

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Remediation, Region 8
6274 East Avon-Lima Road, Avon, NY 14414-9516
P: (585) 226-5353 | F: (585) 226-8139
www.dec.ny.gov

December 17, 2020

Mr. Joseph Loboizzo II
Ridgecrest Associates, L.P.
135 Orchard Park Blvd.
Rochester, NY 14609

**Re: 820 Linden Ave Site (#C828200)
820 Linden Ave, Pittsford, NY 14625
IRM Work Plan #2,
August 31, 2020**

Dear Mr. Loboizzo II;

The New York State Departments of Environmental Conservation (NYSDEC) and Health (NYSDOH; collectively referred to as the Departments) have completed their review of the document entitled "Site Management Plan" (the Work Plan) dated August 31, 2020 and prepared by Stantec Consulting Services, Inc. for the 820 Linden Avenue Brownfield Cleanup Program (BCP) site located in the City of Pittsford, Monroe County. In accordance with 6 NYCRR Part 375-1.6, the Departments have determined that the Work Plan, with the following modifications, substantially addresses the requirements of the Brownfield Cleanup Program:

1. Section 3.3 and Section 4: Groundwater monitoring to assess the performance and effectiveness of the remedy will be conducted until remaining 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.

Unless otherwise approved by NYSDEC, groundwater monitoring will be conducted prior to the first PRR and every 5th year thereafter. Each groundwater monitoring event will include wells MW-1 and MW-4 which will be analyzed for TCL VOCs by EPA Method 8260. Wells are shown in Attachment 1. Results will be submitted in an electronic data deliverable acceptable to NYSDEC and included in the PRRs. Category B deliverables and DUSRs are not required for routine monitoring events.

If biofouling or silt accumulation occurs in the monitoring wells, the wells will be physically agitated/surged and redeveloped. Additionally, monitoring



Department of
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Conservation

wells will be properly decommissioned and replaced, if an event renders the wells unusable.

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

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

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

In the event that monitoring data indicates that groundwater monitoring may no longer be required, a proposal to discontinue the system will be submitted by the remedial party. Final monitoring events will include Category B deliverables and DUSRs. Monitoring will continue until permission to discontinue is granted in writing by the NYSDEC. If groundwater contaminant levels increase to a level that is not acceptable to the NYSDEC, additional source removal, monitoring, treatment and/or control measures will be evaluated.

With the understanding that these modifications are agreed to, the Work Plan is hereby approved. If you choose not to accept these modifications, you are required to notify this office within 15 days after receipt of this letter and prior to the Certificate of Completion being issued. In this event, I suggest a meeting be scheduled to discuss your concerns prior to the end of this period.

Within 30 days of receipt of this letter, please attach a copy of this letter to the Work Plan and distribute the approved Work Plan as follows:

- Tasha Mumbroe (1 hard copy with an original signature);
- Kristen Kulow (NYSDOH, electronic file/CD)
- The document repository at the Pittsford Community Library, Pittsford, NY 14534 (1 bound hard copy).

If you have questions or concerns, please contact me at (585) 226-5459 or tasha.mumbrue@dec.ny.gov.

Sincerely,

A handwritten signature in black ink that reads "Tasha Mumbrue". The signature is fluid and cursive, with the first name "Tasha" and last name "Mumbrue" clearly distinguishable.

Tasha Mumbrue
Geologist Trainee

Attach:
Monitoring Well Locations

cc: Mike Storonsky, Stantec
Stephanie Reynolds Smith, Stantec
Dwight Harrienger, Stantec
Linda Shaw, Knauf Shaw LLP
Justin Deming, NYSDOH
Kristin Kulow, NYSDOH
Dusty Tinsley, NYSDEC
Mike Cruden, NYSDEC
Dave Pratt, NYSDEC
Frank Sowers, NYSDEC



Groundwater Elevation Contour (ft AMSL) -
October 1, 2018

Approximate Inferred Direction of Groundwater

• Roof Drain Outfall Locations

Site

--- Nearby Parcel Boundaries

Additional Content

Notes

- Notes
1. Coordinate System: NAD 1983 StatePlane New York West FIPS 3103 Feet
 2. Orthomosaic [2013] downloaded from gis.ny.gov.
 3. Ortho imagery (2013) were geotagged on October 1, 2018 and January 23, 2019.
 4. On-site monitoring was conducted and confirmed to be 100% above mean sea level (1.64ASL, NAD83). Shadow monitoring was MW-103 was dry during both periods of imaging.
 5. Groundwater monitoring MW-3 is an angled well that terminates under the building.
 6. Groundwater elevation could not be accurately calculated and is therefore not used in contouring, the other monitoring wells are vertical wells.
 7. Well locations surveyed for vertical and horizontal coordinates by a StateMap surveyor.



820 Linden Ave Site
BCP Site #C828200

Figure No.

3a	
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**RI Groundwater Elevation Contour Map
(October 2018 and January 2019)**



820 Linden Ave Site

MONROE COUNTY

PITTSFORD, NEW YORK

DRAFT SITE MANAGEMENT PLAN

NYSDEC Site Number: C828200

Prepared for:

Ridgecrest Associates, L.P.

125 Orchard Park BV

Rochester, NY 14609

Prepared by:

Stantec Consulting Services, Inc.

61 Commercial Street, Suite 100

Rochester, NY 14614

Revisions to Final Approved Site Management Plan:

Revision No.	Date Submitted	Summary of Revision	NYSDEC Approval Date

AUGUST 2020

SITE MANAGEMENT PLAN
820 LINDEN AVE BCP SITE #C828200
PITTSFORD, NY

CERTIFICATION STATEMENT

I, Kevin Ignaszak, certify that I am currently a NYS registered professional engineer and that this Site Management Plan was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10).



8/31/2020

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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:	820 Linden Avenue Site #C828200, Pittsford, NY
Institutional Controls:	1. The property may be used for Commercial or Industrial use.
	2. All ECs must be operated and maintained as specified in this SMP.
	3. All ECs 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 Monroe 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 this SMP.
	6. Data and information pertinent to site management must be reported at the frequency and in a manner as defined in this SMP.
	7. All future activities that will disturb remaining contaminated material must be conducted in accordance with this SMP.
	8. Monitoring to assess the performance and effectiveness of the remedy must be performed as defined in this SMP.
	9. Operation, maintenance, monitoring, inspection, and reporting of any mechanical or physical component of the remedy shall be performed as defined in this 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 the Environmental Easement.

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PITTSFORD, NY

<i>Institutional Controls (cont'd):</i>	11. The potential for vapor intrusion must be evaluated for any future buildings developed within the Site property boundary, and any potential impacts that are identified must be monitored or mitigated.
	12. Vegetable gardens and farming on the Site are prohibited.
Engineering Controls:	1. Cover System
	2. Sub-Slab Depressurization System (SSDS)
Inspections:	
1. Site/Cover System Inspection	Frequency Annually
Maintenance:	
1. SSDS operations, maintenance, and monitoring	Frequency Monthly
Reporting:	
1. Periodic Review Report	Frequency Annually

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

Abbreviations

AAR	Alternative Analysis Report
AOC	Area of Concern
ASP	Analytical Services Protocol
BCA	Brownfield Cleanup Agreement
BCP	Brownfield Cleanup Program
CAMP	Community Air Monitoring Plan
CCR	Construction Completion Report
CFR	Code of Federal Regulation
cis-1,2-DCE	cis-1,2-dichloroethene
cm/s	centimeters per second
COC	Contaminant of Concern
CP	Commissioner Policy
CREC	Controlled Recognized Environmental Condition
CVOC	Chlorinated Volatile Organic Compound
1,1-DCE	1,1-dichloroethene
DER	Division of Environmental Remediation
DUSR	Data Usability Summary Report
DVS	Data Validation Services
EC	Engineering Control
ECL	Environmental Conservation Law
ELAP	Environmental Laboratory Approval Program
ERM	Environmental Resources Management
EWP	Excavation Work Plan
FEMA	Federal Emergency Management Agency
ft bgs	feet below ground surface
GPR	Ground Penetrating Radar
GZA	GZA GeoEnvironmental, Inc.
HASP	Health and Safety Plan
IC	Institutional Control
IRM	Interim Remedial Measure
JML	JML Optical
LUST	Leaking Underground Storage Tank
MS/MSD	Matrix Spike/Matrix Spike Duplicates
NYS	New York State
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
NYCRR	New York Codes, Rules and Regulations
OBG	O'Brien and Gere
OM&M	Operation, Maintenance and Monitoring

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PITTSFORD, NY

PCE	Tetrachloroethene
PMP	Pressure Monitoring Points
POGW	Protection of Groundwater
ppb	parts per billion
PRR	Periodic Review Report
PSG	passive soil gas
QA/QC	Quality Assurance/Quality Control
QAPP	Quality Assurance Project Plan
RAO	Remedial Action Objective
RAOC	Remedial Area of Concern
RI	Remedial Investigation
RIR	Remedial Investigation Report
RIWP	Remedial Investigation Work Plan
SCG	Standards, Criteria and Guidance
SCO	Soil Cleanup Objective
SGV	Standards and Guidance Values
SMP	Site Management Plan
SPDES	State Pollutant Discharge Elimination System
SRI	Supplemental Remedial Investigation
SSDS	Sub-slab Depressurization System
SVI	Soil Vapor Intrusion
SVOC	Semi-Volatile Organic Compound
1,1,1-TCA	1,1,1-trichloroethane
TAL	Target Analyte List
TCE	Trichloroethene
TCL	Target Compound List
TestAmerica	Eurofins TestAmerica Laboratories, Inc.
TOGS	Technical and Operational Guidance Series
$\mu\text{g}/\text{ft}^2$	micrograms per square foot
$\mu\text{g}/\text{kg}$	micrograms per kilogram
$\mu\text{g}/\text{L}$	micrograms per liter
$\mu\text{g}/\text{m}^3$	micrograms per cubic meter
USEPA	United States Environmental Protection Agency
UU	Unrestricted Use
VOC	Volatile Organic Compound
WP	Work Plan

Introduction

1.0 INTRODUCTION

1.1 General

This Site Management Plan (SMP) is a required element of the remedial program for the 820 Linden Ave Site located in Pittsford, New York (hereinafter referred to as the “Site”). See Figure 1. The Site is currently in the New York State (NYS) Brownfield Cleanup Program (BCP) Site No. C828200 which is administered by New York State Department of Environmental Conservation (NYSDEC).

Ridgecrest Associates, L.P. (Ridgecrest) entered into a Brownfield Cleanup Agreement (BCA) on April 24, 2018 with the NYSDEC to remediate the Site. A figure showing the Site location and boundaries of this Site is provided in Figure 2. The boundaries of the Site are more fully described in the metes and bounds site description that is part of the Environmental Easement provided in Appendix A.

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 Monroe 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 Environmental Conservation Law (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:

Introduction

- 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;
- Failure to comply with this SMP is also a violation of ECL, 6NYCRR Part 375 and the BCA (Site #C828200) 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 NYS. A list of contacts for persons involved with the Site is provided in Appendix B of this SMP.

This SMP was prepared by Stantec Consulting Services, Inc. (Stantec), on behalf of Ridgecrest, in accordance with the requirements of the NYSDEC's Division of Environmental Remediation (DER)-10 ("Technical Guidance for Site Investigation and Remediation"), dated May 3, 2010 (NYSDEC, 2010a), 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.

The current owner, and all future owners, are required to make arrangements with any existing tenants to implement this SMP and perform required operations and maintenance work.

1.2 Revisions

Revisions to this plan will be proposed in writing to the NYSDEC's project manager. Revisions will be necessary upon, but not limited to, the following occurring: a change in media monitoring requirements, upgrades to or 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 will provide a notice of any approved changes to the SMP, and append these notices to the SMP that is retained in its files.

Introduction

1.3 Notifications

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

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

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

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

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820 LINDEN AVE BCP SITE #C828200
PITTSFORD, NY**

Introduction

Table 1 below includes contact information for the above notification(s). 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
Tasha Mumbrue, NYSDEC Project Manager	e-mail: tasha.mumbrue@dec.ny.gov phone: (585) 226-5459
David Pratt, NYSDEC Regional HW Engineer	e-mail: david.pratt@dec.ny.gov phone: (585) 226-5315
NYSDEC Site Control	e-mail: derweb@gw.dec.state.ny.us

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

Summary of Previous Investigations and Remedial Actions

2.0 SUMMARY OF PREVIOUS INVESTIGATIONS AND REMEDIAL ACTIONS

2.1 Site Location and Description

The Site is located in the Town of Pittsford, Monroe County, New York at the address 820 Linden Avenue, and is identified as Parcel Identification Number 138.15-1-9.11 (see Figure 2). The owner of the Site parcel at the time of issuance of this SMP is Ridgecrest Associates, L.P. (Ridgecrest).

The Site parcel is approximately 7.97 acres and is bounded as follows:

- To the north by undeveloped wooded land, and a cell tower facility near the northeast corner of the Site boundary;
- To the east by commercial businesses and a fitness and training facility;
- To the south by Linden Avenue, beyond which is undeveloped land and CSXT/Amtrak freight and passenger railroad lines; and
- To the west by a commercial business and undeveloped land.

The boundaries of the Site are more fully described in the Environmental Easement and attached easement survey map (Appendix A).

2.2 Physical Setting

2.2.1 Land Use

The Site consists of an approximate 7.97-acre, L-shaped property improved with an approximate 108,400 square foot, L-shaped, one-story slab-on-grade building (Figure 2). The southern tenant space in this building is approximately 70,200 square feet and is currently occupied by JML Optical (JML). The northern tenant space is approximately 38,200 square feet and is currently occupied by Newport Corporation (Newport). Note that throughout this document, the tenant spaces will be referred to on the basis of direction (southern vs. northern tenant space) and/or the occupant at the time this SMP was prepared (JML vs. Newport tenant space). Either way, for the clarity of this SMP and consistency with prior documents prepared for this Site, the southern

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Summary of Previous Investigations and Remedial Actions

tenant space is synonymous with the JML tenant space, and the northern tenant space is synonymous with the Newport tenant space.

Based on building permit records, the building was reportedly constructed in six phases (see Figure 2). The first building permit was issued in 1954, with subsequent additions permitted for the rear or west side of the building in 1956, 1958, and 1959. A large addition immediately north of the original building was permitted in 1966. Each of the first five construction phases now comprise the current JML tenant space. The final construction phase, which now comprises the Newport tenant space, was permitted in 1967.

The remainder of the Site is a mixture of paved parking lots and open, mowed-lawn areas. Mature trees and underlying shrub/grass vegetation line portions of the property boundary on the north side. A drainage ditch that runs along the western property boundary collects stormwater drainage from two roof drain outfalls and pitches to the north.

Historical records indicate that the Site's manufacturing building has been occupied by optical industry-related businesses since the initial portion of the southern building was first constructed in 1954. A detailed list of the former and current owners and operators appears in the BCP Application. Some of these include: TKM Electric Corp, EJ Del Monte Corporation, Bausch + Lomb, Inc., Milton Roy Company, Spectronics Instruments, Inc., Thermo Spectronic, Inc., Spectra-Physics Rochester, Inc, Thermo Electron Corporation, Ridgecrest Associates, Newport Corporation, and JML Optical Industries. Pertinent historical records for properties adjacent to the Site are described in the 2017 Phase I Environmental Site Assessment (ESA; Stantec, 2017a).

Land use at the Site, and surrounding area, is predominantly industrial and commercial. The Site is currently occupied by two optical manufacturing facilities: JML (southern tenant space) manufactures precision optical components for commercial, industrial, and military applications. Newport (northern tenant space) manufactures diffraction gratings for spectroscopic, telecommunications, and laser applications. The intended future use of the property is not anticipated to change. The Site is anticipated to remain industrial; however, in order to keep the

**SITE MANAGEMENT PLAN
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Summary of Previous Investigations and Remedial Actions

use of the Site flexible, the remediation implemented also allows for future commercial uses in any on-site buildings.

Pertinent historical records for properties adjacent to the Site are described in the 2017 Phase I ESA (Stantec, 2017a).

Potable water is supplied to the Site and surrounding area by the Monroe County Water Authority. Groundwater is not used as a drinking water supply in the immediate vicinity of the Site.

2.2.2 Geology

The general subsurface profile observed across the Site consists of the following deposits, in order of increasing depth:

- **Surface cover** of topsoil/grass, asphalt, or bare non-impacted (except by iron, which is naturally occurring) soil/detritus in the vegetated areas.
- **Fill materials** (where present) generally consisting of sand and gravel, with variable silt and clay components, ranging from 0-9.5 feet below ground surface (ft bgs). Fill materials and re-worked native soils were generally encountered in assumed previous work areas including directly beneath the slab, beneath the parking lot, and where utility construction occurred (i.e. sewer and septic system installation areas).
- **Native [outwash] sand** deposited as part of a complex series of glaciolacustrine deposits that underlie this portion of Monroe County, along the Irondequoit Creek Valley and environs (NYS Geologic Survey, 1986; USGS, 1985). The native soils are primarily comprised of fine to coarse sand and silty fine sand, with occasional and minor percentages of clay and gravel. The sand aquifer is the primary water-bearing zone encountered on the Site. However, lenses of variably saturated clay and silt/clay ranging from 1 to 15 ft thick were encountered in shallow subsurface soil above the deep groundwater zone water table on the eastern and southern portions of the Site. While this is indicative of a perched groundwater zone, soil boring observations indicate that perched groundwater is not laterally contiguous across the Site.
- **Bedrock** was not encountered during Stantec's investigations (Limited Phase II ESA; Remedial Investigation; and Supplemental Remedial Investigation), and the maximum test boring depth extended to 72 ft bgs. Based on the Geologic Map of New York (NYS Geologic Survey, 1970; Finger Lakes Sheet), the Site is underlain by the Upper Silurian

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Summary of Previous Investigations and Remedial Actions

Penfield Dolostone of the Lockport Group. It is estimated that the depth to bedrock is approximately 110-120 ft bgs based on findings from a nearby investigation at Sigismondi Landfill (Site #C828011) as posted on the NYSDEC Environmental Site Remediation Database (<https://www.dec.ny.gov/cfmx/extapps/derexternal/haz/details.cfm>).

Soil boring logs are provided in Appendix C.

2.2.3 Hydrogeology

Groundwater levels in Site monitoring wells range from approximately 41 to 62 ft bgs. Gauging data collected during the Remedial Investigation (RI) and Interim Remedial Measure #2 (IRM2) indicate the water table typically ranges from approximately 355 to 380 ft AMSL. The inferred groundwater flow direction is to the north/northeast towards Irondequoit Creek.

During the RI/IRM2 gauging events, and when checked periodically during the RI, shallow monitoring well MW-104S was found to be dry. The shallow, perched groundwater zone, where present on-site, appears to be laterally discontinuous and is not expected to be a significant water-bearing unit based on Site observations.

Slug tests were performed during the RI at the following monitoring wells: B/MW-102, B/MW-103, B/MW-104, and B/MW-105. Hydraulic conductivities for the wells ranged from 1.1×10^{-2} centimeters per second (cm/s) to 3.4×10^{-2} cm/s. The RI wells are screened across the water table in fine to coarse sand with little fines. Estimated hydraulic conductivity for the RI wells agrees with the ranges generally observed for silty sand and clean sand (Freeze and Cherry, 1979), which is the primary native lithology observed during the subsurface investigations. The relatively homogeneous overburden observed during the RI is reflected in the agreement of hydraulic conductivity estimates Site-wide.

Groundwater contour maps are shown in Figures 3a and 3b. Groundwater elevation data is provided in Table 2. Groundwater monitoring well construction logs are provided in Appendix C.

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2.3 Investigation and Remedial History

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

2.3.1 Overview of Investigation History

2.3.1.1 *1995 Site Assessment and Operations Audit (GZA)*

A Phase I Environmental Site Assessment (ESA) and Operations Audit was completed by GZA GeoEnvironmental, Inc. (GZA) for Life Sciences International, PLC c/o Sheehan, Phinney, Bass and Green, in 1995 (GZA, 1995). The following is a summary of findings from the 1995 Phase I ESA:

- The report identified Recognized Environmental Conditions (RECs) related to on-site usage of hazardous materials with waste discharge to on-site septic systems, a former outdoor storage drum area, and potential fill in the raised elevation area on the northeast portion of the property.
- The report also identified a REC related to a database listing for a potentially upgradient, off-site, leaking underground storage tank (LUST) site. (Note that the LUST site was not listed in the 2017 Phase I database report reviewed as part of Stantec's 2017 Phase I ESA summarized in Section 2.3.1.6.). According to the NYSDEC spill incident database, the spill involved an unknown quantity and the file was closed on 5/2/2005.
- The GZA report included documentation of 1972 correspondence from Bausch and Lomb to E. J. DelMonte Corp. that reported the various waste streams discharged to three on-site septic systems (see Figure 4). The Southeast Septic System was used for sanitary purposes, no chemicals were discharged through the system. The Southwest Septic System collected both sanitary and process discharge. Chemicals including acids, bases, poisons (arsenic, antimony, mercury, etc.), diPhospyridine, sodium pyruvate, and biological organics were discharged to the system either directly or through neutralization tanks. The Northwest Septic System collected cooling water, sanitary, and process water from the cafeteria, washrooms, and the chemistry laboratory. Discharge chemicals included organic solvents, acids, alkalis, ammonia residue, fixers and developers. In the

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conclusion of their report, GZA referred to the discharged materials as hazardous materials and waste. Records of removal or final pumping of the septic systems were not found.

- The operations audit portion of this investigation focused on the facility's regulatory compliance with environmental, health, and safety regulations pertaining to Site operations.

2.3.1.2 2004 Phase II ESA (ERM)

A Phase II ESA was completed by Environmental Resources Management (ERM) for Thermo Electron Corporation in 2004 (ERM, 2004). This investigation included a passive soil gas (PSG) survey with 60 sampling locations across the northern portion of the Site; installation and sampling of a soil boring and monitoring well in a former drum storage area; a floor drain investigation; and lead wipe testing in several indoor areas where lead dust cleaning had been previously performed. The following is a summary of findings from the 2004 Phase II ESA:

- The 2004 PSG survey showed that chlorinated volatile organic compounds (CVOCs) such as tetrachloroethene (PCE), trichloroethene (TCE), and 1,1,1-trichloroethane (1,1,1-TCA) were present in soil vapor beneath the building footprint and toluene (a petroleum-related VOC) was present in exterior soil vapor across the northern portion of the Site. The highest concentration of toluene was observed in the parking lot area to the south of the eastern half of the Newport [northern] tenant space, and to the east of the northeast corner of the JML [southern] tenant space. It is noted that acetone was not included on the analyte list for the PSG survey.
- Volatile organic compounds (VOCs) were not detected in the soil samples. VOCs were detected in the groundwater, but only at concentrations below NYSDEC standards, and were reportedly generally 50% lower than levels reported in an unnamed previous investigation (a report documenting this prior investigation was not provided to Stantec and is not in the possession of Ridgecrest). The groundwater table was reported to be at a depth of approximately 65 ft bgs. Soils encountered consisted of fine-grained sands and silty fine-grained sands.
- The investigation determined that a floor drain in the flammable materials storage area discharged to the sanitary sewer near Linden Avenue.

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- Concentrations of lead reported in the lead wipe testing program performed after a cleaning program ranged from 6.2 to 345 micrograms per square foot ($\mu\text{g}/\text{ft}^2$). The sampling program was conducted at five areas within the building approximately 20 ft above the floor along a truss, sprinkler or light fixture.

2.3.1.3 2005 Phase II ESA (LaBella)

A Phase II ESA was completed by LaBella Associates, P.C. for JML Optical and Thermo Electron Corp in 2005 (LaBella, 2005). This investigation included a PSG survey with 31 sampling locations, mostly across the southern portion of the Site, with four locations duplicating those sampled in the previous PSG survey (ERM, 2004). The following is a summary of findings from the 2005 Phase II ESA:

- The constituent detected at the highest concentration was PCE, with lesser amounts of TCE, 1,1,1-TCA, and 2- butanone reported. The highest CVOC concentrations were detected under the central portion of the building near a former hazardous waste storage area. Toluene was also detected in about two-thirds of the locations. It is noted that acetone was not included on the analyte list for the PSG survey.

2.3.1.4 2011 Phase I ESA (O'Brien and Gere)

A Phase I ESA was completed by O'Brien and Gere (OBG) for BB&T Capital Partners II, LLC in 2011 (OBG, 2011). The following is a summary of findings and recommendations from the 2011 Phase I ESA:

- The 2011 Phase I ESA was limited to the southern portion of the building (JML tenant space). The report identified RECs related to septic and sanitary systems, historical use of the property for optical manufacturing, and findings of historical environmental reports (ERM, 2004; LaBella, 2005) indicating the presence of primarily CVOCs and toluene in soil vapor and/or groundwater.

2.3.1.5 2016-2017 Limited Phase II ESA (Stantec)

Stantec conducted a Limited Phase II ESA in April 2016 through January 2017 for Ridgecrest to further evaluate impacts to the Site (Stantec, 2017b). Stantec began its investigation of the Site in April 2016 by conducting an updated soil vapor intrusion (SVI) investigation in accordance

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with the New York State Department of Health (NYSDOH) *Final Guidance for Evaluating Soil Vapor Intrusion in the State of New York* (NYSDOH, 2006; hereinafter referred to as the NYSDOH Vapor Guidance). In addition, the purpose of Stantec's Phase II investigation was to attempt to identify a source for the SVI results through further soil and groundwater investigation. The rationale behind Stantec's 2016 Phase II scope included the following: (1) the results of the prior PSG survey results were 11 years old; (2) the prior PSG surveys did not include any indoor air samples since the investigations pre-dated the NYSDOH Vapor Guidance; and (3) no soil or groundwater source areas were identified during the previous investigations.

The Limited Phase II ESA work scope included two SVI investigation events. The first event was conducted in April 2016 and included twelve co-located indoor air/sub-slab soil vapor sampling locations in both tenant spaces in accordance with the NYSDOH Vapor Guidance. The second event was conducted in January 2017 and included three sampling locations in the Newport tenant space. The work scope also included an interior and exterior soil and groundwater investigation. Components included the drilling of 14 test borings, collection of subsurface soil samples, and installation and sampling of four permanent and three temporary groundwater monitoring wells. A synopsis of the analytical findings is presented below.

Investigation locations are depicted on Figure 4.

- **SVI Results:** The indoor air and sub-slab vapor data were evaluated against the NYSDOH Matrices presented in the NYSDOH Vapor Guidance (NYSDOH, 2006; NYSDOH, 2017) to assign a recommended action for the co-located sample pairs. Additionally, indoor air data were compared to the NYSDOH Air Guideline Values (NYSDOH, 2006) for the three compounds with guideline values (methylene chloride, TCE, and PCE).

Based on the NYSDOH Vapor Guidance, results indicated the need for mitigation based on methylene chloride in five locations in the JML tenant space and one location in the Newport tenant space. At the time of the SVI sampling, products containing this compound were utilized in each tenant space.

Based on the NYSDOH Vapor Guidance for other compounds, results from four locations within the JML tenant space indicated the need for mitigation of potential SVI

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impacts based on the presence of 1,1-dichloroethene (1,1-DCE), cis-1,2-dichloroethene (cis-1,2-DCE), TCE, or PCE. Within the Newport tenant space, one location indicated the need for monitoring or mitigation based on TCE results.

The concentration of TCE in indoor air within the Newport tenant space at one location (2.1 micrograms per cubic meter [$\mu\text{g}/\text{m}^3$]) slightly exceeded the indoor air guideline of 2 $\mu\text{g}/\text{m}^3$ during the first SVI sampling event, although it was not reported above the detection limit in the corresponding sub-slab vapor sample during either SVI sampling event. In addition, TCE was not detected above reporting limits in the indoor air samples collected during the second SVI sampling event.

Tables 3a and 3b present a summary of the analytical SVI results for matrix comparison.

- **Soil Results:** The exceedances of NYSDEC Part 375 (NYSDEC, 2006) and Commissioner's Policy (CP)-51 (NYSDEC, 2010b) Soil Cleanup Objectives (SCOs) for Unrestricted Use (UU) and the Protection of Groundwater (POGW) SCOs in Site soil samples included common, naturally-occurring metals (aluminum, calcium, iron, and magnesium) and acetone. Acetone is considered a common laboratory contaminant. However, acetone was not detected in the corresponding Quality Assurance/Quality Control (QA/QC) samples, and is, therefore, considered to be related to Site conditions, particularly given: (1) the concentrations reported ranging from 53 micrograms per kilogram [$\mu\text{g}/\text{kg}$] to 120 $\mu\text{g}/\text{kg}$, which exceeds the UU and POGW SCOs but not the Commercial or Industrial Use SCOs; (2) historical use of acetone at the facility; and (3) its reported presence in groundwater as described below.

Table 4 presents a summary of the soil sample results. Note that this Table also includes Remedial Investigation (RI) soil data.

- **Groundwater Results:** The exceedances of NYSDEC's Technical and Operational Guidance Series (TOGS) 1.1.1 [Class GA] Standards and Guidance Values (SGVs; NYSDEC, 1998) for groundwater samples included commonly occurring metals (iron, magnesium, manganese, and sodium) and acetone. Acetone was detected at concentrations ranging from 100 micrograms per liter [$\mu\text{g}/\text{L}$] to 1,100 $\mu\text{g}/\text{L}$, versus the guidance value of 50 $\mu\text{g}/\text{L}$. While acetone is a common laboratory contaminant, and laboratory contamination can often be responsible for low-level concentrations of acetone detected in water, the relatively high concentrations detected in these Site samples were considered indicative of a Site-related issue, given (1) the absence of acetone in the QA/QC samples; (2) its use at the facility; and (3) its elevated presence in soil samples.

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Table 5 presents a summary of the groundwater sample results. Note that this Table also includes groundwater data from later monitoring events.

- **Analytical Program:** Although the Limited Phase II ESA was not implemented as part of a formal remedial program with NYSDEC's input/oversight, each aspect of the investigation was performed in general conformance with NYSDEC's DER-10 (NYSDEC, 2010a). QA/QC sampling and analyses were performed as would be required for a BCP project including trip blanks, rinsate blanks, matrix spike/matrix spike duplicates (MS/MSD), and field duplicates. Analyses were performed by a laboratory accredited pursuant to the NYSDOH Environmental Laboratory Accreditation Program (ELAP). Analytical Services Protocol (ASP) Category B data packages were obtained for the Limited Phase II data. The data packages were forwarded to Data Validation Services (DVS) for review of the usability of the laboratory analytical data. Results of the data usability review were reported by DVS in the Data Usability Summary Report (DUSR) presented as an appendix to the Remedial Investigation Work Plan (RIWP; Stantec, 2017c). In summary, the Limited Phase II investigation laboratory data were found to be usable as reported by the lab or usable with qualification, and no data were rejected. Given the DUSR findings, the data from the Limited Phase II investigation was incorporated into the RI dataset.

2.3.1.6 2017 Phase I ESA (Stantec)

Stantec completed a Phase I ESA for Ridgecrest in September 2017. The reader is referred to the original Phase I ESA report (Stantec, 2017a) for a detailed discussion of the ESA findings. The following is a condensed list of the RECs identified by the ESA:

- Discharge of hazardous materials and waste into three septic systems formerly utilized on the Property between 1968-1975 (during the period of ownership and operation by Bausch & Lomb). The exact locations of the septic systems were unknown; however, approximate locations were depicted in the 1995 GZA Phase I Report.
- A large, rectangular grass-covered area to the east of the Newport [northern] tenant space was noted to be generally elevated above the surrounding grade. This area may have been a pad for a building addition that was never constructed; however, this was not confirmed. The nature of the fill that comprised the pad was unknown.
- The results from three previous Phase II ESAs revealed evidence of CVOC impacts to soil vapor. However, a source area(s) for the CVOCs in soil and groundwater beneath

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the building and on the Site was not identified. The highest concentrations of CVOCs were reported in the central portion of the building near a former hazardous waste storage area in soil gas, and toluene was detected in two-thirds of the sampled locations. Exceedances of SCOs and groundwater SGVs for commonly occurring metals and acetone were also identified.

- The building is presently serviced by municipal sanitary sewer lines. The age of the sewer connections and the locations of sewer connections and lines were unknown at the time. Based on drawings and observations, it was presumed there are two separate sewer lines servicing the building. Newport indicated they have been performing necessary maintenance on sewer lines utilized by their facility, and they recently installed a pump to a drain line to increase flow.
- The parcel adjacent to the east of the Site, 860 Linden Avenue, is the former location of Jarl Extrusions, a NYS Superfund site (Site ID #828005). The site had documented discharges to a lagoon of nitric, sulfuric, and hydrofluoric acids, sodium hydroxide, and chromium salts. The lagoon was covered by an asphalt cap, site clean-up activities were performed, and Engineering and Institutional Controls are in place. Groundwater sampling on the Jarl Extrusions site in 1990 revealed elevated concentrations of TCE (23 ppb) in monitoring well B-1D, located along the western property boundary, less than 50 ft from 820 Linden Avenue. This adjacent Superfund Site is considered to be a Controlled Recognized Environmental Condition (CREC) for the Site.

2.3.1.7 2018 Remedial Investigation (Stantec)

Stantec completed a Remedial Investigation (RI) for Ridgecrest during the period June 2018 through January 2019. The RI was performed in accordance with the RIWP, dated September 2017, which was approved by NYSDEC on May 21, 2018. The reader is referred to the Revised RI Report (RIR; Stantec, 2020e) for a detailed discussion of the RI program.

Data gaps:

Data gaps identified during preparation of the RIWP (Stantec, 2017c), and subsequently addressed through the RI (and Supplemental RIs [SRI], see Sections 2.3.1.7 through 2.3.1.9), included the following:

- Investigation of the historical building uses;

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- Investigation of deep groundwater quality along the property boundary with the Jarl Extrusions Site;
- Investigation of the former septic systems identified as RECs in the 1995, 2011, and 2017 Phase I ESAs, and potential soil contamination resulting from the historical discharge of hazardous materials and waste as documented in the 1995 Phase I report (GZA);
- Investigation of the sewer connections and conditions;
- Investigation of the two large-diameter, east-west oriented roof drain outfall pipes that discharge to the drainage ditch located along the western property boundary, which drains to the north;
- Investigation of upgradient and Site-wide conditions to supplement the targeted Limited Phase II ESA (Stantec, 2017b); and
- Delineation of the acetone impacts, which were identified during the Limited Phase II ESA (Stantec, 2017b).

Investigation Activities:

The following investigation activities were performed in accordance with the approved Work Plan and DER-10: (1) floor drain and sewer video; (2) geophysical survey; (3) debris pile sampling; (4) surface soil sampling; (5) test pit program and subsurface soil sampling (6) test boring program and subsurface soil sampling; (7) monitoring well installation and development; (8) well gauging and groundwater sampling; and (9) slug testing. Figure 4 depicts the investigation and sample locations.

Laboratory Analysis and Results Tabulation:

Laboratory analysis of Site media samples was performed by the NYSDOH ELAP-certified Eurofins TestAmerica Laboratories, Inc. (TestAmerica). Third-party data usability reviews of the NYSDEC ASP Category B deliverable packages generated by TestAmerica were performed or are being performed by DVS.

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Analytical tables compare the qualified lab results to NYS Standards, Objectives, and Guidance (see Tables 4 and 5). The following are included in the comparison: NYSDEC 6 NYCRR Part 375 (NYSDEC, 2006) UU SCOs; Commercial Use and Industrial Use SCOs (“Site use SCOs”), and POGW SCOs; NYSDEC CP-51 (NYSDEC, 2010b) Table 1 Supplemental SCOs for Commercial and Industrial Uses and POGW; and NYSDEC Class GA Water Quality SGVs for groundwater (TOGS 1.1.1; NYSDEC, 1998).

Findings and Recommendations:

Based on Stantec’s review of the field and analytical datasets, the following Areas of Concern (AOCs) were identified:

- AOC 1: CVOCs (including 1,1-DCE; cis-1,2-DCE; PCE; and TCE) in sub-slab soil vapor beneath the JML [southern] tenant space at concentrations requiring mitigation. This AOC was addressed through IRM1, which is described in Section 2.3.2.
- AOC 2: The debris pile located in the northeast corner of the parking lot area, which was found to contain elevated levels of PAHs associated with significant crushed asphalt contents. This AOC was addressed through IRM2, which is described in Section 2.3.2.
- AOC 3: The three former septic systems identified in the 1995 GZA Phase I Report were located during the test pit program. Each of the septic systems was further investigated in SRI1 (see Section 2.3.1.8). This AOC was also addressed through IRM2, which is described in Section 2.3.2.
- AOC 4: Benzo(a)pyrene was the single SVOC reported to exceed Commercial SCOs in surface soil. It was detected at 0-2 inches at a concentration of 1,800 µg/kg versus the respective Commercial and Industrial SCOs of 1,000 and 1,100 µg/kg in a composite sample SS-4. The SS-4 composite was derived from discrete sampling locations SS-4a, SS-4b, and SS-4c along the vegetated berm near the eastern property line. This surface soil exceedance area was further investigated in SRI2 (see Section 2.3.1.9) and addressed through IRM4 (see Section 2.3.2).

Instances where there were exceedances of Commercial or POGW SCOs, or groundwater standards or guidance values, but the issue did not rise to the level of an AOC included:

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- TCE was identified in groundwater in the eastern parking lot area in B/MW-101, B/MW-104, and B/MW-105.

A deep/water table well (B-1D) on the adjacent Jarl Extrusions site (New York State Superfund Site #828005, located at 860 Linden Avenue) was reported to have exhibited a maximum of 23 ppb TCE during a November 1990 sampling event as part of a focused RI (OBG, 1993). TCE levels observed in the three subsequent events were lower, with reported concentrations of 6 ppb (February 1991), 13 ppb (June 1992), and 9 ppb (August 1992). Based on Stantec's review of the Jarl Extrusions documents, this well was not sampled again, and it does not appear that the source was identified, nor the deep groundwater VOC impacts delineated. Monitoring well B-1D, located along the western property boundary, is less than 50 ft from 820 Linden Avenue. The site appears to be cross-gradient from the 820 Linden Ave Site.

In addition, adjacent upgradient properties located at 830 and 834 Linden Avenue have a history of manufacturing and light industry, based on the directory review findings of Site occupants at these properties as reported in Stantec's Phase I ESA (Stantec, 2017a).

TCE in groundwater on the eastern side of the Site does not appear to be related to the on-site soil vapor results based on the direction of groundwater flow, the horizontal distance to the building (approximately 185 ft), and vertical separation between the water table and the building sub-base (approximately 45 ft).

No remediation or further investigation was recommended due to the following observation:

- Groundwater is not used for drinking water purposes.
- The direction of groundwater flow indicates the likelihood of an up-gradient, off-site source.
- The presence of an off-site source is also supported by the absence of TCE groundwater impacts in wells beneath or downgradient of the 820 Linden Ave facility and the absence of any soil TCE impacts on-site.
- A deep/water table well (B-1D) on the adjacent Jarl Extrusions Site (see Figure 2) was reported to have exhibited a maximum concentration of 23 ppb TCE during a November 1990 sampling event as part of a focused Remedial Investigation (OBG, 1993). TCE levels observed in the three subsequent events were lower, with reported concentrations of 6 ppb (February 1991), 13 ppb (June 1992), and 9 ppb (August 1992). Based on Stantec's review of the Jarl Extrusions documents, this well was not sampled again, and it does not appear that the source was identified, nor the deep groundwater VOC impacts delineated.

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- Potential for exposure is minimal given (1) the depth to groundwater; and (2) that the groundwater impacts can be managed through implementation of the ICs and ECs required by this SMP, including monitoring and maintenance of the Site-wide Cover System, further detailed in Section 3.3.
- Acetone impacts to groundwater beneath the building were identified during Stantec's Limited Phase II ESA (Stantec, 2017b). Delineation of these impacts was addressed during the RI, which confirmed that groundwater acetone impacts are limited to beneath the building. Levels of acetone reported in Site soil samples do not exceed Commercial or Industrial SCOs, but in some cases exceed the POGW SCO. No remediation or further investigation was recommended due to the following observations:
 - Groundwater is not used for drinking water purposes.
 - Downgradient wells indicate that acetone in groundwater had not migrated beyond the building footprint.
 - Potential for exposure is minimal given (1) the depth to groundwater; and (2) that the groundwater and associated soil impacts can be managed through implementation of the ICs and ECs required by this SMP, including operation of the sub-slab depressurization system (IRMs 1 and 3) and ongoing monitoring/maintenance of the Cover System (further described in Section 3.3).

2.3.1.8 2019 Limited Supplemental Remedial Investigation #1 (Stantec)

Stantec completed a Limited Supplemental Remedial Investigation (SRI1) for Ridgecrest during the period July 22 through 25, 2019. SRI1 was performed in accordance with the Revised Work Plan dated February 21, 2019 (Stantec, 2019a) and approved on May 9, 2019. The reader is referred to the RIR (Stantec, 2020e) for a detailed discussion of the SRI program and findings. A summary is presented below.

The purpose of SRI1 was to further investigate the three historical septic systems (AOC3) to better inform the proposed interim remedial measures for IRM2. The objectives were to:

- (1) Refine understanding of the utility configuration in the proposed excavation areas;
- (2) Investigate tank contents for anticipated off-site disposal; and
- (3) Evaluate subsurface soil conditions beneath the Northwest Septic System for potential in-place closure.

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Components of SRI1 included: (1) ground penetrating radar (GPR) survey; (2) sanitary sewer investigation; (3) tank contents sampling; (4) leach field and tank adjacent soil investigation in the Northwest Septic System area to evaluate quality of soil with respect to Site Use; and (5) pipe video survey in the Southwest Septic System area to assess unknown pipe operational status and origin/discharge locations. Based on the findings, Stantec recommended the following be implemented under IRM2:

Southeast Septic System: in-place closure given favorable sample results for the tank contents and pending favorable leach field and tank adjacent soil sample results obtained during IRM2. This system was reportedly used for sanitary wastes only (GZA, 1995).

Southwest Septic System: removal of tanks, leach field and other associated piping with confirmatory sampling and off-site disposal of excavated system materials, contents, and adjacent soil as needed. The following summarizes the sampling results for this system:

- While not directly applicable for tank water destined for off-Site disposal, water samples collected from three of the four tanks were compared to NYSDEC SGVs. Freon 113 and PCE were reported at concentrations in each of the three tanks in exceedance of their 5 µg/L groundwater standard. Freon 113 ranged from 88 to 680 µg/L decreasing from Tank 1 (closest to the building) to Tank 3 (more westerly), as historical waste flow likely moved away from the building. Similarly, PCE ranged from 21 to 84 µg/L with concentrations decreasing from Tank 1 to Tank 3. The compound 4-isopropyltoluene was also detected in Tank 3 at a concentration only slightly exceeding the 5 µg/L groundwater standard (5.4 µg/L). No other compounds were detected.
- Solids samples were collected from two of the four tanks. Tank 1 contained water and sludge while Tank 4 contained soil that appeared to be infill from surrounding soils. While not directly applicable for soil destined for off-site disposal, results were compared to SCOs. Both solid samples had a few exceedances of UU and POGW SCOs for parameters not found to exceed standards in nearby groundwater. Otherwise, mercury,

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Freon 113, and PCBs exceeded the Commercial, but not the Industrial SCO in the Tank 1 sample (again, closest to the building). No Site use SCO exceedances were reported in the Tank 4 sample.

Northwest Septic System: in-place closure was implemented given the favorable leach field, uncontaminated tank contents, and the clean adjacent soil sample results next to the tank. An isolated exceedance of the Commercial SCO for mercury in the sample collected adjacent to Northwest Septic System Tank 2 at 8-10 ft bgs was not considered an AOC due to the sample depth and resultant minimal exposure risk as well as the absence of mercury impacts to groundwater on-site. In the test pit excavated to expose the distribution box, a discrete occurrence of solid, black, tar-like material was encountered. NYSDEC required that this material be sampled. Stantec collected a soil sample from the soil around the discrete occurrence that is representative of the remaining soil conditions in this area. Although the test pit spoils did not demonstrate impacts, there were elevated PAHs in the bulk sample requiring removal of the black tar-like material under IRM2.

2.3.1.9 2020 Limited Supplemental Remedial Investigation #2 (Stantec)

Stantec completed a second Limited Supplemental Remedial Investigation (SRI2) for Ridgecrest on April 7, 2020. SRI2 was performed in accordance with the Work Plan dated March 19, 2020 (Stantec, 2020a) and approved on March 31, 2020. The reader is referred to the RIR (Stantec, 2020e) for a detailed discussion of the SRI program, which is summarized below. The investigation and sample locations are depicted on Figure 4.

The RI results for benzo(a)pyrene exceeded Commercial and Industrial SCOs in the composite sample SS-4 comprised of three listed discrete surface soil sampling locations SS-4a, SS-4b, and SS-4c. The overall objective of SRI2 was to collect three discrete surface soil samples (0-2 inches bgs) at the approximate RI surface soil sampling locations listed above to potentially delineate the benzo(a)pyrene impacts to shallow surface soil. The sampling locations were in the vegetated berm area along the eastern property boundary. Analytical results for the discrete

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sampling indicated benzo(a)pyrene impacts exceeding the respective Commercial and Industrial SCO of 1,000 and 1,100 µg/kg at each of the three locations, with concentrations ranging from 2,300 to 350,000 µg/kg.

Based on these results, and in consultation with NYSDEC, Stantec designed a Cover System to mitigate potential future exposure to the benzo(a)pyrene-impacted shallow surface soil in the vegetated berm area along the eastern property boundary, which was installed as IRM4.

2.3.2 Overview of Interim Remedial Measures

The following is a summary of the Interim Remedial Measures (IRMs) implemented at the Site. Details regarding each IRM can be found in the documents referenced herein but each IRM is otherwise summarized below.

1. **IRM1 SSDS:** To address the NYSDOH SVI matrix recommendations for mitigation described in Section 2.3.1, the first Interim Remedial Measures Work Plan (IRM WP#1) for the Site was prepared in July 2018 to address soil vapor intrusion in a portion of the southern tenant space (JML) through design and installation of a sub-slab depressurization system (SSDS). IRM WP#1 was submitted to the Departments for review on July 31, 2018. Department comments and a conditional approval were received on September 19, 2018. The finalized IRM WP#1 was issued on October 2, 2018 (Stantec, 2018). Construction of the SSDS began on December 6, 2018 and was completed in March 2019. The system became operational on March 1, 2019. Two additional SVI monitoring points were installed in accordance with IRM WP#1 and per the request of NYSDEC: SS-13 in the northern tenant space (Newport) and SS-14 in the southern tenant space (JML). Post-SSDS installation SVI sampling was performed on March 31, 2019 in accordance with the approved IRM WP#1.
2. **IRM3 SSDS Extension:** Based on the March 2019 post-SSDS SVI sampling results, a Supplemental Interim Remedial Measures Work Plan (IRM WP#3) was submitted to NYSDEC and NYSDOH for review on August 12, 2019 to detail the SSDS extension

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into the area of the southern tenant space that was constructed in 1954 (see Figure 2).

Department approval of the August 2019 IRM WP#3 (Stantec, 2019b) was received on October 1, 2019. Construction of the extended SSDS began on December 11, 2019 and was completed in January 2020. The extended system became operational on January 16, 2020. Details of the SSDS design and installation for IRMs 1 and 3 are documented in the SSDS Construction Completion Report (CCR; Stantec, 2020b).

3. **IRM2 Septic System Removal/Closures & Debris Pile Removal:** To address findings from the RI test pit program and debris pile sampling results, IRM Work Plan #2 (IRM WP#2) was prepared following completion of SRI1 and was submitted to the Departments for review on November 20, 2019. IRM WP#2 detailed the excavation/in-place closure of three historical septic systems (identified as Remedial Area of Concern [RAOC]-1 through RAOC-3) as well as removal of the impacted debris pile (identified as RAOC-4). Department comments detailing disapproval of IRM WP#2 were received on March 10, 2020. A revised version of IRM WP #2 addressing Department comments was submitted on April 13, 2020 (Stantec, 2020c) and was subsequently approved on May 22, 2020. IRM2 implementation began on June 15, 2020 and was largely completed by July 28, 2020. Details of IRM2, including a refined understanding of the septic system layouts, an explanation as to why the Southwest Septic System was removed and the two others were closed in place, the results of investigation/confirmatory sampling, and data associated with the new septic area monitoring wells, are documented in the CCR (Stantec, 2020g). In addition, a debris pile containing PAH contaminated soil was removed during this IRM2.

Analytical results for RAOCs-1 through -5 are presented in Tables 6 through 10. Tables 11a and 11b summarize results of solid and liquid septic system characterization sampling for off-site disposal as non-hazardous waste.

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Figures 5a through 5c depict the configuration of each of the three septic system areas (RAOCs-1 through 3) and sample locations for both investigation and confirmatory sampling purposes.

4. **IRM4 Cover System for Surface Soil PAH Impacts:** To address findings from the RI and SRI2 surface soil sampling programs, IRM Work Plan #4 (IRM WP#4) was prepared and submitted to the Departments for review on June 15, 2020. IRM WP#4 detailed the design and installation of an engineered Cover System for the vegetated portion of the eastern property line area (identified as RAOC-5); previous sampling indicated that shallow surface soil was impacted by benzo(a)pyrene above Site Use SCO's (see Section 2.3.1). Department approval of the June 2020 IRM WP#4 (Stantec, 2020d) was received on July 2, 2020. IRM4 implementation began on July 7, 2020 and was completed on July 23, 2020. Details of the implementation of IRMs 2 and 4 are documented in a combined CCR (Stantec, 2020g).

In accordance with the findings of the Alternatives Analysis Report (AAR; Stantec, 2020f), implementation of these four IRMs constitutes a satisfactory final remedy for the Site and no further remedial action is required beyond implementation of the ongoing Site Controls required by this SMP.

2.4 Remedial Action Objectives

The Remedial Action Objectives (RAOs) for the Site as listed in the Decision Document dated [month, day, year] are as follows:

2.4.1 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.

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2.4.2 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.

2.4.3 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 the Site.

2.5 Remaining Contamination

2.5.1 Groundwater

Based on the Limited Phase II ESA, RI, and IRM2 groundwater sampling events, only two compounds are identified in groundwater beneath the Site at concentrations exceeding SGVs:

1. **Acetone** was reported to exceed its standard of 50 µg/L in the three groundwater samples collected beneath the southern building footprint at investigation locations B-11D, B-12D, and B-13D, at concentrations ranging from 100 to 1,100 µg/L. Exterior groundwater sampling confirmed that acetone impacts to groundwater are limited to beneath the building based on two rounds of non-detect results for acetone in each of the 10 exterior wells. Additionally, the groundwater sampling results from IRM2 were non-detect for all three new [exterior] monitoring wells confirming the limits of acetone groundwater impacts to beneath the building.

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2. **TCE** in groundwater beneath the Site is limited to the eastern parking lot area where it was detected in three RI monitoring wells (B/MW-101, B/MW-103, and B/MW-104) during both RI sampling events. The TCE concentrations in upgradient B/MW-103 and B/MW-104 exceeded the standard of 5 µg/L in both RI rounds of groundwater sampling (9.7 to 17 µg/L). Downgradient well B/MW-101 exhibited a low-level concentration of TCE below the SGV in both RI groundwater sampling rounds (1.3 to 1.9 µg/L). TCE was not reported to exceed SGVs in any of the three new [exterior] monitoring wells installed and sampled during IRM2, thus confirming the on-site limits of TCE groundwater impacts to the eastern parking lot area. Furthermore, the following lines of evidence indicate likelihood of an off-site source: (1) direction of groundwater flow; (2) absence of on-site soil TCE impacts; (3) absence of groundwater TCE impacts downgradient of 820 Linden Ave facility; and (4) historically documented TCE impacts to groundwater at adjacent Jarl Extrusions site.

Potential exposure is being addressed through implementation of the Site Controls required by this SMP. Table 5 summarizes the analytical results for groundwater samples and Figure 6 depicts the SGV exceedances. As depicted on Figure 6, on-site impacts for both acetone and TCE are delineated.

Note that exceedances for commonly occurring metals such as iron, magnesium, manganese, and sodium are not included on the figure although they are reported in the analytical summary table. The observed concentrations of these metals in groundwater are not considered to be related to an environmental release or historical Site use but appear representative of background-level concentrations of naturally occurring metals.

2.5.2 [Soil](#)

As discussed in Section 2.3, the following soil impacts were identified through the documented investigation activities and were addressed during IRM2:

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- Benzo(a)pyrene impacts to shallow surface soil along the vegetated portion of the eastern property line were addressed through installation of an engineered Cover System during implementation of IRM4. A demarcation layer was installed to represent the base of the Cover System and underlying PAH impacts.
- The former debris pile previously located in the northeast corner of the parking lot area was found to contain elevated levels of PAHs associated with significant crushed asphalt contents. Removal of this debris pile along with required confirmatory sampling was performed as part of IRM2. Based on confirmatory sampling results, the PAH-impacted debris pile fill material extended to the northern property line; the material was removed up to the property line and a subsequent sidewall confirmatory sample was collected. The final property line sample demonstrated extensive removal of the most impacted fill material; however, lower concentration PAH-impacted fill remains at the edge of the Site. No bottom confirmatory samples were collected due to the asphalt – not soil – base.
- Three historical septic systems were located during the RI. The buried structures were addressed through system removal (Southwest) or in-place closure (Southeast and Northwest) during IRM2. Details related to the septic system investigation, findings, and remedial measures are summarized in Section 2.3 and in the CCR (Stantec, 2020g). Except for the isolated mercury exceedance described below, no soil contamination above Site Use SCOs associated with the historical septic systems remains on-site following the implementation of IRM2, which included the removal of the Southwest Septic System (RAOC-2) and the residual black tar-like material in the Northwest Septic System (RAOC-3).

There are four areas of remaining soil contamination on the Site:

1. **Benzo(a)pyrene** impacts to shallow surface soil along the eastern property line berm area are beneath an engineered Cover System. A demarcation layer was installed to represent the base of the Cover System and underlying PAH impacts. Analytical results for the

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discrete SRI2 sampling indicated benzo(a)pyrene impacts exceeding the respective Commercial and Industrial SCOs of 1,000 and 1,100 µg/kg at each of the three locations, with concentrations ranging from 2,300 to 350,000 µg/kg; these samples were collected at a depth of 0-2 inches below the original grade but which is now covered with one foot of gabion stone.

