 "
Sand Filter Pack Interval 13' to 30' bgs
Sand Size 50 lbs bags Quantity 8 (bags, lbs, gallons)
Well Riser Interaval 15 ' to 2" bgs (15' riser length)
Well Riser Diameter 2" Material PVC
Bentonite Seal Above Fitler Pack 13' to 11 ' bgs
Backfill Interval 11' to 1' bgs
Backfill Material Clean Sand
Bentonite Top/Ground Surface Seal _____ to _____ bgs
Finishing/Well Protector: Flush-Mounted
Surface Finishing notes: NONE

Groundwater Reference Point Description: (Top of Riser, Standpipe, other)
Top of 2" PVC riser, marked with black marker.

GENERAL REMARKS:
1) ~_____ gallons of water was purged from following installation on _____2009
2) SAA = Same as Above / NA = Not Available
3) bgs = Below Ground Surface
4)Soil Boring _____ was logged & sampled at this location on _____ with by geoprobe

KEY:

Well & Strata:
- Filter Sand
- Bentonite
- Grout
- Clean Sand
- No data

- Indication of where groundwater begins
- Roadbox
- Well Riser
- Well Screen

KEY TO BLOWS PER 6-INCHES:

Granular Soils (Gravel & Sand) Blows/ft	Density	Cohesive Soils (Silt & Clay) Blows/ft	Density
0-4	V. Loose	<2	V. Soft
4-10	Loose	2-4	Soft
10-30	M. Dense	4-8	M. Stiff
30-50	Dense	8-15	Stiff
>50	V. Dense	15-30	V. Stiff
		>50	Hard

PROPORTIONS OF SOIL:
And = 35 to 50%
Some = 20 to 35%
Little = 10 to 20%
Trace = 0 to 10%

MONITOR WELL CONSTRUCTION L O G

HRP Associates, Inc.
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1 Fairchild Square, Suite 110
Clifton Park, NY 12065 (518) 877-7101

PROJECT: Troy Scolite Site
HRP Job #: TRO2004.P2
LOCATION: Central yard area of property

DRILLING CO.: Aztech Technologies, Inc.
DRILLED BY: Zach Marty, Aztech Technologies
INSPECTED BY: HRP Engineering, P.C.

BORING NO. MW-5
PAGE 1 OF 1
DATE STARTED: 7/23/2009
DATE FINISHED: 7/23/2009
SURFACE ELEVATION: N/A
BOTTOM OF BORING ELEVATION: 30'
GROUNDWATER REFERENCE ELEVATION: 21.00'

GROUNDWATER OBSERVATIONS

DEPTH	Post-Development
21.00 feet	

WELL MATERIALS
TYPE: Polyvinyl Chloride Pipe
SIZE I.D.: 2"

SAMPLER
Ed Bell

DEPTH (FT.)	SAMPLING DEPTH (FT.) FROM - TO	SAMPLE DATA ID	RECOV. INCHES	BLOWS PER 6 INCHES	WELL DATA	STRATA CHANGE (FT.)	LITHOLOGY (DESCRIPTION OF MATERIALS)	FIELD TEST DATA PID - 10.2 eV (ppm)
0'								
5'							Brick and concrete fill materials. Encountered layer of brick at +/- 7' to 810' bgs.	N/A
10'								N/A
15'								N/A
20'							Brown sandy soils with brick fragments +/- 10' to 25' bgs. Clay soils +/- 25' to 30' bgs. Drilled 3" borehole to 30' bgs. Installed 2" PVC well and (0.010-inch slot) screen from 15' to 30' bgs. Added 17 ' of clean quartz sand as a filter pack from 13' to 30' bgs. Added bentonite seal from 13' to 11' bgs. 2" PVC riser pipe from 15' bgs to approx. 2" bgs. Flush mount road boxes installed approximatly 2" below ground surface.	N/A
25'								N/A
30'								
35'								

WELL CONSTRUCTION DATA:
Well bottom set at 25 ' bgs
Borehole diameter 3.0 "
Well Screen Interval 10 ' to 25 ' bgs (15' screen legth)
Well Screen Slot Size 0.010" Mateiral Schedule 2-PVC Diameter 2 "
Sand Filter Pack Interval 12 to 24 bgs
Sand Size 50 lbs bags Quantity 5 (bags, lbs, gallons)
Well Riser Interaval 10 ' to 2" bgs (10' riser length)
Well Riser Diameter 2" Material PVC
Bentonite Seal Above Fitler Pack 13' to 11' ' bgs
Backfill Interval 11' to 1' bgs
Backfill Material Clean Sand
Bentonite Top/Ground Surface Seal 5' to 8' bgs
Finishing/Well Protector: Flush-Mounted
Surface Finishing notes: NONE

Groundwater Reference Point Description: (Top of Riser, Standpipe, other)
Top of 2" PVC riser, marked with black marker.

