

REMEDIAL ACTION WORK PLAN
for the
BROWNFIELD CLEANUP PROGRAM
at the
FORMER ONEIDA KNIFE PLANT
LOT 1
Kenwood Avenue
City of Sherrill, Oneida County, New York
NYSDEC Site No. C633077

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1.0 INTRODUCTION

The former Oneida Knife Plant, Lot 1 (Site) is located on Kenwood Avenue in the City of Sherrill, Oneida County, New York. The property formerly housed a silverware manufacturing facility owned by Oneida Silversmiths, Inc. (Oneida). The Site is a 2.9-acre parcel of land that includes the northerly and oldest portion of the former Oneida Knife Plant. The factory facilities on the Site are currently vacant. The remainder of the former Oneida Knife Plant to the south (Lot 2) includes the newer portion of the factory on 17.6 acres that was purchased by Omega Wire, Inc. in 2006 and is currently an active copper wire drawing mill. Refer to Figure 1 for a Site location map.

A cleanup of the site is being performed by Oneida, Ltd. under the New York State Department of Environmental Conservation (DEC) Brownfield Cleanup Program (BCP). This Remedial Action Work Plan (RAWP) describes the design of the remedial program proposed for site. The conceptual elements of the remedial program were selected after completing a *Remedial Alternatives Report*¹ (RAR) in 2012. The purpose of the RAR was to identify, evaluate and select an appropriate remedy or remedies addressing the impacts indentified at the Site. The DEC approved the RAR in November 2012.²

This RAWP details the design of the remedial measures and includes the information required to implement the remediation.

¹*Remedial Alternatives Report for the Brownfield Cleanup Program at the Former Oneida Knife Plant*, prepared by Plumley Engineering, P.C., dated January 2012 and revised May 2012.

²November 19, 2012 letter from Peter S. Ouderkirk, P.E., Region 6 DEC, addressed to Dave Keenan, Oneida, Ltd.

2.0 SITE DESCRIPTION

The *Remedial Investigation Report*³ (RIR) completed for the site presented detailed descriptions of the site geography, hydrogeology and nature and extent of contamination determined present. A brief overview of this information is presented.

2.1 General

The geographic conditions at the Site are illustrated on Figures 1 and 2. The Site is bounded to the north by Oneida Creek. A large area of undeveloped woods surrounds the former Oneida Knife Plant property to the south and east. The newer factory building of the former Oneida Knife Plant, along with related property and parking lots, are now owned and used by Omega Wire for copper wire manufacturing. Across Kenwood Avenue to the west are vacant (wooded) land, a pond (Sunset Lake) and the paved parking lot for the factory, now part of Omega Wire property holdings. The nearest residential areas are located north of the Site, approximately 300 to 600 feet north of Oneida Creek. The Site is currently zoned M-1 Manufacturing District by the City of Sherrill. The Site and vicinity are served by City of Sherrill public water and sanitary sewer utilities. Natural gas is also available to the Site. The natural gas and water mains run along Kenwood Avenue. City of Sherrill sanitary sewer services the Site via an easement that enters the Site from the north, crossing Oneida Creek. The City of Sherrill provides electric power to the Site.

2.2 History

The Site operated as a manufacturing facility, beginning in the mid-1800's. Silverware (mainly knives) manufacturing began in the early 1900's. All manufacturing operations at the Site were terminated by 2006. Petroleum products used in the knife manufacturing process included lubricating oils and synthetic coolants. Fuel oil was used to heat the plant until the 1980's, when

³*Remedial Investigation Report for the Brownfield Cleanup Program at the Former Oneida Knife Plant*, prepared by Plumley Engineering, P.C., dated February 2011.

natural gas began being used to fire the boilers. Former aboveground and underground storage tanks were located outdoors at the north end of the plant. Trichloroethylene (TCE) was used to clean oily parts until the mid-1990's. The TCE parts washer was located in Building 2K prior to the mid-1980's. Demolition of Building 2K was undertaken in 1987. A sediment retention pond and stormwater outfall to the creek has been in use from at least 1938 (Figure 2).

2.3 Geology

The site geology is described as follows (Sheet 5):

- The bedrock at the Site is the Vernon Shale Formation. Exposures of bedrock in the higher elevations to the south are present, with the top of bedrock dropping significantly in elevation northward toward Oneida Creek, where an overlying, relatively thick sequence of overburden deposits is present.
- The overburden sequence can generally be described as consisting of fine-grained clay and silt deposits with interbedded units of sand and gravelly sands, including graded, gravelly and sandy clay-silt units.
- A sand unit (often gravelly at the base) with a thickness of 2 to 10 feet occurs as a prominent "near surface" unit at depths (to top of the unit) of 2 to 12 feet. The unit is generally at a shallower depth closer to Oneida Creek. At all locations, the unit was found to be underlain by a clay unit, sometimes with a thin silt unit intervening between the two.
- Groundwater at the Site occurs at depths of approximately 6 to 13 feet below ground surface (bgs). Greater depths to groundwater were encountered at the higher elevations to the east and south. The shallowest depth to groundwater was encountered north of the building and closest to the creek. The water table occurs at an average depth of about 6 to 7 feet in the

key area north of Buildings 9K and 4K, positioned within the aforementioned gravelly sand unit.

- Groundwater flow directions at the Site are toward the north and northwest (Figure 3).

2.4 Extent of Contamination – AOCs

The remedial investigation work supported the delineation of the following areas of concern (AOCs) addressed by the RAR and the RAWP (Figure 4):

AOC #1 – Dissolved-Phase Groundwater Plume – Former Building 2K Degreaser

This AOC pertains to an area of elevated groundwater contamination within and downgradient of the former Building 2K. The characteristics include:

- Chlorinated hydrocarbons (CHCs) are the characteristic contaminant of concern (COC) in this area. CHCs at relatively low concentrations are present in lightly impacted soils near and below the water table at approximately 8 feet in the former Building 2K area and as dissolved-phase contaminants in groundwater.
- Groundwater CHC concentrations exceed groundwater standards in and downgradient of the former building area. Total volatile organic compound (VOC) concentrations in impacted wells were between 3 and 953 micrograms per liter (µg/L) on the last sampling date. Refer to Figure 3 and Tables 1 and 2 for additional information.
- No indicators of subsurface soil contamination (staining, free product or elevated photoionization detection (PID) meter readings) were noted in any of the borings above the water table depth (Table 3).

AOC #2 – Outdoor Subsurface Oil Impact – Building 9K/4K

This AOC pertains to outdoor subsurface soil impacts adjacent to and north of Buildings 9K and 4K (Figure 4). The characteristics include:

- Subsurface soils at depths of 6 to 9 feet contain a soil-absorbed oil material and moderately elevated PID readings. The thickness of the impacted zones is relatively thin, typically 1 to 2 feet, found associated with the water table (Table 3). The impact is contained within the near-surface unit of gravelly sand above underlying clay and silt units. No indicators of subsurface soil contamination (staining, free product or elevated PID readings) were noted in any of the borings above the water table depth. Subsurface data regarding contamination is provided on Sheet 2.
- Subsurface soil contains both CHCs and non-chlorinated hydrocarbons (NCHCs) at low concentrations with few, low-order exceedances of soil cleanup objectives (SCOs) (Table 4).
- With the exception of TW-7, groundwater quality in, near and downgradient of the impact area either meets or nearly meets groundwater standards (Figure 3; Tables 1 and 2).

AOC #3 – Outdoor Subsurface Oil Impact – Building 3K/5K

This AOC is located outdoors, adjacent to Buildings 3K/5K and 14K (Figure 4). Main characteristics include:

- Subsurface soils impacted with an absorbed oil material, some staining and low-level PID readings occur adjacent to the building at shallow depths (1 to 6 feet) above the water table (Table 3). The thickness of the impacted subsurface soil zones with visual indicators and elevated PID readings was typically a few inches to 2 to 4 feet.

- Subsurface soil contains NCHCs and some semi-volatile organic compounds (SVOCs) at low concentrations, with very few exceedances of SCOs. No CHCs were detected (Table 4).
- Groundwater in TW-1, located downgradient of this AOC, has a low total VOC concentration of 79 µg/L (Figure 3; Table 2).

AOC #4 – Indoor Subsurface Oil Impact – Building Basement 4K

This is an area of impacted subsurface soil located under Building 4K (Figure 4), which is partially constructed into the hillside to the south, forming a basement under the two-story building. The basement floor level meets the outdoor ground surface grade to the north. The characteristics of this AOC are as follows:

- Soil boring locations in the building contained black subsurface soil, primarily with low to moderate PID readings and some soil-absorbed oil material (Table 3).
- A few NCHCs and SVOCs were detected in the subsurface soil samples from the zone of impact, but no exceedances of any SCOs were detected (Table 4). Only one metal (lead) was detected at a concentration exceeding SCOs. Groundwater from TW-12 was non-detect for all Site COCs (Table 1).
- Sub-slab soil vapor results indicate the presence of both CHCs and NCHCs at relatively low concentrations (Table 5B).

AOC #5 – Indoor Vapors – Building 3K-5K

This AOC refers to relatively minor subsurface soil and groundwater impact inside Building 3K/5K (Figure 4). The slab-on-grade building was constructed at the higher plant elevation. The characteristics are:

- Field indicators of contamination included low to moderately elevated PID readings, with no visual indicators (Table 3). No staining or oily material was observed present.
- COCs in soils included only NCHCs, similar to the outdoor area adjacent to the wall and Building 14K. Field indicators were the highest at depths of 4 to 8 feet. None of the soil samples analyzed exceeded any of the SCOs (Table 4). Groundwater from TW-13 had a total VOC concentration of 10 µg/L and slightly exceeded groundwater standards for vinyl chloride (Figure 3; Table 1).
- Sub-slab soil vapor results indicate the presence of both CHCs and NCHC at relatively low concentrations (Table 5A).

AOC #6 – Retention Pond and Surface Soils

The retention pond and the Site surface soils were given an AOC designation based on the detected presence of polychlorinated biphenyls (PCBs), SVOCs and some metals in the surface soils about the Site and in the retention pond at low concentrations (primarily less than SCOs), but which could potentially be a source of additional off-Site contaminant release of COCs into Oneida Creek via stormwater and soil erosion mechanisms (Figure 5; Table 6). Characteristics include:

- None of the COCs were detected at concentrations exceeding any of the industrial use SCOs.
- None of the COCs were detected exceeding the SCOs for groundwater protection except for two SVOCs, Chrysene and Benzo(a)anthracene, at concentrations that slightly exceeded the 1,000 microgram per kilogram (µg/kg) cleanup objective with reported values of 1,170 and 1,700 µg/kg.
- Some of the metals, PCBs, VOCs and SVOCs at various locations exceeded the most stringent protection of ecological resource cleanup objectives.

3.0 DESCRIPTION AND CONSTRUCTION REQUIREMENTS FOR THE PROPOSED REMEDIATION

3.1 Overview

The components of the proposed remedy for the site that was presented and described in the RAR include the following:

- Complete landfill sampling and analysis and acceptance profile with Oneida-Herkimer Solid Waste Authority for the Ava Landfill. Obtain a “contained-in” criteria review and determination regarding managing the soils as a non-hazardous waste.
- Mobilize an environmental contractor to complete remedial excavations of the subsurface soils impacted in AOCs #1, #2 and #3 (Figure 4).
- Implement groundwater monitoring in AOC #1 with the objective of determining if VOC concentrations are declining over time.
- Provide a protective surface cover resistant to erosion over the outdoor AOCs.
- Draft and implement appropriate institutional controls and a Site Management Plan (SMP) for the Site consistent with the proposed industrial-use restriction.

3.2 Pre-Construction Soil Disposal Profiling

The contractor will be required to complete the landfill disposal profile with the project landfill prior to initiating the work. A pre-construction soil sampling and analysis program was completed by Plumley Engineering in March 2013. This program consisted of collecting grab samples at three locations from AOCs #2 and #3 for analysis of landfill parameters needed for completing a disposal profile for the soil. Test pit locations are shown on Sheet 2. The results of this sampling will be used to support the completion of the disposal profile for the Oneida-Herkimer Solid Waste Landfill

in the Town of Ava (project landfill) in advance of the excavation work. The soil sampling work is summarized as follows and the laboratory report is included as Appendix A:

- Two samples were collected from the impacted intervals of 6 to 8 feet below grade near MW-2 and TW-7, located in AOC #2. One sample of impacted soil from AOC #3 near SB-29 was collected for analysis.
- The samples were analyzed for all parameters required by the landfill. These included Toxicity Characteristic Leaching Procedure (TCLP) analyses for metals, VOCs, SVOCs, herbicides and pesticides. PCBs, reactivity, pH, paint filter test and ignitability were also included.
- The analytical results obtained for the three samples were acceptable by the landfill.

A “contained-in” determination was also received from Albany DEC Division of Environmental Remediation (DER) (Appendix B). The determination involved a review of the soil analytical data from the AOCs, as presented in the RAR. Based on their review, the soil can be handled as non-hazardous material suitable for disposal in the project landfill, pending acceptable profile sampling and analysis results.

The three samples analyzed will allow a total of 3,000 tons of soil from the site to be accepted at the landfill. If a larger amount of soil becomes necessary, the contractor will be required to implement additional soil sampling and testing in accordance with landfill requirements.

3.3 Remedial Excavations

3.3.1 General Requirements

The contractor shall make the necessary arrangements and investigations as may be needed to have the locations of the public and owner’s private buried utilities in the limits of

construction identified and field-marked prior to any excavating. Refer to Sheet 2 for available information. The contractor and owner shall coordinate to identify and field-mark any active, in-service utilities that require preservation. The contractor shall take all necessary precautions to preserve utilities in or near areas requiring excavation. The contractor is to protect structures, utilities, sidewalks, pavements and other facilities from damage caused by settlement, lateral movement, undermining, washout and other hazards created by earthwork operations.

The contractor is to provide the equipment and personnel needed for the project to excavate the soils from the remedial target areas, handle and stockpile soil as needed, and coordinate the loading onto haul trucks for transport to the project landfill. A trackhoe excavator is to be used to remove contaminated soils from the designated areas. Refer to Sheet 3 for the location of the initial proposed excavations. The final extent (horizontal and vertical) of the remedial excavation of soils required will be indicated by the project engineer⁴ based on the field screening results and observations made in the excavations.

The contractor shall coordinate the excavation work, any stockpiling needed, loading of the soil onto haul trucks for transport to the landfill in an efficient manner. The contractor shall direct-load into haul trucks to the extent practical, but can employ temporary stockpiling if such aids in progressing the work. Temporary stockpiles can be placed on polyethylene ground liners outside the excavation limits or stockpiled within the limits of the excavation without liners, providing the excavation has been cut below grade in advance of placement.

The contractor, with approval from the project engineer, may temporarily stockpile excavated soils at locations outside the excavation limits. All excavated soils from the Site that are stockpiled outside the excavations are subject to the following liner and cover requirements:

⁴Project engineer refers to the engineer of record for the project or the engineer's designated site representative/ inspector.

- The contractor is to provide the required materials and labor for establishing such temporary soil staging area(s) at locations approved by the project engineer.
- Materials are to include a sufficient quantity of black, 10 mil polyethylene sheeting to serve as bottom liners and soil pile covers, with sheeting hold-downs (sand bags) to be deployed on the pile covers.
- All soil removed from the excavation and left in stockpiles overnight and during wet weather, or at the direction of the project engineer, is to be covered.

Excavation and soil handling work shall be undertaken to keep the driveways and truck haul ways clean of spillage of impacted excavation spoils. The contractor will be required to promptly clean any such spillage for proper disposal at his own expense.

The contractor is to provide and deploy high visibility, standard traffic barricading around the excavation work areas at all times, including overnight.

The contractor shall be prepared to contend with wet soil conditions of some of the excavated soil encountered during the work. Such soils may require in-place soil blending, drying and/or draining to reduce the moisture content of the soil sufficiently prior to hauling off-site to the receiving facility. If such wet conditions are encountered, the contractor will be required as part of his scope of work to employ the following:

- Place excessively wet soils on an excavated bench cut within the proposed remedial excavation limits to drain, such that any drainage of water from the soil drains to, and is contained within, the excavation.
- Place the soil on a ground liner spread over an adjacent area of ground surface, graded at a slope and contour to allow drainage of water back into the excavation.

- Mix (blend) dryer contaminated soil with wet soil within the excavation or adjacent bench.
- Isolate wet areas of the excavation.
- Use bed liners in the haul trucks.

The contractor is to take precautions to prevent surface stormwater from entering excavations.

Surface and subsurface soil excavated in the AOC areas that exhibit no indications of impact will be segregated from soils exhibiting indications of impact. The project engineer will be on-Site to assist with the soil screening. Indicators of soil impact include apparent staining, presence of oily material (absorbed on the soil or free product), contaminant odor and elevated PID readings. Soils without these indicators are to be staged by the contractor separately in an on-Site stockpile area in the eastern parking lot (Sheet 1) for reuse as excavation backfill. Refer to Sections 4.1.2 and 6.2 for additional information. If separating clean from impacted soils proves impractical, as determined by the project engineer, all soil will be handled as impacted and disposed of in the project landfill.

The lateral extent of the remedial excavations may be restricted by subsurface utilities requiring preservation or building structures. In such cases, if encountered, the project engineer will document the conditions with photographs, written field notes and soil sampling and analysis in conformance with the confirmation sampling plan (Section 6.1).

The contractor will make reasonable efforts to protect and preserve existing monitoring wells. Protective well heads, if disturbed, will be replaced at the completion of the work. If any wells are destroyed, the contractor will be responsible for replacing them as directed by the project engineer.

Concrete slabs and any other structures encountered in the AOCs are to be demolished, as necessary, for soil excavation. Rubble from the removal and demolition of slabs and structures shall be broken into pieces no longer than 24 inches in any dimension and temporarily stockpiled for placement in the bottom of the remedial excavation as part of the backfilling sequence. No concrete, piping or other miscellaneous materials are to leave the site without proper disposal profiling and approval by the project engineer.

The contractor will be required to implement the project erosion and sediment control plan (Section 4.2.2; Sheet 4) prior to starting any excavating activities. Community air monitoring (Section 5.2) shall also be implemented during all soil handling activities. The contractor will be required to complete the following construction activities for the AOCs:

AOC #1

Remedial investigation activities did not indicate the presence of any high-level source soils in the former building 2K area. Two test trenches are proposed in the former Building 2K near the former solvent degreasing facilities as indicated on Sheet 3. These are proposed to verify the lack of source soils, or to remove any impacted soil deemed to be potential source soil for groundwater contamination, if encountered. The following is to be undertaken:

- Two trenches (#1 and #2) are to be dug to a depth of 8 to 9 feet along the lines indicated on Sheet 3 in the former Building 2K area. This is the depth of the expected confining bed beneath the sand and gravel unit, and where indications of impact were noted.
- The contractor shall stage the surface and subsurface soil that exhibit no indicators of contamination in a temporary staging area for reuse as backfill in the remedial excavations. The project engineer shall be present during the excavation work to screen the soils for indicators of contamination. Refer to Sections 4.1.2 and 6.2 for additional information.

- Any soils that contain visual indicators of impact (staining, sheen, oily material) and elevated PID readings will be considered source materials and shall be excavated and handled for off-Site disposal. The final extent of trench excavating shall be determined by the project engineer based on field observation of field indicators of contamination.
- Confirmation soil samples will be collected by the project engineer from the bottom section of the trench or excavation in accordance with the soil confirmation plan (Section 6.1).
- A monitoring well is to be installed in trench #1 after completing the removal. Refer to Sheet 3 for installation details.
- The contractor shall secure the open excavations with temporary construction fencing until backfilling can be arranged.
- Refer to Section 3.3.2 for backfilling requirements.

AOC #2

A proposed remedial excavation encompassing the area of oil-impacted soil identified during the remedial investigation is shown on Sheet 3. Remedial investigation activities indicated the zone of impact is relatively thin, contained primarily within the depths of 6 to 8 feet below grade, with no impact in the overlying subsurface soils. The proposed excavation encompasses an area of approximately 6,000 square feet. Assuming the zone of impact involves 2 feet of the deeper soil at 6 to 8 feet, this will involve approximately 450 cubic yards (800 tons) of soil. The following construction sequence is to be undertaken:

- The contractor shall field-mark and excavate the initial excavation area indicated on Sheet 3. The contractor shall stage the surface and subsurface soils that exhibit no

indicators of contamination in a temporary staging area for reuse as backfill in the excavation. The project engineer shall be present during the excavation work to screen the soils for indicators of contamination. Refer to Sections 4.1.2 and 6.2 for additional information.

- Field inspection work by the project engineer will be undertaken to screen the soils and observe excavation bottom and sidewall conditions, utilizing the contractor's excavator, to determine the final excavation depths and limits. The excavation shall be extended laterally until field observations and screening by the project engineer indicate no further removal is warranted.
- The contractor is to remove the concrete pads present in the targeted excavation area, as indicated on Sheet 3. The concrete debris is to be broken into pieces no longer than 24 inches in any dimension and stockpiled in a designated staging area of the site for use as backfill upon completion of the remedial excavation work.
- Impacted soil encountered will contain absorbed oily residue and relatively low to moderate PID readings. The impacted soil is to be either direct-loaded onto haul trucks for transport to the project landfill or temporarily staged on the Site in a designated staging area until transportation to the landfill can be arranged.
- After completing the removal of impacted soil to the extent practical, confirmation soil samples will be collected by the project engineer from the excavation in accordance with the soil confirmation plan (Section 6.1).
- The contractor shall secure the open excavation with temporary construction fencing until backfilling can be arranged.
- Following the collection of the confirmation samples, the project engineer shall indicate where concrete debris shall be placed as a layer in the bottom deeper areas of

the excavation. Subsequently, the surface and subsurface soils excavated with no indicators of contamination will be placed in the excavation. Surface soils excavated from the Site where needed to complete the 12-inch thick clean cap (Section 3.3.3; Sheet 4) may also be placed in the excavation as backfill. Refer to Sections 3.3.2 and 3.3.3 for additional details and final restoration requirements.

- The top 12 inches of the excavation shall be constructed in accordance with the soil cap specifications (Section 3.3.3; Sheet 4).

AOC #3

It is anticipated the remedial excavation for AOC #3 will encompass the area of shallow, impacted soil above the water table, as identified in the RIR (Figure 4; Sheet 3). As there are indications of shallow impact in this AOC, screening to distinguish impacted from non-impacted soils is not expected to be practical. Soil removal is expected to involve approximately 2,000 square feet from depths of 0 to 4 feet below grade, involving approximately 300 cubic yards (530 tons) of impacted soil. Impacted soil encountered will be stained, possibly with some oily residue, and have relatively low to moderate PID readings. The following will be undertaken:

- The contractor is to field-mark the area targeted for excavation, as indicated on Sheet 3.
- Impacted soil will be either direct-loaded onto haul trucks for transport to the project landfill or temporarily staged on the Site in a designated staging area until off-site transport to the landfill can be arranged.
- Field inspection work by the project engineer will be undertaken to screen the soils and observe excavation bottom and sidewall conditions, utilizing the contractor's excavator, to determine the final excavation depths and limits.

- After completing the removal of impacted soil to the extent practical, confirmation soil samples will be collected from the excavation by the project engineer in accordance with the soil confirmation plan (Section 6.1).
- Surface soils excavated from the Site where needed to complete the 12-inch thick clean cap (Section 3.3.3; Sheet 4) and/or clean imported fill (Section 3.3.2) may also be used as backfill in the excavation to attain appropriate backfill grades. Refer to Sections 3.3.2 and 3.3.3 for additional details and final restoration requirements.
- The top 12 inches of the excavation shall be constructed in accordance with the soil cap specifications (Section 3.3.3).

AOC #6

The contractor shall provide a 12-inch cap of clean soil materials over the outdoor areas, as indicated on Sheet 4 and in accordance with Section 3.3.3.

3.3.2 Fills and Backfilling

The contractor will be required to provide all necessary trucking, imported backfill material as needed, on-Site soil handling, equipment and labor to backfill and compact the excavation in a timely manner upon authorization to proceed from the project engineer.

All imported fills used for the project will be from virgin mine locations permitted by the DEC and approved by the project engineer prior to use. The contractor shall provide the facility location, the facility mining permit number, results of sieve testing and representative samples prior to use. The contractor shall provide the following select fills, as needed:

- *General Fill:* The contractor is to provide an imported, select sand and gravel backfill, as needed, for use in the excavations to bring the backfill level up to appropriate subgrade elevations. This imported backfill is to be virgin, graded gravel with sand (GW) or graded sand with gravel (SW) from a DEC-permitted mine or quarry with less than 10% passing the No. 80 sieve. These materials are exempt from chemical testing prior to importation to the Site per DER-10 5.4(e)5.i.
- *Crushed Stone Fill:* Imported crushed stone, with fines (“crusher-run”) shall be imported to the Site for use as follows:
 - The final 12 inches of backfill in the excavation beneath driveway areas (AOC #2; Sheet 3).
 - In gravel lot areas (Sheet 4).

Crushed stone at a DEC-permitted mine facility is exempt from chemical testing prior to importation to the Site. This material shall be crushed stone with fines (not washed) meeting New York State Department of Transportation (DOT) material designation 703-0201, DOT physical requirements of Table 703.2 and 703.3, with a primary size designation of No. 2 (100% passing 1.5-inch sieve; 0 to 15% passing ½-inch sieve). Place fill in loose layers not exceeding 6 inches in thickness and compact in accordance with DOT 203-3.12 Compaction Requirements.

- *Stone Filling:* Stone materials used for erosion protection on slopes indicated on Sheet 4 shall meet DOT gradation requirements for light stone filling item (DOT Figure 620-1). These materials are exempt from chemical testing prior to importation to the Site per DER-10 5.4(e)5.i.
- *Topsoil:* Imported topsoil furnished by the Contractor for use in the capping layer in lawn areas shall consist of a natural surface soil without admixtures of undesirable

subsoil, refuse or foreign materials. It shall be reasonably free from roots, hard clay, coarse gravel, stones larger than 1 inch in any dimension, noxious weeds, tall grass, brush, sticks, stubble or other material which would be detrimental to the proper development of vegetative growth. Organic content shall not be less than 2% or greater than 20%. The pH shall be in the range of 5.5 to 7.6. Topsoil shall conform to the following grading:

Sieve Sizes	Percentage Passing
1-inch	100%
½-inch	95% to 100%
No. 4	75% to 100%
No. 10	60% to 100%
No. 200	10% to 60%

Manufactured topsoil shall consist of a mineral component and amendments to meet the specified organic content, pH and other requirements specified.

The imported topsoil will require sampling and analysis to confirm the soil meets appropriate soil cleanup objectives (refer to Section 4.1.3).

Backfilling of the remedial excavations is anticipated to be undertaken after receiving the results of the soil confirmation samples. However, it may be necessary to at least partially backfill portions of the remedial excavations, particularly AOC #2, progressively with the excavation work to maintain sidewall slope stability of the deeper areas of the dig.

Prior to completing the backfill work, the surface soils removed from the AOCs and the cap cuts (Section 3.3.3; Sheet 4) and shallower subsurface soils exhibiting no indicators of contamination are to be placed in the AOC excavations as backfill.

Concrete debris generated during the work shall be placed as a layer in the deeper portions of the excavation for AOC #2 at locations indicated by the project engineer.

Place and compact fill material in the remedial excavations as follows:

- Place fill in loose layers not exceeding 12 inches and compact in accordance with DOT 203-3.12 Compaction Requirements.
- Compact fill placed in portions of the excavations deeper than 4 feet below grade with the excavator bucket to the extent practical. Once a level of 4 feet is obtained, a vibratory roller is to be used to compact the soil prior to placement of additional lifts.
- Uniformly grade the backfilled area to a smooth surface, free from irregular surface changes, to 1 foot below the final restoration grades in preparation for the surface cap. Refer to Section 3.3.3 for final restoration requirements.

3.3.3 Surface Cap and Restoration

The contractor shall provide a 12-inch thick clean surface cap covering all outdoor AOCs, as indicated on Sheet 4 and in accordance with the following:

- The contractor shall provide the equipment to excavate where needed, place imported fill material and grade as required, to complete the site capping requirements (Sheet 4). The overall surface drainage directions and facilities shall be maintained.
- In grass lawn areas, the cap is to be comprised of a compacted 8-inch layer of *General Fill* with a top 4-inch layer of *Topsoil*. In gravel lot areas indicated on the drawings, the cap shall consist of a 6-inch layer of compacted *General Fill* with a compacted top 6-inch layer of *Crushed Stone*. Under the restored driveway area, the cap is to consist of a 12-inch compacted layer of crushed stone. Refer to Section 3.3.2 for material specifications.

- Where needed to meet site grading requirements for the cap, surface soils are to be excavated to accommodate the minimum 12-inch thick cap requirement and maintain suitable drainage provisions consistent with the existing Site grades (Sheet 4).
- Surface soils excavated for the cap that exhibit no indicators of contamination are proposed to be reused as backfill in the remedial excavations (Section 4.1.2). The contractor will be required to complete these cuts and place the soil in the AOC excavations prior to completing the backfilling sequence. Cap soils excavated and temporarily staged on-Site are subject to the staging requirements in Section 3.3.1. Should any field indicators of contamination be discovered in these soils, such soil will be either be staged separately and tested for compliance with the Site reuse criteria (Section 6.2) or transported for disposal in the project landfill. The project engineer shall be on-Site to screen these soils when excavated.
- All cap materials are to be placed on a soil separation fabric. Fabric shall be a non-woven, permeable, polypropylene soil separation and drainage fabric, minimum 3 ounces per square yard, by *Typar* or equal. The fabric will aid in stabilizing the placement of the material and provide a demarcation feature indicating the bottom of the cap.
- The contractor is to remove 12 inches of surface soil from the retention pond and handle for landfill disposal. The 12-inch cut is to be replaced with 12 inches of imported screened gravel or crushed stone meeting DOT Material Designation 703-0203 and DOT Size Designation No. 3, with the following gradations:

Sieve Sizes	Percentage Passing
2.5-inch	100%
2-inch	90% to 100%
1.5-inch	35% to 70%
1-inch	0% to 15%

- Where needed, the cap area shall be cleared of all trees, brush and vines shall be cut, and all stumps removed. All vegetative matter on the Site is to be chipped, stockpiled and used as mulch to cover seeded topsoil following site restoration.
- Cover (cap) soil in lawn areas:
 - The ground surface is to be prepared by grading out any sharp irregularities and removing any large stones, sharp objects and debris. All grass areas not excavated shall be cut at ground level. The areas receiving the cover soil shall be graded, if needed, so the completed work after soil placement conforms to the required grades maintain existing drainage patterns and facilities . Place the soil separation fabric over all excavated cap areas and areas of soil fill capping prior to placement of the cover soil.
 - Place the compacted 8-inch layer of *General Fill* followed by placement of the 4-inch settled lift of topsoil. Spreading of topsoil shall not be done when the ground or topsoil is frozen, excessively wet or otherwise in a condition detrimental to the work. The final grading of the topsoil prior to seeding shall be to a tolerance that will not permit ponding of water in excess of 1 inch in depth. Roadway surfaces shall be kept clean during hauling and spreading operations. The topsoil layer shall be rolled after seed application.
 - The contractor shall be provide temporary mulching of exposed soils to prevent erosion until permanent measures are in place. Mulch shall be spread uniformly in a continuous blanket of sufficient thickness to hold the soil in place. Should the project engineer determine at any time that the mulch has not stabilized the soils, the contractor shall be responsible to re-mulch, correct any of the work and re-grade, as needed, at his own expense.
 - An estimated quantity of 1,375 cubic yards of *Topsoil* and *General Fill* is required for the project. The *Topsoil* material will require chemical laboratory testing to confirm compliance with applicable SCOs prior to importing to the Site (Section 4.1.3).

- Seed, fertilize and mulch the topsoil in accordance with the details on Sheet 4.

Other Site restoration activities shall include:

- All concrete rubble and excavated soils shall be properly disposed of as either re-used backfill in the remedial excavations below the surface cap or disposed of off-Site in the project landfill.
- All monitoring wells not retained for use are to be properly abandoned by the contractor in accordance with DEC CP-43, *Groundwater Monitoring Wells Decommissioning Policy*, issued November 9, 2009. Refer to Sheet 4.
- Proper removal of all erosion and stormwater control facilities following approval from the project engineer.
- Restore staging areas to pre-existing conditions.
- All plastic soil pile cover materials used during the project shall be disposed of in the project landfill.

4.0 CONSTRUCTION FACILITIES AND CONTROLS

4.1 Standards, Criteria and Guidance (SCGs)

4.1.1 Media-Specific SCGs

The following guidance or regulatory criteria are applicable for evaluation of analytical results for the remedial program:

Groundwater	New York Codes, Rules and Regulations, Title 6 (6NYCRR) Part 703 Groundwater Quality Standards and DEC Division of Water Technical and Operational Guidance Series (TOGS) 1.1.1, <i>Ambient Water Quality Standards and Guidance Values</i> , dated June 1998, and including 2008 revised standards as applicable.
Soil	6NYCRR Part 375-6, <i>Remedial Program Soil Cleanup Objectives (SCOs)</i> , specifically the SCOs for <i>Industrial Restricted Use</i> and for <i>Protection of Groundwater</i> . CP-51/ Soil Cleanup Guidance, DEC Policy, October 21, 2010.
Soil Vapor	<i>Guidance for Evaluating Soil Vapor Intrusion</i> , DOH, October 2006.

4.1.2 On-Site Reuse of Soils

On-Site soil reused as backfill in the remedial excavations shall comply with Part 375, CP-51 industrial use and protection of groundwater SCOs.

Based on the results of the surface soil sampling and analysis completed during the remedial investigation discussed in Section 2.4, none of the surface samples contained any site COCs at concentrations exceeding the protection of groundwater SCOs with the exception of two SVOCs at concentrations slightly exceeding the cleanup criteria (Table 6). Therefore, surface soils excavated for the cap are proposed to be reused as backfill in the remedial excavations.

No field indicators of contamination were noted in the soils above the zones of impact associated with the water table at depths of approximately 6 to 8 feet in AOCs #1 and #2. Therefore, subsurface soils that exhibit no indicators of impact (apparent contamination staining, oily or free product impact, elevated PID readings and contaminant odor) will be placed back in the remedial excavations as backfill.

Soils exhibiting some indications of impact, excluding those with oily material or free product, may be reused as backfill in the remedial excavations provided that sampling and analysis is completed by the project engineer and the laboratory results indicate compliance with the protection of groundwater SCOs. Refer to Section 6.2 for sampling and analysis requirements.

4.1.3 Imported Fill Materials

Soils imported to the Site must meet SCOs for restricted industrial use and the protection of groundwater in accordance with Table 5.4(e)10 in DER-10.⁵ An estimated 830 cubic yards of imported sand and gravel backfill for the remedial soil excavations and cap material, 260 cubic yards of crushed stone for capping materials in driveway and gravel lot areas and 285 cubic yards of topsoil capping material in grass lawn areas is required. The sand and gravel (*General Backfill*) from DEC-permitted virgin mine locations is specified to meet the exemption of chemical testing (<10% passing No. 80 sieve). The contractor shall submit representative sieve test report to the project engineer prior to use at the Site. Crushed rock is exempt from chemical testing.

The contractor will be required to submit laboratory analytical test results for the topsoil used for the project. The soil is to be from an approved virgin mine source. An estimated quantity of 285 cubic yards of topsoil will be imported. Therefore, in accordance with Table 5.4(e)10 in DER-10, the contractor will be required to submit a total of four discrete samples for laboratory testing for VOCs and one composite sample for SVOCs, inorganic and PCBs/pesticides. Testing will be for all compounds listed in DER-10, Appendix 5, *Allowable Constituent Levels for Imported Fill or Soil*. Refer to the *Imported Soil Testing*

⁵DEC Draft *Technical Guidance for Site Investigation and Remediation* (DER-10), dated December 2002.

Requirements (Appendix C) for additional information. The contractor is to provide laboratory test report to the project engineer for review and approval prior to importing the soil.

Prior to importing any fill to the site, the contractor shall provide the project engineer the following for approval:

- The name of the person providing the source documentation and relationship to the source of the fill.
- The location where the fill was obtained.
- Identification and copy of the DEC mining permit for the source location.
- Sieve and any laboratory analytical test results required for the fill.

4.1.4 Confirmation Soil Samples

Confirmation soil samples will be collected from the remedial excavation by the project engineer as described in Section 6.1. Results will be compared to DEC Restricted Use Industrial SCOs and Protection of Groundwater SCOs.

4.1.5 Landfill Disposal

If additional samples are required for landfill profiling, the analyses must be completed in accordance with the requirements of the project landfill (Appendix A). One sample per 1,000 tons is required.

4.1.6 Compliance and Inspection

The following guidance documents have been used in preparing this RAWP:

- DEC Draft *Technical Guidance for Site Investigation and Remediation* (DER-10), dated December 2002.
- 6NYCRR Part 375-1, *General Remedial Program Requirements* and Part 375-2, *Inactive Hazardous Waste Disposal Site Remedial Program*.

The project engineer will have a representative on-Site during Site preparation tasks, all soil excavation work, soil cap construction and Site restoration to assure the work is performed in accordance with the RAWP and project specifications. The project engineer will also be collecting soil confirmation samples, as described in Section 6.1.

4.2 Site Controls and Temporary Facilities

4.2.1 Protection of Fish and Wildlife

The remedial action does not involve any disturbance of the adjacent creek. An erosion and stormwater control plan (Section 4.2.2) will be implemented to provide protective measures for the creek during the construction phase of the project.

4.2.2 Erosion, Sediment and Stormwater Control Plan

The following soil and erosion control measures are to be implemented by the contractor as an initial task prior to completing any of the remedial excavation activities:

- A silt fence shall be installed on the top-of-bank along the entire length of the Oneida Creek, adjacent to the limits of construction (Sheets 3 and 4).
- Soil stockpiles shall remain covered, as needed, to prevent any erosion of the pile from rainfall events.

- The contractor is to deploy mulching, as needed, to prevent stormwater erosion in any of the cap cuts and fill areas.
- Newly graded areas shall be protected from traffic.
- The contractor shall repair and reestablish grades to specified tolerances if completed or partially completed surfaces become eroded, rutted, settled, or where they lose compaction.
- Where settling occurs before project correction period elapses, finished surfacing shall be removed, backfilled with additional soil material, compacted and reconstructed.
- The contractor shall be prepared to sweep the roads and driveway of any soil or debris from the Site. All sweepings shall be disposed of in the project landfill.
- All haul trucks are to remain on the paved driveway. The trucks are to be inspected prior to departure from the Site for any spillage of the loaded materials, cover in place and tires clear of excessive mud.

4.2.3 Dust, Odor and Vapor Control

Based on the RIR, excavation activities are not expected to generate a significant nuisance odor or vapor release to the community. The contractor will be responsible for controlling and minimizing dust generation on the work site. The project engineer will deploy Community Air Monitoring Program (CAMP) dust and vapor monitoring (Appendix D) to confirm levels.

The contractor will be required to undertake some or all of the following provisions, as needed, to minimize dust and vapor migration if indicated necessary by CAMP monitoring:

- Aboveground staging of impacted soil will be minimized and pile covers shall be provided. Impacted soil will be loaded directly onto haul trucks to the extent practical. Haul trucks will have covers. Speeds will be slow.
- Imported soils hauled to the site will be directly placed and subsequently stabilized in accordance with the RAWP specifications in a timely fashion. Temporary covers or mulch will be deployed, if needed, to control dust.
- The contractor shall provide a water truck and sprayer to wet drive surfaces and any exposed soil cuts, if needed, to minimize dust and odor releases.

4.2.4 Site Traffic Control Plan

The primary construction entrance and exit shall make use of the northern driveway (Sheet 3). The existing grade of this drive slopes back onto the Site. This entrance shall be used at all times except during the completion of the excavation for AOC #2, which will require temporary abandonment of this route and use of the alternate existing drive around the south side of the Omega Wire building on Lot 2 (Sheet 1). The existing swing gate on the northern drive will be closed and locked during off-hours of the project. Traffic into the central exclusion zone shall be restricted by use of the existing swing gate and temporary barricading (Sheet 1).

4.2.5 Temporary Facilities

The following temporary facilities will be provided during the excavation and soil cap construction:

- Exclusion zones around the AOC excavation areas. The contractor shall provide temporary excavation barricades around the open excavations when unattended or not being actively worked on by the contractor.

- Stormwater management and erosion control facilities (Section 4.2.2).
- Upwind and downwind dust and vapor monitoring per the CAMP (Appendix D).
- No dewatering of groundwater is anticipated during the excavation activities. However, should groundwater conditions be encountered requiring dewatering, the contractor will utilize a frac tank system for storage. Depending on the character and quantity of water generated, groundwater would either be transported to an off-Site disposal facility or an appropriate treatment system would be established on-Site, with discharge to either the sanitary sewer or Oneida Creek, subject to prior permit approvals. Additional dewatering requirements are provided in Appendix E.

4.3 Project Disposal Plan

The contractor shall complete all required application forms needed for the soil disposal profile with the Oneida-Herkimer Solid Waste Authority landfill in the Town of Ava in advance of beginning the excavation work. The project engineer will provide the required sampling and analysis results for the initial profiling (Appendix A). Three samples of the material have been analyzed and approved by the landfill for 3,000 tons.

The contractor shall provide all waste manifest forms with all information provided and filled in, as needed, for transporting and disposing of all materials hauled off-Site. A signed copy of all manifest forms shall be retained at the Site for inspection, recording or copying by the project engineer. A copy of the manifest forms and weight receipts from the landfill for all loads shall be provided to the project engineer on a timely basis.

The contractor shall coordinate the truck transportation for the excavated materials to the project landfill. Waste haulers used for this project will be permitted by the DEC to haul the material per DEC Part 364 regulations. The contractor shall use truck bed liners for all loads of soil leaving the Site to avoid leakage of fluids or soils from the truck and eliminate truck decontamination

procedures. All materials excavated during the work are to be properly transported off-Site to the approved receiving facility or used as backfill in the remedial excavations, as directed by the project engineer.