2. **PAH-impacted fill** associated with the residual contaminants from the removed debris pile, previously located in the northeast corner of the parking lot area, remains at the limits of excavation at the northern property line. Benzo(a) pyrene was detected at 4,200 µg/kg (versus respective Commercial and Industrial SCOs of 1,000 and 1,100 µg/kg) and benzo(b)fluoranthene was detected at 6,100 µg/kg (versus the Commercial SCO of 5,600 µg/kg), at an approximate depth of 1.2 ft. below ground surface (note: this sidewall is above the parking lot grade).
3. **Mercury** was detected in the sample adjacent to Northwest Septic System Tank 2. The reported mercury concentration of 3.2 mg/kg exceeds the UU SCO (0.18 mg/kg), Commercial Use SCO (2.8 mg/kg), and POGW SCO (0.73 mg/kg), but meets the Industrial Use SCO (5.7 mg/kg). The sample was collected at 8-10 ft bgs and, due to the depth and isolated occurrence, is not considered a concern.
4. **Acetone** levels reported in Site soil samples do not exceed Commercial or Industrial SCOs, but in some cases exceed the POGW (and UU) SCO of 50 µg/kg. However, the only co-located groundwater acetone impacts are beneath the building footprint. Acetone concentrations in soil samples collected from exterior borings B/MW-101, B/MW-103, and B/MW-104 at depths directly above the water table ranged in concentration from 59 to 63 µg/kg, only slightly exceeding the SCO. Acetone concentrations in soil samples collected from interior borings B-10, B-11D, B-12D, B-13, and B-13D ranged in concentration from 53 to 120 µg/kg; the interior soil sample depths ranged from 3 to 60.5 ft bgs.

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Tables 6 through 10 summarize the analytical results for soil samples collected for RAOCs-1 through -5. Analytical results from the Phase II ESA and RI are presented in Table 4.

Figure 7a summarizes the results of all soil samples collected that exceed the Commercial/Industrial Use SCOs at the Site after completion of remedial action. Following remediation, the only parameters to exceed Commercial/Industrial Use SCOs are **mercury, benzo(a)pyrene, and benzo(b)fluoranthene**.

Figure 7b summarizes the results of all soil samples collected that exceed the POGW SCOs at the Site after completion of remedial action. The only parameter to exceed POGW SCOs with co-located groundwater impacts is **acetone** (note that the POGW and UU SCO for acetone are the same). The following parameters were identified in remaining soils as exceeding their respective POGW SCO, but were not reported in groundwater above SGVs: mercury, silver, dieldrin, benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, and chrysene.

Figure 7c summarizes the results of all soil samples collected that exceed the UU SCOs, but do not exceed Site Use SCOs, after completion of remedial action; this includes select **metals, pesticides, and PAHs**. Acetone is not shown on Figure 7c as the extent of acetone impacts are clearly depicted on Figures 6 and 7b.

Exceedances for commonly occurring metals such as aluminum, calcium, iron, magnesium, manganese, and sodium are not included on the figures although they are reported in the analytical summary tables. The observed concentrations of these metals in soil are not considered to be related to an environmental release or historical Site use but appear representative of background-level concentrations of naturally occurring metals.

As discussed later in Section 3.3.1, the Site-wide Cover System serves as an EC to mitigate exposure to remaining soil contamination. Ground-intrusive work that will breach the Cover System must be performed in compliance with this SMP and monitoring is required in accordance with the EWP (Appendix D).

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2.5.3 Soil Vapor

CVOCs have been identified in sub-slab soil vapor beneath the JML (southern) tenant space at concentrations requiring mitigation. CVOC impacts to sub-slab vapor were first identified from historical PSG surveys (ERM, 2004; Labella, 2005). The potential for SVI was investigated by Stantec through combined sub-slab vapor and indoor air sampling in 2016-2017 as part of the Limited Phase II ESA (Stantec, 2017b). The following CVOCs were identified as contaminants of concern (COCs) for this media: 1,1-DCE; cis-1,2-DCE; PCE; and TCE. Although methylene chloride results also indicated a need for mitigation, products containing this compound were utilized in both tenant spaces at the time of SVI sampling; therefore, methylene chloride is not considered a Site COC from historical use. No source of the CVOC sub-slab soil vapor impacts was identified despite shallow and deep soil and groundwater investigations in the areas of impact. Potential soil vapor intrusion is being addressed through implementation of IRM1 and IRM3 (see Section 2.3.2), which requires the operation of the SSDS in perpetuity pursuant to this SMP, the environmental easement, and the Operations, Maintenance, and Monitoring Plan (OM&M Plan) appended to this SMP.

Tables 3a and 3b summarize the SVI sampling results compared to NYSDOH Guidance Matrices for Newport (northern tenant space) and JML (southern tenant space), respectively. Figure 8 depicts the sampling results for the area of SVI concern that required mitigation: JML (southern) tenant space. The general area of the building footprint in the southern tenant space which requires an EC for mitigating SVI, and which is serviced by the SSDS, are also depicted on Figure 8.

3.0 INSTITUTIONAL AND ENGINEERING CONTROL PLAN

3.1 General

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

This plan provides:

- A description of all IC/ECs on the Site;
- The basic implementation and intended role of each IC/EC;
- A description of the key components of the ICs set forth in the Environmental Easement;
- A description of the controls to be evaluated during each required inspection and periodic review;
- A description of plans and procedures to be followed for implementation of IC/ECs, such as the implementation of the 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.

The current owner, and all future owners, are required to make arrangements with any existing tenants to implement this SMP and perform required operations and maintenance work.

3.2 Institutional Controls

A series of ICs is required by the Decision Document to: (1) implement, maintain and monitor EC systems; (2) prevent future exposure to remaining contamination; and, (3) limit the use and development of the Site to Commercial/Industrial Uses only. Adherence to these ICs on the Site is required by the Environmental Easement and will be implemented under this SMP. ICs

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identified in the Environmental Easement may not be discontinued without an amendment to or extinguishment of the Environmental Easement. The IC boundaries are depicted on the Environmental Easement (Appendix A). These ICs are:

1. The property may be used for Commercial or Industrial use;
2. All ECs must be operated and maintained as specified in this SMP;
3. All ECs 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 Monroe 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 this SMP;
6. Data and information pertinent to site management must be reported at the frequency and in a manner as defined in this SMP;
7. All future activities that will disturb remaining contaminated material must be conducted in accordance with this SMP;
8. Monitoring to assess the performance and effectiveness of the remedy must be performed as defined in this SMP;
9. Operation, maintenance, monitoring, inspection, and reporting of any mechanical or physical component of the remedy shall be performed as defined in this 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 the Environmental Easement;
11. The potential for vapor intrusion must be evaluated for any future buildings developed within the Site property boundary, and any potential impacts that are identified must be monitored or mitigated; and
12. Vegetable gardens and farming on the Site are prohibited.

3.3 Engineering Controls

3.3.1 Cover System

Exposure to remaining contamination at the Site is prevented by a Cover System which was previously existing or which was placed over the areas of the Site with residual impacts. This Cover System is comprised of the following existing and newly-installed components:

- Existing concrete building floor slab;
- Existing landscaped, vegetated, or lawn areas with at least one foot of non-impacted (except by iron, which is considered to be naturally occurring) soil overlying remaining soil with SCO exceedances;
- Existing paved parking lot areas; and
- A newly-installed engineered cover consisting of a one-foot thick cap of gabion stone over a demarcation layer for the eastern [formerly vegetated] property line area (RAOC-5) remediated during IRM4.

Figure 9 presents the location of the Cover System and applicable demarcation layers. 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, Appendix E) and associated Community Air Monitoring Plan (CAMP, Appendix F) prepared for the Site.

3.3.2 Sub-Slab Depressurization System (SSDS)

Soil vapor intrusion (SVI) is the migration of VOCs or semi-volatile organic compounds (SVOCs) from contaminated groundwater and soil into overlying buildings. SSDSs are designed

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to mitigate the migration of subsurface vapors into the interior of a structure by collecting and extracting vapors from beneath an interior, occupied space, safely routing the vapors around or through the interior, occupied space and discharging them above the roof line in a manner that does not lead to their recirculation in the building's HVAC operations.

In order to mitigate potential migration of CVOC-impacted soil vapor into the southern tenant space, an SSDS was designed and constructed in two phases:

1. From December 2018 through February 2019, the first phase of the SSDS was installed throughout the majority of the southern tenant space in the existing on-site building. The SSDS installation was performed concurrently with the RI as IRM1 in accordance with the Department-approved IRM Work Plan #1 (IRM WP#1) dated July 2018 (Stantec, 2018). The system became operational on March 1, 2019.
2. To address the March 2019 SVI sampling results, a second phase of the SSDS was designed for installation in the portion of the building permitted in 1954 in the southern tenant space. From December 2019 through January 2020 construction was completed in accordance with the Department-approved IRM Work Plan #3 (IRM WP#3) dated August 2019 (Stantec, 2019b). The expanded system became operational on January 16, 2020.

Figure 9 shows the location of the general area of the building footprint that is serviced by the SSDS. The goal of the SSDS is to maintain a minimum pressure differential vacuum of 0.002-inches of water column between the applicable sub-slab areas and the building interior space in portions of the building's footprint where the SSDS is installed. Details of the SSDS design, construction, and operation are provided in the SSDS CCR (Stantec, 2020b).

Procedures for operating and maintaining the SSDS are documented in the Operation and Maintenance Plan (Section 5.0 of this SMP). The SSDS has a built-in warning device to indicate that the system is not operating properly. If an alarm is activated, the tenant is required to notify the Site Owner and Engineer immediately to initiate necessary corrective measures. In the event

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that a warning device is activated, applicable maintenance and repairs will be conducted, as specified in the OM&M Manual, and the SSDS will be restarted. Operational problems will be noted in the PRR to be prepared for that reporting period.

As built drawings, signed and sealed by a professional engineer, are included in Appendix G.

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 RAOs identified by the Decision Document. The framework for determining when remedial processes are complete is provided in Section 6.4 of NYSDEC DER-10.

3.3.3.1 *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.

3.3.3.2 *Sub-Slab Depressurization System (SSDS)*

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

Monitoring and Sampling Plan

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. 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 (QAPP) provided in Appendix H.

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

- Sampling and analysis of all appropriate media (e.g., indoor air, soil vapor, soils);
- Assessing compliance with applicable NYSDEC standards, criteria and guidance (SCGs), particularly 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; 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**. Modification to the frequency or duration of the inspections will require approval from the NYSDEC. Site-wide inspections will also be

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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 I – 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;
- 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 (PRR). 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; and

Reporting requirements are outlined in Section 7.0 of this plan.

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

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must be provided to the NYSDEC within 7 days of the event that includes a summary of actions taken, or to be taken, and the potential impact to the environment and the public.

4.3 Treatment System Monitoring and Sampling

4.3.1 Remedial System Monitoring

Monitoring of the SSDS will be performed on a routine basis, as described in Section 5.0. Modification to the frequency or monitoring requirements will require approval from the NYSDEC. A visual inspection of the complete system will be conducted during each monitoring event. Unscheduled inspections and/or sampling may take place when a suspected failure of the SSDS has been reported or an emergency occurs that is deemed likely to affect the operation of the system.

4.3.2 Remedial System Sampling

Routine SSDS sampling is not required.

5.0 OPERATION AND MONITORING PLAN

5.1 General

This Operation and Monitoring Plan provides a brief description of the measures necessary to operate and maintain the mechanical components of the remedy selected for the Site. This Operation and Monitoring Plan:

- Includes the procedures necessary to allow individuals unfamiliar with the Site to operate and maintain the SSDS; and
- Will be updated periodically to reflect changes in Site conditions or the manner in which the SSDS is operated and maintained.

Further detail regarding the Operation and Monitoring Plan is provided in the OM&M Manual, which is presented in Appendix G. A copy of the OM&M Manual, along with the complete SMP, is to be maintained at the Site. This Operation and Maintenance Plan is not to be used as a stand-alone document, but as a component document of this SMP.

5.2 SSDS Performance Criteria

Stantec designed an active SSDS in a series of two phases:

1. Phase One (IRM1) consisted of a network 19 suction cavities which penetrated the existing floor slab; the area coverage for Phase One is referred to as Zones 1-7.
2. Phase Two (IRM3) consisted of a network of 4 suction cavities, which also penetrated the existing floor slab; the area coverage for Phase Two is referred to as Zone 8.

The locations of these 23 suction cavities were based on radii of influence observed during sub-slab communication testing performed in August and September 2017, as well as the spatial restrictions of the existing tenant in the southern portion of the building.

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For **Zones 1-7**, the system is designed to exhaust sub-slab vapor at a total rate of no more than 300 cfm per fan. Each fan is sized to operate at approximately 2 inches of water column (+/- 0.5 inches of water column; note that SSDS Zone 7 will be slightly higher than this range since there are only 2 suction cavities on this system).

For **Zone 8**, the system is designed to exhaust sub-slab vapor at a total rate of approximately 80 cfm. Both fans in series are sized to operate at approximately 5 inches of water column (+/- 0.5 inches of water column).

If vacuum is not detected greater than or equal to 0.002 inches of water column at all permanent sub-slab pressure monitoring points depicted on Drawing ENV-101 (see Appendix A of the OMM Manual, which is appended to this SMP as Appendix G), the SSDS may need to be adjusted or optimized due to changing subsurface conditions or other factors. System optimization can be completed by the following:

- Collect vacuum readings at all pressure monitoring points (PMPs) to determine which area(s) within zones may have excess vacuum. Identify risers associated with the excess vacuum and throttle the ball valves for identified risers down accordingly. Re-check all PMPs to determine if sufficient vacuum is present at each location.
- If Option 1 does not yield acceptable vacuum throughout the system, system optimization may be accomplished by selecting new fans for one or several of the eight SSDS piping networks.

Should the need for system optimization arise, contact the Owner and the Engineer immediately.

Additional details related to the system components and overall design are described in the OMM Manual (Appendix G of this SMP).

5.3 Operation and Maintenance of the SSDS

5.3.1 System Start-Up and Shut-Down

To turn the system on:

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1. Ensure that the appropriate breakers in the electrical panel boxes are ON with the help of a person qualified to open the electrical panels on-site.
2. Ensure the motor starter switches are in the ON position. These are located on the roof near each fan.
3. Confirm proper SSDS operation by applying the appropriate monitoring tasks outlined in Sections 5.3.2.1 and 5.3.2.2.

To turn the system off:

1. Put the motor starter switches in the OFF position. These are located on the roof and are mounted on the metal support structure for each of the exhaust fans;
2. Place the appropriate circuit breakers in the OFF position with the assistance of a person qualified to open the electrical panels on-site.

5.3.2 [Routine System Operation and Maintenance](#)

Under normal operating conditions, regular maintenance of the system is not required unless monitoring results indicate a significant change from normal operating conditions.

5.3.2.1 Monthly Monitoring

The following monitoring tasks will be completed by the Owner or building operator on a monthly basis:

1. Collect vacuum readings from the eight (8) manometer gauges located in the monitoring panels (see OMM Manual Appendix A, presented in Appendix G of this SMP). Record the measurements on the 820 Linden Avenue SSDS Monthly Monitoring Log provided in Appendix I.
 - a. For fans in Zones 1-7 (Fans #1-7), if the manometer needle rests all the way to the left on the zero bar and/or the low-pressure switch audible warning alarm is activated/the pilot light is red, confirm operation (either visually or audibly) of the corresponding fan at the roof level and notify the Owner and Engineer immediately in order to initiate necessary corrective measures.

Operation and Monitoring Plan

- b. For fans in Zone 8 (Fans #8 and #9), if the manometer needle sits below 4.8 in H₂O and/or the low-pressure switch audible warning alarm is activated/the pilot light is red, confirm operation (either visually or audibly) of the corresponding fan at the roof level and notify the Owner and Engineer immediately in order to initiate necessary corrective measures.
2. Indicate on the log sheet if the instrument panel pilot lights are green or red to verify that fans are operating correctly. If any of the pilot lights are off, notify the Owner and Engineer immediately in order to initiate necessary corrective measures.
3. Maintain panelboard schedules in the electrical panels that contain circuit breakers for SSDS roof-mounted fans.
4. With the assistance of a trained electrician, shut off the corresponding circuit breakers for the SSDS roof-mounted fans to confirm that the low-pressure switches provide both (1) an audible warning and (2) a visual warning via the pilot light changing from green to red. If any low-pressure switches do not work correctly, notify the Owner and Engineer immediately to initiate corrective measures. Once the test has been completed, ensure that corresponding circuit breakers have been turned back on.
5. Note any observed abnormalities, visual or auditory, with respect to normal system operating conditions on the log sheet.

5.3.2.2 Annual Monitoring

A complete system evaluation will be performed on an annual basis by the Engineer retained by the Owner/building operator. The following tasks will be completed as part of this evaluation:

1. Complete that month's monthly monitoring tasks outlined in Section 5.3.2.1 above, recording on the 820 Linden Avenue SSDS Annual Monitoring Log provided in Appendix I. Results of the other monthly events performed by the Owner or building operator will also be reviewed.
2. Using a micromanometer, obtain vacuum readings from the 23 sub-slab pressure monitoring points (see OMM Manual Appendix A, presented in Appendix G of this SMP). Ensure that the micromanometer has been calibrated by the manufacturer within one year of its use. If any of the sub-slab pressure monitoring points or well boxes are damaged, take measures for corrective action.

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3. Inspect the entire finished floor slab for cracks, new penetrations, or other potential leaks. Perform smoke testing as necessary to assess the leakage potential of suspect locations.
4. Inspect the fans and low-pressure switches (audible warning/visual pilot light alarms) and note any abnormal conditions such as hot fan housings, vibrations or unusual noise.
5. If the roof is accessible and safe to be on (e.g. not covered with snow or ice), make note of any condensation occurring on the SSDS exhaust piping. Visually inspect the ½" by ½" hot dipped galvanized mesh on the exhaust stacks to verify there are no obstructions to exhaust flow.

5.3.3 [System Monitoring Devices and Alarms](#)

The SSDS has a built-in warning device to indicate that the system is not operating properly. In the event that a warning device is activated, applicable maintenance and repairs will be conducted, as specified in the Operation and Maintenance Plan, and the SSDS will be restarted. Operational problems will be noted in the PRR to be prepared for that reporting period.

The system is monitored by several Radonaway Checkpoint IIa low-pressure switches, which each have two pilot lights. If the system is operating correctly, a green light should be illuminated. The low-pressure switches also have an audible warning alarm. The goal of the low-pressure switches is to monitor the vacuum being produced by the roof-mounted fans. The location of the low-pressure switches and other design components of the SSDS are detailed in the OMM Plan (Appendix G).

For **Zones 1-7**, when the fans are creating greater than 0.25 inches of water column pressure differential, the audible/visual alarm will not be activated, and the green pilot light will be illuminated. If the pressure differential in the SSDS piping drops below 0.25 inches of water column pressure differential, the audible alarm will be activated, and the red pilot light will become illuminated.

For **Zone 8**, when the fans are creating greater than 4.8 inches of water column pressure differential, the audible/visual alarm will not be activated, and the green pilot light will be illuminated. If the pressure differential in the SSDS piping drops below 4.8 inches of water

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column pressure differential, the audible alarm will be activated, and the red pilot light will become illuminated.

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.

A formal vulnerability assessment of the Site and remedial systems has not been performed. The Site is not considered to be highly vulnerable to future severe storms/weather events associated with climate change, based on the following:

- The Site is not located along a coastline or within a flood hazard area as determined by the Federal Emergency Management Agency (FEMA, 2008). The nearest flood zones are located approximately 2,800 ft to the northeast (Irondequoit Creek) and northwest (Allen Creek).
- Should significant rain events occur, it is anticipated that the existing Site drainage would mitigate potential building flooding given the parking lot storm drain, roof outfall system, and sandy soils promoting infiltration. No indications of significant erosion at the Site have been observed.
- The one-story building is constructed with a concrete slab and generally either concrete masonry unit or sheet rock walls. Based on the construction date and indicated materials, the building is not likely to be highly susceptible to significant wind or storm damage. Additionally, the roof fans have weather resistant housings and are designed to be fully exposed to the weather.
- The SSDS is powered by the building's electric system. If there was a power outage, the SSDS would function on a reduced efficiency in a passive mode. When the power

Periodic Assessments/Evaluations

returns, the fans will automatically restart as there is no required restart procedure. In such cases of temporary power outage and passive SSDS operations, it is assumed that the exposure risk to workers would be lower as the facility would not be operating normally under a power outage situation.

- No spill or potential contaminant releases resulting from severe weather events are an issue for this Site as the remedial system addresses soil vapor intrusion and does not manage solids or liquids.

Should Site conditions change such that any of the above reasons are no longer applicable, a formal vulnerability assessment may be considered, but none is proposed at this time.

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 PRR.

6.2.1 Timing of Green Remediation Evaluations

For major remedial system components, green remediation evaluations and corresponding modifications will be undertaken at any time that the 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.

6.2.2 Remedial Systems

Remedial systems will be operated properly considering the current Site conditions to conserve materials and resources to the greatest extent possible. Consideration will be given to operating rates and use of consumables. Spent materials will be sent for recycling, as appropriate.

6.2.3 Building Operations

Structures including buildings and sheds will be operated and maintained to provide for the most efficient operation of the remedy, while minimizing energy, waste generation and water consumption.

6.2.4 Frequency of System Checks, Sampling, and Other Periodic Activities

Transportation to and from the Site and use of consumables in relation to visiting the Site in order to conduct system checks and or collect samples and shipping samples to a laboratory for analyses have direct and/or inherent energy costs. The schedule and/or means of these periodic activities have been prepared so that these tasks can be accomplished in a manner that does not impact remedy protectiveness but reduces expenditure of energy or resources.

6.2.5 Metrics and Reporting

As discussed in Section 7.0 and as shown in Appendix I – Site Management Forms, information on energy usage, solid waste generation, transportation and shipping, water usage and land use and ecosystems will be recorded to facilitate and document consistent implementation of green remediation during site management and to identify corresponding benefits; a set of metrics has been developed.

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 I. These forms are subject to NYSDEC revision.

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 the PRR, described in Section 7.2. 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, etc);
- Copies of all field forms completed (e.g., well sampling logs, chain-of-custody documentation, etc.);
- Sampling results in comparison to appropriate standards/criteria;
- A figure illustrating sample type and sampling locations;
- Copies of 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

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- 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>.

Reporting Requirements

7.2 Periodic Review Report

A Periodic Review Report (PRR) will be submitted to the Department beginning eighteen (18) months after the Certificate of Completion is issued. After submittal of the initial PRR, the next PRR shall be submitted annually to the Department or at another frequency as may be required by the Department. In the event that the Site is subdivided into separate parcels with different ownership, a single PRR will be prepared that addresses the Site described in the Environmental Easement (Appendix A). The report will be prepared in accordance with NYSDEC's DER-10 and submitted within 30 days of the end of each certification period. If needed, media sampling results will also be incorporated into the PRR. The report will include:

- Identification, assessment and certification of all ECs/ICs required by the remedy for the Site.
- Results of the required annual Site inspections and severe condition inspections, if applicable.
- All applicable site management forms and other records generated for the Site during the reporting period in the NYSDEC-approved electronic format, if not previously submitted.
- A summary of any discharge monitoring data and/or information generated during the reporting period, with comments and conclusions.
- As needed, data summary tables and graphical representations of COCs by media (groundwater, soil vapor, etc.), which include a listing of all compounds analyzed, along with the applicable standards, with all exceedances highlighted. These will include a presentation of past data as part of an evaluation of contaminant concentration trends.
- Results of all analyses, copies of all laboratory data sheets, and the required laboratory data deliverables for all samples collected during the reporting period will be submitted in digital format as determined by the NYSDEC. Currently, data is supplied electronically and submitted to the NYSDEC EQulS™ 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:

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- The compliance of the remedy with the requirements of the Site-specific Decision Document;
- The operation and the effectiveness of all treatment units, etc., including identification of any needed repairs or modifications;
- Any new conclusions or observations regarding Site contamination based on inspections or data generated by the Monitoring and Sampling Plan for the media being monitored;
- Recommendations regarding any necessary changes to the remedy and/or Monitoring and Sampling Plan; and
- The overall performance and effectiveness of the remedy.
- A performance summary for all treatment systems at the Site during the calendar year, including information such as:
 - The number of days the system operated for the reporting period;
 - A description of breakdowns and/or repairs along with an explanation for any significant downtime;
 - A description of the resolution of performance problems;
 - Alarm conditions;
 - Trends in equipment failure;
 - A summary of the performance, effluent and/or effectiveness monitoring; and
 - Comments, conclusions, and recommendations based on data evaluation.

7.2.1 Certification of Institutional and Engineering Controls

Following the last inspection of the reporting period, a Professional Engineer licensed to practice in NYS will prepare, and include in the PRR, 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:

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- *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;*
- *No new information has come to my attention, including groundwater monitoring data from wells located at the Site boundary, if any, to indicate that the assumptions made in the qualitative exposure assessment of off-site contamination are no longer valid;*
- *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], of [business address], am certifying as [Owner/Remedial Party or Owner's/Remedial Party's Designated Site Representative]."

Reporting Requirements

Every five years the following certification will be added:

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

The signed certification will be included in the PRR.

The PRR will be submitted, in electronic format, to the NYSDEC Central Office, Regional Office in which the site is located and the NYSDOH Bureau of Environmental Exposure Investigation. The PRR may 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 IC or EC, a Corrective Measures Work Plan will be submitted to the NYSDEC for approval. This plan will explain the failure and provide the details and schedule for performing work necessary to correct the failure. Unless an emergency condition exists, no work will be performed pursuant to the Corrective Measures Work Plan until it has been approved by the NYSDEC.

References

8.0 REFERENCES

- | | |
|---------------------------|---|
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| FEMA, 2008 | National Flood Insurance Program (NFIP), Flood Insurance Rate Map for Monroe County, New York, Map Numbers: 36055C0357G and 36055C0376G. August 28, 2008. |
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| GZA, 1995 | Site Assessment and Operations Audit, Milton Roy Analytical Products Division, 820 Linden Avenue, Rochester, New York. June 1995. |
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- Stantec, 2019a Revised Limited Supplemental Remedial Investigation Work Plan, Brownfield Cleanup Program Site #C828200, 820 Linden Avenue, Pittsford, Monroe County, New York. February 21, 2019.
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- Stantec, 2020a Revised Limited Supplemental Remedial Investigation Work Plan #2, Brownfield Cleanup Program Site #C828200, 820 Linden Avenue, Pittsford, Monroe County, New York. March 19, 2020.
- Stantec, 2020b Revised Interim Remedial Measures #1 and #3 Construction Completion Report, 820 Linden Ave Site, Pittsford, New York, BCP Site # C828200. August 26, 2020.
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- | | |
|----------------|--|
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| USGS, 1985 | Geohydrology of the Irondequoit Creek Basin Near Rochester, New York, Water Resources Investigation Report 84-4259, Yager, et al, 1985. |

TABLES

Table 2
Water Level Summary
 Site Management Plan
 820 Linden Ave Site, BCP #C828200
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Well ID	Ground Elevation (ft AMSL)	TOC Elevation (ft AMSL)	10/1/2018		1/23/2019		7/17/2020	
			Water Level (ft BTOC)	Water Elevation (ft AMSL)	Water Level (ft BTOC)	Water Elevation (ft AMSL)	Water Level (ft BTOC)	Water Elevation (ft AMSL)
MW-1	418.02	417.59	53.73	363.86	53.85	363.74	55.74	361.85
MW-2	422.41	422.05	59.01	363.04	59.09	362.96	60.02	362.03
MW-3 ¹	421.76	421.52	72.37	--	72.78	--	73.49	--
MW-4	421.51	421.22	60.78	360.44	60.62	360.60	61.73	359.49
MW-5	422.46	422.21	61.60	360.61	61.65	360.56	62.59	359.62
B/MW-101	415.59	415.23	60.53	354.70	60.45	354.78	ng	--
B/MW-102	422.02	421.50	54.59	366.91	54.72	366.78	55.53	365.97
B/MW-103	416.49	416.17	50.82	365.35	51.02	365.15	51.82	364.35
B/MW-104	414.77	414.42	49.01	365.41	49.15	365.27	49.90	364.52
MW-104S	414.85	414.45	dry	--	dry	--	dry	--
B/MW-105	421.42	420.77	40.73	380.04	41.08	379.69	41.58	379.19
MW-110	422.16	421.75	-- ²				49.90	371.85
MW-111	422.52	421.99					46.15	375.84
MW-112	422.41	421.97					46.42	375.55

Notes:

¹ MW-3 is an angled well. As such, measuring an accurate depth to water and calculating a valid groundwater elevation is not feasible.

² Monitoring wells installed as part of IRM2 in July 2020, after the 2018-2019 RI gauging events.

Abbreviations:

B/MW = soil boring/monitoring well
 ft AMSL = feet above mean sea level (NAVD 88)
 ft BTOC = feet below top of [inner] casing
 IRM2 = Interim Remedial Measures #2 (Stantec, 2020)
 ng = not gauged; well inaccessible due to overlying soil stockpile
 MW = monitoring well
 NAVD 88 = North American Vertical Datum of 1988
 RI = Remedial Investigation (Stantec, 2018)

Table 3a
Comparison of Sub-Slab Vapor and Indoor Air Results to NYSDOH Guidance Matrices (Newport)
Site Management Plan
820 Linden Ave Site, BCP #C828200
820 Linden Avenue, Pittsford, NY

Sample Location		IA-1	SS-1		IA-2	SS-2		IA-3	SS-3		IA-4	SS-4		IA-4	SS-4		IA-4	SS-4	
Sample Date		14-Apr-16	14-Apr-16		14-Apr-16	14-Apr-16		14-Apr-16	14-Apr-16		14-Apr-16	14-Apr-16		18-Jan-17	18-Jan-17		31-Mar-19	31-Mar-19	
Sample ID		IA-1	SS-1		IA-2	SS-2		IA-3	SS-3		IA-4	SS-4		IA-4	SS-4		IA-4	SS-4	
Sample Description		Indoor Air	Sub-Slab Soil Vapor		Indoor Air	Sub-Slab Soil Vapor		Indoor Air	Sub-Slab Soil Vapor		Indoor Air	Sub-Slab Soil Vapor		Indoor Air	Sub-Slab Soil Vapor		Indoor Air	Sub-Slab Soil Vapor	
Sampling Company		STANTEC	STANTEC	Matrix and	STANTEC	STANTEC	Matrix and	STANTEC	STANTEC	Matrix and	STANTEC	STANTEC	Matrix and	STANTEC	STANTEC	Matrix and	STANTEC	STANTEC	Matrix and
Laboratory		TALBUR	TALBUR	Recommended	TALBUR	TALBUR	Recommended	TALBUR	TALBUR	Recommended	TALBUR	TALBUR	Recommended	TALBUR	TALBUR	Recommended	TALBUR	TALBUR	Recommended
Laboratory Work Order		200-33091-1	200-33091-1	Action ¹	200-33091-1	200-33091-1	Action ¹	200-33091-1	200-33091-1	Action ¹	200-33091-1	200-33091-1	Action ¹	200-37082-1	200-37082-1	Action ¹	200-48131-1	200-48131-1	Action ¹
Laboratory Sample ID		200-33091-13	200-33091-1		200-33091-14	200-33091-2		200-33091-15	200-33091-3		200-33091-16	200-33091-4		200-37082-7	200-37082-1		200-48131-1	200-48131-2	
Sample Type	Units																		
Volatile Organic Compounds																			
Carbon Tetrachloride (Tetrachloromethane) ²	µg/m3	0.44	0.46	No further action	0.50 U	0.26	No further action	0.53	0.48	No further action	0.56	0.34	No further action	0.39 J	0.36	No further action	0.28	0.31	No further action
Dichloroethene, 1,1- ²	µg/m3	0.79 U	0.79 U	No further action	1.6 U	0.79 U	R&P action	0.79 U	0.32 J	No further action	0.79 U	0.79 U	No further action	1.3 U	0.79 U	R&P action	0.14 U	0.14 U	No further action
Dichloroethene, cis-1,2- ²	µg/m3	0.79 U	0.79 U	No further action	1.6 U	0.79 U	R&P action	0.79 U	0.79 U	No further action	0.79 U	0.79 U	No further action	1.3 U	0.79 U	R&P action	0.20 U	0.20 U	No further action
Methylene Chloride (Dichloromethane) ³	µg/m3	2.6	2.4	No further action	1.3 J	0.62 J	No further action	1.2 J	1.7 U	No further action	1.6 J	14	No further action	46	570 D	Mitigate	1.7 U	1.7 U	No further action
Tetrachloroethene (PCE) ³	µg/m3	1.4 U	1.8	No further action	2.7 U	0.25 J	No further action	1.4 U	1.9	No further action	1.4 U	2.0	No further action	0.29 J	25	No further action	1.4 U	0.54 J	No further action
Trichloroethane, 1,1,1- ³	µg/m3	1.1 U	1.5	No further action	2.2 U	0.75 J	No further action	1.1 U	1.6	No further action	1.1 U	1.1	No further action	1.8 U	14	No further action	1.1 U	1.1 U	No further action
Trichloroethene (TCE) ²	µg/m3	0.21 U	0.21 U	No further action	0.43 U	0.21 U	No further action	0.21 U	0.60	No further action	0.21 U	12	Monitor	0.36 U	140	Mitigate	0.19 U	1.3	No further action
Vinyl Chloride ⁴	µg/m3	0.10 U	0.10 U	No further action	0.20 U	0.10 U	No further action	0.10 U	0.10 U	No further action	0.10 U	0.13	No further action	0.13 J	0.10 U	No further action	0.20 U	0.20 U	No further action

- Notes:
- 1

Soil Vapor/Indoor Air Matrices A, B and C, Evaluating Soil Vapor Intrusion in the State of New York, May 2017, New York State Department of Health Center for Environmental Health Bureau of Environmental Exposure Investigation
- 2

The following parameters are categorized as Matrix A: Trichloroethene (TCE), cis-1,2-Dichloroethene (c12-DCE), 1,1-Dichloroethene (11-DCE), Carbon Tetrachloride
- 3

The following parameters are categorized as Matrix B: Tetrachloroethene (PCE), 1,1,1-Trichloroethane (111-TCA), Methylene Chloride
- 4

The following parameters are categorized as Matrix C: Vinyl Chloride
- 15.2

Measured concentration did not exceed the indicated standard.
- 0.03 U

Analyte was not detected at a concentration greater than the laboratory reporting limit. The laboratory reporting limit is utilized for comparison to NYSDOH matrices for non-detect results.
- D

Sample results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples.
- J

The reported result is an estimated value.
- UJ

Indicates estimated non-detect.
- TALBUR

Test America, South Burlington, VT

No further action	No additional actions are recommended to address human exposures.
R&P action	Identify source(s) and resample or mitigate.
Mitigate	Mitigation is recommended to minimize current or potential exposures. associated with soil vapor intrusion.
Monitor	Monitoring is recommended to determine if concentrations have changed and/or to evaluate temporary influences.

Table 3a
Comparison of Sub-Slab Vapor and Indoor Air Results to NYSDOH Guidance Matrices (Newport)
Site Management Plan
820 Linden Ave Site, BCP #C828200
820 Linden Avenue, Pittsford, NY

Sample Location Sample Date Sample ID Sample Description Sampling Company Laboratory Laboratory Work Order Laboratory Sample ID Sample Type		IA-5 14-Apr-16 IA-5 Indoor Air STANTEC TALBUR 200-33091-1 200-33091-17	SS-5 14-Apr-16 SS-5 Sub-Slab Soil Vapor STANTEC TALBUR 200-33091-1 200-33091-5		IA-5 18-Jan-17 IA-5 Indoor Air STANTEC TALBUR 200-37082-1 200-37082-2	SS-5 18-Jan-17 SS-5 Sub-Slab Soil Vapor STANTEC TALBUR 200-37082-1 200-37082-3		IA-5 31-Mar-19 IA-5 Indoor Air STANTEC TALBUR 200-48131-1 200-48131-3	SS-5 31-Mar-19 SS-5 Sub-Slab Soil Vapor STANTEC TALBUR 200-48131-1 200-48131-4		IA-6 14-Apr-16 IA-6 Indoor Air STANTEC TALBUR 200-33091-1 200-33091-18	SS-6 14-Apr-16 SS-6 Sub-Slab Soil Vapor STANTEC TALBUR 200-33091-1 200-33091-6		IA-6 18-Jan-17 IA-6 Indoor Air STANTEC TALBUR 200-37082-1 200-37082-4	SS-6 18-Jan-17 SS-6 Sub-Slab Soil Vapor STANTEC TALBUR 200-37082-1 200-37082-5		IA-13 31-Mar-19 IA-13 Indoor Air STANTEC TALBUR 200-48131-1 200-48131-6	SS-13 31-Mar-19 SS-13 Sub-Slab Soil Vapor STANTEC TALBUR 200-48131-1 200-48131-5	
	Units			Matrix and Recommended Action ¹			Matrix and Recommended Action ¹			Matrix and Recommended Action ¹			Matrix and Recommended Action ¹			Matrix and Recommended Action ¹			Matrix and Recommended Action ¹
Volatile Organic Compounds																			
Carbon Tetrachloride (Tetrachloromethane) ²	µg/m3	0.44	0.30	No further action	0.37	0.30	No further action	0.29	0.21 J	No further action	0.25	0.39	No further action	0.25 U	0.39	No further action	0.31	0.28	No further action
Dichloroethene, 1,1- ²	µg/m3	0.79 U	0.79 U	No further action	0.79 U	0.79 U	No further action	0.14 U	0.14 U	No further action	0.79 U	0.79 U	No further action	0.79 U	0.79 U	No further action	0.14 U	0.14 U	No further action
Dichloroethene, cis-1,2- ²	µg/m3	0.32 J	0.79 U	No further action	0.79 U	0.79 U	No further action	0.20 U	0.20 U	No further action	0.16 J	0.79 U	No further action	0.79 U	0.79 U	No further action	0.20 U	0.20 U	No further action
Methylene Chloride (Dichloromethane) ³	µg/m3	1.0 J	0.70 J	No further action	6.4	0.83 J	No further action	1.9	0.73 J	No further action	0.89 J	2.3	No further action	2.6	18	No further action	1.7 U	1.7 U	No further action
Tetrachloroethene (PCE) ³	µg/m3	1.4 U	2.5	No further action	0.19 J	2.5	No further action	1.4 U	1.1 J	No further action	1.4 U	0.56 J	No further action	1.4 U	4.0	No further action	1.4 U	18	No further action
Trichloroethane, 1,1,1- ³	µg/m3	1.1 U	1.3	No further action	1.1 U	2.0	No further action	1.1 U	1.3	No further action	1.1 U	0.61 J	No further action	1.1 U	8.1	No further action	1.1 U	2.8	No further action
Trichloroethene (TCE) ²	µg/m3	2.1	0.21 U	R&P action	0.21 U	0.21 U	No further action	0.19 U	0.19 U	No further action	0.21	0.51	No further action	0.21 U	4.1	No further action	0.19 U	20	No further action
Vinyl Chloride ⁴	µg/m3	0.25	0.10 U	R&P action	0.099 J	0.10 U	No further action	0.20 U	0.20 U	No further action	0.10 U	0.10 U	No further action	0.10 U	0.10 U	No further action	0.20 U	0.20 U	No further action
Notes:																			
¹	Soil Vapor/Indoor Air Matrices A, B and C, Evaluating Soil Vapor Intrusion in the State of New York, May 2017, New York State Department of Health Center for Environmental Health Bureau of Environmental Exposure Investigation																		
²	The following parameters are categorized as Matrix A: Trichloroethene (TCE), cis-1,2-Dichloroethene (c12-DCE), 1,1-Dichloroethene (11-DCE), Carbon Tetrachloride																		
³	The following parameters are categorized as Matrix B: Tetrachloroethene (PCE), 1,1,1-Trichloroethane (111-TCA), Methylene Chloride																		
⁴	The following parameters are categorized as Matrix C: Vinyl Chloride																		
15.2	Measured concentration did not exceed the indicated standard.																		
0.03 U	Analyte was not detected at a concentration greater than the laboratory reporting limit. The laboratory reporting limit is utilized for comparison to NYSDOH matrices for non-detect results.																		
D	Sample results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples.																		
J	The reported result is an estimated value.																		
UJ	Indicates estimated non-detect.																		
TALBUR	Test America, South Burlington, VT																		
No further action	No additional actions are recommended to address human exposures.																		
R&P action	Identify source(s) and resample or mitigate.																		
Mitigate	Mitigation is recommended to minimize current or potential exposures. associated with soil vapor intrusion.																		
Monitor	Monitoring is recommended to determine if concentrations have changed and/or to evaluate temporary influences.																		

Table 3b
Comparison of Sub-Slab Vapor and Indoor Air Results to NYSDOH Guidance Matrices (JML Optical)
Site Management Plan
820 Linden Ave Site, BCP #C828200
820 Linden Avenue, Pittsford, NY

Sample Location		IA-7	SS-7		IA-7	SS-7		IA-7	SS-7		IA-8	SS-8		IA-9	SS-9		IA-10	SS-10	
Sample Date		14-Apr-16	14-Apr-16		14-Apr-16	14-Apr-16		31-Mar-19	31-Mar-19		14-Apr-16	14-Apr-16		14-Apr-16	14-Apr-16		14-Apr-16	14-Apr-16	
Sample ID		IA-7	SS-7		IA-DUP-1	SS-DUP-1		IA-7	SS-7		IA-8	SS-8		IA-9	SS-9		IA-10	SS-10	
Sample Description		Indoor Air	Sub-Slab Soil Vapor		Indoor Air	Sub-Slab Soil Vapor		Sub-Slab Soil Vapor	Sub-Slab Soil Vapor		Indoor Air	Sub-Slab Soil Vapor		Indoor Air	Sub-Slab Soil Vapor		Indoor Air	Sub-Slab Soil Vapor	
Sampling Company		STANTEC	STANTEC	Matrix	STANTEC	STANTEC	Matrix	STANTEC	STANTEC	Matrix	STANTEC	STANTEC	Matrix	STANTEC	STANTEC	Matrix	STANTEC	STANTEC	Matrix
Laboratory		TALBUR	TALBUR	and	TALBUR	TALBUR	and	TALBUR	TALBUR	and	TALBUR	TALBUR	and	TALBUR	TALBUR	and	TALBUR	TALBUR	and
Laboratory Work Order		200-33091-1	200-33091-1	Recommended	200-33091-1	200-33091-1	Recommended	200-48131-1	200-48131-1	Recommended	200-33091-1	200-33091-1	Recommended	200-33091-1	200-33091-1	Recommended	200-33091-1	200-33091-1	Recommended
Laboratory Sample ID		200-33091-19	200-33091-7	Action ¹	200-33091-26	200-33091-25	Action ¹	200-48131-9	200-48131-10	Action ¹	200-33091-20	200-33091-8	Action ¹	200-33091-21	200-33091-9	Action ¹	200-33091-22	200-33091-10	Action ¹
Sample Type	Units				Field Duplicate	Field Duplicate													
Volatile Organic Compounds																			
Carbon Tetrachloride (Tetrachloromethane) ²	µg/m3	0.50 U	0.40	No further action	0.47 J	0.40	No further action	0.29	0.35	No further action	3.0 U	2.5 U	R&P action	1.5 U	0.38	R&P action	2.8 U	0.41 J	R&P action
Dichloroethene, 1,1- ²	µg/m3	1.6 U	0.79 U	R&P action	1.6 U	0.79 U	R&P action	0.14 U	0.14 U	No further action	9.6 U	7.9 U	Mitigate	4.8 U	0.79 U	R&P action	8.9 U	1.6 U	R&P action
Dichloroethene, cis-1,2- ²	µg/m3	1.6 U	0.79 U	R&P action	1.6 U	0.79 U	R&P action	0.20 U	9.9	No further action	9.6 U	7.9 U	Mitigate	4.8 U	0.79 U	R&P action	8.9 U	1.6 U	R&P action
Methylene Chloride (Dichloromethane) ³	µg/m3	76	12	R&P action	99	12	R&P action	1.1 J	1.7 U	No further action	500	380	Mitigate	530	120	Mitigate	890	220	Mitigate
Tetrachloroethene (PCE) ³	µg/m3	2.7 U	1.9	No further action	2.7 U	1.8	No further action	1.4 U	3.7	No further action	16 U	71	R&P action	8.2 U	16	No further action	15 U	64	R&P action
Trichloroethane, 1,1,1- ³	µg/m3	2.2 U	0.91 J	No further action	2.2 U	0.91 J	No further action	1.1 U	0.79 J	No further action	13 U	4.4 J	R&P action	6.6 U	5.7	No further action	12 U	9.3	R&P action
Trichloroethene (TCE) ²	µg/m3	0.43 U	0.21 U	No further action	0.43 U	0.21 U	No further action	0.19 U	80	Mitigate	2.6 U	59	Mitigate	1.3 U	3.1	R&P action	2.4 U	71	Mitigate
Vinyl Chloride ⁴	µg/m3	0.20 U	0.10 U	No further action	0.20 U	0.10 U	No further action	0.20 U	2.6 J+	No further action	1.2 U	1.0 U	R&P action	0.62 U	0.10 U	R&P action	1.1 U	0.20 U	R&P action

- Notes:
- 1

Soil Vapor/Indoor Air Matrices A, B and C, Evaluating Soil Vapor Intrusion in the State of New York, May 2017, New York State Department of Health Center for Environmental Health Bureau of Environmental Exposure Investigation
- 2

The following parameters are categorized as Matrix A: Trichloroethene (TCE), cis-1,2-Dichloroethene (c12-DCE), 1,1-Dichloroethene (11-DCE), Carbon Tetrachloride
- 3

The following parameters are categorized as Matrix B: Tetrachloroethene (PCE), 1,1,1-Trichloroethane (111-TCA), Methylene Chloride
- 4

The following parameters are categorized as Matrix C: Vinyl Chloride
- 15.2

Measured concentration did not exceed the indicated standard.
- 0.03 U

Analyte was not detected at a concentration greater than the laboratory reporting limit. The laboratory reporting limit is utilized for comparison to NYSDOH matrices for non-detect results.
- J

The reported result is an estimated value.
- J+

The analyte was positively identified; the associated numerical value is an estimated quantity that may be biased high.
- UJ

Indicates estimated non-detect.
- TALBUR

Test America, South Burlington, VT

- No further action
- No additional actions are recommended to address human exposures.
- R&P action
- Identify source(s) and resample or mitigate.
- Mitigate
- Mitigation is recommended to minimize current or potential exposures associated with soil vapor intrusion.
- Monitor
- Monitoring is recommended to determine if concentrations have changed and/or to evaluate temporary influences.

Table 3b
Comparison of Sub-Slab Vapor and Indoor Air Results to NYSDOH Guidance Matrices (JML Optical)
Site Management Plan
820 Linden Ave Site, BCP #C828200
820 Linden Avenue, Pittsford, NY

Sample Location Sample Date Sample ID Sample Description Sampling Company Laboratory Laboratory Work Order Laboratory Sample ID Sample Type		IA-11 14-Apr-16 IA-11 Indoor Air STANTEC TALBUR 200-33091-1 200-33091-23	SS-11 14-Apr-16 SS-11 Sub-Slab Soil Vapor STANTEC TALBUR 200-33091-1 200-33091-11		IA-12 14-Apr-16 IA-12 Indoor Air STANTEC TALBUR 200-33091-1 200-33091-24	SS-12 14-Apr-16 SS-12 Sub-Slab Soil Vapor STANTEC TALBUR 200-33091-1 200-33091-12		IA-14 31-Mar-19 IA-14 Indoor Air STANTEC TALBUR 200-48131-1 200-48131-7	SS-14 31-Mar-19 SS-14 Sub-Slab Soil Vapor STANTEC TALBUR 200-48131-1 200-48131-8		IA-14 31-Mar-19 IA-DUP Indoor Air STANTEC TALBUR 200-48131-1 200-48131-11 Field Duplicate	SS-14 31-Mar-19 SS-DUP Sub-Slab Soil Vapor STANTEC TALBUR 200-48131-1 200-48131-12 Field Duplicate	
Units				Matrix and Recommended Action ¹			Matrix and Recommended Action ¹			Matrix and Recommended Action ¹		Matrix and Recommended Action ¹	
Volatile Organic Compounds													
Carbon Tetrachloride (Tetrachloromethane) ²	µg/m3	2.5 U	1.5 U	R&P action	2.5 U	0.66 J	R&P action	0.29	0.22 U	No further action	0.29	0.88 U	No further action
Dichloroethene, 1,1- ²	µg/m3	7.9 U	4.8 U	R&P action	7.9 U	2.4 U	R&P action	0.14 U	0.14 U	No further action	0.14 U	0.56 U	No further action
Dichloroethene, cis-1,2- ²	µg/m3	7.9 U	4.8 U	R&P action	7.9 U	2.4 U	R&P action	0.20 U	0.20 U	No further action	0.20 U	3.1	No further action
Methylene Chloride (Dichloromethane) ³	µg/m3	710	720	Mitigate	530	320	Mitigate	5.5	1.3 J	No further action	5.7	6.9 U	No further action
Tetrachloroethene (PCE) ³	µg/m3	14 U	89	R&P action	14 U	100	Mitigate	1.4 U	12	No further action	1.4 U	13	No further action
Trichloroethane, 1,1,1- ³	µg/m3	11 U	5.9 J	R&P action	11 U	3.3 U	R&P action	1.1 U	0.81 J	No further action	1.1 U	4.4 U	No further action
Trichloroethene (TCE) ²	µg/m3	2.1 U	79	Mitigate	2.1 U	160	Mitigate	0.19 U	0.45 J	No further action	0.19 U	22 J	No further action
Vinyl Chloride ⁴	µg/m3	1.0 U	0.62 U	R&P action	1.0 U	0.31 U	R&P action	0.20 U	0.20 U	No further action	0.20 U	1.1 J	No further action

Notes:

¹ Soil Vapor/Indoor Air Matrices A, B and C, Evaluating Soil Vapor Intrusion in the State of New York, May 2017, New York State Department of Health Center for Environmental Health Bureau of Environmental Exposure Investigation

² The following parameters are categorized as Matrix A: Trichloroethene (TCE), cis-1,2-Dichloroethene (c12-DCE), 1,1-Dichloroethene (11-DCE), Carbon Tetrachloride

³ The following parameters are categorized as Matrix B: Tetrachloroethene (PCE), 1,1,1-Trichloroethane (111-TCA), Methylene Chloride

⁴ The following parameters are categorized as Matrix C: Vinyl Chloride

15.2 Measured concentration did not exceed the indicated standard.

0.03 U Analyte was not detected at a concentration greater than the laboratory reporting limit. The laboratory reporting limit is utilized for comparison to NYSDOH matrices for non-detect results.

J The reported result is an estimated value.

J+ The analyte was positively identified; the associated numerical value is an estimated quantity that may be biased high.

UJ Indicates estimated non-detect.

TALBUR Test America, South Burlington, VT

No further action	No additional actions are recommended to address human exposures.
R&P action	Identify source(s) and resample or mitigate.
Mitigate	Mitigation is recommended to minimize current or potential exposures associated with soil vapor intrusion.
Monitor	Monitoring is recommended to determine if concentrations have changed and/or to evaluate temporary influences.