GENERAL REMARKS:
1) ~_____ gallons of water was purged from following installation on _____2009
2) SAA = Same as Above / NA = Not Available
3) bgs = Below Ground Surface
4)Soil Boring _____was logged & sampled at this location on _____with by geoprobe

KEY:
Well & Strata
- Filter Sand
- Bentonite
- Grout
- Clean Sand
- No data

- Indication of where groundwater begins
- Roadbox
- Well Riser
- Well Screen

KEY TO BLOWS PER 6-INCHES:

Granular Soils (Gravel & Sand) Blows/ft	Density	Cohesive Soils (Silt & Clay) Blows/ft	Density
0-4	V. Loose	<2	V. Soft
4-10	Loose	2-4	Soft
10-30	M. Dense	4-8	M. Stiff
30-50	Dense	8-15	Stiff
>50	V. Dense	15-30	V. Stiff
		>50	Hard

PROPORTIONS OF SOIL:
And = 35 to 50%
Some = 20 to 35%
Little = 10 to 20%
Trace = 0 to 10%

MONITOR WELL CONSTRUCTION L O G

HRP Associates, Inc.
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HRP Engineering, P.C.
1 Fairchild Square, Suite 110
Clifton Park, NY 12065 (518)
877-7101

PROJECT: Troy Scolite Site
HRP Job #: TRO2004.P2
LOCATION: Central yard area of property

DRILLING CO.: Aztech Technologies, Inc.
DRILLED BY: Zach Marty, Aztech Technologies
INSPECTED BY: HRP Engineering, P.C.

BORING NO. MW-6
PAGE 1 OF 1
DATE STARTED: 7/22/2009
DATE FINISHED: 7/22/2009
SURFACE ELEVATION: N/A
BOTTOM OF BORING ELEVATION: 30.00'
GROUNDWATER REFERENCE ELEVATION: 20.30'

GROUNDWATER OBSERVATIONS

DEPTH	Post-Development
20.30 feet	

WELL MATERIALS
TYPE: Polyvinyl Chloride Pipe
SIZE I.D.: 2"

SAMPLER
Ed Bell

DEPTH (FT.)	SAMPLING DEPTH (FT.) FROM - TO	SAMPLE DATA ID	RECOV. INCHES	BLOWS PER 6 INCHES	WELL DATA	STRATA CHANGE (FT.)	LITHOLOGY (DESCRIPTION OF MATERIALS)	FIELD TEST DATA PID - 10.2 eV (ppm)
0'								
5'							Brick and concrete fill materials. Encountered 4.5' layer of brick at +/- 4' to 8.5' bgs.	N/A
10'								N/A
15'								N/A
20'							Brown sandy soils with brick fragments +/- 10' to 25' bgs. Clay soils +/- 25' to 30' bgs. Drilled 3" borehole to 30' bgs. Installed 2" PVC well and (0.010-inch slot) screen from 15' to 30' bgs. Added 17 ' of clean quartz sand as a filter pack from 13' to 30' bgs. Added bentonite seal from 13' to 11' bgs. 2" PVC riser pipe from 15' bgs to approx. 2" bgs. Flush mount road boxes installed approximatly 2" below ground surface.	N/A
25'								
30'								
35'								

WELL CONSTRUCTION DATA:

Well bottom set at 30 ' bgs
Borehole diameter 3.0 "
Well Screen Interval 15 ' to 30' bgs (15' screen legth)
Well Screen Slot Size 0.010" Mateiral Schedule 2-PVC Diameter 2 "
Sand Filter Pack Interval 13' to 30' bgs
Sand Size 50 lbs bags Quantity 8 (bags, lbs, gallons)
Well Riser Interaval 15 ' to 2" bgs (15' riser length)
Well Riser Diameter 2" Material PVC
Bentonite Seal Above Fitler Pack 13' to 11 ' bgs
Backfill Interval 11' to 1' bgs
Backfill Material Clean Sand
Bentonite Top/Ground Surface Seal _____ to _____ bgs
Finishing/Well Protector: Flush-Mounted
Surface Finishing notes: NONE

Groundwater Reference Point Description: (Top of Riser, Standpipe, other)
Top of 2" PVC riser, marked with black marker.

