POWERS CHEMCO Superfund Site No. 130028
and
KONICA MINOLTA GRAPHIC IMAGING RCRA Site No. 130028A
71 CHARLES STREET, GLEN COVE, NASSAU COUNTY, NEW YORK

SITE MANAGEMENT PLAN
Addendum No. 1

NYSDEC Site Numbers: 130028 and 130028A
USEPA ID # NYD002056679

Prepared for:
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Revisions to Final Approved Site Management Plan:

Revision No.	Date Submitted	Summary of Revision	NYSDEC Approval Date
1	12/5/2022	Site Management Plan Addendum No. 1 – Addition of PFOA, PFOS, 1,4-Dioxane to Monitoring and Sampling Plan	1/30/2023

DECEMBER 2022

CERTIFICATION STATEMENT

I, Omar Ramotar, certify that I am currently a NYS registered professional engineer as in defined in 6 NYCRR Part 375 and that this Site Management Plan Addendum No. 1 was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10).

_____P.E.

December 7, 2022
_____DATE



SITE MANAGEMENT PLAN

POWERS CHEMCO SUPERFUND SITE No. 130028 and KONICA MINOLTA GRAPHIC IMAGING RCRA SITE No. 130028A NASSAU COUNTY GLEN COVE, NEW YORK

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LIST OF ACRONYMS

ACRONYM	DEFINITION
AS	Air Sparging
ASP	Analytical Services Protocol
BCA	Brownfield Cleanup Agreement
BCP	Brownfield Cleanup Program
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CAMP	Community Air Monitoring Plan
C/D	Construction and Demolition
CFR	Code of Federal Regulation
CLP	Contract Laboratory Program
COC	Certificate of Completion
CO2	Carbon Dioxide
CP	Commissioner Policy
DER	Division of Environmental Remediation
DUSR	Data Usability Summary Report
EC	Engineering Control
ECL	Environmental Conservation Law
ELAP	Environmental Laboratory Approval Program
ERP	Environmental Restoration Program
EWP	Excavation Work Plan
GHG	Green House Gas
GWE&T	Groundwater Extraction and Treatment
HASP	Health and Safety Plan
IC	Institutional Control
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
NYCRR	New York Codes, Rules and Regulations
O&M	Operation and Maintenance
OM&M	Operation, Maintenance and Monitoring
OSHA	Occupational Safety and Health Administration

ACRONYM	DEFINITION
OU	Operable Unit
P.E. or PE	Professional Engineer
PFAS	Per- and Polyfluoroalkyl Substances
PID	Photoionization Detector
PRP	Potentially Responsible Party
PRR	Periodic Review Report
QA/QC	Quality Assurance/Quality Control
QAPP	Quality Assurance Project Plan
QEP	Qualified Environmental Professional
RAO	Remedial Action Objective
RAWP	Remedial Action Work Plan
RCRA	Resource Conservation and Recovery Act
RI/FS	Remedial Investigation/Feasibility Study
ROD	Record of Decision
ROUX	Roux Environmental Engineering and Geology, D.P.C.
RP	Remedial Party
RSO	Remedial System Optimization
SAC	State Assistance Contract
SCG	Standards, Criteria and Guidelines
SCO	Soil Cleanup Objective
SMP	Site Management Plan
SOP	Standard Operating Procedures
SOW	Statement of Work
SPDES	State Pollutant Discharge Elimination System
SSD	Sub-slab Depressurization
SVE	Soil Vapor Extraction
SVI	Soil Vapor Intrusion
TAL	Target Analyte List
TCL	Target Compound List
TCLP	Toxicity Characteristic Leachate Procedure

ACRONYM	DEFINITION
USEPA	United States Environmental Protection Agency
UST	Underground Storage Tank
VCA	Voluntary Cleanup Agreement
VCP	Voluntary Cleanup Program

EXECUTIVE SUMMARY

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

Site Identification:	Powers Chemco Superfund Site No. 130028 Konica Minolta Graphic Imaging RCRA Site No. 130028a / USEPA ID # NYD002056679 71 Charles Street, Glen Cove, New York SITE MANAGEMENT PLAN Addendum 1

Institutional Controls:	1. The property may be used for restricted residential use described in 6NYCRR Part 375-1.8 (g) (2) (ii), Commercial as described in 6NYCRR part 375-1.8 (g) (2) (iii) and industrial as described in 6 NYCRR part 375-1.8 (g) (2) (iv)
	2. Institutional Controls • The property may be used for restricted residential use (commercial and industrial uses allowed). • All Engineering Controls (ECs) must be operated and maintained as specified in this SMP. • All ECs must be inspected at a frequency and in a manner defined in the SMP. • The use of groundwater underlying the property is prohibited without necessary water quality treatment as determined by the New York State Department of Health (NYSDOH) or the Nassau County Department of Health to render it safe for use as drinking water or for industrial purposes, and the user must first notify and obtain written approval to do so from the Department. • Groundwater and other environmental or public health monitoring must be performed as defined in this SMP. • Data and information pertinent to site management must be reported at the frequency and in a manner as defined in this SMP. • All future activities that will disturb remaining contaminated material must be conducted in accordance with this SMP. • A provision for further investigation to refine the nature and extent of any contamination beneath the slabs of the former manufacturing buildings and to address that contamination appropriately; • Monitoring to assess the performance and effectiveness of the remedy must be performed as defined in this SMP.

	• Operation, maintenance, monitoring, inspection, and reporting of any mechanical or physical component of the remedy shall be performed as defined in this SMP. • Access to the site must be provided to agents, employees, or other representatives of the State of New York with reasonable prior notice to the property owner to assure compliance with the restrictions identified by the Environmental Easement. • Evaluation of the potential for soil vapor intrusion for any buildings developed on the Powers Chemco Superfund site and Konica Minolta Graphic Imaging RCRA site, including a provision for implementing actions recommended to address exposures related to soil vapor intrusion. • Vegetable gardens and farming on the site are prohibited. • An evaluation shall be performed to determine the need for further investigation and remediation should large scale redevelopment occur, if any of the existing structures are demolished, or if the subsurface is otherwise made accessible.
	• The Site owner or remedial party will submit to NYSDEC a written statement that certifies, under penalty of perjury, that: (1) controls employed at the Controlled Property are unchanged from the previous certification or that any changes to the controls were approved by the NYSDEC; and (2) nothing has occurred that impairs the ability of the controls to protect public health and environment or that constitute a violation or failure to comply with the SMP. NYSDEC retains the right to access such Controlled Property at any time in order to evaluate the continued maintenance of any and all controls. This certification shall be submitted annually, or an alternate period of time that NYSDEC may allow and will be made by an expert that the NYSDEC finds acceptable.
Engineering Controls:	3. All ECs require compliance with the Department-approved Site Management Plan and must be inspected at a frequency and in a manner defined in the SMP 4. Cover system • The composite cover system is a permanent control and the quality and integrity of this system will be inspected at defined, regular intervals in accordance with this SMP in perpetuity. As discussed above, in the event that future site development plans require that the cap (and associated underlying soils, out-of-service piping systems, etc.) be disturbed, the protocols included in the EWP will be followed. 5. Fencing / Site Security • The perimeter of the entire Site is protected by a chain-link fence with locked gates. Security is provided for the Site on

	a 24-hour per day, seven-day per week basis by professional security staff. The combination of the aforementioned security measures will assist in keeping the public away from any impacted media. 6. Monitoring Wells Associated with Monitored Natural Attenuation • Groundwater monitoring activities to assess natural attenuation will continue in the Powers Chemco Superfund Site, as determined by the NYSDEC project manager in consultation with NYSDOH project manager, until residual groundwater concentrations are found to be consistently below ambient water quality standards, the site SCGs, or have become asymptotic at an acceptable level over an extended period. In the event that monitoring data indicates that monitoring for natural attenuation may no longer be required, a proposal to discontinue the monitoring will be submitted by the remedial party. Monitoring will continue until permission to discontinue is granted in writing by the NYSDEC project manager. If groundwater contaminant levels become asymptotic at a level that is not acceptable to the NYSDEC, additional source removal, treatment and/or control measures will be evaluated.

Inspections:	Frequency
1. Cover inspection	Annually
2. Site Security Fencing	Annually
Monitoring:	
1. Konica Minolta Graphic Imaging RCRA Site Well MWR-18	Once, then review data with NYSDEC
2. Groundwater Monitoring MW-01, MW-06, MW-08, MW-12, MW-101R, MW-102R, MW-103, MW-201, MW-202, MW-203, MW-204, MW-205, MW-206, MW-207, MW-208, MW-209, MW-210, MW-211 (Powers Chemco Superfund Site)	Annually until Groundwater Objectives have been reached
Maintenance:	
1. Cover	As needed
2. Site Security fencing	As needed
Reporting:	
1. Periodic Review Report	Annually

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

1.0 INTRODUCTION

1.1 General

This Site Management Plan (SMP) is a required element of the remedial program for the Former Konica Minolta / Powers Chemco Facility located in the City of Glen Cove, New York, also known as the former Columbia Ribbon and Carbon Manufacturing Company Site (total lot area 14.96 acres). The Former Konica Minolta / Powers Chemco Facility is currently in the New York State (NYS) Inactive Hazardous Waste Disposal Site Remedial Program, Site No. 130028 (Powers Chemco Superfund Site; 1.91 acres of the total lot area) and Resource Conservation and Recovery Act (RCRA) USEPA ID No. NYD002056679/Site No. 130028A (Konica Minolta Graphic Imaging RCRA Site; 13.05 acres of the total lot area). Both Sites are administered by New York State Department of Environmental Conservation (NYSDEC). This SMP also covers a separate offsite parcel (Offsite Parcel; 1.31 acres), which includes Section 31, Block 49, Lots 601, 603 and 604 (see boundary surveys in Appendix A).

Konica Minolta Holdings U.S.A., Inc. entered into two Orders on Consent pertinent to this Site Management Plan, including:

- Order on Consent, Index No. AI-Q653-11-10, Site No. 130028, which was executed on August 24, 2011; and
- Order on Consent and Administrative Settlement Index No. 1-20170320-79, Sites No. 130028 and 130028A; Site Management and RCRA Requirements, which was executed on April 20, 2017.

An Amended Record of Decision (AROD) was issued on March 2014 with the NYSDEC to remediate the Powers Chemco Superfund portion of the Site. The remaining portion of the former Konica Minolta facility was addressed under the NYSDEC RCRA requirements for Closure as regulated in New York State in 6 New York Code of Rules and Regulations (NYCRR) Part 373-3.7. The NYSDEC issued RCRA Large Quantity Generator Closure document in November 2016 for site No. 130028A. This portion of the site has been assigned USEPA ID No. NYD002056679. A figure showing the site location and boundaries of both sites and the Offsite Portion is provided in Figure 2. The boundaries of the sites are more fully described in the metes and bounds site description that is part of the Environmental Easement provided in Appendix A.

As per the AROD, a Site Management Plan is required, which must include the following:

- An Institutional and Engineering Control Plan that identifies all use restrictions and engineering controls for the site and details the steps and media-specific requirements necessary to ensure the following institutional controls remain in place and effective:
    - Institutional Controls: The Environmental Easement discussed below.
    - Engineering Controls: The cover system and monitoring network discussed herein.

This SMP includes, but may not be limited to:

- Descriptions of the provisions of the environmental easement including any land use and groundwater use restrictions.

- A provision for evaluation of the potential for soil vapor intrusion for any buildings developed on the site, including a provision for implementing actions recommended to address exposures related to soil vapor intrusion.
- A provision for further investigation to refine the nature and extent of any contamination beneath the slabs of the former manufacturing buildings and to address that contamination appropriately.
- Provisions for the management and inspection of the identified engineering controls.
- Maintaining site access controls and Department notification.
- The steps necessary for the periodic reviews and certification of the institutional and/or engineering controls.
- A monitoring plan to assess the performance and effectiveness of the remedy. The plan includes, but may not be limited to: installation of new monitoring wells in the backfilled excavation area:
    - monitoring of groundwater to assess the baseline sampling and performance and effectiveness of the remedy;
    - monitoring for soil vapor intrusion for any buildings developed on the site, as may be required by the Institutional and Engineering Control Plan discussed above; and
    - a schedule of monitoring and frequency of submittals to the Department.

As per the November 2016 RCRA Large Quantity Generator Closure Document, a Site Management Plan is required, which includes the following:

- an Institutional and Engineering Control Plan that identifies all use restrictions and engineering controls for the site and details the steps and media-specific requirements necessary to ensure the following institutional and/or engineering controls remain in place and effective:
    - Institutional Controls: The Environmental Easement discussed in Paragraph 2 above.
    - Engineering Controls: Maintenance of the site cover system discussed in Paragraph 1.

    This plan includes, but may not be limited to, an Excavation Plan that details the provisions for management of future excavations in areas of remaining contamination;

    - a provision for further investigation to refine the nature and extent of any contamination beneath the slabs of the former manufacturing buildings and to address that contamination appropriately;
    - descriptions of the provisions of the environmental easement including any land use restrictions;
    - provisions for the management and inspection of the identified engineering controls;
    - maintaining site access controls and Department notification; and
    - the steps necessary for the periodic reviews and certification of the institutional and/or engineering controls.

After completion of the remedial work, some contamination was left at this site, which is hereafter referred to as “remaining contamination.” Institutional and Engineering Controls (ICs and ECs) have been incorporated into the site remedy to control exposure to remaining contamination to ensure protection of public health and the environment. An Environmental Easement granted to

the NYSDEC, and recorded with the Nassau County Clerk, requires compliance with this SMP and all ECs and ICs placed on the site.

This SMP was prepared to manage remaining contamination at the site until the Environmental Easement is extinguished in accordance with ECL Article 71, Title 36. This plan has been approved by the NYSDEC, and compliance with this plan is required by the grantor of the Environmental Easement and the grantor's successors and assigns. This SMP may only be revised with the approval of the NYSDEC.

It is important to note that:

- This SMP details the site-specific implementation procedures that are required by the Environmental Easement. Failure to properly implement the SMP is a violation of the Environmental Easement, which is grounds for revocation of the Certificate of Completion (COC);
- Failure to comply with this SMP is also a violation of Environmental Conservation Law, 6 NYCRR Part 375 and the Order on Consent (Index AI- Q653-11-10; Site #130028 and Index No. 1-20170320-79, Sites No.130028 and 130028A / USEPA ID No. NYD002056679) for the site, and thereby subject to applicable penalties.

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

This SMP was prepared by Apex Companies, LLC, on behalf of Konica Minolta Holdings U.S.A., Inc., in accordance with the requirements of the NYSDEC's DER-10 ("Technical Guidance for Site Investigation and Remediation"), dated May 2010 and the guidelines provided by the NYSDEC. This SMP addresses the means for implementing the ICs and/or ECs that are required by the Environmental Easement for the site.

1.2 Revisions

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

1.3 Notifications

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

1. 60-day advance notice of any proposed changes in site use that are required under the terms of the AROD, 6 NYCRR Part 375 and/or Environmental Conservation Law.
2. 7-day advance notice of any field activity associated with the remedial program.

3. 15-day advance notice of any proposed ground-intrusive activity pursuant to the Excavation Work Plan. If the ground-intrusive activity qualifies as a change of use as defined in 6 NYCRR Part 375, the above mentioned 60-day advance notice is also required.
4. Notice within 48 hours of any damage or defect to the foundation, structures or EC that reduces or has the potential to reduce the effectiveness of an EC, and likewise, any action to be taken to mitigate the damage or defect.
5. Notice within 48 hours of any non-routine maintenance activities.
6. Verbal notice by noon of the following day of any emergency, such as a fire; flood; or earthquake that reduces or has the potential to reduce the effectiveness of ECs in place at the site, with written confirmation within 7 days that includes a summary of actions taken, or to be taken, and the potential impact to the environment and the public.
7. Follow-up status reports on actions taken to respond to any emergency event requiring ongoing responsive action submitted to the NYSDEC within 45 days describing and documenting actions taken to restore the effectiveness of the ECs.

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

1. At least 60 days prior to the change, the NYSDEC will be notified in writing of the proposed change. This will include a certification that the prospective purchaser/Remedial Party has been provided with a copy of the AROD, and all approved work plans and reports, including this SMP.
2. Within 15 days after the transfer of all or part of the site, the new owner's name, contact representative, and contact information will be confirmed in writing to the NYSDEC.

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

Table 1. Notifications*

Name	Contact Information	Required Notification
Girish Desai, P.E.	(631) 444-0243/ girish.desai@dec.ny.gov	All Notifications
Chris Engelhardt	(631) 444-0235/ chris.engelhardt@dec.ny.gov	All Notifications
Kelly Lewandowski	(518) 402-9553/ kelly.lewandowski@dec.ny.gov	Notifications 1 and 8
Walter Parish, P.E.	(631) 444-0241/ walter.parish@dec.gov	All Notifications
Wendy Kuehner	518-402-7860/ wendy.kuehner@health.ny.gov	Notifications 4,6 and 7

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

** Note: Numbers in this column reference the numbered bullets in the notification list in this section.

2.0 SUMMARY OF PREVIOUS INVESTIGATIONS AND REMEDIAL ACTIONS

2.1 Site Location and Description

The Powers Chemco Superfund Site and Konica Minolta Graphic Imaging RCRA Site are located in the City of Glen Cove, Nassau County, New York and are identified as Section 31 Block G and Lots 3, 5, 13, 213, 227, 601, 603, 604, 614, 615 and 227 on the Nassau County Department of Assessment Tax Map. The Offsite Parcel includes Building No. 9 (Annex), which is located across Charles Street (aka: New Street), is identified as 46 Charles Street and has been assigned Nassau County Tax Numbers Section 31 Block 49 and Lots 601, 603 and 604. The Powers Chemco Superfund Site encompasses the northern portion of Lot 615 and the Konica Minolta Graphic Imaging RCRA Site encompasses the remainder of Lot 615 and all of the remaining aforementioned lots. The total area of all the parcels is approximately 16.27-acres and is bounded by The Place, residential properties and Konica Minolta's former Bobley Building to the north, Herb Hill Road, the former Li Tungsten Site, an aggregate mix facility and Dyckman Laundry to the south, Charles Street, Konica Minolta's former Administrative Building No. 9 and parking lot, and residential properties to the east, and undeveloped property owned by Li Tungsten to the west. The boundaries of the site are more fully described in Appendix A –Environmental Easement. The owner(s) of the site parcel(s) at the time of issuance of this SMP is:

Konica Minolta Holdings U.S.A., Inc.

2.2 Physical Setting

2.2.1 Land Use

The Site consists of the following: a mostly vacant area with one small-standing structure (former Powers Chemco Superfund Site water-treatment area), concrete pads, open dirt area, parking lots, roadways, etc. According to the City of Glen Cove zoning map, the portion of the site located to the west of Charles Street is zoned Marine Waterfront District 3 and the portion of the site located to the east of Charles Street is zoned R-4 (one and two family residences) and is currently vacant. Other than security personnel and occasions service personnel, there are no site occupants.

The properties adjoining the Site and in the neighborhood surrounding the Site primarily include vacant, residential and commercial properties. The properties immediately south of the Site include commercial properties; the properties immediately north of the Site include primarily residential properties; the properties immediately east of the Site include residential properties; and the properties to the west of the Site include vacant properties.

2.2.2 Geology

The United States Geologic Survey (USGS) report titled Hydrologic Framework of Long Island, New York indicates that the site is situated on unconsolidated glacial till from the Quaternary age. The heterogeneous deposits known as the Upper Glacial Aquifer of Long Island underlie the site to a thickness of approximately 60 to 300 feet.[1]

[1] The site is located on the edge of a "buried valley" which was cut into the underlying older deposits which was backfilled by the Upper Glacier Aquifer materials.

The Upper Glacial Aquifer is underlain by approximately zero to 150 feet of the Magothy Formation. This formation is saturated and is the principal water supply aquifer for most of Nassau County. The Magothy is underlain by zero to 130 feet of the unit identified as the Raritan Formation. The Raritan Formation is comprised of an upper layer (a regional confining layer named the Raritan Clay) and a lower layer (a permeable sand named the Lloyd Sand which is approximately 175 feet thick in the vicinity of the site). Underlying the Lloyd Sand is igneous and metamorphic Precambrian aged bedrock. The soils at the site are characterized as unconsolidated glacial sediments consisting of medium to coarse-grained sands along with interbedded fine grained sands, silts and clays. These soils can extend to 60 to 300 feet below ground surface.

A geologic cross section is shown in Figure 3. Site specific boring logs are provided in Appendix C.

2.2.3 Hydrogeology

According to the NYSDEC records for the Powers Chemco Superfund Site, the presence of a shallow, perched water table zone was noted beneath most of this portion of the site. The depth to water in the perched zone ranged from six to 14 feet below grade surface (bgs). The groundwater flow direction in the perched zone varied from southeast to southwest. Based upon regional hydrogeological data, groundwater in the shallow Upper Glacial Aquifer was anticipated to flow to the south towards Glen Cove Creek.

As discussed in detail in the Closure Certification Report (CCR) prepared as part of RCRA Closure, historic soil boring data for the adjacent Powers Chemco Superfund Site indicated the presence of non-continuous silt and clay layers and it appeared that areas of perched groundwater were present overlying the regional aquifer which first occurs in the underlying Upper Glacial Aquifer unit. It is believed that several of the former on-site groundwater monitoring wells may have been completed within both perched zones and / or in the Upper Glacial Aquifer. Supporting evidence for this includes:

- According to the USGS, in 2006, groundwater in the vicinity of the Subject Property exhibits a southerly flow direction with in the Upper Glacial Aquifer unit (see Figures 4-1 and 4-2).
- Data in the RCRA Closure Plan provide an evaluation of depth-to-water data collected by ERM in May of 2000. As indicated in the RCRA Closure Plan, there was not a discernable pattern of groundwater flow direction, likely due to the completion of the wells in various hydrologic units.
- According to Roux Environmental Engineering and Geology, D.P.C. (Roux), water-level data obtained following remediation of the Powers Chemco Superfund Site indicated that the inferred direction of groundwater flow in the perched zone ranges from southeast to south to southwest.
- During Closure soil sampling and excavation, the depth-to-water varied from a few inches below the surface to greater than ten-feet bgs at sampling locations at the same relative elevations. Again, it is believed that this disparity is a function of the presence of discontinuous soil and clay layers which result in discontinuous areas of shallow, perched groundwater.

As of July of 2013, the majority of the existing wells in the Konica Minolta Graphic Imaging RCRA Site had been destroyed and only four wells were present, including P2-1, P2-5, P2-7 and MW-9S. Based upon the lack of recent groundwater analytical data, and to evaluate groundwater conditions directly downgradient of various Konica Minolta Graphic Imaging RCRA Site's Areas of Concern

(AOCs), the NYSDEC required the installation of eight new groundwater monitoring wells (i.e., MWR-10 through MWR-17).

Monitoring well construction details are provided in Table 2. Groundwater elevation data is provided in Table 3. A review of Figure 4-1 indicates that the inferred direction of groundwater flow in the perched zone within the Powers Chemco Superfund Site ranges from southeast to south to southwest. A groundwater contour map for the Konica Minolta Graphic Imaging RCRA Site is shown in Figure 4-2. Groundwater monitoring well construction logs are provided in Appendix C.

2.3 Investigation and Remedial History

Konica Minolta Graphic Imaging RCRA Site

The RCRA portion of the site was originally improved for industrial operations in the early 1900s and initially occupied by the Ladew Company Belting Factory. Between 1915 and 1925, the Glen Cove and Sea Cliff Bus Company reportedly operated at the site. The Powers Brothers purchased the Main Building and the buildings south of the Main Building between 1925 and 1931, and began operating Powers Chemco, which manufactured photographic film and paper, developers and fixers. At the same time, Columbia Ribbon and Carbon Company purchased the Columbia Building and adjacent structures, as well as the Powers Chemco Superfund Site, and began the production of blue printing inks, carbon paper and typing ribbons. Powers Chemco purchased the Columbia site in 1979. Konica Minolta acquired Powers Chemco in 1987 and operated at the site from 1987 until 2007. The site has been unoccupied since 2007.

Due to worker safety issues, the above-grade infrastructure in all of the RCRA AOCs were demolished and the resultant debris removed by others prior to the initiation of RCRA Closure sampling and subsequent remediation activities. The following is a description of the main site structures prior to the commencement of demolition activities:

- The Main Building (#1) contained offices, the cafeteria, labs, the central finals area, backfill room, film finishing (i.e., trimming and packaging) and the coating alleys. The Main Building was constructed in 1906.
- Adjoining Main Building structures included:
    - The Emulsion Area (#17); two buildings constructed in 1959 and 1966 (according to a sprinkler drawing, the 1966 building was previously used as the maintenance shop); and
    - The Boiler Room and Icehouse; construction dates unknown (no building numbers assigned).
- The Research and Development (R&D) Building (#2) that was located to the south of the Main Building. According to plant personnel, this building was constructed in 1969 over a former x-ray film processing area.
- The Chemical Storage Tank Area (#5), construction date unknown.
- The Chemical Mixing (Chem Mix) Building (#4), located to the south of the R&D Building, and its adjoining structures (built in 1906);
    - The Chem Mix Material Storage Building (#3) (built in 1956); and,
    - The Chem Mix Production Storage Building (#3) (built in 1966).

- The No. 6 Fuel Oil Building (#6) was constructed in 1968 as a maintenance garage. In 1993, the maintenance pits were filled in with concrete. Two No. 6 fuel oil aboveground storage tanks (ASTs), 15,000 and 20,000 gallons in capacity, were constructed within the building.
- The Quonset Building (#C7), which was used for chemical and materials storage, was constructed some time before 1979 (this building was formerly used as a machine shop by Columbia Ribbon and Carbon).
- A former fenced-in and roofed hazardous waste and flammables storage structure (#C21). The building construction date is unknown.
- The Columbia Building (#C1), which formerly housed maintenance, engineering, and warehousing, was constructed in 1903.
- Adjoining Columbia Building structures, including:
    - The Wedge (#C1A), built in 1961, which formerly housed offices on the upper floor and storage on the lower floor;
    - The Columbia Warehouse and Silver Recovery Area (#C6), built in 1956, which contained warehousing and silver-recovery equipment;
    - The International Marketing Buildings (#C2 and #C3) constructed in 1903;
    - The Central Warehouse (#C4), built in 1946; and
    - The Order Fulfillment Hardware Warehouse (#C5), built in 1952.
- The Remedial Treatment Facility located in the Powers Chemco Superfund Site (no building number assigned), built in 1994. This building was not included in the CCR.
- The former Wastewater Treatment Plant (#18) built in 1977. This plant has been demolished and this AOC was closed by the NYSDEC circa 2010.
- The former Human Resources (#9) or the Annex Building and parking lot located across the street from the site on Charles Street. Reportedly, x-ray film finishing was conducted in this building after the R&D building was constructed. Evidence of these processing units was noted in the 1979 ICI map.
- Other areas included the South Lot Area, as well as paved areas between buildings. The South Lot Area contained material conveyance lines, an Oil Storage Area, the Quonset Building, and the former Waste Water Treatment Plant. Site buildings were historically heated by steam heat, generated by combustion of No. 6 fuel oil in three boilers located in the Boiler Room. A former fuel oil underground storage tank (UST) was reportedly abandoned in place and was removed as part of the demolition / Closure process.

Powers Chemco Superfund Site History

Powers Chemco, Inc., a manufacturer of photographic equipment and supplies, purchased the Site from Columbia Ribbon and Carbon Manufacturing Co. (Columbia) for use as a parking lot in 1979. In 1983, Powers Chemco discovered the subsurface contamination while excavating. For an undetermined period prior to 1979, Columbia had disposed of wastes from the production of blue printing inks, carbon paper and typing ribbon in open pits behind their manufacturing buildings. Reportedly, wastes from 55-gallon drums were dumped into the open pits. The drums were then crushed and added to the pits before burial. An aerial photograph taken between 1950 and 1960 showed the location of two or three of these pits. Additionally, wastes were pumped through a two-inch galvanized pipe from the Columbia Plant (e.g., RCRA North Alleyway AOC) directly into the pits. The hazardous and industrial wastes disposed of in the area include, but were not necessarily limited to toluene, ethylbenzene, ethyl acetate and other residues from the formulation of printing

inks. In the fall of 1987, Powers Chemco, Inc. was renamed Chemco Technologies, Inc., which was subsequently purchased and renamed Konica Imaging U.S.A., Inc. The owner name has changed several times since then, in December 2011, the property was transferred to Konica Minolta Holdings U.S.A., Inc.

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

Konica Minolta Graphic Imaging RCRA Site

An initial RCRA Closure Plan was originally submitted by Environmental Resources Management (ERM) on behalf of Konica Graphic Imaging International, Inc. on August 29, 2002 to close five specific RCRA storage areas (Areas 1-5) on the site. This closure plan was approved following two revisions and a public notice on August 28, 2003 and closure work performed September 2003 thru May 2004.

Two hazardous waste tanks were cleaned and removed from the site, but contamination remained beneath the slabs. Only Area 5 was able to achieve closure at that time.

The wastewater treatment plant was demolished by Gramercy in Spring 2008, a letter Work Plan was submitted by Preferred Environmental Services in June 2008 and a subsequent Scope of Work provided by Preferred dated December 23, 2009. A final completion of closure of the wastewater treatment plant was provided by Preferred on August 30, 2010, recommending no further action of this area, which was accepted.

Konica submitted a Facility Assessment Report for RCRA Closure Investigation in October 2008 to evaluate the presence of hazardous substances and obtain clean closure. A Pre-Cleaning and Investigatory Work Plan, Sampling and Analyses Plan and Quality Assurance Project Plan were submitted by Preferred in August 2011, followed by four documents submitted in November 2011, which included work performed prior to approvals. Some additional sampling conducted in November 2011. On-site RCRA Closure activities re-commenced in early 2012 when Apex was retained by Konica Minolta to conduct a comprehensive Closure of the Konica Minolta Graphic Imaging RCRA Site , as discussed below.

In accordance with 6 NYCRR Part 373-3.7(c), Konica Minolta prepared and submitted a Closure Plan for the complete Closure of the Konica Minolta facility (exclusive of the Powers Chemco Superfund Site, as discussed above) to the NYSDEC on July 24, 2012, with follow-on addenda dated January 29, 2013, February 25, 2013, and March 22, 2013. The Closure Plan, including the associated Quality Assurance Project Plan (QAPP) and Health and Safety Plan (HASP), was certified by a PE, and a Professional Corporation (PC), licensed in the State of New York to perform Professional Engineering services, Apex Engineering, P.C. The Closure Plan was deemed acceptable on March 25, 2013, pending the public notice and addressing any comments, if received. The public notice was published in Newsday on March 29, 2013, and the Closure Plan was formally approved on May 4, 2016.

Powers Chemco Superfund Site

On March 22, 1991, the NYSDEC signed a Record of Decision (ROD), which selected a remedy to clean up the Powers Chemco Superfund Site, also known as the Columbia Ribbon and Carbon Manufacturing Site. The 1991 NYSDEC ROD called for a remedial system consisting of a groundwater pump and treat system, and an air sparge / soil vapor extraction system to treat VOCs present at the Powers Chemco Superfund Site. The remedial system was designed and constructed based on results of the pilot study approved by the NYSDEC in 1992. The remedial system operation commenced in 1994 and was shut down in 1999 in accordance with the approved Performance Analysis Design Modification Plan. Since then, the remedial system has been inactive as it was not cost-effective to operate. Post- shutdown monitoring was initiated in 2000.

The purpose of NYSDEC Amended Record of Decision (AROD), dated March 28, 2014, was to select a change in the remedial action from the initial actions approved in the 1991 ROD for the Powers Chemco Superfund Site. After the NYSDEC approved the permanent shutdown of the remedial systems in 1999, post-shutdown sampling results indicated the continued presence of volatile organic compounds (VOC) contamination in soil and groundwater at elevated concentrations. Based on these results, the NYSDEC directed that Konica Minolta (the responsible party) to conduct additional investigation and remediation of the residual VOC contamination.

Based on the results of these investigations and the evaluation of the performance of the original ROD remedial actions, the NYSDEC issued the AROD, as the previously selected remedy has not achieved the remedial action objectives for this site. Based on the evaluations conducted of the remedy in the 2013 Feasibility Study Report, the source of contamination in soil at the site was to be remediated by conventional excavation and disposed off-site at a permitted facility. Water collected during the dewatering process was to be treated prior to discharge. The excavation remedy was selected by the NYSDEC as it could be quickly implemented and was the most permanent solution for removal of VOC contaminated soil and sources to groundwater. It was also anticipated the dewatering of groundwater (with appropriate treatment) during excavation would also remove additional contamination from the site. *In situ* chemical oxidation (ISCO) was to be used to remediate residually impacted groundwater after the excavated area is backfilled with clean sandy soil. The backfilling of the excavation with clean sandy soil in the remediated area was also to improve the ability of injected chemical oxidant material to treat the remaining groundwater contamination. The NYSDEC issued the AROD in accordance with the requirements of New York State Environmental Conservation Law and Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York (6 NYCRR) Part 375 Environmental Remediation Programs.

2.3.1 Konica Minolta Graphic Imaging RCRA Site Soil Investigation

With NYSDEC oversight, the soil- and initial groundwater-quality evaluation component of Closure was conducted between April and July of 2013. Depending upon the target depth of a specific soil sample location (as defined in the Closure Plan), discrete soil samples were collected on a nominal basis from the surface to 8.0-feet bgs or until groundwater was encountered, whichever occurred first.

Per Section 4.3.1 of the NYSDEC-approved QAPP, the soil samples collected as part of Closure were analyzed by TestAmerica, which is a NYSDOH Environmental Laboratory Accreditation Program (ELAP)-certified laboratory. Depending upon the former uses of the AOCs and specific

NYSDEC requirements, each soil sample was analyzed for one or more of the following NYSDEC analytes in accordance with Level B Analytical Services Protocols (ASP):

- Target compound list (TCL) VOCs plus ten tentatively-identified compounds (TICs) by EPA Method 8260B;
- TCL semi-volatile organic compounds (SVOCs) plus 20 TICs by EPA Method 8270C;
- TCL PCBs by EPA Method 8082;
- Target Analyte List (TAL) metals by the EPA 6010B / 7471A Series;
- Hexavalent chromium by EPA Method 7196A;[2] and/or
- Total petroleum hydrocarbons (TPH) – diesel-range organics (DRO) by EPA Method 8015.

The Closure sampling and analyses were completed in general accordance with the NYSDEC-approved Closure Plan documents. In some instances, deviations from the approved Closure Plan (as amended) occurred in the field due to changed or unforeseen site conditions from the time when the plans were developed and approved. In all cases where the Closure Plan documents were not followed as approved, the NYSDEC was directly involved in decision-making related to the revised procedures to be implemented, including the need for additional investigation, supplemental soil excavation and / or additional confirmatory sampling to document closure effectiveness.

A total of 22 site-specific AOCs were evaluated as part of the initial soil evaluation phase of RCRA Closure. The following provides an AOC-by-AOC breakdown of the soil investigation phase of Closure.

- Former Main Building Basement Area;
- Former Boiler Room;
- Former Emulsion Room;
- Former Main Building 1st Floor;
- Former Central Corridor Area;
- Former Inspection and Practice Areas;
- Former Mechanical Dryer and Loading Dock Areas;
- Former Offices, Darkroom and Cafeteria Areas;
- Former Fuel Oil Room;
- South Lots Areas;
- Former Quonset Hut Area;
- Former R&D Building Area;
- Chem Mix Building Area;
- Former Columbia C1 Building;
- Former Columbia C1a Building and South Alleyway Areas;

[2] The analyses of selected samples for hexavalent chromium or TPH DRO was not contemplated in the QAPP. Rather, selected samples were analyzed for one of these additional analytes to address NYSDEC requirements identified during ongoing Closure activities.

- Former Wedge Building;
- Former Columbia C2 and C3 Buildings;
- Former Columbia C4 and C5 Buildings;
- Former Columbia C6 Building;
- North Alleyway Area;
- Former Building No. 9 (Annex); and
- Former North Lot Water Tank.

The aforementioned 22 site-specific AOCs were evaluated as part of the initial soil evaluation phase of RCRA Closure. Based upon NYSDEC protocols, areas of an individual AOC were identified as requiring soil remediation by a boring number, or grouping of borings, from which soil samples contained one or more contaminants exceeding their respective SCOs. Full details (e.g., summary figures, tables and narratives) of the analyses of these Closure soil samples are provided in the January 21, 2016 RCRA CCR plus addendums.

It should be noted that based upon the NYSDEC-approved Closure Plan, the initial target soil closure criteria for the soil investigation phase of Closure were NYSDEC Unrestricted and Residential SCOs. As discussed in Section 6.0 of the CCR, in order to expedite the Closure timeframe, and with NYSDEC approval, the project included the remediation of impacted soils by excavation and collection / analyses of confirmatory, end-point soil samples.

Table 4 provides the following:

- A summary of the soil samples / analytes collected for each AOC; and
- The NYSDEC determination if remediation was warranted.

As summarized in Table 4, the following RCRA remediation excavations have not yet been backfilled:

- MB-2/3/9/10/12/13/14/15/16/17 / CC-2/3/4/5;
- MB-22 / Sample Area 4A / Bldg-1-RCRA-4-SB-4 etc;
- MB-31;
- SL-1 / UNKUST-2;
- SL-2;
- SL-3/39/40;
- SL-20/21/22 / CM-28/29 / TANKERCONT-SB-2 / BLDG-4-RCRA1-SB-1/5/6;
- SL-23;
- SL-33/34 / RD-4/6/7;
- RD-10/11/12/13/20;
- RD-17;
- C1a;
- C6-13;

- B9-5; and
- B9-9.

Based upon a project meeting held on October 21, 2015 and review of the soil and groundwater analytical data collected in both the Investigation and Remediation phases of Closure, the NYSDEC confirmed that the final end-use of the overall property will be Restricted Residential (commercial and industrial uses allowed, per local zoning), assuming that the appropriate ICs and ECs are maintained in accordance with the NYSDEC-approved SMP. The NYSDEC is specifically requiring the use and maintenance of a two-foot-thick layer of clean soil / imported fill in locations not covered by building envelopes, parking lots and other impermeable surfaces. A summary of the post-remediation soil conditions and areas covered by concrete, asphalt, soil or un- backfilled excavations is included in Plate 1. All discussions regarding future land uses, and any ECs and ICs associated with same, are discussed below.

2.3.2 Konica Minolta Graphic Imaging RCRA Site Groundwater Investigation

Historic soil boring data for the adjacent Powers Chemco Superfund Site indicated the presence of non-continuous silt and clay layers and it appeared that areas of perched groundwater were present overlying the regional aquifer which first occurs in the underlying Upper Glacial Aquifer unit. It is believed that several of the former on-site groundwater monitoring wells may have been completed within both perched zones and in the Upper Glacial Aquifer. Supporting evidence for this included:

- According to the USGS, in 2006, groundwater in the vicinity of the Subject Property exhibits a southerly flow direction with in the Upper Glacial Aquifer unit.
- Data in the RCRA Closure Plan provide an evaluation of depth-to-water data collected by ERM in May of 2000. There was not a discernable pattern of groundwater flow direction, likely due to the completion of the wells in various hydrologic units.
- According to RE, water-level data obtained following remediation of the Powers Chemco Superfund Site indicated that the inferred direction of groundwater flow in the perched zone in the vicinity of the Powers Chemco Superfund Site ranges from southeast to south to southwest.
- During Closure soil sampling and excavation, the depth-to-water varied from a few inches below the surface to greater than ten-feet bgs at sampling locations at the same relative elevations. Again, it is believed that this disparity was a function of the presence of discontinuous soil and clay layers, which resulted in discontinuous areas of shallow, perched groundwater.

As of July of 2013, the majority of the existing wells in the Konica Minolta Graphic Imaging RCRA Site had been destroyed and only four wells were present, including: P2-1, P2-5, P2-7 and MW-9S. Based upon the lack of recent groundwater analytical data, and to evaluate groundwater conditions directly downgradient of various AOCs, the NYSDEC required the installation of eight new groundwater monitoring wells (i.e., MWR-10 through MWR-17). In order to evaluate the regional groundwater flow direction, a potentiometric surface map for October 3, 2014 was prepared (see Figure 4-2).

Based upon these data, the groundwater flow direction in the vicinity of the Konica Minolta Graphic Imaging RCRA Site is generally to the south, towards Glen Cove Creek.

July 2013 Groundwater Quality Data

Groundwater samples were collected from existing wells P2-1, P2-5, P2-7 and MW-9S on July 17, 2013 (see Figure 4-2). Per the NYSDEC-approved QAPP, the groundwater samples and associated quality Assurance / Quality Control (QA / QC) samples were analyzed by TestAmerica for TCL VOCs and total / dissolved TAL metals. The samples collected from P2-7 and MW-9S were also analyzed for formaldehyde due to its historic detection by others.

As summarized in the CCR, the majority of the analytes were either not detected, or detected at concentrations below their respective NYSDEC Class GA Standards or Guidance Values. Cis-1,2-dichloroethene and trichloroethene were detected in the P2-5 groundwater sample at 10 micrograms per liter (µg/L) and 17 µg/L, respectively. Both VOCs are assigned a Class GA Drinking Water Standard of 5.0 µg/L. Elevated concentrations of iron and manganese are believed to represent "background" conditions. The iron concentrations were typically lower in the dissolved aliquots than the corresponding totals aliquots. In the P2-5 and P2-1 groundwater samples, the concentrations of manganese were similar in both the dissolved and total aliquots. The presence of elevated concentrations of sodium in all four groundwater samples is believed to be a function of salt-water intrusion and not a site-specific impact.

October 2014 Groundwater Quality Data

Groundwater samples were collected from P2-1, MWNL-01, and MWR-10 through MWR-17 in early October of 2014 (see Figure 4-2). Per the NYSDEC-approved QAPP and discussions with the NYSDEC, the groundwater samples and associated QA / QC samples were analyzed by TestAmerica for TCL VOCs, TCL SVOCs and total / dissolved TAL metals. The results of this round of groundwater analyses indicated the following:

- 12 micrograms per liter (µg/L) of 1,1,2-trichloroethane (1,1,2-TCA) in the MWR-14 groundwater sample was the only TCL VOC detected at a concentration exceeding its respective NYSDEC Class GA standard or guidance value;
- The only TCL SVOC detected in any of the samples was 2.3 µg/L of 1,4- dioxane in the MWNL-01 groundwater sample, which exceeds the June 2021 NYSDEC Class GA Guidance Value of 0,35 µg/L[3].
- The October 2014 TAL metals analytical data set supports that groundwater underlying the Subject Property is not significantly impacted by site-related contaminants (i.e., arsenic, cadmium, chromium and silver). Rather, the metals are typically naturally-elevated in Long Island groundwater (i.e., iron and manganese) and / or indicate the presence of salt water (i.e., sodium). Iron concentrations in the dissolved sample aliquots ranged from non-detect to a high of 5,630 µg/L in the MWR-11 sample. Manganese concentrations in the dissolved sample aliquots ranged from 16.6 µg/L to a high of 2,870 µg/L in the MWR-16 sample. Nickle was detected in the total and dissolved aliquots at 189 µg/L and 178 µg/L, respectively (nickel's Class GA standard is 100 µg/L). Cadmium was detected in the MWR-11 total aliquot groundwater samples at 6.1 µg/L (5.0 µg/L GA Standard). In order to determine if the manganese is a result of site related activities, a monitoring well (MWR18) will be installed on the upgradient portion of the site and analyzed for TAL metals.

[3] 2021 Addendum To June 1998 Division Of Water Technical And Operational Guidance Series (TOGs) No. 1.1.1 Originator – Alexander Smith – revised 06-30-2021.

2.3.3 Underground Storage Tanks

As summarized in the NYSDEC-approved Closure Plan, a total of 37 storage tanks were historically registered at the site. The majority of the USTs were removed by others prior to the initiation of Closure and several tanks were abandoned-in-place. The following provides a summary of the USTs which were removed with NYSDEC oversight during Closure.

Former Wedge Building

- Tank 28: 3,000 gallon UST for Miscellaneous Oils (abandoned in place);
- Tank 29: 3,000 gallon UST for Miscellaneous Oils (abandoned in place);
- Tank 30: 5,000 gallon UST for Toluene (abandoned in place);
- Tank 31: 5,000 gallon UST for Diethylene Glycol Isomer (abandoned in place); and
- Tank 32: 5,000 gallon UST for Glycerine (abandoned in place).

Former Columbia C-1a Building

- Tank 1: 3,000 gallon UST for Oil, Diesel (abandoned in place in 2001);
- Tank 2: 5,000 gallon UST for Gasoline (abandoned in place 2001); and
- Tank 3: 5,000 gallon UST for Gasoline (abandoned in place 2001).

Columbia Building C-3

- Tank No. 6: 10,000-gallon No. 6 Fuel Oil tank (abandoned in place).

Former Tank No. 9 Area

- Tank No. 9: 20,000-gallon No. 9 Fuel Oil tank (abandoned in place). Previously Unidentified USTs

Two previously unidentified USTs were encountered during the conduct of the RCRA soil remediation phase of closure, including the following:

- North Alleyway Area: During excavation activities in this area, an unknown empty, single-wall, steel UST had an estimated capacity of 4,000 gallons, was encountered; and
- SL-1 / UNKUST-2: During the excavation of this area, an unknown, abandoned-in-place, single-wall, steel UST with an estimated capacity of 3,000-gallons was encountered.

As summarized in the CCR, all of the USTs still present on the site at the initiation of closure were removed, impacted soils remediated (if any) and any NYSDEC spill files closed.

2.3.4 Soil Vapor Investigation

Konica Minolta Graphic Imaging RCRA Site

In the Konica Minolta Graphic Imaging RCRA Site, 14 sets of sub-slab vapor sampling were performed circa August-September 2011 that confirmed the general absence of VOCs in sub-slab soil gas with the exception of one sampling location: tetrachloroethene (PCE) was reported at a concentration of 1,000 micrograms per cubic meter (µg/m3) as well as trichloroethene (TCE) at 31 µg/m3 at the Columbia C-6 SS-1 location, situated to the south of and proximate to the P2-5 monitoring well location (see Figure 4-2). The presence of VOCs in sub-slab soil gas at this location

is consistent with the historic information regarding a VOC source proximate to the P2-5 well location.

Powers Chemco Superfund Site

In 2005, a soil vapor survey was conducted in the Powers Chemco Superfund Site. The VOCs detected in groundwater were also present in the soil vapor samples. Levels of VOCs decreased significantly from the source area to the perimeter soil vapor locations. The highest concentration of total VOCs (7,316 µg/m3) was detected in soil vapor sample SG-06. The soil vapor samples collected within the source area also revealed the presence of low levels of chlorinated VOCs, predominantly PCE, TCE and vinyl chloride (VC), at concentrations between 6 and 121 µg/m^3.

In 2007, a soil vapor intrusion (SVI) investigation was conducted at seven residences located on the north side of The Place. Toluene was detected from 1.1 µg/m3 to 8.8 µg/m3 range in all seven sub-slab soil vapor samples. The benzene, toluene, ethylbenzene and xylene (BTEX) concentrations in sub-slab vapor ranged from 2.21 µg/m3 to 18.97 µg/m3. Acetone concentrations in sub-slab vapor ranged from non-detect to 1,100 µg/m3. Methyl ethyl ketone (MEK) concentrations in sub-slab vapor ranged from non- detect to 150 µg/m3. A total of 14 indoor air samples were collected from the seven residential properties. The indoor air sampling results indicated that all samples contained low concentrations of toluene in basement indoor air, ranging from 2.03 µg/m3 to 37.9 µg/m3; and first floor indoor air ranging from 2.72 µg/m3 to 37.9 µg/m3. The BTEX concentrations in basement indoor air ranged from 4.21 µg/m3 to 73.19 µg/m3. The BTEX concentrations in the first floor indoor air ranged from 6.34 µg/m3 to 68.16 µg/m3. MEK concentrations in basement and first floor ranged from non-detect to 39.6 µg/m3 and non- detect to 26.1 µg/m3, respectively. Acetone concentrations in basement and first floor air ranged from non-detect to 45.4 µg/m3, and non-detect to 72 µg/m3, respectively.

In 2008, SVI samples were collected from one additional residence. Acetone and MEK were detected at 690 µg/m3 and 22 µg/m3, respectively in sub-slab vapor. MEK was detected in basement and first floor indoor air at a concentration of 1.68 µg/m3 and 1.89 µg/m3, respectively. MEK was present in outdoor air at 1.23 µg/m3. Acetone was detected in basement and first floor air at a concentration of 22.7 µg/m3 and 25.4 µg/m3. Acetone was also present in outdoor air sample at 16.2 µg/m3.

Overall, off-site soil vapor, sub-slab vapor and indoor air results associated with the Powers Chemco Superfund Site indicated the presence of site-related contaminants, but not at levels where actions are needed to address exposures related to soil vapor intrusion.

2.3.5 Powers Chemco Superfund Site Initial Remedial Investigation and Remediation

To determine the nature and extent of the contamination associated with the Powers Chemco Superfund Site, in 1983 Chemco hired Fred C. Hart Associates (FCHA) to perform a site investigation. The investigation was conducted during the period November 30, 1983 to February 3, 1984, and produced the report entitled, “Investigation and Hydrogeologic Assessment of the Former Columbia Ribbon and Carbon Company Waste Disposal Site,” dated April 1984. The report concluded that the Powers Chemco Superfund Site contained approximately 6,000 cubic yards of grossly-contaminated soils, waste sludge, rags, filters and other debris, along with approximately 100 drums.

Based upon the conclusions of the report, Chemco presented to the NYSDEC an interim remedial plan for the removal and disposal of the buried wastes and heavily contaminated soils at the Powers Chemco Superfund Site. The NYSDEC approved the plan and entered into a voluntary Order on Consent with Chemco on June 8, 1984, to implement the removal action.

Chemco retained Associated Chemical and Environmental Services (ACES) as the contractor to perform the removal action in accordance with the approved interim remedial plan. FCHA acted as the project manager and coordinator. Representatives from the NYSDEC and the Nassau County Health Department (NCHD) witnessed the work.

Excavation began on June 19, 1984 and continued through August 1984. Fifteen overlapping trenches were excavated. The extent of the excavations was determined by the visual observation of heavily contaminated soils and wastes. A total of 4,645 tons of contaminated soils and debris, along with 267 mostly-empty drums, were transported off- site under manifests to the Fondessy Enterprises Landfill in Oregon, Ohio. The average depth of the excavations was five-feet bgs. Excavations did not extend into saturated soils.

The results of the removal action were summarized in a FCHA report dated September 28, 1984 entitled, “Engineer's Certification Report: Removal of Drums and Contaminated Soils from the Former Columbia Ribbon and Carbon Co. Site.” After reviewing additional information submitted in support of the report, the NYSDEC accepted the certification in April 1985.

2.3.6 Powers Chemco Superfund Site Supplemental Hydrogeologic Investigation and Remediation

A second field investigation was carried out in during early 1986 in the Powers Chemco Superfund Site to assess the potential more carefully for contaminant migration from the site and define the vertical and horizontal extent of groundwater contamination. The work was carried out under a second Order on Consent with the NYSDEC dated January 16, 1986. The November 1986 report entitled, “Supplemental Hydrogeologic Investigation of the Former Columbia Ribbon and Carbon Company Waste Disposal Site,” concluded that the contaminants were confined in a shallow sand and gravel unit and were concentrated in the immediate area of the disposal site within the Powers Chemco Superfund Site.

The initial and supplemental investigations were used, along with information from the removal action, as the basis for defining the nature and extent of the contamination at the site. Chemco then developed a Remedial Investigation/Feasibility Study (RI/FS) work plan to examine alternatives for remediating the Powers Chemco Superfund Site. The RI/FS work plan called for the installation of two additional groundwater monitoring wells; one to replace a damaged well and one for use in a pump test to gather information on the yield and other characteristics of the sand and gravel unit. Additionally, the work plan identified a series of remedial alternatives to be evaluated in the feasibility study.

The agreement to perform the RI/FS was incorporated into a third Order on Consent signed April 4, 1988. The work was performed over the summer of 1988 and the first draft of the RI/FS Report was submitted in September 1988. The NYSDEC disapproved the first draft in May 1989. The second draft was submitted in March 1990, which was also disapproved in May 1990. The third draft was submitted February 1, 1991. During the development of the RI/FS Report, Powers

Chemco Superfund, Inc. was renamed to Chemco Technologies, Inc., which was subsequently purchased and renamed Konica Imaging U.S.A., Inc.

In 1992, the NYSDEC approved the results of the pilot study and the remediation system was constructed. The remediation system consisted of a groundwater pump and treatment system and an air sparge/soil vapor extraction system. System operation began in November 1994 and continued until August 1996 when the system was temporarily shut down. The system was restarted in February 1997 and operations continued until November 1999 when it was again temporarily shut down. Confirmatory sampling showed that permanent shutdown of the system was appropriate and in accordance with the Performance Analysis Design Modification Plan (PADMP) that had been developed for the site.

Post-shutdown monitoring of the wells on the perimeter of the site was conducted from June 2003 until March 2004 and showed that groundwater concentrations were within the NYS Class GA Groundwater Quality Standards.

Additional groundwater sampling in the interior area of the Powers Chemco Superfund Site (the remediation area) was requested by NYSDEC and showed that VOCs, primarily toluene, remained in soil and groundwater beneath Konica Minolta property (Powers Chemco Superfund Site), North of R-SB9 and L-SB26, west of L-SB19 and 20, south of R-SB2 and South East of the fence line. The offsite contamination had not yet been clearly characterized.

In 2004, NYSDEC requested that Konica Minolta develop a remedial plan to address the remaining contamination, perform a soil gas survey, and additional soil sampling in the remediation area.

The results of soil gas and SVI studies are discussed Section 2.3.4, above.

In December 2008, additional groundwater sampling collected from perimeter wells indicated that groundwater impacts were not migrating to the outer edges of the source area and an attempt was made to vertically delineate the VOC contamination.

In December 2009, NYSDEC notified Konica Minolta that the site classification in the NYS registry was being changed from a Class 4 to a Class 2, which represents a site that is believed to pose a risk to human health the environment and, requires active remediation to alleviate the contamination found at the site.

2.3.7 Powers Chemco Superfund Site RI Amendment

In March of 2011, Roux performed a soil and groundwater investigation to delineate remaining VOCs impacts in the Powers Chemco Superfund Site. The results of the investigation are presented in the 2013 Remedial Investigation Amendment Summary Report (Roux, 2013b) and show that residual pockets of VOC contamination appear to be concentrated in silt lenses within the remediation area at depths up to 20-feet bgs, and groundwater VOC contamination is present along the northwest fence line, in the eastern portion of the Powers Chemco Superfund Site near the building and in the western portion of the Powers Chemco Superfund Site. There was also indication of an off-site source to the north of the Powers Chemco Superfund Site, as evidenced by VOC contamination in a soil boring along the fence line.

In May of 2011, Liberty Environmental, Inc. (Liberty) performed a soil and groundwater investigation to delineate remaining VOC impacts in the Powers Chemco Superfund Site and to determine if any offsite impacts exist north of the Powers Chemco Superfund Site fence line. Thirteen soil borings were advanced and soil and groundwater grab samples were collected. Results indicated that VOC impacts remained in both soil and groundwater in the northern and eastern portions of the Powers Chemco Superfund Site. Offsite soil borings advanced immediately north of the fence line showed VOC impacts exceeding NYSDEC protection of groundwater soil cleanup objectives; however, soil borings advanced adjacent to The Place indicated no VOC impacts.

To refine the delineation of potential residual material contributing to the elevated concentrations of VOCs in groundwater, and to confirm results of the investigation performed in March 2011 and by Liberty, 20 soil borings were advanced from October 24 to November 9, 2012, in the Powers Chemco Superfund Site (RI Amendment Investigation). Four additional soil borings were advanced on November 29, 2012. Soil borings were advanced using either a Geoprobe® or a rotary sonic drill rig.

Offsite Monitoring Well MW-103 was installed on May 24, 2013. The monitoring well was constructed of two-inch diameter Schedule 40 PVC casing and 10-feet of two- inch diameter, 20-slot (0.020 inches) PVC screen. The screened interval is from 9 to 19 feet below land surface, which is the same interval as monitoring well MW-102.

A review of soil sampling analytical results obtained during performance of the RI Amendment scope of work indicated that residual VOC impacts have been fully delineated throughout the Powers Chemco Superfund Site (Roux, 2013b). The residual pockets of VOC impacts detected during previous investigations have been delineated vertically and horizontally as evidenced by soil samples with results below applicable soil cleanup objectives.

A review of the groundwater sample and groundwater screening sample analytical results collected during the RI Amendment indicated that the groundwater source area is limited to the Powers Chemco Superfund Site. The results from Monitoring Well MW-102 indicated that there was a localized area of impacted groundwater in the perched zone immediately north of the Powers Chemco Superfund Site beneath the grassed shoulder south of The Place. The results from MW-103 confirm that groundwater impacted above NYSDEC ambient water-quality standards in the perched zone has not migrated further north than the south side of The Place.

A review of data from wells downgradient of the source area in the perched zone (MW-06 and MW-08) and in the deeper flow zone (MW-101) indicated that there is no downgradient migration of VOCs in groundwater from the source area.

2.3.8 Powers Chemco Superfund Site Amendment to Record of Decision

On March 22, 1991, the NYSDEC signed a ROD which selected a remedy to clean up the Powers Chemco Superfund Site, also known as the Columbia Ribbon and Carbon Manufacturing Site. The ROD called for a remedial system consisting of a groundwater pump and treat system, and an air sparge/soil vapor extraction system to treat VOCs present at the site. The remedial system was designed and constructed based on results of the pilot study approved by the NYSDEC in 1992. The remedial system operation began in 1994 and was shut down in 1999 in accordance with the

approved PADMP. Since then, the remedial system has been inactive as it was not cost-effective to operate. Post-shutdown monitoring was initiated in 2000.

After the NYSDEC approved the permanent shutdown of the remedial systems in 1999, post-shutdown sampling results indicated the continued presence of VOC contamination in soil and groundwater at elevated levels. Based on these results, the NYSDEC directed that Konica Minolta (the responsible party) to conduct additional investigation and remediation of the residual VOC contamination. Based on the results of these investigations and the evaluation of the performance of the original ROD remedial actions, the NYSDEC developed and issued the March 2014 amendment to the 1991 ROD (2014 ROD Amendment), as the previously selected remedy has not achieved the remedial action objectives for this site.

2.3.9 Powers Chemco Superfund Site Remedial Action Implementation

Based on the evaluations conducted on various remedial alternatives identified in the 2013 Feasibility Study Report, the remedy chosen was excavation and off-site disposal of contaminated subsurface soils exceeding the lower of the NYSDEC's protection of groundwater soil cleanup objectives (SCOs) or restricted residential use SCOs. To address the contaminated soil that was serving as a source of dissolved VOCs to groundwater, a Remedial Action Work Plan (RAWP) was developed by Roux on April 15, 2014 to excavate the contaminated soil and treat contaminated groundwater removed during excavation dewatering prior to offsite disposal.

Konica Minolta retained US Ecology, formerly EQ Northeast, Inc., as the contractor to perform the removal action in accordance with the approved RAWP. Roux acted as the project manager, and Apex Companies, LLC acted as the coordinator. Representatives from the NYSDEC and the NCHD witnessed the work.

Excavation began on April 22, 2014 and continued through November 17, 2014. Excavation was performed in sections as shown in Plate 2 using a combination of slide-rail shoring system, trench boxes and sloping.

Approximately 25,971.40 tons of excavated soil/fill were removed and disposed in connection with the Powers Chemco Superfund Site remediation:

- 24,509.84 tons were disposed of as non-hazardous soil at ESMI of New York, located at 304 Townpath Road, Fort Edward, New York; and
- 1,461.56 tons were disposed of as non-hazardous soil at Bayshore Recycling Corp., located at 75 Crows Mill Road, Keasby, New Jersey.

Non-impacted concrete debris and asphalt pavement removed during excavation activities, a total of 525 cubic yards, was recycled at Evergreen Recycling of Corona, located at Willets Point Boulevard, Corona, New York.

On May 5, 2014, EQ submitted a letter to Nassau Country Department of Public Works (NCDPW) requesting approval for disposal of dewatering discharge into the Glen Cove Sanitary Sewer System. On May 9, 2014, NCDPW conditionally approved the request for discharge in a letter that also requested an onsite inspection of the treatment system prior to startup. On May 12, 2015, a representative of NCDPW inspected the system and authorized offsite disposal of dewatering

discharge for the duration of the excavation project. A total of 1,918,830 gallons of construction water were removed and treated to meet effluent requirements prior to discharge to facilitate the excavation.

After excavation was completed, the backfilling of the excavated area commenced with the clean material that had been removed from the top five-feet bgs of the excavation. Clean, virgin material from approved offsite sources was to be used to backfill the rest of the excavated area. The offsite backfill sources were from the two approved facilities; East Coast Mines (East Coast), located in East Quogue, New York, and Pallette Stone Corinth Facility (Corinth), located in South Corinth, New York.

A total of approximately 4,410 cubic yards (CY) of the material from the upper five feet of the excavation that was approved for reuse was used to backfill the bottom of the excavation to approximately 20-feet bgs.

A total of 24,7324.23 tons of clean material from the approved offsite sources were used to backfill the excavation to final grade, with a total of 18,243.78 tons of virgin fill received from East Coast and 6,080.45 tons of virgin fill received from Corinth.

A total of 594.81 tons of clean stone were used to cover the excavation to facilitate the continued use of the area as a parking lot.

2.3.10 Powers Chemco Superfund Site Post-Excavation Groundwater Monitoring

The RAWP called for the installation of 13 monitoring wells in the Powers Chemco Superfund Site: 11 new monitoring wells inside the excavated and backfilled area; and two monitoring wells that were installed to replace wells outside the excavated area that could not be located or were damaged (see Figure 4-1). Onsite monitoring wells MW-201 through MW-211, MW-101 and offsite monitoring well MW-102R were installed on November 17 to November 21, 2014 by Roux.

Each monitoring well was constructed of 2-inch diameter Schedule 40 PVC casing with a 10-foot #10-slot screen. A gravel pack consisting of #1 Morie Sand was placed around the screen to two-feet above the top of the screened interval, followed by a two- foot seal of bentonite pellets. The bentonite pellet seal was given time to hydrate before filling the remainder of the well annulus with bentonite grout.

On November 19, 24 and 25, 2014, Roux completed a groundwater gauging and sampling round of 18 monitoring wells, which included both the new and existing wells at the Powers Chemco Superfund Site:

- Five existing wells around the perimeter of the excavated and backfilled area – MW-01, MW-06, MW-08, MW-12 and MW-103;
- Two replacement wells – MW-101 and MW-102; and
- 11 new wells within the excavated and backfilled area – MW-201 through MW-211.

Samples were collected as per the USEPA low-flow purging and sampling procedures and analyzed for:

- NYSDEC TCL VOCs via EPA Method 8260;

- TCL SVOCs via EPA Method 8270;
- TAL Metals via EPA Method 6010 (both filtered and unfiltered);
- Hexavalent chromium via USEPA Method 7196A;
- Alkalinity via EPA Method 310.1/SM 2320B;
- Chemical Oxygen Demand via EPA Method 410.1M; and
- Total Organic Carbon via Method AQ-EPA 415.1.

The groundwater sample results indicated that VOCs were detected at concentrations above NYSDEC AWQSGVs in offsite well MW-102, and four wells within the excavated and backfilled area: MW-201, MW-203, MW-209 and MW-211. The highest VOC concentrations within the excavated area were observed in MW-201 and MW-203. VOC concentrations in MW-211 were only slightly above AWQSGVs.

Roux proposed the use of an ISCO injection program to treat residual VOCs, as per a letter dated February 4, 2015, to the NYSDEC. The NYSDEC gave approval of the injection plan on February 13, 2015, via email, and a letter of approval sent during the week of February 16, 2015.

ISCO was chosen due to it being a targeted technology that can be used to treat VOCs in the soil and groundwater. The chemical chosen to be injected into the subsurface was a solid alkaline oxidant called RegenOx™ that consists of two parts: Part A is a sodium percarbonate complex (oxidant complex); and Part B is a multi-part catalytic formula (micro-scale ferrous salt in a catalyst gel). The process to inject a five percent (by weight) solution of RegenOx™ was completed utilizing Geoprobe® drilling and injection methods.

The initial injection program was completed on March 24, 2015. A total of 30 injection point were completed using the Geoprobe with injection volumes ranging from 150 gallons to 300 gallons per point. A combined total of 5,520 pounds of RegenOx™ Part A and Part B were injected.

Following the injection event, the water quality indicator parameters (pH, conductivity, dissolved oxygen [DO], oxidation-reduction potential [ORP], temperature, and turbidity) were monitored periodically. The monitoring well parameters approached stabilization or returned to baseline conditions three months after the original injection event. Post-injection groundwater monitoring confirmed that groundwater remaining beneath the site was in compliance with AWQSGVs for VOCs.

2.4 Remedial Action Objectives

The Remedial Action Objectives (RAOs) for the Site as listed in the Amended Record of Decision dated March 28, 2014, and in accordance with the NYSDEC-approved RCRA Closure Plan, as amended (May 4, 2016 approval date), are as follows:

Groundwater

RAOs for Public Health Protection

- Prevent ingestion of groundwater with contaminant levels exceeding drinking water standards.
- Prevent contact with, or inhalation of, volatiles from contaminated groundwater.

RAOs for Environmental Protection

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

Soil

RAOs for Public Health Protection

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

RAOs for Environmental Protection

- Prevent migration of contaminants that would result in groundwater or surface water contamination.
- Prevent impacts to biota from ingestion/direct contact with soil causing toxicity or impacts from bioaccumulation through the terrestrial food chain.

Surface Water

There is no surface water at the Site.

Sediment

There is no sediment at the Site.

Soil Vapor

RAOs for Public Health Protection

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

2.5 Remaining Contamination

2.5.1 Soil

Konica Minolta Graphic Imaging RCRA Site

As discussed above, in order to expedite the timeline for RCRA Closure, the NYSDEC allowed and approved for the remediation of impacted soils as identified in Section 4.0 of the CCR concurrently with Closure activities. In a few cases, areas not part of the Konica Minolta Graphic Imaging RCRA Site, such as Former Tank No. 6, were also included in this part of the Closure at the request of the NYSDEC.

As indicated in the NYSDEC-approved Closure Plan, the investigation-phase soil analytical data were compared to NYSDEC Unrestricted and Residential AOCs to determine if remediation was warranted (Table 4). Remaining soil contamination in the Konica Minolta Graphic Imaging RCRA Site is summarized in Tables 5-1 through 5-68 and on Figures 5-1 through 5-40, which show the results of all soil samples collected that exceed the Unrestricted Residential Use SCOs and the Restricted Residential / Commercial Use SCOs at the site after completion of remedial action.

As discussed in an October 21, 2015 meeting with the NYSDEC, the regulatory thresholds for remediation from the Closure Plan were revised to include the following: A description of active utility lines or other subsurface infrastructure present at the site and remaining contamination that may be encountered during maintenance or removal of the utility or infrastructure.

A description of remaining contamination that was not remediated due to the presence of buildings or critical infrastructure:

- Unrestricted / Residential SCOs, where reasonably attainable; and / or,
- Restricted Residential SCOs.

Thirty of the 41 RCRA AOCs identified by the NYSDEC which required remediation were successfully remediated to the revised SCO goals discussed above. The following provides a summary of the AOCs and their future land uses based upon NYSDEC requirements:

- Restricted Residential Uses: MB-27/27, MB-31, ER-3, FO-4, FO-7, SL-2, SL-7/8/9/10 CM-32, SL-12, SL-31, RD-3, RD-17, Bldg2-EarthenPits-SB-1, CM-7/8 / BLDG-4-SB-1, CM-21, CM-33, C1-4, C4-2, C6-2, C6-6 / C6- Silverrm-SB-1, C6-8, B9-9, Konica Minolta Graphic Imaging RCRA Site Water Tank and Tank No. 6, MB-22 / Sample Area 4A / Bldg-1-RCRA-4-SB-4, Former Tank No. 9 / ER-9 /ER-13, Bldg 6-SB-2, SL-1/ UNKUST-2, SL-3/39/40, SL-4/5/6, SL-20/21/22/ CM-28/29, TANKERCONT-SB-2/ BLDG-4-RCRA1-SB-1/5/6, MB-2/3/9/10/12/13/14/15/17/ CC-2/3/4/5, SL-23, SL-33/34/ RD-4/6/7, RD-10/11/12/13/20, CM-34/35 / BLDG-4-SB-6, C1a, South Alleyway, Former Wedge Building, North Alleyway Area/ C5-4 / C5-3, C6-13 and B9-5.

As discussed above, the NYSDEC confirmed that the final end-use of the overall property will be Restricted Residential (commercial and industrial uses allowed, per local zoning), as per the November 2016 RCRA Large Quantity Generator Closure document paragraph 2: imposition of an environmental easement for the controlled property, allows the use and development of the controlled property for restricted residential as defined by Part 375-1.8(g), although land use is subject to local zoning laws; assuming that the appropriate ICs and ECs are maintained in accordance with the NYSDEC-approved SMP. Remedial activities were completed for the Konica Minolta Graphic Imaging RCRA Site on April 1, 2015.

Powers Chemco Superfund Site

All soil remaining at the Site has been remediated to the Subpart 375-6: Remedial Program Soil Cleanup Objectives for the Protection of Groundwater.

2.5.2 Sediment

No sediment remediation was required at the Site.

2.5.3 Groundwater

Konica Minolta Graphic Imaging RCRA Site

No groundwater remediation was required by the NYSDEC for the RCRA portion of the Site. Figure 4-2 summarizes the results of all samples of groundwater that exceed the SCGs after completion of the remedial action.

Powers Chemco Superfund Site

All groundwater beneath the Powers Chemco Superfund Site has been remediated to Division of Water Technical and Operational Guidance Series (1.1.1) Ambient Water Quality Standards and Guidance Values.

2.5.4 Surface Water

No surface water samples were obtained at the Site.

2.5.5 Soil Vapor

An evaluation of the potential for soil vapor intrusion for any buildings developed on the Powers Chemco Superfund Site and the Konica Minolta Graphic Imaging RCRA Site must be performed, including a provision for implementing actions recommended to address exposures related to soil vapor intrusion.

3.0 INSTITUTIONAL AND ENGINEERING CONTROL PLAN

This section of the SMP includes the NYSDEC-required Engineering and Institutional Control (EIC) Plan for the Site.[4]

3.1 General

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

This plan provides:

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

3.2 Institutional Controls

The AROD requires imposition of an institutional control in the form of an environmental easement for the controlled property that:

- Requires the remedial party or site owner to complete and submit to the Department a periodic certification of institutional and engineering controls in accordance with Part 375-1.8 (h)(3);
- Allows the use and development of the controlled property for restricted residential use (commercial and industrial uses allowed) as defined by Part 375-1.8(g), although land use is subject to local zoning laws;
- Restricts the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by the NYSDOH or County DOH; and
- Requires compliance with the Department-approved Site Management Plan.

A series of ICs is required by the Powers Chemco Superfund Site AROD to: (1) implement, maintain, and monitor Engineering Control systems; (2) prevent future exposure to remaining contamination; and (3) limit the use and development of the site to restricted residential use (commercial and industrial uses allowed) as defined by Part 375-1.8(g), although land use is

[4] Per NYSDEC requirements, all ECs and ICs will be “regulated” under the AROD for the North Lot Area.

subject to local zoning laws. Adherence to these ICs on the site is required by the Environmental Easement and will be implemented under this SMP. ICs identified in the Environmental Easement may not be discontinued without an amendment to or extinguishment of the Environmental Easement. The IC boundaries include the entire site and are shown on Figure 2. These ICs are:

- The property may be used for restricted residential use (commercial and industrial uses allowed).
- All ECs must be operated and maintained as specified in this SMP.
- All ECs must be inspected at a frequency and in a manner defined in the SMP.
- The use of groundwater underlying the property is prohibited without necessary water quality treatment as determined by the NYSDOH or the Nassau County Department of Health to render it safe for use as drinking water or for industrial purposes, and the user must first notify and obtain written approval to do so from the Department.
- Groundwater and other environmental or public health monitoring must be performed as defined in this SMP.
- Data and information pertinent to site management must be reported at the frequency and in a manner as defined in this SMP.
- All future activities that will disturb remaining contaminated material must be conducted in accordance with this SMP.
- Monitoring to assess the performance and effectiveness of the remedy must be performed as defined in this SMP.
- Evaluation of the potential for soil vapor intrusion for any buildings developed on the Powers Chemco Superfund site and Konica Minolta Graphic Imaging RCRA site, including a provision for implementing actions recommended to address exposures related to soil vapor intrusion.
- Operation, maintenance, monitoring, inspection, and reporting of any mechanical or physical component of the remedy shall be performed as defined in this SMP.
- Access to the site must be provided to agents, employees, or other representatives of the State of New York with reasonable prior notice to the property owner to assure compliance with the restrictions identified by the Environmental Easement.
- Vegetable gardens and farming on the site are prohibited.
- An evaluation shall be performed to determine the need for further investigation and remediation should large scale redevelopment occur, if any of the existing structures are demolished, or if the subsurface is otherwise made accessible.
- A provision for further investigation to refine the nature and extent of any contamination beneath the slabs of the former manufacturing buildings and to address that contamination appropriately.

3.3 Engineering Controls

3.3.1 Cover (or Cap)

A site cover currently exists and will be maintained to allow for restricted residential use of the site. Any site redevelopment must maintain a site cover, which may consist either of the structures such as buildings, pavement, sidewalks comprising the site development or a soil cover in areas where the upper two foot of exposed surface soil will exceed the applicable soil cleanup objectives (SCOs). Where the soil cover is required it will be a minimum of two feet of soil placed over a

demarcation layer, with the upper six inches of soil of sufficient quality to maintain a vegetative layer. Soil cover material, including any fill material brought to the site, will meet the SCOs for cover material as set forth in 6 NYCRR Part 375-6.7(d).

Exposure to remaining contamination at the site is prevented by a cover system placed over the site. This cover system is comprised of a minimum of 24 inches of clean soil, asphalt pavement, concrete-covered sidewalks and concrete building slabs. To the extent not already in place (or removed in connection with development or otherwise), cover will be provided as required by Amendment to Record of Decision and the RCRA Large Quantity Decision Document for the Site – i.e., in areas where the upper two feet of exposed surface soil exceeds applicable SCOs. A final Site Plan with elevations will be provided once the cover system is in place to document the two feet of cover. The Excavation Work Plan (EWP) provided in Appendix D outlines the procedures required to be implemented in the event the cover system is breached, penetrated or temporarily removed, and any underlying remaining contamination is disturbed. Procedures for the inspection of this cover are provided in the Monitoring and Sampling Plan included in Section 4.0 of this SMP. Any work conducted pursuant to the EWP must also be conducted in accordance with the procedures defined in a Health and Safety Plan (HASP) and associated Community Air Monitoring Plan (CAMP) prepared for the site and provided in Appendix E. Any disturbance of the site's cover system must be overseen by a qualified environmental professional as defined in 6 NYCRR Part 375, a Professional Engineer (PE) who is licensed and registered in New York State, or a qualified person who directly reports to a PE who is licensed and registered in New York State.

3.3.2 Fencing / Site Security

The perimeter of the entire site is protected by a chain-link fence with locked gates. Security is provided for the Site on a 24-hour per day, seven-day per week basis by professional security staff. The combination of the aforementioned security measures will assist in keeping the public away from any impacted media.

Procedures for operating and maintaining the composite cover system are documented in the Operation and Maintenance Plan (Section 5.0 of this SMP).

3.3.3 Criteria for Completion of Remediation/Termination of Remedial Systems

Generally, remedial processes are considered completed when monitoring indicates that the remedy has achieved the remedial action objectives identified by the decision document. The framework for determining when remedial processes are complete is provided in Section 6.4 of NYSDEC DER-10. Unless waived by the NYSDEC, confirmation samples of applicable environmental media are required before terminating any remedial actions at the site. Confirmation samples require Category B deliverables and a Data Usability Summary Report (DUSR).

As discussed below, the NYSDEC may approve termination of a groundwater monitoring program. When a remedial party receives this approval, the remedial party will decommission all site-related monitoring, injection and recovery wells as per the NYSDEC CP-43 policy.

The remedial party will also conduct any needed site restoration activities, such as asphalt patching and decommissioning treatment system equipment. In addition, the remedial party will conduct any necessary restoration of vegetation coverage, trees and wetlands, and will comply with

NYSDEC and United States Army Corps of Engineers regulations and guidance. Also, the remedial party will ensure that no ongoing erosion is occurring on the site.

3.3.3.1 Cover (or Cap)

The composite cover system is a permanent control, and the quality and integrity of this system will be inspected at defined, regular intervals in accordance with this SMP in perpetuity. As discussed above, in the event that future site development plans require that the cap (and associated underlying soils, out-of-service piping systems, etc.) be disturbed, the protocols included in the EWP will be followed.

A second related work flow scope item includes the presence of two on-site stockpiles of broken-up concrete. These materials will require addressing per the SMP / EWP protocols and with prior approval of the NYSDEC in the event that a Site Owner selects to address them as part of site re-development.

3.3.3.2 Fencing / Site Security

The perimeter of the entire Site is protected by a chain-link fence with locked gates. Security is provided for the Site on a 24-hour per day, seven-day per week basis by professional security staff. The combination of the aforementioned security measures will assist in keeping the public away from any impacted media.

3.3.3.3 Monitoring Wells Associated with Monitored Natural Attenuation

Groundwater monitoring activities to assess natural attenuation will continue in the Powers Chemco Superfund Site, as determined by the NYSDEC project manager in consultation with NYSDOH project manager, until residual groundwater concentrations are found to be consistently below ambient water quality standards, the site SCGs, or have become asymptotic at an acceptable level over an extended period. In the event that monitoring data indicates that monitoring for natural attenuation may no longer be required, a proposal to discontinue the monitoring will be submitted by the remedial party. Monitoring will continue until permission to discontinue is granted in writing by the NYSDEC project manager. If groundwater contaminant levels become asymptotic at a level that is not acceptable to the NYSDEC, additional source removal, treatment and/or control measures will be evaluated.

4.0 MONITORING AND SAMPLING PLAN

4.1 General

This Monitoring and Sampling Plan describes the measures for evaluating the overall performance and effectiveness of the remedy. This Monitoring and Sampling Plan may only be revised with the approval of the NYSDEC project manager. Details regarding the sampling procedures, data quality usability objectives, analytical methods, etc. for all samples collected as part of site management for the site are included in the Quality Assurance Project Plan provided in Appendix F.

This Monitoring and Sampling Plan describes the methods to be used for:

- Sampling and analysis of all appropriate media (e.g., groundwater, indoor air, soil vapor, soils);
- Assessing compliance with applicable NYSDEC standards, criteria and guidance (SCGs), particularly groundwater standards and Part 375 SCOs for soil; and
- Evaluating site information periodically to confirm that the remedy continues to be effective in protecting public health and the environment.

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

- Sampling locations, protocol and frequency;
- Information on all designed monitoring systems;
- Analytical sampling program requirements;
- Inspection and maintenance requirements for monitoring wells;
- Monitoring well decommissioning procedures; and
- Annual inspection and periodic certification.

Reporting requirements are provided in Section 7.0 of this SMP.

4.2 Site–Wide Inspection

Site-wide inspections will be performed annually. These periodic inspections must be conducted when the ground surface is visible (i.e., no snow cover). Site-wide inspections will be performed by a qualified environmental professional as defined in 6 NYCRR Part 375, a PE who is licensed and registered in New York State, or a qualified person who directly reports to a PE who is licensed and registered in New York State. Modification to the frequency or duration of the inspections will require approval from the NYSDEC project manager. Site-wide inspections will also be performed after all severe weather conditions that may affect ECs or monitoring devices. During these inspections, an inspection form will be completed as provided in Appendix G – Site Management Forms. The form will compile sufficient information to assess the following:

- Compliance with all ICs, including site usage;
- An evaluation of the condition and continued effectiveness of ECs;
- General site conditions at the time of the inspection;
- Whether stormwater management systems, such as basins and outfalls are working as designed;

- The site management activities being conducted including, where appropriate, confirmation sampling and a health and safety inspection; and
- Confirm that site records are up to date.

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

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

Reporting requirements are outlined in Section 7.0 of this plan.

Inspections will also be performed in the event of an emergency. If an emergency, such as a natural disaster or an unforeseen failure of any of the ECs occurs that reduces or has the potential to reduce the effectiveness of ECs in place at the site, verbal notice to the NYSDEC project manager must be given by noon of the following day. In addition, an inspection of the site will be conducted within 5 days of the event to verify the effectiveness of the IC/ECs implemented at the site by a qualified environmental professional, as defined in 6 NYCCR Part 375. Written confirmation must be provided to the NYSDEC project manager within 7 days of the event that includes a summary of actions taken, or to be taken, and the potential impact to the environment and the public.

4.3 Treatment System Monitoring and Sampling

There is no treatment system at the Site.

4.4 Post-Remediation Media Monitoring and Sampling

Samples shall be collected from groundwater on a routine basis. Sampling locations required analytical parameters and schedule are provided in Table 6 – Post Remediation Sampling Requirements and Schedule below. Modification to the frequency or sampling requirements will require approval from the NYSDEC project manager.

Table 6 – Post Remediation Sampling Requirements and Schedule

Sampling Location	Analytical Parameters			Schedule
	VOCs (EPA Method 624)	TAL Metals (EPA Method 6010B)	PFAS via USEPA Method 537 and 1,4-Dioxane via EPA Method 8270 SIM *	
Monitoring Wells: MW-1, MW-6, MW-8, MW-12, MWR-18 MW-101 through MW-103, MW-201 through MW-211	X	X	X	Annually

* Only Monitoring Wells MW-06, MW-08, MW-102R, MW-201, MW-206, and MW-211 will be monitored for PFAS and 1,4-dioxane.

Detailed sample collection and analytical procedures and protocols are provided in Appendix F – Quality Assurance Project Plan.

4.4.1 Soil Sampling

Soil sampling (with NYSDEC oversight and approval) will be performed on an as- needed basis to assess the quality of the soil in the event that future development activities require the disruption / removal of the cover system and underlying, out-of-service piping system. The depth of sampling and parameters to be analyzed for will be based upon the soil analytical data provided in the Konica Minolta Graphic Imaging RCRA Site CCR and / or the Final Engineering Report (FER) for the Powers Chemco Superfund Site. The locations of end-point borings completed in the Konica Minolta Graphic Imaging RCRA Site as part of the RCRA Closure are shown on Figures 6-1 through 6-40 of the Closure Certification Report: Hazardous Waste Generating Operations, Former Konica Minolta Graphic Imaging (CCR), and the borings completed during the remediation of the Powers Chemco Superfund Site are shown on Figure 3 of the FER.

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

Deliverables for the soil sampling program are specified in Section 7.0 – Reporting Requirements.

4.4.2 Sediment Sampling

Sediment Sampling will not be performed due to no sediment at the site.

4.4.3 Groundwater Sampling

<u>Konica Minolta Graphic Imaging RCRA Site</u>

Upon NYSDEC approval of the SMP, one additional monitoring well (MWR-18) was installed, sampled once and the groundwater sample analyzed for TAL metals to the north (upgradient) of all

former RCRA infrastructure to confirm upgradient groundwater conditions with respect to manganese. The results of the sampling of MWR-18 were non-detect for all analytes.

Powers Chemco Superfund Site

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

Groundwater will be purged from the monitoring wells using a peristaltic pump. Field parameters including pH, temperature, specific conductance, and turbidity will be measured during purging using a Horiba U-52 water quality meter or equivalent, and sampling performed after field parameters measurements stabilized.

The groundwater samples will be placed in laboratory-supplied sample bottles, labeled with all relevant information, and immediately placed in ice-filled coolers at 4°C. The groundwater samples will be analyzed for:

- TCL of VOCs;
- TAL for Metals (filtered [through 0.45-micron filter] and unfiltered). Figure 4-1 shows the locations of the Powers Chemco Superfund Site monitoring wells;
- PFAS via USEPA Method 537; and
- 1,4-Dioxane via EPA Method 8270 SIM.

In 2018, the NYSDEC directed the collection of groundwater samples from onsite monitoring wells to be analyzed for emerging contaminants of concern such as PFAS and 1,4-dioxane. Roux completed sampling of six onsite wells; MW-06, MW-08, MW-102R, MW-201, MW-206, and MW-211 on April 26 and 27, 2018. The following results were obtained:

- MW-06 contained PFOS at 2.36 nanograms per liter (ng/L), and PFOA at 53.8 ng/L;
- MW-08 contained PFOS at 5.58 ng/L, and PFOA at 14.5 ng/L, and 1,4-dioxane at 1.5 µg/L;
- MW-102R contained PFOS at 2.98 ng/L, and PFOA at 7.11 ng/L;
- MW-201 contained PFOS at 27.8 ng/L, and PFOA at 13.8 ng/L;
- MW-206 contained PFOS at 10.3 ng/L, and PFOA at 33.2 ng/L, and 1,4-dioxane at 1.08 µg/L;
- MW-211 contained PFOS at 0.670J ng/L, PFOA at 0.863J ng/L; and
- There were no detections of 1,4-dioxane in any of the other four monitoring wells.

The network of monitoring wells has been installed to monitor upgradient, on-site and downgradient groundwater conditions at the site, including the Konica Minolta Graphic Imaging RCRA Site and the Powers Chemco Superfund Site. The network of on-site and off-site wells has been designed based on the following criteria:

- Evaluate upgradient, interior and downgradient areas of the Powers Chemco Superfund Site to confirm the long-term effectiveness of the remedy; and
- Evaluate groundwater quality conditions with respect to manganese (and other TAL metals) upgradient of the Konica Minolta Graphic Imaging RCRA Site .

Table 2 summarizes the well identification number, location, depths, diameter and screened intervals of the wells at the Powers Chemco Superfund Site. As part of the groundwater monitoring, two upgradient wells, 15 on-site wells, and two downgradient wells are sampled to evaluate the effectiveness of the remedial system. The remedial party will measure depth to the water table for each monitoring well in the network before sampling.

Monitoring well construction logs are included in Appendix C of this document.

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

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

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

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

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

4.4.4 Surface Water Sampling

There is no surface water to be sampled at the site.

4.4.5 Soil Vapor Sampling

Soil vapor sampling will be performed as necessary to assess the performance of the remedy. Modification to the frequency or sampling requirements will require approval from the NYSDEC project manager.

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

Deliverables for the soil vapor sampling program are specified in Section 7.0 – Reporting Requirements.

4.4.6 Soil Vapor Intrusion Sampling

Soil vapor intrusion sampling will be performed as necessary to assess the performance of the remedy. Modification to the frequency or sampling requirements will require approval from the NYSDEC project manager.

Soil vapor sampling will be conducted as per the 2006 NYSDOH SVI in New York guidance document. The sampling frequency may only be modified with the approval of the NYSDEC project manager. This SMP will be modified to reflect changes in sampling plans approved by the NYSDEC project manager.

Deliverables for the soil vapor intrusion sampling program are specified in Section 7.0 – Reporting Requirements.

4.4.7 Monitoring and Sampling Protocol

All sampling activities will be recorded in a field book and associated sampling log as provided in Appendix G - Site Management Forms. Other observations (e.g., groundwater monitoring well integrity, etc.) will be noted on the sampling log. The sampling log will serve as the inspection form for the monitoring network. Additional detail regarding monitoring and sampling protocols are provided in the site-specific Field Sampling Plan provided as Appendix H of this document.

5.0 OPERATION AND MAINTENANCE PLAN

5.1 General

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

6.0 PERIODIC ASSESSMENTS/EVALUATIONS

6.1 Climate Change Vulnerability Assessment

Increases in both the severity and frequency of storms/weather events, an increase in sea level elevations along with accompanying flooding impacts, shifting precipitation patterns and wide temperature fluctuation, resulting from global climactic change and instability, have the potential to significantly impact the performance, effectiveness and protectiveness of a given site and associated remedial systems. Vulnerability assessments provide information so that the site and associated remedial systems are prepared for the impacts of the increasing frequency and intensity of severe storms/weather events and associated flooding.

This section provides a summary of vulnerability assessments that will be conducted for the site during periodic assessments, and briefly summarizes the vulnerability of the site and/or engineering controls to severe storms/weather events and associated flooding.

- Flood Plain: The Site is not located within a FEMA-designated floodplain.
- Site Drainage, Storm Water Management and Erosion: The Site is currently inactive and there are no reported site drainage or erosion issues which affect neighboring properties. Any future site development, including the design and implementation of a stormwater pollution prevention plan (SWPPP), would be conducted under the auspices of the City of Glen Cove and Nassau County.
- High Wind: The Site is currently inactive and there are currently no areas which may be susceptible to damage from the wind itself or falling objects, such as trees or utility structures during periods of high wind.
- Electricity and Spill / Contaminant Release: As there is no active remediation system(s), there will be no susceptibility to power loss and/or dips/surges in voltage during severe weather events, including lightning strikes or to a spill or other contaminant release due to storm-related damage caused by flooding, erosion, high winds, loss of power, etc.

6.2 Green Remediation Evaluation

NYSDEC's DER-31 Green Remediation requires that green remediation concepts and techniques be considered during all stages of the remedial program including site management, with the goal of improving the sustainability of the cleanup and summarizing the net environmental benefit of any implemented green technology. This section of the SMP provides a summary of any green remediation evaluations to be completed for the site during site management, and as reported in the Periodic Review Report (PRR).

6.2.1 Timing of Green Remediation Evaluations

For major remedial system components, green remediation evaluations and corresponding modifications will be undertaken as part of a formal Remedial System Optimization (RSO), or at any time that the NYSDEC project manager feels appropriate, e.g., during significant maintenance events or in conjunction with storm recovery activities.

Modifications resulting from green remediation evaluations will be routinely implemented and scheduled to occur during planned/routine operation and maintenance activities. Reporting of these modifications will be presented in the PRR.

The following provides a summary of proposed sustainability measures which could be taken as part of future site development activities:

- **Waste Generation**: As with the RCRA Closure Program, all means will be explored to utilize on-site materials where feasible including: 1) if site re-grading proves necessary, re-utilize site soils subsequent to their "testing out" as clean per NYSDEC DER-10 requirements; and 2) where feasible, on-site concrete foundation elements will be crushed and tested, and if approved by the NYSDEC, utilized as site cover / backfill materials; and
- **Other**: All future energy usage, emissions, water usage land and or ecosystem will be addressed by future property owners in accordance with City of Glen Cove requirements.

6.3 Remedial System Optimization

A Remedial Site Optimization (RSO) study will be conducted any time that the NYSDEC project manager or the remedial party requests in writing that an in-depth evaluation of the remedy is needed. An RSO may be appropriate if any of the following occur:

- The remedial actions have not met or are not expected to meet RAOs in the time frame estimated in the Decision Document;
- The management and operation of the remedial system is exceeding the estimated costs;
- The remedial system is not performing as expected or as designed;
- Previously unidentified source material may be suspected;
- Plume shift has potentially occurred;
- Site conditions change due to development, change of use, change in groundwater use, etc.;
- There is an anticipated transfer of the site management to another remedial party or agency; and
- A new and applicable remedial technology becomes available.

An RSO will provide a critique of a site's conceptual model, give a summary of past performance, document current cleanup practices, summarize progress made toward the site's cleanup goals, gather additional performance or media specific data and information and provide recommendations for improvements to enhance the ability of the present system to reach RAOs or to provide a basis for changing the remedial strategy.

7.0 REPORTING REQUIREMENTS

7.1 Site Management Reports

All site management inspection, maintenance and monitoring events will be recorded on the appropriate site management forms provided in Appendix G. These forms are subject to NYSDEC revision. All site management inspection, maintenance, and monitoring events will be conducted by a qualified environmental professional as defined in 6 NYCRR Part 375, a PE who is licensed and registered in New York State, or a qualified person who directly reports to a PE who is licensed and registered in New York State.

All applicable inspection forms and other records, including media sampling data and system maintenance reports, generated for the site during the reporting period will be provided in electronic format to the NYSDEC in accordance with the requirements of Table 7 and summarized in the Periodic Review Report.

Table 7: Schedule of Interim Monitoring/Inspection Reports

Task/Report	Reporting Frequency*
Konica Minolta Graphic Imaging RCRA Site: Collect/Analyze Groundwater Monitoring Well MWR-18	Once, then Review with NYSDEC
Powers Chemco Superfund Site: Monitoring Wells MW-1, MW-6, MW-8, MW-12, MW-101 through MW-103, MW-201 through MW-211	Annually
Periodic Review Report	Annually, or as otherwise determined by the NYSDEC

* The frequency of events will be conducted as specified until otherwise approved by the NYSDEC project manager.

All interim monitoring/inspections reports will include, at a minimum:

- Date of event or reporting period;
- Name, company, and position of person(s) conducting monitoring/inspection activities;
- Description of the activities performed;
- Where appropriate, color photographs or sketches showing the approximate location of any problems or incidents noted (included either on the checklist/form or on an attached sheet);
- Type of samples collected (e.g., sub-slab vapor, indoor air, outdoor air);
- Copies of all field forms completed (e.g., well sampling logs, chain-of-custody documentation);
- Sampling results in comparison to appropriate standards/criteria;
- A figure illustrating sample type and sampling locations;
- Copies of all laboratory data sheets and the required laboratory data deliverables required for all points sampled (to be submitted electronically in the NYSDEC- identified format);
- Any observations, conclusions, or recommendations; and

- A determination as to whether contaminant conditions have changed since the last reporting event.

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

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

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

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

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

7.2 Periodic Review Report

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

- Identification, assessment and certification of all ECs/ICs required by the remedy for the site.
- Results of the required annual site inspections, fire sections, and severe condition inspections, if applicable.
- All applicable site management forms and other records generated for the site during the reporting period in the NYSDEC-approved electronic format, if not previously submitted.

- Identification of any wastes generated during the reporting period, along with waste characterization data, manifests, and disposal documentation.
- A summary of any discharge monitoring data and/or information generated during the reporting period, with comments and conclusions.
- Data summary tables and graphical representations of contaminants of concern by media (groundwater, soil vapor, etc.), which include a listing of all compounds analyzed, along with the applicable standards, with all exceedances highlighted. These tables and figures will include a presentation of past data as part of an evaluation of contaminant concentration trends, including but not limited to:
    - Trend monitoring graphs that present groundwater contaminant levels from before the start of the remedy implementation to the most current sampling data;
    - O&M data summary tables;
    - A current plume map for sites with remaining groundwater contamination; and
    - A groundwater elevation contour map for each gauging event.
- Results of all analyses, copies of all laboratory data sheets, and the required laboratory data deliverables for all samples collected during the reporting period will be submitted in digital format as determined by the NYSDEC. Currently, data is supplied electronically and submitted to the NYSDEC EQuIS™ database in accordance with the requirements found at this link: http://www.dec.ny.gov/chemical/62440.html.
- A site evaluation, which includes the following:
    - The compliance of the remedy with the requirements of the site-specific AROD;
    - The operation and the effectiveness of all treatment units, etc., including identification of any needed repairs or modifications;
    - Any new conclusions or observations regarding site contamination based on inspections or data generated by the Monitoring and Sampling Plan for the media being monitored;
    - Recommendations regarding any necessary changes to the remedy and/or Monitoring and Sampling Plan;
    - An evaluation of trends in contaminant levels in the affected media will be evaluated to determine if the remedy continues to be effective in achieving remedial goals as specified by the RAWP, ROD, or Decision Document; and
    - The overall performance and effectiveness of the remedy.

7.2.1 Certification of Institutional and Engineering Controls

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

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

- *The inspection of the site to confirm the effectiveness of the institutional and engineering controls required by the remedial program was performed under my direction;*
- *The institutional control and/or engineering control employed at this site is unchanged from the date the control was put in place, or last approved by the Department;*

- *Nothing has occurred that would impair the ability of the control to protect the public health and environment;*
- *Nothing has occurred that would constitute a violation or failure to comply with any site management plan for this control;*
- *Access to the site will continue to be provided to the Department to evaluate the remedy, including access to evaluate the continued maintenance of this control;*
- *If a financial assurance mechanism is required under the oversight document for the site, the mechanism remains valid and sufficient for the intended purpose under the document;*
- *Use of the site is compliant with the environmental easement;*
- *The engineering control systems are performing as designed and are effective;*
- *To the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program and generally accepted engineering practices; and*
- *The information presented in this report is accurate and complete.*

I certify that all information and statements in this certification form are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law. I, [name],[5] *of [business address], am certifying as [Owner/Remedial Party or Owner's/Remedial Party's Designated Site Representative]: I have been authorized and designated by all site owners/remedial parties to sign this certification for the site."*

At the end of each certifying period, as determined by the NYSDEC, the following certification will be provided to the Department:

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

- *The institutional control employed at this site is unchanged from the date the control was put in place, or last approved by the Department;*
- *Nothing has occurred that would impair the ability of the control to protect the public health and environment;*
- *Nothing has occurred that would constitute a violation or failure to comply with any site management plan for this control;*
- *Access to the site will continue to be provided to the Department to evaluate the remedy, including access to evaluate the continued maintenance of this control;*
- *If a financial assurance mechanism is required under the oversight document for the site, the mechanism remains valid and sufficient for the intended purpose under the document;*
- *Use of the site is compliant with the environmental easement.*
- *The information presented in this report is accurate and complete.*

I certify that all information and statements in this certification form are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law. I, [name], of [business address], am certifying as [Owner or Owner's Designated

[5] As this SMP is "living document," the following bracketed citations were left generic in nature. The appropriate entities will be included in future resultant Periodic Review Report.

Site Representative]. I have been authorized and designated by all site owners to sign this certification for the site."

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

The Periodic Review Report will be submitted, in electronic format, to the NYSDEC project manager and the NYSDOH project manager. The Periodic Review Report may also need to be submitted in hard-copy format, as requested by the NYSDEC project manager.

7.3 Corrective Measures Work Plan

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

7.4 Remedial Site Optimization Report

If an RSO is to be performed (see Section 6.3), upon completion of an RSO, an RSO report must be submitted to the NYSDEC project manager for approval. The RSO report will document the research/ investigation and data gathering that was conducted, evaluate the results and facts obtained, present a revised conceptual site model and present recommendations. RSO recommendations are to be implemented upon approval from the NYSDEC. Additional work plans, design documents, HASPs etc., may still be required to implement the recommendations, based upon the actions that need to be taken. A final engineering report and update to the SMP may also be required.

The RSO report will be submitted, in electronic format, to the NYSDEC project manager and the NYSDOH project manager.

8.0 REFERENCES

Apex Companies, LLC, Apex Engineering, P.C., January 2016, Closure Certification Report: Hazardous Waste Generating Operations, Former Konica Minolta Graphic Imaging, USA Inc. Facility, Glen Cove, New York, USEPA ID No. NYD002056679.

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

NYSDEC DER-10 – "Technical Guidance for Site Investigation and Remediation."

NYSDEC, 1998. Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations Division of Water Technical and Operational Guidance Series (TOGS) 1.1.1. June 1998 (April 2000 addendum).

Remedial Engineering, P.C., June 2017, Final Engineering Report, NYSDEC Site Number: 130028, Powers Chemco Site a.k.a. Columbia Ribbon and Manufacturing Company Site, COUNTY OF NASSAU, New York.

TABLES

1. Notifications (*Embedded in text*)
2. Monitoring Well Construction Details
3. Groundwater Elevation Data (Superfund Site)
4. Summary of all On-site AOCs Requiring Remediation by the NYSDEC

5.1 through 5.67: Remaining Soil Sample Exceedances (RCRA Site Post-Excavation Soil Sample Data – produced by Apex)

6. Post Remediation Sampling Requirements (*Embedded in text*)
7. Schedule of Interim Monitoring/Inspection Reports (*Embedded in text*)

Table 2. Monitoring Well Construction Details, Powers Chemco Superfund Site No. 1-30-028, Glen Cove, New York

Designation	Northing [1]	Easting[1]	Measuring Point Elevation (ft rmsl)	Depth of Well (ft bls)	Depth of Screen Top (ft bls)	Depth of Screen Bottom (ft bls)	Well Diameter (inches)
MW-01	254314.09	1083980.05	63.41	22.5	12.5	22.5	2
MW-06	254142.40	1083981.52	56.56	22	7	22	2
MW-08	254308.71	1084233.33	56.06	18.9	8.9	18.9	2
MW-12	254499.57	1084076.68	65.26	30.5	15.5	30.5	2
MWR-18	254510.4	1084304.1	NM	19	9	19	2
MW-101R	254091.19	1084128.77	61.14	45	35	45	2
MW-102R	254412.96	1084041.01	62.78	19	9	19	2
MW-103	254384.6	1083964.5	NM	19	9	19	2
MW-201	254385.58	1084040.7	61.51	25	15	25	2
MW-202	254410.47	1084062.48	62.49	18	8	18	2
MW-203	254370.02	1084078.35	60.58	23	13	23	2
MW-204	254415.45	1084115.39	60.87	18	8	18	2
MW-205	254380.91	1084115.7	60.11	18	8	18	2
MW-206	254385.89	1084152.11	59.29	25	15	25	2
MW-207	254353.52	1084138.41	60.68	22	12	22	2
MW-208	254337.96	1084163	60.39	23	13	23	2
MW-209	254332.05	1084099.52	61.08	15	5	15	2
MW-210	254330.5	1084056.26	61.52	15	5	15	2
MW-211	254301.24	1084065.6	59.94	15	5	15	2

Notes:
ft bls - feet below land surface
ft rmsl – feet relative to mean sea level
[1]-New York 3104, Long Island Zone (1983 U.S. Survey Feet)

Table 3. Groundwater Elevation Measurements, Powers Chemco Superfund Site No. 130028, Glen Cove, New York

Designation	Land Surface Elevation (ft amsl)	Measuring Point Elevation (ft amsl)	Depth to Water* (feet below measuring point)	Water-Level Elevation (ft rmsl)
MW-01	61.59	63.41	13.35	50.06
MW-06	NA	56.56	11.35	45.21
MW-08	56.39	56.06	6.43	49.63
MW-12	NA	65.26	12.18	53.08
MW-101[1]	58.82	61.14	29.56	31.58
MW-102R	61.89	62.78	9.69	53.09
MW-103	NM	NM	11.77	NA
MW-201	60.72	61.51	8.95	52.56
MW-202	60.60	62.49	9.53	52.96
MW-203	59.11	60.58	8.51	52.07
MW-204	59.07	60.87	7.93	52.94
MW-205	58.58	60.11	7.49	52.62
MW-206	58.21	59.29	6.74	52.55
MW-207	58.02	60.68	8.64	52.04
MW-208	57.62	60.39	8.51	51.88
MW-209	57.48	61.08	8.90	52.18
MW-210	58.60	61.52	9.99	51.53
MW-211	57.72	59.94	9.02	50.92

Notes:

[1] MW-101 is a monitoring well not screened in perched zone, and will not be included in contour map preparation

ft amsl - feet above mean sea level

ft rmsl - feet relative to mean sea level

NM - Not Measured

NA - Not Available

* Water level measurements collected on 9/14/2015

Table 4
Summary of all On-site AOCs Requiring Remediation by the NYSDEC

Main Area	AOC	Original Soil Boring(s) ID	As of 9/25/2014 Analytical Data Notes	Critical NYSDEC SCO for AOC	Applicable NYSDEC SCO Unrestricted	Residential	Restricted Residential	Commercial or allowed by NYSDEC*	Comments	Backfilled as of 1/14/15?	Final Selected Land Use[1]
Former Main Building	Former Main Basement Area	MB-2/3/9/10/12/13/14/15/16/17 / CC-2/3/4/5	Arsenic at 15.2 mg/kg	Commercial		✓			Awaiting approval to backfill from NYSDEC.	No	✓
			Chromium at 64.2 mg/kg				✓				✓
			Manganese at 6,270 mg/kg					✓			✓
			Silver at 2.9 mg/kg			✓					✓
			Zinc at 128 mg/kg			✓					✓
		MB-22 / Sample Area 4A / Bldg-1-RCRA-4-SB-4 etc	Barium at 368 mg/kg	Restricted Residential			✓		Awaiting approval to backfill from NYSDEC.	No	✓
			Chromium at 73.2 mg/kg				✓				✓
			Copper at 55.4 mg/kg			✓					✓
			Manganese at 1,860 mg/kg			✓					✓
			Nickel at 60.2 mg/kg			✓					✓
			Zinc at 143 mg/kg			✓					✓
		MB-26/27 Two separate figures	< any allowable SCO	< any allowable SCO	✓				Approval to backfill received during field meeting with NYSDEC.	Yes	✓
		MB-31	Silver at 7.5 mg/kg	Residential		✓			Awaiting approval to backfill from NYSDEC.	No	✓
			Mercury at 0.23 mg/kg			✓					✓
	Former Emulsion Room / Former Tank #9	ER-3	< any allowable SCO	< any allowable SCO	✓				Approval to backfill received during field meeting with NYSDEC.	Yes	✓
		Former Tank 9 / ER-9 / ER-13 (Figure combined with North Alleyway)	Cadmium at 2.6 mg/kg	Restricted Residential			✓		Approval to backfill received during field meeting with NYSDEC.	Yes	✓
			Chromium up to 40.3 mg/kg			✓					✓
Former South Lot Area	Former Oil Room	FO-4	Lead at 138 mg/kg	Residential		✓			Approval to backfill received during field meeting with NYSDEC.	Yes	✓
		FO-7	Zinc at 123 mg/kg	Residential		✓			Approval to backfill received during field meeting with NYSDEC.	Yes	✓
		Bldg6-SB-2 (Previously investigated by others)	Chromium at 37.0 mg/kg	Restricted Residential			✓		Approval to backfill received during field meeting with NYSDEC.	Yes	✓
	Former Miscl. South Lot Areas and WWTP	SL-1 / UNKUST-2	Cadmium at 2.5 mg/kg	Restricted Residential			✓		Awaiting approval to backfill from NYSDEC.	No	✓
			Copper at 55.9 mg/kg			✓					✓
			Silver at 12.9 mg/kg			✓					✓
			Zinc at 112 mg/kg			✓					✓
		SL-2	Silver at 25.4 mg/kg	Residential / Prot. of GW SCOs		✓			After meeting with NYSDEC the decision was made that no further excavation will be required in this AOC.	No	✓
		SL-3/39/40	Cadmium at 3.6 mg/kg	Restricted Residential			✓		Awaiting approval to backfill from NYSDEC.	No	✓
			Silver at 4.8 mg/kg			✓					✓
		SL-4/5/6	Chrysene up to 1.1 mg/kg	Restricted Residential			✓		Approval to backfill received during field meeting with NYSDEC.	Yes	✓
			Chromium at 36.2 mg/kg				✓				✓
		SL-7/8/9/10 / CM-32	Chromium at 31.8 mg/kg	Residential		✓			Approval to backfill received during field meeting with NYSDEC.	Yes	✓
			Lead at 94.9 mg/kg			✓					✓
			Zinc at 242 mg/kg			✓					✓
		SL-12	< any allowable SCO	< any allowable SCO	✓				Approval to backfill received during field meeting with NYSDEC.	Yes	✓
		SL-20/21/22 / CM-28/29 / TANKERCONT-SB-2 / BLDG-4-RCRA1-SB-1/5/6	Chromium at 129 mg/kg	Restricted Residential			✓		Awaiting approval to backfill from NYSDEC.	No	✓
			Nickel at 45.6 mg/kg			✓					✓
			Mercury at 0.49 mg/kg			✓					✓
			Zinc at 799 mg/kg			✓					✓
		SL-23	Arsenic at 14.5 mg/kg	> Commerical (Allowed by NYSDEC)*		✓			After meeting with NYSDEC the decision was made that no further excavation will be required in this AOC.	No	✓
			Barium at 382 mg/kg				✓				✓
			Lead at 144 mg/kg			✓					✓
			Silver at 23.6 mg/kg			✓					✓
			Zinc at 282 mg/kg			✓					✓
			Copper at 55.1 mg/kg			✓					✓
			Mercury at 0.27 mg/kg								✓
			Cadmium at 12.0 mg/kg					✓			✓
		SL-33/34 / RD-4/6/7	Silver up to 129 mg/kg	> Commerical (Allowed by NYSDEC)*			✓		After meeting with NYSDEC the decision was made that no further excavation will be required in this AOC.	No	✓
			Lead at 1,170 mg/kg					✓			✓
			Arsenic at 19.8 mg/kg					✓			✓
			Cadmium at 3.8 mg/kg				✓				✓
			Chromium at 39.4 mg/kg				✓				✓
			Copper at 1,140 mg/kg					✓			✓
			Zinc at 516 mg/kg			✓					✓
			Mercury at 0.84 mg/kg					✓			✓
			Multiple SVOCs					✓			✓
	Former Quonset Hut Area	SL-31	< any allowable SCO	< any allowable SCO	✓				Approval to backfill received during field meeting with NYSDEC.	Yes	✓
	Former R&D Building Area	RD-3	< any allowable SCO	< any allowable SCO	✓				Approval to backfill received during field meeting with NYSDEC.	Yes	✓
		RD-10/11/12/13/20	Chromium at 38.1 mg/kg	Commercial			✓		Awaiting approval to backfill from NYSDEC.	No	✓
			Lead at 242 mg/kg			✓					✓
			Silver at 190 mg/kg					✓			✓
			Zinc at 433 mg/kg			✓					✓
			Mercury at 0.35 mg/kg			✓					✓
		RD-17	Silver at 2.9 mg/kg	Residential		✓			Awaiting approval to backfill from NYSDEC.	No	✓
		Bldg2-EarthenPits-SB-1 (Previously Investigated by others)	< any allowable SCO	< any allowable SCO	✓				Approval to backfill received during field meeting with NYSDEC.	Yes	✓
	Former Chemical Mixing Building Area	CM-7/8 / BLDG-4-SB-1 (Figure combined with CM-34/35)	Acetone at 0.034B mg/kg	Residential		✓			Approval to backfill received during field meeting with NYSDEC.	Yes	✓
			Lead at 87.6 mg/kg			✓					✓
		CM-21	Acetone at 0.094B mg/kg	Residential		✓			Approval to backfill received during field meeting with NYSDEC.	Yes	✓
		CM-33	Chromium at 32.2 mg/kg	Residential		✓			Approval to backfill received during field meeting with NYSDEC.	Yes	✓
			Lead at 381 mg/kg			✓					✓
			Zinc at 186 mg/kg			✓					✓
			Mercury at 0.46 mg/kg			✓					✓
		CM-34/35 / BLDG-4-SB-6 (Figure combined with CM-7/8)	Lead at 519 mg/kg	Commercial				✓	Approval to backfill received during field meeting with NYSDEC.	Yes	✓
			Zinc at 277 mg/kg			✓					✓
			Mercury at 0.29 mg/kg			✓					✓

Table 4
Summary of all On-site AOCs Requiring Remediation by the NYSDEC

Main Area	AOC	Original Soil Boring(s) ID	As of 9/25/2014		Applicable NYSDEC SCO				Comments	Backfilled as of 1/14/15?	Final Selected Land Use[1]
			Analytical Data Notes	Critical NYSDEC SCO for AOC	Unrestricted	Residential	Restricted Residential	Commercial or allowed by NYSDEC*			
Columbia Building	Former Building C-1 Area	C1-4	< any allowable SCO	< any allowable SCO	✓				Approval to backfill received during field meeting with NYSDEC.	Yes	✓
		C1a	Arsenic at 23.1 mg/kg	> Commerical (Allowed by NYSDEC)*				✓	After meeting with NYSDEC the decision was made that no further excavation will be required in this AOC.	No	✓
			Manganese at 3,100 mg/kg				✓				✓
			Multiple SVOCs					✓			✓
		South Alleyway	Indeno[1,2,3-cd]pyrene at 0.65 mg/kg	> Commerical (Allowed by NYSDEC)*				✓	Approval to backfill received during field meeting with NYSDEC.	Yes	✓
			Barium at 622 mg/kg					✓			✓
			Chromium up to 95.2 mg/kg				✓				✓
			Nickel at 35.5 mg/kg			✓					✓
			Silver up to 54.5 mg/kg				✓				✓
	Former Wedge Building	Former Wedge Building	Chromium at 69.1 mg/kg	Commercial			✓		Approval to backfill received during field meeting with NYSDEC.	Yes	✓
			Nickel at 33.0 mg/kg			✓					✓
			Multiple SVOCs					✓			✓
	Former Buildings C-4, C-5 and C-6	C4-2	< any allowable SCO	< any allowable SCO	✓				Approval to backfill received during field meeting with NYSDEC.	Yes	✓
		North Alleyway Area / C5-4 / C5-3 (Figure combined with Tank 9)	Cadmium up to 38.0 mg/kg	> Commerical (Allowed by NYSDEC)*				✓	Groundwater data from the two wells located within the North Lot area did not indicate cadmium or chromium exceedences.	Yes	✓
			Chromium up to 307 mg/kg					✓			✓
			Lead at 240 mg/kg			✓					✓
			Manganese up to 1,990 mg/kg			✓					✓
		C6-2	< any allowable SCO	< any allowable SCO	✓				Approval to backfill received during field meeting with NYSDEC.	Yes	✓
		C6-6 / C6-Silverrm-SB-1	Chromium at 33.6 mg/kg	Residential		✓			Approval to backfill received during field meeting with NYSDEC.	Yes	✓
		C6-8	< any allowable SCO	< any allowable SCO	✓				Approval to backfill received during field meeting with NYSDEC.	Yes	✓
		C6-13	Multiple SVOCs	> Commerical (Allowed by NYSDEC)*				✓	After meeting with NYSDEC the decision was made that no further excavation will be required in this AOC.	No	✓
			Lead at 93.6 mg/kg		✓						✓
Miscellaneous Areas	Building No. 9 (Annex)	B9-5	Lead at 1,340 mg/kg	> Commerical (Allowed by NYSDEC)*				✓	NYSDEC will require remediation of this AOC due to high concentrations of Silver in several endpoint samples	No	✓
			Silver at 2,010 mg/kg					✓			✓
			Zinc at 291 mg/kg			✓					✓
		B9-9	Silver at 6.3 mg/kg	Residential		✓			Awaiting approval to backfill from NYSDEC.	No	✓
	North Lot Area Water Tank	Former North Lot Water Tank	Lead up to 150 mg/kg	Residential		✓			Approval to backfill received during field meeting with NYSDEC.	Yes	✓
			Zinc up to 228 mg/kg			✓					✓
			Mercury up to 0.76 mg/kg			✓					✓
	Tank 6 (Remediation required per NYSDEC)	Tank 6	Chromium at 31.5 mg/kg	Residential		✓			Approval to backfill received during field meeting with NYSDEC.	Yes	✓

Notes:
Green / italicized value indicates analyte exceeded its respective unrestricted SCO but was below its respective Residential / Protection of GW SCO, whichever is lower.
Blue / italicized value indicates analyte exceeded its respective Residential SCOs and / or Protection of Groundwater SCO but was below its Restricted Residential SCO.
Pink / italicized value indicates analyte exceeded its respective Residential SCOs and / or Protection of Groundwater SCO but was below its Commercial SCO.
Upon meetings with the NYSDEC, certain on-site AOCs are allowable to be considered as commercial based on groundwater analytical data and AOC proximity to well locations.
Check mark - Indicates the most restrictive SCO based upon confirmatory end-point soil analytical data
[1] NYSDEC allowable land use with the appropriate Institution Controls (ICs) and Engineering Controls (ECs) being maintained in accordance with a NYSDEC-approved SMP. The NYSDEC is specifically requiring the use and maintenance of a two-foot-thick layer of clean soil / imported fill (versus the typical one-foot-thick layer of clean materials) in locations not covered by building envelopes, parking lots and other impermeable surfaces.

Table 5-1
TAL Metals Soil Analytical Data
MB-3 MB-17 Original Sample Location - Post Excavation Data

TAL Metals (mg/kg)	NYSDEC SCOs Unrestricted	Residential	Restricted Residential	Commercial	Protection of Groundwater	MB-3 & MB-17 Original Sample Location - Post Excavation Data: End-Point Soil Samples: Bottom Samples MB-EP#32 (2')	MB-EP#33 (2')	MB-EP#34 (2')	MB-EP#35 (2')	MB-EP#36 (2')	MB-EP#37 (2')	MB-EP#38 (2')	MB-EP#39 (2')	MB-EP#40 (2')	MB-EP#41 (2')	MB-EP#42 (2')	MB-EP#43 (2')	MB-EP#44 (2')	MB-EP#45 (2')	MB-EP#46 (2')	MB-EP#47 (2')	MB-EP#48 (2')	MB-EP#49 (2')	MB-EP#50 (2')
Aluminum	NA	NA	NA	NA	NA	5,070	6,330	5,350	5,970	2,620	3,820	4,860	884	6,090	1,790	1,290	1,990	6,980	6,680	6,090	4,910	10,800	4,690	4,530
Antimony	NA	NA	NA	NA	NA	5.0 U	4.4 U	5.0 U	4.8 U	4.5 U	4.2 U	5.0 U	4.5 U	4.3 U	4.6 U	4.8 U	4.2 U	4.3 U	4.4 U	4.3 U	4.5 U	5.2 U	4.9 U	4.6 U
Arsenic	13	16	16	16	16	1.5 J	4.2	1.8 J	2.3 J	0.93 J	0.75 J	1.6 J	1.2 J	2.3 J	1.6 J	3.6 U	1.1 J	3.4	3.0 J	2.3 J	2.2 J	2.8 J	1.9 J	1.9 J
Barium	350	350	400	400	820	20.0 J	39.1 J	32.3 J	36.5 J	42.4 J	27.3 J	41.8 J	10.9 J	42.0 J	17.7 J	11.7 J	16.7 J	44.2 J	19.1 J	22.3 J	16.3 J	36.8 J	37.9 J	26.3 J
Beryllium	7.2	14	72	590	47	0.16 J	0.55 J	0.25 J	0.26 J	0.45 U	0.42 U	0.19 J	0.45 U	0.28 J	0.46 U	0.48 U	0.42 U	0.20 J	0.44 U	0.13 J	0.45 U	0.51 J	0.52 J	0.50 J
Cadmium	2.5	2.5	4.3	9.3	7.5	2.0	0.31 J	0.99 U	0.95 U	0.91 U	0.85 U	1.0 U	0.90 U	0.86 U	0.93 U	0.95 U	0.83 U	**11.5**	0.88 U	0.16 J	0.90 U	**3.6**	**180**	**105**
Calcium	NA	NA	NA	NA	NA	15,100	4,040	1,440	1,310	1,060 J	874 J	1,850	343 J	1,260	627 J	782 J	775 J	3,500	824 J	3,270	707 J	1,920	4,620	10,800
Chromium[1]	30	36	180	1,500	NS	8.8	15.9	12.9	12.7	8.3	7.8	12.4	3.4	14.5	5.8	4.2	5.0	15.8	13.1	10.9	9.9	29.6	12.3	12.2
Cobalt	NA	NA	NA	NA	NA	1.6 J	4.1 J	4.2 J	6.0 J	3.6 J	3.1 J	4.8 J	1.7 J	9.6 J	2.9 J	1.9 J	3.0 J	3.3 J	1.9 J	2.2 J	1.8 J	4.1 J	2.7 J	2.2 J
Copper	50	270	270	270	1,720	7.4	10.2	8.3	7.4	3.7 J	4.1 J	7.5	1.4 J	8.7	2.1 J	1.8 J	2.8 J	13.3	2.5 J	2.7 J	1.8 J	11.5	15.0	8.0
Iron	NA	NA	NA	NA	NA	4,830	10,200	8,620	7,320	7,230	7,620	7,060	3,240	8,250	4,700	3,860	3,940	11,200	14,100	6,200	6,730	20,100	8,060	8,180
Lead	63	400	400	1,000	450	7.5	15.9	5.6	5.0	2.6	4.3	7.6	1.4 J	4.4	1.4 J	1.4 J	2.3	44.2	5.9	5.5	4.6	13.6	34.8	58.6
Magnesium	NA	NA	NA	NA	NA	1,300	1,760	1,980	1,820	1,060 J	1,300	1,860	376 J	2,200	1,010 J	587 J	748 J	1,540	1,270	1,130	1,030 J	3,050	1,140 J	4,150
Manganese	1,600	2,000	2,000	10,000	2,000	124	91.6	99.0	103	461	79.3	157	93.4	102	145	92.4	101	206	64.1	50.8	40.7	150	147	127
Nickel	30	140	310	310	130	5.2 J	8.6 J	10.1	11.4	6.2 J	5.8 J	8.7 J	2.0 J	16.2	3.3 J	2.7 J	4.3 J	7.7 J	4.5 J	4.4 J	3.6 J	8.8 J	6.9 J	6.0 J
Potassium	NA	NA	NA	NA	NA	351 J	1090 J	594 J	822 J	560 J	520 J	640 J	146 J	809 J	423 J	226 J	269 J	400 J	420 J	465 J	348 J	1460	391 J	396 J
Selenium	3.9	36	180	1,500	4	5.0 U	4.4 U	5.0 U	4.8 U	4.5 U	4.2 U	5.0 U	4.5 U	4.3 U	4.6 U	4.8 U	4.2 U	4.3 U	4.4 U	4.3 U	4.5 U	5.2 U	4.9 U	4.6 U
Silver	2	36	180	1,500	8.3	**3.5**	**5.5**	0.31 J	1.2 J	2.3 U	2.1 U	**6.1**	0.22 J	2.2 U	0.49 J	2.4 U	0.43 J	**114**	0.92 J	**3.1**	0.89 J	**117**	**1,780**	**1,430**
Sodium	NA	NA	NA	NA	NA	1,240 U	1,110 U	1,240 U	1,190 U	1,140 U	1,060 U	1,260 U	1,130 U	1,080 U	1,160 U	1,190 U	1,040 U	1,080 U	1,100 U	1,070 U	1,130 U	1,280 U	1,220 U	1,150 U
Thallium	NA	NA	NA	NA	NA	5.0 U	4.4 U	5.0 U	4.8 U	4.5 U	4.2 U	5.0 U	4.5 U	4.3 U	4.6 U	4.8 U	4.2 U	4.3 U	4.4 U	4.3 U	4.5 U	5.2 U	4.9 U	4.6 U
Vanadium	NA	NA	NA	NA	NA	8.3 J	22.8	15.0	11.7 J	7.1 J	7.5 J	9.9 J	3.6 J	15.8	6.3 J	3.7 J	6.8 J	20.8	18.7	14.0	13.8	26.2	12.9	12.3
Zinc	109	2,200	10,000	10,000	2,480	29.6	29.4	27.4	31.9	25.7	17.7	31.3	6.0 J	31.6	12.3	6.9 J	12.3	57.8	13.6	12.8	11.3	41.3	38.0	31.3
Mercury	0.18	0.81	0.81	2.8	0.73	0.023	0.26	0.019 U	0.014 J	0.018 U	0.071	0.057	0.020 U	0.018 U	0.019 U	0.019 U	0.020 U	0.11	0.019 U	0.019 U	0.019 U	0.025	0.19	0.19

TAL Metals (mg/kg)	NYSDEC SCOs Unrestricted	Residential	Restricted Residential	Commercial	Protection of Groundwater	MB-3 & MB-17 Original Sample Location - Post Excavation Data: Supplemental Endpoint Samples: Bottom Samples MB-EP#61 (4')	MB-EP#62 (4')	MB-EP#63 (4')	MB-EP#64 (4')	MB-EP#65 (4')	MB-EP#66 (4')	MB-EP#67 (4')	MB-EP#68 (4')	MB-EP#69 (4')	MB-EP#70 (4')	MB-EP#71 (4')	MB-EP#72 (4')	Supplemental Endpoint Samples: Bottom Samples MB-EP#73 (6')	MB-EP#74 (6')	MB-EP#75 (6')	MB-EP#76 (6')	MB-EP#77 (6')	MB-EP#78 (6')
Aluminum	NA	NA	NA	NA	NA	8,140	6,780	6,200	3,900	2,380	2,540	1,860	2,370	3,080	3,330	2,100	3,230	1,830	9,490	14,200	12,900	1,970	6,850	
Antimony	NA	NA	NA	NA	NA	3.6 U	3.8 U	3.6 U	3.3 U	3.7 U	4.1 U	20.3 U	3.6 U	3.6 U	3.2 U	4.4 U	4.0 U	4.1 U	5.2 U	4.4 U	5.3 U	4.0 U	4.3 U	
Arsenic	13	16	16	16	16	1.1 J	1.6 J	1.7 J	2.0 J	2.8 U	0.78 J	**34.2**	13.0	1.4 J	1.2 J	1.2 J	1.4 J	2.2 J	4.6	5.3	4.8	2.2 J	**17.4**	
Barium	350	350	400	400	820	56.8	26.4 J	23.9 J	16.6 J	35.6 J	267	206 J	222 J	25.5 J	18.4 J	16.6 J	23.9 J	10.5 J	57.2	102	93.4	**533**	143	
Beryllium	7.2	14	72	590	47	0.15 J	0.19 J	0.30 J	0.27 J	0.16 J	0.18 J	2.0 U	0.38	0.31 J	0.32 U	0.44 U	0.40 U	0.17 J	0.62	0.30 J	0.96	0.15 J	0.50	
Cadmium	2.5	2.5	4.3	9.3	7.5	0.71 U	0.57 J	0.72 U	0.66 U	2.3	0.83 U	4.1 U	0.72 U	0.72 U	0.64 U	0.88 U	0.80 U	0.83 U	1.0 U	0.89 U	1.1 U	0.16 J	0.87 U	
Calcium	NA	NA	NA	NA	NA	711 J	659 J	1,950	215 J	336 J	794 J	544 J	568 J	1,420	472 J	1,890	1,750	247 J	1,480	6,540	2,190	1,420 J	1,450	
Chromium[1]	30	36	180	1,500	NS	15.5	12.5	13.9	7.6	6.5	9.4	6.1 J	11.6	7.0	5.9	4.3	7.0	3.6	24.9	**99.1**	**34.5**	20.0 U	15.0	
Cobalt	NA	NA	NA	NA	NA	2.7 J	5.5 J	3.2 J	2.2 J	3.7 J	17.5	10.3 J	10.2	2.7 J	2.0 J	1.7 J	2.9 J	2.0 J	8.3 J	12.6	13.0 J	1.5 J	12.4	
Copper	50	270	270	270	1,720	1.7 J	1.9 J	21.0	5.1	5.1	7.0	25.3 U	14.3	7.5	2.9 J	3.3 J	6.9	2.3 J	19.3	25.0	25.3	5.5 J	13.2	
Iron	NA	NA	NA	NA	NA	6,610	10,200	11,300	8,300	5,050	26,000	28,200	22,300	7,500	5,020	4,910	9,090	6,940	20,000	22,500	30,500	4,430	22,000	
Lead	63	400	400	1,000	450	5.8	5.6	8.3	3.3	2.0	3.3	10.1 U	2.6	9.0	7.5	3.1	7.4	2.0 J	10.2	5.9	12.9	20.0 U	6.1	
Magnesium	NA	NA	NA	NA	NA	1,590	1,610	1,660	779 J	471 J	674 J	536 J	876 J	1,140	700 J	1,050 J	1,130	322 J	2,820	12,500	4,690	549 J	2,370	
Manganese	1,600	2,000	2,000	10,000	2,000	85.5	72.1	153	203	**42,000**	**14,500**	**4,060**	1,040	135	124	73.2	178	341	141	1,010	436	22,200	2,180	
Nickel	30	140	310	310	130	6.5 J	6.5 J	7.6	4.9 J	15.9	12.4	9.2 J	15.7	5.7 J	3.5 J	4.0 J	5.6 J	2.5 J	20.4	**36.3**	31.7	8.3	19.9	
Potassium	NA	NA	NA	NA	NA	752 J	409 J	489 J	426 J	487 J	444 J	332 J	480 J	491 J	233 J	642 J	542 J	190 J	2050	3610 J	3080	581 J	1870	
Selenium	3.9	36	180	1,500	4	3.6 U	3.8 U	3.6 U	3.3 U	3.7 U	4.1 U	20.3 U	3.6 U	3.6 U	3.2 U	4.4 U	4.0 U	4.1 U	5.2 U	4.4 U	5.3 U	4.0 U	4.3 U	
Silver	2	36	180	1,500	8.3	1.8 U	0.65 J	**7.8**	**3.0**	**3.8**	**4.9**	**29.3**	1.8 U	1.2 J	1.6 U	2.2 U	0.73 J	0.84 J	0.88 J	0.82 J	2.6 U	20.0 U	0.10 J	
Sodium	NA	NA	NA	NA	NA	71.4 J	954 U	894 U	825 U	917 U	1,030 U	5,070 U	905 U	899 U	797 U	1,090 U	1,000 U	1,040 U	1,310 U	173 J	1,320 U	1,000 U	1,080 U	
Thallium	NA	NA	NA	NA	NA	3.6 U	3.8 U	3.6 U	3.3 U	9.9 J	10.6 J	20.3 U	3.6 U	3.6 U	3.2 U	4.4 U	4.0 U	4.1 U	5.2 U	1.4 J	5.3 U	26.9 J	2.2 J	
Vanadium	NA	NA	NA	NA	NA	12.6	16.1	13.7	9.2	4.3 J	5.2 J	6.2 J	22.6	7.7 J	7.6 J	5.0 J	8.4 J	5.6 J	30.4	47.7	38.4	4.1 J	19.5	
Zinc	109	2,200	10,000	10,000	2,480	23.5	19.3	38.6	11.9	13.0	12.8	20.4 J	38.2	16.5	12.9	9.4	29.2	7.1	49.0	40.0	65.2	9.6	36.7	
Mercury	0.18	0.81	0.81	2.8	0.73	0.018 U	0.020 U	0.039	0.018 U	0.019 U	0.019 U	0.015 J	0.017 U	0.020 U	0.022	0.021	0.023	0.018	0.015 J	0.018 J	0.019 J	0.019 U	0.012 J	

TAL Metals (mg/kg)	NYSDEC SCOs Unrestricted	Residential	Restricted Residential	Commercial	Protection of Groundwater	MB-3 & MB-17 Original Sample Location - Post Excavation Data: Supplemental Endpoint Samples: Bottom Samples MB-EP#99 (8')	MB-EP#100 (8')	MB-EP#101 (8')	MB-EP#102 (8')	MB-EP#103 (8')	MB-EP#104 (8')	MB-EP#105 (8')	MB-EP#106 (8')	MB-EP#107 (8')	MB-EP#108 (8')	MB-EP#109 (8')	MB-EP#110 (8')
Aluminum	NA	NA	NA	NA	NA	2,650	1,460	2,130	1,440	1,300	7,570	1,990	11,700	1,460	5,880	27,900	8,920
Antimony	NA	NA	NA	NA	NA	3.4 U	3.4 U	3.6 U	3.2 U	3.5 U	11.3 U	3.0 U	4.4 U	3.8 U	3.4 U	10 U	3.9 U
Arsenic	13	16	16	16	16	5.2	4.5	10.9	*15.2*	5.5	12.8	1.2 J	2.9 J	1.1 J	3.1	3.5 J	4.0
Barium	350	350	400	400	820	194	10 J	16.4 J	15.5 J	10.0 J	57.0 J	16.3 J	107	12.5 J	43.9	266	59.0
Beryllium	7.2	14	72	590	47	0.34 U	0.34 U	0.36 U	0.32 U	0.35 U	1.1 U	0.30 U	0.60	0.38 U	0.40	1.2	0.62
Cadmium	2.5	2.5	4.3	9.3	7.5	0.67 U	0.67 U	0.73 U	0.64 U	0.71 U	2.3 U	0.60 U	0.88 U	0.77 U	0.69 U	2.0 U	0.78 U
Calcium	NA	NA	NA	NA	NA	523 J	503 J	326 J	173 J	284 J	3,690	311 J	1,470	175 J	956	3,270	1,320
Chromium[1]	30	36	180	1,500	NS	8.1	6.9	4.6	3.3	4.3	*49.6*	6.4	28.8	3.9	14.3	*64.2*	25.8
Cobalt	NA	NA	NA	NA	NA	29.5	2.9 J	2.8 J	2.8 J	2.6 J	18.9 J	3.2 J	11.3	1.2 J	7.4 J	19.4 J	10.5
Copper	50	270	270	270	1,720	4.6	3.9 J	3.4 J	2.4 J	5.3	15.4	4.6	21.6	4.8 U	13.8	48.7	21.5
Iron	NA	NA	NA	NA	NA	33,000	10,300	13,500	10,500	14,700	51,200	4,740	19,000	4,430	15,100	49,500	13,100
Lead	63	400	400	1,000	450	8.7	3.6	4.1	3.1	4.4	10.7	3.4	11.7	2.1	7.0	23.4	12.3
Magnesium	NA	NA	NA	NA	NA	649 J	503 J	525 J	396 J	360 J	6,680	640 J	4,370	361 J	1,990	12,900	2,720
Manganese	1,600	2,000	2,000	10,000	2,000	*6,270*	103	214	249	187	351	68.3	457	317	181	570	212
Nickel	30	140	310	310	130	7.3	9.7	4.6 J	3.9 J	4.0 J	*30.5*	4.0 J	23.6	3.0 J	12.0	*49.9*	23.8
Potassium	NA	NA	NA	NA	NA	390 J	258 J	361 J	270 J	203 J	958 J	456 J	2,960	261 J	1,260	8,400	1,590
Selenium	3.9	36	180	1,500	4	3.4 U	3.4 U	3.6 U	3.2 U	3.5 U	11.3 U	3.0 U	4.4 U	3.8 U	3.4 U	10 U	3.9 U
Silver	2	36	180	1,500	8.3	*2.9*	1.7 U	1.8 U	1.6 U	1.8 U	5.7 U	1.5 U	2.2 U	1.9 U	1.7 U	5.0 U	0.93 J
Sodium	NA	NA	NA	NA	NA	839 U	840 U	911 U	806 U	885 U	2,840 U	754 U	84.3 J	961 U	858 U	2,500 U	977 U
Thallium	NA	NA	NA	NA	NA	14.1	3.4 U	3.6 U	3.2 U	3.5 U	11.3 U	3.0 U	4.4 U	3.8 U	3.4 U	10 U	3.9 U
Vanadium	NA	NA	NA	NA	NA	7.8 J	9.3	6.1 J	4.5 J	10.1	39.6	6.2 J	36.8	4.3 J	18.6	75.4	33.7
Zinc	109	2,200	10,000	10,000	2,480	15.9	14.5	10.6	9.2	12.8	75.9	14.8	57.6	95.0	44.3	*128*	52.3
Mercury	0.18	0.81	0.81	2.8	0.73	0.019 U	0.018 U	0.017 U	0.018 U	0.020 U	0.020 U	0.021	0.020	0.023 U	0.019 U	0.020 U	0.022 U
Hexavalent Chromium	1	22	110	400	19	NA	NA	NA	NA	NA	2.5 U	NA	NA	NA	NA	2.5 U	NA

Notes:
J : Sample result is greater than the MDL but below the CRDL
U : Indicates analyzed for but not detected.
[1] Trivalent chromium SCOs utilized.
Highlighted / bolded indicates analyte exceeded above its respective NYSDEC Unrestricted SCO.
Green / italicized value indicates analyte exceeded its respective unrestricted SCO but was below its respective Residential / Protection of GW SCO, whichever is lower.
Blue / italicized value indicates analyte exceeded its respective Residential SCO and / or Protection of Groundwater SCO but was below its Restricted Residential SCO.
Pink / italicized value indicates analyte exceeded its respective Residential SCO and / or Protection of Groundwater SCO but was below its Commercial SCO.
Pale Yellow / italicized value indicates analyte detected at above its Unrestricted SCO and Protection of Groundwater SCO but below its Residential SCO.
Green / italicized value indictes analyte exceeded its repsective unrestricted SCO but was below its respective Residential / Protection of GW SCO, whichever is lower.
NA - Not Available
/ Indicates that sample locations were removed as part of supplemental soil excavation activities.

Table 5-2
PTAL Metals Soil Analytical Data
MB-22 and Sample Area 4A Original Sample Location - Post Excavation Data

	NYSDEC SCOs				MB-22 and Sample Area 4A Original Sample Location - RCRA Excavation															
					End Point Soil Samples															
					Bottom Samples															
TAL Metals (mg/kg)	Unrestricted	Residential	Restricted Residential	Protection of Groundwater	MB-EP#1 (2')	MB-EP#2 (2')	MB-EP#3 (2')	MB-EP#4 (2')	MB-EP#5 (2')	MB-EP#6 (2')	MB-EP#7 (2')	MB-EP#8 (2')	MB-EP#9 (2')	MB-EP#10 (2')	MB-EP#11 (2')	MB-EP#12 (2')	MB-EP#13 (2')	MB-EP#14 (2')	MB-EP#15 (2')	MB-EP#16 (2')
Aluminum	NA	NA	NA	NA	4,390	5,560	2,410	17,000	2,740	1,110	4,490	1,010	4,070	3,390	4,050	3,380	3,730	7,470	4,500	6,260
Antimony	NA	NA	NA	NA	3.3 U	3.7 U	3.8 U	10.9 U	3.9 U	3.4 U	3.8 U	10.5 U	3.2 U	3.6 U	3.4 U	4.0 U	3.4 U	3.3 U	4.0 U	4.1 U
Arsenic	13	16	16	16	0.62 J	0.59 J	2.9 U	2.6 J	2.9 U	2.6 U	1.1 J	3.9 J	2.4 U	2.7 U	0.55 J	3.0 U	2.5 U	0.89 J	8.6	0.99 J
Barium	350	350	400	820	60.3	32.7 J	44.5	155	32.2 J	6.6 J	30.6 J	6.6 J	43.1	40.5	60.2	35.0 J	47.5	48.7	74.1	56.0
Beryllium	7.2	14	72	47	0.33 U	0.37 U	0.38 U	1.9	0.39 U	0.34 U	0.38 U	1.1 U	0.32 U	0.36 U	0.34 U	0.40 U	0.34 U	0.33 U	0.40 U	0.41 U
Cadmium	2.5	2.5	4.3	7.5	0.65 U	0.73 U	0.77 U	1.8 J	0.78 U	0.69 U	0.41 J	1.9 J	0.63 U	0.72 U	0.23 J	0.80 U	0.68 U	0.18 J	0.17 J	0.82 U
Calcium	NA	NA	NA	NA	288 J	384 J	428 J	10,300	595 J	214 J	86,900	508 J	365 J	352 J	625 J	631 J	605 J	1,120	265 J	1,080
Chromium[1]	30	36	180	NS	5.9	9.9	5.0	**66.8**	6.6	3.3	9.6	5.6	5.5	4.7	11.0	9.0	7.8	21.1	5.0	12.3
Cobalt	NA	NA	NA	NA	1.2 J	2.3 J	1.3 J	27.3 U	1.3 J	8.6 U	3.1 J	5.1 J	1.3 J	1.1 J	2.0 J	1.5 J	1.8 J	5.9 J	25.7	10.1 J
Copper	50	270	270	1,720	4.1 U	4.6 U	4.8 U	14.2	4.9 U	4.3 U	4.7	**104**	4.0 U	4.5 U	1.2 J	5.0 U	4.2 U	2.3 J	2.6 J	5.1
Iron	NA	NA	NA	NA	2,900	5,270	1,300	5,970	2,580	1,170	6,410	88,000	2,610	2,060	3,290	2,660	2,750	9,420	17,000	6,640
Lead	63	400	400	450	2.7	3.3	1.8 J	9.2	2.2	0.75 J	7.0	**65.9**	2.0	2.2	3.6	2.4	2.7	4.7	6.9	7.3
Magnesium	NA	NA	NA	NA	662 J	1,350	373 J	1,730 J	978	330 J	50,300	390 J	811	563 J	953	948 J	904	2,680	438 J	2,170
Manganese	1,600	2,000	2,000	2,000	42.4	50.8	21.8	155	32.9	16.5	171	341	35.3	30.8	54.0	34.4	35.6	89.6	923	355
Nickel	30	140	310	130	3.5 J	6.6 J	2.4 J	14.5 J	2.8 J	1.0 J	6.8 J	11.1 J	3.6 J	2.7 J	4.2 J	4.1 J	3.7 J	10.5	12.8	11.5
Potassium	NA	NA	NA	NA	169 J	249 J	178 J	642 J	398 J	149 J	428 J	2,640 U	187 J	154 J	314 J	393 J	252 J	512 J	301 J	976 J
Selenium	3.9	36	180	4	3.3 U	3.7 U	3.8 U	**8.5** J	3.9 U	3.4 U	3.8 U	10.5 U	3.2 U	3.6 U	3.4 U	4.0 U	3.4 U	3.3 U	4.0 U	4.1 U
Silver	2	36	180	8.3	1.6 U	1.8 U	1.9 U	**5.4** J	1.9 U	**4.9**	**127**	1.6 U	0.98 J	**5.0**	2.0 U	0.78 J	**2.7**	2.0 U	**2.0** J	
Sodium	NA	NA	NA	NA	815 U	914 U	957 U	266 J	972 U	862 U	102 J	2,640 U	791 U	895 U	856 U	1,000 U	850 U	64 J	1,000 U	1,030 U
Thallium	NA	NA	NA	NA	3.3 U	3.7 U	3.8 U	10.9 U	3.9 U	3.4 U	3.8 U	10.5 U	3.2 U	3.6 U	3.4 U	4.0 U	3.4 U	3.3 U	1.2 J	4.1 U
Vanadium	NA	NA	NA	NA	3.7 J	6.9 J	2.5 J	12.0 J	4.5 J	1.7 J	8.9 J	26.4 U	3.6 J	3.0 J	4.9 J	4.4 J	4.3 J	14.2	7.2 J	10.6
Zinc	109	2,200	10,000	2,480	11.5	17.6	7.8	16.7	11.8	5.3	21.2	94.7	14.1	10.2	20.1	12.5	15.6	26.1	55.9	32.0
Mercury	0.18	0.81	0.81	0.73	0.016 U	0.019 U	0.018 U	0.078	0.018 U	0.018 U	0.025	0.17	0.016 U	0.016 U	0.015 J	0.021 U	0.019	0.020 U	0.016 U	0.058

	NYSDEC SCOs				MB-22 and Sample Area 4A Original Sample Location - RCRA Excavation															
					Supplemental Endpoint Samples										Supplemental Endpoint Samples					
					Bottom Samples										Bottom Samples					
TAL Metals (mg/kg)	Unrestricted	Residential	Restricted Residential	Protection of Groundwater	MB-EP#51 (4')	MB-EP#52 (4')	MB-EP#53 (4')	MB-EP#54 (4')	MB-EP#55 (4')	MB-EP#56 (4')	MB-EP#57 (4')	MB-EP#58 (4')	MB-EP#59 (4')	MB-EP#60 (4')	MB-EP#79 (6')	MB-EP#80 (6')	MB-EP#81 (6')	MB-EP#82 (6')	MB-EP#83 (6')	MB-EP#84 (6')
Aluminum	NA	NA	NA	NA	3,020	769	28,000	10,300	1,180	3,360	2,660	2,150	1,990	23,600	2,140	5,090	20,700	8,820	9,010	2,870
Antimony	NA	NA	NA	NA	4.3 U	4.2 U	4.8 U	4.5 U	3.8 U	3.7 U	3.9 U	4.0 U	4.3 U	4.7 U	4.5 U	4.0 U	4.8 U	4.6 U	3.8 U	4.3 U
Arsenic	13	16	16	16	1.1 J	3.2 U	2.9 J	6.3	2.9 U	0.91 J	3.0 U	0.90 J	7.4	4.3	3.4 U	1.9 J	5.3	**18.3**	5.2	5.4
Barium	350	350	400	820	12.0 J	4.2 J	249	109	7.9 J	16.8 J	20.1 J	10.6 J	19.0 J	231	9.7 J	29.6 J	184	57.7	78.0	72.2
Beryllium	7.2	14	72	47	0.21 J	0.42 U	2.0	0.75	0.38 U	0.11 J	0.39 U	0.22 J	0.22 J	1.7	0.078 J	0.60	1.5	0.47	0.72	0.33 J
Cadmium	2.5	2.5	4.3	7.5	0.85 U	0.85 U	0.95 U	0.90 U	0.77 U	0.27 J	0.79 U	0.80 U	0.86 U	0.94 U	0.90 U	0.81 U	0.96 U	0.91 U	0.77 U	0.86 U
Calcium	NA	NA	NA	NA	412 J	143 J	1,690	1,090 J	136 J	418 J	439 J	1,090	383 J	2,460	444 J	921 J	2,840	2,510	1,520	1,130
Chromium[1]	30	36	180	NS	9.3	2.5	**59.9**	25.1	2.4	7.6	6.2	13.2	9.8	**58.5**	9.1	19.6	**46.5**	18.4	24.5	9.5
Cobalt	NA	NA	NA	NA	1.0 J	10.6 U	18.3	16.9	9.6 U	2.0 J	1.5 J	1.7 J	16.9	18.8	1.2 J	3.6 J	16.4	15.8	11.0	28.5
Copper	50	270	270	1,720	1.2 J	5.3 U	29.9	17.6	4.8 U	2.9 J	21.0	2.5 J	4.4 J	37.4	5.6 U	5.9	32.9	13.1	16.1	6.1
Iron	NA	NA	NA	NA	3,090	897	44,900	26,500	1,470	4,190	3,190	7,240	35,000	45,100	3,040	13,200	39,100	32,600	26,600	38,700
Lead	63	400	400	450	2.9	2.1 U	17.0	8.2	1.9 U	3.8	2.5	2.1 U	14.9	24.1	2.1 J	4.2	15.6	5.8	9.2	3.7
Magnesium	NA	NA	NA	NA	561 J	225 J	10,700	3,840	258 J	928	865 J	687 J	344 J	10,300	807 J	1,740	8,610	2,480	3,150	670 J
Manganese	1,600	2,000	2,000	2,000	35.2	11.2	373	772	23.2	55.0	33.0	46.8	205	548	41.0	94.6	435	263	611	959
Nickel	30	140	310	130	3.1 J	0.83 J	44.6	27.8	0.95 J	4.8 J	3.6 J	3.3 J	8.0 J	42.2	3.3 J	7.1 J	35.3	16.3	17.6	12.8
Potassium	NA	NA	NA	NA	283 J	137 J	1,720	2,900	124 J	188 J	229 J	542 J	256 J	1,610	580 J	1180	6,560 J	1,890	2,450	436 J
Selenium	3.9	36	180	4	4.3 U	4.2 U	1.1 J	4.5 U	3.8 U	3.7 U	3.9 U	4.0 U	4.3 U	4.7 U	4.5 U	4.0 U	1.4 J	4.6 U	3.8 U	1.9 J
Silver	2	36	180	8.3	2.1 U	2.1 U	2.4 U	2.2 U	1.2 J	1.9	2.0 U	2.0 U	**26.7**	2.3 U	0.11 J	2.0 U	2.4 U	0.33 J	0.70 J	1.5 J
Sodium	NA	NA	NA	NA	1,070 U	1,060 U	120 J	1,120 U	957 U	920 U	986 U	998 U	1,070 U	117 J	1,120 U	1,010 U	114 J	110 J	961 U	1,070 U
Thallium	NA	NA	NA	NA	4.3 U	4.2 U	4.8 U	4.5 U	3.8 U	3.7 U	3.9 U	4.0 U	4.3 U	4.7 U	4.5 U	4.0 U	4.8 U	4.6 U	3.8 U	4.3 U
Vanadium	NA	NA	NA	NA	5.7 J	1.6 J	76.9	30.3	1.5 J	6.4 J	4.4 J	5.8 J	8.9 J	69.7	4.4 J	25.6	56.2	22.1	27.9	10.2 J
Zinc	109	2,200	10,000	2,480	8.8	3.7 J	104	58.6	6.4	20.3	9.2	14.3	13.2	106	11.8	22.3	85.5	36.4	87.0	17.9
Mercury	0.18	0.81	0.81	0.73	0.019 U	0.018 U	0.022 U	0.030	0.017 U	0.018 U	0.017 U	0.018 U	0.020 U	0.040	0.018 U	0.018 U	0.020 U	0.018 U	0.019 U	0.018 U

	NYSDEC SCOs				MB-22 and Sample Area 4A Original Sample Location - RCRA Excavation												
					Supplemental Endpoint Samples												
					Bottom Samples												
TAL Metals (mg/kg)	Unrestricted	Residential	Restricted Residential	Protection of Groundwater	MB-EP#87 (8')	MB-EP#88 (8')	MB-EP#89 (8')	MB-EP#90 (8')	MB-EP#91 (8')	MB-EP#92 (8')	MB-EP#93 (8')	MB-EP#94 (8')	MB-EP#95 (8')	MB-EP#96 (8')	MB-EP#97 (8')	MB-EP#98 (8')
Aluminum	NA	NA	NA	NA	3,190	8,140	2,110	2,360	7,980	630	2,320	7,930	22,500	32,300	27,300	34,100
Antimony	NA	NA	NA	NA	3.2 U	3.9 U	3.8 U	3.3 U	3.6 U	4.2 U	3.6 U	3.2 U	3.7 U	4.4 U	3.6 U	4.2 U
Arsenic	13	16	16	16	2.4 U	1.6 J	2.9 U	2.5 U	1.8 J	3.2 U	1.4 J	1.5 J	2.5 J	4.6	6.4	4.1
Barium	350	350	400	820	19.3 J	45.5	15.1 J	14.9 J	47.0	4.4 J	21.6 J	47.7	231	319	247	*368*
Beryllium	7.2	14	72	47	0.32 U	0.51	0.38 U	0.33 U	0.66	0.42 U	0.36 U	0.42	1.1	1.2	1.6	1.8
Cadmium	2.5	2.5	4.3	7.5	0.64 U	0.78 U	0.77 U	0.67 U	0.73 U	0.84 U	0.73 U	0.64 U	0.75 U	0.88 U	0.73 U	0.84 U
Calcium	NA	NA	NA	NA	256 J	1,350	380 J	428 J	1,230	1,050 U	345 J	1,600	2,060	2,770	2,680	3,320
Chromium[1]	30	36	180	NS	8.8	24.6	8.2	7.6	25.5	2.2	11.7	21.4	*53.2*	*73.2*	*53.8*	*70.7*
Cobalt	NA	NA	NA	NA	1.8 J	9.0 J	4.3 J	1.6 J	7.2 J	10.5 U	14.3	7.1 J	17.7	18.2	15.0	26.6
Copper	50	270	270	1,720	1.7 J	16.3	4.2 J	1.5 J	18.7	5.3 U	4.7	10.7	38.7	*55.4*	39.4	*53.7*
Iron	NA	NA	NA	NA	2,860	12,100	2,740	2,730	18,000	759	30,800	26,900	34,100	63,700	52,600	67,800
Lead	63	400	400	450	2.9	10.6	4.5	2.6	11.2	1.2 J	8.0	11.2	17.4	23.4	20.9	28.1
Magnesium	NA	NA	NA	NA	857	2,560	794 J	610 J	2,250	161 J	611 J	2,660	9,170	13,800	10,600	14,100
Manganese	1,600	2,000	2,000	2,000	28.8	124	31.5	35.7	168	7.4	240	179	370	539	556	*1,860*
Nickel	30	140	310	130	4.9 J	16.6	5.9 J	3.5 J	16.2	8.4 U	12.1	15.9	*43.4*	*56.5*	*44.4*	*60.2*
Potassium	NA	NA	NA	NA	525 J	1,790	583 J	421 J	1,820	123 J	469 J	2,050	6,500	10,800	8,120	10,600
Selenium	3.9	36	180	4	3.2 U	3.9 U	3.8 U	3.3 U	3.6 U	4.2 U	3.6 U	3.2 U	3.7 U	4.4 U	3.6 U	20.9 U
Silver	2	36	180	8.3	1.6 U	2.0 U	1.9 U	1.7 U	1.8 U	0.55 J	1.8 U	1.6 U	1.9 U	2.2 U	1.8 U	0.94 J
Sodium	NA	NA	NA	NA	801 U	979 U	962 U	836 U	82 J	1,050 U	912 U	803 U	111 J	173 J	140 J	177 J
Thallium	NA	NA	NA	NA	3.2 U	3.9 U	3.8 U	3.3 U	3.6 U	4.2 U	3.6 U	3.2 U	3.7 U	4.4 U	3.6 U	2.6 J
Vanadium	NA	NA	NA	NA	6.0 J	26.8	6.5 J	4.2 J	34.9	1.4 J	7.4 J	36.7	64.8	86.9	71.3	86.5
Zinc	109	2,200	10,000	2,480	12.8	45.3	14.9	9.7	49.4	3.0 J	16.3	39.2	96.9	*143*	105	*138*
Mercury	0.18	0.81	0.81	0.73	0.019 U	0.020 U	0.020 U	0.019 U	0.021 U	0.019 U	0.019 U	0.019 U	0.020 U	0.022 U	0.022 U	0.022 U
Hexavalent Chromium	1	22		19	NA	2.6 U	NA	NA	NA	NA	NA	NA	2.5 U	0.80 J	2.6 U	2.6 U

Notes:
J : Sample result is greater than the MDL but below the CRDL
U : Indicates analyzed for but not detected.
[1] Trivalent chromium SCOs utilized.
Highlighted / bolded indicates analyte exceeded above its respective NYSDEC Unrestricted SCO.
Green / italicized value indicates analyte exceeded its respective unrestricted SCO but was below its respective Residential / Protection of GW SCO, whichever is lower.
Blue / italicized value indicates analyte exceeded its respective Residential SCO and / or Protection of Groundwater SCO but was below its Restricted Residential SCO.
Pink / italicized value indicates analyte exceeded its respective Residential SCO and / or Protection of Groundwater SCO but was below its Commercial SCO.
Pale Yellow / italicized value indicates analyte detected at above its Unrestricted SCO and Protection of Groundwater SCO but below its Residential SCO.
Highlighted / bolded indicates analyte exceeded above its respective NYSDEC Unrestricted SCO.
Green / italicized value indicates analyte exceeded its repsective unrestricted SCO but was below its respective Residential / Protection of GW SCO, whichever is lower.
NA - Not Available
~~value~~ Indicates that sample locations were removed as part of supplemental soil excavation activities.

Table 5-3
TAL Metals Soil Analytical Data
MB-26 Original Sample Location - Post Excavation Data

TAL Metals (mg/kg)	NYSDEC Unrestricted SCO	MB-26 Original Sample Location - RCRA Excavation				
		End Point Soil Samples				
		Side-wall Samples			Bottom Samples	
		MB-EP#19	MB-EP#20	MB-EP#21	MB-EP#17	MB-EP#18
		(4')	(4')	(4')	(8')	(8')
Aluminum	NA	1,260	6,420	4,930	816	496
Antimony	NA	4.3 U	4.1 U	3.8 U	3.6 U	4.0 U
Arsenic	13	3.2 U	1.2 J	0.92 J	0.59 J	3.0 U
Barium	350	42.8 U	34.2 J	25.1 J	5.1 J	40.5 U
Beryllium	7.2	0.43 U	0.35 J	0.26 J	0.36 U	0.40 U
Cadmium	2.5	0.86 U	0.81 U	0.77 U	0.71 U	0.81 U
Calcium	NA	124 J	451 J	563 J	888 U	1,010 U
Chromium[1]	30	3.2	9.1	8.6	7.3	2.6
Cobalt	NA	10.7 U	4.0 J	2.4 J	8.9 U	10.1 U
Copper	50	1.7 J	3.0 J	2.2 J	1.5 J	5.1 U
Iron	NA	2,620	7,490	8,120	2,630	1,300
Lead	63	1.4 J	4.1	4.0	1.8 U	2.0 U
Magnesium	NA	190 J	620 J	752 J	155 J	88.8 J
Manganese	1,600	21.1	676	273	36.2	45.2
Nickel	30	2.0 J	7.1 J	5.4 J	1.0 J	8.1 U
Potassium	NA	109 J	309 J	254 J	89.7 J	1010 U
Selenium	3.9	4.3 U	4.1 U	3.8 U	3.6 U	4.0 U
Silver	2	2.1 U	2.0 U	1.9 U	1.8 U	2.0 U
Sodium	NA	1,070 U	1,020 U	961 U	888 U	1,010 U
Thallium	NA	4.3 U	4.1 U	3.8 U	3.6 U	4.0 U
Vanadium	NA	3.5 J	10.3	10.5	2.7 J	1.2 J
Zinc	109	5.1 J	10.3	12.6	3.9 J	2.1 J
Mercury	0.18	0.018 U	0.022	0.013 J	0.020 U	0.018 U

Notes
J : Sample result is greater than the MDL but below the CRDL
U : Indicates analyzed for but not detected.
[1] Trivalent chromium SCOs utilized.
Highlighted / bolded indicates analyte exceeded above its respective NYSDEC Unrestricted SCO.
NA - Not Available

Table 5-4
TAL Metals Soil Analytical Data
MB-27 Original Sample Location - Post Excavation Data

TAL Metals (mg/kg)	NYSDEC Unrestricted SCO	MB-27 Original Sample Location - RCRA Excavation End Point Soil Samples				
		Side-wall Samples		Bottom Samples		
		MB-EP#22	MB-EP#23	MB-EP#24	MB-EP#25	MB-EP#26
		(1')	(1')	(2')	(2')	(2')
Aluminum	NA	1,250	1,410	1,640	2,030	2,040
Antimony	NA	3.6 U	3.8 U	4.0 U	3.6 U	3.7 U
Arsenic	13	4.8	0.57 J	0.67 J	1.4 J	0.85 J
Barium	350	4.0 J	6.4 J	15.4 J	23.1 J	14.8 J
Beryllium	7.2	0.14 J	0.15 J	0.40 U	0.36 U	0.37 U
Cadmium	2.5	0.72 U	0.76 U	0.80 U	0.17 J	0.74 U
Calcium	NA	131 J	114 J	155 J	1,280	230 J
Chromium[1]	30	20.6	3.0	3.4	6.7	3.5
Cobalt	NA	2.0 J	1.3 J	1.6 J	2.2 J	1.7 J
Copper	50	3.4 J	3.1 J	3.5 J	14.2	5.2
Iron	NA	11,100	4,890	3,620	5,230	5,640
Lead	63	4.3	1.3 J	1.7 J	16.8	2.1
Magnesium	NA	238 J	379 J	346 J	815 J	546 J
Manganese	1,600	73.8	211	531	243	378
Nickel	30	2.9 J	1.8 J	5.0 J	3.6 J	4.8 J
Potassium	NA	93.3 J	146 J	141 J	205 J	192 J
Selenium	3.9	3.6 U	3.8 U	4.0 U	3.6 U	3.7 U
Silver	2	1.8 U	1.9 U	2.0 U	0.31 J	1.8 U
Sodium	NA	895 U	955 U	1,000 U	894 U	922 U
Thallium	NA	3.6 U	3.8 U	4.0 U	3.6 U	3.7 U
Vanadium	NA	8.1 J	3.8 J	3.5 J	5.6 J	4.4 J
Zinc	109	8.8	15.1	9.2	66.6	12.4
Mercury	0.18	0.024	0.016	0.023	0.16	0.026

Notes
J : Sample result is greater than the MDL but below the CRDL
U : Indicates analyzed for but not detected.
[1] Trivalent chromium SCOs utilized.
Highlighted / bolded indicates analyte exceeded above its respective NYSDEC Unrestricted SCO.
NA - Not Available

Table 5-5
TAL Metals Soil Analytical Data
MB-31 Original Sample Location - Post Excavation Data

TAL Metals (mg/kg)	NYSDEC SCOs			MB-31 Original Sample Location - RCRA Excavation						
				End Point Soil Samples					Supplemental Endpoint Samples	
				Side-wall Samples				Bottom Sample	Side-wall Samples	
	Unrestricted	Residential	Protection of Groundwater	MB-EP#28 (1')	MB-EP#29 (1')	MB-EP#30 (1')	MB-EP#31 (1')	MB-EP#27 (2')	MB-EP#85 (1')	MB-EP#86 (1')
Aluminum	NA	NA	NA	6,140	2,840	5,450	4,610	6,080	2,840	5,130
Antimony	NA	NA	NA	3.7 U	3.7 U	3.6 U	4.0 U	4.8 U	3.9 U	4.8 U
Arsenic	13	16	16	1.8 J	2.8 U	1.4 J	2.3 J	1.4 J	0.82 J	1.8 J
Barium	350	350	820	31.8 J	11.5 J	36.4	30.0 J	44.9 J	12.1 J	23.2 J
Beryllium	7.2	14	47	0.36 J	0.11 J	0.28 J	0.29 J	0.43 J	0.12 J	0.24 J
Cadmium	2.5	2.5	7.5	0.74 U	0.74 U	0.71 U	0.51 J	0.97 U	0.77 U	0.12 J
Calcium	NA	NA	NA	510 J	261 J	654 J	1,330	1,080 J	5,080	732 J
Chromium[1]	30	36	NS	10.2	4.7	10.6	10.0	12.9	5.1	10.8
Cobalt	NA	NA	NA	3.5 J	1.2 J	2.8 J	3.6 J	4.4 J	1.4 J	2.7 J
Copper	50	270	1,720	6.3	1.5 J	4.7	5.0	6.9	2.6 J	5.7 J
Iron	NA	NA	NA	9,220	2,700	7,960	8,440	11,300	3,930	8,250
Lead	63	400	450	23.4	3.1	17.2	10.5	9.9	4.3	12.6
Magnesium	NA	NA	NA	1,080	540 J	1,180	994 J	1,770	958 J	1,150 J
Manganese	1,600	2,000	2,000	190	23.0	88.6	92.7	101	71.1	129
Nickel	30	140	130	6.6 J	3.1 J	5.9 J	5.9 J	9.9	3.2 J	5.7 J
Potassium	NA	NA	NA	272 J	210 J	412 J	581 J	1170 J	260 J	395 J
Selenium	3.9	36	4	3.7 U	3.7 U	3.6 U	4.0 U	4.8 U	3.9 U	4.8 U
Silver	2	36	8.3	1.9 U	1.8 U	0.86 J	1.5 J	0.67 J	0.21 J	*7.5*
Sodium	NA	NA	NA	928 U	923 U	893 U	1,010 U	1,210 U	969 U	124 J
Thallium	NA	NA	NA	3.7 U	3.7 U	3.6 U	4.0 U	4.8 U	3.9 U	4.8 U
Vanadium	NA	NA	NA	12.2	3.9 J	11.1	11.6	14.1	5.6 J	11.9 J
Zinc	109	2,200	2,480	24.8	11.3	77.3	21.3	29.4	9.8	24.4
Mercury	0.18	0.81	0.73	0.15	0.020	**0.92**	0.066	0.047	0.049	*0.23*

Notes:
J : Sample result is greater than the MDL but below the CRDL
U : Indicates analyzed for but not detected.
[1] Trivalent chromium SCOs utilized.
Highlighted / bolded indicates analyte exceeded above its respective NYSDEC Unrestricted SCO.
Green / italicized value indictes analyte exceeded its repsective unrestricted SCO but was below its respective Residential / Protection of GW SCO, whichever is lower.
NA - Not Available
Indicates that sample locations were removed as part of supplemental soil excavation activities.

Table 5-6
TAL Metals Soil Analytical Data
ER-3 Original Sample Location - Post Excavation Data

TAL Metals (mg/kg)	NYSDEC SCOs			Post-excavation End-point Soil Analytical Data											
				ER-3 Original Sample Location					Supplemental Endpoint Samples					Supplemental Endpoint Samples	
				Side-wall Samples			Bottom Samples		Side-wall Samples		Bottom Samples			Bottom Samples	
	Unrestricted	Residential	Protection of Groundwater	ER-EP#3 (1')	~~ER-EP#4 (1')~~	ER-EP#5 (1')	~~ER-EP#1 (3')~~	~~ER-EP#2 (4')~~	~~ER-EP#9 (1')~~	~~ER-EP#10 (1')~~	~~ER-EP#6 (5')~~	~~ER-EP#7 (5')~~	~~ER-EP#8 (5')~~	ER-EP#11 (7')	ER-EP#12 (7')
Aluminum	NA	NA	NA	3,530	~~2,700~~	3,230	~~3,480~~	~~2,240~~	~~2,510~~	~~2,180~~	~~1,010~~	~~2,220~~	~~1,660~~	967	1,310
Antimony	NA	NA	NA	3.5 U	~~3.3 U~~	3.7 U	~~3.7 U~~	~~3.4 U~~	~~3.5 U~~	~~3.7 U~~	~~3.6 U~~	~~3.8 U~~	~~3.5 U~~	3.8 U	4.1 U
Arsenic	13	16	16	1.4 J	~~1.7 J~~	2.5 J	~~1.9 J~~	~~1.0 J~~	~~2.0 J~~	~~1.8 J~~	~~2.7 U~~	~~1.6 J~~	~~0.72 J~~	1.8 J	1.6 J
Barium	350	350	820	14.3 J	~~19.1 J~~	22.9 J	~~19.6 J~~	~~15.6 J~~	~~15.4 J~~	~~14.5 J~~	~~6.5 J~~	~~15.8 J~~	~~19.3 J~~	8.5 J	4.7 J
Beryllium	7.2	14	47	0.16 J	~~0.18 J~~	0.19 J	~~0.20 J~~	~~0.14 J~~	~~0.18 J~~	~~0.15 J~~	~~0.12 J~~	~~0.15 J~~	~~0.13 J~~	0.13 J	0.15 J
Cadmium	2.5	2.5	7.5	0.70 U	~~0.66 U~~	0.74 U	~~0.73 U~~	~~0.68 U~~	~~0.70 U~~	~~0.75 U~~	~~0.72 U~~	~~0.77 U~~	~~0.70 U~~	0.77 U	0.82 U
Calcium	NA	NA	NA	231 J	~~2,950~~	9,270	~~1,870~~	~~453 J~~	~~463 J~~	~~558 J~~	~~175 J~~	~~1,010~~	~~315 J~~	250 J	190 J
Chromium[1]	30	36	NS	6.8	~~6.6~~	7.6	~~7.6~~	~~4.9~~	~~6.8~~	~~5.3~~	~~2.2~~	~~5.7~~	~~4.9~~	8.3	5.2
Cobalt	NA	NA	NA	1.9 J	~~2.2 J~~	2.4 J	~~2.9 J~~	~~1.7 J~~	~~2.2 J~~	~~2.0 J~~	~~1.1 J~~	~~1.9 J~~	~~1.5 J~~	4.2 J	1.4 J
Copper	50	270	1,720	3.5 J	~~4.9~~	6.3	~~6.0~~	~~4.0 J~~	~~5.0~~	~~3.7 J~~	~~2.2 J~~	~~4.9~~	~~3.1 J~~	6.8	2.6 J
Iron	NA	NA	NA	5,440	~~5,710~~	6,800	~~6,470~~	~~4,820~~	~~6,140~~	~~4,990~~	~~3,680~~	~~4,990~~	~~4,480~~	10,400	4,880
Lead	63	400	450	4.3	~~10.0~~	8.3	~~14.6~~	~~4.3~~	~~8.6~~	~~5.1~~	~~1.1 J~~	~~8.7~~	~~1.6 J~~	1.9	1.3 J
Magnesium	NA	NA	NA	747 J	~~854~~	989	~~1,070~~	~~646 J~~	~~747 J B~~	~~720 J B~~	~~317 J B~~	~~722 J B~~	~~677 J B~~	332 J B	391 J B
Manganese	1,600	2,000	2,000	65.9	~~125~~	134	~~140~~	~~102~~	~~118~~	~~123~~	~~60.0~~	~~114~~	~~85.9~~	108	58.6
Nickel	30	140	130	3.9 J	~~4.2 J~~	4.9 J	~~4.9 J~~	~~3.3 J~~	~~4.5 J~~	~~3.8 J~~	~~1.8 J~~	~~3.7 J~~	~~3.0 J~~	7.1 J	2.4 J
Potassium	NA	NA	NA	360 J	~~538 J~~	1,030	~~639 J~~	~~455 J~~	~~422 J~~	~~435 J~~	~~212 J~~	~~432 J~~	~~638 J~~	273 J	208 J
Selenium	3.9	36	4	3.5 U	~~3.3 U~~	3.7 U	~~3.7 U~~	~~3.4 U~~	~~3.5 U~~	~~3.7 U~~	~~3.6 U~~	~~3.8 U~~	~~3.5 U~~	3.8 U	4.1 U
Silver	2	36	8.3	1.7 U	**~~4.8~~**	0.70 J	**~~2.4~~**	**~~2.1~~**	1.8 U	**~~2.0~~**	1.8 U	**~~5.2~~**	1.8 U	1.9 U	2.1 U
Sodium	NA	NA	NA	873 U	~~825 U~~	153 J	~~916 U~~	~~855 U~~	~~879 U~~	~~935 U~~	~~904 U~~	~~960 U~~	~~878 U~~	959 U	1,030 U
Thallium	NA	NA	NA	3.5 U	~~3.3 U~~	3.7 U	~~3.7 U~~	~~3.4 U~~	~~3.5 U~~	~~3.7 U~~	~~3.6 U~~	~~3.8 U~~	~~3.5 U~~	3.8 U	4.1 U
Vanadium	NA	NA	NA	8.8	~~8.0 J~~	9.9	~~10.0~~	~~6.3 J~~	~~10.5~~	~~6.8 J~~	~~3.1 J~~	~~8.7 J~~	~~7.0 J~~	3.6 J	4.5 J
Zinc	109	2,200	2,480	10.7	~~17.6~~	21.2	~~16.4~~	~~11.4~~	~~13.8~~	~~10.7~~	~~5.0 J~~	~~13.7~~	~~8.0~~	14.9	6.8
Mercury	0.18	0.81	0.73	0.018 U	~~0.018~~	0.013 J	~~0.014 J~~	~~0.017 J~~	~~0.018~~	~~0.020~~	~~0.017 U~~	~~0.032~~	~~0.018 U~~	0.018 U	0.017 U

TAL Metals (mg/kg)	NYSDEC SCOs			Post-excavation End-point Soil Analytical Data					
				ER-3 Original Sample Location					
				Co-located Bottom and Sidewall Samples					
	Unrestricted	Residential	Protection of Groundwater	ER-EP#13 (1')	ER-EP#14 (5')	ER-EP#15 (1')	ER-EP#16 (5')	ER-EP#17 (1')	ER-EP#18 (5')
Aluminum	NA	NA	NA	2,860	1,590	1,330	2,390	2,260	1,910
Antimony	NA	NA	NA	4.1 U	3.6 U	3.9 U	3.5 U	3.1 U	2.9 U
Arsenic	13	16	16	1.0 J	2.7 U	2.9 U	1.3 J	1.0 J	1.1 J
Barium	350	350	820	21.2 J	15.0 J	14.9 J	13.1 J	14.9 J	15.3 J
Beryllium	7.2	14	47	0.41 U	0.36 U	0.39 U	0.35 U	0.31 U	0.29 U
Cadmium	2.5	2.5	7.5	0.81 U	0.72 U	0.77 U	0.69 U	0.63 U	0.58 U
Calcium	NA	NA	NA	363 J	260 J	270 J	384 J	229 J	277 J
Chromium[1]	30	36	NS	6.0	4.7	4.2	5.9	6.5	4.6
Cobalt	NA	NA	NA	2.2 J	1.2 J	1.3 J	1.8 J	1.9 J	1.9 J
Copper	50	270	1,720	3.3 J	2.6 J	3.1 J	3.9 J	4.3	3.4 J
Iron	NA	NA	NA	5,670	4,280	4,400	5,410	5,150	4,600
Lead	63	400	450	5.2	2.3	1.1 J	6.7	5.1	3.2
Magnesium	NA	NA	NA	837 J	565 J	510 J	653 J	730 J	625 J
Manganese	1,600	2,000	2,000	127	74.2	76.8	97.2	93.9	101
Nickel	30	140	130	4.3 J	2.6 J	2.7 J	3.7 J	4.0 J	3.6 J
Potassium	NA	NA	NA	693 J	410 J	449 J	365 J	475 J	434 J
Selenium	3.9	36	4	4.1 U	3.6 U	3.9 U	3.5 U	3.1 U	2.9 U
Silver	2	36	8.3	2.0 U	1.8 U	1.9 U	1.5 J	1.6 U	1.4 U
Sodium	NA	NA	NA	1,010 U	898 U	966 U	865 U	150 J	719 U
Thallium	NA	NA	NA	4.1 U	3.6 U	3.9 U	3.5 U	3.1 U	2.9 U
Vanadium	NA	NA	NA	8.5 J	5.0 J	4.4 J	8.5 J	6.8 J	6.2 J
Zinc	109	2,200	2,480	12.8	8.1	6.5	11.7	12.4	11.8
Mercury	0.18	0.81	0.73	0.017 U	0.017	0.017 U	0.10	0.018 U	0.017 U

Notes
J : Sample result is greater than the MDL but below the CRDL
U : Indicates analyzed for but not detected.
B: Indicates analyte detected in blank.
[1] Trivalent chromium SCOs utilized.
Highlighted / bolded indicates analyte exceeded above its respective NYSDEC Unrestricted SCO.
NA - Not Available
~~Strikethrough~~ Indicates that sample locations were removed as part of supplemental soil excavation activities.

Table 5-7
Former Tank No. 9
TCL VOCs End Point Soil Analytical Data

TCL VOCs (mg/kg)	NYSDEC Unrestricted SCO	CP-51 Supplemental SCO (Table 2)	Former Tank No. 9 End Point Soil Samples														
			Side-wall Samples									Bottom Samples					
			T9-EP#1 (20')	T9-EP#3 (22')	T9-EP#4 (22')	T9-EP#6 (22')	T9-EP#7 (22')	T9-EP#8 (22')	T9-EP#9 (22')	T9-EP#12 (22')	T9-EP#13 (22')	T9-EP#2 (22')	T9-EP#5 (22')	T9-EP#10 (22')	T9-EP#11 (22')	TP-EP#14 (22')	T9-EP#15 (22')
1,1,1-Trichloroethane	0.68	NA	0.0011 U	~~0.0012 U~~	~~0.0012 U~~	~~0.0011 U~~	~~0.0011 U~~	0.0011 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0011 U	0.00081 U	0.00068 U	0.0012 U	0.0010 U
1,1,2,2-Tetrachloroethane	NA	NA	0.0011 U	~~0.0012 U~~	~~0.0012 U~~	~~0.0011 U~~	~~0.0011 U~~	0.0011 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0011 U	0.00081 U	0.00068 U	0.0012 U	0.0010 U
1,1,2-Trichloroethane	NA	NA	0.0011 U	~~0.0012 U~~	~~0.0012 U~~	~~0.0011 U~~	~~0.0011 U~~	0.0011 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0011 U	0.00081 U	0.00068 U	0.0012 U	0.0010 U
1,1-Dichloroethane	0.27	NA	0.0011 U	~~0.0012 U~~	~~0.0012 U~~	~~0.0011 U~~	~~0.0011 U~~	0.0011 U	0.0012	0.0010 U	0.0010 U	0.0010 U	0.0011 U	0.00081 U	0.00068 U	0.0012 U	0.0010 U
1,1-Dichloroethene	0.33	NA	0.0011 U	~~0.0012 U~~	~~0.0012 U~~	~~0.0011 U~~	~~0.0011 U~~	0.00035 J	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0011 U	0.00024 J	0.00068 U	0.0012 U	0.0010 U
1,2,3-Trichlorobenzene	NA	NA	0.0011 U	~~0.0012 U~~	~~0.0012 U~~	~~0.0011 U~~	~~0.0011 U~~	0.0011 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0011 U	0.00081 U	0.00068 U	0.0012 U	0.0010 U
1,2,4-Trichlorobenzene	NA	NA	0.0011 U	~~0.0012 U~~	~~0.0012 U~~	~~0.0011 U~~	~~0.0011 U~~	0.0011 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0011 U	0.00081 U	0.00068 U	0.0012 U	0.0010 U
1,2-Dibromo-3-Chloropropane	NA	NA	0.0011 U	~~0.0012 U~~	~~0.0012 U~~	~~0.0011 U~~	~~0.0011 U~~	0.0011 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0011 U	0.00081 U	0.00068 U	0.0012 U	0.0010 U
1,2-Dibromoethane	NA	NA	0.0011 U	~~0.0012 U~~	~~0.0012 U~~	~~0.0011 U~~	~~0.0011 U~~	0.0011 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0011 U	0.00081 U	0.00068 U	0.0012 U	0.0010 U
1,2-Dichlorobenzene	1.1	NA	0.0011 U	~~0.0012 U~~	~~0.0012 U~~	~~0.0011 U~~	~~0.0011 U~~	0.0011 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0011 U	0.00081 U	0.00068 U	0.0012 U	0.0010 U
1,2-Dichloroethane	0.02	NA	0.0011 U	~~0.0012 U~~	~~0.0012 U~~	~~0.0011 U~~	~~0.0011 U~~	0.0011 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0011 U	0.00081 U	0.00068 U	0.0012 U	0.0010 U
1,2-Dichloropropane	NA	NA	0.0011 U	~~0.0012 U~~	~~0.0012 U~~	~~0.0011 U~~	~~0.0011 U~~	0.0011 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0011 U	0.00081 U	0.00068 U	0.0012 U	0.0010 U
1,3-Dichlorobenzene	2.4	NA	0.0011 U	~~0.0012 U~~	~~0.0012 U~~	~~0.0011 U~~	~~0.0011 U~~	0.0011 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0011 U	0.00081 U	0.00068 U	0.0012 U	0.0010 U
1,4-Dichlorobenzene	1.8	NA	0.0011 U	~~0.0012 U~~	~~0.0012 U~~	~~0.0011 U~~	~~0.0011 U~~	0.0011 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0011 U	0.00081 U	0.00068 U	0.0012 U	0.0010 U
1,4-Dioxane	0.1	NA	0.021 U	~~0.023 U~~	~~0.025 U~~	~~0.021 U~~	~~0.022 U~~	0.021 U	0.021 U	0.020 U	0.020 U	0.021 U	0.021 U	0.016 U	0.014 U	0.023 U	0.021 U
2-Butanone (MEK)	0.12	NA	0.0053 U	~~0.0058 U~~	~~0.0062 U~~	~~0.0053 U~~	~~0.0035 J~~	0.0080	0.0051 U	0.0050 U	0.0051 U	0.0051 U	0.0053 U	0.0041 U	0.0034 U	0.0058 U	0.0051 U
2-Hexanone	NA	NA	0.0053 U	~~0.0058 U~~	~~0.0062 U~~	~~0.0053 U~~	~~0.0054 U~~	0.0053 U	0.0051 U	0.0050 U	0.0051 U	0.0051 U	0.0053 U	0.0041 U	0.0034 U	0.0058 U	0.0051 U
4-Methyl-2-pentanone	NA	NA	0.0053 U	~~0.0058 U~~	~~0.0062 U~~	~~0.0053 U~~	~~0.0054 U~~	0.0053 U	0.0051 U	0.0050 U	0.0051 U	0.0051 U	0.0053 U	0.0041 U	0.0034 U	0.0058 U	0.0051 U
Acetone	0.05	NA	0.0053 U	~~0.0058 U~~	~~0.0062 U~~	~~0.0053 U~~	~~0.013 B~~	0.020 B	0.0051 U	0.0054	0.0091	0.0051 U	0.0053 U	0.0041 U	0.0030 J B	0.0043 J	0.0088
Benzene	0.06	0.06	0.0011 U	~~0.0012 U~~	~~0.0012 U~~	~~0.0011 U~~	~~0.00050 J~~	0.0017	0.00064 J	0.0010 U	0.0010 U	0.0010 U	0.00020 J	0.00026 J	0.00068 U	0.0012 U	0.0010 U
Bromochloromethane	NA	NA	0.0011 U	~~0.0012 U~~	~~0.0012 U~~	~~0.0011 U~~	~~0.0011 U~~	0.0011 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0011 U	0.00081 U	0.00068 U	0.0012 U	0.0010 U
Bromodichloromethane	NA	NA	0.0011 U	~~0.0012 U~~	~~0.0012 U~~	~~0.0011 U~~	~~0.0011 U~~	0.0011 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0011 U	0.00081 U	0.00068 U	0.0012 U	0.0010 U
Bromoform	NA	NA	0.0011 U	~~0.0012 U~~	~~0.0012 U~~	~~0.0011 U~~	~~0.0011 U~~	0.0011 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0011 U	0.00081 U	0.00068 U	0.0012 U	0.0010 U
Bromomethane	NA	NA	0.0011 U	~~0.0012 U~~	~~0.0012 U~~	~~0.0011 U~~	~~0.0011 U~~	0.0011 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0011 U	0.00081 U	0.00068 U	0.0012 U	0.0010 U
Carbon disulfide	NA	NA	0.0011 U	~~0.0012 U~~	~~0.0012 U~~	~~0.0011 U~~	~~0.0055~~	0.028	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.00095 J	0.00029 J	0.00068 U	0.0012 U	0.0010 U
Carbon tetrachloride	0.76	NA	0.0011 U	~~0.0012 U~~	~~0.0012 U~~	~~0.0011 U~~	~~0.0011 U~~	0.0011 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0011 U	0.00081 U	0.00068 U	0.0012 U	0.0010 U
Chlorobenzene	1.1	NA	0.0011 U	~~0.0012 U~~	~~0.0012 U~~	~~0.0011 U~~	~~0.0011 U~~	0.0011 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0011 U	0.00081 U	0.00068 U	0.0012 U	0.0010 U
Chloroethane	NA	NA	0.0011 U	~~0.0012 U~~	~~0.0012 U~~	~~0.0011 U~~	~~0.0011 U~~	0.0011 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0011 U	0.00081 U	0.00068 U	0.0012 U	0.0010 U
Chloroform	0.37	NA	0.0011 U	~~0.0012 U~~	~~0.0012 U~~	~~0.0011 U~~	~~0.0011 U~~	0.0011 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0011 U	0.00081 U	0.00068 U	0.0012 U	0.0010 U
Chloromethane	NA	NA	0.0011 U	~~0.0012 U~~	~~0.0012 U~~	~~0.0011 U~~	~~0.0011 U~~	0.0011 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0011 U	0.00081 U	0.00068 U	0.0012 U	0.0010 U
cis-1,2-Dichloroethene	0.25	NA	0.0011 U	~~0.0012 U~~	~~0.0012 U~~	~~0.0011 U~~	~~0.00013 J~~	0.055	0.0080	0.0010 U	0.0010 U	0.0010 U	0.0011 U	0.019	0.00068 U	0.0012 U	0.0010 U
cis-1,3-Dichloropropene	NA	NA	0.0011 U	~~0.0012 U~~	~~0.0012 U~~	~~0.0011 U~~	~~0.0011 U~~	0.0011 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0011 U	0.00081 U	0.00068 U	0.0012 U	0.0010 U
Cyclohexane	NA	NA	0.0011 U	~~0.0012 U~~	~~0.0012 U~~	~~0.0011 U~~	~~0.0011 U~~	0.0011 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0011 U	0.00081 U	0.00068 U	0.0012 U	0.0010 U
Dibromochloromethane	NA	NA	0.0011 U	~~0.0012 U~~	~~0.0012 U~~	~~0.0011 U~~	~~0.0011 U~~	0.0011 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0011 U	0.00081 U	0.00068 U	0.0012 U	0.0010 U
Dichlorodifluoromethane	NA	NA	0.0011 U	~~0.0012 U~~	~~0.0012 U~~	~~0.0011 U~~	~~0.0011 U~~	0.0011 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0011 U	0.00081 U	0.00068 U	0.0012 U	0.0010 U
Ethylbenzene	1	1	0.0011 U	~~0.0012 U~~	~~0.0012 U~~	~~0.0011 U~~	~~0.0011 U~~	0.0011 U	0.0010 U	0.0010 U	0.00030 J	0.0010 U	0.0012	0.00081 U	0.00068 U	0.0012 U	0.0010 U
Freon 113	NA	NA	0.0011 U	~~0.0012 U~~	~~0.0012 U~~	~~0.0011 U~~	~~0.0011 U~~	0.0011 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0011 U	0.00081 U	0.00068 U	0.0012 U	0.0010 U
Isopropylbenzene	NA	2.3	0.0011 U	~~0.0012 U~~	~~0.0012 U~~	~~0.0011 U~~	~~0.00013 J~~	0.0011 U	0.00036 J	0.0010 U	0.00015 J	0.0010 U	0.00054 J	0.00081 U	0.00068 U	0.0012 U	0.00026 J
m&p-Xylene	0.26	0.26	0.0021 U	~~0.0023 U~~	~~0.0025 U~~	~~0.0021 U~~	~~0.0022 U~~	0.0021 U	0.0021 U	0.0020 U	0.0020 U	0.0021 U	0.0021 U	0.0016 U	0.0014 U	0.0023 U	0.0021 U
Methyl acetate	NA	NA	0.0011 U	~~0.0012 U~~	~~0.0012 U~~	~~0.0011 U~~	~~0.0011 U~~	0.0011 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0011 U	0.00081 U	0.00068 U	0.0012 U	0.0010 U
Methylcyclohexane	NA	NA	0.00031 J	~~0.0012 U~~	~~0.00084 J~~	~~0.0011 U~~	~~0.00030 J~~	0.00028 J	0.00081 J	0.0010 U	0.0010 U	0.0010 U	0.0015	0.00081 U	0.00068 U	0.0012 U	0.0010 U
Methylene Chloride	0.05	NA	0.0011 U	~~0.0012 U~~	~~0.0012 U~~	~~0.0011 U~~	~~0.0011 U~~	0.0011 U	0.0010 U	0.0010 U	0.0010 U	0.00023 J	0.0011 U	0.00053 J	0.00051 J	0.00040 J	0.00052 J
MTBE	0.93	0.93	0.0011 U	~~0.0012 U~~	~~0.0012 U~~	~~0.0011 U~~	~~0.0011 U~~	0.0011 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0011 U	0.00081 U	0.00068 U	0.0012 U	0.0010 U
Naphthalene	12	12	0.0011 U	~~0.0012 U~~	~~0.0012 U~~	~~0.0011 U~~	~~0.0011 U~~	0.0011 U	0.0010 U	0.0010 U	0.0011	0.00088 J	0.017	0.00081 U	0.00068 U	0.0012 U	0.13
o-Xylene	0.26	0.26	0.0011 U	~~0.0012 U~~	~~0.0012 U~~	~~0.0011 U~~	~~0.0011 U~~	0.0011 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.00040 J	0.00081 U	0.00068 U	0.0012 U	0.0010 U
Styrene	NA	NA	0.0011 U	~~0.0012 U~~	~~0.0012 U~~	~~0.0011 U~~	~~0.0011 U~~	0.0011 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0011 U	0.00081 U	0.00068 U	0.0012 U	0.0010 U
Tetrachloroethene	1.3	NA	0.0011 U	~~0.0012 U~~	~~0.00032 J~~	~~0.0011 U~~	~~0.0011 U~~	0.00051 J	0.056	0.00030 J	0.0010 U	0.0010 U	0.0011 U	0.00081 U	0.00068 U	0.00024 J	0.015
Toluene	0.7	0.7	0.0011 U	~~0.0012 U~~	~~0.0012 U~~	~~0.0011 U~~	~~0.0011 U~~	0.00020 J	0.0010 U	0.0010 U	0.0010 U	0.00044 J	0.00035 J	0.00081 U	0.00068 U	0.0012 U	0.0010 U
trans-1,2-Dichloroethene	0.19	NA	0.0011 U	~~0.0012 U~~	~~0.0012 U~~	~~0.0011 U~~	~~0.0011 U~~	0.00083 J	0.00066 J	0.0010 U	0.0010 U	0.0010 U	0.0011 U	0.00081 U	0.00068 U	0.0012 U	0.0010 U
trans-1,3-Dichloropropene	NA	NA	0.0011 U	~~0.0012 U~~	~~0.0012 U~~	~~0.0011 U~~	~~0.0011 U~~	0.0011 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0011 U	0.00081 U	0.00068 U	0.0012 U	0.0010 U
Trichloroethene	0.47	NA	0.0011 U	~~0.0012 U~~	~~0.0012 U~~	~~0.0011 U~~	~~0.0011 U~~	0.0015	0.019	0.0010 U	0.0010 U	0.0010 U	0.0011 U	0.0016	0.00068 U	0.0012 U	0.00019 J
Trichlorofluoromethane	NA	NA	0.0011 U	~~0.0012 U~~	~~0.0012 U~~	~~0.0011 U~~	~~0.0011 U~~	0.0011 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0011 U	0.00081 U	0.00068 U	0.0012 U	0.0010 U
Vinyl chloride	0.02	NA	0.0011 U	~~0.0012 U~~	~~0.0012 U~~	~~0.0011 U~~	~~0.0011 U~~	0.0011 U	0.00080 J	0.0010 U	0.0010 U	0.0010 U	0.0011 U	0.00081 U	0.00068 U	0.0012 U	0.0010 U
Xylenes, Total	0.26	0.26	0.0032 U	~~0.0035 U~~	~~0.0037 U~~	~~0.0032 U~~	~~0.0033 U~~	0.0032 U	0.0031 U	0.0030 U	0.0031 U	0.0031 U	0.0032 U	0.0024 U	0.0021 U	0.0035 U	0.0031 U
Total VOC TICs (mg/kg)	NA	NA	ND	~~ND~~	~~ND~~	~~ND~~	~~ND~~	ND	0.1291	ND	ND	0.0749	0.802	ND	ND	ND	1.152

Notes
ND: TIC not detected
J : This flag indicates the presumptive evidence of a compound.
J B : The analyte was found in an associated blank, as well as in the sample.
J N : Indicates an estimated value.
U : Analyzed for but not detected.
U * : LCS or LCSD exceeds the control limits
Total xylenes SCO utilized for all isomers
Highlighted / bolded indicates analyte exceeded above its respective NYSDEC Unrestricted SCO / CP-51 Supplemental SCO.
NA - Not Available

Table 5-8
Former Tank No. 9
TCL SVOCs End Point Soil Analytical Data

TCL SVOCs (mg/kg)	NYSDEC Unrestricted SCO	CP-51 Supplemental SCO (Table 3)	Former Tank No. 9 End Point Soil Samples															
			Side-wall Samples									Bottom Samples						
			T9-EP#1 (20')	~~T9-EP#3 (22')~~	~~T9-EP#4 (22')~~	~~T9-EP#6 (22')~~	~~T9-EP#7 (22')~~	T9-EP#8 (22')	T9-EP#9 (22')	T9-EP#12 (22')	T9-EP#13 (22')	T9-EP#2 (22')	T9-EP#5 (22')	T9-EP#10 (22')	T9-EP#11 (22')	TP-EP#14 (22')	T9-EP#15 (22')
1,2,4,5-Tetrachlorobenzene	NA	NA	0.43 U	~~0.36 U~~	~~0.45 U~~	~~0.40 U~~	~~0.43 U~~	0.40 U	0.44 U	0.40 U	0.38 U	0.37 U	0.40 U	0.39 U	0.38 U	0.44 U	0.43 U
1,4-Dioxane	0.1	NA	0.43 U	~~0.36 U~~	~~0.45 U~~	~~0.40 U~~	~~0.43 U~~	0.40 U	0.44 U	0.40 U	0.38 U	0.37 U	0.40 U	0.39 U	0.38 U	0.44 U	0.43 U
2,2'-oxybis[1-chloropropane]	NA	NA	0.43 U	~~0.36 U~~	~~0.45 U~~	~~0.40 U~~	~~0.43 U~~	0.40 U	0.44 U	0.40 U	0.38 U	0.37 U	0.40 U	0.39 U	0.38 U	0.44 U	0.43 U
2,3,4,6-Tetrachlorophenol	NA	NA	0.43 U	~~0.36 U~~	~~0.45 U~~	~~0.40 U~~	~~0.43 U~~	0.40 U	0.44 U	0.40 U	0.38 U	0.37 U	0.40 U	0.39 U	0.38 U	0.44 U	0.43 U
2,4,5-Trichlorophenol	NA	NA	0.43 U	~~0.36 U~~	~~0.45 U~~	~~0.40 U~~	~~0.43 U~~	0.40 U	0.44 U	0.40 U	0.38 U	0.37 U	0.40 U	0.39 U	0.38 U	0.44 U	0.43 U
2,4,6-Trichlorophenol	NA	NA	0.43 U	~~0.36 U~~	~~0.45 U~~	~~0.40 U~~	~~0.43 U~~	0.40 U	0.44 U	0.40 U	0.38 U	0.37 U	0.40 U	0.39 U	0.38 U	0.44 U	0.43 U
2,4-Dichlorophenol	NA	NA	0.43 U	~~0.36 U~~	~~0.45 U~~	~~0.40 U~~	~~0.43 U~~	0.40 U	0.44 U	0.40 U	0.38 U	0.37 U	0.40 U	0.39 U	0.38 U	0.44 U	0.43 U
2,4-Dimethylphenol	NA	NA	0.43 U	~~0.36 U~~	~~0.45 U~~	~~0.40 U~~	~~0.43 U~~	0.40 U	0.44 U	0.40 U	0.38 U	0.37 U	0.40 U	0.39 U	0.38 U	0.44 U	0.43 U
2,4-Dinitrophenol	NA	NA	1.3 U	~~1.1 U~~	~~1.4 U~~	~~1.2 U~~	~~1.3 U~~	1.2 U	1.3 U	1.2 U	1.1 U	1.1 U	1.2 U	1.2 U	1.2 U	1.3 U	1.3 U
2,4-Dinitrotoluene	NA	NA	0.087 U	~~0.073 U~~	~~0.092 U~~	~~0.081 U~~	~~0.087 U~~	0.080 U	0.090 U	0.081 U	0.076 U	0.076 U	0.082 U	0.079 U	0.078 U	0.090 U	0.087 U
2,6-Dinitrotoluene	NA	NA	0.087 U	~~0.073 U~~	~~0.092 U~~	~~0.081 U~~	~~0.087 U~~	0.080 U	0.090 U	0.081 U	0.076 U	0.076 U	0.082 U	0.079 U	0.078 U	0.090 U	0.087 U
2-Chloronaphthalene	NA	NA	0.43 U	~~0.36 U~~	~~0.45 U~~	~~0.40 U~~	~~0.43 U~~	0.40 U	0.44 U	0.40 U	0.38 U	0.37 U	0.40 U	0.39 U	0.38 U	0.44 U	0.43 U
2-Chlorophenol	NA	NA	0.43 U	~~0.36 U~~	~~0.45 U~~	~~0.40 U~~	~~0.43 U~~	0.40 U	0.44 U	0.40 U	0.38 U	0.37 U	0.40 U	0.39 U	0.38 U	0.44 U	0.43 U
2-Methylnaphthalene	NA	NA	0.43 U	~~0.36 U~~	~~0.45 U~~	~~0.40 U~~	~~0.43 U~~	0.40 U	0.44 U	0.40 U	0.38 U	0.37 U	0.40 U	0.39 U	0.38 U	0.44 U	0.43 U
2-Methylphenol	0.33	NA	0.43 U	~~0.36 U~~	~~0.45 U~~	~~0.40 U~~	~~0.43 U~~	0.40 U	0.44 U	0.40 U	0.38 U	0.37 U	0.40 U	0.39 U	0.38 U	0.44 U	0.43 U
2-Nitroaniline	NA	NA	0.87 U	~~0.73 U~~	~~0.92 U~~	~~0.81 U~~	~~0.87 U~~	0.80 U	0.90 U	0.81 U	0.76 U	0.76 U	0.82 U	0.79 U	0.78 U	0.90 U	0.87 U
2-Nitrophenol	NA	NA	0.43 U	~~0.36 U~~	~~0.45 U~~	~~0.40 U~~	~~0.43 U~~	0.40 U	0.44 U	0.40 U	0.38 U	0.37 U	0.40 U	0.39 U	0.38 U	0.44 U	0.43 U
3,3'-Dichlorobenzidine	NA	NA	0.87 U	~~0.73 U~~	~~0.92 U~~	~~0.81 U~~	~~0.87 U~~	0.80 U	0.90 U	0.81 U	0.76 U	0.76 U	0.82 U	0.79 U	0.78 U	0.90 U	0.87 U
3-Nitroaniline	NA	NA	0.87 U	~~0.73 U~~	~~0.92 U~~	~~0.81 U~~	~~0.87 U~~	0.80 U	0.90 U	0.81 U	0.76 U	0.76 U	0.82 U	0.79 U	0.78 U	0.90 U	0.87 U
4,6-Dinitro-2-methylphenol	NA	NA	1.3 U	~~1.1 U~~	~~1.4 U~~	~~1.2 U~~	~~1.3 U~~	1.2 U	1.3 U	1.2 U	1.1 U	1.1 U	1.2 U	1.2 U	1.2 U	1.3 U	1.3 U
4-Bromophenyl phenyl ether	NA	NA	0.43 U	~~0.36 U~~	~~0.45 U~~	~~0.40 U~~	~~0.43 U~~	0.40 U	0.44 U	0.40 U	0.38 U	0.37 U	0.40 U	0.39 U	0.38 U	0.44 U	0.43 U
4-Chloro-3-methylphenol	NA	NA	0.43 U	~~0.36 U~~	~~0.45 U~~	~~0.40 U~~	~~0.43 U~~	0.40 U	0.44 U	0.40 U	0.38 U	0.37 U	0.40 U	0.39 U	0.38 U	0.44 U	0.43 U
4-Chloroaniline	NA	NA	0.43 U	~~0.36 U~~	~~0.45 U~~	~~0.40 U~~	~~0.43 U~~	0.40 U	0.44 U	0.40 U	0.38 U	0.37 U	0.40 U	0.39 U	0.38 U	0.44 U	0.43 U
4-Chlorophenyl phenyl ether	NA	NA	0.43 U	~~0.36 U~~	~~0.45 U~~	~~0.40 U~~	~~0.43 U~~	0.40 U	0.44 U	0.40 U	0.38 U	0.37 U	0.40 U	0.39 U	0.38 U	0.44 U	0.43 U
4-Methylphenol	0.33	NA	0.43 U	~~0.36 U~~	~~0.45 U~~	~~0.40 U~~	~~0.43 U~~	0.40 U	0.44 U	0.40 U	0.38 U	0.37 U	0.40 U	0.39 U	0.38 U	0.44 U	0.43 U
4-Nitroaniline	NA	NA	0.87 U	~~0.73 U~~	~~0.92 U~~	~~0.81 U~~	~~0.87 U~~	0.80 U	0.90 U	0.81 U	0.76 U	0.76 U	0.82 U	0.79 U	0.78 U	0.90 U	0.87 U
4-Nitrophenol	NA	NA	1.3 U	~~1.1 U~~	~~1.4 U~~	~~1.2 U~~	~~1.3 U~~	1.2 U	1.3 U	1.2 U	1.1 U	1.1 U	1.2 U	1.2 U	1.2 U	1.3 U	1.3 U
Acenaphthene	20	20	0.43 U	~~0.36 U~~	~~0.45 U~~	~~0.40 U~~	~~0.43 U~~	0.40 U	0.44 U	0.40 U	0.38 U	0.37 U	0.40 U	0.39 U	0.38 U	0.44 U	0.43 U
Acenaphthylene	100	100	0.43 U	~~0.36 U~~	~~0.45 U~~	~~0.40 U~~	~~0.43 U~~	0.40 U	0.44 U	0.40 U	0.38 U	0.37 U	0.40 U	0.39 U	0.38 U	0.44 U	0.43 U
Acetophenone	NA	NA	0.43 U	~~0.36 U~~	~~0.45 U~~	~~0.40 U~~	~~0.43 U~~	0.40 U	0.44 U	0.40 U	0.38 U	0.37 U	0.40 U	0.39 U	0.38 U	0.44 U	0.43 U
Anthracene	100	100	0.43 U	~~0.36 U~~	~~0.45 U~~	~~0.40 U~~	~~0.43 U~~	0.40 U	0.44 U	0.40 U	0.38 U	0.37 U	0.40 U	0.39 U	0.38 U	0.44 U	0.43 U
Atrazine	NA	NA	0.43 U	~~0.36 U~~	~~0.45 U~~	~~0.40 U~~	~~0.43 U~~	0.40 U	0.44 U	0.40 U	0.38 U	0.37 U	0.40 U	0.39 U	0.38 U	0.44 U	0.43 U
Benzaldehyde	NA	NA	0.43 U	~~0.36 U~~	~~0.45 U~~	~~0.40 U~~	~~0.43 U~~	0.40 U	0.44 U	0.40 U	0.38 U	0.37 U	0.40 U	0.39 U	0.38 U	0.44 U	0.43 U
Benzo[a]anthracene	1	1	0.043 U	~~0.036 U~~	~~0.045 U~~	~~0.040 U~~	~~0.043 U~~	0.040 U	0.044 U	0.040 U	0.038 U	0.037 U	0.040 U	0.039 U	0.038 U	0.044 U	0.043 U
Benzo[a]pyrene	1	1	0.043 U	~~0.036 U~~	~~0.045 U~~	~~0.040 U~~	~~0.043 U~~	0.040 U	0.044 U	0.040 U	0.038 U	0.037 U	0.040 U *	0.039 U	0.038 U	0.044 U	0.043 U
Benzo[b]fluoranthene	1	1	0.043 U	~~0.036 U~~	~~0.045 U~~	~~0.040 U~~	~~0.043 U~~	0.040 U	0.044 U	0.040 U	0.038 U	0.037 U	0.040 U *	0.039 U	0.038 U	0.044 U	0.043 U
Benzo[g,h,i]perylene	100	100	0.43 U	~~0.36 U~~	~~0.45 U~~	~~0.40 U~~	~~0.43 U~~	0.40 U	0.44 U	0.40 U	0.38 U	0.37 U	0.40 U	0.39 U	0.38 U	0.44 U	0.43 U
Benzo[k]fluoranthene	0.8	0.8	0.043 U	~~0.036 U~~	~~0.045 U~~	~~0.040 U~~	~~0.043 U~~	0.040 U	0.044 U	0.040 U	0.038 U	0.037 U	0.040 U	0.039 U	0.038 U	0.044 U	0.043 U
Bis(2-chloroethoxy)methane	NA	NA	0.43 U	~~0.36 U~~	~~0.45 U~~	~~0.40 U~~	~~0.43 U~~	0.40 U	0.44 U	0.40 U	0.38 U	0.37 U	0.40 U	0.39 U	0.38 U	0.44 U	0.43 U
Bis(2-chloroethyl)ether	NA	NA	0.043 U	~~0.036 U~~	~~0.045 U~~	~~0.040 U~~	~~0.043 U~~	0.040 U	0.044 U	0.040 U	0.038 U	0.037 U	0.040 U	0.039 U	0.038 U	0.044 U	0.043 U
Bis(2-ethylhexyl) phthalate	NA	NA	0.43 U	~~0.36 U~~	~~0.45 U~~	~~0.40 U~~	~~0.43 U~~	0.40 U	0.44 U	0.40 U	0.38 U	0.37 U	0.40 U	0.39 U	0.38 U	0.44 U	0.43 U
Butyl benzyl phthalate	NA	NA	0.43 U	~~0.36 U~~	~~0.45 U~~	~~0.40 U~~	~~0.43 U~~	0.40 U	0.44 U	0.40 U	0.38 U	0.37 U	0.40 U	0.39 U	0.38 U	0.44 U	0.43 U
Caprolactam	NA	NA	0.43 U	~~0.36 U~~	~~0.45 U~~	~~0.40 U~~	~~0.43 U~~	0.40 U	0.44 U	0.40 U	0.38 U	0.37 U	0.40 U	0.39 U	0.38 U	0.44 U	0.43 U
Carbazole	NA	NA	0.43 U	~~0.36 U~~	~~0.45 U~~	~~0.40 U~~	~~0.43 U~~	0.40 U	0.44 U	0.40 U	0.38 U	0.37 U	0.40 U	0.39 U	0.38 U	0.44 U	0.43 U
Chrysene	1	1	0.43 U	~~0.36 U~~	~~0.45 U~~	~~0.40 U~~	~~0.43 U~~	0.40 U	0.44 U	0.40 U	0.38 U	0.37 U	0.40 U	0.39 U	0.38 U	0.44 U	0.43 U
Dibenz(a,h)anthracene	0.33	0.33	0.043 U	~~0.036 U~~	~~0.045 U~~	~~0.040 U~~	~~0.043 U~~	0.040 U	0.044 U	0.040 U	0.038 U	0.037 U	0.040 U	0.039 U	0.038 U	0.044 U	0.043 U
Dibenzofuran	7	NA	0.43 U	~~0.36 U~~	~~0.45 U~~	~~0.40 U~~	~~0.43 U~~	0.40 U	0.44 U	0.40 U	0.38 U	0.37 U	0.40 U	0.39 U	0.38 U	0.44 U	0.43 U
Diethyl phthalate	NA	NA	0.43 U	~~0.36 U~~	~~0.45 U~~	~~0.40 U~~	~~0.43 U~~	0.40 U	0.44 U	0.40 U	0.38 U	0.37 U	0.40 U	0.39 U	0.38 U	0.44 U	0.43 U
Dimethyl phthalate	NA	NA	0.43 U	~~0.36 U~~	~~0.45 U~~	~~0.40 U~~	~~0.43 U~~	0.40 U	0.44 U	0.40 U	0.38 U	0.37 U	0.40 U	0.39 U	0.38 U	0.44 U	0.43 U
Di-n-butyl phthalate	NA	NA	0.12 J	~~0.36 U~~	~~0.064 J~~	~~0.40 U~~	~~0.11 J~~	0.12 J	0.44 U	0.40 U	0.064 J	0.10 J	0.059 J	0.39 U	0.38 U	0.44 U	0.43 U
Di-n-octyl phthalate	NA	NA	0.43 U	~~0.36 U~~	~~0.45 U~~	~~0.40 U~~	~~0.43 U~~	0.40 U	0.44 U	0.40 U	0.38 U	0.37 U	0.40 U	0.39 U	0.38 U	0.44 U	0.43 U
Diphenyl	NA	NA	0.43 U	~~0.36 U~~	~~0.45 U~~	~~0.40 U~~	~~0.43 U~~	0.40 U	0.44 U	0.40 U	0.38 U	0.37 U	0.40 U	0.39 U	0.38 U	0.44 U	0.43 U
Fluoranthene	100	100	0.43 U	~~0.36 U~~	~~0.45 U~~	~~0.40 U~~	~~0.43 U~~	0.40 U	0.44 U	0.40 U	0.38 U	0.37 U	0.40 U	0.39 U	0.38 U	0.44 U	0.43 U
Fluorene	30	30	0.43 U	~~0.36 U~~	~~0.45 U~~	~~0.40 U~~	~~0.43 U~~	0.40 U	0.44 U	0.40 U	0.38 U	0.37 U	0.40 U	0.39 U	0.38 U	0.44 U	0.43 U
Hexachlorobenzene	0.33	NA	0.043 U	~~0.036 U~~	~~0.045 U~~	~~0.040 U~~	~~0.043 U~~	0.040 U	0.044 U	0.040 U	0.038 U	0.037 U	0.040 U	0.039 U	0.038 U	0.044 U	0.043 U
Hexachlorobutadiene	NA	NA	0.087 U	~~0.073 U~~	~~0.092 U~~	~~0.081 U~~	~~0.087 U~~	0.080 U	0.090 U	0.081 U	0.076 U	0.076 U	0.082 U	0.079 U	0.078 U	0.090 U	0.087 U
Hexachlorocyclopentadiene	NA	NA	0.43 U	~~0.36 U~~	~~0.45 U~~	~~0.40 U~~	~~0.43 U~~	0.40 U	0.44 U	0.40 U	0.38 U	0.37 U	0.40 U	0.39 U	0.38 U	0.44 U	0.43 U
Hexachloroethane	NA	NA	0.043 U	~~0.036 U~~	~~0.045 U~~	~~0.040 U~~	~~0.043 U~~	0.040 U	0.044 U	0.040 U	0.038 U	0.037 U	0.040 U	0.039 U	0.038 U	0.044 U	0.043 U
Indeno[1,2,3-cd]pyrene	0.5	0.5	0.043 U	~~0.036 U~~	~~0.045 U~~	~~0.040 U~~	~~0.043 U~~	0.040 U	0.044 U	0.040 U	0.038 U	0.037 U	0.040 U	0.039 U	0.038 U	0.044 U	0.043 U
Isophorone	NA	NA	0.43 U	~~0.36 U~~	~~0.45 U~~	~~0.40 U~~	~~0.43 U~~	0.40 U	0.44 U	0.40 U	0.38 U	0.37 U	0.40 U	0.39 U	0.38 U	0.44 U	0.43 U
Naphthalene	12	12	0.43 U	~~0.36 U~~	~~0.45 U~~	~~0.40 U~~	~~0.43 U~~	0.40 U	0.44 U	0.40 U	0.38 U	0.37 U	0.40 U	0.39 U	0.38 U	0.44 U	0.43 U
Nitrobenzene	NA	NA	0.043 U	~~0.036 U~~	~~0.045 U~~	~~0.040 U~~	~~0.043 U~~	0.040 U	0.044 U	0.040 U	0.038 U	0.037 U	0.040 U	0.039 U	0.038 U	0.044 U	0.043 U
N-Nitrosodi-n-propylamine	NA	NA	0.043 U	~~0.036 U~~	~~0.045 U~~	~~0.040 U~~	~~0.043 U~~	0.040 U	0.044 U	0.040 U	0.038 U	0.037 U	0.040 U	0.039 U	0.038 U	0.044 U	0.043 U
N-Nitrosodiphenylamine	NA	NA	0.43 U	~~0.36 U~~	~~0.45 U~~	~~0.40 U~~	~~0.43 U~~	0.40 U	0.44 U	0.40 U	0.38 U	0.37 U	0.40 U	0.39 U	0.38 U	0.44 U	0.43 U
Pentachlorophenol	0.8	NA	1.3 U	~~1.1 U~~	~~1.4 U~~	~~1.2 U~~	~~1.3 U~~	1.2 U	1.3 U	1.2 U	1.1 U	1.1 U	1.2 U	1.2 U	1.2 U	1.3 U	1.3 U
Phenanthrene	100	100	0.43 U	~~0.36 U~~	~~0.45 U~~	~~0.40 U~~	~~0.43 U~~	0.40 U	0.44 U	0.40 U	0.38 U	0.37 U	0.40 U	0.39 U	0.38 U	0.44 U	0.43 U
Phenol	0.33	NA	0.43 U	~~0.36 U~~	~~0.45 U~~	~~0.40 U~~	~~0.43 U~~	0.40 U	0.44 U	0.40 U	0.38 U	0.37 U	0.40 U	0.39 U	0.38 U	0.44 U	0.43 U
Pyrene	100	100	0.43 U	~~0.36 U~~	~~0.45 U~~	~~0.40 U~~	~~0.43 U~~	0.40 U	0.44 U	0.40 U	0.38 U	0.37 U	0.40 U	0.39 U	0.38 U	0.44 U	0.43 U
Pyridine	NA	NA	0.43 U	~~0.36 U~~	~~0.45 U~~	~~0.40 U~~	~~0.43 U~~	0.40 U	0.44 U	0.40 U	0.38 U	0.37 U	0.40 U	0.39 U	0.38 U	0.44 U	0.43 U
Total SVOC TICs (mg/kg)	NA	NA	ND	~~ND~~	~~ND~~	~~ND~~	~~ND~~	1.31	1.99	ND	0.39	ND	ND	ND	ND	ND	ND

Notes
ND: TIC not detected
J : Indicates an estimated value.
J N : This flag indicates the presumptive evidence of a compound.
U : Analyzed for but not detected.
U * : LCS or LCSD exceeds the control limits
Highlighted / bolded indicates analyte exceeded above its respective NYSDEC Unrestricted SCO / CP-51 Supplemental SCO.
NA - Not Available

Table 5-9
Former Tank No. 9
TAL Metals End Point Soil Analytical Data

TAL Metals (mg/kg)	NYSDEC SCOs				Former Tank No. 9												
					End Point Soil Samples												
					Side-wall Samples										Bottom Samples		
	Unrestricted	Residential	Restricted Residential	Protection of Groundwater	T9-EP#1 (20')	~~T9-EP#3 (22')~~	~~T9-EP#4 (22')~~	~~T9-EP#6 (22')~~	~~T9-EP#7 (22')~~	T9-EP#8 (22')	T9-EP#9 (22')	T9-EP#12 (22')	T9-EP#13 (22')	T9-EP#2 (22')	T9-EP#5 (22')	T9-EP#10 (22')
Aluminum	NA	NA	NA	NA	3,500	~~1,580~~	~~7,790~~	~~1,710~~	~~1,450~~	11,600	12,000	6,870	1,180	1,270	1,800	9,660
Antimony	NA	NA	NA	NA	4.9 U	~~3.9 U~~	~~1.2 J~~	~~3.6 U~~	~~4.0 U~~	4.8 U	4.4 U	4.4 U	4.5 U	4.0 U	4.0 U	0.88 J
Arsenic	13	16	16	16	1.2 J	~~1.5 J~~	~~3.5~~	~~2.7 U~~	~~0.92 J~~	1.2 J	3.2 J	2.1 J	1.3 J	3.0 U	3.0 U	1.4 J
Barium	350	350	400	820	27.2 J	~~13.6 J~~	~~50.6~~	~~12.1 J~~	~~23.0 J~~	44.9 J	57.7	38.3 J	9.4 J	10.3 J	20.7 J	36.1 J
Beryllium	7.2	14	72	47	0.32 J	~~0.18 J~~	~~0.58~~	~~0.13 J~~	~~0.15 J~~	0.54	0.61	0.28 J	0.45 U	0.13 J	0.17 J	0.60
Cadmium	2.5	2.5	4.3	7.5	0.99 U	~~7.8~~	~~0.86 U~~	~~24.7~~	~~58.4~~	0.95 U	0.89 U	0.89 U	2.4	0.79 U	*2.6*	0.77 U
Calcium	NA	NA	NA	NA	1,110 J	~~396 J~~	~~1,380~~	~~339 J~~	~~240 J~~	1,840	2,210	1,250	146 J	389 J	668 J	1,640
Chromium[1]	30	36	180	NS	9.3	~~8.2~~	~~18.8~~	~~13.3~~	~~7.7~~	*30.7*	*40.3*	16.4	4.6	3.7	5.6	29.8
Cobalt	NA	NA	NA	NA	4.1 J	~~2.3 J~~	~~8.7 J~~	~~1.5 J~~	~~10.1 U~~	3.5 J	6.1 J	7.1 J	1.5 J	0.87 J	1.8 J	3.7 J
Copper	50	270	270	1,720	6.2	~~3.9 J~~	~~11.5~~	~~6.0~~	~~38.0~~	8.3	12.5	12.9	3.1 J	2.4 J	2.5 J	7.8
Iron	NA	NA	NA	NA	6,010	~~6,210~~	~~24,800~~	~~5,170~~	~~2,880~~	12,000	13,800	15,000	3,840	2,690	2,960	20,400
Lead	63	400	400	450	2.8	~~3.0~~	~~6.2~~	~~1.6 J~~	~~6.0~~	8.4	8.5	6.1	1.4 J	1.7 J	2.0	7.5
Magnesium	NA	NA	NA	NA	1,440	~~586 J~~	~~3,110~~	~~666 J~~	~~320 J~~	3,670	4,330	2,440	439 J	596 J	822 J	3,670
Manganese	1,600	2,000	2,000	2,000	88.2	~~53.3~~	~~295~~	~~69.8~~	~~25.6~~	143	177	155	28.5	31.3	41.3	171
Nickel	30	140	310	130	7.4 J	~~9.6~~	~~12.0~~	~~4.9 J~~	~~2.5 J~~	11.0	13.6	11.3	3.8 J	2.3 J	2.7 J	10.1
Potassium	NA	NA	NA	NA	917 J	~~410 J~~	~~1,980~~	~~455 J~~	~~348 J~~	2,300	2,750	1,420	207 J	398 J	556 J	1,900
Selenium	3.9	36	180	4	4.9 U	~~3.9 U~~	~~4.3 U~~	~~3.6 U~~	~~4.0 U~~	4.8 U	4.4 U	4.4 U	4.5 U	4.0 U	4.0 U	3.8 U
Silver	2	36	180	8.3	2.5 U	~~1.9 U~~	~~2.1 U~~	~~0.37 J~~	~~0.81 J~~	2.4 U	2.2 U	2.2 U	2.2 U	2.0 U	2.0 U	1.9 U
Sodium	NA	NA	NA	NA	1,240 U	~~963 U~~	~~1,070 U~~	~~896 U~~	~~1,010 U~~	1,190 U	1,110 U	1,110 U	1,120 U	991 U	999 U	85 J
Thallium	NA	NA	NA	NA	4.9 U	~~3.9 U~~	~~4.3 U~~	~~3.6 U~~	~~4.0 U~~	4.8 U	4.4 U	4.4 U	4.5 U	4.0 U	4.0 U	3.8 U
Vanadium	NA	NA	NA	NA	9.8 J	~~7.1 J~~	~~22.0~~	~~5.4 J~~	~~4.7 J~~	40.1	26.1	21.8	3.9 J	3.7 J	5.3 J	27.6
Zinc	109	2,200	10,000	2,480	17.8	~~15.1~~	~~37.7~~	~~8.1~~	~~6.4~~	41.3	43.6	36.3	10.6	7.0	10.4	35.9
Mercury	0.18	0.81	0.81	0.73	0.022 U	~~0.018 U~~	~~0.023 U~~	~~0.018 U~~	~~0.015 J~~	0.022	0.016 J	0.021 U	0.017 U	0.019 U	0.018 U	0.020 U

TAL Metals (mg/kg)	NYSDEC SCOs				Former Tank No. 9								
					End Point Soil Samples			Supplemental End Point Soil Samples (12/19/13)					
					Bottom Samples			Side-wall Samples					
	Unrestricted	Residential	Restricted Residential	Protection of Groundwater	T9-EP#11 (22')	TP-EP#14 (22')	T9-EP#15 (22')	T9-EP#16 (25')	T9-EP#17 (25')	~~T9-EP#18 (25')~~	~~T9-EP#19 (25')~~	~~T9-EP#20 (25')~~
Aluminum	NA	NA	NA	NA	11,300	3,930	6,910	3,580	2,390	~~1,840~~	~~1,990~~	~~1,010~~
Antimony	NA	NA	NA	NA	3.8 U	2.1 J	4.9 U	4.8 U	4.6 U	~~4.4 U~~	~~4.5 U~~	~~4.4 U~~
Arsenic	13	16	16	16	2.1 J	1.6 J	3.0 J	1.0 J	3.5 U	~~3.3 U~~	~~2.3 J~~	~~3.3 U~~
Barium	350	350	400	820	37.1 J	22.4 J	24.8 J	23.9 J	22.8 J	~~15.0 J~~	~~4.6 J~~	~~14.2 J~~
Beryllium	7.2	14	72	47	0.41	0.54 U	0.24 J	0.15 J	0.46 U	~~0.44 U~~	~~0.21 J~~	~~0.44 U~~
Cadmium	2.5	2.5	4.3	7.5	0.76 U	1.1 U	0.99 U	0.97 U	0.93 U	~~5.2~~	~~4.7~~	~~3.3~~
Calcium	NA	NA	NA	NA	991	626 J	953 J	620 J	397 J	~~619 J~~	~~1,130 U~~	~~218 J~~
Chromium[1]	30	36	180	NS	20.7	9.9	16.8	8.4	15.5	~~7.8~~	~~3.7~~	~~3.7~~
Cobalt	NA	NA	NA	NA	3.5 J	4.0 J	3.9 J	3.7 J	2.1 J	~~1.4 J~~	~~2.4 J~~	~~11.0 U~~
Copper	50	270	270	1,720	7.2	6.3 J	13.9	7.5	6.7	~~26.5~~	~~15.9~~	~~2.5 J~~
Iron	NA	NA	NA	NA	15,400	10,800	15,600	9,250	4,450	~~4,400~~	~~14,000~~	~~2,230~~
Lead	63	400	400	450	6.3	3.8	6.9	3.5	2.4	~~1.9 J~~	~~2.8~~	~~1.0 J~~
Magnesium	NA	NA	NA	NA	2,040	1,460	1,970	1,440	949 J	~~753 J~~	~~383 J~~	~~449 J~~
Manganese	1,600	2,000	2,000	2,000	131	107	109	232	361	~~44.4~~	~~51.9~~	~~18.1~~
Nickel	30	140	310	130	11.8	6.8 J	10.4	9.0 J	4.4 J	~~4.4 J~~	~~4.8 J~~	~~2.5 J~~
Potassium	NA	NA	NA	NA	1,080	919 J	1,220 J	933 J	700 J	~~473 J~~	~~219 J~~	~~329 J~~
Selenium	3.9	36	180	4	3.8 U	5.4 U	4.9 U	4.8 U	4.6 U	~~4.4 U~~	~~4.5 U~~	~~4.4 U~~
Silver	2	36	180	8.3	1.9 U	2.7 U	2.5 U	2.4 U	2.3 U	~~1.3 J~~	~~2.3 U~~	~~2.2 U~~
Sodium	NA	NA	NA	NA	79 J	1,340 U	1,240 U	1,210 U	1,160 U	~~1,100 U~~	~~1,130 U~~	~~1,100 U~~
Thallium	NA	NA	NA	NA	3.8 U	5.4 U	4.9 U	4.8 U	4.6 U	~~4.4 U~~	~~4.5 U~~	~~4.4 U~~
Vanadium	NA	NA	NA	NA	20.0	12.2 J	20.3	10 J	5.6 J	~~4.7 J~~	~~5.3 J~~	~~2.9 J~~
Zinc	109	2,200	10,000	2,480	30.5	20.6	86.1	16.2	10.4	~~19.1~~	~~15.7~~	~~10.2~~
Mercury	0.18	0.81	0.81	0.73	0.020 U	0.020 U	0.022 U	0.022 U	0.021 U	~~0.020 U~~	~~0.021 U~~	~~0.019 U~~

TAL Metals (mg/kg)	NYSDEC SCOs				Former Tank No. 9														
					Supplemental End Point Soil Samples (1/20/14)				Supplemental End Point Soil Samples (1/30/14)			Supplemental End Point Soil Samples (2/10/14)			Supplemental End Point Soil Samples (2/24/14)		
					Side-wall Samples				Side-wall Samples			Side-wall Samples			Side-wall Samples		
	Unrestricted	Residential	Restricted Residential	Protection of Groundwater	T9-EP#21 (28')	~~T9-EP#22 (28')~~	~~T9-EP#23 (28')~~	~~T9-EP#24 (28')~~	~~T9-EP#25 (30')~~	~~T9-EP#26 (30')~~	~~T9-EP#27(30')~~	~~T9-EP#28 (30')~~	~~T9-EP#29 (30')~~	~~T9-EP#30 (30')~~	T9-EP#31 (30')	T9-EP#32 (30')	T9-EP#33 (30')
Aluminum	NA	NA	NA	NA	2,290	~~1,680~~	~~2,790~~	~~1,840~~	~~2,520~~	~~2,550~~	~~801~~	~~1,200~~	~~943~~	~~591~~	1,210	2,210	2,370
Antimony	NA	NA	NA	NA	4.8 U	~~4.4 U~~	~~4.8 U~~	~~4.2 U~~	~~5.1 U~~	~~4.4 U~~	~~4.3 U~~	~~4.1 U~~	~~3.8 U~~	~~4.3 U~~	4.3 U	4.2 U	4.3 U
Arsenic	13	16	16	16	1.1 J	~~0.85 J~~	~~1.8 J~~	~~1.2 J~~	~~1.1 J~~	~~5.2~~	~~3.2 U~~	~~0.70 J~~	~~0.73 J~~	~~0.67 J~~	3.2 U	0.66 J	3.2 U
Barium	350	350	400	820	13.2 J	~~10.0 J~~	~~18.5 J~~	~~13.4 J~~	~~22.3 J~~	~~73.9~~	~~5.4 J~~	~~5.4 J~~	~~4.5 J~~	~~5.5 J~~	10.1 J	15.4 J	19.2 J
Beryllium	7.2	14	72	47	0.48 U	~~0.44 U~~	~~0.19 J~~	~~0.42 U~~	~~0.51 U~~	~~0.44 U~~	~~0.43 U~~	~~0.13 J~~	~~0.12 J~~	~~0.093 J~~	0.091 J	0.19 J	0.19 J
Cadmium	2.5	2.5	4.3	7.5	0.95 U	~~0.88 U~~	~~4.7~~	~~3.5~~	~~3.7~~	~~1.1~~	~~9.3~~	~~38.8~~	~~2.3~~	~~11.6~~	0.87 U	0.83 U	0.86 U
Calcium	NA	NA	NA	NA	189 J	~~167 J~~	~~141 J~~	~~126 J~~	~~799 J~~	~~179 J~~	~~162 J~~	~~195 J~~	~~198 J~~	~~158 J~~	238 J	636 J	596 J
Chromium[1]	30	36	180	NS	**36.6**	~~8.6~~	~~5.1~~	~~4.3~~	~~9.3~~	~~7.0~~	~~2.2~~	~~2.9~~	~~3.4~~	~~2.6~~	2.3	4.8	5.4
Cobalt	NA	NA	NA	NA	2.2	~~0.93 J~~	~~3.6 J~~	~~2.1 J~~	~~2.5 J~~	~~3.5 J~~	~~10.7 U~~	~~1.6 J~~	~~0.89 J~~	~~0.55 J~~	1.2 J	2.3 J	2.2 J
Copper	50	270	270	1,720	8.1	~~3.5 J~~	~~6.0~~	~~9.4~~	~~7.9~~	~~5.2 J~~	~~2.8 J~~	~~5.9~~	~~2.8 J~~	~~2.6 J~~	2.0 J	4.2 J	3.9 J
Iron	NA	NA	NA	NA	5,370	~~2,640~~	~~9,230~~	~~6,760~~	~~5,350~~	~~12,100~~	~~2,880~~	~~5,020~~	~~5,270~~	~~3,780~~	7,540	6,190	5,070
Lead	63	400	400	450	11.4	~~1.1 J~~	~~1.5 J~~	~~1.5 J~~	~~1.8 J~~	~~1.8 J~~	~~1.1 J~~	~~0.92 J~~	~~1.0 J~~	~~0.81 J~~	1.7 J	1.9 J	2.2
Magnesium	NA	NA	NA	NA	623 J	~~477 J~~	~~803 J~~	~~586 J~~	~~941 J~~	~~676 J~~	~~250 J~~	~~382 J~~	~~320 J~~	~~178 J~~	334 J B	749 J B	752 J B
Manganese	1,600	2,000	2,000	2,000	159	~~57.7~~	~~374~~	~~80.4~~	~~117~~	~~395~~	~~18.0~~	~~39.9~~	~~28.9~~	~~19.8~~	205	104	205
Nickel	30	140	310	130	4.0 J	~~4.3 J~~	~~4.2 J~~	~~3.1 J~~	~~5.1 J~~	~~5.3 J~~	~~1.6 J~~	~~3.4 J B~~	~~3.4 J B~~	~~3.1 J B~~	1.7 J	4.4 J	5.1 J
Potassium	NA	NA	NA	NA	414 J	~~153 J~~	~~444 J~~	~~353 J~~	~~626 J~~	~~435 J~~	~~184 J~~	~~285 J~~	~~265 J~~	~~142 J~~	249 J	405 J	350 J
Selenium	3.9	36	180	4	4.8 U	~~4.4 U~~	~~4.8 U~~	~~4.2 U~~	~~5.1 U~~	~~4.4 U~~	~~4.3 U~~	~~4.1 U~~	~~3.8 U~~	~~4.3 U~~	4.3 U	4.2 U	4.3 U
Silver	2	36	180	8.3	0.25 J	~~2.2 U~~	~~2.4 U~~	~~2.1 U~~	~~2.5 U~~	~~0.22 J~~	~~2.1 U~~	~~2.1 U~~	~~1.9 U~~	~~2.2 U~~	0.19 J B	2.1 U	2.1 U
Sodium	NA	NA	NA	NA	1,190 U	~~1,100 U~~	~~1,200 U~~	~~1,050 U~~	~~1,260 U~~	~~1,100 U~~	~~1,070 U~~	~~1,030 U~~	~~956 U~~	~~1,080 U~~	1,080 U	1,040 U	1,070 U
Thallium	NA	NA	NA	NA	4.8 U	~~4.4 U~~	~~4.8 U~~	~~4.2 U~~	~~5.1 U~~	~~4.4 U~~	~~4.3 U~~	~~4.1 U~~	~~3.8 U~~	~~4.3 U~~	4.3 U	4.2 U	4.3 U
Vanadium	NA	NA	NA	NA	6.4 J	~~3.0 J~~	~~5.2 J~~	~~4.9 J~~	~~6.0 J~~	~~4.7 J~~	~~2.4 J~~	~~4.5 J~~	~~4.9 J~~	~~6.4 J~~	3.0 J	6.4 J	6.3 J
Zinc	109	2,200	10,000	2,480	10.3	~~5.3 J~~	~~9.4~~	~~6.8~~	~~12.9~~	~~15.6~~	~~7.7~~	~~8.8~~	~~7.4~~	~~4.2 J~~	34.9	9.1	10.3
Mercury	0.18	0.81	0.81	0.73	0.018 U	~~0.019 U~~	~~0.020 U~~	~~0.020 U~~	~~0.022 U~~	~~0.020 U~~	~~0.021 U~~	~~0.019 U~~	~~0.018 U~~	~~0.019 U~~	0.019 U	0.017 U	0.020 U

Notes
J : Sample result is greater than the MDL but below the CRDL
U : Indicates analyzed for but not detected.
[1] Trivalent chromium SCOs utilized.
Green / italicized value indicates analyte exceeded its respective unrestricted SCO but was below its respective Residential / Protection of GW SCO, whichever is lower.
Blue / italicized value indicates analyte exceeded its respective Residential SCO and / or Protection of Groundwater SCO but was below its Restricted Residential SCO.
NA - Not Available
NS - No Standard Available
~~Strikethrough~~ Indicates that sample locations were removed as part of supplemental soil excavation activities.

Table 5-10
TAL Metals Soil Analytical Data
FO-4 Original Sample Location - Post Excavation Data

TAL Metals (mg/kg)	NYSDEC SCOs			FO-4 Original Sample Location - RCRA Excavation																		
				End Point Soil Samples						Supplemental Soil Samples					Supplemental Soil Samples				Supplemental Soil Samples		
				Side-wall Samples				Bottom Samples		Side-wall Samples			Bottom Samples		Side-wall Samples		Bottom Samples		Side-wall Samples		
	Unrestricted	Residential	Protection of Groundwater	~~FO-EP#3~~	~~FO-EP#4~~	FO-EP#5	~~FO-EP#6~~	FO-EP#1	~~FO-EP#2~~	~~FO-EP#14~~	~~FO-EP#15~~	FO-EP#16	~~FO-EP#12~~	~~FO-EP#13~~	FO-EP#24	FO-EP#25	FO-EP#22	FO-EP#23	FO-EP#31	FO-EP#32	FO-EP#33
				~~(4')~~	~~(4')~~	(1')	~~(4')~~	(2')	~~(2')~~	~~(2')~~	~~(2')~~	(2')	~~(4')~~	~~(4')~~	(3')	(3')	(6')	(6')	(1')	(1')	(1')
Aluminum	NA	NA	NA	~~8,960~~	~~4,260~~	1,280	~~6,530~~	1,180	~~5,790~~	~~6,750~~	~~2,750~~	3,480	~~8,990~~	~~5,390~~	1,250	3,180	6,800	984	1,330	5,180	7,020
Antimony	NA	NA	NA	~~4.6 U~~	~~3.2 U~~	3.6 U	~~3.9 U~~	3.6 U	~~3.6 U~~	~~3.4 U~~	~~3.5 U~~	3.8 U	~~3.7 U~~	~~4.0 U~~	2.9 U	3.9 U	4.4 U	3.1 U	3.7 U	4.2 U	3.8 U
Arsenic	13	16	16	~~6.5~~	~~2.4~~	0.85 J	~~3.4~~	1.0 J	~~6.0~~	~~5.2~~	~~0.97 J~~	1.7 J	~~3.3~~	~~3.7~~	2.2 U	0.87 J	1.4 J	2.4 U	1.0 J	2.9 J	2.7 J
Barium	350	350	820	~~51.6~~	~~141~~	5.3 J	~~44.3~~	4.4 J	~~57.1~~	~~50.5~~	~~18.9 J~~	24.0 J	~~92.4~~	~~274~~	8.2 J	17.5 J	42.0 J	5.7 J	8.5 J	46.1	48.8
Beryllium	7.2	14	47	~~0.46~~	~~0.26 J~~	0.11 J	~~0.43~~	0.36 U	~~0.37~~	~~0.32 J~~	~~0.14 J~~	0.16 J	~~0.39~~	~~0.27 J~~	0.11 J	0.14 J	0.33 J	0.14 J	0.37 U	0.42 U	0.27 J
Cadmium	2.5	2.5	7.5	~~**14.2**~~	~~0.46 J~~	0.73 U	~~0.44 J~~	0.73 U	~~0.57 J~~	~~**3.0**~~	~~0.71 U~~	0.50 J	~~0.75 U~~	~~1.8~~	0.59 U	0.21 J	2.0	0.63 U	0.73 U	0.84 U	0.77 U
Calcium	NA	NA	NA	~~1,280~~	~~10,400~~	542 J	~~14,500~~	287 J	~~1,710~~	~~4960~~	~~291 J~~	553 J	~~485 J~~	~~2,140~~	219 J	422 J	1,230	61.5 J	4,320	2,370	1,250
Chromium[1]	30	36	NS	~~16.3~~	~~12.3~~	2.4	~~23.3~~	2.5	~~16.4~~	~~18.3~~	~~5.4~~	7.0	~~14.3~~	~~13.3~~	5.2	8.4	16.0	1.7	3.2	11.9	14.2
Cobalt	NA	NA	NA	~~4.4 J~~	~~3.2 J~~	1.0 J	~~4.3 J~~	2.8 J	~~5.8 J~~	~~4.5 J~~	~~1.2 J~~	1.3 J	~~4.8 J~~	~~6.7 J~~	0.89 J	1.2 J	5.0 J	7.9 U	1.2 J	4.1 J	4.1 J
Copper	50	270	1,720	~~16.1~~	~~17.3~~	2.0 J	~~26.5~~	4.4 J	~~10.2~~	~~27.1~~	~~4.1 J~~	3.3 J	~~6.4~~	~~16.1~~	1.5 J	3.2 J	8.7	0.89 J	2.8 J	30.8	9.1
Iron	NA	NA	NA	~~18,200~~	~~7,120~~	3,190	~~11,700~~	3,430	~~12,900~~	~~13,700~~	~~4,410~~	4,300	~~13,200~~	~~9,820~~	2,210	5,440	9,430	957	3,730	9,680	12,500
Lead	63	400	450	~~40.3~~	~~19.1~~	1.6 J	~~20.5~~	1.8	~~12.0~~	~~60.2~~	~~9.2~~	6.8	~~12.7~~	~~34.8~~	2.9	9.2	5.2	1.4 J	2.7	*138*	29.0
Magnesium	NA	NA	NA	~~1,720~~	~~2,410~~	270 J	~~3,360~~	251 J	~~1,490~~	~~2,010~~	~~615 J~~	716 J	~~1,500~~	~~1270~~	313 J	1,020	2,010	130 J	444 J	1,770	1,640
Manganese	1,600	2,000	2,000	~~260~~	~~210~~	55.9	~~391~~	55.1	~~825~~	~~320~~	~~68.1~~	44.0	~~418~~	~~**2,480**~~	31.2	115	74.9	9.2	69.3	214	420
Nickel	30	140	130	~~13.3~~	~~8.0~~	1.8 J	~~10.3~~	2.1 J	~~9.8~~	~~11.3~~	~~3.1 J~~	4.3 J	~~7.7~~	~~16.4~~	1.4 J	3.3 J	9.6	1.1 J	2.2 J	9.5	8.8
Potassium	NA	NA	NA	~~461 J~~	~~699 J~~	292 J	~~935 J~~	138 J	~~594 J~~	~~576 J~~	~~317 J~~	269 J	~~420 J~~	~~484 J~~	125 J	177 J	922 J	67.0 J	221 J	482 J	587 J
Selenium	3.9	36	4	~~4.6 U~~	~~3.2 U~~	3.6 U	~~3.9 U~~	3.6 U	~~3.6 U~~	~~1.0 J~~	~~3.5 U~~	3.8 U	~~1.1 J~~	~~1.6 J~~	2.9 U	3.9 U	4.4 U	3.1 U	3.7 U	4.2 U	3.8 U
Silver	2	36	8.3	~~**12.7**~~	~~**2.8**~~	1.8 U	~~**2.9**~~	1.8 U	~~**3.4**~~	~~**6.3**~~	~~1.8 U~~	0.65 J	~~1.9 U~~	~~**6.3**~~	1.5 U	0.38 J	2.2 U	0.22 J	0.37 J	1.5 J	1.9 U
Sodium	NA	NA	NA	~~1,140 U~~	~~99.9 J~~	909 U	~~76.7 J~~	908 U	~~905 U~~	~~117 J~~	~~71.3 J~~	941 U	~~937 U~~	~~999 U~~	735 U	968 U	1,100 U	787 U	916 U	115 J	960 U
Thallium	NA	NA	NA	~~4.6 U~~	~~3.2 U~~	3.6 U	~~3.9 U~~	3.6 U	~~3.6 U~~	~~3.4 U~~	~~3.5 U~~	3.8 U	~~3.7 U~~	~~1.4 J~~	2.9 U	3.9 U	4.4 U	3.1 U	3.7 U	4.2 U	3.8 U
Vanadium	NA	NA	NA	~~33.5~~	~~10.5~~	2.3 J	~~15.0~~	3.3 J	~~16.2~~	~~21.8~~	~~6.5 J~~	9.3 J	~~19.8~~	~~13.5~~	4.0 J	12.3	19.6	2.2 J	3.3 J	15.4	15.5
Zinc	109	2,200	2,480	~~*994*~~	~~*117*~~	4.9 J	~~*125*~~	6.0	~~68.6~~	~~*234*~~	~~11.4~~	32.0	~~22.6~~	~~72.2~~	5.4	12.9	60.8	11.0	8.6	66.1	33.5
Mercury	0.18	0.81	0.73	~~0.092~~	~~0.12~~	0.017 U	~~0.078~~	0.017 U	~~0.047~~	~~0.11~~	~~0.041~~	0.017	~~0.021~~	~~0.050~~	0.017 U	0.14	0.022 U	0.020 U	0.018 U	0.15	0.020

Notes
J : Sample result is greater than the MDL but below the CRDL
U : Indicates analyzed for but not detected.
[1] Trivalent chromium SCOs utilized.
Highlighted / bolded indicates analyte exceeded above its respective NYSDEC Unrestricted SCO.
Green / italicized value indictes analyte exceeded its repsective unrestricted SCO but was below its respective Residential / Protection of GW SCO, whichever is lower.
NA - Not Available
~~strikethrough~~ Indicates that sample locations were removed as part of supplemental soil excavation activities.

Table 5-11
TAL Metals Soil Analytical Data
FO-7 Original Sample Location - Post Excavation Data

TAL Metals (mg/kg)	NYSDEC SCOs		FO-7 Original Sample Location - RCRA Excavation				
			End Point Soil Samples				
			Side-wall Samples				Bottom Sample
			FO-EP#8	FO-EP#9	FO-EP#10	FO-EP#11	FO-EP#7
	Unrestricted	Residential	(4')	(4')	(4')	(4')	(6')
Aluminum	NA	NA	6,970	4,990	880	7,510	3,090
Antimony	NA	NA	3.5 U	3.6 U	3.9 U	3.8 U	3.5 U
Arsenic	13	16	2.4 J	2.1 J	0.93 J	4.1	5.1
Barium	350	350	35.3	20.0 J	38.7 U	24.1 J	123
Beryllium	7.2	14	0.47	0.31 J	0.39 U	0.38	0.17 J
Cadmium	2.5	2.5	0.71 U	0.72 U	0.77 U	0.76 U	0.32 J
Calcium	NA	NA	595 J	523 J	179 J	888 J	377 J
Chromium[1]	30	36	10.2	15.9	1.5 J	15.1	6.4
Cobalt	NA	NA	8.4 J	4.3 J	9.7 U	8.3 J	2.1 J
Copper	50	270	6.4	43.5	1.8 J	7.2	7.8
Iron	NA	NA	10,900	9,520	2,870	19,400	5,490
Lead	63	400	4.1	3.2	1.1 J	4.9	3.9
Magnesium	NA	NA	1,490	969	178 J	1,340	495 J
Manganese	1,600	2,000	712	392	42.4	998	4,710
Nickel	30	140	9.0	7.7	1.4 J	9.1	14.9
Potassium	NA	NA	852 J	708 J	82.5 J	581 J	317 J
Selenium	3.9	36	3.5 U	3.6 U	3.9 U	3.8 U	3.5 U
Silver	2	36	1.8 U	1.8 U	1.9 U	1.9 U	1.8 U
Sodium	NA	NA	883 U	905 U	967 U	956 U	877 U
Thallium	NA	NA	3.5 U	3.6 U	3.9 U	3.8 U	3.1 J
Vanadium	NA	NA	11.6	11.0	2.1 J	17.1	6.2 J
Zinc	109	2,200	56.6	27.3	4.9 J	21.1	*123*
Mercury	0.18	0.81	0.018 U	0.018 U	0.018 U	0.015 J	0.020 U

Notes
J : Sample result is greater than the MDL but below the CRDL
U : Indicates analyzed for but not detected.
[1] Trivalent chromium SCOs utilized.
Green / italicized value indicates analyte exceeded its respective unrestricted SCO but was below its respective Residential / Protection of GW SCO, whichever is lower.
NA - Not Available

Table 5-12
TCL VOC Soil Analytical Data
Post-excavation End-point Soil Analytical Data - BLDG6-SB-2

TCL VOCs (mg/kg)	NYSDEC Unrestricted SCO	Post-excavation End-point Soil Analytical Data - BLDG6-SB-2				
		Bottom Samples		Sidewall Samples		
		FO-EP#17	FO-EP#18	FO-EP#19	FO-EP#20	FO-EP#21
		(7')	(7')	(4')	(4')	(4')
1,1,1-Trichloroethane	0.68	0.00083 U	0.0011 U	0.00090 U	0.00094 U	0.00088 U
1,1,2,2-Tetrachloroethane	NA	0.00083 U	0.0011 U	0.00090 U	0.00094 U	0.00088 U
1,1,2-Trichloroethane	NA	0.00083 U	0.0011 U	0.00090 U	0.00094 U	0.00088 U
1,1-Dichloroethane	0.27	0.00083 U	0.0011 U	0.00090 U	0.00094 U	0.00088 U
1,1-Dichloroethene	0.33	0.00083 U	0.0011 U	0.00090 U	0.00094 U	0.00088 U
1,2,3-Trichlorobenzene	NA	0.00083 U	0.0011 U	0.00090 U	0.00094 U	0.00088 U
1,2,4-Trichlorobenzene	NA	0.00083 U	0.0011 U	0.00090 U	0.00094 U	0.00088 U
1,2-Dibromo-3-Chloropropane	NA	0.00083 U	0.0011 U	0.00090 U	0.00094 U	0.00088 U
1,2-Dibromoethane	NA	0.00083 U	0.0011 U	0.00090 U	0.00094 U	0.00088 U
1,2-Dichlorobenzene	1.1	0.00083 U	0.0011 U	0.00090 U	0.00094 U	0.00088 U
1,2-Dichloroethane	0.02	0.00083 U	0.0011 U	0.00090 U	0.00094 U	0.00088 U
1,2-Dichloropropane	NA	0.00083 U	0.0011 U	0.00090 U	0.00094 U	0.00088 U
1,3-Dichlorobenzene	2.4	0.00083 U	0.0011 U	0.00090 U	0.00094 U	0.00088 U
1,4-Dichlorobenzene	1.8	0.00083 U	0.00040 J	0.00090 U	0.00094 U	0.00088 U
1,4-Dioxane	0.1	0.017 U	0.021 U	0.018 U	0.019 U	0.018 U
2-Butanone (MEK)	0.12	0.0041 U	0.0053 U	0.0045 U	0.0047 U	0.0044 U
2-Hexanone	NA	0.0041 U	0.0053 U	0.0045 U	0.0047 U	0.0044 U
4-Methyl-2-pentanone	NA	0.0041 U	0.0053 U	0.00080 J	0.0047 U	0.0044 U
Acetone	0.05	0.0041 U	0.013 B	**0.081** B	**0.14** B	0.0044 U
Benzene	0.06	0.00083 U	0.0011 U	0.00090 U	0.00094 U	0.00088 U
Bromochloromethane	NA	0.00083 U	0.0011 U	0.00090 U	0.00094 U	0.00088 U
Bromodichloromethane	NA	0.00083 U	0.0011 U	0.00090 U	0.00094 U	0.00088 U
Bromoform	NA	0.00083 U	0.0011 U	0.00090 U	0.00094 U	0.00088 U
Bromomethane	NA	0.00083 U	0.0011 U	0.00090 U	0.00094 U	0.00088 U
Carbon disulfide	NA	0.00015 J	0.0011 U	0.00090 U	0.00094 U	0.00088 U
Carbon tetrachloride	0.76	0.00083 U	0.0011 U	0.00090 U	0.00094 U	0.00088 U
Chlorobenzene	1.1	0.00083 U	0.0011 U	0.00090 U	0.00094 U	0.00088 U
Chloroethane	NA	0.00083 U	0.0011 U	0.00090 U	0.00094 U	0.00088 U
Chloroform	0.37	0.00083 U	0.0011 U	0.00028 J	0.00094 U	0.00088 U
Chloromethane	NA	0.00083 U	0.0011 U	0.00090 U	0.00094 U	0.00088 U
cis-1,2-Dichloroethene	0.25	0.00083 U	0.0011 U	0.00090 U	0.00094 U	0.00088 U
cis-1,3-Dichloropropene	NA	0.00083 U	0.0011 U	0.00090 U	0.00094 U	0.00088 U
Cyclohexane	NA	0.00083 U	0.0011 U	0.00090 U	0.00094 U	0.00088 U
Dibromochloromethane	NA	0.00083 U	0.0011 U	0.00090 U	0.00094 U	0.00088 U
Dichlorodifluoromethane	NA	0.00083 U	0.0011 U	0.00090 U	0.00094 U	0.00088 U
Ethylbenzene	1	0.00083 U	0.0011 U	0.00090 U	0.00094 U	0.00088 U
Freon 113	NA	0.00083 U	0.0011 U	0.00090 U	0.00094 U	0.00088 U
Isopropylbenzene	NA	0.00083 U	0.0011 U	0.00090 U	0.00094 U	0.00088 U
m&p-Xylene	0.26	0.00083 U	0.0011 U	0.00090 U	0.00094 U	0.00088 U
Methyl acetate	NA	0.0022	0.0011 U	0.0042	0.00094 U	0.00088 U
Methylcyclohexane	NA	0.00083 U	0.0011 U	0.00090 U	0.00094 U	0.00088 U
Methylene Chloride	0.05	0.00049 J	0.00064 J	0.00016 J	0.00033 J	0.00089
MTBE	0.93	0.00083 U	0.0011 U	0.00090 U	0.00094 U	0.00088 U
Naphthalene	12	0.00083 U	0.0011 U	0.00090 U	0.00094 U	0.00088 U
o-Xylene	0.26	0.00083 U	0.0011 U	0.00090 U	0.00094 U	0.00088 U
Styrene	NA	0.00083 U	0.0011 U	0.00090 U	0.00094 U	0.00088 U
Tetrachloroethene	1.3	0.00075 J	0.00032 J	0.00056 J	0.0014	0.00058 J
Toluene	0.7	0.00083 U	0.0011 U	0.00090 U	0.00017 J	0.00029 J
trans-1,2-Dichloroethene	0.19	0.00083 U	0.0011 U	0.00090 U	0.00094 U	0.00088 U
trans-1,3-Dichloropropene	NA	0.00083 U	0.0011 U	0.00090 U	0.00094 U	0.00088 U
Trichloroethene	0.47	0.00083 U	0.0011 U	0.00090 U	0.00094 U	0.00088 U
Trichlorofluoromethane	NA	0.00083 U	0.0011 U	0.00090 U	0.00094 U	0.00088 U
Vinyl chloride	0.02	0.00083 U	0.0011 U	0.00090 U	0.00094 U	0.00088 U
Xylenes, Total	0.26	0.0017 U	0.0021 U	0.0018 U	0.0019 U	0.0018 U
VOC TICs						
TCl VOC TICs	NA	ND	ND	ND	0.012 J N	ND

Notes
ND: TIC not detected
J : Indicates an estimated value.
J N : Indicates an estimated value.
U : Analyzed for but not detected.
NA : Not Available

Table 5-13
TCL SVOC Soil Analytical Data
Post-excavation End-point Soil Analytical Data - BLDG6-SB-2

TCL SVOCs (mg/kg)	NYSDEC Unrestricted SCO	Post-excavation End-point Soil Analytical Data - BLDG6-SB-2				
		Bottom Samples		Sidewall Samples		
		FO-EP#17	FO-EP#18	FO-EP#19	FO-EP#20	FO-EP#21
		(7')	(7')	(4')	(4')	(4')
1,2,4,5-Tetrachlorobenzene	NA	0.39 U	0.41 U	0.74 U	0.38 U	0.38 U
1,4-Dioxane	0.1	0.39 U	0.41 U	0.74 U	0.38 U	0.38 U
2,2'-oxybis[1-chloropropane]	NA	0.39 U	0.41 U	0.74 U	0.38 U	0.38 U
2,3,4,6-Tetrachlorophenol	NA	0.39 U	0.41 U	0.74 U	0.38 U	0.38 U
2,4,5-Trichlorophenol	NA	0.39 U	0.41 U	0.74 U	0.38 U	0.38 U
2,4,6-Trichlorophenol	NA	0.39 U	0.41 U	0.74 U	0.38 U	0.38 U
2,4-Dichlorophenol	NA	0.39 U	0.41 U	0.74 U	0.38 U	0.38 U
2,4-Dimethylphenol	NA	0.39 U	0.41 U	0.74 U	0.38 U	0.38 U
2,4-Dinitrophenol	NA	1.2 U	1.3 U	2.2 U	1.2 U	1.1 U
2,4-Dinitrotoluene	NA	0.080 U	0.084 U	0.15 U	0.077 U	0.076 U
2,6-Dinitrotoluene	NA	0.080 U	0.084 U	0.15 U	0.077 U	0.076 U
2-Chloronaphthalene	NA	0.39 U	0.41 U	0.74 U	0.38 U	0.38 U
2-Chlorophenol	NA	0.39 U	0.41 U	0.74 U	0.38 U	0.38 U
2-Methylnaphthalene	NA	0.39 U	0.41 U	0.74 U	0.38 U	0.38 U
2-Methylphenol	0.33	0.39 U	0.41 U	0.74 U	0.38 U	0.38 U
2-Nitroaniline	NA	0.80 U	0.84 U	1.5 U	0.77 U	0.76 U
2-Nitrophenol	NA	0.39 U	0.41 U	0.74 U	0.38 U	0.38 U
3,3'-Dichlorobenzidine	NA	0.80 U	0.84 U	1.5 U	0.77 U	0.76 U
3-Nitroaniline	NA	0.80 U	0.84 U	1.5 U	0.77 U	0.76 U
4,6-Dinitro-2-methylphenol	NA	1.2 U	1.3 U	2.2 U	1.2 U	1.1 U
4-Bromophenyl phenyl ether	NA	0.39 U	0.41 U	0.74 U	0.38 U	0.38 U
4-Chloro-3-methylphenol	NA	0.39 U	0.41 U	0.74 U	0.38 U	0.38 U
4-Chloroaniline	NA	0.39 U	0.41 U	0.74 U	0.38 U	0.38 U
4-Chlorophenyl phenyl ether	NA	0.39 U	0.41 U	0.74 U	0.38 U	0.38 U
4-Methylphenol	0.33	0.39 U	0.41 U	0.74 U	0.38 U	0.38 U
4-Nitroaniline	NA	0.80 U	0.84 U	1.5 U	0.77 U	0.76 U
4-Nitrophenol	NA	1.2 U	1.3 U	2.2 U	1.2 U	1.1 U
Acenaphthene	20	0.39 U	0.41 U	0.74 U	0.38 U	0.38 U
Acenaphthylene	100	0.39 U	0.41 U	0.74 U	0.38 U	0.38 U
Acetophenone	NA	0.39 U	0.41 U	0.74 U	0.38 U	0.38 U
Anthracene	100	0.39 U	0.41 U	0.74 U	0.38 U	0.38 U
Atrazine	NA	0.39 U	0.41 U	0.74 U	0.38 U	0.38 U
Benzaldehyde	NA	0.39 U	0.41 U	0.74 U	0.38 U	0.38 U
Benzo[a]anthracene	1	0.061	0.041 U	0.43	0.038 U	0.038 U
Benzo[a]pyrene	1	0.070	0.041 U	0.44	0.038 U	0.038 U
Benzo[b]fluoranthene	1	0.083	0.041 U	0.45	0.038 U	0.038 U
Benzo[g,h,i]perylene	100	0.063 J	0.41 U	0.39 J	0.38 U	0.38 U
Benzo[k]fluoranthene	0.8	0.039	0.041 U	0.18	0.038 U	0.038 U
Bis(2-chloroethoxy)methane	NA	0.39 U	0.41 U	0.74 U	0.38 U	0.38 U
Bis(2-chloroethyl)ether	NA	0.039 U	0.041 U	0.074 U	0.038 U	0.038 U
Bis(2-ethylhexyl) phthalate	NA	0.39 U	0.41 U	0.74 U	0.38 U	0.38 U
Butyl benzyl phthalate	NA	0.39 U	0.41 U	0.74 U	0.38 U	0.38 U
Caprolactam	NA	0.39 U	0.41 U	0.74 U	0.38 U	0.38 U
Carbazole	NA	0.39 U	0.41 U	0.74 U	0.38 U	0.38 U
Chrysene	1	0.076 J	0.41 U	0.44 J	0.38 U	0.38 U
Dibenz(a,h)anthracene	0.33	0.039 U	0.041 U	0.075	0.038 U	0.038 U
Dibenzofuran	7	0.39 U	0.41 U	0.74 U	0.38 U	0.38 U
Diethyl phthalate	NA	0.39 U	0.41 U	0.74 U	0.38 U	0.38 U
Dimethyl phthalate	NA	0.39 U	0.41 U	0.74 U	0.38 U	0.38 U
Di-n-butyl phthalate	NA	0.39 U	0.41 U	0.74 U	0.38 U	0.38 U
Di-n-octyl phthalate	NA	0.39 U	0.41 U	0.74 U	0.38 U	0.38 U
Diphenyl	NA	0.39 U	0.41 U	0.74 U	0.38 U	0.38 U
Fluoranthene	100	0.10 J	0.41 U	0.70 J	0.38 U	0.38 U
Fluorene	30	0.39 U	0.41 U	0.74 U	0.38 U	0.38 U
Hexachlorobenzene	0.33	0.039 U	0.041 U	0.074 U	0.038 U	0.038 U
Hexachlorobutadiene	NA	0.080 U	0.084 U	0.15 U	0.077 U	0.076 U
Hexachlorocyclopentadiene	NA	0.39 U	0.41 U	0.74 U	0.38 U	0.38 U
Hexachloroethane	NA	0.039 U	0.041 U	0.074 U	0.038 U	0.038 U
Indeno[1,2,3-cd]pyrene	0.5	0.052	0.041 U	0.36	0.038 U	0.038 U
Isophorone	NA	0.39 U	0.41 U	0.74 U	0.38 U	0.38 U
Naphthalene	12	0.39 U	0.41 U	0.74 U	0.38 U	0.38 U
Nitrobenzene	NA	0.039 U	0.041 U	0.074 U	0.038 U	0.038 U
N-Nitrosodi-n-propylamine	NA	0.039 U	0.041 U	0.074 U	0.038 U	0.038 U
N-Nitrosodiphenylamine	NA	0.39 U	0.41 U	0.74 U	0.38 U	0.38 U
Pentachlorophenol	0.8	1.2 U	1.3 U	2.2 U	1.2 U	1.1 U
Phenanthrene	100	0.053 J	0.41 U	0.33 J	0.38 U	0.38 U
Phenol	0.33	0.39 U	0.41 U	0.74 U	0.38 U	0.38 U
Pyrene	100	0.11 J	0.41 U	0.64 J	0.38 U	0.38 U
Pyridine	NA	0.39 U	0.41 U	0.74 U	0.38 U	0.38 U
SVOC TICs						
TCL SVOCs TICs	NA	ND	ND	ND	ND	ND

Notes
ND: TIC not detected
J : This flag indicates the presumptive evidence of a compound.
J N : Indicates an estimated value.
U : Analyzed for but not detected.

Table 5-14
TAL Metals Soil Analytical Data
Post-excavation End-point Soil Analytical Data - BLDG6-SB-2

TAL Metals (mg/kg)	NYSDEC SCOs				Post-excavation End-point Soil Analytical Data								
					BLDG6-SB-2								
					Bottom Samples		Sidewall Samples			Supp. SW Sample	Supplemental Sidewall Samples		Supplemental Sidewall Samples
	Unrestricted	Residential	Restricted Residential	Protection of Groundwater	FO-EP#17 (7')	FO-EP#18 (7')	~~FO-EP#19 (4')~~	FO-EP#20 (4')	FO-EP#21 (4')	~~FO-EP#26 (4')~~	~~FO-EP#27 (5')~~	~~FO-EP#28 (5')~~	FO-EP#29 (5')	FO-EP#30 (5')
Aluminum	NA	NA	NA	NA	8,950	2,510	~~7,180~~	10,300	11,100	~~5,240~~	~~5,980~~	~~6,260~~	3,670	3,280
Antimony	NA	NA	NA	NA	3.4 U	4.3 U	~~3.6 U~~	3.7 U	3.7 U	~~3.5 U~~	~~3.9 U~~	~~4.1 U~~	4.7 U	4.2 U
Arsenic	13	16	16	16	2.6	2.0 J	~~5.9~~	2.2 J	3.7	~~2.8~~	~~5.5~~	~~6.0~~	0.74 J	1.5 J
Barium	350	350	400	820	35.6	13.4 J	~~38.7~~	36.2 J	18.8 J	~~38.1~~	~~48.1~~	~~48.2~~	15.8 J	14.2 J
Beryllium	7.2	14	72	47	0.42	0.21 J	~~0.31 J~~	0.45	0.42	~~0.29 J~~	~~0.29 J~~	~~0.33 J~~	0.14 J	0.12 J
Cadmium	2.5	2.5	4.3	7.5	0.68 U	0.86 U	~~0.42 J~~	0.74 U	0.75 U	~~0.60 J~~	~~0.96~~	~~0.79 J~~	0.95 U	0.84 U
Calcium	NA	NA	NA	NA	995	247 J	~~7,910~~	619 J	994	~~4,240~~	~~6,270~~	~~21,700~~	26,400	23,500
Chromium[1]	30	36	180	NS	15.6	9.3	~~28.2~~	16.0	*37.0*	~~21.2~~	~~22.6~~	~~18.6~~	12.5	11.3
Cobalt	NA	NA	NA	NA	3.8 J	3.8 J	~~5.8 J~~	3.9 J	7.8 J	~~4.3 J~~	~~5.4 J~~	~~4.9 J~~	1.9 J	1.7 J
Copper	50	270	270	1,720	5.5	4.7 J	~~37.6~~	4.5 J	11.4	~~44.2~~	~~46.7~~	~~41.0~~	5.8 J	5.2 J
Iron	NA	NA	NA	NA	11,700	12,900	~~16,900~~	12,000	26,300	~~13,200~~	~~13,700~~	~~13,600~~	5,290	4,720
Lead	63	400	400	450	15.5	9.7	~~50.8~~	6.6	6.7	~~*74.2*~~	~~**357**~~	~~59.1~~	9.8	9.0
Magnesium	NA	NA	NA	NA	1,840	309 J	~~4,380~~	1,760	4,550	~~2,310~~	~~4,100~~	~~11,200~~	1,710	1,530
Manganese	1,600	2,000	2,000	2,000	210	344	~~247~~	91.9	287	~~252~~	~~301~~	~~277~~	99.2	88.5
Nickel	30	140	310	130	9.7	4.1 J	~~10.7~~	9.7	14.9	~~8.4~~	~~11.7 B~~	~~9.8 B~~	5.2 J	4.7 J
Potassium	NA	NA	NA	NA	376 J	207 J	~~560 J~~	280 J	496 J	~~362 J~~	~~442 J~~	~~586 J~~	214 J	192 J
Selenium	3.9	36	180	4	3.4 U	4.3 U	~~3.6 U~~	3.7 U	3.7 U	~~0.84 J~~	~~3.9 U~~	~~4.1 U~~	4.7 U	4.2 U
Silver	2	36	180	8.3	1.7 U	2.1 U	~~**15.0**~~	1.9 U	1.9 U	~~**16.7**~~	~~**24.0**~~	~~**19.0**~~	1.6 J	1.4 J
Sodium	NA	NA	NA	NA	850 U	1,070 U	~~314 J~~	184 J	935 U	~~280 J~~	~~128 J~~	~~263 J~~	1,180 U	1,060 U
Thallium	NA	NA	NA	NA	3.4 U	4.3 U	~~3.6 U~~	3.7 U	3.7 U	~~3.5 U~~	~~3.9 U~~	~~4.1 U~~	4.7 U	4.2 U
Vanadium	NA	NA	NA	NA	16.1	6.6 J	~~44.3~~	17.9	33.3	~~30.5~~	~~31.6~~	~~36.8~~	10.4 J	9.4 J
Zinc	109	2,200	10,000	2,480	25.8	8.0	~~65.8~~	24.0	26.0	~~108~~	~~68.8~~	~~63.2~~	21.0	18.8
Mercury	0.18	0.81	0.81	0.73	0.046	0.023	~~0.076~~	0.029	0.031	~~*0.18*~~	~~0.018 U~~	~~0.019 U~~	0.022	0.063

Notes
J : Sample result is greater than the MDL but below the CRDL
U : Indicates analyzed for but not detected.
[1] Trivalent chromium SCOs utilized.
Highlighted / bolded indicates analyte exceeded above its respective NYSDEC Unrestricted SCO.
Green / italicized value indicates analyte exceeded its respective unrestricted SCO but was below its respective Residential / Protection of GW SCO, whichever is lower.
Blue / italicized value indicates analyte exceeded its respective Residential SCO and / or Protection of Groundwater SCO but was below its Restricted Residential SCO.
NA - Not Available
BD : Blind Duplicate
~~Strikethrough~~ Indicates that sample locations were removed as part of supplemental soil excavation activities.

Table 5-15
TCL SVOCs Soil Analytical Data
SL-1 Original Sample Location - Post Excavation Data

TCL SVOCs (mg/kg)	NYSDEC Unrestricted SCO	SL-1 Original Sample Location - Post Excavation Data				
		End-Point Soil Samples				
		Side-wall Samples				Bottom Sample
		SL-EP#13 (4')	SL-EP#14 (4')	SL-EP#15 (4')	SL-EP#16 (4')	SL-EP#12 (7')
1,2,4,5-Tetrachlorobenzene	NA	3.6 U	2.0 U	1.8 U	7.1 U	1.9 U
1,4-Dioxane	0.1	3.6 U	2.0 U	1.8 U	7.1 U	1.9 U
2,2'-oxybis[1-chloropropane]	NA	3.6 U	2.0 U	1.8 U	7.1 U	1.9 U
2,3,4,6-Tetrachlorophenol	NA	3.6 U	2.0 U	1.8 U	7.1 U	1.9 U
2,4,5-Trichlorophenol	NA	3.6 U	2.0 U	1.8 U	7.1 U	1.9 U
2,4,6-Trichlorophenol	NA	3.6 U	2.0 U	1.8 U	7.1 U	1.9 U
2,4-Dichlorophenol	NA	3.6 U	2.0 U	1.8 U	7.1 U	1.9 U
2,4-Dimethylphenol	NA	3.6 U	2.0 U	1.8 U	7.1 U	1.9 U
2,4-Dinitrophenol	NA	11 U	6.2 U	5.4 U	22 U	5.7 U
2,4-Dinitrotoluene	NA	0.72 U	0.41 U	0.36 U	1.4 U	0.39 U
2,6-Dinitrotoluene	NA	0.72 U	0.41 U	0.36 U	1.4 U	0.39 U
2-Chloronaphthalene	NA	3.6 U	2.0 U	1.8 U	7.1 U	1.9 U
2-Chlorophenol	NA	3.6 U	2.0 U	1.8 U	7.1 U	1.9 U
2-Methylnaphthalene	NA	3.6 U	2.0 U	1.8 U	7.1 U	1.9 U
2-Methylphenol	0.33	3.6 U	2.0 U	1.8 U	7.1 U	1.9 U
2-Nitroaniline	NA	7.2 U	4.1 U	3.6 U	14 U	3.9 U
2-Nitrophenol	NA	3.6 U	2.0 U	1.8 U	7.1 U	1.9 U
3,3'-Dichlorobenzidine	NA	7.2 U	4.1 U	3.6 U	14 U	3.9 U
3-Nitroaniline	NA	7.2 U	4.1 U	3.6 U	14 U	3.9 U
4,6-Dinitro-2-methylphenol	NA	11 U	6.2 U	5.4 U	22 U	5.7 U
4-Bromophenyl phenyl ether	NA	3.6 U	2.0 U	1.8 U	7.1 U	1.9 U
4-Chloro-3-methylphenol	NA	3.6 U	2.0 U	1.8 U	7.1 U	1.9 U
4-Chloroaniline	NA	3.6 U	2.0 U	1.8 U	7.1 U	1.9 U
4-Chlorophenyl phenyl ether	NA	3.6 U	2.0 U	1.8 U	7.1 U	1.9 U
4-Methylphenol	0.33	3.6 U	2.0 U	1.8 U	7.1 U	1.9 U
4-Nitroaniline	NA	7.2 U	4.1 U	3.6 U	14 U	3.9 U
4-Nitrophenol	NA	11 U	6.2 U	5.4 U	22 U	5.7 U
Acenaphthene	20	3.6 U	2.0 U	1.8 U	7.1 U	1.9 U
Acenaphthylene	100	0.18 J	2.0 U	0.046 J	7.1 U	1.9 U
Acetophenone	NA	3.6 U	2.0 U	1.8 U	7.1 U	1.9 U
Anthracene	100	0.35 J	2.0 U	0.23 J	7.1 U	0.082 J
Atrazine	NA	3.6 U	2.0 U	1.8 U	7.1 U	1.9 U
Benzaldehyde	NA	3.6 U	2.0 U	1.8 U	7.1 U R	1.9 U
Benzo[a]anthracene	1	**1.3**	0.18 J	0.80	0.71 U	0.50
Benzo[a]pyrene	1	**1.2**	0.21	0.88	0.39 J	0.48
Benzo[b]fluoranthene	1	**1.2**	0.24	**1.1**	0.40 J	0.51
Benzo[g,h,i]perylene	100	0.83 J	0.16 J	0.67 J	0.63 J	0.38 J
Benzo[k]fluoranthene	0.8	0.49	0.10 J	0.54	0.25 J	0.24
Bis(2-chloroethoxy)methane	NA	3.6 U	2.0 U	1.8 U	7.1 U	1.9 U
Bis(2-chloroethyl)ether	NA	0.36 U	0.20 U	0.18 U	0.71 U	0.19 U
Bis(2-ethylhexyl) phthalate	NA	3.6 U	2.0 U	1.8 U	7.1 U	1.9 U
Butyl benzyl phthalate	NA	3.6 U	2.0 U	1.8 U	7.1 U	1.9 U
Caprolactam	NA	3.6 U	2.0 U	1.8 U	7.1 U	1.9 U
Carbazole	NA	3.6 U	2.0 U	0.084 J	7.1 U	1.9 U
Chrysene	1	**1.8** J	0.23 J	0.91 J	0.45 J	0.51 J
Dibenz(a,h)anthracene	0.33	0.36 U	0.20 U	0.16 J	0.71 U	0.19 U
Dibenzofuran	7	3.6 U	2.0 U	1.8 U	7.1 U	1.9 U
Diethyl phthalate	NA	3.6 U	2.0 U	1.8 U	7.1 U	1.9 U
Dimethyl phthalate	NA	3.6 U	2.0 U	1.8 U	7.1 U	1.9 U
Di-n-butyl phthalate	NA	3.6 U	2.0 U	1.8 U	7.1 U	1.9 U
Di-n-octyl phthalate	NA	3.6 U	2.0 U	1.8 U	7.1 U	1.9 U
Diphenyl	NA	3.6 U	2.0 U	1.8 U	7.1 U	1.9 U
Fluoranthene	100	2.0 J	0.26 J	1.4 J	0.57 J	0.69 J
Fluorene	30	3.6 U	2.0 U	0.073 J	7.1 U	1.9 U
Hexachlorobenzene	0.33	0.36 U	0.20 U	0.18 U	0.71 U	0.19 U
Hexachlorobutadiene	NA	0.72 U	0.41 U	0.36 U	1.4 U	0.39 U
Hexachlorocyclopentadiene	NA	3.6 U	2.0 U	1.8 U	7.1 U	1.9 U
Hexachloroethane	NA	0.36 U	0.20 U	0.18 U	0.71 U	0.19 U
Indeno[1,2,3-cd]pyrene	0.5	**0.65**	0.13 J	**0.62**	0.34 J	0.30
Isophorone	NA	3.6 U	2.0 U	1.8 U	7.1 U	1.9 U
Naphthalene	12	3.6 U	2.0 U	0.048 J	7.1 U	1.9 U
Nitrobenzene	NA	0.36 U	0.20 U	0.18 U	0.71 U	0.19 U
N-Nitrosodi-n-propylamine	NA	0.36 U	0.20 U	0.18 U	0.71 U	0.19 U
N-Nitrosodiphenylamine	NA	3.6 U	2.0 U	1.8 U	7.1 U	1.9 U
Pentachlorophenol	0.8	11 U	6.2 U	5.4 U	22 U	5.7 U
Phenanthrene	100	1.3 J	0.13 J	0.88 J	0.31 J	0.35 J
Phenol	0.33	3.6 U	2.0 U	1.8 U	7.1 U	1.9 U
Pyrene	100	2.9 J	0.32 J	1.5 J	0.70 J	0.91 J
Pyridine	NA	3.6 U	2.0 U	1.8 U	7.1 U	1.9 U
SVOC TICs						
Ethane, 1,1,2,2-tetrachloro-	NA	ND	0.96 J N	ND	ND	ND

Table 5-16
TAL Metals Soil Analytical Data
SL-1 Original Sample Location - Post Excavation Data

TAL Metals (mg/kg)	NYSDEC SCOs Unrestricted	Residential	Restricted Residential	Protection of Groundwater	SL-1 Original Sample Location - Post Excavation Data: End-Point Soil Samples: Side-wall Samples SL-EP#13 (4')	SL-EP#14 (4')	SL-EP#15 (4')	SL-EP#16 (4')	Bottom Samples SL-EP#12 (7')	UNKUST-2-1 (8')	UNKUST-2-2 (8')	Supplemental Endpoint Samples: Side-wall Samples SL-EP#192 (4')	SL-EP#193 (4')	Bottom Sample SL-EP#191 (8')	Side-wall Samples SL-EP#213 (4')	SL-EP#214 (4')	SL-EP#215 (4')	SL-EP#216 (4')	Bottom Samples SL-EP#211 (11')	SL-EP#212 (11')	UNKUST-2-3 (11')	UNKUST-2-4 (11')
Aluminum	NA	NA	NA	NA	1,970	9,360	5,100	4,390	7,370	3,780	4,360	4,640	4,640	9,340	6,010	5,350	6,000	4,370	559	7,560	458	3,660
Antimony	NA	NA	NA	NA	4.1 U	4.5 U	3.7 U	4.3 U	4.4 U	4.6 U	3.6 U	3.8 U	3.6 U	3.5 U	4.1 U	4.0 U	4.1 U	4.6 U	4.1 U	4.2 U	3.7 U	4.5 U
Arsenic	13	16	16	16	4.6	3.1 J	2.7 J	2.4 J	3.4	1.7 J	1.6 J	3.5	2.3 J	3.3	2.9 J	3.3	3.6	1.7 J	3.1 U	3.7	2.7 U	1.2 J
Barium	350	350	400	820	14.1 J	80.4	41.9	53.0	58.7	34.5 J	27.1 J	49.6	32.9 J	40.2	49.4	39.1 J	41.5	30.7 J	3.2 J	79.8	1.5 J	38.0 J
Beryllium	7.2	14	72	47	0.16 J	0.69	0.33 J	0.23 J	0.44	0.25 J	0.23 J	0.27 J	0.30 J	0.31 J	0.42	0.31 J	0.49	0.23 J	0.050 J	0.37 J	0.029 J	0.19 J
Cadmium	2.5	2.5	4.3	7.5	0.87	**2.8**	0.26 J	0.45 J	2.2	**3.8**	0.21 J	**5.4**	0.38 J	0.65 J	0.50 J	0.68 J	0.61 J	0.12 J	0.13 J	1.6	0.73 U	1.3
Calcium	NA	NA	NA	NA	145,000	10,800	8,110	403 J	22,000	4,100	968	6,520	6,590	15,600	6,060	6,930	6,230	1,350	109 J	1,570	64.9 J	8,030
Chromium[1]	30	36	180	NS	5.1	21.4	12.1	12.5	16.5	10.3	12.6	13.6	11.1	13.0	15.0	13.3	23.2	10.5	2.6	20.8	1.7 J	10.3
Cobalt	NA	NA	NA	NA	1.6 J	6.5 J	3.4 J	3.8 J	5.5 J	3.3 J	2.9 J	3.7 J	3.6 J	4.5 J	4.3 J	5.3 J	5.3 J	2.8 J	0.31 J	6.7 J	9.1 U	2.9 J
Copper	50	270	270	1,720	16.1	27.8	*117*	*80.9*	23.9	32.4	13.6	39.2	20.5	22.5	21.3	22.8	25.7	*55.9*	5.1 U	22.9	4.6 U	*54.8*
Iron	NA	NA	NA	NA	4,020	19,300	8,650	8,250	13,400	7,840	11,600	9,130	9,880	12,300	13,800	16,700	19,700	7,870	1,520	17,200	1,070	6,120
Lead	63	400	400	450	45.2	21.3	21.8	60.8	16.9	25.9	10	20.6	16.9	20.7	14.3	32.6	20.5	14.4	0.96 J	18.3	0.70 J	17.0
Magnesium	NA	NA	NA	NA	84,000	7,420	4,850	865 J	13,700	1,530	817 J	3,490	5,190	9,740	4,790	5,730	4,100	1,210	94.6 J	3,180	49.6 J	3,540
Manganese	1,600	2,000	2,000	2,000	174	502	422	951	447	558	792	661	368	493	367	606	478	369	59.8	1050	27.2	554
Nickel	30	140	310	130	5.2 J	19.7	8.2	8.8	12.7	6.8 J	9.3	10.2	8.0	8.8	11.2	10.0	11.2	6.1 J	1.0 J	16.0	0.81 J	6.8 J
Potassium	NA	NA	NA	NA	267 J	2,290	380 J	326 J	1,680	322 J	282 J	660 J	730 J	723 J	1,700	884 J	1,000 J	319 J	70.6 J	2,010	38.8 J	430 J
Selenium	3.9	36	180	4	4.1 U	4.5 U	3.7 U	4.3 U	4.4 U	4.6 U	1.0 J	3.8 U	3.6 U	3.5 U	4.1 U	4.0 U	4.1 U	4.6 U	4.1 U	4.2 U	3.7 U	4.5 U
Silver	2	36	180	8.3	**17.9**	**9.6**	**5.6**	**5.0**	**13.3**	**17.3**	**2.3**	**207**	**4.0**	**17.0**	**6.2**	**14.5**	**6.6**	2.1 J	2.0 U	0.38 J	1.8 U	**9.8**
Sodium	NA	NA	NA	NA	126 J	104 J	917 U	1,080 U	1,090 U	1,140 U	905 U	945 U	902 U	67.4 J	1,020 U	996 U	1,030 U	1,140 U	1,020 U	92.4 J	915 U	1,120 U
Thallium	NA	NA	NA	NA	4.1 U	4.5 U	3.7 U	4.3 U	4.4 U	4.6 U	3.6 U	3.8 U	3.6 U	3.5 U	4.1 U	4.0 U	4.1 U	4.6 U	4.1 U	1.1 J	3.7 U	4.5 U
Vanadium	NA	NA	NA	NA	9.6 J	24.0	11.2	9.6 J	19.6	10.8 J	10.4	13.8	13.1	16.5	19.7	16.5	20.8	10.9 J	2.8 J	23.4	1.6 J	11.7
Zinc	109	2,200	10,000	2,480	41.6	75.9	*195*	*136*	15.7	98.8	50.9	95.7	41.7	55.0	65.9	50.3	60.2	*112*	7.0	133	5.9	91.8
Mercury	0.18	0.81	0.81	0.73	0.051	0.044	0.028	0.019 U	0.037	0.14	0.028	0.016 J	0.054	0.041	0.048	0.043	0.042	0.050	0.019 U	0.024	0.017 U	0.043

TAL Metals (mg/kg)	NYSDEC SCOs Unrestricted	Residential	Restricted Residential	Protection of Groundwater	SL-1 Original Sample Location - Post Excavation Data: End-Point Soil Samples: Co-located Bottom and Sidewall Samples SL-EP#324 (13')	SL-EP#325 (13')	SL-EP#326 (13')	SL-EP#327 (13')	SL-EP#328 (4')	SL-EP#329 (4')	SL-EP#330 (8')	SL-EP#330 (4')	SL-EP#331 (8')	SL-EP#331 (4')
Aluminum	NA	NA	NA	NA	6,510	666	397	603	5,130	6,720	2,980	8,110	4,770	7,670
Antimony	NA	NA	NA	NA	4.6 U	3.9 U	4.7 U	3.8 U	4.3 U	4.3 U	4.2 U	4.1 U	4.4 U	4.1 U
Arsenic	13	16	16	16	1.6 J	1.2 J	3.5 U	2.9 U	2.6 J	3.0 J	3.2 U	2.9 J	2.6 J	3.3
Barium	350	350	400	820	37.2 J	10.2 J	46.8 U	2.7 J	36.9 J	51.6	16.2 J	74.2	32.8 J	49.3
Beryllium	7.2	14	72	47	0.41 J	0.39 U	0.47 U	0.38 U	0.43 U	0.32 J	0.42 U	0.39 J	0.44 U	0.31 J
Cadmium	2.5	2.5	4.3	7.5	*2.5*	0.79 U	0.94 U	0.76 U	1.8	1.3	0.49 J	0.83 U	0.94	0.82 U
Calcium	NA	NA	NA	NA	1,310	87 J	1,170 U	953 U	6,380	7,520	577 J	3,830	7,240	7,120
Chromium[1]	30	36	180	NS	17.1	4.2	1.2 J	2.5	13.0	17.2	8.6	17.8	12.1	20.0
Cobalt	NA	NA	NA	NA	4.5 J	9.8 U	11.7 U	9.5 U	4.8 J	5.2 J	3.0 J	7.3 J	4.0 J	7.5 J
Copper	50	270	270	1,720	14.9	4.9 U	5.9 U	4.8 U	19.8	24.9	3.2 J	20.0	13.7	20.1
Iron	NA	NA	NA	NA	8,140	2,940	357	941	12,300	13,100	4,270	14,000	10,600	15,200
Lead	63	400	400	450	10.6	0.98 J	1.1 J	1.5 J	18.6	20.6	3.6	17.8	13.6	17.9
Magnesium	NA	NA	NA	NA	1,930	110 J	1,170 U	953 U	4,220	5,440	927 J	3,290	4,930	5,630
Manganese	1,600	2,000	2,000	2,000	108	393	7.7	35.8	453	434	76.4	640	478	679
Nickel	30	140	310	130	12.3	7.9 U	9.4 U	7.6 U	11.6	12.0	5.5 J	14.9	8.2 J	12.8
Potassium	NA	NA	NA	NA	1,030 J	87 J	37 J	45 J	674 J	1,040 J	423 J	1,630	699 J	958 J
Selenium	3.9	36	180	4	4.6 U	3.9 U	4.7 U	3.8 U	4.3 U	4.3 U	4.2 U	4.1 U	4.4 U	4.1 U
Silver	2	36	180	8.3	2.1 J	2.0 U	2.3 U	1.9 U	*11.8*	*12.9*	2.1 U	*4.6*	*7.9*	*6.8*
Sodium	NA	NA	NA	NA	1,160 U	981 U	1,170 U	953 U	1,070 U	1,070 U	1,050 U	106 J	1,100 U	98.3 J
Thallium	NA	NA	NA	NA	4.6 U	3.9 U	4.7 U	3.8 U	4.3 U	4.3 U	4.2 U	4.1 U	4.4 U	4.1 U
Vanadium	NA	NA	NA	NA	21.6	2.0 J	11.7 U	1.1 J	15.9	18.7	7.1 J	22.1	13.9	22.2
Zinc	109	2,200	10,000	2,480	55.0	69.8	5.6 J	26.1	53.6	76.3	91.0	48.1	46.2	68.1
Mercury	0.18	0.81	0.81	0.73	0.026	0.018 U	0.021 U	0.017 U	0.049	0.11	0.020 U	0.053	0.027	0.039

Notes:
J : Sample result is greater than the MDL but below the CRDL
U : Indicates analyzed for but not detected.
[1] Trivalent chromium SCOs utilized.
Highlighted / bolded indicates analyte exceeded above its respective NYSDEC Unrestricted SCO.
Highlighted / bolded indicates analyte exceeded above its respective NYSDEC Unrestricted SCO.
Green / italicized value indicates analyte exceeded its respective unrestricted SCO but was below its respective Residential / Protection of GW SCO, whichever is lower.
Blue / italicized value indicates analyte exceeded its respective Residential SCO and / or Protection of Groundwater SCO but was below its Restricted Residential SCO.
NA - Not Available
~~Strikethrough~~ Indicates that sample locations were removed as part of supplemental soil excavation activities.
NYSDEC did not require the latest round of samples to be analyzed for TCL SVOCs

Table 5-17
TAL Metals Soil Analytical Data
SL-2 Original Sample Location - Post Excavation Data

TAL Metals (mg/kg)	NYSDEC SCOs			SL-2 Original Sample Location - Post Excavation Data																	
				End-Point Soil Samples								Supplemental Endpoint Samples									
				Side-wall Samples						Bottom Samples		Side-wall Samples			Bottom Sample	Side-wall Samples				Bottom Samples	
	Unrestricted	Residential	Protection of Groundwater	~~SL-EP#105~~ (4')	~~SL-EP#106~~ (3')	~~SL-EP#107~~ (4')	~~SL-EP#108~~ (3')	~~SL-EP#109~~ (4')	~~SL-EP#110~~ (3')	~~SL-EP#103~~ (5')	~~SL-EP#104~~ (5')	~~SL-EP#188~~ (2')	~~SL-EP#189~~ (2')	SL-EP#190 (2')	~~SL-EP#187~~ (7')	~~SL-EP#219~~ (2')	~~SL-EP#220~~ (2')	~~SL-EP#221~~ (2')	~~SL-EP#222~~ (2')	~~SL-EP#217~~ (6')	~~SL-EP#218~~ (6')
Aluminum	NA	NA	NA	~~1,560~~	~~3,090~~	~~5,240~~	~~6,500~~	~~17,100~~	~~2,330~~	~~5,940~~	~~2,050~~	~~5,580~~	~~4,750~~	1,080	~~5,630~~	~~19,000~~	~~6,020~~	~~6630~~	~~9520~~	~~3,740~~	~~4,410~~
Antimony	NA	NA	NA	~~3.7 U~~	~~3.2 U~~	~~3.2 U~~	~~3.5 U~~	~~3.4 U~~	~~3.0 U~~	~~3.4 U~~	~~3.6 U~~	~~4.0 U~~	~~3.7 U~~	4.1 U	~~3.2 U~~	~~5.4 U~~	~~4.0 U~~	~~4.0 U~~	~~4.1 U~~	~~4.1 U~~	~~4.1 U~~
Arsenic	13	16	16	~~1.0 J~~	~~1.9 J~~	~~2.7~~	~~2.8~~	~~4.3~~	~~0.74 J~~	~~1.3 J~~	~~0.90 J~~	~~2.6 J~~	~~2.1 J~~	3.1 U	~~2.7~~	~~4.1~~	~~4.4~~	~~3.3~~	~~2.2 J~~	~~1.5 J~~	~~1.0 J~~
Barium	350	350	820	~~7.3 J~~	~~12.6 J~~	~~23.6 J~~	~~29.4 J~~	~~60.6~~	~~9.8 J~~	~~42.3~~	~~7.0 J~~	~~21.0 J~~	~~20.5 J~~	3.5 J	~~27.3 J~~	~~147~~	~~31.0 J~~	~~31.4 J~~	~~21.5 J~~	~~14.9 J~~	~~16.0 J~~
Beryllium	7.2	14	47	~~0.37 U~~	~~0.16 J~~	~~0.28 J~~	~~0.34 J~~	~~0.53~~	~~0.12 J~~	~~0.32 J~~	~~0.13 J~~	~~0.18 J~~	~~0.33 J~~	0.41 U	~~0.25 J~~	~~1.2~~	~~0.37 J~~	~~0.35 J~~	~~0.40 J~~	~~0.25 J~~	~~0.26 J~~
Cadmium	2.5	2.5	7.5	~~0.31 J~~	~~2.3~~	~~0.22 J~~	~~0.69 U~~	~~0.69 U~~	~~0.26 J~~	~~0.68 U~~	~~0.40 J~~	~~0.15 J~~	~~0.35 J~~	0.51 J	~~0.61 J~~	~~1.1 U~~	~~0.28 J~~	~~0.79 U~~	~~0.81 U~~	~~**18.3**~~	~~**2.6**~~
Calcium	NA	NA	NA	~~3,160~~	~~18,900~~	~~42,400~~	~~8,470~~	~~1,680~~	~~783~~	~~564 J~~	~~163 J~~	~~7,970~~	~~5,370~~	162 J	~~46,600~~	~~9,580~~	~~11,400~~	~~3640~~	~~779 J~~	~~481 J~~	~~497 J~~
Chromium[1]	30	36	NS	~~2.4~~	~~5.2~~	~~9.6~~	~~12.9~~	~~**31.5**~~	~~4.5~~	~~11.8~~	~~3.2~~	~~13.0~~	~~9.3~~	2.4	~~13.6~~	~~**37.0**~~	~~12.5~~	~~14.1~~	~~14.1~~	~~8.6~~	~~9.0~~
Cobalt	NA	NA	NA	~~1.0 J~~	~~2.5 J~~	~~3.6 J~~	~~4.2 J~~	~~7.5 J~~	~~1.8 J~~	~~6.1 J~~	~~1.1 J~~	~~3.7 J~~	~~3.4 J~~	1.1 J	~~4.0 J~~	~~15.2~~	~~6.6 J~~	~~4.2 J~~	~~4.5 J~~	~~3.4 J~~	~~2.7 J~~
Copper	50	270	1,720	~~3.6 J~~	~~7.9~~	~~15.7~~	~~19.3~~	~~17.2~~	~~5.2~~	~~7.6~~	~~2.4 J~~	~~19.9~~	~~10.3~~	1.6 J	~~20.0~~	~~39.6~~	~~16.2~~	~~9.8~~	~~7.6~~	~~5.9~~	~~6.0~~
Iron	NA	NA	NA	~~1,890~~	~~5,020~~	~~9,170~~	~~11,900~~	~~24,900~~	~~4,150~~	~~12,100~~	~~4,360~~	~~9,600~~	~~8,560~~	2,460	~~12,300~~	~~34,700~~	~~14,100~~	~~11900~~	~~11500~~	~~9,520~~	~~8,840~~
Lead	63	400	450	~~2.7~~	~~6.3~~	~~15.5~~	~~23.7~~	~~11.7~~	~~6.5~~	~~3.9~~	~~1.7 J~~	~~18.4~~	~~10.8~~	0.91 J	~~24.1~~	~~16.8~~	~~17.7~~	~~14.0~~	~~5.1~~	~~3.3~~	~~3.3~~
Magnesium	NA	NA	NA	~~788 J~~	~~10,900~~	~~22,200~~	~~5,140~~	~~4,320~~	~~645~~	~~1,980~~	~~321 J~~	~~5,290~~	~~3,140~~	599 J	~~25,100~~	~~9,270 B~~	~~6,690~~	~~4100~~	~~2110~~	~~755 J B~~	~~735 J B~~
Manganese	1,600	2,000	2,000	~~64.6~~	~~144~~	~~347~~	~~287~~	~~193~~	~~106~~	~~167~~	~~110~~	~~210~~	~~229~~	59.1	~~220~~	~~484~~	~~438~~	~~266~~	~~173~~	~~531~~	~~353~~
Nickel	30	140	130	~~1.8 J~~	~~4.0 J~~	~~6.3 J~~	~~7.9~~	~~16.9~~	~~2.9 J~~	~~11.7~~	~~2.2 J~~	~~7.7 J~~	~~5.6 J~~	2.1 J	~~8.2~~	~~**32.8**~~	~~8.8~~	~~8.9~~	~~9.3~~	~~5.3 J~~	~~5.6 J~~
Potassium	NA	NA	NA	~~232 J~~	~~379 J~~	~~519 J~~	~~583 J~~	~~2,140~~	~~241 J~~	~~1070~~	~~205 J~~	~~581 J~~	~~453 J~~	83.2 J	~~823~~	~~5,700 J~~	~~563 J~~	~~477 J~~	~~731 J~~	~~376 J~~	~~516 J~~
Selenium	3.9	36	4	~~3.7 U~~	~~3.2 U~~	~~3.2 U~~	~~3.5 U~~	~~3.4 U~~	~~3.0 U~~	~~3.4 U~~	~~3.6 U~~	~~4.0 U~~	~~3.7 U~~	4.1 U	~~3.2 U~~	~~5.4 U~~	~~4.0 U~~	~~4.0 U~~	~~4.1 U~~	~~4.1 U~~	~~4.1 U~~
Silver	2	36	8.3	~~**3.3**~~	~~**13.7**~~	~~**8.4**~~	~~**10.8**~~	~~1.1 J~~	~~**18.8**~~	~~1.7 U~~	~~**34.2**~~	~~**24.6**~~	~~**25.1**~~	1.9 J	~~**18.4**~~	~~2.7 U~~	~~**8.5**~~	~~0.26 J~~	~~2.0 U~~	~~2.0 U~~	~~0.66 J B~~
Sodium	NA	NA	NA	~~918 U~~	~~812 U~~	~~804 U~~	~~868 U~~	~~74 J~~	~~747 U~~	~~847 U~~	~~893 U~~	~~990 U~~	~~914 U~~	1,020 U	~~78.6 J~~	~~197 J~~	~~998 U~~	~~992 U~~	~~1020 U~~	~~1,020 U~~	~~1,030 U~~
Thallium	NA	NA	NA	~~3.7 U~~	~~3.2 U~~	~~3.2 U~~	~~3.5 U~~	~~3.4 U~~	~~3.0 U~~	~~3.4 U~~	~~3.6 U~~	~~4.0 U~~	~~3.7 U~~	4.1 U	~~3.2 U~~	~~5.4 U~~	~~4.0 U~~	~~4.0 U~~	~~4.1 U~~	~~4.1 U~~	~~4.1 U~~
Vanadium	NA	NA	NA	~~3.2 J~~	~~7.3 J~~	~~13.3~~	~~15.7~~	~~41.7~~	~~5.7 J~~	~~14.0~~	~~4.5 J~~	~~13.5~~	~~11.9~~	2.5 J	~~17.5~~	~~45.2~~	~~15.5~~	~~16.1~~	~~18.4~~	~~10.6~~	~~11.4~~
Zinc	109	2,200	2,480	~~10.3~~	~~20.0~~	~~34.1~~	~~42.4~~	~~46.0~~	~~14.7~~	~~24.4~~	~~5.8~~	~~37.1~~	~~40.0~~	9.0	~~69.0~~	~~74.6~~	~~36.1~~	~~24.0~~	~~22.7~~	~~10.3~~	~~11.4~~
Mercury	0.18	0.81	0.73	~~0.017 U~~	~~0.017 U~~	~~0.039~~	~~0.045~~	~~0.021~~	~~0.030~~	~~0.018 U~~	~~0.016 J~~	~~0.15~~	~~0.095~~	0.021 U	~~0.097~~	~~0.018 J~~	~~0.032~~	~~0.022~~	~~0.018 U~~	~~0.015 J~~	~~0.018 U~~

TAL Metals (mg/kg)	NYSDEC SCOs			SL-2 Original Sample Location - Post Excavation Data														
				End-Point Soil Samples														
				Co-located Bottom and Sidewall Samples											Supplemental Bottom Samples			
	Unrestricted	Residential	Protection of Groundwater	~~SL-EP#298~~ (4')	~~SL-EP#299~~ (4')	~~SL-EP#300~~ (4')	~~SL-EP#301~~ (4')	~~SL-EP#302~~ (4')	SL-EP#303 (5')	SL-EP#304 (1')	SL-EP#305 (5')	SL-EP#306 (1')	SL-EP#307 (5')	SL-EP#308 (1')	~~SL-EP#377~~ (14')	~~SL-EP#378~~ (14')	~~SL-EP#379~~ (14')
Aluminum	NA	NA	NA	~~7,300~~	~~7,360~~	~~3,600~~	~~1,810~~	~~2,110~~	6,270	3,940	4,600	6,860	4,860	8,580	3,370	2,130	1,980
Antimony	NA	NA	NA	~~4.1 U~~	~~4.0 U~~	~~4.8 U~~	~~4.2 U~~	~~4.6 U~~	4.0 U	3.9 U	4.4 U	4.0 U	4.5 U	4.1 U	4.1 U	4.0 U	4.3 U
Arsenic	13	16	16	~~2.8 J~~	~~1.5 J~~	~~1.4 J~~	~~1.3 J~~	~~1.3 J~~	2.8 J	2.4 J	3.5	2.2 J	6.2	2.7 J	1.7 J	1.5 J	1.2 J
Barium	350	350	820	~~30.4 J~~	~~31.9 J~~	~~13.1 J~~	~~14.1 J~~	~~7.6 J~~	38.2 J	25.7 J	18.4 J	23.5 J	27.0 J	27.9 J	21.1 J	13.2 J	7.6 J
Beryllium	7.2	14	47	~~0.29 J~~	~~0.40 U~~	~~0.48 U~~	~~0.42 U~~	~~0.46 U~~	0.40 U	0.39 U	0.44 U	0.40 U	0.45 U	0.28 J	0.41 U	0.40 U	0.43 U
Cadmium	2.5	2.5	7.5	~~0.83 U~~	~~0.80 U~~	~~**19.4**~~	~~0.84 U~~	~~0.91 U~~	0.62 J	0.54 J	0.88 U	0.80 U	0.89 U	0.81 U	0.67 J	0.80 U	0.53 J
Calcium	NA	NA	NA	~~865 J~~	~~1,030~~	~~327 J~~	~~195 J~~	~~3,530~~	20,800	6,630	391 J	652 J	335 J	983 J	11,600	293 J	299 J
Chromium[1]	30	36	NS	~~21.6~~	~~19.2~~	~~7.1~~	~~4.8~~	~~4.5~~	13.6	9.0	12.4	11.4	13.1	16.5	7.7	5.9	6.5
Cobalt	NA	NA	NA	~~5.2 J~~	~~1.9 J~~	~~2.1 J~~	~~1.5 J~~	~~2.2 J~~	4.6 J	2.9 J	3.9 J	3.9 J	7.9 J	3.7 J	2.8 J	2.5 J	1.6 J
Copper	50	270	1,720	~~9.7~~	~~7.4~~	~~4.3 J~~	~~2.2 J~~	~~3.1 J~~	19.1	11.0	12.9	5.7	7.3	5.7	6.3	3.3 J	3.0 J
Iron	NA	NA	NA	~~13,300~~	~~6,890~~	~~7,220~~	~~5,760~~	~~5,970~~	12,800	7,890	17,600	10,100	21,400	10,600	7,370	7,200	5,250
Lead	63	400	450	~~4.5~~	~~5.6~~	~~2.7~~	~~3.5~~	~~2.3~~	17.8	10.8	3.7	9.4	4.0	7.2	7.7	1.8 J	6.1
Magnesium	NA	NA	NA	~~2,580~~	~~1,650~~	~~489 J~~	~~291 J~~	~~2,200~~	12,800	4,040	840 J	1,560	792 J	1,860	5,120	469 J	412 J
Manganese	1,600	2,000	2,000	~~538~~	~~58.7~~	~~206~~	~~207~~	~~172~~	355	252	278	143	975	127	330	347	88.0
Nickel	30	140	130	~~11.2~~	~~6.4 J~~	~~4.9 J~~	~~2.6 J~~	~~3.2 J~~	11.1	6.0 J	7.0 J	7.8 J	7.2 J	8.9	5.4 J	3.5 J	2.8 J
Potassium	NA	NA	NA	~~1,250~~	~~1,200~~	~~342 J~~	~~171 J~~	~~183 J~~	1,020	496 J	327 J	414 J	241 J	408 J	318 J	226 J	200 J
Selenium	3.9	36	4	~~4.1 U~~	~~4.0 U~~	~~4.8 U~~	~~4.2 U~~	~~4.6 U~~	4.0 U	3.9 U	4.4 U	4.0 U	4.5 U	4.1 U	4.1 U	4.0 U	4.3 U
Silver	2	36	8.3	~~0.42 J~~	~~0.69 J~~	~~2.4 U~~	~~2.1 U~~	~~2.3 U~~	25.4	9.0	2.2 U	2.0 U	0.59 J	2.0 U	6.6	0.48 J	0.81 J
Sodium	NA	NA	NA	~~1,040 U~~	~~1,000 U~~	~~1,190 U~~	~~1,050 U~~	~~1,140 U~~	989 U	980 U	1,100 U	995 U	1,120 U	1,020 U	1,040 U	995 U	1,080 U
Thallium	NA	NA	NA	~~4.1 U~~	~~4.0 U~~	~~4.8 U~~	~~4.2 U~~	~~4.6 U~~	4.0 U	3.9 U	4.4 U	4.0 U	4.5 U	4.1 U	4.1 U	4.0 U	4.3 U
Vanadium	NA	NA	NA	~~21.1~~	~~14.0~~	~~10.1 J~~	~~7.4 J~~	~~6.2 J~~	18.9	11.4	18.0	14.8	18.9	18.6	8.9 J	7.5 J	7.1 J
Zinc	109	2,200	2,480	~~21.0~~	~~24.7~~	~~9.0~~	~~7.0~~	~~7.5~~	51.9	29.5	18.5	18.3	14.8	20.0	15.8	7.7	9.8
Mercury	0.18	0.81	0.73	~~0.013 J~~	~~0.019 U~~	~~0.020 U~~	~~0.019 U~~	~~0.020 U~~	0.033	0.052	0.015 J	0.020	0.020	0.022	0.023	0.019	0.021 U

Notes:
J : Sample result is greater than the MDL but below the CRDL
U : Indicates analyzed for but not detected.
[1] Trivalent chromium SCOs utilized.
Highlighted / bolded indicates analyte exceeded above its respective NYSDEC Commercial SCO.
Green / italicized value indicates analyte exceeded its respective unrestricted SCO but was below its respective Residential / Protection of GW SCO, whichever is lower.
NA - Not Available
NS - No Standard Available
~~strikethrough~~ Indicates that sample locations were removed as part of supplemental soil excavation activities.