Table 4
Summary of Analytical Results for RI Soil Samples
Site Management Plan
820 Linden Ave Site, BCP #C828200
820 Linden Avenue, Pittsford, NY

Sample Location				B-1	B-2	B-3	B-4	B-5	B-6	B-7	B-8	B-9	B-10	B-11
Sample Date				20-Jun-16	20-Jun-16	20-Jun-16	20-Jun-16	20-Jun-16	20-Jun-16	20-Jun-16	20-Jun-16	20-Jun-16	20-Jun-16	20-Jun-16
Sample ID				B-1	B-2	B-3	B-4	B-5	B-6	B-7	B-8	B-9	B-10	B-11
Sample Depth				4 - 5 ft	4 - 5 ft	4 - 5 ft	4 - 5 ft	4 - 5 ft	4 - 5 ft	4 - 5 ft	4 - 5 ft	4 - 5 ft	4 - 5 ft	4 - 5 ft
Sampling Company				STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC
Laboratory				TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL
Laboratory Work Order				480-102053-1	480-102053-1	480-102053-1	480-102053-1	480-102053-1	480-102053-1	480-102053-1	480-102302-1	480-102302-1	480-102302-1	480-102705-1
Laboratory Sample ID				480-102053-1	480-102053-2	480-102053-3	480-102053-4	480-102053-5	480-102053-6	480-102053-8	480-102302-1	480-102302-2	480-102382-1	480-102705-1
Sample Type	Units	NYSDEC-Part 375	NYSDEC CP-51		Field Duplicate									
General Chemistry														
Cyanide	mg/kg	27 ^{AB} 10,000 ^a ^C 40 ^D	n/v	1.1 U	1.1 U	1.0 U	1.0 U	1.0 U	1.1 U	1.2 U	1.1 U	1.1 U	1.0 U	1.2 U
Metals														
Aluminum	mg/kg	10,000 ^a ^{ABCD}	10,000 ^a ^{EF}	12,800 ^{ABCEFG}	6,250	7,000	8,420	7,620	5,600	8,340 J	2,600	8,730	2,350	2,970 J
Antimony	mg/kg	10,000 ^a ^{ABCD}	10,000 ^a ^{EF}	16.1 U	15.3 U	15.9 U	17.0 U	16.6 U	16.1 U	18.5 UJ	17.5 U	17.6 U	18.7 U	18.1 U
Arsenic	mg/kg	13 ^a ^A 16 ^{BCD}	n/v	3.6	2.0 U	2.1 U	2.3 U	2.2 U	2.5 U	2.2 U	2.3 U	3.3	2.5 U	2.5 U
Barium	mg/kg	350 ^a ^A 400 ^B 10,000 ^c ⁸²⁰ ^D	n/v	35.9	12.9	13.8	22.6	17.7	13.4	29.7	12.7	85.7	12.1	12.1
Beryllium	mg/kg	7.2 ^A 590 ^B 2,700 ^C ⁴⁷ ^D	n/v	0.51	0.20 U	0.23	0.23 U	0.22 U	0.22 U	0.26	0.23 U	0.31	0.25 U	0.24 U
Cadmium	mg/kg	2.5 ^a ^A 9.3 ^B 60 ^C ^{7.5} ^D	n/v	0.21 U	0.20 U	0.21 U	0.23 U	0.22 U	0.22 U	0.36	0.23 U	0.23 U	0.25 U	0.24 U
Calcium	mg/kg	10,000 ^a ^{ABCD}	10,000 ^a ^{EF}	1,550	9,060 J	1,740 J	4,900	3,870	4,940	3,720 J	24,400 ^{ABCEFG}	22,900 ^{ABCEFG}	21,500 ^{ABCEFG}	26,300 ^{ABCEFG}
Chromium	mg/kg	30 ^a ^A 1,500 ^B 6,800 ^C ^{NS-A} ^D	n/v	14.7	7.8	8.5	9.5	9.3	10.6	11.0	5.4	11.6	5.9	4.7
Cobalt	mg/kg	10,000 ^a ^{ABCD}	10,000 ^a ^{EF}	6.8	2.5 J	3.8 J	2.6	2.6	2.5	4.2	1.9	6.0	1.6	2.0
Copper	mg/kg	50 ^A 270 ^B 10,000 ^c ^{1,720} ^D	n/v	17.5	4.5 J	9.1 J	3.9	4.6	5.5	18.0	4.3	25.7	3.6	4.1
Iron	mg/kg	10,000 ^a ^{ABCD}	10,000 ^a ^{EF}	19,400 ^{ABCEFG}	7,380	10,900 ^{ABCEFG}	8,710	8,650	6,950	12,200 ^{ABCEFG}	6,270	15,100 ^{ABCEFG}	5,420	5,880 J
Lead	mg/kg	63 ^a ^A 1,000 ^B 3,900 ^C ⁴⁵⁰ ^D	n/v	5.9	3.1	2.6	4.3	3.0	2.5	15.5	1.5	9.0	1.5	1.3
Magnesium	mg/kg	10,000 ^a ^{ABCD}	n/v	2,320	5,560 J	1,890 J	3,040	2,530	2,360	2,080 J	4,980	9,780	3,830	5,550
Manganese	mg/kg	1,600 ^a ^A 10,000 ^a ^{BC} 2,000 ^a ^D	n/v	382	125 J	298 J	172	121	115	313	146	646	126	177 J
Mercury	mg/kg	0.18 ^a ^A 2.8 ^a ^B 5.7 ^a ^C 0.73 ^D	n/v	0.022 U	0.020 U	0.021 U	0.044	0.022 U	0.021 U	0.022 U	0.023 U	0.065	0.023 U	0.024 U
Nickel	mg/kg	30 ^A 310 ^B 10,000 ^c ¹³⁰ ^D	n/v	15.4	5.6	6.0	6.1	6.0	6.1	9.0	5.8 U	12.9	6.2 U	6.0 U
Potassium	mg/kg	10,000 ^a ^{ABCD}	n/v	1,890	754	1,040	755	705	740	981	570	1,400	551	650 J
Selenium	mg/kg	3.9 ^a ^A 1,500 ^B 6,800 ^C ⁴ ^D	n/v	4.3 U	4.1 U	4.2 U	4.5 U	4.4 U	4.3 U	4.5 U	4.7 U	4.7 U	5.0 U	4.8 U
Silver	mg/kg	2 ^A 1,500 ^B 6,800 ^C ^{8.3} ^D	n/v	0.54 U	0.51 U	0.53 U	0.57 U	0.55 U	0.54 U	0.62 U	0.58 U	0.59 U	0.62 U	0.60 U
Sodium	mg/kg	10,000 ^a ^{ABCD}	n/v	419	601	922	266	220	151 U	300	173	164 U	175 U	169 U
Thallium	mg/kg	10,000 ^a ^{ABCD}	10,000 ^a ^{EF}	6.4 U	6.1 U	6.3 U	6.8 U	6.6 U	6.5 U	7.4 U	7.0 U	7.0 U	7.3 U	7.6 U
Vanadium	mg/kg	10,000 ^a ^{ABCD}	10,000 ^a ^{EF}	27.0	13.7	17.8	15.7	15.6	12.2	19.1	10.7	19.6	9.1	9.5
Zinc	mg/kg	109 ^a ^A 10,000 ^a ^{BC} 2,480 ^D	n/v	31.7	16.9	18.1	22.4	18.2	14.3	35.1	10.3	34.3	9.6	11.3
Polychlorinated Biphenyls														
Aroclor 1016	µg/kg	^a ^{ABCD}	n/v	240 U	210 U	250 U	260 U	240 U	210 U	250 U	230 U	240 U	210 U	260 U
Aroclor 1221	µg/kg	^a ^{ABCD}	n/v	240 U	210 U	250 U	260 U	240 U	210 U	250 U	230 U	240 U	210 U	260 U
Aroclor 1232	µg/kg	^a ^{ABCD}	n/v	240 U	210 U	250 U	260 U	240 U	210 U	250 U	230 U	240 U	210 U	260 U
Aroclor 1242	µg/kg	^a ^{ABCD}	n/v	240 U	210 U	250 U	260 U	240 U	210 U	250 U	230 U	240 U	210 U	260 U
Aroclor 1248	µg/kg	^a ^{ABCD}	n/v	240 U	210 U	250 U	260 U	240 U	210 U	250 U	230 U	240 U	210 U	260 U
Aroclor 1254	µg/kg	^a ^{ABCD}	n/v	240 U	210 U	250 U	260 U	240 U	210 U	250 U	230 U	240 U	210 U	260 U
Aroclor 1260	µg/kg	^a ^{ABCD}	n/v	240 U	210 U	250 U	260 U	240 U	210 U	250 U	230 U	240 U	210 U	260 U
Aroclor 1262	µg/kg	^a ^{ABCD}	n/v	240 U	210 U	250 U	260 U	240 U	210 U	250 U	230 U	240 U	210 U	260 U
Aroclor 1268	µg/kg	^a ^{ABCD}	n/v	240 U	210 U	250 U	260 U	240 U	210 U	250 U	230 U	240 U	210 U	260 U
Polychlorinated Biphenyls (PCBs)	µg/kg	^a ^{ABCD}	n/v	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pesticides														
Aldrin	µg/kg	5 ^a ^A 680 ^B 1,400 ^C ¹⁹⁰ ^D	n/v	1.8 U	35 U	35 U	36 U	17 U	35 U	39 U	2.0 U	2.0 U	2.0 U	2.0 U
BHC, alpha-	µg/kg	20 ^{AD} 3,400 ^B 6,800 ^C	n/v	1.8 U	35 U	35 U	36 U	17 U	35 U	39 U	2.0 U	2.0 U	2.0 U	2.0 U
BHC, beta-	µg/kg	36 ^A 3,000 ^B 14,000 ^C ⁹⁰ ^D	n/v	1.8 U	35 U	35 U	36 U	17 U	35 U	39 U	2.0 U	2.0 U	2.0 U	2.0 U
BHC, delta-	µg/kg	40 ^a ^A 500,000 ^a ^B 1,000,000 ^a ^C 250 ^D	n/v	1.8 U	35 U	35 U	36 U	17 U	35 U	39 U	2.0 U	2.0 U	2.0 U	2.0 U
Camphechlor (Toxaphene)	µg/kg	100,000 ^a ^A 500,000 ^a ^B 1,000,000 ^a ^C ¹⁰ ^D	n/v	18 U	350 U	350 U	360 U	170 U	350 U	390 U	20 U	20 U	20 U	20 U
Chlordane, alpha-	µg/kg	94 ^A 24,000 ^B 47,000 ^C ^{2,900} ^D	n/v	1.8 U	35 U	35 U	36 U	17 U	35 U	39 U	2.0 U	2.0 U	2.0 U	2.0 U
Chlordane, trans- (gamma-Chlordane)	µg/kg	100,000 ^a ^A 1,000,000 ^a ^D	n/v	1.8 U	35 U	35 U	36 U	17 U	35 U	39 U	2.0 U	2.0 U	2.0 U	2.0 U
DDD (p,p'-DDD)	µg/kg	3.3 ^a ^A 92,000 ^B 180,000 ^C ^{14,000} ^D	n/v	1.8 U	35 U	35 U	36 U	17 U	35 U	39 U	2.0 U	2.0 U	2.0 U	2.0 U
DDE (p,p'-DDE)	µg/kg	3.3 ^a ^A 62,000 ^B 120,000 ^C ^{17,000} ^D	n/v	1.8 U	35 U	35 U	36 U	17 U	35 U	39 U	2.0 U	2.0 U	2.0 U	2.0 U
DDT (p,p'-DDT)	µg/kg	3.3 ^a ^A 47,000 ^B 94,000 ^C ^{136,000} ^D	n/v	1.8 U	35 U	35 U	36 U	17 U	35 U	39 U	2.0 U	2.0 U	2.0 U	2.0 U
Dieldrin	µg/kg	5 ^a ^A 1,400 ^B 2,800 ^C ¹⁰⁰ ^D	n/v	1.8 U	35 U	35 U	36 U	17 U	35 U	39 U	2.0 U	2.0 U	2.0 U	2.0 U
Endosulfan I	µg/kg	2,400 ^a ^A 200,000 ^B 920,000 ^C ^{102,000} ^D	n/v	1.8 U	35 U	35 U	36 U	17 U	35 U	39 U	2.0 U	2.0 U	2.0 U	2.0 U
Endosulfan II	µg/kg	2,400 ^a ^A 200,000 ^B 920,000 ^C ^{102,000} ^D	n/v	1.8 U	35 U	35 U	36 U	17 U	35 U	39 U	2.0 U	2.0 U	2.0 U	2.0 U
Endosulfan Sulfate	µg/kg	2,400 ^a ^A 200,000 ^B 920,000 ^C ^{1,000,000} ^D	n/v	1.8 U	35 U	35 U	36 U	17 U	35 U	39 U	2.0 U	2.0 U	2.0 U	2.0 U
Endrin	µg/kg	14 ^A 89,000 ^B 410,000 ^C ⁶⁰ ^D	n/v	1.8 U	35 U	35 U	36 U	17 U	35 U	39 U	2.0 U	2.0 U	2.0 U	2.0 U
Endrin Aldehyde	µg/kg	100,000 ^a ^A 500,000 ^a ^B 1,000,000 ^a ^C ¹⁰ ^D	n/v	1.8 U	35 U	35 U	36 U	17 U	35 U	39 U	2.0 U	2.0 U	2.0 U	2.0 U
Endrin Ketone	µg/kg	100,000 ^a ^A 500,000 ^a ^B 1,000,000 ^a ^C ¹⁰ ^D	n/v	1.8 U	35 U	35 U	36 U	17 U	35 U	39 U	2.0 U	2.0 U	2.0 U	2.0 U
Heptachlor	µg/kg	42 ^A 15,000 ^B 29,000 ^C ³⁸⁰ ^D	n/v	1.8 U	35 U	35 U	36 U	17 U	35 U	39 U	2.0 U	2.0 U	2.0 U	2.0 U
Heptachlor Epoxide	µg/kg	100,000 ^a ^A 500,000 ^a ^B 1,000,000 ^a ^C ¹⁰ ^D	500,000 ^a ^E 1,000,000 ^a ^F ²⁰ ^G	1.8 U	35 U	35 U	36 U	17 U	35 U	39 U	2.0 U	2.0 U	2.0 U	2.0 U
Lindane (Hexachlorocyclohexane, gamma)	µg/kg	100 ^{AD} 9,200 ^B 23,000 ^C	n/v	1.8 U	35 U	35 U	36 U	17 U	35 U	39 U	2.0 U	2.0 U	2.0 U	2.0 U
Methoxychlor (4,4'-Methoxychlor)	µg/kg	100,000 ^a ^A 500,000 ^a ^B 1,000,000 ^a ^C ¹⁰ ^D	500,000 ^a ^E 1,000,000 ^a ^F ^{900,000} ^G	1.8 U	35 U	35 U	36 U	17 U	35 U	39 U	2.0 U	2.0 U	2.0 U	2.0 U

See notes on last page.

Table 4
Summary of Analytical Results for RI Soil Samples
Site Management Plan
820 Linden Ave Site, BCP #C828200
820 Linden Avenue, Pittsford, NY

Sample Location				B-1	B-2		B-3	B-4	B-5	B-6	B-7	B-8		B-9		B-10	B-11
Sample Date				20-Jun-16	20-Jun-16	20-Jun-16	20-Jun-16	20-Jun-16	20-Jun-16	21-Jun-16	21-Jun-16	24-Jun-16	24-Jun-16	28-Jun-16	29-Jun-16	5-Jul-16	5-Jul-16
Sample ID				B-1	B-2	DUP-01	B-3	B-4	B-5	B-6	B-7	B-8 (3.5-4.5)	B-8 (60-61)	B-9 (23-24)	B-9 (85-86)	B-10 (3-4)	B-11 (8-9)
Sample Depth				4 - 5 ft	4 - 5 ft	4 - 5 ft	4 - 5 ft	4 - 5 ft	4 - 5 ft	4 - 5 ft	4 - 5 ft	3.5 - 4.5 ft	60 - 61 ft	23 - 24 ft	85 - 86 ft	3 - 4 ft	8 - 9 ft
Sampling Company				STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC
Laboratory				TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL
Laboratory Work Order				480-102053-1	480-102053-1	480-102053-1	480-102053-1	480-102053-1	480-102053-1	480-102053-1	480-102053-1	480-102302-1	480-102302-1	480-102302-1	480-102302-1	480-102705-1	480-102705-1
Laboratory Sample ID				480-102053-1	480-102053-2	480-102053-7	480-102053-3	480-102053-4	480-102053-5	480-102053-6	480-102053-8	480-102302-1	480-102302-2	480-102382-1	480-102510-1	480-102705-1	480-102705-2
Sample Type	Units	NYSDEC-Part 375	NYSDEC CP-51			Field Duplicate											
Semi-Volatile Organic Compounds																	
Acenaphthene	µg/kg	20,000 ^A 500,000 ^B 1,000,000 ^C 98,000 ^D	n/v	180 U	900 U	1,800 U	900 U	890 U	870 U	2,000 U	200 U	210 U	200 U	200 U	200 U	180 U	170 U
Acenaphthylene	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C 107,000 ^D	n/v	180 U	900 U	1,800 U	900 U	890 U	870 U	2,000 U	200 U	210 U	200 U	200 U	200 U	180 U	170 U
Acetophenone	µg/kg	100,000 ^A 1,000,000 ^D	n/v	180 U	900 U	1,800 U	900 U	890 U	870 U	2,000 U	200 U	210 U	200 U	200 U	200 U	180 U	170 U
Anthracene	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	n/v	180 U	900 U	1,800 U	900 U	890 U	870 U	2,000 U	200 U	210 U	200 U	200 U	200 U	180 U	170 U
Atrazine	µg/kg	100,000 ^A 1,000,000 ^D	n/v	180 U	900 U	1,800 U	900 U	890 U	870 U	2,000 U	200 U	210 U	200 U	200 U	200 U	180 U	170 U
Benzaldehyde	µg/kg	100,000 ^A 1,000,000 ^D	n/v	180 U	900 U	1,800 U	900 U	890 U	870 U	2,000 U	200 U	210 U	200 U	200 U	200 U	180 U	170 U
Benzo(a)anthracene	µg/kg	1,000 ^A 5,600 ^B 11,000 ^C 1,000 ^D	n/v	180 U	900 U	1,800 U	900 U	890 U	870 U	2,000 U	200 U	210 U	200 U	200 U	200 U	180 U	170 U
Benzo(a)pyrene	µg/kg	1,000 ^A 1,000 ^B 1,100 ^C 22,000 ^D	n/v	180 U	900 U	1,800 U	900 U	890 U	870 U	2,000 U	200 U	210 U	200 U	200 U	200 U	180 U	170 U
Benzo(b)fluoranthene	µg/kg	1,000 ^A 5,600 ^B 11,000 ^C 1,700 ^D	n/v	180 U	900 U	1,800 U	900 U	890 U	870 U	2,000 U	200 U	210 U	200 U	200 U	200 U	180 U	170 U
Benzo(g,h,i)perylene	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	n/v	180 U	900 U	1,800 U	900 U	890 U	870 U	2,000 U	200 U	210 U	200 U	200 U	200 U	180 U	170 U
Benzo(k)fluoranthene	µg/kg	800 ^A 56,000 ^B 110,000 ^C 1,700 ^D	n/v	180 U	900 U	1,800 U	900 U	890 U	870 U	2,000 U	200 U	210 U	200 U	200 U	200 U	180 U	170 U
Biphenyl, 1,1'- (Biphenyl)	µg/kg	100,000 ^A 1,000,000 ^D	500,000 ^E 1,000,000 ^A ^F	180 U	900 U	1,800 U	900 U	890 U	870 U	2,000 U	200 U	210 U	200 U	200 U	200 U	180 U	170 U
Bis(2-Chloroethoxy)methane	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	n/v	180 U	900 U	1,800 U	900 U	890 U	870 U	2,000 U	200 U	210 U	200 U	200 U	200 U	180 U	170 U
Bis(2-Chloroethyl)ether	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	n/v	180 U	900 U	1,800 U	900 U	890 U	870 U	2,000 U	200 U	210 U	200 U	200 U	200 U	180 U	170 U
Bis(2-Chloroisopropyl)ether (2,2-oxybis(1-Chloropropane))	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	n/v	180 U	900 U	1,800 U	900 U	890 U	870 U	2,000 U	200 U	210 U	200 U	200 U	200 U	180 U	170 U
Bis(2-Ethylhexyl)phthalate (DEHP)	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	500,000 ^E 1,000,000 ^A ^F 435,000 ^G	180 U	900 U	1,800 U	900 U	890 U	870 U	2,000 U	200 U	210 U	200 U	200 U	200 U	180 U	170 U
Bromophenyl Phenyl Ether, 4-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	n/v	180 U	900 U	1,800 U	900 U	890 U	870 U	2,000 U	200 U	210 U	200 U	200 U	200 U	180 U	170 U
Butyl Benzyl Phthalate	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	500,000 ^E 1,000,000 ^A ^F 122,000 ^G	180 U	900 U	1,800 U	900 U	890 U	870 U	2,000 U	200 U	210 U	200 U	200 U	200 U	180 U	170 U
Caprolactam	µg/kg	100,000 ^A 1,000,000 ^D	n/v	180 U	900 U	1,800 U	900 U	890 U	870 U	2,000 U	200 U	210 U	200 U	200 U	200 U	180 U	170 U
Carbazole	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	n/v	180 U	900 U	1,800 U	900 U	890 U	870 U	2,000 U	200 U	210 U	200 U	200 U	200 U	180 U	170 U
Chloro-3-methyl phenol, 4-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	n/v	180 U	900 U	1,800 U	900 U	890 U	870 U	2,000 U	200 U	210 U	200 U	200 U	200 U	180 U	170 U
Chloroaniline, 4-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	500,000 ^E 1,000,000 ^A ^F 220 ^G	180 U	900 U	1,800 U	900 U	890 U	870 U	2,000 U	200 U	210 U	200 U	200 U	200 U	180 U	170 U
Chloronaphthalene, 2-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	n/v	180 U	900 U	1,800 U	900 U	890 U	870 U	2,000 U	200 U	210 U	200 U	200 U	200 U	180 U	170 U
Chlorophenol, 2- (ortho-Chlorophenol)	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	500,000 ^E 1,000,000 ^A ^F	180 U	900 U	1,800 U	900 U	890 U	870 U	2,000 U	200 U	210 U	200 U	200 U	200 U	180 U	170 U
Chlorophenyl Phenyl Ether, 4-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	n/v	180 U	900 U	1,800 U	900 U	890 U	870 U	2,000 U	200 U	210 U	200 U	200 U	200 U	180 U	170 U
Chrysene	µg/kg	1,000 ^A 56,000 ^B 110,000 ^C 1,000 ^D	n/v	180 U	900 U	1,800 U	900 U	890 U	870 U	2,000 U	200 U	210 U	200 U	200 U	200 U	180 U	170 U
Cresol, o- (Methylphenol, 2-)	µg/kg	330 ^A 500,000 ^B 1,000,000 ^C 330 ^D	n/v	180 U	900 U	1,800 U	900 U	890 U	870 U	2,000 U	200 U	210 U	200 U	200 U	200 U	180 U	170 U
Cresol, p- (Methylphenol, 4-)	µg/kg	330 ^A 500,000 ^B 1,000,000 ^C 330 ^D	n/v	360 U	1,700 U	3,500 U	1,800 U	1,700 U	1,700 U	3,900 U	390 U	400 U	390 U	400 U	380 U	360 U	330 U
Dibenzo(a,h)anthracene	µg/kg	330 ^A 560 ^B 1,100 ^C 1,000,000 ^D	n/v	180 U	900 U	1,800 U	900 U	890 U	870 U	2,000 U	200 U	210 U	200 U	200 U	200 U	180 U	170 U
Dibenzofuran	µg/kg	7,000 ^A 350,000 ^B 1,000,000 ^C 210,000 ^D	500,000 ^E 1,000,000 ^A ^F 6,200 ^G	180 U	900 U	1,800 U	900 U	890 U	870 U	2,000 U	200 U	210 U	200 U	200 U	200 U	180 U	170 U
Dibutyl Phthalate (DBP)	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	500,000 ^E 1,000,000 ^A ^F 8,100 ^G	180 U	900 U	1,800 U	900 U	890 U	870 U	2,000 U	200 U	210 U	200 U	200 U	200 U	180 U	170 U
Dichlorobenzidine, 3,3'-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	n/v	180 U	900 U	1,800 U	900 U	890 U	870 U	2,000 U	200 U	210 U	200 U	200 U	200 U	180 U	170 U
Dichlorophenol, 2,4-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	500,000 ^E 1,000,000 ^A														

Table 4
Summary of Analytical Results for RI Soil Samples
Site Management Plan
820 Linden Ave Site, BCP #C828200
820 Linden Avenue, Pittsford, NY

Sample Location				B-1	B-2	B-3	B-4	B-5	B-6	B-7	B-8	B-9	B-10	B-11	
Sample Date				20-Jun-16	20-Jun-16	20-Jun-16	20-Jun-16	20-Jun-16	20-Jun-16	20-Jun-16	24-Jun-16	24-Jun-16	28-Jun-16	29-Jun-16	5-Jul-16
Sample ID				B-1	B-2	DUP-01	B-3	B-5	B-6	B-7	B-8	B-8	B-9	B-9	B-10
Sample Depth				4 - 5 ft	4 - 5 ft	4 - 5 ft	4 - 5 ft	4 - 5 ft	4 - 5 ft	4 - 5 ft	3.5 - 4.5 ft	60 - 61 ft	23 - 24 ft	85 - 86 ft	3 - 4 ft
Sampling Company				STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC
Laboratory				TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL
Laboratory Work Order				480-102053-1	480-102053-1	480-102053-1	480-102053-1	480-102053-1	480-102053-1	480-102053-1	480-102302-1	480-102302-1	480-102302-1	480-102302-1	480-102705-1
Laboratory Sample ID				480-102053-1	480-102053-2	480-102053-7	480-102053-3	480-102053-4	480-102053-5	480-102053-6	480-102302-1	480-102302-2	480-102382-1	480-102510-1	480-102705-1
Sample Type	Units	NYSDEC-Part 375	NYSDEC CP-51			Field Duplicate									
Volatile Organic Compounds															
Acetone	µg/kg	50 ^{AD} 500,000 ^B 1,000,000 ^C	n/v	27 U	26 U	26 U	26 U	26 U	29 U	30 U	30 U	30 U	30 U	28 U	98 ^{AD}
Benzene	µg/kg	60 ^{AD} 44,000 ^B 89,000 ^C	n/v	5.4 U	5.3 U	5.3 U	5.3 U	5.2 U	5.3 U	6.0 U	5.9 U	5.9 U	6.0 U	5.5 U	5.4 U
Bromodichloromethane	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	n/v	5.4 U	5.3 U	5.3 U	5.3 U	5.2 U	5.7 U	6.0 U	5.9 U	5.9 U	6.0 U	5.5 U	5.4 U
Bromoform (Tribromomethane)	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	n/v	5.4 U	5.3 U	5.3 U	5.3 U	5.2 U	5.7 U	6.0 U	5.9 U	5.9 U	6.0 U	5.5 U	5.4 U
Bromomethane (Methyl bromide)	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	n/v	5.4 U	5.3 U	5.3 U	5.3 U	5.2 U	5.7 U	6.0 U	5.9 U	5.9 U	6.0 U	5.5 U	5.4 U
Butylbenzene, n-	µg/kg	12,000 ^{AD} 500,000 ^B 1,000,000 ^C	n/v	5.4 U	5.3 U	5.3 U	5.3 U	5.2 U	5.7 U	6.0 U	5.9 U	5.9 U	6.0 U	5.5 U	5.4 U
Butylbenzene, sec- (2-Phenylbutane)	µg/kg	11,000 ^{AD} 500,000 ^B 1,000,000 ^C	n/v	5.4 U	5.3 U	5.3 U	5.3 U	5.2 U	5.7 U	6.0 U	5.9 U	5.9 U	6.0 U	5.5 U	5.4 U
Butylbenzene, tert-	µg/kg	5,900 ^{AD} 500,000 ^B 1,000,000 ^C	n/v	5.4 U	5.3 U	5.3 U	5.3 U	5.2 U	5.7 U	6.0 U	5.9 U	5.9 U	6.0 U	5.5 U	5.4 U
Carbon Disulfide	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	500,000 ^E 1,000,000 ^F 2,700 ^D	5.4 U	5.3 U	5.3 U	5.3 U	5.2 U	5.7 U	6.0 U	5.9 U	5.9 U	6.0 U	5.5 U	5.4 U
Carbon Tetrachloride (Tetrachloromethane)	µg/kg	760 ^{AD} 22,000 ^B 44,000 ^C	n/v	5.4 U	5.3 U	5.3 U	5.3 U	5.2 U	5.7 U	6.0 U	5.9 U	5.9 U	6.0 U	5.5 U	5.4 U
Chlorobenzene (Monochlorobenzene)	µg/kg	1,100 ^{AD} 500,000 ^B 1,000,000 ^C	n/v	5.4 U	5.3 U	5.3 U	5.3 U	5.2 U	5.7 U	6.0 U	5.9 U	5.9 U	6.0 U	5.5 U	5.4 U
Chloroethane (Ethyl Chloride)	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	500,000 ^E 1,000,000 ^F 1,900 ^D	5.4 U	5.3 U	5.3 U	5.3 U	5.2 U	5.7 U	6.0 U	5.9 U	5.9 U	6.0 U	5.5 U	5.4 U
Chloroform (Trichloromethane)	µg/kg	370 ^{AD} 350,000 ^B 700,000 ^C	n/v	5.4 U	5.3 U	5.3 U	5.3 U	5.2 U	5.7 U	6.0 U	5.9 U	5.9 U	6.0 U	5.5 U	5.4 U
Chloromethane	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	n/v	5.4 U	5.3 U	5.3 U	5.3 U	5.2 U	5.7 U	6.0 U	5.9 U	5.9 U	6.0 U	5.5 U	5.4 U
Cyclohexane	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	n/v	5.4 U	5.3 U	5.3 U	5.3 U	5.2 U	5.7 U	6.0 U	5.9 U	5.9 U	6.0 U	5.5 U	5.4 U
Dibromo-3-Chloropropane, 1,2- (DBCP)	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	n/v	5.4 U	5.3 U	5.3 U	5.3 U	5.2 U	5.7 U	6.0 U	5.9 U	5.9 U	6.0 U	5.5 U	5.4 U
Dibromochloromethane	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	500,000 ^E 1,000,000 ^F	5.4 U	5.3 U	5.3 U	5.3 U	5.2 U	5.7 U	6.0 U	5.9 U	5.9 U	6.0 U	5.5 U	5.4 U
Dichlorobenzene, 1,2-	µg/kg	1,100 ^{AD} 500,000 ^B 1,000,000 ^C	n/v	5.4 U	5.3 U	5.3 U	5.3 U	5.2 U	5.7 U	6.0 U	5.9 U	5.9 U	6.0 U	5.5 U	5.4 U
Dichlorobenzene, 1,3-	µg/kg	2,400 ^{AD} 280,000 ^B 560,000 ^C	n/v	5.4 U	5.3 U	5.3 U	5.3 U	5.2 U	5.7 U	6.0 U	5.9 U	5.9 U	6.0 U	5.5 U	5.4 U
Dichlorobenzene, 1,4-	µg/kg	1,800 ^{AD} 130,000 ^B 250,000 ^C	n/v	5.4 U	5.3 U	5.3 U	5.3 U	5.2 U	5.7 U	6.0 U	5.9 U	5.9 U	6.0 U	5.5 U	5.4 U
Dichlorodifluoromethane (Freon 12)	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	n/v	5.4 U	5.3 U	5.3 U	5.3 U	5.2 U	5.7 U	6.0 U	5.9 U	5.9 U	6.0 U	5.5 U	5.4 U
Dichloroethane, 1,1-	µg/kg	270 ^{AD} 240,000 ^B 480,000 ^C	n/v	5.4 U	5.3 U	5.3 U	5.3 U	5.2 U	5.7 U	6.0 U	5.9 U	5.9 U	6.0 U	5.5 U	5.4 U
Dichloroethane, 1,2-	µg/kg	20 ^A 30,000 ^B 60,000 ^C 200 ^D	n/v	5.4 U	5.3 U	5.3 U	5.3 U	5.2 U	5.7 U	6.0 U	5.9 U	5.9 U	6.0 U	5.5 U	5.4 U
Dichloroethene, 1,1-	µg/kg	330 ^{AD} 500,000 ^B 1,000,000 ^C	n/v	5.4 U	5.3 U	5.3 U	5.3 U	5.2 U	5.7 U	6.0 U	5.9 U	5.9 U	6.0 U	5.5 U	5.4 U
Dichloroethene, cis-1,2-	µg/kg	250 ^{AD} 500,000 ^B 1,000,000 ^C	n/v	5.4 U	5.3 U	5.3 U	5.3 U	5.2 U	5.7 U	6.0 U	5.9 U	5.9 U	6.0 U	5.5 U	5.4 U
Dichloroethene, trans-1,2-	µg/kg	190 ^{AD} 500,000 ^B 1,000,000 ^C	n/v	5.4 U	5.3 U	5.3 U	5.3 U	5.2 U	5.7 U	6.0 U	5.9 U	5.9 U	6.0 U	5.5 U	5.4 U
Dichloropropane, 1,2-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	500,000 ^E 1,000,000 ^F	5.4 U	5.3 U	5.3 U	5.3 U	5.2 U	5.7 U	6.0 U	5.9 U	5.9 U	6.0 U	5.5 U	5.4 U
Dichloropropene, cis-1,3-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	n/v	5.4 U	5.3 U	5.3 U	5.3 U	5.2 U	5.7 U	6.0 U	5.9 U	5.9 U	6.0 U	5.5 U	5.4 U
Dichloropropene, trans-1,3-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	n/v	5.4 U	5.3 U	5.3 U	5.3 U	5.2 U	5.7 U	6.0 U	5.9 U	5.9 U	6.0 U	5.5 U	5.4 U
Ethylbenzene	µg/kg	1,000 ^{AD} 390,000 ^B 780,000 ^C	n/v	5.4 U	5.3 U	5.3 U	5.3 U	5.2 U	5.7 U	6.0 U	5.9 U	5.9 U	6.0 U	5.5 U	5.4 U
Ethylene Dibromide (Dibromoethane, 1,2-)	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	n/v	5.4 U	5.3 U	5.3 U	5.3 U	5.2 U	5.7 U	6.0 U	5.9 U	5.9 U	6.0 U	5.5 U	5.4 U
Hexanone, 2- (Methyl Butyl Ketone)	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	n/v	27 U	26 U	26 U	26 U	26 U	29 UJ	30 U	30 U	30 U	30 U	28 U	27 U
Isopropylbenzene	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	500,000 ^E 1,000,000 ^F 2,300 ^D	5.4 U	5.3 U	5.3 U	5.3 U	5.2 U	5.7 U	6.0 U	5.9 U	5.9 U	6.0 U	5.5 U	5.4 U
Isopropyltoluene, p- (Cymene)	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	500,000 ^E 1,000,000 ^F 10,000 ^D	5.4 U	5.3 U	5.3 U	5.3 U	5.2 U	5.7 U	6.0 U	5.9 U	5.9 U	6.0 U	5.5 U	5.4 U
Methyl Acetate	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	n/v	5.4 U	5.3 U	5.3 U	5.3 U	5.2 U	5.7 U	6.0 U	5.9 U	5.9 U	6.0 U	5.5 U	5.4 U
Methyl Ethyl Ketone (MEK) (2-Butanone)	µg/kg	120 ^{AD} 500,000 ^B 1,000,000 ^C	500,000 ^E 1,000,000 ^F 300 ^D	27 U	26 U	26 U	26 U	26 U	29 UJ	30 U	30 U	30 U	30 U	28 U	27 U
Methyl Isobutyl Ketone (MIBK)	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	500,000 ^E 1,000,000 ^F 1,000 ^D	27 U	26 U	26 U	26 U	26 U	29 UJ	30 U	30 U	30 U	30 U	28 U	27 U
Methyl tert-butyl ether (MTBE)	µg/kg	930 ^{AD} 500,000 ^B 1,000,000 ^C	n/v	5.4 U	5.3 U	5.3 U	5.3 U	5.2 U	5.7 U	6.0 U	5.9 U	5.9 U	6.0 U	5.5 U	5.4 U
Methylcyclohexane	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	n/v	5.4 U	5.3 U	5.3 U	5.3 U	5.2 U	5.7 U	6.0 U	5.9 U	5.9 U	6.0 U	5.5 U	5.4 U
Methylene Chloride (Dichloromethane)	µg/kg	50 ^{AD} 500,000 ^B 1,000,000 ^C	n/v	5.4 U	5.3 U	5.3 U	5.3 U	5.2 U	5.7 U	6.0 U	5.9 U	5.9 U	6.0 U	5.5 U	5.4 U
Naphthalene	µg/kg	12,000 ^{AD} 500,000 ^B 1,000,000 ^C	n/v	5.4 U	5.3 U	5.3 U	5.3 U	5.2 U	5.7 U	6.0 U	5.9 U	5.9 U	6.0 U	5.5 U	5.4 U
Propylbenzene, n-	µg/kg	3,900 ^{AD} 500,000 ^B 1,000,000 ^{CD}	n/v	5.4 U	5.3 U	5.3 U	5.3 U	5.2 U	5.7 U	6.0 U	5.9 U	5.9 U	6.0 U	5.5 U	5.4 U
Styrene	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	500,000 ^E 1,000,000 ^F	5.4 U	5.3 U	5.3 U	5.3 U	5.2 U	5.7 U	6.0 U	5.9 U	5.9 U	6.0 U	5.5 U	5.4 U
Tetrachloroethane, 1,1,2,2-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	500,000 ^E 1,000,000 ^F 600 ^D	5.4 U	5.3 U	5.3 U	5.3 U	5.2 U	5.7 UJ	6.0 U	5.9 U	5.9 U	6.0 U	5.5 U	5.4 U
Tetrachloroethene (PCE)	µg/kg	1,300 ^{AD} 150,000 ^B 300,000 ^C	500,000 ^E 1,000,000 ^F	5.4 U	5.3 U	5.3 U	5.3 U	5.2 U	5.7 U	6.0 U	5.9 U	5.9 U	6.0 U	5.5 U	5.4 U
Toluene	µg/kg	700 ^{AD} 500,000 ^B 1,000,000 ^C	n/v	5.4 U	5.3 U	5.3 U	5.3 U	5.2 U	5.7 U	6.0 U	5.9 U	5.9 U	6.0 U	5.5 U	5.4 U
Trichlorobenzene, 1,2,4-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	500,000 ^E 1,000,000 ^F 3,400 ^D	5.4 U	5.3 U	5.3 U	5.3 U	5.2 U	5.7 U	6.0 U	5.9 U	5.9 U	6.0 U	5.5 U	5.4 U
Trichloroethane, 1,1,1-	µg/kg	680 ^{AD} 500,000 ^B 1,000,000 ^C	n/v	5.4 U	5.3 U	5.3 U	5.3 U	5.2 U	5.7 U	6.0 U	5.9 U	5.9 U	6.0 U	5.5 U	5.4 U
Trichloroethane, 1,1,2-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	n/v	5.4 U	5.3 U	5.3 U	5.3 U	5.2 U	5.7 UJ	6.0 U	5.9 U	5.9 U	6.0 U	5.5 U	5.4 U
Trichloroethene (TCE)	µg/kg	470 ^{AD} 200,000 ^B 400,000 ^C	n/v	5.4 U	5.3 U	5.3 U	5.3 U	5.2 U	5.7 U	6.0 U	5.9 U	5.9 U	6.0 U	5.5 U	5.4 U
Trichlorofluoromethane (Freon 11)	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	n/v	5.4 U	5.3 U	5.3 U	5.3 U	5.2 U	5.7 U	6.0 U	5.9 U	5.9 U	6.0 U	5.5 U	5.4 U
Trichlorotrifluoroethane (Freon 113)	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	500,000 ^E 1,000,000 ^F 6,000 ^D	5.4 U	5.3 U	5.3 U	5.3 U	5.2 U	5.7 U	6.0 U	5.9 U	5.9 U	6.0 U	5.5 U	5.4 U
Trimethylbenzene, 1,2,4-	µg/kg	3,600 ^{AD} 190,000 ^B 380,000 ^C	n/v	5.4 U	5.3 U	5.3 U	5.3 U	5.2 U	5.7 U	6.0 U	5.9 U	5.9 U	6.0 U	5.5 U	5.4 U
Trimethylbenzene, 1,3,5-	µg/kg	8,400 ^{AD} 190,000 ^B 380,000 ^C	n/v	5.4 U	5.3 U	5.3 U	5.3 U	5.2 U	5.7 U	6.0 U	5.9 U	5.9 U	6.0 U	5.5 U	5.4 U
Vinyl Chloride	µg/kg	20 ^{AD} 13,000 ^B 27,000 ^C	n/v	5.4 U	5.3 U	5.3 U	5.3 U	5.2 U	5.7 U	6.0 U	5.9 U	5.9 U	6.0 U	5.5 U	5.4 UJ
Xylene, m & p-	µg/kg	260 ^A 500,000 ^B 1,000,000 ^{CD} 1,600 ^D	n/v	11 U	11 U	11 U	11 U	10 U	12 U	11 U	12 U	12 U	11 U	11 U	10 U</

Table 4
Summary of Analytical Results for RI Soil Samples
Site Management Plan
820 Linden Ave Site, BCP #C828200
820 Linden Avenue, Pittsford, NY

Sample Location				B-11D		B-12	B-12D				B-13		B-13D		B-14 (MW-5)		
Sample Date				12-Jan-17	12-Jan-17	5-Jul-16	11-Jan-17	11-Jan-17	11-Jan-17	11-Jan-17	5-Jul-16	5-Jul-16	12-Jan-17	12-Jan-17	13-Sep-16	13-Sep-16	14-Sep-16
Sample ID				LIN-B11D-S1	LIN-B11D-S2	B-12 (8-9)	LIN-B12D-S1	LIN-B12D-S2	LIN-B12D-S3	LIN-DUP-S	B-13 (2-3)	B-13 (7-8)	LIN-B13D-S1	LIN-B13D-S2	B-10 (3-4)	DUP0916	B-10 (62-63)
Sample Depth				28 - 29 ft	60 - 60.5 ft	8 - 9 ft	28 - 28.5 ft	40.5 - 41.5 ft	58 - 58.5 ft	58 - 58.5 ft	2 - 3 ft	7 - 8 ft	48 - 48.5 ft	54.5 - 55.5 ft	3 - 4 ft	3 - 4 ft	62 - 63 ft
Sampling Company				STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC
Laboratory				TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL
Laboratory Work Order				480-112267-1	480-112267-1	480-102705-1	480-112267-1	480-112267-1	480-112267-1	480-112267-1	480-102705-1	480-102705-5	480-112267-1	480-112267-1	480-106008-1	480-106008-1	480-106008-1
Laboratory Sample ID				480-112267-6	480-112267-7	480-102705-3	480-112267-8	480-112267-9	480-112267-10	480-112267-11	480-102705-4	480-102705-5	480-112267-12	480-112267-13	480-106008-1	480-106008-3	480-106008-2
Sample Type	Units	NYSDEC-Part 375	NYSDEC CP-51													Field Duplicate	
General Chemistry																	
Cyanide	mg/kg	27 ^{AB} 10,000 ^a 40 ^D	n/v	-	-	0.93 U	-	-	-	-	0.99 U	0.98 U	-	-	-	-	-
Metals																	
Aluminum	mg/kg	10,000 ^a ABCD	10,000 ^a EFG	-	-	3,610	-	-	-	-	5,320	4,720	-	-	-	-	-
Antimony	mg/kg	10,000 ^a ABCD	10,000 ^a EFG	-	-	15.1 U	-	-	-	-	16.8 U	16.5 U	-	-	-	-	-
Arsenic	mg/kg	13 ^a 16 ^{BCD}	n/v	-	-	2.0 U	-	-	-	-	2.2 U	2.0 U	-	-	-	-	-
Barium	mg/kg	350 ^a 400 ^B 10,000 ^c 820 ^D	n/v	-	-	11.2	-	-	-	-	37.9	34.1	-	-	-	-	-
Beryllium	mg/kg	7.2 ^A 590 ^B 2,700 ^C 47 ^D	n/v	-	-	0.20 U	-	-	-	-	0.24	0.22	-	-	-	-	-
Cadmium	mg/kg	2.5 ⁿ 9.3 ^B 60 ^C 7.5 ^D	n/v	-	-	0.20 U	-	-	-	-	0.22 U	0.22 U	-	-	-	-	-
Calcium	mg/kg	10,000 ^a ABCD	10,000 ^a EFG	-	-	1,910	-	-	-	-	84,300 ^{AB} CDEFG	101,000 ^{AB} CDEFG	-	-	-	-	-
Chromium	mg/kg	30 ⁿ 1,500 ^B 6,800 ^C NS ^a 4 ^D	n/v	-	-	6.9	-	-	-	-	6.9	6.8	-	-	-	-	-
Cobalt	mg/kg	10,000 ^a ABCD	10,000 ^a EFG	-	-	2.1	-	-	-	-	2.3	2.2	-	-	-	-	-
Copper	mg/kg	50 ^A 270 ^B 10,000 ^C 1,720 ^D	n/v	-	-	3.6	-	-	-	-	7.2	10.5	-	-	-	-	-
Iron	mg/kg	10,000 ^a ABCD	10,000 ^a EFG	-	-	7,350	-	-	-	-	7,020	6,670	-	-	-	-	-
Lead	mg/kg	63 ^A 1,000 ^B 3,900 ^C 450 ^D	n/v	-	-	1.4	-	-	-	-	10.7	13.1	-	-	-	-	-
Magnesium	mg/kg	10,000 ^a ABCD	n/v	-	-	1,140	-	-	-	-	28,600 ^{AB} CD	39,200 ^{AB} CD	-	-	-	-	-
Manganese	mg/kg	1,600 ⁿ 10,000 ^a BC 2,000 ^a D	n/v	-	-	169	-	-	-	-	271	302	-	-	-	-	-
Mercury	mg/kg	0.18 ⁿ 2.8 ⁿ 5.7 ⁿ 0.73 ^D	n/v	-	-	0.018 U	-	-	-	-	0.021 U	0.020 U	-	-	-	-	-
Nickel	mg/kg	30 ^A 310 ^B 10,000 ^C 130 ^D	n/v	-	-	5.0 U	-	-	-	-	5.6 U	5.7	-	-	-	-	-
Potassium	mg/kg	10,000 ^a ABCD	n/v	-	-	694	-	-	-	-	1,230	1,100	-	-	-	-	-
Selenium	mg/kg	3.9 ^A 1,500 ^B 6,800 ^C 4 ^D	n/v	-	-	4.0 U	-	-	-	-	4.5 U	4.4 U	-	-	-	-	-
Silver	mg/kg	2 ^A 1,500 ^B 6,800 ^C 8.3 ^D	n/v	-	-	0.50 U	-	-	-	-	0.56 U	0.55 U	-	-	-	-	-
Sodium	mg/kg	10,000 ^a ABCD	n/v	-	-	141 U	-	-	-	-	270	238	-	-	-	-	-
Thallium	mg/kg	10,000 ^a ABCD	10,000 ^a EFG	-	-	6.0 U	-	-	-	-	6.7 U	6.6 U	-	-	-	-	-
Vanadium	mg/kg	10,000 ^a ABCD	10,000 ^a EFG	-	-	13.0	-	-	-	-	10.4	8.6	-	-	-	-	-
Zinc	mg/kg	109 ⁿ 10,000 ^a BC 2,480 ^D	n/v	-	-	10.7	-	-	-	-	37.7	37.2	-	-	-	-	-
Polychlorinated Biphenyls																	
Aroclor 1016	µg/kg	ABCD	n/v	-	-	220 U	-	-	-	-	230 U	260 U	-	-	-	-	-
Aroclor 1221	µg/kg	ABCD	n/v	-	-	220 U	-	-	-	-	230 U	260 U	-	-	-	-	-
Aroclor 1232	µg/kg	ABCD	n/v	-	-	220 U	-	-	-	-	230 U	260 U	-	-	-	-	-
Aroclor 1242	µg/kg	ABCD	n/v	-	-	220 U	-	-	-	-	230 U	260 U	-	-	-	-	-
Aroclor 1248	µg/kg	ABCD	n/v	-	-	220 U	-	-	-	-	230 U	260 U	-	-	-	-	-
Aroclor 1254	µg/kg	ABCD	n/v	-	-	220 U	-	-	-	-	230 U	260 U	-	-	-	-	-
Aroclor 1260	µg/kg	ABCD	n/v	-	-	220 U	-	-	-	-	230 U	260 U	-	-	-	-	-
Aroclor 1262	µg/kg	ABCD	n/v	-	-	220 U	-	-	-	-	230 U	260 U	-	-	-	-	-
Aroclor 1268	µg/kg	ABCD	n/v	-	-	220 U	-	-	-	-	230 U	260 U	-	-	-	-	-
Polychlorinated Biphenyls (PCBs)	µg/kg	100 ^A 1,000 ^B 25,000 ^C 3,200 ^D	n/v	-	-	ND	-	-	-	-	ND	ND	-	-	-	-	-
Pesticides																	
Aldrin	µg/kg	5 ⁿ 680 ^B 1,400 ^C 190 ^D	n/v	-	-	1.7 U	-	-	-	-	3.6 U	1.7 U	-	-	-	-	-
BHC, alpha-	µg/kg	20 ^{AD} 3,400 ^B 6,800 ^C	n/v	-	-	1.7 U	-	-	-	-	3.6 U	1.7 U	-	-	-	-	-
BHC, beta-	µg/kg	36 ^A 3,000 ^B 14,000 ^C 90 ^D	n/v	-	-	1.7 U	-	-	-	-	3.6 U	1.7 U	-	-	-	-	-
BHC, delta-	µg/kg	40 ⁿ 500,000 ^a 1,000,000 ^a 250 ^D	n/v	-	-	1.7 U	-	-	-	-	3.6 U	1.7 U	-	-	-	-	-
Camphchlor (Toxaphene)	µg/kg	100,000 ^a 500,000 ^a 1,000,000 ^a CD	n/v	-	-	17 U	-	-	-	-	36 U	17 U	-	-	-	-	-
Chlordane, alpha-	µg/kg	94 ^A 24,000 ^B 47,000 ^C 2,900 ^D	n/v	-	-	1.7 U	-	-	-	-	3.6 U	1.7 U	-	-	-	-	-
Chlordane, trans- (gamma-Chlordane)	µg/kg	100,000 ^a 1,000,000 ^a D	n/v	-	-	1.7 U	-	-	-	-	3.6 U	1.7 U	-	-	-	-	-
DDD (p,p'-DDD)	µg/kg	3.3 ^A 92,000 ^B 180,000 ^C 14,000 ^D	n/v	-	-	1.7 U	-	-	-	-	3.6 U	1.7 U	-	-	-	-	-
DDE (p,p'-DDE)	µg/kg	3.3 ^A 62,000 ^B 120,000 ^C 17,000 ^D	n/v	-	-	1.7 U	-	-	-	-	3.6 U	1.7 U	-	-	-	-	-
DDT (p,p'-DDT)	µg/kg	3.3 ^A 47,000 ^B 94,000 ^C 136,000 ^D	n/v	-	-	1.7 U	-	-	-	-	3.6 U	1.7 U	-	-	-	-	-
Dieldrin	µg/kg	5 ⁿ 1,400 ^B 2,800 ^C 100 ^D	n/v	-	-	1.7 U	-	-	-	-	4.0	1.7 U	-	-	-	-	-
Endosulfan I	µg/kg	2,400 ^A 200,000 ^B 920,000 ^C 102,000 ^D	n/v	-	-	1.7 U	-	-	-	-	3.6 U	1.7 U	-	-	-	-	-
Endosulfan II	µg/kg	2,400 ^A 200,000 ^B 920,000 ^C 102,000 ^D	n/v	-	-	1.7 U	-	-	-	-	3.6 U	1.7 U	-	-	-	-	-
Endosulfan Sulfate	µg/kg	2,400 ^A 200,000 ^B 920,000 ^C 1,000,000 ^a D	n/v	-	-	1.7 U	-	-	-	-	3.6 U	1.7 U	-	-	-	-	-
Endrin	µg/kg	14 ^A 89,000 ^B 410,000 ^C 60 ^D	n/v	-	-	1.7 U	-	-	-	-	3.6 U	1.7 U	-	-	-	-	-
Endrin Aldehyde	µg/kg	100,000 ^a 500,000 ^a 1,000,000 ^a CD	n/v	-	-	1.7 U	-	-	-	-	3.6 U	1.7 U	-	-	-	-	-
Endrin Ketone	µg/kg	100,000 ^a 500,000 ^a 1,000,000 ^a CD	n/v	-	-	1.7 U	-	-	-	-	3.6 U	1.7 U	-	-	-	-	-
Heptachlor	µg/kg	42 ^A 15,000 ^B 29,000 ^C 380 ^D	n/v	-	-	1.7 U	-	-	-	-	3.6 U	1.7 U	-	-	-	-	-
Heptachlor Epoxide	µg/kg	100,000 ^a 500,000 ^a 1,000,000 ^a CD	500,000 ^a E 1,000,000 ^a F 20 ^G	-	-	1.7 U	-	-	-	-	3.6 U	1.7 U	-	-	-	-	-
Lindane (Hexachlorocyclohexane, gamma)	µg/kg	100 ^{AD} 9,200 ^B 23,000 ^C	n/v	-	-	1.7 U	-	-	-	-	3.6 U	1.7 U	-	-	-	-	-
Methoxychlor (4,4'-Methoxychlor)	µg/kg	100,000 ^a 500,000 ^a 1,000,000 ^a CD	500,000 ^a E 1,000,000 ^a F 900,000 ^G	-	-	1.7 U	-	-	-	-	3.6 U	1.7 U	-	-	-	-	-

See notes on last page.