GENERAL REMARKS:

1) ~_____ gallons of water was purged from following installation on _____2009
2) SAA = Same as Above / NA = Not Available
3) bgs = Below Ground Surface
4)Soil Boring _____ was logged & sampled at this location on _____ with by geoprobe

KEY:

Well & Strata
- Filter Sand
- Bentonite
- Grout
- Clean Sand
- No data

- Indication of where groundwater begins
- Roadbox
- Well Riser
- Well Screen

KEY TO BLOWS PER 6-INCHES:

Granular Soils (Gravel & Sand) Blows/ft	Density	Cohesive Soils (Silt & Clay) Blows/ft	Density
0-4	V. Loose	<2	V. Soft
4-10	Loose	2-4	Soft
10-30	M. Dense	4-8	M. Stiff
30-50	Dense	8-15	Stiff
>50	V. Dense	15-30	V. Stiff
		>50	Hard

PROPORTIONS OF SOIL:

And = 35 to 50%
Some = 20 to 35%
Little = 10 to 20%
Trace = 0 to 10%

MONITOR WELL CONSTRUCTION L O G

HRP Associates, Inc.
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HRP Engineering, P.C.
1 Fairchild Square, Suite 110
Clifton Park, NY 12065 (518) 877-7101

PROJECT: Troy Scolite Site
HRP Job #: TRO2004.P2
LOCATION: Northeastern corner of property

DRILLING CO.: Aztech Technologies, Inc.
DRILLED BY: Zach Marty, Aztech Technologies
INSPECTED BY: HRP Engineering, P.C.

BORING NO. MW-7
PAGE 1 OF 1
DATE STARTED: 7/22/2009
DATE FINISHED: 7/22/2009
SURFACE ELEVATION: N/A
BOTTOM OF BORING ELEVATION: 30.00'
GROUNDWATER REFERENCE ELEVATION: 22.00'

GROUNDWATER OBSERVATIONS

DEPTH	Post-Development
22.00 feet	

WELL MATERIALS
TYPE: Polyvinyl Chloride Pipe
SIZE I.D.: 2"

SAMPLER
Ed Bell

DEPTH (FT.)	SAMPLING DEPTH (FT.) FROM - TO	SAMPLE DATA ID	RECOV. INCHES	BLOWS PER 6 INCHES	WELL DATA	STRATA CHANGE (FT.)	LITHOLOGY (DESCRIPTION OF MATERIALS)	FIELD TEST DATA PID - 10.2 eV (ppm)
0'								
5'							Brick and concrete fill materials. Encountered 4.5' layer of brick at +/- 4' to 8.5' bgs.	N/A
10'								N/A
15'							Brown sandy soils with brick fragments +/- 10' to 25' bgs. Clay soils +/- 25' to 30' bgs. Drilled 3" borehole to 30' bgs. Installed 2" PVC well and (0.010-inch slot) screen from 15' to 30' bgs. Added 17 ' of clean quartz sand as a filter pack from 13' to 30' bgs. Added bentonite seal from 13' to 11' bgs. 2" PVC riser pipe from 15' bgs to approx. 2" bgs. Flush mount road boxes installed approximatly 2" below ground surface.	N/A
20'								N/A
25'								N/A
30'								
35'								

WELL CONSTRUCTION DATA:
Well bottom set at 30 ' bgs
Borehole diameter 3.0 "
Well Screen Interval 15 ' to 30' bgs (15' screen legth)
Well Screen Slot Size 0.010" Mateiral Schedule 2-PVC Diameter 2 "
Sand Filter Pack Interval 13' to 30' bgs
Sand Size 50 lbs bags Quantity 8 (bags, lbs, gallons)
Well Riser Interaval 15 ' to 2" bgs (15' riser length)
Well Riser Diameter 2" Material PVC
Bentonite Seal Above Fitler Pack 13' to 11 ' bgs
Backfill Interval 11' to 1' bgs
Backfill Material Clean Sand
Bentonite Top/Ground Surface Seal _____ to _____ bgs
Finishing/Well Protector: Flush-Mounted
Surface Finishing notes: NONE

Groundwater Reference Point Description: (Top of Riser, Standpipe, other)
Top of 2" PVC riser, marked with black marker.