Table 5-18
TCL SVOCs Soil Analytical Data
SL-3 Original Sample Location - Post Excavation Data

TCL SVOCs (mg/kg)	NYSDEC Unrestricted SCO	SL-3 Original Sample Location - Post Excavation Data			
		End-Point Soil Samples			
		Side-wall Samples		Bottom Samples	
		SL-EP#173 (5')	SL-EP#175 (5')	SL-EP#159 (5')	SL-EP#165 (5')
1,2,4,5-Tetrachlorobenzene	NA	0.70 U	0.38 U	0.39 U	0.38 U
1,4-Dioxane	0.1	0.70 U	0.38 U	0.39 U	0.38 U
2,2'-oxybis[1-chloropropane]	NA	0.70 U	0.38 U	0.39 U	0.38 U
2,3,4,6-Tetrachlorophenol	NA	0.70 U	0.38 U	0.39 U	0.38 U
2,4,5-Trichlorophenol	NA	0.70 U	0.38 U	0.39 U	0.38 U
2,4,6-Trichlorophenol	NA	0.70 U	0.38 U	0.39 U	0.38 U
2,4-Dichlorophenol	NA	0.70 U	0.38 U	0.39 U	0.38 U
2,4-Dimethylphenol	NA	0.70 U	0.38 U	0.39 U	0.38 U
2,4-Dinitrophenol	NA	2.1 U	1.1 U	1.2 U	1.1 U
2,4-Dinitrotoluene	NA	0.14 U	0.076 U	0.080 U	0.077 U
2,6-Dinitrotoluene	NA	0.14 U	0.076 U	0.080 U	0.077 U
2-Chloronaphthalene	NA	0.70 U	0.38 U	0.39 U	0.38 U
2-Chlorophenol	NA	0.70 U	0.38 U	0.39 U	0.38 U
2-Methylnaphthalene	NA	0.70 U	0.38 U	0.39 U	0.38 U
2-Methylphenol	0.33	0.70 U	0.38 U	0.39 U	0.38 U
2-Nitroaniline	NA	1.4 U	0.76 U	0.80 U	0.77 U
2-Nitrophenol	NA	0.70 U	0.38 U	0.39 U	0.38 U
3,3'-Dichlorobenzidine	NA	1.4 U	0.76 U	0.80 U	0.77 U
3-Nitroaniline	NA	1.4 U	0.76 U	0.80 U	0.77 U
4,6-Dinitro-2-methylphenol	NA	2.1 U	1.1 U	1.2 U	1.1 U
4-Bromophenyl phenyl ether	NA	0.70 U	0.38 U	0.39 U	0.38 U
4-Chloro-3-methylphenol	NA	0.70 U	0.38 U	0.39 U	0.38 U
4-Chloroaniline	NA	0.70 U	0.38 U	0.39 U	0.38 U
4-Chlorophenyl phenyl ether	NA	0.70 U	0.38 U	0.39 U	0.38 U
4-Methylphenol	0.33	0.70 U	0.38 U	0.39 U	0.38 U
4-Nitroaniline	NA	1.4 U	0.76 U	0.80 U	0.77 U
4-Nitrophenol	NA	2.1 U	1.1 U	1.2 U	1.1 U
Acenaphthene	20	0.70 U	0.38 U	0.39 U	0.38 U
Acenaphthylene	100	0.17 J	0.049 J	0.39 U	0.38 U
Acetophenone	NA	0.70 U	0.38 U	0.39 U	0.38 U
Anthracene	100	0.30 J	0.16 J	0.39 U	0.38 U
Atrazine	NA	0.70 U	0.38 U	0.39 U	0.38 U
Benzaldehyde	NA	0.70 U	0.38 U	0.39 U	0.38 U
Benzo[a]anthracene	1	**1.6**	0.54	0.039 U	0.038 U
Benzo[a]pyrene	1	**1.6**	0.55	0.039 U	0.038 U
Benzo[b]fluoranthene	1	**1.7**	0.54	0.039 U	0.038 U
Benzo[g,h,i]perylene	100	1.1	0.34 J	0.39 U	0.38 U
Benzo[k]fluoranthene	0.8	0.74	0.21	0.039 U	0.038 U
Bis(2-chloroethoxy)methane	NA	0.70 U	0.38 U	0.39 U	0.38 U
Bis(2-chloroethyl)ether	NA	0.070 U	0.038 U	0.039 U	0.038 U
Bis(2-ethylhexyl) phthalate	NA	0.70 U	0.38 U	0.39 U	0.38 U
Butyl benzyl phthalate	NA	0.70 U	0.38 U	0.39 U	0.38 U
Caprolactam	NA	0.70 U	0.38 U	0.39 U	0.38 U
Carbazole	NA	0.70 U	0.38 U	0.39 U	0.38 U
Chrysene	1	**1.8**	0.54	0.39 U	0.38 U
Dibenz(a,h)anthracene	0.33	0.27	0.092	0.039 U	0.038 U
Dibenzofuran	7	0.70 U	0.38 U	0.39 U	0.38 U
Diethyl phthalate	NA	0.70 U	0.38 U	0.39 U	0.38 U
Dimethyl phthalate	NA	0.70 U	0.38 U	0.39 U	0.38 U
Di-n-butyl phthalate	NA	0.70 U	0.11 J	0.39 U	0.33 J
Di-n-octyl phthalate	NA	0.70 U	0.38 U	0.39 U	0.38 U
Diphenyl	NA	0.70 U	0.38 U	0.39 U	0.38 U
Fluoranthene	100	2.5	0.91	0.39 U	0.38 U
Fluorene	30	0.17 J	0.090 J	0.39 U	0.38 U
Hexachlorobenzene	0.33	0.070 U	0.038 U	0.039 U	0.038 U
Hexachlorobutadiene	NA	0.14 U	0.076 U	0.080 U	0.077 U
Hexachlorocyclopentadiene	NA	0.70 U	0.38 U	0.39 U	0.38 U
Hexachloroethane	NA	0.070 U	0.038 U	0.039 U	0.038 U
Indeno[1,2,3-cd]pyrene	0.5	**0.97**	0.32	0.039 U	0.038 U
Isophorone	NA	0.70 U	0.38 U	0.39 U	0.38 U
Naphthalene	12	0.70 U	0.38 U	0.39 U	0.38 U
Nitrobenzene	NA	0.070 U	0.038 U	0.039 U	0.038 U
N-Nitrosodi-n-propylamine	NA	0.070 U	0.038 U	0.039 U	0.038 U
N-Nitrosodiphenylamine	NA	0.70 U	0.38 U	0.39 U	0.38 U
Pentachlorophenol	0.8	2.1 U	1.1 U	1.2 U	1.1 U
Phenanthrene	100	1.7	0.83	0.39 U	0.38 U
Phenol	0.33	0.70 U	0.38 U	0.39 U	0.38 U
Pyrene	100	3.3	1.0	0.39 U	0.38 U
Pyridine	NA	0.70 U	0.38 U	0.39 U	0.38 U
Total SVOC TICs	NA	13.51	6.95	ND	ND

Notes
ND: TIC not detected
* : LCS or LCSD exceeds the control limits
D : The reported value is from a dilution.
J : Indicates an estimated value.
J N : This flag indicates the presumptive evidence of a compound.
U : Analyzed for but not detected.
U * : LCS or LCSD exceeds the control limits
NA : Not Available

APEX

Table 5-19
TAL Metals Soil Analytical Data
SL-3 Original Sample Location - Post Excavation Data

TAL Metals (mg/kg)	NYSDEC SCOs Unrestricted	Residential	Restricted Residential	Protection of Groundwater	SL-3 Original Sample Location - Post Excavation Data: End-Point Soil Samples: Side-wall Samples SL-EP#168 (4')	SL-EP#169 (4')	SL-EP#170 (1')	SL-EP#171 (1')	SL-EP#172 (1')	SL-EP#173 (4')	SL-EP#173 (6')	SL-EP#174 (1')	SL-EP#175 (4')	SL-EP#175 (6')	SL-EP#176 (1')	SL-EP#177 (1')	SL-EP#178 (1')
Aluminum	NA	NA	NA	NA	6,360	7,210	5,190	3,160	2,680	6,410	5,220	5,600	6,640	5,770	4,940	5,450	5,350
Antimony	NA	NA	NA	NA	4.0 U	4.4 U	4.1 U	4.0 U	3.7 U	3.8 U	4.0 U	4.2 U	4.6 U	4.6 U	4.2 U	4.0 U	4.1 U
Arsenic	13	16	16	16	2.8 J	2.4 J	1.7 J	2.4 J	1.4 J	2.1 J	2.6 J	1.7 J	2.9 J	2.1 J	1.8 J	2.2 J	1.6 J
Barium	350	350	400	820	27.2 J	31.5 J	23.6 J	75.2	11.7 J	23.1 J	27.6 J	21.9 J	44.7 J	20.0 J	21.6 J	16.5 J	18.6 J
Beryllium	7.2	14	72	47	0.29 J	0.30 J	0.23 J	0.19 J	0.14 J	0.22 J	0.28 J	0.28 J	0.34 J	0.31 J	0.35 J	0.28 J	0.28 J
Cadmium	2.5	4.3	7.5	7.5	0.81 U	0.87 U	0.82 U	0.80 U	0.73 U	0.76 U	0.81 U	0.85 U	0.91 U	0.91 U	0.83 U	0.81 U	0.82 U
Calcium	NA	NA	NA	NA	669 J	1,130	622 J	402 J	684 J	3,290	4,790	253 J	1,550	773 J	776 J	216 J	326 J
Chromium[1]	30	36	180	NS	12.7	12.5	10.6	11.8	5.2	12.9	9.4	9.1	13.5	11.1	10.8	10.3	9.4
Cobalt	NA	NA	NA	NA	4.9 J	3.7 J	2.7 J	7.4 J	1.9 J	7.0 J	3.5 J	2.2 J	4.6 J	2.7 J	2.3 J	2.8 J	2.3 J
Copper	50	270	270	1,720	4.3 J	5.8	6.0	7.2	3.3 J	30.4	40.6	2.9 J	11.5	4.0 J	6.8	3.8 J	3.9 J
Iron	NA	NA	NA	NA	12,100	18,800	8,860	17,600	5,440	26,400	8,440	7,850	11,300	9,640	8,340	8,680	8,450
Lead	63	400	400	450	5.1	17.8	9.3	8.0	3.1	11.0	26.0	6.8	49.2	4.6	9.0	4.2	4.3
Magnesium	NA	NA	NA	NA	1,690	1,700	1,140	1,080	817 J	2,410	2,900	1,060	1,600	1,170	1,170	1,130	1,100
Manganese	1,600	2,000	2,000	2,000	185	145	119	442	107	244	158	52.6	141	64.8	88.5	69.2	57.2
Nickel	30	140	310	130	7.8 J	7.5 J	5.5 J	6.0 J	3.6 J	10.1	6.6 J	5.8 J	9.3	6.5 J	5.8 J	6.4 J	5.8 J
Potassium	NA	NA	NA	NA	402 J	458 J	307 J	711 J	246 J	429 J	430 J	751 J	539 J	792 J	480 J	753 J	719 J
Selenium	3.9	36	180	4	4.0 U	4.4 U	4.1 U	4.0 U	3.7 U	3.8 U	4.0 U	4.2 U	4.6 U	4.6 U	4.2 U	4.0 U	4.1 U
Silver	2	36	180	8.3	2.0 U	2.0 J	2.0 U	0.58 J	0.56 J	2.7	1.2 J	2.1 U	9.9	2.3 U	0.50 J	2.0 U	2.1 U
Sodium	NA	NA	NA	NA	1,010 U	1,090 U	1,020 U	1,000 U	914 U	412 J	67.3 J	1,060 U	1,140 U	1,140 U	1,040 U	1,010 U	1,030 U
Thallium	NA	NA	NA	NA	4.0 U	4.4 U	4.1 U	4.0 U	3.7 U	3.8 U	4.0 U	4.2 U	4.6 U	4.6 U	4.2 U	4.0 U	4.1 U
Vanadium	NA	NA	NA	NA	17.5	15.2	11.7	12.2	6.4 J	48.2	11.8	12.5	13.1	15.2	13.7	14.3	13.1
Zinc	109	2,200	10,000	2,480	19.7	24.2	15.8	14.4	8.5	30.1	32.1	15.7	34.0	15.1	18.0	14.2	14.5
Mercury	0.18	0.81	0.81	0.73	0.022	0.033	0.017 J	0.013 J	0.017 U	0.024	0.11	0.018	0.083	0.058	0.020	0.017 U	0.018 U

TAL Metals (mg/kg)	NYSDEC SCOs Unrestricted	Residential	Restricted Residential	Protection of Groundwater	SL-3 Original Sample Location - Post Excavation Data: End-Point Soil Samples: Bottom Samples SL-EP#154 (5')	SL-EP#155 (6')	SL-EP#156 (5')	SL-EP#157 (5')	SL-EP#158 (5')	SL-EP#159 (5')	SL-EP#160 (5')	SL-EP#161 (5')	SL-EP#162 (5')	SL-EP#163 (6')	SL-EP#164 (6')	SL-EP#165 (5')	SL-EP#166 (6')	SL-EP#167 (5')
Aluminum	NA	NA	NA	NA	2,820	7,650	3,100	5,840	8,590	7,230	4,310	6,430	6,080	5,770	9,780	1,320	5,120	2,050
Antimony	NA	NA	NA	NA	3.9 U	5.2 U	4.0 U	4.0 U	4.4 U	4.6 U	4.3 U	4.3 U	4.3 U	4.1 U	5.2 U	4.0 U	4.1 U	4.1 U
Arsenic	13	16	16	16	2.3 J	3.8 J	3.5	2.1 J	3.7	1.5 J	1.7 J	1.1 J	2.1 J	2.0 J	2.7 J	0.71 J	1.7 J	1.8 J
Barium	350	350	400	820	11.2 J	31.9 J	10.6 J	33.2 J	37.5 J	45.7 J	33.0 J	57.5	19.6 J	23.3 J	68.6	13.1 J	19.2 J	34.9 J
Beryllium	7.2	14	72	47	0.17 J	0.24 J	0.28 J	0.24 J	0.32 J	0.23 J	0.18 J	0.16 J	0.29 J	0.25 J	0.47 J	0.40 U	0.23 J	0.18 J
Cadmium	2.5	2.5	4.3	7.5	0.79 U	1.0 U	0.81 U	0.80 U	0.87 U	0.92 U	0.86 U	0.85 U	0.85 U	0.83 U	24.8	0.80 U	0.81 U	0.82 U
Calcium	NA	NA	NA	NA	283 J	864 J	174 J	563 J	681 J	902 J	487 J	741 J	244 J	3,600	1,950	165 J	723 J	205 J
Chromium[1]	30	36	180	NS	5.2	14.0	5.9	11.9	17.3	12.8	10.1	11.1	13.2	9.3	14.3	3.7	12.2	5.5
Cobalt	NA	NA	NA	NA	2.4 J	4.1 J	4.4 J	1.9 J	5.5 J	3.1 J	1.9 J	2.4 J	2.7 J	2.2 J	6.5 J	10 U	2.3 J	2.3 J
Copper	50	270	270	1,720	2.8 J	5.4 J	2.8 J	1.3 J	1.9 J	1.3 J	5.4 U	5.3 U	5.0 J	10.2	29.7	5.0 U	4.8 J	2.1 J
Iron	NA	NA	NA	NA	7,300	14,300	12,200	8,700	17,400	6,860	6,710	4,950	9,630	7,410	8,090	2,910	6,710	6,520
Lead	63	400	400	450	2.8	10.3	2.3	4.8	7.1	4.3	3.5	4.3	4.7	11.6	21.3	1.5 J	12.0	2.3
Magnesium	NA	NA	NA	NA	459 J	1,660	461 J	1,200	2,020	1,410	993 J	1,300	1,250	1,190	1,580	307 J	1,070	284 J
Manganese	1,600	2,000	2,000	2,000	116	292	414	51.9	304	101	94.5	57.6	65.5	66.7	220	15.6	80.6	430
Nickel	30	140	310	130	4.3 J	7.4 J	4.5 J	5.0 J	8.5 J	7.3 J	4.3 J	7.0 J	6.6 J	5.8 J	11.6	1.7 J	5.6 J	4.1 J
Potassium	NA	NA	NA	NA	225 J	445 J	235 J	285 J	391 J	348 J	207 J	390 J	810 J	749 J	608 J	134 J	586 J	209 J
Selenium	3.9	36	180	4	3.9 U	5.2 U	4.0 U	4.0 U	4.4 U	4.6 U	4.3 U	4.3 U	4.3 U	4.1 U	5.2 U	4.0 U	4.1 U	4.1 U
Silver	2	36	180	8.3	2.0 U	3.7	2.0 U	2.0 U	2.2 U	2.3 U	2.2 U	2.1 U	2.1 U	4.2	39.6	0.87 J	3.2	0.60 J
Sodium	NA	NA	NA	NA	985 U	1,300 U	1,010 U	98.5 J	203 J	1,150 U	1,080 U	1,060 U	1,070 U	1,030 U	1,290 U	997 U	76 J	1,020 U
Thallium	NA	NA	NA	NA	3.9 U	5.2 U	4.0 U	4.0 U	4.4 U	4.6 U	4.3 U	4.3 U	4.3 U	4.1 U	5.2 U	4.0 U	4.1 U	4.1 U
Vanadium	NA	NA	NA	NA	8.0 J	19.7	9.3 J	15.4	25.5	11.7	10.9	7.0 J	15.9	12.9	14.6	2.2 J	10.8	8.0 J
Zinc	109	2,200	10,000	2,480	8.1	23.2	6.9	13.5	18.8	20.6	18.5	20.7	16.1	22.6	84.1	6.8	23.3	6.5
Mercury	0.18	0.81	0.81	0.73	0.014 J	0.030	0.018 U	0.017 U	0.020 U	0.015 J	0.018 U	0.019 U	0.014 J	0.018	0.13	0.019 U	0.14	0.017 J

TAL Metals (mg/kg)	NYSDEC SCOs Unrestricted	Residential	Restricted Residential	Protection of Groundwater	SL-3 Original Sample Location - Post Excavation Data: Supplemental Endpoint Samples: Side-wall Samples SL-EP#227 (3')	SL-EP#228 (3')	SL-EP#229 (3')	SL-EP#230 (3')	SL-EP#235 (1')	SL-EP#236 (1')	Bottom Samples SL-EP#223 (7')	SL-EP#224 (7')	SL-EP#225 (7')	SL-EP#226 (7')	SL-EP#231 (7')	SL-EP#232 (7')	SL-EP#233 (7')	SL-EP#234 (7')	Co-located Bottom and Sidewall Samples SL-EP#309 (5')	SL-EP#310 (3')	SL-EP#311 (5')	SL-EP#312 (3')
Aluminum	NA	NA	NA	NA	3,860	4,510	5,010	5,370	3,740	5,230	975	3,420	2,550	4,930	1,290	1,190	1,300	1,230	5,380	7,550	2,000	5,890
Antimony	NA	NA	NA	NA	4.0 U	3.7 U	4.2 U	4.2 U	3.9 U	3.9 U	4.2 U	4.6 U	4.3 U	4.5 U	4.3 U	4.3 U	3.8 U	4.1 U	4.4 U	3.8 U	1.1 U	3.8 U
Arsenic	13	16	16	16	1.7 J	1.9 J	2.3 J	2.2 J	3.0 U	2.2 J	2.2 J	10.8	0.90 J	2.6 J	0.95 J	0.96 J	0.84 J	1.3 J	1.9 J	2.6 J	0.74 J	2.1 J
Barium	350	350	400	820	11.5 J	19.7 J	25.0 J	15.2 J	26.5 J	21.8 J	16.2 J	20.1 J	7.6 J	30.3 J	7.3 J	10.4 J	5.5 J	15.6 J	28.7 J	35.0 J	9.2 J	25.3 J
Beryllium	7.2	14	72	47	0.20 J	0.26 J	0.25 J	0.36 J	0.16 J	0.26 J	0.15 J	0.76	0.13 J	0.27 J	0.094 J	0.094 J	0.11 J	0.038 J	0.44 U	0.31 J	0.074 J	0.38 U
Cadmium	2.5	2.5	4.3	7.5	0.81 U	0.74 U	0.16 J	0.84 U	0.79 U	0.78 U	0.84 U	0.92 U	0.86 U	0.89 U	0.87 U	0.86 U	0.75 U	0.81 U	3.6	0.77 U	0.21 U	0.75 U
Calcium	NA	NA	NA	NA	381 J	708 J	1,180	512 J	254 J	434 J	217 J	1,040 J	395 J	675 J	202 J	304 J	187 J	397 J	1,140	975	822	666 J
Chromium[1]	30	36	180	NS	8.1	9.5	10.8	9.7	6.3	9.2	4.3	18.7	8.1	9.3	4.6	7.1	3.5	5.1	13.0	12.4	4.7	11.0
Cobalt	NA	NA	NA	NA	2.8 J	3.4 J	2.5 J	3.2 J	1.2 J	2.8 J	3.3 J	5.6 J	1.9 J	4.2 J	1.6 J	0.68 J	1.7 J	0.46 J	2.6 J	2.8 J	1.1 J	3.4 J
Copper	50	270	270	1,720	4.2 J	5.2	7.4	4.8 J	4.9 U	2.8 J	1.8 J	4.7 J	5.4 U	3.0 J	5.4 U	1.3 J	4.7 U	5.1 U	9.0	6.6	3.5	6.3
Iron	NA	NA	NA	NA	6,340	8,290	9,720	10,000	3,700	6,310	7,560	41,100	4,450	8,560	3,870	8,320	3,330	8,910	10,700	10,300	2,660	9,050
Lead	63	400	400	450	2.8	3.4	22.4	3.7	2.4	3.3	0.95 J	3.9	1.9 J	3.8	1.0 J	2.2	1.1 J	2.3	14.9	13.0	13.9	7.4
Magnesium	NA	NA	NA	NA	1,040	1,400	1,210	1,050	564 J	870 J	128 J	428 J	910 J	1,310	239 J	236 J	267 J	389 J	1,310	1,530	587	1,400
Manganese	1,600	2,000	2,000	2,000	150	166	138	108	62.0	68.5	317	987	44.7	640	191	57.1	126	30.9	80.3	188	27.3	160
Nickel	30	140	310	130	5.0 J	6.1 J	5.9 J	6.0 J	3.2 J	4.9 J	1.7 J	5.0 J	4.6 J	5.9 J	2.3 J	2.1 J	1.9 J	1.3 J	6.4 J	8.0	2.3	7.0 J
Potassium	NA	NA	NA	NA	301 J	571 J	756 J	462 J	167 J	610 J	73 J	189 J	163 J	316 J	119 J	689 J	119 J	885 J	496 J	631 J	122 J	534 J
Selenium	3.9	36	180	4	4.0 U	3.7 U	4.2 U	4.2 U	3.9 U	3.9 U	4.2 U	4.6 U	4.3 U	4.5 U	4.3 U	4.3 U	3.8 U	4.1 U	4.4 U	3.8 U	1.1 U	3.8 U
Silver	2	36	180	8.3	2.0 U	1.8 U	5.8	2.1 U	2.0 U	2.0 U	2.1 U	0.46 J	2.2 U	0.15 J	2.2 U	0.23 J	1.9 U	2.0 U	3.8	0.78 J	4.8	1.9 U
Sodium	NA	NA	NA	NA	1,010 U	920 U	1,050 U	1,050 U	984 U	977 U	1,050 U	1,150 U	1,080 U	1,120 U	1,080 U	1,070 U	940 U	1,020 U	1,100 U	958 U	36.8 J	137 J
Thallium	NA	NA	NA	NA	4.0 U	3.7 U	4.2 U	4.2 U	3.9 U	3.9 U	4.2 U	4.6 U	4.3 U	4.5 U	4.3 U	4.3 U	3.8 U	4.1 U	4.4 U	3.8 U	1.1 U	3.8 U
Vanadium	NA	NA	NA	NA	8.7 J	11.8	11.4	16.3	5.7 J	10.0	4.3 J	25.8	7.0 J	13.2	4.7 J	3.6 J	4.2 J	9.1 J	16.0	22.5	6.4	14.2
Zinc	109	2,200	10,000	2,480	10.4	13.6	9.08	13.5	8.9	12.7	4.5 J	15.6	23.1	33.6	4.7 J	6.4	5.5 J	5.7 J	28.6	22.1	17.0	16.7
Mercury	0.18	0.81	0.81	0.73	0.018 U	0.022	0.016 J	0.019 U	0.018 U	0.015 J	0.017 J	0.025	0.020 U	0.019 U	0.018 U	0.018 U	0.019 U	0.019 U	0.077	0.023	0.11	0.016

Notes:
J : Sample result is greater than the MDL but below the CRDL
U : Indicates analyzed for but not detected.
[1] Trivalent chromium SCOs utilized.
Highlighted / bolded indicates analyte exceeded above its respective NYSDEC Unrestricted SCO.
Highlighted / bolded indicates analyte exceeded above its respective NYSDEC Unrestricted SCO.
Green / italicized value indicates analyte exceeded its respective unrestricted SCO but was below its respective Residential / Protection of GW SCO, whichever is lower.
Blue / italicized value indicates analyte exceeded its respective Residential SCO and / or Protection of Groundwater SCO but was below its Restricted Residential SCO.
NA - Not Available
Indicates that sample locations were removed as part of supplemental soil excavation activities.

Table 5-20
TCL SVOC Soil Analytical Data
Post-excavation End-point Soil Analytical Data - SL-4 / 5 / 6

	NYSDEC SCOs				Post-excavation End-point Soil Analytical Data - SL-4 / 5 / 6																			
					Bottom Samples				Side-wall Samples					Supplemental Bottom Samples				Supplemental Sidewall Samples						Supplemental Sidewall Samples			
TCL SVOCs (mg/kg)	NYSDEC Unrestricted SCO	Residential	Restricted Residential	Protection of Groundwater	SL-EP#71 (3')	SL-EP#72 (3')	SL-EP#73 (3')	SL-EP#74 (3')	SL-EP#76 (1')	SL-EP#77 (1')	SL-EP#78 (1')	SL-EP#79 (1')	SL-EP#80 (1')	SL-EP# 118 (5')	SL-EP# 119 (5')	SL-EP# 120 (5')	SL-EP# 121 (5')	SL-EP# 122 (1')	SL-EP# 123 (1')	SL-EP# 124 (1')	SL-EP# 125 (1')	SL-EP# 126 (1')	SL-EP# 127 (1')	SL-EP#179 (1')	SL-EP#180 (1')	SL-EP#181 (1')	SL-EP#182 (1')
1,2,4,5-Tetrachlorobenzene	NA	NA	NA	NA	3.8 U	0.38 U	0.38 U	0.39 U	0.36 U	3.7 U	7.6 U	0.34 U	7.9 U	0.39 U	0.43 U	0.42 U	0.39 U	0.35 U	0.38 U	1.9 U	0.35 U	0.47 U	0.45 U	0.41 U	0.41 U	0.43 U	0.38 U
1,4-Dioxane	0.1	9.8	13	0.1	3.8 U	0.38 U	0.38 U	0.39 U	0.36 U	3.7 U	7.6 U	0.34 U	7.9 U	0.39 U	0.43 U	0.42 U	0.39 U	0.35 U	0.38 U	1.9 U	0.35 U	0.47 U	0.45 U	0.41 U	0.41 U	0.43 U	0.38 U
2,2'-oxybis[1-chloropropane]	NA	NA	NA	NA	3.8 U	0.38 U	0.38 U	0.39 U	0.36 U	3.7 U	7.6 U	0.34 U	7.9 U	0.39 U	0.43 U	0.42 U	0.39 U	0.35 U	0.38 U	1.9 U	0.35 U	0.47 U	0.45 U	0.41 U	0.41 U	0.43 U	0.38 U
2,3,4,6-Tetrachlorophenol	NA	NA	NA	NA	3.8 U	0.38 U	0.38 U	0.39 U	0.36 U	3.7 U	7.6 U	0.34 U	7.9 U	0.39 U	0.43 U	0.42 U	0.39 U	0.35 U	0.38 U	1.9 U	0.35 U	0.47 U	0.45 U	0.41 U	0.41 U	0.43 U	0.38 U
2,4,5-Trichlorophenol	NA	NA	NA	NA	3.8 U	0.38 U	0.38 U	0.39 U	0.36 U	3.7 U	7.6 U	0.34 U	7.9 U	0.39 U	0.43 U	0.42 U	0.39 U	0.35 U	0.38 U	1.9 U	0.35 U	0.47 U	0.45 U	0.41 U	0.41 U	0.43 U	0.38 U
2,4,6-Trichlorophenol	NA	NA	NA	NA	3.8 U	0.38 U	0.38 U	0.39 U	0.36 U	3.7 U	7.6 U	0.34 U	7.9 U	0.39 U	0.43 U	0.42 U	0.39 U	0.35 U	0.38 U	1.9 U	0.35 U	0.47 U	0.45 U	0.41 U	0.41 U	0.43 U	0.38 U
2,4-Dichlorophenol	NA	NA	NA	NA	3.8 U	0.38 U	0.38 U	0.39 U	0.36 U	3.7 U	7.6 U	0.34 U	7.9 U	0.39 U	0.43 U	0.42 U	0.39 U	0.35 U	0.38 U	1.9 U	0.35 U	0.47 U	0.45 U	0.41 U	0.41 U	0.43 U	0.38 U
2,4-Dimethylphenol	NA	NA	NA	NA	3.8 U	0.38 U	0.38 U	0.39 U	0.36 U	3.7 U	7.6 U	0.34 U	7.9 U	0.39 U	0.43 U	0.42 U	0.39 U	0.35 U	0.38 U	1.9 U	0.35 U	0.47 U	0.45 U	0.41 U	0.41 U	0.43 U	0.38 U
2,4-Dinitrophenol	NA	NA	NA	NA	12 R	1.2 R	1.2 R	1.2 R	1.1 R	11 U	23 U	1.0 U	24 U	1.2 U	1.3 U	1.3 U	1.2 U	1.1 U	1.1 U	5.6 U	1.1 U	1.4 U	1.4 U	1.3 U	1.3 U	1.3 U	1.1 U
2,4-Dinitrotoluene	NA	NA	NA	NA	0.78 U	0.078 U	0.078 U	0.079 U	0.073 U	0.75 U	1.5 U	0.069 U	1.6 U	0.080 U	0.087 U	0.086 U	0.079 U	0.072 U	0.077 U	0.38 U	0.072 U	0.095 U	0.091 U	0.084 U	0.084 U	0.087 U	0.076 U
2,6-Dinitrotoluene	NA	NA	NA	NA	0.78 U	0.078 U	0.078 U	0.079 U	0.073 U	0.75 U	1.5 U	0.069 U	1.6 U	0.080 U	0.087 U	0.086 U	0.079 U	0.072 U	0.077 U	0.38 U	0.072 U	0.095 U	0.091 U	0.084 U	0.084 U	0.087 U	0.076 U
2-Chloronaphthalene	NA	NA	NA	NA	3.8 U	0.38 U	0.38 U	0.39 U	0.36 U	3.7 U	7.6 U	0.34 U	7.9 U	0.39 U	0.43 U	0.42 U	0.39 U	0.35 U	0.38 U	1.9 U	0.35 U	0.47 U	0.45 U	0.41 U	0.41 U	0.43 U	0.38 U
2-Chlorophenol	NA	NA	NA	NA	3.8 U	0.38 U	0.38 U	0.39 U	0.36 U	3.7 U	7.6 U	0.34 U	7.9 U	0.39 U	0.43 U	0.42 U	0.39 U	0.35 U	0.38 U	1.9 U	0.35 U	0.47 U	0.45 U	0.41 U	0.41 U	0.43 U	0.38 U
2-Methylnaphthalene	0.41	36.4	NA	NA	0.035 J	0.38 U	0.0085 J	0.0085 J	0.017 J	3.7 U	7.6 U	0.34 U	6.1 J	0.39 U	0.43 U	0.42 U	0.39 U	0.35 U	1.3	0.62 J	0.35 U	0.47 U	0.45 U	0.41 U	0.41 U	2.3	0.38 U
2-Methylphenol	0.33	100	100	0.33	3.8 U	0.38 U	0.38 U	0.39 U	0.36 U	3.7 U	7.6 U	0.34 U	7.9 U	0.39 U	0.43 U	0.42 U	0.39 U	0.35 U	0.38 U	1.9 U	0.35 U	0.47 U	0.45 U	0.41 U	0.41 U	0.43 U	0.38 U
2-Nitroaniline	NA	NA	NA	NA	7.8 U	0.78 U	0.78 U	0.79 U	0.73 U	7.5 U	15 U	0.69 U	16 U	0.80 U	0.87 U	0.86 U	0.79 U	0.72 U	0.77 U	3.8 U	0.72 U	0.95 U	0.91 U	0.84 U	0.84 U	0.87 U	0.76 U
2-Nitrophenol	NA	NA	NA	NA	3.8 U	0.38 U	0.38 U	0.39 U	0.36 U	3.7 U	7.6 U	0.34 U	7.9 U	0.39 U	0.43 U	0.42 U	0.39 U	0.35 U	0.38 U	1.9 U	0.35 U	0.47 U	0.45 U	0.41 U	0.41 U	0.43 U	0.38 U
3,3'-Dichlorobenzidine	NA	NA	NA	NA	7.8 R	0.78 R	0.78 R	0.79 R	0.73 R	7.5 U	15 U	0.69 U	16 U	0.80 U	0.87 U	0.86 U	0.79 U	0.72 U	0.77 U	3.8 U	0.72 U	0.95 U	0.91 U	0.84 U	0.84 U	0.87 U	0.76 U
3-Nitroaniline	NA	NA	NA	NA	7.8 U	0.78 U	0.78 U	0.79 U	0.73 U	7.5 U	15 U	0.69 U	16 U	0.80 U	0.87 U	0.86 U	0.79 U	0.72 U	0.77 U	3.8 U	0.72 U	0.95 U	0.91 U	0.84 U	0.84 U	0.87 U	0.76 U
4,6-Dinitro-2-methylphenol	NA	NA	NA	NA	12 R	1.2 R	1.2 R	1.2 R	1.1 R	11 U	23 U	1.0 U	24 U	1.2 U	1.3 U	1.3 U	1.2 U	1.1 U	1.1 U	5.6 U	1.1 U	1.4 U	1.4 U	1.3 U	1.3 U	1.3 U	1.1 U
4-Bromophenyl phenyl ether	NA	NA	NA	NA	3.8 U	0.38 U	0.38 U	0.39 U	0.36 U	3.7 U	7.6 U	0.34 U	7.9 U	0.39 U	0.43 U	0.42 U	0.39 U	0.35 U	0.38 U	1.9 U	0.35 U	0.47 U	0.45 U	0.41 U	0.41 U	0.43 U	0.38 U
4-Chloro-3-methylphenol	NA	NA	NA	NA	3.8 U	0.38 U	0.38 U	0.39 U	0.36 U	3.7 U	7.6 U	0.34 U	7.9 U	0.39 U	0.43 U	0.42 U	0.39 U	0.35 U	0.38 U	1.9 U	0.35 U	0.47 U	0.45 U	0.41 U	0.41 U	0.43 U	0.38 U
4-Chloroaniline	NA	NA	NA	NA	3.8 U	0.38 U	0.38 U	0.39 U	0.36 U	3.7 U	7.6 U	0.34 U	7.9 U	0.39 U	0.43 U	0.42 U	0.39 U	0.35 U	0.38 U	1.9 U	0.35 U	0.47 U	0.45 U	0.41 U	0.41 U	0.43 U	0.38 U
4-Chlorophenyl phenyl ether	NA	NA	NA	NA	3.8 U	0.38 U	0.38 U	0.39 U	0.36 U	3.7 U	7.6 U	0.34 U	7.9 U	0.39 U	0.43 U	0.42 U	0.39 U	0.35 U	0.38 U	1.9 U	0.35 U	0.47 U	0.45 U	0.41 U	0.41 U	0.43 U	0.38 U
4-Methylphenol	0.33	34	100	0.33	3.8 U	0.38 U	0.38 U	0.39 U	0.36 U	3.7 U	7.6 U	0.34 U	7.9 U	0.39 U	0.43 U	0.42 U	0.39 U	0.35 U	0.38 U	1.9 U	0.35 U	0.47 U	0.45 U	0.41 U	0.41 U	0.43 U	0.38 U
4-Nitroaniline	NA	NA	NA	NA	7.8 U	0.78 U	0.78 U	0.79 U	0.73 U	7.5 U	15 U	0.69 U	16 U	0.80 U	0.87 U	0.86 U	0.79 U	0.72 U	0.77 U	3.8 U	0.72 U	0.95 U	0.91 U	0.84 U	0.84 U	0.87 U	0.76 U
4-Nitrophenol	NA	NA	NA	NA	12 U	1.2 U	1.2 U	1.2 U	1.1 U	11 U	23 U	1.0 U	24 U	1.2 U	1.3 U	1.3 U	1.2 U	1.1 U	1.1 U	5.6 U	1.1 U	1.4 U	1.4 U	1.3 U	1.3 U	1.3 U	1.1 U
Acenaphthene	20	100	100	98	3.8 U	0.38 U	0.38 U	0.39 U	0.36 U	3.7 U	0.052 J	0.34 U	2.0 J	0.39 U	0.43 U	0.42 U	0.39 U	0.35 U	0.69	2.0	0.35 U	0.19 J	0.095 J	0.41 U	0.41 U	0.46	0.38 U
Acenaphthylene	100	100	100	107	0.056 J	0.38 U	0.030 J	0.030 J	0.034 J	3.7 U	2.4 J	0.34 U	2.7 J	0.39 U	0.43 U	0.42 U	0.39 U	0.35 U	0.21 J	1.9 U	0.35 U	0.47 U	0.45 U	0.41 U	0.41 U	0.43 U	0.38 U
Acetophenone	NA	NA	NA	NA	3.8 U	0.38 U	0.38 U	0.39 U	0.36 U	3.7 U	7.6 U	0.34 U	7.9 U	0.39 U	0.43 U	0.42 U	0.39 U	0.35 U	0.38 U	1.9 U	0.35 U	0.47 U	0.45 U	0.41 U	0.41 U	0.43 U	0.38 U
Anthracene	100	100	100	1,000	0.085 J B	0.38 U	0.074 J B	0.046 J B	0.11 J B	3.7 U	2.9 J	0.018 J	7.8 J	0.39 U	0.43 U	0.42 U	0.39 U	0.35 U	0.77	6.5	0.35 U	0.16 J	0.093 J	0.41 U	0.41 U	0.83	0.060 J
Atrazine	NA	NA	NA	NA	3.8 U	0.38 U	0.38 U	0.39 U	0.36 U	3.7 U	7.6 U	0.34 U	7.9 U	0.39 U	0.43 U	0.42 U	0.39 U	0.35 U	0.38 U	1.9 U	0.35 U	0.47 U	0.45 U	0.41 U	0.41 U	0.43 U	0.38 U
Benzaldehyde	NA	NA	NA	NA	3.8 U	0.38 U	0.38 U	0.39 U	0.36 U	3.7 U	7.6 U	0.34 U	7.9 U	0.39 U	0.43 U	0.42 U	0.39 U	0.35 U	0.38 U	1.9 U	0.35 U	0.47 U	0.45 U	0.41 U	0.41 U	0.43 U	0.38 U
Benzo[a]anthracene	1	1	1	1	0.38 J	0.038 U	0.43	0.27 J	0.36	0.53	14	0.14 J	16	0.039 U	0.043 U	0.042 U	0.039 U	0.035 U	0.82	9.0	0.035 U	0.27	0.12	0.14	0.091	0.91	0.21
Benzo[a]pyrene	1	1	1	22	0.51	0.038 U	0.37	0.36	0.30	0.49	14	0.15	13	0.039 U	0.043 U	0.042 U	0.039 U	0.035 U	0.77	7.3	0.071 J	0.27	0.11	0.15	0.095	0.77	0.22
Benzo[b]fluoranthene	1	1	1	1.7	0.57	0.038 U	0.45	0.39	0.35	0.50	13	0.21	14	0.039 U	0.043 U	0.042 U	0.039 U	0.035 U	0.71	7.9	0.11	0.32	0.14	0.17	0.099	0.60	0.24
Benzo[g,h,i]perylene	100	100	100	1,000	0.37 J	0.38 U	0.27 J	0.39	0.23 J	0.34 J	7.8	0.048 J	3.6 J	0.39 U	0.43 U	0.42 U	0.39 U	0.35 U	0.38	1.7 J	0.35 U	0.081 J	0.45 U	0.11 J	0.083 J	0.51	0.15 J
Benzo[k]fluoranthene	0.8	1	3.9	1.7	0.20 J	0.038 U	0.19	0.22	0.15	0.25 J	4.9	0.076 J	5.0	0.039 U	0.043 U	0.042 U	0.039 U	0.035 U	0.26	3.1	0.035 U	0.18	0.085	0.062	0.039 J	0.21	0.10
Bis(2-chloroethoxy)methane	NA	NA	NA	NA	3.8 U	0.38 U	0.38 U	0.39 U	0.36 U	3.7 U	7.6 U	0.34 U	7.9 U	0.39 U	0.43 U	0.42 U	0.39 U	0.35 U	0.38 U	1.9 U	0.35 U	0.47 U	0.45 U	0.41 U	0.41 U	0.43 U	0.38 U
Bis(2-chloroethyl)ether	NA	NA	NA	NA	0.38 U	0.038 U	0.038 U	0.039 U	0.036 U	0.37 U	0.76 U	0.034 U	0.79 U	0.039 U	0.043 U	0.042 U	0.039 U	0.035 U	0.038 U	0.19 U	0.035 U	0.047 U	0.045 U	0.041 U	0.041 U	0.043 U	0.038 U
Bis(2-ethylhexyl) phthalate	NA	NA	NA	NA	3.8 U	0.38 U	0.38 U	0.39 U	0.36 U	3.7 U	7.6 U	0.34 U	7.9 U	0.39 U	0.43 U	0.42 U	0.39 U	0.35 U	0.38 U	1.9 U	0.35 U	0.47 U	0.45 U	0.41 U	0.41 U	0.43 U	0.38 U
Butyl benzyl phthalate	NA	NA	NA	NA	3.8 U	0.38 U	0.38 U	0.39 U	0.36 U	3.7 U	7.6 U	0.34 U	7.9 U	0.39 U	0.43 U	0.42 U	0.39 U	0.35 U	0.38 U	1.9 U	0.35 U	0.47 U	0.45 U	0.41 U	0.41 U	0.43 U	0.38 U
Caprolactam	NA	NA	NA	NA	3.8 U	0.38 U	0.38 U	0.39 U	0.36 U	3.7 U	7.6 U	0.34 U	7.9 U	0.39 U	0.43 U	0.42 U	0.39 U	0.35 U	0.38 U	1.9 U	0.35 U	0.47 U	0.45 U	0.41 U	0.41 U	0.43 U	0.38 U
Carbazole	NA	NA	NA	NA	3.8 U	0.38 U	0.0087 J	0.39 U	0.020 J	3.7 U	0.20 J	0.34 U	0.60 J	0.39 U	0.43 U	0.42 U	0.39 U	0.35 U	0.16 J	0.62 J	0.35 U	0.47 U	0.45 U	0.41 U	0.41 U	0.13 J	0.38 U
Chrysene	1	1	3.9	1	0.49 J B	0.38 U	0.49 B	0.31 J B	0.42 B	0.61 J	17	0.15 J	17	0.39 U	0.43 U	0.42 U	0.39 U	0.35 U	1.1	9.4	0.35 U	0.32 J	0.14 J	0.14 J	0.097 J	1.0	0.23 J
Dibenz(a,h)anthracene	0.33	0.33	0.33	1,000	0.38 U	0.038 U	0.066	0.074	0.041	0.37 U	0.90	0.034 U	1.2	0.039 U	0.043 U	0.042 U	0.039 U	0.035 U	0.038 U	0.19 U	0.035 U	0.047 U	0.045 U	0.024 J	0.024 J	0.12	0.027 J
Dibenzofuran	7	14	59	210	0.026 J	0.38 U	0.38 U	0.39 U	0.019 J	3.7 U	0.27 J	0.34 U	0.83 J	0.39 U	0.43 U	0.42 U	0.39 U	0.35 U	0.37 J	0.47 J	0.35 U	0.47 U	0.45 U	0.41 U	0.41 U	0.29 J	0.38 U
Diethyl phthalate	NA	NA	NA	NA	3.8 U	0.38 U	0.38 U	0.39 U	0.36 U	3.7 U	7.6 U	0.34 U	7.9 U	0.39 U	0.43 U	0.42 U	0.39 U	0.35 U	0.38 U	1.9 U	0.35 U	0.47 U	0.45 U	0.41 U	0.41 U	0.43 U	0.38 U
Dimethyl phthalate	NA	NA	NA	NA	3.8 U	0.38 U	0.38 U	0.39 U	0.36 U	3.7 U	7.6 U	0.34 U	7.9 U	0.39 U	0.43 U	0.42 U	0.39 U	0.35 U	0.38 U	1.9 U	0.35 U	0.47 U	0.45 U	0.41 U	0.41 U	0.43 U	0.38 U
Di-n-butyl phthalate	NA	NA	NA	NA	3.8 U	0.38 U	0.38 U	0.39 U	0.36 U	3.7 U	7.6 U	0.34 U	7.9 U	0.39 U	0.43 U	0.42 U	0.39 U	0.35 U	0.38 U	1.9 U	0.35 U	0.47 U	0.45 U	0.41 U	0.41 U	0.43 U	0.38 U
Di-n-octyl phthalate	NA	NA	NA	NA	3.8 U	0.38 U	0.38 U	0.39 U	0.36 U	3.7 U	7.6 U	0.34 U	7.9 U	0.39 U	0.43 U	0.42 U	0.39 U	0.35 U	0.38 U	1.9 U	0.35 U	0.47 U	0.45 U	0.41 U	0.41 U	0.43 U	0.38 U
Diphenyl	NA	NA	NA	NA	3.8 U	0.38 U	0.38 U	0.39 U	0.36 U	3.7 U	7.6 U	0.34 U	0.66 J	0.39 U	0.43 U	0.42 U	0.39 U	0.35 U	0.24 J	1.9 U	0.35 U	0.47 U	0.45 U	0.41 U	0.41 U	0.16 J	0.38 U
Fluoranthene	100	100	100	1,000	0.44 J	0.38 U	0.73	0.18 J	0.61	0.66 J	20	0.24 J	31	0.39 U	0.43 U	0.42 U	0.39 U	0.35 U	1.6	14	0.071 J	0.48	0.26 J	0.23 J	0.14 J	1.8	0.39
Fluorene	30	100	100	386	0.13 J	0.38 U	0.029 J	0.010 J	0.063 J	3.7 U	2.2 J	0.34 U	4.1 J	0.39 U	0.43 U	0.42 U	0.39 U	0.35 U	1.1	1.8 J	0.35 U	0.12 J	0.45 U	0.41 U	0.41 U	1.3	0.38 U
Hexachlorobenzene	0.33	0.33	1.2	3.2	0.38 U	0.038 U	0.038 U	0.039 U	0.036 U	0.37 U	0.76 U	0.034 U	0.79 U	0.039 U	0.043 U	0.042 U	0.039 U	0.035 U	0.038 U	0.19 U	0.035 U	0.047 U	0.045 U	0.041 U	0.041 U	0.043 U	0.038 U
Hexachlorobutadiene	NA	NA	NA	NA	0.78 U	0.078 U	0.078 U	0.079 U	0.073 U	0.75 U	1.5 U	0.069 U	1.6 U	0.080 U	0.087 U	0.086 U	0.079 U	0.072 U	0.077 U	0.38 U	0.072 U	0.095 U	0.091 U	0.084 U	0.084 U	0.087 U	0.076 U
Hexachlorocyclopentadiene	NA	NA	NA	NA	3.8 U	0.38 U	0.38 U	0.39 U	0.36 U	3.7 U	7.6 U	0.34 U	7.9 U	0.39 U	0.43 U	0.42 U	0.39 U	0.35 U	0.38 U	1.9 U	0.35 U	0.47 U	0.45 U	0.41 U	0.41 U	0.43 U	0.38 U
Hexachloroethane	NA	NA	NA	NA	0.38 U	0.038 U	0.038 U	0.039 U	0.036 U	0.37 U	0.76 U	0.034 U	0.79 U	0.039 U	0.043 U	0.042 U	0.039 U	0.035 U	0.038 U	0.19 U	0.035 U	0.047 U	0.045 U	0.041 U	0.041 U	0.043 U	0.038 U
Indeno[1,2,3-cd]pyrene	0.5	0.5	0.5	8.2	0.27 J	0.038 U	0.20	0.27	0.15	0.23 J	6.3	0.039	2.8	0.039 U	0.043 U	0.042 U	0.039 U	0.035 U	0.38	2.1	0.035 U	0.085	0.045 U	0.12	0.087	0.49	0.18
Isophorone	NA	NA	NA	NA	3.8 U	0.38 U	0.38 U	0.39 U	0.36 U	3.7 U	7.6 U	0.34 U	7.9 U	0.39 U	0.43 U	0.42 U	0.39 U	0.35 U	0.38 U	1.9 U	0.35 U	0.47 U	0.45 U	0.41 U	0.41 U	0.43 U	0.38 U
Naphthalene	12	100	100	12	3.8 U	0.38 U	0.0096 J	0.39 U	0.0086 J	3.7 U	7.6 U	0.34 U	6.4 J	0.39 U	0.43 U	0.42 U	0.39 U	0.35 U	0.85	0.66 J	0.35 U	0.47 U	0.45 U	0.41 U	0.41 U	1.1	0.38 U
Nitrobenzene	NA	NA	NA	NA	0.38 U	0.038 U	0.038 U	0.039 U	0.036 U	0.37 U	0.76 U	0.034 U	0.79 U	0.039 U	0.043 U	0.042 U	0.039 U	0.035 U	0.038 U	0.19 U	0.035 U	0.047 U	0.045 U	0.041 U	0.041 U	0.043 U	0.038 U
N-Nitrosodi-n-propylamine	NA	NA	NA	NA	0.38 U	0.038 U	0.038 U	0.039 U	0.036 U	0.37 U	0.76 U	0.034 U	0.79 U	0.039 U	0.043 U	0.042 U	0.039 U	0.035 U	0.038 U	0.19 U	0.035 U	0.047 U	0.045 U	0.041 U	0.041 U	0.043 U	0.038 U
N-Nitrosodiphenylamine	NA	NA	NA	NA	3.8 U	0.38 U	0.38 U	0.39 U	0.36 U	3.7 U	7.6 U	0.34 U	7.9 U	0.39 U	0.43 U	0.42 U	0.39 U	0.35 U	0.38 U	1.9 U	0.35 U	0.47 U	0.45 U	0.41 U	0.41 U	0.43 U	0.38 U
Pentachlorophenol	0.8	2.4	6.7	0.8	12 U	1.2 U	1.2 U	1.2 U	1.1 U	11 U	23 U	1.0 U	24 U	1.2 U	1.3 U	1.3 U	1.2 U	1.1 U	1.1 U	5.6 U	1.1 U	1.4 U	1.4 U	1.3 U	1.3 U	1.3 U	1.1 U
Phenanthrene	100	100	100	1,000	0.19 J	0.38 U	0.31 J	0.057 J	0.45	0.23 J	12	0.094 J	37	0.39 U	0.43 U	0.42 U	0.39 U	0.35 U	5.0	23	0.35 U	0.52	0.46	0.14 J	0.076 J	5.1	0.25 J
Phenol	0.33	100	100	0.33	3.8 U	0.38 U	0.38 U	0.39 U	0.36 U	3.7 U	7.6 U	0.34 U	7.9 U	0.39 U	0.43 U	0.42 U	0.39 U	0.35 U	0.38 U	1.9 U	0.35 U	0.47 U	0.45 U	0.41 U	0.41 U	0.43 U	0.38 U
Pyrene	100	100	100	1,000	0.64 J	0.38 U	0.83	0.25 J	0.76	0.98 J	27	0.29 J	38	0.39 U	0.43 U	0.42 U	0.39 U	0.35 U	3.0	15	0.11 J	0.58	0.32 J	0.25 J	0.14 J	1.9	0.41
Pyridine	NA	NA	NA	NA	3.8 U	0.38 U	0.38 U	0.39 U	0.36 U	3.7 U	7.6 U	0.34 U	7.9 U	0.39 U	0.43 U	0.42 U	0.39 U	0.35 U	0.38 U	1.9 U	0.35 U	0.47 U	0.45 U	0.41 U	0.41 U	0.43 U	0.38 U
SVOC TICs																											
TCL SVOCs TICs	NA	NA	NA	NA	6.40	3.06	4.01	3.50	4.04	ND	75.90	3.54	100.60	30.49	3.53	ND	ND	ND	29.51	47.90	1.80	56.63	42.11	ND	ND	18.98	ND

Notes
ND: TIC not detected
J : This flag indicates the presumptive evidence of a compound.
J N : Indicates an estimated value.
U : Analyzed for but not detected.
Highlighted / bolded indicates analyte exceeded above its respective NYSDEC Unrestricted SCO.
Green / italicized value indicates analyte exceeded its respective unrestricted SCO but was below its respective Residential / Protection of GW SCO, whichever is lower.
Blue / italicized value indicates analyte exceeded its respective Residential SCO and / or Protection of Groundwater SCO but was below its Restricted Residential SCO.

Table 5-21
TAL Metals Soil Analytical Data
Post-excavation End-point Soil Analytical Data - SL-4 / 5 / 6

TAL Metals (mg/kg)	NYSDEC SCOs				Post-excavation End-point Soil Analytical Dat																					
					SL-4 / 5 / 6 Excavation																					
					Bottom Samples				Sidewall Samples					Supplemental Bottom Samples			Supplemental Sidewall Samples						Supplemental Sidewall Samples			
	Unrestricted	Residential	Restricted Residential	Protection of Groundwater	~~SL-EP#71~~ (3')	SL-EP#72 (3')	SL-EP#73 (3')	~~SL-EP#74~~ (3')	SL-EP#76 (1')	SL-EP#77 (1')	~~SL-EP#78~~ (4')	~~SL-EP#79~~ (4')	~~SL-EP#80~~ (4')	SL-EP# 118 (5')	SL-EP# 119 (5')	SL-EP# 120 (5')	SL-EP# 121 (5')	SL-EP# 122 (1')	SL-EP# 123 (1')	~~SL-EP# 124~~ (4')	~~SL-EP# 125~~ (4')	SL-EP# 126 (1')	SL-EP# 127 (1')	SL-EP#179 (1')	SL-EP#180 (1')	SL-EP#181 (1')	SL-EP#182 (1')
Aluminum	NA	NA	NA	NA	612	753	1,510	1,370	4,760	5,710	6,510	3,160	5,260	10,500	18,700	11,200	7,520	2,130	6,120	4,220	2,990	17,200	12,700	6,130	2,700	6,030	3,910
Antimony	NA	NA	NA	NA	4.5 U	4.6 U	4.7 U	4.7 U	4.1 U	4.2 U	4.4 U	4.1 U	4.5 U	3.7 U	4.2 U	4.2 U	4.2 U	3.6 U	3.7 U	3.5 U	3.6 U	4.7 U	4.3 U	4.8 U	4.6 U	4.6 U	4.1 U
Arsenic	13	16	16	16	3.4 U	3.4 U	0.73 J	0.64 J	1.1 J	1.7 J	2.3 J	1.2 J	2.4 J	1.5 J	3.0 J	2.1 J	2.5 J	0.58 J	2.5 J	1.3 J	5.1	3.9	2.3 J	4.1	4.6	9.5	6.0
Barium	350	350	400	820	45.5 J	16.6 J	18.5 J	9.9 J	24.3 J	40.9 J	41.8 J	15.7 J	52.0	67.7	154	68.1	46.7	8.7 J	49.6	20.5 J	11.2 J	141	66.5	57.2	25.6 J	83.5	60.3
Beryllium	7.2	14	72	47	0.45 U	0.46 U	0.47 U	0.47 U	0.14 J	0.28 J	0.27 J	0.16 J	0.30 J	0.43	0.62	0.76	0.25 J	0.36 U	0.34 J	0.23 J	0.36 U	0.99	0.70	0.34 J	0.20 J	0.35 J	0.22 J
Cadmium	2.5	2.5	4.3	7.5	0.91 U	0.91 U	0.14 J	0.93 U	0.83 U	0.84 U	0.89 U	0.82 U	0.91 U	0.74 U	0.83 U	0.83 U	0.85 U	0.72 U	0.74 U	0.70 U	0.72 U	0.94 U	0.86 U	0.16 J	0.92 U	0.93 U	0.81 U
Calcium	NA	NA	NA	NA	113 J	137 J	290 J	10,800	2,480	1,730	1,330	485 J	4,720	1,240	2,030	1,200	923 J	2,540	2,080	706 J	19,600	2,740	1,340	1,150 J	476 J	2,820	773 J
Chromium[1]	30	36	180	NS	1.7 J	5.3	4.1	2.5	7.0	12.1	11.7	5.7	12.2	22.2	36.2	19.7	12.3	2.2	12.6	7.2	4.0	29.2	17.8	15.6	6.6	13.2	11.8
Cobalt	NA	NA	NA	NA	11.4 U	11.4 U	11.7 U	1.2 J	5.0 J	3.3 J	3.4 J	2.0 J	3.3 J	3.6 J	10.3 J	8.5 J	6.1 J	1.6 J	3.8 J	2.4 J	2.7 J	6.7 J	4.6 J	5.7 J	3.0 J	4.8 J	6.1 J
Copper	50	270	270	1,720	1.4 J	1.3 J	1.5 J	4.3 J	25.8	8.0	5.5	4.2 J	10.2	11.6	17.3	15.3	3.5 J	5.4	11.7	5.1	12.5	11.4	8.3	7.9	4.3 J	7.7	9.3
Iron	NA	NA	NA	NA	1,890	3,510	2,120	4,330	12,200	9,050	11,500	5,530	7,940	8,880	35,100	33,400	15,000	4,290	9,870	6,100	6,450	15,300	13,200	18,400	15,500	15,300	21,100
Lead	63	400	400	450	1.5 J	1.2 J	2.3	4.0	6.1	23.4	14.9	5.1	41.3	9.1	11.6	10.8	6.1	3.1	37.6	14.8	6.1	52.0	21.1	9.3	4.3	21.2	7.8
Magnesium	NA	NA	NA	NA	256 J	197 J	378 J	8,590	1,630	1,700	1,780	872 J	1,340	2,060	5,580	2,410	2,140	1,640	1,620	980	11,200	2,640	1,990	1,970	721 J	1,080 J	1,380
Manganese	1,600	2,000	2,000	2,000	34.0	285	73.3	153	190	173	166	78.8	211	88.6	172	199	236	72.6	262	102	35.4	284	215	475	234	431	745
Nickel	30	140	310	130	1.1 J	1.2 J	2.3 J	2.1 J	6.5 J	7.5 J	6.8 J	4.5 J	7.6 J	11.2	25.0	13.5	8.3 J	2.0 J	7.9	5.4 J	3.1 J	14.1	10.6	10.4	5.1 J	10.3	10
Potassium	NA	NA	NA	NA	1,140 U	133 J	127 J	146 J	345 J	368 J	417 J	342 J	387 J	736 J	3,730	950 J	865 J	234 J	547 J	353 J	238 J	658 J	461 J	1,030 J	366 J	375 J	619 J
Selenium	3.9	36	180	4	4.5 U	4.6 U	4.7 U	4.7 U	4.1 U	4.2 U	4.4 U	4.1 U	4.5 U	3.7 U	4.2 U	4.2 U	4.2 U	3.6 U	3.7 U	3.5 U	3.6 U	1.7 J	4.3 U	4.8 U	4.6 U	1.1 J	4.1 U
Silver	2	36	180	8.3	2.2	1.1 J	1.6 J	1.2 J	1.5 J	0.38 J	2.2 U	2.0 U	0.24 J	1.9 U	2.1 U	2.1 U	2.1 U	0.42 J	1.9 U	1.8 U	4.0	2.4 U	2.1 U	0.98 J	0.63 J	2.3 U	0.46 J
Sodium	NA	NA	NA	NA	1,140 U	1,140 U	1,170 U	88.3 J	310 J	164 J	235 J	1,020 U	97 J	104 J	137 J	88.4 J	1,060 U	147 J	119 J	880 U	235 J	600 J	287 J	1,200 U	1,150 U	151 J	1,020 U
Thallium	NA	NA	NA	NA	4.5 U	4.6 U	4.7 U	4.7 U	4.1 U	4.2 U	4.4 U	4.1 U	4.5 U	3.7 U	4.2 U	4.2 U	4.2 U	3.6 U	3.7 U	3.5 U	3.6 U	4.7 U	4.3 U	4.8 U	4.6 U	4.6 U	4.1 U
Vanadium	NA	NA	NA	NA	3.3 J	3.0 J	2.7 J	6.7 J	19.3	12.1	15.0	6.9 J	12.7	22.1	34.3	33.4	16.1	10.4	14.3	8.2 J	13.6	27.3	20.7	15.1	7.6 J	11.4 J	11.8
Zinc	109	2,200	10,000	2,480	3.9 J	4.2 J	8.2	93.8	23.6	27.3	20.5	12.6	42.9	40.2	62.2	38.3	26.4	8.0	39.4	18.9	73.3	47.8	31.3	26.3	12.8	28.8	20.4
Mercury	0.18	0.81	0.81	0.73	0.018 U	0.020 U	0.018 U	0.020	0.013 J	0.032	0.018 J	0.017 J	0.026	0.016 J	0.023	0.021 U	0.019 U	0.012 J	0.049	0.026	0.013 J	0.055	0.082	0.041	0.019 J	0.048	0.019

Notes
J : Sample result is greater than the MDL but below the CRDL
U : Indicates analyzed for but not detected.
[1] Trivalent chromium SCOs utilized.
Highlighted / bolded indicates analyte exceeded above its respective NYSDEC Unrestricted SCO.
Green / italicized value indicates analyte exceeded its respective unrestricted SCO but was below its respective Residential / Protection of GW SCO, whichever is lower.
Blue / italicized value indicates analyte exceeded its respective Residential SCO and / or Protection of Groundwater SCO but was below its Restricted Residential SCO.
NA - Not Available
BD : Blind Duplicate
~~strikethrough~~ Indicates that sample locations were removed as part of supplemental soil excavation activities.

Table 5-22
TAL Metals Soil Analytical Data
SL-7 / 8 / 9 / 10 Original Sample Location - Post Excavation Data

TAL Metals (mg/kg)	NYSDEC SCOs			SL-7 / 8 / 9 / 10 Original Sample Location													
				Endpoint Soil Samples													
				Side-wall Samples											Bottom Samples		
	Unrestricted	Residential	Protection of Groundwater	SL-EP#84 (4')	SL-EP#85 (4')	SL-EP#86 (3.5')	SL-EP#87 (4')	SL-EP#88 (3.5')	SL-EP#89 (4')	SL-EP#90 (3.5')	SL-EP#91 (4')	SL-EP#92 (3.5')	SL-EP#93 (4')	SL-EP#94 (3.5')	SL-EP#81 (8')	SL-EP#82 (8')	SL-EP#83 (8')
Aluminum	NA	NA	NA	7,670	7,540	6,340	7,580	6,600	6,700	13,300	4,040	4,300	4,110	7,940	5,380	17,800	5,600
Antimony	NA	NA	NA	4.7 U	4.8 U	4.8 U	4.4 U	4.1 U	4.4 U	4.8 U	4.4 U	4.9 U	4.5 U	4.9 U	4.7 U	5.1 U	5.0 U
Arsenic	13	16	16	4.1	3.3 J	1.6 J	4.4	3.4	3.1 J	11.0	5.9	1.3 J	3.5	3.3 J	1.5 J	5.3	1.8 J
Barium	350	350	820	58.8	56.0	37.8 J	69.8	37.9 J	37.0 J	62.6	27.7 J	39.1 J	38.9 J	82.0	31.5 J	179	40.2 J
Beryllium	7.2	14	47	0.45 J	0.40 J	0.27 J	0.40 J	0.28 J	0.21 J	1.3	0.26 J	0.17 J	0.41 J	0.28 J	0.23 J	0.94	0.27 J
Cadmium	2.5	2.5	7.5	0.94 U	0.97 U	0.95 U	0.33 J	0.81 U	0.87 U	0.95 U	1.5	0.97 U	0.76 J	0.97 U	0.93 U	1.0 U	0.31 J
Calcium	NA	NA	NA	1,650	12,800	1,010 J	1,080 J	489 J	1,040 J	1,420	70,200	754 J	2,370	1,620	1,250	1,920	1,050 J
Chromium[1]	30	36	NS	15.8	15.4	10.2	12.0	12.8	17.1	**30.0**	8.9	9.3	8.0	15.6	12.4	**42.4**	11.8
Cobalt	NA	NA	NA	6.9 J	4.6 J	1.8 J	3.9 J	3.7 J	2.9 J	4.1 J	2.7 J	1.6 J	4.4 J	4.8 J	5.3 J	30.5	2.5 J
Copper	50	270	1,720	9.6	12.5	7.2	15.6	4.7 J	8.4	20.1	13.2	1.4 J	**2,110**	13.7	6.9	27.9	4.2 J
Iron	NA	NA	NA	16,300	14,400	6,610	10,900	10,000	10,200	43,500	7,650	3,790	18,100	7,480	8,330	34,800	7,140
Lead	63	400	450	**121**	34.3	*94.9*	**121**	7.1	18.4	13.3	**186**	5.5	52.1	8.6	4.9	14.2	11.7
Magnesium	NA	NA	NA	1,740	6,970	1,180 J	1,430	1,380	2,350	2,510	44,200	878 J	968 J	2,220	2,030	6,670	1,150 J
Manganese	1,600	2,000	2,000	178	317	44.1	201	76.6	71.7	165	137	46.8	419	123	151	575	101
Nickel	30	140	130	8.9 J	9.2 J	5.5 J	8.7 J	7.2 J	10	13.8	6.6 J	4.2 J	11.5	12.6	11.0	**36.1**	6.0 J
Potassium	NA	NA	NA	503 J	454 J	359 J	483 J	353 J	1,020 J	1,680	450 J	384 J	313 J	553 J	525 J	4,220	418 J
Selenium	3.9	36	4	1.1 J	4.8 U	4.8 U	4.4 U	4.1 U	4.4 U	4.8 U	4.4 U	4.9 U	4.5 U	4.9 U	4.7 U	5.1 U	5.0 U
Silver	2	36	8.3	**116**	**3.7**	0.66 J	0.40 J	2.0 U	**300**	**5.2**	**61.6**	1.1 J	**3.5**	2.4 U	2.3 U	2.5 U	1.5 J
Sodium	NA	NA	NA	176 J	148 J	1,190 U	83 J	1,010 U	1,090 U	1,190 U	1,100 U	1,210 U	1,120 U	1,220 U	1,160 U	107 J	1,240 U
Thallium	NA	NA	NA	4.7 U	4.8 U	4.8 U	4.4 U	4.1 U	4.4 U	4.8 U	4.4 U	4.9 U	4.5 U	4.9 U	4.7 U	5.1 U	5.0 U
Vanadium	NA	NA	NA	21.8	22.0	14.1	16.0	16.9	16.7	47.4	11.9	5.7 J	11.7	18.0	15.4	41.6	11.4 J
Zinc	109	2,200	2,480	67.6	40.7	59.0	**426**	19.1	71.5	45.5	67.7	14.0	**2,100**	37.7	30.6	75.4	**242**
Mercury	0.18	0.81	0.73	0.10	0.050	0.043	0.060	0.020 U	0.043	0.022 U	0.095	0.020 U	0.047	0.022 U	0.022 U	0.019 J	0.024

TAL Metals (mg/kg)	NYSDEC SCOs			SL-7 / 8 / 9 / 10 Original Sample Location									
				Supplemental Endpoint Soil Samples									
				Bottom Samples		Side-wall Samples							
	Unrestricted	Residential	Protection of Groundwater	SL-EP#128 (10')	SL-EP#129 (10')	SL-EP#130 (4')	SL-EP#131 (4')	SL-EP#132 (4')	SL-EP#133 (4')	SL-EP#134 (4')	SL-EP#135 (2')	SL-EP#136 (2')	SL-EP#194 (4')
Aluminum	NA	NA	NA	9,710	12,900	9,080	7,360	5,010	7,620	4,590	6,990	5,570	10,600
Antimony	NA	NA	NA	4.4 U	3.7 U	3.8 U	4.2 U	4.4 U	4.6 U	4.4 U	4.1 U	4.1 U	3.2 U
Arsenic	13	16	16	1.3 J	3.9	1.2 J	4.6	2.8 J	3.2 J	0.71 J	1.2 J	0.68 J	8.7
Barium	350	350	820	80.5	112	68.5	27.4 J	39.3 J	38.5 J	32.5 J	43.8	35.7 J	56.2
Beryllium	7.2	14	47	0.50	0.75	0.34 J	0.33 J	0.31 J	0.58	0.22 J	0.29 J	0.18 J	0.46 J
Cadmium	2.5	2.5	7.5	0.88 U	0.75 U	0.75 U	0.83 U	0.89 U	0.92 U	0.88 U	0.82 U	0.82 U	0.65 U
Calcium	NA	NA	NA	1,390	1,400	949	654 J	2,030	915 J	2,080	1,290	669 J	1,440
Chromium[1]	30	36	NS	21.3	*31.6*	23.6	13.0	11.5	16.0	9.2	21.7	12.3	19.3
Cobalt	NA	NA	NA	4.6 J	9.4	2.0 J	5.9 J	3.5 J	5.1 J	2.9 J	4.6 J	4.2 J	16.6
Copper	50	270	1,720	14.2	21.5	9.4	2.7 J	15.6	6.2	4.9 J	7.1	2.9 J	10.8
Iron	NA	NA	NA	8,050	33,400	5,960	23,800	9,230	18,500	6,490	13,300	7,490	51,400
Lead	63	400	450	8.5	11.3	7.2	6.5	**69.3**	9.8	19.4	6.1	5.3	8.1
Magnesium	NA	NA	NA	2,740	4,760	1,180	1,230	1,690	1,580	1,200	2,520	1,650	2,000
Manganese	1,600	2,000	2,000	89.2	172	66.7	113	159	247	86.0	362	126	1,290
Nickel	30	140	130	15.2	20.8	7.3 J	5.9 J	8.2 J	8.6 J	5.8 J	10.0	7.6 J	9.4
Potassium	NA	NA	NA	978 J	3,150	650 J	284 J	457 J	604 J	281 J	901 J	457 J	687 J
Selenium	3.9	36	4	4.4 U	3.7 U	3.8 U	4.2 U	4.4 U	4.6 U	4.4 U	4.1 U	4.1 U	2.7 J
Silver	2	36	8.3	2.2 U	1.9 U	1.9 U	2.1 U	**9.3**	2.3 U	2.2 U	2.1 U	0.51 J	0.52 J
Sodium	NA	NA	NA	1,100 U	72.6 J	941 U	1,040 U	91.1 J	1,150 U	1,110 U	1,030 U	1,020 U	82.6 J
Thallium	NA	NA	NA	4.4 U	3.7 U	3.8 U	4.2 U	4.4 U	4.6 U	4.4 U	4.1 U	4.1 U	3.2 U
Vanadium	NA	NA	NA	25.6	39.4	18.2	19.2	13.8	28.5	11.2	20.1	11.1	27.2
Zinc	109	2,200	2,480	50.8	52.4	35.3	27.2	58.8	22.7	18.8	17.4	20.2	25.5
Mercury	0.18	0.81	0.73	0.017 J	0.019 U	0.019 U	0.014 J	0.14	0.016 J	0.014 J	0.019 U	0.020 U	0.019 U

Notes
J : Sample result is greater than the MDL but below the CRDL
U : Indicates analyzed for but not detected.
[1] Trivalent chromium SCOs utilized.
Highlighted / bolded indicates analyte exceeded above its respective NYSDEC Unrestricted SCO.
Green / italicized value indicates analyte exceeded its respective unrestricted SCO but was below its respective Residential / Protection of GW SCO, whichever is lower.
NA - Not Available

Table 5-23
TAL Metals Soil Analytical Data
SL-12 Original Sample Location - Post Excavation Data

TAL Metals (mg/kg)	NYSDEC SCOs			Post-excavation End-point Soil Analytical Data											
				SL-12 Original Sample Location											
				Side-wall Samples				Bottom Sample	Supplemental Bottom Samples			Supplemental Sidewall Samples			
	Unrestricted	Residential	Protection of Groundwater	~~SL-EP#67~~ (4')	SL-EP#68 (1')	~~SL-EP#69~~ (4')	SL-EP#70 (1')	~~SL-EP#66~~ (2')	SL-EP#111 (4')	~~SL-EP# 112~~ (4')	SL-EP# 113 (4')	~~SL-EP# 114~~ (4')	~~SL-EP# 115~~ (1')	SL-EP# 116 (1')	SL-EP# 117 (1')
Aluminum	NA	NA	NA	~~6,550~~	5,860	~~6,540~~	3,530	~~3,140~~	3,470	~~6,680~~	4,540	~~6,290~~	~~5,380~~	7,660	5,270
Antimony	NA	NA	NA	~~4.0 U~~	3.5 U	~~3.5 U~~	3.6 U	~~4.1 U~~	4.0 U	~~4.0 U~~	3.4 U	~~4.1 U~~	~~3.8 U~~	3.1 U	3.6 U
Arsenic	13	16	16	~~5.5~~	1.6 J	~~2.0 J~~	1.4 J	~~1.6 J~~	0.65 J	~~2.2 J~~	4.3	~~2.7 J~~	~~4.5~~	2.5	1.9 J
Barium	350	350	820	~~75.2~~	13.4 J	~~50.2~~	27.5 J	~~27.7 J~~	19.4 J	~~30.5 J~~	64.6	~~59.9~~	~~95.0~~	17.6 J	20.8 J
Beryllium	7.2	14	47	~~0.48~~	0.11 J	~~0.21 J~~	0.18 J	~~0.15 J~~	0.40 U	~~0.27 J~~	0.25 J	~~0.30 J~~	~~0.24 J~~	0.23 J	0.20 J
Cadmium	2.5	2.5	7.5	~~**2.5**~~	0.69 U	~~1.1~~	0.57 J	~~1.0~~	0.80 U	~~2.8~~	0.69 U	~~1.4~~	~~0.24 J~~	0.62 U	0.73 U
Calcium	NA	NA	NA	~~37,900~~	492 J	~~4,500~~	6,710	~~3,710~~	685 J	~~6,850~~	2,220	~~1,340~~	~~3,140~~	289 J	564 J
Chromium[1]	30	36	NS	~~**69.5**~~	6.3	~~10.7~~	7.3	~~7.7~~	7.9	~~11.8~~	10.6	~~16.0~~	~~**45.3**~~	8.2	6.9
Cobalt	NA	NA	NA	~~6.5 J~~	2.7 J	~~3.7 J~~	2.6 J	~~2.7 J~~	2.3 J	~~4.2 J~~	5.0 J	~~6.7 J~~	~~5.8 J~~	3.1 J	2.2 J
Copper	50	270	1,720	~~15.0~~	3.3 J	~~20.8~~	6.4	~~5.5~~	1.7 J	~~9.9~~	7.0	~~18.3~~	~~11.1~~	4.2	3.4 J
Iron	NA	NA	NA	~~26,500~~	7,830	~~10,900~~	6,610	~~7,700~~	4,850	~~11,200~~	17,900	~~10,500~~	~~16,900~~	9,440	6,580
Lead	63	400	450	~~25.5~~	5.3	~~16.7~~	31.3	~~13.6~~	3.3	~~14.3~~	10.7	~~41.8~~	~~13.4~~	6.2	7.8
Magnesium	NA	NA	NA	~~23,300~~	818 J	~~3,050~~	4,460	~~2,740~~	1,180	~~3,840~~	1,960	~~1,720~~	~~2,670~~	987	727 J
Manganese	1,600	2,000	2,000	~~736~~	109	~~193~~	132	~~351~~	57.3	~~263~~	1190	~~316~~	~~1,200~~	126	116
Nickel	30	140	130	~~13.7~~	4.7 J	~~9.0~~	5.5 J	~~5.6 J~~	5.0 J	~~8.5~~	8.9	~~11.1~~	~~11.0~~	5.1 J	4.0 J
Potassium	NA	NA	NA	~~1,160~~	246 J	~~409 J~~	587 J	~~593 J~~	327 J	~~636 J~~	599 J	~~782 J~~	~~1020~~	296 J	232 J
Selenium	3.9	36	4	~~4.0 U~~	3.5 U	~~3.5 U~~	3.6 U	~~4.1 U~~	4.0 U	~~4.0 U~~	3.4 U	~~0.95 J~~	~~3.8 U~~	3.1 U	3.6 U
Silver	2	36	8.3	~~**15.9**~~	0.86 J	~~**15.8**~~	1.7 J	~~**4.3**~~	0.20 J	~~**34.8**~~	0.50 J	~~**11.0**~~	~~**4.8**~~	1.5 U	1.2 J
Sodium	NA	NA	NA	~~224 J~~	868 U	~~71.3 J~~	912 U	~~98.6 J~~	995 U	~~83.4 J~~	91.3 J	~~93.2 J~~	~~144 J~~	769 U	907 U
Thallium	NA	NA	NA	~~4.0 U~~	3.5 U	~~3.5 U~~	3.6 U	~~4.1 U~~	4.0 U	~~4.0 U~~	3.4 U	~~4.1 U~~	~~3.8 U~~	3.1 U	3.6 U
Vanadium	NA	NA	NA	~~20.9~~	10.1	~~18.8~~	9.1	~~9.1 J~~	7.8 J	~~20.4~~	12.3	~~17.6~~	~~18.2~~	12.8	9.2
Zinc	109	2,200	2,480	~~56.6~~	14.1	~~44.6~~	29.2	~~17.4~~	13.9	~~36.3~~	24.8	~~62.2~~	~~39.6~~	14.3	12.2
Mercury	0.18	0.81	0.73	~~**0.57**~~	0.027	~~0.044~~	0.022	~~0.026~~	0.020 U	~~0.079~~	0.025	~~0.039~~	~~**0.30**~~	0.019 U	0.055

TAL Metals (mg/kg)	NYSDEC SCOs			Post-excavation End-point Soil Analytical Data			
				SL-12 Original Sample Location			
				Supplemental Bottom Samples		Supplemental Sidewall Samples	
	Unrestricted	Residential	Protection of Groundwater	SL-EP#183 (6')	SL-EP#184 (6')	SL-EP#185 (1')	SL-EP#186 (1')
Aluminum	NA	NA	NA	3,050	8,580	7,930	9,400
Antimony	NA	NA	NA	4.0 U	4.2 U	4.2 U	4.6 U
Arsenic	13	16	16	1.9 J	2.5 J	2.3 J	2.6 J
Barium	350	350	820	21.6 J	49.2	46.9	51.6
Beryllium	7.2	14	47	0.21 J	0.46	0.42	0.48
Cadmium	2.5	2.5	7.5	0.80 U	0.84 U	0.84 U	0.93 U
Calcium	NA	NA	NA	723 J	1,790	1,520	1,500
Chromium[1]	30	36	NS	7.8	13.3	13.0	13.5
Cobalt	NA	NA	NA	2.2 J	5.0 J	10.2 J	4.6 J
Copper	50	270	1,720	5.9	10.4	9.8	11.0
Iron	NA	NA	NA	6,270	10,500	9,590	10,900
Lead	63	400	450	6.1	6.8	6.1	6.6
Magnesium	NA	NA	NA	940 J	2,370	2,270	2,500
Manganese	1,600	2,000	2,000	216	133	243	155
Nickel	30	140	130	4.9 J	11.3	11.5	11.6
Potassium	NA	NA	NA	480 J	658 J	578 J	756 J
Selenium	3.9	36	4	4.0 U	4.2 U	4.2 U	4.6 U
Silver	2	36	8.3	0.81 J	0.91 J	2.1 U	2.3 U
Sodium	NA	NA	NA	998 **U**	122 J	97.8 J	114 J
Thallium	NA	NA	NA	4.0 U	4.2 U	4.2 U	4.6 U
Vanadium	NA	NA	NA	9.6 J	20.8	18.5	20.6
Zinc	109	2,200	2,480	17.2	31.9	28.8	29.3
Mercury	0.18	0.81	0.73	0.018	0.021 U	0.018 U	0.019 U

Notes
J : Sample result is greater than the MDL but below the CRDL
U : Indicates analyzed for but not detected.
[1] Trivalent chromium SCOs utilized.
Highlighted / bolded indicates analyte exceeded above its respective NYSDEC Unrestricted SCO.
NA - Not Available

Table 5-24
TCL SVOC Soil Analytical Data
SL-20 / SL-21 / SL-22 Original Sample Locations - Post Excavation Data

		SL-20 / SL-21 / SL-22 Original Sample Locations - Post Excavation Data									
		End Pont Soil Samples									
		Bottom Samples									
	NYSDEC	SL-EP#17	SL-EP#18	SL-EP#19	SL-EP#20	SL-EP#21	SL-EP#22	SL-EP#23	SL-EP#24 (5.5')		SL-EP#25
TCL SVOCs (mg/kg)	Unrestricted SCO	(5.5')	(5.5')	(5.5')	(5.5')	(5.5')	(5.5')	(5.5')	Low Level	Dilute	(5.5')
1,2,4,5-Tetrachlorobenzene	NA	0.41 U	0.37 U	0.40 U	0.40 U	0.39 U	0.41 U	0.40 U	0.45 U	2.3 U	1.9 U
1,4-Dioxane	0.1	0.41 U	0.37 U	0.40 U	0.40 U	0.39 U	0.41 U	0.40 U	0.45 U	2.3 U	1.9 U
2,2'-oxybis[1-chloropropane]	NA	0.41 U	0.37 U	0.40 U	0.40 U	0.39 U	0.41 U	0.40 U	0.45 U	2.3 U	1.9 U
2,3,4,6-Tetrachlorophenol	NA	0.41 U	0.37 U	0.40 U	0.40 U	0.39 U	0.41 U	0.40 U	0.45 U	2.3 U	1.9 U
2,4,5-Trichlorophenol	NA	0.41 U	0.37 U	0.40 U	0.40 U	0.39 U	0.41 U	0.40 U	0.45 U	2.3 U	1.9 U
2,4,6-Trichlorophenol	NA	0.41 U	0.37 U	0.40 U	0.40 U	0.39 U	0.41 U	0.40 U	0.45 U	2.3 U	1.9 U
2,4-Dichlorophenol	NA	0.41 U	0.37 U	0.40 U	0.40 U	0.39 U	0.41 U	0.40 U	0.45 U	2.3 U	1.9 U
2,4-Dimethylphenol	NA	0.41 U	0.37 U	0.40 U	0.40 U	0.39 U	0.41 U	0.40 U	0.45 U	2.3 U	1.9 U
2,4-Dinitrophenol	NA	1.2 U	1.1 U	1.2 U	1.2 U	1.2 U	1.3 U	1.2 U	1.4 U	6.8 U	5.8 U
2,4-Dinitrotoluene	NA	0.083 U	0.075 U	0.081 U	0.082 U	0.080 U	0.084 U	0.081 U	0.092 U	0.46 U	0.39 U
2,6-Dinitrotoluene	NA	0.083 U	0.075 U	0.081 U	0.082 U	0.080 U	0.084 U	0.081 U	0.092 U	0.46 U	0.39 U
2-Chloronaphthalene	NA	0.41 U	0.37 U	0.40 U	0.40 U	0.39 U	0.41 U	0.40 U	0.45 U	2.3 U	1.9 U
2-Chlorophenol	NA	0.41 U	0.37 U	0.40 U	0.40 U	0.39 U	0.41 U	0.40 U	0.45 U	2.3 U	1.9 U
2-Methylnaphthalene	NA	0.41 U	0.37 U	0.40 U	0.40 U	0.39 U	0.41 U	0.40 U	0.45 U	2.3 U	1.9 U
2-Methylphenol	0.33	0.41 U	0.37 U	0.40 U	0.40 U	0.39 U	0.41 U	0.40 U	0.45 U	2.3 U	1.9 U
2-Nitroaniline	NA	0.83 U	0.75 U	0.81 U	0.82 U	0.80 U	0.84 U	0.81 U	0.92 U	4.6 U	3.9 U
2-Nitrophenol	NA	0.41 U	0.37 U	0.40 U	0.40 U	0.39 U	0.41 U	0.40 U	0.45 U	2.3 U	1.9 U
3,3'-Dichlorobenzidine	NA	0.83 U	0.75 U	0.81 U	0.82 U	0.80 U	0.84 U	0.81 U	0.92 U	4.6 U	3.9 U
3-Nitroaniline	NA	0.83 U	0.75 U	0.81 U	0.82 U	0.80 U	0.84 U	0.81 U	0.92 U	4.6 U	3.9 U
4,6-Dinitro-2-methylphenol	NA	1.2 U	1.1 U	1.2 U	1.2 U	1.2 U	1.3 U	1.2 U	1.4 U	6.8 U	5.8 U
4-Bromophenyl phenyl ether	NA	0.41 U	0.37 U	0.40 U	0.40 U	0.39 U	0.41 U	0.40 U	0.45 U	2.3 U	1.9 U
4-Chloro-3-methylphenol	NA	0.41 U	0.37 U	0.40 U	0.40 U	0.39 U	0.41 U	0.40 U	0.45 U	2.3 U	1.9 U
4-Chloroaniline	NA	0.41 U	0.37 U	0.40 U	0.40 U	0.39 U	0.41 U	0.40 U	0.45 U	2.3 U	1.9 U
4-Chlorophenyl phenyl ether	NA	0.41 U	0.37 U	0.40 U	0.40 U	0.39 U	0.41 U	0.40 U	0.45 U	2.3 U	1.9 U
4-Methylphenol	0.33	0.41 U	0.37 U	0.40 U	0.40 U	0.39 U	0.41 U	0.40 U	0.45 U	2.3 U	1.9 U
4-Nitroaniline	NA	0.83 U	0.75 U	0.81 U	0.82 U	0.80 U	0.84 U	0.81 U	0.92 U	4.6 U	3.9 U
4-Nitrophenol	NA	1.2 U	1.1 U	1.2 U	1.2 U	1.2 U	1.3 U	1.2 U	1.4 U	6.8 U	5.8 U
Acenaphthene	20	0.41 U	0.37 U	0.40 U	0.40 U	0.39 U	0.41 U	0.40 U	0.45 U	2.3 U	0.019 J
Acenaphthylene	100	0.41 U	0.37 U	0.40 U	0.40 U	0.39 U	0.41 U	0.40 U	0.45 U	2.3 U	1.9 U
Acetophenone	NA	0.015 J	0.017 J	0.0083 J	0.0085 J	0.014 J	0.0093 J	0.0063 J	0.016 J	2.3 U	1.9 U
Anthracene	100	0.41 U	0.00073 J	0.40 U	0.40 U	0.39 U	0.0010 J	0.40 U	0.45 U	2.3 U	0.036 J
Atrazine	NA	0.41 U	0.37 U	0.40 U	0.40 U	0.39 U	0.41 U	0.40 U	0.45 U	2.3 U	1.9 U
Benzaldehyde	NA	0.038 J	0.035 J	0.40 U	0.038 J	0.037 J	0.41 U	0.40 U	0.45 U R	2.3 U R	1.9 U R
Benzo[a]anthracene	1	0.0025 J	0.0058 J	0.0046 J	0.0019 J	0.0038 J	0.0039 J	0.0021 J	0.0077 J	0.23 U	0.22
Benzo[a]pyrene	1	0.0023 J	0.0048 J	0.0039 J	0.040 U	0.0044 J	0.0041 J	0.0019 J	0.045 U	0.23 U	0.19
Benzo[b]fluoranthene	1	0.0031 J	0.0072	0.0054	0.0037 U	0.0055	0.0053	0.0023 J	0.013	0.021 U	0.19
Benzo[g,h,i]perylene	100	0.0022 J	0.0046 J	0.0053 J	0.40 U	0.0040 J	0.0035 J	0.0031 J	0.45 U	2.3 U	0.16 J
Benzo[k]fluoranthene	0.8	0.041 U	0.0025 J	0.0028 J	0.040 U	0.039 U	0.041 U	0.040 U	0.045 U	0.23 U	0.079 J
Bis(2-chloroethoxy)methane	NA	0.41 U	0.37 U	0.40 U	0.40 U	0.39 U	0.41 U	0.40 U	0.45 U	2.3 U	1.9 U
Bis(2-chloroethyl)ether	NA	0.041 U	0.037 U	0.040 U	0.040 U	0.039 U	0.041 U	0.040 U	0.045 U	0.23 U	0.19 U
Bis(2-ethylhexyl) phthalate	NA	0.041 J	0.033 J	0.032 J	0.041 J	0.036 J	0.030 J	0.031 J	0.038 J	2.3 U	1.9 U
Butyl benzyl phthalate	NA	0.028 J	0.028 J	0.025 J	0.025 J	0.030 J	0.024 J	0.025 J	0.45 U	2.3 U	1.9 U
Caprolactam	NA	0.41 U	0.37 U	0.40 U	0.40 U	0.39 U	0.41 U	0.40 U	0.45 U	2.3 U	1.9 U
Carbazole	NA	0.41 U	0.37 U	0.40 U	0.40 U	0.39 U	0.41 U	0.40 U	0.45 U	2.3 U	1.9 U
Chrysene	1	0.0030 J	0.0067 J	0.0055 J	0.0018 J	0.0047 J	0.0045 J	0.0025 J	0.0082 J	2.3 U	0.25 J
Dibenz(a,h)anthracene	0.33	0.041 U	0.037 U	0.040 U	0.040 U	0.039 U	0.041 U	0.040 U	0.045 U	0.23 U	0.034 J
Dibenzofuran	7	0.41 U	0.37 U	0.40 U	0.40 U	0.39 U	0.41 U	0.40 U	0.45 U	2.3 U	1.9 U
Diethyl phthalate	NA	0.019 J B	0.011 J B	0.024 J B	0.020 J B	0.021 J B	0.012 J B	0.019 J B	0.014 J B	2.3 U	0.062 J B
Dimethyl phthalate	NA	0.41 U	0.37 U	0.40 U	0.40 U	0.39 U	0.41 U	0.40 U	0.45 U	2.3 U	1.9 U
Di-n-butyl phthalate	NA	0.41 U	0.37 U	0.40 U	0.40 U	0.39 U	0.41 U	0.40 U	0.45 U	2.3 U	1.9 U
Di-n-octyl phthalate	NA	0.41 U	0.37 U	0.40 U	0.40 U	0.39 U	0.41 U	0.40 U	0.45 U	2.3 U	1.9 U
Diphenyl	NA	0.41 U	0.37 U	0.40 U	0.40 U	0.39 U	0.41 U	0.40 U	0.45 U	2.3 U	1.9 U
Fluoranthene	100	0.0039 J	0.010 J	0.0078 J	0.0023 J	0.0073 J	0.0077 J	0.0034 J	0.0095 J	2.3 U	0.38 J
Fluorene	30	0.41 U	0.37 U	0.40 U	0.40 U	0.39 U	0.41 U	0.40 U	0.45 U	2.3 U	1.9 U
Hexachlorobenzene	0.33	0.041 U	0.037 U	0.040 U	0.040 U	0.039 U	0.041 U	0.040 U	0.045 U	0.23 U	0.19 U
Hexachlorobutadiene	NA	0.083 U	0.075 U	0.081 U	0.082 U	0.080 U	0.084 U	0.081 U	0.092 U	0.46 U	0.39 U
Hexachlorocyclopentadiene	NA	0.41 U	0.37 U	0.40 U	0.40 U	0.39 U	0.41 U	0.40 U	0.45 U	2.3 U	1.9 U
Hexachloroethane	NA	0.041 U	0.037 U	0.040 U	0.040 U	0.039 U	0.041 U	0.040 U	0.045 U	0.23 U	0.19 U
Indeno[1,2,3-cd]pyrene	0.5	0.0017 J	0.0040 J	0.0035 J	0.040 U	0.0028 J	0.0026 J	0.0022 J	0.045 U	0.23 U	0.11 J
Isophorone	NA	0.41 U	0.37 U	0.40 U	0.40 U	0.39 U	0.41 U	0.40 U	0.45 U	2.3 U	1.9 U
Naphthalene	12	0.41 U	0.37 U	0.40 U	0.40 U	0.39 U	0.41 U	0.40 U	0.45 U	2.3 U	1.9 U
Nitrobenzene	NA	0.041 U	0.037 U	0.040 U	0.040 U	0.039 U	0.041 U	0.040 U	0.045 U	0.23 U	0.19 U
N-Nitrosodi-n-propylamine	NA	0.041 U	0.037 U	0.040 U	0.040 U	0.039 U	0.041 U	0.040 U	0.045 U	0.23 U	0.19 U
N-Nitrosodiphenylamine	NA	0.41 U	0.37 U	0.40 U	0.40 U	0.39 U	0.41 U	0.40 U	0.45 U	2.3 U	1.9 U
Pentachlorophenol	0.8	1.2 U	1.1 U	1.2 U	1.2 U	1.2 U	1.3 U	1.2 U	**4.5** F	**2.6** J	5.8 U
Phenanthrene	100	0.0024 J	0.0053 J	0.0035 J	0.40 U	0.0025 J	0.0046 J	0.0014 J	0.0087 J	2.3 U	0.31 J
Phenol	0.33	0.41 U	0.37 U	0.40 U	0.40 U	0.39 U	0.41 U	0.40 U	0.45 U	2.3 U	1.9 U
Pyrene	100	0.0048 J	0.012 J	0.0097 J	0.0032 J	0.0081 J	0.0078 J	0.0029 J	0.013 J	2.3 U	0.65 J
Pyridine	NA	0.41 U	0.37 U	0.40 U	0.40 U	0.39 U	0.41 U	0.40 U	0.45 U	2.3 U	1.9 U
Total SVOC TICs	NA	1.455	0.052	ND	ND	0.677	0.109	0.090	1.304	0.340	0.710

Notes
NR: Not Analyzed
ND: TIC not detected
U R : Indicates value is rejected based upon DUSR by third party data validator.
D : The reported value is from a dilution.
J : Indicates an estimated value.
J B : The analyte was found in an associated blank, as well as in the sample.
U : Analyzed for but not detected.

Table 5-24
TCL SVOC Soil Analytical Data
SL-20 / SL-21 / SL-22 Original Sample Locations - Post Excavation Data

		SL-20 / SL-21 / SL-22 Original Sample Locations - Post Excavation Data									
		End Pont Soil Samples									
		Bottom Samples									
	NYSDEC	SL-EP#26	SL-EP#27	~~SL-EP#28~~	SL-EP#29	SL-EP#30	SL-EP#31	~~SL-EP#32~~	SL-EP#33	SL-EP#34	~~SL-EP#35~~
TCL SVOCs (mg/kg)	Unrestricted SCO	(5.5')	(5.5')	~~(5.5')~~	(5.5')	(5.5')	(5.5')	~~(5.5')~~	(5.5')	(5.5')	~~(5.5')~~
1,2,4,5-Tetrachlorobenzene	NA	4.1 U	0.40 U	~~2.0 U~~	0.44 U	1.8 U	1.8 U	~~0.41 U~~	1.9 U	1.7 U	~~4.1 U~~
1,4-Dioxane	0.1	4.1 U	0.40 U	~~2.0 U~~	0.44 U	1.8 U	1.8 U	~~0.41 U~~	1.9 U	1.7 U	~~4.1 U~~
2,2'-oxybis[1-chloropropane]	NA	4.1 U	0.40 U	~~2.0 U~~	0.44 U	1.8 U	1.8 U	~~0.41 U~~	1.9 U	1.7 U	~~4.1 U~~
2,3,4,6-Tetrachlorophenol	NA	4.1 U	0.40 U	~~2.0 U~~	0.44 U	1.8 U	1.8 U	~~0.41 U~~	1.9 U	1.7 U	~~4.1 U~~
2,4,5-Trichlorophenol	NA	4.1 U	0.40 U	~~2.0 U~~	0.44 U	1.8 U	1.8 U	~~0.41 U~~	1.9 U	1.7 U	~~4.1 U~~
2,4,6-Trichlorophenol	NA	4.1 U	0.40 U	~~2.0 U~~	0.44 U	1.8 U	1.8 U	~~0.41 U~~	1.9 U	1.7 U	~~4.1 U~~
2,4-Dichlorophenol	NA	4.1 U	0.40 U	~~2.0 U~~	0.44 U	1.8 U	1.8 U	~~0.41 U~~	1.9 U	1.7 U	~~4.1 U~~
2,4-Dimethylphenol	NA	4.1 U	0.40 U	~~2.0 U~~	0.44 U	1.8 U	1.8 U	~~0.41 U~~	1.9 U	1.7 U	~~4.1 U~~
2,4-Dinitrophenol	NA	13 U	1.2 U	~~6.0 U~~	1.3 U	5.6 U	5.5 U	~~1.2 U~~	5.7 U	5.3 U	~~12 U~~
2,4-Dinitrotoluene	NA	0.84 U	0.081 U	~~0.40 U~~	0.089 U	0.37 U	0.37 U	~~0.083 U~~	0.38 U	0.36 U	~~0.83 U~~
2,6-Dinitrotoluene	NA	0.84 U	0.081 U	~~0.40 U~~	0.089 U	0.37 U	0.37 U	~~0.083 U~~	0.38 U	0.36 U	~~0.83 U~~
2-Chloronaphthalene	NA	4.1 U	0.40 U	~~2.0 U~~	0.44 U	1.8 U	1.8 U	~~0.41 U~~	1.9 U	1.7 U	~~4.1 U~~
2-Chlorophenol	NA	4.1 U	0.40 U	~~2.0 U~~	0.44 U	1.8 U	1.8 U	~~0.41 U~~	1.9 U	1.7 U	~~4.1 U~~
2-Methylnaphthalene	NA	4.1 U	0.40 U	~~2.0 U~~	0.44 U	1.8 U	1.8 U	~~0.41 U~~	1.9 U	1.7 U	~~0.047 J~~
2-Methylphenol	0.33	4.1 U	0.40 U	~~2.0 U~~	0.44 U	1.8 U	1.8 U	~~0.41 U~~	1.9 U	1.7 U	~~4.1 U~~
2-Nitroaniline	NA	8.4 U	0.81 U	~~4.0 U~~	0.89 U	3.7 U	3.7 U	~~0.83 U~~	3.8 U	3.6 U	~~8.3 U~~
2-Nitrophenol	NA	4.1 U	0.40 U	~~2.0 U~~	0.44 U	1.8 U	1.8 U	~~0.41 U~~	1.9 U	1.7 U	~~4.1 U~~
3,3'-Dichlorobenzidine	NA	8.4 U	0.81 U	~~4.0 U~~	0.89 U	3.7 U	3.7 U	~~0.83 U~~	3.8 U	3.6 U	~~8.3 U~~
3-Nitroaniline	NA	8.4 U	0.81 U	~~4.0 U~~	0.89 U	3.7 U	3.7 U	~~0.83 U~~	3.8 U	3.6 U	~~8.3 U~~
4,6-Dinitro-2-methylphenol	NA	13 U	1.2 U	~~6.0 U~~	1.3 U	5.6 U	5.5 U	~~1.2 U~~	5.7 U	5.3 U	~~12 U~~
4-Bromophenyl phenyl ether	NA	4.1 U	0.40 U	~~2.0 U~~	0.44 U	1.8 U	1.8 U	~~0.41 U~~	1.9 U	1.7 U	~~4.1 U~~
4-Chloro-3-methylphenol	NA	4.1 U	0.40 U	~~2.0 U~~	0.44 U	1.8 U	1.8 U	~~0.41 U~~	1.9 U	1.7 U	~~4.1 U~~
4-Chloroaniline	NA	4.1 U	0.40 U	~~2.0 U~~	0.44 U	1.8 U	1.8 U	~~0.41 U~~	1.9 U	1.7 U	~~4.1 U~~
4-Chlorophenyl phenyl ether	NA	4.1 U	0.40 U	~~2.0 U~~	0.44 U	1.8 U	1.8 U	~~0.41 U~~	1.9 U	1.7 U	~~4.1 U~~
4-Methylphenol	0.33	4.1 U	0.40 U	~~2.0 U~~	0.44 U	1.8 U	1.8 U	~~0.41 U~~	1.9 U	1.7 U	~~4.1 U~~
4-Nitroaniline	NA	8.4 U	0.81 U	~~4.0 U~~	0.89 U	3.7 U	3.7 U	~~0.83 U~~	3.8 U	3.6 U	~~8.3 U~~
4-Nitrophenol	NA	13 U	1.2 U	~~6.0 U~~	1.3 U	5.6 U	5.5 U	~~1.2 U~~	5.7 U	5.3 U	~~12 U~~
Acenaphthene	20	4.1 U	0.40 U	~~2.0 U~~	0.44 U	1.8 U	1.8 U	~~0.41 U~~	1.9 U	1.7 U	~~0.14 J~~
Acenaphthylene	100	4.1 U	0.40 U	~~2.0 U~~	0.44 U	1.8 U	1.8 U	~~0.41 U~~	1.9 U	1.7 U	~~0.031 J~~
Acetophenone	NA	4.1 U	0.011 J	~~2.0 U~~	0.017 J	1.8 U	1.8 U	~~0.013 J~~	1.9 U	1.7 U	~~4.1 U~~
Anthracene	100	4.1 U	0.40 U	~~2.0 U~~	0.0024 J	1.8 U	1.8 U	~~0.41 U~~	1.9 U	1.7 U	~~0.23 J~~
Atrazine	NA	4.1 U	0.40 U	~~2.0 U~~	0.44 U	1.8 U	1.8 U	~~0.41 U~~	1.9 U	1.7 U	~~4.1 U~~
Benzaldehyde	NA	4.1 U R	0.40 U R	~~2.0 U R~~	0.44 U R	1.8 U R	1.8 U R	~~0.41 U R~~	1.9 U R	1.7 U R	~~4.1 U R~~
Benzo[a]anthracene	1	0.072 J	0.040 U	~~0.20 U~~	0.032 J	0.039 J	0.18 U	~~0.041 U~~	0.19 U	0.012 J	~~0.40 J~~
Benzo[a]pyrene	1	0.053 J	0.040 U	~~0.20 U~~	0.030 J	0.024 J	0.18 U	~~0.041 U~~	0.19 U	0.17 U	~~0.30 J~~
Benzo[b]fluoranthene	1	0.097	0.0036 U	~~0.018 U~~	0.039	0.059	0.017 U	~~0.0037 U~~	0.017 U	0.016 U	~~0.35~~
Benzo[g,h,i]perylene	100	0.060 J	0.40 U	~~2.0 U~~	0.030 J	0.027 J	1.8 U	~~0.41 U~~	1.9 U	1.7 U	~~0.23 J~~
Benzo[k]fluoranthene	0.8	0.041 J	0.040 U	~~0.20 U~~	0.0098 J	0.18 U	0.18 U	~~0.041 U~~	0.19 U	0.17 U	~~0.41 U~~
Bis(2-chloroethoxy)methane	NA	4.1 U	0.40 U	~~2.0 U~~	0.44 U	1.8 U	1.8 U	~~0.41 U~~	1.9 U	1.7 U	~~4.1 U~~
Bis(2-chloroethyl)ether	NA	0.41 U	0.040 U	~~0.20 U~~	0.044 U	0.18 U	0.18 U	~~0.041 U~~	0.19 U	0.17 U	~~0.41 U~~
Bis(2-ethylhexyl) phthalate	NA	4.1 U	0.40 U	~~2.0 U~~	0.44 U	0.039 J	0.041 J	~~0.058 J~~	1.9 U	1.7 U	~~4.1 U~~
Butyl benzyl phthalate	NA	4.1 U	0.40 U	~~2.0 U~~	0.44 U	1.8 U	1.8 U	~~0.41 U~~	1.9 U	1.7 U	~~4.1 U~~
Caprolactam	NA	4.1 U	0.40 U	~~2.0 U~~	0.44 U	1.8 U	1.8 U	~~0.41 U~~	1.9 U	1.7 U	~~4.1 U~~
Carbazole	NA	4.1 U	0.40 U	~~2.0 U~~	0.44 U	1.8 U	1.8 U	~~0.41 U~~	1.9 U	1.7 U	~~4.1 U~~
Chrysene	1	0.070 J	0.40 U	~~2.0 U~~	0.035 J	0.035 J	1.8 U	~~0.41 U~~	1.9 U	0.012 J	~~0.45 J~~
Dibenz(a,h)anthracene	0.33	0.41 U	0.040 U	~~0.20 U~~	0.0042 J	0.18 U	0.18 U	~~0.041 U~~	0.19 U	0.17 U	~~0.41 U~~
Dibenzofuran	7	4.1 U	0.40 U	~~2.0 U~~	0.44 U	1.8 U	1.8 U	~~0.41 U~~	1.9 U	1.7 U	~~4.1 U~~
Diethyl phthalate	NA	0.17 J B	0.015 J B	~~0.046 J B~~	0.016 J B	0.058 J B	0.032 J B	~~0.011 J B~~	0.036 J B	0.046 J B	~~0.089 J B~~
Dimethyl phthalate	NA	4.1 U	0.40 U	~~2.0 U~~	0.44 U	1.8 U	1.8 U	~~0.41 U~~	1.9 U	1.7 U	~~4.1 U~~
Di-n-butyl phthalate	NA	4.1 U	0.40 U	~~2.0 U~~	0.44 U	1.8 U	1.8 U	~~0.41 U~~	1.9 U	1.7 U	~~4.1 U~~
Di-n-octyl phthalate	NA	4.1 U	0.40 U	~~2.0 U~~	0.44 U	1.8 U	1.8 U	~~0.41 U~~	1.9 U	1.7 U	~~4.1 U~~
Diphenyl	NA	4.1 U	0.40 U	~~2.0 U~~	0.44 U	1.8 U	1.8 U	~~0.41 U~~	1.9 U	1.7 U	~~4.1 U~~
Fluoranthene	100	0.084 J	0.40 U	~~0.016 J~~	0.039 J	0.071 J	0.0080 J	~~0.41 U~~	1.9 U	0.016 J	~~0.60 J~~
Fluorene	30	4.1 U	0.40 U	~~2.0 U~~	0.44 U	1.8 U	1.8 U	~~0.41 U~~	1.9 U	1.7 U	~~0.12 J~~
Hexachlorobenzene	0.33	0.41 U	0.040 U	~~0.20 U~~	0.044 U	0.18 U	0.18 U	~~0.041 U~~	0.19 U	0.17 U	~~0.41 U~~
Hexachlorobutadiene	NA	0.84 U	0.081 U	~~0.40 U~~	0.089 U	0.37 U	0.37 U	~~0.083 U~~	0.38 U	0.36 U	~~0.83 U~~
Hexachlorocyclopentadiene	NA	4.1 U	0.40 U	~~2.0 U~~	0.44 U	1.8 U	1.8 U	~~0.41 U~~	1.9 U	1.7 U	~~4.1 U~~
Hexachloroethane	NA	0.41 U	0.040 U	~~0.20 U~~	0.044 U	0.18 U	0.18 U	~~0.041 U~~	0.19 U	0.17 U	~~0.41 U~~
Indeno[1,2,3-cd]pyrene	0.5	0.027 J	0.040 U	~~0.20 U~~	0.020 J	0.023 J	0.18 U	~~0.041 U~~	0.19 U	0.17 U	~~0.19 J~~
Isophorone	NA	4.1 U	0.40 U	~~2.0 U~~	0.44 U	1.8 U	1.8 U	~~0.41 U~~	1.9 U	1.7 U	~~4.1 U~~
Naphthalene	12	4.1 U	0.40 U	~~2.0 U~~	0.44 U	1.8 U	1.8 U	~~0.41 U~~	1.9 U	1.7 U	~~4.1 U~~
Nitrobenzene	NA	0.41 U	0.040 U	~~0.20 U~~	0.044 U	0.18 U	0.18 U	~~0.041 U~~	0.19 U	0.17 U	~~0.41 U~~
N-Nitrosodi-n-propylamine	NA	0.41 U	0.040 U	~~0.20 U~~	0.044 U	0.18 U	0.18 U	~~0.041 U~~	0.19 U	0.17 U	~~0.41 U~~
N-Nitrosodiphenylamine	NA	4.1 U	0.40 U	~~2.0 U~~	0.44 U	1.8 U	1.8 U	~~0.41 U~~	1.9 U	1.7 U	~~4.1 U~~
Pentachlorophenol	0.8	13 U	1.2 U	~~6.0 U~~	1.3 U	5.6 U	5.5 U	~~1.2 U~~	5.7 U	5.3 U	~~12 U~~
Phenanthrene	100	0.035 J	0.40 U	~~2.0 U~~	0.0071 J	0.046 J	1.8 U	~~0.41 U~~	1.9 U	1.7 U	~~1.0 J~~
Phenol	0.33	4.1 U	0.40 U	~~2.0 U~~	0.44 U	1.8 U	1.8 U	~~0.41 U~~	1.9 U	1.7 U	~~4.1 U~~
Pyrene	100	0.12 J	0.40 U	~~0.016 J~~	0.057 J	0.090 J	0.013 J	~~0.41 U~~	0.018 J	0.016 J	~~1.2 J~~
Pyridine	NA	4.1 U	0.40 U	~~2.0 U~~	0.44 U	1.8 U	1.8 U	~~0.41 U~~	1.9 U	1.7 U	~~4.1 U~~
Total SVOC TICs	NA	0.470	0.339	~~8.056~~	0.212	0.170	0.235	~~1.075~~	0.220	0.390	~~2.150~~

Notes
NR: Not Analyzed
ND: TIC not detected
U R : Indicates value is rejected based upon DUSR by third party data validator.
D : The reported value is from a dilution.
J : Indicates an estimated value.
J B : The analyte was found in an associated blank, as well as in the sample.
U : Analyzed for but not detected.

Table 5-24
TCL SVOC Soil Analytical Data
SL-20 / SL-21 / SL-22 Original Sample Locations - Post Excavation Data

TCL SVOCs (mg/kg)	NYSDEC Unrestricted SCO	SL-20 / SL-21 / SL-22 Original Sample Locations - Post Excavation Data End Pont Soil Samples Bottom Samples								
		~~SL-EP#36~~ (5.5')	SL-EP#37 (5.5')	SL-EP#38 (5.5')	~~SL-EP#39~~ (5.5')	~~SL-EP#40~~ (5.5')	SL-EP#41 (5.5')	~~SL-EP#42~~ (5.5')	~~SL-EP#43~~ (5.5')	~~SL-EP#44~~ (5.5')
1,2,4,5-Tetrachlorobenzene	NA	3.8 U	2.1 U	2.2 U	3.9 U	0.40 U	0.36 U	4.0 U	4.0 U	0.41 U
1,4-Dioxane	0.1	3.8 U	2.1 U	2.2 U	3.9 U	0.40 U	0.36 U	4.0 U	4.0 U	0.41 U
2,2'-oxybis[1-chloropropane]	NA	3.8 U	2.1 U	2.2 U	3.9 U	0.40 U	0.36 U	4.0 U	4.0 U	0.41 U
2,3,4,6-Tetrachlorophenol	NA	3.8 U	2.1 U	2.2 U	3.9 U	0.40 U	0.36 U	4.0 U	4.0 U	0.41 U
2,4,5-Trichlorophenol	NA	3.8 U	2.1 U	2.2 U	3.9 U	0.40 U	0.36 U	4.0 U	4.0 U	0.41 U
2,4,6-Trichlorophenol	NA	3.8 U	2.1 U	2.2 U	3.9 U	0.40 U	0.36 U	4.0 U	4.0 U	0.41 U
2,4-Dichlorophenol	NA	3.8 U	2.1 U	2.2 U	3.9 U	0.40 U	0.36 U	4.0 U	4.0 U	0.41 U
2,4-Dimethylphenol	NA	3.8 U	2.1 U	2.2 U	3.9 U	0.40 U	0.36 U	4.0 U	4.0 U	0.41 U
2,4-Dinitrophenol	NA	11 U	6.2 U	6.6 U	12 U	1.2 U	1.1 U	12 U	12 U	1.3 U
2,4-Dinitrotoluene	NA	0.76 U	0.42 U	0.44 U	0.80 U	0.082 U	0.073 U	0.82 U	0.80 U	0.084 U
2,6-Dinitrotoluene	NA	0.76 U	0.42 U	0.44 U	0.80 U	0.082 U	0.073 U	0.82 U	0.80 U	0.084 U
2-Chloronaphthalene	NA	3.8 U	2.1 U	2.2 U	3.9 U	0.40 U	0.36 U	4.0 U	4.0 U	0.41 U
2-Chlorophenol	NA	3.8 U	2.1 U	2.2 U	3.9 U	0.40 U	0.36 U	4.0 U	4.0 U	0.41 U
2-Methylnaphthalene	NA	0.025 J	2.1 U	2.2 U	0.023 J	0.40 U	0.36 U	4.0 U	4.0 U	0.0026 J
2-Methylphenol	0.33	3.8 U	2.1 U	2.2 U	3.9 U	0.40 U	0.36 U	4.0 U	4.0 U	0.41 U
2-Nitroaniline	NA	7.6 U	4.2 U	4.4 U	8.0 U	0.82 U	0.73 U	8.2 U	8.0 U	0.84 U
2-Nitrophenol	NA	3.8 U	2.1 U	2.2 U	3.9 U	0.40 U	0.36 U	4.0 U	4.0 U	0.41 U
3,3'-Dichlorobenzidine	NA	7.6 U	4.2 U	4.4 U	8.0 U	0.82 U	0.73 U	8.2 U	8.0 U	0.84 U
3-Nitroaniline	NA	7.6 U	4.2 U	4.4 U	8.0 U	0.82 U	0.73 U	8.2 U	8.0 U	0.84 U
4,6-Dinitro-2-methylphenol	NA	11 U	6.2 U	6.6 U	12 U	1.2 U	1.1 U	12 U	12 U	1.3 U
4-Bromophenyl phenyl ether	NA	3.8 U	2.1 U	2.2 U	3.9 U	0.40 U	0.36 U	4.0 U	4.0 U	0.41 U
4-Chloro-3-methylphenol	NA	3.8 U	2.1 U	2.2 U	3.9 U	0.40 U	0.36 U	4.0 U	4.0 U	0.41 U
4-Chloroaniline	NA	3.8 U	2.1 U	2.2 U	3.9 U	0.40 U	0.36 U	4.0 U	4.0 U	0.41 U
4-Chlorophenyl phenyl ether	NA	3.8 U	2.1 U	2.2 U	3.9 U	0.40 U	0.36 U	4.0 U	4.0 U	0.41 U
4-Methylphenol	0.33	3.8 U	2.1 U	2.2 U	3.9 U	0.40 U	0.36 U	4.0 U	4.0 U	0.41 U
4-Nitroaniline	NA	7.6 U	4.2 U	4.4 U	8.0 U	0.82 U	0.73 U	8.2 U	8.0 U	0.84 U
4-Nitrophenol	NA	11 U	6.2 U	6.6 U	12 U	1.2 U	1.1 U	12 U	12 U	1.3 U
Acenaphthene	20	3.8 U	0.0089 J	2.2 U	0.17 J	0.40 U	0.36 U	0.032 J	0.042 J	0.037 J
Acenaphthylene	100	0.084 J	2.1 U	2.2 U	3.9 U	0.40 U	0.36 U	4.0 U	4.0 U	0.014 J
Acetophenone	NA	3.8 U	2.1 U	2.2 U	3.9 U	0.012 J	0.0093 J	0.041 J	4.0 U	0.014 J
Anthracene	100	0.094 J	0.027 J	0.011 J	0.30 J	0.40 U	0.36 U	0.062 J	0.12 J	0.10 J
Atrazine	NA	3.8 U	2.1 U	2.2 U	3.9 U	0.40 U	0.36 U	4.0 U	4.0 U	0.41 U
Benzaldehyde	NA	3.8 U R	2.1 U R	2.2 U R	3.9 U R	0.40 U R	0.36 U R	4.0 U R	4.0 U	0.040 J
Benzo[a]anthracene	1	0.54	0.089 J	0.064 J	0.92	0.040 U	0.0042 J	0.27 J	0.30 J	0.31
Benzo[a]pyrene	1	0.39	0.060 J	0.060 J	0.80	0.040 U	0.0027 J	0.24 J	0.28 J	0.25
Benzo[b]fluoranthene	1	0.45	0.11	0.10	0.92	0.0037 U	0.0061	0.30	0.33	0.25
Benzo[g,h,i]perylene	100	0.40 J	0.053 J	0.056 J	0.63 J	0.40 U	0.36 U	0.20 J	0.21 J	0.17 J
Benzo[k]fluoranthene	0.8	0.18 J	0.21 U	0.015 J	0.51	0.040 U	0.0017 J	0.16 J	0.082 J	0.10
Bis(2-chloroethoxy)methane	NA	3.8 U	2.1 U	2.2 U	3.9 U	0.40 U	0.36 U	4.0 U	4.0 U	0.41 U
Bis(2-chloroethyl)ether	NA	0.38 U	0.21 U	0.22 U	0.39 U	0.040 U	0.036 U	0.40 U	0.40 U	0.041 U
Bis(2-ethylhexyl) phthalate	NA	0.066 J	2.1 U	2.2 U	3.9 U	0.014 J	0.012 J	4.0 U	0.37 J	0.15 J
Butyl benzyl phthalate	NA	3.8 U	2.1 U	2.2 U	3.9 U	0.0085 J	0.0049 J	4.0 U	4.0 U	0.029 J
Caprolactam	NA	3.8 U	2.1 U	2.2 U	3.9 U	0.40 U	0.36 U	4.0 U	4.0 U	0.41 U
Carbazole	NA	3.8 U	2.1 U	2.2 U	0.11 J	0.40 U	0.36 U	4.0 U	0.028 J	0.013 J
Chrysene	1	0.59 J	0.10 J	0.091 J	1.1 J	0.40 U	0.0027 J	0.32 J	0.33 J	0.32 J
Dibenz(a,h)anthracene	0.33	0.12 J	0.21 U	0.22 U	0.39 U	0.040 U	0.036 U	0.40 U	0.038 J	0.036 J
Dibenzofuran	7	3.8 U	2.1 U	2.2 U	0.057 J	0.40 U	0.36 U	4.0 U	4.0 U	0.0044 J
Diethyl phthalate	NA	0.14 J B	0.037 J B	0.058 J B	0.074 J B	0.011 J B	0.0094 J B	0.051 J B	0.16 J B	0.016 J B
Dimethyl phthalate	NA	3.8 U	2.1 U	2.2 U	3.9 U	0.40 U	0.36 U	4.0 U	4.0 U	0.41 U
Di-n-butyl phthalate	NA	3.8 U	2.1 U	2.2 U	3.9 U	0.40 U	0.36 U	4.0 U	4.0 U	0.41 U
Di-n-octyl phthalate	NA	3.8 U	2.1 U	2.2 U	3.9 U	0.40 U	0.36 U	4.0 U	4.0 U	0.41 U
Diphenyl	NA	3.8 U	2.1 U	2.2 U	3.9 U	0.40 U	0.36 U	4.0 U	4.0 U	0.41 U
Fluoranthene	100	0.69 J	0.16 J	0.12 J	2.1 J	0.0065 J	0.0048 J	0.50 J	0.62 J	0.68
Fluorene	30	0.045 J	2.1 U	2.2 U	0.12 J	0.40 U	0.36 U	0.025 J	0.043 J	0.024 J
Hexachlorobenzene	0.33	0.38 U	0.21 U	0.22 U	0.39 U	0.040 U	0.036 U	0.40 U	0.40 U	0.041 U
Hexachlorobutadiene	NA	0.76 U	0.42 U	0.44 U	0.80 U	0.082 U	0.073 U	0.82 U	0.80 U	0.084 U
Hexachlorocyclopentadiene	NA	3.8 U	2.1 U	2.2 U	3.9 U	0.40 U	0.36 U	4.0 U	4.0 U	0.41 U
Hexachloroethane	NA	0.38 U	0.21 U	0.22 U	0.39 U	0.040 U	0.036 U	0.40 U	0.40 U	0.041 U
Indeno[1,2,3-cd]pyrene	0.5	0.29 J	0.047 J	0.043 J	0.61	0.040 U	0.036 U	0.18 J	0.15 J	0.13
Isophorone	NA	3.8 U	2.1 U	2.2 U	3.9 U	0.40 U	0.36 U	4.0 U	4.0 U	0.41 U
Naphthalene	12	3.8 U	2.1 U	2.2 U	3.9 U	0.40 U	0.36 U	4.0 U	4.0 U	0.0020 J
Nitrobenzene	NA	0.38 U	0.21 U	0.22 U	0.39 U	0.040 U	0.036 U	0.40 U	0.40 U	0.041 U
N-Nitrosodi-n-propylamine	NA	0.38 U	0.21 U	0.22 U	0.39 U	0.040 U	0.036 U	0.40 U	0.40 U	0.041 U
N-Nitrosodiphenylamine	NA	3.8 U	2.1 U	2.2 U	3.9 U	0.40 U	0.36 U	4.0 U	4.0 U	0.41 U
Pentachlorophenol	0.8	11 U	6.2 U	6.6 U	12 U	1.2 U	1.1 U	12 U	12 U	1.3 U
Phenanthrene	100	0.42 J	0.12 J	0.047 J	1.3 J	0.40 U	0.36 U	0.27 J	0.53 J	0.56
Phenol	0.33	3.8 U	2.1 U	2.2 U	3.9 U	0.40 U	0.36 U	4.0 U	4.0 U	0.41 U
Pyrene	100	1.1 J	0.23 J	0.14 J	1.8 J	0.0058 J	0.0054 J	0.60 J	0.72 J	0.83
Pyridine	NA	3.8 U	2.1 U	2.2 U	3.9 U	0.40 U	0.36 U	4.0 U	4.0 U	0.41 U
Total SVOC TICs	NA	2.011	0.320	ND	2.131	44.115	0.678	0.760	0.290	2.115

Notes
NR: Not Analyzed
ND: TIC not detected
U R : Indicates value is rejected based upon DUSR by third party data validator.
D : The reported value is from a dilution.
J : Indicates an estimated value.
J B : The analyte was found in an associated blank, as well as in the sample.
U : Analyzed for but not detected.

Table 5-24
TCL SVOC Soil Analytical Data
SL-20 / SL-21 / SL-22 Original Sample Locations - Post Excavation Data

		SL-20 / SL-21 / SL-22 Original Sample Locations - Post Excavation Data											
		End Pont Soil Samples											
		Side-wall Samples											
	NYSDEC	SL-EP#45	SL-EP#46	SL-EP#47 (2.5'-3')		SL-EP#48	SL-EP#49	SL-EP#50	SL-EP#51	SL-EP#52	SL-EP#53	SL-EP#54	~~SL-EP#55~~
TCL SVOCs (mg/kg)	Unrestricted SCO	(2.5'-3')	(2.5'-3')	Low Level	Dilute	(2.5'-3')	(2.5'-3')	(2.5'-3')	(2.5'-3')	(2.5'-3')	(2.5'-3')	(2.5'-3')	~~(2.5'-3')~~
1,2,4,5-Tetrachlorobenzene	NA	5.6 U	0.40 U	1.5 U	NR	0.37 U	0.42 U	0.40 U	0.41 U	0.41 U	0.43 U	0.40 U	~~7.6 U~~
1,4-Dioxane	0.1	5.6 U	0.40 U	1.5 U	NR	0.37 U	0.42 U	0.40 U	0.41 U	0.41 U	0.43 U	0.40 U	~~7.6 U~~
2,2'-oxybis[1-chloropropane]	NA	5.6 U	0.40 U	1.5 U	NR	0.37 U	0.42 U	0.40 U	0.41 U	0.41 U	0.43 U	0.40 U	~~7.6 U~~
2,3,4,6-Tetrachlorophenol	NA	5.6 U	0.40 U	1.5 U	NR	0.37 U	0.42 U	0.40 U	0.41 U	0.41 U	0.43 U	0.40 U	~~7.6 U~~
2,4,5-Trichlorophenol	NA	5.6 U	0.40 U	1.5 U	NR	0.37 U	0.42 U	0.40 U	0.41 U	0.41 U	0.43 U	0.40 U	~~7.6 U~~
2,4,6-Trichlorophenol	NA	5.6 U	0.40 U	1.5 U	NR	0.37 U	0.42 U	0.40 U	0.41 U	0.41 U	0.43 U	0.40 U	~~7.6 U~~
2,4-Dichlorophenol	NA	5.6 U	0.40 U	1.5 U	NR	0.37 U	0.42 U	0.40 U	0.41 U	0.41 U	0.43 U	0.40 U	~~7.6 U~~
2,4-Dimethylphenol	NA	5.6 U	0.40 U	1.5 U	NR	0.37 U	0.42 U	0.40 U	0.41 U	0.41 U	0.43 U	0.40 U	~~7.6 U~~
2,4-Dinitrophenol	NA	17 U	1.2 U	4.6 U	NR	1.1 U	1.3 U	1.2 U	1.2 U	1.2 U	1.3 U	1.2 U	~~23 U~~
2,4-Dinitrotoluene	NA	1.1 U	0.081 U	0.31 U	NR	0.075 U	0.085 U	0.082 U	0.082 U	0.082 U	0.087 U	0.081 U	~~1.5 U~~
2,6-Dinitrotoluene	NA	1.1 U	0.081 U	0.31 U	NR	0.075 U	0.085 U	0.082 U	0.082 U	0.082 U	0.087 U	0.081 U	~~1.5 U~~
2-Chloronaphthalene	NA	5.6 U	0.40 U	1.5 U	NR	0.37 U	0.42 U	0.40 U	0.41 U	0.41 U	0.43 U	0.40 U	~~7.6 U~~
2-Chlorophenol	NA	5.6 U	0.40 U	1.5 U	NR	0.37 U	0.42 U	0.40 U	0.41 U	0.41 U	0.43 U	0.40 U	~~7.6 U~~
2-Methylnaphthalene	NA	5.6 U	0.40 U	0.0051 J	NR	0.0018 J	0.42 U	0.40 U	0.41 U	0.41 U	0.43 U	0.40 U	~~7.6 U~~
2-Methylphenol	0.33	5.6 U	0.40 U	1.5 U	NR	0.37 U	0.42 U	0.40 U	0.41 U	0.41 U	0.43 U	0.40 U	~~7.6 U~~
2-Nitroaniline	NA	11 U	0.81 U	3.1 U	NR	0.75 U	0.85 U	0.82 U	0.82 U	0.82 U	0.87 U	0.81 U	~~15 U~~
2-Nitrophenol	NA	5.6 U	0.40 U	1.5 U	NR	0.37 U	0.42 U	0.40 U	0.41 U	0.41 U	0.43 U	0.40 U	~~7.6 U~~
3,3'-Dichlorobenzidine	NA	11 U	0.81 U	3.1 U	NR	0.75 U	0.85 U	0.82 U	0.82 U	0.82 U	0.87 U	0.81 U	~~15 U~~
3-Nitroaniline	NA	11 U	0.81 U	3.1 U	NR	0.75 U	0.85 U	0.82 U	0.82 U	0.82 U	0.87 U	0.81 U	~~15 U~~
4,6-Dinitro-2-methylphenol	NA	17 U	1.2 U	4.6 U	NR	1.1 U	1.3 U	1.2 U	1.2 U	1.2 U	1.3 U	1.2 U	~~23 U~~
4-Bromophenyl phenyl ether	NA	5.6 U	0.40 U	1.5 U	NR	0.37 U	0.42 U	0.40 U	0.41 U	0.41 U	0.43 U	0.40 U	~~7.6 U~~
4-Chloro-3-methylphenol	NA	5.6 U	0.40 U	1.5 U	NR	0.37 U	0.42 U	0.40 U	0.41 U	0.41 U	0.43 U	0.40 U	~~7.6 U~~
4-Chloroaniline	NA	5.6 U	0.40 U	1.5 U	NR	0.37 U	0.42 U	0.40 U	0.41 U	0.41 U	0.43 U	0.40 U	~~7.6 U~~
4-Chlorophenyl phenyl ether	NA	5.6 U	0.40 U	1.5 U	NR	0.37 U	0.42 U	0.40 U	0.41 U	0.41 U	0.43 U	0.40 U	~~7.6 U~~
4-Methylphenol	0.33	5.6 U	0.40 U	1.5 U	NR	0.37 U	0.42 U	0.40 U	0.41 U	0.41 U	0.43 U	0.40 U	~~7.6 U~~
4-Nitroaniline	NA	11 U	0.81 U	3.1 U	NR	0.75 U	0.85 U	0.82 U	0.82 U	0.82 U	0.87 U	0.81 U	~~15 U~~
4-Nitrophenol	NA	17 U	1.2 U	4.6 U	NR	1.1 U	1.3 U	1.2 U	1.2 U	1.2 U	1.3 U	1.2 U	~~23 U~~
Acenaphthene	20	5.6 U	0.40 U	0.047 J	NR	0.0020 J	0.42 U	0.40 U	0.41 U	0.41 U	0.0010 J	0.40 U	~~7.6 U~~
Acenaphthylene	100	5.6 U	0.40 U	0.025 J	NR	0.014 J	0.42 U	0.40 U	0.41 U	0.41 U	0.0015 J	0.40 U	~~0.043 J~~
Acetophenone	NA	5.6 U	0.019 J	0.016 J	NR	0.016 J	0.020 J	0.021 J	0.018 J	0.022 J	0.014 J	0.012 J	~~7.6 U~~
Anthracene	100	0.022 J	0.40 U	0.15 J	NR	0.018 J	0.0018 J	0.00084 J	0.41 U	0.41 U	0.0027 J	0.40 U	~~0.10 J~~
Atrazine	NA	5.6 U	0.40 U	1.5 U	NR	0.37 U	0.42 U	0.40 U	0.41 U	0.41 U	0.43 U	0.40 U	~~7.6 U~~
Benzaldehyde	NA	5.6 U	0.038 J	1.5 U	NR	0.036 J	0.040 J	0.039 J	0.039 J	0.040 J	0.041 J	0.037 J	~~7.6 U~~
Benzo[a]anthracene	1	0.087 J	0.0032 J	0.48	NR	0.059	0.0080 J	0.0055 J	0.0032 J	0.0021 J	0.016 J	0.0034 J	~~0.78~~
Benzo[a]pyrene	1	0.097 J	0.0028 J	0.39	NR	0.054	0.0092 J	0.0061 J	0.0034 J	0.0027 J	0.018 J	0.0037 J	~~0.80~~
Benzo[b]fluoranthene	1	0.12	0.0038	0.39	NR	0.054	0.0081	0.0070	0.0044	0.0030 J	0.022	0.0039	~~1.1~~
Benzo[g,h,i]perylene	100	0.13 J	0.0058 J	0.30 J	NR	0.054 J	0.0084 J	0.0056 J	0.0039 J	0.0027 J	0.021 J	0.0039 J	~~0.78 J~~
Benzo[k]fluoranthene	0.8	0.041 J	0.0019 J	0.15	NR	0.021 J	0.0041 J	0.0019 J	0.041 U	0.041 U	0.0079 J	0.0024 J	~~0.40 J~~
Bis(2-chloroethoxy)methane	NA	5.6 U	0.40 U	1.5 U	NR	0.37 U	0.42 U	0.40 U	0.41 U	0.41 U	0.43 U	0.40 U	~~7.6 U~~
Bis(2-chloroethyl)ether	NA	0.56 U	0.040 U	0.15 U	NR	0.037 U	0.042 U	0.040 U	0.041 U	0.041 U	0.043 U	0.040 U	~~0.76 U~~
Bis(2-ethylhexyl) phthalate	NA	1.6 J	0.033 J	0.18 J	NR	0.038 J	0.035 J	0.033 J	0.033 J	0.028 J	0.038 J	0.033 J	~~7.6 U~~
Butyl benzyl phthalate	NA	5.6 U	0.026 J	1.5 U	NR	0.023 J	0.026 J	0.027 J	0.026 J	0.023 J	0.027 J	0.022 J	~~7.6 U~~
Caprolactam	NA	5.6 U	0.031 J	1.5 U	NR	0.37 U	0.061 J	0.040 J	0.043 J	0.41 U	0.043 J	0.050 J	~~7.6 U~~
Carbazole	NA	5.6 U	0.40 U	0.018 J	NR	0.0014 J	0.42 U	0.40 U	0.41 U	0.41 U	0.43 U	0.40 U	~~0.029 J~~
Chrysene	1	0.11 J	0.0037 J	0.49 J	NR	0.072 J	0.0079 J	0.0062 J	0.0039 J	0.0034 J	0.018 J	0.0039 J	~~0.96 J~~
Dibenz(a,h)anthracene	0.33	0.023 J	0.040 U	0.058 J	NR	0.010 J	0.0023 J	0.0014 J	0.00096 J	0.041 U	0.0036 J	0.040 U	~~0.18 J~~
Dibenzofuran	7	5.6 U	0.40 U	1.5 U	NR	0.37 U	0.42 U	0.40 U	0.41 U	0.41 U	0.43 U	0.40 U	~~7.6 U~~
Diethyl phthalate	NA	0.10 J B	0.016 J B	0.033 J B	NR	0.010 J B	0.0099 J B	0.015 J B	0.013 J B	0.021 J B	0.017 J B	0.011 J B	~~0.20 J B~~
Dimethyl phthalate	NA	5.6 U	0.40 U	1.5 U	NR	0.37 U	0.42 U	0.40 U	0.41 U	0.41 U	0.43 U	0.40 U	~~7.6 U~~
Di-n-butyl phthalate	NA	5.6 U	0.40 U	1.5 U	NR	0.37 U	0.42 U	0.40 U	0.41 U	0.41 U	0.43 U	0.40 U	~~7.6 U~~
Di-n-octyl phthalate	NA	5.6 U	0.40 U	1.5 U	NR	0.37 U	0.42 U	0.40 U	0.41 U	0.41 U	0.43 U	0.40 U	~~7.6 U~~
Diphenyl	NA	5.6 U	0.40 U	1.5 U	NR	0.37 U	0.42 U	0.40 U	0.41 U	0.41 U	0.43 U	0.40 U	~~7.6 U~~
Fluoranthene	100	0.16 J	0.0047 J	0.96 J	NR	0.080 J	0.014 J	0.0095 J	0.0050 J	0.0043 J	0.026 J	0.0056 J	~~1.5 J~~
Fluorene	30	5.6 U	0.40 U	0.039 J	NR	0.0028 J	0.42 U	0.40 U	0.41 U	0.41 U	0.43 U	0.40 U	~~7.6 U~~
Hexachlorobenzene	0.33	0.56 U	0.040 U	0.15 U	NR	0.037 U	0.042 U	0.040 U	0.041 U	0.041 U	0.043 U	0.040 U	~~0.76 U~~
Hexachlorobutadiene	NA	1.1 U	0.081 U	0.31 U	NR	0.075 U	0.085 U	0.082 U	0.082 U	0.082 U	0.087 U	0.081 U	~~1.5 U~~
Hexachlorocyclopentadiene	NA	5.6 U	0.40 U	1.5 U	NR	0.37 U	0.42 U	0.40 U	0.41 U	0.41 U	0.43 U	0.40 U	~~7.6 U~~
Hexachloroethane	NA	0.56 U	0.040 U	0.15 U	NR	0.037 U	0.042 U	0.040 U	0.041 U	0.041 U	0.043 U	0.040 U	~~0.76 U~~
Indeno[1,2,3-cd]pyrene	0.5	0.066 J	0.0024 J	0.22	NR	0.036 J	0.0072 J	0.0042 J	0.0028 J	0.0021 J	0.013 J	0.0031 J	~~0.65 J~~
Isophorone	NA	5.6 U	0.40 U	1.5 U	NR	0.37 U	0.42 U	0.40 U	0.41 U	0.41 U	0.43 U	0.40 U	~~7.6 U~~
Naphthalene	12	5.6 U	0.40 U	1.5 U	NR	0.37 U	0.42 U	0.40 U	0.41 U	0.41 U	0.43 U	0.40 U	~~7.6 U~~
Nitrobenzene	NA	0.56 U	0.040 U	0.15 U	NR	0.037 U	0.042 U	0.040 U	0.041 U	0.041 U	0.043 U	0.040 U	~~0.76 U~~
N-Nitrosodi-n-propylamine	NA	0.56 U	0.040 U	0.15 U	NR	0.037 U	0.042 U	0.040 U	0.041 U	0.041 U	0.043 U	0.040 U	~~0.76 U~~
N-Nitrosodiphenylamine	NA	5.6 U	0.40 U	1.5 U	NR	0.37 U	0.42 U	0.40 U	0.41 U	0.41 U	0.43 U	0.40 U	~~7.6 U~~
Pentachlorophenol	0.8	0.64 J	1.2 U	4.6 U	NR	1.1 U	1.3 U	1.2 U	1.2 U	1.2 U	1.3 U	1.2 U	~~23 U~~
Phenanthrene	100	0.069 J	0.0029 J	0.84 J	NR	0.040 J	0.0084 J	0.0043 J	0.0028 J	0.0024 J	0.010 J	0.0030 J	~~0.41 J~~
Phenol	0.33	5.6 U	0.40 U	1.5 U	NR	0.37 U	0.42 U	0.40 U	0.0019 J	0.41 U	0.43 U	0.40 U	~~7.6 U~~
Pyrene	100	0.17 J	0.0061 J	1.1 J	NR	0.13 J	0.015 J	0.011 J	0.0063 J	0.0054 J	0.028 J	0.0058 J	~~1.3 J~~
Pyridine	NA	5.6 U	0.40 U	1.5 U	NR	0.37 U	0.42 U	0.40 U	0.41 U	0.41 U	0.43 U	0.40 U	~~7.6 U~~
Total SVOC TICs	NA	14.330	0.210	5.365	11.000	0.821	0.656	0.137	0.992	0.276	1.039	0.682	~~0.590~~

Notes
NR: Not Analyzed
ND: TIC not detected
D : The reported value is from a dilution.
J : Indicates an estimated value.
J B : The analyte was found in an associated blank, as well as in the sample.
U : Analyzed for but not detected.

Table 5-24
TCL SVOC Soil Analytical Data
SL-20 / SL-21 / SL-22 Original Sample Locations - Post Excavation Data

		SL-20 / SL-21 / SL-22 Original Sample Locations - Post Excavation Data											
		End Pont Soil Samples											
		Side-wall Samples											
		SL-EP#56 (2.5'-3')		SL-EP#57	SL-EP#58	SL-EP#59	SL-EP#60	SL-EP#61 (5')		SL-EP#62	SL-EP#63	SL-EP#64	SL-EP#65
TCL SVOCs (mg/kg)	NYSDEC Unrestricted SCO	Low Level	Dilute	(2.5'-3')	(2.5'-3')	(4')	(4')	Low Level	Dilute	(5')	(5')	(5')	(5')
1,2,4,5-Tetrachlorobenzene	NA	0.40 U	NR	6.1 U	5.7 U	0.37 U	0.39 U	0.36 U	NR	0.40 U	0.39 U	0.37 U	0.40 U
1,4-Dioxane	0.1	0.40 U	NR	6.1 U	5.7 U	0.37 U	0.39 U	0.36 U	NR	0.40 U	0.39 U	0.37 U	0.40 U
2,2'-oxybis[1-chloropropane]	NA	0.40 U	NR	6.1 U	5.7 U	0.37 U	0.39 U	0.36 U	NR	0.40 U	0.39 U	0.37 U	0.40 U
2,3,4,6-Tetrachlorophenol	NA	0.40 U	NR	6.1 U	5.7 U	0.37 U	0.39 U	0.36 U	NR	0.40 U	0.39 U	0.37 U	0.40 U
2,4,5-Trichlorophenol	NA	0.40 U	NR	6.1 U	5.7 U	0.37 U	0.39 U	0.36 U	NR	0.40 U	0.39 U	0.37 U	0.40 U
2,4,6-Trichlorophenol	NA	0.40 U	NR	6.1 U	5.7 U	0.37 U	0.39 U	0.36 U	NR	0.40 U	0.39 U	0.37 U	0.40 U
2,4-Dichlorophenol	NA	0.40 U	NR	6.1 U	5.7 U	0.37 U	0.39 U	0.36 U	NR	0.40 U	0.39 U	0.37 U	0.40 U
2,4-Dimethylphenol	NA	0.40 U	NR	6.1 U	5.7 U	0.37 U	0.39 U	0.36 U	NR	0.40 U	0.39 U	0.12 J	0.40 U
2,4-Dinitrophenol	NA	1.2 U	NR	19 U	17 U	1.1 U	1.2 U	1.1 U	NR	1.2 U	1.2 U	1.1 U	1.2 U
2,4-Dinitrotoluene	NA	0.082 U	NR	1.2 U	1.2 U	0.074 U	0.079 U	0.073 U	NR	0.081 U	0.079 U	0.074 U	0.081 U
2,6-Dinitrotoluene	NA	0.082 U	NR	1.2 U	1.2 U	0.074 U	0.079 U	0.073 U	NR	0.081 U	0.079 U	0.074 U	0.081 U
2-Chloronaphthalene	NA	0.40 U	NR	6.1 U	5.7 U	0.37 U	0.39 U	0.36 U	NR	0.40 U	0.39 U	0.37 U	0.40 U
2-Chlorophenol	NA	0.40 U	NR	6.1 U	5.7 U	0.37 U	0.39 U	0.36 U	NR	0.40 U	0.39 U	0.37 U	0.40 U
2-Methylnaphthalene	NA	0.0012 J	NR	6.1 U	5.7 U	0.37 U	0.39 U	0.0028 J	NR	0.40 U	0.39 U	0.0035 J	0.00092 J
2-Methylphenol	0.33	0.40 U	NR	6.1 U	5.7 U	0.37 U	0.39 U	0.36 U	NR	0.40 U	0.39 U	0.37 U	0.40 U
2-Nitroaniline	NA	0.82 U	NR	12 U	12 U	0.74 U	0.79 U	0.73 U	NR	0.81 U	0.79 U	0.74 U	0.81 U
2-Nitrophenol	NA	0.40 U	NR	6.1 U	5.7 U	0.37 U	0.39 U	0.36 U	NR	0.40 U	0.39 U	0.37 U	0.40 U
3,3'-Dichlorobenzidine	NA	0.82 U	NR	12 U	12 U	0.74 U	0.79 U	0.73 U	NR	0.81 U	0.79 U	0.74 U	0.81 U
3-Nitroaniline	NA	0.82 U	NR	12 U	12 U	0.74 U	0.79 U	0.73 U	NR	0.81 U	0.79 U	0.74 U	0.81 U
4,6-Dinitro-2-methylphenol	NA	1.2 U	NR	19 U	17 U	1.1 U	1.2 U	1.1 U	NR	1.2 U	1.2 U	1.1 U	1.2 U
4-Bromophenyl phenyl ether	NA	0.40 U	NR	6.1 U	5.7 U	0.37 U	0.39 U	0.36 U	NR	0.40 U	0.39 U	0.37 U	0.40 U
4-Chloro-3-methylphenol	NA	0.40 U	NR	6.1 U	5.7 U	0.37 U	0.39 U	0.36 U	NR	0.40 U	0.39 U	0.37 U	0.40 U
4-Chloroaniline	NA	0.40 U	NR	6.1 U	5.7 U	0.37 U	0.39 U	0.36 U	NR	0.40 U	0.39 U	0.37 U	0.40 U
4-Chlorophenyl phenyl ether	NA	0.40 U	NR	6.1 U	5.7 U	0.37 U	0.39 U	0.36 U	NR	0.40 U	0.39 U	0.37 U	0.40 U
4-Methylphenol	0.33	0.40 U	NR	6.1 U	5.7 U	0.37 U	0.39 U	0.36 U	NR	0.40 U	0.39 U	0.37 U	0.40 U
4-Nitroaniline	NA	0.82 U	NR	12 U	12 U	0.74 U	0.79 U	0.73 U	NR	0.81 U	0.79 U	0.74 U	0.81 U
4-Nitrophenol	NA	1.2 U	NR	19 U	17 U	1.1 U	1.2 U	1.1 U	NR	1.2 U	1.2 U	1.1 U	1.2 U
Acenaphthene	20	0.0029 J	NR	0.073 J	0.068 J	0.37 U	0.39 U	0.013 J	NR	0.40 U	0.0015 J	0.37 U	0.40 U
Acenaphthylene	100	0.040 J	NR	0.049 J	0.044 J	0.37 U	0.39 U	0.016 J	NR	0.40 U	0.39 U	0.37 U	0.040 J
Acetophenone	NA	0.012 J	NR	6.1 U	5.7 U	0.0063 J	0.0064 J	0.0054 J	NR	0.0053 J	0.0035 J	0.37 U	0.0077 J
Anthracene	100	0.020 J	NR	0.17 J	0.16 J	0.0019 J	0.0034 J	0.039 J	NR	0.40 U	0.0020 J	0.00080 J	0.013 J
Atrazine	NA	0.40 U	NR	6.1 U	5.7 U	0.37 U	0.39 U	0.36 U	NR	0.40 U	0.39 U	0.37 U	0.40 U
Benzaldehyde	NA	0.038 J	NR	6.1 U	5.7 U	0.37 U	0.39 U	0.36 U	NR	0.40 U	0.39 U	0.37 U	0.038 J
Benzo[a]anthracene	1	0.098	NR	0.54 J	0.54 J	0.0078 J	0.018 J	0.20	NR	0.0026 J	0.0055 J	0.0022 J	0.020 J
Benzo[a]pyrene	1	0.20	NR	0.47 J	0.47 J	0.0079 J	0.019 J	0.21	NR	0.0030 J	0.0038 J	0.0019 J	0.033 J
Benzo[b]fluoranthene	1	0.17	NR	0.51	0.47	0.0088	0.026	0.24	NR	0.0032 J	0.0043	0.0016 J	0.042
Benzo[g,h,i]perylene	100	0.19 J	NR	0.47 J	0.43 J	0.0069 J	0.016 J	0.15 J	NR	0.0020 J	0.0031 J	0.37 U	0.15 J
Benzo[k]fluoranthene	0.8	0.059	NR	0.20 J	0.22 J	0.0039 J	0.0075 J	0.074	NR	0.040 U	0.0016 J	0.037 U	0.013 J
Bis(2-chloroethoxy)methane	NA	0.40 U	NR	6.1 U	5.7 U	0.37 U	0.39 U	0.36 U	NR	0.40 U	0.39 U	0.37 U	0.40 U
Bis(2-chloroethyl)ether	NA	0.040 U	NR	0.61 U	0.57 U	0.037 U	0.039 U	0.036 U	NR	0.040 U	0.039 U	0.037 U	0.040 U
Bis(2-ethylhexyl) phthalate	NA	0.058 J	NR	0.39 J	0.35 J	0.029 J	0.028 J	0.36 U	NR	0.034 J	0.032 J	0.034 J	0.033 J
Butyl benzyl phthalate	NA	0.022 J	NR	6.1 U	5.7 U	0.37 U	0.022 J	0.022 J	NR	0.40 U	0.025 J	0.022 J	0.40 U
Caprolactam	NA	0.045 J	NR	6.1 U	5.7 U	0.37 U	0.39 U	0.032 J	NR	0.40 U	0.39 U	0.37 U	0.40 U
Carbazole	NA	0.0031 J	NR	0.055 J	0.043 J	0.37 U	0.39 U	0.015 J	NR	0.40 U	0.39 U	0.00093 J	0.40 U
Chrysene	1	0.11 J	NR	0.55 J	0.53 J	0.0094 J	0.020 J	0.25 J	NR	0.0029 J	0.0048 J	0.0021 J	0.024 J
Dibenz(a,h)anthracene	0.33	0.030 J	NR	0.090 J	0.084 J	0.0017 J	0.0026 J	0.027 J	NR	0.040 U	0.039 U	0.037 U	0.014 J
Dibenzofuran	7	0.40 U	NR	6.1 U	5.7 U	0.37 U	0.39 U	0.0063 J	NR	0.40 U	0.39 U	0.37 U	0.40 U
Diethyl phthalate	NA	0.014 J B	NR	0.10 J B	0.083 J B	0.015 J B	0.018 J B	0.021 J B	NR	0.023 J B	0.014 J B	0.019 J B	0.017 J B
Dimethyl phthalate	NA	0.40 U	NR	6.1 U	5.7 U	0.37 U	0.39 U	0.36 U	NR	0.40 U	0.39 U	0.37 U	0.40 U
Di-n-butyl phthalate	NA	0.40 U	NR	6.1 U	5.7 U	0.37 U	0.39 U	0.36 U	NR	0.40 U	0.39 U	0.37 U	0.40 U
Di-n-octyl phthalate	NA	0.40 U	NR	6.1 U	5.7 U	0.37 U	0.39 U	0.36 U	NR	0.40 U	0.39 U	0.37 U	0.40 U
Diphenyl	NA	0.40 U	NR	6.1 U	5.7 U	0.37 U	0.39 U	0.36 U	NR	0.40 U	0.39 U	0.37 U	0.40 U
Fluoranthene	100	0.086 J	NR	1.1 J	1.0 J	0.015 J	0.033 J	0.44	NR	0.0043 J	0.011 J	0.0045 J	0.013 J
Fluorene	30	0.0036 J	NR	0.060 J	0.052 J	0.37 U	0.39 U	0.013 J	NR	0.40 U	0.39 U	0.37 U	0.40 U
Hexachlorobenzene	0.33	0.040 U	NR	0.61 U	0.57 U	0.037 U	0.039 U	0.036 U	NR	0.040 U	0.039 U	0.037 U	0.040 U
Hexachlorobutadiene	NA	0.082 U	NR	1.2 U	1.2 U	0.074 U	0.079 U	0.073 U	NR	0.081 U	0.079 U	0.074 U	0.081 U
Hexachlorocyclopentadiene	NA	0.40 U	NR	6.1 U	5.7 U	0.37 U	0.39 U	0.36 U	NR	0.40 U	0.39 U	0.37 U	0.40 U
Hexachloroethane	NA	0.040 U	NR	0.61 U	0.57 U	0.037 U	0.039 U	0.036 U	NR	0.040 U	0.039 U	0.037 U	0.040 U
Indeno[1,2,3-cd]pyrene	0.5	0.14	NR	0.32 J	0.34 J	0.0056 J	0.013 J	0.12	NR	0.0016 J	0.0021 J	0.037 U	0.076
Isophorone	NA	0.40 U	NR	6.1 U	5.7 U	0.37 U	0.39 U	0.36 U	NR	0.40 U	0.39 U	0.37 U	0.40 U
Naphthalene	12	0.0033 J	NR	6.1 U	5.7 U	0.37 U	0.39 U	0.0040 J	NR	0.40 U	0.39 U	0.0076 J	0.40 U
Nitrobenzene	NA	0.040 U	NR	0.61 U	0.57 U	0.037 U	0.039 U	0.036 U	NR	0.040 U	0.039 U	0.037 U	0.040 U
N-Nitrosodi-n-propylamine	NA	0.040 U	NR	0.61 U	0.57 U	0.037 U	0.039 U	0.036 U	NR	0.040 U	0.039 U	0.037 U	0.040 U
N-Nitrosodiphenylamine	NA	0.40 U	NR	6.1 U	5.7 U	0.37 U	0.39 U	0.36 U	NR	0.40 U	0.39 U	0.37 U	0.40 U
Pentachlorophenol	0.8	1.2 U	NR	19 U	17 U	1.1 U	1.2 U	1.1 U	NR	1.2 U	1.2 U	0.075 J	1.2 U
Phenanthrene	100	0.017 J	NR	0.65 J	0.89 J	0.0071 J	0.015 J	0.26 J	NR	0.0029 J	0.021 J	0.0049 J	0.0040 J
Phenol	0.33	0.40 U	NR	6.1 U	5.7 U	0.37 U	0.39 U	0.36 U	NR	0.40 U	0.39 U	0.37 U	0.40 U
Pyrene	100	0.19 J	NR	1.1 J	1.1 J	0.016 J	0.033 J	0.53	NR	0.0043 J	0.013 J	0.0047 J	0.025 J
Pyridine	NA	0.40 U	NR	6.1 U	5.7 U	0.37 U	0.39 U	0.36 U	NR	0.40 U	0.39 U	0.37 U	0.40 U
Total SVOC TICs	NA	1.516	0.880	0.920	0.620	ND	0.106	1.581	81.000	0.103	1.571	14.501	0.104

Notes
NR: Not Analyzed
ND: TIC not detected
D : The reported value is from a dilution.
J : Indicates an estimated value.
J B : The analyte was found in an associated blank, as well as in the sample.
U : Analyzed for but not detected.

Table 5-25
TAL Metals Soil Analytical Data
SL-20 / SL-21 / SL-22 Original Sample Locations - Post Excavation Data

TAL Metals (mg/kg)	NYSDEC SCOs			SL-20 / SL-21 / SL-22 Original Sample Locations - Post Excavation Data													
				End Pont Soil Samples													
				Bottom Samples													
	NYSDEC Unrestricted SCO	Residential	Protection of Groundwater	SL-EP#17 (5.5')	SL-EP#18 (5.5')	SL-EP#19 (5.5')	SL-EP#20 (5.5')	SL-EP#21 (5.5')	SL-EP#22 (5.5')	SL-EP#23 (5.5')	~~SL-EP#24 (5.5')~~	SL-EP#25 (5.5')	SL-EP#26 (5.5')	SL-EP#27 (5.5')	~~SL-EP#28 (5.5')~~	SL-EP#29 (5.5')	SL-EP#30 (5.5')
Aluminum	NA	NA	NA	8,660	5,350	9,590	6,260	13,800	7,670	7,110	11,700	6,650	5,150	7,920	6,740	4,710	3,230
Antimony	NA	NA	NA	4.9 U	4.1 U	4.9 U	4.6 U	4.3 U	5.0 U	4.6 U	5.3 U	4.2 U	4.7 U	4.6 U	4.3 U	4.6 U	4.2 U
Arsenic	13	16	16	1.7 J	2.0 J	2.4 J	3.2 J	3.8	2.1 J	2.4 J	2.6 J	1.8 J	3.0 J	1.4 J	4.3	1.3 J	1.5 J
Barium	350	350	820	31.2 J	27.7 J	39.1 J	32.3 J	48.0	29.0 J	29.2 J	37.4 J	26.4 J	22.2 J	27.4 J	32.7 J	14.8 J	13.9 J
Beryllium	7.2	14	47	0.32 J	0.27 J	0.42 J	0.23 J	0.39 J	0.31 J	0.23 J	0.59	0.37 J	0.19 J	0.32 J	0.53	0.25 J	0.17 J
Cadmium	2.5	2.5	7.5	0.98 U	0.82 U	0.98 U	0.92 U	0.85 U	1.0 U	0.91 U	0.19 J	0.84 U	0.94 U	0.91 U	0.28 J	0.93 U	0.84 U
Calcium	NA	NA	NA	557 J	396 J	813 J	779 J	922 J	536 J	2,280	888 J	786 J	9,490	257 J	1,080	305 J	3,940
Chromium[1]	30	36	NS	14.1	10.5	16.4	16.1	19.8	13.2	13.0	**32.3**	10.8	10.9	16.0	**34.5**	8.4	5.9
Cobalt	NA	NA	NA	4.8 J	11.1	6.3 J	4.4 J	4.7 J	4.2 J	4.0 J	7.1 J	4.5 J	3.1 J	5.1 J	6.3 J	2.3 J	1.9 J
Copper	50	270	1,720	8.8	7.3	10.5	9.9	9.0	8.8	10.2	27.5	7.2	9.4	8.8	9.4	3.7 J	14.7
Iron	NA	NA	NA	11,800	11,000	16,200	15,000	17,900	13,600	11,500	16,800	11,600	9,250	11,400	17,500	7,010	6,250
Lead	63	400	450	6.6	4.8	9.6	9.6	15.7	7.5	7.4	10.2	8.4	13.6	5.8	14.7	3.6	7.8
Magnesium	NA	NA	NA	2,290	1,220	2,620	1,840	2,280	1,880	2,730	2,680	1,600	5,460	1,990	1,570	1,170	2,640
Manganese	1,600	2,000	2,000	189	1,390	461	136	158	254	91.0	102	153	101	73.7	97.0	63.3	68.3
Nickel	30	140	130	9.4 J	6.2 J	9.2 J	7.2 J	10.3	8.1 J	7.2 J	12.4	7.3 J	8.3 J	11.6	7.5 J	5.1 J	4.3 J
Potassium	NA	NA	NA	824 J	496 J	995 J	876 J	634 J	701 J	556 J	982 J	582 J	443 J	601 J	890 J	389 J	303 J
Selenium	3.9	36	4	4.9 U	4.1 U	4.9 U	4.6 U	4.3 U	5.0 U	4.6 U	5.3 U	4.2 U	4.7 U	4.6 U	4.3 U	4.6 U	4.2 U
Silver	2	36	8.3	2.4 U	2.0 U	2.4 U	2.3 U	2.1 U	2.5 U	2.3 U	2.6 U	0.24 J	0.79 J	2.3 U	**5.4**	2.3 U	1.1 J
Sodium	NA	NA	NA	1220 U	1,020 U	1,220 U	1,140 U	85.0 J	1,250 U	1,140 U	1,320 U	1,050 U	1,180 U	1,140 U	1,080 U	1,160 U	1,050 U
Thallium	NA	NA	NA	4.9 U	1.3 J	4.9 U	4.6 U	4.3 U	5.0 U	4.6 U	5.3 U	4.2 U	4.7 U	4.6 U	4.3 U	4.6 U	4.2 U
Vanadium	NA	NA	NA	18.2	13.4	20.8	18.8	28.7	18.5	17.9	25.0	15.3	20.3	18.7	15.6	10.6 J	9.0 J
Zinc	109	2,200	2,480	26.2	15.3	28.4	30.6	29.2	25.3	33.4	80.8	25.7	22.5	31.8	37.8	13.1	13.4
Mercury	0.18	0.81	0.73	0.020 U	0.019 U	0.029	0.029	0.017 J	0.041	0.054	0.037	0.019 U	0.026	0.020 U	**0.23**	0.017 J	0.029

TAL Metals (mg/kg)	NYSDEC SCOs			SL-20 / SL-21 / SL-22 Original Sample Locations - Post Excavation Data													
				End Pont Soil Samples													
				Bottom Samples													
	NYSDEC Unrestricted SCO	Residential	Protection of Groundwater	SL-EP#31 (5.5')	~~SL-EP#32 (5.5')~~	SL-EP#33 (5.5')	SL-EP#34 (5.5')	~~SL-EP#35 (5.5')~~	~~SL-EP#36 (5.5')~~	SL-EP#37 (5.5')	SL-EP#38 (5.5')	~~SL-EP#39 (5.5')~~	~~SL-EP#40 (5.5')~~	SL-EP#41 (5.5')	~~SL-EP#42 (5.5')~~	~~SL-EP#43 (5.5')~~	~~SL-EP#44 (5.5')~~
Aluminum	NA	NA	NA	3,470	6,930	6,250	1,220	6,830	1,580	11,600	7,710	5,070	8,140	2,790	7,250	7,600	13,100
Antimony	NA	NA	NA	4.2 U	4.6 U	4.4 U	4.0 U	4.9 U	4.3 U	4.7 U	4.7 U	4.7 U	4.4 U	3.9 U	4.7 U	4.4 U	4.7 U
Arsenic	13	16	16	1.2 J	2.4 J	2.6 J	3.0 U	2.5 J	0.75 J	2.7 J	2.5 J	1.5 J	0.65 J	2.9 U	3.2 J	2.5 J	3.7
Barium	350	350	820	14.5 J	29.2 J	22.6 J	4.7 J	29.8 J	8.7 J	36.4 J	35.6 J	23.0 J	37.2 J	8.5 J	44.6 J	31.1 J	61.5
Beryllium	7.2	14	47	0.20 J	0.21 J	0.33 J	0.40 U	0.22 J	0.43 U	0.37 J	0.25 J	0.16 J	0.17 J	0.39 U	0.31 J	0.28 J	0.62
Cadmium	2.5	2.5	7.5	0.84 U	0.92 U	0.88 U	0.80 U	0.41 J	0.26 J	0.94 U	0.95 U	0.14 J	0.89 U	0.77 U	0.15 J	0.89 U	0.46 J
Calcium	NA	NA	NA	3,710	378 J	571 J	523 J	2,450	1,770	948 J	6,030	4,110	623 J	450 J	7,540	3,090	2,050
Chromium[1]	30	36	NS	6.9	23.5	10.9	2.9	19.7	6.1	20.2	29.6	12.3	16.9	5.6	16.6	26.1	**43.9**
Cobalt	NA	NA	NA	2.1 J	2.4 J	3.3 J	10.0 U	3.0 J	1.0 J	5.8 J	4.0 J	2.8 J	4.4 J	1.2 J	4.3 J	3.9 J	8.2 J
Copper	50	270	1,720	5.5	7.4	5.3 J	1.7 J	16.7	8.0	9.7	9.1	8.7	6.9	2.6 J	17.6	11.1	17.6
Iron	NA	NA	NA	6,720	8,200	10,400	2,470	9,360	3,070	16,400	11,300	7,540	9,510	5,280	11,800	12,700	22,900
Lead	63	400	450	4.9	17.4	5.9	2.1	26.1	10.7	7.9	24.4	14.5	7.7	3.1	41.3	15.0	21.8
Magnesium	NA	NA	NA	2,560	1,720	1,240	431 J	1,970	842 J	2,470	1,930	1,550	1,880	550 J	2,770	2,400	3,240
Manganese	1,600	2,000	2,000	81.5	51.6	95.7	22.8	72.1	28.8	166	139	71.5	102	32.0	173	112	197
Nickel	30	140	130	4.4 J	6.4 J	6.1 J	1.3 J	7.3 J	2.2 J	9.5	8.6 J	5.9 J	8.5 J	3.0 J	9.2 J	8.6 J	18.8
Potassium	NA	NA	NA	435 J	737 J	425 J	115 J	698 J	191 J	837 J	603 J	521 J	1,340	357 J	764 J	974 J	1,590
Selenium	3.9	36	4	4.2 U	4.6 U	4.4 U	4.0 U	4.9 U	4.3 U	4.7 U	4.7 U	4.7 U	4.4 U	3.9 U	4.7 U	4.4 U	4.7 U
Silver	2	36	8.3	0.80 J	**5.2**	2.2 U	2.0 U	**7.6**	**5.8**	2.4 U	0.82 J	**3.3**	2.2 U	1.9 U	**5.2**	**14.5**	**5.3**
Sodium	NA	NA	NA	1,050 U	1,150 U	1,100 U	1,000 U	1,230 U	1,070 U	142 J	1,180 U	1,170 U	89 J	965 U	1,180 U	1,110 U	90.1 J
Thallium	NA	NA	NA	4.2 U	4.6 U	4.4 U	4.0 U	4.9 U	4.3 U	4.7 U	4.7 U	4.7 U	4.4 U	3.9 U	4.7 U	4.4 U	4.7 U
Vanadium	NA	NA	NA	9.1 J	16.8	15.4	3.7 J	16.4	6.1 J	24.8	17.8	13.9	17.9	7.2 J	19.1	15.4	31.0
Zinc	109	2,200	2,480	13.8	21.6	16.3	4.2 J	36.7	27.0	26.6	30.3	28.0	21.8	7.2	41.5	35.3	78.0
Mercury	0.18	0.81	0.73	0.018	0.037	0.019	0.017 U	0.067	0.035	0.021 U	0.037	0.049	0.032	0.017 J	0.14	0.31	0.22

Notes
J : Sample result is greater than the MDL but below the CRDL
U : Indicates analyzed for but not detected.
[1] Trivalent chromium SCOs utilized.
Highlighted / bolded indicates analyte exceeded above its respective NYSDEC Unrestricted SCO.
Green / italicized value indicates analyte exceeded its respective unrestricted SCO but was below its respective Residential / Protection of GW SCO, whichever is lower.
NA - Not Available

Table 5-25
TAL Metals Soil Analytical Data
SL-20 / SL-21 / SL-22 Original Sample Locations - Post Excavation Data

TAL Metals (mg/kg)	NYSDEC SCOs			SL-20 / SL-21 / SL-22 Original Sample Locations - Post Excavation Data									
				End Pont Soil Samples									
				Side-wall Samples									
	NYSDEC Unrestricted SCO	Residential	Protection of Groundwater	SL-EP#45 (2.5'-3')	SL-EP#46 (2.5'-3')	SL-EP#47 (2.5'-3')	SL-EP#48 (2.5'-3')	SL-EP#49 (2.5'-3')	SL-EP#50 (2.5'-3')	SL-EP#51 (2.5'-3')	SL-EP#52 (2.5'-3')	SL-EP#53 (2.5'-3')	SL-EP#54 (2.5'-3')
Aluminum	NA	NA	NA	7,420	13,200	8,840	6,440	11,800	13,600	13,400	14,100	10,500	15,700
Antimony	NA	NA	NA	4.1 U	4.6 U	4.5 U	4.5 U	4.5 U	4.4 U	4.5 U	4.8 U	5.1 U	4.4 U
Arsenic	13	16	16	8.1	3.6	7.0	2.8 J	4.2	4.4	4.1	3.6	2.5 J	4.4
Barium	350	350	820	39.7 J	41.7 J	43.5 J	33.6 J	54.4	51.2	49.9	63.3	66.4	55.0
Beryllium	7.2	14	47	0.36 J	0.44 J	0.49	0.30 J	0.55	0.50	0.55	0.52	0.63	0.57
Cadmium	2.5	2.5	7.5	0.31 J	0.14 J	0.45 J	0.90 U	0.90 U	0.88 U	0.90 U	0.96 U	1.0 U	0.87 U
Calcium	NA	NA	NA	24,800	909 J	4,590	41,500	1,130	440 J	471 J	702 J	872 J	749 J
Chromium[1]	30	36	NS	26.9	18.8	24.1	9.7	17.4	19.1	17.7	19.3	12.6	24.5
Cobalt	NA	NA	NA	4.1 J	4.4 J	4.9 J	3.1 J	5.4 J	5.2 J	6.6 J	6.1 J	4.2 J	6.0 J
Copper	50	270	1,720	21.8	8.9	11.9	5.0 J	8.8	9.5	8.1	7.9	6.1 J	12.3
Iron	NA	NA	NA	12,900	19,300	15,500	9,120	21,300	18,900	20,300	21,000	13,500	23,600
Lead	63	400	450	34.8	8.8	26.0	10.2	11.6	14.0	10.7	9.7	18.3	10.9
Magnesium	NA	NA	NA	10,500	2,160	3,830	23,400	2,160	2,320	1,840	2,330	1,670	2,440
Manganese	1,600	2,000	2,000	181	107	230	147	176	175	218	199	210	163
Nickel	30	140	130	9.7	10	9.5	6.6 J	9.2	10.7	9.7	11.1	8.8 J	11.9
Potassium	NA	NA	NA	886 J	661 J	662 J	384 J	461 J	618 J	561 J	434 J	268 J	638 J
Selenium	3.9	36	4	4.1 U	4.6 U	4.5 U	4.5 U	4.5 U	4.4 U	4.5 U	4.8 U	5.1 U	4.4 U
Silver	2	36	8.3	1.2 J	2.3 U	2.3 U	0.26 J	2.3 U	2.2 U	2.3 U	2.4 U	2.5 U	2.2 U
Sodium	NA	NA	NA	84.7 J	1,150 U	1,130 U	1,130 U	1,130 U	1,100 U	1,130 U	132 J	258 J	336 J
Thallium	NA	NA	NA	4.1 U	4.6 U	4.5 U	4.5 U	4.5 U	4.4 U	4.5 U	4.8 U	5.1 U	4.4 U
Vanadium	NA	NA	NA	24.5	26.5	19.1	12.9	23.7	27.0	25.7	26.6	17.0	32.1
Zinc	109	2,200	2,480	82.5	25.3	*799*	25.6	30.8	27.8	28.4	28.4	24.8	31.2
Mercury	0.18	0.81	0.73	0.090	0.021	0.10	0.016 J	0.065	0.027	0.021 U	0.016 J	0.034	0.026

TAL Metals (mg/kg)	NYSDEC SCOs			SL-20 / SL-21 / SL-22 Original Sample Locations - Post Excavation Data										
				End Pont Soil Samples										
				Side-wall Samples										
	NYSDEC Unrestricted SCO	Residential	Protection of Groundwater	~~SL-EP#55 (2.5'-3')~~	SL-EP#56 (2.5'-3')	SL-EP#57 (2.5'-3')	~~SL-EP#58 (2.5'-3')~~	~~SL-EP#59 (4')~~	~~SL-EP#60 (4')~~	~~SL-EP#61 (5')~~	~~SL-EP#62 (5')~~	~~SL-EP#63 (5')~~	SL-EP#64 (5')	~~SL-EP#65 (5')~~
Aluminum	NA	NA	NA	8,510	5,820	10,100	8,650	1,510	5,270	1,770	12,800	6,140	4,810	7,860
Antimony	NA	NA	NA	4.3 U	4.4 U	4.5 U	4.4 U	4.0 U	4.6 U	4.0 U	4.8 U	4.5 U	4.3 U	4.3 U
Arsenic	13	16	16	3.0 J	1.9 J	1.6 J	6.6	2.0 J	3.2 J	2.5 J	2.7 J	2.4 J	1.6 J	10.8
Barium	350	350	820	42.8 J	28.8 J	49.1	49.7	30.0 J	32.8 J	10.2 J	47.4 J	24.1 J	13.9 J	37.4 J
Beryllium	7.2	14	47	0.40 J	0.33 J	0.53	0.39 J	0.40 U	0.21 J	0.40 U	0.56	0.34 J	0.27 J	0.31 J
Cadmium	2.5	2.5	7.5	0.86 U	0.89 U	0.90 U	0.33 J	0.81 U	0.17 J	0.35 J	0.32 J	0.90 U	0.86 U	0.48 J
Calcium	NA	NA	NA	4,800	7,060	2,620	7,550	1,420	1,490	1,390	1,290	773 J	424 J	4,630
Chromium[1]	30	36	NS	16.2	13.3	17.1	**38.1**	6.3	**35.9**	25.2	25.8	**47.9**	11.9	**52.0**
Cobalt	NA	NA	NA	4.6 J	3.7 J	4.7 J	4.0 J	10.1 U	1.8 J	1.3 J	5.1 J	2.9 J	2.3 J	3.6 J
Copper	50	270	1,720	10.6	7.8	10.8	20.1	5.9	11.6	7.8	15.2	6.8	8.2	32.7
Iron	NA	NA	NA	13,300	9,400	13,700	15,300	7,490	10,600	3,100	15,800	10,700	7,730	19,600
Lead	63	400	450	26.7	19.9	16.3	47.6	10.4	20.6	26.2	25.4	16.1	6.2	47.7
Magnesium	NA	NA	NA	3,750	4,280	2,780	2,810	436 J	1,130 J	810 J	2,560	1,260	907 J	3,080
Manganese	1,600	2,000	2,000	190	131	144	123	44.8	72.3	37.2	90.3	54.7	43.0	107
Nickel	30	140	130	10.4	8.0 J	10.6	12.7	2.0 J	6.8 J	2.9 J	11.0	6.3 J	4.5 J	9.2
Potassium	NA	NA	NA	909 J	888 J	1,460	1,190	468 J	429 J	206 J	1,150 J	634 J	485 J	811 J
Selenium	3.9	36	4	4.3 U	4.4 U	4.5 U	4.4 U	4.0 U	4.6 U	4.0 U	4.8 U	4.5 U	4.3 U	4.3 U
Silver	2	36	8.3	2.2 U	0.31 J	2.2 U	**53.2**	**3.6**	**4.6**	**2.0**	1.9 J	**2.9**	0.22 J	**2.5**
Sodium	NA	NA	NA	95.6 J	1,110 U	130 J	125 J	1,010 U	1,160 U	1,010 U	1,210 U	1,120 U	1,070 U	1,080 U
Thallium	NA	NA	NA	4.3 U	4.4 U	4.5 U	4.4 U	4.0 U	4.6 U	4.0 U	4.8 U	4.5 U	4.3 U	4.3 U
Vanadium	NA	NA	NA	18.5	11.9	20.4	24.8	6.4 J	17.7	8.0 J	24.7	20.5	12.0	26.6
Zinc	109	2,200	2,480	27.5	23.1	28.9	63.5	7.4	27.8	47.6	96.1	25.6	18.8	*126*
Mercury	0.18	0.81	0.73	0.053	0.024	0.033	*0.49*	0.013 J	0.088	0.063	0.16	0.11	0.022	*0.18*

Notes
J : Sample result is greater than the MDL but below the CRDL
U : Indicates analyzed for but not detected.
[1] Trivalent chromium SCOs utilized.
Highlighted / bolded indicates analyte exceeded above its respective NYSDEC Unrestricted SCO.
Green / italicized value indicates analyte exceeded its respective unrestricted SCO but was below its respective Residential / Protection of GW SCO, whichever is lower.
NA - Not Available

Table 5-25
TAL Metals Soil Analytical Data
SL-20 / SL-21 / SL-22 Original Sample Locations - Post Excavation Data

TAL Metals (mg/kg)	NYSDEC Unrestricted SCO	NYSDEC SCOs Residential	Restricted Residential	Protection of Groundwater	SL-20 / SL-21 / SL-22 Original Sample Locations - Post Excavation Data														
					Supplemental Endpoint Samples								Supplemental Endpoint Samples						
					Side-wall Samples								Bottom Samples						
					SL-EP#195	SL-EP#196	SL-EP#200	SL-EP#201	SL-EP#202	SL-EP#205	SL-EP#206	SL-EP#207	SL-EP#197	SL-EP#198	SL-EP#199	SL-EP#203	SL-EP#204	SL-EP#208	SL-EP#209	SL-EP#210
					(3')	(3')	(3')	(3')	(3')	(3')	(3')	(3')	(8')	(8')	(8')	(8')	(8')	(8')	(8')	(8')
Aluminum	NA	NA	NA	NA	4,440	4,660	7,720	11,900	10,500	10,600	14,500	16,300	6,750	4,850	13,900	3,720	2,340	3,010	3,020	3,450
Antimony	NA	NA	NA	NA	4.0 U	3.6 U	3.6 U	4.0 U	4.3 U	3.9 U	4.7 U	4.9 U	4.1 U	3.3 U	3.2 U	3.2 U	3.5 U	3.8 U	4.0 U	3.4 U
Arsenic	13	16	16	16	3.7	3.9	1.1 J	3.5	1.6 J	1.3 J	4.9	5.4	2.9 J	2.4 U	5.0	1.2 J	1.9 J	2.8 U	3.6	1.1 J
Barium	350	350	400	820	29.6 J	35.0 J	61.0	56.9	47.0	41.7	47.3	52.4	33.8 J	26.0 J	152	12.7 J	8.1 J	13.1 J	11.1 J	9.6 J
Beryllium	7.2	14	72	47	0.13 J	0.89 U	0.28 J	0.51	0.40 J	0.31 J	0.33 J	0.38 J	0.24 J	0.15 J	0.84	0.16 J	0.35 U	0.38 U	0.20 J	0.34 U
Cadmium	2.5	2.5	4.3	7.5	0.80 U	0.27 J	0.75 U	2.1	0.83 U	0.78 U	0.94 U	0.99 U	0.83 U	0.65 U	0.64 U	0.65 U	0.70 U	0.75 U	0.79 U	0.69 U
Calcium	NA	NA	NA	NA	46,300	74,100	1,150	526 J	1,990	1,230	1,210	1,090 J	1,460	4,890	1,610	316 J	270 J	651 J	282 J	319 J
Chromium[1]	30	36	180	NS	9.2	14.0	17.2	**64.3**	**46.5**	20.4	27.2	26.6	15.2	12.2	**32.4**	6.6	17.6	9.6	6.8	7.5
Cobalt	NA	NA	NA	NA	4.1 J	2.7 J	3.0 J	5.4 J	3.6 J	4.5 J	7.2 J	6.8 J	3.5 J	2.6 J	20.5	2.3 J	1.3 J	0.99 J	2.7 J	2.1 J
Copper	50	270	270	1,720	18.2	29.2	3.4 J	16.0	7.2	8.5	14.7	12.2	9.7	10.1	23.5	5.0	2.7 J	2.9 J	4.0 J	4.2 J
Iron	NA	NA	NA	NA	10,600	7,310	9,810	8,860	11,100	14,500	26,000	25,900	10,900	8,300	26,400	5,810	4,420	5,030	5,910	4,010
Lead	63	400	400	450	26.8	40.4	7.3	36.9	16.0	10.6	9.7	12.0	10.7	9.0	11.2	2.8	2.2	3.1	3.0	2.1
Magnesium	NA	NA	NA	NA	8,390	37,000	1,410 J	1,790 J	1,780 J	2,020	2,910	2,840	1,940	1,440	3,020	675 J	355 J	663 J	534 J	708 J
Manganese	1,600	2,000	2,000	2,000	152	140	352	65.6	201	129	188	163	115	65.1	1,460	70.1	21.4	28.8	28.9	35.8
Nickel	30	140	310	130	8.3	7.7	7.1 J	11.1	9.1	9.5	13.0	13.4	7.7 J	4.7 J	35.4	3.5 J	2.4 J	2.5 J	3.1 J	3.6 J
Potassium	NA	NA	NA	NA	569 J	640 J	435 J	443 J	849 J	2,480	1,410	1,160 J	838 J	808 J	2,280	440 J	358 J	412 J	267 J	360 J
Selenium	3.9	36	180	4	4.0 U	3.6 U	3.6 U	4.0 U	4.3 U	3.9 U	4.7 U	4.9 U	4.1 U	0.82 J	3.2 U	3.2 U	3.5 U	3.8 U	4.0 U	3.4 U
Silver	2	36	180	8.3	0.70 J	**7.6**	1.8 U	1.7 J	0.21 J	1.9 U	2.3 U	2.5 U	1.5 J	**4.8**	0.48 J	1.6 U	1.7 U	1.9 U	2.0 U	1.7 U
Sodium	NA	NA	NA	NA	150 J	95.4 J	108 J	122 J	119 J	213 J	1,170 U	93.1 J	1,040 U	67.3 J	152 J	809 U	872 U	939 U	989 U	860 U
Thallium	NA	NA	NA	NA	4.0 U	3.6 U	3.6 U	4.0 U	4.3 U	3.9 U	4.7 U	4.9 U	4.1 U	3.3 U	3.2 U	3.2 U	3.5 U	3.8 U	4.0 U	3.4 U
Vanadium	NA	NA	NA	NA	20.6	14.0	13.2	14.3	17.8	21.2	35.3	32.1	16.0	9.9	37.4	8.7	4.2 J	4.3 J	6.4 J	7.0 J
Zinc	109	2,200	10,000	2,480	27.1	76.4	15.8	111	24.9	27.6	43.2	35.0	21.3	23.5	54.6	9.9	6.1	7.9	12.5	10.4
Mercury	0.18	0.81	0.81	0.73	0.039	0.27	0.018 J	0.12	0.050	0.034	0.020	0.021	0.076	0.11	0.020 U	0.056	0.013 J	0.018 U	0.019 U	0.020 U

TAL Metals (mg/kg)	NYSDEC Unrestricted SCO	NYSDEC SCOs Residential	Restricted Residential	Protection of Groundwater	SL-20 / SL-21 / SL-22 Original Sample Locations - Post Excavation Data																			
					Supplemental Endpoint Samples										Supplemental Endpoint Samples									
					Side-wall Samples						Bottom Samples				Bottom Samples			Co-located Bottom and Sidewall Samples						
					SL-EP#260	SL-EP#261	SL-EP#262	SL-EP#263	SL-EP#264	SL-EP#265	SL-EP#257	SL-EP#258	SL-EP#259	SL-EP#313	SL-EP#314	SL-EP#315	SL-EP#316	SL-EP#317	SL-EP#318	SL-EP#319	SL-EP#320	SL-EP#321	SL-EP#322	SL-EP#323
					(3')	(3')	(3')	(3')	(3')	(3')	(10')	(10')	(10')	(10')	(10')	(10')	(6')	(3')	(6')	(3')	(6')	(3')	(6')	(3')
Aluminum	NA	NA	NA	NA	6,580	8,640	7,150	6,550	10,200	5,000	2,260	16,400	17,100	19,100	NA	NA	6,430	9,260	11,100	12,900	10,400	4,810	10,300	7,670
Antimony	NA	NA	NA	NA	3.7 U	4.5 U	4.4 U	3.8 U	4.4 U	3.9 U	4.7 U	4.7 U	4.3 U	4.5 U	NA	NA	4.2 U	4.7 U	4.3 U	4.5 U	4.5 U	3.9 U	4.3 U	4.3 U
Arsenic	13	16	16	16	1.9 J	2.4 J	1.7 J	2.3 J	2.2 J	2.5 J	3.5 U	5.8	6.1	5.5	NA	NA	1.4 J	2.4 J	3.0 J	2.1 J	2.5 J	2.3 J	2.8 J	2.3 J
Barium	350	350	400	820	31.8 J	49.7	44.0	38.9	50.0	48.7	6.5 J	175	149	194	NA	NA	37.5 J	43.9	34.2 J	58.6	44.9 J	29.0 J	45.8	65.0
Beryllium	7.2	14	72	47	0.36 J	0.47	0.38 J	0.38	0.61	0.22 J	0.10 J	1.0	1.2	1.1	NA	NA	0.42 U	0.47 U	0.43 U	0.58	0.43 J	0.27 J	0.49	0.43 U
Cadmium	2.5	2.5	4.3	7.5	0.75 U	0.90 U	0.87 U	0.77 U	0.88 U	0.77 U	0.94 U	0.94 U	0.86 U	0.91 U	NA	NA	0.83 U	0.94 U	0.87 U	0.90 U	0.91 U	0.78 U	0.38 J	0.85 U
Calcium	NA	NA	NA	NA	570 J	1,960	4,230	1,290	891 J	3,900	336 J	2,160	1,890	2,080	NA	NA	702 J	506 J	484 J	1,290	572 J	546 J	787 J	883 J
Chromium[1]	30	36	180	NS	14.1	15.3	14.8	16.1	26.9	60.3	6.0	**36.1**	**39.1**	*41.1*	NA	NA	12.7	17.6	19.8	16.4	20.3	*125*	*129*	14.3
Cobalt	NA	NA	NA	NA	2.6 J	5.0 J	3.9 J	5.2 J	3.7 J	2.7 J	1.5 J	12.7	12.1	14.1	NA	NA	2.9 J	2.9 J	3.9 J	4.3 J	4.1 J	3.2 J	4.7 J	3.6 J
Copper	50	270	270	1,720	1.9 J	10.4	6.8	9.2	6.0	5.7	3.1 J	27.9	31.7	28.7	NA	NA	10.5	5.3 J	9.3	7.9	12.3	7.5	9.0	6.2
Iron	NA	NA	NA	NA	13,800	11,500	14,100	10,700	9,860	8,020	4,090	31,800	40,000	35,500	NA	NA	8,510	12,900	13,800	12,200	12,800	11,700	14,200	14,800
Lead	63	400	400	450	4.7	32.0	12.2	8.1	13.6	6.7	1.9 J	12.5	13.2	15.4	NA	NA	12.1	15.0	6.7	20.3	8.5	4.8	6.5	14.2
Magnesium	NA	NA	NA	NA	1,630	2,010	1,770	2,160	1,590	1,150	496 J	6,630	6,720	7,200	NA	NA	1,310	1,740	2,130	2,040	2,300	712 J	2,180	1,340
Manganese	1,600	2,000	2,000	2,000	117	158	799	240	294	605	33.3	575	535	355	NA	NA	117	70.5	102	171	81.8	217	223	415
Nickel	30	140	310	130	6.0 J	10.1	7.9 J	10.4	8.8	6.9 J	2.8 J	*41.3*	*40.7*	45.6	NA	NA	7.9 J	7.8 J	9.6	11.0	9.8	7.0 J	12.0	7.8 J
Potassium	NA	NA	NA	NA	328 J	1,210	1,050 J	1,190	352 J	753 J	403 J	3,450	3,740	3,600	NA	NA	554 J	527 J	1,610	1,190	1,020 J	497 J	1,100	444 J
Selenium	3.9	36	180	4	3.7 U	4.5 U	4.4 U	3.8 U	4.4 U	3.9 U	4.7 U	4.7 U	4.3 U	4.5 U	NA	NA	4.2 U	4.7 U	4.3 U	4.5 U	4.5 U	3.9 U	4.3 U	4.3 U
Silver	2	36	180	8.3	1.9 U	2.2 U	0.11 J	1.9 U	2.2 U	**3.3**	2.3 U	2.3 U	2.1 U	2.3 U	NA	NA	2.1 U	2.4 U	2.2 U	2.2 U	2.3 U	0.43 J	2.1 U	2.1 U
Sodium	NA	NA	NA	NA	934 U	1,120 U	1,090 U	958 U	114 J	364 U	1,170 U	167 J	166 J	222 J	NA	NA	1,040 U	1,180 U	147 J	107 J	146 J	978 U	1,070 U	1,070 U
Thallium	NA	NA	NA	NA	3.7 U	4.5 U	4.4 U	3.8 U	4.4 U	3.9 U	4.7 U	4.7 U	4.3 U	4.5 U	NA	NA	4.2 U	4.7 U	4.3 U	4.5 U	4.5 U	3.9 U	4.3 U	4.3 U
Vanadium	NA	NA	NA	NA	27.8	20.4	17.2	14.7	17.2	10.7	6.1 J	41.0	44.6	47.9	NA	NA	13.3	22.8	26.8	22.2	27.5	12.3	21.9	18.4
Zinc	109	2,200	10,000	2,480	16.1	41.1	20.6	21.4	21.9	14.7	7.1	64.7	69.1	78.4	NA	NA	28.9	21.5	23.4	29.2	26.3	17.1	24.7	19.5
Mercury	0.18	0.81	0.81	0.73	0.019 U	0.050	0.015 J	0.013 J	0.033	0.110	0.020 U	0.031	0.019 U	0.019 U	NA	NA	0.031	0.028	0.014 J	0.088	0.019 U	0.038	0.022	0.019
Hexavalent Chrome	1				NA	NA	NA	NA	NA	NA	NA	NA	NA	1.2 J	2.2 U	2.3 U	NA	NA	NA	NA	NA	NA	NA	NA

Notes
J : Sample result is greater than the MDL but below the CRDL
U : Indicates analyzed for but not detected.
[1] Trivalent chromium SCOs utilized.
Highlighted / bolded indicates analyte exceeded above its respective NYSDEC Unrestricted SCO.
Green / italicized value indicates analyte exceeded its respective unrestricted SCO but was below its respective Residential / Protection of GW SCO, whichever is lower.
Blue / italicized value indicates analyte exceeded its respective Residential SCO and / or Protection of Groundwater SCO but was below its Restricted Residential SCO.
NA - Not Available
~~strikethrough~~ Indicates that sample locations were removed as part of supplemental soil excavation activities.

Table 5-26
TCL SVOCs Soil Analytical Data
SL-23 Original Sample Location - Post Excavation Data

TCL SVOCs (mg/kg)	NYSDEC Unrestricted SCO	SL-23 Original Sample Location - Post Excavation Data Bottom Sample SL-EP#6 (5')
1,2,4,5-Tetrachlorobenzene	NA	0.33 U
1,4-Dioxane	0.1	0.33 U
2,2'-oxybis[1-chloropropane]	NA	0.33 U
2,3,4,6-Tetrachlorophenol	NA	0.33 U
2,4,5-Trichlorophenol	NA	0.33 U
2,4,6-Trichlorophenol	NA	0.33 U
2,4-Dichlorophenol	NA	0.33 U
2,4-Dimethylphenol	NA	0.33 U
2,4-Dinitrophenol	NA	0.99 U
2,4-Dinitrotoluene	NA	0.066 U
2,6-Dinitrotoluene	NA	0.066 U
2-Chloronaphthalene	NA	0.33 U
2-Chlorophenol	NA	0.33 U
2-Methylnaphthalene	NA	0.33 U
2-Methylphenol	0.33	0.33 U
2-Nitroaniline	NA	0.66 U
2-Nitrophenol	NA	0.33 U
3,3'-Dichlorobenzidine	NA	0.66 U
3-Nitroaniline	NA	0.66 U
4,6-Dinitro-2-methylphenol	NA	0.99 U
4-Bromophenyl phenyl ether	NA	0.33 U
4-Chloro-3-methylphenol	NA	0.33 U
4-Chloroaniline	NA	0.33 U
4-Chlorophenyl phenyl ether	NA	0.33 U
4-Methylphenol	0.33	0.33 U
4-Nitroaniline	NA	0.66 U
4-Nitrophenol	NA	0.99 U
Acenaphthene	20	0.33 U
Acenaphthylene	100	0.33 U
Acetophenone	NA	0.33 U
Anthracene	100	0.33 U
Atrazine	NA	0.33 U
Benzaldehyde	NA	0.33 U
Benzo[a]anthracene	1	0.033 U
Benzo[a]pyrene	1	0.033 U
Benzo[b]fluoranthene	1	0.033 U
Benzo[g,h,i]perylene	100	0.33 U
Benzo[k]fluoranthene	0.8	0.033 U
Bis(2-chloroethoxy)methane	NA	0.33 U
Bis(2-chloroethyl)ether	NA	0.033 U
Bis(2-ethylhexyl) phthalate	NA	0.33 U
Butyl benzyl phthalate	NA	0.33 U
Caprolactam	NA	0.33 U
Carbazole	NA	0.33 U
Chrysene	1	0.33 U
Dibenz(a,h)anthracene	0.33	0.033 U
Dibenzofuran	7	0.33 U
Diethyl phthalate	NA	0.33 U
Dimethyl phthalate	NA	0.33 U
Di-n-butyl phthalate	NA	0.33 U
Di-n-octyl phthalate	NA	0.33 U
Diphenyl	NA	0.33 U
Fluoranthene	100	0.33 U
Fluorene	30	0.33 U
Hexachlorobenzene	0.33	0.033 U
Hexachlorobutadiene	NA	0.066 U
Hexachlorocyclopentadiene	NA	0.33 U
Hexachloroethane	NA	0.033 U
Indeno[1,2,3-cd]pyrene	0.5	0.033 U
Isophorone	NA	0.33 U
Naphthalene	12	0.33 U
Nitrobenzene	NA	0.033 U
N-Nitrosodi-n-propylamine	NA	0.033 U
N-Nitrosodiphenylamine	NA	0.33 U
Pentachlorophenol	0.8	0.99 U
Phenanthrene	100	0.33 U
Phenol	0.33	0.33 U
Pyrene	100	0.33 U
Pyridine	NA	0.33 U
SVOC TICs		
Unknown	NA	0.15 J
Ethane, 1,1,2-trichloro-	NA	ND
Ethane, 1,1,2-trichloro-	NA	0.29 J N
Unknown	NA	ND
Unknown	NA	6.6 J
Ethane, 1,1,2,2-tetrachloro-	NA	0.58 J N
Octanoic Acid	NA	ND
Unknown	NA	ND
Octanoic Acid	NA	ND

Notes
ND: TIC not detected

Table 5-27
TAL Metals Soil Analytical Data
SL-23 Original Sample Location - Post Excavation Data

TAL Metals (mg/kg)	NYSDEC SCOs Unrestricted	NYSDEC SCOs Residential	NYSDEC SCOs Protection of Groundwater	SL-23 Original Sample Location - Post Excavation Data													
				End-Point Soil Samples						Supplemental Endpoint Samples							
				Side-wall Samples					Bottom Sample	Side-wall Samples						Bottom Samples	
				SL-EP#7	SL-EP#8	SL-EP#9	SL-EP#10	SL-EP#11	SL-EP#6	SL-EP#97	SL-EP#98	SL-EP#99	SL-EP#100	SL-EP#101	SL-EP#102	SL-EP#95	SL-EP#96
				(4')	(4')	(2.5')	(4')	(4')	(5')	(4')	(4')	(4')	(2.5')	(4')	(4')	(7')	(7')
Aluminum	NA	NA	NA	7,110	8,200	7,370	6,030	6,430	1,820	6,390	7,120	7,790	7,480	5,050	6,950	4,980	1,480
Antimony	NA	NA	NA	3.5 U	3.7 U	2.4 J	3.5 U	3.7 U	3.5 U	3.6 U	4.2 U	4.4 U	3.7 U	3.4 U	4.3 U	3.6 U	3.1 U
Arsenic	13	16	16	16.9	**26.7**	**16.7**	7.7	9.3	0.95 J	6.3	7.7	**19.1**	**30.2**	4.4	**21.0**	4.0	2.5
Barium	350	350	820	74.0	47.6	45.9	47.2	49.7	19.3 J	46.2	59.5	73.7	71.4	24.8 J	77.6	42.2	10.5 J
Beryllium	7.2	14	47	0.12 J	0.37 U	0.16 J	0.35 U	0.37 U	0.35 U	0.32 J	0.32 J	0.45	0.40	0.30 J	0.41 J	0.23 J	0.17 J
Cadmium	2.5	2.5	7.5	**3.9**	**12.0**	**12.7**	**7.3**	2.2	0.35 J	3.1	**3.0**	**14.6**	**61.9**	1.4	0.64 J	0.72 U	0.62 U
Calcium	NA	NA	NA	1,330	2,250	1,060	3,980	2,840	153 J	4,590	5,080	2,050	1,370	16,100	2,150	6,080	136 J
Chromium[1]	30	36	NS	13.2	15.5	14.4	14.1	15.7	3.9	15.8	19.3	16.1	16.8	8.9	14.3	16.4	7.2
Cobalt	NA	NA	NA	4.1 J	4.3 J	3.3 J	3.9 J	4.0 J	8.6 U	3.3 J	4.8 J	7.0 J	6.6 J	2.6 J	5.1 J	3.6 J	1.3 J
Copper	50	270	1,720	28.7	15.4	18.0	24.9	21.6	9.2	14.7	*87.8*	40.0	*135*	7.4	*65.0*	8.8	4.7
Iron	NA	NA	NA	10,300	11,300	8,300	9,730	11,800	4,790	9,840	11,800	11,700	14,500	9,530	13,400	9,010	8,000
Lead	63	400	450	*162*	*74.3*	*355*	*67.8*	*74.0*	5.3	*65.1*	55.2	*195*	*247*	19.1	*194*	17.0	2.7
Magnesium	NA	NA	NA	1,430	2,140	1,330	3560	2,660	312 J	3,560	4,640	1,920	1,440	9,830	1,470	4,270	266 J
Manganese	1,600	2,000	2,000	206	159	58.0	211	240	35.9	140	267	87.9	138	83.9	253	240	54.7
Nickel	30	140	130	9.6	11.1	10.2	10.0	9.8	3.2 J	9.5	11.0	12.3	10.9	6.7 J	10.5	8.9	2.7 J
Potassium	NA	NA	NA	509 J	548 J	477 J	827 J	739 J	195 J	735 J	1,320	648 J	488 J	415 J	365 J	1,120	134 J
Selenium	3.9	36	4	3.5 U	1.5 J	3.8 U	3.5 U	3.7 U	3.5 U	3.6 U	4.2 U	1.7 J	1.4 J	0.84 J	4.3 U	3.6 U	3.1 U
Silver	2	36	8.3	**8.2**	**24.4**	**11.4**	**11.7**	**10.6**	**10.3**	**8.8**	**21.5**	**4.0**	**17.5**	**4.6**	**2.5**	0.59 J	1.6 U
Sodium	NA	NA	NA	885 U	931 U	941 U	878 U	933 U	864 U	898 U	1,040 U	1,100 U	915 U	847 U	1,070 U	904 U	781 U
Thallium	NA	NA	NA	3.5 U	3.7 U	3.8 U	3.5 U	3.7 U	3.5 U	3.6 U	4.2 U	4.4 U	3.7 U	3.4 U	4.3 U	3.6 U	3.1 U
Vanadium	NA	NA	NA	18.8	26.6	17.9	15.8	18.4	4.9 J	16.1	20.1	21.5	21.0	11.6	18.3	14.1	10.5
Zinc	109	2,200	2,480	*126*	*184*	108	56.6	84.7	8.7	70.8	128	*161*	*125*	32.7	*127*	28.8	7.1
Mercury	0.18	0.81	0.73	0.079	0.13	0.50	0.14	0.089	0.054	0.15	0.12	*0.39*	*0.40*	0.021	*0.23*	0.021	0.018 U

TAL Metals (mg/kg)	NYSDEC SCOs Unrestricted	NYSDEC SCOs Residential	NYSDEC SCOs Protection of Groundwater	SL-23 Original Sample Location - Post Excavation Data											
				Supplemental Endpoint Samples											
				Side-wall Samples											
				SL-EP#266	SL-EP#267	SL-EP#268	SL-EP#269	SL-EP#270	SL-EP#271	SL-EP#272	SL-EP#273	SL-EP#274	SL-EP#275	SL-EP#276	SL-EP#277
				(4')	(4')	(4')	(4')	(4')	(4')	(4')	(4')	(4')	(4')	(4')	(4')
Aluminum	NA	NA	NA	6,040	5,490	4,720	7,400	6,500	4,890	6,550	4,720	5,940	5,180	6,110	5,240
Antimony	NA	NA	NA	0.70 J	4.2 U	4.0 U	4.0 U	3.9 U	4.3 U	1.2 J	3.8 U	0.74 J	3.8 U	3.9 J	3.6 U
Arsenic	13	16	16	12.0	9.9	5.2	7.6	**21.4**	7.9	**26.6**	1.8 J	10.8	8.8	**27.3**	2.8
Barium	350	350	820	51.1	42.7	29.0 J	45.7	49.6	31.4 J	81.9	16.0 J	59.7	24.2 J	71.7	21.1 J
Beryllium	7.2	14	47	0.32 J	0.28 J	0.23 J	0.39 J	0.29 J	0.27 J	0.41 J	0.24 J	0.24 J	0.28 J	0.38 J	0.28 J
Cadmium	2.5	2.5	7.5	**3.2**	2.4	1.2	0.84	**3.7**	**2.8**	0.66 J	**11.2**	2.4	1.0	1.2	0.81
Calcium	NA	NA	NA	9,050	8,810	16,200	4,780	5,660	1,320	2,140	872 J	1,620	1,040	1,700	2,400
Chromium[1]	30	36	NS	14.3	13.5	9.6	12.1	16.6	13.5	13.8	8.0	22.5	9.6	12.4	8.6
Cobalt	NA	NA	NA	4.5 J	4.4 J	2.8 J	3.4 J	4.2 J	3.0 J	4.3 J	2.4 J	4.5 J	2.9 J	5.9 J	3.1 J
Copper	50	270	1,720	21.5	19.7	24.0	12.7	24.3	28.3	39.7	8.7	8.1	10.2	32.5	10.1
Iron	NA	NA	NA	11,900	9,410	7,980	11,800	10,100	8,880	11,400	6,620	11,700	7,590	10,800	8,470
Lead	63	400	450	*71.4*	58.9	48.1	*111*	*117*	*76.2*	*176*	12.3	21.2	55.9	*237*	20.9
Magnesium	NA	NA	NA	5,570	5,580	9,810	2,700	4,360	1,650	1,630	1,020	3,430	1,120	1,300	2,020
Manganese	1,600	2,000	2,000	154	264	168	267	226	145	358	69.5	130	74.0	614	119
Nickel	30	140	130	11.6	9.6	6.8 J	8.9	10.9	8.1 J	10.2	5.8 J	13.0	6.4 J	8.9	6.5 J
Potassium	NA	NA	NA	854 J	767 J	469 J	505 J	944 J	616 J	409 J	305 J	1,530	315 J	443 J	409 J
Selenium	3.9	36	4	4.4 U	4.2 U	4.0 U	1.4 J	3.9 U	4.3 U	4.5 U	3.8 U	3.8 U	3.8 U	4.2 U	3.6 U
Silver	2	36	8.3	**11.4**	**6.3**	**8.7**	**2.9**	**10.7**	**14.4**	1.6 J	**10.2**	0.31 J	**2.3**	**7.6**	**6.4**
Sodium	NA	NA	NA	1,100 U	1,040 U	1,010 U	988 U	974 U	1,060 U	1,140 U	961 U	945 U	943 U	117 J	899 U
Thallium	NA	NA	NA	4.4 U	4.2 U	4.0 U	4.0 U	3.9 U	4.3 U	4.5 U	3.8 U	3.8 U	3.8 U	4.2 U	3.6 U
Vanadium	NA	NA	NA	16.2	16.3	12.2	16.2	17.1	14.6	17.6	9.8	17.9	12.5	15.6	12.1
Zinc	109	2,200	2,480	66.3	56.7	47.7	44.1	57.5	69.3	133	53.6	55.1	61.4	*390*	26.1
Mercury	0.18	0.81	0.73	0.14	0.15	0.11	0.16	0.12	0.063	*0.30*	0.034	0.015 J	0.045	0.073	0.055

Notes:
J : Sample result is greater than the MDL but below the CRDL
U : Indicates analyzed for but not detected.
[1] Trivalent chromium SCOs utilized.
Highlighted / bolded indicates analyte exceeded above its respective NYSDEC Unrestricted SCO.
Green / italicized value indictes analyte exceeded its repsective unrestricted SCO but was below its respective Residential / Protection of GW SCO, whichever is lower.
NA - Not Available
Indicates that sample locations were removed as part of supplemental soil excavation activities.

Table 5-27
TAL Metals Soil Analytical Data
SL-23 Original Sample Location - Post Excavation Data

TAL Metals (mg/kg)	NYSDEC SCOs					SL-23 Original Sample Location - Post Excavation Data End-Point Soil Samples Co-located Bottom and Sidewall Samples									
	Unrestricted	Residential	Restricted Residential	Commercial	Protection of Groundwater	SL-EP#278 (5')	SL-EP#279 (1')	SL-EP#280 (5')	SL-EP#281 (1')	SL-EP#282 (5')	SL-EP#283 (1')	~~SL-EP#284 (5')~~	~~SL-EP#285 (1')~~	~~SL-EP#286 (5')~~	~~SL-EP#287 (1')~~
Aluminum	NA	NA	NA	NA	NA	5,980	6,150	5,600	6,540	5,590	6,010	7,500	4,710	7,980	5,210
Antimony	NA	NA	NA	NA	NA	4.3 U	4.0 U	3.8 U	3.9 U	4.3 U	4.1 U	4.2 U	2.0 J	2.4 J	4.1 U
Arsenic	13	16	16	16	16	*14.5*	4.8	7.9	3.4	*13.2*	3.9	**19.5**	**20.6**	**28.7**	9.0
Barium	350	350	400	400	820	*382*	44.2	44.0	29.6 J	43.3	23.5 J	90.9	40.9	91.5	31.6 J
Beryllium	7.2	14	72	590	47	0.43 U	0.28 J	0.38 U	0.30 J	0.43 U	0.41 U	0.36 J	0.40 U	0.40 J	0.41 U
Cadmium	2.5	2.5	4.3	9.3	7.5	1.1	1.8	0.76 U	0.28 J	0.54 J	2.4	0.31 J	1.1	**3.2**	0.82 U
Calcium	NA	NA	NA	NA	NA	1,730	17,000	1,520	3,060	1,330	3,070	3,550	26,000	1,410	1,270
Chromium[1]	30	36	180	1,500	NS	18.1	19.5	16.7	11.2	16.6	10.1	13.4	18.1	16.1	10.3
Cobalt	NA	NA	NA	NA	NA	4.7 J	5.0 J	3.6 J	3.6 J	4.2 J	3.4 J	4.2 J	3.5 J	5.2 J	2.8 J
Copper	50	270	270	270	1,720	24.9	18.3	17.4	7.0	15.6	7.1	31.9	32.6	39.8	18.1
Iron	NA	NA	NA	NA	NA	10,200	10,400	8,500	9,880	10,600	8,220	11,200	9,860	14,000	8,520
Lead	63	400	400	1,000	450	*106*	37.4	23.7	19.0	*72.7*	17.0	*140*	*96.2*	*241*	*92.9*
Magnesium	NA	NA	NA	NA	NA	1,650	9,110	2,310	2,720	2,130	2,620	2,200	13,400	1,540	1,010 J
Manganese	1,600	2,000	2,000	10,000	2,000	234	300	187	82.4	133	66.9	250	223	558	197
Nickel	30	140	310	310	130	10	10.6	9.3	7.7 J	9.8	8.1 J	10.4	13.5	12.1	6.6 J
Potassium	NA	NA	NA	NA	NA	611 J	908 J	971	521 J	852 J	512 J	447 J	454 J	495 J	363 J
Selenium	3.9	36	180	1,500	4	4.3 U	4.0 U	3.8 U	3.9 U	4.3 U	4.1 U	4.2 U	4.0 U	4.7 U	4.1 U
Silver	2	36	180	1,500	8.3	*5.3*	*20.7*	*3.0*	*4.8*	*5.5*	*4.0*	1.6 J	**6.9**	**11.1**	**3.5**
Sodium	NA	NA	NA	NA	NA	1,070 U	997 U	950 U	987 U	1,070 U	88 J	1,050 U	1,010 U	1,180 U	1,030 U
Thallium	NA	NA	NA	NA	NA	4.3 U	4.0 U	3.8 U	3.9 U	4.3 U	4.1 U	4.2 U	4.0 U	4.7 U	4.1 U
Vanadium	NA	NA	NA	NA	NA	18.6	17.8	14.4	14.8	14.9	12.9	17.6	19.2	20.2	12.0
Zinc	109	2,200	10,000	10,000	2,480	*282*	69.8	39.5	29.9	107	63.3	*130*	95.7	*136*	69.3
Mercury	0.18	0.81	0.81	2.8	0.73	0.15	0.12	0.061	0.018 U	0.038	0.018	*0.25*	*0.44*	*0.35*	*0.37*

TAL Metals (mg/kg)	NYSDEC SCOs					SL-23 Original Sample Location - Post Excavation Data End-Point Soil Samples Co-located Bottom and Sidewall Samples									
	Unrestricted	Residential	Restricted Residential	Commercial	Protection of Groundwater	SL-EP#288 (5')	SL-EP#289 (1')	SL-EP#290 (5')	SL-EP#291 (1')	SL-EP#292 (5')	SL-EP#293 (1')	SL-EP#294 (5')	SL-EP#295 (1')	SL-EP#296 (5')	SL-EP#297 (1')
Aluminum	NA	NA	NA	NA	NA	11,600	3,940	8,380	10,100	4,010	5,380	7,080	7,560	4,740	6,160
Antimony	NA	NA	NA	NA	NA	3.1 J	4.2 U	2.9 J	2.5 J	3.6 U	4.2 U	3.8 U	4.7 U	4.3 U	4.3 U
Arsenic	13	16	16	16	16	10.1	4.5	*13.0*	9.8	1.9 J	3.3	2.7 J	2.6 J	1.4 J	1.9 J
Barium	350	350	400	400	820	91.2	29.4 J	64.6	68.8	38.3	25.4 J	27.5 J	30.8 J	24.6 J	24.7 J
Beryllium	7.2	14	72	590	47	0.51	0.42 U	0.39 J	0.46	0.28 J	0.42 U	0.27 J	0.36 J	0.43 U	0.32 J
Cadmium	2.5	2.5	4.3	9.3	7.5	0.90 U	1.2	0.91 U	0.89 U	0.72 U	0.85 U	0.77 U	0.94 U	0.86 U	0.86 U
Calcium	NA	NA	NA	NA	NA	1,780	3,540	1,860	8,170	3,280	1,000 J	1,240	2,400	513 J	1,110
Chromium[1]	30	36	180	1,500	NS	16.8	10.4	24.0	28.3	14.6	8.2	14.6	9.9	7.9	9.2
Cobalt	NA	NA	NA	NA	NA	6.0 J	2.5 J	5.0 J	4.9 J	4.2 J	2.4 J	5.5 J	2.8 J	3.9 J	2.4 J
Copper	50	270	270	270	1,720	14.6	10.7	16.3	19.7	7.8	*55.1*	7.9	6.8	4.8 J	6.5
Iron	NA	NA	NA	NA	NA	16,400	7,160	16,700	13,700	13,100	6,830	12,300	8,740	7,490	7,840
Lead	63	400	400	1,000	450	60.1	29.9	*109*	*144*	5.5	57.1	8.3	36.6	5.6	23.9
Magnesium	NA	NA	NA	NA	NA	1,890	2,940	1,710	2,380	1,610	1,110	2,340	1,310	1,050 J	984 J
Manganese	1,600	2,000	2,000	10,000	2,000	367	142	320	298	447	93.2	485	145	327	123
Nickel	30	140	310	310	130	11.9	7.0 J	12.1	17.8	10.0	5.9 J	7.8	7.5 J	6.3 J	6.2 J
Potassium	NA	NA	NA	NA	NA	644 J	713 J	564 J	609 J	778 J	269 J	692 J	296 J	481 J	211 J
Selenium	3.9	36	180	1,500	4	4.5 U	4.2 U	4.5 U	4.4 U	3.6 U	4.2 U	3.8 U	4.7 U	4.3 U	4.3 U
Silver	2	36	180	1,500	8.3	2.2 U	*4.4*	0.53 J	1.1 J	*4.5*	0.55 J	1.9 U	2.3 U	2.2 U	2.1 U
Sodium	NA	NA	NA	NA	NA	1,120 U	1,040 U	1,140 U	1,110 U	906 U	1,060 U	958 U	1,170 U	1,080 U	1,070 U
Thallium	NA	NA	NA	NA	NA	4.5 U	4.2 U	4.5 U	4.4 U	3.6 U	4.2 U	3.8 U	4.7 U	4.3 U	4.3 U
Vanadium	NA	NA	NA	NA	NA	24.5	12.1	22.8	23.9	15.6	11.2	19.2	14.0	10.8	11.4
Zinc	109	2,200	10,000	10,000	2,480	63.0	33.8	68.1	101	22.6	59.4	28.5	28.4	13.8	20.8
Mercury	0.18	0.81	0.81	2.8	0.73	*0.27*	0.099	0.13	0.061	0.017 U	*0.25*	0.018	0.029	0.018 U	0.050

Notes
J : Sample result is greater than the MDL but below the CRDL
U : Indicates analyzed for but not detected.
[1] Trivalent chromium SCOs utilized.
Highlighted / bolded indicates analyte exceeded above its respective NYSDEC Unrestricted SCO.
Green / italicized value indicates analyte exceeded its respective unrestricted SCO but was below its respective Residential / Protection of GW SCO, whichever is lower.
Blue / italicized value indicates analyte exceeded its respective Residential SCO and / or Protection of Groundwater SCO but was below its Restricted Residential SCO.
Pink / italicized value indicates analyte exceeded its respective Residential SCO and / or Protection of Groundwater SCO but was below its Commercial SCO.
Pale Yellow / italicized value indicates analyte detected at above its Unrestricted SCO and Protection of Groundwater SCO but below its Residential SCO.
NA - Not Available
NS - No Standard Available

Table 5-27
TAL Metals Soil Analytical Data
SL-23 Original Sample Location - Post Excavation Data

	NYSDEC SCOs					SL-23 Original Sample Location - Post Excavation Data													
						End-Point Soil Samples													
						Co-located Bottom and Sidewall Samples													
TAL Metals (mg/kg)	Unrestricted	Residential	Restricted Residential	Commercial	Protection of Groundwater	SL-EP#348 (5')	SL-EP#348 (1')	SL-EP#349 (5')	SL-EP#349 (1')	SL-EP#350 (5')	SL-EP#350 (1')	SL-EP#351 (5')	SL-EP#351 (1')	SL-EP#352 (5')	SL-EP#352 (1')	SL-EP#353 (7')	SL-EP#354 (7')	SL-EP#355 (7')	SL-EP#356 (7')
Aluminum	NA	NA	NA	NA	NA	1,990	4,980	4,250	4,930	3,530	2,380	2,010	3,140	1,540	4,350	1,380	1,380	1,610	1,360
Antimony	NA	NA	NA	NA	NA	3.6 U	3.6 U	3.5 U	3.3 U	4.0 U	4.2 U	3.8 U	3.7 U	3.8 U	3.9 U	4.0 U	3.6 U	4.6 U	4.0 U
Arsenic	13	16	16	16	16	0.86 J	5.6	9.4	4.4	6.2	1.6 J	2.4 J	2.7 J	0.92 J	12.2	0.84 J	0.92 J	1.5 J	5.2
Barium	350	350	400	400	820	18.1 J	25.9 J	20.6 J	22.2 J	26.3 J	12.2 J	14.1 J	17.2 J	10.7 J	23.0 J	10.7 J	9.4 J	14.0 J	10.8 J
Beryllium	7.2	14	72	590	47	0.36 U	0.36 U	0.35 U	0.26 J	0.40 U	0.42 U	0.38 U	0.37 U	0.38 U	0.39 U	0.40 U	0.36 U	0.46 U	0.40 U
Cadmium	2.5	2.5	4.3	9.3	7.5	0.73 U	*6.2*	1.8	*3.0*	0.70 J	*5.9*	0.37 J	*12.0*	0.76 U	*7.6*	0.80 U	0.73 U	0.92 U	0.81 U
Calcium	NA	NA	NA	NA	NA	324 J	5,490	4,420	47,600	6,510	234 J	15,400	963	205 J	55,600	243 J	178 J	177 J	265 J
Chromium[1]	30	36	180	1,500	NS	4.8	9.8	10.5	10.7	9.1	5.7	10.7	8.8	3.3	11.5	5.1	4.1	3.0	4.8
Cobalt	NA	NA	NA	NA	NA	2.0 J	3.1 J	2.4 J	3.2 J	3.6 J	1.5 J	1.7 J	2.1 J	1.5 J	5.9 J	1.5 J	1.7 J	2.2 J	1.2 J
Copper	50	270	270	270	1,720	3.5 J	8.6	11.4	8.9	8.3	3.5 J	4.8	7.3	2.8 J	17.1	3.9 J	1.9 J	2.6 J	3.1 J
Iron	NA	NA	NA	NA	NA	4,170	7,600	6,770	8,600	7,770	4,320	4,770	6,190	3,650	9,190	4,100	5,990	3,570	5,740
Lead	63	400	400	1,000	450	1.2 J	24.9	38.8	23.1	14.5	5.3	5.9	10.3	1.4 J	27.7	1.7 J	0.99 J	1.1 J	2.1
Magnesium	NA	NA	NA	NA	NA	603 J	3,710	3,040	27,100	4,200	603 J	9,070	1,080	271 J	32,000	471 J	445 J	352 J	379 J
Manganese	1,600	2,000	2,000	10,000	2,000	238	99.2	91.5	148	203	63.4	102	88.7	83.5	297	145	125	110	88.3
Nickel	30	140	310	310	130	4.4 J	7.2	6.4 J	7.8	8.8	3.4 J	4.1 J	5.4 J	3.0 J	10.1	3.9 J	3.6 J	3.2 J	3.3 J
Potassium	NA	NA	NA	NA	NA	270 J	550 J	356 J	559 J	473 J	342 J	290 J	434 J	175 J	537 J	318 J	223 J	171 J	176 J
Selenium	3.9	36	180	1,500	4	3.6 U	3.6 U	3.5 U	3.3 U	4.0 U	4.2 U	3.8 U	3.7 U	3.8 U	3.9 U	4.0 U	3.6 U	4.6 U	4.0 U
Silver	2	36	180	1,500	8.3	1.8 U	*5.4*	*10.5*	*5.5*	0.91 J	*6.3*	*2.4*	*13.3*	1.9 U	*23.6*	2.0 U	1.8 U	1.7 J	2.0 U
Sodium	NA	NA	NA	NA	NA	912 U	903 U	887 U	837 U	993 U	1,060 U	940 U	922 U	953 U	975 U	996 U	906 U	1,150 U	1,010 U
Thallium	NA	NA	NA	NA	NA	3.6 U	3.6 U	3.5 U	3.3 U	4.0 U	4.2 U	3.8 U	3.7 U	3.8 U	3.9 U	4.0 U	3.6 U	4.6 U	4.0 U
Vanadium	NA	NA	NA	NA	NA	4.6 J	15.5	13.7	13.2	9.2 J	6.4 J	5.1 J	9.3	3.8 J	15.8	4.5 J	3.9 J	3.8 J	3.8 J
Zinc	109	2,200	10,000	10,000	2,480	5.9	43.1	33.9	40.5	21.7	26.3	11.8	103	6.1	*269*	7.1	7.3	6.1 J	7.1
Mercury	0.18	0.81	0.81	2.8	0.73	0.016	0.080	0.11	0.067	0.061	0.015 J	0.026	0.040	0.017 U	0.095	0.017	0.017 U	0.037	0.019

Notes
J : Sample result is greater than the MDL but below the CRDL
U : Indicates analyzed for but not detected.
[1] Trivalent chromium SCOs utilized.
Highlighted / bolded indicates analyte exceeded above its respective NYSDEC Unrestricted SCO.
Green / italicized value indicates analyte exceeded its respective unrestricted SCO but was below its respective Residential / Protection of GW SCO, whichever is lower.
Blue / italicized value indicates analyte exceeded its respective Residential SCO and / or Protection of Groundwater SCO but was below its Restricted Residential SCO.
Pink / italicized value indicates analyte exceeded its respective Residential SCO and / or Protection of Groundwater SCO but was below its Commercial SCO.
Pale Yellow / italicized value indicates analyte detected at above its Unrestricted SCO and Protection of Groundwater SCO but below its Residential SCO.
NA - Not Available
NS - No Standard Available

Table 5-28
TCL SVOC Soil Analytical Data
SL-33 / 34 Original Sample Locations - Post Excavation Data

		NYSDEC SCOs				SL-33 / 34 Original Sample Locations - Post Excavation Data															
						End Pont Soil Samples															
						Side-wall Samples									Bottom Samples						
TCL SVOCs (mg/kg)	NYSDEC Unrestricted SCO	Residential	Restricted Residential	Commercial	Protection of Groundwater	SL-EP#137 (1')	SL-EP#138 (4')	SL-EP#139 (4')	SL-EP#140 (4')	SL-EP#141 (4')	SL-EP#142 (4')	SL-EP#143 (4')	SL-EP#144 (4')	SL-EP#145 (4')	SL-EP#146 (3')	SL-EP#147 (3')	SL-EP#148 (3')	SL-EP#149 (3')	SL-EP#150 (3')	SL-EP#151 (3')	SL-EP#152 (3')	SL-EP#153 (3')
1,2,4,5-Tetrachlorobenzene	NA	NA	NA	NA	NA	0.37 U	20 U	1.9 U	3.7 U	0.38 U	0.37 U	0.75 U	0.73 U	0.77 U	1.9 U	0.38 U	0.38 U	0.38 U	0.35 U	0.37 U	0.42 U	0.37 U
1,4-Dioxane	0.1	9.8	13	130	0.1	0.37 U	20 U	1.9 U	3.7 U	0.38 U	0.37 U	0.75 U	0.73 U	0.77 U	1.9 U	0.38 U	0.38 U	0.38 U	0.35 U	0.37 U	0.42 U	0.37 U
2,2'-oxybis[1-chloropropane]	NA	NA	NA	NA	NA	0.37 U	20 U	1.9 U	3.7 U	0.38 U	0.37 U	0.75 U	0.73 U	0.77 U	1.9 U	0.38 U	0.38 U	0.38 U	0.35 U	0.37 U	0.42 U	0.37 U
2,3,4,6-Tetrachlorophenol	NA	NA	NA	NA	NA	0.37 U	20 U	1.9 U	3.7 U	0.38 U	0.37 U	0.75 U	0.73 U	0.77 U	1.9 U	0.38 U	0.38 U	0.38 U	0.35 U	0.37 U	0.42 U	0.37 U
2,4,5-Trichlorophenol	NA	NA	NA	NA	NA	0.37 U	20 U	1.9 U	3.7 U	0.38 U	0.37 U	0.75 U	0.73 U	0.77 U	1.9 U	0.38 U	0.38 U	0.38 U	0.35 U	0.37 U	0.42 U	0.37 U
2,4,6-Trichlorophenol	NA	NA	NA	NA	NA	0.37 U	20 U	1.9 U	3.7 U	0.38 U	0.37 U	0.75 U	0.73 U	0.77 U	1.9 U	0.38 U	0.38 U	0.38 U	0.35 U	0.37 U	0.42 U	0.37 U
2,4-Dichlorophenol	NA	NA	NA	NA	NA	0.37 U	20 U	1.9 U	3.7 U	0.38 U	0.37 U	0.75 U	0.73 U	0.77 U	1.9 U	0.38 U	0.38 U	0.38 U	0.35 U	0.37 U	0.42 U	0.37 U
2,4-Dimethylphenol	NA	NA	NA	NA	NA	0.37 U	20 U	1.9 U	3.7 U	0.38 U	0.37 U	0.75 U	0.73 U	0.77 U	1.9 U	0.38 U	0.38 U	0.38 U	0.35 U	0.37 U	0.42 U	0.37 U
2,4-Dinitrophenol	NA	NA	NA	NA	NA	1.1 U	61 U	5.8 U	11 U	1.1 U	1.1 U	2.3 U	2.2 U	2.3 U	5.8 U	1.2 U	1.1 U	1.1 U	1.1 U	1.1 U	1.3 U	1.1 U
2,4-Dinitrotoluene	NA	NA	NA	NA	NA	0.074 U	4.1 U	0.39 U	0.76 U	0.077 U	0.074 U	0.15 U	0.15 U	0.16 U	0.39 U	0.078 U	0.077 U	0.076 U	0.072 U	0.075 U	0.085 U	0.075 U
2,6-Dinitrotoluene	NA	NA	NA	NA	NA	0.074 U	4.1 U	0.39 U	0.76 U	0.077 U	0.074 U	0.15 U	0.15 U	0.16 U	0.39 U	0.078 U	0.077 U	0.076 U	0.072 U	0.075 U	0.085 U	0.075 U
2-Chloronaphthalene	NA	NA	NA	NA	NA	0.37 U	20 U	1.9 U	3.7 U	0.38 U	0.37 U	0.75 U	0.73 U	0.77 U	1.9 U	0.38 U	0.38 U	0.38 U	0.35 U	0.37 U	0.42 U	0.37 U
2-Chlorophenol	NA	NA	NA	NA	NA	0.37 U	20 U	1.9 U	3.7 U	0.38 U	0.37 U	0.75 U	0.73 U	0.77 U	1.9 U	0.38 U	0.38 U	0.38 U	0.35 U	0.37 U	0.42 U	0.37 U
2-Methylnaphthalene	NA	NA	NA	NA	NA	0.091 J	8.8 J	0.61 J	1.1 J	0.056 J	0.37 U	0.39 J	1.6	0.77 U	0.29 J	0.38 U	0.38 U	0.38 U	0.18 J	0.35 U	0.42 U	0.37 U
2-Methylphenol	0.33	100	100	500	0.33	0.37 U	20 U	1.9 U	3.7 U	0.38 U	0.37 U	0.75 U	0.73 U	0.77 U	1.9 U	0.38 U	0.38 U	0.38 U	0.35 U	0.37 U	0.42 U	0.37 U
2-Nitroaniline	NA	NA	NA	NA	NA	0.74 U	41 U	3.9 U	7.6 U	0.77 U	0.74 U	1.5 U	1.5 U	1.6 U	3.9 U	0.78 U	0.77 U	0.76 U	0.72 U	0.75 U	0.85 U	0.75 U
2-Nitrophenol	NA	NA	NA	NA	NA	0.37 U	20 U	1.9 U	3.7 U	0.38 U	0.37 U	0.75 U	0.73 U	0.77 U	1.9 U	0.38 U	0.38 U	0.38 U	0.35 U	0.37 U	0.42 U	0.37 U
3,3'-Dichlorobenzidine	NA	NA	NA	NA	NA	0.74 U	41 U	3.9 U	7.6 U	0.77 U	0.74 U	1.5 U	1.5 U	1.6 U	3.9 U	0.78 U	0.77 U	0.76 U	0.72 U	0.75 U	0.85 U	0.75 U
3-Nitroaniline	NA	NA	NA	NA	NA	0.74 U	41 U	3.9 U	7.6 U	0.77 U	0.74 U	1.5 U	1.5 U	1.6 U	3.9 U	0.78 U	0.77 U	0.76 U	0.72 U	0.75 U	0.85 U	0.75 U
4,6-Dinitro-2-methylphenol	NA	NA	NA	NA	NA	1.1 U	61 U	5.8 U	11 U	1.1 U	1.1 U	2.3 U	2.2 U	2.3 U	5.8 U	1.2 U	1.1 U	1.1 U	1.1 U	1.1 U	1.3 U	1.1 U
4-Bromophenyl phenyl ether	NA	NA	NA	NA	NA	0.37 U	20 U	1.9 U	3.7 U	0.38 U	0.37 U	0.75 U	0.73 U	0.77 U	1.9 U	0.38 U	0.38 U	0.38 U	0.35 U	0.37 U	0.42 U	0.37 U
4-Chloro-3-methylphenol	NA	NA	NA	NA	NA	0.37 U	20 U	1.9 U	3.7 U	0.38 U	0.37 U	0.75 U	0.73 U	0.77 U	1.9 U	0.38 U	0.38 U	0.38 U	0.35 U	0.37 U	0.42 U	0.37 U
4-Chloroaniline	NA	NA	NA	NA	NA	0.37 U	20 U	1.9 U	3.7 U	0.38 U	0.37 U	0.75 U	0.73 U	0.77 U	1.9 U	0.38 U	0.38 U	0.38 U	0.35 U	0.37 U	0.42 U	0.37 U
4-Chlorophenyl phenyl ether	NA	NA	NA	NA	NA	0.37 U	20 U	1.9 U	3.7 U	0.38 U	0.37 U	0.75 U	0.73 U	0.77 U	1.9 U	0.38 U	0.38 U	0.38 U	0.35 U	0.37 U	0.42 U	0.37 U
4-Methylphenol	0.33	34	100	500	0.33	0.37 U	20 U	1.9 U	3.7 U	0.38 U	0.37 U	0.75 U	0.73 U	0.77 U	1.9 U	0.38 U	0.38 U	0.38 U	0.35 U	0.37 U	0.42 U	0.37 U
4-Nitroaniline	NA	NA	NA	NA	NA	0.74 U	41 U	3.9 U	7.6 U	0.77 U	0.74 U	1.5 U	1.5 U	1.6 U	3.9 U	0.78 U	0.77 U	0.76 U	0.72 U	0.75 U	0.85 U	0.75 U
4-Nitrophenol	NA	NA	NA	NA	NA	1.1 U	61 U	5.8 U	11 U	1.1 U	1.1 U	2.3 U	2.2 U	2.3 U	5.8 U	1.2 U	1.1 U	1.1 U	1.1 U	1.1 U	1.3 U	1.1 U
Acenaphthene	20	100	100	500	98	0.085 J	**46**	2.6	6.1	0.38 U	0.13 J	0.55 J	1.4	0.11 J	3.6	0.38 U	0.38 U	0.82	0.35 U	0.17 J	0.42 U	0.091 J
Acenaphthylene	100	100	100	500	107	0.37 U	20 U	0.43 J	3.7 U	0.38 U	0.37 U	0.38 J	0.66 J	0.55 J	1.9 U	0.38 U	0.38 U	0.067 J	0.35 U	0.28 J	0.42 U	0.37 U
Acetophenone	NA	NA	NA	NA	NA	0.37 U	20 U	1.9 U	3.7 U	0.38 U	0.37 U	0.75 U	0.73 U	0.77 U	1.9 U	0.38 U	0.38 U	0.38 U	0.35 U	0.37 U	0.42 U	0.37 U
Anthracene	100	100	100	500	1,000	0.18 J	77	5.1	12	0.093 J	0.30 J	1.1	2.5	1.7	7.8	0.38 U	0.38 U	1.4	0.35 U	0.80	0.42 U	0.22 J
Atrazine	NA	NA	NA	NA	NA	0.37 U	20 U	1.9 U	3.7 U	0.38 U	0.37 U	0.75 U	0.73 U	0.77 U	1.9 U	0.38 U	0.38 U	0.38 U	0.35 U	0.37 U	0.42 U	0.37 U
Benzaldehyde	NA	NA	NA	NA	NA	0.37 U	20 U	1.9 U	3.7 U	0.38 U	0.37 U	0.75 U	0.73 U	0.77 U	1.9 U	0.38 U	0.38 U	0.38 U	0.35 U	0.37 U	0.42 U	0.37 U
Benzo[a]anthracene	1	1	1	5.6	1	0.71	**120**	**10**	**23**	0.32	**1.1**	**3.9**	**5.1**	**5.7**	**10**	0.038 U	0.038 U	**3.5**	0.035 U	**4.1**	0.32	0.72
Benzo[a]pyrene	1	1	1	1	22	0.78	**110**	**12**	**24**	0.42	**1.2**	**4.4**	**5.1**	**5.9**	**10**	0.038 U	0.0064 J	**4.1**	0.035 U	**5.2**	0.76	0.81
Benzo[b]fluoranthene	1	1	1	5.6	1.7	*1.0*	**130**	**13**	**27**	0.54	**1.5**	**4.4**	**5.0**	**6.5**	**11**	0.038 U	0.012 J	**4.3**	0.035 U	**5.3**	0.71	0.85
Benzo[g,h,i]perylene	100	100	100	500	1,000	0.51	73	8.2	17	0.23 J	0.78	3.0	3.1	3.6	5.0	0.38 U	0.38 U	3.0	0.35 U	4.2	0.56	0.46
Benzo[k]fluoranthene	0.8	1	3.9	56	1.7	0.35	**54**	**4.3**	**11**	0.20	0.50	**1.6**	**1.9**	**2.2**	**4.0**	0.038 U	0.038 U	**2.0**	0.035 U	**1.6**	0.24	0.29
Bis(2-chloroethoxy)methane	NA	NA	NA	NA	NA	0.37 U	20 U	1.9 U	3.7 U	0.38 U	0.37 U	0.75 U	0.73 U	0.77 U	1.9 U	0.38 U	0.38 U	0.38 U	0.35 U	0.37 U	0.42 U	0.37 U
Bis(2-chloroethyl)ether	NA	NA	NA	NA	NA	0.037 U	2.0 U	0.19 U	0.37 U	0.038 U	0.037 U	0.075 U	0.073 U	0.077 U	0.19 U	0.038 U	0.038 U	0.038 U	0.035 U	0.037 U	0.042 U	0.037 U
Bis(2-ethylhexyl) phthalate	NA	NA	NA	NA	NA	0.19 J	20 U	1.9 U	3.7 U	0.38 U	0.37 U	0.45 J	0.73 U	0.77 U	1.9 U	0.35 J	0.24 J	0.38 U	0.35 U	0.16 J	0.21 J	0.37 U
Butyl benzyl phthalate	NA	NA	NA	NA	NA	0.37 U	20 U	1.9 U	3.7 U	0.38 U	0.37 U	0.75 U	0.73 U	0.77 U	1.9 U	0.38 U	0.38 U	0.38 U	0.35 U	0.37 U	0.42 U	0.37 U
Caprolactam	NA	NA	NA	NA	NA	0.37 U	20 U	1.9 U	3.7 U	0.38 U	0.37 U	0.75 U	0.73 U	0.77 U	1.9 U	0.38 U	0.38 U	0.38 U	0.35 U	0.37 U	0.42 U	0.37 U
Carbazole	NA	NA	NA	NA	NA	0.37 U	33	1.4 J	4.5	0.38 U	0.11 J	0.20 J	0.34 J	0.28 J	0.70 J	0.38 U	0.38 U	0.69	0.35 U	0.19 J	0.42 U	0.37 U
Chrysene	1	1	3.9	56	1	0.76	**110**	**9.9**	**22**	0.34 J	**1.1**	**4.2**	**5.7**	**6.1**	**11**	0.38 U	0.38 U	**3.6**	0.35 U	**4.9**	0.37 J	0.72
Dibenz(a,h)anthracene	0.33	0.33	0.33	0.56	1,000	0.11	**15**	**1.9**	**4.4**	0.066	0.16	**0.70**	**0.72**	**0.84**	**0.67**	0.038 U	0.038 U	**0.72**	0.035 U	**1.0**	0.099	0.090
Dibenzofuran	7	14	59	350	210	0.050 J	**22**	1.1 J	2.7 J	0.38 U	0.058 J	0.21 J	0.68 J	0.092 J	0.47 J	0.38 U	0.38 U	0.35 J	0.35 U	0.090 J	0.42 U	0.37 U
Diethyl phthalate	NA	NA	NA	NA	NA	0.16 J B	25 J B	0.92 J B	4.0 J B	0.32 J B	0.37 J B	0.75 J B	0.73 J B	0.77 J B	1.9 U	0.38 U	0.38 U	0.38 U	0.35 U	0.37 U	0.26 J B	0.31 J B
Dimethyl phthalate	NA	NA	NA	NA	NA	0.37 U	20 U	1.9 U	3.7 U	0.38 U	0.37 U	0.75 U	0.73 U	0.77 U	1.9 U	0.38 U	0.38 U	0.38 U	0.35 U	0.37 U	0.42 U	0.37 U
Di-n-butyl phthalate	NA	NA	NA	NA	NA	0.059 J	20 U	1.9 U	3.7 U	0.38 U	0.37 U	0.75 U	0.73 U	0.77 U	1.9 U	0.38 U	0.38 U	0.38 U	0.35 U	0.070 J	0.24 J	0.37 U
Di-n-octyl phthalate	NA	NA	NA	NA	NA	0.37 U	20 U	1.9 U	3.7 U	0.38 U	0.37 U	0.75 U	0.73 U	0.77 U	1.9 U	0.38 U	0.38 U	0.38 U	0.35 U	0.37 U	0.42 U	0.37 U
Diphenyl	NA	NA	NA	NA	NA	0.37 U	20 U	1.9 U	3.7 U	0.38 U	0.37 U	0.75 U	0.51 J	0.77 U	1.9 U	0.38 U	0.38 U	0.38 U	0.35 U	0.37 U	0.42 U	0.37 U
Fluoranthene	100	100	100	500	1,000	1.7	**300**	23	53	0.69	2.1	5.9	9.5	11	25	0.38 U	0.38 U	7.7	0.35 U	6.8	0.34 J	1.5
Fluorene	30	100	100	500	386	0.092 J	**36**	2.1	4.6	0.048 J	0.11 J	0.93	3.1	0.34 J	2.6	0.38 U	0.38 U	0.53	0.35 U	0.22 J	0.42 U	0.060 J
Hexachlorobenzene	0.33	0.33	1.2	6	3.2	0.037 U	2.0 U	0.19 U	0.37 U	0.038 U	0.037 U	0.075 U	0.073 U	0.077 U	0.19 U	0.038 U	0.038 U	0.038 U	0.035 U	0.037 U	0.042 U	0.037 U
Hexachlorobutadiene	NA	NA	NA	NA	NA	0.074 U	4.1 U	0.39 U	0.76 U	0.077 U	0.074 U	0.15 U	0.15 U	0.16 U	0.39 U	0.078 U	0.077 U	0.076 U	0.072 U	0.075 U	0.085 U	0.075 U
Hexachlorocyclopentadiene	NA	NA	NA	NA	NA	0.37 U	20 U	1.9 U	3.7 U	0.38 U	0.37 U	0.75 U	0.73 U	0.77 U	1.9 U	0.38 U	0.38 U	0.38 U	0.35 U	0.37 U	0.42 U	0.37 U
Hexachloroethane	NA	NA	NA	NA	NA	0.037 U	2.0 U	0.19 U	0.37 U	0.038 U	0.037 U	0.075 U	0.073 U	0.077 U	0.19 U	0.038 U	0.038 U	0.038 U	0.035 U	0.037 U	0.042 U	0.037 U
Indeno[1,2,3-cd]pyrene	0.5	0.5	0.5	5.6	8.2	*0.53*	**78**	**8.3**	**18**	0.25	**0.75**	**2.8**	**2.9**	**3.6**	**4.6**	0.038 U	0.038 U	**3.1**	0.035 U	**4.1**	*0.51*	0.42
Isophorone	NA	NA	NA	NA	NA	0.37 U	20 U	1.9 U	3.7 U	0.38 U	0.37 U	0.75 U	0.73 U	0.77 U	1.9 U	0.38 U	0.38 U	0.38 U	0.35 U	0.37 U	0.42 U	0.37 U
Naphthalene	12	100	100	500	12	0.057 J	**27**	0.87 J	2.4 J	0.38 U	0.053 J	0.31 J	1.3	0.090 J	1.9 U	0.38 U	0.38 U	0.56	0.35 U	0.19 J	0.42 U	0.37 U
Nitrobenzene	NA	NA	NA	NA	NA	0.037 U	2.0 U	0.19 U	0.37 U	0.038 U	0.037 U	0.075 U	0.073 U	0.077 U	0.19 U	0.038 U	0.038 U	0.038 U	0.035 U	0.037 U	0.042 U	0.037 U
N-Nitrosodi-n-propylamine	NA	NA	NA	NA	NA	0.037 U	2.0 U	0.19 U	0.37 U	0.038 U	0.037 U	0.075 U	0.073 U	0.077 U	0.19 U	0.038 U	0.038 U	0.038 U	0.035 U	0.037 U	0.042 U	0.037 U
N-Nitrosodiphenylamine	NA	NA	NA	NA	NA	0.37 U	20 U	1.9 U	3.7 U	0.38 U	0.37 U	0.75 U	0.73 U	0.77 U	1.9 U	0.38 U	0.38 U	0.38 U	0.35 U	0.37 U	0.42 U	0.37 U
Pentachlorophenol	0.8	2.4	6.7	6.7	0.8	1.1 U	61 U	5.8 U	11 U	1.1 U	1.1 U	2.3 U	2.2 U	2.3 U	5.8 U	1.2 U	1.1 U	1.1 U	1.1 U	1.1 U	1.3 U	1.1 U
Phenanthrene	100	100	100	500	1,000	1.2	**270**	17	47	0.44	1.5	4.8	13	8.5	36	0.38 U	0.38 U	5.9	0.35 U	3.3	0.12 J	0.98
Phenol	0.33	100	100	500	0.33	0.37 U	20 U	1.9 U	3.7 U	0.38 U	0.37 U	0.75 U	0.73 U	0.77 U	1.9 U	0.38 U	0.38 U	0.38 U	0.35 U	0.37 U	0.42 U	0.37 U
Pyrene	100	100	100	500	1,000	1.5	**220**	19	45	0.59	2.4	7.5	12	12	29	0.38 U	0.38 U	5.7	0.35 U	6.0	0.51	1.7
Pyridine	NA	NA	NA	NA	NA	0.37 U	20 U	1.9 U	3.7 U	0.38 U	0.37 U	0.75 U	0.73 U	0.77 U	1.9 U	0.38 U	0.38 U	0.38 U	0.35 U	0.37 U	0.42 U	0.37 U
SVOC TICs																						
Total SVOC TICs:	NA					0.96	530	77.6	159	ND	3.76	57.86	105	65.24	13.4	ND	ND	8.68	ND	36.92	2.08	0.79

Notes
NR: Not Analyzed
ND: TIC not detected
* : Surrogate exceeds the control limit
D : The reported value is from a dilution.
D * : The reported value is from a dilution.
J : Indicates an estimated value.
J B : The analyte was found in an associated blank, as well as in the sample.
U : Analyzed for but not detected.
Highlighted / bolded indicates analyte exceeded above its respective NYSDEC Unrestricted SCO.
Pink / italicized value indicates analyte exceeded its respective Residential SCO and / or Protection of Groundwater SCO but was below its Commercial SCO.

Table 5-28
TCL SVOC Soil Analytical Data
SL-33 / 34 Original Sample Locations - Post Excavation Data

TCL SVOCs (mg/kg)	NYSDEC Unrestricted SCO	SL-33 / 34 Original Sample Locations - Post Excavation Data																			
		Supplemental End Point Soil Samples																			
		Side-wall Samples												Bottom Samples							
		SL-EP#241 (4')	SL-EP#242 (4')	SL-EP#243 (4')	SL-EP#244 (4')	SL-EP#245 (4')	SL-EP#246 (4')	SL-EP#251 (4')	SL-EP#252 (4')	SL-EP#253 (4')	SL-EP#254 (4')	SL-EP#255 (4')	SL-EP#256 (4')	SL-EP#237 (5')	SL-EP#238 (5')	SL-EP#239 (5')	SL-EP#240 (5')	SL-EP#247 (5')	SL-EP#248 (5')	SL-EP#249 (5')	SL-EP#250 (5')
1,2,4,5-Tetrachlorobenzene	NA	0.36 U	0.77 U	0.39 U	0.35 U	0.39 U	0.39 U	0.38 U	0.39 U	0.36 U	0.36 U	0.37 U	0.41 U	0.36 U	0.42 U	0.36 U	0.38 U	0.38 U	0.38 U	0.38 U	0.41 U
1,4-Dioxane	0.1	0.36 U	0.77 U	0.39 U	0.35 U	0.39 U	0.39 U	0.38 U	0.39 U	0.36 U	0.36 U	0.37 U	0.41 U	0.36 U	0.42 U	0.36 U	0.38 U	0.38 U	0.38 U	0.38 U	0.41 U
2,2'-oxybis[1-chloropropane]	NA	0.36 U	0.77 U	0.39 U	0.35 U	0.39 U	0.39 U	0.38 U	0.39 U	0.36 U	0.36 U	0.37 U	0.41 U	0.36 U	0.42 U	0.36 U	0.38 U	0.38 U	0.38 U	0.38 U	0.41 U
2,3,4,6-Tetrachlorophenol	NA	0.36 U	0.77 U	0.39 U	0.35 U	0.39 U	0.39 U	0.38 U	0.39 U	0.36 U	0.36 U	0.37 U	0.41 U	0.36 U	0.42 U	0.36 U	0.38 U	0.38 U	0.38 U	0.38 U	0.41 U
2,4,5-Trichlorophenol	NA	0.36 U	0.77 U	0.39 U	0.35 U	0.39 U	0.39 U	0.38 U	0.39 U	0.36 U	0.36 U	0.37 U	0.41 U	0.36 U	0.42 U	0.36 U	0.38 U	0.38 U	0.38 U	0.38 U	0.41 U
2,4,6-Trichlorophenol	NA	0.36 U	0.77 U	0.39 U	0.35 U	0.39 U	0.39 U	0.38 U	0.39 U	0.36 U	0.36 U	0.37 U	0.41 U	0.36 U	0.42 U	0.36 U	0.38 U	0.38 U	0.38 U	0.38 U	0.41 U
2,4-Dichlorophenol	NA	0.36 U	0.77 U	0.39 U	0.35 U	0.39 U	0.39 U	0.38 U	0.39 U	0.36 U	0.36 U	0.37 U	0.41 U	0.36 U	0.42 U	0.36 U	0.38 U	0.38 U	0.38 U	0.38 U	0.41 U
2,4-Dimethylphenol	NA	0.36 U	0.77 U	0.39 U	0.35 U	0.39 U	0.39 U	0.38 U	0.39 U	0.36 U	0.36 U	0.37 U	0.41 U	0.36 U	0.42 U	0.36 U	0.38 U	0.38 U	0.38 U	0.38 U	0.41 U
2,4-Dinitrophenol	NA	1.1 U	2.3 U	1.2 U	1.0 U	1.2 U	1.2 U	1.1 U	1.2 U	1.1 U	1.1 U	1.1 U	1.2 U	1.1 U	1.3 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.3 U
2,4-Dinitrotoluene	NA	0.073 U	0.16 U	0.079 U	0.070 U	0.079 U	0.079 U	0.076 U	0.079 U	0.074 U	0.073 U	0.075 U	0.083 U	0.072 U	0.085 U	0.073 U	0.076 U	0.077 U	0.077 U	0.077 U	0.084 U
2,6-Dinitrotoluene	NA	0.073 U	0.16 U	0.079 U	0.070 U	0.079 U	0.079 U	0.076 U	0.079 U	0.074 U	0.073 U	0.075 U	0.083 U	0.072 U	0.085 U	0.073 U	0.076 U	0.077 U	0.077 U	0.077 U	0.084 U
2-Chloronaphthalene	NA	0.36 U	0.77 U	0.39 U	0.35 U	0.39 U	0.39 U	0.38 U	0.39 U	0.36 U	0.36 U	0.37 U	0.41 U	0.36 U	0.42 U	0.36 U	0.38 U	0.38 U	0.38 U	0.38 U	0.41 U
2-Chlorophenol	NA	0.36 U	0.77 U	0.39 U	0.35 U	0.39 U	0.39 U	0.38 U	0.39 U	0.36 U	0.36 U	0.37 U	0.41 U	0.36 U	0.42 U	0.36 U	0.38 U	0.38 U	0.38 U	0.38 U	0.41 U
2-Methylnaphthalene	NA	0.36 U	0.45 J	0.085 J	0.35 U	0.39 U	0.068 J	0.38 U	0.39 U	0.11 J	0.32 J	0.37 U	0.41 U	0.36 U	0.42 U	0.36 U	0.38 U	0.38 U	0.38 U	0.38 U	0.41 U
2-Methylphenol	0.33	0.36 U	0.77 U	0.39 U	0.35 U	0.39 U	0.39 U	0.38 U	0.39 U	0.36 U	0.36 U	0.37 U	0.41 U	0.36 U	0.42 U	0.36 U	0.38 U	0.38 U	0.38 U	0.38 U	0.41 U
2-Nitroaniline	NA	0.73 U	1.6 U	0.79 U	0.70 U	0.79 U	0.79 U	0.76 U	0.79 U	0.74 U	0.73 U	0.75 U	0.83 U	0.72 U	0.85 U	0.73 U	0.76 U	0.77 U	0.77 U	0.77 U	0.84 U
2-Nitrophenol	NA	0.36 U	0.77 U	0.39 U	0.35 U	0.39 U	0.39 U	0.38 U	0.39 U	0.36 U	0.36 U	0.37 U	0.41 U	0.36 U	0.42 U	0.36 U	0.38 U	0.38 U	0.38 U	0.38 U	0.41 U
3,3'-Dichlorobenzidine	NA	0.73 U	1.6 U	0.79 U	0.70 U	0.79 U	0.79 U	0.76 U	0.79 U	0.74 U	0.73 U	0.75 U	0.83 U	0.72 U	0.85 U	0.73 U	0.76 U	0.77 U	0.77 U	0.77 U	0.84 U
3-Nitroaniline	NA	0.73 U	1.6 U	0.79 U	0.70 U	0.79 U	0.79 U	0.76 U	0.79 U	0.74 U	0.73 U	0.75 U	0.83 U	0.72 U	0.85 U	0.73 U	0.76 U	0.77 U	0.77 U	0.77 U	0.84 U
4,6-Dinitro-2-methylphenol	NA	1.1 U	2.3 U	1.2 U	1.0 U	1.2 U	1.2 U	1.1 U	1.2 U	1.1 U	1.1 U	1.1 U	1.2 U	1.1 U	1.3 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.3 U
4-Bromophenyl phenyl ether	NA	0.36 U	0.77 U	0.39 U	0.35 U	0.39 U	0.39 U	0.38 U	0.39 U	0.36 U	0.36 U	0.37 U	0.41 U	0.36 U	0.42 U	0.36 U	0.38 U	0.38 U	0.38 U	0.38 U	0.41 U
4-Chloro-3-methylphenol	NA	0.36 U	0.77 U	0.39 U	0.35 U	0.39 U	0.39 U	0.38 U	0.39 U	0.36 U	0.36 U	0.37 U	0.41 U	0.36 U	0.42 U	0.36 U	0.38 U	0.38 U	0.38 U	0.38 U	0.41 U
4-Chloroaniline	NA	0.36 U	0.77 U	0.39 U	0.35 U	0.39 U	0.39 U	0.38 U	0.39 U	0.36 U	0.36 U	0.37 U	0.41 U	0.36 U	0.42 U	0.36 U	0.38 U	0.38 U	0.38 U	0.38 U	0.41 U
4-Chlorophenyl phenyl ether	NA	0.36 U	0.77 U	0.39 U	0.35 U	0.39 U	0.39 U	0.38 U	0.39 U	0.36 U	0.36 U	0.37 U	0.41 U	0.36 U	0.42 U	0.36 U	0.38 U	0.38 U	0.38 U	0.38 U	0.41 U
4-Methylphenol	0.33	0.36 U	0.77 U	0.39 U	0.35 U	0.39 U	0.39 U	0.38 U	0.39 U	0.36 U	0.36 U	0.37 U	0.41 U	0.36 U	0.42 U	0.36 U	0.38 U	0.38 U	0.38 U	0.38 U	0.41 U
4-Nitroaniline	NA	0.73 U	1.6 U	0.79 U	0.70 U	0.79 U	0.79 U	0.76 U	0.79 U	0.74 U	0.73 U	0.75 U	0.83 U	0.72 U	0.85 U	0.73 U	0.76 U	0.77 U	0.77 U	0.77 U	0.84 U
4-Nitrophenol	NA	1.1 U	2.3 U	1.2 U	1.0 U	1.2 U	1.2 U	1.1 U	1.2 U	1.1 U	1.1 U	1.1 U	1.2 U	1.1 U	1.3 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.3 U
Acenaphthene	20	0.079 J	0.34 J	0.078 J	0.35 U	0.39 U	0.14 J	0.38 U	0.39 U	0.079 J	0.51	0.37 U	0.41 U	0.36 U	0.42 U	0.36 U	0.38 U	0.38 U	0.38 U	0.38 U	0.41 U
Acenaphthylene	100	0.070 J	0.37 J	0.39 U	0.35 U	0.099 J	0.054 J	0.38 U	0.39 U	0.051 J	0.57	0.37 U	0.068 J	0.36 U	0.42 U	0.36 U	0.38 U	0.38 U	0.38 U	0.38 U	0.41 U
Acetophenone	NA	0.36 U	0.77 U	0.39 U	0.35 U	0.39 U	0.39 U	0.38 U	0.39 U	0.36 U	0.36 U	0.37 U	0.41 U	0.36 U	0.42 U	0.36 U	0.38 U	0.38 U	0.38 U	0.38 U	0.41 U
Anthracene	100	0.35 J	1.3	0.24 J	0.072 J	0.40	0.42	0.38 U	0.39 U	0.19 J	1.9	0.12 J	0.14 J	0.36 U	0.42 U	0.36 U	0.38 U	0.38 U	0.38 U	0.38 U	0.41 U
Atrazine	NA	0.36 U	0.77 U	0.39 U	0.35 U	0.39 U	0.39 U	0.38 U	0.39 U	0.36 U	0.36 U	0.37 U	0.41 U	0.36 U	0.42 U	0.36 U	0.38 U	0.38 U	0.38 U	0.38 U	0.41 U
Benzaldehyde	NA	0.36 U	0.77 U	0.39 U	0.35 U	0.39 U	0.39 U	0.38 U	0.39 U	0.36 U	0.36 U	0.37 U	0.41 U	0.36 U	0.42 U	0.36 U	0.38 U	0.38 U	0.38 U	0.38 U	0.41 U
Benzo[a]anthracene	1	2.0	4.7	0.82	0.20	1.3	1.6	0.038 U	0.068	0.38	4.1	0.35	0.56	0.036 U	0.042 U	0.036 U	0.038 U	0.038 U	0.038 U	0.038 U	0.10
Benzo[a]pyrene	1	2.7	5.8	0.80	0.18	0.98	1.6	0.038 U	0.065	0.31	3.5	0.34	0.61	0.036 U	0.042 U	0.036 U	0.038 U	0.038 U	0.038 U	0.038 U	0.093
Benzo[b]fluoranthene	1	2.9	6.1	1.0	0.21	0.96	1.5	0.038 U	0.081	0.33	3.4	0.39	0.53	0.036 U	0.042 U	0.036 U	0.038 U	0.038 U	0.038 U	0.038 U	0.10
Benzo[g,h,i]perylene	100	1.9	5.3	0.59	0.12 J	0.62	1.0	0.38 U	0.042 J	0.18 J	1.3	0.22 J	0.43	0.36 U	0.42 U	0.36 U	0.38 U	0.38 U	0.38 U	0.38 U	0.046 J
Benzo[k]fluoranthene	0.8	1.5	1.9	0.41	0.089	0.57	0.82	0.038 U	0.030 J	0.11	1.8	0.14	0.29	0.036 U	0.042 U	0.036 U	0.038 U	0.038 U	0.038 U	0.038 U	0.056
Bis(2-chloroethoxy)methane	NA	0.36 U	0.77 U	0.39 U	0.35 U	0.39 U	0.39 U	0.38 U	0.39 U	0.36 U	0.36 U	0.37 U	0.41 U	0.36 U	0.42 U	0.36 U	0.38 U	0.38 U	0.38 U	0.38 U	0.41 U
Bis(2-chloroethyl)ether	NA	0.036 U	0.077 U	0.039 U	0.035 U	0.039 U	0.039 U	0.038 U	0.039 U	0.036 U	0.036 U	0.037 U	0.041 U	0.036 U	0.042 U	0.036 U	0.038 U	0.038 U	0.038 U	0.038 U	0.041 U
Bis(2-ethylhexyl) phthalate	NA	0.36 U	0.77 U	0.39 U	0.35 U	0.39 U	0.39 U	0.38 U	0.39 U	0.36 U	0.36 U	0.37 U	0.41 U	0.36 U	0.42 U	0.36 U	0.38 U	0.38 U	0.38 U	0.38 U	0.41 U
Butyl benzyl phthalate	NA	0.36 U	0.77 U	0.39 U	0.35 U	0.39 U	0.39 U	0.38 U	0.39 U	0.36 U	0.36 U	0.37 U	0.41 U	0.36 U	0.42 U	0.36 U	0.38 U	0.38 U	0.38 U	0.38 U	0.41 U
Caprolactam	NA	0.36 U	0.77 U	0.39 U	0.35 U	0.39 U	0.39 U	0.38 U	0.39 U	0.36 U	0.36 U	0.37 U	0.41 U	0.36 U	0.42 U	0.36 U	0.38 U	0.38 U	0.38 U	0.38 U	0.41 U
Carbazole	NA	0.12 J	0.34 J	0.11 J	0.35 U	0.051 J	0.11 J	0.38 U	0.39 U	0.36 U	0.25 J	0.37 U	0.41 U	0.36 U	0.42 U	0.36 U	0.38 U	0.38 U	0.38 U	0.38 U	0.41 U
Chrysene	1	2.8	5.6	0.88	0.22 J	1.4	1.8	0.38 U	0.074 J	0.44	5.3	0.41	0.79	0.36 U	0.42 U	0.36 U	0.38 U	0.38 U	0.38 U	0.38 U	0.12 J
Dibenz(a,h)anthracene	0.33	0.50	1.0	0.18	0.030 J	0.21	0.32	0.038 U	0.039 U	0.066	0.47	0.058	0.14	0.036 U	0.042 U	0.036 U	0.038 U	0.038 U	0.038 U	0.038 U	0.041 U
Dibenzofuran	7	0.36 U	0.16 J	0.39 U	0.35 U	0.39 U	0.060 J	0.38 U	0.39 U	0.057 J	0.34 J	0.37 U	0.41 U	0.36 U	0.42 U	0.36 U	0.38 U	0.38 U	0.38 U	0.38 U	0.41 U
Diethyl phthalate	NA	0.36 U	0.77 U	0.39 U	0.35 U	0.39 U	0.39 U	0.38 U	0.39 U	0.36 U	0.36 U	0.37 U	0.41 U	0.36 U	0.42 U	0.36 U	0.38 U	0.38 U	0.38 U	0.38 U	0.41 U
Dimethyl phthalate	NA	0.36 U	0.77 U	0.39 U	0.35 U	0.39 U	0.39 U	0.38 U	0.39 U	0.36 U	0.36 U	0.37 U	0.41 U	0.36 U	0.42 U	0.36 U	0.38 U	0.38 U	0.38 U	0.38 U	0.41 U
Di-n-butyl phthalate	NA	0.36 U	0.77 U	0.39 U	0.35 U	0.39 U	0.39 U	0.38 U	0.39 U	0.36 U	0.36 U	0.37 U	0.41 U	0.36 U	0.42 U	0.36 U	0.38 U	0.38 U	0.38 U	0.38 U	0.41 U
Di-n-octyl phthalate	NA	0.36 U	0.77 U	0.39 U	0.35 U	0.39 U	0.39 U	0.38 U	0.39 U	0.36 U	0.36 U	0.37 U	0.41 U	0.36 U	0.42 U	0.36 U	0.38 U	0.38 U	0.38 U	0.38 U	0.41 U
Diphenyl	NA	0.36 U	0.77 U	0.39 U	0.35 U	0.39 U	0.39 U	0.38 U	0.39 U	0.36 U	0.17 J	0.37 U	0.41 U	0.36 U	0.42 U	0.36 U	0.38 U	0.38 U	0.38 U	0.38 U	0.41 U
Fluoranthene	100	3.2	8.0	1.3	0.31 J	2.1	2.2	0.38 U	0.080 J	0.58	8.0	0.46	0.70	0.36 U	0.42 U	0.36 U	0.38 U	0.38 U	0.38 U	0.38 U	0.13 J
Fluorene	30	0.063 J	0.50 J	0.097 J	0.35 U	0.17 J	0.14 J	0.38 U	0.39 U	0.25 J	1.6	0.13 J	0.082 J	0.36 U	0.42 U	0.36 U	0.38 U	0.38 U	0.38 U	0.38 U	0.41 U
Hexachlorobenzene	0.33	0.036 U	0.077 U	0.039 U	0.035 U	0.039 U	0.039 U	0.038 U	0.039 U	0.036 U	0.036 U	0.037 U	0.041 U	0.036 U	0.042 U	0.036 U	0.038 U	0.038 U	0.038 U	0.038 U	0.041 U
Hexachlorobutadiene	NA	0.073 U	0.16 U	0.079 U	0.070 U	0.079 U	0.079 U	0.076 U	0.079 U	0.074 U	0.073 U	0.075 U	0.083 U	0.072 U	0.085 U	0.073 U	0.076 U	0.077 U	0.077 U	0.077 U	0.084 U
Hexachlorocyclopentadiene	NA	0.36 U	0.77 U	0.39 U	0.35 U	0.39 U	0.39 U	0.38 U	0.39 U	0.36 U	0.36 U	0.37 U	0.41 U	0.36 U	0.42 U	0.36 U	0.38 U	0.38 U	0.38 U	0.38 U	0.41 U
Hexachloroethane	NA	0.036 U	0.077 U	0.039 U	0.035 U	0.039 U	0.039 U	0.038 U	0.039 U	0.036 U	0.036 U	0.037 U	0.041 U	0.036 U	0.042 U	0.036 U	0.038 U	0.038 U	0.038 U	0.038 U	0.041 U
Indeno[1,2,3-cd]pyrene	0.5	1.9	5.9	0.68	0.13	0.64	1.1	0.038 U	0.047	0.20	1.5	0.21	0.44	0.036 U	0.042 U	0.036 U	0.038 U	0.038 U	0.038 U	0.038 U	0.052
Isophorone	NA	0.36 U	0.77 U	0.39 U	0.35 U	0.39 U	0.39 U	0.38 U	0.39 U	0.36 U	0.36 U	0.37 U	0.41 U	0.36 U	0.42 U	0.36 U	0.38 U	0.38 U	0.38 U	0.38 U	0.41 U
Naphthalene	12	0.36 U	0.47 J	0.10 J	0.35 U	0.39 U	0.092 J	0.38 U	0.39 U	0.36 U	0.28 J	0.37 U	0.41 U	0.36 U	0.42 U	0.36 U	0.38 U	0.38 U	0.38 U	0.38 U	0.41 U
Nitrobenzene	NA	0.036 U	0.077 U	0.039 U	0.035 U	0.039 U	0.039 U	0.038 U	0.039 U	0.036 U	0.036 U	0.037 U	0.041 U	0.036 U	0.042 U	0.036 U	0.038 U	0.038 U	0.038 U	0.038 U	0.041 U
N-Nitrosodi-n-propylamine	NA	0.036 U	0.077 U	0.039 U	0.035 U	0.039 U	0.039 U	0.038 U	0.039 U	0.036 U	0.036 U	0.037 U	0.041 U	0.036 U	0.042 U	0.036 U	0.038 U	0.038 U	0.038 U	0.038 U	0.041 U
N-Nitrosodiphenylamine	NA	0.36 U	0.77 U	0.39 U	0.35 U	0.39 U	0.39 U	0.38 U	0.39 U	0.36 U	0.36 U	0.37 U	0.41 U	0.36 U	0.42 U	0.36 U	0.38 U	0.38 U	0.38 U	0.38 U	0.41 U
Pentachlorophenol	0.8	1.1 U	2.3 U	1.2 U	1.0 U	1.2 U	1.2 U	1.1 U	1.2 U	1.1 U	1.1 U	1.1 U	1.2 U	1.1 U	1.3 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.3 U
Phenanthrene	100	1.5	6.2	0.95	0.31 J	2.5	1.6	0.38 U	0.079 J	0.97	8.4	0.48	0.75	0.36 U	0.42 U	0.36 U	0.38 U	0.38 U	0.38 U	0.38 U	0.055 J
Phenol	0.33	0.36 U	0.77 U	0.39 U	0.35 U	0.39 U	0.39 U	0.38 U	0.39 U	0.36 U	0.36 U	0.37 U	0.41 U	0.36 U	0.42 U	0.36 U	0.38 U	0.38 U	0.38 U	0.38 U	0.41 U
Pyrene	100	4.3	7.9	1.6	0.47	3.2	3.2	0.38 U	0.14 J	0.85	8.1	0.82	1.4	0.36 U	0.42 U	0.36 U	0.38 U	0.38 U	0.38 U	0.38 U	0.20 J
Pyridine	NA	0.36 U	0.77 U	0.39 U	0.35 U	0.39 U	0.39 U	0.38 U	0.39 U	0.36 U	0.36 U	0.37 U	0.41 U	0.36 U	0.42 U	0.36 U	0.38 U	0.38 U	0.38 U	0.38 U	0.41 U
SVOC TICs																					
Total SVOC TICs:	NA	8.44	19.32	0.95	0.3	12.24	4.87	0.31	ND	3.7	22.3	0.75	4.32	ND	ND	2.91	ND	ND	ND	0.89	0.34

Notes
NR: Not Analyzed
ND: TIC not detected
* : Surrogate exceeds the control limit
D : The reported value is from a dilution.
D * : The reported value is from a dilution.
J : Indicates an estimated value.
J B : The analyte was found in an associated blank, as well as in the sample.
U : Analyzed for but not detected.

Table 5-28
TCL SVOC Soil Analytical Data
SL-33 / 34 Original Sample Locations - Post Excavation Data

		SL-33 / SL-34 Original Sample Locations - Post Excavation Data																					
		Supplmental End Point Soil SamplesSoil Samples																					
		Co-located Bottom and Sidewall Samples																					
TCL SVOCs (mg/kg)	NYSDEC Unrestricted SCO	SL-EP#333 (7')	SL-EP#334 (7')	SL-EP#336 (7')	SL-EP#338 (6")	SL-EP#338 (4")	SL-EP#339 (6")	SL-EP#339 (4")	SL-EP#340 (6")	SL-EP#340 (4")	SL-EP#341 (3")	SL-EP#342 (6")	SL-EP#342 (4")	SL-EP#343 (6")	SL-EP#343 (4")	SL-EP#344 (6")	SL-EP#344 (4")	SL-EP#345 (6")	SL-EP#345 (4")	SL-EP#346 (6")	SL-EP#346 (4")	SL-EP#347 (6")	SL-EP#347 (4")
1,2,4,5-Tetrachlorobenzene	NA	0.39 U	0.38 U	0.38 U	0.38 U	0.76 U	0.37 U	0.38 U	0.37 U	0.39 U	0.36 U	0.37 U	0.79 U	0.37 U	1.8 U	1.8 U	0.37 U	0.39 U	0.38 U	0.42 U	1.8 U	0.75 U	1.8 U
1,4-Dioxane	0.1	0.39 U	0.38 U	0.38 U	0.38 U	0.76 U	0.37 U	0.38 U	0.37 U	0.39 U	0.36 U	0.37 U	0.79 U	0.37 U	1.8 U	1.8 U	0.37 U	0.39 U	0.38 U	0.42 U	1.8 U	0.75 U	1.8 U
2,2'-oxybis[1-chloropropane]	NA	0.39 U	0.38 U	0.38 U	0.38 U	0.76 U	0.37 U	0.38 U	0.37 U	0.39 U	0.36 U	0.37 U	0.79 U	0.37 U	1.8 U	1.8 U	0.37 U	0.39 U	0.38 U	0.42 U	1.8 U	0.75 U	1.8 U
2,3,4,6-Tetrachlorophenol	NA	0.39 U	0.38 U	0.38 U	0.38 U	0.76 U	0.37 U	0.38 U	0.37 U	0.39 U	0.36 U	0.37 U	0.79 U	0.37 U	1.8 U	1.8 U	0.37 U	0.39 U	0.38 U	0.42 U	1.8 U	0.75 U	1.8 U
2,4,5-Trichlorophenol	NA	0.39 U	0.38 U	0.38 U	0.38 U	0.76 U	0.37 U	0.38 U	0.37 U	0.39 U	0.36 U	0.37 U	0.79 U	0.37 U	1.8 U	1.8 U	0.37 U	0.39 U	0.38 U	0.42 U	1.8 U	0.75 U	1.8 U
2,4,6-Trichlorophenol	NA	0.39 U	0.38 U	0.38 U	0.38 U	0.76 U	0.37 U	0.38 U	0.37 U	0.39 U	0.36 U	0.37 U	0.79 U	0.37 U	1.8 U	1.8 U	0.37 U	0.39 U	0.38 U	0.42 U	1.8 U	0.75 U	1.8 U
2,4-Dichlorophenol	NA	0.39 U	0.38 U	0.38 U	0.38 U	0.76 U	0.37 U	0.38 U	0.37 U	0.39 U	0.36 U	0.37 U	0.79 U	0.37 U	1.8 U	1.8 U	0.37 U	0.39 U	0.38 U	0.42 U	1.8 U	0.75 U	1.8 U
2,4-Dimethylphenol	NA	0.39 U	0.38 U	0.38 U	0.38 U	0.76 U	0.37 U	0.38 U	0.37 U	0.39 U	0.36 U	0.37 U	0.79 U	0.37 U	1.8 U	1.8 U	0.37 U	0.39 U	0.38 U	0.42 U	1.8 U	0.75 U	1.8 U
2,4-Dinitrophenol	NA	0.79 U	0.77 U	0.76 U	0.76 U	1.5 U	0.75 U	0.77 U	0.75 U	0.80 U	0.72 U	0.75 U	1.6 U	0.75 U	3.7 U	3.7 U	0.75 U	0.80 U	0.78 U	0.85 U	3.8 U	1.5 U	3.7 U
2,4-Dinitrotoluene	NA	0.079 U	0.077 U	0.076 U	0.076 U	0.15 U	0.075 U	0.077 U	0.075 U	0.080 U	0.072 U	0.075 U	0.16 U	0.075 U	0.37 U	0.37 U	0.075 U	0.080 U	0.078 U	0.085 U	0.38 U	0.15 U	0.37 U
2,6-Dinitrotoluene	NA	0.079 U	0.077 U	0.076 U	0.076 U	0.15 U	0.075 U	0.077 U	0.075 U	0.080 U	0.072 U	0.075 U	0.16 U	0.075 U	0.37 U	0.37 U	0.075 U	0.080 U	0.078 U	0.085 U	0.38 U	0.15 U	0.37 U
2-Chloronaphthalene	NA	0.39 U	0.38 U	0.38 U	0.38 U	0.76 U	0.37 U	0.38 U	0.37 U	0.39 U	0.36 U	0.37 U	0.79 U	0.37 U	1.8 U	1.8 U	0.37 U	0.39 U	0.38 U	0.42 U	1.8 U	0.75 U	1.8 U
2-Chlorophenol	NA	0.39 U	0.38 U	0.38 U	0.38 U	0.76 U	0.37 U	0.38 U	0.37 U	0.39 U	0.36 U	0.37 U	0.79 U	0.37 U	1.8 U	1.8 U	0.37 U	0.39 U	0.38 U	0.42 U	1.8 U	0.75 U	1.8 U
2-Methylnaphthalene	NA	0.39 U	0.16 J	0.38 U	0.38 U	0.11 J	0.37 U	0.38 U	0.37 U	0.39 U	0.36 U	0.37 U	0.28 J	0.37 U	0.59 J	0.28 J	0.37 U	0.39 U	0.40 J	0.42 U	1.8 U	0.14 J	1.8 U
2-Methylphenol	0.33	0.39 U	0.38 U	0.38 U	0.38 U	0.76 U	0.37 U	0.38 U	0.37 U	0.39 U	0.36 U	0.37 U	0.79 U	0.37 U	1.8 U	1.8 U	0.37 U	0.39 U	0.38 U	0.42 U	1.8 U	0.75 U	1.8 U
2-Nitroaniline	NA	0.39 U	0.38 U	0.38 U	0.38 U	0.76 U	0.37 U	0.38 U	0.37 U	0.39 U	0.36 U	0.37 U	0.79 U	0.37 U	1.8 U	1.8 U	0.37 U	0.39 U	0.38 U	0.42 U	1.8 U	0.75 U	1.8 U
2-Nitrophenol	NA	0.39 U	0.38 U	0.38 U	0.38 U	0.76 U	0.37 U	0.38 U	0.37 U	0.39 U	0.36 U	0.37 U	0.79 U	0.37 U	1.8 U	1.8 U	0.37 U	0.39 U	0.38 U	0.42 U	1.8 U	0.75 U	1.8 U
3,3'-Dichlorobenzidine	NA	0.39 U	0.38 U	0.38 U	0.38 U	0.76 U	0.37 U	0.38 U	0.37 U	0.39 U	0.36 U	0.37 U	0.79 U	0.37 U	1.8 U	1.8 U	0.37 U	0.39 U	0.38 U	0.42 U	1.8 U	0.75 U	1.8 U
3-Nitroaniline	NA	0.39 U	0.38 U	0.38 U	0.38 U	0.76 U	0.37 U	0.38 U	0.37 U	0.39 U	0.36 U	0.37 U	0.79 U	0.37 U	1.8 U	1.8 U	0.37 U	0.39 U	0.38 U	0.42 U	1.8 U	0.75 U	1.8 U
4,6-Dinitro-2-methylphenol	NA	0.79 U	0.77 U	0.76 U	0.76 U	1.5 U	0.75 U	0.77 U	0.75 U	0.80 U	0.72 U	0.75 U	1.6 U	0.75 U	3.7 U	3.7 U	0.75 U	0.80 U	0.78 U	0.85 U	3.8 U	1.5 U	3.7 U
4-Bromophenyl phenyl ether	NA	0.39 U	0.38 U	0.38 U	0.38 U	0.76 U	0.37 U	0.38 U	0.37 U	0.39 U	0.36 U	0.37 U	0.79 U	0.37 U	1.8 U	1.8 U	0.37 U	0.39 U	0.38 U	0.42 U	1.8 U	0.75 U	1.8 U
4-Chloro-3-methylphenol	NA	0.39 U	0.38 U	0.38 U	0.38 U	0.76 U	0.37 U	0.38 U	0.37 U	0.39 U	0.36 U	0.37 U	0.79 U	0.37 U	1.8 U	1.8 U	0.37 U	0.39 U	0.38 U	0.42 U	1.8 U	0.75 U	1.8 U
4-Chloroaniline	NA	0.39 U	0.38 U	0.38 U	0.38 U	0.76 U	0.37 U	0.38 U	0.37 U	0.39 U	0.36 U	0.37 U	0.79 U	0.37 U	1.8 U	1.8 U	0.37 U	0.39 U	0.38 U	0.42 U	1.8 U	0.75 U	1.8 U
4-Chlorophenyl phenyl ether	NA	0.39 U	0.38 U	0.38 U	0.38 U	0.76 U	0.37 U	0.38 U	0.37 U	0.39 U	0.36 U	0.37 U	0.79 U	0.37 U	1.8 U	1.8 U	0.37 U	0.39 U	0.38 U	0.42 U	1.8 U	0.75 U	1.8 U
4-Methylphenol	0.33	0.39 U	0.38 U	0.38 U	0.38 U	0.76 U	0.37 U	0.38 U	0.37 U	0.39 U	0.36 U	0.37 U	0.79 U	0.37 U	1.8 U	1.8 U	0.37 U	0.39 U	0.38 U	0.42 U	1.8 U	0.75 U	1.8 U
4-Nitroaniline	NA	0.79 U	0.77 U	0.76 U	0.76 U	1.5 U	0.75 U	0.77 U	0.75 U	0.80 U	0.72 U	0.75 U	1.6 U	0.75 U	3.7 U	3.7 U	0.75 U	0.80 U	0.78 U	0.85 U	3.8 U	1.5 U	3.7 U
4-Nitrophenol	NA	0.39 U	0.38 U	0.38 U	0.38 U	0.76 U	0.37 U	0.38 U	0.37 U	0.39 U	0.36 U	0.37 U	0.79 U	0.37 U	1.8 U	1.8 U	0.37 U	0.39 U	0.38 U	0.42 U	1.8 U	0.75 U	1.8 U
Acenaphthene	20	0.39 U	0.38 U	0.38 U	0.38 U	0.40 J	0.37 U	0.38 U	0.37 U	0.39 U	0.36 U	0.37 U	0.21 J	0.37 U	0.48 J	0.38 J	0.37 U	0.33 J	0.22 J	0.42 U	0.89 J	0.27 J	1.8 U
Acenaphthylene	100	0.39 U	0.38 U	0.38 U	0.38 U	0.47 J	0.37 U	0.38 U	0.37 U	0.39 U	0.36 U	0.37 U	0.18 J	0.37 U	0.30 J	1.8 U	0.37 U	0.39 U	0.093 J	0.42 U	1.8 U	0.21 J	0.54 J
Acetophenone	NA	0.39 U	0.38 U	0.38 U	0.38 U	0.76 U	0.37 U	0.38 U	0.37 U	0.39 U	0.36 U	0.37 U	0.79 U	0.37 U	1.8 U	1.8 U	0.37 U	0.39 U	0.38 U	0.42 U	1.8 U	0.75 U	1.8 U
Anthracene	100	0.39 U	0.38 U	0.38 U	0.38 U	2.1	0.37 U	0.38 U	0.37 U	0.39 U	0.36 U	0.37 U	0.76 J	0.37 U	1.5 J	0.85 J	0.37 U	0.76	0.49	0.42 U	1.9	1.7	1.4 J
Atrazine	NA	0.39 U	0.38 U	0.38 U	0.38 U	0.76 U	0.37 U	0.38 U	0.37 U	0.39 U	0.36 U	0.37 U	0.79 U	0.37 U	1.8 U	1.8 U	0.37 U	0.39 U	0.38 U	0.42 U	1.8 U	0.75 U	1.8 U
Benzaldehyde	NA	0.39 U	0.38 U	0.38 U	0.38 U	0.76 U	0.37 U	0.38 U	0.37 U	0.39 U	0.36 U	0.37 U	0.79 U	0.37 U	1.8 U	1.8 U	0.37 U	0.39 U	0.38 U	0.42 U	1.8 U	0.75 U	1.8 U
Benzo[a]anthracene	1	0.039 U	0.038 U	0.038 U	0.038 U	4.1	0.037 U	0.15	0.052	0.039 U	0.23 J	0.037 U	2.3	0.037 U	4.1	3.3	0.040 J	1.7	2.5	0.042 U	5.9	4.1	6.2
Benzo[a]pyrene	1	0.039 U	0.038 U	0.038 U	0.038 U	4.0	0.037 U	0.15	0.057	0.039 U	0.19 J	0.037 U	2.0	0.037 U	3.6	3.6	0.036 J	1.5	2.6	0.042 U	5.9	4.2	5.4
Benzo[b]fluoranthene	1	0.039 U	0.038 U	0.038 U	0.038 U	3.5	0.037 U	0.15	0.065	0.039 U	0.22 J	0.037 U	1.7	0.037 U	3.4	4.0	0.034 J	1.8	3.4	0.042 U	5.8	2.7	5.7
Benzo[g,h,i]perylene	100	0.39 U	0.38 U	0.38 U	0.38 U	2.4	0.037 U	0.096 J	0.036 J	0.039 U	0.16 J	0.037 U	1.7	0.037 U	3.3	2.9	0.37 U	1.0	2.6	0.42 U	4.8	2.2	5.1
Benzo[k]fluoranthene	0.8	0.039 U	0.038 U	0.038 U	0.038 U	1.4	0.037 U	0.038 U	0.021 J	0.039 U	0.064	0.037 U	0.58	0.037 U	1.2	1.4	0.020 J	0.58	1.1	0.042 U	2.2	0.88	2.0
Bis(2-chloroethoxy)methane	NA	0.39 U	0.38 U	0.38 U	0.38 U	0.76 U	0.37 U	0.38 U	0.37 U	0.39 U	0.36 U	0.37 U	0.79 U	0.37 U	1.8 U	1.8 U	0.37 U	0.39 U	0.38 U	0.42 U	1.8 U	0.75 U	1.8 U
Bis(2-chloroethyl)ether	NA	0.039 U	0.038 U	0.038 U	0.038 U	0.076 U	0.037 U	0.038 U	0.037 U	0.039 U	0.036 U	0.037 U	0.079 U	0.037 U	0.18 U	0.18 U	0.037 U	0.039 U	0.038 U	0.042 U	0.18 U	0.075 U	0.18 U
Bis(2-ethylhexyl) phthalate	NA	0.39 U	0.38 U	0.38 U	0.38 U	0.76 U	0.37 U	0.14 J	0.37 U	0.39 U	0.36 U	0.37 U	0.79 U	0.37 U	0.61 J	1.8 U	0.37 U	0.39 U	0.38 U	0.42 U	1.8 U	0.75 U	1.8 U
Butyl benzyl phthalate	NA	0.39 U	0.38 U	0.38 U	0.38 U	0.76 U	0.37 U	0.38 U	0.13 J	0.39 U	0.36 U	0.37 U	0.79 U	0.37 U	0.26 J	1.8 U	0.37 U	0.39 U	0.38 U	0.42 U	1.8 U	0.75 U	1.8 U
Caprolactam	NA	0.39 U	0.38 U	0.38 U	0.38 U	0.76 U	0.37 U	0.38 U	0.37 U	0.39 U	0.36 U	0.37 U	0.79 U	0.37 U	1.8 U	1.8 U	0.37 U	0.39 U	0.38 U	0.42 U	1.8 U	0.75 U	1.8 U
Carbazole	NA	0.39 U	0.38 U	0.38 U	0.38 U	0.76 U	0.37 U	0.38 U	0.37 U	0.39 U	0.36 U	0.37 U	0.79 U	0.37 U	1.8 U	0.22 J	0.37 U	0.25 J	0.20 J	0.42 U	0.56 J	0.25 J	0.28 J
Chrysene	1	0.39 U	0.38 U	0.38 U	0.38 U	5.3	0.037 U	0.20 J	0.057 J	0.039 U	0.21 J	0.037 U	2.9	0.037 U	4.2	3.8	0.033 J	1.7	2.6	0.042 U	7.0	4.3	7.4
Dibenz(a,h)anthracene	0.33	0.039 U	0.038 U	0.038 U	0.038 U	0.71	0.037 U	0.045	0.037 U	0.039 U	0.025 J	0.037 U	0.35	0.037 U	0.57	0.56	0.037 U	0.21	0.55	0.042 U	0.74	0.42	1.2
Dibenzofuran	7	0.39 U	0.38 U	0.38 U	0.38 U	0.17 J	0.37 U	0.38 U	0.37 U	0.39 U	0.36 U	0.37 U	0.79 U	0.37 U	1.8 U	1.8 U	0.37 U	0.11 J	0.13 J	0.42 U	0.23 J	0.090 J	1.8 U
Diethyl phthalate	NA	0.39 U	0.38 U	0.38 U	0.38 U	0.76 U	0.37 U	0.38 U	0.37 U	0.39 U	0.36 U	0.37 U	0.79 U	0.37 U	1.8 U	1.8 U	0.37 U	0.39 U	0.38 U	0.42 U	1.8 U	0.75 U	1.8 U
Dimethyl phthalate	NA	0.39 U	0.38 U	0.38 U	0.38 U	0.76 U	0.37 U	0.38 U	0.37 U	0.39 U	0.36 U	0.37 U	0.79 U	0.37 U	1.8 U	1.8 U	0.37 U	0.39 U	0.38 U	0.42 U	1.8 U	0.75 U	1.8 U
Di-n-butyl phthalate	NA	0.39 U	0.38 U	0.38 U	0.38 U	0.76 U	0.37 U	0.38 U	0.37 U	0.39 U	0.36 U	0.37 U	0.79 U	0.37 U	1.8 U	1.8 U	0.37 U	0.39 U	0.38 U	0.42 U	1.8 U	0.75 U	1.8 U
Di-n-octyl phthalate	NA	0.39 U	0.38 U	0.38 U	0.38 U	0.76 U	0.37 U	0.38 U	0.37 U	0.39 U	0.36 U	0.37 U	0.79 U	0.37 U	1.8 U	1.8 U	0.37 U	0.39 U	0.38 U	0.42 U	1.8 U	0.75 U	1.8 U
Diphenyl	NA	0.39 U	0.38 U	0.38 U	0.38 U	0.76 U	0.37 U	0.38 U	0.37 U	0.39 U	0.36 U	0.37 U	0.79 U	0.37 U	1.8 U	1.8 U	0.37 U	0.39 U	0.052 J	0.42 U	1.8 U	0.75 U	1.8 U
Fluoranthene	100	0.39 U	0.38 U	0.38 U	0.38 U	6.1	0.37 U	0.25 J	0.067 J	0.39 U	0.27 J	0.37 U	2.7	0.37 U	5.3	4.7	0.37 U	3.5	3.8	0.42 U	11	5.3	8.2
Fluorene	30	0.39 U	0.38 U	0.38 U	0.38 U	1.1	0.37 U	0.38 U	0.37 U	0.39 U	0.36 U	0.37 U	0.59 J	0.37 U	1.0 J	0.37 J	0.37 U	0.22 J	0.17 J	0.42 U	0.68 J	0.70 J	0.42 J
Hexachlorobenzene	0.33	0.039 U	0.038 U	0.038 U	0.038 U	0.076 U	0.037 U	0.038 U	0.037 U	0.039 U	0.036 U	0.037 U	0.079 U	0.037 U	0.18 U	0.18 U	0.037 U	0.039 U	0.038 U	0.042 U	0.18 U	0.075 U	0.18 U
Hexachlorobutadiene	NA	0.079 U	0.077 U	0.076 U	0.076 U	0.15 U	0.075 U	0.077 U	0.075 U	0.080 U	0.072 U	0.075 U	0.16 U	0.075 U	0.37 U	0.37 U	0.075 U	0.080 U	0.078 U	0.085 U	0.38 U	0.15 U	0.37 U
Hexachlorocyclopentadiene	NA	0.39 U	0.38 U	0.38 U	0.38 U	0.76 U	0.37 U	0.38 U	0.37 U	0.39 U	0.36 U	0.37 U	0.79 U	0.37 U	1.8 U	1.8 U	0.37 U	0.39 U	0.38 U	0.42 U	1.8 U	0.75 U	1.8 U
Hexachloroethane	NA	0.039 U	0.038 U	0.038 U	0.038 U	0.076 U	0.037 U	0.038 U	0.037 U	0.039 U	0.036 U	0.037 U	0.079 U	0.037 U	0.18 U	0.18 U	0.037 U	0.039 U	0.038 U	0.042 U	0.18 U	0.075 U	0.18 U
Indeno[1,2,3-cd]pyrene	0.5	0.039 U	0.038 U	0.038 U	0.038 U	1.7	0.037 U	0.072	0.043	0.039 U	0.14	0.037 U	1.4	0.037 U	2.9	3.0	0.022 J	1.0	2.5	0.042 U	4.3	2.0	4.7
Isophorone	NA	0.39 U	0.38 U	0.38 U	0.38 U	0.76 U	0.37 U	0.38 U	0.37 U	0.39 U	0.36 U	0.37 U	0.79 U	0.37 U	1.8 U	1.8 U	0.37 U	0.39 U	0.38 U	0.42 U	1.8 U	0.75 U	1.8 U
Naphthalene	12	0.39 U	0.38 U	0.38 U	0.38 U	0.089 J	0.37 U	0.38 U	0.37 U	0.39 U	0.36 U	0.37 U	0.79 U	0.37 U	0.59 J	0.36 J	0.37 U	0.39 U	1.3	0.42 U	1.8 U	0.13 J	1.8 U
Nitrobenzene	NA	0.039 U	0.038 U	0.038 U	0.038 U	0.076 U	0.037 U	0.038 U	0.037 U	0.039 U	0.036 U	0.037 U	0.079 U	0.037 U	0.18 U	0.18 U	0.037 U	0.039 U	0.038 U	0.042 U	0.18 U	0.075 U	0.18 U
N-Nitrosodi-n-propylamine	NA	0.039 U	0.038 U	0.038 U	0.038 U	0.076 U	0.037 U	0.038 U	0.037 U	0.039 U	0.036 U	0.037 U	0.079 U	0.037 U	0.18 U	0.18 U	0.037 U	0.039 U	0.038 U	0.042 U	0.18 U	0.075 U	0.18 U
N-Nitrosodiphenylamine	NA	0.39 U	0.38 U	0.38 U	0.38 U	0.76 U	0.37 U	0.38 U	0.37 U	0.39 U	0.36 U	0.37 U	0.79 U	0.37 U	1.8 U	1.8 U	0.37 U	0.39 U	0.38 U	0.42 U	1.8 U	0.75 U	1.8 U
Pentachlorophenol	0.8	0.79 U	0.77 U	0.76 U	0.76 U	1.5 U	0.75 U	0.77 U	0.75 U	0.80 U	0.72 U	0.75 U	1.6 U	0.75 U	3.7 U	3.7 U	0.75 U	0.80 U	0.78 U	0.85 U	3.8 U	1.5 U	3.7 U
Phenanthrene	100	0.39 U	0.38 U	0.38 U	0.38 U	11	0.37 U	0.12 J	0.052 J	0.39 U	0.20 J	0.37 U	4.5	0.37 U	6.5	3.5	0.37 U	4.0	2.3	0.42 U	11	7.5	7.3
Phenol	0.33	0.39 U	0.38 U	0.38 U	0.38 U	0.76 U	0.37 U	0.38 U	0.37 U	0.39 U	0.36 U	0.37 U	0.79 U	0.37 U	1.8 U	1.8 U	0.37 U	0.39 U	0.38 U	0.42 U	1.8 U	0.75 U	1.8 U
Pyrene	100	0.39 U	0.38 U	0.38 U	0.38 U	11	0.37 U	0.31 J	0.10 J	0.39 U	0.37	0.37 U	5.2	0.37 U	7.8	6.4	0.070 J	4.2	4.1	0.42 U	15	7.8	11
Pyridine	NA	0.39 U	0.38 U	0.38 U	0.38 U	0.76 U	0.37 U	0.38 U	0.37 U	0.39 U	0.36 U	0.37 U	0.79 U	0.37 U	1.8 U	1.8 U	0.37 U	0.39 U	0.38 U	0.42 U	1.8 U	0.75 U	1.8 U
Total SVOC TICs	NA	ND	ND	ND	ND	28.31	ND	9.78	ND	1.36	ND	ND	30.07	ND	66.00	13.50	ND	2.55	16.14	9.36	11.00	45.40	65.60

Notes
ND: TIC not detected
J : Indicates an estimated value.
J N : Indicates an estimated value.
U : Analyzed for but not detected.

Table 5-28
TCL SVOC Soil Analytical Data
SL-33 / 34 Original Sample Locations - Post Excavation Data

	NYSDEC SCOs					SL-33 / SL-34 Original Sample Locations - Post Excavation Data													
						Supplmental End Point Soil SamplesSoil Samples													
						Co-located Bottom and Sidewall Samples													
TCL SVOCs (mg/kg)	NYSDEC Unrestricted SCO	Residential	Restricted Residential	Commercial	Protection of Groundwater	SL-EP#357 (4')	SL-EP#357 (1')	SL-EP#358 (4')	SL-EP#358 (1')	SL-EP#359 (4')	SL-EP#359 (1')	SL-EP#360 (4')	SL-EP#360 (1')	SL-EP#361 (4')	SL-EP#361 (1')	SL-EP#362 (4')	SL-EP#362 (1')	SL-EP#363 (4')	SL-EP#363 (1')
1,2,4,5-Tetrachlorobenzene	NA	NA	NA	NA	NA	0.39 U	1.5 U	0.75 U	1.9 U	0.38 U	0.70 U	0.38 U	0.73 U	1.8 U	0.70 U	0.36 U	1.8 U	0.34 U	3.6 U
1,4-Dioxane	0.1	9.8	13	130	0.1	0.39 U	1.5 U	0.75 U	1.9 U	0.38 U	0.70 U	0.38 U	0.73 U	1.8 U	0.70 U	0.36 U	1.8 U	0.34 U	3.6 U
2,2'-oxybis[1-chloropropane]	NA	NA	NA	NA	NA	0.39 U	1.5 U	0.75 U	1.9 U	0.38 U	0.70 U	0.38 U	0.73 U	1.8 U	0.70 U	0.36 U	1.8 U	0.34 U	3.6 U
2,3,4,6-Tetrachlorophenol	NA	NA	NA	NA	NA	0.39 U	1.5 U	0.75 U	1.9 U	0.38 U	0.70 U	0.38 U	0.73 U	1.8 U	0.70 U	0.36 U	1.8 U	0.34 U	3.6 U
2,4,5-Trichlorophenol	NA	NA	NA	NA	NA	0.39 U	1.5 U	0.75 U	1.9 U	0.38 U	0.70 U	0.38 U	0.73 U	1.8 U	0.70 U	0.36 U	1.8 U	0.34 U	3.6 U
2,4,6-Trichlorophenol	NA	NA	NA	NA	NA	0.39 U	1.5 U	0.75 U	1.9 U	0.38 U	0.70 U	0.38 U	0.73 U	1.8 U	0.70 U	0.36 U	1.8 U	0.34 U	3.6 U
2,4-Dichlorophenol	NA	NA	NA	NA	NA	0.39 U	1.5 U	0.75 U	1.9 U	0.38 U	0.70 U	0.38 U	0.73 U	1.8 U	0.70 U	0.36 U	1.8 U	0.34 U	3.6 U
2,4-Dimethylphenol	NA	NA	NA	NA	NA	0.39 U	1.5 U	0.75 U	1.9 U	0.38 U	0.70 U	0.38 U	0.73 U	1.8 U	0.70 U	0.36 U	1.8 U	0.34 U	3.6 U
2,4-Dinitrophenol	NA	NA	NA	NA	NA	1.2 U	4.6 U	2.3 U	5.7 U	1.1 U	2.1 U	1.2 U	2.2 U	5.5 U	2.1 U	1.1 U	5.5 U	1.0 U	11 U
2,4-Dinitrotoluene	NA	NA	NA	NA	NA	0.079 U	0.31 U	0.15 U	0.38 U	0.076 U	0.14 U	0.077 U	0.15 U	0.37 U	0.14 U	0.072 U	0.37 U	0.069 U	0.74 U
2,6-Dinitrotoluene	NA	NA	NA	NA	NA	0.079 U	0.31 U	0.15 U	0.38 U	0.076 U	0.14 U	0.077 U	0.15 U	0.37 U	0.14 U	0.072 U	0.37 U	0.069 U	0.74 U
2-Chloronaphthalene	NA	NA	NA	NA	NA	0.39 U	1.5 U	0.75 U	1.9 U	0.38 U	0.70 U	0.38 U	0.73 U	1.8 U	0.70 U	0.36 U	1.8 U	0.34 U	3.6 U
2-Chlorophenol	NA	NA	NA	NA	NA	0.39 U	1.5 U	0.75 U	1.9 U	0.38 U	0.70 U	0.38 U	0.73 U	1.8 U	0.70 U	0.36 U	1.8 U	0.34 U	3.6 U
2-Methylnaphthalene	NA	NA	NA	NA	NA	0.39 U	0.048 J	0.018 J	0.013 J	0.0023 J	0.025 J	0.0043 J	0.0078 J	1.8 U	0.026 J	0.36 U	0.031 J	0.34 U	0.14 J
2-Methylphenol	0.33	100	100	500	0.33	0.39 U	1.5 U	0.75 U	1.9 U	0.38 U	0.70 U	0.38 U	0.73 U	1.8 U	0.70 U	0.36 U	1.8 U	0.34 U	3.6 U
2-Nitroaniline	NA	NA	NA	NA	NA	0.79 U	3.1 U	1.5 U	3.8 U	0.76 U	1.4 U	0.77 U	1.5 U	3.7 U	1.4 U	0.72 U	3.7 U	0.69 U	7.4 U
2-Nitrophenol	NA	NA	NA	NA	NA	0.39 U	1.5 U	0.75 U	1.9 U	0.38 U	0.70 U	0.38 U	0.73 U	1.8 U	0.70 U	0.36 U	1.8 U	0.34 U	3.6 U
3,3'-Dichlorobenzidine	NA	NA	NA	NA	NA	0.79 U	3.1 U	1.5 U	3.8 U	0.76 U	1.4 U	0.77 U	1.5 U	3.7 U	1.4 U	0.72 U	3.7 U	0.69 U	7.4 U
3-Nitroaniline	NA	NA	NA	NA	NA	0.79 U	3.1 U	1.5 U	3.8 U	0.76 U	1.4 U	0.77 U	1.5 U	3.7 U	1.4 U	0.72 U	3.7 U	0.69 U	7.4 U
4,6-Dinitro-2-methylphenol	NA	NA	NA	NA	NA	1.2 U	4.6 U	2.3 U	5.7 U	1.1 U	2.1 U	1.2 U	2.2 U	5.5 U	2.1 U	1.1 U	5.5 U	1.0 U	11 U
4-Bromophenyl phenyl ether	NA	NA	NA	NA	NA	0.39 U	1.5 U	0.75 U	1.9 U	0.38 U	0.70 U	0.38 U	0.73 U	1.8 U	0.70 U	0.36 U	1.8 U	0.34 U	3.6 U
4-Chloro-3-methylphenol	NA	NA	NA	NA	NA	0.39 U	1.5 U	0.75 U	1.9 U	0.38 U	0.70 U	0.38 U	0.73 U	1.8 U	0.70 U	0.36 U	1.8 U	0.34 U	3.6 U
4-Chloroaniline	NA	NA	NA	NA	NA	0.39 U	1.5 U	0.75 U	1.9 U	0.38 U	0.70 U	0.38 U	0.73 U	1.8 U	0.70 U	0.36 U	1.8 U	0.34 U	3.6 U
4-Chlorophenyl phenyl ether	NA	NA	NA	NA	NA	0.39 U	1.5 U	0.75 U	1.9 U	0.38 U	0.70 U	0.38 U	0.73 U	1.8 U	0.70 U	0.36 U	1.8 U	0.34 U	3.6 U
4-Methylphenol	0.33	34	100	500	0.33	0.39 U	1.5 U	0.75 U	1.9 U	0.38 U	0.70 U	0.38 U	0.73 U	1.8 U	0.70 U	0.36 U	1.8 U	0.34 U	3.6 U
4-Nitroaniline	NA	NA	NA	NA	NA	0.79 U	3.1 U	1.5 U	3.8 U	0.76 U	1.4 U	0.77 U	1.5 U	3.7 U	1.4 U	0.72 U	3.7 U	0.69 U	7.4 U
4-Nitrophenol	NA	NA	NA	NA	NA	1.2 U	4.6 U	2.3 U	5.7 U	1.1 U	2.1 U	1.2 U	2.2 U	5.5 U	2.1 U	1.1 U	5.5 U	1.0 U	11 U
Acenaphthene	20	100	100	500	98	0.39 U	0.021 J	0.019 J	0.019 J	0.0024 J	0.043 J	0.0043 J	0.015 J	1.8 U	0.013 J	0.36 U	0.050 J	0.0010 J	0.69 J
Acenaphthylene	100	100	100	500	107	0.39 U	0.021 J	0.047 J	0.073 J	0.011 J	0.12 J	0.014 J	0.098 J	0.021 J	0.096 J	0.36 U	0.28 J	0.0019 J	0.58 J
Acetophenone	NA	NA	NA	NA	NA	0.39 U	1.5 U	0.018 J	1.9 U	0.38 U	0.0071 J	0.38 U	0.73 U	1.8 U	0.70 U	0.36 U	1.8 U	0.34 U	3.6 U
Anthracene	100	100	100	500	1,000	0.39 U	0.040 J	0.075 J	0.085 J	0.013 J	0.19 J	0.022 J	0.14 J	0.019 J	0.11 J	0.36 U	0.31 J	0.0021 J	2.0 J
Atrazine	NA	NA	NA	NA	NA	0.39 U	1.5 U	0.75 U	1.9 U	0.38 U	0.70 U	0.38 U	0.73 U	1.8 U	0.70 U	0.36 U	1.8 U	0.34 U	3.6 U
Benzaldehyde	NA	NA	NA	NA	NA	0.39 U	1.5 U	0.75 U	1.9 U	0.38 U	0.70 U	0.38 U	0.73 U	1.8 U	0.70 U	0.36 U R	1.8 U R	0.34 U R	3.6 U R
Benzo[a]anthracene	1	1	1	5.6	1	0.039 U	0.12 J	0.26	0.23	0.041	0.47	0.057	0.32	0.047 J	0.23	0.036 U	*1.2*	0.034 U	*7.2*
Benzo[a]pyrene	1	1	1	1	22	0.039 U	0.15	0.27	0.26	0.042	0.50	0.055	0.24	0.041 J	0.21	0.036 U	*1.1*	0.0071 J	*7.3*
Benzo[b]fluoranthene	1	1	1	5.6	1.7	0.0036 U	0.17	0.33	0.27	0.048	0.52	0.058	0.28	0.039	0.20	0.0032 U	0.72	0.0086	*5.1*
Benzo[g,h,i]perylene	100	100	100	500	1,000	0.39 U	0.16 J	0.27 J	0.35 J	0.042 J	0.54 J	0.058 J	0.24 J	0.046 J	0.24 J	0.36 U	0.92 J	0.011 J	6.7
Benzo[k]fluoranthene	0.8	1	3.9	56	1.7	0.039 U	0.054 J	0.088	0.072 J	0.011 J	0.17	0.017 J	0.066 J	0.018 J	0.075	0.036 U	*0.85*	0.0043 J	*5.6*
Bis(2-chloroethoxy)methane	NA	NA	NA	NA	NA	0.39 U	1.5 U	0.75 U	1.9 U	0.38 U	0.70 U	0.38 U	0.73 U	1.8 U	0.70 U	0.36 U	1.8 U	0.34 U	3.6 U
Bis(2-chloroethyl)ether	NA	NA	NA	NA	NA	0.039 U	0.15 U	0.075 U	0.19 U	0.038 U	0.070 U	0.038 U	0.073 U	0.18 U	0.070 U	0.036 U	0.18 U	0.034 U	0.36 U
Bis(2-ethylhexyl) phthalate	NA	NA	NA	NA	NA	0.39 U	0.097 J	0.034 J	1.9 U	0.011 J	0.052 J	0.024 J	0.73 U	1.8 U	0.70 U	0.36 U	1.8 U	0.34 U	3.6 U
Butyl benzyl phthalate	NA	NA	NA	NA	NA	0.39 U	1.5 U	0.010 J	0.028 J	0.023 J	0.052 J	0.38 U	0.014 J	1.8 U	0.017 J	0.0078 J	1.8 U	0.34 U	3.6 U
Caprolactam	NA	NA	NA	NA	NA	0.39 U	1.5 U	0.75 U	1.9 U	0.38 U	0.70 U	0.38 U	0.73 U	1.8 U	0.70 U	0.36 U	1.8 U	0.34 U	3.6 U
Carbazole	NA	NA	NA	NA	NA	0.39 U	0.016 J	0.018 J	0.023 J	0.0025 J	0.036 J	0.0042 J	0.020 J	1.8 U	0.0098 J	0.36 U	0.037 J	0.34 U	0.72 J
Chrysene	1	1	3.9	56	1	0.39 U	0.15 J	0.29 J	0.26 J	0.046 J	0.49 J	0.061 J	0.35 J	0.048 J	0.25 J	0.36 U	*1.3* J	0.34 U	*7.6*
Dibenz(a,h)anthracene	0.33	0.33	0.33	0.56	1,000	0.039 U	0.035 J	0.056 J	0.076 J	0.0085 J	0.11	0.013 J	0.056 J	0.18 U	0.051 J	0.036 U	0.26	0.034 U	*1.5*
Dibenzofuran	7	14	59	350	210	0.39 U	1.5 U	0.75 U	1.9 U	0.38 U	0.015 J	0.38 U	0.73 U	1.8 U	0.70 U	0.36 U	1.8 U	0.34 U	0.22 J
Diethyl phthalate	NA	NA	NA	NA	NA	0.39 U	1.5 U	0.75 U	1.9 U	0.38 U	0.70 U	0.38 U	0.73 U	1.8 U	0.70 U	0.36 U	1.8 U	0.34 U	3.6 U
Dimethyl phthalate	NA	NA	NA	NA	NA	0.39 U	1.5 U	0.75 U	1.9 U	0.38 U	0.034 J	0.38 U	0.73 U	1.8 U	0.016 J	0.36 U	1.8 U	0.34 U	3.6 U
Di-n-butyl phthalate	NA	NA	NA	NA	NA	0.39 U	1.5 U	0.75 U	1.9 U	0.38 U	0.032 J	0.38 U	0.73 U	1.8 U	0.11 J	0.36 U	1.8 U	0.34 U	3.6 U
Di-n-octyl phthalate	NA	NA	NA	NA	NA	0.39 U	1.5 U	0.75 U	1.9 U	0.38 U	0.70 U	0.38 U	0.73 U	1.8 U	0.70 U	0.36 U	1.8 U	0.34 U	3.6 U
Diphenyl	NA	NA	NA	NA	NA	0.39 U	1.5 U	0.75 U	1.9 U	0.38 U	0.70 U	0.38 U	0.73 U	1.8 U	0.70 U	0.36 U	1.8 U	0.34 U	0.040 J
Fluoranthene	100	100	100	500	1,000	0.39 U	0.25 J	0.43 J	0.42 J	0.067 J	0.87	0.10 J	0.59 J	0.061 J	0.32 J	0.36 U	1.5 J	0.0098 J	15 D
Fluorene	30	100	100	500	386	0.39 U	0.020 J	0.020 J	0.020 J	0.0033 J	0.049 J	0.0053 J	0.029 J	1.8 U	0.027 J	0.36 U	0.081 J	0.34 U	0.57 J
Hexachlorobenzene	0.33	0.33	1.2	6	3.2	0.039 U	0.15 U	0.075 U	0.19 U	0.038 U	0.070 U	0.038 U	0.073 U	0.18 U	0.070 U	0.036 U	0.18 U	0.034 U	0.36 U
Hexachlorobutadiene	NA	NA	NA	NA	NA	0.079 U	0.31 U	0.15 U	0.38 U	0.076 U	0.14 U	0.077 U	0.15 U	0.37 U	0.14 U	0.072 U	0.37 U	0.069 U	0.74 U
Hexachlorocyclopentadiene	NA	NA	NA	NA	NA	0.39 U	1.5 U	0.75 U	1.9 U	0.38 U	0.70 U	0.38 U	0.73 U	1.8 U	0.70 U	0.36 U	1.8 U	0.34 U	3.6 U
Hexachloroethane	NA	NA	NA	NA	NA	0.039 U	0.15 U	0.075 U	0.19 U	0.038 U	0.070 U	0.038 U	0.073 U	0.18 U	0.070 U	0.036 U	0.18 U	0.034 U	0.36 U
Indeno[1,2,3-cd]pyrene	0.5	0.5	0.5	5.6	8.2	0.039 U	0.12 J	0.21	0.25	0.030 J	0.40	0.043	0.18	0.032 J	0.16	0.036 U	*0.73*	0.034 U	*5.4*
Isophorone	NA	NA	NA	NA	NA	0.39 U	1.5 U	0.75 U	1.9 U	0.38 U	0.70 U	0.38 U	0.73 U	1.8 U	0.70 U	0.36 U	1.8 U	0.34 U	3.6 U
Naphthalene	12	100	100	500	12	0.39 U	0.037 J	0.022 J	0.020 J	0.0028 J	0.034 J	0.0062 J	0.0091 J	1.8 U	0.036 J	0.36 U	0.039 J	0.34 U	0.24 J
Nitrobenzene	NA	NA	NA	NA	NA	0.039 U	0.15 U	0.075 U	0.19 U	0.038 U	0.070 U	0.038 U	0.073 U	0.18 U	0.070 U	0.036 U	0.18 U	0.034 U	0.36 U
N-Nitrosodi-n-propylamine	NA	NA	NA	NA	NA	0.039 U	0.15 U	0.075 U	0.19 U	0.038 U	0.070 U	0.038 U	0.073 U	0.18 U	0.070 U	0.036 U	0.18 U	0.034 U	0.36 U
N-Nitrosodiphenylamine	NA	NA	NA	NA	NA	0.39 U	1.5 U	0.75 U	1.9 U	0.38 U	0.70 U	0.38 U	0.73 U	1.8 U	0.70 U	0.36 U	1.8 U	0.34 U	3.6 U
Pentachlorophenol	0.8	2.4	6.7	6.7	0.8	1.2 U	4.6 U	2.3 U	5.7 U	1.1 U	2.1 U	1.2 U	2.2 U	5.5 U	2.1 U	1.1 U	5.5 U	1.0 U	11 U
Phenanthrene	100	100	100	500	1,000	0.39 U	0.15 J	0.18 J	0.19 J	0.031 J	0.43 J	0.055 J	0.37 J	0.024 J	0.13 J	0.36 U	0.64 J	0.0093 J	9.8
Phenol	0.33	100	100	500	0.33	0.39 U	1.5 U	0.75 U	1.9 U	0.38 U	0.70 U	0.38 U	0.73 U	1.8 U	0.70 U	0.36 U	1.8 U	0.34 U	3.6 U
Pyrene	100	100	100	500	1,000	0.39 U	0.23 J	0.39 J	0.39 J	0.073 J	0.74	0.098 J	0.58 J	0.064 J	0.37 J	0.36 U	2.0	0.010 J	16 D
Pyridine	NA	NA	NA	NA	NA	0.39 U	1.5 U	0.75 U	1.9 U	0.38 U	0.70 U	0.38 U	0.73 U	1.8 U	0.70 U	0.36 U	1.8 U	0.34 U	3.6 U
SVOC TICs																			
Total SVOC TICs	NA	NA	NA	NA	NA	3.562	1.92	1.69	1.154	1.072	4.78	2.464	4.114	3.662	2.598	7.881	15.81	7.758	31.34

Notes
ND: TIC not detected
J : Indicates an estimated value.
J N : Indicates an estimated value.
U : Analyzed for but not detected.
U R : Indicates that value is rejected based upon DUSR review by third party data validator.
Highlighted / bolded indicates analyte exceeded above its respective NYSDEC Commercial SCO.
Green / italicized value indicates analyte exceeded its respective unrestricted SCO but was below its respective Residential / Protection of GW SCO, whichever is lower.
Blue / italicized value indicates analyte exceeded its respective Residential SCO and / or Protection of Groundwater SCO but was below its Restricted Residential SCO.
Pink / italicized value indicates analyte exceeded its respective Residential SCOs and / or Protection of Groundwater SCO but was below its Commercial SCO.