Table 4
Summary of Analytical Results for RI Soil Samples
Site Management Plan
820 Linden Ave Site, BCP #C828200
820 Linden Avenue, Pittsford, NY

Sample Location				B-11D		B-12	B-12D				B-13		B-13D		B-14 (MW-5)		
Sample Date				12-Jan-17	12-Jan-17	5-Jul-16	11-Jan-17	11-Jan-17	11-Jan-17	11-Jan-17	5-Jul-16	5-Jul-16	12-Jan-17	12-Jan-17	13-Sep-16	13-Sep-16	14-Sep-16
Sample ID				LIN-B11D-S1	LIN-B11D-S2	B-12 (8-9)	LIN-B12D-S1	LIN-B12D-S2	LIN-B12D-S3	LIN-DUP-S	B-13 (2-3)	B-13 (7-8)	LIN-B13D-S1	LIN-B13D-S2	B-10 (3-4)	DUP0916	B-10 (62-63)
Sample Depth				28 - 29 ft	60 - 60.5 ft	8 - 9 ft	28 - 28.5 ft	40.5 - 41.5 ft	58 - 58.5 ft	58 - 58.5 ft	2 - 3 ft	7 - 8 ft	48 - 48.5 ft	54.5 - 55.5 ft	3 - 4 ft	3 - 4 ft	62 - 63 ft
Sampling Company				STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC
Laboratory				TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL
Laboratory Work Order				480-112267-1	480-112267-1	480-102705-1	480-112267-1	480-112267-1	480-112267-1	480-112267-1	480-102705-1	480-102705-1	480-112267-1	480-112267-1	480-106008-1	480-106008-1	480-106008-1
Laboratory Sample ID				480-112267-6	480-112267-7	480-102705-3	480-112267-8	480-112267-9	480-112267-10	480-112267-11	480-102705-4	480-102705-5	480-112267-12	480-112267-13	480-106008-1	480-106008-3	480-106008-2
Sample Type	Units	NYSDEC-Part 375	NYSDEC CP-51														
Semi-Volatile Organic Compounds																	
Acenaphthene	µg/kg	20,000 ^A 500,000 ^B 1,000,000 ^C 98,000 ^D	n/v	-	-	170 U	-	-	-	-	180 U	180 U	-	-	-	-	-
Acenaphthylene	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C 107,000 ^D	n/v	-	-	170 U	-	-	-	-	180 U	180 U	-	-	-	-	-
Acetophenone	µg/kg	100,000 ^A 1,000,000 ^B	n/v	-	-	170 U	-	-	-	-	180 U	180 U	-	-	-	-	-
Anthracene	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	n/v	-	-	170 U	-	-	-	-	180 U	180 U	-	-	-	-	-
Atrazine	µg/kg	100,000 ^A 1,000,000 ^B	n/v	-	-	170 U	-	-	-	-	180 U	180 U	-	-	-	-	-
Benzaldehyde	µg/kg	100,000 ^A 1,000,000 ^B	n/v	-	-	170 U	-	-	-	-	180 U	180 U	-	-	-	-	-
Benzo(a)anthracene	µg/kg	1,000 ^A 5,600 ^B 11,000 ^C 1,000 ^D	n/v	-	-	170 U	-	-	-	-	180 U	180 U	-	-	-	-	-
Benzo(a)pyrene	µg/kg	1,000 ^A 1,000 ^B 1,100 ^C 22,000 ^D	n/v	-	-	170 U	-	-	-	-	180 U	180 U	-	-	-	-	-
Benzo(b)fluoranthene	µg/kg	1,000 ^A 5,600 ^B 11,000 ^C 1,700 ^D	n/v	-	-	170 U	-	-	-	-	180 U	180 U	-	-	-	-	-
Benzo(g,h,i)perylene	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	n/v	-	-	170 U	-	-	-	-	180 U	180 U	-	-	-	-	-
Benzo(k)fluoranthene	µg/kg	800 ^A 56,000 ^B 110,000 ^C 1,700 ^D	n/v	-	-	170 U	-	-	-	-	180 U	180 U	-	-	-	-	-
Biphenyl, 1,1'- (Biphenyl)	µg/kg	100,000 ^A 1,000,000 ^B	500,000 ^E 1,000,000 ^F	-	-	170 U	-	-	-	-	180 U	180 U	-	-	-	-	-
Bis(2-Chloroethoxy)methane	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	n/v	-	-	170 U	-	-	-	-	180 U	180 U	-	-	-	-	-
Bis(2-Chloroethyl)ether	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	n/v	-	-	170 U	-	-	-	-	180 U	180 U	-	-	-	-	-
Bis(2-Chloroisopropyl)ether (2,2-oxybis(1-Chloropropane))	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	n/v	-	-	170 U	-	-	-	-	180 U	180 U	-	-	-	-	-
Bis(2-Ethylhexyl)phthalate (DEHP)	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	500,000 ^E 1,000,000 ^F 435,000 ^G	-	-	170 U	-	-	-	-	180 U	180 U	-	-	-	-	-
Bromophenyl Phenyl Ether, 4-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	n/v	-	-	170 U	-	-	-	-	180 U	180 U	-	-	-	-	-
Butyl Benzyl Phthalate	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	500,000 ^E 1,000,000 ^F 122,000 ^G	-	-	170 U	-	-	-	-	180 U	180 U	-	-	-	-	-
Caprolactam	µg/kg	100,000 ^A 1,000,000 ^B	n/v	-	-	170 U	-	-	-	-	180 U	180 U	-	-	-	-	-
Carbazole	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	n/v	-	-	170 U	-	-	-	-	180 U	180 U	-	-	-	-	-
Chloro-3-methyl phenol, 4-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	n/v	-	-	170 U	-	-	-	-	180 U	180 U	-	-	-	-	-
Chloroaniline, 4-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	500,000 ^E 1,000,000 ^F 220 ^G	-	-	170 U	-	-	-	-	180 U	180 U	-	-	-	-	-
Chloronaphthalene, 2-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	n/v	-	-	170 U	-	-	-	-	180 U	180 U	-	-	-	-	-
Chlorophenol, 2- (ortho-Chlorophenol)	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	500,000 ^E 1,000,000 ^F	-	-	170 U	-	-	-	-	180 U	180 U	-	-	-	-	-
Chlorophenyl Phenyl Ether, 4-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	n/v	-	-	170 U	-	-	-	-	180 U	180 U	-	-	-	-	-
Chrysene	µg/kg	1,000 ^A 56,000 ^B 110,000 ^C 1,000 ^D	n/v	-	-	170 U	-	-	-	-	180 U	180 U	-	-	-	-	-
Cresol, o- (Methylphenol, 2-)	µg/kg	330 ^A 500,000 ^B 1,000,000 ^C 330 ^D	n/v	-	-	170 U	-	-	-	-	180 U	180 U	-	-	-	-	-
Cresol, p- (Methylphenol, 4-)	µg/kg	330 ^A 500,000 ^B 1,000,000 ^C 330 ^D	n/v	-	-	330 U	-	-	-	-	350 U	350 U	-	-	-	-	-
Dibenzo(a,h)anthracene	µg/kg	330 ^A 560 ^B 1,100 ^C 1,000,000 ^D	n/v	-	-	170 U	-	-	-	-	180 U	180 U	-	-	-	-	-
Dibenzofuran	µg/kg	7,000 ^A 350,000 ^B 1,000,000 ^C 210,000 ^D	500,000 ^E 1,000,000 ^F 6,200 ^G	-	-	170 U	-	-	-	-	180 U	180 U	-	-	-	-	-
Dibutyl Phthalate (DBP)	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	500,000 ^E 1,000,000 ^F 8,100 ^G	-	-	170 U	-	-	-	-	180 U	180 U	-	-	-	-	-
Dichlorobenzidine, 3,3'-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	n/v	-	-	170 U	-	-	-	-	180 U	180 U	-	-	-	-	-
Dichlorophenol, 2,4-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	500,000 ^E 1,000,000 ^F 400 ^G	-	-	170 U	-	-	-	-	180 U	180 U	-	-	-	-	-
Diethyl Phthalate	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	500,000 ^E 1,000,000 ^F 7,100 ^G	-	-	170 U	-	-	-	-	180 U	180 U	-	-	-	-	-
Dimethyl Phthalate	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	500,000 ^E 1,000,000 ^F 27,000 ^G	-	-	170 U	-	-	-	-	180 U	180 U	-	-	-	-	-
Dimethylphenol, 2,4-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	n/v	-	-	170 U	-	-	-	-	180 U	180 U	-	-	-	-	-
Dinitro-o-cresol, 4,6-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	n/v	-	-	330 U	-	-	-	-	350 U	350 U	-	-	-	-	-
Dinitrophenol, 2,4-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	500,000 ^E 1,000,000 ^F 200 ^G	-	-	330 U	-	-	-	-	350 U	350 U	-	-	-	-	-
Dinitrotoluene, 2,4-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	n/v	-	-	170 U	-	-	-	-	180 U	180 U	-	-	-	-	-
Dinitrotoluene, 2,6-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	500,000 ^E 1,000,000 ^F 1,000/170 ^{B,1} ^G	-	-	170 U	-	-	-	-	180 U	180 U	-	-	-	-	-
Di-n-Octyl phthalate	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	500,000 ^E 1,000,000 ^F 120,000 ^G	-	-	170 U	-	-	-	-	180 U	180 U	-	-	-	-	-
Fluoranthene	µg/kg	100,000 ^A															

Table 4
Summary of Analytical Results for RI Soil Samples
Site Management Plan
820 Linden Ave Site, BCP #C828200
820 Linden Avenue, Pittsford, NY

Sample Location				B-11D		B-12	B-12D				B-13		B-13D		B-14 (MW-5)		14-Sep-16
Sample Date				12-Jan-17	12-Jan-17	5-Jul-16	11-Jan-17	11-Jan-17	11-Jan-17	11-Jan-17	5-Jul-16	5-Jul-16	12-Jan-17	12-Jan-17	13-Sep-16	13-Sep-16	14-Sep-16
Sample ID				LIN-B11D-S1	LIN-B11D-S2	B-12 (8-9)	LIN-B12D-S1	LIN-B12D-S2	LIN-B12D-S3	LIN-DUP-S	B-13 (2-3)	B-13 (7-8)	LIN-B13D-S1	LIN-B13D-S2	B-10 (3-4)	DUP0916	B-10 (62-63)
Sample Depth				28 - 29 ft	60 - 60.5 ft	8 - 9 ft	28 - 28.5 ft	40.5 - 41.5 ft	58 - 58.5 ft	58 - 58.5 ft	2 - 3 ft	7 - 8 ft	48 - 48.5 ft	54.5 - 55.5 ft	3 - 4 ft	3 - 4 ft	62 - 63 ft
Sampling Company				STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC
Laboratory				TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL
Laboratory Work Order				480-112267-1	480-112267-1	480-102705-1	480-112267-1	480-112267-1	480-112267-1	480-112267-1	480-102705-1	480-102705-1	480-112267-1	480-112267-1	480-106008-1	480-106008-1	480-106008-1
Laboratory Sample ID				480-112267-6	480-112267-7	480-102705-3	480-112267-8	480-112267-9	480-112267-10	480-112267-11	480-102705-4	480-102705-5	480-112267-12	480-112267-13	480-106008-1	480-106008-3	480-106008-2
Sample Type	Units	NYSDEC-Part 375	NYSDEC CP-51													Field Duplicate	
Volatile Organic Compounds																	
Acetone	µg/kg	50 ^{AD} 500,000 ^B 1,000,000 ^C	n/v	26 U	53 ^{AD}	25 U	42	35	95 ^{AD}	92 ^{AD}	28	70 J ^{AD}	120 ^{AD}	550 U	31 U	25 U	30 U
Benzene	µg/kg	60 ^{AD} 44,000 ^B 89,000 ^C	n/v	5.2 U	5.6 U	5.0 U	5.1 U	5.1 U	5.2 U	5.3 U	5.5 U	5.2 U	5.1 U	110 U	6.2 U	5.1 U	6.0 U
Bromodichloromethane	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	n/v	5.2 U	5.6 U	5.0 U	5.1 U	5.1 U	5.2 U	5.3 U	5.5 U	5.2 U	5.1 U	110 U	6.2 U	5.1 U	6.0 U
Bromoform (Tribromomethane)	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	n/v	5.2 U	5.6 U	5.0 U	5.1 U	5.1 U	5.2 U	5.3 U	5.5 U	5.2 U	5.1 U	110 U	6.2 U	5.1 U	6.0 U
Bromomethane (Methyl bromide)	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	n/v	5.2 U	5.6 U	5.0 U	5.1 U	5.1 U	5.2 U	5.3 U	5.5 U	5.2 U	5.1 U	110 U	6.2 U	5.1 U	6.0 U
Butylbenzene, n-	µg/kg	12,000 ^{AD} 500,000 ^B 1,000,000 ^C	n/v	5.2 U	5.6 U	5.0 U	5.1 U	5.1 U	5.2 U	5.3 U	5.5 U	5.2 U	5.1 U	110 U	6.2 U	5.1 U	6.0 U
Butylbenzene, sec- (2-Phenylbutane)	µg/kg	11,000 ^{AD} 500,000 ^B 1,000,000 ^C	n/v	5.2 U	5.6 U	5.0 U	5.1 U	5.1 U	5.2 U	5.3 U	5.5 U	5.2 U	5.1 U	110 U	6.2 U	5.1 U	6.0 U
Butylbenzene, tert-	µg/kg	5,900 ^{AD} 500,000 ^B 1,000,000 ^C	n/v	5.2 U	5.6 U	5.0 U	5.1 U	5.1 U	5.2 U	5.3 U	5.5 U	5.2 U	5.1 U	110 U	6.2 U	5.1 U	6.0 U
Carbon Disulfide	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	500,000 ^E 1,000,000 ^F 2,700 ^G	5.2 U	5.6 U	5.0 U	5.1 U	5.1 U	5.2 U	5.3 U	5.5 U	5.2 U	5.1 U	110 U	6.2 U	5.1 U	6.0 U
Carbon Tetrachloride (Tetrachloromethane)	µg/kg	760 ^{AD} 22,000 ^B 44,000 ^C	n/v	5.2 U	5.6 U	5.0 U	5.1 U	5.1 U	5.2 U	5.3 U	5.5 U	5.2 U	5.1 U	110 U	6.2 U	5.1 U	6.0 U
Chlorobenzene (Monochlorobenzene)	µg/kg	1,100 ^{AD} 500,000 ^B 1,000,000 ^C	n/v	5.2 U	5.6 U	5.0 U	5.1 U	5.1 U	5.2 U	5.3 U	5.5 U	5.2 U	5.1 U	110 U	6.2 U	5.1 U	6.0 U
Chloroethane (Ethyl Chloride)	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	500,000 ^E 1,000,000 ^F 1,900 ^G	5.2 U	5.6 U	5.0 U	5.1 U	5.1 U	5.2 U	5.3 U	5.5 U	5.2 U	5.1 U	110 U	6.2 U	5.1 U	6.0 U
Chloroform (Trichloromethane)	µg/kg	370 ^{AD} 350,000 ^B 700,000 ^C	n/v	5.2 U	5.6 U	5.0 U	5.1 U	5.1 U	5.2 U	5.3 U	5.5 U	5.2 U	5.1 U	110 U	6.2 U	5.1 U	6.0 U
Chloromethane	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	n/v	5.2 U	5.6 U	5.0 U	5.1 U	5.1 U	5.2 U	5.3 U	5.5 U	5.2 U	5.1 U	110 U	6.2 U	5.1 U	6.0 U
Cyclohexane	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	n/v	5.2 U	5.6 U	5.0 U	5.1 U	5.1 U	5.2 U	5.3 U	5.5 U	5.2 U	5.1 U	110 U	6.2 U	5.1 U	6.0 U
Dibromo-3-Chloropropane, 1,2- (DBCP)	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	n/v	5.2 U	5.6 U	5.0 U	5.1 U	5.1 U	5.2 U	5.3 U	5.5 U	5.2 U	5.1 U	110 U	6.2 U	5.1 U	6.0 U
Dibromochloromethane	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	500,000 ^E 1,000,000 ^F	5.2 U	5.6 U	5.0 U	5.1 U	5.1 U	5.2 U	5.3 U	5.5 U	5.2 U	5.1 U	110 U	6.2 U	5.1 U	6.0 U
Dichlorobenzene, 1,2-	µg/kg	1,100 ^{AD} 500,000 ^B 1,000,000 ^C	n/v	5.2 U	5.6 U	5.0 U	5.1 U	5.1 U	5.2 U	5.3 U	5.5 U	5.2 U	5.1 U	110 U	6.2 U	5.1 U	6.0 U
Dichlorobenzene, 1,3-	µg/kg	2,400 ^{AD} 280,000 ^B 560,000 ^C	n/v	5.2 U	5.6 U	5.0 U	5.1 U	5.1 U	5.2 U	5.3 U	5.5 U	5.2 U	5.1 U	110 U	6.2 U	5.1 U	6.0 U
Dichlorobenzene, 1,4-	µg/kg	1,800 ^{AD} 130,000 ^B 250,000 ^C	n/v	5.2 U	5.6 U	5.0 U	5.1 U	5.1 U	5.2 U	5.3 U	5.5 U	5.2 U	5.1 U	110 U	6.2 U	5.1 U	6.0 U
Dichlorodifluoromethane (Freon 12)	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	n/v	5.2 U	5.6 U	5.0 U	5.1 U	5.1 U	5.2 U	5.3 U	5.5 U	5.2 U	5.1 U	110 U	6.2 U	5.1 U	6.0 U
Dichloroethane, 1,1-	µg/kg	270 ^{AD} 240,000 ^B 480,000 ^C	n/v	5.2 U	5.6 U	5.0 U	5.1 U	5.1 U	5.2 U	5.3 U	5.5 U	5.2 U	5.1 U	110 U	6.2 U	5.1 U	6.0 U
Dichloroethane, 1,2-	µg/kg	20 ^A 30,000 ^B 60,000 ^C 200 ^D	n/v	5.2 U	5.6 U	5.0 U	5.1 U	5.1 U	5.2 U	5.3 U	5.5 U	5.2 U	5.1 U	110 U	6.2 U	5.1 U	6.0 U
Dichloroethene, 1,1-	µg/kg	330 ^{AD} 500,000 ^B 1,000,000 ^C	n/v	5.2 U	5.6 U	5.0 U	5.1 U	5.1 U	5.2 U	5.3 U	5.5 U	5.2 U	5.1 U	110 U	6.2 U	5.1 U	6.0 U
Dichloroethene, cis-1,2-	µg/kg	250 ^{AD} 500,000 ^B 1,000,000 ^C	n/v	5.2 U	5.6 U	5.0 U	5.1 U	5.1 U	5.2 U	5.3 U	5.5 U	5.2 U	5.1 U	110 U	6.2 U	5.1 U	6.0 U
Dichloroethene, trans-1,2-	µg/kg	190 ^{AD} 500,000 ^B 1,000,000 ^C	n/v	5.2 U	5.6 U	5.0 U	5.1 U	5.1 U	5.2 U	5.3 U	5.5 U	5.2 U	5.1 U	110 U	6.2 U	5.1 U	6.0 U
Dichloropropane, 1,2-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	500,000 ^E 1,000,000 ^F	5.2 U	5.6 U	5.0 U	5.1 U	5.1 U	5.2 U	5.3 U	5.5 U	5.2 U	5.1 U	110 U	6.2 U	5.1 U	6.0 U
Dichloropropene, cis-1,3-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	n/v	5.2 U	5.6 U	5.0 U	5.1 U	5.1 U	5.2 U	5.3 U	5.5 U	5.2 U	5.1 U	110 U	6.2 U	5.1 U	6.0 U
Dichloropropene, trans-1,3-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	n/v	5.2 U	5.6 U	5.0 U	5.1 U	5.1 U	5.2 U	5.3 U	5.5 U	5.2 U	5.1 U	110 U	6.2 U	5.1 U	6.0 U
Ethylbenzene	µg/kg	1,000 ^{AD} 390,000 ^B 780,000 ^C	n/v	5.2 U	5.6 U	5.0 U	5.1 U	5.1 U	5.2 U	5.3 U	5.5 U	5.2 U	5.1 U	110 U	6.2 U	5.1 U	6.0 U
Ethylene Dibromide (Dibromoethane, 1,2-)	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	n/v	5.2 U	5.6 U	5.0 U	5.1 U	5.1 U	5.2 U	5.3 U	5.5 U	5.2 U	5.1 U	110 U	6.2 U	5.1 U	6.0 U
Hexanone, 2- (Methyl Butyl Ketone)	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	n/v	26 U	28 U	25 U	26 U	26 U	26 U	27 U	27 U	26 U	26 U	550 U	31 U	25 U	30 U
Isopropylbenzene	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	500,000 ^E 1,000,000 ^F 2,300 ^G	5.2 U	5.6 U	5.0 U	5.1 U	5.1 U	5.2 U	5.3 U	5.5 U	5.2 U	5.1 U	110 U	6.2 U	5.1 U	6.0 U
Isopropyltoluene, p- (Cymene)	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	500,000 ^E 1,000,000 ^F 10,000 ^G	5.2 U	5.6 U	5.0 U	5.1 U	5.1 U	5.2 U	5.3 U	5.5 U	5.2 U	5.1 U	110 U	6.2 U	5.1 U	6.0 U
Methyl Acetate	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	n/v	26 U	28 U	25 U	26 U	26 U	26 U	27 U	27 U	26 U	26 U	550 U	31 U	25 U	30 U
Methyl Ethyl Ketone (MEK) (2-Butanone)	µg/kg	120 ^{AD} 500,000 ^B 1,000,000 ^C	500,000 ^E 1,000,000 ^F 300 ^G	26 U	28 U	25 U	26 U	26 U	26 U	27 U	27 U	26 U	26 U	550 U	31 U	25 U	30 U
Methyl Isobutyl Ketone (MIBK)	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	500,														

Table 4
Summary of Analytical Results for RI Soil Samples
Site Management Plan
820 Linden Ave Site, BCP #C828200
820 Linden Avenue, Pittsford, NY

Sample Location					B/MW-101			B/MW-102		B-102a		B/MW-103			B/MW-104		
Sample Date					25-Jul-18	25-Jul-18	25-Jul-18	23-Jul-18	23-Jul-18	24-Jul-18	24-Jul-18	24-Jul-18	24-Jul-18	26-Jul-18	26-Jul-18	26-Jul-18	26-Jul-18
Sample ID					LIN-B101-S1	LIN-FD1-S	LIN-B101-S2	LIN-B102-S1	LIN-B102-S2	LIN-B102a-S	LIN-B103-S1	LIN-B103-S3	LIN-B103-S2	LIN-B104-S2	LIN-FD2-S	LIN-B104-S1	LIN-B104-S3
Sample Depth					15 - 17 ft	15 - 17 ft	57 - 60 ft	2 - 3.5 ft	50.5 - 52 ft	7 - 8 ft	8 - 10 ft	19 - 19.5 ft	49 - 51 ft	4 - 8 ft	4 - 8 ft	10.5 - 11 ft	45 - 49 ft
Sampling Company					STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC
Laboratory					TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL
Laboratory Work Order					460-161448-1	460-161448-1	460-161448-1	460-161196-1	460-161196-1	460-161196-1	460-161196-1	460-161448-1	460-161196-1	460-161448-1	460-161448-1	460-161448-1	460-161448-1
Laboratory Sample ID					460-161448-1	460-161448-3	460-161448-2	460-161196-1	460-161196-1	460-161196-3	460-161196-4	460-161448-4	460-161196-5	460-161448-8	460-161448-6	460-161448-7	460-161448-9
Sample Type	Units	NYSDEC-Part 375	NYSDEC CP-51		Field Duplicate										Field Duplicate		
General Chemistry																	
Cyanide	mg/kg	27 ^{AB} 10,000 ^a ^C 40 ^D	n/v	-	-	-	-	-	-	-	1.1 U	-	1.2 U	0.27 U	0.28 U	-	0.25 U
Metals																	
Aluminum	mg/kg	10,000 ^a ^{ABCD}	10,000 ^a ^{EF}	3,450	4,030	2,000	4,900	2,720	-	3,260	-	2,060	10,400 ^{ABCDEFG}	-	-	-	1,820
Antimony	mg/kg	10,000 ^a ^{ABCD}	10,000 ^a ^{EF}	32.0 U	29.1 U	37.8 U	33.6 UJ	36.0 U	-	30.2 U	-	37.0 U	34.2 U	-	-	-	30.1 U
Arsenic	mg/kg	13 ^a ^A 16 ^{BCD}	n/v	4.3 U	3.9 U	5.0 U	1.1 J	1.3 J	-	1.2 J	-	1.4 J	4.7	-	-	-	4.0 U
Barium	mg/kg	350 ^a ^A 400 ^B 10,000 ^c ⁸²⁰ D	n/v	12.2	14.0	21.8	13.2	18.9	-	9.0	-	21.5	53.8	-	-	-	13.6
Beryllium	mg/kg	7.2 ^A 590 ^B 2,700 ^C ⁴⁷ D	n/v	0.43 U	0.39 U	0.50 U	0.27 J	0.22 J	-	0.25 J	-	0.15 J	0.63	-	-	-	0.40 U
Cadmium	mg/kg	2.5 ⁿ ^A 9.3 ^B 60 ^C ^{7.5} D	n/v	0.43 U	0.39 U	0.50 U	0.45 U	0.48 U	-	0.40 U	-	0.49 U	0.46 U	-	-	-	0.40 U
Calcium	mg/kg	10,000 ^a ^{ABCD}	10,000 ^a ^{EF}	30,400 ^{ABCDEFG}	26,000 ^{ABCEFG}	27,800 ^{ABCEFG}	1,730	34,600 ^{ABCEFG}	-	1,610	-	25,000 ^{ABCEFG}	3,220	-	-	-	26,600 ^{ABCEFG}
Chromium	mg/kg	30 ⁿ ^A 1,500 ^B 6,800 ^C ^{NS} ^a ^D	n/v	6.4	7.4	4.9	7.1	5.7	-	5.3	-	3.5	15.4	-	-	-	3.1
Cobalt	mg/kg	10,000 ^a ^{ABCD}	10,000 ^a ^{EF}	3.1	3.6	1.8	3.7	2.4	-	2.9	-	1.8	9.0	-	-	-	1.9
Copper	mg/kg	50 ^A 270 ^B 10,000 ^c ^{1,720} D	n/v	6.3	7.9	4.2	8.2	6.1	-	6.4	-	4.3	18.5	-	-	-	4.2
Iron	mg/kg	10,000 ^a ^{ABCD}	10,000 ^a ^{EF}	8,580	9,880	5,520	10,800 ^{ABCEFG}	8,260	-	8,030	-	5,520	22,700 ^{ABCEFG}	-	-	-	4,920
Lead	mg/kg	63 ^a ^A 1,000 ^B 3,900 ^C ⁴⁵⁰ D	n/v	2.5	3.0	2.5 U	2.5	2.4	-	2.4	-	1.3 J	8.2	-	-	-	2.0 U
Magnesium	mg/kg	10,000 ^a ^{ABCD}	n/v	6,100	6,460	6,290	1,410	8,260	-	1,210	-	5,480	3,800	-	-	-	5,110
Manganese	mg/kg	1,600 ⁿ ^A 10,000 ^a ^{BC} 2,000 ^a ^D	n/v	267	310	171	305	221	-	234	-	162	551	-	-	-	157
Mercury	mg/kg	0.18 ⁿ ^A 2.8 ^a ^B 5.7 ^c ^{0.73} D	n/v	0.018 U	0.018 U	0.021 U	0.019 U	0.020 U	-	0.017 U	-	0.021 U	0.020 U	-	-	-	0.017 U
Nickel	mg/kg	30 ^A 310 ^B 10,000 ^c ¹³⁰ D	n/v	10.7 U	9.7 U	12.6 U	7.1 J	5.1 J	-	5.7 J	-	4.5 J	21.2	-	-	-	10.0 U
Potassium	mg/kg	10,000 ^a ^{ABCD}	n/v	533	595	356	452	445	-	379	-	340	1,310	-	-	-	284
Selenium	mg/kg	3.9 ^a ^A 1,500 ^B 6,800 ^C ⁴ ^D	n/v	8.5 U	7.8 U	10.1 U	8.9 U	9.6 U	-	8.1 U	-	9.9 U	9.1 U	-	-	-	8.0 U
Silver	mg/kg	2 ^A 1,500 ^B 6,800 ^C ^{8.3} D	n/v	1.1 U	0.97 U	1.3 U	1.1 U	1.2 U	-	1.0 U	-	1.2 U	1.1 U	-	-	-	1.0 U
Sodium	mg/kg	10,000 ^a ^{ABCD}	n/v	298 U	272 U	353 U	313 U	119 J	-	111 J	-	100 J	319 U	-	-	-	281 U
Thallium	mg/kg	10,000 ^a ^{ABCD}	10,000 ^a ^{EF}	12.8 U	11.6 U	15.1 U	13.4 U	14.4 U	-	12.1 U	-	14.8 U	13.7 U	-	-	-	12.0 U
Vanadium	mg/kg	10,000 ^a ^{ABCD}	10,000 ^a ^{EF}	10.0	11.6	6.6	13.8	11.6	-	9.8	-	6.8	23.1	-	-	-	6.7
Zinc	mg/kg	109 ⁿ ^A 10,000 ^a ^{BC} 2,480 ^D	n/v	14.2	16.6	8.7	16.7	12.0	-	14.2	-	8.4	41.4	-	-	-	12.9
Polychlorinated Biphenyls																	
Aroclor 1016	µg/kg	^a ^{ABCD}	n/v	-	-	-	-	-	-	36 U	-	41 U	44 U	42 U	-	-	35 U
Aroclor 1221	µg/kg	^a ^{ABCD}	n/v	-	-	-	-	-	-	36 U	-	41 U	44 U	42 U	-	-	35 U
Aroclor 1232	µg/kg	^a ^{ABCD}	n/v	-	-	-	-	-	-	36 U	-	41 U	44 U	42 U	-	-	35 U
Aroclor 1242	µg/kg	^a ^{ABCD}	n/v	-	-	-	-	-	-	36 U	-	41 U	44 U	42 U	-	-	35 U
Aroclor 1248	µg/kg	^a ^{ABCD}	n/v	-	-	-	-	-	-	36 U	-	41 U	44 U	42 U	-	-	35 U
Aroclor 1254	µg/kg	^a ^{ABCD}	n/v	-	-	-	-	-	-	36 U	-	41 U	44 U	42 U	-	-	35 U
Aroclor 1260	µg/kg	^a ^{ABCD}	n/v	-	-	-	-	-	-	36 U	-	41 U	44 U	42 U	-	-	35 U
Aroclor 1262	µg/kg	^a ^{ABCD}	n/v	-	-	-	-	-	-	36 U	-	41 U	44 U	42 U	-	-	35 U
Aroclor 1268	µg/kg	^a ^{ABCD}	n/v	-	-	-	-	-	-	36 U	-	41 U	44 U	42 U	-	-	35 U
Polychlorinated Biphenyls (PCBs)	µg/kg	^a ^{ABCD}	n/v	-	-	-	-	-	-	ND	-	ND	ND	ND	-	-	ND
Pesticides																	
Aldrin	µg/kg	5 ⁿ ^A 680 ^B 1,400 ^C ¹⁹⁰ D	n/v	-	-	-	-	-	-	3.6 U	-	4.1 UJ	4.4 U	4.2 U	-	-	3.5 U
BHC, alpha-	µg/kg	20 ^{AD} 3,400 ^B 6,800 ^C	n/v	-	-	-	-	-	-	3.6 U	-	4.1 UJ	4.4 U	4.2 U	-	-	3.5 U
BHC, beta-	µg/kg	36 ^A 3,000 ^B 14,000 ^C ⁹⁰ D	n/v	-	-	-	-	-	-	3.6 U	-	4.1 UJ	4.4 U	4.2 U	-	-	3.5 U
BHC, delta-	µg/kg	40 ⁿ ^A 500,000 ^a ^B 1,000,000 ^a ^C 250 ^D	n/v	-	-	-	-	-	-	3.6 U	-	4.1 UJ	4.4 U	4.2 U	-	-	3.5 U
Camphochlor (Toxaphene)	µg/kg	100,000 ^a ^A 500,000 ^a ^B 1,000,000 ^a ^C ¹⁰ D	n/v	-	-	-	-	-	-	36 U	-	41 UJ	44 U	42 U	-	-	35 U
Chlordane, alpha-	µg/kg	94 ^A 24,000 ^B 47,000 ^C ^{2,900} D	n/v	-	-	-	-	-	-	3.6 U	-	4.1 UJ	4.4 U	4.2 U	-	-	3.5 U
Chlordane, trans- (gamma-Chlordane)	µg/kg	100,000 ^a ^A 1,000,000 ^a ^D	n/v	-	-	-	-	-	-	3.6 U	-	4.1 UJ	4.4 U	4.2 U	-	-	3.5 U
DDD (p,p'-DDD)	µg/kg	3.3 ^a ^A 92,000 ^B 180,000 ^C ^{14,000} D	n/v	-	-	-	-	-	-	3.6 U	-	4.1 UJ	4.4 U	4.2 U	-	-	3.5 U
DDE (p,p'-DDE)	µg/kg	3.3 ^a ^A 62,000 ^B 120,000 ^C ^{17,000} D	n/v	-	-	-	-	-	-	3.6 U	-	4.1 UJ	4.4 U	4.2 U	-	-	3.5 U
DDT (p,p'-DDT)	µg/kg	3.3 ^a ^A 47,000 ^B 94,000 ^C ^{136,000} D	n/v	-	-	-	-	-	-	3.6 U	-	4.1 UJ	4.4 U	4.2 U	-	-	3.5 U
Dieldrin	µg/kg	5 ⁿ ^A 1,400 ^B 2,800 ^C ¹⁰⁰ D	n/v	-	-	-	-	-	-	3.6 U	-	4.1 UJ	4.4 U	4.2 U	-	-	3.5 U
Endosulfan I	µg/kg	2,400 ^a ^A 200,000 ^B 920,000 ^C ^{102,000} D	n/v	-	-	-	-	-	-	3.6 U	-	4.1 UJ	4.4 U	4.2 U	-	-	3.5 U
Endosulfan II	µg/kg	2,400 ^a ^A 200,000 ^B 920,000 ^C ^{102,000} D	n/v	-	-	-	-	-	-	3.6 U	-	4.1 UJ	4.4 U	4.2 U	-	-	3.5 U
Endosulfan Sulfate	µg/kg	2,400 ^a ^A 200,000 ^B 920,000 ^C ^{1,000,000} ^a ^D	n/v	-	-	-	-	-	-	3.6 U	-	4.1 UJ	4.4 U	4.2 U	-	-	3.5 U
Endrin	µg/kg	14 ^A 89,000 ^B 410,000 ^C ⁶⁰ D	n/v	-	-	-	-	-	-	3.6 U	-	4.1 UJ	4.4 U	4.2 U	-	-	3.5 U
Endrin Aldehyde	µg/kg	100,000 ^a ^A 500,000 ^a ^B 1,000,000 ^a ^C ¹⁰ D	n/v	-	-	-	-	-	-	3.6 U	-	4.1 UJ	4.4 U	4.2 U	-	-	3.5 U
Endrin Ketone	µg/kg	100,000 ^a ^A 500,000 ^a ^B 1,000,000 ^a ^C ¹⁰ D	n/v	-	-	-	-	-	-	3.6 U	-	4.1 UJ	4.4 U	4.2 U	-	-	3.5 U
Heptachlor	µg/kg	42 ^A 15,000 ^B 29,000 ^C ³⁸⁰ D	n/v	-	-	-	-	-	-	3.6 U	-	4.1 UJ	4.4 U	4.2 U	-	-	3.5 U
Heptachlor Epoxide	µg/kg	100,000 ^a ^A 500,000 ^a ^B 1,000,000 ^a ^C ¹⁰ D	500,000 ^a ^E 1,000,000 ^a ^F ²⁰ D	-	-	-	-	-	-	3.6 U	-	4.1 UJ	4.4 U	4.2 U	-	-	3.5 U
Lindane (Hexachlorocyclohexane, gamma)	µg/kg	100 ^{AD} 9,200 ^B 23,000 ^C	n/v	-	-	-	-	-	-	3.6 U	-	4.1 UJ	4.4 U	4.2 U	-	-	3.5 U
Methoxychlor (4,4'-Methoxychlor)	µg/kg	100,000 ^a ^A 500,000 ^a ^B 1,000,000 ^a ^C ¹⁰ D	500,000 ^a ^E 1,000,000 ^a ^F ^{900,000} ^G	-	-	-	-	-	-	3.6 U	-	4.1 UJ	4.4 U	4.2 U	-	-	3.5 U

See notes on last page.

Table 4
Summary of Analytical Results for RI Soil Samples
Site Management Plan
820 Linden Ave Site, BCP #C828200
820 Linden Avenue, Pittsford, NY

Sample Location					B/MW-101			B/MW-102		B-102a	B/MW-103			B/MW-104			
Sample Date					25-Jul-18	25-Jul-18	25-Jul-18	23-Jul-18	23-Jul-18	24-Jul-18	24-Jul-18	24-Jul-18	24-Jul-18	26-Jul-18	26-Jul-18	26-Jul-18	26-Jul-18
Sample ID					LIN-B101-S1	LIN-FD1-S	LIN-B101-S2	LIN-B102-S1	LIN-B102-S2	LIN-B102a-S	LIN-B103-S1	LIN-B103-S3	LIN-B103-S2	LIN-B104-S2	LIN-FD2-S	LIN-B104-S1	LIN-B104-S3
Sample Depth					15 - 17 ft	15 - 17 ft	57 - 60 ft	2 - 3.5 ft	50.5 - 52 ft	7 - 8 ft	8 - 10 ft	19 - 19.5 ft	49 - 51 ft	4 - 8 ft	4 - 8 ft	10.5 - 11 ft	45 - 49 ft
Sampling Company					STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC
Laboratory					TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL
Laboratory Work Order					460-161448-1	460-161448-1	460-161448-1	460-161448-1	460-161196-1	460-161196-1	460-161196-1	460-161196-1	460-161196-1	460-161448-1	460-161448-1	460-161448-1	460-161448-1
Laboratory Sample ID					460-161448-1	460-161448-3	460-161448-2	460-161196-1	460-161196-2	460-161196-3	460-161196-4	460-161448-4	460-161196-5	460-161448-8	460-161448-6	460-161448-7	460-161448-9
Sample Type	Units	NYSDEC-Part 375	NYSDEC CP-51			Field Duplicate									Field Duplicate		
Semi-Volatile Organic Compounds																	
Acenaphthene	µg/kg	20,000 ^A 500,000 ^B 1,000,000 ^C 98,000 ^D	n/v	-	-	-	-	-	-	-	370 U	-	420 U	450 U	420 U	-	360 U
Acenaphthylene	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C 107,000 ^D	n/v	-	-	-	-	-	-	-	370 U	-	420 U	450 U	420 U	-	360 U
Acetophenone	µg/kg	100,000 ^A 1,000,000 ^D	n/v	-	-	-	-	-	-	-	370 U	-	420 U	450 U	420 U	-	360 U
Anthracene	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	n/v	-	-	-	-	-	-	-	370 U	-	420 U	450 U	420 U	-	360 U
Atrazine	µg/kg	100,000 ^A 1,000,000 ^D	n/v	-	-	-	-	-	-	-	370 UJ	-	420 UJ	450 U	420 U	-	360 U
Benzaldehyde	µg/kg	100,000 ^A 1,000,000 ^D	n/v	-	-	-	-	-	-	-	370 U	-	420 U	450 U	420 U	-	360 U
Benzo(a)anthracene	µg/kg	1,000 ^A 5,600 ^B 11,000 ^C 1,000 ^D	n/v	-	-	-	-	-	-	-	370 U	-	420 U	450 U	420 U	-	360 U
Benzo(a)pyrene	µg/kg	1,000 ^A 1,000 ^B 1,100 ^C 22,000 ^D	n/v	-	-	-	-	-	-	-	370 U	-	420 U	450 U	420 U	-	360 U
Benzo(b)fluoranthene	µg/kg	1,000 ^A 5,600 ^B 11,000 ^C 1,700 ^D	n/v	-	-	-	-	-	-	-	370 U	-	420 U	450 U	420 U	-	360 U
Benzo(g,h,i)perylene	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	n/v	-	-	-	-	-	-	-	370 U	-	420 U	450 U	420 U	-	360 U
Benzo(k)fluoranthene	µg/kg	800 ^A 56,000 ^B 110,000 ^C 1,700 ^D	n/v	-	-	-	-	-	-	-	370 U	-	420 U	450 U	420 U	-	360 U
Biphenyl, 1,1'- (Biphenyl)	µg/kg	100,000 ^A 1,000,000 ^D	500,000 ^E 1,000,000 ^F	-	-	-	-	-	-	-	370 U	-	420 U	450 U	420 U	-	360 U
Bis(2-Chloroethoxy)methane	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	n/v	-	-	-	-	-	-	-	370 U	-	420 U	450 U	420 U	-	360 U
Bis(2-Chloroethyl)ether	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	n/v	-	-	-	-	-	-	-	370 U	-	420 U	450 U	420 U	-	360 U
Bis(2-Chloroisopropyl)ether (2,2-oxybis(1-Chloropropane))	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	n/v	-	-	-	-	-	-	-	370 U	-	420 U	450 U	420 U	-	360 U
Bis(2-Ethylhexyl)phthalate (DEHP)	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	500,000 ^E 1,000,000 ^F 435,000 ^G	-	-	-	-	-	-	-	370 U	-	420 U	450 U	420 U	-	360 U
Bromophenyl Phenyl Ether, 4-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	n/v	-	-	-	-	-	-	-	370 U	-	420 U	450 U	420 U	-	360 U
Butyl Benzyl Phthalate	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	500,000 ^E 1,000,000 ^F 122,000 ^G	-	-	-	-	-	-	-	370 U	-	420 U	450 U	420 U	-	360 U
Caprolactam	µg/kg	100,000 ^A 1,000,000 ^D	n/v	-	-	-	-	-	-	-	370 U	-	420 U	450 U	420 U	-	360 U
Carbazole	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	n/v	-	-	-	-	-	-	-	370 U	-	420 U	450 U	420 U	-	360 U
Chloro-3-methyl phenol, 4-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	n/v	-	-	-	-	-	-	-	370 U	-	420 U	450 U	420 U	-	360 U
Chloroaniline, 4-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	500,000 ^E 1,000,000 ^F 220 ^G	-	-	-	-	-	-	-	370 U	-	420 U	450 U	420 U	-	360 U
Chloronaphthalene, 2-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	n/v	-	-	-	-	-	-	-	370 U	-	420 U	450 U	420 U	-	360 U
Chlorophenol, 2- (ortho-Chlorophenol)	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	500,000 ^E 1,000,000 ^F	-	-	-	-	-	-	-	370 U	-	420 U	450 U	420 U	-	360 U
Chlorophenyl Phenyl Ether, 4-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	n/v	-	-	-	-	-	-	-	370 U	-	420 U	450 U	420 U	-	360 U
Chrysene	µg/kg	1,000 ^A 56,000 ^B 110,000 ^C 1,000 ^D	n/v	-	-	-	-	-	-	-	370 U	-	420 U	450 U	420 U	-	360 U
Cresol, o- (Methylphenol, 2-)	µg/kg	330 ^A 500,000 ^B 1,000,000 ^C 330 ^D	n/v	-	-	-	-	-	-	-	370 U	-	420 U	450 U	420 U	-	360 U
Cresol, p- (Methylphenol, 4-)	µg/kg	330 ^A 500,000 ^B 1,000,000 ^C 330 ^D	n/v	-	-	-	-	-	-	-	710 U	-	810 U	860 U	820 U	-	700 U
Dibenzo(a,h)anthracene	µg/kg	330 ^A 560 ^B 1,100 ^C 1,000,000 ^D	n/v	-	-	-	-	-	-	-	370 U	-	420 U	450 U	420 U	-	360 U
Dibenzofuran	µg/kg	7,000 ^A 350,000 ^B 1,000,000 ^C 210,000 ^D	500,000 ^E 1,000,000 ^F 6,200 ^G	-	-	-	-	-	-	-	370 U	-	420 U	450 U	420 U	-	360 U
Dibutyl Phthalate (DBP)	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	500,000 ^E 1,000,000 ^F 8,100 ^G	-	-	-	-	-	-	-	370 U	-	420 U	450 U	420 U	-	360 U
Dichlorobenzidine, 3,3'-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	n/v	-	-	-	-	-	-	-	370 U	-	420 U	450 U	420 U	-	360 U
Dichlorophenol, 2,4-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	500,000 ^E 1,000,000 ^F 400 ^G	-	-	-	-	-	-	-	370 U	-	420 U	450 U	420 U	-	360 U
Diethyl Phthalate	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	500,000 ^E 1,000,000 ^F 7,100 ^G	-	-	-	-	-	-	-	370 U	-	420 U	450 U	420 U	-	360 U
Dimethyl Phthalate	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	500,000 ^E 1,000,000 ^F 27,000 ^G	-	-	-	-	-	-	-	370 U	-	420 U	450 U	420 U	-	360 U
Dimethylphenol, 2,4-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	n/v	-	-	-	-	-	-	-	370 U	-	420 U	450 U	420 U	-	360 U
Dinitro-o-cresol, 4,6-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	n/v	-	-	-	-	-	-	-	710 U	-	810 U	860 U	820 U	-	700 U
Dinitrophenol, 2,4-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	500,000 ^E 1,000,000 ^F 200 ^G	-	-	-	-	-	-	-	710 U	-	810 U	860 U	820 U	-	700 U
Dinitrotoluene, 2,4-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	n/v	-	-	-	-	-	-	-	370 U	-	420 U	450 U	420 U	-	360 U
Dinitrotoluene, 2,6-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	500,000 ^E 1,000,000 ^F 1,000/170 ^G , st	-	-	-	-	-	-	-	370 U	-	420 U	450 U	420 U	-	360 U
Di-n-Octyl phthalate	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	500,000 ^E														

Table 4
Summary of Analytical Results for RI Soil Samples
Site Management Plan
820 Linden Ave Site, BCP #C828200
820 Linden Avenue, Pittsford, NY

Sample Location					B/MW-101			B/MW-102		B-102a	B/MW-103			B/MW-104			
Sample Date					25-Jul-18	25-Jul-18	25-Jul-18	23-Jul-18	23-Jul-18	24-Jul-18	24-Jul-18	24-Jul-18	24-Jul-18	26-Jul-18	26-Jul-18	26-Jul-18	26-Jul-18
Sample ID					LIN-B101-S1	LIN-FD1-S	LIN-B101-S2	LIN-B102-S1	LIN-B102-S2	LIN-B102a-S	LIN-B103-S1	LIN-B103-S3	LIN-B103-S2	LIN-B104-S2	LIN-FD2-S	LIN-B104-S1	LIN-B104-S3
Sample Depth					15 - 17 ft	15 - 17 ft	57 - 60 ft	2 - 3.5 ft	50.5 - 52 ft	7 - 8 ft	8 - 10 ft	19 - 19.5 ft	49 - 51 ft	4 - 8 ft	4 - 8 ft	10.5 - 11 ft	45 - 49 ft
Sampling Company					STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC
Laboratory					TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL
Laboratory Work Order					460-161448-1	460-161448-1	460-161448-1	460-161196-1	460-161196-1	460-161196-1	460-161196-1	460-161448-1	460-161196-1	460-161448-1	460-161448-1	460-161448-1	460-161448-1
Laboratory Sample ID					460-161448-1	460-161448-3	460-161448-2	460-161196-1	460-161196-2	460-161196-3	460-161196-4	460-161448-4	460-161196-5	460-161448-8	460-161448-6	460-161448-7	460-161448-9
Sample Type	Units	NYSDEC-Part 375	NYSDEC CP-51			Field Duplicate									Field Duplicate		
Volatile Organic Compounds																	
Acetone	µg/kg	50 ^{AD} 500,000 ^B 1,000,000 ^C	n/v	5.3 U	7.3	63 ^{AD}	23 J-	50 J-	49 J-	5.2 UJ	5.8 UJ	61 J- ^{AD}	-	-	10	59 ^{AD}	
Benzene	µg/kg	60 ^{AD} 44,000 ^B 89,000 ^C	n/v	1.1 U	1.0 U	1.2 U	1.0 UJ	1.2 UJ	1.0 UJ	1.0 UJ	1.2 UJ	1.1 UJ	-	-	1.2 U	0.99 U	
Bromodichloromethane	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	n/v	1.1 U	1.0 U	1.2 U	1.0 UJ	1.2 UJ	1.0 UJ	1.0 UJ	1.2 UJ	1.1 UJ	-	-	1.2 U	0.99 U	
Bromoform (Tribromomethane)	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	n/v	1.1 U	1.0 U	1.2 U	1.0 UJ	1.2 UJ	1.0 UJ	1.0 UJ	1.2 UJ	1.1 UJ	-	-	1.2 U	0.99 U	
Bromomethane (Methyl bromide)	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	n/v	1.1 U	1.0 U	1.2 U	1.0 UJ	1.2 UJ	1.0 UJ	1.0 UJ	1.2 UJ	1.1 UJ	-	-	1.2 U	0.99 U	
Butylbenzene, n-	µg/kg	12,000 ^{AD} 500,000 ^B 1,000,000 ^C	n/v	1.1 U	1.0 U	1.2 U	1.0 UJ	1.2 UJ	1.0 UJ	1.0 UJ	1.2 UJ	1.1 UJ	-	-	1.2 U	0.99 U	
Butylbenzene, sec- (2-Phenylbutane)	µg/kg	11,000 ^{AD} 500,000 ^B 1,000,000 ^C	n/v	1.1 U	1.0 U	1.2 U	1.0 UJ	1.2 UJ	1.0 UJ	1.0 UJ	1.2 UJ	1.1 UJ	-	-	1.2 U	0.99 U	
Butylbenzene, tert-	µg/kg	5,900 ^{AD} 500,000 ^B 1,000,000 ^C	n/v	1.1 U	1.0 U	1.2 U	1.0 UJ	1.2 UJ	1.0 UJ	1.0 UJ	1.2 UJ	1.1 UJ	-	-	1.2 U	0.99 U	
Carbon Disulfide	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	500,000 ^E 1,000,000 ^F 2,700 ^D	1.1 U	1.0 U	1.2 U	1.0 UJ	1.2 UJ	1.0 UJ	1.0 UJ	1.2 UJ	1.1 UJ	-	-	1.2 U	0.99 U	
Carbon Tetrachloride (Tetrachloromethane)	µg/kg	760 ^{AD} 22,000 ^B 44,000 ^C	n/v	1.1 U	1.0 U	1.2 U	1.0 UJ	1.2 UJ	1.0 UJ	1.0 UJ	1.2 UJ	1.1 UJ	-	-	1.2 U	0.99 U	
Chlorobenzene (Monochlorobenzene)	µg/kg	1,100 ^{AD} 500,000 ^B 1,000,000 ^C	n/v	1.1 U	1.0 U	1.2 U	1.0 UJ	1.2 UJ	1.0 UJ	1.0 UJ	1.2 UJ	1.1 UJ	-	-	1.2 U	0.99 U	
Chloroethane (Ethyl Chloride)	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	500,000 ^E 1,000,000 ^F 1,900 ^D	1.1 U	1.0 U	1.2 U	1.0 UJ	1.2 UJ	1.0 UJ	1.0 UJ	1.2 UJ	1.1 UJ	-	-	1.2 U	0.99 U	
Chloroform (Trichloromethane)	µg/kg	370 ^{AD} 350,000 ^B 700,000 ^C	n/v	1.1 U	1.0 U	1.2 U	1.0 UJ	1.2 UJ	1.0 UJ	1.0 UJ	1.2 UJ	1.1 UJ	-	-	1.2 U	0.99 U	
Chloromethane	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	n/v	1.1 U	1.0 U	1.2 U	1.0 UJ	1.2 UJ	1.0 UJ	1.0 UJ	1.2 UJ	1.1 UJ	-	-	1.2 U	0.99 U	
Cyclohexane	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	n/v	1.1 U	1.0 U	1.2 U	1.0 UJ	1.2 UJ	1.0 UJ	1.0 UJ	1.2 UJ	1.1 UJ	-	-	1.2 U	0.99 U	
Dibromo-3-Chloropropane, 1,2- (DBCP)	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	n/v	1.1 U	1.0 U	1.2 U	1.0 UJ	1.2 UJ	1.0 UJ	1.0 UJ	1.2 UJ	1.1 UJ	-	-	1.2 U	0.99 U	
Dibromochloromethane	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	500,000 ^E 1,000,000 ^F	1.1 U	1.0 U	1.2 U	1.0 UJ	1.2 UJ	1.0 UJ	1.0 UJ	1.2 UJ	1.1 UJ	-	-	1.2 U	0.99 U	
Dichlorobenzene, 1,2-	µg/kg	1,100 ^{AD} 500,000 ^B 1,000,000 ^C	n/v	1.1 U	1.0 U	1.2 U	1.0 UJ	1.2 UJ	1.0 UJ	1.0 UJ	1.2 UJ	1.1 UJ	-	-	1.2 U	0.99 U	
Dichlorobenzene, 1,3-	µg/kg	2,400 ^{AD} 280,000 ^B 560,000 ^C	n/v	1.1 U	1.0 U	1.2 U	1.0 UJ	1.2 UJ	1.0 UJ	1.0 UJ	1.2 UJ	1.1 UJ	-	-	1.2 U	0.99 U	
Dichlorobenzene, 1,4-	µg/kg	1,800 ^{AD} 130,000 ^B 250,000 ^C	n/v	1.1 U	1.0 U	1.2 U	1.0 UJ	1.2 UJ	1.0 UJ	1.0 UJ	1.2 UJ	1.1 UJ	-	-	1.2 U	0.99 U	
Dichlorodifluoromethane (Freon 12)	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	n/v	1.1 U	1.0 U	1.2 U	1.0 UJ	1.2 UJ	1.0 UJ	1.0 UJ	1.2 UJ	1.1 UJ	-	-	1.2 U	0.99 U	
Dichloroethane, 1,1-	µg/kg	270 ^{AD} 240,000 ^B 480,000 ^C	n/v	1.1 U	1.0 U	1.2 U	1.0 UJ	1.2 UJ	1.0 UJ	1.0 UJ	1.2 UJ	1.1 UJ	-	-	1.2 U	0.99 U	
Dichloroethane, 1,2-	µg/kg	20 ^A 30,000 ^B 60,000 ^C 200 ^D	n/v	1.1 U	1.0 U	1.2 U	1.0 UJ	1.2 UJ	1.0 UJ	1.0 UJ	1.2 UJ	1.1 UJ	-	-	1.2 U	0.99 U	
Dichloroethene, 1,1-	µg/kg	330 ^{AD} 500,000 ^B 1,000,000 ^C	n/v	1.1 U	1.0 U	1.2 U	1.0 UJ	1.2 UJ	1.0 UJ	1.0 UJ	1.2 UJ	1.1 UJ	-	-	1.2 U	0.99 U	
Dichloroethene, cis-1,2-	µg/kg	250 ^{AD} 500,000 ^B 1,000,000 ^C	n/v	1.1 U	1.0 U	1.2 U	1.0 UJ	1.2 UJ	1.0 UJ	1.0 UJ	1.2 UJ	1.1 UJ	-	-	1.2 U	0.99 U	
Dichloroethene, trans-1,2-	µg/kg	190 ^{AD} 500,000 ^B 1,000,000 ^C	n/v	1.1 U	1.0 U	1.2 U	1.0 UJ	1.2 UJ	1.0 UJ	1.0 UJ	1.2 UJ	1.1 UJ	-	-	1.2 U	0.99 U	
Dichloropropane, 1,2-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	500,000 ^E 1,000,000 ^F	1.1 U	1.0 U	1.2 U	1.0 UJ	1.2 UJ	1.0 UJ	1.0 UJ	1.2 UJ	1.1 UJ	-	-	1.2 U	0.99 U	
Dichloropropene, cis-1,3-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	n/v	1.1 U	1.0 U	1.2 U	1.0 UJ	1.2 UJ	1.0 UJ	1.0 UJ	1.2 UJ	1.1 UJ	-	-	1.2 U	0.99 U	
Dichloropropene, trans-1,3-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	n/v	1.1 U	1.0 U	1.2 U	1.0 UJ	1.2 UJ	1.0 UJ	1.0 UJ	1.2 UJ	1.1 UJ	-	-	1.2 U	0.99 U	
Ethylbenzene	µg/kg	1,000 ^{AD} 390,000 ^B 780,000 ^C	n/v	1.1 U	1.0 U	1.2 U	1.0 UJ	1.2 UJ	1.0 UJ	1.0 UJ	1.2 UJ	1.1 UJ	-	-	1.2 U	0.99 U	
Ethylene Dibromide (Dibromoethane, 1,2-)	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	n/v	1.1 U	1.0 U	1.2 U	1.0 UJ	1.2 UJ	1.0 UJ	1.0 UJ	1.2 UJ	1.1 UJ	-	-	1.2 U	0.99 U	
Hexanone, 2- (Methyl Butyl Ketone)	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	n/v	5.3 U	5.2 U	6.2 U	5.1 UJ	6.0 UJ	5.0 UJ	5.2 UJ	5.8 UJ	5.6 UJ	-	-	6.1 U	5.0 U	
Isopropylbenzene	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	500,000 ^E 1,000,000 ^F 2,300 ^D	1.1 U	1.0 U	1.2 U	1.0 UJ	1.2 UJ	1.0 UJ	1.0 UJ	1.2 UJ	1.1 UJ	-	-	1.2 U	0.99 U	
Isopropyltoluene, p- (Cymene)	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	500,000 ^E 1,000,000 ^F 10,000 ^D	1.1 U	1.0 U	1.2 U	1.0 UJ	1.2 UJ	1.0 UJ	1.0 UJ	1.2 UJ	1.1 UJ	-	-	1.2 U	0.99 U	
Methyl Acetate	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	n/v	5.3 U	5.2 U	6.2 U	5.1 UJ	6.0 UJ	5.0 UJ	5.2 UJ	5.8 UJ	5.6 UJ	-	-	6.1 U	5.0 U	
Methyl Ethyl Ketone (MEK) (2-Butanone)	µg/kg	120 ^{AD} 500,000 ^B 1,000,000 ^C	500,000 ^E 1,000,000 ^F 300 ^D	5.3 U	5.2 U	6.2 U	5.1 UJ	6.0 UJ	5.0 UJ	5.2 UJ	5.8 UJ	5.6 UJ	-	-	6.1 U	5.0 U	
Methyl Isobutyl Ketone (MIBK)	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	500,000 ^E 1,000,000 ^F 1,000 ^D	5.3 U	5.2 U	6.2 U	5.1 UJ	6.0 UJ	5.2 UJ	5.2 UJ	5.8 UJ	5.6 UJ	-	-	6.1 U	5.0 U	
Methyl tert-butyl ether (MTBE)	µg/kg	930 ^{AD} 500,000 ^B 1,000,000 ^C	n/v	1.1 U	1.0 U	1.2 U	1.0 UJ	1.2 UJ	1.0 UJ	1.0 UJ	1.2 UJ	1.1 UJ	-	-	1.2 U	0.99 U	
Methylcyclohexane	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	n/v	1.1 U	1												