GENERAL REMARKS:
1) ~_____ gallons of water was purged from following installation on _____2009
2) SAA = Same as Above / NA = Not Available
3) bgs = Below Ground Surface
4)Soil Boring _____was logged & sampled at this location on _____with by geoprobe

KEY:
Well & Strata
- Filter Sand
- Bentonite
- Grout
- Clean Sand
- No data

- Indication of where groundwater begins
- Roadbox
- Well Riser
- Well Screen

KEY TO BLOWS PER 6-INCHES:

Granular Soils (Gravel & Sand) Blows/ft	Density	Cohesive Soils (Silt & Clay) Blows/ft	Density
0-4	V. Loose	<2	V. Soft
4-10	Loose	2-4	Soft
10-30	M. Dense	4-8	M. Stiff
30-50	Dense	8-15	Stiff
>50	V. Dense	15-30	V. Stiff
		>50	Hard

PROPORTIONS OF SOIL:
And = 35 to 50%
Some = 20 to 35%
Little = 10 to 20%
Trace = 0 to 10%

MONITOR WELL CONSTRUCTION L O G

HRP Associates, Inc.
Creating the Right Solutions Together

HRP Engineering, P.C.
1 Fairchild Square, Suite 110
Clifton Park, NY 12065 (518) 877-7101

PROJECT: Troy Scolite Site
HRP Job #: TRO2004.P2
LOCATION: Northwest corner of property, lower Bulkhead
DRILLING CO.: Aztech Technologies, Inc.
DRILLED BY: Zach Marty, Aztech Technologies
INSPECTED BY: HRP Engineering, P.C.

BORING NO. MW-8
PAGE 1 OF 1
DATE STARTED: 7/22/2009
DATE FINISHED: 7/22/2009
SURFACE ELEVATION: N/A
BOTTOM OF BORING ELEVATION: 30.00'
GROUNDWATER REFERENCE ELEVATION: 20.70'

GROUNDWATER OBSERVATIONS

DEPTH	Post-Development
20.70 feet	

WELL MATERIALS
TYPE: Polyvinyl Chloride Pipe
SIZE I.D.: 2"

SAMPLER
Ed Bell

DEPTH (FT.)	SAMPLING DEPTH (FT.) FROM - TO	SAMPLE DATA ID	RECOV. INCHES	BLOWS PER 6 INCHES	WELL DATA	STRATA CHANGE (FT.)	LITHOLOGY (DESCRIPTION OF MATERIALS)	FIELD TEST DATA PID - 10.2 eV (ppm)
0'								
5'								N/A
10'							Black stained sandy fill materials. Slag and fill materials. Heavily stained soils with ash, coal, and brick fragments (typ.)	N/A
15'								N/A
20'								N/A
25'							Brown sandy soils with brick fragments +/- 10' to 25' bgs. Clay soils +/- 25' to 30' bgs. Drilled 3" borehole to 30' bgs. Installed 2" PVC well and (0.010-inch slot) screen from 15' to 30' bgs. Added 17 ' of clean quartz sand as a filter pack from 13' to 30' bgs. Added bentonite seal from 13' to 11' bgs. 2" PVC riser pipe from 15' bgs to approx. 2" bgs. Flush mount road boxes installed approximatly 2" below ground surface.	N/A
30'								
35'								

WELL CONSTRUCTION DATA:
Well bottom set at 30 ' bgs
Borehole diameter 3.0 "
Well Screen Interval 15 ' to 30' bgs (15' screen legth)
Well Screen Slot Size 0.010" Mateiral Schedule 2-PVC Diameter 2 "
Sand Filter Pack Interval 13' to 30' bgs
Sand Size 50 lbs bags Quantity 8 (bags, lbs, gallons)
Well Riser Interaval 15 ' to 2" bgs (15' riser length)
Well Riser Diameter 2" Material PVC
Bentonite Seal Above Fitler Pack 13' to 11 ' bgs
Backfill Interval 11' to 1' bgs
Backfill Material Clean Sand
Bentonite Top/Ground Surface Seal _____ to _____ bgs
Finishing/Well Protector: Flush-Mounted
Surface Finishing notes: NONE

Groundwater Reference Point Description: (Top of Riser, Standpipe, other)
Top of 2" PVC riser, marked with black marker.