Concrete rubble free of staining shall be placed in the bottom of the remedial excavations prior to backfilling. The project engineer shall inspect the rubble prior to its use of backfill. The rubble shall be free of contamination staining.

5.0 HEALTH AND SAFETY PLAN

5.1 Site Health and Safety Plan

A written health and safety plan (HASP) has been developed for Plumley Engineering for the project that describes the anticipated hazards and control measures that need to be applied to activities related to the remediation. Refer to the *Site Health and Safety Plan* (Appendix F) for additional information.

Prior to commencement of on-Site activities, the contractor shall prepare a Site-specific HASP, which shall be implemented during performance of the work. The HASP shall be prepared in accordance with 29 CFR 1910 and 1926. The protective measures in the HASP shall be consistent with applicable protocols and provisions of Occupational Safety and Health Administration (OSHA) regulations and other applicable regulations. The HASP developed by the contractor shall include, but not be limited to, employee air monitoring, perimeter air monitoring, programs for accident prevention, personnel protection and emergency response/contingency planning. A corporate safety and health manual may be furnished along with the HASP, but this shall not satisfy the Site-specific HASP requirement. The responsibility for development, implementation and enforcement of the HASP lies with the Contractor and his health and safety personnel. Site background information contained in the RAWP and Plumley Engineering Site HASP (Appendix F) may be referenced by the contractor in preparing the construction HASP.

At least one copy of the HASP shall be present at the Site at all times.

5.2 Community Air Monitoring Program

A CAMP will obtain real-time, continuous monitoring data for VOCs and particulates (i.e., dust) at the downwind perimeter of each designated work area when excavation activities are in progress at the Site. The objective of the CAMP 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 remedial work activities. Action levels are specified in the CAMP that require increased monitoring and corrective actions to abate emissions and/or implement a work shutdown. Additional description of the CAMP is summarized below. Refer to Appendix D for additional details.

- The project engineer will provide the necessary equipment and labor to complete the CAMP monitoring activities.
- Downwind perimeter of the immediate work area (i.e., the exclusion zone) will be monitored with upwind concentrations measured at the start of each workday and periodically thereafter to establish background conditions.
- Any exceedance of the action levels and response activities shall be documented in the written construction records.

6.0 CONFIRMATION AND SOIL REUSE SAMPLING

6.1 Post-Excavation Confirmation Sampling

The project engineer will collect soil confirmation samples from the bottom and sidewalls of the excavations utilizing the contractor's excavator to assist with the collection of the samples. Sidewall

samples will be collected at approximately 30-foot intervals in AOC #3 and at 30 to 40-foot intervals in AOC #2, with bottom samples collected at a frequency of one for every approximately 900 square feet. For smaller excavations, a minimum of 1 bottom sample if less than 900 square feet and one sidewall sample if the perimeter is less than 20 feet. All samples will be grab samples. Samples will be collected from locations and depths bias towards highest contamination, based on field-determined conditions and screening during the work and/or prior data. The samples will be submitted to an Environmental Laboratory Accreditation Program (ELAP) certified laboratory for analysis of Site COCs.

Confirmation analyses for each sample will include the following:

- EPA Method 8260, total analytical list of VOCs.
- EPA Method 8270, CP-51 list of SVOCs for the fuel oil evaluations. This list includes 14 SVOCs analyzed during the remedial investigation, including those exceeding protection of groundwater SCOs. [Only three SVOCs, benzo(a)anthracene, chrysene and benzo(a)pyrene, in two soil samples were detected at concentrations exceeding protection of groundwater standards.]
- All metals that had one or more reported exceedance, to include arsenic, cadmium, chromium (trivalent), lead, nickel, silver and mercury.

None of the 20 subsurface samples had PCB concentrations exceeding the protection of groundwater SCOs. Therefore, PCBs are not proposed as a soil confirmation parameter.

Laboratory reporting requirements will be Category A, with approximately 10% of the samples with Category B deliverables. The analytical results will be compared to Industrial Use and Protection of Groundwater SCOs.

6.2 Sampling and Analysis for On-Site Soil Reuse

At the project engineer's discretion, soil exhibiting staining, elevated PID readings or contaminant odor (any field indicators of contamination) may be sampled and analyzed to determine if the soils are acceptable for on-Site reuse as backfill in the remedial excavations. The project engineer will collect samples from such soils and arrange for their analysis with the project laboratory. The number and type of samples collected shall be in accordance with DER-10 Table 5.4(e)10 in (Appendix C). Analytical parameters proposed are the same as for the confirmation soil samples (Section 6.1). Soils with any oil or free product impact will not be considered for on-Site reuse.

The analytical results will be compared to Industrial –Use and Protection of Groundwater SCOs. If compliant, the soil will be used as backfill in the remedial excavations placed below the final cap elevation. Soil that does not meet the SCOs will require off-Site disposal in the project landfill.

7.0 GROUNDWATER MONITORING

The owner shall be responsible for implementing the following post-construction groundwater monitoring under the inspection of the project engineer:

- Monitoring will involve the use of existing outdoor wells TW-2, TW-3 and TW-9, plus two proposed wells in the remedial excavations, one each in AOCs #1 and #2. TW-7 will be included if not removed during the remedial excavation. It was proposed in the RIR to sample indoor well TW-10. However, we no longer consider it safe to enter this building section due to excessive pigeon habitation and feces accumulation. This well had a low VOC detection (Table 1).
- Wells will be sampled quarterly for one full year. The number of wells and sampling frequency will then be evaluated.
- The wells will be sampled for Target Analyte List (TAL) VOCs per EPA Method 8260.

- Groundwater level measurements will be obtained from all the sampled wells.

8.0 SITE MANAGEMENT PLAN

An SMP will be developed by the owner and project engineer, consistent with DER-10, to govern future site use. This document will detail the appropriate institutional controls and maintenance requirements covering:

- Allowable uses of the Site (industrial only) and Site restrictions (groundwater use).
- A detailed soil handling and disposal plan covering future excavations associated with any building demolition and new construction activities at the Site.
- Cap maintenance requirements as constructed during the remedial program.
- Cap requirements after any building demolition (minimum 12 inches).
- Procedures involving investigating and mitigating potential soil vapor intrusion associated with occupying any future buildings at the Site.
- Surface cover requirements for maintaining adequate erosion protection measures at the Site. Stipulate that all areas of the Site are to remain surfaced with erosion resistant cover systems (established grass, pavement or concrete) and provide a stormwater Best Management Practice (BMP).
- Continuation of the post-construction groundwater sampling and analysis program at the Site until approval to discontinue is obtained from the DEC.
- Periodic SMP review and certification requirements.

9.0 SCHEDULE

The following estimated remediation schedule is provided, based on the submission of the RAWP to the DEC by May 1:

Distribution of Contractor Request for Quotes (RFQ)July 1, 2013

Public Notice Fact Sheet Distribution and
Completion of 45-day Public Comment Period.....August 1, 2013

DEC Final Approval of RAWPAugust 15, 2013

RFQ Package Addendum (if necessary,
dependent upon DEC comments)September 1, 2013

Implementation of Remedy.....September 15 to October 30, 2013

10.0 CONSTRUCTION COMPLETION

Upon completion of the remedial excavation, construction of the soil cap and restoration, a Final Engineering Report (FER) will be prepared in accordance with DER-10 Section 5.8. The FER will include:

- A description of the remedy, as constructed, according to the RAWP.
- A summary of all remedial actions completed, including:
 - Description of any problems encountered or changes to the approved remedy.

- Listing of the waste streams, quantity of materials disposed and facility where such materials were disposed.
 - Boundaries of the real property subject to the environmental easement, deed restriction or other institutional controls.
 - Site restoration work.
- Tables and figures containing all pre- and post-remedial data.
 - Figures showing contamination remaining at the site to be managed by the SMP.
 - “As-built” drawings, including:
 - The surveyed remedial excavation area (plan view map), quantity and source documentation of imported backfills, backfill profile, survey restoration grade profile and location of all final documentation samples.
 - Permanent survey markers for horizontal and vertical control for Site management.
 - Identification of the applicable institutional controls employed, along with a copy of the environmental easement or other institutional controls that apply.
 - Disposal documentation.
 - The SMP for the project, including descriptions of all institutional and engineering controls.
 - Results of all analyses, including laboratory data sheets and the required laboratory data deliverables.

The FER will include the following certification:

I, _____, certify that I am currently a New York State registered Professional Engineer, I had primary direct responsibility for the implementation of the subject construction program, and I certify that the Remedial Work Plan was implemented and all construction activities were completed in substantial conformance with the DER-approved Remedial Work Plan.

TABLES

FORMER ONEIDA KNIFE PLANT
City of Sherrill, Oneida County, New York
DEC Site No. C633077

TABLE 1 - SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
DETECTED COMPOUNDS - REMEDIAL INVESTIGATION WELLS

Date Sampled: June 15, 2010		AOC #1 (Outdoor 2K)	AOC #2 (Outdoor 4K)			AOC #2 (Indoor 9K)	AOC #4 (Indoor 4K)			AOC #5 (Indoor 3K/5K)		AOC #3 (Outdoor 3K/5K)
Compound	State Groundwater Standards¹	Compound Concentration										
		MW-1	MW-2	MW-3	MW-3 Dissolved	TW-10	TW-11A	TW-11A Dissolved	TW-12	TW-13	TW-13 Dissolved	TW-14
Volatile Organic Compounds (EPA Method 8260) in µg/L												
1,2-Dichloroethene	5			6	NA			NA		3	NA	
Trichloroethene	5			2	NA	2		NA			NA	
Vinyl Chloride	2			2	NA	1		NA		10	NA	
Total VOCs		ND<1	ND<1	10	NA	3	ND<1	NA	ND<1	13	NA	ND<1
Semi Volatile Compounds (EPA Method 8270 B/N) in µg/L												
Total SVOCs	500	NA	ND<9.26	ND<9.26	NA	ND<9.26	ND<9.26	NA	ND<9.26	ND<9.26	NA	NA
Polychlorinated Biphenyls (EPA Method 8020) in µg/L												
Total PCBs	0.09	NA	ND<0.05	ND<0.05	NA	ND<0.05	ND<0.05	NA	ND<0.05	ND<0.05	NA	NA
Metals (EPA Method 7000 Series) in mg/L												
Arsenic	0.025	NA								0.0477		NA
Barium	2.000	NA	0.571	0.073	0.077	0.130	0.566	0.448	0.124	0.687	0.327	NA
Berylliyum	0.003	NA								0.00331		NA
Chromium	0.05	NA								0.0911		NA
Copper	0.2	NA								0.187		NA
Lead	0.025	NA								0.0428		NA
Manganese	0.600	NA	0.134	1.070	1.080	0.339	1.600	1.570	0.159	4.04	0.125	NA
Nickel	0.1	NA								0.0915		NA
Zinc	2	NA		0.01	0.01		0.010	0.009		0.197		NA

Notes:

¹DEC Division of Water's Technical and Operational Guidance Series (TOGS) 1.1.1, *Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations* , dated June 1998, with Addenda dated April 2000 and June 2004.

µg/L micrograms per liter, equivalent to parts per billion (ppb)

mg/L milligrams per liter, equivalent to parts per million (ppm)

NA Not analyzed

Blank cell indicates the compound was not detected.

Compounds that exceeded State Groundwater Standards are denoted in **BOLD** .

FORMER ONEIDA KNIFE PLANT
City of Sherrill, Oneida County, New York
DEC Site No. C633077

**TABLE 2 - SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
DETECTED COMPOUNDS - PREVIOUS WELLS**

		AOC #5 (Outdoor 3K/5K)		AOC #1 (Outdoor 2K)				AOC #2 (Outdoor 9K)			
Compound	State Groundwater Standards ¹	Compound Concentration									
		TW-1		TW-2		TW-3		TW-7		TW-9	
Volatile Organic Compounds (EPA Method 8260) in µg/L		Apr-06	May-10	Apr-06	May-10	Apr-06	May-10	Apr-06	May-10	Apr-06	May-10
1,1-Dichloroethane	5				1						
cis-1,2-Dichloroethene	5	6	8	640	784	100	76	430	87	21	
Tetrachloroethene	5				3		2		3		
Toluene	5	42				71	71			25	
Trans-1,2-Dichloroethene	5				13						
Trichloroethene	5			590	129	140	22	460	124	10	
Vinyl Chloride	2	6	71	10	23	15	3	95	43	48	1
Total VOCs	10	54	79	1,240	953	326	174	985	257	104	1

Notes:

¹DEC Division of Water's Technical and Operational Guidance Series (TOGS) 1.1.1, *Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations*, dated June 1998, with Addenda dated April 2000 and June 2004.

µg/L micrograms per liter, equivalent to parts per billion (ppb)

Blank cell indicates the compound was not detected.

Compounds that exceeded State Groundwater Standards are denoted in **BOLD**.

FORMER ONEIDA KNIFE PLANT
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TABLE 3A - SUMMARY OF FIELD INDICATOR DATA

SOIL SAMPLE/ BORING LOCATION	DEPTH (feet)	PID READING (ppm)	DEPTH TO TOP OF FIRST/SECOND SILT OR CLAY UNIT (feet)	VISUAL CONTAMINATION INDICATORS*
AOC #1 (Outdoor Former 2K)				
SB-17	0 to 4	6.5@1' / 0 @3'	1.5 / 15	Gray soil with odor at 1'; black soil with odor at 5'
	4 to 8	95@6-8'		
	8 to 12	21@11'		
	12 to 16	0		
SB-22	0 to 4	0	7 / 15	None noted
	4 to 8	0		
	8 to 12	0		
	12 to 16	80@13-14' / 0@15-16'		
SB-26	0 to 4	0	9 / 15.5	None noted
	4 to 8	0		
	8 to 12	1.1@10' 0.4@12'		
	12 to 16	0		
	16 to 20	0		
	20 to 24	0		
	24 to 28	0		
	28 to 32	0		
	32 to 36	0		
	36 to 40	0		
SB-27	0 to 4	0	14	None noted
	4 to 8	0		
	8 to 12	0		
	12 to 16	0		
SB-28	0 to 4	0	12.5	None noted
	4 to 8	0.8@7' / 0@8'		
	8 to 12	14@10' / 0.1@12'		
	12 to 16	0		
SB-36	0 to 4	0	5	None noted
	4 to 8	0		
	8 to 12	0		
SB-37	0 to 4	0	9 / 16.5	None noted
	4 to 8	0		
	8 to 12	0		
	12 to 16	0		
	16 to 20	0		
	20 to 24	0		
AOC #2 (Outdoor 9K)				
SB-14	0 to 4	0	12	None noted
	4 to 8	12@6' / 72@7.5-8'		
	8 to 12	1@11' / 0.6@12'		
	12 to 16	0		
SB-18	0 to 4	0	12	Oily shine at 7-9'
	4 to 8	2@5' / 105@7-8'		
	8 to 12	14@10'		
	12 to 16	0 @12' / 0@15-16'		
SB-19	0 to 4	0	5.5 / 11.5	None noted
	4 to 8	0		
	8 to 12	0 @9-11'		
	12 to 16	0		
SB-35	0 to 4	0	9	None noted
	4 to 8	0		
	8 to 12	0		
TW-10	0 to 4	1.5@2'	6 / 9	None noted
	4 to 8	0		
	8 to 12	1.9@9'		
	12 to 16	0		
AOC #2 (Outdoor 4K)				
SB-15	0 to 4	0	2 / 9.5	Gray soil with oily shine at 7-9'
	4 to 8	174@7-9'		
	8 to 12	25@9' / 0@11'		
	12 to 16	0		
SB-16	0 to 4	0	1 / 10	None noted
	4 to 8	0		
	8 to 12	0		
	12 to 16	0		
SB-20	0 to 4	0	8	Slight oily shine 7-8'
	4 to 8	1.5@7' / 15@7-8'		
	8 to 12	0		
	12 to 16	0 @ 15-16'		
SB-21	0 to 4	0	3 / 11.5	Gray soil at 9-11'
	4 to 8	0		
	8 to 12	110@9-11'		
	12 to 16	0		

FORMER ONEIDA KNIFE PLANT
City of Sherrill, Oneida County, New York
DEC Site No. C633077

TABLE 3A - SUMMARY OF FIELD INDICATOR DATA

SOIL SAMPLE/ BORING LOCATION	DEPTH (feet)	PID READING (ppm)	DEPTH TO TOP OF FIRST/SECOND SILT OR CLAY UNIT (feet)	VISUAL CONTAMINATION INDICATORS*
AOC #2 (Outdoor 4K) - Continued				
SB-34	0 to 4	0	1.5 / 9	None noted
	4 to 8	0		
	8 to 12	0		
MW-2	0 to 4	0	7 / 13.5	Slight oily shine in cuttings
	4 to 8	25@6-8'		
	8 to 12	0		
	12 to 16	24@14-15'		
	16 to 20	0		
MW-3	0 to 4	0	2.5 / 9	None noted
	4 to 8	0		
	8 to 12	0		
	12 to 16	0		
AOC #3 (Outdoor 3K/5K)				
SB-29	0 to 4	0@0-2' / 4@2-4'	5	Oily cinder zone at 1.5-2' Oily shine in thin sandy seams 2-5'
	4 to 8	1@5'		
	8 to 12	0		
	12 to 16	0		
SB-30	0 to 4	0	1 / 12	None noted
	4 to 8	0		
	8 to 12	0		
	12 to 16	0		
AOC #4 (Indoor 4K)				
SB-31	0 to 2	2.5	6	Black soil, oily 2-6'
	2 to 4	27		
	4 to 6	33		
	6 to 8	8.7		
	8 to 10	0.1		
	10 to 12	0		
TW-11A	0 to 4	0	4 / 15.5	Yellowish product film 13-15'
	4 to 8	0		
	8 to 12	0.5@8-11'		
	12 to 16	2.8@14' / 0 @15-16'		
TW-12	0 to 4	0.8@2'	13	Black, oily soil ~6-11
	4 to 8	2.4@6' / 176 @7-8'		
	8 to 12	263@10-11'		
	12 to 16	0		
AOC #5 (Indoor 3K/5K)				
SB-32	0 to 4	1.8@3' / 25@4'	4.5	None noted
	4 to 8	2.8@7'		
	8 to 12	0		
	12 to 16	0		
	16 to 20	0		
SB-33	0 to 4	0	4	None noted
	4 to 8	0		
	8 to 12	0		
	12 to 16	0		
TW-13	0 to 4	30@3-4'	12.5	None noted
	4 to 8	91@4-5' / 1.3@7-8		
	8 to 12	2.6@8-10'		
	12 to 16	35@ 12-13' / 0.2@14-15'		
	16 to 20	0.3@16-17' / 0.1@19-20'		
AOC #6 (Retention Pond)				
SB-23	0 to 4	1.2@1-2' / 0.2@4'	8	None noted
	4 to 8	0		
	8 to 12	0		
SB-24	0 to 2	0@0-1' / 0.3@1-2'		None noted
	2 to 4	0		
Former Transformer Area				
SB-25	0 to 4	0		None noted
TW-14 Downgradient 3K/5K	0 to 4	0	17	None noted
	4 to 8	0		
	8 to 12	0		
	12 to 16	0		
	16 to 20	0		
MW-1	0 to 4	0	12	None noted
	4 to 8	0		
	8 to 12	0		
	12 to 16	0		
	16 to 20	0		
	20 to 24	0		

Notes:

PID Photoionization detection meter reading

* Staining, sheens, free-product.

Approximate sample intervals submitted for laboratory analysis are shaded. Numbers in bold indicate sample depths selected.

FORMER ONEIDA KNIFE PLANT
City of Sherrill, Oneida County, New York
DEC Site No. C633077

TABLE 3B - SUMMARY OF FIELD INDICATOR DATA

SOIL SAMPLE/ BORING LOCATION	SAMPLE DATE	DEPTH (feet)	PID READING (ppm)	CONTAMINATION INDICATORS*
SB-1	04/06/06	0 to 4	0	None noted
		4 to 8	0	
		8 to 12	0	
		12 to 16	0	
SB-2	04/06/06	0 to 4	0	None noted
		4 to 8	0	
		8 to 12	0	
		12 to 16	0	
SB-3	04/10/06	0 to 4	0	None noted
		4 to 8	0	
		8 to 12	0	
		12 to 16	0	
		16 to 20	0	
SB-4	04/10/06	0 to 4	0	None noted
		4 to 8	10@6-8'	
		8 to 12	0	
		12 to 16	0	
SB-5	04/10/06	0 to 4	0	None noted
		4 to 8	0	
		8 to 12	0	
		12 to 16	0	
		16 to 20	0	
SB-6	04/10/06	0 to 4	0	None noted
		4 to 8	0	
		8 to 12	0	
		12 to 16	0	
SB-7	04/10/06	0 to 4	0	None noted
		4 to 8	0	
		8 to 12	0	
		12 to 16	0	
SB-8	04/10/06	0 to 4	0	None noted
		4 to 8	0	None noted
		8 to 12	14@11-12'	Staining and odor
		12 to 16	0	None noted

FORMER ONEIDA KNIFE PLANT
City of Sherrill, Oneida County, New York
DEC Site No. C633077

TABLE 3B - SUMMARY OF FIELD INDICATOR DATA

SOIL SAMPLE/ BORING LOCATION	SAMPLE DATE	DEPTH (feet)	PID READING (ppm)	CONTAMINATION INDICATORS*
SB-10	04/11/06	0 to 4	0	None noted
		4 to 8	0	
		8 to 12	0	
		12 to 16	0	
SB-11	04/11/06	0 to 4	0	None noted
		4 to 6 (refusal)	5	Black oily material and odor 5-6'
SB-12	04/11/06	0 to 4	0	None noted
		4 to 8	0	None noted
SB-13	04/11/06	0 to 4	0	None noted
		4 to 8	14 @ 8'	Brown-gold, free product 7-9'
		8 to 12		None noted
TW-1	04/06/06	0 to 4	0	None noted
		4 to 8	0	
		8 to 12	0	
		12 to 16	0	
TW-2	04/07/06	0 to 4	0	None noted; gray mottling at 5.5
		4 to 5.5 (refusal)	1	
TW-3	04/07/06	0 to 4	0	None noted
		4 to 8	0	
		8 to 12	0	
		12 to 16	3 @ 13'	
TW-4	4/70/2006	0 to 4	0	None noted
		4 to 8	0	
		8 to 12	0	
		12 to 16	0	
TW-5	04/10/06	0 to 4	0	None noted
		4 to 8	0	
		8 to 12	0	
		12 to 16	0	
TW-6	04/10/06	0 to 4	0	None noted
		4 to 8	0	
		8 to 12	0	
		12 to 16	0	

FORMER ONEIDA KNIFE PLANT
City of Sherrill, Oneida County, New York
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TABLE 3B - SUMMARY OF FIELD INDICATOR DATA

SOIL SAMPLE/ BORING LOCATION	SAMPLE DATE	DEPTH (feet)	PID READING (ppm)	CONTAMINATION INDICATORS*
TW-7	04/10/06	0 to 4	5 @ 2'	Sheen on water table zone 6 to 8'
		4 to 8	11 @ 7- 8'	
		8 to 12	25 @ 12'	
		12 to 16	0	
TW-8	04/11/06	0 to 4	0	None noted
		4 to 8	0	None noted
		8 to 12	0	None noted
		12 to 16	0	None noted
		16-18.5 (refusal)	0	None noted
TW-9	04/11/06	0 to 4	0	Odor and greenish staining noted
		4 to 8	5 @ 7-8'	
		8 to 12	0	

Notes:

PID Photoionization detection meter reading

* Odors, staining, sheens, free-product.

bgs Below the groundsurface

Approximate sample interval submitted for laboratory analysis

FORMER ONEIDA KNIFE PLANT
City of Sherrill, Oneida County, New York
DEC Site No. C633077

TABLE 4 - SUMMARY OF SUBSURFACE SOIL ANALYTICAL RESULTS

DETECTED VOCs - EPA METHOD 8260

Date Sampled: May 20-26, 2010			AOC #2 (Outdoor 9K)						AOC #2 (Outdoor 4K)										AOC #4 (Indoor 4K)			
Compound	Recommended Soil Cleanup Objective¹ (µg/kg)		Compound Concentration (µg/kg)																			
	Industrial Restricted Use	Protection of Groundwater	SB-14	SB-18-1	SB-18-2	SB-19	SB-35	TW-10	SB-8	SB-12	SB-13	SB-15	SB-16	SB-20-1	SB-20-2	SB-21	SB-34	MW-2	MW-3	TW-11A	TW-12-1	SB-31
			Depth Below Grade (feet)																			
			7.5-8.0	7-8	15-16	9-11	7-9	8.5-10	11-12	7.5-8	8-9	7-9	8-10	7-8	15-16	9-11	5-7	7.5-8	8-10	13-15	7-8	3-5
Vinyl Chloride	27,000	20	ND<5.18	ND<5.68	ND<4.85	ND<5.41	ND<5.44	ND<6.01	ND<10	ND<10	ND<5	ND<95.9	ND<7.54	ND<5.32	ND<3.81	ND<104	ND<4.63	8.34	ND<4.31	ND<108	ND<104	ND<7.31
Acetone	1,000,000	50	48.8	55	ND<24.3	ND<27.1	ND<27.2	85.7	ND<10	ND<10	ND<5	ND<479	ND<37.7	29.4	ND<19	ND<521	ND<23.1	61.4	74.30	ND<540	ND<520	ND<35.7
Carbon Disulfide			6.78	ND<5.68	ND<4.85	7.57	ND<5.44	10.1	ND<10	ND<10	ND<5	ND<95.9	8.99	7.78	ND<3.81	ND<104	ND<4.63	7.58	7.77	ND<108	ND<104	ND<7.31
trans-1,2-Dichloroethene	1,000,000	190	ND<5.18	ND<5.68	ND<4.85	ND<5.41	ND<5.44	ND<6.01	ND<10	ND<10	ND<5	ND<95.9	ND<7.54	ND<5.32	ND<3.81	ND<104	ND<4.63	ND<4.68	ND<4.31	ND<108	ND<104	ND<7.31
2-Butanone	1,000,000	120	ND<5.18	15.6	ND<4.85	ND<5.41	ND<5.44	16.3	ND<10	ND<10	ND<5	ND<95.9	ND<7.54	20.2	ND<3.81	ND<104	ND<4.63	12.2	16.10	ND<108	ND<104	ND<7.31
cis-1,2-Dichloroethene	1,000,000	250	ND<5.18	ND<5.68	11	ND<5.41	ND<5.44	ND<6.01	ND<10	57	ND<5	ND<95.9	ND<7.54	15.2	ND<3.81	ND<104	33.4	30.9	ND<4.31	ND<108	ND<104	ND<7.31
Benzene	89,000	60	ND<5.18	ND<5.68	ND<4.85	ND<5.41	ND<5.44	ND<6.01	ND<10	ND<10	ND<5	ND<95.9	ND<7.54	ND<5.32	ND<3.81	ND<104	ND<4.63	ND<4.68	ND<4.31	ND<108	ND<104	ND<7.31
Trichloroethene	400,000	470	ND<5.18	ND<5.68	5.37	ND<5.41	ND<5.44	92.3	ND<10	13	ND<5	ND<95.9	ND<7.54	33.1	ND<3.81	ND<104	10.4	9.12	ND<4.31	ND<108	ND<104	ND<7.31
Toluene	1,000,000	700	ND<5.18	ND<5.68	ND<4.85	ND<5.41	ND<5.44	ND<6.01	ND<10	ND<10	ND<5	ND<95.9	ND<7.54	ND<5.32	ND<3.81	ND<104	ND<4.63	ND<4.68	ND<4.31	ND<108	ND<104	ND<7.31
Tetrachloroethene	300,000	1,300	ND<5.18	ND<5.68	ND<4.85	ND<5.41	ND<5.44	8.17	ND<10	ND<10	ND<5	ND<95.9	ND<7.54	ND<5.32	ND<3.81	ND<104	ND<4.63	ND<4.68	ND<4.31	ND<108	ND<104	ND<7.31
m&p-Xylene	1,000,000	1,600	ND<5.18	9.28	ND<4.85	ND<5.41	ND<5.44	ND<6.01	ND<10	ND<10	ND<5	ND<95.9	ND<7.54	ND<5.32	ND<3.81	ND<104	ND<4.63	ND<4.68	ND<4.31	ND<108	ND<104	ND<7.31
o-Xylene	1,000,000	1,600	ND<5.18	ND<5.68	ND<4.85	ND<5.41	ND<5.44	ND<6.01	ND<10	ND<10	ND<5	ND<95.9	ND<7.54	ND<5.32	ND<3.81	ND<104	ND<4.63	ND<4.68	ND<4.31	ND<108	ND<104	ND<7.31
Isopropylbenzene			ND<5.18	ND<5.68	ND<4.85	ND<5.41	ND<5.44	ND<6.01	ND<10	ND<10	32	ND<95.9	ND<7.54	ND<5.32	ND<3.81	2,070	ND<4.63	ND<4.68	ND<4.31	ND<108	ND<104	ND<7.31
n-Butylbenzene	1,000,000	12,000	ND<5.18	ND<5.68	ND<4.85	ND<5.41	ND<5.44	ND<6.01	ND<10	ND<10	32	ND<95.9	ND<7.54	ND<5.32	ND<3.81	ND<104	ND<4.63	ND<4.68	ND<4.31	ND<108	ND<104	ND<7.31
n-Propylbenzene	1,000,000	3,900	ND<5.18	11.9	ND<4.85	ND<5.41	ND<5.44	ND<6.01	ND<10	ND<10	ND<5	ND<95.9	ND<7.54	ND<5.32	ND<3.81	4,530	ND<4.63	ND<4.68	ND<4.31	ND<108	ND<104	ND<7.31
1,3,5-Trimethylbenzene	380,000	8,400	ND<5.18	ND<5.68	ND<4.85	ND<5.41	ND<5.44	ND<6.01	ND<10	ND<10	ND<5	ND<95.9	ND<7.54	ND<5.32	ND<3.81	ND<104	ND<4.63	ND<4.68	ND<4.31	ND<108	ND<104	ND<7.31
1,2,4-Trimethylbenzene	380,000	3,600	ND<5.18	9.54	ND<4.85	ND<5.41	ND<5.44	ND<6.01	ND<10	ND<10	ND<5	300	ND<7.54	ND<5.32	ND<3.81	1,010	ND<4.63	ND<4.68	ND<4.31	ND<108	305	ND<7.31
sec-Butylbenzene	1,000,000	11,000	ND<5.18	17.1	ND<4.85	ND<5.41	ND<5.44	ND<6.01	ND<10	ND<10	81	296	ND<7.54	13.4	ND<3.81	7,380	ND<4.63	ND<4.68	ND<4.31	ND<108	567	ND<7.31
4-Isopropyltoluene			ND<5.18	ND<5.68	ND<4.85	ND<5.41	ND<5.44	ND<6.01	ND<10	ND<10	ND<5	509	ND<7.54	ND<5.32	ND<3.81	2,200	ND<4.63	ND<4.68	ND<4.31	463	396	ND<7.31
Naphthalene	1,000,000	12,000	11.6	34.9	ND<4.85	ND<5.41	ND<5.44	ND<6.01	ND<10	ND<10	43	ND<95.9	9.66	17.8	ND<3.81	10,700	ND<4.63	ND<4.68	ND<4.31	ND<108	ND<104	30.9
Total VOC Concentrations	---	---	67	153	16	8	ND	213	ND<10	70	188	1,105	19	137	ND	27,890	44	130	98	463	#REF!	31
Total VOC TICs²	---	---	24,550	20,930	505	2,489	443	1,798	NA	NA	NA	152,900	4,726	22,110	301	64,480	648	14,438	1,240	28,320	107,290	19,070

			AOC #3 (Outdoor 3K/5K)			AOC #5 (Indoor 3K/5K)					AOC #1 (Outdoor 2K)								AOC #6 (Retention Pond)	
Compound	Recommended Soil Cleanup Objective¹ (µg/kg)		Compound Concentration (µg/kg)																	
	Industrial Restricted Use	Protection of Groundwater	SB-11	SB-29	SB-30	SB-32	SB-33	TW-13	TW-13-2	TW-13-3	SB-3	SB-4	SB-17	SB-22	SB-26	SB-27	SB-28	SB-37	SB-23-2	SB-24-2
			6-6.5	2-4	12-16	4-5	14-14.5	4-6	16-16.5	19.5-20	9-10	7-8	5-6	13-14	10-12	10-12	9-10	23-23.5	1-2	1-2
Vinyl Chloride	27,000	20	ND<50	ND<97	ND<8.08	ND<7.83	ND<4.66	ND<5.38	ND<6.47	ND<7.97	ND<10	2,800	ND<117	42.3	ND<6.45	ND<9.9	ND<6.07	ND<6.94	ND<11.7	ND<11.7
Acetone	1,000,000	50	ND<50	ND<485	ND<40.4	ND<39.2	ND<23.3	ND<26.9	47.9	41	ND<10	ND<130	ND<585	37.2	263	ND<49.5	ND<30.4	ND<34.7	ND<58.7	ND<58.6
Carbon Disulfide			ND<50	ND<97	ND<8.08	ND<7.83	ND<4.66	ND<5.38	ND<6.47	ND<7.97	ND<10	ND<130	ND<117	14.3	ND<6.45	ND<9.9	7.98	ND<6.94	ND<11.7	ND<11.7
trans-1,2-Dichloroethene	1,000,000	190	ND<50	ND<97	ND<8.08	ND<7.83	ND<4.66	ND<5.38	ND<6.47	ND<7.97	ND<10	ND<130	ND<117	18.9	ND<6.45	ND<9.9	ND<6.07	ND<6.94	ND<11.7	ND<11.7
2-Butanone	1,000,000	120	ND<50	ND<97	ND<8.08	ND<7.83	ND<4.66	ND<5.38	ND<6.47	ND<7.97	ND<10	ND<130	ND<117	6.42	39.8	ND<9.9	ND<6.07	ND<6.94	17	26
cis-1,2-Dichloroethene	1,000,000	250	ND<50	ND<97	ND<8.08	ND<7.83	ND<4.66	ND<5.38	ND<6.47	ND<7.97	ND<10	ND<130	ND<117	4,050	ND<6.45	ND<9.9	7.48	ND<6.94	ND<11.7	ND<11.7
Benzene	89,000	60	ND<50	101	ND<8.08	ND<7.83	ND<4.66	ND<5.38	ND<6.47	ND<7.97	ND<10	ND<130	ND<117	ND<5.68	ND<6.45	ND<9.9	ND<6.07	ND<6.94	ND<11.7	ND<11.7
Trichloroethene	400,000	470	ND<50	ND<97	ND<8.08	ND<7.83	ND<4.66	ND<5.38	ND<6.47	ND<7.97	ND<10	ND<130	ND<117	3,710	ND<6.45	ND<9.9	ND<6.07	ND<6.94	ND<11.7	ND<11.7
Toluene	1,000,000	700	ND<50	114	ND<8.08	ND<7.83	ND<4.66	ND<5.38	ND<6.47	ND<7.97	ND<10	ND<130	ND<117	ND<5.68	ND<6.45	ND<9.9	ND<6.07	ND<6.94	ND<11.7	ND<11.7
Tetrachloroethene	300,000	1,300	ND<50	ND<97	ND<8.08	ND<7.83	ND<4.66	ND<5.38	ND<6.47	ND<7.97	ND<10	ND<130	ND<117	934	ND<6.45	ND<9.9	ND<6.07	ND<6.94	ND<11.7	ND<11.7
m&p-Xylene	1,000,000	1,600	ND<50	127	ND<8.08	14.2	ND<4.66	ND<5.38	ND<6.47	ND<7.97	ND<10	ND<130	ND<117	ND<5.68	ND<6.45	17	ND<6.07	ND<6.94	ND<11.7	ND<11.7
o-Xylene	1,000,000	1,600	ND<50	120	ND<8.08	9.74	ND<4.66	ND<5.38	8.28	ND<7.97	ND<10	ND<130	ND<117	ND<5.68	ND<6.45	ND<9.9	ND<6.07	ND<6.94	ND<11.7	ND<11.7
Isopropylbenzene			ND<50	ND<97	ND<8.08	8.65	ND<4.66	ND<5.38	14.3	ND<7.97	ND<10	ND<130	ND<117	ND<5.68	ND<6.45	ND<9.9	ND<6.07	ND<6.94	ND<11.7	ND<11.7
n-Butylbenzene	1,000,000	12,000	63	ND<97	ND<8.08	ND<7.83	ND<4.66	ND<5.38	ND<6.47	ND<7.97	ND<10	ND<130	ND<117	ND<5.68	ND<6.45	ND<9.9	ND<6.07	ND<6.94	ND<11.7	ND<11.7
n-Propylbenzene	1,000,000	3,900	69	ND<97	ND<8.08	13.4	ND<4.66	ND<5.38	20.1	ND<7.97	ND<10	ND<130	ND<117	ND<5.68	ND<6.45	ND<9.9	ND<6.07	ND<6.94	ND<11.7	ND<11.7
1,3,5-Trimethylbenzene	380,000	8,400	ND<50	108	ND<8.08	70.3	ND<4.66	5.82	27.2	ND<7.97	ND<10	ND<130	ND<117	ND<5.68	ND<6.45	ND<9.9	ND<6.07	ND<6.94	ND<11.7	ND<11.7
1,2,4-Trimethylbenzene	380,000	3,600	62	294	ND<8.08	216	ND<4.66	ND<5.38	136	ND<7.97	ND<10	ND<130	ND<117	ND<5.68	ND<6.45	ND<9.9	ND<6.07	ND<6.94	ND<11.7	ND<11.7
sec-Butylbenzene	1,000,000	11,000	ND<50	ND<97	ND<8.08	ND<7.83	ND<4.66	7.11	52.2	ND<7.97	ND<10	ND<130	ND<117	ND<5.68	ND<6.45	ND<9.9	ND<6.07	ND<6.94	ND<11.7	ND<11.7
4-Isopropyltoluene			ND<50	124	ND<8.08	122	ND<4.66	29	143	ND<7.97	ND<10	ND<130	ND<117	ND<5.68	ND<6.45	ND<9.9	ND<6.07	ND<6.94	ND<11.7	ND<11.7
Naphthalene	1,000,000	12,000	110	2,490	ND<8.08	2,380	ND<4.66	14.8	193	ND<7.97	ND<10	ND<130	ND<117	ND<5.68	ND<6.45	ND<9.9	ND<6.07	ND<6.94	ND<11.7	ND<11.7
Total VOC Concentrations	---	---	304	3,478	ND	2,834	ND	57	642	41	ND	2,800	ND	8,813	303	17	15	ND	17	26
Total VOC TICs²	---	---	NA	36,080	1,115	22,360	441	2,416	16,020	2,558	NA	NA	60,630	538	10,449	1,629	1,003	600	10,021	16,041

FORMER ONEIDA KNIFE PLANT
City of Sherrill, Oneida County, New York
DEC Site No. C633077