Table 5-28
TCL SVOC Soil Analytical Data
SL-33 / 34 Original Sample Locations - Post Excavation Data

		NYSDEC SCOs				SL-33 / SL-34 Original Sample Locations - Post Excavation Data																		
						Supplmental End Point Soil SamplesSoil Samples																		
						Supplemental Co-located Bottom and Sidewall Samples																		
TCL SVOCs (mg/kg)	NYSDEC Unrestricted SCO	Residential	Restricted Residential	Commercial	Protection of Groundwater	SL-EP#364 (4')	SL-EP#364 (1')	SL-EP#364 (1')	SL-EP#365 (4')	SL-EP#365 (1')	SL-EP#365 (1')	SL-EP#366 (4')	SL-EP#366 (1')	SL-EP#366 (5')	SL-EP#367 (5')	SL-EP#368 (5')	SL-EP#369 (5')	SL-EP#370 (5')	SL-EP#371 (5')	SL-EP#372 (7')	SL-EP#373 (7')	SL-EP#374 (4')	SL-EP#374 (1')	SL-EP#375 (4')	SL-EP#375 (1')	SL-EP#376 (7')
1,2,4,5-Tetrachlorobenzene	NA	NA	NA	NA	NA	0.40 U	3.6 U	7.2 U	3.7 U	3.6 U	72 U	3.8 U	3.6 U	7.2 U	0.45 U	2.1 U	0.40 U	1.8 U	0.36 U	0.38 U	0.38 U	1.9 U	3.6 U	3.9 U	9.4 U	3.8 U
1,4-Dioxane	0.1	9.8	13	130	0.1	0.40 U	3.6 U	7.2 U	3.7 U	3.6 U	72 U	3.8 U	3.6 U	7.2 U	0.45 U	2.1 U	0.40 U	1.8 U	0.36 U	0.38 U	0.38 U	1.9 U	3.6 U	3.9 U	9.4 U	3.8 U
2,2'-oxybis[1-chloropropane]	NA	NA	NA	NA	NA	0.40 U	3.6 U	7.2 U	3.7 U	3.6 U	72 U	3.8 U	3.6 U	7.2 U	0.45 U	2.1 U	0.40 U	1.8 U	0.36 U	0.38 U	0.38 U	1.9 U	3.6 U	3.9 U	9.4 U	3.8 U
2,3,4,6-Tetrachlorophenol	NA	NA	NA	NA	NA	0.40 U	3.6 U	7.2 U	3.7 U	3.6 U	72 U	3.8 U	3.6 U	7.2 U	0.45 U	2.1 U	0.40 U	1.8 U	0.36 U	0.38 U	0.38 U	1.9 U	3.6 U	3.9 U	9.4 U	3.8 U
2,4,5-Trichlorophenol	NA	NA	NA	NA	NA	0.40 U	3.6 U	7.2 U	3.7 U	3.6 U	72 U	3.8 U	3.6 U	7.2 U	0.45 U	2.1 U	0.40 U	1.8 U	0.36 U	0.38 U	0.38 U	1.9 U	3.6 U	3.9 U	9.4 U	3.8 U
2,4,6-Trichlorophenol	NA	NA	NA	NA	NA	0.40 U	3.6 U	7.2 U	3.7 U	3.6 U	72 U	3.8 U	3.6 U	7.2 U	0.45 U	2.1 U	0.40 U	1.8 U	0.36 U	0.38 U	0.38 U	1.9 U	3.6 U	3.9 U	9.4 U	3.8 U
2,4-Dichlorophenol	NA	NA	NA	NA	NA	0.40 U	3.6 U	7.2 U	3.7 U	3.6 U	72 U	3.8 U	3.6 U	7.2 U	0.45 U	2.1 U	0.40 U	1.8 U	0.36 U	0.38 U	0.38 U	1.9 U	3.6 U	3.9 U	9.4 U	3.8 U
2,4-Dimethylphenol	NA	NA	NA	NA	NA	0.40 U	3.6 U	7.2 U	3.7 U	3.6 U	72 U	3.8 U	3.6 U	7.2 U	0.45 U	2.1 U	0.40 U	1.8 U	0.36 U	0.38 U	0.38 U	1.9 U	3.6 U	3.9 U	9.4 U	3.8 U
2,4-Dinitrophenol	NA	NA	NA	NA	NA	1.2 U	11 U	22 U	11 U	11 U	220 U	12 U	11 U	22 U	1.4 U	6.2 U	1.2 U	5.4 U	1.1 U	1.2 U	1.1 U	5.8 U	11 U	12 U	29 U	11 U
2,4-Dinitrotoluene	NA	NA	NA	NA	NA	0.082 U	0.73 U	1.5 U	0.74 U	0.73 U	15 U	0.77 U	0.73 U	1.5 U	0.091 U	0.42 U	0.082 U	0.36 U	0.073 U	0.078 U	0.077 U	0.39 U	0.74 U	0.78 U	1.9 U	0.77 U
2,6-Dinitrotoluene	NA	NA	NA	NA	NA	0.082 U	0.73 U	1.5 U	0.74 U	0.73 U	15 U	0.77 U	0.73 U	1.5 U	0.091 U	0.42 U	0.082 U	0.36 U	0.073 U	0.078 U	0.077 U	0.39 U	0.74 U	0.78 U	1.9 U	0.77 U
2-Chloronaphthalene	NA	NA	NA	NA	NA	0.40 U	3.6 U	7.2 U	3.7 U	3.6 U	72 U	3.8 U	3.6 U	7.2 U	0.45 U	2.1 U	0.40 U	1.8 U	0.36 U	0.38 U	0.38 U	1.9 U	3.6 U	3.9 U	9.4 U	3.8 U
2-Chlorophenol	NA	NA	NA	NA	NA	0.40 U	3.6 U	7.2 U	3.7 U	3.6 U	72 U	3.8 U	3.6 U	7.2 U	0.45 U	2.1 U	0.40 U	1.8 U	0.36 U	0.38 U	0.38 U	1.9 U	3.6 U	3.9 U	9.4 U	3.8 U
2-Methylnaphthalene	NA	NA	NA	NA	NA	0.010 J	0.23 J	0.29 J	0.21 J	1.2 J	1.7 J	0.15 J	0.82 J	0.88 J	0.45 U	0.042 J	0.0059 J	0.031 J	0.36 U	0.38 U	0.38 U	0.15 J	0.28 J	0.047 J	3.9 J	3.1 J
2-Methylphenol	0.33	100	100	500	0.33	0.40 U	3.6 U	7.2 U	3.7 U	3.6 U	72 U	3.8 U	3.6 U	7.2 U	0.45 U	2.1 U	0.40 U	1.8 U	0.36 U	0.38 U	0.38 U	1.9 U	3.6 U	3.9 U	9.4 U	3.8 U
2-Nitroaniline	NA	NA	NA	NA	NA	0.82 U	7.3 U	15 U	7.4 U	7.3 U	150 U	7.7 U	7.3 U	15 U	0.91 U	4.2 U	0.82 U	3.6 U	0.73 U	0.78 U	0.77 U	3.9 U	7.4 U	7.8 U	19 U	7.7 U
2-Nitrophenol	NA	NA	NA	NA	NA	0.40 U	3.6 U	7.2 U	3.7 U	3.6 U	72 U	3.8 U	3.6 U	7.2 U	0.45 U	2.1 U	0.40 U	1.8 U	0.36 U	0.38 U	0.38 U	1.9 U	3.6 U	3.9 U	9.4 U	3.8 U
3,3'-Dichlorobenzidine	NA	NA	NA	NA	NA	0.82 U	7.3 U	15 U	7.4 U	7.3 U	150 U	7.7 U	7.3 U	15 U	0.91 U	4.2 U	0.82 U	3.6 U	0.73 U	0.78 U	0.77 U *	3.9 U	7.4 U	7.8 U	19 U	7.7 U
3-Nitroaniline	NA	NA	NA	NA	NA	0.82 U	7.3 U	15 U	7.4 U	7.3 U	150 U	7.7 U	7.3 U	15 U	0.91 U	4.2 U	0.82 U	3.6 U	0.73 U	0.78 U	0.77 U	3.9 U	7.4 U	7.8 U	19 U	7.7 U
4,6-Dinitro-2-methylphenol	NA	NA	NA	NA	NA	1.2 U	11 U	22 U	11 U	11 U	220 U	12 U	11 U	22 U	1.4 U	6.2 U	1.2 U	5.4 U	1.1 U	1.2 U	1.1 U *	5.8 U	11 U	12 U	29 U	11 U
4-Bromophenyl phenyl ether	NA	NA	NA	NA	NA	0.40 U	3.6 U	7.2 U	3.7 U	3.6 U	72 U	3.8 U	3.6 U	7.2 U	0.45 U	2.1 U	0.40 U	1.8 U	0.36 U	0.38 U	0.38 U *	1.9 U	3.6 U	3.9 U	9.4 U	3.8 U
4-Chloro-3-methylphenol	NA	NA	NA	NA	NA	0.40 U	3.6 U	7.2 U	3.7 U	3.6 U	72 U	3.8 U	3.6 U	7.2 U	0.45 U	2.1 U	0.40 U	1.8 U	0.36 U	0.38 U	0.38 U	1.9 U	3.6 U	3.9 U	9.4 U	3.8 U
4-Chloroaniline	NA	NA	NA	NA	NA	0.40 U	3.6 U	7.2 U	3.7 U	3.6 U	72 U	3.8 U	3.6 U	7.2 U	0.45 U	2.1 U	0.40 U	1.8 U	0.36 U	0.38 U	0.38 U	1.9 U	3.6 U	3.9 U	9.4 U	3.8 U
4-Chlorophenyl phenyl ether	NA	NA	NA	NA	NA	0.40 U	3.6 U	7.2 U	3.7 U	3.6 U	72 U	3.8 U	3.6 U	7.2 U	0.45 U	2.1 U	0.40 U	1.8 U	0.36 U	0.38 U	0.38 U	1.9 U	3.6 U	3.9 U	9.4 U	3.8 U
4-Methylphenol	0.33	34	100	500	0.33	0.40 U	3.6 U	7.2 U	3.7 U	3.6 U	72 U	3.8 U	3.6 U	7.2 U	0.45 U	2.1 U	0.40 U	1.8 U	0.36 U	0.38 U	0.38 U	1.9 U	3.6 U	3.9 U	9.4 U	3.8 U
4-Nitroaniline	NA	NA	NA	NA	NA	0.82 U	7.3 U	15 U	7.4 U	7.3 U	150 U	7.7 U	7.3 U	15 U	0.91 U	4.2 U	0.82 U	3.6 U	0.73 U	0.78 U	0.77 U	3.9 U	7.4 U	7.8 U	19 U	7.7 U
4-Nitrophenol	NA	NA	NA	NA	NA	1.2 U	11 U	22 U	11 U	11 U	220 U	12 U	11 U	22 U	1.4 U	6.2 U	1.2 U	5.4 U	1.1 U	1.2 U	1.1 U	5.8 U	11 U	12 U	29 U	11 U
Acenaphthene	20	100	100	500	98	0.0044 J	0.36 J	0.38 J	0.20 J	3.4 J	4.7 J	0.20 J	1.0 J	1.2 J	0.0023 J	0.039 J	0.0043 J	0.027 J	0.36 U	0.38 U	0.38 U	0.10 J	0.23 J	0.055 J	1.6 J	1.2 J
Acenaphthylene	100	100	100	500	107	0.013 J	1.6 J	1.6 J	0.39 J	1.6 J	2.2 J	0.27 J	2.8 J	0.0046 J	0.11 J	0.017 J	0.14 J	0.36 U	0.0073 J	0.38 U	0.22 J	2.5 J	0.74 J	1.7 J	0.96 J
Acetophenone	NA	NA	NA	NA	NA	0.0039 J	3.6 U	7.2 U	3.7 U	3.6 U	72 U	3.8 U	3.6 U	7.2 U	0.45 U	2.1 U	0.40 U	1.8 U	0.36 U	0.0037 J	0.38 U	1.9 U	3.6 U	3.9 U	9.4 U	3.8 U
Anthracene	100	100	100	500	1,000	0.020 J	1.5 J	1.7 J	0.70 J	7.2	11 J	0.66 J	4.3	4.2 J	0.0041 J	0.13 J	0.021 J	0.14 J	0.36 U	0.0069 J	0.38 U *	0.35 J	2.5 J	0.76 J	3.4 J	2.3 J
Atrazine	NA	NA	NA	NA	NA	0.40 U	3.6 U	7.2 U	3.7 U	3.6 U	72 U	3.8 U	3.6 U	7.2 U	0.45 U	2.1 U	0.40 U	1.8 U	0.36 U	0.38 U	0.38 U *	1.9 U	3.6 U	3.9 U	9.4 U	3.8 U
Benzaldehyde	NA	NA	NA	NA	NA	0.40 U R	3.6 U R	7.2 U R	3.7 U R	3.6 U R	72 U R	3.8 U R	3.6 U R	7.2 U R	0.45 U R	2.1 U R	0.40 U R	1.8 U R	0.36 U R	0.38 U R	0.38 U R	1.9 U R	3.6 U R	3.9 U	9.4 U	3.8 U
Benzo[a]anthracene	1	1	1	5.6	1	0.054	5.4	6.1	2.7	28 D	28	2.2	9.2	9.0	0.014 J	0.42	0.058	0.33	0.036 U	0.026 J	0.038 U *	0.82	7.1	2.0	5.0	2.9
Benzo[a]pyrene	1	1	1	1	22	0.058	5.1 *	6.3	2.8	24 D	24	2.0	6.1 *	7.4	0.045 U	0.40	0.071	0.31	0.036 U	0.024 J	0.038 U *	0.74	6.9	1.9	3.8	2.3
Benzo[b]fluoranthene	1	1	1	5.6	1.7	0.063	5.8 *	7.8	2.6	13 *	23	1.6	3.0 *	6.5	0.012	0.35	0.066	0.28	0.0033 U	0.016	0.0034 U *	0.70	5.7	2.2	3.1	2.3
Benzo[g,h,i]perylene	100	100	100	500	1,000	0.061 J	4.6 *	5.9 J	2.6 J	10 *	20 J	1.5 J	3.5 J *	6.7 J	0.45 U	0.28 J	0.050 J	0.22 J	0.36 U	0.022 J	0.38 U *	0.67 J	5.4	1.8 J	2.5 J	1.7 J
Benzo[k]fluoranthene	0.8	1	3.9	56	1.7	0.022 J	5.4 *	2.8	1.3	7.0 *	8.7	1.1	4.3 *	2.9	0.0055 J	0.17 J	0.031 J	0.11 J	0.036 U	0.018 J	0.038 U *	0.27	2.0	0.82	1.7	0.88
Bis(2-chloroethoxy)methane	NA	NA	NA	NA	NA	0.40 U	3.6 U	7.2 U	3.7 U	3.6 U	72 U	3.8 U	3.6 U	7.2 U	0.45 U	2.1 U	0.40 U	1.8 U	0.36 U	0.38 U	0.38 U	1.9 U	3.6 U	3.9 U	9.4 U	3.8 U
Bis(2-chloroethyl)ether	NA	NA	NA	NA	NA	0.040 U	0.36 U	0.72 U	0.37 U	0.36 U	7.2 U	0.38 U	0.36 U	0.72 U	0.045 U	0.21 U	0.040 U	0.18 U	0.036 U	0.038 U	0.038 U	0.19 U	0.36 U	0.39 U	0.94 U	0.38 U
Bis(2-ethylhexyl) phthalate	NA	NA	NA	NA	NA	0.40 U	3.6 U	7.2 U	3.7 U	3.6 U	72 U	3.8 U	3.6 U	7.2 U	0.45 U	2.1 U	0.40 U	1.8 U	0.36 U	0.019 J	0.38 U *	1.9 U	3.6 U	3.9 U	9.4 U	3.8 U
Butyl benzyl phthalate	NA	NA	NA	NA	NA	0.011 J	3.6 U	7.2 U	3.7 U	3.6 U	72 U	3.8 U	3.6 U	7.2 U	0.45 U	2.1 U	0.017 J	1.8 U	0.36 U	0.042 J	0.38 U *	1.9 U	3.6 U	0.057 J	9.4 U	3.8 U
Caprolactam	NA	NA	NA	NA	NA	0.40 U	3.6 U	7.2 U	3.7 U	3.6 U	72 U	3.8 U	3.6 U	7.2 U	0.45 U	2.1 U	0.40 U	1.8 U	0.36 U	0.38 U	0.38 U	1.9 U	3.6 U	3.9 U	9.4 U	3.8 U
Carbazole	NA	NA	NA	NA	NA	0.0067 J	0.92 J	1.1 J	0.22 J	1.7 J	2.8 J	0.14 J	0.61 J	0.69 J	0.0025 J	0.032 J	0.0044 J	1.8 U	0.36 U	0.38 U	0.38 U *	0.043 J	0.25 J	0.059 J	0.41 J	0.41 J
Chrysene	1	1	3.9	56	1	0.069 J	7.0	8.2	3.0 J	30 JD	30 J	2.3 J	9.3	10	0.014 J	0.44 J	0.068 J	0.36 J	0.36 U	0.028 J	0.38 U *	0.94 J	7.8	2.2 J	5.3 J	3.1 J
Dibenz(a,h)anthracene	0.33	0.33	0.33	0.56	1.000	0.040 U	1.4 *	0.96	0.65	2.3 *	4.6 J	0.27 J	3.6 *	1.4	0.045 U	0.21 U	0.040 U	0.037 J	0.036 U	0.038 U	0.038 U *	0.17 J	1.2	0.47	0.68 J	0.48
Dibenzofuran	7	14	59	350	210	0.0063 J	0.29 J	0.31 J	0.082 J	0.97 J	1.4 J	0.049 J	0.39 J	0.44 J	0.045 U	0.020 J	0.40 U	1.8 U	0.36 U	0.38 U	0.38 U	0.041 J	0.13 J	3.9 U	0.65 J	0.55 J
Diethyl phthalate	NA	NA	NA	NA	NA	0.40 U	3.6 U	7.2 U	3.7 U	3.6 U	72 U	3.8 U	3.6 U	7.2 U	0.45 U	2.1 U	0.40 U	1.8 U	0.36 U	0.38 U	0.38 U	1.9 U	0.046 J	3.9 U	9.4 U	3.8 U
Dimethyl phthalate	NA	NA	NA	NA	NA	0.40 U	3.6 U	7.2 U	3.7 U	3.6 U	72 U	3.8 U	3.6 U	7.2 U	0.45 U	2.1 U	0.40 U	1.8 U	0.36 U	0.38 U	0.38 U	1.9 U	3.6 U	3.9 U	9.4 U	3.8 U
Di-n-butyl phthalate	NA	NA	NA	NA	NA	0.0056 J	3.6 U	7.2 U	3.7 U	3.6 U	72 U	3.8 U	3.6 U	7.2 U	0.45 U	2.1 U	0.40 U	1.8 U	0.36 U	0.0063 J	0.38 U *	1.9 U	3.6 U	3.9 U	9.4 U	3.8 U
Di-n-octyl phthalate	NA	NA	NA	NA	NA	0.40 U	3.6 U *	7.2 U	3.7 U	3.6 U *	72 U	3.8 U	3.6 U *	7.2 U	0.45 U	2.1 U	0.40 U	1.8 U	0.36 U	0.38 U	0.38 U *	1.9 U	3.6 U	3.9 U	9.4 U	3.8 U
Diphenyl	NA	NA	NA	NA	NA	0.40 U	0.048 J	7.2 U	3.7 U	0.34 J	72 U	3.8 U	0.066 J	0.067 J	0.45 U	2.1 U	0.40 U	1.8 U	0.36 U	0.38 U	0.38 U	0.017 J	0.045 J	3.9 U	0.36 J	0.27 J
Fluoranthene	100	100	100	500	1,000	0.077 J	16 D	16	4.8	62 JD	62 J	4.0	18 D	18	0.023 J	0.65 J	0.096 J	0.37 J	0.36 U	0.032 J	0.38 U *	1.3 J	9.4	2.5 J	9.0 J	6.5
Fluorene	30	100	100	500	386	0.0061 J	0.67 J	0.77 J	0.24 J	3.6	5.3 J	0.26 J	2.4 J	2.5 J	0.0038 J	0.049 J	0.0087 J	0.056 J	0.36 U	0.38 U	0.38 U	0.19 J	0.50 J	0.14 J	3.6 J	2.8 J
Hexachlorobenzene	0.33	0.33	1.2	6	3.2	0.040 U	0.36 U	0.72 U	0.37 U	0.36 U	7.2 U	0.38 U	0.36 U	0.72 U	0.045 U	0.21 U	0.040 U	0.18 U	0.036 U	0.038 U	0.038 U *	0.19 U	0.36 U	0.39 U	0.94 U	0.38 U
Hexachlorobutadiene	NA	NA	NA	NA	NA	0.082 U	0.73 U	1.5 U	0.74 U	0.73 U	15 U	0.77 U	0.73 U	1.5 U	0.091 U	0.42 U	0.082 U	0.36 U	0.073 U	0.078 U	0.077 U	0.39 U	0.74 U	0.78 U	1.9 U	0.77 U
Hexachlorocyclopentadiene	NA	NA	NA	NA	NA	0.40 U	3.6 U	7.2 U	3.7 U	3.6 U	72 U	3.8 U	3.6 U	7.2 U	0.45 U	2.1 U	0.40 U	1.8 U	0.36 U	0.38 U	0.38 U	1.9 U	3.6 U	3.9 U	9.4 U	3.8 U
Hexachloroethane	NA	NA	NA	NA	NA	0.040 U	0.36 U	0.72 U	0.37 U	0.36 U	7.2 U	0.38 U	0.36 U	0.72 U	0.045 U	0.21 U	0.040 U	0.18 U	0.036 U	0.038 U	0.038 U	0.19 U	0.36 U	0.39 U	0.94 U	0.38 U
Indeno[1,2,3-cd]pyrene	0.5	0.5	0.5	5.6	8.2	0.047	4.1 *	4.6	2.0	8.0 *	14	1.3	2.8 *	4.6	0.045 U	0.22	0.044	0.17 J	0.036 U	0.017 J	0.038 U *	0.50	4.1	1.4	1.8	1.3
Isophorone	NA	NA	NA	NA	NA	0.40 U	3.6 U	7.2 U	3.7 U	3.6 U	72 U	3.8 U	3.6 U	7.2 U	0.45 U	2.1 U	0.40 U	1.8 U	0.36 U	0.38 U	0.38 U	1.9 U	3.6 U	3.9 U	9.4 U	3.8 U
Naphthalene	12	100	100	500	12	0.014 J	0.87 J	1.0 J	0.45 J	1.2 J	1.9 J	0.26 J	0.42 J	0.45 J	0.45 U	0.076 J	0.0068 J	0.046 J	0.36 U	0.38 U	0.38 U	0.14 J	0.26 J	0.050 J	2.5 J	1.9 J
Nitrobenzene	NA	NA	NA	NA	NA	0.040 U	0.36 U	0.72 U	0.37 U	0.36 U	7.2 U	0.38 U	0.36 U	0.72 U	0.045 U	0.21 U	0.040 U	0.18 U	0.036 U	0.038 U	0.038 U	0.19 U	0.36 U	0.39 U	0.94 U	0.38 U
N-Nitrosodi-n-propylamine	NA	NA	NA	NA	NA	0.040 U	0.36 U	0.72 U	0.37 U	0.36 U	7.2 U	0.38 U	0.36 U	0.72 U	0.045 U	0.21 U	0.040 U	0.18 U	0.036 U	0.038 U	0.038 U	0.19 U	0.36 U	0.39 U	0.94 U	0.38 U
N-Nitrosodiphenylamine	NA	NA	NA	NA	NA	0.40 U	3.6 U	7.2 U	3.7 U	3.6 U	72 U	3.8 U	3.6 U	7.2 U	0.45 U	2.1 U	0.40 U	1.8 U	0.36 U	0.38 U	0.38 U *	1.9 U	3.6 U	3.9 U	9.4 U	0.22 J
Pentachlorophenol	0.8	2.4	6.7	6.7	0.8	1.2 U	11 U	22 U	11 U	11 U	220 U	12 U	11 U	22 U	1.4 U	6.2 U	1.2 U	5.4 U	1.1 U	1.2 U	1.1 U *	5.8 U	11 U	12 U	29 U	11 U
Phenanthrene	100	100	100	500	1,000	0.059 J	10	11	3.2 J	77 D	77	2.9 J	22 D	22	0.016 J	0.42 J	0.062 J	0.30 J	0.36 U	0.014 J	0.38 U *	1.0 J	3.7	0.80 J	13	9.9
Phenol	0.33	100	100	500	0.33	0.40 U	3.6 U	7.2 U	3.7 U	3.6 U	72 U	3.8 U	3.6 U	7.2 U	0.45 U	2.1 U	0.40 U	1.8 U	0.36 U	0.38 U	0.38 U	1.9 U	3.6 U	3.9 U	9.4 U	3.8 U
Pyrene	100	100	100	500	1,000	0.10 J	12	14	5.6	70 JD	70 J	4.6	20 D	20	0.024 J	0.72 J	0.12 J	0.54 J	0.36 U	0.041 J	0.38 U *	1.7 J	11	2.8 J	10	6.4
Pyridine	NA	NA	NA	NA	NA	0.40 U	3.6 U	7.2 U	3.7 U	3.6 U	72 U	3.8 U	3.6 U	7.2 U	0.45 U	2.1 U	0.40 U	1.8 U	0.36 U	0.38 U	0.38 U	1.9 U	3.6 U	3.9 U	9.4 U	3.8 U
SVOC TICs																										
Total SVOC TICs	NA	NA	NA	NA	NA	2.939	37.27	7.3	3.23	1.2	19	12.19	7.18	10.6	19.01	2.35	3.54	0.71	0.811	2.179	1.3	1.42	8.5	2.8	94.4	35.28

Notes
ND: TIC not detected
J : Indicates an estimated value.
J N : Indicates an estimated value.
U : Analyzed for but not detected.
U R : Indicates that value is rejected based upon DUSR review by third party data validator.
Highlighted / bolded indicates analyte exceeded above its respective NYSDEC Commercial SCO.
Green / italicized value indicates analyte exceeded its respective unrestricted SCO but was below its respective Residential / Protection of GW SCO, whichever is lower.
Blue / italicized value indicates analyte exceeded its respective Residential SCO and / or Protection of Groundwater SCO but was below its Restricted Residential SCO.
Pink / italicized value indicates analyte exceeded its respective Residential SCOs and / or Protection of Groundwater SCO but was below its Commercial SCO.

APEX

Table 5-29
TAL Metals Soil Analytical Data
SL-33 / SL-34 Original Sample Locations - Post Excavation Data

TAL Metals (mg/kg)	NYSDEC Unrestricted SCO	SL-33 / SL-34 Original Sample Locations - Post Excavation Data																
		End Pont Soil Samples																
		Side-wall Samples									Bottom Samples							
		SL-EP#137	SL-EP#138	SL-EP#139	SL-EP#140	SL-EP#141	SL-EP#142	SL-EP#143	SL-EP#144	SL-EP#145	SL-EP#146	SL-EP#147	SL-EP#148	SL-EP#149	SL-EP#150	SL-EP#151	SL-EP#152	SL-EP#153
		(1')	(4')	(4')	(4')	(4')	(4')	(4')	(4')	(4')	(3')	(3')	(3')	(3')	(3')	(3')	(3')	(3')
Aluminum	NA	2,540	5,850	7,530	5,400	5,690	6,130	6,990	5,760	10,200	10,700	9,000	8,230	7,120	3,810	6,490	8,660	4,940
Antimony	NA	3.6 U	4.5 U	3.7 U	4.0 U	4.1 U	4.2 U	4.0 U	3.7 U	4.3 U	4.1 U	3.4 U	4.1 U	4.4 U	3.9 U	4.3 U	4.2 U	4.0 U
Arsenic	13	1.8 J	4.0	2.9	6.7	2.2 J	1.5 J	2.9 J	3.1	4.0	1.9 J	0.62 J	3.1 U	1.8 J	2.9 U	1.6 J	1.8 J	0.72 J
Barium	350	41.7	**1,750**	73.7	*657*	46.3	38.1 J	76.0	311	58.9	63.0	26.4 J	28.0 J	60.3	18.7 J	84.3	88.9	35.7 J
Beryllium	7.2	0.17 J	0.29 J	0.36 J	0.43	0.35 J	0.21 J	0.29 J	0.27 J	0.32 J	0.37 J	0.21 J	0.18 J	0.29 J	0.17 J	0.26 J	0.44	0.23 J
Cadmium	2.5	0.20 J	0.73 J	0.73 U	0.60 J	0.82 U	0.84 U	0.36 J	0.43 J	0.85 U	0.33 J	0.69 U	0.82 U	0.88 U	0.78 U	0.85 U	0.84 U	0.80 U
Calcium	NA	1,050	5,250	1,840	1,260	1,070	2,910	1,480	983	1,690	1,390	467 J	932 J	1,310	502 J	1,580	1,730	912 J
Chromium[1]	30	7.3	16.8	17.9	8.3	15.0	10.5	11.6	12.5	17.3	17.6	14.5	19.1	13.2	9.1	14.1	14.7	9.8
Cobalt	NA	4.1 J	3.5 J	4.6 J	4.2 J	6.4 J	2.7 J	3.2 J	4.7 J	4.7 J	5.5 J	2.5 J	3.6 J	3.8 J	2.5 J	3.2 J	3.3 J	3.3 J
Copper	50	20.6	*130*	59.0	*112*	12.2	14.9	*222*	14.6	15.2	14.7	4.4	6.2	19.9	4.7 J	48.7	6.6	28.2
Iron	NA	6,480	12,800	14,500	10,700	12,400	9,180	10,100	9,610	14,500	18,700	12,100	12,200	10,500	6,390	21,400	8,910	8,100
Lead	63	53.8	*393*	87.2	*215*	**730**	*73.9*	*132*	*268*	**88.5**	*118*	25.8	19.0	*75.3*	2.7	**631**	18.0	*65.2*
Magnesium	NA	520 J	2,760	1,570	540 J	1,420	1,240	1,270	1,110	2,270	2,210	1,790	2,660	1,710	1,190	1,400	1,490	1,090
Manganese	1,600	123	294	562	135	251	137	155	95.9	125	278	57.0	102	127	101	146	176	162
Nickel	30	10.2	8.3 J	9.3	17.0	12.5	6.4 J	8.0	9.8	10.3	11.1	6.9	9.6	9.5	7.2 J	8.6	8.6	7.0 J
Potassium	NA	394 J	425 J	*628* J	358 J	921 J	380 J	422 J	368 J	745 J	699 J	284 J	500 J	533 J	467 J	496 J	384 J	385 J
Selenium	3.9	3.6 U	4.5 U	3.7 U	4.0 U	4.1 U	4.2 U	4.0 U	3.7 U	4.3 U	4.1 U	3.4 U	4.1 U	4.4 U	3.9 U	4.3 U	4.2 U	4.0 U
Silver	2	1.8 U	**156**	**8.2**	**70.9**	0.73 J	**290**	**19.9**	**41.7**	**25.7**	**47.9**	0.32 J	**2.8**	**26.0**	1.9 U	**38.5**	2.1 U	0.47 J
Sodium	NA	889 U	176 J	164 J	185 J	1,020 U	1,050 U	104 J	930 U	135 J	88.1 J	101 J	125 J	1100 U	973 U	1,060 U	1,050 U	1,000 U
Thallium	NA	3.6 U	4.5 U	3.7 U	4.0 U	4.1 U	4.2 U	4.0 U	3.7 U	4.3 U	4.1 U	3.4 U	4.1 U	4.4 U	3.9 U	4.3 U	4.2 U	4.0 U
Vanadium	NA	13.0	14.6	17.0	11.0	18.6	13.3	13.1	14.6	22.8	22.2	19.5	20.0	15.0	8.8 J	15.4	13.8	13.1
Zinc	109	52.5	*240*	90.4	*341*	55.4	44.6	*218*	*264*	94.0	*200*	27.5	31.4	75.6	10.5	*137*	26.1	47.7
Mercury	0.18	0.037	**2.6**	*0.72*	*0.65*	0.035	0.079	*0.48*	0.16	0.058	0.16	0.025	0.020 U	0.12	0.022	*0.79*	0.051	0.11

Notes
J : Sample result is greater than the MDL but below the CRDL
U : Indicates analyzed for but not detected.
[1] Trivalent chromium SCOs utilized.
Highlighted / bolded indicates analyte exceeded above its respective NYSDEC Commercial SCO.
Green / italicized value indicates analyte exceeded its respective unrestricted SCO but was below its respective Residential / Protection of GW SCO, whichever is lower.

Table 5-29
TAL Metals Soil Analytical Data
SL-33 / SL-34 Original Sample Locations - Post Excavation Data

TAL Metals (mg/kg)	NYSDEC SCOs				SL-33 / SL-34 Original Sample Locations - Post Excavation Data																			
					Supplemental End Pont Soil Samples																			
					Side-wall Samples												Bottom Samples							
	NYSDEC Unrestricted SCO	Residential	Restricted Residential	Protection of Groundwater	SL-EP#241 (1')	SL-EP#242 (1')	SL-EP#243 (1')	SL-EP#244 (1')	SL-EP#245 (1')	SL-EP#246 (1')	SL-EP#251 (1')	SL-EP#252 (1')	SL-EP#253 (1')	SL-EP#254 (1')	SL-EP#255 (1')	SL-EP#256 (1')	SL-EP#237 (5')	SL-EP#238 (5')	SL-EP#239 (5')	SL-EP#240 (5')	SL-EP#247 (9')	SL-EP#248 (9')	SL-EP#249 (9')	SL-EP#250 (9')
Aluminum	NA	NA	NA	NA	4,420	7,350	9,540	2,450	9,110	11,900	7,010	3,250	10,850	6,450	5,380	13,700	4,340	6,410	5,660	6,040	9,310	4,170	15,400	10,900
Antimony	NA	NA	NA	NA	4.0 U	4.4 U	4.2 U	4.0 U	4.2 U	4.6 U	4.5 U	4.2 U	4.2 U	0.56 J	4.2 U	4.6 U	4.2 U	4.7 U	4.0 U	3.9 U	4.4 U	4.5 U	4.4 U	4.8 U
Arsenic	13	16	16	16	3.2	2.8 J	4.7	2.3 J	3.5	5.0	3.7	1.1 J	3.6	3.7	3.0 J	5.4	2.0 J	3.7	2.3 J	3.0	4.6	2.1 J	6.2	3.7
Barium	350	350	400	820	34.9 J	158	117	20.2 J	35.3 J	136	37.7 J	22.6 J	50.1	44.4	30.3 J	65.2	15.6 J	15.3 J	39.7 J	18.0 J	28.1 J	28.4 J	41.7 J	37.0 J
Beryllium	7.2	14	72	47	0.23 J	0.41 J	0.44	0.13 J	0.44	0.48	0.32 J	0.16 J	0.38 J	0.29 J	0.22 J	0.52	0.26 J	0.13 J	0.29 J	0.31 J	0.40	0.12 J	0.67	0.38 J
Cadmium	2.5	2.5	4.3	7.5	0.16 J	0.88 U	0.58 J	0.81 U	0.83 U	0.92 U	0.90 U	0.84 U	0.85 U	0.18 J	0.84 U	0.91 U	0.85 U	0.94 U	0.81 U	0.79 U	0.78 U	0.88 U	0.90 U	0.97 U
Calcium	NA	NA	NA	NA	3,290	1,670	650	349 J	1,310	2,440	1,090 J	14,500	1,650	1,630	1,460	2,210	556 J	527 J	576 J	796 J	894 J	283 J	1,300	1,310
Chromium[1]	30	36	180	NS	10.6	14.5	16.0	4.5	13.5	22.2	11.8	4.3	16.4	11.5	9.5	23.1	9.0	13.7	8.7	11.0	19.8	13.7	32.9	22.2
Cobalt	NA	NA	NA	NA	3.4 J	3.9 J	4.1 J	1.4 J	3.8 J	7.3 J	3.1 J	1.6 J	4.3 J	3.3 J	2.5 J	6.1 J	2.7 J	1.6 J	2.6 J	2.9 J	2.6 J	1.5 J	6.7 J	3.9 J
Copper	50	270	270	1,720	42.0	33.0	49.3	10.7	9.9	23.0	26.6	4.3 J	17.2	15.6	12.9	20.0	5.9	8.8	4.5 J	9.1	8.6	4.8 J	21.2	12.3
Iron	NA	NA	NA	NA	9,140	9,630	11,400	5,740	10,900	20,300	10,800	4,160	13,900	10,600	7,380	16,900	7,710	13,200	7,970	8,000	21,900	7,380	33,400	18,700
Lead	63	400	400	450	181	58.1	126	10.8	15.8	62.0	36.9	3.7	77.7	114	79.1	125	3.1	29.3	5.5	6.0	10.8	14.4	9.8	25.4
Magnesium	NA	NA	NA	NA	1,460	1,680	2,060	691 J	1,670	3,170	1,400	884 J	2,250	1,460	1,200	3,100	961 J	1,230	883 J	1,570	2,270	1,170	4,210	2,940
Manganese	1,600	2,000	2,000	2,000	184	197	340	57.0	120	236	142	54.1	133	117	84.7	140	176	36.2	71.1	67.6	64.5	34.8	180	109
Nickel	30	140	310	130	7.7 J	8.9	10.1	2.9 J	8.2 J	13.4	7.0 J	6.7 J	10.3	7.8	5.9 J	14.4	6.2 J	4.9 J	5.4 J	6.1 J	8.0	4.8 J	14.8	10.6
Potassium	NA	NA	NA	NA	585 J	557 J	887 J	265 J	352 J	1,570	859 J	656 J	1,540	1,460	884 J	1,150	450 J	347 J	330 J	546 J	766 J	552 J	1,760	1,130 J
Selenium	3.9	36	180	4	4.0 U	4.4 U	4.2 U	4.0 U	4.2 U	4.6 U	4.5 U	4.2 U	4.2 U	3.9 U	4.2 U	4.6 U	4.2 U	4.7 U	4.0 U	3.9 U	3.9 U	4.4 U	4.5 U	4.8 U
Silver	2	36	180	8.3	5.9	9.0	39.1	2.6	1.9 J	24.4	7.9	202	107	126	193	13.8	2.1 U	45.8	2.0 U	1.2 J	191	145	2.7	5.0
Sodium	NA	NA	NA	NA	1,010 U	168 J	191 J	1010 U	1040 U	1150 U	120 J	234 J	329 J	131 J	1,050 U	100 J	1,060 U	1,170 U	1,010 U	985 U	113 J	134 J	167 J	1210 U
Thallium	NA	NA	NA	NA	4.0 U	4.4 U	4.2 U	4.0 U	4.2 U	4.6 U	4.5 U	4.2 U	4.2 U	3.9 U	4.2 U	4.6 U	4.2 U	4.7 U	4.0 U	3.9 U	3.9 U	4.4 U	4.5 U	4.8 U
Vanadium	NA	NA	NA	NA	11.8	15.1	16.8	5.2 J	16.4	29.5	15.6	5.8 J	21.4	15.0	12.6	32.1	10.2 J	23.0	12.2	15.0	34.7	16.9	45.4	27.7
Zinc	109	2,200	10,000	2,480	66.1	51.3	150	118	24.4	149	31.6	35.4	122	129	48.5	111	11.1	39.5	12.8	21.0	115	41.3	42.5	42.2
Mercury	0.18	0.81	0.81	0.73	0.49	0.31	0.30	0.042	0.053	0.24	0.072	0.13	0.11	0.051	0.12	0.11	0.018 U	0.020 U	0.017 U	0.019 U	0.020 U	0.023	0.019 U	0.022

TAL Metals (mg/kg)	NYSDEC SCOs				SL -33 / SL-34 Original Sample Locations - Post Excavation Data										
					Supplemental End Pont Soil Samples										
					Co-located Bottom and Sidewall Samples										
	NYSDEC Unrestricted SCO	Residential	Restricted Residential	Protection of Groundwater	SL-EP#332 (7')	SL-EP#333 (7')	SL-EP#334 (7')	SL-EP#335 (7')	SL-EP#336 (7')	SL-EP#337 (7')	SL-EP#338 (6')	SL-EP#338 (1')	SL-EP#339 (6')	SL-EP#339 (1')
Aluminum	NA	NA	NA	NA	12,500	8,790	6,720	9,770	4,660	2,390	4,700	8,150	5,160	11,900
Antimony	NA	NA	NA	NA	4.3 U	4.3 U	4.4 U	4.4 U	4.1 U	4.4 U	4.0 U	4.1 U	4.0 U	4.1 U
Arsenic	13	16	16	16	9.1	1.6 J	3.0 J	1.3 J	1.6 J	3.3 U	0.93 J	3.8	3.0 U	2.8 J
Barium	350	350	400	820	74.1	40.9 J	35.4 J	37.1 J	12.7 J	14.8 J	24.6 J	60.5	10.2 J	51.2
Beryllium	7.2	14	72	47	0.85	0.30 J	0.33 J	0.46 U	0.41 U	0.44 U	0.40 U	0.28 J	0.40 U	0.41 U
Cadmium	2.5	2.5	4.3	7.5	0.85 U	0.86 U	0.88 U	1.0	0.81 U	0.87 U	0.80 U	0.82 U	0.80 U	0.83 U
Calcium	NA	NA	NA	NA	1,090	914 J	724 J	953 J	421 J	125 J	241 J	1,560	109 J	7,480
Chromium[1]	30	36	180	NS	24.0	16.8	16.1	13.1	10.0	7.7	7.4	13.4	6.1	19.2
Cobalt	NA	NA	NA	NA	9.6 J	2.1 J	3.9 J	3.3 J	2.7 J	10.9 J	2.0 J	6.4 J	10.1 J	5.6 J
Copper	50	270	270	1,720	17.1	9.1	10.1	20.0	5.8	1.9 J	4.9 J	14.7	3.3 J	19.4
Iron	NA	NA	NA	NA	23,300	8,670	11,300	9,000	5,890	2,940	6,450	14,100	9,980	18,900
Lead	63	400	400	450	9.2	9.8	7.2	10.1	5.3	5.8	43.6	98.7	6.6	46.3
Magnesium	NA	NA	NA	NA	3,330	1,330	1,630	2,670	1,180	467 J	900 J	1,670	619 J	2,810
Manganese	1,600	2,000	2,000	2,000	110	42.3	73.3	90.6	50.0	14.1	35.9	721	22.8	121
Nickel	30	140	310	130	15.7	7.2 J	8.2 J	11.2	5.4 J	2.0 J	4.5 J	9.8	3.1 J	27.9
Potassium	NA	NA	NA	NA	1,530	605 J	518 J	880 J	410 J	242 J	318 J	513 J	257 J	881 J
Selenium	3.9	36	180	4	4.3 U	4.3 U	4.4 U	4.6 U	4.1 U	4.4 U	4.0 U	4.1 U	4.0 U	4.1 U
Silver	2	36	180	8.3	2.1 U	1.1 J	2.2 U	66.1	0.60 J	39.4	2.0 U	14.1	181	241
Sodium	NA	NA	NA	NA	92.0 J	1,080 U	87.8 J	1,150 U	1,020 U	1,090 U	1,000 U	211 J	101 J	279 J
Thallium	NA	NA	NA	NA	4.3 U	4.3 U	4.4 U	4.6 U	4.1 U	4.4 U	4.0 U	4.1 U	4.0 U	4.1 U
Vanadium	NA	NA	NA	NA	39.2	18.6	20.2	12.3	10.4	5.3 J	9.9 J	19.7	7.8 J	25.9
Zinc	109	2,200	10,000	2,480	47.1	27.4	24.4	226	18.6	13.6	17.5	96.9	8.7	95.0
Mercury	0.18	0.81	0.81	0.73	0.018 U	0.019 U	0.018 U	0.021	0.018 U	0.013 J	0.018 U	0.11	0.015 J	0.079

TAL Metals (mg/kg)	NYSDEC SCOs				SL -33 / SL-34 Original Sample Locations - Post Excavation Data															
					Supplemental End Pont Soil Samples															
					Co-located Bottom and Sidewall Samples															
	NYSDEC Unrestricted SCO	Residential	Restricted Residential	Protection of Groundwater	SL-EP#340 (6')	SL-EP#340 (1')	SL-EP#341 (6')	SL-EP#342 (6')	SL-EP#342 (1')	SL-EP#343 (6')	SL-EP#343 (1')	SL-EP#344 (6')	SL-EP#344 (1')	SL-EP#345 (6')	SL-EP#345 (1')	SL-EP#346 (6')	SL-EP#346 (1')	SL-EP#347 (6')	SL-EP#347 (1')
Aluminum	NA	NA	NA	NA	3,380	8,070	4,810	3,740	12,400	3,360	3,880	3,750	9,710	10,600	6,450	12,700	3,070	6,310	6,020	
Antimony	NA	NA	NA	NA	4.1 U	4.3 U	3.9 U	4.0 U	4.2 U	4.1 U	4.0 U	4.2 U	3.8 U	4.5 U	4.6 U	4.6 U	4.4 U	4.0 U	4.0 U	
Arsenic	13	16	16	16	3.1 U	1.6 J	2.1 J	1.8 J	3.8	0.83 J	2.2 J	4.0	2.8	5.1 J	4.4	2.7 J	3.8	1.8 J	2.4 J	
Barium	350	350	400	820	8.7 J	29.2 J	23.1 J	18.5 J	113	67.8	33.8 J	80.1	27.6 J	110	124	117	82.8	45.1	48.5	
Beryllium	7.2	14	72	47	0.41 U	0.43 U	0.39 U	0.40 U	0.60	0.31 J	0.40 U	0.32 J	0.35 J	0.48	0.46 U	0.63	0.44 U	0.40 U	0.40 U	
Cadmium	2.5	2.5	4.3	7.5	0.83 U	0.86 U	0.77 U	0.80 U	0.84 U	0.81 U	3.0	0.84 U	0.77 U	0.90 U	0.45 J	0.92 U	0.89 U	0.79 U	0.81 U	
Calcium	NA	NA	NA	NA	181 J	527 J	674 J	506 J	2,860	770 J	5,000	21,000	698 J	2,140	7,910	3,170	5,220	958 J	1,480	
Chromium[1]	30	36	180	NS	6.1	11.3	10.8	8.5	27.0	10.1	10.2	11.5	13.2	20.7	15.7	24.0	13.7	16.6	12.1	
Cobalt	NA	NA	NA	NA	1.1 J	2.3 J	3.3 J	3.2 J	6.4 J	1.9 J	2.7 J	4.0 J	7.1 J	4.8 J	4.0 J	5.6 J	3.5 J	2.8 J	3.4 J	
Copper	50	270	270	1,720	4.8 J	22.5	7.0	5.8	26.6	7.1 J	13.9	23.3	9.0	15.2	39.1	10.6	35.3	12.2	13.9	
Iron	NA	NA	NA	NA	4,170	9,730	8,810	8,800	16,700	4,660	7,740	12,200	14,900	13,000	13,400	14,600	9,790	13,000	10,400	
Lead	63	400	400	450	6.1	64.3	14.4	6.0	29.8	8.9	53.7	161	8.3	26.2	246	18.2	262	50.2	96.0	
Magnesium	NA	NA	NA	NA	808 J	1,540	1,290	1,160	3,370	854 J	1,650	10,500	1,820	2,550	3,000	3,180	1,340	2,060	1,580	
Manganese	1,600	2,000	2,000	2,000	30.4	52.4	166	126	333	60.9	160	253	279	360	256	253	211	90.1	136	
Nickel	30	140	310	130	3.4 J	6.7 J	7.6 J	6.4 J	15.6	5.0 J	5.7 J	8.5	9.9	12.2	10.3	14.5	8.5 J	8.7	8.1	
Potassium	NA	NA	NA	NA	400 J	873 J	531 J	400 J	904 J	249 J	406 J	354 J	420 J	465 J	533 J	575 J	459 J	542 J	595 J	
Selenium	3.9	36	180	4	4.1 U	4.3 U	3.9 U	4.0 U	4.2 U	4.1 U	4.0 U	4.2 U	3.8 U	4.5 U	4.6 U	4.6 U	4.4 U	4.0 U	4.0 U	
Silver	2	36	180	8.3	1.8 J	2.2 U	1.9 J	2.0 U	1.8 J	2.0 U	58.9	6.7	1.9 J	1.0 J	21.4	2.3 U	4.1	2.0	58.9	
Sodium	NA	NA	NA	NA	1,030 U	1,070 U	964 U	1,000 U	91 J	151 J	1,010 U	1,040 U	222 J	401 J	1,150 U	165 J	1,110 U	129 J	1,010 U	
Thallium	NA	NA	NA	NA	4.1 U	4.3 U	3.9 U	4.0 U	4.2 U	4.1 U	4.0 U	4.2 U	3.8 U	4.5 U	4.6 U	4.6 U	4.4 U	4.0 U	4.0 U	
Vanadium	NA	NA	NA	NA	8.2 J	14.7	11.1	12.0	26.1	6.9 J	12.7	14.2	18.8	22.4	17.7	23.3	15.0	19.8	13.8	
Zinc	109	2,200	10,000	2,480	11.9	22.8	21.1	16.9	65.8	13.9	136	61.1	23.5	37.8	174	38.4	139	63.4	78.2	
Mercury	0.18	0.81	0.81	0.73	0.017 U	0.063	0.017	0.017	0.048	0.019 U	0.11	0.28	0.016 J	0.050	0.85	0.031	0.45	0.12	0.10	

Notes
J : Sample result is greater than the MDL but below the CRDL
U : Indicates analyzed for but not detected.
[1] Trivalent chromium SCOs utilized.
Highlighted / bolded indicates analyte exceeded above its respective NYSDEC Commercial SCO.
Green / italicized value indicates analyte exceeded its respective unrestricted SCO but was below its respective Residential / Protection of GW SCO, whichever is lower.
Blue / italicized value indicates analyte exceeded its respective Residential SCO and / or Protection of Groundwater SCO but was below its Restricted Residential SCO.
NA - Not Available
NS - No Standard Available

APEX

Table 5-29
TAL Metals Soil Analytical Data
SL-33 / SL-34 Original Sample Locations - Post Excavation Data

	NYSDEC SCOs					SL-33 / SL-34 Original Sample Locations - Post Excavation Data																	
						Supplemental End Pont Soil Samples																	
						Co-located Bottom and Sidewall Samples																	
TAL Metals (mg/kg)	NYSDEC Unrestricted SCO	Residential	Restricted Residential	Commercial	Protection of Groundwater	SL-EP#357 (4')	SL-EP#357 (1')	SL-EP#358 (4')	SL-EP#358 (1')	SL-EP#359 (4')	SL-EP#359 (1')	SL-EP#360 (4')	SL-EP#360 (1')	SL-EP#361 (4')	SL-EP#361 (1')	SL-EP#362 (4')	SL-EP#362 (1')	SL-EP#363 (4')	SL-EP#363 (1')	SL-EP#364 (4')	SL-EP#364 (1')	SL-EP#365 (4')	SL-EP#365 (1')	SL-EP#366 (4')	SL-EP#366 (1')
Aluminum	NA	NA	NA	NA	NA	5,880	10,100	7,920	7,990	5,600	4,780	3,520	4,490	3,530	5,820	5,080	6,130	3,180	5,610	15,600	5,530	6,690	4,790	9,090	6,200
Antimony	NA	NA	NA	NA	NA	4.6 U	4.4 U	4.3 U	4.5 U	4.2 U	4.1 U	3.9 U	4.1 U	3.7 U	3.8 U	3.4 U	4.2 U	3.6 U	4.2 U	4.3 U	3.5 U	3.7 U	3.7 U	3.4 U	2.2 J
Arsenic	13	16	16	16	16	3.5 U	3.1 J	2.8 J	2.1 J	3.1 U	1.9 J	1.2 J	1.7 J	1.0 J	1.9 J	1.9 J	3.0 J	0.93 J	6.1	4.1	4.1	3.8	4.2	4.6	*19.8*
Barium	350	350	400	400	820	17.6 J	49.3	27.7 J	24.7 J	38.6 J	39.9 J	20.8 J	20.7 J	19.0 J	34.5 J	17.6 J	41.6 J	18.3 J	49.2	127	816	185	230	264	253
Beryllium	7.2	14	72	590	47	0.46 U	0.33 J	0.43 U	0.45 U	0.42 U	0.41 U	0.39 U	0.41 U	0.37 U	0.26 J	0.34 U	0.31 J	0.36 U	0.31 J	0.43 U	0.35 U	0.37 U	0.37 U	0.34 U	0.27 J
Cadmium	2.5	2.5	4.3	9.3	7.5	0.92 U	0.88 U	0.85 U	0.89 U	0.84 U	0.68 J	0.78 U	0.82 U	0.75 U	0.77 U	0.68 U	0.31 J	0.72 U	0.84 U	0.87 U	0.71 U	1.4	1.4	2.1	*3.8*
Calcium	NA	NA	NA	NA	NA	235 J	1,280	840 J	1,010 J	980 J	9,260	747 J	672 J	638 J	3,280	448 J	5,610	254 J	1,560	3,340	3,410	3,560	3,500	3,030	5,840
Chromium[1]	30	36	180	1,500	NS	9.2	17.8	12.7	12.6	9.8	10.7	6.4	7.3	5.6	11.1	9.8	11.7	6.1	13.3	*39.2*	25.3	*30.9*	16.8	26.4	22.8
Cobalt	NA	NA	NA	NA	NA	2.0 J	3.6 J	2.9 J	2.7 J	2.7 J	2.8 J	1.3 J	2.6 J	2.1 J	3.7 J	3.0 J	3.8 J	2.0 J	4.2 J	7.9 J	3.7 J	4.4 J	3.3 J	5.6 J	4.5 J
Copper	50	270	270	270	1,720	6.6	17.5	7.1	5.5 J	2.7 J	10.3	2.7 J	7.9	2.7 J	13.1	4.5	23.2	3.9 J	*62.5*	*77.6*	43.2	*146*	*123*	*1,140*	*334*
Iron	NA	NA	NA	NA	NA	6,170	13,500	9,830	9,420	8,930	7,470	4,060	8,050	4,660	13,600	9,590	9,550	6,210	11,000	23,000	10,900	11,700	9,920	18,800	12,500
Lead	63	400	400	1,000	450	4.1	*92.8*	*66.7*	11.5	9.6	50.9	13.8	8.5	11.5	32.0	3.7	*85.3*	3.5	*188*	19.6	*636*	*313*	*582*	*547*	*1,170*
Magnesium	NA	NA	NA	NA	NA	1,380	2,340	1,760	1,820	1,270	2,400	650 J	953 J	817 J	2,010	1,210	2,130	688 J	1,450	4,790	1,450	3,230	1,240	2,510	1,910
Manganese	1,600	2,000	2,000	10,000	2,000	48.7	106	89.3	90.3	162	151	64.0	88.4	66.3	257	210	230	94.9	190	414	181	210	220	244	292
Nickel	30	140	310	310	130	6.8 J	10.1	7.6 J	7.3 J	5.8 J	6.4 J	3.3 J	5.6 J	4.2 J	7.6 J	5.8 J	8.4	4.4 J	10.7	17.8	9.2	12.8	7.9	14.3	13.3
Potassium	NA	NA	NA	NA	NA	409 J	718 J	449 J	442 J	527 J	655 J	198 J	329 J	253 J	457 J	308 J	453 J	216 J	574 J	797 J	508 J	2,080	437 J	777 J	541 J
Selenium	3.9	36	180	1,500	4	4.6 U	4.4 U	4.3 U	4.5 U	4.2 U	4.1 U	3.9 U	4.1 U	3.7 U	3.8 U	3.4 U	4.2 U	3.6 U	4.2 U	4.3 U	3.5 U	3.7 U	3.7 U	3.4 U	3.7 U
Silver	2	36	180	1,500	8.3	1.1 J	*104*	*2.7*	1.6 J	*2.3*	*129*	*2.4*	*2.3*	0.39 J	*24.9*	1.7 U	*15.3*	1.8 U	*15.5*	2.2 U	*3.6*	*10.5*	*8.7*	*36.0*	*19.5*
Sodium	NA	NA	NA	NA	NA	1,150 U	339 J	155 J	154 J	1,040 U	101 J	975 U	1,020 U	934 U	272 J	138 J	194 J	901 U	1,060 U	270 J	887 U	917 U	73 J	155 J	100 J
Thallium	NA	NA	NA	NA	NA	4.6 U	4.4 U	4.3 U	4.5 U	4.2 U	4.1 U	3.9 U	4.1 U	3.7 U	3.8 U	3.4 U	4.2 U	3.6 U	4.2 U	4.3 U	3.5 U	3.7 U	3.7 U	3.4 U	3.7 U
Vanadium	NA	NA	NA	NA	NA	10.5 J	21.4	16.8	16.4	10.3 J	11.6	6.2 J	9.5 J	5.8 J	15.9	11.0	14.1	6.9 J	14.2	37.0	15.0	20.2	11.9	20.1	16.8
Zinc	109	2,200	10,000	10,000	2,480	22.0	*144*	69.2	26.0	17.9	53.7	13.6	16.5	10.6	30.2	13.1	86.8	9.7	116	53.7	*351*	*248*	*345*	*359*	*460*
Mercury	0.18	0.81	0.81	2.8	0.73	0.015 J	0.098	0.040	0.030	0.015 J	0.083	0.020 U	0.029	0.017 U	0.036	0.016 U	0.16	0.016	*0.84*	*0.49*	*0.30*	*0.54*	*0.43*	*0.29*	*0.39*

	NYSDEC SCOs					SL -33 / SL-34 Original Sample Locations - Post Excavation Data											
						Supplemental End Pont Soil Samples											
						Co-located Bottom and Sidewall Samples											
TAL Metals (mg/kg)	NYSDEC Unrestricted SCO	Residential	Restricted Residential	Commercial	Protection of Groundwater	SL-EP#367 (5')	SL-EP#368 (5')	SL-EP#369 (5')	SL-EP#370 (5')	SL-EP#371 (5')	SL-EP#372 (7')	SL-EP#373 (7')	SL-EP#374 (4')	SL-EP#374 (1')	SL-EP#375 (4')	SL-EP#375 (1')	SL-EP#376 (7')
Aluminum	NA	NA	NA	NA	NA	13,500	5,420	11,500	4,800	6,300	10,700	8,570	14,100	5,800	6,600	8,840	7,960
Antimony	NA	NA	NA	NA	NA	4.2 U	4.1 U	4.0 U	3.2 U	3.4 U	4.2 U	3.3 U	3.9 U	3.6 U	3.3 U	3.5 U	2.7 J
Arsenic	13	16	16	16	16	2.9 J	1.6 J	1.8 J	0.79 J	2.4 J	2.4 J	2.1 J	3.5	2.6 J	5.2	3.9	4.3
Barium	350	350	400	400	820	140	89.8	90.4	34.1	27.7 J	23.3 J	25.6 J	109	155	215	212	166
Beryllium	7.2	14	72	590	47	0.65	0.41 U	0.44	0.32 U	0.34 U	0.42 U	0.33 U	0.39 U	0.36 U	0.26 J	0.35 U	0.34 J
Cadmium	2.5	2.5	4.3	9.3	7.5	0.83 U	0.81 U	0.80 U	0.64 U	0.69 U	0.83 U	0.66 U	0.77 U	0.73 U	0.65 J	0.70 U	0.90 U
Calcium	NA	NA	NA	NA	NA	3,810	1,680	2,290	673 J	481 J	693 J	262 J	2,280	2,430	5,600	3,630	5,420
Chromium[1]	30	36	180	1,500	NS	21.1	14.1	21.2	7.9	12.8	16.7	13.2	29.0	12.1	16.6	20.5	16.5
Cobalt	NA	NA	NA	NA	NA	4.0 J	2.3 J	4.1 J	2.2 J	3.8 J	1.8 J	2.1 J	9.6 J	3.6 J	4.5 J	4.4 J	4.1 J
Copper	50	270	270	270	1,720	9.0	*115*	8.3	3.3 J	1.7 J	7.7	7.3	22.6	29.9	*96.6*	41.2	27.3
Iron	NA	NA	NA	NA	NA	11,200	11,300	11,300	5,980	13,300	9,110	10,400	23,400	10,900	13,400	15,300	12,100
Lead	63	400	400	1,000	450	22.2	*75.0*	19.5	9.2	4.2	10.1	5.1	*65.6*	*307*	*805*	*513*	*349*
Magnesium	NA	NA	NA	NA	NA	2,170	1,190	2,020	1,070	1,640	1,400	1,720	4,220	1,700	1,910	2,280	2,150
Manganese	1,600	2,000	2,000	10,000	2,000	168	146	236	84.5	234	39.7	53.1	209	147	171	206	169
Nickel	30	140	310	310	130	11.5	8.0 J	9.9	5.0 J	6.6 J	6.0 J	8.0	20.9	7.9	10.5	11.1	10.2
Potassium	NA	NA	NA	NA	NA	493 J	437 J	381 J	305 J	564 J	955 J	619 J	2,140	479 J	577 J	647 J	627 J
Selenium	3.9	36	180	1,500	4	4.2 U	4.1 U	4.0 U	3.2 U	3.4 U	4.2 U	3.3 U	3.9 U	3.6 U	3.3 U	3.5 U	4.5 U
Silver	2	36	180	1,500	8.3	2.1 U	*11.8*	2.0 U	*3.8*	1.7 U	1.5 J	*25.7*	1.5 J	*4.0*	*24.8*	*7.2*	47.2
Sodium	NA	NA	NA	NA	NA	238 J	120 J	367 J	116 J	862 U	139 J	79 J	132 J	908 U	92 J	103 J	1,130 U
Thallium	NA	NA	NA	NA	NA	4.2 U	4.1 U	4.0 U	3.2 U	3.4 U	4.2 U	3.3 U	3.9 U	3.6 U	3.3 U	3.5 U	4.5 U
Vanadium	NA	NA	NA	NA	NA	20.0	10.8	16.6	7.8 J	15.3	16.8	17.8	34.7	15.3	20.1	21.3	18.5
Zinc	109	2,200	10,000	10,000	2,480	33.2	*150*	31.3	17.8	19.5	25.0	23.1	105	*242*	*516*	*315*	*291*
Mercury	0.18	0.81	0.81	2.8	0.73	0.036	0.15	*0.24*	0.012 J	0.017 U	0.038	0.018	0.11	*0.24*	*0.25*	*0.22*	*0.33*

Notes
J : Sample result is greater than the MDL but below the CRDL
U : Indicates analyzed for but not detected.
[1] Trivalent chromium SCOs utilized.
Highlighted / bolded indicates analyte exceeded above its respective NYSDEC Commercial SCO.
Green / italicized value indicates analyte exceeded its respective unrestricted SCO but was below its respective Residential / Protection of GW SCO, whichever is lower.
Blue / italicized value indicates analyte exceeded its respective Residential SCO and / or Protection of Groundwater SCO but was below its Restricted Residential SCO.
Pink / italicized value indicates analyte exceeded its respective Residential SCOs and / or Protection of Groundwater SCO but was below its Commercial SCO.
Pale Yellow / italicized value indicates analyte detected at above its Unrestricted SCO and Protection of Groundwater SCO but below its Residential SCO.
NA - Not Available
NS - No Standard Available

Table 5-30
TCL SVOC Soil Analytical Data
Post-excavation End-point Soil Analytical Data - SL-31

TCL SVOCs (mg/kg)	NYSDEC Unrestricted SCO	Post-excavation End-point Soil Analytical Data - SL-31				
		Side-wall Samples				
		SL-EP#1	SL-EP#2	SL-EP#3	SL-EP#4	SL-EP#5
		(8')	(8')	(8')	(8')	(8')
1,2,4,5-Tetrachlorobenzene	NA	0.34 U	0.36 U	0.33 U	0.36 U	0.35 U
1,4-Dioxane	0.1	0.34 U	0.36 U	0.33 U	0.36 U	0.35 U
2,2'-oxybis[1-chloropropane]	NA	0.34 U	0.36 U	0.33 U	0.36 U	0.35 U
2,3,4,6-Tetrachlorophenol	NA	0.34 U	0.36 U	0.33 U	0.36 U	0.35 U
2,4,5-Trichlorophenol	NA	0.34 U	0.36 U	0.33 U	0.36 U	0.35 U
2,4,6-Trichlorophenol	NA	0.34 U	0.36 U	0.33 U	0.36 U	0.35 U
2,4-Dichlorophenol	NA	0.34 U	0.36 U	0.33 U	0.36 U	0.35 U
2,4-Dimethylphenol	NA	0.34 U	0.36 U	0.33 U	0.36 U	0.35 U
2,4-Dinitrophenol	NA	1.0 U	1.1 U	1.0 U	1.1 U	1.1 U
2,4-Dinitrotoluene	NA	0.068 U	0.073 U	0.068 U	0.073 U	0.070 U
2,6-Dinitrotoluene	NA	0.068 U	0.073 U	0.068 U	0.073 U	0.070 U
2-Chloronaphthalene	NA	0.34 U	0.36 U	0.33 U	0.36 U	0.35 U
2-Chlorophenol	NA	0.34 U	0.36 U	0.33 U	0.36 U	0.35 U
2-Methylnaphthalene	NA	0.34 U	0.36 U	0.33 U	0.36 U	0.35 U
2-Methylphenol	0.33	0.34 U	0.36 U	0.33 U	0.36 U	0.35 U
2-Nitroaniline	NA	0.68 U	0.73 U	0.68 U	0.73 U	0.70 U
2-Nitrophenol	NA	0.34 U	0.36 U	0.33 U	0.36 U	0.35 U
3,3'-Dichlorobenzidine	NA	0.68 U	0.73 U	0.68 U	0.73 U	0.70 U
3-Nitroaniline	NA	0.68 U	0.73 U	0.68 U	0.73 U	0.70 U
4,6-Dinitro-2-methylphenol	NA	1.0 U	1.1 U	1.0 U	1.1 U	1.1 U
4-Bromophenyl phenyl ether	NA	0.34 U	0.36 U	0.33 U	0.36 U	0.35 U
4-Chloro-3-methylphenol	NA	0.34 U	0.36 U	0.33 U	0.36 U	0.35 U
4-Chloroaniline	NA	0.34 U	0.36 U	0.33 U	0.36 U	0.35 U
4-Chlorophenyl phenyl ether	NA	0.34 U	0.36 U	0.33 U	0.36 U	0.35 U
4-Methylphenol	0.33	0.34 U	0.36 U	0.33 U	0.36 U	0.35 U
4-Nitroaniline	NA	0.68 U	0.73 U	0.68 U	0.73 U	0.70 U
4-Nitrophenol	NA	1.0 U	1.1 U	1.0 U	1.1 U	1.1 U
Acenaphthene	20	0.34 U	0.36 U	0.33 U	0.36 U	0.35 U
Acenaphthylene	100	0.34 U	0.36 U	0.33 U	0.36 U	0.35 U
Acetophenone	NA	0.34 U	0.36 U	0.33 U	0.36 U	0.35 U
Anthracene	100	0.34 U	0.36 U	0.33 U	0.36 U	0.35 U
Atrazine	NA	0.34 U	0.36 U	0.33 U	0.36 U	0.35 U
Benzaldehyde	NA	0.34 U	0.36 U	0.33 U	0.36 U	0.35 U
Benzo[a]anthracene	1	0.095	0.036 U	0.033 U	0.036 U	0.035 U
Benzo[a]pyrene	1	0.092	0.036 U	0.033 U	0.036 U	0.035 U
Benzo[b]fluoranthene	1	0.099	0.036 U	0.033 U	0.036 U	0.035 U
Benzo[g,h,i]perylene	100	0.083 J	0.36 U	0.33 U	0.36 U	0.35 U
Benzo[k]fluoranthene	0.8	0.037	0.036 U	0.033 U	0.036 U	0.035 U
Bis(2-chloroethoxy)methane	NA	0.34 U	0.36 U	0.33 U	0.36 U	0.35 U
Bis(2-chloroethyl)ether	NA	0.034 U	0.036 U	0.033 U	0.036 U	0.035 U
Bis(2-ethylhexyl) phthalate	NA	0.28 J	0.36 U	0.33 U	0.36 U	0.35 U
Butyl benzyl phthalate	NA	1.8	0.36 U	0.33 U	0.36 U	0.35 U
Caprolactam	NA	0.34 U	0.36 U	0.33 U	0.36 U	0.35 U
Carbazole	NA	0.34 U	0.36 U	0.33 U	0.36 U	0.35 U
Chrysene	1	0.11 J	0.36 U	0.33 U	0.36 U	0.35 U
Dibenz(a,h)anthracene	0.33	0.014 J	0.036 U	0.033 U	0.036 U	0.035 U
Dibenzofuran	7	0.34 U	0.36 U	0.33 U	0.36 U	0.35 U
Diethyl phthalate	NA	0.34 U	0.36 U	0.33 U	0.36 U	0.35 U
Dimethyl phthalate	NA	0.31 J	0.36 U	0.33 U	0.36 U	0.35 U
Di-n-butyl phthalate	NA	0.34 U	0.36 U	0.33 U	0.36 U	0.35 U
Di-n-octyl phthalate	NA	0.34 U	0.36 U	0.33 U	0.36 U	0.35 U
Diphenyl	NA	0.34 U	0.36 U	0.33 U	0.36 U	0.35 U
Fluoranthene	100	0.14 J	0.36 U	0.33 U	0.36 U	0.35 U
Fluorene	30	0.34 U	0.36 U	0.33 U	0.36 U	0.35 U
Hexachlorobenzene	0.33	0.034 U	0.036 U	0.033 U	0.036 U	0.035 U
Hexachlorobutadiene	NA	0.068 U	0.073 U	0.068 U	0.073 U	0.070 U
Hexachlorocyclopentadiene	NA	0.34 U	0.36 U	0.33 U	0.36 U	0.35 U
Hexachloroethane	NA	0.034 U	0.036 U	0.033 U	0.036 U	0.035 U
Indeno[1,2,3-cd]pyrene	0.5	0.087	0.036 U	0.033 U	0.036 U	0.035 U
Isophorone	NA	0.34 U	0.36 U	0.33 U	0.36 U	0.35 U
Naphthalene	12	0.34 U	0.36 U	0.33 U	0.36 U	0.35 U
Nitrobenzene	NA	0.034 U	0.036 U	0.033 U	0.036 U	0.035 U
N-Nitrosodi-n-propylamine	NA	0.034 U	0.036 U	0.033 U	0.036 U	0.035 U
N-Nitrosodiphenylamine	NA	0.34 U	0.36 U	0.33 U	0.36 U	0.35 U
Pentachlorophenol	0.8	1.0 U	1.1 U	1.0 U	1.1 U	1.1 U
Phenanthrene	100	0.12 J	0.36 U	0.33 U	0.36 U	0.35 U
Phenol	0.33	0.34 U	0.36 U	0.33 U	0.36 U	0.35 U
Pyrene	100	0.16 J	0.36 U	0.33 U	0.36 U	0.35 U
Pyridine	NA	0.34 U	0.36 U	0.33 U	0.36 U	0.35 U
SVOC TICs						
TCL SVOCs TICs	NA	1.54	ND	ND	ND	ND

Notes
ND: TIC not detected
J : This flag indicates the presumptive evidence of a compound.
J N : Indicates an estimated value.
U : Analyzed for but not detected.

Table 5-31
TAL Metals Soil Analytical Data
Post-excavation End-point Soil Analytical Data - SL-31

TAL Metals (mg/kg)	NYSDEC SCOs		Post-excavation End-point Soil Analytical Data				
			SL-31 Excavation Bottom Samples				
	Unrestricted	Protection of Groundwater	SL-EP#1 (8')	SL-EP#2 (8')	SL-EP#3 (8')	SL-EP#4 (8')	SL-EP#5 (8')
Aluminum	NA	NA	10,000	8,670	14,700	11,600	3,110
Antimony	NA	NA	3.9 U	3.7 U	3.7 U	3.8 U	3.5 U
Arsenic	13	16	3.4	3.1	4.1	3.8	0.89 J
Barium	350	820	50.8	32.9 J	56.5	44.8	21.9 J
Beryllium	7.2	47	0.39 U	0.37 U	0.37 U	0.38 U	0.35 U
Cadmium	2.5	7.5	0.79 U	0.74 U	0.74 U	0.76 U	0.70 U
Calcium	NA	NA	1,310	1,550	1,490	1,170	290 J
Chromium[1]	30	NS	18.4	17.9	26.7	18.8	5.5
Cobalt	NA	NA	6.3 J	5.0 J	8.8 J	6.8 J	3.2 J
Copper	50	1,720	11.0	8.6	16.1	9.7	3.1 J
Iron	NA	NA	14,900	23,000	23,400	17,700	5,390
Lead	63	450	28.5	7.9	9.6	11.6	2.0
Magnesium	NA	NA	2,430	2,180	3,640	2,270	695 J
Manganese	1,600	2,000	367	365	534	300	207
Nickel	30	130	11.1	9.7	15.9	10.9	4.0 J
Potassium	NA	NA	861 J	826 J	1,610	854 J	226 J
Selenium	3.9	4	3.9 U	3.7 U	3.7 U	3.8 U	3.5 U
Silver	2	8.3	2.0 U	1.8 U	1.9 U	1.9 U	1.8 U
Sodium	NA	NA	84.9 J	923 U	77.6 J	75.1 J	876 U
Thallium	NA	NA	3.9 U	3.7 U	3.7 U	3.8 U	3.5 U
Vanadium	NA	NA	20.9	19.7	33.7	24.4	6.9 J
Zinc	109	2,480	31.8	23.2	37.7	28.6	7.2
Mercury	0.18	0.73	0.084	0.024	0.052	0.042	0.017 U

Notes
J : Sample result is greater than the MDL but below the CRDL
U : Indicates analyzed for but not detected.
[1] Trivalent chromium SCOs utilized.
Highlighted / bolded indicates analyte exceeded above its respective NYSDEC Unrestricted SCO.
NA - Not Available

APEX

Table 5-32
TAL Metals Soil Analytical Data
RD-3 Original Sample Location - Post Excavation Data

TAL Metals (mg/kg)	NYSDEC SCOs			Post-excavation End-point Soil Analytical Data														
				RD-3 Original Sample Location					Supplemental Endpoint Samples			Supplemental Endpoint Samples						
				Side-wall Samples				Bottom Sample	Side-wall Samples		Bottom Sample	Side-wall Samples			Bottom Samples		
	Unrestricted	Residential	Protection of Groundwater	~~RD-EP#2~~ (4')	~~RD-EP#3 (1')~~ (4')	RD-EP#4 (1') (1')	RD-EP#5 (1') (1')	~~RD-EP#1~~ (2')	~~RD-EP#41~~ (2')	RD-EP#42 (2')	~~RD-EP#40~~ (4')	RD-EP#65 (1')	RD-EP#66 (1')	RD-EP#67 (1')	RD-EP#62 (6')	RD-EP#63 (6')	RD-EP#64 (6')
Aluminum	NA	NA	NA	~~4,810~~	~~5,100~~	5,110	4,740	~~4,140~~	~~4,780~~	3,210	~~5,820~~	1,120	1,400	5,410	4,110	4,040	1,270
Antimony	NA	NA	NA	~~3.6 U~~	~~3.7 U~~	3.9 U	3.8 U	~~3.6 U~~	~~3.9 U~~	4.1 U	~~4.0 U~~	3.6 U	4.0 U	3.6 U	4.8 U	3.8 U	4.2 U
Arsenic	13	16	16	~~1.6 J~~	~~1.9 J~~	1.5 J	0.82 J	~~1.4 J~~	~~2.2 J~~	3.1 U	~~1.6 J~~	2.7 U	3.0 U	1.5 J	2.3 J	1.8 J	0.74 J
Barium	350	350	820	~~24.9 J~~	~~21.0 J~~	14.6 J	14.0 J	~~12.3 J~~	~~18.3 J~~	8.8 J	~~32.5 J~~	5.2 J	4.8 J	20.1 J	13.2 J	18.4 J	4.9 J
Beryllium	7.2	14	47	~~0.36 U~~	~~0.37 U~~	0.39 U	0.38 U	~~0.36 U~~	~~0.19 J~~	0.41 U	~~0.21 J~~	0.070 J	0.085 J	0.21 J	0.29 J	0.29 J	0.14 J
Cadmium	2.5	2.5	7.5	~~0.71 U~~	~~1.4~~	0.78 U	0.76 U	~~0.71 U~~	~~0.78 U~~	0.82 U	~~0.80 U~~	0.72 U	0.80 U	0.73 U	0.96 U	0.77 U	0.85 U
Calcium	NA	NA	NA	~~1,960~~	~~3,320~~	556 J	483 J	~~398 J~~	~~780 J~~	480 J	~~941 J~~	236 J	277 J	703 J	318 J	328 J	169 J
Chromium[1]	30	36	NS	~~8.4~~	~~9.6~~	8.5	7.9	~~7.1~~	~~8.5~~	6.1	~~10.4~~	2.1	2.8	8.5	6.7	6.8	2.9
Cobalt	NA	NA	NA	~~3.0 J~~	~~3.0 J~~	2.0 J	2.6 J	~~1.8 J~~	~~2.5 J~~	2.8 J	~~11.8~~	0.62 J	0.70 J	2.5 J	4.7 J	3.1 J	1.2 J
Copper	50	270	1,720	~~7.7~~	~~10.6~~	5.5	5.3	~~4.3 J~~	~~6.8~~	3.8 J	~~7.0~~	1.3 J	1.7 J	6.9	5.8 J	6.1	2.3 J
Iron	NA	NA	NA	~~7,870~~	~~8,910~~	5,240	5,450	~~5,490~~	~~6,550~~	4,410	~~7,890~~	1,400	1,680	5,820	8,750	8,150	3,950
Lead	63	400	450	~~16.4~~	~~37.8~~	3.5	3.2	~~3.3~~	~~12.5~~	4.0	~~12.1~~	1.0 J	1.5 J	3.8	3.0	2.5	1.0 J
Magnesium	NA	NA	NA	~~1,220~~	~~1,370~~	1,230	1,330	~~1,110~~	~~1,180~~	915 J	~~1,480~~	263 J B	345 J B	1,560 B	1,010 J B	1,030 B	238 J B
Manganese	1,600	2,000	2,000	~~106~~	~~123~~	67.6	57.9	~~47.8~~	~~83.0~~	55.5	~~328~~	33.5	24.5	60.4	174	117	65.7
Nickel	30	140	130	~~7.1~~	~~8.4~~	4.7 J	4.9 J	~~4.2 J~~	~~6.1 J~~	3.7 J	~~6.5 J~~	1.7 J	2.0 J	6.8 J	5.5 J	6.5 J	2.4 J
Potassium	NA	NA	NA	~~576 J~~	~~619 J~~	508 J	534 J	~~393 J~~	~~536 J~~	300 J	~~649 J~~	148 J	174 J	582 J	334 J	538 J	119 J
Selenium	3.9	36	4	~~3.6 U~~	~~3.7 U~~	3.9 U	3.8 U	~~3.6 U~~	~~3.9 U~~	4.1 U	~~4.0 U~~	3.6 U	4.0 U	3.6 U	4.8 U	3.8 U	4.2 U
Silver	2	36	8.3	~~12.2~~	~~160~~	1.9 U	1.9 U	~~4.8~~	~~7.6~~	0.35 J	~~4.5~~	1.8 U	2.0 U	1.8 U	2.4 U	1.9 U	2.1 U
Sodium	NA	NA	NA	~~110 J~~	~~69.4 J~~	971 U	89.7 J	~~892 U~~	~~977 U~~	1,020 U	~~998 U~~	894 U	1,000 U	911 U	1,200 U	961 U	1,060 U
Thallium	NA	NA	NA	~~3.6 U~~	~~3.7 U~~	3.9 U	3.8 U	~~3.6 U~~	~~3.9 U~~	4.1 U	~~4.0 U~~	3.6 U	4.0 U	3.6 U	4.8 U	3.8 U	4.2 U
Vanadium	NA	NA	NA	~~10.4~~	~~11.5~~	10.4	9.2 J	~~10.1~~	~~11.2~~	6.8 J	~~12.8~~	2.5 J	3.8 J	12.9	10.6 J	9.4 J	5.0 J
Zinc	109	2,200	2,480	~~29.1~~	~~45.9~~	17.8	14.4	~~12.6~~	~~44.2~~	11.2	~~29.9~~	3.7 J	4.4 J	17.5	12.9	14.0	4.4 J
Mercury	0.18	0.81	0.73	~~0.041~~	~~0.10~~	0.019 U	0.018 U	~~0.017 U~~	~~0.040~~	0.018 U	~~0.022~~	0.017 U	0.017 U	0.018 U	0.020 U	0.018 U	0.018 U

Notes
J : Sample result is greater than the MDL but below the CRDL
U : Indicates analyzed for but not detected.
[1] Trivalent chromium SCOs utilized.
Highlighted / bolded indicates analyte exceeded above its respective NYSDEC Unrestricted SCO.
NA - Not Available
~~Strikethrough~~ Indicates that sample locations were removed as part of supplemental soil excavation activities.

Table 5-33
TAL Metals Soil Analytical Data
RD-10, RD-13 and RD-20 Original Sample Locations - Post Excavation Data

TAL Metals (mg/kg)	NYSDEC SCOs Unrestricted	NYSDEC SCOs Residential	NYSDEC SCOs Protection of Groundwater	RD-10 Original Sample Location - RCRA Excavation End Point Soil Samples Side-wall Samples RD-EP #12 (5')	RD-EP #13 (5')	RD-EP #14 (2')	RD-EP #18 (5')	RD-EP #19 (5')	RD-EP #20 (5')	RD-EP #21 (5')	Bottom Samples RD-EP #11 (7')	RD-EP #15 (7')	RD-EP #16 (7')	RD-EP #17 (7')
Aluminum	NA	NA	NA	20,000	2,210	13,400	6,950	2,200	8,670	9,040	10,400	6,520	10,200	6,350
Antimony	NA	NA	NA	3.6 U	3.8 U	3.5 U	3.6 U	3.7 U	4.5 U	3.2 U	4.6 U	3.6 U	4.6 U	3.2 U
Arsenic	13	16	16	6.6	0.97 J	5.0	3.0	1.1 J	2.4 J	6.9	5.1	2.1 J	3.5	1.8 J
Barium	350	350	820	161	12.8 J	60.5	33.6 J	7.1 J	23.4 J	28.0 J	45.1 J	32.4 J	50.7	17.8 J
Beryllium	7.2	14	47	1.4	0.13 J	0.61	0.34 J	0.12 J	0.31 J	0.36	0.53	0.28 J	0.59	0.25 J
Cadmium	2.5	2.5	7.5	0.73 U	0.76 U	0.71 U	0.72 U	0.74 U	0.89 U	0.64 U	0.93 U	0.72 U	0.92 U	0.65 U
Calcium	NA	NA	NA	1,580	300 J	858 J	6,520	255 J	358 J	187 J	4,520	845 J	1,090 J	411 J
Chromium[1]	30	36	NS	**43.2**	4.5	25.6	11.6	4.6	12.2	21.0	23.1	9.3	13.5	12.4
Cobalt	NA	NA	NA	12.2	1.1 J	7.2 J	3.9 J	0.89 J	3.3 J	2.4 J	5.9 J	3.3 J	19.5	2.8 J
Copper	50	270	1,720	33.2	3.8 J	15.9	10.9	2.6 J	8.2	7.1	14.8	7.6	13.1	5.2
Iron	NA	NA	NA	35,900	3,310	21,600	10,900	3,280	10,600	10,600	24,000	21,100	9,180	8,790
Lead	63	400	450	13.5	20.0	9.9	34.0	1.8	10.0	11.9	*69.4*	10.2	7.5	4.3
Magnesium	NA	NA	NA	7,310	295 J	4,420	2,050	544 J	1,910	1,960	2,770	1,780	2,520	1,580
Manganese	1,600	2,000	2,000	314	48.5	203	137	21.6	101	60.4	209	84.5	79.1	117
Nickel	30	140	130	26.8	2.0 J	15.5	8.5	2.2 J	7.1 J	6.8	11.5	8.5	20.7	5.9 J
Potassium	NA	NA	NA	3,380	148 J	1,600	850 J	175 J	702 J	650 J	1,090 J	562 J	883 J	449 J
Selenium	3.9	36	4	3.6 U	3.8 U	3.5 U	3.6 U	3.7 U	4.5 U	3.2 U	4.6 U	3.6 U	4.6 U	3.2 U
Silver	2	36	8.3	**2.7**	1.2 J	1.8 U	**19.4**	1.4 J	2.2 U	**1,030**	**7.4**	**125**	**67.1**	1.6 U
Sodium	NA	NA	NA	494 J	948 U	133 J	175 J	919 U	1120 U	804 U	196 J	183 J	115 J	113 J
Thallium	NA	NA	NA	3.6 U	3.8 U	3.5 U	3.6 U	3.7 U	4.5 U	3.2 U	4.6 U	3.6 U	4.6 U	3.2 U
Vanadium	NA	NA	NA	52.4	4.5 J	34.8	15.2	5.8 J	17.2	30.4	27.5	13.0	16.7	13.1
Zinc	109	2,200	2,480	108	60.8	43.0	45.3	6.4	31.6	68.0	58.0	*449*	**5,470**	16.6
Mercury	0.18	0.81	0.73	0.018 J	0.033	0.019 U	0.018 U	0.017 U	0.018 U	0.047	0.041	0.020 U	0.021	0.020 U

TAL Metals (mg/kg)	NYSDEC SCOs Unrestricted	NYSDEC SCOs Residential	NYSDEC SCOs Protection of Groundwater	RD-10 Original Sample Location - RCRA Excavation Supplemental Endpoint Samples Side-wall Samples RD-EP#43 (7')	RD-EP#44 (7')	RD-EP#45 (7')	Bottom Samples RD-EP#37 (9')	RD-EP#38 (9')	RD-EP#39 (9')	Supplemental Endpoint Samples Side-wall Samples RD-EP#68 (4')	RD-EP#69 (4')	RD-EP#70 (4')	RD-EP#71 (4')	RD-EP#72 (4')	RD-EP#75 (4')	RD-EP#76 (4')
Aluminum	NA	NA	NA	6,840	10,700	10,300	6,580	7,420	4,210	7,430	8,420	11,900	10,700	6,190	6,190	13,500
Antimony	NA	NA	NA	4.0 U	4.4 U	3.8 U	4.4 U	4.5 U	4.3 U	4.7 U	4.3 U	4.3 U	4.8 U	4.4 U	4.1 U	4.5 U
Arsenic	13	16	16	2.3 J	3.6	4.1	1.7 J	2.2 J	1.9 J	2.3 J	2.3 J	4.1	4.0	4.0	2.9 J	4.5
Barium	350	350	820	20.0 J	61.6	92.6	30.4 J	42.2 J	20.3 J	17.9 J	19.9 J	74.4	71.6	136	34.9 J	73.2
Beryllium	7.2	14	47	0.20 J	0.61	0.74	0.28 J	0.27 J	0.28 J	0.15 J	0.36 J	0.48	0.48	0.29 J	0.28 J	0.62
Cadmium	2.5	2.5	7.5	0.80 U	0.88 U	0.76 U	0.87 U	0.90 U	0.86 U	0.94 U	0.87 U	0.56 J	0.23 J	0.28 J	0.82 U	0.89 U
Calcium	NA	NA	NA	586 J	788 J	377 J	770 J	1,340	390 J	347 J	752 J	1,790	2,010	5,570	1,510	963 J
Chromium[1]	30	36	NS	9.4	19.9	24.2	8.9	14.4	9.2	12.2	12.6	19.7	20.6	12.1	11.6	28.9
Cobalt	NA	NA	NA	2.8 J	8.0 J	7.6 J	3.0 J	3.5 J	2.5 J	2.9 J	3.5 J	5.4 J	5.7 J	3.5 J	3.3 J	10.8 J
Copper	50	270	1,720	7.5	13.5	18.1	8.8	10.3	6.4	11.8	9.5	14.8	20.8	17.7	12.5	20.7
Iron	NA	NA	NA	7,440	18,600	20,000	9,760	8,370	11,000	9,250	8,520	18,800	18,600	9,760	9,620	22,300
Lead	63	400	450	**557**	10.2	8.9	5.6	5.9	4.3	6.4	6.1	49.0	*38.6*	*175*	*74.3*	7.9
Magnesium	NA	NA	NA	1,500	3,030	2,740	1,710	2,110	1,060 J	1,840 B	2,190 B	2,520 B	2,630 B	1,090 B	1,510 B	4,800
Manganese	1,600	2,000	2,000	70.3	142	116	114	118	63.1	68.3	114	163	176	206	142	314
Nickel	30	140	130	6.8 J	12.7	14.8	8.6 J	9.3	5.2 J	7.5 J	8.6 J	11.1	13.4	8.6 J	7.6 J	17.7 B
Potassium	NA	NA	NA	650 J	1,050 J	1,240	556 J	710 J	367 J	705 J	1,010 J	842 J	1,080 J	716 J	551 J	2,380
Selenium	3.9	36	4	4.0 U	4.4 U	3.8 U	4.4 U	4.5 U	4.3 U	4.7 U	4.3 U	4.3 U	4.8 U	4.4 U	4.1 U	4.5 U
Silver	2	36	8.3	**47.8**	**2.8**	**6.3**	2.2 U	2.3 U	2.2 U	**15.7**	**4.0**	**121**	**141**	**42.0**	**6.0**	2.2 U
Sodium	NA	NA	NA	80.0 J	129 J	460 J	1,090 U	1,130 U	82.5 J	1,180 U	1,080 U	1,080 U	156 J	1,090 U	1,030 U	303 J
Thallium	NA	NA	NA	4.0 U	4.4 U	3.8 U	4.4 U	4.5 U	4.3 U	4.7 U	4.3 U	4.3 U	4.8 U	4.4 U	4.1 U	4.5 U
Vanadium	NA	NA	NA	14.7	27.5	30.4	17.5	18.1	11.4	16.9	18.5	25.8	25.7	16.2	15.1	35.8
Zinc	109	2,200	2,480	19.6	39.6	*236*	25.6	32.0	18.0	20.2	24.5	*1,080*	*297*	86.4	62.7	41.8
Mercury	0.18	0.81	0.73	0.031	0.019 U	0.018 U	0.020 U	0.019 J	0.020 U	0.021	0.019 U	0.091	0.072	0.14	*0.54*	0.019 U

TAL Metals (mg/kg)	NYSDEC SCOs Unrestricted	NYSDEC SCOs Residential	NYSDEC SCOs Protection of Groundwater	RD-10 Original Sample Location - RCRA Excavation Supplemental Endpoint Samples Side-wall Samples RD-EP#93 (4')	RD-EP#94 (4')	RD-EP#95 (4')	RD-EP#96 (4')	RD-EP#97 (4')	RD-EP#98 (4')	RD-EP#107 (4')	RD-EP#108 (4')
Aluminum	NA	NA	NA	6,080	4,300	9,010	9,180	9,020	7,970	3,210	8,080
Antimony	NA	NA	NA	4.5 U	4.0 U	4.4 U	4.7 U	3.9 U	4.2 U	4.2 U	4.5 U
Arsenic	13	16	16	2.0 J	0.90 J	2.5 J	3.3 J	4.8	4.1	2.6 J	2.8 J
Barium	350	350	820	16.8 J	13.9 J	18.0 J	32.3 J	54.5	54.1	11.0 J	29.2 J
Beryllium	7.2	14	47	0.34 J	0.14 J	0.28 J	0.32 J	0.42	0.48	0.066 J	0.16 J
Cadmium	2.5	2.5	7.5	0.91 U	0.80 U	0.88 U	0.94 U	0.78 U	0.83 U	0.84 U	0.90 U
Calcium	NA	NA	NA	587 J	272 J	781 J	1,580	1,120	1,270	188 J	473 J
Chromium[1]	30	36	NS	8.4	8.6	13.1	16.3	15.6	15.9	7.6	13.9
Cobalt	NA	NA	NA	4.5 J	1.9 J	2.9 J	3.8 J	4.6 J	6.4 J	1.0 J	2.5 J
Copper	50	270	1,720	8.2	4.5 J	13.9	12.4	12.7	10.9	2.6 J	7.8
Iron	NA	NA	NA	10,200	4,430	14,200	12,900	10,200	12,600	5,660	9,760
Lead	63	400	450	4.3	2.5	22.3	22.1	6.8	6.2	2.4	5.0
Magnesium	NA	NA	NA	1,640 B	1,170 B	1,250 B	2,320 B	2,470 B	2,530 B	877 J B	2,210 B
Manganese	1,600	2,000	2,000	130	44.5	71.2	117	81.7	118	25.6	62.6
Nickel	30	140	130	7.3 J	5.0 J	5.6 J	9.2 J	9.3	10.3	3.3 J	7.4 J
Potassium	NA	NA	NA	551 J	425 J	766 J	858 J	757 J	838 J	317 J	722 J
Selenium	3.9	36	4	4.5 U	4.0 U	4.4 U	1.3 J	3.9 U	4.2 U	4.2 U	4.5 U
Silver	2	36	8.3	2.3 U	2.0 U	**39.6**	**11.1**	0.13 J	0.29 J	**117**	**21.3**
Sodium	NA	NA	NA	105 J	1,000 U	1,100 U	1,180 U	167 J	103 J	86.8 J	1,130 U
Thallium	NA	NA	NA	4.5 U	4.0 U	4.4 U	4.7 U	3.9 U	4.2 U	4.2 U	4.5 U
Vanadium	NA	NA	NA	11.9	6.2 J	16.5	21.6	22.1	22.5	8.2 J	19.4
Zinc	109	2,200	2,480	21.1	13.5	39.6	40.3	29.4	29.0	22.6	37.5
Mercury	0.18	0.81	0.73	0.020 U	0.020 U	0.019 J	0.031	0.019 U	0.015 J	0.014 J	0.019 U

Notes:
J : Sample result is greater than the MDL but below the CRDL
U : Indicates analyzed for but not detected.
B: Indicates analyte detected in blank.
[1] Trivalent chromium SCOs utilized.
Highlighted / bolded indicates analyte exceeded above its respective NYSDEC Unrestricted SCO.
Green / italicized value indictes analyte exceeded its repsective unrestricted SCO but was below its respective Residential / Protection of GW SCO, whichever is lower.
NA - Not Available

Table 5-33
TAL Metals Soil Analytical Data
RD-10, RD-13 and RD-20 Original Sample Locations - Post Excavation Data

	NYSDEC SCOs					RD-13 Original Sample Location - Post Excavation Data											
						End-point Soil Samples				Supplemental Endpoint Samples						Supplemental Endpoint Samples					
						Bottom Samples				Side-wall Samples			Bottom Samples			Side-wall Samples		Bottom Samples			
TAL Metals (mg/kg)	Unrestricted	Residential	Restricted Residential	Commercial	Protection of Groundwater	RD-EP #22 (2')	RD-EP #23 (2')	RD-EP #24 (2')	RD-EP#25 (2')	RD-EP#50 (2')	RD-EP#51 (2')	RD-EP#52 (2')	RD-EP#46 (4')	RD-EP#47 (4')	RD-EP#48 (4')	RD-EP#49 (4')	RD-EP#73 (4')	RD-EP#74 (4')	RD-EP#77 (6')	RD-EP#78 (6')	RD-EP#79 (6')	RD-EP#80 (6')
Aluminum	NA	NA	NA	NA	NA	9,760	7,440	13,800	16,500	15,200	11,500	7,260	11,800	12,400	11,700	19,500	8,570	9,440	1,090	1,110	1,260	15,200
Antimony	NA	NA	NA	NA	NA	3.4 U	0.88 J	1.2 J	1.8 J	4.0 U	3.9 U	4.2 U	3.5 U	20.5 U	4.3 U	4.3 U	4.3 U	4.8 U	4.4 U	4.7 U	4.3 U	4.1 U
Arsenic	13	16	16	16	16	3.6	2.4 J	3.2	3.2 J	1.9 J	2.7 J	2.8 J	4.5	8.1 J	4.1	4.5	2.8 J	3.5 J	1.1 J	0.95 J	1.4 J	4.2
Barium	350	350	400	400	820	60.8	35.4 J	74.3	90.0	98.4	47.4	69.8	120	116 J	71.3	133	94.7	65.3	6.0 J	19.4 J	12.3 J	113
Beryllium	7.2	14	72	590	47	0.58	0.39 U	2.1 U	0.48 U	0.48	0.47	0.34 J	1.5	1.8 J	0.49	0.95	0.28 J	0.43 J	0.081 J	0.097 J	0.083 J	0.48
Cadmium	2.5	2.5	4.3	9.3	7.5	0.69 U	0.78 U	0.83 U	0.97 U	0.80 U	0.77 U	0.84 U	0.70 U	0.88 J	0.85 U	0.86 U	0.28 J	0.96 U	**19.4**	*38.1*	0.86	0.83 U
Calcium	NA	NA	NA	NA	NA	1,200	991	3,070	3,030	996 J	992	1,370	410 J	1,520 J	1,360	2,210	3,420	2,350	247 J	276 J	181 J	1,580
Chromium[1]	30	36	180	1,500	NS	13.6	14.5	26.4	**34.9**	33.6	15.9	12.9	28.5	27.8	21.9	42.3	12.7	16.7	3.3	3.0	3.8	**31.0**
Cobalt	NA	NA	NA	NA	NA	3.4 J	3.9 J	4.8 J	8.0 J	8.2 J	3.3 J	4.6 J	9.6	37.0 J	7.3 J	10 J	3.1 J	5.4 J	1.3 J	1.9 J	1.1 J	8.9 J
Copper	50	270	270	270	1,720	24.6	11.4	21.0	23.1	20.0	19.0	15.0	19.6	29.7	15.1	30.9	17.5	16.4	2.5 J	2.7 J	2.0 J	40.8
Iron	NA	NA	NA	NA	NA	10,000	11,500	17,600	30,800	20,300	13,900	9,970	23,100	22,700	18,100	34,600	8,910	13,500	3,200	6,610	4,860	21,900
Lead	63	400	400	1,000	450	**76.9**	49.2	**86.9**	61.4	9.3	96.1	91.0	9.2	12.0	9.2	14.9	**424**	**98.2**	1.2 J	1.5 J	1.1 J	*277*
Magnesium	NA	NA	NA	NA	NA	1,660	1,720	3,370	4,940	4,690	1,840	1,740	3,850	4,150 J	3,540	5,950	1,500 B	2,510 B	400 J	385 J	538 J	4,310
Manganese	1,600	2,000	2,000	10,000	2,000	353	122	105	224	242	68.6	145	167	199	218	274	146	250	63.6	118	102	129
Nickel	30	140	310	310	130	9.8	6.8	14.0	18.9	17.4	10.2	9.1	18.3	24.5 J	12.6	22.6	7.7 J	11.2	3.0 J B	3.4 J B	2.8 J B	20.0 B
Potassium	NA	NA	NA	NA	NA	352 J	692 J	1,340	2,230	2,220	946 J	687 J	2,010	1,870 J	1,240	2,980	592 J	854 J	248 J	269 J	208 J	2,330
Selenium	3.9	36	180	1,500	4	3.4 U	3.9 U	4.2 U	4.8 U	4.0 U	3.9 U	4.2 U	8.8 U	20.5 U	4.3 U	4.3 U	4.3 U	4.8 U	4.4 U	4.7 U	4.3 U	4.1 U
Silver	2	36	180	1,500	8.3	**394**	**77.8**	**1,340**	**75.7**	2.0 U	**7.5**	**78.8**	1.7 J	**4.8** J	2.1 U	2.1 U	**5.2**	**27.3**	2.2 U	2.4 U	2.1 U	**164**
Sodium	NA	NA	NA	NA	NA	489 J	129 J	555 J	1,170 J	552 J	476 J	232 J	568 J	734 J	334 J	294 J	1,070 U	116 J	1,100 U	1,190 U	1,070 U	550 J
Thallium	NA	NA	NA	NA	NA	3.4 U	3.9 U	4.2 U	4.8 U	4.0 U	3.9 U	4.2 U	3.5 U	20.5 U	4.3 U	4.3 U	4.3 U	4.8 U	4.4 U	4.7 U	4.3 U	4.1 U
Vanadium	NA	NA	NA	NA	NA	18.6	15.9	18.1	41.6	29.8	24.9	16.1	41.4	44.3 J	28.0	51.5	13.3	21.6	3.5 J	3.9 J	3.6 J	30.2
Zinc	109	2,200	10,000	10,000	2,480	*146*	79.0	*171*	*355*	*112*	*185*	*114*	*133*	*508*	36.2	60.5	*183*	84.7	24.2	10.4	5.0 J	*976*
Mercury	0.18	0.81	0.81	2.8	0.73	0.022	0.070	0.15	0.038	0.020 U	0.063	0.085	0.019 U	0.019 U	0.020 U	0.021 U	*0.19*	0.055	0.020 U	0.021 U	0.020 U	0.019 J

	NYSDEC SCOs					RD-13 Original Sample Location - Post Excavation Data					
						Supplemental Endpoint Samples					
						Side-wall Samples			Bottom Samples		
TAL Metals (mg/kg)	Unrestricted	Residential	Restricted Residential	Commercial	Protection of Groundwater	RD-EP#99 (4')	RD-EP#100 (4')	RD-EP#101 (4')	RD-EP#105 (6')	RD-EP#106 (6')	
Aluminum	NA	NA	NA	NA	NA	4,620	4,750	2,850	6,640	7,780	
Antimony	NA	NA	NA	NA	NA	4.5 U	4.3 U	4.1 U	3.8 U	4.1 U	
Arsenic	13	16	16	16	16	3.2 J	2.8 J	5.4	3.0	3.6	
Barium	350	350	400	400	820	149	51.3	**751**	23.0 J	30.2 J	
Beryllium	7.2	14	72	590	47	0.24 J	0.24 J	0.16 J	0.16 J	0.19 J	
Cadmium	2.5	2.5	4.3	9.3	7.5	0.15 J	0.86 U	0.41 J	0.77 U	0.28 J	
Calcium	NA	NA	NA	NA	NA	7,650	3,220	30,500	447 J	555 J	
Chromium[1]	30	36	180	1,500	NS	11.6	10.2	8.0	10.3	13.7	
Cobalt	NA	NA	NA	NA	NA	2.7 J	2.7 J	2.1 J	1.8 J	3.0 J	
Copper	50	270	270	270	1,720	32.1	13.6	16.3	5.3	7.2	
Iron	NA	NA	NA	NA	NA	7,750	7,630	7,550	5,470	6,260	
Lead	63	400	400	1,000	450	*242*	*125*	**969**	5.0	5.0	
Magnesium	NA	NA	NA	NA	NA	1,580 B	1,380 B	1,650 B	1,360 B	1,610 B	
Manganese	1,600	2,000	2,000	10,000	2,000	201	109	140	42.0	47.7	
Nickel	30	140	310	310	130	6.4 J	6.4 J	4.6 J	5.6 J	6.7 J	
Potassium	NA	NA	NA	NA	NA	493 J	481 J	405 J	509 J	593 J	
Selenium	3.9	36	180	1,500	4	4.5 U	4.3 U	4.1 U	3.8 U	4.1 U	
Silver	2	36	180	1,500	8.3	1.4 J	1.2 J	1.4 J	**106**	**105**	
Sodium	NA	NA	NA	NA	NA	1,120 U	1,070 U	108 J	960 U	1,020 U	
Thallium	NA	NA	NA	NA	NA	4.5 U	4.3 U	4.1 U	3.8 U	4.1 U	
Vanadium	NA	NA	NA	NA	NA	13.0	14.4	8.6 J	15.4	11.9	
Zinc	109	2,200	10,000	10,000	2,480	*111*	98.0	567	42.2	*111*	
Mercury	0.18	0.81	0.81	2.8	0.73	*0.19*	*0.35*	0.21	0.013 J	0.014 J	

Notes:
J : Sample result is greater than the MDL but below the CRDL
U : Indicates analyzed for but not detected.
[1] Trivalent chromium SCOs utilized.
Highlighted / bolded indicates analyte exceeded above its respective NYSDEC Unrestricted SCO.
Green / italicized value indicates analyte exceeded its respective unrestricted SCO but was below its respective Residential / Protection of GW SCO, whichever is lower.
Blue / italicized value indicates analyte exceeded its respective Residential SCO and / or Protection of Groundwater SCO but was below its Restricted Residential SCO.
Pink / italicized value indicates analyte exceeded its respective Residential SCO and / or Protection of Groundwater SCO but was below its Commercial SCO.
NA - Not Available

B - Analyte detected in method blank

Table 5-33
Preliminary TAL Metals Soil Analytical Data
RD-10, RD-13 and RD-20 Original Sample Locations - Post Excavation Data

	NYSDEC SCOs			RD-20 Original Sample Location - Post Excavation Data																
				End-Point Soil Samples						Supplemental Endpoint Samples			Supplemental Endpoint Samples						Supplemental Endpoint Samples		
				Side-wall Samples				Bottom Samples		Side-wall Samples			Side-wall Samples						Side-wall Samples		
TAL Metals (mg/kg)	Unrestricted	Residential	Protection of Groundwater	~~RD-EP#26~~ (4')	RD-EP#29 (1')	~~RD-EP#30~~ (4')	~~RD-EP#31~~ (4')	RD-EP#27 (7')	RD-EP#28 (7')	~~RD-EP#57~~ (4')	~~RD-EP#58~~ (4')	~~RD-EP#59~~ (4')	~~RD-EP#87~~ (4')	~~RD-EP#88~~ (4')	~~RD-EP#89~~ (4')	RD-EP#90 (1')	RD-EP#91 (1')	RD-EP#92 (1')	~~RD-EP#102~~ (4')	~~RD-EP#103~~ (4')	~~RD-EP#104~~ (4')
Aluminum	NA	NA	NA	~~7,440~~	4,830	~~5,100~~	~~4,950~~	6,280	7,010	~~7,360~~	~~14,300~~	~~8,150~~	~~7,500~~	~~9,630~~	~~10,600~~	4,910	3,290	13,100	~~16,900~~	~~11,000~~	~~7,300~~
Antimony	NA	NA	NA	~~4.0 U~~	4.0 U	~~4.0 U~~	~~4.0 U~~	4.4 U	4.6 U	~~3.8 U~~	~~4.0 U~~	~~4.0 U~~	~~3.9 U~~	~~4.4 U~~	~~4.5 U~~	3.8 U	4.1 U	4.2 U	~~4.5 U~~	~~4.1 U~~	~~3.8 U~~
Arsenic	13	16	16	~~2.9 J~~	1.1 J	~~1.9 J~~	~~1.7 J~~	1.7 J	1.8 J	~~3.3~~	~~3.9~~	~~7.1~~	~~2.3 J~~	~~2.8 J~~	~~3.1 J~~	3.2	2.4 J	5.2	~~4.7~~	~~2.1 J~~	~~3.5~~
Barium	350	350	820	~~37.8 J~~	27.1 J	~~30.6 J~~	~~23.5 J~~	39.2 J	42.8 J	~~36.7 J~~	~~63.1~~	~~89.1~~	~~32.2 J~~	~~38.8 J~~	~~46.2~~	26.8 J	28.3 J	34.6 J	~~75.4~~	~~56.4~~	~~36.4 J~~
Beryllium	7.2	14	47	~~0.22 J~~	0.40 U	~~0.40 U~~	~~0.40 U~~	0.44 U	0.46 U	~~0.29 J~~	~~0.41~~	~~0.36 J~~	~~0.20 J~~	~~0.39 J~~	~~0.34 J~~	0.31 J	0.20 J	0.51	~~0.55~~	~~0.37 J~~	~~0.31 J~~
Cadmium	2.5	2.5	7.5	~~0.81 U~~	0.79 U	~~0.79 U~~	~~0.80 U~~	0.88 U	0.92 U	~~0.75 U~~	~~0.80 U~~	~~0.34 J~~	~~0.79 U~~	~~0.25 J~~	~~0.90 U~~	0.77 U	0.82 U	0.75 J	~~0.90 U~~	~~0.81 U~~	~~0.77 U~~
Calcium	NA	NA	NA	~~3,750~~	562 J	~~1,610~~	~~470 J~~	1,400	1,220	~~2,170~~	~~1800~~	~~13300~~	~~446 J~~	~~1,570~~	~~1,670~~	3,130	480 J	2,570	~~1,980~~	~~1,230~~	~~1,100~~
Chromium[1]	30	36	NS	~~17.8~~	11.8	~~9.8~~	~~9.4~~	11.4	15.5	~~13.1~~	~~22.4~~	~~13.8~~	~~14.3~~	~~16.1~~	~~18.5~~	11.0	6.7	17.4	~~**33.5**~~	~~17.8~~	~~12.9~~
Cobalt	NA	NA	NA	~~4.1 J~~	3.1 J	~~3.3 J~~	~~3.7 J~~	3.5 J	3.2 J	~~4.1 J~~	~~5.1 J~~	~~3.6 J~~	~~2.2 J~~	~~4.7 J~~	~~4.5 J~~	2.8 J	2.4 J	16.8	~~7.9 J~~	~~4.2 J~~	~~3.7 J~~
Copper	50	270	1,720	~~13.4~~	4.9	~~11.1~~	~~8.5~~	9.0	9.5	~~11.4~~	~~18.6~~	~~18.7~~	~~9.2~~	~~11.1~~	~~12.7~~	8.5	4.9 J	13.4	~~26.3~~	~~12.1~~	~~11.4~~
Iron	NA	NA	NA	~~11,000~~	8,120	~~9,700~~	~~8,890~~	11,000	11,600	~~12,000~~	~~17,300~~	~~10400~~	~~14,700~~	~~19,600~~	~~14,100~~	9,990	6,470	18,600	~~25,200~~	~~12,500~~	~~10,100~~
Lead	63	400	450	~~53.9~~	5.8	~~*74.2*~~	~~**737**~~	5.5	6.8	~~51.9~~	~~59.6~~	~~*154*~~	~~5.8~~	~~44.7~~	~~28.3~~	12.9	6.4	10.8	~~53.1~~	~~32.0~~	~~*64.3*~~
Magnesium	NA	NA	NA	~~2,110~~	1,170	~~1,320~~	~~1,180~~	2,240	2,280	~~1,710~~	~~2680~~	~~1660~~	~~1,630~~	~~2,140~~	~~2,610~~	1,600	867 J	2,520	~~4,960 B~~	~~2,520 B~~	~~1,760 B~~
Manganese	1,600	2,000	2,000	~~163~~	133	~~133~~	~~156~~	135	101	~~165~~	~~122~~	~~359~~	~~68.4~~	~~159~~	~~108~~	144	118	839	~~205~~	~~112~~	~~133~~
Nickel	30	140	130	~~10.0~~	6.0 J	~~6.9 J~~	~~7.1 J~~	8.9	9.4	~~9.4~~	~~11.8~~	~~11.1~~	~~6.6 J B~~	~~10.4 B~~	~~11.4 B~~	7.0 J B	4.7 J B	11.2 B	~~18.5~~	~~9.8~~	~~8.4~~
Potassium	NA	NA	NA	~~777 J~~	1,380	~~494 J~~	~~434 J~~	739 J	512 J	~~624 J~~	~~833 J~~	~~569 J~~	~~1,200~~	~~845 J~~	~~1,230~~	882 J	471 J	627 J	~~2,690~~	~~1,090~~	~~773 J~~
Selenium	3.9	36	4	~~4.0 U~~	4.0 U	~~4.0 U~~	~~4.0 U~~	4.4 U	4.6 U	~~3.8 U~~	~~1.5 J~~	~~4.0 U~~	~~3.9 U~~	~~4.4 U~~	~~4.5 U~~	3.8 U	4.1 U	4.2 U	~~4.5 U~~	~~4.1 U~~	~~3.8 U~~
Silver	2	36	8.3	~~**5.4**~~	2.0 U	~~**8.9**~~	~~**5.1**~~	2.2 U	2.3 U	~~**25.6**~~	~~**86.7**~~	~~**19.9**~~	~~**125**~~	~~**4.2**~~	~~**122**~~	0.24 J	2.0 U	2.1 U	~~**3.9**~~	~~**11.2**~~	~~**44.5**~~
Sodium	NA	NA	NA	~~209 J~~	988 U	~~85.6 J~~	~~91.8 J~~	1,100 U	104 J	~~183 J~~	~~443 J~~	~~243 J~~	~~93.9 J~~	~~377 J~~	~~445 J~~	90.5 J	84.5 J	1,050 U	~~455 J~~	~~788 J~~	~~109 J~~
Thallium	NA	NA	NA	~~4.0 U~~	4.0 U	~~4.0 U~~	~~4.0 U~~	4.4 U	4.6 U	~~3.8 U~~	~~4.0 U~~	~~4.0 U~~	~~3.9 U~~	~~4.4 U~~	~~4.5 U~~	3.8 U	4.1 U	1.1 J	~~4.5 U~~	~~4.1 U~~	~~3.8 U~~
Vanadium	NA	NA	NA	~~24.3~~	7.0 J	~~13.2~~	~~10.6~~	17.4	21.6	~~17.1~~	~~29.7~~	~~22.1~~	~~21.4~~	~~21.7~~	~~21.2~~	12.3	8.5 J	29.1	~~45.4~~	~~22.8~~	~~17.2~~
Zinc	109	2,200	2,480	~~45.7~~	14.7	~~45.5~~	~~30.8~~	25.8	29.0	~~65.7~~	~~83.4~~	~~*181*~~	~~35.3~~	~~*166*~~	~~81.4~~	46.3	13.7	~~*433*~~	~~75.2~~	~~71.3~~	~~62.7~~
Mercury	0.18	0.81	0.73	~~0.064~~	0.099	~~0.087~~	~~0.034~~	0.018 U	0.019 U	~~0.069~~	~~0.054~~	~~*0.28*~~	~~0.042~~	~~0.056~~	~~0.015 J~~	0.021	0.019 U	0.020 U	~~**0.36**~~	~~0.14~~	~~0.17~~

Notes
J : Sample result is greater than the MDL but below the CRDL
U : Indicates analyzed for but not detected.
[1] Trivalent chromium SCOs utilized.
Highlighted / bolded indicates analyte exceeded above its respective NYSDEC Unrestricted SCO.
Green / italicized value indictes analyte exceeded its repsective unrestricted SCO but was below its respective Residential / Protection of GW SCO, whichever is lower.
NA - Not Available
~~ ~~ Indicates that sample locations were removed as part of supplemental soil excavation activities.

Table 5-33
Preliminary TAL Metals Soil Analytical Data
RD-10, RD-13 and RD-20 Original Sample Locations - Post Excavation Data

	NYSDEC SCOs					RD-10, RD-13 and RD-20 Original Sample Locations											
						Endpoint Soil Samples											
						Co-located Bottom and Sidewall Samples											
TAL Metals (mg/kg)	Unrestricted	Residential	Restricted Residential	Commercial	Protection of Groundwater	RD-EP#117 (10')	RD-EP#118 (10')	RD-EP#119 (10')	RD-EP#120 (10')	RD-EP#121 (10')	RD-EP#122 (10')	RD-EP#123 (10')	RD-EP#124 (4')	RD-EP#125 (1')	RD-EP#126 (4')	RD-EP#127 (1')	RD-EP#128 (4')
Aluminum	NA	NA	NA	NA	NA	6,980	7,510	1,940	6,520	3,140	747	726	6,800	7,620	8,700	6,910	5,820
Antimony	NA	NA	NA	NA	NA	4.5 U	4.3 U	4.6 U	4.7 U	4.0 U	3.9 U	4.8 U	4.4 U	4.3 U	4.3 U	4.6 U	4.4 U
Arsenic	13	16	16	16	16	3.2 J	1.8 J	1.0 J	3.5 J	1.2 J	2.9 U	3.6 U	2.1 J	2.8 J	2.4 J	3.0 J	3.3
Barium	350	350	400	400	820	38.2 J	42.8	7.4 J	27.6 J	13.6 J	5.1 J	3.7 J	27.2 J	36.2 J	28.9 J	34.7 J	24.9 J
Beryllium	7.2	14	72	590	47	0.45 U	0.43 U	0.46 U	0.40 J	0.40 U	0.39 U	0.48 U	0.44 U	0.43 U	0.43 U	0.46 U	0.44 U
Cadmium	2.5	2.5	4.3	9.3	7.5	0.90 U	0.86 U	0.92 U	0.95 U	0.81 U	0.78 U	0.96 U	0.88 U	0.86 U	0.86 U	0.57 J	0.89 U
Calcium	NA	NA	NA	NA	NA	1,150	1,360	134 J	863 J	108 J	969 U	1,200 U	1,010 J	841 J	687 J	1,980	248 J
Chromium[1]	30	36	180	1,500	NS	14.4	16.6	3.3	13.9	5.9	2.1	1.4 J	11.1	13.3	11.4	12.5	10.2
Cobalt	NA	NA	NA	NA	NA	3.9 J	2.7 J	1.3 J	4.8 J	2.3 J	1.7 J	12.0 U	3.0 J	3.2 J	2.4 J	3.8 J	1.5 J
Copper	50	270	270	270	1,720	12.0	9.3	2.7 J	7.8	4.9 J	4.8 U	6.0 U	7.0	10.7	7.6	11.5	5.1 J
Iron	NA	NA	NA	NA	NA	8,670	12,800	4,240	18,300	6,050	3,270	1,980	7,880	12,400	7,530	10,500	7,650
Lead	63	400	400	1,000	450	6.8	6.2	2.2 J	4.4	2.2	1.9 U	2.4 U	5.2	34.6	5.2	*70.2*	4.4
Magnesium	NA	NA	NA	NA	NA	2,050	2,200	306 J	1,740	733 J	181 J	194 J	1,390	1,750	1,980	2,760	1,350
Manganese	1,600	2,000	2,000	10,000	2,000	84.4	127	115	232	127	112	30.0	90.0	118	66.9	274	43.3
Nickel	30	140	310	310	130	8.8 J	8.6	2.3 J	14.4	4.3 J	7.8 U	9.6 U	5.8 J	8.1 J	7.3 J	8.1 J	5.1 J
Potassium	NA	NA	NA	NA	NA	639 J	584 J	164 J	522 J	253 J	95 J	107 J	405 J	789 J	639 J	745 J	567 J
Selenium	3.9	36	180	1,500	4	4.5 U	4.3 U	4.6 U	4.7 U	4.0 U	3.9 U	4.8 U	4.4 U	4.3 U	4.3 U	4.6 U	4.4 U
Silver	2	36	180	1,500	8.3	2.3 U	2.1 U	2.3 U	2.4 U	2.0 U	1.9 U	2.4 U	2.2 U	*79.6*	*9.3*	*190*	*101*
Sodium	NA	NA	NA	NA	NA	146 J	1,070 U	1,150 U	180 J	1,010 U	969 U	1,200 U	1,090 U	1,080 U	1,070 U	1,140 U	1,110 U
Thallium	NA	NA	NA	NA	NA	4.5 U	4.3 U	4.6 U	4.7 U	4.0 U	3.9 U	4.8 U	4.4 U	4.3 U	4.3 U	4.6 U	4.4 U
Vanadium	NA	NA	NA	NA	NA	19.3	20.7	5.6 J	19.9	8.5 J	2.1 J	1.6 J	13.4	17.1	12.0	16.0	16.1
Zinc	109	2,200	10,000	10,000	2,480	33.1	26.7	7.2	21.7	12.6	3.1 J	3.5 J	24.3	47.7	38.6	61.8	28.7
Mercury	0.18	0.81	0.81	2.8	0.73	0.020 U	0.019 U	0.021 U	0.020 U	0.020 U	0.017 U	0.020 U	0.019 U	0.065	0.020 U	0.088	0.019 U

	NYSDEC SCOs					RD-10, RD-13 and RD-20 Original Sample Locations												
						Endpoint Soil Samples												
						Co-located Bottom and Sidewall Samples												
TAL Metals (mg/kg)	Unrestricted	Residential	Restricted Residential	Commercial	Protection of Groundwater	RD-EP#129 (1')	RD-EP#130 (6')	RD-EP#131 (6')	RD-EP#132 (4')	RD-EP#133 (1')	RD-EP#134 (4')	RD-EP#135 (1')	RD-EP#136 (4')	RD-EP#137 (1')	RD-EP#138 (4')	RD-EP#139 (1')	RD-EP#140 (4')	RD-EP#141 (1')
Aluminum	NA	NA	NA	NA	NA	10,100	4,520	4,640	10,300	9,040	7,750	9,380	6,640	10,700	8,080	5,410	3,200	5,730
Antimony	NA	NA	NA	NA	NA	4.6 U	4.4 U	4.1 U	4.4 U	3.9 U	4.3 U	4.1 U	4.3 U	4.2 U	4.2 U	4.5 U	4.2 U	4.2 U
Arsenic	13	16	16	16	16	4.5	3.3 U	1.1 J	2.4 J	2.7 J	1.6 J	3.3	1.8 J	2.6 J	4.3	2.7 J	2.8 J	3.4
Barium	350	350	400	400	820	46.4	17.7 J	15.4 J	28.4 J	37.4 J	16.9 J	33.0 J	23.5 J	34.0 J	96.1	75.4	139	39.2 J
Beryllium	7.2	14	72	590	47	0.46 U	0.44 U	0.41 U	0.44 U	0.39 U	0.43 U	0.41 U	0.43 U	0.33 J	0.42	0.45 U	0.42 U	0.42 U
Cadmium	2.5	2.5	4.3	9.3	7.5	0.92 U	0.87 U	0.81 U	0.89 U	0.79 U	0.86 U	0.82 U	0.86 U	0.84 U	0.84 U	0.89 U	0.85 U	0.85 U
Calcium	NA	NA	NA	NA	NA	1,410	152 J	174 J	511 J	993	246 J	822 J	378 J	987 J	2,230	1,770	7,390	26,700
Chromium[1]	30	36	180	1,500	NS	16.6	7.4	12.5	14.7	15.4	13.4	15.0	11.3	16.2	19.5	11.3	8.5	10.1
Cobalt	NA	NA	NA	NA	NA	4.7 J	1.3 J	3.1 J	3.9 J	3.9 J	2.8 J	3.8 J	3.3 J	4.0 J	7.2 J	2.9 J	2.2 J	3.2 J
Copper	50	270	270	270	1,720	15.0	4.6 J	5.5	11.7	12.1	7.2	10.4	6.4	8.8	26.8	15.1	8.1	12.4
Iron	NA	NA	NA	NA	NA	14,400	5,660	7,160	12,500	13,000	9,230	12,500	7,330	12,600	19,800	9,500	8,950	9,230
Lead	63	400	400	1,000	450	45.5	3.2	3.6	9.2	41.1	4.9	22.6	4.6	17.1	55.1	*192*	*230*	*115*
Magnesium	NA	NA	NA	NA	NA	2,210	983 J	1,140	2,170	2,010	1,870	2,040	1,570	2,260	2,930	1,140	1,570	15,200
Manganese	1,600	2,000	2,000	10,000	2,000	163	33.9	72.6	115	130	72.7	124	88.7	127	441	178	104	175
Nickel	30	140	310	310	130	10.2	4.2 J	4.4 J	8.5 J	8.9	7.2 J	8.6	5.9 J	9.2	19.1	7.5 J	6.8 J	7.9 J
Potassium	NA	NA	NA	NA	NA	1,120 J	401 J	403 J	668 J	816 J	389 J	765 J	404 J	879 J	1,890	488 J	491 J	543 J
Selenium	3.9	36	180	1,500	4	4.6 U	4.4 U	4.1 U	4.4 U	3.9 U	4.3 U	4.1 U	4.3 U	4.2 U	4.2 U	4.5 U	4.2 U	4.2 U
Silver	2	36	180	1,500	8.3	*6.7*	*25.4*	2.0 U	1.7 J	*18.2*	2.1 U	*26.9*	2.1 U	*2.8*	1.5 J	*3.5*	*2.2*	*30.5*
Sodium	NA	NA	NA	NA	NA	140 J	1,090 U	1,010 U	92 J	125 J	1,070 U	1,030 U	1,070 U	1,050 U	1,050 U	1,120 U	1,060 U	1,060 U
Thallium	NA	NA	NA	NA	NA	4.6 U	4.4 U	4.1 U	4.4 U	3.9 U	4.3 U	4.1 U	4.3 U	4.2 U	4.2 U	4.5 U	4.2 U	4.2 U
Vanadium	NA	NA	NA	NA	NA	22.0	7.4 J	9.6 J	19.1	19.2	15.9	19.9	13.5	20.9	24.0	15.1	8.0 J	15.0
Zinc	109	2,200	10,000	10,000	2,480	50.9	15.6	20.0	34.6	60.4	20.4	40.7	16.6	32.4	83.0	106	*167*	59.6
Mercury	0.18	0.81	0.81	2.8	0.73	0.11	0.025	0.016 J	0.019 U	0.065	0.014 J	0.050	0.017 U	0.016 J	*0.24*	0.15	0.044	0.063

Notes
J : Sample result is greater than the MDL but below the CRDL
U : Indicates analyzed for but not detected.
[1] Trivalent chromium SCOs utilized.
Highlighted / bolded indicates analyte exceeded above its respective NYSDEC Unrestricted SCO.
Green / italicized value indicates analyte exceeded its respective unrestricted SCO but was below its respective Residential / Protection of GW SCO, whichever is lower.
Blue / italicized value indicates analyte exceeded its respective Residential SCO and / or Protection of Groundwater SCO but was below its Restricted Residential SCO.
Pink / italicized value indicates analyte exceeded its respective Residential SCO and / or Protection of Groundwater SCO but was below its Commercial SCO.
NA - Not Available
Indicates that sample locations were removed as part of supplemental soil excavation activities.

Table 5-34
TAL Metals Soil Analytical Data
RD-17 Original Sample Location - Post Excavation Data

TAL Metals (mg/kg)	NYSDEC SCOs Unrestricted	NYSDEC SCOs Residential	NYSDEC SCOs Protection of Groundwater	RD-17 Original Sample Location - Post Excavation Data: End-point Soil Samples: Side-wall Samples: ~~RD-EP#8~~ (4')	RD-EP#9 (1')	~~RD-EP#10~~ (4')	End-point Soil Samples: Bottom Samples: ~~RD-EP#6~~ (2')	~~RD-EP#7~~ (2')	Supplemental Endpoint Samples: Side-wall Samples: ~~RD-EP#55~~ (2')	RD-EP#56 (2')	Supplemental Endpoint Samples: Bottom Samples: ~~RD-EP#53~~ (4')	~~RD-EP#54~~ (4')
Aluminum	NA	NA	NA	~~9,980~~	8,500	~~7,700~~	~~11,600~~	~~10,900~~	~~9,730~~	3,620	~~9,620~~	~~2,690~~
Antimony	NA	NA	NA	~~1.1 J~~	3.6 U	~~3.9 U~~	~~3.8 U~~	~~3.8 U~~	~~3.9 U~~	3.5 U	~~3.7 U~~	~~4.2 U~~
Arsenic	13	16	16	~~5.7~~	2.6 J	~~3.6~~	~~4.4~~	~~3.1~~	~~3.0~~	0.90 J	~~3.0~~	~~1.3 J~~
Barium	350	350	820	~~33.3~~	33.7 J	~~39.3~~	~~44.7~~	~~48.4~~	~~65.9~~	12.5 J	~~84.3~~	~~10.3 J~~
Beryllium	7.2	14	47	~~0.39 U~~	0.36 U	~~0.39 U~~	~~0.38 U~~	~~0.38 U~~	~~0.38 J~~	0.19 J	~~0.42~~	~~0.13 J~~
Cadmium	2.5	2.5	7.5	~~0.78 U~~	0.72 U	~~0.77 U~~	~~0.76 U~~	~~0.77 U~~	~~0.78 U~~	0.70 U	~~0.74 U~~	~~0.84 U~~
Calcium	NA	NA	NA	~~1,190~~	9,860	~~4,150~~	~~995~~	~~1,450~~	~~1,920~~	513 J	~~1,460~~	~~164 J~~
Chromium[1]	30	36	NS	~~17.7~~	12.0	~~14.4~~	~~18.0~~	~~18.3~~	~~15.4~~	6.3	~~20.0~~	~~4.0~~
Cobalt	NA	NA	NA	~~5.8 J~~	3.5 J	~~4.7 J~~	~~5.4 J~~	~~5.7 J~~	~~5.4 J~~	3.1 J	~~6.9 J~~	~~3.8 J~~
Copper	50	270	1,720	~~25.6~~	8.8	~~13.1~~	~~14.0~~	~~13.1~~	~~10.7~~	5.0	~~18.9~~	~~4.1 J~~
Iron	NA	NA	NA	~~23,200~~	10,600	~~12,000~~	~~18,300~~	~~15,900~~	~~16,500~~	6,090	~~16,500~~	~~4,240~~
Lead	63	400	450	~~156~~	16.6	~~34.0~~	~~52.0~~	~~23.7~~	~~22.1~~	2.7	~~201~~	~~2.4~~
Magnesium	NA	NA	NA	~~2,320~~	1,920	~~2,080~~	~~3,010~~	~~2,890~~	~~2,270~~	884	~~2,630~~	~~515 J~~
Manganese	1,600	2,000	2,000	~~212~~	126	~~155~~	~~156~~	~~187~~	~~194~~	90.0	~~322~~	~~79.7~~
Nickel	30	140	130	~~12.3~~	7.7	~~10.4~~	~~11.2~~	~~10.7~~	~~9.1~~	5.5 J	~~12.5~~	~~4.0 J~~
Potassium	NA	NA	NA	~~983~~	1,270	~~868 J~~	~~824 J~~	~~986~~	~~604 J~~	352 J	~~1,310~~	~~183 J~~
Selenium	3.9	36	4	~~3.9 U~~	3.6 U	~~3.9 U~~	~~3.8 U~~	~~3.8 U~~	~~3.9 U~~	3.5 U	~~3.7 U~~	~~4.2 U~~
Silver	2	36	8.3	~~**18.1**~~	0.35 J	~~**4.5**~~	~~**44.4**~~	~~**5.9**~~	~~**7.6**~~	1.7 U	~~**92.4**~~	~~2.1 U~~
Sodium	NA	NA	NA	~~154 J~~	337 J	~~195 J~~	~~288 J~~	~~457 J~~	~~221 J~~	873 U	~~296 J~~	~~1,050 U~~
Thallium	NA	NA	NA	~~3.9 U~~	3.6 U	~~3.9 U~~	~~3.8 U~~	~~3.8 U~~	~~3.9 U~~	3.5 U	~~3.7 U~~	~~4.2 U~~
Vanadium	NA	NA	NA	~~22.4~~	16.2	~~18.2~~	~~24.1~~	~~24.2~~	~~22.8~~	7.5 J	~~24.0~~	~~5.4 J~~
Zinc	109	2,200	2,480	~~136~~	24.3	~~44.4~~	~~113~~	~~45.2~~	~~46.5~~	8.7	~~205~~	~~6.9~~
Mercury	0.18	0.81	0.73	~~0.052~~	0.031	~~0.057~~	~~0.054~~	~~0.032~~	~~0.021~~	0.017 U	~~0.020 U~~	~~0.020 U~~

TAL Metals (mg/kg)	NYSDEC SCOs Unrestricted	NYSDEC SCOs Residential	NYSDEC SCOs Protection of Groundwater	RD-17 Original Sample Location - Post Excavation Data: Supplemental Endpoint Samples: Side-wall Samples: RD-EP#81 (2')	RD-EP#82 (2')	Supplemental Endpoint Samples: Bottom Samples: RD-EP#83 (6')	~~RD-EP#84~~ (6')	~~RD-EP#85~~ (6')	RD-EP#86 (6')	Supplemental Endpoint Samples: RD-EP#109 (8')	RD-EP#110 (8')	RD-EP#111 (8')	Supplemental Endpoint Samples: Co-located Bottom / Sidewall Samples: RD-EP#112 (2')	RD-EP#113 (4')	RD-EP#114 (6')	RD-EP#115 (4')	RD-EP#116 (6')
Aluminum	NA	NA	NA	3,580	2,380	1,760	~~8,670~~	~~7,750~~	3,180	851	688	992	12,500	2,450	2,290	8,280	3,780
Antimony	NA	NA	NA	4.0 U	3.6 U	3.8 U	~~4.4 U~~	~~4.1 U~~	4.5 U	4.4 U	4.3 U	4.4 U	4.3 U	3.9 U	4.0 U	4.0 U	4.3 U
Arsenic	13	16	16	7.5	0.79 J	2.9 U	~~2.0 J~~	~~9.7~~	1.5 J	0.68 J	0.84 J	3.3 U	2.9 J	2.9 U	1.1 J	4.0	0.99 J
Barium	350	350	820	12.8 J	9.7 J	6.3 J	~~36.8 J~~	~~27.8 J~~	10.5 J	3.6 J	2.7 J	3.5 J	41.8 J	13.8 J	11.3 J	37.1 J	32.3 J
Beryllium	7.2	14	47	0.17 J	0.14 J	0.094 J	~~0.34 J~~	~~0.69~~	0.20 J	0.084 J	0.071 J	0.065 J	0.46	0.39 U	0.40 U	0.33 J	0.43 U
Cadmium	2.5	2.5	7.5	0.79 U	0.71 U	0.77 U	~~0.87 U~~	~~0.82 U~~	0.89 U	0.88 U	0.86 U	0.88 U	0.86 U	0.78 U	0.80 U	0.80 U	0.87 U
Calcium	NA	NA	NA	209 J	314 J	127 J	~~2,010~~	~~780 J~~	272 J	105 J	75.8 J	80.0 J	556 J	341 J	463 J	2,730	1,090
Chromium[1]	30	36	NS	6.4	4.4	3.9	~~13.0~~	~~17.9~~	6.2	1.8 J	2.0 J	2.4	17.2	4.0	4.3	16.3	5.8
Cobalt	NA	NA	NA	2.6 J	2.1 J	3.1 J	~~5.2 J~~	~~14.1~~	1.9 J	0.98 J	0.50 J	0.60 J	6.6 J	1.6 J	3.5 J	4.3 J	2.6 J
Copper	50	270	1,720	4.4 J	3.8 J	3.5 J	~~12.1~~	~~13.7~~	5.4 J	1.8 J	1.6 J	2.2 J	11.8	3.8 J	4.9 J	11.0	6.0
Iron	NA	NA	NA	5,570	3,980	3,760	~~9,950~~	~~33,400~~	6,610	3,360	2,430	2,170	16,400	3,660	5,730	11,900	7,030
Lead	63	400	450	2.4	1.7 J	0.91 J	~~5.8~~	~~5.2~~	1.8 J	0.95 J	0.72 J	0.66 J	7.3	1.6 J	2.2	27.2	7.7
Magnesium	NA	NA	NA	779 J	600 J	555 J	~~2,710~~	~~1,480~~	1,160	166 J B	164 J	197 J	2,810	759 J	651 J	3,310	1,090
Manganese	1,600	2,000	2,000	138	102	157	~~184~~	~~662~~	101	87.9	50.4	42.7	189	113	136	165	319
Nickel	30	140	130	6.0 J B	4.5 J B	3.0 J B	~~11.9 B~~	~~8.6 B~~	5.1 J B	1.2 J	0.93 J	1.5 J	13.3	5.8 J	6.0 J	10.9	10.5
Potassium	NA	NA	NA	334 J	248 J	180 J	~~752 J~~	~~562 J~~	382 J	115 J	79.6 J	90.3 J	874 J	331 J	258 J	757 J	636 J
Selenium	3.9	36	4	4.0 U	3.6 U	3.8 U	~~4.4 U~~	~~4.1 U~~	4.5 U	4.4 U	4.3 U	4.4 U	4.3 U	3.9 U	4.0 U	4.0 U	4.3 U
Silver	2	36	8.3	2.0 U	1.8 U	1.9 U	~~**7.3**~~	~~**27.3**~~	2.2 U	0.13 J	2.2 U	2.2 U	2.1 U	2.0 U	2.0 U	*2.9*	1.7 J
Sodium	NA	NA	NA	991 U	894 U	961 U	~~176 J~~	~~448 J~~	1,120 U	1,100 U	1,080 U	1,100 U	101 J	979 U	1,000 U	177 J	1,080 U
Thallium	NA	NA	NA	4.0 U	3.6 U	3.8 U	~~4.4 U~~	~~4.1 U~~	4.5 U	4.4 U	4.3 U	4.4 U	4.3 U	3.9 U	4.0 U	4.0 U	4.3 U
Vanadium	NA	NA	NA	7.8 J	5.3 J	3.8 J	~~15.3~~	~~23.6~~	7.8 J	2.4 J	2.3 J	2.1 J	25.7	4.4 J	5.7 J	19.6	7.7 J
Zinc	109	2,200	2,480	8.3	6.5	5.6 J	~~30.1~~	~~26.7~~	10.4	3.5 J	2.8 J	3.3 J	31.7	7.6	7.1	32.3	19.7
Mercury	0.18	0.81	0.73	0.070	0.016 J	0.019 U	~~0.12~~	~~0.067~~	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.017 U	0.018 U	0.039	0.041

J : Sample result is greater than the MDL but below the CRDL
U : Indicates analyzed for but not detected.
[1] Trivalent chromium SCOs utilized.
Highlighted / bolded indicates analyte exceeded above its respective NYSDEC Unrestricted SCO.
Green / italicized value indictes analyte exceeded its repsective unrestricted SCO but was below its respective Residential / Protection of GW SCO, whichever is lower.
NA - Not Available
~~Strikethrough~~ Indicates that sample locations were removed as part of supplemental soil excavation activities.

Table 5.35
TAL Metals Soil Analytical Data
BLDG2-EarthenPits Original Sample Location - Post Excavation Data

TAL Metals (mg/kg)	NYSDEC SCOs			Post-excavation End-point Soil Analytical Data						
				Bldg2-EarthenPits Original Sample Location					Supplemental Endpoint Samples	
				Side-wall Samples				Bottom Sample	Side-wall Samples	
	Unrestricted	Residential	Protection of Groundwater	~~RD-EP#33~~ (2')	RD-EP#34 (2')	RD-EP#35 (2')	RD-EP#36 (2')	RD-EP#32 (4')	RD-EP#60 (2')	RD-EP#61 (4')
Aluminum	NA	NA	NA	~~7,970~~	6,830	11,800	9,100	8,060	11,400	10,200
Antimony	NA	NA	NA	~~4.1 U~~	3.8 U	3.7 U	4.4 U	4.5 U	4.0 U	3.6 U
Arsenic	13	16	16	~~3.1~~	1.8 J	1.8 J	2.4 J	3.0 J	5.5	3.3
Barium	350	350	820	~~39.5 J~~	20.7 J	34.7 J	40.4 J	44.7	31.9 J	26.5 J
Beryllium	7.2	14	47	~~0.44~~	0.29 J	0.42	0.52	0.52	0.44	0.37
Cadmium	2.5	2.5	7.5	~~0.83 U~~	0.77 U	0.73 U	0.88 U	0.89 U	0.81 U	0.72 U
Calcium	NA	NA	NA	~~1,590~~	330 J	838 J	983 J	1,330	662 J	575 J
Chromium[1]	30	36	NS	~~17.6~~	10.0	14.4	14.4	13.4	14.2	13.4
Cobalt	NA	NA	NA	~~4.7 J~~	3.8 J	3.9 J	4.3 J	7.2 J	4.1 J	2.9 J
Copper	50	270	1,720	~~11.8~~	7.0	8.8	9.4	10.3	10.9	8.0
Iron	NA	NA	NA	~~11,800~~	7,920	11,600	11,100	10,800	13,000	12,600
Lead	63	400	450	~~31.3~~	7.5	7.3	9.0	6.0	9.7	6.2
Magnesium	NA	NA	NA	~~2,690~~	1,600	2,230	2,340	2,280	2,420	1,700
Manganese	1,600	2,000	2,000	~~195~~	111	108	150	169	123	103
Nickel	30	140	130	~~11.1~~	6.1 J	8.5	8.9	10.2	9.9	7.6
Potassium	NA	NA	NA	~~2070~~	566 J	557 J	602 J	557 J	1,080	921
Selenium	3.9	36	4	~~4.1 U~~	3.8 U	3.7 U	4.4 U	4.5 U	0.96 J	3.6 U
Silver	2	36	8.3	**~~4.6~~**	1.7 J	1.8 U	0.45 J	2.2 U	2.0 U	1.8 U
Sodium	NA	NA	NA	~~575 J~~	960 U	125 J	121 J	109 J	187 J	161 J
Thallium	NA	NA	NA	~~4.1 U~~	3.8 U	3.7 U	4.4 U	4.5 U	4.0 U	3.6 U
Vanadium	NA	NA	NA	~~19.4~~	12.7	19.7	19.8	21.9	32.1	21.0
Zinc	109	2,200	2,480	~~47.3~~	28.3	36.7	32.1	32.1	29.6	20.8
Mercury	0.18	0.81	0.73	~~0.031~~	0.019 U	0.021 U	0.019 U	0.020 U	0.018 U	0.017 J

Notes
J : Sample result is greater than the MDL but below the CRDL
U : Indicates analyzed for but not detected.
[1] Trivalent chromium SCOs utilized.
Highlighted / bolded indicates analyte exceeded above its respective NYSDEC Unrestricted SCO.
NA - Not Available
~~Strikethrough~~ Indicates that sample locations were removed as part of supplemental soil excavation activities.

APEX

Table 5-36a
TCL VOCs Soil Analytical Data
CM-7 and CM-8 Original Samples Locations - Post-excavation Data

TCL VOCs (mg/kg)	NYSDEC SCOs			CM-7 & CM-8 Sample Locations - Post-excavation End-point Soil Samples							
				Side-wall Samples					Bottom Samples		
	NYSDEC Unrestricted SCO	Residential	Protection of Groundwater	CM-EP#2 (3')	~~CM-EP#3 (4')~~	~~CM-EP#5 (3')~~	CM-EP#6 (3')	CM-EP#8 (3')	~~CM-EP#1 (6')~~	CM-EP#4 (6')	~~CM-EP#7 (6')~~
1,1,1-Trichloroethane	0.68	100	0.68	0.0011 U	~~0.0013 U~~	~~0.00090 U~~	0.0013 U	0.0012 U	~~0.0010 U~~	0.0013 U	~~0.0011 U~~
1,1,2,2-Tetrachloroethane	NA	NA	NA	0.0011 U	~~0.0013 U~~	~~0.00090 U~~	0.0013 U	0.0012 U	~~0.0010 U~~	0.0013 U	~~0.0011 U~~
1,1,2-Trichloroethane	NA	NA	NA	0.0011 U	~~0.0013 U~~	~~0.00090 U~~	0.0013 U	0.0012 U	~~0.0010 U~~	0.0013 U	~~0.0011 U~~
1,1-Dichloroethane	0.27	19	0.27	0.0011 U	~~0.0013 U~~	~~0.00090 U~~	0.0013 U	0.0012 U	~~0.0010 U~~	0.0013 U	~~0.0011 U~~
1,1-Dichloroethene	0.33	100	0.33	0.0011 U	~~0.0013 U~~	~~0.00090 U~~	0.0013 U	0.0012 U	~~0.0010 U~~	0.0013 U	~~0.0011 U~~
1,2,3-Trichlorobenzene	NA	NA	NA	0.0011 U	~~0.0013 U~~	~~0.00090 U~~	0.0013 U	0.0012 U	~~0.0010 U~~	0.0013 U	~~0.0011 U~~
1,2,4-Trichlorobenzene	NA	NA	NA	0.0011 U	~~0.0013 U~~	~~0.00090 U~~	0.0013 U	0.0012 U	~~0.0010 U~~	0.0013 U	~~0.0011 U~~
1,2-Dibromo-3-Chloropropane	NA	NA	NA	0.0011 U	~~0.0013 U~~	~~0.00090 U~~	0.0013 U	0.0012 U	~~0.0010 U~~	0.0013 U	~~0.0011 U~~
1,2-Dibromoethane	NA	NA	NA	0.0011 U	~~0.0013 U~~	~~0.00090 U~~	0.0013 U	0.0012 U	~~0.0010 U~~	0.0013 U	~~0.0011 U~~
1,2-Dichlorobenzene	1.1	100	1.1	0.0011 U	~~0.0013 U~~	~~0.00090 U~~	0.0013 U	0.0012 U	~~0.0010 U~~	0.0013 U	~~0.0011 U~~
1,2-Dichloroethane	0.02	2.3	0.02	0.0011 U	~~0.0013 U~~	~~0.00090 U~~	0.0013 U	0.0012 U	~~0.0010 U~~	0.0013 U	~~0.0011 U~~
1,2-Dichloropropane	NA	NA	NA	0.0011 U	~~0.0013 U~~	~~0.00090 U~~	0.0013 U	0.0012 U	~~0.0010 U~~	0.0013 U	~~0.0011 U~~
1,3-Dichlorobenzene	2.4	17	2.4	0.0011 U	~~0.0013 U~~	~~0.00090 U~~	0.0013 U	0.0012 U	~~0.0010 U~~	0.0013 U	~~0.0011 U~~
1,4-Dichlorobenzene	1.8	9.8	1.8	0.0011 U	~~0.0013 U~~	~~0.00090 U~~	0.0013 U	0.0012 U	~~0.0010 U~~	0.0013 U	~~0.0011 U~~
1,4-Dioxane	0.1	9.8	0.1	0.021 U	~~0.027 U~~	~~0.018 U~~	0.026 U	0.024 U	~~0.020 U~~	0.025 U	~~0.021 U~~
2-Butanone (MEK)	0.12	100	0.12	0.0053 U	~~0.0067 U~~	~~0.0045 U~~	0.040	0.0059 U	~~0.0051 U~~	0.062	~~0.0054 U~~
2-Hexanone	NA	NA	NA	0.0053 U	~~0.0067 U~~	~~0.0045 U~~	0.0065 U	0.0059 U	~~0.0051 U~~	0.0063 U	~~0.0054 U~~
4-Methyl-2-pentanone	NA	NA	NA	0.0053 U	~~0.0067 U~~	~~0.0045 U~~	0.0065 U	0.0059 U	~~0.0051 U~~	0.0063 U	~~0.0054 U~~
Acetone	0.05	100	0.05	0.049	~~0.038 B~~	~~0.049~~	*0.31* B	0.0059 U	~~0.041 B~~	*0.34* B	**~~0.061~~**
Benzene	0.06	2.9	0.06	0.0011 U	~~0.0013 U~~	~~0.00032 J~~	0.00025 J	0.00020 J	~~0.00015 J~~	0.00087 J	~~0.0011 U~~
Bromochloromethane	NA	NA	NA	0.0011 U	~~0.0013 U~~	~~0.00090 U~~	0.0013 U	0.0012 U	~~0.0010 U~~	0.0013 U	~~0.0011 U~~
Bromodichloromethane	NA	NA	NA	0.0011 U	~~0.0013 U~~	~~0.00090 U~~	0.0013 U	0.0012 U	~~0.0010 U~~	0.0013 U	~~0.0011 U~~
Bromoform	NA	NA	NA	0.0011 U	~~0.0013 U~~	~~0.00090 U~~	0.0013 U	0.0012 U	~~0.0010 U~~	0.0013 U	~~0.0011 U~~
Bromomethane	NA	NA	NA	0.0011 U	~~0.0013 U~~	~~0.00090 U~~	0.0013 U	0.0012 U	~~0.0010 U~~	0.0013 U	~~0.0011 U~~
Carbon disulfide	NA	NA	NA	0.0060	~~0.0013 U~~	~~0.021~~	0.0017	0.0012 U	~~0.025~~	0.0077	~~0.0011 U~~
Carbon tetrachloride	0.76	1.4	0.76	0.0011 U	~~0.0013 U~~	~~0.00090 U~~	0.0013 U	0.0012 U	~~0.0010 U~~	0.0013 U	~~0.0011 U~~
Chlorobenzene	1.1	100	1.1	0.0011 U	~~0.0013 U~~	~~0.00090 U~~	0.0013 U	0.0012 U	~~0.0010 U~~	0.0013 U	~~0.0011 U~~
Chloroethane	NA	NA	NA	0.0011 U	~~0.0013 U~~	~~0.00090 U~~	0.0013 U	0.0012 U	~~0.0010 U~~	0.0013 U	~~0.0011 U~~
Chloroform	0.37	10	0.37	0.0011 U	~~0.0013 U~~	~~0.00090 U~~	0.0013 U	0.0012 U	~~0.0010 U~~	0.0013 U	~~0.0011 U~~
Chloromethane	NA	NA	NA	0.0011 U	~~0.0013 U~~	~~0.00090 U~~	0.0013 U	0.0012 U	~~0.0010 U~~	0.0013 U	~~0.0011 U~~
cis-1,2-Dichloroethene	0.25	59	0.25	0.00046 J	~~0.0035~~	~~0.0034~~	0.017	0.018	~~0.00031 J~~	0.016	~~0.00053 J~~
cis-1,3-Dichloropropene	NA	NA	NA	0.0011 U	~~0.0013 U~~	~~0.00090 U~~	0.0013 U	0.0012 U	~~0.0010 U~~	0.0013 U	~~0.0011 U~~
Cyclohexane	NA	NA	NA	0.0011 U	~~0.0013 U~~	~~0.00049 J~~	0.0013 U	0.0012 U	~~0.0010 U~~	0.0012 J	~~0.0011 U~~
Dibromochloromethane	NA	NA	NA	0.0011 U	~~0.0013 U~~	~~0.00090 U~~	0.0013 U	0.0012 U	~~0.0010 U~~	0.0013 U	~~0.0011 U~~
Dichlorodifluoromethane	NA	NA	NA	0.0011 U	~~0.0013 U~~	~~0.00090 U~~	0.0013 U	0.0012 U	~~0.0010 U~~	0.0013 U	~~0.0011 U~~
Ethylbenzene	1	30	1	0.00074 J	~~0.0013 U~~	~~0.0032~~	0.0038	0.0012 U	~~0.00020 J~~	0.22	~~0.0011 U~~
Freon 113	NA	NA	NA	0.0011 U	~~0.0013 U~~	~~0.00090 U~~	0.0013 U	0.0012 U	~~0.0010 U~~	0.0013 U	~~0.0011 U~~
Isopropylbenzene	NA	NA	NA	0.0011 U	~~0.0013 U~~	~~0.000099 J~~	0.00032 J	0.00042 J	~~0.0010 U~~	0.025	~~0.0011 U~~
m&p-Xylene	0.26	100	1.6	0.0021 U	~~0.0027 U~~	~~0.0016 J~~	0.012	0.0010 J	~~0.0020 U~~	0.045	~~0.0021 U~~
Methyl acetate	NA	NA	NA	0.0066	~~0.0013 U~~	~~0.00090 U~~	0.0090	0.0012 U	~~0.0010 U~~	0.0013 U	~~0.0011 U~~
Methylcyclohexane	NA	NA	NA	0.0011 U	~~0.0013 U~~	~~0.00090 U~~	0.0013 U	0.0012 U	~~0.0010 U~~	0.013	~~0.0011 U~~
Methylene Chloride	0.05	51	0.05	0.0011	~~0.0013 U~~	~~0.00050 J~~	0.0013	0.00089 J	~~0.00030 J~~	0.0012 J	~~0.0011 U~~
MTBE	0.93	62	0.93	0.0011 U	~~0.0013 U~~	~~0.00090 U~~	0.0013 U	0.0012 U	~~0.0010 U~~	0.0013 U	~~0.0011 U~~
Naphthalene	12	100	12	0.0011 U	~~0.0013 U H~~	~~0.00090 U~~	0.0013 U H	0.0012 U	~~0.0010 U~~	0.0013 U H	~~0.0011 U~~
o-Xylene	0.26	100	1.6	0.00039 J	~~0.0013 U~~	~~0.00039 J~~	0.0011 J	0.00076 J	~~0.0010 U~~	0.067	~~0.0011 U~~
Styrene	NA	NA	NA	0.0011 U	~~0.0013 U~~	~~0.0011~~	0.0013 U	0.0012 U	~~0.0010 U~~	0.0013 U	~~0.0011 U~~
Tetrachloroethene	1.3	5.5	1.3	0.0011 U	~~0.0013 U~~	~~0.00090 U~~	0.0013 U	0.0012 U	~~0.0010 U~~	0.0013 U	~~0.0011 U~~
Toluene	0.7	100	0.7	0.0011 U	~~0.0013 U~~	~~0.0012~~	0.00033 J	0.0012 U	~~0.00097 J~~	0.0041	~~0.0011 U~~
trans-1,2-Dichloroethene	0.19	100	0.19	0.0011 U	~~0.0013 U~~	~~0.0044~~	0.0013	0.0010 J	~~0.0010 U~~	0.0017	~~0.0011 U~~
trans-1,3-Dichloropropene	NA	NA	NA	0.0011 U	~~0.0013 U~~	~~0.00090 U~~	0.0013 U	0.0012 U	~~0.0010 U~~	0.0013 U	~~0.0011 U~~
Trichloroethene	0.47	10	0.47	0.0011 U	~~0.0013 U~~	~~0.027~~	0.0025	0.0023	~~0.00016 J~~	0.0045	~~0.0011 U~~
Trichlorofluoromethane	NA	NA	NA	0.0011 U	~~0.0013 U~~	~~0.00090 U~~	0.0013 U	0.0012 U	~~0.0010 U~~	0.0013 U	~~0.0011 U~~
Vinyl chloride	0.02	0.21	0.02	0.0011 U	~~0.0013 U~~	**~~0.021~~**	0.0013 U	0.0012 U	~~0.0010 U~~	0.011	~~0.0011 U~~
Xylenes, Total	0.26	100	1.6	0.0032 U	~~0.0040 U~~	~~0.0019 J~~	0.013	0.0018 J	~~0.0030 U~~	0.11	~~0.0032 U~~
Total VOC TICs:	NA	NA	NA	ND	~~ND~~	~~0.0078~~	0.0449	0.057	~~0.00031~~	0.412	~~ND~~

Notes
ND: TIC not detected
B : The analyte was found in an associated blank, as well as in the sample.
B * : ISTD response or retention time outside acceptable limits
J : Indicates an estimated value.
J N : This flag indicates the presumptive evidence of a compound.
U : Analyzed for but not detected.
U H : Sample was prepped or analyzed beyond the specified holding time

APEX

Table 5-36
TCL SVOCs Soil Analytical Data
CM-7 and CM-8 Original Samples Locations - Post-excavation Data

TCL SVOCs (mg/kg)	NYSDEC Unrestricted SCO	CM-7 & CM-8 Sample Locations - Post-excavation End-point Soil Samples							
		Side-wall Samples					Bottom Samples		
		CM-EP#2	~~CM-EP#3~~	~~CM-EP#5~~	CM-EP#6	CM-EP#8	~~CM-EP#1~~	CM-EP#4	~~CM-EP#7~~
		(3')	~~(4')~~	~~(3')~~	(3')	(3')	~~(6')~~	(6')	~~(6')~~
1,2,4,5-Tetrachlorobenzene	NA	0.38 U	~~0.48 U~~	~~0.38 U~~	0.40 U	0.38 U	~~0.39 U~~	0.39 U	~~0.38 U~~
1,4-Dioxane	0.1	0.38 U	~~0.48 U~~	~~0.38 U~~	0.40 U	0.38 U	~~0.39 U~~	0.39 U	~~0.38 U~~
2,2'-oxybis[1-chloropropane]	NA	0.38 U	~~0.48 U~~	~~0.38 U~~	0.40 U	0.38 U	~~0.39 U~~	0.39 U	~~0.38 U~~
2,3,4,6-Tetrachlorophenol	NA	0.38 U	~~0.48 U~~	~~0.38 U~~	0.40 U	0.38 U	~~0.39 U~~	0.39 U	~~0.38 U~~
2,4,5-Trichlorophenol	NA	0.38 U	~~0.48 U~~	~~0.38 U~~	0.40 U	0.38 U	~~0.39 U~~	0.39 U	~~0.38 U~~
2,4,6-Trichlorophenol	NA	0.38 U	~~0.48 U~~	~~0.38 U~~	0.40 U	0.38 U	~~0.39 U~~	0.39 U	~~0.38 U~~
2,4-Dichlorophenol	NA	0.38 U	~~0.48 U~~	~~0.38 U~~	0.40 U	0.38 U	~~0.39 U~~	0.39 U	~~0.38 U~~
2,4-Dimethylphenol	NA	0.38 U	~~0.48 U~~	~~0.38 U~~	0.40 U	0.38 U	~~0.39 U~~	0.39 U	~~0.38 U~~
2,4-Dinitrophenol	NA	1.1 U	~~1.4 U~~	~~1.1 U~~	1.2 U	1.2 U R	~~1.2 U~~	1.2 U	~~1.1 U R~~
2,4-Dinitrotoluene	NA	0.076 U	~~0.097 U~~	~~0.077 U~~	0.082 U	0.077 U	~~0.078 U~~	0.079 U	~~0.077 U~~
2,6-Dinitrotoluene	NA	0.076 U	~~0.097 U~~	~~0.077 U~~	0.082 U	0.077 U	~~0.078 U~~	0.079 U	~~0.077 U~~
2-Chloronaphthalene	NA	0.38 U	~~0.48 U~~	~~0.38 U~~	0.40 U	0.38 U	~~0.39 U~~	0.39 U	~~0.38 U~~
2-Chlorophenol	NA	0.38 U	~~0.48 U~~	~~0.38 U~~	0.40 U	0.38 U	~~0.39 U~~	0.39 U	~~0.38 U~~
2-Methylnaphthalene	NA	0.38 U	~~0.48 U~~	~~0.38 U~~	0.40 U	0.38 U	~~0.39 U~~	0.39 U	~~0.0081 J~~
2-Methylphenol	0.33	0.38 U	~~0.48 U~~	~~0.38 U~~	0.40 U	0.38 U	~~0.39 U~~	0.39 U	~~0.38 U~~
2-Nitroaniline	NA	0.76 U	~~0.97 U~~	~~0.77 U~~	0.82 U	0.77 U	~~0.78 U~~	0.79 U	~~0.77 U~~
2-Nitrophenol	NA	0.38 U	~~0.48 U~~	~~0.38 U~~	0.40 U	0.38 U	~~0.39 U~~	0.39 U	~~0.38 U~~
3,3'-Dichlorobenzidine	NA	0.76 U	~~0.97 U~~	~~0.77 U~~	0.82 U	0.77 U	~~0.78 U~~	0.79 U	~~0.77 U~~
3-Nitroaniline	NA	0.76 U R	~~0.97 U R~~	~~0.77 U R~~	0.82 U R	0.77 U	~~0.78 U R~~	0.79 U R	~~0.77 U~~
4,6-Dinitro-2-methylphenol	NA	1.1 U	~~1.4 U~~	~~1.1 U~~	1.2 U	1.2 U R	~~1.2 U~~	1.2 U	~~1.1 J~~
4-Bromophenyl phenyl ether	NA	0.38 U	~~0.48 U~~	~~0.38 U~~	0.40 U	0.38 U	~~0.39 U~~	0.39 U	~~0.38 U~~
4-Chloro-3-methylphenol	NA	0.38 U	~~0.48 U~~	~~0.38 U~~	0.40 U	0.38 U	~~0.39 U~~	0.39 U	~~0.38 U~~
4-Chloroaniline	NA	0.38 U R	~~0.48 U R~~	~~0.38 U R~~	0.40 U R	0.38 U	~~0.39 U R~~	0.39 U R	~~0.38 U~~
4-Chlorophenyl phenyl ether	NA	0.38 U	~~0.48 U~~	~~0.38 U~~	0.40 U	0.38 U	~~0.39 U~~	0.39 U	~~0.38 U~~
4-Methylphenol	0.33	0.38 U	~~0.48 U~~	~~0.38 U~~	0.40 U	0.38 U	~~0.39 U~~	0.39 U	~~0.38 U~~
4-Nitroaniline	NA	0.76 U	~~0.97 U~~	~~0.77 U~~	0.82 U	0.77 U	~~0.78 U~~	0.79 U	~~0.77 U~~
4-Nitrophenol	NA	1.1 U	~~1.4 U~~	~~1.1 U~~	1.2 U	1.2 U	~~1.2 U~~	1.2 U	~~1.1 U~~
Acenaphthene	20	0.38 U	~~0.48 U~~	~~0.38 U~~	0.40 U	0.38 U	~~0.39 U~~	0.39 U	~~0.38 U~~
Acenaphthylene	100	0.38 U	~~0.48 U~~	~~0.38 U~~	0.40 U	0.38 U	~~0.39 U~~	0.39 U	~~0.028 J~~
Acetophenone	NA	0.38 U	~~0.48 U~~	~~0.38 U~~	0.40 U	0.38 U	~~0.39 U~~	0.39 U	~~0.38 U~~
Anthracene	100	0.38 U	~~0.48 U~~	~~0.38 U~~	0.40 U	0.38 U	~~0.39 U~~	0.39 U	~~0.085 J B~~
Atrazine	NA	0.38 U	~~0.48 U~~	~~0.38 U~~	0.40 U	0.38 U	~~0.39 U~~	0.39 U	~~0.38 U~~
Benzaldehyde	NA	0.38 U	~~0.48 U~~	~~0.38 U~~	0.40 U	0.38 U	~~0.39 U~~	0.39 U	~~0.38 U~~
Benzo[a]anthracene	1	0.038 U	~~0.048 U~~	~~0.038 U~~	0.040 U	0.038 U	~~0.039 U~~	0.039 U	~~0.42 B~~
Benzo[a]pyrene	1	0.038 U	~~0.048 U~~	~~0.038 U~~	0.040 U	0.025 J B	~~0.039 U~~	0.039 U	~~0.46 B~~
Benzo[b]fluoranthene	1	0.038 U	~~0.048 U~~	~~0.038 U~~	0.040 U	0.038	~~0.039 U~~	0.039 U	~~0.59~~
Benzo[g,h,i]perylene	100	0.38 U	~~0.48 U~~	~~0.38 U~~	0.40 U	0.023 J	~~0.39 U~~	0.39 U	~~0.39~~
Benzo[k]fluoranthene	0.8	0.038 U	~~0.048 U~~	~~0.038 U~~	0.040 U	0.016 J	~~0.039 U~~	0.039 U	~~0.19~~
Bis(2-chloroethoxy)methane	NA	0.38 U	~~0.48 U~~	~~0.38 U~~	0.40 U	0.38 U	~~0.39 U~~	0.39 U	~~0.38 U~~
Bis(2-chloroethyl)ether	NA	0.038 U	~~0.048 U~~	~~0.038 U~~	0.040 U	0.038 U	~~0.039 U~~	0.039 U	~~0.038 U~~
Bis(2-ethylhexyl) phthalate	NA	0.38 U	~~0.48 U~~	~~0.38 U~~	0.40 U	0.38 U	~~0.39 U~~	0.39 U	~~0.14 J~~
Butyl benzyl phthalate	NA	0.38 U	~~0.48 U~~	~~0.38 U~~	0.40 U	0.38 U	~~0.39 U~~	0.39 U	~~0.38 U~~
Caprolactam	NA	0.38 U	~~0.48 U~~	~~0.38 U~~	0.40 U	0.38 U	~~0.39 U~~	0.39 U	~~0.38 U~~
Carbazole	NA	0.38 U	~~0.48 U~~	~~0.38 U~~	0.40 U	0.38 U	~~0.39 U~~	0.39 U	~~0.034 J~~
Chrysene	1	0.38 U	~~0.48 U~~	~~0.38 U~~	0.40 U	0.020 J B	~~0.39 U~~	0.39 U	~~0.53 B~~
Dibenz(a,h)anthracene	0.33	0.038 U	~~0.048 U~~	~~0.038 U~~	0.040 U	0.038 U	~~0.039 U~~	0.039 U	~~0.10~~
Dibenzofuran	7	0.38 U	~~0.48 U~~	~~0.38 U~~	0.40 U	0.38 U	~~0.39 U~~	0.39 U	~~0.012 J~~
Diethyl phthalate	NA	0.38 U	~~0.48 U~~	~~0.38 U~~	0.40 U	0.38 U	~~0.39 U~~	0.39 U	~~0.38 U~~
Dimethyl phthalate	NA	0.38 U	~~0.48 U~~	~~0.38 U~~	0.40 U	0.38 U	~~0.39 U~~	0.39 U	~~0.38 U~~
Di-n-butyl phthalate	NA	0.38 U	~~0.48 U~~	~~0.38 U~~	0.40 U	0.38 U	~~0.39 U~~	0.39 U	~~0.13 J~~
Di-n-octyl phthalate	NA	0.38 U	~~0.48 U~~	~~0.38 U~~	0.40 U	0.38 U	~~0.39 U~~	0.39 U	~~0.38 U~~
Diphenyl	NA	0.38 U	~~0.48 U~~	~~0.38 U~~	0.40 U	0.38 U	~~0.39 U~~	0.39 U	~~0.38 U~~
Fluoranthene	100	0.0089 J	~~0.48 U~~	~~0.38 U~~	0.40 U	0.017 J	~~0.39 U~~	0.39 U	~~0.86~~
Fluorene	30	0.38 U	~~0.48 U~~	~~0.38 U~~	0.40 U	0.38 U	~~0.39 U~~	0.39 U	~~0.032 J~~
Hexachlorobenzene	0.33	0.038 U	~~0.048 U~~	~~0.038 U~~	0.040 U	0.038 U	~~0.039 U~~	0.039 U	~~0.038 U~~
Hexachlorobutadiene	NA	0.076 U	~~0.097 U~~	~~0.077 U~~	0.082 U	0.077 U	~~0.078 U~~	0.079 U	~~0.077 U~~
Hexachlorocyclopentadiene	NA	0.38 U	~~0.48 U~~	~~0.38 U~~	0.40 U	0.38 U *	~~0.39 U~~	0.39 U	~~0.38 U *~~
Hexachloroethane	NA	0.038 U	~~0.048 U~~	~~0.038 U~~	0.040 U	0.038 U	~~0.039 U~~	0.039 U	~~0.038 U~~
Indeno[1,2,3-cd]pyrene	0.5	0.038 U	~~0.048 U~~	~~0.038 U~~	0.040 U	0.023 J	~~0.039 U~~	0.039 U	~~0.37~~
Isophorone	NA	0.38 U	~~0.48 U~~	~~0.38 U~~	0.40 U	0.38 U	~~0.39 U~~	0.39 U	~~0.38 U~~
Naphthalene	12	0.38 U	~~0.48 U~~	~~0.38 U~~	0.40 U	0.38 U	~~0.39 U~~	0.39 U	~~0.012 J~~
Nitrobenzene	NA	0.038 U	~~0.048 U~~	~~0.038 U~~	0.040 U	0.038 U	~~0.039 U~~	0.039 U	~~0.038 U~~
N-Nitrosodi-n-propylamine	NA	0.038 U	~~0.048 U~~	~~0.038 U~~	0.040 U	0.038 U	~~0.039 U~~	0.039 U	~~0.038 U~~
N-Nitrosodiphenylamine	NA	0.38 U	~~0.48 U~~	~~0.38 U~~	0.40 U	0.38 U	~~0.39 U~~	0.39 U	~~0.38 U~~
Pentachlorophenol	0.8	1.1 U	~~1.4 U~~	~~1.1 U~~	1.2 U	1.2 U	~~1.2 U~~	1.2 U	~~1.1 U~~
Phenanthrene	100	0.38 U	~~0.48 U~~	~~0.38 U~~	0.40 U	0.014 J	~~0.39 U~~	0.39 U	~~0.59~~
Phenol	0.33	0.38 U	~~0.48 U~~	~~0.38 U~~	0.40 U	0.38 U	~~0.39 U~~	0.39 U	~~0.38 U~~
Pyrene	100	0.38 U	~~0.014 J~~	~~0.38 U~~	0.40 U	0.022 J B	~~0.39 U~~	0.39 U	~~1.1 B~~
Pyridine	NA	0.38 U	~~0.48 U~~	~~0.38 U~~	0.40 U	0.38 U	~~0.39 U~~	0.39 U	~~0.38 U~~
Total SVOC TICs:	NA	3.63	~~5.66~~	~~1.49~~	1.65	1.83	~~7.27~~	1.61	~~3.00~~

Notes
ND: TIC not detected
J : This flag indicates the presumptive evidence of a compound.
J N : Indicates an estimated value.
U : Analyzed for but not detected.
U R :Value is rejected based upon DUSR by third party data validator.

Table 5-37
TAL Metals Soil Analytical Data
CM-7 and CM-8 Original Samples Locations - Post-excavation Data

	NYSDEC SCOs			Post-excavation End-point Soil Analytical Data														
				CM-7 / 8 Original Sample Location								Supplemental Endpoint Samples						Supplemental Endpoint Sample
				Side-wall Samples					Bottom Samples			Side-wall Samples				Bottom Samples		Side-wall Sample
TAL Metals (mg/kg)	Unrestricted	Residential	Protection of Groundwater	CM-EP#2 (3')	~~CM-EP#3 (4')~~	~~CM-EP#5 (3')~~	CM-EP#6 (3')	CM-EP#8 (3')	CM-EP#1 (6')	CM-EP#4 (6')	~~CM-EP#7 (6')~~	CM-EP#28 (4')	CM-EP#29 (4')	CM-EP#30 (4')	~~CM-EP#31* (4')~~	CM-EP#26 (8')	CM-EP#27 (8')	CM-EP#36 (2')
Aluminum	NA	NA	NA	14,500	~~12,700~~	~~5,930~~	12,000	10,100	14,400	15,200	~~11,800~~	7,640	6,590	4,900	~~12,600~~	9,640	8,850	6,720
Antimony	NA	NA	NA	1.0 J	~~5.4 U~~	~~4.3 U~~	4.5 U	4.2 U	4.7 U	4.7 U	~~4.3 U~~	4.2 U	4.3 U	4.2 U	~~4.8 U~~	4.3 U	5.5 U	3.7 U
Arsenic	13	16	16	3.3 J	~~4.1~~	~~0.67 J~~	2.1 J	2.2 J	3.5 U	3.0 J	~~3.2~~	3.9	2.3 J	1.6 J	~~1.3 J~~	1.6 J	1.6 J	1.8 J
Barium	350	350	820	103	~~89.5~~	~~31.0 J~~	71.0	52.7	47.3	44.5 J	~~57.0~~	39.8 J	39.6 J	47.6	~~49.3~~	37.4 J	51.8 J	44.6
Beryllium	7.2	14	47	0.41 J	~~0.54 U~~	~~0.43 U~~	0.49	0.37 J	0.47 U	0.47 U	~~0.16 J~~	0.40 J	0.34 J	0.42 U	~~0.36 J~~	0.45	0.42 J	0.17 J
Cadmium	2.5	2.5	7.5	0.91 U	~~1.1 U~~	~~0.86 U~~	0.89 U	0.84 U	0.93 U	0.94 U	~~0.86 U~~	0.84 U	0.85 U	0.30 J	~~0.34 J~~	0.87 U	1.1 U	0.75 U
Calcium	NA	NA	NA	1,970	~~7,600~~	~~1,880~~	3,000	3,610	574 J	1,400	~~1,350~~	4,980	1,540	402 J	~~2,280~~	404 J	3,140	858 J
Chromium[1]	30	36	NS	21.2	~~19.9~~	~~12.1~~	13.7	12.8	25.1	22.9	~~15.6~~	13.6	22.6	11.8	~~17.0~~	15.1	17.9	14.3
Cobalt	NA	NA	NA	5.4 J	~~5.7 J~~	~~3.0 J~~	4.0 J	3.8 J	4.9 J	5.7 J	~~5.4 J~~	3.1 J	6.2 J	1.4 J	~~2.3 J~~	5.0 J	5.4 J	3.7 J
Copper	50	270	1,720	15.8	~~21.2~~	~~3.5 J~~	6.2	7.4	9.5	9.0	~~11.0~~	6.3	7.3	2.9 J	~~9.1~~	6.9	7.3	11.9
Iron	NA	NA	NA	16,200	~~17,700~~	~~9,120~~	12,600	10,700	14,400	22,400	~~14,100~~	11,400	13,900	5,080	~~8,430~~	9,500	11,700	8,300
Lead	63	400	450	87.6	~~66.2~~	~~8.4~~	19.7	23.9	9.5	8.8	~~42.5~~	9.2	5.3	8.0	~~16.7~~	7.3	13.5	12.9
Magnesium	NA	NA	NA	2,680	~~2,800~~	~~1,240~~	1,910	1,600	2,780	2,890	~~2,260~~	2,430	2,590	893 J	~~1,780~~	1,750	2,130	1,250
Manganese	1,600	2,000	2,000	241	~~146~~	~~268~~	313	97.9	224	360	~~234~~	268	404	33.1	~~156~~	90.7	256	93.3
Nickel	30	140	130	14.8	~~12.9~~	~~5.9 J~~	9.7	10.3	11.9	11.3	~~11.3~~	7.8 J	11.2	4.8 J	~~6.9 J~~	10.6	9.7 J	6.8 J
Potassium	NA	NA	NA	3,890	~~895 J~~	~~1,740~~	1,590	553 J	3,750	2,410	~~1,050 J~~	1,770	2,530	841 J	~~1,900~~	1,350	2,070	1,020
Selenium	3.9	36	4	1.1 J	~~5.4 U~~	~~4.3 U~~	4.5 U	0.97 J	4.7 U	4.7 U	~~4.3 U~~	4.2 U	4.3 U	4.2 U	~~4.8 U~~	4.3 U	5.5 U	3.7 U
Silver	2	36	8.3	2.3 U	~~19.4~~	~~2.2 U~~	2.2 U	2.1 U	2.3 U	2.3 U	~~3.7~~	2.1 U	2.1 U	2.1 U	~~1.9 J~~	2.2 U	2.7 U	0.46 J
Sodium	NA	NA	NA	651 J	~~203 J~~	~~125 J~~	187 J	113 J	395 J	159 J	~~133 J~~	198 J	163 J	1,050 U	~~128 J~~	1,080 U	286 J	73.2 J
Thallium	NA	NA	NA	4.5 U	~~5.4 U~~	~~4.3 U~~	4.5 U	4.2 U	4.7 U	4.7 U	~~4.3 U~~	4.2 U	4.3 U	4.2 U	~~4.8 U~~	4.3 U	5.5 U	3.7 U
Vanadium	NA	NA	NA	24.2	~~26.8~~	~~7.5 J~~	16.9	15.7	25.9	34.3	~~20.0~~	18.7	17.6	7.5 J	~~9.8 J~~	13.0	18.9	11.0
Zinc	109	2,200	2,480	93.4	~~96.8~~	~~16.8~~	26.7	42.8	31.0	32.3	~~54.9~~	23.3	21.6	11.5	~~59.2~~	25.6	27.9	19.3
Mercury	0.18	0.81	0.73	0.025	~~0.18~~	~~0.019 U~~	0.061	0.055	0.020 U	0.017 J	~~0.082~~	0.044	0.019 U	0.019 U	~~0.074~~	0.020	0.045	0.021 U

Notes
J : Sample result is greater than the MDL but below the CRDL
U : Indicates analyzed for but not detected.
[1] Trivalent chromium SCOs utilized.
Highlighted / bolded indicates analyte exceeded above its respective NYSDEC Unrestricted SCO.
Green / italicized value indictes analyte exceeded its repsective unrestricted SCO but was below its respective Residential / Protection of GW SCO, whichever is lower.
* Blind Duplicate sample contained 2.7ppm Silver & 31.6ppm Chromium therefore excavation of this area was warranted.
NA - Not Available
NS - No Standard Available

Table 5-38
TCL VOCs Soil Analytical Data
CM-21 Original Sample Location - Post-excavation Data

TCL VOCs (mg/kg)	NYSDEC SCOs			CM-21 Original Sample Location - Post Excavation Data			
				End-Point Soil Samples			
				Side-wall Samples			Bottom Sample
	NYSDEC Unrestricted SCO	Residential	Protection of Groundwater	CM-EP#23 (4')	CM-EP#24 (4')	CM-EP#25 (4')	CM-EP#22 (6')
1,1,1-Trichloroethane	0.68	100	0.68	0.0011 U	0.00094 U	0.0011 U	0.00020 J
1,1,2,2-Tetrachloroethane	NA	NA	NA	0.0011 U	0.00094 U	0.0011 U	0.00099 U
1,1,2-Trichloroethane	NA	NA	NA	0.0011 U	0.00094 U	0.0011 U	0.00099 U
1,1-Dichloroethane	0.27	19	0.27	0.0010 J	0.00094 U	0.0011 U	0.00099 U
1,1-Dichloroethene	0.33	100	0.33	0.0011 U	0.00094 U	0.0011 U	0.00099 U
1,2,3-Trichlorobenzene	NA	NA	NA	0.0011 U	0.00094 U	0.0011 U	0.00099 U
1,2,4-Trichlorobenzene	NA	NA	NA	0.0011 U	0.00094 U	0.0011 U	0.00099 U
1,2-Dibromo-3-Chloropropane	NA	NA	NA	0.0011 U	0.00094 U	0.0011 U	0.00099 U
1,2-Dibromoethane	NA	NA	NA	0.0011 U	0.00094 U	0.0011 U	0.00099 U
1,2-Dichlorobenzene	1.1	100	1.1	0.00015 J	0.00094 U	0.0011 U	0.00099 U
1,2-Dichloroethane	0.02	2.3	0.02	0.0011 U	0.00094 U	0.0011 U	0.00099 U
1,2-Dichloropropane	NA	NA	NA	0.0011 U	0.00094 U	0.0011 U	0.00099 U
1,3-Dichlorobenzene	2.4	17	2.4	0.0011 U	0.00094 U	0.0011 U	0.00099 U
1,4-Dichlorobenzene	1.8	9.8	1.8	0.0011 U	0.00094 U	0.0011 U	0.00099 U
1,4-Dioxane	0.1	9.8	0.1	0.023 U	0.019 U	0.021 U	0.020 U
2-Butanone (MEK)	0.12	100	0.12	0.019 J	0.0028 J	0.012	0.0051 J
2-Hexanone	NA	NA	NA	0.0057 U	0.0047 U	0.0053 U	0.0049 U
4-Methyl-2-pentanone	NA	NA	NA	0.0057 U	0.0047 U	0.0053 U	0.0049 U
Acetone	0.05	100	0.05	*0.065* B	0.011 B	*0.060* B	*0.094* B
Benzene	0.06	2.9	0.06	0.00035 J	0.00094 U	0.00025 J	0.00099 U
Bromochloromethane	NA	NA	NA	0.0011 U	0.00094 U	0.0011 U	0.00099 U
Bromodichloromethane	NA	NA	NA	0.0011 U	0.00094 U	0.0011 U	0.00099 U
Bromoform	NA	NA	NA	0.0011 U	0.00094 U	0.0011 U	0.00099 U
Bromomethane	NA	NA	NA	0.0011 U	0.00094 U	0.0011 U	0.00099 U
Carbon disulfide	NA	NA	NA	0.0011	0.0010	0.0013	0.0015
Carbon tetrachloride	0.76	1.4	0.76	0.0011 U	0.00094 U	0.0011 U	0.00099 U
Chlorobenzene	1.1	100	1.1	0.00062 J	0.00094 U	0.0011 U	0.00099 U
Chloroethane	NA	NA	NA	0.0011 U	0.00094 U	0.0011 U	0.00099 U
Chloroform	0.37	10	0.37	0.0011 U	0.00094 U	0.0011 U	0.00099 U
Chloromethane	NA	NA	NA	0.0011 U	0.00094 U	0.0011 U	0.00099 U
cis-1,2-Dichloroethene	0.25	59	0.25	0.0011 U	0.0057	0.033	0.00023 J
cis-1,3-Dichloropropene	NA	NA	NA	0.0011 U	0.00094 U	0.0011 U	0.00099 U
Cyclohexane	NA	NA	NA	0.0011 U	0.00094 U	0.0011 U	0.00099 U
Dibromochloromethane	NA	NA	NA	0.0011 U	0.00094 U	0.0011 U	0.00099 U
Dichlorodifluoromethane	NA	NA	NA	0.0011 U	0.00094 U	0.0011 U	0.00099 U
Ethylbenzene	1	30	1	0.00042 J	0.00052 J	0.00037 J	0.0042
Freon 113	NA	NA	NA	0.00087 J	0.00094 U	0.0011 U	0.00099 U
Isopropylbenzene	NA	NA	NA	0.0011 U	0.00094 U	0.0011 U	0.00099 U
m&p-Xylene	0.26	100	1.6	0.0019 J	0.0017 J	0.00074 J	0.022
Methyl acetate	NA	NA	NA	0.0011 U	0.00094 U	0.0011 U	0.00099 U
Methylcyclohexane	NA	NA	NA	0.0011 U	0.00094 U	0.0011 U	0.00099 U
Methylene Chloride	0.05	51	0.05	0.0015	0.00086 J	0.00090 J	0.00081 J
MTBE	0.93	62	0.93	0.0011 U	0.00094 U	0.0011 U	0.00099 U
Naphthalene	12	100	12	0.0011 U	0.00094 U	0.0011 U	0.00099 U
o-Xylene	0.26	100	1.6	0.00055 J	0.00068 J	0.00043 J	0.0038
Styrene	NA	NA	NA	0.0011 U	0.00094 U	0.0011 U	0.00099 U
Tetrachloroethene	1.3	5.5	1.3	0.0011 U	0.00024 J	0.00096 J	0.00099 U
Toluene	0.7	100	0.7	0.00021 J	0.00013 J	0.0011 U	0.00018 J
trans-1,2-Dichloroethene	0.19	100	0.19	0.00028 J	0.00020 J	0.0013	0.00099 U
trans-1,3-Dichloropropene	NA	NA	NA	0.0011 U	0.00094 U	0.0011 U	0.00099 U
Trichloroethene	0.47	10	0.47	0.00050 J	0.00089 J	0.0049	0.00070 J
Trichlorofluoromethane	NA	NA	NA	0.0011 U	0.00094 U	0.0011 U	0.00099 U
Vinyl chloride	0.02	0.21	0.02	0.0011 U	0.00094 U	0.0011 U	0.00099 U
Xylenes, Total	0.26	100	1.6	0.0024 J	0.0024 J	0.0012 J	0.026
VOC TICs							
Ethyl ether	NA	NA	NA	0.0094	ND	ND	ND
2,4,4-Trimethyl-1-pentene	NA	NA	NA	0.0040	ND	ND	ND
Hexadecane, 3-methyl-	NA	NA	NA	0.0085 J N	ND	ND	ND
Hexane, 2,2,5,5-tetramethyl-	NA	NA	NA	0.062 J N	ND	ND	ND
Pentane, 2,2,3,4-tetramethyl-	NA	NA	NA	0.014 J N	ND	ND	ND
Undecane, 2,4-dimethyl-	NA	NA	NA	0.011 J N	ND	ND	ND
Decane, 4-methyl-	NA	NA	NA	0.010 J N	ND	ND	ND
Decane, 2,2-dimethyl-	NA	NA	NA	0.013 J N	ND	ND	ND
Nonane, 3-methyl-5-propyl-	NA	NA	NA	0.017 J N	ND	ND	ND

Notes
ND: TIC not detected
J : Indicates an estimated value.
J N : Indicates an estimated value.
U : Analyzed for but not detected.

Table 5-39
TCL SVOCs Soil Analytical Data
CM-21 Original Sample Location - Post-excavation Data

TCL SVOCs (mg/kg)	NYSDEC SCOs			CM-21 Original Sample Location - Post Excavation Data				
				End-Point Soil Samples				
				Side-wall Samples				Bottom Sample
	NYSDEC Unrestricted SCO	Residential	Protection of Groundwater	CM-EP#23 (4')	CM-EP#24 (4')	CM-EP#24 (4')	CM-EP#25 (4')	CM-EP#22 (6')
1,2,4,5-Tetrachlorobenzene	NA	NA	NA	0.41 U	1.9 U	NR	1.9 U	0.40 U
1,4-Dioxane	0.1	9.8	0.1	0.41 U	1.9 U	NR	1.9 U	0.40 U
2,2'-oxybis[1-chloropropane]	NA	NA	NA	0.41 U	1.9 U	NR	1.9 U	0.40 U
2,3,4,6-Tetrachlorophenol	NA	NA	NA	0.41 U	1.9 U	NR	1.9 U	0.40 U
2,4,5-Trichlorophenol	NA	NA	NA	0.41 U	1.9 U	NR	1.9 U	0.40 U
2,4,6-Trichlorophenol	NA	NA	NA	0.41 U	1.9 U	NR	1.9 U	0.40 U
2,4-Dichlorophenol	NA	NA	NA	0.41 U	1.9 U	NR	1.9 U	0.40 U
2,4-Dimethylphenol	NA	NA	NA	0.41 U	1.9 U	NR	1.9 U	0.40 U
2,4-Dinitrophenol	NA	NA	NA	1.3 U	5.7 U	NR	5.8 U	1.2 U
2,4-Dinitrotoluene	NA	NA	NA	0.084 U	0.38 U	NR	0.39 U	0.082 U
2,6-Dinitrotoluene	NA	NA	NA	0.084 U	0.38 U	NR	0.39 U	0.082 U
2-Chloronaphthalene	NA	NA	NA	0.41 U	1.9 U	NR	1.9 U	0.40 U
2-Chlorophenol	NA	NA	NA	0.41 U	1.9 U	NR	1.9 U	0.40 U
2-Methylnaphthalene	NA	NA	NA	0.41 U	1.9 U	NR	1.9 U	0.40 U
2-Methylphenol	0.33	100	0.33	0.41 U	1.9 U	NR	1.9 U	0.40 U
2-Nitroaniline	NA	NA	NA	0.84 U	3.8 U	NR	3.9 U	0.82 U
2-Nitrophenol	NA	NA	NA	0.41 U	1.9 U	NR	1.9 U	0.40 U
3,3'-Dichlorobenzidine	NA	NA	NA	0.84 U	3.8 U	NR	3.9 U	0.82 U
3-Nitroaniline	NA	NA	NA	0.84 U	3.8 U	NR	3.9 U	0.82 U
4,6-Dinitro-2-methylphenol	NA	NA	NA	1.3 U	5.7 U	NR	5.8 U	1.2 U
4-Bromophenyl phenyl ether	NA	NA	NA	0.41 U	1.9 U	NR	1.9 U	0.40 U
4-Chloro-3-methylphenol	NA	NA	NA	0.41 U	1.9 U	NR	1.9 U	0.40 U
4-Chloroaniline	NA	NA	NA	0.41 U	1.9 U	NR	1.9 U	0.40 U
4-Chlorophenyl phenyl ether	NA	NA	NA	0.41 U	1.9 U	NR	1.9 U	0.40 U
4-Methylphenol	0.33	34	0.33	0.41 U	1.9 U	NR	1.9 U	0.40 U
4-Nitroaniline	NA	NA	NA	0.84 U	3.8 U	NR	3.9 U	0.82 U
4-Nitrophenol	NA	NA	NA	1.3 U	5.7 U	NR	5.8 U	1.2 U
Acenaphthene	20	100	98	0.41 U	1.9 U	NR	1.9 U	0.40 U
Acenaphthylene	100	100	107	0.41 U	1.9 U	NR	1.9 U	0.40 U
Acetophenone	NA	NA	NA	0.41 U	1.9 U	NR	1.9 U	0.40 U
Anthracene	100	100	1,000	0.41 U	0.067 J	NR	1.9 U	0.018 J
Atrazine	NA	NA	NA	0.41 U	1.9 U	NR	1.9 U	0.40 U
Benzaldehyde	NA	NA	NA	0.41 U R	1.9 U	NR	1.9 U	0.40 U
Benzo[a]anthracene	1	1	1	0.041 U	0.30	NR	0.19 U	0.040 U
Benzo[a]pyrene	1	1	22	0.041 U	0.26	NR	0.19 U	0.044
Benzo[b]fluoranthene	1	1	1.7	0.041 U	0.32	NR	0.19 U	0.064
Benzo[g,h,i]perylene	100	100	1,000	0.41 U	0.17 J	NR	1.9 U	0.029 J
Benzo[k]fluoranthene	0.8	1	1.7	0.041 U	0.13 J	NR	0.19 U	0.026 J
Bis(2-chloroethoxy)methane	NA	NA	NA	0.41 U	1.9 U	NR	1.9 U	0.40 U
Bis(2-chloroethyl)ether	NA	NA	NA	0.041 U	0.19 U	NR	0.19 U	0.040 U
Bis(2-ethylhexyl) phthalate	NA	NA	NA	0.41 U	0.92 J	NR	1.9 U	0.12 J
Butyl benzyl phthalate	NA	NA	NA	0.41 U	1.9 U	NR	1.9 U	0.40 U
Caprolactam	NA	NA	NA	0.41 U	1.9 U	NR	1.9 U	0.40 U
Carbazole	NA	NA	NA	0.41 U	1.9 U	NR	1.9 U	0.40 U
Chrysene	1	1	1	0.41 U	0.37 J	NR	1.9 U	0.064 J
Dibenz(a,h)anthracene	0.33	0.33	1,000	0.041 U	0.19 U	NR	0.19 U	0.040 U
Dibenzofuran	7	14	210	0.41 U	1.9 U	NR	1.9 U	0.40 U
Diethyl phthalate	NA	NA	NA	0.41 U	1.9 U	NR	1.9 U	0.40 U
Dimethyl phthalate	NA	NA	NA	0.41 U	1.9 U	NR	1.9 U	0.40 U
Di-n-butyl phthalate	NA	NA	NA	0.41 U	1.9 U	NR	1.9 U	0.40 U
Di-n-octyl phthalate	NA	NA	NA	0.41 U	1.9 U	NR	1.9 U	0.40 U
Diphenyl	NA	NA	NA	0.41 U	1.9 U	NR	1.9 U	0.40 U
Fluoranthene	100	100	1,000	0.41 U	0.56 J	NR	0.10 J	0.11 J
Fluorene	30	100	386	0.41 U	1.9 U	NR	1.9 U	0.40 U
Hexachlorobenzene	0.33	0.33	3.2	0.041 U	0.19 U	NR	0.19 U	0.040 U
Hexachlorobutadiene	NA	NA	NA	0.084 U	0.38 U	NR	0.39 U	0.082 U
Hexachlorocyclopentadiene	NA	NA	NA	0.41 U	1.9 U	NR	1.9 U	0.40 U
Hexachloroethane	NA	NA	NA	0.041 U	0.19 U	NR	0.19 U	0.040 U
Indeno[1,2,3-cd]pyrene	0.5	0.5	8.2	0.041 U	0.15 J	NR	0.19 U	0.028 J
Isophorone	NA	NA	NA	0.41 U	1.9 U	NR	1.9 U	0.40 U
Naphthalene	12	100	12	0.41 U	0.35 J	NR	1.9 U	0.0093 J
Nitrobenzene	NA	NA	NA	0.041 U	0.19 U	NR	0.19 U	0.040 U
N-Nitrosodi-n-propylamine	NA	NA	NA	0.041 U	0.19 U	NR	0.19 U	0.040 U
N-Nitrosodiphenylamine	NA	NA	NA	0.41 U	1.9 U	NR	1.9 U	0.40 U
Pentachlorophenol	0.8	2.4	0.8	1.3 U	5.7 U	NR	5.8 U	1.2 U
Phenanthrene	100	100	1,000	0.041 J	0.33 J	NR	1.9 U	0.084 J
Phenol	0.33	100	0.33	0.41 U	1.9 U	NR	1.9 U	0.40 U
Pyrene	100	100	1,000	0.41 U	0.58 J	NR	1.9 U	0.12 J
Pyridine	NA	NA	NA	0.41 U	1.9 U	NR	1.9 U	0.40 U
SVOC TICs								
Unknown	NA	NA	NA	ND	ND	ND	ND	0.42 J
Unknown	NA	NA	NA	0.68 J	ND	ND	ND	ND
p-Xylene	NA	NA	NA	ND	ND	ND	ND	1.3 J N
p-Xylene	NA	NA	NA	ND	ND	ND	ND	ND
Ethane, 1,1,2,2-tetrachloro-	NA	NA	NA	ND	ND	ND	ND	0.17 J N
Ethane, 1,1,2,2-tetrachloro-	NA	NA	NA	ND	ND	ND	ND	ND
Benzyl alcohol	NA	NA	NA	ND	ND	250 J	ND	ND
Octanoic Acid	NA	NA	NA	ND	ND	ND	ND	0.36 J N
Octanoic Acid	NA	NA	NA	0.46 J N	ND	ND	ND	ND
n-Hexadecanoic acid	NA	NA	NA	ND	ND	ND	ND	ND
Phenol, (1,1,3,3-tetramethylbutyl)-	NA	NA	NA	0.57 J N	ND	ND	ND	ND
Unknown	NA	NA	NA	0.56 J	ND	ND	ND	ND
Unknown	NA	NA	NA	0.34 J	ND	ND	ND	ND
1-Dotriacontanol	NA	NA	NA	0.29 J N	ND	ND	ND	ND
1-Hexadecene	NA	NA	NA	0.27 J N	ND	ND	ND	ND
Octacosane	NA	NA	NA	0.20 J N	ND	ND	ND	ND
Unknown	NA	NA	NA	0.17 J	ND	ND	ND	ND
Unknown	NA	NA	NA	0.17 J	ND	ND	ND	ND

Notes
ND: TIC not detected
* : LCS or LCSD exceeds the control limits
D : The reported value is from a dilution.
J : Indicates an estimated value.
J N : This flag indicates the presumptive evidence of a compound.
U : Analyzed for but not detected.
U R : Indicates that value is rejected based upon DUSR review by third party data validator.
NA : Not Available
NR : Not Analyzed

Table 5-40
TAL Metals Soil Analytical Data
CM-21 Original Sample Location - Post-excavation Data

TAL Metals (mg/kg)	NYSDEC SCOs			CM-21 Original Sample Location - Post Excavation Data			
				End-Point Soil Samples			
				Side-wall Samples			Bottom Sample
	NYSDEC Unrestricted SCO	Residential	Protection of Groundwater	CM-EP#23 (4')	CM-EP#24 (4')	CM-EP#25 (4')	CM-EP#22 (6')
Aluminum	NA	NA	NA	9,130	8,010	6,640	9,400
Antimony	NA	NA	NA	4.7 U	3.5 U	3.8 U	4.1 U
Arsenic	13	16	16	1.1 J	2.7	1.7 J	4.3
Barium	350	350	820	59.5	44.4	43.8	71.8
Beryllium	7.2	14	47	0.57	0.42	0.40	0.62
Cadmium	2.5	2.5	7.5	0.95 U	0.70 U	0.77 U	0.81 U
Calcium	NA	NA	NA	1,340	6,350	3,320	1,750
Chromium[1]	30	36	NS	16.0	13.5	13.1	21.7
Cobalt	NA	NA	NA	3.2 J	4.2 J	3.0 J	6.5 J
Copper	50	270	1,720	5.4 J	8.7	5.0	13.3
Iron	NA	NA	NA	7,010	11,600	8,330	17,100
Lead	63	400	450	31.1	20.1	17.9	26.1
Magnesium	NA	NA	NA	1,550	2,010	1,530	2,810
Manganese	1,600	2,000	2,000	79.8	309	125	240
Nickel	30	140	130	7.3 J	8.8	13.4	18.1
Potassium	NA	NA	NA	451 J	619 J	478 J	1,550
Selenium	3.9	36	4	4.7 U	3.5 U	3.8 U	4.1 U
Silver	2	36	8.3	2.4 U	1.8 U	1.9 U	0.21 J
Sodium	NA	NA	NA	1190 U	114 J	128 J	1020 U
Thallium	NA	NA	NA	4.7 U	3.5 U	3.8 U	4.1 U
Vanadium	NA	NA	NA	15.6	15.4	12.7	23.4
Zinc	109	2,200	2,480	23.9	25.1	19.9	45.2
Mercury	0.18	0.81	0.73	0.045	0.038	0.027	0.041

Notes
J : Sample result is greater than the MDL but below the CRDL
U : Indicates analyzed for but not detected.
[1] Trivalent chromium SCOs utilized.
Highlighted / bolded indicates analyte exceeded above its respective NYSDEC Unrestricted SCO.
NA - Not Available

Table 5-41
TAL Metals Soil Analytical Data
CM-33 Original Sample Location - Post Excavation Data

TAL Metals (mg/kg)	NYSDEC SCOs			CM-33 Original Sample Location - RCRA Excavation				
				End Point Soil Samples				
				Side-wall Samples				Bottom Sample
	NYSDEC Unrestricted SCO	Residential	Protection of Groundwater	CM-EP#18 (3')	CM-EP#19 (3')	CM-EP#20 (3')	CM-EP#21 (3')	CM-EP#17 (4')
Aluminum	NA	NA	NA	3,140	7,230	3,080	5,630	16,600
Antimony	NA	NA	NA	4.0 U	4.2 U	3.7 U	3.5 U	3.9 U
Arsenic	13	16	16	3.4	3.5	4.9	4.1	3.1
Barium	350	350	820	33.2 J	61.0	40.6	46.2	65.5
Beryllium	7.2	14	47	0.19 J	0.38 J	0.20 J	0.31 J	0.89
Cadmium	2.5	2.5	7.5	0.23 J	0.84 U	0.24 J	0.15 J	0.78 U
Calcium	NA	NA	NA	1,430	786 J	159,000	867 J	1,170
Chromium[1]	30	36	NS	8.4	14.1	5.9	10.5	*32.2*
Cobalt	NA	NA	NA	2.3 J	5.5 J	1.8 J	2.3 J	7.8 J
Copper	50	270	1,720	13.7	11.7	11.9	14.2	23.2
Iron	NA	NA	NA	5,680	11,100	4,870	8,380	22,600
Lead	63	400	450	*75.5*	48.6	*124*	*381*	24.3
Magnesium	NA	NA	NA	868 J	1,710	91,900	991	4,130
Manganese	1,600	2,000	2,000	76.9	96.8	135	70.0	135
Nickel	30	140	130	6.2 J	10.3	4.3 J	6.4 J	21.8
Potassium	NA	NA	NA	384 J	1,020 J	419 J	378 J	2,020
Selenium	3.9	36	4	4.0 U	4.2 U	3.7 U	3.5 U	3.9 U
Silver	2	36	8.3	0.51 J	2.1 U	1.2 J	0.84 J	2.0 U
Sodium	NA	NA	NA	990 U	1050 U	148 J	873 U	979 U
Thallium	NA	NA	NA	4.0 U	4.2 U	3.7 U	3.5 U	3.9 U
Vanadium	NA	NA	NA	10.6	19.1	11.3	14.7	37.7
Zinc	109	2,200	2,480	58.0	*172*	69.4	77.7	*186*
Mercury	0.18	0.81	0.73	0.10	0.11	*0.46*	*0.26*	0.036

Notes
J : Sample result is greater than the MDL but below the CRDL
U : Indicates analyzed for but not detected.
[1] Trivalent chromium SCOs utilized.
Highlighted / bolded indicates analyte exceeded above its respective NYSDEC Unrestricted SCO.
NA - Not Available

APEX

Table 5-42
TAL Metals Soil Analytical Data
CM-34 / 35 / BLDG4-SB-6 Original Sample Location - Post Excavation Data

		NYSDEC SCOs				Post-excavation End-point Soil Analytical Data															
						CM-34 / 35 Original Sample Location								Supplemental Endpoint Samples				Supplemental Endpoint Samples				Supplmental Soil Borings
						Side-wall Samples				Bottom Samples				Side-wall Samples				Side-wall Samples				Bottom Samples
TAL Metals (mg/kg)	Unrestricted	Residential	Restricted Residential	Commercial	Protection of Groundwater	CM-EP #9 (3')	CM-EP #10 (3')	CM-EP #13 (3')	CM-EP #14 (3')	CM-EP #11 (6')	CM-EP #12 (6')	CM-EP #15 (6')	CM-EP #16 (6')	CM-EP#32 (2')	CM-EP#33 (2')	CM-EP#34 (2')	CM-EP#35 (2')	CM-EP#37 (2')	CM-EP#38 (2')	CM-EP#39 (2')	CM-EP#40 (2')	CM-EP#41 (2')	CM-EP#42 (6')	CM-EP#43 (6')
Aluminum	NA	NA	NA	NA	NA	9,040	4,350	5,710	3,560	12,700	14,400	14,100	11,000	9,570	2,700	3,970	2,470	5,910	4,110	11,400	5,860	5,620	1,050	12,700
Antimony	NA	NA	NA	NA	NA	1.1 J	1.0 J	3.9 U	3.8 U	4.4 U	3.6 U	4.0 U	4.5 U	4.4 U	4.1 U	4.5 U	3.7 U	3.6 U	3.6 U	4.1 U	4.5 U	4.6 U	4.2 U	4.0 U
Arsenic	13	16	16	16	16	2.5 J	6.2	2.6 J	4.8	1.3 J	2.4 J	1.7 J	2.0 J	7.9	1.4 J	7.2	1.3 J	2.8	2.7	2.8 J	9.4	11.4	3.2 U	1.5 J
Barium	350	350	400	400	820	33.2 J	96.3	25.1 J	38.5	47.2	52.1	46.7	53.9	107	19.7 J	135	21.2 J	45.0	19.0 J	70.0	127	105	3.5 J	42.0
Beryllium	7.2	14	72	590	47	0.19 J	0.40 U	0.30 J	0.36 J	0.36 J	0.44	0.44	0.34 J	0.18 J	0.17 J	0.35 J	0.16 J	0.23 J	0.14 J	0.55	0.45 U	0.46 U	0.42 U	0.29 J
Cadmium	2.5	2.5	4.3	9.3	7.5	0.82 U	0.80 U	0.77 U	0.76 U	0.88 U	0.72 U	0.81 U	0.91 U	0.87 U	0.82 U	0.91 U	0.75 U	0.72 U	0.72 U	0.82 U	0.36 J	0.45 J	0.85 U	0.79 U
Calcium	NA	NA	NA	NA	NA	617 J	2,450	713 J	1,210	714 J	648 J	566 J	470 J	1,550	472 J	1,820	1,880	2,290	366 J	1,110	2,000	2,050	87 J	487 J
Chromium[1]	30	36	180	1,500	NS	14.3	12.9	10.5	8.2	17.0	26.4	19.4	17.0	16.1	5.4	18.3	8.3	12.4	7.3	14.5	14.0	13.9	2.2	20.4
Cobalt	NA	NA	NA	NA	NA	4.0 J	4.0 J	2.7 J	3.9 J	5.1 J	5.3 J	4.5 J	3.8 J	2.4 J	1.6 J	5.4 J	8.0 J	2.7 J	2.4 J	3.7 J	4.6 J	5.2 J	10.6 U	4.1 J
Copper	50	270	270	270	1,720	6.8	23.8	6.0	12.9	5.9	9.6	8.9	5.3 J	17.8	23.8	39.5	134	14.7	6.6	9.7	38.9	32.6	5.3 U	6.6
Iron	NA	NA	NA	NA	NA	13,200	10,900	9,140	9,220	10,700	15,100	12,300	10,200	16,800	4,610	13,900	3,690	9,650	6,400	9,800	13,000	13,100	1,710	11,600
Lead	63	400	400	1,000	450	15.1	335	63.9	42.9	9.1	8.9	8.9	7.9	477	36.5	648	20.9	111	80.5	61.9	362	519	1.4 J	7.6
Magnesium	NA	NA	NA	NA	NA	1,790	1,100	1,160	1,280	2,330	3,260	2,270	2,010	1,510	660 J	1,790	826 J	1,350	901 J	1,720	1,540	1,440	170 J	2,430
Manganese	1,600	2,000	2,000	10,000	2,000	101	151	113	151	182	220	108	215	96.2	106	242	148	148	113	309	156	275	27.0	85.4
Nickel	30	140	310	310	130	9.9	9.4	6.3 J	8.4	10.5	11.8	10.8	8.9 J	9.6 J	4.0 J	10.4	4.7 J	6.5 J	5.2 J	9.7	10.7	10.9	8.5 U	10.0
Potassium	NA	NA	NA	NA	NA	805 J	471 J	481 J	404 J	1,720	1,640	1,180	1,020 J	1,810	463 J	919 J	534 J	1,130	361 J	465 J	739 J	603 J	83 J	2,250
Selenium	3.9	36	180	1,500	4	4.1 U	4.0 U	3.9 U	3.8 U	4.4 U	3.6 U	4.0 U	4.5 U	4.4 U	4.1 U	4.5 U	3.7 U	3.6 U	3.6 U	4.1 U	1.5 J	1.7 J	4.2 U	4.0 U
Silver	2	36	180	1,500	8.3	2.0 U	2.0 U	1.9 U	1.9 U	2.2 U	1.8 U	2.0 U	2.3 U	0.68 J	2.1 U	2.3 U	1.9 U	0.32 J	1.8 U	2.1 U	2.2 U	0.88 J	2.1 U	2.0 U
Sodium	NA	NA	NA	NA	NA	1,020 U	106 J	966 U	947 U	82.5 J	73.0 J	116 J	1140 U	98.1 J	1,030 U	124 J	937 U	102 J	905 U	1,030 U	103 J	1,160 U	1,060 U	146 J
Thallium	NA	NA	NA	NA	NA	4.1 U	4.0 U	3.9 U	3.8 U	4.4 U	3.6 U	4.0 U	4.5 U	4.4 U	4.1 U	4.5 U	3.7 U	3.6 U	3.6 U	4.1 U	4.5 U	4.6 U	4.2 U	4.0 U
Vanadium	NA	NA	NA	NA	NA	15.6	14.5	12.1	11.5	22.8	30.2	30.9	19.9	19.4	6.7 J	20.8	8.9 J	13.3	8.9 J	15.7	17.3	18.0	3.0 J	28.0
Zinc	109	2,200	10,000	10,000	2,480	62.3	156	22.1	46.4	30.2	32.8	107	25.1	118	93.8	349	25.5	72.9	36.2	47.0	266	277	3.1 J	27.2
Mercury	0.18	0.81	0.81	2.8	0.73	0.069	0.12	0.051	2.0	0.020 U	0.020 U	0.20	0.020 U	0.20	0.14	0.27	0.074	0.29	0.061	0.13	0.13	0.25	0.020 U	0.018 U

Notes
J : Sample result is greater than the MDL but below the CRDL
U : Indicates analyzed for but not detected.
[1] Trivalent chromium SCOs utilized.
Highlighted / bolded indicates analyte exceeded above its respective NYSDEC Unrestricted SCO.
Green / italicized value indicates analyte exceeded its respective unrestricted SCO but was below its respective Residential / Protection of GW SCO, whichever is lower.
Blue / italicized value indicates analyte exceeded its respective Residential SCO and / or Protection of Groundwater SCO but was below its Restricted Residential SCO.
Pink / italicized value indicates analyte exceeded its respective Residential SCO and / or Protection of Groundwater SCO but was below its Commercial SCO.
NA - Not Available
Indicates that sample locations were removed as part of supplemental soil excavation activities.

Table 5-43
TAL Metals Soil Analytical Data
C1-4 Original Sample Location - Post Excavation Data

TAL Metals (mg/kg)	NYSDEC SCOs			Post-excavation End-point Soil Analytical Data				
				C1-4 Original Sample Location			Supplemental Endpoint Samples	
				Side-wall Samples		Bottom Sample	Side-wall Samples	
	Unrestricted	Residential	Protection of Groundwater	C1-EP#26 (1')	~~C1-EP#27 (1')~~	C1-EP#25 (3')	C1-EP#31 (1')	C1-EP#32 (1')
Aluminum	NA	NA	NA	10,000	~~12,200~~	11,800	12,100	3,620
Antimony	NA	NA	NA	3.9 U	~~3.9 U~~	3.8 U	4.6 U	4.1 U
Arsenic	13	16	16	2.7 J	~~5.8~~	4.5	5.9	3.0 J
Barium	350	350	820	32.2 J	~~78.3~~	41.2	44.1 J	30.5 J
Beryllium	7.2	14	47	0.24 J	~~0.56~~	0.57	0.59	0.31 J
Cadmium	2.5	2.5	7.5	0.78 U	~~0.78 U~~	0.75 U	0.27 J	0.82 U
Calcium	NA	NA	NA	924 J	~~2,220~~	1,540	8,720	607 J
Chromium[1]	30	36	NS	15.1	~~19.2~~	21.8	17.0	9.4
Cobalt	NA	NA	NA	3.9 J	~~12.8~~	4.4 J	14.6	2.9 J
Copper	50	270	1,720	8.8	~~8.5~~	8.7	11.2	6.6
Iron	NA	NA	NA	13,900	~~23,100~~	25,400	19,200	9,350
Lead	63	400	450	9.0	~~13.6~~	8.8	10.6	7.5
Magnesium	NA	NA	NA	1,410	~~2,250~~	2,000	2,490	913 J
Manganese	1,600	2,000	2,000	101	~~**3,140**~~	777	668	151
Nickel	30	140	130	7.1 J	~~11.7~~	10.0	11.0 B	5.5 J B
Potassium	NA	NA	NA	529 J	~~637 J~~	564 J	796 J	515 J
Selenium	3.9	36	4	3.9 U	~~3.9 U~~	3.8 U	4.6 U	4.1 U
Silver	2	36	8.3	1.9 U	~~2.0 U~~	1.9 U	2.3 U	2.1 U
Sodium	NA	NA	NA	193 J	~~117 J~~	141 J	1,140 U	1,030 U
Thallium	NA	NA	NA	3.9 U	~~3.2 J~~	3.8 U	4.6 U	4.1 U
Vanadium	NA	NA	NA	22.0	~~31.5~~	28.6	29.0	10.2 J
Zinc	109	2,200	2,480	35.1	~~34.6~~	24.4	77.8	21.5
Mercury	0.18	0.81	0.73	0.019 U	~~0.018 U~~	0.019 U	0.017 J	0.019 U

Notes
J : Sample result is greater than the MDL but below the CRDL
U : Indicates analyzed for but not detected.
B: Indicates analyte detected in blank.
[1] Trivalent chromium SCOs utilized.
Highlighted / bolded indicates analyte exceeded above its respective NYSDEC Unrestricted SCO.
NA - Not Available
~~Strikethrough~~ Indicates that sample locations were removed as part of supplemental soil excavation activities.

APEX

Table 5-44
TCL VOC Soil Analytical Data
Post-excavation End-point Soil Analytical Data - South C1 Area

		Post-excavation End-point Soil Analytical Data - South C1 Area																					
		Side-wall Samples																	Bottom Samples				
	NYSDEC	C1a-EP#2	C1a-EP#3	C1a-EP#7	C1a-EP#13	C1a-EP#14	C1a-EP#8	C1a-EP#9	C1a-EP#10	C1a-EP#15	C1a-EP#16	C1a-EP#16 DL	C1a-EP#17	C1a-EP#18	C1a-EP#19	C1a-EP#20	C1a-EP#21	C1a-EP#22	C1a-EP#1	C1a-EP#4	C1a-EP#5	C1a-EP#6	C1a-EP#11	C1a-EP#12	C1a-EP#12 DL
TCL VOCs (mg/kg)	Unrestricted SCO	(2')	(6')	(2')	(2')	(6')	(6')	(2')	(6')	(4')	(4')		(4')	(4')	(4')	(4')	(4')	(4')	(6')	(6')	(6')	(6')	(6')	(6')	
1,1,1-Trichloroethane	0.68	0.0013 U	0.040	0.00096 U	0.0012 U	0.0011 U	0.0012 U	0.0012 U	0.0014 U	0.0018 U	0.0011 U	0.23 U	0.0012 U	0.0012 U	0.00088 U	0.0011 U	0.00098 U	0.00086 U	0.0011 U	0.0011 U	0.00095 U	0.0012 U	0.00063 J	0.00089 U	0.11 U
1,1,2,2-Tetrachloroethane	NA	0.0013 U	0.0013 U	0.00096 U	0.0012 U	0.0011 U	0.0012 U	0.0012 U	0.0014 U	0.0018 U	0.0011 U	0.23 U	0.0012 U	0.0012 U	0.00088 U	0.0011 U	0.00098 U	0.00086 U	0.0011 U	0.0011 U	0.00095 U	0.0012 U	0.00071 U	0.00089 U	0.11 U
1,1,2-Trichloroethane	NA	0.0013 U	0.0013 U	0.00096 U	0.0012 U	0.0011 U	0.0012 U	0.0012 U	0.0014 U	0.0018 U	0.0011 U	0.23 U	0.0012 U	0.0012 U	0.00088 U	0.0011 U	0.00098 U	0.00086 U	0.0011 U	0.0011 U	0.00095 U	0.0012 U	0.00071 U	0.00089 U	0.11 U
1,1-Dichloroethane	0.27	0.0013 U	0.0039	0.00096 U	0.0012 U	0.0011 U	0.0084 J	0.0012 U	0.0014 U	0.0018 U	0.0011 U	0.23 U	0.0012 U	0.0012 U	0.00088 U	0.0011 U	0.00098 U	0.00086 U	0.0084 J	0.0011 U	0.00095 U	0.00040 J	0.0012	0.00097	0.11 U
1,1-Dichloroethene	0.33	0.0013 U	0.0013 U	0.00096 U	0.0012 U	0.0011 U	0.0012 U	0.0012 U	0.0014 U	0.0018 U	0.0011 U	0.23 U	0.0012 U	0.0012 U	0.00088 U	0.0011 U	0.00098 U	0.00086 U	0.0011 U	0.0011 U	0.00095 U	0.0012 U	0.00071 U	0.00089 U	0.11 U
1,2,3-Trichlorobenzene	NA	0.0013 U	0.0013 U	0.00096 U	0.0012 U	0.0011 U	0.0012 U	0.0012 U	0.0014 U	0.0018 U	0.0011 U	0.23 U	0.0012 U	0.0012 U	0.00088 U	0.0011 U	0.00098 U	0.00086 U	0.0011 U	0.0011 U	0.00095 U	0.0012 U	0.00071 U	0.00089 U	0.11 U
1,2,4-Trichlorobenzene	NA	0.0013 U	0.0013 U	0.00096 U	0.0012 U	0.0011 U	0.0012 U	0.0012 U	0.0014 U	0.0018 U	0.0011 U	0.23 U	0.0012 U	0.0012 U	0.00088 U	0.0011 U	0.00098 U	0.00086 U	0.0011 U	0.0011 U	0.00095 U	0.0012 U	0.00071 U	0.00089 U	0.11 U
1,2-Dibromo-3-Chloropropane	NA	0.0013 U	0.0013 U	0.00096 U	0.0012 U	0.0011 U	0.0012 U	0.0012 U	0.0014 U	0.0018 U	0.0011 U	0.23 U	0.0012 U	0.0012 U	0.00088 U	0.0011 U	0.00098 U	0.00086 U	0.0011 U	0.0011 U	0.00095 U	0.0012 U	0.00071 U	0.00089 U	0.11 U
1,2-Dibromoethane	NA	0.0013 U	0.0013 U	0.00096 U	0.0012 U	0.0011 U	0.0012 U	0.0012 U	0.0014 U	0.0018 U	0.0011 U	0.23 U	0.0012 U	0.0012 U	0.00088 U	0.0011 U	0.00098 U	0.00086 U	0.0011 U	0.0011 U	0.00095 U	0.0012 U	0.00071 U	0.00089 U	0.11 U
1,2-Dichlorobenzene	1.1	0.0013 U	0.0013 U	0.00096 U	0.0012 U	0.0011 U	0.0012 U	0.0012 U	0.0014 U	0.0018 U	0.0011 U	0.23 U	0.0012 U	0.0012 U	0.00088 U	0.0011 U	0.00098 U	0.00086 U	0.0011 U	0.0011 U	0.00095 U	0.0012 U	0.00071 U	0.00089 U	0.11 U
1,2-Dichloroethane	0.02	0.0013 U	0.0013 U	0.00096 U	0.0012 U	0.0011 U	0.0012 U	0.0012 U	0.0014 U	0.0018 U	0.0011 U	0.23 U	0.0012 U	0.0012 U	0.00088 U	0.0011 U	0.00098 U	0.00086 U	0.0011 U	0.0011 U	0.00095 U	0.0012 U	0.00071 U	0.00089 U	0.11 U
1,2-Dichloropropane	NA	0.0013 U	0.0013 U	0.00096 U	0.0012 U	0.0011 U	0.0012 U	0.0012 U	0.0014 U	0.0018 U	0.0011 U	0.23 U	0.0012 U	0.0012 U	0.00088 U	0.0011 U	0.00098 U	0.00086 U	0.0011 U	0.0011 U	0.00095 U	0.0012 U	0.00071 U	0.00089 U	0.11 U
1,3-Dichlorobenzene	2.4	0.0013 U	0.0013 U	0.00096 U	0.0012 U	0.0011 U	0.0012 U	0.0012 U	0.0014 U	0.0018 U	0.0011 U	0.23 U	0.0012 U	0.0012 U	0.00088 U	0.0011 U	0.00098 U	0.00086 U	0.0011 U	0.0011 U	0.00095 U	0.0012 U	0.00071 U	0.00089 U	0.11 U
1,4-Dichlorobenzene	1.8	0.0013 U	0.0013 U	0.00096 U	0.0012 U	0.0011 U	0.0012 U	0.0012 U	0.0014 U	0.0018 U	0.0011 U	0.23 U	0.0012 U	0.0012 U	0.00088 U	0.0011 U	0.00098 U	0.00086 U	0.0011 U	0.0011 U	0.00095 U	0.0012 U	0.00071 U	0.00089 U	0.11 U
1,4-Dioxane	0.1	0.027 U	0.026 U	0.019 U	0.025 U	0.021 U	0.024 U	0.023 U	0.027 U	0.037 U	0.023 U	11 U	0.024 U	0.023 U	0.018 U	0.021 U	0.020 U	0.017 U	0.021 U	0.023 U	0.019 U	0.024 U	0.014 U	0.018 U	5.7 U
2-Butanone (MEK)	0.12	0.0065 U	0.0065 U	0.0048 U	0.0061 U	0.0053 U	0.0060 U	0.0058 U	0.0068 U	0.0092 U	0.0057 U	1.1 U	0.0059 U	0.0058 U	0.0044 U	0.0053 U	0.0049 U	0.0043 U	0.0053 U	0.0057 U	0.0047 U	0.0059 U	0.0035 U	0.0045 U	0.57 U
2-Hexanone	NA	0.0065 U	0.0065 U	0.0048 U	0.0061 U	0.0053 U	0.0060 U	0.0058 U	0.0068 U	0.0092 U	0.0057 U	1.1 U	0.0059 U	0.0058 U	0.0044 U	0.0053 U	0.0049 U	0.0043 U	0.0053 U	0.0057 U	0.0047 U	0.0059 U	0.0035 U	0.0045 U	0.57 U
4-Methyl-2-pentanone	NA	0.0065 U	0.0065 U	0.0048 U	0.0061 U	0.0053 U	0.0060 U	0.0058 U	0.0068 U	0.0092 U	0.0057 U	1.1 U	0.0059 U	0.0058 U	0.0044 U	0.0053 U	0.0049 U	0.0043 U	0.0053 U	0.0057 U	0.0047 U	0.0059 U	0.0035 U	0.0045 U	0.57 U
Acetone	0.05	0.22	0.0065 U	0.039	0.0061 U	0.0053 U	0.0076	0.0058 U	0.51 B	0.023 B	0.015	1.1 U	0.0059 U	0.014	0.0044 U	0.0053 U	0.014	0.0097	0.059	0.0088	0.022	0.0059 U	0.0092 B	0.022 B	0.57 U
Benzene	0.06	0.0013 U	0.0013 U	0.00096 U	0.00044 J	0.0011 U	0.0012 U	0.0012 U	0.0014 U	0.0018 U	0.0011 U	0.23 U	0.0012 U	0.0012 U	0.00088 U	0.0011 U	0.00098 U	0.00086 U	0.0011 U	0.0011 U	0.00095 U	0.0012 U	0.00071 U	0.00089 U	0.11 U
Bromochloromethane	NA	0.0013 U	0.0013 U	0.00096 U	0.0012 U	0.0011 U	0.0012 U	0.0012 U	0.0014 U	0.0018 U	0.0011 U	0.23 U	0.0012 U	0.0012 U	0.00088 U	0.0011 U	0.00098 U	0.00086 U	0.0011 U	0.0011 U	0.00095 U	0.0012 U	0.00071 U	0.00089 U	0.11 U
Bromodichloromethane	NA	0.0013 U	0.0013 U	0.00096 U	0.0012 U	0.0011 U	0.0012 U	0.0012 U	0.0014 U	0.0018 U	0.0011 U	0.23 U	0.0012 U	0.0012 U	0.00088 U	0.0011 U	0.00098 U	0.00086 U	0.0011 U	0.0011 U	0.00095 U	0.0012 U	0.00071 U	0.00089 U	0.11 U
Bromoform	NA	0.0013 U	0.0013 U	0.00096 U	0.0012 U	0.0011 U	0.0012 U	0.0012 U	0.0014 U	0.0018 U	0.0011 U	0.23 U	0.0012 U	0.0012 U	0.00088 U	0.0011 U	0.00098 U	0.00086 U	0.0011 U	0.0011 U	0.00095 U	0.0012 U	0.00071 U	0.00089 U	0.11 U
Bromomethane	NA	0.0013 U	0.0013 U	0.00096 U	0.0012 U	0.0011 U	0.0012 U	0.0012 U	0.0014 U	0.0018 U	0.0011 U	0.23 U	0.0012 U	0.0012 U	0.00088 U	0.0011 U	0.00098 U	0.00086 U	0.0011 U	0.0011 U	0.00095 U	0.0012 U	0.00071 U	0.00089 U	0.11 U
Carbon disulfide	NA	0.00087 J	0.0013 U	0.00096 U	0.0012 U	0.0011 U	0.0012 U	0.0012 U	0.0040	0.0018 U	0.0011 U	0.23 U	0.0012 U	0.0012 U	0.00088 U	0.0011 U	0.0011	0.00055 J	0.00036 J	0.0010 J	0.00091 J	0.0010 J	0.00029 J	0.00027 J	0.11 U
Carbon tetrachloride	0.76	0.0013 U	0.0013 U	0.00096 U	0.0012 U	0.0011 U	0.0012 U	0.0012 U	0.0014 U	0.0018 U	0.0011 U	0.23 U	0.0012 U	0.0012 U	0.00088 U	0.0011 U	0.00098 U	0.00086 U	0.0011 U	0.0011 U	0.00095 U	0.0012 U	0.00071 U	0.00089 U	0.11 U
Chlorobenzene	1.1	0.0013 U	0.0013 U	0.00096 U	0.0012 U	0.0011 U	0.0012 U	0.0012 U	0.0014 U	0.0018 U	0.0011 U	0.23 U	0.0012 U	0.0012 U	0.00088 U	0.0011 U	0.00098 U	0.00086 U	0.0011 U	0.0011 U	0.00095 U	0.0012 U	0.00071 U	0.00089 U	0.11 U
Chloroethane	NA	0.0013 U	0.0013 U	0.00096 U	0.0012 U	0.0011 U	0.0012 U	0.0012 U	0.0014 U	0.0018 U	0.0011 U	0.23 U	0.0012 U	0.0012 U	0.00088 U	0.0011 U	0.00098 U	0.00086 U	0.0011 U	0.0011 U	0.00095 U	0.0012 U	0.00071 U	0.00089 U	0.11 U
Chloroform	0.37	0.0013 U	0.0013 U	0.00096 U	0.0012 U	0.0011 U	0.0012 U	0.0012 U	0.0014 U	0.0018 U	0.0011 U	0.23 U	0.0012 U	0.0012 U	0.00088 U	0.0011 U	0.00098 U	0.00086 U	0.0011 U	0.0011 U	0.00095 U	0.0012 U	0.00071 U	0.00089 U	0.11 U
Chloromethane	NA	0.0013 U	0.0013 U	0.00096 U	0.0012 U	0.0011 U	0.0012 U	0.0012 U	0.0014 U	0.0018 U	0.0011 U	0.23 U	0.0012 U	0.0012 U	0.00088 U	0.0011 U	0.00098 U	0.00086 U	0.0011 U	0.0011 U	0.00095 U	0.0012 U	0.00071 U	0.00089 U	0.11 U
cis-1,2-Dichloroethene	0.25	0.0077	0.00093 J	0.0024	0.0012	0.0011 U	0.0012 U	0.0012 U	0.0014 U	0.0018 U	0.0011 U	0.23 U	0.0012 U	0.0012 U	0.00088 U	0.0011 U	0.00098 U	0.00086 U	0.00021 J	0.0048	0.00095 U	0.0012 U	0.00073	0.00049 J	0.11 U
cis-1,3-Dichloropropene	NA	0.0013 U	0.0013 U	0.00096 U	0.0012 U	0.0011 U	0.0012 U	0.0012 U	0.0014 U	0.0018 U	0.0011 U	0.23 U	0.0012 U	0.0012 U	0.00088 U	0.0011 U	0.00098 U	0.00086 U	0.0011 U	0.0011 U	0.00095 U	0.0012 U	0.00071 U	0.00089 U	0.11 U
Cyclohexane	NA	0.0014	0.0013 U	0.00096 U	0.0012 U	0.0011 U	0.0012 U	0.0012 U	0.0014 U	0.0018 U	0.0011 U	0.23 U	0.0012 U	0.0012 U	0.00088 U	0.0011 U	0.00098 U	0.00086 U	0.0011 U	0.0011 U	0.00095 U	0.0012 U	0.00071 U	0.00089 U	0.11 U
Dibromochloromethane	NA	0.0013 U	0.0013 U	0.00096 U	0.0012 U	0.0011 U	0.0012 U	0.0012 U	0.0014 U	0.0018 U	0.0011 U	0.23 U	0.0012 U	0.0012 U	0.00088 U	0.0011 U	0.00098 U	0.00086 U	0.0011 U	0.0011 U	0.00095 U	0.0012 U	0.00071 U	0.00089 U	0.11 U
Dichlorodifluoromethane	NA	0.0013 U	0.0013 U	0.00096 U	0.0012 U	0.0011 U	0.0012 U	0.0012 U	0.0014 U	0.0018 U	0.0011 U	0.23 U	0.0012 U	0.0012 U	0.00088 U	0.0011 U	0.00098 U	0.00086 U	0.0011 U	0.0011 U	0.00095 U	0.0012 U	0.00071 U	0.00089 U	0.11 U
Ethylbenzene	1	0.0013 U	0.0013 U	0.00096 U	0.00033 J	0.0011 U	0.0012 U	0.0012 U	0.0014 U	0.0018 U	0.0011 U	0.23 U	0.0012 U	0.0012 U	0.00088 U	0.0011 U	0.00098 U	0.00086 U	0.0011 U	0.0011 U	0.00095 U	0.0012 U	0.00071 U	0.00089 U	0.11 U
Freon 113	NA	0.0013 U	0.0013 U	0.00096 U	0.0012 U	0.0011 U	0.0012 U	0.0012 U	0.0014 U	0.0018 U	0.0011 U	0.23 U	0.0012 U	0.0012 U	0.00088 U	0.0011 U	0.00098 U	0.00086 U	0.0011 U	0.0011 U	0.00095 U	0.0012 U	0.00071 U	0.00089 U	0.11 U
Isopropylbenzene	NA	0.0013 U	0.0013 U	0.00096 U	0.0012 U	0.0011 U	0.0012 U	0.0012 U	0.0014 U	0.0018 U	0.0011 U	0.23 U	0.0012 U	0.0012 U	0.00088 U	0.0011 U	0.00098 U	0.00086 U	0.0011 U	0.0011 U	0.00095 U	0.0012 U	0.00071 U	0.00089 U	0.11 U
m&p-Xylene	0.26	0.0027 U	0.0026 U	0.0019 U	0.0025 U	0.0021 U	0.0024 U	0.0023 U	0.0027 U	0.0037 U	0.0023 U	0.45 U	0.0024 U	0.0023 U	0.0018 U	0.0021 U	0.0020 U	0.0017 U	0.0021 U	0.0023 U	0.0019 U	0.0024 U	0.0014 U	0.0018 U	0.23 U
Methyl acetate	NA	0.0013 U	0.0013 U	0.0028	0.0012 U	0.0011 U	0.0012 U	0.0012 U	0.0014 U	0.10	0.0046	1.1 U	0.0012 U	0.0012 U	0.00088 U	0.0011 U	0.00098 U	0.00086 U	0.0011 U	0.0011 U	0.00095 U	0.0012 U	0.00071 U	0.00089 U	0.57 U
Methylcyclohexane	NA	0.0012 J	0.0013 U	0.00096 U	0.0012 U	0.0011 U	0.0012 U	0.0012 U	0.0014 U	0.0018 U	0.0011 U	0.23 U	0.0012 U	0.0012 U	0.00088 U	0.0011 U	0.00098 U	0.00086 U	0.0011 U	0.0011 U	0.00095 U	0.0012 U	0.00071 U	0.00089 U	0.11 U
Methylene Chloride	0.05	0.0088	0.0013 U	0.00096 U	0.0012 U	0.0011 U	0.0012 U	0.00084 J	0.0014 U	0.0018 U	0.0011 U	0.23 U	0.0012 U	0.0012 U	0.00088 U	0.0011 U	0.00098 U	0.00086 U	0.0012	0.0074 J	0.00077 J	0.00081 J	0.00065 J	0.00060 J	0.11 U
MTBE	0.93	0.0013 U	0.0013 U	0.00096 U	0.0012 U	0.0011 U	0.0012 U	0.0012 U	0.0014 U	0.0018 U	0.0011 U	0.23 U	0.0012 U	0.0012 U	0.00088 U	0.0011 U	0.00098 U	0.00086 U	0.0011 U	0.0011 U	0.00095 U	0.0012 U	0.00071 U	0.00089 U	0.11 U
Naphthalene	12	0.0013 U	0.0013 U	0.00096 U	0.0012 U	0.0011 U	0.0012 U	0.0012 U	0.0014 U	0.0018 U	0.0021	0.23 U	0.0012 U	0.0012 U	0.00088 U	0.0011 U	0.00098 U	0.00086 U	0.0011 U	0.00056 J	0.00095 U	0.0012 U	0.00056 J	0.00089 U	0.11 U
o-Xylene	0.26	0.0013 U	0.0013 U	0.00096 U	0.00026 J	0.0011 U	0.0012 U	0.0012 U	0.0014 U	0.0018 U	0.0011 U	0.23 U	0.0012 U	0.0012 U	0.00088 U	0.0011 U	0.00098 U	0.00086 U	0.0011 U	0.0011 U	0.00095 U	0.0012 U	0.00071 U	0.00089 U	0.11 U
Styrene	NA	0.0013 U	0.0013 U	0.00096 U	0.0012 U	0.0011 U	0.0012 U	0.0012 U	0.0014 U	0.0018 U	0.0011 U	0.23 U	0.0012 U	0.0012 U	0.00088 U	0.0011 U	0.00098 U	0.00086 U	0.0011 U	0.0011 U	0.00095 U	0.0012 U	0.00071 U	0.00089 U	0.11 U
Tetrachloroethene	1.3	0.0013 U	0.040	0.00096 U	0.0010 J	0.0011 U	0.0012 U	0.0012 U	0.0018	0.0023	0.0031	0.13 J	0.0049 J	0.0044 J	0.00054 J	0.0011 U	0.00098 U	0.00086 U	0.0011 U	0.0015	0.00095 U	0.0012 U	0.0049	0.00089 U	0.11 U
Toluene	0.7	0.0013 U	0.0013 U	0.00096 U	0.0012 U	0.0011 U	0.0012 U	0.0012 U	0.0014 U	0.0018 U	0.0011 U	0.23 U	0.0012 U	0.0012 U	0.00088 U	0.0011 U	0.00098 U	0.00086 U	0.0011 U	0.0011 U	0.00095 U	0.0012 U	0.00071 U	0.00089 U	0.11 U
trans-1,2-Dichloroethene	0.19	0.0033	0.0013 U	0.00096 U	0.0012 U	0.0011 U	0.0012 U	0.0012 U	0.0014 U	0.0018 U	0.0011 U	0.23 U	0.0012 U	0.0012 U	0.00088 U	0.0011 U	0.00098 U	0.00086 U	0.0011 U	0.00017 J	0.00095 U	0.0012 U	0.00071 U	0.00089 U	0.11 U
trans-1,3-Dichloropropene	NA	0.0013 U	0.0013 U	0.00096 U	0.0012 U	0.0011 U	0.0012 U	0.0012 U	0.0014 U	0.0018 U	0.0011 U	0.23 U	0.0012 U	0.0012 U	0.00088 U	0.0011 U	0.00098 U	0.00086 U	0.0011 U	0.0011 U	0.00095 U	0.0012 U	0.00071 U	0.00089 U	0.11 U
Trichloroethene	0.47	0.0068 J	0.0068	0.0019	0.0018	0.0011 U	0.0012 U	0.0012 U	0.0014 U	0.0018 U	0.0047 J	0.23 U	0.0012 U	0.0012 U	0.00088 U	0.0011 U	0.00098 U	0.00086 U	0.0014 J	0.0031	0.00095 U	0.0012 U	0.0010	0.00089 U	0.11 U
Trichlorofluoromethane	NA	0.0013 U	0.0013 U	0.00096 U	0.0012 U	0.0011 U	0.0012 U	0.0012 U	0.0014 U	0.0018 U	0.0011 U	0.23 U	0.0012 U	0.0012 U	0.00088 U	0.0011 U	0.00098 U	0.00086 U	0.0011 U	0.0011 U	0.00095 U	0.0012 U	0.00071 U	0.00089 U	0.11 U
Vinyl chloride	0.02	0.0013 U	0.0013 U	0.00096 U	0.0012 U	0.0011 U	0.0012 U	0.0012 U	0.0014 U	0.0018 U	0.0011 U	0.23 U	0.0012 U	0.0012 U	0.00088 U	0.0011 U	0.00098 U	0.00086 U	0.0011 U	0.0011 U	0.00095 U	0.0012 U	0.00071 U	0.00089 U	0.11 U
Xylenes, Total	0.26	0.0040 U	0.0039 U	0.0029 U	0.0037 U	0.0032 U	0.0036 U	0.0035 U	0.0041 U	0.0055 U	0.0034 U	0.68 U	0.0035 U	0.0035 U	0.0026 U	0.0032 U	0.0030 U	0.0026 U	0.0032 U	0.0034 U	0.0028 U	0.0036 U	0.0021 U	0.0027 U	0.34 U
TCI VOC TICs	NA	0.0068	ND	ND	0.303	ND	ND	ND	0.096	ND	0.016	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.0143	ND	ND

Notes
ND: TIC not detected
J : Indicates an estimated value.
J N : Indicates an estimated value.
U : Analyzed for but not detected.
NA : Not Available

Table 5-45
TCL SVOC Soil Analytical Data
Post-excavation End-point Soil Analytical Data - South C1 Area

TCL SVOCs (mg/kg)	NYSDEC Unrestricted SCO	Post-excavation End-point Soil Analytical Data - South C1 Are																				
		Side-wall Samples																Bottom Samples				
		C1a-EP#2	C1a-EP#3	C1a-EP#7	C1a-EP#8	C1a-EP#9	C1a-EP#10	C1a-EP#13	C1a-EP#14	C1a-EP#15	C1a-EP#16	C1a-EP#17	C1a-EP#18	C1a-EP#19	C1a-EP#20	C1a-EP#21	C1a-EP#22	C1a-EP#1	C1a-EP#4	C1a-EP#5	C1a-EP#6	C1a-EP#11	C1a-EP#12
		(3')	(6')	(3')	(6')	(3')	(6')	(3')	(6')	(1')	(4')	(1')	(4')	(1')	(4')	(1')	(4')	(6')	(6')	(6')	(6')	(6')	(6')
1,2,4,5-Tetrachlorobenzene	NA	0.37 U	0.78 U R	0.38 U R	0.40 U R	0.81 U R	0.48 U R	0.76 U	0.38 U R	0.4 U R	0.37 U R	0.41 U R	0.43 U R	0.39 U R	0.38 U R	0.36 U R	0.39 U R	0.42 U R	2.4 U R	0.40 U R	0.39 U R	0.40 U R	0.40 U R
1,4-Dioxane	0.1	0.37 U	0.78 U	0.38 U	0.40 U	0.81 U	0.48 U	0.76 U	0.38 U	0.40 U	0.37 U	0.41 U	0.43 U	0.39 U	0.38 U	0.36 U	0.39 U	0.42 U	2.4 U	0.40 U	0.39 U	0.40 U	0.40 U
2,2'-oxybis[1-chloropropane	NA	0.37 U	0.78 U	0.38 U	0.40 U	0.81 U	0.48 U	0.76 U	0.38 U	0.40 U	0.37 U	0.41 U	0.43 U	0.39 U	0.38 U	0.36 U	0.39 U	0.42 U	2.4 U	0.40 U	0.39 U	0.40 U	0.40 U
2,3,4,6-Tetrachlorophenol	NA	0.37 U	0.78 U R	0.38 U R	0.40 U	0.81 U	0.48 U	0.76 U	0.38 U R	0.40 U	0.37 U	0.41 U	0.43 U	0.39 U	0.38 U	0.36 U	0.39 U	0.42 U R	2.4 U R	0.40 U R	0.39 U R	0.40 U	0.40 U
2,4,5-Trichlorophenol	NA	0.37 U	0.78 U	0.38 U	0.40 U	0.81 U	0.48 U	0.76 U	0.38 U	0.40 U	0.37 U	0.41 U	0.43 U	0.39 U	0.38 U	0.36 U	0.39 U	0.42 U	2.4 U	0.40 U	0.39 U	0.40 U	0.40 U
2,4,6-Trichlorophenol	NA	0.37 U	0.78 U	0.38 U	0.40 U	0.81 U	0.48 U	0.76 U	0.38 U	0.40 U	0.37 U	0.41 U	0.43 U	0.39 U	0.38 U	0.36 U	0.39 U	0.42 U	2.4 U	0.40 U	0.39 U	0.40 U	0.40 U
2,4-Dichlorophenol	NA	0.37 U	0.78 U	0.38 U	0.40 U	0.81 U	0.48 U	0.76 U	0.38 U	0.40 U	0.37 U	0.41 U	0.43 U	0.39 U	0.38 U	0.36 U	0.39 U	0.42 U	2.4 U	0.40 U	0.39 U	0.40 U	0.40 U
2,4-Dimethylphenol	NA	0.37 U	0.78 U	0.38 U	0.40 U	0.81 U	0.48 U	0.76 U	0.38 U	0.40 U	0.37 U	0.41 U	0.43 U	0.39 U	0.38 U	0.36 U	0.39 U	0.42 U	2.4 U	0.40 U	0.39 U	0.40 U	0.40 U
2,4-Dinitrophenol	NA	1.1 U	2.4 U	1.1 U	1.2 U	2.4 U	1.5 U	2.3 U	1.2 U	1.2 U	1.1 U	1.2 U	1.3 U	1.2 U	1.2 U	1.1 U	1.2 U	1.3 U	7.3 U	1.2 U	1.2 U	1.2 U	1.2 U
2,4-Dinitrotoluene	NA	0.076 U	0.16 U	0.077 U	0.081 U	0.16 U	0.098 U	0.15 U	0.078 U	0.082 U	0.075 U	0.083 U	0.088 U	0.079 U	0.078 U	0.074 U	0.079 U	0.086 U	0.49 U	0.081 U	0.079 U	0.081 U	0.081 U
2,6-Dinitrotoluene	NA	0.076 U	0.16 U	0.077 U	0.081 U	0.16 U	0.098 U	0.15 U	0.078 U	0.082 U	0.075 U	0.083 U	0.088 U	0.079 U	0.078 U	0.074 U	0.079 U	0.086 U	0.49 U	0.081 U	0.079 U	0.081 U	0.081 U
2-Chloronaphthalene	NA	0.37 U	0.78 U	0.38 U	0.40 U	0.81 U	0.48 U	0.76 U	0.38 U	0.40 U	0.37 U	0.41 U	0.43 U	0.39 U	0.38 U	0.36 U	0.39 U	0.42 U	2.4 U	0.40 U	0.39 U	0.40 U	0.40 U
2-Chlorophenol	NA	0.37 U	0.78 U	0.38 U	0.40 U	0.81 U	0.48 U	0.76 U	0.38 U	0.40 U	0.37 U	0.41 U	0.43 U	0.39 U	0.38 U	0.36 U	0.39 U	0.42 U	2.4 U	0.40 U	0.39 U	0.40 U	0.40 U
2-Methylnaphthalene	NA	0.37 U	0.78 U	0.38 U	0.40 U	0.15 J	0.48 U	0.11 J	0.38 U	0.40 U	0.37 U	0.41 U	0.43 U	0.081 J	0.38 U	0.36 U	0.39 U	0.42 U	2.4 U	0.40 U	0.39 U	0.40 U	0.40 U
2-Methylphenol	0.33	0.37 U	0.78 U	0.38 U	0.40 U	0.81 U	0.48 U	0.76 U	0.38 U	0.40 U	0.37 U	0.41 U	0.43 U	0.39 U	0.38 U	0.36 U	0.39 U	0.42 U	2.4 U	0.40 U	0.39 U	0.40 U	0.40 U
2-Nitroaniline	NA	0.76 U	1.6 U	0.77 U	0.81 U	1.6 U	0.98 U	1.5 U	0.78 U	0.82 U	0.75 U	0.83 U	0.88 U	0.79 U	0.78 U	0.74 U	0.79 U	0.86 U	4.9 U	0.81 U	0.79 U	0.81 U	0.81 U
2-Nitrophenol	NA	0.37 U	0.78 U	0.38 U	0.40 U	0.81 U	0.48 U	0.76 U	0.38 U	0.40 U	0.37 U	0.41 U	0.43 U	0.39 U	0.38 U	0.36 U	0.39 U	0.42 U	2.4 U	0.40 U	0.39 U	0.40 U	0.40 U
3,3'-Dichlorobenzidine	NA	0.76 U	1.6 U	0.77 U	0.81 U	1.6 U	0.98 U	1.5 U	0.78 U	0.82 U	0.75 U	0.83 U	0.88 U	0.79 U	0.78 U	0.74 U	0.79 U	0.86 U	4.9 U	0.81 U	0.79 U	0.81 U	0.81 U
3-Nitroaniline	NA	0.76 U	1.6 U	0.77 U	0.81 U	1.6 U	0.98 U	1.5 U	0.78 U	0.82 U	0.75 U	0.83 U	0.88 U	0.79 U	0.78 U	0.74 U	0.79 U	0.86 U	4.9 U	0.81 U	0.79 U	0.81 U	0.81 U
4,6-Dinitro-2-methylphenol	NA	1.1 U	2.4 U	1.1 U	1.2 U	2.4 U	1.5 U	2.3 U	1.2 U	1.2 U	1.1 U	1.2 U	1.3 U	1.2 U	1.2 U	1.1 U	1.2 U	1.3 U	7.3 U	1.2 U	1.2 U	1.2 U	1.2 U
4-Bromophenyl phenyl ether	NA	0.37 U	0.78 U	0.38 U	0.40 U	0.81 U	0.48 U	0.76 U	0.38 U	0.40 U	0.37 U	0.41 U	0.43 U	0.39 U	0.38 U	0.36 U	0.39 U	0.42 U	2.4 U	0.40 U	0.39 U	0.40 U	0.40 U
4-Chloro-3-methylphenol	NA	0.37 U	0.78 U	0.38 U	0.40 U	0.81 U	0.48 U	0.76 U	0.38 U	0.40 U	0.37 U	0.41 U	0.43 U	0.39 U	0.38 U	0.36 U	0.39 U	0.42 U	2.4 U	0.40 U	0.39 U	0.40 U	0.40 U
4-Chloroaniline	NA	0.37 U	0.78 U	0.38 U	0.40 U	0.81 U	0.48 U	0.76 U	0.38 U	0.40 U	0.37 U	0.41 U	0.43 U	0.39 U	0.38 U	0.36 U	0.39 U	0.42 U	2.4 U	0.40 U	0.39 U	0.40 U	0.40 U
4-Chlorophenyl phenyl ether	NA	0.37 U	0.78 U	0.38 U	0.40 U	0.81 U	0.48 U	0.76 U	0.38 U	0.40 U	0.37 U	0.41 U	0.43 U	0.39 U	0.38 U	0.36 U	0.39 U	0.42 U	2.4 U	0.40 U	0.39 U	0.40 U	0.40 U
4-Methylphenol	0.33	0.37 U	0.78 U	0.38 U	0.40 U	0.81 U	0.48 U	0.76 U	0.38 U	0.40 U	0.37 U	0.41 U	0.43 U	0.39 U	0.38 U	0.36 U	0.39 U	0.42 U	2.4 U	0.40 U	0.39 U	0.40 U	0.40 U
4-Nitroaniline	NA	0.76 U	1.6 U	0.77 U	0.81 U	1.6 U	0.98 U	1.5 U	0.78 U	0.82 U	0.75 U	0.83 U	0.88 U	0.79 U	0.78 U	0.74 U	0.79 U	0.86 U	4.9 U	0.81 U	0.79 U	0.81 U	0.81 U
4-Nitrophenol	NA	1.1 U	2.4 U	1.1 U	1.2 U	2.4 U	1.5 U	2.3 U	1.2 U	1.2 U	1.1 U	1.2 U	1.3 U	1.2 U	1.2 U	1.1 U	1.2 U	1.3 U	7.3 U	1.2 U	1.2 U	1.2 U	1.2 U
Acenaphthene	20	0.072 J	0.78 U	0.38 U	0.40 U	0.68 J	0.48 U	0.68 J	0.38 U	0.40 U	0.070 J	0.41 U	0.43 U	0.35 J	0.38 U	0.39	0.091 J	0.42 U	0.55 J	0.40 U	0.39 U	0.40 U	0.40 U
Acenaphthylene	100	0.37 U	0.11 J	0.38 U	0.40 U	0.81 U	0.48 U	0.14 J	0.38 U	0.40 U	0.37 U	0.41 U	0.43 U	0.39 U	0.38 U	0.36 U	0.39 U	0.42 U	2.4 U	0.40 U	0.39 U	0.40 U	0.40 U
Acetophenone	NA	0.37 U	0.78 U	0.38 U	0.40 U	0.81 U	0.48 U	0.76 U	0.38 U	0.40 U	0.37 U	0.41 U	0.43 U	0.39 U	0.38 U	0.36 U	0.39 U	0.42 U	2.4 U	0.40 U	0.39 U	0.40 U	0.40 U
Anthracene	100	0.098 J	0.44 J	0.18 J	0.40 U	1.5	0.48 U	1.7	0.38 U	0.067 J	0.23 J	0.41 U	0.11 J	0.84	0.38 U	0.36 U	0.15 J	0.14 J	1.5 J	0.40 U	0.39 U	0.40 U	0.40 U
Atrazine	NA	0.37 U	0.78 U	0.38 U	0.40 U	0.81 U	0.48 U	0.76 U	0.38 U	0.40 U	0.37 U	0.41 U	0.43 U	0.39 U	0.38 U	0.36 U	0.39 U	0.42 U	2.4 U	0.40 U	0.39 U	0.40 U	0.40 U
Benzaldehyde	NA	0.37 U	0.78 U	0.38 U	0.40 U	0.81 U	0.48 U	0.76 U	0.38 U	0.40 U	0.37 U	0.41 U	0.43 U	0.39 U	0.38 U	0.36 U	0.39 U	0.42 U	2.4 U	0.40 U	0.39 U	0.40 U	0.40 U
Benzo[a]anthracene	1	0.46	4.1	1.2	0.040 U	4.4	0.16	6.4	0.038 U	0.41	1.1	0.20	0.23	2.7	0.038 U	2.4	0.45	0.67	5.1	0.040 U	0.039 U	0.040 U	0.040 U
Benzo[a]pyrene	1	0.96	5.8 J	1.9 J	0.040 U	4.5	0.18	9.1	0.038 U	0.40	1.2	0.19	0.18	2.1	0.038 U	2.5	0.45	1.4 J	6.0 J	0.040 U	0.039 U	0.040 U	0.040 U
Benzo[b]fluoranthene	1	1.2	8.2	2.6	0.040 U	5.2	0.23	11	0.038 U	0.48	1.4	0.22	0.21	2.4	0.038 U	2.9	0.51	1.5	7.0	0.040 U	0.039 U	0.040 U	0.040 U
Benzo[g,h,i]perylene	100	0.51	1.5	0.39	0.40 U	2.8	0.095 J	2.7	0.38 U	0.22 J	0.43	0.097 J	0.097 J	1.0	0.38 U	1.2	0.21 J	0.93	2.2 J	0.40 U	0.39 U	0.40 U	0.40 U
Benzo[k]fluoranthene	0.8	0.49	3.1	1.2	0.040 U	2.1	0.076	4.5	0.038 U	0.17	0.50	0.080	0.072	0.81	0.038 U	1.1	0.18	0.64	2.5	0.040 U	0.039 U	0.040 U	0.040 U
Bis(2-chloroethoxy)methane	NA	0.37 U	0.78 U	0.38 U	0.40 U	0.81 U	0.48 U	0.76 U	0.38 U	0.40 U	0.37 U	0.41 U	0.43 U	0.39 U	0.38 U	0.36 U	0.39 U	0.42 U	2.4 U	0.40 U	0.39 U	0.40 U	0.40 U
Bis(2-chloroethyl)ether	NA	0.037 U	0.078 U	0.038 U	0.040 U	0.081 U	0.048 U	0.076 U	0.038 U	0.040 U	0.037 U	0.041 U	0.043 U	0.039 U	0.038 U	0.036 U	0.039 U	0.042 U	0.24 U	0.040 U	0.039 U	0.040 U	0.040 U
Bis(2-ethylhexyl) phthalate	NA	0.37 U	1.8	0.38 U	0.40 U	0.81 U	0.48 U	0.76 U	0.38 U	0.40 U	0.37 U	0.41 U	0.43 U	0.39 U	0.38 U	0.36 U	0.39 U	0.42 U	2.4 U	0.40 U	0.39 U	0.40 U	0.40 U
Butyl benzyl phthalate	NA	0.37 U	0.78 U	0.38 U	0.40 U	0.81 U	0.48 U	0.76 U	0.38 U	0.40 U	0.37 U	0.41 U	0.43 U	0.39 U	0.38 U	0.36 U	0.39 U	0.42 U	2.4 U	0.40 U	0.39 U	0.40 U	0.40 U
Caprolactam	NA	0.37 U	0.78 U	0.38 U	0.40 U	0.81 U	0.48 U	0.76 U	0.38 U	0.40 U	0.37 U	0.41 U	0.43 U	0.39 U	0.38 U	0.36 U	0.39 U	0.42 U	2.4 U	0.40 U	0.39 U	0.40 U	0.40 U
Carbazole	NA	0.37 U	0.78 U	0.38 U	0.40 U	0.31 J	0.48 U	0.36 J	0.38 U	0.40 U	0.045 J	0.41 U	0.43 U	0.24 J	0.38 U	0.20 J	0.39 U	0.42 U	2.4 U	0.40 U	0.39 U	0.40 U	0.40 U
Chrysene	1	0.54	4.6	1.1	0.40 U	4.6	0.21 J	7.0	0.38 U	0.45	1.1	0.22 J	0.22 J	3.2	0.38 U	2.7	0.47	0.80	5.8	0.40 U	0.39 U	0.40 U	0.40 U
Dibenz(a,h)anthracene	0.33	0.15	0.44	0.16	0.040 U	0.74	0.025 J	0.79	0.038 U	0.059	0.13	0.025 J	0.024 J	0.24	0.038 U	0.33	0.062	0.23	0.62	0.040 U	0.039 U	0.040 U	0.040 U
Dibenzofuran	7	0.37 U	0.78 U	0.38 U	0.40 U	0.29 J	0.48 U	0.23 J	0.38 U	0.40 U	0.37 U	0.41 U	0.43 U	0.17 J	0.38 U	0.14 J	0.39 U	0.42 U	2.4 U	0.40 U	0.39 U	0.40 U	0.40 U
Diethyl phthalate	NA	0.37 U	0.78 U	0.38 U	0.40 U	0.81 U	0.48 U	0.76 U	0.38 U	0.40 U	0.37 U	0.41 U	0.43 U	0.39 U	0.38 U	0.36 U	0.39 U	0.42 U	2.4 U	0.40 U	0.39 U	0.40 U	0.40 U
Dimethyl phthalate	NA	0.37 U	0.78 U	0.38 U	0.40 U	0.81 U	0.48 U	0.76 U	0.38 U	0.40 U	0.37 U	0.41 U	0.43 U	0.39 U	0.38 U	0.36 U	0.39 U	0.42 U	2.4 U	0.40 U	0.39 U	0.40 U	0.40 U
Di-n-butyl phthalate	NA	0.074 J	0.78 U	0.38 U	0.40 U	0.81 U	0.48 U	0.76 U	0.38 U	0.40 U	0.37 U	0.41 U	0.43 U	0.39 U	0.38 U	0.36 U	0.39 U	0.42 U	2.4 U	0.40 U	0.39 U	0.40 U	0.40 U
Di-n-octyl phthalate	NA	0.37 U	0.78 U	0.38 U	0.40 U	0.81 U	0.48 U	0.76 U	0.38 U	0.40 U	0.37 U	0.41 U	0.43 U	0.39 U	0.38 U	0.36 U	0.39 U	0.42 U	2.4 U	0.40 U	0.39 U	0.40 U	0.40 U
Diphenyl	NA	0.37 U	0.78 U	0.38 U	0.40 U	0.81 U	0.48 U	0.76 U	0.38 U	0.40 U	0.37 U	0.41 U	0.43 U	0.39 U	0.38 U	0.36 U	0.39 U	0.42 U	2.4 U	0.40 U	0.39 U	0.40 U	0.40 U
Fluoranthene	100	0.85	6.5	1.6	0.40 U	7.1	0.26 J	13	0.38 U	0.67	1.9	0.34 J	0.45	5.3	0.38 U	4.6	0.90	1.1	10	0.40 U	0.39 U	0.40 U	0.40 U
Fluorene	30	0.067 J	0.78 U	0.38 U	0.40 U	0.63 J	0.48 U	0.56 J	0.38 U	0.40 U	0.056 J	0.41 U	0.43 U	0.38 J	0.38 U	0.40	0.070 J	0.42 U	0.44 J	0.40 U	0.39 U	0.40 U	0.40 U
Hexachlorobenzene	0.33	0.037 U	0.078 U	0.038 U	0.040 U	0.081 U	0.048 U	0.076 U	0.038 U	0.040 U	0.037 U	0.041 U	0.043 U	0.039 U	0.038 U	0.036 U	0.039 U	0.042 U	0.24 U	0.040 U	0.039 U	0.040 U	0.040 U
Hexachlorobutadiene	NA	0.076 U	0.16 U	0.077 U	0.081 U	0.16 U	0.098 U	0.15 U	0.078 U	0.082 U	0.075 U	0.083 U	0.088 U	0.079 U	0.078 U	0.074 U	0.079 U	0.086 U	0.49 U	0.081 U	0.079 U	0.081 U	0.081 U
Hexachlorocyclopentadiene	NA	0.37 U	0.78 U	0.38 U	0.40 U	0.81 U	0.48 U	0.76 U	0.38 U	0.40 U	0.37 U	0.41 U	0.43 U	0.39 U	0.38 U	0.36 U	0.39 U	0.42 U	2.4 U	0.40 U	0.39 U	0.40 U	0.40 U
Hexachloroethane	NA	0.037 U	0.078 U	0.038 U	0.040 U	0.081 U	0.048 U	0.076 U	0.038 U	0.040 U	0.037 U	0.041 U	0.043 U	0.039 U	0.038 U	0.036 U	0.039 U	0.042 U	0.24 U	0.040 U	0.039 U	0.040 U	0.040 U
Indeno(1,2,3-cd)pyrene	0.5	0.53	1.7	0.57	0.040 U	3.0	0.10	2.8	0.038 U	0.22	0.45	0.099	0.098	1.1	0.038 U	1.2	0.21	0.89	2.6	0.040 U	0.039 U	0.040 U	0.040 U
Isophorone	NA	0.37 U	0.78 U	0.38 U	0.40 U	0.81 U	0.48 U	0.76 U	0.38 U	0.40 U	0.37 U	0.41 U	0.43 U	0.39 U	0.38 U	0.36 U	0.39 U	0.42 U	2.4 U	0.40 U	0.39 U	0.40 U	0.40 U
Naphthalene	12	0.37 U	0.78 U	0.38 U	0.40 U	0.24 J	0.48 U	0.13 J	0.38 U	0.40 U	0.37 U	0.41 U	0.43 U	0.14 J	0.38 U	0.36 U	0.39 U	0.42 U	2.4 U	0.40 U	0.39 U	0.40 U	0.40 U
Nitrobenzene	NA	0.037 U	0.078 U	0.038 U	0.040 U	0.081 U	0.048 U	0.076 U	0.038 U	0.040 U	0.037 U	0.041 U	0.043 U	0.039 U	0.038 U	0.036 U	0.039 U	0.042 U	0.24 U	0.040 U	0.039 U	0.040 U	0.040 U
N-Nitrosodi-n-propylamine	NA	0.037 U	0.078 U	0.038 U	0.040 U	0.081 U	0.048 U	0.076 U	0.038 U	0.040 U	0.037 U	0.041 U	0.043 U	0.039 U	0.038 U	0.036 U	0.039 U	0.042 U	0.24 U	0.040 U	0.039 U	0.040 U	0.040 U
N-Nitrosodiphenylamine	NA	0.37 U	0.78 U	0.38 U	0.40 U	0.81 U	0.48 U	0.76 U	0.38 U	0.40 U	0.37 U	0.41 U	0.43 U	0.39 U	0.38 U	0.36 U	0.39 U	0.42 U	2.4 U	0.40 U	0.39 U	0.40 U	0.40 U
Pentachlorophenol	0.8	1.1 U	2.4 U	1.1 U	1.2 U	2.4 U	1.5 U	2.3 U	1.2 U	1.2 U	1.1 U	1.2 U	1.3 U	1.2 U	1.2 U	1.1 U	1.2 U	1.3 U	7.3 U	1.2 U	1.2 U	1.2 U	1.2 U
Phenanthrene	100	0.52	2.0	0.18 J	0.40 U	6.4	0.099 J	6.4	0.38 U	0.33 J	0.72	0.17 J	0.46	5.1	0.38 U	4.0	0.67	0.88	7.7	0.40 U	0.39 U	0.40 U	0.40 U
Phenol	0.33	0.37 U	0.78 U	0.38 U	0.40 U	0.81 U	0.48 U	0.76 U	0.38 U	0.40 U	0.37 U	0.41 U	0.43 U	0.39 U	0.38 U	0.36 U	0.39 U	0.42 U	2.4 U	0.40 U	0.39 U	0.40 U	0.40 U
Pyrene	100	1.0	6.1	1.2	0.40 U	8.0	0.35 J	11	0.38 U	0.85	1.7	0.42	0.50	6.7	0.38 U	5.2	1.0	1.5	11	0.40 U	0.39 U	0.40 U	0.40 U
Pyridine	NA	0.37 U	0.78 U	0.38 U	0.40 U	0.81 U	0.48 U	0.76 U	0.38 U	0.40 U	0.37 U	0.41 U	0.43 U	0.39 U	0.38 U	0.36 U	0.39 U	0.42 U	2.4 U	0.40 U	0.39 U	0.40 U	0.40 U
TCL SVOCs TICs	NA	4.21	4.87	1.62	ND	12.08	25.48	14.85	ND	ND	2.82	ND	5.77	8.29	5.23	6.12	0.16	49.8	50.7	ND	ND	ND	2.52

Notes
ND: TIC not detected
J : This flag indicates the presumptive evidence of a compound.
J N : Indicates an estimated value.
U : Analyzed for but not detected.
U R : Value is rejected based upon DUSR by third party data validator.

Table 5-45
TCL SVOC Soil Analytical Data
Post-excavation End-point Soil Analytical Data - South C1 Area

						Post-excavation End-point Soil Analytical Data - South C1 Area																		
			NYSDEC SCOs			Supplemental Side-wall Samples										Supplemental Bottom Sample	Supplemental Side-wall Samples								
TCL SVOCs (mg/kg)	NYSDEC Unrestricted SCO	Residential	Restricted Residential	Commercial	Protection of Groundwater	C1a-EP#23 (2')	C1a-EP#24 (2')	C1a-EP#25 (6')	C1a-EP#26 (2')	C1a-EP#27 (6')	C1a-EP#28 (2')	C1a-EP#29 (6')	C1a-EP#30 (5')	C1a-EP#32 (2')	C1a-EP#33 (2')	C1a-EP#31 (8')	C1a-EP#34 (4')	C1a-EP#35 (4')	C1a-EP#36 (4')	C1a-EP#37 (4')	C1a-EP#38 (4')	C1a-EP#38 BD (10')	C1a-EP#39 (4')	C1a-EP#40 (4')	C1a-EP#41 (4')	C1a-EP#42 (4')
1,2,4,5-Tetrachlorobenzene	NA	NA	NA	NA	NA	0.38 U	0.36 U	0.49 U	0.38 U	2.3 U	0.77 U	0.63 U	0.39 U	0.37 U	0.76 U	0.43 U	0.36 U	0.42 U	0.38 U	0.39 U	0.40 U	0.39 U	0.39 U	0.38 U	0.39 U	0.38 U
1,4-Dioxane	0.1	9.8	13	130	0.1	0.38 U	0.36 U	0.49 U	0.38 U	2.3 U	0.77 U	0.63 U	0.39 U	0.37 U	0.76 U	0.43 U	0.36 U	0.42 U	0.38 U	0.39 U	0.40 U	0.39 U	0.39 U	0.38 U	0.39 U	0.38 U
2,2'-oxybis[1-chloropropane]	NA	NA	NA	NA	NA	0.38 U	0.36 U	0.49 U	0.38 U	2.3 U	0.77 U	0.63 U	0.39 U	0.37 U	0.76 U	0.43 U	0.36 U	0.42 U	0.38 U	0.39 U	0.40 U	0.39 U	0.39 U	0.38 U	0.39 U	0.38 U
2,3,4,6-Tetrachlorophenol	NA	NA	NA	NA	NA	0.38 U	0.36 U	0.49 U	0.38 U	2.3 U	0.77 U	0.63 U	0.39 U	0.37 U	0.76 U	0.43 U	0.36 U	0.42 U	0.38 U	0.39 U	0.40 U	0.39 U	0.39 U	0.38 U	0.39 U	0.38 U
2,4,5-Trichlorophenol	NA	NA	NA	NA	NA	0.38 U	0.36 U	0.49 U	0.38 U	2.3 U	0.77 U	0.63 U	0.39 U	0.37 U	0.76 U	0.43 U	0.36 U	0.42 U	0.38 U	0.39 U	0.40 U	0.39 U	0.39 U	0.38 U	0.39 U	0.38 U
2,4,6-Trichlorophenol	NA	NA	NA	NA	NA	0.38 U	0.36 U	0.49 U	0.38 U	2.3 U	0.77 U	0.63 U	0.39 U	0.37 U	0.76 U	0.43 U	0.36 U	0.42 U	0.38 U	0.39 U	0.40 U	0.39 U	0.39 U	0.38 U	0.39 U	0.38 U
2,4-Dichlorophenol	NA	NA	NA	NA	NA	0.38 U	0.36 U	0.49 U	0.38 U	2.3 U	0.77 U	0.63 U	0.39 U	0.37 U	0.76 U	0.43 U	0.36 U	0.42 U	0.38 U	0.39 U	0.40 U	0.39 U	0.39 U	0.38 U	0.39 U	0.38 U
2,4-Dimethylphenol	NA	NA	NA	NA	NA	0.38 U	0.36 U	0.49 U	0.38 U	2.3 U	0.77 U	0.63 U	0.39 U	0.37 U	0.76 U	0.43 U	0.36 U	0.42 U	0.38 U	0.39 U	0.40 U	0.39 U	0.39 U	0.38 U	0.39 U	0.38 U
2,4-Dinitrophenol	NA	NA	NA	NA	NA	1.1 U	1.1 U	1.5 U	1.1 U	7.1 U	2.3 U	1.9 U	1.2 U	1.1 U	2.3 U	1.3 U	1.1 U	1.3 U	1.1 U	1.2 U	1.2 U	1.2 U	1.2 U	1.1 U	1.2 U	1.1 U
2,4-Dinitrotoluene	NA	NA	NA	NA	NA	0.076 U	0.072 U	0.10 U	0.077 U	0.47 U	0.16 U	0.13 U	0.079 U	0.075 U	0.15 U	0.087 U	0.073 U	0.084 U	0.077 U	0.079 U	0.082 U	0.080 U	0.079 U	0.077 U	0.078 U	0.076 U
2,6-Dinitrotoluene	NA	NA	NA	NA	NA	0.076 U	0.072 U	0.10 U	0.077 U	0.47 U	0.16 U	0.13 U	0.079 U	0.075 U	0.15 U	0.087 U	0.073 U	0.084 U	0.077 U	0.079 U	0.082 U	0.080 U	0.079 U	0.077 U	0.078 U	0.076 U
2-Chloronaphthalene	NA	NA	NA	NA	NA	0.38 U	0.36 U	0.49 U	0.38 U	2.3 U	0.77 U	0.63 U	0.39 U	0.37 U	0.76 U	0.43 U	0.36 U	0.42 U	0.38 U	0.39 U	0.40 U	0.39 U	0.39 U	0.38 U	0.39 U	0.38 U
2-Chlorophenol	NA	NA	NA	NA	NA	0.38 U	0.36 U	0.49 U	0.38 U	2.3 U	0.77 U	0.63 U	0.39 U	0.37 U	0.76 U	0.43 U	0.36 U	0.42 U	0.38 U	0.39 U	0.40 U	0.39 U	0.39 U	0.38 U	0.39 U	0.38 U
2-Methylnaphthalene	NA	NA	NA	NA	NA	0.38 U	0.36 U	0.49 U	0.38 U	2.3 U	0.13 J	0.63 U	0.39 U	0.37 U	0.76 U	0.43 U	0.36 U	0.18 J	0.10 J	0.39 U	0.40 U	0.39 U	0.39 U	0.38 U	0.39 U	0.17 J
2-Methylphenol	0.33	100	100	500	0.33	0.38 U	0.36 U	0.49 U	0.38 U	2.3 U	0.77 U	0.63 U	0.39 U	0.37 U	0.76 U	0.43 U	0.36 U	0.42 U	0.38 U	0.39 U	0.40 U	0.39 U	0.39 U	0.38 U	0.39 U	0.38 U
2-Nitroaniline	NA	NA	NA	NA	NA	0.76 U	0.72 U	1.0 U	0.77 U	4.7 U	1.6 U	1.3 U	0.79 U	0.75 U	1.5 U	0.87 U	0.73 U	0.84 U	0.77 U	0.79 U	0.82 U	0.80 U	0.79 U	0.77 U	0.78 U	0.76 U
2-Nitrophenol	NA	NA	NA	NA	NA	0.38 U	0.36 U	0.49 U	0.38 U	2.3 U	0.77 U	0.63 U	0.39 U	0.37 U	0.76 U	0.43 U	0.36 U	0.42 U	0.38 U	0.39 U	0.40 U	0.39 U	0.39 U	0.38 U	0.39 U	0.38 U
3,3'-Dichlorobenzidine	NA	NA	NA	NA	NA	0.76 U	0.72 U	1.0 U	0.77 U	4.7 U	1.6 U	1.3 U	0.79 U	0.75 U	1.5 U	0.87 U	0.73 U	0.84 U	0.77 U	0.79 U	0.82 U	0.80 U	0.79 U	0.77 U	0.78 U	0.76 U
3-Nitroaniline	NA	NA	NA	NA	NA	0.76 U	0.72 U	1.0 U	0.77 U	4.7 U	1.6 U	1.3 U	0.79 U	0.75 U	1.5 U	0.87 U	0.73 U	0.84 U	0.77 U	0.79 U	0.82 U	0.80 U	0.79 U	0.77 U	0.78 U	0.76 U
4,6-Dinitro-2-methylphenol	NA	NA	NA	NA	NA	1.1 U	1.1 U	1.5 U	1.1 U	7.1 U	2.3 U	1.9 U	1.2 U	1.1 U	2.3 U	1.3 U	1.1 U	1.3 U	1.1 U	1.2 U	1.2 U	1.2 U	1.2 U	1.1 U	1.2 U	1.1 U
4-Bromophenyl phenyl ether	NA	NA	NA	NA	NA	0.38 U	0.36 U	0.49 U	0.38 U	2.3 U	0.77 U	0.63 U	0.39 U	0.37 U	0.76 U	0.43 U	0.36 U	0.42 U	0.38 U	0.39 U	0.40 U	0.39 U	0.39 U	0.38 U	0.39 U	0.38 U
4-Chloro-3-methylphenol	NA	NA	NA	NA	NA	0.38 U	0.36 U	0.49 U	0.38 U	2.3 U	0.77 U	0.63 U	0.39 U	0.37 U	0.76 U	0.43 U	0.36 U	0.42 U	0.38 U	0.39 U	0.40 U	0.39 U	0.39 U	0.38 U	0.39 U	0.38 U
4-Chloroaniline	NA	NA	NA	NA	NA	0.38 U	0.36 U	0.49 U	0.38 U	2.3 U	0.77 U	0.63 U	0.39 U	0.37 U	0.76 U	0.43 U	0.36 U	0.42 U	0.38 U	0.39 U	0.40 U	0.39 U	0.39 U	0.38 U	0.39 U	0.38 U
4-Chlorophenyl phenyl ether	NA	NA	NA	NA	NA	0.38 U	0.36 U	0.49 U	0.38 U	2.3 U	0.77 U	0.63 U	0.39 U	0.37 U	0.76 U	0.43 U	0.36 U	0.42 U	0.38 U	0.39 U	0.40 U	0.39 U	0.39 U	0.38 U	0.39 U	0.38 U
4-Methylphenol	0.33	34	100	500	0.33	0.38 U	0.36 U	0.49 U	0.38 U	2.3 U	0.77 U	0.63 U	0.39 U	0.37 U	0.76 U	0.43 U	0.36 U	0.42 U	0.38 U	0.39 U	0.40 U	0.39 U	0.39 U	0.38 U	0.39 U	0.38 U
4-Nitroaniline	NA	NA	NA	NA	NA	0.76 U	0.72 U	1.0 U	0.77 U	4.7 U	1.6 U	1.3 U	0.79 U	0.75 U	1.5 U	0.87 U	0.73 U	0.84 U	0.77 U	0.79 U	0.82 U	0.80 U	0.79 U	0.77 U	0.78 U	0.76 U
4-Nitrophenol	NA	NA	NA	NA	NA	1.1 U	1.1 U	1.5 U	1.1 U	7.1 U	2.3 U	1.9 U	1.2 U	1.1 U	2.3 U	1.3 U	1.1 U	1.3 U	1.1 U	1.2 U	1.2 U	1.2 U	1.2 U	1.1 U	1.2 U	1.1 U
Acenaphthene	20	100	100	500	98	0.38 U	0.36 U	0.49 U	0.38 U	4.8	0.65 J	0.63 U	0.39 U	0.37 U	0.76 U	0.43 U	0.36 U	0.42 U	0.38 U	0.11 J	0.40 U	0.39 U	0.15 J	0.38 U	0.39 U	0.31 J
Acenaphthylene	100	100	100	500	107	0.38 U	0.36 U	0.49 U	0.38 U	2.3 U	0.77 U	0.63 U	0.39 U	0.37 U	0.10 J	0.43 U	0.36 U	0.42 U	0.38 U	0.39 U	0.40 U	0.39 U	0.39 U	0.38 U	0.39 U	0.16 J
Acetophenone	NA	NA	NA	NA	NA	0.38 U	0.36 U	0.49 U	0.38 U	2.3 U	0.77 U	0.63 U	0.39 U	0.37 U	0.76 U	0.43 U	0.36 U	0.42 U	0.38 U	0.39 U	0.40 U	0.39 U	0.39 U	0.38 U	0.39 U	0.053 J
Anthracene	100	100	100	500	1,000	0.38 U	0.36 U	0.22 J	0.38 U	8.5	1.8	0.63 U	0.052 J	0.066 J	1.6	0.43 U	0.47	0.74	0.29 J	0.19 J	0.40 U	0.39 U	0.41	0.11 J	0.081 J	0.87
Atrazine	NA	NA	NA	NA	NA	0.38 U	0.36 U	0.49 U	0.38 U	2.3 U	0.77 U	0.63 U	0.39 U	0.37 U	0.76 U	0.43 U	0.36 U	0.42 U	0.38 U	0.39 U	0.40 U	0.39 U	0.39 U	0.38 U	0.39 U	0.38 U
Benzaldehyde	NA	NA	NA	NA	NA	0.38 U	0.36 U	1.0 U	0.38 U	2.3 U	0.77 U	0.63 U	0.39 U	0.37 U	0.76 U	0.43 U	0.36 U	0.42 U	0.38 U	0.39 U	0.40 U	0.39 U	0.39 U	0.38 U	0.39 U	0.38 U
Benzo[a]anthracene	1	1	1	5.6	1	0.038 U	0.14	1.6	0.11	18	3.8	0.21	0.35	0.67	5.8	0.043 U	1.6	1.7	0.76	0.61	0.23	0.039 U	1.2	0.48	0.37	2.7
Benzo[a]pyrene	1	1	1	1	22	0.038 U	0.13	1.7	0.099	17	3.2	0.20	0.35	0.73	5.0	0.043 U	1.7	2.0	0.88	0.74	0.30	0.039 U	1.3	0.69	0.46	3.4
Benzo[b]fluoranthene	1	1	1	5.6	1.7	0.038 U	0.24	2.5	0.096	17	3.5	0.22	0.57	1.2	5.0	0.043 U	1.9	2.2	1.1	0.90	0.38	0.039 U	1.5	0.96	0.51	3.6
Benzo[g,h,i]perylene	100	100	100	500	1,000	0.38 U	0.30 J	2.1	0.070 J	12	2.3	0.16 J	0.13 J	0.28 J	2.9	0.43 U	0.88	1.0	0.52	0.48	0.22 J	0.39 U	0.92	0.54	0.31 J	4.7
Benzo[k]fluoranthene	0.8	1	3.9	56	1.7	0.038 U	0.12	0.80	0.041	5.2	1.5	0.11	0.20	0.43	2.2	0.043 U	0.83	0.93	0.43	0.33	0.13	0.039 U	0.59	0.35	0.18	1.4
Bis(2-chloroethoxy)methane	NA	NA	NA	NA	NA	0.38 U	0.36 U	0.49 U	0.38 U	2.3 U	0.77 U	0.63 U	0.39 U	0.37 U	0.76 U	0.43 U	0.36 U	0.42 U	0.38 U	0.39 U	0.40 U	0.39 U	0.39 U	0.38 U	0.39 U	0.38 U
Bis(2-chloroethyl)ether	NA	NA	NA	NA	NA	0.038 U	0.036 U	0.049 U	0.038 U	0.23 U	0.077 U	0.063 U	0.039 U	0.037 U	0.076 U	0.043 U	0.036 U	0.042 U	0.038 U	0.039 U	0.040 U	0.039 U	0.039 U	0.038 U	0.039 U	0.038 U
Bis(2-ethylhexyl) phthalate	NA	NA	NA	NA	NA	0.38 U	0.36 U	0.49 U	0.22 J	2.3 U	0.77 U	0.63 U	0.39 U	0.37 U	0.76 U	0.43 U	0.36 U	0.42 U	0.38 U	0.39 U	0.40 U	0.39 U	0.39 U	0.38 U	0.39 U	0.38 U
Butyl benzyl phthalate	NA	NA	NA	NA	NA	0.38 U	0.36 U	0.49 U	0.38 U	2.3 U	0.77 U	0.63 U	0.39 U	0.37 U	0.76 U	0.43 U	0.36 U	0.42 U	0.38 U	0.39 U	0.40 U	0.39 U	0.39 U	0.38 U	0.39 U	0.38 U
Caprolactam	NA	NA	NA	NA	NA	0.38 U	0.36 U	0.49 U	0.38 U	2.3 U	0.77 U	0.63 U	0.39 U	0.37 U	0.76 U	0.43 U	0.36 U	0.42 U	0.38 U	0.39 U	0.40 U	0.39 U	0.39 U	0.38 U	0.39 U	0.38 U
Carbazole	NA	NA	NA	NA	NA	0.38 U	0.36 U	0.070 J	0.38 U	0.41 J	0.40 J	0.63 U	0.39 U	0.37 U	0.33 J	0.43 U	0.073 J	0.26 J	0.22 J	0.053 J	0.40 U	0.39 U	0.11 J	0.38 U	0.39 U	0.18 J
Chrysene	1	1	3.9	56	1	0.38 U	0.22 J	1.9	0.12 J	19	4.3	0.24 J	0.57	0.89	5.9	0.43 U	1.5	1.7	0.76	0.71	0.26 J	0.39 U	1.3	0.66	0.42	2.9
Dibenz(a,h)anthracene	0.33	0.33	0.33	0.56	1,000	0.038 U	0.047	0.50	0.038 U	2.3	0.077 U	0.026 J	0.042	0.064	0.62	0.043 U	0.25	0.31	0.14	0.12	0.054	0.039 U	0.24	0.13	0.076	0.50
Dibenzofuran	7	14	59	350	210	0.38 U	0.36 U	0.068 J	0.38 U	0.53 J	0.32 J	0.63 U	0.39 U	0.37 U	0.11 J	0.43 U	0.045 J	0.26 J	0.17 J	0.046 J	0.40 U	0.39 U	0.053 J	0.38 U	0.39 U	0.15 J
Diethyl phthalate	NA	NA	NA	NA	NA	0.38 U	0.36 U	0.49 U	0.38 U	2.3 U	0.77 U	0.63 U	0.39 U	0.37 U	0.76 U	0.43 U	0.36 U	0.42 U	0.38 U	0.39 U	0.40 U	0.39 U	0.39 U	0.38 U	0.39 U	0.38 U
Dimethyl phthalate	NA	NA	NA	NA	NA	0.38 U	0.36 U	0.49 U	0.38 U	2.3 U	0.77 U	0.63 U	0.39 U	0.37 U	0.76 U	0.43 U	0.36 U	0.42 U	0.38 U	0.39 U	0.40 U	0.39 U	0.39 U	0.38 U	0.39 U	0.38 U
Di-n-butyl phthalate	NA	NA	NA	NA	NA	0.38 U	0.36 U	0.49 U	0.38 U	2.3 U	0.77 U	0.63 U	0.39 U	0.37 U	0.76 U	0.43 U	0.36 U	0.42 U	0.38 U	0.39 U	0.40 U	0.39 U	0.46	0.058 J	0.39 U	0.046 J
Di-n-octyl phthalate	NA	NA	NA	NA	NA	0.38 U	0.36 U	0.49 U	0.38 U	2.3 U	0.77 U	0.63 U	0.39 U	0.37 U	0.76 U	0.43 U	0.36 U	0.42 U	0.38 U	0.39 U	0.40 U	0.39 U	0.39 U	0.38 U	0.39 U	0.38 U
Diphenyl	NA	NA	NA	NA	NA	0.38 U	0.36 U	0.49 U	0.38 U	2.3 U	0.77 U	0.63 U	0.39 U	0.37 U	0.76 U	0.43 U	0.36 U	0.42 U	0.38 U	0.39 U	0.40 U	0.39 U	0.39 U	0.38 U	0.39 U	0.38 U
Fluoranthene	100	100	100	500	1,000	0.38 U	0.26 J	2.3	0.20 J	40	8.5	0.43 J	0.72	1.2	7.5	0.43 U	2.5	3.3	1.7	1.3	0.42	0.39 U	2.5	1.1	0.71	5.1
Fluorene	30	100	100	500	386	0.38 U	0.36 U	0.090 J	0.38 U	3.2	0.70 J	0.63 U	0.39 U	0.37 U	0.41 J	0.43 U	0.11 J	0.43	0.25 J	0.11 J	0.40 U	0.39 U	0.14 J	0.052 J	0.39 U	0.31 J
Hexachlorobenzene	0.33	0.33	1.2	6	3.2	0.038 U	0.036 U	0.049 U	0.038 U	0.23 U	0.077 U	0.063 U	0.039 U	0.037 U	0.076 U	0.043 U	0.036 U	0.042 U	0.038 U	0.039 U	0.040 U	0.039 U	0.039 U	0.038 U	0.039 U	0.038 U
Hexachlorobutadiene	NA	NA	NA	NA	NA	0.076 U	0.072 U	0.10 U	0.077 U	0.47 U	0.16 U	0.13 U	0.079 U	0.075 U	0.15 U	0.087 U	0.073 U	0.084 U	0.077 U	0.079 U	0.082 U	0.080 U	0.079 U	0.077 U	0.078 U	0.076 U
Hexachlorocyclopentadiene	NA	NA	NA	NA	NA	0.38 U	0.36 U	0.49 U	0.38 U	2.3 U	0.77 U	0.63 U	0.39 U	0.37 U	0.76 U	0.43 U	0.36 U	0.42 U	0.38 U	0.39 U	0.40 U	0.39 U	0.39 U	0.38 U	0.39 U	0.38 U
Hexachloroethane	NA	NA	NA	NA	NA	0.038 U	0.036 U	0.049 U	0.038 U	0.23 U	0.077 U	0.063 U	0.039 U	0.037 U	0.076 U	0.043 U	0.036 U	0.042 U	0.038 U	0.039 U	0.040 U	0.039 U	0.039 U	0.038 U	0.039 U	0.038 U
Indeno[1,2,3-cd]pyrene	0.5	0.5	0.5	5.6	8.2	0.038 U	0.26	2.1	0.059	10	2.3	0.15	0.14	0.29	2.2	0.043 U	1.1	1.4	0.58	0.53	0.22	0.039 U	0.92	0.58	0.30	1.9
Isophorone	NA	NA	NA	NA	NA	0.38 U	0.36 U	0.49 U	0.38 U	2.3 U	0.77 U	0.63 U	0.39 U	0.37 U	0.76 U	0.43 U	0.36 U	0.42 U	0.38 U	0.39 U	0.40 U	0.39 U	0.39 U	0.38 U	0.39 U	0.38 U
Naphthalene	12	100	100	500	12	0.38 U	0.36 U	0.058 J	0.38 U	2.3 U	0.16 J	0.63 U	0.39 U	0.37 U	0.11 J	0.43 U	0.36 U	0.50	0.28 J	0.060 J	0.40 U	0.39 U	0.39 U	0.38 U	0.39 U	0.14 J
Nitrobenzene	NA	NA	NA	NA	NA	0.038 U	0.036 U	0.049 U	0.038 U	0.23 U	0.077 U	0.063 U	0.039 U	0.037 U	0.076 U	0.043 U	0.036 U	0.042 U	0.038 U	0.039 U	0.040 U	0.039 U	0.039 U	0.038 U	0.039 U	0.038 U
N-Nitrosodi-n-propylamine	NA	NA	NA	NA	NA	0.038 U	0.036 U	0.049 U	0.038 U	0.23 U	0.077 U	0.063 U	0.039 U	0.037 U	0.076 U	0.043 U	0.036 U	0.042 U	0.038 U	0.039 U	0.040 U	0.039 U	0.039 U	0.038 U	0.039 U	0.038 U
N-Nitrosodiphenylamine	NA	NA	NA	NA	NA	0.38 U	0.36 U	0.49 U	0.38 U	2.3 U	0.77 U	0.63 U	0.39 U	0.37 U	0.76 U	0.43 U	0.36 U	0.42 U	0.38 U	0.39 U	0.40 U	0.39 U	0.39 U	0.38 U	0.39 U	0.38 U
Pentachlorophenol	0.8	2.4	6.7	6.7	0.8	1.1 U	1.1 U	1.5 U	1.1 U	7.1 U	2.3 U	1.9 U	1.2 U	1.1 U	2.3 U	1.3 U	1.1 U	1.3 U	1.1 U	1.2 U	1.2 U	1.2 U	1.2 U	1.1 U	1.2 U	1.1 U
Phenanthrene	100	100	100	500	1,000	0.38 U	0.047 J	1.5	0.078 J	31	9.3	0.31 J	0.37 J	0.31 J	5.7	0.43 U	1.7	2.8	1.9	0.96	0.19 J	0.39 U	2.3	0.61	0.33 J	3.2
Phenol	0.33	100	100	500	0.33	0.38 U	0.36 U	0.49 U	0.38 U	2.3 U	0.77 U	0.63 U	0.39 U	0.37 U	0.76 U	0.43 U	0.36 U	0.42 U	0.38 U	0.39 U	0.40 U	0.39 U	0.39 U	0.38 U	0.39 U	0.38 U
Pyrene	100	100	100	500	1,000	0.38 U	0.30 J	2.4	0.27 J	53	9.6	0.47 J	0.78	1.2	9.7	0.43 U	2.2	3.4	1.5	1.3	0.51	0.39 U	2.9	1.1	0.87	4.5
Pyridine	NA	NA	NA	NA	NA	0.38 U	0.36 U	0.49 U	0.38 U	2.3 U	0.77 U	0.63 U	0.39 U	0.37 U	0.76 U	0.43 U	0.36 U	0.42 U	0.38 U	0.39 U	0.40 U	0.39 U	0.39 U	0.38 U	0.39 U	0.38 U
Total SVOC TICs	NA	NA	NA	NA	NA	ND	ND	16.28	ND	56.9	11.91	93.0	52.6	6.50	20.34	ND	0.94	7.14	0.67	9.05	0.39	ND	7.41	2.20	ND	8.24

Notes
ND: TIC not detected
J : This flag indicates the presumptive evidence of a compound.
J N : Indicates an estimated value.
U : Analyzed for but not detected.
BD : Blind Duplicate
Highlighted / bolded indicates analyte exceeded above its respective NYSDEC Unrestricted SCO.
Green / italicized value indicates analyte exceeded its respective unrestricted SCO but was below its respective Residential / Protection of GW SCO, whichever is lower.
Blue / italicized value indicates analyte exceeded its respective Residential SCO and / or Protection of Groundwater SCO but was below its Restricted Residential SCO.
Pink / italicized value indicates analyte exceeded its respective Residential SCO and / or Protection of Groundwater SCO but was below its Commercial SCO.

Table 5-45
TCL SVOC Soil Analytical Data
Post-excavation End-point Soil Analytical Data - South C1 Area

	NYSDEC SCOs					Post-excavation End-point Soil Analytical Data						
						South C1 Area						
						Co-located Bottom and Sidewall Samples						
TCL SVOCs (mg/kg)	NYSDEC Unrestricted	Residential	Restricted Residential	Commercial	Protection of Groundwater	C1a-EP#47 (4')	C1a-EP#48 (4')	C1a-EP#49 (2')	C1a-EP#50 (2')	C1a-EP#51 (2')	C1a-EP#52 (2')	C1a-EP#53 (2')
1,2,4,5-Tetrachlorobenzene	NA	NA	NA	NA	NA	0.38 U	0.37 U	0.43 U	0.37 U	0.38 U	0.36 U	0.36 U
1,4-Dioxane	0.1	9.8	13	130	0.1	0.38 U	0.37 U	0.43 U	0.37 U	0.38 U	0.36 U	0.36 U
2,2'-oxybis[1-chloropropane]	NA	NA	NA	NA	NA	0.38 U	0.37 U	0.43 U	0.37 U	0.38 U	0.36 U	0.36 U
2,3,4,6-Tetrachlorophenol	NA	NA	NA	NA	NA	0.38 U	0.37 U	0.43 U	0.37 U	0.38 U	0.36 U	0.36 U
2,4,5-Trichlorophenol	NA	NA	NA	NA	NA	0.38 U	0.37 U	0.43 U	0.37 U	0.38 U	0.36 U	0.36 U
2,4,6-Trichlorophenol	NA	NA	NA	NA	NA	0.38 U	0.37 U	0.43 U	0.37 U	0.38 U	0.36 U	0.36 U
2,4-Dichlorophenol	NA	NA	NA	NA	NA	0.38 U	0.37 U	0.43 U	0.37 U	0.38 U	0.36 U	0.36 U
2,4-Dimethylphenol	NA	NA	NA	NA	NA	0.38 U	0.37 U	0.43 U	0.37 U	0.38 U	0.36 U	0.36 U
2,4-Dinitrophenol	NA	NA	NA	NA	NA	0.76 U	0.76 U	0.88 U	0.75 U	0.77 U	0.72 U	0.74 U
2,4-Dinitrotoluene	NA	NA	NA	NA	NA	0.076 U	0.076 U	0.088 U	0.075 U	0.077 U	0.072 U	0.074 U
2,6-Dinitrotoluene	NA	NA	NA	NA	NA	0.076 U	0.076 U	0.088 U	0.075 U	0.077 U	0.072 U	0.074 U
2-Chloronaphthalene	NA	NA	NA	NA	NA	0.38 U	0.37 U	0.43 U	0.37 U	0.38 U	0.36 U	0.36 U
2-Chlorophenol	NA	NA	NA	NA	NA	0.38 U	0.37 U	0.43 U	0.37 U	0.38 U	0.36 U	0.36 U
2-Methylnaphthalene	NA	NA	NA	NA	NA	0.38 U	0.37 U	0.43 U	0.37 U	0.38 U	0.36 U	0.36 U
2-Methylphenol	0.33	100	100	500	0.33	0.38 U	0.37 U	0.43 U	0.37 U	0.38 U	0.36 U	0.36 U
2-Nitroaniline	NA	NA	NA	NA	NA	0.38 U	0.37 U	0.43 U	0.37 U	0.38 U	0.36 U	0.36 U
2-Nitrophenol	NA	NA	NA	NA	NA	0.38 U	0.37 U	0.43 U	0.37 U	0.38 U	0.36 U	0.36 U
3,3'-Dichlorobenzidine	NA	NA	NA	NA	NA	0.38 U	0.37 U	0.43 U	0.37 U	0.38 U	0.36 U	0.36 U
3-Nitroaniline	NA	NA	NA	NA	NA	0.38 U	0.37 U	0.43 U	0.37 U	0.38 U	0.36 U	0.36 U
4,6-Dinitro-2-methylphenol	NA	NA	NA	NA	NA	0.76 U	0.76 U	0.88 U	0.75 U	0.77 U	0.72 U	0.74 U
4-Bromophenyl phenyl ether	NA	NA	NA	NA	NA	0.38 U	0.37 U	0.43 U	0.37 U	0.38 U	0.36 U	0.36 U
4-Chloro-3-methylphenol	NA	NA	NA	NA	NA	0.38 U	0.37 U	0.43 U	0.37 U	0.38 U	0.36 U	0.36 U
4-Chloroaniline	NA	NA	NA	NA	NA	0.38 U	0.37 U	0.43 U	0.37 U	0.38 U	0.36 U	0.36 U
4-Chlorophenyl phenyl ether	NA	NA	NA	NA	NA	0.38 U	0.37 U	0.43 U	0.37 U	0.38 U	0.36 U	0.36 U
4-Methylphenol	0.33	34	100	500	0.33	0.38 U	0.37 U	0.43 U	0.37 U	0.38 U	0.36 U	0.36 U
4-Nitroaniline	NA	NA	NA	NA	NA	0.76 U	0.76 U	0.88 U	0.75 U	0.77 U	0.72 U	0.74 U
4-Nitrophenol	NA	NA	NA	NA	NA	0.38 U	0.37 U	0.43 U	0.37 U	0.38 U	0.36 U	0.36 U
Acenaphthene	20	100	100	500	98	0.38 U	0.37 U	0.071 J	0.40	0.18 J	0.10 J	0.086 J
Acenaphthylene	100	100	100	500	107	0.38 U	0.37 U	0.43 U	0.37 U	0.38 U	0.36 U	0.36 U
Acetophenone	NA	NA	NA	NA	NA	0.38 U	0.37 U	0.43 U	0.37 U	0.38 U	0.36 U	0.36 U
Anthracene	100	100	100	500	1,000	0.38 U	0.37 U	0.18 J	0.49	0.19 J	0.43	0.30 J
Atrazine	NA	NA	NA	NA	NA	0.38 U	0.37 U	0.43 U	0.37 U	0.38 U	0.36 U	0.36 U
Benzaldehyde	NA	NA	NA	NA	NA	0.38 U	0.37 U	0.43 U	0.37 U	0.38 U	0.36 U	0.36 U
Benzo[a]anthracene	1	1	1	5.6	1	0.038 U	0.14	0.61	0.72	0.17	*1.4*	*1.0*
Benzo[a]pyrene	1	1	1	1	22	0.038 U	0.16	0.49	0.63	0.17	*1.5*	0.85
Benzo[b]fluoranthene	1	1	1	5.6	1.7	0.038 U	0.18	0.64	0.84	0.23	*1.5*	*1.0*
Benzo[g,h,i]perylene	100	100	100	500	1,000	0.38 U	0.075 J	0.28 J	0.47	0.083 J	1.0	0.44
Benzo[k]fluoranthene	0.8	1	3.9	56	1.7	0.038 U	0.091	0.28	0.33	0.088	*1.0*	0.58
Bis(2-chloroethoxy)methane	NA	NA	NA	NA	NA	0.38 U	0.37 U	0.43 U	0.37 U	0.38 U	0.36 U	0.36 U
Bis(2-chloroethyl)ether	NA	NA	NA	NA	NA	0.038 U	0.037 U	0.043 U	0.037 U	0.038 U	0.036 U	0.036 U
Bis(2-ethylhexyl) phthalate	NA	NA	NA	NA	NA	0.38 U	0.37 U	0.43 U	0.22 J	0.38 U	0.15 J	0.36 U
Butyl benzyl phthalate	NA	NA	NA	NA	NA	0.38 U	0.37 U	0.43 U	0.37 U	0.38 U	0.36 U	0.36 U
Caprolactam	NA	NA	NA	NA	NA	0.38 U	0.37 U	0.43 U	0.37 U	0.38 U	0.36 U	0.36 U
Carbazole	NA	NA	NA	NA	NA	0.38 U	0.37 U	0.43 U	0.52	0.38 U	0.10 J	0.055 J
Chrysene	1	1	3.9	56	1	0.38 U	0.14 J	0.54	0.79	0.21 J	*1.5*	*1.0*
Dibenz(a,h)anthracene	0.33	0.33	0.33	0.56	1,000	0.038 U	0.037 U	0.068	0.12	0.025 J	0.28	0.13
Dibenzofuran	7	14	59	350	210	0.38 U	0.37 U	0.43 U	0.17 J	0.10 J	0.057 J	0.36 U
Diethyl phthalate	NA	NA	NA	NA	NA	0.38 U	0.37 U	0.43 U	0.37 U	0.38 U	0.36 U	0.36 U
Dimethyl phthalate	NA	NA	NA	NA	NA	0.38 U	0.37 U	0.43 U	0.37 U	0.38 U	0.36 U	0.36 U
Di-n-butyl phthalate	NA	NA	NA	NA	NA	0.38 U	0.068 J	0.34 J	0.53	0.062 J	0.21 J	0.36 U
Di-n-octyl phthalate	NA	NA	NA	NA	NA	0.38 U	0.37 U	0.43 U	0.37 U	0.38 U	0.36 U	0.36 U
Diphenyl	NA	NA	NA	NA	NA	0.38 U	0.37 U	0.43 U	0.37 U	0.38 U	0.36 U	0.36 U
Fluoranthene	100	100	100	500	1,000	0.38 U	0.25 J	1.1	1.6	0.62	2.5	2.0
Fluorene	30	100	100	500	386	0.38 U	0.37 U	0.063 J	0.36 J	0.16 J	0.092 J	0.096 J
Hexachlorobenzene	0.33	0.33	1.2	6	3.2	0.038 U	0.037 U	0.043 U	0.037 U	0.038 U	0.036 U	0.036 U
Hexachlorobutadiene	NA	NA	NA	NA	NA	0.076 U	0.076 U	0.088 U	0.075 U	0.077 U	0.072 U	0.074 U
Hexachlorocyclopentadiene	NA	NA	NA	NA	NA	0.38 U	0.37 U	0.43 U	0.37 U	0.38 U	0.36 U	0.36 U
Hexachloroethane	NA	NA	NA	NA	NA	0.038 U	0.037 U	0.043 U	0.037 U	0.038 U	0.036 U	0.036 U
Indeno[1,2,3-cd]pyrene	0.5	0.5	0.5	5.6	8.2	0.038 U	0.082	0.30	0.46	0.082	*0.95*	0.42
Isophorone	NA	NA	NA	NA	NA	0.38 U	0.37 U	0.43 U	0.37 U	0.38 U	0.36 U	0.36 U
Naphthalene	12	100	100	500	12	0.38 U	0.37 U	0.43 U	0.37 U	0.38 U	0.36 U	0.36 U
Nitrobenzene	NA	NA	NA	NA	NA	0.038 U	0.037 U	0.043 U	0.037 U	0.038 U	0.036 U	0.036 U
N-Nitrosodi-n-propylamine	NA	NA	NA	NA	NA	0.038 U	0.037 U	0.043 U	0.037 U	0.038 U	0.036 U	0.036 U
N-Nitrosodiphenylamine	NA	NA	NA	NA	NA	0.38 U	0.37 U	0.43 U	0.37 U	0.38 U	0.36 U	0.36 U
Pentachlorophenol	0.8	2.4	6.7	6.7	0.8	0.76 U	0.76 U	0.88 U	0.75 U	0.77 U	0.72 U	0.74 U
Phenanthrene	100	100	100	500	1,000	0.38 U	0.12 J	0.79	2.3	1.0	2.0	1.4
Phenol	0.33	100	100	500	0.33	0.38 U	0.37 U	0.43 U	0.37 U	0.38 U	0.36 U	0.36 U
Pyrene	100	100	100	500	1,000	0.38 U	0.26 J	1.3	1.9	0.48	3.3	2.3
Pyridine	NA	NA	NA	NA	NA	0.38 U	0.37 U	0.43 U	0.37 U	0.38 U	0.36 U	0.36 U
Total SVOC TICs	NA	NA	NA	NA	NA	0.82	ND	1.849	3.60	ND	ND	1.04

Notes
ND: TIC not detected
J : Indicates an estimated value.
J N : This flag indicates the presumptive evidence of a compound.
U : Analyzed for but not detected.
Highlighted / bolded indicates analyte exceeded above its respective NYSDEC Unrestricted SCO.
Green / italicized value indicates analyte exceeded its respective unrestricted SCO but was below its respective Residential / Protection of GW SCO, whichever is lower.
Blue / italicized value indicates analyte exceeded its respective Residential SCO and / or Protection of Groundwater SCO but was below its Restricted Residential SCO.
Pink / italicized value indicates analyte exceeded its respective Residential SCO and / or Protection of Groundwater SCO but was below its Commercial SCO.

Table 5-46
TAL Metals Soil Analytical Data
Post-excavation End-point Soil Analytical Data - South C1 Area

TAL Metals (mg/kg)	NYSDEC SCOs Unrestricted	NYSDEC SCOs Residential	NYSDEC SCOs Protection of Groundwater	Post-excavation End-point Soil Analytical Data — South C1a Excavation — Side-wall Samples C1a-EP#2 (2')	C1a-EP#3 (5')	C1a-EP#7 (2')	C1a-EP#8 (5')	C1a-EP#9 (2')	C1a-EP#10 (5')	C1a-EP#13 (5')	C1a-EP#14 (2')	C1a-EP#15 (4')	C1a-EP#16 (4')	C1a-EP#17 (4')	C1a-EP#18 (4')	C1a-EP#19 (4')	C1a-EP#20 (4')	C1a-EP#21 (4')	C1a-EP#22 (4')	Bottom Samples C1a-EP#1 (6')	C1a-EP#4 (6')	C1a-EP#5 (6')	C1a-EP#6 (6')	C1a-EP#11 (6')	C1a-EP#12 (6')
Aluminum	NA	NA	NA	9,090	9,610	7,580	7,910	9,050	13,300	11,100	8,680	9,740	9,320	9,120	17,900	8,220	6,780	7,140	11,100	6,080	11,500	8,230	7,970	8,070	8,210
Antimony	NA	NA	NA	1.4 J	1.3 J	4.1 U	4.4 U	3.9 U	26.5 U	1.2 J	4.5 U	4.5 U	4.0 U	3.8 U	0.93 J	3.9 U	4.4 U	3.6 U	3.5 U	4.8 U	4.0 U	4.3 U	4.4 U	4.4 U	4.7 U
Arsenic	13	16	16	8.7	**25.6**	0.79 J	4.2	15.7	**104**	**19.0**	2.7 J	3.1 J	2.8 J	3.1	4.8	2.0 U	2.9 J	2.8	5.3	4.0	9.4	1.1 J	0.95 J	3.2 J	0.99 J
Barium	350	350	820	45.6	71.0	58.2	51.5	104	273	166	47.9	60.3	39.1 J	55.5	104	37.9	29.5 J	25.9 J	51.9	73.0	117	58.1	50.4	84.8	58.1
Beryllium	7.2	14	47	0.17 J	0.43	0.41 U	0.13 J	0.44	3.5	0.24 J	0.19 J	0.43 J	0.25 J	0.34 J	0.86	0.24 J	0.21 J	0.36 U	0.13 J	0.48 U	0.42	0.43 U	0.14 J	0.14 J	0.47 U
Cadmium	2.5	2.5	7.5	0.67 U	**2.5**	0.82 U	0.87 U	0.36 J	5.3 U	0.84 U	0.89 U	0.91 U	0.80 U	0.76 U	0.83 U	0.78 U	0.88 U	0.73 U	0.71 U	0.96 U	0.80 U	0.86 U	0.89 U	0.17 J	0.95 U
Calcium	NA	NA	NA	1,050	3,280	745 J	1,210	1,850	3,790 J	4,960	770 J	1,100 J	757 J	792 J	1,910	1,010	1,700	825 J	1,010	1,840	2,860	833 J	1,010 J	1,260	1,300
Chromium[1]	30	36	NS	15.2	20.5	16.5	16.2	25.6	**35.9**	26.5	16.0	17.1	15.2	18.5	24.0	22.0	13.6	13.3	19.6	13.6	22.9	17.7	17.3	16.5	14.2
Cobalt	NA	NA	NA	4.5 J	5.9 J	4.1 U	4.4 U	4.2 J	19.5	5.4	7.0 J	4.8 J	5.1 J	7.0 J	7.8 J	3.8 J	4.3 J	4.9 J	5.4 J	2.2 J	5.6 J	4.0 J	4.5 J	3.8 J	4.2 J
Copper	50	270	1,720	10.6	34.4	3.3 J	2.1 J	36.1	33.1 U	41.5	8.4	8.6	8.8	12.1	12.7	7.9	9.4	6.8	8.5	14.7	24.1	3.8 J	5.0 J	13.2	7.9
Iron	NA	NA	NA	13,200	18,700	8,700	15,600	26,900	299,000	16,600	13,400	16,800	13,500	16,100	23,500	11,000	11,400	10,100	15,900	6,120	14,900	9,250	9,860	8,990	9,620
Lead	63	400	450	15.4	**117**	5.6	6.5	**526**	26.9	**121**	6.2	25.9	7.4	7.2	19.4	10.3	**65.6**	6.2	8.4	25.2	**90.8**	7.1	6.8	34.4	6.7
Magnesium	NA	NA	NA	2,100	2,260	2,210	2,170	1,820	3,150	3,960	2,100	1,970	2,370	3,080	3,000	1,580	2,050	2,130	2,410	1,230	2,620	2,250	2,430	1,740	2,690
Manganese	1,600	2,000	2,000	214	652	105	133	673	**2,880**	268	196	280	267	151	622	147	179	146	181	85.4	266	134	128	138	110
Nickel	30	140	130	9.2	16.2	8.5	9.4	19.6	**36.4**	11.8	9.5	10.3	10.6	11.7	16.8	6.6 J	8.1 J	10.9	10.9	5.3 J	12.5	8.7	9.6	8.2 J	9.9
Potassium	NA	NA	NA	579 J	606 J	766 J	689 J	464 J	6,630 U	897 J	668 J	754 J	804 J	911 J	677 J	892 J	958 J	478 J	543 J	408 J	665 J	820 J	811 J	539 J	606 J
Selenium	3.9	36	4	3.3 U	2.2 U	4.1 U	4.4 U	3.9 U	26.5 U	4.2 U	4.5 U	4.5 U	4.0 U	3.8 U	4.1 U	3.9 U	4.4 U	3.6 U	3.5 U	4.1 U	0.97 J	4.3 U	4.4 U	4.4 U	4.7 U
Silver	2	36	8.3	1.7 U	2.1 U	2.1 U	2.2 U	1.9 U	13.3 U	0.86 J	2.2 U	2.3 U	2.0 U	1.9 U	2.1 U	2.0 U	2.2 U	1.8 U	1.8 U	2.4 U	2.0 U	2.2 U	2.2 U	0.43 J	2.4 U
Sodium	NA	NA	NA	122 J	115 J	106 J	98.9 J	130 J	6,630 U	156 J	1,120 U	275 J	226 J	946 U	250 J	977 U	1,100 U	912 U	66.2 J	1,200 U	108 J	118 J	112 J	1,110 U	1,180 U
Thallium	NA	NA	NA	3.3 U	4.3 U	4.1 U	4.4 U	3.9 U	9.2 J	4.2 U	4.5 U	4.5 U	4.0 U	3.8 U	4.1 U	3.9 U	4.4 U	3.6 U	3.5 U	4.8 U	4.0 U	4.3 U	4.4 U	4.4 U	4.7 U
Vanadium	NA	NA	NA	20.6	387	11.4	15.9	154	59.4 J	26.0	20.5	20.5	22.2	22.7	29.4	18.5	16.9	15.1	31.9	9.0 J	22.5	12.1	16.4	13.8	12.1
Zinc	109	2,200	2,480	60.8	**245**	35.6	51.6	**758**	**248**	**110**	37.5	31.1	27.2	33.7	46.2	22.3	25.4	16.0	28.6	60.6	82.7	38.2	35.0	56.2	33.9
Mercury	0.18	0.81	0.73	0.031	**1.5**	0.031	0.020 U	0.14	0.11	0.054	0.020	0.017 J	0.043 J	0.020 U	0.046	0.020 U	0.040	0.018 J	0.017 J	0.036	0.025	0.021 U	0.019 U	0.020 U	0.021 U

TAL Metals (mg/kg)	NYSDEC SCOs Unrestricted	NYSDEC SCOs Residential	NYSDEC SCOs Protection of Groundwater	Supplemental Enpoint Samples — Side-wall Samples C1a-EP#23 (2')	C1a-EP#24 (2')	C1a-EP#25 (6')	C1a-EP#26 (2')	C1a-EP#27 (6')	C1a-EP#29 (6')	C1a-EP#30 (5')	C1a-EP#32 (2')	C1a-EP#33 (2')	Post-excavation End-point Soil Analytical Data — Supplemental Endpoint Samples — Side-wall Samples C1a-EP#34 (4')	C1a-EP#35 (4')	C1a-EP#36 (4')	C1a-EP#37 (4')	C1a-EP#38 (4')	C1a-EP#38 BD (10')	C1a-EP#39 (4')	C1a-EP#40 (4')	C1a-EP#41 (4')	C1a-EP#42 (42')	Supplemental Endpoint Samples — Side-wall Samples C1a-EP#43 (4')	C1a-EP#44 (4')	C1a-EP#45 (4')	C1a-EP#46 (4')
Aluminum	NA	NA	NA	6,100	2,050	28,100	16,100	12,100	19,800	6,420	9,850	8,230	3,780	16,100	11,800	10,300	12,100	2,150	11,400	12,100	6,240	6,840	6,540	11,500	9,800	9,400
Antimony	NA	NA	NA	3.6 U	3.0 U	12.2 U	4.2 U	10.9 U	5.9 U	3.5 U	4.0 U	4.0 U	3.7 U	1.4 J	4.1 U	1.7 J	0.64 J	4.6 U	0.69 J	1.1 J	4.6 U	1.2 J	48.2 U	50.1 U	4.9 U	5.7 U
Arsenic	13	16	16	1.6 J	1.5 J	**33.7**	2.9 J	56.4	**14.8**	5.0	5.4	**17.4**	10.5	10.9	7.8	12.3	25.6	2.0 J	**17.6**	**13.6**	3.9	**14.5**	**105**	**111**	**17.7**	**35.9**
Barium	350	350	820	24.8 J	27.1 J	74.1 J	57.0 J	456	200	50.7	54.4	57.2	55.5	85.2	57.3	95.4	57.3	13.2 J	65.4	66.7	51.9	115	**604**	**511**	74.6	128
Beryllium	7.2	14	47	0.34 J	0.13 J	1.9	0.42	1.2	1.3	0.29 J	0.39 J	0.43	0.30 J	0.58	0.43	0.52	0.68	0.14 J	0.64	0.48	0.36 J	0.33 J	0.70	1.9	1.4	1.2
Cadmium	2.5	2.5	7.5	0.73 U	0.59 U	2.4 U	0.84 U	4.4 U	1.2 U	0.69 U	0.80 U	0.14 J	0.74 U	0.96 U	0.82 U	0.80 U	0.93 U	0.15 J	0.89 U	0.91 U	0.91 U	0.86 U	9.6 U	10.0 U	0.97 U	1.1 U
Calcium	NA	NA	NA	351 J	327 J	4,260	6,750	5,350	3,480	29,000	53,100	12,400	652 J	1,390	1,270	1,710	1,420	344 J	1,410	1,200	800 J	16,200	34,300	6,390 J	3,170	9,380
Chromium[1]	30	36	NS	8.9	3.8	**36.3**	20.8	28.0	**32.8**	13.1	9.9	23.9	8.1	20.8	21.3	20.9	21.5	6.0	21.5	23.9	12.0	18.6	16.2 J	**32.4**	21.1	20.4
Cobalt	NA	NA	NA	2.5 J	1.6 J	11.1 J	4.4 J	30.7	17.7	5.1 J	2.9 J	4.8 J	3.5 J	15.5 J	5.4 J	6.2 J	7.0 J	1.9 J	6.1 J	5.6 J	4.0 J	4.6 J	24.4 J	33.1 J	5.3 J	10.7 J
Copper	50	270	1,720	3.6 J	8.2	14.8 J	12.6	12.0 J	23.5	9.1	13.0	41.5	21.0	15.9	13.2	16.3	17.5	4.5 J	14.3	17.0	9.3	39.6	14.5 J	62.6 U	4.8 J	4.5 J
Iron	NA	NA	NA	6,390	4,700	118,000	18,200	140,000	36,600	11,000	8,560	12,000	12,500	18,900	16,600	24,100	31,300	7,950	38,200	17,200	10,800	12,200	264,000	210,000	91,600	114,000
Lead	63	400	450	4.4	20.2	**80.7**	9.9	**101**	**85.5**	25.7	27.5	**110**	36.2	**532**	11.4	30.4	20.3	2.0 J	27.6	30.8	13.3	**115**	29.4	47.5	7.8	12.8
Magnesium	NA	NA	NA	1,040	447 J	2,650 J	6,180	4,080	2,410	11,800	4,560	4,050	1,040	2,470	2,900	2,410	2,820	548 J	2,260	2,960	1,540	8,680	16,000	11,200	1,740	2,260 J
Manganese	1,600	2,000	2,000	92	76	270	280	2,180	536	564	172	221	225	810	380	1,310	634	177	575	271	213	235	**4,750**	**3,280**	**2,100**	**2,460**
Nickel	30	140	130	6.0 J	3.9 J	27.0	11.4	13.3 J	19.5	8.7	7.1 J	10.4	8.6 B	12.4 B	11.7 B	10.3 B	13.0 B	3.3 J B	10.8 B	12.8 B	7.4 J B	10 B	11.0 J	9.9 J	7.5 J	7.2 J
Potassium	NA	NA	NA	269 J	209 J	936 J	998 J	364 J	825 J	695 J	611 J	753 J	399 J	750 J	1,010 J	819 J	909 J	285 J	774 J	1,070 J	606 J	742 J	613 J	392 J	755 J	704 J
Selenium	3.9	36	4	3.6 U	3.0 U	12.2 U	4.2 U	10.9 U	5.9 U	3.5 U	4.0 U	4.0 U	3.7 U	4.8 U	4.1 U	4.0 U	4.7 U	4.6 U	4.5 U	4.5 U	4.6 U	4.3 U	15.1 J	50.1 U	3.6 J	4.1 J
Silver	2	36	8.3	1.8 U	0.75 J	6.1 U	2.1 U	5.4 U	3.0 U	1.7 U	2.0 U	2.0 U	1.9 U	2.4 U	2.0 U	2.0 U	2.3 U	2.3 U	2.2 U	2.3 U	2.3 U	0.21 J	24.1 U	25.1 U	0.26 J	0.24 J
Sodium	NA	NA	NA	907 U	61.4 J	542 J	192 J	2,700 U	37.3 J	135 J	783 J	99 J	921 U	2,400 U	1,000 U	130 J	140 J	1,150 U	280 J	287 J	1,140 U	1,400 U	12,100 U	12,500 U	235 J	175 J
Thallium	NA	NA	NA	3.6 U	3.0 U	12.2 U	4.2 U	10.9 U	5.9 U	3.5 U	4.0 U	4.0 U	3.7 U	4.8 U	4.1 U	4.0 U	4.7 U	4.6 U	4.5 U	4.5 U	4.6 U	4.3 U	48.2 U	50.1 U	4.9 U	5.7 U
Vanadium	NA	NA	NA	10.2	8.2	68.7	25.6	39.9	35.1	18.3	14.0	21.6	17.4	24.4	26.1	26.6	28.1	6.0 J	27.0	30.3	15.4	19.5	31.3 J	47.9 J	26.2	26.0
Zinc	109	2,200	2,480	12.8	24.5	**185**	29.4	**125**	**171**	31.8	40.6	**120**	69.9	74.4	37.9	54.2	50.4	13.8	42.4	50.4	26.7	80.3	**115**	91.5	68.2	78.3
Mercury	0.18	0.81	0.73	0.019	0.054	0.14	0.020	0.16	**0.24**	0.083	0.065	0.073	0.016 J	0.11	0.042	0.036	0.12	0.020 U	0.020 U	0.053	0.014 J	0.035	0.036	0.069	0.053	0.025

Notes
J : Sample result is greater than the MDL but below the CRDL
U : Indicates analyzed for but not detected.
[1] Trivalent chromium SCOs utilized.
Highlighted / bolded indicates analyte exceeded above its respective NYSDEC Unrestricted SCO.
Green / italicized value indicates analyte exceeded its respective unrestricted SCO but was below its respective Residential / Protection of GW SCO, whichever is lower.
NA - Not Available
NS - No Standard Available
Indicates that sample locations were removed as part of supplemental soil excavation activities.