GENERAL REMARKS:
1) ~_____ gallons of water was purged from following installation on _____2009
2) SAA = Same as Above / NA = Not Available
3) bgs = Below Ground Surface
4)Soil Boring _____ was logged & sampled at this location on _____ with by geoprobe

KEY:

Well & Strata	Filter Sand	Indication of where groundwater begins
	Bentonite	
	Grout	Roadbox
	Clean Sand	Well Riser
	No data	Well Screen

KEY TO BLOWS PER 6-INCHES:

Granular Soils (Gravel & Sand) Blows/ft	Density	Cohesive Soils (Silt & Clay) Blows/ft	Density
0-4	V. Loose	<2	V. Soft
4-10	Loose	2-4	Soft
10-30	M. Dense	4-8	M. Stiff
30-50	Dense	8-15	Stiff
>50	V. Dense	15-30	V. Stiff
		>50	Hard

PROPORTIONS OF SOIL:
And = 35 to 50%
Some = 20 to 35%
Little = 10 to 20%
Trace = 0 to 10%

APPENDIX F

Quality Assurance Project Plan (QAPP)

Appendix G

1.0 Quality Assurance Project Plan (QAPP)

Section 6.0 is the Quality Assurance Project Plan (QAPP), which is a discussion of the quality Assurance/Quality Control (QA/QC) procedures to be followed during this investigation. It is the policy of HRP that methods utilized to collect, analyze and evaluate field and laboratory data are consistent with the highest appropriate level of (QA/QC) procedures. The QA/QC program provisions ensure:

- Generation of high quality data;
- Use of sound QA/QC management practices;
- Documented field data collection methodologies which meet QA/QC standards;
- Field interpretations and analytical results which are valid;
- Sample identification and integrity are controlled by adherence to strict chain of custody protocols;
- Laboratory accuracy and precision of analyses are maintained by the specific laboratory identified; and,
- Calculations and evaluations are accurate and well documented.

Table 1 presents the proposed sampling analytical chart, including the number of samples for each matrix (arranged by task and location), while Table 2 is a summary of the sample analysis, including the total number of samples per matrix, the number of QA/QC samples, container requirements, preservatives, and holding times for the RI.

1.1 Laboratory Quality Assurance

As indicated in Section 3.4, Chemtech of Mountainside, New Jersey will be the contract laboratory for this project. Chemtech is a laboratory certified by the New York State Department of Health's Contract Laboratory protocols (CLP) and Environmental Laboratory Approval Program (ELAP), as required by NYSDEC protocols. Chemtech will provide all the laboratory analysis for the project, including Analytical Services Protocol (ASP), Category B deliverables packages, sample containers, coolers, chemical fixatives, and chain of custody documents.

Quantitative limits that the laboratory that the laboratory will need to achieve for each analytical parameter is included as Appendix F

1.2 Quality Control

Quality control measures will be in place during the entire project. This will include, but not be limited to, strict adherence to the following: sample

handling, chain-of-custody procedures, equipment calibrations, maintenance, the collection of equipment blanks, field blanks, trip blanks, and decontamination.

1.2.1 Sample Handling

All samples collected as part of this project will be handled in strict accordance with Section 6.2.2 of this Work Plan. Any deviations will require an addendum, as authorized by the project manager.

Samples collected during field investigations will be transported by HRP field personnel in laboratory-provided coolers directly to the laboratory. Those samples that require a lower temperature for preservation will be placed inside an insulated cooler of wet ice. Prior to transport, the ice chest/cooler will be sealed with custody tape to ensure that the seal has not been inappropriately broken prior to receipt by the laboratory.