TABLE 4 - SUMMARY OF SUBSURFACE SOIL ANALYTICAL RESULTS

DETECTED SVOCs - EPA METHOD 8270

Date Sampled: May 20-26, 2010			AOC #2 (Outdoor 9K)			AOC #2 (Outdoor 4K)								AOC #4 (Indoor 4K)			AOC #3 (Outdoor 3K/5K)			AOC #5 (Indoor 3K/5K)		AOC #1 (Outdoor 2K)		AOC #6 (Retention Pond)	
Compound	Recommended Soil Cleanup Objective¹ (ug/kg)		Compound Concentration (µg/kg)																						
	Industrial Restricted Use	Protection of Groundwater	SB-18-1	SB-19	TW-10	SB-8	SB-12	SB-13	SB-15	SB-16	SB-17	SB-21	MW-3	TW-11A	TW-12-1	SB-31	SB-11	SB-29	SB-30	SB-32	TW-13	SB-3	SB-4	SB-23-2	SB-24-2
			Depth Below Grade (feet)																						
			7-8	9-11	8.5-10	11-12	7.5-8	8-9	7-9	8-10	5-6	9-11	8-10	13-15	7-8	3-5	6-6.5	2-4	12-16	4-5	4-6	9-10	7-8	1-2	1-2
Naphthalene	1,000,000	12,000	ND<406	ND<398	ND<450	ND<165	ND<165	ND<830	ND<812	ND<514	ND<480	7,610	ND<388	ND<2310	9,850	ND<394	680	4,130	ND<391	ND<381	ND<382	ND<165	ND<165	ND<523	ND<556
2-Methylnaphthalene			ND<406	ND<398	ND<450	ND<165	ND<165	ND<830	ND<812	ND<514	ND<480	69,700	ND<388	ND<2310	51,100	ND<394	330	ND<2130	ND<391	2,630	777	ND<165	ND<165	ND<523	ND<556
Phenanthrene	1,000,000	1,000,000	ND<406	ND<398	ND<450	ND<165	ND<165	ND<830	ND<812	ND<514	ND<480	2,600	ND<388	ND<2310	ND<4410	ND<394	3,800	5,170	ND<391	501	ND<382	280	ND<165	1,560	ND<556
Fluoranthene	1,000,000	1,000,000	ND<406	ND<398	ND<450	ND<165	ND<165	ND<830	ND<812	ND<514	ND<480	ND<2100	ND<388	ND<2310	ND<4410	ND<394	2,800	ND<2130	ND<391	ND<381	ND<382	600	240	3,540	808
Flourene	1,000,000	386,000	ND<406	ND<398	ND<450	ND<165	ND<165	ND<830	ND<812	ND<514	ND<480	ND<2100	ND<388	ND<2310	ND<4410	ND<394	1,200	ND<2130	ND<391			ND<165	ND<165		
Pyrene	1,000,000	1,000,000	ND<406	ND<398	ND<450	ND<165	ND<165	ND<830	ND<812	ND<514	ND<480	ND<2100	ND<388	ND<2310	ND<4410	ND<394	2,200	ND<2130	ND<391	ND<381	ND<382	500	210	2,280	676
bis(2-Ethylhexyl)phtalate			ND<406	ND<398	ND<450	ND<165	ND<165	ND<830	ND<812	ND<514	ND<480	ND<2100	897	ND<2310	ND<4410	ND<394	ND<330	ND<2130	ND<391	ND<381	ND<382	720	ND<165	ND<523	ND<556
Acenaphthene	1,000,000	98,000	ND<406	ND<398	ND<450	ND<165	ND<165	ND<830	ND<812	ND<514	ND<480	ND<2100	ND<388	ND<2310	ND<4410	ND<394	760	ND<2130	ND<391			ND<165	ND<165		
Anthracene	1,000,000	1,000,000	ND<406	ND<398	ND<450	ND<165	ND<165	ND<830	ND<812	ND<514	ND<480	ND<2100	ND<388	ND<2310	ND<4410	ND<394	1,200	ND<2130	ND<391			ND<165	ND<165		
Benzo(a)anthracene	11,000	1,000	ND<406	ND<398	ND<450	ND<165	ND<165	ND<830	ND<812	ND<514	ND<480	ND<2100	ND<388	ND<2310	ND<4410	ND<394	1,400	ND<2130	ND<391	ND<381	ND<382	300	ND<165	1,610	ND<556
Chrysene	110,000	1,000	ND<406	ND<398	ND<450	ND<165	ND<165	ND<830	ND<812	ND<514	ND<480	ND<2100	ND<388	ND<2310	ND<4410	ND<394	1,600	ND<2130	ND<391	ND<381	ND<382	310	ND<165	1,240	ND<556
Dibenzofuran			ND<406	ND<398	ND<450	ND<165	ND<165	ND<830	ND<812	ND<514	ND<480	ND<2100	ND<388	ND<2310	ND<4410	ND<394	460	ND<2130	ND<391			ND<165	ND<165		
Benzo(b)fluoranthene	11,000	1,700	ND<406	ND<398	ND<450	ND<165	ND<165	ND<830	ND<812	ND<514	ND<480	ND<2100	ND<388	ND<2310	ND<4410	ND<394	950	ND<2130	ND<391	ND<381	ND<382	290	ND<165	1,030	ND<556
Benzo(k)fluoranthene	110,000	1,700	ND<406	ND<398	ND<450	ND<165	ND<165	ND<830	ND<812	ND<514	ND<480	ND<2100	ND<388	ND<2310	ND<4410	ND<394	100	ND<2130	ND<391	ND<381	ND<382	270	ND<165	907	ND<556
Benzo(a)pyrene	1,100	22,000	ND<406	ND<398	551	ND<165	ND<165	ND<830	ND<812	ND<514	ND<480	ND<2100	ND<388	ND<2310	ND<4410	ND<394	790	ND<2130	ND<391	ND<381	ND<382	290	ND<165	1,340	ND<556
Indeno(1,2,3-cd)pyrene	11,000	8,200	ND<406	ND<398	ND<450	ND<165	ND<165	ND<830	ND<812	ND<514	ND<480	ND<2100	ND<388	ND<2310	ND<4410	ND<394	ND<330	ND<2130	ND<391	ND<381	ND<382	ND<165	ND<165	528	ND<556
Benzo(g,h,i)perylene	1,000,000	1,000,000	ND<406	ND<398	ND<450	ND<165	ND<165	ND<830	ND<812	ND<514	ND<480	ND<2100	ND<388	ND<2310	ND<4410	ND<394	ND<330	ND<2130	ND<391	ND<381	ND<382	ND<165	ND<165	632	ND<556
Total SVOC Concentrations	---	---	ND<406	ND<398	551	ND<165	ND<165	ND<830	ND<812	ND<514	ND<480	79,910	897	ND<2310	60,950	ND<394	18,270	9,300	ND<391	3,131	777	3,560	450	14,667	1,484
Total SVOC TICs²	---	---	171,000	8,885	16,080	NA	NA	NA	57,980	4,303	39,400	254,600	3,301	159,870	886,900	20,548	NA	389,200	0	33,062	15,418	NA	NA	36,270	35,340

DETECTED RCRA METALS

Date Sampled: May 20-26, 2010			AOC #2 (Outdoor 9K)			AOC #2 (Outdoor 4K)						AOC #4 (Indoor 4K)			AOC #3 (Outdoor 3K/5K)			AOC #5 (Indoor 3K/5K)		AOC #1 (Outdoor 2K)		AOC #6 (Retention Pond)	
Compound	Recommended Soil Cleanup		Compound Concentration (mg/kg)																				
	Objective¹ (mg/kg)		SB-18-1	SB-19	TW-10	SB-13	SB-15	SB-16	SB-17	SB-21	MW-3	TW-11A	TW-12-1	SB-31	SB-11	SB-29	SB-30	SB-32	TW-13	SB-3	SB-4	SB-23-2	SB-24-2
	Industrial Restricted Use	Protection of Groundwater	Depth Below Grade (feet)																				
			7-8	9-11	8.5-10	8-9	7-9	8-10	5-6	9-11	8-10	13-15	7-8	3-5	6-6.5	2-4	12-16	4-5	4-6	9-10	7-8	1-2	1-2
Arsenic	16	16	5.69	ND<3.92	6.23	46	143	ND<5.05	21.9	ND<79.7	ND<3.75	7.24	ND<43.4	6.24	5	ND<40	ND<3.79	6.64	4.19	7	5	20	27.3
Barium	10,000	820	57.2	22.8	43.8	NA	32.3	36.9	63.8	142	44	52.9	79.3	65.3	NA	292	89	64.9	80.9	NA	NA	59.1	94.3
Beryllium	2,700	47	0.762	0.169	0.286	1	ND<1.57	0.336	0.848	ND<1.61	0.186	0.286	ND<0.875	0.452	0.2	ND<0.807	0.507	0.394	0.439	ND<0.1	0.2	0.209	ND<0.107
Cadmium	60	7.5	ND<0.243	ND<0.237	ND<0.266	3	ND<4.17	ND<0.306	4.19	ND<4.82	ND<0.227	ND<0.274	ND<2.63	0.238	4	ND<2.42	ND<0.23	ND<0.225	ND<0.222	0.5	0.3	1.62	13.5
Chromium, Trivalent	6,800	NS	7.39	5.9	11.8	53	35,300	14.3	1180	2,290	5.53	28.6	6,190	12.9	1760	931	13.2	10.6	12.7	26	14	2030	4290
Copper	10,000	1,720	23.6	24.1	20.1	236	288	24.4	93.6	89	6.90	20	109	22.1	70	81	21.3	18.9	23.5	29	26	118	314
Lead	3,900	450	10.8	ND<4.79	7.41	37	13,700	6.23	648	3,870	ND<4.58	30.5	2,850	30.8	870	30,200	5.13	10.1	193	42	48	44.1	75.5
Manganese	10,000	2,000	497	375	457	NA	1,490	302	251	596	206	261	608	669	NA	590	465	517	491	NA	NA	391	379
Nickel	10,000	130	71.9	6.4	8.95	48	562	9.55	49.3	92	24.2	9.98	125	16.5	182	162	18.2	15	16.4	19	16	67.2	155
Silver	6,800	8.3	ND<1.35	ND<1.32	ND<1.48	ND<0.3	ND<26.2	ND<1.7	ND<1.53	ND<26.8	ND<1.26	ND<1.52	ND<14.6	ND<1.29	32	ND<13.4	ND<1.28	ND<1.25	ND<1.23	ND<0.3	ND<0.3	ND<1.72	5.52
Zinc	10,000	2,480	224	15.4	24.2	557	74.3	29.6	910	138	148	29.8	315	61.9	86	57.6	33.7	27.6	36.6	63	50	311	2020
Mercury	5.7	1	ND<2.94	ND<0.021	0.0455	ND<0.1	0.224	ND<0.0279	2.01	0.0459	0.0446	0.0526	0.678	0.0403	ND<0.1	ND<0.292	ND<0.284	0.0763	ND<0.0221	ND<0.1	ND<0.1	ND<1.18	0.325
Cyanide	10,000	40	ND<0.0213	ND<0.292	ND<0.292	NA	ND<0.89	0.449	ND<0.99	1.86	0.275	0.383	ND<0.884	ND<0.291	NA	0.045	ND<0.0209	ND<0.258	ND<0.269	NA	NA	1.32	ND<1.11

DETECTED PCBs - EPA METHOD 8082

Date Sampled: May 20-26, 2010			AOC #2 (Outdoor 9K)			AOC #2 (Outdoor 4K)						AOC #4 (Indoor 4K)			AOC #3 (Outdoor 3K/5K)			AOC #5 (Indoor 3K/5K)			AOC #6 (Retention Pond)	
Compound	Recommended Soil Cleanup Objective ¹ (mg/kg)		Compound Concentration (mg/kg)																			
	Industrial Restricted Use	Protection of Groundwater	SB-18-1	SB-19	TW-10	SB-13	SB-15	SB-16	SB-17	SB-21	MW-3	TW-11A	TW-12	SB-31	SB-11	SB-29	SB-30	SB-25	SB-32	TW-13	SB-23-2	SB-24-2
			Depth Below Grade (feet)																			
			7-8	9-11	8.5-10	8-9	7-9	8-10	5-6	9-11	8-10	8.5-10	8.5-11	3-5	6-6.5	2-4	12-16	2-3	2-4	2-5	1-2	1-2
Aroclor 1254	---	---	ND<0.0623	0.673	ND<0.0653	ND<0.017	ND<0.0602	ND<0.0777	ND<0.0724	ND<0.0631	ND<0.0543	ND<0.0689	ND<0.0666	ND<0.0581	ND<0.017	ND<0.0643	ND<0.059	ND<0.0589	ND<0.0562	ND<0.0568	1.51	0.376
Aroclor 1260	---	---	0.0189	ND<0.0601	ND<0.0653	0.27	0.0797	ND<0.0777	0.447	ND<0.0631	ND<0.0543	ND<0.0689	ND<0.0666	ND<0.0581	0.15	ND<0.0643	ND<0.059	ND<0.0589	ND<0.0562	ND<0.0568	0.455	0.206
TOTAL	25	3.2	0.019	0.673	ND<0.0653	0.270	0.080	ND<0.0777	0.447	ND<0.0631	ND<0.0543	ND<0.0689	ND<0.0666	ND<0.0581	0.150	ND<0.0643	ND<0.059	ND<0.0589	ND<0.0562	ND<0.0568	1.965	0.582

FORMER ONEIDA KNIFE PLANT
City of Sherrill, Oneida County, New York
DEC Site No. C633077

TABLE 5A - SUMMARY OF SUB-SLAB SOIL VAPOR ANALYTICAL RESULTS
DETECTED COMPOUNDS

Date Sampled: April 13, 2006

Matrix: Sub-Slab Soil Vapor

Compound	Soil Vapor Concentration (µg/m³)				Indoor Air Concentration (µg/m³)				
	SV-3 (Indoor 3K)	SV-4 (Indoor 5K)	Maximum Soil Vapor Concentration	Draft NYSDOH Sub-Slab Vapor Guideline ⁴	Estimated Indoor Air Concentration		Background Indoor Air Concentration ³	Draft NYSDOH Indoor Air Guideline ⁴	OSHA Permissible Exposure Limit ⁵
					EPA Screening ¹	Site Specific ²			
1,2,4-Trimethylbenzene (1,2,4-TMB)			11	---	1.1	0.00001	1.7 - 5.1	---	---
1,3,5-Trimethylbenzene (1,3,5-TMB)			3	---	0.3	0.000003	<1.5	---	---
4-Ethyltoluene			20	---	2.0	0.000020	---	---	---
Acetone (2-propanone)	750	580	750	---	75	0.001	32 - 60	---	2,400,000
Benzene			7	---	0.7	0.000007	2.1 - 5.1	---	31,948
Ethylbenzene			10	---	1.0	0.000010	<1.6 - 3.4	---	435,000
Freon 11 (Trichlorofluoromethane)			3	---	0.3	0.00000	---	---	---
Isopropyl alcohol	450		450	---	45	0.0005	---	---	980,000
m/p-Xylenes			15	---	2	0.00002	4.1 - 12	---	435,000
n-Heptane			3	---	0.3	0.000003	---	---	2,000,000
n-Hexane			2	---	0.2	0.00000	1.6 - 6.4	---	1,800,000
o-Xylene			10	---	1	0.00001	<2.4 - 4.4	---	435,000
Tetrachloroethene (PCE)	131		131	*Monitor if >100	13	0.00013	<1.9 - 5.9	3	678,241
Tetrahydrofuran			6	---	1	0.00001	---	---	---
Toluene	25	58	58	---	6	0.0001	10.7 - 26	---	2,400,000

Notes:

¹Values assume attenuation factor of 10⁻¹ from shallow soil vapor to indoor air per EPA Draft Guidance for Evaluating Vapor Intrusion, Nov. 2002.

²Values assume attenuation factor of 10⁻⁶ from shallow soil vapor to indoor air, representative of structures with slabs in good condition, without preferential vapor pathways and without negative indoor air pressure.

³Values obtained from unpublished Background Indoor Air (office), Building Assessment and Survey Evaluation (BASE '94-'98) by Indoor Environments Division, EPA

⁴Values obtained from NYSDOH Draft Guidance for Evaluating Soil Vapor Intrusion in the State of New York (Feb 2005), Soil Vapor/Indoor, Air Matrix 2 - Indoor Air Concentration of Compound values derived by NYSDOH

⁵Occupational Safety and Health Standards, 29CFR1910, Tables Z-1 and Z-2, Time-weighted average - 8-hours.

µg/m³ micrograms per cubic meter

* Monitoring involves testing indoor air quality together with sub-slab vapors and ambient (outside) air.

 No guideline or standard.

FORMER ONEIDA KNIFE PLANT
City of Sherrill, Oneida County, New York
DEC Spill No. C633077

TABLE 5B - SUMMARY OF SUB-SLAB SOIL VAPOR ANALYTICAL RESULTS
DETECTED COMPOUNDS

Date Sampled: June 15, 2010

Compound	Soil Vapor Concentration (µg/m³)					Indoor Air Concentration (µg/m³)				
	SV-5 (Indoor 9K)	SV-6 (Indoor 4K)	SV-7 (Indoor 4K)	Maximum Soil Vapor Concentration	Draft NYSDOH Sub-Slab Vapor Guideline ⁴	Estimated Indoor Air Concentration		Background Indoor Air Concentration ³	Draft NYSDOH Indoor Air Guideline ⁴	OSHA Permissible Exposure Limit ⁵
						EPA Screening ¹	Site Specific ²			
1,2,4-Trimethylbenzene (1,2,4-TMB)	7.5	8.9	9.7	10	---	1.0	0.00001	1.7 - 5.1	---	---
1,3,5-Trimethylbenzene (1,3,5-TMB)	2.2	1.8	2.4	2	---	0.2	0.000002	<1.5	---	---
1,4-Dichlorobenzene	4.5	6.3	8.0	8	---	0.8	0.000008	<0.8 - 1.4	---	450,000
2,2,4-trimethylpentane	2.6	2.5	2.7	3	---	0.3	0.000003	---	---	---
4-Ethyltoluene	3.1	1.7	1.9	3	---	0.3	0.000003	---	---	---
Acetone (2-propanone)	18.0	16.0	27.0	27	---	2.7	0.000027	32 - 60	---	2,400,000
Benzene	0.9	0.9	0.9	1	---	0.1	0.000001	2.1 - 5.1	---	31,948
Ethylbenzene	6.6	3.8	3.9	7	---	0.7	0.000007	<1.6 - 3.4	---	435,000
Carbon Disulfide	0.4	0.7	0.4	1	---	0.1	0.000001	<0.8 - 2.1	---	311,000
Chloroform	5.5	4.7	0.8	6	---	0.6	0.000006	<0.4 - <1.2	---	240,000
cis-1,2-Dichloroethene	4.8	0.8	ND	5	---	0.5	0.000005	<0.8 - <1.2	---	---
Freon 11 (Trichlorofluoromethane)	7.3	4.6	30.0	30	---	3.0	0.000030	<3.7 - <6.7	---	5,600,000
Freon 12 (Dichlorodifloromethane)	2.5	2.5	2.4	3	---	0.3	0.000003	4.8 - 10.5	---	4,950,000
m/p-Xylenes	20.0	9.2	9.2	20	---	2.0	0.000020	4.1 - 12	---	435,000
MEK	3.0	3.1	4.0	4	---	0.4	0.000004	3.3 - 7.5	---	590,000
n-Heptane	ND	ND	1.0	1	---	0.1	0.000001	---	---	2,000,000
o-Xylene	6.8	4.3	4.1	7	---	0.7	0.000007	<2.4 - 4.4	---	435,000
Tetrachloroethene (PCE)	28.0	59.0	21.0	59	*Monitor if >100	5.9	0.000059	<1.9 - 5.9	100	678,241
Tetrahydrofuran	2.3	2.2	ND	2	---	0.2	0.000002	---	---	590,000
Toluene	17.0	7.3	7.3	17	---	1.7	0.000017	10.7 - 26	---	754,000
Trichloroethene	37	40	15	40	*Monitor if > 50	4	0.000040	<1.2 - 1.2	5	537,000

Notes:

¹Values assume attenuation factor of 10⁻¹ from shallow soil vapor to indoor air per EPA Draft Guidance for Evaluating Vapor Intrusion, Nov. 2002.

²Values assume attenuation factor of 10⁻⁶ from shallow soil vapor to indoor air, representative of structures with slabs in good condition, without preferential vapor pathways and without negative indoor air pressure.

³Values obtained from unpublished Background Indoor Air (office), Building Assessment and Survey Evaluation (BASE '94-'98) by Indoor Environments Division, EPA

⁴Values obtained from NYSDOH Draft Guidance for Evaluating Soil Vapor Intrusion in the State of New York (Feb 2005), Soil Vapor/Indoor, Air Matrix 1 and 2-Indoor Air Concentration of Compound values derived by NYSDOH.

⁵Occupational Safety and Health Standards, 29CFR1910, Tables Z-1 and Z-2, Time-weighted average - 8-hours.

µg/m³ micrograms per cubic meter

* Monitoring involves testing indoor air quality together with sub-slab vapors and ambient (outside) air.

No guideline or standard.

FORMER ONEIDA KNIFE PLANT
City of Sherrill, Oneida County, New York
DEC Site No. C633077

TABLE 6 - SUMMARY OF SURFACE SOIL ANALYTICAL RESULTS

DETECTED VOCs [EPA Method 8260]

Date Sampled: May 20-26, 2010				AOC #1 (Outdoor 2K)		AOC #2 (Outdoor 9K)		AOC #2 (Outdoor 4K)		AOCs #3 and #6 (Outdoor 3K/5K and Retention Pond)			
Compound	Recommended Soil Cleanup Objective ¹ (µg/kg)			Compound Concentration (µg/kg)									
				SS-3		SS-4		SS-6		SS-5	SB-23-1	SB-24-1	
	Industrial Restricted Use			Protection of Groundwater			Protection of Ecological Resources			Depth Below Grade			
										0-2"		0-2"	
Tetrachloroethene	300,000	1,300	2	ND<4.32		15.4		ND<4.62		ND<4.37	ND<8.07	ND<8.74	
m&p-Xylene	1,000,000	1,600	0.26	4.35		ND<4.64		12.5		ND<4.37	ND<8.07	ND<8.74	
1,3,5-Trimethylbenzene	380,000	8,400		ND<4.32		ND<4.64		4.9		ND<4.37	ND<8.07	ND<8.74	
1,2,4-Trimethylbenzene	380,000	3,600		4.87		ND<4.64		12.6		ND<4.37	ND<8.07	ND<8.74	
Total VOC Concentrations	---	---		9.22		15.4		30		0	0	0	

DETECTED SVOCs [EPA Method 8270]

Date Sampled: May 20-26, 2010				AOC #1 (Outdoor 2K)	AOC #2 (Outdoor 9K)	AOC #2 (Outdoor 4K)	AOC #3 (Outdoor 3K/5K)		
Compound	Recommended Soil Cleanup Objective¹ (µg/kg)			Compound Concentration (µg/kg)					
				SS-3	SS-4	SS-6	SS-5	SB-23-1	SB-24-1
	Industrial Restricted Use	Protection of Groundwater	Protection of Ecological Resources	Depth Below Grade					
				0-2"	0-2"	0-2"	0-2"	0-2"	0-2"
Phenanthrene	1,000,000	1,000,000		507	ND<691	ND<425	1,470	ND<576	1,810
Anthracene	1,000,000	1,000,000		ND<365	ND<691	ND<425	455	ND<576	ND<663
Carbazole				ND<365	ND<691	ND<425	389	ND<576	ND<663
Fluoranthene	1,000,000	1,000,000		999	771	ND<425	2,810	ND<576	2,550
Pyrene	1,000,000	1,000,000		608	ND<691	449	1,660	ND<576	1,360
Benzo(a)anthracene	11,000	1,000		451	ND<691	ND<425	1,700	ND<576	882
Chrysene	110,000	1,000		453	ND<691	ND<425	1,170	ND<576	822
Benzo(b)fluoranthene	11,000	1,700		454	ND<691	ND<425	920	ND<576	ND<663
Benzo(k)fluoranthene	110,000	1,700		ND<365	ND<691	ND<425	871	ND<576	ND<663
Benzo(a)pyrene	1,100	22,000	2.6	472	ND<691	ND<425	1,020	ND<576	703
Indeno(1,2,3-cd)pyrene	11,000	8,200		ND<365	ND<691	ND<425	526	ND<576	ND<663
Benzo(g,h,i)perylene	1,000,000	1,000,000		ND<365	ND<691	ND<425	523	ND<576	ND<663
Total SVOC Concentrations	---	---		3,944	771	449	13,514	ND<576	8,127

DETECTED RCRA METALS

Date Sampled: May 20-26, 2010				AOC #1 (Outdoor 2K)	AOC #2 (Outdoor 9K)	AOC #2 (Outdoor 4K)	AOC #3 (Outdoor 3K/5K)		
Compound	Recommended Soil Cleanup Objective ¹ (mg/kg)			Compound Concentration (mg/kg)					
				SS-3	SS-4	SS-5	SS-6	SB-23-1	SB-24-1
	Industrial Restricted Use	Protection of Groundwater	Protection of Ecological Resources	Depth Below Grade					
				0-2"	0-2"	0-2"	0-2"	0-2"	0-2"
Arsenic	16	16	13	4.38	ND<3.2	5.11	6	13.3	29
Barium	10,000	820	820	25.9	16.8	40.4	45	79.8	114
Beryllium	2,700	47	47	0.303	0.219	0.201	0.235	0.337	0.245
Cadmium	60	7.5	7.5	ND<0.208	ND<0.194	ND<0.218	ND<0.245	1.06	2.95
Chromium, Trivalent	6,800	NS	41	63.2	163	501	498	1,530	4,460
Copper	10,000	1,720	50	29.7	10.6	37.5	19	84.1	204
Lead	3,900	450	63	11.8	ND<3.91	62.3	16	26.5	63
Manganese	10,000	2,000	1,600	463	328	202	392	365	518
Nickel	10,000	130	30	12.5	11	19.3	23	83.4	257
Silver	6,800	8.3	2.0	ND<1.15	ND<1.08	ND<1.12	ND<1.36	2.28	7.15
Zinc	10,000	2,480	109	31.5	13.5	25	49	308	745
Mercury	5.7	1	0.18	ND<0.022	0.458	0.0458	0.0466	ND<0.415	0.131
Cyanide	10,000	40		ND<0.256	ND<0.748	0.308	ND<0.299	0.135	ND<0.473

DETECTED PCBs [EPA Method 8082]

Date Sampled: May 20-26, 2010				AOC #1 (Outdoor 2K)	AOC #2 (Outdoor 9K)	AOC #2 (Outdoor 4K)	AOCs #3 and #6 (Outdoor 3K/5K and Retention Pond)			Transformer Area			
Compound	Recommended Soil Cleanup Objective¹ (mg/kg)			Compound Concentration (mg/kg)									
				SS-3	SS-4	SS-5	SS-6	SB-23-1	SB-24-1	TE-W	SS-1	SS-2	SB-25-SS
	Depth Below Grade												
	Industrial Restricted Use	Protection of Groundwater	Protection of Ecological Resources	0-2"	0-2"	0-2"	0-2"	0-2"	0-2"	0-6"	0-2"	0-2"	0-2"
Aroclor 1254	---	---	1	0.183	0.609	0.162	0.567	0.0893	0.177	1.03	0.239	0.177	1.01
Aroclor 1260			1	ND<0.0531	ND<0.0516	0.0646	ND<0.0626	ND<0.0862	ND<0.0993	2.13	ND<0.0533	ND<0.0527	0.631
TOTAL	25	3.2	1.0	0.18	0.61	0.23	0.57	0.09	0.18	3.16	0.24	0.18	1.64

Notes:

¹New York Codes, Rules and Regulations, Title 6 (6NYCRR) Part 375-6, Remedial Program Soil Cleanup Objectives .

µg/kg micrograms per kilogram, equivalent to parts per billion (ppb)
mg/kg milligrams per kilogram, equivalent to parts per million (ppm)

ND Not detected above the laboratory method detection limit.
Concentrations exceeding soil cleanup objectives denoted in **BOLD** .

FIGURES



DOT Topo - Vernon (NY) Quad., 1955 Contours, 1978.

NYS GIS Clearinghouse - City of Sherrill, Oneida County, New York, 1-Foot and 2-Foot Resolution Natural Color Orthoimagery, April 2008.



8232 LOOP ROAD
BALDWINVILLE, NY 13027
T: (315) 638-8587 F: (315) 638-9740
200 NORTH GEORGE STREET
ROME, NY 13440
T: (315) 281-1005 F: (315) 334-4394
WWW.PLUMLEYENG.COM

Civil and Environmental Engineering

PROJECT: **FORMER ONEIDA KNIFE PLANT - LOT 1
REMEDIAL ACTION WORK PLAN**

CLIENT: ONEIDA LTD

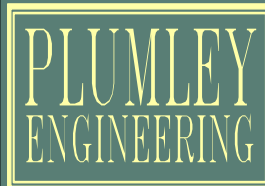
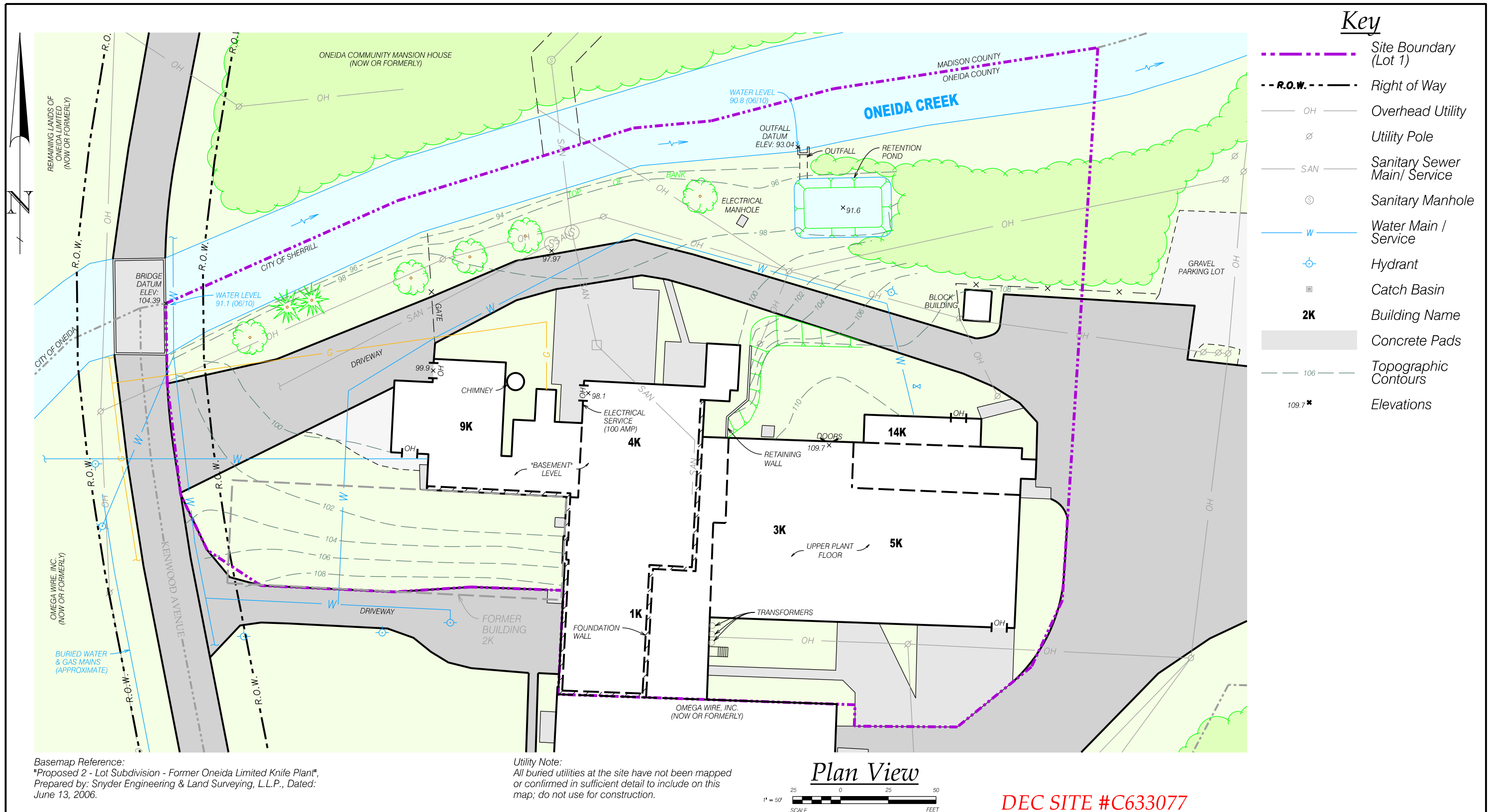
LOCATION: CITY OF SHERRILL, ONEIDA COUNTY, NEW YORK

TITLE: **AERIAL VICINITY MAP**

PROJECT No.: 2013028

DATE: APRIL 2013

**FIGURE
1**



PLUMLEY ENGINEERING, P.C.
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Civil and Environmental Engineering

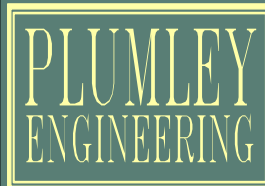
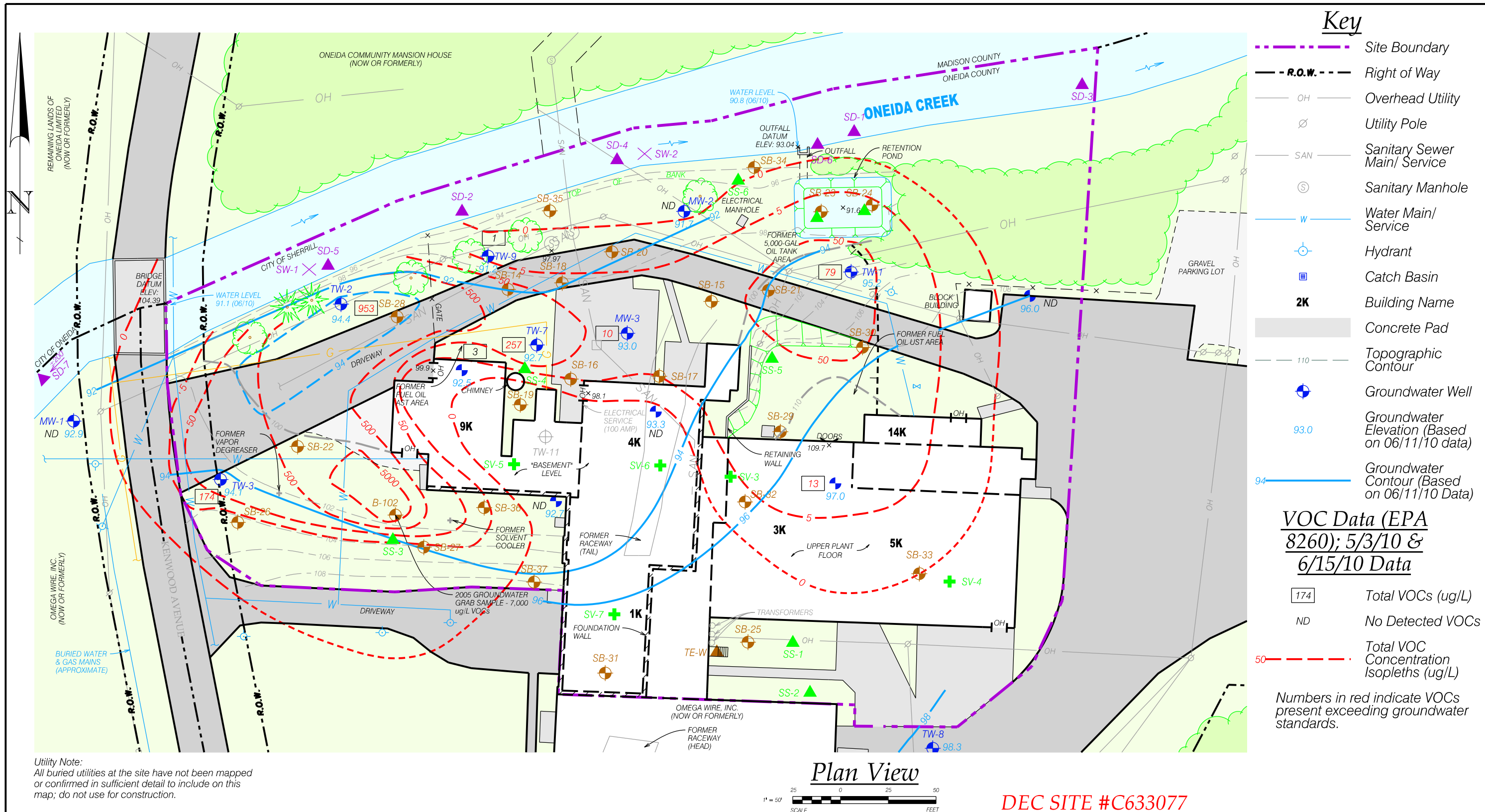
REVISIONS:	DATE:	BY:
△		

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PROJECT: **FORMER ONEIDA KNIFE PLANT - LOT 1 REMEDIAL ACTION WORK PLAN**
DWG. TITLE: **EXISTING CONDITIONS SITE PLAN**
CLIENT: **ONEIDA, LTD.**
LOCATION: **CITY OF SHERRILL, ONEIDA COUNTY, NEW YORK**
Note: No alteration permitted hereon except as provided under Section 7209 Subdivision 2 of the New York State Education Law.

PROJECT No.: 2013028
FILE NAME.: Figure2
SCALE: AS NOTED
DATE: APRIL 2013
ENG'D BY: FAK
DRAWN BY: JMD
CHECKED BY: DRV

SHEET NO.:
FIGURE 2
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Civil and Environmental Engineering

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△		

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PROJECT: **FORMER ONEIDA KNIFE PLANT - LOT 1 REMEDIAL ACTION WORK PLAN**
DWG. TITLE: **GROUNDWATER DATA**
CLIENT: **ONEIDA, LTD.**
LOCATION: **CITY OF SHERRILL, ONEIDA COUNTY, NEW YORK**
Note: No alteration permitted hereon except as provided under Section 7209 Subdivision 2 of the New York State Education Law.

PROJECT No.: 2013028
FILE NAME.: Figure3
SCALE: AS NOTED
DATE: APRIL 2013
ENG'D BY: FAK
DRAWN BY: JMD
CHECKED BY: DRV

SHEET NO.:
FIGURE 3
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APPENDICES

APPENDIX A

LABORATORY REPORT



Pace Analytical e-Report

Report prepared for:

PLUMLEY ENGINEERING
8232 LOOP RD
BALDWINSVILLE, NY 13027
CONTACT: FRANK KARBOSKI

Project ID: ONEIDA LTD

Sampling Date(s): March 19, 2013

Lab Report ID: 13030203

Client Service Contact: Peggy Siegfried (518) 346-4592

Analysis Included:

VOCs by GCMS (TCLP)
SVOCs by GCMS (TCLP)
Herbicides (TCLP)
PCB Analysis
Pesticide Analysis (TCLP)
Mercury Analysis (TCLP)
Metals by ICP (TCLP- RCRA)
Reactivity Cyanide (Sub)
Reactivity Sulfide (Sub)
Ignitability
Paint Filter Test
pH

Test results meet all National Environmental Laboratory Accreditation Conference (NELAC) requirements unless noted in the case narrative. The results contained within this document relate only to the samples included in this report. Pace Analytical is responsible only for the certified testing and is not directly responsible for the integrity of the sample before laboratory receipt. This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, Inc.

A handwritten signature in black ink that reads "Dan Pflzer".

Dan Pflzer
Laboratory Director



Certifications: NYS (EPA: NY00906, ELAP: 11078), NJ (NY026), CT (PH-0337), MA(M-NY906), VA (1884)

Pace Analytical Services, Inc. | 2190 Technology Drive | Schenectady, NY 12308
Phone: 518.346.4592 | internet: www.pacelabs.com

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CASE NARRATIVE

March 28, 2013

CASE NARRATIVE

This data package (SDG ID: 13030203) consists of 3 soil samples received on 3/21/2013. The samples are from Project Name: ONEIDA LTD.

This sample delivery group consists of the following samples:

<u>Lab Sample ID</u>	<u>Client ID</u>	<u>Collection Date</u>
AQ03757	TP-1	3/19/2013 10:00
AQ03758	TP-2	3/19/2013 10:45
AQ03759	TP-3	3/19/2013 11:15

Sample Delivery and Receipt Conditions

- (1.) All samples were delivered to the laboratory via FEDEX delivery service on 3/21/2013.
- (2.) All samples were received at the laboratory intact and within holding times.
- (3.) The following cooler temperature was recorded at sample receipt (Control limits are between 0-6 Degrees Celsius): 0.5 (IR) degrees Celsius. Please see Chain of Custody for details. Control limits do not apply for metals analysis.

Volatile Organics Analysis

Analysis for Volatile Organics was performed by method SW-846 8260B -TCLP/ZHE SW-846 1311. The following technical and administrative items were noted for the analysis:

- (1.) All quality assurance parameters were met for the analysis.

Semivolatile Organics Analysis

Analysis for Semivolatile Organics was performed by method SW-846 8270C - TCLP SW-846 1311. Samples were extracted by Continuous Liquid/Liquid Extraction (EPA - Method 3520C). The following technical and administrative items were noted for the analysis:

- (1.) Hexachlorobenzene was recovered below established limits in the associated CCV (LAB ID: AQ03757, AQ03758, AQ03759). Results for this analyte may be biased low.

Herbicide Analysis (TCLP)

Analysis for herbicides was performed by method SW-846 8151M. Samples were extracted by Separatory Funnel Extraction Method (3510C). The following technical and administrative items were noted for the analysis:

- (1.) All quality assurance parameters were met for the analysis.

PCB Aroclor Analysis

Analysis for PCB Aroclors was performed by method SW-846 8082A. Samples were extracted by Accelerated Solvent Extraction (EPA Method 3545). The following technical and administrative items were noted for the analysis:

- (1.) The concentration results for Aroclor 1254 were flagged (AF) to denote that an altered Aroclor pattern was observed.
- (2.) The concentration results for Aroclor 1260 were flagged (AG) to denote that an altered Aroclor pattern was observed.

Pesticide Analysis (TCLP)

Analysis for pesticides was performed by method SW-846 8081A. Samples were extracted by USEPA SW-846 Method 3535 Solid Phase Extraction. One-liter water samples were extracted by NEA-PACE SOP NE178_04. The following technical and administrative items were noted for the analysis:

- (1.) All quality assurance parameters were met for the analysis.

Mercury Analysis

Analysis for mercury was performed by method SW-846 7470A - TCLP SW-846 1311. The following technical and administrative items were noted for the analysis:

- (1.) All quality assurance parameters were met for the analysis.

Metals Analysis by ICP

Analysis for metals was performed by method SW-846 6010B/TCLP SW-846 1311. The following technical and administrative items were noted for the analysis:

- (1.) All quality assurance parameters were met for the analysis.

Reactive Cyanide Analysis

Please see the Phoenix Labs report for quality assurance details.

Reactive Sulfide Analysis

Please see the Phoenix Labs report for quality assurance details.

Ignitability Analysis

Analysis for ignitability was performed by method SW-846 1030. The following technical and administrative items were noted for the analysis:

- (1.) All quality assurance parameters were met for the analysis.

Paint Filter Analysis

Analysis for paint filter was performed by method SW-846 9095B. The following technical and administrative items were noted for the analysis:

(1.) All quality assurance parameters were met for the analysis.

pH Analysis

Analysis for pH was performed by SW-846 9045D. The following technical and administrative items were noted for the analysis:

(1.) The following samples were analyzed outside the required holding time: AQ03757, AQ03758, and AQ03759

Respectfully submitted,



Peggy Siegfried
Project Manager

QUALIFIERS

Organic Laboratory Qualifiers Defined

B - Denotes analyte observed in associated method blank or extraction blank. Analyte concentration should be considered as estimated.

D - Surrogate was diluted out. The analysis of the sample required a dilution such that the surrogate concentration was diluted below the laboratory acceptance criteria.

E - Denotes analyte concentration exceeded calibration range of instrument. Sample could not be re-analyzed at secondary dilution due to insufficient sample amount, quick turn-around request, sample matrix interference or hold time excursion. Concentration result should be considered as estimated.

J - Denotes an estimated concentration. The concentration result is greater than or equal to the Method Detection Limit (MDL) but less than the Reporting Limit (RL).

P - Indicates relative percent difference (RPD) between primary and secondary GC column analysis exceeds 40 % or indicates percent difference (PD) between primary and secondary GC column analysis exceeds 25 %.

U - Denotes analyte not detected at concentration greater than or equal to the RL. RL's are adjusted for sample weight/volume and dilution factors.

Z - Chromatographic interference due to PCB co-elution.