Table 5-46
TAL Metals Soil Analytical Data
Post-excavation End-point Soil Analytical Data - South C1 Area

TAL Metals (mg/kg)	NYSDEC SCOs Unrestricted	Residential	Restricted Residential	Commercial	Protection of Groundwater	Post-excavation End-point Soil Analytical Data — South C1 Area — Co-located Bottom and Sidewall Samples: C1a-EP#47 (4')	C1a-EP#48 (4')	C1a-EP#49 (2')	C1a-EP#50 (2')	C1a-EP#51 (2')	C1a-EP#52 (2')	C1a-EP#53 (2')	C1a-EP#54 (4')	C1a-EP#55 (4')	C1a-EP#56 (4')	C1a-EP#57 (4')	C1a-EP#58 (4')	C1a-EP#59 (4')	C1a-EP#60 (4')	C1a-EP#61 (4')	C1a-EP#61 (1')	C1a-EP#62 (4')	C1a-EP#62 (1')	C1a-EP#63 (4')	C1a-EP#63 (1')	C1a-EP#64 (4')	C1a-EP#64 (1')	C1a-EP#65 (4')
Aluminum	NA	NA	NA	NA	NA	8,810	7,280	12,300	12,800	11,000	5,980	5,610	5,010	7,120	9,390	10,300	6,690	7,110	7,080	8,480	4,370	4,600	3,280	8,170	7,800	9,240	2,290	9,210
Antimony	NA	NA	NA	NA	NA	4.3 U	4.5 U	5.2 U	4.0 U	4.6 U	4.2 U	4.4 U	4.1 U	27.5 J	22.6 J	27.8 J	10.6 U	4.3 U	4.0 U	3.3 U	3.6 U	3.4 U	3.4 U	3.8 U	3.9 U	3.7 U	3.3 U	3.6 U
Arsenic	13	16	16	16	16	3.1 J	3.2 J	3.4 J	3.6	3.1 J	2.2 J	1.9 J	3.8	54.9	34.1	18.1 J	7.3 J	1.7 J	3	2.4 J	2.5 U	1.0 J	7.1	1.1 J	1.2 J	2.9 J	6.8	0.67 J	4.3
Barium	350	350	400	400	820	34.8 J	33.3 J	71.6	74.5	70.4	30.0 J	29.1 J	41.3	86.8 J	241	109 J	44.5 J	33.5 J	45.8	48.3	13.9 J	39.1	13.9 J	45.9	37.1 J	53.1	9.1 J	60.7
Beryllium	7.2	14	72	590	47	0.31 J	0.45 U	0.63	0.68	0.62	0.32 J	0.33 J	0.41 U	2.2 U	2.3 U	2.5 U	0.72 J	0.37 J	0.34 J	0.33 U	0.36 U	0.34 U	0.34 U	0.38 U	0.36 J	0.34 J	0.33 U	0.36 U
Cadmium	2.5	2.5	4.3	9.3	7.5	0.85 U	0.90 U	1.0 U	0.80 U	0.92 U	0.83 U	0.87 U	0.81 U	4.5 U	4.5 U	5.0 U	2.1 U	0.85 U	0.81 U	0.67 U	0.73 U	0.67 U	0.68 U	0.76 U	0.79 U	0.75 U	0.65 U	0.72 U
Calcium	NA	NA	NA	NA	NA	798 J	1,590	1,720	1,530	1,140 J	566 J	574 J	575 J	1,760 J	1,880 J	1,790 J	1,020 J	824 J	890 J	933	1,780	560 J	510 J	941 J	1,760	943	234 J	4,870
Chromium[1]	30	36	180	1,500	NS	13.9	16.9	18.8	17.8	17.1	10.7	11.1	12.1	17.8	27.2	29.0	17.2	12.7	14.3	16.4	6.7	10.3	6.0	17.5	15.1	19.1	3.8	52.0
Cobalt	NA	NA	NA	NA	NA	5.3 J	3.6 J	6.2 J	6.8 J	5.8 J	4.1 J	4.9 J	4.5 J	7.9 J	15.4 J	7.8 J	3.7 J	5.1 J	4.5 J	5.1 J	3.6 J	2.5 J	2.2 J	4.1 J	6.1 J	7.1 J	1.5 J	5.9 J
Copper	50	270	270	270	1,720	6.8	8.7	9.9	8.5	9.1	6.2	6.4	9.0	28.1 J	40.5 J	31.0 J	13.2 J	7.9	8.8	2.4 J	6.1	4.2 U	3.5 J	2.2 J	11.8	2.9 J	3.1 J	3.9 J
Iron	NA	NA	NA	NA	NA	14,800	13,900	16,600	17,000	14,500	10,200	8,720	10,900	192,000	169,000	141,000	56,300	11,100	11,700	10,400	7,390	23,900	5,480	21,100	15,300	52,000	3,740	29,400
Lead	63	400	400	1,000	450	5.5	9.8	21.6	25.5	21.1	16.9	22.0	8.8	4.9 J	7.0 J	9.0 J	5.8	4.7	18.6	6.0	2.8	1.1 J	3.7	3.7	28.0	3.2	2.2	4.6
Magnesium	NA	NA	NA	NA	NA	2,000	1,710	2,220	2,230	2,100	1,240	1,400	1,510	1,480 J	1,350 J	1,210 J	1,060 J	2,040	1,840	2,270	1,610	1,180	844 J	2,160	2,810	1,910	499 J	5,320
Manganese	1,600	2,000	2,000	10,000	2,000	277	218	382	523	344	300	73.0	516	1,350	4,180	1,350	260	203	201	83.6	150	142	103	120	255	291	54.8	650
Nickel	30	140	310	310	130	8.9	6.8 J	12.1	12.8	11.5	7.6 J	7.0 J	8.4	45.0 U	11.2 J	11.2 J	5.8 J	7.7 J	7.5 J	9.4	8.6	5.1 J	4.4 J	9.8	14.7	11.9	2.7 J	20.5
Potassium	NA	NA	NA	NA	NA	656 J	820 J	673 J	431 J	437 J	350 J	513 J	520 J	412 J	595 J	529 J	329 J	839 J	746 J	932	395 J	443 J	318 J	733 J	1,230	711 J	189 J	1,270
Selenium	3.9	36	180	1,500	4	4.3 U	1.5 J	2.0 J	1.4 J	4.6 U	1.4 J	4.4 U	4.1 U	22.5 U	22.6 U	24.8 U	10.6 U	4.3 U	4.0 U	3.3 U	3.6 U	3.4 U	3.4 U	3.8 U	3.9 U	3.7 U	3.3 U	3.6 U
Silver	2	36	180	1,500	8.3	2.1 U	2.2 U	2.6 U	2.0 U	2.3 U	2.1 U	2.2 U	2.0 U	11.2 U	2.8 J	12.4 U	5.3 U	2.1 U	2.0 U	1.7 U	1.8 U	1.7 U	1.7 U	1.9 U	2.0 U	1.9 U	1.6 U	0.35 J
Sodium	NA	NA	NA	NA	NA	1,060 U	1,120 U	1,300 U	1,000 U	1,150 U	1,040 U	1,090 U	1,010 U	5,620 U	5,660 U	6,200 U	2,640 U	93 J	77 J	126 J	910 U	112 J	847 U	158 J	984 U	204 J	815 U	316 J
Thallium	NA	NA	NA	NA	NA	4.3 U	4.5 U	5.2 U	4.0 U	4.6 U	4.2 U	4.4 U	4.1 U	22.5 U	22.6 U	24.8 U	10.6 U	4.3 U	4.0 U	3.3 U	3.6 U	3.4 U	3.4 U	3.8 U	3.9 U	3.7 U	3.3 U	3.6 U
Vanadium	NA	NA	NA	NA	NA	19.1	18.1	23.1	21.7	20.6	12.8	13.6	13.0	19.6 J	25.7 J	24.9 J	27.9	16.3	17.8	12.7	9.1	9.5	7.8 J	15.9	17.7	24.2	4.6 J	20.5
Zinc	109	2,200	10,000	10,000	2,480	22.2	21.5	35.4	34.1	31.3	21.9	20.4	31.6	57.2	87.4	120	50.5	20.7	31.0	29.8	12.5	16.2	12.3	31.6	29.2	37.5	7.6	30.3
Mercury	0.18	0.81	0.81	2.8	0.73	0.019 U	0.018 J	0.028	0.016 J	0.045	0.021	0.018 U	0.018 U	0.019 U	0.022	0.021	0.019 U	0.019 U	0.019 U	0.015 J	0.017 J	0.017 U	0.017 U	0.018 J	0.020 J	0.016 J	0.017 U	0.013 J

TAL Metals (mg/kg)	NYSDEC SCOs Unrestricted	Residential	Restricted Residential	Commercial	Protection of Groundwater	Post-excavation End-point Soil Analytical Data — South C1 Area — Co-located Bottom and Sidewall Samples: C1a-EP#65 (1')	C1a-EP#66 (4')	C1a-EP#66 (1')	C1a-EP#67 (8')	C1a-EP#68 (8')	C1a-EP#69 (8')	C1a-EP#70 (8')
Aluminum	NA	NA	NA	NA	NA	2,930	6,940	10,300	2,260	2,090	5,390	5,440
Antimony	NA	NA	NA	NA	NA	3.4 U	3.6 U	4.7	3.5 U	3.5 U	3.6 U	3.5 U
Arsenic	13	16	16	16	16	2.2 J	4.8	15.7	23.1	2.6 U	4.0	7.2
Barium	350	350	400	400	820	14.7 J	52.2	79.8	88.7	104	45.4	50.1
Beryllium	7.2	14	72	590	47	0.37	0.36 U	0.40 J	0.35 U	0.35 U	0.36 U	0.35 U
Cadmium	2.5	2.5	4.3	9.3	7.5	0.68 U	0.71 U	0.83 U	0.70 U	0.70 U	0.71 U	0.70 U
Calcium	NA	NA	NA	NA	NA	263 J	2,070	41,200	770 J	504 J	4,730	11,300
Chromium[1]	30	36	180	1,500	NS	5.2	13.6	18.9	9.0	7.0	11.0	12.0
Cobalt	NA	NA	NA	NA	NA	2.4 J	4.6 J	7.3 J	2.7 J	1.7 J	3.6 J	4.2 J
Copper	50	270	270	270	1,720	5.3	3.3 J	14.5	4.4 U	1.5 J	3.0 J	5.0
Iron	NA	NA	NA	NA	NA	6,300	23,600	22,200	57,100	8,160	18,900	28,900
Lead	63	400	400	1,000	450	4.0	6.4	46.6	4.4 U	0.94 J	5.2	4.1
Magnesium	NA	NA	NA	NA	NA	472 J	2,140	23,500	762 J	667 J	3,340	7,130
Manganese	1,600	2,000	2,000	10,000	2,000	70.3	977	1,600	1,080	3,100	449	575
Nickel	30	140	310	310	130	3.9 J	7.2	11.3	3.9 J	2.7 J	6.3 J	7.2
Potassium	NA	NA	NA	NA	NA	186 J	585 J	540 J	369 J	225 J	806 J	780 J
Selenium	3.9	36	180	1,500	4	3.4 U	3.6 U	4.2 U	8.8 U	3.5 U	3.6 U	3.5 U
Silver	2	36	180	1,500	8.3	1.7 U	0.53 J	0.92 J	0.62 J	1.5 J	1.8 U	1.7 U
Sodium	NA	NA	NA	NA	NA	853 U	147 J	353 J	877 U	872 U	110 J	118 J
Thallium	NA	NA	NA	NA	NA	3.4 U	3.6 U	4.2 U	3.5 U	3.5 U	3.6 U	3.5 U
Vanadium	NA	NA	NA	NA	NA	7.0 J	14.2	27.4	8.2 J	3.3 J	12.2	14.5
Zinc	109	2,200	10,000	10,000	2,480	12.9	29.5	58.4	12.9	8.1	22.6	22.5
Mercury	0.18	0.81	0.81	2.8	0.73	0.015 J	0.019 U	0.13	0.017 U	0.017 U	0.018	0.013 J

Notes
J : Sample result is greater than the MDL but below the CRDL
U : Indicates analyzed for but not detected.
[1] Trivalent chromium SCOs utilized.
Highlighted / bolded indicates analyte exceeded above its respective NYSDEC Commercial SCO.
Green / italicized value indicates analyte exceeded its respective unrestricted SCO but was below its respective Residential / Protection of GW SCO, whichever is lower.
Blue / italicized value indicates analyte exceeded its respective Residential SCOs and / or Protection of Groundwater SCO but was below its Restricted Residential SCO.
Pink / italicized value indicates analyte exceeded its respective Residential SCOs and / or Protection of Groundwater SCO but was below its Commercial SCO.
NA - Not Available
NS - No Standard Available
Indicates that sample locations were removed as part of supplemental soil excavation activities.

Table 5-47
C1 South Alleyway Area
Confirmatory, Port-Excavation TCL SVOC Soil Analytical Data

	NYSDEC SCOs					Former C1 South Alleyway Area - Confirmatory Post-Exacation Soil Samples														
						Side-wall Samples														
TCL SVOCs (mg/kg)	NYSDEC Unrestricted SCO	Residential	Restricted Residential	Commercial	Protection of Groundwater	C1-EP#2 (7.5')	C1-EP#3 (7.5')	C1-EP#5 (7.5')	C1-EP#6 (7.5')	C1-EP#8 (7.5')	C1-EP#9 (7.5')	C1-EP#11 (7.5')	C1-EP#12 (7.5')	C1-EP#14 (7.5')	C1-EP#16 (4.5')	C1-EP#17 (7.5')	C1-EP#19 (4')	C1-EP#21 (1')	C1-EP#22 (4')	C1-EP#24 (2')
1,2,4,5-Tetrachlorobenzene	NA	NA	NA	NA	NA	0.35 U R	0.34 U R	0.35 U R	0.35 U R	0.38 U R	0.38 U R	0.35 U R	0.35 U R	0.34 U R	0.36 U R	0.36 U R	0.37 U	3.6 U	2.4 U	0.34 U
1,4-Dioxane	0.1	9.8	13	130	0.1	0.35 U	0.34 U	0.35 U	0.35 U	0.38 U	0.38 U	0.35 U	0.35 U	0.34 U	0.36 U	0.36 U	0.37 U	3.6 U	2.4 U	0.34 U
2,2'-oxybis[1-chloropropane]	NA	NA	NA	NA	NA	0.35 U	0.34 U	0.35 U	0.35 U	0.38 U	0.38 U	0.35 U	0.35 U	0.34 U	0.36 U	0.36 U	0.37 U	3.6 U	2.4 U	0.34 U
2,3,4,6-Tetrachlorophenol	NA	NA	NA	NA	NA	0.35 U R	0.34 U R	0.35 U	0.35 U	0.38 U	0.38 U	0.35 U	0.35 U	0.34 U	0.36 U	0.36 U R	0.37 U	3.6 U	2.4 U	0.34 U
2,4,5-Trichlorophenol	NA	NA	NA	NA	NA	0.35 U	0.34 U	0.35 U	0.35 U	0.38 U	0.38 U	0.35 U	0.35 U	0.34 U	0.36 U	0.36 U	0.37 U	3.6 U	2.4 U	0.34 U
2,4,6-Trichlorophenol	NA	NA	NA	NA	NA	0.35 U	0.34 U	0.35 U	0.35 U	0.38 U	0.38 U	0.35 U	0.35 U	0.34 U	0.36 U	0.36 U	0.37 U	3.6 U	2.4 U	0.34 U
2,4-Dichlorophenol	NA	NA	NA	NA	NA	0.35 U	0.34 U	0.35 U	0.35 U	0.38 U	0.38 U	0.35 U	0.35 U	0.34 U	0.36 U	0.36 U	0.37 U	3.6 U	2.4 U	0.34 U
2,4-Dimethylphenol	NA	NA	NA	NA	NA	0.35 U	0.34 U	0.35 U	0.35 U	0.38 U	0.38 U	0.35 U	0.35 U	0.34 U	0.36 U	0.36 U	0.37 U	3.6 U	2.4 U	0.34 U
2,4-Dinitrophenol	NA	NA	NA	NA	NA	1.1 U	1.0 U	1.1 U	1.1 U	1.2 U	1.2 U	1.1 U	1.1 U	1.0 U	1.1 U	1.1 U	1.1 U R	11 U R	7.2 U R	1.0 U R
2,4-Dinitrotoluene	NA	NA	NA	NA	NA	0.071 U	0.069 U	0.071 U	0.072 U	0.077 U	0.078 U	0.071 U	0.071 U	0.070 U	0.072 U	0.073 U	0.074 U	0.73 U	0.48 U	0.069 U
2,6-Dinitrotoluene	NA	NA	NA	NA	NA	0.071 U	0.069 U	0.071 U	0.072 U	0.077 U	0.078 U	0.071 U	0.071 U	0.070 U	0.072 U	0.073 U	0.074 U	0.73 U	0.48 U	0.069 U
2-Chloronaphthalene	NA	NA	NA	NA	NA	0.35 U	0.34 U	0.35 U	0.35 U	0.38 U	0.38 U	0.35 U	0.35 U	0.34 U	0.36 U	0.36 U	0.37 U	3.6 U	2.4 U	0.34 U
2-Chlorophenol	NA	NA	NA	NA	NA	0.35 U	0.34 U	0.35 U	0.35 U	0.38 U	0.38 U	0.35 U	0.35 U	0.34 U	0.36 U	0.36 U	0.37 U	3.6 U	2.4 U	0.34 U
2-Methylnaphthalene	NA	NA	NA	NA	NA	0.35 U	0.34 U	0.35 U	0.35 U	0.38 U	0.38 U	0.35 U	0.35 U	0.34 U	0.36 U	0.36 U	0.0058 J	3.6 U	2.4 U	0.0058 J
2-Methylphenol	0.33	100	100	500	0.33	0.35 U	0.34 U	0.35 U	0.35 U	0.38 U	0.38 U	0.35 U	0.35 U	0.34 U	0.36 U	0.36 U	0.37 U	3.6 U	2.4 U	0.34 U
2-Nitroaniline	NA	NA	NA	NA	NA	0.71 U	0.69 U	0.71 U	0.72 U	0.77 U	0.78 U	0.71 U	0.71 U	0.70 U	0.72 U	0.73 U	0.74 U	7.3 U	4.8 U	0.69 U
2-Nitrophenol	NA	NA	NA	NA	NA	0.35 U	0.34 U	0.35 U	0.35 U	0.38 U	0.38 U	0.35 U	0.35 U	0.34 U	0.36 U	0.36 U	0.37 U	3.6 U	2.4 U	0.34 U
3,3'-Dichlorobenzidine	NA	NA	NA	NA	NA	0.71 U	0.69 U	0.71 U	0.72 U	0.77 U	0.78 U	0.71 U	0.71 U	0.70 U	0.72 U	0.73 U	0.74 U	7.3 U	4.8 U	0.69 U
3-Nitroaniline	NA	NA	NA	NA	NA	0.71 U	0.69 U	0.71 U	0.72 U	0.77 U	0.78 U	0.71 U	0.71 U	0.70 U	0.72 U	0.73 U	0.74 U	7.3 U	4.8 U	0.69 U
4,6-Dinitro-2-methylphenol	NA	NA	NA	NA	NA	1.1 U	1.0 U	1.1 U	1.1 U	1.2 U	1.2 U	1.1 U	1.1 U	1.0 U	1.1 U	1.1 U	1.1 U R	11 U R	7.2 U R	1.0 U R
4-Bromophenyl phenyl ether	NA	NA	NA	NA	NA	0.35 U	0.34 U	0.35 U	0.35 U	0.38 U	0.38 U	0.35 U	0.35 U	0.34 U	0.36 U	0.36 U	0.37 U	3.6 U	2.4 U	0.34 U
4-Chloro-3-methylphenol	NA	NA	NA	NA	NA	0.35 U	0.34 U	0.35 U	0.35 U	0.38 U	0.38 U	0.35 U	0.35 U	0.34 U	0.36 U	0.36 U	0.37 U	3.6 U	2.4 U	0.34 U
4-Chloroaniline	NA	NA	NA	NA	NA	0.35 U	0.34 U	0.35 U	0.35 U	0.38 U	0.38 U	0.35 U	0.35 U	0.34 U	0.36 U	0.36 U	0.37 U	3.6 U	2.4 U	0.34 U
4-Chlorophenyl phenyl ether	NA	NA	NA	NA	NA	0.35 U	0.34 U	0.35 U	0.35 U	0.38 U	0.38 U	0.35 U	0.35 U	0.34 U	0.36 U	0.36 U	0.37 U	3.6 U	2.4 U	0.34 U
4-Methylphenol	0.33	34	100	500	0.33	0.35 U	0.34 U	0.35 U	0.35 U	0.38 U	0.38 U	0.35 U	0.35 U	0.34 U	0.36 U	0.36 U	0.37 U	3.6 U	2.4 U	0.34 U
4-Nitroaniline	NA	NA	NA	NA	NA	0.71 U	0.69 U	0.71 U	0.72 U	0.77 U	0.78 U	0.71 U	0.71 U	0.70 U	0.72 U	0.73 U	0.74 U	7.3 U	4.8 U	0.69 U
4-Nitrophenol	NA	NA	NA	NA	NA	1.1 U	1.0 U	1.1 U	1.1 U	1.2 U	1.2 U	1.1 U	1.1 U	1.0 U	1.1 U	1.1 U	1.1 U	11 U	7.2 U	1.0 U
Acenaphthene	20	100	100	500	98	0.35 U	0.34 U	0.35 U	0.35 U	0.38 U	0.38 U	0.35 U	0.35 U	0.34 U	0.36 U	0.36 U	0.37 U	3.6 U	2.4 U	0.34 U
Acenaphthylene	100	100	100	500	107	0.35 U	0.34 U	0.35 U	0.35 U	0.38 U	0.38 U	0.35 U	0.35 U	0.34 U	0.36 U	0.36 U	0.37 U	3.6 U	2.4 U	0.34 U
Acetophenone	NA	NA	NA	NA	NA	0.35 U	0.34 U	0.35 U	0.35 U	0.38 U	0.38 U	0.35 U	0.35 U	0.34 U	0.36 U	0.36 U	0.37 U	3.6 U	2.4 U	0.34 U
Anthracene	100	100	100	500	1,000	0.35 U	0.34 U	0.35 U	0.35 U	0.38 U	0.38 U	0.35 U	0.35 U	0.052 J	0.36 U	0.36 U	0.37 U	0.14 J B	2.4 U	0.34 U
Atrazine	NA	NA	NA	NA	NA	0.35 U	0.34 U	0.35 U	0.35 U	0.38 U	0.38 U	0.35 U	0.35 U	0.34 U	0.36 U	0.36 U	0.37 U	3.6 U	2.4 U	0.34 U
Benzaldehyde	NA	NA	NA	NA	NA	0.35 U	0.34 U	0.35 U	0.35 U	0.38 U	0.38 U	0.35 U	0.35 U	0.34 U	0.36 U	0.36 U	0.37 U	3.6 U	2.4 U	0.34 U
Benzo[a]anthracene	1	1	1	5.6	1	0.035 U	0.034 U	0.035 U	0.035 U	0.038 U	0.038 U	0.035 U	0.035 U	0.25	0.036 U	0.036 U	0.043 B	0.36 U	0.24 U	0.034 U
Benzo[a]pyrene	1	1	1	1	22	0.035 U	0.034 U	0.035 U	0.035 U	0.038 U	0.038 U	0.035 U	0.035 U	0.27	0.036 U	0.036 U	0.040 B	0.66 B	0.46 B	0.022 J B
Benzo[b]fluoranthene	1	1	1	5.6	1.7	0.035 U	0.034 U	0.035 U	0.035 U	0.038 U	0.038 U	0.035 U	0.035 U	0.36	0.036 U	0.036 U	0.059	0.93	0.24 U	0.035
Benzo[g,h,i]perylene	100	100	100	500	1,000	0.35 U	0.34 U	0.35 U	0.35 U	0.38 U	0.38 U	0.35 U	0.35 U	0.13 J	0.36 U	0.36 U	0.048 J	0.63 J	2.4 U	0.077 J
Benzo[k]fluoranthene	0.8	1	3.9	56	1.7	0.035 U	0.034 U	0.035 U	0.035 U	0.038 U	0.038 U	0.035 U	0.035 U	0.14	0.036 U	0.036 U	0.022 J	0.46	0.24 U	0.014 J
Bis(2-chloroethoxy)methane	NA	NA	NA	NA	NA	0.35 U	0.34 U	0.35 U	0.35 U	0.38 U	0.38 U	0.35 U	0.35 U	0.34 U	0.36 U	0.36 U	0.37 U	3.6 U	2.4 U	0.34 U
Bis(2-chloroethyl)ether	NA	NA	NA	NA	NA	0.035 U	0.034 U	0.035 U	0.035 U	0.038 U	0.038 U	0.035 U	0.035 U	0.034 U	0.036 U	0.036 U	0.037 U	0.36 U	0.24 U	0.034 U
Bis(2-ethylhexyl) phthalate	NA	NA	NA	NA	NA	0.35 U	0.34 U	0.35 U	0.35 U	0.38 U	0.38 U	0.35 U	0.35 U	0.34 U	0.36 U	0.36 U	0.37 U	3.6 U	2.4 U	0.34 U
Butyl benzyl phthalate	NA	NA	NA	NA	NA	0.35 U	0.34 U	0.35 U	0.35 U	0.38 U	0.38 U	0.35 U	0.35 U	0.34 U	0.36 U	0.36 U	0.37 U	3.6 U	2.4 U	0.34 U
Caprolactam	NA	NA	NA	NA	NA	0.35 U	0.34 U	0.35 U	0.35 U	0.38 U	0.38 U	0.35 U	0.35 U	0.34 U	0.36 U	0.36 U	0.37 U	3.6 U	2.4 U	0.34 U
Carbazole	NA	NA	NA	NA	NA	0.35 U	0.34 U	0.35 U	0.35 U	0.38 U	0.38 U	0.35 U	0.35 U	0.34 U	0.36 U	0.36 U	0.37 U	3.6 U	2.4 U	0.34 U
Chrysene	1	1	3.9	56	1	0.35 U	0.34 U	0.35 U	0.35 U	0.38 U	0.38 U	0.35 U	0.35 U	0.27 J	0.36 U	0.36 U	0.051 J B	0.78 J B	2.4 U	0.018 J B
Dibenz(a,h)anthracene	0.33	0.33	0.33	0.56	1,000	0.035 U	0.034 U	0.035 U	0.035 U	0.038 U	0.038 U	0.035 U	0.035 U	0.034	0.036 U	0.036 U	0.018 J	0.20 J	0.24 U	0.034 U
Dibenzofuran	7	14	59	350	210	0.35 U	0.34 U	0.35 U	0.35 U	0.38 U	0.38 U	0.35 U	0.35 U	0.34 U	0.36 U	0.36 U	0.37 U	3.6 U	2.4 U	0.34 U
Diethyl phthalate	NA	NA	NA	NA	NA	0.35 U	0.34 U	0.35 U	0.35 U	0.38 U	0.38 U	0.35 U	0.35 U	0.34 U	0.36 U	0.36 U	0.37 U	3.6 U	2.4 U	0.34 U
Dimethyl phthalate	NA	NA	NA	NA	NA	0.35 U	0.34 U	0.35 U	0.35 U	0.38 U	0.38 U	0.35 U	0.35 U	0.34 U	0.36 U	0.36 U	0.37 U	3.6 U	2.4 U	0.34 U
Di-n-butyl phthalate	NA	NA	NA	NA	NA	0.048 J	0.050 J	0.050 J	0.045 J	0.048 J	0.056 J	0.35 U	0.35 U	0.34 U	0.36 U	0.36 U	0.37 U	3.6 U	2.4 U	0.34 U
Di-n-octyl phthalate	NA	NA	NA	NA	NA	0.35 U	0.34 U	0.35 U	0.35 U	0.38 U	0.38 U	0.35 U	0.35 U	0.34 U	0.36 U	0.36 U	0.37 U	3.6 U	2.4 U	0.34 U
Diphenyl	NA	NA	NA	NA	NA	0.35 U	0.34 U	0.35 U	0.35 U	0.38 U	0.38 U	0.35 U	0.35 U	0.34 U	0.36 U	0.36 U	0.37 U	3.6 U	2.4 U	0.34 U
Fluoranthene	100	100	100	500	1,000	0.35 U	0.34 U	0.35 U	0.35 U	0.38 U	0.38 U	0.35 U	0.35 U	0.41	0.36 U	0.36 U	0.038 J	0.96 J	2.4 U	0.013 J
Fluorene	30	100	100	500	386	0.35 U	0.34 U	0.35 U	0.35 U	0.38 U	0.38 U	0.35 U	0.35 U	0.34 U	0.36 U	0.36 U	0.37 U	3.6 U	2.4 U	0.34 U
Hexachlorobenzene	0.33	0.33	1.2	6	3.2	0.035 U	0.034 U	0.035 U	0.035 U	0.038 U	0.038 U	0.035 U	0.035 U	0.034 U	0.036 U	0.036 U	0.037 U	0.36 U	0.24 U	0.034 U
Hexachlorobutadiene	NA	NA	NA	NA	NA	0.071 U	0.069 U	0.071 U	0.072 U	0.077 U	0.078 U	0.071 U	0.071 U	0.070 U	0.072 U	0.073 U	0.074 U	0.73 U	0.48 U	0.069 U
Hexachlorocyclopentadiene	NA	NA	NA	NA	NA	0.35 U	0.34 U	0.35 U	0.35 U	0.38 U	0.38 U	0.35 U	0.35 U	0.34 U	0.36 U	0.36 U	0.37 U R	3.6 U R	2.4 U R	0.34 U R
Hexachloroethane	NA	NA	NA	NA	NA	0.035 U	0.034 U	0.035 U	0.035 U	0.038 U	0.038 U	0.035 U	0.035 U	0.034 U	0.036 U	0.036 U	0.037 U	0.36 U	0.24 U	0.034 U
Indeno[1,2,3-cd]pyrene	0.5	0.5	0.5	5.6	8.2	0.035 U	0.034 U	0.035 U	0.035 U	0.038 U	0.038 U	0.035 U	0.035 U	0.14	0.036 U	0.036 U	0.043	0.65	0.24 U	0.034 U
Isophorone	NA	NA	NA	NA	NA	0.35 U	0.34 U	0.35 U	0.35 U	0.38 U	0.38 U	0.35 U	0.35 U	0.34 U	0.36 U	0.36 U	0.37 U	3.6 U	2.4 U	0.34 U
Naphthalene	12	100	100	500	12	0.35 U	0.34 U	0.35 U	0.35 U	0.38 U	0.38 U	0.35 U	0.35 U	0.34 U	0.36 U	0.36 U	0.37 U	3.6 U	2.4 U	0.34 U
Nitrobenzene	NA	NA	NA	NA	NA	0.035 U	0.034 U	0.035 U	0.035 U	0.038 U	0.038 U	0.035 U	0.035 U	0.034 U	0.036 U	0.036 U	0.037 U	0.36 U	0.24 U	0.034 U
N-Nitrosodi-n-propylamine	NA	NA	NA	NA	NA	0.035 U	0.034 U	0.035 U	0.035 U	0.038 U	0.038 U	0.035 U	0.035 U	0.034 U	0.036 U	0.036 U	0.037 U	0.36 U	0.24 U	0.034 U
N-Nitrosodiphenylamine	NA	NA	NA	NA	NA	0.35 U	0.34 U	0.35 U	0.35 U	0.38 U	0.38 U	0.35 U	0.35 U	0.34 U	0.36 U	0.36 U	0.37 U	3.6 U	2.4 U	0.34 U
Pentachlorophenol	0.8	2.4	6.7	6.7	0.8	1.1 U	1.0 U	1.1 U	1.1 U	1.2 U	1.2 U	1.1 U	1.1 U	1.0 U	1.1 U	1.1 U	1.1 U	11 U	7.2 U	1.0 U
Phenanthrene	100	100	100	500	1,000	0.35 U	0.34 U	0.35 U	0.35 U	0.38 U	0.38 U	0.35 U	0.35 U	0.26 J	0.36 U	0.36 U	0.027 J	0.66 J	2.4 U	0.0096 J
Phenol	0.33	100	100	500	0.33	0.35 U	0.34 U	0.35 U	0.35 U	0.38 U	0.38 U	0.35 U	0.35 U	0.34 U	0.36 U	0.36 U	0.37 U	3.6 U	2.4 U	0.34 U
Pyrene	100	100	100	500	1,000	0.35 U	0.34 U	0.35 U	0.35 U	0.38 U	0.38 U	0.35 U	0.35 U	0.45	0.36 U	0.36 U	0.064 J B	1.1 J B	2.4 U	0.020 J B
Pyridine	NA	NA	NA	NA	NA	0.35 U	0.34 U	0.35 U	0.35 U	0.38 U	0.38 U	0.35 U	0.35 U	0.34 U	0.36 U	0.36 U	0.37 U	3.6 U	2.4 U	0.34 U
Total SVOC TICs:	NA					ND	ND	ND	ND	ND	ND	ND	1.68	0.62	0.37	ND	8.1	ND	22.4	2.37

Notes
ND: TIC not detected
J : This flag indicates the presumptive evidence of a compound.
J N : This flag indicates the presumptive evidence of a compound.
U : Analyzed for but not detected.
U R : Value is rejected based upon DUSR by third party data validator.
Highlighted / bolded indicates analyte exceeded above its respective NYSDEC Unrestricted SCO.
Green / italicized value indicates analyte exceeded its respective unrestricted SCO but was below its respective Residential / Protection of GW SCO, whichever is lower.
Blue / italicized value indicates analyte exceeded its respective Residential SCO and / or Protection of Groundwater SCO but was below its Restricted Residential SCO.
Pink / italicized value indicates analyte exceeded its respective Residential SCO and / or Protection of Groundwater SCO but was below its Commercial SCO.

Table 5-47
C1 South Alleyway Area
Confirmatory, Port-Excavation TCL SVOC Soil Analytical Data

TCL SVOCs (mg/kg)	NYSDEC SCOs					Former C1 South Alleyway Area - Confirmatory Post-Exacation Soil Samples								
						Bottom Samples								
	NYSDEC Unrestricted SCO	Residential	Restricted Residential	Commercial	Protection of Groundwater	C1-EP#1 (8')	C1-EP#4 (8')	C1-EP#7 (8')	C1-EP#10 (8')	C1-EP#13 (8')	~~C1-EP#15 (8')~~	C1-EP#18 (5.5')	C1-EP#20 (5.5')	~~C1-EP#23 (5.5')~~
1,2,4,5-Tetrachlorobenzene	NA	NA	NA	NA	NA	0.37 U R	0.34 U R	0.38 U R	0.35 U R	0.41 U R	0.35 U R	0.37 U	0.35 U	0.38 U
1,4-Dioxane	0.1	9.8	13	130	0.1	0.37 U	0.34 U	0.38 U	0.35 U	0.41 U	0.35 U	0.37 U	0.35 U	0.38 U
2,2'-oxybis[1-chloropropane]	NA	NA	NA	NA	NA	0.37 U	0.34 U	0.38 U	0.35 U	0.41 U	0.35 U	0.37 U	0.35 U	0.38 U
2,3,4,6-Tetrachlorophenol	NA	NA	NA	NA	NA	0.37 U R	0.34 U R	0.38 U	0.35 U	0.41 U	0.35 U	0.37 U	0.35 U	0.38 U
2,4,5-Trichlorophenol	NA	NA	NA	NA	NA	0.37 U	0.34 U	0.38 U	0.35 U	0.41 U	0.35 U	0.37 U	0.35 U	0.38 U
2,4,6-Trichlorophenol	NA	NA	NA	NA	NA	0.37 U	0.34 U	0.38 U	0.35 U	0.41 U	0.35 U	0.37 U	0.35 U	0.38 U
2,4-Dichlorophenol	NA	NA	NA	NA	NA	0.37 U	0.34 U	0.38 U	0.35 U	0.41 U	0.35 U	0.37 U	0.35 U	0.38 U
2,4-Dimethylphenol	NA	NA	NA	NA	NA	0.37 U	0.34 U	0.38 U	0.35 U	0.41 U	0.35 U	0.37 U	0.35 U	0.38 U
2,4-Dinitrophenol	NA	NA	NA	NA	NA	1.1 U	1.0 U	1.2 U	1.0 U	1.2 U	1.0 U	1.1 U R	1.1 U R	1.2 U R
2,4-Dinitrotoluene	NA	NA	NA	NA	NA	0.076 U	0.069 U	0.077 U	0.070 U	0.082 U	0.070 U	0.074 U	0.072 U	0.078 U
2,6-Dinitrotoluene	NA	NA	NA	NA	NA	0.076 U	0.069 U	0.077 U	0.070 U	0.082 U	0.070 U	0.074 U	0.072 U	0.078 U
2-Chloronaphthalene	NA	NA	NA	NA	NA	0.37 U	0.34 U	0.38 U	0.35 U	0.41 U	0.35 U	0.37 U	0.35 U	0.38 U
2-Chlorophenol	NA	NA	NA	NA	NA	0.37 U	0.34 U	0.38 U	0.35 U	0.41 U	0.35 U	0.37 U	0.35 U	0.38 U
2-Methylnaphthalene	NA	NA	NA	NA	NA	0.37 U	0.34 U	0.38 U	0.35 U	0.41 U	0.35 U	0.37 U	0.35 U	0.38 U
2-Methylphenol	0.33	100	100	500	0.33	0.37 U	0.34 U	0.38 U	0.35 U	0.41 U	0.35 U	0.37 U	0.35 U	0.38 U
2-Nitroaniline	NA	NA	NA	NA	NA	0.76 U	0.69 U	0.77 U	0.70 U	0.82 U	0.70 U	0.74 U	0.72 U	0.78 U
2-Nitrophenol	NA	NA	NA	NA	NA	0.37 U	0.34 U	0.38 U	0.35 U	0.41 U	0.35 U	0.37 U	0.35 U	0.38 U
3,3'-Dichlorobenzidine	NA	NA	NA	NA	NA	0.76 U	0.69 U	0.77 U	0.70 U	0.82 U	0.70 U	0.74 U	0.72 U	0.78 U
3-Nitroaniline	NA	NA	NA	NA	NA	0.76 U	0.69 U	0.77 U	0.70 U	0.82 U	0.70 U	0.74 U	0.72 U	0.78 U
4,6-Dinitro-2-methylphenol	NA	NA	NA	NA	NA	1.1 U	1.0 U	1.2 U	1.0 U	1.2 U	1.0 U	1.1 U R	1.1 U R	1.2 U R
4-Bromophenyl phenyl ether	NA	NA	NA	NA	NA	0.37 U	0.34 U	0.38 U	0.35 U	0.41 U	0.35 U	0.37 U	0.35 U	0.38 U
4-Chloro-3-methylphenol	NA	NA	NA	NA	NA	0.37 U	0.34 U	0.38 U	0.35 U	0.41 U	0.35 U	0.37 U	0.35 U	0.38 U
4-Chloroaniline	NA	NA	NA	NA	NA	0.37 U	0.34 U	0.38 U	0.35 U	0.41 U	0.35 U	0.37 U	0.35 U	0.38 U
4-Chlorophenyl phenyl ether	NA	NA	NA	NA	NA	0.37 U	0.34 U	0.38 U	0.35 U	0.41 U	0.35 U	0.37 U	0.35 U	0.38 U
4-Methylphenol	0.33	34	100	500	0.33	0.37 U	0.34 U	0.38 U	0.35 U	0.41 U	0.35 U	0.37 U	0.35 U	0.38 U
4-Nitroaniline	NA	NA	NA	NA	NA	0.76 U	0.69 U	0.77 U	0.70 U	0.82 U	0.70 U	0.74 U	0.72 U	0.78 U
4-Nitrophenol	NA	NA	NA	NA	NA	1.1 U	1.0 U	1.2 U	1.0 U	1.2 U	1.0 U	1.1 U	1.1 U	1.2 U
Acenaphthene	20	100	100	500	98	0.37 U	0.34 U	0.38 U	0.35 U	0.41 U	0.35 U	0.37 U	0.35 U	0.38 U
Acenaphthylene	100	100	100	500	107	0.37 U	0.34 U	0.38 U	0.35 U	0.41 U	0.35 U	0.37 U	0.35 U	0.38 U
Acetophenone	NA	NA	NA	NA	NA	0.37 U	0.34 U	0.38 U	0.35 U	0.41 U	0.35 U	0.37 U	0.35 U	0.38 U
Anthracene	100	100	100	500	1,000	0.37 U	0.34 U	0.38 U	0.35 U	0.41 U	0.35 U	0.0070 J B	0.032 J B	0.38 U
Atrazine	NA	NA	NA	NA	NA	0.37 U	0.34 U	0.38 U	0.35 U	0.41 U	0.35 U	0.37 U	0.35 U	0.38 U
Benzaldehyde	NA	NA	NA	NA	NA	0.37 U	0.34 U	0.38 U	0.35 U	0.41 U	0.35 U	0.37 U	0.35 U	0.38 U
Benzo[a]anthracene	1	1	1	5.6	1	0.037 U	0.034 U	0.038 U	0.035 U	0.041 U	0.049	0.040 B	0.035 U	0.038 U
Benzo[a]pyrene	1	1	1	1	22	0.037 U	0.034 U	0.038 U	0.035 U	0.041 U	0.048	0.033 J B	0.078 B	0.038 U
Benzo[b]fluoranthene	1	1	1	5.6	1.7	0.037 U	0.034 U	0.038 U	0.035 U	0.041 U	0.068	0.049	0.092	0.038 U
Benzo[g,h,i]perylene	100	100	100	500	1,000	0.37 U	0.34 U	0.38 U	0.35 U	0.41 U	0.037 J	0.044 J	0.067 J	0.38 U
Benzo[k]fluoranthene	0.8	1	3.9	56	1.7	0.037 U	0.034 U	0.038 U	0.035 U	0.041 U	0.024 J	0.016 J	0.040	0.038 U
Bis(2-chloroethoxy)methane	NA	NA	NA	NA	NA	0.37 U	0.34 U	0.38 U	0.35 U	0.41 U	0.35 U	0.37 U	0.35 U	0.38 U
Bis(2-chloroethyl)ether	NA	NA	NA	NA	NA	0.037 U	0.034 U	0.038 U	0.035 U	0.041 U	0.035 U	0.037 U	0.035 U	0.038 U
Bis(2-ethylhexyl) phthalate	NA	NA	NA	NA	NA	0.37 U	0.34 U	0.38 U	0.35 U	0.41 U	0.35 U	0.37 U	0.35 U	0.38 U
Butyl benzyl phthalate	NA	NA	NA	NA	NA	0.37 U	0.34 U	0.38 U	0.35 U	0.41 U	0.35 U	0.37 U	0.35 U	0.38 U
Caprolactam	NA	NA	NA	NA	NA	0.37 U	0.34 U	0.38 U	0.35 U	0.41 U	0.35 U	0.37 U	0.35 U	0.38 U
Carbazole	NA	NA	NA	NA	NA	0.37 U	0.34 U	0.38 U	0.35 U	0.41 U	0.35 U	0.37 U	0.35 U	0.38 U
Chrysene	1	1	3.9	56	1	0.37 U	0.34 U	0.38 U	0.35 U	0.41 U	0.064 J	0.043 J B	0.088 J B	0.38 U
Dibenz(a,h)anthracene	0.33	0.33	0.33	0.56	1,000	0.037 U	0.034 U	0.038 U	0.035 U	0.041 U	0.035 U	0.037 U	0.035 U	0.038 U
Dibenzofuran	7	14	59	350	210	0.37 U	0.34 U	0.38 U	0.35 U	0.41 U	0.35 U	0.37 U	0.35 U	0.38 U
Diethyl phthalate	NA	NA	NA	NA	NA	0.37 U	0.34 U	0.38 U	0.35 U	0.41 U	0.35 U	0.37 U	0.35 U	0.38 U
Dimethyl phthalate	NA	NA	NA	NA	NA	0.37 U	0.34 U	0.38 U	0.35 U	0.41 U	0.35 U	0.37 U	0.35 U	0.38 U
Di-n-butyl phthalate	NA	NA	NA	NA	NA	0.37 U	0.34 U	0.38 U	0.35 U	0.41 U	0.35 U	0.37 U	0.35 U	0.38 U
Di-n-octyl phthalate	NA	NA	NA	NA	NA	0.37 U	0.34 U	0.38 U	0.35 U	0.41 U	0.35 U	0.37 U	0.35 U	0.38 U
Diphenyl	NA	NA	NA	NA	NA	0.37 U	0.34 U	0.38 U	0.35 U	0.41 U	0.35 U	0.37 U	0.35 U	0.38 U
Fluoranthene	100	100	100	500	1,000	0.37 U	0.34 U	0.38 U	0.35 U	0.41 U	0.086 J	0.031 J	0.12 J	0.38 U
Fluorene	30	100	100	500	386	0.37 U	0.34 U	0.38 U	0.35 U	0.41 U	0.35 U	0.37 U	0.35 U	0.38 U
Hexachlorobenzene	0.33	0.33	1.2	6	3.2	0.037 U	0.034 U	0.038 U	0.035 U	0.041 U	0.035 U	0.037 U	0.035 U	0.038 U
Hexachlorobutadiene	NA	NA	NA	NA	NA	0.076 U	0.069 U	0.077 U	0.070 U	0.082 U	0.070 U	0.074 U	0.072 U	0.078 U
Hexachlorocyclopentadiene	NA	NA	NA	NA	NA	0.37 U	0.34 U	0.38 U	0.35 U	0.41 U	0.35 U	0.37 U R	0.35 U R	0.38 U R
Hexachloroethane	NA	NA	NA	NA	NA	0.037 U	0.034 U	0.038 U	0.035 U	0.041 U	0.035 U	0.037 U	0.035 U	0.038 U
Indeno[1,2,3-cd]pyrene	0.5	0.5	0.5	5.6	8.2	0.037 U	0.034 U	0.038 U	0.035 U	0.041 U	0.035	0.037	0.065	0.038 U
Isophorone	NA	NA	NA	NA	NA	0.37 U	0.34 U	0.38 U	0.35 U	0.41 U	0.35 U	0.37 U	0.35 U	0.38 U
Naphthalene	12	100	100	500	12	0.37 U	0.34 U	0.38 U	0.35 U	0.41 U	0.35 U	0.37 U	0.35 U	0.38 U
Nitrobenzene	NA	NA	NA	NA	NA	0.037 U	0.034 U	0.038 U	0.035 U	0.041 U	0.035 U	0.037 U	0.035 U	0.038 U
N-Nitrosodi-n-propylamine	NA	NA	NA	NA	NA	0.037 U	0.034 U	0.038 U	0.035 U	0.041 U	0.035 U	0.037 U	0.035 U	0.038 U
N-Nitrosodiphenylamine	NA	NA	NA	NA	NA	0.37 U	0.34 U	0.38 U	0.35 U	0.41 U	0.35 U	0.37 U	0.35 U	0.38 U
Pentachlorophenol	0.8	2.4	6.7	6.7	0.8	1.1 U	1.0 U	1.2 U	1.0 U	1.2 U	1.0 U	1.1 U	1.1 U	1.2 U
Phenanthrene	100	100	100	500	1,000	0.37 U	0.34 U	0.38 U	0.35 U	0.41 U	0.077 J	0.021 J	0.14 J	0.38 U
Phenol	0.33	100	100	500	0.33	0.37 U	0.34 U	0.38 U	0.35 U	0.41 U	0.35 U	0.37 U	0.35 U	0.38 U
Pyrene	100	100	100	500	1,000	0.37 U	0.033 J	0.38 U	0.35 U	0.41 U	0.12 J	0.049 J B	0.20 J B	0.38 U
Pyridine	NA	NA	NA	NA	NA	0.37 U	0.34 U	0.38 U	0.35 U	0.41 U	0.35 U	0.37 U	0.35 U	0.38 U
Total SVOC TICs:	NA					ND	0.29	ND	ND	ND	ND	3.3	3.53	3.75

Notes
ND: TIC not detected
J : This flag indicates the presumptive evidence of a compound.
J N : This flag indicates the presumptive evidence of a compound.
U : Analyzed for but not detected.
U R : Value is rejected based upon DUSR by third party data validator.

Table 5-48
C1 South Alleyway Area
Confirmatory, Port-Excavation TAL Metals Soil Analytical Data

TAL Metals (mg/kg)	NYSDEC SCOs				Post-excavation End-point Soil Analytical Data													
					South Alleyway													
					Side-wall Samples													
	Unrestricted	Residential	Restricted Residential	Protection of Groundwater	C1-EP#2 (7.5')	C1-EP#3 (7.5')	C1-EP#5 (7.5')	C1-EP#6 (7.5')	C1-EP#8 (7.5')	C1-EP#9 (7.5')	C1-EP#11 (7.5')	C1-EP#12 (7.5')	C1-EP#14 (7.5')	C1-EP#16 (4.5')	C1-EP#17 (7.5')	C1-EP#19 (4')	C1-EP#21 (1')	C1-EP#22 (4')	C1-EP#24 (2')
Aluminum	NA	NA	NA	NA	2,810	2,540	3,150	3,120	9,150	6,220	10,500	10,100	11,100	13,100	10,300	10,800	8,250	15,600	6,760
Antimony	NA	NA	NA	NA	4.1 U	3.8 U	3.8 U	3.9 U	4.4 U	4.4 U	0.65 J	3.9 U	0.75 J	4.0 U	3.5 U	4.0 U	3.9 U	5.2 U	3.7 U
Arsenic	13	16	16	16	1.2 J	0.84 J	2.0 J	2.4 J	3.3	3.6	3.2	3.4	12.6	3.0	1.3 J	4.6	8.5	5.6	5.9
Barium	350	350	400	820	23.7 J	25.8 J	23.3 J	18.5 J	43.5 J	31.8 J	88.7	63.2	43.3	90.6	62.2	73.6	43.8	122	59.2
Beryllium	7.2	14	72	47	0.41 U	0.20 J	0.22 J	0.20 J	0.27 J	0.25 J	0.30 U	0.39 U	0.33 U	0.47	0.13 J	0.35 J	0.15 J	0.69	0.37 U
Cadmium	2.5	2.5	4.3	7.5	0.81 U	0.75 U	0.76 U	0.78 U	0.88 U	0.88 U	0.60 U	0.78 U	0.77	0.79 U	0.71 U	0.80 U	0.20 J	1.0 U	0.73 U
Calcium	NA	NA	NA	NA	350 J	120 J	255 J	252 J	880 J	358 J	3,250	1,250	10,700	1,480	822 J	1,100	1,330	2,340	1,200
Chromium[1]	30	36	180	NS	4.9	6.0	7.7	6.5	21.6	13.0	*62.0*	15.8	8.1	25.5	24.9	17.4	14.4	29.3	22.4
Cobalt	NA	NA	NA	NA	1.6 J	3.4 J	1.8 J	4.5 J	10.6 J	4.8 J	10.0	8.6 J	13.7	4.6 J	5.3 J	6.3 J	6.7 J	10.6 J	6.7 J
Copper	50	270	270	1,720	3.9 J	4.9	6.3	4.5 J	17.4	8.8	12.2	12.3	117	9.8	12.5	9.8	16.3	15.3	15.9
Iron	NA	NA	NA	NA	5,350	6,680	12,700	13,600	22,500	16,600	17,700	17,800	27,900	19,000	13,800	14,600	11,100	17,500	17,700
Lead	63	400	400	450	1.2 J	1.7 J	1.8 J	2.0	10.0	4.8	4.7	4.0	28.6	7.8	6.1	22.4	18.0	58.0	6.6
Magnesium	NA	NA	NA	NA	597 J	631 J	586 J	634 J	2,560	1,420	7,960	3,010	6,810	2,190	2,700	1,650	1,710	2,150	2,530
Manganese	1,600	2,000	2,000	2,000	866	789	1,050	613	342	604	609	466	456	180	125	818	276	1,260	981
Nickel	30	140	310	130	7.1 J	6.0 J	5.5 J	4.7 J	13.4	8.5 J	*35.5*	12.9	20.2	12.2	12.6	9.9	20.6	14.1	12.7
Potassium	NA	NA	NA	NA	309 J	291 J	525 J	493 J	1,070 J	1,180	3,450	1,140	882	863 J	1,320	403 J	606 J	795 J	837 J
Selenium	3.9	36	180	4	4.1 U	3.8 U	3.8 U	3.9 U	4.4 U	4.4 U	3.0 U	3.9 U	3.3 U	4.0 U	3.5 U	0.93 J	3.9 U	1.6 J	3.7 U
Silver	2	36	180	8.3	2.0 U	1.9 U	1.9 U	2.0 U	2.2 U	2.2 U	1.5 U	2.0 U	*54.5*	2.0 U	1.8 U	2.0 U	*13.4*	2.6 U	*5.9*
Sodium	NA	NA	NA	NA	1,010 U	940 U	945 U	976 U	147 J	1,100 U	251 J	230 J	776 J	333 J	281 J	190 J	161 J	262 J	221 J
Thallium	NA	NA	NA	NA	4.1 U	3.8 U	1.1 J	3.9 U	4.4 U	4.4 U	3.0 U	3.9 U	3.3 U	4.0 U	3.5 U	4.0 U	3.9 U	5.2 U	3.7 U
Vanadium	NA	NA	NA	NA	6.3 J	6.7 J	10.1	9.7 J	31.3	16.9	33.6	20.1	60.5	26.7	25.3	17.9	19.9	24.3	19.1
Zinc	109	2,200	10,000	2,480	7.3	8.8	9.4	9.7	43.6	34.5	30.3	30.4	107	33.4	32.9	36.6	72.0	50.8	27.3
Mercury	0.18	0.81	0.81	0.73	0.016 U	0.017 U	0.017 U	0.017 U	0.018 J	0.020	0.018 U	0.017 U	0.16	0.023	0.018 U	0.058	0.063	0.17	0.048

TAL Metals (mg/kg)	NYSDEC SCOs				Post-excavation End-point Soil Analytical Data												
					South Alleyway									Supplemental Soil Samples		Supplemental Soil Samples	
					Bottom Samples									Bottom Samples		Bottom Samples	
	Unrestricted	Residential	Restricted Residential	Protection of Groundwater	C1-EP#1 (8')	C1-EP#4 (8')	C1-EP#7 (8')	C1-EP#10 (8')	C1-EP#13 (8')	~~C1-EP#15 (6')~~	C1-EP#18 (5.5')	C1-EP#20 (5.5')	~~C1-EP#23 (5.5')~~	~~CL-EP#28 (6')~~	~~CL-EP#29 (6')~~	C1-EP#29 (10')	C1-EP#30 (10')
Aluminum	NA	NA	NA	NA	3,050	3,460	7,730	4,260	7,760	~~9,540~~	10,600	6,290	~~20,200~~	~~4800~~	~~3410~~	3,690	1,210
Antimony	NA	NA	NA	NA	4.4 U	3.9 U	4.2 U	3.3 U	4.4 U	~~1.0 J~~	4.0 U	4.0 U	~~1.5 J~~	~~3.3 U~~	~~3.7 U~~	3.4 U	3.7 U
Arsenic	13	16	16	16	1.4 J	2.6 J	3.8	1.8 J	2.1 J	~~7.5~~	3.6	1.2 J	~~1.3 J~~	~~1.3 J~~	~~1.8 J~~	2.0 J	0.72 J
Barium	350	350	400	820	15.9 J	41.8	49.3	22.3 J	73.3	~~63.2~~	60.7	40.5	~~101~~	~~18.6 J~~	~~13.7 J~~	25.9 J	4.8 J
Beryllium	7.2	14	72	47	0.15 J	0.16 J	0.31 J	0.12 J	0.47	~~0.33 J~~	0.26 J	0.40 U	~~0.36 J~~	~~0.23 J~~	~~0.20 J~~	0.32 J	0.37 U
Cadmium	2.5	2.5	4.3	7.5	0.87 U	0.77 U	0.84 U	0.67 U	0.89 U	~~0.82 U~~	0.79 U	0.81 U	~~0.88 U~~	~~0.67 U~~	~~0.73 U~~	0.68 U	0.75 U
Calcium	NA	NA	NA	NA	270 J	471 J	1,380	1,210	699 J	~~1,620~~	21,100	472 J	~~1,690~~	~~1380~~	~~47000~~	651 J	936 U
Chromium[1]	30	36	180	NS	8.5	21.7	18.9	10.7	25.4	~~18.8~~	17.7	18.0	~~*64.1*~~	~~8.8~~	~~5.9~~	10.0	4.0
Cobalt	NA	NA	NA	NA	2.4 J	5.6 J	9.7 J	3.4 J	7.7 J	~~6.8 J~~	4.8 J	2.5 J	~~10.2 J~~	~~1.9 J~~	~~1.5 J~~	2.9 J	1.4 J
Copper	50	270	270	1,720	5.8	8.0	14.5	7.1	19.2	~~17.9~~	10.6	1.8 J	~~6.5~~	~~6.5~~	~~4.7~~	5.1	3.0 J
Iron	NA	NA	NA	NA	10,100	8,750	19,500	9,370	9,270	~~20,700~~	14,500	7,730	~~29,100~~	~~6420~~	~~4870~~	4,760	2,910
Lead	63	400	400	450	3.7	2.7	8.1	5.9	8.5	~~22.3~~	22.8	6.9	~~7.8~~	~~8.3~~	~~5.5~~	3.5	2.4
Magnesium	NA	NA	NA	NA	526 J	895 J	2,690	1,390	2,080	~~2,500~~	13,100	1,750	~~6,990~~	~~1300~~	~~22800~~	1,340	390 J
Manganese	1,600	2,000	2,000	2,000	307	1,330	702	291	123	~~703~~	300	97.4	~~226~~	~~56.5~~	~~69.1~~	48.4	101
Nickel	30	140	310	130	4.8 J	9.8	15.1	6.9	13.6	~~14.2~~	10.1	7.1 J	~~19.0~~	~~5.1 J~~	~~4.1 J~~	5.8 J	3.0 J
Potassium	NA	NA	NA	NA	378 J	332 J	1,120	390 J	1,100 J	~~764 J~~	481 J	344 J	~~638 J~~	~~399 J~~	~~348 J~~	789 J	81.3 J
Selenium	3.9	36	180	4	4.4 U	3.9 U	4.2 U	3.3 U	4.4 U	~~4.1 U~~	0.97 J	4.0 U	~~4.4 U~~	~~3.3 U~~	~~3.7 U~~	3.4 U	3.7 U
Silver	2	36	180	8.3	2.2 U	*2.2*	0.64 J	1.7	2.2 U	~~*8.7*~~	1.2 J	2.0 U	~~2.2 U~~	~~*4.0*~~	~~*2.8*~~	1.7 U	1.9 U
Sodium	NA	NA	NA	NA	1,090 U	81 J	1,050 U	104 J	161 J	~~242 J~~	138 J	1,010 U	~~313 J~~	~~836 U~~	~~71.7 J~~	66.1 J	936 U
Thallium	NA	NA	NA	NA	4.4 U	1.4 J	4.2 U	3.3 U	4.4 U	~~4.1 U~~	4.0 U	4.0 U	~~4.4 U~~	~~3.3 U~~	~~3.7 U~~	3.4 U	3.7 U
Vanadium	NA	NA	NA	NA	10.3 J	9.4 J	26.4	12.5	29.7	~~24.9~~	19.7	9.2 J	~~31.5~~	~~12.6~~	~~8.3 J~~	10.1	3.0 J
Zinc	109	2,200	10,000	2,480	8.0	12.2	39.3	17.4	44.4	~~45.4~~	37.7	22.7	~~78.0~~	~~19.7~~	~~12.9~~	14.5	6.7
Mercury	0.18	0.81	0.81	0.73	0.018 U	0.018 U	0.021	0.018 U	0.031	~~0.049~~	0.056	0.013 J	~~0.015 J~~	~~0.017 U~~	~~0.016 U~~	0.018 U	0.017 U

Notes
J : Sample result is greater than the MDL but below the CRDL
U : Indicates analyzed for but not detected.
[1] Trivalent chromium SCOs utilized.
Highlighted / bolded indicates analyte exceeded above its respective NYSDEC Unrestricted SCO.
NA - Not Available

~~Strikethrough~~ Indicates that sample locations were removed as part of supplemental soil excavation activities.
Highlighted / bolded indicates analyte exceeded above its respective NYSDEC Unrestricted SCO.
Green / italicized value indicates analyte exceeded its respective unrestricted SCO but was below its respective Residential / Protection of GW SCO, whichever is lower.
Blue / italicized value indicates analyte exceeded its respective Residential SCO and / or Protection of Groundwater SCO but was below its Restricted Residential SCO.

Table 5-49
TAL Metals Soil Analytical Data
South Alleyway Area Supplemental Borings

TAL Metals (mg/kg)	NYSDEC SCOs					South Alleyway Supplemental Borings – Soil Analytical Data									
						SA-01		SA-02 (2')		SA-03		SA-04 (2')		SA-05	
	Unrestricted	Residential	Restricted Residential	Commercial	Protection of Groundwater	(2')	(7')	(2')	(7')	(2')	(7')	(2')	(7')	(2')	(7')
Aluminum	NA	NA	NA	NA	NA	5,130	21,500	13,400	9,030	14,700	11,100	13,000	7,350	5,430	7,470
Antimony	NA	NA	NA	NA	NA	3.4 U	3.7 U	3.7 U	3.4 U	4.1 U	3.5 U	3.6 U	3.4 U	4.0 U	3.9 U
Arsenic	13	16	16	16	16	7.2	1.5 J	5.3	1.0 J	6.7	1.3 J	4.4	1.4 J	4.3	1.7 J
Barium	350	350	400	400	820	97.4	136	58.3	86.3	60.6	90.1	51.6	46.8	53.9	52.6
Beryllium	7.2	14	72	590	47	0.34 U	0.97	0.34 J	0.30 J	0.37 J	0.28 J	0.41	0.34 U	0.40 U	0.41
Cadmium	2.5	2.5	4.3	9.3	7.5	0.69 U	0.74 U	0.73 U	0.67 U	0.81 U	0.70 U	0.72 U	0.69 U	0.79 U	0.77 U
Calcium	NA	NA	NA	NA	NA	1,890	1,700	1,240	1,150	1,420	1,120	1,840	571 J	836 J	1,300
Chromium[1]	30	36	180	1,500	NS	10.6	*48.7*	20.5	23.5	23.9	18.5	19.6	15.8	11.2	19.0
Cobalt	NA	NA	NA	NA	NA	2.6 J	12.6	6.8 J	4.5 J	7.1 J	2.9 J	7.0 J	2.4 J	6.0 J	4.6 J
Copper	50	270	270	270	1,720	13.1	27.9	12.7	12.5	13.6	10.0	11.8	13.7	11.7	10.8
Iron	NA	NA	NA	NA	NA	7,760	25,000	20,000	12,100	23,300	8,010	19,300	6,750	14,800	7,820
Lead	63	400	400	1,000	450	53.5	11.6	14.9	6.1	14.7	9.7	16.5	5.4	25.1	6.5
Magnesium	NA	NA	NA	NA	NA	1250	8,310	2,480	3,140	2,700	1,830	2,320	1,800	1,130	2,530
Manganese	1,600	2,000	2,000	10,000	2,000	132	263	351	88.7	276	60.5	180	57.6	551	89.1
Nickel	30	140	310	310	130	6.0 J	*34.9*	12.2	14.0	12.8	9.7	14.2	8.1	10.3	15.0
Potassium	NA	NA	NA	NA	NA	340 J	6,120	651 J	2,020	779 J	685 J	718 J	731 J	497 J	1,140
Selenium	3.9	36	180	1,500	4	3.4 U	3.7 U	3.7 U	3.4 U	4.1 U	3.5 U	3.6 U	3.4 U	4.0 U	3.9 U
Silver	2	36	180	1,500	8.3	1.7 U	1.9 U	1.8 U	1.7 U	2.0 U	1.8 U	*2.8*	1.7 U	*2.1*	1.9 U
Sodium	NA	NA	NA	NA	NA	113 J	192 J	257 J	105 J	311 J	169 J	157 J	102 J	167 J	80.7 J
Thallium	NA	NA	NA	NA	NA	3.4 U	3.7 U	3.7 U	3.4 U	4.1 U	3.5 U	3.6 U	3.4 U	4.0 U	3.9 U
Vanadium	NA	NA	NA	NA	NA	12.2	56.1	28.3	27.2	33.0	17.0	29.6	12.8	14.4	18.2
Zinc	109	2,200	10,000	10,000	2,480	84.2	91.6	42.1	37.2	37.9	39.0	41.9	21.6	23.8	45.0
Mercury	0.18	0.81	0.81	2.8	0.73	0.064	0.020 U	0.043	0.019 U	0.055	0.027	0.045	0.013 J	0.031	0.019 U
Hexavalent Chrome	1	22			19	NA	2.4 U	NA	NA	NA	NA	NA	NA	NA	NA

TAL Metals (mg/kg)	NYSDEC SCOs					Soil Analytical Data									
						SA-06		SA-07		SA-08		SA-09		SA-10	
	Unrestricted	Residential	Restricted Residential	Commercial	Protection of Groundwater	(2')	(7')	(2')	(7')	(2')	(7')	(2')	(7')	(2')	(7')
Aluminum	NA	NA	NA	NA	NA	3,860	8,000	7,100	12,600	14,900	20,300	7,280	4,060	11,600	8,730
Antimony	NA	NA	NA	NA	NA	4.3 U	3.8 U	4.1 U	4.0 U	3.3 U	3.4 U	4.1 U	3.1 U	4.3 U	4.3 U
Arsenic	13	16	16	16	16	2.3 J	2.0 J	10.4	1.5 J	6.2	3.5	7.3	1.1 J	5.3	1.7 J
Barium	350	350	400	400	820	37.1 J	74.2	56.0	134	67.5	*622*	76.5	31.3	78.1	48.4
Beryllium	7.2	14	72	590	47	0.43 U	0.33 J	0.48	0.44	0.40	0.34 U	0.34 J	0.31 U	0.43	0.29 J
Cadmium	2.5	2.5	4.3	9.3	7.5	0.85 U	0.76 U	0.82 U	0.80 U	0.67 U	0.69 U	0.82 U	0.62 U	0.87 U	0.85 U
Calcium	NA	NA	NA	NA	NA	687 J	626 J	1,080	1,020	1,290	7,600	1,310	445 J	2,360	762 J
Chromium[1]	30	36	180	1,500	NS	7.6	19.1	19.8	29.6	27.8	*95.2*	14.6	11.4	19.6	20.0
Cobalt	NA	NA	NA	NA	NA	2.9 J	3.8 J	5.8 J	8.0 J	6.5 J	15.2	6.2 J	3.5 J	6.8 J	3.2 J
Copper	50	270	270	270	1,720	6.0	17.1	8.5	20.6	14.6	26.0	17.1	5.6	22.0	10.3
Iron	NA	NA	NA	NA	NA	6,700	7,730	22,800	23,600	25,600	37,000	15,300	6,530	18,000	7,620
Lead	63	400	400	1,000	450	15.1	9.8	11.7	4.4	12.6	1.7 U	40.0	2.0	28.6	7.3
Magnesium	NA	NA	NA	NA	NA	846 J	1,950	1,960	4,370	3,470	18,400	1,810	1,450	2,860	2,010
Manganese	1,600	2,000	2,000	10,000	2,000	283	75.1	828	168	234	660	869	140	413	87.0
Nickel	30	140	310	310	130	7.2 J	11.4	10.6	22.0	14.2	*34.4*	11.9	9.5	14.2	10.6
Potassium	NA	NA	NA	NA	NA	282 J	1,350	611 J	3,360	1,250	14,400	732 J	709 J	552 J	1,080
Selenium	3.9	36	180	1,500	4	4.3 U	3.8 U	4.1 U	4.0 U	3.3 U	3.4 U	4.1 U	3.1 U	4.3 U	4.3 U
Silver	2	36	180	1,500	8.3	0.92 J	1.9 U	0.43 J	2.0 U	1.7 U	1.7 U	0.77 J	1.6 U	0.73 J	2.1 U
Sodium	NA	NA	NA	NA	NA	1,060 U	87.0 J	155 J	143 J	150 J	260 J	119 J	69 J	291 J	158 J
Thallium	NA	NA	NA	NA	NA	4.3 U	3.8 U	4.1 U	4.0 U	3.3 U	3.4 U	4.1 U	3.1 U	4.3 U	4.3 U
Vanadium	NA	NA	NA	NA	NA	9.3 J	16.6	28.4	36.5	36.6	75.7	20.0	9.9	27.6	17.9
Zinc	109	2,200	10,000	10,000	2,480	18.7	29.1	28.1	55.4	40.2	73.3	43.1	16.9	57.9	30.0
Mercury	0.18	0.81	0.81	2.8	0.73	0.037	0.018 U	0.025	0.020 U	0.041	0.017 U	0.095	0.018 U	0.042	0.019 U
Hexavalent Chrome	1	22			19	NA	NA	NA	NA	NA	0.6 J	2.3 U	2.2 U	NA	NA

Notes
J : Sample result is greater than the MDL but below the CRDL
U : Indicates analyzed for but not detected.
[1] Trivalent chromium SCOs utilized.
Highlighted / bolded indicates analyte exceeded above its respective NYSDEC Unrestricted SCO.
Green / italicized value indicts analyte exceeded its respective unrestricted SCO but was below its respective Residential / Protection of GW SCO, whichever is lower.
NA - Not Available / Not Analyzed
NS - No Standard Available
Highlighted / bolded indicates analyte exceeded above its respective NYSDEC Unrestricted SCO.
Green / italicized value indicates analyte exceeded its respective unrestricted SCO but was below its respective Residential / Protection of GW SCO, whichever is lower.
Blue / italicized value indicates analyte exceeded its respective Residential SCO and / or Protection of Groundwater SCO but was below its Restricted Residential SCO.
Pink / italicized value indicates analyte exceeded its respective Residential SCO and / or Protection of Groundwater SCO but was below its Commercial SCO.

APEX

Table 5-50
TCL VOCs Soil Analytical Data
Former Wedge Building - Post-excavation Data

TCL VOCs (mg/kg)	NYSDEC Unrestricted SCO	Post-excavation End-point Soil Analytical Data Former Chemical UST Area Bottom Samples W-EP#1(6') (6')	W-EP#2 (6')	W-EP#3 (10')	W-EP#4 (10')	W-EP#5 (10')	W-EP#6 (8')
1,1,1-Trichloroethane	0.68	0.00094 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U
1,1,2,2-Tetrachloroethane	NA	0.00094 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U
1,1,2-Trichloroethane	NA	0.00094 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U
1,1-Dichloroethane	0.27	0.00094 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U
1,1-Dichloroethene	0.33	0.00094 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U
1,2,3-Trichlorobenzene	NA	0.00094 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U
1,2,4-Trichlorobenzene	NA	0.00094 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U
1,2-Dibromo-3-Chloropropane	NA	0.00094 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U
1,2-Dibromoethane	NA	0.00094 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U
1,2-Dichlorobenzene	1.1	0.00094 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U
1,2-Dichloroethane	0.02	0.00094 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U
1,2-Dichloropropane	NA	0.00094 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U
1,3-Dichlorobenzene	2.4	0.00094 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U
1,4-Dichlorobenzene	1.8	0.00094 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U
1,4-Dioxane	0.1	0.019 U	0.022 U	0.021 U	0.023 U	0.022 U	0.022 U
2-Butanone (MEK)	0.12	0.0047 U	0.0056 U	0.0053 U	0.0057 U	0.0055 U	0.0054 U
2-Hexanone	NA	0.0047 U	0.0056 U	0.0053 U	0.0057 U	0.0055 U	0.0054 U
4-Methyl-2-pentanone	NA	0.0047 U	0.0056 U	0.0053 U	0.0057 U	0.0055 U	0.0054 U
Acetone	0.05	0.0047 U	0.0056 U	0.0053 U	0.0057 U	0.0055 U	0.0054 U
Benzene	0.06	0.00094 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U
Bromochloromethane	NA	0.00094 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U
Bromodichloromethane	NA	0.00094 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U
Bromoform	NA	0.00094 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U
Bromomethane	NA	0.00094 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U
Carbon disulfide	NA	0.00094 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U
Carbon tetrachloride	0.76	0.00094 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U
Chlorobenzene	1.1	0.00094 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U
Chloroethane	NA	0.00094 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U
Chloroform	0.37	0.00094 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U
Chloromethane	NA	0.00094 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U
cis-1,2-Dichloroethene	0.25	0.00094 U	0.00033 J	0.0011 U	0.00055 J	0.00031 J	0.0011 U
cis-1,3-Dichloropropene	NA	0.00094 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U
Cyclohexane	NA	0.00094 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U
Dibromochloromethane	NA	0.00094 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U
Dichlorodifluoromethane	NA	0.00094 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U
Ethylbenzene	1	0.00094 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U
Freon 113	NA	0.00094 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U
Isopropylbenzene	NA	0.00094 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U
m&p-Xylene	0.26	0.0019 U	0.0022 U	0.0021 U	0.0023 U	0.0022 U	0.0022 U
Methyl acetate	NA	0.00094 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U
Methylcyclohexane	NA	0.00094 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U
Methylene Chloride	0.05	0.0014	0.0012	0.0012	0.00039 J	0.00075 J	0.00043 J
MTBE	0.93	0.00094 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U
Naphthalene	12	0.00094 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U
o-Xylene	0.26	0.00094 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U
Styrene	NA	0.00094 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U
Tetrachloroethene	1.3	0.00027 J	0.0025	0.00030 J	0.0044	0.012	0.00078 J
Toluene	0.7	0.00094 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U
trans-1,2-Dichloroethene	0.19	0.00094 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U
trans-1,3-Dichloropropene	NA	0.00094 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U
Trichloroethene	0.47	0.00094 U	0.0011	0.0011 U	0.0014	0.0048	0.00027 J
Trichlorofluoromethane	NA	0.00094 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U
Vinyl chloride	0.02	0.00094 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U
Xylenes, Total	0.26	0.0028 U	0.0034 U	0.0032 U	0.0034 U	0.0033 U	0.0033 U
VOC TICs	NA	ND	ND	ND	ND	ND	ND

Notes
ND: TIC not detected
J : Indicates an estimated value.
J N : Indicates an estimated value.
U : Analyzed for but not detected.

Table 5-51
TCL SVOCs Soil Analytical Data
Former Wedge Building - Post-excavation Data

TCL SVOCs (mg/kg)	NYSDEC Unrestricted SCO	Post-excavation End-point Soil Analytical Data										
		Former Chemical UST Area						East End of Area				
		Bottom Samples						Bottom Samples				
		W-EP#1 (6')	W-EP#2 (6')	W-EP#3 (10')	W-EP#4 (10')	W-EP#5 (10')	W-EP#6 (8')	W-EP#7 (2')	W-EP#8 (2')	W-EP#9 (3')	W-EP#10 (3')	W-EP#11 (3')
1,2,4,5-Tetrachlorobenzene	NA	0.34 U R	3.4 U R	0.34 U R	0.34 U	0.67 U R	0.35 U R	1.9 U R	0.36 U R	1.9 U R	1.9 U R	7.6 U R
1,4-Dioxane	0.1	0.34 U	3.4 U	0.34 U	0.34 U	0.67 U	0.35 U	1.9 U	0.36 U	1.9 U	1.9 U	7.6 U
2,2'-oxybis[1-chloropropane]	NA	0.34 U	3.4 U	0.34 U	0.34 U	0.67 U	0.35 U	1.9 U	0.36 U	1.9 U	1.9 U	7.6 U
2,3,4,6-Tetrachlorophenol	NA	0.34 U	3.4 U	0.34 U	0.34 U	0.67 U	0.35 U	1.9 U R	0.36 U R	1.9 U R	1.9 U R	7.6 U R
2,4,5-Trichlorophenol	NA	0.34 U	3.4 U	0.34 U	0.34 U	0.67 U	0.35 U	1.9 U	0.36 U	1.9 U	1.9 U	7.6 U
2,4,6-Trichlorophenol	NA	0.34 U	3.4 U	0.34 U	0.34 U	0.67 U	0.35 U	1.9 U	0.36 U	1.9 U	1.9 U	7.6 U
2,4-Dichlorophenol	NA	0.34 U	3.4 U	0.34 U	0.34 U	0.67 U	0.35 U	1.9 U	0.36 U	1.9 U	1.9 U	7.6 U
2,4-Dimethylphenol	NA	0.34 U	3.4 U	0.34 U	0.34 U	0.67 U	0.35 U	1.9 U	0.36 U	1.9 U	1.9 U	7.6 U
2,4-Dinitrophenol	NA	1.0 U	10 U	1.0 U	1.0 U	2.0 U	1.1 U	5.6 U	1.1 U	5.7 U	5.9 U	23 U
2,4-Dinitrotoluene	NA	0.068 U	0.68 U	0.069 U	0.070 U	0.14 U	0.070 U	0.38 U	0.073 U	0.38 U	0.39 U	1.5 U
2,6-Dinitrotoluene	NA	0.068 U	0.68 U	0.069 U	0.070 U	0.14 U	0.070 U	0.38 U	0.073 U	0.38 U	0.39 U	1.5 U
2-Chloronaphthalene	NA	0.34 U	3.4 U	0.34 U	0.34 U	0.67 U	0.35 U	1.9 U	0.36 U	1.9 U	1.9 U	7.6 U
2-Chlorophenol	NA	0.34 U	3.4 U	0.34 U	0.34 U	0.67 U	0.35 U	1.9 U	0.36 U	1.9 U	1.9 U	7.6 U
2-Methylnaphthalene	NA	0.34 U	0.89 J	0.34 U	0.34 U	0.13 J	0.35 U	0.31 J	0.36 U	1.9 U	1.9 U	2.9 J
2-Methylphenol	0.33	0.34 U	3.4 U	0.34 U	0.34 U	0.67 U	0.35 U	1.9 U	0.36 U	1.9 U	1.9 U	7.6 U
2-Nitroaniline	NA	0.68 U	6.8 U	0.69 U	0.70 U	1.4 U	0.70 U	3.8 U	0.73 U	3.8 U	3.9 U	15 U
2-Nitrophenol	NA	0.34 U	3.4 U	0.34 U	0.34 U	0.67 U	0.35 U	1.9 U	0.36 U	1.9 U	1.9 U	7.6 U
3,3'-Dichlorobenzidine	NA	0.68 U	6.8 U	0.69 U	0.70 U	1.4 U	0.70 U	3.8 U	0.73 U	3.8 U	3.9 U	15 U
3-Nitroaniline	NA	0.68 U	6.8 U	0.69 U	0.70 U	1.4 U	0.70 U	3.8 U	0.73 U	3.8 U	3.9 U	15 U
4,6-Dinitro-2-methylphenol	NA	1.0 U	10 U	1.0 U	1.0 U	2.0 U	1.1 U	5.6 U	1.1 U	5.7 U	5.9 U	23 U
4-Bromophenyl phenyl ether	NA	0.34 U	3.4 U	0.34 U	0.34 U	0.67 U	0.35 U	1.9 U	0.36 U	1.9 U	1.9 U	7.6 U
4-Chloro-3-methylphenol	NA	0.34 U	3.4 U	0.34 U	0.34 U	0.67 U	0.35 U	1.9 U	0.36 U	1.9 U	1.9 U	7.6 U
4-Chloroaniline	NA	0.34 U	3.4 U	0.34 U	0.34 U	0.67 U	0.35 U	1.9 U	0.36 U	1.9 U	1.9 U	7.6 U
4-Chlorophenyl phenyl ether	NA	0.34 U	3.4 U	0.34 U	0.34 U	0.67 U	0.35 U	1.9 U	0.36 U	1.9 U	1.9 U	7.6 U
4-Methylphenol	0.33	0.34 U	3.4 U	0.34 U	0.34 U	0.67 U	0.35 U	1.9 U	0.36 U	1.9 U	1.9 U	7.6 U
4-Nitroaniline	NA	0.68 U	6.8 U	0.69 U	0.70 U	1.4 U	0.70 U	3.8 U	0.73 U	3.8 U	3.9 U	15 U
4-Nitrophenol	NA	1.0 U	10 U	1.0 U	1.0 U	2.0 U	1.1 U	5.6 U	1.1 U	5.7 U	5.9 U	23 U
Acenaphthene	20	0.34 U	2.6 J	0.34 U	0.34 U	0.61 J	0.35 U	0.91 J	0.20 J	0.50 J	0.65 J	7.9
Acenaphthylene	100	0.34 U	3.4 U	0.34 U	0.34 U	0.67 U	0.35 U	1.9 U	0.36 U	1.9 U	1.9 U	7.6 U
Acetophenone	NA	0.34 U	3.4 U	0.34 U	0.34 U	0.67 U	0.35 U	1.9 U	0.36 U	1.9 U	1.9 U	7.6 U
Anthracene	100	0.34 U	6.9	0.34 U	0.10 J	2.1	0.14 J	2.4	0.44	1.3 J	1.6 J	23
Atrazine	NA	0.34 U	3.4 U	0.34 U	0.34 U	0.67 U	0.35 U	1.9 U	0.36 U	1.9 U	1.9 U	7.6 U
Benzaldehyde	NA	0.34 U	3.4 U	0.34 U	0.34 U	0.67 U	0.35 U	1.9 U	0.36 U	1.9 U	1.9 U	7.6 U
Benzo[a]anthracene	1	0.034 U	**11**	0.034 U	0.38	**4.1**	0.81	**4.8**	**1.6**	**4.5**	**5.1**	**51**
Benzo[a]pyrene	1	0.034 U	**10** J	0.034 U	0.54 J	**3.8** J	**1.3** J	**5.4** J	**2.9** J	**4.9** J	**5.5** J	**46** J
Benzo[b]fluoranthene	1	0.034 U	**11**	0.034 U	0.62	**4.7**	**1.5**	**5.8**	**4.3**	**5.6**	**6.9**	**56**
Benzo[g,h,i]perylene	100	0.34 U	4.2	0.34 U	0.28 J	1.5	0.69	2.2	0.73	2.3	2.3	16
Benzo[k]fluoranthene	0.8	0.034 U	**4.7**	0.034 U	0.28	**1.7**	0.56	**2.2**	**1.6**	**2.1**	**2.4**	**19**
Bis(2-chloroethoxy)methane	NA	0.34 U	3.4 U	0.34 U	0.34 U	0.67 U	0.35 U	1.9 U	0.36 U	1.9 U	1.9 U	7.6 U
Bis(2-chloroethyl)ether	NA	0.034 U	0.34 U	0.034 U	0.034 U	0.067 U	0.035 U	0.19 U	0.036 U	0.19 U	0.19 U	0.76 U
Bis(2-ethylhexyl) phthalate	NA	0.34 U	3.4 U	0.34 U	0.34 U	0.67 U	0.35 U	1.9 U	0.36 U	1.9 U	1.9 U	7.6 U
Butyl benzyl phthalate	NA	0.34 U	3.4 U	0.34 U	0.34 U	0.67 U	0.35 U	1.9 U	0.36 U	1.9 U	1.9 U	7.6 U
Caprolactam	NA	0.34 U	3.4 U	0.34 U	0.34 U	0.67 U	0.35 U	1.9 U	0.36 U	1.9 U	1.9 U	7.6 U
Carbazole	NA	0.34 U	2.3 J	0.34 U	0.34 U	0.83	0.35 U	0.47 J	0.26 J	0.33 J	0.51 J	5.9 J
Chrysene	1	0.34 U	**11**	0.34 U	0.40	**4.0**	0.89	**5.7**	**2.0**	**5.2**	**6.2**	**55**
Dibenz(a,h)anthracene	0.33	0.034 U	**1.2**	0.034 U	0.081	**0.44**	0.18	**0.59**	0.25	**0.54**	**0.66**	**4.3**
Dibenzofuran	7	0.34 U	1.5 J	0.34 U	0.34 U	0.30 J	0.35 U	0.28 J	0.089 J	1.9 U	0.27 J	4.1 J
Diethyl phthalate	NA	0.34 U	3.4 U	0.061 J	0.34 U	0.67 U	0.35 U	1.9 U	0.36 U	1.9 U	1.9 U	7.6 U
Dimethyl phthalate	NA	0.34 U	3.4 U	0.34 U	0.34 U	0.67 U	0.35 U	1.9 U	0.36 U	1.9 U	1.9 U	7.6 U
Di-n-butyl phthalate	NA	0.34 U	3.4 U	0.34 U	0.34 U	0.67 U	0.053 J	1.9 U	0.36 U	1.9 U	1.9 U	7.6 U
Di-n-octyl phthalate	NA	0.34 U	3.4 U	0.34 U	0.34 U	0.67 U	0.35 U	1.9 U	0.36 U	1.9 U	1.9 U	7.6 U
Diphenyl	NA	0.34 U	3.4 U	0.34 U	0.34 U	0.67 U	0.35 U	1.9 U	0.36 U	1.9 U	1.9 U	7.6 U
Fluoranthene	100	0.34 U	22	0.34 U	0.66	8.9	1.2	10	3.9	9.2	11	**110**
Fluorene	30	0.34 U	2.4 J	0.34 U	0.34 U	0.54 J	0.35 U	0.73 J	0.14 J	0.36 J	0.48 J	6.7 J
Hexachlorobenzene	0.33	0.034 U	0.34 U	0.034 U	0.034 U	0.067 U	0.035 U	0.19 U	0.036 U	0.19 U	0.19 U	0.76 U
Hexachlorobutadiene	NA	0.068 U	0.68 U	0.069 U	0.070 U	0.14 U	0.070 U	0.38 U	0.073 U	0.38 U	0.39 U	1.5 U
Hexachlorocyclopentadiene	NA	0.34 U	3.4 U	0.34 U	0.34 U	0.67 U	0.35 U	1.9 U	0.36 U	1.9 U	1.9 U	7.6 U
Hexachloroethane	NA	0.034 U	0.34 U	0.034 U	0.034 U	0.067 U	0.035 U	0.19 U	0.036 U	0.19 U	0.19 U	0.76 U
Indeno[1,2,3-cd]pyrene	0.5	0.034 U	**5.0**	0.034 U	0.32	**1.8**	**0.72**	**2.3**	**0.88**	**2.3**	**2.5**	**18**
Isophorone	NA	0.34 U	3.4 U	0.34 U	0.34 U	0.67 U	0.35 U	1.9 U	0.36 U	1.9 U	1.9 U	7.6 U
Naphthalene	12	0.34 U	1.8 J	0.34 U	0.34 U	0.17 J	0.35 U	0.34 J	0.061 J	1.9 U	0.27 J	3.1 J
Nitrobenzene	NA	0.034 U	0.34 U	0.034 U	0.034 U	0.067 U	0.035 U	0.19 U	0.036 U	0.19 U	0.19 U	0.76 U
N-Nitrosodi-n-propylamine	NA	0.034 U	0.34 U	0.034 U	0.034 U	0.067 U	0.035 U	0.19 U	0.036 U	0.19 U	0.19 U	0.76 U
N-Nitrosodiphenylamine	NA	0.34 U	3.4 U	0.34 U	0.34 U	0.67 U	0.35 U	1.9 U	0.36 U	1.9 U	1.9 U	7.6 U
Pentachlorophenol	0.8	1.0 U	10 U	1.0 U	1.0 U	2.0 U	1.1 U	5.6 U	1.1 U	5.7 U	5.9 U	23 U
Phenanthrene	100	0.34 U	28	0.34 U	0.54	9.6	0.60	12	3.4	9.0	11	**130**
Phenol	0.33	0.34 U	3.4 U	0.34 U	0.34 U	0.67 U	0.35 U	1.9 U	0.36 U	1.9 U	1.9 U	7.6 U
Pyrene	100	0.048 J	23	0.034 J	0.91	9.5	1.7	12	3.3	12	13	**120**
Pyridine	NA	0.34 U	3.4 U	0.34 U	0.34 U	0.67 U	0.35 U	1.9 U	0.36 U	1.9 U	1.9 U	7.6 U
SVOC TICs	NA	ND	14.9	0.27	0.35	8.69	1.61	91.80	2.92	7.00	11.60	160.70

Notes
ND: TIC not detected
* : LCS or LCSD exceeds the control limits
D : The reported value is from a dilution.
J : Indicates an estimated value.
J N : This flag indicates the presumptive evidence of a compound.
U : Analyzed for but not detected.
U R : Indicates that value is rejected beased upon DUSR review by third party data validator.
NA : Not Available

Table 5-51
Preliminary TCL SVOCs Soil Analytical Data
Former Wedge Building - Post-excavation Data

						Supplemental Post-excavation End-point Soil Analytical Data															
						East End Of Area								Former Chemical UST Area							
						Bottom Samples				Sidewall Samples				Bottom Samples						Sidewall Samples	
	NYSDEC SCOs					W-EP#12	W-EP#13	W-EP#14	W-EP#15	W-EP#16	W-EP#17	W-EP#18	W-EP#19 (10')	W-EP#20	W-EP#21	W-EP#22	W-EP#23	W-EP#24	W-EP#25	W-EP#26	W-EP#27
TCL SVOCs (mg/kg)	NYSDEC Unrestricted SCO	Residential	Restricted Residential	Commercial	Protection of Groundwater	(5')	(5')	(5')	(5')	(3')	(3')	(10')	(10')	(10')	(10')	(10')	(12')	(12')	(12')	(6')	(6')
1,2,4,5-Tetrachlorobenzene	NA	NA	NA	NA	NA	0.37 U	0.35 U	0.37 U	0.37 U	0.35 U	0.39 U	0.40 U	0.36 U	0.38 U	0.39 U	0.40 U	0.41 U	0.39 U	0.40 U	0.35 U	0.35 U
1,4-Dioxane	0.1	9.8	13	130	0.1	0.37 U	0.35 U	0.37 U	0.37 U	0.35 U	0.39 U	0.40 U	0.36 U	0.38 U	0.39 U	0.40 U	0.41 U	0.39 U	0.40 U	0.35 U	0.35 U
2,2'-oxybis[1-chloropropane]	NA	NA	NA	NA	NA	0.37 U	0.35 U	0.37 U	0.37 U	0.35 U	0.39 U	0.40 U	0.36 U	0.38 U	0.39 U	0.40 U	0.41 U	0.39 U	0.40 U	0.35 U	0.35 U
2,3,4,6-Tetrachlorophenol	NA	NA	NA	NA	NA	0.37 U	0.35 U	0.37 U	0.37 U	0.35 U	0.39 U	0.40 U	0.36 U	0.38 U	0.39 U	0.40 U	0.41 U	0.39 U	0.40 U	0.35 U	0.35 U
2,4,5-Trichlorophenol	NA	NA	NA	NA	NA	0.37 U	0.35 U	0.37 U	0.37 U	0.35 U	0.39 U	0.40 U	0.36 U	0.38 U	0.39 U	0.40 U	0.41 U	0.39 U	0.40 U	0.35 U	0.35 U
2,4,6-Trichlorophenol	NA	NA	NA	NA	NA	0.37 U	0.35 U	0.37 U	0.37 U	0.35 U	0.39 U	0.40 U	0.36 U	0.38 U	0.39 U	0.40 U	0.41 U	0.39 U	0.40 U	0.35 U	0.35 U
2,4-Dichlorophenol	NA	NA	NA	NA	NA	0.37 U	0.35 U	0.37 U	0.37 U	0.35 U	0.39 U	0.40 U	0.36 U	0.38 U	0.39 U	0.40 U	0.41 U	0.39 U	0.40 U	0.35 U	0.35 U
2,4-Dimethylphenol	NA	NA	NA	NA	NA	0.37 U	0.35 U	0.37 U	0.37 U	0.35 U	0.39 U	0.40 U	0.36 U	0.38 U	0.39 U	0.40 U	0.41 U	0.39 U	0.40 U	0.35 U	0.35 U
2,4-Dinitrophenol	NA	NA	NA	NA	NA	1.1 U	1.0 U	1.1 U	1.1 U	1.0 U	1.2 U	1.2 U	1.1 U	1.2 U	1.2 U	1.2 U	1.3 U	1.2 U	1.2 U	1.1 U	1.1 U
2,4-Dinitrotoluene	NA	NA	NA	NA	NA	0.075 U	0.070 U	0.076 U	0.075 U	0.070 U	0.079 U	0.081 U	0.074 U	0.077 U	0.078 U	0.082 U	0.084 U	0.078 U	0.082 U	0.071 U	0.072 U
2,6-Dinitrotoluene	NA	NA	NA	NA	NA	0.075 U	0.070 U	0.076 U	0.075 U	0.070 U	0.079 U	0.081 U	0.074 U	0.077 U	0.078 U	0.082 U	0.084 U	0.078 U	0.082 U	0.071 U	0.072 U
2-Chloronaphthalene	NA	NA	NA	NA	NA	0.37 U	0.35 U	0.37 U	0.37 U	0.35 U	0.39 U	0.40 U	0.36 U	0.38 U	0.39 U	0.40 U	0.41 U	0.39 U	0.40 U	0.35 U	0.35 U
2-Chlorophenol	NA	NA	NA	NA	NA	0.37 U	0.35 U	0.37 U	0.37 U	0.35 U	0.39 U	0.40 U	0.36 U	0.38 U	0.39 U	0.40 U	0.41 U	0.39 U	0.40 U	0.35 U	0.35 U
2-Methylnaphthalene	NA	NA	NA	NA	NA	0.37 U	0.35 U	0.37 U	0.37 U	0.35 U	0.39 U	0.40 U	0.36 U	0.38 U	0.39 U	0.40 U	0.41 U	0.39 U	0.40 U	0.35 U	0.35 U
2-Methylphenol	0.33	100	100	500	0.33	0.37 U	0.35 U	0.37 U	0.37 U	0.35 U	0.39 U	0.40 U	0.36 U	0.38 U	0.39 U	0.40 U	0.41 U	0.39 U	0.40 U	0.35 U	0.35 U
2-Nitroaniline	NA	NA	NA	NA	NA	0.75 U	0.70 U	0.76 U	0.75 U	0.70 U	0.79 U	0.81 U	0.74 U	0.77 U	0.78 U	0.82 U	0.84 U	0.78 U	0.82 U	0.71 U	0.72 U
2-Nitrophenol	NA	NA	NA	NA	NA	0.37 U	0.35 U	0.37 U	0.37 U	0.35 U	0.39 U	0.40 U	0.36 U	0.38 U	0.39 U	0.40 U	0.41 U	0.39 U	0.40 U	0.35 U	0.35 U
3,3'-Dichlorobenzidine	NA	NA	NA	NA	NA	0.75 U	0.70 U	0.76 U	0.75 U	0.70 U	0.79 U	0.81 U	0.74 U	0.77 U	0.78 U	0.82 U	0.84 U	0.78 U	0.82 U	0.71 U	0.72 U
3-Nitroaniline	NA	NA	NA	NA	NA	0.75 U	0.70 U	0.76 U	0.75 U	0.70 U	0.79 U	0.81 U	0.74 U	0.77 U	0.78 U	0.82 U	0.84 U	0.78 U	0.82 U	0.71 U	0.72 U
4,6-Dinitro-2-methylphenol	NA	NA	NA	NA	NA	1.1 U	1.0 U	1.1 U	1.1 U	1.0 U	1.2 U	1.2 U	1.1 U	1.2 U	1.2 U	1.2 U	1.3 U	1.2 U	1.2 U	1.1 U	1.1 U
4-Bromophenyl phenyl ether	NA	NA	NA	NA	NA	0.37 U	0.35 U	0.37 U	0.37 U	0.35 U	0.39 U	0.40 U	0.36 U	0.38 U	0.39 U	0.40 U	0.41 U	0.39 U	0.40 U	0.35 U	0.35 U
4-Chloro-3-methylphenol	NA	NA	NA	NA	NA	0.37 U	0.35 U	0.37 U	0.37 U	0.35 U	0.39 U	0.40 U	0.36 U	0.38 U	0.39 U	0.40 U	0.41 U	0.39 U	0.40 U	0.35 U	0.35 U
4-Chloroaniline	NA	NA	NA	NA	NA	0.37 U	0.35 U	0.37 U	0.37 U	0.35 U	0.39 U	0.40 U	0.36 U	0.38 U	0.39 U	0.40 U	0.41 U	0.39 U	0.40 U	0.35 U	0.35 U
4-Chlorophenyl phenyl ether	NA	NA	NA	NA	NA	0.37 U	0.35 U	0.37 U	0.37 U	0.35 U	0.39 U	0.40 U	0.36 U	0.38 U	0.39 U	0.40 U	0.41 U	0.39 U	0.40 U	0.35 U	0.35 U
4-Methylphenol	0.33	34	100	500	0.33	0.37 U	0.35 U	0.37 U	0.37 U	0.35 U	0.39 U	0.40 U	0.36 U	0.38 U	0.39 U	0.40 U	0.41 U	0.39 U	0.40 U	0.35 U	0.35 U
4-Nitroaniline	NA	NA	NA	NA	NA	0.75 U	0.70 U	0.76 U	0.75 U	0.70 U	0.79 U	0.81 U	0.74 U	0.77 U	0.78 U	0.82 U	0.84 U	0.78 U	0.82 U	0.71 U	0.72 U
4-Nitrophenol	NA	NA	NA	NA	NA	1.1 U	1.0 U	1.1 U	1.1 U	1.0 U	1.2 U	1.2 U	1.1 U	1.2 U	1.2 U	1.2 U	1.3 U	1.2 U	1.2 U	1.1 U	1.1 U
Acenaphthene	20	100	100	500	98	0.37 U	0.35 U	0.062 J	0.37 U	0.35 U	0.39 U	0.40 U	0.36 U	0.38 U	0.39 U	0.40 U	0.41 U	0.39 U	0.40 U	0.35 U	0.35 U
Acenaphthylene	100	100	100	500	107	0.37 U	0.35 U	0.37 U	0.37 U	0.35 U	0.39 U	0.40 U	0.36 U	0.38 U	0.39 U	0.40 U	0.41 U	0.39 U	0.40 U	0.35 U	0.35 U
Acetophenone	NA	NA	NA	NA	NA	0.37 U	0.35 U	0.37 U	0.37 U	0.35 U	0.39 U	0.40 U	0.36 U	0.38 U	0.39 U	0.40 U	0.41 U	0.39 U	0.40 U	0.35 U	0.35 U
Anthracene	100	100	100	500	1,000	0.37 U	0.051 J	0.17 J	0.37 U	0.35 U	0.39 U	0.40 U	0.36 U	0.38 U	0.39 U	0.40 U	0.41 U	0.39 U	0.40 U	0.35 U	0.35 U
Atrazine	NA	NA	NA	NA	NA	0.37 U	0.35 U	0.37 U	0.37 U	0.35 U	0.39 U	0.40 U	0.36 U	0.38 U	0.39 U	0.40 U	0.41 U	0.39 U	0.40 U	0.35 U	0.35 U
Benzaldehyde	NA	NA	NA	NA	NA	0.37 U	0.35 U	0.37 U	0.37 U	0.35 U	0.39 U	0.40 U	0.36 U	0.38 U	0.39 U	0.40 U	0.41 U	0.39 U	0.40 U	0.35 U	0.35 U
Benzo[a]anthracene	1	1	1	5.6	1	0.033 J	0.035 U	0.79	0.037 U	0.035 U	0.039 U	0.040 U	0.036 U	0.038 U	0.039 U	0.040 U	0.041 U	0.039 U	0.040 U	0.035 U	0.035 U
Benzo[a]pyrene	1	1	1	1	22	0.037 U	0.26 J	*1.2* J	0.037 U	0.035 U	0.039 U	0.040 U	0.036 U	0.038 U	0.039 U	0.040 U	0.041 U	0.039 U	0.040 U	0.035 U	0.035 U
Benzo[b]fluoranthene	1	1	1	5.6	1.7	0.037 U	0.27	*1.2*	0.037 U	0.035 U	0.039 U	0.040 U	0.036 U	0.038 U	0.039 U	0.040 U	0.041 U	0.039 U	0.040 U	0.035 U	0.035 U
Benzo[g,h,i]perylene	100	100	100	500	1,000	0.37 U	0.19 J	0.92	0.37 U	0.35 U	0.39 U	0.40 U	0.36 U	0.38 U	0.39 U	0.40 U	0.41 U	0.39 U	0.40 U	0.35 U	0.35 U
Benzo[k]fluoranthene	0.8	1	3.9	56	1.7	0.037 U	0.13 J	0.46 J	0.037 U	0.035 U	0.039 U	0.040 U	0.036 U	0.038 U	0.039 U	0.040 U	0.041 U	0.039 U	0.040 U	0.035 U	0.035 U
Bis(2-chloroethoxy)methane	NA	NA	NA	NA	NA	0.37 U	0.35 U	0.37 U	0.37 U	0.35 U	0.39 U	0.40 U	0.36 U	0.38 U	0.39 U	0.40 U	0.41 U	0.39 U	0.40 U	0.35 U	0.35 U
Bis(2-chloroethyl)ether	NA	NA	NA	NA	NA	0.037 U	0.035 U	0.037 U	0.037 U	0.035 U	0.039 U	0.040 U	0.036 U	0.038 U	0.039 U	0.040 U	0.041 U	0.039 U	0.040 U	0.035 U	0.035 U
Bis(2-ethylhexyl) phthalate	NA	NA	NA	NA	NA	0.37 U	0.35 U	0.37 U	0.37 U	0.35 U	0.39 U	0.40 U	0.36 U	0.38 U	0.39 U	0.40 U	0.41 U	0.21 J	0.40 U	0.35 U	0.35 U
Butyl benzyl phthalate	NA	NA	NA	NA	NA	0.37 U	0.35 U	0.37 U	0.37 U	0.35 U	0.39 U	0.40 U	0.36 U	0.38 U	0.39 U	0.40 U	0.41 U	0.39 U	0.40 U	0.35 U	0.35 U
Caprolactam	NA	NA	NA	NA	NA	0.37 U	0.35 U	0.37 U	0.37 U	0.35 U	0.39 U	0.40 U	0.36 U	0.38 U	0.39 U	0.40 U	0.41 U	0.39 U	0.40 U	0.35 U	0.35 U
Carbazole	NA	NA	NA	NA	NA	0.37 U	0.35 U	0.37 U	0.37 U	0.35 U	0.39 U	0.40 U	0.36 U	0.38 U	0.39 U	0.40 U	0.41 U	0.39 U	0.40 U	0.35 U	0.35 U
Chrysene	1	1	3.9	56	1	0.37 U	0.22 J	0.89	0.37 U	0.35 U	0.39 U	0.40 U	0.36 U	0.38 U	0.39 U	0.40 U	0.41 U	0.39 U	0.40 U	0.35 U	0.35 U
Dibenz(a,h)anthracene	0.33	0.33	0.33	0.56	1,000	0.037 U	0.044	0.20	0.037 U	0.035 U	0.039 U	0.040 U	0.036 U	0.038 U	0.039 U	0.040 U	0.041 U	0.039 U	0.040 U	0.035 U	0.035 U
Dibenzofuran	7	14	59	350	210	0.37 U	0.35 U	0.37 U	0.37 U	0.35 U	0.39 U	0.40 U	0.36 U	0.38 U	0.39 U	0.40 U	0.41 U	0.39 U	0.40 U	0.35 U	0.35 U
Diethyl phthalate	NA	NA	NA	NA	NA	0.37 U	0.35 U	0.37 U	0.37 U	0.35 U	0.39 U	0.40 U	0.36 U	0.38 U	0.39 U	0.40 U	0.41 U	0.39 U	0.40 U	0.35 U	0.35 U
Dimethyl phthalate	NA	NA	NA	NA	NA	0.37 U	0.35 U	0.37 U	0.37 U	0.35 U	0.39 U	0.40 U	0.36 U	0.38 U	0.39 U	0.40 U	0.41 U	0.39 U	0.40 U	0.35 U	0.35 U
Di-n-butyl phthalate	NA	NA	NA	NA	NA	0.37 U	0.35 U	0.37 U	0.37 U	0.35 U	0.39 U	0.40 U	0.36 U	0.38 U	0.39 U	0.40 U	0.41 U	0.39 U	0.40 U	0.35 U	0.35 U
Di-n-octyl phthalate	NA	NA	NA	NA	NA	0.37 U	0.35 U	0.37 U	0.37 U	0.35 U	0.39 U	0.40 U	0.36 U	0.38 U	0.39 U	0.40 U	0.41 U	0.39 U	0.40 U	0.35 U	0.35 U
Diphenyl	NA	NA	NA	NA	NA	0.37 U	0.35 U	0.37 U	0.37 U	0.35 U	0.39 U	0.40 U	0.36 U	0.38 U	0.39 U	0.40 U	0.41 U	0.39 U	0.40 U	0.35 U	0.35 U
Fluoranthene	100	100	100	500	1,000	0.37 U	0.37	1.5	0.37 U	0.35 U	0.39 U	0.40 U	0.36 U	0.38 U	0.39 U	0.40 U	0.41 U	0.39 U	0.40 U	0.35 U	0.35 U
Fluorene	30	100	100	500	386	0.37 U	0.35 U	0.37 U	0.37 U	0.35 U	0.39 U	0.40 U	0.36 U	0.38 U	0.39 U	0.40 U	0.41 U	0.39 U	0.40 U	0.35 U	0.35 U
Hexachlorobenzene	0.33	0.33	1.2	6	3.2	0.037 U	0.035 U	0.037 U	0.037 U	0.035 U	0.039 U	0.040 U	0.036 U	0.038 U	0.039 U	0.040 U	0.041 U	0.039 U	0.040 U	0.035 U	0.035 U
Hexachlorobutadiene	NA	NA	NA	NA	NA	0.075 U	0.070 U	0.076 U	0.075 U	0.070 U	0.079 U	0.081 U	0.074 U	0.077 U	0.078 U	0.082 U	0.084 U	0.078 U	0.082 U	0.071 U	0.072 U
Hexachlorocyclopentadiene	NA	NA	NA	NA	NA	0.37 U	0.35 U	0.37 U	0.37 U	0.35 U	0.39 U	0.40 U	0.36 U	0.38 U	0.39 U	0.40 U	0.41 U	0.39 U	0.40 U	0.35 U	0.35 U
Hexachloroethane	NA	NA	NA	NA	NA	0.037 U	0.035 U	0.037 U	0.037 U	0.035 U	0.039 U	0.040 U	0.036 U	0.038 U	0.039 U	0.040 U	0.041 U	0.039 U	0.040 U	0.035 U	0.035 U
Indeno[1,2,3-cd]pyrene	0.5	0.5	0.5	5.6	8.2	0.037 U	0.17	*0.82*	0.037 U	0.035 U	0.039 U	0.040 U	0.036 U	0.038 U	0.039 U	0.040 U	0.041 U	0.039 U	0.040 U	0.035 U	0.035 U
Isophorone	NA	NA	NA	NA	NA	0.37 U	0.35 U	0.37 U	0.37 U	0.35 U	0.39 U	0.40 U	0.36 U	0.38 U	0.39 U	0.40 U	0.41 U	0.39 U	0.40 U	0.35 U	0.35 U
Naphthalene	12	100	100	500	12	0.37 U	0.35 U	0.37 U	0.37 U	0.35 U	0.39 U	0.40 U	0.36 U	0.38 U	0.39 U	0.40 U	0.41 U	0.39 U	0.40 U	0.35 U	0.35 U
Nitrobenzene	NA	NA	NA	NA	NA	0.037 U	0.035 U	0.037 U	0.037 U	0.035 U	0.039 U	0.040 U	0.036 U	0.038 U	0.039 U	0.040 U	0.041 U	0.039 U	0.040 U	0.035 U	0.035 U
N-Nitrosodi-n-propylamine	NA	NA	NA	NA	NA	0.037 U	0.035 U	0.037 U	0.037 U	0.035 U	0.039 U	0.040 U	0.036 U	0.038 U	0.039 U	0.040 U	0.041 U	0.039 U	0.040 U	0.035 U	0.035 U
N-Nitrosodiphenylamine	NA	NA	NA	NA	NA	0.37 U	0.35 U	0.37 U	0.37 U	0.35 U	0.39 U	0.40 U	0.36 U	0.38 U	0.39 U	0.40 U	0.41 U	0.39 U	0.40 U	0.35 U	0.35 U
Pentachlorophenol	0.8	2.4	6.7	6.7	0.8	1.1 U	1.0 U	1.1 U	1.1 U	1.0 U	1.2 U	1.2 U	1.1 U	1.2 U	1.2 U	1.2 U	1.3 U	1.2 U	1.2 U	1.1 U	1.1 U
Phenanthrene	100	100	100	500	1,000	0.37 U	0.33 J	1.3	0.37 U	0.35 U	0.39 U	0.40 U	0.36 U	0.38 U	0.39 U	0.40 U	0.41 U	0.39 U	0.40 U	0.35 U	0.35 U
Phenol	0.33	100	100	500	0.33	0.37 U	0.35 U	0.37 U	0.37 U	0.35 U	0.39 U	0.40 U	0.36 U	0.38 U	0.39 U	0.40 U	0.41 U	0.39 U	0.40 U	0.35 U	0.35 U
Pyrene	100	100	100	500	1,000	0.066 J	0.41	1.9	0.37 U	0.35 U	0.39 U	0.40 U	0.36 U	0.38 U	0.39 U	0.40 U	0.41 U	0.39 U	0.40 U	0.35 U	0.35 U
Pyridine	NA	NA	NA	NA	NA	0.37 U	0.35 U	0.37 U	0.37 U	0.35 U	0.39 U	0.40 U	0.36 U	0.38 U	0.39 U	0.40 U	0.41 U	0.39 U	0.40 U	0.35 U	0.35 U
SVOC TICs																					
SVOC TICs	NA	NA	NA	NA	NA	ND	ND	0.74	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes
ND: TIC not detected
* : LCS or LCSD exceeds the control limits
D : The reported value is from a dilution.
J : Indicates an estimated value.
J N : This flag indicates the presumptive evidence of a compound.
U : Analyzed for but not detected.
NA : Not Available
Highlighted / bolded indicates analyte exceeded above its respective NYSDEC Unrestricted SCO.
Green / italicized value indicates analyte exceeded its respective unrestricted SCO but was below its respective Residential / Protection of GW SCO, whichever is lower.
Blue / italicized value indicates analyte exceeded its respective Residential SCO and / or Protection of Groundwater SCO but was below its Restricted Residential SCO.
Pink / italicized value indicates analyte exceeded its respective Residential SCO and / or Protection of Groundwater SCO but was below its Commercial SCO.

Table 5-52
Preliminary TAL Metals Soil Analytical Data
Former Wedge Building - Post-excavation Data

TAL Metals (mg/kg)	NYSDEC SCOs Unrestricted	Residential	Restricted Residential	Commercial	Protection of Groundwater	Post-excavation End-point Soil Analytical Data: Former Chemical UST Area Bottom Samples W-EP#1(6') (6')	W-EP#2 (6')	W-EP#3 (10')	W-EP#4 (10')	W-EP#5 (10')	W-EP#6 (8')	East End of Area Bottom Samples W-EP#7 (2')	W-EP#8 (2')	W-EP#9 (3')	W-EP#10 (3')	W-EP#11 (3')
Aluminum	NA	NA	NA	NA	NA	1,140	2,420	2,840	5,660	2,650	5,490	8,420	11,600	9,040	10,600	8,410
Antimony	NA	NA	NA	NA	NA	3.2 U	3.8 U	3.9 U	3.3 U	3.6 U	3.7 U	0.92 J	3.6 U	3.6 U	4.2 U	1.1 J
Arsenic	13	16	16	16	16	1.7 J	2.1 J	1.0 J	3.8	1.3 J	1.8 J	5.6	4.2	5.6	4.5	10.5
Barium	350	350	400	400	820	42.1	15.8 J	12.0 J	37.9	19.5 J	27.0 J	191	49.1	109	271	198
Beryllium	7.2	14	72	590	47	0.32 U	0.17 J	0.39 U	0.20 J	0.36 U	0.19 J	0.24 J	0.31 J	0.30 J	0.38 J	0.27 J
Cadmium	2.5	2.5	4.3	9.3	7.5	0.64 U	0.76 U	0.78 U	0.66 U	0.72 U	0.73 U	0.67 U	0.73 U	0.73 U	0.84 U	0.21 J
Calcium	NA	NA	NA	NA	NA	173 J	220 J	221 J	416 J	461 J	492 J	3,530	970	1,410	4,540	2,040
Chromium[1]	30	36	180	1,500	NS	3.8	5.5	7.2	15.0	7.7	12.5	16.3	18.9	16.7	16.2	19.3
Cobalt	NA	NA	NA	NA	NA	1.6 J	8.8 J	3.3 J	5.1 J	2.8 J	5.3 J	5.9 J	6.9 J	5.4 J	6.6 J	6.5 J
Copper	50	270	270	270	1,720	2.2 J	7.8	5.9	10.5	4.6	9.0	15.5	11.3	20.6	13.3	43.0
Iron	NA	NA	NA	NA	NA	3,510	5,300	4,040	9,460	4,530	6,350	16,500	19,900	15,800	16,200	16,400
Lead	63	400	400	1,000	450	1.6 U	3.3	5.1	9.1	7.9	10	**207**	32.1	**81.8**	**112**	**305**
Magnesium	NA	NA	NA	NA	NA	166 J	426 J	554 J	1,510	757 J	1,210	2,380	2,520	2,110	3,170	2,020
Manganese	1,600	2,000	2,000	10,000	2,000	**4,250**	639	62.4	389	137	192	246	259	291	243	276
Nickel	30	140	310	310	130	6.1 J	4.2 J	4.7 J	9.3	5.4 J	9.0	10.4	11.9	10.8	12.0	13.4
Potassium	NA	NA	NA	NA	NA	121 J	172 J	292 J	922	268 J	661 J	679 J	710 J	662 J	700 J	622 J
Selenium	3.9	36	180	1,500	4	3.2 U	3.8 U	3.9 U	3.3 U	3.6 U	3.7 U	3.4 U	3.6 U	3.6 U	4.2 U	4.1 U
Silver	2	36	180	1,500	8.3	1.6 U	1.5 J	2.0 U	1.6 U	0.27 J	0.28 J	1.7 U	1.8 U	1.8 U	2.1 U	2.0 U
Sodium	NA	NA	NA	NA	NA	796 U	955 U	975 U	822 U	901 U	916 U	79.4 J	88.9 J	908 U	221 J	1020 U
Thallium	NA	NA	NA	NA	NA	4.7 J	0.94 J	3.9 U	3.3 U	3.6 U	3.7 U	3.4 U	3.6 U	3.6 U	4.2 U	4.1 U
Vanadium	NA	NA	NA	NA	NA	2.3 J	8.2 J	10.2	19.0	7.3 J	14.9	21.5	26.3	20.6	23.5	20.8
Zinc	109	2,200	10,000	10,000	2,480	5.2	6.9	13.7	27.3	15.1	30.4	**120**	42.8	**112**	**188**	**188**
Mercury	0.18	0.81	0.81	2.8	0.73	0.017 U	0.026	0.017 U	0.017 U	0.017 U	0.031	0.052	0.024	0.041	0.085	0.091

TAL Metals (mg/kg)	NYSDEC SCOs Unrestricted	Residential	Restricted Residential	Commercial	Protection of Groundwater	Post-excavation End-point Soil Analytical Data: East End of Area Bottom Samples W-EP#12 (5')	W-EP#13 (5')	W-EP#14 (5')	W-EP#15 (5')	Sidwall Samples W-EP#16 (3')	W-EP#17 (3')	Former Chemical UST Area Bottom Samples W-EP#26 (6')	W-EP#27 (6')	W-EP#28 (6')	W-EP#29 (6')
Aluminum	NA	NA	NA	NA	NA	6,410	6,220	7,030	15,800	2,570	4,270	899	1,750	4,490	1,040
Antimony	NA	NA	NA	NA	NA	3.7 U	3.3 U	3.7 U	3.3 U	3.0 U	3.6 U	3.3 U	3.6 U	4.1 U	4.1 U
Arsenic	13	16	16	16	16	1.7 J	1.8 J	2.7 J	3.0	1.2 J	2.4 J	1.1 J	0.63 J	6.2	1.1 J
Barium	350	350	400	400	820	31.4 J	30.5 J	44.6	28.4 J	9.4 J	16.5 J	62.8	9.5 J	36.0 J	4.3 J
Beryllium	7.2	14	72	590	47	0.46	0.42	0.31 J	0.34	0.19 J	0.28 J	0.33 U	0.36 U	0.28 J	0.083 J
Cadmium	2.5	2.5	4.3	9.3	7.5	0.74 U	0.66 U	0.74 U	0.66 U	0.60 U	0.72 U	0.66 U	0.72 U	0.82 U	0.81 U
Calcium	NA	NA	NA	NA	NA	499 J	1,160	920 J	3,000	296 J	381 J	155 J	124 J	705 J	82.5 J
Chromium[1]	30	36	180	1,500	NS	10.9	17.8	13.9	*69.1*	5.7	7.7	2.3	3.0	13.3	3.1
Cobalt	NA	NA	NA	NA	NA	8.1 J	7.0 J	4.4 J	10.6	2.1 J	2.9 J	1.9 J	0.93 J	4.1 J	1.3 J
Copper	50	270	270	270	1,720	8.0	12.1	26.4	14.1	2.9 J	4.9	1.8 J	2.8 J	6.8	2.8 J
Iron	NA	NA	NA	NA	NA	12,600	15,900	13,100	20,800	6,780	11,400	2,020	2,330	10,100	2,550
Lead	63	400	400	1,000	450	5.2	6.2	32.1	4.9	2.7	3.5	1.2 J	4.8	2.6	1.8 J
Magnesium	NA	NA	NA	NA	NA	1,590	2,840	2,010	10,400	548 J	1,120	130 J	274 J	1,680	178 J
Manganese	1,600	2,000	2,000	10,000	2,000	605	545	317	376	91.3	110	*3,410*	118	832	69.2
Nickel	30	140	310	310	130	11.7	14.7	8.1	*33.0*	3.0 J	4.7 J	4.0 J	2.0 J	9.9 B	2.3 J B
Potassium	NA	NA	NA	NA	NA	629 J	834	768 J	684 J	209 J	431 J	82.0 J	152 J	666 J	119 J
Selenium	3.9	36	180	1,500	4	3.7 U	3.3 U	3.7 U	3.3 U	3.0 U	3.6 U	1.7 J	3.6 U	4.1 U	4.1 U
Silver	2	36	180	1,500	8.3	1.8 U	1.7 U	1.9 U	1.7 U	1.5 U	1.8 U	0.92 J	1.8 U	2.1 U	2.0 U
Sodium	NA	NA	NA	NA	NA	924 U	826 U	927 U	830 U	754 U	894 U	827 U	902 U	1,030 U	1,010 U
Thallium	NA	NA	NA	NA	NA	3.7 U	3.3 U	3.7 U	3.3 U	3.0 U	3.6 U	3.1 J	3.6 U	1.2 J	4.1 U
Vanadium	NA	NA	NA	NA	NA	16.3	22.5	16.7	33.8	6.6 J	11.5	1.8 J	4.4 J	12.8	4.7 J
Zinc	109	2,200	10,000	10,000	2,480	29.0	22.7	34.9	46.2	8.8	13.8	3.7 J	7.4	12.6	4.9 J
Mercury	0.18	0.81	0.81	2.8	0.73	0.018 U	0.017 U	0.027	0.019 U	0.018 U	0.019 U	0.018 U	0.018 U	0.017 U	0.017 U

Notes
J : Sample result is greater than the MDL but below the CRDL
U : Indicates analyzed for but not detected.
[1] Trivalent chromium SCOs utilized.
Highlighted / bolded indicates analyte exceeded above its respective NYSDEC Unrestricted SCO.
Green / italicized value indictes analyte exceeded its repsective unrestricted SCO but was below its respective Residential / Protection of GW SCO, whichever is lower.
NA - Not Available
NS - No Standard Available
Highlighted / bolded indicates analyte exceeded above its respective NYSDEC Unrestricted SCO.
Green / italicized value indicates analyte exceeded its respective unrestricted SCO but was below its respective Residential / Protection of GW SCO, whichever is lower.
Blue / italicized value indicates analyte exceeded its respective Residential SCO and / or Protection of Groundwater SCO but was below its Restricted Residential SCO.
Pink / italicized value indicates analyte exceeded its respective Residential SCO and / or Protection of Groundwater SCO but was below its Commercial SCO.

Table 5-53
TAL Metals Soil Analytical Data
C4-2 Original Sample Location - Post Excavation Data

TAL Metals (mg/kg)	NYSDEC Unrestricted SCO	Post-excavation End-point Soil Analytical Data				
		C4-2 Original Sample Location				
		Side-wall Samples				Bottom Sample
		C4-EP#2	C4-EP#3	C4-EP#4	C4-EP#5	C4-EP#1
		(1')	(1')	(1')	(1')	(3')
Aluminum	NA	9,670	7,930	8,700	4,280	8,470
Antimony	NA	3.8 U	3.7 U	3.6 U	3.6 U	3.7 U
Arsenic	13	1.7 J	1.8 J	1.4 J	1.7 J	1.9 J
Barium	350	51.6	35.0 J	37.9	20.0 J	39.3
Beryllium	7.2	0.35 J	0.25 J	0.25 J	0.14 J	0.29 J
Cadmium	2.5	0.75 U	0.75 U	0.72 U	0.72 U	0.74 U
Calcium	NA	1,510	1,490	708 J	9,390	1,170
Chromium[1]	30	17.8	14.2	15.0	8.9	14.9
Cobalt	NA	4.5 J	8.4 J	3.1 J	1.8 J	3.2 J
Copper	50	12.5	9.3	7.7	4.4 J	11.0
Iron	NA	8,570	8,090	7,760	5,690	7,970
Lead	63	7.3	6.2	5.7	3.9	5.7
Magnesium	NA	2,310	2,050	2,390	1,300	2,260
Manganese	1,600	111	124	73.6	86.8	85.4
Nickel	30	10.8	8.7	9.1	4.6 J	9.6
Potassium	NA	541 J	603 J	626 J	340 J	706 J
Selenium	3.9	3.8 U	3.7 U	3.6 U	3.6 U	1.0 J
Silver	2	1.9 U	1.9 U	1.8 U	1.8 U	1.9 U
Sodium	NA	81.2 J	932 U	904 U	84.7 J	927 U
Thallium	NA	3.8 U	3.7 U	3.6 U	3.6 U	3.7 U
Vanadium	NA	20.0	17.6	16.1	11.4	16.1
Zinc	109	29.9	25.2	27.7	12.9	28.7
Mercury	0.18	0.020 U	0.020 U	0.021 U	0.018 U	0.019 U

Notes
J : Sample result is greater than the MDL but below the CRDL
U : Indicates analyzed for but not detected.
[1] Trivalent chromium SCOs utilized.
Highlighted / bolded indicates analyte exceeded above its respective NYSDEC Unrestricted SCO.
NA - Not Available

APEX

Table 5-54
North Alleyway Area
Confirmatory, Port-Excavation TCL VOC Soil Analytical Data

		North Alleyway Area - Confirmatory Post-Excavation Soil Samples															
		Sidewall Soil Samples															
	NYSDEC	NA-EP#1	NA-EP#2	NA-EP#5	NA-EP#6	NA-EP#8	NA-EP#10	NA-EP#12	~~NA-EP#13~~	NA-EP#16	NA-EP#17	NA-EP#18	NA-EP#19	NA-EP#22	NA-EP#23	~~NA-EP#24~~
TCL VOCs (mg/kg)	Unrestricted SCO	(8')	(8')	(8')	(8')	(8')	(8')	(8')	~~(12')~~	(4')	(8')	(4')	(8')	(4')	(8')	~~(8')~~
1,1,1-Trichloroethane	0.68	0.00092 U	0.00091 U	0.00099 U	0.00095 U	0.00099 U	0.0010 U	0.0011 U	~~0.00090 U~~	0.0011 U	0.0012 U	0.00095 U	0.0011 U	0.00098 U	0.0010 U	~~0.0010 U~~
1,1,2,2-Tetrachloroethane	NA	0.00092 U	0.00091 U	0.00099 U	0.00095 U	0.00099 U	0.0010 U	0.0011 U	~~0.00090 U~~	0.0011 U	0.0012 U	0.00095 U	0.0011 U	0.00098 U	0.0010 U	~~0.0010 U~~
1,1,2-Trichloroethane	NA	0.00092 U	0.00091 U	0.00099 U	0.00095 U	0.00099 U	0.0010 U	0.0011 U	~~0.00090 U~~	0.0011 U	0.0012 U	0.00095 U	0.0011 U	0.00098 U	0.0010 U	~~0.0010 U~~
1,1-Dichloroethane	0.27	0.00092 U	0.00091 U	0.00099 U	0.00095 U	0.00099 U	0.0010 U	0.0011 U	~~0.00090 U~~	0.0011 U	0.0012 U	0.00095 U	0.0011 U	0.00098 U	0.0010 U	~~0.0010 U~~
1,1-Dichloroethene	0.33	0.00092 U	0.00091 U	0.00099 U	0.00095 U	0.00099 U	0.0010 U	0.0011 U	~~0.00090 U~~	0.0011 U	0.0012 U	0.00095 U	0.0011 U	0.00098 U	0.0010 U	~~0.0010 U~~
1,2,3-Trichlorobenzene	NA	0.00092 U	0.00091 U	0.00099 U	0.00095 U	0.00099 U	0.0010 U	0.0011 U	~~0.00090 U~~	0.0011 U	0.0012 U	0.00095 U	0.0011 U	0.00098 U	0.0010 U	~~0.0010 U~~
1,2,4-Trichlorobenzene	NA	0.00092 U	0.00091 U	0.00099 U	0.00095 U	0.00099 U	0.0010 U	0.0011 U	~~0.00090 U~~	0.0011 U	0.0012 U	0.00095 U	0.0011 U	0.00098 U	0.0010 U	~~0.0010 U~~
1,2-Dibromo-3-Chloropropane	NA	0.00092 U	0.00091 U	0.00099 U	0.00095 U	0.00099 U	0.0010 U	0.0011 U	~~0.00090 U~~	0.0011 U	0.0012 U	0.00095 U	0.0011 U	0.00098 U	0.0010 U	~~0.0010 U~~
1,2-Dibromoethane	NA	0.00092 U	0.00091 U	0.00099 U	0.00095 U	0.00099 U	0.0010 U	0.0011 U	~~0.00090 U~~	0.0011 U	0.0012 U	0.00095 U	0.0011 U	0.00098 U	0.0010 U	~~0.0010 U~~
1,2-Dichlorobenzene	1.1	0.00092 U	0.00091 U	0.00099 U	0.00095 U	0.00099 U	0.0010 U	0.0011 U	~~0.00090 U~~	0.0011 U	0.0012 U	0.00095 U	0.0011 U	0.00098 U	0.0010 U	~~0.0010 U~~
1,2-Dichloroethane	0.02	0.00092 U	0.00091 U	0.00099 U	0.00095 U	0.00099 U	0.0010 U	0.0011 U	~~0.00090 U~~	0.0011 U	0.0012 U	0.00095 U	0.0011 U	0.00098 U	0.0010 U	~~0.0010 U~~
1,2-Dichloropropane	NA	0.00092 U	0.00091 U	0.00099 U	0.00095 U	0.00099 U	0.0010 U	0.0011 U	~~0.00090 U~~	0.0011 U	0.0012 U	0.00095 U	0.0011 U	0.00098 U	0.0010 U	~~0.0010 U~~
1,3-Dichlorobenzene	2.4	0.00092 U	0.00091 U	0.00099 U	0.00095 U	0.00099 U	0.0010 U	0.0011 U	~~0.00090 U~~	0.0011 U	0.0012 U	0.00095 U	0.0011 U	0.00098 U	0.0010 U	~~0.0010 U~~
1,4-Dichlorobenzene	1.8	0.00092 U	0.00091 U	0.00099 U	0.00095 U	0.00099 U	0.0010 U	0.0011 U	~~0.00090 U~~	0.0011 U	0.0012 U	0.00095 U	0.0011 U	0.00098 U	0.0010 U	~~0.0010 U~~
1,4-Dioxane	0.1	0.018 U	0.018 U	0.020 U	0.019 U	0.020 U	0.020 U	0.021 U	~~0.018 U~~	0.021 U	0.023 U	0.019 U	0.022 U	0.020 U	0.020 U	~~0.021 U~~
2-Butanone (MEK)	0.12	0.0046 U	0.0046 U	0.0049 U	0.0048 U	0.0050 U	0.0050 U	0.0053 U	~~0.0045 U~~	0.0053 U	0.0058 U	0.0048 U	0.0054 U	0.0049 U	0.0050 U	~~0.0052 U~~
2-Hexanone	NA	0.0046 U	0.0046 U	0.0049 U	0.0048 U	0.0050 U	0.0050 U	0.0053 U	~~0.0045 U~~	0.0053 U	0.0058 U	0.0048 U	0.0054 U	0.0049 U	0.0050 U	~~0.0052 U~~
4-Methyl-2-pentanone	NA	0.0046 U	0.0046 U	0.0049 U	0.0048 U	0.0050 U	0.0050 U	0.0053 U	~~0.0045 U~~	0.0053 U	0.0058 U	0.0048 U	0.0054 U	0.0049 U	0.0050 U	~~0.0052 U~~
Acetone	0.05	0.0046 U	0.0046 U	0.0049 U	0.0080 B	0.0050 U	0.0050 U	0.0053 U	~~0.0045 U~~	0.0074 B	0.0058 U	0.0048 U	0.012 B	0.0049 U	0.011 B	~~0.010 B~~
Benzene	0.06	0.00092 U	0.00091 U	0.00099 U	0.00095 U	0.00099 U	0.0010 U	0.0011 U	~~0.00040 J~~	0.0011 U	0.0012 U	0.00095 U	0.0011 U	0.00098 U	0.0010 U	~~0.0010 U~~
Bromochloromethane	NA	0.00092 U	0.00091 U	0.00099 U	0.00095 U	0.00099 U	0.0010 U	0.0011 U	~~0.00090 U~~	0.0011 U	0.0012 U	0.00095 U	0.0011 U	0.00098 U	0.0010 U	~~0.0010 U~~
Bromodichloromethane	NA	0.00092 U	0.00091 U	0.00099 U	0.00095 U	0.00099 U	0.0010 U	0.0011 U	~~0.00090 U~~	0.0011 U	0.0012 U	0.00095 U	0.0011 U	0.00098 U	0.0010 U	~~0.0010 U~~
Bromoform	NA	0.00092 U	0.00091 U	0.00099 U	0.00095 U	0.00099 U	0.0010 U	0.0011 U	~~0.00090 U~~	0.0011 U	0.0012 U	0.00095 U	0.0011 U	0.00098 U	0.0010 U	~~0.0010 U~~
Bromomethane	NA	0.00092 U	0.00091 U	0.00099 U	0.00095 U	0.00099 U	0.0010 U	0.0011 U	~~0.00090 U~~	0.0011 U	0.0012 U	0.00095 U	0.0011 U	0.00098 U	0.0010 U	~~0.0010 U~~
Carbon disulfide	NA	0.00092 U	0.00091 U	0.00099 U	0.00095 U	0.00021 J	0.0010 U	0.0011 U	~~0.00090 U~~	0.0011 U	0.0012 U	0.00095 U	0.0011 U	0.00098 U	0.0010 U	~~0.0010 U~~
Carbon tetrachloride	0.76	0.00092 U	0.00091 U	0.00099 U	0.00095 U	0.00099 U	0.0010 U	0.0011 U	~~0.00090 U~~	0.0011 U	0.0012 U	0.00095 U	0.0011 U	0.00098 U	0.0010 U	~~0.0010 U~~
Chlorobenzene	1.1	0.00092 U	0.00091 U	0.00099 U	0.00095 U	0.00099 U	0.0010 U	0.0011 U	~~0.00090 U~~	0.0011 U	0.0012 U	0.00095 U	0.0011 U	0.00098 U	0.0010 U	~~0.0010 U~~
Chloroethane	NA	0.00092 U	0.00091 U	0.00099 U	0.00095 U	0.00099 U	0.0010 U	0.0011 U	~~0.00090 U~~	0.0011 U	0.0012 U	0.00095 U	0.0011 U	0.00098 U	0.0010 U	~~0.0010 U~~
Chloroform	0.37	0.00092 U	0.00091 U	0.00099 U	0.00095 U	0.00099 U	0.0010 U	0.0011 U	~~0.00090 U~~	0.0011 U	0.0012 U	0.00095 U	0.0011 U	0.00098 U	0.0010 U	~~0.0010 U~~
Chloromethane	NA	0.00092 U	0.00091 U	0.00099 U	0.00095 U	0.00099 U	0.0010 U	0.0011 U	~~0.00090 U~~	0.0011 U	0.0012 U	0.00095 U	0.0011 U	0.00098 U	0.0010 U	~~0.0010 U~~
cis-1,2-Dichloroethene	0.25	0.00092 U	0.00091 U	0.00099 U	0.00095 U	0.00099 U	0.0010 U	0.0011 U	~~0.00090 U~~	0.0011 U	0.0012 U	0.00095 U	0.0011 U	0.00098 U	0.0010 U	~~0.0010 U~~
cis-1,3-Dichloropropene	NA	0.00092 U	0.00091 U	0.00099 U	0.00095 U	0.00099 U	0.0010 U	0.0011 U	~~0.00090 U~~	0.0011 U	0.0012 U	0.00095 U	0.0011 U	0.00098 U	0.0010 U	~~0.0010 U~~
Cyclohexane	NA	0.00092 U	0.00091 U	0.00099 U	0.00095 U	0.00099 U	0.0010 U	0.0011 U	~~0.00090 U~~	0.0011 U	0.0012 U	0.00095 U	0.0011 U	0.00098 U	0.0010 U	~~0.0010 U~~
Dibromochloromethane	NA	0.00092 U	0.00091 U	0.00099 U	0.00095 U	0.00099 U	0.0010 U	0.0011 U	~~0.00090 U~~	0.0011 U	0.0012 U	0.00095 U	0.0011 U	0.00098 U	0.0010 U	~~0.0010 U~~
Dichlorodifluoromethane	NA	0.00092 U	0.00091 U	0.00099 U	0.00095 U	0.00099 U	0.0010 U	0.0011 U	~~0.00090 U~~	0.0011 U	0.0012 U	0.00095 U	0.0011 U	0.00098 U	0.0010 U	~~0.0010 U~~
Ethylbenzene	1	0.00092 U	0.00091 U	0.00099 U	0.00095 U	0.00099 U	0.0010 U	0.0011 U	~~0.00090 U~~	0.0011 U	0.0012 U	0.00095 U	0.0011 U	0.00098 U	0.0010 U	~~0.0051~~
Freon 113	NA	0.00092 U	0.00091 U	0.00099 U	0.00095 U	0.00099 U	0.0010 U	0.0011 U	~~0.00090 U~~	0.0011 U	0.0012 U	0.00095 U	0.0011 U	0.00098 U	0.0010 U	~~0.0010 U~~
Isopropylbenzene	NA	0.00092 U	0.00091 U	0.00099 U	0.00095 U	0.00099 U	0.0010 U	0.0011 U	~~0.00012 J~~	0.0011 U	0.0012 U	0.00095 U	0.0011 U	0.00098 U	0.0010 U	~~0.00027 J~~
m&p-Xylene	0.26	0.0018 U	0.0018 U	0.0020 U	0.0019 U	0.0020 U	0.0020 U	0.0021 U	~~0.0018 U~~	0.0021 U	0.0023 U	0.0019 U	0.0022 U	0.0020 U	0.0020 U	~~0.013~~
Methyl acetate	NA	0.00092 U	0.00091 U	0.00099 U	0.00095 U	0.00099 U	0.0010 U	0.0011 U	~~0.00090 U~~	0.0011 U	0.0012 U	0.00095 U	0.0011 U	0.00098 U	0.0010 U	~~0.0010 U~~
Methylcyclohexane	NA	0.00092 U	0.00091 U	0.00099 U	0.00095 U	0.00099 U	0.0010 U	0.0011 U	~~0.00090 U~~	0.0011 U	0.0012 U	0.00095 U	0.0011 U	0.00098 U	0.0010 U	~~0.0010 U~~
Methylene Chloride	0.05	0.00092 U	0.00084 J	0.00099 U	0.00045 J	0.00077 J	0.0010	0.0016	~~0.0013~~	0.00088 J	0.0013	0.00099 B	0.0014	0.0011 B	0.0011 B	~~0.0017 B~~
MTBE	0.93	0.00092 U	0.00091 U	0.00099 U	0.00095 U	0.00099 U	0.0010 U	0.0011 U	~~0.00090 U~~	0.0011 U	0.0012 U	0.00095 U	0.0011 U	0.00098 U	0.0010 U	~~0.0010 U~~
Naphthalene	12	0.00092 U	0.00022 J	0.00099 U	0.00095 U	0.00099 U	0.0010 U	0.0011 U	~~0.00031 J~~	0.0011 U	0.0012 U	0.00095 U	0.0011 U	0.00098 U	0.0010 U	~~0.0010 U~~
o-Xylene	0.26	0.00092 U	0.00091 U	0.00099 U	0.00095 U	0.00099 U	0.0010 U	0.0011 U	~~0.00090 U~~	0.0011 U	0.0012 U	0.00095 U	0.0011 U	0.00098 U	0.0010 U	~~0.0030~~
Styrene	NA	0.00092 U	0.00091 U	0.00099 U	0.00095 U	0.00099 U	0.0010 U	0.0011 U	~~0.00090 U~~	0.0011 U	0.0012 U	0.00095 U	0.0011 U	0.00098 U	0.0010 U	~~0.0010 U~~
Tetrachloroethene	1.3	0.00092 U	0.00091 U	0.00099 U	0.00095 U	0.00099 U	0.0010 U	0.0011 U	~~0.00090 U~~	0.00048 J	0.0012 U	0.00036 J	0.0011 U	0.00098 U	0.0010 U	~~0.0010 U~~
Toluene	0.7	0.00092 U	0.00091 U	0.00099 U	0.00095 U	0.00099 U	0.0010 U	0.0011 U	~~0.00090 U~~	0.0011 U	0.0012 U	0.00095 U	0.0011 U	0.00098 U	0.0010 U	~~0.0010 U~~
trans-1,2-Dichloroethene	0.19	0.00092 U	0.00091 U	0.00099 U	0.00095 U	0.00099 U	0.0010 U	0.0011 U	~~0.00090 U~~	0.0011 U	0.0012 U	0.00095 U	0.0011 U	0.00098 U	0.0010 U	~~0.0010 U~~
trans-1,3-Dichloropropene	NA	0.00092 U	0.00091 U	0.00099 U	0.00095 U	0.00099 U	0.0010 U	0.0011 U	~~0.00090 U~~	0.0011 U	0.0012 U	0.00095 U	0.0011 U	0.00098 U	0.0010 U	~~0.0010 U~~
Trichloroethene	0.47	0.00092 U	0.00091 U	0.00099 U	0.00095 U	0.00099 U	0.0010 U	0.0011 U	~~0.00090 U~~	0.0011 U	0.0012 U	0.00095 U	0.0011 U	0.00098 U	0.0010 U	~~0.0010 U~~
Trichlorofluoromethane	NA	0.00092 U	0.00091 U	0.00099 U	0.00095 U	0.00099 U	0.0010 U	0.0011 U	~~0.00090 U~~	0.0011 U	0.0012 U	0.00095 U	0.0011 U	0.00098 U	0.0010 U	~~0.0010 U~~
Vinyl chloride	0.02	0.00092 U	0.00091 U	0.00099 U	0.00095 U	0.00099 U	0.0010 U	0.0011 U	~~0.00090 U~~	0.0011 U	0.0012 U	0.00095 U	0.0011 U	0.00098 U	0.0010 U	~~0.0010 U~~
Xylenes, Total	0.26	0.0028 U	0.0027 U	0.0030 U	0.0029 U	0.0030 U	0.0030 U	0.0032 U	~~0.0027 U~~	0.0032 U	0.0035 U	0.0029 U	0.0032 U	0.0030 U	0.0030 U	~~0.016~~
Total VOC TICs	NA	ND	ND	ND	ND	0.091	ND	ND	~~ND~~	ND	ND	ND	ND	ND	ND	~~ND~~

Notes
ND: TIC not detected
B : The analyte was found in an associated blank, as well as in the sample.
J : Indicates an estimated value.
J B : Indicates an estimated value.
U : Analyzed for but not detected.

Table 5-54
North Alleyway Area
Confirmatory, Port-Excavation TCL VOC Soil Analytical Data

TCL VOCs (mg/kg)	NYSDEC Unrestricted SCO	North Alleyway Area - Confirmatory Post-Excavation Soil Samples														
		Sidewall Soil Samples														
		~~NA-EP#26~~	NA-EP#27	NA-EP#28	NA-EP#29	NA-EP#38	NA-EP#40	NA-EP#41	NA-EP#45	NA-EP#47	NA-EP#49	NA-EP#58	NA-EP#59	NA-EP#61	NA-EP#62	NA-EP#63
		~~(8')~~	(8')	(8')	(8')	(12')	(12')	(12')	(12')	(12')	(12')	(8')	(8')	(8')	(8')	(8')
1,1,1-Trichloroethane	0.68	~~0.00036 J~~	0.0011 U	0.00091 U	0.00087 U	0.017	0.0015	0.00097	0.00087 U	0.0010 U	0.0012 U	0.00014 J	0.0011 U	0.0010 U	0.00094 U	0.0011 U
1,1,2,2-Tetrachloroethane	NA	~~0.0012 U~~	0.0011 U	0.00091 U	0.00087 U	0.0010 U	0.0014 U	0.00093 U	0.00087 U	0.0010 U	0.0012 U	0.00098 U	0.0011 U	0.0010 U	0.00094 U	0.0011 U
1,1,2-Trichloroethane	NA	~~0.0012 U~~	0.0011 U	0.00091 U	0.00087 U	0.0010 U	0.0014 U	0.00093 U	0.00087 U	0.0010 U	0.0012 U	0.00098 U	0.0011 U	0.0010 U	0.00094 U	0.0011 U
1,1-Dichloroethane	0.27	~~0.0015~~	0.0011 U	0.00091 U	0.00087 U	0.00027 J	0.0014 U	0.00093 U	0.00087 U	0.0010 U	0.0012 U	0.00098 U	0.0011 U	0.0010 U	0.00094 U	0.0011 U
1,1-Dichloroethene	0.33	~~0.0012 U~~	0.0011 U	0.00091 U	0.00087 U	0.0010 U	0.0014 U	0.00093 U	0.00087 U	0.0010 U	0.0012 U	0.00098 U	0.0011 U	0.0010 U	0.00094 U	0.0011 U
1,2,3-Trichlorobenzene	NA	~~0.0012 U~~	0.0011 U	0.00091 U	0.00087 U	0.0010 U	0.0014 U	0.00093 U	0.00087 U	0.0010 U	0.0012 U	0.00098 U	0.0011 U	0.0010 U	0.00094 U	0.0011 U
1,2,4-Trichlorobenzene	NA	~~0.0012 U~~	0.0011 U	0.00091 U	0.00087 U	0.0010 U	0.0014 U	0.00093 U	0.00087 U	0.0010 U	0.0012 U	0.00098 U	0.0011 U	0.0010 U	0.00094 U	0.0011 U
1,2-Dibromo-3-Chloropropane	NA	~~0.0012 U~~	0.0011 U	0.00091 U	0.00087 U	0.0010 U	0.0014 U	0.00093 U	0.00087 U	0.0010 U	0.0012 U	0.00098 U	0.0011 U	0.0010 U	0.00094 U	0.0011 U
1,2-Dibromoethane	NA	~~0.0012 U~~	0.0011 U	0.00091 U	0.00087 U	0.0010 U	0.0014 U	0.00093 U	0.00087 U	0.0010 U	0.0012 U	0.00098 U	0.0011 U	0.0010 U	0.00094 U	0.0011 U
1,2-Dichlorobenzene	1.1	~~0.0012 U~~	0.0011 U	0.00091 U	0.00087 U	0.0010 U	0.0014 U	0.00093 U	0.00087 U	0.0010 U	0.0012 U	0.00098 U	0.0011 U	0.0010 U	0.00094 U	0.0011 U
1,2-Dichloroethane	0.02	~~0.0012 U~~	0.0011 U	0.00091 U	0.00087 U	0.0010 U	0.0014 U	0.00093 U	0.00087 U	0.0010 U	0.0012 U	0.00098 U	0.0011 U	0.0010 U	0.00094 U	0.0011 U
1,2-Dichloropropane	NA	~~0.0012 U~~	0.0011 U	0.00091 U	0.00087 U	0.0010 U	0.0014 U	0.00093 U	0.00087 U	0.0010 U	0.0012 U	0.00098 U	0.0011 U	0.0010 U	0.00094 U	0.0011 U
1,3-Dichlorobenzene	2.4	~~0.0012 U~~	0.0011 U	0.00091 U	0.00087 U	0.0010 U	0.0014 U	0.00093 U	0.00087 U	0.0010 U	0.0012 U	0.00098 U	0.0011 U	0.0010 U	0.00094 U	0.0011 U
1,4-Dichlorobenzene	1.8	~~0.0012 U~~	0.0011 U	0.00091 U	0.00087 U	0.0010 U	0.00067 J	0.00093 U	0.00087 U	0.0010 U	0.0012 U	0.00098 U	0.0011 U	0.0010 U	0.00094 U	0.0011 U
1,4-Dioxane	0.1	~~0.023 U~~	0.022 U	0.018 U	0.017 U	0.020 U	0.029 U	0.019 U	0.017 U	0.021 U	0.023 U	0.020 U	0.021 U	0.021 U	0.019 U	0.022 U
2-Butanone (MEK)	0.12	~~0.0058 U~~	0.0054 U	0.0046 U	0.0044 U	0.0050 U	0.0072 U	0.0046 U	0.0037 J	0.0015 J	0.0025 J	0.0049 U	0.0053 U	0.0052 U	0.0019 J	0.0059
2-Hexanone	NA	~~0.0058 U~~	0.0054 U	0.0046 U	0.0044 U	0.0050 U	0.0072 U	0.0046 U	0.0043 U	0.0051 U	0.0058 U	0.0049 U	0.0053 U	0.0052 U	0.0047 U	0.0056 U
4-Methyl-2-pentanone	NA	~~0.0058 U~~	0.0054 U	0.0046 U	0.0044 U	0.0050 U	0.0072 U	0.0046 U	0.0043 U	0.0051 U	0.0058 U	0.0049 U	0.0053 U	0.0052 U	0.0047 U	0.0056 U
Acetone	0.05	~~0.018 B~~	0.0043 J B	0.013 B	0.011 B	0.012 B	0.018 B	0.015 B	0.025 B	0.012 B	0.014 B	0.012 B	0.014 B	0.011 B	0.019 B	0.037 B
Benzene	0.06	~~0.0012 U~~	0.0011 U	0.00091 U	0.00087 U	0.00089 J	0.00048 J	0.00093 U	0.037	0.00075 J	0.0012 U	0.00098 U	0.0011 U	0.0010 U	0.00094 U	0.0011 U
Bromochloromethane	NA	~~0.0012 U~~	0.0011 U	0.00091 U	0.00087 U	0.0010 U	0.0014 U	0.00093 U	0.00087 U	0.0010 U	0.0012 U	0.00098 U	0.0011 U	0.0010 U	0.00094 U	0.0011 U
Bromodichloromethane	NA	~~0.0012 U~~	0.0011 U	0.00091 U	0.00087 U	0.0010 U	0.0014 U	0.00093 U	0.00087 U	0.0010 U	0.0012 U	0.00098 U	0.0011 U	0.0010 U	0.00094 U	0.0011 U
Bromoform	NA	~~0.0012 U~~	0.0011 U	0.00091 U	0.00087 U	0.0010 U	0.0014 U	0.00093 U	0.00087 U	0.0010 U	0.0012 U	0.00098 U	0.0011 U	0.0010 U	0.00094 U	0.0011 U
Bromomethane	NA	~~0.0012 U~~	0.0011 U	0.00091 U	0.00087 U	0.0010 U	0.0014 U	0.00093 U	0.00087 U	0.0010 U	0.0012 U	0.00098 U	0.0011 U	0.0010 U	0.00094 U	0.0011 U
Carbon disulfide	NA	~~0.0012 U~~	0.0011 U	0.00091 U	0.00087 U	0.0010 U	0.0014 U	0.00093 U	0.00017 J	0.0010 U	0.0012 U	0.00098 U	0.0011 U	0.0010 U	0.00019 J	0.00087 J
Carbon tetrachloride	0.76	~~0.0012 U~~	0.0011 U	0.00091 U	0.00087 U	0.0010 U	0.0014 U	0.00093 U	0.00087 U	0.0010 U	0.0012 U	0.00098 U	0.0011 U	0.0010 U	0.00094 U	0.0011 U
Chlorobenzene	1.1	~~0.0012 U~~	0.0011 U	0.00091 U	0.00087 U	0.0010 U	0.0014 U	0.00093 U	0.00087 U	0.0010 U	0.0012 U	0.00098 U	0.0011 U	0.0010 U	0.00094 U	0.0011 U
Chloroethane	NA	~~0.0012 U~~	0.0011 U	0.00091 U	0.00087 U	0.0010 U	0.0014 U	0.00093 U	0.00087 U	0.0011	0.0012 U	0.00098 U	0.0011 U	0.0010 U	0.00094 U	0.0011 U
Chloroform	0.37	~~0.0012 U~~	0.0011 U	0.00091 U	0.00087 U	0.0010 U	0.0014 U	0.00093 U	0.00087 U	0.0010 U	0.0012 U	0.00098 U	0.0011 U	0.0010 U	0.00094 U	0.0011 U
Chloromethane	NA	~~0.0012 U~~	0.0011 U	0.00091 U	0.00087 U	0.0010 U	0.0014 U	0.00093 U	0.00087 U	0.0010 U	0.0012 U	0.00098 U	0.0011 U	0.0010 U	0.00094 U	0.0011 U
cis-1,2-Dichloroethene	0.25	~~0.0012 U~~	0.0011 U	0.00091 U	0.00087 U	0.0010 U	0.0014 U	0.00093 U	0.00087 U	0.0010 U	0.0012 U	0.00098 U	0.0011 U	0.0010 U	0.00094 U	0.0011 U
cis-1,3-Dichloropropene	NA	~~0.0012 U~~	0.0011 U	0.00091 U	0.00087 U	0.0010 U	0.0014 U	0.00093 U	0.00087 U	0.0010 U	0.0012 U	0.00098 U	0.0011 U	0.0010 U	0.00094 U	0.0011 U
Cyclohexane	NA	~~0.0012 U~~	0.0011 U	0.00091 U	0.00087 U	0.0010 U	0.0014 U	0.00093 U	0.00018 J	0.0010 U	0.0012 U	0.00098 U	0.0011 U	0.0010 U	0.00094 U	0.0011 U
Dibromochloromethane	NA	~~0.0012 U~~	0.0011 U	0.00091 U	0.00087 U	0.0010 U	0.0014 U	0.00093 U	0.00087 U	0.0010 U	0.0012 U	0.00098 U	0.0011 U	0.0010 U	0.00094 U	0.0011 U
Dichlorodifluoromethane	NA	~~0.0012 U~~	0.0011 U	0.00091 U	0.00087 U	0.0010 U	0.0014 U	0.00093 U	0.00087 U	0.0010 U	0.0012 U	0.00098 U	0.0011 U	0.0010 U	0.00094 U	0.0011 U
Ethylbenzene	1	~~0.0057~~	0.016	0.00091 U	0.00087 U	0.0010 U	0.0014 U	0.00093 U	0.00087	0.0010 U	0.0012 U	0.00098 U	0.0011 U	0.0010 U	0.00094 U	0.0011 U
Freon 113	NA	~~0.0012 U~~	0.0011 U	0.00091 U	0.00087 U	0.0010 U	0.0014 U	0.00093 U	0.00087 U	0.0010 U	0.0012 U	0.00098 U	0.0011 U	0.0010 U	0.00094 U	0.0011 U
Isopropylbenzene	NA	~~0.00029 J~~	0.00054 J	0.00091 U	0.00087 U	0.0010 U	0.0014 U	0.00093 U	0.0013	0.00028 J	0.0012 U	0.00098 U	0.0011 U	0.0010 U	0.00094 U	0.00050 J
m&p-Xylene	0.26	~~0.014~~	0.040	0.0018 U	0.0017 U	0.0010 U	0.0014 U	0.00093 U	0.0011	0.0010 U	0.0012 U	0.00098 U	0.0011 U	0.0010 U	0.00094 U	0.0011 U
Methyl acetate	NA	~~0.0012 U~~	0.0011 U	0.00091 U	0.00087 U	0.0010 U	0.0014 U	0.00093 U	0.00087 U	0.0010 U	0.00083 J	0.0049 U	0.0053 U	0.0052 U	0.0047 U	0.0056 U
Methylcyclohexane	NA	~~0.0012 U~~	0.0011 U	0.00091 U	0.00087 U	0.0010 U	0.0014 U	0.00093 U	0.00060 J	0.0010 U	0.0012 U	0.00098 U	0.0011 U	0.0010 U	0.00094 U	0.0011 U
Methylene Chloride	0.05	~~0.0014 B~~	0.0018 B	0.00063 J	0.00075 J	0.00072 J	0.0012 J	0.00083 J	0.0022	0.0064	0.0090	0.0033	0.0017	0.0029	0.0020	0.0059
MTBE	0.93	~~0.0012 U~~	0.0011 U	0.00091 U R	0.00087 U R	0.0010 U	0.0014 U	0.00093 U	0.00087 U	0.0010 U	0.0012 U	0.00098 U	0.0011 U	0.0010 U	0.00094 U	0.0011 U
Naphthalene	12	~~0.0012 U~~	0.0011 U	0.00091 U	0.00087 U	0.00025 J	0.0014 U	0.00093 U	0.013	0.00085 J	0.0012 U	0.00098 U	0.00055 J	0.0010 U	0.00094 U	0.011
o-Xylene	0.26	~~0.0031~~	0.0085	0.00091 U	0.00087 U	0.0010 U	0.0014 U	0.00093 U	0.00087 U	0.0010 U	0.0012 U	0.00098 U	0.0011 U	0.0010 U	0.00094 U	0.0011 U
Styrene	NA	~~0.0012 U~~	0.0011 U	0.00091 U	0.00087 U	0.0010 U	0.0014 U	0.00093 U	0.00087 U	0.0010 U	0.0012 U	0.00098 U	0.0011 U	0.0010 U	0.00094 U	0.0011 U
Tetrachloroethene	1.3	~~0.00018 J~~	0.0011 U	0.00017 J	0.00087 U	0.00057 J	0.00073 J	0.0024	0.00087 U	0.0010 U	0.0012 U	0.00098 U	0.0011 U	0.0010 U	0.00094 U	0.0011 U
Toluene	0.7	~~0.0012 U~~	0.0011 U	0.00091 U	0.00087 U	0.00066 J	0.00040 J	0.00031 J	0.00018 J	0.00036 J	0.0012 U	0.00019 J	0.0011 U	0.00021 J	0.00021 J	0.00038 J
trans-1,2-Dichloroethene	0.19	~~0.0012 U~~	0.0011 U	0.00091 U	0.00087 U	0.0010 U	0.0014 U	0.00093 U	0.00087 U	0.0010 U	0.0012 U	0.00098 U	0.0011 U	0.0010 U	0.00094 U	0.0011 U
trans-1,3-Dichloropropene	NA	~~0.0012 U~~	0.0011 U	0.00091 U	0.00087 U	0.0010 U	0.0014 U	0.00093 U	0.00087 U	0.0010 U	0.0012 U	0.00098 U	0.0011 U	0.0010 U	0.00094 U	0.0011 U
Trichloroethene	0.47	~~0.0012 U~~	0.0011 U	0.00091 U	0.00087 U	0.00039 J	0.0014 U	0.00016 J	0.00087 U	0.0010 U	0.0012 U	0.00098 U	0.0011 U	0.0010 U	0.00094 U	0.0011 U
Trichlorofluoromethane	NA	~~0.0012 U~~	0.0011 U	0.00091 U	0.00087 U	0.0010 U	0.0014 U	0.00093 U	0.00087 U	0.0010 U	0.00039 J	0.00098 U	0.0011 U	0.0010 U	0.00094 U	0.0011 U
Vinyl chloride	0.02	~~0.0012 U~~	0.0011 U	0.00091 U	0.00087 U	0.0010 U	0.0014 U	0.00093 U	0.00087 U	0.0010 U	0.0012 U	0.00098 U	0.0011 U	0.0010 U	0.00094 U	0.0011 U
Xylenes, Total	0.26	~~0.017~~	0.048	0.0027 U	0.0026 U	0.0020 U	0.0029 U	0.0019 U	0.0011 J	0.0021 U	0.0023 U	0.0020 U	0.0021 U	0.0021 U	0.0019 U	0.0022 U
Total VOC TICs	NA	~~ND~~	ND	ND	ND	ND	ND	ND	0.426	0.01	ND	ND	0.0127	ND	ND	0.1242

Notes
ND: TIC not detected
U R : Indicates that value is regected based upon DUSR review by third party data validator.
B : The analyte was found in an associated blank, as well as in the sample.
J : Indicates an estimated value.
J B : Indicates an estimated value.
U : Analyzed for but not detected.

Table 5-54
North Alleyway Area
Confirmatory, Port-Excavation TCL VOC Soil Analytical Data

		North Alleyway Area - Confirmatory Post-Excavation Soil Samples															
		Bottom Soil Samples															
	NYSDEC	NA-EP#3	NA-EP#4	NA-EP#7	NA-EP#9	NA-EP#11	NA-EP#14	~~NA-EP#15~~	NA-EP#20	NA-EP#21	~~NA-EP#25~~	NA-EP#30	NA-EP#31	NA-EP#32	~~NA-EP#33~~	NA-EP#34	NA-EP#35
TCL VOCs (mg/kg)	Unrestricted SCO	(14')	(14')	(15')	(12')	(12')	(12')	~~(12')~~	(10')	(10')	~~(8')~~	(12')	(12')	(12')	~~(12')~~	(12')	(12')
1,1,1-Trichloroethane	0.68	0.0010 U	0.0010 U	0.00095 U	0.00097 U	0.0010 U	0.00095 U	~~0.0013 U~~	0.0011 U	0.0010 U	~~0.0011 U~~	0.00094 U	0.00091 U	0.00097 U	~~0.00097 U~~	0.0013 U	0.0012 U
1,1,2,2-Tetrachloroethane	NA	0.0010 U	0.0010 U	0.00095 U	0.00097 U	0.0010 U	0.00095 U	~~0.0013 U~~	0.0011 U	0.0010 U	~~0.0011 U~~	0.00094 U	0.00091 U	0.00097 U	~~0.00097 U~~	0.0013 U	0.0012 U
1,1,2-Trichloroethane	NA	0.0010 U	0.0010 U	0.00095 U	0.00097 U	0.0010 U	0.00095 U	~~0.0013 U~~	0.0011 U	0.0010 U	~~0.0011 U~~	0.00094 U	0.00091 U	0.00097 U	~~0.00097 U~~	0.0013 U	0.0012 U
1,1-Dichloroethane	0.27	0.0010 U	0.0010 U	0.00095 U	0.00097 U	0.0010 U	0.00095 U	~~0.0013 U~~	0.0011 U	0.0010 U	~~0.0011 U~~	0.00094 U	0.00091 U	0.00097 U	~~0.00097 U~~	0.0013 U	0.0012 U
1,1-Dichloroethene	0.33	0.0010 U	0.0010 U	0.00095 U	0.00097 U	0.0010 U	0.00095 U	~~0.0013 U~~	0.0011 U	0.0010 U	~~0.0011 U~~	0.00094 U	0.00091 U	0.00097 U	~~0.00097 U~~	0.0013 U	0.0012 U
1,2,3-Trichlorobenzene	NA	0.0010 U	0.0010 U	0.00095 U	0.00097 U	0.0010 U	0.00095 U	~~0.0013 U~~	0.0011 U	0.0010 U	~~0.0011 U~~	0.00094 U	0.00091 U	0.00097 U	~~0.00097 U~~	0.0013 U	0.0012 U
1,2,4-Trichlorobenzene	NA	0.0010 U	0.0010 U	0.00095 U	0.00097 U	0.0010 U	0.00095 U	~~0.0013 U~~	0.0011 U	0.0010 U	~~0.0011 U~~	0.00094 U	0.00091 U	0.00097 U	~~0.00097 U~~	0.0013 U	0.0012 U
1,2-Dibromo-3-Chloropropane	NA	0.0010 U	0.001 U	0.00095 U	0.00097 U	0.0010 U	0.00095 U	~~0.0013 U~~	0.0011 U	0.0010 U	~~0.0011 U~~	0.00094 U	0.00091 U	0.00097 U	~~0.00097 U~~	0.0013 U	0.0012 U
1,2-Dibromoethane	NA	0.0010 U	0.0010 U	0.00095 U	0.00097 U	0.0010 U	0.00095 U	~~0.0013 U~~	0.0011 U	0.0010 U	~~0.0011 U~~	0.00094 U	0.00091 U	0.00097 U	~~0.00097 U~~	0.0013 U	0.0012 U
1,2-Dichlorobenzene	1.1	0.0010 U	0.0010 U	0.00095 U	0.00097 U	0.0010 U	0.00095 U	~~0.0013 U~~	0.0011 U	0.0010 U	~~0.0011 U~~	0.00094 U	0.00091 U	0.00097 U	~~0.00097 U~~	0.0013 U	0.0012 U
1,2-Dichloroethane	0.02	0.0010 U	0.0010 U	0.00095 U	0.00097 U	0.0010 U	0.00095 U	~~0.0013 U~~	0.0011 U	0.0010 U	~~0.0011 U~~	0.00094 U	0.00091 U	0.00097 U	~~0.00097 U~~	0.0013 U	0.0012 U
1,2-Dichloropropane	NA	0.0010 U	0.0010 U	0.00095 U	0.00097 U	0.0010 U	0.00095 U	~~0.0013 U~~	0.0011 U	0.0010 U	~~0.0011 U~~	0.00094 U	0.00091 U	0.00097 U	~~0.00097 U~~	0.0013 U	0.0012 U
1,3-Dichlorobenzene	2.4	0.0010 U	0.0010 U	0.00095 U	0.00097 U	0.0010 U	0.00095 U	~~0.0013 U~~	0.0011 U	0.0010 U	~~0.0011 U~~	0.00094 U	0.00091 U	0.00097 U	~~0.00097 U~~	0.0013 U	0.0012 U
1,4-Dichlorobenzene	1.8	0.0010 U	0.0010 U	0.00095 U	0.00097 U	0.0010 U	0.00095 U	~~0.0013 U~~	0.0011 U	0.0010 U	~~0.0011 U~~	0.00094 U	0.00091 U	0.00097 U	~~0.00097 U~~	0.0013 U	0.0012 U
1,4-Dioxane	0.1	0.020 U	0.021 U	0.019 U	0.019 U	0.020 U	0.019 U	~~0.026 U~~	0.023 U	0.020 U	~~0.021 U~~	0.019 U	0.018 U	0.019 U	~~0.019 U~~	0.026 U	0.024 U
2-Butanone (MEK)	0.12	0.0051 U	0.0051 U	0.0047 U	0.0048 U	0.0051 U	0.0047 U	~~0.0064 U~~	0.0056 U	0.0051 U	~~0.0053 U~~	0.0047 U	0.0046 U	0.0049 U	~~0.0049 U~~	0.0066 U	0.0060 U
2-Hexanone	NA	0.0051 U	0.0051 U	0.0047 U	0.0048 U	0.0051 U	0.0047 U	~~0.0064 U~~	0.0056 U	0.0051 U	~~0.0053 U~~	0.0047 U	0.0046 U	0.0049 U	~~0.0049 U~~	0.0066 U	0.0060 U
4-Methyl-2-pentanone	NA	0.0051 U	0.0051 U	0.0047 U	0.0048 U	0.0051 U	0.0047 U	~~0.0064 U~~	0.0056 U	0.0051 U	~~0.0053 U~~	0.0047 U	0.0046 U	0.0049 U	~~0.0049 U~~	0.0066 U	0.0060 U
Acetone	0.05	0.0051 U	0.0051 U	0.038 B	0.0048 U	0.0051 U	0.011 B	~~0.012 B~~	0.0072 B	0.0051 U	~~0.0055 B~~	0.010 B	0.018 B	0.014 B	~~0.0094 B~~	0.020 B	0.012 B
Benzene	0.06	0.0010 U	0.0010 U	0.00095 U	0.00023 J	0.0010 U	0.0010	~~0.0013 U~~	0.00023 J	0.0011	~~0.0011 U~~	0.00094 U	0.00091 U	0.00097 U	~~0.00097 U~~	0.0013 U	0.0012 U
Bromochloromethane	NA	0.0010 U	0.0010 U	0.00095 U	0.00097 U	0.0010 U	0.00095 U	~~0.0013 U~~	0.0011 U	0.0010 U	~~0.0011 U~~	0.00094 U	0.00091 U	0.00097 U	~~0.00097 U~~	0.0013 U	0.0012 U
Bromodichloromethane	NA	0.0010 U	0.0010 U	0.00095 U	0.00097 U	0.0010 U	0.00095 U	~~0.0013 U~~	0.0011 U	0.0010 U	~~0.0011 U~~	0.00094 U	0.00091 U	0.00097 U	~~0.00097 U~~	0.0013 U	0.0012 U
Bromoform	NA	0.0010 U	0.0010 U	0.00095 U	0.00097 U	0.0010 U	0.00095 U	~~0.0013 U~~	0.0011 U	0.0010 U	~~0.0011 U~~	0.00094 U	0.00091 U	0.00097 U	~~0.00097 U~~	0.0013 U	0.0012 U
Bromomethane	NA	0.0010 U	0.0010 U	0.00095 U	0.00097 U	0.0010 U	0.00095 U	~~0.0013 U~~	0.0011 U	0.0010 U	~~0.0011 U~~	0.00094 U	0.00091 U	0.00097 U	~~0.00097 U~~	0.0013 U	0.0012 U
Carbon disulfide	NA	0.0010 U	0.0010 U	0.00095 U	0.00097 U	0.0010 U	0.00095 U	~~0.0013 U~~	0.0011 U	0.0010 U	~~0.0011 U~~	0.00094 U	0.00091 U	0.00097 U	~~0.00097 U~~	0.0013 U	0.0012 U
Carbon tetrachloride	0.76	0.0010 U	0.0010 U	0.00095 U	0.00097 U	0.0010 U	0.00095 U	~~0.0013 U~~	0.0011 U	0.0010 U	~~0.0011 U~~	0.00094 U	0.00091 U	0.00097 U	~~0.00097 U~~	0.0013 U	0.0012 U
Chlorobenzene	1.1	0.0010 U	0.0010 U	0.00095 U	0.00097 U	0.0010 U	0.00095 U	~~0.0013 U~~	0.0011 U	0.0010 U	~~0.0011 U~~	0.00094 U	0.00091 U	0.00097 U	~~0.00097 U~~	0.0013 U	0.0012 U
Chloroethane	NA	0.0010 U	0.0010 U	0.00095 U	0.00097 U	0.0010 U	0.00095 U	~~0.0013 U~~	0.0011 U	0.0010 U	~~0.0011 U~~	0.00094 U	0.00091 U	0.00097 U	~~0.00097 U~~	0.0013 U	0.0012 U
Chloroform	0.37	0.0010 U	0.0010 U	0.00095 U	0.00097 U	0.0010 U	0.00095 U	~~0.0013 U~~	0.0011 U	0.0010 U	~~0.0011 U~~	0.00094 U	0.00091 U	0.00097 U	~~0.00097 U~~	0.00053 J	0.0012 U
Chloromethane	NA	0.0010 U	0.0010 U	0.00095 U	0.00097 U	0.0010 U	0.00095 U	~~0.0013 U~~	0.0011 U	0.0010 U	~~0.0011 U~~	0.00094 U	0.00091 U	0.00097 U	~~0.00097 U~~	0.0013 U	0.0012 U
cis-1,2-Dichloroethene	0.25	0.0010 U	0.0010 U	0.00095 U	0.00097 U	0.0010 U	0.00095 U	~~0.0013 U~~	0.0011 U	0.00022 J	~~0.0011 U~~	0.00094 U	0.00091 U	0.00097 U	~~0.00097 U~~	0.0013 U	0.0012 U
cis-1,3-Dichloropropene	NA	0.0010 U	0.0010 U	0.00095 U	0.00097 U	0.0010 U	0.00095 U	~~0.0013 U~~	0.0011 U	0.0010 U	~~0.0011 U~~	0.00094 U	0.00091 U	0.00097 U	~~0.00097 U~~	0.0013 U	0.0012 U
Cyclohexane	NA	0.0010 U	0.0010 U	0.00095 U	0.00097 U	0.0010 U	0.00095 U	~~0.0013 U~~	0.0011 U	0.0010 U	~~0.0011 U~~	0.00094 U	0.00091 U	0.00097 U	~~0.00097 U~~	0.0013 U	0.0012 U
Dibromochloromethane	NA	0.0010 U	0.0010 U	0.00095 U	0.00097 U	0.0010 U	0.00095 U	~~0.0013 U~~	0.0011 U	0.0010 U	~~0.0011 U~~	0.00094 U	0.00091 U	0.00097 U	~~0.00097 U~~	0.0013 U	0.0012 U
Dichlorodifluoromethane	NA	0.0010 U	0.0010 U	0.00095 U	0.00097 U	0.0010 U	0.00095 U	~~0.0013 U~~	0.0011 U	0.0010 U	~~0.0011 U~~	0.00094 U	0.00091 U	0.00097 U	~~0.00097 U~~	0.0013 U	0.0012 U
Ethylbenzene	1	0.00033 J	0.00022 J	0.00095 U	0.00097 U	0.0010 U	0.00065 J	~~0.0013 U~~	0.0011 U	0.0010 U	~~0.00093 J~~	0.00094 U	0.00091 U	0.00097 U	~~0.00097 U~~	0.0013 U	0.0012 U
Freon 113	NA	0.0010 U	0.0010 U	0.00095 U	0.00097 U	0.0010 U	0.00095 U	~~0.0013 U~~	0.0011 U	0.0010 U	~~0.0011 U~~	0.00094 U	0.00091 U	0.00097 U	~~0.00097 U~~	0.0013 U	0.0012 U
Isopropylbenzene	NA	0.0014	0.0010 U	0.00095 U	0.00097 U	0.0010 U	0.00095 U	~~0.0013 U~~	0.00040 J	0.00017 J	~~0.00013 J~~	0.00094 U	0.00091 U	0.00097 U	~~0.00097 U~~	0.0013 U	0.0012 U
m&p-Xylene	0.26	0.00081 J	0.0021 U	0.0019 U	0.0019 U	0.0020 U	0.0019 U	~~0.0026 U~~	0.0012 J	0.0020 U	~~0.0022~~	0.0019 U	0.0018 U	0.0019 U	~~0.0019 U~~	0.0026 U	0.0024 U
Methyl acetate	NA	0.0010 U	0.0010 U	0.00095 U	0.00097 U	0.0010 U	0.00095 U	~~0.0013 U~~	0.0011 U	0.0010 U	~~0.0011 U~~	0.00094 U	0.00091 U	0.00097 U	~~0.00097 U~~	0.0013 U	0.0012 U
Methylcyclohexane	NA	0.00082 J	0.0010 U	0.00095 U	0.00097 U	0.0010 U	0.00095 U	~~0.0013 U~~	0.0011 U	0.0010 U	~~0.0011 U~~	0.00094 U	0.00091 U	0.00097 U	~~0.00097 U~~	0.0013 U	0.0012 U
Methylene Chloride	0.05	0.0012	0.0012	0.00095 U	0.00059 J	0.0010	0.0019 B	~~0.0018 B~~	0.0019 B	0.00089 J B	~~0.0010 J B~~	0.00053 J	0.0011	0.00096 J	~~0.00070 J~~	0.00070 J	0.00090 J
MTBE	0.93	0.0010 U	0.0010 U	0.00095 U	0.00097 U	0.0010 U	0.00095 U	~~0.0013 U~~	0.0011 U	0.0010 U	~~0.0011 U~~	0.00094 U	0.00091 U	0.00097 U	~~0.00097 U~~	0.0013 U R	0.0012 U
Naphthalene	12	0.035	0.0010 U	0.00095 U	0.0031	0.0010 U	0.00095 U	~~0.0013 U~~	0.0011 U	0.0010 U	~~0.0011 U~~	0.00094 U	0.00091 U	0.00024 J	~~0.00037 J~~	0.00042 J	0.0012 U
o-Xylene	0.26	0.00045 J	0.00021 J	0.00095 U	0.00097 U	0.0010 U	0.00095 U	~~0.0013 U~~	0.00025 J	0.0010 U	~~0.00052 J~~	0.00094 U	0.00091 U	0.00097 U	~~0.00097 U~~	0.0013 U	0.0012 U
Styrene	NA	0.0010 U	0.0010 U	0.00095 U	0.00097 U	0.0010 U	0.00095 U	~~0.0013 U~~	0.0011 U	0.0010 U	~~0.0011 U~~	0.00094 U	0.00091 U	0.00097 U	~~0.00097 U~~	0.0013 U	0.0012 U
Tetrachloroethene	1.3	0.00051 J	0.0010 U	0.00035 J	0.00097 U	0.0010 U	0.00095 U	~~0.0013 U~~	0.0011 U	0.0010 U	~~0.00014 J~~	0.00094 U	0.00019 J	0.00015 J	~~0.00097 U~~	0.0013 U	0.00018 J
Toluene	0.7	0.0010 U	0.0010 U	0.00095 U	0.00097 U	0.0010 U	0.00095 U	~~0.0013 U~~	0.0011 U	0.0010 U	~~0.0011 U~~	0.00094 U	0.00091 U	0.00097 U	~~0.00097 U~~	0.0013 U	0.0012 U
trans-1,2-Dichloroethene	0.19	0.0010 U	0.0010 U	0.00095 U	0.00097 U	0.0010 U	0.00095 U	~~0.0013 U~~	0.0011 U	0.0010 U	~~0.0011 U~~	0.00094 U	0.00091 U	0.00097 U	~~0.00097 U~~	0.0013 U	0.0012 U
trans-1,3-Dichloropropene	NA	0.0010 U	0.0010 U	0.00095 U	0.00097 U	0.0010 U	0.00095 U	~~0.0013 U~~	0.0011 U	0.0010 U	~~0.0011 U~~	0.00094 U	0.00091 U	0.00097 U	~~0.00097 U~~	0.0013 U	0.0012 U
Trichloroethene	0.47	0.0010 U	0.0010 U	0.00095 U	0.00097 U	0.0010 U	0.00095 U	~~0.0013 U~~	0.0011 U	0.0010 U	~~0.0011 U~~	0.00094 U	0.00091 U	0.00097 U	~~0.00097 U~~	0.0013 U	0.0012 U
Trichlorofluoromethane	NA	0.0010 U	0.0010 U	0.00095 U	0.00097 U	0.0010 U	0.00095 U	~~0.0013 U~~	0.0011 U	0.0010 U	~~0.0011 U~~	0.00094 U	0.00091 U	0.00097 U	~~0.00097 U~~	0.0013 U	0.0012 U
Vinyl chloride	0.02	0.0010 U	0.0010 U	0.00095 U	0.00097 U	0.0010 U	0.00095 U	~~0.0013 U~~	0.0011 U	0.0010 U	~~0.0011 U~~	0.00094 U	0.00091 U	0.00097 U	~~0.00097 U~~	0.0013 U	0.0012 U
Xylenes, Total	0.26	0.0013 J	0.0031 U	0.0028 U	0.0029 U	0.0031 U	0.0028 U	~~0.0039 U~~	0.0014 J	0.0030 U	~~0.0027 J~~	0.0028 U	0.0027 U	0.0029 U	~~0.0029 U~~	0.0039 U	0.0036 U
Total VOC TICs	NA	1.69	ND	ND	ND	ND	ND	~~0.069~~	ND	ND	~~ND~~	ND	ND	ND	~~ND~~	ND	ND

Notes
ND: TIC not detected
U R : Indicates that value is regected based upon DUSR review by third party data validator.
B : The analyte was found in an associated blank, as well as in the sample.
J : Indicates an estimated value.
J B : Indicates an estimated value.
U : Analyzed for but not detected.

Table 5-54
North Alleyway Area
Confirmatory, Port-Excavation TCL VOC Soil Analytical Data

		North Alleyway Area - Confirmatory Post-Excavation Soil Samples																
		Bottom Soil Samples																
	NYSDEC	NA-EP#36	NA-EP#37	NA-EP#39	NA-EP#42	~~NA-EP#43~~	NA-EP#44	NA-EP#46	NA-EP#48	NA-EP#50	NA-EP#51	NA-EP#52	NA-EP#53	NA-EP#54	NA-EP#55	NA-EP#56	NA-EP#57	NA-EP#60
TCL VOCs (mg/kg)	Unrestricted SCO	(12')	(12')	(12')	(12')	~~(12')~~	(12')	(12')	(12')	(12')	(12')	(12')	(12')	(12')	(12')	(12')	(12')	(12')
1,1,1-Trichloroethane	0.68	0.0011 U	0.0021	0.0011	0.0012 U	~~0.0012 U~~	0.0011 U	0.0010 U	0.0011 U	0.00096 U	0.0010 U	0.0011 U	0.0011 U	0.0010 U	0.00097 U	0.0015 U	0.0010 U	0.0013 U
1,1,2,2-Tetrachloroethane	NA	0.0011 U	0.0014 U	0.0011 U	0.0012 U	~~0.0012 U~~	0.0011 U	0.0010 U	0.0011 U	0.00096 U	0.0010 U	0.0011 U	0.0011 U	0.0010 U	0.00097 U	0.0015 U	0.0010 U	0.0013 U
1,1,2-Trichloroethane	NA	0.0011 U	0.0014 U	0.0011 U	0.0012 U	~~0.0012 U~~	0.0011 U	0.0010 U	0.0011 U	0.00096 U	0.0010 U	0.0011 U	0.0011 U	0.0010 U	0.00097 U	0.0015 U	0.0010 U	0.0013 U
1,1-Dichloroethane	0.27	0.0011 U	0.0014 U	0.0011 U	0.0012 U	~~0.0012 U~~	0.0011 U	0.0010 U	0.0011 U	0.00096 U	0.0010 U	0.0011 U	0.0011 U	0.0010 U	0.00097 U	0.0015 U	0.0010 U	0.0013 U
1,1-Dichloroethene	0.33	0.0011 U	0.0014 U	0.0011 U	0.0012 U	~~0.0012 U~~	0.0011 U	0.0010 U	0.0011 U	0.00096 U	0.0010 U	0.0011 U	0.0011 U	0.0010 U	0.00097 U	0.0015 U	0.0010 U	0.0013 U
1,2,3-Trichlorobenzene	NA	0.0011 U	0.0014 U	0.0011 U	0.0012 U	~~0.0012 U~~	0.0011 U	0.0010 U	0.0011 U	0.00096 U	0.0010 U	0.0011 U	0.0011 U	0.0010 U	0.00097 U	0.0015 U	0.0010 U	0.0013 U
1,2,4-Trichlorobenzene	NA	0.0011 U	0.0014 U	0.0011 U	0.0012 U	~~0.0012 U~~	0.0011 U	0.0010 U	0.0011 U	0.00096 U	0.0010 U	0.0011 U	0.0011 U	0.0010 U	0.00097 U	0.0015 U	0.0010 U	0.0013 U
1,2-Dibromo-3-Chloropropane	NA	0.0011 U	0.0014 U	0.0011 U	0.0012 U	~~0.0012 U~~	0.0011 U	0.0010 U	0.0011 U	0.00096 U	0.0010 U	0.0011 U	0.0011 U	0.0010 U	0.00097 U	0.0015 U	0.0010 U	0.0013 U
1,2-Dibromoethane	NA	0.0011 U	0.0014 U	0.0011 U	0.0012 U	~~0.0012 U~~	0.0011 U	0.0010 U	0.0011 U	0.00096 U	0.0010 U	0.0011 U	0.0011 U	0.0010 U	0.00097 U	0.0015 U	0.0010 U	0.0013 U
1,2-Dichlorobenzene	1.1	0.0011 U	0.0014 U	0.0011 U	0.0012 U	~~0.0012 U~~	0.0011 U	0.0010 U	0.0011 U	0.00096 U	0.0010 U	0.0011 U	0.0011 U	0.0010 U	0.00097 U	0.0015 U	0.0010 U	0.0013 U
1,2-Dichloroethane	0.02	0.0011 U	0.0014 U	0.0011 U	0.0012 U	~~0.0012 U~~	0.0011 U	0.0010 U	0.0011 U	0.00096 U	0.0010 U	0.0011 U	0.0011 U	0.0010 U	0.00097 U	0.0015 U	0.0010 U	0.0013 U
1,2-Dichloropropane	NA	0.0011 U	0.0014 U	0.0011 U	0.0012 U	~~0.0012 U~~	0.0011 U	0.0010 U	0.0011 U	0.00096 U	0.0010 U	0.0011 U	0.0011 U	0.0010 U	0.00097 U	0.0015 U	0.0010 U	0.0013 U
1,3-Dichlorobenzene	2.4	0.0011 U	0.0014 U	0.0011 U	0.0012 U	~~0.0012 U~~	0.0011 U	0.0010 U	0.0011 U	0.00096 U	0.0010 U	0.0011 U	0.0011 U	0.0010 U	0.00097 U	0.0015 U	0.0010 U	0.0013 U
1,4-Dichlorobenzene	1.8	0.0011 U	0.0014 U	0.0011 U	0.0012 U	~~0.0012 U~~	0.0011 U	0.0010 U	0.0011 U	0.00096 U	0.0010 U	0.0011 U	0.0011 U	0.0010 U	0.00097 U	0.0015 U	0.0010 U	0.0013 U
1,4-Dioxane	0.1	0.022 U	0.028 U	0.022 U	0.023 U	~~0.023 U~~	0.022 U	0.020 U	0.021 U	0.019 U	0.020 U	0.023 U	0.021 U	0.020 U	0.019 U	0.031 U	0.021 U	0.026 U
2-Butanone (MEK)	0.12	0.0055 U	0.0070 U	0.0055 U	0.0058 U	~~0.0058 U~~	0.0031 J	0.0028 J	0.0034 J	0.0028 J	0.0051 U	0.0049 J	0.0037 J	0.0036 J	0.0048 U	0.0077 U	0.0018 J	0.0026 J
2-Hexanone	NA	0.0055 U	0.0070 U	0.0055 U	0.0058 U	~~0.0058 U~~	0.0056 U	0.0051 U	0.0053 U	0.0048 U	0.0051 U	0.0057 U	0.0053 U	0.0050 U	0.0048 U	0.0077 U	0.0051 U	0.0065 U
4-Methyl-2-pentanone	NA	0.0055 U	0.0070 U	0.0055 U	0.0058 U	~~0.0058 U~~	0.0056 U	0.0051 U	0.0053 U	0.0048 U	0.0051 U	0.0057 U	0.0053 U	0.0050 U	0.0048 U	0.0077 U	0.0051 U	0.0065 U
Acetone	0.05	0.014 B	0.030 B	0.017 B	0.0070 B	~~0.010 B~~	0.027 B	0.031 B	0.022 B	0.016 B	0.019 B	0.035 B	0.032 B	0.024 B	0.021 B	0.013 B	0.015 B	0.021 B
Benzene	0.06	0.0011 U	0.0014 U	0.0011 U	0.0012 U	~~0.0012 U~~	0.0011 U	0.0010 U	0.0011 U	0.00096 U	0.00021 J	0.00035 J	0.0011 U	0.0010 U	0.00097 U	0.0015 U	0.00034 J	0.0013 U
Bromochloromethane	NA	0.0011 U	0.0014 U	0.0011 U	0.0012 U	~~0.0012 U~~	0.0011 U	0.0010 U	0.0011 U	0.00096 U	0.0010 U	0.0011 U	0.0011 U	0.0010 U	0.00097 U	0.0015 U	0.0010 U	0.0013 U
Bromodichloromethane	NA	0.0011 U	0.0014 U	0.0011 U	0.0012 U	~~0.0012 U~~	0.0011 U	0.0010 U	0.0011 U	0.00096 U	0.0010 U	0.0011 U	0.0011 U	0.0010 U	0.00097 U	0.0015 U	0.0010 U	0.0013 U
Bromoform	NA	0.0011 U	0.0014 U	0.0011 U	0.0012 U	~~0.0012 U~~	0.0011 U	0.0010 U	0.0011 U	0.00096 U	0.0010 U	0.0011 U	0.0011 U	0.0010 U	0.00097 U	0.0015 U	0.0010 U	0.0013 U
Bromomethane	NA	0.0011 U	0.0014 U	0.0011 U	0.0012 U	~~0.0012 U~~	0.0011 U	0.0010 U	0.0011 U	0.00096 U	0.0010 U	0.0011 U	0.0011 U	0.0010 U	0.00097 U	0.0015 U	0.0010 U	0.0013 U
Carbon disulfide	NA	0.0011 U	0.0014 U	0.0011 U	0.0012 U	~~0.00026 J~~	0.0011 U	0.0010 U	0.00017 J	0.00042 J	0.00069 J	0.00068 J	0.00049 J	0.00054 J	0.00097 U	0.0015 U	0.0010 U	0.0013 U
Carbon tetrachloride	0.76	0.0011 U	0.0014 U	0.0011 U	0.0012 U	~~0.0012 U~~	0.0011 U	0.0010 U	0.0011 U	0.00096 U	0.0010 U	0.0011 U	0.0011 U	0.0010 U	0.00097 U	0.0015 U	0.0010 U	0.0013 U
Chlorobenzene	1.1	0.0011 U	0.0014 U	0.0011 U	0.0012 U	~~0.0012 U~~	0.0011 U	0.0010 U	0.0011 U	0.00096 U	0.0010 U	0.0011 U	0.0011 U	0.0010 U	0.00097 U	0.0015 U	0.0010 U	0.0013 U
Chloroethane	NA	0.0011 U	0.0014 U	0.0011 U	0.0012 U	~~0.0012 U~~	0.0011 U	0.0010 U	0.0011 U	0.00096 U	0.0010 U	0.0011 U	0.0011 U	0.0010 U	0.00097 U	0.0015 U	0.0010 U	0.0013 U
Chloroform	0.37	0.0011 U	0.0014 U	0.0011 U	0.0012 U	~~0.0012 U~~	0.0011 U	0.0010 U	0.0011 U	0.00096 U	0.0010 U	0.0011 U	0.0011 U	0.0010 U	0.00097 U	0.0015 U	0.0010 U	0.0013 U
Chloromethane	NA	0.0011 U	0.0014 U	0.0011 U	0.0012 U	~~0.0012 U~~	0.0011 U	0.0010 U	0.0011 U	0.00096 U	0.0010 U	0.0011 U	0.0011 U	0.0010 U	0.00097 U	0.0015 U	0.0010 U	0.0013 U
cis-1,2-Dichloroethene	0.25	0.0011 U	0.0014 U	0.0011 U	0.0012 U	~~0.0012 U~~	0.00072 J	0.0010 U	0.0011 U	0.00096 U	0.0010 U	0.0011 U	0.0011 U	0.0010 U	0.00097 U	0.0015 U	0.0010 U	0.0013 U
cis-1,3-Dichloropropene	NA	0.0011 U	0.0014 U	0.0011 U	0.0012 U	~~0.0012 U~~	0.0011 U	0.0010 U	0.0011 U	0.00096 U	0.0010 U	0.0011 U	0.0011 U	0.0010 U	0.00097 U	0.0015 U	0.0010 U	0.0013 U
Cyclohexane	NA	0.0011 U	0.0014 U	0.0011 U	0.0012 U	~~0.0012 U~~	0.0011 U	0.0010 U	0.0011 U	0.00096 U	0.0010 U	0.0011 U	0.0011 U	0.0010 U	0.00097 U	0.0015 U	0.00022 J	0.0013 U
Dibromochloromethane	NA	0.0011 U	0.0014 U	0.0011 U	0.0012 U	~~0.0012 U~~	0.0011 U	0.0010 U	0.0011 U	0.00096 U	0.0010 U	0.0011 U	0.0011 U	0.0010 U	0.00097 U	0.0015 U	0.0010 U	0.0013 U
Dichlorodifluoromethane	NA	0.0011 U	0.0014 U	0.0011 U	0.0012 U	~~0.0012 U~~	0.0011 U	0.0010 U	0.0011 U	0.00096 U	0.0010 U	0.0011 U	0.0011 U	0.0010 U	0.00097 U	0.0015 U	0.0010 U	0.0013 U
Ethylbenzene	1	0.0011 U	0.0014 U	0.0011 U	0.0012 U	~~0.0012 U~~	0.0011 U	0.0010 U	0.0011 U	0.00096 U	0.0010 U	0.0011 U	0.0011 U	0.0010 U	0.00097 U	0.0015 U	0.0010 U	0.0013 U
Freon 113	NA	0.0011 U	0.0014 U	0.0011 U	0.0012 U	~~0.0012 U~~	0.0011 U	0.0010 U	0.0011 U	0.00096 U	0.0010 U	0.0011 U	0.0011 U	0.0010 U	0.00097 U	0.0015 U	0.0010 U	0.0013 U
Isopropylbenzene	NA	0.0011 U	0.0014 U	0.0011 U	0.0012 U	~~0.0012 U~~	0.0011 U	0.0010 U	0.0011 U	0.00087 J	0.00022 J	0.0011 U	0.0011 U	0.0010 U	0.00097 U	0.0015 U	0.00073 J	0.0013 U
m&p-Xylene	0.26	0.0011 U	0.0014 U	0.0011 U	0.0012 U	~~0.0012 U~~	0.0011 U	0.0010 U	0.0011 U	0.00096 U	0.0010 U	0.0011 U	0.0011 U	0.0010 U	0.00097 U	0.0015 U	0.0010 U	0.0013 U
Methyl acetate	NA	0.0011 U	0.0014 U	0.0011 U	0.0012 U	~~0.0012 U~~	0.0011 U	0.0010 U	0.0016	0.00096 U	0.0051 U	0.0057 U	0.0053 U	0.0050 U	0.0048 U	0.0077 U	0.0051 U	0.0065 U
Methylcyclohexane	NA	0.0011 U	0.0014 U	0.0011 U	0.0012 U	~~0.0012 U~~	0.0011 U	0.0010 U	0.0011 U	0.00017 J	0.00064 J	0.0011 U	0.0011 U	0.0010 U	0.00097 U	0.0015 U	0.00037 J	0.0013 U
Methylene Chloride	0.05	0.00071 J	0.0013 J	0.00082 J	0.0027	~~0.0033~~	0.0039	0.0021	0.0049	0.0059	0.0026	0.0061	0.0028	0.0043	0.0023	0.0015 U	0.0019	0.0058
MTBE	0.93	0.0011 U	0.0014 U	0.0011 U	0.0012 U	~~0.0012 U~~	0.0011 U	0.0010 U	0.0011 U	0.00096 U	0.0010 U	0.0011 U	0.0011 U	0.0010 U	0.00097 U	0.0015 U	0.0010 U	0.0013 U
Naphthalene	12	0.0011 U	0.0014 U	0.0011 U	0.0012 U	~~0.0014~~	0.0011 U	0.00024 J	0.0011 U	0.0011	0.0010 U	0.0011 U	0.0011 U	0.0010 U	0.00097 U	0.0015 U	0.0010 U	0.0019
o-Xylene	0.26	0.0011 U	0.0014 U	0.0011 U	0.0012 U	~~0.0012 U~~	0.0011 U	0.0010 U	0.0011 U	0.00096 U	0.00032 J	0.0011 U	0.0011 U	0.0010 U	0.00097 U	0.0015 U	0.0010 U	0.0013 U
Styrene	NA	0.0011 U	0.0014 U	0.0011 U	0.0012 U	~~0.0012 U~~	0.0011 U	0.0010 U	0.0011 U	0.00096 U	0.0010 U	0.0011 U	0.0011 U	0.0010 U	0.00097 U	0.0015 U	0.0010 U	0.0013 U
Tetrachloroethene	1.3	0.00048 J	0.00031 J	0.00023 J	0.0012 U	~~0.0012 U~~	0.0066	0.0010 U	0.0011 U	0.00096 U	0.00046 J	0.0011 U	0.0011 U	0.0010 U	0.00070 J	0.0015 U	0.0010 U	0.0013 U
Toluene	0.7	0.0011 U	0.00036 J	0.0011 U	0.0030	~~0.0027~~	0.0011 U	0.0010 U	0.0011 U	0.00037 J	0.00023 J	0.00042 J	0.0011 U	0.00032 J	0.00097 U	0.0015 U	0.00020 J	0.00036 J
trans-1,2-Dichloroethene	0.19	0.0011 U	0.0014 U	0.0011 U	0.0012 U	~~0.0012 U~~	0.0011 U	0.0010 U	0.0011 U	0.00096 U	0.0010 U	0.0011 U	0.0011 U	0.0010 U	0.00097 U	0.0015 U	0.0010 U	0.0013 U
trans-1,3-Dichloropropene	NA	0.0011 U	0.0014 U	0.0011 U	0.0012 U	~~0.0012 U~~	0.0011 U	0.0010 U	0.0011 U	0.00096 U	0.0010 U	0.0011 U	0.0011 U	0.0010 U	0.00097 U	0.0015 U	0.0010 U	0.0013 U
Trichloroethene	0.47	0.0011 U	0.0014 U	0.0011 U	0.0012 U	~~0.0012 U~~	0.00050 J	0.0010 U	0.0011 U	0.00096 U	0.0010 U	0.0011 U	0.0011 U	0.0010 U	0.00097 U	0.0015 U	0.0010 U	0.0013 U
Trichlorofluoromethane	NA	0.0011 U	0.0014 U	0.0011 U	0.0012 U	~~0.0012 U~~	0.0011 U	0.0010 U	0.0011 U	0.00096 U	0.0010 U	0.0011 U	0.0011 U	0.0010 U	0.00097 U	0.0015 U	0.0010 U	0.0013 U
Vinyl chloride	0.02	0.0011 U	0.0014 U	0.0011 U	0.0012 U	~~0.0012 U~~	0.0011 U	0.0010 U	0.0011 U	0.00096 U	0.0010 U	0.0011 U	0.0011 U	0.0010 U	0.00097 U	0.0015 U	0.0010 U	0.0013 U
Xylenes, Total	0.26	0.0022 U	0.0028 U	0.0022 U	0.0023 U	~~0.0023 U~~	0.0022 U	0.0020 U	0.0021 U	0.0019 U	0.0020 U	0.0023 U	0.0021 U	0.0020 U	0.0019 U	0.0031 U	0.0021 U	0.0026 U
Total VOC TICs	NA	ND	ND	ND	0.0025	~~0.0063~~	ND	0.0412	ND	0.176	0.498	ND	ND	ND	ND	ND	0.1013	0.0076

Notes
ND: TIC not detected
B : The analyte was found in an associated blank, as well as in the sample.
J : Indicates an estimated value.
J B : Indicates an estimated value.
U : Analyzed for but not detected.

Table 5-55
North Alleyway Area
Confirmatory, Port-Excavation TCL SVOC Soil Analytical Data

		North Alleyway Area - Confirmatory Post-Excavation Soil Samples														
		Sidewall Soil Samples														
	NYSDEC	NA-EP#1	NA-EP#2	NA-EP#5	NA-EP#6	NA-EP#8	NA-EP#10	NA-EP#12	~~NA-EP#13~~	NA-EP#16	NA-EP#17	NA-EP#18	NA-EP#19	NA-EP#22	NA-EP#23	~~NA-EP#24~~
TCL SVOCs (mg/kg)	Unrestricted SCO	(8')	(8')	(8')	(8')	(8')	(8')	(8')	~~(12')~~	(4')	(8')	(4')	(8')	(4')	(8')	~~(8')~~
1,2,4,5-Tetrachlorobenzene	NA	0.36 U	0.35 U R	0.40 U R	0.35 U	0.36 U	0.36 U	0.34 U	~~0.39 U~~	0.35 U	0.38 U	0.37 U	0.37 U	0.36 U	0.38 U	~~0.36 U~~
1,4-Dioxane	0.1	0.36 U	0.35 U	0.40 U	0.35 U	0.36 U	0.36 U	0.34 U	~~0.39 U~~	0.35 U	0.38 U	0.37 U	0.37 U	0.36 U	0.38 U	~~0.36 U~~
2,2'-oxybis[1-chloropropane]	NA	0.36 U	0.35 U R	0.40 U R	0.35 U	0.36 U	0.36 U	0.34 U	~~0.39 U~~	0.35 U	0.38 U	0.37 U	0.37 U	0.36 U	0.38 U	~~0.36 U~~
2,3,4,6-Tetrachlorophenol	NA	0.36 U	0.35 U	0.40 U	0.35 U	0.36 U	0.36 U	0.34 U	~~0.39 U~~	0.35 U	0.38 U	0.37 U	0.37 U	0.36 U	0.38 U	~~0.36 U~~
2,4,5-Trichlorophenol	NA	0.36 U	0.35 U	0.40 U	0.35 U	0.36 U	0.36 U	0.34 U	~~0.39 U~~	0.35 U	0.38 U	0.37 U	0.37 U	0.36 U	0.38 U	~~0.36 U~~
2,4,6-Trichlorophenol	NA	0.36 U	0.35 U	0.40 U	0.35 U	0.36 U	0.36 U	0.34 U	~~0.39 U~~	0.35 U	0.38 U	0.37 U	0.37 U	0.36 U	0.38 U	~~0.36 U~~
2,4-Dichlorophenol	NA	0.36 U	0.35 U	0.40 U	0.35 U	0.36 U	0.36 U	0.34 U	~~0.39 U~~	0.35 U	0.38 U	0.37 U	0.37 U	0.36 U	0.38 U	~~0.36 U~~
2,4-Dimethylphenol	NA	0.36 U	0.35 U	0.40 U	0.35 U	0.36 U	0.36 U	0.34 U	~~0.39 U~~	0.35 U	0.38 U	0.37 U	0.37 U	0.36 U	0.38 U	~~0.36 U~~
2,4-Dinitrophenol	NA	1.1 U	1.1 U	1.2 U	1.1 U	1.1 U	1.1 U	1.0 U	~~1.2 U~~	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.2 U	~~1.1 U~~
2,4-Dinitrotoluene	NA	0.072 U	0.072 U	0.082 U	0.071 U	0.073 U	0.074 U	0.069 U	~~0.080 U~~	0.072 U	0.076 U	0.075 U	0.075 U	0.074 U	0.078 U	~~0.074 U~~
2,6-Dinitrotoluene	NA	0.072 U	0.072 U	0.082 U	0.071 U	0.073 U	0.074 U	0.069 U	~~0.080 U~~	0.072 U	0.076 U	0.075 U	0.075 U	0.074 U	0.078 U	~~0.074 U~~
2-Chloronaphthalene	NA	0.36 U	0.35 U	0.40 U	0.35 U	0.36 U	0.36 U	0.34 U	~~0.39 U~~	0.35 U	0.38 U	0.37 U	0.37 U	0.36 U	0.38 U	~~0.36 U~~
2-Chlorophenol	NA	0.36 U	0.35 U	0.40 U	0.35 U	0.36 U	0.36 U	0.34 U	~~0.39 U~~	0.35 U	0.38 U	0.37 U	0.37 U	0.36 U	0.38 U	~~0.36 U~~
2-Methylnaphthalene	NA	0.36 U	0.35 U	0.40 U	0.35 U	0.36 U	0.36 U	0.34 U	~~0.39 U~~	0.35 U	0.38 U	0.37 U	0.37 U	0.36 U	0.38 U	~~0.36 U~~
2-Methylphenol	0.33	0.36 U	0.35 U	0.40 U	0.35 U	0.36 U	0.36 U	0.34 U	~~0.39 U~~	0.35 U	0.38 U	0.37 U	0.37 U	0.36 U	0.38 U	~~0.36 U~~
2-Nitroaniline	NA	0.72 U	0.72 U R	0.82 U R	0.71 U	0.73 U	0.74 U	0.69 U	~~0.80 U~~	0.72 U	0.76 U	0.75 U	0.75 U	0.74 U	0.78 U	~~0.74 U~~
2-Nitrophenol	NA	0.36 U	0.35 U	0.40 U	0.35 U	0.36 U	0.36 U	0.34 U	~~0.39 U~~	0.35 U	0.38 U	0.37 U	0.37 U	0.36 U	0.38 U	~~0.36 U~~
3,3'-Dichlorobenzidine	NA	0.72 U	0.72 U	0.82 U	0.71 U	0.73 U	0.74 U	0.69 U	~~0.80 U~~	0.72 U	0.76 U	0.75 U	0.75 U	0.74 U	0.78 U	~~0.74 U~~
3-Nitroaniline	NA	0.72 U	0.72 U	0.82 U	0.71 U R	0.73 U	0.74 U	0.69 U	~~0.80 U~~	0.72 U	0.76 U	0.75 U	0.75 U	0.74 U	0.78 U	~~0.74 U~~
4,6-Dinitro-2-methylphenol	NA	1.1 U	1.1 U	1.2 U	1.1 U	1.1 U	1.1 U	1.0 U	~~1.2 U~~	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.2 U	~~1.1 U~~
4-Bromophenyl phenyl ether	NA	0.36 U	0.35 U	0.40 U	0.35 U	0.36 U	0.36 U	0.34 U	~~0.39 U~~	0.35 U	0.38 U	0.37 U	0.37 U	0.36 U	0.38 U	~~0.36 U~~
4-Chloro-3-methylphenol	NA	0.36 U	0.35 U	0.40 U	0.35 U	0.36 U	0.36 U	0.34 U	~~0.39 U~~	0.35 U	0.38 U	0.37 U	0.37 U	0.36 U	0.38 U	~~0.36 U~~
4-Chloroaniline	NA	0.36 U	0.35 U	0.40 U	0.35 U R	0.36 U	0.36 U	0.34 U	~~0.39 U~~	0.35 U	0.38 U	0.37 U	0.37 U	0.36 U	0.38 U	~~0.36 U~~
4-Chlorophenyl phenyl ether	NA	0.36 U	0.35 U	0.40 U	0.35 U	0.36 U	0.36 U	0.34 U	~~0.39 U~~	0.35 U	0.38 U	0.37 U	0.37 U	0.36 U	0.38 U	~~0.36 U~~
4-Methylphenol	0.33	0.36 U	0.35 U	0.40 U	0.35 U	0.36 U	0.36 U	0.34 U	~~0.39 U~~	0.35 U	0.38 U	0.37 U	0.37 U	0.36 U	0.38 U	~~0.36 U~~
4-Nitroaniline	NA	0.72 U	0.72 U	0.82 U	0.71 U	0.73 U	0.74 U	0.69 U	~~0.80 U~~	0.72 U	0.76 U	0.75 U	0.75 U	0.74 U	0.78 U	~~0.74 U~~
4-Nitrophenol	NA	1.1 U	1.1 U	1.2 U	1.1 U	1.1 U	1.1 U	1.0 U	~~1.2 U~~	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.2 U	~~1.1 U~~
Acenaphthene	20	0.36 U	0.35 U	0.40 U	0.35 U	0.36 U	0.36 U	0.34 U	~~0.39 U~~	0.35 U	0.38 U	0.37 U	0.37 U	0.36 U	0.38 U	~~0.36 U~~
Acenaphthylene	100	0.36 U	0.35 U	0.40 U	0.35 U	0.36 U	0.36 U	0.34 U	~~0.39 U~~	0.35 U	0.38 U	0.37 U	0.37 U	0.36 U	0.38 U	~~0.36 U~~
Acetophenone	NA	0.36 U	0.35 U	0.40 U	0.35 U	0.36 U	0.36 U	0.34 U	~~0.39 U~~	0.35 U	0.38 U	0.37 U	0.37 U	0.36 U	0.38 U	~~0.013 J~~
Anthracene	100	0.36 U	0.35 U	0.40 U	0.35 U	0.019 J	0.36 U	0.34 U	~~0.39 U~~	0.35 U	0.38 U	0.37 U	0.37 U	0.36 U	0.38 U	~~0.36 U~~
Atrazine	NA	0.36 U	0.35 U	0.40 U	0.35 U	0.36 U	0.36 U	0.34 U	~~0.39 U~~	0.35 U	0.38 U	0.37 U	0.37 U	0.36 U	0.38 U	~~0.36 U~~
Benzaldehyde	NA	0.36 U	0.35 U	0.40 U	0.35 U	0.36 U	0.36 U	0.34 U	~~0.39 U~~	0.35 U R	0.38 U R	0.37 U R	0.37 U R	0.36 U	0.38 U	~~0.034 J~~
Benzo[a]anthracene	1	0.036 U	0.035 U	0.040 U	0.035 U	0.095	0.036 U	0.034 U	~~0.037 J~~	0.035 U	0.038 U	0.037 U	0.037 U	0.036 U	0.038 U	~~0.0016 J~~
Benzo[a]pyrene	1	0.036 U	0.035 U	0.040 U	0.035 U	0.086	0.036 U	0.034 U	~~0.033 J~~	0.035 U	0.038 U	0.037 U	0.037 U	0.036 U	0.038 U	~~0.0020 J~~
Benzo[b]fluoranthene	1	0.036 U	0.035 U	0.040 U	0.035 U	0.11	0.036 U	0.034 U	~~0.048~~	0.035 U	0.038 U	0.037 U	0.037 U	0.036 U	0.038 U	~~0.0015 J~~
Benzo[g,h,i]perylene	100	0.36 U	0.35 U	0.40 U	0.35 U	0.074 J	0.36 U	0.34 U	~~0.033 J~~	0.35 U	0.38 U	0.37 U	0.37 U	0.36 U	0.38 U	~~0.36 U~~
Benzo[k]fluoranthene	0.8	0.036 U	0.035 U	0.040 U	0.035 U	0.039	0.036 U	0.034 U	~~0.020 J~~	0.035 U	0.038 U	0.037 U	0.037 U	0.036 U	0.038 U	~~0.036 U~~
Bis(2-chloroethoxy)methane	NA	0.36 U	0.35 U	0.40 U	0.35 U	0.36 U	0.36 U	0.34 U	~~0.39 U~~	0.35 U	0.38 U	0.37 U	0.37 U	0.36 U	0.38 U	~~0.36 U~~
Bis(2-chloroethyl)ether	NA	0.036 U	0.035 U	0.040 U	0.035 U	0.036 U	0.036 U	0.034 U	~~0.039 U~~	0.035 U	0.038 U	0.037 U	0.037 U	0.036 U	0.038 U	~~0.036 U~~
Bis(2-ethylhexyl) phthalate	NA	0.36 U	0.35 U	0.40 U	0.35 U	0.36 U	0.36 U	0.34 U	~~0.39 U~~	0.35 U	0.38 U	0.37 U	0.37 U	0.36 U	0.38 U	~~0.027 J~~
Butyl benzyl phthalate	NA	0.36 U	0.35 U	0.40 U	0.35 U	0.36 U	0.36 U	0.34 U	~~0.39 U~~	0.35 U	0.38 U	0.37 U	0.37 U	0.36 U	0.38 U	~~0.021 J~~
Caprolactam	NA	0.36 U	0.35 U	0.40 U	0.35 U	0.36 U	0.36 U	0.34 U	~~0.39 U~~	0.35 U	0.38 U	0.37 U	0.37 U	0.36 U	0.38 U	~~0.36 U~~
Carbazole	NA	0.36 U	0.35 U	0.40 U	0.35 U	0.36 U	0.36 U	0.34 U	~~0.39 U~~	0.35 U	0.38 U	0.37 U	0.37 U	0.36 U	0.38 U	~~0.36 U~~
Chrysene	1	0.36 U	0.35 U	0.40 U	0.35 U	0.096 J	0.36 U	0.34 U	~~0.038 J~~	0.35 U	0.38 U	0.37 U	0.37 U	0.36 U	0.38 U	~~0.0016 J~~
Dibenz(a,h)anthracene	0.33	0.036 U	0.035 U	0.040 U	0.035 U	0.019 J	0.036 U	0.034 U	~~0.039 U~~	0.035 U	0.038 U	0.037 U	0.037 U	0.036 U	0.038 U	~~0.036 U~~
Dibenzofuran	7	0.36 U	0.35 U	0.40 U	0.35 U	0.36 U	0.36 U	0.34 U	~~0.39 U~~	0.35 U	0.38 U	0.37 U	0.37 U	0.36 U	0.38 U	~~0.36 U~~
Diethyl phthalate	NA	0.36 U	0.35 U	0.40 U	0.35 U	0.36 U	0.36 U	0.34 U	~~0.39 U~~	0.35 U	0.38 U	0.37 U	0.37 U	0.36 U	0.38 U	~~0.017 J B~~
Dimethyl phthalate	NA	0.36 U	0.35 U	0.40 U	0.35 U	0.36 U	0.36 U	0.34 U	~~0.39 U~~	0.35 U	0.38 U	0.37 U	0.37 U	0.36 U	0.38 U	~~0.36 U~~
Di-n-butyl phthalate	NA	0.36 U	0.35 U	0.40 U	0.35 U	0.36 U	0.36 U	0.34 U	~~0.39 U~~	0.35 U	0.38 U	0.37 U	0.37 U	0.36 U	0.38 U	~~0.36 U~~
Di-n-octyl phthalate	NA	0.36 U	0.35 U	0.40 U	0.35 U	0.36 U	0.36 U	0.34 U	~~0.39 U~~	0.35 U	0.38 U	0.37 U	0.37 U	0.36 U	0.38 U	~~0.36 U~~
Diphenyl	NA	0.36 U	0.35 U	0.40 U	0.35 U	0.36 U	0.36 U	0.34 U	~~0.39 U~~	0.35 U	0.38 U	0.37 U	0.37 U	0.36 U	0.38 U	~~0.36 U~~
Fluoranthene	100	0.36 U	0.35 U	0.40 U	0.35 U	0.16 J	0.36 U	0.34 U	~~0.042 J~~	0.35 U	0.38 U	0.37 U	0.37 U	0.36 U	0.38 U	~~0.0017 J~~
Fluorene	30	0.36 U	0.35 U	0.40 U	0.35 U	0.36 U	0.36 U	0.34 U	~~0.39 U~~	0.35 U	0.38 U	0.37 U	0.37 U	0.36 U	0.38 U	~~0.36 U~~
Hexachlorobenzene	0.33	0.036 U	0.035 U	0.040 U	0.035 U	0.036 U	0.036 U	0.034 U	~~0.039 U~~	0.035 U	0.038 U	0.037 U	0.037 U	0.036 U	0.038 U	~~0.036 U~~
Hexachlorobutadiene	NA	0.072 U	0.072 U	0.082 U	0.071 U	0.073 U	0.074 U	0.069 U	~~0.080 U~~	0.072 U	0.076 U	0.075 U	0.075 U	0.074 U	0.078 U	~~0.074 U~~
Hexachlorocyclopentadiene	NA	0.36 U	0.35 U	0.40 U	0.35 U	0.36 U	0.36 U	0.34 U	~~0.39 U~~	0.35 U	0.38 U	0.37 U	0.37 U	0.36 U	0.38 U	~~0.36 U~~
Hexachloroethane	NA	0.036 U	0.035 U	0.040 U	0.035 U	0.036 U	0.036 U	0.034 U	~~0.039 U~~	0.035 U	0.038 U	0.037 U	0.037 U	0.036 U	0.038 U	~~0.036 U~~
Indeno[1,2,3-cd]pyrene	0.5	0.036 U	0.035 U	0.040 U	0.035 U	0.055	0.036 U	0.034 U	~~0.022 J~~	0.035 U	0.038 U	0.037 U	0.037 U	0.036 U	0.038 U	~~0.036 U~~
Isophorone	NA	0.36 U	0.35 U	0.40 U	0.35 U	0.36 U	0.36 U	0.34 U	~~0.39 U~~	0.35 U	0.38 U	0.37 U	0.37 U	0.36 U	0.38 U	~~0.36 U~~
Naphthalene	12	0.36 U	0.35 U	0.40 U	0.35 U	0.36 U	0.36 U	0.34 U	~~0.39 U~~	0.35 U	0.38 U	0.37 U	0.37 U	0.36 U	0.38 U	~~0.36 U~~
Nitrobenzene	NA	0.036 U	0.035 U	0.040 U	0.035 U	0.036 U	0.036 U	0.034 U	~~0.039 U~~	0.035 U	0.038 U	0.037 U	0.037 U	0.036 U	0.038 U	~~0.036 U~~
N-Nitrosodi-n-propylamine	NA	0.036 U	0.035 U	0.040 U	0.035 U	0.036 U	0.036 U	0.034 U	~~0.039 U~~	0.035 U	0.038 U	0.037 U	0.037 U	0.036 U	0.038 U	~~0.036 U~~
N-Nitrosodiphenylamine	NA	0.36 U	0.35 U	0.40 U	0.35 U	0.36 U	0.36 U	0.34 U	~~0.39 U~~	0.35 U	0.38 U	0.37 U	0.37 U	0.36 U	0.38 U	~~0.36 U~~
Pentachlorophenol	0.8	1.1 U	1.1 U	1.2 U	1.1 U	1.1 U	1.1 U	1.0 U	~~1.2 U~~	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.2 U	~~1.1 U~~
Phenanthrene	100	0.36 U	0.35 U	0.40 U	0.35 U	0.088 J	0.36 U	0.34 U	~~0.012 J~~	0.35 U	0.38 U	0.37 U	0.37 U	0.36 U	0.38 U	~~0.0015 J~~
Phenol	0.33	0.36 U	0.35 U	0.40 U	0.35 U	0.36 U	0.36 U	0.34 U	~~0.39 U~~	0.35 U	0.38 U	0.37 U	0.37 U	0.36 U	0.38 U	~~0.36 U~~
Pyrene	100	0.36 U	0.35 U	0.40 U	0.35 U	0.18 J	0.36 U	0.34 U	~~0.048 J~~	0.35 U	0.38 U	0.37 U	0.37 U	0.36 U	0.38 U	~~0.0025 J~~
Pyridine	NA	0.36 U	0.35 U	0.40 U	0.35 U	0.36 U	0.36 U	0.34 U	~~0.39 U~~	0.35 U	0.38 U	0.37 U	0.37 U	0.36 U	0.38 U	~~0.36 U~~
Total SVOC TICs	NA	ND	ND	ND	5.82	2.51	2.29	1.80	~~1.86~~	1.36	1.39	0.46	0.92	2.33	3.95	~~0.044~~

Notes
ND: TIC not detected
B : The analyte was found in an associated blank, as well as in the sample.
J : Indicates an estimated value.
J B : The analyte was found in an associated blank, as well as in the sample.
J N : Indicates an estimated value.
U : Analyzed for but not detected.
U R : Indicates that value is regected based upon DUSR review by third party data validator.

APEX

Table 5-55
North Alleyway Area
Confirmatory, Port-Excavation TCL SVOC Soil Analytical Data

TCL SVOCs (mg/kg)	NYSDEC Unrestricted SCO	North Alleyway Area - Confirmatory Post-Excavation Soil Samples														
		Sidewall Soil Samples														
		~~NA-EP#26~~	NA-EP#27	NA-EP#28	NA-EP#29	NA-EP#38	NA-EP#40	NA-EP#41	NA-EP#45	NA-EP#47	NA-EP#49	NA-EP#58	NA-EP#59	NA-EP#61	NA-EP#62	NA-EP#63
		~~(8')~~	(8')	(8')	(8')	(12')	(12')	(12')	(12')	(12')	(12')	(8')	(8')	(8')	(8')	(8')
1,2,4,5-Tetrachlorobenzene	NA	~~0.45 U~~	0.44 U	0.36 U	0.35 U	0.38 U	0.44 U	0.37 U	0.38 U	0.37 U	0.38 U	0.37 U	0.38 U	0.37 U	0.35 U	0.39 U
1,4-Dioxane	0.1	~~0.45 U~~	0.44 U	0.36 U	0.35 U	0.38 U	0.44 U	0.37 U	0.38 U	0.37 U	0.38 U	0.37 U	0.38 U	0.37 U	0.35 U	0.39 U
2,2'-oxybis[1-chloropropane]	NA	~~0.45 U~~	0.44 U	0.36 U	0.35 U	0.38 U	0.44 U	0.37 U	0.38 U	0.37 U	0.38 U	0.37 U	0.38 U	0.37 U	0.35 U	0.39 U
2,3,4,6-Tetrachlorophenol	NA	~~0.45 U~~	0.44 U	0.36 U	0.35 U	0.38 U	0.44 U	0.37 U	0.38 U	0.37 U	0.38 U	0.37 U	0.38 U	0.37 U	0.35 U	0.39 U
2,4,5-Trichlorophenol	NA	~~0.45 U~~	0.44 U	0.36 U	0.35 U	0.38 U	0.44 U	0.37 U	0.38 U	0.37 U	0.38 U	0.37 U	0.38 U	0.37 U	0.35 U	0.39 U
2,4,6-Trichlorophenol	NA	~~0.45 U~~	0.44 U	0.36 U	0.35 U	0.38 U	0.44 U	0.37 U	0.38 U	0.37 U	0.38 U	0.37 U	0.38 U	0.37 U	0.35 U	0.39 U
2,4-Dichlorophenol	NA	~~0.45 U~~	0.44 U	0.36 U	0.35 U	0.38 U	0.44 U	0.37 U	0.38 U	0.37 U	0.38 U	0.37 U	0.38 U	0.37 U	0.35 U	0.39 U
2,4-Dimethylphenol	NA	~~0.45 U~~	0.44 U	0.36 U	0.35 U	0.38 U	0.44 U	0.37 U	0.38 U	0.37 U	0.38 U	0.37 U	0.38 U	0.37 U	0.35 U	0.39 U
2,4-Dinitrophenol	NA	~~1.4 U~~	1.3 U	1.1 U R	1.1 U R	1.2 U	1.3 U	1.1 U	1.1 U	1.1 U	1.2 U	1.1 U	1.2 U	1.1 U	1.1 U	1.2 U
2,4-Dinitrotoluene	NA	~~0.092 U~~	0.090 U	0.072 U	0.071 U	0.077 U	0.088 U	0.076 U	0.076 U	0.075 U	0.078 U	0.075 U	0.077 U	0.076 U	0.072 U	0.079 U
2,6-Dinitrotoluene	NA	~~0.092 U~~	0.090 U	0.072 U	0.071 U	0.077 U	0.088 U	0.076 U	0.076 U	0.075 U	0.078 U	0.075 U	0.077 U	0.076 U	0.072 U	0.079 U
2-Chloronaphthalene	NA	~~0.45 U~~	0.44 U	0.36 U	0.35 U	0.38 U	0.44 U	0.37 U	0.38 U	0.37 U	0.38 U	0.37 U	0.38 U	0.37 U	0.35 U	0.39 U
2-Chlorophenol	NA	~~0.45 U~~	0.44 U	0.36 U	0.35 U	0.38 U	0.44 U	0.37 U	0.38 U	0.37 U	0.38 U	0.37 U	0.38 U	0.37 U	0.35 U	0.39 U
2-Methylnaphthalene	NA	~~0.45 U~~	0.44 U	0.36 U	0.35 U	0.38 U	0.44 U	0.37 U	0.38 U	0.37 U	0.38 U	0.37 U	0.38 U	0.37 U	0.35 U	0.39 U
2-Methylphenol	0.33	~~0.45 U~~	0.44 U	0.36 U	0.35 U	0.38 U	0.44 U	0.37 U	0.38 U	0.37 U	0.38 U	0.37 U	0.38 U	0.37 U	0.35 U	0.39 U
2-Nitroaniline	NA	~~0.92 U~~	0.90 U	0.72 U	0.71 U	0.77 U	0.88 U	0.76 U	0.76 U	0.75 U	0.78 U	0.75 U	0.77 U	0.76 U	0.72 U	0.79 U
2-Nitrophenol	NA	~~0.45 U~~	0.44 U	0.36 U	0.35 U	0.38 U	0.44 U	0.37 U	0.38 U	0.37 U	0.38 U	0.37 U	0.38 U	0.37 U	0.35 U	0.39 U
3,3'-Dichlorobenzidine	NA	~~0.92 U~~	0.90 U	0.72 U R	0.71 U R	0.77 U	0.88 U	0.76 U	0.76 U	0.75 U	0.78 U	0.75 U	0.77 U	0.76 U	0.72 U	0.79 U
3-Nitroaniline	NA	~~0.92 U~~	0.90 U	0.72 U	0.71 U	0.77 U	0.88 U	0.76 U	0.76 U	0.75 U	0.78 U	0.75 U	0.77 U	0.76 U	0.72 U	0.79 U
4,6-Dinitro-2-methylphenol	NA	~~1.4 U~~	1.3 U	1.1 U R	1.1 U R	1.2 U	1.3 U	1.1 U	1.1 U	1.1 U	1.2 U	1.1 U	1.2 U	1.1 U	1.1 U	1.2 U
4-Bromophenyl phenyl ether	NA	~~0.45 U~~	0.44 U	0.36 U	0.35 U	0.38 U	0.44 U	0.37 U	0.38 U	0.37 U	0.38 U	0.37 U	0.38 U	0.37 U	0.35 U	0.39 U
4-Chloro-3-methylphenol	NA	~~0.45 U~~	0.44 U	0.36 U	0.35 U	0.38 U	0.44 U	0.37 U	0.38 U	0.37 U	0.38 U	0.37 U	0.38 U	0.37 U	0.35 U	0.39 U
4-Chloroaniline	NA	~~0.45 U~~	0.44 U	0.36 U	0.35 U	0.38 U	0.44 U	0.37 U	0.38 U	0.37 U	0.38 U	0.37 U	0.38 U	0.37 U	0.35 U	0.39 U
4-Chlorophenyl phenyl ether	NA	~~0.45 U~~	0.44 U	0.36 U	0.35 U	0.38 U	0.44 U	0.37 U	0.38 U	0.37 U	0.38 U	0.37 U	0.38 U	0.37 U	0.35 U	0.39 U
4-Methylphenol	0.33	~~0.45 U~~	0.44 U	0.36 U	0.35 U	0.38 U	0.44 U	0.37 U	0.38 U	0.37 U	0.38 U	0.37 U	0.38 U	0.37 U	0.35 U	0.39 U
4-Nitroaniline	NA	~~0.92 U~~	0.90 U	0.72 U	0.71 U	0.77 U	0.88 U	0.76 U	0.76 U	0.75 U	0.78 U	0.75 U	0.77 U	0.76 U	0.72 U	0.79 U
4-Nitrophenol	NA	~~1.4 U~~	1.3 U	1.1 U	1.1 U	1.2 U	1.3 U	1.1 U	1.1 U	1.1 U	1.2 U	1.1 U	1.2 U	1.1 U	1.1 U	1.2 U
Acenaphthene	20	~~0.45 U~~	0.44 U	0.36 U	0.35 U	0.38 U	0.44 U	0.37 U	0.38 U	0.37 U	0.38 U	0.37 U	0.38 U	0.37 U	0.35 U	0.39 U
Acenaphthylene	100	~~0.45 U~~	0.44 U	0.36 U	0.35 U	0.38 U	0.44 U	0.37 U	0.38 U	0.37 U	0.38 U	0.37 U	0.38 U	0.37 U	0.35 U	0.39 U
Acetophenone	NA	~~0.017 J~~	0.017 J	0.36 U	0.35 U	0.38 U	0.44 U	0.37 U	0.38 U	0.37 U	0.38 U	0.37 U	0.38 U	0.37 U	0.35 U	0.39 U
Anthracene	100	~~0.45 U~~	0.44 U	0.36 U	0.35 U	0.38 U	0.44 U	0.37 U	0.38 U	0.37 U	0.38 U	0.37 U	0.38 U	0.37 U	0.35 U	0.39 U
Atrazine	NA	~~0.45 U~~	0.44 U	0.36 U	0.35 U	0.38 U	0.44 U	0.37 U	0.38 U	0.37 U	0.38 U	0.37 U	0.38 U	0.37 U	0.35 U	0.39 U
Benzaldehyde	NA	~~0.043 J~~	0.042 J	0.36 U	0.35 U	0.38 U	0.44 U	0.37 U	0.38 U	0.37 U	0.38 U	0.37 U	0.38 U	0.37 U	0.35 U	0.39 U
Benzo[a]anthracene	1	~~0.045 U~~	0.044 U	0.036 U	0.035 U	0.038 U	0.044 U	0.037 U	0.038 U	0.037 U	0.038 U	0.037 U	0.038 U	0.037 U	0.035 U	0.039 U
Benzo[a]pyrene	1	~~0.045 U~~	0.044 U	0.036 U	0.035 U	0.038 U *	0.044 U	0.037 U	0.038 U	0.037 U	0.038 U	0.037 U	0.038 U	0.037 U	0.035 U	0.039 U
Benzo[b]fluoranthene	1	~~0.0041 U~~	0.0040 U	0.036 U	0.035 U	0.038 U	0.044 U	0.037 U	0.038 U	0.037 U	0.038 U	0.037 U	0.038 U	0.037 U	0.035 U	0.039 U
Benzo[g,h,i]perylene	100	~~0.45 U~~	0.44 U	0.36 U	0.35 U	0.38 U	0.44 U	0.37 U	0.38 U	0.37 U	0.38 U	0.37 U	0.38 U	0.37 U	0.35 U	0.39 U
Benzo[k]fluoranthene	0.8	~~0.045 U~~	0.044 U	0.036 U	0.035 U	0.038 U *	0.044 U	0.037 U	0.038 U	0.037 U	0.038 U	0.037 U	0.038 U	0.037 U	0.035 U	0.039 U
Bis(2-chloroethoxy)methane	NA	~~0.45 U~~	0.44 U	0.36 U	0.35 U	0.38 U	0.44 U	0.37 U	0.38 U	0.37 U	0.38 U	0.37 U	0.38 U	0.37 U	0.35 U	0.39 U
Bis(2-chloroethyl)ether	NA	~~0.045 U~~	0.044 U	0.036 U	0.035 U	0.038 U	0.044 U	0.037 U	0.038 U	0.037 U	0.038 U	0.037 U	0.038 U	0.037 U	0.035 U	0.039 U
Bis(2-ethylhexyl) phthalate	NA	~~0.037 J~~	0.073 J	0.36 U	0.35 U	0.38 U	0.44 U	0.37 U	0.38 U	0.37 U	0.38 U	0.37 U	0.38 U	0.37 U	0.35 U	0.39 U
Butyl benzyl phthalate	NA	~~0.034 J~~	0.027 J	0.36 U	0.35 U	0.38 U	0.44 U	0.37 U	0.38 U	0.37 U	0.38 U	0.37 U	0.38 U	0.37 U	0.35 U	0.39 U
Caprolactam	NA	~~0.45 U~~	0.44 U	0.36 U	0.35 U	0.38 U	0.44 U	0.37 U	0.38 U	0.37 U	0.38 U	0.37 U	0.38 U	0.37 U	0.35 U	0.39 U
Carbazole	NA	~~0.45 U~~	0.44 U	0.36 U	0.35 U	0.38 U	0.44 U	0.37 U	0.38 U	0.37 U	0.38 U	0.37 U	0.38 U	0.37 U	0.35 U	0.39 U
Chrysene	1	~~0.45 U~~	0.44 U	0.36 U	0.35 U	0.38 U	0.44 U	0.37 U	0.38 U	0.37 U	0.38 U	0.37 U	0.38 U	0.37 U	0.35 U	0.39 U
Dibenz(a,h)anthracene	0.33	~~0.045 U~~	0.044 U	0.036 U	0.035 U	0.038 U	0.044 U	0.037 U	0.038 U	0.037 U	0.038 U	0.037 U	0.038 U	0.037 U	0.035 U	0.039 U
Dibenzofuran	7	~~0.45 U~~	0.44 U	0.36 U	0.35 U	0.38 U	0.44 U	0.37 U	0.38 U	0.37 U	0.38 U	0.37 U	0.38 U	0.37 U	0.35 U	0.39 U
Diethyl phthalate	NA	~~0.023 J B~~	0.021 J B	0.36 U	0.35 U	0.38 U	0.44 U	0.37 U	0.38 U	0.37 U	0.38 U	0.37 U	0.38 U	0.37 U	0.35 U	0.39 U
Dimethyl phthalate	NA	~~0.45 U~~	0.44 U	0.36 U	0.35 U	0.38 U	0.44 U	0.37 U	0.38 U	0.37 U	0.38 U	0.37 U	0.38 U	0.37 U	0.35 U	0.39 U
Di-n-butyl phthalate	NA	~~0.45 U~~	0.44 U	0.36 U	0.35 U	0.38 U	0.44 U	0.37 U	0.38 U	0.37 U	0.38 U	0.37 U	0.38 U	0.37 U	0.35 U	0.39 U
Di-n-octyl phthalate	NA	~~0.45 U~~	0.44 U	0.36 U	0.35 U	0.38 U	0.44 U	0.37 U	0.38 U	0.37 U	0.38 U	0.37 U	0.38 U	0.37 U	0.35 U	0.39 U
Diphenyl	NA	~~0.45 U~~	0.44 U	0.36 U	0.35 U	0.38 U	0.44 U	0.37 U	0.38 U	0.37 U	0.38 U	0.37 U	0.38 U	0.37 U	0.35 U	0.39 U
Fluoranthene	100	~~0.45 U~~	0.44 U	0.36 U	0.35 U	0.38 U	0.44 U	0.37 U	0.38 U	0.37 U	0.38 U	0.37 U	0.38 U	0.37 U	0.35 U	0.39 U
Fluorene	30	~~0.45 U~~	0.44 U	0.36 U	0.35 U	0.38 U	0.44 U	0.37 U	0.38 U	0.37 U	0.38 U	0.37 U	0.38 U	0.37 U	0.35 U	0.39 U
Hexachlorobenzene	0.33	~~0.045 U~~	0.044 U	0.036 U	0.035 U	0.038 U	0.044 U	0.037 U	0.038 U	0.037 U	0.038 U	0.037 U	0.038 U	0.037 U	0.035 U	0.039 U
Hexachlorobutadiene	NA	~~0.092 U~~	0.090 U	0.072 U	0.071 U	0.077 U	0.088 U	0.076 U	0.076 U	0.075 U	0.078 U	0.075 U	0.077 U	0.076 U	0.072 U	0.079 U
Hexachlorocyclopentadiene	NA	~~0.45 U~~	0.44 U	0.36 U	0.35 U	0.38 U	0.44 U	0.37 U	0.38 U	0.37 U	0.38 U	0.37 U	0.38 U	0.37 U	0.35 U	0.39 U
Hexachloroethane	NA	~~0.045 U~~	0.044 U	0.036 U	0.035 U	0.038 U	0.044 U	0.037 U	0.038 U	0.037 U	0.038 U	0.037 U	0.038 U	0.037 U	0.035 U	0.039 U
Indeno[1,2,3-cd]pyrene	0.5	~~0.045 U~~	0.044 U	0.036 U	0.035 U	0.038 U	0.044 U	0.037 U	0.038 U	0.037 U	0.038 U	0.037 U	0.038 U	0.037 U	0.035 U	0.039 U
Isophorone	NA	~~0.45 U~~	0.44 U	0.36 U	0.35 U	0.38 U	0.44 U	0.37 U	0.38 U	0.37 U	0.38 U	0.37 U	0.38 U	0.37 U	0.35 U	0.39 U
Naphthalene	12	~~0.45 U~~	0.44 U	0.36 U	0.35 U	0.38 U	0.44 U	0.37 U	0.38 U	0.37 U	0.38 U	0.37 U	0.38 U	0.37 U	0.35 U	0.39 U
Nitrobenzene	NA	~~0.045 U~~	0.044 U	0.036 U	0.035 U	0.038 U	0.044 U	0.037 U	0.038 U	0.037 U	0.038 U	0.037 U	0.038 U	0.037 U	0.035 U	0.039 U
N-Nitrosodi-n-propylamine	NA	~~0.045 U~~	0.044 U	0.036 U	0.035 U	0.038 U	0.044 U	0.037 U	0.038 U	0.037 U	0.038 U	0.037 U	0.038 U	0.037 U	0.035 U	0.039 U
N-Nitrosodiphenylamine	NA	~~0.45 U~~	0.44 U	0.36 U	0.35 U	0.38 U	0.44 U	0.37 U	0.38 U	0.37 U	0.38 U	0.37 U	0.38 U	0.37 U	0.35 U	0.39 U
Pentachlorophenol	0.8	~~1.4 U~~	1.3 U	1.1 U	1.1 U	1.2 U	1.3 U	1.1 U	1.1 U	1.1 U	1.2 U	1.1 U	1.2 U	1.1 U	1.1 U	1.2 U
Phenanthrene	100	~~0.45 U~~	0.44 U	0.36 U	0.35 U	0.38 U	0.44 U	0.37 U	0.38 U	0.37 U	0.38 U	0.37 U	0.38 U	0.37 U	0.35 U	0.39 U
Phenol	0.33	~~0.45 U~~	0.44 U	0.36 U	0.35 U	0.38 U	0.44 U	0.37 U	0.38 U	0.37 U	0.38 U	0.37 U	0.38 U	0.37 U	0.35 U	0.39 U
Pyrene	100	~~0.45 U~~	0.44 U	0.36 U	0.35 U	0.38 U	0.44 U	0.37 U	0.38 U	0.37 U	0.38 U	0.37 U	0.38 U	0.37 U	0.35 U	0.39 U
Pyridine	NA	~~0.45 U~~	0.44 U	0.36 U	0.35 U	0.38 U	0.44 U	0.37 U	0.38 U	0.37 U	0.38 U	0.37 U	0.38 U	0.37 U	0.35 U	0.39 U
Total SVOC TICs	NA	~~3.295~~	0.269	7.83	6.47	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes
ND: TIC not detected
B : The analyte was found in an associated blank, as well as in the sample.
J : Indicates an estimated value.
J B : The analyte was found in an associated blank, as well as in the sample.
J N : Indicates an estimated value.
U : Analyzed for but not detected.
U R : Indicates that value is regected based upon DUSR review by third party data validator.

Table 5-55
North Alleyway Area
Confirmatory, Port-Excavation TCL SVOC Soil Analytical Data

TCL SVOCs (mg/kg)	NYSDEC Unrestricted SCO	North Alleyway Area - Confirmatory Post-Excavation Soil Samples															
		Bottom Soil Samples															
		NA-EP#3	NA-EP#4	NA-EP#7	NA-EP#9	NA-EP#11	NA-EP#14	~~NA-EP#15~~	NA-EP#20	NA-EP#21	~~NA-EP#25~~	NA-EP#30	NA-EP#31	NA-EP#32	~~NA-EP#33~~	NA-EP#34	NA-EP#35
		(14')	(14')	(15')	(12')	(12')	(12')	(12')	(10')	(10')	(8')	(12')	(12')	(12')	(12')	(12')	(12')
1,2,4,5-Tetrachlorobenzene	NA	0.39 U R	0.38 U R	0.37 U	0.38 U	0.38 U	0.37 U	0.38 U	0.41 U	0.38 U	0.41 U	0.35 U	0.35 U	0.37 U	0.36 U	0.36 U	0.43 U
1,4-Dioxane	0.1	0.39 U	0.38 U	0.37 U	0.38 U	0.38 U	0.37 U	0.38 U	0.41 U	0.38 U	0.41 U	0.35 U	0.35 U	0.37 U	0.36 U	0.36 U	0.43 U
2,2'-oxybis[1-chloropropane]	NA	0.39 U R	0.38 U R	0.37 U	0.38 U	0.38 U	0.37 U	0.38 U	0.41 U	0.38 U	0.41 U	0.35 U	0.35 U	0.37 U	0.36 U	0.36 U	0.43 U
2,3,4,6-Tetrachlorophenol	NA	0.39 U	0.38 U	0.37 U	0.38 U	0.38 U	0.37 U	0.38 U	0.41 U	0.38 U	0.41 U	0.35 U	0.35 U	0.37 U	0.36 U	0.36 U	0.43 U
2,4,5-Trichlorophenol	NA	0.39 U	0.38 U	0.37 U	0.38 U	0.38 U	0.37 U	0.38 U	0.41 U	0.38 U	0.41 U	0.35 U	0.35 U	0.37 U	0.36 U	0.36 U	0.43 U
2,4,6-Trichlorophenol	NA	0.39 U	0.38 U	0.37 U	0.38 U	0.38 U	0.37 U	0.38 U	0.41 U	0.38 U	0.41 U	0.35 U	0.35 U	0.37 U	0.36 U	0.36 U	0.43 U
2,4-Dichlorophenol	NA	0.39 U	0.38 U	0.37 U	0.38 U	0.38 U	0.37 U	0.38 U	0.41 U	0.38 U	0.41 U	0.35 U	0.35 U	0.37 U	0.36 U	0.36 U	0.43 U
2,4-Dimethylphenol	NA	0.39 U	0.38 U	0.37 U	0.38 U	0.38 U	0.37 U	0.38 U	0.41 U	0.38 U	0.41 U	0.35 U	0.35 U	0.37 U	0.36 U	0.36 U	0.43 U
2,4-Dinitrophenol	NA	1.2 U	1.1 U	1.1 U	1.2 U	1.2 U	1.1 U	1.1 U	1.2 U	1.1 U	1.2 U	1.1 U R	1.1 U R	1.1 U R	1.1 U R	1.1 U R	1.3 U R
2,4-Dinitrotoluene	NA	0.079 U	0.077 U	0.074 U	0.077 U	0.078 U	0.076 U	0.076 U	0.082 U	0.077 U	0.084 U	0.072 U	0.072 U	0.075 U	0.072 U	0.072 U	0.087 U
2,6-Dinitrotoluene	NA	0.079 U	0.077 U	0.074 U	0.077 U	0.078 U	0.076 U	0.076 U	0.082 U	0.077 U	0.084 U	0.072 U	0.072 U	0.075 U	0.072 U	0.072 U	0.087 U
2-Chloronaphthalene	NA	0.39 U	0.38 U	0.37 U	0.38 U	0.38 U	0.37 U	0.38 U	0.41 U	0.38 U	0.41 U	0.35 U	0.35 U	0.37 U	0.36 U	0.36 U	0.43 U
2-Chlorophenol	NA	0.39 U	0.38 U	0.37 U	0.38 U	0.38 U	0.37 U	0.38 U	0.41 U	0.38 U	0.41 U	0.35 U	0.35 U	0.37 U	0.36 U	0.36 U	0.43 U
2-Methylnaphthalene	NA	0.39 U	0.38 U	0.37 U	0.38 U	0.38 U	0.37 U	0.38 U	0.41 U	0.38 U	0.41 U	0.35 U	0.35 U	0.37 U	0.36 U	0.36 U	0.43 U
2-Methylphenol	0.33	0.39 U	0.38 U	0.37 U	0.38 U	0.38 U	0.37 U	0.38 U	0.41 U	0.38 U	0.41 U	0.35 U	0.35 U	0.37 U	0.36 U	0.36 U	0.43 U
2-Nitroaniline	NA	0.79 U R	0.77 U R	0.74 U	0.77 U	0.78 U	0.76 U	0.76 U	0.82 U	0.77 U	0.84 U	0.72 U	0.72 U	0.75 U	0.72 U	0.72 U	0.87 U
2-Nitrophenol	NA	0.39 U	0.38 U	0.37 U	0.38 U	0.38 U	0.37 U	0.38 U	0.41 U	0.38 U	0.41 U	0.35 U	0.35 U	0.37 U	0.36 U	0.36 U	0.43 U
3,3'-Dichlorobenzidine	NA	0.79 U	0.77 U	0.74 U	0.77 U	0.78 U	0.76 U	0.76 U	0.82 U	0.77 U	0.84 U	0.72 U R	0.72 U R	0.75 U R	0.72 U R	0.72 U R	0.87 U R
3-Nitroaniline	NA	0.79 U	0.77 U	0.74 U R	0.77 U	0.78 U	0.76 U	0.76 U	0.82 U	0.77 U	0.84 U	0.72 U	0.72 U	0.75 U	0.72 U	0.72 U	0.87 U
4,6-Dinitro-2-methylphenol	NA	1.2 U	1.1 U	1.1 U	1.2 U	1.2 U	1.1 U	1.1 U	1.2 U	1.1 U	1.2 U	1.1 U R	1.1 U R	1.1 U R	1.1 U R	1.1 U R	1.3 U R
4-Bromophenyl phenyl ether	NA	0.39 U	0.38 U	0.37 U	0.38 U	0.38 U	0.37 U	0.38 U	0.41 U	0.38 U	0.41 U	0.35 U	0.35 U	0.37 U	0.36 U	0.36 U	0.43 U
4-Chloro-3-methylphenol	NA	0.39 U	0.38 U	0.37 U	0.38 U	0.38 U	0.37 U	0.38 U	0.41 U	0.38 U	0.41 U	0.35 U	0.35 U	0.37 U	0.36 U	0.36 U	0.43 U
4-Chloroaniline	NA	0.39 U	0.38 U	0.37 U R	0.38 U	0.38 U	0.37 U	0.38 U	0.41 U	0.38 U	0.41 U	0.35 U	0.35 U	0.37 U	0.36 U	0.36 U	0.43 U
4-Chlorophenyl phenyl ether	NA	0.39 U	0.38 U	0.37 U	0.38 U	0.38 U	0.37 U	0.38 U	0.41 U	0.38 U	0.41 U	0.35 U	0.35 U	0.37 U	0.36 U	0.36 U	0.43 U
4-Methylphenol	0.33	0.39 U	0.38 U	0.37 U	0.38 U	0.38 U	0.37 U	0.38 U	0.41 U	0.38 U	0.41 U	0.35 U	0.35 U	0.37 U	0.36 U	0.36 U	0.43 U
4-Nitroaniline	NA	0.79 U	0.77 U	0.74 U	0.77 U	0.78 U	0.76 U	0.76 U	0.82 U	0.77 U	0.84 U	0.72 U	0.72 U	0.75 U	0.72 U	0.72 U	0.87 U
4-Nitrophenol	NA	1.2 U	1.1 U	1.1 U	1.2 U	1.2 U	1.1 U	1.1 U	1.2 U	1.1 U	1.2 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.3 U
Acenaphthene	20	0.39 U	0.38 U	0.37 U	0.38 U	0.38 U	0.37 U	0.38 U	0.41 U	0.38 U	0.41 U	0.35 U	0.35 U	0.37 U	0.36 U	0.36 U	0.43 U
Acenaphthylene	100	0.39 U	0.38 U	0.37 U	0.38 U	0.38 U	0.37 U	0.38 U	0.41 U	0.38 U	0.41 U	0.35 U	0.35 U	0.37 U	0.36 U	0.36 U	0.43 U
Acetophenone	NA	0.39 U	0.38 U	0.37 U	0.38 U	0.38 U	0.37 U	0.38 U	0.41 U	0.38 U	0.011 J	0.35 U	0.35 U	0.37 U	0.36 U	0.36 U	0.43 U
Anthracene	100	0.39 U	0.38 U	0.37 U	0.38 U	0.38 U	0.37 U	0.38 U	0.41 U	0.38 U	0.41 U	0.35 U	0.35 U	0.37 U	0.36 U	0.36 U	0.43 U
Atrazine	NA	0.39 U	0.38 U	0.37 U	0.38 U	0.38 U	0.37 U	0.38 U	0.41 U	0.38 U	0.41 U	0.35 U	0.35 U	0.37 U	0.36 U	0.36 U	0.43 U
Benzaldehyde	NA	0.39 U	0.38 U	0.37 U	0.38 U	0.38 U	0.37 U	0.38 U	0.41 U	0.38 U	0.038 J	0.35 U	0.35 U	0.37 U	0.36 U	0.36 U	0.43 U
Benzo[a]anthracene	1	0.039 U	0.038 U	0.037 U	0.038 U	0.038 U	0.037 U	0.038 U	0.041 U	0.038 U	0.041 U	0.035 U	0.035 U	0.037 U	0.036 U	0.036 U	0.043 U
Benzo[a]pyrene	1	0.039 U	0.038 U	0.037 U	0.038 U	0.038 U	0.037 U	0.038 U	0.041 U	0.038 U	0.041 U	0.035 U	0.035 U	0.037 U	0.036 U	0.036 U	0.043 U
Benzo[b]fluoranthene	1	0.039 U	0.038 U	0.037 U	0.038 U	0.038 U	0.037 U	0.038 U	0.041 U	0.038 U	0.041 U	0.035 U	0.035 U	0.037 U	0.036 U	0.036 U	0.043 U
Benzo[g,h,i]perylene	100	0.39 U	0.38 U	0.37 U	0.38 U	0.38 U	0.37 U	0.38 U	0.41 U	0.38 U	0.41 U	0.35 U	0.35 U	0.37 U	0.36 U	0.36 U	0.43 U
Benzo[k]fluoranthene	0.8	0.039 U	0.038 U	0.037 U	0.038 U	0.038 U	0.037 U	0.038 U	0.041 U	0.038 U	0.041 U	0.035 U	0.035 U	0.037 U	0.036 U	0.036 U	0.043 U
Bis(2-chloroethoxy)methane	NA	0.39 U	0.38 U	0.37 U	0.38 U	0.38 U	0.37 U	0.38 U	0.41 U	0.38 U	0.41 U	0.35 U	0.35 U	0.37 U	0.36 U	0.36 U	0.43 U
Bis(2-chloroethyl)ether	NA	0.039 U	0.038 U	0.037 U	0.038 U	0.038 U	0.037 U	0.038 U	0.041 U	0.038 U	0.041 U	0.035 U	0.035 U	0.037 U	0.036 U	0.036 U	0.043 U
Bis(2-ethylhexyl) phthalate	NA	0.39 U	0.38 U	0.37 U	0.38 U	0.38 U	0.37 U	0.38 U	0.41 U	0.38 U	0.034 J	0.35 U	0.35 U	0.37 U	0.36 U	0.36 U	0.43 U
Butyl benzyl phthalate	NA	0.39 U	0.38 U	0.37 U	0.38 U	0.38 U	0.37 U	0.38 U	0.41 U	0.38 U	0.024 J	0.35 U	0.35 U	0.37 U	0.36 U	0.36 U	0.43 U
Caprolactam	NA	0.39 U	0.38 U	0.37 U	0.38 U	0.38 U	0.37 U	0.38 U	0.41 U	0.38 U	0.41 U	0.35 U	0.35 U	0.37 U	0.36 U	0.36 U	0.43 U
Carbazole	NA	0.39 U	0.38 U	0.37 U	0.38 U	0.38 U	0.37 U	0.38 U	0.41 U	0.38 U	0.41 U	0.35 U	0.35 U	0.37 U	0.36 U	0.36 U	0.43 U
Chrysene	1	0.39 U	0.38 U	0.37 U	0.38 U	0.38 U	0.37 U	0.38 U	0.41 U	0.38 U	0.41 U	0.0087 J B	0.35 U	0.37 U	0.36 U	0.36 U	0.43 U
Dibenz(a,h)anthracene	0.33	0.039 U	0.038 U	0.037 U	0.038 U	0.038 U	0.037 U	0.038 U	0.041 U	0.038 U	0.041 U	0.035 U	0.035 U	0.037 U	0.036 U	0.036 U	0.043 U
Dibenzofuran	7	0.39 U	0.38 U	0.37 U	0.38 U	0.38 U	0.37 U	0.38 U	0.41 U	0.38 U	0.41 U	0.35 U	0.35 U	0.37 U	0.36 U	0.36 U	0.43 U
Diethyl phthalate	NA	0.39 U	0.38 U	0.37 U	0.38 U	0.38 U	0.37 U	0.38 U	0.41 U	0.38 U	0.016 J B	0.35 U	0.35 U	0.37 U	0.36 U	0.36 U	0.43 U
Dimethyl phthalate	NA	0.39 U	0.38 U	0.37 U	0.38 U	0.38 U	0.37 U	0.38 U	0.41 U	0.38 U	0.41 U	0.35 U	0.35 U	0.37 U	0.36 U	0.36 U	0.43 U
Di-n-butyl phthalate	NA	0.39 U	0.38 U	0.37 U	0.38 U	0.38 U	0.37 U	0.38 U	0.41 U	0.38 U	0.41 U	0.35 U	0.35 U	0.37 U	0.36 U	0.36 U	0.43 U
Di-n-octyl phthalate	NA	0.39 U	0.38 U	0.37 U	0.38 U	0.38 U	0.37 U	0.38 U	0.41 U	0.38 U	0.41 U	0.35 U	0.35 U	0.37 U	0.36 U	0.36 U	0.43 U
Diphenyl	NA	0.39 U	0.38 U	0.37 U	0.38 U	0.38 U	0.37 U	0.38 U	0.41 U	0.38 U	0.41 U	0.35 U	0.35 U	0.37 U	0.36 U	0.36 U	0.43 U
Fluoranthene	100	0.39 U	0.38 U	0.37 U	0.38 U	0.38 U	0.37 U	0.38 U	0.41 U	0.38 U	0.41 U	0.35 U	0.35 U	0.37 U	0.36 U	0.36 U	0.43 U
Fluorene	30	0.39 U	0.38 U	0.37 U	0.38 U	0.38 U	0.37 U	0.38 U	0.41 U	0.38 U	0.41 U	0.35 U	0.35 U	0.37 U	0.36 U	0.36 U	0.43 U
Hexachlorobenzene	0.33	0.039 U	0.038 U	0.037 U	0.038 U	0.038 U	0.037 U	0.038 U	0.041 U	0.038 U	0.041 U	0.035 U	0.035 U	0.037 U	0.036 U	0.036 U	0.043 U
Hexachlorobutadiene	NA	0.079 U	0.077 U	0.074 U	0.077 U	0.078 U	0.076 U	0.076 U	0.082 U	0.077 U	0.084 U	0.072 U	0.072 U	0.075 U	0.072 U	0.072 U	0.087 U
Hexachlorocyclopentadiene	NA	0.39 U	0.38 U	0.37 U	0.38 U	0.38 U	0.37 U	0.38 U	0.41 U	0.38 U	0.41 U	0.35 U	0.35 U	0.37 U	0.36 U	0.36 U	0.43 U
Hexachloroethane	NA	0.039 U	0.038 U	0.037 U	0.038 U	0.038 U	0.037 U	0.038 U	0.041 U	0.038 U	0.041 U	0.035 U	0.035 U	0.037 U	0.036 U	0.036 U	0.043 U
Indeno[1,2,3-cd]pyrene	0.5	0.039 U	0.038 U	0.037 U	0.038 U	0.038 U	0.037 U	0.038 U	0.041 U	0.038 U	0.041 U	0.035 U	0.035 U	0.037 U	0.036 U	0.036 U	0.043 U
Isophorone	NA	0.39 U	0.38 U	0.37 U	0.38 U	0.38 U	0.37 U	0.38 U	0.41 U	0.38 U	0.41 U	0.35 U	0.35 U	0.37 U	0.36 U	0.36 U	0.43 U
Naphthalene	12	0.39 U	0.38 U	0.37 U	0.38 U	0.38 U	0.37 U	0.38 U	0.41 U	0.38 U	0.41 U	0.35 U	0.35 U	0.37 U	0.36 U	0.36 U	0.43 U
Nitrobenzene	NA	0.039 U	0.038 U	0.037 U	0.038 U	0.038 U	0.037 U	0.038 U	0.041 U	0.038 U	0.041 U	0.035 U	0.035 U	0.037 U	0.036 U	0.036 U	0.043 U
N-Nitrosodi-n-propylamine	NA	0.039 U	0.038 U	0.037 U	0.038 U	0.038 U	0.037 U	0.038 U	0.041 U	0.038 U	0.041 U	0.035 U	0.035 U	0.037 U	0.036 U	0.036 U	0.043 U
N-Nitrosodiphenylamine	NA	0.39 U	0.38 U	0.37 U	0.38 U	0.38 U	0.37 U	0.38 U	0.41 U	0.38 U	0.41 U	0.35 U	0.35 U	0.37 U	0.36 U	0.36 U	0.43 U
Pentachlorophenol	0.8	1.2 U	1.1 U	1.1 U	1.2 U	1.2 U	1.1 U	1.1 U	1.2 U	1.1 U	1.2 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.3 U
Phenanthrene	100	0.39 U	0.38 U	0.37 U	0.38 U	0.38 U	0.37 U	0.38 U	0.41 U	0.38 U	0.41 U	0.35 U	0.35 U	0.37 U	0.36 U	0.36 U	0.43 U
Phenol	0.33	0.39 U	0.38 U	0.37 U	0.38 U	0.38 U	0.37 U	0.38 U	0.41 U	0.38 U	0.41 U	0.35 U	0.35 U	0.37 U	0.36 U	0.36 U	0.43 U
Pyrene	100	0.39 U	0.38 U	0.37 U	0.38 U	0.38 U	0.37 U	0.38 U	0.41 U	0.38 U	0.41 U	0.35 U	0.35 U	0.37 U	0.36 U	0.36 U	0.43 U
Pyridine	NA	0.39 U	0.38 U	0.37 U	0.38 U	0.38 U	0.37 U	0.38 U	0.41 U	0.38 U	0.41 U	0.35 U	0.35 U	0.37 U	0.36 U	0.36 U	0.43 U
Total SVOC TICs	NA	ND	ND	0.80	2.73	2.85	8.35	1.30	2.31	2.09	0.116	7.05	6.21	6.60	2.62	3.33	3.52

Notes
ND: TIC not detected
B : The analyte was found in an associated blank, as well as in the sample.
J : Indicates an estimated value.
J B : The analyte was found in an associated blank, as well as in the sample.
J N : Indicates an estimated value.
U : Analyzed for but not detected.
U R : Indicates that value is regected based upon DUSR review by third party data validator.

Table 5-55
North Alleyway Area
Confirmatory, Port-Excavation TCL SVOC Soil Analytical Data

TCL SVOCs (mg/kg)	NYSDEC Unrestricted SCO	North Alleyway Area - Confirmatory Post-Excavation Soil Samples																
		Bottom Soil Samples																
		NA-EP#36 (12')	NA-EP#37 (12')	NA-EP#39 (12')	NA-EP#42 (12')	~~NA-EP#43 (12')~~	NA-EP#44 (12')	NA-EP#46 (12')	NA-EP#48 (12')	NA-EP#50 (12')	NA-EP#51 (12')	NA-EP#52 (12')	NA-EP#53 (12')	NA-EP#54 (12')	NA-EP#55 (12')	NA-EP#56 (12')	NA-EP#57 (12')	NA-EP#60 (12')
1,2,4,5-Tetrachlorobenzene	NA	0.41 U	0.38 U	0.37 U	0.36 U	0.43 U	0.41 U	0.38 U	0.39 U	0.37 U	0.36 U	0.36 U	0.38 U	0.36 U	0.36 U	0.39 U	0.40 U	0.41 U
1,4-Dioxane	0.1	0.41 U	0.38 U	0.37 U	0.36 U	0.43 U	0.41 U	0.38 U	0.39 U	0.37 U	0.36 U	0.36 U	0.38 U	0.36 U	0.36 U	0.39 U	0.40 U	0.41 U
2,2'-oxybis[1-chloropropane]	NA	0.41 U	0.38 U	0.37 U	0.36 U	0.43 U	0.41 U	0.38 U	0.39 U	0.37 U	0.36 U	0.36 U	0.38 U	0.36 U	0.36 U	0.39 U	0.40 U	0.41 U
2,3,4,6-Tetrachlorophenol	NA	0.41 U	0.38 U	0.37 U	0.36 U	0.43 U	0.41 U	0.38 U	0.39 U	0.37 U	0.36 U	0.36 U	0.38 U	0.36 U	0.36 U	0.39 U	0.40 U	0.41 U
2,4,5-Trichlorophenol	NA	0.41 U	0.38 U	0.37 U	0.36 U	0.43 U	0.41 U	0.38 U	0.39 U	0.37 U	0.36 U	0.36 U	0.38 U	0.36 U	0.36 U	0.39 U	0.40 U	0.41 U
2,4,6-Trichlorophenol	NA	0.41 U	0.38 U	0.37 U	0.36 U	0.43 U	0.41 U	0.38 U	0.39 U	0.37 U	0.36 U	0.36 U	0.38 U	0.36 U	0.36 U	0.39 U	0.40 U	0.41 U
2,4-Dichlorophenol	NA	0.41 U	0.38 U	0.37 U	0.36 U	0.43 U	0.41 U	0.38 U	0.39 U	0.37 U	0.36 U	0.36 U	0.38 U	0.36 U	0.36 U	0.39 U	0.40 U	0.41 U
2,4-Dimethylphenol	NA	0.41 U	0.38 U	0.37 U	0.36 U	0.43 U	0.41 U	0.38 U	0.39 U	0.37 U	0.36 U	0.36 U	0.38 U	0.36 U	0.36 U	0.39 U	0.40 U	0.41 U
2,4-Dinitrophenol	NA	1.2 U	1.2 U	1.1 U	1.1 U	1.3 U	1.2 U	1.2 U	1.2 U	1.1 U	1.1 U	1.1 U	1.2 U	1.1 U	1.1 U	1.2 U	1.2 U	1.2 U
2,4-Dinitrotoluene	NA	0.083 U	0.077 U	0.075 U	0.074 U	0.087 U	0.083 U	0.078 U	0.079 U	0.074 U	0.072 U	0.073 U	0.077 U	0.073 U	0.074 U	0.079 U	0.081 U	0.082 U
2,6-Dinitrotoluene	NA	0.083 U	0.077 U	0.075 U	0.074 U	0.087 U	0.083 U	0.078 U	0.079 U	0.074 U	0.072 U	0.073 U	0.077 U	0.073 U	0.074 U	0.079 U	0.081 U	0.082 U
2-Chloronaphthalene	NA	0.41 U	0.38 U	0.37 U	0.36 U	0.43 U	0.41 U	0.38 U	0.39 U	0.37 U	0.36 U	0.36 U	0.38 U	0.36 U	0.36 U	0.39 U	0.40 U	0.41 U
2-Chlorophenol	NA	0.41 U	0.38 U	0.37 U	0.36 U	0.43 U	0.41 U	0.38 U	0.39 U	0.37 U	0.36 U	0.36 U	0.38 U	0.36 U	0.36 U	0.39 U	0.40 U	0.41 U
2-Methylnaphthalene	NA	0.41 U	0.38 U	0.37 U	0.36 U	0.43 U	0.41 U	0.38 U	0.39 U	0.37 U	0.36 U	0.36 U	0.38 U	0.36 U	0.36 U	0.39 U	0.40 U	0.41 U
2-Methylphenol	0.33	0.41 U	0.38 U	0.37 U	0.36 U	0.43 U	0.41 U	0.38 U	0.39 U	0.37 U	0.36 U	0.36 U	0.38 U	0.36 U	0.36 U	0.39 U	0.40 U	0.41 U
2-Nitroaniline	NA	0.83 U	0.77 U	0.75 U	0.74 U	0.87 U	0.83 U	0.78 U	0.79 U	0.74 U	0.72 U	0.73 U	0.77 U	0.73 U	0.74 U	0.79 U	0.81 U	0.82 U
2-Nitrophenol	NA	0.41 U	0.38 U	0.37 U	0.36 U	0.43 U	0.41 U	0.38 U	0.39 U	0.37 U	0.36 U	0.36 U	0.38 U	0.36 U	0.36 U	0.39 U	0.40 U	0.41 U
3,3'-Dichlorobenzidine	NA	0.83 U	0.77 U	0.75 U	0.74 U	0.87 U	0.83 U	0.78 U	0.79 U	0.74 U	0.72 U	0.73 U	0.77 U	0.73 U	0.74 U	0.79 U	0.81 U	0.82 U
3-Nitroaniline	NA	0.83 U	0.77 U	0.75 U	0.74 U	0.87 U	0.83 U	0.78 U	0.79 U	0.74 U	0.72 U	0.73 U	0.77 U	0.73 U	0.74 U	0.79 U	0.81 U	0.82 U
4,6-Dinitro-2-methylphenol	NA	1.2 U	1.2 U	1.1 U	1.1 U	1.3 U	1.2 U	1.2 U	1.2 U	1.1 U	1.1 U	1.1 U	1.2 U	1.1 U	1.1 U	1.2 U	1.2 U	1.2 U
4-Bromophenyl phenyl ether	NA	0.41 U	0.38 U	0.37 U	0.36 U	0.43 U	0.41 U	0.38 U	0.39 U	0.37 U	0.36 U	0.36 U	0.38 U	0.36 U	0.36 U	0.39 U	0.40 U	0.41 U
4-Chloro-3-methylphenol	NA	0.41 U	0.38 U	0.37 U	0.36 U	0.43 U	0.41 U	0.38 U	0.39 U	0.37 U	0.36 U	0.36 U	0.38 U	0.36 U	0.36 U	0.39 U	0.40 U	0.41 U
4-Chloroaniline	NA	0.41 U	0.38 U	0.37 U	0.36 U	0.43 U	0.41 U	0.38 U	0.39 U	0.37 U	0.36 U	0.36 U	0.38 U	0.36 U	0.36 U	0.39 U	0.40 U	0.41 U
4-Chlorophenyl phenyl ether	NA	0.41 U	0.38 U	0.37 U	0.36 U	0.43 U	0.41 U	0.38 U	0.39 U	0.37 U	0.36 U	0.36 U	0.38 U	0.36 U	0.36 U	0.39 U	0.40 U	0.41 U
4-Methylphenol	0.33	0.41 U	0.38 U	0.37 U	0.36 U	0.43 U	0.41 U	0.38 U	0.39 U	0.37 U	0.36 U	0.36 U	0.38 U	0.36 U	0.36 U	0.39 U	0.40 U	0.41 U
4-Nitroaniline	NA	0.83 U	0.77 U	0.75 U	0.74 U	0.87 U	0.83 U	0.78 U	0.79 U	0.74 U	0.72 U	0.73 U	0.77 U	0.73 U	0.74 U	0.79 U	0.81 U	0.82 U
4-Nitrophenol	NA	1.2 U	1.2 U	1.1 U	1.1 U	1.3 U	1.2 U	1.2 U	1.2 U	1.1 U	1.1 U	1.1 U	1.2 U	1.1 U	1.1 U	1.2 U	1.2 U	1.2 U
Acenaphthene	20	0.41 U	0.38 U	0.37 U	0.36 U	0.43 U	0.41 U	0.38 U	0.39 U	0.37 U	0.36 U	0.36 U	0.38 U	0.36 U	0.36 U	0.39 U	0.40 U	0.41 U
Acenaphthylene	100	0.41 U	0.38 U	0.37 U	0.36 U	0.43 U	0.41 U	0.38 U	0.39 U	0.37 U	0.36 U	0.36 U	0.38 U	0.36 U	0.36 U	0.39 U	0.40 U	0.41 U
Acetophenone	NA	0.41 U	0.38 U	0.37 U	0.36 U	0.43 U	0.41 U	0.38 U	0.39 U	0.37 U	0.36 U	0.36 U	0.38 U	0.36 U	0.36 U	0.39 U	0.40 U	0.41 U
Anthracene	100	0.41 U	0.38 U	0.37 U	0.36 U	0.43 U	0.41 U	0.38 U	0.39 U	0.37 U	0.36 U	0.36 U	0.38 U	0.36 U	0.36 U	0.39 U	0.40 U	0.41 U
Atrazine	NA	0.41 U	0.38 U	0.37 U	0.36 U	0.43 U	0.41 U	0.38 U	0.39 U	0.37 U	0.36 U	0.36 U	0.38 U	0.36 U	0.36 U	0.39 U	0.40 U	0.41 U
Benzaldehyde	NA	0.41 U	0.38 U	0.37 U	0.36 U	0.43 U	0.41 U	0.38 U	0.39 U	0.37 U	0.36 U	0.36 U	0.38 U	0.36 U	0.36 U	0.39 U	0.40 U	0.41 U
Benzo[a]anthracene	1	0.041 U	0.038 U	0.037 U	0.036 U	0.043 U	0.041 U	0.038 U	0.039 U	0.037 U	0.036 U	0.036 U	0.038 U	0.036 U	0.036 U	0.039 U	0.040 U	0.041 U
Benzo[a]pyrene	1	0.041 U	0.038 U	0.037 U	0.036 U	0.043 U	0.041 U	0.0099 J	0.039 U	0.037 U	0.036 U	0.036 U	0.038 U	0.036 U	0.036 U	0.039 U	0.040 U	0.041 U
Benzo[b]fluoranthene	1	0.041 U	0.038 U	0.037 U	0.036 U	0.043 U	0.041 U	0.0078 J	0.039 U	0.037 U	0.036 U	0.036 U	0.038 U	0.036 U	0.036 U	0.039 U	0.040 U	0.041 U
Benzo[g,h,i]perylene	100	0.41 U	0.38 U	0.37 U	0.36 U	0.43 U	0.41 U	0.38 U	0.39 U	0.37 U	0.36 U	0.36 U	0.38 U	0.36 U	0.36 U	0.39 U	0.40 U	0.41 U
Benzo[k]fluoranthene	0.8	0.041 U	0.038 U	0.037 U	0.036 U	0.043 U	0.041 U	0.013 J	0.039 U	0.037 U	0.036 U	0.036 U	0.038 U	0.036 U	0.036 U	0.039 U	0.040 U	0.041 U
Bis(2-chloroethoxy)methane	NA	0.41 U	0.38 U	0.37 U	0.36 U	0.43 U	0.41 U	0.38 U	0.39 U	0.37 U	0.36 U	0.36 U	0.38 U	0.36 U	0.36 U	0.39 U	0.40 U	0.41 U
Bis(2-chloroethyl)ether	NA	0.041 U	0.038 U	0.037 U	0.036 U	0.043 U	0.041 U	0.038 U	0.039 U	0.037 U	0.036 U	0.036 U	0.038 U	0.036 U	0.036 U	0.039 U	0.040 U	0.041 U
Bis(2-ethylhexyl) phthalate	NA	0.41 U	0.38 U	0.37 U	0.36 U	0.43 U	0.41 U	0.38 U	0.39 U	0.37 U	0.36 U	0.36 U	0.38 U	0.36 U	0.36 U	0.39 U	0.40 U	0.41 U
Butyl benzyl phthalate	NA	0.41 U	0.38 U	0.37 U	0.36 U	0.43 U	0.41 U	0.38 U	0.39 U	0.37 U	0.36 U	0.36 U	0.38 U	0.36 U	0.36 U	0.39 U	0.40 U	0.41 U
Caprolactam	NA	0.41 U	0.38 U	0.37 U	0.36 U	0.43 U	0.41 U	0.38 U	0.39 U	0.37 U	0.36 U	0.36 U	0.38 U	0.36 U	0.36 U	0.39 U	0.40 U	0.41 U
Carbazole	NA	0.41 U	0.38 U	0.37 U	0.36 U	0.43 U	0.41 U	0.38 U	0.39 U	0.37 U	0.36 U	0.36 U	0.38 U	0.36 U	0.36 U	0.39 U	0.40 U	0.41 U
Chrysene	1	0.41 U	0.38 U	0.37 U	0.36 U	0.43 U	0.41 U	0.38 U	0.39 U	0.37 U	0.36 U	0.36 U	0.38 U	0.36 U	0.36 U	0.39 U	0.40 U	0.41 U
Dibenz(a,h)anthracene	0.33	0.041 U	0.038 U	0.037 U	0.036 U	0.043 U	0.041 U	0.038 U	0.039 U	0.037 U	0.036 U	0.036 U	0.038 U	0.036 U	0.036 U	0.039 U	0.040 U	0.041 U
Dibenzofuran	7	0.41 U	0.38 U	0.37 U	0.36 U	0.43 U	0.41 U	0.38 U	0.39 U	0.37 U	0.36 U	0.36 U	0.38 U	0.36 U	0.36 U	0.39 U	0.40 U	0.41 U
Diethyl phthalate	NA	0.41 U	0.38 U	0.37 U	0.36 U	0.43 U	0.41 U	0.38 U	0.39 U	0.37 U	0.36 U	0.36 U	0.38 U	0.36 U	0.36 U	0.39 U	0.40 U	0.41 U
Dimethyl phthalate	NA	0.41 U	0.38 U	0.37 U	0.36 U	0.43 U	0.41 U	0.38 U	0.39 U	0.37 U	0.36 U	0.36 U	0.38 U	0.36 U	0.36 U	0.39 U	0.40 U	0.41 U
Di-n-butyl phthalate	NA	0.41 U	0.38 U	0.37 U	0.36 U	0.43 U	0.41 U	0.38 U	0.39 U	0.37 U	0.36 U	0.36 U	0.38 U	0.36 U	0.36 U	0.39 U	0.40 U	0.11 J
Di-n-octyl phthalate	NA	0.41 U	0.38 U	0.37 U	0.36 U	0.43 U	0.41 U	0.38 U	0.39 U	0.37 U	0.36 U	0.36 U	0.38 U	0.36 U	0.36 U	0.39 U	0.40 U	0.41 U
Diphenyl	NA	0.41 U	0.38 U	0.37 U	0.36 U	0.43 U	0.41 U	0.38 U	0.39 U	0.37 U	0.36 U	0.36 U	0.38 U	0.36 U	0.36 U	0.39 U	0.40 U	0.41 U
Fluoranthene	100	0.41 U	0.38 U	0.37 U	0.36 U	0.43 U	0.41 U	0.38 U	0.39 U	0.37 U	0.36 U	0.36 U	0.38 U	0.36 U	0.36 U	0.39 U	0.40 U	0.41 U
Fluorene	30	0.41 U	0.38 U	0.37 U	0.36 U	0.43 U	0.41 U	0.38 U	0.39 U	0.37 U	0.36 U	0.36 U	0.38 U	0.36 U	0.36 U	0.39 U	0.40 U	0.41 U
Hexachlorobenzene	0.33	0.041 U	0.038 U	0.037 U	0.036 U	0.043 U	0.041 U	0.038 U	0.039 U	0.037 U	0.036 U	0.036 U	0.038 U	0.036 U	0.036 U	0.039 U	0.040 U	0.041 U
Hexachlorobutadiene	NA	0.083 U	0.077 U	0.075 U	0.074 U	0.087 U	0.083 U	0.078 U	0.079 U	0.074 U	0.072 U	0.073 U	0.077 U	0.073 U	0.074 U	0.079 U	0.081 U	0.082 U
Hexachlorocyclopentadiene	NA	0.41 U	0.38 U	0.37 U	0.36 U	0.43 U	0.41 U	0.38 U	0.39 U	0.37 U	0.36 U	0.36 U	0.38 U	0.36 U	0.36 U	0.39 U	0.40 U	0.41 U
Hexachloroethane	NA	0.041 U	0.038 U	0.037 U	0.036 U	0.043 U	0.041 U	0.038 U	0.039 U	0.037 U	0.036 U	0.036 U	0.038 U	0.036 U	0.036 U	0.039 U	0.040 U	0.041 U
Indeno[1,2,3-cd]pyrene	0.5	0.041 U	0.038 U	0.037 U	0.036 U	0.043 U	0.041 U	0.038 U	0.039 U	0.037 U	0.036 U	0.036 U	0.038 U	0.036 U	0.036 U	0.039 U	0.040 U	0.041 U
Isophorone	NA	0.41 U	0.38 U	0.37 U	0.36 U	0.43 U	0.41 U	0.38 U	0.39 U	0.37 U	0.36 U	0.36 U	0.38 U	0.36 U	0.36 U	0.39 U	0.40 U	0.41 U
Naphthalene	12	0.41 U	0.38 U	0.37 U	0.36 U	0.43 U	0.41 U	0.38 U	0.39 U	0.37 U	0.36 U	0.36 U	0.38 U	0.36 U	0.36 U	0.39 U	0.40 U	0.41 U
Nitrobenzene	NA	0.041 U	0.038 U	0.037 U	0.036 U	0.043 U	0.041 U	0.038 U	0.039 U	0.037 U	0.036 U	0.036 U	0.038 U	0.036 U	0.036 U	0.039 U	0.040 U	0.041 U
N-Nitrosodi-n-propylamine	NA	0.041 U	0.038 U	0.037 U	0.036 U	0.043 U	0.041 U	0.038 U	0.039 U	0.037 U	0.036 U	0.036 U	0.038 U	0.036 U	0.036 U	0.039 U	0.040 U	0.041 U
N-Nitrosodiphenylamine	NA	0.41 U	0.38 U	0.37 U	0.36 U	0.43 U	0.41 U	0.38 U	0.39 U	0.37 U	0.36 U	0.36 U	0.38 U	0.36 U	0.36 U	0.39 U	0.40 U	0.41 U
Pentachlorophenol	0.8	1.2 U	1.2 U	1.1 U	1.1 U	1.3 U	1.2 U	1.2 U	1.2 U	1.1 U	1.1 U	1.1 U	1.2 U	1.1 U	1.1 U	1.2 U	1.2 U	1.2 U
Phenanthrene	100	0.41 U	0.38 U	0.37 U	0.36 U	0.43 U	0.41 U	0.38 U	0.39 U	0.37 U	0.36 U	0.36 U	0.38 U	0.36 U	0.36 U	0.39 U	0.40 U	0.41 U
Phenol	0.33	0.41 U	0.38 U	0.37 U	0.36 U	0.43 U	0.41 U	0.38 U	0.39 U	0.37 U	0.36 U	0.36 U	0.38 U	0.36 U	0.36 U	0.39 U	0.40 U	0.41 U
Pyrene	100	0.41 U	0.38 U	0.37 U	0.36 U	0.43 U	0.41 U	0.38 U	0.39 U	0.37 U	0.36 U	0.36 U	0.38 U	0.36 U	0.36 U	0.39 U	0.40 U	0.41 U
Pyridine	NA	0.41 U	0.38 U	0.37 U	0.36 U	0.43 U	0.41 U	0.38 U	0.39 U	0.37 U	0.36 U	0.36 U	0.38 U	0.36 U	0.36 U	0.39 U	0.40 U	0.41 U
Total SVOC TICs	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes
ND: TIC not detected
B : The analyte was found in an associated blank, as well as in the sample.
J : Indicates an estimated value.
J B : The analyte was found in an associated blank, as well as in the sample.
J N : Indicates an estimated value.
U : Analyzed for but not detected.

Table 5-56
North Alleyway Area
Confirmatory, Port-Excavation TAL Metals Soil Analytical Data

TAL Metals (mg/kg)	NYSDEC SCOs					North Alleyway Area - Confirmatory Post-Excavation Soil Samples															
						Sidewall Soil Samples															
	NYSDEC Unrestricted SCO	Residential	Restricted Residential	Commercial	Protection of Groundwater	NA-EP#1 (8')	NA-EP#2 (8')	NA-EP#5 (8')	NA-EP#6 (8')	NA-EP#8 (8')	NA-EP#10 (8')	NA-EP#12 (8')	~~NA-EP#13 (12')~~	NA-EP#16 (4')	NA-EP#17 (8')	NA-EP#18 (4')	NA-EP#19 (8')	NA-EP#22 (4')	NA-EP#23 (8')	~~NA-EP#24 (8')~~	~~NA-EP#26 (8')~~	NA-EP#27 (8')	NA-EP#28 (8')
Aluminum	NA	NA	NA	NA	NA	1,600	1,440	1,170	1,070	2,850	1,680	1,780	1,050	6,260	3,450	6,110	3,060	2,850	870	979	4,540	13,800	2,270
Antimony	NA	NA	NA	NA	NA	3.8 U	4.2 U	4.4 U	3.8 U	3.6 U	4.2 U	3.5 U	4.0 U	4.1 U	4.1 U	4.0 U	3.6 U	3.7 U	4.3 U	4.1 U	5.5 U	4.8 U	4.0 U
Arsenic	13	16	16	16	16	2.8 U	3.2 U	0.93 J	0.87 J	2.4 J	0.81 J	2.6 U	1.3 J	1.5 J	2.7 J	1.3 J	1.5 J	6.0	2.2 J	1.0 J	1.7 J	5.0	3.1
Barium	350	350	400	400	820	6.7 J	8.7 J	8.0 J	8.2 J	51.2	7.9 J	7.1 J	6.7 J	24.8 J	73.6	31.1 J	28.9 J	24.7 J	192	7.4 J	26.0 J	109	20.6 J
Beryllium	7.2	14	72	590	47	0.38 U	0.42 U	0.44 U	0.38 U	0.36 U	0.42 U	0.35 U	0.40 U	0.40 J	0.36 J	0.36 J	0.31 J	0.37	0.13 J	0.41 U	0.40 J	0.98	0.22 J
Cadmium	2.5	2.5	4.3	9.3	7.5	0.76 U	0.84 U	0.89 U	0.77 U	0.73 U	0.84 U	0.70 U	**35.9**	0.82 U	0.82 U	0.80 U	0.72 U	0.74 U	0.85 U	**16.4**	4.1 U	0.96 U	0.79 U
Calcium	NA	NA	NA	NA	NA	210 J	196 J	232 J	179 J	473 J	165 J	164 J	174 J	416 J	582 J	534 J	170 J	166 J	105 J	232 J	967 J	2,140	217 J
Chromium[1]	30	36	180	1,500	NS	4.1	4.5	6.3	3.4	7.0	3.9	5.2	2.6	9.7	6.0	11.9	6.1	7.8	2.5	5.1	10.6	26.4	5.0
Cobalt	NA	NA	NA	NA	NA	0.91 J	1.3 J	1.0 J	1.4 J	3.0 J	2.1 J	0.76 J	1.9 J	4.0 J	11.8	4.2 J	4.7 J	2.5 J	2.0 J	10.4 J	5.0 J	12.7	3.1 J
Copper	50	270	270	270	1,720	2.8 J	2.6 J	3.3 J	2.6 J	5.3 J	2.1 J	1.9 J	2.5 J	5.5 J	6.6	5.6	6.8	4.7	3.0 J	4.7 J	7.3	20.5	6.8
Iron	NA	NA	NA	NA	NA	3,830	2,870	3,730	4,530	7,420	6,100	3,090	6,700	8,680	9,140	9,420	9,850	16,300	11,200	4,100	11,400	25,300	14,200
Lead	63	400	400	1,000	450	1.1 J	3.7	2.3	1.6 J	14.2	1.6 J	0.97 J	1.0 J	4.8	10.8	19.8	2.7	2.5	2.1 U	1.5 J	4.5	9.7	3.0
Magnesium	NA	NA	NA	NA	NA	829 J	631 J	652 J	425 J	814 J	555 J	588 J	319 J	1,320	944 J	1,520	740 J	398 J	191 J	323 J	1,430	4,720	706 J
Manganese	1,600	2,000	2,000	10,000	2,000	30.3	23.4	35.4	29.6	*1,820*	113	24.1	74.4	165	778	203	198	1,040	564	24.9	130	583	309
Nickel	30	140	310	310	130	2.4 J	2.3 J	2.2 J	2.8 J	5.1 J	2.8 J	1.8 J	2.9 J	7.4 J	6.0 J	7.9 J	6.9 J	3.5 J	4.7 J	1.7 J	7.9 J	23.3	6.5 J
Potassium	NA	NA	NA	NA	NA	456 J	487 J	456 J	378 J	446 J	232 J	173 J	213 J	592 J	409 J	794 J	306 J	253 J	147 J	236 J	840 J	2,680	470 J
Selenium	3.9	36	180	1,500	4	3.8 U	4.2 U	4.4 U	3.8 U	3.6 U	4.2 U	3.5 U	4.0 U	4.1 U	4.1 U	4.0 U	3.6 U	3.7 U	4.3 U	4.1 U	5.5 U	4.8 U	4.0 U
Silver	2	36	180	1,500	8.3	1.9 U	2.1 U	2.2 U	1.9 U	1.8 U	2.1 U	1.7 U	2.0 U	2.1 U	2.0 U	2.0 U	1.8 U	1.8 U	2.1 U	2.1 U	2.8 U	2.4 U	2.0 U
Sodium	NA	NA	NA	NA	NA	948 U	1,060 U	1,110 U	958 U	908 U	1,050 U	872 U	1,000 U	1,030 U	1,020 U	994 U	901 U	921 U	1,060 U	1,040 U	1,380 U	1,200 U	991 U
Thallium	NA	NA	NA	NA	NA	3.8 U	4.2 U	4.4 U	3.8 U	1.7 J	4.2 U	3.5 U	4.0 U	4.1 U	4.1 U	4.0 U	3.6 U	3.7 U	4.3 U	4.1 U	5.5 U	4.8 U	4.0 U
Vanadium	NA	NA	NA	NA	NA	4.0 J	4.7 J	5.8 J	3.9 J	7.5 J	3.9 J	3.3 J	3.7 J	10.7	9.7 J	11.5	7.2 J	6.9 J	2.7 J	4.3 J	14.7	36.1	6.2 J
Zinc	109	2,200	10,000	10,000	2,480	6.9	6.0 J	5.6 J	6.0	28.7	7.5	6.1	8.0	16.0	11.5	20.5	11.8	8.1	9.8	5.0 J	22.6	59.6	12.4
Mercury	0.18	0.81	0.81	2.8	0.73	0.017 U	0.018 U	0.020 U	0.017 U	0.019 U	0.019 U	0.017 U	0.020 U	0.017 U	0.019 U	0.019 U	0.018 U	0.018 U	0.019 U	0.017 U	0.023 U	0.016 J	0.017 U

TAL Metals (mg/kg)	NYSDEC SCOs					North Alleyway Area - Confirmatory Post-Excavation Soil Samples															
						Sidewall Soil Samples															
	NYSDEC Unrestricted SCO	Residential	Restricted Residential	Commercial	Protection of Groundwater	NA-EP#29 (8')	NA-EP#38 (12')	NA-EP#40 (12')	NA-EP#41 (8')	NA-EP#45 (12')	NA-EP#47 (12')	NA-EP#49 (12')	NA-EP#58 (8')	NA-EP#59 (8')	NA-EP#61 (8')	NA-EP#62 (8')	NA-EP#63 (8')	~~NA-EP#64 (12')~~	~~NA-EP#65 (12')~~	~~NA-EP#66 (12')~~	~~NA-EP#74 (12')~~	~~NA-EP#75 (12')~~	NA-EP#76 (12')
Aluminum	NA	NA	NA	NA	NA	1,720	2,270	2,290	1,480	4,730	1,490	2,050	3,600	1,400	1,430	1,700	1,220	664	840	1,240	739	828	894
Antimony	NA	NA	NA	NA	NA	3.2 U	3.8 U	4.7 U	3.0 U	3.8 U	4.0 U	3.8 U	3.3 U	3.8 U	3.8 U	4.0 U	3.5 U	4.2 U	4.3 U	4.2 U	4.2 U	4.6 U	4.1 U
Arsenic	13	16	16	16	16	0.77 J	7.2	3.0 J	2.3 U	1.3 J	4.6	1.1 J	2.0 J	1.2 J	0.87 J	3.0 U	2.6 U	1.1 U	3.2 U	1.1 U	1.3 U	1.9 U	0.62 J
Barium	350	350	400	400	820	16.3 J	30.3 J	109	10.2 J	19.9 J	16.6 J	16.8 J	52.0	19.4 J	9.2 J	11.6 J	7.2 J	23.0 J	6.1 J	9.2 J	4.7 J	6.6 J	5.6 J
Beryllium	7.2	14	72	590	47	0.12 J	0.19 J	0.15 J	0.30 U	0.39 J	0.14 J	0.18 J	0.53	0.38 U	0.38 U	0.40 U	0.35 U	0.066 J	0.098 J	0.13 J	0.13 J	0.053 J	0.059 J
Cadmium	2.5	2.5	4.3	9.3	7.5	0.65 U	0.76 U	0.94 U	0.61 U	0.77 U	0.79 U	0.76 U	0.65 U	0.77 U	0.75 U	0.80 U	0.70 U	**3.5**	**11.3**	**36.8**	**50.1**	**17.6**	0.83 U
Calcium	NA	NA	NA	NA	NA	75.3 J	181 J	302 J	272 J	252 J	109 J	126 J	401 J	267 J	106 J	124 J	152 J	132 J	162 J	282 J	302 J	237 J	133 J
Chromium[1]	30	36	180	1,500	NS	3.3	5.8	6.0	3.5	8.8	3.2	5.8	8.2	2.7	3.2	4.2	2.9	2.7	2.6	5.2	2.1	9.6	1.8 J
Cobalt	NA	NA	NA	NA	NA	1.2 J	4.8 J	3.6 J	1.9 J	3.9 J	2.3 J	4.1 J	12.0	1.5 J	1.3 J	2.7 J	1.4 J	0.99 J	0.85 J	1.7 J	1.3 J	0.78 J	0.88 J
Copper	50	270	270	270	1,720	3.0 J	3.4 J	2.9 J	3.1 J	5.0	3.3 J	4.3 J	13.7	3.2 J	2.2 J	2.5 J	2.2 J	1.6 J	1.8 J	3.4 J	2.1 J	2.6 J	1.8 J
Iron	NA	NA	NA	NA	NA	2,780	16,200	16,300	2,290	10,800	11,100	7,170	15,700	4,780	3,100	5,800	5,690	4,490	5,760	7,180	8,120	4,300	4,540
Lead	63	400	400	1,000	450	1.5 J	2.9	2.6	1.4 J	3.4	1.6 J	1.4 J	4.8	1.5 J	1.7 J	1.9 J	1.2 J	1.1 J	1.3 J	1.8 J	1.3 J	1.2 J	1.1 J
Magnesium	NA	NA	NA	NA	NA	290 J	607 J	897 J	536 J	1,170	401 J	901 J	851	373 J	402 J	602 J	417 J	184 J	265 J	448 J	256 J,B	310 J,B	168 J,B
Manganese	1,600	2,000	2,000	10,000	2,000	18.2	552	*1,990*	47.2	94.6	81.1	122	1,240	1,400	60.0	113	109	118	70.9	70.8	44.9	27.7	48.5
Nickel	30	140	310	310	130	2.3 J	3.2 J	7.0 J	3.4 J	7.6 J	2.8 J	5.0 J	19.6	3.9 J	2.4 J	4.5 J	3.0 J	3.3 J,B	2.4 J,B	3.5 J,B	3.9 J	1.9 J	1.9 J
Potassium	NA	NA	NA	NA	NA	230 J	436 J	698 J	224 J	433 J	240 J	419 J	561 J	214 J	234 J	339 J	307 J	138 J	208 J	256 J	198 J	241 J	111 J
Selenium	3.9	36	180	1,500	4	3.2 U	3.8 U	4.7 U	3.0 U	3.8 U	4.0 U	3.8 U	3.3 U	3.8 U	3.8 U	4.0 U	3.5 U	4.2 U	4.3 U	4.2 U	4.2 U	4.6 U	4.1 U
Silver	2	36	180	1,500	8.3	1.6 U	1.9 U	2.4 U	1.5 U	1.9 U	2.0 U	1.9 U	1.6 U	1.9 U	1.9 U	2.0 U	1.8 U	2.1 U	2.1 U	2.1 U	2.1 U	2.3 U	2.1 U
Sodium	NA	NA	NA	NA	NA	811 U	950 U	1,180 U	760 U	957 U	992 U	953 U	814 U	960 U	941 U	996 U	881 U	1,060 U	1,070 U	1,050 U	1,060 U	1,160 U	1,030 U
Thallium	NA	NA	NA	NA	NA	3.2 U	3.8 U	1.4 J	3.0 U	3.8 U	4.0 U	3.8 U	3.3 U	3.8 U	3.8 U	4.0 U	3.5 U	4.2 U	4.3 U	4.2 U	4.2 U	4.6 U	4.1 U
Vanadium	NA	NA	NA	NA	NA	2.9 J	6.1 J	6.5 J	3.0 J	11.9	3.8 J	7.1 J	14.3	3.4 J	3.7 J	5.4 J	3.8 J	2.5 J	3.3 J	4.9 J	7.0 J	4.5 J	2.4 J
Zinc	109	2,200	10,000	10,000	2,480	5.0	10.8	12.8	6.3	13.7	5.9 J	8.9	17.5	6.0	4.5 J	7.7	4.9 J	4.0 J	5.9 J	21.7	5.8 J	9.5	4.0 J
Mercury	0.18	0.81	0.81	2.8	0.73	0.017 U	0.019 U	0.022 U	0.019 U	0.019 U	0.017 U	0.018 U	0.019 U	0.020 U	0.019 U	0.018 U	0.020 U	0.020 U	0.019 U	0.019 U	0.020 U	0.018 U	0.019 U

TAL Metals (mg/kg)	NYSDEC SCOs					North Alleyway Area - Confirmatory Post-Excavation Soil Samples					
						Sidewall Soil Samples					
	NYSDEC Unrestricted SCO	Residential	Restricted Residential	Commercial	Protection of Groundwater	NA-EP#80 (12')	NA-EP#81 (12')	NA-EP#82 (15')	NA-EP#83 (12')	NA-EP#84 (12')	NA-EP#85 (12')
Aluminum	NA	NA	NA	NA	NA	3,470	846	872	1,160	806	1,100
Antimony	NA	NA	NA	NA	NA	4.8 U	4.0 U	5.1 U	5.0 U	4.3 U	4.4 U
Arsenic	13	16	16	16	16	8.5	3.0 U	3.8 U	3.7 U	3.2 U	3.3 U
Barium	350	350	400	400	820	73.4	5.9 J	6.6 J	13.8 J	5.5 J	12.3 J
Beryllium	7.2	14	72	590	47	0.48 U	0.40 U	0.51 U	0.50 U	0.43 U	0.44 U
Cadmium	2.5	2.5	4.3	9.3	7.5	1.4	0.83	*5.8*	0.75 J	*3.9*	*5.1*
Calcium	NA	NA	NA	NA	NA	420 J	172 J	155 J	289 J	106 J	373 J
Chromium[1]	30	36	180	1,500	NS	9.3	2.4	2.6	3.4	3.0	7.1
Cobalt	NA	NA	NA	NA	NA	2.8 J	0.99 J	12.7 U	12.5 U	10.8 U	1.4 J
Copper	50	270	270	270	1,720	6.3	5.0 U	6.3 U	6.2 U	5.4 U	2.2 J
Iron	NA	NA	NA	NA	NA	8,060	3,080	3,830	3,700	2,690	4,420
Lead	63	400	400	1,000	450	*240*	1.1 J	1.9 J	1.3 J	1.0 J	1.1 J
Magnesium	NA	NA	NA	NA	NA	734 J	306 J	273 J	391 J	317 J	362 J
Manganese	1,600	2,000	2,000	10,000	2,000	311	19.2	21.7	28.0	17.9	29.2
Nickel	30	140	310	310	130	5.4 J	7.9 U	10.1 U	10.0 U	8.6 U	3.0 J
Potassium	NA	NA	NA	NA	NA	480 J	252 J	151 J	296 J	161 J	379 J
Selenium	3.9	36	180	1,500	4	4.8 U	4.0 U	5.1 U	5.0 U	4.3 U	4.4 U
Silver	2	36	180	1,500	8.3	2.4 U	2.0 U	2.5 U	2.5 U	2.2 U	2.2 U
Sodium	NA	NA	NA	NA	NA	1,190 U	990 U	1,270 U	1,250 U	1,080 U	1,100 U
Thallium	NA	NA	NA	NA	NA	4.8 U	4.0 U	5.1 U	5.0 U	4.3 U	4.4 U
Vanadium	NA	NA	NA	NA	NA	7.7 J	3.7 J	3.4 J	4.2 J	3.0 J	4.8 J
Zinc	109	2,200	10,000	10,000	2,480	32.8	5.3 J	6.9 J	6.3 J	5.5 J	7.0
Mercury	0.18	0.81	0.81	2.8	0.73	0.029	0.019 U	0.022 U	0.019 U	0.018 U	0.018 U

Notes
J : Sample result is greater than the MDL but below the CRDL
U : Indicates analyzed for but not detected.
[1] Trivalent chromium SCOs utilized.
Highlighted / bolded indicates analyte exceeded above its respective NYSDEC Unrestricted SCO.
Green / italicized value indictes analyte exceeded its repsective unrestricted SCO but was below its respective Residential / Protection of GW SCO, whichever is lower.
NA - Not Available
NS - No Standard Available
Highlighted / bolded indicates analyte exceeded above its respective NYSDEC Unrestricted SCO.
Green / italicized value indicates analyte exceeded its respective unrestricted SCO but was below its respective Residential / Protection of GW SCO, whichever is lower.
Blue / italicized value indicates analyte exceeded its respective Residential SCO and / or Protection of Groundwater SCO but was below its Restricted Residential SCO.
Pink / italicized value indicates analyte exceeded its respective Residential SCO and / or Protection of Groundwater SCO but was below its Commercial SCO.