1.2.2 Chain of Custody Procedures

Chain of custody of procedures begin when clean sample bottles are picked up from the laboratory. Each sample container is identified by a unique number located on the sample label. Properly labeled samples remain in the custody of the HRP field-sampling technician until they are relinquished for transport to the laboratory. A copy of the chain of custody will remain on file under each project number in the custody of the project manager.

The primary objective of sample chain of custody is to create an accurate written verified record, which can be used to trace the possession and handling of the sample containers from the moment of receipt until returned by the laboratory. Sample custody will be archived by approved field and laboratory documentation. A sample for this project is defined to be in someone's custody if:

1. It is in one's actual physical possession;
2. It is in one's view, after being in one's physical possession;
3. It is in one's physical possession and then locked or otherwise sealed so that tampering will be evident; or
4. It is kept in a secure area, restricted to authorized personnel only.

Field procedures will be designed to minimize sample handling and transfers. During sampling, the field crews will record the following information in field notebooks using ink:

1. The unique sample number as obtained from the sample label and parameters to be analyzed;
2. Source of sample (including designation, name, location, and matrix type);

3. Description of sampling points (i.e., monitor well, number, boring, key landmarks, etc.);
4. Date and time of sample collection;
5. Order of sample collection;
6. Preservatives used;
7. Name(s) of collector(s);
8. Field data (weather and other site conditions);
9. Sampling equipment (i.e., purge method, bailer type, etc.); and
10. Types of quality assurance samples collected (i.e., field blanks, equipment blanks, split, etc.).

HRP field personnel are responsible for uniquely identifying and labeling each sampling point. This identification should be logged onto all field forms, chain of custody, and into field logbooks. It will not be permissible to change the sampling point identification once it has been established. All sample collection activities will be traceable by field records, sample collector, chain of custody documents, and a database if available. Errors made in original field documentation must be shown with a single line drawn though and initialed by the author of the documentation.

1.2.3 Equipment Calibrations

During the implementation of the field sampling plan, several pieces of field equipment, which require calibration, will be utilized at the site. The proposed equipment to be used at the site will include, but not be limited to, the following:

- Photoionization Detector (PID);
- Water Quality Analyzer;
- Particulate Meter

All field equipment will be calibrated immediately prior to use in the field. The calibration procedures will follow standard manufacturer's instructions or routine HRP procedures to assure that the equipment is functioning within tolerances established by the manufacturer and required by the project. Field personnel will document all instrument calibration in bound field notebooks and on calibration forms found at the end of the site specific Health and Safety Plan (HASP). All records generated will be maintained by field personnel and are subject to audit by the QA Manager.

The detailed calibration, operation, and maintenance procedures for field instrumentation routinely used by HRP personnel are specific to manufacturer's instructions.

All calibrations will be recorded in a field notebook and on calibration forms found in the HASP. These calibration records

become part of the individual project files as documentation of QA objectives.

1.2.4 Maintenance

HRP personnel routinely maintain field equipment for optimal results. All maintenance procedures are documented in control logbooks designated for each piece of equipment. The individual performing the adjustment of the equipment will record any field activities involving routine maintenance in field logbooks. Maintenance performed at an authorized repair service will be documented in the maintenance log, including service location, specific repair, and method of transport. Methods of routine maintenance depend on the instrument and manufacturer. Refer to the manufacturer's operations manual for these procedures.

In the event that the primary field equipment is inoperable as determined by calibration difficulties, back-up field instruments will be obtained from other sources. These instruments will be calibrated prior to recording data. In no event shall instruments be used to record data unless the performance of the equipment has been documented.

1.2.5 Blanks

To ensure the validity of the field sampling plan, equipment blanks will be collected at the site. In addition, trip blanks will be prepared at the laboratory and accompany the sample containers during the entire sampling event (i.e., from the laboratory, to the field, to the sample locations, and back to the laboratory). Trip blanks will be analyzed for VOCs via EPA Method 8260, while equipment blanks will be analyzed for VOCs via EPA Method 8260, semi-volatiles (SVOCS) via EPA Method 8270, Polychlorinated Biphenyls (PCBs) via EPA Method 8082, Pesticides via EPA Method 8081, and TAL Metals.