* - Value not within control limits.

Inorganic Laboratory Qualifiers Defined

B - Denotes analyte observed in associated method blank or digestion blank. Analyte concentration should be considered as estimated.

E - Denotes analyte concentration exceeded calibration range of instrument. Sample could not be re-analyzed at secondary dilution due to insufficient sample amount, quick turn-around request, sample matrix interference or hold time excursion. Concentration result should be considered as estimated.

J - Denotes an estimated concentration. The concentration result is greater than or equal to the Method Detection Limit (MDL) but less than the Reporting Limit (RL).

U - Denotes analyte not detected at concentration greater than or equal to the RL. RL's are adjusted for sample weight/volume and dilution factors.

* - Value not within control limits.

SAMPLE CHAIN OF CUSTODY

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

<13030203P1>



130302031

age: 11 of 1

1506300

Section A

Required Client Information:

Company: Plumley Engineering
Address: 8232 Loop Rd
BALDWINVILLE NY 13827
Email To: E.Karbaski@PlumleyEng.com
Phone: 315 557 6388
Requested Due Date/TAT: 3/28/13

Section B

Required Project Information:

Report To: FRANK KARBASKI
Copy To:
Purchase Order No.: 2013028/002
Project Name: ONEIDA, LTD.
Project Number:

Section C

Invoice Information:

Attention: SANE
Company Name:
Address:
Pace Quote Reference: 00006788
Pace Project Manager: JAMES MURPHY
Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☒ OTHER LANDFILL

Site Location

STATE: NY

ITEM #	Section D Required Client Information	Matrix Codes MATRIX / CODE	Drinking Water DW Water WT Waste Water WW Product P Soil/Solid SL Oil OL Wipe WP Air AR Tissue TS Other OT	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED				SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives										Analysis Test ↓	Requested Analysis Filtered (Y/N)										Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
						COMPOSITE START		COMPOSITE END/GRAB				Unpreserved	H ₂ SO ₄	HNO ₃	HCl	NaOH	Na ₂ S ₂ O ₃	Methanol	Other	PCBS	REACTIVITY		PH	PAINT FILTH	IGNITABILITY									
						DATE	TIME	DATE	TIME																									
1	TP-1			SL	G	3/19/13	10:00 AM				Z									X	X	X	X	X	X	X	X							AQ03757
2																				X	X	X	X	X	X	X	X							AQ03758
3	TP-2			SL	G	3/19/13	11:45 AM	10:45 AM			Z									X	X	X	X	X	X	X	X							AQ03758
4																																		
5	TP-3			SL	G	3/19/13	11:15 AM				Z									X	X	X	X	X	X	X	X							AQ03759
6																																		
7																																		
8																																		
9																																		
10																																		
11																																		
12																																		

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
testing for landfill profiling as per 3/20/13 8:20 AM JRM	ONEIDA - Hunkeler Solid Waste Authority	3/20/13	16:00	Fed Ex	3/20/13	10:28	0.5	Y	Y	Y
turning A & A, NY	via FedEx									

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: FRANK KARBASKI

SIGNATURE of SAMPLER: Frank Karbaski

DATE Signed

(MM/DD/YY): 3/19/13

Temp in °C

Received on Ice (Y/N)

Custody Sealed Cooler (Y/N)

Samples Intact (Y/N)

GC/MS Volatiles



Analytical Sample Results

Job Number: 13030203

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Client: PLUMLEY ENGINEERING
Project: ONEIDA LTD
Client Sample ID: TP-1
Lab Sample ID: 13030203-01 (AQ03757)

Collection Date: 03/19/2013 10:00
Sample Matrix: SOIL(TCLP)
Received Date: 03/21/2013 10:28
Percent Solid: N/A

Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1: MS08-1244-8	EPA 8260B - TCLP-ZHE SW-846 1311	03/26/2013 16:05	SMS	NA	NA	Restek, Rtx-VMS, 30 m, 0.25 mm ID, 1.40 µm

Analyte	CAS No.	Result (ug/L)	PQL	Dilution Factor	Flags	File ID
1,1-Dichloroethene	75-35-4	ND	10.0	10.0	U	MS08-1244-8
1,2-Dichloroethane	107-06-2	ND	10.0	10.0	U	MS08-1244-8
2-Butanone	78-93-3	11.2	10.0	10.0		MS08-1244-8
Benzene	71-43-2	ND	10.0	10.0	U	MS08-1244-8
Carbon Tetrachloride	56-23-5	ND	10.0	10.0	U	MS08-1244-8
Chlorobenzene	108-90-7	ND	10.0	10.0	U	MS08-1244-8
Chloroform	67-66-3	ND	10.0	10.0	U	MS08-1244-8
Tetrachloroethene	127-18-4	ND	10.0	10.0	U	MS08-1244-8
Trichloroethene	79-01-6	ND	10.0	10.0	U	MS08-1244-8
Vinyl Chloride	75-01-4	ND	10.0	10.0	U	MS08-1244-8

Surrogate	CAS No.	% Recovery	Limits (%)	Q ¹	File ID
4-Bromofluorobenzene	460-00-4	99.3	80.1-126		MS08-1244-8
Dibromofluoromethane	1868-53-7	99.0	87.1-113		MS08-1244-8
Toluene-d8	2037-26-5	107	87.7-109		MS08-1244-8
1,2-Dichloroethane	17060-07-0	94.3	86.5-111		MS08-1244-8

¹Qualifier column where '*' denotes value outside the control limits or 'D' denotes value was diluted out.

ND: Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.



Analytical Sample Results

Job Number: 13030203

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Client: PLUMLEY ENGINEERING
Project: ONEIDA LTD
Client Sample ID: TP-2
Lab Sample ID: 13030203-02 (AQ03758)

Collection Date: 03/19/2013 10:45
Sample Matrix: SOIL(TCLP)
Received Date: 03/21/2013 10:28
Percent Solid: N/A

Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1: MS08-1244-9	EPA 8260B - TCLP-ZHE SW-846 1311	03/26/2013 16:31	SMS	NA	NA	Restek, Rtx-VMS, 30 m, 0.25 mm ID, 1.40 µm

Analyte	CAS No.	Result (ug/L)	PQL	Dilution Factor	Flags	File ID
1,1-Dichloroethene	75-35-4	ND	10.0	10.0	U	MS08-1244-9
1,2-Dichloroethane	107-06-2	ND	10.0	10.0	U	MS08-1244-9
2-Butanone	78-93-3	10.3	10.0	10.0		MS08-1244-9
Benzene	71-43-2	ND	10.0	10.0	U	MS08-1244-9
Carbon Tetrachloride	56-23-5	ND	10.0	10.0	U	MS08-1244-9
Chlorobenzene	108-90-7	ND	10.0	10.0	U	MS08-1244-9
Chloroform	67-66-3	ND	10.0	10.0	U	MS08-1244-9
Tetrachloroethene	127-18-4	ND	10.0	10.0	U	MS08-1244-9
Trichloroethene	79-01-6	13.1	10.0	10.0		MS08-1244-9
Vinyl Chloride	75-01-4	ND	10.0	10.0	U	MS08-1244-9

Surrogate	CAS No.	% Recovery	Limits (%)	Q ¹	File ID
4-Bromofluorobenzene	460-00-4	99.2	80.1-126		MS08-1244-9
Dibromofluoromethane	1868-53-7	97.6	87.1-113		MS08-1244-9
Toluene-d8	2037-26-5	104	87.7-109		MS08-1244-9
1,2-Dichloroethane	17060-07-0	93.4	86.5-111		MS08-1244-9

¹Qualifier column where '*' denotes value outside the control limits or 'D' denotes value was diluted out.

ND: Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.



Analytical Sample Results

Job Number: 13030203

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Client: PLUMLEY ENGINEERING
Project: ONEIDA LTD
Client Sample ID: TP-3
Lab Sample ID: 13030203-03 (AQ03759)

Collection Date: 03/19/2013 11:15
Sample Matrix: SOIL(TCLP)
Received Date: 03/21/2013 10:28
Percent Solid: N/A

Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	MS08-1244-10	EPA 8260B - TCLP-ZHE SW-846 1311	03/26/2013 16:57	SMS	NA	NA

Restek, Rtx-VMS, 30 m, 0.25 mm ID, 1.40 µm

Analyte	CAS No.	Result (ug/L)	PQL	Dilution Factor	Flags	File ID
1,1-Dichloroethene	75-35-4	ND	10.0	10.0	U	MS08-1244-10
1,2-Dichloroethane	107-06-2	ND	10.0	10.0	U	MS08-1244-10
2-Butanone	78-93-3	10.7	10.0	10.0		MS08-1244-10
Benzene	71-43-2	ND	10.0	10.0	U	MS08-1244-10
Carbon Tetrachloride	56-23-5	ND	10.0	10.0	U	MS08-1244-10
Chlorobenzene	108-90-7	ND	10.0	10.0	U	MS08-1244-10
Chloroform	67-66-3	ND	10.0	10.0	U	MS08-1244-10
Tetrachloroethene	127-18-4	ND	10.0	10.0	U	MS08-1244-10
Trichloroethene	79-01-6	182	10.0	10.0		MS08-1244-10
Vinyl Chloride	75-01-4	ND	10.0	10.0	U	MS08-1244-10

Surrogate	CAS No.	% Recovery	Limits (%)	Q ¹	File ID
4-Bromofluorobenzene	460-00-4	100	80.1-126		MS08-1244-10
Dibromofluoromethane	1868-53-7	98.4	87.1-113		MS08-1244-10
Toluene-d8	2037-26-5	99.6	87.7-109		MS08-1244-10
1,2-Dichloroethane	17060-07-0	94.3	86.5-111		MS08-1244-10

¹Qualifier column where '*' denotes value outside the control limits or 'D' denotes value was diluted out.

ND: Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.

GC/MS Semivolatiles



Analytical Sample Results

Job Number: 13030203

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Client: PLUMLEY ENGINEERING
Project: ONEIDA LTD
Client Sample ID: TP-1
Lab Sample ID: 13030203-01 (AQ03757)

Collection Date: 03/19/2013 10:00
Sample Matrix: SOIL(TCLP)
Received Date: 03/21/2013 10:28
Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	MS07-1170-6	SW-846 8270/TCLP Extraction Method 1311	03/27/2013 09:48	RMS	NA	NA	Varian, VF-5MS, 30 m, 0.25 mm ID, 0.25 µm
Prep 1:	21644	EPA 3520C	03/25/2013 16:15	OCD	200 mL	1.00 mL	NA

Analyte	CAS No.	Result (ug/L)	PQL	Dilution Factor	Flags	File ID
1,4-Dichlorobenzene	106-46-7	ND	50.0	1.00	U	MS07-1170-6
2,4,5-Trichlorophenol	95-95-4	ND	50.0	1.00	U	MS07-1170-6
2,4,6-Trichlorophenol	88-06-2	ND	50.0	1.00	U	MS07-1170-6
2,4-Dinitrotoluene	121-14-2	ND	50.0	1.00	U	MS07-1170-6
Hexachlorobenzene	118-74-1	ND	50.0	1.00	U	MS07-1170-6
Hexachlorobutadiene	87-68-3	ND	50.0	1.00	U	MS07-1170-6
Hexachloroethane	67-72-1	ND	50.0	1.00	U	MS07-1170-6
m&p-Methylphenol	108-39-4/106-44-5	ND	50.0	1.00	U	MS07-1170-6
Nitrobenzene	98-95-3	ND	50.0	1.00	U	MS07-1170-6
o-Methylphenol	95-48-7	ND	50.0	1.00	U	MS07-1170-6
Pentachlorophenol	87-86-5	ND	50.0	1.00	U	MS07-1170-6
Pyridine	110-86-1	ND	50.0	1.00	U	MS07-1170-6

Surrogate	CAS No.	% Recovery	Limits (%)	Q ¹	File ID
2,4,6-Tribromophenol	118-79-6	93.1	19.0-122		MS07-1170-6
2-Fluorobiphenyl	321-60-8	84.0	30.0-115		MS07-1170-6
2-Fluorophenol	367-12-4	81.4	25.0-121		MS07-1170-6
Terphenyl-d14	1718-51-0	94.8	18.0-137		MS07-1170-6
Nitrobenzene-d5	4165-60-0	65.7	23.0-120		MS07-1170-6
Phenol-d6	13127-88-3	112	24.0-113		MS07-1170-6

¹Qualifier column where '*' denotes value outside the control limits or 'D' denotes value was diluted out.

ND: Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.



Analytical Sample Results

Job Number: 13030203

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Client: PLUMLEY ENGINEERING
Project: ONEIDA LTD
Client Sample ID: TP-2
Lab Sample ID: 13030203-02 (AQ03758)

Collection Date: 03/19/2013 10:45
Sample Matrix: SOIL(TCLP)
Received Date: 03/21/2013 10:28
Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	MS07-1170-7	SW-846 8270/TCLP Extraction Method 1311	03/27/2013 10:07	RMS	NA	NA	Varian, VF-5MS, 30 m, 0.25 mm ID, 0.25 µm
Prep 1:	21644	EPA 3520C	03/25/2013 16:15	OCD	200 mL	1.00 mL	NA

Analyte	CAS No.	Result (ug/L)	PQL	Dilution Factor	Flags	File ID
1,4-Dichlorobenzene	106-46-7	ND	50.0	1.00	U	MS07-1170-7
2,4,5-Trichlorophenol	95-95-4	ND	50.0	1.00	U	MS07-1170-7
2,4,6-Trichlorophenol	88-06-2	ND	50.0	1.00	U	MS07-1170-7
2,4-Dinitrotoluene	121-14-2	ND	50.0	1.00	U	MS07-1170-7
Hexachlorobenzene	118-74-1	ND	50.0	1.00	U	MS07-1170-7
Hexachlorobutadiene	87-68-3	ND	50.0	1.00	U	MS07-1170-7
Hexachloroethane	67-72-1	ND	50.0	1.00	U	MS07-1170-7
m&p-Methylphenol	108-39-4/106-44-5	ND	50.0	1.00	U	MS07-1170-7
Nitrobenzene	98-95-3	ND	50.0	1.00	U	MS07-1170-7
o-Methylphenol	95-48-7	ND	50.0	1.00	U	MS07-1170-7
Pentachlorophenol	87-86-5	ND	50.0	1.00	U	MS07-1170-7
Pyridine	110-86-1	ND	50.0	1.00	U	MS07-1170-7

Surrogate	CAS No.	% Recovery	Limits (%)	Q ¹	File ID
2,4,6-Tribromophenol	118-79-6	102	19.0-122		MS07-1170-7
2-Fluorobiphenyl	321-60-8	86.6	30.0-115		MS07-1170-7
2-Fluorophenol	367-12-4	83.0	25.0-121		MS07-1170-7
Terphenyl-d14	1718-51-0	97.8	18.0-137		MS07-1170-7
Nitrobenzene-d5	4165-60-0	76.5	23.0-120		MS07-1170-7
Phenol-d6	13127-88-3	110	24.0-113		MS07-1170-7

¹Qualifier column where '*' denotes value outside the control limits or 'D' denotes value was diluted out.

ND: Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.



Analytical Sample Results

Job Number: 13030203

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Client: PLUMLEY ENGINEERING
Project: ONEIDA LTD
Client Sample ID: TP-3
Lab Sample ID: 13030203-03 (AQ03759)

Collection Date: 03/19/2013 11:15
Sample Matrix: SOIL(TCLP)
Received Date: 03/21/2013 10:28
Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	MS07-1170-8	SW-846 8270/TCLP Extraction Method 1311	03/27/2013 10:27	RMS	NA	NA	Varian, VF-5MS, 30 m, 0.25 mm ID, 0.25 µm
Prep 1:	21644	EPA 3520C	03/25/2013 16:15	OCD	200 mL	1.00 mL	NA

Analyte	CAS No.	Result (ug/L)	PQL	Dilution Factor	Flags	File ID
1,4-Dichlorobenzene	106-46-7	ND	50.0	1.00	U	MS07-1170-8
2,4,5-Trichlorophenol	95-95-4	ND	50.0	1.00	U	MS07-1170-8
2,4,6-Trichlorophenol	88-06-2	ND	50.0	1.00	U	MS07-1170-8
2,4-Dinitrotoluene	121-14-2	ND	50.0	1.00	U	MS07-1170-8
Hexachlorobenzene	118-74-1	ND	50.0	1.00	U	MS07-1170-8
Hexachlorobutadiene	87-68-3	ND	50.0	1.00	U	MS07-1170-8
Hexachloroethane	67-72-1	ND	50.0	1.00	U	MS07-1170-8
m&p-Methylphenol	108-39-4/106-44-5	ND	50.0	1.00	U	MS07-1170-8
Nitrobenzene	98-95-3	ND	50.0	1.00	U	MS07-1170-8
o-Methylphenol	95-48-7	ND	50.0	1.00	U	MS07-1170-8
Pentachlorophenol	87-86-5	ND	50.0	1.00	U	MS07-1170-8
Pyridine	110-86-1	ND	50.0	1.00	U	MS07-1170-8

Surrogate	CAS No.	% Recovery	Limits (%)	Q ¹	File ID
2,4,6-Tribromophenol	118-79-6	94.9	19.0-122		MS07-1170-8
2-Fluorobiphenyl	321-60-8	81.6	30.0-115		MS07-1170-8
2-Fluorophenol	367-12-4	69.2	25.0-121		MS07-1170-8
Terphenyl-d14	1718-51-0	107	18.0-137		MS07-1170-8
Nitrobenzene-d5	4165-60-0	69.0	23.0-120		MS07-1170-8
Phenol-d6	13127-88-3	102	24.0-113		MS07-1170-8

¹Qualifier column where '*' denotes value outside the control limits or 'D' denotes value was diluted out.

ND: Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.

GC - PCB



Analytical Sample Results

Job Number: 13030203

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Client: PLUMLEY ENGINEERING

Project: ONEIDA LTD

Client Sample ID: TP-1

Lab Sample ID: 13030203-01 (AQ03757)

Collection Date: 03/19/2013 10:00

Sample Matrix: SOIL

Received Date: 03/21/2013 10:28

Percent Solid: 78.6 - Results are based on dry weight unless otherwise noted.

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	GC20F-1523-47	SW-846 8082 (PCB)	03/25/2013 17:05	MCA	NA	NA	Phenomenex, Zebtron ZB-1, 30 m, 0.25 mm ID, 0.25 µm
Prep 1:	21630	EPA 3545	03/22/2013 15:35	LMB	10.2 g	25.0 mL	NA

Analyte	CAS No.	Result (ug/g)	PQL	Dilution Factor	Flags	File ID
Aroclor 1016	12674-11-2	ND	0.0623	1.00	U	GC20F-1523-47
Aroclor 1221	11104-28-2	ND	0.0623	1.00	U	GC20F-1523-47
Aroclor 1232	11141-16-5	ND	0.0623	1.00	U	GC20F-1523-47
Aroclor 1242	53469-21-9	ND	0.0623	1.00	U	GC20F-1523-47
Aroclor 1248	12672-29-6	ND	0.0623	1.00	U	GC20F-1523-47
Aroclor 1254	11097-69-1	0.724	0.0623	1.00	AF	GC20F-1523-47
Aroclor 1260	11096-82-5	0.232	0.0623	1.00	AG	GC20F-1523-47
Total PCB Amount > RL	1336-36-3	0.956		1.00		GC20F-1523-47

Surrogate	CAS No.	% Recovery	Limits (%)	Q ¹	File ID
Tetrachloro-meta-xylene	877-09-8	108	60.0-140		GC20F-1523-47
Decachlorobiphenyl	2051-24-3	113	60.0-140		GC20F-1523-47

¹Qualifier column where '*' denotes value outside the control limits or 'D' denotes value was diluted out.

ND: Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.

AF-Aroclor 1254 is being reported as the best Aroclor match. The sample exhibits an altered PCB pattern.

AG-Aroclor 1260 is being reported as the best Aroclor match. The sample exhibits an altered PCB pattern.

Note: There were several non-target peaks.



Analytical Sample Results

Job Number: 13030203

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Client: PLUMLEY ENGINEERING

Project: ONEIDA LTD

Client Sample ID: TP-2

Lab Sample ID: 13030203-02 (AQ03758)

Collection Date: 03/19/2013 10:45

Sample Matrix: SOIL

Received Date: 03/21/2013 10:28

Percent Solid: 82.0 - Results are based on dry weight unless otherwise noted.

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	GC20F-1523-48	SW-846 8082 (PCB)	03/25/2013 17:18	MCA	NA	NA	Phenomenex, Zebron ZB-1, 30 m, 0.25 mm ID, 0.25 µm
Prep 1:	21630	EPA 3545	03/22/2013 15:36	LMB	10.6 g	25.0 mL	NA

Analyte	CAS No.	Result (ug/g)	PQL	Dilution Factor	Flags	File ID
Aroclor 1016	12674-11-2	ND	0.0577	1.00	U	GC20F-1523-48
Aroclor 1221	11104-28-2	ND	0.0577	1.00	U	GC20F-1523-48
Aroclor 1232	11141-16-5	ND	0.0577	1.00	U	GC20F-1523-48
Aroclor 1242	53469-21-9	ND	0.0577	1.00	U	GC20F-1523-48
Aroclor 1248	12672-29-6	ND	0.0577	1.00	U	GC20F-1523-48
Aroclor 1254	11097-69-1	0.136	0.0577	1.00	AF	GC20F-1523-48
Aroclor 1260	11096-82-5	0.457	0.0577	1.00	AG	GC20F-1523-48
Total PCB Amount > RL	1336-36-3	0.593		1.00		GC20F-1523-48

Surrogate	CAS No.	% Recovery	Limits (%)	Q ¹	File ID
Tetrachloro-meta-xylene	877-09-8	99.9	60.0-140		GC20F-1523-48
Decachlorobiphenyl	2051-24-3	111	60.0-140		GC20F-1523-48

¹Qualifier column where '*' denotes value outside the control limits or 'D' denotes value was diluted out.

ND: Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.

AF-Aroclor 1254 is being reported as the best Aroclor match. The sample exhibits an altered PCB pattern.

AG-Aroclor 1260 is being reported as the best Aroclor match. The sample exhibits an altered PCB pattern.

Note: There were several non-target peaks.



Analytical Sample Results

Job Number: 13030203

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Client: PLUMLEY ENGINEERING

Project: ONEIDA LTD

Client Sample ID: TP-3

Lab Sample ID: 13030203-03 (AQ03759)

Collection Date: 03/19/2013 11:15

Sample Matrix: SOIL

Received Date: 03/21/2013 10:28

Percent Solid: 73.4 - Results are based on dry weight unless otherwise noted.

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	GC20F-1523-49	SW-846 8082 (PCB)	03/25/2013 17:30	MCA	NA	NA	Phenomenex, Zebtron ZB-1, 30 m, 0.25 mm ID, 0.25 µm
Prep 1:	21630	EPA 3545	03/22/2013 15:37	LMB	10.4 g	25.0 mL	NA

Analyte	CAS No.	Result (ug/g)	PQL	Dilution Factor	Flags	File ID
Aroclor 1016	12674-11-2	ND	0.0656	1.00	U	GC20F-1523-49
Aroclor 1221	11104-28-2	ND	0.0656	1.00	U	GC20F-1523-49
Aroclor 1232	11141-16-5	ND	0.0656	1.00	U	GC20F-1523-49
Aroclor 1242	53469-21-9	ND	0.0656	1.00	U	GC20F-1523-49
Aroclor 1248	12672-29-6	ND	0.0656	1.00	U	GC20F-1523-49
Aroclor 1254	11097-69-1	ND	0.0656	1.00	U	GC20F-1523-49
Aroclor 1260	11096-82-5	ND	0.0656	1.00	U	GC20F-1523-49
Total PCB Amount > RL	1336-36-3	ND		1.00	U	GC20F-1523-49

Surrogate	CAS No.	% Recovery	Limits (%)	Q ¹	File ID
Tetrachloro-meta-xylene	877-09-8	101	60.0-140		GC20F-1523-49
Decachlorobiphenyl	2051-24-3	121	60.0-140		GC20F-1523-49

¹Qualifier column where '*' denotes value outside the control limits or 'D' denotes value was diluted out.

ND: Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.

Note: There were several non-target peaks.

GC - Pesticides



Analytical Sample Results

Job Number: 13030203

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Client: PLUMLEY ENGINEERING
Project: ONEIDA LTD
Client Sample ID: TP-1
Lab Sample ID: 13030203-01 (AQ03757)

Collection Date: 03/19/2013 10:00
Sample Matrix: SOIL(TCLP)
Received Date: 03/21/2013 10:28
Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	GC18F-1766-10	SW-846 8081A, Pesticides/TCLP Extraction	03/27/2013 13:50	AJM	NA	NA	Phenomenex, Zebron MR-1, 20 m, 0.18 mm ID, 0.18 µm
Prep 1:	21646	EPA 3535	03/25/2013 16:15	OCD	200 mL	10.0 mL	NA

Analyte	CAS No.	Result (ug/L)	PQL	Dilution Factor	Flags	File ID
Chlordane	57-74-9	ND	2.50	1.00	U	GC18F-1766-10
Endrin	72-20-8	ND	0.0500	1.00	U	GC18F-1766-10
gamma-BHC	58-89-9	ND	0.0500	1.00	U	GC18F-1766-10
Heptachlor	76-44-8	ND	0.0500	1.00	U	GC18F-1766-10
Heptachlor Epoxide	1024-57-3	ND	0.0500	1.00	U	GC18F-1766-10
Methoxychlor	72-43-5	ND	0.0500	1.00	U	GC18F-1766-10
Toxaphene	8001-35-2	ND	5.00	1.00	U	GC18F-1766-10

Surrogate	CAS No.	% Recovery	Limits (%)	Q ¹	File ID
Tetrachloro-meta-xylene	877-09-8	100	60.0-140		GC18F-1766-10
Decachlorobiphenyl	2051-24-3	103	60.0-140		GC18F-1766-10

¹Qualifier column where '*' denotes value outside the control limits or 'D' denotes value was diluted out.

ND: Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.



Analytical Sample Results

Job Number: 13030203

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
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Client: PLUMLEY ENGINEERING
Project: ONEIDA LTD
Client Sample ID: TP-2
Lab Sample ID: 13030203-02 (AQ03758)

Collection Date: 03/19/2013 10:45
Sample Matrix: SOIL(TCLP)
Received Date: 03/21/2013 10:28
Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	GC18F-1766-11	SW-846 8081A, Pesticides/TCLP Extraction	03/27/2013 14:13	AJM	NA	NA	Phenomenex, Zebron MR-1, 20 m, 0.18 mm ID, 0.18 µm
Prep 1:	21646	EPA 3535	03/25/2013 16:15	OCD	200 mL	10.0 mL	NA

Analyte	CAS No.	Result (ug/L)	PQL	Dilution Factor	Flags	File ID
Chlordane	57-74-9	ND	2.50	1.00	U	GC18F-1766-11
Endrin	72-20-8	ND	0.0500	1.00	U	GC18F-1766-11
gamma-BHC	58-89-9	ND	0.0500	1.00	U	GC18F-1766-11
Heptachlor	76-44-8	ND	0.0500	1.00	U	GC18F-1766-11
Heptachlor Epoxide	1024-57-3	ND	0.0500	1.00	U	GC18F-1766-11
Methoxychlor	72-43-5	ND	0.0500	1.00	U	GC18F-1766-11
Toxaphene	8001-35-2	ND	5.00	1.00	U	GC18F-1766-11

Surrogate	CAS No.	% Recovery	Limits (%)	Q ¹	File ID
Tetrachloro-meta-xylene	877-09-8	107	60.0-140		GC18F-1766-11
Decachlorobiphenyl	2051-24-3	97.1	60.0-140		GC18F-1766-11

¹Qualifier column where '*' denotes value outside the control limits or 'D' denotes value was diluted out.

ND: Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.



Analytical Sample Results

Job Number: 13030203

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Client: PLUMLEY ENGINEERING
Project: ONEIDA LTD
Client Sample ID: TP-3
Lab Sample ID: 13030203-03 (AQ03759)

Collection Date: 03/19/2013 11:15
Sample Matrix: SOIL(TCLP)
Received Date: 03/21/2013 10:28
Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	GC18F-1766-12	SW-846 8081A, Pesticides/TCLP Extraction	03/27/2013 14:36	AJM	NA	NA	Phenomenex, Zebron MR-1, 20 m, 0.18 mm ID, 0.18 µm
Prep 1:	21646	EPA 3535	03/25/2013 16:15	OCD	200 mL	10.0 mL	NA

Analyte	CAS No.	Result (ug/L)	PQL	Dilution Factor	Flags	File ID
Chlordane	57-74-9	ND	2.50	1.00	U	GC18F-1766-12
Endrin	72-20-8	ND	0.0500	1.00	U	GC18F-1766-12
gamma-BHC	58-89-9	ND	0.0500	1.00	U	GC18F-1766-12
Heptachlor	76-44-8	ND	0.0500	1.00	U	GC18F-1766-12
Heptachlor Epoxide	1024-57-3	ND	0.0500	1.00	U	GC18F-1766-12
Methoxychlor	72-43-5	ND	0.0500	1.00	U	GC18F-1766-12
Toxaphene	8001-35-2	ND	5.00	1.00	U	GC18F-1766-12

Surrogate	CAS No.	% Recovery	Limits (%)	Q ¹	File ID
Tetrachloro-meta-xylene	877-09-8	97.9	60.0-140		GC18F-1766-12
Decachlorobiphenyl	2051-24-3	95.1	60.0-140		GC18F-1766-12

¹Qualifier column where '*' denotes value outside the control limits or 'D' denotes value was diluted out.

ND: Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.

GC - Herbicides



Analytical Sample Results

Job Number: 13030203

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Client: PLUMLEY ENGINEERING
Project: ONEIDA LTD
Client Sample ID: TP-1
Lab Sample ID: 13030203-01 (AQ03757)

Collection Date: 03/19/2013 10:00
Sample Matrix: SOIL(TCLP)
Received Date: 03/21/2013 10:28
Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	GC05-622-8	SW-846 8151M Herbicides/TCLP Method	13103/26/2013 12:41	AJM	NA	NA	Phenomenex, Zebtron ZB-5, 30 m, 0.25 mm ID, 0.25 µm
Prep 1:	21636	EPA 3510C	03/25/2013 08:30	CAP	200 mL	5.00 mL	NA

Analyte	CAS No.	Result (ug/L)	PQL	Dilution Factor	Flags	File ID
2,4,5-TP,SILVEX	93-72-1	ND	5.00	20.0	U	GC05-622-8
2,4-D	94-75-7	ND	5.00	20.0	U	GC05-622-8

Surrogate	CAS No.	% Recovery	Limits (%)	Q ¹	File ID
2 4-DB	94-82-6	83.3	60.0-140		GC05-622-8

¹Qualifier column where '*' denotes value outside the control limits or 'D' denotes value was diluted out.

ND: Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.

Note: Lab modified method.



Analytical Sample Results

Job Number: 13030203

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Client: PLUMLEY ENGINEERING
Project: ONEIDA LTD
Client Sample ID: TP-2
Lab Sample ID: 13030203-02 (AQ03758)

Collection Date: 03/19/2013 10:45
Sample Matrix: SOIL(TCLP)
Received Date: 03/21/2013 10:28
Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	GC05-622-9	SW-846 8151M Herbicides/TCLP Method	13103/26/2013 13:00	AJM	NA	NA	Phenomenex, Zebtron ZB-5, 30 m, 0.25 mm ID, 0.25 µm
Prep 1:	21636	EPA 3510C	03/25/2013 08:30	CAP	200 mL	5.00 mL	NA

Analyte	CAS No.	Result (ug/L)	PQL	Dilution Factor	Flags	File ID
2,4,5-TP,SILVEX	93-72-1	ND	5.00	20.0	U	GC05-622-9
2,4-D	94-75-7	ND	5.00	20.0	U	GC05-622-9

Surrogate	CAS No.	% Recovery	Limits (%)	Q ¹	File ID
2 4-DB	94-82-6	110	60.0-140		GC05-622-9

¹Qualifier column where '*' denotes value outside the control limits or 'D' denotes value was diluted out.

ND: Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.

Note: Lab modified method.



Analytical Sample Results

Job Number: 13030203

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Client: PLUMLEY ENGINEERING
Project: ONEIDA LTD
Client Sample ID: TP-3
Lab Sample ID: 13030203-03 (AQ03759)

Collection Date: 03/19/2013 11:15
Sample Matrix: SOIL(TCLP)
Received Date: 03/21/2013 10:28
Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	GC05-622-10	SW-846 8151M Herbicides/TCLP Method 13103/26/2013 13:19	AJM	NA	NA	Phenomenex, Zebron ZB-5, 30 m, 0.25 mm ID, 0.25 µm	
Prep 1:	21636	EPA 3510C	03/25/2013 08:30	CAP	200 mL	5.00 mL	NA

Analyte	CAS No.	Result (ug/L)	PQL	Dilution Factor	Flags	File ID
2,4,5-TP,SILVEX	93-72-1	ND	5.00	20.0	U	GC05-622-10
2,4-D	94-75-7	ND	5.00	20.0	U	GC05-622-10

Surrogate	CAS No.	% Recovery	Limits (%)	Q ¹	File ID
2 4-DB	94-82-6	83.1	60.0-140		GC05-622-10

¹Qualifier column where '*' denotes value outside the control limits or 'D' denotes value was diluted out.

ND: Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.

Note: Lab modified method.

Mercury



Analytical Sample Results

Job Number: 13030203

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Client: PLUMLEY ENGINEERING
Project: ONEIDA LTD
Client Sample ID: TP-1
Lab Sample ID: 13030203-01 (AQ03757)

Collection Date: 03/19/2013 10:00
Sample Matrix: SOIL(TCLP)
Received Date: 03/21/2013 10:28
Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	MER1-1266-20	SW-846 7470/TCLP 1311	03/26/2013 13:46	CJH	NA	NA	NA
Prep 1:	3561	EPA 7470A	03/25/2013 12:00	CJH	4.00 mL	40.0 mL	NA

Analyte	CAS No.	Result (mg/L)	PQL	Dilution Factor	Flags	File ID
Mercury	7439-97-6	ND	0.0200	1.00	U	MER1-1266-20

ND: Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.



Analytical Sample Results

Job Number: 13030203

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Client: PLUMLEY ENGINEERING
Project: ONEIDA LTD
Client Sample ID: TP-2
Lab Sample ID: 13030203-02 (AQ03758)

Collection Date: 03/19/2013 10:45
Sample Matrix: SOIL(TCLP)
Received Date: 03/21/2013 10:28
Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	MER1-1266-21	SW-846 7470/TCLP 1311	03/26/2013 13:48	CJH	NA	NA	NA
Prep 1:	3561	EPA 7470A	03/25/2013 12:00	CJH	4.00 mL	40.0 mL	NA

Analyte	CAS No.	Result (mg/L)	PQL	Dilution Factor	Flags	File ID
Mercury	7439-97-6	ND	0.0200	1.00	U	MER1-1266-21

ND: Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.



Analytical Sample Results

Job Number: 13030203

Pace Analytical Services, Inc.
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Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Client: PLUMLEY ENGINEERING
Project: ONEIDA LTD
Client Sample ID: TP-3
Lab Sample ID: 13030203-03 (AQ03759)

Collection Date: 03/19/2013 11:15
Sample Matrix: SOIL(TCLP)
Received Date: 03/21/2013 10:28
Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	MER1-1266-22	SW-846 7470/TCLP 1311	03/26/2013 13:50	CJH	NA	NA	NA
Prep 1:	3561	EPA 7470A	03/25/2013 12:00	CJH	4.00 mL	40.0 mL	NA

Analyte	CAS No.	Result (mg/L)	PQL	Dilution Factor	Flags	File ID
Mercury	7439-97-6	ND	0.0200	1.00	U	MER1-1266-22

ND: Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.

Metals - ICP



Analytical Sample Results

Job Number: 13030203

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Client: PLUMLEY ENGINEERING
Project: ONEIDA LTD
Client Sample ID: TP-1
Lab Sample ID: 13030203-01 (AQ03757)

Collection Date: 03/19/2013 10:00
Sample Matrix: SOIL(TCLP)
Received Date: 03/21/2013 10:28
Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	ICP2-622-55	EPA 6010B/TCLP 1311	03/22/2013 16:51	CJH	NA	NA	NA
Prep 1:	3560	EPA 3005A	03/22/2013 12:08	CJH	10.0 mL	50.0 mL	NA

Analyte	CAS No.	Result (mg/L)	PQL	Dilution Factor	Flags	File ID
Arsenic	7440-38-2	ND	0.500	1.00	U	ICP2-622-55
Barium	7440-39-3	1.09	1.00	1.00		ICP2-622-55
Cadmium	7440-43-9	ND	0.100	1.00	U	ICP2-622-55
Chromium	7440-47-3	ND	0.500	1.00	U	ICP2-622-55
Lead	7439-92-1	2.36	0.500	1.00		ICP2-622-55
Selenium	7782-49-2	ND	0.250	1.00	U	ICP2-622-55
Silver	7440-22-4	ND	0.500	1.00	U	ICP2-622-55

ND: Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.



Analytical Sample Results

Job Number: 13030203

Pace Analytical Services, Inc.
2190 Technology Drive
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Phone: 518.346.4592
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Client: PLUMLEY ENGINEERING
Project: ONEIDA LTD
Client Sample ID: TP-2
Lab Sample ID: 13030203-02 (AQ03758)

Collection Date: 03/19/2013 10:45
Sample Matrix: SOIL(TCLP)
Received Date: 03/21/2013 10:28
Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	ICP2-622-56	EPA 6010B/TCLP 1311	03/22/2013 16:53	CJH	NA	NA	NA
Prep 1:	3560	EPA 3005A	03/22/2013 12:08	CJH	10.0 mL	50.0 mL	NA

Analyte	CAS No.	Result (mg/L)	PQL	Dilution Factor	Flags	File ID
Arsenic	7440-38-2	ND	0.500	1.00	U	ICP2-622-56
Barium	7440-39-3	ND	1.00	1.00	U	ICP2-622-56
Cadmium	7440-43-9	ND	0.100	1.00	U	ICP2-622-56
Chromium	7440-47-3	ND	0.500	1.00	U	ICP2-622-56
Lead	7439-92-1	ND	0.500	1.00	U	ICP2-622-56
Selenium	7782-49-2	ND	0.250	1.00	U	ICP2-622-56
Silver	7440-22-4	ND	0.500	1.00	U	ICP2-622-56

ND: Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.



Analytical Sample Results

Job Number: 13030203

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Client: PLUMLEY ENGINEERING
Project: ONEIDA LTD
Client Sample ID: TP-3
Lab Sample ID: 13030203-03 (AQ03759)

Collection Date: 03/19/2013 11:15
Sample Matrix: SOIL(TCLP)
Received Date: 03/21/2013 10:28
Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	ICP2-622-57	EPA 6010B/TCLP 1311	03/22/2013 16:56	CJH	NA	NA	NA
Prep 1:	3560	EPA 3005A	03/22/2013 12:08	CJH	10.0 mL	50.0 mL	NA

Analyte	CAS No.	Result (mg/L)	PQL	Dilution Factor	Flags	File ID
Arsenic	7440-38-2	ND	0.500	1.00	U	ICP2-622-57
Barium	7440-39-3	ND	1.00	1.00	U	ICP2-622-57
Cadmium	7440-43-9	ND	0.100	1.00	U	ICP2-622-57
Chromium	7440-47-3	ND	0.500	1.00	U	ICP2-622-57
Lead	7439-92-1	ND	0.500	1.00	U	ICP2-622-57
Selenium	7782-49-2	ND	0.250	1.00	U	ICP2-622-57
Silver	7440-22-4	ND	0.500	1.00	U	ICP2-622-57

ND: Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.

Wet Chemistry - Flashpoint



Analytical Sample Results

Job Number: 13030203

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Client: PLUMLEY ENGINEERING

Project: ONEIDA LTD

Client Sample ID: TP-1

Lab Sample ID: 13030203-01 (AQ03757)

Collection Date: 03/19/2013 10:00

Sample Matrix: SOIL

Received Date: 03/21/2013 10:28

Percent Solid: 78.6 - Results are based on dry weight unless otherwise noted.

Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	Ignitability by EPA SW-846 1030	03/28/2013	RSS	NA	NA	NA

Analyte	CAS No.	Result	Dilution Factor	Flags	File ID
Ignitability	NA	Non-Flammable	0.00		



Analytical Sample Results

Job Number: 13030203

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Client: PLUMLEY ENGINEERING

Project: ONEIDA LTD

Client Sample ID: TP-2

Lab Sample ID: 13030203-02 (AQ03758)

Collection Date: 03/19/2013 10:45

Sample Matrix: SOIL

Received Date: 03/21/2013 10:28

Percent Solid: 82.0 - Results are based on dry weight unless otherwise noted.

Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	Ignitability by EPA SW-846 1030	03/28/2013	RSS	NA	NA	NA

Analyte	CAS No.	Result	Dilution Factor	Flags	File ID
Ignitability	NA	Non-Flammable	0.00		



Analytical Sample Results

Job Number: 13030203

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Client: PLUMLEY ENGINEERING

Project: ONEIDA LTD

Client Sample ID: TP-3

Lab Sample ID: 13030203-03 (AQ03759)

Collection Date: 03/19/2013 11:15

Sample Matrix: SOIL

Received Date: 03/21/2013 10:28

Percent Solid: 73.4 - Results are based on dry weight unless otherwise noted.

Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	Ignitability by EPA SW-846 1030	03/28/2013	RSS	NA	NA	NA

Analyte	CAS No.	Result	Dilution Factor	Flags	File ID
Ignitability	NA	Non-Flammable	0.00		

Wet Chemistry - pH



Analytical Sample Results

Job Number: 13030203

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Client: PLUMLEY ENGINEERING

Project: ONEIDA LTD

Client Sample ID: TP-1

Lab Sample ID: 13030203-01 (AQ03757)

Collection Date: 03/19/2013 10:00

Sample Matrix: SOIL

Received Date: 03/21/2013 10:28

Percent Solid: 78.6 - Results are based on dry weight unless otherwise noted.