Table 5-56
North Alleyway Area
Confirmatory, Port-Excavation TAL Metals Soil Analytical Data

TAL Metals (mg/kg)	NYSDEC Unrestricted SCO	NYSDEC SCOs Residential	Restricted Residential	Commercial	Protection of Groundwater	North Alleyway Area - Confirmatory Post-Excavation Soil Samples Bottom Soil Samples NA-EP#3 (14')	NA-EP#4 (14')	NA-EP#7 (15')	NA-EP#9 (12')	NA-EP#11 (12')	NA-EP#14 (12')	NA-EP#15 (12')	NA-EP#20 (10')	NA-EP#21 (10')	NA-EP#25 (10')	NA-EP#30 (12')	NA-EP#31 (12')	NA-EP#32 (12')	NA-EP#33 (12')	NA-EP#34 (12')	NA-EP#35 (12')	NA-EP#36 (12')	NA-EP#37 (12')	NA-EP#39 (12')	NA-EP#42 (12')	NA-EP#43 (12')
Aluminum	NA	NA	NA	NA	NA	962	876	856	1,750	983	481	1,120	1,050	937	2,480	1,170	1,010	1,240	1,650	876	1,590	1,970	1,280	1,300	1,170	1,050
Antimony	NA	NA	NA	NA	NA	4.5 U	4.5 U	3.7 U	3.5 U	3.8 U	4.1 U	3.9 U	4.4 U	4.2 U	5.0 U	3.6 U	3.5 U	3.4 U	3.7 U	3.3 U	4.6 U	4.4 U	4.2 U	4.0 U	4.1 U	1.6 J
Arsenic	13	16	16	16	16	3.4 U	3.3 U	2.1 J	0.92 J	0.66 J	0.81 J	0.71 J	3.3 U	2.5 J	3.7 J	2.7 U	0.58 J	0.50 J	2.8 U	2.5 U	3.4 U	3.3 U	3.3	1.7 J	3.1 U	3.5 U
Barium	350	350	400	400	820	6.8 J	5.4 J	5.9 J	13.9 J	6.3 J	4.7 J	12.1 J	10.5 J	11.9 J	24.1 J	6.0 J	5.6 J	5.1 J	15.1 J	5.6 J	10.9 J	15.8 J	10.8 J	14.9 J	7.2 J	6.9 J
Beryllium	7.2	14	72	590	47	0.45 U	0.45 U	0.12 J	0.35 U	0.38 U	0.41 U	0.39 U	0.44 U	0.42 U	0.23 J	0.36 U	0.35 U	0.34 U	0.37 U	0.33 U	0.46 U	0.14 J	0.42 U	0.40 U	0.41 U	0.46 U
Cadmium	2.5	2.5	4.3	9.3	7.5	0.90 U	0.89 U	0.74 U	0.13 J	0.77 U	0.17 J	**18.3**	27.5	0.83 U	**3.6**	0.73 U	0.70 U	0.69 U	0.74 U	0.66 U	0.91 U	0.89 U	0.83 U	0.80 U	0.81 U	0.92 U
Calcium	NA	NA	NA	NA	NA	365 J	198 J	256 J	702 J	226 J	79 J	170 J	211 J	279 J	655 J	100 J	141 J	118 J	347 J	212 J	249 J	371 J	126 J	192 J	176 J	200 J
Chromium[1]	30	36	180	1,500	NS	16.7	2.9	3.8	5.1	13.7	1.3 J	3.4	3.5	3.3	7.9	5.9	2.9	11.9	**62.9**	5.1	6.7	7.2	5.2	3.2	7.1	**105**
Cobalt	NA	NA	NA	NA	NA	1.2 J	1.6 J	1.2 J	1.6 J	1.0 J	10.3 U	1.2 J	1.7 J	2.8 J	3.5 J	0.94 J	0.91 J	0.73 J	1.3 J	8.2 U	1.2 J	1.2 J	2.5 J	3.9 J	1.7 J	1.2 J
Copper	50	270	270	270	1,720	3.1 J	2.8 J	2.8 J	2.2 J	2.6 J	1.7 J	1.9 J	1.9 J	2.2 J	5.3 J	1.7 J	1.2 J	2.0 J	2.4 J	1.5 J	2.3 J	3.4 J	2.9 J	1.8 J	2.6 J	2.4 J
Iron	NA	NA	NA	NA	NA	4,540	5,530	4,740	7,360	3,290	3,710	6,460	5,510	9,120	6,880	2,790	3,130	4,170	4,210	2,390	4,060	4,370	12,000	10,700	5,090	2,700
Lead	63	400	400	1,000	450	1.8 J	1.4 J	1.5 J	2.1	1.2 J	2.0 J	1.4 J	1.3 J	0.87 J	3.3	1.1 J	1.2 J	1.2 J	1.8 J	1.2 J	1.8 J	1.7 J	2.1	1.6 J	1.5 J	2.3 U
Magnesium	NA	NA	NA	NA	NA	432 J	341 J	337 J	701 J	290 J	145 J	381 J	384 J	443 J	869 J	442 J	433 J	494 J	798 J	385 J	897 J	925 J	299 J	463 J	468 J	397 J
Manganese	1,600	2,000	2,000	10,000	2,000	19.7	26.5	131	70.4	45.9	253	43.8	50.6	476	477.0	25.9	51.9	32.5	30.5	38.7	51.9	34.6	209	718	37.6	26.8
Nickel	30	140	310	310	130	5.2 J	2.5 J	2.5 J	3.5 J	2.9 J	2.0 J	2.1 J	1.9 J	2.4 J	6.4 J	1.8 J	2.6 J	3.5 J	5.0 J	1.8 J	2.5 J	2.9 J	3.0 J	3.1 J	2.8 J	4.7 J
Potassium	NA	NA	NA	NA	NA	238 J	239 J	280 J	484 J	179 J	121 J	371 J	298 J	298 J	544 J	271 J	311 J	239 J	303 J	211 J	598 J	744 J	186 J	380 J	349 J	301 J
Selenium	3.9	36	180	1,500	4	4.5 U	4.5 U	3.7 U	3.5 U	3.8 U	4.1 U	3.9 U	4.4 U	4.2 U	5.0 U	3.6 U	3.5 U	3.4 U	3.7 U	3.3 U	4.6 U	4.4 U	4.2 U	4.0 U	4.1 U	4.6 U
Silver	2	36	180	1,500	8.3	2.3 U	2.2 U	1.9 U	1.8 U	1.9 U	2.1 U	2.0 U	2.2 U	2.1 U	2.5 U	1.8 U	1.8 U	1.7 U	1.9 U	1.6 U	2.3 U	2.2 U	2.1 U	2.0 U	2.0 U	2.3 U
Sodium	NA	NA	NA	NA	NA	1,130 U	1,120 U	929 U	876 U	877 U	962 U	1,030 U	1,100 U	1,040 U	1,250 U	910 U	876 U	858 U	926 U	821 U	1,140 U	1,110 U	1,040 U	1,000 U	1,020 U	1,150 U
Thallium	NA	NA	NA	NA	NA	4.5 U	4.5 U	3.7 U	3.5 U	3.8 U	4.1 U	3.9 U	4.4 U	4.2 U	5.0 U	3.6 U	3.5 U	3.4 U	3.7 U	3.3 U	4.6 U	4.4 U	4.2 U	4.0 U	4.1 U	4.6 U
Vanadium	NA	NA	NA	NA	NA	4.1 J	3.0 J	4.2 J	6.1 J	3.2 J	1.6 J	4.6 J	3.2 J	3.7 J	10.1 J	3.3 J	2.9 J	2.8 J	5.7 J	2.4 J	5.1 J	6.3 J	3.7 J	3.8 J	3.8 J	3.8 J
Zinc	109	2,200	10,000	10,000	2,480	5.3 J	5.1 J	7.7	8.1	4.2 J	5.8 J	6.4	6.4 J	7.5	16.3	4.3 J	4.4 J	9.6	5.8	4.1 J	7.4	7.7	7.6	6.7	7.1	6.9
Mercury	0.18	0.81	0.81	2.8	0.73	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.021 U	0.019 U	0.021 U	0.017 U	0.018 U	0.019 U	0.017 U	0.018 U	0.020 U	0.021 U	0.020 U	0.019 U	0.018 U	0.021 U

TAL Metals (mg/kg)	NYSDEC Unrestricted SCO	NYSDEC SCOs Residential	Restricted Residential	Commercial	Protection of Groundwater	North Alleyway Area - Confirmatory Post-Excavation Soil Samples Bottom Soil Samples NA-EP#44 (12')	NA-EP#46 (12')	NA-EP#48 (12')	NA-EP#50 (12')	NA-EP#51 (12')	NA-EP#52 (12')	NA-EP#53 (12')	NA-EP#54 (12')	NA-EP#55 (12')	NA-EP#56 (12')	NA-EP#57 (12')	NA-EP#60 (12')	NA-EP#67 (12')	NA-EP#68 (12')	NA-EP#69 (12')	NA-EP#70 (15')	NA-EP#71 (15')	NA-EP#72 (15')	NA-EP#73 (15')	NA-EP#77 (16')	NA-EP#78 (16')	NA-EP#79 (16')
Aluminum	NA	NA	NA	NA	NA	1,220	1,210	4,950	1,450	900	1,100	2,600	1,270	1,370	1,910	1,210	1,970	934	779	1,210	2,280	1,180	1,210	1,500	900	1,060	978
Antimony	NA	NA	NA	NA	NA	3.7 U	3.4 U	3.7 U	3.6 U	4.0 U	0.98 J	3.4 U	3.1 U	4.0 U	4.0 U	3.5 U	3.4 U	4.0 U	4.2 U	4.3 U	4.7 U	4.6	3.9 U	1.1 J	4.5 U	4.7 U	3.9 U
Arsenic	13	16	16	16	16	2.0 J	5.0	1.9 J	0.98 J	0.64 J	1.6 J	2.6 U	2.3 U	3.0 U	1.7 J	2.6 U	1.6 J	3.0 U	3.3	1.8 J	3.5 U	0.91 J	2.9 U	2.9 U	0.77 J	1.5 J	2.9 U
Barium	350	350	400	400	820	19.1 J	19.1 J	20.3 J	10.8 J	7.2 J	5.9 J	12.0 J	8.4 J	10.7 J	11.5 J	8.1 J	16.3 J	3.6 J	25.7 J	12.3 J	12.4 J	7.3 J	10.1 J	13.2 J	13.8 J	11.2 J	5.7 J
Beryllium	7.2	14	72	590	47	0.37 U	0.11 J	0.29 J	0.11 J	0.40 U	0.39 U	0.34 U	0.31 U	0.40 U	0.34 J	0.35 U	0.23 J	0.051 J	0.11 J	0.076 J	0.13 J	0.10 J	0.14 J	0.11 J	0.089 J	0.10 J	0.099 J
Cadmium	2.5	2.5	4.3	9.3	7.5	0.74 U	0.68 U	0.73 U	0.72 U	0.80 U	0.78 U	0.68 U	0.61 U	0.80 U	0.80 U	0.70 U	0.67 U	**3.5**	**53.8**	**30.2**	0.94 U	0.92 U	0.78 U	0.78 U	**20.2**	**38.0**	**23.1**
Calcium	NA	NA	NA	NA	NA	190 J	220 J	328 J	110 J	344 J	173 J	304 J	131 J	456 J	685 J	163 J	201 J	118 J	405 J	205 J	494 J	338 J	224 J	266 J	231 J	339 J	372 J
Chromium[1]	30	36	180	1,500	NS	3.1	2.7	10.3	3.4	2.8	12.4	8.9	3.2	4.1	5.9	2.7	6.4	2.0	3.1	2.8	*11.7*	7.6	3.6	307	3.4	4.3	3.7
Cobalt	NA	NA	NA	NA	NA	1.8 J	2.8 J	3.0 J	2.0 J	1.3 J	2.1 J	1.9 J	1.9 J	1.5 J	3.4 J	1.1 J	2.2 J	0.96 J	3.0 J	1.3 J	1.8 J	2.2 J	1.7 J	2.3 J	1.4 J	3.0 J	2.3 J
Copper	50	270	270	270	1,720	1.6 J	1.6 J	6.4	3.4 J	2.2 J	3.0 J	4.3	2.8 J	4.2 J	8.5	2.4 J	5.1	1.2 J	2.6 J	2.0 J	3.5 J	2.4 J	3.4 J	2.4 J	2.2 J	3.8 J	3.2 J
Iron	NA	NA	NA	NA	NA	8,610	12,200	7,640	4,750	6,030	5,770	6,560	2,810	5,190	11,100	4,010	9,330	2,460	11,300	6,830	5,730	5,190	2,820	4,640	5,880	10,000	5,490
Lead	63	400	400	1,000	450	1.3 J	1.2 J	3.9	1.2 J	1.4 J	0.90 J	1.5 J	1.5	1.9 J	3.6	1.1 J	2.7	0.69 J	1.5 J	0.97 J	1.8 J	1.0 J	1.4 J	1.2 J	1.3 J	1.8 J	1.5 J
Magnesium	NA	NA	NA	NA	NA	369 J	354 J	1,040	541 J	346 J	544 J	1,220	489 J	583 J	514 J	390 J	721 J	123 J	358 J	246 J	1,130 J	520 J	429 J	719 J	339 J B	388 J B	377 J B
Manganese	1,600	2,000	2,000	10,000	2,000	939	455	53.6	50.4	135	90.3	70.3	27.2	42.1	98.7	40.3	84.4	10.2	65.7	35.3	39.3	25.1	14.6	29.6	73.1	74.6	37.0
Nickel	30	140	310	310	130	3.1 J	1.9 J	4.6 J	2.4 J	2.5 J	2.6 J	3.0 J	2.5 J	7.2 J	4.6 J	2.2 J	3.6 J	1.5 J B	2.2 J B	2.7 J B	9.0 J B	6.7 J B	3.5 J B	5.9 J B	2.3 J	9.5	4.7 J
Potassium	NA	NA	NA	NA	NA	232 J	202 J	455 J	330 J	229 J	322 J	732 J	337 J	361 J	284 J	268 J	435 J	87 J	241 J	201 J	649 J	299 J	285 J	437 J	188 J	325 J	259 J
Selenium	3.9	36	180	1,500	4	3.7 U	3.4 U	3.7 U	3.6 U	4.0 U	3.9 U	3.4 U	3.1 U	4.0 U	4.0 U	3.5 U	3.4 U	4.0 U	4.2 U	4.3 U	4.7 U	4.6 U	3.9 U	3.9 U	4.5 U	4.7 U	3.9 U
Silver	2	36	180	1,500	8.3	0.22 J	0.19 J	1.8 U	1.8 U	2.0 U	2.0 U	1.7 U	1.5 U	2.0 U	2.0 U	1.7 U	1.7 U	2.0 U	2.1 U	2.2 U	2.3 U	2.3 U	1.9 U	2.0 U	2.2 U	2.4 U	2.0 U
Sodium	NA	NA	NA	NA	NA	921 U	851 U	917 U	895 U	1,000 U	979 U	852 U	768 U	1,010 U	1,000 U	869 U	839 U	1,000 U	1,060 U	1,080 U	1,170 U	1,140 U	973 U	980 U	1,120 U	1,180 U	975 U
Thallium	NA	NA	NA	NA	NA	3.7 U	3.4 U	3.7 U	3.6 U	4.0 U	3.9 U	3.4 U	3.1 U	4.0 U	4.0 U	3.5 U	3.4 U	4.0 U	4.2 U	4.3 U	4.7 U	4.6 U	3.9 U	3.9 U	4.5 U	4.7 U	3.9 U
Vanadium	NA	NA	NA	NA	NA	3.4 J	2.7 J	13.0	4.0 J	4.2 J	4.2 J	7.9 J	3.7 J	5.6 J	9.2 J	4.2 J	7.3 J	2.8 J	7.1 J	6.5 J	8.4 J	4.7 J	4.5 J	6.7 J	4.6 J	6.8 J	4.2 J
Zinc	109	2,200	10,000	10,000	2,480	5.4 J	5.3	13.1	5.3 J	6.0	5.9	10.3	5.2	8.8	12.0	5.4	10.2	3.5 J	8.5	5.7 J	10.0	7.1	6.4	7.8	5.8 J	9.4	7.7
Mercury	0.18	0.81	0.81	2.8	0.73	0.020 U	0.019 U	0.019 U	0.018 U	0.016 U	0.018 U	0.018 U	0.019 U	0.017 U	0.019 U	0.019 U	0.020 U	0.019 U	0.021 U	0.020 U	0.020 U	0.019 U	0.018 U	0.020 U	0.018 U	0.019 U	0.019 U

Notes
J : Sample result is greater than the MDL but below the CRDL
U : Indicates analyzed for but not detected.
[1] Trivalent chromium SCOs utilized.
Highlighted / bolded indicates analyte exceeded above its respective NYSDEC Unrestricted SCO.
Green / italicized value indicates analyte exceeded its respective unrestricted SCO but was below its respective Residential / Protection of GW SCO, whichever is lower.
Blue / italicized value indicates analyte exceeded its respective Residential SCO and / or Protection of Groundwater SCO but was below its Restricted Residential SCO.
Pink / italicized value indicates analyte exceeded its respective Residential SCO and / or Protection of Groundwater SCO but was below its Commercial SCO.
NA - Not Available
NS - No Standard Available

Table 5-57
TAL Metals Soil Analytical Data
C6-2 Original Sample Location - Post Excavation Data

TAL Metals (mg/kg)	NYSDEC SCOs			Post-excavation End-point Soil Analytical Data									
				C6-2 Original Sample Location						Supplemental Endpoint Samples			
				Side-wall Samples				Bottom Samples		Side-wall Samples			
	Unrestricted	Residential	Protection of Groundwater	~~C6-EP#3~~ (1')	~~C6-EP#4~~ (1')	C6-EP#5 (1')	C6-EP#6 (1')	C6-EP#1 (2')	C6-EP#2 (2')	C6-EP#49 (1')	C6-EP#50 (1')	C6-EP#51 (1')	C6-EP#52 (1')
Aluminum	NA	NA	NA	~~9,850~~	~~4,270~~	6,600	6,800	2,460	8,990	7,700	8,010	7,230	6,230
Antimony	NA	NA	NA	~~4.4 U~~	~~4.5 U~~	4.7 U	4.5 U	4.7 U	4.5 U	4.1 U	4.3 U	4.5 U	4.7 U
Arsenic	13	16	16	~~3.6~~	~~3.6~~	4.0	3.6	3.5 U	1.7 J	2.8 J	7.8	4.9	4.3
Barium	350	350	820	~~44.4~~	~~57.0~~	39.9 J	45.2	19.1 J	93.3	54.9	67.7	64.4	43.4 J
Beryllium	7.2	14	47	~~0.44 U~~	~~0.45 U~~	0.47 U	0.45 U	0.47 U	0.15 J	0.28 J	0.48	0.47	0.31 J
Cadmium	2.5	2.5	7.5	~~0.22 J~~	~~0.38 J~~	0.94 U	0.14 J	0.94 U	0.91 U	0.82 U	0.87 U	0.91 U	0.93 U
Calcium	NA	NA	NA	~~82,000~~	~~67,400~~	70,600	68,700	511 J	1,590	32,900	29,700	3,290	14,300
Chromium[1]	30	36	NS	~~12.3~~	~~10.8~~	10.4	12.0	6.1	17.3	14.1	14.8	16.8	12.0
Cobalt	NA	NA	NA	~~3.0 J~~	~~3.0 J~~	3.7 J	3.5 J	2.0 J	5.2 J	4.1 J	9.7 J	6.8 J	4.0 J
Copper	50	270	1,720	~~16.9~~	~~13.5~~	32.2	16.2	4.2 J	9.5	5.6	12.5	10.7	11.8
Iron	NA	NA	NA	~~10,600~~	~~8,340~~	11,400	10,500	4,390	10,200	9,560	22,800	15,500	16,600
Lead	63	400	450	~~20.0~~	~~55.8~~	12.7	17.7	1.9 J	8.6	10.5	33.9	18.4	14.1
Magnesium	NA	NA	NA	~~5,660~~	~~6,700~~	3,320	4,230	715 J	2,120	18,800	6,700	2,130	4,150
Manganese	1,600	2,000	2,000	~~135~~	~~137~~	156	172	109	105	331	854	424	291
Nickel	30	140	130	~~10.3~~	~~11.0~~	7.0 J	7.6 J	4.4 J	13.0	8.6 B	9.6 B	10.9 B	7.3 J B
Potassium	NA	NA	NA	~~257 J~~	~~295 J~~	446 J	414 J	259 J	519 J	1,000 J	1,100	786 J	807 J
Selenium	3.9	36	4	~~4.4 U~~	~~4.5 U~~	4.7 U	4.5 U	4.7 U	4.5 U	4.1 U	4.3 U	4.5 U	4.7 U
Silver	2	36	8.3	~~9.1~~	~~11.4~~	2.3 U	0.86 J	2.3 U	2.3 U	0.17 J	0.60 J	2.3 U	0.87 J
Sodium	NA	NA	NA	~~153 J~~	~~160 J~~	182 J	271 J	1,170 U	1,140 U	97.9 J	130 J	108 J	190 J
Thallium	NA	NA	NA	~~4.4 U~~	~~4.5 U~~	4.7 U	4.5 U	4.7 U	4.5 U	4.1 U	4.3 U	4.5 U	4.7 U
Vanadium	NA	NA	NA	~~21.8~~	~~14.0~~	20.3	19.4	4.5 J	19.6	18.9	23.3	23.2	21.7
Zinc	109	2,200	2,480	~~56.2~~	~~72.0~~	34.4	36.4	8.6	33.6	19.5	84.2	29.6	26.0
Mercury	0.18	0.81	0.73	~~0.033~~	~~0.037~~	0.023	0.028	0.020 U	0.018 J	0.020 U	0.029	0.020 U	0.019 U

Notes
J : Sample result is greater than the MDL but below the CRDL
U : Indicates analyzed for but not detected.
B: Indicates analyte detected in blank.
[1] Trivalent chromium SCOs utilized.
Highlighted / bolded indicates analyte exceeded above its respective NYSDEC Unrestricted SCO.
NA - Not Available
~~strikethrough~~ Indicates that sample locations were removed as part of supplemental soil excavation activities.

APEX

Table 5-58
TAL Metals Soil Analytical Data
C6-6 Original Sample Location - Post Excavation Data

	NYSDEC SCOs			Post-excavation End-point Soil Analytical Data												
				C6-6 Original Sample Location (Silver Reclamation Area)									Supplemental Endpoint Samples			
				Side-wall Samples					Bottom Samples				Side-wall Samples		Bottom Samples	
TAL Metals (mg/kg)	Unrestricted	Residential	Protection of Groundwater	~~C6-EP#10~~ (1')	C6-EP#11 (4')	C6-EP#12 (3')	C6-EP#13 (2')	~~C6-EP#14~~ (2')	C6-EP#7 (8')	C6-EP#8 (8')	C6-EP#9 (8')	C6-EP#22 (1')	C6-EP#23 (1')	C6-EP#20 (8')	C6-EP#21 (8')
Aluminum	NA	NA	NA	~~1,820~~	7,150	7,330	1,290	~~1,550~~	5,260	20,400	13,200	2,730	7,220	3,890	7,980
Antimony	NA	NA	NA	~~4.1 U~~	4.3 U	4.4 U	4.1 U	~~3.3 U~~	3.6 U	4.1 U	4.5 U	3.7 U	4.5 U	3.8 U	4.3 U
Arsenic	13	16	16	~~1.6 J~~	7.5	8.0	1.6 J	~~0.80 J~~	2.0 J	2.5 J	4.9	2.0 J	5.6	1.3 J	1.4 J
Barium	350	350	820	~~16.4 J~~	101	104	11.2 J	~~10 J~~	44.7	108	56.7	22.0 J	46.7	32.7 J	50.0
Beryllium	7.2	14	47	~~0.41 U~~	0.43 U	0.17 J	0.18 J	~~0.33 U~~	0.39	1.1	0.45 U	0.17 J	0.40 J	0.22 J	0.28 J
Cadmium	2.5	2.5	7.5	~~0.18 J~~	0.86 U	0.31 J	0.82 U	~~0.11 J~~	0.27 J	0.71 J	0.15 J	0.74 U	0.89 U	0.76 U	0.86 U
Calcium	NA	NA	NA	~~2,710~~	1,490	2,340	476 J	~~539 J~~	1,250	666 J	509 J	484 J	1,030 J	706 J	521 J
Chromium[1]	30	36	NS	~~6.3~~	14.9	17.1	2.9	~~3.9~~	16.3	*33.6*	22.5	4.9	27.4	8.9	15.6
Cobalt	NA	NA	NA	~~1.6 J~~	6.7 J	6.3 J	1.6 J	~~1.1 J~~	5.4 J	13.5	14.4	2.5 J	5.7 J	2.2 J	4.1 J
Copper	50	270	1,720	~~4.7 J~~	12.2	18.4	8.5	~~2.7 J~~	8.1	25.7	15.7	4.4 J	8.0	10.2	2.2 J
Iron	NA	NA	NA	~~6,230~~	14,900	15,500	5,260	~~3,760~~	10,400	27,900	28,000	6,320	16,100	7,620	8,580
Lead	63	400	450	~~7.6~~	17.7	58.0	6.7	~~3.9~~	8.3	9.4	8.3	7.7	17.7	9.9	6.0
Magnesium	NA	NA	NA	~~725 J~~	2,340	1,920	372 J	~~424 J~~	1,920	5,760	3,090	582 J	1,440	991	1,580
Manganese	1,600	2,000	2,000	~~132~~	1,160	525	107	~~84.8~~	221	377	616	187	183	94.8	119
Nickel	30	140	130	~~3.8 J~~	11.8	13.6	2.7 J	~~2.5 J~~	10.3	23.7	16.6	4.6 J	8.9	5.5 J	7.8 J
Potassium	NA	NA	NA	~~467 J~~	990 J	747 J	262 J	~~326 J~~	768 J	2,950	1,180	322 J	531 J	479 J	404 J
Selenium	3.9	36	4	~~4.1 U~~	4.3 U	4.4 U	4.1 U	~~3.3 U~~	3.6 U	4.1 U	4.5 U	3.7 U	1.0 J	3.8 U	4.3 U
Silver	2	36	8.3	~~23.5~~	2.2 U	2.2 U	2.0 U	~~58.5~~	1.8 U	2.0 U	1.7 J	1.8 U	2.2 U	0.36 J	2.1 U
Sodium	NA	NA	NA	~~1,030 U~~	167 J	1,100 U	1,020 U	~~824 U~~	898 U	80.3 J	104 J	921 U	1,120 U	956 U	1,070 U
Thallium	NA	NA	NA	~~4.1 U~~	4.3 U	4.4 U	4.1 U	~~3.3 U~~	1.0 J	4.2	4.5 U	3.7 U	4.5 U	3.8 U	4.3 U
Vanadium	NA	NA	NA	~~5.4 J~~	22.4	24.9	4.1 J	~~3.6 J~~	15.8	43.4	30.6	6.7 J	19.5	10.6	18.8
Zinc	109	2,200	2,480	~~13.2~~	25.8	76.8	10.0	~~7.1~~	23.3	62.5	40.6	12.4	27.8	32.0	21.6
Mercury	0.18	0.81	0.73	~~0.016 U~~	0.018 U	0.042	0.017 U	~~0.096~~	0.013 J	0.019 U	0.019	0.018 U	0.037	0.023	0.020

Notes
J : Sample result is greater than the MDL but below the CRDL
U : Indicates analyzed for but not detected.
[1] Trivalent chromium SCOs utilized.
Highlighted / bolded indicates analyte exceeded above its respective NYSDEC Unrestricted SCO.
NA - Not Available
~~Strikethrough~~ Indicates that sample locations were removed as part of supplemental soil excavation activities.

Table 5-59
TCL SVOCs Soil Analytical Data
C6-8 Original Sample Location - Post Excavation Data

		C6-8 Original Sample Location - Post Excavation Data							
		End-Point Soil Samples					Supplemental Endpoint Samples		
		Side-wall Samples				Bottom Sample	Bottom Samples		
	NYSDEC	C6-EP#16	C6-EP#17	C6-EP#18	C6-EP#19	~~C6-EP#15~~	C6-EP#46	C6-EP#47	C6-EP#48
TCL SVOCs (mg/kg)	Unrestricted SCO	(3')	(3')	(3')	(3')	~~(6')~~	(8')	(8')	(8')
1,2,4,5-Tetrachlorobenzene	NA	0.33 U	0.33 U	0.34 U	0.34 U	~~0.40 U~~	0.34 U	0.34 U	0.34 U
1,4-Dioxane	0.1	0.33 U	0.33 U	0.34 U	0.34 U	~~0.40 U~~	0.34 U	0.34 U	0.34 U
2,2'-oxybis[1-chloropropane]	NA	0.33 U	0.33 U	0.34 U	0.34 U	~~0.40 U~~	0.34 U	0.34 U	0.34 U
2,3,4,6-Tetrachlorophenol	NA	0.33 U	0.33 U	0.34 U	0.34 U	~~0.40 U~~	0.34 U	0.34 U	0.34 U
2,4,5-Trichlorophenol	NA	0.33 U	0.33 U	0.34 U	0.34 U	~~0.40 U~~	0.34 U	0.34 U	0.34 U
2,4,6-Trichlorophenol	NA	0.33 U	0.33 U	0.34 U	0.34 U	~~0.40 U~~	0.34 U	0.34 U	0.34 U
2,4-Dichlorophenol	NA	0.33 U	0.33 U	0.34 U	0.34 U	~~0.40 U~~	0.34 U	0.34 U	0.34 U
2,4-Dimethylphenol	NA	0.33 U	0.33 U	0.34 U	0.34 U	~~0.40 U~~	0.34 U	0.34 U	0.34 U
2,4-Dinitrophenol	NA	1.0 U R	1.0 U R	1.0 U R	1.0 U R	~~1.2 U R~~	1.0 U	1.0 U	1.0 U
2,4-Dinitrotoluene	NA	0.067 U	0.068 U	0.069 U	0.069 U	~~0.082 U~~	0.068 U	0.069 U	0.069 U
2,6-Dinitrotoluene	NA	0.067 U	0.068 U	0.069 U	0.069 U	~~0.082 U~~	0.068 U	0.069 U	0.069 U
2-Chloronaphthalene	NA	0.33 U	0.33 U	0.34 U	0.34 U	~~0.40 U~~	0.34 U	0.34 U	0.34 U
2-Chlorophenol	NA	0.33 U	0.33 U	0.34 U	0.34 U	~~0.40 U~~	0.34 U	0.34 U	0.34 U
2-Methylnaphthalene	NA	0.33 U	0.33 U	0.34 U	0.34 U	~~0.065 J~~	0.34 U	0.34 U	0.34 U
2-Methylphenol	0.33	0.33 U	0.33 U	0.34 U	0.34 U	~~0.40 U~~	0.34 U	0.34 U	0.34 U
2-Nitroaniline	NA	0.67 U	0.68 U	0.69 U	0.69 U	~~0.82 U~~	0.68 U	0.69 U	0.69 U
2-Nitrophenol	NA	0.33 U	0.33 U	0.34 U	0.34 U	~~0.40 U~~	0.34 U	0.34 U	0.34 U
3,3'-Dichlorobenzidine	NA	0.67 U R	0.68 U R	0.69 U R	0.69 U R	~~0.82 U R~~	0.68 U	0.69 U	0.69 U
3-Nitroaniline	NA	0.67 U	0.68 U	0.69 U	0.69 U	~~0.82 U~~	0.68 U	0.69 U	0.69 U
4,6-Dinitro-2-methylphenol	NA	1.0 U R	1.0 U R	1.0 U R	1.0 U R	~~1.2 U R~~	1.0 U	1.0 U	1.0 U
4-Bromophenyl phenyl ether	NA	0.33 U	0.33 U	0.34 U	0.34 U	~~0.40 U~~	0.34 U	0.34 U	0.34 U
4-Chloro-3-methylphenol	NA	0.33 U	0.33 U	0.34 U	0.34 U	~~0.40 U~~	0.34 U	0.34 U	0.34 U
4-Chloroaniline	NA	0.33 U	0.33 U	0.34 U	0.34 U	~~0.40 U~~	0.34 U	0.34 U	0.34 U
4-Chlorophenyl phenyl ether	NA	0.33 U	0.33 U	0.34 U	0.34 U	~~0.40 U~~	0.34 U	0.34 U	0.34 U
4-Methylphenol	0.33	0.33 U	0.33 U	0.34 U	0.34 U	~~0.40 U~~	0.34 U	0.34 U	0.34 U
4-Nitroaniline	NA	0.67 U	0.68 U	0.69 U	0.69 U	~~0.82 U~~	0.68 U	0.69 U	0.69 U
4-Nitrophenol	NA	1.0 U	1.0 U	1.0 U	1.0 U	~~1.2 U~~	1.0 U	1.0 U	1.0 U
Acenaphthene	20	0.33 U	0.33 U	0.34 U	0.34 U	~~0.25 J~~	0.34 U	0.34 U	0.34 U
Acenaphthylene	100	0.33 U	0.33 U	0.34 U	0.34 U	~~0.026 J~~	0.34 U	0.34 U	0.34 U
Acetophenone	NA	0.33 U	0.33 U	0.34 U	0.34 U	~~0.40 U~~	0.34 U	0.34 U	0.34 U
Anthracene	100	0.33 U	0.0079 J B	0.34 U	0.34 U	~~0.78 B~~	0.34 U	0.34 U	0.34 U
Atrazine	NA	0.33 U	0.33 U	0.34 U	0.34 U	~~0.40 U~~	0.34 U	0.34 U	0.34 U
Benzaldehyde	NA	0.33 U	0.33 U	0.34 U	0.34 U	~~0.40 U~~	0.34 U	0.34 U	0.34 U
Benzo[a]anthracene	1	0.033 U	0.033 U	0.034 U	0.034 U	~~**1.7**~~	0.034 U	0.034 U	0.034 U
Benzo[a]pyrene	1	0.033 U	0.035	0.034 U	0.034 U	~~**1.4**~~	0.034 U	0.034 U	0.034 U
Benzo[b]fluoranthene	1	0.033 U	0.057	0.034 U	0.034 U	~~**1.6**~~	0.034 U	0.034 U	0.034 U
Benzo[g,h,i]perylene	100	0.33 U	0.036 J	0.34 U	0.34 U	~~1.1~~	0.34 U	0.34 U	0.34 U
Benzo[k]fluoranthene	0.8	0.033 U	0.018 J	0.034 U	0.034 U	~~0.59~~	0.034 U	0.034 U	0.034 U
Bis(2-chloroethoxy)methane	NA	0.33 U	0.33 U	0.34 U	0.34 U	~~0.40 U~~	0.34 U	0.34 U	0.34 U
Bis(2-chloroethyl)ether	NA	0.033 U	0.033 U	0.034 U	0.034 U	~~0.040 U~~	0.034 U	0.034 U	0.034 U
Bis(2-ethylhexyl) phthalate	NA	0.33 U	0.33 U	0.34 U	0.34 U	~~0.40 U~~	0.34 U	0.34 U	0.34 U
Butyl benzyl phthalate	NA	0.33 U	0.33 U	0.34 U	0.34 U	~~0.40 U~~	0.34 U	0.34 U	0.34 U
Caprolactam	NA	0.33 U	0.33 U	0.34 U	0.34 U	~~0.40 U~~	0.34 U	0.34 U	0.34 U
Carbazole	NA	0.33 U	0.33 U	0.34 U	0.34 U	~~0.14 J~~	0.34 U	0.34 U	0.34 U
Chrysene	1	0.33 U	0.043 J B	0.34 U	0.012 J B	~~**1.9** B~~	0.34 U	0.34 U	0.34 U
Dibenz(a,h)anthracene	0.33	0.033 U	0.033 U	0.034 U	0.034 U	~~0.24~~	0.034 U	0.034 U	0.034 U
Dibenzofuran	7	0.33 U	0.33 U	0.34 U	0.34 U	~~0.098 J~~	0.34 U	0.34 U	0.34 U
Diethyl phthalate	NA	0.33 U	0.33 U	0.34 U	0.34 U	~~0.40 U~~	0.43 *	0.48 *	0.44 *
Dimethyl phthalate	NA	0.33 U	0.33 U	0.34 U	0.34 U	~~0.40 U~~	0.34 U	0.34 U	0.34 U
Di-n-butyl phthalate	NA	0.33 U	0.33 U	0.34 U	0.34 U	~~0.40 U~~	0.34 U	0.34 U	0.34 U
Di-n-octyl phthalate	NA	0.33 U	0.33 U	0.34 U	0.34 U	~~0.40 U~~	0.34 U	0.34 U	0.34 U
Diphenyl	NA	0.33 U	0.33 U	0.34 U	0.34 U	~~0.019 J~~	0.34 U	0.34 U	0.34 U
Fluoranthene	100	0.014 J	0.060 J	0.34 U	0.012 J	~~3.3~~	0.34 U	0.34 U	0.34 U
Fluorene	30	0.33 U	0.33 U	0.34 U	0.34 U	~~0.31 J~~	0.34 U	0.34 U	0.34 U
Hexachlorobenzene	0.33	0.033 U	0.033 U	0.034 U	0.034 U	~~0.040 U~~	0.034 U	0.034 U	0.034 U
Hexachlorobutadiene	NA	0.067 U	0.068 U	0.069 U	0.069 U	~~0.082 U~~	0.068 U	0.069 U	0.069 U
Hexachlorocyclopentadiene	NA	0.33 U	0.33 U	0.34 U	0.34 U	~~0.40 U~~	0.34 U	0.34 U	0.34 U
Hexachloroethane	NA	0.033 U	0.033 U	0.034 U	0.034 U	~~0.040 U~~	0.034 U	0.034 U	0.034 U
Indeno[1,2,3-cd]pyrene	0.5	0.033 U	0.027 J	0.034 U	0.034 U	~~**0.75**~~	0.034 U	0.034 U	0.034 U
Isophorone	NA	0.33 U	0.33 U	0.34 U	0.34 U	~~0.40 U~~	0.34 U	0.34 U	0.34 U
Naphthalene	12	0.33 U	0.33 U	0.34 U	0.34 U	~~0.067 J~~	0.34 U	0.34 U	0.34 U
Nitrobenzene	NA	0.033 U	0.033 U	0.034 U	0.034 U	~~0.040 U~~	0.034 U	0.034 U	0.034 U
N-Nitrosodi-n-propylamine	NA	0.033 U	0.033 U	0.034 U	0.034 U	~~0.040 U~~	0.034 U	0.034 U	0.034 U
N-Nitrosodiphenylamine	NA	0.33 U	0.33 U	0.34 U	0.34 U	~~0.40 U~~	0.34 U	0.34 U	0.34 U
Pentachlorophenol	0.8	1.0 U	1.0 U	1.0 U	1.0 U	~~1.2 U~~	1.0 U	1.0 U	1.0 U
Phenanthrene	100	0.0065 J	0.035 J	0.34 U	0.0078 J	~~3.6~~	0.34 U	0.34 U	0.34 U
Phenol	0.33	0.33 U	0.33 U	0.34 U	0.34 U	~~0.40 U~~	0.34 U	0.34 U	0.34 U
Pyrene	100	0.33 U	0.058 J	0.34 U	0.016 J	~~4.1~~	0.34 U	0.34 U	0.34 U
Pyridine	NA	0.33 U	0.33 U	0.34 U	0.34 U	~~0.40 U~~	0.34 U	0.34 U	0.34 U
SVOC TICs									
Ethane, 1,1,2-trichloro-	NA	0.44 J N	ND	ND	ND	~~ND~~	NA	NA	NA
2-Pentanone, 4-hydroxy-4-methyl-	NA	0.34 J N	0.30 J N	0.34 J N	0.36 J N	~~ND~~	NA	NA	NA
Acetic acid, 1,1-dimethylethyl ester	NA	ND	ND	ND	ND	~~ND~~	NA	NA	NA
2-Pentanone, 4-hydroxy-4-methyl-	NA	ND	ND	ND	ND	~~ND~~	NA	NA	NA
Ethane, 1,1,2,2-tetrachloro-	NA	1.1 J N	0.92 J N	0.84 J N	0.86 J N	~~ND~~	NA	NA	NA
Octanoic Acid	NA	0.14 J N	ND	0.18 J N	0.14 J N	~~ND~~	NA	NA	NA
Octanoic Acid	NA	ND	0.18 J N	ND	ND	~~ND~~	NA	NA	NA
Phenanthrene, 1-methyl-	NA	ND	ND	ND	ND	~~0.77 J N~~	NA	NA	NA
Anthracene, 2-methyl-	NA	ND	ND	ND	ND	~~0.77 J N~~	NA	NA	NA
n-Hexadecanoic acid	NA	ND	ND	ND	ND	~~1.2 J N~~	NA	NA	NA
Phenanthrene, 1-methyl-	NA	ND	ND	ND	ND	~~0.60 J N~~	NA	NA	NA
Pentadecanal-	NA	ND	ND	ND	ND	~~ND~~	NA	NA	NA
1-Heptadecanol	NA	ND	ND	0.29 J N	0.21 J N	~~ND~~	NA	NA	NA
Cyclohexadecane	NA	0.35 J N	0.28 J N	ND	ND	~~ND~~	NA	NA	NA
Phenanthrene, 3,6-dimethyl-	NA	ND	ND	ND	ND	~~0.80 J N~~	NA	NA	NA
1-Heptadecanol	NA	ND	ND	ND	ND	~~ND~~	NA	NA	NA
Cyclohexadecane	NA	ND	ND	ND	ND	~~ND~~	NA	NA	NA
1-Hexacosanol	NA	ND	ND	ND	ND	~~ND~~	NA	NA	NA
3-Eicosene, (E)-	NA	ND	ND	ND	ND	~~ND~~	NA	NA	NA
Phosphonic acid, dioctadecyl ester	NA	ND	0.18 J N	ND	ND	~~ND~~	NA	NA	NA
3-Eicosene, (E)-	NA	ND	ND	ND	ND	~~ND~~	NA	NA	NA
Phosphonic acid, dioctadecyl ester	NA	ND	0.18 J N	ND	ND	~~ND~~	NA	NA	NA
Pyrene, 1-methyl-	NA	ND	ND	ND	ND	~~0.58 J N~~	NA	NA	NA
Hexanedioic acid, bis(2-ethylhexyl) este	NA	0.69 J N	0.55 J N	0.65 J N	0.58 J N	~~ND~~	NA	NA	NA
Hexanedioic acid, bis(2-ethylhexyl) este	NA	ND	ND	ND	ND	~~ND~~	NA	NA	NA
1,19-Eicosadiene	NA	ND	ND	ND	0.25 J N	~~ND~~	NA	NA	NA
Octadecanal	NA	0.28 J N	ND	ND	ND	~~ND~~	NA	NA	NA
Oxirane, heptadecyl-	NA	ND	0.27 J N	ND	ND	~~ND~~	NA	NA	NA
Oxirane, hexadecyl-	NA	ND	ND	0.25 J N	ND	~~ND~~	NA	NA	NA
Pentadecanal-	NA	ND	ND	ND	ND	~~ND~~	NA	NA	NA
Bicyclo[10.8.0]eicosane, (E)-	NA	ND	ND	ND	ND	~~ND~~	NA	NA	NA
1-Eicosanol	NA	ND	ND	ND	ND	~~ND~~	NA	NA	NA
1-Nonadecene	NA	ND	0.75 J N	ND	0.72 J N	~~ND~~	NA	NA	NA
5-Eicosene, (E)-	NA	ND	ND	ND	ND	~~0.72 J N~~	NA	NA	NA
Phosphonic acid, dioctadecyl ester	NA	0.87 J N	ND	0.82 J N	ND	~~ND~~	NA	NA	NA
3-Eicosene, (E)-	NA	ND	ND	ND	ND	~~ND~~	NA	NA	NA
Formylmethylenetriphenylphosphorane	NA	ND	ND	2.2 J N	2.1 J N	~~ND~~	NA	NA	NA
Triphenylphosphine oxide	NA	ND	1.9 J N	ND	ND	~~ND~~	NA	NA	NA
Acetic acid, (triphenylphosphoranylidene	NA	ND	ND	ND	ND	~~1.2 J N~~	NA	NA	NA
Formylmethylenetriphenylphosphorane	NA	2.2 J N	ND	ND	ND	~~ND~~	NA	NA	NA
Triphenylphosphine oxide	NA	ND	ND	ND	ND	~~ND~~	NA	NA	NA
Nonadecane	NA	ND	ND	ND	ND	~~0.67 J N~~	NA	NA	NA
Perylene	NA	ND	ND	ND	ND	~~0.98 J N~~	NA	NA	NA
4H-Cyclopenta[def]phenanthrene	NA	NA	NA	NA	NA	~~NA~~	ND	ND	ND
Nonadecane	NA	NA	NA	NA	NA	~~NA~~	ND	ND	ND
Benzo[e]pyrene	NA	NA	NA	NA	NA	~~NA~~	ND	ND	ND
Benzo[j]fluoranthene	NA	NA	NA	NA	NA	~~NA~~	ND	ND	ND
Heptacosane	NA	NA	NA	NA	NA	~~NA~~	ND	ND	ND
SVOC TICs	NA	6.41	5.33	5.57	5.22	~~8.29~~	0	0	0

Notes
ND: TIC not detected
D : The reported value is from a dilution.
J : Indicates an estimated value.
J N : This flag indicates the presumptive evidence of a compound.
U : Analyzed for but not detected.
U R : Indicates that value is rejected based upon DUSR review by third party data validator.
NA : Not Available

APEX

Table 5-60
TAL Metals Soil Analytical Data
C6-8 Original Sample Location - Post Excavation Data

TAL Metals (mg/kg)	NYSDEC SCOs			C6-8 Original Sample Location - Post Excavation Data				
				End-Point Soil Samples				
				Side-wall Samples				Bottom Sample
	Unrestricted	Residential	Protection of Groundwater	C6-EP#16 (3')	C6-EP#17 (3')	C6-EP#18 (3')	C6-EP#19 (3')	~~C6-EP#15 (6')~~
Aluminum	NA	NA	NA	1,320	1,300	1,680	1,200	~~11,700~~
Antimony	NA	NA	NA	3.7 U	3.6 U	3.8 U	3.8 U	~~3.9 U~~
Arsenic	13	16	16	0.56 J	2.7 U	2.9 U	0.68 J	~~3.4~~
Barium	350	350	820	10.3 J	12.6 J	12.6 J	9.4 J	~~62.1~~
Beryllium	7.2	14	47	0.12 J	0.12 J	0.12 J	0.38 U	~~0.48~~
Cadmium	2.5	2.5	7.5	0.74 U	0.72 U	0.76 U	0.76 U	~~0.77 U~~
Calcium	NA	NA	NA	240 J	516 J	294 J	339 J	~~769 J~~
Chromium[1]	30	36	NS	2.8	4.4	3.8	3.1	~~21.3~~
Cobalt	NA	NA	NA	1.2 J	1.4 J	1.5 J	1.1 J	~~9.2 J~~
Copper	50	270	1,720	2.2 J	2.7 J	2.7 J	2.2 J	~~9.8~~
Iron	NA	NA	NA	3,510	4,410	4,250	5,040	~~19,400~~
Lead	63	400	450	2.5	4.8	2.9	1.8 J	~~15.1~~
Magnesium	NA	NA	NA	390 J	454 J	549 J	429 J	~~2,550~~
Manganese	1,600	2,000	2,000	107	106	73.7	135	~~261~~
Nickel	30	140	130	2.4 J	2.9 J	3.3 J	2.3 J	~~10.8~~
Potassium	NA	NA	NA	301 J	351 J	388 J	316 J	~~884 J~~
Selenium	3.9	36	4	3.7 U	3.6 U	3.8 U	3.8 U	~~3.9 U~~
Silver	2	36	8.3	1.8 U	1.8 U	1.9 U	1.9 U	~~1.9 U~~
Sodium	NA	NA	NA	920 U	901 U	955 U	951 U	~~963 U~~
Thallium	NA	NA	NA	3.7 U	3.6 U	3.8 U	3.8 U	~~3.9 U~~
Vanadium	NA	NA	NA	3.5 J	4.7 J	4.3 J	4.2 J	~~27.0~~
Zinc	109	2,200	2,480	6.3	10.9	8.8	8.8	~~35.0~~
Mercury	0.18	0.81	0.73	0.018 U	0.017 U	0.017 U	0.016 U	~~0.029~~

Notes
J : Sample result is greater than the MDL but below the CRDL
U : Indicates analyzed for but not detected.
[1] Trivalent chromium SCOs utilized.
Highlighted / bolded indicates analyte exceeded above its respective NYSDEC Unrestricted SCO.
NA - Not Available

Table 5-61
TCL SVOCs Soil Analytical Data
C6-13 Original Sample Location - Post Excavation Data

TCL SVOCs (mg/kg)	NYSDEC SCOs					Post-excavation End-point Soil Analytical Data														
						Side-wall Samples														
	NYSDEC Unrestricted SCO	Residential	Restricted Residential	Commercial	Protection of Groundwater	~~C6-EP#23 (3')~~	~~C6-EP#24 (3')~~	C6-EP#25 (3')	C6-EP#26 (3')	C6-EP#27 (3')	~~C6-EP#28 (4')~~	~~C6-EP#28 (6')~~	C6-EP#29 (4')	C6-EP#29 (6')	C6-EP#30 (4')	~~C6-EP#30 (6')~~	C6-EP#31 (4')	C6-EP#31 (6')	~~C6-EP#32 (4')~~	~~C6-EP#32 (6')~~
1,2,4,5-Tetrachlorobenzene	NA	NA	NA	NA	NA	0.76 U	3.7 U	0.35 U	0.34 U	0.38 U	0.70 U	0.36 U	0.34 U	0.36 U	0.34 U	0.37 U	0.35 U	0.41 U	0.35 U	0.41 U
1,4-Dioxane	0.1	9.8	13	130	0.1	0.76 U	3.7 U	0.35 U	0.34 U	0.38 U	0.70 U	0.36 U	0.34 U	0.36 U	0.34 U	0.37 U	0.35 U	0.41 U	0.35 U	0.41 U
2,2'-oxybis[1-chloropropane]	NA	NA	NA	NA	NA	0.76 U	3.7 U	0.35 U	0.34 U	0.38 U	0.70 U	0.36 U	0.34 U	0.36 U	0.34 U	0.37 U	0.35 U	0.41 U	0.35 U	0.41 U
2,3,4,6-Tetrachlorophenol	NA	NA	NA	NA	NA	0.76 U	3.7 U	0.35 U	0.34 U	0.38 U	0.70 U	0.36 U	0.34 U	0.36 U	0.34 U	0.37 U	0.35 U	0.41 U	0.35 U	0.41 U
2,4,5-Trichlorophenol	NA	NA	NA	NA	NA	0.76 U	3.7 U	0.35 U	0.34 U	0.38 U	0.70 U	0.36 U	0.34 U	0.36 U	0.34 U	0.37 U	0.35 U	0.41 U	0.35 U	0.41 U
2,4,6-Trichlorophenol	NA	NA	NA	NA	NA	0.76 U	3.7 U	0.35 U	0.34 U	0.38 U	0.70 U	0.36 U	0.34 U	0.36 U	0.34 U	0.37 U	0.35 U	0.41 U	0.35 U	0.41 U
2,4-Dichlorophenol	NA	NA	NA	NA	NA	0.76 U	3.7 U	0.35 U	0.34 U	0.38 U	0.70 U	0.36 U	0.34 U	0.36 U	0.34 U	0.37 U	0.35 U	0.41 U	0.35 U	0.41 U
2,4-Dimethylphenol	NA	NA	NA	NA	NA	0.76 U	3.7 U	0.35 U	0.34 U	0.38 U	0.70 U	0.36 U	0.34 U	0.36 U	0.34 U	0.37 U	0.35 U	0.41 U	0.35 U	0.41 U
2,4-Dinitrophenol	NA	NA	NA	NA	NA	2.3 U	11 U	1.0 U	1.0 U	1.2 U	2.1 U	1.1 U	1.0 U	1.1 U	1.0 U	1.1 U	1.0 U	1.2 U	1.1 U	1.3 U
2,4-Dinitrotoluene	NA	NA	NA	NA	NA	0.15 U	0.75 U	0.070 U	0.070 U	0.077 U	0.14 U	0.074 U	0.070 U	0.072 U	0.069 U	0.075 U	0.070 U	0.082 U	0.071 U	0.084 U
2,6-Dinitrotoluene	NA	NA	NA	NA	NA	0.15 U	0.75 U	0.070 U	0.070 U	0.077 U	0.14 U	0.074 U	0.070 U	0.072 U	0.069 U	0.075 U	0.070 U	0.082 U	0.071 U	0.084 U
2-Chloronaphthalene	NA	NA	NA	NA	NA	0.76 U	3.7 U	0.35 U	0.34 U	0.38 U	0.70 U	0.36 U	0.34 U	0.36 U	0.34 U	0.37 U	0.35 U	0.41 U	0.35 U	0.41 U
2-Chlorophenol	NA	NA	NA	NA	NA	0.76 U	3.7 U	0.35 U	0.34 U	0.38 U	0.70 U	0.36 U	0.34 U	0.36 U	0.34 U	0.37 U	0.35 U	0.41 U	0.35 U	0.41 U
2-Methylnaphthalene	NA	NA	NA	NA	NA	0.76 U	3.7 U	0.35 U	0.34 U	0.38 U	0.70 U	0.056 J	0.34 U	0.068 J	0.34 U	0.37 U	0.35 U	0.41 U	0.10 J	0.41 U
2-Methylphenol	0.33	100	100	500	0.33	0.76 U	3.7 U	0.35 U	0.34 U	0.38 U	0.70 U	0.36 U	0.34 U	0.36 U	0.34 U	0.37 U	0.35 U	0.41 U	0.35 U	0.41 U
2-Nitroaniline	NA	NA	NA	NA	NA	1.5 U	7.5 U	0.70 U	0.70 U	0.77 U	1.4 U	0.74 U	0.70 U	0.72 U	0.69 U	0.75 U	0.70 U	0.82 U	0.71 U	0.84 U
2-Nitrophenol	NA	NA	NA	NA	NA	0.76 U	3.7 U	0.35 U	0.34 U	0.38 U	0.70 U	0.36 U	0.34 U	0.36 U	0.34 U	0.37 U	0.35 U	0.41 U	0.35 U	0.41 U
3,3'-Dichlorobenzidine	NA	NA	NA	NA	NA	1.5 U	7.5 U	0.70 U	0.70 U	0.77 U	1.4 U	0.74 U	0.70 U	0.72 U	0.69 U	0.75 U	0.70 U	0.82 U	0.71 U	0.84 U
3-Nitroaniline	NA	NA	NA	NA	NA	1.5 U	7.5 U	0.70 U	0.70 U	0.77 U	1.4 U	0.74 U	0.70 U	0.72 U	0.69 U	0.75 U	0.70 U	0.82 U	0.71 U	0.84 U
4,6-Dinitro-2-methylphenol	NA	NA	NA	NA	NA	2.3 U	11 U	1.0 U	1.0 U	1.2 U	2.1 U	1.1 U	1.0 U	1.1 U	1.0 U	1.1 U	1.0 U	1.2 U	1.1 U	1.3 U
4-Bromophenyl phenyl ether	NA	NA	NA	NA	NA	0.76 U	3.7 U	0.35 U	0.34 U	0.38 U	0.70 U	0.36 U	0.34 U	0.36 U	0.34 U	0.37 U	0.35 U	0.41 U	0.35 U	0.41 U
4-Chloro-3-methylphenol	NA	NA	NA	NA	NA	0.76 U	3.7 U	0.35 U	0.34 U	0.38 U	0.70 U	0.36 U	0.34 U	0.36 U	0.34 U	0.37 U	0.35 U	0.41 U	0.35 U	0.41 U
4-Chloroaniline	NA	NA	NA	NA	NA	0.76 U	3.7 U	0.35 U	0.34 U	0.38 U	0.70 U	0.36 U	0.34 U	0.36 U	0.34 U	0.37 U	0.35 U	0.41 U	0.35 U	0.41 U
4-Chlorophenyl phenyl ether	NA	NA	NA	NA	NA	0.76 U	3.7 U	0.35 U	0.34 U	0.38 U	0.70 U	0.36 U	0.34 U	0.36 U	0.34 U	0.37 U	0.35 U	0.41 U	0.35 U	0.41 U
4-Methylphenol	0.33	34	100	500	0.33	0.76 U	3.7 U	0.35 U	0.34 U	0.38 U	0.70 U	0.36 U	0.34 U	0.36 U	0.34 U	0.37 U	0.35 U	0.41 U	0.35 U	0.41 U
4-Nitroaniline	NA	NA	NA	NA	NA	1.5 U	7.5 U	0.70 U	0.70 U	0.77 U	1.4 U	0.74 U	0.70 U	0.72 U	0.69 U	0.75 U	0.70 U	0.82 U	0.71 U	0.84 U
4-Nitrophenol	NA	NA	NA	NA	NA	2.3 U	11 U	1.0 U	1.0 U	1.2 U	2.1 U	1.1 U	1.0 U	1.1 U	1.0 U	1.1 U	1.0 U	1.2 U	1.1 U	1.3 U
Acenaphthene	20	100	100	500	98	0.54 J	2.0 J	0.35 U	0.34 U	0.38 U	0.38 J	0.59	0.34 U	0.61	0.34 U	0.37 U	0.35 U	0.24 J	0.38	0.41 U
Acenaphthylene	100	100	100	500	107	0.76 U	3.7 U	0.35 U	0.34 U	0.38 U	0.70 U	0.36 U	0.34 U	0.36 U	0.34 U	0.37 U	0.35 U	0.053 J	0.35 U	0.41 U
Acetophenone	NA	NA	NA	NA	NA	0.76 U	3.7 U	0.35 U	0.34 U	0.38 U	0.70 U	0.36 U	0.34 U	0.36 U	0.34 U	0.37 U	0.35 U	0.41 U	0.35 U	0.41 U
Anthracene	100	100	100	500	1,000	1.7	10	0.35 U	0.34 U	0.38 U	2.3	1.9	0.34 U	1.8	0.34 U	0.37 U	0.35 U	0.79	1.1	0.17 J
Atrazine	NA	NA	NA	NA	NA	0.76 U	3.7 U	0.35 U	0.34 U	0.38 U	0.70 U	0.36 U	0.34 U	0.36 U	0.34 U	0.37 U	0.35 U	0.41 U	0.35 U	0.41 U
Benzaldehyde	NA	NA	NA	NA	NA	0.76 U	3.7 U	0.35 U	0.34 U	0.38 U	0.70 U	0.36 U	0.34 U	0.36 U	0.34 U	0.37 U	0.35 U	0.41 U	0.35 U	0.41 U
Benzo[a]anthracene	1	1	1	5.6	1	3.4	22	0.035 U	0.034 U	0.11	3.4	3.1	0.034 U	2.1	0.034 U	0.037 U	0.035 U	2.5	2.6	0.63
Benzo[a]pyrene	1	1	1	1	22	2.9	20	0.035 U	0.012 J	0.14	3.0	3.1	0.034 U	1.0	0.034 U	0.091	0.056	2.6	2.7	0.67
Benzo[b]fluoranthene	1	1	1	5.6	1.7	3.0	26	0.035 U	0.014 J	0.16	3.8	3.7	0.034 U	2.3	0.034 U	0.12	0.061	3.3	3.3	0.76
Benzo[g,h,i]perylene	100	100	100	500	1,000	1.6	13	0.35 U	0.34 U	0.063 J	1.9	2.0	0.34 U	0.77	0.34 U	0.045 J	0.35 U	1.7	1.5	0.40 J
Benzo[k]fluoranthene	0.8	1	3.9	56	1.7	1.2	9.4	0.035 U	0.034 U	0.075	1.6	1.5	0.034 U	0.93	0.034 U	0.037 U	0.035 U	1.1	1.2	0.26
Bis(2-chloroethoxy)methane	NA	NA	NA	NA	NA	0.76 U	3.7 U	0.35 U	0.34 U	0.38 U	0.70 U	0.36 U	0.34 U	0.36 U	0.34 U	0.37 U	0.35 U	0.41 U	0.35 U	0.41 U
Bis(2-chloroethyl)ether	NA	NA	NA	NA	NA	0.076 U	0.37 U	0.035 U	0.034 U	0.038 U	0.070 U	0.036 U	0.034 U	0.036 U	0.034 U	0.037 U	0.035 U	0.041 U	0.035 U	0.041 U
Bis(2-ethylhexyl) phthalate	NA	NA	NA	NA	NA	0.76 U	3.7 U	0.35 U	0.34 U	0.38 U	0.70 U	0.36 U	0.34 U	0.36 U	0.34 U	0.37 U	0.35 U	0.41 U	0.35 U	0.41 U
Butyl benzyl phthalate	NA	NA	NA	NA	NA	0.76 U	3.7 U	0.35 U	0.34 U	0.38 U	0.70 U	0.36 U	0.34 U	0.36 U	0.34 U	0.37 U	0.35 U	0.41 U	0.35 U	0.41 U
Caprolactam	NA	NA	NA	NA	NA	0.76 U	3.7 U	0.35 U	0.34 U	0.38 U	0.70 U	0.36 U	0.34 U	0.36 U	0.34 U	0.37 U	0.35 U	0.41 U	0.35 U	0.41 U
Carbazole	NA	NA	NA	NA	NA	0.16 J	3.2 J	0.35 U	0.34 U	0.38 U	1.2	0.70	0.34 U	0.63	0.34 U	0.37 U	0.35 U	0.20 J	0.36	0.41 U
Chrysene	1	1	3.9	56	1	3.3	20	0.35 U	0.34 U	0.13 J	2.9	3.0	0.34 U	1.7	0.34 U	0.076 J	0.046 J	2.6	2.7	0.68
Dibenz(a,h)anthracene	0.33	0.33	0.33	0.56	1,000	0.42	3.7	0.035 U	0.034 U	0.038 U	0.44	0.52	0.034 U	0.23	0.034 U	0.037 U	0.035 U	0.42	0.39	0.10
Dibenzofuran	7	14	59	350	210	0.11 J	2.2 J	0.35 U	0.34 U	0.38 U	0.42 J	0.65	0.34 U	0.72	0.34 U	0.37 U	0.35 U	0.066 J	0.17 J	0.41 U
Diethyl phthalate	NA	NA	NA	NA	NA	0.76 U	3.7 U	0.21 J B	0.34 U	0.38 U	0.70 U	0.36 U	0.34 U	0.36 U	0.21 J B	0.10 J B	0.18 J B	0.37 J B	0.16 J B	0.29 J B
Dimethyl phthalate	NA	NA	NA	NA	NA	0.76 U	3.7 U	0.35 U	0.34 U	0.38 U	0.70 U	0.36 U	0.34 U	0.36 U	0.34 U	0.37 U	0.35 U	0.41 U	0.35 U	0.41 U
Di-n-butyl phthalate	NA	NA	NA	NA	NA	0.76 U	3.7 U	0.35 U	0.34 U	0.38 U	0.70 U	0.36 U	0.34 U	0.36 U	0.34 U	0.37 U	0.35 U	0.41 U	0.35 U	0.41 U
Di-n-octyl phthalate	NA	NA	NA	NA	NA	0.76 U	3.7 U	0.35 U	0.34 U	0.38 U	0.70 U	0.36 U	0.34 U	0.36 U	0.34 U	0.37 U	0.35 U	0.41 U	0.35 U	0.41 U
Diphenyl	NA	NA	NA	NA	NA	0.76 U	3.7 U	0.35 U	0.34 U	0.38 U	0.70 U	0.36 U	0.34 U	0.36 U	0.34 U	0.37 U	0.35 U	0.41 U	0.35 U	0.41 U
Fluoranthene	100	100	100	500	1,000	6.9	52	0.35 U	0.34 U	0.23 J	8.2	7.6	0.34 U	5.7	0.34 U	0.14 J	0.089 J	5.5	6.6	1.5
Fluorene	30	100	100	500	386	0.44 J	2.0 J	0.35 U	0.34 U	0.38 U	0.49 J	0.71	0.34 U	0.92	0.34 U	0.37 U	0.35 U	0.21 J	0.32 J	0.41 U
Hexachlorobenzene	0.33	0.33	1.2	6	3.2	0.076 U	0.37 U	0.035 U	0.034 U	0.038 U	0.070 U	0.036 U	0.034 U	0.036 U	0.034 U	0.037 U	0.035 U	0.041 U	0.035 U	0.041 U
Hexachlorobutadiene	NA	NA	NA	NA	NA	0.15 U	0.75 U	0.070 U	0.070 U	0.077 U	0.14 U	0.074 U	0.070 U	0.072 U	0.069 U	0.075 U	0.070 U	0.082 U	0.071 U	0.084 U
Hexachlorocyclopentadiene	NA	NA	NA	NA	NA	0.76 U	3.7 U	0.35 U	0.34 U	0.38 U	0.70 U	0.36 U	0.34 U	0.36 U	0.34 U	0.37 U	0.35 U	0.41 U	0.35 U	0.41 U
Hexachloroethane	NA	NA	NA	NA	NA	0.076 U	0.37 U	0.035 U	0.034 U	0.038 U	0.070 U	0.036 U	0.034 U	0.036 U	0.034 U	0.037 U	0.035 U	0.041 U	0.035 U	0.041 U
Indeno[1,2,3-cd]pyrene	0.5	0.5	0.5	5.6	8.2	1.7	14	0.035 U	0.034 U	0.077	2.0	2.1	0.034 U	0.92	0.034 U	0.060	0.030 J	1.7	1.5	0.38
Isophorone	NA	NA	NA	NA	NA	0.76 U	3.7 U	0.35 U	0.34 U	0.38 U	0.70 U	0.36 U	0.34 U	0.36 U	0.34 U	0.37 U	0.35 U	0.41 U	0.35 U	0.41 U
Naphthalene	12	100	100	500	12	0.76 U	3.7 U	0.35 U	0.34 U	0.38 U	0.70 U	0.052 J	0.34 U	0.042 J	0.34 U	0.37 U	0.35 U	0.41 U	0.12 J	0.41 U
Nitrobenzene	NA	NA	NA	NA	NA	0.076 U	0.37 U	0.035 U	0.034 U	0.038 U	0.070 U	0.036 U	0.034 U	0.036 U	0.034 U	0.037 U	0.035 U	0.041 U	0.035 U	0.041 U
N-Nitrosodi-n-propylamine	NA	NA	NA	NA	NA	0.076 U	0.37 U	0.035 U	0.034 U	0.038 U	0.070 U	0.036 U	0.034 U	0.036 U	0.034 U	0.037 U	0.035 U	0.041 U	0.035 U	0.041 U
N-Nitrosodiphenylamine	NA	NA	NA	NA	NA	0.76 U	3.7 U	0.35 U	0.34 U	0.38 U	0.70 U	0.36 U	0.34 U	0.36 U	0.34 U	0.37 U	0.35 U	0.41 U	0.35 U	0.41 U
Pentachlorophenol	0.8	2.4	6.7	6.7	0.8	2.3 U	11 U	1.0 U	1.0 U	1.2 U	2.1 U	1.1 U	1.0 U	1.1 U	1.0 U	1.1 U	1.0 U	1.2 U	1.1 U	1.3 U
Phenanthrene	100	100	100	500	1,000	8.4	40	0.35 U	0.34 U	0.12 J	8.0	6.1	0.34 U	7.0	0.34 U	0.075 J	0.047 J	3.8	5.6	1.0
Phenol	0.33	100	100	500	0.33	0.76 U	3.7 U	0.35 U	0.34 U	0.38 U	0.70 U	0.36 U	0.34 U	0.36 U	0.34 U	0.37 U	0.35 U	0.41 U	0.35 U	0.41 U
Pyrene	100	100	100	500	1,000	8.4	42	0.35 U	0.031 J	0.28 J	6.8	6.0	0.34 U	4.4	0.34 U	0.13 J	0.093 J	5.4	5.8	1.7
Pyridine	NA	NA	NA	NA	NA	0.76 U	3.7 U	0.35 U	0.34 U	0.38 U	0.70 U	0.36 U	0.34 U	0.36 U	0.34 U	0.37 U	0.35 U	0.41 U	0.35 U	0.41 U
Total SVOC TICs	NA	NA	NA	NA	NA	9.32	45.40	6.91	ND	ND	6.75	13.51	ND	5.09	ND	ND	ND	7.15	9.28	0.39

Notes
ND: TIC not detected
D : The reported value is from a dilution.
J : Indicates an estimated value.
J N : Indicates an estimated value.
U : Analyzed for but not detected.

Table 5-61
TCL SVOCs Soil Analytical Data
C6-13 Original Sample Location - Post Excavation Data

	NYSDEC SCOs					Post-excavation End-point Soil Analytical Data									
						Side-wall Samples									
TCL SVOCs (mg/kg)	NYSDEC Unrestricted SCO	Residential	Restricted Residential	Commercial	Protection of Groundwater	~~C6-EP#33 (1')~~	~~C6-EP#33 (5')~~	~~C6-EP#34 (1')~~	~~C6-EP#34 (5')~~	C6-EP#35 (1')	C6-EP#35 (5')	C6-EP#36 (1')	C6-EP#36 (5')	C6-EP#37 (1')	C6-EP#37 (5')
1,2,4,5-Tetrachlorobenzene	NA	NA	NA	NA	NA	~~0.36 U~~	~~0.38 U~~	~~0.36 U~~	~~0.39 U~~	0.38 U	0.36 U	0.37 U	0.37 U	0.37 U	0.34 U
1,4-Dioxane	0.1	9.8	13	130	0.1	~~0.36 U~~	~~0.38 U~~	~~0.36 U~~	~~0.39 U~~	0.38 U	0.36 U	0.37 U	0.37 U	0.37 U	0.34 U
2,2'-oxybis[1-chloropropane]	NA	NA	NA	NA	NA	~~0.36 U~~	~~0.38 U~~	~~0.36 U~~	~~0.39 U~~	0.38 U	0.36 U	0.37 U	0.37 U	0.37 U	0.34 U
2,3,4,6-Tetrachlorophenol	NA	NA	NA	NA	NA	~~0.36 U~~	~~0.38 U~~	~~0.36 U~~	~~0.39 U~~	0.38 U	0.36 U	0.37 U	0.37 U	0.37 U	0.34 U
2,4,5-Trichlorophenol	NA	NA	NA	NA	NA	~~0.36 U~~	~~0.38 U~~	~~0.36 U~~	~~0.39 U~~	0.38 U	0.36 U	0.37 U	0.37 U	0.37 U	0.34 U
2,4,6-Trichlorophenol	NA	NA	NA	NA	NA	~~0.36 U~~	~~0.38 U~~	~~0.36 U~~	~~0.39 U~~	0.38 U	0.36 U	0.37 U	0.37 U	0.37 U	0.34 U
2,4-Dichlorophenol	NA	NA	NA	NA	NA	~~0.36 U~~	~~0.38 U~~	~~0.36 U~~	~~0.39 U~~	0.38 U	0.36 U	0.37 U	0.37 U	0.37 U	0.34 U
2,4-Dimethylphenol	NA	NA	NA	NA	NA	~~0.36 U~~	~~0.38 U~~	~~0.36 U~~	~~0.39 U~~	0.38 U	0.36 U	0.37 U	0.37 U	0.37 U	0.34 U
2,4-Dinitrophenol	NA	NA	NA	NA	NA	~~1.1 U~~	~~1.2 U~~	~~1.1 U~~	~~1.2 U~~	1.2 U	1.1 U	1.1 U	1.1 U	1.1 U	1.0 U
2,4-Dinitrotoluene	NA	NA	NA	NA	NA	~~0.073 U~~	~~0.078 U~~	~~0.074 U~~	~~0.079 U~~	0.077 U	0.074 U	0.076 U	0.075 U	0.076 U	0.070 U
2,6-Dinitrotoluene	NA	NA	NA	NA	NA	~~0.073 U~~	~~0.078 U~~	~~0.074 U~~	~~0.079 U~~	0.077 U	0.074 U	0.076 U	0.075 U	0.076 U	0.070 U
2-Chloronaphthalene	NA	NA	NA	NA	NA	~~0.36 U~~	~~0.38 U~~	~~0.36 U~~	~~0.39 U~~	0.38 U	0.36 U	0.37 U	0.37 U	0.37 U	0.34 U
2-Chlorophenol	NA	NA	NA	NA	NA	~~0.36 U~~	~~0.38 U~~	~~0.36 U~~	~~0.39 U~~	0.38 U	0.36 U	0.37 U	0.37 U	0.37 U	0.34 U
2-Methylnaphthalene	NA	NA	NA	NA	NA	~~0.36 U~~	~~0.38 U~~	~~0.36 U~~	~~0.39 U~~	0.38 U	0.36 U	0.37 U	0.37 U	0.37 U	0.34 U
2-Methylphenol	0.33	100	100	500	0.33	~~0.36 U~~	~~0.38 U~~	~~0.36 U~~	~~0.39 U~~	0.38 U	0.36 U	0.37 U	0.37 U	0.37 U	0.34 U
2-Nitroaniline	NA	NA	NA	NA	NA	~~0.73 U~~	~~0.78 U~~	~~0.74 U~~	~~0.79 U~~	0.77 U	0.74 U	0.76 U	0.75 U	0.76 U	0.70 U
2-Nitrophenol	NA	NA	NA	NA	NA	~~0.36 U~~	~~0.38 U~~	~~0.36 U~~	~~0.39 U~~	0.38 U	0.36 U	0.37 U	0.37 U	0.37 U	0.34 U
3,3'-Dichlorobenzidine	NA	NA	NA	NA	NA	~~0.73 U~~	~~0.78 U~~	~~0.74 U~~	~~0.79 U~~	0.77 U	0.74 U	0.76 U	0.75 U	0.76 U	0.70 U
3-Nitroaniline	NA	NA	NA	NA	NA	~~0.73 U~~	~~0.78 U~~	~~0.74 U~~	~~0.79 U~~	0.77 U	0.74 U	0.76 U	0.75 U	0.76 U	0.70 U
4,6-Dinitro-2-methylphenol	NA	NA	NA	NA	NA	~~1.1 U~~	~~1.2 U~~	~~1.1 U~~	~~1.2 U~~	1.2 U	1.1 U	1.1 U	1.1 U	1.1 U	1.0 U
4-Bromophenyl phenyl ether	NA	NA	NA	NA	NA	~~0.36 U~~	~~0.38 U~~	~~0.36 U~~	~~0.39 U~~	0.38 U	0.36 U	0.37 U	0.37 U	0.37 U	0.34 U
4-Chloro-3-methylphenol	NA	NA	NA	NA	NA	~~0.36 U~~	~~0.38 U~~	~~0.36 U~~	~~0.39 U~~	0.38 U	0.36 U	0.37 U	0.37 U	0.37 U	0.34 U
4-Chloroaniline	NA	NA	NA	NA	NA	~~0.36 U~~	~~0.38 U~~	~~0.36 U~~	~~0.39 U~~	0.38 U	0.36 U	0.37 U	0.37 U	0.37 U	0.34 U
4-Chlorophenyl phenyl ether	NA	NA	NA	NA	NA	~~0.36 U~~	~~0.38 U~~	~~0.36 U~~	~~0.39 U~~	0.38 U	0.36 U	0.37 U	0.37 U	0.37 U	0.34 U
4-Methylphenol	0.33	34	100	500	0.33	~~0.36 U~~	~~0.38 U~~	~~0.36 U~~	~~0.39 U~~	0.38 U	0.36 U	0.37 U	0.37 U	0.37 U	0.34 U
4-Nitroaniline	NA	NA	NA	NA	NA	~~0.73 U~~	~~0.78 U~~	~~0.74 U~~	~~0.79 U~~	0.77 U	0.74 U	0.76 U	0.75 U	0.76 U	0.70 U
4-Nitrophenol	NA	NA	NA	NA	NA	~~1.1 U~~	~~1.2 U~~	~~1.1 U~~	~~1.2 U~~	1.2 U	1.1 U	1.1 U	1.1 U	1.1 U	1.0 U
Acenaphthene	20	100	100	500	98	~~0.069 J~~	~~0.38 U~~	~~0.20 J~~	~~0.39 U~~	0.38 U	0.36 U	0.37 U	0.37 U	0.37 U	0.34 U
Acenaphthylene	100	100	100	500	107	~~0.36 U~~	~~0.38 U~~	~~0.36 U~~	~~0.39 U~~	0.38 U	0.36 U	0.37 U	0.37 U	0.37 U	0.34 U
Acetophenone	NA	NA	NA	NA	NA	~~0.36 U~~	~~0.38 U~~	~~0.36 U~~	~~0.39 U~~	0.38 U	0.36 U	0.37 U	0.37 U	0.37 U	0.34 U
Anthracene	100	100	100	500	1,000	~~0.18 J~~	~~0.38 U~~	~~0.53~~	~~0.39 U~~	0.38 U	0.36 U	0.37 U	0.047 J	0.37 U	0.34 U
Atrazine	NA	NA	NA	NA	NA	~~0.36 U~~	~~0.38 U~~	~~0.36 U~~	~~0.39 U~~	0.38 U	0.36 U	0.37 U	0.37 U	0.37 U	0.34 U
Benzaldehyde	NA	NA	NA	NA	NA	~~0.36 U~~	~~0.38 U~~	~~0.36 U~~	~~0.39 U~~	0.38 U	0.36 U	0.37 U	0.37 U	0.37 U	0.34 U
Benzo[a]anthracene	1	1	1	5.6	1	~~0.77~~	~~0.038 U~~	~~1.9~~	~~0.039 U~~	0.038 U	0.036 U	0.037 U	0.037 U	0.21	0.096
Benzo[a]pyrene	1	1	1	1	22	~~0.86~~	~~0.055~~	~~2.0~~	~~0.050~~	0.078	0.036 U	0.068	0.037 U	0.24	0.097
Benzo[b]fluoranthene	1	1	1	5.6	1.7	~~1.1~~	~~0.055~~	~~2.4~~	~~0.046~~	0.097	0.036 U	0.077	0.037 U	0.31	0.11
Benzo[g,h,i]perylene	100	100	100	500	1,000	~~0.51~~	~~0.38 U~~	~~1.2~~	~~0.39 U~~	0.043 J	0.36 U	0.029 J	0.37 U	0.11 J	0.036 J
Benzo[k]fluoranthene	0.8	1	3.9	56	1.7	~~0.37~~	~~0.038 U~~	~~1.0~~	~~0.039 U~~	0.038 U	0.036 U	0.026 J	0.037 U	0.097	0.051
Bis(2-chloroethoxy)methane	NA	NA	NA	NA	NA	~~0.36 U~~	~~0.38 U~~	~~0.36 U~~	~~0.39 U~~	0.38 U	0.36 U	0.37 U	0.37 U	0.37 U	0.34 U
Bis(2-chloroethyl)ether	NA	NA	NA	NA	NA	~~0.036 U~~	~~0.038 U~~	~~0.036 U~~	~~0.039 U~~	0.038 U	0.036 U	0.037 U	0.037 U	0.037 U	0.034 U
Bis(2-ethylhexyl) phthalate	NA	NA	NA	NA	NA	~~0.36 U~~	~~0.38 U~~	~~0.36 U~~	~~0.39 U~~	0.38 U	0.36 U	0.37 U	0.37 U	0.37 U	0.34 U
Butyl benzyl phthalate	NA	NA	NA	NA	NA	~~0.36 U~~	~~0.38 U~~	~~0.36 U~~	~~0.39 U~~	0.045 J	0.36 U	0.37 U	0.37 U	0.37 U	0.34 U
Caprolactam	NA	NA	NA	NA	NA	~~0.36 U~~	~~0.38 U~~	~~0.36 U~~	~~0.39 U~~	0.38 U	0.36 U	0.37 U	0.37 U	0.37 U	0.34 U
Carbazole	NA	NA	NA	NA	NA	~~0.049 J~~	~~0.38 U~~	~~0.17 J~~	~~0.39 U~~	0.38 U	0.36 U	0.37 U	0.37 U	0.37 U	0.34 U
Chrysene	1	1	3.9	56	1	~~0.79~~	~~0.38 U~~	~~1.9~~	~~0.39 U~~	0.060 J	0.36 U	0.055 J	0.37 U	0.20 J	0.084 J
Dibenz(a,h)anthracene	0.33	0.33	0.33	0.56	1,000	~~0.11~~	~~0.038 U~~	~~0.31~~	~~0.039 U~~	0.038 U	0.036 U	0.037 U	0.037 U	0.038	0.034 U
Dibenzofuran	7	14	59	350	210	~~0.36 U~~	~~0.38 U~~	~~0.070 J~~	~~0.39 U~~	0.38 U	0.36 U	0.37 U	0.37 U	0.37 U	0.34 U
Diethyl phthalate	NA	NA	NA	NA	NA	~~0.32 J B~~	~~0.18 J B~~	~~0.22 J B~~	~~0.19 J B~~	0.076 J B	0.16 J B	0.17 J B	0.14 J B	0.099 J B	0.13 J B
Dimethyl phthalate	NA	NA	NA	NA	NA	~~0.36 U~~	~~0.38 U~~	~~0.36 U~~	~~0.39 U~~	0.38 U	0.36 U	0.37 U	0.37 U	0.37 U	0.34 U
Di-n-butyl phthalate	NA	NA	NA	NA	NA	~~0.36 U~~	~~0.38 U~~	~~0.36 U~~	~~0.39 U~~	0.38 U	0.36 U	0.37 U	0.18 J	0.37 U	0.34 U
Di-n-octyl phthalate	NA	NA	NA	NA	NA	~~0.36 U~~	~~0.38 U~~	~~0.36 U~~	~~0.39 U~~	0.38 U	0.36 U	0.37 U	0.37 U	0.37 U	0.34 U
Diphenyl	NA	NA	NA	NA	NA	~~0.36 U~~	~~0.38 U~~	~~0.36 U~~	~~0.39 U~~	0.38 U	0.36 U	0.37 U	0.37 U	0.37 U	0.34 U
Fluoranthene	100	100	100	500	1,000	~~1.7~~	~~0.080 J~~	~~4.1~~	~~0.39 U~~	0.12 J	0.36 U	0.11 J	0.070 J	0.38	0.21 J
Fluorene	30	100	100	500	386	~~0.050 J~~	~~0.38 U~~	~~0.16 J~~	~~0.39 U~~	0.38 U	0.36 U	0.37 U	0.37 U	0.37 U	0.34 U
Hexachlorobenzene	0.33	0.33	1.2	6	3.2	~~0.036 U~~	~~0.038 U~~	~~0.036 U~~	~~0.039 U~~	0.038 U	0.036 U	0.037 U	0.037 U	0.037 U	0.034 U
Hexachlorobutadiene	NA	NA	NA	NA	NA	~~0.073 U~~	~~0.078 U~~	~~0.074 U~~	~~0.079 U~~	0.077 U	0.074 U	0.076 U	0.075 U	0.076 U	0.070 U
Hexachlorocyclopentadiene	NA	NA	NA	NA	NA	~~0.36 U~~	~~0.38 U~~	~~0.36 U~~	~~0.39 U~~	0.38 U	0.36 U	0.37 U	0.37 U	0.37 U	0.34 U
Hexachloroethane	NA	NA	NA	NA	NA	~~0.036 U~~	~~0.038 U~~	~~0.036 U~~	~~0.039 U~~	0.038 U	0.036 U	0.037 U	0.037 U	0.037 U	0.034 U
Indeno[1,2,3-cd]pyrene	0.5	0.5	0.5	5.6	8.2	~~0.53~~	~~0.038 U~~	~~1.3~~	~~0.039 U~~	0.053	0.036 U	0.039	0.037 U	0.13	0.051
Isophorone	NA	NA	NA	NA	NA	~~0.36 U~~	~~0.38 U~~	~~0.36 U~~	~~0.39 U~~	0.38 U	0.36 U	0.37 U	0.37 U	0.37 U	0.34 U
Naphthalene	12	100	100	500	12	~~0.36 U~~	~~0.38 U~~	~~0.36 U~~	~~0.39 U~~	0.38 U	0.36 U	0.37 U	0.37 U	0.37 U	0.34 U
Nitrobenzene	NA	NA	NA	NA	NA	~~0.036 U~~	~~0.038 U~~	~~0.036 U~~	~~0.039 U~~	0.038 U	0.036 U	0.037 U	0.037 U	0.037 U	0.034 U
N-Nitrosodi-n-propylamine	NA	NA	NA	NA	NA	~~0.036 U~~	~~0.038 U~~	~~0.036 U~~	~~0.039 U~~	0.038 U	0.036 U	0.037 U	0.037 U	0.037 U	0.034 U
N-Nitrosodiphenylamine	NA	NA	NA	NA	NA	~~0.36 U~~	~~0.38 U~~	~~0.36 U~~	~~0.39 U~~	0.38 U	0.36 U	0.37 U	0.37 U	0.37 U	0.34 U
Pentachlorophenol	0.8	2.4	6.7	6.7	0.8	~~1.1 U~~	~~1.2 U~~	~~1.1 U~~	~~1.2 U~~	1.2 U	1.1 U	1.1 U	1.1 U	1.1 U	1.0 U
Phenanthrene	100	100	100	500	1,000	~~0.98~~	~~0.053 J~~	~~2.5~~	~~0.39 U~~	0.060 J	0.36 U	0.080 J	0.37 U	0.13 J	0.16 J
Phenol	0.33	100	100	500	0.33	~~0.36 U~~	~~0.38 U~~	~~0.36 U~~	~~0.39 U~~	0.38 U	0.36 U	0.37 U	0.37 U	0.37 U	0.34 U
Pyrene	100	100	100	500	1,000	~~1.7~~	~~0.090 J~~	~~4.0~~	~~0.077 J~~	0.11 J	0.36 U	0.13 J	0.047 J	0.36 J	0.18 J
Pyridine	NA	NA	NA	NA	NA	~~0.36 U~~	~~0.38 U~~	~~0.36 U~~	~~0.39 U~~	0.38 U	0.36 U	0.37 U	0.37 U	0.37 U	0.34 U
Total SVOC TICs	NA	NA	NA	NA	NA	~~0.51~~	~~ND~~	~~2.30~~	~~ND~~	ND	ND	ND	ND	ND	ND

Notes
ND: TIC not detected
D : The reported value is from a dilution.
J : Indicates an estimated value.
J N : Indicates an estimated value.
U : Analyzed for but not detected.

Table 5-61
TCL SVOCs Soil Analytical Data
C6-13 Original Sample Location - Post Excavation Data

	NYSDEC SCOs					Post-excavation End-point Soil Analytical Data									
						Supplemental Sidewall Samples									
TCL SVOCs (mg/kg)	NYSDEC Unrestricted SCO	Residential	Restricted Residential	Commercial	Protection of Groundwater	C6-EP#56 (1')	C6-EP#57 (1')	~~C6-EP#58~~ (1')	C6-EP#59 (1')	C6-EP#60 (1')	C6-EP#60 BD (4')	~~C6-EP#61~~ (1')	C6-EP#62 (1')	C6-EP#63 (4')	C6-EP#64 (1')
1,2,4,5-Tetrachlorobenzene	NA	NA	NA	NA	NA	0.37 U	0.36 U	0.35 U	0.36 U	0.35 U	0.34 U	0.35 U	0.35 U	0.38 U	0.34 U
1,4-Dioxane	0.1	9.8	13	130	0.1	0.37 U	0.36 U	0.35 U	0.36 U	0.35 U	0.34 U	0.35 U	0.35 U	0.38 U	0.34 U
2,2'-oxybis[1-chloropropane]	NA	NA	NA	NA	NA	0.37 U	0.36 U	0.35 U	0.36 U	0.35 U	0.34 U	0.35 U	0.35 U	0.38 U	0.34 U
2,3,4,6-Tetrachlorophenol	NA	NA	NA	NA	NA	0.37 U	0.36 U	0.35 U	0.36 U	0.35 U	0.34 U	0.35 U	0.35 U	0.38 U	0.34 U
2,4,5-Trichlorophenol	NA	NA	NA	NA	NA	0.37 U	0.36 U	0.35 U	0.36 U	0.35 U	0.34 U	0.35 U	0.35 U	0.38 U	0.34 U
2,4,6-Trichlorophenol	NA	NA	NA	NA	NA	0.37 U	0.36 U	0.35 U	0.36 U	0.35 U	0.34 U	0.35 U	0.35 U	0.38 U	0.34 U
2,4-Dichlorophenol	NA	NA	NA	NA	NA	0.37 U	0.36 U	0.35 U	0.36 U	0.35 U	0.34 U	0.35 U	0.35 U	0.38 U	0.34 U
2,4-Dimethylphenol	NA	NA	NA	NA	NA	0.37 U	0.36 U	0.35 U	0.36 U	0.35 U	0.34 U	0.35 U	0.35 U	0.38 U	0.34 U
2,4-Dinitrophenol	NA	NA	NA	NA	NA	1.1 U	1.1 U	1.1 U	1.1 U	1.0 U	1.0 U	1.1 U	1.1 U	1.2 U	1.0 U
2,4-Dinitrotoluene	NA	NA	NA	NA	NA	0.075 U	0.072 U	0.071 U	0.072 U	0.070 U	0.070 U	0.072 U	0.071 U	0.077 U	0.068 U
2,6-Dinitrotoluene	NA	NA	NA	NA	NA	0.075 U	0.072 U	0.071 U	0.072 U	0.070 U	0.070 U	0.072 U	0.071 U	0.077 U	0.068 U
2-Chloronaphthalene	NA	NA	NA	NA	NA	0.37 U	0.36 U	0.35 U	0.36 U	0.35 U	0.34 U	0.35 U	0.35 U	0.38 U	0.34 U
2-Chlorophenol	NA	NA	NA	NA	NA	0.37 U	0.36 U	0.35 U	0.36 U	0.35 U	0.34 U	0.35 U	0.35 U	0.38 U	0.34 U
2-Methylnaphthalene	NA	NA	NA	NA	NA	0.37 U	0.36 U	0.35 U	0.36 U	0.35 U	0.34 U	0.35 U	0.35 U	0.38 U	0.34 U
2-Methylphenol	0.33	100	100	500	0.33	0.37 U	0.36 U	0.35 U	0.36 U	0.35 U	0.34 U	0.35 U	0.35 U	0.38 U	0.34 U
2-Nitroaniline	NA	NA	NA	NA	NA	0.75 U	0.72 U	0.71 U	0.72 U	0.70 U	0.70 U	0.72 U	0.71 U	0.77 U	0.68 U
2-Nitrophenol	NA	NA	NA	NA	NA	0.37 U	0.36 U	0.35 U	0.36 U	0.35 U	0.34 U	0.35 U	0.35 U	0.38 U	0.34 U
3,3'-Dichlorobenzidine	NA	NA	NA	NA	NA	0.75 U	0.72 U	0.71 U	0.72 U	0.70 U	0.70 U	0.72 U	0.71 U	0.77 U	0.68 U
3-Nitroaniline	NA	NA	NA	NA	NA	0.75 U	0.72 U	0.71 U	0.72 U	0.70 U	0.70 U	0.72 U	0.71 U	0.77 U	0.68 U
4,6-Dinitro-2-methylphenol	NA	NA	NA	NA	NA	1.1 U	1.1 U	1.1 U	1.1 U	1.0 U	1.0 U	1.1 U	1.1 U	1.2 U	1.0 U
4-Bromophenyl phenyl ether	NA	NA	NA	NA	NA	0.37 U	0.36 U	0.35 U	0.36 U	0.35 U	0.34 U	0.35 U	0.35 U	0.38 U	0.34 U
4-Chloro-3-methylphenol	NA	NA	NA	NA	NA	0.37 U	0.36 U	0.35 U	0.36 U	0.35 U	0.34 U	0.35 U	0.35 U	0.38 U	0.34 U
4-Chloroaniline	NA	NA	NA	NA	NA	0.37 U	0.36 U	0.35 U	0.36 U	0.35 U	0.34 U	0.35 U	0.35 U	0.38 U	0.34 U
4-Chlorophenyl phenyl ether	NA	NA	NA	NA	NA	0.37 U	0.36 U	0.35 U	0.36 U	0.35 U	0.34 U	0.35 U	0.35 U	0.38 U	0.34 U
4-Methylphenol	0.33	34	100	500	0.33	0.37 U	0.36 U	0.35 U	0.36 U	0.35 U	0.34 U	0.35 U	0.35 U	0.38 U	0.34 U
4-Nitroaniline	NA	NA	NA	NA	NA	0.75 U	0.72 U	0.71 U	0.72 U	0.70 U	0.70 U	0.72 U	0.71 U	0.77 U	0.68 U
4-Nitrophenol	NA	NA	NA	NA	NA	1.1 U	1.1 U	1.1 U	1.1 U	1.0 U	1.0 U	1.1 U	1.1 U	1.2 U	1.0 U
Acenaphthene	20	100	100	500	98	0.37 U	0.36 U	0.24 J	0.36 U	0.35 U	0.34 U	0.25 J	0.35 U	0.090 J	0.34 U
Acenaphthylene	100	100	100	500	107	0.37 U	0.36 U	0.35 U	0.36 U	0.35 U	0.34 U	0.35 U	0.35 U	0.38 U	0.34 U
Acetophenone	NA	NA	NA	NA	NA	0.37 U	0.36 U	0.35 U	0.36 U	0.35 U	0.34 U	0.35 U	0.35 U	0.38 U	0.34 U
Anthracene	100	100	100	500	1,000	0.37 U	0.059 J	0.67	0.36 U	0.35 U	0.34 U	1.2	0.35 U	0.095 J	0.34 U
Atrazine	NA	NA	NA	NA	NA	0.37 U	0.36 U	0.35 U	0.36 U	0.35 U	0.34 U	0.35 U	0.35 U	0.38 U	0.34 U
Benzaldehyde	NA	NA	NA	NA	NA	0.37 U	0.36 U	0.35 U	0.36 U	0.35 U	0.34 U	0.35 U	0.35 U	0.38 U	0.34 U
Benzo[a]anthracene	1	1	1	5.6	1	0.037 U	0.21	**2.3**	0.036 U	0.035 U	0.034 U	**3.0**	0.035 U	0.14	0.034 U
Benzo[a]pyrene	1	1	1	1	22	0.041	0.19	**2.5**	0.036 U	0.040	0.029 J	**2.8**	0.031 J	0.12	0.034 U
Benzo[b]fluoranthene	1	1	1	5.6	1.7	0.066	0.24	**2.8**	0.036 U	0.047	0.036	**3.6**	0.050	0.15	0.034 U
Benzo[g,h,i]perylene	100	100	100	500	1,000	0.37 U	0.10 J	2.1	0.36 U	0.35 U	0.34 U	2.1	0.35 U	0.066 J	0.34 U
Benzo[k]fluoranthene	0.8	1	3.9	56	1.7	0.023 J	0.10	**1.1**	0.036 U	0.022 J	0.021 J	**1.2**	0.024 J	0.068	0.034 U
Bis(2-chloroethoxy)methane	NA	NA	NA	NA	NA	0.37 U	0.36 U	0.35 U	0.36 U	0.35 U	0.34 U	0.35 U	0.35 U	0.38 U	0.34 U
Bis(2-chloroethyl)ether	NA	NA	NA	NA	NA	0.037 U	0.036 U	0.035 U	0.036 U	0.035 U	0.034 U	0.035 U	0.035 U	0.038 U	0.034 U
Bis(2-ethylhexyl) phthalate	NA	NA	NA	NA	NA	0.37 U	0.36 U	0.35 U	0.36 U	0.35 U	0.34 U	0.35 U	0.35 U	0.38 U	0.34 U
Butyl benzyl phthalate	NA	NA	NA	NA	NA	0.37 U	0.36 U	0.35 U	0.36 U	0.35 U	0.34 U	0.35 U	0.35 U	0.38 U	0.34 U
Caprolactam	NA	NA	NA	NA	NA	0.37 U	0.36 U	0.35 U	0.36 U	0.35 U	0.34 U	0.35 U	0.35 U	0.38 U	0.34 U
Carbazole	NA	NA	NA	NA	NA	0.37 U	0.36 U	0.23 J	0.36 U	0.35 U	0.34 U	0.40	0.35 U	0.046 J	0.34 U
Chrysene	1	1	3.9	56	1	0.050 J	0.23 J	**2.4**	0.36 U	0.35 U	0.34 U	**2.8**	0.35 U	0.13 J	0.34 U
Dibenz(a,h)anthracene	0.33	0.33	0.33	0.56	1,000	0.037 U	0.017 J	**0.43**	0.036 U	0.035 U	0.034 U	0.63	0.035 U	0.013 J	0.034 U
Dibenzofuran	7	14	59	350	210	0.37 U	0.36 U	0.083 J	0.36 U	0.35 U	0.34 U	0.24 J	0.35 U	0.047 J	0.34 U
Diethyl phthalate	NA	NA	NA	NA	NA	0.37 U	0.36 U	0.35 U	0.36 U	0.35 U	0.34 U	0.35 U	0.35 U	0.38 U	0.34 U
Dimethyl phthalate	NA	NA	NA	NA	NA	0.37 U	0.36 U	0.35 U	0.36 U	0.35 U	0.34 U	0.35 U	0.35 U	0.38 U	0.34 U
Di-n-butyl phthalate	NA	NA	NA	NA	NA	0.37 U	0.36 U	0.35 U	0.36 U	0.35 U	0.34 U	0.35 U	0.35 U	0.38 U	0.34 U
Di-n-octyl phthalate	NA	NA	NA	NA	NA	0.37 U	0.36 U	0.35 U	0.36 U	0.35 U	0.34 U	0.35 U	0.35 U	0.38 U	0.34 U
Diphenyl	NA	NA	NA	NA	NA	0.37 U	0.36 U	0.35 U	0.36 U	0.35 U	0.34 U	0.35 U	0.35 U	0.38 U	0.34 U
Fluoranthene	100	100	100	500	1,000	0.12 J	0.48	4.9	0.36 U	0.059 J	0.062 J	7.6	0.084 J	0.36 J	0.34 U
Fluorene	30	100	100	500	386	0.37 U	0.36 U	0.19 J	0.36 U	0.35 U	0.34 U	0.22 J	0.35 U	0.084 J	0.34 U
Hexachlorobenzene	0.33	0.33	1.2	6	3.2	0.037 U	0.036 U	0.035 U	0.036 U	0.035 U	0.034 U	0.035 U	0.035 U	0.038 U	0.034 U
Hexachlorobutadiene	NA	NA	NA	NA	NA	0.075 U	0.072 U	0.071 U	0.072 U	0.070 U	0.070 U	0.072 U	0.071 U	0.077 U	0.068 U
Hexachlorocyclopentadiene	NA	NA	NA	NA	NA	0.37 U	0.36 U	0.35 U	0.36 U	0.35 U	0.34 U	0.35 U	0.35 U	0.38 U	0.34 U
Hexachloroethane	NA	NA	NA	NA	NA	0.037 U	0.036 U	0.035 U	0.036 U	0.035 U	0.034 U	0.035 U	0.035 U	0.038 U	0.034 U
Indeno[1,2,3-cd]pyrene	0.5	0.5	0.5	5.6	8.2	0.021 J	0.12	**2.5**	0.036 U	0.034 J	0.013 J	**2.8**	0.035 U	0.088	0.034 U
Isophorone	NA	NA	NA	NA	NA	0.37 U	0.36 U	0.35 U	0.36 U	0.35 U	0.34 U	0.35 U	0.35 U	0.38 U	0.34 U
Naphthalene	12	100	100	500	12	0.37 U	0.36 U	0.053 J	0.36 U	0.35 U	0.34 U	0.35 U	0.35 U	0.38 U	0.34 U
Nitrobenzene	NA	NA	NA	NA	NA	0.037 U	0.036 U	0.035 U	0.036 U	0.035 U	0.034 U	0.035 U	0.035 U	0.038 U	0.034 U
N-Nitrosodi-n-propylamine	NA	NA	NA	NA	NA	0.037 U	0.036 U	0.035 U	0.036 U	0.035 U	0.034 U	0.035 U	0.035 U	0.038 U	0.034 U
N-Nitrosodiphenylamine	NA	NA	NA	NA	NA	0.37 U	0.36 U	0.35 U	0.36 U	0.35 U	0.34 U	0.35 U	0.35 U	0.38 U	0.34 U
Pentachlorophenol	0.8	2.4	6.7	6.7	0.8	1.1 U	1.1 U	1.1 U	1.1 U	1.0 U	1.0 U	1.1 U	1.1 U	1.2 U	1.0 U
Phenanthrene	100	100	100	500	1,000	0.063 J	0.40	3.4	0.36 U	0.35 U	0.34 U	**4.9**	0.047 J	0.42	0.34 U
Phenol	0.33	100	100	500	0.33	0.37 U	0.36 U	0.35 U	0.36 U	0.35 U	0.34 U	0.35 U	0.35 U	0.38 U	0.34 U
Pyrene	100	100	100	500	1,000	0.095 J	0.49	4.1	0.36 U	0.064 J	0.049 J	4.5	0.064 J	0.27 J	0.34 U
Pyridine	NA	NA	NA	NA	NA	0.37 U	0.36 U	0.35 U	0.36 U	0.35 U	0.34 U	0.35 U	0.35 U	0.38 U	0.34 U
Total SVOC TICs	NA	NA	NA	NA	NA	ND	ND	4.91	ND	ND	ND	2.41	ND	ND	ND

Notes
ND: TIC not detected
D : The reported value is from a dilution.
J : Indicates an estimated value.
J N : Indicates an estimated value.
U : Analyzed for but not detected.

Table 5-61
TCL SVOCs Soil Analytical Data
C6-13 Original Sample Location - Post Excavation Data

	NYSDEC SCOs					Post-excavation End-point Soil Analytical Data															
						Supplemental Side-wall Samples										Supplemental Side-wall Samples					
TCL SVOCs (mg/kg)	NYSDEC Unrestricted SCO	Residential	Restricted Residential	Commercial	Protection of Groundwater	C6-EP#65 (4')	C6-EP#66 (1')	C6-EP#67 (4')	C6-EP#68 (1')	C6-EP#69 (4')	C6-EP#70 (1')	C6-EP#71 (4')	C6-EP#72 (1')	C6-EP#73 (4')	C6-EP#73 BD (1')	~~C6-EP#74~~ (4')	~~C6-EP#75~~ (1')	~~C6-EP#76~~ (4')	~~C6-EP#77~~ (1')	~~C6-EP#78~~ (4')	~~C6-EP#79~~ (1')	~~C6-EP#80~~ (4')	~~C6-EP#81~~ (4')
1,2,4,5-Tetrachlorobenzene	NA	NA	NA	NA	NA	0.36 U	0.34 U	0.35 U	0.34 U	0.42 U	0.35 U	0.39 U	0.34 U	0.38 U	0.38 U	~~0.38 U~~	~~0.36 U~~	~~0.37 U~~	~~1.9 U~~	~~3.5 U~~	~~0.34 U~~	~~0.34 U~~	~~7.0 U~~
1,4-Dioxane	0.1	9.8	13	130	0.1	0.36 U	0.34 U	0.35 U	0.34 U	0.42 U	0.35 U	0.39 U	0.34 U	0.38 U	0.38 U	~~0.38 U~~	~~0.36 U~~	~~0.37 U~~	~~1.9 U~~	~~3.5 U~~	~~0.34 U~~	~~0.34 U~~	~~7.0 U~~
2,2'-oxybis[1-chloropropane]	NA	NA	NA	NA	NA	0.36 U	0.34 U	0.35 U	0.34 U	0.42 U	0.35 U	0.39 U	0.34 U	0.38 U	0.38 U	~~0.38 U~~	~~0.36 U~~	~~0.37 U~~	~~1.9 U~~	~~3.5 U~~	~~0.34 U~~	~~0.34 U~~	~~7.0 U~~
2,3,4,6-Tetrachlorophenol	NA	NA	NA	NA	NA	0.36 U	0.34 U	0.35 U	0.34 U	0.42 U	0.35 U	0.39 U	0.34 U	0.38 U	0.38 U	~~0.38 U~~	~~0.36 U~~	~~0.37 U~~	~~1.9 U~~	~~3.5 U~~	~~0.34 U~~	~~0.34 U~~	~~7.0 U~~
2,4,5-Trichlorophenol	NA	NA	NA	NA	NA	0.36 U	0.34 U	0.35 U	0.34 U	0.42 U	0.35 U	0.39 U	0.34 U	0.38 U	0.38 U	~~0.38 U~~	~~0.36 U~~	~~0.37 U~~	~~1.9 U~~	~~3.5 U~~	~~0.34 U~~	~~0.34 U~~	~~7.0 U~~
2,4,6-Trichlorophenol	NA	NA	NA	NA	NA	0.36 U	0.34 U	0.35 U	0.34 U	0.42 U	0.35 U	0.39 U	0.34 U	0.38 U	0.38 U	~~0.38 U~~	~~0.36 U~~	~~0.37 U~~	~~1.9 U~~	~~3.5 U~~	~~0.34 U~~	~~0.34 U~~	~~7.0 U~~
2,4-Dichlorophenol	NA	NA	NA	NA	NA	0.36 U	0.34 U	0.35 U	0.34 U	0.42 U	0.35 U	0.39 U	0.34 U	0.38 U	0.38 U	~~0.38 U~~	~~0.36 U~~	~~0.37 U~~	~~1.9 U~~	~~3.5 U~~	~~0.34 U~~	~~0.34 U~~	~~7.0 U~~
2,4-Dimethylphenol	NA	NA	NA	NA	NA	0.36 U	0.34 U	0.35 U	0.34 U	0.42 U	0.35 U	0.39 U	0.34 U	0.38 U	0.38 U	~~0.38 U~~	~~0.36 U~~	~~0.37 U~~	~~1.9 U~~	~~3.5 U~~	~~0.34 U~~	~~0.34 U~~	~~7.0 U~~
2,4-Dinitrophenol	NA	NA	NA	NA	NA	1.1 U	1.0 U	1.1 U	1.0 U	1.3 U	1.1 U	1.2 U	1.0 U	1.2 U	1.1 U	~~0.77 U~~	~~0.72 U~~	~~0.75 U~~	~~3.8 U~~	~~7.1 U~~	~~0.69 U~~	~~0.69 U~~	~~14 U~~
2,4-Dinitrotoluene	NA	NA	NA	NA	NA	0.074 U	0.069 U	0.071 U	0.069 U	0.085 U	0.071 U	0.079 U	0.069 U	0.077 U	0.076 U	~~0.077 U~~	~~0.072 U~~	~~0.075 U~~	~~0.38 U~~	~~0.71 U~~	~~0.069 U~~	~~0.069 U~~	~~1.4 U~~
2,6-Dinitrotoluene	NA	NA	NA	NA	NA	0.074 U	0.069 U	0.071 U	0.069 U	0.085 U	0.071 U	0.079 U	0.069 U	0.077 U	0.076 U	~~0.077 U~~	~~0.072 U~~	~~0.075 U~~	~~0.38 U~~	~~0.71 U~~	~~0.069 U~~	~~0.069 U~~	~~1.4 U~~
2-Chloronaphthalene	NA	NA	NA	NA	NA	0.36 U	0.34 U	0.35 U	0.34 U	0.42 U	0.35 U	0.39 U	0.34 U	0.38 U	0.38 U	~~0.38 U~~	~~0.36 U~~	~~0.37 U~~	~~1.9 U~~	~~3.5 U~~	~~0.34 U~~	~~0.34 U~~	~~7.0 U~~
2-Chlorophenol	NA	NA	NA	NA	NA	0.36 U	0.34 U	0.35 U	0.34 U	0.42 U	0.35 U	0.39 U	0.34 U	0.38 U	0.38 U	~~0.38 U~~	~~0.36 U~~	~~0.37 U~~	~~1.9 U~~	~~3.5 U~~	~~0.34 U~~	~~0.34 U~~	~~7.0 U~~
2-Methylnaphthalene	NA	NA	NA	NA	NA	0.36 U	0.34 U	0.35 U	0.34 U	0.42 U	0.35 U	0.39 U	0.34 U	0.15 J	0.38 U	~~0.38 U~~	~~0.36 U~~	~~0.37 U~~	~~0.24 J~~	~~3.5 U~~	~~0.34 U~~	~~0.34 U~~	~~2.5 J~~
2-Methylphenol	0.33	100	100	500	0.33	0.36 U	0.34 U	0.35 U	0.34 U	0.42 U	0.35 U	0.39 U	0.34 U	0.38 U	0.38 U	~~0.38 U~~	~~0.36 U~~	~~0.37 U~~	~~1.9 U~~	~~3.5 U~~	~~0.34 U~~	~~0.34 U~~	~~7.0 U~~
2-Nitroaniline	NA	NA	NA	NA	NA	0.74 U	0.69 U	0.71 U	0.69 U	0.85 U	0.71 U	0.79 U	0.69 U	0.77 U	0.76 U	~~0.38 U~~	~~0.36 U~~	~~0.37 U~~	~~1.9 U~~	~~3.5 U~~	~~0.34 U~~	~~0.34 U~~	~~7.0 U~~
2-Nitrophenol	NA	NA	NA	NA	NA	0.36 U	0.34 U	0.35 U	0.34 U	0.42 U	0.35 U	0.39 U	0.34 U	0.38 U	0.38 U	~~0.38 U~~	~~0.36 U~~	~~0.37 U~~	~~1.9 U~~	~~3.5 U~~	~~0.34 U~~	~~0.34 U~~	~~7.0 U~~
3,3'-Dichlorobenzidine	NA	NA	NA	NA	NA	0.74 U	0.69 U	0.71 U	0.69 U	0.85 U	0.71 U	0.79 U	0.69 U	0.77 U	0.76 U	~~0.38 U~~	~~0.36 U~~	~~0.37 U~~	~~1.9 U~~	~~3.5 U~~	~~0.34 U~~	~~0.34 U~~	~~7.0 U~~
3-Nitroaniline	NA	NA	NA	NA	NA	0.74 U	0.69 U	0.71 U	0.69 U	0.85 U	0.71 U	0.79 U	0.69 U	0.77 U	0.76 U	~~0.38 U~~	~~0.36 U~~	~~0.37 U~~	~~1.9 U~~	~~3.5 U~~	~~0.34 U~~	~~0.34 U~~	~~7.0 U~~
4,6-Dinitro-2-methylphenol	NA	NA	NA	NA	NA	1.1 U	1.0 U	1.1 U	1.0 U	1.3 U	1.1 U	1.2 U	1.0 U	1.2 U	1.1 U	~~0.77 U~~	~~0.72 U~~	~~0.75 U~~	~~3.8 U~~	~~7.1 U~~	~~0.69 U~~	~~0.69 U~~	~~14 U~~
4-Bromophenyl phenyl ether	NA	NA	NA	NA	NA	0.36 U	0.34 U	0.35 U	0.34 U	0.42 U	0.35 U	0.39 U	0.34 U	0.38 U	0.38 U	~~0.38 U~~	~~0.36 U~~	~~0.37 U~~	~~1.9 U~~	~~3.5 U~~	~~0.34 U~~	~~0.34 U~~	~~7.0 U~~
4-Chloro-3-methylphenol	NA	NA	NA	NA	NA	0.36 U	0.34 U	0.35 U	0.34 U	0.42 U	0.35 U	0.39 U	0.34 U	0.38 U	0.38 U	~~0.38 U~~	~~0.36 U~~	~~0.37 U~~	~~1.9 U~~	~~3.5 U~~	~~0.34 U~~	~~0.34 U~~	~~7.0 U~~
4-Chloroaniline	NA	NA	NA	NA	NA	0.36 U	0.34 U	0.35 U	0.34 U	0.42 U	0.35 U	0.39 U	0.34 U	0.38 U	0.38 U	~~0.38 U~~	~~0.36 U~~	~~0.37 U~~	~~1.9 U~~	~~3.5 U~~	~~0.34 U~~	~~0.34 U~~	~~7.0 U~~
4-Chlorophenyl phenyl ether	NA	NA	NA	NA	NA	0.36 U	0.34 U	0.35 U	0.34 U	0.42 U	0.35 U	0.39 U	0.34 U	0.38 U	0.38 U	~~0.38 U~~	~~0.36 U~~	~~0.37 U~~	~~1.9 U~~	~~3.5 U~~	~~0.34 U~~	~~0.34 U~~	~~7.0 U~~
4-Methylphenol	0.33	34	100	500	0.33	0.36 U	0.34 U	0.35 U	0.34 U	0.42 U	0.35 U	0.39 U	0.34 U	0.38 U	0.38 U	~~0.38 U~~	~~0.36 U~~	~~0.37 U~~	~~1.9 U~~	~~3.5 U~~	~~0.34 U~~	~~0.34 U~~	~~7.0 U~~
4-Nitroaniline	NA	NA	NA	NA	NA	0.74 U	0.69 U	0.71 U	0.69 U	0.85 U	0.71 U	0.79 U	0.69 U	0.77 U	0.76 U	~~0.77 U~~	~~0.72 U~~	~~0.75 U~~	~~3.8 U~~	~~7.1 U~~	~~0.69 U~~	~~0.69 U~~	~~14 U~~
4-Nitrophenol	NA	NA	NA	NA	NA	1.1 U	1.0 U	1.1 U	1.0 U	1.3 U	1.1 U	1.2 U	1.0 U	1.2 U	1.1 U	~~0.38 U~~	~~0.36 U~~	~~0.37 U~~	~~1.9 U~~	~~3.5 U~~	~~0.34 U~~	~~0.34 U~~	~~7.0 U~~
Acenaphthene	20	100	100	500	98	0.36 U	0.34 U	0.35 U	0.34 U	0.42 U	0.35 U	0.39 U	0.34 U	0.44	0.38 U	~~0.38 U~~	~~0.36 U~~	~~0.37 U~~	~~1.2 J~~	~~2.2 J~~	~~0.34 U~~	~~0.34 U~~	~~9.4~~
Acenaphthylene	100	100	100	500	107	0.36 U	0.34 U	0.35 U	0.34 U	0.42 U	0.35 U	0.39 U	0.34 U	0.38 U	0.38 U	~~0.38 U~~	~~0.36 U~~	~~0.37 U~~	~~1.9 U~~	~~3.5 U~~	~~0.34 U~~	~~0.34 U~~	~~7.0 U~~
Acetophenone	NA	NA	NA	NA	NA	0.36 U	0.34 U	0.35 U	0.34 U	0.42 U	0.35 U	0.39 U	0.34 U	0.38 U	0.38 U	~~0.38 U~~	~~0.36 U~~	~~0.37 U~~	~~1.9 U~~	~~3.5 U~~	~~0.34 U~~	~~0.34 U~~	~~7.0 U~~
Anthracene	100	100	100	500	1,000	0.36 U	0.34 U	0.35 U	0.34 U	0.42 U	0.35 U	0.11 J	0.34 U	0.83	0.38 U	~~0.38 U~~	~~0.087 J~~	~~0.37 U~~	~~3.1~~	~~6.9~~	~~0.34 U~~	~~0.34 U~~	~~24~~
Atrazine	NA	NA	NA	NA	NA	0.36 U	0.34 U	0.35 U	0.34 U	0.42 U	0.35 U	0.39 U	0.34 U	0.38 U	0.38 U	~~0.38 U~~	~~0.36 U~~	~~0.37 U~~	~~1.9 U~~	~~3.5 U~~	~~0.34 U~~	~~0.34 U~~	~~7.0 U~~
Benzaldehyde	NA	NA	NA	NA	NA	0.36 U	0.34 U	0.35 U	0.34 U	0.42 U	0.35 U	0.39 U	0.34 U	0.38 U	0.38 U	~~0.38 U~~	~~0.36 U~~	~~0.37 U~~	~~1.9 U~~	~~3.5 U~~	~~0.34 U~~	~~0.34 U~~	~~7.0 U~~
Benzo[a]anthracene	1	1	1	5.6	1	0.036 U	0.034 U	0.074	0.065	0.042 U	0.14	0.25	0.034 U	*1.3*	0.091	~~0.038 U~~	~~0.59~~	~~0.037 U~~	**~~9.8~~**	**~~20~~**	~~0.034 U~~	~~0.034 U~~	**~~60~~**
Benzo[a]pyrene	1	1	1	1	22	0.036	0.034 U	0.070	0.062	0.042 U	0.16	0.26	0.034 U	*1.1*	0.080	~~0.038 U~~	~~0.66~~	~~0.037 U~~	**~~9.4~~**	**~~20~~**	~~0.024 J~~	~~0.034 U~~	**~~56~~**
Benzo[b]fluoranthene	1	1	1	5.6	1.7	0.039	0.034 U	0.099	0.091	0.042 U	0.19	0.31	0.034 U	*1.6*	0.11	~~0.038 U~~	~~0.79~~	~~0.037 U~~	**~~11~~**	**~~22~~**	~~0.033 J~~	~~0.034 U~~	**~~65~~**
Benzo[g,h,i]perylene	100	100	100	500	1,000	0.36 U	0.34 U	0.048 J	0.040 J	0.42 U	0.076 J	0.13 J	0.34 U	0.52	0.038 J	~~0.38 U~~	~~0.46~~	~~0.37 U~~	~~5.5~~	~~9.1~~	~~0.34 U~~	~~0.34 U~~	~~21~~
Benzo[k]fluoranthene	0.8	1	3.9	56	1.7	0.017 J	0.034 U	0.044	0.038	0.042 U	0.083	0.14	0.034 U	0.64	0.038	~~0.038 U~~	~~0.29~~	~~0.037 U~~	**~~4.5~~**	**~~9.3~~**	~~0.010 J~~	~~0.034 U~~	**~~27~~**
Bis(2-chloroethoxy)methane	NA	NA	NA	NA	NA	0.36 U	0.34 U	0.35 U	0.34 U	0.42 U	0.35 U	0.39 U	0.34 U	0.38 U	0.38 U	~~0.38 U~~	~~0.36 U~~	~~0.37 U~~	~~1.9 U~~	~~3.5 U~~	~~0.34 U~~	~~0.34 U~~	~~7.0 U~~
Bis(2-chloroethyl)ether	NA	NA	NA	NA	NA	0.036 U	0.034 U	0.035 U	0.034 U	0.042 U	0.035 U	0.039 U	0.034 U	0.038 U	0.038 U	~~0.038 U~~	~~0.036 U~~	~~0.037 U~~	~~0.19 U~~	~~0.35 U~~	~~0.034 U~~	~~0.034 U~~	~~0.70 U~~
Bis(2-ethylhexyl) phthalate	NA	NA	NA	NA	NA	0.36 U	0.34 U	0.35 U	0.34 U	0.42 U	0.35 U	0.39 U	0.34 U	0.38 U	0.38 U	~~0.38 U~~	~~0.36 U~~	~~0.37 U~~	~~1.9 U~~	~~3.5 U~~	~~0.34 U~~	~~0.34 U~~	~~7.0 U~~
Butyl benzyl phthalate	NA	NA	NA	NA	NA	0.36 U	0.34 U	0.35 U	0.34 U	0.42 U	0.35 U	0.39 U	0.34 U	0.38 U	0.38 U	~~0.38 U~~	~~0.36 U~~	~~0.37 U~~	~~1.9 U~~	~~3.5 U~~	~~0.34 U~~	~~0.34 U~~	~~7.0 U~~
Caprolactam	NA	NA	NA	NA	NA	0.36 U	0.34 U	0.35 U	0.34 U	0.42 U	0.35 U	0.39 U	0.34 U	0.38 U	0.38 U	~~0.38 U~~	~~0.36 U~~	~~0.37 U~~	~~1.9 U~~	~~3.5 U~~	~~0.34 U~~	~~0.34 U~~	~~7.0 U~~
Carbazole	NA	NA	NA	NA	NA	0.36 U	0.34 U	0.35 U	0.34 U	0.42 U	0.35 U	0.39 U	0.34 U	0.29 J	0.38 U	~~0.38 U~~	~~0.36 U~~	~~0.37 U~~	~~0.93 J~~	~~1.6 J~~	~~0.34 U~~	~~0.34 U~~	~~7.1~~
Chrysene	1	1	3.9	56	1	0.36 U	0.34 U	0.077 J	0.070 J	0.42 U	0.14 J	0.32 J	0.34 U	*1.4*	0.11 J	~~0.38 U~~	~~0.59~~	~~0.37 U~~	**~~10~~**	**~~21~~**	~~0.34 U~~	~~0.34 U~~	**~~59~~**
Dibenz(a,h)anthracene	0.33	0.33	0.33	0.56	1,000	0.036 U	0.034 U	0.0057 J	0.034 U	0.042 U	0.016 J	0.039 U	0.034 U	0.21	0.038 U	~~0.038 U~~	~~0.13~~	~~0.037 U~~	**~~1.4~~**	**~~2.9~~**	~~0.034 U~~	~~0.034 U~~	**~~6.3~~**
Dibenzofuran	7	14	59	350	210	0.36 U	0.34 U	0.35 U	0.34 U	0.42 U	0.35 U	0.39 U	0.34 U	0.25 J	0.38 U	~~0.38 U~~	~~0.36 U~~	~~0.37 U~~	~~0.58 J~~	~~0.93 J~~	~~0.34 U~~	~~0.34 U~~	~~5.0 J~~
Diethyl phthalate	NA	NA	NA	NA	NA	0.36 U	0.34 U	0.35 U	0.34 U	0.42 U	0.35 U	0.39 U	0.34 U	0.38 U	0.38 U	~~0.38 U~~	~~0.36 U~~	~~0.37 U~~	~~1.9 U~~	~~3.5 U~~	~~0.34 U~~	~~0.34 U~~	~~7.0 U~~
Dimethyl phthalate	NA	NA	NA	NA	NA	0.36 U	0.34 U	0.35 U	0.34 U	0.42 U	0.35 U	0.39 U	0.34 U	0.38 U	0.38 U	~~0.38 U~~	~~0.36 U~~	~~0.37 U~~	~~1.9 U~~	~~3.5 U~~	~~0.34 U~~	~~0.34 U~~	~~7.0 U~~
Di-n-butyl phthalate	NA	NA	NA	NA	NA	0.36 U	0.34 U	0.35 U	0.34 U	0.42 U	0.35 U	0.39 U	0.34 U	0.38 U	0.38 U	~~0.38 U~~	~~0.36 U~~	~~0.37 U~~	~~1.9 U~~	~~3.5 U~~	~~0.34 U~~	~~0.34 U~~	~~7.0 U~~
Di-n-octyl phthalate	NA	NA	NA	NA	NA	0.36 U	0.34 U	0.35 U	0.34 U	0.42 U	0.35 U	0.39 U	0.34 U	0.38 U	0.38 U	~~0.38 U~~	~~0.36 U~~	~~0.37 U~~	~~1.9 U~~	~~3.5 U~~	~~0.34 U~~	~~0.34 U~~	~~7.0 U~~
Diphenyl	NA	NA	NA	NA	NA	0.36 U	0.34 U	0.35 U	0.34 U	0.42 U	0.35 U	0.39 U	0.34 U	0.38 U	0.38 U	~~0.38 U~~	~~0.36 U~~	~~0.37 U~~	~~1.9 U~~	~~3.5 U~~	~~0.34 U~~	~~0.34 U~~	~~7.0 U~~
Fluoranthene	100	100	100	500	1,000	0.094 J	0.34 U	0.14 J	0.13 J	0.42 U	0.30 J	0.63	0.34 U	2.6	0.15 J	~~0.38 U~~	~~0.92~~	~~0.37 U~~	~~18~~	~~38~~	~~0.048 J~~	~~0.34 U~~	**~~130~~**
Fluorene	30	100	100	500	386	0.36 U	0.34 U	0.35 U	0.34 U	0.42 U	0.35 U	0.39 U	0.34 U	0.43	0.38 U	~~0.38 U~~	~~0.36 U~~	~~0.37 U~~	~~1.1 J~~	~~2.5 J~~	~~0.34 U~~	~~0.34 U~~	~~9.7~~
Hexachlorobenzene	0.33	0.33	1.2	6	3.2	0.036 U	0.034 U	0.035 U	0.034 U	0.042 U	0.035 U	0.039 U	0.034 U	0.038 U	0.038 U	~~0.038 U~~	~~0.036 U~~	~~0.037 U~~	~~0.19 U~~	~~0.35 U~~	~~0.034 U~~	~~0.034 U~~	~~0.70 U~~
Hexachlorobutadiene	NA	NA	NA	NA	NA	0.074 U	0.069 U	0.071 U	0.069 U	0.085 U	0.071 U	0.079 U	0.069 U	0.077 U	0.076 U	~~0.077 U~~	~~0.072 U~~	~~0.075 U~~	~~0.38 U~~	~~0.71 U~~	~~0.069 U~~	~~0.069 U~~	~~1.4 U~~
Hexachlorocyclopentadiene	NA	NA	NA	NA	NA	0.36 U	0.34 U	0.35 U	0.34 U	0.42 U	0.35 U	0.39 U	0.34 U	0.38 U	0.38 U	~~0.38 U~~	~~0.36 U~~	~~0.37 U~~	~~1.9 U~~	~~3.5 U~~	~~0.34 U~~	~~0.34 U~~	~~7.0 U~~
Hexachloroethane	NA	NA	NA	NA	NA	0.036 U	0.034 U	0.035 U	0.034 U	0.042 U	0.035 U	0.039 U	0.034 U	0.038 U	0.038 U	~~0.038 U~~	~~0.036 U~~	~~0.037 U~~	~~0.19 U~~	~~0.35 U~~	~~0.034 U~~	~~0.034 U~~	~~0.70 U~~
Indeno[1,2,3-cd]pyrene	0.5	0.5	0.5	5.6	8.2	0.036 U	0.034 U	0.063	0.060	0.042 U	0.10	0.13	0.034 U	*0.71*	0.039	~~0.038 U~~	**~~0.53~~**	~~0.037 U~~	**~~6.6~~**	**~~11~~**	~~0.018 J~~	~~0.034 U~~	~~28~~
Isophorone	NA	NA	NA	NA	NA	0.36 U	0.34 U	0.35 U	0.34 U	0.42 U	0.35 U	0.39 U	0.34 U	0.38 U	0.38 U	~~0.38 U~~	~~0.36 U~~	~~0.37 U~~	~~1.9 U~~	~~3.5 U~~	~~0.34 U~~	~~0.34 U~~	~~7.0 U~~
Naphthalene	12	100	100	500	12	0.36 U	0.34 U	0.35 U	0.34 U	0.42 U	0.35 U	0.39 U	0.34 U	0.28 J	0.38 U	~~0.38 U~~	~~0.36 U~~	~~0.37 U~~	~~0.53 J~~	~~0.41 J~~	~~0.34 U~~	~~0.34 U~~	~~4.7 J~~
Nitrobenzene	NA	NA	NA	NA	NA	0.036 U	0.034 U	0.035 U	0.034 U	0.042 U	0.035 U	0.039 U	0.034 U	0.038 U	0.038 U	~~0.038 U~~	~~0.036 U~~	~~0.037 U~~	~~0.19 U~~	~~0.35 U~~	~~0.034 U~~	~~0.034 U~~	~~0.70 U~~
N-Nitrosodi-n-propylamine	NA	NA	NA	NA	NA	0.036 U	0.034 U	0.035 U	0.034 U	0.042 U	0.035 U	0.039 U	0.034 U	0.038 U	0.038 U	~~0.038 U~~	~~0.036 U~~	~~0.037 U~~	~~0.19 U~~	~~0.35 U~~	~~0.034 U~~	~~0.034 U~~	~~0.70 U~~
N-Nitrosodiphenylamine	NA	NA	NA	NA	NA	0.36 U	0.34 U	0.35 U	0.34 U	0.42 U	0.35 U	0.39 U	0.34 U	0.38 U	0.38 U	~~0.38 U~~	~~0.36 U~~	~~0.37 U~~	~~1.9 U~~	~~3.5 U~~	~~0.34 U~~	~~0.34 U~~	~~7.0 U~~
Pentachlorophenol	0.8	2.4	6.7	6.7	0.8	1.1 U	1.0 U	1.1 U	1.0 U	1.3 U	1.1 U	1.2 U	1.0 U	1.2 U	1.1 U	~~0.77 U~~	~~0.72 U~~	~~0.75 U~~	~~3.8 U~~	~~7.1 U~~	~~0.69 U~~	~~0.69 U~~	~~14 U~~
Phenanthrene	100	100	100	500	1,000	0.050 J	0.34 U	0.069 J	0.068 J	0.42 U	0.17 J	0.59	0.34 U	2.8	0.11 J	~~0.38 U~~	~~0.59~~	~~0.37 U~~	~~15~~	~~33~~	~~0.34 U~~	~~0.34 U~~	**~~110~~**
Phenol	0.33	100	100	500	0.33	0.36 U	0.34 U	0.35 U	0.34 U	0.42 U	0.35 U	0.39 U	0.34 U	0.38 U	0.38 U	~~0.38 U~~	~~0.36 U~~	~~0.37 U~~	~~1.9 U~~	~~3.5 U~~	~~0.34 U~~	~~0.34 U~~	~~7.0 U~~
Pyrene	100	100	100	500	1,000	0.075 J	0.34 U	0.13 J	0.11 J	0.42 U	0.24 J	0.78	0.34 U	2.7	0.25 J	~~0.38 U~~	~~1.1~~	~~0.37 U~~	~~20~~	~~39~~	~~0.055 J~~	~~0.34 U~~	**~~100~~**
Pyridine	NA	NA	NA	NA	NA	0.36 U	0.34 U	0.35 U	0.34 U	0.42 U	0.35 U	0.39 U	0.34 U	0.38 U	0.38 U	~~0.38 U~~	~~0.36 U~~	~~0.37 U~~	~~1.9 U~~	~~3.5 U~~	~~0.34 U~~	~~0.34 U~~	~~7.0 U~~
Total SVOC TICs	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	1.543	ND	~~ND~~	~~0.41~~	~~ND~~	~~24.7~~	~~36.9~~	~~ND~~	~~ND~~	~~141.6~~

Notes
ND: TIC not detected
D : The reported value is from a dilution.
J : Indicates an estimated value.
J N : Indicates an estimated value.
U : Analyzed for but not detected.
Highlighted / bolded indicates analyte exceeded above its respective NYSDEC Unrestricted SCO.
Green / italicized value indicates analyte exceeded its respective unrestricted SCO but was below its respective Residential / Protection of GW SCO, whichever is lower.
Blue / italicized value indicates analyte exceeded its respective Residential SCO and / or Protection of Groundwater SCO but was below its Restricted Residential SCO.

Table 5-61
TCL SVOCs Soil Analytical Data
C6-13 Original Sample Location - Post Excavation Data

	NYSDEC SCOs					Post-excavation End-point Soil Analytical Data														
						Bottom Samples												Supplemental Bottom Samples		
TCL SVOCs (mg/kg)	NYSDEC Unrestricted SCO	Residential	Restricted Residential	Commercial	Protection of Groundwater	C6-EP#20 (6.5')	C6-EP#21 (6.5')	C6-EP#22 (6.5')	C6-EP#38 (6.5')	C6-EP#39 (6.5')	C6-EP#40 (6.5')	C6-EP#41 (6.5')	C6-EP#42 (6.5')	C6-EP#42 BD (20')	C6-EP#43 (6.5')	C6-EP#44 (6.5')	C6-EP#45 (6.5')	C6-EP# 53 (8.5')	C6-EP# 54 (8.5')	C6-EP# 55 (8.5')
1,2,4,5-Tetrachlorobenzene	NA	NA	NA	NA	NA	0.37 U	0.37 U	0.38 U	0.38 U	0.40 U	0.38 U	0.42 U	0.41 U	0.40 U	3.9 U	0.41 U	0.39 U	1.0 U	0.42 U	0.40 U
1,4-Dioxane	0.1	9.8	13	130	0.1	0.37 U	0.37 U	0.38 U	0.38 U	0.40 U	0.38 U	0.42 U	0.41 U	0.40 U	3.9 U	0.41 U	0.39 U	1.0 U	0.42 U	0.40 U
2,2'-oxybis[1-chloropropane]	NA	NA	NA	NA	NA	0.37 U	0.37 U	0.38 U	0.38 U	0.40 U	0.38 U	0.42 U	0.41 U	0.40 U	3.9 U	0.41 U	0.39 U	1.0 U	0.42 U	0.40 U
2,3,4,6-Tetrachlorophenol	NA	NA	NA	NA	NA	0.37 U	0.37 U	0.38 U	0.38 U	0.40 U	0.38 U	0.42 U	0.41 U	0.40 U	3.9 U	0.41 U	0.39 U	1.0 U	0.42 U	0.40 U
2,4,5-Trichlorophenol	NA	NA	NA	NA	NA	0.37 U	0.37 U	0.38 U	0.38 U	0.40 U	0.38 U	0.42 U	0.41 U	0.40 U	3.9 U	0.41 U	0.39 U	1.0 U	0.42 U	0.40 U
2,4,6-Trichlorophenol	NA	NA	NA	NA	NA	0.37 U	0.37 U	0.38 U	0.38 U	0.40 U	0.38 U	0.42 U	0.41 U	0.40 U	3.9 U	0.41 U	0.39 U	1.0 U	0.42 U	0.40 U
2,4-Dichlorophenol	NA	NA	NA	NA	NA	0.37 U	0.37 U	0.38 U	0.38 U	0.40 U	0.38 U	0.42 U	0.41 U	0.40 U	3.9 U	0.41 U	0.39 U	1.0 U	0.42 U	0.40 U
2,4-Dimethylphenol	NA	NA	NA	NA	NA	0.37 U	0.37 U	0.38 U	0.38 U	0.40 U	0.38 U	0.42 U	0.41 U	0.40 U	3.9 U	0.41 U	0.39 U	1.0 U	0.42 U	0.40 U
2,4-Dinitrophenol	NA	NA	NA	NA	NA	1.1 U	1.1 U	1.2 U	1.2 U	1.2 U	1.1 U	1.3 U	1.2 U	1.2 U	12 U	1.3 U	1.2 U	3.0 U	1.3 U	1.2 U
2,4-Dinitrotoluene	NA	NA	NA	NA	NA	0.076 U	0.075 U	0.077 U	0.078 U	0.081 U	0.077 U	0.086 U	0.083 U	0.082 U	0.79 U	0.084 U	0.078 U	0.20 U	0.085 U	0.081 U
2,6-Dinitrotoluene	NA	NA	NA	NA	NA	0.076 U	0.075 U	0.077 U	0.078 U	0.081 U	0.077 U	0.086 U	0.083 U	0.082 U	0.79 U	0.084 U	0.078 U	0.20 U	0.085 U	0.081 U
2-Chloronaphthalene	NA	NA	NA	NA	NA	0.37 U	0.37 U	0.38 U	0.38 U	0.40 U	0.38 U	0.42 U	0.41 U	0.40 U	3.9 U	0.41 U	0.39 U	1.0 U	0.42 U	0.40 U
2-Chlorophenol	NA	NA	NA	NA	NA	0.37 U	0.37 U	0.38 U	0.38 U	0.40 U	0.38 U	0.42 U	0.41 U	0.40 U	3.9 U	0.41 U	0.39 U	1.0 U	0.42 U	0.40 U
2-Methylnaphthalene	NA	NA	NA	NA	NA	0.37 U	0.37 U	0.38 U	0.38 U	0.40 U	0.38 U	0.42 U	0.41 U	0.40 U	1.2 J	0.41 U	0.39 U	1.0 U	0.42 U	0.40 U
2-Methylphenol	0.33	100	100	500	0.33	0.37 U	0.37 U	0.38 U	0.38 U	0.40 U	0.38 U	0.42 U	0.41 U	0.40 U	3.9 U	0.41 U	0.39 U	1.0 U	0.42 U	0.40 U
2-Nitroaniline	NA	NA	NA	NA	NA	0.76 U	0.75 U	0.77 U	0.78 U	0.81 U	0.77 U	0.86 U	0.83 U	0.82 U	7.9 U	0.84 U	0.78 U	2.0 U	0.85 U	0.81 U
2-Nitrophenol	NA	NA	NA	NA	NA	0.37 U	0.37 U	0.38 U	0.38 U	0.40 U	0.38 U	0.42 U	0.41 U	0.40 U	3.9 U	0.41 U	0.39 U	1.0 U	0.42 U	0.40 U
3,3'-Dichlorobenzidine	NA	NA	NA	NA	NA	0.76 U	0.75 U	0.77 U	0.78 U	0.81 U	0.77 U	0.86 U	0.83 U	0.82 U	7.9 U	0.84 U	0.78 U	2.0 U	0.85 U	0.81 U
3-Nitroaniline	NA	NA	NA	NA	NA	0.76 U	0.75 U	0.77 U	0.78 U	0.81 U	0.77 U	0.86 U	0.83 U	0.82 U	7.9 U	0.84 U	0.78 U	2.0 U	0.85 U	0.81 U
4,6-Dinitro-2-methylphenol	NA	NA	NA	NA	NA	1.1 U	1.1 U	1.2 U	1.2 U	1.2 U	1.1 U	1.3 U	1.2 U	1.2 U	12 U	1.3 U	1.2 U	3.0 U	1.3 U	1.2 U
4-Bromophenyl phenyl ether	NA	NA	NA	NA	NA	0.37 U	0.37 U	0.38 U	0.38 U	0.40 U	0.38 U	0.42 U	0.41 U	0.40 U	3.9 U	0.41 U	0.39 U	1.0 U	0.42 U	0.40 U
4-Chloro-3-methylphenol	NA	NA	NA	NA	NA	0.37 U	0.37 U	0.38 U	0.38 U	0.40 U	0.38 U	0.42 U	0.41 U	0.40 U	3.9 U	0.41 U	0.39 U	1.0 U	0.42 U	0.40 U
4-Chloroaniline	NA	NA	NA	NA	NA	0.37 U	0.37 U	0.38 U	0.38 U	0.40 U	0.38 U	0.42 U	0.41 U	0.40 U	3.9 U	0.41 U	0.39 U	1.0 U	0.42 U	0.40 U
4-Chlorophenyl phenyl ether	NA	NA	NA	NA	NA	0.37 U	0.37 U	0.38 U	0.38 U	0.40 U	0.38 U	0.42 U	0.41 U	0.40 U	3.9 U	0.41 U	0.39 U	1.0 U	0.42 U	0.40 U
4-Methylphenol	0.33	34	100	500	0.33	0.37 U	0.37 U	0.38 U	0.38 U	0.40 U	0.38 U	0.42 U	0.41 U	0.40 U	3.9 U	0.41 U	0.39 U	1.0 U	0.42 U	0.40 U
4-Nitroaniline	NA	NA	NA	NA	NA	0.76 U	0.75 U	0.77 U	0.78 U	0.81 U	0.77 U	0.86 U	0.83 U	0.82 U	7.9 U	0.84 U	0.78 U	2.0 U	0.85 U	0.81 U
4-Nitrophenol	NA	NA	NA	NA	NA	1.1 U	1.1 U	1.2 U	1.2 U	1.2 U	1.1 U	1.3 U	1.2 U	1.2 U	12 U	1.3 U	1.2 U	3.0 U	1.3 U	1.2 U
Acenaphthene	20	100	100	500	98	0.37 U	0.37 U	0.38 U	0.38 U	0.40 U	0.38 U	0.42 U	0.41 U	0.40 U	5.9	0.41 U	0.39 U	1.0 U	0.42 U	0.40 U
Acenaphthylene	100	100	100	500	107	0.37 U	0.37 U	0.38 U	0.38 U	0.40 U	0.38 U	0.42 U	0.41 U	0.40 U	3.9 U	0.41 U	0.39 U	1.0 U	0.42 U	0.40 U
Acetophenone	NA	NA	NA	NA	NA	0.37 U	0.37 U	0.38 U	0.38 U	0.40 U	0.38 U	0.42 U	0.41 U	0.40 U	3.9 U	0.41 U	0.39 U	1.0 U	0.42 U	0.40 U
Anthracene	100	100	100	500	1,000	0.37 U	0.37 U	0.38 U	0.38 U	0.40 U	0.38 U	0.42 U	0.41 U	0.40 U	12	0.077 J	0.39 U	1.0 U	0.42 U	0.40 U
Atrazine	NA	NA	NA	NA	NA	0.37 U	0.37 U	0.38 U	0.38 U	0.40 U	0.38 U	0.42 U	0.41 U	0.40 U	3.9 U	0.41 U	0.39 U	1.0 U	0.42 U	0.40 U
Benzaldehyde	NA	NA	NA	NA	NA	0.37 U	0.37 U	0.38 U	0.38 U	0.40 U	0.38 U	0.42 U	0.41 U	0.40 U	3.9 U	0.41 U	0.39 U	1.0 U	0.42 U	0.40 U
Benzo[a]anthracene	1	1	1	5.6	1	0.053	0.037 U	0.038 U	0.038 U	0.040 U	0.038 U	0.042 U	0.041 U	0.040 U	23	0.29	0.039 U	0.10	0.042 U	0.040 U
Benzo[a]pyrene	1	1	1	1	22	0.041	0.037 U	0.0082 J	0.038 U	0.040 U	0.038 U	0.042 U	0.041 U	0.040 U	22	0.33	0.039 U	0.092 J	0.042 U	0.040 U
Benzo[b]fluoranthene	1	1	1	5.6	1.7	0.049	0.037 U	0.010 J	0.038 U	0.040 U	0.038 U	0.042 U	0.041 U	0.040 U	28	0.42	0.024 J	0.098 J	0.042 U	0.040 U
Benzo[g,h,i]perylene	100	100	100	500	1,000	0.37 U	0.37 U	0.38 U	0.38 U	0.40 U	0.38 U	0.42 U	0.41 U	0.40 U	15	0.16 J	0.39 U	0.081 J	0.42 U	0.40 U
Benzo[k]fluoranthene	0.8	1	3.9	56	1.7	0.019 J	0.037 U	0.038 U	0.038 U	0.040 U	0.038 U	0.042 U	0.041 U	0.040 U	11	0.15	0.039 U	0.041 J	0.042 U	0.040 U
Bis(2-chloroethoxy)methane	NA	NA	NA	NA	NA	0.37 U	0.37 U	0.38 U	0.38 U	0.40 U	0.38 U	0.42 U	0.41 U	0.40 U	3.9 U	0.41 U	0.39 U	1.0 U	0.42 U	0.40 U
Bis(2-chloroethyl)ether	NA	NA	NA	NA	NA	0.037 U	0.037 U	0.038 U	0.038 U	0.040 U	0.038 U	0.042 U	0.041 U	0.040 U	0.39 U	0.041 U	0.039 U	0.10 U	0.042 U	0.040 U
Bis(2-ethylhexyl) phthalate	NA	NA	NA	NA	NA	0.37 U	0.37 U	0.38 U	0.38 U	0.40 U	0.38 U	0.42 U	0.41 U	0.40 U	3.9 U	0.41 U	0.39 U	1.0 U	0.42 U	0.40 U
Butyl benzyl phthalate	NA	NA	NA	NA	NA	0.37 U	0.37 U	0.38 U	0.38 U	0.40 U	0.38 U	0.42 U	0.41 U	0.40 U	3.9 U	0.41 U	0.39 U	1.0 U	0.42 U	0.40 U
Caprolactam	NA	NA	NA	NA	NA	0.37 U	0.37 U	0.38 U	0.38 U	0.40 U	0.38 U	0.42 U	0.41 U	0.40 U	3.9 U	0.41 U	0.39 U	1.0 U	0.42 U	0.40 U
Carbazole	NA	NA	NA	NA	NA	0.37 U	0.37 U	0.38 U	0.38 U	0.40 U	0.38 U	0.42 U	0.41 U	0.40 U	4.6	0.41 U	0.39 U	1.0 U	0.42 U	0.40 U
Chrysene	1	1	3.9	56	1	0.044 J	0.037 U	0.038 U	0.038 U	0.040 U	0.038 U	0.042 U	0.041 U	0.040 U	23	0.29 J	0.039 U	1.0 U	0.042 U	0.040 U
Dibenz(a,h)anthracene	0.33	0.33	0.33	0.56	1,000	0.037 U	0.037 U	0.038 U	0.038 U	0.040 U	0.038 U	0.042 U	0.041 U	0.040 U	3.1	0.053	0.039 U	0.10 U	0.042 U	0.040 U
Dibenzofuran	7	14	59	350	210	0.37 U	0.37 U	0.38 U	0.38 U	0.40 U	0.38 U	0.42 U	0.41 U	0.40 U	3.4 J	0.41 U	0.39 U	1.0 U	0.42 U	0.40 U
Diethyl phthalate	NA	NA	NA	NA	NA	0.37 U	0.37 U	0.38 U	0.12 J B	0.11 J B	0.10 J B	0.25 J B	0.10 J B	0.40 U	6.2 J B	0.41 J B	0.36 J B	1.0 U	0.42 U	0.40 U
Dimethyl phthalate	NA	NA	NA	NA	NA	0.37 U	0.37 U	0.38 U	0.38 U	0.40 U	0.38 U	0.42 U	0.41 U	0.40 U	3.9 U	0.41 U	0.39 U	1.0 U	0.42 U	0.40 U
Di-n-butyl phthalate	NA	NA	NA	NA	NA	0.37 U	0.37 U	0.38 U	0.38 U	0.40 U	0.38 U	0.42 U	0.41 U	0.40 U	3.9 U	0.41 U	0.39 U	1.0 U	0.42 U	0.40 U
Di-n-octyl phthalate	NA	NA	NA	NA	NA	0.37 U	0.37 U	0.38 U	0.38 U	0.40 U	0.38 U	0.42 U	0.41 U	0.40 U	3.9 U	0.41 U	0.39 U	1.0 U	0.42 U	0.40 U
Diphenyl	NA	NA	NA	NA	NA	0.37 U	0.37 U	0.38 U	0.38 U	0.40 U	0.38 U	0.42 U	0.41 U	0.40 U	3.9 U	0.41 U	0.39 U	1.0 U	0.42 U	0.40 U
Fluoranthene	100	100	100	500	1,000	0.10 J	0.37 U	0.38 U	0.38 U	0.40 U	0.38 U	0.42 U	0.41 U	0.40 U	61	0.65	0.39 U	0.16 J	0.42 U	0.40 U
Fluorene	30	100	100	500	386	0.37 U	0.37 U	0.38 U	0.38 U	0.40 U	0.38 U	0.42 U	0.41 U	0.40 U	5.3	0.41 U	0.39 U	1.0 U	0.42 U	0.40 U
Hexachlorobenzene	0.33	0.33	1.2	6	3.2	0.037 U	0.037 U	0.038 U	0.038 U	0.040 U	0.038 U	0.042 U	0.041 U	0.040 U	0.39 U	0.041 U	0.039 U	0.10 U	0.042 U	0.040 U
Hexachlorobutadiene	NA	NA	NA	NA	NA	0.076 U	0.075 U	0.077 U	0.078 U	0.081 U	0.077 U	0.086 U	0.083 U	0.082 U	0.79 U	0.084 U	0.078 U	0.20 U	0.085 U	0.081 U
Hexachlorocyclopentadiene	NA	NA	NA	NA	NA	0.37 U	0.37 U	0.38 U	0.38 U	0.40 U	0.38 U	0.42 U	0.41 U	0.40 U	3.9 U	0.41 U	0.39 U	1.0 U	0.42 U	0.40 U
Hexachloroethane	NA	NA	NA	NA	NA	0.037 U	0.037 U	0.038 U	0.038 U	0.040 U	0.038 U	0.042 U	0.041 U	0.040 U	0.39 U	0.041 U	0.039 U	0.10 U	0.042 U	0.040 U
Indeno[1,2,3-cd]pyrene	0.5	0.5	0.5	5.6	8.2	0.037 U	0.037 U	0.038 U	0.038 U	0.040 U	0.038 U	0.042 U	0.041 U	0.040 U	16	0.19	0.039 U	0.12	0.042 U	0.040 U
Isophorone	NA	NA	NA	NA	NA	0.37 U	0.37 U	0.38 U	0.38 U	0.40 U	0.38 U	0.42 U	0.41 U	0.40 U	3.9 U	0.41 U	0.39 U	1.0 U	0.42 U	0.40 U
Naphthalene	12	100	100	500	12	0.37 U	0.37 U	0.38 U	0.38 U	0.40 U	0.38 U	0.42 U	0.41 U	0.40 U	2.8 J	0.41 U	0.39 U	1.0 U	0.42 U	0.40 U
Nitrobenzene	NA	NA	NA	NA	NA	0.037 U	0.037 U	0.038 U	0.038 U	0.040 U	0.038 U	0.042 U	0.041 U	0.040 U	0.39 U	0.041 U	0.039 U	0.10 U	0.042 U	0.040 U
N-Nitrosodi-n-propylamine	NA	NA	NA	NA	NA	0.037 U	0.037 U	0.038 U	0.038 U	0.040 U	0.038 U	0.042 U	0.041 U	0.040 U	0.39 U	0.041 U	0.039 U	0.10 U	0.042 U	0.040 U
N-Nitrosodiphenylamine	NA	NA	NA	NA	NA	0.37 U	0.37 U	0.38 U	0.38 U	0.40 U	0.38 U	0.42 U	0.41 U	0.40 U	3.9 U	0.41 U	0.39 U	1.0 U	0.42 U	0.40 U
Pentachlorophenol	0.8	2.4	6.7	6.7	0.8	1.1 U	1.1 U	1.2 U	1.2 U	1.2 U	1.1 U	1.3 U	1.2 U	1.2 U	12 U	1.3 U	1.2 U	3.0 U	1.3 U	1.2 U
Phenanthrene	100	100	100	500	1,000	0.059 J	0.37 U	0.38 U	0.38 U	0.40 U	0.38 U	0.42 U	0.41 U	0.40 U	55	0.42	0.39 U	1.0 U	0.42 U	0.40 U
Phenol	0.33	100	100	500	0.33	0.37 U	0.37 U	0.38 U	0.38 U	0.40 U	0.38 U	0.42 U	0.41 U	0.40 U	3.9 U	0.41 U	0.39 U	1.0 U	0.42 U	0.40 U
Pyrene	100	100	100	500	1,000	0.084 J	0.37 U	0.38 U	0.38 U	0.40 U	0.38 U	0.42 U	0.41 U	0.40 U	44	0.60	0.033 J	0.12 J	0.42 U	0.40 U
Pyridine	NA	NA	NA	NA	NA	0.37 U	0.37 U	0.38 U	0.38 U	0.40 U	0.38 U	0.42 U	0.41 U	0.40 U	3.9 U	0.41 U	0.39 U	1.0 U	0.42 U	0.40 U
Total SVOC TICs	NA	NA	NA	NA	NA	ND	ND	ND	ND	1.55	ND	ND	ND	ND	66.60	ND	ND	50.8	ND	ND

Notes
ND: TIC not detected
* : LCS or LCSD exceeds the control limits
D : The reported value is from a dilution.
J : Indicates an estimated value.
J * : LCS or LCSD exceeds the control limits
J N : Indicates an estimated value.
U : Analyzed for but not detected.
U * : LCS or LCSD exceeds the control limits
BD : Blind Duplicate

Table 5-61
TCL SVOCs Soil Analytical Data
C6-13 Original Sample Location - Post Excavation Data

	NYSDEC SCOs					Post-excavation End-point Soil Analytical Data									
						Supplemental Side-wall and Bottom Samples									
TCL SVOCs (mg/kg)	NYSDEC Unrestricted SCO	Residential	Restricted Residential	Commercial	Protection of Groundwater	C6-EP#82 (4')	C6-EP#82 (1')	C6-EP#83 (4')	C6-EP#83 (1')	C6-EP#84 (4')	C6-EP#84 (1')	C6-EP#85 (4')	C6-EP#85 (1')	C6-EP#86 (7')	C6-EP#87 (7')
1,2,4,5-Tetrachlorobenzene	NA	NA	NA	NA	NA	0.34 U	0.34 U	1.4 U	0.68 U	0.37 U	9.0 U	9.7 U	0.35 U	0.37 U	0.71 U
1,4-Dioxane	0.1	9.8	13	130	0.1	0.34 U	0.34 U	1.4 U	0.68 U	0.37 U	9.0 U	9.7 U	0.35 U	0.37 U	0.71 U
2,2'-oxybis[1-chloropropane]	NA	NA	NA	NA	NA	0.34 U	0.34 U	1.4 U	0.68 U	0.37 U	9.0 U	9.7 U	0.35 U	0.37 U	0.71 U
2,3,4,6-Tetrachlorophenol	NA	NA	NA	NA	NA	0.34 U	0.34 U	1.4 U	0.68 U	0.37 U	9.0 U	9.7 U	0.35 U	0.37 U	0.71 U
2,4,5-Trichlorophenol	NA	NA	NA	NA	NA	0.34 U	0.34 U	1.4 U	0.68 U	0.37 U	9.0 U	9.7 U	0.35 U	0.37 U	0.71 U
2,4,6-Trichlorophenol	NA	NA	NA	NA	NA	0.34 U	0.34 U	1.4 U	0.68 U	0.37 U	9.0 U	9.7 U	0.35 U	0.37 U	0.71 U
2,4-Dichlorophenol	NA	NA	NA	NA	NA	0.34 U	0.34 U	1.4 U	0.68 U	0.37 U	9.0 U	9.7 U	0.35 U	0.37 U	0.71 U
2,4-Dimethylphenol	NA	NA	NA	NA	NA	0.34 U	0.34 U	0.026 J	0.68 U	0.37 U	9.0 U	9.7 U	0.35 U	0.37 U	0.71 U
2,4-Dinitrophenol	NA	NA	NA	NA	NA	1.0 U	1.0 U	4.2 U	2.1 U	1.1 U	27 U	29 U	1.1 U	1.1 U	2.1 U
2,4-Dinitrotoluene	NA	NA	NA	NA	NA	0.070 U	0.070 U	0.28 U	0.14 U	0.075 U	1.8 U	2.0 U	0.070 U	0.076 U	0.14 U
2,6-Dinitrotoluene	NA	NA	NA	NA	NA	0.070 U	0.070 U	0.28 U	0.14 U	0.075 U	1.8 U	2.0 U	0.070 U	0.076 U	0.14 U
2-Chloronaphthalene	NA	NA	NA	NA	NA	0.34 U	0.34 U	1.4 U	0.68 U	0.37 U	9.0 U	9.7 U	0.35 U	0.37 U	0.71 U
2-Chlorophenol	NA	NA	NA	NA	NA	0.34 U	0.34 U	1.4 U	0.68 U	0.37 U	9.0 U	9.7 U	0.35 U	0.37 U	0.71 U
2-Methylnaphthalene	NA	NA	NA	NA	NA	0.0015 J	0.34 U	0.52 J	0.013 J	0.37 U	0.18 J	1.9 J	0.35 U	0.0041 J	0.0074 J
2-Methylphenol	0.33	100	100	500	0.33	0.34 U	0.34 U	0.017 J	0.68 U	0.37 U	9.0 U	9.7 U	0.35 U	0.37 U	0.71 U
2-Nitroaniline	NA	NA	NA	NA	NA	0.70 U	0.70 U	2.8 U	1.4 U	0.75 U	18 U	20 U	0.70 U	0.76 U	1.4 U
2-Nitrophenol	NA	NA	NA	NA	NA	0.34 U	0.34 U	1.4 U	0.68 U	0.37 U	9.0 U	9.7 U	0.35 U	0.37 U	0.71 U
3,3'-Dichlorobenzidine	NA	NA	NA	NA	NA	0.70 U	0.70 U	2.8 U	1.4 U	0.75 U	18 U	20 U	0.70 U	0.76 U	1.4 U
3-Nitroaniline	NA	NA	NA	NA	NA	0.70 U	0.70 U	2.8 U	1.4 U	0.75 U	18 U	20 U	0.70 U	0.76 U	1.4 U
4,6-Dinitro-2-methylphenol	NA	NA	NA	NA	NA	1.0 U	1.0 U	4.2 U	2.1 U	1.1 U	27 U	29 U	1.1 U	1.1 U	2.1 U
4-Bromophenyl phenyl ether	NA	NA	NA	NA	NA	0.34 U	0.34 U	1.4 U	0.68 U	0.37 U	9.0 U	9.7 U	0.35 U	0.37 U	0.71 U
4-Chloro-3-methylphenol	NA	NA	NA	NA	NA	0.34 U	0.34 U	1.4 U	0.68 U	0.37 U	9.0 U	9.7 U	0.35 U	0.37 U	0.71 U
4-Chloroaniline	NA	NA	NA	NA	NA	0.34 U	0.34 U	1.4 U	0.68 U	0.37 U	9.0 U	9.7 U	0.35 U	0.37 U	0.71 U
4-Chlorophenyl phenyl ether	NA	NA	NA	NA	NA	0.34 U	0.34 U	1.4 U	0.68 U	0.37 U	9.0 U	9.7 U	0.35 U	0.37 U	0.71 U
4-Methylphenol	0.33	34	100	500	0.33	0.34 U	0.34 U	0.058 J	0.68 U	0.37 U	9.0 U	9.7 U	0.35 U	0.37 U	0.71 U
4-Nitroaniline	NA	NA	NA	NA	NA	0.70 U	0.70 U	2.8 U	1.4 U	0.75 U	18 U	20 U	0.70 U	0.76 U	1.4 U
4-Nitrophenol	NA	NA	NA	NA	NA	1.0 U	1.0 U	4.2 U	2.1 U	1.1 U	27 U	29 U	1.1 U	1.1 U	2.1 U
Acenaphthene	20	100	100	500	98	0.0092 J	0.0019 J	1.3 J	0.082 J	0.37 U	0.87 J	5.4 J	0.0021 J	0.028 J	0.10 J
Acenaphthylene	100	100	100	500	107	0.0091 J	0.0038 J	0.19 J	0.031 J	0.37 U	0.77 J	0.70 J	0.0025 J	0.019 J	0.22 J
Acetophenone	NA	NA	NA	NA	NA	0.34 U	0.34 U	1.4 U	0.68 U	0.0037 J	9.0 U	9.7 U	0.35 U	0.37 U	0.71 U
Anthracene	100	100	100	500	1,000	0.023 J	0.0061 J	1.6	0.21 J	0.0018 J	3.7 J	10	0.0055 J	0.10 J	0.82
Atrazine	NA	NA	NA	NA	NA	0.34 U	0.34 U	1.4 U	0.68 U	0.37 U	9.0 U	9.7 U	0.35 U	0.37 U	0.71 U
Benzaldehyde	NA	NA	NA	NA	NA	0.34 U	0.34 U	1.4 U	0.68 U	0.37 U	9.0 U	9.7 U	0.35 U	0.37 U	0.71 U
Benzo[a]anthracene	1	1	1	5.6	1	0.11	0.026 J	*4.5*	0.60	0.0068 J	*11*	*20*	0.017 J	0.33	*2.7*
Benzo[a]pyrene	1	1	1	1	22	0.094	0.028 J	*3.7*	0.47	0.0068 J	*9.5*	*16*	0.016 J	0.28	*1.9*
Benzo[b]fluoranthene	1	1	1	5.6	1.7	0.10	0.032	*4.7*	0.57	0.0075	*11*	*18*	0.017	0.30	*2.3*
Benzo[g,h,i]perylene	100	100	100	500	1,000	0.081 J	0.026 J	3.0	0.40 J	0.0069 J	8.3 J	13	0.015 J	0.23 J	1.4
Benzo[k]fluoranthene	0.8	1	3.9	56	1.7	0.046	0.011 J	*1.6*	0.15	0.0029 J	*3.9*	*7.5*	0.0079 J	0.11	*0.88*
Bis(2-chloroethoxy)methane	NA	NA	NA	NA	NA	0.34 U	0.34 U	1.4 U	0.68 U	0.37 U	9.0 U	9.7 U	0.35 U	0.37 U	0.71 U
Bis(2-chloroethyl)ether	NA	NA	NA	NA	NA	0.034 U	0.034 U	0.14 U	0.068 U	0.037 U	0.90 U	0.97 U	0.035 U	0.037 U	0.071 U
Bis(2-ethylhexyl) phthalate	NA	NA	NA	NA	NA	0.0091 J	0.0075 J	1.4 U	0.68 U	0.011 J	9.0 U	9.7 U	0.0065 J	0.37 U	0.71 U
Butyl benzyl phthalate	NA	NA	NA	NA	NA	0.011 J	0.0087 J	1.4 U	0.013 J	0.020 J	9.0 U	9.7 U	0.0082 J	0.017 J	0.018 J
Caprolactam	NA	NA	NA	NA	NA	0.34 U	0.34 U	1.4 U	0.68 U	0.37 U	9.0 U	9.7 U	0.35 U	0.37 U	0.71 U
Carbazole	NA	NA	NA	NA	NA	0.0093 J	0.0018 J	1.4	0.075 J	0.37 U	0.95 J	3.7 J	0.0018 J	0.019 J	0.093 J
Chrysene	1	1	3.9	56	1	0.13 J	0.030 J	*4.9*	0.59 J	0.0077 J	*10*	*19*	0.017 J	0.33 J	*2.4*
Dibenz(a,h)anthracene	0.33	0.33	0.33	0.56	1,000	0.017 J	0.0066 J	*0.86*	0.10	0.037 U	*2.3*	*3.6*	0.0037 J	0.060	*0.43*
Dibenzofuran	7	14	59	350	210	0.0034 J	0.34 U	0.91 J	0.037 J	0.37 U	0.34 J	3.0 J	0.35 U	0.0081 J	0.074 J
Diethyl phthalate	NA	NA	NA	NA	NA	0.34 U	0.34 U	1.4 U	0.68 U	0.37 U	9.0 U	9.7 U	0.35 U	0.37 U	0.71 U
Dimethyl phthalate	NA	NA	NA	NA	NA	0.34 U	0.34 U	1.4 U	0.68 U	0.37 U	9.0 U	9.7 U	0.35 U	0.37 U	0.71 U
Di-n-butyl phthalate	NA	NA	NA	NA	NA	0.34 U	0.34 U	1.4 U	0.68 U	0.37 U	9.0 U	9.7 U	0.35 U	0.37 U	0.71 U
Di-n-octyl phthalate	NA	NA	NA	NA	NA	0.34 U	0.34 U	1.4 U	0.68 U	0.37 U	9.0 U	9.7 U	0.35 U	0.37 U	0.71 U
Diphenyl	NA	NA	NA	NA	NA	0.34 U	0.34 U	0.15 J	0.68 U	0.37 U	9.0 U	0.50 J	0.35 U	0.37 U	0.71 U
Fluoranthene	100	100	100	500	1,000	0.25 J	0.051 J	10 D	1.2	0.013 J	20	43 D	0.035 J	0.59	5.6 D
Fluorene	30	100	100	500	386	0.0073 J	0.34 U	1.1 J	0.055 J	0.37 U	1.0 J	5.5 J	0.35 U	0.035 J	0.15 J
Hexachlorobenzene	0.33	0.33	1.2	6	3.2	0.034 U	0.034 U	0.14 U	0.068 U	0.037 U	0.90 U	0.97 U	0.035 U	0.037 U	0.071 U
Hexachlorobutadiene	NA	NA	NA	NA	NA	0.070 U	0.070 U	0.28 U	0.14 U	0.075 U	1.8 U	2.0 U	0.070 U	0.076 U	0.14 U
Hexachlorocyclopentadiene	NA	NA	NA	NA	NA	0.34 U	0.34 U	1.4 U	0.68 U	0.37 U	9.0 U	9.7 U	0.35 U	0.37 U	0.71 U
Hexachloroethane	NA	NA	NA	NA	NA	0.034 U	0.034 U	0.14 U	0.068 U	0.037 U	0.90 U	0.97 U	0.035 U	0.037 U	0.071 U
Indeno[1,2,3-cd]pyrene	0.5	0.5	0.5	5.6	8.2	0.061	0.021 J	*2.6*	0.32	0.0049 J	*6.9*	*11*	0.011 J	0.18	*1.3*
Isophorone	NA	NA	NA	NA	NA	0.34 U	0.34 U	1.4 U	0.68 U	0.37 U	9.0 U	9.7 U	0.35 U	0.37 U	0.71 U
Naphthalene	12	100	100	500	12	0.34 U	0.34 U	1.6	0.017 J	0.37 U	0.21 J	3.7 J	0.35 U	0.0044 J	0.016 J
Nitrobenzene	NA	NA	NA	NA	NA	0.034 U	0.034 U	0.14 U	0.068 U	0.037 U	0.90 U	0.97 U	0.035 U	0.037 U	0.071 U
N-Nitrosodi-n-propylamine	NA	NA	NA	NA	NA	0.034 U	0.034 U	0.14 U	0.068 U	0.037 U	0.90 U	0.97 U	0.035 U	0.037 U	0.071 U
N-Nitrosodiphenylamine	NA	NA	NA	NA	NA	0.34 U	0.34 U	1.4 U	0.68 U	0.37 U	9.0 U	9.7 U	0.35 U	0.37 U	0.71 U
Pentachlorophenol	0.8	2.4	6.7	6.7	0.8	1.0 U	1.0 U	4.2 U	2.1 U	1.1 U	27 U	29 U	1.1 U	1.1 U	2.1 U
Phenanthrene	100	100	100	500	1,000	0.20 J	0.026 J	12.0 D	1.2	0.0083 J	14	38	0.021 J	0.42	2.5
Phenol	0.33	100	100	500	0.33	0.34 U	0.34 U	1.4 U	0.68 U	0.37 U	9.0 U	9.7 U	0.35 U	0.37 U	0.71 U
Pyrene	100	100	100	500	1,000	0.26 J	0.053 J	9.30 D	1.2	0.014 J	17	33	0.032 J	0.61	4.5 D
Pyridine	NA	NA	NA	NA	NA	0.34 U	0.34 U	1.4 U	0.68 U	0.37 U	9.0 U	9.7 U	0.35 U	0.37 U	0.71 U
Total SVOC TICs	NA	NA	NA	NA	NA	1.63	1.21	5.23	2.61	0.83	31.60	31.30	1.02	1.37	3.56

Notes
ND: TIC not detected
D : The reported value is from a dilution.
J : Indicates an estimated value.
J N : Indicates an estimated value.
U : Analyzed for but not detected.

Table 5-62
TAL Metals Soil Analytical Data
C6-13 Original Sample Location - Post Excavation Data

TAL Metals (mg/kg)	NYSDEC SCOs Unrestricted	NYSDEC SCOs Residential	NYSDEC SCOs Protection of Groundwater	Post-excavation End-point Soil Analytical Data — C6-13 Original Sample Location — Side-wall Samples													
				C6-EP#23 (3')	C6-EP#24 (3')	C6-EP#25 (3')	C6-EP#26 (3')	C6-EP#27 (3')	C6-EP#28 (4')	C6-EP#28 (5')	C6-EP#29 (4')	C6-EP#29 (5')	C6-EP#30 (4')	C6-EP#30 (5')	C6-EP#31 (4')	C6-EP#31 (5')
Aluminum	NA	NA	NA	6,230	4,970	1,780	1,450	2,560	1,490	4,990	1,700	1,870	1,270	2,470	1,420	2,120
Antimony	NA	NA	NA	4.1 U	4.1 U	3.9 U	3.5 U	3.9 U	3.8 U	3.8 U	3.2 U	3.9 U	3.7 U	4.4 U	3.8 U	4.4 U
Arsenic	13	16	16	3.1	6.6	2.9 U	2.6 U	2.4 J	1.6 J	8.7	2.4 U	2.9 U	2.8 U	4.6	0.98 J	2.4 J
Barium	350	350	820	66.7	65.3	13.6 J	11.6 J	21.6 J	10.6 J	78.6	17.0 J	15.8 J	10.3 J	31.9 J	8.9 J	22.0 J
Beryllium	7.2	14	47	0.30 J	0.21 J	0.39 U	0.35 U	0.13 J	0.38 U	0.24 J	0.14 J	0.39 U	0.37 U	0.17 J	0.38 U	0.44 U
Cadmium	2.5	2.5	7.5	0.82 U	0.82 U	0.77 U	0.70 U	0.78 U	0.76 U	0.77 U	0.64 U	0.77 U	0.75 U	0.89 U	0.75 U	0.89 U
Calcium	NA	NA	NA	4,190	6,870	2,720	564 J	3,460	20,400	1,450	460 J	2,200	265 J	699 J	850 J	1,080 J
Chromium[1]	30	36	NS	12.0	10.0	4.1	3.1	5.7	3.0	9.8	4.0	4.1	4.6	5.3	3.1	5.7
Cobalt	NA	NA	NA	3.4 J	3.8 J	1.4 J	2.4 J	2.4 J	1.2 J	5.4 J	1.7 J	1.7 J	2.0 J	3.2 J	1.4 J	1.6 J
Copper	50	270	1,720	6.8	18.6	3.2 J	2.4 J	4.4 J	3.1 J	6.3	3.6 J	3.4 J	2.4 J	6.3	3.3 J	8.8
Iron	NA	NA	NA	10,500	11,300	4,300	3,130	5,150	3,060	12,400	4,510	4,250	3,220	5,990	5,290	5,240
Lead	63	400	450	16.9	40.1	4.5	3.6	12.2	5.6	20.1	1.4 J	3.2	1.5 J	14.0	4.2	76.9
Magnesium	NA	NA	NA	1,390	3,040	779 J	468 J	747 J	6,140	1,130	563 J	706 J	411 J	617 J	391 J	527 J
Manganese	1,600	2,000	2,000	157	277	94.8	80.4	182	86.2	484	150	110	90.6	98.5	55.6	68.5
Nickel	30	140	130	6.4 J	9.2	3.3 J	2.6 J	4.6 J	3.8 J	7.2 J	3.7 J	3.8 J	2.5 J	4.2 J	2.3 J	4.7 J
Potassium	NA	NA	NA	581 J	509 J	387 J	368 J	377 J	297 J	600 J	414 J	420 J	267 J	322 J	188 J	282 J
Selenium	3.9	36	4	4.1 U	4.1 U	3.9 U	3.5 U	3.9 U	3.8 U	3.8 U	3.2 U	3.9 U	3.7 U	1.2 J	3.8 U	4.4 U
Silver	2	36	8.3	2.0 U	2.1 U	1.9 U	1.7 U	2.0 U	0.42 J	0.20 J	1.6 U	1.9 U	1.9 U	2.2 U	1.9 U	2.2 U
Sodium	NA	NA	NA	1,020 U	106 J	963 U	873 U	978 U	945 U	957 U	801 U	964 U	934 U	1,110 U	943 U	1,110 U
Thallium	NA	NA	NA	4.1 U	4.1 U	3.9 U	3.5 U	3.9 U	3.8 U	3.8 U	3.2 U	3.9 U	3.7 U	4.4 U	3.8 U	4.4 U
Vanadium	NA	NA	NA	13.5	14.5	4.5 J	3.6 J	6.9 J	3.8 J	11.5	5.0 J	4.9 J	3.5 J	9.2 J	4.1 J	11.3
Zinc	109	2,200	2,480	30.0	63.5	12.3	6.9	16.2	8.9	54.7	6.7	9.1	5.0 J	21.4	8.7	43.3
Mercury	0.18	0.81	0.73	0.019	0.026	0.018 U	0.018 U	0.019 U	0.016 U	0.018 U	0.017 U	0.017 U	0.017 U	0.017 J	0.017 U	0.023

TAL Metals (mg/kg)	NYSDEC SCOs Unrestricted	NYSDEC SCOs Residential	NYSDEC SCOs Protection of Groundwater	Post-excavation End-point Soil Analytical Data — C6-13 Original Sample Location — Side-wall Samples											
				C6-EP#32 (4')	C6-EP#32 (5')	C6-EP#33 (4')	C6-EP#33 (5')	C6-EP#34 (4')	C6-EP#34 (5')	C6-EP#35 (1')	C6-EP#35 (5')	C6-EP#36 (1')	C6-EP#36 (5')	C6-EP#37 (1')	C6-EP#37 (5')
Aluminum	NA	NA	NA	3,370	8,360	5,220	9,580	6,780	5,870	8,920	4,740	10,200	4,710	8,780	1,790
Antimony	NA	NA	NA	3.1 U	4.5 U	4.0 U	4.4 U	4.1 U	4.5 U	4.1 U	4.1 U	4.4 U	4.1 U	4.3 U	3.7 U
Arsenic	13	16	16	1.9 J	2.7 J	2.0 J	1.6 J	1.3 J	2.4 J	2.7 J	3.1 U	2.5 J	3.1 U	2.6 J	1.6 J
Barium	350	350	820	25.9 J	31.8 J	30.2 J	36.4 J	35.2 J	28.9 J	56.3	18.7 J	50.0	20.3 J	39.8 J	11.3 J
Beryllium	7.2	14	47	0.21 J	0.26 J	0.23 J	0.27 J	0.24 J	0.28 J	0.29 J	0.21 J	0.33 J	0.23 J	0.28 J	0.11 J
Cadmium	2.5	2.5	7.5	0.61 U	0.18 J	0.79 U	0.89 U	0.82 U	0.91 U	0.82 U	0.82 U	0.88 U	0.82 U	0.86 U	0.73 U
Calcium	NA	NA	NA	1,790	757 J	671 J	2,100	840 J	805 J	9,210	398 J	1,320	421 J	1,890	535 J
Chromium[1]	30	36	NS	13.4	15.4	11.8	16.6	14.2	12.3	17.2	7.8	18.7	7.6	19.7	4.0
Cobalt	NA	NA	NA	1.9 J	3.5 J	3.5 J	7.2 J	3.8 J	3.6 J	4.5 J	2.5 J	5.3 J	3.3 J	3.8 J	1.6 J
Copper	50	270	1,720	6.2	15.5	6.5	6.9	7.2	7.2	10.5	3.0 J	10.4	3.7 J	9.4	4.0 J
Iron	NA	NA	NA	7,230	13,000	8,980	14,200	10,800	13,700	12,500	6,340	16,300	5,790	13,100	4,470
Lead	63	400	450	25.1	309	23.2	7.7	18.9	17.1	13.8	3.6	12.7	3.4	25.1	7.8
Magnesium	NA	NA	NA	731 J	2,020	1,510	1,640	1,940	1,530	2,630	956 J	2,310	952 J	2,150	560 J
Manganese	1,600	2,000	2,000	114	134	156	137	157	224	221	101	256	63.3	153	112
Nickel	30	140	130	4.9 J	7.8 J	7.3 J	9.4	8.1 J	7.8 J	9.6	5.1 J	10.5	5.9 J	9.2	3.6 J
Potassium	NA	NA	NA	372 J	754 J	516 J	575 J	579 J	483 J	945 J	239 J	874 J	240 J	870 J	366 J
Selenium	3.9	36	4	3.1 U	4.5 U	4.0 U	4.4 U	4.1 U	4.5 U	4.1 U	4.1 U	4.4 U	4.1 U	4.3 U	3.7 U
Silver	2	36	8.3	1.5 U	2.3 U	2.0 U	2.2 U	2.1 U	2.3 U	2.1 U	2.0 U	2.2 U	2.0 U	2.2 U	1.8 U
Sodium	NA	NA	NA	191 J	1,130 U	988 U	1,110 U	102 J	1,130 U	83.4 J	1,020 U	110 J	1,020 U	154 J	914 U
Thallium	NA	NA	NA	3.1 U	4.5 U	4.0 U	4.4 U	4.1 U	4.5 U	4.1 U	4.1 U	4.4 U	4.1 U	4.3 U	3.7 U
Vanadium	NA	NA	NA	7.9	19.9	12.7	22.3	16.5	15.3	20.3	9.4 J	22.5	8.6 J	21.7	5.7 J
Zinc	109	2,200	2,480	27.7	200	19.1	21.3	25.6	19.7	28.6	10.7	32.5	11.6	26.8	46.6
Mercury	0.18	0.81	0.73	0.020	0.017 J	0.022	0.022	0.021	0.026	0.015 J	0.015 J	0.021	0.016 J	0.019 U	0.016 J

Notes
J : Sample result is greater than the MDL but below the CRDL
U : Indicates analyzed for but not detected.
[1] Trivalent chromium SCOs utilized.
Green / italicized value indictes analyte exceeded its repsective unrestricted SCO but was below its respective Residential / Protection of GW SCO, whichever is lower.
NA - Not Available
NS - No Standard Available
BD : Blind Duplicate
~~value~~ Indicates that sample locations were removed as part of supplemental soil excavation activities.

Table 5-62
TAL Metals Soil Analytical Data
C6-13 Original Sample Location - Post Excavation Data

	NYSDEC SCOs			Post-excavation End-point Soil Analytical Data											
				C6-13 Original Sample Location											
				Bottom Samples											
TAL Metals (mg/kg)	Unrestricted	Residential	Protection of Groundwater	C6-EP#20 (6.5')	C6-EP#21 (6.5')	C6-EP#22 (6.5')	C6-EP#38 (6.5')	C6-EP#39 (6.5')	C6-EP#40 (6.5')	C6-EP#41 (6.5')	C6-EP#42 (6.5')	C6-EP#42 BD (20')	~~C6-EP#43 (6.5')~~	C6-EP#44 (6.5')	C6-EP#45 (6.5')
Aluminum	NA	NA	NA	7,740	9,200	4,200	8,730	7,960	5,750	5,510	4,960	4,680	~~4,390~~	5,620	5,050
Antimony	NA	NA	NA	4.1 U	3.8 U	3.9 U	4.3 U	4.6 U	4.0 U	4.8 U	4.7 U	4.3 U	~~3.8 U~~	4.3 U	3.9 U
Arsenic	13	16	16	2.9 J	2.8 J	1.4 J	1.7 J	1.8 J	5.0	2.0 J	1.8 J	3.2	~~1.5 J~~	4.0	1.5 J
Barium	350	350	820	31.4 J	34.7 J	17.9 J	53.7	30.0 J	31.2 J	30.7 J	34.6 J	32.7 J	~~52.5~~	36.1 J	23.3 J
Beryllium	7.2	14	47	0.30 J	0.30 J	0.20 J	0.32 J	0.54	0.33 J	0.22 J	0.16 J	0.22 J	~~0.21 J~~	0.39 J	0.30 J
Cadmium	2.5	2.5	7.5	0.81 U	0.77 U	0.79 U	0.86 U	0.91 U	0.80 U	0.95 U	0.94 U	0.86 U	~~0.76 U~~	0.86 U	0.79 U
Calcium	NA	NA	NA	1,990	989	455 J	1,010 J	644 J	505 J	599 J	968 J	759 J	~~1,200~~	2,600	719 J
Chromium[1]	30	36	NS	15.5	15.0	7.3	14.8	10.3	11.6	11.7	13.0	12.2	~~10~~	8.7	10.2
Cobalt	NA	NA	NA	5.5 J	4.0 J	3.1 J	5.4 J	3.5 J	4.8 J	3.0 J	3.3 J	3.2 J	~~3.4 J~~	3.1 J	2.8 J
Copper	50	270	1,720	7.1	6.2	3.9 J	6.4	3.4 J	9.5	5.2 J	4.6 J	4.5 J	~~8.4~~	7.6	5.3
Iron	NA	NA	NA	19,700	11,700	5,730	15,100	8,200	11,600	8,980	11,700	18,700	~~9,780~~	8,240	9,860
Lead	63	400	450	6.8	6.3	4.4	6.6	7.8	5.6	19.2	4.5	4.9	~~18.7~~	19.2	37.8
Magnesium	NA	NA	NA	1,460	1,820	822 J	1,630	1,290	1,170	1,340	1,800	1,500	~~1,210~~	844 J	1,070
Manganese	1,600	2,000	2,000	490	219	54.3	292	79.9	158	87.0	274	275	~~171~~	106	163
Nickel	30	140	130	5.9 J	8.6	4.7 J	9.1	6.6 J	8.8	6.2 J	6.3 J	5.6 J	~~6.8 J~~	6.6 J	6.2 J
Potassium	NA	NA	NA	845 J	532 J	307 J	458 J	238 J	380 J	416 J	896 J	756 J	~~503 J~~	185 J	395 J
Selenium	3.9	36	4	4.1 U	3.8 U	3.9 U	4.3 U	4.6 U	4.0 U	4.8 U	4.7 U	4.3 U	~~3.8 U~~	4.3 U	3.9 U
Silver	2	36	8.3	2.0 U	1.9 U	2.0 U	2.1 U	2.3 U	2.0 U	2.4 U	2.3 U	2.2 U	~~1.9 U~~	2.1 U	2.0 U
Sodium	NA	NA	NA	1,020 U	959 U	985 U	1,070 U	1,140 U	996 U	1,190 U	1,170 U	1,080 U	~~948 U~~	1,070 U	986 U
Thallium	NA	NA	NA	4.1 U	3.8 U	3.9 U	4.3 U	4.6 U	4.0 U	4.8 U	4.7 U	4.3 U	~~3.8 U~~	4.3 U	3.9 U
Vanadium	NA	NA	NA	18.2	18.8	9.6 J	20.9	12.9	14.7	13.3	14.0	15.7	~~10.6~~	13.8	12.7
Zinc	109	2,200	2,480	20.9	18.1	13.2	19.3	17.1	31.6	15.4	20.9	24.8	~~22.8~~	27.0	14.2
Mercury	0.18	0.81	0.73	0.017 U	0.018 U	0.023	0.020	0.16	0.019 U	0.022 U	0.020 U	0.021 U	~~0.020~~	0.025	0.019 U

Notes
J : Sample result is greater than the MDL but below the CRDL
U : Indicates analyzed for but not detected.
[1] Trivalent chromium SCOs utilized.
NA - Not Available
NS - No Standard Available
BD : Blind Duplicate
~~Strikethrough~~ Indicates that sample locations were removed as part of supplemental soil excavation activities.

Table 5-62
TAL Metals Soil Analytical Data
C6-13 Original Sample Location - Post Excavation Data

TAL Metals (mg/kg)	NYSDEC SCOs					Post-excavation End-point Soil Analytical Data C6-13 Original Sample Location Supplemental Side-wall & Bottom Samples									
	Unrestricted	Residential	Restricted Residential	Commercial	Protection of Groundwater	C6-EP#82 (4')	C6-EP#82 (1')	C6-EP#83 (4')	C6-EP#83 (1')	C6-EP#84 (4')	C6-EP#84 (1')	C6-EP#85 (4')	C6-EP#85 (1')	C6-EP#86 (7')	C6-EP#87 (7')
Aluminum	NA	NA	NA	NA	NA	2,210	1,120	934	896	4,140	5,090	4,630	1,790	3,120	1,510
Antimony	NA	NA	NA	NA	NA	4.1 U	4.0 U	3.7 U	3.8 U	4.0 U	4.0 U	4.5 U	4.2 U	4.4 U	3.9 U
Arsenic	13	16	16	16	16	1.6 J	1.6 J	1.0 J	1.7 J	1.2 J	5.3	1.9 J	1.6 J	1.0 J	1.6 J
Barium	350	350	400	400	820	9.3 J	8.2 J	6.2 J	6.0 J	19.8 J	59.8	29.9 J	10.8 J	15.5 J	10.6 J
Beryllium	7.2	14	72	590	47	0.41 U	0.40 U	0.37 U	0.38 U	0.40 U	0.40 U	0.45 U	0.42 U	0.44 U	0.39 U
Cadmium	2.5	2.5	4.3	9.3	7.5	0.81 U	0.79 U	0.74 U	0.76 U	0.80 U	0.80 U	0.90 U	0.84 U	0.88 U	0.79 U
Calcium	NA	NA	NA	NA	NA	158 J	312 J	126 J	132 J	374 J	4,470	816 J	169 J	504 J	391 J
Chromium[1]	30	36	180	1,500	NS	11.1	5.5	2.2	1.9	5.9	14.3	8.5	3.5	5.5	3.2
Cobalt	NA	NA	NA	NA	NA	1.6 J	1.2 J	0.89 J	9.6 U	2.9 J	3.3 J	3.1 J	1.5 J	2.0 J	1.8 J
Copper	50	270	270	270	1,720	3.4 J	3.2 J	3.7 J	2.3 J	4.4 J	12.8	5.2 J	3.0 J	4.2 J	3.1 J
Iron	NA	NA	NA	NA	NA	7,590	6,410	4,610	3,800	5,800	8,730	5,700	5,540	5,040	5,060
Lead	63	400	400	1,000	450	4.5	5.6	3.6	2.7	2.0	*93.6*	7.9	1.9 J	3.6	4.9
Magnesium	NA	NA	NA	NA	NA	1,140	368 J	219 J	320 J	975 J	1,470	924 J	406 J	729 J	331 J
Manganese	1,600	2,000	2,000	10,000	2,000	68.1	45.8	34.8	32.8	103	177	157	50.9	86.8	59.3
Nickel	30	140	310	310	130	4.6 J	1.8 J	7.4 U	7.6 U	5.8 J	7.5 J	5.8 J	2.3 J	4.9 J	2.4 J
Potassium	NA	NA	NA	NA	NA	207 J	251 J	159 J	156 J	371 J	895 J	327 J	213 J	232 J	241 J
Selenium	3.9	36	180	1,500	4	4.1 U	4.0 U	3.7 U	3.8 U	4.0 U	4.0 U	4.5 U	4.2 U	4.4 U	3.9 U
Silver	2	36	180	1,500	8.3	2.0 U	2.0 U	1.9 U	1.9 U	2.0 U	2.0 U	2.3 U	2.1 U	2.2 U	2.0 U
Sodium	NA	NA	NA	NA	NA	1,010 U	991 U	931 U	956 U	996 U	248 J	1,130 U	1,050 U	1,110 U	985 U
Thallium	NA	NA	NA	NA	NA	4.1 U	4.0 U	3.7 U	3.8 U	4.0 U	4.0 U	4.5 U	4.2 U	4.4 U	3.9 U
Vanadium	NA	NA	NA	NA	NA	10.0 J	5.3 J	3.0 J	2.6 J	9.3 J	11.3	8.9 J	4.6 J	6.8 J	3.8 J
Zinc	109	2,200	10,000	10,000	2,480	18.1	9.7	12.8	11.6	9.5	68.8	12.1	12.7	8.4	10.7
Mercury	0.18	0.81	0.81	2.8	0.73	0.017 U	0.016 U	0.017 U	0.020	0.013 J	0.13	0.025	0.017 U	0.019	0.012 J

Notes
J : Sample result is greater than the MDL but below the CRDL
U : Indicates analyzed for but not detected.
[1] Trivalent chromium SCOs utilized.
Highlighted / bolded indicates analyte exceeded above its respective NYSDEC Commercial SCO.
Green / italicized value indicates analyte exceeded its respective unrestricted SCO but was below its respective Residential / Protection of GW SCO, whichever is lower.
Blue / italicized value indicates analyte exceeded its respective Residential SCO and / or Protection of Groundwater SCO but was below its Restricted Residential SCO.
Pink / italicized value indicates analyte exceeded its respective Residential SCOs and / or Protection of Groundwater SCO but was below its Commercial SCO.
Pale Yellow / italicized value indicates analyte detected at above its Unrestricted SCO and Protection of Groundwater SCO but below its Residential SCO.
NA - Not Available
NS - No Standard Available

Table 5-63
TAL Metals Soil Analytical Data
B9-9 Original Sample Location - Post Excavation Data

TAL Metals (mg/kg)	NYSDEC SCOs			B9-9 Original Sample Location - RCRA Excavation						
				End Point Soil Samples						
				Side-wall Samples				Bottom Samples		
	Unrestricted	Residential	Protection of Groundwater	B9-EP#11 (8')	B9-EP#12 (8')	B9-EP#13 (8')	B9-EP#14 (8')	B9-EP#8 (9')	B9-EP#9 (9')	B9-EP#10 (9')
Aluminum	NA	NA	NA	6,990	12,100	6,540	10,100	8,170	8,980	7,710
Antimony	NA	NA	NA	4.6 U	4.4 U	4.4 U	4.1 U	3.9 U	4.1 U	4.2 U
Arsenic	13	16	16	1.9 J	3.3	1.7 J	3.7	3.0	3.3	3.1 J
Barium	350	350	820	33.3 J	42.8 J	40.0 J	37.0 J	32.7 J	27.0 J	36.1 J
Beryllium	7.2	14	47	0.28 J	0.27 J	0.21 J	0.28 J	0.36 J	0.36 J	0.54
Cadmium	2.5	2.5	7.5	0.92 U	0.88 U	0.88 U	0.82 U	0.77 U	0.82 U	0.84 U
Calcium	NA	NA	NA	661 J	760 J	351 J	447 J	551 J	756 J	562 J
Chromium[1]	30	36	NS	10.6	16.6	11.1	16.4	13.2	18.5	14.3
Cobalt	NA	NA	NA	2.4 J	3.4 J	2.2 J	3.0 J	3.4 J	3.3 J	6.4 J
Copper	50	270	1,720	4.7 J	8.1	4.3 J	8.0	7.9	10.3	11.5
Iron	NA	NA	NA	10,300	11,900	10,000	14,900	13,500	19,200	15,700
Lead	63	400	450	4.6	8.6	4.8	6.8	10.3	6.7	6.5
Magnesium	NA	NA	NA	1,490	2,550	1,620	2,150	1,920	2,360	2,380
Manganese	1,600	2,000	2,000	65.4	82.1	76.3	86.5	107	114	159
Nickel	30	140	130	8.1 J	11.1	7.2 J	11.7	10.1	10.3	13.2
Potassium	NA	NA	NA	357 J	614 J	287 J	636 J	750 J	1,240	1,520
Selenium	3.9	36	4	1.2 J	1.2 J	1.4 J	1.8 J	3.9 U	1.3 J	4.2 U
Silver	2	36	8.3	1.1 J	*6.3*	0.24 J	*3.8*	*4.0*	1.1 J	0.44 J
Sodium	NA	NA	NA	1,160 U	1,100 U	1,100 U	1,030 U	968 U	1,020 U	1,050 U
Thallium	NA	NA	NA	4.6 U	4.4 U	4.4 U	4.1 U	3.9 U	4.1 U	4.2 U
Vanadium	NA	NA	NA	14.1	24.8	14.2	23.2	18.3	22.6	20.6
Zinc	109	2,200	2,480	23.8	34.0	20.8	41.5	32.2	41.3	35.8
Mercury	0.18	0.81	0.73	0.018 U	0.031	0.018	0.015 J	0.013 J	0.017 U	0.018 U

Notes:
J : Sample result is greater than the MDL but below the CRDL
U : Indicates analyzed for but not detected.
B: Indicates analyte detected in blank.
[1] Trivalent chromium SCOs utilized.
Highlighted / bolded indicates analyte exceeded above its respective NYSDEC Unrestricted SCO.
Green / italicized value indicates analyte exceeded its respective unrestricted SCO but was below its respective Residential / Protection of GW SCO, whichever is lower.
NA - Not Available

APEX

Table 6-65
TAL Metals Soil Analytical Data
North Lot Water Tank Area - Post Excavation Data

	NYSDEC SCOs					Former North Water Tank												
						End-Point Confirmatory Soil Samples											Supplemental Endpoint Samples		
TAL Metals (mg/kg)	Unrestricted	Residential	Restricted Residential	Commercial	Protection of Groundwater	WT-EP-01 (2.0')	WT-EP-02 (2.0')	WT-EP-03 (3.0')	WT-EP-04 (4.0')	~~WT-EP-05 (4.5')~~	WT-EP-06 (1.5')	~~WT-EP-07(1') (1.0')~~	WT-EP-08(0') (0.0')	WT-EP-09 (0.0')	~~WT-EP-10 (4.0')~~	~~WT-EP-11 (4.0')~~	WT-EP-12 (2.5')	WT-EP-13 (2.0')	~~WT-EP-14 (6.0')~~
Aluminum	NA	NA	NA	NA	NA	5,470	8,220	7,090	4,750	~~5,520~~	2,410	~~6,370~~	5,960	6,120	~~6,440~~	~~5,380~~	4,230	5,700	~~5,510~~
Antimony	NA	NA	NA	NA	NA	3.6 U	0.94 J	1.2 J	1.8 J	~~3.1 J~~	3.6 U	~~4.0 U~~	3.9 U	4.0 U	~~4.1 U~~	~~4.0 U~~	0.84 J	3.9 U	~~3.9 U~~
Arsenic	13	16	16	16	16	7.7	9.9	6.7	5.9	~~12.8~~	5.7	~~8.1~~	6.0	4.3	~~27.3~~	~~36.9~~	8.3	5.4	~~28.6~~
Barium	350	350	400	400	820	87.9	82.8	153	124	~~42.9 J~~	22.5 J	~~56.0~~	52.6	55.7	~~73.9~~	~~53.0~~	93.0	52.0	~~37.0 J~~
Beryllium	7.2	14	72	590	47	0.30 J	0.45	0.36	0.26 J	~~0.32 J~~	0.14 J	~~0.43~~	0.42	0.44	~~0.42~~	~~0.39 J~~	0.12 J	0.17 J	~~0.15 J~~
Cadmium	2.5	2.5	4.3	9.3	7.5	0.18 J	0.24 J	0.29 J	0.18 J	~~1.8 U~~	0.86	~~0.41 J~~	0.60 J	0.42 J	~~0.13 J~~	~~0.79 U~~	0.65 U	0.79 U	~~0.79 U~~
Calcium	NA	NA	NA	NA	NA	1,590	2,370	2,290	3,480	~~3,030~~	74,300	~~7,980~~	44,000	4,030	~~1,280~~	~~1,230~~	734 J	3,640	~~522 J~~
Chromium[1]	30	36	180	1,500	NS	15.3	23.8	19.5	16.4	~~81.5~~	10.1	~~34.5~~	27.0	20.9	~~21.2~~	~~16.1~~	12.1	16.7	~~17.4~~
Cobalt	NA	NA	NA	NA	NA	4.2 J	8.3 J	6.2 J	5.7 J	~~8.2 J~~	2.9 J	~~6.2 J~~	6.3 J	5.6 J	~~9.1 J~~	~~4.8 J~~	2.5 J	4.6 J	~~5.1 J~~
Copper	50	270	270	270	1,720	11.8	16.3	25.7	24.6	~~90.0~~	12.5	~~19.0~~	17.2	13.3	~~13.5~~	~~12.1~~	46.8	14.4	~~10.1~~
Iron	NA	NA	NA	NA	NA	9,280	24,800	14,100	14,500	~~71,400~~	5,940	~~14,600~~	11,900	12,700	~~12,100~~	~~10,900~~	7,110	12,500	~~9,650~~
Lead	63	400	400	1,000	450	70.9	53.9	70.7	59.3	~~110~~	69.4	~~427~~	150	82.9	~~167~~	~~114~~	81.0	61.9	~~69.1~~
Magnesium	NA	NA	NA	NA	NA	1,670	2,650	1,990	2,090	~~2,450~~	43,300	~~5,770~~	21,300	3,480	~~1,810~~	~~1,590~~	971	3,120	~~1,190~~
Manganese	1,600	2,000	2,000	10,000	2,000	218	403	260	251	~~481~~	152	~~252~~	292	187	~~311~~	~~222~~	80.4	219	~~206~~
Nickel	30	140	310	310	130	9.1	16.7	13.4	10.6	~~89.2~~	10.8	~~18.3~~	14.2	15.9	~~11.6~~	~~9.6~~	6.7	10.9	~~9.0~~
Potassium	NA	NA	NA	NA	NA	558 J	665 J	709 J	427 J	~~456 J~~	303 J	~~627 J~~	796 J	685 J	~~678 J~~	~~545 J~~	354 J	525 J	~~485 J~~
Selenium	3.9	36	180	1,500	4	3.6 U	3.9 U	3.2 U	3.8 U	~~9.1 U~~	3.6 U	~~0.93 J~~	0.94 J	1.1 J	~~1.4 J~~	~~1.5 J~~	3.3 U	3.9 U	~~3.9 U~~
Silver	2	36	180	1,500	8.3	0.47 J	1.0 J	1.1 J	0.27 J	~~4.6 U~~	1.8 U	~~0.42 J~~	0.64 J	2.0 U	~~0.60 J~~	~~0.45 J~~	1.6 U	2.0 U	~~2.0 U~~
Sodium	NA	NA	NA	NA	NA	892 U	969 U	796 U	955 U	~~2290 U~~	898 U	~~1000 U~~	97.6 J	1010 U	~~1020 U~~	~~993 U~~	815 U	987 U	~~985 U~~
Thallium	NA	NA	NA	NA	NA	3.6 U	3.9 U	3.2 U	3.8 U	~~9.1 U~~	3.6 U	~~4.0 U~~	3.9 U	4.0 U	~~4.1 U~~	~~4.0 U~~	3.3 U	3.9 U	~~3.9 U~~
Vanadium	NA	NA	NA	NA	NA	15.7	26.0	21.0	18.0	~~16.4 J~~	11.4	~~26.6~~	22.1	20.2	~~27.8~~	~~20.9~~	10.3	18.1	~~16.6~~
Zinc	109	2,200	10,000	10,000	2,480	65.6	85.0	67.8	52.5	~~71.0~~	84.7	~~82.7~~	201	228	~~49.4~~	~~46.2~~	47.5	84.9	~~39.5~~
Mercury	0.18	0.81	0.81	2.8	0.73	0.076	0.073	0.76	0.091	~~0.039~~	0.054	~~0.043~~	0.20	0.064	~~0.084~~	~~0.059~~	0.099	0.036	~~0.039~~

Notes
J : Sample result is greater than the MDL but below the CRDL
U : Indicates analyzed for but not detected.
[1] Trivalent chromium SCOs utilized.
Highlighted / bolded indicates analyte exceeded above its respective NYSDEC Unrestricted SCO.
Green / italicized value indicates analyte exceeded its respective unrestricted SCO but was below its respective Residential / Protection of GW SCO, whichever is lower.
Blue / italicized value indicates analyte exceeded its respective Residential SCO and / or Protection of Groundwater SCO but was below its Restricted Residential SCO.
Pink / italicized value indicates analyte exceeded its respective Residential SCO and / or Protection of Groundwater SCO but was below its Commercial SCO.
NA - Not Available
NS - No Standard Available

Table 5-65
Former Tank No. 6
TCL VOCs End Point Soil Analytical Data

TCL VOCs (mg/kg)	NYSDEC Unrestricted SCO	Former Tank No. 6 End Point Soil Samples							
		End-wall Samples		Bottom Samples		Side-wall Samples			
		T6-EP#2 (9')	T6-EP#6 (10')	T6-EP#1 (12')	T6-EP#5 (12')	T6-EP#3 (9')	T6-EP#4 (9')	T6-EP#7 (10')	T6-EP#8 (10')
1,1,1-Trichloroethane	0.68	0.0011 U	0.0012 U	0.00095 U	0.0013 U	0.0011 U	0.0011 U	0.0011 U	0.0010 U
1,1,2,2-Tetrachloroethane	NA	0.0011 U	0.0012 U	0.00095 U	0.0013 U	0.0011 U	0.0011 U	0.0011 U	0.0010 U
1,1,2-Trichloroethane	NA	0.0011 U	0.0012 U	0.00095 U	0.0013 U	0.0011 U	0.0011 U	0.0011 U	0.0010 U
1,1-Dichloroethane	0.27	0.0011 U	0.0012 U	0.00095 U	0.0013 U	0.0011 U	0.0011 U	0.0011 U	0.0010 U
1,1-Dichloroethene	0.33	0.0011 U	0.0012 U	0.00095 U	0.0013 U	0.0011 U	0.0011 U	0.0011 U	0.0010 U
1,2,3-Trichlorobenzene	NA	0.0011 U	0.0012 U	0.00095 U	0.0013 U	0.0011 U	0.0011 U	0.0011 U	0.0010 U
1,2,4-Trichlorobenzene	NA	0.0011 U	0.0012 U	0.00095 U	0.0013 U	0.0011 U	0.0011 U	0.0011 U	0.0010 U
1,2-Dibromo-3-Chloropropane	NA	0.0011 U	0.0012 U	0.00095 U	0.0013 U	0.0011 U	0.0011 U	0.0011 U	0.0010 U
1,2-Dibromoethane	NA	0.0011 U	0.0012 U	0.00095 U	0.0013 U	0.0011 U	0.0011 U	0.0011 U	0.0010 U
1,2-Dichlorobenzene	1.1	0.0011 U	0.0012 U	0.00095 U	0.0013 U	0.0011 U	0.0011 U	0.0011 U	0.0010 U
1,2-Dichloroethane	0.02	0.0011 U	0.0012 U	0.00095 U	0.0013 U	0.0011 U	0.0011 U	0.0011 U	0.0010 U
1,2-Dichloropropane	NA	0.0011 U	0.0012 U	0.00095 U	0.0013 U	0.0011 U	0.0011 U	0.0011 U	0.0010 U
1,3-Dichlorobenzene	2.4	0.0011 U	0.0012 U	0.00095 U	0.0013 U	0.0011 U	0.0011 U	0.0011 U	0.0010 U
1,4-Dichlorobenzene	1.8	0.0011 U	0.0012 U	0.00095 U	0.0013 U	0.0011 U	0.0011 U	0.0011 U	0.0010 U
1,4-Dioxane	0.1	0.056 U	0.059 U	0.047 U	0.065 U	0.053 U	0.055 U	0.056 U	0.050 U
2-Butanone (MEK)	0.12	0.011 U	0.012 U	0.0095 U	0.013 U	0.011 U	0.011 U	0.011 U	0.010 U
2-Hexanone	NA	0.011 U	0.012 U	0.0095 U	0.013 U	0.011 U	0.011 U	0.011 U	0.010 U
4-Methyl-2-pentanone	NA	0.011 U	0.012 U	0.0095 U	0.013 U	0.011 U	0.011 U	0.011 U	0.010 U
Acetone	0.05	0.011 U	0.012 U	0.0095 U	0.013 U	0.011 U	0.011 U	0.011 U	0.010 U
Benzene	0.06	0.0011 U	0.0012 U	0.00095 U	0.0013 U	0.0011 U	0.0011 U	0.0011 U	0.0010 U
Bromochloromethane	NA	0.0011 U	0.0012 U	0.00095 U	0.0013 U	0.0011 U	0.0011 U	0.0011 U	0.0010 U
Bromodichloromethane	NA	0.0011 U	0.0012 U	0.00095 U	0.0013 U	0.0011 U	0.0011 U	0.0011 U	0.0010 U
Bromoform	NA	0.0011 U	0.0012 U	0.00095 U	0.0013 U	0.0011 U	0.0011 U	0.0011 U	0.0010 U
Bromomethane	NA	0.0011 U	0.0012 U	0.00095 U	0.0013 U	0.0011 U	0.0011 U	0.0011 U	0.0010 U
Carbon disulfide	NA	0.0011 U	0.0012 U	0.00095 U	0.0013 U	0.0011 U	0.0011 U	0.0011 U	0.0010 U
Carbon tetrachloride	0.76	0.0011 U	0.0012 U	0.00095 U	0.0013 U	0.0011 U	0.0011 U	0.0011 U	0.0010 U
Chlorobenzene	1.1	0.0011 U	0.0012 U	0.00095 U	0.0013 U	0.0011 U	0.0011 U	0.0011 U	0.0010 U
Chloroethane	NA	0.0011 U	0.0012 U	0.00095 U	0.0013 U	0.0011 U	0.0011 U	0.0011 U	0.0010 U
Chloroform	0.37	0.0011 U	0.0012 U	0.00095 U	0.0013 U	0.0011 U	0.0011 U	0.0011 U	0.0010 U
Chloromethane	NA	0.0011 U	0.0012 U	0.00095 U	0.0013 U	0.0011 U	0.0011 U	0.0011 U	0.0010 U
cis-1,2-Dichloroethene	0.25	0.0011 U	0.0012 U	0.00095 U	0.0013 U	0.0011 U	0.0011 U	0.0011 U	0.0010 U
cis-1,3-Dichloropropene	NA	0.0011 U	0.0012 U	0.00095 U	0.0013 U	0.0011 U	0.0011 U	0.0011 U	0.0010 U
Cyclohexane	NA	0.0011 U	0.0012 U	0.00095 U	0.0013 U	0.0011 U	0.0011 U	0.0011 U	0.0010 U
Dibromochloromethane	NA	0.0011 U	0.0012 U	0.00095 U	0.0013 U	0.0011 U	0.0011 U	0.0011 U	0.0010 U
Dichlorodifluoromethane	NA	0.0011 U	0.0012 U	0.00095 U	0.0013 U	0.0011 U	0.0011 U	0.0011 U	0.0010 U
Ethylbenzene	1	0.0011 U	0.0012 U	0.00095 U	0.0013 U	0.0011 U	0.0011 U	0.0011 U	0.0010 U
Freon 113	NA	0.0011 U	0.0012 U	0.00095 U	0.0013 U	0.0011 U	0.0011 U	0.0011 U	0.0010 U
Isopropylbenzene	NA	0.0011 U	0.0012 U	0.00095 U	0.0013 U	0.0011 U	0.0011 U	0.0011 U	0.0010 U
m&p-Xylene	0.26	0.0023 U	0.0023 U	0.0019 U	0.0026 U	0.0021 U	0.0022 U	0.0022 U	0.0020 U
Methyl acetate	NA	0.0011 U	0.0012 U	0.00095 U	0.0013 U	0.0011 U	0.0011 U	0.0011 U	0.0010 U
Methylcyclohexane	NA	0.0011 U	0.0012 U	0.00095 U	0.0013 U	0.0011 U	0.0011 U	0.0011 U	0.0010 U
Methylene Chloride	0.05	0.0011 U	0.00036 J	0.00095 U	0.00042 J B	0.0011 U	0.00023 J B	0.0011 U	0.0010 U
MTBE	0.93	0.0011 U	0.0012 U	0.00095 U	0.0013 U	0.0011 U	0.0011 U	0.0011 U	0.0010 U
Naphthalene	12	0.0011 U	0.0012 U	0.00095 U	0.0013 U	0.0011 U	0.0011 U	0.0011 U	0.0010 U
o-Xylene	0.26	0.0011 U	0.0012 U	0.00095 U	0.0013 U	0.0011 U	0.0011 U	0.0011 U	0.0010 U
Styrene	NA	0.0011 U	0.0012 U	0.00095 U	0.0013 U	0.0011 U	0.0011 U	0.0011 U	0.0010 U
Tetrachloroethene	1.3	0.0011 U	0.0012 U	0.00095 U	0.0013 U	0.0011 U	0.0011 U	0.0011 U	0.0010 U
Toluene	0.7	0.0011 U	0.0012 U	0.00095 U	0.0013 U	0.0011 U	0.0011 U	0.0011 U	0.0010 U
trans-1,2-Dichloroethene	0.19	0.0011 U	0.0012 U	0.00095 U	0.0013 U	0.0011 U	0.0011 U	0.0011 U	0.0010 U
trans-1,3-Dichloropropene	NA	0.0011 U	0.0012 U	0.00095 U	0.0013 U	0.0011 U	0.0011 U	0.0011 U	0.0010 U
Trichloroethene	0.47	0.0011 U	0.0012 U	0.00095 U	0.0013 U	0.0011 U	0.0011 U	0.0011 U	0.0010 U
Trichlorofluoromethane	NA	0.0011 U	0.0012 U	0.00095 U	0.0013 U	0.0011 U	0.0011 U	0.0011 U	0.0010 U
Vinyl chloride	0.02	0.0011 U	0.0012 U	0.00095 U	0.0013 U	0.0011 U	0.0011 U	0.0011 U	0.0010 U
Xylenes, Total	0.26	0.0034 U	0.0035 U	0.0028 U	0.0039 U	0.0032 U	0.0033 U	0.0034 U	0.0030 U
VOC TICs	NA	ND	ND	ND	ND	ND	ND	ND	ND

Notes
ND: TIC not detected
J : This flag indicates the presumptive evidence of a compound.
J B : The analyte was found in an associated blank, as well as in the sample.
J N : Indicates an estimated value.
U : Analyzed for but not detected.
Total xylenes SCO utilized for all isomers
Highlighted / bolded indicates analyte exceeded above its respective NYSDEC Unrestricted SCO / CP-51 Supplemental SCO.
NA - Not Available

Table 5-66
Former Tank No. 6
TCL SVOC End Point Soil Analytical Data

TCL SVOCs (mg/kg)	NYSDEC Unrestricted SCO	Former Tank No. 6 End Point Soil Samples							
		End-wall Samples		Bottom Samples		Side-wall Samples			
		T6-EP#2 (9')	T6-EP#6 (10')	T6-EP#1 (12')	T6-EP#5 (12')	T6-EP#3 (9')	T6-EP#4 (9')	T6-EP#7 (10')	T6-EP#8 (10')
1,2,4,5-Tetrachlorobenzene	NA	0.39 U	0.36 U	0.40 U	0.41 U	0.37 U	0.42 U	0.38 U	0.43 U
1,4-Dioxane	0.1	0.39 U	0.36 U	0.40 U	0.41 U	0.37 U	0.42 U	0.38 U	0.43 U
2,2'-oxybis[1-chloropropane]	NA	0.39 U	0.36 U	0.40 U	0.41 U	0.37 U	0.42 U	0.38 U	0.43 U
2,3,4,6-Tetrachlorophenol	NA	0.39 U	0.36 U	0.40 U	0.41 U	0.37 U	0.42 U	0.38 U	0.43 U
2,4,5-Trichlorophenol	NA	0.39 U	0.36 U	0.40 U	0.41 U	0.37 U	0.42 U	0.38 U	0.43 U
2,4,6-Trichlorophenol	NA	0.39 U	0.36 U	0.40 U	0.41 U	0.37 U	0.42 U	0.38 U	0.43 U
2,4-Dichlorophenol	NA	0.39 U	0.36 U	0.40 U	0.41 U	0.37 U	0.42 U	0.38 U	0.43 U
2,4-Dimethylphenol	NA	0.39 U	0.36 U	0.40 U	0.41 U	0.37 U	0.42 U	0.38 U	0.43 U
2,4-Dinitrophenol	NA	1.2 U	1.1 U	1.2 U	1.2 U	1.1 U	1.3 U	1.1 U	1.3 U
2,4-Dinitrotoluene	NA	0.079 U	0.073 U	0.081 U	0.084 U	0.075 U	0.085 U	0.076 U	0.087 U
2,6-Dinitrotoluene	NA	0.079 U	0.073 U	0.081 U	0.084 U	0.075 U	0.085 U	0.076 U	0.087 U
2-Chloronaphthalene	NA	0.39 U	0.36 U	0.40 U	0.41 U	0.37 U	0.42 U	0.38 U	0.43 U
2-Chlorophenol	NA	0.39 U	0.36 U	0.40 U	0.41 U	0.37 U	0.42 U	0.38 U	0.43 U
2-Methylnaphthalene	NA	0.39 U	0.36 U	0.40 U	0.41 U	0.37 U	0.42 U	0.38 U	0.43 U
2-Methylphenol	0.33	0.39 U	0.36 U	0.40 U	0.41 U	0.37 U	0.42 U	0.38 U	0.43 U
2-Nitroaniline	NA	0.79 U	0.73 U	0.81 U	0.84 U	0.75 U	0.85 U	0.76 U	0.87 U
2-Nitrophenol	NA	0.39 U	0.36 U	0.40 U	0.41 U	0.37 U	0.42 U	0.38 U	0.43 U
3,3'-Dichlorobenzidine	NA	0.79 U	0.73 U	0.81 U	0.84 U	0.75 U	0.85 U	0.76 U	0.87 U
3-Nitroaniline	NA	0.79 U	0.73 U	0.81 U	0.84 U	0.75 U	0.85 U	0.76 U	0.87 U
4,6-Dinitro-2-methylphenol	NA	1.2 U	1.1 U	1.2 U	1.2 U	1.1 U	1.3 U	1.1 U	1.3 U
4-Bromophenyl phenyl ether	NA	0.39 U	0.36 U	0.40 U	0.41 U	0.37 U	0.42 U	0.38 U	0.43 U
4-Chloro-3-methylphenol	NA	0.39 U	0.36 U	0.40 U	0.41 U	0.37 U	0.42 U	0.38 U	0.43 U
4-Chloroaniline	NA	0.39 U	0.36 U	0.40 U	0.41 U	0.37 U	0.42 U	0.38 U	0.43 U
4-Chlorophenyl phenyl ether	NA	0.39 U	0.36 U	0.40 U	0.41 U	0.37 U	0.42 U	0.38 U	0.43 U
4-Methylphenol	0.33	0.39 U	0.36 U	0.40 U	0.41 U	0.37 U	0.42 U	0.38 U	0.43 U
4-Nitroaniline	NA	0.79 U	0.73 U	0.81 U	0.84 U	0.75 U	0.85 U	0.76 U	0.87 U
4-Nitrophenol	NA	1.2 U	1.1 U	1.2 U	1.2 U	1.1 U	1.3 U	1.1 U	1.3 U
Acenaphthene	20	0.39 U	0.36 U	0.40 U	0.41 U	0.37 U	0.42 U	0.38 U	0.43 U
Acenaphthylene	100	0.39 U	0.36 U	0.40 U	0.41 U	0.37 U	0.42 U	0.38 U	0.43 U
Acetophenone	NA	0.39 U	0.36 U	0.40 U	0.41 U	0.37 U	0.42 U	0.38 U	0.43 U
Anthracene	100	0.39 U	0.36 U	0.40 U	0.41 U	0.37 U	0.42 U	0.38 U	0.43 U
Atrazine	NA	0.39 U	0.36 U	0.40 U	0.41 U	0.37 U	0.42 U	0.38 U	0.43 U
Benzaldehyde	NA	0.39 U	0.36 U	0.40 U	0.41 U	0.37 U	0.42 U	0.38 U	0.43 U
Benzo[a]anthracene	1	0.039 U	0.036 U	0.040 U	0.041 U	0.037 U	0.042 U	0.038 U	0.043 U
Benzo[a]pyrene	1	0.019 J	0.036 U	0.040 U	0.041 U	0.037 U	0.042 U	0.038 U	0.043 U
Benzo[b]fluoranthene	1	0.015 J	0.036 U	0.040 U	0.041 U	0.037 U	0.042 U	0.038 U	0.043 U
Benzo[g,h,i]perylene	100	0.39 U	0.36 U	0.40 U	0.41 U	0.37 U	0.42 U	0.38 U	0.43 U
Benzo[k]fluoranthene	0.8	0.039 U	0.036 U	0.040 U	0.041 U	0.037 U	0.042 U	0.038 U	0.043 U
Bis(2-chloroethoxy)methane	NA	0.39 U	0.36 U	0.40 U	0.41 U	0.37 U	0.42 U	0.38 U	0.43 U
Bis(2-chloroethyl)ether	NA	0.039 U	0.036 U	0.040 U	0.041 U	0.037 U	0.042 U	0.038 U	0.043 U
Bis(2-ethylhexyl) phthalate	NA	0.39 U	0.36 U	0.40 U	0.41 U	0.37 U	0.42 U	0.38 U	0.43 U
Butyl benzyl phthalate	NA	0.39 U	0.36 U	0.40 U	0.41 U	0.37 U	0.42 U	0.38 U	0.43 U
Caprolactam	NA	0.39 U	0.36 U	0.40 U	0.41 U	0.37 U	0.42 U	0.38 U	0.43 U
Carbazole	NA	0.39 U	0.36 U	0.40 U	0.41 U	0.37 U	0.42 U	0.38 U	0.43 U
Chrysene	1	0.39 U	0.36 U	0.40 U	0.41 U	0.37 U	0.42 U	0.38 U	0.43 U
Dibenz(a,h)anthracene	0.33	0.039 U	0.036 U	0.040 U	0.041 U	0.037 U	0.042 U	0.038 U	0.043 U
Dibenzofuran	7	0.39 U	0.36 U	0.40 U	0.41 U	0.37 U	0.42 U	0.38 U	0.43 U
Diethyl phthalate	NA	0.39 U	0.36 U	0.40 U	0.41 U	0.37 U	0.42 U	0.38 U	0.43 U
Dimethyl phthalate	NA	0.39 U	0.36 U	0.40 U	0.41 U	0.37 U	0.42 U	0.38 U	0.43 U
Di-n-butyl phthalate	NA	0.39 U	0.36 U	0.40 U	0.41 U	0.37 U	0.42 U	0.38 U	0.43 U
Di-n-octyl phthalate	NA	0.39 U	0.36 U	0.40 U	0.41 U	0.37 U	0.42 U	0.38 U	0.43 U
Diphenyl	NA	0.39 U	0.36 U	0.40 U	0.41 U	0.37 U	0.42 U	0.38 U	0.43 U
Fluoranthene	100	0.39 U	0.36 U	0.40 U	0.41 U	0.37 U	0.42 U	0.38 U	0.43 U
Fluorene	30	0.39 U	0.36 U	0.40 U	0.41 U	0.37 U	0.42 U	0.38 U	0.43 U
Hexachlorobenzene	0.33	0.039 U	0.036 U	0.040 U	0.041 U	0.037 U	0.042 U	0.038 U	0.043 U
Hexachlorobutadiene	NA	0.079 U	0.073 U	0.081 U	0.084 U	0.075 U	0.085 U	0.076 U	0.087 U
Hexachlorocyclopentadiene	NA	0.39 U	0.36 U	0.40 U	0.41 U	0.37 U	0.42 U	0.38 U	0.43 U
Hexachloroethane	NA	0.039 U	0.036 U	0.040 U	0.041 U	0.037 U	0.042 U	0.038 U	0.043 U
Indeno[1,2,3-cd]pyrene	0.5	0.039 U	0.036 U	0.040 U	0.041 U	0.037 U	0.042 U	0.038 U	0.043 U
Isophorone	NA	0.39 U	0.36 U	0.40 U	0.41 U	0.37 U	0.42 U	0.38 U	0.43 U
Naphthalene	12	0.39 U	0.36 U	0.40 U	0.41 U	0.37 U	0.42 U	0.38 U	0.43 U
Nitrobenzene	NA	0.039 U	0.036 U	0.040 U	0.041 U	0.037 U	0.042 U	0.038 U	0.043 U
N-Nitrosodi-n-propylamine	NA	0.039 U	0.036 U	0.040 U	0.041 U	0.037 U	0.042 U	0.038 U	0.043 U
N-Nitrosodiphenylamine	NA	0.39 U	0.36 U	0.40 U	0.41 U	0.37 U	0.42 U	0.38 U	0.43 U
Pentachlorophenol	0.8	1.2 U	1.1 U	1.2 U	1.2 U	1.1 U	1.3 U	1.1 U	1.3 U
Phenanthrene	100	0.39 U	0.36 U	0.40 U	0.41 U	0.37 U	0.42 U	0.38 U	0.43 U
Phenol	0.33	0.39 U	0.36 U	0.40 U	0.41 U	0.37 U	0.42 U	0.38 U	0.43 U
Pyrene	100	0.39 U	0.36 U	0.40 U	0.41 U	0.37 U	0.42 U	0.38 U	0.43 U
Pyridine	NA	0.39 U	0.36 U	0.40 U	0.41 U	0.37 U	0.42 U	0.38 U	0.43 U
TSVOC TICs	NA	ND	ND	ND	ND	ND	ND	ND	ND

Notes
ND: TIC not detected
J : Indicates an estimated value.
J N : This flag indicates the presumptive evidence of a compound.
U : Analyzed for but not detected.
Highlighted / bolded indicates analyte exceeded above its respective NYSDEC Unrestricted SCO / CP-51 Supplemental SCO.
NA - Not Available

Table 5-67
Former Tank No. 6
TAL Metals End Point Soil Analytical Data

TAL Metals (mg/kg)	NYSDEC Unrestricted SCO	Former Tank No. 6 End Point Soil Samples								
		End-wall Samples		Bottom Samples		Side-wall Samples				
		T6-EP #2	T6-EP #6	T6-EP #1	T6-EP #5	T6-EP #3	~~T6-EP #4~~	T6-EP#9	T6-EP #7	T6-EP #8
		(9')	(10')	(12')	(12')	(9')	~~(9')~~	(10.5')	(10')	(10')
Aluminum	NA	1,640	2,350	3,810	2,890	2,170	~~2,510~~	14,300	2,100	2,390
Antimony	NA	1.8 U	1.6 U	2.3 U	1.9 U	1.6 U	~~2.4 U~~	4.4 U	1.9 U	1.9 U
Arsenic	13	0.86 J	0.82 U	2.1	1.2	1.1	~~1.2 U~~	1.1 J	0.97 U	1.2
Barium	350	10.5 J	17.9 J	26.9 J	23.8 J	22.3 J	~~29.3 J~~	166	17.2 J	16.7 J
Beryllium	7.2	0.37 U	0.12 J	0.22 J	0.16 J	0.13 J	~~0.47 U~~	0.44 U	0.39 U	0.16 J
Cadmium	2.5	0.92 U	0.82 U	1.2 U	0.93 U	0.79 U	~~1.2 U~~	0.88 U	0.97 U	0.94 U
Calcium	NA	417 J	377 J	790 J	902 J	481 J	~~627 J~~	7,820	291 J	577 J
Chromium[1]	30	3.5	4.1	7.0	6.5	4.0	~~5.7~~	**31.5**	4.0	5.4
Cobalt	NA	2.3 J	1.8 J	3.7 J	2.3 J	2.0 J	~~1.5 J~~	10.8 J	1.6 J	3.1 J
Copper	50	3.2 J	3.8 J	6.2	5.3	3.9 J	~~6.3~~	23.4	3.4 J	3.3 J
Iron	NA	4,330	3,190	8,260	5,770	3,720	~~5,260~~	25,900	3,180	4,950
Lead	63	1.3	2.1	2.8	2.3	2.0	~~2.1~~	8.2	1.4	1.9
Magnesium	NA	625 J	855	1,100 J	1,000	683 J	~~810 J~~	7,860	675 J	809 J
Manganese	1,600	46.2	113	99.5	127	92.3	~~91.4~~	391	112	65.3
Nickel	30	3.5 J	8.1	6.4 J	5.0 J	4.4 J	~~5.3 J~~	22.0	3.5 J	5.1 J
Potassium	NA	334 J	497 J	698 J	673 J	448 J	~~505 J~~	6,260	508 J	589 J
Selenium	3.9	1.8 U	1.6 U	2.3 U	1.9 U	1.6 U	~~2.4 U~~	4.4 U	1.9 U	1.9 U
Silver	2	1.8 U	1.6 U	2.3 U	0.67 J	1.6 U	~~**7.5**~~	2.2 U	1.9 U	1.9 U
Sodium	NA	918 U	821 U	1,170 U	927 U	794 U	~~1,180 U~~	174 J	973 U	944 U
Thallium	NA	1.8 U	1.6 U	2.3 U	1.9 U	1.6 U	~~2.4 U~~	4.4 U	1.9 U	1.9 U
Vanadium	NA	4.2 J	4.7 J	9.5 J	6.9 J	4.8 J	~~6.3 J~~	44.2	3.9 J	6.2 J
Zinc	109	9.9	9.5	17.9	13.6	9.3	~~11.3~~	61.8	7.6	10.6
Mercury	0.18	0.019 U	0.016 U	0.019 U	0.020 U	0.019 U	~~0.022 U~~	0.019 U	0.017 U	0.022 U

Notes
J : Sample result is greater than the MDL but below the CRDL
U : Indicates analyzed for but not detected.
[1] Trivalent chromium SCOs utilized.
Highlighted / bolded indicates analyte exceeded above its respective NYSDEC Unrestricted SCO.
NA - Not Available
NS - No Standard Available
~~ ~~ Indicates that sample locations were removed as part of supplemental soil excavation activities.

FIGURES

1. Site Location Map
2. Site Layout Map
3. Geologic Cross Section
4.1 Groundwater Contour Map Superfund Site
4.2 Groundwater Contour Map RCRA Site
5.1 through 5.40: Remaining Soil Sample Exceedances (RCRA Site)
6.1 Institutional Control Boundaries (onsite)
6.2 Institutional Control Boundaries (offsite)
7.1 Engineering Controls (Plan View)
7.2 Engineering Controls (Detail)



QUADRANGLE LOCATION



SOURCE:
USGS; 1968, Sea Cliff, N.Y.
7.5 Minute Topographic Quadrangle

N

0 2000’

Title:

SITE LOCATION MAP

POWERS CHEMCO SUPERFUND SITE NO. 130028
POWERS CHEMCO RCRA SITE NO. 130028A SITE
MANAGEMENT PLAN ADDENDUM NO. 1

Prepared for:

KONICA MINOLTA HOLDINGS USA, INC.
GLEN COVE, NEW YORK

ROUX

Compiled by: N.E.	Date: 05APR21	FIGURE
Prepared by: B.H.C.	Scale: AS SHOWN	1
Project Mgr: N.E.	Project: 2020.0001Y000	
File: 2020.0001Y213.03.CDR		

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LEGEND

SUPERFUND SITE

RCRA SITE

N

200' 0 200'

Title:

SITE LAYOUT MAP

POWERS CHEMCO SUPERFUND SITE NO. 130028
AND POWERS CHEMCO RCRA SITE NO. 130028A
SITE MANAGEMENT PLAN ADDENDUM NO. 1

Prepared for:

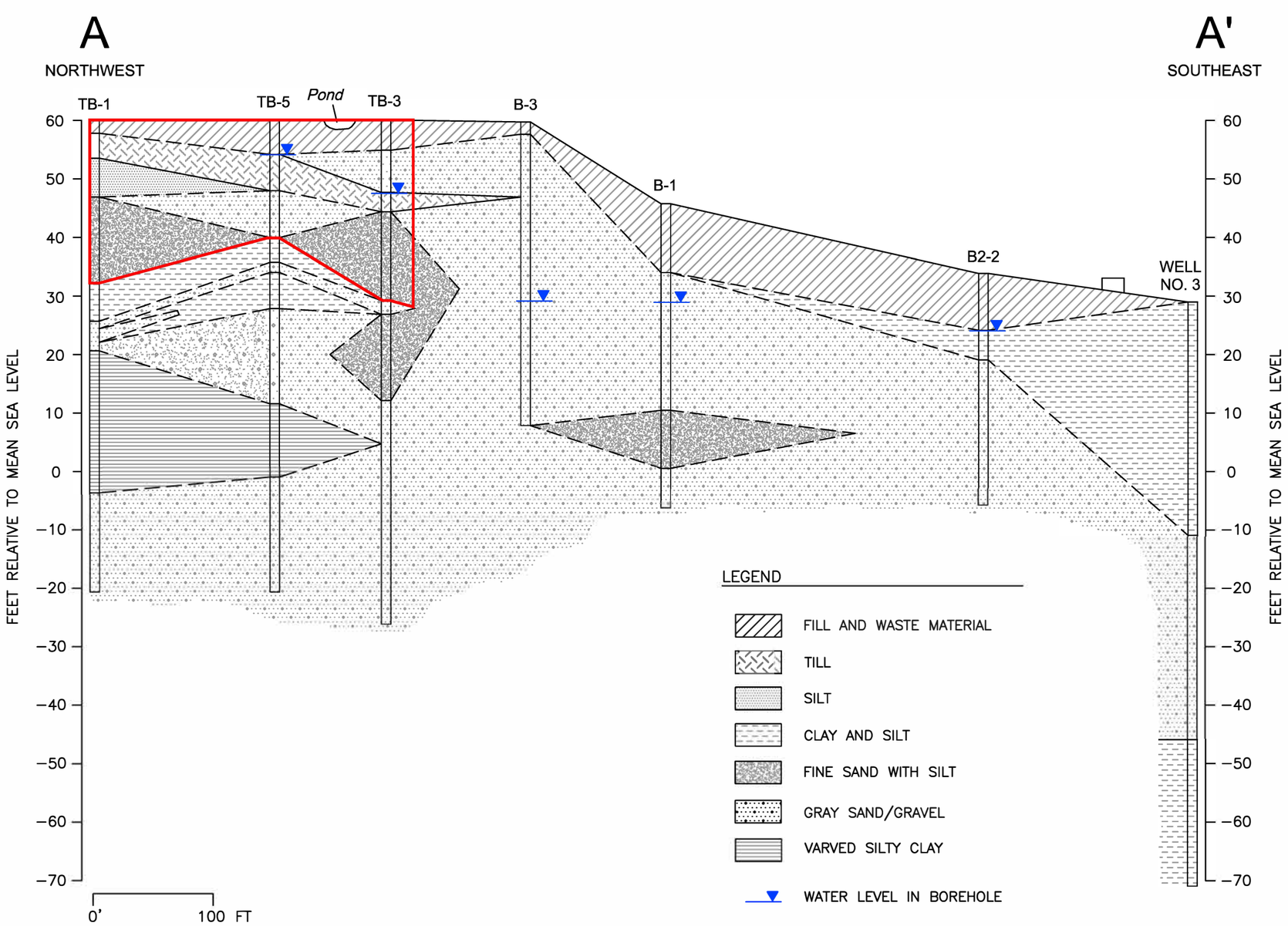
KONICA MINOLTA HOLDINGS USA, INC.
GLEN COVE, NEW YORK

ROUX

Compiled by: N.E.	Date: 05APR21
Prepared by: B.H.C.	Scale: AS SHOWN
Project Mgr: N.E.	Project: 2020.0001Y000
File: 2020.0001Y213.02.DWG	

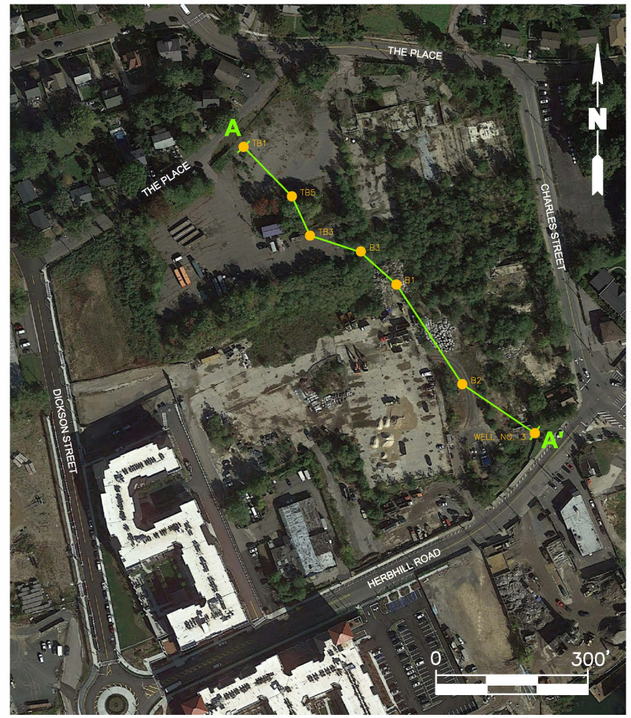
FIGURE 2

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LEGEND

- FILL AND WASTE MATERIAL
- TILL
- SILT
- CLAY AND SILT
- FINE SAND WITH SILT
- GRAY SAND/GRAVEL
- VARVED SILTY CLAY
- WATER LEVEL IN BOREHOLE
- APPROXIMATE AREA OF PERCHED GROUNDWATER
- TB1 — MONITORING WELL/TEST BORING LOCATION AND DESIGNATION
- A — A' — LINE OF GEOLOGIC CROSS SECTION



LOCATION OF GEOLOGIC CROSS SECTION

NOTE

THE INTERPRETATION OF SUBSURFACE CONDITIONS IS BASED ON EXTRAPOLATION OF DATA FROM: APRIL 1, 1984 HYDROGEOLOGIC STUDY, FRED C. HART AND ASSOCIATES, INC.

Title:

GEOLOGIC CROSS SECTION (RCRA AND SUPERFUND SITES)

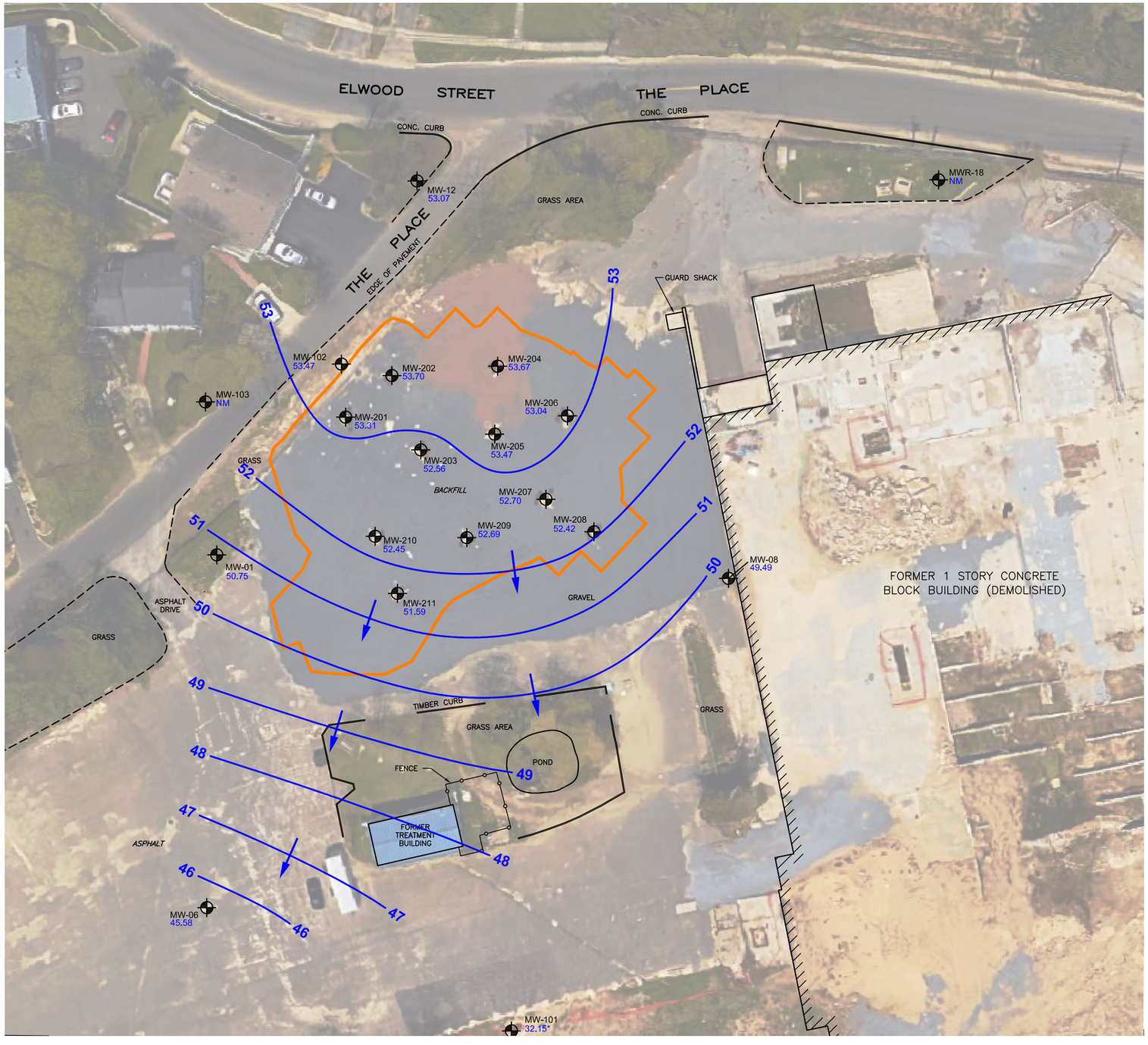
POWERS CHEMCO SUPERFUND SITE NO. 130028 AND
POWERS CHEMCO RCRA SITE NO. 130028A
SITE MANAGEMENT PLAN ADDENDUM NO. 1

Prepared for:
KONICA MINOLTA HOLDINGS USA, INC.
GLEN COVE, NEW YORK

ROUX

Compiled by: N.E.	Date: 08APR21	FIGURE
Prepared by: B.H.C.	Scale: AS SHOWN	3
Project Mgr: N.E.	Project: 2020.0001Y000	
File: 2020.0001Y213.03.DWG		

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LEGEND

- LIMIT OF REMEDIAL EXCAVATION
- MW-12 — MONITORING WELL
- 57 — LINE OF EQUAL WATER–LEVEL ELEVATION IN FEET RELATIVE TO MEAN SEA LEVEL
- INFERRED DIRECTION OF GROUNDWATER FLOW IN THE PERCHED ZONE
- 53.67 — WATER–LEVEL ELEVATION IN FEET RELATIVE TO MEAN SEA LEVEL
- * — WELL NOT SCREENED IN PERCHED ZONE. NOT INCLUDED IN CONTOUR MAP PREPARATION
- NM — NOT MEASURED

NOTE

THIS PROPERTY DESIGNATED SECTION 31, BLOCK "G" ON THE LAND AND TAX MAP OF THE COUNTY OF NASSAU.

N

40' 0 40'

Title:

GROUNDWATER CONTOUR MAP (SUPERFUND SITE)

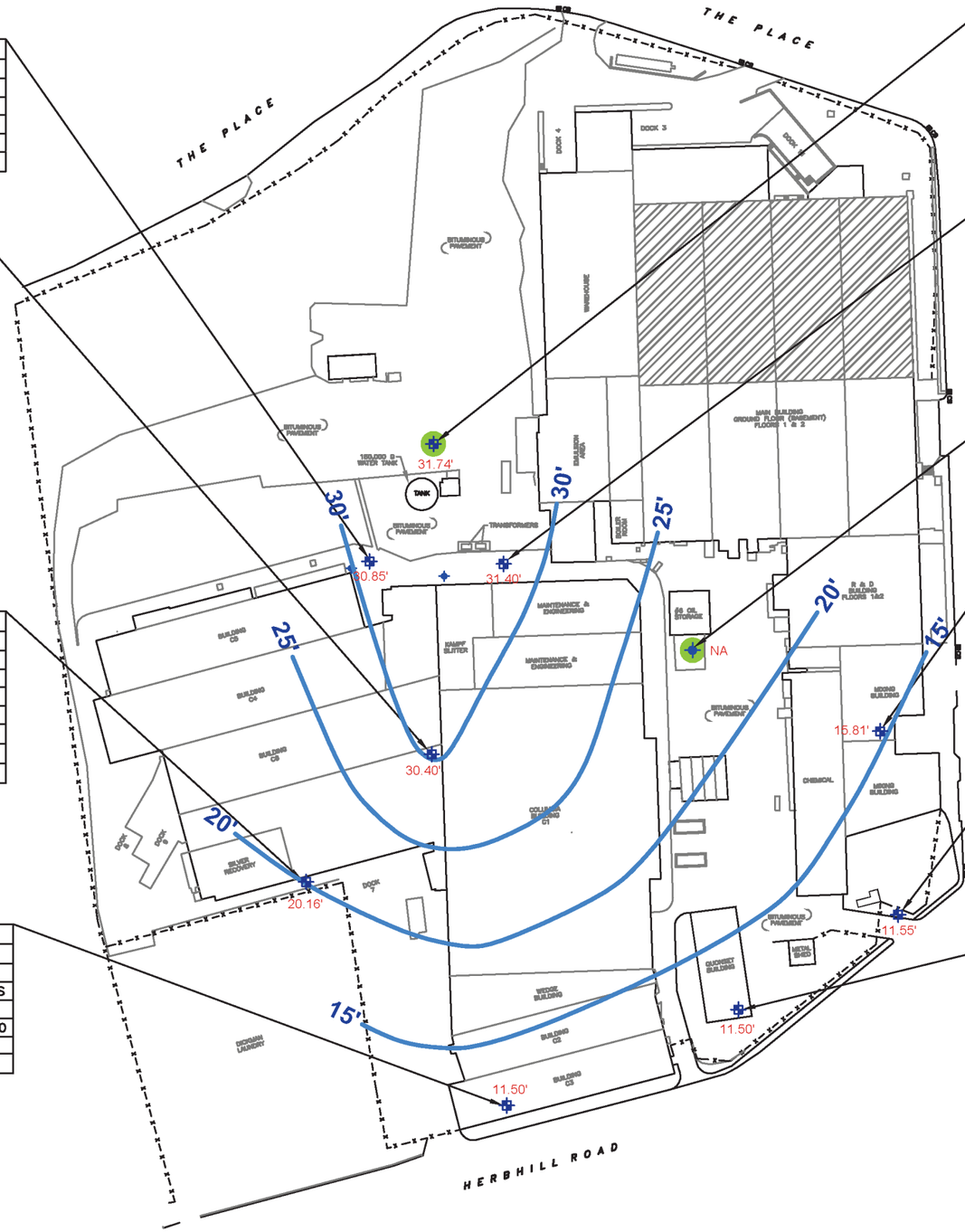
POWERS CHEMCO SITE SUPERFUND NO. 130028
POWERS CHEMCO RCRA SITE NO. 130028A
SITE MANAGEMENT PLAN ADDENDUM NO. 1

Prepared for:
KONICA MINALTA HOLDINGS USA, INC.
GLEN COVE, NEW YORK

ROUX

Compiled by: N.E.	Date: 12OCT22	FIGURE
Prepared by: B.H.C.	Scale: AS SHOWN	4-1
Project Mgr: N.E.	Project: 2020.0001Y000	
File: 2020.0001Y215.01.DWG		

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MWR–17	SEPT. 2014	
COMPOUND	T	D
MANGANESE	481	357
SODIUM	49,100	44,200
TCL VOCs	<TOGS	NA
TCL SVOCs	<TOGS	NA

MWR–12	SEPT. 2014	
COMPOUND	T	D
IRON	1,190	<TOGS
MANGANESE	565	541
SODIUM	26,300	27,000
TCL VOCs	<TOGS	NA
TCL SVOCs	<TOGS	NA

MWR–11	SEPT. 2014	
COMPOUND	T	D
CADMIUM	6.1	<TOGS
IRON	11,700	5,630
MANGANESE	1,140	977
SODIUM	57,100	47,700
TCL VOCs	<TOGS	NA
TCL SVOCs	<TOGS	NA

MWR–13	SEPT. 2014	
COMPOUND	T	D
IRON	1,870	<TOGS
MANGANESE	445	332
SODIUM	29,206	28,600
TCL VOCs	<TOGS	NA
TCL SVOCs	<TOGS	NA

MWNL–01	SEPT. 2014	
COMPOUND	T	D
MAGNESIUM	149,000	146,000
MANGANESE	1,890	1,730
NICKEL	189	178
SODIUM	46,000	45,400
TCL VOCs	<TOGS	NA
TCL SVOCs	<TOGS	NA

MWR–10	SEPT. 2014	
COMPOUND	T	D
IRON	5,110	<TOGS
MAGNESIUM	40,400	40,400
MANGANESE	2,290	2,130
SODIUM	68,800	71,300
TCL VOCs	<TOGS	NA
TCL SVOCs	<TOGS	NA

P2–1*	SEPT. 2014	
COMPOUND	T	D
SODIUM	43,500	42,300
TCL VOCs	<TOGS	NA
TCL SVOCs	<TOGS	NA

MWR–16	SEPT. 2014	
COMPOUND	T	D
IRON	2,090	1,530
MANGANESE	3,050	2,870
SODIUM	69,700	65,900
TCL VOCs	<TOGS	NA
TCL SVOCs	<TOGS	NA

MWR–15	SEPT. 2014	
COMPOUND	T	D
MANGANESE	662	633
SODIUM	78,600	79,600
TCL VOCs	<TOGS	NA
TCL SVOCs	<TOGS	NA

MWR–14	SEPT. 2014	
COMPOUND	T	D
MANGANESE	995	914
1,1,2–TRICHLOROETHANE	12	NA
TCL SVOCs	<TOGS	NA

NOTE: CONTOUR MAP PRODUCED BY APEX.

N

LEGEND

- NEWLY INSTALLED WELLS
- EXISTING WELLS
- 57.56' WELL ELEVATION (AMSL)
- 30' POTENTIOMETRIC WATER TABLE CONTOUR LINES
- * NOTE THAT THIS EXISTING WELL APPEARS TO HAVE BEEN INSTALLED WITHIN THE SHALLOW PERCHED ZONE; THEREFOR, THIS DATUM WAS NOT UTILIZED.

DATA BOX LEGEND

SAMPLE ID → P2–1; TOTAL OR DISSOLVED; DATE SAMPLED

COMPOUND	05/15/00	10/07/11	10/07/11
	T	T	D
IRON	510	2,920	2,920
TCL VOCs	<TOGS	NA	NA
TCL SVOCs	<TOGS	<TOGS	NA

ANALYTICAL RESULTS UG/L

COMPOUND EXCEEDS NYSDEC CLASS GA STANDARD OR GUIDANCE VALUE.

<TOG: NONE OF THE INDICATED ANALYTES WERE DETECTED IN EXCEEDANCE OF NYSDEC CLASS GA STANDARD OR GUIDANCE VALUE.

NA: NOT ANALYZED FOR SPECIFIC CONTAMINANT.
VOC: VOLATILE ORGANIC COMPOUND
SVOC: SEMI–VOLATILE ORGANIC COMPOUND

SOURCE: NASSAU COUNTY LAND AND TAX MAP
SEC. 31, BLOCK G, LOTS 3, 5, 13, 213, 227, 230 & 231
SIDNEY B. BOWNE & SONS
DATE: SEPT. 2, 1994

0 100 200
SCALE FEET

Title: **GROUNDWATER CONTOUR MAP (RCRA SITE)**

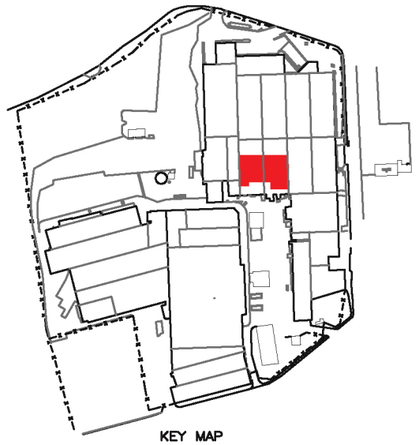
POWERS CHEMCO SUPERFUND SITE NO. 130028
POWERS CHEMCO RCRA SITE NO. 130028A
SITE MANAGEMENT PLAN ADDENDUM NO. 1

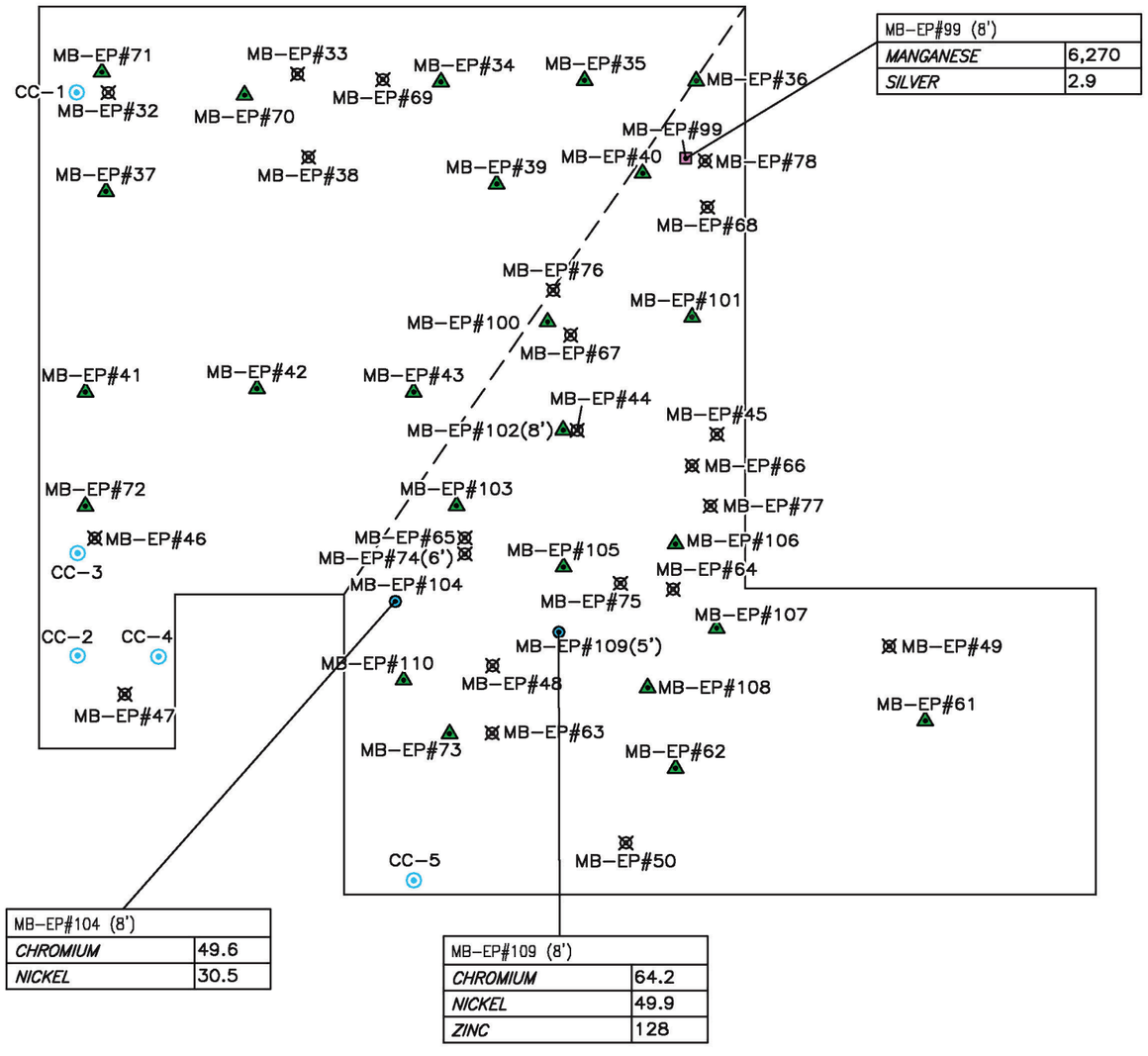
Prepared for: KONICA MINOLTA HOLDINGS USA, INC.
GLEN COVE, NEW YORK

ROUX

Compiled by: N.E.	Date: 08APR21	FIGURE
Prepared by: B.H.C.	Scale: AS SHOWN	4-2
Project Mgr: N.E.	Project: 2020.0001Y000	
File: 2020.0001Y213.04.CDR		

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N

LEGEND

- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION WHICH HAS BEEN REMEDIATED
- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION
- SOIL BORING LOCATION

DATA BOX LEGEND

SAMPLE ID — ANALYTICAL RESULT MG/KG

MB-EP#99 (8')	
MANGANESE	6,270
SILVER	2.9

COMPOUND EXCEEDS SCOs

EXTENT OF EXCAVATION

GREEN/ITALICIZED VALUE INDICATES ANALYTE EXCEEDED ITS RESPECTIVE UNRESTRICTED SCO BUT WAS BELOW ITS RESPECTIVE RESIDENTIAL/PROTECTION OF GW SCO, WHICHEVER IS LOWER.

BLUE/ITALICIZED VALUE INDICATES ANALYTE EXCEEDED ITS RESPECTIVE RESIDENTIAL SCOS AND/OR PROTECTION OF GROUNDWATER SCO BUT WAS BELOW ITS RESTRICTED RESIDENTIAL SCO.

PINK/ITALICIZED VALUE INDICATES ANALYTE EXCEEDED ITS RESPECTIVE RESIDENTIAL SCOS AND/OR PROTECTION OF GROUNDWATER SCO BUT WAS BELOW ITS COMMERCIAL SCO OR CONCENTRATION APPROVED BY NYSDEC

0 10 20

SCALE FEET

NOTE: DRAWING CONTENT PRODUCED BY APEX.

Title:

FORMER MAIN BUILDING BASEMENT MB-2/3/14/15/16/17 / CC-2/3/4/5 ORIGINAL SAMPLE LOCATIONS (RCRA SITE)

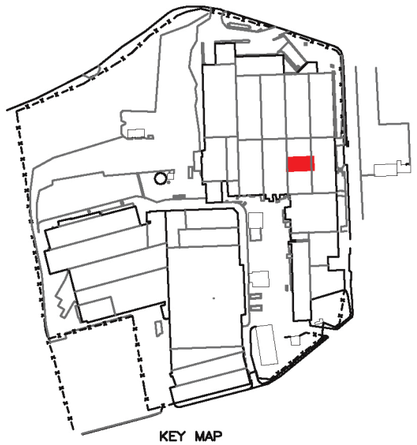
POWERS CHEMCO SUPERFUND SITE NO. 130028
POWERS CHEMCO RCRA SITE NO. 130028A
SITE MANAGEMENT PLAN ADDENDUM NO. 1

Prepared for: KONICA MINOLTA HOLDINGS USA, INC.
GLEN COVE, NEW YORK

ROUX

Compiled by: N.E.	Date: 12JAN22	FIGURE
Prepared by: B.H.C.	Scale: AS SHOWN	5-1
Project Mgr: N.E.	Project: 2020.0001Y000	
File: 2020.0001Y213.05.CDR		

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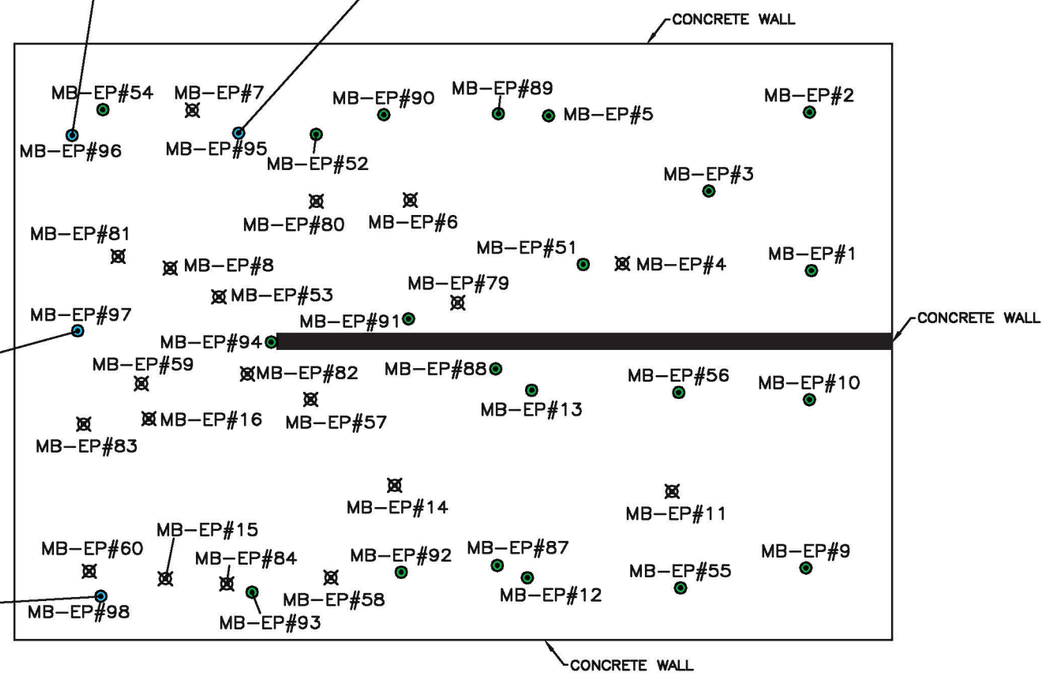


MB-EP#96 (8')	
CHROMIUM	73.2
COPPER	55.4
NICKEL	56.5
ZINC	143

MB-EP#95 (8')	
CHROMIUM	53.2
NICKEL	43.4

MB-EP#97 (8')	
CHROMIUM	63.8
NICKEL	44.4

MB-EP#98 (8')	
BARIUM	368
CHROMIUM	70.7
COPPER	53.7
MANGANESE	1,860
NICKEL	60.2
ZINC	138

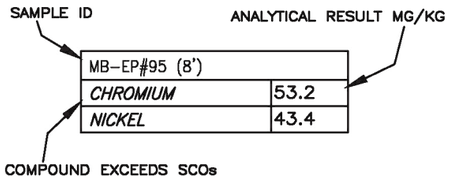


N

LEGEND

- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION WHICH HAS BEEN REMEDIATED
- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION

DATA BOX LEGEND



EXTENT OF EXCAVATION

GREEN/ITALICIZED VALUE INDICATES ANALYTE EXCEEDED ITS RESPECTIVE UNRESTRICTED SCO BUT WAS BELOW ITS RESPECTIVE RESIDENTIAL/PROTECTION OF GW SCO, WHICHEVER IS LOWER.

BLUE/ITALICIZED VALUE INDICATES ANALYTE EXCEEDED ITS RESPECTIVE RESIDENTIAL SCOS AND/OR PROTECTION OF GROUNDWATER SCO BUT WAS BELOW ITS RESTRICTED RESIDENTIAL SCO.

PINK/ITALICIZED VALUE INDICATES ANALYTE EXCEEDED ITS RESPECTIVE RESIDENTIAL SCOS AND/OR PROTECTION OF GROUNDWATER SCO BUT WAS BELOW ITS COMMERCIAL SCO OR CONCENTRATION APPROVED BY NYSDEC

0 10 20

SCALE FEET

NOTE: DRAWING CONTENT PRODUCED BY APEX.

Title:

FORMER MAIN BUILDING BASEMENT MB-22 ORIGINAL SAMPLE LOCATION (RCRA SITE)

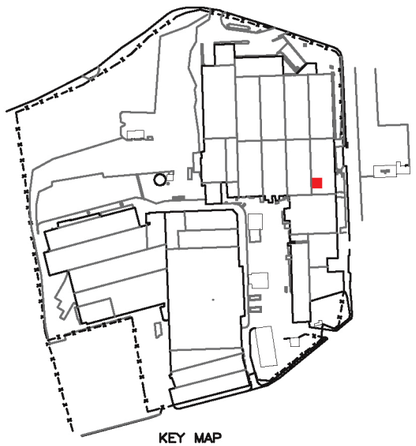
POWERS CHEMCO SUPERFUND SITE NO. 130028
POWERS CHEMCO RCRA SITE NO. 130028A
SITE MANAGEMENT PLAN ADDENDUM NO. 1

Prepared for: KONICA MINOLTA HOLDINGS USA, INC.
GLEN COVE, NEW YORK

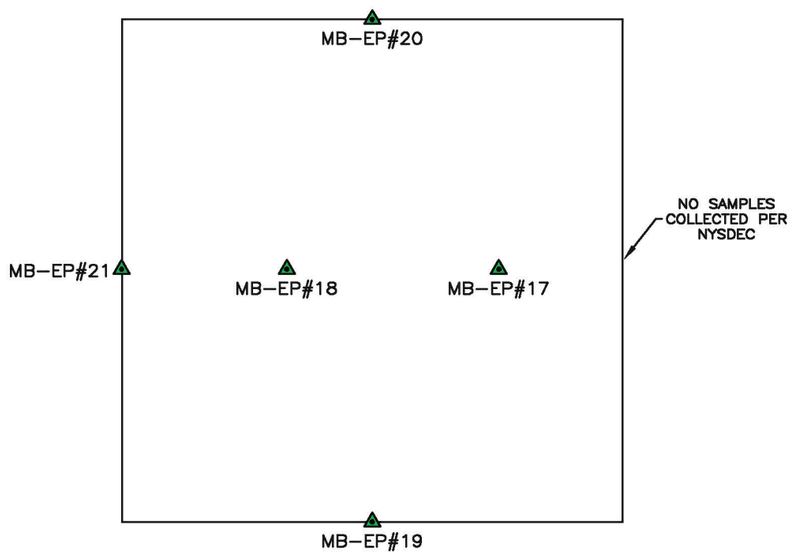
ROUX

Compiled by: N.E.	Date: 12JAN22	FIGURE
Prepared by: B.H.C.	Scale: AS SHOWN	5-2
Project Mgr: N.E.	Project: 2020.0001Y000	
File: 2020.0001Y213.05.CDR		

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KEY MAP



N

LEGEND

- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION WHICH HAS BEEN REMEDIATED
- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION

DATA BOX LEGEND

SAMPLE ID — ANALYTICAL RESULT MG/KG

B9–EP#19 (1')	
LEAD	1,340
SILVER	1,940

COMPOUND EXCEEDS SCOs

EXTENT OF EXCAVATION

GREEN/ITALICIZED VALUE INDICATES ANALYTE EXCEEDED ITS RESPECTIVE UNRESTRICTED SCO BUT WAS BELOW ITS RESPECTIVE RESIDENTIAL/PROTECTION OF GW SCO, WHICHEVER IS LOWER.

BLUE/ITALICIZED VALUE INDICATES ANALYTE EXCEEDED ITS RESPECTIVE RESIDENTIAL SCOS AND/OR PROTECTION OF GROUNDWATER SCO BUT WAS BELOW ITS RESTRICTED RESIDENTIAL SCO.

PINK/ITALICIZED VALUE INDICATES ANALYTE EXCEEDED ITS RESPECTIVE RESIDENTIAL SCOS AND/OR PROTECTION OF GROUNDWATER SCO BUT WAS BELOW ITS COMMERCIAL SCO OR CONCENTRATION APPROVED BY NYSDEC

0 3 6

SCALE FEET

NOTE: DRAWING CONTENT PRODUCED BY APEX.

Title:

MAIN BUILDING BASEMENT
MB-26 ORIGINAL SAMPLE LOCATION
(RCRA SITE)

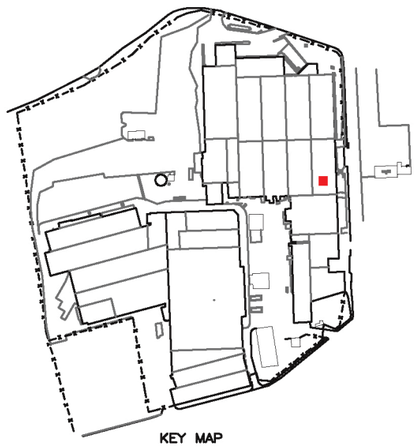
POWERS CHEMCO SUPERFUND SITE NO. 130028
POWERS CHEMCO RCRA SITE NO. 130028A
SITE MANAGEMENT PLAN ADDENDUM NO. 1

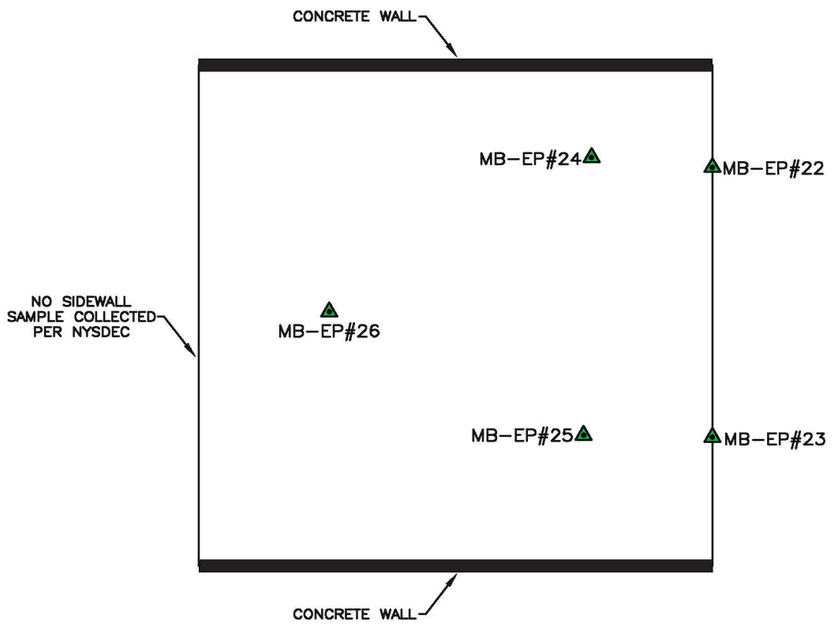
Prepared for: KONICA MINOLTA HOLDINGS USA, INC.
GLEN COVE, NEW YORK

ROUX

Compiled by: N.E.	Date: 12JAN22	FIGURE
Prepared by: B.H.C.	Scale: AS SHOWN	5-3
Project Mgr: N.E.	Project: 2020.0001Y000	
File: 2020.0001Y213.05.CDR		

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N

LEGEND

- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION WHICH HAS BEEN REMEDIATED
- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION

DATA BOX LEGEND

SAMPLE ID — ANALYTICAL RESULT MG/KG

B9–EP#19 (1')	
LEAD	1,340
SILVER	1,940

COMPOUND EXCEEDS SCOs

EXTENT OF EXCAVATION

GREEN/ITALICIZED VALUE INDICATES ANALYTE EXCEEDED ITS RESPECTIVE UNRESTRICTED SCO BUT WAS BELOW ITS RESPECTIVE RESIDENTIAL/PROTECTION OF GW SCO, WHICHEVER IS LOWER.

BLUE/ITALICIZED VALUE INDICATES ANALYTE EXCEEDED ITS RESPECTIVE RESIDENTIAL SCOS AND/OR PROTECTION OF GROUNDWATER SCO BUT WAS BELOW ITS RESTRICTED RESIDENTIAL SCO.

PINK/ITALICIZED VALUE INDICATES ANALYTE EXCEEDED ITS RESPECTIVE RESIDENTIAL SCOS AND/OR PROTECTION OF GROUNDWATER SCO BUT WAS BELOW ITS COMMERCIAL SCO OR CONCENTRATION APPROVED BY NYSDEC

0 3 6

SCALE FEET

NOTE: DRAWING CONTENT PRODUCED BY APEX.

Title:

FORMER MAIN BUILDING BASEMENT MB-27 ORIGINAL SAMPLE LOCATION (RCRA SITE)

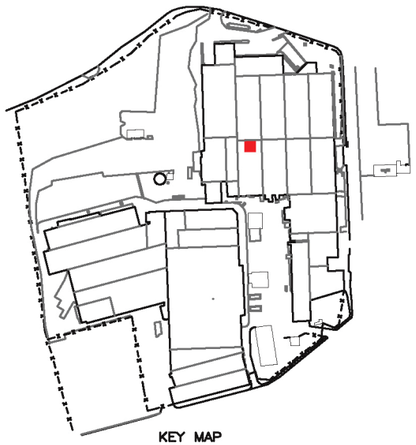
POWERS CHEMCO SUPERFUND SITE NO. 130028
POWERS CHEMCO RCRA SITE NO. 130028A
SITE MANAGEMENT PLAN ADDENDUM NO. 1

Prepared for: KONICA MINOLTA HOLDINGS USA, INC.
GLEN COVE, NEW YORK

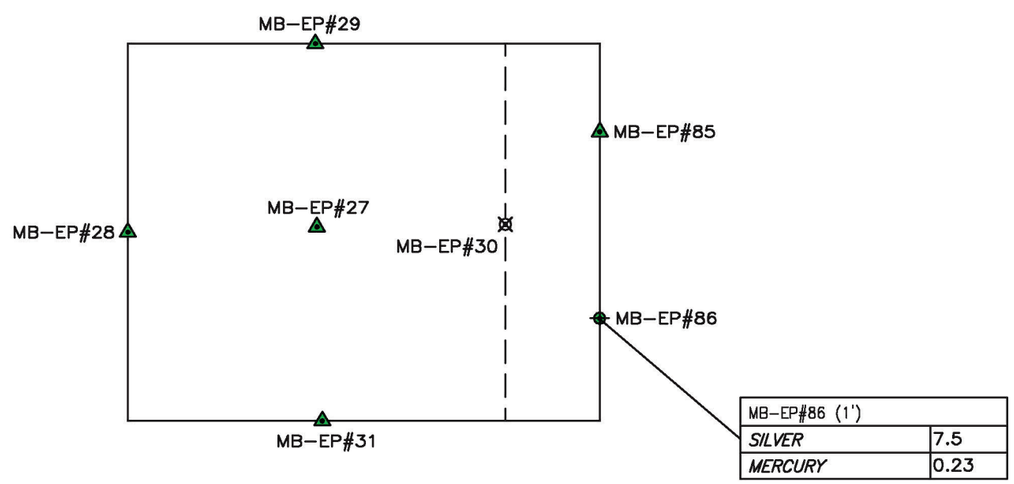
ROUX

Compiled by: N.E.	Date: 12JAN22	FIGURE
Prepared by: B.H.C.	Scale: AS SHOWN	5-4
Project Mgr: N.E.	Project: 2020.0001Y000	
File: 2020.0001Y213.05.CDR		

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KEY MAP



N

LEGEND

- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION WHICH HAS BEEN REMEDIATED
- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION

DATA BOX LEGEND

SAMPLE ID — ANALYTICAL RESULT MG/KG

MB–EP#86 (1')	
SILVER	7.5
MERCURY	0.23

COMPOUND EXCEEDS SCOs

EXTENT OF EXCAVATION

APPROXIMATE LIMIT OF SUPPLEMENTAL EXCAVATION

GREEN/ITALICIZED VALUE INDICATES ANALYTE EXCEEDED ITS RESPECTIVE UNRESTRICTED SCO BUT WAS BELOW ITS RESPECTIVE RESIDENTIAL/PROTECTION OF GW SCO, WHICHEVER IS LOWER.

BLUE/ITALICIZED VALUE INDICATES ANALYTE EXCEEDED ITS RESPECTIVE RESIDENTIAL SCOS AND/OR PROTECTION OF GROUNDWATER SCO BUT WAS BELOW ITS RESTRICTED RESIDENTIAL SCO.

PINK/ITALICIZED VALUE INDICATES ANALYTE EXCEEDED ITS RESPECTIVE RESIDENTIAL SCOS AND/OR PROTECTION OF GROUNDWATER SCO BUT WAS BELOW ITS COMMERCIAL SCO OR CONCENTRATION APPROVED BY NYSDEC

0 4 8

SCALE FEET

NOTE: DRAWING CONTENT PRODUCED BY APEX.

Title:

FORMER MAIN BUILDING BASEMENT MB-31 ORIGINAL SAMPLE LOCATION (RCRA SITE)

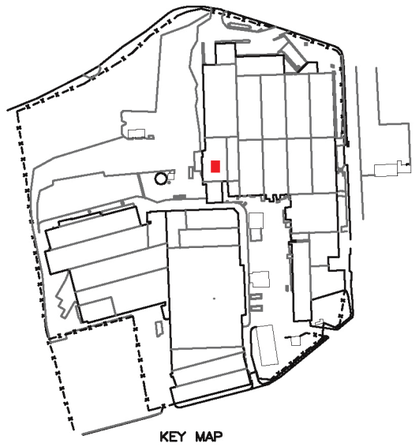
POWERS CHEMCO SUPERFUND SITE NO. 130028
POWERS CHEMCO RCRA SITE NO. 130028A
SITE MANAGEMENT PLAN ADDENDUM NO. 1

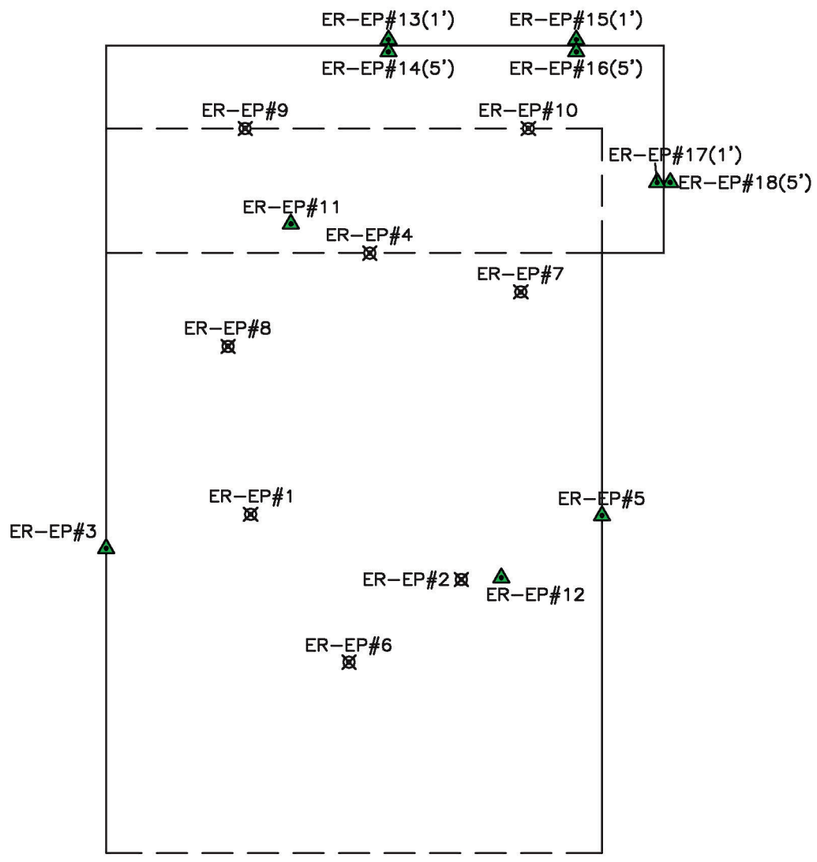
Prepared for: KONICA MINOLTA HOLDINGS USA, INC.
GLEN COVE, NEW YORK

ROUX

Compiled by: N.E.	Date: 12JAN22	FIGURE
Prepared by: B.H.C.	Scale: AS SHOWN	5-5
Project Mgr: N.E.	Project: 2020.0001Y000	
File: 2020.0001Y213.05.CDR		

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N

LEGEND

- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION WHICH HAS BEEN REMEDIATED
- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION

DATA BOX LEGEND

SAMPLE ID — ANALYTICAL RESULT MG/KG

B9–EP#19 (1')	
LEAD	1,340
SILVER	1,940

COMPOUND EXCEEDS SCOs

- EXTENT OF EXCAVATION
- APPROXIMATE LIMIT OF SUPPLEMENTAL EXCAVATION
- GREEN/ITALICIZED VALUE INDICATES ANALYTE EXCEEDED ITS RESPECTIVE UNRESTRICTED SCO BUT WAS BELOW ITS RESPECTIVE RESIDENTIAL/PROTECTION OF GW SCO, WHICHEVER IS LOWER.
- BLUE/ITALICIZED VALUE INDICATES ANALYTE EXCEEDED ITS RESPECTIVE RESIDENTIAL SCOS AND/OR PROTECTION OF GROUNDWATER SCO BUT WAS BELOW ITS RESTRICTED RESIDENTIAL SCO.
- PINK/ITALICIZED VALUE INDICATES ANALYTE EXCEEDED ITS RESPECTIVE RESIDENTIAL SCOS AND/OR PROTECTION OF GROUNDWATER SCO BUT WAS BELOW ITS COMMERCIAL SCO OR CONCENTRATION APPROVED BY NYSDEC

0 3 6

SCALE FEET

NOTE: DRAWING CONTENT PRODUCED BY APEX.

Title:

FORMER EMULSION ROOM
ER-3 ORIGINAL SAMPLE LOCATION
(RCRA SITE)

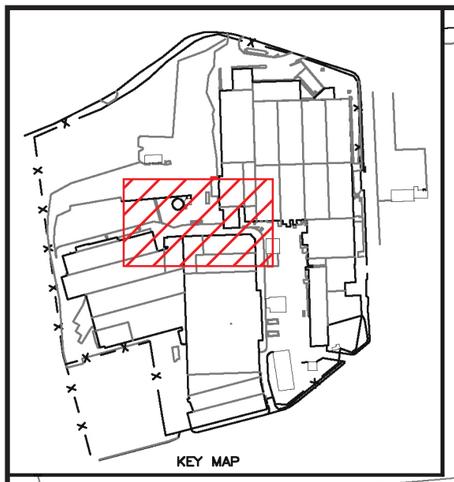
POWERS CHEMCO SUPERFUND SITE NO. 130028
POWERS CHEMCO RCRA SITE NO. 130028A
SITE MANAGEMENT PLAN ADDENDUM NO. 1

Prepared for: KONICA MINOLTA HOLDINGS USA, INC.
GLEN COVE, NEW YORK

ROUX

Compiled by: N.E.	Date: 12JAN22	FIGURE
Prepared by: B.H.C.	Scale: AS SHOWN	5-6
Project Mgr: N.E.	Project: 2020.0001Y000	
File: 2020.0001Y213.05.CDR		

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FORMER TANK #9 AREA

FORMER NORTH ALLEYWAY,
C5-3 & C5-4 AREAS

TANK

TRANSFORMERS

MAINTENANCE &
ENGINEERING

MAINTENANCE &
ENGINEERING

KAMPF
SLITTER

BUILDING C5

BUILDING C4

T9-EP#1 T9-EP#2 T9-EP#3 T9-EP#4 T9-EP#5 T9-EP#6 T9-EP#7 T9-EP#8 T9-EP#9 T9-EP#10 T9-EP#11 T9-EP#12 T9-EP#13 T9-EP#14 T9-EP#15 T9-EP#16 T9-EP#17 T9-EP#18 T9-EP#19 T9-EP#20 T9-EP#21 T9-EP#22 T9-EP#23 T9-EP#24 T9-EP#25 T9-EP#26 T9-EP#27 T9-EP#28 T9-EP#29 T9-EP#30 T9-EP#31 T9-EP#32 T9-EP#33

ER-9 ER-13

NA-EP#01 NA-EP#02 NA-EP#03 NA-EP#04 NA-EP#05 NA-EP#06 NA-EP#07 NA-EP#08 NA-EP#09 NA-EP#10 NA-EP#11 NA-EP#12 NA-EP#13 NA-EP#14 NA-EP#15 NA-EP#16 NA-EP#17 NA-EP#18 NA-EP#19 NA-EP#20 NA-EP#21 NA-EP#22 NA-EP#23 NA-EP#24 NA-EP#25 NA-EP#26 NA-EP#27 NA-EP#28 NA-EP#29 NA-EP#30 NA-EP#31 NA-EP#32 NA-EP#33 NA-EP#34 NA-EP#35 NA-EP#36 NA-EP#37 NA-EP#38 NA-EP#39 NA-EP#40 NA-EP#41 NA-EP#42 NA-EP#43 NA-EP#44 NA-EP#45 NA-EP#46 NA-EP#47 NA-EP#48 NA-EP#49 NA-EP#50 NA-EP#51 NA-EP#52 NA-EP#53 NA-EP#54 NA-EP#55 NA-EP#56 NA-EP#57 NA-EP#58 NA-EP#59 NA-EP#60 NA-EP#61 NA-EP#62 NA-EP#63 NA-EP#64 NA-EP#65 NA-EP#66 NA-EP#67 NA-EP#68 NA-EP#69 NA-EP#70 NA-EP#71 NA-EP#72 NA-EP#73 NA-EP#74 NA-EP#75 NA-EP#76 NA-EP#77 NA-EP#78 NA-EP#79 NA-EP#80 NA-EP#81 NA-EP#82 NA-EP#83 NA-EP#84 NA-EP#85

C5-3 C5-4

LEGEND

- ORIGINAL INVESTIGATION SAMPLE LOCATION
- NORTH ALLEYWAY ENDPOINT SAMPLE LOCATIONS
- SUPPLEMENTAL ENDPOINT SAMPLE LOCATIONS
- ENDPOINT SAMPLE LOCATION
- SUPPLEMENTAL ENDPOINT SAMPLE LOCATION (12/19/13)
- SUPPLEMENTAL ENDPOINT SAMPLE LOCATION (1/20/14)
- SUPPLEMENTAL ENDPOINT SAMPLE LOCATION (1/30/14)
- SUPPLEMENTAL ENDPOINT SAMPLE LOCATION (2/10/14)
- SUPPLEMENTAL ENDPOINT SAMPLE LOCATION (2/24/14)
- EXTENT OF INITIAL EXCAVATION
- EXTENT OF SUPPLEMENTAL EXCAVATION BY NYSDEC (12/19/13)
- EXTENT OF SUPPLEMENTAL EXCAVATION BY NYSDEC (1/20/14)
- EXTENT OF SUPPLEMENTAL EXCAVATION BY NYSDEC (1/30/14)
- EXTENT OF SUPPLEMENTAL EXCAVATION BY NYSDEC (2/10/14)
- EXTENT OF SUPPLEMENTAL EXCAVATION BY NYSDEC (2/24/14)

SOURCE: MAIN BUILDING FIRST FLOOR
113-8-23X
KONICA GRAPHIC IMAGING USA, INC.
DATE: AUGUST 9, 2002

COLUMBIA BUILDING SAMPLE LOCATIONS
FIGURE 3
PREFERRED ENVIRONMENTAL SERVICES
DATE: SEPTEMBER 11, 2011

N

0 25 50
SCALE FEET

NOTE: DRAWING CONTENT PRODUCED BY APEX.

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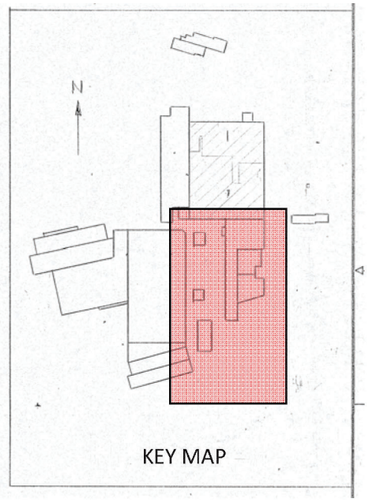
Title:
FORMER TANK #9/NORTH ALLEYWAY/C5-3/C5-4/ ER-13 POST EXCAVATION SOIL SAMPLE LOCATIONS (RCRA SITE)

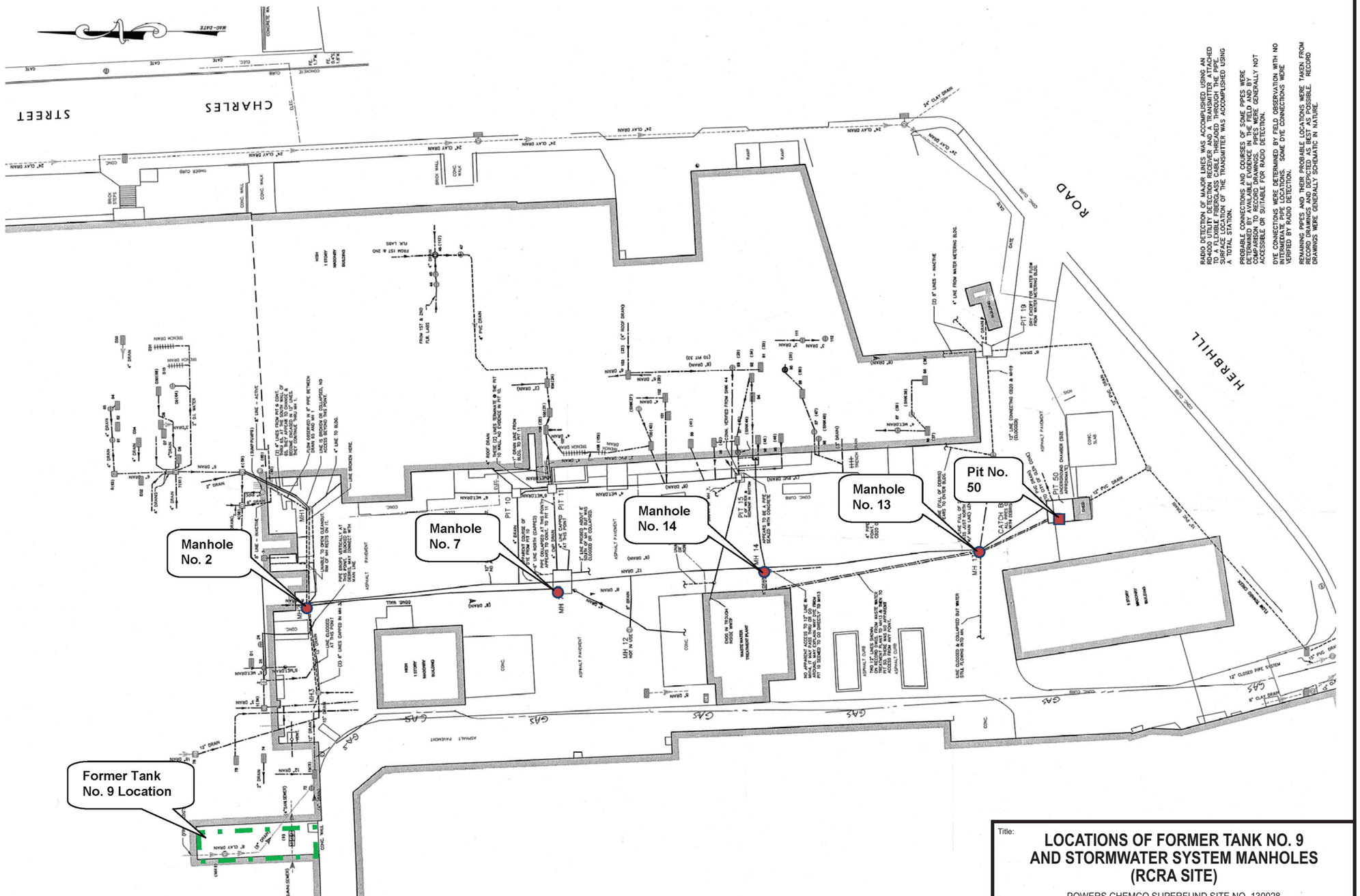
POWERS CHEMCO SUPERFUND SITE NO. 130028
POWERS CHEMCO RCRA SITE NO. 130028A
SITE MANAGEMENT PLAN ADDENDUM NO. 1

Prepared for:
KONICA MINOLTA HOLDINGS USA, INC.
GLEN COVE, NEW YORK

ROUX

Compiled by: N.E.	Date: 12JAN22	FIGURE
Prepared by: B.H.C.	Scale: AS SHOWN	5-7
Project Mgr: N.E.	Project: 2020.0001Y000	
File: 2020.0001Y213.05.CDR		





Historic base map provided by Konica (Not to Scale)

NOTE: DRAWING CONTENT PRODUCED BY APEX.

Title:

LOCATIONS OF FORMER TANK NO. 9 AND STORMWATER SYSTEM MANHOLES (RCRA SITE)

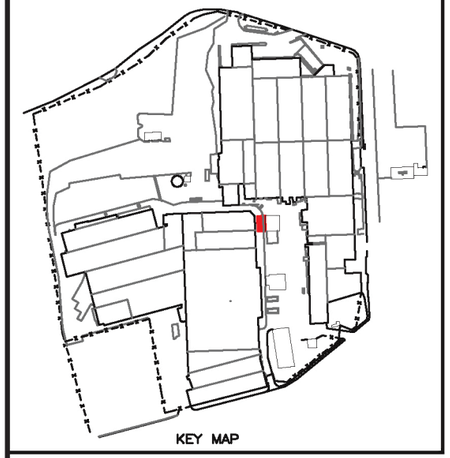
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POWERS CHEMCO RCRA SITE NO. 130028A
SITE MANAGEMENT PLAN ADDENDUM NO. 1

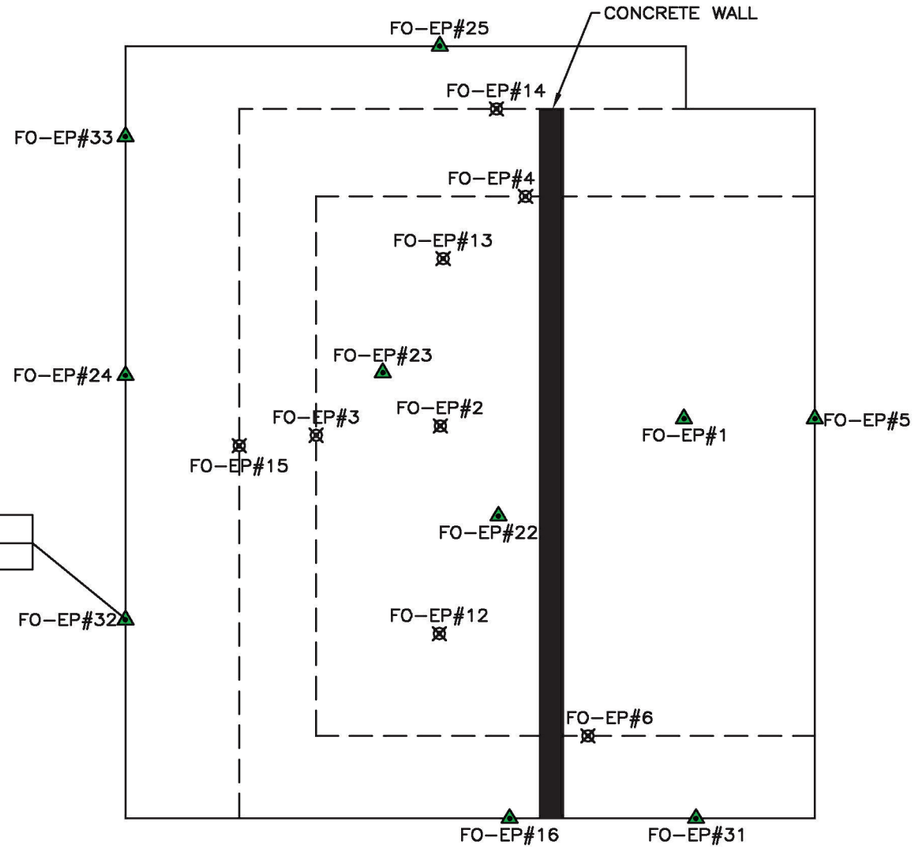
Prepared for: KONICA MINOLTA HOLDINGS USA, INC.
GLEN COVE, NEW YORK

ROUX

Compiled by: N.E.	Date: 12JAN22	FIGURE
Prepared by: B.H.C.	Scale: AS SHOWN	5-8
Project Mgr: N.E.	Project: 2020.0001Y000	
File: 2020.0001Y213.05.CDR		

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N

LEGEND

- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION WHICH HAS BEEN REMEDIATED
- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION

DATA BOX LEGEND

SAMPLE ID — ANALYTICAL RESULT MG/KG

CM-EP#32 (1')	
LEAD	138

COMPOUND EXCEEDS SCOs

- EXTENT OF EXCAVATION
- APPROXIMATE LIMIT OF SUPPLEMENTAL EXCAVATION
- GREEN/ITALICIZED VALUE INDICATES ANALYTE EXCEEDED ITS RESPECTIVE UNRESTRICTED SCO BUT WAS BELOW ITS RESPECTIVE RESIDENTIAL/PROTECTION OF GW SCO, WHICHEVER IS LOWER.
- BLUE/ITALICIZED VALUE INDICATES ANALYTE EXCEEDED ITS RESPECTIVE RESIDENTIAL SCOS AND/OR PROTECTION OF GROUNDWATER SCO BUT WAS BELOW ITS RESTRICTED RESIDENTIAL SCO.
- PINK/ITALICIZED VALUE INDICATES ANALYTE EXCEEDED ITS RESPECTIVE RESIDENTIAL SCOS AND/OR PROTECTION OF GROUNDWATER SCO BUT WAS BELOW ITS COMMERCIAL SCO OR CONCENTRATION APPROVED BY NYSDEC

0 3 6

SCALE FEET

NOTE: DRAWING CONTENT PRODUCED BY APEX.

Title:

FORMER SOUTH LOT AREA
F0-7 ORIGINAL SAMPLE LOCATION
(RCRA SITE)

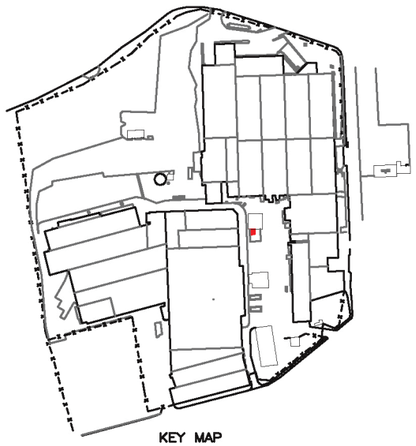
POWERS CHEMCO SUPERFUND SITE NO. 130028
POWERS CHEMCO RCRA SITE NO. 130028A
SITE MANAGEMENT PLAN ADDENDUM NO. 1

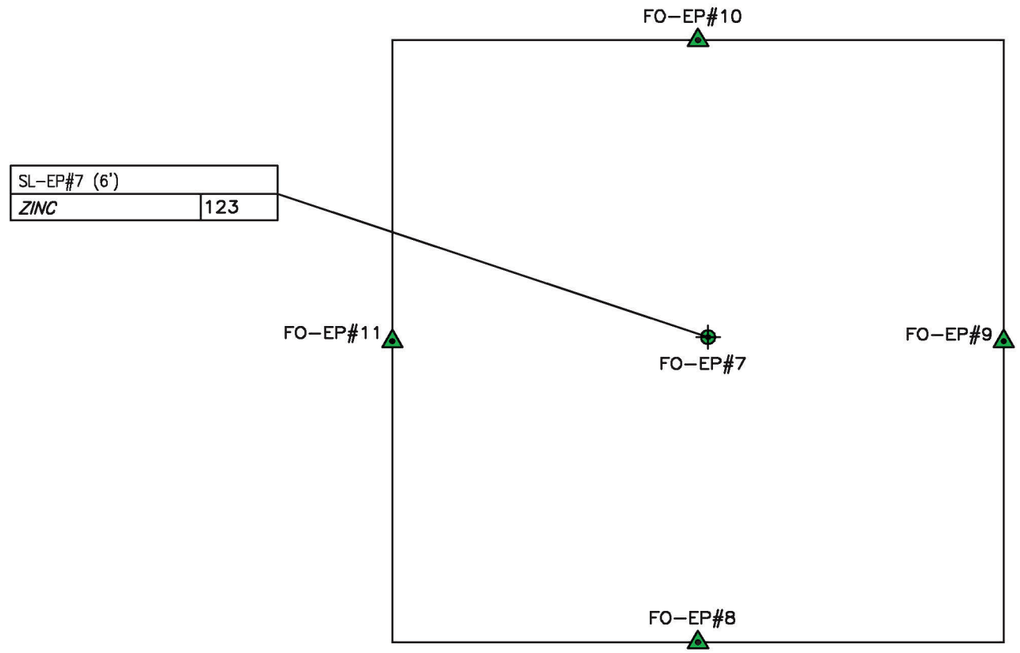
Prepared for: KONICA MINOLTA HOLDINGS USA, INC.
GLEN COVE, NEW YORK

ROUX

Compiled by: N.E.	Date: 12JAN22	FIGURE
Prepared by: B.H.C.	Scale: AS SHOWN	5-9
Project Mgr: N.E.	Project: 2020.0001Y000	
File: 2020.0001Y213.05.CDR		

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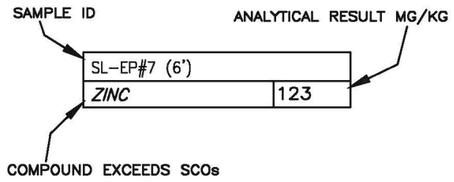


N

LEGEND

- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION WHICH HAS BEEN REMEDIATED
- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION

DATA BOX LEGEND



- EXTENT OF EXCAVATION
- GREEN/ITALICIZED VALUE INDICATES ANALYTE EXCEEDED ITS RESPECTIVE UNRESTRICTED SCO BUT WAS BELOW ITS RESPECTIVE RESIDENTIAL/PROTECTION OF GW SCO, WHICHEVER IS LOWER.
- BLUE/ITALICIZED VALUE INDICATES ANALYTE EXCEEDED ITS RESPECTIVE RESIDENTIAL SCOS AND/OR PROTECTION OF GROUNDWATER SCO BUT WAS BELOW ITS RESTRICTED RESIDENTIAL SCO.
- PINK/ITALICIZED VALUE INDICATES ANALYTE EXCEEDED ITS RESPECTIVE RESIDENTIAL SCOS AND/OR PROTECTION OF GROUNDWATER SCO BUT WAS BELOW ITS COMMERCIAL SCO OR CONCENTRATION APPROVED BY NYSDEC

0 3 6

SCALE FEET

NOTE: DRAWING CONTENT PRODUCED BY APEX.

Title:

FORMER SOUTH LOT AREA
FO-7 ORIGINAL SAMPLE LOCATION
(RCRA SITE)

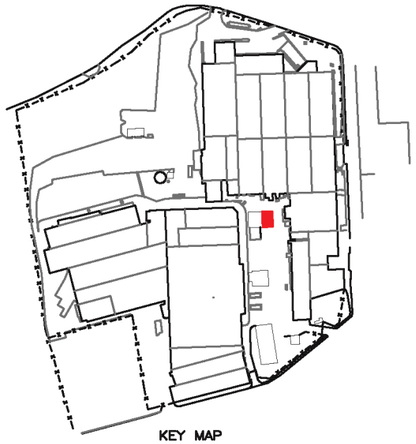
POWERS CHEMCO SUPERFUND SITE NO. 130028
POWERS CHEMCO RCRA SITE NO. 130028A
SITE MANAGEMENT PLAN ADDENDUM NO. 1

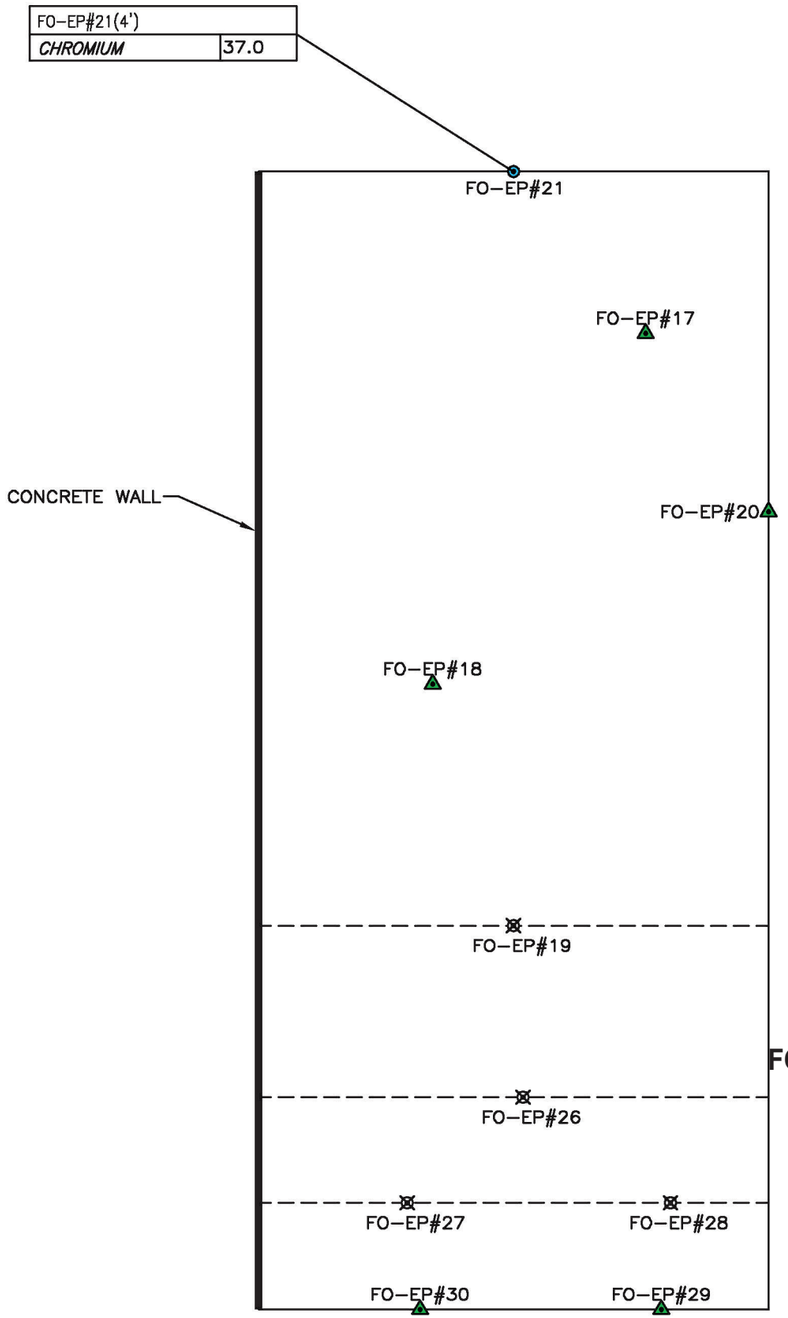
Prepared for:
KONICA MINOLTA HOLDINGS USA, INC.
GLEN COVE, NEW YORK

ROUX

Compiled by: N.E.	Date: 12JAN22	FIGURE
Prepared by: B.H.C.	Scale: AS SHOWN	5-10
Project Mgr: N.E.	Project: 2020.0001Y000	
File: 2020.0001Y213.05.CDR		

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FORMER MAIN BUILDING BASEMENT
MB-2/3/14/15/16/17 / CC-2/3/4/5
ORIGINAL SAMPLE LOCATION

NOTE: DRAWING CONTENT PRODUCED BY APEX.

N

LEGEND

- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION WHICH HAS BEEN REMEDIATED
- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION

DATA BOX LEGEND

SAMPLE ID — ANALYTICAL RESULT MG/KG

FO-EP#21(4')	
CHROMIUM	37.0

COMPOUND EXCEEDS SCOs

- EXTENT OF EXCAVATION
- APPROXIMATE LIMIT OF SUPPLEMENTAL EXCAVATION
- GREEN/ITALICIZED VALUE INDICATES ANALYTE EXCEEDED ITS RESPECTIVE UNRESTRICTED SCO BUT WAS BELOW ITS RESPECTIVE RESIDENTIAL/PROTECTION OF GW SCO, WHICHEVER IS LOWER.
- BLUE/ITALICIZED VALUE INDICATES ANALYTE EXCEEDED ITS RESPECTIVE RESIDENTIAL SCOS AND/OR PROTECTION OF GROUNDWATER SCO BUT WAS BELOW ITS RESTRICTED RESIDENTIAL SCO.
- PINK/ITALICIZED VALUE INDICATES ANALYTE EXCEEDED ITS RESPECTIVE RESIDENTIAL SCOS AND/OR PROTECTION OF GROUNDWATER SCO BUT WAS BELOW ITS COMMERCIAL SCO OR CONCENTRATION APPROVED BY NYSDEC

0 3 6
SCALE FEET

Title:
FORMER SOUTH LOT AREA
FUEL OIL SLAB BLDG 6-SB-2 ORIGINAL SAMPLE LOCATION (RCRA SITE)

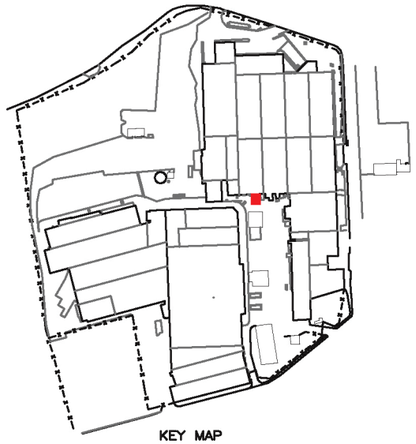
POWERS CHEMCO SUPERFUND SITE NO. 130028
POWERS CHEMCO RCRA SITE NO. 130028A
SITE MANAGEMENT PLAN ADDENDUM NO. 1

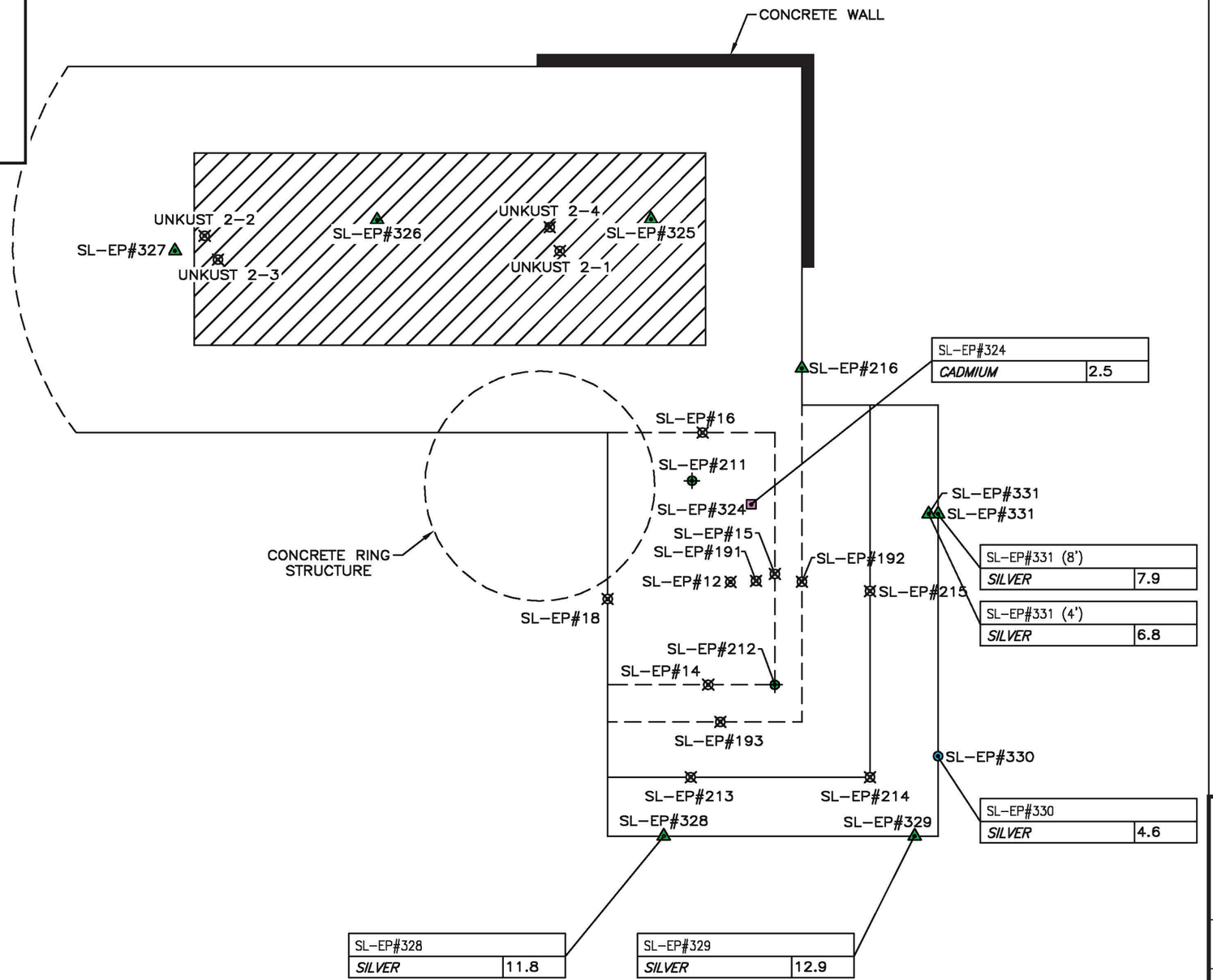
Prepared for: KONICA MINOLTA HOLDINGS USA, INC.
GLEN COVE, NEW YORK

ROUX

Compiled by: N.E.	Date: 12JAN22	FIGURE
Prepared by: B.H.C.	Scale: AS SHOWN	5-11
Project Mgr: N.E.	Project: 2020.0001Y000	
File: 2020.0001Y213.05.CDR		

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NOTE: DRAWING CONTENT PRODUCED BY APEX.

N

LEGEND

- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION WHICH HAS BEEN REMEDIATED
- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION

DATA BOX LEGEND

SAMPLE ID — ANALYTICAL RESULT MG/KG

SL-EP#328	
SILVER	11.8

COMPOUND EXCEEDS SCOs

- EXTENT OF EXCAVATION
- APPROXIMATE LIMIT OF SUPPLEMENTAL EXCAVATION
- FORMER UST LOCATION
- GREEN/ITALICIZED VALUE INDICATES ANALYTE EXCEEDED ITS RESPECTIVE UNRESTRICTED SCO BUT WAS BELOW ITS RESPECTIVE RESIDENTIAL/PROTECTION OF GW SCO, WHICHEVER IS LOWER.
- BLUE/ITALICIZED VALUE INDICATES ANALYTE EXCEEDED ITS RESPECTIVE RESIDENTIAL SCOS AND/OR PROTECTION OF GROUNDWATER SCO BUT WAS BELOW ITS RESTRICTED RESIDENTIAL SCO.
- PINK/ITALICIZED VALUE INDICATES ANALYTE EXCEEDED ITS RESPECTIVE RESIDENTIAL SCOS AND/OR PROTECTION OF GROUNDWATER SCO BUT WAS BELOW ITS COMMERCIAL SCO OR CONCENTRATION APPROVED BY NYSDEC

0 6 12

SCALE FEET

Title:

FORMER SOUTH LOT AREA
SL-1/UNKUST ORIGINAL SAMPLE LOCATION (RCRA SITE)

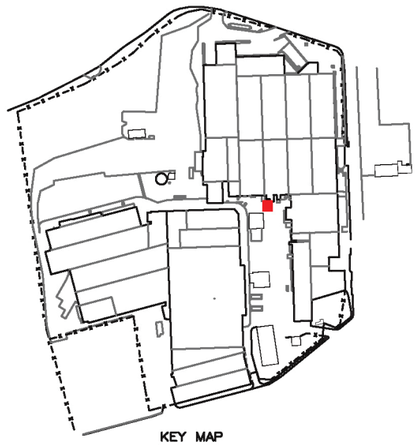
POWERS CHEMCO SUPERFUND SITE NO. 130028
POWERS CHEMCO RCRA SITE NO. 130028A
SITE MANAGEMENT PLAN ADDENDUM NO. 1

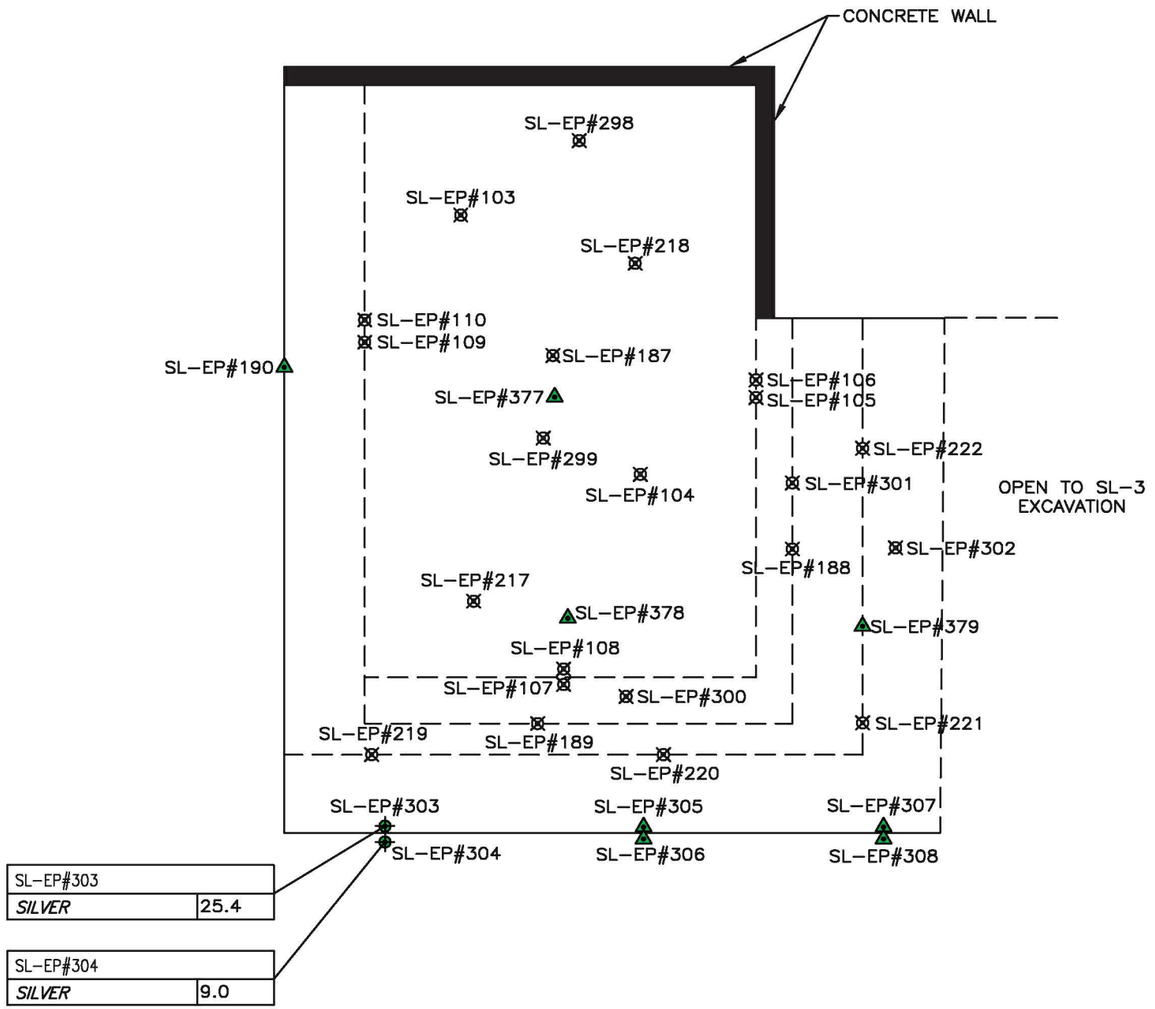
Prepared for: KONICA MINOLTA HOLDINGS USA, INC.
GLEN COVE, NEW YORK

ROUX

Compiled by: N.E.	Date: 12JAN22	FIGURE
Prepared by: B.H.C.	Scale: AS SHOWN	5-12
Project Mgr: N.E.	Project: 2020.0001Y000	
File: 2020.0001Y213.05.CDR		

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N

LEGEND

- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION WHICH HAS BEEN REMEDIATED
- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION

DATA BOX LEGEND

SAMPLE ID — ANALYTICAL RESULT MG/KG

SL-EP#303	
SILVER	25.4

COMPOUND EXCEEDS SCOs

- EXTENT OF EXCAVATION
- APPROXIMATE LIMIT OF SUPPLEMENTAL EXCAVATION
- GREEN/ITALICIZED VALUE INDICATES ANALYTE EXCEEDED ITS RESPECTIVE UNRESTRICTED SCO BUT WAS BELOW ITS RESPECTIVE RESIDENTIAL/PROTECTION OF GW SCO, WHICHEVER IS LOWER.
- BLUE/ITALICIZED VALUE INDICATES ANALYTE EXCEEDED ITS RESPECTIVE RESIDENTIAL SCOS AND/OR PROTECTION OF GROUNDWATER SCO BUT WAS BELOW ITS RESTRICTED RESIDENTIAL SCO.
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0 5 10
SCALE FEET

NOTE: DRAWING CONTENT PRODUCED BY APEX.