Table 4
Summary of Analytical Results for RI Soil Samples
Site Management Plan
820 Linden Ave Site, BCP #C828200
820 Linden Avenue, Pittsford, NY

Sample Location					B/MW-105		B-106	B-107	B-108	B-109		*DP-1	SS-1a		SS-1abc		SS-1c	
Sample Date					27-Jul-18	27-Jul-18	31-Jul-18	31-Jul-18	30-Jul-18	30-Jul-18	30-Jul-18	30-Jul-18	30-Jul-18	30-Jul-18	30-Jul-18	30-Jul-18	30-Jul-18	30-Jul-18
Sample ID					LIN-B105-S1	LIN-B105-S3	LIN-B105-S2	LIN-B106-S	LIN-B107-S	LIN-B108-s	LIN-B109-s	LIN-FD3-s	LIN-SS1a-t-s	LIN-SS1a-b-s	LIN-SS1-t-s	LIN-SS1-b-s	LIN-SS1c-t-s	LIN-SS1c-b-s
Sample Depth					4 - 8 ft	15 - 16 ft	35 - 38 ft	7 - 7.5 ft	3.2 - 3.7 ft	5 - 8 ft	5 - 8 ft	5 - 8 ft	0 - 2 in	2 - 12 in	0 - 2 in	2 - 12 in	0 - 2 in	2 - 12 in
Sampling Company					STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC
Laboratory					TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL
Laboratory Work Order					460-161452-1	460-161452-1	460-161452-1	460-161797-1	460-161797-1	460-161576-1	460-161576-1	460-161576-1	460-161576-1	460-161576-1	460-161576-1	460-161576-1	460-161576-1	460-161576-1
Laboratory Sample ID					460-161452-1	460-161452-3	460-161452-2	460-161797-2	460-161797-3	460-161576-27	460-161576-28	460-161576-26	460-161576-1	460-161576-1	460-161576-18	460-161576-19	460-161576-3	460-161576-4
Sample Type	Units	NYSDEC-Part 375	NYSDEC CP-51									Field Duplicate						
General Chemistry																		
Cyanide	mg/kg	27 ^{AB} 10,000 ^a ^C 40 ^D	n/v	0.23 U	-	0.22 U	-	-	-	0.25 U	-	0.54	-	-	-	-	-	-
Metals																		
Aluminum	mg/kg	10,000 ^a ^{ABCD}	10,000 ^a ^{EF}	5,470	-	2,350	-	-	3,260	2,580	2,820	3,520	-	-	6,190	6,360	-	-
Antimony	mg/kg	10,000 ^a ^{ABCD}	10,000 ^a ^{EF}	29.0 UJ	-	28.0 U	-	-	32.1 U	28.3 U	32.8 U	31.4 U	-	-	33.7 U	32.6 U	-	-
Arsenic	mg/kg	13 ^a ^A 16 ^a ^{BCD}	n/v	3.9 U	-	3.7 U	-	-	4.3 U	3.8 U	4.4 U	4.2 U	-	-	4.5 U	4.4 U	-	-
Barium	mg/kg	350 ^a ^A 400 ^B 10,000 ^a ^C 820 ^D	n/v	10.5	-	8.8	-	-	13.6	8.9	9.9	31.2	-	-	35.1	30.3	-	-
Beryllium	mg/kg	7.2 ^A 590 ^B 2,700 ^C 47 ^D	n/v	0.39 U	-	0.37 U	-	-	0.43 U	0.38 U	0.44 U	0.42 U	-	-	0.45 U	0.44 U	-	-
Cadmium	mg/kg	2.5 ^a ^A 9.3 ^B 60 ^C 7.5 ^D	n/v	0.39 U	-	0.37 U	-	-	0.43 U	0.38 U	0.44 U	0.42 U	-	-	0.45 U	0.44 U	-	-
Calcium	mg/kg	10,000 ^a ^{ABCD}	10,000 ^a ^{EF}	882	-	27,300 ^{ABCD} ^{DEFG}	-	-	1,790	1,370	1,510	61,300 ^{AB} ^{CDEFG}	-	-	3,800	4,280	-	-
Chromium	mg/kg	30 ^a ^A 1,500 ^B 6,800 ^C ^{NS} ^a ^D	n/v	6.0	-	4.0	-	-	5.9	4.7	5.3	17.0	-	-	11.0	9.2	-	-
Cobalt	mg/kg	10,000 ^a ^{ABCD}	10,000 ^a ^{EF}	3.0	-	2.3	-	-	3.0	2.5	2.7	2.8	-	-	2.6	2.5	-	-
Copper	mg/kg	50 ^A 270 ^B 10,000 ^a ^C 1,720 ^D	n/v	6.0	-	5.5	-	-	12.1	5.6	5.8	22.9	-	-	13.5	9.3	-	-
Iron	mg/kg	10,000 ^a ^{ABCD}	10,000 ^a ^{EF}	8,020	-	6,580	-	-	8,810	7,040	7,760	11,100 ^{AB} ^{CDEFG}	-	-	9,020	8,630	-	-
Lead	mg/kg	63 ^a ^A 1,000 ^B 3,900 ^C 450 ^D	n/v	2.5	-	1.9 U	-	-	3.1	2.3	3.3	42.1	-	-	29.5	17.2	-	-
Magnesium	mg/kg	10,000 ^a ^{ABCD}	n/v	1,290 J	-	5,470	-	-	1,460	1,020	1,080	24,600 ^{AB} ^{CD}	-	-	2,060	2,230	-	-
Manganese	mg/kg	1,600 ^a ^A 10,000 ^a ^{BC} 2,000 ^a ^D	n/v	143 J	-	211	-	-	95.1	211	219	365	-	-	250	217	-	-
Mercury	mg/kg	0.18 ^a ^A 2.8 ^a ^B 5.7 ^a ^C 0.73 ^D	n/v	0.019 U	-	0.018 U	-	-	0.024	0.018 U	0.018 U	0.048	-	-	0.057	0.042	-	-
Nickel	mg/kg	30 ^A 310 ^B 10,000 ^a ^C 130 ^D	n/v	9.7 U	-	9.3 U	-	-	10.7 U	9.4 U	10.9 U	12.5	-	-	11.2 U	10.9 U	-	-
Potassium	mg/kg	10,000 ^a ^{ABCD}	n/v	317	-	334	-	-	413	345	376	888	-	-	357	353	-	-
Selenium	mg/kg	3.9 ^a ^A 1,500 ^B 6,800 ^C 4 ^a ^D	n/v	7.7 U	-	7.5 U	-	-	8.6 U	7.6 U	8.8 U	8.4 U	-	-	9.0 U	8.7 U	-	-
Silver	mg/kg	2 ^A 1,500 ^B 6,800 ^C 8.3 ^D	n/v	0.97 U	-	0.93 U	-	-	1.1 U	0.94 U	1.1 U	1.0 U	-	-	1.1 U	1.1 U	-	-
Sodium	mg/kg	10,000 ^a ^{ABCD}	n/v	271 U	-	261 U	-	-	300 U	264 U	306 U	293 U	-	-	314 U	305 U	-	-
Thallium	mg/kg	10,000 ^a ^{ABCD}	10,000 ^a ^{EF}	11.6 U	-	11.2 U	-	-	12.9 U	11.3 U	13.1 U	12.6 U	-	-	13.5 U	13.1 U	-	-
Vanadium	mg/kg	10,000 ^a ^{ABCD}	10,000 ^a ^{EF}	12.0	-	8.6	-	-	11.2	9.5	10.7	12.1	-	-	12.3	12.2	-	-
Zinc	mg/kg	109 ^a ^A 10,000 ^a ^{BC} 2,480 ^D	n/v	14.6	-	12.9	-	-	153 ^A	14.9	15.8	178 ^A	-	-	42.7	37.5	-	-
Polychlorinated Biphenyls																		
Aroclor 1016	µg/kg	^a ^{ABCD}	n/v	36 U	-	36 U	-	-	-	37 U	-	38 U	-	-	-	-	-	-
Aroclor 1221	µg/kg	^a ^{ABCD}	n/v	36 U	-	36 U	-	-	-	37 U	-	38 U	-	-	-	-	-	-
Aroclor 1232	µg/kg	^a ^{ABCD}	n/v	36 U	-	36 U	-	-	-	37 U	-	38 U	-	-	-	-	-	-
Aroclor 1242	µg/kg	^a ^{ABCD}	n/v	36 U	-	36 U	-	-	-	37 U	-	38 U	-	-	-	-	-	-
Aroclor 1248	µg/kg	^a ^{ABCD}	n/v	36 U	-	36 U	-	-	-	37 U	-	38 U	-	-	-	-	-	-
Aroclor 1254	µg/kg	^a ^{ABCD}	n/v	36 U	-	36 U	-	-	-	37 U	-	38 U	-	-	-	-	-	-
Aroclor 1260	µg/kg	^a ^{ABCD}	n/v	36 U	-	36 U	-	-	-	37 U	-	38 U	-	-	-	-	-	-
Aroclor 1262	µg/kg	^a ^{ABCD}	n/v	36 U	-	36 U	-	-	-	37 U	-	38 U	-	-	-	-	-	-
Aroclor 1268	µg/kg	^a ^{ABCD}	n/v	36 U	-	36 U	-	-	-	37 U	-	38 U	-	-	-	-	-	-
Polychlorinated Biphenyls (PCBs)	µg/kg	^a ^{ABCD}	n/v	ND	-	ND	-	-	-	ND	-	ND	-	-	-	-	-	-
Pesticides																		
Aldrin	µg/kg	5 ^a ^A 680 ^B 1,400 ^C 190 ^D	n/v	3.6 U	-	3.6 U	-	-	-	3.7 U	-	3.8 U	-	-	-	-	-	-
BHC, alpha-	µg/kg	20 ^{AD} 3,400 ^B 6,800 ^C	n/v	3.6 U	-	3.6 U	-	-	-	3.7 U	-	3.8 U	-	-	-	-	-	-
BHC, beta-	µg/kg	36 ^A 3,000 ^B 14,000 ^C 90 ^D	n/v	3.6 UJ	-	3.6 U	-	-	-	3.7 U	-	3.8 U	-	-	-	-	-	-
BHC, delta-	µg/kg	40 ^a ^A 500,000 ^a ^B 1,000,000 ^a ^C 250 ^D	n/v	3.6 UJ	-	3.6 U	-	-	-	3.7 U	-	3.8 U	-	-	-	-	-	-
Camphechlor (Toxaphene)	µg/kg	100,000 ^a ^A 500,000 ^a ^B 1,000,000 ^a ^C ^{CD}	n/v	36 U	-	36 U	-	-	-	37 U	-	38 U	-	-	-	-	-	-
Chlordane, alpha-	µg/kg	94 ^A 24,000 ^B 47,000 ^C 2,900 ^D	n/v	3.6 U	-	3.6 U	-	-	-	3.7 U	-	3.8 U	-	-	-	-	-	-
Chlordane, trans- (gamma-Chlordane)	µg/kg	100,000 ^a ^A 1,000,000 ^a ^D	n/v	3.6 U	-	3.6 U	-	-	-	3.7 U	-	3.8 U	-	-	-	-	-	-
DDD (p,p'-DDD)	µg/kg	3.3 ^a ^A 92,000 ^B 180,000 ^C 14,000 ^D	n/v	3.6 U	-	3.6 U	-	-	-	3.7 U	-	3.8 U	-	-	-	-	-	-
DDE (p,p'-DDE)	µg/kg	3.3 ^a ^A 62,000 ^B 120,000 ^C 17,000 ^D	n/v	3.6 U	-	3.6 U	-	-	-	3.7 U	-	3.8 U	-	-	-	-	-	-
DDT (p,p'-DDT)	µg/kg	3.3 ^a ^A 47,000 ^B 94,000 ^C 136,000 ^D	n/v	3.6 U	-	3.6 U	-	-	-	3.7 U	-	3.8 U	-	-	-	-	-	-
Dieldrin	µg/kg	5 ^a ^A 1,400 ^B 2,800 ^C 100 ^D	n/v	3.6 U	-	3.6 U	-	-	-	3.7 U	-	3.8 U	-	-	-	-	-	-
Endosulfan I	µg/kg	2,400 ^a ^A 200,000 ^B 920,000 ^C 102,000 ^D	n/v	3.6 U	-	3.6 U	-	-	-	3.7 U	-	3.8 U	-	-	-	-	-	-
Endosulfan II	µg/kg	2,400 ^a ^A 200,000 ^B 920,000 ^C 102,000 ^D	n/v	3.6 UJ	-	3.6 U	-	-	-	3.7 U	-	3.8 U	-	-	-	-	-	-
Endosulfan Sulfate	µg/kg	2,400 ^a ^A 200,000 ^B 920,000 ^C 1,000,000 ^a ^D	n/v	R	-	3.6 U	-	-	-	3.7 U	-	3.8 U	-	-	-	-	-	-
Endrin	µg/kg	14 ^A 89,000 ^B 410,000 ^C 60 ^D	n/v	3.6 U	-	3.6 U	-	-	-	3.7 U	-	3.8 U	-	-	-	-	-	-
Endrin Aldehyde	µg/kg	100,000 ^a ^A 500,000 ^a ^B 1,000,000 ^a ^C ^{CD}	n/v	R	-	3.6 U	-	-	-	3.7 U	-	3.8 U	-	-	-	-	-	-
Endrin Ketone	µg/kg	100,000 ^a ^A 500,000 ^a ^B 1,000,000 ^a ^C ^{CD}	n/v	R	-	3.6 U	-	-	-	3.7 U	-	3.8 U	-	-	-	-	-	-
Heptachlor	µg/kg	42 ^A 15,000 ^B 29,000 ^C 380 ^D	n/v	3.6 U	-	3.6 U	-	-	-	3.7 U	-	3.8 U	-	-	-	-	-	-
Heptachlor Epoxide	µg/kg	100,000 ^a ^A 500,000 ^a ^B 1,000,000 ^a ^C ^{CD}	500,000 ^a ^E 1,000,000 ^a ^F 20 ^G	3.6 U	-	3.6 U	-	-	-	3.7 U	-	3.8 U	-	-	-	-	-	-
Lindane (Hexachlorocyclohexane, gamma)	µg/kg	100 ^{AD} 9,200 ^B 23,000 ^C	n/v	3.6 U	-	3.6 U	-	-	-	3.7 U	-	3.8 U	-	-	-	-	-	-
Methoxychlor (4,4'-Methoxychlor)	µg/kg	100,000 ^a ^A 500,000 ^a ^B 1,000,000 ^a ^C ^{CD}	500,000 ^a ^E 1,000,000 ^a ^F 900,000 ^a ^G	3.6 UJ	-	3.6 U	-	-	-	3.7 U	-	3.8 U	-	-	-	-	-	-
See notes on last page.																		

Table 4
Summary of Analytical Results for RI Soil Samples
Site Management Plan
820 Linden Ave Site, BCP #C828200
820 Linden Avenue, Pittsford, NY

Sample Location																			
Sample Date																			
Sample ID																			
Sample Depth																			
Sampling Company																			
Laboratory																			
Laboratory Work Order																			
Laboratory Sample ID																			
Sample Type	Units	NYSDEC-Part 375	NYSDEC CP-51	27-Jul-18 LIN-B105-S1 4 - 8 ft STANTEC TAL 460-161452-1 460-161452-1	B/MW-105 27-Jul-18 LIN-B105-S3 15 - 16 ft STANTEC TAL 460-161452-1 460-161452-3	27-Jul-18 LIN-B105-S2 35 - 38 ft STANTEC TAL 460-161452-1 460-161452-2	B-106 31-Jul-18 LIN-B106-S 7 - 7.5 ft STANTEC TAL 460-161797-1 460-161797-2	B-107 31-Jul-18 LIN-B107-S 3.2 - 3.7 ft STANTEC TAL 460-161797-1 460-161797-3	B-108 30-Jul-18 LIN-B108-s 5 - 8 ft STANTEC TAL 460-161576-1 460-161576-27	B-109 30-Jul-18 LIN-B109-s 5 - 8 ft STANTEC TAL 460-161576-1 460-161576-28	*DP-1 30-Jul-18 LIN-DP-s STANTEC TAL 460-161576-1 460-161576-17	SS-1a 30-Jul-18 LIN-SS1a-t-s 0 - 2 in STANTEC TAL 460-161576-1 460-161576-1	30-Jul-18 LIN-SS1a-b-s 2 - 12 in STANTEC TAL 460-161576-1 460-161576-2	SS-1abc 30-Jul-18 LIN-SS1-t-s 0 - 2 in STANTEC TAL 460-161576-1 460-161576-18	30-Jul-18 LIN-SS1-b-s 2 - 12 in STANTEC TAL 460-161576-1 460-161576-19	SS-1c 30-Jul-18 LIN-SS1c-t-s 0 - 2 in STANTEC TAL 460-161576-1 460-161576-3	30-Jul-18 LIN-SS1c-b-s 2 - 12 in STANTEC TAL 460-161576-1 460-161576-4		
Semi-Volatile Organic Compounds																			
Acenaphthene	µg/kg	20,000 ^A 500,000 ^B 1,000,000 ^C 98,000 ^D	n/v	370 UJ	-	370 U	-	-	-	380 U	-	7,800 U	-	-	-	-	-	-	-
Acenaphthylene	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C 107,000 ^D	n/v	370 UJ	-	370 U	-	-	-	380 U	-	7,800 U	-	-	-	-	-	-	-
Acetophenone	µg/kg	100,000 ^A 1,000,000 ^D	n/v	370 UJ	-	370 U	-	-	-	380 U	-	7,800 U	-	-	-	-	-	-	-
Anthracene	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	n/v	370 U	-	370 U	-	-	-	380 U	-	7,800 U	-	-	-	-	-	-	-
Atrazine	µg/kg	100,000 ^A 1,000,000 ^D	n/v	370 U	-	370 U	-	-	-	380 U	-	7,800 U	-	-	-	-	-	-	-
Benzaldehyde	µg/kg	100,000 ^A 1,000,000 ^D	n/v	370 UJ	-	370 U	-	-	-	380 U	-	7,800 U	-	-	-	-	-	-	-
Benzo(a)anthracene	µg/kg	1,000 ^A 5,600 ^B 11,000 ^C 1,000 ^D	n/v	370 U	-	370 U	-	-	-	380 U	-	29,000 ^{ABCD}	-	-	-	-	-	-	-
Benzo(a)pyrene	µg/kg	1,000 ^A 1,000 ^B 1,100 ^C 22,000 ^D	n/v	370 U	-	370 U	-	-	-	380 U	-	31,000 ^{ABCD}	-	-	-	-	-	-	-
Benzo(b)fluoranthene	µg/kg	1,000 ^A 5,600 ^B 11,000 ^C 1,700 ^D	n/v	370 U	-	370 U	-	-	-	380 U	-	49,000 ^{ABCD}	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	n/v	370 U	-	370 U	-	-	-	380 U	-	24,000	-	-	-	-	-	-	-
Benzo(k)fluoranthene	µg/kg	800 ^A 56,000 ^B 110,000 ^C 1,700 ^D	n/v	370 U	-	370 U	-	-	-	380 U	-	20,000 ^{AD}	-	-	-	-	-	-	-
Biphenyl, 1,1'- (Biphenyl)	µg/kg	100,000 ^A 1,000,000 ^D	500,000 ^E 1,000,000 ^F	370 UJ	-	370 U	-	-	-	380 U	-	7,800 U	-	-	-	-	-	-	-
Bis(2-Chloroethoxy)methane	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	n/v	370 UJ	-	370 U	-	-	-	380 U	-	7,800 U	-	-	-	-	-	-	-
Bis(2-Chloroethyl)ether	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	n/v	370 UJ	-	370 U	-	-	-	380 U	-	7,800 U	-	-	-	-	-	-	-
Bis(2-Chloroisopropyl)ether (2,2-oxybis(1-Chloropropane))	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	n/v	370 UJ	-	370 U	-	-	-	380 U	-	7,800 U	-	-	-	-	-	-	-
Bis(2-Ethylhexyl)phthalate (DEHP)	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	500,000 ^E 1,000,000 ^F 435,000 ^G	370 U	-	370 U	-	-	-	380 U	-	7,800 U	-	-	-	-	-	-	-
Bromophenyl Phenyl Ether, 4-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	n/v	370 U	-	370 U	-	-	-	380 U	-	7,800 U	-	-	-	-	-	-	-
Butyl Benzyl Phthalate	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	500,000 ^E 1,000,000 ^F 122,000 ^G	370 U	-	370 U	-	-	-	380 U	-	7,800 U	-	-	-	-	-	-	-
Caprolactam	µg/kg	100,000 ^A 1,000,000 ^D	n/v	370 U	-	370 U	-	-	-	380 U	-	7,800 U	-	-	-	-	-	-	-
Carbazole	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	n/v	370 U	-	370 U	-	-	-	380 U	-	7,800 U	-	-	-	-	-	-	-
Chloro-3-methyl phenol, 4-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	n/v	370 U	-	370 U	-	-	-	380 U	-	7,800 U	-	-	-	-	-	-	-
Chloroaniline, 4-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	500,000 ^E 1,000,000 ^F 220 ^G	370 U	-	370 U	-	-	-	380 U	-	7,800 U	-	-	-	-	-	-	-
Chloronaphthalene, 2-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	n/v	370 UJ	-	370 U	-	-	-	380 U	-	7,800 U	-	-	-	-	-	-	-
Chlorophenol, 2- (ortho-Chlorophenol)	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	500,000 ^E 1,000,000 ^F	370 UJ	-	370 U	-	-	-	380 U	-	7,800 U	-	-	-	-	-	-	-
Chlorophenyl Phenyl Ether, 4-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	n/v	370 U	-	370 U	-	-	-	380 U	-	7,800 U	-	-	-	-	-	-	-
Chrysene	µg/kg	1,000 ^A 56,000 ^B 110,000 ^C 1,000 ^D	n/v	370 U	-	370 U	-	-	-	380 U	-	41,000 ^{AD}	-	-	-	-	-	-	-
Cresol, o- (Methylphenol, 2-)	µg/kg	330 ^A 500,000 ^B 1,000,000 ^C 330 ^D	n/v	370 UJ	-	370 U	-	-	-	380 U	-	7,800 U	-	-	-	-	-	-	-
Cresol, p- (Methylphenol, 4-)	µg/kg	330 ^A 500,000 ^B 1,000,000 ^C 330 ^D	n/v	720 UJ	-	720 U	-	-	-	730 U	-	15,000 U	-	-	-	-	-	-	-
Dibenzo(a,h)anthracene	µg/kg	330 ^A 560 ^B 1,100 ^C 1,000,000 ^D	n/v	370 U	-	370 U	-	-	-	380 U	-	7,800 U	-	-	-	-	-	-	-
Dibenzofuran	µg/kg	7,000 ^A 350,000 ^B 1,000,000 ^C 210,000 ^D	500,000 ^E 1,000,000 ^F 6,200 ^G	370 UJ	-	370 U	-	-	-	380 U	-	7,800 U	-	-	-	-	-	-	-
Dibutyl Phthalate (DBP)	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	500,000 ^E 1,000,000 ^F 8,100 ^G	370 U	-	370 U	-	-	-	380 U	-	7,800 U	-	-	-	-	-	-	-
Dichlorobenzidine, 3,3'-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	n/v	370 U	-	370 U	-	-	-	380 U	-	7,800 U	-	-	-	-	-	-	-
Dichlorophenol, 2,4-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	500,000 ^E 1,000,000 ^F 400 ^G	370 U	-	370 U	-	-	-	380 U	-	7,800 U	-	-	-	-	-	-	-
Diethyl Phthalate	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	500,000 ^E 1,000,000 ^F 7,100 ^G	370 U	-	370 U	-	-	-	380 U	-	7,800 U	-	-	-	-	-	-	-
Dimethyl Phthalate	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	500,000 ^E 1,000,000 ^F 27,000 ^G	370 U	-	370 U	-	-	-	380 U	-	7,800 U	-	-	-	-	-	-	-
Dimethylphenol, 2,4-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	n/v	370 UJ	-	370 U	-	-	-	380 U	-	7,800 U	-	-	-	-	-	-	-
Dinitro-o-cresol, 4,6-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	n/v	720 UJ	-	720 U	-	-	-	730 U	-	15,000 U	-	-	-	-	-	-	-
Dinitrophenol, 2,4-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	500,000 ^E 1,000,000 ^F 200 ^G	720 UJ	-	720 U	-	-	-	730 U	-	15,000 U	-	-	-	-	-	-	-
Dinitrotoluene, 2,4-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	n/v	370 U	-	370 U	-	-	-	380 U	-	7,800 U	-	-	-	-	-	-	-
Dinitrotoluene, 2,6-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	500,000 ^E 1,000,000 ^F 1,000/170 ^G , st	370 U	-	370 U	-	-	-	380 U	-	7,800 U	-	-	-	-	-	-	-
Di-n-Octyl phthalate	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	500,000 ^E 1,000,000 ^F 120,000 ^G	370 U	-	370 U	-	-	-	380 U	-	7,800 U	-	-	-	-	-	-	-
Fluoranthene	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	n/v	370 U	-	370 U	-	-	-	380 U	-	81,000	-	-	-	-	-	-	-
Fluorene	µg/kg	30,000 ^A 500,000 ^B 1,000,000 ^C 386,000 ^D	n/v	370 U	-	370 U	-	-	-	380 U	-	7,800 U	-	-	-	-	-	-	-
Hexachlorobenzene	µg/kg	330 ^A 6,000 ^B 12,000 ^C 3,200 ^D	500,000 ^E 1,000,000 ^F 1,400 ^G	370 U	-	370 U	-	-	-	380 U	-	7,800 U	-	-	-	-	-	-	-
Hexachlorobutadiene (Hexachloro-1,3-butadiene)	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	n/v	370 UJ	-	370 U	-	-	-	380 U	-	7,800 U	-	-	-	-	-	-	-
Hexachlorocyclopentadiene	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	500,000 ^E 1,000,000 ^F	370 UJ	-	370 U	-	-	-	380 U	-	7,800 U	-	-	-	-	-	-	-
Hexachloroethane	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	n/v	370 UJ	-	370 U	-	-	-	380 U	-	7,800 U	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	µg/kg	500 ^A 5,600 ^B 11,000 ^C 8,200 ^D	n/v	370 U	-	370 U	-	-	-	380 U	-	28,000 ^{ABCD}	-	-	-	-	-	-	-
Isophorone	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	500,000 ^E 1,000,000 ^F 4,400 ^G	370 UJ	-	370 U	-	-	-	380 U	-	7,800 U	-	-	-	-	-	-	-
Methylnaphthalene, 2-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	500,000 ^E 1,000,000 ^F 36,400 ^G	370 UJ	-	370 U	-	-	-	380 U	-	7,800 U	-	-	-	-	-	-	-
Naphthalene	µg/kg	12,000 ^{AD} 500,000 ^B 1,000,000 ^C	n/v	370 UJ	-	370 U	-	-	-	380 U	-	7,800 U	-	-	-	-	-	-	-
Nitroaniline, 2-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	500,000 ^E 1,000,000 ^F 400 ^G	720 U	-	720 U	-	-	-	730 U	-	15,000 U	-	-	-	-	-	-	-
Nitroaniline, 3-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	500,000 ^E 1,000,000 ^F 500 ^G	720 U	-	720 U	-	-	-	730 U	-	15,000 U	-	-	-	-	-	-	-
Nitroaniline, 4-																			

Table 4
Summary of Analytical Results for RI Soil Samples
Site Management Plan
820 Linden Ave Site, BCP #C828200
820 Linden Avenue, Pittsford, NY

Sample Location																		
Sample Date																		
Sample ID																		
Sample Depth																		
Sampling Company																		
Laboratory																		
Laboratory Work Order																		
Laboratory Sample ID																		
Sample Type	Units	NYSDEC-Part 375	NYSDEC CP-51															
				27-Jul-18 LIN-B105-S1 4 - 8 ft STANTEC TAL 460-161452-1 460-161452-1	B/MW-105 27-Jul-18 LIN-B105-S3 15 - 16 ft STANTEC TAL 460-161452-1 460-161452-3	27-Jul-18 LIN-B105-S2 35 - 38 ft STANTEC TAL 460-161452-1 460-161452-2	B-106 31-Jul-18 LIN-B106-S 7 - 7.5 ft STANTEC TAL 460-161797-1 460-161797-2	B-107 31-Jul-18 LIN-B107-S 3.2 - 3.7 ft STANTEC TAL 460-161797-1 460-161797-3	B-108 30-Jul-18 LIN-B108-s 5 - 8 ft STANTEC TAL 460-161576-1 460-161576-27	B-109 30-Jul-18 LIN-B109-s 5 - 8 ft STANTEC TAL 460-161576-1 460-161576-28 Field Duplicate	*DP-1 30-Jul-18 LIN-DP-s STANTEC TAL 460-161576-1 460-161576-17	SS-1a 30-Jul-18 LIN-SS1a-t-s 0 - 2 in STANTEC TAL 460-161576-1 460-161576-1	30-Jul-18 LIN-SS1a-b-s 2 - 12 in STANTEC TAL 460-161576-1 460-161576-2	SS-1abc 30-Jul-18 LIN-SS1-t-s 0 - 2 in STANTEC TAL 460-161576-1 460-161576-18	30-Jul-18 LIN-SS1-b-s 2 - 12 in STANTEC TAL 460-161576-1 460-161576-19	SS-1c 30-Jul-18 LIN-SS1c-t-s 0 - 2 in STANTEC TAL 460-161576-1 460-161576-3	30-Jul-18 LIN-SS1c-b-s 2 - 12 in STANTEC TAL 460-161576-1 460-161576-4	
Volatile Organic Compounds																		
Acetone	µg/kg	50 ^{AD} 500,000 ^B 1,000,000 ^C	n/v	6.2	22	11	5.1 U	11	5.5 U	5.3 U	5.3 U	5.3 U	5.5 U	4.9 U	-	-	5.4 U	5.3 U
Benzene	µg/kg	60 ^{AD} 44,000 ^B 89,000 ^C	n/v	1.1 U	1.2 U	1.2 U	1.0 U	0.96 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.98 U	1.1 U	-	1.1 U	1.1 U
Bromodichloromethane	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	n/v	1.1 U	1.2 U	1.2 U	1.0 U	0.96 U	1.1 U	1.1 U	1.1 U	1.1 U	8.2	0.98 U	-	-	1.1 U	1.1 U
Bromoform (Tribromomethane)	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	n/v	1.1 U	1.2 U	1.2 U	1.0 U	0.96 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.98 U	-	-	1.1 U	1.1 U
Bromomethane (Methyl bromide)	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	n/v	1.1 U	1.2 U	1.2 U	1.0 U	0.96 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.98 U	-	-	1.1 U	1.1 U
Butylbenzene, n-	µg/kg	12,000 ^{AD} 500,000 ^B 1,000,000 ^C	n/v	1.1 U	1.2 U	1.2 U	1.0 U	0.96 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.98 U	-	-	1.1 U	1.1 U
Butylbenzene, sec- (2-Phenylbutane)	µg/kg	11,000 ^{AD} 500,000 ^B 1,000,000 ^C	n/v	1.1 U	1.2 U	1.2 U	1.0 U	0.96 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.98 U	-	-	1.1 U	1.1 U
Butylbenzene, tert-	µg/kg	5,900 ^{AD} 500,000 ^B 1,000,000 ^C	n/v	1.1 U	1.2 U	1.2 U	1.0 U	0.96 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.98 U	-	-	1.1 U	1.1 U
Carbon Disulfide	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	500,000 ^E 1,000,000 ^F 2,700 ^D	1.1 U	1.2 U	1.2 U	1.0 U	0.96 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.98 U	-	-	1.1 U	1.1 U
Carbon Tetrachloride (Tetrachloromethane)	µg/kg	760 ^{AD} 22,000 ^B 44,000 ^C	n/v	1.1 U	1.2 U	1.2 U	1.0 U	0.96 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.98 U	-	-	1.1 U	1.1 U
Chlorobenzene (Monochlorobenzene)	µg/kg	1,100 ^{AD} 500,000 ^B 1,000,000 ^C	n/v	1.1 U	1.2 U	1.2 U	1.0 U	0.96 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.98 U	-	-	1.1 U	1.1 U
Chloroethane (Ethyl Chloride)	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	500,000 ^E 1,000,000 ^F 1,900 ^D	1.1 U	1.2 U	1.2 U	1.0 U	0.96 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.98 U	-	-	1.1 U	1.1 U
Chloroform (Trichloromethane)	µg/kg	370 ^{AD} 350,000 ^B 700,000 ^C	n/v	1.1 U	1.2 U	1.2 U	1.0 U	0.96 U	1.1 U	1.1 U	1.1 U	1.1 U	26	0.98 U	-	-	1.1 U	1.1 U
Chloromethane	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	n/v	1.1 U	1.2 U	1.2 U	1.0 U	0.96 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.98 U	-	-	1.1 U	1.1 U
Cyclohexane	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	n/v	1.1 U	1.2 U	1.2 U	1.0 U	0.96 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.98 U	-	-	1.1 U	1.1 U
Dibromo-3-Chloropropane, 1,2- (DBCP)	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	n/v	1.1 U	1.2 U	1.2 U	1.0 U	0.96 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.98 U	-	-	1.1 U	1.1 U
Dibromochloromethane	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	500,000 ^E 1,000,000 ^F	1.1 U	1.2 U	1.2 U	1.0 U	0.96 U	1.1 U	1.1 U	1.1 U	1.1 U	2.4	0.98 U	-	-	1.1 U	1.1 U
Dichlorobenzene, 1,2-	µg/kg	1,100 ^{AD} 500,000 ^B 1,000,000 ^C	n/v	1.1 U	1.2 U	1.2 U	1.0 U	0.96 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.98 U	-	-	1.1 U	1.1 U
Dichlorobenzene, 1,3-	µg/kg	2,400 ^{AD} 280,000 ^B 560,000 ^C	n/v	1.1 U	1.2 U	1.2 U	1.0 U	0.96 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.98 U	-	-	1.1 U	1.1 U
Dichlorobenzene, 1,4-	µg/kg	1,800 ^{AD} 130,000 ^B 250,000 ^C	n/v	1.1 U	1.2 U	1.2 U	1.0 U	0.96 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.98 U	-	-	1.1 U	1.1 U
Dichlorodifluoromethane (Freon 12)	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	n/v	1.1 U	1.2 U	1.2 U	1.0 U	0.96 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.98 U	-	-	1.1 U	1.1 U
Dichloroethane, 1,1-	µg/kg	270 ^{AD} 240,000 ^B 480,000 ^C	n/v	1.1 U	1.2 U	1.2 U	1.0 U	0.96 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.98 U	-	-	1.1 U	1.1 U
Dichloroethane, 1,2-	µg/kg	20 ^A 30,000 ^B 60,000 ^C 200 ^D	n/v	1.1 U	1.2 U	1.2 U	1.0 U	0.96 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.98 U	-	-	1.1 U	1.1 U
Dichloroethene, 1,1-	µg/kg	330 ^{AD} 500,000 ^B 1,000,000 ^C	n/v	1.1 U	1.2 U	1.2 U	1.0 U	0.96 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.98 U	-	-	1.1 U	1.1 U
Dichloroethene, cis-1,2-	µg/kg	250 ^{AD} 500,000 ^B 1,000,000 ^C	n/v	1.1 U	1.2 U	1.2 U	1.0 U	0.96 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.98 U	-	-	1.1 U	1.1 U
Dichloroethene, trans-1,2-	µg/kg	190 ^{AD} 500,000 ^B 1,000,000 ^C	n/v	1.1 U	1.2 U	1.2 U	1.0 U	0.96 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.98 U	-	-	1.1 U	1.1 U
Dichloropropane, 1,2-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	500,000 ^E 1,000,000 ^F	1.1 U	1.2 U	1.2 U	1.0 U	0.96 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.98 U	-	-	1.1 U	1.1 U
Dichloropropene, cis-1,3-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	n/v	1.1 U	1.2 U	1.2 U	1.0 U	0.96 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.98 U	-	-	1.1 U	1.1 U
Dichloropropene, trans-1,3-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	n/v	1.1 U	1.2 U	1.2 U	1.0 U	0.96 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.98 U	-	-	1.1 U	1.1 U
Ethylbenzene	µg/kg	1,000 ^{AD} 390,000 ^B 780,000 ^C	n/v	1.1 U	1.2 U	1.2 U	1.0 U	0.96 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.98 U	-	-	1.1 U	1.1 U
Ethylene Dibromide (Dibromoethane, 1,2-)	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	n/v	1.1 U	1.2 U	1.2 U	1.0 U	0.96 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.98 U	-	-	1.1 U	1.1 U
Hexanone, 2- (Methyl Butyl Ketone)	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	n/v	5.6 U	6.1 U	6.1 U	5.1 U	4.8 U	5.5 U	5.3 U	5.3 U	5.3 U	5.5 U	4.9 U	-	-	5.4 U	5.3 U
Isopropylbenzene	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	500,000 ^E 1,000,000 ^F 2,300 ^D	1.1 U	1.2 U	1.2 U	1.0 U	0.96 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.98 U	-	-	1.1 U	1.1 U
Isopropyltoluene, p- (Cymene)	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	500,000 ^E 1,000,000 ^F 10,000 ^D	1.1 U	1.2 U	1.2 U	1.0 U	0.96 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.98 U	-	-	1.1 U	1.1 U
Methyl Acetate	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	n/v	5.6 U	6.1 U	6.1 U	5.1 U	4.8 U	5.5 U	5.3 U	5.3 U	5.3 U	5.5 U	4.9 U	-	-	5.4 U	5.3 U
Methyl Ethyl Ketone (MEK) (2-Butanone)	µg/kg	120 ^{AD} 500,000 ^B 1,000,000 ^C	500,000 ^E 1,000,000 ^F 300 ^D	5.6 U	6.1 U	6.1 U	5.1 U	4.8 U	5.5 U	5.3 U	5.3 U	5.3 U	5.5 U	4.9 U	-	-	5.4 U	5.3 U
Methyl Isobutyl Ketone (MIBK)	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	500,000 ^E 1,000,000 ^F 1,000 ^D	5.6 U	6.1 U	6.1 U	5.1 U	4.8 U	5.5 U	5.3 U	5.3 U	5.3 U	5.5 U	4.9 U	-	-	5.4 U	5.3 U
Methyl tert-butyl ether (MTBE)	µg/kg	930 ^{AD} 500,000 ^B 1,000,000 ^C	n/v	1.1 U	1.2 U	1.2 U	1.0 U	0.96 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.98 U	-	-	1.1 U	1.1 U
Methylcyclohexane	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	n/v	1.1 U	1.2 U	1.2 U	1.0 U	0.96 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.98 U	-	-	1.1 U	1.1 U
Methylene Chloride (Dichloromethane)	µg/kg	50 ^{AD} 500,000 ^B 1,000,000 ^C	n/v	2.5	2.4	3.3	1.6	2.1	1.1 U	1.2	1.1 U	1.1 U	1.1 U	0.98 U	-	-	1.1 U	1.1 U
Naphthalene	µg/kg	12,000 ^{AD} 500,000 ^B 1,000,000 ^C	n/v	1.1 U	1.2 U	1.2 U	1.0 U	0.96 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.98 U	-	-	1.1 U	1.1 U
Propylbenzene, n-	µg/kg	3,900 ^{AD} 500,000 ^B 1,000,000 ^C	n/v	1.1 U	1.2 U	1.2 U	1.0 U	0.96 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.98 U	-	-	1.1 U	1.1 U
Styrene	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	500,000 ^E 1,000,000 ^F	1.1 U	1.2 U	1.2 U	1.0 U	0.96 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.98 U	-	-	1.1 U	1.1 U
Tetrachloroethane, 1,1,2,2-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	500,000 ^E 1,000,000 ^F 600 ^D	1.1 U	1.2 U	1.2 U	1.0 U	0.96 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.98 U	-	-	1.1 U	1.1 U
Tetrachloroethene (PCE)	µg/kg	1,300 ^{AD} 150,000 ^B 300,000 ^C	500,000 ^E 1,000,000 ^F	1.1 U	1.2 U	1.2 U	1.0 U	0.96 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.98 U	-	-	1.1 U	1.1 U
Toluene	µg/kg	700 ^{AD} 500,000 ^B 1,000,000 ^C	n/v	1.1 U	1.2 U	1.2 U	1.0 U	0.96 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.98 U	-	-	1.1 U	1.1 U
Trichlorobenzene, 1,2,4-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	500,000 ^E 1,000,000 ^F 3,400 ^D	1.1 U	1.2 U	1.2 U	1.0 U	0.96 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.98 U	-	-	1.1 U	1.1 U
Trichloroethane, 1,1,1-	µg/kg	680 ^{AD} 500,000 ^B 1,000,000 ^C	n/v	1.1 U	1.2 U	1.2 U	1.0 U	0.96 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.98 U	-	-	1.1 U	1.1 U
Trichloroethane, 1,1,2-																		

Table 4
Summary of Analytical Results for RI Soil Samples
Site Management Plan
820 Linden Ave Site, BCP #C828200
820 Linden Avenue, Pittsford, NY

Sample Location Sample Date Sample ID Sample Depth Sampling Company Laboratory Laboratory Work Order Laboratory Sample ID Sample Type				SS-2a		SS-2abc		SS-2c		SS-3a		SS-3abc		SS-3b		SS-4abc	
				30-Jul-18 LIN-SS2a-t-s 0 - 2 in STANTEC TAL 460-161576-1 460-161576-5	30-Jul-18 LIN-SS2a-b-s 2 - 12 in STANTEC TAL 460-161576-1 460-161576-6	30-Jul-18 LIN-SS2-t-s 0 - 2 in STANTEC TAL 460-161576-1 460-161576-20	30-Jul-18 LIN-SS2-b-s 2 - 12 in STANTEC TAL 460-161576-1 460-161576-21	30-Jul-18 LIN-SS2c-t-s 0 - 2 in STANTEC TAL 460-161576-1 460-161576-7	30-Jul-18 LIN-SS2c-b-s 2 - 12 in STANTEC TAL 460-161576-1 460-161576-8	30-Jul-18 LIN-SS3a-t-s 0 - 2 in STANTEC TAL 460-161576-1 460-161576-9	30-Jul-18 LIN-SS3a-b-s 2 - 12 in STANTEC TAL 460-161576-1 460-161576-10	30-Jul-18 LIN-SS3-t-s 0 - 2 in STANTEC TAL 460-161576-1 460-161576-22	30-Jul-18 LIN-SS3-b-s 2 - 12 in STANTEC TAL 460-161576-1 460-161576-23	30-Jul-18 LIN-SS3b-t-s 0 - 2 in STANTEC TAL 460-161576-1 460-161576-11	30-Jul-18 LIN-SS3b-b-s 2 - 12 in STANTEC TAL 460-161576-1 460-161576-12	30-Jul-18 LIN-SS4-t-s 0 - 2 in STANTEC TAL 460-161576-1 460-161576-24	30-Jul-18 LIN-SS4-b-s 2 - 12 in STANTEC TAL 460-161576-1 460-161576-25
Units		NYSDEC-Part 375	NYSDEC CP-51														
General Chemistry																	
Cyanide	mg/kg	27 ^{AB} 10,000 ^a ^C 40 ^D	n/v	-	-	0.26 U	0.26 U	-	-	-	-	-	-	-	-	0.27 U	1.0
Metals																	
Aluminum	mg/kg	10,000 ^a ^{ABCD}	10,000 ^a ^{EF}	-	-	7,380	6,160	-	-	-	-	7,290	5,850	-	-	5,930	6,580
Antimony	mg/kg	10,000 ^a ^{ABCD}	10,000 ^a ^{EF}	-	-	31.5 U	32.1 U	-	-	-	-	32.4 U	29.5 U	-	-	32.9 U	32.7 U
Arsenic	mg/kg	13 ^a ^A 16 ^a ^{BCD}	n/v	-	-	4.2 U	4.3 U	-	-	-	-	4.3 U	3.9 U	-	-	4.4 U	4.4 U
Barium	mg/kg	350 ^a ^A 400 ^B 10,000 ^a ^C 820 ^D	n/v	-	-	24.8	24.8	-	-	-	-	27.9	23.3	-	-	27.4	26.2
Beryllium	mg/kg	7.2 ^A 590 ^B 2,700 ^C 47 ^D	n/v	-	-	0.42 U	0.43 U	-	-	-	-	0.43 U	0.39 U	-	-	0.44 U	0.44 U
Cadmium	mg/kg	2.5 ^a ^A 9.3 ^B 60 ^C 7.5 ^D	n/v	-	-	0.42 U	0.43 U	-	-	-	-	0.43 U	0.39 U	-	-	0.44 U	0.44 U
Calcium	mg/kg	10,000 ^a ^{ABCD}	10,000 ^a ^{EF}	-	-	2,120	2,200	-	-	-	-	2,260	1,850	-	-	4,590	3,010
Chromium	mg/kg	30 ^a ^A 1,500 ^B 6,800 ^C ^{NS} ^a	n/v	-	-	9.7	8.2	-	-	-	-	9.6	7.7	-	-	16.4	19.4
Cobalt	mg/kg	10,000 ^a ^{ABCD}	10,000 ^a ^{EF}	-	-	4.8	3.7	-	-	-	-	4.0	2.9	-	-	2.4	2.7
Copper	mg/kg	50 ^A 270 ^B 10,000 ^a ^C 1,720 ^D	n/v	-	-	11.2	8.5	-	-	-	-	10.4	8.8	-	-	8.4	8.5
Iron	mg/kg	10,000 ^a ^{ABCD}	10,000 ^a ^{EF}	-	-	13,100 ^{AB} ^{BCDEFG}	10,900 ^{AB} ^{BCDEFG}	-	-	-	-	10,800 ^{AB} ^{BCDEFG}	8,240	-	-	7,410	8,080
Lead	mg/kg	63 ^a ^A 1,000 ^B 3,900 ^C 450 ^D	n/v	-	-	7.5	12.3	-	-	-	-	24.2	17.8	-	-	26.3	28.4
Magnesium	mg/kg	10,000 ^a ^{ABCD}	n/v	-	-	1,940	1,670	-	-	-	-	1,690	1,310	-	-	2,030	1,550
Manganese	mg/kg	1,600 ^a ^A 10,000 ^a ^{BC} 2,000 ^a ^D	n/v	-	-	356	310	-	-	-	-	283	205	-	-	181	170
Mercury	mg/kg	0.18 ^a ^A 2.8 ^a ^B 5.7 ^a ^C 0.73 ^D	n/v	-	-	0.030	0.034	-	-	-	-	0.039	0.040	-	-	0.064	0.069
Nickel	mg/kg	30 ^A 310 ^B 10,000 ^a ^C 130 ^D	n/v	-	-	11.2	10.7 U	-	-	-	-	10.8 U	9.8 U	-	-	11.0 U	10.9 U
Potassium	mg/kg	10,000 ^a ^{ABCD}	n/v	-	-	672	502	-	-	-	-	654	374	-	-	454	440
Selenium	mg/kg	3.9 ^a ^A 1,500 ^B 6,800 ^C 4 ^a ^D	n/v	-	-	8.4 U	8.6 U	-	-	-	-	8.6 U	7.9 U	-	-	8.8 U	8.7 U
Silver	mg/kg	2 ^A 1,500 ^B 6,800 ^C 8.3 ^D	n/v	-	-	1.1 U	1.1 U	-	-	-	-	1.1 U	0.98 U	-	-	1.1 U	1.1 U
Sodium	mg/kg	10,000 ^a ^{ABCD}	n/v	-	-	294 U	300 U	-	-	-	-	302 U	275 U	-	-	307 U	305 U
Thallium	mg/kg	10,000 ^a ^{ABCD}	10,000 ^a ^{EF}	-	-	12.6 U	12.9 U	-	-	-	-	12.9 U	11.8 U	-	-	13.2 U	13.1 U
Vanadium	mg/kg	10,000 ^a ^{ABCD}	10,000 ^a ^{EF}	-	-	17.7	14.7	-	-	-	-	14.9	11.5	-	-	10.9	11.8
Zinc	mg/kg	109 ^a ^A 10,000 ^a ^{BC} 2,480 ^D	n/v	-	-	30.2	31.2	-	-	-	-	43.9	44.5	-	-	47.2	46.7
Polychlorinated Biphenyls																	
Aroclor 1016	µg/kg	^a ^{ABCD}	n/v	-	-	37 U	37 U	-	-	-	-	-	-	-	-	38 U	37 U
Aroclor 1221	µg/kg	^a ^{ABCD}	n/v	-	-	37 U	37 U	-	-	-	-	-	-	-	-	38 U	37 U
Aroclor 1232	µg/kg	^a ^{ABCD}	n/v	-	-	37 U	37 U	-	-	-	-	-	-	-	-	38 U	37 U
Aroclor 1242	µg/kg	^a ^{ABCD}	n/v	-	-	37 U	37 U	-	-	-	-	-	-	-	-	38 U	37 U
Aroclor 1248	µg/kg	^a ^{ABCD}	n/v	-	-	37 U	37 U	-	-	-	-	-	-	-	-	38 U	37 U
Aroclor 1254	µg/kg	^a ^{ABCD}	n/v	-	-	37 U	37 U	-	-	-	-	-	-	-	-	38 U	37 U
Aroclor 1260	µg/kg	^a ^{ABCD}	n/v	-	-	37 U	37 U	-	-	-	-	-	-	-	-	38 U	37 U
Aroclor 1262	µg/kg	^a ^{ABCD}	n/v	-	-	37 U	37 U	-	-	-	-	-	-	-	-	38 U	37 U
Aroclor 1268	µg/kg	^a ^{ABCD}	n/v	-	-	37 U	37 U	-	-	-	-	-	-	-	-	38 U	37 U
Polychlorinated Biphenyls (PCBs)	µg/kg	^a ^{ABCD}	n/v	-	-	ND	ND	-	-	-	-	-	-	-	-	ND	ND
Pesticides																	
Aldrin	µg/kg	5 ^a ^A 680 ^B 1,400 ^C 190 ^D	n/v	-	-	3.7 U	3.7 U	-	-	-	-	-	-	-	-	3.8 U	3.7 U
BHC, alpha-	µg/kg	20 ^{AD} 3,400 ^B 6,800 ^C	n/v	-	-	3.7 U	3.7 U	-	-	-	-	-	-	-	-	3.8 U	3.7 U
BHC, beta-	µg/kg	36 ^A 3,000 ^B 14,000 ^C 90 ^D	n/v	-	-	3.7 U	3.7 U	-	-	-	-	-	-	-	-	3.8 U	3.7 U
BHC, delta-	µg/kg	40 ^a ^A 500,000 ^a ^B 1,000,000 ^a ^C 250 ^D	n/v	-	-	3.7 U	3.7 U	-	-	-	-	-	-	-	-	3.8 U	3.7 U
Camphchlor (Toxaphene)	µg/kg	100,000 ^a ^A 500,000 ^a ^B 1,000,000 ^a ^C ^{CD}	n/v	-	-	37 U	37 U	-	-	-	-	-	-	-	-	38 U	37 U
Chlordane, alpha-	µg/kg	94 ^A 24,000 ^B 47,000 ^C 2,900 ^D	n/v	-	-	3.7 U	3.7 U	-	-	-	-	-	-	-	-	3.8 U	3.7 U
Chlordane, trans- (gamma-Chlordane)	µg/kg	100,000 ^a ^A 1,000,000 ^a ^D	n/v	-	-	3.7 U	3.7 U	-	-	-	-	-	-	-	-	3.8 U	3.7 U
DDD (p,p'-DDD)	µg/kg	3.3 ^a ^A 92,000 ^B 180,000 ^C 14,000 ^D	n/v	-	-	3.7 U	3.7 U	-	-	-	-	-	-	-	-	3.8 U	3.7 U
DDE (p,p'-DDE)	µg/kg	3.3 ^a ^A 62,000 ^B 120,000 ^C 17,000 ^D	n/v	-	-	3.7 U	3.7 U	-	-	-	-	-	-	-	-	3.8 U	3.7 U
DDT (p,p'-DDT)	µg/kg	3.3 ^a ^A 47,000 ^B 94,000 ^C 136,000 ^D	n/v	-	-	3.7 U	3.7 U	-	-	-	-	-	-	-	-	3.8 U	3.7 U
Dieldrin	µg/kg	5 ^a ^A 1,400 ^B 2,800 ^C 100 ^D	n/v	-	-	3.7 U	3.7 U	-	-	-	-	-	-	-	-	63 ^A	52 ^A
Endosulfan I	µg/kg	2,400 ^a ^A 200,000 ^B 920,000 ^C 102,000 ^D	n/v	-	-	3.7 U	3.7 U	-	-	-	-	-	-	-	-	3.8 U	3.7 U
Endosulfan II	µg/kg	2,400 ^a ^A 200,000 ^B 920,000 ^C 102,000 ^D	n/v	-	-	3.7 U	3.7 U	-	-	-	-	-	-	-	-	3.8 U	3.7 U
Endosulfan Sulfate	µg/kg	2,400 ^a ^A 200,000 ^B 920,000 ^C 1,000,000 ^a ^D	n/v	-	-	3.7 U	3.7 U	-	-	-	-	-	-	-	-	3.8 U	3.7 U
Endrin	µg/kg	14 ^A 89,000 ^B 410,000 ^C 60 ^D	n/v	-	-	3.7 U	3.7 U	-	-	-	-	-	-	-	-	3.8 U	3.7 U
Endrin Aldehyde	µg/kg	100,000 ^a ^A 500,000 ^a ^B 1,000,000 ^a ^C ^{CD}	n/v	-	-	3.7 U	3.7 U	-	-	-	-	-	-	-	-	3.8 U	3.7 U
Endrin Ketone	µg/kg	100,000 ^a ^A 500,000 ^a ^B 1,000,000 ^a ^C ^{CD}	n/v	-	-	3.7 U	3.7 U	-	-	-	-	-	-	-	-	3.8 U	3.7 U
Heptachlor	µg/kg	42 ^A 15,000 ^B 29,000 ^C 380 ^D	n/v	-	-	3.7 U	3.7 U	-	-	-	-	-	-	-	-	3.8 U	3.7 U
Heptachlor Epoxide	µg/kg	100,000 ^a ^A 500,000 ^a ^B 1,000,000 ^a ^C ^{CD}	500,000 ^a ^E 1,000,000 ^a ^F 20 ^G	-	-	3.7 U	3.7 U	-	-	-	-	-	-	-	-	3.8 U	3.7 U
Lindane (Hexachlorocyclohexane, gamma)	µg/kg	100 ^{AD} 9,200 ^B 23,000 ^C	n/v	-	-	3.7 U	3.7 U	-	-	-	-	-	-	-	-	3.8 U	3.7 U
Methoxychlor (4,4'-Methoxychlor)	µg/kg	100,000 ^a ^A 500,000 ^a ^B 1,000,000 ^a ^C ^{CD}	500,000 ^a ^E 1,000,000 ^a ^F 900,000 ^a ^G	-	-	3.7 U	3.7 U	-	-	-	-	-	-	-	-	3.8 U	3.7 U

See notes on last page.