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	877	SW-846 9045D	03/21/2013 13:55	RSS	NA	NA	NA
Analyte	CAS No.	Result (N/A)	PQL	Dilution Factor	Flags	File ID	
pH	NA	7.39	0.00	1.00		877	
temperature	NA	24.0	0.00	1.00		877	

ND: Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.

Note: The pH analysis was performed as soon as possible after sample receipt at the laboratory. Transit time from sample collection to delivery at the laboratory routinely exceeds 15 minutes.



Analytical Sample Results

Job Number: 13030203

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Client: PLUMLEY ENGINEERING

Project: ONEIDA LTD

Client Sample ID: TP-2

Lab Sample ID: 13030203-02 (AQ03758)

Collection Date: 03/19/2013 10:45

Sample Matrix: SOIL

Received Date: 03/21/2013 10:28

Percent Solid: 82.0 - Results are based on dry weight unless otherwise noted.

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	877	SW-846 9045D	03/21/2013 13:59	RSS	NA	NA	NA
Analyte	CAS No.	Result (N/A)	PQL	Dilution Factor	Flags	File ID	
pH	NA	7.55	0.00	1.00		877	
temperature	NA	24.0	0.00	1.00		877	

ND: Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.

Note: The pH analysis was performed as soon as possible after sample receipt at the laboratory. Transit time from sample collection to delivery at the laboratory routinely exceeds 15 minutes.



Analytical Sample Results

Job Number: 13030203

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Client: PLUMLEY ENGINEERING

Project: ONEIDA LTD

Client Sample ID: TP-3

Lab Sample ID: 13030203-03 (AQ03759)

Collection Date: 03/19/2013 11:15

Sample Matrix: SOIL

Received Date: 03/21/2013 10:28

Percent Solid: 73.4 - Results are based on dry weight unless otherwise noted.

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	877	SW-846 9045D	03/21/2013 14:02	RSS	NA	NA	NA

Analyte	CAS No.	Result (N/A)	PQL	Dilution Factor	Flags	File ID
pH	NA	7.06	0.00	1.00		877
temperature	NA	24.0	0.00	1.00		877

ND: Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.

Note: The pH analysis was performed as soon as possible after sample receipt at the laboratory. Transit time from sample collection to delivery at the laboratory routinely exceeds 15 minutes.

Wet Chemistry - Paint Filter Test



Analytical Sample Results

Job Number: 13030203

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Client: PLUMLEY ENGINEERING

Project: ONEIDA LTD

Client Sample ID: TP-1

Lab Sample ID: 13030203-01 (AQ03757)

Collection Date: 03/19/2013 10:00

Sample Matrix: SOIL

Received Date: 03/21/2013 10:28

Percent Solid: 78.6 - Results are based on dry weight unless otherwise noted.

Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	SW-846 9095B	03/28/2013	RSS	NA	NA	NA

Analyte	CAS No.	Result	Dilution Factor	Flags	File ID
Paint Filter Test	NA	No Free Liquids	0.00		



Analytical Sample Results

Job Number: 13030203

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Client: PLUMLEY ENGINEERING

Project: ONEIDA LTD

Client Sample ID: TP-2

Lab Sample ID: 13030203-02 (AQ03758)

Collection Date: 03/19/2013 10:45

Sample Matrix: SOIL

Received Date: 03/21/2013 10:28

Percent Solid: 82.0 - Results are based on dry weight unless otherwise noted.

Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	SW-846 9095B	03/28/2013	RSS	NA	NA	NA

Analyte	CAS No.	Result	Dilution Factor	Flags	File ID
Paint Filter Test	NA	No Free Liquids	0.00		



Analytical Sample Results

Job Number: 13030203

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Client: PLUMLEY ENGINEERING

Project: ONEIDA LTD

Client Sample ID: TP-3

Lab Sample ID: 13030203-03 (AQ03759)

Collection Date: 03/19/2013 11:15

Sample Matrix: SOIL

Received Date: 03/21/2013 10:28

Percent Solid: 73.4 - Results are based on dry weight unless otherwise noted.

Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	SW-846 9095B	03/28/2013	RSS	NA	NA	NA

Analyte	CAS No.	Result	Dilution Factor	Flags	File ID
Paint Filter Test	NA	No Free Liquids	0.00		

Quality Control Samples (Lab)



Quality Control Results Method Blank

Job Number: 13030203

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Client: PLUMLEY ENGINEERING
Project: ONEIDA LTD
Client Sample ID: Method Blank (AQ03561B-ZHE)
Lab Sample ID: VBLK-95

Collection Date: N/A
Sample Matrix: TCLP
Received Date: N/A
Percent Solid: N/A

Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1: MS08-1244-5	EPA 8260B - TCLP-ZHE SW-846 1311	03/26/2013 14:38	SMS	NA	NA	Restek, Rtx-VMS, 30 m, 0.25 mm ID, 1.40 µm

Analyte	CAS No.	Result (ug/L)	PQL	Dilution Factor	Flags	File ID
1,1-Dichloroethene	75-35-4	ND	10.0	10.0	U	MS08-1244-5
1,2-Dichloroethane	107-06-2	ND	10.0	10.0	U	MS08-1244-5
2-Butanone	78-93-3	ND	10.0	10.0	U	MS08-1244-5
Benzene	71-43-2	ND	10.0	10.0	U	MS08-1244-5
Carbon Tetrachloride	56-23-5	ND	10.0	10.0	U	MS08-1244-5
Chlorobenzene	108-90-7	ND	10.0	10.0	U	MS08-1244-5
Chloroform	67-66-3	ND	10.0	10.0	U	MS08-1244-5
Tetrachloroethene	127-18-4	ND	10.0	10.0	U	MS08-1244-5
Trichloroethene	79-01-6	ND	10.0	10.0	U	MS08-1244-5
Vinyl Chloride	75-01-4	ND	10.0	10.0	U	MS08-1244-5

Surrogate	CAS No.	% Recovery	Limits (%)	Q ¹	File ID
4-Bromofluorobenzene	460-00-4	99.1	80.1-126		MS08-1244-5
Dibromofluoromethane	1868-53-7	101	87.1-113		MS08-1244-5
Toluene-d8	2037-26-5	95.2	87.7-109		MS08-1244-5
1,2-Dichloroethane	17060-07-0	95.9	86.5-111		MS08-1244-5

¹Qualifier column where '*' denotes value outside the control limits or 'D' denotes value was diluted out.

ND: Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.



Quality Control Results
Lab Control Sample
Job Number: 13030203

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Client: P- ME - GY GNRBNGGs BNR
Project: b NGBD) - TD
Client Sample ID:- aOI ontol SaL (le Q / 03A85- Q
Lab Sample ID: - I SU94

Collection Date: N7
Sample Matrix: TI - P
Received Date: N7
Percent Solid: N7

Watch ID	E ethod	Date	) nalyM	Bit u t.7mol.	Final mol.	I olZL n
) nalyMVI:	E S08U244U3	GP) 8260WUTI - PUHk G Su t846 1311	03Z6Z2013 13:36	SE S	N)	N)

Analyte Spiked	CAS No.	Added (ug/L)	LCS (ug/L)	LCS % Rec.	Q ¹	Limits (%)
1,1Dichloroethene	A5U35U4	40.0	44.6	111		A0.0U130
1,2Dichloroethane	10A06U2	40.0	39.2	9A9		A0.0U130
2WZianone	A8U93U3	40.0	31.3	A8.1		A0.0U130
Wenfene	AU43U2	40.0	40.8	102		A0.0U130
I arQon Tetrachloride	56U23U5	40.0	39.6	99.0		A0.0U130
I hloroQenfene	108U90UA	40.0	41.6	104		A0.0U130
I hlorovorL	6A66U3	40.0	41.0	102		A0.0U130
Tetrachloroethene	12AU8U4	40.0	40.6	101		A0.0U130
Trichloroethene	A9U01U6	40.0	39.9	99.A		A0.0U130
minyl I hloride	A5U01U4	40.0	3A0	92.6		A0.0U130

1/ Zaliwer colZL.n ' here p*denoteVvalZe oZiVde the control liL itV Note: s PD criteria doeVnot a((ly iweither the VdL (le and dZ(licate VdL (le are not detected.

Surrogate	CAS No.	% Recovery	Limits (%)	Q ¹	File ID
4UWroL owZoroQenfene	460U0U4	100	80.1U26		E S08U244U3
DiOroL owZoroL ethane	1868U53UA	101	8A1U13		E S08U244U3
TolZeneU8	203AU26U5	99.A	8AAU09		E S08U244U3
1,2Dichloroethane	1A060U0AU0	94.8	86.5U11		E S08U244U3

1/ Zaliwer colZL.n ' here p*denoteVvalZe oZiVde the control liL itVor D*denoteVvalZe ' aVdilZied oZi.

ND: DenoteVanalyte not detected at a concentration greater than the P/ - .

P/ - QPractical / Zantitation - iL itQDenoteVlo' eV analyte concentration re(ortaQe vor the VdL (le.



Quality Control Results Method Blank

Job Number: 13030203

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Client: PLUMLEY ENGINEERING
Project: ONEIDA LTD
Client Sample ID: Method Blank (AQ03753B)
Lab Sample ID: SBLK-10

Collection Date: N/A
Sample Matrix: TCLP
Received Date: N/A
Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	MS07-1170-3	SW-846 8270/TCLP Extraction Method 1311	03/27/2013 08:50	RMS	NA	NA	Varian, VF-5MS, 30 m, 0.25 mm ID, 0.25 µm
Prep 1:	21644	EPA 3520C	03/25/2013 16:15	OCD	200 mL	1.00 mL	NA

Analyte	CAS No.	Result (ug/L)	PQL	Dilution Factor	Flags	File ID
1,4-Dichlorobenzene	106-46-7	ND	50.0	1.00	U	MS07-1170-3
2,4,5-Trichlorophenol	95-95-4	ND	50.0	1.00	U	MS07-1170-3
2,4,6-Trichlorophenol	88-06-2	ND	50.0	1.00	U	MS07-1170-3
2,4-Dinitrotoluene	121-14-2	ND	50.0	1.00	U	MS07-1170-3
Hexachlorobenzene	118-74-1	ND	50.0	1.00	U	MS07-1170-3
Hexachlorobutadiene	87-68-3	ND	50.0	1.00	U	MS07-1170-3
Hexachloroethane	67-72-1	ND	50.0	1.00	U	MS07-1170-3
m&p-Methylphenol	108-39-4/106-44-5	ND	50.0	1.00	U	MS07-1170-3
Nitrobenzene	98-95-3	ND	50.0	1.00	U	MS07-1170-3
o-Methylphenol	95-48-7	ND	50.0	1.00	U	MS07-1170-3
Pentachlorophenol	87-86-5	ND	50.0	1.00	U	MS07-1170-3
Pyridine	110-86-1	ND	50.0	1.00	U	MS07-1170-3

Surrogate	CAS No.	% Recovery	Limits (%)	Q ¹	File ID
2,4,6-Tribromophenol	118-79-6	87.1	19.0-122		MS07-1170-3
2-Fluorobiphenyl	321-60-8	80.1	30.0-115		MS07-1170-3
2-Fluorophenol	367-12-4	76.1	25.0-121		MS07-1170-3
Terphenyl-d14	1718-51-0	94.4	18.0-137		MS07-1170-3
Nitrobenzene-d5	4165-60-0	68.0	23.0-120		MS07-1170-3
Phenol-d6	13127-88-3	103	24.0-113		MS07-1170-3

¹Qualifier column where '*' denotes value outside the control limits or 'D' denotes value was diluted out.

ND: Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.



Quality Control Results
Lab Control Sample
Job Number: 13030203

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Client: P- ME - GY GNRBNGGs BNR
Project: b NGBD) - TD
Client Sample ID:- aOI ontrol SaL (le Q / 03A53- Q
Lab Sample ID:- - I SU0

Collection Date: N7
Sample Matrix: TI - P
Received Date: N7
Percent Solid: N7

Watch ID	E ethod	Date	) nalyM	Bit u t.7mol.	Final mol.	I oluL n
) nalyMVI:	E S0AI1A0U4	Su 1846 82A07TI - P Gxtraction E ethod 1311 037A72013 09:09	s E S	N)	N)	marian, mF15E S,30 L., 0.25 L.L. BD, 0.25 pL
Pre(1:	21644	GP) 3520I	0372572013 16:15	b I D	200 L -	1.00 L -

Analyte Spiked	CAS No.	Added (ug/L)	LCS (ug/L)	LCS % Rec.	Q ¹	Limits (%)
1,4DichloroBenzene	106146UA	500	344	68.8		2A0U23
2,4,5Trichloro(henol	95195U4	500	410	82.0		30.0U28
2,4,6Trichloro(henol	88106U2	500	354	A0.9		3A0U44
2,4Dinitrotoluene	121U4U2	500	466	93.2		3A0U21
HexachloroBenzene	118UA4U	500	402	80.4		42.0U1A
HexachloroQuatadiene	8A168U3	500	280	56.0		31.0U10
Hexachloroethane	6A1A2U	500	314	62.9		24.0U24
L & (U ethyl(henol	108U39U47106U44U5	1000	A66	A6.6		22.0U39
NitroBenzene	98U95U3	500	362	A2.4		34.0U19
oU ethyl(henol	95U48UA	500	369	A3.9		26.0U28
Pentachloro(henol	8A186U5	500	410	82.0		4.00U13
Pyridine	110U86U	500	331	66.2		1.00U05

^{1/} multiplier coluL n where '*' denoteVvalue optVde the control liL itV Note: s PD criteria doeVnot a((ly if either the VdL (le and dU(licate VdL (le are not detected.

Surrogate	CAS No.	% Recovery	Limits (%)	Q ¹	File ID
2,4,6TriChroL o(henol	118UA9U6	91.A	19.0U22		E S0AI1A0U4
2UF1uroQ(henyl	321U60U8	91.0	30.0U15		E S0AI1A0U4
2UF1uro(henol	36AU12U4	51.8	25.0U21		E S0AI1A0U4
Ter(henylUd14	1A18U51U0	9A4	18.0U3A		E S0AI1A0U4
NitroBenzeneUd5	416U5U6U0U0	80.5	23.0U20		E S0AI1A0U4
PhenolUd6	1312A188U3	A4.5	24.0U13		E S0AI1A0U4

^{1/} multiplier coluL n where '*' denoteVvalue optVde the control liL itVor 'D' denoteVvalue waVdiluted opt.

ND: DenoteVanalyte not detected at a concentration greater than the P/ - .

P/ - QPractical / quantitation - iL itQDenoteVloweV analyte concentration re(ortaQe for the VdL (le.



Quality Control Results Method Blank

Job Number: 13030203

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Client: PLUMLEY ENGINEERING
Project: ONEIDA LTD
Client Sample ID: Method Blank (AQ03766B)
Lab Sample ID: PBLK-27

Collection Date: N/A
Sample Matrix: SOIL
Received Date: N/A
Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	GC20F-1523-44	SW-846 8082 (PCB)	03/25/2013 16:27	MCA	NA	NA	Phenomenex, Zebtron ZB-1, 30 m, 0.25 mm ID, 0.25 µm
Prep 1:	21630	EPA 3545	03/22/2013 15:40	LMB	10.1 g	25.0 mL	NA

Analyte	CAS No.	Result (ug/g)	PQL	Dilution Factor	Flags	File ID
Aroclor 1016	12674-11-2	ND	0.0500	1.00	U	GC20F-1523-44
Aroclor 1221	11104-28-2	ND	0.0500	1.00	U	GC20F-1523-44
Aroclor 1232	11141-16-5	ND	0.0500	1.00	U	GC20F-1523-44
Aroclor 1242	53469-21-9	ND	0.0500	1.00	U	GC20F-1523-44
Aroclor 1248	12672-29-6	ND	0.0500	1.00	U	GC20F-1523-44
Aroclor 1254	11097-69-1	ND	0.0500	1.00	U	GC20F-1523-44
Aroclor 1260	11096-82-5	ND	0.0500	1.00	U	GC20F-1523-44
Total PCB Amount > RL	1336-36-3	ND		1.00	U	GC20F-1523-44

Surrogate	CAS No.	% Recovery	Limits (%)	Q ¹	File ID
Tetrachloro-meta-xylene	877-09-8	93.8	60.0-140		GC20F-1523-44
Decachlorobiphenyl	2051-24-3	121	60.0-140		GC20F-1523-44

¹Qualifier column where '*' denotes value outside the control limits or 'D' denotes value was diluted out.

ND: Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.



Quality Control Results
Lab Control Sample
Job Number: 13030203

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Client: PLUMLEY ENGINEERING
Project: ONEIDA LTD
Client Sample ID: Lab Control Sample (AQ03766L)
Lab Sample ID: LCS-27

Collection Date: N/A
Sample Matrix: SOIL
Received Date: N/A
Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	GC20F-1523-45	SW-846 8082 (PCB)	03/25/2013 16:40	MCA	NA	NA	Phenomenex, Zebtron ZB-1, 30 m, 0.25 mm ID, 0.25 µm
Prep 1:	21630	EPA 3545	03/22/2013 15:40	LMB	10.1 g	25.0 mL	NA

Analyte Spiked	CAS No.	Added (ug/g)	LCS (ug/g)	LCS % Rec.	Q ¹	Limits (%)
Aroclor 1248	12672-29-6	1.23	1.05	85.3		70.0-130

¹Qualifier column where '*' denotes value outside the control limits. Note: RPD criteria does not apply if either the sample and duplicate sample are not detected.

Surrogate	CAS No.	% Recovery	Limits (%)	Q ¹	File ID
Tetrachloro-meta-xylene	877-09-8	95.8	60.0-140		GC20F-1523-45
Decachlorobiphenyl	2051-24-3	122	60.0-140		GC20F-1523-45

¹Qualifier column where '*' denotes value outside the control limits or 'D' denotes value was diluted out.

ND: Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.



Quality Control Results Method Blank

Job Number: 13030203

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Client: PLUMLEY ENGINEERING
Project: ONEIDA LTD
Client Sample ID: Method Blank (AQ03753B)
Lab Sample ID: TBLK-26

Collection Date: N/A
Sample Matrix: TCLP
Received Date: N/A
Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	GC18F-1766-7	SW-846 8081A, Pesticides/TCLP Extraction	03/27/2013 12:40	AJM	NA	NA	Phenomenex, Zebron MR-1, 20 m, 0.18 mm ID, 0.18 µm
Prep 1:	21646	EPA 3535	03/25/2013 16:15	OCD	200 mL	10.0 mL	NA

Analyte	CAS No.	Result (ug/L)	PQL	Dilution Factor	Flags	File ID
Chlordane	57-74-9	ND	2.50	1.00	U	GC18F-1766-7
Endrin	72-20-8	ND	0.0500	1.00	U	GC18F-1766-7
gamma-BHC	58-89-9	ND	0.0500	1.00	U	GC18F-1766-7
Heptachlor	76-44-8	ND	0.0500	1.00	U	GC18F-1766-7
Heptachlor Epoxide	1024-57-3	ND	0.0500	1.00	U	GC18F-1766-7
Methoxychlor	72-43-5	ND	0.0500	1.00	U	GC18F-1766-7
Toxaphene	8001-35-2	ND	5.00	1.00	U	GC18F-1766-7

Surrogate	CAS No.	% Recovery	Limits (%)	Q ¹	File ID
Tetrachloro-meta-xylene	877-09-8	96.4	60.0-140		GC18F-1766-7
Decachlorobiphenyl	2051-24-3	100	60.0-140		GC18F-1766-7

¹Qualifier column where '*' denotes value outside the control limits or 'D' denotes value was diluted out.

ND: Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.



Quality Control Results
Lab Control Sample
Job Number: 13030203

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Client: P- ME - GY GNRBNGGs BNR
Project: p NGBD) - TD
Client Sample ID:- aOI ontrol SaL (le Q / 03A53- Q
Lab Sample ID: - I SU26

Collection Date: N7
Sample Matrix: TI - P
Received Date: N7
Percent Solid: N7

Watch ID	E ethod	Date	nalyM	Bit u t.7mol.	Final mol.	I olJL n
nalyMVI:	RI 18FU A66U8	Su 1846 8081) , PeMicideV7TI - P Gxtraction E037AZ2013 13:03	) ZE	N)	N)	Phenol.enex, beQron E s U, 20 L, 0.18 L L BD, 0.18 µL
Pre(1:	21646	GP) 3535	0372572013 16:15	p I D	200 L -	10.0 L - N)

Analyte Spiked	CAS No.	Added (ug/L)	LCS (ug/L)	LCS % Rec.	Q ¹	Limits (%)
Gndrin	A2120U8	1.00	0.803	80.3		A0.0U130
gaL L aUWHI	58189U9	1.00	0.911	91.1		A0.0U130
He(tachlor	A6144U8	1.00	0.828	82.8		A0.0U130
He(tachlor G(oxide	102415AU3	1.00	0.904	90.4		A0.0U130
E ethoxychlor	A2143U5	1.00	0.923	92.3		A0.0U130

^{1/} J alifier colJL n where '*' denoteVvalJe oJtVde the control liL itV Note: s PD criteria doeVnot a((ly if either the VdL (le and dJ(licate VdL (le are not detected.

Surrogate	CAS No.	% Recovery	Limits (%)	Q ¹	File ID
TetrachloroU etaUylene	8AA109U8	85.1	60.0U140		RI 18FU A66U8
DecachloroQ(henyl	2051U24U3	83.A	60.0U140		RI 18FU A66U8

^{1/} J alifier colJL n where '*' denoteVvalJe oJtVde the control liL itVor 'D' denoteVvalJe waVdilJted oJt.

ND: DenoteVanalyte not detected at a concentration greater than the P/ - .

P/ - QPractical / J antitation - iL itQ DenoteVloweV analyte concentration re(ortaQe for the VdL (le.



**Quality Control Results
Method Blank**

Job Number: 13030203

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Client: PLUMLEY ENGINEERING
Project: ONEIDA LTD
Client Sample ID: Method Blank (AQ03753B)
Lab Sample ID: HBLK-80

Collection Date: N/A
Sample Matrix: TCLP
Received Date: N/A
Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	GC05-622-5	SW-846 8151M Herbicides/TCLP Method	13103/26/2013 11:45	AJM	NA	NA	Phenomenex, Zebron ZB-5, 30 m, 0.25 mm ID, 0.25 µm
Prep 1:	21636	EPA 3510C	03/25/2013 08:30	CAP	200 mL	5.00 mL	NA

Analyte	CAS No.	Result (ug/L)	PQL	Dilution Factor	Flags	File ID
2,4,5-TP,SILVEX	93-72-1	ND	5.00	20.0	U	GC05-622-5
2,4-D	94-75-7	ND	5.00	20.0	U	GC05-622-5

Surrogate	CAS No.	% Recovery	Limits (%)	Q ¹	File ID
2 4-DB	94-82-6	103	60.0-140		GC05-622-5

¹Qualifier column where '*' denotes value outside the control limits or 'D' denotes value was diluted out.

ND: Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.

Note: Lab modified method.



Quality Control Results
Lab Control Sample
Job Number: 13030203

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Client: P- ME - GY GNRBNGGs BNR
Project: p NGBD) - TD
Client Sample ID:- aOI ontol SaL (le Q / 03A53- Q
Lab Sample ID: - I SU80

Collection Date: N7
Sample Matrix: TI - P
Received Date: N7
Percent Solid: N7

Watch ID	E ethod	Date	) nalyM	Bit u t.7mol.	Final mol.	I olHL n
) nalyMVI:	RI 05162216	Su 1846 8151E b erQcideVTI - P E ethod 1310372672013 12:04	) JE	N)	N)	Phenol.enex, ZeGron ZW5, 30 L., 0.25 L.L. BD, 0.25 µL
Pre(1:	21636	GP) 35101	0372572013 08:30	I) P	200 L -	5.00 L -

Analyte Spiked	CAS No.	Added (ug/L)	LCS (ug/L)	LCS % Rec.	Q ¹	Limits (%)
2,4,5UTP,SB mGX	931A2UI	12.5	11.A	93.4		65.0U15
2,4UD	941A5UA	12.5	12.5	100		A5.0U125

^{1/} Hlifier colHL n where '*' denoteVvalHe oHVde the control liL itV Note: s PD criteria doeVnot a((ly if either the VdL (le and dH licate VdL (le are not detected.

Surrogate	CAS No.	% Recovery	Limits (%)	Q ¹	File ID
2 4UDW	9418216	96.2	60.0U140		RI 05162216

^{1/} Hlifier colHL n where '*' denoteVvalHe oHVde the control liL itVor 'D' denoteVvalHe waVdilHed oH.

ND: DenoteVanalyte not detected at a concentration greater than the P/ - .

P/ - QPractical / Hantitation - iL itQDenoteVloweV analyte concentration re(ortaCde for the VdL (le.

Note: - aOL odified L ethod.



Quality Control Results
Method Blank

Job Number: 13030203

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Client: PLUMLEY ENGINEERING
Project: ONEIDA LTD
Client Sample ID: Method Blank (AQ03753B)
Lab Sample ID: PBW-73

Collection Date: N/A
Sample Matrix: TCLP
Received Date: N/A
Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	MER1-1266-15	SW-846 7470/TCLP 1311	03/26/2013 13:38	CJH	NA	NA	NA
Prep 1:	3561	EPA 7470A	03/25/2013 12:00	CJH	4.00 mL	40.0 mL	NA

Analyte	CAS No.	Result (mg/L)	PQL	Dilution Factor	Flags	File ID
Mercury	7439-97-6	ND	0.0200	1.00	U	MER1-1266-15

ND: Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.



Quality Control Results
Lab Control Sample
Job Number: 13030203

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Client: PLUMLEY ENGINEERING
Project: ONEIDA LTD
Client Sample ID: Lab Control Sample (AQ03753L)
Lab Sample ID: LCS-73

Collection Date: N/A
Sample Matrix: TCLP
Received Date: N/A
Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	MER1-1266-16	SW-846 7470/TCLP 1311	03/26/2013 13:39	CJH	NA	NA	NA
Prep 1:	3561	EPA 7470A	03/25/2013 12:00	CJH	4.00 mL	40.0 mL	NA

Analyte Spiked	CAS No.	Added (mg/L)	LCS (mg/L)	LCS % Rec.	Q ¹	Limits (%)
Mercury	7439-97-6	0.0500	0.0502	100		80.0-120

¹Qualifier column where '*' denotes value outside the control limits. Note: RPD criteria does not apply if either the sample and duplicate sample are not detected.

ND: Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.



**Quality Control Results
Method Blank**

Job Number: 13030203

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Client: PLUMLEY ENGINEERING
Project: ONEIDA LTD
Client Sample ID: Method Blank (AQ03753B)
Lab Sample ID: PBW-72

Collection Date: N/A
Sample Matrix: TCLP
Received Date: N/A
Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	ICP2-622-48	EPA 6010B/TCLP 1311	03/22/2013 16:34	CJH	NA	NA	NA
Prep 1:	3560	EPA 3005A	03/22/2013 12:08	CJH	10.0 mL	50.0 mL	NA

Analyte	CAS No.	Result (mg/L)	PQL	Dilution Factor	Flags	File ID
Arsenic	7440-38-2	ND	0.500	1.00	U	ICP2-622-48
Barium	7440-39-3	ND	1.00	1.00	U	ICP2-622-48
Cadmium	7440-43-9	ND	0.100	1.00	U	ICP2-622-48
Chromium	7440-47-3	ND	0.500	1.00	U	ICP2-622-48
Lead	7439-92-1	ND	0.500	1.00	U	ICP2-622-48
Selenium	7782-49-2	ND	0.250	1.00	U	ICP2-622-48
Silver	7440-22-4	ND	0.500	1.00	U	ICP2-622-48

ND: Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.



**Quality Control Results
Lab Control Sample**

Job Number: 13030203

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Client: PLUMLEY ENGINEERING
Project: ONEIDA LTD
Client Sample ID: Lab Control Sample (AQ03753L)
Lab Sample ID: LCS-72

Collection Date: N/A
Sample Matrix: TCLP
Received Date: N/A
Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	ICP2-622-49	EPA 6010B/TCLP 1311	03/22/2013 16:36	CJH	NA	NA	NA
Prep 1:	3560	EPA 3005A	03/22/2013 12:08	CJH	10.0 mL	50.0 mL	NA

Analyte Spiked	CAS No.	Added (mg/L)	LCS (mg/L)	LCS % Rec.	Q ¹	Limits (%)
Arsenic	7440-38-2	12.5	13.0	104		85.0-115
Barium	7440-39-3	25.0	21.9	87.8		85.0-115
Cadmium	7440-43-9	5.00	5.08	102		85.0-115
Chromium	7440-47-3	12.5	12.2	97.7		85.0-115
Lead	7439-92-1	12.5	12.0	96.3		85.0-115
Selenium	7782-49-2	5.00	5.17	103		85.0-115
Silver	7440-22-4	12.5	13.0	104		85.0-115

¹Qualifier column where '*' denotes value outside the control limits. Note: RPD criteria does not apply if either the sample and duplicate sample are not detected.

ND: Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.

Subcontract Analysis



Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823



Analysis Report

March 28, 2013

FOR: Attn: Ms. Peggy Siegfried
Pace Analytical Services Inc.
2190 Technology Drive
Schenectady, NY 12308

Sample Information

Matrix: SOIL
Location Code: NEASTANY
Rush Request: Standard
P.O.#:

Custody Information

Collected by:
Received by: LPB
Analyzed by: see "By" below

Date	Time
03/19/13	10:00
03/21/13	21:30

Laboratory Data

SDG ID: GBD50066
Phoenix ID: BD50066

Project ID: 13030203
Client ID: TP-1

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Percent Solid	81		%	03/22/13	JL	E160.3
Reactivity Cyanide	< 6.1	6.1	mg/Kg	03/22/13	JL/GD	SW 846-7.3 1
Reactivity Sulfide	< 20	20	mg/Kg	03/22/13	JL/GD	SW 846-7.3 1
Reactivity	Negative		Pos/Neg	03/22/13	JL/GD	SW 846-7.3 1

1 = This parameter is not certified by NY NELAC for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected
BRL=Below Reporting Level

Comments:

The reactivity, reported above, is based only on the EPA Interim Guidance for Reactive Cyanide and Reactive Sulfide. This method is no longer listed in the current version of SW-846.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.
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Phyllis Shiller, Laboratory Director

March 28, 2013

Reviewed and Released by: Bobbi Aloisa, Vice President



Environmental Laboratories, Inc.
 6kQEast, Middle Turnpike, P.O. Box 3007, Manchester, CT 06046
 Tel. (860) 206-1105, Fax (860) 206-0653



Analysis Report

March 5, 2013

gOR: Attn: Ms. Patricia Siegfried
 Pace Analytical Services, Inc.
 5190 Technology Drive
 Schenectady, NY 12306

Sample Information

Matrix: SOIL
 Location Code: NEASTANY
 Rush Request: Standard
 P.O.#:

Custody Information

Collected by:
 Received by: LPB
 Analyzed by: see "By" below

Date

03/19/13
 03/31/13

Time

10:06
 51:30

Laboratory Data

SDG ID: GBD60022
 Phoenix ID: BD6002Q

Project ID: 13030503
 Client ID: TP-5

Parameter	Result	RL/ PFL	Units	Date/Time	By	Reference
Percent Solid	KU		%	03/31/13	JL	E120.3
Reactivity, Cyanide	< 2.0	2.0	mg/Kg	03/31/13	JL/GD	SW KU2-Q3 1
Reactivity Sulfide	< 50	50	mg/Kg	03/31/13	JL/GD	SW KU2-Q3 1
Reactivity	Negative		Pos/Neg	03/31/13	JL/GD	SW KU2-Q3 1

1 = This parameter is not certified by NY NELAC for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected
 BRL=Below Reporting Level

Comments:

The reactivity reported above is based only on the EPA Interim Guidance for Reactive Cyanide and Reactive Sulfide. This method is not listed in the current version of SW-KU2.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 500.

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Phyllis Shiller, Laboratory Director

March 28, 2013

Reviewed and Released by: Bobbi Aloisa, Vice President



Environmental Laboratories & Inc.

527 East Middle Turnpike P.O. Box 3708 Manchester CT 06045
Tel: (260) 645-1100 Fax: (260) 645-0200



Analysis Report

March 28, 2013

OR: Attn: Ms. Pe, y Sie, fried
Pace Analytical Services Inc.
190 Technology Drive
Schenectady NY 12302

Sample Information

Matrix: SOIL
Location Code: NEASTANY
Rush Request: Standard
P.O.#:

Custody Information

Collected by:
Received by: LPB
Analyzed by: see "By" below

Date

03/19/13
03/01/13

Time

11:15
01:30

Laboratory Data

SDG#D: GBD50066
Phoenix ID: BD50062

Project#D: 1303003
Client#D: TP-3

Parameter	Result	RL/ PUL	Fnits	Date/Time	By	Reference
Percent Solid	74		%	03/01/13	JL	E160.3
Reactivity Cyanide	< 6.6	6.6	m, /K,	03/01/13	JL/GD	SW 246-7.3 1
Reactivity Sulfide	< 00	00	m, /K,	03/01/13	JL/GD	SW 246-7.3 1
Reactivity	Ne, ative		Pos/Ne,	03/01/13	JL/GD	SW 246-7.3 1

1 = This parameter is not certified by NY NELAC for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected
BRL=Below Reporting Level

Comments:

The reactivity reported above is based only on the EPA Interim Guidance for Reactive Cyanide and Reactive Sulfide. This method is no longer listed in the current version of SW-246.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 000.
This report must not be reproduced except in full as defined by the attached chain of custody.

Phyllis Shiller, Laboratory Director

March 28, 2013

Reviewed and Released by: Bobbi Aloisa, Vice President



Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823



QA/QC Report

March 28, 2013

QA/QC Data

SDG I.D.: GBD50066

Parameter	Blank	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 224065, QC Sample No: BD49331 (BD50066, BD50067, BD50068)												
Reactivity Cyanide	BRL	<7.6	<7.6	NC	104						85 - 115	30

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference

LCS - Laboratory Control Sample

LCSD - Laboratory Control Sample Duplicate

MS - Matrix Spike

MS Dup - Matrix Spike Duplicate

NC - No Criteria

Intf - Interference

Phyllis Shiller, Laboratory Director
March 28, 2013

Thursday, March 28, 2013

Requested Criteria: None

State: NY

Sample Criteria Exceedences Report

GBD50066 - NEASTANY

Page 1 of 1

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
--------	-------	-----------------	----------	--------	----	----------	----------------	-------------------

*** No Data to Display ***

Phoenix Laboratories does not assume responsibility for the data contained in this report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.



Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823



NY Temperature Narration

March 28, 2013

SDG I.D.: GBD50066

The samples in this delivery group were received at 4°C.
(Note acceptance criteria is above freezing up to 6°C)

APPENDIX B

“CONTAINED-IN” DETERMINATION

New York State Department of Environmental Conservation

Division of Environmental Remediation

Remedial Bureau A, 12th Floor

625 Broadway, Albany, New York 12233-7015

Phone: (518) 402-9625 • Fax: (518) 402-9627

Website: www.dec.ny.gov



Joe Martens
Commissioner

FEB 25 2013

Mr. Frank A. Karboski, CPG (fkarboski@plumleyeng.com)

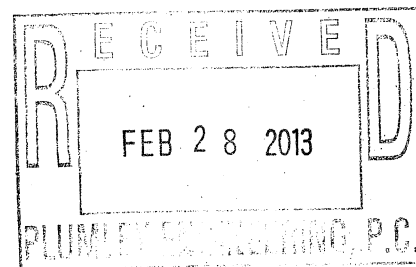
PLUMLEY ENGINEERING, P.C.

Civil and Environmental Engineering

8232 Loop Road

Baldwinsville, New York 13027

RE: Former Oneida Knife Plant
City of Sherrill, Oneida County, New York
BCP Site No. C633077
Contained-In Determination



Dear Mr. Karboski:

We have reviewed the analytical data submitted January 10, 2013, via e mail, for a "contained in" determination at the referenced project site. Concentrations detected for individual VOCs were all significantly less than their current "contained in" soil action levels and Land Disposal Restriction concentrations.

Concentrations for tetrachloroethene, trichloroethene and cis-1,2-dichloroethene detected in all soil samples were below the soil "contained-in" action level and the Land Disposal Restriction concentration. No hazardous constituents exhibited a hazardous waste characteristic by exceeding their TCLP regulatory level. Based on your proposed excavation work plan, soils excavated from the following areas do not have to be managed as hazardous waste:

- AOC 2 containing the following boring locations, can be excavated up to 10-ft bls:

SB-8 (8-10 ft)	SB-12 (8-10 ft)	SB-14(8-10 ft)	SB-21 (8-10)
MW-3 (8-10 ft)	B-103 (8-10 ft)	TW-7 (8-10 ft)	

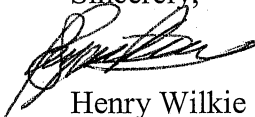
- AOC 3 containing the following boring locations, can be excavated up to 4-ft bls:

SB-10 (0-4 ft)	SB-30 (0-4 ft)
B-105 (0-4 ft)	B-115 (0-4 ft)

These excavated soils do not have to be managed as hazardous waste and can go to Oneida-Herkimer Solid Waste Authority, Town of Ava Landfill (project landfill) or to a permitted solid waste landfill, with a double liner and a leachate collection system.

Should you have any questions regarding the content of this letter, please do not hesitate to contact me at (518) 402-9622 or email me at hjwilkie@gw.dec.state.ny.us.

Sincerely,

A handwritten signature in dark ink, appearing to read 'Henry Wilkie', written over a horizontal line.

Henry Wilkie
Environmental Engineer 1
Remedial Section B

ecc: P. Ouderkirk, Region 6

APPENDIX C

IMPORTED SOIL TESTING REQUIREMENTS

Table 5.4(e)10 Recommended Number of Soil Samples for Soil Imported To or Exported From a Site			
Contaminant	VOCs	SVOCs, Inorganics & PCBs/Pesticides	
Soil Quantity (cubic yards)	Discrete Samples	Composite	Discrete Samples/Composite
0-50	1	1	3-5 discrete samples from different locations in the fill being provided will comprise a composite sample for analysis
50-100	2	1	
100-200	3	1	
200-300	4	1	
300-400	4	2	
400-500	5	2	
500-800	6	2	
800-1000	7	2	
➤ 1000	Add an additional 2 VOC and 1 composite for each additional 1000 Cubic yards or consult with DER		

(f) Compliance for soil exported from a site for reuse. For soil that is being exported from a site to locations other than permitted disposal facilities, the handling requirements are set forth in this subdivision and in paragraph 5.4(e)4.

1. Levels of contamination must not exceed the lower of the groundwater and residential use levels as shown in Appendix 5, absent a beneficial use determination issued by DEC. DER will coordinate with the Division of Solid & Hazardous Materials (DSHM), prior to the start of the remedial action, relative to whether the exported soil can be used beneficially in accordance with 6 NYCRR 360-1. The sampling and analysis requirements are set forth in paragraph 5.4(e)10.

2. The number of required samples are specified in Table 5.4(e)10 and paragraph (e)10 above, which may be modified by the DER project manager based on various factors, including the location of the site receiving the soil.

(g) Compliance for the decommissioning of monitoring wells. All monitoring wells not required for site management should be decommissioned in accordance with paragraph (d)6 above prior to DER approval of the FER.

5.5 Underground Storage Tank Closure

(a) The first step for underground storage tank (UST) closure is the identification, removal, treatment, containment and/or stabilization of the contents to prevent contaminant exposure to receptors and to prevent further movement of contaminants through any pathway as set forth herein.

1. A health and safety plan for the site is developed, as described in section 1.9, by a qualified individual in accordance with subparagraph 1.5(a)3.i.

2. Underground tank closures not performed in accordance with this section will require a certification of the closure report by a professional engineer, as described in section 1.5.

Appendix 5

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.

APPENDIX D

COMMUNITY AIR MONITORING PROGRAM

COMMUNITY AIR MONITORING PROGRAM

The Community Air Monitoring Program (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 at the Site. The CAMP is not intended for use in establishing action levels for worker respiratory protection. Rather, its intent is to provide a measure of protection for the downwind community (i.e., off-site receptors, including residences and businesses, and on-site workers not directly involved with the subject work activities) from potential airborne contaminant releases as a direct result of investigative and remedial work activities. The action levels specified herein require increased monitoring, corrective actions to abate emissions and/or work shutdown.

Continuous monitoring will be conducted by Plumley Engineering for all ***ground intrusive*** activities, including excavation, loading soil, test pits and trenching.

Periodic monitoring for VOCs and particulates (i.e., dust) will be conducted by Plumley Engineering whenever the collection of groundwater samples from existing monitoring wells are collected. “Periodic” monitoring during sample collection will consist of taking a reading upon arrival at a sample location, monitoring while opening a well cap or overturning soil, monitoring during well bailing/purging, and taking a reading prior to leaving a sample location.

VOC Monitoring, Response Levels and Actions

VOCs will be monitored at the downwind perimeter of the immediate work area (i.e., the exclusion zone). Upwind concentrations should be measured at the start of each work day and periodically thereafter to establish background conditions. The monitoring work should be performed using equipment appropriate to measure the types of contaminants known or suspected to be present. The equipment should be calibrated at least daily for the chemicals 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 vapors identified, corrective actions taken to abate emissions and monitoring continued. After these steps, work activities can resume, provided the total organic vapor level 200 feet downwind of the exclusion zone or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less (but in no case less than 20 feet), is below 5 ppm over background for the 15-minute average.
- If the organic vapor level is above 25 ppm at the perimeter of the work area, activities must be shut down, the source of vapors identified, corrective actions taken to abate emissions and monitoring continued.