Title:

FORMER SOUTH LOT AREA
SL-2 ORIGINAL SAMPLE LOCATION
(RCRA SITE)

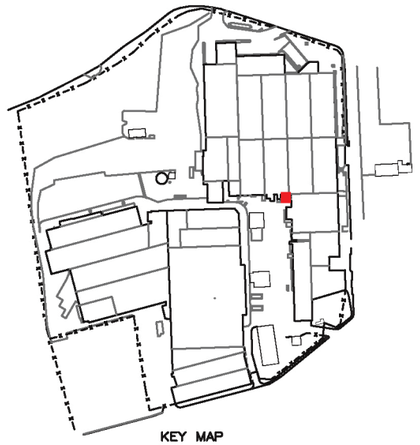
POWERS CHEMCO SUPERFUND SITE NO. 130028
POWERS CHEMCO RCRA SITE NO. 130028A
SITE MANAGEMENT PLAN ADDENDUM NO. 1

Prepared for: KONICA MINOLTA HOLDINGS USA, INC.
GLEN COVE, NEW YORK

ROUX

Compiled by: N.E.	Date: 12JAN22	FIGURE
Prepared by: B.H.C.	Scale: AS SHOWN	5-13
Project Mgr: N.E.	Project: 2020.0001Y000	
File: 2020.0001Y213.05.CDR		

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LEGEND

- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION WHICH HAS BEEN REMEDIATED
- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION

DATA BOX LEGEND

SAMPLE ID — ANALYTICAL RESULT MG/KG

SL-EP#311 (5')	
SILVER	4.8

COMPOUND EXCEEDS SCOs

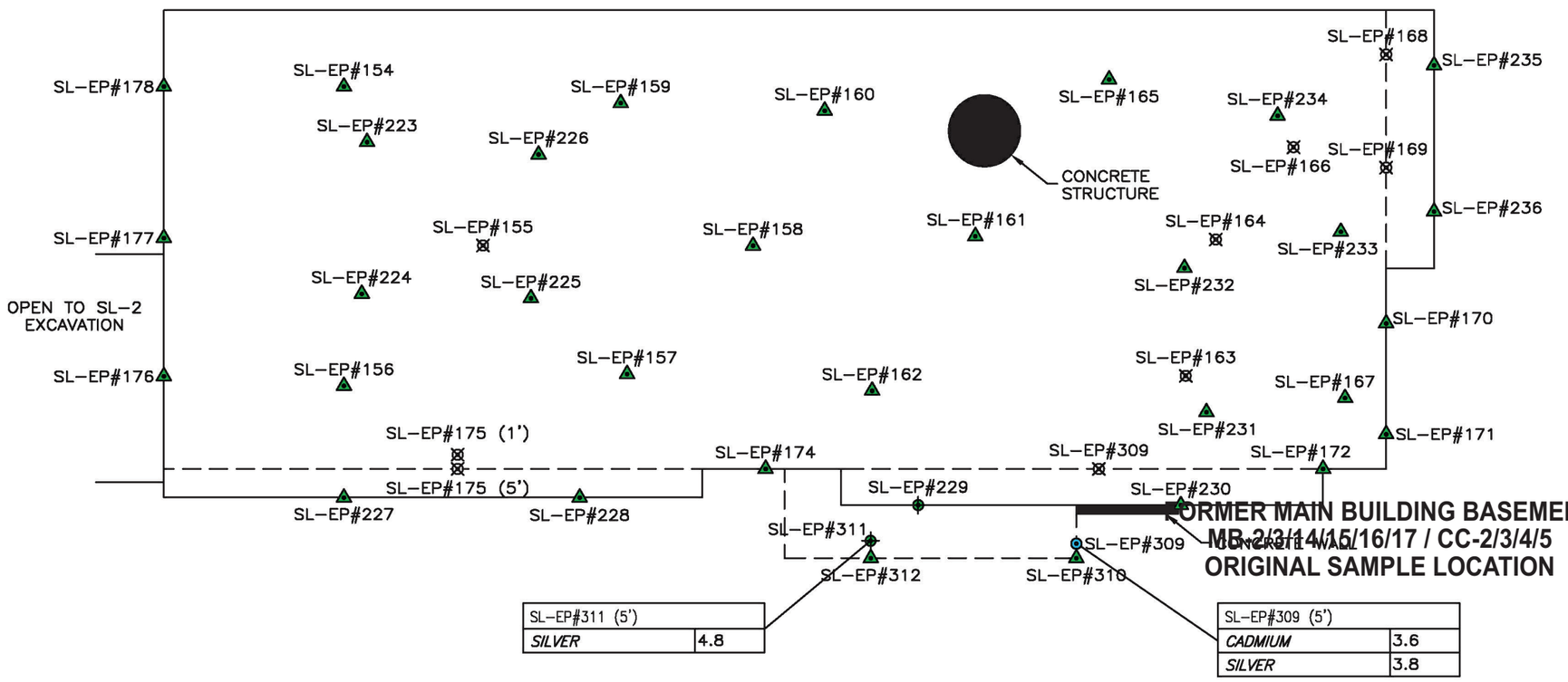
EXTENT OF EXCAVATION

APPROXIMATE LIMIT OF SUPPLEMENTAL EXCAVATION

GREEN/ITALICIZED VALUE INDICATES ANALYTE EXCEEDED ITS RESPECTIVE UNRESTRICTED SCO BUT WAS BELOW ITS RESPECTIVE RESIDENTIAL/PROTECTION OF GW SCO, WHICHEVER IS LOWER.

BLUE/ITALICIZED VALUE INDICATES ANALYTE EXCEEDED ITS RESPECTIVE RESIDENTIAL SCOS AND/OR PROTECTION OF GROUNDWATER SCO BUT WAS BELOW ITS RESTRICTED RESIDENTIAL SCO.

PINK/ITALICIZED VALUE INDICATES ANALYTE EXCEEDED ITS RESPECTIVE RESIDENTIAL SCOS AND/OR PROTECTION OF GROUNDWATER SCO BUT WAS BELOW ITS COMMERCIAL SCO OR CONCENTRATION APPROVED BY NYSDEC



0 6 12

SCALE FEET

NOTE: DRAWING CONTENT PRODUCED BY APEX.

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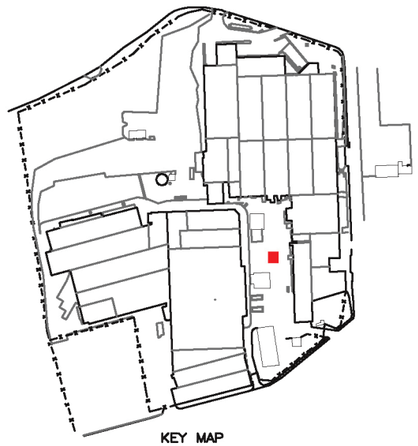
FORMER SOUTH LOT AREA
SL-3/39/40 ORIGINAL SAMPLING LOCATION (RCRA SITE)

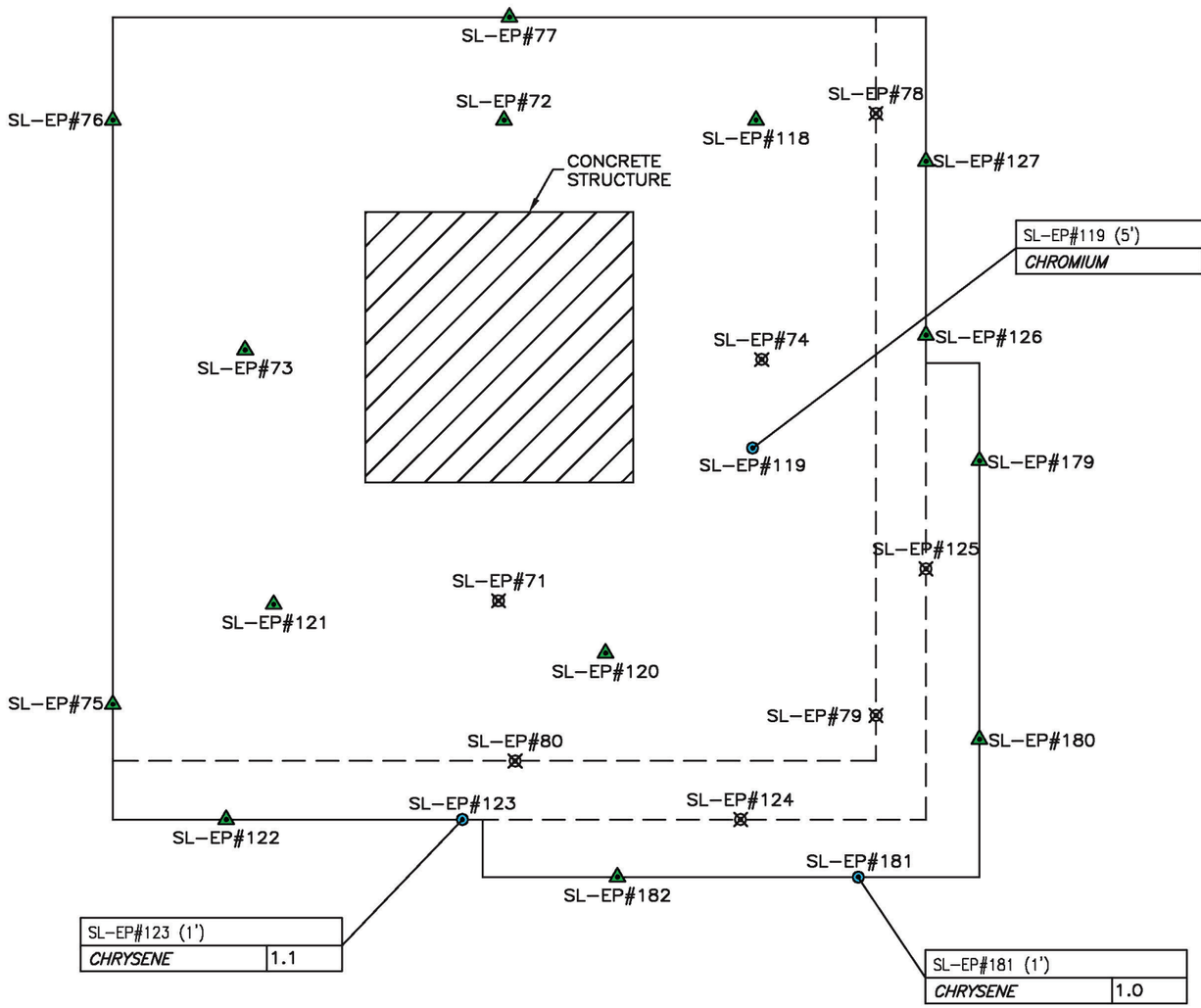
POWERS CHEMCO SUPERFUND SITE NO. 130028
POWERS CHEMCO RCRA SITE NO. 130028A
SITE MANAGEMENT PLAN ADDENDUM NO. 1

Prepared for: KONICA MINOLTA HOLDINGS USA, INC.
GLEN COVE, NEW YORK

ROUX

Compiled by: N.E.	Date: 12JAN22	FIGURE
Prepared by: B.H.C.	Scale: AS SHOWN	5-14
Project Mgr: N.E.	Project: 2020.0001Y000	
File: 2020.0001Y213.05.CDR		





N

LEGEND

- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION WHICH HAS BEEN REMEDIATED
- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION

DATA BOX LEGEND

SAMPLE ID — ANALYTICAL RESULT MG/KG

SL–EP#123 (1')	
CHRYSENE	1.1

COMPOUND EXCEEDS SCOs

- EXTENT OF EXCAVATION
- APPROXIMATE LIMIT OF SUPPLEMENTAL EXCAVATION
- GREEN/ITALICIZED VALUE INDICATES ANALYTE EXCEEDED ITS RESPECTIVE UNRESTRICTED SCO BUT WAS BELOW ITS RESPECTIVE RESIDENTIAL/PROTECTION OF GW SCO, WHICHEVER IS LOWER.
- BLUE/ITALICIZED VALUE INDICATES ANALYTE EXCEEDED ITS RESPECTIVE RESIDENTIAL SCOS AND/OR PROTECTION OF GROUNDWATER SCO BUT WAS BELOW ITS RESTRICTED RESIDENTIAL SCO.
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0 4 8

SCALE FEET

NOTE: DRAWING CONTENT PRODUCED BY APEX.

Title:

FORMER SOUTH LOT AREA
SL-4/5/6 ORIGINAL SAMPLING LOCATION (RCRA SITE)

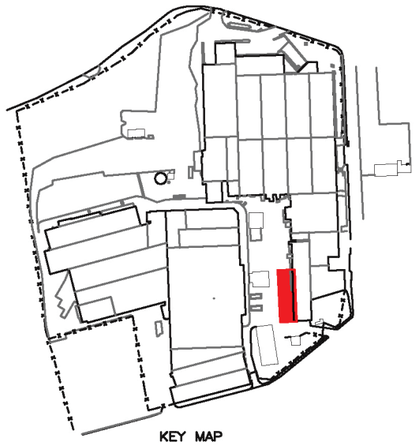
POWERS CHEMCO SUPERFUND SITE NO. 130028
POWERS CHEMCO RCRA SITE NO. 130028A
SITE MANAGEMENT PLAN ADDENDUM NO. 1

Prepared for: KONICA MINOLTA HOLDINGS USA, INC.
GLEN COVE, NEW YORK

ROUX

Compiled by: N.E.	Date: 12JAN22	FIGURE
Prepared by: B.H.C.	Scale: AS SHOWN	5-15
Project Mgr: N.E.	Project: 2020.0001Y000	
File: 2020.0001Y213.05.CDR		

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N

SL-EP#259 (10')
CHROMIUM 39.1

SL-EP#258 (10')
CHROMIUM 36.1

SL-EP#313 (10')
CHROMIUM 41.1

SL-EP#322 (6')
CHROMIUM 129

SL-EP#321 (3')
CHROMIUM 125

SL-EP#195 SL-EP#56 SL-EP#57 SL-EP#260 SL-EP#196 SL-EP#261
SL-EP#55 SL-EP#314 SL-EP#58 SL-EP#262
SL-EP#198 SL-EP#315
SL-EP#54 SL-EP#41 SL-EP#197 SL-EP#42 SL-EP#43 SL-EP#259 SL-EP#44 SL-EP#200
SL-EP#59 SL-EP#263
SL-EP#199
SL-EP#258
SL-EP#55 SL-EP#39 SL-EP#201
SL-EP#37 SL-EP#38 SL-EP#40 SL-EP#60 SL-EP#234
SL-EP#313 SL-EP#204 SL-EP#323 SL-EP#322
SL-EP#203 SL-EP#320 SL-EP#202
SL-EP#257 SL-EP#64 SL-EP#321
SL-EP#52 SL-EP#33 SL-EP#34 SL-EP#35 SL-EP#36 SL-EP#265
SL-EP#318/319
SL-EP#208 SL-EP#209
SL-EP#316/317
SL-EP#51 SL-EP#29 SL-EP#30 SL-EP#31 SL-EP#32 SL-EP#62 SL-EP#205
SL-EP#50 SL-EP#26 SL-EP#28 SL-EP#206
SL-EP#25 SL-EP#27 SL-EP#63
SL-EP#210
SL-EP#49 SL-EP#21 SL-EP#22 SL-EP#23 SL-EP#64
SL-EP#24
SL-EP#48 SL-EP#17 SL-EP#18 SL-EP#19 SL-EP#20 SL-EP#65
SL-EP#207
SL-EP#47 SL-EP#46 SL-EP#45

NOTE: DRAWING CONTENT PRODUCED BY APEX.

LEGEND

- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION WHICH HAS BEEN REMEDIATED
- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION

DATA BOX LEGEND

SAMPLE ID — ANALYTICAL RESULT MG/KG

SL-EP#303
SILVER 25.4

COMPOUND EXCEEDS SCOs

- EXTENT OF EXCAVATION
- APPROXIMATE LIMIT OF SUPPLEMENTAL EXCAVATION
- GREEN/ITALICIZED VALUE INDICATES ANALYTE EXCEEDED ITS RESPECTIVE UNRESTRICTED SCO BUT WAS BELOW ITS RESPECTIVE RESIDENTIAL/PROTECTION OF GW SCO, WHICHEVER IS LOWER.
- BLUE/ITALICIZED VALUE INDICATES ANALYTE EXCEEDED ITS RESPECTIVE RESIDENTIAL SCOS AND/OR PROTECTION OF GROUNDWATER SCO BUT WAS BELOW ITS RESTRICTED RESIDENTIAL SCO.
- PINK/ITALICIZED VALUE INDICATES ANALYTE EXCEEDED ITS RESPECTIVE RESIDENTIAL SCOS AND/OR PROTECTION OF GROUNDWATER SCO BUT WAS BELOW ITS COMMERCIAL SCO OR CONCENTRATION APPROVED BY NYSDEC

0 15 30
SCALE FEET

Title:
FORMER SOUTH LOT AREA
SL-20/21/22 / CM-25/29 / TANKERCOU25-SB / BLDG-1-RCRA-SB-1/5
ORIGINAL SAMPLE LOCATION
(RCRA SITE)

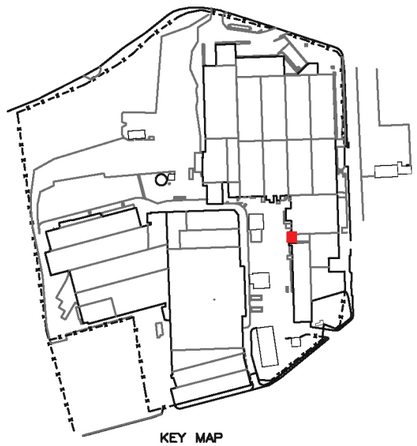
POWERS CHEMCO SUPERFUND SITE NO. 130028
POWERS CHEMCO RCRA SITE NO. 130028A
SITE MANAGEMENT PLAN ADDENDUM NO. 1

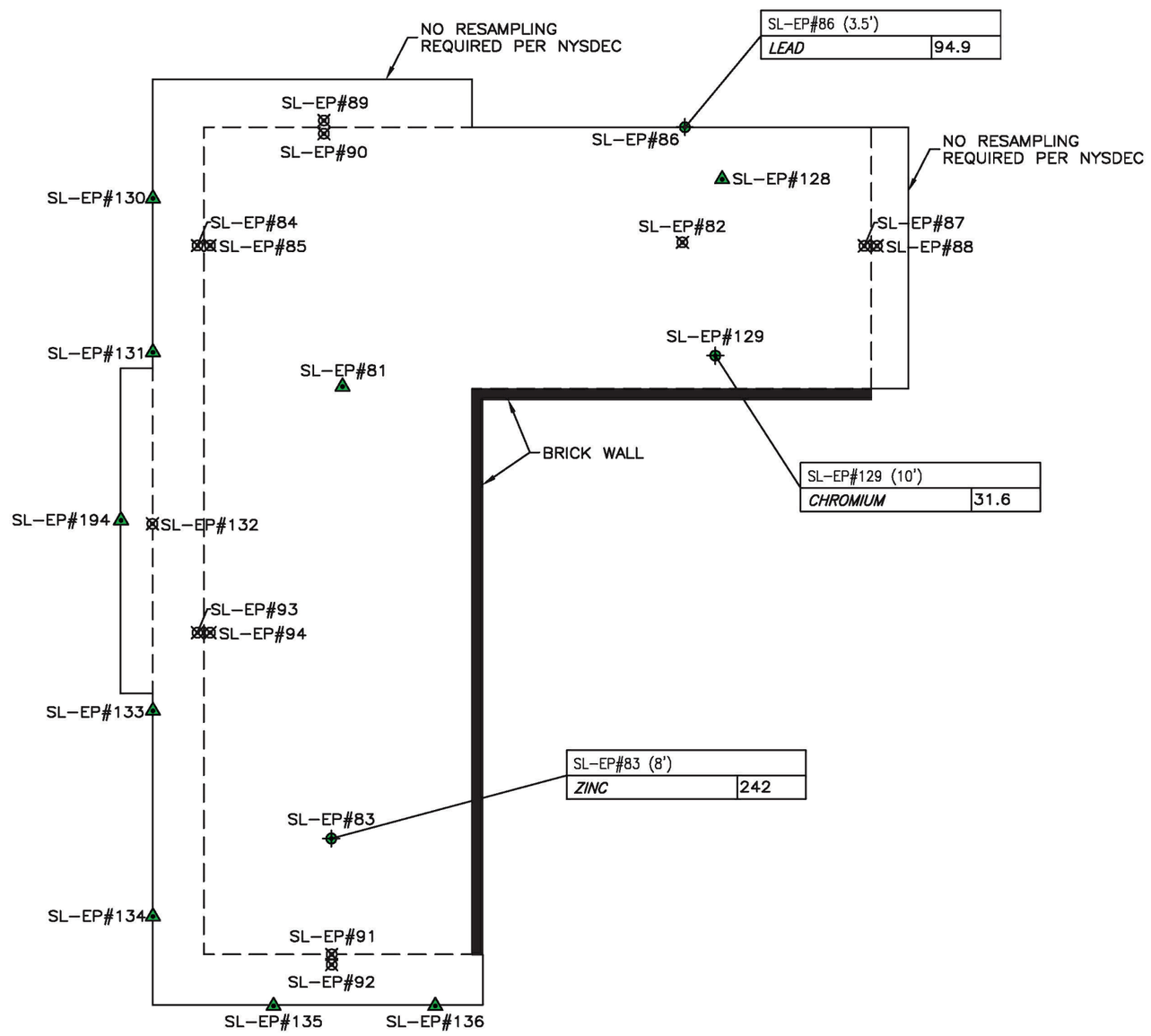
Prepared for: KONICA MINOLTA HOLDINGS USA, INC.
GLEN COVE, NEW YORK

ROUX

Compiled by: N.E.	Date: 12JAN22	FIGURE
Prepared by: B.H.C.	Scale: AS SHOWN	5-18
Project Mgr: N.E.	Project: 2020.0001Y000	
File: 2020.0001Y213.05.CDR		

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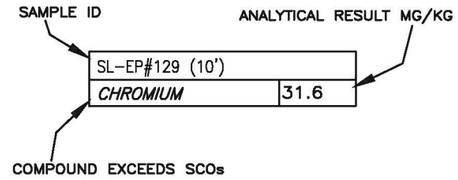


N

LEGEND

- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION WHICH HAS BEEN REMEDIATED
- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION

DATA BOX LEGEND



- EXTENT OF EXCAVATION
- APPROXIMATE LIMIT OF SUPPLEMENTAL EXCAVATION
- GREEN/ITALICIZED VALUE INDICATES ANALYTE EXCEEDED ITS RESPECTIVE UNRESTRICTED SCO BUT WAS BELOW ITS RESPECTIVE RESIDENTIAL/PROTECTION OF GW SCO, WHICHEVER IS LOWER.
- BLUE/ITALICIZED VALUE INDICATES ANALYTE EXCEEDED ITS RESPECTIVE RESIDENTIAL SCOS AND/OR PROTECTION OF GROUNDWATER SCO BUT WAS BELOW ITS RESTRICTED RESIDENTIAL SCO.
- PINK/ITALICIZED VALUE INDICATES ANALYTE EXCEEDED ITS RESPECTIVE RESIDENTIAL SCOS AND/OR PROTECTION OF GROUNDWATER SCO BUT WAS BELOW ITS COMMERCIAL SCO OR CONCENTRATION APPROVED BY NYSDEC

0 8 16
SCALE FEET

NOTE: DRAWING CONTENT PRODUCED BY APEX.

Title:

FORMER SOUTH LOT AREA
SL-7/8/9 ORIGINAL SAMPLING LOCATION (RCRA SITE)

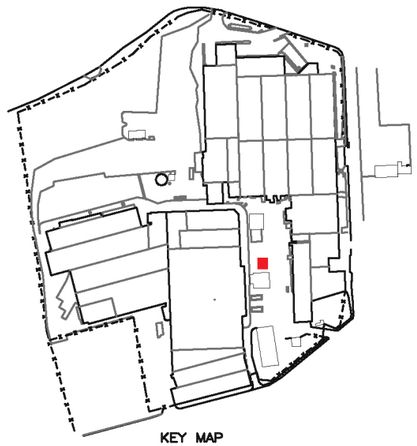
POWERS CHEMCO SUPERFUND SITE NO. 130028
POWERS CHEMCO RCRA SITE NO. 130028A
SITE MANAGEMENT PLAN ADDENDUM NO. 1

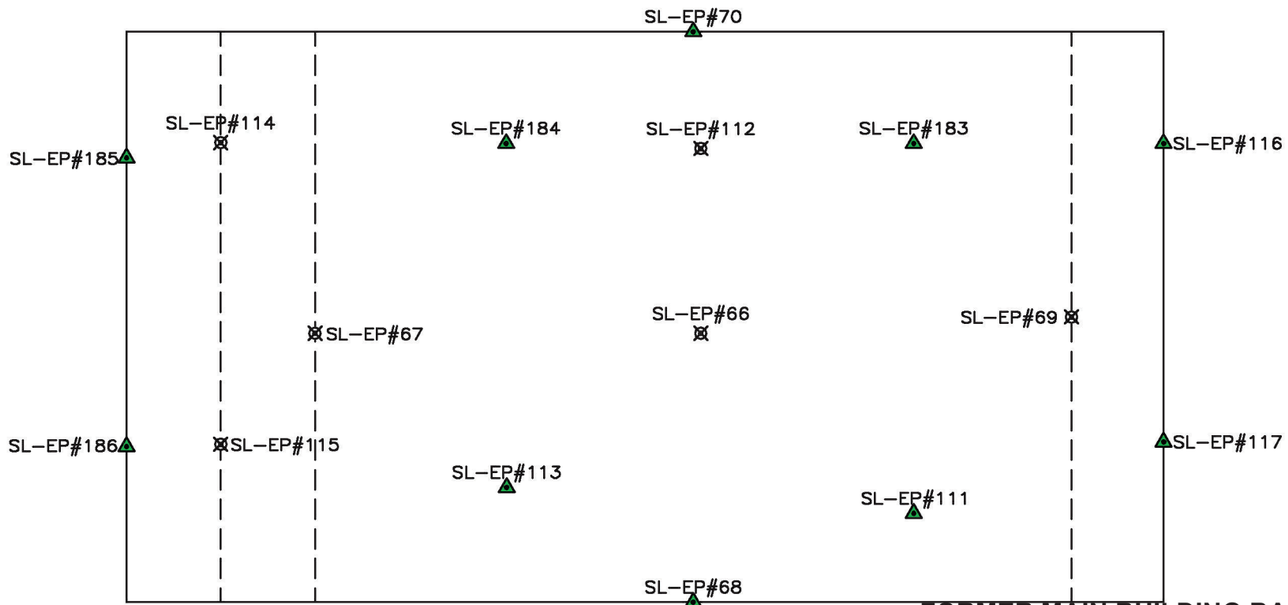
Prepared for: KONICA MINOLTA HOLDINGS USA, INC.
GLEN COVE, NEW YORK

ROUX

Compiled by: N.E.	Date: 12JAN22	FIGURE
Prepared by: B.H.C.	Scale: AS SHOWN	5-16
Project Mgr: N.E.	Project: 2020.0001Y000	
File: 2020.0001Y213.05.CDR		

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FORMER MAIN BUILDING BASEMENT
MB-2/3/14/15/16/17 / CC-2/3/4/5
ORIGINAL SAMPLE LOCATION

N

LEGEND

- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION WHICH HAS BEEN REMEDIATED
- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION

DATA BOX LEGEND

SAMPLE ID — ANALYTICAL RESULT MG/KG

SL-EP#303	
SILVER	25.4

COMPOUND EXCEEDS SCOs

- EXTENT OF EXCAVATION
- APPROXIMATE LIMIT OF SUPPLEMENTAL EXCAVATION
- GREEN/ITALICIZED VALUE INDICATES ANALYTE EXCEEDED ITS RESPECTIVE UNRESTRICTED SCO BUT WAS BELOW ITS RESPECTIVE RESIDENTIAL/PROTECTION OF GW SCO, WHICHEVER IS LOWER.
- BLUE/ITALICIZED VALUE INDICATES ANALYTE EXCEEDED ITS RESPECTIVE RESIDENTIAL SCOS AND/OR PROTECTION OF GROUNDWATER SCO BUT WAS BELOW ITS RESTRICTED RESIDENTIAL SCO.
- PINK/ITALICIZED VALUE INDICATES ANALYTE EXCEEDED ITS RESPECTIVE RESIDENTIAL SCOS AND/OR PROTECTION OF GROUNDWATER SCO BUT WAS BELOW ITS COMMERCIAL SCO OR CONCENTRATION APPROVED BY NYSDEC

0 4 8
SCALE FEET

NOTE: DRAWING CONTENT PRODUCED BY APEX.

Title:
FORMER SOUTH LOT AREA
SL-12 ORIGINAL SAMPLE LOCATION
(RCRA SITE)

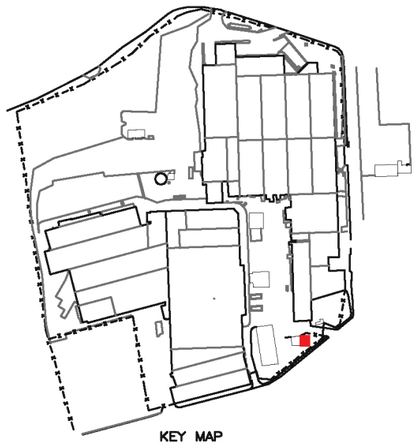
POWERS CHEMCO SUPERFUND SITE NO. 130028
POWERS CHEMCO RCRA SITE NO. 130028A
SITE MANAGEMENT PLAN ADDENDUM NO. 1

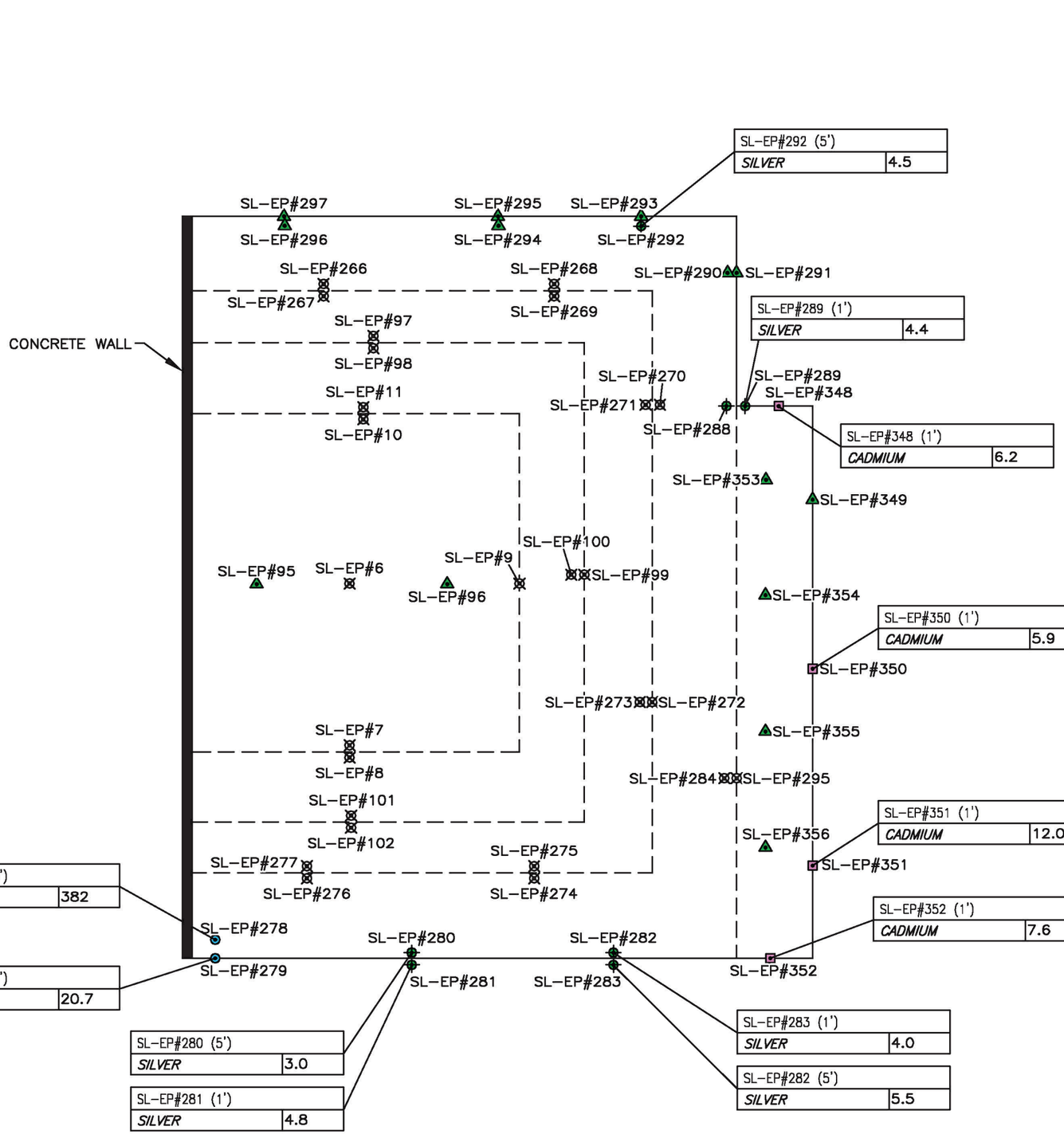
Prepared for:
KONICA MINOLTA HOLDINGS USA, INC.
GLEN COVE, NEW YORK

ROUX

Compiled by: N.E.	Date: 12JAN22	FIGURE
Prepared by: B.H.C.	Scale: AS SHOWN	5-17
Project Mgr: N.E.	Project: 2020.0001Y000	
File: 2020.0001Y213.05.CDR		

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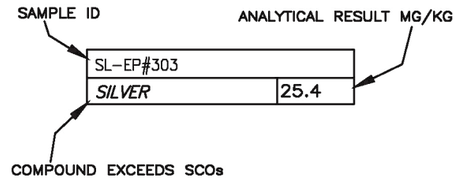


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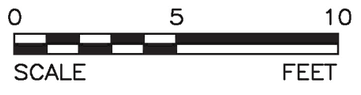
LEGEND

- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION WHICH HAS BEEN REMEDIATED
- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION

DATA BOX LEGEND



- EXTENT OF EXCAVATION
- APPROXIMATE LIMIT OF SUPPLEMENTAL EXCAVATION
- GREEN/ITALICIZED VALUE INDICATES ANALYTE EXCEEDED ITS RESPECTIVE UNRESTRICTED SCO BUT WAS BELOW ITS RESPECTIVE RESIDENTIAL/PROTECTION OF GW SCO, WHICHEVER IS LOWER.
- BLUE/ITALICIZED VALUE INDICATES ANALYTE EXCEEDED ITS RESPECTIVE RESIDENTIAL SCOS AND/OR PROTECTION OF GROUNDWATER SCO BUT WAS BELOW ITS RESTRICTED RESIDENTIAL SCO.
- PINK/ITALICIZED VALUE INDICATES ANALYTE EXCEEDED ITS RESPECTIVE RESIDENTIAL SCOS AND/OR PROTECTION OF GROUNDWATER SCO BUT WAS BELOW ITS COMMERCIAL SCO OR CONCENTRATION APPROVED BY NYSDEC



NOTE: DRAWING CONTENT PRODUCED BY APEX.

Title:

FORMER SOUTH LOT AREA
SL-2 ORIGINAL SAMPLE LOCATION
(RCRA SITE)

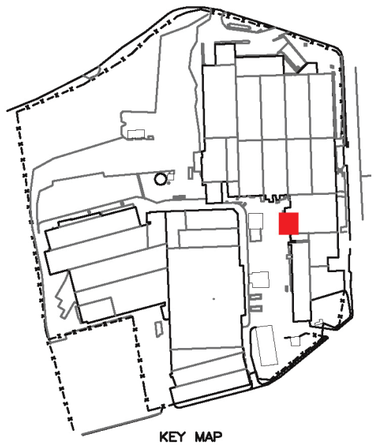
POWERS CHEMCO SUPERFUND SITE NO. 130028
POWERS CHEMCO RCRA SITE NO. 130028A
SITE MANAGEMENT PLAN ADDENDUM NO. 1

Prepared for: KONICA MINOLTA HOLDINGS USA, INC.
GLEN COVE, NEW YORK

ROUX

Compiled by: N.E.	Date: 12JAN22	FIGURE
Prepared by: B.H.C.	Scale: AS SHOWN	5-19
Project Mgr: N.E.	Project: 2020.0001Y000	
File: 2020.0001Y213.05.CDR		

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SL-EP#365	1'	4'
CHROMIUM	–	30.9
COPPER	123	146
LEAD	582	313
SILVER	8.7	10.5
ZINC	345	248
MERCURY	0.43	0.54
BENZO[a]ANTHRACENE	28	2.7
BENZO[a]PYRENE	24	2.8
BENZO[b]FLUORANTHENE	13	2.6
BENZO[k]FLUORANTHENE	7.0	1.3
CHRYSENE	30	3.0
DIBENZE(a,h)ANTHRACENE	2.3	0.65
INDENO(1,2,3–cd)PYRENE	8.0	2.0

SL-EP#375	1'	4'
COPPER	–	96.6
LEAD	513	805
SILVER	7.2	24.8
ZINC	315	516
MERCURY	0.22	0.25
BENZO[a]ANTHRACENE	5.0	2.0
BENZO[a]PYRENE	3.8	1.9
BENZO[b]FLUORANTHENE	3.1	2.2
BENZO[k]FLUORANTHENE	1.7	0.82
CHRYSENE	5.3	2.2
DIBENZE(a,h)ANTHRACENE	0.68	0.47
INDENO(1,2,3–cd)PYRENE	1.8	1.4

SL-EP#366	1'	4'
ARSENIC	19.8	–
CADMIUM	3.8	–
COPPER	334	1,140
LEAD	1,170	547
SILVER	19.5	36.0
ZINC	460	359
MERCURY	0.39	0.29
BENZO[a]ANTHRACENE	9.2	2.2
BENZO[a]PYRENE	6.1	2.0
BENZO[b]FLUORANTHENE	3.0	1.6
BENZO[k]FLUORANTHENE	4.3	1.1
CHRYSENE	9.3	2.3
DIBENZE(a,h)ANTHRACENE	3.6	–
INDENO(1,2,3–cd)PYRENE	2.8	1.3

SL-EP#137 (1')	
BENZO[b]FLUORANTHENE	1.0
INDENO(1,2,3–cd)PYRENE	0.53

SL–8/9/10
(COMPLETED AND BACKFILLED)

SL-EP#374	1'	4'
LEAD	307	65.6
SILVER	4.0	–
ZINC	242	–
MERCURY	0.24	–
BENZO[a]ANTHRACENE	7.1	–
BENZO[a]PYRENE	6.9	–
BENZO[b]FLUORANTHENE	5.7	–
BENZO[k]FLUORANTHENE	2.0	–
CHRYSENE	7.8	–
DIBENZE(a,h)ANTHRACENE	1.2	–
INDENO(1,2,3–cd)PYRENE	4.1	0.50

SL-EP#376	7'
LEAD	349
SILVER	47.2
ZINC	291
MERCURY	0.33
BENZO[a]ANTHRACENE	2.9
BENZO[a]PYRENE	2.3
BENZO[b]FLUORANTHENE	2.3
BENZO[k]FLUORANTHENE	0.88
CHRYSENE	3.1
DIBENZE(a,h)ANTHRACENE	0.48
INDENO(1,2,3–cd)PYRENE	1.3

SL-EP#364	1'	4'
CHROMIUM	–	39.2
COPPER	–	77.6
LEAD	636	–
SILVER	3.6	–
ZINC	351	–
MERCURY	0.30	0.49
BENZO[a]ANTHRACENE	5.4	–
BENZO[a]PYRENE	5.1	–
BENZO[b]FLUORANTHENE	3.8	–
BENZO[k]FLUORANTHENE	5.4	–
CHRYSENE	7.0	–
DIBENZE(a,h)ANTHRACENE	1.4	–
INDENO(1,2,3–cd)PYRENE	4.1	–

SL-EP#368 (5')	
SILVER	11.8

SL-EP#363 (1')	
BENZO[a]ANTHRACENE	7.2
BENZO[a]PYRENE	7.3
BENZO[b]FLUORANTHENE	5.1
BENZO[k]FLUORANTHENE	5.6
CHRYSENE	7.6
DIBENZE(a,h)ANTHRACENE	1.5
INDENO(1,2,3–cd)PYRENE	5.4

SL-EP#362 (1')	
BENZO[a]ANTHRACENE	1.2
BENZO[a]PYRENE	1.1
BENZO[k]FLUORANTHENE	0.85
CHRYSENE	1.3
INDENO(1,2,3–cd)PYRENE	0.73

SL-EP#152 (3')	
INDENO(1,2,3–cd)PYRENE	0.51

SL-EP#238 (5')	
SILVER	45.8

SL-EP#359 (1')	
SILVER	129

SL-EP#337 (7')	
SILVER	39.4

SL-EP#373 (7')	
SILVER	25.7

SL-EP#335 (7')	
SILVER	66.1
ZINC	226

SL-EP#357 (1')	
SILVER	104

SL-EP#365 SL-EP#364 SL-EP#363 SL-EP#362
SL-EP#366 SL-EP#367 SL-EP#368 SL-EP#369
SL-EP#346 SL-EP#344
SL-EP#241 SL-EP#242 SL-EP#345 SL-EP#243 SL-EP#361
SL-EP#137 SL-EP#138 SL-EP#139 SL-EP#343
SL-EP#244
SL-EP#150 SL-EP#152 SL-EP#237
SL-EP#239 SL-EP#140 SL-EP#370
SL-EP#245 SL-EP#360
SL-EP#151 SL-EP#342
SL-EP#141
SL-EP#153 SL-EP#238 SL-EP#149 SL-EP#371
SL-EP#240 SL-EP#246 SL-EP#359
CONCRETE WALL SL-EP#341
SL-EP#372
SL-EP#332 SL-EP#340 SL-EP#358
SL-EP#336 SL-EP#337
SL-EP#249 SL-EP#247 SL-EP#251
SL-EP#373
SL-EP#146 SL-EP#147 SL-EP#148 SL-EP#357
SL-EP#142 SL-EP#339
SL-EP#250 SL-EP#248 SL-EP#334 SL-EP#252
SL-EP#333 SL-EP#335
(REMOVED, NO ADDITIONAL SAMPLES REQUIRED BY NYSDEC)
SL-EP#338
SL-EP#145 SL-EP#144 SL-EP#143
SL-EP#256
SL-EP#347 SL-EP#255 SL-EP#254 SL-EP#253
SL-EP#376
SL-EP#375 SL-EP#374
(OPEN TO RD BUILDING EXCAVATION, NO ADDITIONAL SAMPLES REQUIRED BY NYSDEC)

NOTE: DRAWING CONTENT PRODUCED BY APEX.

N

LEGEND

- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION WHICH HAS BEEN REMEDIATED
- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION

DATA BOX LEGEND

SAMPLE ID — ANALYTICAL RESULT MG/KG

SL-EP#373 (7')	
SILVER	25.7

COMPOUND EXCEEDS SCOs

EXTENT OF EXCAVATION

APPROXIMATE LIMIT OF SUPPLEMENTAL EXCAVATION

GREEN/ITALICIZED VALUE INDICATES ANALYTE EXCEEDED ITS RESPECTIVE UNRESTRICTED SCO BUT WAS BELOW ITS RESPECTIVE RESIDENTIAL/PROTECTION OF GW SCO, WHICHEVER IS LOWER.

BLUE/ITALICIZED VALUE INDICATES ANALYTE EXCEEDED ITS RESPECTIVE RESIDENTIAL SCOS AND/OR PROTECTION OF GROUNDWATER SCO BUT WAS BELOW ITS RESTRICTED RESIDENTIAL SCO.

PINK/ITALICIZED VALUE INDICATES ANALYTE EXCEEDED ITS RESPECTIVE RESIDENTIAL SCOS AND/OR PROTECTION OF GROUNDWATER SCO BUT WAS BELOW ITS COMMERCIAL SCO OR CONCENTRATION APPROVED BY NYSDEC

0 10 20
SCALE FEET

Title:
FORMER SOUTH LOT AREA
SL-33/34 / RD-4/6/7 ORIGINAL SAMPLE LOCATION (RCRA SITE)

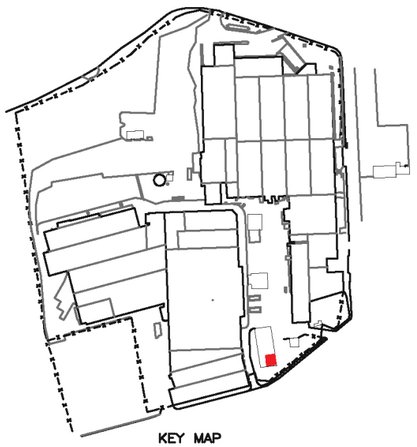
POWERS CHEMCO SUPERFUND SITE NO. 130028
POWERS CHEMCO RCRA SITE NO. 130028A
SITE MANAGEMENT PLAN ADDENDUM NO. 1

Prepared for:
KONICA MINOLTA HOLDINGS USA, INC.
GLEN COVE, NEW YORK

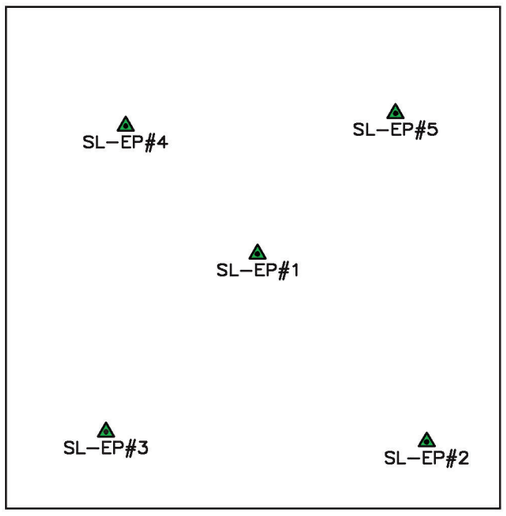
ROUX

Compiled by: N.E.	Date: 12JAN22	FIGURE
Prepared by: B.H.C.	Scale: AS SHOWN	5-20
Project Mgr: N.E.	Project: 2020.0001Y000	
File: 2020.0001Y213.05.CDR		

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KEY MAP



N

LEGEND

- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION WHICH HAS BEEN REMEDIATED
- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION

DATA BOX LEGEND

SAMPLE ID — ANALYTICAL RESULT MG/KG

SL–EP#303	
SILVER	25.4

COMPOUND EXCEEDS SCOs

EXTENT OF EXCAVATION

GREEN/ITALICIZED VALUE INDICATES ANALYTE EXCEEDED ITS RESPECTIVE UNRESTRICTED SCO BUT WAS BELOW ITS RESPECTIVE RESIDENTIAL/PROTECTION OF GW SCO, WHICHEVER IS LOWER.

BLUE/ITALICIZED VALUE INDICATES ANALYTE EXCEEDED ITS RESPECTIVE RESIDENTIAL SCOS AND/OR PROTECTION OF GROUNDWATER SCO BUT WAS BELOW ITS RESTRICTED RESIDENTIAL SCO.

PINK/ITALICIZED VALUE INDICATES ANALYTE EXCEEDED ITS RESPECTIVE RESIDENTIAL SCOS AND/OR PROTECTION OF GROUNDWATER SCO BUT WAS BELOW ITS COMMERCIAL SCO OR CONCENTRATION APPROVED BY NYSDEC

0 3 6

SCALE FEET

NOTE: DRAWING CONTENT PRODUCED BY APEX.

Title:

FORMER SOUTH LOT AREA
SL-31 ORIGINAL SAMPLE LOCATION
(RCRA SITE)

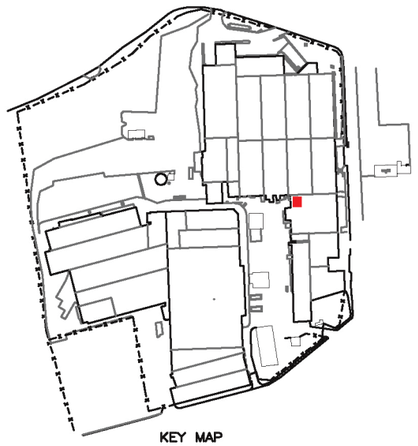
POWERS CHEMCO SUPERFUND SITE NO. 130028
POWERS CHEMCO RCRA SITE NO. 130028A
SITE MANAGEMENT PLAN ADDENDUM NO. 1

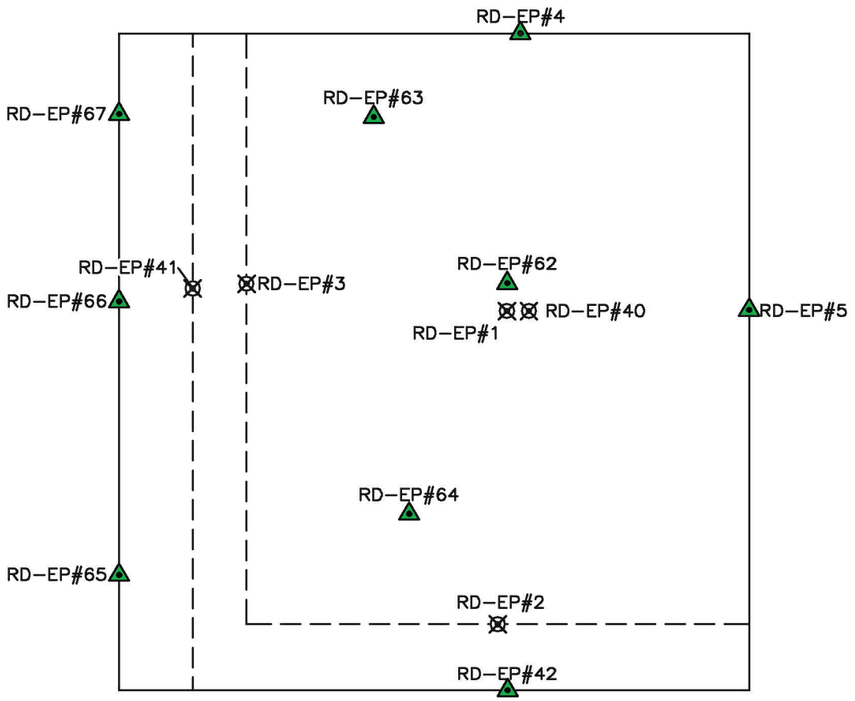
Prepared for: KONICA MINOLTA HOLDINGS USA, INC.
GLEN COVE, NEW YORK

ROUX

Compiled by: N.E.	Date: 12JAN22	FIGURE
Prepared by: B.H.C.	Scale: AS SHOWN	5-21
Project Mgr: N.E.	Project: 2020.0001Y000	
File: 2020.0001Y213.05.CDR		

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N

LEGEND

- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION WHICH HAS BEEN REMEDIATED
- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION

DATA BOX LEGEND

SAMPLE ID — ANALYTICAL RESULT MG/KG

B9-EP#19 (1')	
LEAD	1,340
SILVER	1,940

COMPOUND EXCEEDS SCOs

- EXTENT OF EXCAVATION
- APPROXIMATE LIMIT OF SUPPLEMENTAL EXCAVATION
- GREEN/ITALICIZED VALUE INDICATES ANALYTE EXCEEDED ITS RESPECTIVE UNRESTRICTED SCO BUT WAS BELOW ITS RESPECTIVE RESIDENTIAL/PROTECTION OF GW SCO, WHICHEVER IS LOWER.
- BLUE/ITALICIZED VALUE INDICATES ANALYTE EXCEEDED ITS RESPECTIVE RESIDENTIAL SCOS AND/OR PROTECTION OF GROUNDWATER SCO BUT WAS BELOW ITS RESTRICTED RESIDENTIAL SCO.
- PINK/ITALICIZED VALUE INDICATES ANALYTE EXCEEDED ITS RESPECTIVE RESIDENTIAL SCOS AND/OR PROTECTION OF GROUNDWATER SCO BUT WAS BELOW ITS COMMERCIAL SCO OR CONCENTRATION APPROVED BY NYSDEC

0 3 6

SCALE FEET

NOTE: DRAWING CONTENT PRODUCED BY APEX.

Title:

FORMER SOUTH LOT AREA
RD-3 ORIGINAL SAMPLE LOCATION
(RCRA SITE)

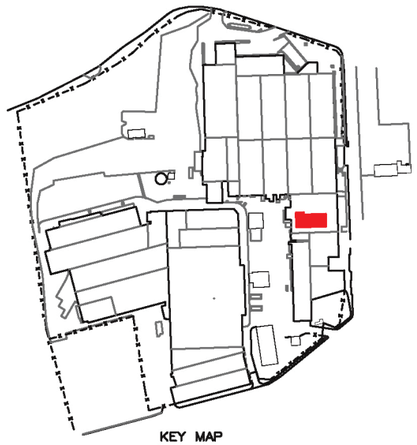
POWERS CHEMCO SUPERFUND SITE NO. 130028
POWERS CHEMCO RCRA SITE NO. 130028A
SITE MANAGEMENT PLAN ADDENDUM NO. 1

Prepared for:
KONICA MINOLTA HOLDINGS USA, INC.
GLEN COVE, NEW YORK

ROUX

Compiled by: N.E.	Date: 12JAN22	FIGURE
Prepared by: B.H.C.	Scale: AS SHOWN	5-22
Project Mgr: N.E.	Project: 2020.0001Y000	
File: 2020.0001Y213.05.CDR		

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N

RD-EP#137 (1') | SILVER | 2.8

RD-EP#135 (1') | SILVER | 26.9

RD-EP#130 (6') | SILVER | 25.4

RD-EP#133 (1') | SILVER | 18.2

RD-EP#129 (1') | SILVER | 6.7

RD-EP#128 (4') | SILVER | 101

RD-EP#127 (1') | SILVER | 190

RD-EP#126 (4') | SILVER | 9.3

RD-EP#125 (1') | SILVER | 79.6

RD-EP#139 (1') | SILVER | 3.5

RD-EP#140 (4') | SILVER | 2.2

RD-EP#141 (1') | SILVER | 30.5

RD-10 AREA

RD-13 AREA

RD-20 AREA

NOTE: DRAWING CONTENT PRODUCED BY APEX.

LEGEND

- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION WHICH HAS BEEN REMEDIATED
- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION

DATA BOX LEGEND

SAMPLE ID — ANALYTICAL RESULT MG/KG

RD-EP#133 (1') | SILVER | 18.2

COMPOUND EXCEEDS SCOs

EXTENT OF EXCAVATION

APPROXIMATE LIMIT OF SUPPLEMENTAL EXCAVATION

GREEN/ITALICIZED VALUE INDICATES ANALYTE EXCEEDED ITS RESPECTIVE UNRESTRICTED SCO BUT WAS BELOW ITS RESPECTIVE RESIDENTIAL/PROTECTION OF GW SCO, WHICHEVER IS LOWER.

BLUE/ITALICIZED VALUE INDICATES ANALYTE EXCEEDED ITS RESPECTIVE RESIDENTIAL SCOS AND/OR PROTECTION OF GROUNDWATER SCO BUT WAS BELOW ITS RESTRICTED RESIDENTIAL SCO.

PINK/ITALICIZED VALUE INDICATES ANALYTE EXCEEDED ITS RESPECTIVE RESIDENTIAL SCOS AND/OR PROTECTION OF GROUNDWATER SCO BUT WAS BELOW ITS COMMERCIAL SCO OR CONCENTRATION APPROVED BY NYSDEC

0 8 16

SCALE FEET

Title:

FORMER R&D BUILDING
RD-10/11/12/13/20 ORIGINAL SAMPLE LOCATION (RCRA SITE)

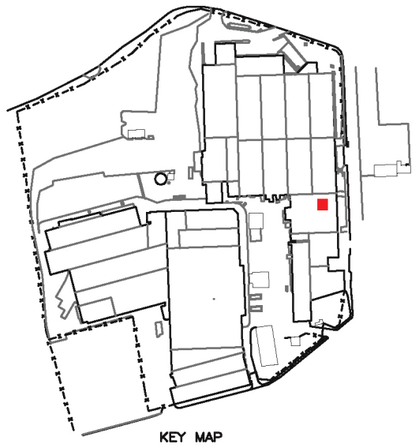
POWERS CHEMCO SUPERFUND SITE NO. 130028
POWERS CHEMCO RCRA SITE NO. 130028A
SITE MANAGEMENT PLAN ADDENDUM NO. 1

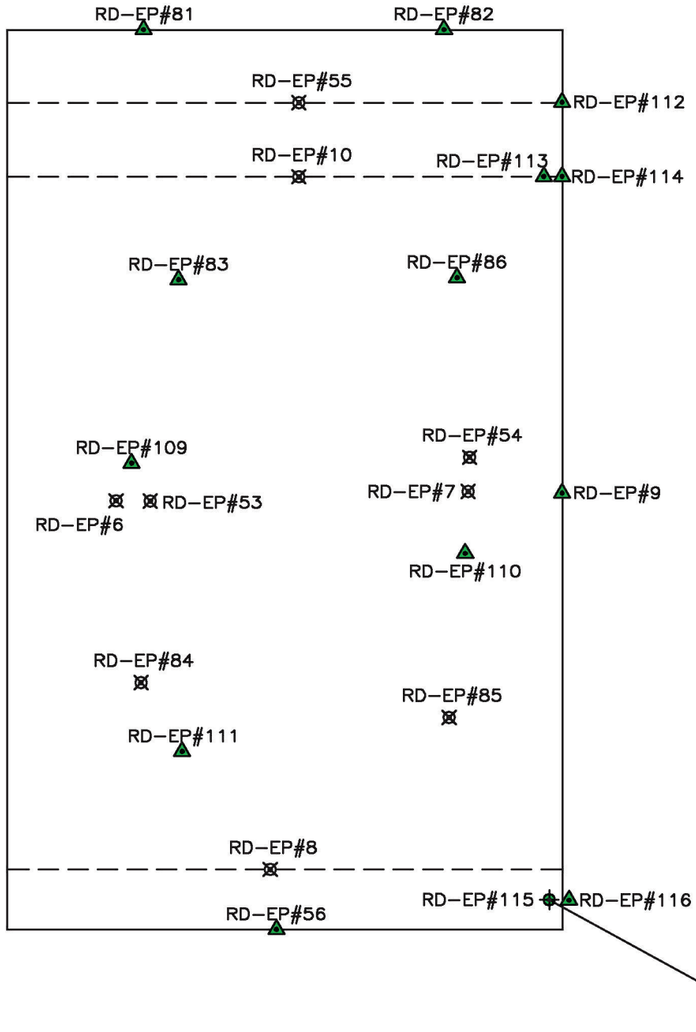
Prepared for:
KONICA MINOLTA HOLDINGS USA, INC.
GLEN COVE, NEW YORK

ROUX

Compiled by: N.E.	Date: 12JAN22	FIGURE
Prepared by: B.H.C.	Scale: AS SHOWN	5-23
Project Mgr: N.E.	Project: 2020.0001Y000	
File: 2020.0001Y213.05.CDR		

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N

LEGEND

- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION WHICH HAS BEEN REMEDIATED
- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION

DATA BOX LEGEND

SAMPLE ID — ANALYTICAL RESULT MG/KG

RD–EP#115(4')	
SILVER	2.9

COMPOUND EXCEEDS SCOs

EXTENT OF EXCAVATION

APPROXIMATE LIMIT OF SUPPLEMENTAL EXCAVATION

GREEN/ITALICIZED VALUE INDICATES ANALYTE EXCEEDED ITS RESPECTIVE UNRESTRICTED SCO BUT WAS BELOW ITS RESPECTIVE RESIDENTIAL/PROTECTION OF GW SCO, WHICHEVER IS LOWER.

BLUE/ITALICIZED VALUE INDICATES ANALYTE EXCEEDED ITS RESPECTIVE RESIDENTIAL SCOS AND/OR PROTECTION OF GROUNDWATER SCO BUT WAS BELOW ITS RESTRICTED RESIDENTIAL SCO.

PINK/ITALICIZED VALUE INDICATES ANALYTE EXCEEDED ITS RESPECTIVE RESIDENTIAL SCOS AND/OR PROTECTION OF GROUNDWATER SCO BUT WAS BELOW ITS COMMERCIAL SCO OR CONCENTRATION APPROVED BY NYSDEC

0 4 8

SCALE FEET

NOTE: DRAWING CONTENT PRODUCED BY APEX.

Title:

FORMER R&D BUILDING
RD-17 ORIGINAL SAMPLE LOCATION
(RCRA SITE)

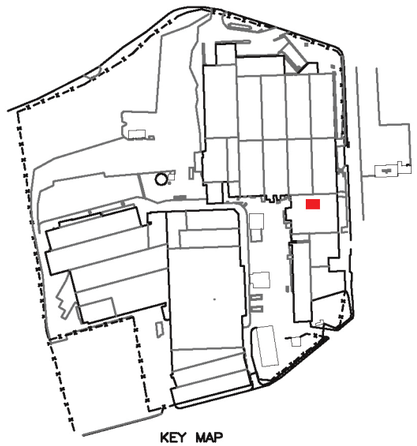
POWERS CHEMCO SUPERFUND SITE NO. 130028
POWERS CHEMCO RCRA SITE NO. 130028A
SITE MANAGEMENT PLAN ADDENDUM NO. 1

Prepared for: KONICA MINOLTA HOLDINGS USA, INC.
GLEN COVE, NEW YORK

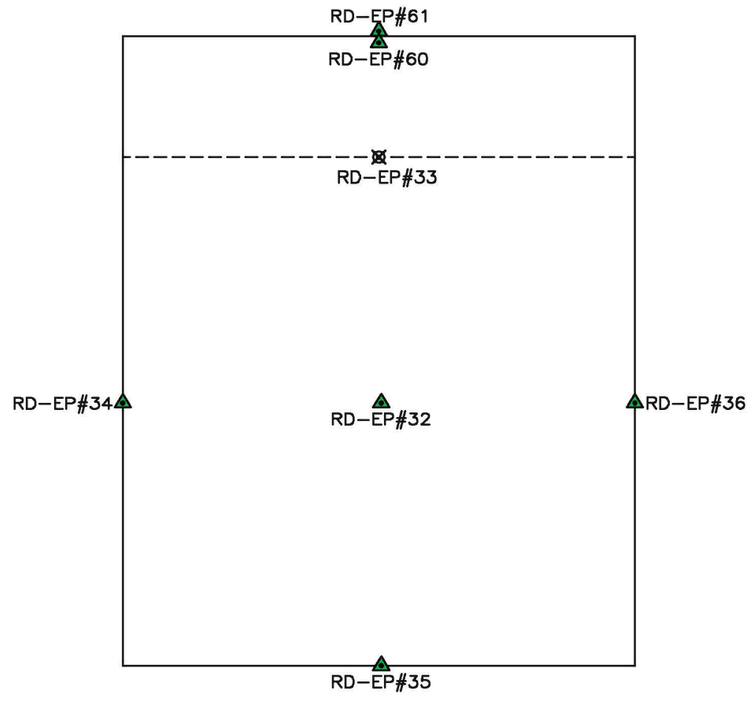
ROUX

Compiled by: N.E.	Date: 12JAN22	FIGURE
Prepared by: B.H.C.	Scale: AS SHOWN	5-24
Project Mgr: N.E.	Project: 2020.0001Y000	
File: 2020.0001Y213.05.CDR		

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KEY MAP



N

LEGEND

- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION WHICH HAS BEEN REMEDIATED
- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION

DATA BOX LEGEND

SAMPLE ID — ANALYTICAL RESULT MG/KG

B9–EP#8 (9')	
SILVER	4.0

COMPOUND EXCEEDS SCOs

- EXTENT OF EXCAVATION
- APPROXIMATE LIMIT OF SUPPLEMENTAL EXCAVATION
- GREEN/ITALICIZED VALUE INDICATES ANALYTE EXCEEDED ITS RESPECTIVE UNRESTRICTED SCO BUT WAS BELOW ITS RESPECTIVE RESIDENTIAL/PROTECTION OF GW SCO, WHICHEVER IS LOWER.
- BLUE/ITALICIZED VALUE INDICATES ANALYTE EXCEEDED ITS RESPECTIVE RESIDENTIAL SCOS AND/OR PROTECTION OF GROUNDWATER SCO BUT WAS BELOW ITS RESTRICTED RESIDENTIAL SCO.
- PINK/ITALICIZED VALUE INDICATES ANALYTE EXCEEDED ITS RESPECTIVE RESIDENTIAL SCOS AND/OR PROTECTION OF GROUNDWATER SCO BUT WAS BELOW ITS COMMERCIAL SCO OR CONCENTRATION APPROVED BY NYSDEC

0 3 6

SCALE FEET

NOTE: DRAWING CONTENT PRODUCED BY APEX.

Title:

FORMER R&D BUILDING
BLDG 2 - EARTHEN PITS ORIGINAL SAMPLE LOCATION (RCRA SITE)

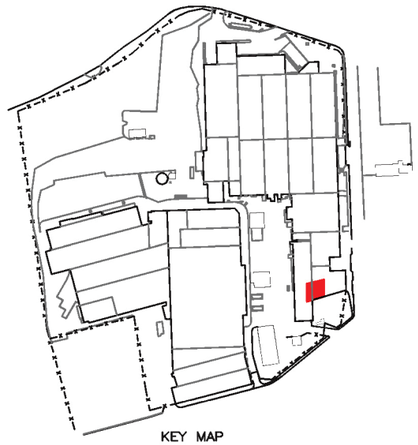
POWERS CHEMCO SUPERFUND SITE NO. 130028
POWERS CHEMCO RCRA SITE NO. 130028A
SITE MANAGEMENT PLAN ADDENDUM NO. 1

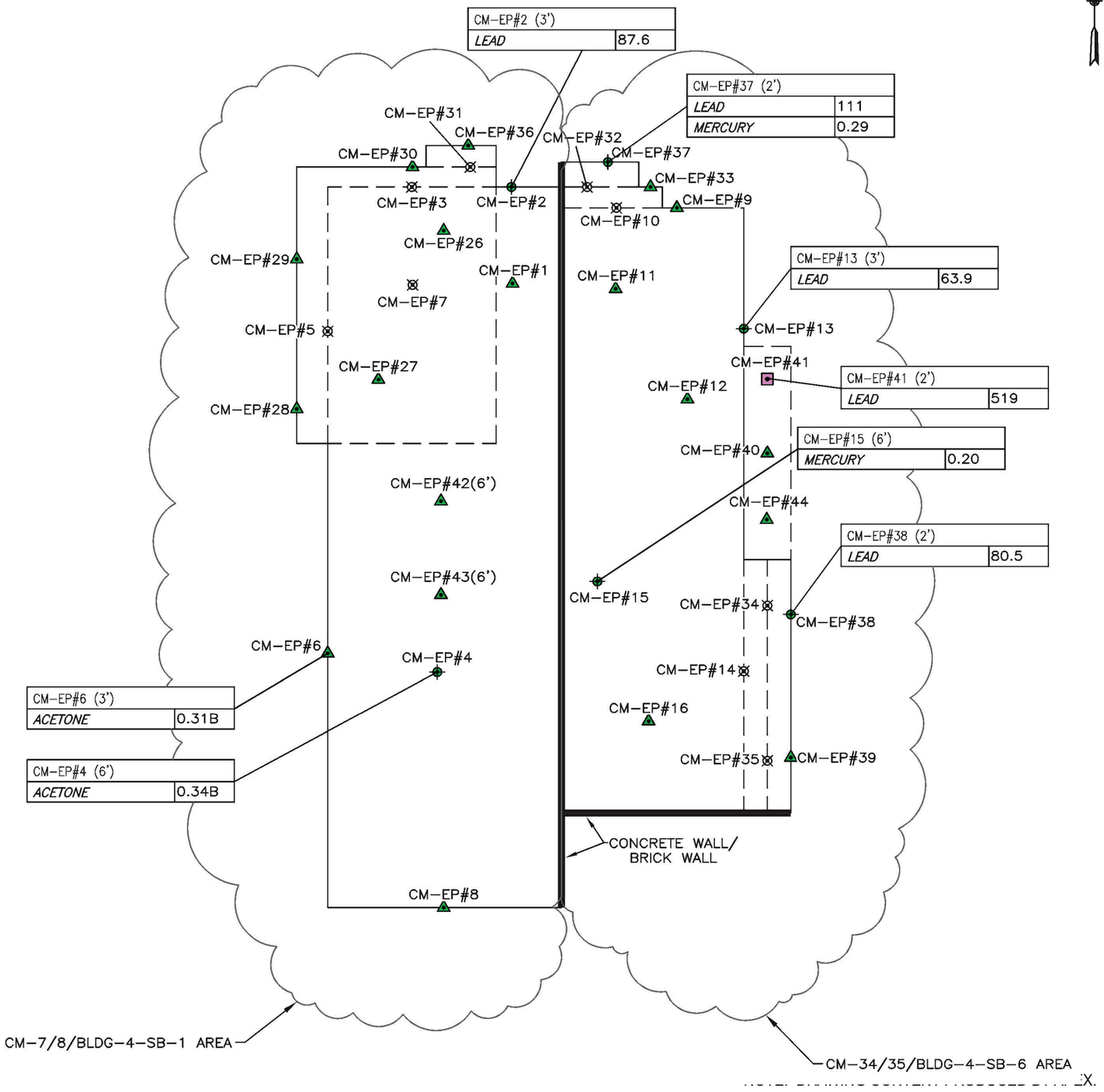
Prepared for: KONICA MINOLTA HOLDINGS USA, INC.
GLEN COVE, NEW YORK

ROUX

Compiled by: N.E.	Date: 12JAN22	FIGURE
Prepared by: B.H.C.	Scale: AS SHOWN	5-25
Project Mgr: N.E.	Project: 2020.0001Y000	
File: 2020.0001Y213.05.CDR		

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LEGEND

- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION WHICH HAS BEEN REMEDIATED
- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION

DATA BOX LEGEND

SAMPLE ID — ANALYTICAL RESULT MG/KG

CM–EP#37 (2')	
LEAD	111
MERCURY	0.29

COMPOUND EXCEEDS SCOs

EXTENT OF EXCAVATION

APPROXIMATE LIMIT OF SUPPLEMENTAL EXCAVATION

GREEN/ITALICIZED VALUE INDICATES ANALYTE EXCEEDED ITS RESPECTIVE UNRESTRICTED SCO BUT WAS BELOW ITS RESPECTIVE RESIDENTIAL/PROTECTION OF GW SCO, WHICHEVER IS LOWER.

BLUE/ITALICIZED VALUE INDICATES ANALYTE EXCEEDED ITS RESPECTIVE RESIDENTIAL SCOS AND/OR PROTECTION OF GROUNDWATER SCO BUT WAS BELOW ITS RESTRICTED RESIDENTIAL SCO.

PINK/ITALICIZED VALUE INDICATES ANALYTE EXCEEDED ITS RESPECTIVE RESIDENTIAL SCOS AND/OR PROTECTION OF GROUNDWATER SCO BUT WAS BELOW ITS COMMERCIAL SCO OR CONCENTRATION APPROVED BY NYSDEC

0 8 16
SCALE FEET

Title:

FORMER CHEMICAL MIXING BLDG.
CM-7/8 & CM-34/35 ORIGINAL SAMPLE LOCATION (RCRA SITE)

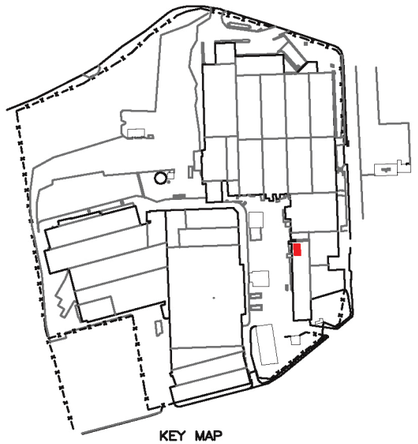
POWERS CHEMCO SUPERFUND SITE NO. 130028
POWERS CHEMCO RCRA SITE NO. 130028A
SITE MANAGEMENT PLAN ADDENDUM NO. 1

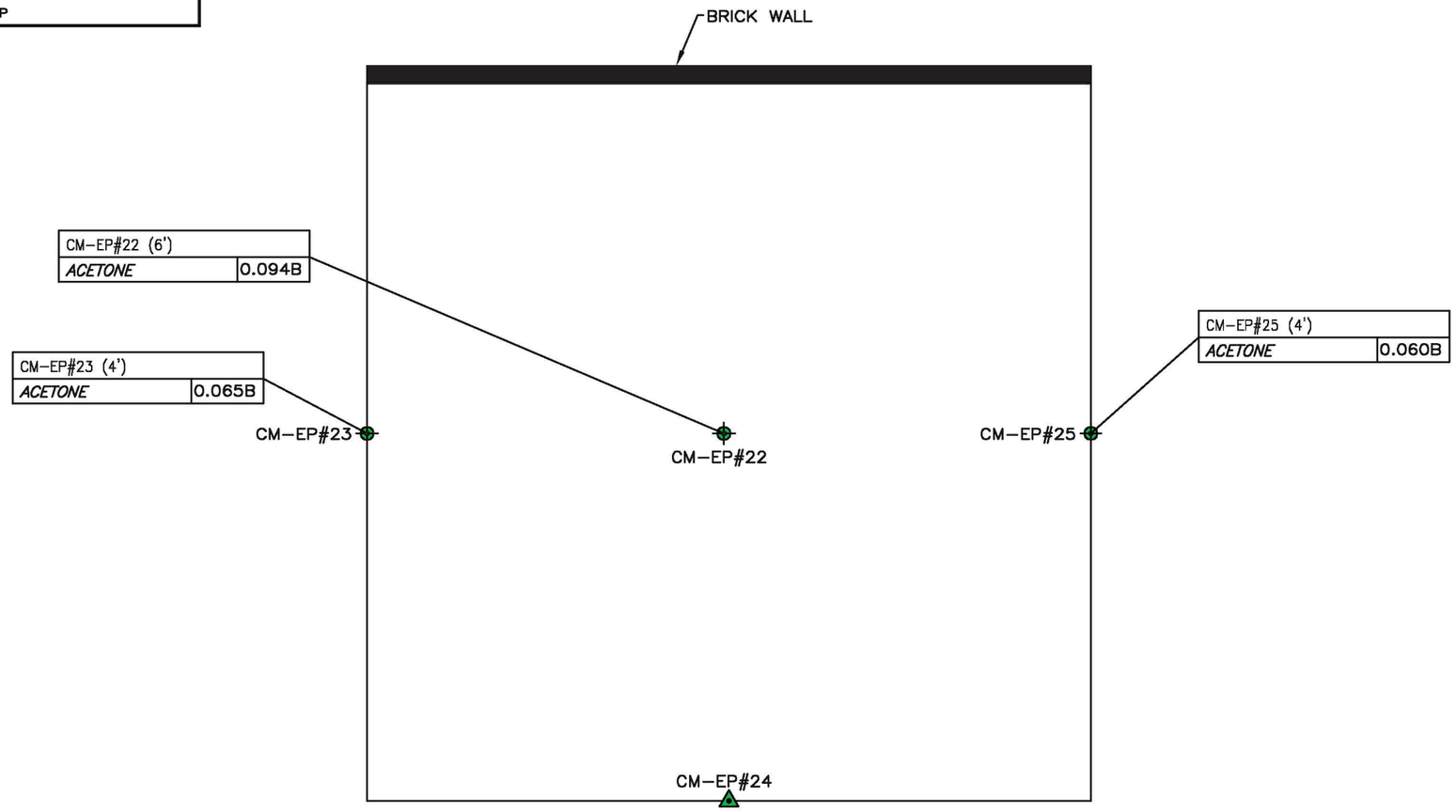
Prepared for: KONICA MINOLTA HOLDINGS USA, INC.
GLEN COVE, NEW YORK

ROUX

Compiled by: N.E.	Date: 12JAN22	FIGURE
Prepared by: B.H.C.	Scale: AS SHOWN	5-26
Project Mgr: N.E.	Project: 2020.0001Y000	
File: 2020.0001Y213.05.CDR		

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LEGEND

- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION WHICH HAS BEEN REMEDIATED
- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION

DATA BOX LEGEND

SAMPLE ID — ANALYTICAL RESULT MG/KG

CM-EP#22 (6')	
ACETONE	0.094B

COMPOUND EXCEEDS SCOs

- EXTENT OF EXCAVATION
- APPROXIMATE LIMIT OF SUPPLEMENTAL EXCAVATION
- GREEN/ITALICIZED VALUE INDICATES ANALYTE EXCEEDED ITS RESPECTIVE UNRESTRICTED SCO BUT WAS BELOW ITS RESPECTIVE RESIDENTIAL/PROTECTION OF GW SCO, WHICHEVER IS LOWER.
- BLUE/ITALICIZED VALUE INDICATES ANALYTE EXCEEDED ITS RESPECTIVE RESIDENTIAL SCOS AND/OR PROTECTION OF GROUNDWATER SCO BUT WAS BELOW ITS RESTRICTED RESIDENTIAL SCO.
- PINK/ITALICIZED VALUE INDICATES ANALYTE EXCEEDED ITS RESPECTIVE RESIDENTIAL SCOS AND/OR PROTECTION OF GROUNDWATER SCO BUT WAS BELOW ITS COMMERCIAL SCO OR CONCENTRATION APPROVED BY NYSDEC

0 4 8

SCALE FEET

NOTE: DRAWING CONTENT PRODUCED BY APEX.

Title:

FORMER CHEMICAL MIXING BLDG. CM-21 ORIGINAL SAMPLE LOCATION (RCRA SITE)

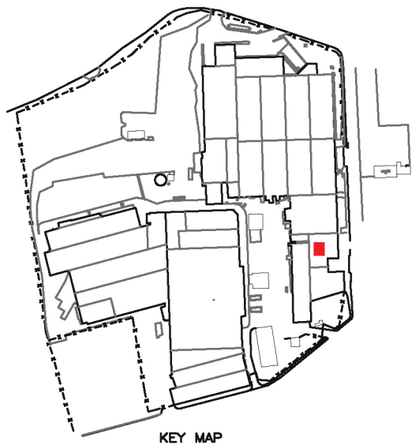
POWERS CHEMCO SUPERFUND SITE NO. 130028
POWERS CHEMCO RCRA SITE NO. 130028A
SITE MANAGEMENT PLAN ADDENDUM NO. 1

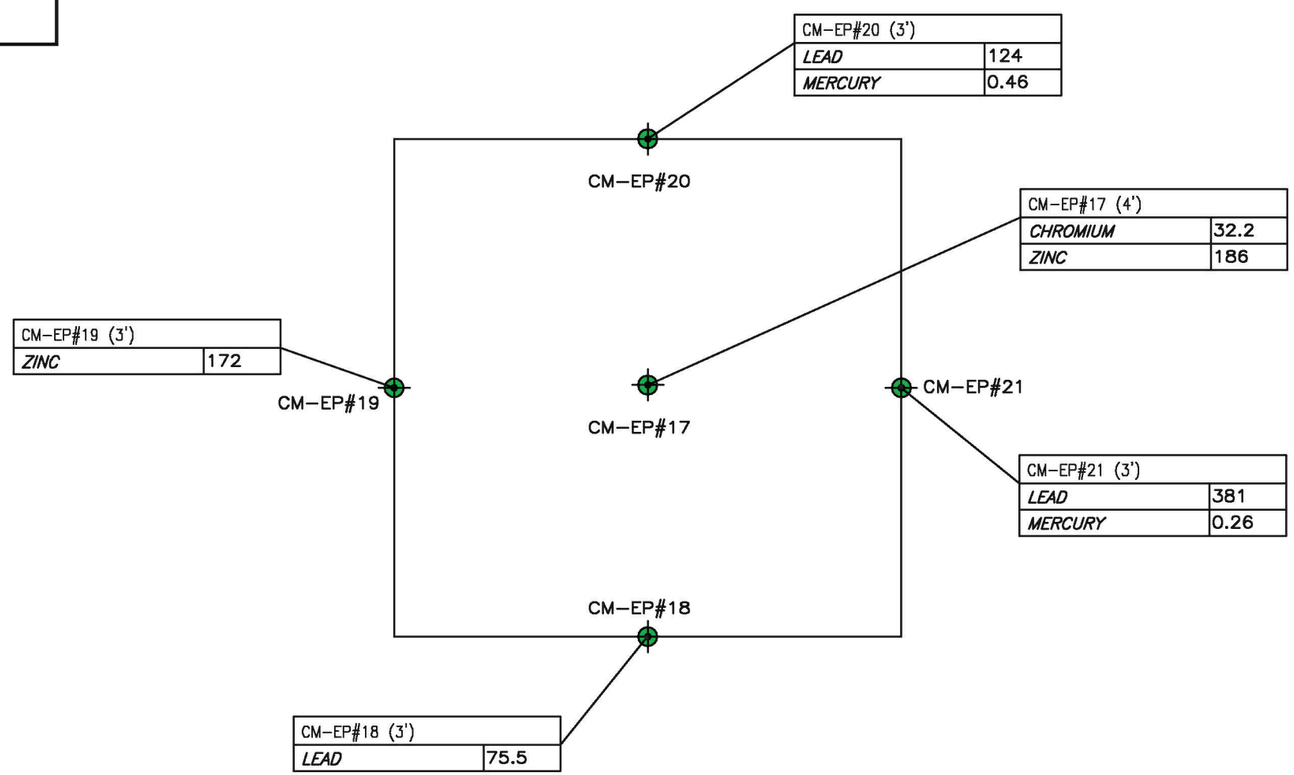
Prepared for: KONICA MINOLTA HOLDINGS USA, INC.
GLEN COVE, NEW YORK

ROUX

Compiled by: N.E.	Date: 12JAN22	FIGURE
Prepared by: B.H.C.	Scale: AS SHOWN	5-27
Project Mgr: N.E.	Project: 2020.0001Y000	
File: 2020.0001Y213.05.CDR		

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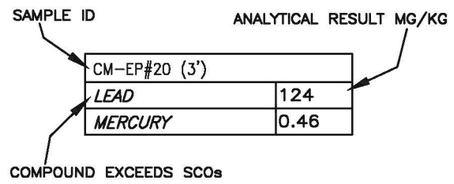


N

LEGEND

- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION WHICH HAS BEEN REMEDIATED
- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION

DATA BOX LEGEND



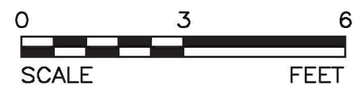
EXTENT OF EXCAVATION

APPROXIMATE LIMIT OF SUPPLEMENTAL EXCAVATION

GREEN/ITALICIZED VALUE INDICATES ANALYTE EXCEEDED ITS RESPECTIVE UNRESTRICTED SCO BUT WAS BELOW ITS RESPECTIVE RESIDENTIAL/PROTECTION OF GW SCO, WHICHEVER IS LOWER.

BLUE/ITALICIZED VALUE INDICATES ANALYTE EXCEEDED ITS RESPECTIVE RESIDENTIAL SCOS AND/OR PROTECTION OF GROUNDWATER SCO BUT WAS BELOW ITS RESTRICTED RESIDENTIAL SCO.

PINK/ITALICIZED VALUE INDICATES ANALYTE EXCEEDED ITS RESPECTIVE RESIDENTIAL SCOS AND/OR PROTECTION OF GROUNDWATER SCO BUT WAS BELOW ITS COMMERCIAL SCO OR CONCENTRATION APPROVED BY NYSDEC



NOTE: DRAWING CONTENT PRODUCED BY APEX.

Title:

FORMER CHEMICAL MIXING BLDG. CM-33 ORIGINAL SAMPLE LOCATION (RCRA SITE)

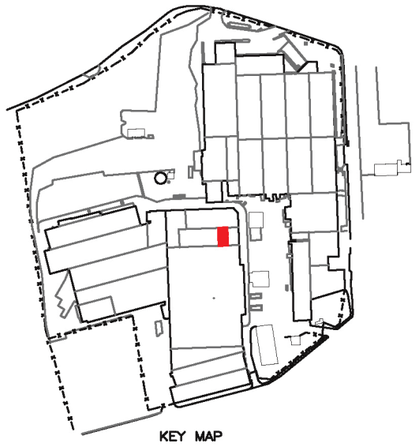
POWERS CHEMCO SUPERFUND SITE NO. 130028
POWERS CHEMCO RCRA SITE NO. 130028A
SITE MANAGEMENT PLAN ADDENDUM NO. 1

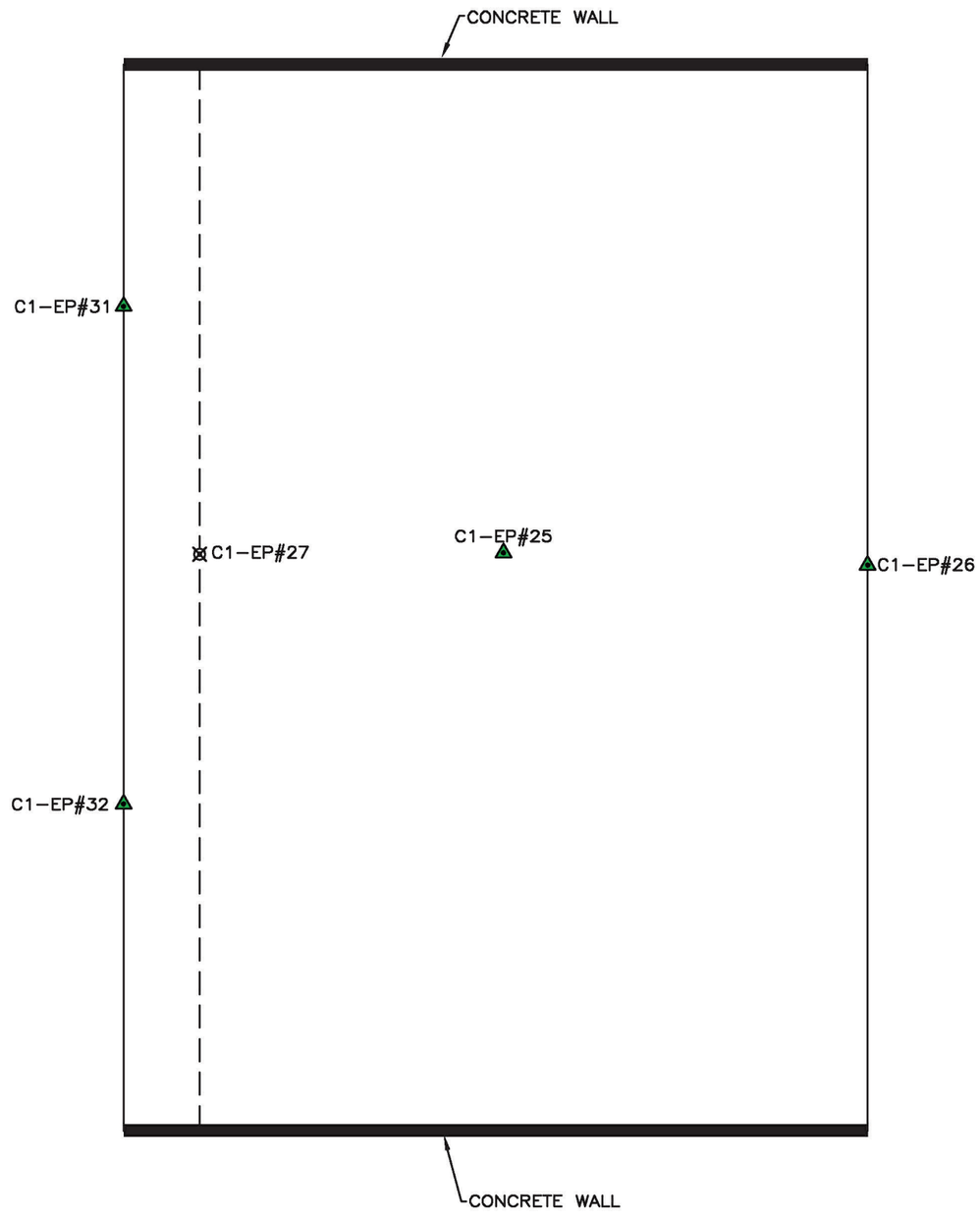
Prepared for: KONICA MINOLTA HOLDINGS USA, INC.
GLEN COVE, NEW YORK

ROUX

Compiled by: N.E.	Date: 12JAN22	FIGURE
Prepared by: B.H.C.	Scale: AS SHOWN	5-28
Project Mgr: N.E.	Project: 2020.0001Y000	
File: 2020.0001Y213.05.CDR		

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N

LEGEND

- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION WHICH HAS BEEN REMEDIATED
- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION

DATA BOX LEGEND

SAMPLE ID — ANALYTICAL RESULT MG/KG

B9–EP#19 (1')	
LEAD	1,340
SILVER	1,940

COMPOUND EXCEEDS SCOs

EXTENT OF EXCAVATION

APPROXIMATE LIMIT OF SUPPLEMENTAL EXCAVATION

GREEN/ITALICIZED VALUE INDICATES ANALYTE EXCEEDED ITS RESPECTIVE UNRESTRICTED SCO BUT WAS BELOW ITS RESPECTIVE RESIDENTIAL/PROTECTION OF GW SCO, WHICHEVER IS LOWER.

BLUE/ITALICIZED VALUE INDICATES ANALYTE EXCEEDED ITS RESPECTIVE RESIDENTIAL SCOS AND/OR PROTECTION OF GROUNDWATER SCO BUT WAS BELOW ITS RESTRICTED RESIDENTIAL SCO.

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0 3 6

SCALE FEET

NOTE: DRAWING CONTENT PRODUCED BY APEX.

Title:

FORMER COLUMBIA BLDG. NO. 1
C1-4 ORIGINAL SAMPLE LOCATION
(RCRA SITE)

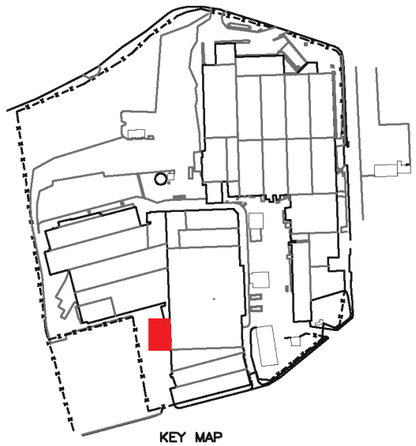
POWERS CHEMCO SUPERFUND SITE NO. 130028
POWERS CHEMCO RCRA SITE NO. 130028A
SITE MANAGEMENT PLAN ADDENDUM NO. 1

Prepared for: KONICA MINOLTA HOLDINGS USA, INC.
GLEN COVE, NEW YORK

ROUX

Compiled by: N.E.	Date: 12JAN22	FIGURE
Prepared by: B.H.C.	Scale: AS SHOWN	5-29
Project Mgr: N.E.	Project: 2020.0001Y000	
File: 2020.0001Y213.05.CDR		

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N

C1a–EP#32 (2')	
BENZO(k)FLUORANTHENE	1.2

C1a–EP#67 (8')	
ARSENIC	23.1

C1a–EP#68 (8')	
MANGANESE	3,100

C1a–EP#65 (4')	
CHROMIUM	52.0

C1a–EP#37 (4')	
INDENO(1,2,3–cd)PYRENE	0.53

C1a–EP#52 (2')	
BENZO(a)ANTHRACENE	1.4
BENZO(a)PYRENE	1.5
BENZO(b)FLUORANTHENE	1.5
BENZO(k)FLUORANTHENE	1.0
CHRYSENE	1.5
INDENO(1,2–3–CD)PYRENE	0.95

OK PER NYSDEC

C1a–EP#53 (2')	
BENZO(a)ANTHRACENE	1.0
BENZO(k)FLUORANTHENE	1.0
CHRYSENE	1.0

C1a–EP#32, C1a–EP#47, C1a–EP#48, C1a–EP#41, C1a–EP#42, C1a–EP#49, C1a–EP#33, C1a–EP#13, C1a–EP#22, C1a–EP#14, C1a–EP#21, CLAY PIPE, C1a–EP#30, C1a–EP#1, C1a–EP#50, C1a–EP#3, C1a–EP#3, C1a–EP#40, C1a–EP#31, C1a–EP#12, C1a–EP#20, C1a–EP#54, C1a–EP#19, C1a–EP#61, C1a–EP#51, C1a–EP#67, C1a–EP#29, C1a–EP#4, C1a–EP#62, C1a–EP#46, C1a–EP#68, C1a–EP#55, C1a–EP#63, C1a–EP#52, C1a–EP#56, C1a–EP#69, C1a–EP#39, C1a–EP#5, C1a–EP#64, C1a–EP#70, C1a–EP#45, C1a–EP#65, C1a–EP#57, C1a–EP#66, C1a–EP#53, C1a–EP#38, C1a–EP#11, C1a–EP#18, C1a–EP#17, C1a–EP#28, C1a–EP#6, C1a–EP#7, C1a–EP#8, CONCRETE STRUCTURE, C1a–EP#37, C1a–EP#9, C1a–EP#10, C1a–EP#15, C1a–EP#27, C1a–EP#25, C1a–EP#16, C1a–EP#26, C1a–EP#24, C1a–EP#36, C1a–EP#23, C1a–EP#35, C1a–EP#34, C1a–EP#44, C1a–EP#43, C1a–EP#58, C1a–EP#59, C1a–EP#60

NOTE: DRAWING CONTENT PRODUCED BY APEX.

LEGEND

- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION WHICH HAS BEEN REMEDIATED
- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION

DATA BOX LEGEND

SAMPLE ID — ANALYTICAL RESULT MG/KG

C1a–EP#67 (8')	
ARSENIC	23.1

COMPOUND EXCEEDS SCOs

- EXTENT OF EXCAVATION
- APPROXIMATE LIMIT OF SUPPLEMENTAL EXCAVATION
- GREEN/ITALICIZED VALUE INDICATES ANALYTE EXCEEDED ITS RESPECTIVE UNRESTRICTED SCO BUT WAS BELOW ITS RESPECTIVE RESIDENTIAL/PROTECTION OF GW SCO, WHICHEVER IS LOWER.
- BLUE/ITALICIZED VALUE INDICATES ANALYTE EXCEEDED ITS RESPECTIVE RESIDENTIAL SCOS AND/OR PROTECTION OF GROUNDWATER SCO BUT WAS BELOW ITS RESTRICTED RESIDENTIAL SCO.
- PINK/ITALICIZED VALUE INDICATES ANALYTE EXCEEDED ITS RESPECTIVE RESIDENTIAL SCOS AND/OR PROTECTION OF GROUNDWATER SCO BUT WAS BELOW ITS COMMERCIAL SCO OR CONCENTRATION APPROVED BY NYSDEC

0 10 20

SCALE FEET

Title:

FORMER COLUMBIA BUILDING SOUTH C1a AREA (RCRA SITE)

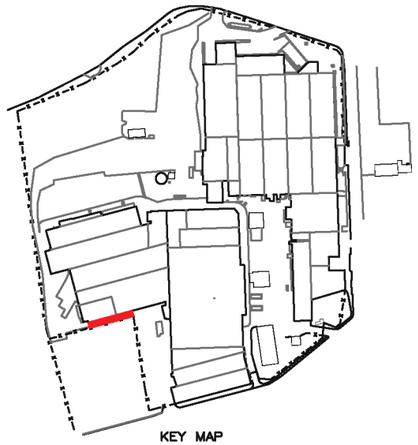
POWERS CHEMCO SUPERFUND SITE NO. 130028
POWERS CHEMCO RCRA SITE NO. 130028A
SITE MANAGEMENT PLAN ADDENDUM NO. 1

Prepared for: KONICA MINOLTA HOLDINGS USA, INC.
GLEN COVE, NEW YORK

ROUX

Compiled by: N.E.	Date: 12JAN22	FIGURE
Prepared by: B.H.C.	Scale: AS SHOWN	5-30
Project Mgr: N.E.	Project: 2020.0001Y000	
File: 2020.0001Y213.05.CDR		

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LEGEND

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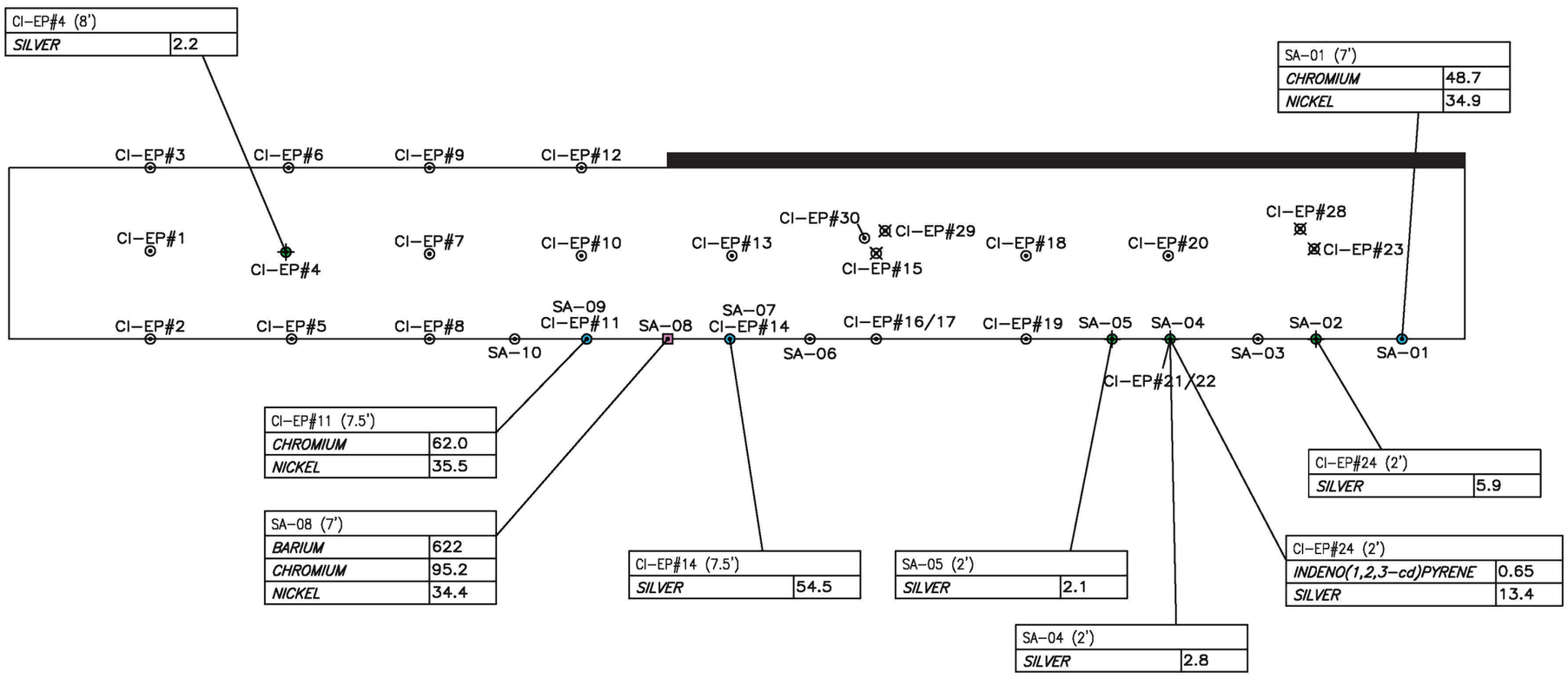
DATA BOX LEGEND

SAMPLE ID — ANALYTICAL RESULT MG/KG

CI–EP#4 (8')	
SILVER	2.2

COMPOUND EXCEEDS SCOs

- EXTENT OF EXCAVATION
- APPROXIMATE LIMIT OF SUPPLEMENTAL EXCAVATION
- GREEN/ITALICIZED VALUE INDICATES ANALYTE EXCEEDED ITS RESPECTIVE UNRESTRICTED SCO BUT WAS BELOW ITS RESPECTIVE RESIDENTIAL/PROTECTION OF GW SCO, WHICHEVER IS LOWER.
- BLUE/ITALICIZED VALUE INDICATES ANALYTE EXCEEDED ITS RESPECTIVE RESIDENTIAL SCOS AND/OR PROTECTION OF GROUNDWATER SCO BUT WAS BELOW ITS RESTRICTED RESIDENTIAL SCO.
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0 10 20

SCALE FEET

NOTE: DRAWING CONTENT PRODUCED BY APEX.

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Title:

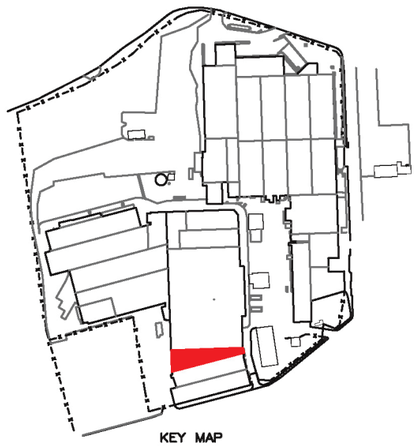
FORMER SOUTH ALLEYWAY (RCRA SITE)

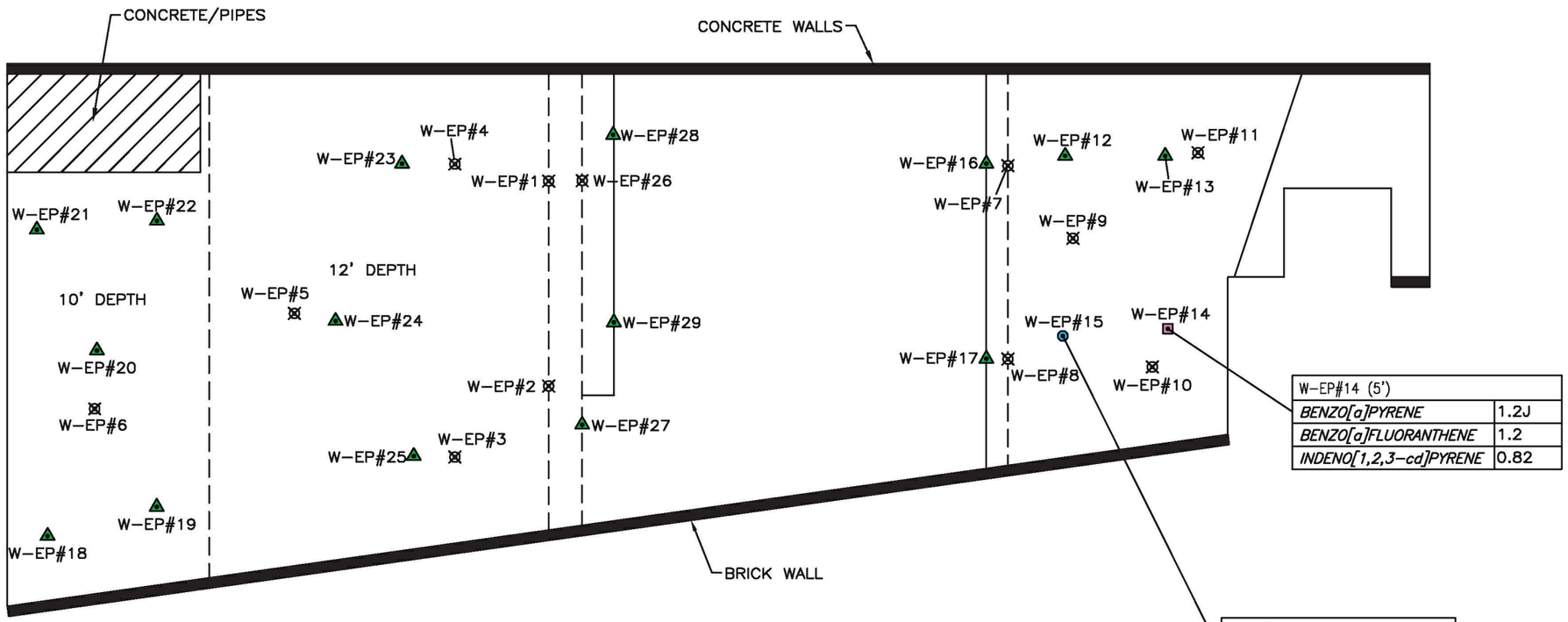
POWERS CHEMCO SUPERFUND SITE NO. 130028
POWERS CHEMCO RCRA SITE NO. 130028A
SITE MANAGEMENT PLAN ADDENDUM NO. 1

Prepared for: KONICA MINOLTA HOLDINGS USA, INC.
GLEN COVE, NEW YORK

ROUX

Compiled by: N.E.	Date: 12JAN22	FIGURE
Prepared by: B.H.C.	Scale: AS SHOWN	5-31
Project Mgr: N.E.	Project: 2020.0001Y000	
File: 2020.0001Y213.05.CDR		





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LEGEND

- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION WHICH HAS BEEN REMEDIATED
- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION

DATA BOX LEGEND

SAMPLE ID — ANALYTICAL RESULT MG/KG

W-EP#15 (5')	
CHROMIUM	69.1
NICKEL	33.0

COMPOUND EXCEEDS SCOs

EXTENT OF EXCAVATION

APPROXIMATE LIMIT OF SUPPLEMENTAL EXCAVATION

GREEN/ITALICIZED VALUE INDICATES ANALYTE EXCEEDED ITS RESPECTIVE UNRESTRICTED SCO BUT WAS BELOW ITS RESPECTIVE RESIDENTIAL/PROTECTION OF GW SCO, WHICHEVER IS LOWER.

BLUE/ITALICIZED VALUE INDICATES ANALYTE EXCEEDED ITS RESPECTIVE RESIDENTIAL SCOS AND/OR PROTECTION OF GROUNDWATER SCO BUT WAS BELOW ITS RESTRICTED RESIDENTIAL SCO.

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0 10 20

SCALE FEET

NOTE: DRAWING CONTENT PRODUCED BY APEX.

Title:

FORMER WEDGE BUILDING (RCRA SITE)

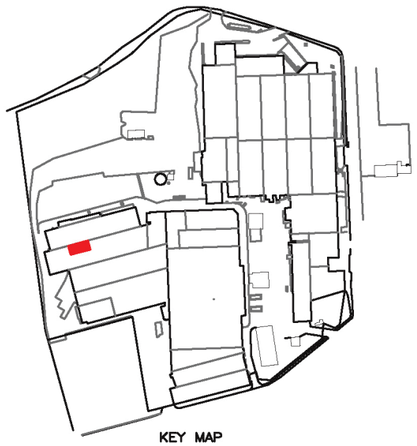
POWERS CHEMCO SUPERFUND SITE NO. 130028
POWERS CHEMCO RCRA SITE NO. 130028A
SITE MANAGEMENT PLAN ADDENDUM NO. 1

Prepared for:
KONICA MINOLTA HOLDINGS USA, INC.
GLEN COVE, NEW YORK

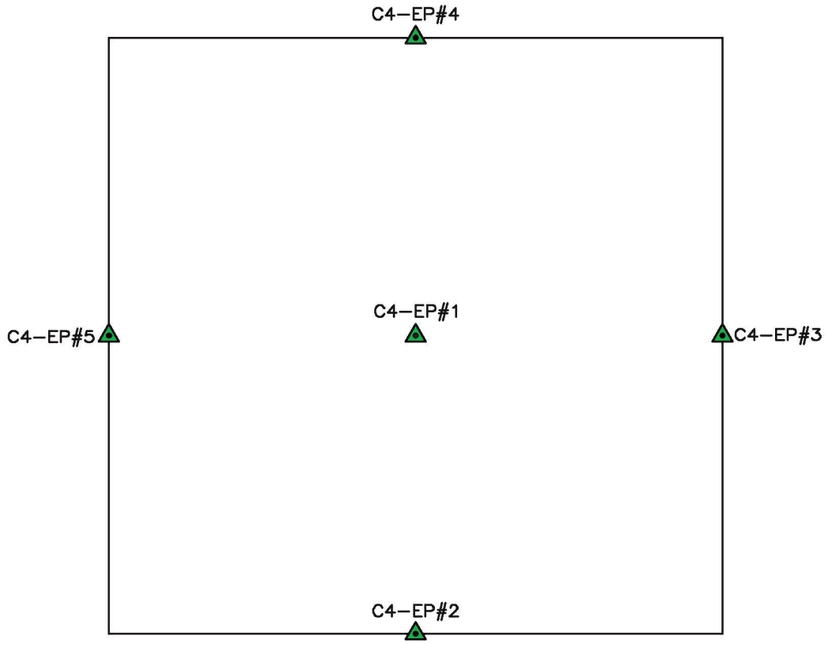
ROUX

Compiled by: N.E.	Date: 12JAN22	FIGURE
Prepared by: B.H.C.	Scale: AS SHOWN	5-32
Project Mgr: N.E.	Project: 2020.0001Y000	
File: 2020.0001Y213.05.CDR		

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KEY MAP

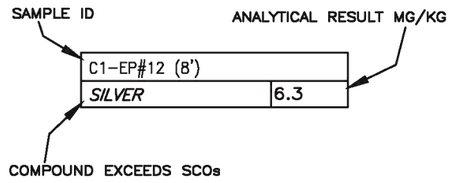


N

LEGEND

- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION WHICH HAS BEEN REMEDIATED
- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION

DATA BOX LEGEND

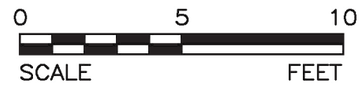


EXTENT OF EXCAVATION

GREEN/ITALICIZED VALUE INDICATES ANALYTE EXCEEDED ITS RESPECTIVE UNRESTRICTED SCO BUT WAS BELOW ITS RESPECTIVE RESIDENTIAL/PROTECTION OF GW SCO, WHICHEVER IS LOWER.

BLUE/ITALICIZED VALUE INDICATES ANALYTE EXCEEDED ITS RESPECTIVE RESIDENTIAL SCOS AND/OR PROTECTION OF GROUNDWATER SCO BUT WAS BELOW ITS RESTRICTED RESIDENTIAL SCO.

PINK/ITALICIZED VALUE INDICATES ANALYTE EXCEEDED ITS RESPECTIVE RESIDENTIAL SCOS AND/OR PROTECTION OF GROUNDWATER SCO BUT WAS BELOW ITS COMMERCIAL SCO OR CONCENTRATION APPROVED BY NYSDEC



NOTE: DRAWING CONTENT PRODUCED BY APEX.

Title:

COLUMBIA BUILDING NO. 4
C4-2 ORIGINAL SAMPLE LOCATION
(RCRA SITE)

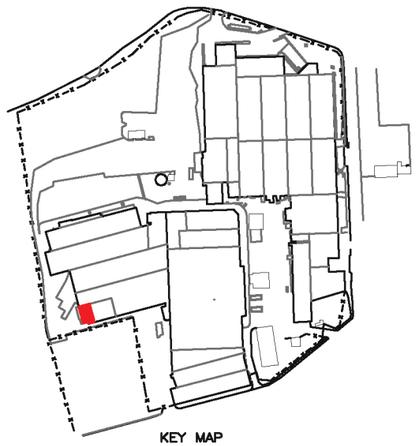
POWERS CHEMCO SUPERFUND SITE NO. 130028
POWERS CHEMCO RCRA SITE NO. 130028A
SITE MANAGEMENT PLAN ADDENDUM NO. 1

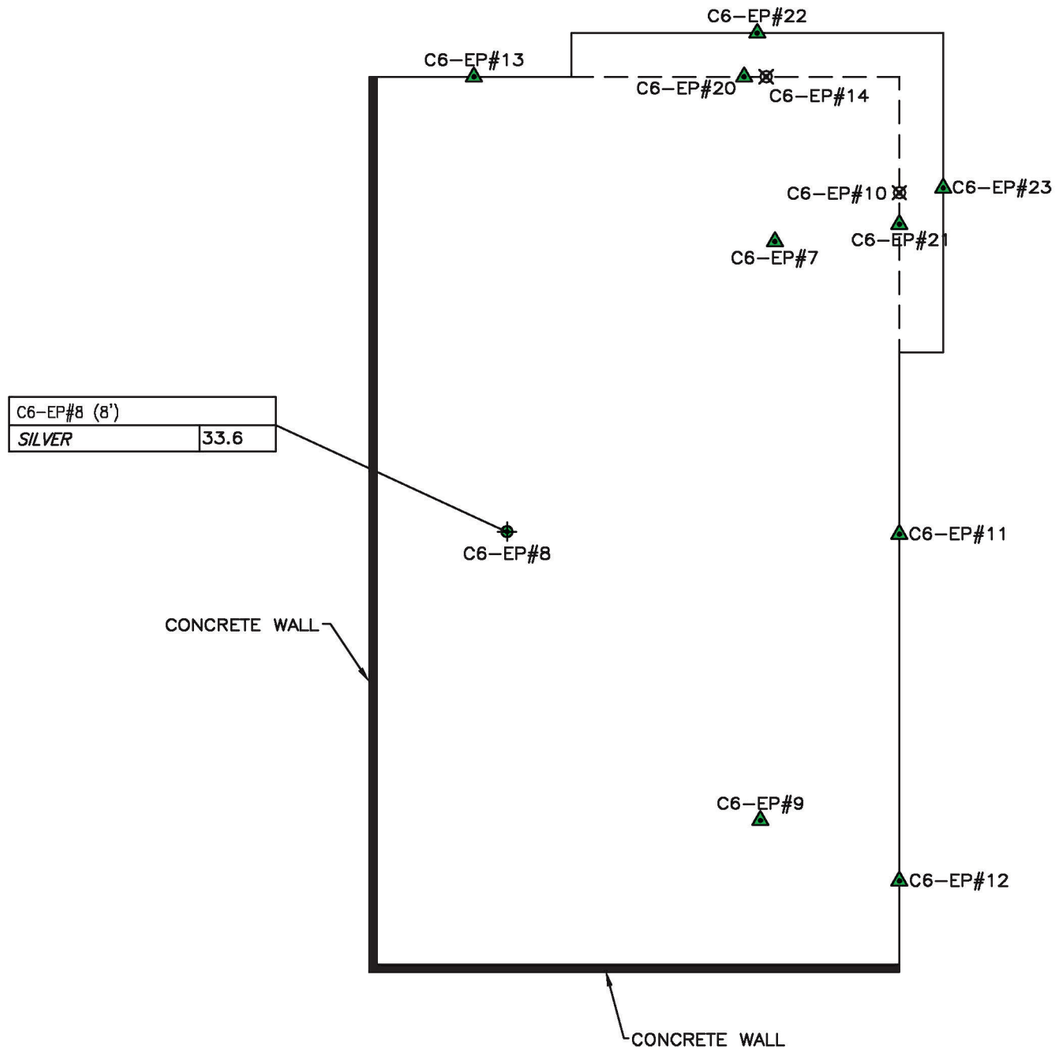
Prepared for: KONICA MINOLTA HOLDINGS USA, INC.
GLEN COVE, NEW YORK

ROUX

Compiled by: N.E.	Date: 12JAN22	FIGURE
Prepared by: B.H.C.	Scale: AS SHOWN	5-33
Project Mgr: N.E.	Project: 2020.0001Y000	
File: 2020.0001Y213.05.CDR		

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N

LEGEND

- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION WHICH HAS BEEN REMEDIATED
- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION

DATA BOX LEGEND

SAMPLE ID — ANALYTICAL RESULT MG/KG

B9–EP#19 (1')	
LEAD	1,340
SILVER	1,940

COMPOUND EXCEEDS SCOs

EXTENT OF EXCAVATION

APPROXIMATE LIMIT OF SUPPLEMENTAL EXCAVATION

GREEN/ITALICIZED VALUE INDICATES ANALYTE EXCEEDED ITS RESPECTIVE UNRESTRICTED SCO BUT WAS BELOW ITS RESPECTIVE RESIDENTIAL/PROTECTION OF GW SCO, WHICHEVER IS LOWER.

BLUE/ITALICIZED VALUE INDICATES ANALYTE EXCEEDED ITS RESPECTIVE RESIDENTIAL SCOS AND/OR PROTECTION OF GROUNDWATER SCO BUT WAS BELOW ITS RESTRICTED RESIDENTIAL SCO.

PINK/ITALICIZED VALUE INDICATES ANALYTE EXCEEDED ITS RESPECTIVE RESIDENTIAL SCOS AND/OR PROTECTION OF GROUNDWATER SCO BUT WAS BELOW ITS COMMERCIAL SCO OR CONCENTRATION APPROVED BY NYSDEC

0 10 20
SCALE FEET

NOTE: DRAWING CONTENT PRODUCED BY APEX.

Title:
COLUMBIA BUILDING NO. 6
C6-6 ORIGINAL SAMPLE LOCATION
(RCRA SITE)

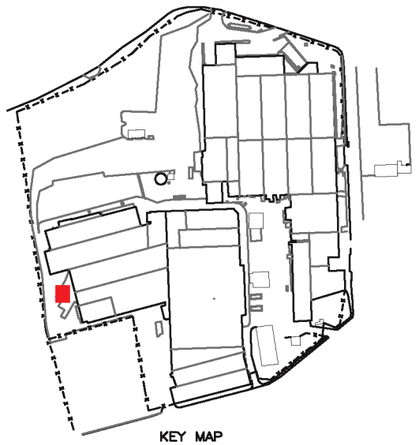
POWERS CHEMCO SUPERFUND SITE NO. 130028
POWERS CHEMCO RCRA SITE NO. 130028A
SITE MANAGEMENT PLAN ADDENDUM NO. 1

Prepared for: KONICA MINOLTA HOLDINGS USA, INC.
GLEN COVE, NEW YORK

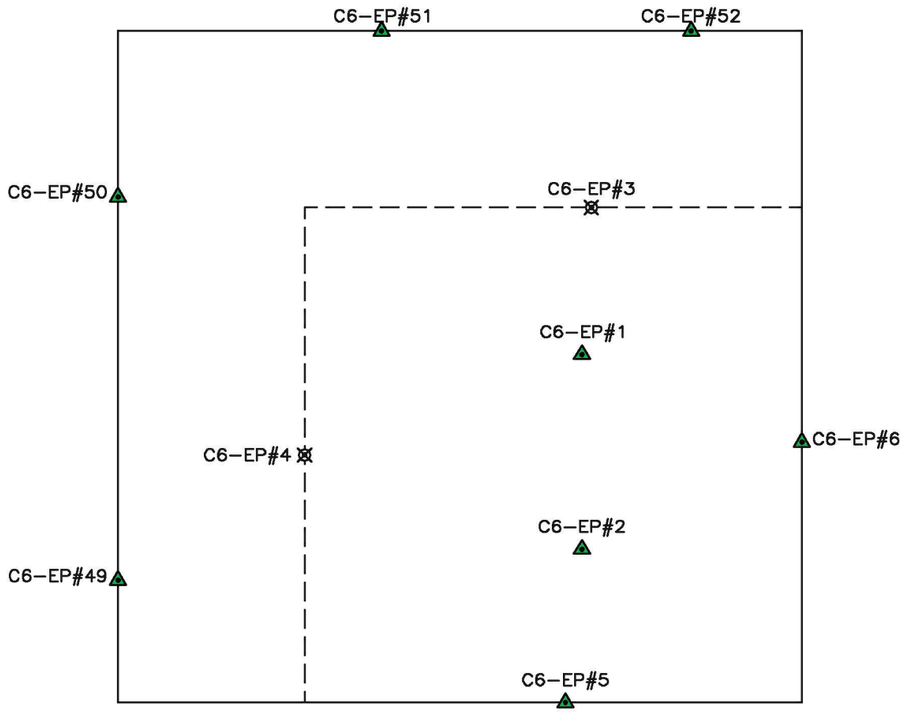
ROUX

Compiled by: N.E.	Date: 12JAN22	FIGURE
Prepared by: B.H.C.	Scale: AS SHOWN	5-35
Project Mgr: N.E.	Project: 2020.0001Y000	
File: 2020.0001Y213.05.CDR		

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KEY MAP



N

LEGEND

- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION WHICH HAS BEEN REMEDIATED
- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION

DATA BOX LEGEND

SAMPLE ID — ANALYTICAL RESULT MG/KG

B9-EP#19 (1')	
LEAD	1,340
SILVER	1,940

COMPOUND EXCEEDS SCOs

EXTENT OF EXCAVATION

APPROXIMATE LIMIT OF SUPPLEMENTAL EXCAVATION

GREEN/ITALICIZED VALUE INDICATES ANALYTE EXCEEDED ITS RESPECTIVE UNRESTRICTED SCO BUT WAS BELOW ITS RESPECTIVE RESIDENTIAL/PROTECTION OF GW SCO, WHICHEVER IS LOWER.

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PINK/ITALICIZED VALUE INDICATES ANALYTE EXCEEDED ITS RESPECTIVE RESIDENTIAL SCOS AND/OR PROTECTION OF GROUNDWATER SCO BUT WAS BELOW ITS COMMERCIAL SCO OR CONCENTRATION APPROVED BY NYSDEC

0 3 6

SCALE FEET

NOTE: DRAWING CONTENT PRODUCED BY APEX.

Title:

COLUMBIA BUILDING NO. 6
C6-2 ORIGINAL SAMPLE LOCATION
(RCRA SITE)

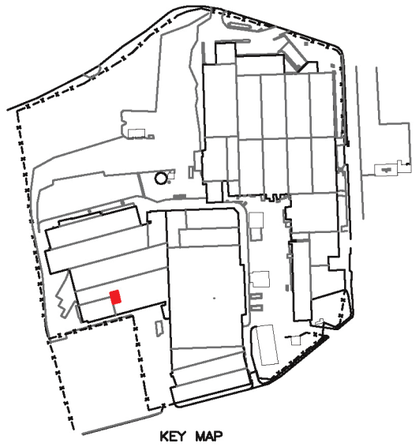
POWERS CHEMCO SUPERFUND SITE NO. 130028
POWERS CHEMCO RCRA SITE NO. 130028A
SITE MANAGEMENT PLAN ADDENDUM NO. 1

Prepared for: KONICA MINOLTA HOLDINGS USA, INC.
GLEN COVE, NEW YORK

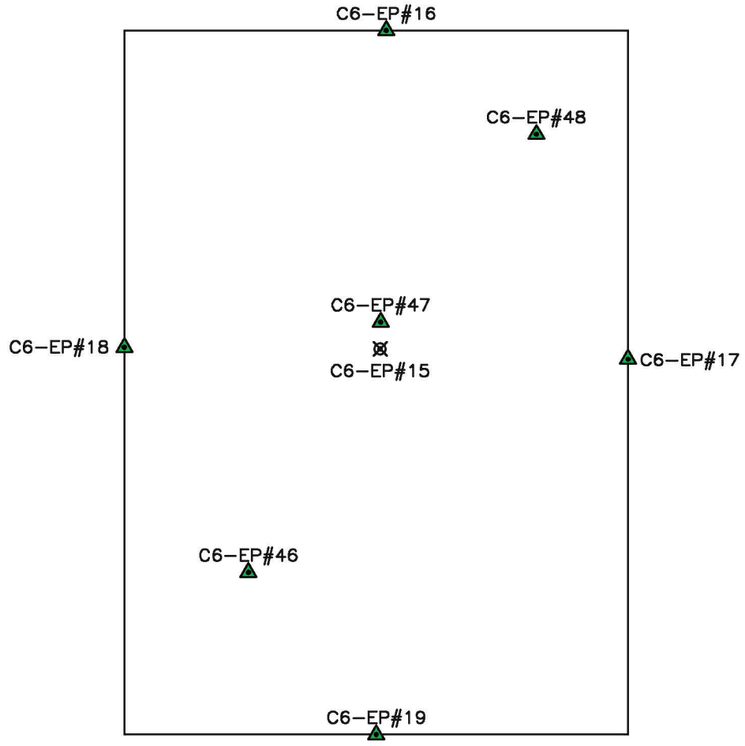
ROUX

Compiled by: N.E.	Date: 12JAN22	FIGURE
Prepared by: B.H.C.	Scale: AS SHOWN	5-34
Project Mgr: N.E.	Project: 2020.0001Y000	
File: 2020.0001Y213.05.CDR		

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KEY MAP



N

LEGEND

- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION WHICH HAS BEEN REMEDIATED
- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION

DATA BOX LEGEND

SAMPLE ID — ANALYTICAL RESULT MG/KG

B9–EP#19 (1')	
LEAD	1,340
SILVER	1,940

COMPOUND EXCEEDS SCOs

EXTENT OF EXCAVATION

GREEN/ITALICIZED VALUE INDICATES ANALYTE EXCEEDED ITS RESPECTIVE UNRESTRICTED SCO BUT WAS BELOW ITS RESPECTIVE RESIDENTIAL/PROTECTION OF GW SCO, WHICHEVER IS LOWER.

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0 3 6

SCALE FEET

NOTE: DRAWING CONTENT PRODUCED BY APEX.

Title:

FORMER COLUMBIA BUILDING NO. 6
C6-8 ORIGINAL SAMPLE LOCATION
(RCRA SITE)

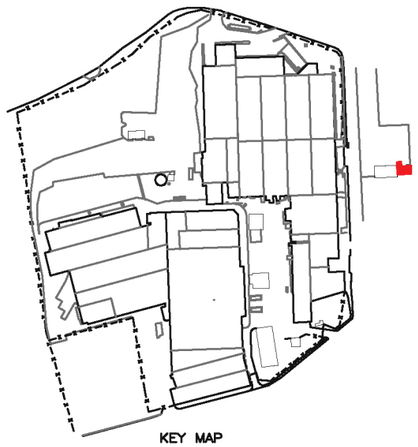
POWERS CHEMCO SUPERFUND SITE NO. 130028
POWERS CHEMCO RCRA SITE NO. 130028A
SITE MANAGEMENT PLAN ADDENDUM NO. 1

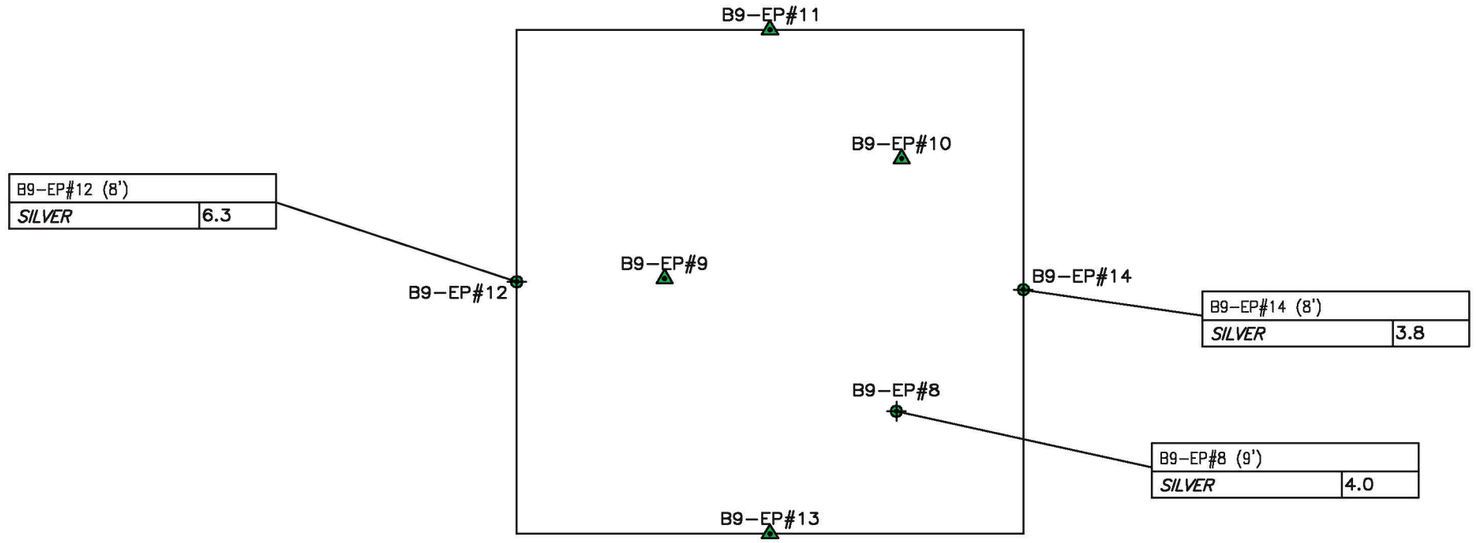
Prepared for: KONICA MINOLTA HOLDINGS USA, INC.
GLEN COVE, NEW YORK

ROUX

Compiled by: N.E.	Date: 12JAN22	FIGURE
Prepared by: B.H.C.	Scale: AS SHOWN	5-36
Project Mgr: N.E.	Project: 2020.0001Y000	
File: 2020.0001Y213.05.CDR		

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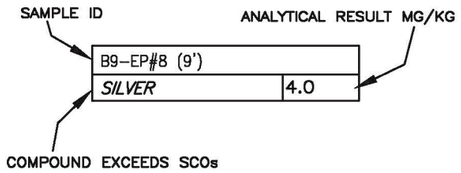


N

LEGEND

- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION WHICH HAS BEEN REMEDIATED
- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION

DATA BOX LEGEND

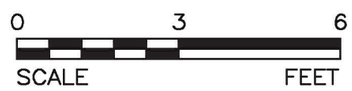


EXTENT OF EXCAVATION

GREEN/ITALICIZED VALUE INDICATES ANALYTE EXCEEDED ITS RESPECTIVE UNRESTRICTED SCO BUT WAS BELOW ITS RESPECTIVE RESIDENTIAL/PROTECTION OF GW SCO, WHICHEVER IS LOWER.

BLUE/ITALICIZED VALUE INDICATES ANALYTE EXCEEDED ITS RESPECTIVE RESIDENTIAL SCOS AND/OR PROTECTION OF GROUNDWATER SCO BUT WAS BELOW ITS RESTRICTED RESIDENTIAL SCO.

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NOTE: DRAWING CONTENT PRODUCED BY APEX.

Title:

FORMER BUILDING NO. 9
B9-9 ORIGINAL SAMPLE LOCATION (RCRA SITE)

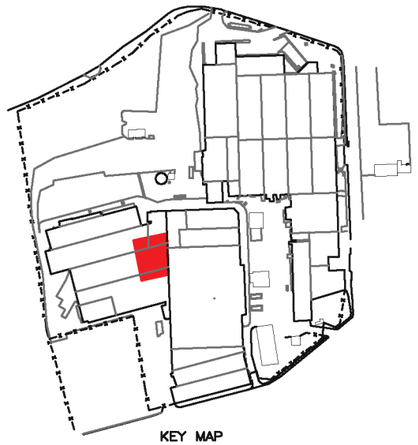
POWERS CHEMCO SUPERFUND SITE NO. 130028
POWERS CHEMCO RCRA SITE NO. 130028A
SITE MANAGEMENT PLAN ADDENDUM NO. 1

Prepared for:
KONICA MINOLTA HOLDINGS USA, INC.
GLEN COVE, NEW YORK

ROUX

Compiled by: N.E.	Date: 12JAN22	FIGURE
Prepared by: B.H.C.	Scale: AS SHOWN	5-38
Project Mgr: N.E.	Project: 2020.0001Y000	
File: 2020.0001Y213.05.CDR		

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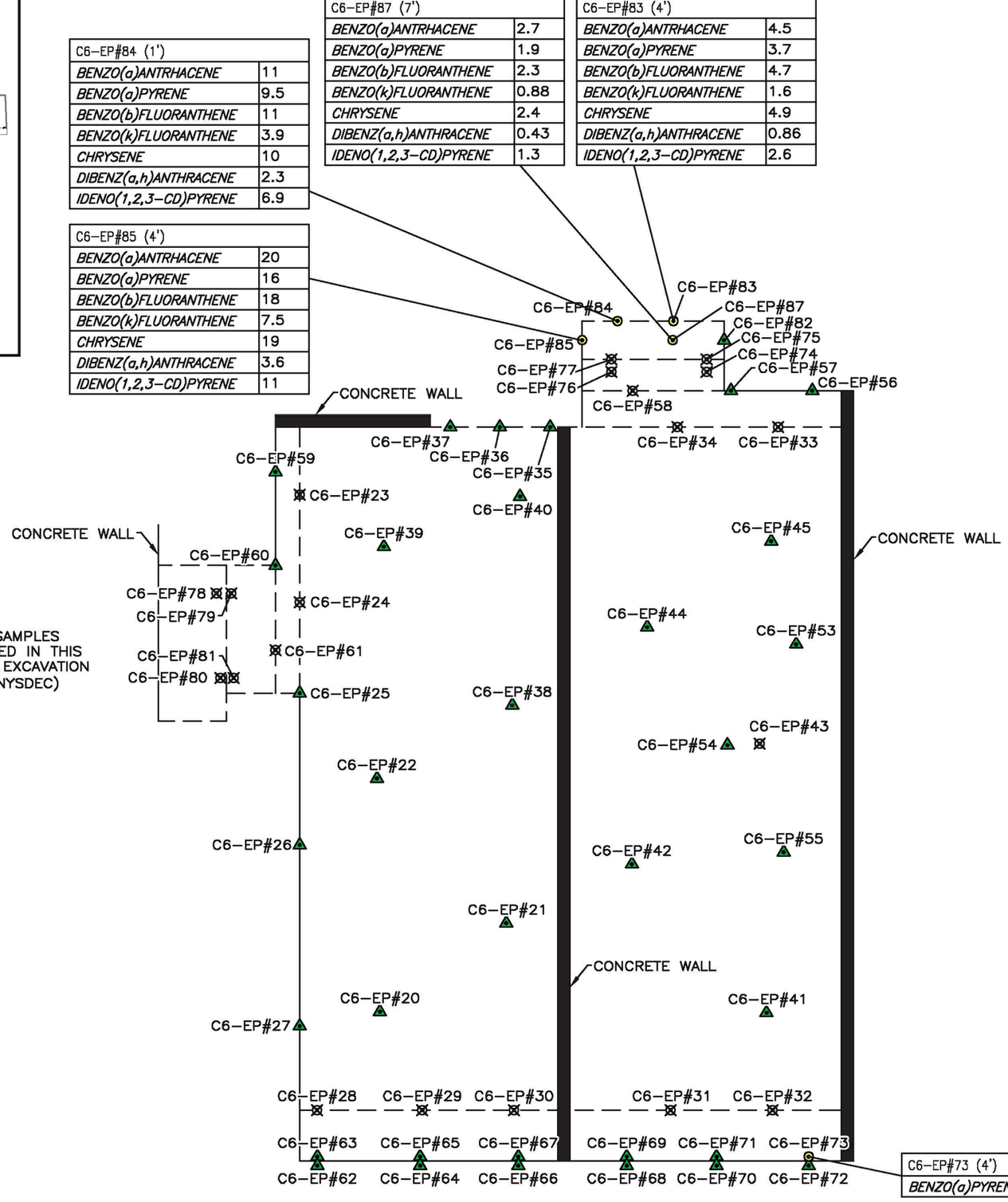


C6-EP#84 (1')	
BENZO(a)ANTRHACENE	11
BENZO(a)PYRENE	9.5
BENZO(b)FLUORANTHENE	11
BENZO(k)FLUORANTHENE	3.9
CHRYSENE	10
DIBENZ(a,h)ANTHRACENE	2.3
IDENO(1,2,3-CD)PYRENE	6.9

C6-EP#85 (4')	
BENZO(a)ANTRHACENE	20
BENZO(a)PYRENE	16
BENZO(b)FLUORANTHENE	18
BENZO(k)FLUORANTHENE	7.5
CHRYSENE	19
DIBENZ(a,h)ANTHRACENE	3.6
IDENO(1,2,3-CD)PYRENE	11

C6-EP#87 (7')	
BENZO(a)ANTRHACENE	2.7
BENZO(a)PYRENE	1.9
BENZO(b)FLUORANTHENE	2.3
BENZO(k)FLUORANTHENE	0.88
CHRYSENE	2.4
DIBENZ(a,h)ANTHRACENE	0.43
IDENO(1,2,3-CD)PYRENE	1.3

C6-EP#83 (4')	
BENZO(a)ANTRHACENE	4.5
BENZO(a)PYRENE	3.7
BENZO(b)FLUORANTHENE	4.7
BENZO(k)FLUORANTHENE	1.6
CHRYSENE	4.9
DIBENZ(a,h)ANTHRACENE	0.86
IDENO(1,2,3-CD)PYRENE	2.6



C6-EP#73 (4')	
BENZO(a)PYRENE	1.1

'EX.

LEGEND

- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION WHICH HAS BEEN REMEDIATED
- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION

DATA BOX LEGEND

SAMPLE ID — ANALYTICAL RESULT MG/KG

B9-EP#19 (1')	
LEAD	1,340
SILVER	1,940

COMPOUND EXCEEDS SCOs

- EXTENT OF EXCAVATION
- APPROXIMATE LIMIT OF SUPPLEMENTAL EXCAVATION
- GREEN/ITALICIZED VALUE INDICATES ANALYTE EXCEEDED ITS RESPECTIVE UNRESTRICTED SCO BUT WAS BELOW ITS RESPECTIVE RESIDENTIAL/PROTECTION OF GW SCO, WHICHEVER IS LOWER.
- BLUE/ITALICIZED VALUE INDICATES ANALYTE EXCEEDED ITS RESPECTIVE RESIDENTIAL SCOS AND/OR PROTECTION OF GROUNDWATER SCO BUT WAS BELOW ITS RESTRICTED RESIDENTIAL SCO.
- PINK/ITALICIZED VALUE INDICATES ANALYTE EXCEEDED ITS RESPECTIVE RESIDENTIAL SCOS AND/OR PROTECTION OF GROUNDWATER SCO BUT WAS BELOW ITS COMMERCIAL SCO OR CONCENTRATION APPROVED BY NYSDEC

0 10 20
SCALE FEET

Title:

FORMER COLUMBIA BUILDING NO. 6
C6-13 ORIGINAL SAMPLE LOCATION (RCRA SITE)

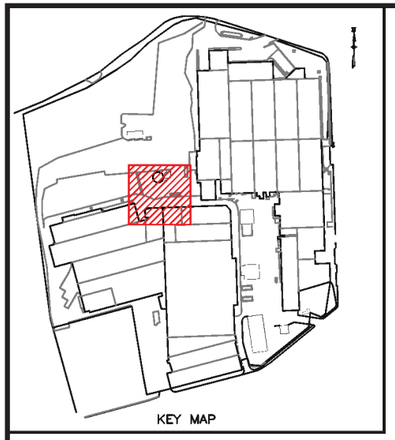
POWERS CHEMCO SUPERFUND SITE NO. 130028
POWERS CHEMCO RCRA SITE NO. 130028A
SITE MANAGEMENT PLAN ADDENDUM NO. 1

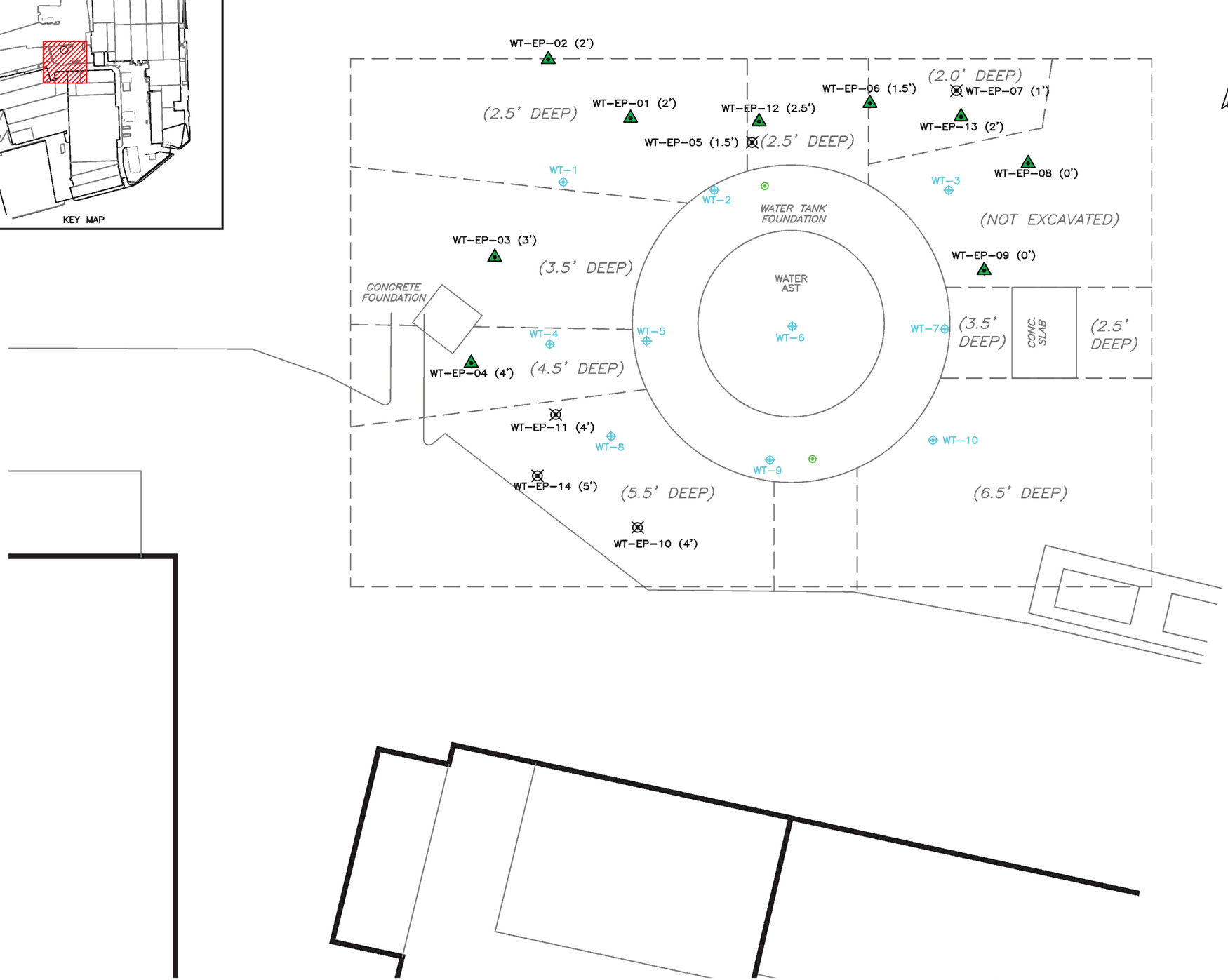
Prepared for: KONICA MINOLTA HOLDINGS USA, INC.
GLEN COVE, NEW YORK

ROUX

Compiled by: N.E.	Date: 12JAN22	FIGURE
Prepared by: B.H.C.	Scale: AS SHOWN	5-37
Project Mgr: N.E.	Project: 2020.0001Y000	
File: 2020.0001Y213.05.CDR		

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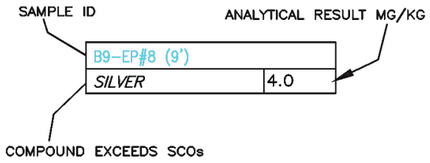




LEGEND

- DEEP SOIL BORING LOCATION
- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION WHICH HAS BEEN REMEDIATED
- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION

DATA BOX LEGEND



EXTENT OF EXCAVATION

GREEN/ITALICIZED VALUE INDICATES ANALYTE EXCEEDED ITS RESPECTIVE UNRESTRICTED SCO BUT WAS BELOW ITS RESPECTIVE RESIDENTIAL/PROTECTION OF GW SCO, WHICHEVER IS LOWER.

BLUE/ITALICIZED VALUE INDICATES ANALYTE EXCEEDED ITS RESPECTIVE RESIDENTIAL SCOS AND/OR PROTECTION OF GROUNDWATER SCO BUT WAS BELOW ITS RESTRICTED RESIDENTIAL SCO.

PINK/ITALICIZED VALUE INDICATES ANALYTE EXCEEDED ITS RESPECTIVE RESIDENTIAL SCOS AND/OR PROTECTION OF GROUNDWATER SCO BUT WAS BELOW ITS COMMERCIAL SCO OR CONCENTRATION APPROVED BY NYSDEC

0 10 20
SCALE FEET

NOTE: DRAWING CONTENT PRODUCED BY APEX.

Title:

FORMER NORTH LOT AREA WATER TANK SAMPLE LOCATIONS (RCRA SITE)

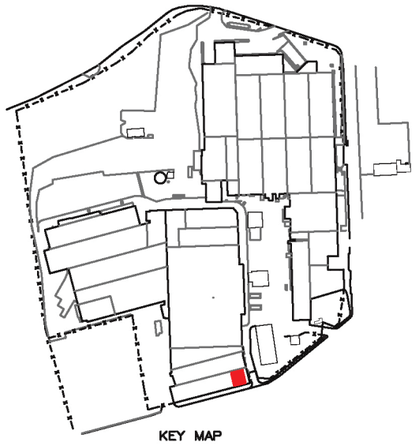
POWERS CHEMCO SUPERFUND SITE NO. 130028
POWERS CHEMCO RCRA SITE NO. 130028A
SITE MANAGEMENT PLAN ADDENDUM NO. 1

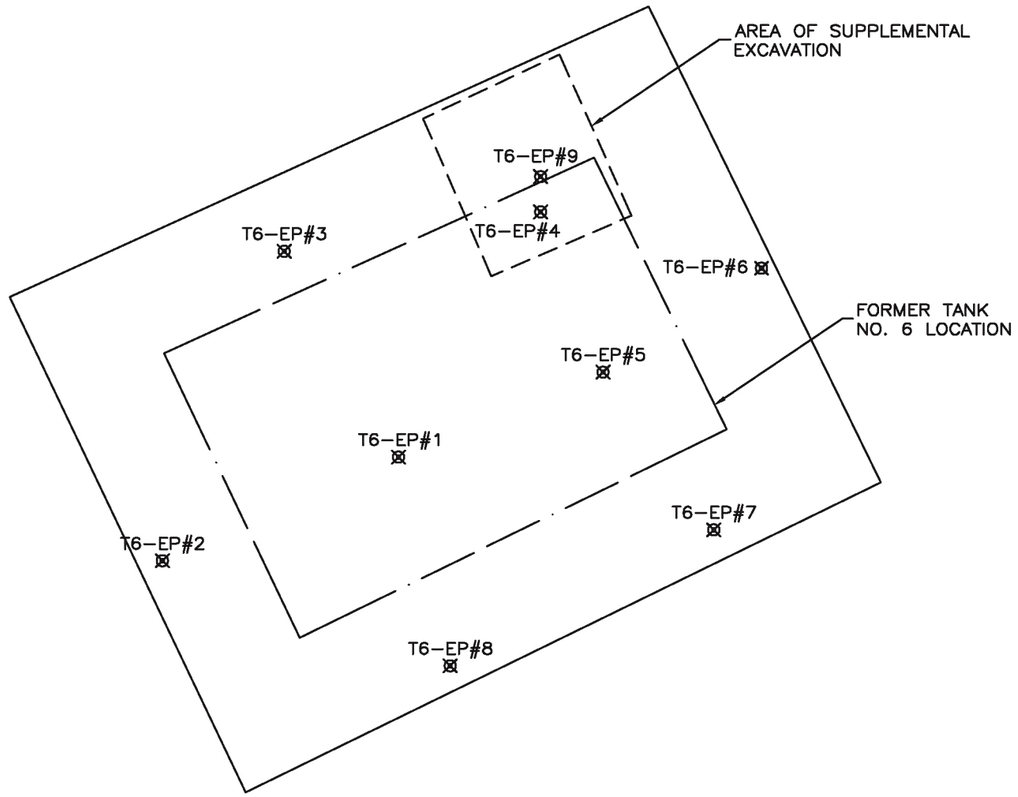
Prepared for: KONICA MINOLTA HOLDINGS USA, INC.
GLEN COVE, NEW YORK

ROUX

Compiled by: N.E.	Date: 12JAN22	FIGURE
Prepared by: B.H.C.	Scale: AS SHOWN	5-39
Project Mgr: N.E.	Project: 2020.0001Y000	
File: 2020.0001Y213.05.CDR		

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N

LEGEND

- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION WHICH HAS BEEN REMEDIATED
- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION
- ENDPOINT SAMPLE LOCATION

DATA BOX LEGEND

SAMPLE ID — ANALYTICAL RESULT MG/KG

C1a-EP#67 (8')	
ARSENIC	23.1

COMPOUND EXCEEDS SCOs

- EXTENT OF EXCAVATION
- APPROXIMATE LIMIT OF SUPPLEMENTAL EXCAVATION
- GREEN/ITALICIZED VALUE INDICATES ANALYTE EXCEEDED ITS RESPECTIVE UNRESTRICTED SCO BUT WAS BELOW ITS RESPECTIVE RESIDENTIAL/PROTECTION OF GW SCO, WHICHEVER IS LOWER.
- BLUE/ITALICIZED VALUE INDICATES ANALYTE EXCEEDED ITS RESPECTIVE RESIDENTIAL SCOS AND/OR PROTECTION OF GROUNDWATER SCO BUT WAS BELOW ITS RESTRICTED RESIDENTIAL SCO.
- PINK/ITALICIZED VALUE INDICATES ANALYTE EXCEEDED ITS RESPECTIVE RESIDENTIAL SCOS AND/OR PROTECTION OF GROUNDWATER SCO BUT WAS BELOW ITS COMMERCIAL SCO OR CONCENTRATION APPROVED BY NYSDEC

0 10 20
SCALE FEET

NOTE: DRAWING CONTENT PRODUCED BY APEX.

Title:

FORMER TANK #6 ENDPOINT SAMPLE LOCATIONS (RCRA SITE)

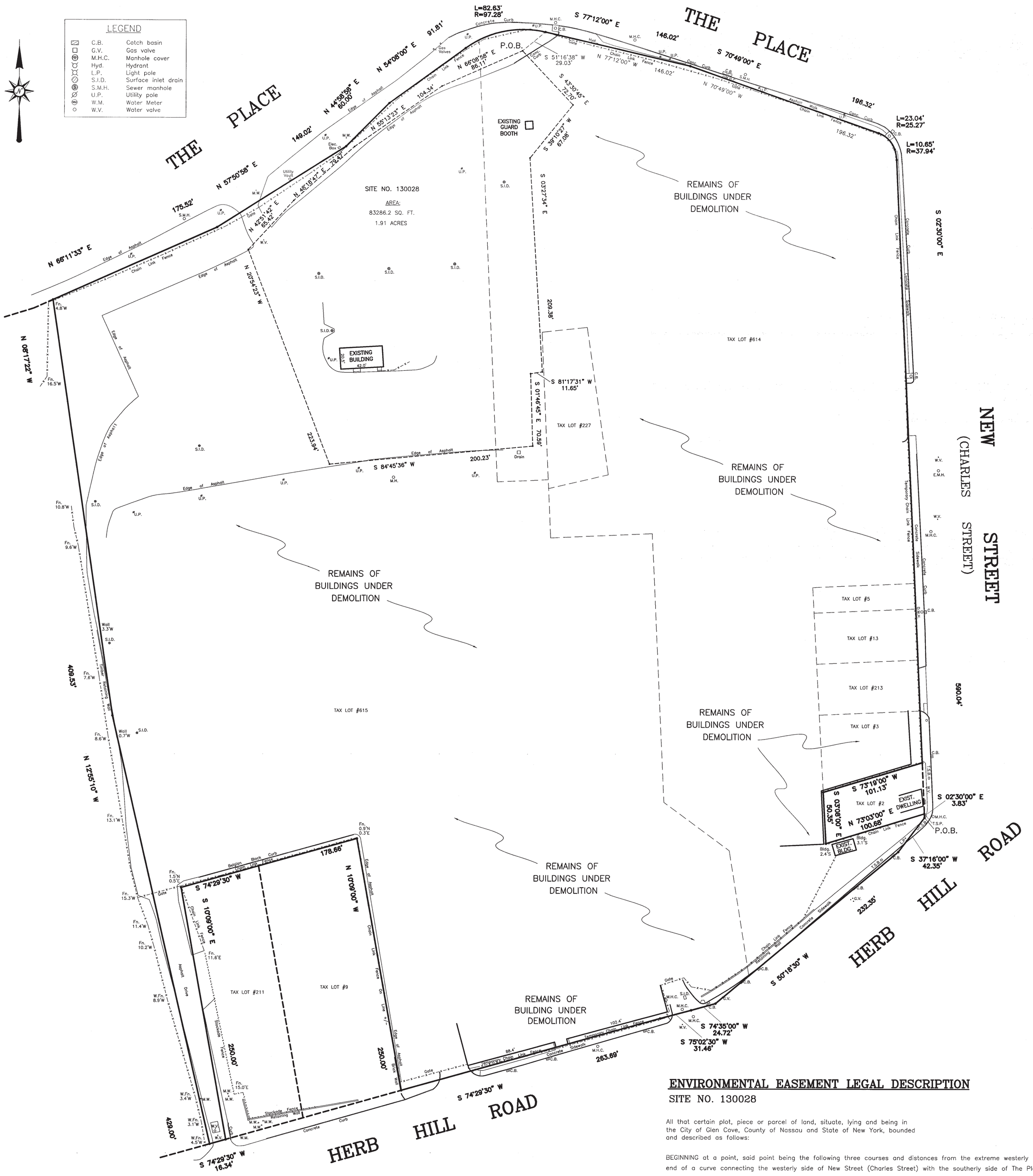
POWERS CHEMCO SUPERFUND SITE NO. 130028
POWERS CHEMCO RCRA SITE NO. 130028A
SITE MANAGEMENT PLAN ADDENDUM NO. 1

Prepared for: KONICA MINOLTA HOLDINGS USA, INC.
GLEN COVE, NEW YORK

ROUX

Compiled by: N.E.	Date: 12JAN22	FIGURE
Prepared by: B.H.C.	Scale: AS SHOWN	5-40
Project Mgr: N.E.	Project: 2020.0001Y000	
File: 2020.0001Y213.05.CDR		

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ENVIRONMENTAL EASEMENT LEGAL DESCRIPTION

LOTS #3, #5, #13, #213, #227, #614 & #615

All that certain plot, piece or parcel of land, situate, lying and being in the City of Glen Cove, County of Nassau and State of New York, bounded and described as follows:

BEGINNING at the corner formed by the intersection of the northerly side of Herb Hill Road and the westerly side of New Street (Charles Street);

RUNNING THENCE along the northerly side of Herb Hill Road the following five courses and distances:

(1) South 37 degrees 16 minutes 00 seconds West, 42.35 feet;
(2) South 50 degrees 18 minutes 30 seconds West, 232.35 feet;
(3) South 74 degrees 35 minutes 00 seconds West, 24.72 feet;
(4) South 75 degrees 02 minutes 30 seconds West, 31.46 feet;
(5) South 74 degrees 29 minutes 30 seconds West, 263.69 feet;

THENCE North 10 degrees 09 minutes 00 seconds West, 250.00 feet;

THENCE South 74 degrees 29 minutes 30 seconds West, 178.66 feet;

THENCE South 10 degrees 09 minutes 00 seconds East, 250.00 feet to the northerly side of Herb Hill Road;

THENCE along the northerly side of Herb Hill Road South 74 degrees 29 minutes 30 seconds West, 16.34 feet;

THENCE North 12 degrees 55 minutes 10 seconds West, 429.00 feet;

THENCE North 08 degrees 17 minutes 22 seconds West, 409.53 feet; to the southerly side of The Place;

CONTINUED

THENCE along the southerly side of The Place the following seven courses and distances;

(1) North 66 degrees 11 minutes 33 seconds East, 175.52 feet;
(2) North 57 degrees 50 minutes 58 seconds East; 149.02 feet;
(3) North 44 degrees 58 minutes 58 seconds East, 60.00 feet;
(4) North 54 degrees 08 minutes 00 seconds East, 91.81 feet;
(5) Along the arc of a curve bearing to the right having a radius of 97.28 feet, a distance of 82.63 feet;
(6) South 77 degrees 12 minutes 00 seconds East, 146.02 feet;
(7) South 70 degrees 49 minutes 00 seconds East, 196.32 feet to the extreme northerly end of the arc of a curve connecting the southerly side of The Place with the westerly side of New Street;

THENCE southeasterly along the arc of a curve bearing to the right having a radius of 25.27 feet, a distance of 23.04 feet;

THENCE southeasterly still along the arc of a curve bearing to the right having a radius of 37.94 feet, a distance of 10.65 feet to a point on the westerly side of New Street;

THENCE along the westerly side of New Street South 02 degrees 30 minutes 00 seconds East, 590.04 feet to land now or formerly of Lombardi;

THENCE along said last mentioned land the following three courses and distances:

(1) South 73 degrees 19 minutes 00 seconds West, 101.13 feet;
(2) South 3 degrees 08 minutes 00 seconds East, 50.35 feet;
(3) North 73 degrees 03 minutes 00 seconds East, 100.68 feet to the westerly side of New Street;

THENCE along the westerly side of New Street, South 2 degrees 30 minutes 00 seconds East, 3.83 feet to the point or place of BEGINNING.

CONTAINING within said described metes and bounds 14.96 acres.

ENVIRONMENTAL EASEMENT LEGAL DESCRIPTION

SITE NO. 130028

All that certain plot, piece or parcel of land, situate, lying and being in the City of Glen Cove, County of Nassau and State of New York, bounded and described as follows:

BEGINNING at a point, said point being the following three courses and distances from the extreme westerly end of a curve connecting the westerly side of New Street (Charles Street) with the southerly side of The Place;

Along the southerly side of The Place the following two courses and distances:

(1) North 70 degrees 49 minutes 00 seconds West, 196.32 feet;
(2) North 77 degrees 12 minutes 00 seconds West, 146.02 feet;

THENCE South 51 degrees 16 minutes 38 seconds West, 29.03 feet to the point or place of BEGINNING;

RUNNING THENCE South 43 degrees 30 minutes 45 seconds East, 72.70 feet;

THENCE South 39 degrees 10 minutes 27 seconds West, 67.08 feet;

THENCE South 03 degrees 27 minutes 34 seconds East, 209.38 feet;

THENCE South 81 degrees 17 minutes 31 seconds West, 11.65 feet;

THENCE South 01 degrees 46 minutes 45 seconds East, 70.59 feet;

THENCE South 84 degrees 45 minutes 36 seconds West, 200.23 feet;

THENCE North 20 degrees 54 minutes 23 seconds West, 223.94 feet;

THENCE North 42 degrees 51 seconds 42 minutes East, 65.42 feet;

THENCE North 48 degrees 18 seconds 47 minutes East, 79.47 feet;

THENCE North 55 degrees 13 minutes 23 seconds East, 104.34 feet;

THENCE North 66 degrees 08 minutes 58 seconds East, 86.11 feet to the point or place of BEGINNING.

CONTAINING within said described metes and bounds 1.91 acres.

SITE NO. 130028 AREA:
83286.2 SQ. FT.
1.91 ACRES

TOTAL LOT AREA:
651766.7 SQ. FT.
14.96 ACRES

Nassau County Tax Map Designation:
Sec. 31 Blk. G
Lots 3, 5, 13, 213, 227, 614 & 615

This property is subject to an environmental easement held by the New York State Department of Environmental Conservation pursuant to Title 36 of Article 71 of the New York Environmental Conservation Management Plan (SMP). A copy of the SMP must be obtained by any party with an interest in the property. The SMP can be obtained from NYS Department of Environmental Conservation, Division of Environmental Remediation, Site Control Section, 625 Broadway, Albany, NY 12233 or at derweb@dec.ny.gov.

CERTIFICATIONS ON THIS BOUNDARY SURVEY MAP SIGNIFY THAT THE MAP WAS PREPARED IN ACCORDANCE WITH THE CURRENT EXISTING CODE OF PRACTICE FOR LAND SURVEYORS ADOPTED BY THE NEW YORK STATE ASSOCIATION OF PROFESSIONAL LAND SURVEYORS.

GUARANTEES INDICATED HEREON SHALL RUN ONLY TO THE PERSON FOR WHOM THE SURVEY IS PREPARED, AND ON THEIR BEHALF TO THE TITLE COMPANY, GOVERNMENTAL AGENCY, AND LENDING INSTITUTION LISTED. THE ASSIGNEES OF THE LENDING INSTITUTION GUARANTEES ARE NOT TRANSFERABLE TO ADDITIONAL INSTITUTIONS OR SUBSEQUENT OWNERS.

NO GUARANTEE IS IMPLIED BY THIS MAP AS TO THE EXISTENCE OR NONEXISTENCE OF ANY EASEMENTS OF RECORD THAT WOULD AFFECT SUBJECT PROPERTY, UNLESS SURVEYOR HAS BEEN FURNISHED WITH A COMPLETE COPY OF THE TITLE REPORT.

THE LOCATION OF UNDERGROUND IMPROVEMENTS OR ENCROACHMENTS ARE NOT ALWAYS KNOWN AND OFTEN MUST BE ESTIMATED. IF ANY UNDERGROUND IMPROVEMENTS OR ENCROACHMENTS ARE NOT COVERED BY THIS CERTIFICATE.

THE OFFSETS (OR DIMENSIONS) SHOWN HEREON FROM THE STRUCTURES TO THE PROPERTY LINES ARE FOR A SPECIFIC PURPOSE AND USE AND THEREFORE ARE NOT INTENDED TO GUIDE THE ERECTION OF FENCES, RETAINING WALLS, POOLS, AND ANY OTHER CONSTRUCTION.

UNAUTHORIZED ALTERATION OR ADDITION TO THIS SURVEY IS A VIOLATION OF SECTION 7209 OF THE NEW YORK STATE EDUCATION LAW.

COPIES OF THIS SURVEY MAP NOT BEARING THE LAND SURVEYOR'S INKED SEAL OR EMBOSSED SEAL SHALL NOT BE CONSIDERED AS A VALID, TRUE COPY.

NOTE: A MAJORITY OF THE INTERIOR OF THE PROPERTY WAS INACCESSIBLE AT TIME OF SURVEY DUE TO ONGOING DEMOLITION OF EXISTING STRUCTURES

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
SCALE: 1" = 50'

SURVEY BY:
BLADYKAS & PANETTA
L.S. & P.E., P.C., 1/24/2013

REVISED 2/28/2017
REVISED 12/8/2015
UPDATED 1/24/2013

Title:
INSTITUTIONAL CONTROL BOUNDARIES (SUPERFUND AND RCRA SITES)

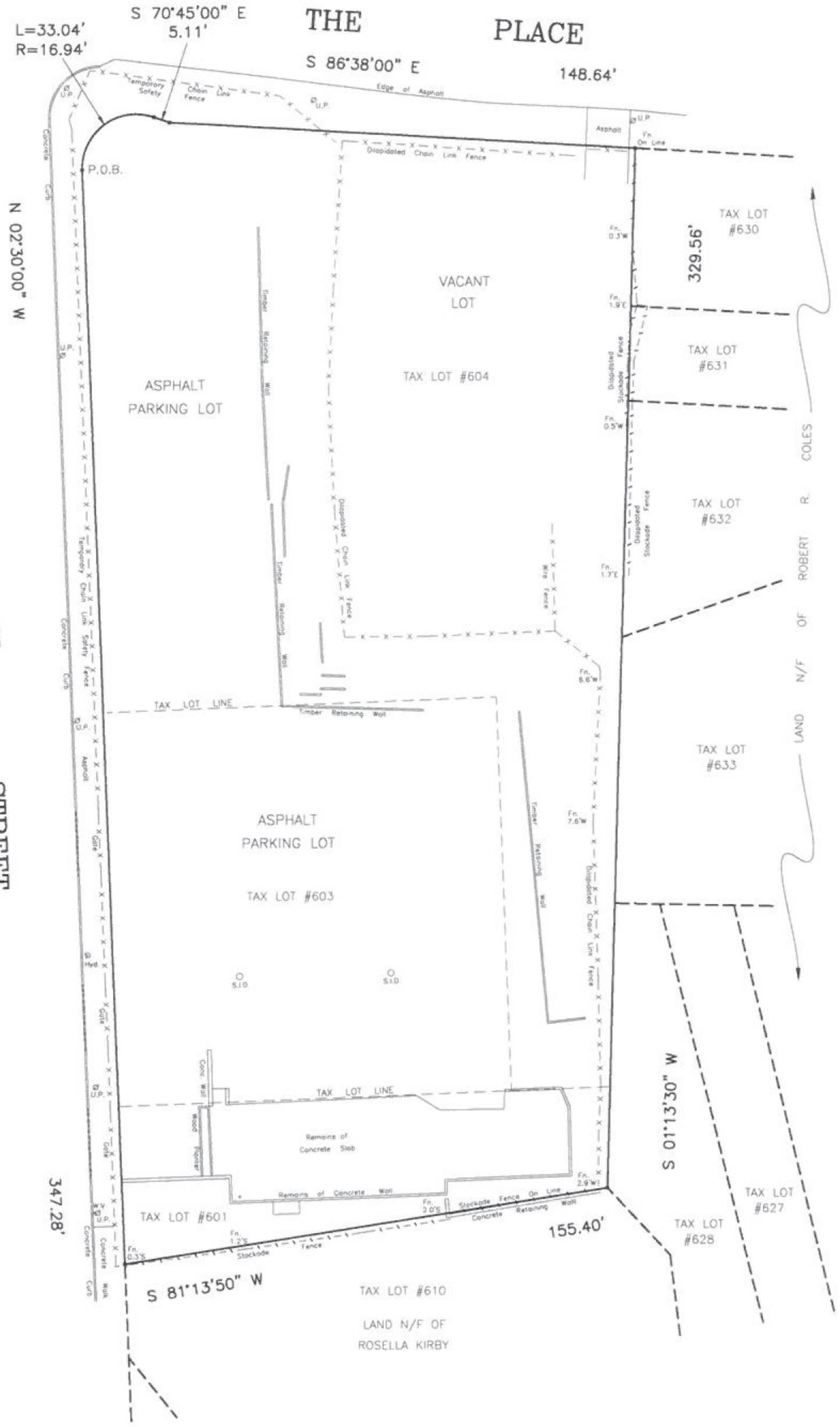
POWERS CHEMCO SUPERFUND SITE NO. 130028
POWERS CHEMCO RCRA SITE NO. 130028A SITE MANAGEMENT PLAN ADDENDUM NO. 1

Prepared for: KONICA MINOLTA HOLDINGS USA, INC.
GLEN COVE, NEW YORK

ROUX

Compiled by: N.E.	Date: 08APR21	FIGURE
Prepared by: B.H.C.	Scale: AS SHOWN	6-1
Project Mgr: N.E.	Project: 2020.0001Y000	
File: 2020.0001Y213.06.CDR		

\2020Y0001Y213\2020.0001Y213.06.CDR



ENVIRONMENTAL EASEMENT LEGAL DESCRIPTION

LOTS #601, #603 & #604

All that certain plot, piece or parcel of land, situate, lying and being in the City of Glen Cove, County of Nassau and State of New York, bounded and described as follows:

BEGINNING at the most southerly end of the arc of a curve connecting the southerly side of The Place with the easterly side of New Street (Charles Street) as widened;

RUNNING THENCE north and east along said arc of a curve bearing to the right and having a radius of 16.94 feet, a distance of 33.04 feet to a point on the southerly side of The Place;

THENCE South 70 degrees 45 minutes 00 seconds East along the southerly side of The Place, 5.11 feet;

THENCE South 86 degrees 38 minutes 00 seconds East still along the Southerly side of The Place, 148.64 feet to land now or formerly of Robert R. Coles;

THENCE along last mentioned land South 1 degree 13 minutes 30 seconds West, 329.56 feet to land now or formerly of Rosella Kirby;

THENCE along said last mentioned land South 81 degrees 13 minutes 50 seconds West, 155.40 feet to the easterly side of New Street, as widened;

THENCE along the easterly side of New Street, as widened, North 2 degrees 30 minutes 00 seconds West, 347.28 feet to the point of place of BEGINNING.

CONTAINING within said described metes and bounds 1.31 acres.

LOT AREA:
57193.1 SQ. FT.
1.31 ACRES

LEGEND

C.B.	C.B.	Catch basin
G.V.	G.V.	Gas valve
M.H.C.	M.H.C.	Manhole cover
Hyd.	Hyd.	Hydrant
L.P.	L.P.	Light pole
S.I.D.	S.I.D.	Surface inlet drain
S.M.H.	S.M.H.	Sewer manhole
U.P.	U.P.	Utility pole
W.M.	W.M.	Water Meter
W.V.	W.V.	Water valve

CERTIFICATIONS ON THIS BOUNDARY SURVEY MAP SIGNIFY THAT THE MAP WAS PREPARED IN ACCORDANCE WITH THE CURRENT EXISTING CODE OF PRACTICE FOR LAND SURVEYORS ADOPTED BY THE NEW YORK STATE ASSOCIATION OF PROFESSIONAL LAND SURVEYORS.

GUARANTEES INDICATED HEREON SHALL RUN ONLY TO THE PERSON FOR WHOM THE SURVEY IS PREPARED, AND ON THEIR BEHALF TO THE TITLE COMPANY, GOVERNMENTAL AGENCY, AND LENDING INSTITUTION LISTED. THE ASSIGNEES OF THE LENDING INSTITUTION GUARANTEES ARE NOT TRANSFERABLE TO ADDITIONAL INSTITUTIONS OR SUBSEQUENT OWNERS.

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COPIES OF THIS SURVEY MAP NOT BEARING THE LAND SURVEYOR'S INKED SEAL OR EMBOSSED SEAL SHALL NOT BE CONSIDERED AS A VALID, TRUE COPY.

GRAPHIC SCALE

30 0 10 20 40 80

(IN FEET)

SCALE: 1" = 20'

This property is subject to an environmental easement held by the New York State Department of Environmental Conservation pursuant to Title 36 of Article 71 of the New York Environmental Conservation Management Plan (SMP). A copy of the SMP must be obtained by any party with an interest in the property. The SMP can be obtained from NYS Department of Environmental Conservation, Division of Environmental Remediation, Site Control Section, 625 Broadway, Albany, NY 12233 or at derweb@dec.ny.gov.

Nassau County Tax Map Designation:
Sec. 31 Blk. 49 Lots 601, 603 & 604

SURVEY BY:
BLADYKAS & PANETTA
L.S. & P.E., P.C., 1/24/2013

REVISED 12/8/2015
UPDATE 1/24/2013

Title:
INSTITUTIONAL CONTROL BOUNDARIES (OFFSITE PARCEL)

POWERS CHEMCO SUPERFUND SITE NO. 130028
POWERS CHEMCO RCRA SITE NO. 130028A SITE MANAGEMENT PLAN ADDENDUM NO. 1

Prepared for: KONICA MINOLTA HOLDINGS USA, INC.
GLEN COVE, NEW YORK

ROUX

Compiled by: N.E.	Date: 08APR21	FIGURE
Prepared by: B.H.C.	Scale: AS SHOWN	6-2
Project Mgr: N.E.	Project: 2020.0001Y000	
File: 2020.0001Y213.06.CDR		

\2020\Y0001Y213\2020.0001Y213.06.CDR



LEGEND

LIMIT OF SITEWIDE COVER SYSTEM

N

60' 0 60'

Title:

ENGINEERING CONTROLS LOCATION (SUPERFUND SITE)

POWERS CHEMCO SUPERFUND SITE NO. 130028
AND POWERS CHEMCO RCRA SITE NO. 130028A
SITE MANAGEMENT PLAN ADDENDUM NO. 1

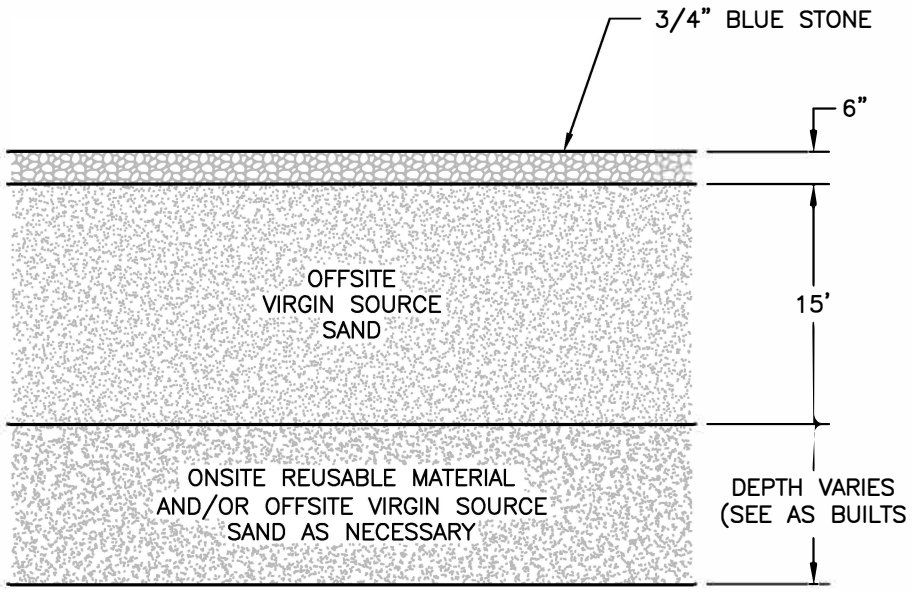
Prepared for:

KONICA MINOLTA HOLDINGS USA, INC.
GLEN COVE, NEW YORK

ROUX

Compiled by: N.E.	Date: 08APR21	FIGURE
Prepared by: B.H.C.	Scale: AS SHOWN	7-1
Project Mgr: N.E.	Project: 2020.0001Y 000	
File: 2020.0001Y213.07.DWG		

V:\CAD\PROJECTS\2020Y\0001Y\213\2020.0001Y213.07.DWG



Title:

ENGINEERING CONTROLS DETAIL (SUPERFUND SITE)

POWERS CHEMCO SUPERFUND SITE NO. 130028
POWERS CHEMCO RCRA SITE NO. 130028A
SITE MANAGEMENT PLAN ADDENDUM NO. 1

Prepared for:

KONICA MINOLTA HOLDINGS USA, INC.
GLEN COVE, NEW YORK

ROUX	Compiled by: N.E.	Date: 08APR21	FIGURE
	Prepared by: B.H.C.	Scale: AS SHOWN	7-2
	Project Mgr: N.E.	Project: 2020.0001Y000	
	File: 2020.0001Y213.07.DWG		

V:\CAD\PROJECTS\2020\Y0001Y213\2020.0001Y213.07.DWG

APPENDICES

A. Environmental Easement/ Metes and Bounds Surveys
B. List of Site Contacts
C. Monitoring Well Boring and Construction Logs
D. Excavation Work Plan
E. Site-Specific Health and Safety Plan
F. Quality Assurance Project Plan
G. Site Management Forms
H. Field Sampling Plan
I. Request to Import/Reuse Fill Material Form
J. Responsibilities of Owner and Remedial Party

APPENDIX A

Environmental Easement/ Metes and Bounds Surveys

GIBBONS

DAVID J. MILLER
Associate

Gibbons P.C.
One Gateway Center
Newark, New Jersey 07102-5310
Direct: (973) 5964493 Fax: (973) 639-6260
dmiller@gibbonslaw.com

June 9, 2017

VIA FEDERAL EXPRESS & E-MAIL

Bradford Burns, Esq.
New York State Department of Environmental Conservation
Office of General Counsel
625 Broadway
Albany, NY 12233-1500
bradford.burns@dec.ny.gov

Re: Environmental Easement Package
71 Charles Street, Glen Cove, NY
Site ID No. 130028 & 130028A

Dear Mr. Burns:

This firm represents Konica Minolta Holdings U.S.A., Inc. in its efforts to grant an environmental easement for real property located at 71 Charles Street, Glen Cove, Nassau County, New York (the "Property") to the New York Department of Environmental Conservation. Enclosed, please find: (1) a copy of the final recorded version of the environmental easement for the Property and (2) a copy of the notice letter sent to the City of Glen Cove dated June 8, 2017 and USPS certified mail receipt evidencing transmission of the notice.

Thank you for your attention to this matter and please do not hesitate to contact me with any questions or concerns.

Sincerely,

David J. Miller

DJM/hs

Enclosures

cc: David J. Freeman, Esq. (*via e-mail*)
Konica Minolta Holdings U.S.A., Inc. (*via e-mail*)

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**** Electronically Filed Document ****

Instrument Number: 2017-50229

Recorded As: EX-D06 - DEED AGREEM

Recorded On: May 18, 2017

Recorded At: 04:12:38 pm Receipt Number: 674198

Number of Pages: 12 Processed By: 001 CI

Book-VI/Pg: Bk-D VI-13510 Pg-192

Total Rec Fee(s): $705.00

** Examined and Charged as Follows **

06 - DEED AGREEMENT	$ 100.00	EX-Blocks - Deeds - $300	$ 600.00	EX-TP-584 Affidavit Fee	$ 5.00

	Tax Amount	Consid Amt	RS#/CS#		
Tax-Transfer GLEN COVE	$ 0	$ 0	RE 21441	Basic	$ 0.00
				Local NY CITY	$ 0.00
				Additional MTA	$ 0.00
				Spec ASST	$ 0.00
				Spec ADDL SONYMA	$ 0.00
				Transfer	$ 0.00
Tax Charge:	$ 0				

Property Information:

Section	Block	Lot	Unit	Town Name
31	49	601		GLEN COVE
31	49	603		GLEN COVE
31	49	604		GLEN COVE
31	G	3		GLEN COVE
31	G	5		GLEN COVE
31	G	13		GLEN COVE
31	G	213		GLEN COVE
31	G	227		GLEN COVE
31	G	614		GLEN COVE
31	G	615		GLEN COVE

**********THIS PAGE IS PART OF THE INSTRUMENT **********

Any provision herein which restricts the Sale, Rental or use of the described REAL PROPERTY because of color or race is invalid and unenforceable under federal law.

Maureen O'Connell

County Clerk Maureen O'Connell

3020-850439

County: Nassau Site No: 130028 and 130028A Order on Consent Index : A1-0653-11-10

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

section 31 block 49 lots 601, 603 & 604

THIS INDENTURE made this 27th day of April, 2017 between Owner(s) Konica Minolta Holdings U.S.A., Inc., having an office at 100 Williams Drive, Ramsey, New Jersey 07446, County of Bergen, State of New Jersey (the "Grantor"), and The People of the State of New York (the "Grantee."), acting through their Commissioner of the Department of Environmental Conservation (the "Commissioner", or "NYSDEC" or "Department" as the context requires) with its headquarters located at 625 Broadway, Albany, New York 12233,

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

Section 31 block G lots 3, 5, 13, 213, 227, 614 & 615

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

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

WHEREAS, Grantor, is the owner of real property located at the address of 71 Charles Street in the City of Glen Cove, County of Nassau and State of New York, known and designated on the tax map of the County Clerk of Nassau as tax map parcel numbers: Section 31 Block 49 Lots 601, 603 and 604, being the same as that property conveyed to Grantor by deed dated May 3, 2012 and recorded in the Nassau County Clerk's Office in Liber and Page 12863/638. The above property subject to this Environmental Easement ("Parcel A") comprises approximately 1.31 +/- acres, and is hereinafter more fully described in the Land Title Survey dated June 25, 2012 last revised December 8, 2015 prepared by Charles F. Panetta, L.L.S. of Bladykas & Panetta, L.S. & P.E., P.C., which will be attached to the Site Management Plan.

WHEREAS, Grantor, is the owner of real property located at the address of 71 Charles Street in the City of Glen Cove, County of Nassau and State of New York, known and designated on the tax map of the County Clerk of Nassau as tax map parcel numbers: Section 31 Block G Lots 3, 5, 13, 213, 227, 614 and 615, being the same as that property conveyed to Grantor by deed

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dated May 3, 2012 and recorded in the Nassau County Clerk's Office in Liber and Page 12863/638. The above property subject to this Environmental Easement ("Parcel B") comprises approximately 14.96 +/- acres, and is hereinafter more fully described in the Land Title Survey dated June 25, 2012 last revised December 8, 2015 prepared by Charles F. Panetta, L.L.S. of Bladykas & Panetta, L.S. & P.E., P.C., which will be attached to the Site Management Plan.

WHEREAS, collectively, the above-referenced Parcel A and Parcel B shall comprise of the "Controlled Property", and are more accurately described in the description set forth in and attached hereto as Schedule A and identified as Parcel A and Parcel B; and

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

NOW THEREFORE, in consideration of the mutual covenants contained herein and the terms and conditions of Order on Consent Index Number: A1-0653-11-10, Grantor conveys to Grantee a permanent Environmental Easement pursuant to ECL Article 71, Title 36 in, on, over, under, and upon the Controlled Property as more fully described herein ("Environmental Easement").

1. Purposes. Grantor and Grantee acknowledge that the Purposes of this Environmental Easement are: to convey to Grantee real property rights and interests that will run with the land in perpetuity in order to provide an effective and enforceable means of encouraging the reuse and redevelopment of this Controlled Property at a level that has been determined to be safe for a specific use while ensuring the performance of operation, maintenance, and/or monitoring requirements; and to ensure the restriction of future uses of the land that are inconsistent with the above-stated purpose.

2. Institutional and Engineering Controls. The controls and requirements listed in the Department approved Site Management Plan ("SMP") including any and all Department approved amendments to the SMP are incorporated into and made part of this Environmental Easement. These controls and requirements apply to the use of the Controlled Property, run with the land, are binding on the Grantor and the Grantor's successors and assigns, and are enforceable in law or equity against any owner of the Controlled Property, any lessees and any person using the Controlled Property.

A. (1) The Controlled Property may be used for:

Restricted Residential as described in 6 NYCRR Part 375-1.8(g)(2)(ii), Commercial as described in 6 NYCRR Part 375-1.8(g)(2)(iii) and Industrial as described in 6 NYCRR Part 375-1.8(g)(2)(iv)

(2) All Engineering Controls must be operated and maintained as specified in the Site Management Plan (SMP);

(3) All Engineering Controls must be inspected at a frequency and in a manner defined in the SMP;

(4) The use of groundwater underlying the property is prohibited without necessary water quality treatment as determined by the NYSDOH or the Nassau County Department of Health to render it safe for use as drinking water or for industrial purposes, and the user must first notify and obtain written approval to do so from the Department;

(5) Groundwater and other environmental or public health monitoring must be performed as defined in the SMP;

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

(7) All future activities on the property that will disturb remaining contaminated material must be conducted in accordance with the SMP;

(8) Monitoring to assess the performance and effectiveness of the remedy must be performed as defined in the SMP;

(9) Operation, maintenance, monitoring, inspection, and reporting of any mechanical or physical components of the remedy shall be performed as defined in the SMP;

(10) Access to the site must be provided to agents, employees or other representatives of the State of New York with reasonable prior notice to the property owner to assure compliance with the restrictions identified by this Environmental Easement.

B. The Controlled Property shall not be used for Residential purposes as defined in 6NYCRR 375-1.8(g)(2)(i), and the above-stated engineering controls may not be discontinued without an amendment or extinguishment of this Environmental Easement.

C. The SMP describes obligations that the Grantor assumes on behalf of Grantor, its successors and assigns. The Grantor's assumption of the obligations contained in the SMP which may include sampling, monitoring, and/or operating a treatment system, and providing certified reports to the NYSDEC, is and remains a fundamental element of the Department's determination that the Controlled Property is safe for a specific use, but not all uses. The SMP may be modified in accordance with the Department's statutory and regulatory authority. The Grantor and all successors and assigns, assume the burden of complying with the SMP and obtaining an up-to-date version of the SMP from:

Site Control Section
Division of Environmental Remediation
NYSDEC
625 Broadway
Albany, New York 12233
Phone: (518) 402-9553

D. Grantor must provide all persons who acquire any interest in the Controlled Property a true and complete copy of the SMP that the Department approves for the Controlled Property and all Department-approved amendments to that SMP.

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

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

F. Grantor covenants and agrees that this Environmental Easement shall be incorporated in full or by reference in any leases, licenses, or other instruments granting a right to use the Controlled Property.

G. Grantor covenants and agrees that it shall, at such time as NYSDEC may require, submit to NYSDEC a written statement by an expert the NYSDEC may find acceptable certifying under penalty of perjury, in such form and manner as the Department may require, that:

(1) the inspection of the site to confirm the effectiveness of the institutional and engineering controls required by the remedial program was performed under the direction of the individual set forth at 6 NYCRR Part 375-1.8(h)(3).

(2) the institutional controls and/or engineering controls employed at such site:

(i) are in-place;

(ii) are unchanged from the previous certification, or that any identified changes to the controls employed were approved by the NYSDEC and that all controls are in the Department-approved format; and

(iii) that nothing has occurred that would impair the ability of such control to protect the public health and environment;

(3) the owner will continue to allow access to such real property to evaluate the continued maintenance of such controls;

(4) nothing has occurred that would constitute a violation or failure to comply with any site management plan for such controls;

(5) the report and all attachments were prepared under the direction of, and reviewed by, the party making the certification;

(6) to the best of his/her knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and

(7) the information presented is accurate and complete.

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

4. Reserved Grantor's Rights. Grantor reserves for itself, its assigns, representatives, and successors in interest with respect to the Property, all rights as fee owner of the Property, including:

A. Use of the Controlled Property for all purposes not inconsistent with, or limited by the terms of this Environmental Easement;

B. The right to give, sell, assign, or otherwise transfer part or all of the underlying fee interest to the Controlled Property, subject and subordinate to this Environmental Easement;

5. Enforcement

A. This Environmental Easement is enforceable in law or equity in perpetuity by Grantor, Grantee, or any affected local government, as defined in ECL Section 71-3603, against the owner of the Property, any lessees, and any person using the land. Enforcement shall not be defeated because of any subsequent adverse possession, laches, estoppel, or waiver. It is not a defense in any action to enforce this Environmental Easement that: it is not appurtenant to an interest in real property; it is not of a character that has been recognized traditionally at common law; it imposes a negative burden; it imposes affirmative obligations upon the owner of any interest in the burdened property; the benefit does not touch or concern real property; there is no privity of estate or of contract; or it imposes an unreasonable restraint on alienation.

B. If any person violates this Environmental Easement, the Grantee may revoke the Certificate of Completion with respect to the Controlled Property.

C. Grantee shall notify Grantor of a breach or suspected breach of any of the terms of this Environmental Easement. Such notice shall set forth how Grantor can cure such breach or suspected breach and give Grantor a reasonable amount of time from the date of receipt of notice in which to cure. At the expiration of such period of time to cure, or any extensions granted by Grantee, the Grantee shall notify Grantor of any failure to adequately cure the breach or suspected breach, and Grantee may take any other appropriate action reasonably necessary to remedy any breach of this Environmental Easement, including the commencement of any proceedings in accordance with applicable law.

D. The failure of Grantee to enforce any of the terms contained herein shall not be deemed a waiver of any such term nor bar any enforcement rights.

6. Notice. Whenever notice to the Grantee (other than the annual certification) or approval from the Grantee is required, the Party providing such notice or seeking such approval shall identify the Controlled Property by referencing the following information:

County, NYSDEC Site Number, NYSDEC Brownfield Cleanup Agreement, State Assistance Contract or Order Number, and the County tax map number or the Liber and Page or computerized system identification number.

Parties shall address correspondence to: Site Numbers: 130028 and 130028A
Office of General Counsel
NYSDEC
625 Broadway

Albany New York 12233-5500

With a copy to:

Site Control Section
Division of Environmental Remediation
NYSDEC
625 Broadway
Albany, NY 12233

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

7. Recordation. Grantor shall record this instrument, within thirty (30) days of execution of this instrument by the Commissioner or her/his authorized representative in the office of the recording officer for the county or counties where the Property is situated in the manner prescribed by Article 9 of the Real Property Law.

8. Amendment. Any amendment to this Environmental Easement may only be executed by the Commissioner of the New York State Department of Environmental Conservation or the Commissioner's Designee, and filed with the office of the recording officer for the county or counties where the Property is situated in the manner prescribed by Article 9 of the Real Property Law.

9. Extinguishment. This Environmental Easement may be extinguished only by a release by the Commissioner of the New York State Department of Environmental Conservation, or the Commissioner's Designee, and filed with the office of the recording officer for the county or counties where the Property is situated in the manner prescribed by Article 9 of the Real Property Law.

10. Joint Obligation. If there are two or more parties identified as Grantor herein, the obligations imposed by this instrument upon them shall be joint and several.

Remainder of Page Intentionally Left Blank

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

Konica Minolta Holdings U.S.A., Inc.:

By: _____

Print Name: John Thielke

Title: Executive VP & CFO Date: 4/4/2017

Grantor's Acknowledgment

STATE OF NEW JERSEY)
) ss:
COUNTY OF Bergen)

On the 4th day of April, in the year 2017, before me, the undersigned, personally appeared John Thielke, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.

Elaine E. Devlin
Notary Public - State of New Jersey

ELAINE E. DEVLIN
Notary Public of New Jersey
I.D. #2359131
Commission Expires 4/26/2017

THIS ENVIRONMENTAL EASEMENT IS HEREBY ACCEPTED BY THE PEOPLE OF THE STATE OF NEW YORK, Acting By and Through the Department of Environmental Conservation as Designee of the Commissioner.

By: _____
Robert W. Schick, Director
Division of Environmental Remediation

Grantee's Acknowledgment

STATE OF NEW YORK)
) ss:
COUNTY OF ALBANY)

On the 27th day of April, in the year 2017, before me, the undersigned, personally appeared Robert W. Schick, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name is (are) subscribed to the within instrument and acknowledged to me that he/she/ executed the same in his/her/ capacity as Designee of the Commissioner of the State of New York Department of Environmental Conservation, and that by his/her/ signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

_____
Notary Public - State of New York

David J. Chiusano
Notary Public, State of New York
No. 01CH5032146
Qualified in Schenectady County
Commission Expires August 22, 2018

Record and Return to:
David J. Miller, Esq.
Gibbons P.C.
One Gateway Center
Newark, New Jersey 07102

SCHEDULE "A"

PARCEL "A" PROPERTY DESCRIPTION

LEGAL DESCRIPTION
Sec. 31 Blk. 49 Lots 601, 603 & 604

All that certain plot, piece or parcel of land, situate, lying and being in the City of Glen Cove, County of Nassau and State of New York, bounded and described as follows:

BEGINNING at the most southerly end of the arc of a curve connecting the southerly side of The Place with the easterly side of New Street (Charles Street) as widened;

RUNNING THENCE north and east along said arc of a curve bearing to the right and having a radius of 16.94 feet, a distance of 33.04 feet to a point on the southerly side of The Place;

THENCE South 70 degrees 45 minutes 00 seconds East along the southerly side of The Place, 5.11 feet;

THENCE South 86 degrees 38 minutes 00 seconds East still along the southerly side of The Place, 148.64 feet to land now or formerly of Robert R. Coles;

THENCE along last mentioned land South 01 degree 13 minutes 30 seconds West, 329.56 feet to land now or formerly of Rosella Kirby;

THENCE along said last mentioned land South 81 degrees 13 minutes 50 seconds West, 155.40 feet to the easterly side of New Street, as widened;

THENCE along the easterly side of New Street, as widened, North 02 degrees 30 minutes 00 seconds West, 347.28 feet to the point or place of BEGINNING.

CONTAINING within said described metes and bounds 1.31 acres.

2

GIBBONS

DAVID J. MILLER
Associate

Gibbons P.C.
One Gateway Center
Newark, New Jersey 07102-5310
Direct: (973) 596-4493 Fax: (973) 639-6260
dmiller@gibbonslaw.com

June 8, 2017

VIA CERTIFIED MAIL (R.R.R.)

City of Glen Cove, Town Clerk's Office
Glen Cove City Hall
9 Glen Street
Glen Cove, New York 11542

Re: Environmental Easement - Notice to Municipality

Dear Sir or Madam:

Attached please find a copy of an environmental easement granted to the New York State Department of Environmental Conservation ("DEC") on April 27, 2017 by Konica Minolta Holdings U.S.A., Inc. for property located at 71 Charles Street, Glen Cove, Nassau County, New York, and known by Tax Map Nos.: Section 31, Block G, Lots 3, 5, 13, 213, 227, 614 & 615; and Section 31, Block 49, Lots 601, 603 & 604. The property is also known as DEC site number 130028 & 130028A.

This Environmental Easement restricts future use of the above-referenced property to restricted residential, commercial or industrial uses. Any on-site activity must be done in accordance with the Environmental Easement and the Site Management Plan which is incorporated into the Environmental Easement. Department approval is also required prior to any groundwater use.

Article 71, Section 71-3607 of the New York State Environmental Conservation Law requires that:

> 1. Whenever the department is granted an environmental easement, it shall provide each affected local government with a copy of such easement and shall also provide a copy of any documents modifying or terminating such environmental easement.
>
> 2. Whenever an affected local government receives an application for a building permit or any other application affecting land use or development of land that is subject to an environmental easement and that may relate to or impact such easement, the affected local government shall notify the department and refer such application to the department. The department shall evaluate whether the application is consistent with the environmental easement and shall notify the affected local government of its determination in a timely fashion, considering the time frame for the local government's review of the application. The affected local government shall not approve the application until it receives approval from the department.

An electronic version of every environmental easement that has been accepted by this Department is available to the public at: http://www.dec.ny.gov/chemical/36045.html.

If you have any questions or comments regarding this matter, please do not hesitate to contact me.

Very truly yours,

David J. Miller
Associate

Enclosure

cc: David J. Freeman, Esq.
Konica Minolta Holdings U.S.A., Inc.

**** Electronically Filed Document ****

Instrument Number: 2017-50229

Recorded As: EX-D06 - DEED AGREEM

Recorded On: May 18, 2017

Recorded At: 04:12:38 pm Receipt Number: 674198

Number of Pages: 12 Processed By: 001 CI

Book-VI/Pg: Bk-D VI-13510 Pg-192

Total Rec Fee(s): $705.00

** Examined and Charged as Follows **

06 - DEED AGREEMENT	$ 100.00	EX-Blocks - Deeds - $300	$ 600.00	EX-TP-584 Affidavit Fee	$ 5.00

	Tax Amount	Consid Amt	RS#/CS#		
Tax-Transfer GLEN COVE	$ 0	$ 0	RE 21441	Basic	$ 0.00
				Local NY CITY	$ 0.00
				Additional MTA	$ 0.00
				Spec ASST	$ 0.00
				Spec ADDL SONYMA	$ 0.00
				Transfer	$ 0.00
Tax Charge:	$ 0				

Property Information:

Section	Block	Lot	Unit	Town Name
31	49	601		GLEN COVE
31	49	603		GLEN COVE
31	49	604		GLEN COVE
31	G	3		GLEN COVE
31	G	5		GLEN COVE
31	G	13		GLEN COVE
31	G	213		GLEN COVE
31	G	227		GLEN COVE
31	G	614		GLEN COVE
31	G	615		GLEN COVE

**********THIS PAGE IS PART OF THE INSTRUMENT **********

Any provision herein which restricts the Sale, Rental or use of the described REAL PROPERTY because of color or race is invalid and unenforceable under federal law.

Maureen O'Connell

County Clerk Maureen O'Connell

3020-850439

County: Nassau Site No: 130028 and 130028A Order on Consent Index : A1-0653-11-10

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

section 31 block 49 lots 601, 603 & 604

THIS INDENTURE made this 27th day of April, 2017 between Owner(s) Konica Minolta Holdings U.S.A., Inc., having an office at 100 Williams Drive, Ramsey, New Jersey 07446, County of Bergen, State of New Jersey (the "Grantor"), and The People of the State of New York (the "Grantee."), acting through their Commissioner of the Department of Environmental Conservation (the "Commissioner", or "NYSDEC" or "Department" as the context requires) with its headquarters located at 625 Broadway, Albany, New York 12233,

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

Section 31 block G lots 3, 5, 13, 213, 227, 614, 615

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

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

WHEREAS, Grantor, is the owner of real property located at the address of 71 Charles Street in the City of Glen Cove, County of Nassau and State of New York, known and designated on the tax map of the County Clerk of Nassau as tax map parcel numbers: Section 31 Block 49 Lots 601, 603 and 604, being the same as that property conveyed to Grantor by deed dated May 3, 2012 and recorded in the Nassau County Clerk's Office in Liber and Page 12863/638. The above property subject to this Environmental Easement ("Parcel A") comprises approximately 1.31 +/- acres, and is hereinafter more fully described in the Land Title Survey dated June 25, 2012 last revised December 8, 2015 prepared by Charles F. Panetta, L.L.S. of Bladykas & Panetta, L.S. & P.E., P.C., which will be attached to the Site Management Plan.

WHEREAS, Grantor, is the owner of real property located at the address of 71 Charles Street in the City of Glen Cove, County of Nassau and State of New York, known and designated on the tax map of the County Clerk of Nassau as tax map parcel numbers: Section 31 Block G Lots 3, 5, 13, 213, 227, 614 and 615, being the same as that property conveyed to Grantor by deed

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dated May 3, 2012 and recorded in the Nassau County Clerk's Office in Liber and Page 12863/638. The above property subject to this Environmental Easement ("Parcel B") comprises approximately 14.96 +/- acres, and is hereinafter more fully described in the Land Title Survey dated June 25, 2012 last revised December 8, 2015 prepared by Charles F. Panetta, L.L.S. of Bladykas & Panetta, L.S. & P.E., P.C., which will be attached to the Site Management Plan.

WHEREAS, collectively, the above-referenced Parcel A and Parcel B shall comprise of the "Controlled Property", and are more accurately described in the description set forth in and attached hereto as Schedule A and identified as Parcel A and Parcel B; and

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

NOW THEREFORE, in consideration of the mutual covenants contained herein and the terms and conditions of Order on Consent Index Number: A1-0653-11-10, Grantor conveys to Grantee a permanent Environmental Easement pursuant to ECL Article 71, Title 36 in, on, over, under, and upon the Controlled Property as more fully described herein ("Environmental Easement").

1. Purposes. Grantor and Grantee acknowledge that the Purposes of this Environmental Easement are: to convey to Grantee real property rights and interests that will run with the land in perpetuity in order to provide an effective and enforceable means of encouraging the reuse and redevelopment of this Controlled Property at a level that has been determined to be safe for a specific use while ensuring the performance of operation, maintenance, and/or monitoring requirements; and to ensure the restriction of future uses of the land that are inconsistent with the above-stated purpose.

2. Institutional and Engineering Controls. The controls and requirements listed in the Department approved Site Management Plan ("SMP") including any and all Department approved amendments to the SMP are incorporated into and made part of this Environmental Easement. These controls and requirements apply to the use of the Controlled Property, run with the land, are binding on the Grantor and the Grantor's successors and assigns, and are enforceable in law or equity against any owner of the Controlled Property, any lessees and any person using the Controlled Property.

A. (1) The Controlled Property may be used for:

Restricted Residential as described in 6 NYCRR Part 375-1.8(g)(2)(ii), Commercial as described in 6 NYCRR Part 375-1.8(g)(2)(iii) and Industrial as described in 6 NYCRR Part 375-1.8(g)(2)(iv)

(2) All Engineering Controls must be operated and maintained as specified in the Site Management Plan (SMP);

(3) All Engineering Controls must be inspected at a frequency and in a manner defined in the SMP;

(4) The use of groundwater underlying the property is prohibited without necessary water quality treatment as determined by the NYSDOH or the Nassau County Department of Health to render it safe for use as drinking water or for industrial purposes, and the user must first notify and obtain written approval to do so from the Department;

(5) Groundwater and other environmental or public health monitoring must be performed as defined in the SMP;

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

(7) All future activities on the property that will disturb remaining contaminated material must be conducted in accordance with the SMP;

(8) Monitoring to assess the performance and effectiveness of the remedy must be performed as defined in the SMP;

(9) Operation, maintenance, monitoring, inspection, and reporting of any mechanical or physical components of the remedy shall be performed as defined in the SMP;

(10) Access to the site must be provided to agents, employees or other representatives of the State of New York with reasonable prior notice to the property owner to assure compliance with the restrictions identified by this Environmental Easement.

B. The Controlled Property shall not be used for Residential purposes as defined in 6NYCRR 375-1.8(g)(2)(i), and the above-stated engineering controls may not be discontinued without an amendment or extinguishment of this Environmental Easement.

C. The SMP describes obligations that the Grantor assumes on behalf of Grantor, its successors and assigns. The Grantor's assumption of the obligations contained in the SMP which may include sampling, monitoring, and/or operating a treatment system, and providing certified reports to the NYSDEC, is and remains a fundamental element of the Department's determination that the Controlled Property is safe for a specific use, but not all uses. The SMP may be modified in accordance with the Department's statutory and regulatory authority. The Grantor and all successors and assigns, assume the burden of complying with the SMP and obtaining an up-to-date version of the SMP from:

Site Control Section
Division of Environmental Remediation
NYSDEC
625 Broadway
Albany, New York 12233
Phone: (518) 402-9553

D. Grantor must provide all persons who acquire any interest in the Controlled Property a true and complete copy of the SMP that the Department approves for the Controlled Property and all Department-approved amendments to that SMP.

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

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

F. Grantor covenants and agrees that this Environmental Easement shall be incorporated in full or by reference in any leases, licenses, or other instruments granting a right to use the Controlled Property.

G. Grantor covenants and agrees that it shall, at such time as NYSDEC may require, submit to NYSDEC a written statement by an expert the NYSDEC may find acceptable certifying under penalty of perjury, in such form and manner as the Department may require, that:

(1) the inspection of the site to confirm the effectiveness of the institutional and engineering controls required by the remedial program was performed under the direction of the individual set forth at 6 NYCRR Part 375-1.8(h)(3).

(2) the institutional controls and/or engineering controls employed at such site:

(i) are in-place;

(ii) are unchanged from the previous certification, or that any identified changes to the controls employed were approved by the NYSDEC and that all controls are in the Department-approved format; and

(iii) that nothing has occurred that would impair the ability of such control to protect the public health and environment;

(3) the owner will continue to allow access to such real property to evaluate the continued maintenance of such controls;

(4) nothing has occurred that would constitute a violation or failure to comply with any site management plan for such controls;

(5) the report and all attachments were prepared under the direction of, and reviewed by, the party making the certification;

(6) to the best of his/her knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and

(7) the information presented is accurate and complete.

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

4. Reserved Grantor's Rights. Grantor reserves for itself, its assigns, representatives, and successors in interest with respect to the Property, all rights as fee owner of the Property, including:

A. Use of the Controlled Property for all purposes not inconsistent with, or limited by the terms of this Environmental Easement;

B. The right to give, sell, assign, or otherwise transfer part or all of the underlying fee interest to the Controlled Property, subject and subordinate to this Environmental Easement;

5. Enforcement

A. This Environmental Easement is enforceable in law or equity in perpetuity by Grantor, Grantee, or any affected local government, as defined in ECL Section 71-3603, against the owner of the Property, any lessees, and any person using the land. Enforcement shall not be defeated because of any subsequent adverse possession, laches, estoppel, or waiver. It is not a defense in any action to enforce this Environmental Easement that: it is not appurtenant to an interest in real property; it is not of a character that has been recognized traditionally at common law; it imposes a negative burden; it imposes affirmative obligations upon the owner of any interest in the burdened property; the benefit does not touch or concern real property; there is no privity of estate or of contract; or it imposes an unreasonable restraint on alienation.

B. If any person violates this Environmental Easement, the Grantee may revoke the Certificate of Completion with respect to the Controlled Property.

C. Grantee shall notify Grantor of a breach or suspected breach of any of the terms of this Environmental Easement. Such notice shall set forth how Grantor can cure such breach or suspected breach and give Grantor a reasonable amount of time from the date of receipt of notice in which to cure. At the expiration of such period of time to cure, or any extensions granted by Grantee, the Grantee shall notify Grantor of any failure to adequately cure the breach or suspected breach, and Grantee may take any other appropriate action reasonably necessary to remedy any breach of this Environmental Easement, including the commencement of any proceedings in accordance with applicable law.

D. The failure of Grantee to enforce any of the terms contained herein shall not be deemed a waiver of any such term nor bar any enforcement rights.

6. Notice. Whenever notice to the Grantee (other than the annual certification) or approval from the Grantee is required, the Party providing such notice or seeking such approval shall identify the Controlled Property by referencing the following information:

County, NYSDEC Site Number, NYSDEC Brownfield Cleanup Agreement, State Assistance Contract or Order Number, and the County tax map number or the Liber and Page or computerized system identification number.

Parties shall address correspondence to: Site Numbers: 130028 and 130028A
Office of General Counsel
NYSDEC
625 Broadway

Albany New York 12233-5500

With a copy to:

Site Control Section
Division of Environmental Remediation
NYSDEC
625 Broadway
Albany, NY 12233

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

7. Recordation. Grantor shall record this instrument, within thirty (30) days of execution of this instrument by the Commissioner or her/his authorized representative in the office of the recording officer for the county or counties where the Property is situated in the manner prescribed by Article 9 of the Real Property Law.

8. Amendment. Any amendment to this Environmental Easement may only be executed by the Commissioner of the New York State Department of Environmental Conservation or the Commissioner's Designee, and filed with the office of the recording officer for the county or counties where the Property is situated in the manner prescribed by Article 9 of the Real Property Law.

9. Extinguishment. This Environmental Easement may be extinguished only by a release by the Commissioner of the New York State Department of Environmental Conservation, or the Commissioner's Designee, and filed with the office of the recording officer for the county or counties where the Property is situated in the manner prescribed by Article 9 of the Real Property Law.

10. Joint Obligation. If there are two or more parties identified as Grantor herein, the obligations imposed by this instrument upon them shall be joint and several.

Remainder of Page Intentionally Left Blank

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

Konica Minolta Holdings U.S.A., Inc.:

By: _____

Print Name: John Thielke

Title: Executive VP & CFO Date: 4/4/2017

Grantor's Acknowledgment

STATE OF NEW JERSEY)
) ss:
COUNTY OF Bergen)

On the 4th day of April, in the year 2017, before me, the undersigned, personally appeared John Thielke, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.

Elaine E. Devlin
Notary Public - State of New Jersey

ELAINE E. DEVLIN
Notary Public of New Jersey
I.D. #2359131
Commission Expires 4/26/2017

THIS ENVIRONMENTAL EASEMENT IS HEREBY ACCEPTED BY THE PEOPLE OF THE STATE OF NEW YORK, Acting By and Through the Department of Environmental Conservation as Designee of the Commissioner,

By: _____
Robert W. Schick, Director
Division of Environmental Remediation

Grantee's Acknowledgment

STATE OF NEW YORK)
) ss:
COUNTY OF ALBANY)

On the 27th day of April, in the year 2017, before me, the undersigned, personally appeared Robert W. Schick, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name is (are) subscribed to the within instrument and acknowledged to me that he/she/ executed the same in his/her/ capacity as Designee of the Commissioner of the State of New York Department of Environmental Conservation, and that by his/her/ signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

_____
Notary Public - State of New York

David J. Chiusano
Notary Public, State of New York
No. 01CH5032146
Qualified in Schenectady County
Commission Expires August 22, 2018

Record and Return to:
David J. Miller, Esq.
Gibbons P.C.
One Gateway Center
Newark, New Jersey 07102

SCHEDULE "A"

PARCEL "A" PROPERTY DESCRIPTION

LEGAL DESCRIPTION
Sec. 31 Blk. 49 Lots 601, 603 & 604

All that certain plot, piece or parcel of land, situate, lying and being in the City of Glen Cove, County of Nassau and State of New York, bounded and described as follows:

BEGINNING at the most southerly end of the arc of a curve connecting the southerly side of The Place with the easterly side of New Street (Charles Street) as widened;

RUNNING THENCE north and east along said arc of a curve bearing to the right and having a radius of 16.94 feet, a distance of 33.04 feet to a point on the southerly side of The Place;

THENCE South 70 degrees 45 minutes 00 seconds East along the southerly side of The Place, 5.11 feet;

THENCE South 86 degrees 38 minutes 00 seconds East still along the southerly side of The Place, 148.64 feet to land now or formerly of Robert R. Coles;

THENCE along last mentioned land South 01 degree 13 minutes 30 seconds West, 329.56 feet to land now or formerly of Rosella Kirby;

THENCE along said last mentioned land South 81 degrees 13 minutes 50 seconds West, 155.40 feet to the easterly side of New Street, as widened;

THENCE along the easterly side of New Street, as widened, North 02 degrees 30 minutes 00 seconds West, 347.28 feet to the point or place of BEGINNING.

CONTAINING within said described metes and bounds 1.31 acres.

PARCEL "B" PROPERTY DESCRIPTION

LEGAL DESCRIPTION
Sec. 31 Blk. G Lots 3, 5, 13, 213, 227, 614 & 615

All that certain plot, piece or parcel of land, situate, lying and being in the City of Glen Cove, County of Nassau and State of New York, bounded and described as follows:

BEGINNING at the corner formed by the intersection of the northerly side of Herb Hill Road and the westerly side of New Street (Charles Street);

RUNNING THENCE along the northerly side of Herb Hill Road the following five courses and distances:

1) South 37 degrees 16 minutes 00 seconds West, 42.35 feet;
2) South 50 degrees 18 minutes 30 seconds West, 232.35 feet;
3) South 74 degrees 35 minutes 00 seconds West, 24.72 feet;
4) South 75 degrees 02 minutes 30 seconds West, 31.46 feet;
5) South 74 degrees 29 minutes 30 seconds West, 263.69 feet;

THENCE North 10 degrees 09 minutes 00 seconds West, 250.00 feet;

THENCE South 74 degrees 29 minutes 30 seconds West, 178.66 feet;

THENCE South 10 degrees 09 minutes 00 seconds East, 250.00 feet to the northerly side of Herb Hill Road;

THENCE along the northerly side of Herb Hill Road South 74 degrees 29 minutes 30 seconds West, 16.34 feet;

THENCE North 12 degrees 55 minutes 10 seconds West, 429.00 feet;

THENCE North 08 degrees 17 minutes 22 seconds West, 409.53 feet to the southerly side of The Place;

THENCE along the southerly side of the The Place the following seven courses and distances:

1) North 66 degrees 11 minutes 33 seconds East, 175.52 feet;
2) North 57 degrees 50 minutes 58 seconds East; 149.02 feet;
3) North 44 degrees 58 minutes 58 seconds East; 60.00 feet;
4) North 54 degrees 08 minutes 00 seconds East, 91.81 feet;
5) Along the arc of a curve bearing to the right having a radius of 97.28 feet, a distance of 82.63 feet;
6) South 77 degrees 12 minutes 00 seconds East, 146.02 feet;
7) South 70 degrees 49 minutes 00 seconds East, 196.32 feet to the extreme northerly end of the arc of a curve connecting the southerly side of The Place with the westerly side of New Street;

THENCE southeasterly along the arc of a curve bearing to the right having a radius of 25.27 feet, a distance of 23.04 feet;

THENCE southeasterly still along the arc of a curve bearing to the right having a radius of 37.94 feet, a distance of 10.65 feet to a point on the westerly side of New Street;

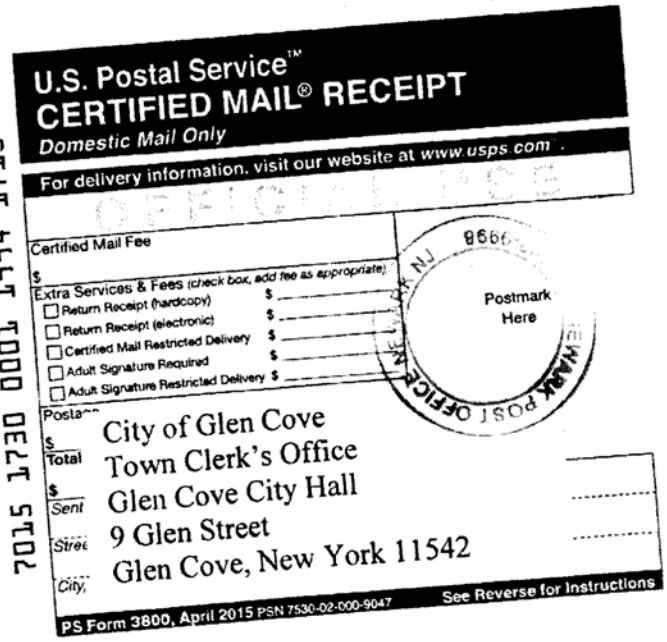
THENCE along the westerly side of New Street South 02 degrees 30 minutes 00 seconds, 590.04 feet to land now or formerly of Lombardi;

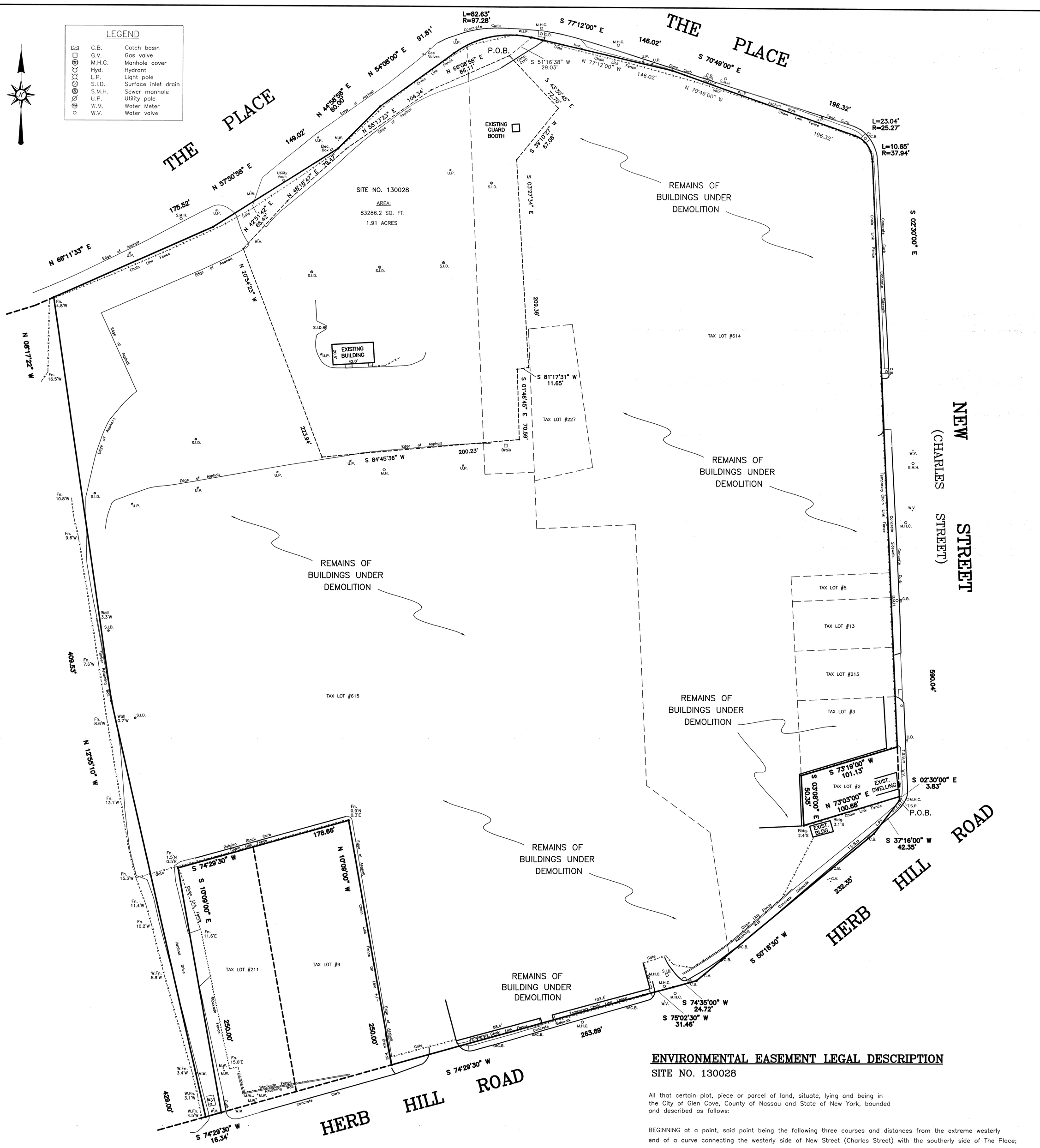
THENCE along said last mentioned land the following three courses and distances:

1) South 73 degrees 19 minutes 00 seconds West, 101.13 feet;
2) South 03 degrees 08 minutes 00 seconds East, 50.35 feet;
3) North 73 degrees 03 minutes 00 seconds East, 100.68 feet to the westerly side of New Street;

THENCE along the westerly side of New Street, South 02 degrees 30 minutes 00 seconds East, 3.83 feet to the point or place of BEGINNING.

CONTAINING within said described metes and bounds 14.96 acres.


U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only
For delivery information, visit our website at www.usps.com .
Certified Mail Fee
$
Extra Services & Fees (check box, add fee as appropriate)
Return Receipt (hardcopy) $
Return Receipt (electronic) $
Certified Mail Restricted Delivery $
Adult Signature Required $
Adult Signature Restricted Delivery $
Postmark Here
$
Total
$
Sent
Street
City,
City of Glen Cove
Town Clerk's Office
Glen Cove City Hall
9 Glen Street
Glen Cove, New York 11542
PS Form 3800, April 2015 PSN 7530-02-000-9047
See Reverse for Instructions
7015 1730 0001 1994 1715



ENVIRONMENTAL EASEMENT LEGAL DESCRIPTION

LOTS #3, #5, #13, #213, #227, #614 & #615

All that certain plot, piece or parcel of land, situate, lying and being in the City of Glen Cove, County of Nassau and State of New York, bounded and described as follows:

BEGINNING at the corner formed by the intersection of the northerly side of Herb Hill Road and the westerly side of New Street (Charles Street);

RUNNING THENCE along the northerly side of Herb Hill Road the following five courses and distances:

(1) South 37 degrees 16 minutes 00 seconds West, 42.35 feet;
(2) South 50 degrees 18 minutes 30 seconds West, 232.35 feet;
(3) South 74 degrees 35 minutes 00 seconds West, 24.72 feet;
(4) South 75 degrees 02 minutes 30 seconds West, 31.46 feet;
(5) South 74 degrees 29 minutes 30 seconds West, 263.69 feet;

THENCE North 10 degrees 09 minutes 00 seconds West, 250.00 feet;

THENCE South 74 degrees 29 minutes 30 seconds West, 178.66 feet;

THENCE South 10 degrees 09 minutes 00 seconds East, 250.00 feet to the northerly side of Herb Hill Road;

THENCE along the northerly side of Herb Hill Road South 74 degrees 29 minutes 30 seconds West, 16.34 feet;

THENCE North 12 degrees 55 minutes 10 seconds West, 429.00 feet;

THENCE North 08 degrees 17 minutes 22 seconds West, 409.53 feet; to the southerly side of The Place;

CONTINUED

THENCE along the southerly side of The Place the following seven courses and distances;

(1) North 66 degrees 11 minutes 33 seconds East, 175.52 feet;
(2) North 57 degrees 50 minutes 58 seconds East; 149.02 feet;
(3) North 44 degrees 58 minutes 58 seconds East, 60.00 feet;
(4) North 54 degrees 08 minutes 00 seconds East, 91.81 feet;
(5) Along the arc of a curve bearing to the right having a radius of 97.28 feet, a distance of 82.63 feet;
(6) South 77 degrees 12 minutes 00 seconds East, 146.02 feet;
(7) South 70 degrees 49 minutes 00 seconds East, 196.32 feet to the extreme northerly end of the arc of a curve connecting the southerly side of The Place with the westerly side of New Street;

THENCE southeasterly along the arc of a curve bearing to the right having a radius of 25.27 feet, a distance of 23.04 feet;

THENCE southeasterly still along the arc of a curve bearing to the right having a radius of 37.94 feet, a distance of 10.65 feet to a point on the westerly side of New Street;

THENCE along the westerly side of New Street South 02 degrees 30 minutes 00 seconds East, 590.04 feet to land now or formerly of Lombardi;

THENCE along said last mentioned land the following three courses and distances:

(1) South 73 degrees 19 minutes 00 seconds West, 101.13 feet;
(2) South 3 degrees 08 minutes 00 seconds East, 50.35 feet;
(3) North 73 degrees 03 minutes 00 seconds East, 100.68 feet to the westerly side of New Street;

THENCE along the westerly side of New Street, South 2 degrees 30 minutes 00 seconds East, 3.83 feet to the point or place of BEGINNING.

CONTAINING within said described metes and bounds 14.96 acres.

ENVIRONMENTAL EASEMENT LEGAL DESCRIPTION

SITE NO. 130028

All that certain plot, piece or parcel of land, situate, lying and being in the City of Glen Cove, County of Nassau and State of New York, bounded and described as follows:

BEGINNING at a point, said point being the following three courses and distances from the extreme westerly end of a curve connecting the westerly side of New Street (Charles Street) with the southerly side of The Place;

Along the southerly side of The Place the following two courses and distances:

(1) North 70 degrees 49 minutes 00 seconds West, 196.32 feet;
(2) North 77 degrees 12 minutes 00 seconds West, 146.02 feet;

THENCE South 51 degrees 16 minutes 38 seconds West, 29.03 feet to the point or place of BEGINNING;

RUNNING THENCE South 43 degrees 30 minutes 45 seconds East, 72.70 feet;

THENCE South 39 degrees 10 minutes 27 seconds West, 67.08 feet;

THENCE South 03 degrees 27 minutes 34 seconds East, 209.38 feet;

THENCE South 81 degrees 17 minutes 31 seconds West, 11.65 feet;

THENCE South 01 degrees 46 minutes 45 seconds East, 70.59 feet;

THENCE South 84 degrees 45 minutes 36 seconds West, 200.23 feet;

THENCE North 20 degrees 54 minutes 23 seconds West, 223.94 feet;

THENCE North 42 degrees 51 seconds 42 minutes East, 65.42 feet;

THENCE North 48 degrees 18 seconds 47 minutes East, 79.47 feet;

THENCE North 55 degrees 13 minutes 23 seconds East, 104.34 feet;

THENCE North 66 degrees 08 minutes 58 seconds East, 86.11 feet to the point or place of BEGINNING.

CONTAINING within said described metes and bounds 1.91 acres.

SITE NO. 130028 AREA:
83286.2 SQ. FT.
1.91 ACRES

TOTAL LOT AREA:
651766.7 SQ. FT.
14.96 ACRES

This property is subject to an environmental easement held by the New York State Department of Environmental Conservation pursuant to Title 36 of Article 71 of the New York Environmental Conservation Management Plan (SMP). A copy of the SMP must be obtained by any party with an interest in the property. The SMP can be obtained from NYS Department of Environmental Conservation, Division of Environmental Remediation, Site Control Section, 625 Broadway, Albany, NY 12233 or at derweb@dec.ny.gov.

CERTIFICATIONS ON THIS BOUNDARY SURVEY MAP SIGNIFY THAT THE MAP WAS PREPARED IN ACCORDANCE WITH THE CURRENT EXISTING CODE OF PRACTICE FOR LAND SURVEYORS ADOPTED BY THE NEW YORK STATE ASSOCIATION OF PROFESSIONAL LAND SURVEYORS.

GUARANTEES INDICATED HEREON SHALL RUN ONLY TO THE PERSON FOR WHOM THE SURVEY IS PREPARED, AND ON THEIR BEHALF TO THE TITLE COMPANY, GOVERNMENTAL AGENCY, AND LENDING INSTITUTION LISTED. THE ASSIGNEES OF THE LENDING INSTITUTION GUARANTEES ARE NOT TRANSFERABLE TO ADDITIONAL INSTITUTIONS OR SUBSEQUENT OWNERS.

NO GUARANTEE IS IMPLIED BY THIS MAP AS TO THE EXISTENCE OR NONEXISTENCE OF ANY EASEMENTS OF RECORD THAT WOULD AFFECT SUBJECT PROPERTY, UNLESS SURVEYOR HAS BEEN FURNISHED WITH A COMPLETE COPY OF THE TITLE REPORT.

THE LOCATION OF UNDERGROUND IMPROVEMENTS OR ENCROACHMENTS ARE NOT ALWAYS KNOWN AND OFTEN MUST BE ESTIMATED. IF ANY UNDERGROUND IMPROVEMENTS OR ENCROACHMENTS ARE NOT COVERED BY THIS CERTIFICATE.

THE OFFSETS (OR DIMENSIONS) SHOWN HEREON FROM THE STRUCTURES TO THE PROPERTY LINES ARE FOR A SPECIFIC PURPOSE AND USE AND THEREFORE ARE NOT INTENDED TO GUIDE THE ERECTION OF FENCES, RETAINING WALLS, POOLS, AND ANY OTHER CONSTRUCTION.

UNAUTHORIZED ALTERATION OR ADDITION TO THIS SURVEY IS A VIOLATION OF SECTION 7209 OF THE NEW YORK STATE EDUCATION LAW.

COPIES OF THIS SURVEY MAP NOT BEARING THE LAND SURVEYOR'S INKED SEAL OR EMBOSSED SEAL SHALL NOT BE CONSIDERED AS A VALID, TRUE COPY.

NOTE: A MAJORITY OF THE INTERIOR OF THE PROPERTY WAS INACCESSIBLE AT TIME OF SURVEY DUE TO ONGOING DEMOLITION OF EXISTING STRUCTURES

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
SCALE: 1" = 50'

REVISED 2/28/2017
REVISED 12/8/2015
UPDATED 1/24/2013

STATE OF NEW YORK ★ CHARLES F PANETTA ★ LICENSED PROFESSIONAL ENGINEER & LAND SURVEYOR No. 068914-1 No. 050428-1

Nassau County Tax Map Designation:
Sec. 31 Blk. G
Lots 3, 5, 13, 213, 227, 614 & 615

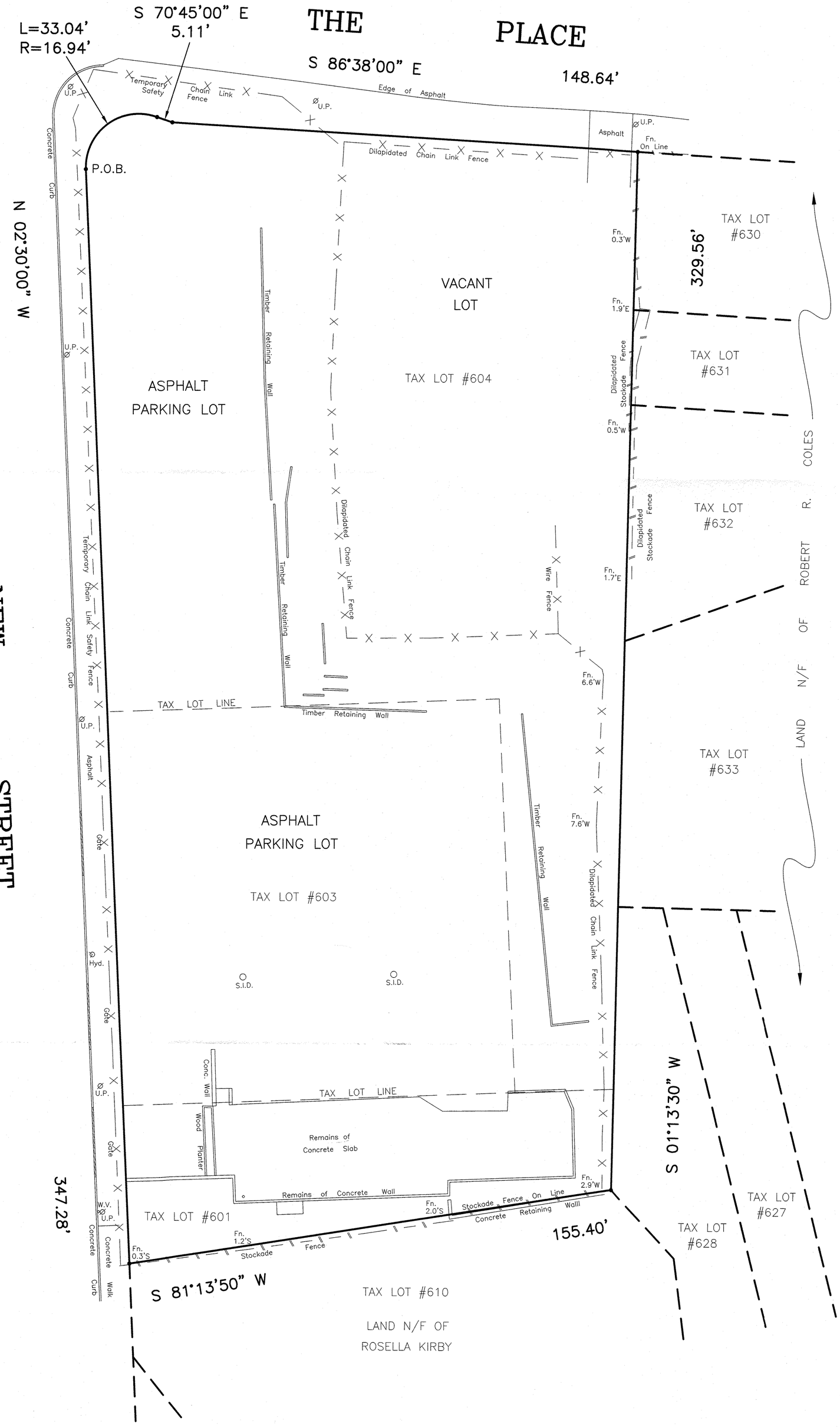
SITE SURVEY

Of Property
Situated In the

City of Glen Cove
Nassau County, N.Y.

Drawn by: GT | Date: 6/25/2012 | SCALE: 1" = 50'

BLADYKAS & PANETTA
L.S. & P.E., P.C.
23 Spring Street
Oyster Bay, NY 11771
516-922-3031



ENVIRONMENTAL EASEMENT LEGAL DESCRIPTION

LOTS #601, #603 & #604

All that certain plot, piece or parcel of land, situate, lying and being in the City of Glen Cove, County of Nassau and State of New York, bounded and described as follows:

BEGINNING at the most southerly end of the arc of a curve connecting the southerly side of The Place with the easterly side of New Street (Charles Street) as widened;

RUNNING THENCE north and east along said arc of a curve bearing to the right and having a radius of 16.94 feet, a distance of 33.04 feet to a point on the southerly side of The Place;

THENCE South 70 degrees 45 minutes 00 seconds East along the southerly side of The Place, 5.11 feet;

THENCE South 86 degrees 38 minutes 00 seconds East still along the Southerly side of The Place, 148.64 feet to land now or formerly of Robert R. Coles;

THENCE along last mentioned land South 1 degree 13 minutes 30 seconds West, 329.56 feet to land now or formerly of Rosella Kirby;

THENCE along said last mentioned land South 81 degrees 13 minutes 50 seconds West, 155.40 feet to the easterly side of New Street, as widened;

THENCE along the easterly side of New Street, as widened, North 2 degrees 30 minutes 00 seconds West, 347.28 feet to the point of place of BEGINNING.

CONTAINING within said described metes and bounds 1.31 acres.

LOT AREA:
57193.1 SQ. FT.
1.31 ACRES

LEGEND

▨	C.B.	Catch basin
□	G.V.	Gas valve
(MH)	M.H.C.	Manhole cover
	Hyd.	Hydrant
	L.P.	Light pole
⊘	S.I.D.	Surface inlet drain
(S)	S.M.H.	Sewer manhole
Ø	U.P.	Utility pole
(WM)	W.M.	Water Meter
○	W.V.	Water valve

CERTIFICATIONS ON THIS BOUNDARY SURVEY MAP SIGNIFY THAT THE MAP WAS PREPARED IN ACCORDANCE WITH THE CURRENT EXISTING CODE OF PRACTICE FOR LAND SURVEYORS ADOPTED BY THE NEW YORK STATE ASSOCIATION OF PROFESSIONAL LAND SURVEYORS.

GUARANTEES INDICATED HEREON SHALL RUN ONLY TO THE PERSON FOR WHOM THE SURVEY IS PREPARED, AND ON THEIR BEHALF TO THE TITLE COMPANY, GOVERNMENTAL AGENCY, AND LENDING INSTITUTION LISTED. THE ASSIGNEES OF THE LENDING INSTITUTION GUARANTEES ARE NOT TRANSFERABLE TO ADDITIONAL INSTITUTIONS OR SUBSEQUENT OWNERS.

NO GUARANTEE IS IMPLIED BY THIS MAP AS TO THE EXISTENCE OR NONEXISTENCE OF ANY EASEMENTS OF RECORD THAT WOULD AFFECT SUBJECT PROPERTY, UNLESS SURVEYOR HAS BEEN FURNISHED WITH A COMPLETE COPY OF THE TITLE REPORT.

THE LOCATION OF UNDERGROUND IMPROVEMENTS OR ENCROACHMENTS ARE NOT ALWAYS KNOWN AND OFTEN MUST BE ESTIMATED. IF ANY UNDERGROUND IMPROVEMENTS OR ENCROACHMENTS ARE NOT COVERED BY THIS CERTIFICATE.

THE OFFSETS (OR DIMENSIONS) SHOWN HEREON FROM THE STRUCTURES TO THE PROPERTY LINES ARE FOR A SPECIFIC PURPOSE AND USE AND THEREFORE ARE NOT INTENDED TO GUIDE THE ERECTION OF FENCES, RETAINING WALLS, POOLS, AND ANY OTHER CONSTRUCTION.

UNAUTHORIZED ALTERATION OR ADDITION TO THIS SURVEY IS A VIOLATION OF SECTION 7209 OF THE NEW YORK STATE EDUCATION LAW.

COPIES OF THIS SURVEY MAP NOT BEARING THE LAND SURVEYOR'S INKED SEAL OR EMBOSSED SEAL SHALL NOT BE CONSIDERED AS A VALID, TRUE COPY.

This property is subject to an environmental easement held by the New York State Department of Environmental Conservation pursuant to Title 36 of Article 71 of the New York Environmental Conservation Management Plan (SMP). A copy of the SMP must be obtained by any party with an interest in the property. The SMP can be obtained from NYS Department of Environmental Conservation, Division of Environmental Remediation, Site Control Section, 625 Broadway, Albany, NY 12233 or at derweb@dec.ny.gov.

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)

SCALE: 1" = 20'

REVISED 12/8/2015
UPDATE 1/24/2013

Nassau County Tax Map Designation:
Sec. 31 Blk. 49 Lots 601, 603 & 604

STATE OF NEW YORK ★ CHARLES F PANETTA ★ LICENSED PROFESSIONAL ENGINEER AND LAND SURVEYOR No. 049914-1 No. 050429-1

BOUNDARY SURVEY

Of Property
Situated In The

City of Glen Cove
Nassau County, N.Y.

Drawn by:	Date:	BLADYKAS & PANETTA L.S. & P.E., P.C.
GT	6/25/2012	23 Spring Street
SCALE: 1" = 20'		Oyster Bay, NY 11771
		516-922-3031

APPENDIX B

List of Site Contacts

APPENDIX B

LIST OF SITE CONTACTS

This Appendix should include a listing of all site contacts. The below table should be edited as necessary to include all site contacts necessary for implementation of the SMP.

Name	Contact Information
Girish Desai, P.E.	(631) 444-0243 girish.desai@dec.ny.gov
Chris Engelhardt	(631) 444-0235 chris.engelhardt@dec.ny.gov
Kelly Lewandowski	(518) 402-9553 kelly.lewandowski@dec.ny.gov
Walter Parish, P.E.	(631) 444-0241 walter.parish@dec.gov
Wendy Kuehner	518-402-7860 wendy.kuehner@health.ny.gov
Omar Ramotar, P.E. Remedial Engineering, P.C.	(631) 232-2600 oramotar@rouxinc.com
Nathan Epler, Ph.D. Roux Environmental Engineering and Geology, D.P.C.	(631)-232-2600 nepler@rouxinc.com
Steve Herbes, VP & General Counsel, Konica Minolta Business Solutions U.S.A., Inc.	(201) 236-4364 sherbes@kmbs.konicaminolta.com

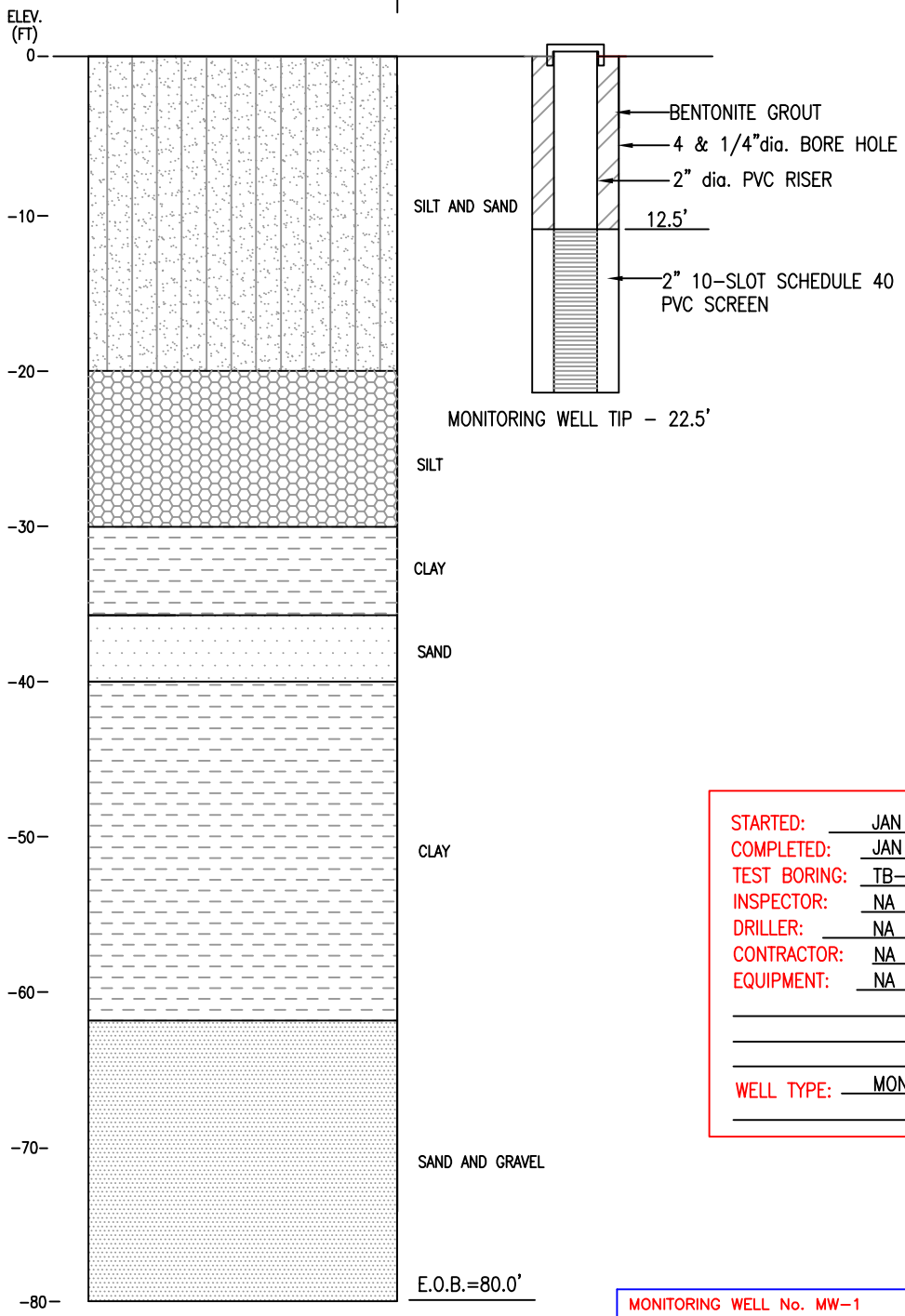
APPENDIX C

Monitoring Well Boring and Construction Logs

LOG MONITORING WELL No. MW–1

CLASSIFIED BY:
Fred C. Hart Associates, Inc.

GENERALIZED SUBSURFACE PROFILE	SCHEMATIC



STARTED: JAN 1984
COMPLETED: JAN 1984
TEST BORING: TB–1
INSPECTOR: NA
DRILLER: NA
CONTRACTOR: NA
EQUIPMENT: NA

WELL TYPE: MONITORING WELL

MONITORING WELL No. MW–1

FORMER COLUMBIA RIBBON SITE
GLEN COVE, NEW YORK

PROJECT NO.	DRAWN BY:	DATE:	FIGURE NO.
COLUMBIA	SK	JAN 1984	MW–1
SCALE: NONE	CHECKED BY: LK	SHEET 1 OF 1	

- PHD = post-hole digger
- HA = hand auger
- HSA = hollow stem auger
- SS = split spoon
- DA = drill ahead

Boring # – 06 MW# – 06	Sheet 1 of 2
Project: Konica	
Job # 85247.001	Site: 71 Charles Street, Glen Cove, N.Y.
Logged By: RMB Proj. Eng:	Edited By: RJB
Drilling Contractor: LAWES	
Drill Rig Type/Method: 4¼" hollow stem auger	
Drillers Name: Scott	
Borehole Diam./Drill Bit Type: 4¼" hollow stem auger	Total Depth: 23.0' / Ref. Elev.: Sfc
Hammer Wt: 140 lbs Drop:	
Start Time: 15:00 Date: 11/10/2011	
Completion Time: 12:00 Date: 11/11/2011	
Backfill Time: NA Date: NA	

* see sample location map
Sketch Map of Site Area With Drilling Locations

	1st Water			
Boring Depth (ft.)	23.0'			
Casing Depth (ft.)	22.0'			
Water Depth (ft.)	10.0'			
Time				
Date	11/11/11			

PID/OVA	Sampler Type & Depth	Blow Counts / 6 in.	Advance (in.)	Recovered (in.)	Casing Type & Size	Annulus Filler	Sample Rec. Analyses	Depth Feet	
	PHD	NA	60	60		manhole / Bent. / Sand		1	silty sand (SM), brown, F-M sand, 10-20% silt, <5% F-M gravel, no odor, dry
					2" PVC			2	
					casing			3	S.A.A.
								4	
								5	
	SS	3	24	18					S.A.A.
		7						6	
		9							
		13						7	
	DA	NA	36	NA	2"			8	
					Screened				
					PVC			9	
								10	
	SS	6	24	18					sand (SP), tan, F-M sand, 5% F gravel, no odor, saturated
		9						11	
		11							
		13						12	

N-2

Boring # -06 MW# -06 Sheet 2 of 2

Project: Konica

Job # 85247.001 Site: 71 Charles Street, Glen Cove, N.Y.

PID/OVA	Sampler Type	Blow Counts	Advance (in.)	Rcvd (in.)		Casing	Annulus	Depth Sample Rec / Analysis	Feet
	DA	NA	36	NA					12
									13
									14
									15
	SS	3	24	18					
		5							16
		6							
		11							17
	DA	NA	36	NA					
									18
									19
									20
	SS	3	24	18					
		3							21
		6							
		11							22
	DA	NA	12	NA					
									23
									24
									25
									6
									7
									8
									9
									0
									1
									2

rig behavior

silty clay (CL), brown/grey, 15-22'+o silt, 10% F gravel, 5% F-M sand, no odor, damp

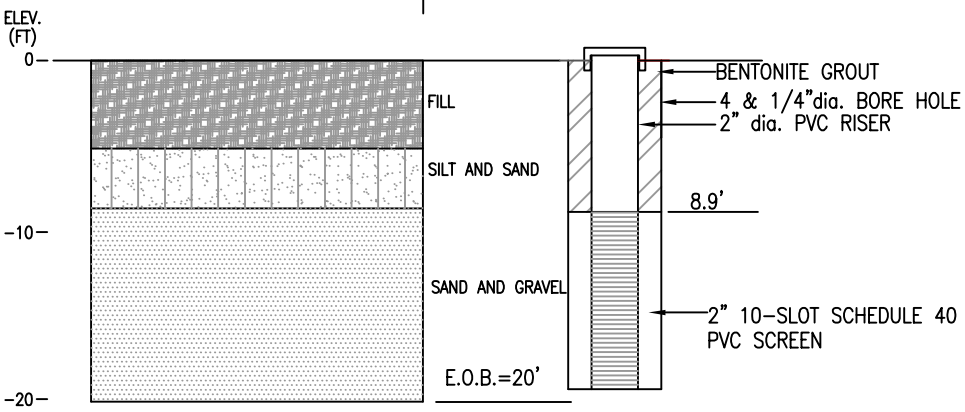
SAA.

N-2

LOG MONITORING WELL No. MW–8

CLASSIFIED BY:
Fred C. Hart Associates, Inc.

GENERALIZED SUBSURFACE PROFILE | SCHEMATIC



MONITORING WELL TIP – 18.9'

STARTED: 1986
COMPLETED: 1986
TEST BORING: TB–8
INSPECTOR: NA
DRILLER: NA
CONTRACTOR: NA
EQUIPMENT: NA

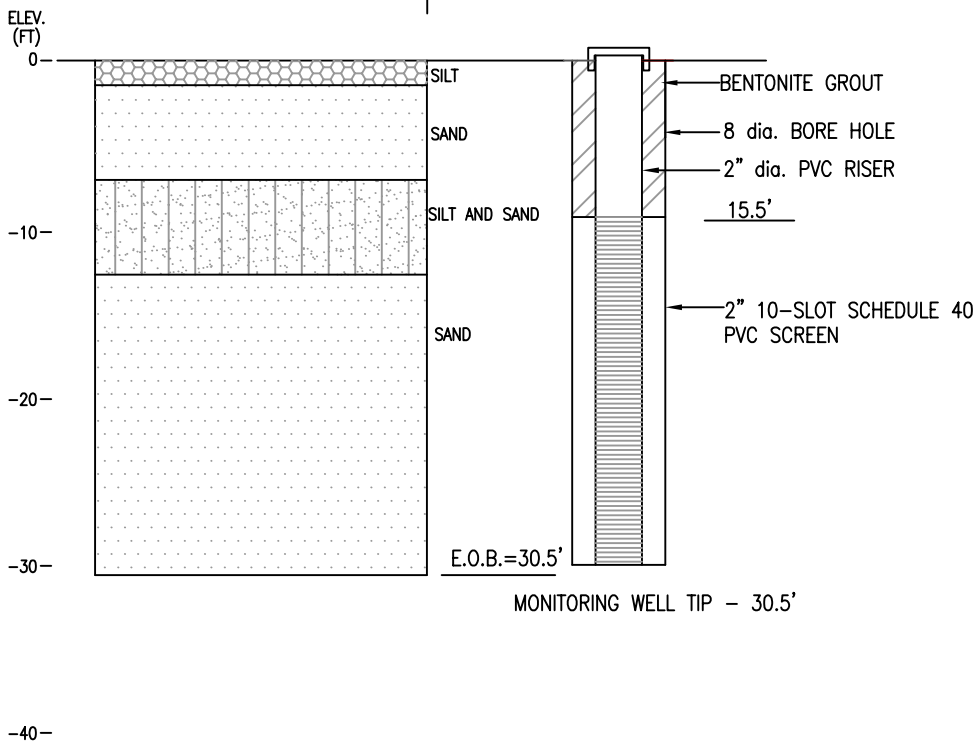
WELL TYPE: NONE

MONITORING WELL No. MW–8

FORMER COLUMBIA RIBBON SITE
GLEN COVE, NEW YORK

PROJECT NO.	DRAWN BY:	DATE:	FIGURE NO.
COLUMBIA	SK	1986	MW–8
SCALE: NONE	CHECKED BY: LK	SHEET 1 OF 1	

LOG MONITORING WELL No. MW–12	
CLASSIFIED BY: Environmental Resources Management	
GENERALIZED SUBSURFACE PROFILE	SCHEMATIC



STARTED: APR 1992
COMPLETED: APR 1992
TEST BORING: MW–12
INSPECTOR: K. Wenz
DRILLER: S. Wolf
CONTRACTOR: ADT
EQUIPMENT: HSA

WELL TYPE: MONITORING WELL

MONITORING WELL No. MW–12

FORMER COLUMBIA RIBBON SITE
GLEN COVE, NEW YORK

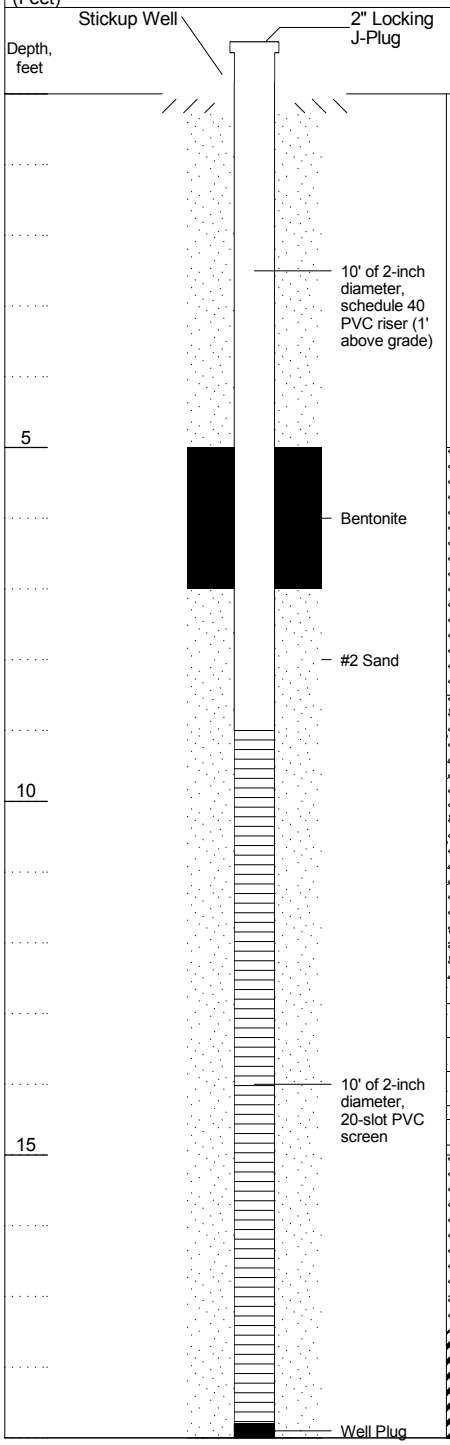
PROJECT NO.	DRAWN BY:	DATE:	FIGURE NO.
COLUMBIA	SK	FEB 2012	MW–12
SCALE: NONE	CHECKED BY: LK	SHEET 1 OF 1	

ROUX ASSOCIATES, INC.
Environmental Consulting & Management

209 Shafter Street
Islandia, NY 11749
Telephone: (631) 232-2600
Fax: (631) 232-9898

WELL CONSTRUCTION LOG

WELL NO. **MWR-18**	NORTHING **Not Measured**	EASTING **Not Measured**		
PROJECT NO./NAME **2020.0001Y / Konica Minolta**		LOCATION **71 Charles Street** **Glen Cove, New York**		
APPROVED BY **J. Wills**	LOGGED BY **V.Sabatasso**			
DRILLING CONTRACTOR/DRILLER **Trinity Environmental Corp / Joseph Sakellis**		GEOGRAPHIC AREA		
DRILL BIT DIAMETER/TYPE **2-in. / Drive Sampler**	BOREHOLE DIAMETER **2-inches**	DRILLING EQUIPMENT/METHOD **DT 6620 / Geoprobe**	SAMPLING METHOD **2" Macro-Core**	START-FINISH DATE **2/12/18-2/12/18**
CASING MAT./DIA. **PVC / 2-inch**	SCREEN: TYPE **Slotted** MAT. **PVC**	TOTAL LENGTH **10.0**ft	DIA. **2-inch**	SLOT SIZE **20-Slot**
ELEVATION OF: (Feet)	GROUND SURFACE	TOP OF WELL CASING	TOP & BOTTOM SCREEN **/**	GRAVEL PACK SIZES **Morie #2**



Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		FILL (Brown, fine to medium SAND, some coarse Sand, Gravel and Cobble; moist)		0.0	Hadn cleared to 5 feet below land surface.
		FILL (Brown, fine to medium SAND, some coarse Sand and Gravel, little Brick; moist)	G	0.0	
		Greyish brown, fine to medium SAND, some Silt, little Gravel and coarse Sand, trace brick, lumbar and gravel; moist		0.0	
5		Brown, fine to medium SAND, little coarse Sand and Silt, trace grave; moist		0.4	5
		Light brown, fine to medium SAND, some coarse Sand and Gravel; moist		0.4	
10		Dark brown, fine to medium SAND, some coarse Sand and Gravel; wet		0.4	10
		Light brown, fine to coarse SAND and GRAVEL; wet			Water table observed at approxiamtely 11 feet below land surface.
		Light brown, fine SAND, some medium Sand, little Silt, trace gravel; wet		0.4	
		Grey, CLAY and SILT; moist			
15		Light brown to brown, fine to coarse SAND, little Silt and Gravel; wet		0.3	15
		Reddish brown, fine to coarse SAND, little Silt and Gravel; wet		0.1	
		Grey, CLAY; dry to moist			
					Bottom of boring at 19 feet below land surface.

BORING/FEET 2020.0001Y.GPJ ROUX.GDT 5/4/18

ROUX ASSOCIATES, INC.
Environmental Consulting & Management

209 Shafter Street
Islandia, NY 11749
Telephone: (631) 232-2600
Fax: (631) 232-9898

WELL CONSTRUCTION LOG

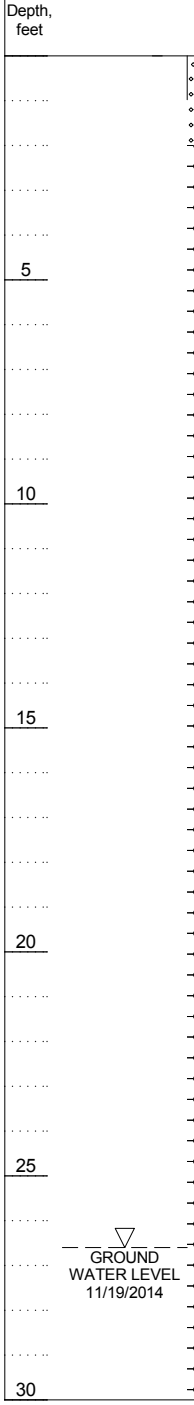
WELL NO.	NORTHING	EASTING
MW-101	**254091.19**	**1084128.77**

PROJECT NO./NAME	LOCATION
2020.0001Y003 / Konica Minolta	**71 Charles Street**
APPROVED BY: **DRAFT** / LOGGED BY: **G. Lozefski**	**Glen Cove, New York**
DRILLING CONTRACTOR/DRILLER: **Roux Associates, Inc. / John Freijomil**	GEOGRAPHIC AREA: **Outside Excavation Perimeter**

DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
4.25-in. / Drive Sampler	**8-inches**	**DT 6620 / Geoprobe**	**Cuttings**	**11/19/14-11/19/14**

CASING MAT./DIA.: **PVC / 2-inch** | SCREEN: TYPE **Slotted** MAT. **PVC** TOTAL LENGTH **10.0**ft DIA. **2-inch** SLOT SIZE **10-Slot**

ELEVATION OF: (Feet) GROUND SURFACE / TOP OF WELL CASING / TOP & BOTTOM SCREEN **/** | GRAVEL PACK SIZES: **Morie #1**



Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Grey GRAVEL, dry			3/8" Blue Stone back fill
		Brown, F-M SAND, with little silt, little coarse sand, trace gravel, moist			Lithology from cuttings
5					Lithology from cuttings
10		Brown, F-M SAND, with little silt, little coarse sand, trace gravel, moist			Lithology from cuttings
15					Lithology from cuttings
20		Brown, F-M SAND, with little silt, little coarse sand, trace gravel, wet			Lithology from cuttings
25					Lithology from cuttings
30					

BORING/FEET 2020.0001Y003.GPJ ROUX.GDT 4/2/15

ROUX ASSOCIATES, INC.
Environmental Consulting & Management

209 Shafter Street
Islandia, NY 11749
Telephone: (631) 232-2600
Fax: (631) 232-9898

WELL CONSTRUCTION LOG

WELL NO.	NORTHING	EASTING
MW-101	**254091.19**	**1084128.77**

PROJECT NO./NAME	LOCATION
2020.0001Y003 / Konica Minolta	**71 Charles Street**
APPROVED BY: **DRAFT** / LOGGED BY: **G. Lozefski**	**Glen Cove, New York**

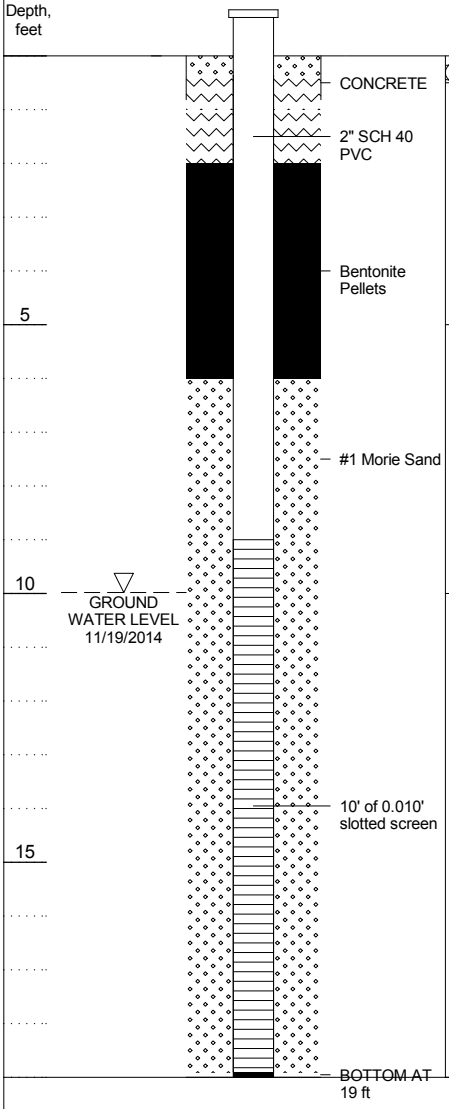
Depth, feet	Graphic Log	Visual Description (continued)	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Brown, M-CSAND, with little gravel, trace cobble, wet			Lithology from cuttings
35	#1 Morie Sand				Lithology from cuttings
40	10' of 0.010' slotted screen	Brown, M-CSAND, with little gravel, trace cobble, wet			
45	BOTTOM AT 45 ft				

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WELL CONSTRUCTION LOG

WELL NO. **MW-102**	NORTHING **254412.96**	EASTING **1084041.01**		
PROJECT NO./NAME **2020.0001Y003 / Konica Minolta**		LOCATION **71 Charles Street** **Glen Cove, New York**		
APPROVED BY **DRAFT**	LOGGED BY **G. Lozefski**			
DRILLING CONTRACTOR/DRILLER **Roux Associates, Inc. / John Freijomil**		GEOGRAPHIC AREA **Outside Excavation Perimeter**		
DRILL BIT DIAMETER/TYPE **4.25-in. / Drive Sampler**	BOREHOLE DIAMETER **8-inches**	DRILLING EQUIPMENT/METHOD **DT 6620 / Geoprobe**	SAMPLING METHOD **Cuttings**	START-FINISH DATE **11/19/14-11/19/14**
CASING MAT./DIA. **PVC / 2-inch**	SCREEN: TYPE **Slotted** MAT. **PVC** TOTAL LENGTH **10.0**ft DIA. **2-inch** SLOT SIZE **10-Slot**			
ELEVATION OF: (Feet) GROUND SURFACE	TOP OF WELL CASING	TOP & BOTTOM SCREEN **/**	GRAVEL PACK SIZES **Morie #1**	



Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Grey GRAVEL, dry			3/8" Blue Stone back fill
		Brown, F-M SAND, with little silt, trace gravel, moist			Lithology from cuttings
5		Brown, F-M SAND, with little silt, trace gravel, moist			Lithology from cuttings
10		Grey, M-C SAND, with little gravel, trace cobble, strong odor, wet			Lithology from cuttings
15					

BORING/FEET 2020.0001Y003.GPJ ROUX.GDT 4/2/15

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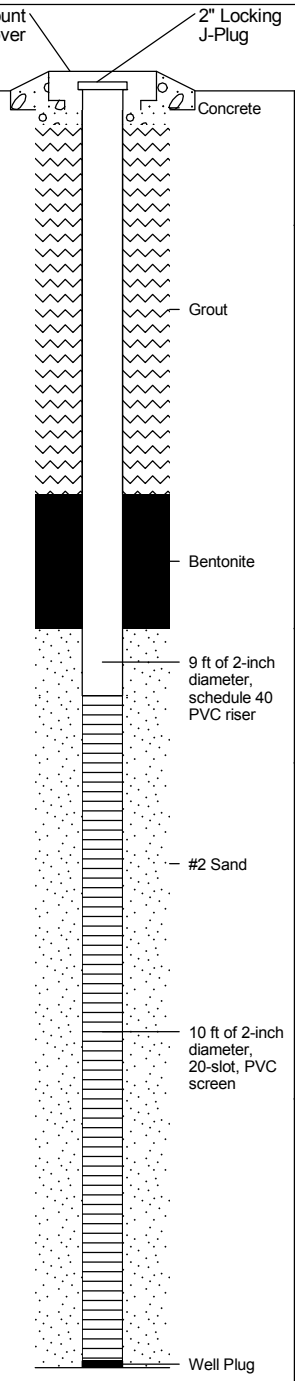
WELL CONSTRUCTION LOG

WELL NO.	NORTHING	EASTING
MW-103	**Not Measured**	**Not Measured**

PROJECT NO./NAME	LOCATION
2020.0001Y / Konica Minolta	**71 Charles Street**
APPROVED BY: **W. Monterosso** / LOGGED BY: **J. Wills**	**Glen Cove, New York**
DRILLING CONTRACTOR/DRILLER: **Roux Associates, Inc. / John Freijomil**	GEOGRAPHIC AREA: **North Side of The Place (Street) adjacent to 40 The Place Property**

DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
4.25-in. / Drive Sampler	**8-inches**	**DT 6620 / Geoprobe**	**Cuttings**	**5/23/13-5/23/13**

CASING MAT./DIA.: **PVC / 2-inch**
SCREEN: TYPE **Slotted** MAT. **PVC** TOTAL LENGTH **10.0**ft DIA. **2-inch** SLOT SIZE **20-Slot**
ELEVATION OF: (Feet) GROUND SURFACE TOP OF WELL CASING TOP & BOTTOM SCREEN **/**
GRAVEL PACK SIZES: **Morie #2**



Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Dark brown, fine to coarse SAND, some Gravel, little Silt and Organic material (roots); moist		1.0	Hand cleared to 7 feet below land surface (ft bls).
		Light brown to brown, medium SAND, little coarse Sand and Gravel, trace fine sand and silt; moist		1.7	
			G	1.4	
5		Brown, medium to coarse SAND, some Gravel, little fine Sand, trace silt; moist		1.2	
				3.0	Lithology from 7-20 ft bls interpreted from auger cuttings.
		Dark brown, fine SAND, some Silt, little coarse Sand and Gravel; wet			
10		Brown, SILT, little fine Sand, trace gravel; wet		2.0	
15		Grey, SILT, little Clay and coarse Sand, trace shell fragments; wet		1.5	
20					Boring terminated at 20 ft bls.

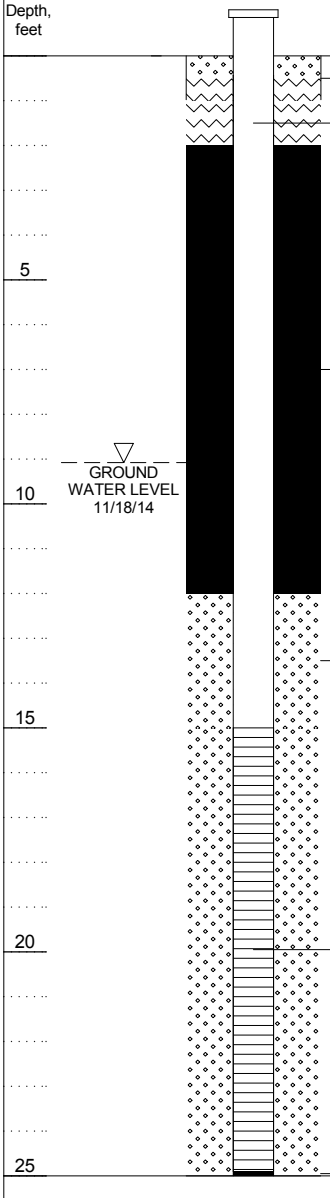
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WELL CONSTRUCTION LOG

WELL NO. **MW-201**	NORTHING **254385.58**	EASTING **1084040.7**			
PROJECT NO./NAME **2020.0001Y003 / Konica Minolta**		LOCATION **71 Charles Street** **Glen Cove, New York**			
APPROVED BY **DRAFT**	LOGGED BY **G. Lozefski**				
DRILLING CONTRACTOR/DRILLER **Roux Associates, Inc. / John Freijomil**		GEOGRAPHIC AREA **Within Excavated Area**			
DRILL BIT DIAMETER/TYPE **4.25-in. / Drive Sampler**	BOREHOLE DIAMETER **8-inches**	DRILLING EQUIPMENT/METHOD **DT 6620 / Geoprobe**	SAMPLING METHOD **Cuttings**	START-FINISH DATE **11/18/14-11/18/14**	
CASING MAT./DIA. **PVC / 2-inch**	SCREEN: TYPE **Slotted**	MAT. **PVC**	TOTAL LENGTH **10.0**ft	DIA. **2-inch**	SLOT SIZE **10-Slot**
ELEVATION OF: (Feet)	GROUND SURFACE	TOP OF WELL CASING	TOP & BOTTOM SCREEN **/**	GRAVEL PACK SIZES **Morie #1**	



Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Grey GRAVEL, dry			3/8" Blue Stone back fill
		Brown, F-M SAND, with little silt, trace gravel, moist			Lithology from cuttings
5					Lithology from cuttings
10		Brown, F-M SAND, with little silt, trace gravel, moist			Lithology from cuttings
15					Lithology from cuttings
20		Brown, F-M SAND, with little silt, trace gravel, wet			Lithology from cuttings
25					

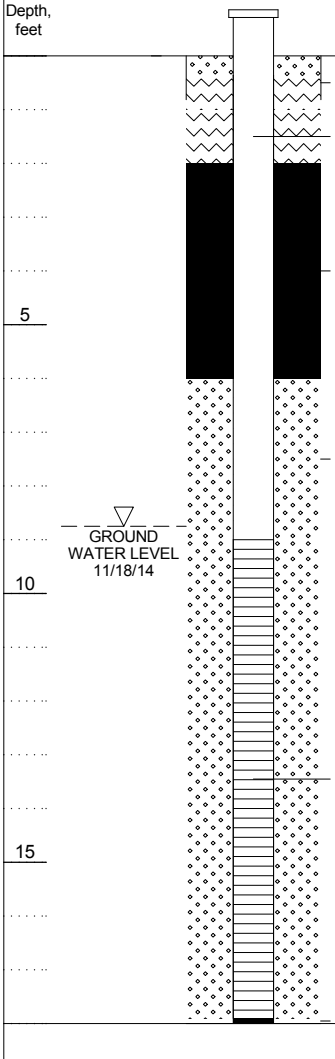
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WELL CONSTRUCTION LOG

WELL NO. **MW-202**	NORTHING **254410.47**	EASTING **1084062.48**			
PROJECT NO./NAME **2020.0001Y003 / Konica Minolta**		LOCATION **71 Charles Street** **Glen Cove, New York**			
APPROVED BY **DRAFT**	LOGGED BY **G. Lozefski**				
DRILLING CONTRACTOR/DRILLER **Roux Associates, Inc. / John Freijomil**		GEOGRAPHIC AREA **Within Excavated Area**			
DRILL BIT DIAMETER/TYPE **4.25-in. / Drive Sampler**	BOREHOLE DIAMETER **8-inches**	DRILLING EQUIPMENT/METHOD **DT 6620 / Geoprobe**	SAMPLING METHOD **Cuttings**	START-FINISH DATE **11/18/14-11/18/14**	
CASING MAT./DIA. **PVC / 2-inch**	SCREEN: TYPE **Slotted**	MAT. **PVC**	TOTAL LENGTH **10.0**ft	DIA. **2-inch**	SLOT SIZE **10-Slot**
ELEVATION OF: (Feet)	GROUND SURFACE	TOP OF WELL CASING	TOP & BOTTOM SCREEN **/**	GRAVEL PACK SIZES **Morie #1**	



Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Grey GRAVEL, dry			3/8" Blue Stone back fill
		Brown, F-M SAND, with little silt, trace gravel, moist			Lithology from cuttings
5		Brown, F-M SAND, with little silt, trace gravel, moist			Lithology from cuttings
10		Brown, F-M SAND, with little silt, trace gravel, wet			Lithology from cuttings
15					

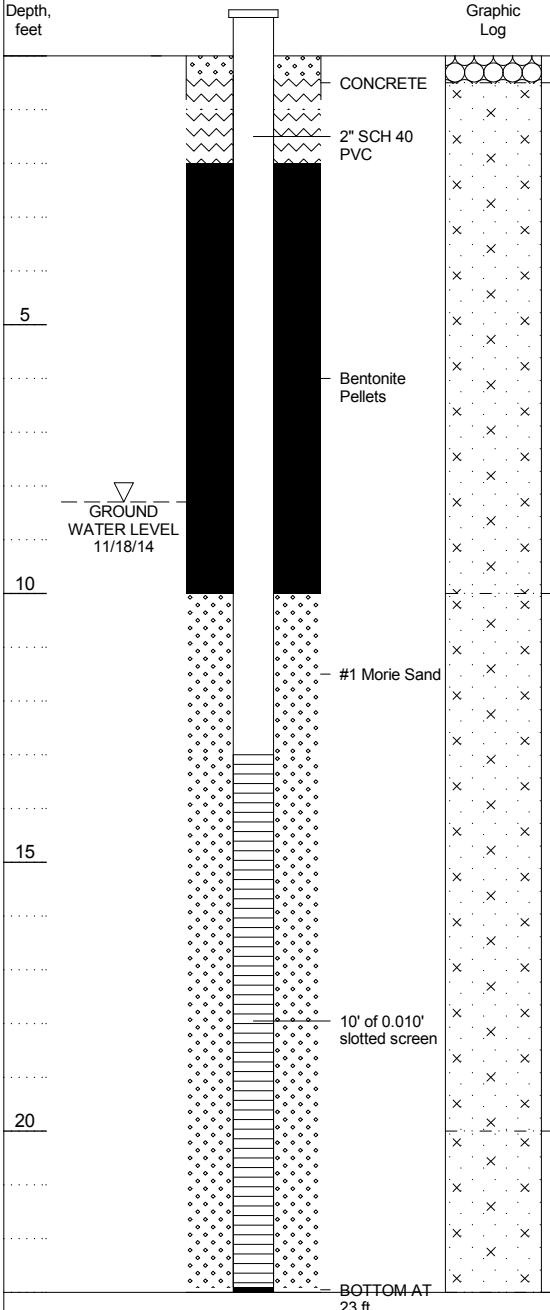
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WELL CONSTRUCTION LOG

WELL NO. **MW-203**	NORTHING **254370.02**	EASTING **1084078.35**			
PROJECT NO./NAME **2020.0001Y003 / Konica Minolta**		LOCATION **71 Charles Street** **Glen Cove, New York**			
APPROVED BY **DRAFT**	LOGGED BY **G. Lozefski**				
DRILLING CONTRACTOR/DRILLER **Roux Associates, Inc. / John Freijomil**		GEOGRAPHIC AREA **Within Excavated Area**			
DRILL BIT DIAMETER/TYPE **4.25-in. / Drive Sampler**	BOREHOLE DIAMETER **8-inches**	DRILLING EQUIPMENT/METHOD **DT 6620 / Geoprobe**	SAMPLING METHOD **Cuttings**	START-FINISH DATE **11/18/14-11/18/14**	
CASING MAT./DIA. **PVC / 2-inch**	SCREEN: TYPE **Slotted** MAT. **PVC**	TOTAL LENGTH **10.0**ft	DIA. **2-inch**	SLOT SIZE **10-Slot**	
ELEVATION OF: (Feet)	GROUND SURFACE	TOP OF WELL CASING	TOP & BOTTOM SCREEN **/**	GRAVEL PACK SIZES **Morie #1**	



Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
0		Grey GRAVEL, dry			3/8" Blue Stone back fill
		Brown, F-M SAND, with little silt, trace gravel, moist			Lithology from cuttings
5					Lithology from cuttings
10		Brown, F-M SAND, with little silt, trace gravel, moist			Lithology from cuttings
15					Lithology from cuttings
20		Brown, F-M SAND, with little silt, trace gravel, wet			Lithology from cuttings

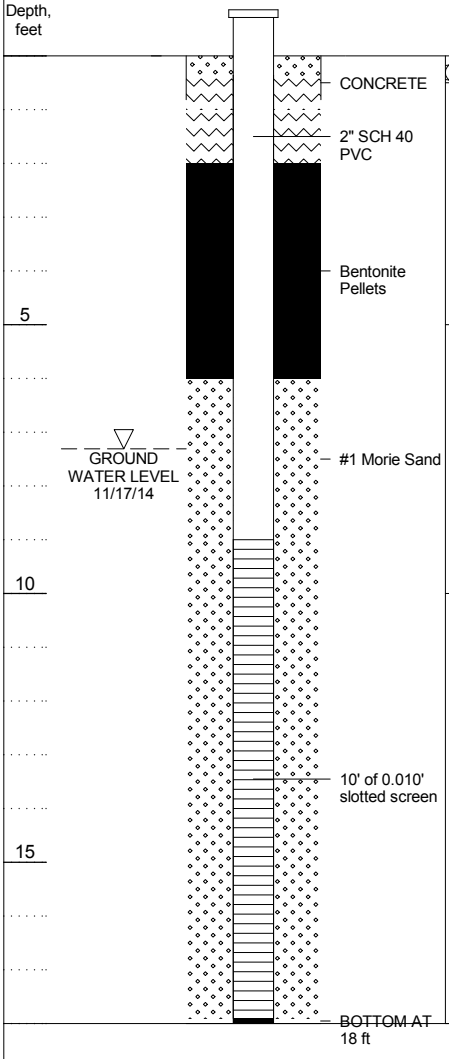
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WELL CONSTRUCTION LOG

WELL NO. **MW-204**	NORTHING **254415.45**	EASTING **1084115.39**			
PROJECT NO./NAME **2020.0001Y003 / Konica Minolta**		LOCATION **71 Charles Street** **Glen Cove, New York**			
APPROVED BY **DRAFT**	LOGGED BY **G. Lozefski**				
DRILLING CONTRACTOR/DRILLER **Roux Associates, Inc. / John Freijomil**		GEOGRAPHIC AREA **Within Excavated Area**			
DRILL BIT DIAMETER/TYPE **4.25-in. / Drive Sampler**	BOREHOLE DIAMETER **8-inches**	DRILLING EQUIPMENT/METHOD **DT 6620 / Geoprobe**	SAMPLING METHOD **Cuttings**	START-FINISH DATE **11/17/14-11/17/14**	
CASING MAT./DIA. **PVC / 2-inch**	SCREEN: TYPE **Slotted**	MAT. **PVC**	TOTAL LENGTH **10.0**ft	DIA. **2-inch**	SLOT SIZE **10-Slot**
ELEVATION OF: (Feet)	GROUND SURFACE	TOP OF WELL CASING	TOP & BOTTOM SCREEN **/**	GRAVEL PACK SIZES **Morie #1**	



Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Grey GRAVEL, dry			3/8" Blue Stone back fill
		Brown, F-M SAND, with little silt, trace gravel, moist			Lithology from cuttings
5		Brown, F-M SAND, with little silt, trace gravel, moist			Lithology from cuttings
10		Brown, F-M SAND, with little silt, trace gravel, wet			Lithology from cuttings
15					

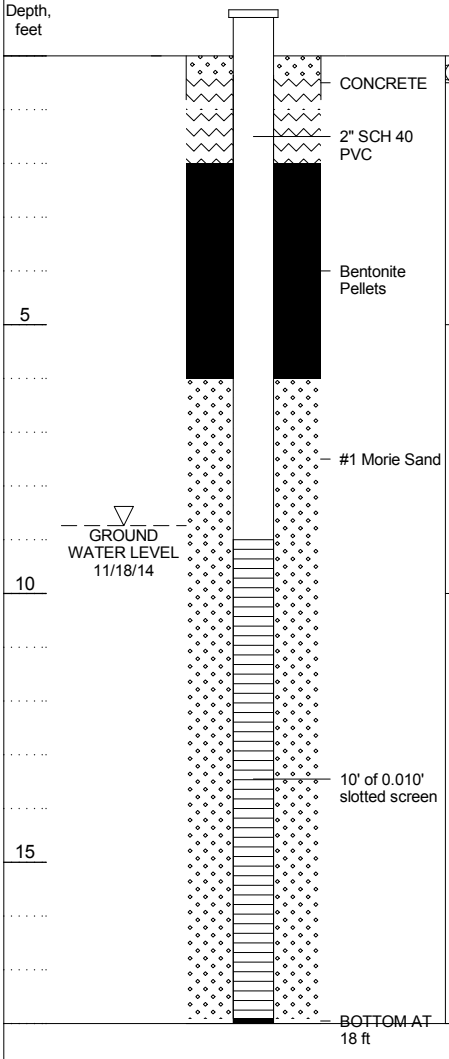
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WELL CONSTRUCTION LOG

WELL NO. **MW-205**	NORTHING **254380.91**	EASTING **1084115.7**		
PROJECT NO./NAME **2020.0001Y003 / Konica Minolta**		LOCATION **71 Charles Street** **Glen Cove, New York**		
APPROVED BY **DRAFT**	LOGGED BY **G. Lozefski**			
DRILLING CONTRACTOR/DRILLER **Roux Associates, Inc. / John Freijomil**		GEOGRAPHIC AREA **Within Excavated Area**		
DRILL BIT DIAMETER/TYPE **4.25-in. / Drive Sampler**	BOREHOLE DIAMETER **8-inches**	DRILLING EQUIPMENT/METHOD **DT 6620 / Geoprobe**	SAMPLING METHOD **Cuttings**	START-FINISH DATE **11/18/14-11/18/14**
CASING MAT./DIA. **PVC / 2-inch**	SCREEN: TYPE **Slotted** MAT. **PVC** TOTAL LENGTH **10.0**ft DIA. **2-inch** SLOT SIZE **10-Slot**			
ELEVATION OF: (Feet) GROUND SURFACE	TOP OF WELL CASING	TOP & BOTTOM SCREEN **/**	GRAVEL PACK SIZES **Morie #1**	



Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Grey GRAVEL, dry			Lithology from cuttings
		Brown, F-M SAND, with little silt, trace gravel, moist			
5		Brown, F-M SAND, with little silt, trace gravel, moist			Lithology from cuttings
10		Brown, F-M SAND, with little silt, trace gravel, wet			Lithology from cuttings
15					

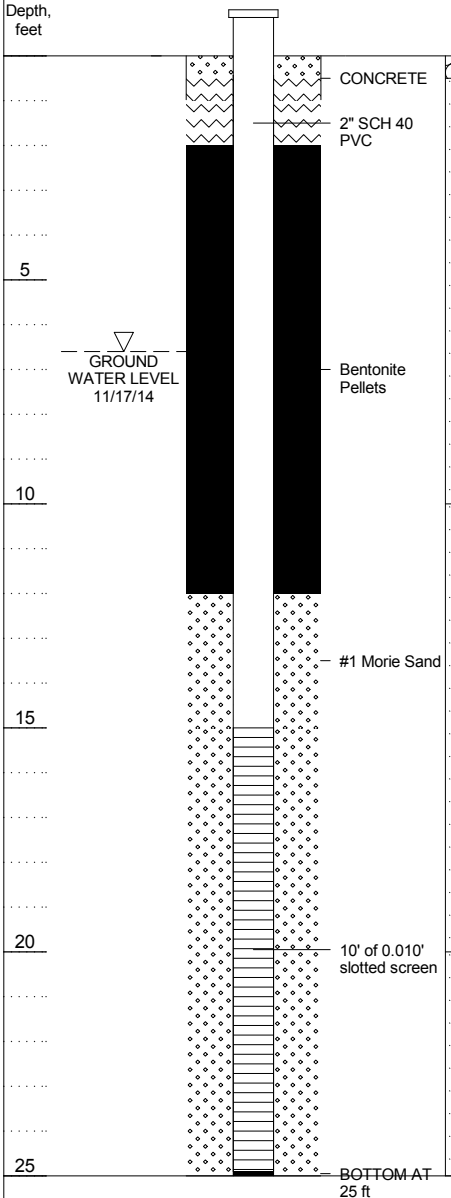
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WELL CONSTRUCTION LOG

WELL NO. **MW-206**	NORTHING **254385.89**	EASTING **1084152.11**		
PROJECT NO./NAME **2020.0001Y003 / Konica Minolta**		LOCATION **71 Charles Street** **Glen Cove, New York**		
APPROVED BY **DRAFT**	LOGGED BY **G. Lozefski**			
DRILLING CONTRACTOR/DRILLER **Roux Associates, Inc. / John Freijomil**		GEOGRAPHIC AREA **Within Excavated Area**		
DRILL BIT DIAMETER/TYPE **4.25-in. / Drive Sampler**	BOREHOLE DIAMETER **8-inches**	DRILLING EQUIPMENT/METHOD **DT 6620 / Geoprobe**	SAMPLING METHOD **Cuttings**	START-FINISH DATE **11/17/14-11/17/14**
CASING MAT./DIA. **PVC / 2-inch**	SCREEN: TYPE **Slotted** MAT. **PVC** TOTAL LENGTH **10.0**ft DIA. **2-inch** SLOT SIZE **10-Slot**			
ELEVATION OF: (Feet) GROUND SURFACE	TOP OF WELL CASING	TOP & BOTTOM SCREEN **/**	GRAVEL PACK SIZES **Morie #1**	



Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Grey GRAVEL, dry			3/8" Blue Stone back fill
		Brown, F-M SAND, with little silt, trace gravel, moist			Lithology from cuttings
5					Lithology from cuttings
10		Brown, F-M SAND, with little silt, trace gravel, moist			Lithology from cuttings
15					Lithology from cuttings
20		Brown, F-M SAND, with little silt, trace gravel, wet			Lithology from cuttings
25					

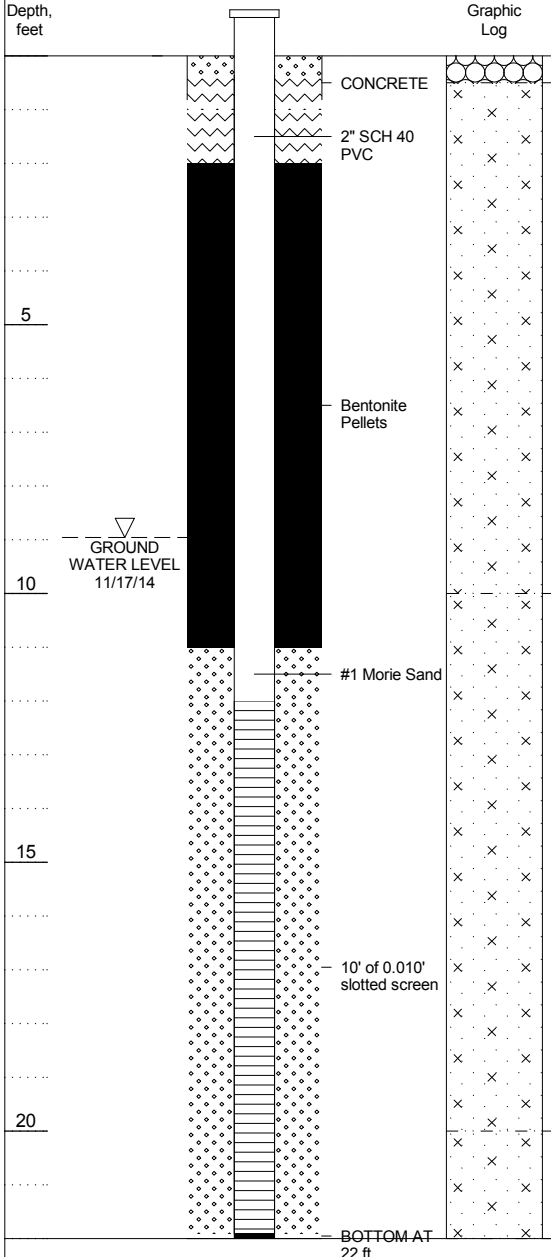
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WELL CONSTRUCTION LOG

WELL NO. **MW-207**	NORTHING **254353.52**	EASTING **1084138.41**			
PROJECT NO./NAME **2020.0001Y003 / Konica Minolta**		LOCATION **71 Charles Street** **Glen Cove, New York**			
APPROVED BY **DRAFT**	LOGGED BY **G. Lozefski**				
DRILLING CONTRACTOR/DRILLER **Roux Associates, Inc. / John Freijomil**		GEOGRAPHIC AREA **Within Excavated Area**			
DRILL BIT DIAMETER/TYPE **4.25-in. / Drive Sampler**	BOREHOLE DIAMETER **8-inches**	DRILLING EQUIPMENT/METHOD **DT 6620 / Geoprobe**	SAMPLING METHOD **Cuttings**	START-FINISH DATE **11/17/14-11/17/14**	
CASING MAT./DIA. **PVC / 2-inch**	SCREEN: TYPE **Slotted** MAT. **PVC**	TOTAL LENGTH **10.0**ft	DIA. **2-inch**	SLOT SIZE **10-Slot**	
ELEVATION OF: (Feet) GROUND SURFACE	TOP OF WELL CASING	TOP & BOTTOM SCREEN **/**	GRAVEL PACK SIZES **Morie #1**		



Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
0		Grey GRAVEL, dry			3/8" Blue Stone back fill
		Brown, F-M SAND, with little silt, trace gravel, moist			
					Lithology from cuttings
5					Lithology from cuttings
10		Brown, F-M SAND, with little silt, trace gravel, moist			Lithology from cuttings
15					Lithology from cuttings
20		Brown, F-M SAND, with little silt, trace gravel, wet			

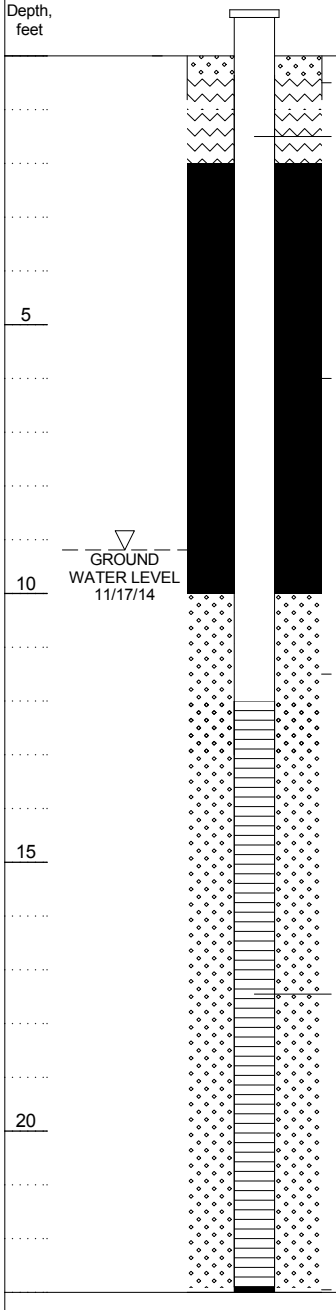
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WELL CONSTRUCTION LOG

WELL NO. **MW-208**	NORTHING **254337.96**	EASTING **1084163**			
PROJECT NO./NAME **2020.0001Y003 / Konica Minolta**		LOCATION **71 Charles Street** **Glen Cove, New York**			
APPROVED BY **DRAFT**	LOGGED BY **G. Lozefski**				
DRILLING CONTRACTOR/DRILLER **Roux Associates, Inc. / John Freijomil**		GEOGRAPHIC AREA **Within Excavated Area**			
DRILL BIT DIAMETER/TYPE **4.25-in. / Drive Sampler**	BOREHOLE DIAMETER **8-inches**	DRILLING EQUIPMENT/METHOD **DT 6620 / Geoprobe**	SAMPLING METHOD **Cuttings**	START-FINISH DATE **11/17/14-11/17/14**	
CASING MAT./DIA. **PVC / 2-inch**	SCREEN: TYPE **Slotted** MAT. **PVC**	TOTAL LENGTH **10.0**ft	DIA. **2-inch**	SLOT SIZE **10-Slot**	
ELEVATION OF: (Feet)	GROUND SURFACE	TOP OF WELL CASING	TOP & BOTTOM SCREEN **/**	GRAVEL PACK SIZES **Morie #1**	



Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
0		Grey GRAVEL, dry			3/8" Blue Stone back fill
		Brown, F-M SAND, with little silt, trace gravel, moist			
					Lithology from cuttings
5					Lithology from cuttings
10		Brown, F-M SAND, with little silt, trace gravel, moist			Lithology from cuttings
15					Lithology from cuttings
20		Brown, F-M SAND, with little silt, trace gravel, wet			

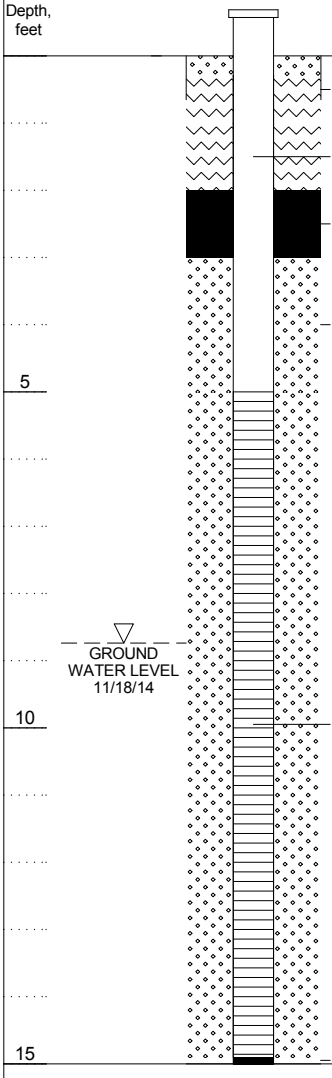
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WELL CONSTRUCTION LOG

WELL NO. **MW-209**	NORTHING **254332.05**	EASTING **1084099.52**		
PROJECT NO./NAME **2020.0001Y003 / Konica Minolta**		LOCATION **71 Charles Street** **Glen Cove, New York**		
APPROVED BY **DRAFT**	LOGGED BY **G. Lozefski**			
DRILLING CONTRACTOR/DRILLER **Roux Associates, Inc. / John Freijomil**		GEOGRAPHIC AREA **Within Excavated Area**		
DRILL BIT DIAMETER/TYPE **4.25-in. / Drive Sampler**	BOREHOLE DIAMETER **8-inches**	DRILLING EQUIPMENT/METHOD **DT 6620 / Geoprobe**	SAMPLING METHOD **Cuttings**	START-FINISH DATE **11/18/14-11/18/14**
CASING MAT./DIA. **PVC / 2-inch**	SCREEN: TYPE **Slotted** MAT. **PVC** TOTAL LENGTH **10.0**ft DIA. **2-inch** SLOT SIZE **10-Slot**			
ELEVATION OF: (Feet) GROUND SURFACE	TOP OF WELL CASING	TOP & BOTTOM SCREEN **/**	GRAVEL PACK SIZES **Morie #1**	



Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Grey GRAVEL, dry			3/8" Blue Stone back fill
		Brown, F-M SAND, with little silt, trace gravel, moist			
					Lithology from cuttings
5		Brown, F-M SAND, with little silt, trace gravel, moist			Lithology from cuttings
10		Brown, F-M SAND, with little silt, trace gravel, wet			Lithology from cuttings
15					

BORING/FEET 2020.0001Y003.GPJ ROUX.GDT 4/2/15

ROUX ASSOCIATES, INC.
Environmental Consulting & Management

209 Shafter Street
Islandia, NY 11749
Telephone: (631) 232-2600
Fax: (631) 232-9898

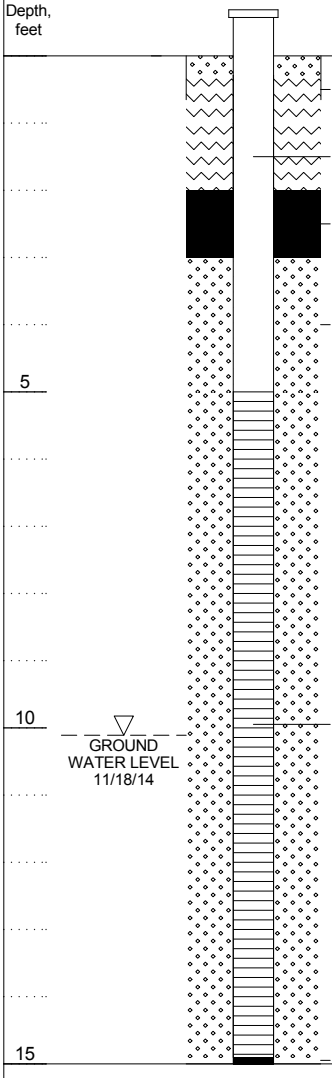
WELL CONSTRUCTION LOG

WELL NO.	NORTHING	EASTING
MW-210	**254330.5**	**1084056.26**

PROJECT NO./NAME	LOCATION
2020.0001Y003 / Konica Minolta	**71 Charles Street**
APPROVED BY: **DRAFT** / LOGGED BY: **G. Lozefski**	**Glen Cove, New York**
DRILLING CONTRACTOR/DRILLER: **Roux Associates, Inc. / John Freijomil**	GEOGRAPHIC AREA: **Within Excavated Area**

DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
4.25-in. / Drive Sampler	**8-inches**	**DT 6620 / Geoprobe**	**Cuttings**	**11/18/14-11/18/14**

CASING MAT./DIA.: **PVC / 2-inch**
SCREEN: TYPE **Slotted** MAT. **PVC** TOTAL LENGTH **10.0**ft DIA. **2-inch** SLOT SIZE **10-Slot**
ELEVATION OF: (Feet) GROUND SURFACE TOP OF WELL CASING TOP & BOTTOM SCREEN **/**
GRAVEL PACK SIZES: **Morie #1**



Depth, feet	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
	Grey GRAVEL, dry			3/8" Blue Stone back fill
	Brown, F-M SAND, with little silt, trace gravel, moist			
				Lithology from cuttings
5	Brown, F-M SAND, with little silt, trace gravel, moist			Lithology from cuttings
10	Brown, F-M SAND, with little silt, trace gravel, wet			Lithology from cuttings
15				

BORING/FEET 2020.0001Y003.GPJ ROUX.GDT 4/2/15

ROUX ASSOCIATES, INC.
Environmental Consulting & Management

209 Shafter Street
Islandia, NY 11749
Telephone: (631) 232-2600
Fax: (631) 232-9898

WELL CONSTRUCTION LOG

WELL NO.	NORTHING	EASTING
MW-211	**254301.24**	**1084065.6**

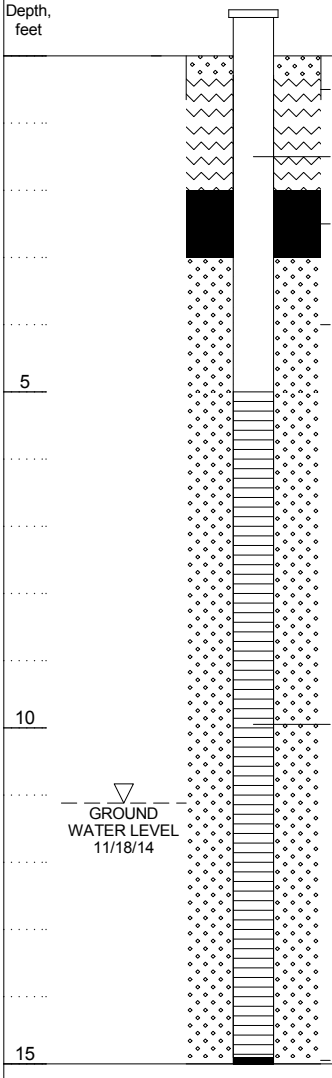
PROJECT NO./NAME	LOCATION
2020.0001Y003 / Konica Minolta	**71 Charles Street**
APPROVED BY: **DRAFT** / LOGGED BY: **G. Lozefski**	**Glen Cove, New York**
DRILLING CONTRACTOR/DRILLER: **Roux Associates, Inc. / John Freijomil**	GEOGRAPHIC AREA: **Within Excavated Area**

DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
4.25-in. / Drive Sampler	**8-inches**	**DT 6620 / Geoprobe**	**Cuttings**	**11/18/14-11/18/14**

CASING MAT./DIA.: **PVC / 2-inch**
SCREEN: TYPE **Slotted** MAT. **PVC** TOTAL LENGTH **10.0**ft DIA. **2-inch** SLOT SIZE **10-Slot**

ELEVATION OF: (Feet) GROUND SURFACE TOP OF WELL CASING **/** TOP & BOTTOM SCREEN

GRAVEL PACK SIZES: **Morie #1**



Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Grey GRAVEL, dry			3/8" Blue Stone back fill
		Brown, F-M SAND, with little silt, trace gravel, moist			
					Lithology from cuttings
5		Brown, F-M SAND, with little silt, trace gravel, moist			Lithology from cuttings
10		Brown, F-M SAND, with little silt, trace gravel, wet			Lithology from cuttings
15					

BORING/FEET 2020.0001Y003.GPJ ROUX.GDT 4/2/15

- PHD = post-hole digger
- HA = hand auger
- HSA = hollow stem auger
- SS = split spoon
- DA = drill ahead

Boring # – 03R MW# – 03R	Sheet 1 of 3
Project: Konica	
Job # 85247.001	Site: 71 Charles Street, Glen Cove, N.Y.
Logged By: RMB Proj. Eng:	Edited By:
Drilling Contractor: LAWES	
Drill Rig Type/Method: 4¼" hollow stem auger	
Drillers Name: Scott	
Borehole Diam./Drill Bit Type: 4¼" hollow stem auger	Total Depth: 34.5'
	Ref. Elev.: Sfc
Hammer Wt: 140 lbs	Drop:
Start Time: 08:50	Date: 11/10/2011
Completion Time: 14:45	Date: 11/10/2011
Backfill Time: NA	Date: NA

*see sample location map
Sketch Map of Site Area With Drilling Locations

	1st Water			
Boring Depth (ft.)	34.5			
Casing Depth (ft.)	33.5			
Water Depth (ft.)	25.5			
Time	~~1300~~			
Date	11/10/11			

PID/OVA	Sampler Type & Depth	Blow Counts / 6 in.	Advance (in.)	Recovered (in.)		Casing Type & Size	Annulus Filler	Depth Feet	
	PHD	NA	24	24		flush	manhole	1	silty sand (SM), dark brown, F-M sand, 25% silt, 5-10% gravel, no odor, dry
	PHD	NA	24	24		2 inch		2	
								3	
	HA	NA	24	24		PVC		4	
								5	
	HA	NA	24	24		casing	grout	6	sand (SW), tan, F-C sand, <5% F gravel, no odor, damp
								7	
	SS	8	24	18				8	
		11						9	
		15							
		21						10	silty clay (CL), grey/brown, 20% silt, 10% F-M sand, 5% F gravel, dry
	SS	5	24	18					
		8						11	
		11							sand (SP), tan-orange, F-M sand, 5% F-gravel, no odor, dry
		9						12	

Boring # - 03R MW# - 03R Sheet 2 of 3

Project: Konica

Job # 85247.001 Site: 71 Charles Street, Glen Cove, N.Y.

PID/OVA	Sampler Type	Blow Counts	Advance (in.)	Rcvd (in.)	Casing	Annulus	Depth (Sample Rec / Analysis / Feet)	
	SS	4	24	16			12	silty clay (CL), grey, no odor
		6						
		9					13	sand (SP), orange, F-C sand, 5% F-gravel, no odor
		11						
	SS	4	24	14			14	
		7						clayey silt (ML), brown, silt, 10-15% clay, 5-10% gravel
		9					15	
		10						
	SS	5	24	18			16	
		7						sandy silt (ML), brown, 15% clay, <5% F sand, orange bands, no odor, damp
		6					17	
		8						
	SS	4	24	18			18	S.A.A. (no orange bands)
		4						
		6					19	
		6						
	SS	3	24	20			20	S.A.A.
		4						
		4					21	
		5						
	SS	4	24	16			22	S.A.A.
		4						
		5					23	
		6						
	SS	3	24	14			24	S.A.A.
		4						
		3					25	
		4						
	SS	3	24	15			26	S.A.A. (saturated)
		4						
		4					27	
		3						
	SS	2	24	24			28	
		3						
		3					29	
		4						
	DA	NA	24	NA			30	
							31	
							32	

N-2

PID/OVA	Sampler Type	Blow Counts	Advance (in.)	Rcvd (in.)		Casing	Annulus	Depth: Sample Rec / Analysis / Feet	
	DA	NA	30	NA					S.A.A.

Boring # - 03R MW# - 03R Sheet 3 of 3

Project: Konica

Job # 85247.001 Site: 71 Charles Street, Glen Cove, N.Y.

- PHD = post-hole digger
- HA = hand auger
- HSA = hollow stem auger
- SS = split spoon
- DA = drill ahead

Boring # – 06 MW# – 06	Sheet 1 of 2
Project: Konica	
Job # 85247.001	Site: 71 Charles Street, Glen Cove, N.Y.
Logged By: RMB Proj. Eng:	Edited By: RJB
Drilling Contractor: LAWES	
Drill Rig Type/Method: 4¼" hollow stem auger	
Drillers Name: Scott	
Borehole Diam./Drill Bit Type: 4¼" hollow stem auger	Total Depth: 23.0' / Ref. Elev.: Sfc
Hammer Wt: 140 lbs Drop:	
Start Time: 15:00 Date: 11/10/2011	
Completion Time: 12:00 Date: 11/11/2011	
Backfill Time: NA Date: NA	

* see sample location map
Sketch Map of Site Area With Drilling Locations

	1st Water			
Boring Depth (ft.)	23.0'			
Casing Depth (ft.)	22.0'			
Water Depth (ft.)	10.0'			
Time				
Date	11/11/11			

PID/OVA	Sampler Type & Depth	Blow Counts / 6 in.	Advance (in.)	Recovered (in.)	Casing Type & Size	Annulus Filler	Sample Rec. Analyses	Depth Feet	
	PHD	NA	60	60		manhole / Bent. / Sand		1	silty sand (SM), brown, F-M sand, 10-20% silt, <5% F-M gravel, no odor, dry
					2" PVC			2	
					casing			3	S.A.A.
								4	
								5	
	SS	3	24	18					S.A.A.
		7						6	
		9							
		13						7	
	DA	NA	36	NA	2"			8	
					Screened				
					PVC			9	
								10	
	SS	6	24	18					sand (SP), tan, F-M sand, 5% F gravel, no odor, saturated
		9						11	
		11							
		13						12	

N-2

Boring # -06 MW# -06 Sheet 2 of 2

Project: Konica

Job # 85247.001 Site: 71 Charles Street, Glen Cove, N.Y.