Table 4
Summary of Analytical Results for RI Soil Samples
Site Management Plan
820 Linden Ave Site, BCP #C828200
820 Linden Avenue, Pittsford, NY

Sample Location					SS-2a		SS-2abc		SS-2c		SS-3a		SS-3abc		SS-3b		SS-4abc	
Sample Date	Sample ID				30-Jul-18 LIN-SS2a-t-s	30-Jul-18 LIN-SS2a-b-s	30-Jul-18 LIN-SS2-t-s	30-Jul-18 LIN-SS2-b-s	30-Jul-18 LIN-SS2c-t-s	30-Jul-18 LIN-SS2c-b-s	30-Jul-18 LIN-SS3a-t-s	30-Jul-18 LIN-SS3a-b-s	30-Jul-18 LIN-SS3-t-s	30-Jul-18 LIN-SS3-b-s	30-Jul-18 LIN-SS3b-t-s	30-Jul-18 LIN-SS3b-b-s	30-Jul-18 LIN-SS4-t-s	30-Jul-18 LIN-SS4-b-s
Sample Depth	Sample ID				0 - 2 in	2 - 12 in	0 - 2 in	2 - 12 in	0 - 2 in	2 - 12 in	0 - 2 in	2 - 12 in	0 - 2 in	2 - 12 in	0 - 2 in	2 - 12 in	0 - 2 in	2 - 12 in
Sampling Company	Sample ID				STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC
Laboratory	Sample ID				TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL
Laboratory Work Order	Sample ID				460-161576-1	460-161576-1	460-161576-1	460-161576-1	460-161576-1	460-161576-1	460-161576-1	460-161576-1	460-161576-1	460-161576-1	460-161576-1	460-161576-1	460-161576-1	460-161576-1
Laboratory Sample ID	Sample ID				460-161576-5	460-161576-6	460-161576-20	460-161576-21	460-161576-7	460-161576-8	460-161576-9	460-161576-10	460-161576-22	460-161576-23	460-161576-11	460-161576-12	460-161576-24	460-161576-25
Sample Type	Sample ID	Units	NYSDEC-Part 375	NYSDEC CP-51														
Volatile Organic Compounds																		
Acetone	µg/kg	50 ^{AD} 500,000 ^B 1,000,000 ^C		n/v	4.9 U	5.3 U	-	-	5.4 U	5.7 U	5.3 U	5.1 U	-	-	5.4 U	4.9 U	-	-
Benzene	µg/kg	60 ^{AD} 44,000 ^B 89,000 ^C		n/v	0.98 U	1.1 U	-	-	1.1 U	1.1 U	1.1 U	1.0 U	-	-	1.1 U	0.98 U	-	-
Bromodichloromethane	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}		n/v	0.98 U	1.1 U	-	-	1.1 U	1.1 U	1.1 U	1.0 U	-	-	1.1 U	0.98 U	-	-
Bromoform (Tribromomethane)	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}		n/v	0.98 U	1.1 U	-	-	1.1 U	1.1 U	1.1 U	1.0 U	-	-	1.1 U	0.98 U	-	-
Bromomethane (Methyl bromide)	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}		n/v	0.98 U	1.1 U	-	-	1.1 U	1.1 U	1.1 U	1.0 U	-	-	1.1 U	0.98 U	-	-
Butylbenzene, n-	µg/kg	12,000 ^{AD} 500,000 ^B 1,000,000 ^C		n/v	0.98 U	1.1 U	-	-	1.1 U	1.1 U	1.1 U	1.0 U	-	-	1.1 U	0.98 U	-	-
Butylbenzene, sec- (2-Phenylbutane)	µg/kg	11,000 ^{AD} 500,000 ^B 1,000,000 ^C		n/v	0.98 U	1.1 U	-	-	1.1 U	1.1 U	1.1 U	1.0 U	-	-	1.1 U	0.98 U	-	-
Butylbenzene, tert-	µg/kg	5,900 ^{AD} 500,000 ^B 1,000,000 ^C		n/v	0.98 U	1.1 U	-	-	1.1 U	1.1 U	1.1 U	1.0 U	-	-	1.1 U	0.98 U	-	-
Carbon Disulfide	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	500,000 ^E 1,000,000 ^F 2,700 ^G		0.98 U	1.1 U	-	-	1.1 U	1.1 U	1.1 U	1.0 U	-	-	1.1 U	0.98 U	-	-
Carbon Tetrachloride (Tetrachloromethane)	µg/kg	760 ^{AD} 22,000 ^B 44,000 ^C		n/v	0.98 U	1.1 U	-	-	1.1 U	1.1 U	1.1 U	1.0 U	-	-	1.1 U	0.98 U	-	-
Chlorobenzene (Monochlorobenzene)	µg/kg	1,100 ^{AD} 500,000 ^B 1,000,000 ^C		n/v	0.98 U	1.1 U	-	-	1.1 U	1.1 U	1.1 U	1.0 U	-	-	1.1 U	0.98 U	-	-
Chloroethane (Ethyl Chloride)	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	500,000 ^E 1,000,000 ^F 1,900 ^G		0.98 U	1.1 U	-	-	1.1 U	1.1 U	1.1 U	1.0 U	-	-	1.1 U	0.98 U	-	-
Chloroform (Trichloromethane)	µg/kg	370 ^{AD} 350,000 ^B 700,000 ^C		n/v	0.98 U	1.1 U	-	-	1.1 U	1.1 U	1.1 U	1.0 U	-	-	1.1 U	0.98 U	-	-
Chloromethane	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}		n/v	0.98 U	1.1 U	-	-	1.1 U	1.1 U	1.1 U	1.0 U	-	-	1.1 U	0.98 U	-	-
Cyclohexane	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}		n/v	0.98 U	1.1 U	-	-	1.1 U	1.1 U	1.1 U	1.0 U	-	-	1.1 U	0.98 U	-	-
Dibromo-3-Chloropropane, 1,2- (DBCP)	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}		n/v	0.98 U	1.1 U	-	-	1.1 U	1.1 U	1.1 U	1.0 U	-	-	1.1 U	0.98 U	-	-
Dibromochloromethane	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	500,000 ^E 1,000,000 ^F		0.98 U	1.1 U	-	-	1.1 U	1.1 U	1.1 U	1.0 U	-	-	1.1 U	0.98 U	-	-
Dichlorobenzene, 1,2-	µg/kg	1,100 ^{AD} 500,000 ^B 1,000,000 ^C		n/v	0.98 U	1.1 U	-	-	1.1 U	1.1 U	1.1 U	1.0 U	-	-	1.1 U	0.98 U	-	-
Dichlorobenzene, 1,3-	µg/kg	2,400 ^{AD} 280,000 ^B 560,000 ^C		n/v	0.98 U	1.1 U	-	-	1.1 U	1.1 U	1.1 U	1.0 U	-	-	1.1 U	0.98 U	-	-
Dichlorobenzene, 1,4-	µg/kg	1,800 ^{AD} 130,000 ^B 250,000 ^C		n/v	0.98 U	1.1 U	-	-	1.1 U	1.1 U	1.1 U	1.0 U	-	-	1.1 U	0.98 U	-	-
Dichlorodifluoromethane (Freon 12)	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}		n/v	0.98 U	1.1 U	-	-	1.1 U	1.1 U	1.1 U	1.0 U	-	-	1.1 U	0.98 U	-	-
Dichloroethane, 1,1-	µg/kg	270 ^{AD} 240,000 ^B 480,000 ^C		n/v	0.98 U	1.1 U	-	-	1.1 U	1.1 U	1.1 U	1.0 U	-	-	1.1 U	0.98 U	-	-
Dichloroethane, 1,2-	µg/kg	20 ^A 30,000 ^B 60,000 ^C 200 ^D		n/v	0.98 U	1.1 U	-	-	1.1 U	1.1 U	1.1 U	1.0 U	-	-	1.1 U	0.98 U	-	-
Dichloroethene, 1,1-	µg/kg	330 ^{AD} 500,000 ^B 1,000,000 ^C		n/v	0.98 U	1.1 U	-	-	1.1 U	1.1 U	1.1 U	1.0 U	-	-	1.1 U	0.98 U	-	-
Dichloroethene, cis-1,2-	µg/kg	250 ^{AD} 500,000 ^B 1,000,000 ^C		n/v	0.98 U	1.1 U	-	-	1.1 U	1.1 U	1.1 U	1.0 U	-	-	1.1 U	0.98 U	-	-
Dichloroethene, trans-1,2-	µg/kg	190 ^{AD} 500,000 ^B 1,000,000 ^C		n/v	0.98 U	1.1 U	-	-	1.1 U	1.1 U	1.1 U	1.0 U	-	-	1.1 U	0.98 U	-	-
Dichloropropane, 1,2-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	500,000 ^E 1,000,000 ^F		0.98 U	1.1 U	-	-	1.1 U	1.1 U	1.1 U	1.0 U	-	-	1.1 U	0.98 U	-	-
Dichloropropene, cis-1,3-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}		n/v	0.98 U	1.1 U	-	-	1.1 U	1.1 U	1.1 U	1.0 U	-	-	1.1 U	0.98 U	-	-
Dichloropropene, trans-1,3-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}		n/v	0.98 U	1.1 U	-	-	1.1 U	1.1 U	1.1 U	1.0 U	-	-	1.1 U	0.98 U	-	-
Ethylbenzene	µg/kg	1,000 ^{AD} 390,000 ^B 780,000 ^C		n/v	0.98 U	1.1 U	-	-	1.1 U	1.1 U	1.1 U	1.0 U	-	-	1.1 U	0.98 U	-	-
Ethylene Dibromide (Dibromoethane, 1,2-)	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}		n/v	0.98 U	1.1 U	-	-	1.1 U	1.1 U	1.1 U	1.0 U	-	-	1.1 U	0.98 U	-	-
Hexanone, 2- (Methyl Butyl Ketone)	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}		n/v	4.9 U	5.3 U	-	-	5.4 U	5.7 U	5.3 U	5.1 U	-	-	5.4 U	4.9 U	-	-
Isopropylbenzene	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	500,000 ^E 1,000,000 ^F 2,300 ^G		0.98 U	1.1 U	-	-	1.1 U	1.1 U	1.1 U	1.0 U	-	-	1.1 U	0.98 U	-	-
Isopropyltoluene, p- (Cymene)	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	500,000 ^E 1,000,000 ^F 10,000 ^G		0.98 U	1.1 U	-	-	1.1 U	1.1 U	1.1 U	1.0 U	-	-	1.1 U	0.98 U	-	-
Methyl Acetate	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}		n/v	4.9 U	5.3 U	-	-	5.4 U	5.7 U	5.3 U	5.1 U	-	-	5.4 U	4.9 U	-	-
Methyl Ethyl Ketone (MEK) (2-Butanone)	µg/kg	120 ^{AD} 500,000 ^B 1,000,000 ^C	500,000 ^E 1,000,000 ^F 300 ^G		4.9 U	5.3 U	-	-	5.4 U	5.7 U	5.3 U	5.1 U	-	-	5.4 U	4.9 U	-	-
Methyl Isobutyl Ketone (MIBK)	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	500,000 ^E 1,000,000 ^F 1,000 ^G		4.9 U	5.3 U	-	-	5.4 U	5.7 U	5.3 U	5.1 U	-	-	5.4 U	4.9 U	-	-
Methyl tert-butyl ether (MTBE)	µg/kg	930 ^{AD} 500,000 ^B 1,000,000 ^C		n/v	0.98 U	1.1 U	-	-	1.1 U	1.1 U	1.1 U	1.0 U	-	-	1.1 U	0.98 U	-	-
Methylcyclohexane	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}		n/v	0.98 U	1.1 U	-	-	1.1 U	1.1 U	1.1 U	1.0 U	-	-	1.1 U	0.98 U	-	-
Methylene Chloride (Dichloromethane)	µg/kg	50 ^{AD} 500,000 ^B 1,000,000 ^C		n/v	0.98 U	1.1 U	-	-	1.1 U	1.1 U	1.1 U	1.0 U	-	-	1.1 U	0.98 U	-	-
Naphthalene	µg/kg	12,000 ^{AD} 500,000 ^B 1</																

Table 4
Summary of Analytical Results for RI Soil Samples
Site Management Plan
820 Linden Ave Site, BCP #C828200
820 Linden Avenue, Pittsford, NY

Sample Location				SS-4b		SS-4c		TP-1a	TP-2a	TP-4	TP-5a	TP-6	TP-7	TP-8a	TP-8c
Sample Date				30-Jul-18	30-Jul-18	30-Jul-18	30-Jul-18	16-Aug-18	16-Aug-18	17-Aug-18	17-Aug-18	17-Aug-18	17-Aug-18	16-Aug-18	17-Aug-18
Sample ID				LIN-SS4b-t-s	LIN-SS4b-b-s	LIN-SS4c-t-s	LIN-SS4c-b-s	LIN-TP1-S	LIN-TP2a-s	LIN-TP4-s	LIN-TP5a-s	LIN-TP6-s	LIN-TP7-S	LIN-TP8a-s	LIN-TP8c-s
Sample Depth				0 - 2 in	2 - 12 in	0 - 2 in	2 - 12 in	3 ft	2.5 ft	3.5 ft	3 - 3.5 ft	2 ft	6 ft	2.4 ft	1 ft
Sampling Company				STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC
Laboratory				TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL
Laboratory Work Order				460-161576-1	460-161576-1	460-161576-1	460-161576-1	460-162801-1	460-162801-1	460-162801-1	460-162801-1	460-162801-1	460-162801-1	460-162801-1	460-162801-1
Laboratory Sample ID				460-161576-13	460-161576-14	460-161576-15	460-161576-16	460-162801-2	460-162872-1	460-162872-3	460-162872-2	460-162872-4	460-162872-4	460-162872-3	460-162872-5
Sample Type	Units	NYSDEC-Part 375	NYSDEC CP-51												
General Chemistry															
Cyanide	mg/kg	27 ^{AB} 10,000 _a ^C 40 ^D	n/v	-	-	-	-	0.24 U	0.23 U	0.25 U	0.25 U	0.26 U	0.23 U	-	0.29 U
Metals															
Aluminum	mg/kg	10,000 _a ^{ABCD}	10,000 _a ^{EF}	-	-	-	-	5,450	5,500	5,490	7,230	6,070	3,600	-	5,200
Antimony	mg/kg	10,000 _a ^{ABCD}	10,000 _a ^{EF}	-	-	-	-	31.3 U	30.4 U	31.2 U	34.1 U	31.7 U	30.4 U	-	36.5 U
Arsenic	mg/kg	13 _a ^A 16 _a ^{BCD}	n/v	-	-	-	-	4.2 U	4.1 U	4.2 U	5.8	4.2 U	4.1 U	-	4.9 U
Barium	mg/kg	350 _a ^A 400 ^B 10,000 _a ^C 820 ^D	n/v	-	-	-	-	23.4	19.3	32.2	91.0	78.6	8.3	-	19.3
Beryllium	mg/kg	7.2 ^A 590 ^B 2,700 ^C 47 ^D	n/v	-	-	-	-	0.42 U	0.41 U	0.42 U	0.45 U	0.42 U	0.41 U	-	0.49 U
Cadmium	mg/kg	2.5 _n ^A 9.3 ^B 60 ^C 7.5 ^D	n/v	-	-	-	-	0.42 U	0.41 U	0.42 U	0.45 U	0.42 U	0.41 U	-	0.49 U
Calcium	mg/kg	10,000 _a ^{ABCD}	10,000 _a ^{EF}	-	-	-	-	1,760	1,200	1,210	3,910	1,850	570	-	1,480
Chromium	mg/kg	30 _n ^A 1,500 ^B 6,800 ^C NS _a ^D	n/v	-	-	-	-	6.5	6.5	6.1	14.2	3.0	-	-	5.2
Cobalt	mg/kg	10,000 _a ^{ABCD}	10,000 _a ^{EF}	-	-	-	-	3.5	2.8	2.5	4.3	2.1	2.0	-	2.2
Copper	mg/kg	50 ^A 270 ^B 10,000 _a ^C 1,720 ^D	n/v	-	-	-	-	12.2	4.7	8.0	15.8	13.7	3.9	-	12.1
Iron	mg/kg	10,000 _a ^{ABCD}	10,000 _a ^{EF}	-	-	-	-	8,050	6,120	7,350	12,100 ^{ABCD}	8,500	3,940	-	6,610
Lead	mg/kg	63 _a ^A 1,000 ^B 3,900 ^C 450 ^D	n/v	-	-	-	-	7.7	3.0	22.4	207 ^A	49.9	2.0 U	-	14.0
Magnesium	mg/kg	10,000 _a ^{ABCD}	n/v	-	-	-	-	1,350	1,040	998	2,510	805	876	-	1,100
Manganese	mg/kg	1,600 _n ^A 10,000 _a ^{BC} 2,000 _a ^D	n/v	-	-	-	-	191	75.8	227	431	503	118	-	112
Mercury	mg/kg	0.18 _a ^A 2.8 _a ^B 5.7 _a ^C 0.73 ^D	n/v	-	-	-	-	0.019	0.016 U	0.033	0.088	0.043	0.016 U	-	0.031
Nickel	mg/kg	30 ^A 310 ^B 10,000 _a ^C 130 ^D	n/v	-	-	-	-	10.4 U	10.1 U	10.4 U	11.4 U	10.6 U	10.1 U	-	12.2 U
Potassium	mg/kg	10,000 _a ^{ABCD}	n/v	-	-	-	-	348	209	230	317	207	143	-	249
Selenium	mg/kg	3.9 _a ^A 1,500 ^B 6,800 ^C 4 _a ^D	n/v	-	-	-	-	8.4 U	8.1 U	8.3 U	9.1 U	8.5 U	8.1 U	-	9.7 U
Silver	mg/kg	2 ^A 1,500 ^B 6,800 ^C 8.3 ^D	n/v	-	-	-	-	1.0 U	1.0 U	1.0 U	1.1 U	1.1 U	1.0 U	-	1.2 U
Sodium	mg/kg	10,000 _a ^{ABCD}	n/v	-	-	-	-	293 U	284 U	291 U	318 U	296 U	284 U	-	340 U
Thallium	mg/kg	10,000 _a ^{ABCD}	10,000 _a ^{EF}	-	-	-	-	12.5 U	12.2 U	12.5 U	13.6 U	12.7 U	12.2 U	-	14.6 U
Vanadium	mg/kg	10,000 _a ^{ABCD}	10,000 _a ^{EF}	-	-	-	-	8.7	11.5	8.0	12.9	8.1	5.1	-	7.4
Zinc	mg/kg	109 _n ^A 10,000 _a ^{BC} 2,480 ^D	n/v	-	-	-	-	24.3	14.8	49.4	187 ^A	156 ^A	10.4	-	36.3
Polychlorinated Biphenyls															
Aroclor 1016	µg/kg	o ^{ABCD}	n/v	-	-	-	-	35 U	35 U	36 U	39 U	36 U	35 U	-	41 U
Aroclor 1221	µg/kg	o ^{ABCD}	n/v	-	-	-	-	35 U	35 U	36 U	39 U	36 U	35 U	-	41 U
Aroclor 1232	µg/kg	o ^{ABCD}	n/v	-	-	-	-	35 U	35 U	36 U	39 U	36 U	35 U	-	41 U
Aroclor 1242	µg/kg	o ^{ABCD}	n/v	-	-	-	-	35 U	35 U	36 U	39 U	36 U	35 U	-	41 U
Aroclor 1248	µg/kg	o ^{ABCD}	n/v	-	-	-	-	35 U	35 U	36 U	39 U	36 U	35 U	-	41 U
Aroclor 1254	µg/kg	o ^{ABCD}	n/v	-	-	-	-	35 U	35 U	36 U	39 U	36 U	35 U	-	41 U
Aroclor 1260	µg/kg	o ^{ABCD}	n/v	-	-	-	-	35 U	35 U	36 U	39 U	36 U	35 U	-	41 U
Aroclor 1262	µg/kg	o ^{ABCD}	n/v	-	-	-	-	35 U	35 U	36 U	39 U	36 U	35 U	-	41 U
Aroclor 1268	µg/kg	o ^{ABCD}	n/v	-	-	-	-	35 U	35 U	36 U	39 U	36 U	35 U	-	41 U
Polychlorinated Biphenyls (PCBs)	µg/kg	o ^{ABCD}	n/v	-	-	-	-	ND	ND	ND	ND	ND	ND	-	ND
Pesticides															
Aldrin	µg/kg	5 _n ^A 680 ^B 1,400 ^C 190 ^D	n/v	-	-	-	-	3.5 U	3.5 U	3.6 U	3.9 U	3.6 U	3.5 U	-	4.1 U
BHC, alpha-	µg/kg	20 ^{AD} 3,400 ^B 6,800 ^C	n/v	-	-	-	-	3.5 U	3.5 U	3.6 U	3.9 U	3.6 U	3.5 U	-	4.1 U
BHC, beta-	µg/kg	36 ^A 3,000 ^B 14,000 ^C 90 ^D	n/v	-	-	-	-	3.5 U	3.5 U	3.6 U	3.9 U	3.6 U	3.5 U	-	4.1 U
BHC, delta-	µg/kg	40 _n ^A 500,000 _a ^B 1,000,000 _a ^C 250 ^D	n/v	-	-	-	-	3.5 U	3.5 U	3.6 U	3.9 U	3.6 U	3.5 U	-	4.1 U
Camphchlor (Toxaphene)	µg/kg	100,000 _a ^A 500,000 _a ^B 1,000,000 _a ^C 10 ^D	n/v	-	-	-	-	35 U	35 U	36 U	39 U	36 U	35 U	-	41 U
Chlordane, alpha-	µg/kg	94 ^A 24,000 ^B 47,000 ^C 2,900 ^D	n/v	-	-	-	-	3.5 U	3.5 U	3.6 U	3.9 U	3.6 U	3.5 U	-	4.1 U
Chlordane, trans- (gamma-Chlordane)	µg/kg	100,000 _a ^A 1,000,000 _a ^D	n/v	-	-	-	-	3.5 U	3.5 U	3.6 U	8.6	3.6 U	3.5 U	-	4.1 U
DDD (p,p'-DDD)	µg/kg	3.3 _a ^A 92,000 ^B 180,000 ^C 14,000 ^D	n/v	-	-	-	-	3.5 U	3.5 U	3.6 U	3.9 U	3.6 U	3.5 U	-	4.1 U
DDE (p,p'-DDE)	µg/kg	3.3 _a ^A 62,000 ^B 120,000 ^C 17,000 ^D	n/v	-	-	-	-	3.5 U	3.5 U	3.6 U	39 ^A	3.6 U	3.5 U	-	4.1 U
DDT (p,p'-DDT)	µg/kg	3.3 _a ^A 47,000 ^B 94,000 ^C 136,000 ^D	n/v	-	-	-	-	3.5 U	3.5 U	3.6 U	13 ^A	3.6 U	3.5 U	-	4.1 U
Dieldrin	µg/kg	5 _a ^A 1,400 ^B 2,800 ^C 100 ^D	n/v	-	-	-	-	3.5 U	3.5 U	3.6 U	35 ^A	3.6 U	3.5 U	-	5.0
Endosulfan I	µg/kg	2,400 _a ^A 200,000 ^B 920,000 ^C 102,000 ^D	n/v	-	-	-	-	3.5 U	3.5 U	3.6 U	3.9 U	3.6 U	3.5 U	-	4.1 U
Endosulfan II	µg/kg	2,400 _a ^A 200,000 ^B 920,000 ^C 102,000 ^D	n/v	-	-	-	-	3.5 U	3.5 U	3.6 U	3.9 U	3.6 U	3.5 U	-	4.1 U
Endosulfan Sulfate	µg/kg	2,400 _a ^A 200,000 ^B 920,000 ^C 1,000,000 _a ^D	n/v	-	-	-	-	3.5 U	3.5 U	3.6 U	3.9 U	3.6 U	3.5 U	-	4.1 U
Endrin	µg/kg	14 ^A 89,000 ^B 410,000 ^C 60 ^D	n/v	-	-	-	-	3.5 U	3.5 U	3.6 U	3.9 U	3.6 U	3.5 U	-	4.1 U
Endrin Aldehyde	µg/kg	100,000 _a ^A 500,000 _a ^B 1,000,000 _a ^C 10 ^D	n/v	-	-	-	-	3.5 U	3.5 U	3.6 U	3.9 U	3.6 U	3.5 U	-	4.1 U
Endrin Ketone	µg/kg	100,000 _a ^A 500,000 _a ^B 1,000,000 _a ^C 10 ^D	n/v	-	-	-	-	3.5 U	3.5 U	3.6 U	3.9 U	3.6 U	3.5 U	-	4.1 U
Heptachlor	µg/kg	42 ^A 15,000 ^B 29,000 ^C 380 ^D	n/v	-	-	-	-	3.5 U	3.5 U	3.6 U	3.9 U	3.6 U	3.5 U	-	4.1 U
Heptachlor Epoxide	µg/kg	100,000 _a ^A 500,000 _a ^B 1,000,000 _a ^C 10 ^D	500,000 _a ^E 1,000,000 _a ^F 20 ^G	-	-	-	-	3.5 U	3.5 U	3.6 U	3.9 U	3.6 U	3.5 U	-	4.1 U
Lindane (Hexachlorocyclohexane, gamma)	µg/kg	100 ^{AD} 9,200 ^B 23,000 ^C	n/v	-	-	-	-	3.5 U	3.5 U	3.6 U	3.9 U	3.6 U	3.5 U	-	4.1 U
Methoxychlor (4,4'-Methoxychlor)	µg/kg	100,000 _a ^A 500,000 _a ^B 1,000,000 _a ^C 10 ^D	500,000 _a ^E 1,000,000 _a ^F 900,000 ^G	-	-	-	-	3.5 U	3.5 U	3.6 U	3.9 U	3.6 U	3.5 U	-	4.1 U

See notes on last page.

Table 4
Summary of Analytical Results for RI Soil Samples
Site Management Plan
820 Linden Ave Site, BCP #C828200
820 Linden Avenue, Pittsford, NY

Sample Location				SS-4b		SS-4c		TP-1a	TP-2a	TP-4	TP-5a	TP-6	TP-7	TP-8a	TP-8c
Sample Date				30-Jul-18	30-Jul-18	30-Jul-18	30-Jul-18	16-Aug-18	16-Aug-18	17-Aug-18	17-Aug-18	17-Aug-18	16-Aug-18	17-Aug-18	17-Aug-18
Sample ID				LIN-SS4b-t-s	LIN-SS4b-b-s	LIN-SS4c-t-s	LIN-SS4c-b-s	LIN-TP1-S	LIN-TP2-a	LIN-TP4-s	LIN-TP5a-s	LIN-TP6-s	LIN-TP7-S	LIN-TP8a-s	LIN-TP8c-s
Sample Depth				0 - 2 in	2 - 12 in	0 - 2 in	2 - 12 in	3 ft	2.5 ft	3.5 ft	3 - 3.5 ft	2 ft	6 ft	2.4 ft	1 ft
Sampling Company				STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC
Laboratory				TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL
Laboratory Work Order				460-161576-1	460-161576-1	460-161576-1	460-161576-1	460-162801-1	460-162801-1	460-162801-1	460-162801-1	460-162801-1	460-162801-1	460-162801-1	460-162801-1
Laboratory Sample ID				460-161576-13	460-161576-14	460-161576-15	460-161576-16	460-162801-2	460-162872-1	460-162872-3	460-162872-2	460-162872-4	460-162801-3	460-162872-5	460-162872-6
Sample Type	Units	NYSDEC-Part 375	NYSDEC CP-51												
Semi-Volatile Organic Compounds															
Acenaphthene	µg/kg	20,000 ^A 500,000 ^B 1,000,000 ^C 98,000 ^D	n/v	-	-	-	-	360 U	350 U	360 U	400 U	360 U	350 U	-	410 U
Acenaphthylene	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C 107,000 ^D	n/v	-	-	-	-	360 U	350 U	360 U	400 U	360 U	350 U	-	410 U
Acetophenone	µg/kg	100,000 ^A 1,000,000 ^D	n/v	-	-	-	-	360 U	350 U	360 U	400 U	360 U	350 U	-	410 U
Anthracene	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	n/v	-	-	-	-	360 U	350 U	360 U	400 U	360 U	350 U	-	410 U
Atrazine	µg/kg	100,000 ^A 1,000,000 ^D	n/v	-	-	-	-	360 U	350 U	360 U	400 U	360 U	350 U	-	410 U
Benzaldehyde	µg/kg	100,000 ^A 1,000,000 ^D	n/v	-	-	-	-	360 U	350 U	360 U	400 U	360 U	350 U	-	410 U
Benzo(a)anthracene	µg/kg	1,000 ^A 5,600 ^B 11,000 ^C 1,000 ^D	n/v	-	-	-	-	360 U	350 U	360 U	400 U	360 U	350 U	-	410 U
Benzo(a)pyrene	µg/kg	1,000 ^A 1,000 ^B 1,100 ^C 22,000 ^D	n/v	-	-	-	-	360 U	350 U	360 U	400 U	360 U	350 U	-	410 U
Benzo(b)fluoranthene	µg/kg	1,000 ^A 5,600 ^B 11,000 ^C 1,700 ^D	n/v	-	-	-	-	360 U	350 U	360 U	400 U	360 U	350 U	-	410 U
Benzo(g,h,i)perylene	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	n/v	-	-	-	-	360 U	350 U	360 U	400 U	360 U	350 U	-	410 U
Benzo(k)fluoranthene	µg/kg	800 ^A 56,000 ^B 110,000 ^C 1,700 ^D	n/v	-	-	-	-	360 U	350 U	360 U	400 U	360 U	350 U	-	410 U
Biphenyl, 1,1'- (Biphenyl)	µg/kg	100,000 ^A 1,000,000 ^D	500,000 ^E 1,000,000 ^F	-	-	-	-	360 U	350 U	360 U	400 U	360 U	350 U	-	410 U
Bis(2-Chloroethoxy)methane	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	n/v	-	-	-	-	360 U	350 U	360 U	400 U	360 U	350 U	-	410 U
Bis(2-Chloroethyl)ether	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	n/v	-	-	-	-	360 U	350 U	360 U	400 U	360 U	350 U	-	410 U
Bis(2-Chloroisopropyl)ether (2,2-oxybis(1-Chloropropane))	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	n/v	-	-	-	-	360 U	350 U	360 U	400 U	360 U	350 U	-	410 U
Bis(2-Ethylhexyl)phthalate (DEHP)	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	500,000 ^E 1,000,000 ^F 435,000 ^G	-	-	-	-	360 U	350 U	360 U	400 U	360 U	350 U	-	410 U
Bromophenyl Phenyl Ether, 4-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	n/v	-	-	-	-	360 U	350 U	360 U	400 U	360 U	350 U	-	410 U
Butyl Benzyl Phthalate	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	500,000 ^E 1,000,000 ^F 122,000 ^G	-	-	-	-	360 U	350 U	360 U	400 U	360 U	350 U	-	410 U
Caprolactam	µg/kg	100,000 ^A 1,000,000 ^D	n/v	-	-	-	-	360 U	350 U	360 U	400 U	360 U	350 U	-	410 U
Carbazole	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	n/v	-	-	-	-	360 U	350 U	360 U	400 U	360 U	350 U	-	410 U
Chloro-3-methyl phenol, 4-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	n/v	-	-	-	-	360 U	350 U	360 U	400 U	360 U	350 U	-	410 U
Chloroaniline, 4-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	500,000 ^E 1,000,000 ^F 220 ^G	-	-	-	-	360 U	350 U	360 U	400 U	360 U	350 U	-	410 U
Chloronaphthalene, 2-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	n/v	-	-	-	-	360 U	350 U	360 U	400 U	360 U	350 U	-	410 U
Chlorophenol, 2- (ortho-Chlorophenol)	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	500,000 ^E 1,000,000 ^F	-	-	-	-	360 U	350 U	360 U	400 U	360 U	350 U	-	410 U
Chlorophenyl Phenyl Ether, 4-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	n/v	-	-	-	-	360 U	350 U	360 U	400 U	360 U	350 U	-	410 U
Chrysene	µg/kg	1,000 ^A 56,000 ^B 110,000 ^C 1,000 ^D	n/v	-	-	-	-	360 U	350 U	360 U	400 U	360 U	350 U	-	410 U
Cresol, o- (Methylphenol, 2-)	µg/kg	330 ^m ^A 500,000 ^B 1,000,000 ^C 330 ^D	n/v	-	-	-	-	360 U	350 U	360 U	400 U	360 U	350 U	-	410 U
Cresol, p- (Methylphenol, 4-)	µg/kg	330 ^m ^A 500,000 ^B 1,000,000 ^C 330 ^D	n/v	-	-	-	-	700 U	680 U	710 U	780 U	700 U	680 U	-	800 U
Dibenzo(a,h)anthracene	µg/kg	330 ^m ^A 560 ^B 1,100 ^C 1,000,000 ^D	n/v	-	-	-	-	360 U	350 U	360 U	400 U	360 U	350 U	-	410 U
Dibenzofuran	µg/kg	7,000 ^A 350,000 ^B 1,000,000 ^C 210,000 ^D	500,000 ^E 1,000,000 ^F 6,200 ^G	-	-	-	-	360 U	350 U	360 U	400 U	360 U	350 U	-	410 U
Dibutyl Phthalate (DBP)	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	500,000 ^E 1,000,000 ^F 8,100 ^G	-	-	-	-	360 U	350 U	360 U	400 U	360 U	350 U	-	410 U
Dichlorobenzidine, 3,3'-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	n/v	-	-	-	-	360 U	350 U	360 U	400 U	360 U	350 U	-	410 U
Dichlorophenol, 2,4-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	500,000 ^E 1,000,000 ^F 400 ^G	-	-	-	-	360 U	350 U	360 U	400 U	360 U	350 U	-	410 U
Diethyl Phthalate	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	500,000 ^E 1,000,000 ^F 7,100 ^G	-	-	-	-	360 U	350 U	360 U	400 U	360 U	350 U	-	410 U
Dimethyl Phthalate	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	500,000 ^E 1,000,000 ^F 27,000 ^G	-	-	-	-	360 U	350 U	360 U	400 U	360 U	350 U	-	410 U
Dimethylphenol, 2,4-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	n/v	-	-	-	-	360 U	350 U	360 U	400 U	360 U	350 U	-	410 U
Dinitro-o-cresol, 4,6-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	n/v	-	-	-	-	700 U	680 U	710 U	780 U	700 U	680 U	-	800 U
Dinitrophenol, 2,4-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	500,000 ^E 1,000,000 ^F 200 ^G	-	-	-	-	700 U	680 U	710 U	780 U	700 U	680 U	-	800 U
Dinitrotoluene, 2,4-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	n/v	-	-	-	-	360 U	350 U	360 U	400 U	360 U	350 U	-	410 U
Dinitrotoluene, 2,6-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	500,000 ^E 1,000,000 ^F 1,000/170 ^{G,1}	-	-	-	-	360 U	350 U	360 U	400 U	360 U	350 U	-	410 U
Di-n-Octyl phthalate	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	500,000 ^E 1,000,000 ^F 120,000 ^G	-	-	-	-	360 U	350 U	360 U	400 U	360 U	350 U	-	410 U
Fluoranthene	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C ^{CD}	n/v	-	-	-	-	360 U	350 U	360 U	400 U	360 U	350 U	-	410 U
Fluorene	µg/kg	30,000 ^A 500,000 ^B 1,000,000 ^C 386,000 ^D	n/v	-											

Table 4
Summary of Analytical Results for RI Soil Samples
Site Management Plan
820 Linden Ave Site, BCP #C828200
820 Linden Avenue, Pittsford, NY

Sample Location				SS-4b		SS-4c		TP-1a		TP-2a		TP-4		TP-5a		TP-6		TP-7		TP-8a		TP-8c
Sample Date				30-Jul-18		30-Jul-18		16-Aug-18		16-Aug-18		17-Aug-18		17-Aug-18		17-Aug-18		16-Aug-18		17-Aug-18		17-Aug-18
Sample ID				LIN-SS4b-t-s		LIN-SS4b-b-s		LIN-SS4c-t-s		LIN-SS4c-b-s		LIN-TP4-s		LIN-TP5a-s		LIN-TP6-s		LIN-TP7-S		LIN-TP8a-s		LIN-TP8c-s
Sample Depth				0 - 2 in		2 -12 in		0 - 2 in		2 - 12 in		3.5 ft		3 - 3.5 ft		2 ft		6 ft		2.4 ft		1 ft
Sampling Company				STANTEC		STANTEC		STANTEC		STANTEC		STANTEC		STANTEC		STANTEC		STANTEC		STANTEC		STANTEC
Laboratory				TAL		TAL		TAL		TAL		TAL		TAL		TAL		TAL		TAL		TAL
Laboratory Work Order				460-161576-1		460-161576-1		460-161576-1		460-161576-1		460-162801-1		460-162801-1		460-162801-1		460-162801-1		460-162801-1		460-162801-1
Laboratory Sample ID				460-161576-13		460-161576-14		460-161576-15		460-161576-16		460-162801-2		460-162872-1		460-162872-4		460-162801-3		460-162872-5		460-162872-6
Sample Type	Units	NYSDEC-Part 375	NYSDEC CP-51																			
Volatile Organic Compounds																						
Acetone	µg/kg	50 ^{AD} 500,000 ^B 1,000,000 ^C	n/v	5.5 U	5.2 U	7.7	5.0 U	4.9 U	4.6 U	5.5 U	5.2 U	4.7 U	4.7 U	5.6 U	5.5 U							
Benzene	µg/kg	60 ^{AD} 44,000 ^B 89,000 ^C	n/v	1.1 U	1.0 U	1.1 U	0.99 U	0.98 U	0.91 U	1.1 U	1.0 U	0.94 U	0.95 U	1.1 U	1.1 U							
Bromodichloromethane	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	n/v	1.1 U	1.0 U	1.1 U	7.1	0.98 U	0.91 U	1.1 U	1.0 U	0.94 U	0.95 U	1.1 U	1.1 U							
Bromoform (Tribromomethane)	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	n/v	1.1 U	1.0 U	1.1 U	0.99 U	0.98 U	0.91 U	1.1 U	1.0 U	0.94 U	0.95 U	1.1 U	1.1 U							
Bromomethane (Methyl bromide)	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	n/v	1.1 U	1.0 U	1.1 U	0.99 U	0.98 U	0.91 U	1.1 U	1.0 U	0.94 U	0.95 U	1.1 U	1.1 U							
Butylbenzene, n-	µg/kg	12,000 ^{AD} 500,000 ^B 1,000,000 ^C	n/v	1.1 U	1.0 U	1.1 U	0.99 U	0.98 U	0.91 U	1.1 U	1.0 U	0.94 U	0.95 U	1.1 U	1.1 U							
Butylbenzene, sec- (2-Phenylbutane)	µg/kg	11,000 ^{AD} 500,000 ^B 1,000,000 ^C	n/v	1.1 U	1.0 U	1.1 U	0.99 U	0.98 U	0.91 U	1.1 U	1.0 U	0.94 U	0.95 U	1.1 U	1.1 U							
Butylbenzene, tert-	µg/kg	5,900 ^{AD} 500,000 ^B 1,000,000 ^C	n/v	1.1 U	1.0 U	1.1 U	0.99 U	0.98 U	0.91 U	1.1 U	1.0 U	0.94 U	0.95 U	1.1 U	1.1 U							
Carbon Disulfide	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	500,000 ^E 1,000,000 ^F 2,700 ^D	1.1 U	1.0 U	1.1 U	0.99 U	0.98 U	0.91 U	1.1 U	1.0 U	0.94 U	0.95 U	1.1 U	1.1 U							
Carbon Tetrachloride (Tetrachloromethane)	µg/kg	760 ^{AD} 22,000 ^B 44,000 ^C	n/v	1.1 U	1.0 U	1.1 U	0.99 U	0.98 U	0.91 U	1.1 U	1.0 U	0.94 U	0.95 U	1.1 U	1.1 U							
Chlorobenzene (Monochlorobenzene)	µg/kg	1,100 ^{AD} 500,000 ^B 1,000,000 ^C	n/v	1.1 U	1.0 U	1.1 U	0.99 U	0.98 U	0.91 U	1.1 U	1.0 U	0.94 U	0.95 U	1.1 U	1.1 U							
Chloroethane (Ethyl Chloride)	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	500,000 ^E 1,000,000 ^F 1,900 ^D	1.1 U	1.0 U	1.1 U	0.99 U	0.98 U	0.91 U	1.1 U	1.0 U	0.94 U	0.95 U	1.1 U	1.1 U							
Chloroform (Trichloromethane)	µg/kg	370 ^{AD} 350,000 ^B 700,000 ^C	n/v	1.1 U	1.0 U	1.1 U	23	0.98 U	0.91 U	1.1 U	1.0 U	0.94 U	0.95 U	1.1 U	1.1 U							
Chloromethane	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	n/v	1.1 U	1.0 U	1.1 U	0.99 U	0.98 U	0.91 U	1.1 U	1.0 U	0.94 U	0.95 U	1.1 U	1.1 U							
Cyclohexane	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	n/v	1.1 U	1.0 U	1.1 U	0.99 U	0.98 U	0.91 U	1.1 U	1.0 U	0.94 U	0.95 U	1.1 U	1.1 U							
Dibromo-3-Chloropropane, 1,2- (DBCP)	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	n/v	1.1 U	1.0 U	1.1 U	0.99 U	0.98 U	0.91 U	1.1 U	1.0 U	0.94 U	0.95 U	1.1 U	1.1 U							
Dibromochloromethane	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	500,000 ^E 1,000,000 ^F	1.1 U	1.0 U	1.1 U	1.9	0.98 U	0.91 U	1.1 U	1.0 U	0.94 U	0.95 U	1.1 U	1.1 U							
Dichlorobenzene, 1,2-	µg/kg	1,100 ^{AD} 500,000 ^B 1,000,000 ^C	n/v	1.1 U	1.0 U	1.1 U	0.99 U	0.98 U	0.91 U	1.1 U	1.0 U	0.94 U	0.95 U	1.1 U	1.1 U							
Dichlorobenzene, 1,3-	µg/kg	2,400 ^{AD} 280,000 ^B 560,000 ^C	n/v	1.1 U	1.0 U	1.1 U	0.99 U	0.98 U	0.91 U	1.1 U	1.0 U	0.94 U	0.95 U	1.1 U	1.1 U							
Dichlorobenzene, 1,4-	µg/kg	1,800 ^{AD} 130,000 ^B 250,000 ^C	n/v	1.1 U	1.0 U	1.1 U	0.99 U	0.98 U	0.91 U	1.1 U	1.0 U	0.94 U	0.95 U	1.1 U	1.1 U							
Dichlorodifluoromethane (Freon 12)	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	n/v	1.1 U	1.0 U	1.1 U	0.99 U	0.98 U	0.91 U	1.1 U	1.0 U	0.94 U	0.95 U	1.1 U	1.1 U							
Dichloroethane, 1,1-	µg/kg	270 ^{AD} 240,000 ^B 480,000 ^C	n/v	1.1 U	1.0 U	1.1 U	0.99 U	0.98 U	0.91 U	1.1 U	1.0 U	0.94 U	0.95 U	1.1 U	1.1 U							
Dichloroethane, 1,2-	µg/kg	20 ^B 30,000 ^B 60,000 ^C 200 ^D	n/v	1.1 U	1.0 U	1.1 U	0.99 U	0.98 U	0.91 U	1.1 U	1.0 U	0.94 U	0.95 U	1.1 U	1.1 U							
Dichloroethene, 1,1-	µg/kg	330 ^{AD} 500,000 ^B 1,000,000 ^C	n/v	1.1 U	1.0 U	1.1 U	0.99 U	0.98 U	0.91 U	1.1 U	1.0 U	0.94 U	0.95 U	1.1 U	1.1 U							
Dichloroethene, cis-1,2-	µg/kg	250 ^{AD} 500,000 ^B 1,000,000 ^C	n/v	1.1 U	1.0 U	1.1 U	0.99 U	0.98 U	0.91 U	1.1 U	1.0 U	0.94 U	0.95 U	1.1 U	1.1 U							
Dichloroethene, trans-1,2-	µg/kg	190 ^{AD} 500,000 ^B 1,000,000 ^C	n/v	1.1 U	1.0 U	1.1 U	0.99 U	0.98 U	0.91 U	1.1 U	1.0 U	0.94 U	0.95 U	1.1 U	1.1 U							
Dichloropropane, 1,2-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	500,000 ^E 1,000,000 ^F	1.1 U	1.0 U	1.1 U	0.99 U	0.98 U	0.91 U	1.1 U	1.0 U	0.94 U	0.95 U	1.1 U	1.1 U							
Dichloropropene, cis-1,3-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	n/v	1.1 U	1.0 U	1.1 U	0.99 U	0.98 U	0.91 U	1.1 U	1.0 U	0.94 U	0.95 U	1.1 U	1.1 U							
Dichloropropene, trans-1,3-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	n/v	1.1 U	1.0 U	1.1 U	0.99 U	0.98 U	0.91 U	1.1 U	1.0 U	0.94 U	0.95 U	1.1 U	1.1 U							
Ethylbenzene	µg/kg	1,000 ^{AD} 390,000 ^B 780,000 ^C	n/v	1.1 U	1.0 U	1.1 U	0.99 U	0.98 U	0.91 U	1.1 U	1.0 U	0.94 U	0.95 U	1.1 U	1.1 U							
Ethylene Dibromide (Dibromoethane, 1,2-)	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	n/v	1.1 U	1.0 U	1.1 U	0.99 U	0.98 U	0.91 U	1.1 U	1.0 U	0.94 U	0.95 U	1.1 U	1.1 U							
Hexanone, 2- (Methyl Butyl Ketone)	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	n/v	5.5 U	5.2 U	5.7 U	5.0 U	4.9 U	4.6 U	5.5 U	5.2 U	4.7 U	4.7 U	5.6 U	5.5 U							
Isopropylbenzene	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	500,000 ^E 1,000,000 ^F 2,300 ^D	1.1 U	1.0 U	1.1 U	0.99 U	0.98 U	0.91 U	1.1 U	1.0 U	0.94 U	0.95 U	1.1 U	1.1 U							
Isopropyltoluene, p- (Cymene)	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	500,000 ^E 1,000,000 ^F 10,000 ^D	1.1 U	1.0 U	1.1 U	0.99 U	0.98 U	0.91 U	1.1 U	1.0 U	0.94 U	0.95 U	1.1 U	1.1 U							
Methyl Acetate	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	n/v	5.5 U	5.2 U	5.7 U	5.0 U	4.9 U	4.6 U	5.5 U	5.2 U	4.7 U	4.7 U	5.6 U	5.5 U							
Methyl Ethyl Ketone (MEK) (2-Butanone)	µg/kg	120 ^{AD} 500,000 ^B 1,000,000 ^C	500,000 ^E 1,000,000 ^F 300 ^D	5.5 U	5.2 U	5.7 U	5.0 U	4.9 U	4.6 U	5.5 U	5.2 U	4.7 U	4.7 U	5.6 U	5.5 U							
Methyl Isobutyl Ketone (MIBK)	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	500,000 ^E 1,000,000 ^F 1,000 ^D	5.5 U	5.2 U	5.7 U	5.0 U	4.9 U	4.6 U	5.5 U	5.2 U	4.7 U	4.7 U	5.6 U	5.5 U							
Methyl tert-butyl ether (MTBE)	µg/kg	930 ^{AD} 500,000 ^B 1,000,000 ^C	n/v	1.1 U	1.0 U	1.1 U	0.99 U	0.98 U	0.91 U	1.1 U	1.0 U	0.94 U	0.95 U	1.1 U	1.1 U							
Methylcyclohexane	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	n/v	1.1 U	1.0 U	1.1 U	0.99 U	0.98 U	0.91 U	1.1 U	1.0 U	0.94 U	0.95 U	1.1 U	1.1 U							
Methylene Chloride (Dichloromethane)	µg/kg	50 ^{AD} 500,000 ^B 1,000,000 ^C	n/v	1.1 U	1.0 U	1.1 U	0.99 U	0.98 U	0.91 U	1.1 U	1.0 U	0.94 U	0.95 U	1.3	4.1							
Naphthalene	µg/kg	12,000 ^{AD} 500,000 ^B 1,000,000 ^C	n/v	1.1 U	1.0 U	1.1 U	0.99 U	0.98 U	0.91 U	1.1 U	1.0 U	0.94 U	0.95 U	1.1 U	1.1 U							
Propylbenzene, n-	µg/kg	3,900 ^{AD} 500,000 ^B 1,000,000 ^C	n/v	1.1 U	1.0 U	1.1 U	0.99 U	0.98 U	0.91 U	1.1 U	1.0 U	0.94 U	0.95 U	1.1 U	1.1 U							
Styrene	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	500,000 ^E 1,000,000 ^F	1.1 U	1.0 U	1.1 U	0.99 U	0.98 U	0.91 U	1.1 U	1.0 U	0.94 U	0.95 U	1.1 U	1.1 U							
Tetrachloroethane, 1,1,2,2-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	500,000 ^E 1,000,000 ^F 600 ^D	1.1 U	1.0 U	1.1 U	0.99 U	0.98 U	0.91 U	1.1 U	1.0 U	0.94 U	0.95 U	1.1 U	1.1 U							
Tetrachloroethene (PCE)	µg/kg	1,300 ^{AD} 150,000 ^B 300,000 ^C	500,000 ^E 1,000,000 ^F	1.1 U	1.0 U	1.1 U	0.99 U	0.98 U	0.91 U	1.1 U	1.0 U	0.94 U	0.95 U	1.1 U	1.1 U							
Toluene	µg/kg	700 ^{AD} 500,000 ^B 1,000,000 ^C	n/v	1.1 U	1.0 U	1.1 U	0.99 U	0.98 U	0.91 U	1.1 U	1.0 U	0.94 U	0.95 U	1.1 U	1.1 U							
Trichlorobenzene, 1,2,4-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	500,000 ^E 1,000,000 ^F 3,400 ^D	1.1 U	1.0 U	1.1 U	0.99 U	0.98 U	0.91 U</													

Table 4
Summary of Analytical Results for RI Soil Samples
Site Management Plan
820 Linden Ave Site, BCP #C828200
820 Linden Avenue, Pittsford, NY