Particulate Monitoring, Response Levels and Actions

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

COMMUNITY AIR MONITORING PROGRAM

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- If the downwind PM-10 particulate level is 100 micrograms per cubic meter (mcg/m³) greater than background (upwind perimeter) for the 15-minute period or if airborne dust is observed leaving the work area, then dust suppression techniques must be employed. Work may continue with dust suppression techniques, provided that downwind PM-10 particulate levels do not exceed 150 mcg/m³ above the upwind level and 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/m³ above the upwind level, work must be stopped and a re-evaluation of activities initiated. Work can resume provided that dust suppression measures and other controls are successful in reducing the downwind PM-10 particulate concentration to within 150 mcg/m³ of the upwind level and in preventing visible dust migration.

All 15-minute readings must be recorded and be available for New York State Departments of Environmental Conservation (DEC) and Health (DOH) personnel to review. Instantaneous readings, if any, used for decision purposes should also be recorded.

APPENDIX E

DEWATERING REQUIREMENTS

DEWATERING REQUIREMENTS

GENERAL REQUIREMENTS

Excavation water shall be defined as any groundwater, precipitation or surface water entering the excavation(s). Project decontamination water may also be included.

No dewatering shall be undertaken without the prior approval of the Project Engineer.

In the event that dewatering of the excavation is required to facilitate the removal of free product impacted soil, the Contractor shall provide all the necessary labor, equipment, materials, means and methods, testing and permitting services as described or required herein for the handling, storage, treatment, and disposal of excavation water in accordance with the approved Excavation Water Management Plan.

The Contractor shall be prepared to employ excavation methods to the extent practical to eliminate the need for dewatering, to include but not necessarily limited to, employing surface water diversion ditching and/or berms to minimize surface storm water runoff into the excavation, temporarily stockpiling wet soils to allow drainage and/or mixing wet soils with dry soil within the confines of the excavation prior to loading, and isolating wet areas of the excavation.

The Contractor shall develop an acceptable Excavation Water Management Plan for review and approval by the Project Engineer detailing the handling, storage, treatment, analytical testing and disposal of all excavation water and any associated residuals (e.g., spent GAC, filter bags, etc) generated during the project. Means and methods shall be conducted in accordance with all applicable Federal, State and local regulations.

Any sediments generated by the Contractor's management of excavation water shall be managed in accordance with applicable sections of the Remedial Excavation Work Plan (RAWP) and Contract Documents.

Any free-phase oil that may be withdrawn from the excavation (s) is to be separated from the excavation water, containerized in New York State Department of Transportation (DOT) approved steel drums or other watertight container/tank approved by the Project Engineer and stored on the site. Such oil, if any, will be profiled and disposed of by the Owner.

APPLICABLE CODES, STANDARDS AND SPECIFICATIONS

The Contractor will be required to obtain profile approval and any required permits for the disposing of excavation water prior to commencing any dewatering.

The Contractor will be required to comply with all applicable regulations and discharge limits required by the local wastewater treatment plant (WWTP) or DEC State Pollutant Discharge Elimination System (SPDES) permit program, if used.

The Contractor shall be responsible for completing required sampling and analysis in accordance with any discharge permit requirements for obtaining prior approval and as may be needed during dewatering operations.

It shall be the responsibility of the Contractor to coordinate with the local municipality and WWTP as needed to obtain approval for the use of any water conveyance (Sanitary Sewer) and treatment facilities for the excavation water.

Disposal of excavation water encountered during the work will not commence until the Contractor receives approval from the Project Engineer for the proposed disposal method as provided in the Contractor's Excavation Water Management Plan. All proposed disposal methods must be in compliance with pertinent Federal, State and local environmental regulations.

Excavation water that is hauled from the site for disposal is to be transported by approved tanker trucks permitted under the DEC Part 360 Waste Transport Regulations.

SUBMITTALS

A copy of all necessary permits and approvals needed for the Excavation Water Management Plan must be submitted to the Project Engineer before commencing dewatering.

The Contractor shall submit an Excavation Water Management Plan to the Project Engineer for review and approval to include, but not limited to:

- The test results and the proposed disposal method.
- Shop drawings and design summary schematics detailing the management of excavation water, including but not limited to, water collection, storage, treatment and disposal.

EXECUTION

The Contractor shall, at all times during the remedial soil excavation work when dewatering has been approved and implemented, provide and maintain proper and satisfactory means and devices for the removal of excavation water entering the excavation(s), and shall remove all such water at pumping rates that are sufficient so as not to interfere with the progress of the remedial soil excavation work.

The Contractor shall dewater using open pit methods, providing the dewatering pumps, equipment and installation of gravel-lined dewatering sump areas in the excavation to maintain water levels below the bottom dig depth of the remedial excavation(s).

DEWATERING REQUIREMENTS

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The Contractor's Construction Management Plan shall utilize 20,000-gallon Frac tank(s) for temporary storage and pre-treatment of the excavation water. The Contractor shall be prepared to provide portable $\pm 1,000$ -gallon tank(s) in the event the water storage needs are minor.

The Contractor shall provide the necessary combination of pre-treatment equipment and processing, storage, haulage and/or conveyance of excavation water to the WWTP or approved surface water discharge via DEC SPDES permit at rates that are sufficient so as not to interfere with the progress of the remedial soil excavation work.

The Contractor shall be prepared to fully implement the approved Excavation Water Management Plan within a 5-working day notice.

APPENDIX F

HEALTH AND SAFETY PLAN

HEALTH AND SAFETY PLAN
for
REMEDIATION ACTIVITIES
at the
FORMER ONEIDA KNIFE PLANT
LOT 1
Kenwood Avenue
City of Sherrill, Oneida County, New York
NYSDEC Site No. C633077

Prepared for:

ONEIDA, LTD.
163-181 Kenwood Avenue
Oneida, New York 13421

Prepared by:



8232 Loop Road
Baldwinsville, New York 13027
(315) 638-8587
Project No. 2013028

April 2013

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1.0 PURPOSE AND APPLICABILITY

This Health and Safety Plan (HASP) outlines precautions and protective measures that employees and subcontractors (“Workers”) of Plumley Engineering must take to minimize the risk to health and safety while performing field tasks for the proposed site remediation activities at the Former Oneida Knife Plant site, located on Kenwood Avenue in the City of Sherrill, Oneida County, New York. The site was investigated under the Brownfield Cleanup Program (BCP). A Remedial Investigation Report (RIR) was prepared by Plumley Engineering, dated January 2012, Revised May 2012. Each worker shall review the HASP prior to working on the site and sign an acknowledgement indicating the worker agrees to comply with the HASP requirements. Some activities may require parties other than the engineer or its subcontractors to be at the site. These parties are solely responsible for maintaining compliance with all applicable regulations and for their own health and safety procedures. All on-site workers must have received the appropriate level of training for their specific duties in accordance with Occupational Safety and Health Administration (OSHA) regulations [29 CFR 1910.120 (e)].

2.0 SITE DESCRIPTION

The site is located in a mixed residential-industrial area on Kenwood Avenue in the City of Sherrill, New York (Figure 1) and is an abandoned silverware manufacturing facility with an operational period beginning in the 1850’s through 2005.¹ The site contains roughly 35,000 square feet of manufacturing buildings on 3 acres of property. Refer to Figure 2 for additional information.

¹Historical information regarding the Site cited in this HASP has been obtained from the *ASTM Phase I Environmental Site Assessment*, prepared by Haley & Aldrich of New York, dated December 8, 2004, and the *Phase II Environmental Site Assessment*, prepared by Haley & Aldrich of New York, dated December 28, 2005.

3.0 SCOPE OF WORK

The remediation program will involve the following tasks:

- An environmental contractor will be mobilized to the site to complete remedial soil excavations of the subsurface soils impacted in three areas of concern (AOCs) at the site, AOCs #1, #2 and #3 (Figure 2). Soil will be excavated from the AOCs and loaded onto to haul trucks for disposal at an approved landfill, with some temporary on-site stockpiling of soils anticipated.
- The contractor will also excavate and provide fill, as needed, to provide a minimum 12-inch thick clean cap over the outdoor AOCs.
- A post-excavation groundwater monitoring program will be implemented in AOC #1, with the objective of determining if volatile organic compound (VOC) concentrations are declining over time.

Plumley Engineering personnel will be providing inspection services during the construction phase of the project.

4.0 HEALTH AND SAFETY PERSONNEL

The following personnel are responsible for the development, implementation and maintenance of this HASP:

Project Managers	Dale R. Vollmer, P.E. Frank A. Karboski, C.P.G.
Site Safety Officers	Derk T. Hudson, Geologist Matthew Martin, Scientist Frank A. Karboski, C.P.G.

Although responsibility for implementing this HASP is with the Site Safety Officer, the primary responsibility for health and safety lies with the individual workers. Each worker must be familiar with and conform to the safety procedures outlined in this HASP. The Site Safety Officer is responsible for all decisions regarding health and safety policies, procedures and protective measures. It is the responsibility of the Site Safety Officer to provide the resources required to allow the work to be conducted in conformance with this HASP.

The Site Safety Officer will also be responsible for:

- Maintaining a complete copy of the HASP at the site during all field activities.
- Assuring that all workers at the site are familiar with the procedures outlined in the HASP.
- Assuring that all workers have undergone the required OSHA training program.
- Assuring that workers have, and properly use and maintain, all specified personal protective and other health and safety equipment.
- Assuring that proper decontamination procedures are followed.
- Initiating immediate response actions, if necessary, and coordinating these actions with all workers at the site, any other individuals at the site, any involved agencies or medical facilities.
- Recommending improvements to this HASP, if needed.

The Site Safety Officer has the authority to:

- Direct any worker to alter or suspend any work practice they deem is not sufficient to protect human health.

- Deny access to the site to any individual or organization who does not have a complete copy of the HASP and/or the appropriate training and personal protective equipment (PPE) for the potential health and safety hazards at the site.

The presence or absence of the Site Safety Officer shall in no way relieve any individual or organization of their obligation to comply with the HASP or any applicable Federal, State and local laws and regulations.

5.0 GENERAL INFORMATION

Plan Prepared By/Date: Plumley Engineering / April 2013

Plan Approved By/Date: Frank A. Karboski, C.P.G. / April 2013

Proposed Date(s) of Work: Construction date has not been established at this time

Background Review: Preliminary _____ Complete X

A review of site investigation and environmental site assessment reports has been completed sufficiently to support the preparation of the site HASP. If new information is obtained that requires a modification to the HASP, an addendum will be issued.

6.0 SITE CONTAMINANT CHARACTERISTICS

Definition of Site Contaminants of Concern (COCs)

The site was a former textile facility, canning facility and knife manufacturing plant with six separate Areas of Concern (AOCs). As such, a variety of different contaminants are anticipated. Based on our investigation of the site, the following types of chemical compounds (confirmed present at the site) are identified as site contaminants:

- Halogenated and non-halogenated volatile organic compounds (VOCs)
- Semi-volatile organic compounds (SVOCs)
- Polychlorinated biphenyls (PCBs)
- Metals (Priority Pollutant List)

There are no uncontrolled surface exposures of these materials at the site, such as heavily stained areas, open lagoons, etc.

Potential Hazardous Material(s)

The more prevalent halogenated VOCs at the site include trichloroethylene, 1,2-dichloroethene and vinyl chloride. The more prevalent non-halogenated VOCs present at the site include 1,2,4-trimethylbenzene, sec-butylbenzene, n-butylbenzene, n-propylbenzene, toluene, isopropylbenzene and naphthalene. Health and Safety Data for common VOCs are summarized in Table 1.

SVOCs found prevalently at the site include a large number of polycyclic aromatic hydrocarbons (PAHs), including acenaphthene, fluorene, phenanthrene, anthracene, chrysene, benzo(a)pyrene, naphthalene and 2-methylnaphthalene, among others.

PCBs were found at low concentrations at the site, specifically Aroclor 1254 and 1260.

Refer to Attachment B for hazardous substance sheets for the selected COCs.

Media and Contaminant Types (X)

☒ Liquid	☐ Solid	☐ Sediment	☒ Soil Gas	☒ Soil
☒ Toxic	☐ Reactive	☐ Radioactive	☐ Unknown	

COCs are known to occur at the site in the soil and groundwater.

7.0 HAZARD EVALUATION AND REDUCTION

Health and safety information relevant to the most prevalent COCs is included in Table 1 and Attachment B. The VOCs can present an inhalation hazard associated with their release from contaminated equipment, site soils or groundwater disturbed by remediation or investigation activities. The SVOCs are less volatile, but may also be present as vapors in the breathing zone. Metals and PCBs are not significantly volatile. Any of the COCs could also be present in dust associated with remediation or investigation activities.

All chemicals are anticipated to occur in soil and groundwater at the site, and thus pose a dermal exposure risk that can result from handling site soil and groundwater or equipment that has come into contact with impacted soil or groundwater.

According to the hazardous substance fact sheets, the COCs are recognized to pose a variety of hazards, including irritation of the eyes, respiratory tract and skin, and potentially increased risk of cancer and reproductive damage. The current OSHA permissible exposure limits (PEL) standards are provided in Table 1. Workers are not expected to be exposed to conditions exceeding the PEL. A listing of the COC concentrations in soil obtained from prior site investigations is provided in Table 2.

Based on the nature of the contaminant and the type of work being performed, the most significant hazards at this site are:

- Direct contact with COC-bearing materials or equipment during intrusive subsurface remediation or soil and groundwater sampling activities. The PPE requirements for the project are designed to eliminate this risk to the extent practical.
- Physical hazards related to operating and working with heavy construction equipment used for the proposed remedial excavations and site grading activities or drilling and heavy drilling tools if used for performing any additional soil borings. All equipment

operators and inspectors shall be familiar with the associated physical hazards and shall have had at least five years of related experience. The environmental contractors shall provide copies of their current HASP to the project engineer for review. The PPE requirements for the project are designed to eliminate this risk to the extent practical.

There are three primary pathways by which site workers can be exposed to chemical hazards: inhalation, ingestion and dermal contact. The chemical exposures across these pathways can cause two types of effects: acute and chronic. Acute effects happen during or shortly after exposure to a sufficiently high concentration of a chemical. Chronic effects occur after repeated or constant exposures for a long period of time. Regulatory exposure limits, such as PELs, are related to both acute effects, such as respiratory irritation, and chronic effects, such as cancer. Symptoms of chemical exposure may include behavioral changes, breathing difficulties, skin color changes, coordination difficulties, coughing, dizziness, weakness, irritability, skin irritation, eye irritation, respiratory tract irritation, headache, nausea, lightheadedness, sneezing, etc.

The primary pathway exposures associated with site VOCs is inhalation and dermal contact with affected media or tools that have come into contact with the affected media. SVOCs may also be present in the breathing space, although typically at concentrations less than VOCs. Exposures to SVOCs, metals, pesticides and PCBs is primarily by dermal contact with affected media or tools that have come into contact with the affected media.

Another potential pathway for exposure to COCs is through inhalation and dermal contact with airborne dust derived from contaminated soil during proposed remedial excavation in the AOCs or from stockpiled soils.

The following precautions will be taken to reduce the potential exposure to site COCs during the remediation activities:

- During the remedial excavations, field personnel will conduct air monitoring with a photoionization detection (PID) meter to measure total concentrations of VOCs in the work zone breathing space. Refer to Section 8.
- If visible dust does become present in the breathing space, engineering controls and/or appropriate respiratory protection will be used. The project Community Air Monitoring Program (CAMP) and Remedial Action Work Plan (RAWP) provide some response measures if dust contains of concern are encountered.
- Site inspection activities will be conducted using Level D PPE to minimize dermal exposure to potentially affected media (i.e., specifying the use of disposable protective gloves when handling site materials). The PPE will be upgraded, if necessary, for organic vapor, dermal and dust inhalation hazards.
- Any non-disposable PPE that comes in contact with potentially affected facility media will be decontaminated prior to leaving the work area.
- Soap, clean water and paper towels for washing hands will be provided at the site during all field activities. Hands will be washed thoroughly prior to eating, drinking and leaving the site.
- During groundwater sampling work, the field samplers will conduct air monitoring with a PID meter to measure total concentrations of VOCs in the work zone breathing space.

The Site Safety Officer will have the NIOSH *Pocket Guide to Chemical Hazards* available for reference at the site. This reference identifies exposure routes, exposure symptoms, physical properties, chemical incompatibilities, first aid treatment and other information for many chemical compounds.

Physical hazards expected during the remediation activities are related to working in the proximity of construction equipment, potential utility conflicts for excavation work, and slip, trip and fall hazards. These hazards will be evaluated by the Site Safety Officer prior to beginning work in a new area and as conditions change in the work area. The following precautions will be taken to reduce the physical hazards:

- A utility clearance program shall be completed prior to initiating the project, to include contacting Dig Safely New York and researching private utilities. No subsurface excavations will be started at any location prior to utility clearance.
- “Tailgate” safety briefings will be conducted by the Site Safety Officer to identify additional safety protocols, as needed.
- The specified PPE shall be worn by all workers in the project exclusion zone.
- No confined space entries will take place under this HASP. If a confined space entry becomes necessary, appropriate confined space entry procedures will be detailed in an addendum to this plan.
- Good housekeeping in the work area will be maintained.

Encountering unknown or unexpected substances or containers of a hazardous nature is possible, though not expected based on the degree of prior investigation undertaken at the site. Work will be discontinued if field measurements or observations indicate there is potential exposure to a hazard that was not anticipated, is not adequately characterized and controlled, or may exceed the protection provided by the PPE specified for the task.

8.0 SITE SAFETY WORK PLAN

Site Map

Figure 2 shows the main features on and adjacent to the site, and the locations of sampling points.

Site Security

A security fence with a locked gate encloses the site. The gate is kept locked at all times except during times when site activities are underway. The gate will be closed when personnel are on-site working to limit incoming traffic to authorized personnel only.

Training

All authorized workers will receive a HASP briefing and will be required to read and sign the HASP at the beginning of the field work. The following main items shall be covered:

- The tasks the workers will be required to perform, as detailed in the RAWP.
- Site ingress, egress and decontamination procedures.
- Site hazards, accident prevention and overexposure symptoms.
- The required PPE plan and exclusion zone requirements.
- Emergency response procedures.

Attachment A is a record of all authorized workers who have either attended the startup training session or received a similar briefing from the Site Safety Officer, to include any visitors. This shall be kept up-to-date throughout the project.

Should unexpected site conditions be encountered requiring utilization of Level C or higher protection and/or other specialized operations (e.g., a confined space entry), the work shall not be carried out until a Response Team is formed to carry out such work, comprised of personnel with proper training in accordance 29 CFR Part 1910.120 (e) (f) (g), as appropriate.

When any new personnel are assigned to this project, they shall receive the HASP briefing and shall be required to read and sign the HASP before being allowed to perform work. The briefing will be given by the Site Safety Officer or a delegated safety representative who has previously completed this training.

The Site Safety Officer will be responsible for insuring that visitors receive the necessary site-specific visitor training applicable to the visitors' anticipated activities. Site visitors shall not be allowed access to the project exclusion zone unless they receive a site-specific training brief, can demonstrate they have received the appropriate training per 29 CFR Part 1910.120 (e) and have received the required project PPE equipment.

Zone(s) of Contamination Identified

Workers are to assume that COCs may occur anywhere on the site in the surface soils, subsurface soil and groundwater.

Medical Surveillance

The project contractor shall be current with medical surveillance requirements in accordance with 29 CFR Part 1910.120 (f). Attachment B details the symptoms of overexposure to the COCs. All site workers shall be familiar with these.

Exclusion Zone

Temporary exclusion zones will be established around all subsurface excavation locations while such operations are being conducted. No unauthorized personnel will be allowed to approach the location, as monitored by the Site Safety Officer. Traffic cones and barrels will be used to designate the area, set at a safe distance from the associated hazard, as determined by the Site Safety Officer. Any worker in the exclusion zone shall comply with all aspects of the HASP.

Decontamination Area

A central decontamination area, where decontamination materials shall be placed and stored and procedures conducted, will be designated at the outset of the project. Portable decontamination equipment will also be used to expedite the work.

Personal Protection Equipment

- Level of protection in the exclusion zone shall be Level D – Modified.
- Level D PPE in the exclusion zone shall consist of the use of hard hats, latex gloves for handling soil samples, steel-toed boots if inspecting remedial excavations, and safety glasses.
- A cellular telephone in proper working order shall be available at the work site at all times.
- Eating, drinking, smoking and carrying food or tobacco products are prohibited in the exclusion zone.

Decontamination Procedures

- **Personnel:** Workers shall wash face and hands with soap and water prior to eating, drinking, using restroom facilities or leaving the site.
- **Protective Equipment:** A detergent wash and clean water rinse will be used for boots, hard hats, safety glasses and hand sampling tools.
- **Excavation Equipment:** Decontamination of excavating equipment that has contacted subsurface soils shall be performed at the designated decontamination pad area before exiting the work site. This may involve dry-brushing soil materials or water pressure wash if oil materials are encountered.
- **Disposal:** Gloves, coveralls, etc., used at the site will be collected at a central location for disposal in accordance with all applicable laws of the State of New York or, where applicable, properly cleaned and disinfected for reuse. Any water generated from decontamination shall be collected and containerized for proper testing and disposal in accordance with all applicable laws of the State of New York.

Equipment Checklist

Level D Modified

Hardhat

Steel toed work boots and rubber overshoes, or steel toed rubber boots

Safety glasses

Tyvek coveralls

Rubber and latex gloves

Hearing Protection

Ear Plugs

Decontamination Materials

Alconox

Brushes

Buckets

Potable water source and portable containers

Low pressure sprayer

Decontamination pad materials, including water containment

Plastic drop cloth material

Garbage can and plastic liners

Field Instruments

PID / Calibrated HNU, 10.6 eV

Other

Eye wash bottles

Portable body washing equipment; water, soap and paper towels

First aid kit

Disposal dust mask

9.0 ENVIRONMENTAL MONITORING PLAN

Work Zone Monitoring

Air monitoring in the exclusion zone near the point of operation will be periodically tested by the Site Safety Officer using a PID meter as a general precaution at a frequency of once every 60 minutes, or whenever a fugitive odor suggestive of possible VOCs is encountered. Should readings exceeding 5 parts per million (ppm) be recorded, additional readings in the operator breathing zone will be obtained. Should these levels continue to exceed 5 ppm over a sustained period of one minute, work will be discontinued until appropriate engineering controls (e.g. fan ventilation, vapor suppression) and a CAMP are employed. The Site Safety Officer will continue to evaluate the situation and, if necessary, upgrade the PPE requirements to include air purifying respirators. Should Level C respirator PPE be required, all workers shall have had the proper training for their use and have had a fitness test performed current within the previous one year period in accordance with 29 CFR 1910.120.134, Appendix A. Readings will be documented on the form provided in Attachment C.

Community Air Monitoring Program

A CAMP requires real-time monitoring for VOCs and particulates (i.e., dust) at the downwind perimeter of each designated work area when certain activities are in progress at the site. The CAMP is not intended for use in establishing action levels for worker respiratory protection. Rather, its intent is to provide a measure of protection for the downwind community (i.e., off-site receptors, including residences and businesses, and on-site workers not directly involved with the subject work activities) from potential airborne contaminant releases as a direct result of investigative and remedial work activities. The action levels specified herein require increased monitoring, corrective actions to abate emissions and/or work shutdown.

Continuous CAMP monitoring for VOCs and particulates will be required for ***ground excavation*** activities involving trenching and soil excavations in impacted areas.

Periodic monitoring for VOCs will be required during **non-excavation** activities, such as the collection of soil and sediment samples, the collection of groundwater samples from existing monitoring wells, direct-push soil borings, installation of small diameter monitoring wells and test pits. “Periodic” monitoring during these activities will consist of taking a PID reading upon arrival at a test location and periodically during the work, as described above in “Work Zone Monitoring”.

VOC CAMP Monitoring, Response Levels and Actions

VOCs must be monitored at the downwind perimeter of the immediate work area (i.e., the exclusion zone). Upwind concentrations should be measured at the start of each work day and periodically thereafter to establish background conditions. The monitoring work should be performed using equipment appropriate to measure the types of contaminants known or suspected to be present. The equipment should be calibrated at least daily for the COCs 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 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 must be halted, the source of vapors identified, corrective actions taken to abate emissions and monitoring continued. After these steps, work activities can resume, provided the total organic vapor level 200 feet downwind of the exclusion zone or half the distance to the nearest potential receptor or residential/commercial structure,

whichever is less (but in no case less than 20 feet), is below 5 ppm over background for the 15-minute average.

- If the organic vapor level is above 25 ppm at the perimeter of the work area, activities must be shut down.

Particulate CAMP Monitoring, Response Levels and Actions

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

- If the downwind PM-10 particulate level is 100 micrograms per cubic meter (mcg/m^3) greater than background (upwind perimeter) for the 15-minute period or if airborne dust is observed leaving the work area, then dust suppression techniques must be employed. Work may continue with dust suppression techniques provided that downwind PM-10 particulate levels do not exceed $150 \text{ mcg}/\text{m}^3$ above the upwind level and provided that no visible dust is migrating from the work area.
- If, after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater than $150 \text{ mcg}/\text{m}^3$ above the upwind level, work must be stopped and a re-evaluation of activities initiated. Work can resume, provided that dust suppression measures and other controls are successful in reducing the downwind PM-10 particulate concentration to within $150 \text{ mcg}/\text{m}^3$ of the upwind level and in preventing visible dust migration.

All 15-minute readings must be recorded and be available for review by New York State Departments of Environmental Conservation (DEC) and Health (DOH) personnel. Instantaneous readings, if any, used for decision purposes should also be recorded.

10.0 REMEDIATION WASTE DISPOSAL PLAN

Waste materials generated during the completion of the remediation shall be handled as follows:

- In accordance with the RAWP, all excavated soils shall either be disposed of in the project landfill or tested by the project engineer for compliance with project regulatory criteria for on-site reuse as backfill. These soils are to be transported by haulers permitted in accordance with New York Codes, Rules and Regulations, Title 6 (6NYCRR) Part 364. Waste manifests are to be provided.
- Soil materials generated from decontamination procedures shall be disposed of in the project landfill.
- PPE wastes can be disposed of in a Part 360 permitted solid waste landfill.
- Groundwater generated from purging monitoring wells is to be containerized upon production to allow visual observations and can subsequently be discharged to the ground near the point of on-site generation, provided it is:
 - Free of visual sheen or oil (no free product). No water is to be discharged at the site if it contains visual product.
 - Filtered through a portable carbon treatment filter.

Water containing any free product is to be stored in labeled containers in an area affording secondary containment and handled in accordance with the off-site disposal requirements discussed below and in the RAWP. Water generated by decontamination procedures is to be handled following the same protocol.

- Wastewater generated during the project from decontamination or construction dewatering procedures is to be disposed of in accordance with the following:
 - Representative samples of the water must be collected and analyzed to properly allow the materials to be profiled for treatment or disposal.
 - An approved profile must be received from an appropriate receiving facility prior to transporting the waste off site. All waste materials taken from the site for disposal must be disposed of or treated in DEC-permitted facilities.
 - Any contaminated water must be transported by haulers permitted in accordance with 6 NYCRR Part 364. Waste manifests are to be provided.

11.0 EMERGENCY RESPONSE PLAN

A copy of the HASP and a NIOSH *Pocket Guide of Chemical Hazards* shall be available at the site at all times.

The Site Safety Officer is to be immediately notified of any on-site emergency.

USE THE 911 SYSTEM FOR ANY THREATENING EMERGENCY.

Upon the occurrence of an emergency involving a potentially ongoing dangerous condition, for example a fire, explosion or electrical condition within or adjacent to the site, all workers will be alerted and the affected area evacuated immediately.

Emergency situations will be evaluated by the Site Safety Officer and initial emergency response measures will be undertaken, if appropriate.

Contact the Project Manager as soon as possible. Emergency telephone numbers are provided.

The following general sequential guidelines are provided for emergency situations:

1. If possible, remove the exposed or injured person(s) from the immediate danger. Other personnel on the property shall be evacuated to a safe distance until the Site Safety Officer determines it is safe to return to work.
2. Obtain paramedic and ambulance service (or fire department response, if needed) immediately by calling 911. Render first aid, as applicable to the rescuers' training.
3. If there is any doubt regarding the condition of the area, work shall not commence until all safety issues are resolved.
4. At the earliest time practical, the Site Safety Officer shall contact the Project Manager, giving details of the incident.
5. A written report of the incident shall be forwarded to the Project Manager within 24 hours following the incident.

EMERGENCY TELEPHONE NUMBERS

Plumley Engineering..... (315) 638-8587

FOR ALL EMERGENCIES..... 911

(Fire Department, Police Department, Ambulance)

Other Agencies

Sherrill-Kenwood Volunteer Fire Department (315) 363-0530

Oneida County Environmental Management and Water Quality Council...(315) 798-5710

National Grid (Gas or Electrical Emergency)..... (800) 892-2345

Sherrill-Kenwood Water District – Emergencies (315) 363-3754

Oneida Healthcare Center (315) 363-6000

DEC Region 6, Watertown Office (315) 785-2239

DEC Spill Hotline (800) 457-7362

Nearest Hospital (Hospital Location Map, Figure 3):

Name: Oneida Healthcare Center

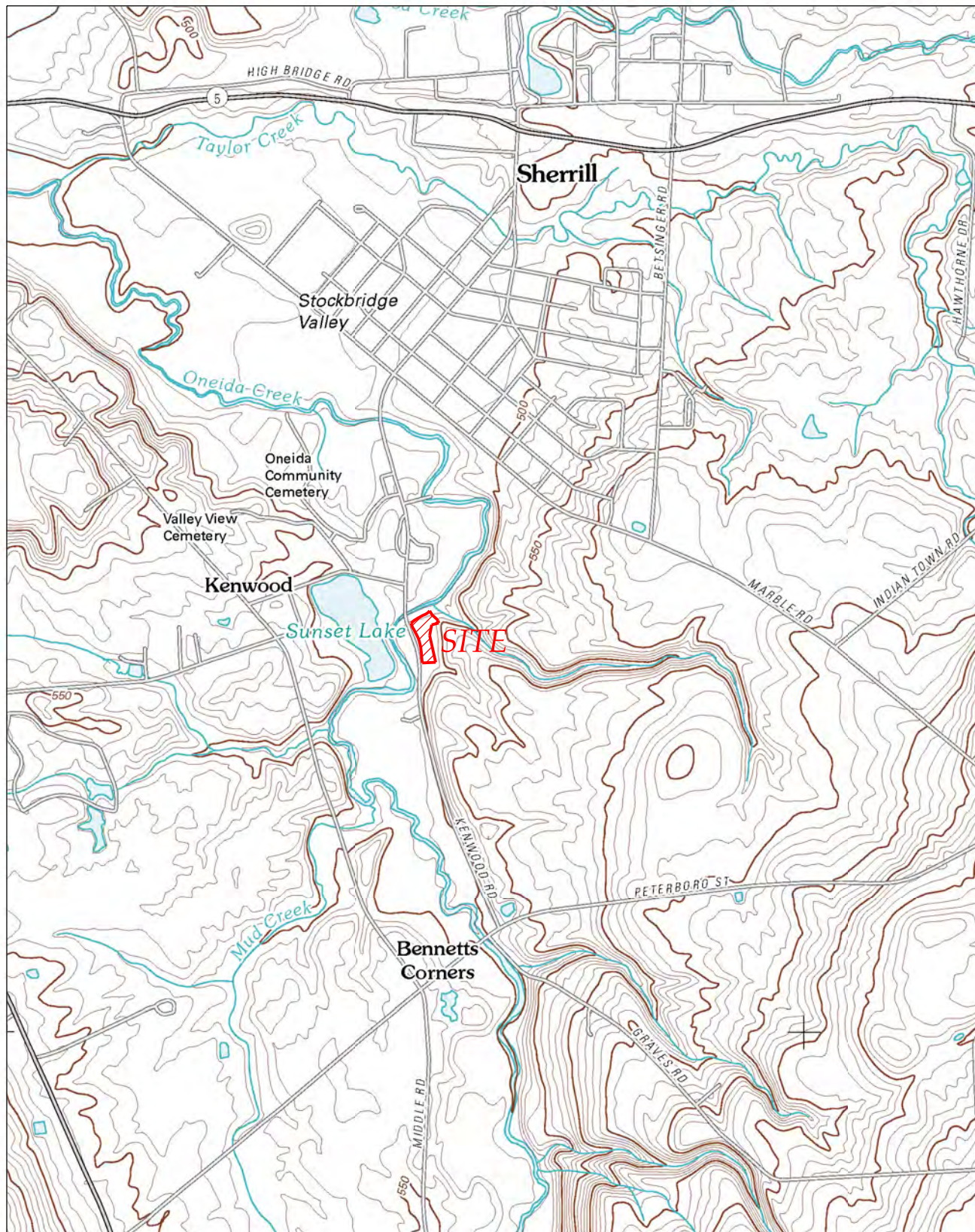
Location 301 Genesee Street
Oneida, New York 13421
(approximately 3.6 miles from site)

Telephone: (315) 363-6000

Written directions to Hospital from the site:

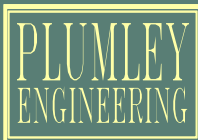
- Head North on County Road 51 (Kenwood Avenue) toward Chapel Street
- Continue onto Sherrill Road
- Turn Left at West Hamilton Avenue
- Turn Left at NY-5/Seneca Avenue
- Turn Left at Fields Drive
- Turn Right (destination)

FIGURES



REF.: USGS - VERNON (NY) QUAD., 2010, 7.5 MIN. SCALE: 1"=2000'

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PROJECT:

FORMER ONEIDA KNIFE PLANT - LOT 1 REMEDIAL ACTION WORK PLAN

DWG. TITLE:

TOPOGRAPHIC SITE LOCATION MAP

CLIENT:

ONEIDA, LTD.

LOCATION:

CITY OF SHERRILL, ONEIDA COUNTY, NEW YORK

Note: No alteration permitted hereon except as provided under Section 7209 Subdivision 2 of the New York State Education Law.

PROJECT No.: 2013028

FILE NAME.: **FIGURE 1**

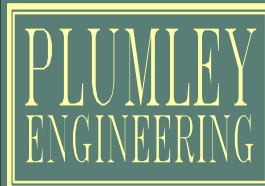
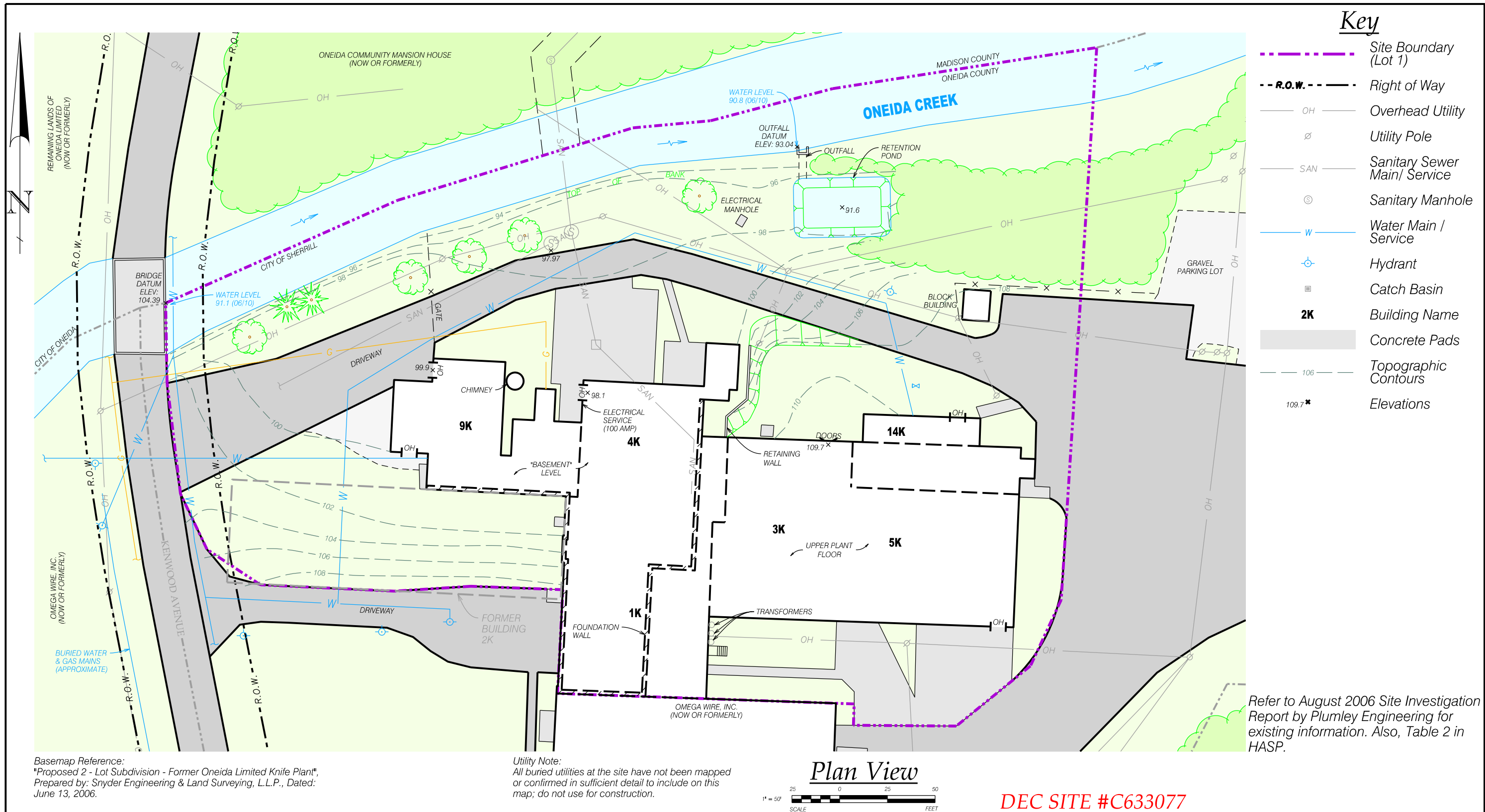
SCALE: AS NOTED

DATE: APRIL 2013

ENG'D BY: FAK

DRAWN BY: JMD

CHECKED BY: FAK



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Civil and Environmental Engineering

REVISIONS:	DATE:	BY:
△		

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PROJECT: **FORMER ONEIDA KNIFE PLANT - LOT 1 REMEDIAL ACTION WORK PLAN**

DWG. TITLE: **SITE PLAN - HASP**

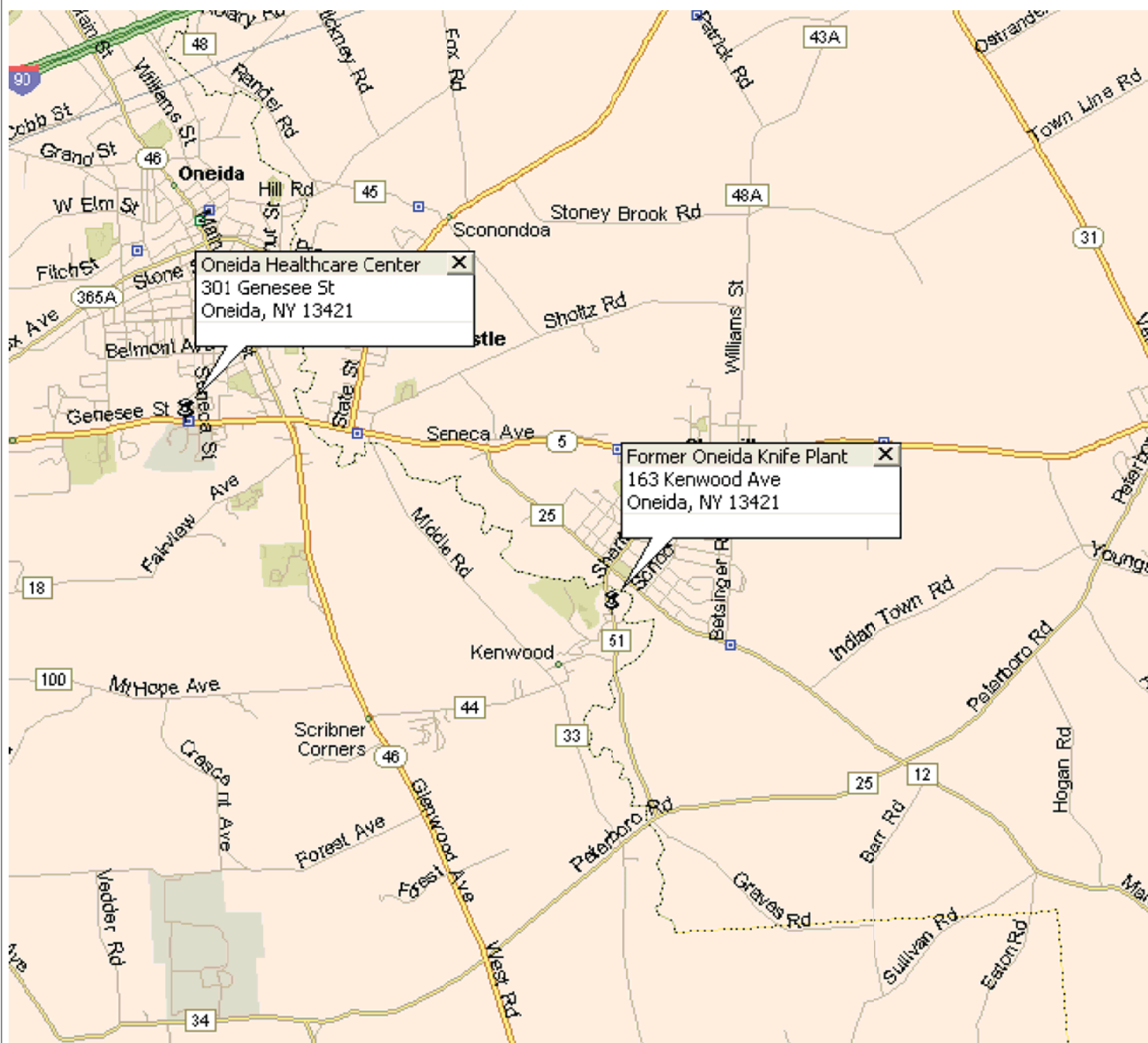
CLIENT: **ONEIDA, LTD.**

LOCATION: **CITY OF SHERRILL, ONEIDA COUNTY, NEW YORK**

Note: No alteration permitted hereon except as provided under Section 7209 Subdivision 2 of the New York State Education Law.