Equipment, and trip blanks are slightly different from one another. For preparation of an equipment blank, an appropriate blank material (water) will be brought in contact with the sampling tools used for "real" samples. Equipment blanks will be collected by pouring laboratory grade deionized water over decontaminated equipment (stainless steel scoop, split spoon, etc.) and collecting the water in laboratory-supplied containers. Equipment blanks demonstrate whether the sampling equipment has been properly decontaminated.

Trip blanks are prepared at the laboratory and transported to the site in sealed containers. They evaluate whether airborne contamination is present at any point during the trip, and whether or

not the gas chromatograph columns have been thoroughly purged between samples.

HRP proposed to collect one equipment blank sample for each soil and groundwater matrices. In addition, and one trip blank will be collected during the soil, groundwater and soil vapor sampling.

6.2.6 Duplicates

As per ASP protocols, HRP proposes to collect one duplicate sample per matrix or one duplicate sample for every 20 analytical samples, at a minimum. The duplicate for soil and groundwater samples will be analyzed for VOCs via USEPA Method 8260, SVOCs via USEPA Method 8270, PCBs via USEPA Method 8082, Pesticides via USEPA Method 8081, TOC via Lloyd Kahn, and TAL Metals. The duplicate sample for soil vapor will be analyzed for VOCs via USEPA Method TO-15.

6.2.7 Spikes

As per ASP protocols, HRP proposes to collect one matrix spike/matrix spike duplicate (MS/MSD) sample per matrix or one MS/MSD for every 20 analytical samples, at a minimum. The MS/MSD samples for soil and groundwater samples will be analyzed for VOCs via USEPA Method 8260, SVOCs via USEPA Method 8270, PCBs via USEPA Method 8082, Pesticides via USEPA Method 8081, and TAL Metals.

6.2.8 Decontamination Procedures

All non-disposable field equipment which comes into direct contact with sampling media will undergo decontamination procedures. This includes: Geoprobing equipment, stainless steel scoops, and any other necessary hand tools. Prior to the commencement of fieldwork, a decontamination area will be constructed on site, and will be designated for decontamination only.

Macro core samplers, SP-15 groundwater sampler, stainless steel scoops and other hand tools will be decontaminated after each sample is collected in the following manner:

- The equipment will be washed in laboratory detergent solution (Alconox) and water;
- The equipment will then be washed with a solution of Citronox to remove trace organics;

- The equipment will then be washed with a solution of nitric acid to remove trace inorganics;
- The equipment will undergo a rinse of tap water;
- The equipment will undergo a final rinse using deionized water; and,
- The equipment will be wiped dry with a paper towel.

1.3 Data Usability Summary Report (DUSR)

Chemtech will provide Category B deliverable packages for the analyses, which will be forwarded to Alpha Geoscience, an independent data validator for completion of a Data Usability Summary Report (DUSR). The DUSR will be prepared to verify that the laboratory data is usable. The DUSR will examine the laboratory data provided in the deliverables packages and answer the following questions:

- Is the data package complete, as defined under the requirements of NYSDEC ASP Category B deliverables?
- Have all the holding times been met?
- Do all the QC data (i.e., blanks, instrument tunings, calibration standards, verifications, surrogate recoveries, spike recoveries, replicate analyses (duplicates), laboratory controls, and sample data) fall within the protocol required limits and specifications?
- Have all the data been generated using established and agreed upon analytical protocols?
- Does an evaluation of the raw data confirm the results provided in the data summary sheets and quality control verification forms?
- Have all the correct data qualifiers been used?

APPENDIX G

Site-wide Inspection Form

INSPECTION FORM
Former Scolite Site
Troy, New York
NYSDEC Site # E442037

Inspection completed by: _____

Date of inspection: _____

Is this inspection (check one): _____ Monthly _____ Prompted by sever weather event

Describe weather event: _____

Is the chain-link fence surrounding the property damaged in any way?

_____ YES* _____ NO

Have the concrete barriers in the driveway been moved or damaged in any way?

_____ YES* _____ NO

List current use of the site: _____

Has the useage changed since the last inspection?

_____ YES* _____ NO

Is there any evidence of dumping onsite?

_____ YES* _____ NO

If yes, please describe: _____

Is there any evidence of a spill or product release onsite?

_____ YES* _____ NO

If yes, please describe: _____

* If you answereed "yes" or "no" with an astericks (*), please contact Andrew Kreshick of the City of Troy and the NYSDEC to report your findings