Notes:	
NYSDEC-Part 375	NYSDEC 6 NYCRR Part 375 Soil Clean-up Objectives (SCOs)
A	NYSDEC 6 NYCRR Part 375 - Unrestricted Use Soil Cleanup Objectives
B	NYSDEC 6 NYCRR Part 375 - Restricted Use SCO - Protection of Human Health - Commercial
C	NYSDEC 6 NYCRR Part 375 - Restricted Use SCO - Protection of Human Health - Industrial
D	NYSDEC 6 NYCRR Part 375 - Restricted Use SCO - Protection of Groundwater
NYSDEC CP-51	New York State Department of Environmental Conservation, DEC Policy CP-51, October 21, 2010
E	Table 1 Supplemental Soil Cleanup Objectives - Commercial
F	Table 1 Supplemental Soil Cleanup Objectives - Industrial
G	Table 1 Supplemental Soil Cleanup Objectives - Protection of Groundwater
6.5 ^A	Concentration exceeds the indicated standard.
15.2	Measured concentration did not exceed the indicated standard.
0.03 U	Analyte was not detected at a concentration greater than the laboratory reporting limit.
n/v	No standard/guideline value.
-	Parameter not analyzed / not available.
A	The SCOs for unrestricted use were capped at a maximum value of 100 mg/kg. See 6 NYCRR Part 375 TSD Section 9.3
EFG	SCOs for organic contaminants (volatile organic compounds, semivolatile organic compounds, and pesticides) are capped at 100 ppm for residential use, 500 ppm for commercial use, 1000 ppm for industrial use. SCOs for metals are capped at 10,000 ppm.
a	Based on rural background study
b	Based on rural background study. The value of 1.0 refers to SVOC analyses while the 0.17b refers to VOC analyses.
b.s1	The SCOs for commercial use were capped at a maximum value of 500 mg/kg. See TSD Section 9.3.
c	The SCOs for commercial use were capped at a maximum value of 500 mg/kg. See TSD Section 9.3. The criterion is applicable to total xylenes, and the individual isomers should be added for comparison.
c.p	The SCOs for industrial use and the protection of groundwater were capped at a maximum value of 1000 mg/kg (Organics) and 10000 mg/kg (Inorganics). See 6 NYCRR Part 375 TSD Section 9.3.
CD	The SCOs for industrial use and the protection of groundwater were capped at a maximum value of 1000 mg/kg. See 6 NYCRR Part 375 TSD Section 9.3. The criterion is applicable to total xylenes, and the individual isomers should be added for comparison.
d	The SCOS for metals were capped at a maximum value of 10,000 mg/kg. See 6 NYCRR Part 375 TSD Section 9.3.
d.p	The SCOS for metals were capped at a maximum value of 10,000 mg/kg. See 6 NYCRR Part 375 TSD Section 9.3. The SCO for this specific compound (or family of compounds) is considered to be met if the analysis for the total species of this contaminant is below the specific SCO.
e	For constituents where the calculated SCO was lower than the CRQL, the CRQL is used as the SCO value.
e.l	For constituents where the calculated SCO was lower than the rural soil background concentration as determined by the DEC/DOH rural soil survey, the rural soil background concentration is used as the Track 2 SCO value for this use of the site.
f	The SCO for this specific compound (or family of compounds) is considered to be met if the analysis for the total species of this contaminant is below the specific SCO.
g	This SCO is the sum of endosulfan I, endosulfan II, and endosulfan sulfate.
i	This SCO is the lower of the values for mercury (elemental) or mercury (inorganic salts). See 6 NYCRR Part 375 TSD Table 5.6-1.
j	For constituents where the calculated SCO was lower than the Contract Required Quantitation Limit (CRQL), the CRQL is used as the Track 1 SCO value.
k	For constituents where the calculated SCO was lower than the rural soil background concentration as determined by the DEC/DOH rural soil survey, the rural soil background concentration is used as the Track 1 SCO value for this use of the site.
m	For constituents where the calculated SCO was lower than the rural soil background concentration as determined by the DEC/DOH rural soil survey, the rural soil background concentration is used as the Track 1 SCO value for this use of the site. The SCO for this specific compound (or family of compounds) is considered to be met if the analysis for the total species of this contaminant is below the specific SCO.
n	No SCO has been established for this compound. No SCO has been established for total chromium; however, see standards for trivalent and hexavalent chromium.
n.l	Standard is applicable to total PCBs, and the individual Aroclors should be added for comparison.
NS,q	The criterion is applicable to total xylenes, and the individual isomers should be added for comparison.
o	The reported result is an estimated value.
p	The analyte was positively identified; the associated numerical value is an estimated quantity that may be biased low.
J	Not detected.
J-	Indicates estimated non-detect.
ND	Not reported (not representative)
UJ	Test America Laboratory
R	An asterisk in front of the Sample Location indicates that the material no longer remains on-site following implementation of Interim Remedial Measures.
TAL	
*	

Table 5
Summary of Groundwater Analytical Results
Site Management Plan
820 Linden Ave Site, BCP #C828200
820 Linden Avenue, Pittsford, NY

Sample Location				MW-1		MW-2		MW-3		MW-4		MW-5		B-11D		B-12D		B-13D		B/MW-101			
Sample Date				19-Jul-16	1-Oct-18	19-Jul-16	5-Oct-18	19-Jul-16	19-Jul-16	5-Oct-18	19-Jul-16	1-Oct-18	30-Sep-16	30-Sep-16	3-Oct-18	12-Jan-17	11-Jan-17	12-Jan-17	12-Jan-17	1-Oct-18	1-Oct-18	1-Oct-18	23-Jan-19
Sample ID				MW-1	LIN-MW1-W	MW-2	LIN-MW2-W	MW-3	DUP-1	LIN-MW3-W	MW-4	LIN-MW4-W	MW-5	DUP093016	LIN-MW5-W	LIN-B11D-W	LIN-B12D-W	LIN-B13D-W	LIN-DUP-W	LIN-MW101-W	LIN-MW101-W	LIN-FD1-W	LIN-MW101-W
Sampling Company				STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC
Laboratory				TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL
Laboratory Work Order				480-103372-1	460-165839-1	480-103372-1	460-165839-1	480-103372-1	480-103372-1	460-166345-1	480-103372-1	460-165839-1	480-106865-1	480-106865-1	460-166040-1	480-112267-1	480-112267-1	480-112267-1	480-112267-1	460-165839-1	460-165839-1	460-165839-1	480-148275-1
Laboratory Sample ID				480-103372-1	460-165839-3	480-103372-2	460-166345-2	480-103372-3	480-103372-5	460-166345-3	480-103372-4	460-165839-4	480-106865-1	480-106865-2	460-166040-6	480-112267-2	480-112267-3	480-112267-4	480-112267-5	460-165839-1	460-165839-5	460-165839-6	480-148275-1
Sample Type	Units	TOGS	EPA						Field Duplicate				Field Duplicate					Field Duplicate			Field Duplicate		
Volatile Organic Compounds																							
Acetone	µg/L	50 ^A	n/v	10 U	5.0 U	10 U	10 U	10 U	10 U	10 U	10 U	5.0 U	10 U	10 U	5.0 U	100 J ^A	1,100 ^A	370 ^A	360 ^A	5.0 U	-	-	10 U
Benzene	µg/L	1 ^B	n/v	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	4.0 U	2.0 U	2.0 U	1.0 U	-	-	1.0 U
Bromodichloromethane	µg/L	50 ^A	n/v	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.3	1.5	1.0 U	1.0 UJ	4.0 U	2.0 U	2.0 U	1.0 U	-	-	1.0 U
Bromoform (Tribromomethane)	µg/L	50 ^A	n/v	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	4.0 U	2.0 U	2.0 U	1.0 U	-	-	1.0 U
Bromomethane (Methyl bromide)	µg/L	5- ^B	n/v	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 UJ	4.0 U	2.0 U	2.0 U	1.0 UJ	-	-	1.0 UJ
Butylbenzene, n-	µg/L	5- ^B	n/v	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 UJ	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	4.0 U	2.0 U	2.0 U	1.0 U	-	-	1.0 U
Butylbenzene, sec- (2-Phenylbutane)	µg/L	5- ^B	n/v	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	4.0 U	2.0 U	2.0 U	1.0 U	-	-	1.0 U
Butylbenzene, tert-	µg/L	5- ^B	n/v	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	4.0 U	2.0 U	2.0 U	1.0 U	-	-	1.0 U
Carbon Disulfide	µg/L	60 ^A	n/v	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	4.0 U	2.0 U	2.0 U	1.0 U	-	-	1.0 U
Carbon Tetrachloride (Tetrachloromethane)	µg/L	5 ^B	n/v	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	4.0 U	2.0 U	2.0 U	1.0 U	-	-	1.0 U
Chlorobenzene (Monochlorobenzene)	µg/L	5- ^B	n/v	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	4.0 U	2.0 U	2.0 U	1.0 U	-	-	1.0 U
Chloroethane (Ethyl Chloride)	µg/L	5- ^B	n/v	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	4.0 U	2.0 U	2.0 U	1.0 U	-	-	1.0 U
Chloroform (Trichloromethane)	µg/L	7 ^B	n/v	1.7	4.0	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	6.8	3.5	1.0 U	1.0 UJ	4.0 U	2.0 U	2.0 U	1.0 U	-	-	1.0 U
Chloromethane	µg/L	5- ^B	n/v	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 UJ	1.0 U	1.0 UJ	4.0 U	2.0 U	2.0 U	1.0 U	-	-	1.0 U
Cyclohexane	µg/L	n/v	n/v	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	4.0 U	2.0 U	2.0 U	1.0 U	-	-	1.0 U
Dibromo-3-Chloropropane, 1,2- (DBCP)	µg/L	0.04 ^B	n/v	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	4.0 U	2.0 U	2.0 U	1.0 U	-	-	1.0 U
Dibromochloromethane	µg/L	50 ^A	n/v	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	4.0 U	2.0 U	2.0 U	1.0 U	-	-	1.0 U
Dichlorobenzene, 1,2-	µg/L	3 ^B	n/v	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	4.0 U	2.0 U	2.0 U	1.0 U	-	-	1.0 U
Dichlorobenzene, 1,3-	µg/L	3 ^B	n/v	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	4.0 U	2.0 U	2.0 U	1.0 U	-	-	1.0 U
Dichlorobenzene, 1,4-	µg/L	3 ^B	n/v	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	4.0 U	2.0 U	2.0 U	1.0 U	-	-	1.0 U
Dichlorodifluoromethane (Freon 12)	µg/L	5- ^B	n/v	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	4.0 U	2.0 U	2.0 U	1.0 U	-	-	1.0 U
Dichloroethane, 1,1-	µg/L	5- ^B	n/v	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	4.0 U	2.0 U	2.0 U	1.0 U	-	-	1.0 U
Dichloroethane, 1,2-	µg/L	0.6 ^B	n/v	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	4.0 U	2.0 U	2.0 U	1.0 U	-	-	1.0 U
Dichloroethane, 1,1-	µg/L	5- ^B	n/v	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	4.0 U	2.0 U	2.0 U	1.0 U	-	-	1.0 U
Dichloroethane, cis-1,2-	µg/L	5- ^B	n/v	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	4.0 U	2.0 U	2.0 U	1.0 U	-	-	1.0 U
Dichloroethane, trans-1,2-	µg/L	5- ^B	n/v	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	4.0 U	2.0 U	2.0 U	1.0 U	-	-	1.0 U
Dichloropropane, 1,2-	µg/L	1 ^B	n/v	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	4.0 U	2.0 U	2.0 U	1.0 U	-	-	1.0 U
Dichloropropene, 1,2-	µg/L	0.4- ^B	n/v	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	4.0 U	2.0 U	2.0 U	1.0 U	-	-	1.0 U
Dichloropropene, cis-1,3-	µg/L	0.4- ^B	n/v	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	4.0 U	2.0 U	2.0 U	1.0 U	-	-	1.0 U
Dichloropropene, trans-1,3-	µg/L	5- ^B	n/v	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	4.0 U	2.0 U	2.0 U	1.0 U	-	-	1.0 U
Ethylbenzene	µg/L	5- ^B	n/v	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	4.0 U	2.0 U	2.0 U	1.0 U	-	-	1.0 U
Ethylene Dibromide (Dibromoethane, 1,2-)	µg/L	0.0006 ^B	n/v	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	4.0 U	2.0 U	2.0 U	1.0 U	-	-	1.0 U
Hexanone, 2- (Methyl Butyl Ketone)	µg/L	50 ^A	n/v	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	20 U	10 U	10 U	5.0 U	-	-	5.0 U
Isopropylbenzene	µg/L	5- ^B	n/v	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	4.0 U	2.0 U	2.0 U	1.0 U	-	-	1.0 U
Isopropyltoluene, p- (Cymene)	µg/L	5- ^B	n/v	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	4.0 U	2.0 U	2.0 U	1.0 U	-	-	1.0 U
Methyl Acetate	µg/L	n/v	n/v	2.5 U	5.0 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U													

Table 5
Summary of Groundwater Analytical Results
Site Management Plan
820 Linden Ave Site, BCP #C828200
820 Linden Avenue, Pittsford, NY

Sample Location				B/MW-102		B/MW-103		B/MW-104		B/MW-105		MW-110	MW-111	MW-112	
Sample Date				5-Oct-18	23-Jan-19	1-Oct-18	23-Jan-19	3-Oct-18	23-Jan-19	3-Oct-18	23-Jan-19	17-Jul-20	17-Jul-20	17-Jul-20	17-Jul-20
Sample ID				LIN-MW102-W	LIN-MW102-W	LIN-MW103-W	LIN-MW103-W	LIN-MW104-W	LIN-MW104-W	LIN-MW105-W	LIN-MW105-W	LIN-MW110-W	LIN-MW111-W	LIN-MW112-W	LIN-MW112-W
Sampling Company				STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC
Laboratory				TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL
Laboratory Work Order				460-166345-1	480-148275-1	460-165839-1	480-148275-1	460-166040-1	480-148275-1	460-166040-1	460-166040-1	480-148275-1	480-172564-1	480-172564-1	480-172564-1
Laboratory Sample ID				460-166345-1	480-148275-2	460-165839-2	480-148275-3	460-166040-7	480-148275-4	480-148275-6	460-166040-8	480-172564-5	480-172564-4	480-172564-2	480-172564-3
Sample Type	Units	TOGS	EPA							Field Duplicate	Field Duplicate				Field Duplicate
General Chemistry															
Cyanide	µg/L	200 ^B	n/v	-	-	10 U	-	10 U	-	-	10 U	10 U	-	-	-
Metals															
Aluminum	µg/L	n/v	n/v	1,000	-	200 U	-	200 U	-	-	200 U	200 U	-	-	200 U
Antimony	µg/L	3 ^B	n/v	20 U	-	20.0 U	-	20.0 U	-	-	20.0 U	20.0 U	-	-	20 U
Arsenic	µg/L	25 ^B	n/v	10 U	-	15.0 U	-	15.0 U	-	-	15.0 U	15.0 U	-	-	15 U
Barium	µg/L	1,000 ^B	n/v	61	-	200 U	-	200 U	-	-	200 U	200 U	-	-	100
Beryllium	µg/L	3 ^A	n/v	2.0 U	-	2.0 U	-	2.0 U	-	-	2.0 U	2.0 U	-	-	2.0 U
Cadmium	µg/L	5 ^B	n/v	4.0 U	-	4.0 U	-	4.0 U	-	-	4.0 U	4.0 U	-	-	2.0 U
Calcium	µg/L	n/v	n/v	54,000	-	124,000	-	121,000	-	-	133,000	135,000	-	-	139,000
Chromium	µg/L	50 ^B	n/v	4.0 U	-	10.0 U	-	10.0 U	-	-	15.2	15.1	-	-	4.0 U
Chromium (Hexavalent)	µg/L	50 ^B	n/v	-	-	-	-	10.0 U	-	-	-	-	-	-	-
Cobalt	µg/L	n/v	n/v	4.0 U	-	50.0 U	-	50.0 U	-	-	50.0 U	50.0 U	-	-	4.0 U
Copper	µg/L	200 ^B	n/v	10 U	-	25.0 U	-	25.0 U	-	-	25.0 U	25.0 U	-	-	10 U
Iron	µg/L	300.3	n/v	1,000 ^B	-	163	-	448 ^B	-	-	205	210	-	-	120
Lead	µg/L	25 ^B	n/v	5.0 U	-	10.0 U	-	10.0 U	-	-	10.0 U	10.0 U	-	-	10 U
Magnesium	µg/L	35,000 ^A	n/v	12,900	-	28,900	-	24,100	-	-	22,400	22,500	-	-	27,400
Manganese	µg/L	300.3	n/v	35	-	15.0 U	-	42.9	-	-	15.0 U	15.0 U	-	-	13
Mercury	µg/L	0.7 ^B	n/v	0.2 U	-	0.20 U	-	0.20 U	-	-	0.20 U	0.20 U	-	-	0.20 U
Nickel	µg/L	100 ^B	n/v	10 U	-	40.0 U	-	40.0 U	-	-	40.0 U	40.0 U	-	-	10 U
Potassium	µg/L	n/v	n/v	2,000	-	5,000 U	-	5,000 U	-	-	5,000 U	5,000 U	-	-	2,800
Selenium	µg/L	10 ^B	n/v	15 U	-	20.0 U	-	20.0 U	-	-	20.0 U	20.0 U	-	-	25 U
Silver	µg/L	50 ^B	n/v	3.0 U	-	10.0 U	-	10.0 U	-	-	10.0 U	10.0 U	-	-	6.0 U
Sodium	µg/L	20,000 ^B	n/v	102,000 ^B	-	81,800 ^B	-	82,400 ^B	-	-	349,000 ^B	351,000 ^B	-	-	345,000 ^B
Thallium	µg/L	0.5 ^A	n/v	20 U	-	20.0 U	-	20.0 U	-	-	20.0 U	20.0 U	-	-	20 U
Vanadium	µg/L	n/v	n/v	5.0 U	-	50.0 U	-	50.0 U	-	-	50.0 U	50.0 U	-	-	5.0 U
Zinc	µg/L	2,000 ^A	n/v	10 U	-	30.0 U	-	30.0 U	-	-	30.0 U	30.0 U	-	-	10 U
Polychlorinated Biphenyls															
Aroclor 1016	µg/L	0.09 ^B	n/v	-	-	0.40 U	-	0.40 U	-	-	0.40 U	0.40 U	-	-	0.50 U
Aroclor 1221	µg/L	0.09 ^B	n/v	-	-	0.40 U	-	0.40 U	-	-	0.40 U	0.40 U	-	-	0.50 U
Aroclor 1232	µg/L	0.09 ^B	n/v	-	-	0.40 U	-	0.40 U	-	-	0.40 U	0.40 U	-	-	0.50 U
Aroclor 1242	µg/L	0.09 ^B	n/v	-	-	0.40 U	-	0.40 U	-	-	0.40 U	0.40 U	-	-	0.50 U
Aroclor 1248	µg/L	0.09 ^B	n/v	-	-	0.40 U	-	0.40 U	-	-	0.40 U	0.40 U	-	-	0.50 U
Aroclor 1254	µg/L	0.09 ^B	n/v	-	-	0.40 U	-	0.40 U	-	-	0.40 U	0.40 U	-	-	0.50 U
Aroclor 1260	µg/L	0.09 ^B	n/v	-	-	0.40 U	-	0.40 U	-	-	0.40 U	0.40 U	-	-	0.50 U
Aroclor 1262	µg/L	0.09 ^B	n/v	-	-	0.40 U	-	0.40 U	-	-	0.40 U	0.40 U	-	-	-
Aroclor 1268	µg/L	0.09 ^B	n/v	-	-	0.40 U	-	0.40 U	-	-	0.40 U	0.40 U	-	-	-
Polychlorinated Biphenyls (PCBs)	µg/L	0.09.3	n/v	-	-	ND	-	ND	-	-	ND	ND	-	-	ND
Pesticides															
Aldrin	µg/L	n/v	n/v	-	-	0.020 U	-	0.020 U	-	-	0.020 U	0.020 U	-	-	-
BHC, alpha-	µg/L	0.01 ^B	n/v	-	-	0.020 U	-	0.020 U	-	-	0.020 U	0.020 U	-	-	-
BHC, beta-	µg/L	0.04 ^B	n/v	-	-	0.020 U	-	0.020 U	-	-	0.020 U	0.020 U	-	-	-
BHC, delta-	µg/L	0.04 ^B	n/v	-	-	0.020 U	-	0.020 U	-	-	0.020 U	0.020 U	-	-	-
Camphenchlor (Toxaphene)	µg/L	0.06 ^B	n/v	-	-	0.50 U	-	0.50 U	-	-	0.50 U	0.50 U	-	-	-
Chlordane, alpha-	µg/L	n/v	n/v	-	-	0.020 U	-	0.020 U	-	-	0.020 U	0.020 U	-	-	-
Chlordane, trans- (gamma-Chlordane)	µg/L	n/v	n/v	-	-	0.020 U	-	0.020 U	-	-	0.020 U	0.020 U	-	-	-
DDD (p,p'-DDD)	µg/L	0.3 ^B	n/v	-	-	0.020 U	-	0.020 U	-	-	0.020 U	0.020 U	-	-	-
DDE (p,p'-DDE)	µg/L	0.2 ^B	n/v	-	-	0.020 U	-	0.020 U	-	-	0.020 U	0.020 U	-	-	-
DDT (p,p'-DDT)	µg/L	0.2 ^B	n/v	-	-	0.020 U	-	0.020 U	-	-	0.020 U	0.020 U	-	-	-
Dieldrin	µg/L	0.004 ^B	n/v	-	-	0.020 U	-	0.020 U	-	-	0.020 U	0.020 U	-	-	-
Endosulfan I	µg/L	n/v	n/v	-	-	0.020 U	-	0.020 U	-	-	0.020 U	0.020 U	-	-	-
Endosulfan II	µg/L	n/v	n/v	-	-	0.020 U	-	0.020 U	-	-	0.020 U	0.020 U	-	-	-
Endosulfan Sulfate	µg/L	n/v	n/v	-	-	0.020 U	-	0.020 U	-	-	0.020 U	0.020 U	-	-	-
Endrin	µg/L	n/v	n/v	-	-	0.020 U	-	0.020 U	-	-	0.020 U	0.020 U	-	-	-
Endrin Aldehyde	µg/L	5.3 ^B	n/v	-	-	0.020 U	-	0.020 U	-	-	0.020 U	0.020 U	-	-	-
Endrin Ketone	µg/L	5.3 ^B	n/v	-	-	0.020 U	-	0.020 U	-	-	0.020 U	0.020 U	-	-	-
Heptachlor	µg/L	0.04 ^{A,B}	n/v	-	-	0.020 U	-	0.020 U	-	-	0.020 U	0.020 U	-	-	-
Heptachlor Epoxide	µg/L	0.03 ^B	n/v	-	-	0.020 U	-	0.020 U	-	-	0.020 U	0.020 U	-	-	-
Lindane (Hexachlorocyclohexane, gamma)	µg/L	0.05 ^B	n/v	-	-	0.020 U	-	0.020 U	-	-	0.020 U	0.020 U	-	-	-
Methoxychlor (4,4'-Methoxychlor)	µg/L	35 ^B	n/v	-	-	0.020 U	-	0.020 U	-	-	0.020 U	0.020 U	-	-	-
Per- and Polyfluoroalkyl Substances (PFAS)															
2-(N-methyl perfluorooctanesulfonamido) acetic acid (NMeFOSAA)	ng/L	n/v	n/v	-	-	-	-	17 U	-	-	17 U	16 U	-	-	-
6:2 Fluorotelomer sulfonic acid	ng/L	n/v	n/v	-	-	-	-	17 U	-	-	17 U	16 U	-	-	-
8:2 Fluorotelomer sulfonic acid	ng/L	n/v	n/v	-	-	-	-	17 U	-	-	17 U	16 U	-	-	-
N-ethyl perfluorooctane sulfonamidoacetic acid (NEFOSAA)	ng/L	n/v	n/v	-	-	-	-	17 U	-	-	17 U	16 U	-	-	-
Perfluorobutane Sulfonate (PFBS)	ng/L	n/v	n/v	-	-	-	-	36	-	-	2.5 U	1.7 U	-	-	-
Perfluorobutanoic Acid (PFBA)	ng/L	n/v	n/v	-	-	-	-	9.1	-	-	13 J-	13 J-	-	-	-
Perfluorodecane Sulfonic Acid (PFDS)	ng/L	n/v	n/v	-	-	-	-	1.7 U	-	-	1.7 U	1.6 U	-	-	-
Perfluorodecanoic Acid (PFDA)	ng/L	n/v	n/v	-	-	-	-	1.7 U	-	-	1.7 U	1.6 U	-	-	-
Perfluorododecanoic Acid (PFDoA)	ng/L	n/v	n/v	-	-	-	-	1.7 U	-	-	1.7 U	1.6 U	-	-	-
Perfluoroheptane Sulfonate (PFHpS)	ng/L	n/v	n/v	-	-	-	-	1.7 U	-	-	1.7 U	1.6 U	-	-	-
Perfluoroheptanoic Acid (PFHpA)	ng/L	n/v	n/v	-	-	-	-	1.7 U	-	-	1.7 U	1.6 U	-	-	-
Perfluorohexanesulfonic acid (PFHxS)	ng/L	n/v	n/v	-	-	-	-	1.7 U	-	-	1.7 U	1.6 U	-	-	-
Perfluorohexanoic Acid (PFHxA)	ng/L	n/v	n/v	-	-	-	-	4.2	-	-	2.0	2.0	-	-	-
Perfluoro-n-Octanoic Acid (PFOA)	ng/L	n/v	n/v	-	-	-	-	2.6	-	-	1.7 U	1.6 U	-	-	-
Perfluorononanoic Acid (PFNA)	ng/L	n/v	n/v	-	-	-	-	1.7 U	-	-	1.7 U	1.6 U	-	-	-
Perfluorooctane Sulfonate (PFOS)	ng/L	n/v	n/v	-	-	-	-	1.7 U	-	-	1.7 U	1.6 U	-	-	-
Perfluorooctanesulfonamide (PFOSA)	ng/L	n/v	n/v	-	-	-	-	1.7 U	-	-	1.7 U	1.6 U	-	-	-
Perfluoropentanoic Acid (PFPeA)	ng/L	n/v	n/v	-	-	-	-	2.9	-	-	3.2	2.9	-	-	-
Perfluorotetradecanoic Acid (PFTeA)	ng/L	n/v	n/v	-	-	-	-	1.7 U	-	-	1.7 U	1.6 U	-	-	-
Perfluorotridecanoic Acid (PFTriA)	ng/L	n/v	n/v	-	-	-	-	1.7 U	-	-	1.7 U	1.6 U	-	-	-
Perfluoroundecanoic Acid (PFUnA)	ng/L	n/v	n/v	-	-	-	-	1.7 U	-	-	1.7 U	1.6 U	-	-	-
Sum of PFAS Analyte List	ng/L	n/v	n/v	-	-	-	-	54.8	-	-	20.7	19.6	-	-	-
Sum of PFOS & PFOA Ratios	ng/L	n/v	70 ^C	-	-	-	-	2.6	-	-	ND	ND	-	-	-

See notes on last page.

Table 5
Summary of Groundwater Analytical Results
Site Management Plan
820 Linden Ave Site, BCP #C828200
820 Linden Avenue, Pittsford, NY

Sample Location Sample Date Sample ID Sampling Company Laboratory Laboratory Work Order Laboratory Sample ID Sample Type				B/MW-102		B/MW-103		B/MW-104		B/MW-105		MW-110	MW-111	MW-112	
				5-Oct-18	23-Jan-19	1-Oct-18	23-Jan-19	3-Oct-18	23-Jan-19	3-Oct-18	23-Jan-19	17-Jul-20	17-Jul-20	17-Jul-20	17-Jul-20
				LIN-MW102-W	LIN-MW102-W	LIN-MW103-W	LIN-MW103-W	LIN-MW104-W	LIN-MW104-W	LIN-FD3-W	LIN-MW105-W	LIN-MW110-W	LIN-MW111-W	LIN-MW112-W	LIN-FD4-W
				STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC
				TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL
	Units	TOGS	EPA	460-166345-1	480-148275-1	460-165839-1	480-148275-1	460-166040-1	480-148275-1	480-148275-1	460-166040-1	460-166040-1	480-148275-1	480-172564-1	480-172564-1
				460-166345-1	480-148275-2	460-165839-2	480-148275-3	460-166040-7	480-148275-4	480-148275-6	460-166040-8	460-166040-10	480-148275-5	480-172564-5	480-172564-4
Semi-Volatile Organic Compounds															
Acenaphthene	µg/L	20 ^B	n/v	-	-	10 U	-	10 U	-	-	10 U	10 U	-	-	-
Acenaphthylene	µg/L	n/v	n/v	-	-	10 U	-	10 U	-	-	10 U	10 U	-	-	-
Acetophenone	µg/L	n/v	n/v	-	-	10 U	-	10 U	-	-	10 U	10 U	-	-	-
Anthracene	µg/L	50 ^A	n/v	-	-	10 U	-	10 U	-	-	10 U	10 U	-	-	-
Atrazine	µg/L	7.5 ^B	n/v	-	-	2.0 U	-	2.0 U	-	-	2.0 U	2.0 U	-	-	-
Benzaldehyde	µg/L	n/v	n/v	-	-	10 U	-	10 U	-	-	10 U	10 U	-	-	-
Benzo(a)anthracene	µg/L	0.002 ^A	n/v	-	-	1.0 U	-	1.0 U	-	-	1.0 U	1.0 U	-	-	-
Benzo(a)pyrene	µg/L	n/v	n/v	-	-	1.0 U	-	1.0 U	-	-	1.0 U	1.0 U	-	-	-
Benzo(b)fluoranthene	µg/L	0.002 ^A	n/v	-	-	2.0 U	-	2.0 U	-	-	2.0 U	2.0 U	-	-	-
Benzo(g,h,i)perylene	µg/L	n/v	n/v	-	-	10 U	-	10 U	-	-	10 U	10 U	-	-	-
Benzo(k)fluoranthene	µg/L	0.002 ^A	n/v	-	-	1.0 U	-	1.0 U	-	-	1.0 U	1.0 U	-	-	-
Biphenyl	µg/L	5 ^{-B}	n/v	-	-	10 U	-	10 U	-	-	10 U	10 U	-	-	-
Bis(2-Chloroethoxy)methane	µg/L	5 ^{-B}	n/v	-	-	10 U	-	10 U	-	-	10 U	10 U	-	-	-
Bis(2-Chloroethyl)ether	µg/L	1 ^B	n/v	-	-	1.0 U	-	1.0 U	-	-	1.0 U	1.0 U	-	-	-
Bis(2-Chloroisopropyl)ether (2,2-oxybis(1-Chloropropane))	µg/L	5 ^{-B}	n/v	-	-	10 U	-	10 U	-	-	10 U	10 U	-	-	-
Bis(2-Ethylhexyl)phthalate (DEHP)	µg/L	5 ^B	n/v	-	-	2.0 U	-	2.0 U	-	-	2.0 U	2.0 U	-	-	-
Bromophenyl Phenyl Ether, 4-	µg/L	n/v	n/v	-	-	10 U	-	10 U	-	-	10 U	10 U	-	-	-
Butyl Benzyl Phthalate	µg/L	50 ^A	n/v	-	-	10 U	-	10 U	-	-	10 U	10 U	-	-	-
Caprolactam	µg/L	n/v	n/v	-	-	10 U	-	10 U	-	-	10 U	10 U	-	-	-
Carbazole	µg/L	n/v	n/v	-	-	10 U	-	10 U	-	-	10 U	10 U	-	-	-
Chloro-3-methyl phenol, 4-	µg/L	n/v	n/v	-	-	10 U	-	10 U	-	-	10 U	10 U	-	-	-
Chloroaniline, 4-	µg/L	5 ^{-B}	n/v	-	-	10 U	-	10 U	-	-	10 U	10 U	-	-	-
Chloronaphthalene, 2-	µg/L	10 ^B	n/v	-	-	10 U	-	10 U	-	-	10 U	10 U	-	-	-
Chlorophenol, 2- (ortho-Chlorophenol)	µg/L	n/v	n/v	-	-	10 U	-	10 U	-	-	10 U	10 U	-	-	-
Chlorophenyl Phenyl Ether, 4-	µg/L	n/v	n/v	-	-	10 U	-	10 U	-	-	10 U	10 U	-	-	-
Chrysene	µg/L	0.002 ^A	n/v	-	-	2.0 U	-	2.0 U	-	-	2.0 U	2.0 U	-	-	-
Cresol, o- (Methylphenol, 2-)	µg/L	n/v	n/v	-	-	10 U	-	10 U	-	-	10 U	10 U	-	-	-
Cresol, p- (Methylphenol, 4-)	µg/L	n/v	n/v	-	-	10 U	-	10 U	-	-	10 U	10 U	-	-	-
Dibenzo(a,h)anthracene	µg/L	n/v	n/v	-	-	1.0 U	-	1.0 U	-	-	1.0 U	1.0 U	-	-	-
Dibenzofuran	µg/L	n/v	n/v	-	-	10 U	-	10 U	-	-	10 U	10 U	-	-	-
Dibutyl Phthalate (DBP)	µg/L	50 ^B	n/v	-	-	10 U	-	10 U	-	-	10 U	10 U	-	-	-
Dichlorobenzidine, 3,3'-	µg/L	5 ^{-B}	n/v	-	-	10 U	-	10 U	-	-	10 U	10 U	-	-	-
Dichlorophenol, 2,4-	µg/L	5 ^{-B}	n/v	-	-	10 U	-	10 U	-	-	10 U	10 U	-	-	-
Diethyl Phthalate	µg/L	50 ^A	n/v	-	-	10 U	-	10 U	-	-	10 U	10 U	-	-	-
Dimethyl Phthalate	µg/L	50 ^A	n/v	-	-	10 U	-	10 U	-	-	10 U	10 U	-	-	-
Dimethylphenol, 2,4-	µg/L	50 ^A	n/v	-	-	10 U	-	10 U	-	-	10 U	10 U	-	-	-
Dinitro-o-cresol, 4,6-	µg/L	n/v	n/v	-	-	20 U	-	20 U	-	-	20 U	20 U	-	-	-
Dinitrophenol, 2,4-	µg/L	10 ^A	n/v	-	-	20 U	-	20 U	-	-	20 U	20 U	-	-	-
Dinitrotoluene, 2,4-	µg/L	5 ^{-B}	n/v	-	-	2.0 U	-	2.0 U	-	-	2.0 U	2.0 U	-	-	-
Dinitrotoluene, 2,6-	µg/L	5 ^{-B}	n/v	-	-	2.0 U	-	2.0 U	-	-	2.0 U	2.0 U	-	-	-
Di-n-Octyl phthalate	µg/L	50 ^A	n/v	-	-	10 U	-	10 U	-	-	10 U	10 U	-	-	-
Dioxane, 1,4-	µg/L	n/v	n/v	-	-	-	-	0.19 U	-	-	0.19 U	0.19 U	-	-	-
Fluoranthene	µg/L	50 ^A	n/v	-	-	10 U	-	10 U	-	-	10 U	10 U	-	-	-
Fluorene	µg/L	50 ^A	n/v	-	-	10 U	-	10 U	-	-	10 U	10 U	-	-	-
Hexachlorobenzene	µg/L	0.04 ^B	n/v	-	-	1.0 U	-	1.0 U	-	-	1.0 U	1.0 U	-	-	-
Hexachlorobutadiene (Hexachloro-1,3-butadiene)	µg/L	0.5 ^B	n/v	-	-	1.0 U	-	1.0 U	-	-	1.0 U	1.0 U	-	-	-
Hexachlorocyclopentadiene	µg/L	5 ^{-B}	n/v	-	-	10 U	-	10 U	-	-	10 U	10 U	-	-	-
Hexachloroethane	µg/L	5 ^{-B}	n/v	-	-	2.0 U	-	2.0 U	-	-	2.0 U	2.0 U	-	-	-
Indeno(1,2,3-cd)pyrene	µg/L	0.002 ^A	n/v	-	-	2.0 U	-	2.0 U	-	-	2.0 U	2.0 U	-	-	-
Isophorone	µg/L	50 ^A	n/v	-	-	10 U	-	10 U	-	-	10 U	10 U	-	-	-
Methylnaphthalene, 2-	µg/L	n/v	n/v	-	-	10 U	-	10 U	-	-	10 U	10 U	-	-	-
Naphthalene	µg/L	10 ^B	n/v	-	-	10 U	-	10 U	-	-	10 U	10 U	-	-	-
Nitroaniline, 2-	µg/L	5 ^{-B}	n/v	-	-	10 U	-	10 U	-	-	10 U	10 U	-	-	-
Nitroaniline, 3-	µg/L	5 ^{-B}	n/v	-	-	10 U	-	10 U	-	-	10 U	10 U	-	-	-
Nitroaniline, 4-	µg/L	5 ^{-B}	n/v	-	-	10 U	-	10 U	-	-	10 U	10 U	-	-	-
Nitrobenzene	µg/L	0.4 ^B	n/v	-	-	1.0 U	-	1.0 U	-	-	1.0 U	1.0 U	-	-	-
Nitrophenol, 2-	µg/L	n/v	n/v	-	-	10 U	-	10 U	-	-	10 U	10 U	-	-	-
Nitrophenol, 4-	µg/L	n/v	n/v	-	-	20 U	-	20 U	-	-	20 U	20 U	-	-	-
N-Nitrosodi-n-Propylamine	µg/L	n/v	n/v	-	-	1.0 U	-	1.0 U	-	-	1.0 U	1.0 U	-	-	-
n-Nitrosodiphenylamine	µg/L	50 ^A	n/v	-	-	10 U	-	10 U	-	-	10 U	10 U	-	-	-
Pentachlorophenol	µg/L	1.0 ^B	n/v	-	-	20 U	-	20 U	-	-	20 U	20 U	-	-	-
Phenanthrene	µg/L	50 ^A	n/v	-	-	10 U	-	10 U	-	-	10 U	10 U	-	-	-
Phenol	µg/L	1.0 ^B	n/v	-	-	10 U	-	10 U	-	-	10 U	10 U	-	-	-
Pyrene	µg/L	50 ^A	n/v	-	-	10 U	-	10 U	-	-	10 U	10 U	-	-	-
Trichlorophenol, 2,4,5-	µg/L	n/v	n/v	-	-	10 U	-	10 U	-	-	10 U	10 U	-	-	-
Trichlorophenol, 2,4,6-	µg/L	n/v	n/v	-	-	10 U	-	10 U	-	-	10 U	10 U	-	-	-
Total SVOC	µg/L	n/v	n/v	-	-	ND	-	ND	-	-	ND	ND	-	-	-
SVOC - Tentatively Identified Compounds															
Total SVOC TICs	µg/L	n/v	n/v	-	-	-	-	-	-	-	-	-	-	-	-
See notes on last page.															

Table 5
Summary of Groundwater Analytical Results
Site Management Plan
820 Linden Ave Site, BCP #C828200
820 Linden Avenue, Pittsford, NY

Sample Location				B/MW-102		B/MW-103		B/MW-104		B/MW-105		MW-110	MW-111	MW-112	
Sample Date				5-Oct-18	23-Jan-19	1-Oct-18	23-Jan-19	3-Oct-18	23-Jan-19	23-Jan-19	3-Oct-18	17-Jul-20	17-Jul-20	17-Jul-20	17-Jul-20
Sample ID				LIN-MW102-W	LIN-MW102-W	LIN-MW103-W	LIN-MW103-W	LIN-MW104-W	LIN-MW104-W	LIN-FD3-W	LIN-MW105-W	LIN-MW110-W	LIN-MW111-W	LIN-MW112-W	LIN-FD4-W
Sampling Company				STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC
Laboratory				TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL
Laboratory Work Order				460-166345-1	480-148275-1	460-165839-1	480-148275-1	460-166040-1	480-148275-1	480-148275-1	460-166040-1	460-166040-1	480-148275-1	480-172564-1	480-172564-1
Laboratory Sample ID				460-166345-1	480-148275-2	460-165839-2	480-148275-3	460-166040-7	480-148275-4	480-148275-6	460-166040-8	460-166040-10	480-148275-5	480-172564-5	480-172564-3
Sample Type	Units	TOGS	EPA							Field Duplicate		Field Duplicate			Field Duplicate
Volatile Organic Compounds															
Acetone	µg/L	50 ^A	n/v	10 U	10 U	5.0 U	10 U	5.0 U	10 U	10 U	5.0 U	5.0 U	10 U	10 U	10 U
Benzene	µg/L	1 ^B	n/v	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	µg/L	50 ^A	n/v	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform (Tribromomethane)	µg/L	50 ^A	n/v	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	µg/L	5- ^B	n/v	1.0 U	1.0 UJ	1.0 UJ	1.0 UJ	1.0 UJ	1.0 UJ	1.0 UJ	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U
Butylbenzene, n-	µg/L	5- ^B	n/v	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Butylbenzene, sec- (2-Phenylbutane)	µg/L	5- ^B	n/v	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Butylbenzene, tert-	µg/L	5- ^B	n/v	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon Disulfide	µg/L	60 ^A	n/v	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon Tetrachloride (Tetrachloromethane)	µg/L	5 ^B	n/v	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene (Monochlorobenzene)	µg/L	5- ^B	n/v	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane (Ethyl Chloride)	µg/L	5- ^B	n/v	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	µg/L	7 ^B	n/v	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.4	1.5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	µg/L	5- ^B	n/v	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	µg/L	n/v	n/v	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromo-3-Chloropropane, 1,2- (DBCP)	µg/L	0.04 ^B	n/v	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromochloromethane	µg/L	50 ^A	n/v	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorobenzene, 1,2-	µg/L	3 ^B	n/v	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorobenzene, 1,3-	µg/L	3 ^B	n/v	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorobenzene, 1,4-	µg/L	3 ^B	n/v	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (Freon 12)	µg/L	5- ^B	n/v	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichloroethane, 1,1-	µg/L	5- ^B	n/v	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichloroethane, 1,2-	µg/L	0.6 ^B	n/v	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichloroethene, 1,1-	µg/L	5- ^B	n/v	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichloroethene, cis-1,2-	µg/L	5- ^B	n/v	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichloroethene, trans-1,2-	µg/L	5- ^B	n/v	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichloropropane, 1,2-	µg/L	1 ^B	n/v	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichloropropene, cis-1,3-	µg/L	0.4- ^B	n/v	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichloropropene, trans-1,3-	µg/L	0.4- ^B	n/v	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	µg/L	5- ^B	n/v	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylene Dibromide (Dibromoethane, 1,2-)	µg/L	0.0006 ^B	n/v	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Hexanone, 2- (Methyl Butyl Ketone)	µg/L	50 ^A	n/v	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Isopropylbenzene	µg/L	5- ^B	n/v	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Isopropyltoluene, p- (Cymene)	µg/L	5- ^B	n/v	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl Acetate	µg/L	n/v	n/v	2.5 U	2.5 U	5.0 U	2.5 U	5.0 U	2.5 U	2.5 U	5.0 U	5.0 U	2.5 U	2.5 U	2.5 U
Methyl Ethyl Ketone (MEK) (2-Butanone)	µg/L	50 ^A	n/v	10 U	10 U	5.0 U	10 U	5.0 U	10 U	10 U	5.0 U	5.0 U	10 U	10 U	10 U
Methyl Isobutyl Ketone (MIBK)	µg/L	n/v	n/v	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methyl tert-butyl ether (MTBE)	µg/L	10 ^A	n/v	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylcyclohexane	µg/L	n/v	n/v	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene Chloride (Dichloromethane)	µg/L	5- ^B	n/v	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Naphthalene	µg/L	10 ^B	n/v	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Propylbenzene, n-	µg/L	5- ^B	n/v	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Styrene	µg/L	5- ^B	n/v	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethane, 1,1,2,2-	µg/L	5- ^B	n/v	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene (PCE)	µg/L	5- ^B	n/v	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	µg/L	5- ^B	n/v	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorobenzene, 1,2,4-	µg/L	5- ^B	n/v	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethane, 1,1,1-	µg/L	5- ^B	n/v	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethane, 1,1,2-	µg/L	1 ^B	n/v	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene (TCE)	µg/L	5- ^B	n/v	1.0 U	1.0 U	13 ^B	12 ^B	17 ^B	9.7 ^B	9.8 ^B	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane (Freon 11)	µg/L	5- ^B	n/v	1.0 U	1.0 UJ	1.0 U	1.0 UJ	1.0 UJ	1.0 UJ	1.0 UJ	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U
Trichlorotrifluoroethane (Freon 113)	µg/L	5- ^B	n/v	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trimethylbenzene, 1,2,4-	µg/L	5- ^B	n/v	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trimethylbenzene, 1,3,5-	µg/L	5- ^B	n/v	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl Chloride	µg/L	2 ^B	n/v	1.0 U	1.0 UJ	1.0 U	1.0 UJ	1.0 U	1.0 UJ	1.0 UJ	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U
Xylene, m & p-	µg/L	5- ^B	n/v	2.0 U	2.0 U	1.0 U	2.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	2.0 U	2.0 U	2.0 U
Xylene, o-	µg/L	5- ^B	n/v	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes, Total	µg/L	5- ^B	n/v	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Total VOC	µg/L	n/v	n/v	ND	ND	13	12	17	11.1	11.3	ND	ND	ND	ND	ND
VOC - Tentatively Identified Compounds															
Total VOC TICs	µg/L	n/v	n/v	3.4 J	-	-	-	-	-	-	-	-	-	-	-
See notes on last page.															

Table 5
Summary of Groundwater Analytical Results
Site Management Plan
820 Linden Ave Site, BCP #C828200
820 Linden Avenue, Pittsford, NY

Notes:	
TOGS	NYSDEC TOGS 1.1.1 (Reissued June 1998 with errata in January 1999 and addenda in April 2000 and June 2004)
A	TOGS 1.1.1 - Table 1 - Ambient Water Quality Standards and Guidance Values, Division of Water, Technical and Operational Guidance Series (TOGS 1.1.1); Guidance
B	TOGS 1.1.1 - Table 1 - Ambient Water Quality Standards and Guidance Values, Division of Water, Technical and Operational Guidance Series (TOGS 1.1.1); Standards
EPA	United States Environmental Protection Agency
C	Fact Sheet PFOA & PFOS Drinking Water Health Advisories (2016) Lifetime Health Advisories
6.5 ^A	Concentration exceeds the indicated standard.
15.2	Measured concentration did not exceed the indicated standard.
0.03 U	Analyte was not detected at a concentration greater than the laboratory reporting limit.
n/v	No standard/guideline value.
-	Parameter not analyzed / not available.
.	The standard for Iron and Manganese is 500 ug/L, which applies to the sum of these substances. As individual standards, the standard is 300 ug/L.
--	The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in the TOGS table) applies to this substance.
b	Standard applies to the sum of all polychlorinated biphenyls.
p	Applies to the sum of cis- and trans-1,3-dichloropropene.
J	The reported result is an estimated value.
J-	The analyte was positively identified; the associated numerical value is an estimated quantity that may be biased low.
ND	Not detected.
UJ	Indicates estimated non-detect.
TAL	Test America Laboratory

Table 6
Summary of Analytical Results for Southeast Septic System (RAOC-1) Investigation Soil Samples
Site Management Plan
820 Linden Ave Site, BCP #C828200
820 Linden Avenue, Pittsford, NY

Sample Location					DBOX-SE		LF-SE		TANK1-SE		TANK2-SE			
Sample Date					18-Jun-20 DBOX-SE	18-Jun-20 DBOX-SE-ADJ	18-Jun-20 LF2-SE	18-Jun-20 LF1-SE	17-Aug-18 LIN-TP5a-s 3 - 3.5 ft	24-Jul-19 LIN-TANK1SE-WC-S 6 ft	18-Jun-20 TANK1-SE 6 ft	18-Jun-20 DUP-1 6 ft	18-Jun-20 TANK2-SE 6 ft	18-Jun-20 TANK2-SE-CONTENTS N/A
Sample ID					STANTEC TAL	STANTEC TAL	STANTEC TAL	STANTEC TAL	STANTEC TAL	STANTEC TAL	STANTEC TAL	STANTEC TAL	STANTEC TAL	STANTEC TAL
Sample Depth					480-171430-3	480-171430-3	480-171430-3	480-171430-3	460-162801-1	480-156763-1	480-171430-3	480-171430-3	480-171430-3	480-171430-3
Sampling Company					480-171430-2	480-171430-5	480-171430-6	480-171430-7	460-162872-2	480-156764-2	480-171430-1	480-171430-11 Field Duplicate	480-171430-3	480-171430-4
Laboratory														
Laboratory Work Order														
Laboratory Sample ID														
Sample Type	Units	NYSDEC-Part 375	NYSDEC CP-51											
General Chemistry														
Cyanide	mg/kg	27 ^{AB} 10,000 ^a 40 ^D	n/v	0.95 U	0.95 U	1.0 U	0.97 U	0.25 U	-	0.98 U	0.89 U	0.98 U	0.99 U	
Flashpoint	deg F	n/v	n/v	-	-	-	-	-	> 176	-	-	-	-	
pH, lab	S.U.	n/v	n/v	-	-	-	-	-	7.0 J	-	-	-	-	
Temperature, Lab	deg C	n/v	n/v	-	-	-	-	-	20.6 J	-	-	-	-	
Metals														
Aluminum	mg/kg	10,000 ^{ABCD}	10,000 ^{EF}	4,910	5,520	4,970	4,440	7,230	-	4,290	4,720	3,450	5,490	
Antimony	mg/kg	10,000 ^{ABCD}	10,000 ^{EF}	15.4 U	15.6 U	16.3 U	16.1 U	34.1 U	-	15.6 U	15.7 U	15.0 U	15.9 U	
Arsenic	mg/kg	13 ^a 16 ^{BCD}	n/v	2.0 U	2.1 U	2.2 U	2.1 U	5.8	-	2.1 U	2.2	2.0 U	2.3	
Barium	mg/kg	350 ^A 400 ^B 10,000 ^C 820 ^D	n/v	44.4	20.7	7.1	19.4	91.0	-	13.3	15.0	11.0	27.9	
Beryllium	mg/kg	7.2 ^A 590 ^B 2,700 ^C 47 ^D	n/v	0.20	0.21 U	0.22 U	0.21 U	0.45 U	-	0.21 U	0.21 U	0.20 U	0.21 U	
Cadmium	mg/kg	2.5 ⁿ 9.3 ^B 60 ^C 7.5 ^D	n/v	3.1 ^A	0.21 U	0.22 U	0.21 U	0.45 U	-	0.21 U	0.21 U	0.20 U	0.23	
Calcium	mg/kg	10,000 ^{ABCD}	10,000 ^{EF}	10,800 ^{ABCEFG}	1,410	821	1,550 J-	3,910	-	1,300	1,270	1,010	2,440	
Chromium	mg/kg	30 ⁿ 1,500 ^B 6,800 ^C N/A ⁿ 1 ^D	n/v	17.0	7.0	5.1	27.9 J	14.2	-	5.8	5.7	4.2	7.9	
Cobalt	mg/kg	10,000 ^{ABCD}	10,000 ^a	8.7	2.1	1.7	1.7	4.3	-	2.2	2.3	1.8	2.4	
Copper	mg/kg	50 ^A 270 ^B 10,000 ^C 1,720 ^D	n/v	102 ^A	7.7	3.5	13.0 J	15.8	-	4.1	4.8	3.3	8.9	
Iron	mg/kg	10,000 ^{ABCD}	10,000 ^{EF}	8,810	7,850	6,250	8,340	12,100 ^{ABCEFG}	-	8,120	7,560	5,800	8,120	
Lead	mg/kg	63 ⁿ 1,000 ^B 3,900 ^C 450 ^D	n/v	27.7	5.7	2.1	4.6	207 ^A	-	2.4	3.0	1.6	15.0	
Magnesium	mg/kg	10,000 ^{ABCD}	n/v	3,170	1,020	863	1,080 J-	2,510	-	1,020	1,020	868	1,180	
Manganese	mg/kg	1,600 ^A 10,000 ^{BC} 2,000 ^D	n/v	128	140	50.7	77.9 J	431	-	158	162	135	161	
Mercury	mg/kg	0.18 ^A 2.8 ^B 5.7 ^C 0.73 ^D	n/v	0.33 ^A	0.028	0.022 U	0.022 U	0.088	-	0.022 U	0.021 U	0.020 U	0.098	
Nickel	mg/kg	30 ^A 310 ^B 10,000 ^C 130 ^D	n/v	9.3	5.2 U	5.4 U	5.4 U	11.4 U	-	5.2 U	5.2	5.0 U	5.4	
Potassium	mg/kg	10,000 ^{ABCD}	n/v	1,030	475	353	542	317	-	619	683	521	542	
Selenium	mg/kg	3.9 ⁿ 1,500 ^B 6,800 ^C 4 ^D	n/v	4.1 U	4.2 U	4.4 U	4.3 U	9.1 U	-	4.2 U	4.2 U	4.0 U	4.2 U	
Silver	mg/kg	2 ^A 1,500 ^B 6,800 ^C 8.3 ^D	n/v	18.1 ^{AD}	0.52 U	0.54 U	0.70 J	1.1 U	-	0.52 U	0.52 U	0.50 U	0.53 U	
Sodium	mg/kg	10,000 ^{ABCD}	n/v	180	146 U	152 U	150 U	318 U	-	145 U	146 U	140 U	148 U	
Thallium	mg/kg	10,000 ^{ABCD}	10,000 ^{EF}	6.1 U	6.2 U	6.5 U	6.4 U	13.6 U	-	6.2 U	6.3 U	6.0 U	6.4 U	
Vanadium	mg/kg	10,000 ^{ABCD}	10,000 ^{EF}	13.5	13.9	11.4	14.6	12.9	-	14.6	13.5	10.2	14.1	
Zinc	mg/kg	109 ⁿ 10,000 ^{BC} 2,480 ^D	n/v	133 ^A	16.6	11.8	14.5	187 ^A	-	11.0	11.3	8.7	32.0	
Polychlorinated Biphenyls														
Aroclor 1016	µg/kg	ABCD	n/v	240 U	210 U	250 U	210 U	39 U	-	250 U	220 U	230 U	250 U	
Aroclor 1221	µg/kg	ABCD	n/v	240 U	210 U	250 U	210 U	39 U	-	250 U	220 U	230 U	250 U	
Aroclor 1232	µg/kg	ABCD	n/v	240 U	210 U	250 U	210 U	39 U	-	250 U	220 U	230 U	250 U	
Aroclor 1242	µg/kg	ABCD	n/v	240 U	210 U	250 U	210 U	39 U	-	250 U	220 U	230 U	250 U	
Aroclor 1248	µg/kg	ABCD	n/v	240 U	210 U	250 U	210 U	39 U	-	250 U	220 U	230 U	250 U	
Aroclor 1254	µg/kg	ABCD	n/v	240 U	210 U	250 U	210 U	39 U	-	250 U	220 U	230 U	250 U	
Aroclor 1260	µg/kg	ABCD	n/v	240 U	210 U	250 U	210 U	39 U	-	250 U	220 U	230 U	250 U	
Aroclor 1262	µg/kg	ABCD	n/v	240 U	210 U	250 U	210 U	39 U	-	250 U	220 U	230 U	250 U	
Aroclor 1268	µg/kg	ABCD	n/v	240 U	210 U	250 U	210 U	39 U	-	250 U	220 U	230 U	250 U	
Polychlorinated Biphenyls (PCBs)	µg/kg	100 ^A 1,000 ^B 25,000 ^C 3,200 ^D	n/v	ND	ND	ND	ND	ND	-	ND	ND	ND	ND	
Pesticides														
Aldrin	µg/kg	5 ⁿ 680 ^B 1,400 ^C 190 ^D	n/v	1.7 U	1.7 U	1.8 U	1.7 U	3.9 U	-	1.7 U	1.7 U	1.7 U	1.8 U	
BHC, alpha-	µg/kg	20 ^{AD} 3,400 ^B 6,800 ^C	n/v	1.7 U	1.7 U	1.8 U	1.7 U	3.9 U	-	1.7 U	1.7 U	1.7 U	1.8 U	
BHC, beta-	µg/kg	36 ^A 3,000 ^B 14,000 ^C 90 ^D	n/v	1.7 U	1.7 U	1.8 U	1.7 U	3.9 U	-	1.7 U	1.7 U	1.7 U	1.8 U	
BHC, delta-	µg/kg	40 ⁿ 500,000 ^B 1,000,000 ^C 250 ^D	n/v	1.7 U	1.7 U	6.1	1.7 U	3.9 U	-	1.7 U	1.7 U	1.7 U	7.5	
Camphenchlor (Toxaphene)	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C 10 ^D	n/v	17 U	17 U	18 U	17 U	39 U	-	17 U	17 U	17 U	18 U	
Chlordane, alpha-	µg/kg	94 ^A 24,000 ^B 47,000 ^C 2,900 ^D	n/v	1.7 U	22 J	1.8 U	1.7 U	3.9 U	-	1.7 U	1.7 U	1.7 U	46 NJ	
Chlordane, trans- (gamma-Chlordane)	µg/kg	100,000 ^A 1,000,000 ^D	n/v	1.7 U	5.0	1.8 U	1.7 U	8.6	-	1.7 U	1.7 U	1.7 U	20	
DDD (p,p'-DDD)	µg/kg	3.3 ^m 92,000 ^B 180,000 ^C 14,000 ^D	n/v	1.7 U	7.5 ^A	1.8 U	1.7 U	3.9 U	-	1.7 U	1.7 U	1.7 U	1.8 U	
DDE (p,p'-DDE)	µg/kg	3.3 ^m 62,000 ^B 120,000 ^C 17,000 ^D	n/v	1.7 U	1.7 U	1.8 U	1.7 U	39 ^A	-	1.7 U	1.7 U	1.7 U	4.0 ^A	
DDT (p,p'-DDT)	µg/kg	3.3 ^m 47,000 ^B 94,000 ^C 136,000 ^D	n/v	18 ^A	2.4	1.8 U	1.7 U	13 ^A	-	1.7 U	1.7 U	1.7 U	1.8 U	
Dieldrin	µg/kg	5 ⁿ 1,400 ^B 2,800 ^C 100 ^D	n/v	74 ^A	250 ^{AD}	31 ^A	1.7 U	35 ^A	-	37 ^A	34 ^A	2.7	610 ^{AD}	
Endosulfan I	µg/kg	2,400 ^A 200,000 ^B 920,000 ^C 102,000 ^D	n/v	1.7 U	1.7 U	1.8 U	1.7 U	3.9 U	-	1.7 U	1.7 U	1.7 U	1.8 U	
Endosulfan II	µg/kg	2,400 ^A 200,000 ^B 920,000 ^C 102,000 ^D	n/v	1.7 U	1.7 U	1.8 U	1.7 U	3.9 U	-	1.7 U	1.7 U	1.7 U	1.8 U	
Endosulfan Sulfate	µg/kg	2,400 ^A 200,000 ^B 920,000 ^C 1,000,000 ^D	n/v	1.7 U	1.7 U	1.8 U	1.7 U	3.9 U	-	1.7 U	1.7 U	1.7 U	1.8 U	
Endrin	µg/kg	14 ^A 89,000 ^B 410,000 ^C 60 ^D	n/v	1.7 U	1.7 U	1.8 U	1.7 U	3.9 U	-	1.7 U	1.7 U	1.7 U	4.1	
Endrin Aldehyde	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C 10 ^D	n/v	1.7 U	1.7 U	1.8 U	1.7 U	3.9 U	-	1.7 U	1.7 U	1.7 U	1.8 U	
Endrin Ketone	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C 10 ^D	n/v	1.7 U	1.7 U	1.8 U	1.7 U	3.9 U	-	1.7 U	1.7 U	1.7 U	1.8 U	
Heptachlor	µg/kg	42 ^A 15,000 ^B 29,000 ^C 380 ^D	n/v	1.7 U	1.7 U	1.8 U	1.7 U	3.9 U	-	1.7 U	1.7 U	1.7 U	1.8 U	
Heptachlor Epoxide	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C 10 ^D	500,000 ^E 1,000,000 ^F 20 ^G	1.7 U	1.7 U	1.8 U	1.7 U	3.9 U	-	1.7 U	1.7 U	1.7 U	2.2	
Lindane (Hexachlorocyclohexane, gamma)	µg/kg	100 ^{AD} 9,200 ^B 23,000 ^C	n/v	1.7 U	1.7 U	1.8 U	1.7 U	3.9 U	-	1.7 U	1.7 U	1.7 U	1.8 U	
Methoxychlor (4,4'-Methoxychlor)	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C 10 ^D	500,000 ^E 1,000,000 ^F 900,000 ^G	1.7 U	1.7 U	1.8 U	1.7 U	3.9 U	-	1.7 U	1.7 U	1.7 U	1.8 U	