PID/OVA	Sampler Type	Blow Counts	Advance (in.)	Rcvd (in.)		Casing	Annulus	Depth Sample Rec / Analysis	Feet
	DA	NA	36	NA					12
									13
									14
									15
	SS	3	24	18					
		5							16
		6							
		11							17
	DA	NA	36	NA					
									18
									19
									20
	SS	3	24	18					
		3							21
		6							
		11							22
	DA	NA	12	NA					
									23
									24
									25
									6
									7
									8
									9
									0
									1
									2

rig behavior

silty clay (CL), brown/grey, 15-22'+o silt, 10% F gravel, 5% F-M sand, no odor, damp

SAA.

N-2

APPENDIX D

Excavation Work Plan

APPENDIX D

EXCAVATION WORK PLAN (EWP)

1. NOTIFICATION

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

Table 1 – Notifications*

Chris Engelhardt	(631) 444-0235 chris.engelhardt@dec.ny.gov
Girish Desai, P.E.	(631) 444-0243 girish.desai@dec.ny.gov
Walter Parish, P.E.	(631) 444-0241 walter.parish@dec.gov

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

This notification will include:

- A detailed description of the work to be performed, including the location and areal extent of excavation, plans/drawings for site re-grading, intrusive elements or utilities to be installed below the soil cover, estimated volumes of contaminated soil to be excavated and any work that may impact an engineering control;
- A summary of environmental conditions anticipated to be encountered in the work areas, including the nature and concentration levels of contaminants of concern, potential presence of grossly contaminated media, and plans for any pre-construction sampling;
- A schedule for the work, detailing the start and completion of all intrusive work;
- A summary of the applicable components of this EWP;
- A statement that the work will be performed in compliance with this EWP and 29 CFR 1910.120;
- A copy of the contractor's health and safety plan (HASP), in electronic format, if it differs from the HASP provided in Appendix F of this SMP;
- Identification of disposal facilities for potential waste streams;
- Identification of sources of any anticipated backfill, along with all required chemical testing results; and
- The NYSDEC project manager will review the notification and may impose additional requirements for the excavation that are not listed in this EWP.

2. SOIL SCREENING METHODS

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

Soils will be segregated based on previous environmental data and screening results into material that requires off-site disposal and material that requires testing to determine if the material can be reused on-site as soil beneath a cover or if the material can be used as cover soil. Further discussion of off-site disposal of materials and on-site reuse is provided in Section 7 of this Appendix.

3. SOIL STAGING METHODS

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

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

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

4. MATERIALS EXCAVATION AND LOAD-OUT

A qualified environmental professional as defined in 6 NYCRR Part 375, a PE who is licensed and registered in New York State, or a qualified person who directly reports to a PE who is licensed and registered in New York State will oversee all invasive work and the excavation and load-out of all excavated material. The owner of the property and remedial party (if applicable) and its contractors are responsible for safe execution of all invasive and other work performed under this Plan.

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

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

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

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

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

5. MATERIALS TRANSPORT OFF-SITE

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

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

Truck transport routes will be determined based on the excavation scope of work by the excavation contractor and/or the supervising remedial engineer. All trucks loaded with site materials will exit the vicinity of the site using only these approved truck routes. This is the most appropriate route and takes into account: (a) limiting transport through residential areas and past sensitive sites; (b) use of city mapped truck routes; (c) prohibiting off-site queuing of trucks entering the facility; (d) limiting total distance to major highways; (e) promoting safety in access to highways; and (f) overall safety in transport.

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

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

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

6. MATERIALS DISPOSAL OFF-SITE

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

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

Non-hazardous historic fill and contaminated soils taken off-site will be handled consistent with 6 NYCRR Parts 360, 361, 362, 363, 364 and 365. Material that does not meet Unrestricted SCOs is prohibited from being taken to a New York State C&D debris recovery facility (6 NYCRR Subpart 360-15 registered or permitted facility).

7. MATERIALS REUSE ON-SITE

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

Proposed materials for reuse on-site must be sampled for full suite analytical parameters including per- and polyfluoroalkyl substances (PFAS) and 1,4-dioxane. The sampling frequency will be in accordance with DER-10 Table 5.4(e)10 unless prior approval is obtained from the NYSDEC project manager for modification of the sampling frequency. The analytical results of soil/fill material testing must meet the site use criteria presented in NYSDEC DER-10 Appendix 5 – Allowable Constituent Levels for Imported Fill or Soil for all constituents listed, and the NYSDEC Sampling, Analysis, and Assessment of Per- and Polyfluoroalkyl Substances [October 2020 or date of current version, whichever is later] guidance values. Approvals for modifications to the analytical parameters must be obtained from the NYSDEC project manager prior to the sampling event.

Soil/fill material for reuse on-site will be segregated and staged as described in Sections 2 and 3 of this EWP. The anticipated size and location of stockpiles will be provided in the 15-day notification to the NYSDEC project manager. Stockpile locations will be based on the location of site excavation activities and proximity to nearby site features. Material reuse on-site will comply with requirements of NYSDEC DER-10 Section 5.4(e)4. Any modifications to the requirements of DER-10 Section 5.4(e)4 must be approved by the NYSDEC project manager.

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

8. FLUIDS MANAGEMENT

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

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

9. COVER SYSTEM RESTORATION

After the completion of soil removal and any other invasive activities the cover system will be restored in a manner that complies with the RAWP. The existing cover system is comprised of a minimum of two feet of clean stone that was placed over the excavation area backfill. If the type of cover system changes from that which exists prior to the excavation (i.e., a soil cover is replaced by asphalt), this will constitute a modification of the cover element of the remedy and the upper surface of the remaining contamination.

A figure showing the modified surface will be included in the subsequent Periodic Review Report and in an updated SMP.

10. BACKFILL FROM OFF-SITE SOURCES

All materials proposed for import onto the site will be approved by the qualified environmental professional, as defined in 6 NYCRR Part 375, and will be in compliance with provisions in this SMP prior to receipt at the site. A Request to Import/Reuse Fill or Soil form, which can be found at http://www.dec.ny.gov/regulations/67386.html, will be prepared and submitted to the NYSDEC project manager allowing a minimum of 5 business days for review. A copy of the form is presented in Appendix I.

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

- All imported soils will meet the backfill and cover soil quality standards established in 6 NYCRR 375-6.7(d) and DER-10 Appendix 5 for Restricted Residential use. Based on an evaluation of the land use, protection of groundwater and protection of ecological resources criteria, the resulting soil quality standards are listed in 6 NYCRR Part 375 6.8(b). Soils that meet 'general' fill requirements under 6 NYCRR Part 360.13, but do not meet backfill or cover soil objectives for this site, will not be imported onto the site without prior approval by NYSDEC project manager. Soil material will be sampled for the full suite of analytical parameters, including PFAS and 1, 4-dioxane. Solid waste will not be imported onto the site. Trucks entering the site with imported soils will be securely covered with tight fitting covers. Imported soils will be stockpiled separately from excavated materials and covered to prevent dust releases.

11. STORMWATER POLLUTION PREVENTION

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

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

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

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

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

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

12. EXCAVATION CONTINGENCY PLAN

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

Sampling will be performed on product, sediment and surrounding soils, etc., as necessary to determine the nature of the material and proper disposal method. Chemical analysis will be performed for a full list of analytes (TAL metals; TCL volatiles and semi-volatiles, TCL pesticides, PCBs, 1,4-dioxane and PFAS), unless the site history and previous sampling results provide a sufficient justification to limit the list of analytes. In this case, a reduced list of analytes will be proposed to the NYSDEC for approval prior to sampling.

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

13. COMMUNITY AIR MONITORING PLAN

A figure showing the location of air sampling stations based on generally prevailing wind conditions will be provided by the personnel implementing the CAMP. These locations will be adjusted on a daily or more frequent basis based on actual wind directions to provide an upwind and at least two downwind monitoring stations. If a sensitive receptor, such as a school, day care or residential area is adjacent to the site, a fixed monitoring station should be located at that site perimeter, regardless of wind direction, and discussed in the text.

Exceedances of action levels listed in the CAMP will be reported to NYSDEC and NYSDOH Project Managers.

14. ODOR CONTROL PLAN

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

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

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

15. DUST CONTROL PLAN

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

- Dust suppression will be achieved through the use of a dedicated on-site water truck for road wetting. The truck will be equipped with a water cannon capable of spraying water directly onto off-road areas including excavations and stockpiles.
- Clearing and grubbing of larger sites will be done in stages to limit the area of exposed, unvegetated soils vulnerable to dust production.
- Gravel will be used on roadways to provide a clean and dust-free road surface.
- On-site roads will be limited in total area to minimize the area required for water truck sprinkling.

16. OTHER NUISANCES

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

APPENDIX E

Site-Specific Health and Safety Plan

Site-Specific Health and Safety Plan

POWERS CHEMCO Superfund Site No. 130028 and KONICA MINOLTA GRAPHIC IMAGING RCRA Site No. 130028A

**71 CHARLES STREET,
GLEN COVE, NASSAU COUNTY,NEW YORK**

January 12, 2022

Prepared for:

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Site-Specific Emergency Information

Emergency Phone Numbers

Most emergency services can be obtained by calling **911**. Where 911 service is not available, use the telephone numbers provided in the below table. The following is a master emergency phone list for use by the project management personnel. A more condensed version of the emergency numbers listed below will be posted throughout project work areas. Emergencies encountered on the site will be responded to by a combination of off-site emergency services and on-site personnel.

Emergency Contact Information			
Site Personnel			
Title	Contact		Telephone
Office Manager (OM)	Jeff Wills		631-630-2330
Project Principal (PP)	Nathan Epler		631-630-2374
Project Manager (PM)	Nathan Epler		631-630-2374
Site Supervisor (SS)	NA		NA
Site Health and Site Safety Officer (SHSO)	Ron Lombino		631-630-2406
Office Health and Safety Manager (OHSM)	Ron Lombino		631-630-2406
Corporate Health and Safety Manager (CHSM)	Brian Hobbs		631-630-2600
AllOne Health	Occupational Health Care Management Provider		800-350-4511
Client Emergency Contact	Steve Herbes, VP & General Counsel, Konica Minolta Business Solutions		201-236-4364
Outside Assistance			
Agency	Contact	Telephone	Address/Location
Ambulance/emergency medical services (EMS)	Emergency Medical Service	911	
Police	Nassau County Police Department (NCPD)	911	1 Bridge St Glen Cove, NY 11542
Fire	Glen Cove Fire Department	(516) 676-0366	10 Glen Cove Ave Glen Cove, NY 11542
Site Address	71 Charles Street, Glen Cove, New York		

Directions to Glen Cove Hospital (North Shore LIJ) – 101 St. Andrews Lane Glen Cove, New York 11542

See Figure 2 for street map.

- Start at 71 Charles Street, Glen Cove, New York, take a Left onto Herb Hill Road
- Turn Left at Brewster Street
- Continue onto Forest Avenue
- Turn Right at Walnut Avenue
- Arrive at Glen Cove Hospital on your right

1. Introduction

This Site-specific Health and Safety Plan (HASP) has been prepared by Roux Environmental Engineering and Geology, D.P.C. (Roux) for use during soil excavation, air monitoring, soil sampling, and groundwater sampling at the Former Konica Minolta / Powers Chemco Facility, located at 71 Charles Street, Glen Cove, New York (Site; **Figure 1**). These activities fall within the scope of operations covered by the Occupational Safety and Health Administration (OSHA) standards promulgated at 29 CFR 1910.120 and 29 CFR 1926.65, both commonly referred to as the Hazardous Waste Operations and Emergency Response (HAZWOPER) Standard. In accordance with the HAZWOPER Standard, this Site-specific HASP was prepared to address the safety and health hazards associated with the soil excavation, air monitoring, soil sampling, and groundwater sampling activities being performed at the Site by Roux and to provide requirements and procedures for the protection of Roux employees, subcontractor personnel, government oversight personnel, Site personnel, and the general public. It also addresses client- and Site-specific requirements for health and safety. Additionally, subcontractors may be required to submit their own HASP as it relates to their specific work activities and will be kept onsite during such work.

Implementation of this HASP is the joint responsibility of the Project Manager (PM), the Site Health and Safety Officer (SHSO), and all field staff, with assistance from the Project Principal (PP), Office Health and Safety Manager (OHSM), and Corporate Health and Safety Manager (CHSM). The PM for this project is Nathan Epler. The Site Supervisor (SS) is Nathan Epler and Site Health and Safety Officer (SHSO) is Brian Hobbs.

This HASP will be introduced to, reviewed, and signed off on by all Roux personnel through a formal training session prior to commencing work. A copy of the HASP will be kept at the Site at all times. The Roux SHSO or PM will be responsible for posting any changes, amendments, memos, etc. to the HASP. Any revisions to this HASP will be signed by appropriate personnel, which can include Roux's PP, CHSM, and SS. Any changes will be announced to all workers at the next safety meeting.

1.1 Roles and Responsibilities

Overall Roles and Responsibilities (R&Rs) of Roux personnel are provided in Roux's Policies and Procedures Manual. Only those R&Rs specific to HASP requirements are listed below.

Project Manager (PM)

The PM has responsibility and authority to direct all work operations. The PM coordinates safety and health functions with the Site Health and Safety Officer (SHSO), has the authority to oversee and monitor the performance of the SHSO, and bears ultimate responsibility for the proper implementation of this HASP. The specific duties of the PM are:

- Preparing and coordinating the Site work plan;
- Providing Site supervisor(s) with work assignments and overseeing their performance; Coordinating safety and health efforts with the SSHO;
- Ensuring effective emergency response through coordination with the Emergency Response Coordinator (ERC); and
- Serving as primary Site liaison with public agencies and officials and Site contractors.

Site Health and Safety Officer (SHSO)

The SHSO has the full responsibility and authority to develop and implement this HASP and to verify compliance. The SHSO reports to the Project Manager. The SHSO is on Site or readily accessible to the Site during all work operations and has the authority to halt Site work if unsafe conditions are detected. The specific responsibilities of the SHSO include:

- Managing the safety and health functions on this Site;
- Serving as the Site's point of contact for safety and health matters;
- Ensuring Site monitoring, worker training, and effective selection and use of PPE;
- Assessing Site conditions for unsafe acts and conditions and providing corrective action;
- Assisting the preparation and review of this HASP;
- Maintaining effective safety and health records as described in this HASP; and
- Coordinating with the Site Supervisor(s) and others as necessary for safety and health efforts.

Site Supervisor

The Site Supervisor is responsible for field operations and reports to the Project Manager (PM). The Site Supervisor ensures the implementation of the HASP requirements and procedures in the field. The specific responsibilities of the Site Supervisor include:

- Executing the work plan and schedule as detailed by the PM;
- Coordination with the SHSO on safety and health; and
- Ensuring Site work compliance with the requirements of this HASP.

Employees

All Roux employees are responsible for reading and following all provisions of the Corporate Health and Safety Manual, including this HASP. Employees report to the SS at the project Site. Each employee is also responsible for the following:

- Wearing all appropriate PPE as outlined within this HASP;
- Attending all safety meetings;
- Inspecting tools and equipment prior to use, and taking any defective tools or equipment out of service;
- Appropriately documenting field events as they occur within a logbook or equivalent;
- Properly operating machinery and/or equipment only if trained to do so;
- Stopping work operations if unsafe conditions exist;
- Identifying and mitigating hazards when observed;
- Reporting all incidents and near misses to the Roux SHSO and SS immediately; and
- Knowing where emergency equipment is located (e.g. first aid kit, fire extinguisher).

Subcontractors and Visitors

Subcontractors and visitors are responsible for complying with the same health and safety requirements. It is the responsibility of all to make sure subcontractors and visitors comply and uphold the HASP. Subcontractors

and visitors have the following additional responsibilities:

- Designating a qualified safety representative for the project that can make the necessary changes in work practices, as necessary;
- Attending all safety meetings while participating in Roux Site work activities;
- Reporting all incidents and near misses to Roux SHSO and SS immediately;
- Conducting initial and periodic equipment inspections in accordance with manufacturer and regulatory guidelines; and
- Providing copies of all Safety Data Sheets (SDS) to Roux SHSO for materials brought to the Site.

2. Background

Relevant background information is provided below, including a general description of the Site; a brief review of the Site's history with respect to hazardous material use, handling, and/or storage; and a review of known and potential releases of hazardous substances at the Site.

2.1 Site Description

The Powers Chemco Site, also known as the former Columbia Ribbon and Carbon Manufacturing Company Site, is a vacant, 1.91-acre parcel located within the 15-acre Konica Minolta property in the City of Glen Cove, Nassau County (hereafter referred to as "the Site"). The entire Konica Minolta property consists of Section 31, Block G, Lots 3, 5, 13, 213, 227, 614 and 615 according to the Nassau County Tax Map. The 1.91-acre Site that is the Powers Chemco Site is located within Tax Lots 614 and 615. The Site is bounded to the south, west and east by the former Konica Minolta facility, and to the north by a public roadway (The Place). All buildings on the adjacent 13.6 acre former Konica Minolta facility were demolished in the past year. Please see Figure 2, which shows the site boundary within the larger property. The metes and bounds of the property and a property survey are provided in Appendix B.

The 1.91-acre site served as an employee parking lot when the Konica Minolta facility (former Powers Chemco) was operating. To the north and east of the site, the properties are predominantly residential. To the south and west of the site is an industrial corridor that includes five other inactive hazardous waste disposal sites (i.e., State Superfund sites) and one Environmental Restoration Program site. The site is approximately 1,200 feet north and 60 feet above the eastern end of Glen Cove creek, which empties into Hempstead Harbor. The topography of the site is relatively flat. An inactive remedial treatment plant is still present at the site.

Current Zoning/Use(s): The property is zoned MW3 – Marine Waterfront and is currently vacant.

Konica Minolta Holdings, U.S.A. entered into an Order on Consent with the New York State Department of Environmental Conservation (NYSDEC) in August, 2011, to investigate and remediate a 1.91-acre portion of a former industrial property located in Glen Cove, New York (Figure 1). The 1.91-acre portion (hereafter referred to as "the Site") represents the parcel that was the subject of the March 2014 Amended Record of Decision (AROD) for the Powers Chemco Site, Glen Cove, New York (NYSDEC Site No. 130028). The Site soil was remediated to the 6NYCRR375-6 protection of groundwater or the restricted residential soil cleanup objectives (SCOs), and the Site groundwater was remediated to the Division of Water Technical and Operational Guidance Series (1.1.1) Ambient Water Quality Standards and Guidance Values in accordance with the April 15, 2014 Remedial Action Work Plan[1] (RAWP). For a more complete description and a Site history, please refer to the "Historical Remediation and Data Review Report, April 2010, Konica Minolta."

Konica Minolta Holdings U.S.A. entered into an Order on Consent and Administrative Settlement Index# 1-20170320-79 for the Powers Chemco Site No. 130028 on April 20, 2017.

[1] Roux Associates, April 2014

3. Scope of Work

The Scope of Work may include soil excavation, air monitoring, soil sampling, and groundwater sampling.

4. Site Control

This Site control program is designed to reduce the spread of hazardous substances from contaminated areas to clean areas, to identify and isolate contaminated areas of the Site, to facilitate emergency evacuation and medical care, to prevent unauthorized entry to the Site, and to deter vandalism and theft.

4.1 Site Map

A map of this Site, showing Site boundaries, designated work zones, and points of entry and exit is provided in **Figure 2**.

4.2 Site Access

Access to the work areas at the Site is restricted to reduce the potential for exposure to its safety and health hazards. During hours of Site operation, Site entry and exit is authorized only at the points identified in **Figure 2**. Entry and exit at these points is controlled by the following: high visibility orange fencing and hand-driven metal posts or orange cones. Signage will be posted to further identify and delineate work areas.

4.3 Buddy System

While working in the Exclusion Zone, Site workers use the buddy system. The buddy system means that personnel work in pairs and stay in close visual contact to be able to observe one another and summon rapid assistance in case of an emergency. The responsibilities of workers using the buddy system include:

- Remaining in close visual contact with partner;
- Providing partner with assistance as needed or requested;
- Observing partner for signs of heat stress or other difficulties;
- Periodically checking the integrity of partner's PPE; and
- Notifying the Site manager or other Site personnel if emergency assistance is needed.

4.4 Site Communications

The following communication equipment is used to support on-site communication cell phones, walkie-talkies, visual hand signals.

As applicable, hand signals will be used according to the following:

Hand Signals

SIGNAL	MEANING
Hand gripping throat	Out of air, can't breathe
Grip partner's wrist	Leave area immediately
Hands on top of head	Need assistance
Thumbs up	I'm all right, okay
Thumbs down	No, negative

A current list of emergency contact numbers is included in the Site-Specific Emergency Information at the beginning of this HASP.

4.5 Site Work Zones

This Site is divided into three (3) major zones, described below. These zones are characterized by the likely presence or absence of biological, chemical, or physical hazards and the activities performed within them. Zone boundaries are clearly marked at all times and the flow of personnel among the zones is controlled. The Site is monitored for changing conditions that may warrant adjustment of zone boundaries. Zone boundaries are adjusted as necessary to protect personnel and clean areas. Whenever boundaries are adjusted, zone markings are also changed and workers are immediately notified of the change.

Exclusion Zone

The area where contamination exists is the Exclusion Zone (EZ). All areas where excavation and handling of contaminated materials take place are considered part of the EZ. This zone will be clearly delineated by chain link fencing, caution tape, cones or other effective barriers, as necessary. Safety tape may be used as a secondary delineation within the EZ. The zone delineation markings may be opened in areas for varying lengths of time to accommodate equipment operation or specific construction activities. The SHSO may establish more than one EZ where different levels of protection may be employed or where different hazards exist. Personnel are not allowed in the EZ without:

- A buddy (co-worker);
- Required minimum level PPE;
- Medical authorization;
- Training certification; and
- Requirement to be in the zone.

Contamination Reduction Zone

A Contamination Reduction Zone (CRZ) is established between the exclusion zone and the support zone. The CRZ contains the Contamination Reduction Corridor (CRC) and provides an area for decontamination of personnel and equipment. The CRZ will be used for general Site entry and egress in addition to access for heavy equipment and emergency support services. Personnel are not allowed in the CRZ without:

- A buddy (co-worker)
- Appropriate PPE
- Medical authorization
- Training certification
- Requirement to be in the zone

Support Zone

The Support Zone (SZ) is an uncontaminated area that will be the field support area for the Site operations. The SZ will contain the temporary project trailers and provides for field team communications and staging for emergency response. Appropriate sanitary facilities and safety equipment will be located in this zone. Potentially contaminated personnel or materials are not allowed in this zone. The only exception will be appropriately packaged/decontaminated and labeled samples.

5. Job Hazard Evaluation

Roux's work at the Site is expected to entail a variety of physical, chemical, and biological hazards, all of which must be sufficiently managed to allow the work to be performed safely. Some of the hazards are Site-specific (i.e., they are associated with the nature, physical characteristics, and/or routine operation of the Site itself), while others are activity-specific (i.e., they are associated with [or arise from] the particular activity being performed). The various hazards can be grouped into the following categories:

- **Caught/Crushed** – the potential to become caught in, under, between, or by an object or parts of an object, such as equipment with parts that open and close or move up and down ("pinch points") or equipment that rotates, and the accompanying potential to have body parts cut, mangled, or crushed thereby.
- **Contact** – the potential to be struck by or against moving or stationary objects that can cause physical injury, such as heavy machinery, overhead piping, moving vehicles, falling objects, and equipment (including tools and hand-held equipment) or infrastructure with the ability to cut or impale.
- **Energy Sources** – the potential for bodily harm associated with energy sources, most notably electricity, but also including latent energy sources such as compressed air and equipment under tension (which when released could cause injurious contact or a fall).
- **Ergonomics** – the potential for musculoskeletal injury associated with lifting/carrying, pushing/pulling, bending, reaching, and other physical activity attributable to poor body position/mechanics, repetitive motion, and/or vibration.
- **Exposure** – the potential for injury/illness due to physical, chemical, or biological exposures in the work environment, including but not limited to temperature extremes, solar radiation, and noise (physical), chemical splashes and hazardous atmospheres (chemical), and animal/insect bites and poisonous plants (biological).
- **Falls** – the potential to slip or trip and thus fall or drop a load, resulting in bodily injury to oneself or others.

The foregoing is intended to provide Roux employees with a general awareness of the hazards involved with Site work. A more detailed review of the potential hazards associated with each specific activity planned for the Site (or on-going activity, as the case may be) is provided in the activity-specific Job Safety Analysis (JSA) forms in **Appendix A**. As can be seen in the JSA forms, the hazards are identified by category per the above, and specific measures designed to mitigate/manage those hazards are also identified. In preparing the JSA forms, all categories of hazards were considered, and all anticipated potential hazards were identified to the extent possible based on the experience of the personnel preparing and reviewing the JSA forms. However, there is always the possibility for an unanticipated hazard to arise, potentially as condition change over the course of the workday. Roux personnel must maintain a continual awareness of potential hazards in the work zone, regardless of whether the hazard is identified in the JSA form. Particular attention should be paid to hazards associated with exposure to hazardous substances (see **Table 1** for a listing of the hazardous substances most likely to be encountered in environmental media at the Site) and to Site personnel being located "in the line of fire" with respect to moving equipment, pinch points, and latent energy (e.g., being located or having body parts located within the swing radius of an excavator, between two sections of pipe being connected, below a piece of suspended equipment, or adjacent to a compressed air line).

5.1 Hazard Communication and Overall Site Information Program

The information in the JSAs and safety data sheets is made available to all employees and subcontractors who could be affected by it prior to the time they begin their work activities. Modifications to JSAs are communicated during routine pre-work briefings.

The information in the JSAs and Safety Data Sheets (SDSs) is made available to all employees and subcontractors who could be affected by an exposure to the hazards covered in them prior to the time they begin their work activities. Modifications to JSAs are communicated during routine pre-work briefings, and periodically updated as needed in the HASP. SDSs will be maintained by the SHSO/SS for new chemicals brought on-site as needed. Copies of SDSs can be found in **Appendix E**.

5.2 Noise

Noise is associated with the operation of heavy equipment, power tools, pumps, and generators. Noise is also a potential hazard when working near operating equipment such as excavators, drill rigs or pole drivers. High noise (i.e., < 85 dBA) operations may be evaluated by the SHSO utilizing a type 2 handheld sound level meter (SLM) operating on the "A"-weighted scale with slow response because this scale most closely resembles human response to noise and complies with OSHA 29 CFR 1910.95. Hearing protection is required in areas with noise exposure greater than 85 dBA. Double hearing protection (ear plugs and earmuffs) are required in areas where the noise exposure is more than 95 dBA. Noise exposure will be controlled by hearing protection as described above or by maintaining set-backs from high-noise equipment, as warranted. Personnel handling heavy equipment and using power tools that produce noise levels exceeding those described levels above are required by OSHA 29 CFR 1910.95 to wear the appropriate Noise Reduction Rating (NRR) level of hearing protection. Appropriate hearing protection will be evaluated by the SHSO as necessary in consultation with the OHSM and CHSM.

5.3 Biological Hazards

Biological hazards that may potentially be present at a Site, include poisonous plants, insects (ticks, spiders, bees), animals (snakes, dogs), etc. Information on biological hazards can be found within Roux's Biological Hazard Awareness Management Program located within Roux's Corporate Health and Safety Manual. There is also potential for transmission and/or exposure to SARS-CoV-2, the virus that causes COVID-19. Prior to beginning work, on-Site protocols shall be established by the project team, including subcontractors, in accordance with federal, state, county, city, and/or other guidance, as applicable and consistent with **Appendix F**. Government guidance/orders generally consist of implementation of the following protocols/procedures (or some variation thereof):

- Self-monitoring for symptoms;
- Fitness check for work each day;
- Limiting businesses to "essential" operations;
- Social distancing (generally 6 feet);
- Cloth face masks/ coverings;
- Hand washing/ disinfectant use; and
- Care/ awareness of surroundings (public spaces, equipment, hotel rooms, rental cars).

Additional guidance on minimizing potential exposure to SARS-CoV-2, including a JSA, are included in **Appendix F**.

6. Emergency Response Plan

This emergency response plan details actions to be taken in the event of Site emergencies. The PM and SHSO is responsible for the implementation of emergency response procedures onsite. The SHSO/PM provides specific direction for emergency action based upon information available regarding the incident and response capabilities and initiates emergency procedures and notification of appropriate authorities. In the event of an emergency, Site personnel are evacuated and do not participate in emergency response activities, response is facilitated through external emergency services.

6.1 Emergency Response

The SHSO, after investigating the incident and relevant information, shall determine the level of response required for containment, rescue and medical care. Limited on-site emergency response activities could occur therefore the SHSO is responsible for notifying external emergency response agencies. The SHSO provides relevant information to the responding organizations, including but not limited to the hazards associated with the emergency incident, potential containment problems, and missing Site personnel.

6.2 Emergency Alerting and Evacuation

If evacuation notice is given, Site workers leave the worksite, if possible, by way of the nearest exit. Appropriate primary and alternate evacuation routes and assembly areas have been identified and are shown on the Site Plan with Emergency Muster Area (**Figure 2**). The routes and assembly area will be determined by conditions at the time of the evacuation based on wind direction, the location of the hazard source, and other factors as determined by SHSO/PM.

Personnel exiting the Site gather at a designated assembly point. To determine that everyone has successfully exited the Site, personnel will be accounted for at the assembly point. If any worker cannot be accounted for, notification is given to the SHSO, PM, and any arriving response authorities so that appropriate action can be initiated. Subcontractors on this Site have coordinated their emergency response plans to ensure that these plans are compatible and potential emergencies are recognized, alarm systems are clearly understood, and evacuation routes are accessible to all personnel relying upon them.

6.3 Emergency Medical Treatment and First Aid

In the event of a work-related injury or illness, employees are required to follow the procedures outlined below. All work-place injury and illness situations require Roux's Project and Corporate Management Team to be notified when an injury/illness incident occurs, and communication with the contracted Occupational Health Care Management Provider, AllOne Health (AOH), is initiated. The Injury/Illness Notification Flowchart is provided below and within Roux's Incident Investigation and Reporting program included within Roux's Corporate Health and Safety Manual.

If on-Site personnel require any medical treatment, the following steps will be taken:

a. Notify Roux's Project and Corporate Management Team for any work-related injury and/or illness occurrence, and communicate with the contracted Occupational Health Care Management Provider, AOH, immediately following the notifications provided above.

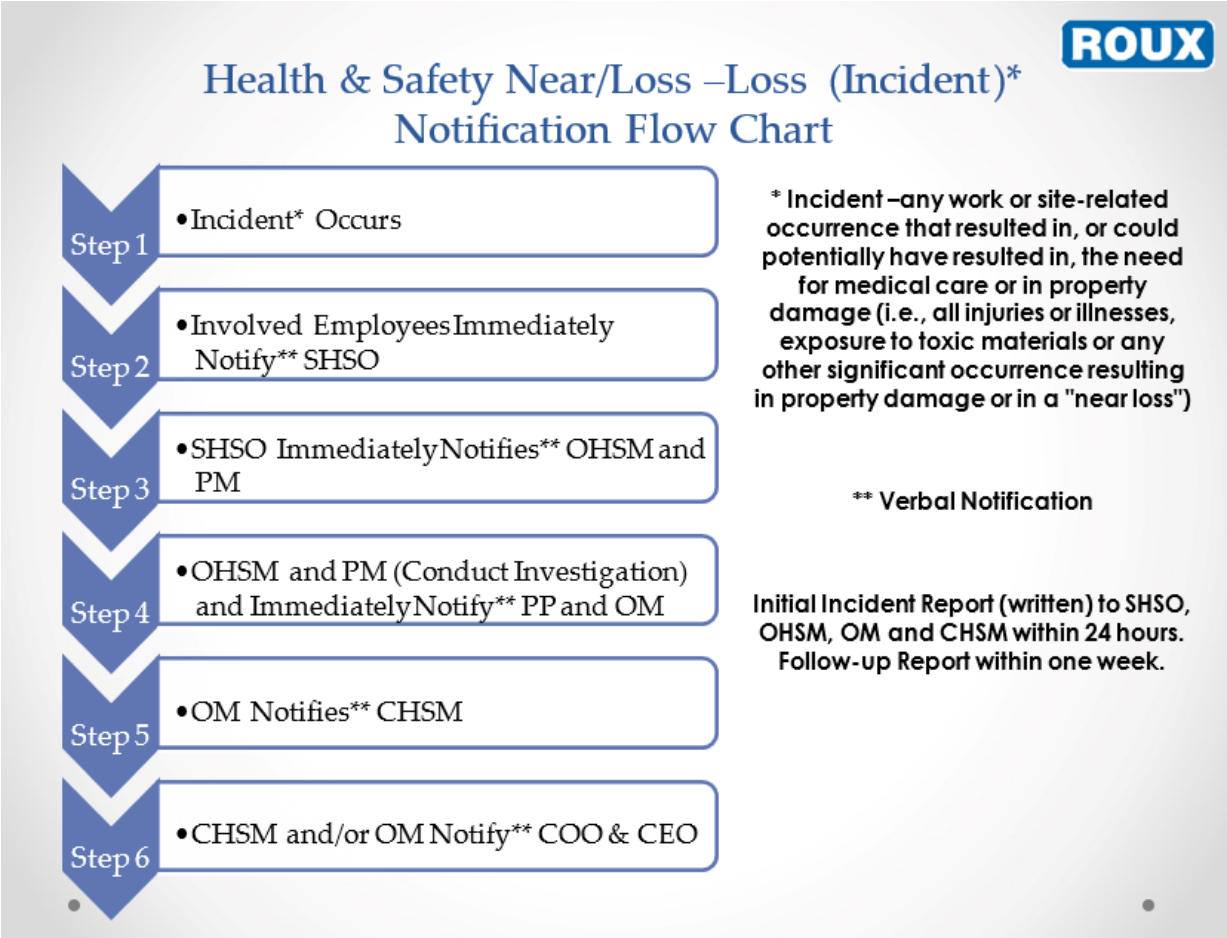
b. Based on discussions with the Project Team, Corporate Management and the AOH evaluation, if medical attention beyond onsite First Aid is warranted, transport the injured / ill person (IP) to the

Urgent Care Center, or notify the Fire Department or Ambulance Emergency service and request an ambulance or transport the victim to the hospital, and continue communications with Corporate Management Team. An Urgent Care/Hospital Route map with location to North Shore LIJ – 101 St. Andrews Lane is included as **Figure 3**.

c. Decontaminate to the extent possible prior to administration of first aid or movement to medical or emergency facilities.

d. First aid medical support will be provided by onsite personnel trained and certified in First Aid, Cardio Pulmonary Resuscitation (CPR), Automatic External Defibrillation (AED), and Blood-Borne Pathogens (BBP) Awareness, until relieved by emergency medical services (EMS).

e. The SHSO and Project Manager will perform a Loss Investigation (LI) and the Project Team will complete the final Loss Report. If a Roux employee is involved in a vehicular incident, the employee must also complete the Acord Automobile Loss Notice.



6.4 Adverse Weather Conditions

In the event of adverse weather conditions, the SHSO or project principal will determine if work can continue without sacrificing the health and safety of all field workers. Some of the items to be considered prior to determining if work should continue are:

- Potential for heat stress and heat-related injuries;
- Potential for cold stress and cold-related injuries;

- Treacherous weather-related conditions;
- Limited visibility; and
- Electrical storm potential.

Site activities will be limited to daylight hours and acceptable weather conditions. Inclement working conditions include heavy rain, fog, high winds, and lightning. Observe daily weather reports and evacuate if necessary in case of inclement weather conditions.

6.5 Electrical Storm Guidelines

In the event that lightning and/or thunder are observed while working onsite, all onsite activities shall stop and personnel shall seek proper shelter (e.g., substantial building, enclosed vehicle, etc.). Work shall not resume until the threat of lighting has subsided and no lightning or thunder has been observed for 30 minutes. If the possibility of lightning is forecast for the day, advise the onsite personnel on the risks and proper procedure at the pre-work safety briefing. Continuously monitor for changing weather conditions and allow enough time to properly stop work if lightning is forecast.

7. Safety Procedures

This section of the HASP presents the specific safety procedures to be implemented during Roux's activities at the Site in order to protect the health and safety of various on-site personnel. Minimum OSHA-mandated procedures are presented first, followed by client- and Site-specific procedures. Lastly, activity-specific procedures are discussed. These Site and activity-specific procedures supplement the general safety procedures included in Roux's Corporate Health and Safety Manual, which also must be followed in their entirely.

7.1 Training

At a minimum, Site personnel who will perform work in areas where there exists the potential for toxic exposure will be health and safety-trained prior to performing work onsite per OSHA 29 CFR 1910.120(e) and 29 CFR 1926.65(e). More specifically, all Roux, subcontractor, and other personnel engaged in sampling and remedial activities at the Site and who are exposed or potentially exposed to hazardous substances, health hazards, or safety hazards must have received at a minimum the 40 hour initial HAZWOPER training consistent with the requirements of 29CFR 1910.120(e)(3)(i) training and a minimum of 3 days' actual field experience under the direct supervision of a trained experienced supervisor, plus 8 hours of refresher training on an annual basis. Depending on tasks performed, less training may be permitted. Evidence of such training must be maintained at the Site at all times. Furthermore, all on-Site management and supervisory personnel directly responsible for or who supervise the employees engaged in Site remedial operations, must have received an additional 8 hours of specialized training at the time of job assignment on topics including, but not limited to, the employer's safety and health program and the associated employee training program, personal protective equipment program, spill containment program, and health hazard monitoring procedure and techniques, plus 8 hours of refresher training on an annual basis.

Roux personnel training records are maintained in a corporate database with records available upon request from either the OHSM/SHSO/CHSM or Human Resources Department.

7.2 Site-Specific Safety Briefings for Visitors

A site-specific briefing is provided to all site visitors who enter this site beyond the site entry point. For visitors, the site-specific briefing provides information about site hazards, the site lay-out including work zones and places of refuge, the emergency alarm system and emergency evacuation procedures, and other pertinent safety and health requirements as appropriate.

7.3 HASP Information and Site-Specific Briefings for Workers

Site personnel review this HASP and are provided a Site-specific tailgate briefing prior to the commencement of work to ensure employees are familiar with this HASP and the information and requirements it contains, as well as the relevant JSAs included in **Appendix A**. Additional briefings are provided as necessary to notify employees of any changes to this HASP as a result of information gathered during on-going Site characterization and analysis of changing conditions. Conditions for which we schedule additional briefings include, but are not limited to: changes in site conditions, changes in the work schedule/plan, newly discovered hazards, and incidents occurring during Site work.

7.4 Medical Surveillance

The medical surveillance section of the Health and Safety Plan describes how worker health status is monitored at this site. Medical surveillance is used when there is the potential for worker exposure to hazardous substance at levels above OSHA permissible exposure limits or other published limits. The purpose of a medical surveillance program is to medically monitor worker health to ensure that personnel are not adversely affected by site hazards. The provisions for medical surveillance at this site are based on the site characterization and job hazard analysis found in Section 4 of this HASP and are consistent with OSHA requirements in 29 CFR 1910.120(f) as applicable.

7.4.1 Site Medical Surveillance Program

Medical surveillance requirements are based on a worker's potential for exposure as determined by the site characterization and job hazard analysis documented in Section 4 and JSAs within **Appendix A** of this HASP and in compliance with the requirements of 29 CFR 1910.120(f)(2). Based on site information and use of direct reading instruments, limited use of respirators (less than 30 days per year), and the absence of an employee-staffed HAZMAT team, a limited medical surveillance program is required and implemented at this site. The medical surveillance program provides that:

1. Workers assigned to tasks requiring the use of respirators receive medical examinations in accordance with 29 CFR 1910.134(e) to ensure they are physically capable to perform the work and use the equipment, and
2. If a worker is injured, becomes ill, or develops signs or symptoms of possible over-exposure to hazardous substance or health hazards, medical examinations are provided to that worker as soon as possible after the occurrence and as required by the attending physician.
3. These medical examinations and procedures are performed by or under the supervision of a licensed physician and are provided to workers free of cost, without loss of pay, and at a reasonable time and place. In addition, the need to implement a more comprehensive medical surveillance program will be re-evaluated after any apparent over-exposure.

7.4.2 Medical Recordkeeping Procedures

Medical recordkeeping procedures are consistent with the requirements of 29 CFR 1910.1020 and are described in the company's overall safety and health program. A copy of that program is available at our Islandia, New York office.

The following items are maintained in worker medical records:

- Respirator fit test and selection;
- Physician's medical opinion of fitness for duty (pre-placement, periodic, termination);
- Physician's medical opinion of fitness for respirator protection (pre-placement, periodic); and
- Exposure monitoring results.

7.4.3 Program Review

The medical program is reviewed to ensure its effectiveness. The Corporate Health and Safety Manager in coordination with the Human Resources Director is responsible for this review. At minimum, this review consists of:

- Review of accident and injury records and medical records to determine whether the causes of accidents and illness were promptly investigated and whether corrective measures were taken wherever possible;
- Evaluation of the appropriateness of required medical tests based on site exposures; and
- Review of emergency treatment procedures and emergency contacts list to ensure they were site-specific, effective, and current.

7.5 Personnel Protection

Site safety and health hazards are eliminated or reduced to the greatest extent possible through engineering controls and work practices. Where hazards are still present, a combination of engineering controls, work practices and PPE are used to protect employees. Appropriate personal protective equipment (PPE) shall be worn by Site personnel when there is a potential exposure to chemical hazards or physical hazards (e.g., falling objects, flying particles, sharp edges, electricity, and noise), as determined by the SHSO. The level of personal protection, type and kind of equipment selected will depend on the hazardous conditions and in some cases cost, availability, compatibility with other equipment, and performance. An accurate assessment of all these factors will be made before work can be safely executed.

Roux maintains a comprehensive written PPE program that addresses proper PPE selection, use, maintenance, storage, fit and inspection. Roux's PPE program can be found within **Appendix G**. PPE to be used at the Site will meet the appropriate American National Standards Institute (ANSI) standards and the following OSHA (General/Construction Industry) standards for minimum PPE requirements.

The minimum level of PPE for entry onto the Site is Level D.

The following equipment shall be worn:

- Work uniform (long pants, sleeved shirt);
- Hard hat;
- Steel or composite toe work boots;
- Safety Glasses (must comply with one of the following ANSI/ISEA Z87.1-2010, ANSI Z87.1-2003, ANSI Z87.1-2003);
- Boot Covers (as needed);
- Hearing protection (as needed);
- High visibility clothing (shirt/vest); and
- Hand protection (e.g., minimum cut resistance meeting ANSI 105-2000 Level 2).

Note that jewelry shall be removed or appropriately secured to prevent it from becoming caught in rotating equipment or unexpectedly snagged on a fixed object (e.g., wrist watches, bracelets, rings, chains and necklaces, open earrings). Do not wear loose clothing and all shoulder-length hair should be tied back.

Site specific PPE ensembles and materials are identified within task specific JSAs located within **Appendix A**, and any upgrades or downgrades of the level of protection (i.e., not specified in the JSA) must be approved by the PP and immediately communicated to all Roux personnel and subcontractors as applicable. PPE is used in accordance with manufacturer's recommendations.

7.5.1 Hearing Conservation

Hearing protection is made available when noise exposures equal or exceed an 8-hour time-weighted average sound level of 85 dBA. Hearing protection is required when the 8-hour time weighted average sound level $\geq$ 90 dBA. Where noise exposure meets or exceeds this level, noise is listed as a physical hazard in the JSA for the tasks/operation, and hearing protection is included as one of the control measures (PPE).

7.6 Monitoring

An air monitoring program is important to the safety of on- and off-Site personnel, and the surrounding area. A preliminary survey, to establish background conditions in the immediate sampling area, may be made prior to the initiation of Site work including, but not limited to, monitoring wind direction (e.g., wind socks) and approximate temperature during all invasive Site activities. This survey will be conducted with the appropriate pre-calibrated air monitoring instrument(s), as warranted by the field activity. Once this survey has been complete, any changes in the type of PPE will be determined and relayed to those working on-Site.

Work zone air monitoring will be performed to verify that the proper level of PPE is used, and to determine if increased protection or work stoppage is required. The following equipment shall be used to monitor conditions:

- A Photoionization Detector (PID) with a lamp energy of 10.6 eV will be used to provide direct readings of organic vapor concentrations during intrusive activities to determine that personnel protection is adequate. Concentrations shall be recorded during intrusive activities with the potential to encounter contaminant vapors.
- A Dust/Particulate Monitor – (DM), MIE Miniram or equivalent.

Personal exposure monitoring utilizing activated charcoal tubes may be considered based on whether or not the area sample results are at or above half of the PEL. The decision to perform the monitoring will be made by, and under the control of, the CHSM.

Below are monitoring action levels for Site-specific chemicals of concern. In the event PID readings above the thresholds identified below are sustained for 5 minutes in the breathing zone, worker protection will require upgrading following notification to the OHSM and applicable parties (e.g., client, board of health, regulators, etc.).

7.6.1 Action Levels for Air Monitoring

PPE can remain at Level D if breathing zone VOC concentrations are less than 5 ppm and benzene is non-detect. Personnel are required to evacuate the Site when breathing zone VOC readings exceed 25 ppm.

The following tables include summaries of the air monitoring, work practices, and action levels for the expected contaminants. The action levels to initiate testing with colorimetric tubes for airborne volatiles is 1 ppm (PID reading) and is based on the Permissible Exposure Limit (PEL) for benzene (1 ppm). The colorimetric tubes are used to confirm the presence or absence of specific constituents, and they do not provide a measured concentration.

Air Monitoring Summary and Action Levels Organic Vapors	
PID Reading in Breathing Zone (ppm)[1]	**Action**
0-1 ppm above background[2]	Continue monitoring
1-5 ppm sustained 60 seconds	Continue monitoring; if applicable initiate additional collection of benzene using colorimetric tubes.
<5 ppm and no presence of benzene	Continue Monitoring, ventilate space
≥ 5 ppm - ≤ 25 ppm and no presence of benzene	Ventilate space until PID reads < 5 ppm. If < 5 ppm cannot be achieved, upgrade to Level C[3].
≥ 25 ppm	Ventilate space and evacuate area.

1 Based on relative response/sensitivity of PID to benzene.
2 Background concentrations should be established at the beginning of each work day. It may be necessary to re-establish background concentrations and ambient conditions vary through the day.
3 Measured air concentrations of known organic vapors will be reduced by the respirator to one half of the PEL or lower, and the individual and combined compound concentrations shall be within the service limit of the respirator cartridge.

Air Monitoring Summary and Action Levels Oxygen	
O_2 Reading in Breathing Zone (%)[1]	**Action**
20.9% O_2	Oxygen level normal
< 19.5% O_2	Oxygen deficient Interrupt task/Evacuate area
>23.5% O_2	Oxygen enriched Interrupt task/Evacuate area

1. Action levels based on USEPA Standard Operating Safety Guides; Table 5-1, Atmospheric Hazard Action Guidelines may be further restricted based on the CHSM's professional judgment and experience.

Air Monitoring Summary and Action Levels Carbon Monoxide	
CO Reading in Breathing Zone (ppm)[1]	**Action**
<25 ppm	Inspect exhaust system for leaks or other sources of CO. Monitor initially and every 15 minutes during use of CO-generating equipment.
25-50 ppm	Ventilate area. Monitor continuously and record measurements. Contact PM.
>50 ppm	Cease Field Operations. Ventilate area.

1. Based upon the American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Value (TLV) of 25 ppm as an 8-hour time weighted average (TWA) and OSHA's Permissible Exposure Limit (PEL) of 50 ppm as an 8-hour TWA concentration.

Air Monitoring Summary and Action Levels Combustible Gases	
Lower Explosive Limit (LEL) Reading	**Action**
< 4% LEL (<2,000 ppm)	Site activities will continue with normal monitoring
4% – 20% LEL (2,000 – 10,000 ppm)	Stop work until levels dissipate to <4% LEL
> 20% LEL (>10,000 ppm)	Potential explosion hazard. Halt all site activities, research source of release, aerate work area, suppress source.

Air Monitoring Summary and Action Levels Hydrogen Sulfide	
Hydrogen Sulfide (H_2S) Reading	**Action**
<10 ppm	Site activities will continue with normal monitoring
>10 ppm	Stop work until levels dissipate to <10 ppm; use mechanical ventilation if possible
Cannot use air purifying respirators for H_2S because of olfactory fatigue	

7.6.2 Air Monitoring Equipment and Calibration

A PID calibrated to an appropriate calibration mixture will be used to detect organic vapors in and around the work areas. Monitoring will be conducted in and around all work areas and at the workers breathing zone before activities commence to establish a background level, then at 15-minute intervals throughout the day. All equipment will be calibrated according to the manufacturer's recommendation. A calibration log will be maintained and will include the name of the person who performed the calibration, the date and time calibrated, and the instrument reading at the time of calibration. A manual bellows pump or equivalent with colorimetric tubes for formaldehyde will be utilized to determine the course of action related to upgrading or downgrading the level of respiratory protection, as applicable.

If air monitoring data indicate safe levels of potentially harmful constituents at consistent intervals (5-minute intervals), then monitoring can be conducted less frequently (every 30 minutes). This determination will be made by the onsite SHSO. Monitoring data, including background readings and calibration records, will be documented. Work to be performed on-Site will conform to Roux's Standard Operating Procedures (SOPs). Conformance with these guidelines as well as the guidelines described in this HASP will aid in mitigating the physical and chemical hazards mentioned throughout this HASP.

7.7 Tailgate Safety Meetings

A designated Site worker will provide daily safety briefings (e.g., tailgate meetings) including, but not limited to, the following scenarios:

- When new operations are to be conducted;
- Whenever changes in work practices must be implemented; and
- When new conditions are identified and/or information becomes available.

Daily safety briefings shall be recorded on the Roux Daily Tailgate Health and Safety Meeting Log/Daily Site Safety Checklist, and all completed forms will become a part of the project file.

7.8 Spill Containment

Spill containment equipment and procedures should, at a minimum, meet the requirements of the facility's Spill Prevention, Control and Countermeasure Plan, if applicable. Otherwise, spill containment equipment and procedures must be considered depending on the task including, but no limited to, chemical/product transfer points and handling.

7.8.1 Initial Spill Notification and Response

Any worker who discovers a hazardous substance spill will immediately notify NYSDEC Emergency Spill Response (800) 457-7362. The worker will, to his/her best ability, report the hazardous substance involved, the location of the spill, the estimated quantity of material spilled, the direction/flow of the spill material, related fire/explosion incidents, and any associated injuries without compromising their own safety.

7.8.2 Spill Evaluation and Response

Christopher Battista is responsible for evaluating spills and determining the appropriate response. When this evaluation is being made, the spill area will be isolated and demarcated to the extent possible. If necessary to protect nearby community members, notification of the appropriate authorities is made by the PM as appropriate. On-Site response is limited to small spills (e.g., <10 gallons); large spills require external emergency responders who will be contacted by the SHSO.

7.9 Decontamination

The decontamination section of the HASP describes how personnel and equipment are decontaminated when they leave the Exclusion Zone. This section also describes how residual waste from decontamination processes is disposed. The site decontamination procedures are designed to achieve an orderly, controlled removal or neutralization of contaminants that may accumulate on personnel or equipment. These procedures minimize worker contact with contaminants and protect against the transfer of contaminants to clean areas of the site and off-site. They also extend the useful life of PPE by reducing the amount of time that contaminants contact and can permeate PPE surfaces. Decontamination is facilitated within the CRZ at this site, if applicable.

7.9.1 Decontamination Procedures for Personnel and PPE

The following are general decontamination procedures established and implemented at this site.

1. Decontamination is required for all workers exiting a contaminated area. Personnel may re-enter the SZ only after undergoing the decontamination procedures described below in the next section.
2. Protective clothing is decontaminated, cleaned, laundered, maintained and/or replaced as needed to ensure its effectiveness.

3. PPE used at this site that requires maintenance or parts replacement is decontaminated prior to repairs, or
4. PPE used at this site is decontaminated or prepared for disposal on the premises. Personnel who handle contaminated equipment have been trained in the proper means to do so to avoid hazardous exposure.
5. This site uses an off-site laundry for decontamination of PPE. The site has informed that facility of the hazards associated with contaminated PPE from this site.
6. The site requires and trains workers that if their permeable clothing is splashed or becomes wetted with a hazardous substance, they will immediately exit the work zone, perform applicable decontamination procedures, shower, and change into uncontaminated clothing.
7. Procedures for disposal of decontamination waste meet applicable local, State, and Federal regulations.

7.9.2 Decontamination Procedures for Equipment

All tools, equipment, and machinery from the EZ or CRZ are decontaminated in the CRZ prior to removal to the SZ. Equipment decontamination procedures are designed to minimize the potential for hazardous skin or inhalation exposure and to avoid cross-contamination and chemical incompatibilities.

General Equipment Decontamination Procedures:

1. Decontamination is required for all equipment exiting a contaminated area. Equipment may re-enter the SZ only after undergoing the equipment decontamination procedures.
2. Vehicles that travel regularly between the contaminated and clean areas of the site are carefully decontaminated each time they exit the EZ and the effectiveness of that decontamination is monitored to reduce the likelihood that contamination will be spread to other parts of the site.
3. Particular attention is given to decontaminating tires, scoops, and other parts of heavy equipment that are directly exposed to contaminants and contaminated soil.

The following items may be used to decontaminate equipment:

- Fresh water rinse;
- Non-phosphorus detergent wash;
- Distilled water rinse;
- Acetone rinse;
- Distilled water rinse; and
- A steam cleaner or pressure washer (heavy equipment only).

7.9.3 Monitoring the Effectiveness of Decontamination Procedures

Visual examination and sampling are used to evaluate the effectiveness of decontamination procedures. Visual examination is used to ensure that procedures are implemented as described and that they appear to control the spread of contaminants under changing site conditions. Visual examination is also used to inspect for signs of residual contamination or for contaminant permeation of PPE.

Personnel who work in contaminated areas of the site, either the Contamination Reduction Zone (CRZ) or the Exclusion Zone, are trained in the principles and practices of decontamination described in this section

of the HASP and in related SOPs. If site procedures are changed as a result of inspection and monitoring, all affected employees are notified of these changes.

7.10 Confined Space Entry

Confined space entry will not be performed at this site.

The following is a list of the safety requirements for confined space entry at the Site:

- **ROUX PERSONNEL ARE NOT AUTHORIZED TO ENTER AN OSHA PERMIT REQUIRED CONFINED SPACE;**
- Currently the scope of work **DOES NOT** require personnel to enter permitted confined space for this project; and
- Any changes to the field activities that may necessitate confined space entry will be reported to the Project Principal and OHSM.

Confined space is defined as any space, depression, or enclosure that:

- Has limited opening for entry and egress;
- Is large enough for and employee to enter and perform assigned work; and
- Is not intended for continuous occupancy.

A permit required confined space is one that meets the definition of a confined space and has one or more of the following characteristics:

- May contain or produce life-threatening atmospheres due to oxygen deficiency the presence of toxic, flammable, or corrosive contaminants;
- Contains a material that has the potential for engulfment;
- Has an internal configuration that may cause an entrant to be trapped or asphyxiated by inwardly converging walls or by a floor that slopes downward and tapers to a smaller cross-section; and
- Contains any other serious safety or health hazards.

Although Roux personnel will not perform confined space entry, it is expected that subcontractors performing cleaning and mitigation and/or remedial measures activities may be required to enter structures that are considered to be a permit required confined space. Permitting of the confined space as well as hazard mitigation for entry will be completed by the subcontractor in accordance with 1910.146.

7.11 Client and Site-Specific

In addition to the OSHA-specific procedures discussed above, there may be client and site-specific safety procedures that must be adhered to during the performance of remedial activities at the Site.

7.12 Unusual or Significant Risks

Field activities that appear to have unusual or significant risks that cannot be adequately managed with existing risk tools such as LPS, HASPs, traffic safety plans, work permits, design and O&M practices, equipment HAZOPS or other safety tools must be referred to the CHSM to help with the assessment and management of the associated potential safety risks. Examples include the use of explosives for demolition, use of firearms to control wildlife, rappelling, demolition over water, diving, etc.

7.13 Activity-Specific Hazards

In addition to the general hazards discussed above, there are activity-specific hazards associated with each work activity planned for the Site. An activity-specific JSA has been completed for each of the activities planned for the Site. JSAs are provided in **Appendix A**. In the event that new work activities or tasks are planned, JSAs will be developed and implemented prior to performing the new activities. In the absence of a JSA, the personnel performing work must prepare a field JSA and receive clearance from a designated competent safety official prior to performing any task with significant risk. In emergency situations where time is critical SPSAs will be utilized to identify the task, associated hazards and mitigative actions to take. For lower risk activities (as deemed by the discretion of a Competent Person) where a JSA is determined to not be needed, the individual(s) conducting the activities must perform SPSAs prior to and during the work.

7.13.1 Electrical and Other Utility Assessment and Accommodations

Roux shall perform a site walk to identify any potential overhead electrical or utility lines. All applicable guidelines will be followed in the vicinity of overhead power and utility lines (see Section 7.13.3 below).

Roux has also reviewed all available Site maps showing buried utility lines to identify potential hazards, which revealed that no underground hazards are known to exist in the vicinity of the areas of the Site pertinent to this HASP.

7.13.2 Subsurface Work

Subsurface work activities will require adherence to Roux's Corporate Subsurface Utility Clearance Management program found within **Appendix H**.

7.13.2.1 Excavations and Trenching

All trenching and excavation work activities contracted by Roux shall comply with 29 CFR 1926.651-652 Subpart P. Additionally, for trenches greater than 4 feet deep, where employees will enter, the trench needs to have a stairway or ladder or other safe means of egress. Where employees will enter trenches greater than 5 feet deep, the trench must have some type of protective system or sloped appropriately to prevent cave-ins.

The SHSO will be present on-Site during all Roux contracted excavation and backfill operations and will supplement health and safety monitoring conducted by Subcontractor air quality screening to ensure that appropriate levels of protection and safety procedures are utilized. The proximity of chemical, water, sewer, and electrical lines will be identified by Roux and/or their subcontractor before any subsurface activity or sampling is attempted.

The following safe work practices will be implemented during this task.

- The proximity of chemical, water, sewer, and electrical lines will be identified by a facility representative prior to beginning any subsurface activity.
- While earthmoving, stay out of the excavator's delineated heavy equipment exclusion zone and away from the excavation sides, where there is potential for cave in (within excavations that are 6 feet or more in depth, a delineated perimeter 6 feet away from the excavated edge is required).

Maximum Allowable Slopes

Soil or Rock Type	Maximum Allowable Slopes (H:V)[1] for Excavations Less Than 20 Feet Deep[3]
Stable Rock	Vertical (90°)
Type A[2]	3/4 : 1 (53°)
Type B	1 : 1 (45°)
Type C	1 1/2 : 1 (34°)

OSHA (29 CFR 1926.652, Subpart P, Appendices A and B)

Notes:

1 Numbers shown in parentheses next to maximum allowable slopes are angles expressed in degrees from the horizontal. Angles have been rounded off.

2 A short-term maximum allowable slope of 1/2H : 1V (63°) is allowed in excavations in Type A soil that are 12 feet (3.67 meters) or less in depth. Short-term maximum allowable slopes for excavations greater than 12 feet (3.67 meters) in depth shall be 3/4H : 1V (53°).

3 Sloping or benching for excavations greater than 20 feet deep shall be designed and stamped by a registered professional engineer.

Proper stockpiling (i.e., 2 feet minimum distance from the excavation edge), containment, transport, storage, and disposal practices will be utilized and is dependent upon the potential type and amount of waste generated during operations. The location of safety equipment and evacuation procedures will be established prior to initiation of operations according to this HASP.

7.13.3 Heavy Equipment

Use of heavy equipment at the Site will require adherence to Roux's Corporate Heavy Equipment Exclusion Zone Management Program found within **Appendix I**. Additionally, operation of the drill rig/other heavy equipment will maintain clearances from overhead power lines in accordance with OSHA 29 CFR1926.1408 Table A Minimum Clearance Distances provided below.

Minimum Required Clearances for Energized Overhead Power Lines

Nominal System Voltage of Power Line (K V)	Minimum Required Clearance (feet)
0-50	10
51-100	12
101-200	15
201-300	20
301-500	25
501-750	35
751-1000	45

1 kilovolt (KV) = 1,000 volts

7.14 Heat Stress

With an average of 20.7 °C / 69.2 °F, July is the warmest month in Glen Cove, New York. In January, the average temperature is -4.9 °C / 23.1 °F. It is the lowest average temperature of the whole year.

7.14.1 Heat Stress

Heat stress is a significant potential hazard and can be associated with heavy physical activity and/or the use of personal protective equipment in hot weather environments. Heat cramps are brought on by prolonged exposure to heat. As an individual sweats, water and salts are lost by the body resulting in painful muscle cramps. The signs and symptoms of heat stress are as follows:

- Severe muscle cramps, usually in the legs and abdomen;
- Exhaustion, often to the point of collapse; and
- Dizziness or periods of faintness.

First aid treatment includes, but is not limited to, shade, rest, and fluid replacement. Typically, the individual should recover within one-half hour while being monitored constantly. If the individual has not improved substantially within 30 minutes and the body temperature has not decreased, the individual should be transported to a hospital for medical attention.

7.14.2 Heat Exhaustion

Heat exhaustion may occur in a healthy individual who has been exposed to excessive heat while working or exercising. The circulatory system of the individual fails as blood collects near the skin to rid the body of excess heat through transference. The signs and symptoms of heat exhaustion are as follows:

- Rapid and shallow breathing;
- Weak pulse;
- Cold and clammy skin with heavy perspiration;
- Skin appears pale;
- Fatigue and weakness;
- Dizziness; and
- Elevated body temperature.

First aid treatment includes, but is not limited to, cooling the victim, elevating the feet, and replacing fluids.

If the individual is not substantially improved within 30 minutes and the body temperature has not decreased, the individual should be transported to the hospital for medical attention.

7.14.3 Heat Stroke

Heat stroke occurs when an individual is exposed to excessive heat and stops sweating. This condition is classified as a MEDICAL EMERGENCY requiring immediate cooling of the victim and transport to a medical facility. The signs and symptoms of heat stroke are as follows:

- Dry, hot red skin;
- Body temperature approaching or above 105 degrees F;
- Confusion, altered mental state, slurred speech;
- Seizures;
- Large (dilated) pupils; and

- Loss of consciousness – the individual may go into a coma.

First aid treatment requires immediate cooling and transportation to a medical facility. Heat stress is a significant hazard if any type of protective equipment (semi-permeable or impermeable) that prevents evaporative cooling when worn in hot weather environments.

7.15 Cold Stress

Cold stress is a danger at low temperatures and when the wind-chill factor is low. Prevention of cold-related illnesses is a function of whole-body protection. Adequate insulating clothing must be used when the air temperature is below 60°F. A work/rest regimen will be initiated when ambient temperatures and protective clothing cause a stressful situation. In addition, reduced work periods followed by rest in a warm area may be necessary in extreme conditions. The signs and symptoms of cold stress include the following:

- Severe shivering;
- Abnormal behavior;
- Slowing;
- Weakness;
- Stumbling or repeated falling;
- Inability to walk;
- Collapse; and/or
- Unconsciousness.

First aid requires removing the victim from the cold environment and seeking medical attention immediately. Also, prevent further body heat loss by covering the victim lightly with blankets. Do not cover the victim's face. If the victim is still conscious, administer hot drinks and encourage activity such as walking, wrapped in a blanket.

8. Field Team Review

Each person performing work at or visiting this site shall sign this section after site-specific training is completed and before being permitted to access the CRZ or Exclusion Zone.

I have read and understand this Site-Specific Health and Safety Plan. I will comply with the provision contained therein.

Site/Project: Powers Chemco Site

Name & Company	Signature	Date

9. Approvals

By their signature, the undersigned certify that this HASP is approved and will be utilized at the Powers Chemco Site.

Ron Lombino – Site Health and Safety Officer	Date
Ron Lombino – Office Health and Safety Manager	Date
Nathan Epler – Project Manager	Date
Nathan Epler – Project Principal	Date

TABLE

1. Toxicological Properties of Hazardous Substances Present at the Site
2. Action Levels for Worker Breathing Zone

Table 1. Toxicological, Physical, and Chemical Properties of Compounds Potentially Present at 71 Charles Street, Glen Cove, New York

Compound	CAS #	ACGIH TLV	NIOSH REL	OSHA PEL	IDLH	Routes of Exposure	Toxic Properties	Target Organs	Physical/Chemical Properties
1,1,1-Trichloroethane	71-55-6	TWA 350 ppm STEL 440 ppm C 440 ppm	C 350 ppm (1900 mg/m^3) [15-minute]	TWA 350 ppm (1900 mg/m^3)	700 ppm	inhalation, ingestion, skin and/or eye contact	Irritation eyes, skin; headache, lassitude (weakness, exhaustion), central nervous system depression, poor equilibrium; dermatitis; cardiac arrhythmias; liver damage	Eyes, skin, central nervous system, cardiovascular system, liver	Colorless liquid with a mild, chloroform-like odor. BP: 165°F UEL: 12.5% LEL: 7.5%
1,1,2-Trichloroethane	79-00-5	TWA 10 ppm	Ca TWA 10 ppm (45 mg/m^3) [skin]	TWA 10 ppm (45 mg/m^3) [skin]	Ca [100 ppm]	inhalation, skin absorption, ingestion, skin and/or eye contact	Irritation eyes, nose; central nervous system depression; liver, kidney damage; dermatitis; [potential occupational carcinogen]	Eyes, respiratory system, central nervous system, liver, kidneys	Colorless liquid with a sweet, chloroform-like odor. BP: 237°F UEL: 15.5% LEL: 6%
1,1-Dichloroethane	75-34-3	TWA 100 ppm	TWA 100 ppm (400 mg/m^3)	TWA 100 ppm (400 mg/m^3)	3000 ppm	inhalation, ingestion, skin and/or eye contact	Irritation skin; central nervous system depression; liver, kidney, lung damage	Skin, liver, kidneys, lungs, central nervous system	Colorless, oily liquid with a chloroform-like odor. BP: 135°F Fl.P: 2°F UEL: 11.4% LEL: 5.4%
1,1-Dichloroethene	75-35-4	TWA 5 ppm	Ca (lowest feasible concentration)	TWA 1ppm	Ca [N.D.]	inhalation, skin absorption, ingestion, skin and/or eye contact	Irritation eyes, skin, throat; dizziness, headache, nausea, dyspnea (breathing difficulty); liver, kidney disturbance; pneumonitis; [potential occupational carcinogen]	Eyes, skin, respiratory system, central nervous system, liver, kidneys	Colorless liquid or gas (above 89°F) with a mild, sweet, chloroform-like odor. BP: 89°F Fl.P: -2°F UEL: 15.5% LEL: 6.5% Class IA Flammable Liquid
1,2,4-Trimethylbenzene	95-63-6	None established	TWA 25 ppm (125mg/m^3)	None established	N.D.	Inhalation; ingestion; skin and/or eye contact	Eye, skin, nose, and throat, resp syst irritation; bronchitis; hypochromic anemia; headache, drowsiness, weakness, dizziness, nausea, incoordination, vomit, confusion; chemical pneumonitis	Eyes, skin, resp sys, CNS, blood	Clear, colorless liquid with a distinctive, aromatic odor BP: 337°F FL.P: 112°F UEL: 6.4% LEL: 0.9% Class II Flammable liquid
1,2,4-Trimethylbenzene	95-63-6	TWA 25 ppm (125 mg/m^3)	TWA 25 ppm (125 mg/m^3)	None established	N.D.	inhalation, ingestion, skin and/or eye contact	Irritation eyes, skin, nose, throat, respiratory system; bronchitis; hypochromic anemia; headache, drowsiness, fatigue, dizziness, nausea, incoordination; vomiting, confusion; chemical pneumonitis (aspiration liquid)	Eyes, skin, respiratory system, central nervous system, blood	Clear, colorless liquid with a distinctive, aromatic odor. BP: 337°F Fl.P: 112°F UEL: 6.4% LEL: 0.9% Class II Flammable Liquid
1,2-Dichlorobenzene	95-50-1	TWA 25 ppm STEL 50 ppm	C 50 ppm (300 mg/m^3)	C 50 ppm (300 mg/m^3)	200 ppm	inhalation, skin absorption, ingestion, skin and/or eye contact	Irritation eyes, nose; liver, kidney damage; skin blisters	Eyes, skin, respiratory system, liver, kidneys	Colorless to pale-yellow liquid with a pleasant, aromatic odor. [herbicide] BP: 357°F Fl.P: 151°F UEL: 9.2% LEL: 2.2% Class IIIA Combustible Liquid
1,2-Dichloroethane	107-06-2	TWA 10 ppm	Ca TWA 1 ppm (4 mg/m^3) STEL 2 ppm (8 mg/m^3)	TWA 50 ppm C 100 ppm 200 ppm [5-minute maximum peak in any 3 hours]	Ca [50 ppm]	inhalation, ingestion, skin absorption, skin and/or eye contact	Irritation eyes, corneal opacity; central nervous system depression; nausea, vomiting; dermatitis; liver, kidney, cardiovascular system damage; [potential occupational carcinogen]	Eyes, skin, kidneys, liver, central nervous system, cardiovascular system	Colorless liquid with a pleasant, chloroform-like odor. [Note: Decomposes slowly, becomes acidic & darkens in color.] BP: 182°F Fl.P: 56°F UEL: 16% LEL: 6.2% Class IB Flammable Liquid
1,2-Dichloroethene (total)	540-59-0	TWA 200 ppm (790 mg/m^3)	TWA 200 ppm (790 mg/m^3)	TWA 200 ppm (790 mg/m^3)	1000 ppm	inhalation, ingestion, skin and/or eye contact	Irritation eyes, respiratory system; central nervous system depression	Eyes, respiratory system, central nervous system	Colorless liquid (usually a mixture of the cis & trans isomers) with a slightly acrid, chloroform-like odor BP: 118-140°F Fl.P: 36-39°F UEL: 12.8% LEL: 5.6% Class IB Flammable Liquid
1,3,5-Trimethylbenzene	108-67-8	None established	TWA 25 ppm (125mg/m^3)	None established	N.D.	Inhalation; ingestion; skin and/or eye contact	Eye, skin, nose, and throat, resp syst irritation; bronchitis; hypochromic anemia; headache, drowsiness, weakness, dizziness, nausea, incoordination, vomit, confusion; chemical pneumonitis	Eyes, skin, resp sys, CNS, blood	Clear, colorless liquid with a distinctive, aromatic odor BP: 329°F FL.P: 122°F Class II Flammable liquid
1,3,5-Trimethylbenzene	108-67-8	TWA 25 ppm (125 mg/m^3)	TWA 25 ppm (125 mg/m^3)	None established	N.D	inhalation, ingestion, skin and/or eye contact	Irritation eyes, skin, nose, throat, respiratory system; bronchitis; hypochromic anemia; headache, drowsiness, lassitude (weakness, exhaustion), dizziness, nausea, incoordination; vomiting, confusion; chemical pneumonitis (aspiration liquid)	Eyes, skin, respiratory system, central nervous system, blood	Clear, colorless liquid with a distinctive, aromatic odor. BP: 329°F Fl.P: 122°F Class II Flammable Liquid
1,4-Dichlorobenzene	106-46-7	TWA 10 ppm	Ca	TWA 75 ppm (450 mg/m^3)	Ca [150 ppm]	inhalation, skin absorption, ingestion, skin and/or eye contact	Eye irritation, swelling periorbital (situated around the eye); profuse rhinitis; headache, anorexia, nausea, vomiting; weight loss, jaundice, cirrhosis; in animals: liver, kidney injury; [potential occupational carcinogen]	Liver, respiratory system, eyes, kidneys, skin	Colorless or white crystalline solid with a mothball-like odor. [insecticide] BP: 345°F Fl.P: 150°F LEL: 2.5% Combustible Solid

Table 1. Toxicological, Physical, and Chemical Properties of Compounds Potentially Present at 71 Charles Street, Glen Cove, New York

Compound	CAS #	ACGIH TLV	NIOSH REL	OSHA PEL	IDLH	Routes of Exposure	Toxic Properties	Target Organs	Physical/Chemical Properties
2,4-Dimethylphenol	105-67-9	None established	None established	None established	None established	inhalation, skin absorption, ingestion, skin and/or eye contact	Irritation eyes, skin, respiratory system, mouth, throat, stomach; dizziness, weakness, fatigue, nausea, headache; systemic damage; moderate to severe eye injury.	Skin, CVS, eyes, CNS	Clear, colorless liquid with a faint ether or chloroform-like odor BP: 178°F
2-Butanone (MEK)	78-93-3	TWA 200 ppm (590 mg/m^3) STEL 300 ppm (885 mg/m^3)	TWA 200 ppm (590 mg/m^3) STEL 300 ppm (885 mg/m^3)	TWA 200 ppm (590 mg/m^3)	3000 ppm	inhalation, ingestion, skin and/or eye contact	Irritation eyes, skin, nose; headache; dizziness; vomiting; dermatitis	Eyes, skin, respiratory system, central nervous system	Colorless liquid with a moderately sharp, fragrant, mint- or acetone-like odor. BP: 175°F Fl.P: 16°F UEL(200°F): 11.4% LEL(200°F): 1.4% Class IB Flammable Liquid
Acenaphthene	83-32-9	None established	None established	None established	None established	inhalation, ingestion, skin and/or eye contact	Irritation eyes, skin, respiratory system	Eyes, skin, respiratory system	Brown solid
Acetone	67-64-1	TWA 500 ppm STEL 50 ppm	TWA 250 ppm (590 mg/m^3)	TWA 1000 ppm (2400 mg/m^3)	2500 ppm [10%LEL]	inhalation, ingestion, skin and/or eye contact	Irritation eyes, nose, throat; headache, dizziness, central nervous system depression; dermatitis	Eyes, skin, respiratory system, central nervous system	Colorless liquid with a fragrant, mint-like odor BP: 133°F Fl.P: 0°F UEL: 12.8% LEL: 2.5% Class IB Flammable Liquid
Anthracene	65996-93-2	TWA 0.2 mg/m^3	Ca TWA 0.1 mg/m^3 (cyclohexane-extractable fraction)	TWA 0.2 mg/m^3 (benzene-soluble fraction)	Ca [80 mg/m^3]	inhalation, skin and/or eye contact	Dermatitis, bronchitis, [potential occupational carcinogen]	respiratory system, skin, bladder, kidneys	Black or dark-brown amorphous residue. Combustible Solids
Antimony	7440-36-0	TWA 0.5 mg/m^3	TWA 0.5 mg/m^3	TWA 0.5 mg/m^3	50 mg/m^3 (as Sb)	inhalation, ingestion, skin and/or eye contact	Irritation eyes, skin, nose, throat, mouth; cough; dizziness; headache; nausea, vomiting, diarrhea; stomach cramps; insomnia; anorexia; unable to smell properly	Eyes, skin, respiratory system, cardiovascular system	Silver-white, lustrous, hard, brittle solid; scale-like crystals; or a dark-gray, lustrous powder. BP: 2975°F
Arsenic (inorganic)	7440-38-2 (metal)	TWA 0.01 mg/m3	Ca C 0.002 mg/m3 [15-min]	TWA 0.010 mg/m3	Ca [5 mg/m3 (as As)]	Inhalation; ingestion; skin absorption; skin and/or eye contact	Ulceration of nasal septum, dermatitis, GI disturbances, peripheral neuropathy, resp irritation, hyperpigmentation of skin, [potential occupational carcinogen]	Liver, kidneys, skin, lungs, lymphatic sys	Metal: sliver-gray or tin-white, brittle, odorless solid BP: sublimes
Asbestos	1332-21-4	TWA 0.1 f/cc	Ca 100,000 fibers/m3	TWA 0.1 fiber/cm3	Ca [IDLH value has not been determined]	Inhalation; ingestion; skin and/or eye contact	Asbestosis (chronic exposure), dyspnea, interstitial fibrosis, restricted pulmonary function, finger clubbing, irritation eyes, [potential occupational carcinogen]	Respiratory system, eyes,	White or greenish (chrysotile), blue (crocidolite), or gray-green (amosite), fibrous, odorless solids. BP: decomposes
Asphalt fumes	8052-42-4	TWA 0.5 mg/m^3(fumes)	Ca C 5 mg/m3 [15 min]	None established	Ca [IDLH value has not been determined]	Skin absorption; inhalation; skin and/or eye contact	Irritation eyes, resp sys	Eyes, respiratory system	Black or dark brown cement-like substance Combustible solid
Barium	7440-39-3	TWA 0.5 mg/m3	None established	TWA 0.5 mg/m3	None established	Inhalation, ingestion, skin contact	Irritation skin, respiratory system, digestive system	Skin, eyes, respiratory system	Yellow white powder BP: 1640 C
Benzene	71-43-2	TWA 0.5 ppm STEL 2.5 ppm	Ca TWA 0.1 ppm STEL 1 ppm	TWA 1 ppm STEL 5 ppm	Ca [500 ppm]	inhalation, skin absorption, ingestion, skin and/or eye contact	Irritation eyes, skin, nose, respiratory system; dizziness; headache, nausea, staggered gait; anorexia, lassitude (weakness, exhaustion); dermatitis; bone marrow depression; [potential occupational carcinogen]	Eyes, skin, respiratory system, blood, central nervous system, bone marrow	Colorless to light yellow liquid with an aromatic odor [Note: Solid below 42 °F] BP: 176°F Fl.Pt = 12°F LEL: 1.2% UEL: 7.8% Class B Flammable liquid
Benzo[a]anthracene	56-55-3	None established	None established	None established	None established	Inhalation; ingestion; skin absorption; skin and/or eye contact	Irritation eyes, skin, respiratory system, CNS	Skin	Pale Yellow crystal, solid BP: 438 C
Benzo[a]pyrene	50-32-8	None established	TWA 0.1 mg/m3	TWA 0.2 mg/m3	None established	Inhalation; ingestion; skin absorption; skin and/or eye contact	POISON. This material is an experimental carcinogen, mutagen, tumorigen, neoplastigen and teratogen. It is a probable carcinogen in humans and a known human mutagen. IARC Group 2A carcinogen. It is believed to cause bladder, skin and lung cancer. Exposure to it may damage the developing foetus. May cause reproductive damage. Skin, respiratory and eye irritant or burns.	Skin, eye, bladder, lung, reproductive	Yellow crystals or powder [found in cigarette smoke, coal tar, fuel exhaust gas and in many other sources] BP: 495 C
Benzo[b]fluoranthene	205-99-2	None established	TWA 0.1 mg/m3	TWA 0.2 mg/m3	None established	Inhalation; ingestion; skin and/or eye contact	No data were identified on the toxicity of benzo[b]fluoranthene to humans. Based on results of studies in animals, IARC concluded that benzo[b]fluoranthene is possibly carcinogenic to humans	Respiratory system, skin, bladder, kidneys	Off-white to tan powder
Benzo[k]fluoranthene	207-08-9	None established	None established	None established	None established	inhalation, skin absorption, ingestion, skin and/or eye contact	Irritation eyes, skin, respiratory tract, gastrointestinal; fatal if swallowed, inhaled, absorbed through the skin; vomiting, nausea, diarrhea	Lungs, respiratory system	Yellow crystals BP: 480 C
Beryllium	7440-41-7 (metal)	TWA 0.002 mg/m^3	Ca C 0.0005 mg/m^3	TWA 0.002 mg/m^3 C 0.005 mg/m^3 (30 minutes) with a maximum peak of 0.025 mg/m^3	Ca [4 mg/m^3 (as Be)]	inhalation, skin and/or eye contact	Berylliosis (chronic exposure): anorexia, weight loss, lassitude (weakness, exhaustion), chest pain, cough, clubbing of fingers, cyanosis, pulmonary insufficiency; irritation eyes; dermatitis; [potential occupational carcinogen]	Eyes, skin, respiratory system	Metal: A hard, brittle, gray-white solid. BP: 4532°F

Table 1. Toxicological, Physical, and Chemical Properties of Compounds Potentially Present at 71 Charles Street, Glen Cove, New York

Compound	CAS #	ACGIH TLV	NIOSH REL	OSHA PEL	IDLH	Routes of Exposure	Toxic Properties	Target Organs	Physical/Chemical Properties
Bis(2-ethylhexyl) phthalate	117-81-7	TWA 5 mg/m^3	TWA 5 mg/m^3 STEL 10 mg/m3 (do not exceed during andy 15-minute work period)	TWA 5 mg/m^3	None established	inhalation, skin and/or eye contact	Irritation eyes, skin, nose, throat; affect the nervous system and liver; damage to male reproductive glands	Eyes, skin, nose, respiratory system, nervous system, reproductive system, liver	Colorless to light colored, thick liquid with slight odor
Butane	106-97-8	TWA 1000 ppm	TWA 800 ppm (1900 mg/m^3)	None established	None established	inhalation, skin and/or eye contact (liquid)	Drowsiness, narcosis, asphyxia; liquid: frostbite	central nervous system	Colorless gas with a gasoline-like or natural gas odor. BP: 31°F UEL: 8.4% LEL: 1.6% Flammable Gas
Cadmium	7440-43-9 (metal)	TWA 0.01 mg/m^3	Ca	TWA 0.005 mg/m^3	Ca [9 mg/m^3 (as Cd)]	inhalation, ingestion	Pulmonary edema, dyspnea (breathing difficulty), cough, chest tightness, substernal (occurring beneath the sternum) pain; headache; chills, muscle aches; nausea, vomiting, diarrhea; anosmia (loss of the sense of smell), emphysema, proteinuria, mild anemia; [potential occupational carcinogen]	respiratory system, kidneys, prostate, blood	Metal: Silver-white, blue-tinged lustrous, odorless solid. BP: 1409°F
Carbon Disulfide	75-15-0	TWA 1 ppm	TWA 1 ppm (3 mg/m^3) STEL 10 ppm (30 mg/m^3) [skin]	TWA 20 ppm C 30 ppm 100 ppm (30-minute maximum peak)	500 ppm	inhalation, skin absorption, ingestion, skin and/or eye contact	Dizziness, headache, poor sleep, lassitude (weakness, exhaustion), anxiety, anorexia, weight loss; psychosis; polyneuropathy; Parkinson-like syndrome; ocular changes; coronary heart disease; gastritis; kidney, liver injury; eye, skin burns; dermatitis; reproductive effects	central nervous system, peripheral nervous system, cardiovascular system, eyes, kidneys, liver, skin, reproductive system	Colorless to faint-yellow liquid with a sweet ether-like odor. BP: 116°F Fl.P: -22°F UEL: 50.0% LEL: 1.3% Class IB Flammable Liquid
Chlorobenzene	108-90-7	TWA 10 ppm	None established	TWA 75 ppm (350 mg/m^3)	1000 ppm	inhalation, ingestion, skin and/or eye contact	Irritation eyes, skin, nose; drowsiness, incoordination; central nervous system depression; in animals: liver, lung, kidney injury	Eyes, skin, respiratory system, central nervous system, liver	Colorless liquid with an almond-like odor BP: 270°F Fl.P: 82°F UEL: 9.6% LEL: 1.3%
Chloroethane	75-00-3	TWA 100ppm	Handle with caution in the workplace	TWA 1000 ppm (2600 mg/m^3)	3800 ppm [10%LEL]	inhalation, skin absorption (liquid), ingestion (liquid), skin and/or eye contact	Incoordination, inebriation; abdominal cramps; cardiac arrhythmias, cardiac arrest; liver, kidney damage	Liver, kidneys, respiratory system, cardiovascular system, central nervous system	Colorless gas or liquid (below 54°F) with a pungent, ether-like odor. BP: 54°F Fl.P: NA (Gas) -58°F (Liquid) UEL: 15.4% LEL: 3.8% Flammable Gas
Chloroform	67-66-3	TWA 10 ppm	Ca STEL 2 ppm (9.78 mg/m^3) [60-minute]	C 50 ppm (240 mg/m^3)	Ca [500 ppm]	inhalation, skin absorption, ingestion, skin and/or eye contact	Irritation eyes, skin; dizziness, mental dullness, nausea, confusion; headache, lassitude (weakness, exhaustion); anesthesia; enlarged liver; [potential occupational carcinogen]	Liver, kidneys, heart, eyes, skin, central nervous system	Colorless liquid with a pleasant odor BP: 143°F
Chromium	7440-47-3	TWA 0.5 mg/m^3 (metal and Cr III compounds) TWA 0.05 mg/m^3 (water-soluble Cr IV compounds) TWA 0.01 mg/m^3 (insoluble Cr IV compounds)	TWA 0.5 mg/m^3	TWA 1 mg/m^3	250 mg/m^3 (as Cr)	inhalation, ingestion, skin and/or eye contact	Irritation eyes, skin; lung fibrosis (histologic)	Eyes, skin, respiratory system	Blue-white to steel-gray, lustrous, brittle, hard, odorless solid. BP: 4788°F
Chrysene; Phenanthrene; Pyrene; Coal tar pitch volatiles	65996-93-2	TWA 0.2 mg/m3	Ca TWA 0.1 mg/m^3 (cyclohexane-extractable fraction)	TWA 0.2 mg/m^3 (benzene-soluble fraction)	Ca [80 mg/m^3]	Inhalation, skin and/or eye contact	Dermatitis, bronchitis, [potential occupational carcinogen]	Respiratory system, skin, bladder, kidneys	Black or dark-brown amorphous residue. Combustible Solids
cis-1,2-Dichloroethene	158-59-2	TWA 200 ppm	TWA 200 ppm	TWA 200 ppm	None established	inhalation, skin absorption, ingestion	Harmful if swallowed, inhaled, or absorbed through skin. Irritant. Narcotic. Suspected carcinogen	Skin	Colorless liquid BP: 60 C Fl.P: 4 C UEL: 12.8% LEL: 9.7 %
Copper	7440-50-8	TWA 0.2mg/m^3 (fume) 1 mg/m^3 (dusts and mists)	TWA 1 mg/m^3	TWA 1 mg/m^3	100 mg/m^3 (as Cu)	Inhalation, ingestion, skin and/or eye contact	Irritation eyes, respiratory system; cough, dyspnea (breathing difficulty), wheezing	Eyes, skin, respiratory system, liver, kidneys (increase(d) risk with Wilson's disease)	Noncombustible Solid in bulk form, but powdered form may ignite. BP: 4703°F
Dibenzo[a,h]anthracene	53-70-3	None established	None established	None established	None established	Inhalation, ingestion, skin and/or eye contact	Irritation eyes, skin	Eyes, skin; skin photosensitization.	Colorless crystalline powder BP: 524°C
Diesel Fuel #2	68476-34-6	None established	None established	Designated as an OSHA Select Carcinogen	None established	ingestion, skin and/or eye contact	Kidney damage; potential lung damage; suspected carcinogen; irritation of eyes, skin, respiratory tract; dizziness, headache, nausea; chemical pneumonitis (from aspiration of liquid); dry, red skin; irritant contact dermatitis; eye redness, pain.	Eyes, skin, kidneys	Clear yellow brown combustible liquid; floats on water; distinct diesel petroleum hydrocarbon odor. BP: 356-716°F Fl.P: 154.4-165.2°F LEL: 0.6% UEL: 7.0%
Ethylbenzene	100-41-4	TWA 100 ppm STEL 125 ppm	TWA 100 ppm (435 mg/m^3) STEL 125 ppm (545 mg/m^3)	TWA 100 ppm (435 mg/m^3)	800 ppm [10%LEL]	inhalation, ingestion, skin and/or eye contact	Irritation eyes, skin, mucous membrane; headache; dermatitis; narcosis, coma	Eyes, skin, respiratory system, central nervous system	Colorless liquid with an aromatic odor. BP: 277°F Fl.P: 55°F UEL: 6.7% LEL: 0.8% Class IB Flammable Liquid
Fluoranthene	206-44-0	None established	None established	None established	None established	inhalation, skin absorption, ingestion, skin and/or eye contact	Irritation eyes, skin; possible burns; heart and liver injury, pulmonary edema, respiratory arrest, gastrointestinal disturbances.	Heart, liver, lungs.	Yellow needles.
Fluorene	86-73-7	None established	None established	None established	None established	inhalation, ingestion, skin and/or eye contact	Irritation skin, digestive tract	Skin	White crystals BP: 563°F

Table 1. Toxicological, Physical, and Chemical Properties of Compounds Potentially Present at 71 Charles Street, Glen Cove, New York

Compound	CAS #	ACGIH TLV	NIOSH REL	OSHA PEL	IDLH	Routes of Exposure	Toxic Properties	Target Organs	Physical/Chemical Properties
Fuel Oil #2	68476-30-2	TWA 100mg/m^3 (aerosol and vapor, as total hydrocarbons)	None established	None established	None established	inhalation, skin absorption, ingestion, skin and/or eye contact	Irritation eyes, skin; CNS effects; nausea, vomiting, headache, cramping, dizziness, weakness, loss of coordination,, drowsiness; kidney, liver damage	Eyes, skin, CNS	Clear or yellow to red oily liquid, kerosene-like odor BP: 347 - 689 °F UEL:5-6% LEL: 0.7-1.0%
Gasoline	8006-61-9	TWA 300 ppm STEL 500 ppm	Carcinogen	None established	Ca [IDLH value has not been determined]	Skin absorption; inhalation; ingestion; skin and/or eye contact	Eyes and skin irritation, mucous membrane; dermatitis; headache; listlessness, blurred vision, dizziness, slurred speech, confusion, convulsions; chemical pneumonitis; possible liver, kidney damage [Potential occupational carcinogen]	Eyes, skin, respiratory system, CNS, Liver, Kidneys	Clear liquid with a characteristic odor, aromatic Fl.Pt = -45°F LEL = 1.4% UEL = 7.6% Classs 1B Flammable Liquid
Hexachlorobutadiene	87-68-3	TWA 0.02 ppm	Ca TWA 0.02 ppm (0.24 mg/m^3) [skin]	None established	Ca [N.D.]	inhalation, skin absorption, ingestion, skin and/or eye contact	In animals: irritation eyes, skin, respiratory system; kidney damage; [potential occupational carcinogen]	Eyes, skin, respiratory system, kidneys	Clear, colorless liquid with a mild, turpentine-like odor. BP: 419°F
Hydrogen Sulfide	7783-06-4	TWA (10 ppm) STEL (15 ppm) (adopted values for which changes are proposed in the NIC)	C 10 ppm (15 mg/m^3) [10-minute]	C 20 ppm 50 ppm [10-minute maximum peak]	100 ppm	inhalation, skin and/or eye contact	Irritation eyes, respiratory system; apnea, coma, convulsions; conjunctivitis, eye pain, lacrimation (discharge of tears), photophobia (abnormal visual intolerance to light), corneal vesiculation; dizziness, headache, lassitude (weakness, exhaustion), irritability, insomnia; gastrointestinal disturbance; liquid: frostbite	Eyes, respiratory system, central nervous system	Colorless gas with a strong odor of rotten eggs. BP: -77°F UEL: 44.0% LEL: 4.0% Flammable Gas
Indeno[1,2,3-cd]pyrene	193-39-5	None established	None established	None established	None established	inhalation, skin absorption, ingestion, skin and/or eye contact	Irritation eyes, skin; possible human carcinogen (skin); weakness; affect liver, lung tissue, renal tissue; impariment of blood forming tissue	Skin	Fluorescent green-yellow crystalline solid BP: 536 C
Indeno[1,2,3-cd]pyrene	193-39-5	None established	None established	None established	None established	inhalation, skin absorption, ingestion, skin and/or eye contact	Irritation eyes, skin; possible human carcinogen (skin); weakness; affect liver, lung tissue, renal tissue; impariment of blood forming tissue	Skin	Yellowish crystal solid BP: 536 C
Isopropylbenzene	98-82-8	TWA 50 ppm	TWA 50 ppm (245 mg/m^3) [skin]	TWA 50 ppm (245 mg/m^3) [skin]	900 ppm [10%LEL]	inhalation, skin absorption, ingestion, skin and/or eye contact	Irritation eyes, skin, mucous membrane; dermatitis; headache, narcosis, coma	Eyes, skin, respiratory system, central nervous system	Colorless liquid with a sharp, penetrating, aromatic odor. BP: 306°F Fl.P: 96°F UEL: 6.5% LEL: 0.9%
Kerosene	8008-20-6	TWA 200 mg/m^3	TWA 100 mg/m^3	None established	IDLH value has not been determined	inhalation, ingestion, skin and/or eye contact	Irritation eyes, skin, nose, throat; burning sensation in chest; headache, nausea, lassitude (weakness, exhaustion), restlessness, incoordination, confusion, drowsiness; vomiting, diarrhea; dermatitis; chemical pneumonitis (aspiration liquid)	Eyes, skin, respiratory system, central nervous system	Colorless to yellowish, oily liquid with a strong, characteristic odor. BP: 347-617°F Fl.P: 100-162°F UEL: 5% LEL: 0.7% Class II Combustible Liquid
Lead	7439-92-1	TWA 0.05 mg/m^3	TWA (8-hour) 0.050 mg/m^3	TWA 0.050 mg/m^3	100 mg/m^3 (as Pb)	inhalation, ingestion, skin and/or eye contact	Lassitude (weakness, exhaustion), insomnia; facial pallor; anorexia, weight loss, malnutrition; constipation, abdominal pain, colic; anemia; gingival lead line; tremor; paralysis wrist, ankles; encephalopathy; kidney disease; irritation eyes; hypertension	Eyes, gastrointestinal tract, central nervous system, kidneys, blood, gingival tissue	A heavy, ductile, soft, gray solid. BP: 3164°F Noncombustible Solid in bulk form
Manganese	7439-96-5 (metal)	TWA 0.2 mg/m^3	TWA 1 mg/m^3 STEL 3 mg/m^3	C 5 mg/m^3	500 mg/m^3 (as Mn)	inhalation, ingestion	Manganism; asthenia, insomnia, mental confusion; metal fume fever: dry throat, cough, chest tightness, dyspnea (breathing difficulty), rales, flu-like fever; low-back pain; vomiting; malaise (vague feeling of discomfort); lassitude (weakness, exhaustion); kidney damage	respiratory system, central nervous system, blood, kidneys	A lustrous, brittle, silvery solid. BP: 3564°F
Mercury (organo) alkyl compounds (as Hg)	7439-97-6	TWA 0.01 mg/m^3 STEL 0.03 mg/m^3 [skin]	TWA 0.01 mg/m^3 STEL 0.03 mg/m^3 [skin]	TWA 0.01 mg/m^3 C 0.04 mg/m^3	2 mg/m^3 (as Hg)	inhalation, skin absorption, ingestion, skin and/or eye contact	Paresthesia; ataxia, dysarthria; vision, hearing disturbance; spasticity, jerking limbs; dizziness; salivation; lacrimation (discharge of tears); nausea, vomiting, diarrhea, constipation; skin burns; emotional disturbance; kidney injury; possible teratogenic effects	Eyes, skin, central nervous system, peripheral nervous system, kidneys	Appearance and odor vary depending upon the specific (organo) alkyl mercury compound
Mercury compounds [except (organo) alkyls] (as Hg) Mercury	7439-97-6	TWA 0.025 mg/m^3 (elemental and inorganic forms)	Hg Vapor: TWA 0.05 mg/m^3 [skin] Other: C 0.1 mg/m3 [skin]	TWA 0.1 mg/m^3	10 mg/m^3 (as Hg)	inhalation, skin absorption, ingestion, skin and/or eye contact	Irritation eyes, skin; cough, chest pain, dyspnea (breathing difficulty), bronchitis, pneumonitis; tremor, insomnia, irritability, indecision, headache, lassitude (weakness, exhaustion); stomatitis, salivation; gastrointestinal disturbance, anorexia, weight loss; proteinuria	Eyes, skin, respiratory system, central nervous system, kidneys	Metal: Silver-white, heavy, odorless liquid. [Note: "Other" Hg compounds include all inorganic & aryl Hg compounds except (organo) alkyls.] BP: 674°F
Methyl tert-butyl ether (MTBE)	1634-04-4	TWA 50 ppm	No established REL	None established	None established	inhalation, skin absorption, ingestion, skin and/or eye contact	Irritation eyes, mucous membrane, respiratory; dizziness, nausea, headache, intoxication	Eyes, skin, mucous membrane, respiratory system, central nervous system	Colorless liquid BP: 55.2 C
Methylene Chloride	75-09-2	TWA 50 ppm, A3 - suspected human carcinogen	Ca	TWA 25 ppm STEL 125 ppm	Ca [2300 ppm]	inhalation, skin absorption, ingestion, skin and/or eye contact	Irritation eyes, skin; lassitude (weakness, exhaustion), drowsiness, dizziness; numbness, tingle limbs; nausea; [potential occupational carcinogen]	Eyes, skin, cardiovascular system, central nervous system	Colorless liquid with a chloroform-like odor BP: 104°F UEL: 23% LEL: 13%
Naphtha (coal tar)	8030-30-6	None established	TWA 100 ppm (400 mg/m^3)	TWA 100 ppm (400 mg/m^3)	1000 ppm [10%LEL]	inhalation, ingestion, skin and/or eye contact	Irritation eyes, skin, nose; dizziness, drowsiness; dermatitis; in animals: liver, kidney damage	Eyes, skin, respiratory system, central nervous system, liver, kidneys	Reddish-brown, mobile liquid with an aromatic odor BP: 320-428°F Fl.P: 100-109°F Class II Combustible Liquid

Table 1. Toxicological, Physical, and Chemical Properties of Compounds Potentially Present at 71 Charles Street, Glen Cove, New York

Compound	CAS #	ACGIH TLV	NIOSH REL	OSHA PEL	IDLH	Routes of Exposure	Toxic Properties	Target Organs	Physical/Chemical Properties
Naphthalene	91-20-3	TWA 10 ppm STEL 15 ppm	TWA 10 ppm (50 mg/m^3) STEL 15 ppm (75 mg/m^3)	TWA 10 ppm (50 mg/m^3)	250 ppm	inhalation, skin absorption, ingestion, skin and/or eye contact	Irritation eyes; headache, confusion, excitement, malaise (vague feeling of discomfort); nausea, vomiting, abdominal pain; irritation bladder; profuse sweating; jaundice; hematuria (blood in the urine), renal shutdown; dermatitis, optical neuritis, corneal damage	Eyes, skin, blood, liver, kidneys, central nervous system	Colorless to brown solid with an odor of mothballs. BP: 424°F Fl.P: 174°F UEL: 5.9% LEL: 0.9%
n-Butylbenzene	104-51-8	None established	None established	None established	None established	inhalation, skin absorption, ingestion, skin and/or eye contact	Irritation eyes, skin; CNS depression, lung damage; nausea, vomiting, headache, dizziness, weakness, loss of coordination, blured vision, drowsiness, confusion, disorientation	Eyes, skin,repiratory system, central nervous system	Colorless liquid with a sweet odor BP: 183 C Fl.P: 59 C UEL: 5.8% LEL: 0.8%
Nickel	7440-02-0 (Metal)	TWA 1.5 mg/m^3 (elemental) TWA 0.1 mg/m^3 (soluble inorganic compounds) TWA 0.2 mg/m^3 (insoluble inorganic compounds) TWA 0.1 mg/m^3 (Nickle subsulfide)	Ca TWA 0.015 mg/m^3	TWA 1 mg/m^3	Ca [10 mg/m^3 (as Ni)]	inhalation, ingestion, skin and/or eye contact	Sensitization dermatitis, allergic asthma, pneumonitis; [potential occupational carcinogen]	Nasal cavities, lungs, skin	Metal: Lustrous, silvery, odorless solid. BP: 5139°F
Nitrobenzene	98-95-3	TWA 1 ppm	TWA 1 ppm (5 mg/m^3) [skin]	TWA 1 ppm (5 mg/m^3) [skin]	200 ppm	inhalation, skin absorption, ingestion, skin and/or eye contact	Irritation eyes, skin; anoxia; dermatitis; anemia; methemoglobinemia; in animals: liver, kidney damage; testicular effects	Eyes, skin, blood, liver, kidneys, cardiovascular system, reproductive system	Yellow, oily liquid with a pungent odor like paste shoe polish. BP: 411°F Fl.P: 190°F LEL(200°F): 1.8%
n-Propylbenzene	103-65-1	None established	None established	None established	None established	inhalation, ingestion, skin and/or eye contact	Harmful if swallowed, Irritation eyes, skin, digestive tract, respiratory tract, central nervous system	Eyes, skin, central nervous system, respiratory system	colorless or light yellow liquid BP: 159 C Fl.P: 47 C UEL: 6% LEL: 0.8%
Petroleum hydrocarbons(Petroleum distillates)	8002-05-9	None established	TWA 350 mg/m^3 C 1800 mg/m^3 [15 min]	TWA 500 ppm (2000 mg/m^3)	1,100 [10% LEL]	Inhalation; ingestion; skin and/or eye contact	Irritation eyes, skin, nose, throat; dizziness, drowsiness, headache, nausea; dried/cracked skin; chemical pneumonitis	CNS, eyes, respiratory system, skin	Colorless liquid with a gasoline or kerosene-like odor BP: 86-460°F Fl. Pt = -40 to -86°F UEL: 5.9% LEL: 1.1% Flammable liquid
Phenol	108-95-2	TWA 5 ppm	TWA 5 ppm (19 mg/m^3) C 15.6 ppm (60 mg/m^3) [15-minute] [skin]	TWA 5 ppm (19 mg/m^3) [skin]	250 ppm	inhalation, skin absorption, ingestion, skin and/or eye contact	Irritation eyes, nose, throat; anorexia, weight loss; lassitude (weakness, exhaustion), muscle ache, pain; dark urine; cyanosis; liver, kidney damage; skin burns; dermatitis; ochronosis; tremor, convulsions, twitching	Eyes, skin, respiratory system, liver, kidneys	Colorless to light-pink, crystalline solid with a sweet, acrid odor. BP: 359°F UEL: 8.6% LEL: 1.8%
p-Isopropyltoluene	99-87-6	None established	None established	None established	None established	inhalation, skin absorption, eye contact	Irritation skin	CNS, skin	Colorless, clear liquid, sweetish aromatic odor BP: 350.8°F Class III Flammable liquid
sec-Butylbenzene	135-98-8	None established	None established	None established	None established	inhalation, skin absorption, ingestion, skin and/or eye contact	Irritation eyes, skin, upper airway; central nervous system, headache, dizziness; gastrointestinal disturbance	Respiratory system, central nervous system, eyes, skin;	Colorless liquid BP: 344°F Fl.P: 126 °F UEL: 6.9% LEL: 0.8% Combustible liquid
Selenium	7782-49-2	TWA 0.2 mg/m^3	TWA 0.2 mg/m^3	TWA 0.2 mg/m^3	1 mg/m^3 (as Se)	inhalation, ingestion, skin and/or eye contact	Irritation eyes, skin, nose, throat; visual disturbance; headache; chills, fever; dyspnea (breathing difficulty), bronchitis; metallic taste, garlic breath, gastrointestinal disturbance; dermatitis; eye, skin burns; in animals: anemia; liver necrosis, cirrhosis; kidney, spleen damage	Eyes, skin, respiratory system, liver, kidneys, blood, spleen	Amorphous or crystalline, red to gray solid. [Note: Occurs as an impurity in most sulfide ores.] BP: 1265°F
Silver	7440-22-4 (metal)	TWA 0.1 mg/m^3 (metal, dust, fumes) TWA 0.01 mg/m^3 (Soluble compounds, as Ag)	TWA 0.01 mg/m^3	TWA 0.01 mg/m^3	10 mg/m^3 (as Ag)	inhalation, ingestion, skin and/or eye contact	Blue-gray eyes, nasal septum, throat, skin; irritation, ulceration skin; gastrointestinal disturbance	Nasal septum, skin, eyes	Metal: White, lustrous solid BP: 3632°F
Slop Oil	69029-75-0	None established	None established	None established	None established	Inhalation; ingestion	Irritation eyes, skin, gastrointestinal tract	Eyes, skin, gastrointestinal tract	Clear light to dark amber liquid, with mild hydrocarbon odor. BP: >500°F Fl.P : 250°F

Table 1. Toxicological, Physical, and Chemical Properties of Compounds Potentially Present at 71 Charles Street, Glen Cove, New York

Compound	CAS #	ACGIH TLV	NIOSH REL	OSHA PEL	IDLH	Routes of Exposure	Toxic Properties	Target Organs	Physical/Chemical Properties
Sulfuric Acid	7664-93-9	TWA 0.2 mg/m^3	TWA 1 mg/m^3	TWA 1 mg/m^3	15 mg/m^3	inhalation, ingestion, skin and/or eye contact	Irritation eyes, skin, nose, throat; pulmonary edema, bronchitis; emphysema; conjunctivitis; stomatis; dental erosion; eye, skin burns; dermatitis	Eyes, skin, respiratory system, teeth	Colorless to dark-brown, oily, odorless liquid. BP: 554°F Noncombustible Liquid
tert-Butylbenzene	98-06-6	None established	None established	None established	None established	inhalation, skin absorption, ingestion,	Eye and respiratory irritant; CNS depression; liver or kidney damage	Respiratory system, central nervous system, eyes, liver, kidney	Colorless liquid with an aromatic odor BP: 168 - 169 C Fl.P: 34 C UEL:5.6 % LEL: 0.8 %
Tetrachloroethene	127-18-4	TWA 25 ppm STEL 100 ppm (STEL) listed as A3, animal carcinogen	Ca Minimize workplace exposure concentrations	TWA 100 ppm C 200 ppm (for 5 minutes in any 3-hour period), with a maximum peak of 300 ppm	Ca [150 ppm]	inhalation, skin absorption, ingestion, skin and/or eye contact	Irritation eyes, skin, nose, throat, respiratory system; nausea; flush face, neck; dizziness, incoordination; headache, drowsiness; skin erythema (skin redness); liver damage; [potential occupational carcinogen]	Eyes, skin, respiratory system, liver, kidneys, central nervous system	Colorless liquid with a mild, chloroform-like odor. BP: 250°F Noncombustible Liquid
Toluene	108-88-3	TWA 20 ppm	TWA 100 ppm (375 mg/m^3) STEL 150 ppm (560 mg/m^3)	TWA 200 ppm C 300 ppm 500 ppm (10-minute maximum peak)	500 ppm	inhalation, skin absorption, ingestion, skin and/or eye contact	Irritation eyes, nose; lassitude (weakness, exhaustion), confusion, euphoria, dizziness, headache; dilated pupils, lacrimation (discharge of tears); anxiety, muscle fatigue, insomnia; paresthesia; dermatitis; liver, kidney damage	Eyes, skin, respiratory system, central nervous system, liver, kidneys	Colorless liquid with a sweet, pungent, benzene-like odor. BP: 232°F Fl.P: 40°F UEL: 7.1% LEL: 1.1% Class IB Flammable Liquid
trans-1,2-Dichloroethene	156-60-5	TWA 200 ppm	None established	TWA 200 ppm STEL 250 ppm (skin)	None established	inhalation, skin absorption, ingestion, skin and/or eye contact	Narcotic. Irritation eyes, skin, respiratory tract, mucous membrane; CNS depression.	Respiratory tract, mucous membrane, eyes, skin, CNS	Colorless liquid with a fruity pleasant odor BP: 48°C Fl.P 6C UEL: 12.8% LEL: 9.7%
Trichloroethene	79-01-6	TWA 10 ppm STEL 25 ppm	Ca	TWA 100 ppm C 200 ppm 300 ppm (5-minute maximum peak in any 2 hours)	Ca [1000 ppm]	inhalation, skin absorption, ingestion, skin and/or eye contact	Irritation eyes, skin; headache, visual disturbance, lassitude (weakness, exhaustion), dizziness, tremor, drowsiness, nausea, vomiting; dermatitis; cardiac arrhythmias, paresthesia; liver injury; [potential occupational carcinogen]	Eyes, skin, respiratory system, heart, liver, kidneys, central nervous system	Colorless liquid (unless dyed blue) with a chloroform-like odor. BP: 189°F UEL(77°F): 10.5% LEL(77°F): 8%
Vinyl Chloride	75-01-4	TWA 1 ppm	Carcinogen	TWA 1 ppm C 5 ppm [15-minute]	Ca [IDLH value has not been determined]	inhalation, skin, and/or eye contact (liquid)	Lassitude (weakness, exhaustion); abdominal pain, gastrointestinal bleeding; enlarged liver; pallor or cyanosis of extremities; liquid: frostbite; [potential occupational carcinogen]	Liver, central nervous system, blood, respiratory system, lymphatic system	Colorless gas or liquid (below 7°F) with a pleasant odor at high concentrations. BP: 7°F UEL: 33.0% LEL: 3.6% Flammable Gas
Xylene (m, o & p isomers)	108-38-3, 95-47-6, 106-42-3	TWA 100 ppm (435 mg/m^3) STEL 150 ppm	TWA 100 ppm (435 mg/m^3)	TWA 100 ppm (435 mg/m^3)	900 ppm	Skin absorption, inhalation, ingestion, skin, and/or eye contact	Irritation eyes, skin, nose, throat; dizziness, excitement, drowsiness, incoordination, staggering gait; corneal vacuolization; anorexia, nausea, vomiting, abdominal pain; dermatitis	Eyes, skin, respiratory system, central nervous system, gastrointestinal tract, blood, liver, kidneys	Colorless liquid with an aromatic odor BP: 282°F, 292°F, 281°F Fl. Pt. 82°F, 90°F, 81°F LEL: 1.1%, 0.9%, 1.1% UEL: 7.0%, 6.7%, 7.0% Classs C Flammable Liquid
Zinc	7440-66-6	TWA 10 mg/m3 (Inhalable fraction)	None established	TWA 10 mg/m3 (for zinc oxide fume)	None established	skin and/or eye contact, inhalation, ingestion	Irritation eyes, skin, respiratory tract; gastrointestinal disturbances	Eyes, skin, respiratory system	Bluish gray solid BP: 1664.6°F Flammable

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NIOSH Pocket Guide to Chemical Hazards. 2005. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health

Abbreviations:

ACGIH – American Conference of Governmental Industrial Hygienists.
BP – boiling point at 1 atmosphere, °F
C – Ceiling, is a concentration that should not be exceeded during and part of the working exposure.
Ca - considered by NIOSH to be a potential occupational carcinogen
CAS# Chemical Abstracts Service registry number which is unique for each chemical.
Fl. Pt. – Flash point

IDLH - Immediately Dangerous to Life and Health concentrations represent the maximum concentration from which, in the event of respirator failure, one could escape within 30 minutes without a respirator and without experiencing any escape-impairing or irreversible health effects.
LEL – Lower explosive (flammable) limit in air, % by volume (at room temperature)
mg/m^3 – Milligrams of substance per cubic meter of air
NIOSH -National Institute for Occupational Safety and Health.
OSHA – Occupational Safety and Health Administration
PEL - OSHA Permissible Exposure Limit (usually) a time weighted average concentration that must not be exceeded during any 8 hour work shift of a 40 hr work week.
ppm – parts per million
REL – NIOSH Recommended Limit indicated a time weighted average concentration that must not be exceeded during any 10 hour work shift of a 40 hr work week
STEL – Short-term exposure limit
TLV -ACGIH Threshold Limit Values (usually 8 hour time weighted average concentrations).
TWA – 8-hour, time-weighted average
UEL – Upper explosive (flammable) limit in air, % by volume (at room temperature)

TABLE 2

ACTION LEVELS FOR WORKER BREATHING ZONE

Instrument	Action Level *	Level of Respiratory Protection/Action
PID	0 to <5 ppm (one minute sustained)	Level D *
PID	>5 to <50 ppm (one minute sustained)	Utilize APR (Level C)
PID	>50 to <100 ppm (one minute sustained)	Level B
PID	>100ppm	Stop work** (ventilate, apply foam)
CGI/H_2S Meter	<5%	Level D
CGI/H_2S Meter	>5% to <25%	Level B
CGI/H_2S Meter	>25%	Stop work**
CGI/CO Meter	>25%	Level B
CGI/CO Meter	>50%	Stop work** (ventilate area)
CGI/O_2 Meter	<10% LEL, in excavation	Level D
	19.5% oxygen – 23.5%	Level D
CGI/O_2 Meter	>10% LEL, in excavation	Allow to vent, apply foam**
	>23.5% oxygen	Stop work, Oxygen Enriched ATM**
Dust Monitor	0 – 1.0 mg/m^3, 5-minutes average	Level D
Dust Monitor	>1.0 to 5.0 mg/m^3, 5-minutes average	Level D – Institute dust suppression measures
Dust Monitor	5.0 to >50 mg/m^3, 5-minute average	Level C – Institute dust suppression measures

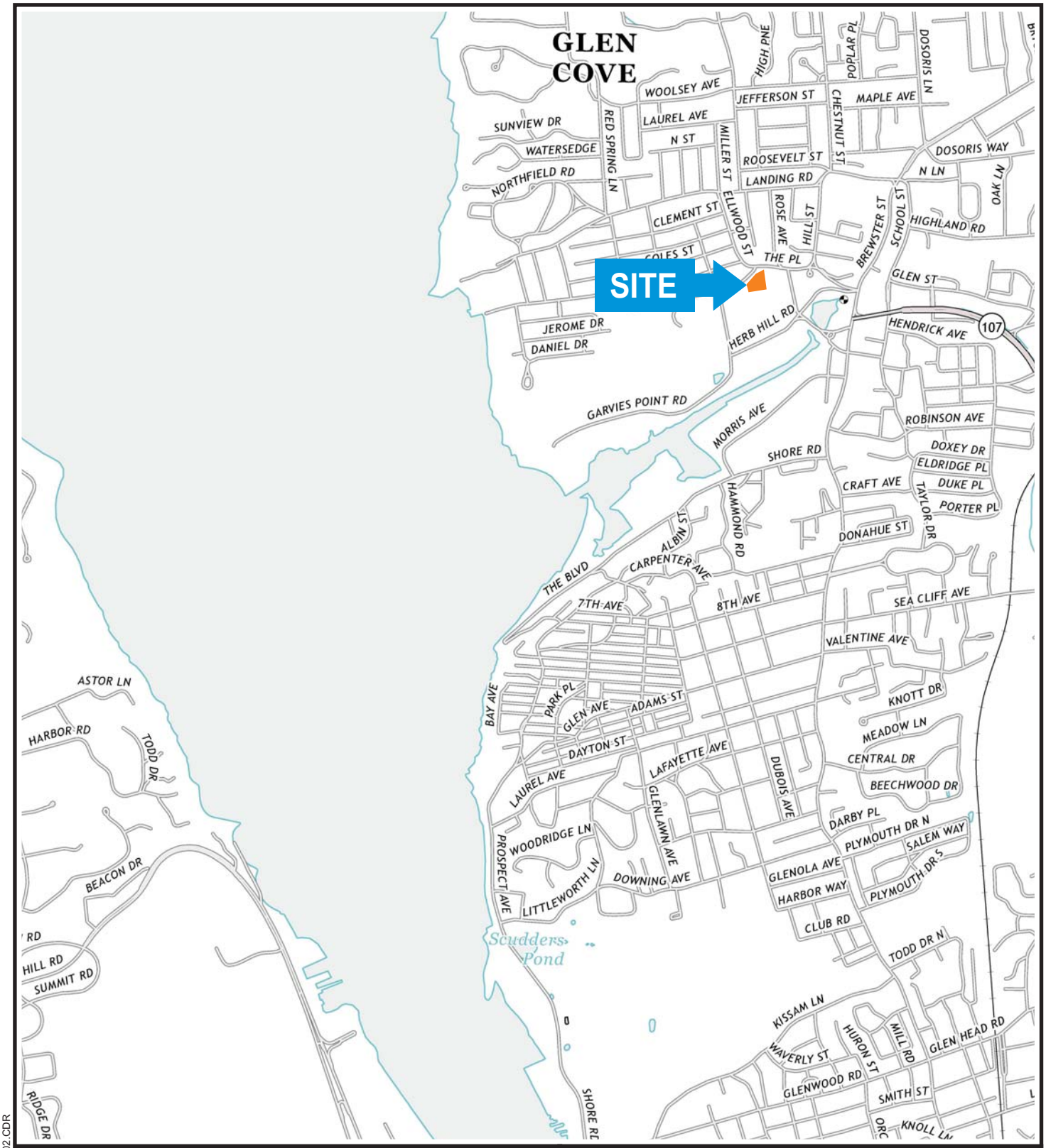
Note: Action levels are based on above background levels.

* Instrument readings will be taken in the breathing zone (BZ) of the workers, unless otherwise indicated.

** Suspend work in immediate area. Conduct air monitoring periodically to determine when work can continue. Implement mitigative measures.

FIGURES

1. Site Location Map
2. Site Layout
3. Routes to Urgent Care and Hospital



QUADRANGLE LOCATION



N

0 2000’

SOURCE:
USGS; 1968, Sea Cliff, N.Y.
7.5 Minute Topographic Quadrangle

Title:

SITE LOCATION MAP

71 CHARLES STREET
GLEN COVE, NEW YORK

POWERS CHEMCO SITE NO. 1-30-028
SITE MANAGEMENT PLAN

Prepared for: KONICA MINOLTA HOLDINGS USA, INC.
GLEN COVE, NEW YORK

Remedial
REMEDIAL ENGINEERING, P.C.
ENVIRONMENTAL ENGINEERS

Compiled by: J.K.	Date: 22MAR16	FIGURE
Prepared by: G.M.	Scale: AS SHOWN	1
Project Mgr.: O.R.	Project No.: 2020.0001Y003	
File: 2020.0001Y204.02.CDR		

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LEGEND

SUPERFUND SITE

RCRA SITE

N

200' 0 200'

Title:

SITE LAYOUT MAP

POWERS CHEMCO SITE SUPERFUND NO. 130028
AND POWERS CHEMCO RCRA SITE NO. 130028A
SITE MANAGEMENT PLAN ADDENDUM NO. 1

Prepared for:

KONICA MINOLTA HOLDINGS USA, INC.
GLEN COVE, NEW YORK

ROUX

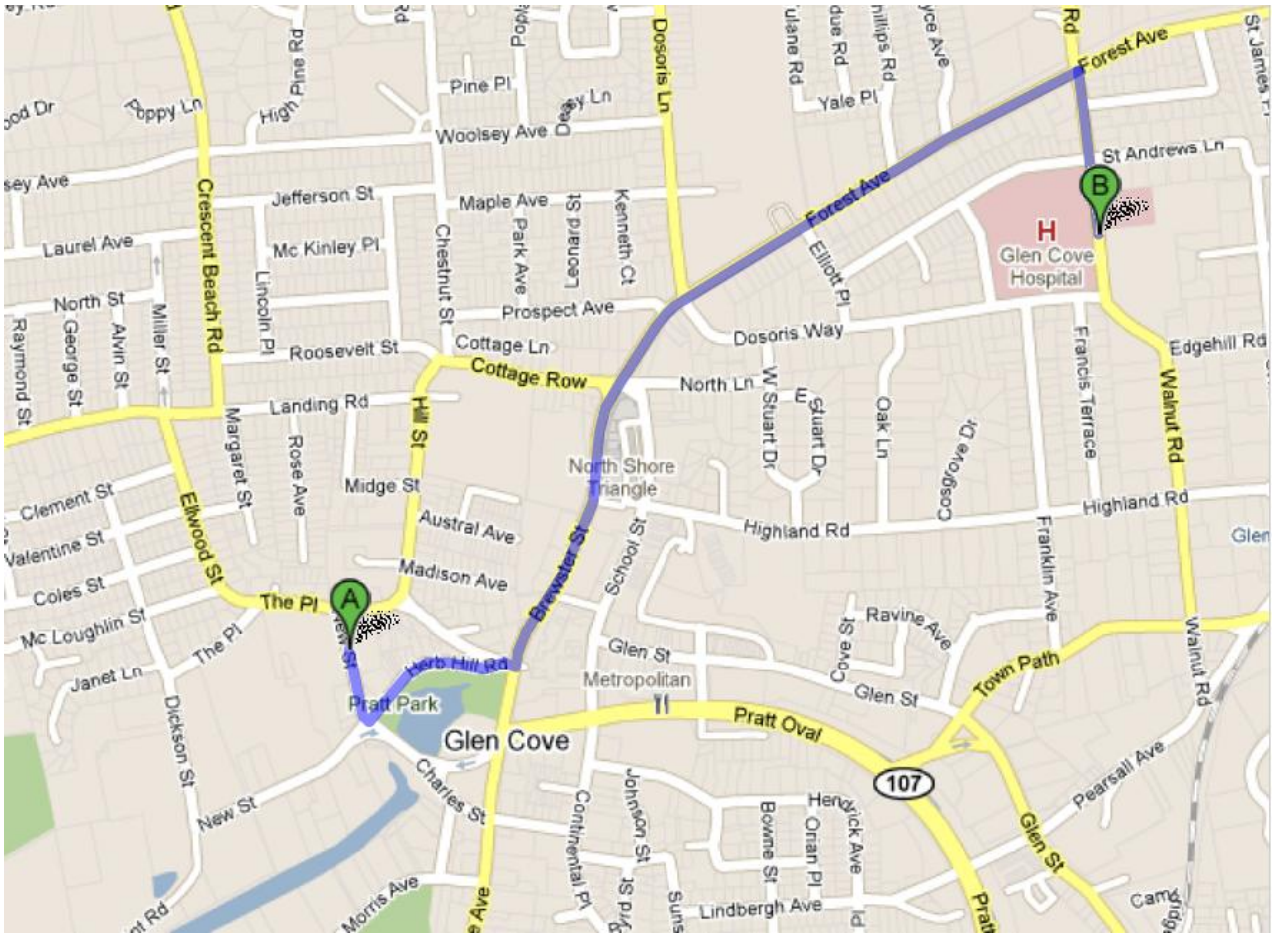
Compiled by: N.E.	Date: 05APR21
Prepared by: B.H.C.	Scale: AS SHOWN
Project Mgr: N.E.	Project: 2020.0001Y000
File: 2020.0001Y213.02.DWG	

FIGURE 2

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FIGURE 2

Directions to Glen Cove Hospital (North Shore LIJ) – 101 St. Andrews Lane
Glen Cove, New York 11542



- Start at 71 Charles Street, Glen Cove, New York, take a Left onto Herb Hill Road
- Turn Left at Brewster Street
- Continue onto Forest Avenue
- Turn Right at Walnut Avenue
- Arrive at Glen Cove Hospital on your right

APPENDICES

A. Job Safety Analysis (JSA) Forms
B. Heat and Cold Stress Guidelines
C. Medical Data Form
D. Manufacturer Equipment Manuals
E. SDSs for Chemicals Used
F. COVID-19 Interim Health and Safety Guidance
G. Personal Protective Equipment (PPE) Management Program
H. Subsurface Utility Clearance Management Program
I. Heavy Equipment Exclusion Zone Policy

APPENDIX A

Job Safety Analysis (JSA) Forms

JOB SAFETY ANALYSIS Ctrl. No. GEN-005	DATE 2/4/2015	☐ NEW ☒ REVISED	PAGE 1 of 2

JSA TYPE CATEGORY	WORK TYPE:	WORK ACTIVITY (Description):
Generic	**Gauging and Sampling**	**Gauging and Sampling**

DEVELOPMENT TEAM	POSITION / TITLE	REVIEWED BY:	POSITION / TITLE
Gina Masciello	Project Scientist	Joe Gentile	Corp H&S Mgr
Louis Goldstein	Staff Engineer	Michael Ritorto	Project Hydrogeologist
		Louis Goldstein *(as part of annual review)*	Staff Engineer

REQUIRED AND / OR RECOMMENDED PERSONAL PROTECTIVE EQUIPMENT

☒ LIFE VEST ☒ HARD HAT ☐ LIFELINE / BODY HARNESS ☒ SAFETY GLASSES	☐ GOGGLES ☐ FACE SHIELD ☐ HEARING PROTECTION ☒ SAFETY SHOES: Composite-toe or steel toe boots	☐ AIR PURIFYING RESPIRATOR ☐ SUPPLIED RESPIRATOR ☒ PPE CLOTHING: Fluorescent reflective vest or high visibility clothing	☒ GLOVES: Leather, Nitrile and cut resistant ☒ OTHER: Knee pads, Insect Repellant, sunscreen (as needed)

REQUIRED AND / OR RECOMMENDED EQUIPMENT

42-inch Safety Cones, Caution Tape, Interface Probe and/or Water Level Meter, 20-lb., Type ABC Fire Extinguisher, Buckets. Tools as needed: Socket Wrench, Screw Driver, Crow Bar, Mallet, and Wire Brush.

Commitment to LPS – All personnel onsite will actively participate in SPSA performance by verbalizing SPSAs throughout the day.

Assess [1]JOB STEPS	Analyze [2]POTENTIAL HAZARDS	Act [3]CRITICAL ACTIONS
1. Mobilization to monitoring well(s).	1a. **FALL:** Personal injury from slip/trip/fall due to uneven terrain and/or obstructions.	1a. Inspect pathway and plan for most suitable designated pathway prior to mobilization. 1a. Use established pathways, walk and/or drive on stable, secure ground and avoid steep hills or uneven terrain. 1a. If working near open water with an unguarded edge, wear life vest.
	1b. **CONTACT:** With traffic/third parties.	1b. Identify potential traffic sources and delineate work area with 42-inch traffic safety cones. Position vehicle to protect against oncoming traffic. Use caution tape to provide a more visible delineation of the work area if necessary. 1b. Wear appropriate PPE including high visibility clothing or reflective vest. 1b. Face traffic, maintain eye contact with oncoming vehicles, and establish a safe exit route.
	1c. **EXPOSURE:** To biological hazards.	1c. Inspect work area for bees and insects. 1c. Use insect/tick repellent as necessary.
2. Open/close well.	2a. **ERGNOMICS:** Muscle strain.	2a. Use proper lifting techniques; keep back straight, lift with legs and bend knees when reaching to open/close well.
	2b. **CAUGHT:** Pinch/crush points associated with removing/replacing manholes and working with hand tools.	2b. Wear leather gloves or cut resistant gloves when working with well cover and hand tools. 2b. Use proper tools (ratchet and pry bar for well cover) and inspect before use. 2b. Do not put fingers under well cover.
	2c. **CAUGHT:** Pinch points associated with placing J-plug back onto PVC pipe.	2c. See 2b. 2c. Keep fingers out of line-of-fire when securing cap
	2d. **EXPOSURE:** To potential hazardous vapors.	2d. No open flames/heat sources. 2d. To minimize exposure to vapors allow well to vent after opening it and before sampling activities begin. 2d. Stand up-wind, if possible, to avoid vapors.
3. Gauge well.	3a. **CONTACT:** With contamination (e.g. contaminated groundwater).	3a. Wear chemical-resistant disposable gloves (over cut-resistant gloves) and safety glasses when gauging well. 3a. Insert and remove probe slowly to avoid splashing. 3a. Use an absorbent pad to clean probe.
	3b. **CONTACT:** With traffic.	3b. See 1b.

[1] Each Job or Operation consists of a set of tasks / steps. Be sure to list all the steps needed to perform job.
[2] A hazard is a potential danger. Break hazards into five types: Contact - victim is struck by or strikes an object; Caught - victim is caught on, caught in or caught between objects; Fall - victim falls to ground or lower level (includes slips and trips); Exertion - excessive strain or stress / ergonomics / lifting techniques; Exposure - inhalation/skin hazards; Energy Source – electricity, pressure, compression/tension.
[3] Using the first two columns as a guide, decide what actions or procedures are necessary to eliminate or minimize the risk. List the recommended safe operating procedures. Say exactly what needs to be done - such as "use two persons to lift". Avoid general statements such as, "be careful".

Assess [1]JOB STEPS	Analyze [2]POTENTIAL HAZARDS	Act [3]CRITICAL ACTIONS
4. Purge and sample well.	4a. **EXPOSURE/CONTACT:** To contamination (e.g., SPH, contaminated groundwater, vapors) and/or sample preservatives.	4a. Open and fill sample jars slowly to avoid splashing and contact with preservatives. 4a. Wear cut-resistant gloves and chemical-resistant disposable gloves when sampling. 4a. Fill sample containers over purge container to avoid spilling water onto the ground. 4a. Use an absorbent pad to clean spills. 4a. When using a bailer to purge a well, pull the bailer slowly from the well to avoid splash hazards. 4a. When sampling or purging the water using a bailer, pour out water slowly to reduce the potential for splash hazards with groundwater. 4a. When using a tubing valve always remove the valve slowly after sample collection to release any pressure and avoid pressurized splash hazards 4a. When collecting a groundwater sample always point sampling apparatus (tubing, bailer, etc.) away from face and body.
4. Purge and sample well (Continued).	4b. **CONTACT:** Personal injury from cuts, abrasions, or punctures by glassware or sharp objects. 4c. **ERGONOMICS:** Muscle strain while carrying equipment. 4d. **CONTACT:** With traffic. 4e. **CONTACT**: Pinch points with groundwater pump components (i.e. wheel, line, clamps) 4f. **ERGONOMICS**: Muscle strain from repetitive motion of bailing and sampling a well	4b. To avoid spills or breakage, place sample ware on even surface. 4b. Do not over tighten caps on glass sample ware. 4b. Wear chemical-resistant nitrile disposable gloves over cut-resistant (i.e. Kevlar) gloves when sampling and handling glassware (i.e., VOA vials) or when using cutting tools. 4c. Use proper lifting techniques when handling/moving equipment; bend knees and keep back straight. 4c. Use mechanical assistance or team lifting techniques when equipment is 50 lbs. or heavier. 4c. Make multiple trips to carry equipment. 4d. See 1b. 4e. Wear leather gloves when working with groundwater pumps 4e. Never place hands on or near pinch points such as the wheel, clamps or other moving parts during pump operations 4e. Use correct the correct mechanisms, such as a pump reel, to lower pump into well 4e. Never attempt to manually stop any moving part of equipment including hose reels and/or tubing. 4f. See 4c. 4f. Include a stretch break when repetitive motions are part of the task.
5. Management of purge water.	5a. **EXPOSURE/CONTACT:** To contamination (e.g., SPH, contaminated groundwater, vapors). 5b. **ERGONOMICS:** Muscle strain from lifting/carrying and moving containers.	5a. Do not overfill container and pour liquids slowly so that they do not splash. 5a. Properly dispose of used materials/PPE in appropriate container in designated storage area. 5b. Use proper lifting techniques when lifting / carrying or moving container(s) (see 4c.). 5b. Do not overfill container(s).
6. Decontaminate equipment.	6a. **EXPOSURE/CONTACT:** To contamination (e.g., SPH, contaminated groundwater, vapors). 6b. **CAUGHT:** Pinch points associated with handling hand tools	6a. Work on the upwind side, where possible, of decon area. 6a. Wear chemical-resistant disposable gloves and safety glasses. 6a. Use an absorbent pad to clean spills. 6b. See 2b. 6b. Inspect hand tools for sharp edges before decontaminating

[1] Each Job or Operation consists of a set of tasks / steps. Be sure to list all the steps needed to perform job.

[2] A hazard is a potential danger. Break hazards into five types: Contact - victim is struck by or strikes an object; Caught - victim is caught on, caught in or caught between objects; Fall - victim falls to ground or lower level (includes slips and trips); Exertion - excessive strain or stress / ergonomics / lifting techniques; Exposure - inhalation/skin hazards; Energy Source – electricity, pressure, compression/tension..

[3] Using the first two columns as a guide, decide what actions or procedures are necessary to eliminate or minimize the risk. List the recommended safe operating procedures. Say exactly what needs to be done - such as "use two persons to lift". Avoid general statements such as, "be careful".

JOB SAFETY ANALYSIS	Ctrl. No. GEN 007	DATE: 2/3/2015	☐ NEW ☒ REVISED	PAGE 1 of 1
JSA TYPE CATEGORY **Generic**	WORK TYPE **O&M**	WORK ACTIVITY (Description) **Movement of 55-Gallon Drums/Drum Handling with Mobile Carrier**		

DEVELOPMENT TEAM	POSITION / TITLE	REVIEWED BY:	POSITION / TITLE
Michael Smith	Senior Technician	Daniel Abberton	SHSM
		Ray Greenidge	Project Engineer

REQUIRED AND / OR RECOMMENDED PERSONAL PROTECTIVE EQUIPMENT

☐ LIFE VEST	☐ GOGGLES	☐ AIR PURIFYING RESPIRATOR	☒ GLOVES: Cut-resistant gloves
☒ HARD HAT	☐ FACE SHIELD	☐ SUPPLIED RESPIRATOR	☐ OTHER:
☐ LIFELINE / BODY HARNESS	☐ HEARING PROTECTION	☒ PPE CLOTHING: Fluorescent long sleeve shirt or long sleeve shirt and reflective safety vest.	
☒ SAFETY GLASSES	☒ SAFETY SHOES: Steel or composite toe		

REQUIRED AND / OR RECOMMENDED EQUIPMENT

Mobile Drum Carrier, safety cones, and caution tape

Commitment to LPS – All personnel onsite will actively participate in SPSA performance by verbalizing SPSAs throughout the day.

EXCLUSION ZONE: A 10' exclusion zone will be maintained around forklift.

Assess [1]JOB STEPS	Analyze [2]POTENTIAL HAZARDS	Act [3]CRITICAL ACTIONS
1. Secure Work Area, Inspect 55-gal drums for proper condition, labeling, check drum ring and bolts for tightness, inspect mobile drum carrier.	1a. **FALL:** Tripping/falling due to uneven surface terrain	1a. Inspect walking path for uneven terrain, weather-related hazards (i.e. debris, puddles, ice, etc.), and other obstructions prior to accessing work area. 1a. Use established pathways and walk on stable, secure ground. 1a. Secure work area and coordinate and communicate the planned work activities with other personnel working in the area. 1a. Delineate work area with 42" safety cones.
	1b. **CONTACT/EXPOSURE:** Drums could potentially be damaged and contain hazardous material. Mobil drum carrier could potentially not be in good working condition causing malfunctioning during operation.	1b. Prior to inspecting drums don cut-resistant gloves. If drum is not properly labeled, do not open and cease all drum transport activities. Immediately contact project manager and inform him/her of drum situation. 1b. Do not continue drum transport activities until further actions are determined by the project manager. 1b. If the drum is properly labeled, but leaking, improperly sealed or in poor condition, place drum in an over-pack drum. 1b. Inspect mobile drum carrier to ensure the overall integrity of the carrier. Look for rust marks or potential weak points where the drum carrier could malfunction. Inspect the wheels to ensure that they easily turn and nothing is impeding their movement.
	1c. **EXERTION/CAUGHT:** Potential pinching/exertion hazards while securing ring/ tightening bolts	1c. Keep back straight and knees slightly bent while securing drum ring/tightening bolt. Wear cut-resistant gloves.
2. Position drum clamp in between drum ribs, securing drum clamp to drum with chain	2. **CAUGHT:** Pinching fingers between drum clamp and handle/chain.	2. Attach drum clamp with chain and tighten until snug. Do not place hands between drum clamp and drum as the chain is tightened; wear cut resistant gloves.
3. Disengage safety latches on handle, pull handle down until drum is lifted off ground and safety latches are reengaged; slightly suspending drum off of the ground	3a. **EXERTION/ CONTACT:** Potential muscle strain associated with lifting/engaging drum/handle. Drum could shift/slip downward and crush toes.	3a. Ascertain whether the drum is overweight; if it is, then two people are needed to lower handle while drum is secured with clamp so that safety latches can be engaged. Keep body out of the line of fire of the handle (do not position head above handle) as it is being pushed down. Do not allow feet/toes to be positioned under the drum as it is being lifted; wear steel/composite toe boots.
	3b. **CAUGHT:** Fingers could be pinched while engaging/disengaging safety latches on handle	3b. Wear cut-resistant gloves while disengaging/reengaging safety latches.
4. Transport drums to designated location and disengage drum clamp (repeat Step 3 in reverse order)	4a. **FALL:** Tripping/ falling due to obstructions and uneven terrain. Potential for drum to fall during transport.	4a. Ensure transport path is free of potential obstructions that may cause the drum/carrier to become unstable. Position drum clamp between the ribs on the drum to prevent possible slipping.

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[2] A hazard is a potential danger. Break hazards into six types: Contact - victim is struck by or strikes an object; Caught - victim is caught on, caught in or caught between objects; Fall - victim falls to ground or lower level (includes slips and trips); Exertion - excessive strain or stress / ergonomics / lifting techniques; Exposure - inhalation/skin hazards; Energy source – electricity, pressure, compression/tension.
[3] Using the first two columns as a guide, decide what actions or procedures are necessary to eliminate or minimize the risk. List the recommended safe operating procedures. Say exactly what needs to be done - such as "use two persons to lift." Avoid general statements such as, "be careful."

JOB SAFETY ANALYSIS Cntrl. No. GEN-012	DATE: 2/3/2015	☐NEW ☒REVISED	PAGE 1 of 2

JSA TYPE CATEGORY: **GENERIC**	WORK TYPE: **Gauging & Sampling**	WORK ACTIVITY (Description): **Soil Sampling**	
DEVELOPMENT TEAM	**POSITION / TITLE**	**REVIEWED BY:**	**POSITION / TITLE**
Michael Hodess	Staff Environmental Scientist	Mike Ritorto	Senior Hydrogeologist
		Leo Kurylo	IL-OHSM

REQUIRED AND / OR RECOMMENDED PERSONAL PROTECTIVE EQUIPMENT

☐ LIFE VEST ☒ HARD HAT ☐ LIFELINE / BODY HARNESS ☒ SAFETY GLASSES ☒ FLAME RESISTANT CLOTHING (as needed)	☐ GOGGLES ☐ FACE SHIELD: ☒ HEARING PROTECTION: (as needed) ☒ SAFETY SHOES: Composite-toe or steel toe boots	☐ AIR PURIFYING RESPIRATOR ☐ SUPPLIED RESPIRATOR ☒ PPE CLOTHING: Fluorescent reflective vest or high visibility clothing	☒ GLOVES: Leather, Nitrile and cut resistant ☒ OTHER: Insect repellant, sunscreen (as needed)

REQUIRED AND / OR RECOMMENDED EQUIPMENT

Recommended Equipment: 42" traffic cones, caution tape, trowel

COMMITMENT TO LPS - All personnel onsite will actively participate in SPSA performance by verbalizing SPSAs throughout the day.

EXCLUSION ZONE: A minimum 10' exclusion zone will be maintained around moving equipment, if present.

Assess [1]JOB STEPS	Analyze [2]POTENTIAL HAZARDS	Act [3]CRITICAL ACTIONS
1. Secure location	1a. **CONTACT:** Personnel and vehicular traffic may enter the work area.	1a. If in an area with foot or vehicle traffic, delineate the work area with 42" traffic cones and/or caution tape to prevent exposure to traffic and inform others of work activity. 1a. Wear reflective vest and/or high visibility clothing. 1a. Face the direction of any vehicular traffic. Position vehicle to protect worker from traffic. 1a. Communicate work activity with adjacent work areas.
	1b. **FALL:** Tripping/falling due to uneven terrain or entry/exit from excavations.	1b. Inspect pathways and work area for uneven terrain, weather-related hazards (i.e., ice, puddles, snow, etc.), and obstructions. 1b. Use established pathways and walk on stable, secure ground. 1b. Stage equipment and tools in a convenient, stable, and orderlymanner. Store equipment at lowest potential energy. 1b. Roux employees should stay 5 feet from in-progress excavations and trenches. Should entry to an excavation be appropriate (when stabilization is complete), ladders must be employed for steep embankments, excavations, pits, and trenches.
	1c. **EXPOSURE:** Exposure to sun and excessive heat, possibly causing sunburn, heat exhaustion or heat stroke. Exposure to cold temperatures possibly causing cold stress. Skin burn as a result of fire, if applicable. Exposure to explosive vapors due to tank farm operations, Biological hazards - ticks, bees/wasps, poison ivy, thorns, insects, etc.	1c. Wear sunscreen with an SPF 15 or greater whenever 30 minutes or more of exposure is expected. 1c. Use a tent to shade the work area from direct sunlight particularly when warm temperatures are expected. 1c. Be aware of the location of all Site personnel. 1c. Watch for heat stress symptoms (muscle cramping, exhaustion, dizziness, rapid and shallow breathing). 1c. Watch for cold stress symptoms (severe shivering, slowing of body movement, weakness, stumbling or inability to walk, collapse). 1c. Take breaks for rest and water as necessary. Move to an area that is well shaded or a climate controlled area (i.e., car, site trailer, etc.). 1c. No open flames/heat sources. 1c. Flame resistant clothing must be worn when specified by Site policy. 1c. Cell phones should be disabled when specified by Site policy. 1c. Pre-treat field clothing with Permethrin prior to site visit to kill/repel ticks and insects. 1c. Wear long sleeved shirts and tuck in (or tape) pant legs into socks or boots to prevent ticks from reaching skin. 1c. Spray insect repellant containing DEET on exposed skin when working in overgrown areas of the Site. 1c. Inspect area to avoid contact with biological hazards. 1c. Wear cut-resistant gloves when handling branches, shrubs, etc. that may lie within the walking path. 1c. Personnel shall examine themselves and co-worker's outer clothing for ticks periodically when onsite. 1c. If skin comes in contact with poison ivy, wash skin thoroughly with soap and water. If rash persists after washing, immediately notify your supervisor and the CHSM for possible consultation with a physician at an approved Occupational Health Clinic.

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[2] A hazard is a potential danger. Break hazards into five types: Contact - victim is struck by or strikes an object; Caught - victim is caught on, caught in or caught between objects; Fall - victim falls to ground or lower level (includes slips and trips); Exertion - excessive strain or stress / ergonomics / lifting techniques; Exposure - inhalation/skin hazards; Energy Source – electricity, pressure, compression/tension.
[3] Using the first two columns as a guide, decide what actions or procedures are necessary to eliminate or minimize the risk. List the recommended safe operating procedures. Say exactly what needs to be done - such as "use two persons to lift". Avoid general statements such as, "be careful".

Assess [1]JOB STEPS	Analyze [2]POTENTIAL HAZARDS	Act [3]CRITICAL ACTIONS
2. Collect Soil Sample	2a. **CONTACT:** Personal injury from pinch points, cuts, and abrasions from sampling equipment tools, and material within soil sample. Personal injury from contact with moving equipment while sampling.	2a. Wear cut-resistant (i.e., Kevlar) gloves under chemical-resistant disposable gloves when handling soil samples and sampling jars. 2a. Where possible, use trowel or equivalent tool to avoid contact with soil. 2a. If sampling from bucket of heavy equipment, ensure all equipment is off and operator utilizes the "show me your hands" policy. 2a. See 1a.
	2b. EXPOSURE: Exposure to contamination (impacted soil) and/or lab preservatives.	2b. Wear chemical-resistant disposable gloves over cut resistant gloves to protect hands when handling samples; use containment material or plastic sheeting to protect surrounding areas. 2b. When collecting soil sample from hand auger, put large zip lock bag over entire auger to prevent spillage of soil on to the ground. 2b. Open sample jars slowly and fill carefully to avoid contact with preservatives.
3. Decontaminate equipment	3a. **EXPOSURE/CONTACT:** Contamination (e.g., Separate Phase Hydrocarbons (SPH), contaminated vapors and/or soil).	3a. Wear chemical-resistant disposable gloves and safety glasses. 3a. Use an absorbent pad to clean spills. 3a. Properly dispose of used materials/PPE in provided drums in designated drum storage area. 3a. Remain upwind of sample and avoid breathing contaminant vapors, if they are present.
	3b. **EXPOSURE:** Chemicals in cleaning solution including ammonia.	3b. Wear chemical-resistant disposable gloves and safety glasses. 3b. Work on the upwind side of decon. area. 3b. Use an absorbent pad to clean spills. 3b. Properly dispose of used materials/PPE in provided drums in designated drum storage area.

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JOB SAFETY ANALYSIS	Ctrl. No.	DATE 1/23/2015	☐ NEW ☒ REVISED	PAGE 1 of 2

JSA TYPE CATEGORY:	WORK TYPE:	WORK ACTIVITY (Description):	
Generic	**Drilling**	**Hollow Stem Auger Soil Borings /Well Installation**	
DEVELOPMENT TEAM	**POSITION / TITLE**	**REVIEWED BY:**	**POSITION / TITLE**
Gina Vanderlin	Project Scientist	Joseph Gentile	CSHM

REQUIRED AND / OR RECOMMENDED PERSONAL PROTECTIVE EQUIPMENT

☐ LIFE VEST ☒ HARD HAT ☐ LIFELINE / BODY HARNESS ☒ SAFETY GLASSES	☐ GOGGLES ☐ FACE SHIELD ☒ HEARING PROTECTION: (as needed) ☒ SAFETY SHOES steel or composite toe	☐ AIR PURIFYING RESPIRATOR ☐ SUPPLIED RESPIRATOR ☒ PPE CLOTHING: fluorescent long sleeve shirt or long sleeve shirt and reflective safety vest.	☒ GLOVES: Leather, Nitrile and cut resistant ☒ OTHER: Insect Repellant, sunscreen (as needed)

REQUIRED AND / OR RECOMMENDED EQUIPMENT

Truck-Mounted Drilling Rig or Track Rig, Saw, Hand Tools, Photoionization Detector, Multi-Gas Meter (or equivalent), Interface Probe, 20 lb. Fire Extinguisher, 42" Cones & Flags, "Work Area" Signs

COMMITMENT TO LPS - All personnel onsite will actively participate in SPSA performance by verbalizing SPSAs throughout the day.

EXCLUSION ZONE POLICY – All non-essential personnel shall maintain a **10 foot** exclusion zone while drill rig is engaged

"SHOW ME YOUR HANDS"
Driller and helper should show that hands are clear from controls and moving parts

Assess [1]JOB STEPS	Analyze [2]POTENTIAL HAZARDS	Act [3]CRITICAL ACTIONS
1. Mobilization of drilling rig	1a. **CONTACT**: Equipment or property damage.	1a. The drill rig's tower/derrick will be lowered and secured prior to mobilization. 1a. A spotter should be utilized while moving or backing the drill rig. If personnel move into the path of the drilling rig, the drilling rig will be stopped until the path is again clear. 1a. Set-up the work area / position equipment in a manner that eliminates or reduces the need for backing of trucks and trailers. 1a. When backing up truck rig with an attached trailer use a second spotter if there is tight clearance simultaneously on multiple sides of the equipment or if turning angles limit driver visibility. 1a. Inspect the driving path for uneven terrain. Level or avoid if needed.
	1b. **FALL**: Slip/trip/fall hazards.	1b. Inspect walking path for uneven terrain, weather-related hazards (i.e., ice, puddles, snow, etc.), and obstructions prior to mobilizing equipment. 1b. Do not climb over stored materials/equipment; walk around. Practice good housekeeping. 1b. Use established pathways and walk on stable, secure ground. 1b. Use three points of contact when mounting or dismounting the rig.
2. Raising tower/derrick of drilling rig	2a. **CONTACT**: Overhead hazards.	2a. Prior to raising the tower/derrick, area above the drilling rig will be inspected for overhead hazards (wires, tree limbs, piping, or other structures) that may be contacted by the rig's tower or drilling rods. 2a. The tower/derrick must not be raised beneath overhead power lines unless approved by both the ExxonMobil and Roux PMs. 2a. Maintain at a minimum 10' from overhead structures. 2a. Do not move the rig while the tower/derrick is raised.
	2b. **CONTACT**: Pinch points when raising the rig; crushing hazard with stability of rig during set-up	2b. Inspect the equipment prior to use and avoid placing hands near pinch points. 2b. Lower out riggers on rig to ensure stability prior to raising rig tower derrick. 2b. Inspect the set-up location for uneven terrain. Level or avoid area if needed.
3. Advancement of augers for soil borings and well material installation.	3a. **CONTACT:** Flying / spraying debris.	3a. Wear minimum level D PPE 3a. Be aware of and avoid potential lines of fire.
	3b. **EXPOSURE:** Noise and dust.	3b. Wet borehole area with sprayer to minimize dust. Stand upwind and keep body positioned away from rig. 3b. Wear hearing protection while drill rig is operating/or the noise levels exceed 85dBA.
Assess [1]JOB STEPS	**Analyze [2]POTENTIAL HAZARDS**	**Act [3]CRITICAL ACTIONS**

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4. Advancement of augers for soil borings, and well material installation (Continued).	4c. **CAUGHT**: Limb/extremity pinching, abrasion, and crushing.	4c. Always wear leather gloves when making connections and using hand tools; wear cut-resistant (i.e., Kevlar) gloves when handling cutting tools. 4c. Test all emergency shutdown devices prior to drilling. 4c. Inspect drill head for worn surface or missing teeth; replace if damaged or blunt. 4c. Inspect augers; do not use if auger flight if damaged or bent. 4c. Ensure all jewelry is removed, loose clothing is secured, and PPE is secured close to the body. 4c. All non-essential personnel should stay away from the immediate work area; position body out of the line-of-fire of equipment particularly when installing auger flights. 4c. Drillers and helpers will understand and use the "Show Me Your Hands" Policy. 4c. Spinning augers should have an **exclusion zone of 20 feet** when in operation.
	4d. **CONTACT**: Equipment imbalance during advancement of drill equipment.	4d. Drillers will advance the borehole with caution to avoid causing the rig to become imbalanced and/or tip. 4d. The blocking and leveling devices used to secure the rig will be inspected by drillers and Roux personnel regularly to see if shifting has occurred.
	4e. **EXPOSURE**: Inhalation of contamination/vapors.	4e. Air monitoring using a calibrated photoionization detector (PID) will be used to periodically monitor the breathing zone of the work area. 4e. The Action Level for breathing zone air is five parts per million (sustained) as detected by the PID. 4e. If a reading of >5ppm is recorded, the Roux field personnel must temporarily cease work, instruct all Site personnel to step away from the area of elevated readings and inform the Roux PM of the condition. The Roux PM will then recommend additional appropriate precautions in accordance with the site specific health and safety plan.
	4f. **FALL**: Slip/trip/fall hazards.	4f. See 1b. 4f. Remove soil cuttings to avoid a tripping hazard from developing near augers.
	4g. **EXERTION**: Installing well casings and lifting augers.	4g. Keep back straight and bend at the knees. 4g. Utilize team lifting for objects over 50lbs. 4g. Use mechanical lifting device for odd shaped objects.
	4h. **CONTACT**: Using hand tools to install well casings and materials	4h. Wear cut resistant and leather gloves. 4h, Secure materials on a level surface before cutting 4h. Place hands out of the line of fire 4h. Inspect all tools prior to use and remove damaged tools from service
5. Cleaning the auger flights	5a. **CONTACT:** Cuts/scrapes or puncture wound from contacting rotating auger.	5a. Follow "No Hands" Procedure and make sure auger is out of gear before contacting auger with hands or tool. 5b. When using a cleaning tool, pull across your body with handle away from body; do not push toward the auger. 5b. Do not clean more than ¾ turn around the auger at a time. 5b. Wear cut resistant and leather gloves. 5b. Always use two hands when operating cleaning tool. 5b. Inspect any tool before use and remove from service if handle or metal are cracked/fatigued. 5b. Stand out of the line of fire.
6. Decontaminate equipment.	6a. **EXPOSURE/CONTACT:** To contamination (e.g., contaminated groundwater, vapors). 6b. **EXPOSURE**: To chemicals in cleaning solution (including ammonia)	6a. Wear chemical-resistant disposable gloves and safety glasses. 6a. Contain decontamination water so that it does not spill. 6a. Use an absorbent pad to clean spills, if necessary. 6b. See 5a.

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APPENDIX B

Heat and Cold Stress Guidelines

Heat Stress

Heat stress is a significant potential hazard and can be associated with heavy physical activity and/or the use of personal protective equipment (PPE) in hot weather environments.

Heat cramps are brought on by prolonged exposure to heat. As an individual sweats, water and salts are lost by the body resulting in painful muscle cramps. The signs and symptoms of heat cramps are as follows:

- severe muscle cramps, usually in the legs and abdomen;
- exhaustion, often to the point of collapse; and
- dizziness or periods of faintness.

First aid treatment includes moving to a shaded area, rest, and fluid intake. Normally, the individual should recover within one-half hour. If the individual has not recovered within 30 minutes and the temperature has not decreased, the individual should be transported to a hospital for medical attention.

Heat exhaustion may occur in a healthy individual who has been exposed to excessive heat. The circulatory system of the individual fails as blood collects near the skin in an effort to rid the body of excess heat. The signs and symptoms of heat exhaustion are as follows:

- rapid and shallow breathing;
- weak pulse;
- cold and clammy skin with heavy perspiration;
- skin appears pale;
- fatigue and weakness;
- dizziness; and
- elevated body temperature.

First aid treatment includes cooling the victim, elevating the feet, and replacing fluids and electrolytes. If the individual has not recovered within 30 minutes and the temperature has not decreased, the individual should be transported to the hospital for medical attention.

Heat stroke occurs when an individual is exposed to excessive heat and stops sweating. This condition is classified as a **MEDICAL EMERGENCY**, requiring immediate cooling of the victim and transport to a medical facility. The signs and symptoms of heat stroke are as follows:

- dry, hot, red skin;
- body temperature approaching or above 105°F;
- large (dilated) pupils; and
- loss of consciousness - the individual may go into a coma.

First aid treatment requires immediate cooling and transportation to a medical facility.

Heat stress (heat cramps, heat exhaustion, and heat stroke) is a significant hazard if any type of protective equipment (semi-permeable or impermeable) which prevents evaporative cooling if worn in hot weather environments. Local weather conditions may require restricted work schedules in order to adequately protect personnel. The use of work/rest cycles (including working in the cooler periods of the day or evening) and training on the signs and symptoms of heat stress should help prevent heat-related illnesses from occurring. Work/rest cycles will depend on the work load required to perform each task, type of protective equipment, temperature, and humidity. In general, when the temperature exceeds 88°F, a 15 minute rest cycle will be initiated once every two hours. In addition, potable water and fluids containing electrolytes (e.g., Gatorade) will be available to replace lost body fluids.

Cold Stress

Cold stress is a danger at low temperatures and when the wind-chill factor is low. Prevention of cold-related illnesses is a function of whole-body protection. Adequate insulating clothing must be used when the air temperature is below 40°F. In addition, reduced work periods followed by rest in a warm area may be necessary in extreme conditions. Training on the signs and symptoms of cold stress should prevent cold-related illnesses from occurring. The signs and symptoms of cold stress include the following:

- severe shivering;
- abnormal behavior;

- slowing of body movement;
- confusion;
- weakness;
- stumbling or repeated falling;
- inability to walk;
- collapse; and/or
- unconsciousness.

First aid requires removing the victim from the cold environment and seeking medical attention immediately. Also, prevent further body heat loss by covering the victim lightly with blankets. Do not cover the victim's face. If the victim is still conscious, administer hot drinks, and encourage activity, such as walking wrapped in a blanket.

APPENDIX C

Medical Data Form

MEDICAL DATA SHEET

This form must be completed by all onsite personnel prior to the commencement of activities, and shall be kept by the Human Resources Department in Roux Associates' office during site activities. This form must be delivered to any attending physician when medical assistance is needed.

(This form should be typed or printed legibly.)

Site: _____

Name: _____ Home Telephone: _____
(Area Code/Telephone Number)

Address: _____

Date of Birth: _____ Height: _____ Weight: _____

Emergency Contact: _____ Telephone: _____
(Area Code/Telephone Number)

Drug Allergies or Other Allergies: _____

_____

Previous Illnesses or Exposures to Hazardous Substances: _____

_____

_____

Current Medication (Prescription and Non-Prescription): _____

_____

_____

Medical Restrictions: _____

_____

Name, Address and Telephone Number of Person Physician: _____

_____

APPENDIX D

Manufacturer Equipment Manuals

MiniRAE 3000
User's Guide



RAE SYSTEMS

Rev. C
August 2010
P/N 059-4020-000

FCC Information

Contains FCC ID: PI4411B

The enclosed device complies with part 15 of the FCC rules. Operation is subject to the following conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation.

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Read Before Operating

This manual must be carefully read by all individuals who have or will have the responsibility of using, maintaining, or servicing this product. The product will perform as designed only if it is used, maintained, and serviced in accordance with the manufacturer's instructions. The user should understand how to set the correct parameters and interpret the obtained results.

CAUTION!

To reduce the risk of electric shock, turn the power off before removing the instrument cover. Disconnect the battery before removing sensor module for service. Never operate the instrument when the cover is removed. Remove instrument cover and sensor module only in an area known to be non-hazardous.

Special Notes



When the instrument is taken out of the transport case and turned on for the first time, there may be some residual organic or inorganic vapor trapped inside the detector chamber. The initial PID sensor reading may indicate a few ppm. Enter an area known to be free of any organic vapor and turn on the instrument. After running for several minutes, the residual vapor in the detector chamber will be cleared and the reading should return to zero.



The battery of the instrument discharges slowly even if it is turned off. If the instrument has not been charged for 5 to 7 days, the battery voltage will be low. Therefore, it is a good practice to always charge the instrument before using it. It is also recommended to fully charge the instrument for *at least 10 hours* before first use. Refer to this User Guide's section on battery charging for more information on battery charging and replacement.

WARNINGS

STATIC HAZARD: Clean only with damp cloth.

For safety reasons, this equipment must be operated and serviced by qualified personnel only. Read and understand instruction manual completely before operating or servicing.

Use only RAE Systems battery packs, part numbers 059-3051-000, 059-3052-000, and 059-3054-000. This instrument has not been tested in an explosive gas/air atmosphere having an oxygen concentration greater than 21%. Substitution of components may impair intrinsic safety. Recharge batteries only in non-hazardous locations.

Do not mix old and new batteries or batteries from different manufacturers.

The calibration of all newly purchased RAE Systems instruments should be tested by exposing the sensor(s) to known concentration calibration gas before the instrument is put into service.

For maximum safety, the accuracy of the instrument should be checked by exposing it to a known concentration calibration gas before each day's use.

Do not use USB/PC communication in hazardous locations.

AVERTISSEMENT

DANGER RISQUE D'ORIGINE ELECTROSTATIQUE: Nettoyer uniquement avec un chiffon humide.

Pour des raisons de sécurité, cet équipment doit être utilisé, entretenu et réparé uniquement par un personnel qualifié. Étudier le manuel d'instructions en entier avant d'utiliser, d'entretenir ou de réparer l'équipement.

Utiliser seulement l'ensemble de batterie RAE Systems, la reference 059-3051-000 au 059-3052-000 au 059-3054-000. Cet instrument n'a pas été essayé dans une atmosphère de gaz/air explosive ayant une concentration d'oxygène plus élevée que 21%. La substitution de composants peut compromettre la sécurité intrinsique. Ne charger les batteries que dans emplacements désignés non-dangereuse.

Ne pas melanger les anciennes et les nouvelles batteries, ou bien encore les batteries de differents fabriquants.

La calibration de toute instruments de RAE Systems doivent être testé en exposant l'instrument a une concentration de gaz connue par une procédure diétalonnage avant de mettre en service l'instrument pour la première fois.

Pour une securite maximale, la sensibilité du l'instrument doit être verifier en exposant l'instrument a une concentration de gaz connue par une procédure diétalonnage avant chaque utilisation journalière.

Ne pas utiliser de connection USB/PC en zone dangereuse.

Standard Contents

Instrument
Calibration Kit
Charging Cradle
AC/DC Adapter
Alkaline Battery Adapter
Data Cable
CD-ROM With User's Guide, Quick Start Guide, and related materials

General Information

The compact instrument is designed as a broadband VOC gas monitor and datalogger for work in hazardous environments. It monitors Volatile Organic Compounds (VOC) using a photoionization detector (PID) with a 9.8 eV, 10.6 eV, or 11.7 eV gas-discharge lamp. Features are:

Lightweight and Compact

- Compact, lightweight, rugged design
- Built-in sample draw pump

Dependable and Accurate

- Up to 16 hours of continuous monitoring with rechargeable battery pack
- Designed to continuously monitor VOC vapor at parts-per-million (ppm) levels

User-friendly

- Preset alarm thresholds for STEL, TWA, low- and high-level peak values.
- Audio buzzer and flashing LED display are activated when the limits are exceeded.

Datalogging Capabilities

- 260,000-point datalogging storage capacity for data download to PC

The instrument consists of a PID with associated microcomputer and electronic circuit. The unit is housed in a rugged case with a backlit LCD and 3 keys to provide easy user interface. It also has a built-in flashlight for operational ease in dark locations.

Physical Description

The main components of the portable VOC monitoring instrument include:

- Three keys for user to interact with the instrument: 3 operation/programming keys for normal operation or programming
- LCD display with back light for direct readout and calculated measurements
- Built-in flashlight for illuminating testing points in dark environments
- Buzzer and red LEDs for alarm signaling whenever exposures exceed preset limits
- Charge contacts for plugging directly to its charging station
- Gas entry and exit ports
- USB communication port for PC interface
- Protective rubber cover

Specifications

Size:	9.25" L x 3.6" W x 2.9" H
Weight:	28 oz with battery pack
Detector:	Photoionization sensor with 9.8, 10.6, or 11.7 eV UV lamp
Battery:	A 3.7V rechargeable Lithium-Ion battery pack (snap in, field replaceable, at non-hazardous location only)
	Alkaline battery holder (for 4 AA batteries)
Battery Charging:	Less than 8 hours to full charge
Operating Hours:	Up to16 hours continuous operation
Display:	Large dot matrix screen with backlight

Measurement range & resolution

Lamp	Range	Resolution
10.6 eV	0.1 ppm to 15,000 ppm	0.1 ppm
9.8 eV	0.1 ppm to 5,000 ppm	0.1 ppm
11.7 eV	0.1 ppm to 2,000 ppm	0.1 ppm

Response time (T_{90}): 2 seconds

Accuracy (Isobutylene): 10 to 2000 ppm: ±3% at calibration point.

PID Detector: Easy access to lamp and sensor for cleaning and replacement

Correction Factors: Over 200 VOC gases built in (based on RAE Systems Technical Note TN-106)

Calibration: Two-point field calibration of zero and standard reference gases

Calibration Reference: Store up to 8 sets of calibration data, alarm limits and span values

Inlet Probe: Flexible 5" tubing

Radio module: Bluetooth (2.4GHz), RF module (433MHz, 868MHz , 915MHz, or 2.4GHz)

Keypad: 1 operation key and 2 programming keys; 1 flashlight switch

Direct Readout: Instantaneous, average, STEL, TWA and peak value, and battery voltage

Intrinsic Safety: US and Canada: Class I, Division 1, Groups A, B, C, D

Europe: ATEX (0575 Ex II 2G Ex ia IIC/IIB T4 Gb)
KEMA 07 ATEX 0127
Complies with EN60079-0:2009, EN60079-11:2007

IECEx CSA 10.0005 Ex ia IIC/IIB T4 Gb
Complies with IEC 60079-0:2007,
IEC 60079-11:2006
(IIC: 059-3051-000 Li-ion bat pack
or 059-3054-000 NiMH bat pack;
IIB: 059-3052-000 alkaline bat pack)

EM Interference:	Highly resistant to EMI/RFI. Compliant with EMC R&TTE (RF Modules)
Alarm Setting:	Separate alarm limit settings for Low, High, STEL and TWA alarm
Operating Mode:	Hygiene or Search mode
Alarm:	Buzzer 95dB at 30cm and flashing red LEDs to indicate exceeded preset limits, low battery voltage, or sensor failure
Alarm Type:	Latching or automatic reset
Real-time Clock:	Automatic date and time stamps on datalogged information
Datalogging:	260,000 points with time stamp, serial number, user ID, site ID, etc.
Communication:	Upload data to PC and download instrument setup from PC via USB on charging station.
Sampling Pump:	Internally integrated. Flow rate: 450 to 550 cc/min.
Temperature:	-20º C to 50º C (-4º to 122º F)
Humidity:	0% to 95% relative humidity (non-condensing)
Housing (including rubber boot):	Polycarbonate, splashproof and dustproof Battery can be changed without removing rubber boot.

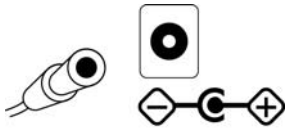
Charging The Battery

Always fully charge the battery before using the instrument. The instrument's Li-ion battery is charged by placing the instrument in its cradle. Contacts on the bottom of the instrument meet the cradle's contacts, transferring power without other connections.

Note: Before setting the instrument into its charging cradle, visually inspect the contacts to make sure they are clean. If they are not, wipe them with a soft cloth. Do not use solvents or cleaners.

Follow this procedure to charge the instrument:

1. Plug the AC/DC adapter's barrel connector into the instrument's cradle.



2. Plug the AC/DC adapter into the wall outlet.
3. Place the instrument into the cradle, press down, and lean it back. It locks in place and the LED in the cradle glow

The instrument begins charging automatically. The "Primary" LED in the cradle blinks green to indicate charging. During charging, the diagonal lines in the battery icon on the instrument's display are animated and you see the message "Charging..."

When the instrument's battery is fully charged, the battery icon is no longer animated and shows a full battery. The message "Fully charged!" is shown. The cradle's LED glows continuously green.



Note: If you see the "Battery Charging Error" icon (a battery outline with an exclamation mark inside), check that the instrument or rechargeable battery has been set into the cradle



properly. If you still receive the message, check the Troubleshooting section of this guide.

Note: If the instrument or battery has been in the cradle for more than 10 hours and you see the "Battery Charging Error" icon and a message that says, "Charging Too Long," this indicates that the battery is not reaching a full charge. Try changing the battery and make sure the contacts between the instrument (or battery) are meeting the cradle. If the message is still shown, consult your distributor or RAE Systems Technical Services.

Charging A Spare Rechargeable Battery

A rechargeable Li-ion battery can be charged when it is not inside the monitor. The charging cradle is designed to accommodate both types of charging. Contacts on the bottom of the battery meet the contacts on the cradle, transferring power without other connections, and a spring-loaded capture holds the battery in place during charging.

1. Plug the AC/DC adapter into the monitor's cradle.
2. Place the battery into the cradle, with the gold-plated contacts on top of the six matching charging pins.
3. Plug the AC/DC adapter into the wall outlet.

The battery begins charging automatically. During charging, the Secondary LED in the cradle blinks green. When charging is complete, it glows steady green.

Release the battery from the cradle by pulling it back toward the rear of the cradle and tilting it out of its slot.

Note: If you need to replace the Li-ion battery pack, replacements are available from RAE Systems. The part number is 059-3051-000.

Note: An Alkaline Battery Adapter (part number 059-3052-000), which uses four AA alkaline batteries (Duracell MN1500), may be substituted for the Li-Ion battery.

WARNING!

To reduce the risk of ignition of hazardous atmospheres, recharge and replace batteries only in areas known to be non-hazardous. **Remove and replace batteries only in areas known to be non-hazardous.**

Low Voltage Warning



When the battery's charge falls below a preset voltage, the instrument warns you by beeping once and flashing once every minute, and the "empty battery" icon blinks on and off once per second. You should turn off the instrument within 10 minutes and either recharge the battery by placing the instrument in its cradle, or replace the battery with a fresh one with a full charge.

Clock Battery

An internal clock battery is mounted on one of the instrument's printed circuit boards. This long-life battery keeps settings in memory from being lost whenever the Li-ion battery or alkaline batteries are removed. This backup battery should last approximately five years, and must be replaced by an authorized RAE Systems service technician. It is not user-replaceable.

Data Protection While Power Is Off

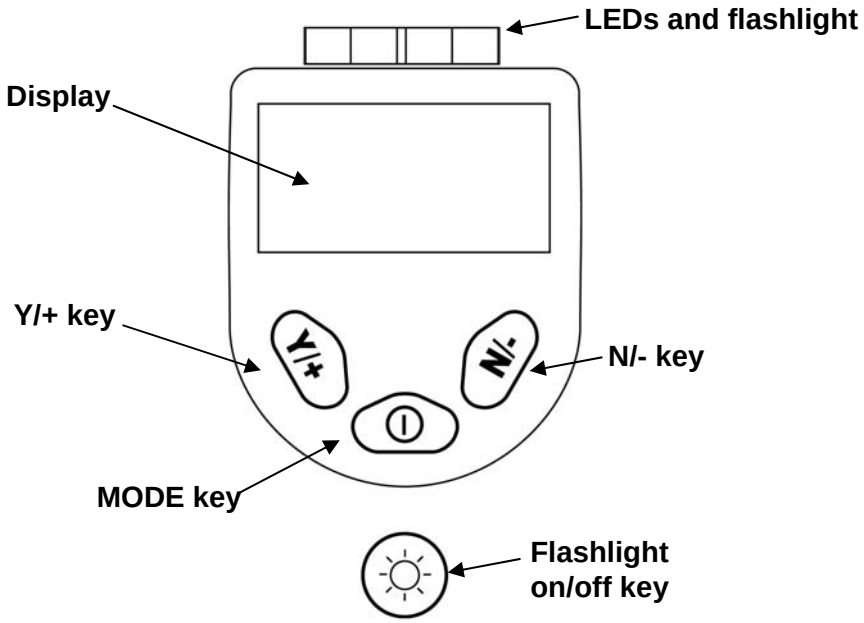
When the instrument is turned off, all the current real-time data including last measured values are erased. However, the datalog data is preserved in non-volatile memory. Even if the battery is disconnected, the datalog data will not be lost.

User Interface

The instrument's user interface consists of the display, LEDs, an alarm transducer, and four keys. The keys are:

Y/+
MODE
N/-
Flashlight on/off

The LCD display provides visual feedback that includes the reading, time, battery condition, and other functions.

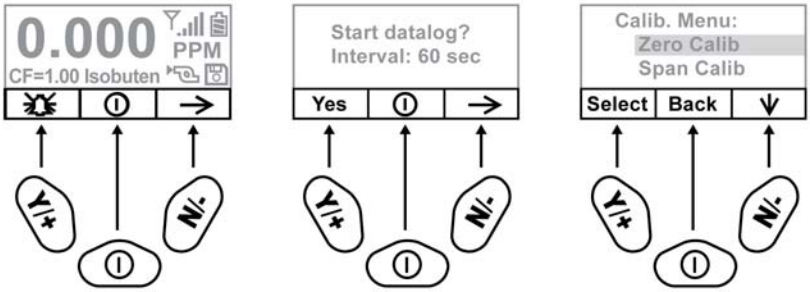


In addition to their labeled functions, the keys labeled Y/+, MODE, and N/- act as "soft keys" that control different parameters and make different selections within the instrument's menus. From menu to

menu, each key controls a different parameter or makes a different selection.

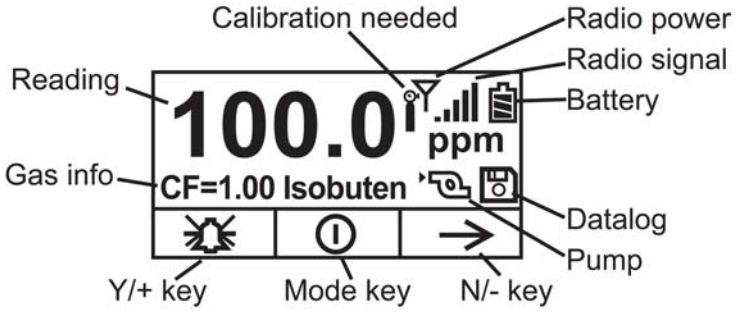
Three panes along the bottom of the display are "mapped" to the keys. These change as menus change, but at all times the left pane corresponds to the [Y/+] key, the center pane corresponds to the [MODE] key, and the right pane corresponds to the [N/-] key. Here are three examples of different menus with the relationships of the keys clearly shown:

RELATIONSHIP OF BUTTONS TO CONTROL FUNCTIONS



Display

The display shows the following information:



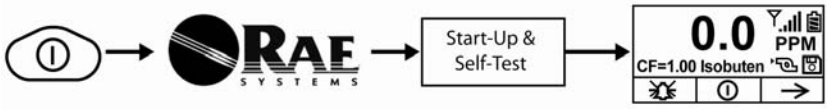
Graph	Graphic representation of concentration plotted over time
Gas info	Tells the Correction Factor and type of calibration gas
Reading	Concentration of gas as measured by the instrument
Calibration needed	Indicates that calibration should be performed
Radio power	Indicates whether radio connection is on or off
Radio signal	Indicates signal strength in 5-bar bargraph
Battery	Indicates battery level in 3 bars
Pump	Indicates that pump is working
Datalog	Indicates whether datalog is on or off
Y/+	Y/+ key's function for this screen
MODE	MODE key's function for this screen
N/-	N/- key's function for this screen

Operating The Instrument

The instrument is designed as a broadband VOC gas monitor and datalogger for work in hazardous environments. It gives real-time measurements and activates alarm signals whenever the exposure exceeds preset limits. Prior to factory shipment, the instrument is preset with default alarm limits and the sensor is pre-calibrated with standard calibration gas. However, you should test the instrument and verify the calibration before the first use. After the instrument is fully charged and calibrated, it is ready for immediate operation.

Turning The Instrument On

1. With the instrument turned off, press and hold [MODE].
2. When the display turns on, release the [MODE] key.



The RAE Systems logo should appear first. (If the logo does not appear, there is likely a problem and you should contact your distributor or RAE Systems Technical Support.) The instrument is now operating and performs self tests. If any tests (including sensor and memory tests fail), refer to the Troubleshooting section of this guide.

Once the startup procedure is complete, the instrument shows a numerical reading screen with icons. This indicates that the instrument is fully functional and ready to use.

Turning The Instrument Off

1. Press and hold the Mode key for 3 seconds. A 5-second countdown to shutoff begins.
2. Once the countdown stops, the instrument is off. Release the Mode key.
3. When you see "Unit off..." release your finger from the [MODE] key. The instrument is now off.

Note: You must hold your finger on the key for the entire shutoff process. If you remove your finger from the key during the countdown, the shutoff operation is canceled and the instrument continues normal operation.

Operating The Built-In Flashlight

The instrument has a built-in flashlight that helps you point the probe in dark places. Press the flashlight key to turn it on. Press it again to turn it off.

Note: Using the flashlight for extended periods shortens the battery's operating time before it needs recharging.

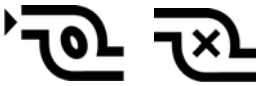
Pump Status

IMPORTANT!

During operation, make sure the probe inlet and the gas outlet are free of obstructions. Obstructions can cause premature wear on the pump, false readings, or pump stalling. During normal operation, the pump icon alternately shows inflow and outflow as shown here:



During duty cycling (PID lamp cleaning), the display shows these icons in alternation:



If there is a pump failure or obstruction that disrupts the pump, you will see this icon blinking on and off:



If you see this blinking icon, consult the Troubleshooting section of this guide.

Calibration Status

The instrument displays this icon if it requires calibration:



Calibration is required (and indicated by this icon) if:

- The lamp type has been changed (for example, from 10.6 eV to 9.8 eV).
- The sensor has been replaced.
- It has been 30 days or more since the instrument was last calibrated.
- If you have changed the calibration gas type without recalibrating the instrument.

Operating Modes

Your instrument operates in different modes, depending on the model and its factory default settings. In some cases, you can change modes using a password and using the instrument's navigation. In other cases, you must use ProRAE Studio software.

The default setting for your instrument is:

User Mode: Basic
Operation Mode: Hygiene

This is outlined in detail on page 74.

The other options, covered later in this guide, are:

User Mode: Advanced (page 78)
Operation Mode: Hygiene

User Mode: Advanced (page 82)
Operation Mode: Search

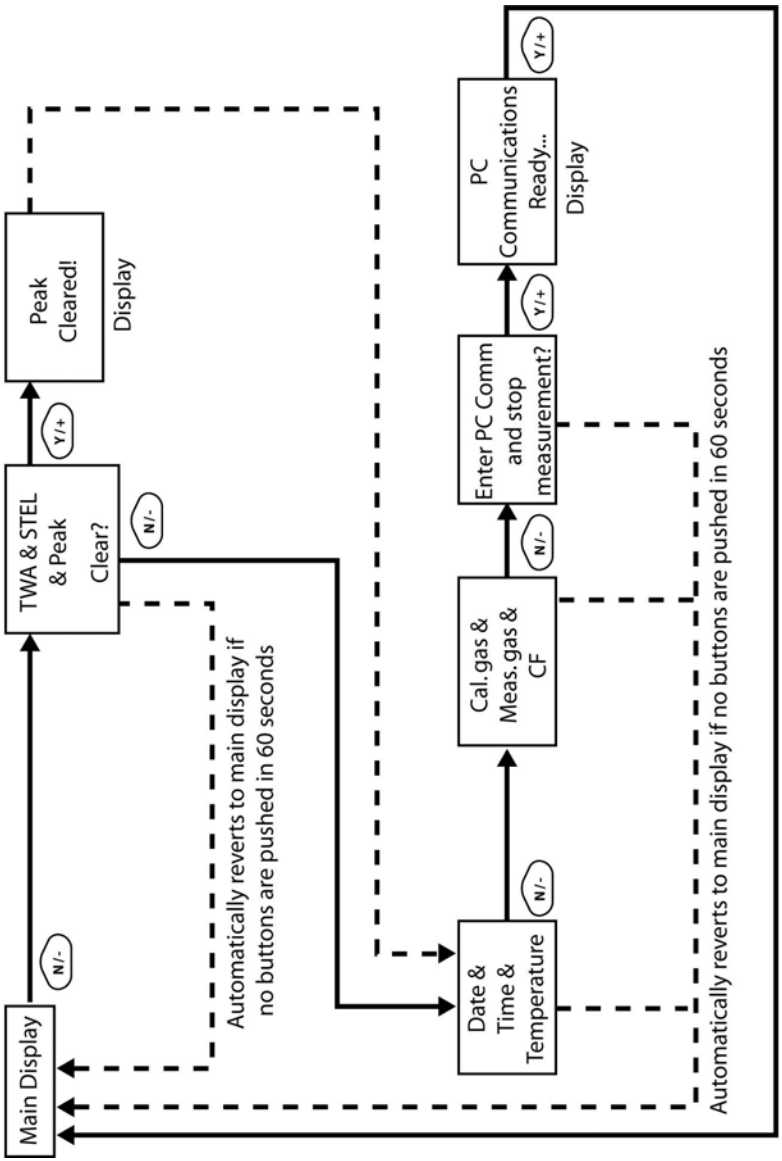
Using ProRAE Studio allows access to other options. In addition, Diagnostic Mode (page 83) is available for service technicians.

Basic User Level/Hygiene Mode (Default Settings)

The instrument is programmed to operate in Basic User Level/Hygiene Mode as its default. This gives you the most commonly needed features while requiring the fewest parameter adjustments.

Pressing [N/-] steps you from one screen to the next, and eventually return to the main display. If you do not press a key within 60 seconds after entering a display, the instrument reverts to its main display.

Note: While viewing any of these screens, you can shut off your instrument by pressing [MODE].



Note: Dashed line indicates automatic progression.

After the instrument is turned on, it runs through the start-up menu. Then the message "**Please apply zero gas…**" is displayed.

At this point, you can perform a zero air (fresh air) calibration. If the ambient air is clean, you can use that. Otherwise, use a cylinder of zero air. Refer to Zero Calibration on page 37 for a more detailed description of zero calibration.

Start zero calibration by pressing Start. You see the message "Zeroing…" followed by a 30-second countdown.

Note: You can press [MODE] to quit, bypassing the zero air calibration.

When zero calibration is complete, you see the message:

Zeroing is done!

Reading = 0.0 ppm

The instrument is now sampling and collecting data.

Note: At the Average & Peak, Date & Time & Temperature, Calibration Gas & Measurement Gas & Correction Factor, and PC Communications screens, the instrument automatically goes to the main display after 60 seconds if you do not push a key to make a selection.

Alarm Signals

During each measurement period, the gas concentration is compared with the programmed alarm limits (gas concentration alarm limit settings). If the concentration exceeds any of the preset limits, the loud buzzer and red flashing LED are activated immediately to warn you of the alarm condition.

In addition, the instrument alarms if one of the following conditions occurs: battery voltage falls below a preset voltage level, failure of the UV lamp, or pump stall.

Alarm Signal Summary

Message	Condition	Alarm Signal
HIGH	Gas exceeds "High Alarm" limit	3 beeps/flashes per second*
OVR	Gas exceeds measurement range	3 beeps/flashes per second*
MAX	Gas exceeds electronics' maximum range	3 beeps/flashes per second*
LOW	Gas exceeds "Low Alarm" limit	2 beeps/flashes per second*
TWA	Gas exceeds "TWA" limit	1 Beep/flash per second*
STEL	Gas exceeds "STEL" limit	1 Beep/flash per second*
Pump icon flashes	Pump failure	3 beeps/flashes per second
Lamp	PID lamp failure	3 beeps/flashes per second plus "Lamp" message on display
Battery icon flashes	Low battery	1 flash, 1 beep per minute plus battery icon flashes on display
CAL	Calibration failed, or needs calibration	1 beep/flash per second
NEG	Gas reading measures less than number stored in calibration	1 beep/flash per second

* Hygiene mode only. In Search mode, the number of beeps per second (1 to 7) depends upon the concentration of the sampled gas. Faster rates indicate higher concentrations.

Preset Alarm Limits & Calibration

The instrument is factory calibrated with standard calibration gas, and is programmed with default alarm limits.

Cal Gas (Isobutylene)	Cal Span	unit	Low	High	TWA	STEL
MiniRAE 3000	100	ppm	50	100	10	25

Testing The Alarm

You can test the alarm whenever the main (Reading) display is shown. Press [Y/+], and the audible and visible alarms are tested.

Integrated Sampling Pump

The instrument includes an integrated sampling pump. This diaphragm-type pump that provides a 450 to 550 cc per minute flow rate. Connecting a Teflon or metal tubing with 1/8" inside diameter to the gas inlet port of the instrument, this pump can pull in air samples from 100' (30 m) away horizontally or vertically.

Note: In Search Mode, the pump turns on when a sample measurement is started, and turns off when the sample is manually stopped.

If liquid or other objects are pulled into the inlet port filter, the instrument detects the obstruction and immediately shuts down the pump. The alarm is activated and a flashing pump icon is displayed.

You should acknowledge the pump shutoff condition by clearing the obstruction and pressing the [Y/+] key while in the main reading display to restart the pump.

Backlight

The LCD display is equipped with an LED backlight to assist in reading the display under poor lighting conditions.

Datalogging

During datalogging, the instrument displays a disk icon to indicate that datalogging is enabled. The instrument stores the measured gas concentration at the end of every sample period (when data logging is enabled). In addition, the following information is stored: user ID, site ID, serial number, last calibration date, and alarm limits. All data are retained (even after the unit is turned off) in non-volatile memory so that it can be down- loaded at a later time to a PC.

Datalogging event

When Datalogging is enabled, measurement readings are being saved. These data are stored in "groups" or "events." A new event is created and stored each time the instrument is turned on and is set to automatic datalogging, or a configuration parameter is changed, or datalogging is interrupted. The maximum time for one event is 24 hours or 28,800 points. If an event exceeds 24 hours, a new event is automatically created. Information, such as start time, user ID, site ID, gas name, serial number, last calibration date, and alarm limits are recorded.

Datalogging sample

After an event is recorded, the unit records a shorter form of the data. When transferred to a PC running ProRAE Studio, this data is arranged with a sample number, time, date, gas concentration, and other related information.

Auto/Manual/Snapshot Datalogging

The instrument has three datalog types:

Auto	Default mode. Collects datalog information when the instrument is sampling.
Manual	Datalogging occurs only when the instrument's datalogging is manually started (see page 63 for details).
Snapshot	Datalogs only during snapshot (single-event capture, initiated by pressing [MODE]) sampling. See page 65 for details.

Note: You can only choose one datalog type to be active at a time.

Accessories

The following accessories are included with the instrument:

- An AC Adapter (Battery Charger)
- Alkaline battery adapter
- External Filter
- Organic Vapor Zeroing kit

Hard-case kits also include these accessories:

- Calibration adapter
- Calibration regulator and Flow controller

Standard Kit & Accessories

AC Adapter (Battery Charger)

WARNING

To reduce the risk of ignition of hazardous atmospheres, recharge battery only in area known to be non-hazardous. Remove and replace battery only in area known to be non-hazardous.

Ne charger les batteries que dans emplacements designés non-dangereuses.

A battery charging circuit is built into the instrument cradle. It only needs a regular AC to 12 VDC adapter (wall-mount transformer, part number 500-0114-000) to charge the instrument.

To charge the battery inside the instrument:

1. Power off the instrument.
2. Connect the AC adapter to the DC jack on the instrument's cradle. If the instrument is off, it automatically turns on.
3. While charging, the display message shows "Charging." The Primary LED on the cradle flashes green when charging.
4. When the battery is fully charged, the LED changes to glowing green continuously, and the message "Fully charged" appears on the

display. If there is a charging error, the LED glows red continuously.

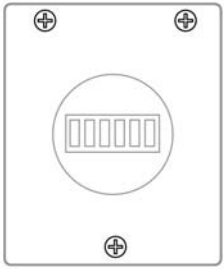
A completely discharged instrument can be charged to full capacity within 8 hours. Batteries drain slowly even if an instrument is off. Therefore, if the instrument has been in storage or has not been charged for several days or longer, check the charge before using it.

The factory-supplied battery is designed to last for 16 hours of normal operation (no alarm), for a new battery under the optimum circumstances. As the battery becomes older or is subject to adverse conditions (such as cold ambient temperature), its capacity will be significantly reduced.

Alkaline Battery Adapter

An alkaline battery adapter is supplied with each instrument. The adapter (part number 059-3052-000) accepts four AA alkaline batteries (use only Duracell MN1500) and provides approximately 12 hours of operation. The adapter is intended to be used in emergency situations when there is no time to charge the Li-ion battery pack.

To insert batteries into the adapter:



1. Remove the three Philips-head screws to open the compartment in the adapter.
2. Insert four fresh AA batteries as indicated by the polarity (+/-) markings.
3. Replace the cover. Replace the three screws.

To install the adapter in the instrument:

1. Remove the Li-ion battery pack from the instrument by sliding the tab and tilting out the battery.
2. Replace it with the alkaline battery adapter
3. Slide the tab back into place to secure the battery adapter.

IMPORTANT!

Alkaline batteries cannot be recharged. The instrument's internal circuit detects alkaline batteries and will not allow recharging. If you place the instrument in its cradle, the alkaline battery will not be recharged. The

internal charging circuit is designed to prevent damage to alkaline batteries and the charging circuit when alkaline batteries are installed inside the instrument. If you try to charge an alkaline batteries installed in the instrument, the instrument's display will say, "Alkaline Battery," indicating that it will not charge the alkaline batteries.

Note: When replacing alkaline batteries, dispose of old ones properly.

WARNING!

To reduce the risk of ignition of hazardous atmospheres, recharge the battery only in areas known to be non-hazardous. Remove and replace the battery only in areas known to be non-hazardous.

External Filter

The external filter is made of PTFE (Teflon®) membrane with a 0.45 micron pore size to prevent dust or other particles from being sucked into the sensor manifold, which would cause extensive damage to the instrument. It prolongs the operating life of the sensor. To install the external filter, simply connect it to the instrument's inlet tube.

Optional Accessories

Calibration Adapter

The calibration adapter for the instrument is a simple 6-inch Tygon tubing with a metal adapter on one end. During calibration, simply insert the metal adapter into the regular gas inlet probe of the instrument and the tubing to the gas regulator on the gas bottle.

Calibration Regulator

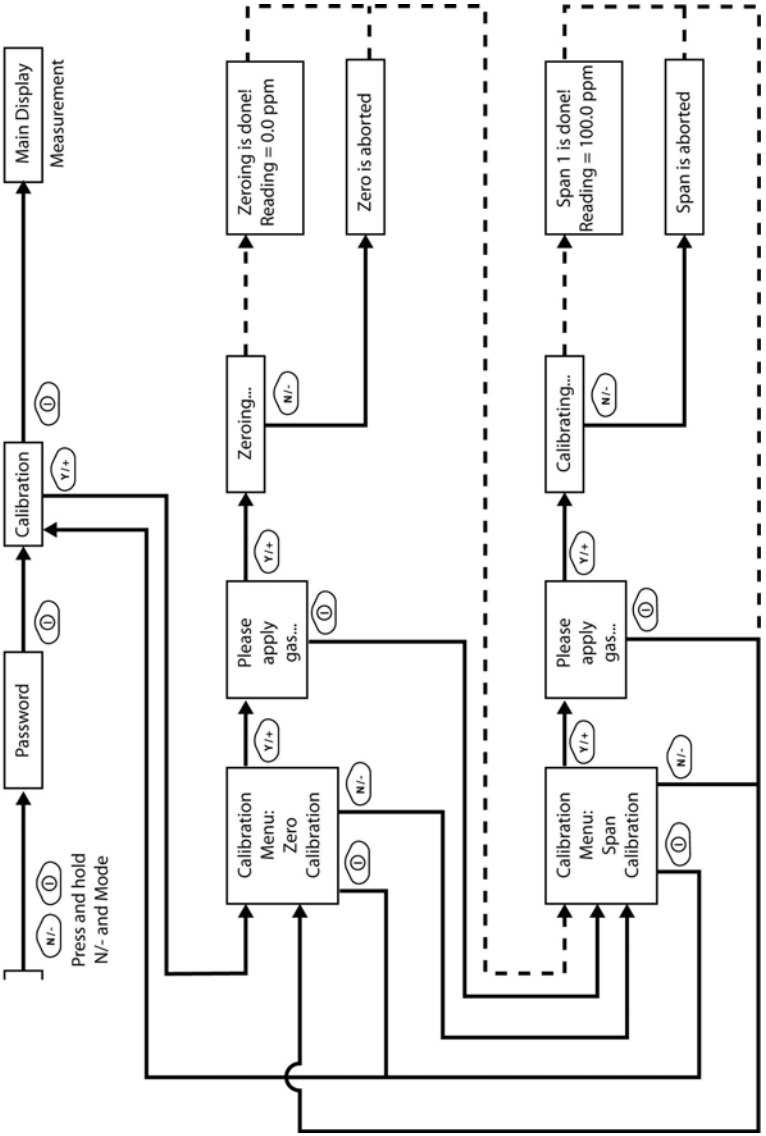
The Calibration Regulator is used in the calibration process. It regulates the gas flow rate from the Span gas cylinder into the gas inlet of the instrument during calibration process. The maximum flow rate allowed by the flow controller is about 0.5L/min (500 cc per min.). Alternatively, a demand-flow regulator or a Tedlar gas bag may be used to match the pump flow precisely.

Organic Vapor Zeroing Kit

The Organic Vapor Zeroing Kit is used for filtering organic air contaminants that may affect the zero calibration reading. To use the Organic Vapor Zeroing Kit, simply connect the filter to the inlet port of the instrument.

Standard Two-Point Calibration (Zero & Span)

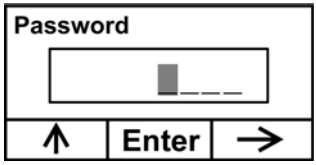
The following diagram shows the instrument's calibrations in Basic/Hygiene mode.



Note: Dashed line indicates automatic progression.

Entering Calibration

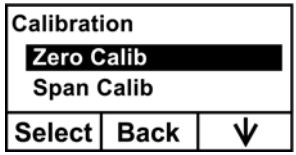
1. Press and hold [MODE] and [N/-] until you see the Password screen.



2. In Basic User Level, you do not need a password to perform calibrations. Instead of inputting a password, enter calibration by pressing [MODE].

   Note: If you inadvertently press [Y/+] and change any of the numbers, simply press [MODE] and you will be directed to the calibration menu.

The Calibration screen is now visible with Zero Calibration highlighted.



These are your options:

- Press [Y/+] to select the highlighted calibration (Zero Calib or Span Calib).
- Press [MODE] to exit calibration and return to the main display and resume measurement.
- Press [N/-] to toggle the highlighted calibration type.

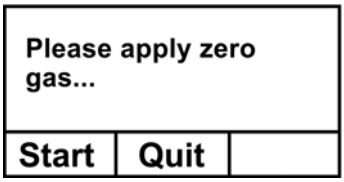
Zero (Fresh Air) Calibration

This procedure determines the zero point of the sensor calibration curve. To perform a fresh air calibration, use the calibration adapter to connect the instrument to a "fresh" air source such as from a cylinder or Tedlar bag (optional accessory). The "fresh" air is clean, dry air without organic impurities and an oxygen value of 20.9%. If such an air cylinder is not available, any clean ambient air without detectable contaminants or a charcoal filter can be used.

At the Zero Calibration menu, you can proceed to perform a Zero calibration or bypass Zero calibration and perform a Span calibration. You may also go back to the initial Calibration menu if you want to exit calibration.

- Press [Y/+] to start calibration.
- Press [MODE] to quit and return to the main calibration display.

If you have pressed [Y/+] to enter Zero calibration, then you will see this message:



1. Turn on your Zero calibration gas.
2. Press [Y/+] to start calibration.

   Note: At this point, you may press [MODE] if you decide that you do not want to initiate calibration. This will take you directly to the Calibration menu, highlighted for Span calibration.

3. Zero calibration starts a 30-second countdown and displays this message:

   Zeroing...

During the zeroing process, the instrument performs the Zero calibration automatically and does not require any action on your part.

Note: To abort the zeroing process at any time and proceed to Span calibration, press [N/-] at any time while zeroing is being performed. You will see a confirmation message that says "Zero aborted!" and then the Span calibration menu appears.

When Zero calibration is complete, you see this message:

Zeroing is done!
Reading = 0.0 ppm

The instrument will then show the Calibration menu on its display, with Span Calib highlighted.

Span Calibration

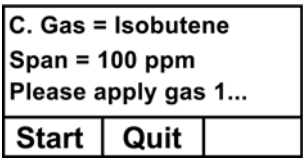
This procedure determines the second point of the sensor calibration curve for the sensor. A cylinder of standard reference gas (span gas) fitted with a 500 cc/min. flow-limiting regulator or a flow-matching regulator is the simplest way to perform this procedure. Choose the 500 cc/min. regulator only if the flow rate matches or slightly exceeds the flow rate of the instrument pump. Alternatively, the span gas can first be filled into a Tedlar bag or delivered through a demand-flow regulator. Connect the calibration adapter to the inlet port of the instrument, and connect the tubing to the regulator or Tedlar bag.

Another alternative is to use a regulator with >500 cc/min flow but allow the excess flow to escape through a T or an open tube. In the latter method, the span gas flows out through an open tube slightly wider than the probe, and the probe is inserted into the calibration tube.

At the Span Calibration menu, you perform a Span calibration. You may also go back to the Zero calibration menu or to the initial Calibration menu if you want to exit calibration.

- Press [Y/+] to enter Span calibration.
- Press [N/-] to skip Span calibration and return to Zero calibration.
- Press [MODE] to exit Span calibration and return to the top calibration menu.

If you have pressed [Y/+] to enter Span calibration, then you will see the name of your Span gas (the default is isobutylene) and the span value in parts per million (ppm). You will also see this message that prompts you:



1. Turn on your span calibration gas.
2. Press [Y/+] to initiate calibration.

Note: You may press [MODE] if you decide that you do not want to initiate calibration. This will abort the span calibration and take you directly to the Calibration menu for Zero calibration.

3. Span calibration starts and displays this message:

   Calibrating...

During the Span calibration process, there is a 30-second countdown and the instrument performs the Span calibration automatically. It requires no actions on your part.

Note: If you want to abort the Span calibration process, press [N/-] at any time during the process. You will see a confirmation message that says "Span is aborted!" and then the Zero calibration menu appears. You can then proceed to perform a Zero calibration, perform a Span calibration, or exit to the topmost Calibration menu.

When Span calibration is complete, you see a message similar to this (the value is an example only):

Span 1 is done!
Reading = 100.0 ppm

The instrument then exits Span calibration and shows the Zero calibration menu on its display.

Note: The reading should be very close to the span gas value.

Exiting Two-Point Calibration In Basic User Level

When you are done performing calibrations, press [MODE], which corresponds with "Back" on the display. You will see the following message:

Updating settings…

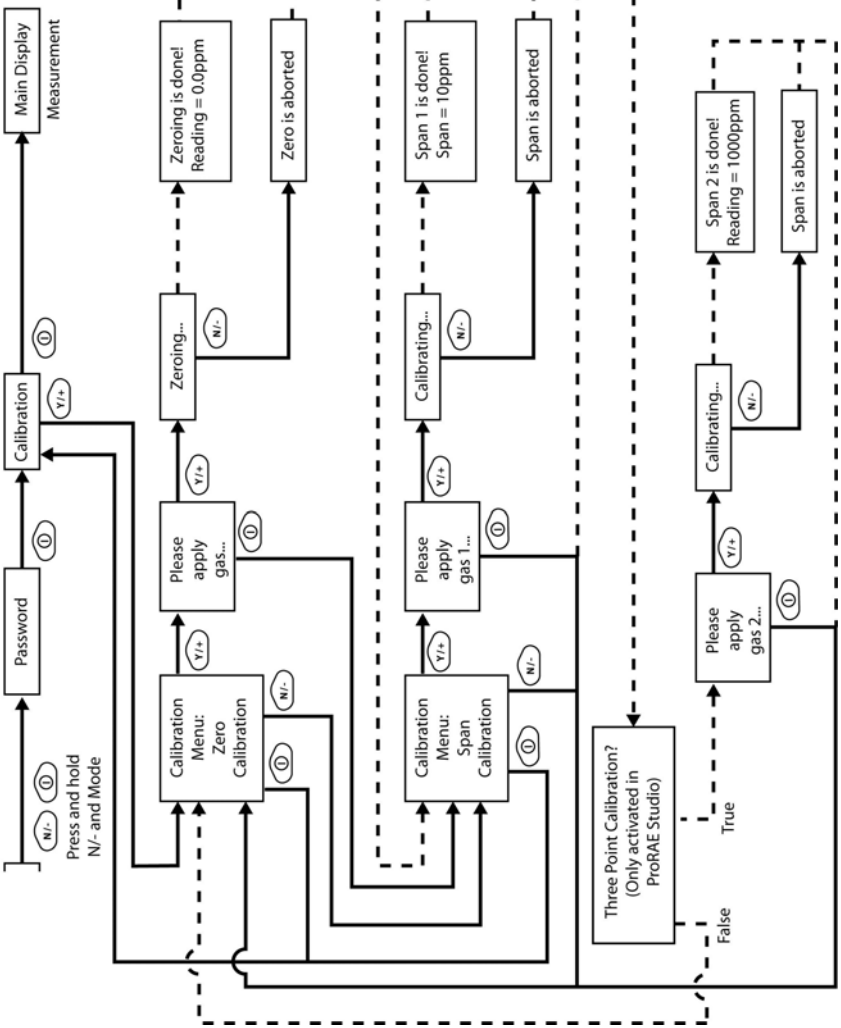
The instrument updates its settings and then returns to the main display. It begins or resumes monitoring.

Three-Point Calibration

For enhanced accuracy, it is possible to perform a second Span calibration in addition to the Zero and Span calibrations outlined in the previous section. Your instrument first must be set to allow this third calibration. This requires using ProRAE Studio software and a PC, as well as a higher concentration of calibration gas.

Note: Once the third calibration is set, you do not need to use ProRAE Studio to allow future 3-point calibrations. Also, you can only disable 3-point calibration capability by using ProRAE Studio again.

Perform the Zero and Span calibrations. After the first Span calibration (Span 1) is completed, the display a second Span calibration (Span 2) can be performed. The process is identical to the first calibration. As in the Span 1 calibration, you may exit and return to the Zero calibration screen if you choose not to perform this calibration or to abort it.



Note: Dashed line indicates automatic progression.

Span 2 Calibration

A cylinder of standard reference gas (span gas) fitted with a 500 cc/min. flow-limiting regulator or a flow-matching regulator is the simplest way to perform this procedure.

Note: This gas should be of a higher concentration than the gas used for Span 1 calibration.

Choose the 500 cc/min. regulator only if the flow rate matches or slightly exceeds the flow rate of the instrument pump. Alternatively, the span gas can first be filled into a Tedlar bag or delivered through a demand-flow regulator. Connect the calibration adapter to the inlet port of the instrument, and connect the tubing to the regulator or Tedlar bag.

Another alternative is to use a regulator with >500 cc/min flow but allow the excess flow to escape through a T or an open tube. In the latter method, the span gas flows out through an open tube slightly wider than the probe, and the probe is inserted into the calibration tube.

At the Span Calibration menu, you perform a Span calibration. You may also go back to the Zero calibration menu or to the initial Calibration menu if you want to exit calibration.

- Press [Y/+] to enter Span 2 calibration.
- Press [N/-] to skip Span calibration and return to Zero calibration.
- Press [MODE] to exit Span calibration and return to the top calibration menu.

If you have pressed [Y/+] to enter Span calibration, then you will see the name of your Span gas (the default is isobutylene) and the span value in parts per million (ppm). You will also see this message that prompts you:

Please apply gas...

4. Turn on your span calibration gas.
5. Press [Y/+] to initiate calibration.

Note: You may press [MODE] if you decide that you do not want to initiate calibration. This will take you directly to the Calibration menu for Zero calibration.

6. Span calibration starts a 30-second countdown and displays this message:

   Calibrating...

During the Span calibration process, the instrument performs the Span calibration automatically and does not require any action on your part.

Note: If you want to abort the Span calibration process, press [N/-] at any time during the process. You will see a confirmation message that says "Span is aborted!" and then the Zero calibration menu will appear. You can then proceed to perform a Zero calibration, perform a Span calibration, or exit to the topmost Calibration menu.

When Span calibration is complete, you will see a message similar to this (the value shown here is for example only):

Span 2 is done!
Reading = 1000 ppm

The instrument then exits Span calibration and shows the Zero calibration menu on its display.

Note: The reading should be very close to the span gas value.

Exiting Three-Point Calibration

When you are done performing calibrations, press [MODE], which corresponds with "Back" on the display. You will see the following message:

Updating settings…

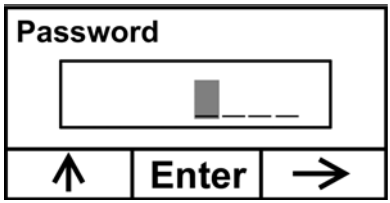
The instrument updates its settings and then returns to the main display. It begins or resumes monitoring.

Programming Mode

Programming Mode can be entered from either Hygiene Mode or Search Mode. If the current user mode is Basic, you must provide a 4-digit password to enter.

Entering Programming Mode

1. Press and hold [MODE] and [N/-] until you see the Password screen.



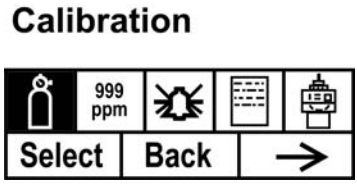
2. Input the 4-digit password:

- Increase the number from 0 through 9 by pressing [Y/+].
- Step from digit to digit using [N/-].
- Press [MODE] when you are done.

If you make a mistake, you can cycle through the digits by pressing [N/-] and then using [Y/+] to change the number in each position.

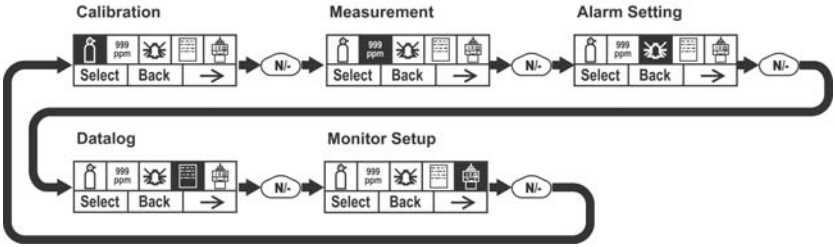
Note: The default password is 0000.

When you have successfully entered Programming Mode, you see this screen:



Note: The password can only be changed by connecting the instrument to a PC running ProRAE Studio software. Follow the instructions in ProRAE Studio to change it.

The Calibration label is shown and its icon is highlighted, but you can press [N/-] to step from one programming menu to the next, with the name of the menu shown at the top of the display and the corresponding icon highlighted. As you repeatedly press [N/-], the selection moves from left to right, and you see these screens:

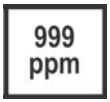
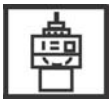


Note: When you reach Monitor Setup and press [N/-], the menu cycles back to Calibration.

Programming Mode Menus

The Programming Mode allows anyone with the password to change the instrument's settings, calibrate the instrument, modify the sensor configuration, enter user information, etc. Programming Mode has five menus. Each menu includes several sub-menus to perform additional programming functions.

This table shows the menus and sub-menus:

				
Calibration	**Measurement**	**Alarm Setting**	**Datalog**	**Monitor Setup**
Zero Calibration	Meas. Gas	High Alarm	Clear Datalog	Op Mode
Span Calibration	Meas. Unit	Low Alarm	Interval	Site ID
		STEL Alarm	Data Selection	User ID
		TWA Alarm	Datalog Type	User Mode
		Alarm Type		Date
		Buzzer & Light		Time
				Pump Duty Cycle
				Pump Speed
				Temperature Unit
				Language
				Radio Power
				Real Time Protocol
				Power On Zero
				Unit ID
				LCD Contrast

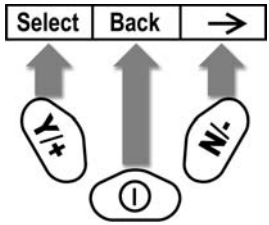
Once you enter Programming Mode, the LCD displays the first menu, Calibration. Each subsequent menu is accessed by pressing [N/-] repeatedly until the desired menu is displayed. To enter a sub-menu of a menu, press [Y/+].

Exiting Programming Mode

To exit Programming Mode and return to normal operation, press [MODE] once at any of the programming menu displays. You will see "Updating Settings…" as changes are registered and the mode changes.

Navigating Programming Mode Menus

Navigating through the Programming Mode menus is easy and consistent, using a single interface format of "Select," "Back" and "Next" at the top level. The three control buttons correspond to these choices as shown:



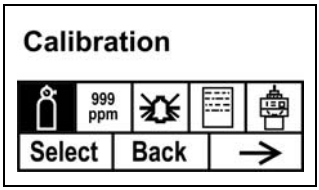
Note: Pressing [MODE] in the Programming Mode's top level causes the instrument to exit Programming Mode and return to monitoring.

The three keys perform the following functions in Programming Mode:

Key	Function in Programming Mode
[MODE]:	Exit menu when pressed momentarily or exit data entry mode
[Y/+]:	Increase alphanumerical value for data entry or confirm (yes) for a question
[N/-]:	Provides a "no" response to a question

Calibration

Two types of calibration are available: Zero (fresh air) and Span.



Select Zero or Span Calibration by pressing [N/+]. Once your choice is highlighted, press [Y/+].

Zero Calibration

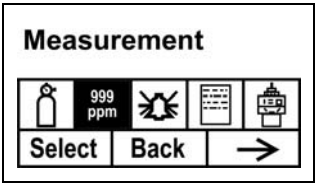
The procedure for performing a zero calibration is covered on page 35.

Span Calibration

The procedure for performing a basic span calibration is covered on page 35.

Measurement

The sub-menus for Measurement are Measurement Gas and Measurement Unit.



Meas. Gas

Measurement gases are organized in four lists:

- My List is a customized list of gases that you create. It contains a maximum of 10 gases and can only be built in ProRAE Studio on a PC and transferred to the instrument. **Note:** The first gas in the list is always isobutylene (it cannot be removed from the list).
- Last Ten is a list of the last ten gases used by your instrument. The list is built automatically and is only updated if the gas selected from Custom Gases or Library is not already in the Last Ten. This ensures that there is no repetition.
- Gas Library is a library that consists of all the gases found in RAE Systems' Technical Note TN-106 (available online at www.raesystems.com).
- Custom Gases are gases with user-modified parameters. Using ProRAE Studio, all parameters defining a gas can be modified, including the name, span value(s), correction factor, and default alarm limits.

1. Scroll through each list by pressing [N/-].
2. Press [Y/+] to select one (My List, Last Ten, Gas Library, or Custom Gases).

3. Once you are in one of the categories, press [N/-] to scroll through its list of options and [Y/+] to select one. (If you press [MODE], you exit to the next submenu.)
4. Press [Y/+] to save your choice or [N/-] to undo your selection.

Leave the sub-menu and return to the Programming Mode menus by pressing [MODE].

Meas. Unit

Standard available measurement units include:

Abbreviation	Unit	MiniRAE 3000
ppm	parts per million	Yes
ppb	parts per billion	
mg/m3	milligrams per cubic meter	Yes
ug/m3	micrograms per cubic meter	

- Scroll through the list by pressing [N/-].
- Select by pressing [Y/+].
- Save your selection by pressing [Y/+] or undo your selection by pressing [N/-].

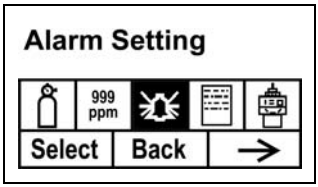
Leave the sub-menu and return to the Programming Mode menus by pressing [MODE].

Alarm Setting

During each measurement period, the gas concentration is compared with the programmed alarm limits (gas concentration alarm limit settings: Low, High, TWA and STEL). If the concentration exceeds any of the preset limits, the loud buzzer and red flashing LED are activated immediately to warn of the alarm condition.

An alarm signal summary is shown on page 27.

In this menu, you can change the High and Low alarm limits, the STEL limit, and the TWA. Press [Y/+] to to enter the Alarm Setting menu. **Note:** All settings are shown in ppb (parts per billion), or µg/m^3 (micrograms per cubic meter), depending on your setting.



1. Scroll through the Alarm Limit sub-menu using the [N/-] key until the display shows the desired limit to be changed (High Alarm, Low Alarm, STEL Alarm, and TWA Alarm)
2. Press [Y/+] to select one of the alarm types. The display shows a flashing cursor on the left-most digit of the previously stored alarm limit.
3. Press [Y/+] to increase each digit's value.
4. Press [N/-] to advance to the next digit.
5. Again, use [Y/+] to increase the number.

Repeat this process until all numbers are entered.

Press [MODE] when you are done.

- Press [Y/+] to save the changes.
- Press [N/-] to undo the changes and revert to the previous settings.

When all alarm types have been changed or bypassed, press [MODE] to exit to the Programming Menu.

High Alarm

You can change the High Alarm limit value. The value is typically set by the instrument to match the value for the current calibration gas. It is expressed in parts per billion (ppb). **Note:** The default value depends on the measurement gas.

To change the High Alarm value:

1. Press [Y/+] to increase each digit's value.
2. Press [N/-] to advance to the next digit.
3. Again, use [Y/+] to increase the number.

Repeat this process until all numbers are entered.
When you have completed your selections, press [MODE]. You will see two choices: Save and Undo. You have the opportunity to register the new settings or to change your mind and revert to your previous settings.

Press [Y/+] to save the changes.
Press [N/-] to undo the changes and revert to the previous settings.

Low Alarm

You can change the Low Alarm limit value. The value is typically set by the instrument to match the value for the current calibration gas. It is expressed in parts per billion (ppb). **Note:** The default value depends on the measurement gas.

To change the Low Alarm value:

1. Press [Y/+] to increase each digit's value.
2. Press [N/-] to advance to the next digit.
3. Again, use [Y/+] to increase the number.

Repeat this process until all numbers are entered.

When you have completed your selections, press [MODE]. You will see two choices: Save and Undo. You have the opportunity to register the new settings or to change your mind and revert to your previous settings.

- Press [Y/+] to save the changes.
- Press [N/-] to undo the changes and revert to the previous settings.

STEL Alarm

You can change the STEL Alarm limit value. The value is typically set by the instrument to match the value for the calibration gas. It is expressed in parts per billion (ppb). **Note:** The default value depends on the measurement gas.

To change the STEL Alarm value:

1. Press [Y/+] to increase each digit's value.
2. Press [N/-] to advance to the next digit.
3. Again, use [Y/+] to increase the number.

Repeat this process until all numbers are entered.

When you have completed your selections, press [MODE]. You will see two choices: Save and Undo. You have the opportunity to register the new settings or to change your mind and revert to your previous settings.

- Press [Y/+] to save the changes.
- Press [N/-] to undo the changes and revert to the previous settings.

TWA Alarm

You can change the TWA (time-weighted average) Alarm limit value. The value is typically set by the instrument to match the value for the calibration gas. It is expressed in parts per billion (ppb). **Note:** The default value depends on the measurement gas.

To change the TWA Alarm value:

1. Press [Y/+] to increase each digit's value.
2. Press [N/-] to advance to the next digit.
3. Again, use [Y/+] to increase the number.

Repeat this process until all numbers are entered.

When you have completed your selections, press [MODE]. You will see two choices:

- Save
- Undo

You have the opportunity to register the new settings or to change your mind and revert to your previous settings.

- Press [Y/+] to save the changes.
- Press [N/-] to undo the changes and revert to the previous settings.

Alarm Type

There are two selectable alarm types:

Latched — When the alarm is triggered, you can manually stop the alarm.
The latched setting only controls alarms for High Alarm, Low Alarm, STEL Alarm, and TWA alarm.

Note: To clear an alarm when the instrument is set to "Latched," press [Y/+] when the main (Reading) display is shown.

Automatic Reset — When the alarm condition is no longer present, the alarm stops and resets itself.

1. Press **[N/-]** to step from one alarm type to the other.
2. Press **[Y/+]** to select an alarm type.

When you have completed your selections, press [MODE].

You will see two choices: Save and Undo. You have the opportunity to register the new settings or to change your mind and revert to your previous settings.

- Press [Y/+] to save the changes.
- Press [N/-] to undo the changes and revert to the previous settings.

Buzzer & Light

The buzzer and light alarms can be programmed to be on or off individually or in combination. Your choices are:

- Both on
- Light only
- Buzzer only
- Both off

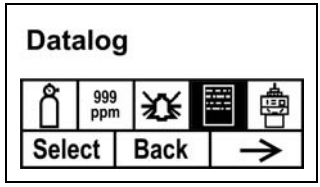
1. Press [N/-] to step from one option to the next.
2. Press [Y/+] to make your selection (the dark circle in the "radio button" indicates your selection).
3. When you have completed your selections, press [MODE].

   You will see two choices: Save and Undo. You have the opportunity to register the new settings or to change your mind and revert to your previous settings.

   - Press [Y/+] to save the changes.
   - Press [N/-] to undo the changes and revert to the previous settings.

Datalog

The instrument calculates and stores the concentration and ID of each sample taken. In the datalog sub-menu, a user can perform the tasks and functions shown below.



1. Scroll through the Datalog sub-menu using the [N/-] key until the display shows the desired parameter to be changed:

   Clear Datalog
   Interval
   Data Selection
   Datalog Type

2. Press [Y/+] to make your selection. Exit by pressing [MODE] for Back.

Clear Datalog

This erases all the data stored in the datalog.

Note: Once the datalog is cleared, the data cannot be recovered.

Press [Y/+] to clear the datalog. The display asks, "Are you sure?"

- Press [Y/+] if you want to clear the datalog. When it has been cleared, the display shows "Datalog Cleared!"
- Press [N/-] if you do not want to clear the datalog.

The display changes, and you are taken to the next sub-menu, Interval.

Interval

Intervals are shown in seconds. The default value is 60 seconds. The maximum interval is 3600 seconds.

1. Press [Y/+] to increase each digit's value.
2. Press [N/-] to advance to the next digit.
3. Again, use [Y/+] to increase the number.

Repeat this process until all numbers are entered.

When you have completed your selections, press [MODE].

You will see two choices: Save and Undo. You have the opportunity to register the new settings or to change your mind and revert to your previous settings.

- Press [Y/+] to save the changes.
- Press [N/-] to undo the changes and revert to the previous settings.

Data Selection

Data Selection allows you to select which types of data are stored and made available when you offload your datalog to a computer via ProRAE Studio software.

You can choose any or all of three types of data (you must choose at least one):

- Average
- Maximum
- Minimum

1. Press [N/-] to step from one option to the next. The highlighter indicates your choice.
2. Press [Y/+] to toggle your selection on or off (the check box indicates "on" with an "X").
3. When you have completed your selections, press [MODE].

You will see two choices: Save and Undo. You have the opportunity to register the new settings or to change your mind and revert to your previous settings.

- Press [Y/+] to save the changes.
- Press [N/-] to undo the changes and revert to the previous settings.

Datalog Type

The instrument has three datalog types:

Auto	Default mode. Collects datalog information when the instrument is sampling.
Manual	Datalogging occurs only when the instrument's datalogging is manually started (see below for details).
Snapshot	Datalogs only during single-event capture sampling.

Note: You can only choose one datalog type to be active at a time.

1. Press [N/-] to step from one option to the next.
2. Press [Y/+] to make your selection (the dark circle in the "radio button" indicates "on").
3. When you have completed your selection, press [MODE].

You will see two choices: Save and Undo. You have the opportunity to register the new settings or to change your mind and revert to your previous settings.

- Press [Y/+] to save the changes.

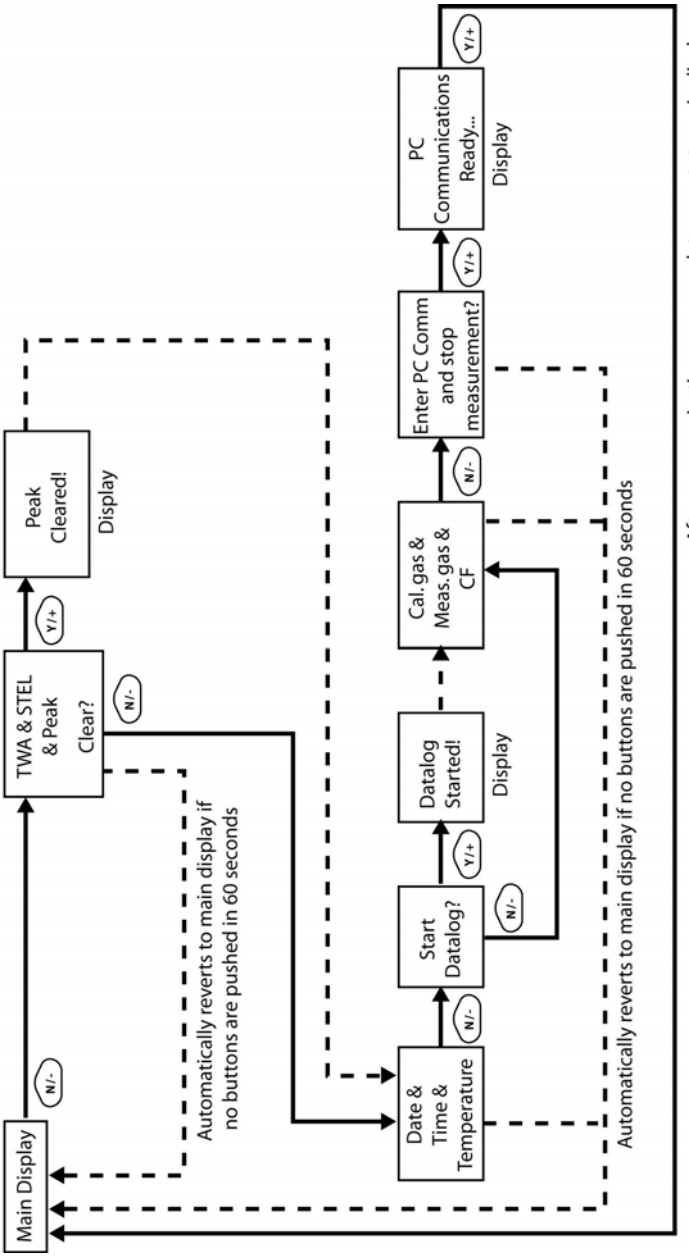
Press [N/-] to undo the changes and revert to the previous settings.

Manual Datalog

When the instrument is set to Manual Datalog, you turn datalogging on and off by stepping through the displays from the Main Display, and then pressing the keys to select datalog on/off functions.

- When you reach the screen that says "Start Datalog?" press [Y/+] to start it. You see "Datalog Started," confirming that datalogging is now on.

When you reach the screen that says "Stop Datalog?" press [Y/+] to stop it. You see "Datalog Stopped," confirming that datalogging is now off.



Note: Dashed line indicates automatic progression.

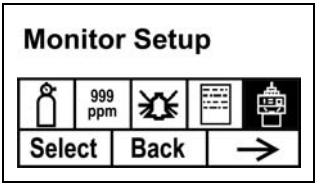
Snapshot Datalog

When the instrument is in Snapshot datalogging mode, it captures a single "snapshot" of the data at the moment of your choosing. Whenever the instrument is on and it is set to Snapshot, all you have to do is press [MODE] each time you want to capture a snapshot of the data at that instant.

When you send the data to a computer using ProRAE Studio, the data snapshots are uniquely identified by time and other parameters.

Monitor Setup

Many settings can be accessed in this menu, including setting the date and time and adjusting the pump's on/off duty cycle.



Op Mode

Under Monitor Setup is "Op Mode."

Press [Y/+] to select.

You see two options (one is highlighted):

Hygiene
Search

The current mode is indicated by a dark circle within the circle in front of either Hygiene or Search.

1. Select Hygiene or Search by pressing [N/-]. The highlighting changes from one to the other each time you press [N/-].
2. Press [Y/+] to select that mode for the instrument.
3. Press [MODE] when you want to register your selection to place the instrument in the selected mode.
4. Press [Y/+] to commit the change and exit to the Monitor Setup screen, or press [N/-] to Undo (exit to the Monitor Setup screen without changing the Mode).

Site ID

Enter an 8-digit alphanumeric/character Site ID in the programming mode. This Site ID is included in the datalog report.

1. Press [Y/+] and the display shows the current site ID. Example: "RAE00001." Note that the left-most digit flashes to indicate it is the selected one.
2. Press [Y/+] to step through all 26 letters (A to Z) and 10 numerals (0 to 9).
   Note: The last four digits must be numerals.
3. Press [N/-] to advance to the next digit. The next digit to the right flashes.

   Repeat this process until all eight digits of the new site ID are entered.

Press [MODE] to exit.

If there is any change to the existing site ID, the display shows "Save?" Press [Y/+] to accept the new site ID. Press [N/-] to discard the change and move to the next sub-menu.

User ID

Enter an 8-digit alphanumeric User ID in the programming mode. This User ID is included in the datalog report.

1. Press [Y/+] and the display shows the current User ID. Example: "RAE00001." Note that the left-most digit flashes to indicate it is the selected one.
2. Press [Y/+] to step through all 26 letters (A to Z) and 10 numerals (0 to 9).
3. Press [N/-] to advance to the next digit. The next digit to the right flashes.

   Repeat this process until all eight digits of the new User ID are entered.

Press [MODE] to exit.

If there is any change to the existing User ID, the display shows "Save" Press [Y/+] to accept the new site ID. Press [N/-] to discard (undo) the change and move to the next sub-menu.

User Mode

The instrument has two user modes:

Basic Basic users can only see and use a basic set of functions.
Advanced Advanced users can see all screens and perform all available functions.

Note: The default value for User Mode is Basic.

To change the User Mode:

1. Press [N/-] to step from one option to the next. The highlighting changes each time you press [N/-].
2. Press [Y/+] to make your selection (the dark circle in the "radio button" indicates "on").
3. When you have completed your selection, press [MODE].
4. Press [Y/+] to accept the new User Mode. Press [N/-] to discard the change and move to the next sub-menu.

Date

The Date is expressed as Month/Day/Year, with two digits for each.

1. Press [Y/+] and the display shows the current date. Note that the left-most digit flashes to indicate it is selected.
2. Press [Y/+] to step through all 10 numerals (0 to 9).
3. Press [N/-] to advance to the next digit. The next digit to the right flashes.

   Repeat this process until all six digits of the new date are entered.

Press [MODE] to exit.

- Press [Y/+] to save the new date.
- Press [N/-] to undo the change and move to the next sub-menu.

Time

The Time is expressed as Hours/Minutes/Seconds, with two digits for each. The time is in 24-hour (military) format.

1. Press [Y/+] and the display shows the current time. Note that the left-most digit flashes to indicate it is selected.
2. Press [Y/+] to step through all 10 numerals (0 to 9).

3. Press [N/-] to advance to the next digit. The next digit to the right flashes.

   Repeat this process until all six digits of the new time are entered.

Press [MODE] to exit.

- Press [Y/+] to save the new date.
- Press [N/-] to undo the change and move to the next sub-menu.

Duty Cycle

The pump's duty cycle is the ratio of its on time to off time. The duty cycle ranges from 50% to 100% (always on), and the period is 10 seconds. Therefore, a duty cycle of 60% means that the pump is on for 6 seconds and off for four seconds. Duty cycling is employed by the instrument to clean the PID. A lower duty cycle has a greater effect on keeping the PID clean than a higher duty cycle.

Important! Pump duty cycling is interrupted when the instrument senses a gas. The pump's duty cycle is disabled when the measurement is greater than the 2ppm threshold and is re-enabled when the reading falls below 90% of the threshold (1.8 ppm).

1. Press [Y/+] to increase the value.
2. When you have completed your selection, press [MODE].
   - Press [Y/+] to save the new duty cycle value.
   - Press [N/-] to undo the change and move to the next sub-menu.

Temperature Unit

The temperature display can be switched between Fahrenheit and Celsius units.

1. Press [N/-] to step from one option to the next.
2. Press [Y/+] to make your selection (the dark circle in the "radio button" indicates "on").
3. When you have completed your selection, press [MODE].
   - Press [Y/+] to save the new temperature unit.
   - Press [N/-] to undo the change and move to the next sub-menu.

Pump Speed

The pump can operate at two speeds, high and low. Running at low speed is quieter and conserves a small amount of power. There is almost no difference in sampling accuracy.

1. Press [N/-] to step from one option to the next.
2. Press [Y/+] to make your selection (the dark circle in the "radio button" indicates "on").
3. When you have completed your selection, press [MODE].
   - Press [Y/+] to save the new temperature unit.
   - Press [N/-] to undo the change and move to the next sub-menu.

Language

English is the default language, but other languages can be selected for the instrument.

1. Press [N/-] to step from one option to the next.
2. Press [Y/+] to make your selection (the dark circle in the "radio button" indicates "on").
3. When you have completed your selection, press [MODE].
   - Press [Y/+] to save your new language choice.
   - Press [N/-] to undo it and return to the previous language selection.

Radio Power

The radio connection can be turned on or off.

1. Press [N/-] to step from one option to the next (on or off).
2. Press [Y/+] to make your selection (the dark circle in the "radio button" indicates that the option is selected).
3. When you have completed your selection, press [MODE].

   - Press [Y/+] to accept the new radio setting (on or off).
   - Press [N/-] to discard the change and move to the next sub-menu.

Real Time Protocol

Real Time Protocol is the setting for data transmission.

The choices are:

P2M (cable)	Point to multipoint. Data is transferred from the instrument to multiple locations using a wired connection. Default data rate: 19200 bps.
P2P (cable)	Point to point. Data is transferred only between the instrument and one other location, such as a computer. Default data rate: 9600 bps.
P2M (wireless)	Point to multipoint, wireless. Data is transferred wirelessly and can be received by multiple receivers.

1. Press [N/-] to step from one option to the next.
2. Press [Y/+] to make your selection (the dark circle in the "radio button" indicates "on").
3. When you have completed your selection, press [MODE].
   - Press [Y/+] to save the new real-time communications protocol.
   - Press [N/-] to undo the change and move to the next sub-menu.

Power On Zero

When Power On Zero is on, the instrument performs a zero calibration when it is turned on.

1. Press [N/-] to step from one option to the next.
2. Press [Y/+] to make your selection (the dark circle in the "radio button" indicates your selection).
3. When you have completed your selection, press [MODE].
   - Press [Y/+] to save the change.
   - Press [N/-] to discard the change and move to the next sub-menu.

Unit ID

This three-digit number keeps data separated by instrument when more than one instrument is used in a network. If multiple sensing units are attempting to communicate with the same Host, then the units must all have a different Unit ID.

1. Press [Y/+] to step through all 10 numerals (0 to 9). If you pass the numeral you want, keep pressing [Y/+]. After it counts up to 9, it starts counting up from 0 again.
2. Press [N/-] to advance to the next digit. The next digit to the right flashes.

Repeat this process until all three digits of the Unit ID are entered.

3. Press [MODE] when you are done.
   - Press [Y/+] to save the change.
   - Press [N/-] to discard the change and move to the next sub-menu.

LCD Contrast

The display's contrast can be increased or decreased from its default setting. You may not need to ever change the default setting, but sometimes you can optimize the display to suit extreme temperature and ambient brightness/darkness conditions.

- The minimum value is 20.
- The maximum value is 60.

1. Press [Y/+] to increase the value or [N/-] to decrease the value.
2. Press [MODE] to save your selection.
   - Press [Y/+] to save your new contrast value.
   - Press [N/-] to undo it and return to the previous value.

Hygiene Mode

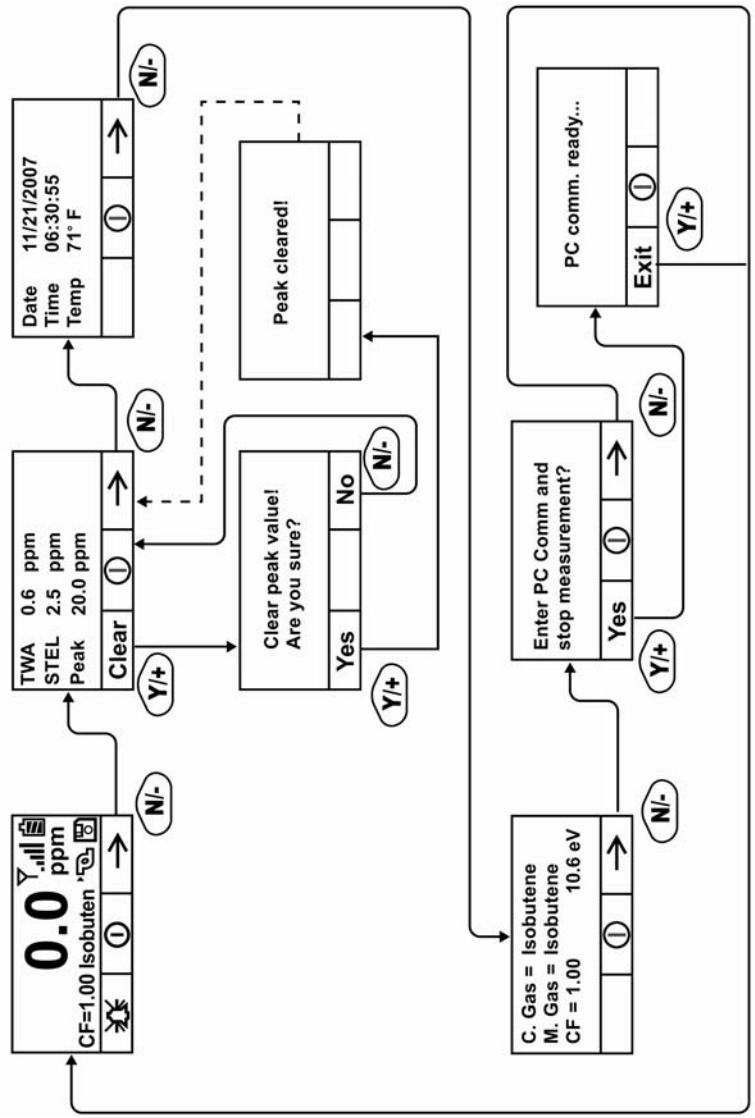
The instrument usually operates in Hygiene Mode, which provides basic functionality. However, it is possible to operate it in a second mode called Search Mode. Here are the primary differences:

Hygiene Mode: Automatic measurements, continuously running and datalogging, and calculates additional exposure values.

Search Mode: Manual start/stop of measurements and display of certain exposure values.

Basic User Level & Hygiene Mode

The default setting is navigated in the following way:



Note: Dashed line indicates automatic progression.

Pressing [N/-] steps you from screen to screen. Options include clearing the Peak value and turning on the instrument's PC Communications for data transfer to a PC.

Entering Search Mode From Hygiene Mode

In order to change the instrument's operational mode from Hygiene Mode to Search Mode, you must enter the password-protected Programming Mode:

1. Hold [MODE] and [N/-] until you see the password screen.
2. Use [Y/+] to increment to the number you want for the first digit. (If you pass by the desired number, press [Y/+] until it cycles through to 0 again. Then press [Y/+] until you reach the desired number.)
3. Press [N/-] to advance to the next digit.
4. Again press [Y/+] to increment the number.
5. Press [N/-] to advance to the next digit.

Continue the process until all four numbers of the password have been input. Then press [MODE] to proceed.

The screen changes to icons with the label "Calibration."

1. Press [N/-] to advance to "Monitor Setup."
2. Press [Y/+] to select Monitor Setup.

Under Monitor Setup, you will see "Op Mode."

Press [Y/+] to select.

You will see:

Hygiene
Search

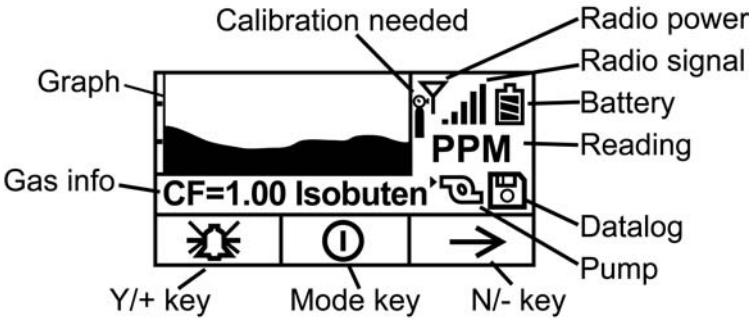
The current mode is indicated by a dark circle within the circle in front of either Hygiene or Search.

1. Select Hygiene or Search by pressing [N/-].
2. Press [Y/+] to place the instrument into the selected mode.

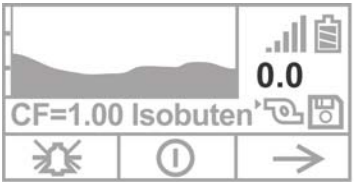
3. Press [MODE] when you want to register your selection to place the instrument in the selected mode.
4. Press [Y/+] to commit the change and exit to the Monitor Setup screen, or press [N/-] to Undo (exit to the Monitor Setup screen without changing the Mode).

Optional Graphic Screen In Search Mode

Using ProRAE Studio, you can set your instrument to show a graphic display instead of a numeric display of ongoing data. Consult your ProRAE Studio disc for information.



During sampling, the display's readings are shown numerically, plus the graph tracks the highest readings over time. The numeric reading alternates between the value and the measurement units, as well:





Advanced User Level (Hygiene Mode Or Search Mode)

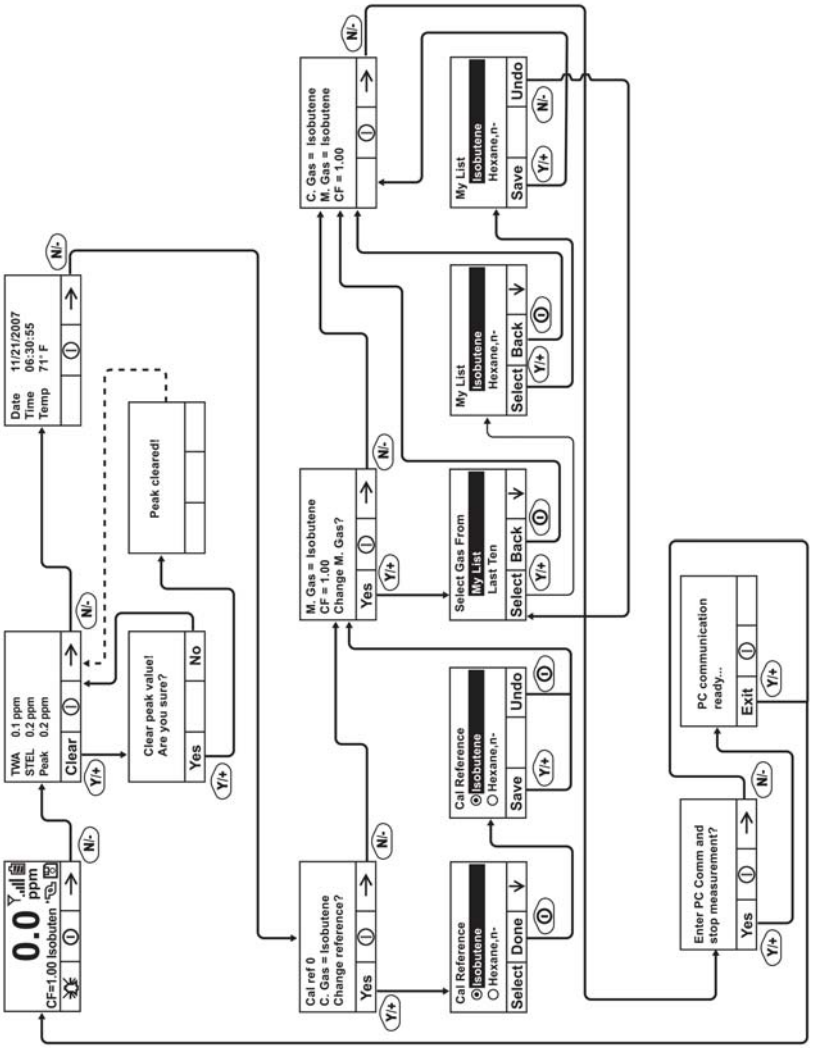
The User Mode called Advanced User Level allows a greater number of parameters to be changed than Basic User Level. It can be used with either of the Operation Modes, Hygiene Mode or Search Mode.

Advanced User Level & Hygiene Mode

With the instrument in Operation Mode: Hygiene Mode, enter User Mode: Advanced User Level (refer to the section called Monitor Mode for instructions).

Once you are in Advanced User Level and Hygiene Mode together, you can change the calibration reference and measurement gas, in addition to performing normal monitoring functions.

Pressing [N/-] progresses through the screens, while pressing [Y/+] selects options. Pressing [MODE] makes menu choices when it is shown for "Done" or "Back." Pressing and holding [Mode] whenever the circle with a vertical line in the middle is shown activates the countdown to shutoff.

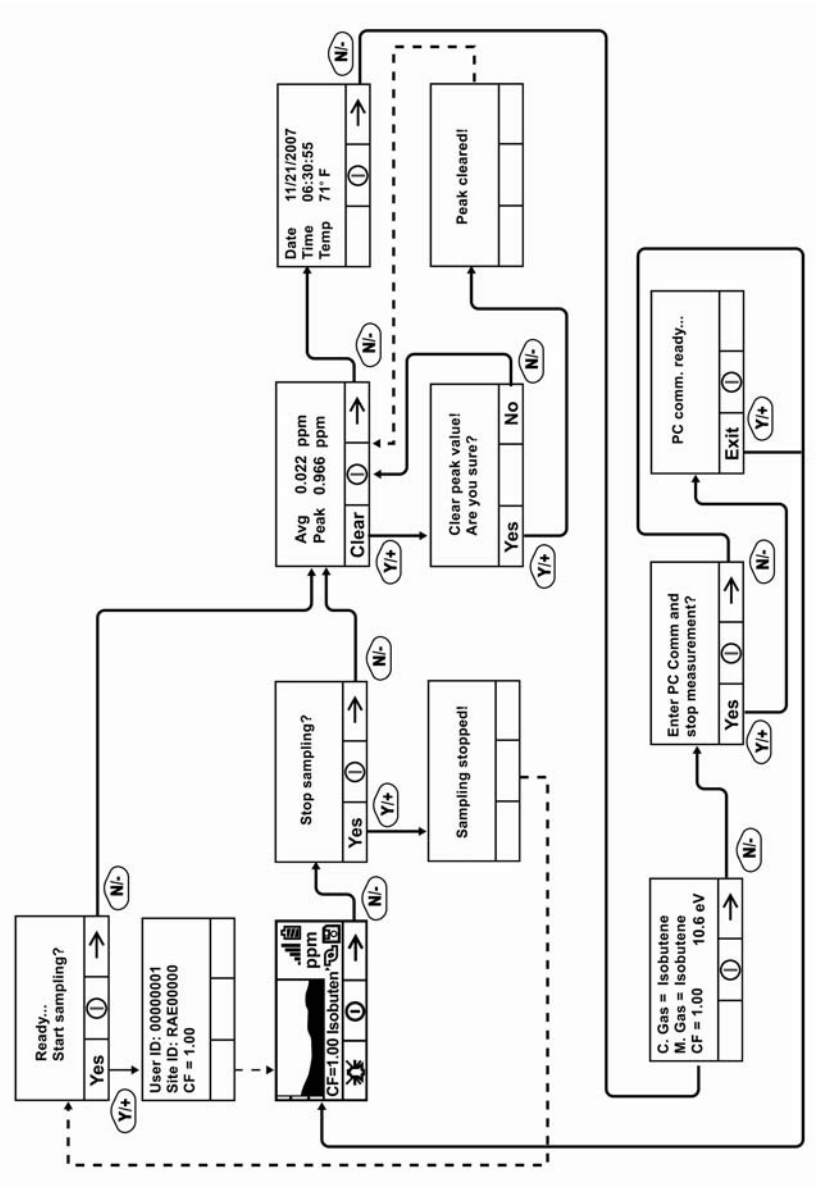


Note: Dashed line indicates automatic progression.

Basic User Level & Search Mode

With the instrument in Operation Mode: Search Mode, enter User Mode and select Basic User Level (refer to the section called User Mode for instructions).

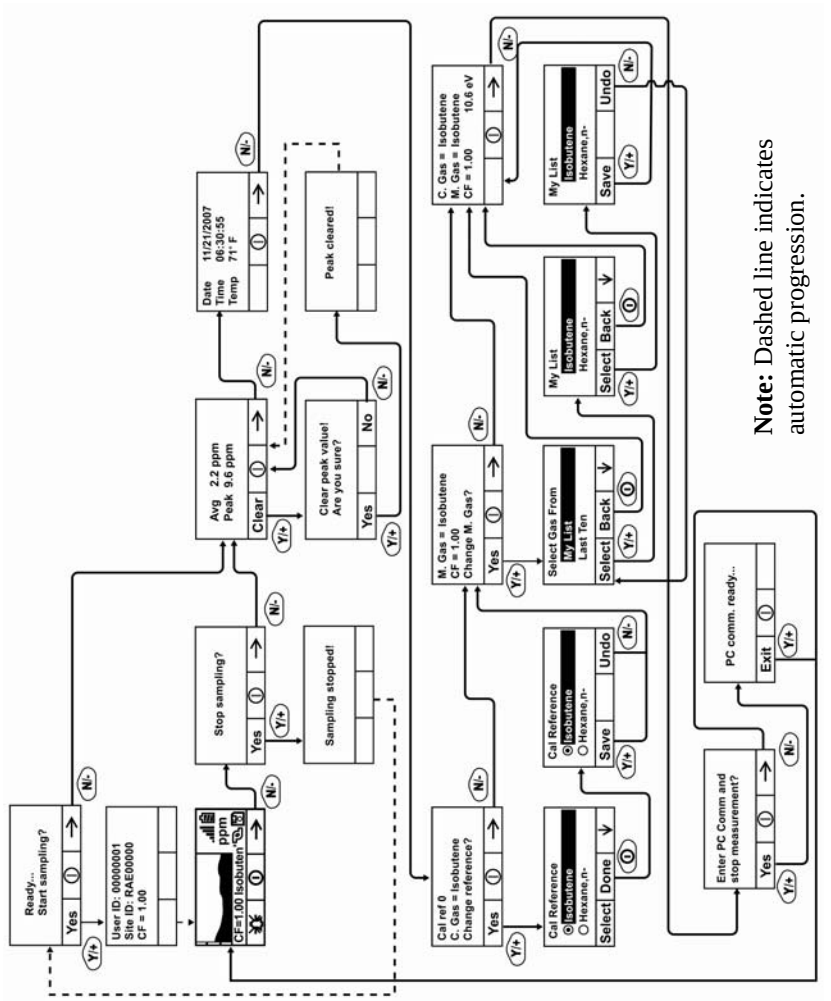
When the instrument is in Search Mode, it only samples when you activate sampling. When you see the display that says, "Ready…Start sampling?" press [Y/+] to start. The pump turns on and the instrument begins collecting data. To stop sampling, press [N/-] while the main display is showing. You will see a new screen that says, "Stop sampling?" Press [Y/+] to stop sampling. Press [N/-] if you want sampling to continue.



Note: Dashed line indicates automatic progression.

Advanced User Level & Search Mode

With the instrument in Operation Mode: Search Mode, enter User Mode and select Advanced User Level (refer to the section called Monitor Mode for instructions). Operation is similar to Basic User Level & Sampling Mode, but now allows you to change calibration and measurement reference gases. Refer to the section on measurement gases on page 52 for more details.



Diagnostic Mode

IMPORTANT! Diagnostic Mode is designed for servicing and manufacturing, and therefore is not intended for everyday use, even by advanced users. It provides raw data from sensors and about settings, but only allows adjustment of pump stall parameters, which should only be changed by qualified personnel.

Note: If the instrument is turned on in Diagnostic Mode and you switch to User Mode, datalog data remains in raw count form. To change to standard readings, you must restart the instrument.

Entering Diagnostic Mode

Note: To enter Diagnostic Mode, you must begin with the instrument turned off.

Press and hold [Y/+] and [MODE] until the instrument starts.

The instrument goes through a brief startup, and then displays raw data for the PID sensor. These numbers are raw sensor readings without calibration. The instrument is now in Diagnostic Mode.

Note: In Diagnostic Mode, the pump and lamp are normally on.

You can enter Programming Mode and calibrate the instrument as usual by pressing both [MODE] and [N/-] for three seconds.

You can enter Monitoring Mode by pressing [MODE] and [Y/+] together for three seconds.

Once the instrument is started up in Diagnostic Mode, you can switch between Diagnostic Mode and Monitoring Mode by pressing and holding [MODE] and [Y/+] simultaneously for two seconds.

In Diagnostic mode, you can step through parameter screens by pressing [MODE].

Adjusting The Pump Stall Threshold

If the gas inlet is blocked but the pump does not shut down, or the pump shuts down too easily with a slight blockage, the pump stall threshold value may be set too high or too low.

Use the following steps to adjust the pump stall threshold:

Pump High

In Diagnostic Mode, press the [MODE] key until "Pump High" is displayed. The display shows the maximum, minimum, and stall values for the pump at its high speed. Write down the "Max" reading.

Block the gas inlet and watch the pump current reading (labeled "I") increase. Write down its blocked reading. **Note:** If the pump current reading does not increase significantly (less than 10 counts), then there may be a leak in the gas inlet or the pump is weak or defective.

Add the two readings you wrote down. This is the average of the maximum block count and the maximum idle count. Divide that number by 2. Use the [Y/+] or [N/-] key to increase or decrease the stall value to equal that number.

Press the [MODE] key to exit this display.

Pump Low

In Diagnostic Mode, press the [MODE] key until "Pump Low" is displayed. The display shows the maximum, minimum, and stall values for the pump at its low speed. Write down the "Max" reading.

Block the gas inlet and watch the pump current reading (labeled "I") increase. Write down its blocked reading. **Note:** If the pump current reading does not increase significantly (less than 10 counts), then there may be a leak in the gas inlet or the pump is weak or defective.

Add the two readings you wrote down. This is the average of the maximum block count and the maximum idle count. Divide that

number by 2. Use the [Y/+] or [N/-] key to increase or decrease the stall value to equal that number.

Press the [MODE] key to exit this display.

Exiting Diagnostic Mode

You can exit Diagnostic Mode and go directly to Programming Mode or Monitor Mode as outlined above, or you can exit Diagnostic Mode completely.

To exit Diagnostic Mode so that it cannot be re-entered without a restart:

Shut down the instrument. When it is off, restart it by holding the [MODE] key. Diagnostic Mode cannot be entered until the instrument is restarted as outlined in "Entering Diagnostic Mode."

Transferring Data To & From A Computer

Once you have connected your instrument cradle to the PC, you can can transfer data, including a download of the datalog to the computer and updates of firmware to the instrument (should this ever be necessary).

Downloading The Datalog To A PC

1. Connect the data cable to the PC and the cradle.
2. Place the instrument into its cradle. The charging LED should be illuminated.
3. Start ProRAE Studio on your PC.
4. From ProRAE Studio, select "Operation" and select Setup Connection.
5. Select the COM port to establish a communication link between the PC and the instrument.
6. To receive the datalog in the PC, select "Downlog Datalog."
7. When you see "Unit Information," click OK.

During the data transfer, the display shows a progress bar.

When the transfer is done, you will see a screen with the datalog information. You can now export this datalog for other use or printing.

Uploading Firmware To The instrument From A PC

Uploading new firmware to your instrument requires connecting the instrument and PC. Follow these steps to make the connection:

1. Connect the data cable to the PC and the cradle.
2. Place the instrument into its cradle. The charging LED should be illuminated.
3. Start RAEProgrammer 7000 on your PC.
4. From RAEProgrammer 7000, select "Operation" and select Setup Connection.
5. Select the COM port to establish a communication link between the PC and the instrument.
6. Select Operation → Download Firmware.

Once communication is established, follow the instructions that accompany RAEProgrammer 7000 and the firmware to upload the new firmware to your instrument.

Note: Check for the latest updates to ProRAEProgrammer 7000 at www.raesystems.com.

Maintenance

The major maintenance items of the instrument are:

- Battery pack
- Sensor module
- PID lamp
- Sampling pump
- Inlet connectors and filters

Note: Maintenance should be performed by qualified personnel only.

NOTE: The printed circuit board of the instrument is connected to the battery pack even if the power is turned off. **Therefore, it is very important to disconnect the battery pack before servicing or replacing any components inside the instrument**. **Severe damage to the printed circuit board or battery may occur if the battery pack is not disconnected before servicing the unit.**

Battery Charging & Replacement

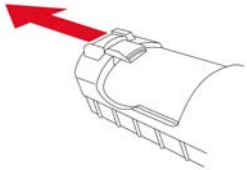
When the display shows a flashing empty battery icon, the battery requires recharging. It is recommended to recharge the instrument upon returning from fieldwork. A fully charged battery runs a instrument for 16 hours continuously. The charging time is less than 8 hours for a fully discharged battery. The battery may be replaced in the field (in areas known to be non-hazardous), if required.

WARNING!

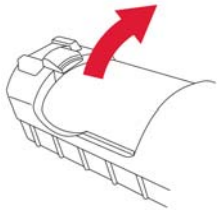
To reduce the risk of ignition of hazardous atmospheres, recharge battery only in area known to be non-hazardous. **Remove and replace battery only in areas known to be non-hazardous.**

Replacing The Li-ion Battery

1. Turn off the instrument.
2. Located on the rear of the instrument is a battery tab. Slide it down to unlock the battery.



3. Remove the battery pack from the battery compartment by tilting it out.



4. Replace a fully charged spare battery pack inside the battery compartment. Make sure the battery pack is oriented properly inside the compartment.
5. Slide the capture tab back up to its locked position.

Replacing The Alkaline Battery Adapter

An alkaline battery adapter is supplied with each instrument. The adapter (part number 059-3052-000) accepts four AA alkaline batteries (use only Duracell MN1500) and provides approximately 12 hours of operation. The adapter is intended to be used in emergency situations when there is no time to charge the Li-ion battery pack.

To insert batteries into the adapter:

1. Remove the three Philips-head screws to open the compartment.
2. Insert four fresh AA batteries as indicated by the polarity (+/-) markings.
3. Replace the cover. Replace the three screws.

To install the adapter in the instrument:

1. Remove the Li-ion battery pack from the battery compartment by sliding the tab and tilting out the battery.
2. Replace it with the alkaline battery adapter
3. Slide the tab back into place to secure the battery adapter.

IMPORTANT!

Alkaline batteries cannot be recharged. The instrument's internal circuit detects alkaline batteries and will not allow recharging. If you place the instrument in its cradle, the alkaline battery will not be recharged. The internal charging circuit is designed to prevent damage to alkaline batteries and the charging circuit when alkaline batteries are installed inside the instrument.

Note: When replacing alkaline batteries, dispose of old ones properly.

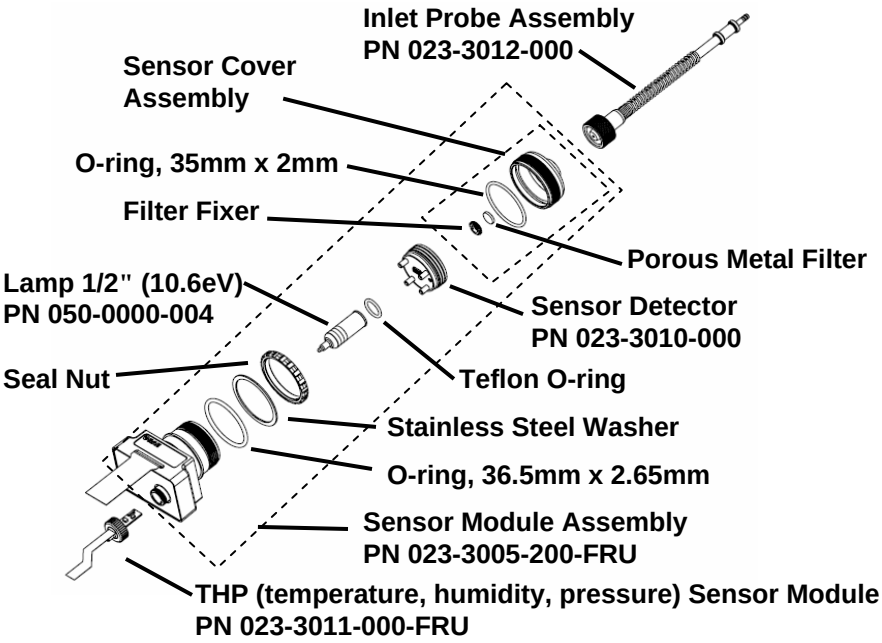
WARNING!

To reduce the risk of ignition of hazardous atmospheres, recharge the battery only in areas known to be non-hazardous. Remove and replace the battery only in areas known to be non-hazardous.

Note: The internal charging circuit is designed to prevent charging to alkaline batteries.

PID Sensor & Lamp Cleaning/Replacement

The sensor module is made of several components and is attached to the lamp-housing unit as shown below.



Sensor Components

Note: The cleaning procedure is not normally needed. Clean the PID sensor module, the lamp and the lamp housing only if:

1. The reading is inaccurate even after calibration.
2. The reading is very sensitive to air moisture.
3. A liquid has been sucked into the unit and damaged the unit.

Use of the external filter helps to prevent contamination of the sensor.

To access the sensor components and lamp, gently unscrew the lamp-housing cap, remove the sensor adapter with the gas inlet probe and the metal filter all together. Then hold the PID sensor and pull it straight out. A slight, gentle rocking motion helps release the sensor.

Cleaning The PID Sensor

Place the entire PID sensor module into GC grade methanol. It is highly recommended that an ultrasound bath to be used to clean the sensor for at least 15 minutes. Then dry the sensor thoroughly. Never touch the electrodes of the sensor by hand.
Also use a methanol-soaked cotton swab to wipe off the lamp housing where it contacts the sensor when the sensor is installed.

Turn over the sensor so that the pins point up and the sensor cavity is visible. Examine the sensor electrodes for any corrosion, damage, or bending out of alignment. The metal sensor electrode "fingers" should be flat and straight. If necessary, carefully bend the sensor fingers to ensure that they do not touch the Teflon portions and that they are parallel to each other. Make sure that the nuts on the sensor pins are snug but not overtight. If the sensor is corroded or otherwise damaged, it should be replaced.

Cleaning The Lamp Housing Or Changing The Lamp

If the lamp does not turn on, the instrument will display an error message to indicate replacement of the lamp may be required.

1. If the lamp is operational, clean the lamp window surface and the lamp housing by wiping it with GC grade methanol using a cotton swab using moderate pressure. After cleaning, hold the lamp up to the light at an angle to detect any remaining film. Repeat the process until the lamp window is clean. Never use water solutions to clean the lamp. Dry the lamp and the lamp housing thoroughly after cleaning.

   CAUTION: Never touch the window surface with the fingers or anything else that may leave a film. Never use acetone or aqueous solutions.

2. If the lamp does not turn on, remove the lamp from the lamp housing. Place the lamp O-ring onto the new lamp. Insert the new lamp, avoiding contact with the flat window surface.
3. Reinstall the PID sensor module.
4. Tighten the Lamp Housing Cap.

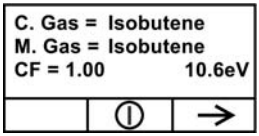
Determining The Lamp Type

The monitor can accommodate three lamp values: 10.6eV (standard), 9.8eV, and 11.7eV. The monitor automatically reads a marking on the side of the lamp to set the proper Correction Factor. There are two ways to determine the lamp type:

Remove the lamp and look for markings (bars) on the side:

- No bars: 10.6eV
- 1 bar: 11.7eV
- 2 bars: 9.8eV

Also, when the monitor is running, the lamp type is shown along with the calibration and measurement gas and Correction Factor:



Note: This screen can be accessed from the reading screen by pressing [N/-] four times.

Sampling Pump

When approaching the end of the specified lifetime of the pump, it will consume higher amount of energy and reduce its sample draw capability significantly. When this occurs, it is necessary to replace or rebuild the pump. When checking the pump flow, make sure that the inlet connector is tight and the inlet tubing is in good condition. Connect a flow meter to the gas inlet probe. The flow rate should be above 450 cc/min when there is no air leakage.

If the pump is not working properly, refer the instrument to qualified service personnel for further testing and, if necessary, pump repair or replacement.

Cleaning The Instrument

Occasional cleaning with a soft cloth is recommended. Do not use detergents or chemicals.

Visually inspect the contacts at the base of the instrument, on the battery, and on the charging cradle to make sure they are clean. If they are not, wipe them with a soft, dry cloth. Never use solvents or cleaners.

Ordering Replacement Parts

If you need replacement parts, contact your local RAE Systems distributor. A list is available online:

http://www.raesystems.com

In the U.S., you can order sensors, replacement batteries, and other accessories online at:

http://istore.raesystems.com/

Special Servicing Note

If the instrument needs to be serviced, contact either:

1. The RAE Systems distributor from whom the instrument was purchased; they will return the instrument on your behalf.

   or

2. The RAE Systems Technical Service Department. Before returning the instrument for service or repair, obtain a Returned Material Authorization (RMA) number for proper tracking of your equipment. This number needs to be on all documentation and posted on the outside of the box in which the instrument is returned for service or upgrade. Packages without RMA Numbers will be refused at the factory.

Troubleshooting

Problem	Possible Reasons & Solutions	
Cannot turn on power after charging the battery	**Reasons:**	Discharged battery. Defective battery.
	Solutions:	Charge or replace battery.
Lost password	**Solutions:**	Call Technical Support at +1 408-752-0723 or toll-free at +1 888-723-4800
Reading abnormally High	**Reasons:**	Dirty filter. Dirty sensor module. Excessive moisture and water condensation. Incorrect calibration.
	Solutions:	Replace filter. Blow-dry the sensor module. Calibrate the unit.
Reading abnormally Low	**Reasons:**	Dirty filter. Dirty sensor module. Weak or dirty lamp. Incorrect calibration.
	Solutions:	Replace filter. Remove Calibration Adapter. Calibrate the unit. Check for air leakage.
Buzzer Inoperative	**Reasons:**	Bad buzzer.
	Solutions:	Check that buzzer is not turned off. Call authorized service center.

Inlet flow too low	**Reasons:**	Pump diaphragm damaged or has debris. Flow path leaks.
	Solutions:	Check flow path for leaks; sensor module O-ring, tube connectors, Teflon tube compression fitting. Call Technical Support at +1 408-752-0723 or toll-free at +1 888-723-4800
"Lamp" message during operation	**Reasons:**	Lamp drive circuit. Weak or defective PID lamp, defective.
	Solutions:	Turn the unit off and back on. Replace UV lamp

Technical Support

To contact RAE Systems Technical Support Team:

Monday through Friday, 7:00AM to 5:00PM Pacific (US) Time
Phone (toll-free): +1 888-723-4800
Phone: +1 408-952-8461
Email: tech@raesystems.com

Life-critical after-hours support is available:

+1 408-952-8200 select option 8

RAE Systems Contacts

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Controlled Part of Manual

Intrinsic Safety:
US and Canada: Class I, Division 1, Groups A,B,C,D T4

Europe: ATEX (0575 Ex II 2G Ex ia IIC/IIB T4 Gb)
KEMA 07 ATEX 0127
Complies with EN60079-0:2009, EN60079-11:2007
IECEx CSA 10.0005 Ex ia IIC/IIB T4 Gb
Complies with IEC 60079-0:2007, IEC 60079-11:2006

Temperature: -20º C to 50º C (-4º to 122º F)

Humidity: 0% to 95% relative humidity (non-condensing)

Basic Operation

Turning The Instrument On

1. With the instrument turned off, press and hold [MODE].
2. When the display turns on, release the [MODE] key.

The instrument is now operating and performs self tests. Once the self tests are complete, the display shows a graph or numerical gas reading. This indicates that the instrument is fully functional and ready to use.

Turning The Instrument Off

1. Press and hold the Mode key for 3 seconds. A 5-second countdown to shutoff begins.
2. When you see "Unit off..." release your finger from the [MODE] key. The instrument is now off.

Note: You must hold your finger on the key for the entire shutoff process. If you remove your finger from the key during the countdown, the shutoff operation is canceled and the instrument continues normal operation.

Alarm Signals

During each measurement period, the gas concentration is compared with the programmed alarm limits (gas concentration alarm limit settings). If the concentration exceeds any of the preset limits, the loud buzzer and red flashing LED are activated immediately to warn you of the alarm condition.

In addition, the instrument alarms if one of the following conditions occurs: battery voltage falls below a preset voltage level, failure of the UV lamp, pump stall, or when the datalog memory is full.

Alarm Signal Summary

Message	Condition	Alarm Signal
HIGH	Gas exceeds "High Alarm" limit	3 beeps/flashes per second*
OVR	Gas exceeds measurement range	3 beeps/flashes per second*
MAX	Gas exceeds electronics' maximum range	3 beeps/flashes per second*
LOW	Gas exceeds "Low Alarm" limit	2 beeps/flashes per second*
TWA	Gas exceeds "TWA" limit	1 Beep/flash per second*
STEL	Gas exceeds "STEL" limit	1 Beep/flash per second*
Pump icon flashes	Pump failure	3 beeps/flashes per second
Lamp	PID lamp failure	3 beeps/flashes per second plus "Lamp" message on display

Battery icon flashes	Low battery	1 flash, 1 beep per minute plus battery icon flashes on display
CAL	Calibration failed, or needs calibration	1 beep/flash per second
NEG	Gas reading measures less than number stored in calibration	1 beep/flash per second

Preset Alarm Limits & Calibration

The instrument is factory calibrated with standard calibration gas, and is programmed with default alarm limits.

Cal Gas (Isobutylene)	Cal Span	unit	Low	High	TWA	STEL
ppbRAE 3000	10	ppm	10	25	10	25
MiniRAE 3000	100	ppm	50	100	10	25
MiniRAE Lite	100	ppm	50	100	10	25
UltraRAE 3000	100	ppm	50	100	10	25

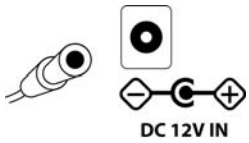
Charging The Battery

Always fully charge the battery before using the instrument. The instrument's Li-ion/NiMH battery is charged by placing the instrument in its cradle. Contacts on the bottom of the instrument meet the cradle's contacts, transferring power without other connections.

Note: Before setting the instrument into its charging cradle, visually inspect the contacts to make sure they are clean. If they are not, wipe them with a soft cloth. Do not use solvents or cleaners.

Follow this procedure to charge the instrument:

1. Plug the AC/DC adapter's barrel connector into the instrument's cradle.



2. Plug the AC/DC adapter into the wall outlet.
3. Place the instrument into the cradle, press down, and lean it back. It locks in place and the LED in the cradle glows.

Note: To release the instrument, press down and tilt the top out of the cradle and lift up.

The instrument begins charging automatically. The LED on the front of the cradle marked "Primary" blinks during charging. During charging, the diagonal lines in the battery icon on the instrument's display are animated and you see the message "Charging..."

When the instrument's battery is fully charged, the battery icon is no longer animated and shows a full battery. The message "Fully charged!" is shown and the Primary LED on the cradle glows continuously green.

Note: A spare Li-ion battery (059-3051-000) or NiMH(059-3054-000) can be charged by placing it directly in the charging port on the back of the cradle. It can be charged at the same time as the instrument. Press the battery in place, sliding it slightly toward the front of the cradle. This locks it in the cradle. To release the battery, slide it forward again and tilt it up.

Note: An Alkaline Battery Adapter (part number 059-3052-000), which uses four AA alkaline batteries (Duracell MN1500), may be substituted for the Li-Ion battery.

WARNING!

To reduce the risk of ignition of hazardous atmospheres, recharge and replace batteries only in areas known to be non-hazardous. **Remove and replace batteries only in areas known to be non-hazardous.**

Low Voltage Warning

When the battery's charge falls below a preset voltage, the instrument warns you by beeping once and flashing once every minute, and the battery icon blinks once per second. You should turn off the instrument within 10 minutes and either recharge the battery by placing the instrument in its cradle, or replace the battery with a fresh one with a full charge.

Clock Battery

An internal clock battery is mounted on one of the instrument's printed circuit boards. This long-life battery keeps settings in memory from being lost whenever the Li-ion, NiMH, or alkaline batteries are removed. This backup battery should last approximately five years, and must be replaced by an authorized RAE Systems service technician. It is not user-replaceable.

WARNING

To reduce the risk of ignition of hazardous atmospheres, recharge battery only in area known to be non-hazardous. Remove and replace battery only in an area known to be non-hazardous.

Replacing Rechargeable Li-Ion or NiMH Battery

Caution: Turn off the instrument before removing or replacing the battery.

Alkaline Battery Adapter

An alkaline battery adapter is supplied with each instrument. The adapter (part number 059-3052-000) accepts four AA alkaline batteries (use only Duracell MN1500).

Do not mix old and new batteries or different type batteries.

Troubleshooting

Problem	Possible Reasons & Solutions	
Cannot turn on power after charging the battery	**Reasons:**	Discharged battery. Defective battery.
	Solutions:	Charge or replace battery.
Lost password	**Solutions:**	Call Technical Support at +1 408-752-0723 or toll-free at +1 888-723-4800
Reading abnormally High	**Reasons:**	Dirty filter. Dirty sensor module. Excessive moisture and water condensation. Incorrect calibration.
	Solutions:	Replace filter. Blow-dry the sensor module. Calibrate the unit.
Reading abnormally Low	**Reasons:**	Dirty filter. Dirty sensor module. Weak or dirty lamp. Incorrect calibration.
	Solutions:	Replace filter. Remove Calibration Adapter. Calibrate the unit. Check for air leakage.
Buzzer Inoperative	**Reasons:**	Bad buzzer.
	Solutions:	Check that buzzer is not turned off. Call authorized service center.

Inlet flow too low	**Reasons:**	Pump diaphragm damaged or has debris. Flow path leaks.
	Solutions:	Check flow path for leaks; sensor module O-ring, tube connectors, Teflon tube compression fitting. Call Technical Support at +1 408-752-0723 or toll-free at +1 888-723-4800
"Lamp" message during operation	**Reasons:**	Lamp drive circuit. Weak or defective PID lamp, defective.
	Solutions:	Turn the unit off and back on. Replace UV lamp

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Rev. C
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P/N 059-4020-000

APPENDIX E

SDSs for Chemicals Used

SAFETY DATA SHEET

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Benzene

Version	Revision Date:	SDS Number:	Print Date: 06/20/2018
26.0	06/06/2018	800001014735	Date of last issue: 09/03/2015

SECTION 1. IDENTIFICATION

Product name : Benzene

Product code : Q9112, Q9121, Q9169, Q9262

CAS-No. : 71-43-2

Manufacturer or supplier's details

Company : **Shell Chemical LP**
PO Box 576
HOUSTON TX 77001
USA

SDS Request : 1-800-240-6737

Customer Service : 1-855-697-4355

Emergency telephone number

Chemtrec Domestic (24 hr) : 1-800-424-9300

Chemtrec International (24 hr) : 1-703-527-3887

Recommended use of the chemical and restrictions on use

Recommended use : Raw material for use in the chemical industry.

Restrictions on use : This product must not be used in applications other than the above without first seeking the advice of the supplier.

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with 29 CFR 1910.1200

Flammable liquids : Category 2

Aspiration hazard : Category 1

Skin irritation : Category 2

Eye irritation : Category 2A

Germ cell mutagenicity : Category 1B

Carcinogenicity : Category 1A

Specific target organ toxicity - repeated exposure : Category 1 (Blood., Blood-forming organs.)

Chronic aquatic toxicity : Category 3

GHS label elements

Hazard pictograms :



Signal word : Danger

Hazard statements :

PHYSICAL HAZARDS:
H225 Highly flammable liquid and vapour.
HEALTH HAZARDS:
H304 May be fatal if swallowed and enters airways.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H340 May cause genetic defects.
H350 May cause cancer.
H372 Causes damage to organs (Blood, Blood forming organs) through prolonged or repeated exposure.
ENVIRONMENTAL HAZARDS:
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements :

Prevention:

P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P233 Keep container tightly closed.
P240 Ground/bond container and receiving equipment.
P241 Use explosion-proof electrical/ ventilating/ lighting equipment.
P242 Use only non-sparking tools.
P243 Take precautionary measures against static discharge.
P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
P264 Wash hands thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
P273 Avoid release to the environment.

Response:

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P370 + P378 In case of fire: Use appropriate media to extinguish.
P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.
P331 Do NOT induce vomiting.
P302 + P352 IF ON SKIN: Wash with plenty of water and soap.
P332 + P313 If skin irritation occurs: Get medical advice/ attention.
P362 + P364 Take off contaminated clothing and wash it before

reuse.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 If eye irritation persists: Get medical advice/ attention.
P308 + P313 IF exposed or concerned: Get medical advice/ attention.
P314 Get medical advice/ attention if you feel unwell.

Storage:

P403 + P235 Store in a well-ventilated place. Keep cool.
P405 Store locked up.

Disposal:

P501 Dispose of contents and container to appropriate waste site or reclaimer in accordance with local and national regulations.

Other hazards which do not result in classification

May form flammable/explosive vapour-air mixture.
This material is a static accumulator.
Even with proper grounding and bonding, this material can still accumulate an electrostatic charge.
If sufficient charge is allowed to accumulate, electrostatic discharge and ignition of flammable air-vapour mixtures can occur.
May cause cancer.
May cause leukaemia (AML - acute myelogenous leukaemia).
The classification of this material is based on OSHA HCS 2012 criteria.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Substance

Hazardous components

Chemical name	Synonyms	CAS-No.	Concentration (% w/w)
benzene	Benzene	71-43-2	<= 100

SECTION 4. FIRST-AID MEASURES

General advice : DO NOT DELAY.
Keep victim calm. Obtain medical treatment immediately.

If inhaled : No treatment necessary under normal conditions of use. If symptoms persist, obtain medical advice.

In case of skin contact : Remove contaminated clothing. Immediately flush skin with large amounts of water for at least 15 minutes, and follow by washing with soap and water if available. If redness, swelling, pain and/or blisters occur, transport to the nearest medical facility for additional treatment.

In case of eye contact	:	Immediately flush eye(s) with plenty of water. Remove contact lenses, if present and easy to do. Continue rinsing. Transport to the nearest medical facility for additional treatment.
If swallowed	:	Call emergency number for your location / facility. If swallowed, do not induce vomiting: transport to nearest medical facility for additional treatment. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. If any of the following delayed signs and symptoms appear within the next 6 hours, transport to the nearest medical facility: fever greater than 101° F (38.3°C), shortness of breath, chest congestion or continued coughing or wheezing.
Most important symptoms and effects, both acute and delayed	:	Skin irritation signs and symptoms may include a burning sensation, redness, swelling, and/or blisters. Eye irritation signs and symptoms may include a burning sensation, redness, swelling, and/or blurred vision. If material enters lungs, signs and symptoms may include coughing, choking, wheezing, difficulty in breathing, chest congestion, shortness of breath, and/or fever. The onset of respiratory symptoms may be delayed for several hours after exposure. Breathing of high vapour concentrations may cause central nervous system (CNS) depression resulting in dizziness, lightheadedness, headache, nausea and loss of coordination. Continued inhalation may result in unconsciousness and death. Damage to blood-forming organs may be evidenced by: a) fatigue and anaemia (RBC), b) decreased resistance to infection, and/or excessive bruising and bleeding (platelet effect).
Protection of first-aiders	:	When administering first aid, ensure that you are wearing the appropriate personal protective equipment according to the incident, injury and surroundings.
Indication of any immediate medical attention and special treatment needed	:	Potential for chemical pneumonitis. Potential for cardiac sensitisation, particularly in abuse situations. Hypoxia or negative inotropes may enhance these effects. Consider: oxygen therapy. Call a doctor or poison control center for guidance.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	:	Foam, water spray or fog. Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.
Unsuitable extinguishing media	:	Do not use water in a jet.
Specific hazards during fire-	:	Clear fire area of all non-emergency personnel.

fighting		Hazardous combustion products may include: A complex mixture of airborne solid and liquid particulates and gases (smoke). Carbon monoxide. Unidentified organic and inorganic compounds. Flammable vapours may be present even at temperatures below the flash point. The vapour is heavier than air, spreads along the ground and distant ignition is possible. Will float and can be reignited on surface water.
Specific extinguishing methods	:	Standard procedure for chemical fires.
Further information	:	Keep adjacent containers cool by spraying with water.
Special protective equipment for firefighters	:	Proper protective equipment including chemical resistant gloves are to be worn; chemical resistant suit is indicated if large contact with spilled product is expected. Self-Contained Breathing Apparatus must be worn when approaching a fire in a confined space. Select fire fighter's clothing approved to relevant Standards (e.g. Europe: EN469).

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	:	Observe all relevant local and international regulations. Notify authorities if any exposure to the general public or the environment occurs or is likely to occur. Local authorities should be advised if significant spillages cannot be contained. Avoid contact with skin, eyes and clothing. Isolate hazard area and deny entry to unnecessary or unprotected personnel. Do not breathe fumes, vapour. Do not operate electrical equipment.
Environmental precautions	:	Shut off leaks, if possible without personal risks. Remove all possible sources of ignition in the surrounding area. Use appropriate containment to avoid environmental contamination. Prevent from spreading or entering drains, ditches or rivers by using sand, earth, or other appropriate barriers. Attempt to disperse the vapour or to direct its flow to a safe location for example by using fog sprays. Take precautionary measures against static discharge. Ensure electrical continuity by bonding and grounding (earthing) all equipment. Ventilate contaminated area thoroughly.
Methods and materials for containment and cleaning up	:	For large liquid spills (> 1 drum), transfer by mechanical means such as vacuum truck to a salvage tank for recovery or safe disposal. Do not flush away residues with water. Retain as contaminated waste. Allow residues to evaporate or soak up with an appropriate absorbent material and dispose of safely. Remove contaminated soil and dispose of safely

For small liquid spills (< 1 drum), transfer by mechanical means to a labeled, sealable container for product recovery or safe disposal. Allow residues to evaporate or soak up with an appropriate absorbent material and dispose of safely. Remove contaminated soil and dispose of safely.

Avoid contact with skin, eyes and clothing.
Take precautionary measures against static discharges.
Avoid contact with spilled or released material. For guidance on selection of personal protective equipment see Chapter 8 of this Material Safety Data Sheet.

Additional advice : For guidance on selection of personal protective equipment see Chapter 8 of this Safety Data Sheet.
For guidance on disposal of spilled material see Chapter 13 of this Safety Data Sheet.
Notify authorities if any exposure to the general public or the environment occurs or is likely to occur.
Local authorities should be advised if significant spillages cannot be contained.
Observe all relevant local and international regulations.

U.S. regulations may require reporting releases of this material to the environment which exceed the reportable quantity (refer to Chapter 15) to the National Response Center at (800) 424-8802.

SECTION 7. HANDLING AND STORAGE

Technical measures : Avoid breathing of or direct contact with material. Only use in well ventilated areas. Wash thoroughly after handling. For guidance on selection of personal protective equipment see Chapter 8 of this Safety Data Sheet.
Use the information in this data sheet as input to a risk assessment of local circumstances to help determine appropriate controls for safe handling, storage and disposal of this material.
Ensure that all local regulations regarding handling and storage facilities are followed.

Advice on safe handling : Avoid inhaling vapour and/or mists.
Avoid contact with skin, eyes and clothing.
Avoid exposure. Obtain special instructions before use.
Extinguish any naked flames. Do not smoke. Remove ignition sources. Avoid sparks.
Even with proper grounding and bonding, this material can still accumulate an electrostatic charge.
If sufficient charge is allowed to accumulate, electrostatic discharge and ignition of flammable air-vapour mixtures can occur.
Be aware of handling operations that may give rise to additional hazards that result from the accumulation of static

charges.
These include but are not limited to pumping (especially turbulent flow), mixing, filtering, splash filling, cleaning and filling of tanks and containers, sampling, switch loading, gauging, vacuum truck operations, and mechanical movements.
These activities may lead to static discharge e.g. spark formation.
Restrict line velocity during pumping in order to avoid generation of electrostatic discharge (≤ 1 m/s until fill pipe submerged to twice its diameter, then ≤ 7 m/s). Avoid splash filling.
Do NOT use compressed air for filling, discharging, or handling operations.
Avoid breathing of or direct contact with material. Only use in well ventilated areas. Wash thoroughly after handling. For guidance on selection of personal protective equipment see Chapter 8 of this Safety Data Sheet.
Properly dispose of any contaminated rags or cleaning materials in order to prevent fires.

Avoidance of contact	:	Strong oxidising agents.
Product Transfer	:	Refer to guidance under Handling section.
Conditions for safe storage	:	Refer to section 15 for any additional specific legislation covering the packaging and storage of this product.
Further information on storage stability	:	Storage Temperature: Ambient. Bulk storage tanks should be diked (bunded). Locate tanks away from heat and other sources of ignition. Cleaning, inspection and maintenance of storage tanks is a specialist operation, which requires the implementation of strict procedures and precautions. Must be stored in a diked (bunded) well- ventilated area, away from sunlight, ignition sources and other sources of heat. Keep away from aerosols, flammables, oxidizing agents, corrosives and from other flammable products which are not harmful or toxic to man or to the environment. Electrostatic charges will be generated during pumping. Electrostatic discharge may cause fire. Ensure electrical continuity by bonding and grounding (earthing) all equipment to reduce the risk. The vapours in the head space of the storage vessel may lie in the flammable/explosive range and hence may be flammable.
Packaging material	:	Suitable material: For containers, or container linings use mild steel, stainless steel. Unsuitable material: Natural, butyl, neoprene or nitrile rubbers.
Specific use(s)	:	Not applicable

See additional references that provide safe handling practices for liquids that are determined to be static accumulators: American Petroleum Institute 2003 (Protection Against Ignitions Arising out of Static, Lightning and Stray Currents) or National Fire Protection Agency 77 (Recommended Practices on Static Electricity).
IEC/TS 60079-32-1: Electrostatic hazards, guidance

SECTION 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
benzene	71-43-2	TWA	0.5 ppm 1.6 mg/m3	Shell Internal Standard (SIS) for 8-12 hour TWA.
benzene		STEL	2.5 ppm 8 mg/m3	Shell Internal Standard (SIS) for 15 min (STEL)
benzene		TWA	0.5 ppm	ACGIH
benzene		STEL	2.5 ppm	ACGIH
benzene		PEL	1 ppm	OSHA CARC
benzene		STEL	5 ppm	OSHA CARC
benzene		TWA	10 ppm	OSHA Z-2
benzene		CEIL	25 ppm	OSHA Z-2
benzene		Peak	50 ppm (10 minutes)	OSHA Z-2

Biological occupational exposure limits

Components	CAS-No.	Control parameters	Biological specimen	Sampling time	Permissible concentration	Basis
benzene	71-43-2	S-Phenylmercapturic acid	Urine	End of shift (As soon as possible after exposure ceases)	25 µg/g creatinine	ACGIH BEI
		t,t-Muconic acid	Urine	End of shift (As soon as possible after exposure ceases)	500 µg/g creatinine	ACGIH BEI

Monitoring Methods

Monitoring of the concentration of substances in the breathing zone of workers or in the general workplace may be required to confirm compliance with an OEL and adequacy of exposure controls. For some substances biological monitoring may also be appropriate.
Validated exposure measurement methods should be applied by a competent person and samples analysed by an accredited laboratory.
Examples of sources of recommended exposure measurement methods are given below or contact the supplier. Further national methods may be available.
National Institute of Occupational Safety and Health (NIOSH), USA: Manual of Analytical Methods http://www.cdc.gov/niosh/
Occupational Safety and Health Administration (OSHA), USA: Sampling and Analytical Methods http://www.osha.gov/
Health and Safety Executive (HSE), UK: Methods for the Determination of Hazardous Substances http://www.hse.gov.uk/
Institut für Arbeitsschutz Deutschen Gesetzlichen Unfallversicherung (IFA) , Germany http://www.dguv.de/inhalt/index.jsp
L'Institut National de Recherche et de Securité, (INRS), France http://www.inrs.fr/accueil

Engineering measures : The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Select controls based on a risk assessment of local circumstances. Appropriate measures include:
Adequate explosion-proof ventilation to control airborne concentrations below the exposure guidelines/limits.
Local exhaust ventilation is recommended.
Firewater monitors and deluge systems are recommended.
Eye washes and showers for emergency use.

General Information:
Consider technical advances and process upgrades (including automation) for the elimination of releases. Minimise exposure using measures such as closed systems, dedicated facilities and suitable general/local exhaust ventilation. Drain down systems and clear transfer lines prior to breaking containment. Clean/flush equipment, where possible, prior to maintenance. Where there is potential for exposure: restrict access to authorised persons; provide specific activity training to operators to minimise exposures; wear suitable gloves and coveralls to prevent skin contamination; wear respiratory protection when there is potential for inhalation; clear up spills immediately and dispose of wastes safely.Ensure safe systems of work or equivalent arrangements are in place to manage risks. Regularly inspect, test and maintain all control measures. Consider the need for risk based health surveillance.
Items that cannot be decontaminated should be destroyed (see Chapter 13).

Personal protective equipment

Respiratory protection : If engineering controls do not maintain airborne concentra-

tions to a level which is adequate to protect worker health, select respiratory protection equipment suitable for the specific conditions of use and meeting relevant legislation.
Check with respiratory protective equipment suppliers.
Where air-filtering respirators are suitable, select an appropriate combination of mask and filter.
Select a filter suitable for organic gases and vapours [boiling point >65 °C (149 °F)].
Where respiratory protective equipment is required, use a full-face mask.
Where air-filtering respirators are unsuitable (e.g. airborne concentrations are high, risk of oxygen deficiency, confined space) use appropriate positive pressure breathing apparatus.

Respirator selection, use and maintenance should be in accordance with the requirements of the OSHA Respiratory Protection Standard, 29 CFR 1910.134.

Hand protection
Remarks : Where hand contact with the product may occur the use of gloves approved to relevant standards (e.g. Europe: EN374, US: F739) made from the following materials may provide suitable chemical protection. Longer term protection: Viton. Incidental contact/Splash protection: Nitrile rubber. For continuous contact we recommend gloves with breakthrough time of more than 240 minutes with preference for > 480 minutes where suitable gloves can be identified. For short-term/splash protection we recommend the same, but recognize that suitable gloves offering this level of protection may not be available and in this case a lower breakthrough time maybe acceptable so long as appropriate maintenance and replacement regimes are followed. Glove thickness is not a good predictor of glove resistance to a chemical as it is dependent on the exact composition of the glove material. Glove thickness should be typically greater than 0.35 mm depending on the glove make and model. Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, dexterity. Always seek advice from glove suppliers. Contaminated gloves should be replaced. Personal hygiene is a key element of effective hand care. Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturizer is recommended.

Eye protection : Wear goggles for use against liquids and gas.
Wear full face shield if splashes are likely to occur.

Skin and body protection : Wear chemical resistant gloves/gauntlets and boots. Where risk of splashing, also wear an apron.
Wear antistatic and flame retardant clothing.

Protective measures	:	Personal protective equipment (PPE) should meet recommended national standards. Check with PPE suppliers.
Hygiene measures	:	Wash hands before eating, drinking, smoking and using the toilet. Launder contaminated clothing before re-use.

Environmental exposure controls

General advice	:	Local guidelines on emission limits for volatile substances must be observed for the discharge of exhaust air containing vapour. Minimise release to the environment. An environmental assessment must be made to ensure compliance with local environmental legislation. Information on accidental release measures are to be found in section 6.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	Liquid.
Colour	:	colourless
Odour	:	aromatic
Odour Threshold	:	2.7 ppm
pH	:	Not applicable
Melting point/freezing point	:	5.5 °C / 41.9 °F
Initial boiling point and boiling range	:	80.1 °C / 176.2 °F
Flash point	:	-11 °C / 12 °F
Evaporation rate	:	5.1 Method: ASTM D 3539, nBuAc=1
Flammability (solid, gas)	:	Not applicable
Flammability (liquids)	:	Static-accumulating flammable liquid.
Upper explosion limit / upper flammability limit	:	7.1 %(V)
Lower explosion limit / Lower flammability limit	:	1.4 %(V)
Vapour pressure	:	10 kPa (20 °C / 68 °F)

Relative vapour density	:	2.7 (15 °C / 59 °F) (Air = 1.0)
Relative density	:	0.8787 (20 °C / 68 °F)
Density	:	883 kg/m3 (15 °C / 59 °F)
Solubility(ies)		
Water solubility	:	1.8 kg/m3 Slight (20 °C / 68 °F)
Partition coefficient: n-octanol/water	:	log Pow: 1.95 - 2.13
Auto-ignition temperature	:	498 °C / 928 °F
Decomposition temperature	:	Data not available
Viscosity		
Viscosity, dynamic	:	0.6 mPa.s (20 °C / 68 °F)
Viscosity, kinematic	:	0.65 mm2/s (20 °C / 68 °F)
Explosive properties	:	Not applicable
Oxidizing properties	:	Data not available
Surface tension	:	0.03 mN/m
Conductivity	:	Low conductivity: < 100 pS/m, The conductivity of this material makes it a static accumulator., A liquid is typically considered nonconductive if its conductivity is below 100 pS/m and is considered semi-conductive if its conductivity is below 10,000 pS/m., Whether a liquid is nonconductive or semi-conductive, the precautions are the same., A number of factors, for example liquid temperature, presence of contaminants, and anti-static additives can greatly influence the conductivity of a liquid
Molecular weight	:	78.11 g/mol

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	The product does not pose any further reactivity hazards in addition to those listed in the following sub-paragraph.
Chemical stability	:	No hazardous reaction is expected when handled and stored according to provisions
Possibility of hazardous reactions	:	Stable under normal conditions of use.

Conditions to avoid	:	Avoid heat, sparks, open flames and other ignition sources. Prevent vapour accumulation.
Incompatible materials	:	Strong oxidising agents.
Hazardous decomposition products	:	Thermal decomposition is highly dependent on conditions. A complex mixture of airborne solids, liquids and gases including carbon monoxide, carbon dioxide, sulphur oxides and unidentified organic compounds will be evolved when this material undergoes combustion or thermal or oxidative degradation. Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke).

SECTION 11. TOXICOLOGICAL INFORMATION

Basis for assessment : Information given is based on product testing.

Information on likely routes of exposure
Exposure may occur via inhalation, ingestion, skin absorption, skin or eye contact, and accidental ingestion.

Acute toxicity

Product:

Acute oral toxicity	:	LD50 (Rat): > 5000 mg/kg Remarks: Low toxicity:
Acute inhalation toxicity	:	Remarks: High concentrations may cause central nervous system depression resulting in headaches, dizziness and nausea; continued inhalation may result in unconsciousness and/or death. Low toxicity if inhaled. Based on available data, the classification criteria are not met.
Acute dermal toxicity	:	LD50 (Rabbit): > 5000 mg/kg Remarks: Low toxicity:

Skin corrosion/irritation

Product:
Remarks: Causes skin irritation.

Serious eye damage/eye irritation

Product:
Remarks: Causes serious eye irritation.

Respiratory or skin sensitisation

Product:

Remarks: Not a sensitiser.
Based on available data, the classification criteria are not met.

Germ cell mutagenicity

Product:

: Remarks: May cause heritable genetic damage

Carcinogenicity

Product:

Remarks: Known human carcinogen., May cause leukaemia (AML - acute myelogenous leukaemia).

IARC	Group 1: Carcinogenic to humans	
	benzene	71-43-2
OSHA	OSHA specifically regulated carcinogen	
	benzene	71-43-2
NTP	Known to be human carcinogen	
	benzene	71-43-2

Reproductive toxicity

Product:

: Remarks: Does not impair fertility., Not a developmental toxicant., Causes foetotoxicity in animals at doses which are maternally toxic.

STOT - single exposure

Product:

Remarks: Inhalation of vapours or mists may cause irritation to the respiratory system.

STOT - repeated exposure

Product:

Remarks: Causes damage to organs through prolonged or repeated exposure., Blood-forming organs: repeated exposure affects the bone marrow., Blood: may cause haemolysis of red blood cells and/or anaemia., Immune System: animal studies on this material or its components have demonstrated immunotoxicity.

Aspiration toxicity

Product:

Aspiration into the lungs when swallowed or vomited may cause chemical pneumonitis which can be fatal.

Further information

Product:

Remarks: May cause MDS (Myelodysplastic Syndrome)., Exposure to very high concentrations of similar materials has been associated with irregular heart rhythms and cardiac arrest., Classifications by other authorities under varying regulatory frameworks may exist.

SECTION 12. ECOLOGICAL INFORMATION

Basis for assessment : Information given is based on product testing.

Ecotoxicity

Product:

Toxicity to fish (Acute toxicity)	:	Remarks: Toxic LL/EL/IL50 > 1 <= 10 mg/l
Toxicity to daphnia and other aquatic invertebrates (Acute toxicity)	:	Remarks: Harmful LL/EL/IL50 >10 <= 100 mg/l
Toxicity to algae (Acute toxicity)	:	Remarks: Harmful LL/EL/IL50 >10 <= 100 mg/l
Toxicity to fish (Chronic toxicity)	:	Remarks: NOEC/NOEL > 0.1 - <=1.0 mg/l
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	Remarks: NOEC/NOEL > 1.0 - <=10 mg/l (based on test data)
Toxicity to microorganisms (Acute toxicity)	:	Remarks: Harmful LL/EL/IL50 >10 <= 100 mg/l

Persistence and degradability

Product:

Biodegradability	:	Remarks: Readily biodegradable.

Bioaccumulative potential

Product:

Bioaccumulation : Remarks: Does not bioaccumulate significantly.

Mobility in soil

Product:

Mobility : Remarks: Floats on water.

Other adverse effects

no data available

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : Recover or recycle if possible.
It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste classification and disposal methods in compliance with applicable regulations.

Do not dispose into the environment, in drains or in water courses
Waste product should not be allowed to contaminate soil or water.

Disposal should be in accordance with applicable regional, national, and local laws and regulations.
Local regulations may be more stringent than regional or national requirements and must be complied with.

Contaminated packaging : Drain container thoroughly.
After draining, vent in a safe place away from sparks and fire.
Residues may cause an explosion hazard.
Do not puncture, cut, or weld uncleaned drums.
Send to drum recoverer or metal reclaimer.

SECTION 14. TRANSPORT INFORMATION

National Regulations

US Department of Transportation Classification (49 CFR Parts 171-180)

UN/ID/NA number	:	UN 1114
Proper shipping name	:	BENZENE
Class	:	3
Packing group	:	II
Labels	:	3
Reportable quantity		BENZENE

(10 lb)

ERG Code : 130
Marine pollutant : no

International Regulations

IATA-DGR

UN/ID No. : UN 1114
Proper shipping name : BENZENE
Class : 3
Packing group : II
Labels : 3

IMDG-Code

UN number : UN 1114
Proper shipping name : BENZENE
Class : 3
Packing group : II
Labels : 3
Marine pollutant : no

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Pollution category : Y
Ship type : 3; Must be Double Hulled
Product name : Benzene and mixtures having 10% benzene or more

Special precautions for user

Remarks : Special Precautions: Refer to Chapter 7, Handling & Storage, for special precautions which a user needs to be aware of or needs to comply with in connection with transport.

Additional Information **:** This product may be transported under nitrogen blanketing. Nitrogen is an odourless and invisible gas. Exposure to nitrogen may cause asphyxiation or death. Personnel must observe strict safety precautions when involved with a confined space entry.

SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
benzene	**71-43-2**	**10**	**10**
benzene	**71-43-2**	**10**	**10 (D018)**

*: The components with RQs are given for information.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312 Hazards : Flammable (gases, aerosols, liquids, or solids)
Skin corrosion or irritation
Serious eye damage or eye irritation
Germ cell mutagenicity
Carcinogenicity
Specific target organ toxicity (single or repeated exposure)
Aspiration hazard

SARA 313 : The following components are subject to reporting levels established by SARA Title III, Section 313:

benzene	71-43-2	>= 90 - <= 100 %

Clean Water Act

The following Hazardous Chemicals are listed under the U.S. CleanWater Act, Section 311, Table 117.3:

benzene	71-43-2	100 %

US State Regulations

Pennsylvania Right To Know

benzene	71-43-2

California Prop. 65

WARNING: This product can expose you to chemicals including benzene, which is/are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

California List of Hazardous Substances

benzene	71-43-2

California Regulated Carcinogens

benzene	71-43-2

Other regulations:

The regulatory information is not intended to be comprehensive. Other regulations may apply to this material.

The components of this product are reported in the following inventories:

AIIC	:	Listed
DSL	:	Listed
IECSC	:	Listed
ENCS	:	Listed
KECI	:	Listed
NZIoC	:	Listed

PICCS	:	Listed
CH INV	:	Listed
TCSI	:	Listed
TSCA	:	Listed

SECTION 16. OTHER INFORMATION

Further information

NFPA Rating (Health, Fire, Reactivity) 2, 3, 0

Full text of other abbreviations

ACGIH	:	USA. ACGIH Threshold Limit Values (TLV)
ACGIH BEI	:	ACGIH - Biological Exposure Indices (BEI)
OSHA CARC	:	OSHA Specifically Regulated Chemicals/Carcinogens
OSHA Z-2	:	USA. Occupational Exposure Limits (OSHA) - Table Z-2
ACGIH / TWA	:	8-hour, time-weighted average
ACGIH / STEL	:	Short-term exposure limit
OSHA CARC / PEL	:	Permissible exposure limit (PEL)
OSHA CARC / STEL	:	Excursion limit
OSHA Z-2 / TWA	:	8-hour time weighted average
OSHA Z-2 / CEIL	:	Acceptable ceiling concentration
OSHA Z-2 / Peak	:	Acceptable maximum peak above the acceptable ceiling concentration for an 8-hr shift
Abbreviations and Acronyms	:	The standard abbreviations and acronyms used in this document can be looked up in reference literature (e.g. scientific dictionaries) and/or websites.

ACGIH = American Conference of Governmental Industrial Hygienists
ADR = European Agreement concerning the International Carriage of Dangerous Goods by Road
AICS = Australian Inventory of Chemical Substances
ASTM = American Society for Testing and Materials
BEL = Biological exposure limits
BTEX = Benzene, Toluene, Ethylbenzene, Xylenes
CAS = Chemical Abstracts Service
CEFIC = European Chemical Industry Council
CLP = Classification Packaging and Labelling
COC = Cleveland Open-Cup
DIN = Deutsches Institut fur Normung
DMEL = Derived Minimal Effect Level
DNEL = Derived No Effect Level
DSL = Canada Domestic Substance List
EC = European Commission
EC50 = Effective Concentration fifty

ECETOC = European Center on Ecotoxicology and Toxicology Of Chemicals
ECHA = European Chemicals Agency
EINECS = The European Inventory of Existing Commercial Chemical Substances
EL50 = Effective Loading fifty
ENCS = Japanese Existing and New Chemical Substances Inventory
EWC = European Waste Code
GHS = Globally Harmonised System of Classification and Labelling of Chemicals
IARC = International Agency for Research on Cancer
IATA = International Air Transport Association
IC50 = Inhibitory Concentration fifty
IL50 = Inhibitory Level fifty
IMDG = International Maritime Dangerous Goods
INV = Chinese Chemicals Inventory
IP346 = Institute of Petroleum test method N° 346 for the determination of polycyclic aromatics DMSO-extractables
KECI = Korea Existing Chemicals Inventory
LC50 = Lethal Concentration fifty
LD50 = Lethal Dose fifty per cent.
LL/EL/IL = Lethal Loading/Effective Loading/Inhibitory loading
LL50 = Lethal Loading fifty
MARPOL = International Convention for the Prevention of Pollution From Ships
NOEC/NOEL = No Observed Effect Concentration / No Observed Effect Level
OE_HPV = Occupational Exposure - High Production Volume
PBT = Persistent, Bioaccumulative and Toxic
PICCS = Philippine Inventory of Chemicals and Chemical Substances
PNEC = Predicted No Effect Concentration
REACH = Registration Evaluation And Authorisation Of Chemicals
RID = Regulations Relating to International Carriage of Dangerous Goods by Rail
SKIN_DES = Skin Designation
STEL = Short term exposure limit
TRA = Targeted Risk Assessment
TSCA = US Toxic Substances Control Act
TWA = Time-Weighted Average
vPvB = very Persistent and very Bioaccumulative

A vertical bar (|) in the left margin indicates an amendment from the previous version.
Due to a change in detail in Section 15, this document has been released as a significant change.

Sources of key data used to compile the Safety Data Sheet	:	The quoted data are from, but not limited to, one or more sources of information (e.g. toxicological data from Shell Health Services, material suppliers' data, CONCAWE, EU IUCLID date base, EC 1272 regulation, etc).

Revision Date : 06/06/2018

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

US / EN

SAFETY DATA SHEET

Version 5.1
Revision Date 08/02/2017
Print Date 10/10/2017

1. PRODUCT AND COMPANY IDENTIFICATION

1.1 Product identifiers

Product name : Ethylbenzene

Product Number : 1265457
Brand : USP

CAS-No. : 100-41-4

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses : Laboratory chemicals, Synthesis of substances

1.3 Details of the supplier of the safety data sheet

Company : Sigma-Aldrich
3050 Spruce Street
SAINT LOUIS MO 63103
USA

Telephone : +1 800-325-5832
Fax : +1 800-325-5052

1.4 Emergency telephone number

Emergency Phone # : +1-703-527-3887 (CHEMTREC)

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)
Flammable liquids (Category 2), H225
Acute toxicity, Inhalation (Category 4), H332
Carcinogenicity (Category 2), H351
Specific target organ toxicity - repeated exposure (Category 2), H373
Aspiration hazard (Category 1), H304
Acute aquatic toxicity (Category 2), H401

For the full text of the H-Statements mentioned in this Section, see Section 16.

2.2 GHS Label elements, including precautionary statements

Pictogram



Signal word Danger

Hazard statement(s)
H225 Highly flammable liquid and vapour.
H304 May be fatal if swallowed and enters airways.
H332 Harmful if inhaled.
H351 Suspected of causing cancer.
H373 May cause damage to organs through prolonged or repeated exposure.
H401 Toxic to aquatic life.

Precautionary statement(s)
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and

	understood.
P210	Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P233	Keep container tightly closed.
P240	Ground/bond container and receiving equipment.
P241	Use explosion-proof electrical/ ventilating/ lighting/ equipment.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P260	Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
P271	Use only outdoors or in a well-ventilated area.
P273	Avoid release to the environment.
P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.
P301 + P310	IF SWALLOWED: Immediately call a POISON CENTER/doctor.
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340 + P312	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.
P308 + P313	IF exposed or concerned: Get medical advice/ attention.
P331	Do NOT induce vomiting.
P370 + P378	In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.
P403 + P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.
P501	Dispose of contents/ container to an approved waste disposal plant.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS - none

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Molecular weight : 106.17 g/mol
CAS-No. : 100-41-4

Hazardous components

Component	Classification	Concentration
Ethylbenzene		
	Flam. Liq. 2; Acute Tox. 4; Carc. 2; STOT RE 2; Asp. Tox. 1; Aquatic Acute 2; H225, H304, H332, H351, H373, H401	90 - 100 %

For the full text of the H-Statements mentioned in this Section, see Section 16.

4. FIRST AID MEASURES

4.1 Description of first aid measures

General advice
Consult a physician. Show this safety data sheet to the doctor in attendance.Move out of dangerous area.

If inhaled
If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact
Wash off with soap and plenty of water. Consult a physician.

In case of eye contact
Flush eyes with water as a precaution.

If swallowed
Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed
The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed
No data available

5. FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media
Dry powder Dry sand

Unsuitable extinguishing media
Do NOT use water jet.

5.2 Special hazards arising from the substance or mixture
No data available

5.3 Advice for firefighters
Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information
Use water spray to cool unopened containers.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures
Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.
For personal protection see section 8.

6.2 Environmental precautions
Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

6.3 Methods and materials for containment and cleaning up
Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

6.4 Reference to other sections
For disposal see section 13.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling
Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.
Use explosion-proof equipment.Keep away from sources of ignition - No smoking.Take measures to prevent the build up of electrostatic charge.
For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities
Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

7.3 Specific end use(s)
Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Components with workplace control parameters

Component	CAS-No.	Value	Control parameters	Basis
Ethylbenzene	100-41-4	TWA	20.000000 ppm	USA. ACGIH Threshold Limit Values (TLV)
	Remarks	Cochlear impair Kidney damage (nephropathy) Upper Respiratory Tract irritation Substances for which there is a Biological Exposure Index or Indices (see BEI® section) Confirmed animal carcinogen with unknown relevance to humans		
		STEL	125.000000 ppm	USA. ACGIH Threshold Limit Values (TLV)
		Central Nervous System impairment Upper Respiratory Tract irritation Eye irritation Adopted values or notations enclosed are those for which changes are proposed in the NIC See Notice of Intended Changes (NIC) Substances for which there is a Biological Exposure Index or Indices (see BEI® section) Confirmed animal carcinogen with unknown relevance to humans		
		TWA	100.000000 ppm 435.000000 mg/m3	USA. NIOSH Recommended Exposure Limits
		ST	125.000000 ppm 545.000000 mg/m3	USA. NIOSH Recommended Exposure Limits
		TWA	100.000000 ppm 435.000000 mg/m3	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
		The value in mg/m3 is approximate.		
		TWA	20 ppm	USA. ACGIH Threshold Limit Values (TLV)
		Cochlear impair Kidney damage (nephropathy) Upper Respiratory Tract irritation Substances for which there is a Biological Exposure Index or Indices (see BEI® section) Confirmed animal carcinogen with unknown relevance to humans		
		TWA	100 ppm 435 mg/m3	USA. NIOSH Recommended Exposure Limits
		ST	125 ppm 545 mg/m3	USA. NIOSH Recommended Exposure Limits
		TWA	100 ppm 435 mg/m3	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
		The value in mg/m3 is approximate.		