PROJECT No.: 2013028
FILE NAME.: Figure2
SCALE: AS NOTED
DATE: APRIL 2013
ENG'D BY: FAK
DRAWN BY: JMD
CHECKED BY: DRV

SHEET NO.: **FIGURE 2**
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SITE - HOSPITAL MAP

FORMER ONEIDA

KNIFE PLANT

ONEIDA, LTD.

CITY OF SHERRILL, ONEIDA COUNTY, NEW YORK

PROJECT No.:

2013028

FILE NAME:

FIGURE 3

SCALE:

N.T.S.

DATE:

Apr. 2013

TABLES

FORMER ONEIDA KNIFE PLANT
Kenwood Avenue
City of Sherrill, Oneida County, New York
NYSDEC Site No. C633077

TABLE 1 - HEALTH AND SAFETY DATA FOR SELECTED CONTAMINANTS OF CONCERN

Contaminant	Synonyms	CAS Number	Ionization Potential (eV)	Odor Threshold (ppm)	PEL 8 hour (ppm)	PEL 15 minute (ppm)	TLV/ TWA (ppm)	STEL (ppm)	Flammable	Explosive Limits	
										LEL	UEL
1,1,1-Trichloroethane	Methyl chloroform	71-55-6	11.00	390	350	NA	350	450	No	NA	NA
1,1-Dichloroethane	Ethylidene chloride	75-34-3	NA	NA	100	NA	100	NA	Yes	NA	NA
Benzene	Benzol	71-43-2	9.24	NA	1	5	0.1	1	Yes	1.2%	7.8%
Chlorobenzene	Benzene chloride	106-90-7	9.07	NA	75	NA	NA	NA	Yes	1.3%	9.6%
cis-1,2-Dichloroethene	1,2- Dichloroethylene	156-59-2	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	Ethylbenzol	100-41-4	8.76	NA	100	NA	100	125	Yes	0.8%	6.7%
m-Xylene	Xylol	108-38-3	8.56	NA	100	NA	100	150	Yes	1.1%	7.0%
o-Xylene	Xylol	95-47-6	8.56	NA	100	NA	100	150	Yes	0.9%	6.7%
p-Xylene	Xylol	106-42-3	8.44	NA	100	NA	100	150	Yes	1.1%	7.0%
Tetrachloroethene	Perchloroethylene	127-18-4	9.32	47	100	200	25	100	No	NA	NA
Toluene	Methyl benzene	108-88-3	NA	2.9	200	300	50	150	Yes	1.3%	7.0%
trans-1,2-Dichloroethene	NA	156-60-5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	Trichloroethylene	79-01-6	9.45	82-110	100	200	50	100	No	NA	NA
Vinyl Chloride	Chloroethene, Chloroethylene	75-01-4	9.995	NA	1	5	5	NA	Yes	4.0%	22.0%

Notes:

eV electron volts
ppm parts per million
NA Not applicable

FORMER ONEIDA KNIFE PLANT
Kenwood Avenue
City of Sherrill, Oneida County, New York
NYSDEC Site No. C633077

TABLE 2 - SUMMARY OF SOIL ANALYTICAL RESULTS
MAXIMUM HITS BY LOCATION - VARIOUS METHODS

Date Sampled: April 6, 10 and 11, 2006

Compound	Recommended Soil Cleanup Objective ¹ (mg/kg)		Compound Concentrations (mg/kg)						
	Industrial	Protection of Groundwater	SB-3	SB-4	SB-8	SB-11	SB-12	SB-13	TE-W
			9-10 feet bgs	7-8 feet bgs	11-12 feet bgs	6-6.5 feet bgs	7.5-8 feet bgs	8-9 feet bgs	0-6 inches bgs
1,2,4-Trimethylbenzene	380	3.6	-	-	-	0.06	-	-	-
1,2-Dichloroethane (total)	60	0.02	-	-	-	-	0.06	-	-
Isoproylbenzene (Cymene)	---	---	-	-	-	-	-	0.03	-
Naphthalene	---	---	-	-	-	0.11	-	-	-
n-Butylbenzene	1000	12	-	-	-	0.06	-	-	-
n-Propylbenzene	1000	3.9	-	-	-	0.07	-	-	-
sec-Butylbenzene	1000	11	-	-	-	-	-	0.08	-
Trichloroethylene	400	0.47	-	-	-	-	0.01	-	-
Vinyl Chloride	27	0.02	-	2.80	-	-	-	-	-
2-Methylnaphthalene	---	---	-	-	-	0.3	-	-	-
Acenaphthene	1,000	98	-	-	-	0.8	-	-	-
Anthracene	1,000	1,000	-	-	-	1.2	-	-	-
Benzo(a)anthracene	11	1	-	-	-	1.4	-	-	-
Benzo(a)pyrene	1.1	22	-	-	-	0.8	-	-	-
Benzo(b)fluoranthene	11	1.7	-	-	-	1.0	-	-	-
Benzo(k)fluoranthene	110	1.7	-	-	-	1.0	-	-	-
Bis(2-ethylhexyl)phthalate	---	---	0.07	-	-	-	-	-	-
Chrysene	110	1	-	-	-	1.6	-	-	-
Dibenzofuran	---	---	-	-	-	0.5	-	-	-
Fluoranthene	1,000	1,000	-	-	-	2.8	-	-	-
Fluorene	1,000	386	-	-	-	1.2	-	-	-
Naphthalene	1,000	12	-	-	-	0.7	-	-	-
Phenanthrene	1,000	1,000	-	-	-	3.8	-	-	-
Pyrene	1,000	1,000	-	-	-	2.2	-	-	-
Antimony	---	---	-	-	-	41	-	-	-
Arsenic	16	16	-	-	-	-	-	46	-
Barium	10,000	820	-	-	-	-	-	1	-
Cadmium	60	7.5	-	-	-	4	-	-	-
Chromium	800	19	-	-	-	1760	-	-	-
Copper	10,000	1,720	-	-	-	-	-	236	-
Lead	3,900	450	-	-	-	870	-	-	-
Nickel	10,000	130	-	-	-	182	-	-	-
Selenium	6,800	1	-	-	-	-	-	4	-
Silver	6,800	8.3	-	-	-	32	-	-	-
Thallium	---	---	-	-	-	-	-	-	-
Zinc	10,000	2,480	-	-	-	-	-	557	-
Mercury	5.7	0.73	-	-	-	-	-	-	-
Aroclor 1016	---	---	-	-	-	-	-	-	-
Aroclor 1221	---	---	-	-	-	-	-	-	-
Aroclor 1232	---	---	-	-	-	-	-	-	-
Aroclor 1242	---	---	-	-	-	-	-	-	-
Aroclor 1248	---	---	-	-	-	-	-	-	-
Aroclor 1254	---	---	-	-	-	-	-	-	1.0
Aroclor 1260	---	---	-	-	-	-	-	-	2.1

Notes:

¹New York Codes, Rules and Regulations, Title 6 (6NYCRR), Part 375, *Environmental Remediation Programs* , dated December 14, 2006.
mg/kg milligrams per kilogram, equivalent to parts per million (ppm)
bgs Below ground surface
--- No DEC recommended soil cleanup guideline, no promulgated State Standard or Guidance Value.
- Not detected above the laboratory method detection limit.
Compounds that exceeded Recommended Soil Cleanup Levels are denoted in **BOLD** .

ATTACHMENTS

ATTACHMENT A
NYSDEC Site No. C633077
AUTHORIZED PERSONNEL

I have read, understand and by signing, agree to comply with the provisions contained in the health and safety plan for this site.

	Name	Representing	Signature	Date
1.				
2.				
3.				
4.				
5.				
6.				
7.				
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25.				

ATTACHMENT B
HAZARDOUS SUBSTANCE FACT SHEETS

Antimony	Formula: Sb	CAS#: 7440-36-0	RTECS#: CC4025000	IDLH: 50 mg/m ³ (as Sb)
Conversion:	DOT: 1549 157 (inorganic compounds, n.o.s.); 2871 170 (powder); 3141 157 (inorganic liquid compounds, n.o.s.)			
Synonyms/Trade Names: Antimony metal, Antimony powder, Stibium				
Exposure Limits: NIOSH REL*: TWA 0.5 mg/m ³ OSHA PEL*: TWA 0.5 mg/m ³ [*Note: The REL and PEL also apply to other antimony compounds (as Sb).]			Measurement Methods (see Table 1): NIOSH 7301, 7303, P&CAM 261 (II-4) OSHA ID121, ID125G, ID206	
Physical Description: Silver-white, lustrous, hard, brittle solid; scale-like crystals; or a dark-gray, lustrous powder.				
Chemical & Physical Properties: MW: 121.8 BP: 2975°F Sol: Insoluble F.L.P.: NA IP: NA Sp.Gr: 6.69 VP: 0 mmHg (approx) MLT: 1166°F UEL: NA LEL: NA	Personal Protection/Sanitation (see Table 2): Skin: Prevent skin contact Eyes: Prevent eye contact Wash skin: When contam Remove: When wet or contam Change: Daily		Respirator Recommendations (see Tables 3 and 4): NIOSH/OSHA 5 mg/m ³ : 95XQ/Sa 12.5 mg/m ³ : Sa:Cl/Pap/Hie 25 mg/m ³ : 100F/SaT:Cl/Pap/THie/ScbaF/SaF 50 mg/m ³ : Sa:Pd,Pp §: ScbaF:Pd,Pp/SaF:Pd,Pp:AScba Escape: 100F/ScbaE	
Noncombustible Solid in bulk form, but a moderate explosion hazard in the form of dust when exposed to flame.				
Incompatibilities and Reactivities: Strong oxidizers, acids, halogenated acids [Note: Stibine is formed when antimony is exposed to nascent (freshly formed) hydrogen.]				
Exposure Routes, Symptoms, Target Organs (see Table 5): ER: Inh, Ing, Con SY: Irrit eyes, skin, nose, throat, mouth; cough; dizz; head; nau, vomit, diarr; stomach cramps; insom; anor; unable to smell properly TO: Eyes, skin, resp sys, CVS			First Aid (see Table 6): Eye: Irr immed Skin: Soap wash immed Breath: Resp support Swallow: Medical attention immed	

Arsenic (inorganic compounds, as As)	Formula: As (metal)	CAS#: 7440-38-2 (metal)	RTECS#: CG0525000 (metal)	IDLH: Ca [5 mg/m³ (as As)]
Conversion:	DOT: 1558 152 (metal); 1562 152 (dust)			
Synonyms/Trade Names: Arsenic metal; Arsenia Other synonyms vary depending upon the specific As compound. [Note: OSHA considers "Inorganic Arsenic" to mean copper acetoarsenite & all inorganic compounds containing arsenic except ARSINE.]				
Exposure Limits: NIOSH REL: Ca C 0.002 mg/m³ [15-minute] See Appendix A OSHA PEL: [1910.1018] TWA 0.010 mg/m³			Measurement Methods (see Table 1): NIOSH 7300, 7301, 7303, 9102, 7900 OSHA ID105	
Physical Description: Metal: Silver-gray or tin-white, brittle, odorless solid.				
Chemical & Physical Properties: MW: 74.9 BP: Sublimes Sol: Insoluble F.L.P: NA IP: NA Sp.Gr: 5.73 (metal) VP: 0 mmHg (approx) MLT: 1135°F (Sublimes) UEL: NA LEL: NA	Personal Protection/Sanitation (see Table 2): Skin: Prevent skin contact Eyes: Prevent eye contact Wash skin: When contam/Daily Remove: When wet or contam Change: Daily Provide: Eyewash Quick drench		Respirator Recommendations (see Tables 3 and 4): NIOSH §: ScbaF:Pd,Pp/SaF:Pd,Pp:AScba Escape: GmFAg100/ScbaE See Appendix E (page 351)	
Metal: Noncombustible Solid in bulk form, but a slight explosion hazard in the form of dust when exposed to flame.				
Incompatibilities and Reactivities: Strong oxidizers, bromine azide [Note: Hydrogen gas can react with Inorganic arsenic to form the highly toxic gas arsine.]				
Exposure Routes, Symptoms, Target Organs (see Table 5): ER: Inh, Abs, Con, Ing SY: Ulceration of nasal septum, derm, GI disturbances, peri neur, resp irrit, hyperpig of skin, [canc] TO: Liver, kidneys, skin, lungs, lymphatic sys [lung & lymphatic cancer]			First Aid (see Table 6): Eye: Irr immed Skin: Soap wash immed Breath: Resp support Swallow: Medical attention immed	

Coal tar pitch volatiles		Formula:	CAS#: 65996-93-2	RTECS#: GF6655000	IDLH: Ca [80 mg/m ³]
Conversion:		DOT: 2713 153 (acridine)			
Synonyms/Trade Names: Synonyms vary depending upon the specific compound (e.g., pyrene, phenanthrene, acridine, chrysene, anthracene & benzo(a)pyrene).					
[Note: NIOSH considers coal tar, coal tar pitch, and creosote to be coal tar products.]					
Exposure Limits: NIOSH REL: Ca TWA 0.1 mg/m ³ (cyclohexane-extractable fraction) See Appendix A See Appendix C OSHA PEL: TWA 0.2 mg/m ³ (benzene-soluble fraction) [1910.1002] See Appendix C				Measurement Methods (see Table 1): OSHA 58	
Physical Description: Black or dark-brown amorphous residue.					
Chemical & Physical Properties: Properties vary depending upon the specific compound. Combustible Solids		Personal Protection/Sanitation (see Table 2): Skin: Prevent skin contact Eyes: Prevent eye contact Wash skin: Daily Remove: N.R. Change: Daily		Respirator Recommendations (see Tables 3 and 4): NIOSH *: ScbaF: Pd, Pp/ SaF: Pd, Pp: AScba Escape: GmFOv100/ScbaE	
Incompatibilities and Reactivities: Strong oxidizers					
Exposure Routes, Symptoms, Target Organs (see Table 5): ER: Inh, Con SY: Derm, bron, [carc] TO: Resp sys, skin, bladder, kidneys [lung, kidney & skin cancer]				First Aid (see Table 6): Eye: Irr immed Skin: Soap wash immed Breath: Resp support Swallow: Medical attention immed	

Chlorodiphenyl (42% chlorine)		Formula: C ₆ H ₄ ClC ₆ H ₃ Cl ₂ (approx)	CAS#: 53469-21-9	RTECS#: TQ1356000	IDLH: Ca [5 mg/m ³]
Conversion:		DOT: 2315 171			
Synonyms/Trade Names: Aroclor® 1242, PCB, Polychlorinated biphenyl					
Exposure Limits: NIOSH REL*: Ca TWA 0.001 mg/m ³ See Appendix A [*Note: The REL also applies to other PCBs.]			OSHA PEL: TWA 1 mg/m ³ [skin] Measurement Methods (see Table 1): NIOSH 5503 OSHA PV2089		
Physical Description: Colorless to light-colored, viscous liquid with a mild, hydrocarbon odor.					
Chemical & Physical Properties: MW: 258 (approx) BP: 617-691°F Sol: Insoluble FLP: NA IP: ? Sp.Gr(77°F): 1.39 VP: 0.001 mmHg FRZ: -2°F UEL: NA LEL: NA		Personal Protection/Sanitation (see Table 2): Skin: Prevent skin contact Eyes: Prevent eye contact Wash skin: When contam Remove: When wet or contam Change: Daily Provide: Eyewash Quick drench		Respirator Recommendations (see Tables 3 and 4): NIOSH *: ScbaF: Pd, Pp/ SaF: Pd, Pp: AScba Escape: GmFov100/ScbaE	
Nonflammable Liquid , but exposure in a fire results in the formation of a black soot containing PCBs, polychlorinated dibenzofurans & chlorinated dibenzo-p-dioxins.					
Incompatibilities and Reactivities: Strong oxidizers					
Exposure Routes, Symptoms, Target Organs (see Table 5): ER: Inh, Abs, Ing, Con SY: Irrit eyes; chloracne; liver damage; repro effects; [carc] TO: Skin, eyes, liver, repro sys [in animals: tumors of the pituitary gland & liver, leukemia]			First Aid (see Table 6): Eye: Irr immed Skin: Soap wash immed Breath: Resp support Swallow: Medical attention immed		

Chlorodiphenyl (54% chlorine)		Formula: C ₆ H ₃ Cl ₂ C ₆ H ₂ Cl ₃ (approx)	CAS#: 11097-69-1	RTECS#: TQ1360000	IDLH: Ca [5 mg/m ³]
Conversion:		DOT: 2315 171			
Synonyms/Trade Names: Aroclor® 1254, PCB, Polychlorinated biphenyl					
Exposure Limits: NIOSH REL*: Ca TWA 0.001 mg/m ³ See Appendix A [*Note: The REL also applies to other PCBs.]			OSHA PEL: TWA 0.5 mg/m ³ [skin] Measurement Methods (see Table 1): NIOSH 5503 OSHA PV2088		
Physical Description: Colorless to pale-yellow, viscous liquid or solid (below 50°F) with a mild, hydrocarbon odor.					
Chemical & Physical Properties: MW: 326 (approx) BP: 689-734°F Sol: Insoluble FLP: NA IP: ? Sp.Gr(77°F): 1.38 VP: 0.00006 mmHg FRZ: 50°F UEL: NA LEL: NA		Personal Protection/Sanitation (see Table 2): Skin: Prevent skin contact Eyes: Prevent eye contact Wash skin: When contam Remove: When wet or contam Change: Daily Provide: Eyewash Quick drench		Respirator Recommendations (see Tables 3 and 4): NIOSH *: ScbaF: Pd, Pp/ SaF: Pd, Pp: AScba Escape: GmFOv100/ScbaE	
Nonflammable Liquid, but exposure in a fire results in the formation of a black soot containing PCBs, polychlorinated dibenzofurans, and chlorinated dibenzo-p-dioxins.					
Incompatibilities and Reactivities: Strong oxidizers					
Exposure Routes, Symptoms, Target Organs (see Table 5): ER: Inh, Abs, Ing, Con SY: Irrit eyes, chloracne; liver damage; repro effects; [carc] TO: Skin, eyes, liver, repro sys [in animals: tumors of the pituitary gland & liver, leukemia]			First Aid (see Table 6): Eye: Irr immed Skin: Soap wash immed Breath: Resp support Swallow: Medical attention immed		

Chromium metal		Formula: Cr	CAS#: 7440-47-3	RTECS#: GB4200000	IDLH: 250 mg/m ³ (as Cr)
Conversion:		DOT:			
Synonyms/Trade Names: Chrome, Chromium					
Exposure Limits: NIOSH REL: TWA 0.5 mg/m ³ See Appendix C OSHA PEL*: TWA 1 mg/m ³ See Appendix C [*Note: The PEL also applies to insoluble chromium salts.]				Measurement Methods (see Table 1): NIOSH 7024, 7300, 7301, 7303, 9102 OSHA ID121, ID125G	
Physical Description: Blue-white to steel-gray, lustrous, brittle, hard, odorless solid.					
Chemical & Physical Properties: MW: 52.0 BP: 4788°F Sol: Insoluble FLP: NA IP: NA Sp.Gr: 7.14 VP: 0 mmHg (approx) MLT: 3452°F UEL: NA LEL: NA Noncombustible Solid in bulk form, but finely divided dust burns rapidly if heated in a flame.		Personal Protection/Sanitation (see Table 2): Skin: N.R. Eyes: N.R. Wash skin: N.R. Remove: N.R. Change: N.R.		Respirator Recommendations (see Tables 3 and 4): NIOSH 2.5 mg/m ³ : Qm* 5 mg/m ³ : 95XQ*/Sa* 12.5 mg/m ³ : Sa:C*/PaprHie* 25 mg/m ³ : 100F/PaprTHie*/ ScbaF/SaF 250 mg/m ³ : SaF: Pd, Pp §: ScbaF: Pd, Pp/SaF: Pd, Pp: AScba Escape: 100F/ScbaE	
		Incompatibilities and Reactivities: Strong oxidizers (such as hydrogen peroxide), alkalis			
Exposure Routes, Symptoms, Target Organs (see Table 5): ER: Inh, Ing, Con SY: Irrit eyes, skin; lung fib (histologic) TO: Eyes, skin, resp sys			First Aid (see Table 6): Eye: Irr immed Skin: Soap wash Breath: Resp support Swallow: Medical attention immed		

Lead	Formula: Pb	CAS#: 7439-92-1	RTECS#: OF7525000	IDLH: 100 mg/m ³ (as Pb)
Conversion:	DOT:			
Synonyms/Trade Names: Lead metal, Plumbum				
Exposure Limits: NIOSH REL*: TWA 0.050 mg/m ³ See Appendix C OSHA PEL*: [1910.1025] TWA 0.050 mg/m ³ See Appendix C [*Note: The REL and PEL also apply to other lead compounds (as Pb) -- see Appendix C.]			Measurement Methods (see Table 1): NIOSH 7082, 7105, 7300, 7301, 7303, 7700, 7701, 7702, 9102, 9105 OSHA ID121, ID125G, ID206	
Physical Description: A heavy, ductile, soft, gray solid.				
Chemical & Physical Properties: MW: 207.2 BP: 3164°F Sol: Insoluble FLP: NA IP: NA Sp.Gr: 11.34 VP: 0 mmHg (approx) MLT: 621°F UEL: NA LEL: NA Noncombustible Solid in bulk form.			Personal Protection/Sanitation (see Table 2): Skin: Prevent skin contact Eyes: Prevent eye contact Wash skin: Daily Remove: When wet or contam Change: Daily	
			Respirator Recommendations (see Tables 3 and 4): NIOSH/OSHA 0.5 mg/m³: 100XQ/Sa 1.25 mg/m³: Sa:Cl/PapRHe 2.5 mg/m³: 100F/SaT:Cl/PapRTHie/ ScbaF/SaF 50 mg/m³: Sa:Pd,Pp 100 mg/m³: SaF:Pd,Pp §: ScbaF:Pd,Pp/SaF:Pd,Pp:AScba Escape: 100F/ScbaE	
Incompatibilities and Reactivities: Strong oxidizers, hydrogen peroxide, acids				
Exposure Routes, Symptoms, Target Organs (see Table 5): ER: Inh, Ing, Con SY: Lass, insom; facial pallor; anor, low-wgt, malnut; constip, abdom pain, colic; anemia; gingival lead line; tremor; para wrist, ankles; encephalopathy; kidney disease; irrit eyes; hypotension TO: Eyes, GI tract, CNS, kidneys, blood, gingival tissue			First Aid (see Table 6): Eye: Irr immed Skin: Soap flush prompt Breath: Resp support Swallow: Medical attention immed	

Naphthalene	Formula: C ₁₀ H ₈	CAS#: 91-20-3	RTECS#: QJ0525000	IDLH: 250 ppm
Conversion: 1 ppm = 5.24 mg/m ³		DOT: 1334 133 (crude or refined); 2304 133 (molten)		
Synonyms/Trade Names: Naphthalin, Tar camphor, White tar				
Exposure Limits: NIOSH REL: TWA 10 ppm (50 mg/m ³) ST 15 ppm (75 mg/m ³) OSHA PEL†: TWA 10 ppm (50 mg/m ³)			Measurement Methods (see Table 1): NIOSH 1501 OSHA 35	
Physical Description: Colorless to brown solid with an odor of mothballs. [Note: Shipped as a molten solid.]				
Chemical & Physical Properties: MW: 128.2 BP: 424°F Sol: 0.003% FLP: 174°F IP: 8.12 eV Sp.Gr: 1.15 VP: 0.08 mmHg MLT: 176°F UEL: 5.9% LEL: 0.9% Combustible Solid, but will take some effort to ignite.			Personal Protection/Sanitation (see Table 2): Skin: Prevent skin contact Eyes: Prevent eye contact Wash skin: When contam Remove: When wet or contam Change: Daily Respirator Recommendations (see Tables 3 and 4): NIOSH/OSHA 100 ppm: CcrOv95*/Sa* 250 ppm: Sa:Cl*/CcrFOv100/ PapRovHie*/ ScbaF/SaF §: ScbaF:Pd,Pp/SaF:Pd,Pp:AScba Escape: GmFOv100/ScbaE	
Incompatibilities and Reactivities: Strong oxidizers, chromic anhydride				
Exposure Routes, Symptoms, Target Organs (see Table 5): ER: Inh, Abs, Ing, Con SY: Irrit eyes; head, conf, excitement, mal; nau, vomit, abdom pain; irrit bladder; profuse sweat; jaun; hema, renal shutdown; derm, optical neuritis, corn damage TO: Eyes, skin, blood, liver, kidneys, CNS			First Aid (see Table 6): Eye: Irr immed Skin: Molten flush immed/sol-liq soap wash prompt Breath: Resp support Swallow: Medical attention immed	

Toluene	Formula: C ₆ H ₅ CH ₃	CAS#: 108-88-3	RTECS#: XS6250000	IDLH: 500 ppm
Conversion: 1 ppm = 3.77 mg/m ³		DOT: 1294 130		
Synonyms/Trade Names: Methyl benzene, Methyl benzol, Phenyl methane, Toluol				
Exposure Limits: NIOSH REL: TWA 100 ppm (375 mg/m ³) ST 160 ppm (560 mg/m ³) OSHA PEL†: TWA 200 ppm C 300 ppm 500 ppm (10-minute maximum peak)			Measurement Methods (see Table 1): NIOSH 1500, 1501, 3800, 4000 OSHA 111	
Physical Description: Colorless liquid with a sweet, pungent; benzene-like odor.				
Chemical & Physical Properties: MW: 92.1 BP: 232°F Sol(74°F): 0.07% FLP: 40°F IP: 8.82 eV Sp.Gr: 0.87 VP: 21 mmHg FRZ: -139°F UEL: 7.1% LEL: 1.1% Class IB Flammable Liquid		Personal Protection/Sanitation (see Table 2): Skin: Prevent skin contact Eyes: Prevent eye contact Wash skin: When contam Remove: When wet (flamm) Change: N.R.	Respirator Recommendations (see Tables 3 and 4): NIOSH 500 ppm: CcrOv*/PapOv*/ GmFOv/Sa*/ScbaF §: ScbaF: Pd, Pp/SaF: Pd, Pp: AScba Escape: GmFOv/ScbaE	
Incompatibilities and Reactivities: Strong oxidizers				
Exposure Routes, Symptoms, Target Organs (see Table 5): ER: Inh, Abs, Ing, Con SY: Irrit eyes, nose; lass, conf, euph, dizz, head; dilated pupils, lac; anxi, musc ftg, Insom; pares; derm; liver, kidney damage TO: Eyes, skin, resp sys, CNS, liver, kidneys			First Aid (see Table 6): Eye: Irr immed Skin: Soap wash prompt Breath: Resp support Swallow: Medical attention immed	

Trichloroethylene		Formula: ClCH=CCl ₂	CAS#: 79-01-6	RTECS#: KX4550000	IDLH: Ca [1000 ppm]
Conversion: 1 ppm = 5.37 mg/m ³		DOT: 1710 160			
Synonyms/Trade Names: Ethylene trichloride, TCE, Trichloroethene, Trilene					
Exposure Limits: NIOSH REL: Ca See Appendix A See Appendix C OSHA PEL†: TWA 100 ppm C 200 ppm 300 ppm (5-minute maximum peak in any 2 hours)				Measurement Methods (see Table 1): NIOSH 1022, 3800 OSHA 1001	
Physical Description: Colorless liquid (unless dyed blue) with a chloroform-like odor.					
Chemical & Physical Properties: MW: 131.4 BP: 189°F Sol: 0.1% FLP: ? IP: 9.45 eV Sp.Gr: 1.46 VP: 58 mmHg FRZ: -99°F UEL(77°F): 10.5% LEL(77°F): 8% Combustible Liquid, but burns with difficulty.		Personal Protection/Sanitation (see Table 2): Skin: Prevent skin contact Eyes: Prevent eye contact Wash skin: When contam Remove: When wet or contam Change: N.R. Provide: Eyewash Quick drench		Respirator Recommendations (see Tables 3 and 4): NIOSH §: ScbaF: Pd, Pp/SaF: Pd, Pp: AScba Escape: GmFOv/ScbaE	
Incompatibilities and Reactivities: Strong caustics & alkalis; chemically-active metals (such as barium, lithium, sodium, magnesium, titanium & beryllium)					
Exposure Routes, Symptoms, Target Organs (see Table 5): ER: Inh, Abs, Ing, Con SY: Irrit eyes, skin; head, vis dist, lass, dizz, tremor, drow, nau, vomit; derm; card arrhy, pares; liver inj; [carc] TO: Eyes, skin, resp sys, heart, liver, kidneys, CNS [in animals: liver & kidney cancer]			First Aid (see Table 6): Eye: Irr immed Skin: Soap wash prompt Breath: Resp support Swallow: Medical attention immed		

Vinyl chloride		Formula: CH ₂ =CHCl	CAS#: 75-01-4	RTECS#: KU9625000	IDLH: Ca [N.D.]
Conversion: 1 ppm = 2.56 mg/m ³		DOT: 1086 116P (inhibited)			
Synonyms/Trade Names: Chloroethene, Chloroethylene, Ethylene monochloride, Monochloroethene, Monochloroethylene, VC, Vinyl chloride monomer (VCM)					
Exposure Limits: NIOSH REL: Ca See Appendix A OSHA PEL: [1910.1017] TWA 1 ppm C 5 ppm [15-minute]				Measurement Methods (see Table 1): NIOSH 1007 OSHA 4, 75	
Physical Description: Colorless gas or liquid (below 7°F) with a pleasant odor at high concentrations. [Note: Shipped as a liquefied compressed gas.]					
Chemical & Physical Properties: MW: 62.5 BP: 7°F Sol(77°F): 0.1% F.L.P: NA (Gas) IP: 9.99 eV RGasD: 2.21 VP: 3.3 atm FRZ: -256°F UEL: 33.0% LEL: 3.6% Flammable Gas		Personal Protection/Sanitation (see Table 2): Skin: Frostbite Eyes: Frostbite Wash skin: N.R. Remove: When wet (flamm) Change: N.R. Provide: Frostbite wash		Respirator Recommendations (see Tables 3 and 4): NIOSH W: ScbaF;Pd,Pp/SaF;Pd,Pp/AScba Escape: GmFS/ScbaE See Appendix E (page 351)	
		Incompatibilities and Reactivities: Copper, oxidizers, aluminum, peroxides, iron, steel [Note: Polymerizes in air, sunlight, or heat unless stabilized by inhibitors such as phenol. Attacks iron & steel in presence of moisture.]			
Exposure Routes, Symptoms, Target Organs (see Table 5): ER: Inh, Con (liquid) SY: Lass; abdom pain, GI bleeding; enlarged liver; pallor or cyan of extremities; liquid: frostbite; [carc] TO: Liver, CNS, blood, resp sys, lymphatic sys [liver cancer]			First Aid (see Table 6): Eye: Frostbite Skin: Frostbite Breath: Resp support		

ATTACHMENT C
NYSDEC Site No. C633077

DAILY WORK ZONE AND PERIMETER AIR MONITORING LOG SHEET

Job:_____ Date:_____ Start Time:_____

Monitoring

Personnel:_____

Instruments (circle): PID:_____ HNU LEL Draeger Tubes Other_____

Weather Conditions

Temperature:_____ Sky (circle): Clear P. Cloudy Cloudy Overcast

Wind Speed (approx.):_____ Wind Direction:_____ Precipitation:_____

TIME	PID/LEL READINGS	WORK ZONE OR PERIMETER	COMMENTS (activities, changes in wind direction, temperature, etc.)

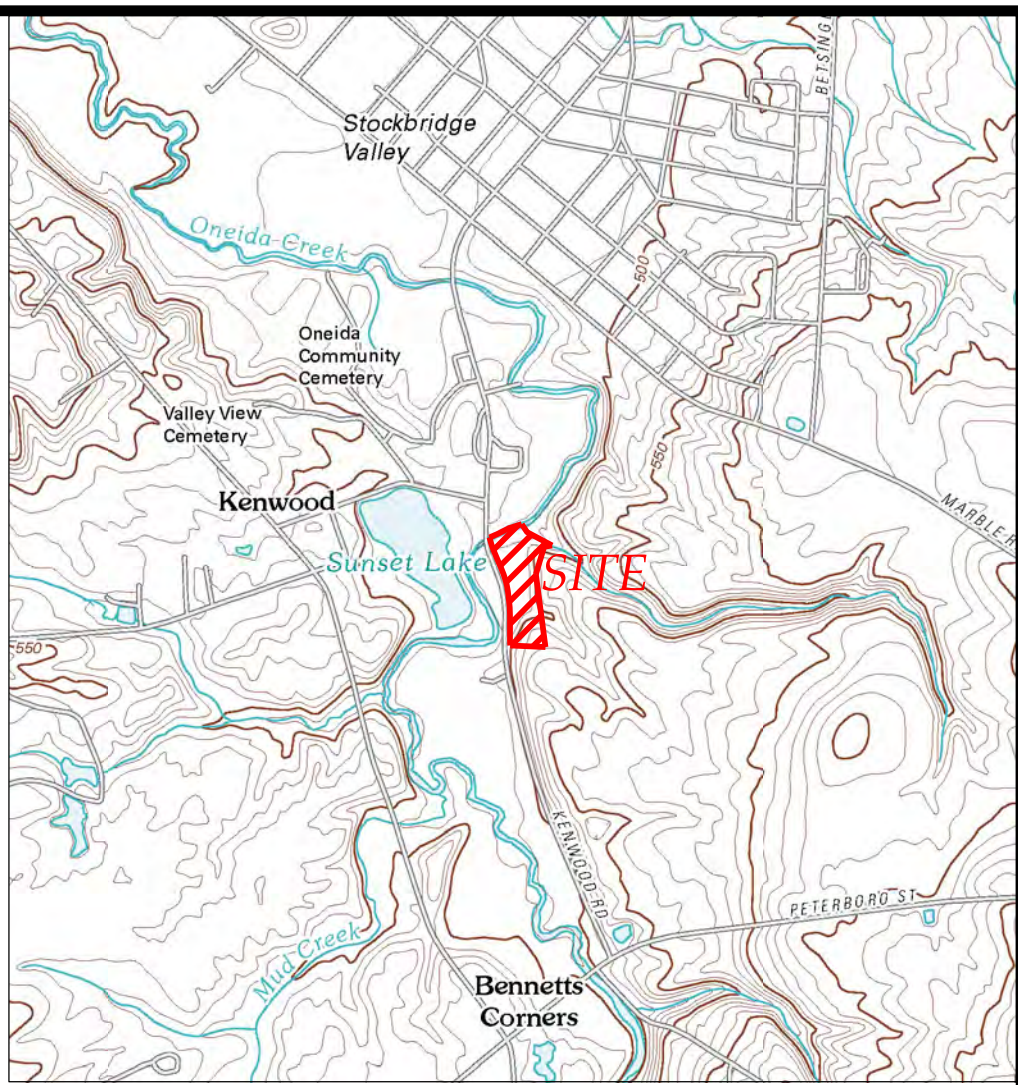
Monitoring Performed By:_____

Were Respirators Worn: Yes No

How Long? _____ Who? _____

Why? _____

PLANS



LOCATION MAP

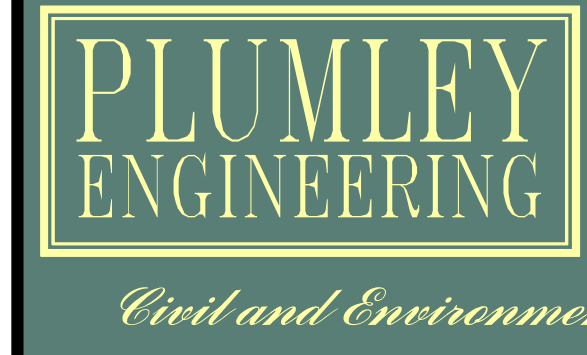
REF: U.S.G.S. VERNON QUAD., 2010, 7.5 MIN., 1" = 2000' +/-

Key

- Property Line
- Lot 1 Property Line (Limits of Remedial Construction)
- Right of Way
- Lot Line
- Reputed Owner
- Overhead Utility
- Power Pole
- Catch Basin
- Sanitary Sewer
- Sanitary Manhole
- Catch Basin
- Hydrant
- Traffic Route
- Alternate Traffic Route

Lot 1 and 2 General Notes

- The Contractor is to coordinate the cleanup activities with the Owner's site representatives for Lot 1 and Lot 2 and proposed construction traffic routes (for loading out soil to the landfill and importing fills for the project) and any soil stockpiling areas the Contractor may require.
- It is the contractor's responsibility to obtain any permits or notifications that may be necessary for the project. The contractor shall provide his own health and safety program throughout construction, in accordance with applicable 29 CFR 1910.120 OSHA requirements.
 - It is the contractor's responsibility to locate all utilities in the work area. Prior to construction, the contractor shall give timely notification to all utility companies with facilities in the area. The contractor shall also request utility clearance information from the owner and shall contact the underground facilities protective organization (Dig Safe NY).
 - The contractor shall take all necessary precautions while working to safeguard existing structures, utilities and survey markers.
 - The contractor shall provide temporary barricading to control traffic in the work area and to secure any open excavations.
 - Unless noted otherwise the contractor is required to preserve all monitoring wells or replace upon completion.
 - Refer to Remedial Action Work Plan for additional details and requirements.



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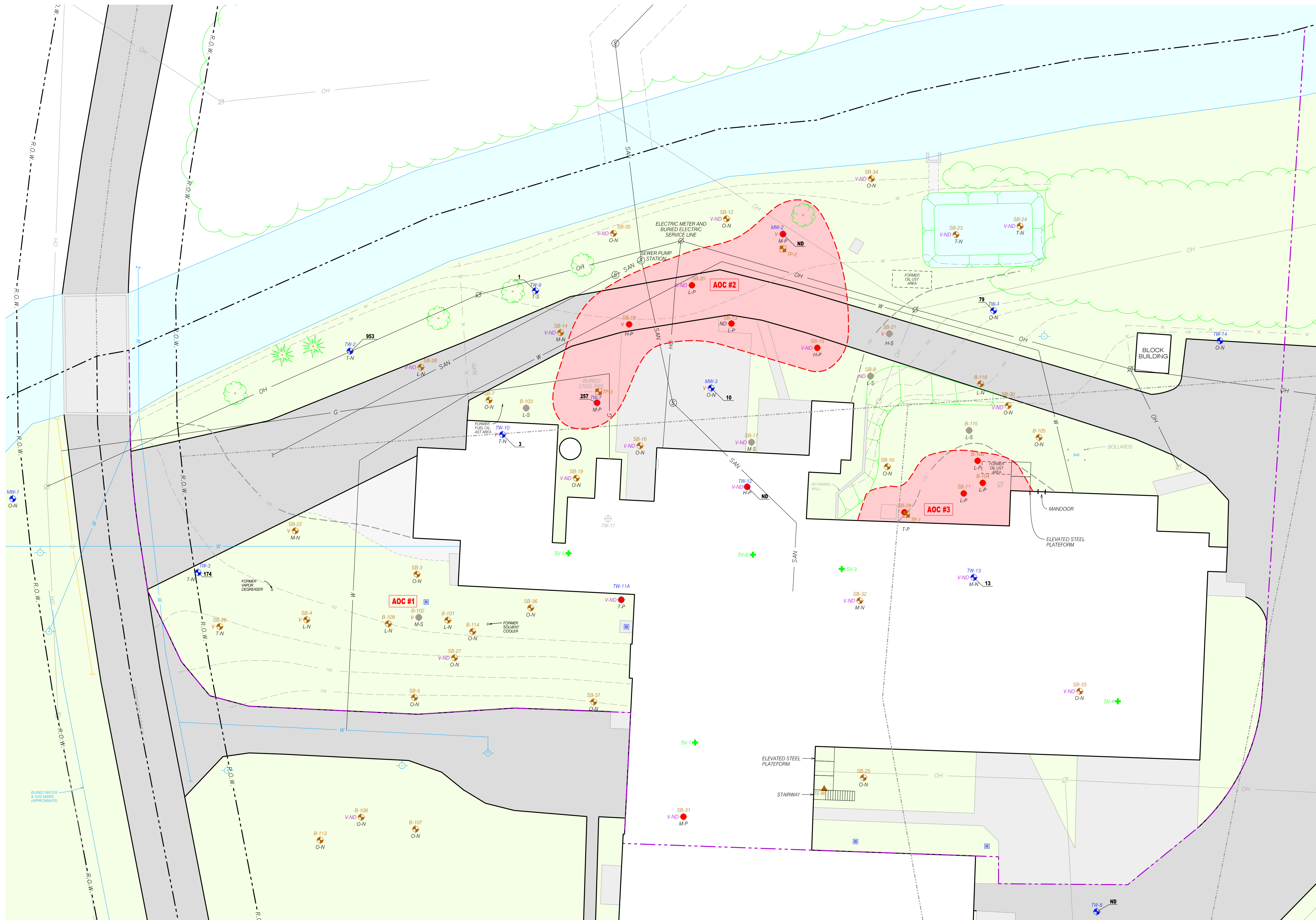
REVISIONS:	DATE:	BY:
1		
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PROJECT: **FORMER ONEIDA KNIFE PLANT - LOT 1**
CLIENT: **ONEIDA, LTD.**
LOCATION: **CITY OF SHERRILL, ONEIDA COUNTY, NEW YORK**

DWG. TITLE: **LOT 1 & 2
GENERAL SITE PLAN
REMEDIAL ACTION WORK PLAN**
RPT. TITLE: **REMEDIAL ACTION WORK PLAN**
Note: No alteration permitted hereon except as provided under Section 7209 Subdivision 2 of the New York State Education Law.