		TWA	100 ppm 435 mg/m3	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
		STEL	125 ppm 545 mg/m3	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
		PEL	5 ppm 22 mg/m3	California permissible exposure limits for chemical contaminants (Title 8, Article 107)
		STEL	30 ppm 130 mg/m3	California permissible exposure limits for chemical contaminants (Title 8, Article 107)

Biological occupational exposure limits

Component	CAS-No.	Parameters	Value	Biological specimen	Basis
Ethylbenzene	100-41-4	Sum of mandelic acid and phenyl glyoxylic acid	0.7g/g creatinine	Urine	ACGIH - Biological Exposure Indices (BEI)
	Remarks	End of shift at end of workweek			
		Ethylbenzene		In end-exhaled air	ACGIH - Biological Exposure Indices (BEI)
		Not critical			
		Sum of mandelic acid and phenyl glyoxylic acid	0.15g/g creatinine	Urine	ACGIH - Biological Exposure Indices (BEI)
		End of shift (As soon as possible after exposure ceases)			

8.2 Exposure controls

Appropriate engineering controls
Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection
Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection
Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Body Protection
Complete suit protecting against chemicals, Flame retardant antistatic protective clothing., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection
Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure
Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

a)	Appearance	Form: liquid Colour: colourless
b)	Odour	No data available
c)	Odour Threshold	No data available
d)	pH	No data available
e)	Melting point/freezing point	-95.0 °C (-139.0 °F)
f)	Initial boiling point and boiling range	136.0 - 137.0 °C (276.8 - 278.6 °F)
g)	Flash point	No data available
h)	Evaporation rate	No data available
i)	Flammability (solid, gas)	No data available
j)	Upper/lower flammability or explosive limits	Upper explosion limit: 6.7 %(V) Lower explosion limit: 1 %(V)
k)	Vapour pressure	13.3 hPa (10.0 mmHg) at 20.0 °C (68.0 °F)
l)	Vapour density	No data available
m)	Relative density	0.87 g/cm3
n)	Water solubility	0.2 g/l at 25 °C (77 °F) - slightly soluble
o)	Partition coefficient: n-octanol/water	log Pow: 3.6 at 20 °C (68 °F)
p)	Auto-ignition temperature	432.0 °C (809.6 °F)
q)	Decomposition temperature	No data available
r)	Viscosity	0.773 mm2/s at 20 °C (68 °F) -
s)	Explosive properties	No data available
t)	Oxidizing properties	No data available

9.2 Other safety information

Surface tension	71.2 mN/m at 23 °C (73 °F)

10. STABILITY AND REACTIVITY

10.1 Reactivity
No data available

10.2 Chemical stability
Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions
No data available

10.4 Conditions to avoid
Heat, flames and sparks.

10.5 Incompatible materials
Strong oxidizing agents

10.6 Hazardous decomposition products
Hazardous decomposition products formed under fire conditions. - Carbon oxides

In the event of fire: see section 5

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity
No data available

LD50 Oral - Rat - male and female - 3,500 mg/kg

Inhalation: No data available

Inhalation: No data available

Dermal: No data available

LD50 Dermal - Rabbit - 15,433 mg/kg

No data available

No data available

Skin corrosion/irritation
No data available

Skin - Rabbit
Result: Moderate skin irritation - 24 h

Serious eye damage/eye irritation
No data available

Eyes - Rabbit
Result: Mild eye irritation

Respiratory or skin sensitisation
No data available

No data available

Germ cell mutagenicity
No data available

Hamster
ovary
Result: negative

Mouse - male and female
Result: negative

Carcinogenicity

IARC:	2B - Group 2B: Possibly carcinogenic to humans (Ethylbenzene)
NTP:	No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
OSHA:	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity
No data available
No data available

No data available

Specific target organ toxicity - single exposure
No data available

Specific target organ toxicity - repeated exposure
No data available

Aspiration hazard
No data available

Additional Information

Repeated dose toxicity	Rat - male and female - NOAEL : 75 mg/kg - OECD Test Guideline 407

RTECS: Not available

Central nervous system depression, Nausea, Headache, Vomiting, Ataxia., Tremors

Stomach - Irregularities - Based on Human Evidence
Stomach - Irregularities - Based on Human Evidence

12. ECOLOGICAL INFORMATION

12.1 Toxicity
No data available

Toxicity to fish	LC50 - Oncorhynchus mykiss (rainbow trout) - 4.2 mg/l - 96 h
Toxicity to daphnia and other aquatic invertebrates	static test EC50 - Daphnia magna (Water flea) - 1.8 - 2.4 mg/l - 48 h
Toxicity to algae	static test EC50 - Skeletonema costatum (marine diatom) - 4.9 mg/l - 72 h

12.2 Persistence and degradability
No data available

12.3 Bioaccumulative potential
No data available

12.4 Mobility in soil
No data available

12.5 Results of PBT and vPvB assessment
PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6 Other adverse effects
An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Toxic to aquatic life.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product
Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Offer surplus and non-recyclable solutions to a licensed disposal company. Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable.

Contaminated packaging
Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT (US)
UN number: 1175 Class: 3 Packing group: II
Proper shipping name: Ethylbenzene
Reportable Quantity (RQ): 1000 lbs
Poison Inhalation Hazard: No

IMDG
UN number: 1175 Class: 3 Packing group: II EMS-No: F-E, S-D
Proper shipping name: ETHYLBENZENE

IATA

UN number: 1175 Class: 3 Packing group: II
Proper shipping name: Ethylbenzene

15. REGULATORY INFORMATION

SARA 302 Components
No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components
The following components are subject to reporting levels established by SARA Title III, Section 313:

	CAS-No.	Revision Date
Ethylbenzene	100-41-4	2007-07-01

SARA 311/312 Hazards
Chronic Health Hazard

Massachusetts Right To Know Components

	CAS-No.	Revision Date
Ethylbenzene	100-41-4	2007-07-01

Pennsylvania Right To Know Components

	CAS-No.	Revision Date
Ethylbenzene	100-41-4	2007-07-01

	CAS-No.	Revision Date
Ethylbenzene	100-41-4	2007-07-01

New Jersey Right To Know Components

	CAS-No.	Revision Date
Ethylbenzene	100-41-4	2007-07-01

California Prop. 65 Components

	CAS-No.	Revision Date
WARNING! This product contains a chemical known to the State of California to cause cancer. Ethylbenzene	100-41-4	2007-09-28

16. OTHER INFORMATION

Full text of H-Statements referred to under sections 2 and 3.

Acute Tox.	Acute toxicity
Aquatic Acute	Acute aquatic toxicity
Asp. Tox.	Aspiration hazard
Carc.	Carcinogenicity
Flam. Liq.	Flammable liquids
H225	Highly flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H332	Harmful if inhaled.
H351	Suspected of causing cancer.
H373	May cause damage to organs through prolonged or repeated exposure.
H401	Toxic to aquatic life.

HMIS Rating

Health hazard:	1
Chronic Health Hazard:	*
Flammability:	0
Physical Hazard	0

NFPA Rating

Health hazard:	2
Fire Hazard:	0
Reactivity Hazard:	0

Further information

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The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Corporation and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See www.sigma-aldrich.com and/or the reverse side of invoice or packing slip for additional terms and conditions of sale.

Preparation Information

Sigma-Aldrich Corporation
Product Safety – Americas Region
1-800-521-8956

Version: 5.1 Revision Date: 08/02/2017 Print Date: 10/10/2017

SAFETY DATA SHEET

Creation Date 11-Jun-2009 **Revision Date** 14-Feb-2020 **Revision Number** 3

1. Identification

Product Name **Toluene**

Cat No. : **L10967**

CAS-No 108-88-3
Synonyms Tol; Methylbenzene

Recommended Use Laboratory chemicals.
Uses advised against Food, drug, pesticide or biocidal product use.

Details of the supplier of the safety data sheet

Company
Alfa Aesar
Thermo Fisher Scientific Chemicals, Inc.
30 Bond Street
Ward Hill, MA 01835-8099
Tel: 800-343-0660
Fax: 800-322-4757
Email: tech@alfa.com
www.alfa.com

Emergency Telephone Number
During normal business hours (Monday-Friday, 8am-7pm EST), call (800) 343-0660.
After normal business hours, call Carechem 24 at (866) 928-0789.

2. Hazard(s) identification

Classification
This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Flammable liquids	Category 2
Skin Corrosion/Irritation	Category 2
Serious Eye Damage/Eye Irritation	Category 2
Reproductive Toxicity	Category 2
Specific target organ toxicity (single exposure)	Category 3
Target Organs - Respiratory system, Central nervous system (CNS).	
Specific target organ toxicity - (repeated exposure)	Category 2
Target Organs - Kidney, Liver, spleen, Blood, Neurological effects, Eyes, Ears.	
Aspiration Toxicity	Category 1

Label Elements

Signal Word
Danger

Hazard Statements

Highly flammable liquid and vapor
May be fatal if swallowed and enters airways
Causes skin irritation
Causes serious eye irritation
May cause drowsiness or dizziness
Suspected of damaging the unborn child
May cause damage to organs through prolonged or repeated exposure



Precautionary Statements
Prevention
Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Use personal protective equipment as required
Wash face, hands and any exposed skin thoroughly after handling
Wear eye/face protection
Do not breathe dust/fume/gas/mist/vapors/spray
Use only outdoors or in a well-ventilated area
Keep away from heat/sparks/open flames/hot surfaces. - No smoking
Keep container tightly closed
Ground/bond container and receiving equipment
Use explosion-proof electrical/ventilating/lighting/equipment
Use only non-sparking tools
Take precautionary measures against static discharge
Keep cool
Response
IF exposed or concerned: Get medical attention/advice
Inhalation
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
Skin
If skin irritation occurs: Get medical advice/attention
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower
Wash contaminated clothing before reuse
Eyes
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
If eye irritation persists: Get medical advice/attention
Ingestion
IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
Do NOT induce vomiting
Fire
In case of fire: Use CO2, dry chemical, or foam for extinction
Storage
Store locked up
Store in a well-ventilated place. Keep container tightly closed
Disposal
Dispose of contents/container to an approved waste disposal plant
Hazards not otherwise classified (HNOC)
Harmful to aquatic life with long lasting effects
WARNING. Reproductive Harm - https://www.p65warnings.ca.gov/.

3. Composition/Information on Ingredients

Component	CAS-No	Weight %
Toluene	108-88-3	>95

4. First-aid measures

General Advice If symptoms persist, call a physician.

Eye Contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.

Skin Contact Wash off immediately with plenty of water for at least 15 minutes. If skin irritation persists, call a physician.

Inhalation Remove to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms occur. Risk of serious damage to the lungs (by aspiration).

Ingestion Clean mouth with water and drink afterwards plenty of water. Do NOT induce vomiting. Call a physician or poison control center immediately. If vomiting occurs naturally, have victim lean forward.

Most important symptoms and effects . Causes central nervous system depression: Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting

Notes to Physician Treat symptomatically

5. Fire-fighting measures

Suitable Extinguishing Media Water spray, carbon dioxide (CO2), dry chemical, alcohol-resistant foam. Water mist may be used to cool closed containers.

Unsuitable Extinguishing Media No information available

Flash Point 4 °C / 39.2 °F

Method - No information available

Autoignition Temperature 535 °C / 995 °F

Explosion Limits
Upper 7.1 vol %
Lower 1.1 vol %

Oxidizing Properties Not oxidising

Sensitivity to Mechanical Impact No information available
Sensitivity to Static Discharge No information available

Specific Hazards Arising from the Chemical
Flammable. Containers may explode when heated. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back.

Hazardous Combustion Products
Carbon monoxide (CO). Carbon dioxide (CO_2).
Protective Equipment and Precautions for Firefighters
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

NFPA

Health	Flammability	Instability	Physical hazards
3	3	0	N/A

6. Accidental release measures

Personal Precautions Use personal protective equipment as required. Ensure adequate ventilation. Remove all sources of ignition. Take precautionary measures against static discharges.

Environmental Precautions Do not flush into surface water or sanitary sewer system.

Methods for Containment and Clean Up Soak up with inert absorbent material. Keep in suitable, closed containers for disposal. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment.

7. Handling and storage

Handling Wear personal protective equipment/face protection. Do not get in eyes, on skin, or on clothing. Avoid ingestion and inhalation. Ensure adequate ventilation. Keep away from open flames, hot surfaces and sources of ignition. Use only non-sparking tools. To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded. Take precautionary measures against static discharges.

Storage Keep containers tightly closed in a dry, cool and well-ventilated place. Flammables area. Keep away from heat, sparks and flame.

8. Exposure controls / personal protection

Exposure Guidelines

Component	ACGIH TLV	OSHA PEL	NIOSH IDLH	Mexico OEL (TWA)
Toluene	TWA: 20 ppm	(Vacated) TWA: 100 ppm (Vacated) TWA: 375 mg/m^3 Ceiling: 300 ppm (Vacated) STEL: 150 ppm (Vacated) STEL: 560 mg/m^3 TWA: 200 ppm	IDLH: 500 ppm TWA: 100 ppm TWA: 375 mg/m^3 STEL: 150 ppm STEL: 560 mg/m^3	TWA: 20 ppm

Legend

ACGIH - American Conference of Governmental Industrial Hygienists
OSHA - Occupational Safety and Health Administration
NIOSH IDLH: NIOSH - National Institute for Occupational Safety and Health

Engineering Measures Ensure that eyewash stations and safety showers are close to the workstation location. Use explosion-proof electrical/ventilating/lighting/equipment. Ensure adequate ventilation, especially in confined areas.

Personal Protective Equipment

Eye/face Protection Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin and body protection Wear appropriate protective gloves and clothing to prevent skin exposure.

Respiratory Protection Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Hygiene Measures Handle in accordance with good industrial hygiene and safety practice.

9. Physical and chemical properties

Physical State Liquid
Appearance Colorless

Odor	aromatic
Odor Threshold	1.74 ppm
pH	No information available
Melting Point/Range	-95 °C / -139 °F
Boiling Point/Range	111 °C / 231.8 °F @ 760 mmHg
Flash Point	4 °C / 39.2 °F
Evaporation Rate	2.4 (Butyl acetate = 1.0)
Flammability (solid,gas)	Not applicable
Flammability or explosive limits	
Upper	7.1 vol %
Lower	1.1 vol %
Vapor Pressure	29 mbar @ 20 °C
Vapor Density	3.1
Specific Gravity	0.866
Solubility	Insoluble in water
Partition coefficient; n-octanol/water	No data available
Autoignition Temperature	535 °C / 995 °F
Decomposition Temperature	No information available
Viscosity	0.6 mPa.s @ 20 °C
Molecular Formula	C7 H8
Molecular Weight	92.14

10. Stability and reactivity

Reactive Hazard None known, based on information available

Stability Stable under normal conditions.

Conditions to Avoid Incompatible products. Excess heat. Keep away from open flames, hot surfaces and sources of ignition.

Incompatible Materials Strong oxidizing agents, Strong acids, Strong bases, Halogenated compounds

Hazardous Decomposition Products Carbon monoxide (CO), Carbon dioxide (CO_2)

Hazardous Polymerization Hazardous polymerization does not occur.

Hazardous Reactions None under normal processing.

11. Toxicological information

Acute Toxicity

Product Information

Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Toluene	> 5000 mg/kg (Rat)	12000 mg/kg (Rabbit)	26700 ppm (Rat) 1 h

Toxicologically Synergistic Products No information available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Irritation Irritating to eyes, respiratory system and skin

Sensitization No information available

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

Component	CAS-No	IARC	NTP	ACGIH	OSHA	Mexico
Toluene	108-88-3	Not listed	Not listed	Not listed	Not listed	Not listed

Mutagenic Effects Not mutagenic in AMES Test

Reproductive Effects Experiments have shown reproductive toxicity effects on laboratory animals.

Developmental Effects Developmental effects have occurred in experimental animals.

Teratogenicity Possible risk of harm to the unborn child.

STOT - single exposure Respiratory system Central nervous system (CNS)
STOT - repeated exposure Kidney Liver spleen Blood Neurological effects Eyes Ears

Aspiration hazard No information available

Symptoms / effects,both acute and delayed Causes central nervous system depression: Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting

Endocrine Disruptor Information No information available

Other Adverse Effects The toxicological properties have not been fully investigated.

12. Ecological information

Ecotoxicity

The product contains following substances which are hazardous for the environment. Contains a substance which is:. Toxic to aquatic organisms.

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Toluene	EC50: = 12.5 mg/L, 72h static (Pseudokirchneriella subcapitata) EC50: > 433 mg/L, 96h (Pseudokirchneriella subcapitata)	50-70 mg/L LC50 96 h 5-7 mg/L LC50 96 h 15-19 mg/L LC50 96 h 28 mg/L LC50 96 h 12 mg/L LC50 96 h	EC50 = 19.7 mg/L 30 min	EC50: 5.46 - 9.83 mg/L, 48h Static (Daphnia magna) EC50: = 11.5 mg/L, 48h (Daphnia magna)

Persistence and Degradability Persistence is unlikely

Bioaccumulation/ Accumulation No information available.

Mobility Is not likely mobile in the environment due its low water solubility.

Component	log Pow
Toluene	2.7

13. Disposal considerations

Waste Disposal Methods Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

Component	RCRA - U Series Wastes	RCRA - P Series Wastes
Toluene - 108-88-3	U220	-

14. Transport information

DOT

UN-No UN1294
Proper Shipping Name TOLUENE
Hazard Class 3
Packing Group II

TDG

UN-No UN1294
Proper Shipping Name TOLUENE
Hazard Class 3

Packing Group II

IATA

UN-No UN1294
Proper Shipping Name TOLUENE
Hazard Class 3
Packing Group II

IMDG/IMO

UN-No UN1294
Proper Shipping Name TOLUENE
Hazard Class 3
Packing Group II

15. Regulatory information

United States of America Inventory

Component	CAS-No	TSCA	TSCA Inventory notification - Active/Inactive	TSCA - EPA Regulatory Flags
Toluene	108-88-3	X	ACTIVE	-

Legend:
TSCA - Toxic Substances Control Act, (40 CFR Part 710)
X - Listed
'-' - Not Listed

TSCA 12(b) - Notices of Export Not applicable

International Inventories
Canada (DSL/NDSL), Europe (EINECS/ELINCS/NLP), Philippines (PICCS), Japan (ENCS), Australia (AICS), China (IECSC), Korea (ECL).

Component	CAS-No	DSL	NDSL	EINECS	PICCS	ENCS	AICS	IECSC	KECL
Toluene	108-88-3	X	-	203-625-9	X	X	X	X	KE-33936

U.S. Federal Regulations

SARA 313

Component	CAS-No	Weight %	SARA 313 - Threshold Values %
Toluene	108-88-3	>95	1.0

SARA 311/312 Hazard Categories See section 2 for more information

CWA (Clean Water Act)

Component	CWA - Hazardous Substances	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants
Toluene	X	1000 lb	X	X

Clean Air Act

Component	HAPS Data	Class 1 Ozone Depletors	Class 2 Ozone Depletors
Toluene	X		-

OSHA - Occupational Safety and Health Administration Not applicable

CERCLA This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Component	Hazardous Substances RQs	CERCLA EHS RQs
Toluene	1000 lb 1 lb	-

California Proposition 65 This product contains the following Proposition 65 chemicals.

Component	CAS-No	California Prop. 65	Prop 65 NSRL	Category
Toluene	108-88-3	Developmental	-	Developmental

U.S. State Right-to-Know Regulations

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Toluene	X	X	X	X	X

U.S. Department of Transportation

Reportable Quantity (RQ): Y
DOT Marine Pollutant N
DOT Severe Marine Pollutant N

U.S. Department of Homeland Security This product does not contain any DHS chemicals.

Other International Regulations

Mexico - Grade Serious risk, Grade 3

16. Other information

Prepared By Health, Safety and Environmental Department
Email: tech@alfa.com
www.alfa.com

Creation Date 11-Jun-2009
Revision Date 14-Feb-2020
Print Date 14-Feb-2020
Revision Summary SDS authoring systems update, replaces ChemGes SDS No. 108-88-3/1.

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

End of SDS

SAFETY DATA SHEET

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Identification of the substance or mixture

Product code 1862427
Product name Gaussia Flash Assay Buffer

Company/undertaking identification

Life Technologies Corporation
5781 Van Allen Way
PO Box 6482
Carlsbad, CA 92008
+1 760 603 7200

Life Technologies Japan Co. Ltd.
2-4-3 Showajima
Ota-ku, Tokyo
Japan, 143-0004

TEL +81-3-6832-9300

Thermo Fisher Scientific
Pierce Biotechnology
P.O. Box 117
Rockford, IL 61105
United States
1.815.968.0747 or
1.800.874.3723

24 hour Emergency Response:

866-536-0631
301-431-8585
Outside of the U.S. ++1-301-431-8585

Country specific Emergency Number (if available):
CHEMTREC Japan (Tokyo) +(81)-345209637 (Greeting language: Japanese)

Use as laboratory reagent, Scientific research and development

SECTION 2: Hazards identification

GHS - Classification

Signal word
None

Health hazards
Not classified

Physical hazards
Not classified

hazard statements
Not applicable

Precautionary Statements

Prevention
Not applicable

Response
Not applicable

Storage
Not applicable

Disposal
Not applicable

Precautionary Statements
Not applicable

Principle Routes of Exposure/ Potential Health effects

eyes	May cause eye irritation with susceptible persons.
Skin	May cause skin irritation in susceptible persons.
Inhalation	May be harmful by inhalation.
INGESTION	May be harmful if swallowed.

Specific effects

Carcinogenic effects	None.
Mutagenic effects	None.
Reproductive toxicity	None.
Sensitisation	None.

SECTION 3: Composition/information on ingredients

The product contains no substances which at their given concentration, are considered to be hazardous to health.

SECTION 4: First aid measures

Skin contact	Rinse cautiously with water for several minutes. Immediate medical attention is not required.
Eye contact	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
INGESTION	Not expected to present a significant ingestion hazard under anticipated conditions of normal use. If you feel unwell, seek medical advice.
Inhalation	Not expected to be an inhalation hazard under anticipated conditions of normal use of this material. Consult a physician if necessary.

Most important symptoms and effects, both acute and delayed
Not applicable

Notes to Physician Treat symptomatically.

SECTION 5: Firefighting measures

Suitable extinguishing media	Water spray. Carbon dioxide (CO2). Foam. Dry chemical.
Special protective equipment for firefighters	Standard procedure for chemical fires.
Specific hazards arising from the chemical	Not known

SECTION 6: Accidental release measures

Personal precautions	Always wear recommended Personal Protective Equipment. Use personal protection equipment.
Methods for cleaning up	Soak up with inert absorbent material.

Environmental precautions

No special environmental precautions required.

See Section 12 for more information.

SECTION 7: Handling and storage

Handling	Always wear recommended Personal Protective Equipment. Wear personal protective equipment.
Storage	Keep in a dry, cool and well-ventilated place.

SECTION 8: Exposure controls/personal protection

Exposure Limits

We are not aware of any national exposure limit.

Engineering measures Ensure adequate ventilation, especially in confined areas.

Personal protective equipment

Personal Protective Equipment requirements are dependent on the user institution's risk assessment and are specific to the risk assessment for each laboratory where this material may be used.

Respiratory protection	In case of insufficient ventilation, wear suitable respiratory equipment.
Hand Protection	Impervious gloves.
Eye protection	Safety glasses with side-shields.
Skin and body protection	Lightweight protective clothing.
Hygiene measures	Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls No special environmental precautions required.

SECTION 9: Physical and chemical properties

General information

Form	liquid	
Appearance	no data available	
Odour	no data available	
Odour Threshold	no data available	
Boiling point / boiling range	**°C** no data available	**°F** no data available
Melting point / melting range	**°C** no data available	**°F** no data available

flash point	**°C** no data available	**°F** no data available
Autoignition temperature	**°C** no data available	**°F** no data available
Evaporation rate	no data available	
Flammability (solid, gas)	no data available	
Oxidising properties	no data available	
Water solubility	no data available	
Upper explosion limit	no data available	
Lower explosion limit	no data available	
Partition coefficient: n-octanol/water	no data available	
Vapour Pressure	no data available	
vapour density	no data available	
Viscosity	no data available	
pH value	no data available	

SECTION 10: Stability and reactivity

Stability Stable under normal conditions.

Materials to avoid No dangerous reaction known under conditions of normal use.

Possibility of hazardous reactions Hazardous reaction has not been reported

Hazardous decomposition products None under normal use conditions.

polymerisation Hazardous polymerisation does not occur.

Conditions to avoid None under normal processing.

SECTION 11: Toxicological information

Acute toxicity

No toxicology information is available.

Principle Routes of Exposure/ Potential Health effects

eyes	May cause eye irritation with susceptible persons.
Skin	May cause skin irritation in susceptible persons.
Inhalation	May be harmful by inhalation.
INGESTION	May be harmful if swallowed.
Carcinogenic effects	None.
Mutagenic effects	None.
Reproductive toxicity	None.
Sensitisation	None.

SECTION 12: Ecological information

Ecotoxicity Contains no substances known to be hazardous to the environment or not

degradable in waste water treatment plants.

Mobility No information available.
Biodegradation Inherently biodegradable.
Bioaccumulation Material does not bioaccumulate.

SECTION 13: Disposal considerations

Dispose of contents/containers in accordance with local regulations.

SECTION 14: Transport information

IATA

Proper Shipping Name Not classified as dangerous in the meaning of transport regulations.
Hazard Class None
Subsidiary class None
Packing group None
UN-No None
Environmental hazards None

SECTION 15: Regulatory information

Japan Chemical Inventories

Not applicable.

SECTION 16: Other information

Unless specifically referenced in section 15 of this SDS, we have determined that this product does not require further notification or listing under the following Japanese regulations or laws: Fire Service Law, Poisonous and Deleterious Substance Control Law, Pollutant Release and Transfer Register, Industrial Safety and Health Law, Chemical Substance Control Law, Prohibition of Chemical Weapons and Regulation Specific Chemicals, Water Pollution Control Law, Air Pollution Control Law, Narcotics and Psychotropic Control Act, Stimulants Control Act, and Cannabis Control Act.

Reason for revision SDS sections updated.

Use as laboratory reagent. Scientific research and development.

"The above information was acquired by diligent search and/or investigation and the recommendations are based on prudent application of professional judgment. The information shall not be taken as being all inclusive and is to be used only as a guide. All materials and mixtures may present unknown hazards and should be used with caution. Since the Company cannot control the actual methods, volumes, or conditions of use, the Company shall not be held liable for any damages or losses resulting from the handling or from contact with the product as described herein. THE INFORMATION IN THIS SDS DOES NOT CONSTITUTE A WARRENTY, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PUPOSE"

End of Safety Data Sheet

APPENDIX F

COVID-19 Interim Health and Safety Guidance

COVID-19 INTERIM HEALTH AND SAFETY GUIDANCE

CORPORATE HEALTH AND SAFETY MANAGER	**:**	**Brian Hobbs, CIH, CSP**
EFFECTIVE DATE	**:**	**03/2020**
REVISION DATE	**:**	**03/18/2021**
REVISION NUMBER	**:**	**6**

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1. PURPOSE

This guidance has been implemented to establish work practices, administrative procedures, and engineering controls to minimize potential exposure to SARS-CoV-2, the virus that causes COVID-19. The following guidance has been developed based on local, state and federal recommendations/requirements regarding COVID-19. The purpose of this document is to supplement existing site-specific Health and Safety Plans (HASPs) and provide interim health and safety guidance to minimize potential exposure to SARS-CoV-2. Should additional scientific information or regulatory information change, this document shall be updated accordingly.

2. SCOPE AND APPLICABILITY

This guidance covers all Roux employees and the subcontractors that Roux oversees. Site specific HASPs shall be developed to incorporate elements of mitigative measures against COVID-19 exposure. If work cannot be carried out in compliance with this guidance, the project shall be further evaluated by the Project Principal (PP), Office Manager (OM), and Corporate Health and Safety Director (CHSD) prior to work authorization.

Roux subcontractors are required to review, comply with, and implement Roux's COVID-19 Interim Health and Safety Guidance while on site. Subcontractors may implement additional preventative measures as they see fit. All work shall be conducted in a manner consistent with the federal, state, and local guidance as it relates to COVID-19.

3. BACKGROUND

What is COVID-19?

COVID-19 is a respiratory illness that can spread from person to person. The virus that causes COVID-19 is a novel coronavirus that was first identified during an investigation into an outbreak in Wuhan, China. This virus continues to spread internationally and within the United States. Multiple variants of the virus that causes COVID-19 are circulating globally. There are currently several vaccines which have been developed which are authorized, recommended and effective at protecting you from getting sick.

What are the symptoms of COVID-19?

Reported illnesses have ranged from mild symptoms to severe illness and death for confirmed COVID-19 cases. Symptoms may appear 2 to 14 days following exposure to the virus. People with these symptoms or combinations of symptoms may have COVID-19:

- Fever or chills
- Cough
- Shortness of breath or difficulty breathing
- Fatigue
- Muscle or body aches
- Headache
- New loss of taste or smell
- Sore throat
- Congestion or runny nose
- Nausea or vomiting
- Diarrhea

This list is not all possible symptoms. The CDC will continue to update this list as they learn more about the virus. For an updated symptom list please reference the following link for CDC Symptoms of Coronavirus.

If someone develops emergency warning signs for COVID-19, they should be instructed to get medical attention immediately. Emergency warning signs can include those listed below; however, this list is not all inclusive. Please consult your medical provider for any other symptoms that are severe or concerning.

- Trouble breathing
- Persistent pain or pressure in the chest
- New confusion
- Inability to wake or stay awake
- Pale, gray, or blue-colored skin, lips, or nail beds, depending on skin tone

How does COVID-19 spread?[1]

SARS-COV-2 spreads very easily from person to person during close contact.

Individuals who are within close contact (within 6 feet) of a person with COVID-19 or have direct contact with that person are at greatest risk of infection.

- When people with COVID-19 cough, sneeze, sing, talk, or breathe they produce respiratory droplets. These droplets can range in size from larger droplets (some of which are visible) to smaller droplets. Small droplets can also form particles when they dry very quickly in the airstream.
- Infections occur mainly through exposure to respiratory droplets when a person is in close contact with someone who has COVID-19.
- Respiratory droplets cause infection when they are inhaled or deposited on mucous membranes, such as those that line the inside of the nose and mouth.
- As the respiratory droplets travel further from the person with COVID-19, the concentration of these droplets decreases. Larger droplets fall out of the air due to gravity. Smaller droplets and particles spread apart in the air.
- With passing time, the amount of infectious virus in respiratory droplets also decreases.

SARS-CoV-2 can sometimes spread by airborne transmission under certain circumstances.

Some infections can be spread by exposure to virus in small droplets and particles that can linger in the air for minutes to hours. These viruses may be able to infect people who are further than 6 feet away from the person who is infected or after that person has left the space. This kind of spread is referred to as **airborne transmission** and is an important way that infections like tuberculosis, measles, and chicken pox are spread.

- There is evidence that under certain conditions, people with COVID-19 seem to have infected others who were more than 6 feet away. These transmissions occurred within enclosed spaces that had inadequate ventilation. Sometimes the infected person was breathing heavily, for example while singing or exercising.
    - Under these circumstances, scientists believe the amount of infectious smaller droplet and particles produced by the people with COVID-19 became concentrated enough to spread the virus to other people. The people who were infected were in the same space during the same time or shortly after the person with COVID-19 had left.
- Available data indicate it is much more common for the virus that causes COVID-19 to spread through close contact with a person who has COVID-19 than through airborne transmission.[2]

Spread from contact with contaminated surfaces or objects is less common.

Respiratory droplets can also land on surfaces and objects. It is possible that a person could get COVID-19 by touching a surface or object that has the virus on it and then touching their own mouth, nose, or eyes. Spread from touching surfaces is not thought to be a common way that COVID-19 spreads.

4. TRAINING REQUIREMENTS

All employees with potential exposure to COVID-19 shall be provided training that incorporates COVID-19 exposure mitigation strategies, such as implementation of proper social distancing, personal hygiene (e.g., handwashing), as well as disinfection procedures, as outlined by CDC guidelines.

5. EXPOSURE RISK POTENTIAL

Worker risk of occupational exposure to COVID-19 can vary from very high, high, medium, or lower (caution) risk. This level of exposure is dependent on several factors, which can include industry type; need for contact within

1 How COVID-19 Spreads https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/how-covid-spreads.html#edn1

2 Scientific Brief: SARS-CoV-2 and Potential Airborne Transmission | CDC https://www.cdc.gov/coronavirus/2019-ncov/more/scientific-brief-sars-cov-2.html

6 feet of people known to be or suspected of being infected with COVID-19; density of work environment; and industrial setting (i.e., healthcare building, occupied interior work area, minimal ventilation).

Provided below is background risk level information taken from the U.S. Department of Labor Occupational Safety and Health Administration Guidance on preparing workplaces for COVID-19. Risk evaluations for each project shall be conducted by the PP and OM in consultation with the CHSD to ensure Roux employees and subcontractors remain within the lower exposure (caution) category. If it is identified there is a medium exposure risk or higher, further evaluation and mitigative measures shall be evaluated to reduce overall exposure risk prior to work authorization.



Very High Exposure Risk (Activities not conducted by Roux)

Very high exposure risk includes occupations/work activities with high potential for exposure to known or suspected sources of COVID-19 during specific medical, postmortem, or laboratory procedures. This can include but is not limited to:

- Healthcare workers (e.g., doctors, nurses, dentists, paramedics, emergency medical technicians) performing aerosol-generating procedures (e.g., intubation, cough induction procedures, bronchoscopies, some dental procedures and exams, or invasive specimen collection) on known or suspected COVID-19 patients.
- Healthcare or laboratory personnel collecting or handling specimens from known or suspected COVID-19 patients (e.g., manipulating cultures from known or suspected COVID-19 patients).
- Morgue workers performing autopsies, which generally involve aerosol-generating procedures on the bodies of people who are known to have, or suspected of having, COVID-19 at the time of their death.

High Exposure Risk (Activities not conducted by Roux)

High exposure risk occupations/work activities include exposure to known or suspected COVID-19 positive individuals. This can include but not limited to:

- Healthcare delivery and support staff (hospital staff who must enter patients' rooms) exposed to known or suspected COVID-19 patients.
- Medical transport workers (ambulance vehicle operators) moving known or suspected COVID-19 patients in enclosed vehicles.
- Mortuary workers involved in preparing bodies for burial or cremation of people known to have, or suspected of having, COVID-19 at the time of death.
- Those who have frequent or sustained contact with coworkers, including under close working conditions indoors or in poorly ventilated spaces in various types of industrial, manufacturing, agriculture, construction, and other critical infrastructure workplaces.
- Those who have frequent indoor or poorly ventilated contact with the general public, including workers in retail stores, grocery stores or supermarkets, pharmacies, transit and transportation operations, law enforcement and emergency response operations, restaurants, and bars.

Medium Exposure Risk

Medium exposure risk occupations/work activities include those that require frequent and/or close contact with (i.e., within 6 feet for a cumulative total of 15 minutes or more over a 24-hour period)) people who may be infected with COVID-19, but who are not known or suspected to be COVID-19 positive. For most of our worksites, it is assumed there is on-going community transmission for COVID-19. Therefore, workers who work at sites and may have contact with the general public, other contractors, high-population-density work environments (i.e., greater than 10 people) fall within medium exposure risk group category. This can include, but is not limited to, sampling events that require two or more workers to collect and log samples in close contact or work occurring in an interior space with limited ventilation and several workers present.

Lower Exposure Risk (Caution)

Lower exposure risk (caution) occupations/work activities are those that do not require close contact (within 6 feet for a cumulative total of 15 minutes or more over a 24-hour period) with other people. During these activities, there is limited contact (i.e., within 6 feet of) the general public or other workers. Workers in this category have minimal occupational contact with the public and other coworkers. This includes construction oversight that does not require close contact, sampling or gauging events performed by one worker and our remote workers as well as office workers who do not have frequent close contact with coworkers, clients, or the public.

6. COVID-19 HEALTH SCREENING

6.1. Roux Employees

All Roux employees are required to self-attest to a COVID-19 Daily Health Questionnaire which is to be completed at home through a mobile application on scheduled workdays. The purpose of this program is to ensure business continuity as well as mitigate any potential exposure to our employees and others if it is determined employees are at-risk for contracting COVID-19. As part of this self-attestation, all employees are required to take their temperatures daily at home to confirm they do not have a fever (≥ 100.4). Employees who answer yes to any of these questions are instructed to contact their Office Manager and/or Department Head immediately and should not enter the office or go to a field site. Information shall be used to determine appropriate internal response in consultation with the Human Resources Director (HRD) and CHSD.

Below, you will find our COVID-19 Daily Health Questionnaire that all Roux employees are required to self-attest to **every scheduled workday by 9:30 AM.** If employees do not promptly fill out the questionnaire by the time listed above, there will be additional follow up by HR, H&S, and/or OMs.

According to the U.S. Centers for Disease Control and Prevention & the World Health Organization, COVID-19 Symptoms include:

- *Fever (≥100. 4°F) or chills*
- *Cough*
- *Shortness of breath or difficulty breathing*
- *Fatigue*
- *Muscle or body aches*
- *Headache*
- *New loss of taste or smell*
- *Sore throat*
- *Congestion or runny nose*
- *Nausea or vomiting*
- *Diarrhea*

Have you experienced any of the COVID-19 related symptoms noted above in the last 14 days? Please Note: We do not expect employees to answer "yes" to the symptoms question if these are symptoms you normally experience due to another condition or medication.

- *Yes*
- *No*

Have you been in close contact with someone who is suspected or confirmed to have COVID-19 or who is under investigation for COVID-19 within the last 14 days? *Close contact is defined as someone who was within 6 feet of an infected person for at least 15 minutes or coming into direct contact with secretions (e.g., sharing utensils, being coughed on) from an infected person.*

- *Yes*
- *No*

Have you traveled outside of the country, been on a cruise ship and/or traveled to areas within the United States which have state mandated travel restrictions in the last 14 days?

- *Yes*
- *No*

Have you tested positive for COVID-19 within the last 14 days?

- *Yes*
- *No*

6.2. Subcontractors

In an effort to mitigate the risk of transmission of COVID-19, Subcontractors who shall perform work on-site are required to attest to the fitness of their work crew on a daily basis. This requires each worker to self-assess by asking themselves the four questions listed in the section above and also contained within the Roux Subcontractor Work Crew COVID-19 Daily Health Attestation. If any crew member answers "Yes" to any of the questions, that worker is not to report to the field site and should seek proper medical advice, in accordance with local, state and federal guidelines.

On a daily basis, the subcontractor supervisor must provide the Subcontractor Work Crew COVID-19 Daily Health Attestation complete with the names of all work crew fit to be on the site for that day (i.e., who have answered "No" to all questions on the self-assessment) to Roux's Project Manager or Site Supervisor. The Subcontractor must notify Roux if there have been any "Yes" responses daily. Subcontractors shall not be required to provide the name or any other personal information of any employee who has answered "Yes" to any of the self-assessment questions, however, the subcontractor should provide the date and times that employee has been onsite in the prior 14 days. Records shall be maintained within the project files indicating health screening has been performed, records shall be retained for not less than 14 days following the date of submission. The Roux Subcontractor Work Crew COVID-19 Daily Health Check Attestation can be found within Appendix A.

7. SELF-ISOLATION & QUARANTINE

7.1. Self-Isolation

What if I am asked to self-isolate at home and when can I return from home isolation?

Depending on the situation, if you are COVID-19 positive or suspected to have COVID-19, employees may be required to self-isolate in their homes, as per CDC or local health department guidelines. As per CDC guidance, return from isolation has been broken out into two categories. The first includes confirmed or suspected COVID-19 individuals exhibiting symptoms, and the second includes those who have not had COVID-19 symptoms (i.e., asymptomatic), but tested positive and are under self-isolation. Both categories, along with strategies to return from home isolation, are outlined below.

People with COVID-19 under home isolation:

Accumulating evidence supports ending isolation and precautions for persons with COVID-19 using a symptom-based strategy. Specifically, researchers have reported that people with mild to moderate COVID-19 remain infectious no longer than 10 days after their symptoms began, and those with more severe illness or those who are

severely immunocompromised remain infectious no longer than 20 days after their symptoms began. Therefore, CDC has updated the recommendations for discontinuing home isolation as follows:

1. **Persons with COVID-19 who have symptoms** and were directed to care for themselves at home may discontinue isolation under the following conditions:
   a. At least 10 days* have passed since symptom onset;
   b. At least 24 hours have passed since resolution of fever without the use of fever-reducing medications; and
   c. Other symptoms have improved.
   * *A limited number of persons with severe illness may produce replication-competent virus beyond 10 days, which may warrant extending the duration of isolation for up to 20 days after symptom onset. Consultation with your healthcare provider will be warranted in such cases of severe illness.*
2. **Persons infected with SARS-CoV-2 who never develop COVID-19 symptoms** may discontinue isolation and other precautions 10 days after the date of their first positive RT-PCR test for SARS-CoV-2 RNA.

7.2. Quarantine

Employees may be required to self-quarantine due to potential exposure with a suspected and/or confirmed COVID-19 positive individual as well as recent travel as per local/state guidelines. People in quarantine should stay home, separate themselves from others, monitor their health, and follow directions from their state or local health department.

7.2.1. Close Contact Quarantine

Employees who have come into close contact with someone who has COVID-19 are required to self-quarantine for 14 days following their last contact with the COVID-19 positive person. Close contact as defined by the CDC is being within 6 feet of someone who has COVID-19 for a cumulative total of 15 minutes or more over a 24-hour period, providing care at home to someone who is sick with COVID-19, having direct physical contact with COVID-19 individual, sharing utensils with COVID-19 individual, and being sneezed/coughed on by someone with COVID-19. Please note an infected person can spread SARS-CoV-2 starting from 2 days before they have any symptoms (or, for asymptomatic patients, 2 days before the positive specimen collection date), until they meet the criteria for discontinuing home isolation.

Employees who have been fully vaccinated (as per CDC guidance) or who were previously diagnosed with COVID-19 within the last three months and show no symptoms are not required to quarantine. Additional consultation with the HRD and CHSD shall occur in these circumstances.

7.2.2. Travel Related Quarantine

All travel out of state must be communicated with the OM and/or Department Head prior to departure. Please note, some state/local entities require submissions of traveler health forms. It is expected all Roux employees will comply with such state/local travel requirements. All employees returning from international and/or cruise ship travel must quarantine for 10 days from the time they have returned home and avoid being around people who are at increased risk for severe illness for 14 days, whether you get tested or not.

Personal Travel

Employees who will be traveling out of state are responsible for checking the local/state quarantine guidance for the regions they are traveling from and to in advance of travel and notifying their OM prior to traveling in order to evaluate the impact on the business. Based on state/local guidelines you may be required to quarantine for 10 days from the time you have returned home.

Work-Related Travel

The Project Team (i.e., PM & PP) and field staff who will be traveling are responsible for checking the local/state quarantine guidance for the regions they are traveling from and to in advance of travel and notifying their OM prior to traveling in order to evaluate the impact to the business. Additionally, health and safety considerations shall be

reviewed by the OM in consultation with the CHSD regarding logistics and overnight accommodations. Based on state/local guidelines, you may be required to quarantine for 10 days from the time you have returned home.

8. WORKPLACE CONTROLS

During the project planning phase, worksite evaluations shall be carried out by the PP and OM in consultation with the CHSD to determine risk exposure levels for work activities. If it is determined there is a medium exposure risk level or higher, additional workplace controls shall be evaluated and implemented as required in addition to the basic infection prevention measures outlined below in Section 9. Additional workplace controls can include engineering controls (i.e., ventilation, physical barriers), administrative controls (i.e., minimizing contact between workers, rotating shifts, site specific training), and additional personal protective equipment (i.e., respiratory protection). If exposure risk cannot be mitigated, potential project postponement may be necessary at the discretion of the OM in consultation with the CHSD.

A Job Safety Analysis (JSA) has been developed and is provided in Appendix B, which summarizes and applies concepts within this guidance including the infection prevention measures listed below. This JSA shall be required for all field work in areas where there is community-based transmission of COVID-19.

9. INFECTION PREVENTION MEASURES

The following is basic infection prevention and personal hygiene practices which shall be implemented for all Roux field activities as well as in the office setting.

- ***Personal Hygiene***
  - Wash your hands often with soap and water for at least 20 seconds.
    - If soap and water are not available, use an alcohol-based sanitizer that contains at least 60% ethanol or 70% isopropanol.
    - Key times to wash your hands include after blowing your nose, coughing or sneezing, after using the restroom, and before eating or preparing food.
  - Do not touch your eyes, face, nose and mouth with unwashed hands.
  - Cover your mouth and nose with a tissue when you cough or sneeze or use the inside of your elbow.
  - Throw potentially contaminated items (e.g., used tissues) in the trash.
- ***Avoid Close Contact/Secondary Contact with People and Potentially Contaminated Surfaces***
  - Apply appropriate social distance (6+ feet).
  - Stop handshaking—use and utilize other noncontact methods for greeting.
  - Do not work in areas with limited ventilation with other Site workers (e.g., small work trailer which lacks HVAC system). If working in a trailer, the following conditions must be met: limited to 4 workers, large enough to have the ability to apply social distance and has open windows and/or operational HVAC to ensure proper ventilation of the workspace.
  - Morning tailgate/safety meetings shall occur outside and not within work trailers.
    - Do not require employees or subcontractors to sign in using the same tailgate form. The Site Supervisor/SHSO should record names of those in attendance on the form.
    - If the Site has more than 10 workers, separate tailgate meetings should be performed in smaller groups.
  - Do not share equipment or other items with co-workers and subcontractors unless wearing appropriate PPE (e.g., nitrile gloves). Assume equipment and other surfaces are potentially contaminated and remove gloves aseptically.
  - If receiving labware or other equipment disinfect to the extent feasible. If there are concerns for contaminating labware please wear appropriate PPE (e.g., gloves) to minimize contact.

- Contact your lab/equipment vendor to confirm equipment is properly disinfected prior to being shipped.
- Do not carpool with others (e.g., clients, coworkers).
- For company owned vehicles limit sharing of vehicles with coworkers. If unable to limit sharing of company owned vehicles, properly disinfect vehicle before driving with a focus on commonly touched surfaces (e.g., steering wheels, shifters, buttons, etc.).
- Use caution when using public restrooms, portable toilets. Use paper towel as a barrier when touching door handles and faucets.

- ***Cleaning and Disinfecting***
  - Clean and disinfect frequently touched surfaces daily. Commonly touched items can include but are not limited to tables, doorknobs, light switches, countertops, handles, desks, phones, keyboards, toilets, faucets, sinks, and field equipment (i.e., photo-ionization detector, field equipment).
  - **Hard (Non-porous) Surfaces**
    - If surfaces are dirty, they should be cleaned with a detergent/soap and water prior to disinfection.
    - Refer to the manufacturer's instructions to ensure safe and effective use of the product and wear appropriate personal protective equipment (e.g., gloves, safety glasses, face shield).
    - Many products require:
      - Keeping surface wet for a period of time (i.e., contact time)
        - Refer to manufacturer's instructions outlining adequate contact time.
      - Precautions such as wearing gloves and making sure you have good ventilation during use of the product.
    - Disposable gloves should be removed aseptically and discarded after cleaning. Wash hands immediately following removal of gloves. Refer to Appendix C for how to remove gloves aseptically.
    - If products on EPA List N: Disinfectants for Coronavirus (COVID-19) are not available, bleach solutions can be used if appropriate for the surface and will be effective against coronaviruses when properly diluted.
      - Most household bleach contains 5%–9% sodium hypochlorite. Do not use a bleach product if the percentage is not in this range or is not specified, such as some types of laundry bleach or splash-less bleach as these are not appropriate for disinfection.
      - Follow the directions on the bleach bottle for preparing a diluted bleach solution. If your bottle does not have directions, you can make a bleach solution for disinfecting by mixing:
        - 5 tablespoons (1/3 cup) of bleach per gallon of room temperature water OR
        - 4 teaspoons of bleach per quart of room temperature water
      - Follow the manufacturer's application instructions for the surface. If instructions are not available, leave the diluted bleach solution on the surface for at least 1 minute before removing or wiping. This is known as the "contact time" for disinfection. The surface should remain visibly wet during the contact time.
      - Ensure proper ventilation during and after application (for example, open windows).
      - Never mix household bleach (or any disinfectants) with any other cleaners or disinfectants. This can cause vapors that may be very dangerous to breathe in.
      - Make a new diluted bleach solution daily. Bleach solutions will not be as effective after being mixed with water for over 24 hours. Products with EPA-approved emerging viral pathogen claims are expected to be effective against COVID-19. Follow the manufacturer's instructions

for all cleaning and disinfecting products (e.g., concentration, application method and contact time, etc.).

- **Soft (Porous) Surfaces**
  - For soft (porous) surfaces, remove visible contamination if present and clean with appropriate cleaners indicated for use on the surfaces. After cleaning:
    - Launder items as appropriate in accordance with the manufacturer's instructions. If possible, launder using the warmest appropriate water setting for the item and dry items completely; or
    - Use products with the EPA-approved emerging viral pathogens that claim they are suitable for porous surfaces.
- **Electronics**
  - For electronics such as tablets, touch screens, keyboards, remote controls, etc. remove visible contamination if present.
    - Follow the manufacturer's instructions for all cleaning and disinfection products.
    - Consider use of wipeable covers for electronics.
    - If no manufacturer guidance is available, consider the use of alcohol-based wipes or sprays containing at least 70% alcohol to disinfect touch screens. Dry surfaces thoroughly to avoid pooling of liquids.
- ***Linens, Clothing, and Other Items that Go in the Laundry***
  - Although it is unlikely field clothing would become potentially contaminated with COVID-19, it is recommended that field staff regularly launder field clothing following any field event upon returning home.
  - In order to minimize the possibility of dispersing the virus from potentially contaminated clothing, do not shake dirty laundry.
  - Wash items as appropriate in accordance with the manufacturer's instructions. If possible, launder items using the warmest appropriate water setting for the items and dry items completely.
  - Clean and disinfect hampers or other containers used for transporting laundry according to guidance listed above.
- ***Office/Site Specific-Cleaning and Disinfection Protocols***

  Each office and long-term field site has developed internal cleaning and disinfecting practices, which are broken into three categories: routine cleaning; enhanced cleaning and disinfecting; and deep cleaning and disinfecting. In the instance there is someone who is suspected or confirmed positive for COVID-19 and has worked at the office or field site, deep cleaning and disinfecting shall be considered. The CHSD shall work with the OM and Office Health and Safety Manager to evaluate site-specific measures that shall be carried out prior to deep cleaning and disinfecting. This can include, but is not limited to, closing off all areas potentially affected, as determined through contact tracing. Areas should remain closed off for a minimum of 24 hours during this time; if able, ventilation shall be increased in the space (e.g., opening doors, windows, increasing CFM). Following this period, all areas used by the suspected or confirmed COVID-19 individual shall be cleaned and disinfected appropriately. Areas can include, but are not limited to, offices, bathrooms, shared equipment used by the ill person, and common areas with a focus on frequently touched surfaces. If it has been more than seven (7) days since the person with suspected/ confirmed COVID-19 visited or used the facility, additional cleaning and disinfecting is not necessary.

10. CLOTH FACE COVERINGS

The CDC recommends the use of cloth face coverings in public settings where other social distancing measures are difficult to maintain. This recommendation is based on recent studies and an understanding that a significant portion of asymptomatic, as well as pre-symptomatic, individuals can shed the virus to others before showing

symptoms. Studies indicate that COVID-19 can spread among people interacting in close proximity through speaking, coughing, or sneezing. The use of cloth face coverings is to supplement and NOT replace the existing practices outlined above.

Based on existing studies and on-going recommendations and/or requirements from federal, state, and local entities, Roux is recommending the use of cloth face coverings, when appropriate. Appropriate use is defined when local authorities or clients require the use of cloth face coverings in conjunction with established social distancing, or if an employee elects to use a cloth covering on their own accord. Roux will provide cloth face coverings that shall meet the basic requirements outlined by the CDC guidance.

Cloth Face Coverings (i.e., masks) should:

- Completely cover the nose and mouth;
- Fit snugly against the sides of the face and not have any gaps;
- Be handled only by the ear loops, cords or head straps (not by the surface of the mask);
- Include multiple layers of fabric;
- Allow for breathing without restriction; and
- Be able to be laundered and machine dried with no damage or change to shape.

When donning and doffing the cloth face covering, individuals should avoid touching their eyes, nose, and mouth. Following removal of the cloth face covering, employees should wash their hands immediately using the guidelines described in Section 9 above. Cloth face coverings should be routinely washed depending on the frequency of use.

Note, the cloth face coverings recommended are not surgical masks or N-95 respirators. Those are critical supplies that must continue to be reserved for healthcare workers and other medical first responders, as recommended by current CDC guidance. Should there be a requirement for workers to be in respiratory protection (e.g., full-face respirator w/cartridges, P100, N95 respirators), it shall be addressed during the project pre-planning phase, which includes discussions with the PP and OM in consultation with CHSD.

Additional information on improving the fit and filtration of your mask can be found at the following CDC website.

11. HOTEL SELECTION PROCESS AND OVERNIGHT/REMOTE WORK

Hotel Selection

If there is a project requiring the overnight stay at a hotel, accommodations shall be made only after the hotel and hotel's location have been vetted in accordance with Roux's established guidance as defined below. The Project Team, which includes the Project Manager (PM) and PP along with the OM, in consultation with the CHSD, shall verify the hotel has appropriate protocols in place to limit the potential exposure and spread of COVID- 19 through proper cleaning and disinfection practices. Discussions with the hotel shall include, but are not limited to, measures taken to keep guests safe during their stay, guest room sanitization schedule, training of staff regarding disinfecting protocols using EPA-approved disinfectants, hotel staff fitness for duty requirements, etc. Some example questions are listed below. Following the initial hotel assessment by the Project Team, the OM and the CHSD shall review the hotel assessment findings prior to the CHSD's authorization that the hotel may be used by any Roux employees.

Sample Questions for Evaluating Hotels

1. Is there an established COVID-19 guidance/policy your location is following?
2. What additional measures are being implemented to keep workers and customers safe?; (e.g. signs/placards, social-distancing/mask reminders)
3. Is there a guest room sanitization schedule?
4. Have staff been trained on properly cleaning/disinfecting areas?

5. What types of disinfectants are in use at your location?
6. How are you evaluating staff fitness for duty? (e.g., temperature checks, not reporting to work when sick, etc.)

Employees staying overnight should abide by the following guidance:

- Ensure you properly disinfect your room upon arrival. This should include a wipe down of all commonly touched surfaces with an approved disinfectant. Use appropriate PPE (e.g., nitrile gloves) when disinfecting surfaces.
- Place the "Do Not Disturb" placard on the room while away and consider limiting hotel housekeeping service to the extent feasible (e.g., not having the room cleaned each day) to minimize potential secondary contact with others.
- Do not spend any more time in hotel common areas (i.e., lobby, hallways, etc.) than is necessary.
- Follow proper Infection Prevention Measures found within Section 9 above.
- Have meals in your hotel room after disinfecting outer package surfaces, as outlined in Section 9 above. Do not eat in public spaces or restaurants.
- If the hotel has a restaurant or café, do not have your meal in a common area; instead order food to be picked up or delivered to your room. If delivered, opt for contactless delivery (left outside the door, delivery person knocks and leaves). Always use your own pen if you need to sign something.
- Employees may also pick up food from takeout locations, order groceries or food for delivery to the hotel. Call local restaurants to order food for delivery (call the hotel lobby for recommendations) or use food ordering apps. Some apps have options for contactless delivery.

12. TRANSPORTATION-RENTAL CARS AND ROUX-OWNED VEHICLES

Rental Cars

If there is a project requiring the use of a rental car (e.g., truck/van), accommodations shall be made only after the rental car company and their store's location have been vetted in accordance with Roux's established guidance, as defined below. The Project Team (PM and PP) and OM in consultation with the CHSD shall verify the rental company where you are picking up your vehicle has appropriate protocols in place to limit the potential exposure and spread of COVID- 19 through proper cleaning and disinfection practices. Discussions with the rental car company shall include, but are not limited to, measures to be taken to keep customers safe during pickup/drop-off, rental car disinfection protocols, training of staff regarding disinfecting protocols using EPA-approved disinfectants, rental car company staff fitness for duty requirements, etc. Some example questions are listed below. Following the initial rental car company store assessment by the Project Team, the OM and the CHSD shall review the rental car company assessment findings prior to the CHSD's authorization that the rental car company store may be used by any Roux employees.

Sample Questions for Evaluating Rental Car Companies

1. Is there an established COVID-19 guidance your location is following?
2. What additional measures are being implemented to keep workers and customers safe?
3. Is there a car sanitization schedule?
4. Have staff been trained on properly cleaning/disinfecting vehicles?
5. What types of disinfections are in use at your location?
6. How are you evaluating staff fitness for duty? (e.g., temperature checks, not reporting to work when sick, etc.)

Upon vehicle pickup, employees shall don nitrile gloves and safety glasses and clean/disinfect all high-touch surfaces (steering wheel, knobs, door handles, turn signals, radio, etc.) by wiping thoroughly with approved disinfectants (following manufacturer's instructions). Aseptically remove gloves and dispose of them along with

rags/wipes, appropriately. Wash hands or use hand sanitizer immediately after each episode of cleaning. Due to social distancing requirements, personnel shall not carpool to destinations.

Roux-Owned Vehicles

Roux-owned vehicles should be dedicated to individual employees to the extent feasible, and if authorized by the OM. In the case this cannot be accommodated, employees shall don nitrile gloves and safety glasses, and clean/disinfect all high-touch surfaces (steering wheel, knobs, door handles, turn signals, radio, etc.) by wiping thoroughly with approved disinfectants (following manufacturer's instructions). This cleaning and disinfection shall occur before and after each use of the vehicle. Aseptically remove gloves and dispose of them along with rags/wipes, appropriately. Wash hands or use hand sanitizer immediately after each episode of cleaning. Due to social distancing requirements, personnel shall not carpool to destinations.

APPENDIX A

Roux Subcontractor Work Crew
COVID-19 Daily Health Screening Questionnaire

Subcontractor Work Crew
COVID-19 Daily Health Attestation

Date:
Company Name:
Supervisor Name: Signature:
Project Name:
Site Address:
Number of Workers on site:

Prior to entry onto a field site, the following questions shall be asked by the Subcontractor Supervisor to their work crew.

It is preferred this questionnaire is completed for each individual prior to their arrival at the field site. If the answer to any of these questions is YES, the worker is not to report to the field site and seek proper medical advice, in accordance with CDC Guidelines.

The Subcontractor Supervisor must provide this form on a daily basis to the Roux primary contact for the project and notify Roux of any YES responses.

1. Have you experienced any signs/symptoms of COVID-19 such as fever (≥100.4°F), cough, shortness of breath, chills, fatigue, muscle/body aches, headache, new loss of taste or smell, sore throat, congestion or runny nose, nausea/vomiting or diarrhea in the last 14 days?

2. Have you been in close contact* with someone who is suspected or confirmed to have COVID-19 or who is under investigation for COVID-19 within the last 14 days?

*Close contact is defined as someone who was within 6 feet of an infected person for at least 15 minutes or coming into direct contact with secretions (e.g. sharing utensils, being coughed on) from an infected person.

3. Have you traveled outside of the country, been on a cruise ship and/or traveled to areas within the United States which have state mandated travel restrictions in the last 14 days?

4. Have you tested positive for COVID-19 within the last 14 days?

Please list the crew member's names on site for the day.

1.	9.
2.	10.
3.	11.
4.	12.
5.	13.
6.	14.
7.	15.
8.	16.

APPENDIX B

Job Safety Analysis-Working in Areas Affected by COVID-19

JOB SAFETY ANALYSIS	Ctrl. No. CVD-19	DATE: 04/16/2020	☒ NEW ☐ REVISED	PAGE 1 of 2

JSA TYPE CATEGORY	WORK TYPE	WORK ACTIVITY (Description)
Generic	**Fieldwork**	**Working in Areas Affected by Coronavirus**

DEVELOPMENT TEAM	POSITION / TITLE	REVIEWED BY:	POSITION / TITLE
Kristina DeLuca	Health and Safety Specialist	Brian Hobbs	CHSM

REQUIRED AND / OR RECOMMENDED PERSONAL PROTECTIVE EQUIPMENT

☐ LIFE VEST	☐ GOGGLES	☐ AIR PURIFYING RESPIRATOR	☒ GLOVES – Leather/cut-resistant in field and nitrile as needed
☒ HARD HAT – In field	☐ FACE SHIELD	☐ SUPPLIED RESPIRATOR	
☐ LIFELINE / BODY HARNESS	☐ HEARING PROTECTION	☒ PPE CLOTHING – High visibility vest in field	☐ OTHER
☒ SAFETY GLASSES – In field	☒ SAFETY SHOES – Steel/composite toe in fie		

REQUIRED AND / OR RECOMMENDED EQUIPMENT

Cloth face covering, nitrile gloves, hand soap, water source, hand sanitizer, disinfectant spray and disinfectant wipes.

Commitment to Safety – All personnel onsite will actively participate in SPSA performance by verbalizing SPSAs throughout the day.

SOCIAL DISTANCING: Maintain 6' of distance between yourself and all other people at all times. If you do not believe the scope of work can be conducted while maintaining this distance, contact your Project Manager immediately.

Assess [1]JOB STEPS	Analyze [2]POTENTIAL HAZARDS	Act [3]CRITICAL ACTIONS
1. Project Preplanning	N/A	• Review and follow COVID-19 CDC, Roux, Client and local orders/protocols. • Ensure all workers are fit for duty - anyone feeling sick should remain at home even if symptoms do not align with COVID-19. If a worker has been in contact with someone potentially positive or positive for COVID-19, contact your Office Manager. • Determine PPE needs and ensure adequate supply of disinfectant wipes/spray, soap and water or hand sanitizer at Site. Due to high demands and limited supply, plan ahead. • Use the minimum number of employees necessary to safely complete the work.
2. Mobilization	**Exposure:** Becoming infected or infecting co-workers	**Personal/Rental/Roux Owned Vehicle** • Do not carpool. • Use the same vehicle every day and do not share with co-workers. • Verify workers/other people are not approaching vehicle prior to exiting the vehicle. Maintain 6' of distance from others. • DO not valet your car or allow others to use your car. If necessary, don nitrile gloves and safety glasses and clean/disinfect all high touch surfaces (steering wheel, knobs, door handles, turn signals, radio, etc.) by wiping thoroughly with approved disinfectants (follow manufacturer's instructions). This cleaning and disinfection shall occur before and after each use of the vehicle. Aseptically remove gloves and dispose of them along with rags/wipes, appropriately. Wash hands or use hand sanitizer immediately after each episode of cleaning. **Public Transportation** • Public transit should not be used unless absolutely necessary. Consider renting a car rather than taking public transit. If public transit is required, wear appropriate PPE and apply social distancing (6 ft). Use proper donning and doffing procedures for nitrile gloves. Wash hands or use hand sanitizer immediately after. **Hotel Stay (Refer to COVID-19 H&S Guidance for more info)** • If a hotel stay is deemed necessary for the given field work, ensure that you disinfect your room upon initial arrival and returning each day. Disinfect all surfaces of your room with an appropriate disinfectant using nitrile gloves. Use proper donning and doffing procedures for nitrile gloves. • Place the "Do Not Disturb" placard on the room while away and limit housekeeping services to the extent feasible during your stay to minimize the reintroduction and spread of the virus from others. Minimize, or avoid entirely, time spent in hotel common areas (i.e., the lobby, dining areas, gyms, etc.). Wash hands or use hand sanitizer often.

[1] Each Job or Operation consists of a set of tasks / steps. Be sure to list all the steps needed to perform job.
[2] A hazard is a potential danger. Break hazards into six types: Contact - victim is struck by or strikes an object; Caught - victim is caught on, caught in or caught between objects; Fall - victim falls to ground or lower level (includes slips and trips); Exertion - excessive strain or stress / ergonomics / lifting techniques; Exposure - inhalation/skin hazards, energy source; Energy Source – electricity, pressure, compression/tension.
[3] Using the first two columns as a guide, decide what actions or procedures are necessary to eliminate or minimize the risk. List the recommended safe operating procedures. Say exactly what needs to be done - such as "use two persons to lift". Avoid general statements such as, "be careful".

3. Tailgate Meeting	**Exposure:** Becoming infected or infecting co-workers	• Must occur outside or remotely (i.e. video or conference call). • Maintain at least a 6+ ft distance between you and others. • Discuss primary infection prevention measures listed below. • Do not require employees or subcontractors to sign in, the Site Supervisor shall record names on the attendance form. • If the Site has more than 10 workers, separate tailgate meetings should be performed. • Discuss COVID-19 symptoms with coworkers and subcontractors to ensure fitness for duty. Anyone exhibiting signs or symptoms should be instructed to leave the Site, contact your Project Manager.
4. Site Activities	**Exposure:** Becoming infected or infecting co-workers	• Coordinate field activities at the beginning of the day (i.e. Tailgate meeting) to minimize time spent in crowded spaces or overlap while completing job tasks. • Don cloth face coverings as appropriate. • Apply social distancing (6+ ft) when interacting with others. If anyone comes within 6 ft of you while conducting work and your work prevents you from moving away, politely ask them to move back. If others are unable to move from your space, stop work and leave area. • Do not shake hands or touch others. • Do not share equipment or other items with co-workers and subcontractors unless wearing appropriate PPE (e.g. nitrile gloves). Assume equipment and other surfaces are potentially contaminated and remove gloves aseptically (See Appendix A of Roux Interim H&S Guidance for proper glove removal). • If anyone is coughing or sneezing in your vicinity, stop work and leave the area. • Do not work in areas with limited ventilation with others. • Cover your mouth and nose with tissue or paper towel or with your elbow when coughing or sneezing and wash hands or use hand sanitizer immediately after. If sick contact SHSO/PM and leave Site immediately. • Disinfect work surfaces/areas with approved disinfectant you're responsible for (ex: desk, office doorknob, computer, etc.) at least once at the beginning of your shift and at least once at the end of your shift with either sanitizing wipes or disinfectant spray. • Phones should be operated hands free to extent feasible. Sanitize your phone on a regular basis. Disinfection should also take place whenever suspected contaminated material comes in contact with any work surfaces/areas. Wash hands or use hand sanitizer immediately after. • Avoid public spaces and going out to eat by bringing your own lunch to the Site. If performing work in high density urban areas, it is recommended all food must be consumed at or in your vehicle. Wash hands or use hand sanitizer before eating and immediately after.

Primary Infection Prevention Measures

- Wash your hands often with soap and water for at least 20 seconds.
  - If soap and water are not available, use an alcohol-based sanitizer that contains at least 60% ethanol or 70% isopropanol. Key times to wash hands include after blowing your nose, coughing or sneezing, after using the restroom, and before eating or preparing food.
- Do not touch your eyes, face, nose and mouth with unwashed hands.
- Cover your mouth and nose with a tissue when you cough or sneeze or use the inside of your elbow. Throw potentially contaminated items (e.g. used tissues) in the trash.
- Avoid close contact/secondary contact with people and potentially contaminated surfaces.
  - Apply appropriate social distance (6+ feet).
  - Stop handshaking/touching others and use caution when accessing public spaces.
- Clean and disinfect frequently touched surfaces daily. Commonly touched items can include but are not limited to tables, doorknobs, light switches, countertops, handles, desks, phones, keyboard, toilets, sinks and field equipment. If surfaces are dirty, they should be cleaned with soap and water prior to disinfection. If surface cannot be cleaned/disinfected, then wash hands or use sanitizer as soon as possible.

[1] Each Job or Operation consists of a set of tasks / steps. Be sure to list all the steps needed to perform job.

[2] A hazard is a potential danger. Break hazards into six types: Contact - victim is struck by or strikes an object; Caught - victim is caught on, caught in or caught between objects; Fall - victim falls to ground or lower level (includes slips and trips); Exertion - excessive strain or stress / ergonomics / lifting techniques; Exposure - inhalation/skin hazards; Energy source – electricity, pressure, compression/tension.

[3] Using the first two columns as a guide, decide what actions or procedures are necessary to eliminate or minimize the risk. List the recommended safe operating procedures. Say exactly what needs to be done - such as "use two persons to lift". Avoid general statements such as, "be careful".

APPENDIX C

How to Remove Gloves

How to Remove Gloves

To protect yourself, use the following steps to take off gloves

1



Grasp the outside of one glove at the wrist. Do not touch your bare skin.

2



Peel the glove away from your body, pulling it inside out.

3



Hold the glove you just removed in your gloved hand.

4



Peel off the second glove by putting your fingers inside the glove at the top of your wrist.

5



Turn the second glove inside out while pulling it away from your body, leaving the first glove inside the second.

6



Dispose of the gloves safely. Do not reuse the gloves.

7



Clean your hands immediately after removing gloves.

APPENDIX G

Personal Protective Equipment (PPE) Management Program

PERSONAL PROTECTIVE EQUIPMENT MANAGEMENT PROGRAM

CORPORATE HEALTH AND SAFETY MANAGER	:	**Brian Hobbs, CIH, CSP**
EFFECTIVE DATE	:	**01/19**
REVISION NUMBER	:	**4**

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1. PURPOSE

Roux Associates, Inc. and its affiliated companies, Roux Environmental Engineering and Geology, D.P.C, and Remedial Engineering (collectively, "Roux") has instituted the following program to establish guidelines for the selection of personal protective equipment (PPE) for use by Roux personnel performing field activities in hazardous environments. PPE is not meant to be a substitute for engineering, work practice, and/or administrative controls, but PPE should be used in conjunction with these controls to protect the employees in the work place. Clothing, body coverings, and other accessories designed to prevent worker exposure to workplace hazards are all types of PPE. To ensure adequate PPE employee-owned PPE is evaluated on a case-by-case basis to insure its adequacy, maintenance and sanitation.

2. SCOPE AND APPLICABILITY

These guidelines apply to all PPE selection decisions to be made in implementing the Roux program. The foundations for this program are the numerous Occupational Health and Safety Administration (OSHA) standards related to PPE cited in 29 CFR 1910 Subpart I, 29 CFR 1926 Subpart E, and the hazardous environment work employee protection requirements under the OSHA Hazardous Waste Operations and Emergency Response (HAZWOPER) standard at 29 CFR 1910.120 and 1926.65. To ensure hazard assessments are documented the levels of protection, types of protection and tasks requiring protection are covered in site-specific Health and Safety Plans (HASPs) and Job Safety Analyses (JSAs).

3. PROCEDURES

Due to the varied nature of site activities and the different potential hazards associated with different sites, several aspects must be considered when selecting PPE. The following text describes PPE selection logic and provides guidelines and requirements for the appropriate selection and use of PPE.

3.1 Introduction

To harm the body, chemicals must first gain entrance. The intact skin and the respiratory tract are usually the first body tissues attacked by chemical contaminants. These tissues provide barriers to some chemicals but in many cases, are damaged themselves or are highly permeable by certain chemical compounds. Personal protective equipment therefore is used to minimize or eliminate chemical compounds coming into contact with these first barrier tissues.

The proper selection of equipment is important in preventing exposures. The PM making the selection will have to take several factors into consideration. The level of protection, type and kind of equipment selected depends on the hazardous conditions and in some cases cost, availability, compatibility with other equipment, and performance. An accurate assessment of all these factors must be made before work can be safely carried out.

3.2 Types of PPE

The type and selection of PPE must meet certain general criteria and requirements as required under OSHA 29 CFR 1910.132 and 1926.95. In addition to these general requirements, specific requirements and specifications exist for some types of PPE that form the basis of the protective clothing scheme. Following is a list of the common types of specific PPE and the specific requirements for the PPE type, where applicable:

1. Hard Hats - Regulated by 29 CFR 1910.135 and 1926.100; and, specified in ANSI Z89.1.

2. Face Shields and Safety Glasses - Regulated by 29 CFR 1910.133 and 1926.102; and, specified in ANSI Z87.1.
3. Respiratory Protection - Regulated by 29 CFR 1910.134 and 1926.103.
4. Hand Protection - Not specifically regulated.
5. Foot Protection - Regulated by 29 CFR 1910.136 and 1926.96; and, specified in ANSI Z41.1.
6. Protective Clothing (e.g., fully encapsulated suits, aprons) - Not specifically regulated.

3.3 Protective Clothing Selection Criteria

3.3.1 Chemicals Present

The most important factor in selecting PPE is the determination of what chemicals the employee may be exposed to. On field investigations, the number of chemicals may range from a few to several hundred. The exact chemicals or group of chemicals present at the site (certain groups tend to require similar protection) can be determined by collecting and analyzing samples of the air, soil, water, or other site media. When data are lacking, research into the materials used or stored at the site can be used to infer chemicals possibly on the site.

Once the known or suspected chemicals have been identified, and taking into consideration the type of work to be performed, the most appropriate clothing shall be selected.

Protective garments are made of several different substances for protection against specific chemicals. There is no universal protective material. All will decompose, be permeated by, or otherwise fail to protect under given circumstances. Fortunately, most manufacturers make guides to the use of their products (i.e., Dupont's Tyvek™ Permeation Guide). These guides are usually for gloves and coveralls and typically provide information regarding chemical degradation rates (failure of the material to maintain structural integrity when in contact with the chemical), and may provide information on the permeation rate (whether or not the material allows the chemical to pass through). When permeation tables are available, they shall be used in conjunction with degradation tables to determine the most appropriate protective material.

During most site work, chemicals are usually in mixed combinations and the protective materials are not in continuous contact with pure chemicals for long periods of time; therefore, the selected material may be adequate for the particular chemical and type of work being performed, yet not the "best" protecting material for all site chemicals and activities. Selection shall depend upon the most hazardous chemicals based on their hazards and concentrations. Sometimes layering, using several different layers of protective materials, affords the best protection.

3.3.2 Concentration of the Chemical(s)

One of the major criteria for selecting protective material is the concentration of the chemical(s) in air, liquid, and/or solid state. Airborne and liquid chemical concentrations should be compared to the OSHA standards and/or American Conference of Governmental Industrial Hygienists (ACGIH) and National Institute for Occupational Safety and Health (NIOSH) guidelines to determine the level of skin or other absorptive surface (e.g., eyes) protection needed. While these standards are not designed specifically for skin exposed directly to the liquid, they may provide skin designations indicative of chemicals known to have significant skin or dermal absorption effects. For example, airborne levels of PCB on-site may be

low because it is not very volatile, so the inhalation hazard may be minimal; however, PCB-containing liquid coming in direct contact with the skin may cause overexposure. Thus, PCB has been assigned a skin designation in both the OSHA and ACGIH exposure limit tables.

3.3.3 Physical State

The characteristics of a chemical may range from nontoxic to extremely toxic depending on its physical state. Inorganic lead in soil would not be considered toxic to site personnel, unless it became airborne, since it is generally not absorbed through the intact skin. Organic lead in a liquid could be readily absorbed. Soil is frequently contaminated with hazardous materials. Concentrations will vary from a few parts per million to nearly one hundred percent. The degree of hazard is dependent on the type of soil and concentration of the chemical. Generally speaking, "dry" soils do not cause a hazard to site personnel if they take minimal precautions such as wearing some type of lightweight gloves.

3.3.4 Length of Exposure

The length of time a material is exposed to a chemical increases the probability of breakthrough. Determinations of actual breakthrough times for short-term exposures indicate that several different materials can be used which would be considered inadequate under long-term exposures. It should be kept in mind that during testing, a pure (100% composition) liquid is usually placed in direct contact with the material producing a worst-case situation.

3.3.5 Abrasion

When selecting protective clothing, the job the employee is engaged in must be taken into consideration. Persons moving drums or performing other manual tasks may require added protection for their hands, lower chest and thighs. The use of leather gloves and a heavy apron over the other normal protective clothing will help prevent damage to the normal PPE and thus reduce worker exposures.

3.3.6 Dexterity

Although protection from skin and inhalation hazards is the primary concern when selecting PPE, the ability to perform the assigned task must be maintained. For example, personnel cannot be expected to perform work that requires fine dexterity if they must wear a thick glove. Therefore, the PPE selection process must consider the task being performed and provide PPE alternatives or techniques that allow dexterity to be maintained while still protecting the worker (e.g., wearing tight latex gloves over more bulky hand protection to increase dexterity).

3.3.7 Ability to Decontaminate

If disposable clothing cannot be used, the ability to decontaminate the materials selected must be taken into consideration. Once a chemical contacts the material, it must be cleaned before it can be reused. If the chemical has completely permeated the material, it is unlikely that the clothing can be adequately decontaminated and the material should be discarded.

3.3.8 Climactic Conditions

The human body works best with few restraints from clothing. Protective clothing adds a burden by adding weight and restricting movement as well as preventing the natural cooling process. In severe situations, a modified work program must be used.

Some materials act differently when they are very hot and very cold. For example, PVC becomes almost brittle in very cold temperatures. If there are any questions about the stability of the protective materials under different conditions, the manufacturer should be contacted.

3.3.9 Work Load

Like climactic conditions, the type of work activity may affect work duration and the ability or personnel to perform certain tasks. Similarly, the amount of protective materials a person wears will affect their ability to perform certain tasks. For example, a person in a total encapsulating suit, even at 72 ^{o}F, cannot work for more than a short period of time without requiring a break.

The work schedule should be adjusted to maintain the health of the employees. Special consideration should be given to the selection of clothing that both protects and adds the least burden when personnel are required to perform strenuous tasks. Excessive bodily stress frequently represents the most significant hazard encountered during field work.

3.4 Types of Protective Materials

1. Cellulose or Paper
2. Natural and Synthetic Fibers
    a. Tyvek™
    b. Nomex™
3. Elastomers
    a. Polyethylene
    b. Saran
    c. Polyvinyl Chloride (PVC)
    d. Neoprene
    e. Butyl Rubber
    f. Viton

3.5 Protection Levels

3.5.1 Level A Protection

Level A protection (a fully encapsulated suit) is used when skin hazards exist or when there is no known data that positively rule out skin and other absorption hazards. Since Level A protection is extremely physiologically and psychologically stressful, the decision to use this protection must be carefully considered. At no time will Level A work be performed without the consent of the OM. The following conditions suggest a need for Level A protection:

- confined facilities where probability of skin contact is high;
- sites containing known skin hazards;
- sites with no established history to rule out skin and other absorption hazards;
- atmosphere immediately dangerous to life and health (IDLH) through the skin absorption route;
- site exhibiting signs of acute mammalian toxicity (e.g., dead animals, illnesses associated with past entry into site by humans);

- sites at which sealed drums of unknown materials must be opened;
- total atmospheric readings on the Photoionization Detector (PID), Flame Ionization Detector (FID), and similar instruments indicate 500 to 1,000 ppm of unidentified substances; and
- extremely hazardous substances (e.g., cyanide compounds, concentrated pesticides, Department of Transportation Poison "A" materials, suspected carcinogens and infectious substances) are known or suspected to be present and skin contact is possible.

The following items constitute Level A protection:

- open circuit, pressure-demand self-contained breathing apparatus (SCBA);
- totally encapsulated suit;
- gloves, inner (surgical type);
- gloves, outer;
- chemical protective;
- boots, chemical protective, steel toe and shank;
- radiation detector (if applicable); and
- communications.

3.5.2 Level B Protection

Level B protection is utilized when the highest level of respiratory protection is needed but hazardous material exposure to the few unprotected areas of the body is unlikely.

The following conditions suggest a need for Level B protection:

- the type and atmospheric concentration of toxic substances have been identified and they require the highest level of respiratory protection;
- IDLH atmospheres where the substance or concentration in the air does not present a severe skin hazard;
- the type and concentrations of toxic substances do not meet the selection criteria permitting the use of air purifying respirators; and
- it is highly unlikely that the work being done will generate high concentrations of vapors, gases or particulates, or splashes of materials that will affect the skin of personnel.

Personal protective equipment for Level B includes:

- open circuit, pressure-demand SCBA;
- chemical protective clothing:
- overalls and long-sleeve jacket; or
- coveralls;
- gloves, inner (surgical type); gloves, outer, chemical protective;
- boots, chemical protective, steel toe and shank; and
- communications optional.

3.5.3 Level C Protection

Level C protection is utilized when both skin and respiratory hazards are well defined and the criteria for the use of negative pressure respirators have been fulfilled (i.e., known contaminants and contaminant concentrations, acceptable oxygen levels, approved filter/cartridge available, known cartridge service life, etc.). Level C protection may require carrying an emergency escape respirator during certain initial entry and site reconnaissance situations, or when applicable thereafter.

Personal protective equipment for Level C typically includes:

- full facepiece air-purifying respirator;
- emergency escape respirator (optional);
- chemical protective clothing:
  - overalls and long-sleeved jacket; or
  - coveralls;
- gloves, inner (surgical type);
- gloves, outer, chemical protective; and
- boots, chemical protective, steel toe and shank.

3.5.4 Level D Protection

Level D is the basic work uniform. Personal protective equipment for Level D includes:

- coveralls;
- safety boots/shoes;
- eye protection;
- hand protection;
- reflective traffic safety vest (mandatory for traffic areas or railyard);
- hard hat (with face shield is optional); and
- emergency escape respirator is optional.

3.5.5 Level E Protection

Level E protection is used when radioactivity above 10 mr/hr is detected at the site. Personal protective equipment for Level E includes:

- coveralls;
- air purifying respirator;
- time limits on exposure;
- appropriate dermal protection for the type of radiation present; and
- radiation dosage monitoring.

3.5.6 Additional Considerations

Field work will contain a variety of situations due to chemicals in various concentrations and combinations. These situations may be partially ameliorated by following the work practices listed below:

1. Some sort of foot protection is needed on a site. If the ground to be worked on is contaminated with liquid and it is necessary to walk in the chemicals, some sort of protective "booties" can be worn over the boots. This cuts down on decontamination requirements. They are designed with soles to help prevent them from slipping around. If non-liquids are to be encountered, a Tyvek™ bootie could be used. If the ground contains any sharp objects, the advantage of booties is questionable. Boots should be worn with either cotton or wool socks to help absorb the perspiration.

2. If the site situation requires the use of hard hats, chin straps should be used if a person will be stooping over where his/her hat may fall off. Respirator straps should not be placed over the hard hats. This will affect the fit of the respirator.

   Some types of protective materials conduct heat and cold readily. In cold conditions, natural material clothing should be worn under the protective clothing. Protective clothing should be removed prior to allowing a person "to get warm". Applying heat, such as a space heater, to the outside of the protective clothing may drive the contaminants through. In hot weather, under clothing will absorb sweat. It is recommended that workers use all cotton undergarments.

3. Body protection should be worn and taped to prevent anything from running into the top of the boot. Gloves should be worn and taped to prevent substances from entering the top of the glove. Duct tape is preferred, but masking tape can be used. When aprons are used, they should be taped across the back for added protection. However, this should be done in such a way that the person has mobility.

4. Atmospheric conditions such as precipitation, temperature, wind direction, wind velocity, and pressure determine the behavior of contaminants in air or the potential for volatile material getting into the air. These parameters should be considered in determining the need for and the level of protection.

5. A program must be established for periodic monitoring of the air during site operations. Without an air monitoring program, any changes would go undetected and might jeopardize response personnel. Monitoring can be done with various types of air pumps and filtering devices followed by analysis of the filtration media; personnel dosimeters; and periodic walk-throughs by personnel carrying real-time survey instruments.

6. For operations in the exclusion zone, different levels of protection may be selected, and various types of chemical-resistant clothing may be worn. This selection should be based on the job function, reason for being in the area, and the potential for skin contact with, or inhalation of, the chemicals present.

7. Escape masks must be readily available when levels of respiratory protection do not include a SCBA and the possibility of an IDLH atmosphere exists. Their use can be made on a case-by-case basis. Escape masks could be strategically located at the site in areas that have higher possibilities of vapors, gases or particulates.

APPENDIX H

Subsurface Utility Clearance Management Program

SUBSURFACE UTILITY CLEARANCE MANAGEMENT PROGRAM

CORPORATE HEALTH AND SAFETY MANAGER	**:**	**Brian Hobbs, CIH, CSP**
EFFECTIVE DATE	**:**	**01/19**
REVISION NUMBER	**:**	**2**

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1. PURPOSE

Roux Associates, Inc. and its affiliated companies, Roux Environmental Engineering and Geology, D.P.C, and Remedial Engineering (collectively, "Roux") has instituted the following program for completing proper utility mark-outs and for conducting subsurface clearance activities. This establishes a method to ensure, to the greatest extent possible, that utilities have been identified and contact and/or damage to underground utilities and other subsurface structures will be avoided.

2. SCOPE AND APPLICABILITY

The Subsurface Utility Clearance Management Program applies to all Roux employees, its contractors and subcontractors. Employees are expected to follow this program for all intrusive work involving Roux or other personnel (e.g., contractors/subcontractors) working for Roux unless the client's requirements are more stringent. Deviation from the program regardless of the specific work activity or work location must be pre-approved based on client's site knowledge, site experience and client's willingness for the use of this program. Any and all exceptions shall be documented and pre-approved by the Project Principal and the Office Manager.

3. PROCEDURES

3.1 Before Intrusive Activities

During the project kick-off meeting for intrusive activities the PM will review the Roux Subsurface Utility Clearance Checklist and Utility Verification (Appendix C) / Site Walkthrough Record (Appendix D) and the below bullet points with the project field team:

(Please note that these are intended as general reminders only and should not be solely relied upon.)

- Ensure the Mark-out / Stake-out Request Information Sheet (or one-call report) is complete and accurate for the site including address and cross streets and review for missing utilities. (Note: utility mark-out organizations do not have contracts with all utilities and it is often necessary to contact certain utilities separately such as the local water and sewer authorities).
- Have written confirmation prior to mobilizing to the site that the firm or Roux personnel performing the intrusive activity has correctly completed the mark-out notification process including requesting mark-outs, waiting for mark-outs to be applied to ground surfaces at the site, and receiving written confirmation of findings (via fax or email) from utility operators for all known or suspected utilities in the proposed area of intrusive activity, and provided utility owner written confirmation to Roux personnel for review and project files documentation.
- Do not begin any intrusive activity until all utilities mark-out has been completed (i.e., did all utilities mark-out the site?) and any unresolved mark-out issues are finalized. Perform a site walk to review the existing utilities and determine if said utilities have been located by the utility locators.

  (Note: The Tolerance Zone is defined as two feet plus half of the diameter or half of the greatest dimension (for elliptical sewers, duct banks and other non-cylindrical utilities) of a utility and two feet from the outside edge of any subsurface structure.)
- Install Pre-Clearance exploratory test holes (e.g., hand-dug test holes or other soft digging techniques) for the first 5-ft below land surface (BLS) at each location prior to conducting mechanized intrusive activities. The size of the pre-clearance exploratory test hole should be at a minimum twice the diameter of any downhole tool or boring device. (Note: Pre-Clearance exploratory test holes should be defined in the SOW/proposal provided to the client to prevent project delays and to allow adequate time for PM and PP to evaluate alternative approaches for the project. Alternative approaches will need to be pre-approved by the OM.

- For excavations, all utilities need to be marked and then exposed by hand following the protocols in this program. Pre-clearing for excavations may be performed by the "moat" technique (i.e., soft digging around the perimeter). In these cases, dig in small lifts (<12" for first 5 feet) using a dedicated spotter.) For Tolerance Zone work, unless otherwise agreed upon with the Utility Operator, work within the tolerance zone requires verification by means of hand-dug test holes performed to expose the utility. Once structures have been verified a minimum clearance of two feet must be maintained between the utility and any powered equipment.
- In addition, the following activities should be conducted:
  - Review the work scope to be performed with the site owner/tenant to determine if it may impact any utilities;
  - Attempt to procure any utility maps or historic drawings of subsurface conditions of the site;
  - **Determine the need for utility owner companies to be contacted or to have their representatives on site**;
  - Where mark-outs terminate at the property boundary, consider the use of private utility locating / GPR / geophysical-type services which may be helpful in locating utilities. Use of private utility locating firms, however, does not eliminate the legal requirement for the Excavator firm to submit a request for Public Utility Mark-outs. Also, the information provided by the service may be inaccurate and unable to locate subsurface utilities and structures in urban areas, landfills, urban fill areas and below reinforced slabs, etc. They should not be relied upon as the only means of performing utility clearance;
  - Documented description of the dig site which is included in the projects Health and Safety Plan (HASP) and one call report will be maintained in the field and distributed amongst Roux personnel its contractors and subcontractors; and
  - Documentation of the actual placement of mark outs in the field shall be collected using dated pictures, videos and/or sketches with distance from markings to fixed objects. All documentation shall be maintained within the project file.

3.2 During Intrusive Activities

The PM, field team lead or personnel performing oversight is to:

- Ensure the mark-out remains valid. (In certain states there are limits regarding the duration of time after the mark-out was applied to the ground surface work can be started or interrupted.) Additionally, the mark-outs must be maintained, documented, and in many cases refreshed periodically to be considered valid, this will be accomplished through calls to the one call center.
- Ensure intrusive activities are only performed within the safe boundaries of the mark-out as detailed in the One-Call Report.
- Halt all work if intrusive activities have resulted in discovery of an unmarked utility. Roux personnel shall notify the facility owner/operator and the one call center. All incidents such as this will be reported as per Roux Incident Investigation and Reporting Management Program.
- Halt all work if intrusive activities must take place outside of the safe boundaries of a mark-out and only proceed after new mark-outs are performed.
- Halt the intrusive activities and immediately consult with the PP if an unmarked utility is encountered.
- Completing any subsurface utility clearance incident reports that are necessary.

- If a utility cannot be found as marked Roux personnel shall notify the facility owner/operator directly or through the one call center. Following notification, the excavation may continue, unless otherwise specified in state law.
- Contractors/subcontractors must contact the one-call center to refresh the ticket when the excavation continues past the life of the ticket. Ticket life shall be dictated by state law however at a maximum ticket life shall not exceed 20 working days.

3.3 Stop Work Authority

Each Roux employee has Stop Work Authority which he or she will execute upon determination of any imminent safety hazard, emergency situation, or other potentially dangerous situation, such as hazardous weather conditions. This Stop Work Authority includes subsurface clearance issues such as the adequacy of a mark-out or identification during intrusive operations of an unexpected underground utility. Authorization to proceed with work will be issued by the PM/PP after such action is reviewed and resolved. The PM will initiate and execute all management notifications and contact with emergency facilities and personnel when this action is appropriate.

Appendix A - Definitions

Intrusive Work Activities	All activities such as digging or scraping the surface, including but not limited to, excavation, test pitting or trenching, soil vapor sampling or the installation of soil borings, soil vapor monitoring points and wells, or monitoring wells, and drilling within the basement slab of a recently demolished building.
Mark-out / Stake Out	The process of contracting with a competent and qualified company to confirm the presence or absence of underground utilities and structures. This process will clearly mark-out and delineate utilities that are identified so that intrusive work activities can be performed without causing disturbance or damage to the subsurface utilities and structures. After utility mark-outs are completed the soft digging will be completed prior to intrusive work.
Tolerance Zone	Defined as two feet on either side of the designated centerline of an identified utility, plus half of the diameter or half of the greatest dimension (for elliptical sewers, duct backs and other non-cylindrical utilities) of that utility and two feet from the outside edge of any subsurface structure.
Structure	For the purpose of this program a structure is defined as any underground feature that may a present potential source(s) of energy such as, but not limited to, utility vaults, bunkers, piping, electrical boxes, wires, conduits, culverts, utility lines, underground tanks and ducts.
Soft Digging	The safest way to remove material from unknown obstructions or services is by using tools such as a vactor or air knife, non-mechanical tools, or hand tools. The methods are clean and non-evasive and used for uncovering and exposing buried services, excavating and for providing a quick method of soil removal from sensitive areas.
Verification	Exploratory test-hole dug with hand tools within the Tolerance Zone to expose and verify the location, type, size, direction-of-run and depth of a utility or subsurface structure. Vacuum excavation (soft dig) methods can further facilitate exposure of a subsurface utility and accurately provide its location and identification prior to intrusive work approaching the Tolerance Zone.

Appendix B - Example of Completed One Call Report

Example Completed One-Call Report

New York 811

Send To: C_EMAIL Seq No: 744

Ticket No: 133451007 ROUTINE

Start Date: 12/16/13 Time: 7:00 AM Lead Time: 20

State: NY County: QUEENS Place: QUEENS
Dig Street: 46TH AVE Address:
Nearest Intersecting Street: VERNON BLVD
Second Intersecting Street: 11TH ST

Type of Work: SOIL BORINGS
Type of Equipment: GEOPROBE
Work Being Done For: ROUX

In Street: X On Sidewalk: X Private Property: Other:
On Property Location if Private: Front: Rear: Side:

Location of Work: MARK THE ENTIRE NORTH SIDE OF THE STREET AND SIDEWALK OF: 46TH AVE BETWEEN VERNON BLVD AND 11TH STREET

Remarks:

Nad: Lat: Lon: Zone:
ExCoord NW Lat: 40.7475399 Lon: -73.9534811 SE Lat: 40.7457406 Lon: -73.9493680

Company : ZEBRA ENVIROMENTAL Best Time: 6AM-5PM
Contact Name: DAVID VINES Phone: (516)596-6300
Field Contact: DAVID VINES Phone: (516)596-6300
Caller Address: 30 N PROSPECT AVE Fax Phone: (516)596-4422
LYNBROOK, NY 11563
Email Address: david@zebraenv.com

Additional Operators Notified:
ATTNY01 AT&T CORPORATION (903)753-3145
CEQ CONSOLIDATED EDISON CO. OF N.Y (800)778-9140
MCINY01 MCI (800)289-3427
PANYNJ01 PORT AUTHORITY OF NY & NJ (201)595-4841
VZQ VERIZON COMMUNICATIONS (516)297-1602

Link to Map for C_EMAIL: http://ny.itic.occinc.com/XGMZ-DF2-L23-YAY

Original Call Date: 12/11/13 Time: 1:15 PM Op: webusr
IMPORTANT NOTE: YOU MUST CONTACT ANY OTHER UTILITIES DIRECTLY

Appendix C - Roux Subsurface Utility Clearance Checklist

Roux Subsurface Utility Clearance Checklist ***Date of Revision – 12/3/14***

Work site set-up and work execution

ACTIVITY	Yes	No	N/A	COMMENTS INCLUDING JUSTIFICATION IF RESPONSE IS NO OR NOT APPLICABLE
Daily site safety meeting conducted, SPSAs performed, JSAs reviewed, appropriate work permits obtained.				
HASP is available and reviewed by site workers / visitors.				
Subsurface Utility Clearance Procedure has been reviewed with all site workers.				
Work area secured; traffic control established as needed. Emergency shut-off switch located. Fire extinguishers / other safety equipment available as needed.				
Utility mark-outs (public / private) clear and visible. Provide Excavator's Stake-Out Reference Number / Request Date / Time.				
Tolerance zone work identified.				
Work execution plan reviewed and adhered to (ground disturbance methods, clearance depths, any special utility protection requirements, or any other execution requirements; especially for Tolerance Zone work).				
Verbal endorsement received from Roux PM for any required field deviations to work execution plan.				

Key reminders for execution:

The Subsurface Utility Clearance Protocol should be referenced to determine all requirements while executing subsurface work. The bullet points below are intended as general reminders only and should not be solely relied upon.

- Tolerance zone is defined as two feet plus half of the diameter or half of the greatest dimension (for elliptical sewers, duct banks and other non-cylindrical utilities) of a utility and two feet from the outside of any subsurface structure.
- Install Pre-Clearance exploratory test holes (e.g., hand-dug test holes or vacuum excavation) must be performed for the first five feet below land surface (BLS) at each location prior to conducting mechanized intrusive activities. The size of the pre-clearance exploratory test hole should be at a minimum twice the diameter of any downhole tool or boring device. (Note: Pre-clearance exploratory test holes should be defined in the SOW/proposal provided to the client to prevent project delays and to allow adequate time for PM and PP to evaluate alternative approaches for the project. Alternate approaches will need to be pre-approved by the OM.
- For excavations, all utilities need to be marked and then exposed by hand following the protocols in this program. Pre-clearing for excavations may be performed by the "moat" technique (i.e., soft

digging around the perimeter). In these cases, dig in small lifts (<12" for first five feet) using a dedicated spotter.) For Tolerance Zone work, unless otherwise agreed upon with the Utility Operator, work within the tolerance zone requires verification by means of hand-dug test holes to expose the utility. Once structures have been verified a minimum clearance of two feet must be maintained between the utility and any powered equipment.

Appendix D - Utility Verification/Site Walkthrough Record

Employee Name: _____

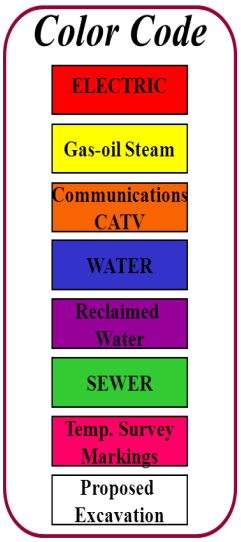
Date: _____

Instructions: For each utility suspected at the job site, indicate location on the job site, approximate burial depth, and means of detecting the utility. Leave blank if that utility is not believed to be present.

Utility	Description of Utility Location Identified Onsite	Approx. Depth (bls)	Method / Instrumentation used to determine Utility Location	Utility Owner Response (Date/Time)	Mark Out Indicates (Clear / Conflict)
Electrical Lines					
Gas Lines					
Pipelines					
Steam Lines					
Water Lines					
Sanitary and Stormwater Sewer lines					
Pressured Air-Lines					
Tank Vent Lines					
Fiber Optic Lines					
Underground Storage Tanks					
Phone Lines/ Other					

* bls - below land surface

Site Sketch Showing Utilities:



Other Comments / Findings:

Completed by: _____

Signature: _____ Date: _____

APPENDIX I

Heavy Equipment Exclusion Zone Policy

HEAVY EQUIPMENT EXCLUSION ZONE MANAGEMENT PROGRAM

CORPORATE HEALTH AND SAFETY MANAGER	:	**Brian Hobbs, CIH, CSP**
EFFECTIVE DATE	:	**01/2019**
REVISION NUMBER	:	**1**

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1. PURPOSE

The purpose of the Exclusion Zone Management Program is to establish the minimum clearance distance that must be maintained between workers and heavy equipment while equipment is in operation (i.e., engaged or moving). The intent is to have no personnel or equipment entering the Exclusion Zone while the equipment is in operation or moving to ensure that Roux and Subcontractor employees are not unnecessarily exposed to the hazards of the equipment.

2. SCOPE AND APPLICABILITY

This Management Program applies to all Roux Associates, Inc. and its affiliated companies, Roux Environmental Engineering and Geology, D.P.C, and Remedial Engineering (collectively, "Roux") employees and their subcontractors who are performing field work and are potentially exposed to heavy equipment. For the purpose of this program, heavy equipment includes, but is not necessarily limited to: excavation equipment, drill rigs, vacuum trucks, forklifts, lull telehandlers, man lifts, bobcats, delivery trucks, etc.

3. PROCEDURES

As specified in the following sections of this Program, an Exclusion Zones must be established and maintained during activities involving the movement/operation of heavy equipment. The Exclusion Zone requirements apply to all personnel on the site but are primarily focused on those personnel who are required to be working in the vicinity of the equipment. The exclusion zone is in effect when heavy equipment is moving or engaged (ex. movement of an arm or bucket of an excavator, rotation of an auger, lifting of a load with a forklift, raising/lowering of a man lift, etc.).

1. The Exclusion Zone must meet the following minimum requirements:
   - A minimum distance of 10 feet from all heavy equipment and loads being moved by the equipment;
   - Greater than the swing/reach radius of any moving part on the heavy equipment (i.e., for large equipment this may mean an exclusion zone distance larger than 20 feet);
   - Greater than the tip-over distance of the heavy equipment; and
   - Greater than the radius of blind spots.

   The size of the Exclusion Zone will need to be determined on a task-specific basis considering the size of the heavy equipment in use and the task being performed. Prior to all heavy equipment operations, the Exclusion Zone(s) distance must be specifically identified in the Job Safety Analysis (JSA).
2. The spotter (or another individual) should be assigned responsibility for enforcing the Exclusion Zone. The spotter should be positioned immediately outside of the Exclusion Zone within a clear line of sight of the equipment operator. The spotter must signal the operator to stop work if anyone or anything has the potential to enter or compromise the Exclusion Zone. The operator should stop work if the spotter is not within his/her line of sight. If multiple pieces of equipment are being used, each piece of equipment must have its own Exclusion Zone and spotter. For large excavation and demolition projects the spotter should be in constant radio contact (not cell phone) with the machine driver.
3. If an individual must enter the Exclusion Zone, the designated Spotter must signal the Equipment Operator to stop the equipment. Once the equipment is no longer moving (ex. movement of an arm of an excavator is STOPPED, lifting of a load with a forklift STOPPED, raising/lowering of a man lift is

STOPPED, etc.), the operator must DISENGAGE THE CONTROLS and STOP and SIGNAL BY "SHOWING HIS HANDS". This signal will indicate that it is safe for the personnel to enter the limits of the Exclusion Zone to perform the required activity. The equipment must remain completely stopped/disengaged until all personnel have exited the limits of the Exclusion Zone and the designated Spotter has signaled by "SHOWING HIS HANDS" to the Equipment Operator that it is safe to resume operations.

4. When entering the limits of the Exclusion Zone, personnel must at a minimum:
   - Establish eye contact with the operator and approach the heavy equipment in a manner that is in direct line of sight to the Equipment Operator;
   - Never walk under any suspended loads or raised booms/arms of the heavy equipment; and
   - Identify a travel path that is free of Slip/Trip/Fall hazards.
5. The Exclusion Zone should be delineated using cones with orange snow fence or solid poles between the cones, barrels, tape or other measures. For work in rights-of-way rigid barriers, such as Jersey barriers or temporary chain link fence should be used. For certain types of wide-spread or moving/mobile equipment operations, such delineation may not be practicable around pieces of equipment or individual work areas. In such instances, it is expected that the entire operation will be within a larger secure work area or that additional means will be utilized to ensure security of the work zone.

All subcontractors who provide heavy equipment operations to field projects must implement a program that meets or exceeds the expectations described above as well as any additional requirements that may be required on a client or site-specific basis.

3.1 Exceptions

It is recognized that certain heavy equipment activities may require personnel to work within the limits of the Exclusion Zone as specified in this program. Such activities may include certain excavation clearance tasks, drill crew activities or construction tasks. However, any such activity must be pre-planned with emphasis on limiting the amount and potential exposure of any activity required within the zone. The critical safety steps to mitigate the hazards associated with working within the Exclusion Zone must be defined in the JSA and potentially other project-specific plans (i.e., critical lift plans, etc.), and approved by the Roux Project Principal and client representative, if required, prior to implementation.

4. TRAINING

Many Roux projects have different requirements that are client-specific or site-specific in nature. It is the responsibility of the Project Principal (or Project Manager if delegated this responsibility by the Project Principal) to ensure that the workers assigned to his/her projects are provided orientation and training with respect to these client and/or site-specific requirements.

APPENDIX F

Quality Assurance Project Plan

Quality Assurance Project Plan

POWERS CHEMCO Superfund Site No. 130028 and KONICA MINOLTA GRAPHIC IMAGING RCRA Site No. 130028A

71 Charles Street
Glen Cove, Nassau County, New York

January 12, 2022

Prepared for:

Konica Minolta Holdings U.S.A., Inc.
71 Charles Street
Glen Cove, New York 11542

Prepared by:

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2020.0001Y004.217/CV

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1. Field and Laboratory QC Summary
2. Laboratory Reporting Limits for Soil and Water Samples

Attachments

1. Roux Associates' Standard Operating Procedure for Soil Sampling
2. Roux Associates' Standard Operating Procedure for Groundwater Sampling

1. Introduction

This Quality Assurance Project Plan (QAPP) has been prepared to describe the measures that will be taken to ensure that the data generated by sampling activities at 71 Charles Street, Glen Cove, New York (Site) are of quality sufficient to meet project-specific data quality objectives (DQOs). The QAPP was prepared in accordance with the guidance provided in New York State Department of Environmental Conservation (NYSDEC) Technical Guidance DER-10 (Technical Guidance for Site Investigation and Remediation) and the United States Environmental Protection Agency's (USEPA's) Guidance for the Data Quality Objectives Process (EPA QA/G-4).

2. Background, Objectives, and Scope

In order to achieve project objectives, a scope of work that includes sampling of soil and groundwater was assumed.

2.1 Soil

Samples of soil will be collected and analyzed at a frequency as determined by the disposal facilities for the VOCs, semi-volatile organic compounds (SVOCs), target analyte list (TAL) metals, metals, polychlorinated biphenyls (PCBs)/pesticides, toxicity characteristic leaching procedure (TCLP) metals, total petroleum hydrocarbons (TPH), TCLP VOCs, TCLP SVOCs, TCLP PCBs/pesticides, and resource conservation and recovery act (RCRA) characteristics.

Post-excavation sidewall samples are to be collected at a frequency of one per 30 linear feet of sidewall. Post-excavation bottom samples are to be excavated at a frequency of one per 900 square feet of excavation bottom. Modifications to these sampling frequencies may be made with the prior approval of the NYSDEC.

2.2 Groundwater

Groundwater samples will be collected from existing monitoring wells. Each well will be sampled for TCL VOCs (with tentatively identified compounds [TICs]) and TAL metals. Field parameters, including temperature, pH, conductivity, redox potential, dissolved oxygen, and turbidity will also be measured.

3. Project Organization

The overall management structure and a general summary of the responsibilities of project team members are presented below.

Project Manager

The Project Manager is responsible for defining project objectives and bears ultimate responsibility for the successful completion of the investigation. This individual will provide overall management for the implementation of the scope of work and will coordinate all field activities. The Project Manager is also responsible for data review/interpretation and report preparation. Activities of the Project Manager are supported by the Project Quality Assurance Coordinator.

Field Team Leader

The Field Team Leader bears the responsibility for the successful execution of the Work Plan. The Field Team Leader will direct the activities of all technical staff in the field as well all subcontractors. The Field Team Leader will also assist in the interpretation of data and in report preparation. The Field Team Leader reports to the Project Manager.

Laboratory Project Manager

The Laboratory Project Manager will ensure that quality assurance procedures are followed and that an acceptable laboratory report is prepared and submitted. The Laboratory Project Manager reports to the Field Team Leader.

Quality Assurance Officer

The Quality Assurance Officer (QAO) is responsible for conducting reviews, inspections, and audits to ensure that the data collection is conducted in accordance with the QAPP. The QAO's responsibilities range from ensuring effective field equipment decontamination procedures and proper sample collection to the review of all laboratory analytical data for completeness and usefulness. The QAO reports to the Project Manager and makes independent recommendations to the Field Team Leader.

4. Sampling Procedures

Additional details regarding soil sampling protocols are described in Roux Associates' Standard Operating Procedure for the Collection of Soil Samples for Laboratory Analysis, which is provided in Attachment 1.

All groundwater samples will be placed in the laboratory-supplied containers and shipped to the laboratory under chain of custody procedures in accordance with Roux Associates' SOPs provided in Attachment 2.

5. Quality Assurance/Quality Control

The primary DQO of the soil and groundwater sampling is that data be accurate and precise, and hence representative of the actual Site conditions. Accuracy refers to the ability of the laboratory to obtain a true value (i.e., compared to a standard) and is assessed through the use of laboratory quality control (QC) samples, including laboratory control samples and matrix spike samples, as well as through the use of surrogates, which are compounds not typically found in the environment that are injected into the samples prior to analysis. Precision refers to the ability to replicate a value, and is assessed through both field and laboratory duplicate samples.

Sensitivity is also a critical issue in generating representative data. Laboratory equipment must be of sufficient sensitivity to detect target compounds and analytes at levels below NYSDEC standards and guidelines whenever possible. Equipment sensitivity can be decreased by field or laboratory contamination of samples, and by sample matrix effects. Assessment of instrument sensitivity is performed through the analysis of reagent blanks, near-detection-limit standards, and response factors. Potential field and/or laboratory contamination is assessed through use of trip blanks, method blanks, and equipment rinse blanks (also called “field blanks”).

Table 1 lists the field and laboratory QC samples that will be analyzed to assess data accuracy and precision, as well as to determine if equipment sensitivity has been compromised. Table 2 shows the reporting limits and minimum detection limits achievable by the laboratory.

All analyses (i.e., TCLP VOCs, TCLP SVOCs, TCL VOCs, SVOCs, pesticides/PCBs; TAL metals) will be performed in accordance with the NYSDEC Analytical Services Protocol (ASP), using USEPA SW-846 methods. The laboratory selected to analyze the field samples collected during the RAWP shall maintain a New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP) Contract Laboratory Protocol (CLP) certification for each of the “assessment” analyses listed in Section 2.0.

All laboratory data are to be reported in NYSDEC ASP Category B deliverables and will be delivered to NYSDEC in electronic data deliverable (EDD) format as described on NYSDEC’s website (http://www.dec.ny.gov/chemical/62440.html). A Data Usability Report will be prepared by an independent party meeting the requirements in Section 2.2(a)1.ii and Appendix 2B of DER-10 for all data packages generated for the RAWP.

TABLES

1. Field and Laboratory QC Summary
2. Laboratory Reporting Limits for Soil and Water Samples

Table 1. Summary of Analytical Methods / Quality Assurance Samples, Powers Chemco Site, Glen Cove, New York

Sample Medium	Sample Parameters	Field Samples	Duplicates[1]	Matrix Spike[1]	Matrix Spike Duplicates[1]	Field Blanks[2]	Trip Blanks[6]
Soil[3] (Excavation Sidewalls)	VOCs	1 per 30 linear feet	5%	5%	5%	0%	100%
	SVOCs	1 per 30 linear feet	5%	5%	5%	0%	0
	Metals	1 per 30 linear feet	5%	5%	5%	0%	0
Soil[3] (Excavation Bottom)	VOCs	1 per 900 square feet	5%	5%	5%	0%	100%
	SVOCs	1 per 900 square feet	5%	5%	5%	0%	0
	Metals	1 per 900 square feet	5%	5%	5%	0%	0
Soil (Waste Characterization)[4]	VOCs	1nitial 1,000 CYs to be Excavated 1 discrete sample per 125 CYs All Remaining Soil to be Excavated 1 discrete sample per 500 CYs	0	5%	5%	0	0
	SVOCs	1nitial 1,000 CYs to be Excavated 1 composite sample per 500 CYs All Remaining Soil to be Excavated 1 composite sample per 1,000 CYs	0	5%	5%	0	0
	TPH		0	5%	5%	0	0
	TCLP VOCs[5]		0	5%	5%	0	0
	TCLP SVOCs[5]		0	5%	5%	0	0
	TCLP Metals[5]		0	5%	5%	0	0
Groundwater	VOCs	1 per well	5%	5%	5%	1 per day	100%
	Metals	1 per well	5%	5%	5%	1 per day	100%

Notes:

[1] - Based on 1 per 20 samples, where applicable.

[2] - Based on 1 per day for groundwater samples.

[3] - Dedicated sampling equipment will be utilized for each soil sample; therefore, the collection of field blank samples will not be required when post-excavation soil samples are collected.

[4] - Initially, MS and MSD samples will be collected at a frequency of 5%. Once a track record is established, a request will be made to the NYSDEC to reduce the frequency to1 %.

[5] - TCLP data will be used at the beginning of the remedial work (Initial 1,000 Cys excavated) and will be collected at a frequency of 1 TCLP sample per stockpile. Based on the TCLP results, if they are lower than the respective TCLP limits, further TCLP analyses will be required only if the total (VOCs, SVOCs, metals, etc.) analyses are equal to or more than 20 times the respective TCLP limits.

[6] - Based on 1 trip blank collected and analyzed for VOCs for each shipping cooler used to transport samples to be analyzed for VOCs.

Table 2. Laboratory Limits for Soil and Water

Analysis Group Description	Method Description	Method Code
Soil Analysis	Volatile Organic Compounds (GC/MS)	8260B

Analyte Description	CAS Number	RL - Limit	MDL - Limit	Units
Dichlorodifluoromethane	75-71-8	5	0.35	ug/Kg
Chloromethane	74-87-3	5	0.78	ug/Kg
Vinyl chloride	75-01-4	5	0.23	ug/Kg
Bromomethane	74-83-9	5	2.08	ug/Kg
Chloroethane	75-00-3	5	0.98	ug/Kg
Trichlorofluoromethane	75-69-4	5	0.15	ug/Kg
1,1-Dichloroethene	75-35-4	5	0.58	ug/Kg
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	5	0.79	ug/Kg
Acetone	67-64-1	20	2.24	ug/Kg
Carbon disulfide	75-15-0	5	0.41	ug/Kg
Methyl acetate	79-20-9	5	0.44	ug/Kg
Methylene Chloride	75-09-2	20	1.09	ug/Kg
trans-1,2-Dichloroethene	156-60-5	5	0.39	ug/Kg
Methyl tert-butyl ether	1634-04-4	5	0.21	ug/Kg
1,1-Dichloroethane	75-34-3	5	0.3	ug/Kg
cis-1,2-Dichloroethene	156-59-2	5	0.37	ug/Kg
Methyl Ethyl Ketone	78-93-3	10	1.59	ug/Kg
Chloroform	67-66-3	5	0.34	ug/Kg
1,1,1-Trichloroethane	71-55-6	5	0.53	ug/Kg
Cyclohexane	110-82-7	5	0.69	ug/Kg
Carbon tetrachloride	56-23-5	5	0.95	ug/Kg
Benzene	71-43-2	5	0.57	ug/Kg
1,2-Dichloroethane	107-06-2	5	0.58	ug/Kg
Trichloroethene	79-01-6	5	0.81	ug/Kg
Methylcyclohexane	108-87-2	5	0.33	ug/Kg
1,2-Dichloropropane	78-87-5	5	0.67	ug/Kg
Bromodichloromethane	75-27-4	5	0.3	ug/Kg
cis-1,3-Dichloropropene	10061-01-5	5	0.56	ug/Kg
methyl isobutyl ketone	108-10-1	5	0.55	ug/Kg
Toluene	108-88-3	5	0.074	ug/Kg
trans-1,3-Dichloropropene	10061-02-6	5	0.27	ug/Kg
1,1,2-Trichloroethane	79-00-5	5	0.37	ug/Kg
Tetrachloroethene	127-18-4	5	0.81	ug/Kg
2-Hexanone	591-78-6	10	1.2	ug/Kg
Dibromochloromethane	124-48-1	5	0.35	ug/Kg
1,2-Dibromoethane	106-93-4	5	0.76	ug/Kg
Chlorobenzene	108-90-7	5	0.59	ug/Kg
Ethylbenzene	100-41-4	5	0.7	ug/Kg
m&p-Xylene	179601-23-1	5	0.35	ug/Kg
o-Xylene	95-47-6	5	0.19	ug/Kg
Xylenes, Total	1330-20-7	5	0.486	ug/Kg
Styrene	100-42-5	5	0.15	ug/Kg
Bromoform	75-25-2	5	0.61	ug/Kg
Isopropylbenzene	98-82-8	5	0.19	ug/Kg
1,1,2,2-Tetrachloroethane	79-34-5	5	0.52	ug/Kg
1,3-Dichlorobenzene	541-73-1	5	0.21	ug/Kg

Table 2. Laboratory Limits for Soil and Water

1,4-Dichlorobenzene	106-46-7	5	0.67	ug/Kg
1,2-Dichlorobenzene	95-50-1	5	0.24	ug/Kg
1,2-Dibromo-3-Chloropropane	96-12-8	10	4.53	ug/Kg
1,2,4-Trichlorobenzene	120-82-1	5	0.75	ug/Kg
1,2-Dichloroethane-d4 (Surr)	17060-07-0			ug/Kg
4-Bromofluorobenzene	460-00-4			ug/Kg
Dibromofluoromethane	1868-53-7	5		ug/Kg
Toluene-d8 (Surr)	2037-26-5			ug/Kg
Tentatively Identified Compound	STL00231			ug/Kg

Analysis Group Description	Method Description	Method Code
Soil Analysis	Purge and Trap	5030B
Soil Analysis	Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)	8270C

Analyte Description	CAS Number	RL - Limit	MDL - Limit	Units
1,1'-Biphenyl	92-52-4	270	17.5	ug/Kg
2,4,5-Trichlorophenol	95-95-4	1700	13.6	ug/Kg
2,4,6-Trichlorophenol	88-06-2	270	7.4	ug/Kg
2,4-Dichlorophenol	120-83-2	270	14.4	ug/Kg
2,4-Dimethylphenol	105-67-9	270	13.1	ug/Kg
2,4-Dinitrotoluene	121-14-2	270	21.5	ug/Kg
2,4-Dinitrophenol	51-28-5	1700	81	ug/Kg
2,6-Dinitrotoluene	606-20-2	270	7.9	ug/Kg
2-Chloronaphthalene	91-58-7	270	11.5	ug/Kg
2-Chlorophenol	95-57-8	270	15.7	ug/Kg
2-Methylnaphthalene	91-57-6	270	7.7	ug/Kg
2-Methylphenol	95-48-7	270	16.2	ug/Kg
2-Nitroaniline	88-74-4	670	16.4	ug/Kg
2-Nitrophenol	88-75-5	270	17	ug/Kg
3,3'-Dichlorobenzidine	91-94-1	330	55.5	ug/Kg
3-Nitroaniline	99-09-2	670	8.6	ug/Kg
4,6-Dinitro-2-methylphenol	534-52-1	1700	116	ug/Kg
4-Bromophenyl phenyl ether	101-55-3	270	17.4	ug/Kg
4-Chloro-3-methylphenol	59-50-7	270	11.1	ug/Kg
4-Chloroaniline	106-47-8	270	43.9	ug/Kg
4-Chlorophenyl phenyl ether	7005-72-3	270	19.9	ug/Kg
Methylphenol, 3 & 4	106-44-5	270	17.7	ug/Kg
4-Nitroaniline	100-01-6	270	20.7	ug/Kg
4-Nitrophenol	100-02-7	1700	20.4	ug/Kg
Acenaphthene	83-32-9	270	16	ug/Kg
Acenaphthylene	208-96-8	270	13.2	ug/Kg
Acetophenone	98-86-2	270	14	ug/Kg
Anthracene	120-12-7	270	10.5	ug/Kg
Atrazine	1912-24-9	330	17.1	ug/Kg
Benzaldehyde	100-52-7	270	45	ug/Kg
Benzo[a]anthracene	56-55-3	270	9.6	ug/Kg
Benzo[a]pyrene	50-32-8	270	7.3	ug/Kg
Benzo[b]fluoranthene	205-99-2	270	7.2	ug/Kg
Benzo[g,h,i]perylene	191-24-2	270	17.6	ug/Kg

Table 2. Laboratory Limits for Soil and Water

Benzo[k]fluoranthene	207-08-9	270	24.2	ug/Kg
Bis(2-chloroethoxy)methane	111-91-1	270	12.5	ug/Kg
Bis(2-chloroethyl)ether	111-44-4	270	14	ug/Kg
Bis(2-ethylhexyl) phthalate	117-81-7	270	26.1	ug/Kg
Butyl benzyl phthalate	85-68-7	270	15.1	ug/Kg
Caprolactam	105-60-2	270	21.2	ug/Kg
Carbazole	86-74-8	270	15	ug/Kg
Chrysene	218-01-9	270	19.9	ug/Kg
Di-n-butyl phthalate	84-74-2	270	39.2	ug/Kg
Di-n-octyl phthalate	117-84-0	270	15.3	ug/Kg
Dibenz(a,h)anthracene	53-70-3	270	21.2	ug/Kg
Dibenzofuran	132-64-9	270	19	ug/Kg
Diethyl phthalate	84-66-2	270	27.2	ug/Kg
Dimethyl phthalate	131-11-3	270	15.5	ug/Kg
Fluoranthene	206-44-0	270	13.4	ug/Kg
Fluorene	86-73-7	270	16.2	ug/Kg
Hexachlorobenzene	118-74-1	270	18.7	ug/Kg
Hexachlorobutadiene	87-68-3	270	20.8	ug/Kg
Hexachlorocyclopentadiene	77-47-4	670	127	ug/Kg
Hexachloroethane	67-72-1	270	15.4	ug/Kg
Indeno[1,2,3-cd]pyrene	193-39-5	270	17.5	ug/Kg
Isophorone	78-59-1	270	14.9	ug/Kg
N-Nitrosodi-n-propylamine	621-64-7	270	18.2	ug/Kg
N-Nitrosodiphenylamine	86-30-6	270	15.2	ug/Kg
Naphthalene	91-20-3	270	14	ug/Kg
Nitrobenzene	98-95-3	270	17.2	ug/Kg
Pentachlorophenol	87-86-5	670	164	ug/Kg
Phenanthrene	85-01-8	270	13.3	ug/Kg
Phenol	108-95-2	270	17.9	ug/Kg
Pyrene	129-00-0	270	12.7	ug/Kg
2,2'-oxybis[1-chloropropane]	108-60-1	270	14	ug/Kg
1,2-Dichlorobenzene-d4	2199-69-1			ug/Kg
2,4,6-Tribromophenol	118-79-6	270		ug/Kg
2-Chlorophenol-d4	93951-73-6			ug/Kg
2-Fluorobiphenyl	321-60-8	270		ug/Kg
2-Fluorophenol	367-12-4	330		ug/Kg
Nitrobenzene-d5	4165-60-0	270		ug/Kg
Phenol-d5	4165-62-2	330		ug/Kg
Terphenyl-d14	1718-51-0	270		ug/Kg
Tentatively Identified Compound	STL00231	330		ug/Kg

Table 2. Laboratory Limits for Soil and Water

Analysis Group Description	Method Description	Method Code
Soil Analysis	Automated Soxhlet Extraction	3541
Soil Analysis	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	8082

Analyte Description	CAS Number	RL - Limit	MDL - Limit	Units
PCB-1016	12674-11-2	17	1.317	ug/Kg
PCB-1221	11104-28-2	17	1.317	ug/Kg
PCB-1232	11141-16-5	17	1.317	ug/Kg
PCB-1242	53469-21-9	17	1.317	ug/Kg
PCB-1248	12672-29-6	17	1.317	ug/Kg
PCB-1254	11097-69-1	17	1.441	ug/Kg
PCB-1260	11096-82-5	17	1.441	ug/Kg
Tetrachloro-m-xylene	877-09-8			ug/Kg
DCB Decachlorobiphenyl	2051-24-3			ug/Kg

Analysis Group Description	Method Description	Method Code
Soil Analysis	Ultrasonic Extraction	3550B
Soil Analysis	Organochlorine Pesticides (GC)	8081A

Analyte Description	CAS Number	RL - Limit	MDL - Limit	Units
4,4'-DDD	72-54-8	3.3	0.594	ug/Kg
4,4'-DDE	72-55-9	3.3	0.67	ug/Kg
4,4'-DDT	50-29-3	3.3	0.81	ug/Kg
Aldrin	309-00-2	1.7	0.181	ug/Kg
alpha-BHC	319-84-6	1.7	0.244	ug/Kg
beta-BHC	319-85-7	1.7	0.374	ug/Kg
DCB Decachlorobiphenyl	2051-24-3			ug/Kg
delta-BHC	319-86-8	1.7	0.365	ug/Kg
Dieldrin	60-57-1	3.3	0.571	ug/Kg
Endosulfan I	959-98-8	1.7	0.292	ug/Kg
Endosulfan II	33213-65-9	3.3	0.622	ug/Kg
Endosulfan sulfate	1031-07-8	3.3	0.594	ug/Kg
Endrin	72-20-8	3.3	0.617	ug/Kg
Endrin aldehyde	7421-93-4	3.3	0.407	ug/Kg
Endrin ketone	53494-70-5	3.3	0.607	ug/Kg
gamma-BHC (Lindane)	58-89-9	1.7	0.287	ug/Kg
Heptachlor	76-44-8	1.7	0.319	ug/Kg
Heptachlor epoxide	1024-57-3	1.7	0.301	ug/Kg
Methoxychlor	72-43-5	17	3.658	ug/Kg
Tetrachloro-m-xylene	877-09-8			ug/Kg
Toxaphene	8001-35-2	83	9.15	ug/Kg
alpha-Chlordane	5103-71-9	1.7	0.275	ug/Kg
gamma-Chlordane	5103-74-2	1.7	0.53	ug/Kg

Table 2. Laboratory Limits for Soil and Water

Analysis Group Description	Method Description	Method Code
Soil Analysis	Ultrasonic Extraction	3550B
Soil Analysis	Metals (ICP/MS)	6020

Analyte Description	CAS Number	RL - Limit	MDL - Limit	Units
Silver	7440-22-4	0.4	0.08	mg/Kg
Aluminum	7429-90-5	20	4	mg/Kg
Arsenic	7440-38-2	0.4	0.08	mg/Kg
Barium	7440-39-3	0.4	0.12	mg/Kg
Beryllium	7440-41-7	0.4	0.12	mg/Kg
Calcium	7440-70-2	40	12	mg/Kg
Cadmium	7440-43-9	0.4	0.08	mg/Kg
Cobalt	7440-48-4	0.4	0.08	mg/Kg
Chromium	7440-47-3	0.8	0.16	mg/Kg
Copper	7440-50-8	0.8	0.08	mg/Kg
Iron	7439-89-6	20	6.4	mg/Kg
Potassium	7440-09-7	40	4	mg/Kg
Magnesium	7439-95-4	40	4	mg/Kg
Manganese	7439-96-5	1	0.16	mg/Kg
Sodium	7440-23-5	40	13.2	mg/Kg
Nickel	7440-02-0	0.4	0.08	mg/Kg
Lead	7439-92-1	0.4	0.08	mg/Kg
Antimony	7440-36-0	0.64	0.16	mg/Kg
Selenium	7782-49-2	0.8	0.24	mg/Kg
Thallium	7440-28-0	0.56	0.16	mg/Kg
Vanadium	7440-62-2	0.4	0.08	mg/Kg
Zinc	7440-66-6	4	0.4	mg/Kg

Analysis Group Description	Method Description	Method Code
Soil Analysis	Preparation, Metals	3050B
Soil Analysis	Mercury (CVAA)	7471A

Analyte Description	CAS Number	RL - Limit	MDL - Limit	Units
Mercury	7439-97-6	0.05	0.004	mg/Kg

Analysis Group Description	Method Description	Method Code
Soil Analysis	Preparation, Mercury	7471A_Prep
Soil Analysis	Diesel Range Organics (DRO) (GC)	8015B_DRO

Analyte Description	CAS Number	RL - Limit	MDL - Limit	Units
Diesel Range Organics [C10-C28]	STL00143	17000		
o-Terphenyl	84-15-1			

Analysis Group Description	Method Description	Method Code
Soil Analysis	Ultrasonic Extraction	3550B
Soil Analysis	Gasoline Range Organics - (GC)	8015B_GRO

Analyte Description	CAS Number	RL - Limit	MDL - Limit	Units
Gasoline Range Organics (C6-C9)	STL00215	25		
a,a,a-Trifluorotoluene	98-08-8			

Table 2. Laboratory Limits for Soil and Water

Analysis Group Description	Method Description	Method Code
Soil Analysis	Closed System Purge and Trap	5035A_FP
Soil Analysis	Percent Moisture	Moisture

Analyte Description	CAS Number	RL - Limit	MDL - Limit	Units
Percent Moisture	STL00177	0.1		
Percent Solids	STL00234	0.1		

Analysis Group Description	Method Description	Method Code
Soil Analysis	Cyanide, Total andor Amenable	9012B

Analyte Description	CAS Number	RL - Limit	MDL - Limit	Units
Cyanide, Total	57-12-5	500	117	ug/Kg

Analysis Group Description	Method Description	Method Code
Soil Analysis	Cyanide, Total and/or Amenable, Distillation	9012B_Prep
Soil Analysis	Gasoline Range Organics - (GC)	8015B_GRO

Analyte Description	CAS Number	RL - Limit	MDL - Limit	Units
Gasoline Range Organics (C6-C9)	STL00215	1250		
a,a,a-Trifluorotoluene	98-08-8			

Analysis Group Description	Method Description	Method Code
Soil Analysis	Closed System Purge and Trap	5035A_M
Water Analysis	Volatile Organic Compounds (GC/MS)	8260B

Analyte Description	CAS Number	RL - Limit	MDL - Limit	Units
Dichlorodifluoromethane	75-71-8	5	1.01	ug/L
Chloromethane	74-87-3	5	1.09	ug/L
Vinyl chloride	75-01-4	5	0.99	ug/L
Bromomethane	74-83-9	5	2.12	ug/L
Chloroethane	75-00-3	5	1.06	ug/L
Trichlorofluoromethane	75-69-4	5	1.11	ug/L
1,1-Dichloroethene	75-35-4	5	0.83	ug/L
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	5	0.97	ug/L
Acetone	67-64-1	10	1.03	ug/L
Carbon disulfide	75-15-0	5	0.9	ug/L
Methyl acetate	79-20-9	5	0.48	ug/L
Methylene Chloride	75-09-2	5	0.78	ug/L
trans-1,2-Dichloroethene	156-60-5	5	0.76	ug/L
Methyl tert-butyl ether	1634-04-4	5	0.17	ug/L
1,1-Dichloroethane	75-34-3	5	1.03	ug/L
cis-1,2-Dichloroethene	156-59-2	5	0.99	ug/L
Methyl Ethyl Ketone	78-93-3	10	1.09	ug/L
Chloroform	67-66-3	5	0.67	ug/L
1,1,1-Trichloroethane	71-55-6	5	0.69	ug/L
Cyclohexane	110-82-7	5	0.7	ug/L
Carbon tetrachloride	56-23-5	5	1.07	ug/L
Benzene	71-43-2	5	0.74	ug/L
1,2-Dichloroethane	107-06-2	5	0.72	ug/L
Trichloroethene	79-01-6	5	0.62	ug/L
Methylcyclohexane	108-87-2	5	0.98	ug/L

Table 2. Laboratory Limits for Soil and Water

1,2-Dichloropropane	78-87-5	5	0.71	ug/L
Bromodichloromethane	75-27-4	5	0.48	ug/L
cis-1,3-Dichloropropene	10061-01-5	5	0.28	ug/L
methyl isobutyl ketone	108-10-1	10	0.38	ug/L
Toluene	108-88-3	5	0.72	ug/L
trans-1,3-Dichloropropene	10061-02-6	5	0.57	ug/L
1,1,2-Trichloroethane	79-00-5	5	0.65	ug/L
Tetrachloroethene	127-18-4	5	0.81	ug/L
2-Hexanone	591-78-6	10	1.09	ug/L
Dibromochloromethane	124-48-1	5	0.55	ug/L
1,2-Dibromoethane	106-93-4	5	0.52	ug/L
Chlorobenzene	108-90-7	5	0.72	ug/L
Ethylbenzene	100-41-4	5	0.87	ug/L
m&p-Xylene	179601-23-1	5	1.66	ug/L
o-Xylene	95-47-6	5	0.66	ug/L
Xylenes, Total	1330-20-7	5	2.27	ug/L
Styrene	100-42-5	5	0.64	ug/L
Bromoform	75-25-2	5	0.46	ug/L
Isopropylbenzene	98-82-8	5	0.85	ug/L
1,1,2,2-Tetrachloroethane	79-34-5	5	0.81	ug/L
1,3-Dichlorobenzene	541-73-1	5	0.14	ug/L
1,4-Dichlorobenzene	106-46-7	5	0.59	ug/L
1,2-Dichlorobenzene	95-50-1	5	0.22	ug/L
1,2-Dibromo-3-Chloropropane	96-12-8	5	1.16	ug/L
1,2,4-Trichlorobenzene	120-82-1	5	0.72	ug/L
1,2-Dichloroethane-d4 (Surr)	17060-07-0			ug/L
4-Bromofluorobenzene	460-00-4	5		ug/L
Dibromofluoromethane	1868-53-7	5		ug/L
Toluene-d8 (Surr)	2037-26-5	5		ug/L
Tentatively Identified Compound	STL00231			ug/L

Analysis Group Description	Method Description	Method Code
Water Analysis	Purge and Trap	5030B
Water Analysis	Metals (ICP/MS)	6020

Analyte Description	CAS Number	RL - Limit	MDL - Limit	Units
Silver	7440-22-4	5	1	ug/L
Aluminum	7429-90-5	250	50	ug/L
Arsenic	7440-38-2	5	1	ug/L
Barium	7440-39-3	5	1	ug/L
Beryllium	7440-41-7	5	1	ug/L
Calcium	7440-70-2	500	100	ug/L
Cadmium	7440-43-9	5	1	ug/L
Cobalt	7440-48-4	5	1	ug/L
Chromium	7440-47-3	10	2	ug/L
Copper	7440-50-8	10	1	ug/L
Iron	7439-89-6	250	50	ug/L
Potassium	7440-09-7	500	50	ug/L
Magnesium	7439-95-4	500	50	ug/L
Manganese	7439-96-5	12	2	ug/L

Table 2. Laboratory Limits for Soil and Water

Sodium	7440-23-5	500	100	ug/L
Nickel	7440-02-0	5	1	ug/L
Lead	7439-92-1	5	1	ug/L
Antimony	7440-36-0	8	2	ug/L
Selenium	7782-49-2	10	2	ug/L
Thallium	7440-28-0	7	2	ug/L
Vanadium	7440-62-2	5	1	ug/L
Zinc	7440-66-6	50	5	ug/L

Analysis Group Description	Method Description	Method Code
Water Analysis	Preparation, Total Metals	3010A
Water Analysis	Mercury (CVAA)	7470A

Analyte Description	CAS Number	RL - Limit	MDL - Limit	Units
Mercury	7439-97-6	0.2	0.06	ug/L

Analysis Group Description	Method Description	Method Code
Water Analysis	Preparation, Mercury	7470A_Prep
Water Analysis	Metals (ICP/MS)	6020

Analyte Description	CAS Number	RL - Limit	MDL - Limit	Units
Silver	7440-22-4	5	1	ug/L
Aluminum	7429-90-5	250	50	ug/L
Arsenic	7440-38-2	5	1	ug/L
Barium	7440-39-3	5	1	ug/L
Beryllium	7440-41-7	5	1	ug/L
Calcium	7440-70-2	500	100	ug/L
Cadmium	7440-43-9	5	1	ug/L
Cobalt	7440-48-4	5	1	ug/L
Chromium	7440-47-3	10	2	ug/L
Copper	7440-50-8	10	1	ug/L
Iron	7439-89-6	250	50	ug/L
Potassium	7440-09-7	500	50	ug/L
Magnesium	7439-95-4	500	50	ug/L
Manganese	7439-96-5	12	2	ug/L
Sodium	7440-23-5	500	100	ug/L
Nickel	7440-02-0	5	1	ug/L
Lead	7439-92-1	5	1	ug/L
Antimony	7440-36-0	8	2	ug/L
Selenium	7782-49-2	10	2	ug/L
Thallium	7440-28-0	7	2	ug/L
Vanadium	7440-62-2	5	1	ug/L
Zinc	7440-66-6	50	5	ug/L

Table 2. Laboratory Limits for Soil and Water

Analysis Group Description	Method Description	Method Code
Water Analysis	Preparation, Total Metals	3010A
Water Analysis	Sample Filtration	FILTRATION
Water Analysis	Mercury (CVAA)	7470A

Analyte Description	CAS Number	RL - Limit	MDL - Limit	Units
Mercury	7439-97-6	0.2	0.06	ug/L

Analysis Group Description	Method Description	Method Code
Water Analysis	Preparation, Mercury	7470A_Prep
Water Analysis	Sample Filtration	FILTRATION

ATTACHMENTS

1. Roux Associates' Standard Operating Procedure for Soil Sampling
2. Roux Associates' Standard Operating Procedure for Groundwater Sampling

ATTACHMENT 1

Roux Associates'
Standard Operating Procedure for Soil Sampling

Date: May 5, 2000

1.0 PURPOSE

The purpose of this Standard Operating Procedure (SOP) is to establish guidelines for the collection of soil samples for laboratory analysis. This SOP is applicable to soil samples collected from split-spoon samplers during drilling, hand auger samples, grab samples from stockpiled soils, surface samples, test pit samples, etc.

2.0 CONSIDERATIONS

Soil samples may be collected in either a random or biased manner. Random samples can be based on a grid system or statistical methodology. Biased samples can be collected in areas of visible impact or suspected source areas. Soil samples can be collected at the surface, shallow subsurface, or at depth. When samples are collected at depth the water content should be noted, since generally "soil sampling" is restricted to the unsaturated zone. Equipment selection will be determined by the depth of the sample to be collected. A thorough description of the sampling locations and proposed methods of sample collection should be included in the work plan.

Commonly, surface sampling refers to the collection of samples at a 0 to 6 inch depth interval. Certain regulatory agencies may define the depth interval of a surface sample differently, and this must be defined in the work plan. Collection of surface soil samples is most efficiently accomplished with the use of a stainless steel trowel or scoop. For samples at greater depths a decontaminated bucket auger or power auger may be needed to advance the hole to the point of sample collection. Another clean bucket auger should then be used to collect the sample. To collect samples at depths of greater than approximately six feet the use of a drill rig and split spoon samples will usually be necessary. In some situations, sample locations are accessed with the use of a backhoe.

3.0 MATERIALS/EQUIPMENT

a. A work plan which outlines soil sampling requirements.

b. Field notebook, field form(s), maps, chain-of-custody forms, and custody seals.

c. Decontamination supplies (including: non-phosphate, laboratory grade detergent, buckets, brushes, potable water, distilled water, regulatory-required reagents, aluminum foil, plastic sheeting, etc.).

d. Sampling device (split-spoon sampler, stainless steel hand auger, stainless steel trowel, etc.).

e. Stainless steel spoons or spatulas.

f. Disposable sampling gloves.

g. Laboratory-supplied sample containers with labels.

h. Cooler with blue or wet ice.

i. Plastic sheeting.

j. Black pen and indelible marker.

k. Zip-lock bags and packing material.

l. Tape measure.

m. Paper towels or clean rags.

n. Masking and packing tape.

o. Overnight (express) mail forms.

4.0 DECONTAMINATION

All reusable sampling equipment will be thoroughly cleaned according to the decontamination SOP. Where possible, thoroughly pre-cleaned and wrapped sampling equipment should be used and dedicated to individual sampling locations. Disposable items such as sampling gloves, aluminum foil, and plastic sheeting will be changed after each use and discarded in an appropriate manner.

5.0 PROCEDURE

5.1 Prior to collecting soil samples, ensure that all sampling equipment has been thoroughly cleaned according to the decontamination SOP. If samples are to be collected at depth, then the boring must be advanced with thoroughly cleaned equipment to the desired sampling horizon and a different thoroughly cleaned sampler must be used to collect the sample.

5.2 Using disposable gloves and a pre-cleaned, stainless steel spatula or spoon, extract the soil sample from the sampler, measure the recovery, and separate the wash from the true sample. Where allowed by regulatory agency(ies), disposable plastic spoons may be used.

5.3 Place the sample in a laboratory-supplied, pre-cleaned sample container. This should be done as quickly as possible and this is especially important when sampling for volatile organic compounds (VOCs). Samples to be analyzed for VOCs must be collected prior to other constituents.

5.4 The sample container will be labeled with appropriate information such as, client name, site location, sample identification (location, depth, etc.), date and time of collection, and sampler's initials.

5.5 Using the remaining portion of soil from the sampler, log the sample in detail and record sediment characteristics (color, odor, moisture, texture, density, consistency, organic content, layering, grain size, etc.).

5.6 If soil samples are to be composited in the field, then equal portions from selected locations will be placed on a clean plastic sheet and homogenized. Alternately, several samples may be submitted to the laboratory for compositing by weight. The method used is dependent upon regulatory requirements. Specific compositing procedures shall be approved by the appropriate regulatory agency and described in the work plan. Samples to be analyzed for VOCs will not be composited unless required by a regulatory agency.

5.7 After the sample has been collected, labeled, and logged in detail, it is placed in a zip-lock bag and stored in a cooler at 4°C.

5.8 A chain-of-custody form is completed for all samples collected. One copy is retained and two are sent with the samples in a zip-lock bag to the laboratory. A custody seal is placed on the cooler prior to shipment.

5.9 Samples collected from Monday to Friday are to be delivered to the laboratory within 24 hours of collection. If Saturday delivery is unavailable, samples collected on Friday must be delivered by Monday morning. Check the work plan to determine if any analytes require a shorter delivery time.

5.10 The field notebook and appropriate forms should include, but not be limited to the following: client name, site location, sample location, sample depth, sample identification, date and time collected, sampler's name, method of sample collection, number and type of containers, geologic description of material, description of decontamination procedures, etc. A site map should be prepared with exact measurements to each sample location in case follow-up sampling is necessary.

5.11 All reusable sampling equipment must be thoroughly cleaned in accordance with the decontamination SOP. Following the final decontamination (after all samples are collected) the sampling equipment is wrapped in aluminum foil. Discard any gloves, foil, plastic, etc. in an appropriate manner that is consistent with site conditions.

END OF PROCEDURE

ATTACHMENT 2

Roux Associates'
Standard Operating Procedure for Groundwater Sampling

Date: May 5, 2000

1.0 PURPOSE

The purpose of this standard operating procedure (SOP) is to establish guidelines for the sampling of ground-water monitoring wells for dissolved constituents. As part of the SOP for the sampling of ground-water monitoring wells, sample collection equipment and devices must be considered, and equipment decontamination and pre-sampling procedures (e.g., measuring water levels, sounding wells, and purging wells) must be implemented. Sampling objectives must be firmly established in the work plan before considering the above.

Valid water-chemistry data are integral to a hydrogeologic investigation that characterizes ground-water quality conditions. Water-quality data are used to evaluate both current and historic aquifer chemistry conditions, as well as to estimate future conditions (e.g., trends, migration pathways). Water-quality data can be used to construct ground-water quality maps to illustrate chemical conditions within the flow system, to generate water-quality plots to depict conditions with time and trends, and to perform statistical analyses to quantify data variability, trends, and cleanup levels.

2.0 EQUIPMENT AND MATERIALS

2.1 In order to sample ground water from monitoring wells, specific equipment and materials are required. The equipment and materials list may include, but not necessarily be limited to, the following:

a. Bailers (Teflon™ or stainless steel).

b. Pumps (centrifugal, peristaltic, bladder, electric submersible, bilge, hand-operated diaphragm, etc.).

c. Gas-displacement device(s).

d. Air-lift device(s).

e. Teflon™ tape, electrical tape.

f. Appropriate discharge hose.

g. Appropriate discharge tubing (e.g., polypropylene, teflon, etc.) if using a peristaltic pump.

h. Appropriate compressed gas if using bladder-type or gas-displacement device.

i. Portable generator and gasoline or alternate power supply if using an electric submersible pump.

j. Non-absorbent cord (e.g., polypropylene, etc.).

k. Plastic sheeting.

l. Tape measure (stainless steel, steel, fiberglass) with 0.01-foot measurement increments and chalk (blue carpenter's).

m. Electronic water-level indicators (e.g., m-scope, etc.) or electric water-level/product level indicators.

n. Non-phosphate, laboratory-grade detergent.

o. Distilled/Deionized water.

p. Potable water.

q. Paper towels, clean rags.

r. Roux Associates' field forms (e.g., daily log, well inspection checklist, sampling, etc.) and field notebook.

s. Well location and site map.

t. Well keys.

u. Stop watch, digital watch with second increments, or watch with a second hand.

v. Water Well Handbook.

w. Calculator.

x. Black pen and water-proof marker.

y. Tools (e.g., pipe wrenches, screwdrivers, hammer, pliers, flashlight, pen knife, etc.).

z. Appropriate health and safety equipment, as specified in the site health and safety plan (HASP).

aa. pH meter(s) and buffers.

bb. Conductivity meter(s) and standards.

cc. Thermometer(s).

dd. Extra batteries (meters, thermometers, flashlight).

ee. Filtration apparatus, filters, pre-filters.

ff. Plasticware (e.g., premeasured buckets, beakers, flasks, funnels).

gg. Disposable gloves.

hh. Water jugs.

ii. Laboratory-supplied sample containers with labels.

jj. Cooler(s).

kk. Ice (wet, blue packs).

ll. Masking, duct, and packing tape.

mm. Chain-of-custody form(s) and custody seal(s).

nn. Site sampling and analysis plan (SAP).

oo. Site health and safety plan (HASP).

pp. Packing material (e.g., bubble wrap)

qq. "Zip-lock" plastic bags.

rr. Overnight (express) mail forms.

3.0 DECONTAMINATION

3.1 Make sure all equipment is decontaminated and cleaned before use (refer to the SOP for Decontamination of Field Equipment for detailed decontamination methods, summaries for bailers and pumps are provided below). Use new, clean materials when decontamination is not appropriate (e.g., non-absorbent cord, disposable gloves). Document, and initial and date the decontamination procedures on the appropriate field form and in the field notebook.

a. Decontaminate a bailer by: 1) wearing disposable gloves, 2) disassembling (if appropriate) and scrubbing in a non-phosphate, laboratory-grade detergent and distilled/deionized water solution, and 3) rinsing first with potable water and then distilled/deionized water.

b. Decontaminate a pump by: 1) wearing disposable gloves, 2) flushing the pump and discharge hose (if not disposable) first with a non-phosphate, laboratory-grade detergent and potable water solution in an appropriate container (clean bucket, garbage can, or 55-gallon drum) and then with

distilled/deionized water or potable water, and 3) wiping pump-related equipment (e.g., electrical lines, cables, discharge hose) first with a clean cloth and detergent solution and then rinsing or wiping with a clean cloth and distilled/deionized water or potable water.

3.2 Note that the decontamination procedures for bailers and pumps are the minimum that must be performed. Check the work plan to determine if chemicals specified by individual state regulatory agencies must also be used for decontamination procedures (e.g., hexane, nitric acid, acetone, isopropanol, etc.).

4.0 CALIBRATION OF FIELD ANALYSIS EQUIPMENT

Calibrate field analysis equipment before use (e.g., thermometers, pH and conductivity meters, etc.). Refer to the specific SOP for field analysis for each respective piece of equipment. Document, and initial and date the calibration procedures on the appropriate field form, in the field notebook, and in the calibration log book.

5.0 PROCEDURE

5.1 Document, and initial and date well identification, pre-sampling information, and problems encountered on the appropriate field form and in the field notebook as needed.

5.2 Inspect the protective casing of the well and the well casing, and note any items of concern such as a missing lock, or bent or damaged casing(s).

5.3 Place plastic sheeting around the well to protect sampling equipment from potential cross contamination.

5.4 Remove the well cap or plug and, if necessary, clean the top of the well off with a clean rag. Place the cap or plug on the plastic sheeting. If the well is not vented, allow several minutes for the water level in the well to equilibrate. If fumes or gases are present, then diagnose these with the proper safety equipment. Never inhale the vapors.

5.5 Measure the depth to water (DTW) from the measuring point (MP) on the well using a steel tape and chalk or an electronic sounding device (m-scope). Refer to the specific SOPs for details regarding the use of a steel tape or a m-scope for measuring water levels. Calculate the water-level elevation. Document, and initial and date the information on the appropriate field form and in the field notebook.

5.6 Measuring the total depth of the well from the MP with a weighted steel tape. Calculate and record the volume of standing water in the well casing on the appropriate field form and in the field notebook.

5.7 Decontaminate the equipment used to measure the water level and sound the well with a non-phosphate, laboratory-grade detergent solution followed by a distilled/deionized water rinse.

5.8 Purge the well prior to sampling (refer to the SOP for Purging a Well). The well should be pumped or bailed to remove the volume of water specified in the work plan. Usually three to five casing volumes are removed if the recharge rate is adequate to accomplish this within a reasonable amount of time.

If the formation cannot produce enough water to sustain purging, then one of two options must be followed. These include: 1) pumping or bailing the well dry, or 2) pumping or bailing the well to "near-dry" conditions (i.e., leaving some water in the well). The option employed must be specified in the work plan and be in accordance with regulatory requirements.

If the well is purged dry, then all the standing water has been removed and upon recovery the well is ready for sampling. However, depending on the rate of recovery and the time needed to complete the sampling round, one of the following procedures may have to be implemented: 1) the well may have to be sampled over a period of more than one day; 2) the well may not yield enough water to collect a complete suite of samples and only select (most important) samples will be collected; or 3) the well may not recover which will preclude sampling. Regardless of the option that must be followed, the sampling procedure must be fully documented. When preparing to conduct a sampling round, review drilling, development and previous sampling information (if available) to identify low-yielding wells in order to purge them first, and potentially allow time for the well to recover for sampling.

5.9 Record the physical appearance of the water (i.e., color, turbidity, odor, etc.) on the appropriate field form and in the field notebook, as it is purged. Note any changes that occur during purging.

5.10 If a bailer is used to collect the sample, then:

a. Flush the decontaminated bailer three times with distilled/deionized water.

b. Tie the non-absorbent cord (polypropylene) to the bailer with a secure knot and then tie the free end of the bailer cord to the protective casing or, if possible, some nearby structure to prevent losing the bailer and cord down the well.

c. Lower the bailer slowly down the well and into the water column to minimize disturbance of the water surface. If a bottom-filling bailer is used, then do not submerge the top of the bailer; however, if a top-filling bailer is used, then submerge the bailer several feet below the water surface.

d. Remove and properly discard one bailer volume from the well to rinse the bailer with well water before sampling. Again, lower the bailer slowly down the well to the appropriate depth depending on the bailer type (as discussed above in 5.11 c). When removing the bailer from the well, do not allow the bailer cord to rest on the ground but coil it on the protective plastic sheeting placed around the well. Certain regulatory agencies require that the first bailer volume collected be utilized for the samples.

5.11 If a pump is used to collect the sample, then use the same pump used to purge the well and, if need be, reduce the discharge rate to facilitate filling sample containers and to avoid problems that can occur while filling sample containers (as listed in Number 5.14, below). Alternately, the purge pump may be removed and a thoroughly decontaminated bailer can be used to collect the sample.

5.12 Remove each appropriate container's cap only when ready to fill each with the water sample, and then replace and secure the cap immediately.

5.13 Fill each appropriate, pre-labeled sample container carefully and cautiously to prevent: 1) agitating or creating turbulence; 2) breaking the container; 3) entry of, or contact with, any other medium; and 4) spilling/splashing the sample and exposing the sampling team to contaminated water. Immediately place the filled sample container in a ice-filled (wet ice or blue pack) cooler for storage. If wet ice is used it is recommended that it be repackaged in zip-lock bags to help keep the cooler dry and the sample labels secure. Check the work plan as to whether wet ice or blue packs are specified for cooling the samples because certain regulatory agencies may specify the use of one and not the other.

5.14 "Top-off" containers for volatile organic compounds (VOCs) and tightly seal with Teflon™-lined septums held in place by open-top screw caps to prevent volatilization. Ensure that there are no bubbles by turning the container upside down and tapping it gently.

5.15 Filter water samples (Procedure 4.6) collected for dissolved metals analysis prior to preservation to remove the suspended sediment from the sample. If water samples are to be collected for total metals analysis, then collect a second set of samples without field filtering.

In the event that the regulatory agency(ies) want unfiltered samples for metals analysis, a second set of filtered samples should also be collected. Because unfiltered samples are indications of total metals (dissolved and suspended) they are not representative of aquifer conditions because ground water does not transport sediment (except in some rare cases). Thus, the results for dissolved metals in ground water should be based on filtered samples even if both filtered and unfiltered sets are presented in a report.

5.16 Add any necessary preservative(s) to the appropriate container(s) prior to, or after (preferred), the collection of the sample, unless the appropriate preservative(s) have already been added by the laboratory before shipment.

5.17 Collect quality control (QC) samples as required in the work plan to monitor sampling and laboratory performance. Refer to the SOP for Collection of Quality Control Samples.

5.18 Conduct field analyses after sample collection is complete by measuring and recording the temperature, conductivity, pH, etc. (as called for in the work plan). Note and record the "final" physical appearance of the water (after purging and sampling) on an appropriate field form and in the field notebook.

5.19 Wipe the well cap with a clean rag, replace the well cap and protective cover (if present). Lock the protective cover.

5.20 Verify that each sample is placed in an individual "zip-lock" bag, wrapped with "bubble wrap," placed in the cooler, and that the cooler has sufficient ice (wet ice or blue packs) to preserve the samples for transportation to the analytical laboratory.

5.21 Decontaminate bailers, hoses, and pumps as discussed in the decontamination SOP. Wrap decontaminated equipment with a suitable material (e.g., clean plastic bag or aluminum foil). Discard cords, rags, gloves, etc. in a manner consistent with site conditions.

5.22 Complete all necessary field forms, field notebook entries, and the chain-of-custody forms. Retain one copy of each chain-of-custody form. Secure the cooler with sufficient packing tape and a custody seal.

5.23 Samples collected from Monday through Friday will be delivered within 24 hours of collection. If Saturday delivery is not available, samples collected on Friday must be delivered by Monday morning. Consult the work plan to determine if any of the analytes require a shorter delivery time.

END OF PROCUDURE

APPENDIX G

Site Management Forms

ROUX ASSOCIATES, INC. / REMEDIAL ENGINEERING, P.C.
SITE MONITORING, INSPECTION AND MAINTENANCE FORM

Client: **Konica Minolta Holdings U.S.A., Inc.**
Location: **Glen Cove, New York**
Project Number: **2020.0001Y003**
Job: **Post-Remediation Monitoring, Inspection and Maintenance Event**
Operable Unit: **N/A**

Inspection of Clean Stone Cap

Yes	No	
[ ]	[ ]	Significant bare spots observed?
[ ]	[ ]	Other conditions observed? If yes, refer to Page 4 for additional clarification.

General Inspection Requirements

Yes	No	
[ ]	[ ]	Site locks missing?
[ ]	[ ]	Tresspassing/vandalism/dumping noted?
[ ]	[ ]	Perimeter fencing or gates require repair?
[ ]	[ ]	Other conditions observed? If yes, refer to Page 4 for additional clarification.

Groundwater Monitoring:

Yes	No	
		MW-01
[ ]	[ ]	Locking cover and J-plug intact and locked? Well in good condition?
[ ]	[ ]	Water Elevation Measured?
[ ]	[ ]	Water Quality Parameters Collected?
[ ]	[ ]	Monitoring Well Sampled?
		MW-06
[ ]	[ ]	Locking cover and J-plug intact and locked? Well in good condition?
[ ]	[ ]	Water Elevation Measured?
[ ]	[ ]	Water Quality Parameters Collected?
[ ]	[ ]	Monitoring Well Sampled?
		MW-08
[ ]	[ ]	Locking cover and J-plug intact and locked? Well in good condition?
[ ]	[ ]	Water Elevation Measured?
[ ]	[ ]	Water Quality Parameters Collected?
[ ]	[ ]	Monitoring Well Sampled?
		MW-12
[ ]	[ ]	Locking cover and J-plug intact and locked? Well in good condition?
[ ]	[ ]	Water Elevation Measured?
[ ]	[ ]	Water Quality Parameters Collected?
[ ]	[ ]	Monitoring Well Sampled?
		MWR-18
[ ]	[ ]	Locking cover and J-plug intact and locked? Well in good condition?
[ ]	[ ]	Water Elevation Measured?
[ ]	[ ]	Water Quality Parameters Collected?
[ ]	[ ]	Monitoring Well Sampled?

ROUX ASSOCIATES, INC. / REMEDIAL ENGINEERING, P.C.
SITE MONITORING, INSPECTION AND MAINTENANCE FORM

Client: **Konica Minolta Holdings U.S.A., Inc.**
Location: **Glen Cove, New York**
Project Number: **2020.0001Y003**
Job: **Post-Remediation Monitoring, Inspection and Maintenance Event**
Operable Unit: **N/A**

Groundwater Monitoring:

Yes	No	
		MW-101R
[ ]	[ ]	Locking cover and J-plug intact and locked? Well in good condition?
[ ]	[ ]	Water Elevation Measured?
[ ]	[ ]	Water Quality Parameters Collected?
[ ]	[ ]	Monitoring Well Sampled?
		MW-102R
[ ]	[ ]	Locking cover and J-plug intact and locked? Well in good condition?
[ ]	[ ]	Water Elevation Measured?
[ ]	[ ]	Water Quality Parameters Collected?
[ ]	[ ]	Monitoring Well Sampled?
		MW-103
[ ]	[ ]	Locking cover and J-plug intact and locked? Well in good condition?
[ ]	[ ]	Water Elevation Measured?
[ ]	[ ]	Water Quality Parameters Collected?
[ ]	[ ]	Monitoring Well Sampled?
		MW-201
[ ]	[ ]	Locking cover and J-plug intact and locked? Well in good condition?
[ ]	[ ]	Water Elevation Measured?
[ ]	[ ]	Water Quality Parameters Collected?
[ ]	[ ]	Monitoring Well Sampled?
		MW-202
[ ]	[ ]	Locking cover and J-plug intact and locked? Well in good condition?
[ ]	[ ]	Water Elevation Measured?
[ ]	[ ]	Water Quality Parameters Collected?
[ ]	[ ]	Monitoring Well Sampled?
		MW-203
[ ]	[ ]	Locking cover and J-plug intact and locked? Well in good condition?
[ ]	[ ]	Water Elevation Measured?
[ ]	[ ]	Water Quality Parameters Collected?
[ ]	[ ]	Monitoring Well Sampled?
		MW-204
[ ]	[ ]	Locking cover and J-plug intact and locked? Well in good condition?
[ ]	[ ]	Water Elevation Measured?
[ ]	[ ]	Water Quality Parameters Collected?
[ ]	[ ]	Monitoring Well Sampled?

ROUX ASSOCIATES, INC. / REMEDIAL ENGINEERING, P.C.
SITE MONITORING, INSPECTION AND MAINTENANCE FORM

Client: **Konica Minolta Holdings U.S.A., Inc.**
Location: **Glen Cove, New York**
Project Number: **2020.0001Y003**
Job: **Post-Remediation Monitoring, Inspection and Maintenance Event**
Operable Unit: **N/A**

Groundwater Monitoring:

Yes	No	
		MW-205
[ ]	[ ]	Locking cover and J-plug intact and locked? Well in good condition?
[ ]	[ ]	Water Elevation Measured?
[ ]	[ ]	Water Quality Parameters Collected?
[ ]	[ ]	Monitoring Well Sampled?
		MW-206
[ ]	[ ]	Locking cover and J-plug intact and locked? Well in good condition?
[ ]	[ ]	Water Elevation Measured?
[ ]	[ ]	Water Quality Parameters Collected?
[ ]	[ ]	Monitoring Well Sampled?
		MW-207
[ ]	[ ]	Locking cover and J-plug intact and locked? Well in good condition?
[ ]	[ ]	Water Elevation Measured?
[ ]	[ ]	Water Quality Parameters Collected?
[ ]	[ ]	Monitoring Well Sampled?
		MW-208
[ ]	[ ]	Locking cover and J-plug intact and locked? Well in good condition?
[ ]	[ ]	Water Elevation Measured?
[ ]	[ ]	Water Quality Parameters Collected?
[ ]	[ ]	Monitoring Well Sampled?
		MW-209
[ ]	[ ]	Locking cover and J-plug intact and locked? Well in good condition?
[ ]	[ ]	Water Elevation Measured?
[ ]	[ ]	Water Quality Parameters Collected?
[ ]	[ ]	Monitoring Well Sampled?
		MW-210
[ ]	[ ]	Locking cover and J-plug intact and locked? Well in good condition?
[ ]	[ ]	Water Elevation Measured?
[ ]	[ ]	Water Quality Parameters Collected?
[ ]	[ ]	Monitoring Well Sampled?
		MW-211
[ ]	[ ]	Locking cover and J-plug intact and locked? Well in good condition?
[ ]	[ ]	Water Elevation Measured?
[ ]	[ ]	Water Quality Parameters Collected?
[ ]	[ ]	Monitoring Well Sampled?

ROUX ASSOCIATES, INC. / REMEDIAL ENGINEERING, P.C.
SITE MONITORING, INSPECTION AND MAINTENANCE FORM

Client: **Konica Minolta Holdings U.S.A., Inc.**
Location: **Glen Cove, New York**
Project Number: **2020.0001Y003**
Job: **Post-Remediation Monitoring, Inspection and Maintenance Event**
Operable Unit: **N/A**

Additional Comments or Clarification Where Corrective Actions May Be Required:

ROUX ASSOCIATES, INC. / REMEDIAL ENGINEERING, P.C.
SITE MONITORING, INSPECTION AND MAINTENANCE FORM

Baseline Monitoring/ Inspection Photographs:



Photo 1:



Photo 2:



Photo 3:



Photo 4:

ROUX ASSOCIATES, INC. / REMEDIAL ENGINEERING, P.C.
SITE MONITORING, INSPECTION AND MAINTENANCE FORM

Baseline Monitoring/ Inspection Photographs:



Photo 5:



Photo 6:



Photo 7:



Photo 8:

APPENDIX H

Field Sampling Plan

Field Sampling Plan

Former Konica Minolta/
Powers Chemco Facility
71 Charles Street
Glen Cove, New York

April 30, 2021

Prepared for:

Konica Minolta Holdings U.S.A., Inc.
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2020.0001Y218/CV

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APPENDIX H

FIELD SAMPLING PLAN

Eleven monitoring wells (MW-201 through MW-211) were installed within the excavated and backfill area (Figure 1) to evaluate groundwater quality following completion of excavation and backfill activities. Two existing monitoring wells (MW-101 and MW-102) located outside the excavated area could not be located or were damaged, and were reinstalled (MW-101R and MW-102R).

Each monitoring well was constructed of 2-inch diameter Schedule 40 polyvinyl chloride (PVC) casing with a 10-foot #10-slot screen. A gravel pack consisting of #1 Morie Sand was placed around the screen to two-feet above the top of the screened interval, followed by a 2-foot seal of bentonite pellets. The bentonite pellet seal was given time to hydrate before filling the remainder of the well annulus with bentonite grout.

Well construction details (Table 1) are provided as Attachment 1.

Prior to sampling, each well will be developed to ensure proper hydraulic connection with the backfill and to reduce/eliminate turbidity. The wells are to be developed using a submersible pump, until the well yield is consistent and turbidity is below 50 nephelometric turbidity units (NTUs), or the equivalent of 10 well casing volumes is purged.

A groundwater gauging and sampling round consists of sampling 19 monitoring wells:

- Five existing wells around the perimeter of the excavated and backfilled area – MW-01, MW-06, MW-08, MW-12 and MW-103;
- Two replacements of existing wells – MW-101 and MW-102;
- 11 wells within the excavated and backfilled area – MW-201 through MW-211; and
- RCRA Monitoring Well MWR-18.

Water-level measurements will be made in each well from the top of the well casing to the depth of static groundwater.

Following the groundwater gauging round, groundwater samples will be collected from the 18 wells using low-flow groundwater sampling procedures. The pump intake should be set at the mid-point of the saturated portion of the well screen during purging and sampling activities. Prior to collecting groundwater samples, each monitoring well should be purged at a flow rate of approximately 0.13 liters per minute (L/min). Flow rates should be adjusted as necessary to maintain minimal drawdown in the well during purging activities. A portable water-quality meter equipped with an in-line flow-through cell will be used to monitor water quality indicator parameters (pH, conductivity, dissolved oxygen [DO], oxidation-reduction potential [ORP], temperature, and turbidity) during purging. Groundwater quality measurements will be collected every three to five minutes until the field parameters stabilized. An example well sampling purge log to be filled out during sampling is provided in Attachment 2.

Groundwater samples will be collected and analyzed for:

- Target Compound List (TCL) VOCs via EPA Method 8260;

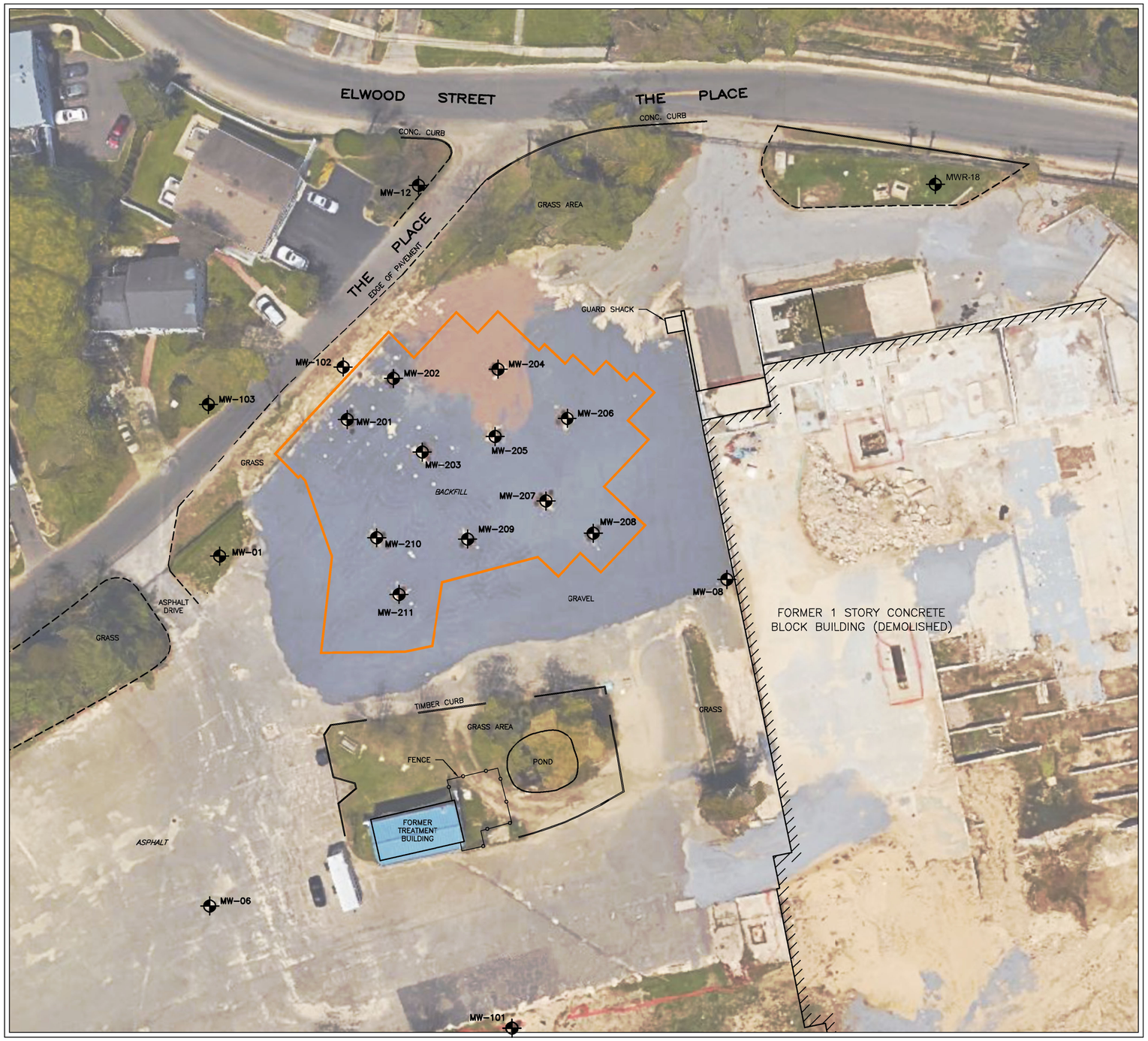
- TCL SVOCs via EPA Method 8270;
- Target Analyte List (TAL) Metals via EPA Method 6010 (both filtered and unfiltered);
- Hexavalent chromium via USEPA Method 7196A;
- Polyfluoroalkyl Substances (FAS) by EPA Method 537, 537.1, ISO 25101, or Method 533; and
- 1,4-Dioxane via EPA Method 8270 SIM.

Further details regarding the sampling and analysis of PFOS and PFAS may be found in Attachment 3; "Sampling, Analysis, and Assessment of Per-And Polyfluoroalkyl Substances (PFAS) Under NYSDEC's Part 375 Remedial Programs", January 2021.

All groundwater samples are to be at a laboratory with a current NYSDOH ELAP Contract Laboratory Protocol (CLP) certification for each of the parameters noted above. Samples are to be analyzed on a standard turnaround time and results reported as Category B data deliverables.

FIGURE

1. Post-excavation Monitoring Well Locations



LEGEND

LIMIT OF REMEDIAL EXCAVATION

MW-12 MONITORING WELL

NOTE

THIS PROPERTY DESIGNATED SECTION 31, BLOCK "G" ON THE LAND AND TAX MAP OF THE COUNTY OF NASSAU.

N

40' 0 40'

Title:

POST-EXCAVATION MONITORING WELL LOCATIONS

POWERS CHEMCO SITE SUPERFUND NO. 130028
POWERS CHEMC0 RCRA SITE NO. 130028A
SITE MANAGEMENT PLAN ADDENDUM NO. 1

Prepared for:
KONICA MINALTA HOLDINGS USA, INC.
GLEN COVE, NEW YORK

ROUX

Compiled by: N.E.	Date: 13OCT22	FIGURE
Prepared by: B.H.C.	Scale: AS SHOWN	1
Project Mgr: N.E.	Project: 2020.0001Y000	
File: 2020.0001Y215.02.DWG		

V:\CAD\PROJECTS\2020\Y0001\Y216\02\0.0001Y215.02.DWG

ATTACHMENTS

1. Well Construction Details and Well Construction Logs
2. Example of Well Sampling Purge Log
3. Sampling, Analysis, and Assessment of Per-And Polyfluoroalkyl Substances (PFAS) Under NYSDEC's Part 375 Remedial Programs January 2021

ATTACHMENT 1

Well Construction Details and Well Construction Logs

Table 1. Well Construction Details, Powers Chemco Site No. 1-30-028, Glen Cove, New York

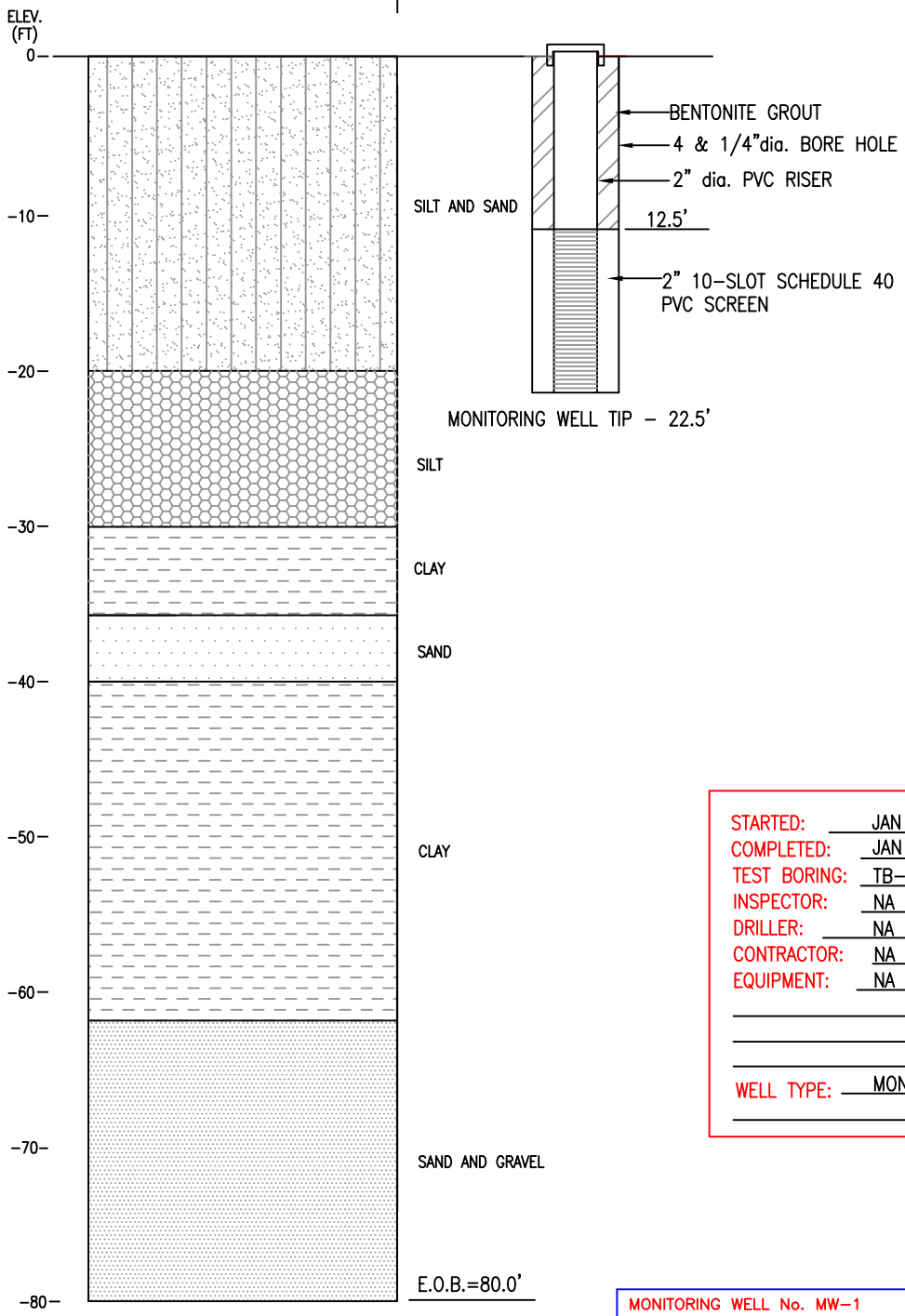
Designation	Northing [1]	Easting[1]	Measuring Point Elevation (ft rmsl)	Depth of Well (ft bls)	Depth of Screen Top (ft bls)	Depth of Screen Bottom (ft bls)	Well Diameter (inches)
MW-01	254314.09	1083980.05	63.41	22.5	12.5	22.5	2
MW-06	254142.40	1083981.52	56.56	22	7	22	2
MW-08	254308.71	1084233.33	56.06	18.9	8.9	18.9	2
MW-12	254499.57	1084076.68	65.26	30.5	15.5	30.5	2
MWR-18	254510.4	1084304.1	NM	19	9	19	2
MW-101R	254091.19	1084128.77	61.14	45	35	45	2
MW-102R	254412.96	1084041.01	62.78	19	9	19	2
MW-103	254384.6	1083964.5	NM	19	9	19	2
MW-201	254385.58	1084040.7	61.51	25	15	25	2
MW-202	254410.47	1084062.48	62.49	18	8	18	2
MW-203	254370.02	1084078.35	60.58	23	13	23	2
MW-204	254415.45	1084115.39	60.87	18	8	18	2
MW-205	254380.91	1084115.7	60.11	18	8	18	2
MW-206	254385.89	1084152.11	59.29	25	15	25	2
MW-207	254353.52	1084138.41	60.68	22	12	22	2
MW-208	254337.96	1084163	60.39	23	13	23	2
MW-209	254332.05	1084099.52	61.08	15	5	15	2
MW-210	254330.5	1084056.26	61.52	15	5	15	2
MW-211	254301.24	1084065.6	59.94	15	5	15	2

Notes:
ft bls - feet below land surface
ft rmsl – feet relative to mean sea level
[1]-New York 3104, Long Island Zone (1983 U.S. Survey Feet)

LOG MONITORING WELL No. MW–1

CLASSIFIED BY:
Fred C. Hart Associates, Inc.

GENERALIZED SUBSURFACE PROFILE	SCHEMATIC



STARTED: JAN 1984
COMPLETED: JAN 1984
TEST BORING: TB–1
INSPECTOR: NA
DRILLER: NA
CONTRACTOR: NA
EQUIPMENT: NA

WELL TYPE: MONITORING WELL

MONITORING WELL No. MW–1

FORMER COLUMBIA RIBBON SITE
GLEN COVE, NEW YORK

PROJECT NO.	DRAWN BY:	DATE:	FIGURE NO.
COLUMBIA	SK	JAN 1984	MW–1
SCALE: NONE	CHECKED BY: LK	SHEET 1 OF 1	

- PHD = post-hole digger
- HA = hand auger
- HSA = hollow stem auger
- SS = split spoon
- DA = drill ahead

Boring # – 06 MW# – 06	Sheet 1 of 2
Project: Konica	
Job # 85247.001	Site: 71 Charles Street, Glen Cove, N.Y.
Logged By: RMB Proj. Eng:	Edited By: RJB
Drilling Contractor: LAWES	
Drill Rig Type/Method: 4¼" hollow stem auger	
Drillers Name: Scott	
Borehole Diam./Drill Bit Type: 4¼" hollow stem auger	Total Depth: 23.0' / Ref. Elev.: Sfc
Hammer Wt: 140 lbs Drop:	
Start Time: 15:00 Date: 11/10/2011	
Completion Time: 12:00 Date: 11/11/2011	
Backfill Time: NA Date: NA	

* see sample location map
Sketch Map of Site Area With Drilling Locations

	1st Water			
Boring Depth (ft.)	23.0'			
Casing Depth (ft.)	22.0'			
Water Depth (ft.)	10.0'			
Time				
Date	11/11/11			

PID/OVA	Sampler Type & Depth	Blow Counts / 6 in.	Advance (in.)	Recovered (in.)	Casing Type & Size	Annulus Filler	Sample Rec. Analyses	Depth Feet	
	PHD	NA	60	60		manhole / Bent. / Sand		1	silty sand (SM), brown, F-M sand, 10-20% silt, <5% F-M gravel, no odor, dry
					2" PVC			2	
					casing			3	S.A.A.
								4	
								5	
	SS	3	24	18					S.A.A.
		7						6	
		9							
		13						7	
	DA	NA	36	NA	2"			8	
					Screened				
					PVC			9	
								10	
	SS	6	24	18					sand (SP), tan, F-M sand, 5% F gravel, no odor, saturated
		9						11	
		11							
		13						12	

N-2

Boring # -06 MW# -06 Sheet 2 of 2

Project: Konica

Job # 85247.001 Site: 71 Charles Street, Glen Cove, N.Y.

PID/OVA	Sampler Type	Blow Counts	Advance (in.)	Rcvd (in.)		Casing	Annulus	Depth Sample Rec / Analysis	Feet
	DA	NA	36	NA					12
									13
									14
									15
	SS	3	24	18					
		5							16
		6							
		11							17
	DA	NA	36	NA					
									18
									19
									20
	SS	3	24	18					
		3							21
		6							
		11							22
	DA	NA	12	NA					
									23
									24
									25
									6
									7
									8
									9
									0
									1
									2

rig behavior

silty clay (CL), brown/grey, 15-22'+o silt, 10% F gravel, 5% F-M sand, no odor, damp

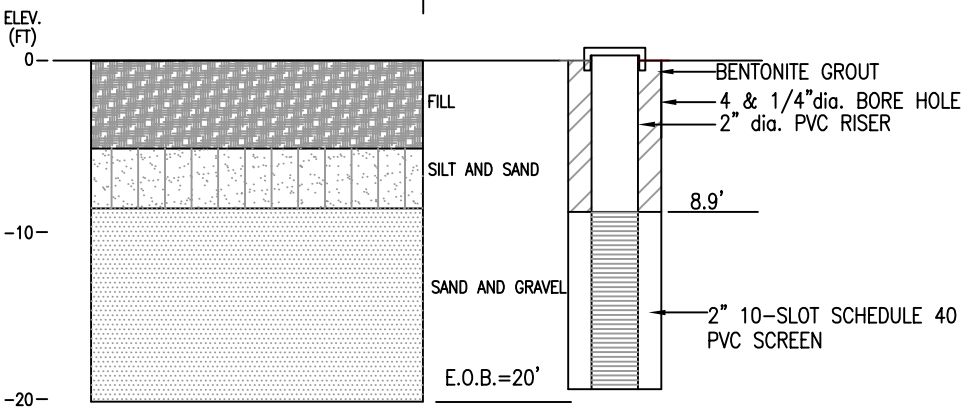
SAA.

N-2

LOG MONITORING WELL No. MW–8

CLASSIFIED BY:
Fred C. Hart Associates, Inc.

GENERALIZED SUBSURFACE PROFILE | SCHEMATIC



MONITORING WELL TIP – 18.9'

STARTED: 1986
COMPLETED: 1986
TEST BORING: TB–8
INSPECTOR: NA
DRILLER: NA
CONTRACTOR: NA
EQUIPMENT: NA

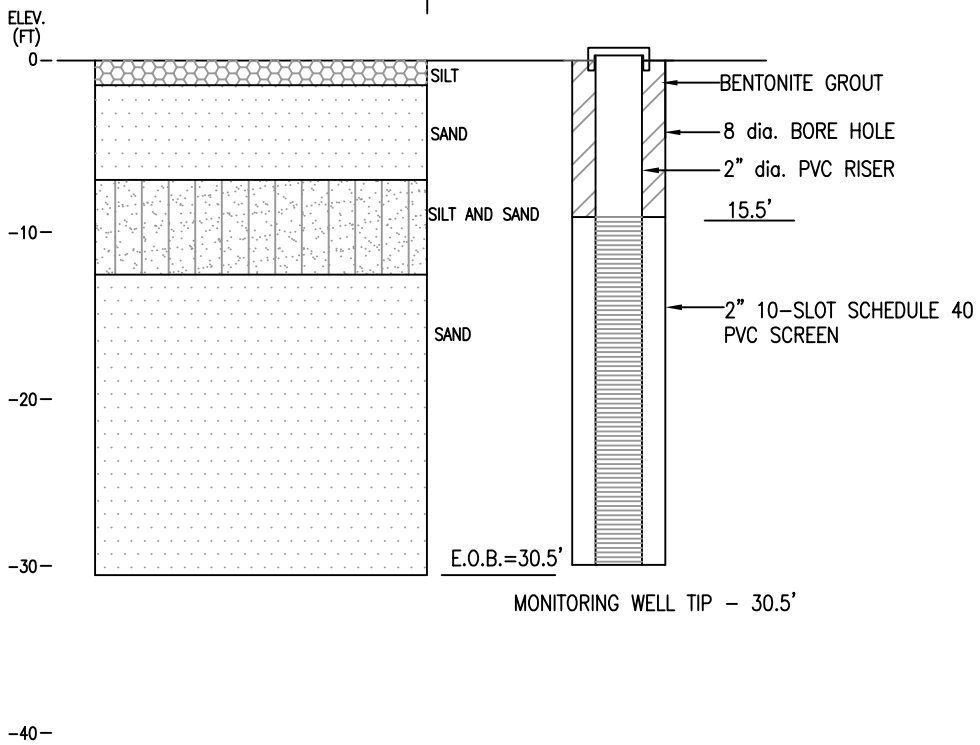
WELL TYPE: NONE

MONITORING WELL No. MW–8

FORMER COLUMBIA RIBBON SITE
GLEN COVE, NEW YORK

PROJECT NO.	DRAWN BY:	DATE:	FIGURE NO.
COLUMBIA	SK	1986	MW–8
SCALE: NONE	CHECKED BY: LK	SHEET 1 OF 1	

LOG MONITORING WELL No. MW–12	
CLASSIFIED BY: Environmental Resources Management	
GENERALIZED SUBSURFACE PROFILE	SCHEMATIC



STARTED: APR 1992
COMPLETED: APR 1992
TEST BORING: MW–12
INSPECTOR: K. Wenz
DRILLER: S. Wolf
CONTRACTOR: ADT
EQUIPMENT: HSA

WELL TYPE: MONITORING WELL

MONITORING WELL No. MW–12

FORMER COLUMBIA RIBBON SITE
GLEN COVE, NEW YORK

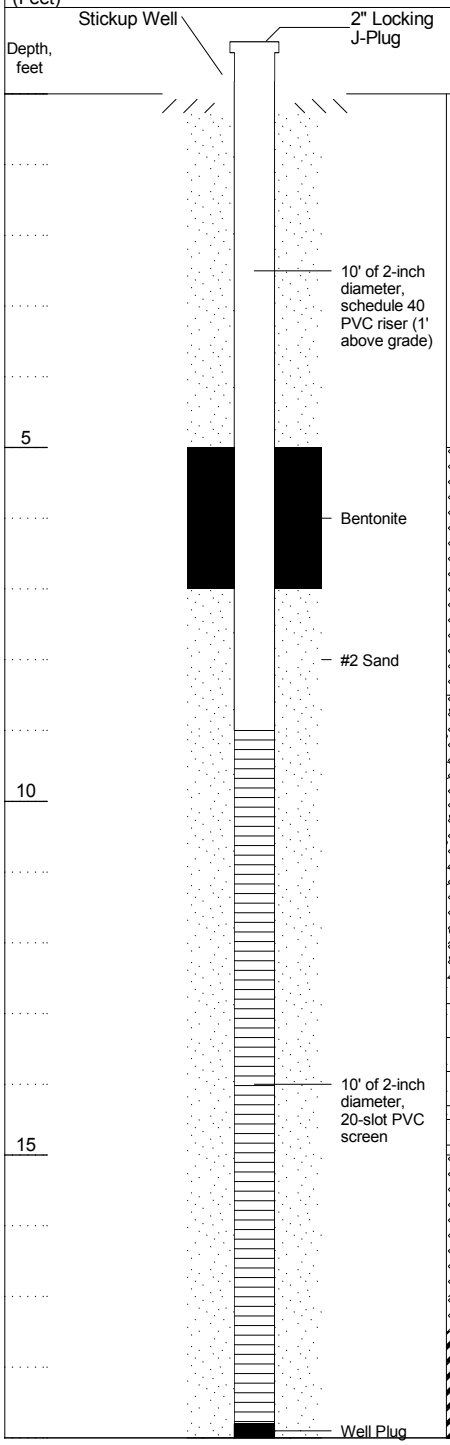
PROJECT NO.	DRAWN BY:	DATE:	FIGURE NO.
COLUMBIA	SK	FEB 2012	MW–12
SCALE: NONE	CHECKED BY: LK	SHEET 1 OF 1	

ROUX ASSOCIATES, INC.
Environmental Consulting & Management

209 Shafter Street
Islandia, NY 11749
Telephone: (631) 232-2600
Fax: (631) 232-9898

WELL CONSTRUCTION LOG

WELL NO. **MWR-18**	NORTHING **Not Measured**	EASTING **Not Measured**		
PROJECT NO./NAME **2020.0001Y / Konica Minolta**		LOCATION **71 Charles Street** **Glen Cove, New York**		
APPROVED BY **J. Wills**	LOGGED BY **V.Sabatasso**			
DRILLING CONTRACTOR/DRILLER **Trinity Environmental Corp / Joseph Sakellis**		GEOGRAPHIC AREA		
DRILL BIT DIAMETER/TYPE **2-in. / Drive Sampler**	BOREHOLE DIAMETER **2-inches**	DRILLING EQUIPMENT/METHOD **DT 6620 / Geoprobe**	SAMPLING METHOD **2" Macro-Core**	START-FINISH DATE **2/12/18-2/12/18**
CASING MAT./DIA. **PVC / 2-inch**	SCREEN: TYPE **Slotted** MAT. **PVC**	TOTAL LENGTH **10.0**ft	DIA. **2-inch**	SLOT SIZE **20-Slot**
ELEVATION OF: (Feet)	GROUND SURFACE	TOP OF WELL CASING	TOP & BOTTOM SCREEN **/**	GRAVEL PACK SIZES **Morie #2**



Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		FILL (Brown, fine to medium SAND, some coarse Sand, Gravel and Cobble; moist)		0.0	Hadn cleared to 5 feet below land surface.
		FILL (Brown, fine to medium SAND, some coarse Sand and Gravel, little Brick; moist)	G	0.0	
		Greyish brown, fine to medium SAND, some Silt, little Gravel and coarse Sand, trace brick, lumbar and gravel; moist		0.0	
5		Brown, fine to medium SAND, little coarse Sand and Silt, trace grave; moist		0.4	5
		Light brown, fine to medium SAND, some coarse Sand and Gravel; moist		0.4	
10		Dark brown, fine to medium SAND, some coarse Sand and Gravel; wet		0.4	10
		Light brown, fine to coarse SAND and GRAVEL; wet			Water table observed at approxiamtely 11 feet below land surface.
		Light brown, fine SAND, some medium Sand, little Silt, trace gravel; wet		0.4	
		Grey, CLAY and SILT; moist			
15		Light brown to brown, fine to coarse SAND, little Silt and Gravel; wet		0.3	15
		Reddish brown, fine to coarse SAND, little Silt and Gravel; wet		0.1	
		Grey, CLAY; dry to moist			
					Bottom of boring at 19 feet below land surface.

BORING/FEET 2020.0001Y.GPJ ROUX.GDT 5/4/18

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WELL CONSTRUCTION LOG

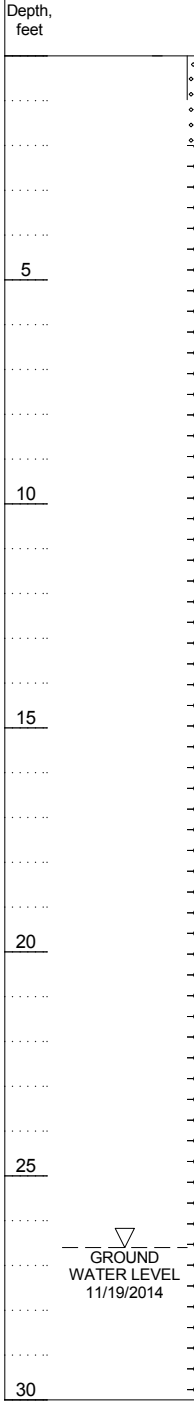
WELL NO.	NORTHING	EASTING
MW-101	**254091.19**	**1084128.77**

PROJECT NO./NAME	LOCATION
2020.0001Y003 / Konica Minolta	**71 Charles Street**
APPROVED BY: **DRAFT** / LOGGED BY: **G. Lozefski**	**Glen Cove, New York**
DRILLING CONTRACTOR/DRILLER: **Roux Associates, Inc. / John Freijomil**	GEOGRAPHIC AREA: **Outside Excavation Perimeter**

DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
4.25-in. / Drive Sampler	**8-inches**	**DT 6620 / Geoprobe**	**Cuttings**	**11/19/14-11/19/14**

CASING MAT./DIA.: **PVC / 2-inch** | SCREEN: TYPE **Slotted** MAT. **PVC** TOTAL LENGTH **10.0**ft DIA. **2-inch** SLOT SIZE **10-Slot**

ELEVATION OF: (Feet) GROUND SURFACE / TOP OF WELL CASING / TOP & BOTTOM SCREEN **/** | GRAVEL PACK SIZES: **Morie #1**



Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Grey GRAVEL, dry			3/8" Blue Stone back fill
		Brown, F-M SAND, with little silt, little coarse sand, trace gravel, moist			Lithology from cuttings
5					Lithology from cuttings
10		Brown, F-M SAND, with little silt, little coarse sand, trace gravel, moist			Lithology from cuttings
15					Lithology from cuttings
20		Brown, F-M SAND, with little silt, little coarse sand, trace gravel, wet			Lithology from cuttings
25					Lithology from cuttings
30					

BORING/FEET 2020.0001Y003.GPJ ROUX.GDT 4/2/15

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WELL CONSTRUCTION LOG

WELL NO.	NORTHING	EASTING
MW-101	**254091.19**	**1084128.77**

PROJECT NO./NAME	LOCATION
2020.0001Y003 / Konica Minolta	**71 Charles Street**
APPROVED BY: **DRAFT** / LOGGED BY: **G. Lozefski**	**Glen Cove, New York**

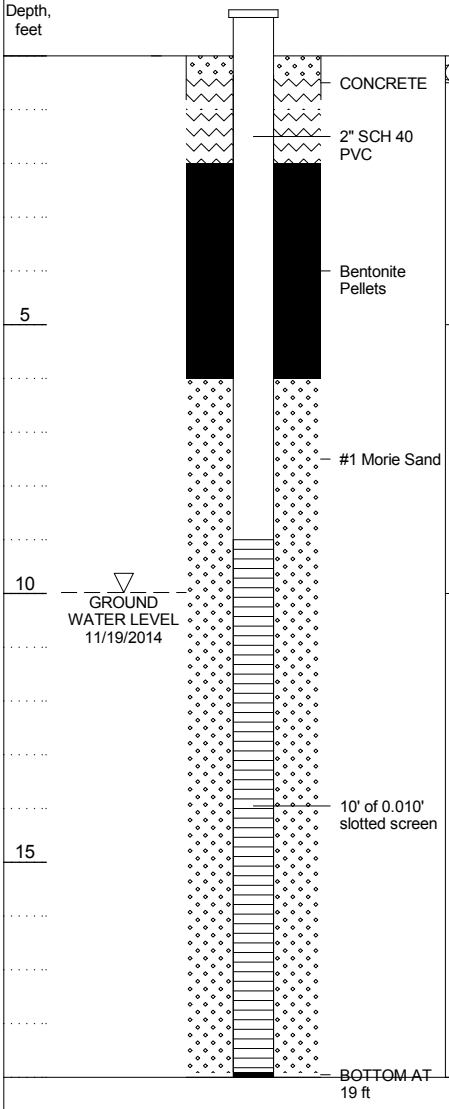
Depth, feet	Graphic Log	Visual Description (continued)	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Brown, M-CSAND, with little gravel, trace cobble, wet			Lithology from cuttings
35	#1 Morie Sand				Lithology from cuttings
40	10' of 0.010' slotted screen	Brown, M-CSAND, with little gravel, trace cobble, wet			
45	BOTTOM AT 45 ft				

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WELL CONSTRUCTION LOG

WELL NO. **MW-102**	NORTHING **254412.96**	EASTING **1084041.01**		
PROJECT NO./NAME **2020.0001Y003 / Konica Minolta**		LOCATION **71 Charles Street** **Glen Cove, New York**		
APPROVED BY **DRAFT**	LOGGED BY **G. Lozefski**			
DRILLING CONTRACTOR/DRILLER **Roux Associates, Inc. / John Freijomil**		GEOGRAPHIC AREA **Outside Excavation Perimeter**		
DRILL BIT DIAMETER/TYPE **4.25-in. / Drive Sampler**	BOREHOLE DIAMETER **8-inches**	DRILLING EQUIPMENT/METHOD **DT 6620 / Geoprobe**	SAMPLING METHOD **Cuttings**	START-FINISH DATE **11/19/14-11/19/14**
CASING MAT./DIA. **PVC / 2-inch**	SCREEN: TYPE **Slotted** MAT. **PVC** TOTAL LENGTH **10.0**ft DIA. **2-inch** SLOT SIZE **10-Slot**			
ELEVATION OF: (Feet) GROUND SURFACE	TOP OF WELL CASING	TOP & BOTTOM SCREEN **/**	GRAVEL PACK SIZES **Morie #1**	



Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Grey GRAVEL, dry			3/8" Blue Stone back fill
		Brown, F-M SAND, with little silt, trace gravel, moist			Lithology from cuttings
5		Brown, F-M SAND, with little silt, trace gravel, moist			Lithology from cuttings
10		Grey, M-C SAND, with little gravel, trace cobble, strong odor, wet			Lithology from cuttings
15					

BORING/FEET 2020.0001Y003.GPJ ROUX.GDT 4/2/15

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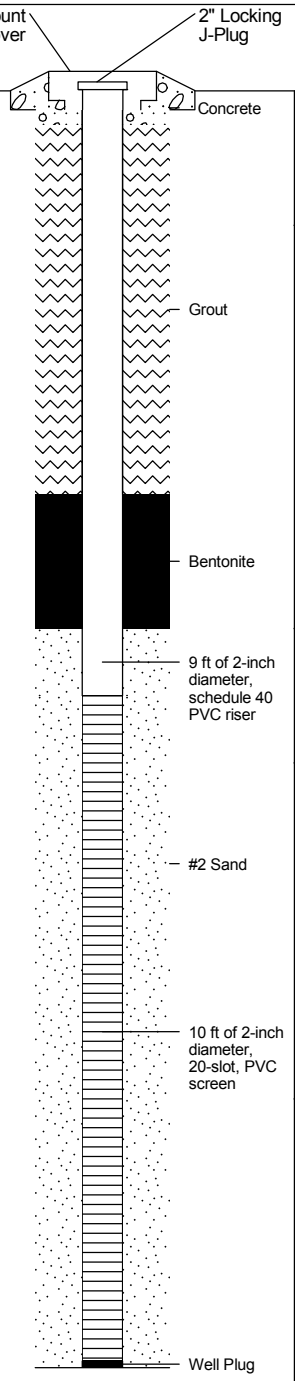
WELL CONSTRUCTION LOG

WELL NO.	NORTHING	EASTING
MW-103	**Not Measured**	**Not Measured**

PROJECT NO./NAME	LOCATION
2020.0001Y / Konica Minolta	**71 Charles Street**
APPROVED BY: **W. Monterosso** / LOGGED BY: **J. Wills**	**Glen Cove, New York**
DRILLING CONTRACTOR/DRILLER: **Roux Associates, Inc. / John Freijomil**	GEOGRAPHIC AREA: **North Side of The Place (Street) adjacent to 40 The Place Property**

DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
4.25-in. / Drive Sampler	**8-inches**	**DT 6620 / Geoprobe**	**Cuttings**	**5/23/13-5/23/13**

CASING MAT./DIA.: **PVC / 2-inch**
SCREEN: TYPE **Slotted** MAT. **PVC** TOTAL LENGTH **10.0**ft DIA. **2-inch** SLOT SIZE **20-Slot**
ELEVATION OF: (Feet) GROUND SURFACE TOP OF WELL CASING TOP & BOTTOM SCREEN **/**
GRAVEL PACK SIZES: **Morie #2**



Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Dark brown, fine to coarse SAND, some Gravel, little Silt and Organic material (roots); moist		1.0	Hand cleared to 7 feet below land surface (ft bls).
		Light brown to brown, medium SAND, little coarse Sand and Gravel, trace fine sand and silt; moist		1.7	
			G	1.4	
5		Brown, medium to coarse SAND, some Gravel, little fine Sand, trace silt; moist		1.2	
				3.0	Lithology from 7-20 ft bls interpreted from auger cuttings.
		Dark brown, fine SAND, some Silt, little coarse Sand and Gravel; wet			
10		Brown, SILT, little fine Sand, trace gravel; wet		2.0	
15		Grey, SILT, little Clay and coarse Sand, trace shell fragments; wet		1.5	
20					Boring terminated at 20 ft bls.

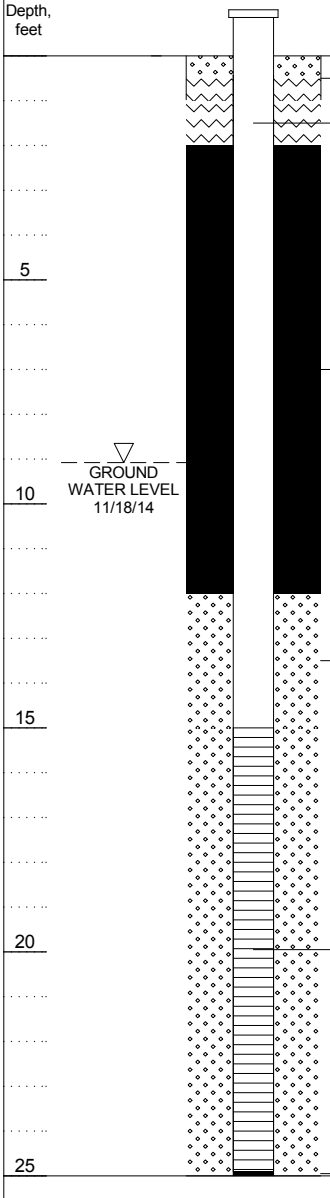
BORING/FEET 2020.0001Y.GPJ ROUX.GDT 6/10/13

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Environmental Consulting & Management

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Islandia, NY 11749
Telephone: (631) 232-2600
Fax: (631) 232-9898

WELL CONSTRUCTION LOG

WELL NO. **MW-201**	NORTHING **254385.58**	EASTING **1084040.7**			
PROJECT NO./NAME **2020.0001Y003 / Konica Minolta**		LOCATION **71 Charles Street** **Glen Cove, New York**			
APPROVED BY **DRAFT**	LOGGED BY **G. Lozefski**				
DRILLING CONTRACTOR/DRILLER **Roux Associates, Inc. / John Freijomil**		GEOGRAPHIC AREA **Within Excavated Area**			
DRILL BIT DIAMETER/TYPE **4.25-in. / Drive Sampler**	BOREHOLE DIAMETER **8-inches**	DRILLING EQUIPMENT/METHOD **DT 6620 / Geoprobe**	SAMPLING METHOD **Cuttings**	START-FINISH DATE **11/18/14-11/18/14**	
CASING MAT./DIA. **PVC / 2-inch**	SCREEN: TYPE **Slotted**	MAT. **PVC**	TOTAL LENGTH **10.0**ft	DIA. **2-inch**	SLOT SIZE **10-Slot**
ELEVATION OF: (Feet)	GROUND SURFACE	TOP OF WELL CASING	TOP & BOTTOM SCREEN **/**	GRAVEL PACK SIZES **Morie #1**	



Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Grey GRAVEL, dry			3/8" Blue Stone back fill
		Brown, F-M SAND, with little silt, trace gravel, moist			Lithology from cuttings
5					Lithology from cuttings
10		Brown, F-M SAND, with little silt, trace gravel, moist			Lithology from cuttings
15					Lithology from cuttings
20		Brown, F-M SAND, with little silt, trace gravel, wet			Lithology from cuttings
25					

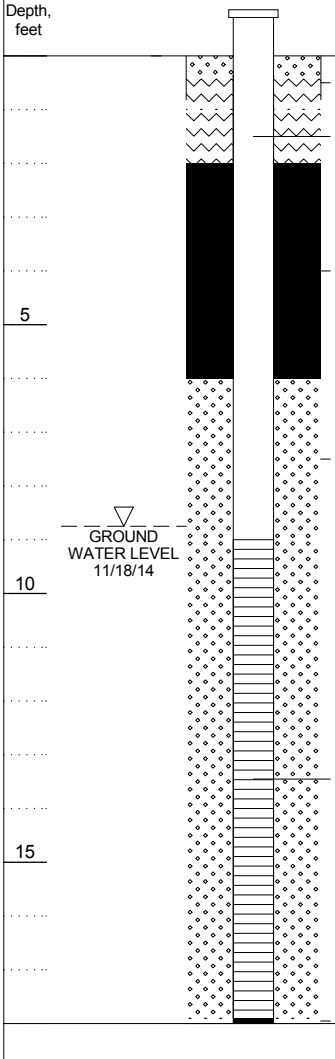
BORING/FEET 2020.0001Y003.GPJ ROUX.GDT 4/2/15

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WELL CONSTRUCTION LOG

WELL NO. **MW-202**	NORTHING **254410.47**	EASTING **1084062.48**			
PROJECT NO./NAME **2020.0001Y003 / Konica Minolta**		LOCATION **71 Charles Street** **Glen Cove, New York**			
APPROVED BY **DRAFT**	LOGGED BY **G. Lozefski**				
DRILLING CONTRACTOR/DRILLER **Roux Associates, Inc. / John Freijomil**		GEOGRAPHIC AREA **Within Excavated Area**			
DRILL BIT DIAMETER/TYPE **4.25-in. / Drive Sampler**	BOREHOLE DIAMETER **8-inches**	DRILLING EQUIPMENT/METHOD **DT 6620 / Geoprobe**	SAMPLING METHOD **Cuttings**	START-FINISH DATE **11/18/14-11/18/14**	
CASING MAT./DIA. **PVC / 2-inch**	SCREEN: TYPE **Slotted**	MAT. **PVC**	TOTAL LENGTH **10.0**ft	DIA. **2-inch**	SLOT SIZE **10-Slot**
ELEVATION OF: (Feet)	GROUND SURFACE	TOP OF WELL CASING	TOP & BOTTOM SCREEN **/**	GRAVEL PACK SIZES **Morie #1**	



Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Grey GRAVEL, dry			3/8" Blue Stone back fill
		Brown, F-M SAND, with little silt, trace gravel, moist			Lithology from cuttings
5		Brown, F-M SAND, with little silt, trace gravel, moist			Lithology from cuttings
10		Brown, F-M SAND, with little silt, trace gravel, wet			Lithology from cuttings
15					

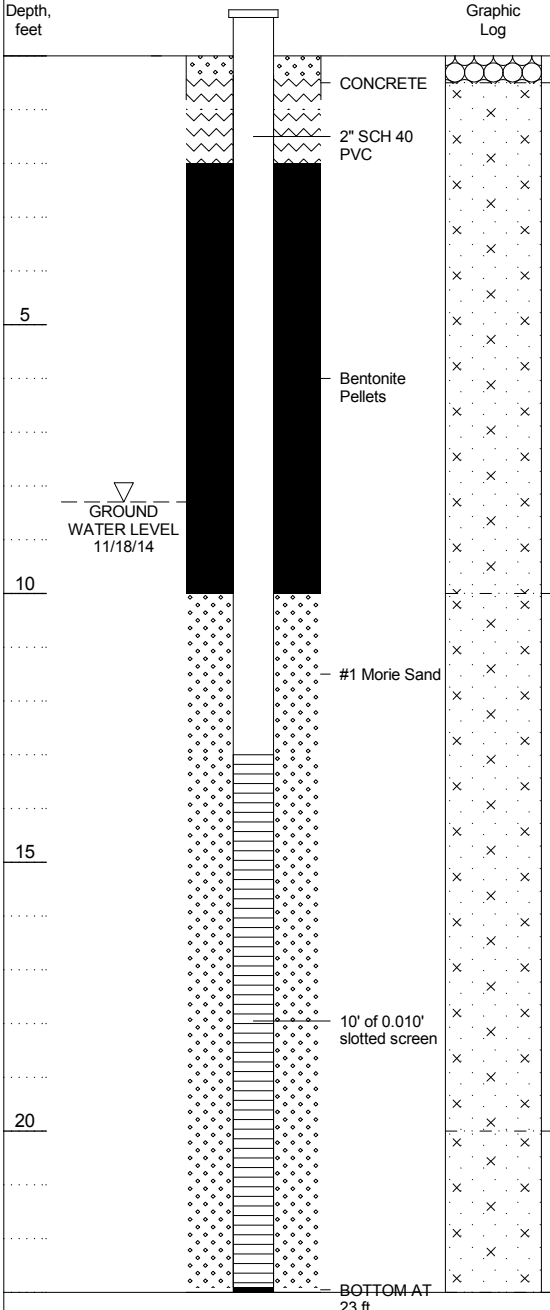
BORING/FEET 2020.0001Y003.GPJ ROUX.GDT 4/2/15

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WELL CONSTRUCTION LOG

WELL NO. **MW-203**	NORTHING **254370.02**	EASTING **1084078.35**			
PROJECT NO./NAME **2020.0001Y003 / Konica Minolta**		LOCATION **71 Charles Street** **Glen Cove, New York**			
APPROVED BY **DRAFT**	LOGGED BY **G. Lozefski**				
DRILLING CONTRACTOR/DRILLER **Roux Associates, Inc. / John Freijomil**		GEOGRAPHIC AREA **Within Excavated Area**			
DRILL BIT DIAMETER/TYPE **4.25-in. / Drive Sampler**	BOREHOLE DIAMETER **8-inches**	DRILLING EQUIPMENT/METHOD **DT 6620 / Geoprobe**	SAMPLING METHOD **Cuttings**	START-FINISH DATE **11/18/14-11/18/14**	
CASING MAT./DIA. **PVC / 2-inch**	SCREEN: TYPE **Slotted** MAT. **PVC**	TOTAL LENGTH **10.0**ft	DIA. **2-inch**	SLOT SIZE **10-Slot**	
ELEVATION OF: (Feet)	GROUND SURFACE	TOP OF WELL CASING	TOP & BOTTOM SCREEN **/**	GRAVEL PACK SIZES **Morie #1**	



Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
0		Grey GRAVEL, dry			3/8" Blue Stone back fill
		Brown, F-M SAND, with little silt, trace gravel, moist			Lithology from cuttings
5					Lithology from cuttings
10		Brown, F-M SAND, with little silt, trace gravel, moist			Lithology from cuttings
15					Lithology from cuttings
20		Brown, F-M SAND, with little silt, trace gravel, wet			Lithology from cuttings

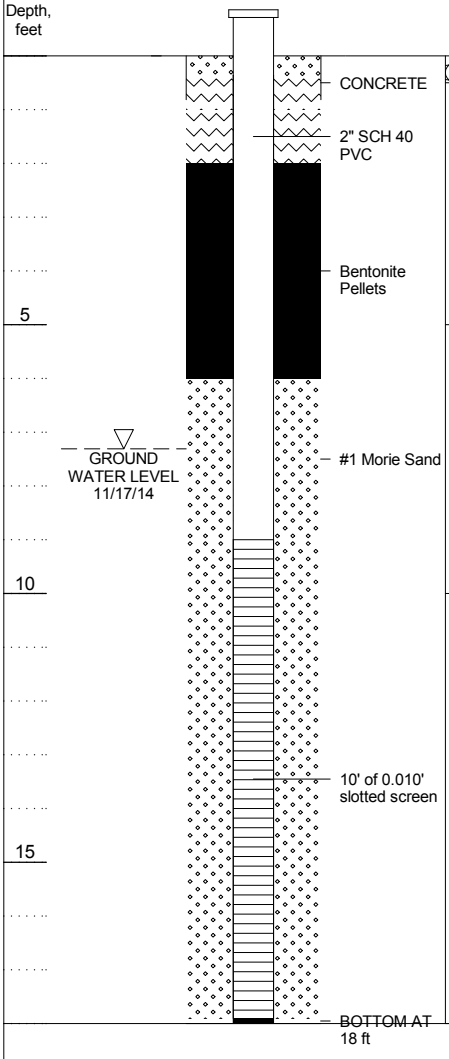
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WELL CONSTRUCTION LOG

WELL NO. **MW-204**	NORTHING **254415.45**	EASTING **1084115.39**			
PROJECT NO./NAME **2020.0001Y003 / Konica Minolta**		LOCATION **71 Charles Street** **Glen Cove, New York**			
APPROVED BY **DRAFT**	LOGGED BY **G. Lozefski**				
DRILLING CONTRACTOR/DRILLER **Roux Associates, Inc. / John Freijomil**		GEOGRAPHIC AREA **Within Excavated Area**			
DRILL BIT DIAMETER/TYPE **4.25-in. / Drive Sampler**	BOREHOLE DIAMETER **8-inches**	DRILLING EQUIPMENT/METHOD **DT 6620 / Geoprobe**	SAMPLING METHOD **Cuttings**	START-FINISH DATE **11/17/14-11/17/14**	
CASING MAT./DIA. **PVC / 2-inch**	SCREEN: TYPE **Slotted**	MAT. **PVC**	TOTAL LENGTH **10.0**ft	DIA. **2-inch**	SLOT SIZE **10-Slot**
ELEVATION OF: (Feet)	GROUND SURFACE	TOP OF WELL CASING	TOP & BOTTOM SCREEN **/**	GRAVEL PACK SIZES **Morie #1**	



Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Grey GRAVEL, dry			3/8" Blue Stone back fill
		Brown, F-M SAND, with little silt, trace gravel, moist			Lithology from cuttings
5		Brown, F-M SAND, with little silt, trace gravel, moist			Lithology from cuttings
10		Brown, F-M SAND, with little silt, trace gravel, wet			Lithology from cuttings
15					

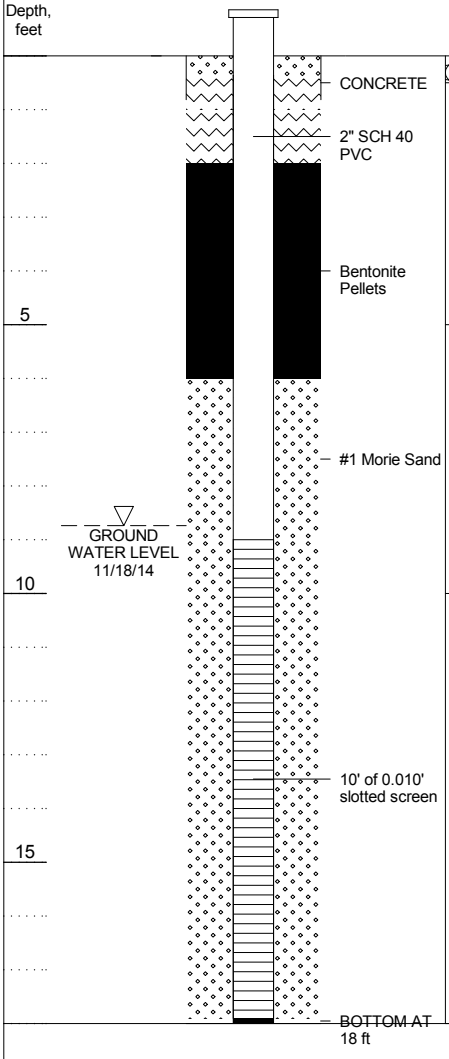
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WELL CONSTRUCTION LOG

WELL NO. **MW-205**	NORTHING **254380.91**	EASTING **1084115.7**		
PROJECT NO./NAME **2020.0001Y003 / Konica Minolta**		LOCATION **71 Charles Street** **Glen Cove, New York**		
APPROVED BY **DRAFT**	LOGGED BY **G. Lozefski**			
DRILLING CONTRACTOR/DRILLER **Roux Associates, Inc. / John Freijomil**		GEOGRAPHIC AREA **Within Excavated Area**		
DRILL BIT DIAMETER/TYPE **4.25-in. / Drive Sampler**	BOREHOLE DIAMETER **8-inches**	DRILLING EQUIPMENT/METHOD **DT 6620 / Geoprobe**	SAMPLING METHOD **Cuttings**	START-FINISH DATE **11/18/14-11/18/14**
CASING MAT./DIA. **PVC / 2-inch**	SCREEN: TYPE **Slotted** MAT. **PVC** TOTAL LENGTH **10.0**ft DIA. **2-inch** SLOT SIZE **10-Slot**			
ELEVATION OF: (Feet) GROUND SURFACE	TOP OF WELL CASING	TOP & BOTTOM SCREEN **/**	GRAVEL PACK SIZES **Morie #1**	



Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Grey GRAVEL, dry			Lithology from cuttings
		Brown, F-M SAND, with little silt, trace gravel, moist			
5		Brown, F-M SAND, with little silt, trace gravel, moist			Lithology from cuttings
10		Brown, F-M SAND, with little silt, trace gravel, wet			Lithology from cuttings
15					

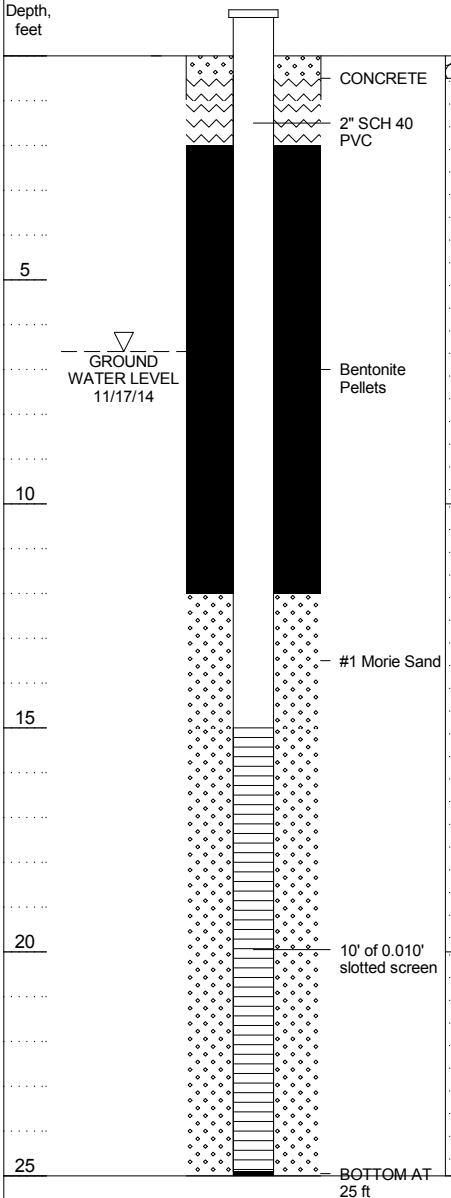
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WELL CONSTRUCTION LOG

WELL NO. **MW-206**	NORTHING **254385.89**	EASTING **1084152.11**		
PROJECT NO./NAME **2020.0001Y003 / Konica Minolta**		LOCATION **71 Charles Street** **Glen Cove, New York**		
APPROVED BY **DRAFT**	LOGGED BY **G. Lozefski**			
DRILLING CONTRACTOR/DRILLER **Roux Associates, Inc. / John Freijomil**		GEOGRAPHIC AREA **Within Excavated Area**		
DRILL BIT DIAMETER/TYPE **4.25-in. / Drive Sampler**	BOREHOLE DIAMETER **8-inches**	DRILLING EQUIPMENT/METHOD **DT 6620 / Geoprobe**	SAMPLING METHOD **Cuttings**	START-FINISH DATE **11/17/14-11/17/14**
CASING MAT./DIA. **PVC / 2-inch**	SCREEN: TYPE **Slotted** MAT. **PVC** TOTAL LENGTH **10.0**ft DIA. **2-inch** SLOT SIZE **10-Slot**			
ELEVATION OF: (Feet) GROUND SURFACE	TOP OF WELL CASING	TOP & BOTTOM SCREEN **/**	GRAVEL PACK SIZES **Morie #1**	



Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Grey GRAVEL, dry			3/8" Blue Stone back fill
		Brown, F-M SAND, with little silt, trace gravel, moist			Lithology from cuttings
5					Lithology from cuttings
10		Brown, F-M SAND, with little silt, trace gravel, moist			Lithology from cuttings
15					Lithology from cuttings
20		Brown, F-M SAND, with little silt, trace gravel, wet			Lithology from cuttings
25					

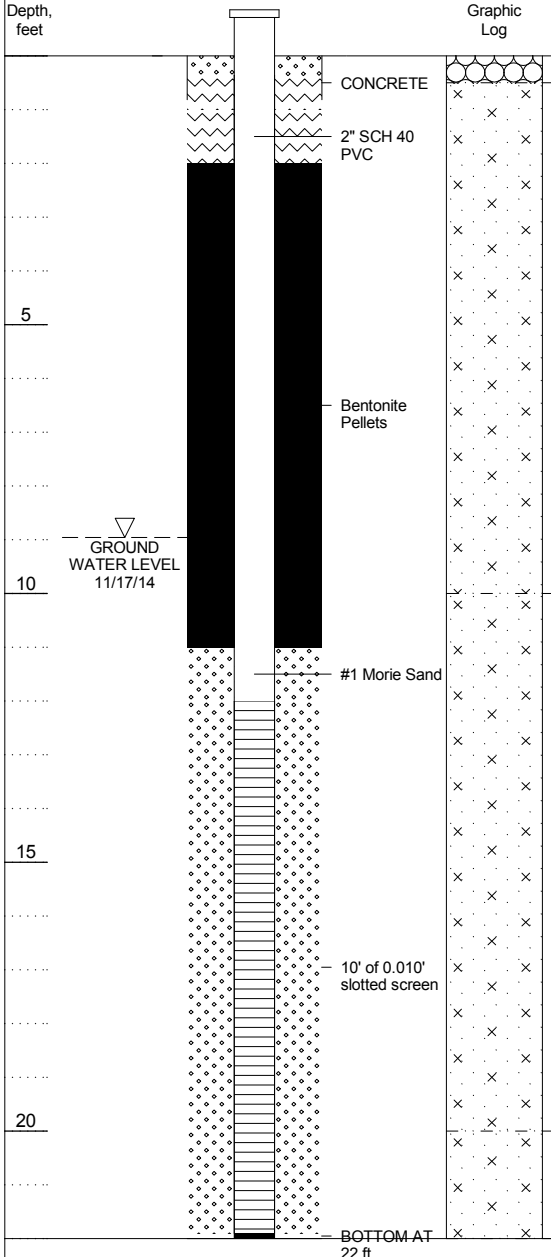
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WELL CONSTRUCTION LOG

WELL NO. **MW-207**	NORTHING **254353.52**	EASTING **1084138.41**			
PROJECT NO./NAME **2020.0001Y003 / Konica Minolta**		LOCATION **71 Charles Street** **Glen Cove, New York**			
APPROVED BY **DRAFT**	LOGGED BY **G. Lozefski**				
DRILLING CONTRACTOR/DRILLER **Roux Associates, Inc. / John Freijomil**		GEOGRAPHIC AREA **Within Excavated Area**			
DRILL BIT DIAMETER/TYPE **4.25-in. / Drive Sampler**	BOREHOLE DIAMETER **8-inches**	DRILLING EQUIPMENT/METHOD **DT 6620 / Geoprobe**	SAMPLING METHOD **Cuttings**	START-FINISH DATE **11/17/14-11/17/14**	
CASING MAT./DIA. **PVC / 2-inch**	SCREEN: TYPE **Slotted** MAT. **PVC**	TOTAL LENGTH **10.0**ft	DIA. **2-inch**	SLOT SIZE **10-Slot**	
ELEVATION OF: (Feet) GROUND SURFACE	TOP OF WELL CASING	TOP & BOTTOM SCREEN **/**	GRAVEL PACK SIZES **Morie #1**		



Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
0		Grey GRAVEL, dry			3/8" Blue Stone back fill
		Brown, F-M SAND, with little silt, trace gravel, moist			
					Lithology from cuttings
5					Lithology from cuttings
10		Brown, F-M SAND, with little silt, trace gravel, moist			Lithology from cuttings
15					Lithology from cuttings
20		Brown, F-M SAND, with little silt, trace gravel, wet			

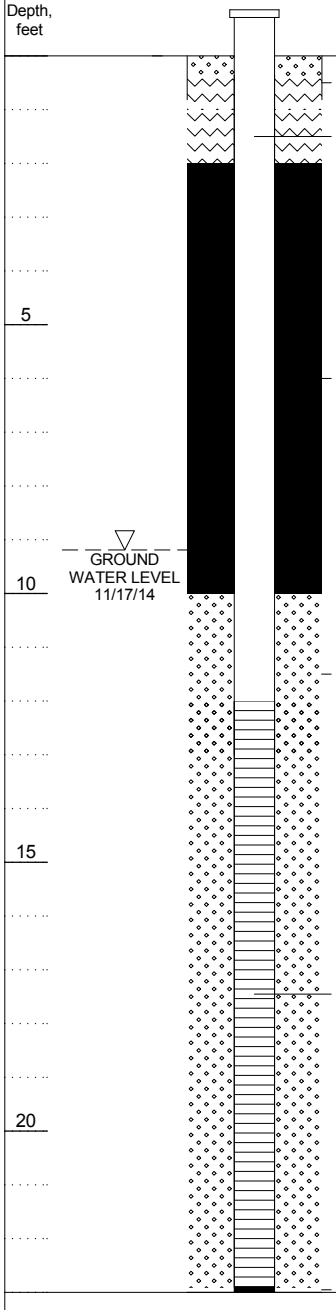
BORING/FEET 2020.0001Y003.GPJ ROUX.GDT 4/2/15

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WELL CONSTRUCTION LOG

WELL NO. **MW-208**	NORTHING **254337.96**	EASTING **1084163**			
PROJECT NO./NAME **2020.0001Y003 / Konica Minolta**		LOCATION **71 Charles Street** **Glen Cove, New York**			
APPROVED BY **DRAFT**	LOGGED BY **G. Lozefski**				
DRILLING CONTRACTOR/DRILLER **Roux Associates, Inc. / John Freijomil**		GEOGRAPHIC AREA **Within Excavated Area**			
DRILL BIT DIAMETER/TYPE **4.25-in. / Drive Sampler**	BOREHOLE DIAMETER **8-inches**	DRILLING EQUIPMENT/METHOD **DT 6620 / Geoprobe**	SAMPLING METHOD **Cuttings**	START-FINISH DATE **11/17/14-11/17/14**	
CASING MAT./DIA. **PVC / 2-inch**	SCREEN: TYPE **Slotted** MAT. **PVC**	TOTAL LENGTH **10.0**ft	DIA. **2-inch**	SLOT SIZE **10-Slot**	
ELEVATION OF: (Feet)	GROUND SURFACE	TOP OF WELL CASING	TOP & BOTTOM SCREEN **/**	GRAVEL PACK SIZES **Morie #1**	



Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
0		Grey GRAVEL, dry			3/8" Blue Stone back fill
		Brown, F-M SAND, with little silt, trace gravel, moist			
					Lithology from cuttings
5					Lithology from cuttings
10		Brown, F-M SAND, with little silt, trace gravel, moist			Lithology from cuttings
15					Lithology from cuttings
20		Brown, F-M SAND, with little silt, trace gravel, wet			

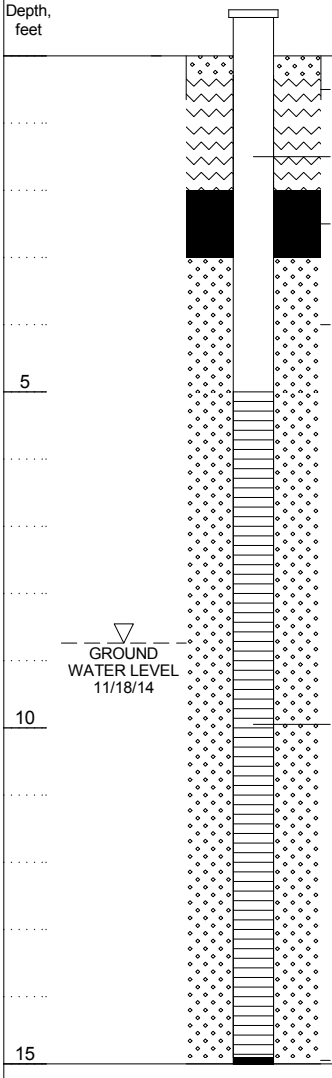
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WELL CONSTRUCTION LOG

WELL NO. **MW-209**	NORTHING **254332.05**	EASTING **1084099.52**		
PROJECT NO./NAME **2020.0001Y003 / Konica Minolta**		LOCATION **71 Charles Street** **Glen Cove, New York**		
APPROVED BY **DRAFT**	LOGGED BY **G. Lozefski**			
DRILLING CONTRACTOR/DRILLER **Roux Associates, Inc. / John Freijomil**		GEOGRAPHIC AREA **Within Excavated Area**		
DRILL BIT DIAMETER/TYPE **4.25-in. / Drive Sampler**	BOREHOLE DIAMETER **8-inches**	DRILLING EQUIPMENT/METHOD **DT 6620 / Geoprobe**	SAMPLING METHOD **Cuttings**	START-FINISH DATE **11/18/14-11/18/14**
CASING MAT./DIA. **PVC / 2-inch**	SCREEN: TYPE **Slotted** MAT. **PVC** TOTAL LENGTH **10.0**ft DIA. **2-inch** SLOT SIZE **10-Slot**			
ELEVATION OF: (Feet) GROUND SURFACE	TOP OF WELL CASING	TOP & BOTTOM SCREEN **/**	GRAVEL PACK SIZES **Morie #1**	



Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Grey GRAVEL, dry			3/8" Blue Stone back fill
		Brown, F-M SAND, with little silt, trace gravel, moist			
					Lithology from cuttings
5		Brown, F-M SAND, with little silt, trace gravel, moist			Lithology from cuttings
10		Brown, F-M SAND, with little silt, trace gravel, wet			Lithology from cuttings
15					

BORING/FEET 2020.0001Y003.GPJ ROUX.GDT 4/2/15

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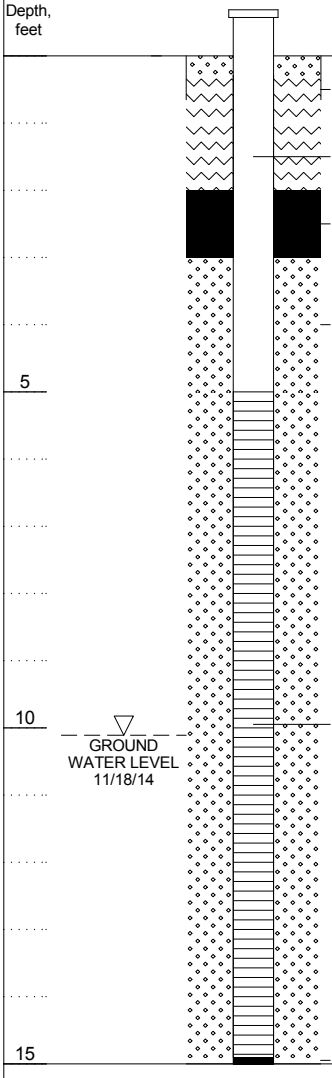
WELL CONSTRUCTION LOG

WELL NO.	NORTHING	EASTING
MW-210	**254330.5**	**1084056.26**

PROJECT NO./NAME	LOCATION
2020.0001Y003 / Konica Minolta	**71 Charles Street**
APPROVED BY: **DRAFT** / LOGGED BY: **G. Lozefski**	**Glen Cove, New York**
DRILLING CONTRACTOR/DRILLER: **Roux Associates, Inc. / John Freijomil**	GEOGRAPHIC AREA: **Within Excavated Area**

DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
4.25-in. / Drive Sampler	**8-inches**	**DT 6620 / Geoprobe**	**Cuttings**	**11/18/14-11/18/14**

CASING MAT./DIA.: **PVC / 2-inch**
SCREEN: TYPE **Slotted** MAT. **PVC** TOTAL LENGTH **10.0**ft DIA. **2-inch** SLOT SIZE **10-Slot**
ELEVATION OF: (Feet) GROUND SURFACE TOP OF WELL CASING TOP & BOTTOM SCREEN **/**
GRAVEL PACK SIZES: **Morie #1**



Depth, feet	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
	Grey GRAVEL, dry			3/8" Blue Stone back fill
	Brown, F-M SAND, with little silt, trace gravel, moist			
				Lithology from cuttings
5	Brown, F-M SAND, with little silt, trace gravel, moist			Lithology from cuttings
10	Brown, F-M SAND, with little silt, trace gravel, wet			Lithology from cuttings
15				

BORING/FEET 2020.0001Y003.GPJ ROUX.GDT 4/2/15

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WELL CONSTRUCTION LOG

WELL NO.	NORTHING	EASTING
MW-211	**254301.24**	**1084065.6**

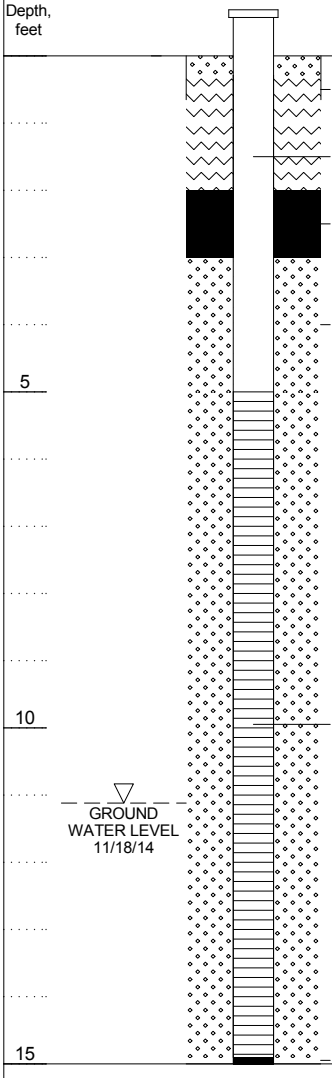
PROJECT NO./NAME	LOCATION
2020.0001Y003 / Konica Minolta	**71 Charles Street**
APPROVED BY: **DRAFT** / LOGGED BY: **G. Lozefski**	**Glen Cove, New York**
DRILLING CONTRACTOR/DRILLER: **Roux Associates, Inc. / John Freijomil**	GEOGRAPHIC AREA: **Within Excavated Area**

DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
4.25-in. / Drive Sampler	**8-inches**	**DT 6620 / Geoprobe**	**Cuttings**	**11/18/14-11/18/14**

CASING MAT./DIA.: **PVC / 2-inch**
SCREEN: TYPE **Slotted** MAT. **PVC** TOTAL LENGTH **10.0**ft DIA. **2-inch** SLOT SIZE **10-Slot**

ELEVATION OF: (Feet) GROUND SURFACE TOP OF WELL CASING **/** TOP & BOTTOM SCREEN

GRAVEL PACK SIZES: **Morie #1**



Depth, feet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		Grey GRAVEL, dry			3/8" Blue Stone back fill
		Brown, F-M SAND, with little silt, trace gravel, moist			
					Lithology from cuttings
5		Brown, F-M SAND, with little silt, trace gravel, moist			Lithology from cuttings
10		Brown, F-M SAND, with little silt, trace gravel, wet			Lithology from cuttings
15					

BORING/FEET 2020.0001Y003.GPJ ROUX.GDT 4/2/15

- PHD = post-hole digger
- HA = hand auger
- HSA = hollow stem auger
- SS = split spoon
- DA = drill ahead

Boring # – 03R MW# – 03R	Sheet 1 of 3
Project: Konica	
Job # 85247.001	Site: 71 Charles Street, Glen Cove, N.Y.
Logged By: RMB Proj. Eng:	Edited By:
Drilling Contractor: LAWES	
Drill Rig Type/Method: 4¼" hollow stem auger	
Drillers Name: Scott	
Borehole Diam./Drill Bit Type: 4¼" hollow stem auger	Total Depth: 34.5'
	Ref. Elev.: Sfc
Hammer Wt: 140 lbs	Drop:
Start Time: 08:50	Date: 11/10/2011
Completion Time: 14:45	Date: 11/10/2011
Backfill Time: NA	Date: NA

*see sample location map
Sketch Map of Site Area With Drilling Locations

	1st Water			
Boring Depth (ft.)	34.5			
Casing Depth (ft.)	33.5			
Water Depth (ft.)	25.5			
Time	~~1300~~			
Date	11/10/11			

PID/OVA	Sampler Type & Depth	Blow Counts / 6 in.	Advance (in.)	Recovered (in.)		Casing Type & Size	Annulus Filler	Depth Feet	
	PHD	NA	24	24		flush	manhole	1	silty sand (SM), dark brown, F-M sand, 25% silt, 5-10% gravel, no odor, dry
	PHD	NA	24	24		2 inch		2	
								3	
	HA	NA	24	24		PVC		4	
								5	
	HA	NA	24	24		casing	grout	6	sand (SW), tan, F-C sand, <5% F gravel, no odor, damp
								7	
	SS	8	24	18				8	
		11						9	
		15							
		21						10	silty clay (CL), grey/brown, 20% silt, 10% F-M sand, 5% F gravel, dry
	SS	5	24	18					
		8						11	
		11							sand (SP), tan-orange, F-M sand, 5% F-gravel, no odor, dry
		9						12	

Boring # - 03R MW# - 03R Sheet 2 of 3

Project: Konica

Job # 85247.001 Site: 71 Charles Street, Glen Cove, N.Y.

PID/OVA	Sampler Type	Blow Counts	Advance (in.)	Rcvd (in.)	Casing	Annulus	Depth (Sample Rec / Analysis / Feet)	
	SS	4	24	16			12	silty clay (CL), grey, no odor
		6						
		9					13	sand (SP), orange, F-C sand, 5% F-gravel, no odor
		11						
	SS	4	24	14			14	
		7						clayey silt (ML), brown, silt, 10-15% clay, 5-10% gravel
		9					15	
		10						
	SS	5	24	18			16	
		7						sandy silt (ML), brown, 15% clay, <5% F sand, orange bands, no odor, damp
		6					17	
		8						
	SS	4	24	18			18	S.A.A. (no orange bands)
		4						
		6					19	
		6						
	SS	3	24	20			20	S.A.A.
		4						
		4					21	
		5						
	SS	4	24	16			22	S.A.A.
		4						
		5					23	
		6						
	SS	3	24	14			24	S.A.A.
		4						
		3					25	
		4						
	SS	3	24	15			26	S.A.A. (saturated)
		4						
		4					27	
		3						
	SS	2	24	24			28	
		3						
		3					29	
		4						
	DA	NA	24	NA			30	
							31	
							32	

N-2

PID/OVA	Sampler Type	Blow Counts	Advance (in.)	Rcvd (in.)		Casing	Annulus	Depth: Sample Rec / Analysis / Feet	
	DA	NA	30	NA					S.A.A.

Boring # - 03R MW# - 03R Sheet 3 of 3

Project: Konica

Job # 85247.001 Site: 71 Charles Street, Glen Cove, N.Y.

- PHD = post-hole digger
- HA = hand auger
- HSA = hollow stem auger
- SS = split spoon
- DA = drill ahead

Boring # – 06 MW# – 06	Sheet 1 of 2
Project: Konica	
Job # 85247.001	Site: 71 Charles Street, Glen Cove, N.Y.
Logged By: RMB Proj. Eng:	Edited By: RJB
Drilling Contractor: LAWES	
Drill Rig Type/Method: 4¼" hollow stem auger	
Drillers Name: Scott	
Borehole Diam./Drill Bit Type: 4¼" hollow stem auger	Total Depth: 23.0' / Ref. Elev.: Sfc
Hammer Wt: 140 lbs Drop:	
Start Time: 15:00 Date: 11/10/2011	
Completion Time: 12:00 Date: 11/11/2011	
Backfill Time: NA Date: NA	

* see sample location map
Sketch Map of Site Area With Drilling Locations

	1st Water			
Boring Depth (ft.)	23.0'			
Casing Depth (ft.)	22.0'			
Water Depth (ft.)	10.0'			
Time				
Date	11/11/11			

PID/OVA	Sampler Type & Depth	Blow Counts / 6 in.	Advance (in.)	Recovered (in.)	Casing Type & Size	Annulus Filler	Sample Rec. Analyses	Depth Feet	
	PHD	NA	60	60		manhole / Bent. / Sand		1	silty sand (SM), brown, F-M sand, 10-20% silt, <5% F-M gravel, no odor, dry
					2" PVC			2	
					casing			3	S.A.A.
								4	
								5	
	SS	3	24	18					S.A.A.
		7						6	
		9							
		13						7	
	DA	NA	36	NA	2"			8	
					Screened				
					PVC			9	
								10	
	SS	6	24	18					sand (SP), tan, F-M sand, 5% F gravel, no odor, saturated
		9						11	
		11							
		13						12	

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Boring # -06 MW# -06 Sheet 2 of 2

Project: Konica

Job # 85247.001 Site: 71 Charles Street, Glen Cove, N.Y.

PID/OVA	Sampler Type	Blow Counts	Advance (in.)	Rcvd (in.)		Casing	Annulus	Depth Sample Rec / Analysis	Feet
	DA	NA	36	NA					12
									13
									14
									15
	SS	3	24	18					
		5							16
		6							
		11							17
	DA	NA	36	NA					
									18
									19
									20
	SS	3	24	18					
		3							21
		6							
		11							22
	DA	NA	12	NA					
									23
									24
									25
									6
									7
									8
									9
									0
									1
									2

rig behavior

silty clay (CL), brown/grey, 15-22'+o silt, 10% F gravel, 5% F-M sand, no odor, damp

SAA.

N-2

ATTACHMENT 2

Example of Well Sampling Purge Log

SITE NAME: **Project Number:**

Weather: _____ Date: _____

Well ID: _____ Intake depth: _____

DTW: _____ Vol Purged: _____

DTB: _____

Sampler: _____

Purge Start: _____ Purge End Time: _____

Purge Water Description: _____

Time	DTW (ft bls) (+/- 0.3 ft)	Flow Rate (ml/Min)	Temp (Degree C) (+/- 3%)	Conductivity (mS/cm) (+/- 3%)	DO (mg/L) (+/- 10%)	pH (+/- 0.1 SU)	ORP (mV) (+/- 10)	Turbidity (NTU) (+/- 10%)

Well ID: _____ **Date:** _____

DTW: _____ **Intake (Depth of Pump):** _____

DTB: _____ **Total Volume Purged:** _____

Purge Start: _____

Pump Settings: CPM: _____ **psi:** _____ **Discharge Rate:** _____

Time	**DTW** (ft bls) [0.3 ft*]	**FR** (ml/min) [100-500 ml/min]	**T** (^{o}C) [3%]	**Sp. Cond.** (mS/cm) [3%]	**DO** (mg/L) [10%]	**pH** (SU) [+/- 0.1 units]	**ORP** (mV) [+/- 10 mV]	**Turb** (NTU) [10%]	**Volume Purged** (gallons)

*Ideal drawdown from start to finish, not stabilization criteria

Purge Water Description: _____

_____

_____

Purge End: _____

Final Pump Settings: CPM: _____ **psi:** _____ **Discharge Rate:** _____

Sample Time: _____ **Sample Time on Bottles:** _____

ATTACHMENT 3

Sampling, Analysis, and Assessment of Per-And Polyfluoroalkyl Substances (PFAS) Under NYSDEC's Part 375 Remedial Programs January 2021

NEW YORK STATE OF OPPORTUNITY. Department of Environmental Conservation

SAMPLING, ANALYSIS, AND ASSESSMENT OF PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS)

Under NYSDEC's Part 375 Remedial Programs

January 2021



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ERRATA SHEET for

SAMPLING, ANALYSIS, AND ASSESSMENT OF PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS) Under NYSDEC's Part 375 Remedial Programs Issued January 17, 2020

Citation and Page Number	Current Text	Corrected Text	Date
Title of Appendix I, page 32	Appendix H	Appendix I	2/25/2020
Document Cover, page 1	Guidelines for Sampling and Analysis of PFAS	Sampling, Analysis, and Assessment of Per- and Polyfluoroalkyl Substances (PFAS) Under NYSDEC's Part 375 Remedial Programs	9/15/2020
Routine Analysis, page 9	"However, laboratories analyzing environmental samples…PFOA and PFOS in drinking water by EPA Method 537, 537.1 or ISO 25101."	"However, laboratories analyzing environmental samples…PFOA and PFOS in drinking water by EPA Method 537, 537.1, ISO 25101, or Method 533."	9/15/2020
Additional Analysis, page 9, new paragraph regarding soil parameters	None	"In cases where site-specific cleanup objectives for PFOA and PFOS are to be assessed, soil parameters, such as Total Organic Carbon (EPA Method 9060), soil pH (EPA Method 9045), clay content (percent), and cation exchange capacity (EPA Method 9081), should be included in the analysis to help evaluate factors affecting the leachability of PFAS in site soils."	9/15/2020
Data Assessment and Application to Site Cleanup Page 10	Until such time as Ambient Water Quality Standards (AWQS) and Soil Cleanup Objectives (SCOs) for PFAS are published, the extent of contaminated media potentially subject to remediation should be determined on a case-by-case basis using the procedures discussed below and the criteria in DER-10. Target levels for cleanup of PFAS in other media, including biota and sediment, have not yet been established by the DEC.	Until such time as Ambient Water Quality Standards (AWQS) and Soil Cleanup Objectives (SCOs) for PFOA and PFOS are published, the extent of contaminated media potentially subject to remediation should be determined on a case-by-case basis using the procedures discussed below and the criteria in DER-10. Preliminary target levels for cleanup of PFOA and PFOS in other media, including biota and sediment, have not yet been established by the DEC.	9/15/2020

Citation and Page Number	Current Text	Corrected Text	Date
Water Sample Results Page 10	PFAS should be further assessed and considered as a potential contaminant of concern in groundwater or surface water (…) If PFAS are identified as a contaminant of concern for a site, they should be assessed as part of the remedy selection process in accordance with Part 375 and DER-10.	PFOA and PFOS should be further assessed and considered as potential contaminants of concern in groundwater or surface water (…) If PFOA and/or PFOS are identified as contaminants of concern for a site, they should be assessed as part of the remedy selection process in accordance with Part 375 and DER-10.	9/15/2020
Soil Sample Results, page 10	"The extent of soil contamination for purposes of delineation and remedy selection should be determined by having certain soil samples tested by Synthetic Precipitation Leaching Procedure (SPLP) and the leachate analyzed for PFAS. Soil exhibiting SPLP results above 70 ppt for either PFOA or PFOS (individually or combined) are to be evaluated during the cleanup phase."	"Soil cleanup objectives for PFOA and PFOS will be proposed in an upcoming revision to 6 NYCRR Part 375-6. Until SCOs are in effect, the following are to be used as guidance values. " [Interim SCO Table] "PFOA and PFOS results for soil are to be compared against the guidance values listed above. These guidance values are to be used in determining whether PFOA and PFOS are contaminants of concern for the site and for determining remedial action objectives and cleanup requirements. Site-specific remedial objectives for protection of groundwater can also be presented for evaluation by DEC. Development of site-specific remedial objectives for protection of groundwater will require analysis of additional soil parameters relating to leachability. These additional analyses can include any or all the parameters listed above (soil pH, cation exchange capacity, etc.) and/or use of SPLP. As the understanding of PFAS transport improves, DEC welcomes proposals for site-specific remedial objectives for protection of groundwater. DEC will expect that those may be dependent on additional factors including soil pH, aqueous pH, % organic carbon, % Sand/Silt/Clay, soil cations: K, Ca, Mg, Na, Fe, Al, cation exchange capacity, and anion exchange capacity. Site-specific remedial objectives should also consider the dilution attenuation factor (DAF). The NJDEP publication on DAF can be used as a reference: https://www.nj.gov/dep/srp/guidance/rs/daf.pdf. "	9/15/2020

Citation and Page Number	Current Text	Corrected Text	Date
Testing for Imported Soil Page 11	Soil imported to a site for use in a soil cap, soil cover, or as backfill is to be tested for PFAS in general conformance with DER-10, Section 5.4(e) for the PFAS Analyte List (Appendix F) using the analytical procedures discussed below and the criteria in DER-10 associated with SVOCs. If PFOA or PFOS is detected in any sample at or above 1 µg/kg, then soil should be tested by SPLP and the leachate analyzed for PFAS. If the SPLP results exceed 10 ppt for either PFOA or PFOS (individually) then the source of backfill should be rejected, unless a site-specific exemption is provided by DER. SPLP leachate criteria is based on the Maximum Contaminant Levels proposed for drinking water by New York State's Department of Health, this value may be updated based on future Federal or State promulgated regulatory standards. Remedial parties have the option of analyzing samples concurrently for both PFAS in soil and in the SPLP leachate to minimize project delays. Category B deliverables should be submitted for backfill samples, though a DUSR is not required.	Testing for PFAS should be included any time a full TAL/TCL analyte list is required. Results for PFOA and PFOS should be compared to the applicable guidance values. If PFOA or PFOS is detected in any sample at or above the guidance values then the source of backfill should be rejected, unless a site-specific exemption is provided by DER based on SPLP testing, for example. If the concentrations of PFOA and PFOS in leachate are at or above 10 ppt (the Maximum Contaminant Levels established for drinking water by the New York State Department of Health), then the soil is not acceptable. PFOA, PFOS and 1,4-dioxane are all considered semi-volatile compounds, so composite samples are appropriate for these compounds when sampling in accordance with DER-10, Table 5.4(e)10. Category B deliverables should be submitted for backfill samples, though a DUSR is not required.	9/15/2020

Citation and Page Number	Current Text	Corrected Text	Date
Footnotes	None	[1] TOP Assay analysis of highly contaminated samples, such as those from an AFFF (aqueous film-forming foam) site, can result in incomplete oxidation of the samples and an underestimation of the total perfluoroalkyl substances. [2] The movement of PFAS in the environment is being aggressively researched at this time; that research will eventually result in more accurate models for the behaviors of these chemicals. In the meantime, DEC has calculated the soil cleanup objective for the protection of groundwater using the same procedure used for all other chemicals, as described in Section 7.7 of the Technical Support Document (http://www.dec.ny.gov/docs/remediation_hudson_pdf/techsuppdoc.pdf).	9/15/2020
Additional Analysis, page 9	In cases… soil parameters, such as Total Organic Carbon (EPA Method 9060), soil…	In cases… soil parameters, such as Total Organic Carbon (Lloyd Kahn), soil…	1/8/2021
Appendix A, General Guidelines, fourth bullet	List the ELAP-approved lab(s) to be used for analysis of samples	List the ELAP- certified lab(s) to be used for analysis of samples	1/8/2021
Appendix E, Laboratory Analysis and Containers	Drinking water samples collected using this protocol are intended to be analyzed for PFAS by ISO Method 25101.	Drinking water samples collected using this protocol are intended to be analyzed for PFAS by EPA Method 537, 537.1, 533, or ISO Method 25101	1/8/2021

Sampling, Analysis, and Assessment of Per- and Polyfluoroalkyl Substances (PFAS) Under NYSDEC's Part 375 Remedial Programs

Objective

New York State Department of Environmental Conservation's Division of Environmental Remediation (DER) performs or oversees sampling of environmental media and subsequent analysis of PFAS as part of remedial programs implemented under 6 NYCRR Part 375. To ensure consistency in sampling, analysis, reporting, and assessment of PFAS, DER has developed this document which summarizes currently accepted procedures and updates previous DER technical guidance pertaining to PFAS.

Applicability

All work plans submitted to DEC pursuant to one of the remedial programs under Part 375 shall include PFAS sampling and analysis procedures that conform to the guidelines provided herein.

As part of a site investigation or remedial action compliance program, whenever samples of potentially affected media are collected and analyzed for the standard Target Analyte List/Target Compound List (TAL/TCL), PFAS analysis should also be performed. Potentially affected media can include soil, groundwater, surface water, and sediment. Based upon the potential for biota to be affected, biota sampling and analysis for PFAS may also be warranted as determined pursuant to a Fish and Wildlife Impact Analysis. Soil vapor sampling for PFAS is not required.

Field Sampling Procedures

DER-10 specifies technical guidance applicable to DER's remedial programs. Given the prevalence and use of PFAS, DER has developed "best management practices" specific to sampling for PFAS. As specified in DER-10 Chapter 2, quality assurance procedures are to be submitted with investigation work plans. Typically, these procedures are incorporated into a work plan, or submitted as a stand-alone document (e.g., a Quality Assurance Project Plan). Quality assurance guidelines for PFAS are listed in Appendix A - Quality Assurance Project Plan (QAPP) Guidelines for PFAS.

Field sampling for PFAS performed under DER remedial programs should follow the appropriate procedures outlined for soils, sediments or other solids (Appendix B), non-potable groundwater (Appendix C), surface water (Appendix D), public or private water supply wells (Appendix E), and fish tissue (Appendix F).

QA/QC samples (e.g. duplicates, MS/MSD) should be collected as specified in DER-10, Section 2.3(c). For sampling equipment coming in contact with aqueous samples only, rinsate or equipment blanks should be collected. Equipment blanks should be collected at a minimum frequency of one per day per site or one per twenty samples, whichever is more frequent.

Analysis and Reporting

As of October 2020, the United States Environmental Protection Agency (EPA) does not have a validated method for analysis of PFAS for media commonly analyzed under DER remedial programs (non-potable waters, solids). DER has developed the following guidelines to ensure consistency in analysis and reporting of PFAS.

The investigation work plan should describe analysis and reporting procedures, including laboratory analytical procedures for the methods discussed below. As specified in DER-10 Section 2.2, laboratories should provide a full Category B deliverable. In addition, a Data Usability Summary Report (DUSR) should be prepared by an independent, third party data validator. Electronic data submissions should meet the requirements provided at: https://www.dec.ny.gov/chemical/62440.html.

DER has developed a *PFAS Analyte List* (Appendix F) for remedial programs to understand the nature of contamination at sites. It is expected that reported results for PFAS will include, at a minimum, all the compounds listed. If lab and/or matrix specific issues are encountered for any analytes, the DER project manager, in consultation with the DER chemist, will make case-by-case decisions as to whether certain analytes may be temporarily or permanently discontinued from analysis at each site. As with other contaminants that are analyzed for at a site, the *PFAS Analyte List* may be refined for future sampling events based on investigative findings.

Routine Analysis

Currently, New York State Department of Health's Environmental Laboratory Approval Program (ELAP) does not offer certification for PFAS in matrices other than finished drinking water. However, laboratories analyzing environmental samples for PFAS (e.g., soil, sediments, and groundwater) under DER's Part 375 remedial programs need to hold ELAP certification for PFOA and PFOS in drinking water by EPA Method 537, 537.1, ISO 25101, or Method 533. Laboratories should adhere to the guidelines and criteria set forth in the DER's laboratory guidelines for PFAS in non-potable water and solids (Appendix H - Laboratory Guidelines for Analysis of PFAS in Non-Potable Water and Solids). Data review guidelines were developed by DER to ensure data comparability and usability (Appendix H - Data Review Guidelines for Analysis of PFAS in Non-Potable Water and Solids).

LC-MS/MS analysis for PFAS using methodologies based on EPA Method 537.1 is the procedure to use for environmental samples. Isotope dilution techniques should be utilized for the analysis of PFAS in all media. Reporting limits for PFOA and PFOS in aqueous samples should not exceed 2 ng/L. Reporting limits for PFOA and PFOS in solid samples should not exceed 0.5 µg/kg. Reporting limits for all other PFAS in aqueous and solid media should be as close to these limits as possible. If laboratories indicate that they are not able to achieve these reporting limits for the entire *PFAS Analyte List*, site-specific decisions regarding acceptance of elevated reporting limits for specific PFAS can be made by the DER project manager in consultation with the DER chemist.

Additional Analysis

Additional laboratory methods for analysis of PFAS may be warranted at a site, such as the Synthetic Precipitation Leaching Procedure (SPLP) and Total Oxidizable Precursor Assay (TOP Assay).

In cases where site-specific cleanup objectives for PFOA and PFOS are to be assessed, soil parameters, such as Total Organic Carbon (Lloyd Kahn), soil pH (EPA Method 9045), clay content (percent), and cation exchange capacity (EPA Method 9081), should be included in the analysis to help evaluate factors affecting the leachability of PFAS in site soils.

SPLP is a technique used to determine the mobility of chemicals in liquids, soils and wastes, and may be useful in determining the need for addressing PFAS-containing material as part of the remedy. SPLP by EPA Method 1312 should be used unless otherwise specified by the DER project manager in consultation with the DER chemist.

Impacted materials can be made up of PFAS that are not analyzable by routine analytical methodology. A TOP Assay can be utilized to conceptualize the amount and type of oxidizable PFAS which could be liberated in the environment, which approximates the maximum concentration of perfluoroalkyl substances that could be generated

if all polyfluoroalkyl substances were oxidized. For example, some polyfluoroalkyl substances may degrade or transform to form perfluoroalkyl substances (such as PFOA or PFOS), resulting in an increase in perfluoroalkyl substance concentrations as contaminated groundwater moves away from a source. The TOP Assay converts, through oxidation, polyfluoroalkyl substances (precursors) into perfluoroalkyl substances that can be detected by routine analytical methodology.[1]

Commercial laboratories have adopted methods which allow for the quantification of targeted PFAS in air and biota. The EPA's Office of Research and Development (ORD) is currently developing methods which allow for air emissions characterization of PFAS, including both targeted and non-targeted analysis of PFAS. Consult with the DER project manager and the DER chemist for assistance on analyzing biota/tissue and air samples.

Data Assessment and Application to Site Cleanup

Until such time as Ambient Water Quality Standards (AWQS) and Soil Cleanup Objectives (SCOs) for PFOA and PFOS are published, the extent of contaminated media potentially subject to remediation should be determined on a case-by-case basis using the procedures discussed below and the criteria in DER-10. Preliminary target levels for cleanup of PFOA and PFOS in other media, including biota and sediment, have not yet been established by the DEC.

Water Sample Results

PFOA and PFOS should be further assessed and considered as potential contaminants of concern in groundwater or surface water if PFOA or PFOS is detected in any water sample at or above 10 ng/L (ppt) and is determined to be attributable to the site, either by a comparison of upgradient and downgradient levels, or the presence of soil source areas, as defined below. In addition, further assessment of water may be warranted if either of the following screening levels are met:

a. any other individual PFAS (not PFOA or PFOS) is detected in water at or above 100 ng/L; or
b. total concentration of PFAS (including PFOA and PFOS) is detected in water at or above 500 ng/L

If PFOA and/or PFOS are identified as contaminants of concern for a site, they should be assessed as part of the remedy selection process in accordance with Part 375 and DER-10.

Soil Sample Results

Soil cleanup objectives for PFOA and PFOS will be proposed in an upcoming revision to 6 NYCRR Part 375-6. Until SCOs are in effect, the following are to be used as guidance values.

Guidance Values for Anticipated Site Use	PFOA (ppb)	PFOS (ppb)
Unrestricted	0.66	0.88
Residential	6.6	8.8
Restricted Residential	33	44
Commercial	500	440
Industrial	600	440
Protection of Groundwater[2]	1.1	3.7

[1] TOP Assay analysis of highly contaminated samples, such as those from an AFFF (aqueous film-forming foam) site, can result in incomplete oxidation of the samples and an underestimation of the total perfluoroalkyl substances.
[2] The movement of PFAS in the environment is being aggressively researched at this time; that research will eventually result in more accurate models for the behaviors of these chemicals. In the meantime, DEC has calculated the guidance value for the protection of groundwater using the same procedure used for all other chemicals, as described in Section 7.7 of the Technical Support Document (http://www.dec.ny.gov/docs/remediation_hudson_pdf/techsuppdoc.pdf).

PFOA and PFOS results for soil are to be compared against the guidance values listed above. These guidance values are to be used in determining whether PFOA and PFOS are contaminants of concern for the site and for determining remedial action objectives and cleanup requirements. Site-specific remedial objectives for protection of groundwater can also be presented for evaluation by DEC. Development of site-specific remedial objectives for protection of groundwater will require analysis of additional soil parameters relating to leachability. These additional analyses can include any or all the parameters listed above (soil pH, cation exchange capacity, etc.) and/or use of SPLP.

As the understanding of PFAS transport improves, DEC welcomes proposals for site-specific remedial objectives for protection of groundwater. DEC will expect that those may be dependent on additional factors including soil pH, aqueous pH, % organic carbon, % Sand/Silt/Clay, soil cations: K, Ca, Mg, Na, Fe, Al, cation exchange capacity, and anion exchange capacity. Site-specific remedial objectives should also consider the dilution attenuation factor (DAF). The NJDEP publication on DAF can be used as a reference: https://www.nj.gov/dep/srp/guidance/rs/daf.pdf.

Testing for Imported Soil

Testing for PFAS should be included any time a full TAL/TCL analyte list is required. Results for PFOA and PFOS should be compared to the applicable guidance values. If PFOA or PFOS is detected in any sample at or above the guidance values then the source of backfill should be rejected, unless a site-specific exemption is provided by DER based on SPLP testing, for example. If the concentrations of PFOA and PFOS in leachate are at or above 10 ppt (the Maximum Contaminant Levels established for drinking water by the New York State Department of Health), then the soil is not acceptable.

PFOA, PFOS and 1,4-dioxane are all considered semi-volatile compounds, so composite samples are appropriate for these compounds when sampling in accordance with DER-10, Table 5.4(e)10. Category B deliverables should be submitted for backfill samples, though a DUSR is not required.

Appendix A - Quality Assurance Project Plan (QAPP) Guidelines for PFAS

The following guidelines (general and PFAS-specific) can be used to assist with the development of a QAPP for projects within DER involving sampling and analysis of PFAS.

General Guidelines in Accordance with DER-10

- Document/work plan section title – Quality Assurance Project Plan
- Summarize project scope, goals, and objectives
- Provide project organization including names and resumes of the project manager, Quality Assurance Officer (QAO), field staff, and Data Validator
    - The QAO should not have another position on the project, such as project or task manager, that involves project productivity or profitability as a job performance criterion
- List the ELAP certified lab(s) to be used for analysis of samples
- Include a site map showing sample locations
- Provide detailed sampling procedures for each matrix
- Include Data Quality Usability Objectives
- List equipment decontamination procedures
- Include an "Analytical Methods/Quality Assurance Summary Table" specifying:
    - Matrix type
    - Number or frequency of samples to be collected per matrix
    - Number of field and trip blanks per matrix
    - Analytical parameters to be measured per matrix
    - Analytical methods to be used per matrix with minimum reporting limits
    - Number and type of matrix spike and matrix spike duplicate samples to be collected
    - Number and type of duplicate samples to be collected
    - Sample preservation to be used per analytical method and sample matrix
    - Sample container volume and type to be used per analytical method and sample matrix
    - Sample holding time to be used per analytical method and sample matrix
- Specify Category B laboratory data deliverables and preparation of a DUSR

Specific Guidelines for PFAS

- Include in the text that sampling for PFAS will take place
- Include in the text that PFAS will be analyzed by LC-MS/MS for PFAS using methodologies based on EPA Method 537.1
- Include the list of PFAS compounds to be analyzed (*PFAS Analyte List*)
- Include the laboratory SOP for PFAS analysis
- List the minimum method-achievable Reporting Limits for PFAS
    - Reporting Limits should be less than or equal to:
        - Aqueous – 2 ng/L (ppt)
        - Solids – 0.5 µg/kg (ppb)
- Include the laboratory Method Detection Limits for the PFAS compounds to be analyzed
- Laboratory should have ELAP certification for PFOA and PFOS in drinking water by EPA Method 537, 537.1, EPA Method 533, or ISO 25101
- Include detailed sampling procedures
    - Precautions to be taken
    - Pump and equipment types
    - Decontamination procedures
    - Approved materials only to be used
- Specify that regular ice only will be used for sample shipment
- Specify that equipment blanks should be collected at a minimum frequency of 1 per day per site for each matrix

Appendix B - Sampling Protocols for PFAS in Soils, Sediments and Solids

General

The objective of this protocol is to give general guidelines for the collection of soil, sediment and other solid samples for PFAS analysis. The sampling procedure used should be consistent with Sampling Guidelines and Protocols – Technological Background and Quality Control/Quality Assurance for NYS DEC Spill Response Program – March 1991 (http://www.dec.ny.gov/docs/remediation_hudson_pdf/sgpsect5.pdf), with the following limitations.

Laboratory Analysis and Containers

Samples collected using this protocol are intended to be analyzed for PFAS using methodologies based on EPA Method 537.1.

The preferred material for containers is high density polyethylene (HDPE). Pre-cleaned sample containers, coolers, sample labels, and a chain of custody form will be provided by the laboratory.

Equipment

Acceptable materials for sampling include stainless steel, HDPE, PVC, silicone, acetate, and polypropylene. Additional materials may be acceptable if pre-approved by New York State Department of Environmental Conservation's Division of Environmental Remediation.

No sampling equipment components or sample containers should come in to contact with aluminum foil, low density polyethylene, glass, or polytetrafluoroethylene (PTFE, Teflon™) materials including sample bottle cap liners with a PTFE layer.

A list of acceptable equipment is provided below, but other equipment may be considered appropriate based on sampling conditions.

- stainless steel spoon
- stainless steel bowl
- steel hand auger or shovel without any coatings

Equipment Decontamination

Standard two step decontamination using detergent (Alconox is acceptable) and clean, PFAS-free water will be performed for sampling equipment. All sources of water used for equipment decontamination should be verified in advance to be PFAS-free through laboratory analysis or certification.

Sampling Techniques

Sampling is often conducted in areas where a vegetative turf has been established. In these cases, a pre-cleaned trowel or shovel should be used to carefully remove the turf so that it may be replaced at the conclusion of sampling. Surface soil samples (e.g. 0 to 6 inches below surface) should then be collected using a pre-cleaned, stainless steel spoon. Shallow subsurface soil samples (e.g. 6 to ~36 inches below surface) may be collected by digging a hole using a pre-cleaned hand auger or shovel. When the desired subsurface depth is reached, a pre-cleaned hand auger or spoon shall be used to obtain the sample.

When the sample is obtained, it should be deposited into a stainless steel bowl for mixing prior to filling the sample containers. The soil should be placed directly into the bowl and mixed thoroughly by rolling the material into the middle until the material is homogenized. At this point the material within the bowl can be placed into the laboratory provided container.

Sample Identification and Logging

A label shall be attached to each sample container with a unique identification. Each sample shall be included on the chain of custody (COC).

Quality Assurance/Quality Control

- Immediately place samples in a cooler maintained at 4 ± 2º Celsius using ice
- Collect one field duplicate for every sample batch, minimum 1 duplicate per 20 samples. The duplicate shall consist of an additional sample at a given location
- Collect one matrix spike / matrix spike duplicate (MS/MSD) for every sample batch, minimum 1 MS/MSD per 20 samples. The MS/MSD shall consist of an additional two samples at a given location and identified on the COC
- Request appropriate data deliverable (Category B) and an electronic data deliverable

Documentation

A soil log or sample log shall document the location of the sample/borehole, depth of the sample, sampling equipment, duplicate sample, visual description of the material, and any other observations or notes determined to be appropriate. Additionally, care should be performed to limit contact with PFAS containing materials (e.g. waterproof field books, food packaging) during the sampling process.

Personal Protection Equipment (PPE)

For most sampling Level D PPE is anticipated to be appropriate. The sampler should wear nitrile gloves while conducting field work and handling sample containers.

Field staff shall consider the clothing to be worn during sampling activities. Clothing that contains PTFE material (including GORE-TEX®) or that have been waterproofed with PFAS materials should be avoided. All clothing worn by sampling personnel should have been laundered multiple times.

Appropriate rain gear (PVC, polyurethane, or rubber rain gear are acceptable), bug spray, and sunscreen should be used that does not contain PFAS. Well washed cotton coveralls may be used as an alternative to bug spray and/or sunscreen.

PPE that contains PFAS is acceptable when site conditions warrant additional protection for the samplers and no other materials can be used to be protective. Documentation of such use should be provided in the field notes.

Appendix C - Sampling Protocols for PFAS in Monitoring Wells

General

The objective of this protocol is to give general guidelines for the collection of groundwater samples for PFAS analysis. The sampling procedure used should be consistent with Sampling Guidelines and Protocols – Technological Background and Quality Control/Quality Assurance for NYS DEC Spill Response Program – March 1991 (http://www.dec.ny.gov/docs/remediation_hudson_pdf/sgpsect5.pdf), with the following limitations.

Laboratory Analysis and Container

Samples collected using this protocol are intended to be analyzed for PFAS using methodologies based on EPA Method 537.1.

The preferred material for containers is high density polyethylene (HDPE). Pre-cleaned sample containers, coolers, sample labels, and a chain of custody form will be provided by the laboratory.

Equipment

Acceptable materials for sampling include: stainless steel, HDPE, PVC, silicone, acetate, and polypropylene. Additional materials may be acceptable if pre-approved by New York State Department of Environmental Conservation's Division of Environmental Remediation.

No sampling equipment components or sample containers should come in contact with aluminum foil, low density polyethylene, glass, or polytetrafluoroethylene (PTFE, Teflon™) materials including plumbers tape and sample bottle cap liners with a PTFE layer.

A list of acceptable equipment is provided below, but other equipment may be considered appropriate based on sampling conditions.

- stainless steel inertia pump with HDPE tubing
- peristaltic pump equipped with HDPE tubing and silicone tubing
- stainless steel bailer with stainless steel ball
- bladder pump (identified as PFAS-free) with HDPE tubing

Equipment Decontamination

Standard two step decontamination using detergent (Alconox is acceptable) and clean, PFAS-free water will be performed for sampling equipment. All sources of water used for equipment decontamination should be verified in advance to be PFAS-free through laboratory analysis or certification.

Sampling Techniques

Monitoring wells should be purged in accordance with the sampling procedure (standard/volume purge or low flow purge) identified in the site work plan, which will determine the appropriate time to collect the sample. If sampling using standard purge techniques, additional purging may be needed to reduce turbidity levels, so samples contain a limited amount of sediment within the sample containers. Sample containers that contain sediment may cause issues at the laboratory, which may result in elevated reporting limits and other issues during the sample preparation that can compromise data usability. Sampling personnel should don new nitrile gloves prior to sample collection due to the potential to contact PFAS containing items (not related to the sampling equipment) during the purging activities.

Sample Identification and Logging

A label shall be attached to each sample container with a unique identification. Each sample shall be included on the chain of custody (COC).

Quality Assurance/Quality Control

- Immediately place samples in a cooler maintained at 4 ± 2º Celsius using ice
- Collect one field duplicate for every sample batch, minimum 1 duplicate per 20 samples. The duplicate shall consist of an additional sample at a given location
- Collect one matrix spike / matrix spike duplicate (MS/MSD) for every sample batch, minimum 1 MS/MSD per 20 samples. The MS/MSD shall consist of an additional two samples at a given location and identified on the COC
- Collect one equipment blank per day per site and minimum 1 equipment blank per 20 samples. The equipment blank shall test the new and decontaminated sampling equipment utilized to obtain a sample for residual PFAS contamination. This sample is obtained by using laboratory provided PFAS-free water and passing the water over or through the sampling device and into laboratory provided sample containers
- Additional equipment blank samples may be collected to assess other equipment that is utilized at the monitoring well
- Request appropriate data deliverable (Category B) and an electronic data deliverable

Documentation

A purge log shall document the location of the sample, sampling equipment, groundwater parameters, duplicate sample, visual description of the material, and any other observations or notes determined to be appropriate. Additionally, care should be performed to limit contact with PFAS containing materials (e.g. waterproof field books, food packaging) during the sampling process.

Personal Protection Equipment (PPE)

For most sampling Level D PPE is anticipated to be appropriate. The sampler should wear nitrile gloves while conducting field work and handling sample containers.

Field staff shall consider the clothing to be worn during sampling activities. Clothing that contains PTFE material (including GORE-TEX®) or that have been waterproofed with PFAS materials should be avoided. All clothing worn by sampling personnel should have been laundered multiple times.

Appropriate rain gear (PVC, polyurethane, or rubber rain gear are acceptable), bug spray, and sunscreen should be used that does not contain PFAS. Well washed cotton coveralls may be used as an alternative to bug spray and/or sunscreen.

PPE that contains PFAS is acceptable when site conditions warrant additional protection for the samplers and no other materials can be used to be protective. Documentation of such use should be provided in the field notes.

Appendix D - Sampling Protocols for PFAS in Surface Water

General

The objective of this protocol is to give general guidelines for the collection of surface water samples for PFAS analysis. The sampling procedure used should be consistent with Sampling Guidelines and Protocols – Technological Background and Quality Control/Quality Assurance for NYS DEC Spill Response Program – March 1991 (http://www.dec.ny.gov/docs/remediation_hudson_pdf/sgpsect5.pdf), with the following limitations.

Laboratory Analysis and Container

Samples collected using this protocol are intended to be analyzed for PFAS using methodologies based on EPA Method 537.1.

The preferred material for containers is high density polyethylene (HDPE). Pre-cleaned sample containers, coolers, sample labels, and a chain of custody form will be provided by the laboratory.

Equipment

Acceptable materials for sampling include: stainless steel, HDPE, PVC, silicone, acetate, and polypropylene. Additional materials may be acceptable if pre-approved by New York State Department of Environmental Conservation's Division of Environmental Remediation.

No sampling equipment components or sample containers should come in contact with aluminum foil, low density polyethylene, glass, or polytetrafluoroethylene (PTFE, Teflon™) materials including sample bottle cap liners with a PTFE layer.

A list of acceptable equipment is provided below, but other equipment may be considered appropriate based on sampling conditions.

- stainless steel cup

Equipment Decontamination

Standard two step decontamination using detergent (Alconox is acceptable) and clean, PFAS-free water will be performed for sampling equipment. All sources of water used for equipment decontamination should be verified in advance to be PFAS-free through laboratory analysis or certification.

Sampling Techniques

Where conditions permit, (e.g. creek or pond) sampling devices (e.g. stainless steel cup) should be rinsed with site medium to be sampled prior to collection of the sample. At this point the sample can be collected and poured into the sample container.

If site conditions permit, samples can be collected directly into the laboratory container.

Sample Identification and Logging

A label shall be attached to each sample container with a unique identification. Each sample shall be included on the chain of custody (COC).

Quality Assurance/Quality Control

- Immediately place samples in a cooler maintained at 4 ± 2º Celsius using ice
- Collect one field duplicate for every sample batch, minimum 1 duplicate per 20 samples. The duplicate shall consist of an additional sample at a given location
- Collect one matrix spike / matrix spike duplicate (MS/MSD) for every sample batch, minimum 1 MS/MSD per 20 samples. The MS/MSD shall consist of an additional two samples at a given location and identified on the COC
- Collect one equipment blank per day per site and minimum 1 equipment blank per 20 samples. The equipment blank shall test the new and decontaminated sampling equipment utilized to obtain a sample for residual PFAS contamination. This sample is obtained by using laboratory provided PFAS-free water and passing the water over or through the sampling device and into laboratory provided sample containers
- Request appropriate data deliverable (Category B) and an electronic data deliverable

Documentation

A sample log shall document the location of the sample, sampling equipment, duplicate sample, visual description of the material, and any other observations or notes determined to be appropriate. Additionally, care should be performed to limit contact with PFAS containing materials (e.g. waterproof field books, food packaging) during the sampling process.

Personal Protection Equipment (PPE)

For most sampling Level D PPE is anticipated to be appropriate. The sampler should wear nitrile gloves while conducting field work and handling sample containers.

Field staff shall consider the clothing to be worn during sampling activities. Clothing that contains PTFE material (including GORE-TEX®) or that have been waterproofed with PFAS materials should be avoided. All clothing worn by sampling personnel should have been laundered multiple times.

Appropriate rain gear (PVC, polyurethane, or rubber rain gear are acceptable), bug spray, and sunscreen should be used that does not contain PFAS. Well washed cotton coveralls may be used as an alternative to bug spray and/or sunscreen.

PPE that contains PFAS is acceptable when site conditions warrant additional protection for the samplers and no other materials can be used to be protective. Documentation of such use should be provided in the field notes.

Appendix E - Sampling Protocols for PFAS in Private Water Supply Wells

General

The objective of this protocol is to give general guidelines for the collection of water samples from private water supply wells (with a functioning pump) for PFAS analysis. The sampling procedure used should be consistent with Sampling Guidelines and Protocols – Technological Background and Quality Control/Quality Assurance for NYS DEC Spill Response Program – March 1991 (http://www.dec.ny.gov/docs/remediation_hudson_pdf/sgpsect5.pdf), with the following limitations.

Laboratory Analysis and Container

Drinking water samples collected using this protocol are intended to be analyzed for PFAS by EPA Method 537, 537.1, 533, or ISO Method 25101. The preferred material for containers is high density polyethylene (HDPE). Pre-cleaned sample containers, coolers, sample labels, and a chain of custody form will be provided by the laboratory.

Equipment

Acceptable materials for sampling include stainless steel, HDPE, PVC, silicone, acetate, and polypropylene. Additional materials may be acceptable if pre-approved by New York State Department of Environmental Conservation's Division of Environmental Remediation.

No sampling equipment components or sample containers should come in contact with aluminum foil, low density polyethylene, glass, or polytetrafluoroethylene (PTFE, Teflon™) materials (e.g. plumbers tape), including sample bottle cap liners with a PTFE layer.

Equipment Decontamination

Standard two step decontamination using detergent (Alconox is acceptable) and clean, PFAS-free water will be performed for sampling equipment. All sources of water used for equipment decontamination should be verified in advance to be PFAS-free through laboratory analysis or certification.

Sampling Techniques

Locate and assess the pressure tank and determine if any filter units are present within the building. Establish the sample location as close to the well pump as possible, which is typically the spigot at the pressure tank. Ensure sampling equipment is kept clean during sampling as access to the pressure tank spigot, which is likely located close to the ground, may be obstructed and may hinder sample collection.

Prior to sampling, a faucet downstream of the pressure tank (e.g., washroom sink) should be run until the well pump comes on and a decrease in water temperature is noted which indicates that the water is coming from the well. If the homeowner is amenable, staff should run the water longer to purge the well (15+ minutes) to provide a sample representative of the water in the formation rather than standing water in the well and piping system including the pressure tank. At this point a new pair of nitrile gloves should be donned and the sample can be collected from the sample point at the pressure tank.

Sample Identification and Logging

A label shall be attached to each sample container with a unique identification. Each sample shall be included on the chain of custody (COC).

Quality Assurance/Quality Control

- Immediately place samples in a cooler maintained at 4 ± 2º Celsius using ice
- Collect one field duplicate for every sample batch, minimum 1 duplicate per 20 samples. The duplicate shall consist of an additional sample at a given location
- Collect one matrix spike / matrix spike duplicate (MS/MSD) for every sample batch, minimum 1 MS/MSD per 20 samples. The MS/MSD shall consist of an additional two samples at a given location and identified on the COC
- If equipment was used, collect one equipment blank per day per site and a minimum 1 equipment blank per 20 samples. The equipment blank shall test the new and decontaminated sampling equipment utilized to obtain a sample for residual PFAS contamination. This sample is obtained by using laboratory provided PFAS-free water and passing the water over or through the sampling device and into laboratory provided sample containers.
- A field reagent blank (FRB) should be collected at a rate of one per 20 samples. The lab will provide a FRB bottle containing PFAS free water and one empty FRB bottle. In the field, pour the water from the one bottle into the empty FRB bottle and label appropriately.
- Request appropriate data deliverable (Category B) and an electronic data deliverable
- For sampling events where multiple private wells (homes or sites) are to be sampled per day, it is acceptable to collect QC samples at a rate of one per 20 across multiple sites or days.

Documentation

A sample log shall document the location of the private well, sample point location, owner contact information, sampling equipment, purge duration, duplicate sample, visual description of the material, and any other observations or notes determined to be appropriate and available (e.g. well construction, pump type and location, yield, installation date). Additionally, care should be performed to limit contact with PFAS containing materials (e.g. waterproof field books, food packaging) during the sampling process.

Personal Protection Equipment (PPE)

For most sampling Level D PPE is anticipated to be appropriate. The sampler should wear nitrile gloves while conducting field work and handling sample containers.

Field staff shall consider the clothing to be worn during sampling activities. Clothing that contains PTFE material (including GORE-TEX®) or that have been waterproofed with PFAS materials should be avoided. All clothing worn by sampling personnel should have been laundered multiple times.

Appendix F - Sampling Protocols for PFAS in Fish

This appendix contains a copy of the latest guidelines developed by the Division of Fish and Wildlife (DFW) entitled “General Fish Handling Procedures for Contaminant Analysis” (Ver. 8).

Procedure Name: General Fish Handling Procedures for Contaminant Analysis

Number: FW-005

Purpose: This procedure describes data collection, fish processing and delivery of fish collected for contaminant monitoring. It contains the chain of custody and collection record forms that should be used for the collections.

Organization: Environmental Monitoring Section
Bureau of Ecosystem Health
Division of Fish and Wildlife (DFW)
New York State Department of Environmental Conservation (NYSDEC)
625 Broadway
Albany, New York 12233-4756

Version: 8

Previous Version Date: 21 March 2018

Summary of Changes to this Version: Updated bureau name to Bureau of Ecosystem Health. Added direction to list the names of all field crew on the collection record. Minor formatting changes on chain of custody and collection records.

Originator or Revised by: Wayne Richter, Jesse Becker

Date: 26 April 2019

Quality Assurance Officer and Approval Date: Jesse Becker, 26 April 2019

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

GENERAL FISH HANDLING PROCEDURES FOR CONTAMINANT ANALYSES

A. Original copies of all continuity of evidence (i.e., Chain of Custody) and collection record forms must accompany delivery of fish to the lab. A copy shall be directed to the Project Leader or as appropriate, Wayne Richter. All necessary forms will be supplied by the Bureau of Ecosystem Health. Because some samples may be used in legal cases, it is critical that each section is filled out completely. Each Chain of Custody form has three main sections:

   1. The top box is to be filled out **and signed** by the person responsible for the fish collection (e.g., crew leader, field biologist, researcher). This person is responsible for delivery of the samples to DEC facilities or personnel (e.g., regional office or biologist).

   2. The second section is to be filled out **and signed** by the person responsible for the collections while being stored at DEC, before delivery to the analytical lab. This may be the same person as in (1), but it is still required that they complete the section. Also important is the **range of identification numbers** (i.e., tag numbers) included in the sample batch.

   3. Finally, the bottom box is to record any transfers between DEC personnel and facilities. Each subsequent transfer should be **identified, signed, and dated**, until laboratory personnel take possession of the fish.

B. The following data are required on each **Fish Collection Record** form:

   1. Project and Site Name.

   2. DEC Region.

   3. All personnel (and affiliation) involved in the collection.

   4. Method of collection (gill net, hook and line, etc.)

   5. Preservation Method.

C. The following data are to be taken on each fish collected and recorded on the **Fish Collection Record** form:

   1. Tag number - Each specimen is to be individually jaw tagged at time of collection with a unique number. Make sure the tag is turned out so that the number can be read without opening the bag. Use tags in sequential order. For small fish or composite samples place the tag inside the bag with the samples. The Bureau of Ecosystem Health can supply the tags.

   2. Species identification (please be explicit enough to enable assigning genus and species). Group fish by species when processing.

   3. Date collected.

   4. Sample location (waterway and nearest prominent identifiable landmark).

   5. Total length (nearest mm or smallest sub-unit on measuring instrument) and weight (nearest g or

smallest sub-unit of weight on weighing instrument). Take all measures as soon as possible with calibrated, protected instruments (e.g. from wind and upsets) and prior to freezing.

6. Sex - fish may be cut enough to allow sexing or other internal investigation, but do not eviscerate. Make any incision on the right side of the belly flap or exactly down the midline so that a left-side fillet can be removed.

D. General data collection recommendations:

1. It is helpful to use an ID or tag number that will be unique. It is best to use metal striped bass or other uniquely numbered metal tags. If uniquely numbered tags are unavailable, values based on the region, water body and year are likely to be unique: for example, R7CAY11001 for Region 7, Cayuga Lake, 2011, fish 1. If the fish are just numbered 1 through 20, we have to give them new numbers for our database, making it more difficult to trace your fish to their analytical results and creating an additional possibility for errors.

2. Process and record fish of the same species sequentially. Recording mistakes are less likely when all fish from a species are processed together. Starting with the bigger fish species helps avoid missing an individual.

3. If using Bureau of Ecosystem Health supplied tags or other numbered tags, use tags in sequence so that fish are recorded with sequential Tag Numbers. This makes data entry and login at the lab and use of the data in the future easier and reduces keypunch errors.

4. Record length and weight as soon as possible after collection and before freezing. Other data are recorded in the field upon collection. An age determination of each fish is optional, but if done, it is recorded in the appropriate “Age” column.

5. For composite samples of small fish, record the number of fish in the composite in the Remarks column. Record the length and weight of each individual in a composite. All fish in a composite sample should be of the same species and members of a composite should be visually matched for size.

6. Please submit photocopies of topographic maps or good quality navigation charts indicating sampling locations. GPS coordinates can be entered in the Location column of the collection record form in addition to or instead for providing a map. These records are of immense help to us (and hopefully you) in providing documented location records which are not dependent on memory and/or the same collection crew. In addition, they may be helpful for contaminant source trackdown and remediation/control efforts of the Department.

7. When recording data on fish measurements, it will help to ensure correct data recording for the data recorder to call back the numbers to the person making the measurements.

E. Each fish is to be placed in its own individual plastic bag. For small fish to be analyzed as a composite, put all of the fish for one composite in the same bag but use a separate bag for each composite. It is important to individually bag the fish to avoid difficulties or cross contamination when processing the fish for chemical analysis. Be sure to include the fish’s tag number inside the bag, preferably attached to the fish with the tag number turned out so it can be read. Tie or otherwise secure the bag closed. **The Bureau of Ecosystem Health will supply the bags.** If necessary, food grade bags may be procured from a suitable vendor (e.g., grocery store). It is preferable to redundantly label each bag with a manila tag tied between the knot and the body of the bag. This tag should be labeled with the project name, collection location, tag number, collection date, and fish species. If scales are collected, the scale envelope should be labeled with

the same information.

F. Groups of fish, by species, are to be placed in one large plastic bag per sampling location. **The Bureau of Ecosystem Health will supply the larger bags.** Tie or otherwise secure the bag closed. Label the site bag with a manila tag tied between the knot and the body of the bag. The tag should contain: project, collection location, collection date, species and **tag number ranges**. Having this information on the manila tag enables lab staff to know what is in the bag without opening it.

G. Do not eviscerate, fillet or otherwise dissect the fish unless specifically asked to. If evisceration or dissection is specified, the fish must be cut along the exact midline or on the right side so that the left side fillet can be removed intact at the laboratory. If filleting is specified, the procedure for taking a standard fillet (SOP PREPLAB 4) must be followed, including removing scales.

H. Special procedures for PFAS: Unlike legacy contaminants such as PCBs, which are rarely found in day to day life, PFAS are widely used and frequently encountered. Practices that avoid sample contamination are therefore necessary. While no standard practices have been established for fish, procedures for water quality sampling can provide guidance. The following practices should be used for collections when fish are to be analyzed for PFAS:

No materials containing Teflon.
No Post-it notes.
No ice packs; only water ice or dry ice.
Any gloves worn must be powder free nitrile.
No Gore-Tex or similar materials (Gore-Tex is a PFC with PFOA used in its manufacture).
No stain repellent or waterproof treated clothing; these are likely to contain PFCs.
Avoid plastic materials, other than HDPE, including clipboards and waterproof notebooks.
Wash hands after handling any food containers or packages as these may contain PFCs.
Keep pre-wrapped food containers and wrappers isolated from fish handling.
Wear clothing washed at least six times since purchase.
Wear clothing washed without fabric softener.
Staff should avoid cosmetics, moisturizers, hand creams and similar products on the day of sampling as many of these products contain PFCs (Fujii et al. 2013). Sunscreen or insect repellent should not contain ingredients with “fluor” in their name. Apply any sunscreen or insect repellent well downwind from all materials. Hands must be washed after touching any of these products.

I. All fish must be kept at a temperature <45° F (<8° C) immediately following data processing. As soon as possible, freeze at -20° C ± 5° C. Due to occasional freezer failures, daily freezer temperature logs are required. The freezer should be locked or otherwise secured to maintain chain of custody.

J. In most cases, samples should be delivered to the Analytical Services Unit at the Hale Creek field station. Coordinate delivery with field station staff and send copies of the collection records, continuity of evidence forms and freezer temperature logs to the field station. For samples to be analyzed elsewhere, non-routine collections or other questions, contact Wayne Richter, Bureau of Ecosystem Health, NYSDEC, 625 Broadway, Albany, New York 12233-4756, 518-402-8974, or the project leader about sample transfer. Samples will then be directed to the analytical facility and personnel noted on specific project descriptions.

K. A recommended equipment list is at the end of this document.

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF FISH AND WILDLIFE
FISH COLLECTION RECORD

Project and Site Name _____ DEC Region _____

Collections made by (include all crew) _____

Sampling Method: □Electrofishing □Gill netting □Trap netting □Trawling □Seining □Angling □Other _____

Preservation Method: □Freezing □Other _____ Notes (SWFDB survey number): _____

FOR LAB USE ONLY- LAB ENTRY NO.	COLLECTION OR TAG NO.	SPECIES	DATE TAKEN	LOCATION	AGE	SEX &/OR REPROD. CONDIT	LENGTH ( )	WEIGHT ( )	REMARKS

richter: revised 2011, 5/7/15, 10/4/16, 3/20/17; becker: 3/23/17, 4/26/19

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
CHAIN OF CUSTODY

I, _____, of _____ collected the
(Print Name) (Print Business Address)

following on _____, 20____ from _____
(Date) (Water Body)

in the vicinity of _____
(Landmark, Village, Road, etc.)

Town of _____, in _____ County.

Item(s) _____

_____

Said sample(s) were in my possession and handled according to standard procedures provided to me prior to collection. The sample(s) were placed in the custody of a representative of the New York State Department of Environmental Conservation on _____, 20_____.

_____ _____
Signature Date

I, _____, received the above mentioned sample(s) on the date specified and assigned identification number(s) _____ to the sample(s). I have recorded pertinent data for the sample(s) on the attached collection records. The sample(s) remained in my custody until subsequently transferred, prepared or shipped at times and on dates as attested to below.

_____ _____
Signature Date

SECOND RECIPIENT (Print Name)	TIME & DATE	PURPOSE OF TRANSFER
SIGNATURE	UNIT	
THIRD RECIPIENT (Print Name)	TIME & DATE	PURPOSE OF TRANSFER
SIGNATURE	UNIT	
FOURTH RECIPIENT (Print Name)	TIME & DATE	PURPOSE OF TRANSFER
SIGNATURE	UNIT	
RECEIVED IN LABORATORY BY (Print Name)	TIME & DATE	REMARKS
SIGNATURE	UNIT	
LOGGED IN BY (Print Name)	TIME & DATE	ACCESSION NUMBERS
SIGNATURE	UNIT	

richter: revised 21 April 2014; becker: 23 March 2017, 26 April, 2019

NOTICE OF WARRANTY

By signature to the chain of custody (reverse), the signatory warrants that the information provided is truthful and accurate to the best of his/her ability. The signatory affirms that he/she is willing to testify to those facts provided and the circumstances surrounding the same. Nothing in this warranty or chain of custody negates responsibility nor liability of the signatories for the truthfulness and accuracy of the statements provided.

HANDLING INSTRUCTIONS

On day of collection, collector(s) name(s), address(es), date, geographic location of capture (attach a copy of topographic map or navigation chart), species, number kept of each species, and description of capture vicinity (proper noun, if possible) along with name of Town and County must be indicated on reverse.

Retain organisms in manila tagged plastic bags to avoid mixing capture locations. Note appropriate information on each bag tag.

Keep samples as cool as possible. Put on ice if fish cannot be frozen within 12 hours. If fish are held more than 24 hours without freezing, they will not be retained or analyzed.

Initial recipient (either DEC or designated agent) of samples from collector(s) is responsible for obtaining and recording information on the collection record forms which will accompany the chain of custody. This person will seal the container using packing tape and writing his signature, the time and the date across the tape onto the container with indelible marker. Any time a seal is broken, for whatever purpose, the incident must be recorded on the Chain of Custody (reason, time, and date) in the purpose of transfer block. Container then is resealed using new tape and rewriting signature, with time and date.

EQUIPMENT LIST

Scale or balance of appropriate capacity for the fish to be collected.

Fish measuring board.

Plastic bags of an appropriate size for the fish to be collected and for site bags.

Individually numbered metal tags for fish.

Manila tags to label bags.

Small envelops, approximately 2” x 3.5”, if fish scales are to be collected.

Knife for removing scales.

Chain of custody and fish collection forms.

Clipboard.

Pens or markers.

Paper towels.

Dish soap and brush.

Bucket.

Cooler.

Ice.

Duct tape.

Appendix G – PFAS Analyte List

Group	Chemical Name	Abbreviation	CAS Number
Perfluoroalkyl sulfonates	Perfluorobutanesulfonic acid	PFBS	375-73-5
	Perfluorohexanesulfonic acid	PFHxS	355-46-4
	Perfluoroheptanesulfonic acid	PFHpS	375-92-8
	Perfluorooctanesulfonic acid	PFOS	1763-23-1
	Perfluorodecanesulfonic acid	PFDS	335-77-3
Perfluoroalkyl carboxylates	Perfluorobutanoic acid	PFBA	375-22-4
	Perfluoropentanoic acid	PFPeA	2706-90-3
	Perfluorohexanoic acid	PFHxA	307-24-4
	Perfluoroheptanoic acid	PFHpA	375-85-9
	Perfluorooctanoic acid	PFOA	335-67-1
	Perfluorononanoic acid	PFNA	375-95-1
	Perfluorodecanoic acid	PFDA	335-76-2
	Perfluoroundecanoic acid	PFUA/PFUdA	2058-94-8
	Perfluorododecanoic acid	PFDoA	307-55-1
	Perfluorotridecanoic acid	PFTriA/PFTrDA	72629-94-8
	Perfluorotetradecanoic acid	PFTA/PFTeDA	376-06-7
Fluorinated Telomer Sulfonates	6:2 Fluorotelomer sulfonate	6:2 FTS	27619-97-2
	8:2 Fluorotelomer sulfonate	8:2 FTS	39108-34-4
Perfluorooctane-sulfonamides	Perfluroroctanesulfonamide	FOSA	754-91-6
Perfluorooctane-sulfonamidoacetic acids	N-methyl perfluorooctanesulfonamidoacetic acid	N-MeFOSAA	2355-31-9
	N-ethyl perfluorooctanesulfonamidoacetic acid	N-EtFOSAA	2991-50-6

Appendix H - Laboratory Guidelines for Analysis of PFAS in Non-Potable Water and Solids

General

New York State Department of Environmental Conservation's Division of Environmental Remediation (DER) developed the following guidelines for laboratories analyzing environmental samples for PFAS under DER programs. If laboratories cannot adhere to the following guidelines, they should contact DER's Quality Assurance Officer, Dana Barbarossa, at dana.barbarossa@dec.ny.gov prior to analysis of samples.

Isotope Dilution

Isotope dilution techniques should be utilized for the analysis of PFAS in all media.

Extraction

For water samples, the entire sample bottle should be extracted, and the sample bottle rinsed with appropriate solvent to remove any residual PFAS.

For samples with high particulates, the samples should be handled in one of the following ways:

1. Spike the entire sample bottle with isotope dilution analytes (IDAs) prior to any sample manipulation. The sample can be passed through the SPE and if it clogs, record the volume that passed through.
2. If the sample contains too much sediment to attempt passing it through the SPE cartridge, the sample should be spiked with isotope dilution analytes, centrifuged and decanted.
3. If higher reporting limits are acceptable for the project, the sample can be diluted by taking a representative aliquot of the sample. If isotope dilution analytes will be diluted out of the sample, they can be added after the dilution. The sample should be homogenized prior to taking an aliquot.

If alternate sample extraction procedures are used, please contact the DER remedial program chemist prior to employing. Any deviations in sample preparation procedures should be clearly noted in the case narrative.

Signal to Noise Ratio

For all target analyte ions used for quantification, signal to noise ratio should be 3:1 or greater.

Blanks

There should be no detections in the method blanks above the reporting limits.

Ion Transitions

The ion transitions listed below should be used for the following PFAS:

PFOA	413 > 369
PFOS	499 > 80
PFHxS	399 > 80
PFBS	299 > 80
6:2 FTS	427 > 407
8:2 FTS	527 > 507
N-EtFOSAA	584 > 419
N-MeFOSAA	570 > 419

Branched and Linear Isomers

Standards containing both branched and linear isomers should be used when standards are commercially available. Currently, quantitative standards are available for PFHxS, PFOS, NMeFOSAA, and NEtFOSAA. As more standards become available, they should be incorporated in to the method. All isomer peaks present in the standard should be integrated and the areas summed. Samples should be integrated in the same manner as the standards.

Since a quantitative standard does not exist for branched isomers of PFOA, the instrument should be calibrated using just the linear isomer and a technical (qualitative) PFOA standard should be used to identify the retention time of the branched PFOA isomers in the sample. The total response of PFOA branched and linear isomers should be integrated in the samples and quantitated using the calibration curve of the linear standard.

Secondary Ion Transition Monitoring

Quantifier and qualifier ions should be monitored for all target analytes (PFBA and PFPeA are exceptions). The ratio of quantifier ion response to qualifier ion response should be calculated for each target analyte and the ratio compared to standards. Lab derived criteria should be used to determine if the ratios are acceptable.

Reporting

Detections below the reporting limit should be reported and qualified with a J qualifier.

The acid form of PFAS analytes should be reported. If the salt form of the PFAS was used as a stock standard, the measured mass should be corrected to report the acid form of the analyte.

Appendix I - Data Review Guidelines for Analysis of PFAS in Non-Potable Water and Solids

General

These guidelines are intended to be used for the validation of PFAS analytical results for projects within the Division of Environmental Remediation (DER) as well as aid in the preparation of a data usability summary report. Data reviewers should understand the methodology and techniques utilized in the analysis. Consultation with the end user of the data may be necessary to assist in determining data usability based on the data quality objectives in the Quality Assurance Project Plan. A familiarity with the laboratory's Standard Operating Procedure may also be needed to fully evaluate the data. If you have any questions, please contact DER's Quality Assurance Officer, Dana Barbarossa, at dana.barbarossa@dec.ny.gov.

Preservation and Holding Time

Samples should be preserved with ice to a temperature of less than 6°C upon arrival at the lab. The holding time is 14 days to extraction for aqueous and solid samples. The time from extraction to analysis for aqueous samples is 28 days and 40 days for solids.

Temperature greatly exceeds 6ºC upon arrival at the lab*	Use professional judgement to qualify detects and non-detects as estimated or rejected
Holding time exceeding 28 days to extraction	Use professional judgement to qualify detects and non-detects as estimated or rejected if holding time is grossly exceeded

*Samples that are delivered to the lab immediately after sampling may not meet the thermal preservation guidelines. Samples are considered acceptable if they arrive on ice or an attempt to chill the samples is observed.

Initial Calibration

The initial calibration should contain a minimum of five standards for linear fit and six standards for a quadratic fit. The relative standard deviation (RSD) for a quadratic fit calibration should be less than 20%. Linear fit calibration curves should have an R^2 value greater than 0.990.

The low-level calibration standard should be within 50% - 150% of the true value, and the mid-level calibration standard within 70% - 130% of the true value.

%RSD >20%	J flag detects and UJ non detects
R^2 >0.990	J flag detects and UJ non detects
Low-level calibration check <50% or >150%	J flag detects and UJ non detects
Mid-level calibration check <70% or >130%	J flag detects and UJ non detects

Initial Calibration Verification

An initial calibration verification (ICV) standard should be from a second source (if available). The ICV should be at the same concentration as the mid-level standard of the calibration curve.

ICV recovery <70% or >130%	J flag detects and non-detects

Continuing Calibration Verification

Continuing calibration verification (CCV) checks should be analyzed at a frequency of one per ten field samples. If CCV recovery is very low, where detection of the analyte could be in question, ensure a low level CCV was analyzed and use to determine data quality.

CCV recovery <70 or >130%	J flag results

Blanks

There should be no detections in the method blanks above the reporting limits. Equipment blanks, field blanks, rinse blanks etc. should be evaluated in the same manner as method blanks. Use the most contaminated blank to evaluate the sample results.

Blank Result	Sample Result	Qualification
Any detection	<Reporting limit	Qualify as ND at reporting limit
Any detection	>Reporting Limit and >10x the blank result	No qualification
>Reporting limit	>Reporting limit and <10x blank result	J+ biased high

Field Duplicates

A blind field duplicate should be collected at rate of one per twenty samples. The relative percent difference (RPD) should be less than 30% for analyte concentrations greater than two times the reporting limit. Use the higher result for final reporting.

RPD >30%	Apply J qualifier to parent sample

Lab Control Spike

Lab control spikes should be analyzed with each extraction batch or one for every twenty samples. In the absence of lab derived criteria, use 70% - 130% recovery criteria to evaluate the data.

Recovery <70% or >130% (lab derived criteria can also be used)	Apply J qualifier to detects and UJ qualifier to non detects

Matrix Spike/Matrix Spike Duplicate

One matrix spike and matrix spike duplicate should be collected at a rate of one per twenty samples. Use professional judgement to reject results based on out of control MS/MSD recoveries.

Recovery <70% or >130% (lab derived criteria can also be used)	Apply J qualifier to detects and UJ qualifier to non detects of parent sample only
RPD >30%	Apply J qualifier to detects and UJ qualifier to non detects of parent sample only

Extracted Internal Standards (Isotope Dilution Analytes)

Problematic analytes (e.g. PFBA, PFPeA, fluorotelomer sulfonates) can have wider recoveries without qualification. Qualify corresponding native compounds with a J flag if outside of the range.

Recovery <50% or >150%	Apply J qualifier
Recovery <25% or >150% for poor responding analytes	Apply J qualifier
Isotope Dilution Analyte (IDA) Recovery <10%	Reject results

Secondary Ion Transition Monitoring

Quantifier and qualifier ions should be monitored for all target analytes (PFBA and PFPeA are exceptions). The ratio of quantifier ion response to qualifier ion response should be calculated from the standards for each target analyte. Lab derived criteria should be used to determine if the ratios are acceptable. If the ratios fall outside of the laboratory criteria, qualify results as an estimated maximum concentration.

Signal to Noise Ratio

The signal to noise ratio for the quantifier ion should be at least 3:1. If the ratio is less than 3:1, the peak is discernable from the baseline noise and symmetrical, the result can be reported. If the peak appears to be baseline noise and/or the shape is irregular, qualify the result as tentatively identified.

Branched and Linear Isomers

Observed branched isomers in the sample that do not have a qualitative or quantitative standard should be noted and the analyte should be qualified as biased low in the final data review summary report. Note: The branched isomer peak should also be present in the secondary ion transition.

Reporting Limits

If project-specific reporting limits were not met, please indicate that in the report along with the reason (e.g. over dilution, dilution for non-target analytes, high sediment in aqueous samples).

Peak Integrations

Target analyte peaks should be integrated properly and consistently when compared to standards. Ensure branched isomer peaks are included for PFAS where standards are available. Inconsistencies should be brought to the attention of the laboratory or identified in the data review summary report.

APPENDIX I

Request to Import/Reuse Fill Material Form

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Request to Import/Reuse Fill or Soil

This form is based on the information required by DER-10, Section 5.4(e). Use of this form is not a substitute for reading the applicable Technical Guidance document.

SECTION 1 – SITE BACKGROUND

The allowable site use is: Choose an item

Have Ecological Resources been identified? Choose an item

Is this soil originating from the site? Choose an item

How many cubic yards of soil will be imported/reused? Choose an item

If greater than 1000 cubic yards will be imported, enter volume to be imported:

SECTION 2 – MATERIAL OTHER THAN SOIL

Is the material to be imported gravel, rock or stone? Choose an item

Does it contain less than 10%, by weight, material that would pass a size 80 sieve? Choose an item

Is this virgin material from a permitted mine or quarry? Choose an item

Is this material recycled concrete or brick from a DEC registered processing facility? Choose an item

SECTION 3 - SAMPLING

Provide a brief description of the number and type of samples collected in the space below:

Example Text: 5 discrete samples were collected and analyzed for VOCs. 2 composite samples were collected and analyzed for SVOCs, Inorganics & PCBs/Pesticides.

If the material meets requirements of DER-10 section 5.5 (other material), no chemical testing needed.

SECTION 3 CONT'D - SAMPLING

Provide a brief written summary of the sampling results or attach evaluation tables (compare to DER-10, Appendix 5):

Example Text: Arsenic was detected up to 17 ppm in 1 (of 5) samples; the allowable level is 16 ppm.

If Ecological Resources have been identified use the "If Ecological Resources are Present" column in Appendix 5.

SECTION 4 – SOURCE OF FILL

Name of person providing fill and relationship to the source:

Location where fill was obtained:

Identification of any state or local approvals as a fill source:

If no approvals are available, provide a brief history of the use of the property that is the fill source:

Provide a list of supporting documentation included with this request:

The information provided on this form is accurate and complete.

_____ _____

Signature Date

_____

Print Name

_____

Firm

Revised August 2014

APPENDIX J

Responsibilities of Owner and Remedial Party

APPENDIX J

RESPONSIBILITIES of OWNER and REMEDIAL PARTY

At this time Konica Minolta is remedial party and site owner. This appendix may be used when site management responsibilities are to be carried out by multiple parties. For example, it can be used when a Remedial Party does not own the site property, and, therefore, must share site management and/or reporting obligations with a site owner.

Responsibilities

The responsibilities for implementing the Site Management Plan ("SMP") for the Powers Chemco Superfund Site No. 130028, and Konica Minolta Graphic Imaging RCRA Site No. 130028A, are divided between the site owner(s) and a Remedial Party, as defined below. The owner(s) is/are currently listed as:

Konica Minolta Holdings U.S.A., Inc.
845 South Main Street, Suite 203
Graham, North Carolina 27253
(the "owner")

Solely for the purposes of this document and based upon the facts related to a particular site and the remedial program being carried out, the term Remedial Party ("RP") refers to any of the following: certificate of completion holder, volunteer, applicant, responsible party, and, in the event the New York State Department of Environmental Conservation ("NYSDEC") is carrying out remediation or site management, the NYSDEC and/or an agent acting on its behalf. The RP is:

Konica Minolta Holdings U.S.A., Inc.
845 South Main Street, Suite 203
Graham, North Carolina 27253

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

Site Owner's Responsibilities:

1) The owner shall follow the provisions of the SMP as they relate to future construction and excavation at the site.
2) In accordance with a periodic time frame determined by the NYSDEC, the owner shall periodically certify, in writing, that all Institutional Controls set forth in a(n) Environmental Easement remain in place and continue to be complied with. The owner shall provide a written certification to the RP, upon the RP's request, in order to allow the RP to include the certification in the site's Periodic Review Report (PRR) certification to the NYSDEC.
3) In the event the site is delisted, the owner remains bound by the Environmental Easement and shall submit, upon request by the NYSDEC, a written certification that the Environmental Easement is still in place and has been complied with.
4) The owner shall grant access to the site to the RP and the NYSDEC and its agents for the purposes of performing activities required under the SMP and assuring compliance with the SMP.
5) The owner is responsible for assuring the security of the remedial components located on its property to the best of its ability. In the event that damage to the remedial components or vandalism is evident, the owner shall notify the site's RP and the NYSDEC in accordance with the timeframes indicated in Section 1.3 - Notifications.

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

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

Remedial Party Responsibilities:

1) The RP must follow the SMP provisions regarding any construction and/or excavation it undertakes at the site.

2) The RP shall report to the NYSDEC all activities required for remediation, operation, maintenance, monitoring, and reporting. Such reporting includes, but is not limited to, periodic review reports and certifications, electronic data deliverables, corrective action work plans and reports, and updated SMPs.

3) Before accessing the site property to undertake a specific activity, the RP shall provide the owner advance notification that shall include an explanation of the work expected to be completed. The RP shall provide to (i) the owner, upon the owner's request, (ii) the NYSDEC, and (iii) other entities, if required by the SMP, a copy of any data generated during the site visit and/or any final report produced.

4) If the NYSDEC determines that an update of the SMP is necessary, the RP shall update the SMP and obtain final approval from the NYSDEC. Within 5 business days after NYSDEC approval, the RP shall submit a copy of the approved SMP to the owner(s).

5) The RP shall notify the NYSDEC and the owner of any changes in RP ownership and/or control and of any changes in the party/entity responsible for the operation, maintenance, and monitoring of and reporting with respect to any remedial system (Engineering Controls). The RP shall provide contact information for the new party/entity. Such activity constitutes a Change of Use pursuant to 375-1.11(d) and requires 60-days prior notice to the NYSDEC. A 60-Day Advance Notification Form and Instructions are found at http://www.dec.ny.gov/chemical/76250.html .

6) The RP shall notify the NYSDEC of any damage to or modification of the systems as required under Section 1.3 - Notifications of the SMP.

7) Prior to a change in use that impacts the remedial system or requirements and/or responsibilities for implementing the SMP, the RP shall submit to the NYSDEC for approval an amended SMP.

8) Any change in use, change in ownership, change in site classification (*e.g.*, delisting), reduction or expansion of remediation, and other significant changes related to the site may result in a change in responsibilities and, therefore, necessitate an update to the SMP and/or updated legal documents. The RP shall contact the Department to discuss the need to update such documents.

Change in RP ownership and/or control and/or site ownership does not affect the RP's obligations with respect to the site unless a legally binding document executed by the NYSDEC releases the RP of its obligations.

Future site owners and RPs and their successors and assigns are required to carry out the activities set forth above.