PROJECT No.: 2013028
FILE NAME.: EV01P
SCALE: AS NOTED
DATE: APRIL 2013
ENG'D BY: FAK
DRAWN BY: JMD
CHECKED BY: DRV
SHEET NO.: **SP
1 OF 5**
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Key

- Property Line
- R.O.W. Right of Way
- OH Overhead Utility
- Power Pole
- Catch Basin
- SAN Sanitary Sewer
- Sanitary Manhole
- Water Main w/ Size
- Hydrant
- Building Name
- Topographic Contour
- Concrete Pad Areas
- Soil Boring
- Well Location

Location w/ Subsurface Visual and PID Indicators

- Oily Material Staining
- Staining
- Inferred Limits of Oily Material

Summary of Subsurface Soil Field Indicators of Contamination

PID Soil Sample Screening (PPM)

O	No Detections
T	Trace; <5
L	Low; >5, <25
M	Medium; >25, <100
H	High; >100

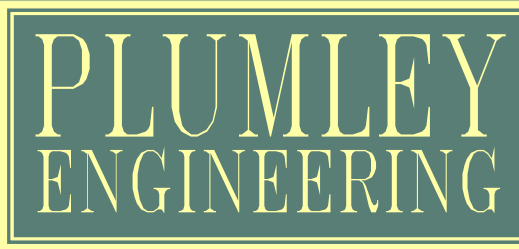
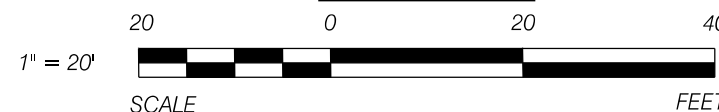
Visual Indicators Observed

N	None
S	Staining, or Possible Staining
P	Oily Material Present

Analytical Summary Results

- No VOC Analytical Detections Above SCGs
- VOC Analytical Detections Above SCGs
- Total VOC Detections in Groundwater Samples (Most recent 2010 Data; ND - No Detections)
- Test Pit locations for 03/19/13 Soil Samples for Landfill Profiling

Plan View



Civil and Environmental Engineering

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REVISIONS:	DATE:	BY:

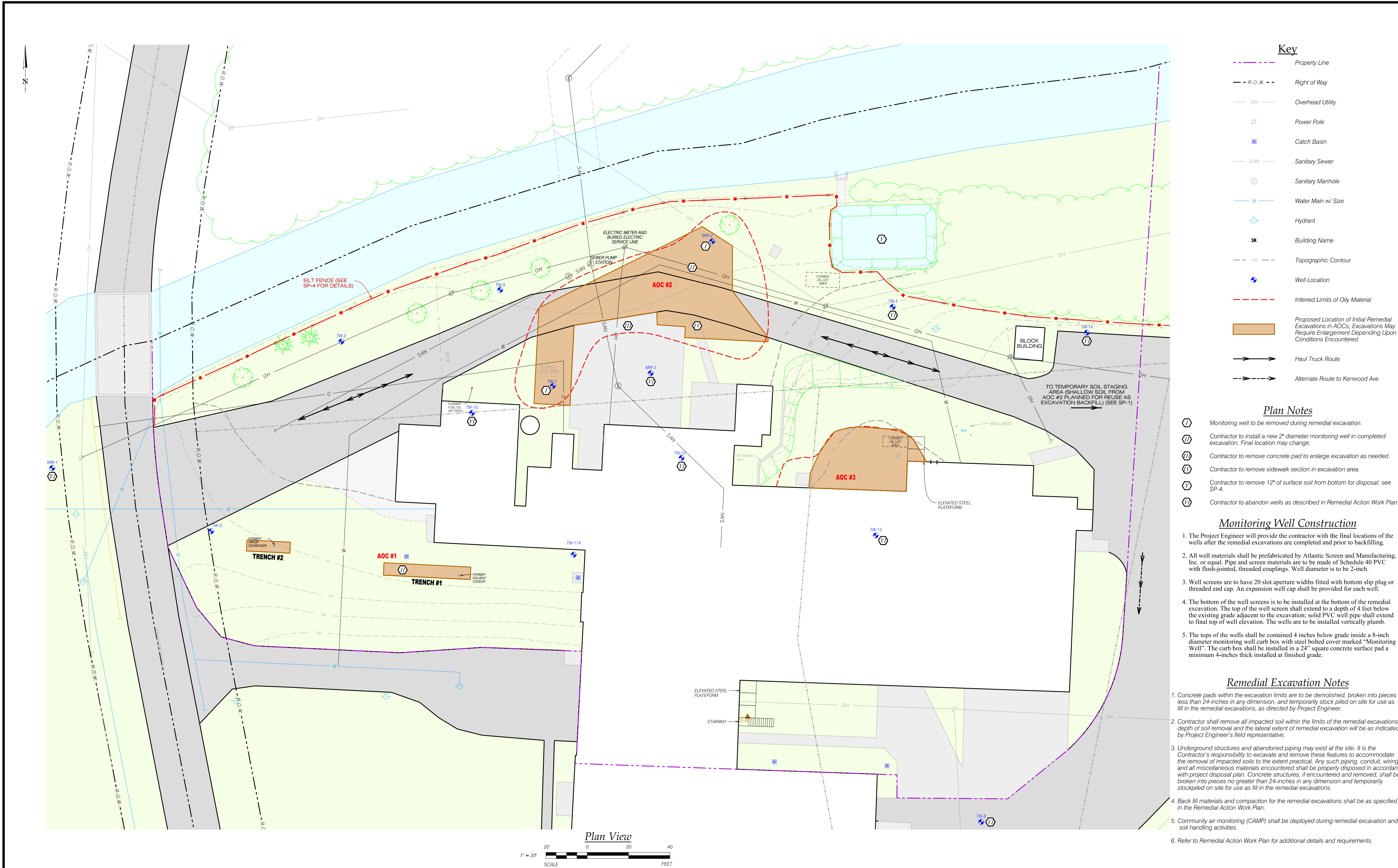
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PROJECT: **FORMER ONEIDA KNIFE PLANT - LOT 1**
CLIENT: ONEIDA, LTD.
LOCATION: CITY OF SHERILL, ONEIDA COUNTY, NEW YORK

DWG. TITLE: **SITE INFORMATION PLAN**
RPT. TITLE: **REMEDIAL ACTION WORK PLAN**
Note: No alteration permitted hereon except as provided under Section 7209 Subdivision 2 of the New York State Education Law.

PROJECT No.: 2013028
FILE NAME.: SP02P
SCALE: AS NOTED
DATE: APRIL 2013
ENG'D BY: FAK
DRAWN BY: JMD
CHECKED BY: DRV

SHEET No.: **SP 2 OF 5**
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Key

- Property Line
- R.O.W.
- Overhead Utility
- Power Pole
- Catch Basin
- Sanitary Sewer
- Sanitary Manhole
- Water Main w/ Size
- Hydrant
- Building Name
- Topographic Contour
- Well Location
- Inferred Limits of Oily Material
- Proposed Location of Initial Remedial Excavations in AOCs; Excavations May Require Enlargement Depending Upon Conditions Encountered
- Haul Truck Route
- Alternate Route to Kenwood Ave

Plan Notes

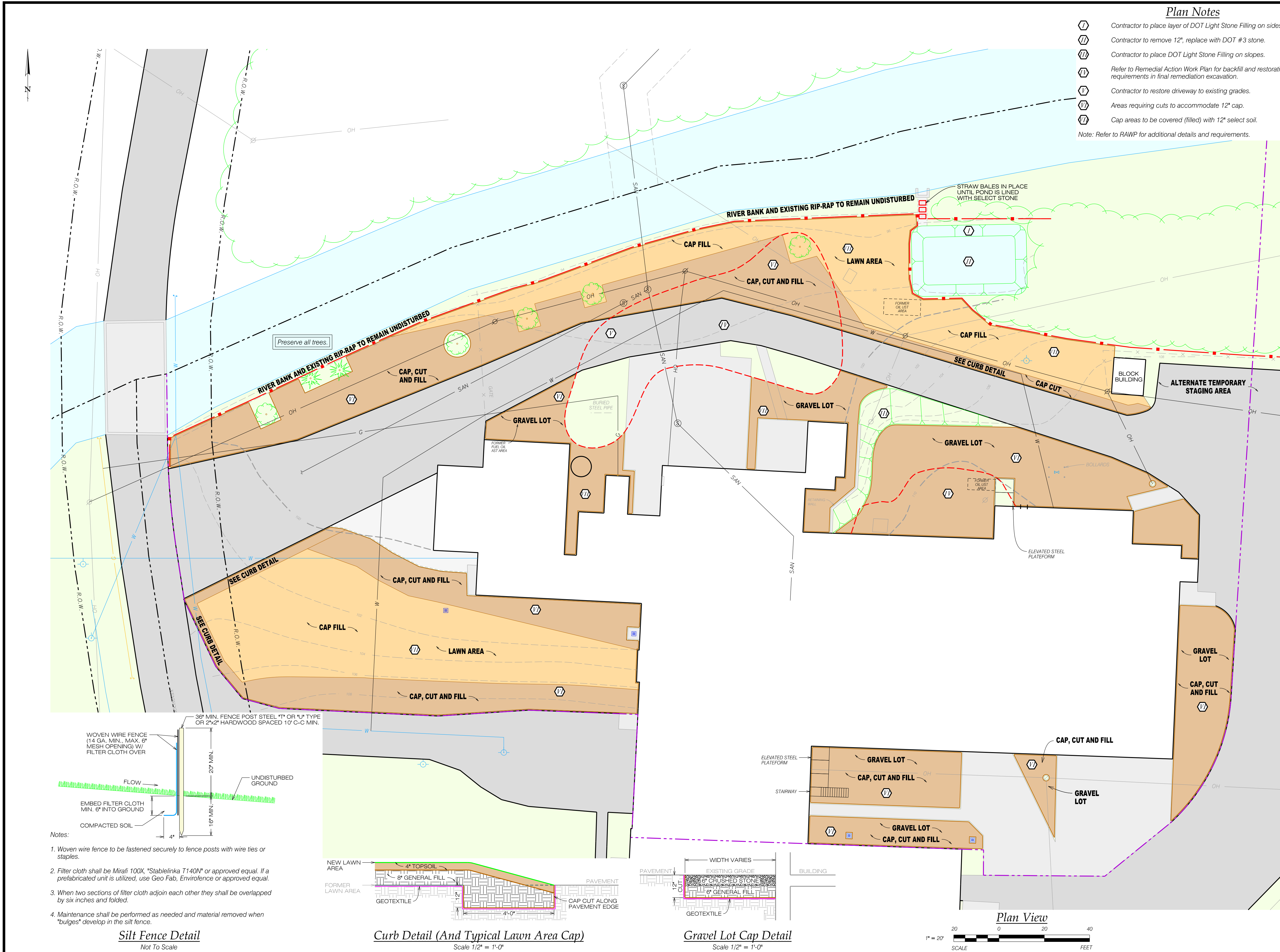
- Monitoring well to be removed during remedial excavation.
- Contractor to install a new 2" diameter monitoring well in completed excavation; Final location may change.
- Contractor to remove concrete pad to enlarge excavation as needed.
- Contractor to remove sidewalk section in excavation area.
- Contractor to remove 12" of surface soil from bottom for disposal; see SP-4.
- Contractor to abandon wells as described in Remedial Action Work Plan.

Monitoring Well Construction

- The Project Engineer will provide the contractor with the final locations of the wells after the remedial excavations are completed and prior to backfilling.
- All well materials shall be prefabricated by Atlantic Screen and Manufacturing, Inc. or equal. Pipe and screen materials are to be made of Schedule 40 PVC with flush-jointed, threaded couplings. Well diameter is to be 2-inch.
- Well screens are to have 20 slot aperture widths fitted with bottom slip plug or threaded end cap. An expansion well cap shall be provided for each well.
- The bottom of the well screens is to be installed at the bottom of the remedial excavation. The top of the well screen shall extend to a depth of 4 feet below the existing grade adjacent to the excavation; solid PVC well pipe shall extend to final top of well elevation. The wells are to be installed vertically plumb.
- The tops of the wells shall be contained 4 inches below grade inside a 8-inch diameter monitoring well curb box with steel bolted cover marked "Monitoring Well". The curb box shall be installed in a 24" square concrete surface pad a minimum 4-inches thick installed at finished grade.

Remedial Excavation Notes

- Concrete pads within the excavation limits are to be demolished, broken into pieces less than 24-inches in any dimension, and temporarily stock piled on site for use as fill in the remedial excavations, as directed by Project Engineer.
- Contractor shall remove all impacted soil within the limits of the remedial excavations; depth of soil removal and the lateral extent of remedial excavation will be as indicated by Project Engineer's field representative.
- Underground structures and abandoned piping may exist at the site. It is the Contractor's responsibility to excavate and remove these features to accommodate the removal of impacted soils to the extent practical. Any such piping, conduit, wiring and all miscellaneous materials encountered shall be properly disposed in accordance with project disposal plan. Concrete structures, if encountered and removed, shall be broken into pieces no greater than 24-inches in any dimension and temporarily stockpiled on site for use as fill in the remedial excavations.
- Back fill materials and compaction for the remedial excavations shall be as specified in the Remedial Action Work Plan.
- Community air monitoring (CAMP) shall be deployed during remedial excavation and soil handling activities.
- Refer to Remedial Action Work Plan for additional details and requirements.



Plan Notes

- Contractor to place layer of DOT Light Stone Filling on sides of pond.
- Contractor to remove 12", replace with DOT #3 stone.
- Contractor to place DOT Light Stone Filling on slopes.
- Refer to Remedial Action Work Plan for backfill and restoration requirements in final remediation excavation.
- Contractor to restore driveway to existing grades.
- Areas requiring cuts to accommodate 12" cap.
- Cap areas to be covered (filled) with 12" select soil.
- Note: Refer to RAWP for additional details and requirements.

Key

- Property Line
- Right of Way
- Overhead Utility
- Power Pole
- Catch Basin
- Sanitary Sewer
- Sanitary Manhole
- Water Main w/ Size
- Hydrant
- Building Name
- Topographic Contour
- Silt Fence (See Detail on This Sheet)

Cap & Restoration Notes

- Surface soil from excavations for cap cuts will be reused in excavation as backfill, if no field indicators of contamination.
- Contractor to place a soil separation fabric (3 oz / S.Y. Typar) on subgrade before placing 12" cap layer.
- The Contractor shall be responsible for keeping the highway free of mud and spoils generated from the work and tracked from the site at all times during the project. At the discretion of the Project Engineer, a power broom and regular cleaning will be required at the Contractor's expense.
- The Contractor shall clean all soil residue from the soil handling equipment at a location on the site designated by the Project Engineer prior to demobilizing from the site.
- The Contractor shall be responsible for the proper off-site disposal of any refuse generated from the work.
- The Project Engineer shall inspect the site at the completion of the work prior to approving the Contractor's final mobilization and payment.
- Refer to the Remedial Action Plan for additional details and requirements.

Seeding and Mulching Specifications (Lawn Areas)

Topsoil:
Refer to written specifications for topsoil material and testing requirements.
Minimum thickness of 4-inches (settled depth) to be provided over required areas.
Areas receiving topsoil shall be left neatly graded and ready to receive seeding.

Seeding:
Work for seeding shall consist of preparing ground surface, furnishing and installing fertilizer, seeding and mulching the areas indicated on the plans and in areas directed by the Project Engineer.

Materials for seed, fertilizer and mulch shall conform to the requirements of NYSDOT Specification Section 713, or shall be approved by the Project Engineer.

The areas to receive seeding shall be thoroughly prepared prior to seeding. Seed and fertilizer shall be spread in the amount specified and shall be evenly distributed in the areas to be seeded.

Acceptable material in a seed mixture other than pure live seed consists of nonviable seed, chaff, hulls, live seed of crop plants and inert matter. The percentage of weed seed shall not exceed 0.1% by weight.

Suggested Seed Mix (or equal):

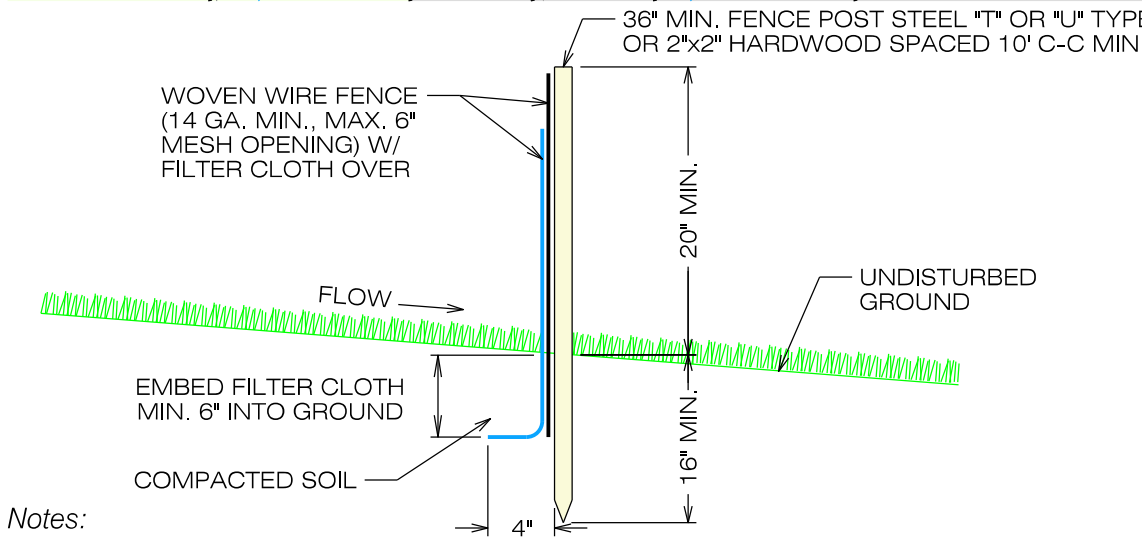
DISTURBED AREAS			
NAME	AMOUNT BY WEIGHT	PURITY	% GERMINATION
KENTUCKY ¹ BLUEGRASS	55% (MIN.)	95%	80%
PERENNIAL ² RYEGRASS	20% (MAX.)	98%	90%
RED FESCUE ³	25% (MIN.)	97%	85%
TOTAL	100%		

- Bluegrass blend shall consist of a minimum of 2 of the following varieties in approximately equal proportions: Adelphi, Shain Rock, Merit, Visa, Fyking, Merion, Pennstar, Victa, Delta, Kenblue, Newport and Park.
- Three or more of the following varieties: Citation II, Derby, Regal Palmer, Manhattan II, NK-100, NK-200, Norlea, Pennline, Pennant, Wizard, Repall, Pinnacle and Yorktown II or III.
- SR5000 is acceptable.

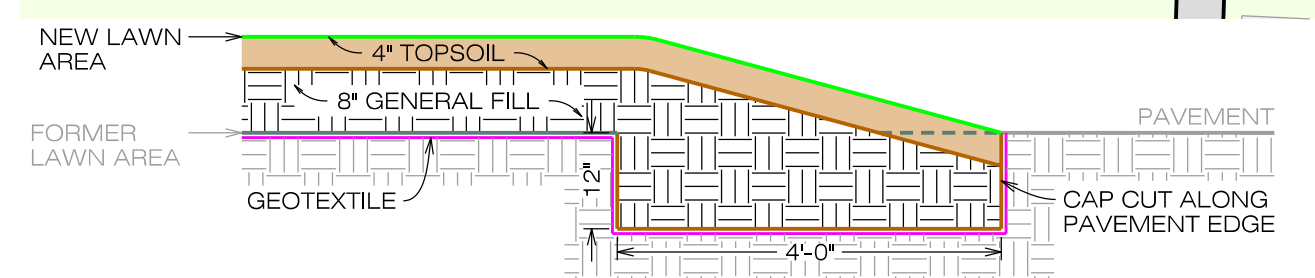
Suggested Fertilizer (or equal):
NYSDOT 713-03 Type No. 3, 10-2-4 (50% N-UF)
Fertilizer shall be applied at the rate of 25 pounds per 1,000 Sq. Ft.
Seed Shall be applied at a rate of 25 pounds per 1,000 Sq.Ft.

Mulch (straw) shall be applied at the rate of 2 tons per acre, and shall be anchored with a commercially available mulch anchorage product, if necessary.

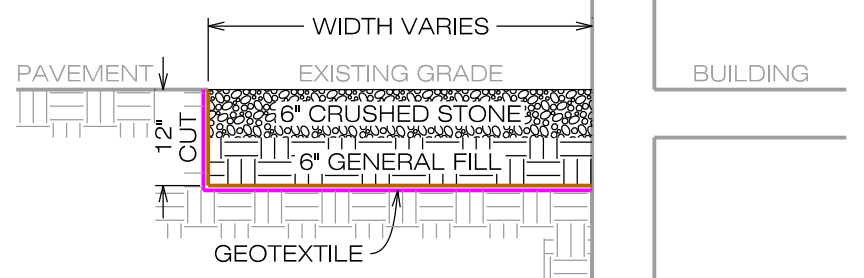
Anchoring: Use light-weight paper, jute, wood fiber, plastic or excelsior biodegradable to protect seed & mulch and secure to slopes.



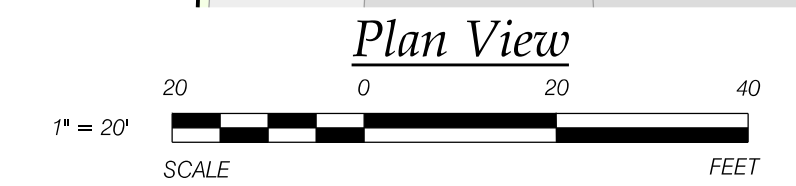
Silt Fence Detail

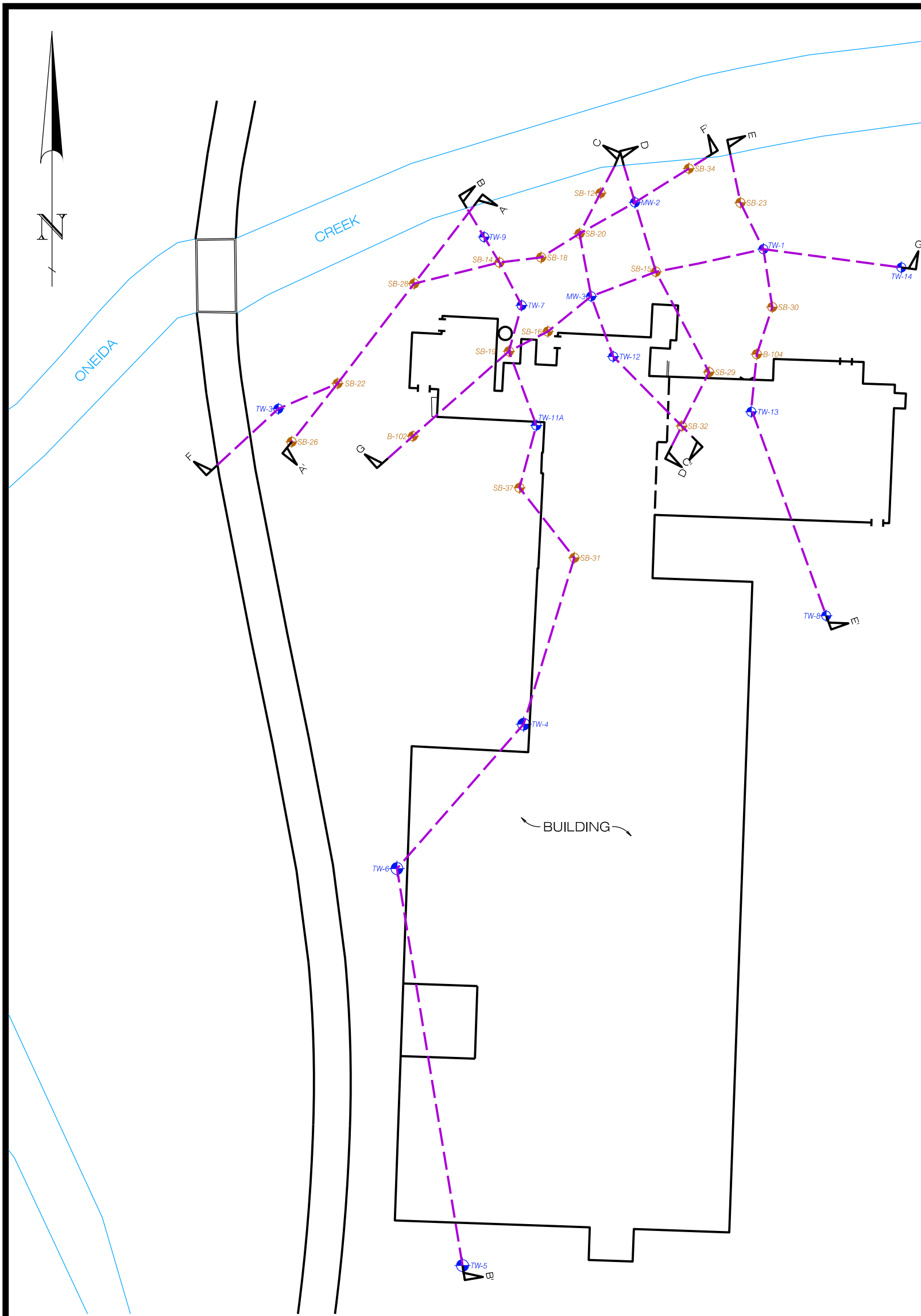


Curb Detail (And Typical Lawn Area Cap)



Gravel Lot Cap Detail



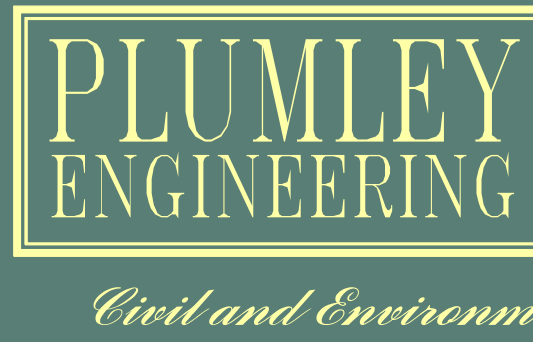
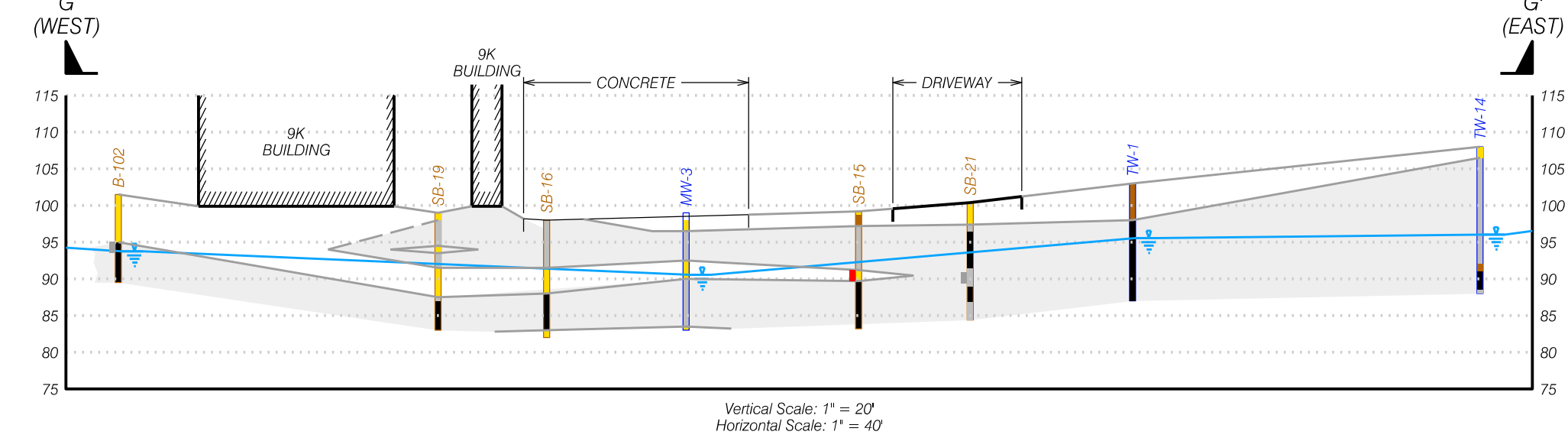
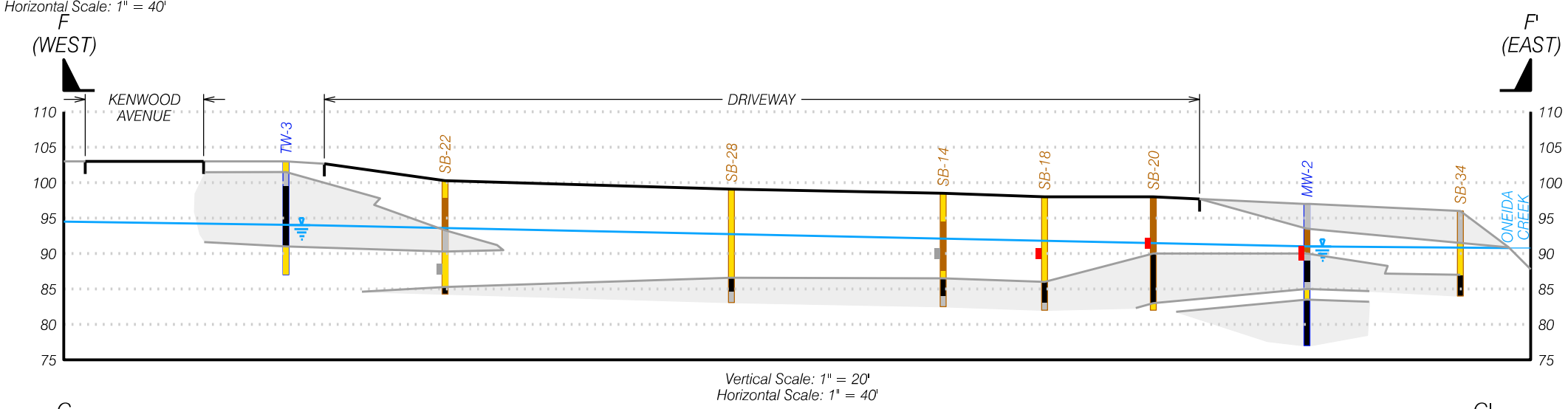
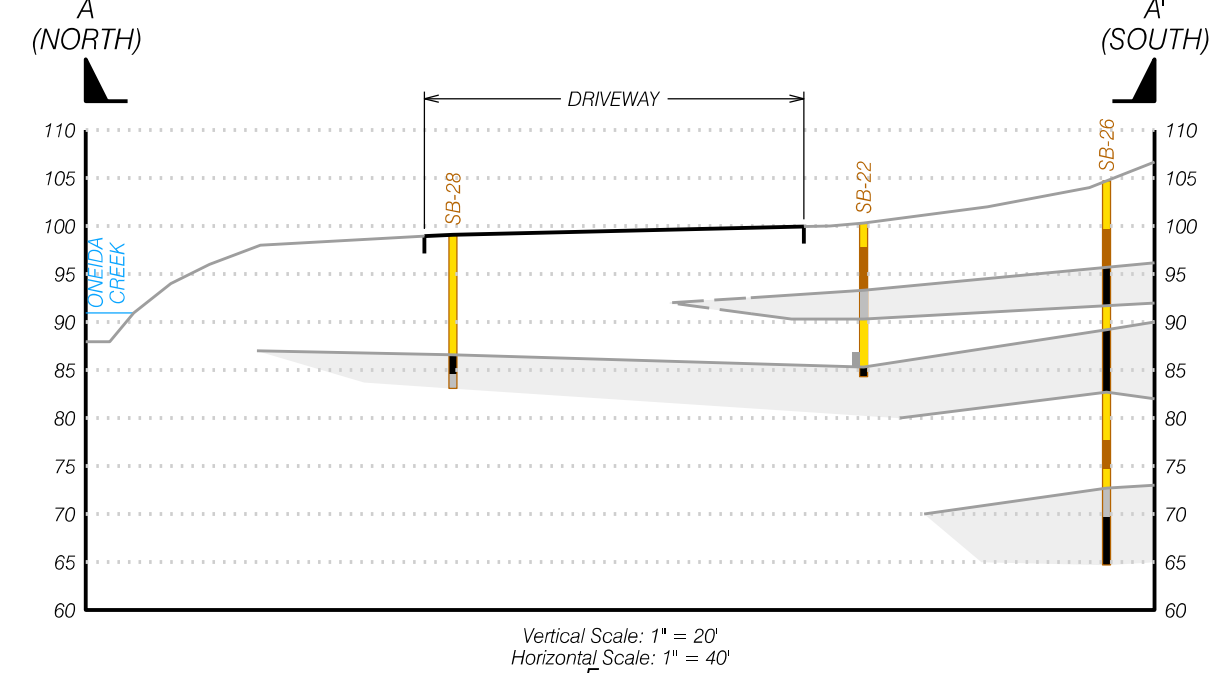
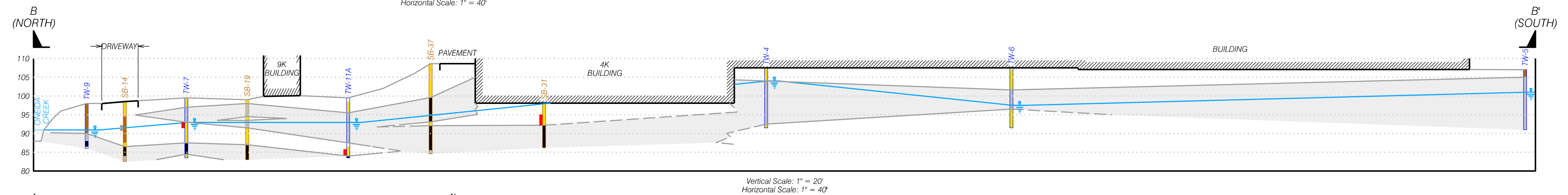
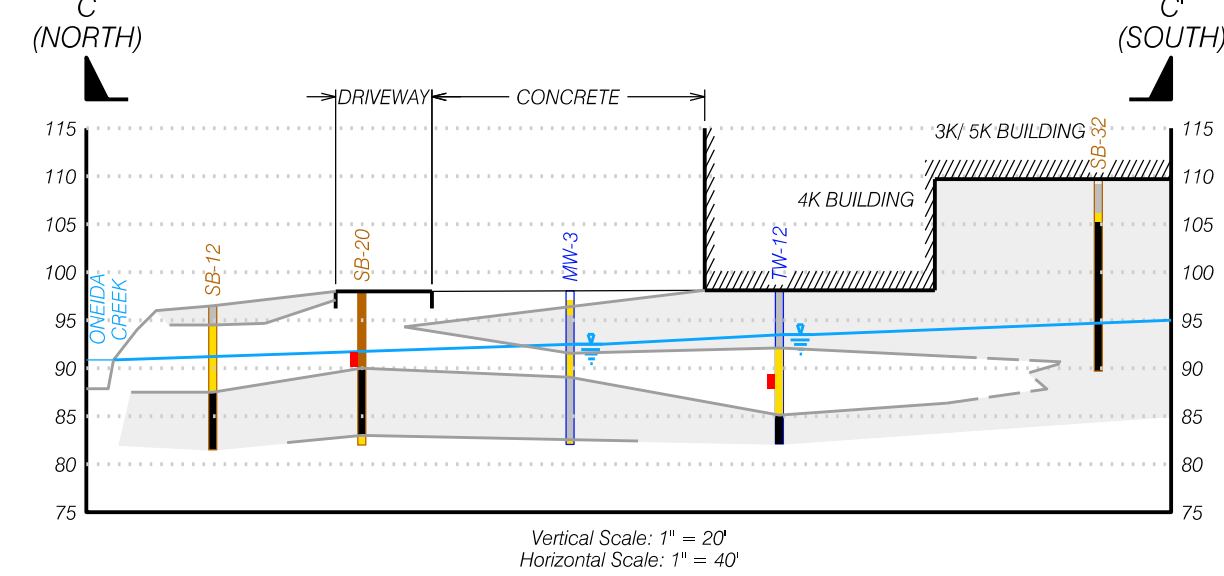
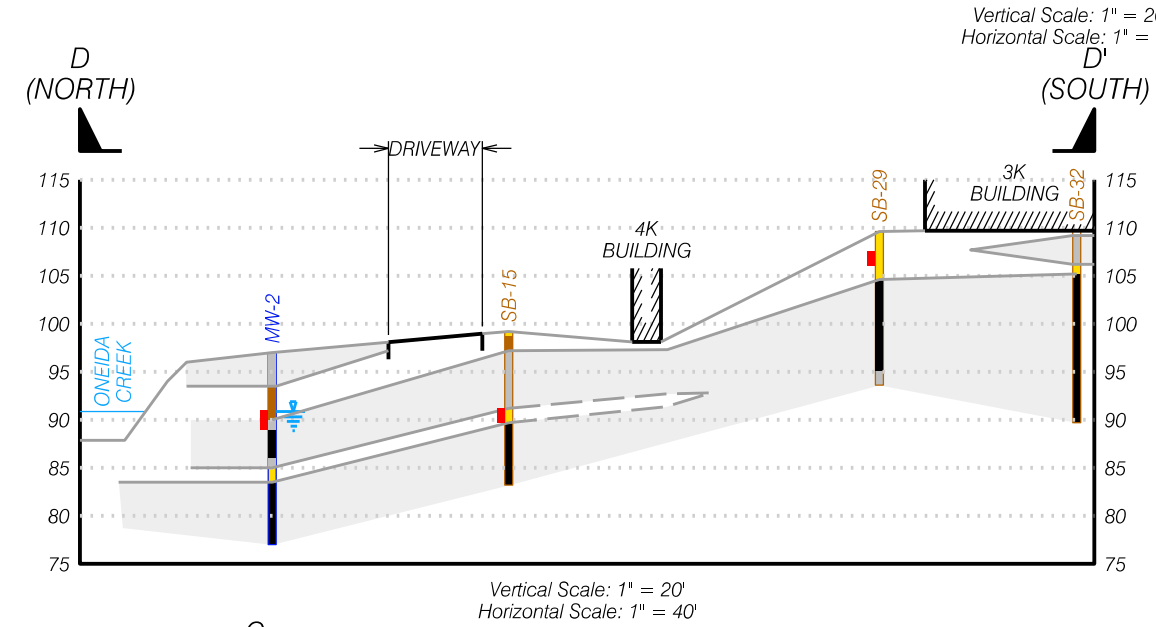
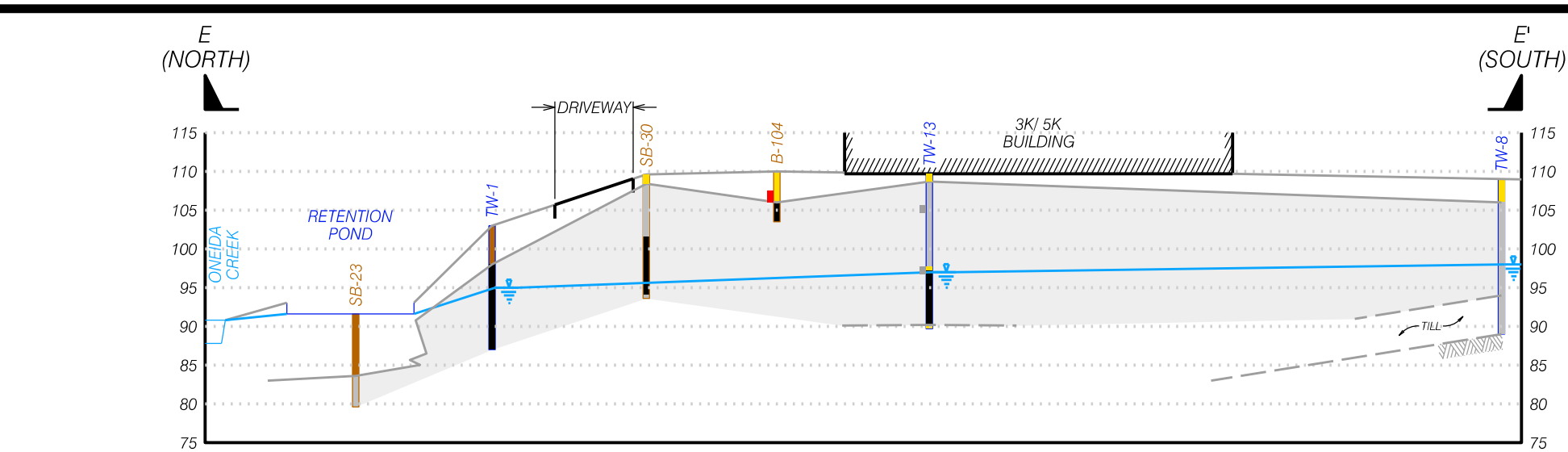


Section Location Plan
Scale: 1" = 50'

Key

- Top of Vernon Shale
- Water Level on 6/11/10
- Vertical Interval w/ Oily Impact
- Vertical Interval w/ PID Reading > 25 ppm; w/ or w/ out Staining

Unified Soil Classification	Description	Color Designation
SM	Silt & Fine Sand, w/ or w/ out Trace - Little Gravel	Brown
SP, SW	Fine - Medium Sand, w/ or w/ out Trace - Some Gravel	Yellow
ML	Clayey Silt, w/ or w/ out Minor Sands & Gravel	Gray
CL	Silty Clay, w/ or w/ out Minor Sands & Gravel	Black



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REVISIONS:	DATE:	BY:

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PROJECT: **FORMER ONEIDA KNIFE PLANT - LOT 1**
CLIENT: **ONEIDA, LTD.**
LOCATION: **CITY OF SHERRILL, ONEIDA COUNTY, NEW YORK**

DWG. TITLE: **CROSS SECTIONS**
RPT. TITLE: **REMEDIAL ACTION WORK PLAN**
Note: No alteration permitted hereon except as provided under Section 7209 Subdivision 2 of the New York State Education Law.

PROJECT No.: 2013028
FILE NAME: SP05P
SCALE: AS NOTED
DATE: APRIL 2013
ENG'D BY: FAK
DRAWN BY: JMD
CHECKED BY: FAK

SHEET NO.: **SP 5 of 5**
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