Table 6
Summary of Analytical Results for Southeast Septic System (RAOC-1) Investigation Soil Samples
Site Management Plan
820 Linden Ave Site, BCP #C828200
820 Linden Avenue, Pittsford, NY

Sample Location				DBOX-SE		LF-SE		TANK1-SE				TANK2-SE	
Sample Date				18-Jun-20	18-Jun-20	18-Jun-20	18-Jun-20	17-Aug-18	24-Jul-19	18-Jun-20	18-Jun-20	18-Jun-20	18-Jun-20
Sample ID				DBOX-SE	DBOX-SE-ADJ	LF2-SE	LF1-SE	LIN-TP5a-s	LIN-TANK1SE-WC-S	TANK1-SE	DUP-1	TANK2-SE	TANK2-SE-CONTENTS
Sample Depth				N/A	3 ft	3 ft	4 ft	3 - 3.5 ft	N/A	6 ft	6 ft	6 ft	N/A
Sampling Company				STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC
Laboratory				TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL
Laboratory Work Order				480-171430-3	480-171430-3	480-171430-3	480-171430-3	460-162801-1	480-156763-1	480-171430-3	480-171430-3	480-171430-3	480-171430-3
Laboratory Sample ID				480-171430-2	480-171430-5	480-171430-6	480-171430-7	460-162872-2	480-156764-2	480-171430-1	480-171430-11	480-171430-4	480-171430-4
Sample Type	Units	NYSDEC-Part 375	NYSDEC CP-51								Field Duplicate		
Semi-Volatile Organic Compounds													
Acenaphthene	µg/kg	20,000 ^A 500,000 ^B 1,000,000 ^C 98,000 ^D	n/v	170 U	180 U	180 U	180 U	400 U	-	180 U	180 U	180 U	880 U
Acenaphthylene	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C 107,000 ^D	n/v	170 U	180 U	180 U	180 U	400 U	-	180 U	180 U	180 U	880 U
Acetophenone	µg/kg	100,000 ^A 1,000,000 ^D	n/v	170 U	180 U	180 U	180 U	400 U	-	180 U	180 U	180 U	880 U
Anthracene	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C 107,000 ^D	n/v	170 U	180 U	180 U	180 U	400 U	-	180 U	180 U	180 U	880 U
Atrazine	µg/kg	100,000 ^A 1,000,000 ^D	n/v	170 U	180 U	180 U	180 U	400 U	-	180 U	180 U	180 U	880 U
Benzaldehyde	µg/kg	100,000 ^A 1,000,000 ^D	n/v	170 U	180 U	180 U	180 U	400 U	-	180 U	180 U	180 U	880 U
Benzo(a)anthracene	µg/kg	1,000 ^A 5,600 ^B 11,000 ^C 1,000 ^D	n/v	170 U	180 U	180 U	180 U	400 U	-	180 U	180 U	180 U	880 U
Benzo(a)pyrene	µg/kg	1,000 ^A 1,000 ^B 1,100 ^C 22,000 ^D	n/v	170 U	180 U	180 U	180 U	400 U	-	180 U	180 U	180 U	880 U
Benzo(b)fluoranthene	µg/kg	1,000 ^A 5,600 ^B 11,000 ^C 1,700 ^D	n/v	170 U	180 U	180 U	180 U	400 U	-	180 U	180 U	180 U	880 U
Benzo(g,h,i)perylene	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C 107,000 ^D	n/v	170 U	180 U	180 U	180 U	400 U	-	180 U	180 U	180 U	880 U
Benzo(k)fluoranthene	µg/kg	800 ^A 56,000 ^B 110,000 ^C 1,700 ^D	n/v	170 U	180 U	180 U	180 U	400 U	-	180 U	180 U	180 U	880 U
Biphenyl	µg/kg	100,000 ^A 1,000,000 ^D	500,000 ^E 1,000,000 ^F	170 U	180 U	180 U	180 U	400 U	-	180 U	180 U	180 U	880 U
Bis(2-Chloroethoxy)methane	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C 107,000 ^D	n/v	170 U	180 U	180 U	180 U	400 U	-	180 U	180 U	180 U	880 U
Bis(2-Chloroisopropyl)ether (2,2-oxybis(1-Chloropropane))	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C 107,000 ^D	n/v	170 U	180 U	180 U	180 U	400 U	-	180 U	180 U	180 U	880 U
Bis(2-Ethylhexyl)phthalate (DEHP)	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C 107,000 ^D	500,000 ^E 1,000,000 ^F 435,000 ^G	170 U	180 U	180 U	180 U	400 U	-	180 U	180 U	180 U	880 U
Bromophenyl Phenyl Ether, 4-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C 107,000 ^D	n/v	170 U	180 U	180 U	180 U	400 U	-	180 U	180 U	180 U	880 U
Butyl Benzyl Phthalate	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C 107,000 ^D	500,000 ^E 1,000,000 ^F 122,000 ^G	170 U	180 U	180 U	180 U	400 U	-	180 U	180 U	180 U	880 U
Caprolactam	µg/kg	100,000 ^A 1,000,000 ^D	n/v	170 U	180 U	180 U	180 U	400 U	-	180 U	180 U	180 U	880 U
Carbazole	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C 107,000 ^D	n/v	170 U	180 U	180 U	180 U	400 U	-	180 U	180 U	180 U	880 U
Chloro-3-methyl phenol, 4-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C 107,000 ^D	n/v	170 U	180 U	180 U	180 U	400 U	-	180 U	180 U	180 U	880 U
Chloroaniline, 4-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C 107,000 ^D	500,000 ^E 1,000,000 ^F 220 ^G	170 U	180 U	180 U	180 U	400 U	-	180 U	180 U	180 U	880 U
Chloronaphthalene, 2-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C 107,000 ^D	n/v	170 U	180 U	180 U	180 U	400 U	-	180 U	180 U	180 U	880 U
Chlorophenol, 2- (ortho-Chlorophenol)	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C 107,000 ^D	500,000 ^E 1,000,000 ^F	170 U	180 U	180 U	180 U	400 U	-	180 U	180 U	180 U	880 U
Chlorophenyl Phenyl Ether, 4-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C 107,000 ^D	n/v	170 U	180 U	180 U	180 U	400 U	-	180 U	180 U	180 U	880 U
Chrysene	µg/kg	1,000 ^A 56,000 ^B 110,000 ^C 1,000 ^D	n/v	170 U	180 U	180 U	180 U	400 U	-	180 U	180 U	180 U	880 U
Cresol, o- (Methylphenol, 2-)	µg/kg	330 ^A 500,000 ^B 1,000,000 ^C 330 ^D	n/v	170 U	180 U	180 U	180 U	400 U	-	180 U	180 U	180 U	880 U
Cresol, p- (Methylphenol, 4-)	µg/kg	330 ^A 500,000 ^B 1,000,000 ^C 330 ^D	n/v	330 U	340 U	350 U	340 U	780 U	-	340 U	350 U	340 U	1,700 U
Dibenzo(a,h)anthracene	µg/kg	330 ^A 560 ^B 1,100 ^C 1,000,000 ^D	n/v	170 U	180 U	180 U	180 U	400 U	-	180 U	180 U	180 U	880 U
Dibenzofuran	µg/kg	7,000 ^A 350,000 ^B 1,000,000 ^C 210,000 ^D	500,000 ^E 1,000,000 ^F 6,200 ^G	170 U	180 U	180 U	180 U	400 U	-	180 U	180 U	180 U	880 U
Dibutyl Phthalate (DBP)	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C 107,000 ^D	500,000 ^E 1,000,000 ^F 8,100 ^G	170 U	180 U	180 U	180 U	400 U	-	180 U	180 U	180 U	880 U
Dichlorobenzidine, 3,3'-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C 107,000 ^D	n/v	170 U	180 U	180 U	180 U	400 U	-	180 U	180 U	180 U	880 U
Dichlorophenol, 2,4-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C 107,000 ^D	500,000 ^E 1,000,000 ^F 400 ^G	170 U	180 U	180 U	180 U	400 U	-	180 U	180 U	180 U	880 U
Diethyl Phthalate	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C 107,000 ^D	500,000 ^E 1,000,000 ^F 7,100 ^G	170 U	180 U	180 U	180 U	400 U	-	180 U	180 U	180 U	880 U
Dimethyl Phthalate	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C 107,000 ^D	500,000 ^E 1,000,000 ^F 27,000 ^G	170 U	180 U	180 U	180 U	400 U	-	180 U	180 U	180 U	880 U
Dimethylphenol, 2,4-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C 107,000 ^D	n/v	170 U	180 U	180 U	180 U	400 U	-	180 U	180 U	180 U	880 U
Dinitro-o-cresol, 4,6-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C 107,000 ^D	n/v	330 U	340 U	350 U	340 U	780 U	-	340 U	350 U	340 U	1,700 U
Dinitrophenol, 2,4-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C 107,000 ^D	500,000 ^E 1,000,000 ^F 200 ^G	330 U	340 U	350 U	340 U	780 U	-	340 U	350 U	340 U	1,700 U
Dinitrotoluene, 2,4-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C 107,000 ^D	n/v	170 U	180 U	180 U	180 U	400 U	-	180 U	180 U	180 U	880 U
Dinitrotoluene, 2,6-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C 107,000 ^D	500,000 ^E 1,000,000 ^F 1,000/170 ^G 1	170 U	180 U	180 U	180 U	400 U	-	180 U	180 U	180 U	880 U
Di-n-Octyl phthalate	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C 107,000 ^D	500,000 ^E 1,000,000 ^F 120,000 ^G	170 U	180 U	180 U	180 U	400 U	-	180 U	180 U	180 U	880 U
Dioxane, 1,4-	µg/kg	100 ^A 130,000 ^B 250,000 ^C 100 ^D	n/v	100 U	100 U	110 U	100 U	-	-	100 U	110 U	100 U	520 U
Fluoranthene	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C 107,000 ^D	n/v	170 U	180 U	180 U	180 U	400 U	-	180 U	180 U	180 U	880 U
Fluorene	µg/kg	30,000 ^A 500,000 ^B 1,000,000 ^C 386,000 ^D	n/v	170 U	180 U	180 U	180 U	400 U	-	180 U	180 U	180 U	880 U
Hexachlorobenzene	µg/kg	330 ^A 6,000 ^B 12,000 ^C 3,200 ^D	500,000 ^E 1,000,000 ^F 1,400 ^G	170 U	180 U	180 U	180 U	400 U	-	180 U	180 U	180 U	880 U
Hexachlorobutadiene (Hexachloro-1,3-butadiene)	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C 107,000 ^D	n/v	170 U	180 U	180 U	180 U	400 U	-	180 U	180 U	180 U	880 U
Hexachlorocyclopentadiene	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C 107,000 ^D	500,000 ^E 1,000,000 ^F	170 U	180 U	180 U	180 U	400 U	-	180 U	180 U	180 U	880 U
Hexachloroethane	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C 107,000 ^D	n/v	170 U	180 U	180 U	180 U	400 U	-	180 U	180 U	180 U	880 U
Indeno(1,2,3-cd)pyrene	µg/kg	500 ^A 5,600 ^B 11,000 ^C 8,200 ^D	n/v	170 U	180 U								

Table 6
Summary of Analytical Results for Southeast Septic System (RAOC-1) Investigation Soil Samples
Site Management Plan
820 Linden Ave Site, BCP #C828200
820 Linden Avenue, Pittsford, NY

Sample Location				DBOX-SE		LF-SE		TANK1-SE				TANK2-SE	
Sample Date				18-Jun-20	18-Jun-20	18-Jun-20	18-Jun-20	17-Aug-18	24-Jul-19	18-Jun-20	18-Jun-20	18-Jun-20	18-Jun-20
Sample ID				DBOX-SE	DBOX-SE-ADJ	LF2-SE	LF1-SE	LIN-TP5a-s	LIN-TANK1SE-WC-S	TANK1-SE	DUP-1	TANK2-SE	TANK2-SE-CONTENTS
Sample Depth				N/A	3 ft	3 - 3.5 ft	4 ft	3 - 3.5 ft	N/A	6 ft	6 ft	6 ft	N/A
Sampling Company				STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC
Laboratory				TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL
Laboratory Work Order				480-171430-3	480-171430-3	480-171430-3	480-171430-3	460-162801-1	480-156763-1	480-171430-3	480-171430-3	480-171430-3	480-171430-3
Laboratory Sample ID				480-171430-2	480-171430-5	480-171430-6	480-171430-7	460-162872-2	480-156764-2	480-171430-1	480-171430-11	480-171430-11	480-171430-4
Sample Type	Units	NYSDEC-Part 375	NYSDEC CP-51								Field Duplicate		
Volatile Organic Compounds													
Acetone	µg/kg	50 ^{AD} 500,000, ^B 1,000,000, ^C	n/v	26 U	26 U	27 U	26 U	5.2 U	-	26 U	22 U	26 U	26 U
Benzene	µg/kg	60 ^{AD} 44,000 ^B 89,000 ^C	n/v	5.1 U	5.1 U	5.4 U	5.2 U	1.0 U	-	5.2 U	4.4 U	5.2 U	5.1 U
Bromodichloromethane	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	n/v	5.1 U	5.1 U	5.4 U	5.2 U	1.0 U	-	5.2 U	4.4 U	5.2 U	5.1 U
Bromoform (Tribromomethane)	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	n/v	5.1 U	5.1 U	5.4 U	5.2 U	1.0 U	-	5.2 U	4.4 U	5.2 U	5.1 U
Bromomethane (Methyl bromide)	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	n/v	5.1 U	5.1 U	5.4 U	5.2 U	1.0 U	-	5.2 U	4.4 U	5.2 U	5.1 U
Butylbenzene, n-	µg/kg	12,000 ^{AD} 500,000, ^B 1,000,000, ^C	n/v	5.1 U	5.1 U	5.4 U	5.2 U	1.0 U	-	5.2 U	4.4 U	5.2 U	5.1 U
Butylbenzene, sec- (2-Phenylbutane)	µg/kg	11,000 ^{AD} 500,000, ^B 1,000,000, ^C	n/v	5.1 U	5.1 U	5.4 U	5.2 U	1.0 U	-	5.2 U	4.4 U	5.2 U	5.1 U
Butylbenzene, tert-	µg/kg	5,900 ^{AD} 500,000, ^B 1,000,000, ^C	n/v	5.1 U	5.1 U	5.4 U	5.2 U	1.0 U	-	5.2 U	4.4 U	5.2 U	5.1 U
Carbon Disulfide	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	500,000, ^E 1,000,000, ^F 2,700 ^G	5.1 U	5.1 U	5.4 U	5.2 U	1.0 U	-	5.2 U	4.4 U	5.2 U	5.1 U
Carbon Tetrachloride (Tetrachloromethane)	µg/kg	760 ^{AD} 22,000 ^B 44,000 ^C	n/v	5.1 U	5.1 U	5.4 U	5.2 U	1.0 U	-	5.2 U	4.4 U	5.2 U	5.1 U
Chlorobenzene (Monochlorobenzene)	µg/kg	1,100 ^{AD} 500,000, ^B 1,000,000, ^C	n/v	5.1 U	5.1 U	5.4 U	5.2 U	1.0 U	-	5.2 U	4.4 U	5.2 U	5.1 U
Chloroethane (Ethyl Chloride)	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	500,000, ^E 1,000,000, ^F 1,900 ^G	5.1 U	5.1 U	5.4 U	5.2 U	1.0 U	-	5.2 U	4.4 U	5.2 U	5.1 U
Chloroform (Trichloromethane)	µg/kg	370 ^{AD} 350,000 ^B 700,000 ^C	n/v	5.1 U	5.1 U	5.4 U	5.2 U	1.0 U	-	5.2 U	4.4 U	5.2 U	5.1 U
Chloromethane	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	n/v	5.1 U	5.1 U	5.4 U	5.2 U	1.0 U	-	5.2 U	4.4 U	5.2 U	5.1 U
Cyclohexane	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	n/v	5.1 U	5.1 U	5.4 U	5.2 U	1.0 U	-	5.2 U	4.4 U	5.2 U	5.1 U
Dibromo-3-Chloropropane, 1,2- (DBCP)	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	n/v	5.1 U	5.1 U	5.4 U	5.2 U	1.0 U	-	5.2 U	4.4 U	5.2 U	5.1 U
Dibromochloromethane	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	500,000, ^E 1,000,000, ^F	5.1 U	5.1 U	5.4 U	5.2 U	1.0 U	-	5.2 U	4.4 U	5.2 U	5.1 U
Dichlorobenzene, 1,2-	µg/kg	1,100 ^{AD} 500,000, ^B 1,000,000, ^C	n/v	5.1 U	5.1 U	5.4 U	5.2 U	1.0 U	-	5.2 U	4.4 U	5.2 U	5.1 U
Dichlorobenzene, 1,3-	µg/kg	2,400 ^{AD} 280,000 ^B 560,000 ^C	n/v	5.1 U	5.1 U	5.4 U	5.2 U	1.0 U	-	5.2 U	4.4 U	5.2 U	5.1 U
Dichlorobenzene, 1,4-	µg/kg	1,800 ^{AD} 130,000 ^B 250,000 ^C	n/v	5.1 U	5.1 U	5.4 U	5.2 U	1.0 U	-	5.2 U	4.4 U	5.2 U	5.1 U
Dichlorodifluoromethane (Freon 12)	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	n/v	5.1 U	5.1 U	5.4 U	5.2 U	1.0 U	-	5.2 U	4.4 U	5.2 U	5.1 U
Dichloroethane, 1,1-	µg/kg	270 ^{AD} 240,000 ^B 480,000 ^C	n/v	5.1 U	5.1 U	5.4 U	5.2 U	1.0 U	-	5.2 U	4.4 U	5.2 U	5.1 U
Dichloroethane, 1,2-	µg/kg	20, ^A 30,000 ^B 60,000 ^C 20, ^D	n/v	5.1 U	5.1 U	5.4 U	5.2 U	1.0 U	-	5.2 U	4.4 U	5.2 U	5.1 U
Dichloroethene, 1,1-	µg/kg	330 ^{AD} 500,000, ^B 1,000,000, ^C	n/v	5.1 U	5.1 U	5.4 U	5.2 U	1.0 U	-	5.2 U	4.4 U	5.2 U	5.1 U
Dichloroethene, cis-1,2-	µg/kg	250 ^{AD} 500,000, ^B 1,000,000, ^C	n/v	5.1 U	5.1 U	5.4 U	5.2 U	1.0 U	-	5.2 U	4.4 U	5.2 U	5.1 U
Dichloroethene, trans-1,2-	µg/kg	190 ^{AD} 500,000, ^B 1,000,000, ^C	n/v	5.1 U	5.1 U	5.4 U	5.2 U	1.0 U	-	5.2 U	4.4 U	5.2 U	5.1 U
Dichloropropane, 1,2-	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	500,000, ^E 1,000,000, ^F	5.1 U	5.1 U	5.4 U	5.2 U	1.0 U	-	5.2 U	4.4 U	5.2 U	5.1 U
Dichloropropene, cis-1,3-	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	n/v	5.1 U	5.1 U	5.4 U	5.2 U	1.0 U	-	5.2 U	4.4 U	5.2 U	5.1 U
Dichloropropene, trans-1,3-	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	n/v	5.1 U	5.1 U	5.4 U	5.2 U	1.0 U	-	5.2 U	4.4 U	5.2 U	5.1 U
Ethylbenzene	µg/kg	1,000 ^{AD} 390,000 ^B 780,000 ^C	n/v	5.1 U	5.1 U	5.4 U	5.2 U	1.0 U	-	5.2 U	4.4 U	5.2 U	5.1 U
Ethylene Dibromide (Dibromoethane, 1,2-)	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	n/v	5.1 U	5.1 U	5.4 U	5.2 U	1.0 U	-	5.2 U	4.4 U	5.2 U	5.1 U
Hexanone, 2- (Methyl Butyl Ketone)	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	n/v	26 U	26 U	27 U	26 U	5.2 U	-	26 U	22 U	26 U	26 U
Isopropylbenzene	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	500,000, ^E 1,000,000, ^F 2,300 ^G	5.1 U	5.1 U	5.4 U	5.2 U	1.0 U	-	5.2 U	4.4 U	5.2 U	5.1 U
Isopropyltoluene, p- (Cymene)	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	500,000, ^E 1,000,000, ^F 10,000 ^G	5.1 U	5.1 U	5.4 U	5.2 U	1.0 U	-	5.2 U	4.4 U	5.2 U	5.1 U
Methyl Acetate	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	n/v	26 U	26 U	27 U	26 U	5.2 U	-	26 U	22 U	26 U	26 U
Methyl Ethyl Ketone (MEK) (2-Butanone)	µg/kg	120 ^{AD} 500,000, ^B 1,000,000, ^C	500,000, ^E 1,000,000, ^F 300 ^G	26 U	26 U	27 U	26 U	5.2 U	-	26 U	22 U	26 U	26 U
Methyl Isobutyl Ketone (MIBK)	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	500,000, ^E 1,000,000, ^F 1,000 ^G	26 U	26 U	27 U	26 U	5.2 U	-	26 U	22 U	26 U	26 U
Methyl tert-butyl ether (MTBE)	µg/kg	930 ^{AD} 500,000, ^B 1,000,000, ^C	n/v	5.1 U	5.1 U	5.4 U	5.2 U	1.0 U	-	5.2 U	4.4 U	5.2 U	5.1 U
Methylcyclohexane	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	n/v	5.1 U	5.1 U	5.4 U	5.2 U	1.0 U	-	5.2 U	4.4 U	5.2 U	5.1 U
Methylene Chloride (Dichloromethane)	µg/kg	50 ^{AD} 500,000, ^B 1,000,000, ^C	n/v	8.9	8.3	5.4 U	5.2 U	1.0 U	-	5.2 U	4.4 U	5.2 U	5.1 U
Naphthalene	µg/kg	12,000 ^{AD} 500,000, ^B 1,000,000, ^C	n/v	5.1 U	5.1 U	5.4 U	5.2 U	1.0 U	-	5.2 U	4.4 U	5.2 U	5.1 U
Propylbenzene, n-	µg/kg	3,900 ^{AD} 500,000, ^B 1,000,000, ^C	n/v	5.1 U	5.1 U	5.4 U	5.2 U	1.0 U	-	5.2 U	4.4 U	5.2 U	5.1 U
Styrene	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	500,000, ^E 1,000,000, ^F	5.1 U	5.1 U	5.4 U	5.2 U	1.0 U	-	5.2 U	4.4 U	5.2 U	5.1 U
Tetrachloroethane, 1,1,2,2-	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	500,000, ^E 1,000,000, ^F 600 ^G	5.1 U	5.1 U	5.4 U	5.2 U	1.0 U	-	5.2 U	4.4 U	5.2 U	5.1 U
Tetrachloroethene (PCE)	µg/kg	1,300 ^{AD} 150,000 ^B 300,000 ^C	500,000, ^E 1,000,000, ^F	5.1 U	5.1 U	5.4 U	5.2 U	1.0 U	-	5.2 U	4.4 U	5.2 U	5.1 U
Toluene	µg/kg	700 ^{AD} 500,000, ^B 1,000,000, ^C	n/v	5.1 U	5.1 U	5.4 U	5.2 U	1.0 U	-	5.2 U	4.4 U	5.2 U	5.1 U
Trichlorobenzene, 1,2,4-	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	500,000, ^E 1,000,000, ^F 3,400 ^G	5.1 U	5.1 U	5.4 U	5.2 U	1.0 U	-	5.2 U	4.4 U	5.2 U	5.1 U
Trichloroethane, 1,1,1-	µg/kg	680 ^{AD} 500,000, ^B 1,000,000, ^C	n/v	5.1 U	5.1 U	5.4 U	5.2 U	1.0 U	-	5.2 U	4.4 U	5.2 U	5.1 U
Trichloroethane, 1,1,2-	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	n/v	5.1 U	5.1 U	5.4 U	5.2 U	1.0 U	-	5.2 U	4.4 U	5.2 U	5.1 U
Trichloroethene (TCE)	µg/kg	470 ^{AD} 200,000 ^B 400,000 ^C	n/v	5.1 U	5.1 U	5.4 U	5.2 U	1.0 U	-	5.2 U	4.4 U	5.2 U	5.1 U
Trichlorofluoromethane (Freon 11)	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	n/v	5.1 U	5.1 U	5.4 U	5.2 U	1.0 U	-	5.2 U	4.4 U	5.2 U	5.1 U
Trichlorotrifluoroethane (Freon 113)	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	500,000, ^E 1,000,000, ^F 6,000 ^G	5.1 U	5.1 U	5.4 U	5.2 U	1.0 U	-	5.2 U	4.4 U	5.2 U	5.1 U
Trimethylbenzene, 1,2,4-	µg/kg	3,600 ^{AD} 190,000 ^B 380,000 ^C	n/v	5.1 U	5.1 U	5.4 U	5.2 U	1.0 U	-	5.2 U	4.4 U	5.2 U	5.1 U
Trimethylbenzene, 1,3,5-	µg/kg	8,400 ^{AD} 190,000 ^B 380,000 ^C	n/v	5.1 U	5.1 U	5.4 U	5.2 U	1.0 U	-	5.2 U	4.4 U	5.2 U	5.1 U
Vinyl Chloride	µg/kg	20 ^{AD} 13,000 ^B 27,000 ^C	n/v	5.1 U	5.1 U	5.4 U	5.2 U	1.0 U	-	5.2 U	4.4 U	5.2 U	5.1 U
Xylene, m & p-	µg/kg	260, ^A 500,000, ^B 1,000,000, ^C 1,600, ^D	n/v	10 U	10 U	11 U	10 U	1.0 U	-	10 U	8.8 U	10 U	10 U
Xylene, o-	µg/kg	260, ^A 500,000, ^B 1,000,000, ^C 1,600, ^D	n/v	5.1 U	5.1 U	5.4 U	5.2 U	1.0 U	-	5.2 U	4.4 U	5.2 U	5.1 U
Xylenes, Total	µg/kg	260 ^A 500,000, ^B 1,000,000, ^C 1,600 ^D	n/v	10 U	10 U	11 U	10 U	2.1 U	-	10 U			

See notes on last page.

Table 6
Summary of Analytical Results for Southeast Septic System (RAOC-1) Investigation Soil Samples
Site Management Plan
820 Linden Ave Site, BCP #C828200
820 Linden Avenue, Pittsford, NY

Notes:	
NYSDEC-Part 375	NYSDEC 6 NYCRR Part 375 Soil Clean-up Objectives (SCOs)
A	NYSDEC 6 NYCRR Part 375 - Unrestricted Use Soil Cleanup Objectives
B	NYSDEC 6 NYCRR Part 375 - Restricted Use SCO - Protection of Human Health - Commercial
C	NYSDEC 6 NYCRR Part 375 - Restricted Use SCO - Protection of Human Health - Industrial
D	NYSDEC 6 NYCRR Part 375 - Restricted Use SCO - Protection of Groundwater
NYSDEC CP-51	New York State Department of Environmental Conservation, DEC Policy CP-51, October 21, 2010
E	Table 1 Supplemental Soil Cleanup Objectives - Commercial
F	Table 1 Supplemental Soil Cleanup Objectives - Industrial
G	Table 1 Supplemental Soil Cleanup Objectives - Protection of Groundwater
6.5 ^A	Concentration exceeds the indicated standard.
15.2	Measured concentration did not exceed the indicated standard.
0.03 U	Analyte was not detected at a concentration greater than the laboratory reporting limit.
n/v	No standard/guideline value.
-	Parameter not analyzed / not available.
A	The SCOs for unrestricted use were capped at a maximum value of 100 mg/kg. See 6 NYCRR Part 375 TSD Section 9.3
EFG	SCOs for organic contaminants (volatile organic compounds, semivolatile organic compounds, and pesticides) are capped at 100 ppm for residential use, 500 ppm for commercial use, 1000 ppm for industrial use. SCOs for metals are capped at 10,000 ppm.
a	Based on rural background study
b	Based on rural background study. The value of 1.0 refers to SVOC analses while the 0.17b refers to VOC analyses.
b.s1	The SCOs for commercial use were capped at a maximum value of 500 mg/kg. See TSD Section 9.3.
c	The SCOs for commercial use were capped at a maximum value of 500 mg/kg. See TSD Section 9.3. The criterion is applicable to total xylenes, and the individual isomers should be added for comparison.
c.p	The SCOs for industrial use and the protection of groundwater were capped at a maximum value of 1000 mg/kg (Organics) and 10000 mg/kg (Inorganics). See 6 NYCRR Part 375 TSD Section 9.3.
d	The SCOs for industrial use and the protection of groundwater were capped at a maximum value of 1000 mg/kg. See 6 NYCRR Part 375 TSD Section 9.3. The criterion is applicable to total xylenes, and the individual isomers should be added for comparison.
d.p	The SCOS for metals were capped at a maximum value of 10,000 mg/kg. See 6 NYCRR Part 375 TSD Section 9.3.
e	The SCOS for metals were capped at a maximum value of 10,000 mg/kg. See 6 NYCRR Part 375 TSD Section 9.3. The SCO for this specific compound (or family of compounds) is considered to be met if the analysis for the total species of this contaminant is below the specific SCO.
e.l	For constituents where the calculated SCO was lower than the CRQL, the CRQL is used as the SCO value.
f	For constituents where the calculated SCO was lower than the rural soil background concentration as determined by the DEC/DOH rural soil survey, the rural soil background concentration is used as the Track 2 SCO value for this use of the site.
g	The SCO for this specific compound (or family of compounds) is considered to be met if the analysis for the total species of this contaminant is below the specific SCO.
i	This SCO is the sum of endosulfan I, endosulfan II, and endosulfan sulfate.
j	This SCO is the lower of the values for mercury (elemental) or mercury (inorganic salts). See 6 NYCRR Part 375 TSD Table 5.6-1.
k	For constituents where the calculated SCO was lower than the Contract Required Quantitation Limit (CRQL), the CRQL is used as the Track 1 SCO value.
m	For constituents where the calculated SCO was lower than the rural soil background concentration as determined by the DEC/DOH rural soil survey, the rural soil background concentration is used as the Track 1 SCO value for this use of the site.
n	For constituents where the calculated SCO was lower than the rural soil background concentration as determined by the DEC/DOH rural soil survey, the rural soil background concentration is used as the Track 1 SCO value for this use of the site.
n.l	The SCO for this specific compound (or family of compounds) is considered to be met if the analysis for the total species of this contaminant is below the specific SCO.
NS,q	No SCO has been established for this compound. No SCO has been established for total chromium; however, see standards for trivalent and hexavalent chromium.
o	Standard is applicable to total PCBs, and the individual Aroclors should be added for comparison.
p	The criterion is applicable to total xylenes, and the individual isomers should be added for comparison.
>	Greater than.
J	The reported result is an estimated value.
J-	The analyte was positively identified; the associated numerical value is an estimated quantity that may be biased low.
N	Presumptive evidence of material.
ND	Not detected.
T	Result is a tentatively identified compound (TIC) and an estimated value.
UJ	Indicates estimated non-detect.
TAL	Eurofins Test America Laboratory

Table 7
Summary of Analytical Results for Southwest Septic System (RAOC-2) Confirmatory Soil Samples
Site Management Plan
820 Linden Ave Site, BCP #C828200
820 Linden Avenue, Pittsford, NY

Sample Location					LF-SW (bottom)					LF-SW (sidewall)									
Sample Date	Sample ID				30-Jun-20	1-Jul-20	1-Jul-20	29-Jun-20	1-Jul-20	29-Jun-20	30-Jun-20	30-Jun-20	1-Jul-20	30-Jun-20	30-Jun-20	30-Jun-20	30-Jun-20	1-Jul-20	1-Jul-20
Sample Depth	Sample ID				LF-SW-CSBOT-3	LF-SW-CSBOT 1	LF-SW-CSBOT 2	LF-SW-CSBOT 4	LF-SW-CSSIDE 4	LF-SW-CSSIDE 8	LF-SW-CSSIDE-5	LF-SW-CSSIDE-6	LF-SW-CSSIDE 1	LF-SW-CSSIDE7	LF-SW-CSDUP-2	LF-SW-CSSIDE-9	LF-SW-CSSIDE 2	LF-SW-CSSIDE 3	
Sampling Company	Sample ID				4.3 ft	4.3 ft	4.3 ft	4.3 ft	3 ft	3 ft	3 ft	3 ft	3 ft	3.2 ft	3.2 ft	3.2 ft	3.2 ft	3.2 ft	
Laboratory	Sample ID				STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	
Laboratory Work Order	Sample ID				TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	
Laboratory Sample ID	Sample ID				460-212321-1	460-212454-1	460-212454-1	460-212188-1	460-212454-1	460-212188-1	460-212321-1	460-212321-1	460-212454-1	460-212321-1	460-212321-1	460-212321-1	460-212321-1	460-212454-1	
Sample Type	Sample ID				460-212321-3	460-212454-6	460-212454-4	460-212188-11	460-212454-5	460-212188-12	460-212321-4	460-212321-6	460-212454-3	460-212321-1	460-212321-2	Field Duplicate	460-212321-5	460-212454-2	460-212454-1
Units																			
NYSDEC-Part 375		NYSDEC CP-51																	
Metals																			
Aluminum	mg/kg	10,000 ^{ABCD}	10,000 ^{EFG}	6,410	5,680	3,800	8,320	9,440	7,030	7,670	7,020	4,920	8,630	8,340	9,080	6,160	7,850		
Antimony	mg/kg	10,000 ^{ABCD}	10,000 ^{EFG}	29.4 U	31.0 U	28.7 U	30.6 U	29.2 U	32.4 U	30.0 U	31.6 U	29.0 UJ	31.2 U	30.2 U	30.3 U	30.3 U	30.1 U		
Arsenic	mg/kg	13 ^A 16 ^a	n/v	3.9 U	4.1 U	3.8 U	4.1 U	3.9 U	4.4	4.0 U	4.2 U	3.9 U	4.2 U	4.0 U	4.0 U	4.0 U	4.0 U		
Barium	mg/kg	350 ^A 400 ^B 10,000 ^C 820 ^D	n/v	9.0	12.0	10.3	15.2	16.0	25.0	31.1	35.6	9.5	41.0 J	11.7 J	24.6	11.7	19.5		
Beryllium	mg/kg	7.2 ^A 590 ^B 2,700 ^C 47 ^D	n/v	0.39 U	0.41 U	0.38 U	0.41 U	0.39 U	0.43 U	0.40 U	0.42 U	0.39 U	0.42 U	0.40 U	0.40 U	0.40 U	0.40 U		
Cadmium	mg/kg	2.5 ^A 9.3 ^B 60 ^C 7.5 ^D	n/v	0.39 U	0.41 U	0.38 U	0.41 U	0.39 U	0.43 U	0.47	0.42 U	0.39 U	0.84	0.40 U	0.40 U	0.40 U	0.40 U		
Calcium	mg/kg	10,000 ^{ABCD}	10,000 ^a	1,050	1,630	1,480	638	516	2,390	1,160	1,670	1,060	1,410	995	990	997	1,080		
Chromium	mg/kg	30 ⁿ 1,500 ^B 6,800 ^C ns ^a ^D	n/v	6.4	6.0	5.4	8.0	8.7	7.9	7.2	8.4	5.2	9.0	7.9	8.6	6.0	7.6		
Cobalt	mg/kg	10,000 ^{ABCD}	10,000 ^{EFG}	2.9	4.6	3.2	3.3	3.4	2.2	1.9	2.1	2.1	1.9	2.2	2.7	3.4	2.8		
Copper	mg/kg	50 ^A 270 ^B 10,000 ^C 1,720 ^D	n/v	7.5	8.5	7.5	6.2	7.5	15.5	5.2	15.5	6.2	17.6 J	5.7 J	7.3	7.7	15.2		
Iron	mg/kg	10,000 ^{ABCD}	10,000 ^{EFG}	8,700	9,450	8,120	10,300 ^{ABCEFG}	10,100 ^{ABCEFG}	9,900	8,250	7,000	6,980	7,940	11,100 ^{ABCEFG}	8,090	8,430	7,770		
Lead	mg/kg	63 ⁿ 1,000 ^B 3,900 ^C 450 ^D	n/v	2.9	3.5	2.9	4.0	4.7	27.2	14.5	21.6	3.6	12.2 J	4.0 J	6.6	4.0	6.8		
Magnesium	mg/kg	10,000 ^{ABCD}	n/v	1,250	1,630	1,160	1,160	1,380	1,030	909	963	1,120	978	1,030	1,120	1,440	1,320		
Manganese	mg/kg	1,600 ⁿ 10,000 ^a ^{BC} 2,000 ⁿ ^D	n/v	65.4	287	77.4	110	64.6	209	186	58.6	73.6	65.0	61.8	106	89.6	59.9		
Mercury	mg/kg	0.18 ^a 2.8 ^B 5.7 ^C 0.73 ^D	n/v	0.017 U	0.017 U	0.016 U	0.033	0.018 U	0.047	0.037	0.16	0.026	0.28 J ^A	0.064 J	0.073	0.019	0.079		
Nickel	mg/kg	30 ^A 310 ^B 10,000 ^C 130 ^D	n/v	9.8 U	10.3 U	9.6 U	10.2 U	9.7 U	10.8 U	10.0 U	10.5 U	9.7 U	10.4 U	10.1 U	10.1 U	10.1 U	10.0 U		
Potassium	mg/kg	10,000 ^{ABCD}	n/v	314	468	405	282	262	290	253	347	325	299	288	264	338	287		
Selenium	mg/kg	3.9 ^A 1,500 ^B 6,800 ^C 4 ⁿ ^D	n/v	7.8 U	8.3 U	7.7 U	8.2 U	7.8 U	8.6 U	8.0 U	8.4 U	7.7 U	8.3 U	8.1 U	8.1 U	8.1 U	8.0 U		
Silver	mg/kg	2 ^A 1,500 ^B 6,800 ^C 8.3 ^D	n/v	0.98 U	1.0 U	0.96 U	1.0 U	0.97 U	1.1 U	1.0 U	1.1 U	0.97 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U		
Sodium	mg/kg	10,000 ^{ABCD}	n/v	275 U	290 U	268 U	286 U	273 U	302 U	280 U	295 U	271 U	291 U	282 U	282 U	283 U	281 U		
Thallium	mg/kg	10,000 ^{ABCD}	10,000 ^a	11.8 U	12.4 U	11.5 U	12.3 U	11.7 U	12.9 U	12.0 U	12.6 U	11.6 U	12.5 U	12.1 U	12.1 U	12.1 U	12.1 U		
Vanadium	mg/kg	10,000 ^{ABCD}	10,000 ^{EFG}	14.2	12.2	10.9	16.4	16.4	12.2	11.5	11.6	10.2	12.9	14.2	14.5	11.6	11.4		
Zinc	mg/kg	109 ⁿ 10,000 ^a ^{BC} 2,480 ^D	n/v	15.7	19.3	16.2	23.6	27.9	50.1	97.0	39.6	18.8	44.5 J	24.9 J	38.5	16.6	33.8		
Polychlorinated Biphenyls																			
Aroclor 1016	µg/kg	^a ^{ABCD}	n/v	35 U	36 U	35 U	36 U	35 U	37 U	36 U	37 U	35 U	37 U	37 U	36 U	35 U	35 U		
Aroclor 1221	µg/kg	^a ^{ABCD}	n/v	35 U	36 U	35 U	36 U	35 U	37 U	36 U	37 U	35 U	37 U	37 U	36 U	35 U	35 U		
Aroclor 1232	µg/kg	^a ^{ABCD}	n/v	35 U	36 U	35 U	36 U	35 U	37 U	36 U	37 U	35 U	37 U	37 U	36 U	35 U	35 U		
Aroclor 1242	µg/kg	^a ^{ABCD}	n/v	35 U	36 U	35 U	36 U	35 U	37 U	36 U	37 U	35 U	37 U	37 U	36 U	35 U	35 U		
Aroclor 1248	µg/kg	^a ^{ABCD}	n/v	35 U	36 U	35 U	36 U	35 U	37 U	36 U	37 U	35 U	37 U	37 U	36 U	35 U	35 U		
Aroclor 1254	µg/kg	^a ^{ABCD}	n/v	35 U	36 U	35 U	36 U	35 U	37 U	36 U	37 U	35 U	37 U	37 U	36 U	35 U	35 U		
Aroclor 1260	µg/kg	^a ^{ABCD}	n/v	35 U	36 U	35 U	36 U	35 U	37 U	36 U	37 U	35 U	37 U	37 U	36 U	35 U	35 U		
Aroclor 1262	µg/kg	^a ^{ABCD}	n/v	35 U	36 U	35 U	36 U	35 U	37 U	36 U	37 U	35 U	37 U	37 U	36 U	35 U	35 U		
Aroclor 1268	µg/kg	^a ^{ABCD}	n/v	35 U	36 U	35 U	36 U	35 U	37 U	36 U	37 U	35 U	37 U	37 U	36 U	35 U	35 U		
Polychlorinated Biphenyls (PCBs)	µg/kg	100 ^A 1,000 ^B 25,000 ^C 3,200 ^D	n/v	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		

See notes on last page.

Table 7
Summary of Analytical Results for Southwest Septic System (RAOC-2) Confirmatory Soil Samples
Site Management Plan
820 Linden Ave Site, BCP #C828200
820 Linden Avenue, Pittsford, NY

Sample Location				LF-SW (bottom)				LF-SW (sidewall)											
Sample Date	Sample ID			30-Jun-20 LF-SW-CSBOT-3 4.3 ft STANTEC TAL 460-212321-1 460-212321-3	1-Jul-20 LF-SW-CSBOT 1 4.3 ft STANTEC TAL 460-212454-1 460-212454-6	1-Jul-20 LF-SW-CSBOT 2 4.3 ft STANTEC TAL 460-212454-1 460-212454-4	29-Jun-20 LF-SW-CSBOT 4 4.3 ft STANTEC TAL 460-212188-1 460-212188-11	1-Jul-20 LF-SW-CSSIDE 4 3 ft STANTEC TAL 460-212454-1 460-212454-5	29-Jun-20 LF-SW-CSSIDE 8 3 ft STANTEC TAL 460-212188-1 460-212188-12	30-Jun-20 LF-SW-CSSIDE-5 3 ft STANTEC TAL 460-212321-1 460-212321-4	30-Jun-20 LF-SW-CSSIDE-6 3 ft STANTEC TAL 460-212321-1 460-212321-6	1-Jul-20 LF-SW-CSSIDE 1 3 ft STANTEC TAL 460-212454-1 460-212454-3	30-Jun-20 LF-SW-CSSIDE7 3.2 ft STANTEC TAL 460-212321-1 460-212321-1	30-Jun-20 LF-SW-CSDUP-2 3.2 ft STANTEC TAL 460-212321-1 460-212321-2 Field Duplicate	30-Jun-20 LF-SW-CSSIDE-9 3.2 ft STANTEC TAL 460-212321-1 460-212321-5	1-Jul-20 LF-SW-CSSIDE 2 3.2 ft STANTEC TAL 460-212454-1 460-212454-2	1-Jul-20 LF-SW-CSSIDE 3 3.2 ft STANTEC TAL 460-212454-1 460-212454-1		
Sample Depth	Sample ID																		
Sampling Company	Sample ID																		
Laboratory	Sample ID																		
Laboratory Work Order	Sample ID																		
Laboratory Sample ID	Sample ID																		
Sample Type	Units	NYSDEC-Part 375	NYSDEC CP-51																
Volatile Organic Compounds																			
Acetone	µg/kg	50 ^{AD} 500,000, ^B 1,000,000, ^C	n/v	5.9 U	6.9 U	6.0 U	6.2 U	5.9 U	6.4 U	6.0 U	6.5 U	6.4 U	6.9 U	6.2 U	5.6 UJ	6.1 U	6.5 U		
Benzene	µg/kg	60 ^{AD} 44,000 ^B 89,000 ^C	n/v	0.99 U	1.1 U	1.0 U	1.0 U	0.99 U	1.1 U	1.0 U	1.1 U	1.1 U	1.2 U	1.0 U	0.93 UJ	1.0 U	1.1 U		
Bromodichloromethane	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	n/v	0.99 U	1.1 U	1.0 U	1.0 U	0.99 U	1.1 U	1.0 U	1.1 U	1.1 U	1.2 U	1.0 U	0.93 UJ	1.0 U	1.1 U		
Bromoform (Tribromomethane)	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	n/v	0.99 U	1.1 U	1.0 U	1.0 U	0.99 U	1.1 U	1.0 U	1.1 U	1.1 U	1.2 U	1.0 U	0.93 UJ	1.0 U	1.1 U		
Bromomethane (Methyl bromide)	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	n/v	0.99 U	1.1 U	1.0 U	1.0 U	0.99 U	1.1 U	1.0 U	1.1 U	1.1 U	1.2 U	1.0 U	0.93 UJ	1.0 U	1.1 U		
Butylbenzene, n-	µg/kg	12,000 ^{AD} 500,000, ^B 1,000,000, ^C	n/v	0.99 U	1.1 U	1.0 U	1.0 U	0.99 U	1.1 U	1.0 U	1.1 U	1.1 U	1.2 U	1.0 U	0.93 UJ	1.0 U	1.1 U		
Butylbenzene, sec- (2-Phenylbutane)	µg/kg	11,000 ^{AD} 500,000, ^B 1,000,000, ^C	n/v	0.99 U	1.1 U	1.0 U	1.0 U	0.99 U	1.1 U	1.0 U	1.1 U	1.1 U	1.2 U	1.0 U	0.93 UJ	1.0 U	1.1 U		
Butylbenzene, tert-	µg/kg	5,900 ^{AD} 500,000, ^B 1,000,000, ^C	n/v	0.99 U	1.1 U	1.0 U	1.0 U	0.99 U	1.1 U	1.0 U	1.1 U	1.1 U	1.2 U	1.0 U	0.93 UJ	1.0 U	1.1 U		
Carbon Disulfide	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	500,000, ^E 1,000,000, ^F 2,700 ^G	0.99 U	1.1 U	1.0 U	1.0 U	0.99 U	1.1 U	1.0 U	1.1 U	1.1 U	1.2 U	1.0 U	0.93 UJ	1.0 U	1.1 U		
Carbon Tetrachloride (Tetrachloromethane)	µg/kg	760 ^{AD} 22,000 ^B 44,000 ^C	n/v	0.99 U	1.1 U	1.0 U	1.0 U	0.99 U	1.1 U	1.0 U	1.1 U	1.1 U	1.2 U	1.0 U	0.93 UJ	1.0 U	1.1 U		
Chlorobenzene (Monochlorobenzene)	µg/kg	1,100 ^{AD} 500,000, ^B 1,000,000, ^C	n/v	0.99 U	1.1 U	1.0 U	1.0 U	0.99 U	1.1 U	1.0 U	1.1 U	1.1 U	1.2 U	1.0 U	0.93 UJ	1.0 U	1.1 U		
Chloroethane (Ethyl Chloride)	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	500,000, ^E 1,000,000, ^F 1,900 ^G	0.99 U	1.1 U	1.0 U	1.0 U	0.99 U	1.1 U	1.0 U	1.1 U	1.1 U	1.2 U	1.0 U	0.93 UJ	1.0 U	1.1 U		
Chloroform (Trichloromethane)	µg/kg	370 ^{AD} 350,000 ^B 700,000 ^C	n/v	0.99 U	1.1 U	1.0 U	1.0 U	0.99 U	1.1 U	1.0 U	1.1 U	1.1 U	1.2 U	1.0 U	0.93 UJ	1.0 U	1.1 U		
Chloromethane	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	n/v	0.99 U	1.1 U	1.0 U	1.0 U	0.99 U	1.1 U	1.0 U	1.1 U	1.1 U	1.2 U	1.0 U	0.93 UJ	1.0 U	1.1 U		
Cyclohexane	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	n/v	0.99 U	1.1 U	1.0 U	1.0 U	0.99 U	1.1 U	1.0 U	1.1 U	1.1 U	1.2 U	1.0 U	0.93 UJ	1.0 U	1.1 U		
Dibromo-3-Chloropropane, 1,2- (DBCP)	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	n/v	0.99 U	1.1 U	1.0 U	1.0 U	0.99 U	1.1 U	1.0 U	1.1 U	1.1 U	1.2 U	1.0 U	0.93 UJ	1.0 U	1.1 U		
Dibromochloromethane	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	500,000, ^E 1,000,000, ^F	0.99 U	1.1 U	1.0 U	1.0 U	0.99 U	1.1 U	1.0 U	1.1 U	1.1 U	1.2 U	1.0 U	0.93 UJ	1.0 U	1.1 U		
Dichlorobenzene, 1,2-	µg/kg	1,100 ^{AD} 500,000, ^B 1,000,000, ^C	n/v	0.99 U	1.1 U	1.0 U	1.0 U	0.99 U	1.1 U	1.0 U	1.1 U	1.1 U	1.2 U	1.0 U	0.93 UJ	1.0 U	1.1 U		
Dichlorobenzene, 1,3-	µg/kg	2,400 ^{AD} 280,000 ^B 560,000 ^C	n/v	0.99 U	1.1 U	1.0 U	1.0 U	0.99 U	1.1 U	1.0 U	1.1 U	1.1 U	1.2 U	1.0 U	0.93 UJ	1.0 U	1.1 U		
Dichlorobenzene, 1,4-	µg/kg	1,800 ^{AD} 130,000 ^B 250,000 ^C	n/v	0.99 U	1.1 U	1.0 U	1.0 U	0.99 U	1.1 U	1.0 U	1.1 U	1.1 U	1.2 U	1.0 U	0.93 UJ	1.0 U	1.1 U		
Dichlorodifluoromethane (Freon 12)	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	n/v	0.99 U	1.1 U	1.0 U	1.0 U	0.99 U	1.1 U	1.0 U	1.1 U	1.1 U	1.2 U	1.0 U	0.93 UJ	1.0 U	1.1 U		
Dichloroethane, 1,1-	µg/kg	270 ^{AD} 240,000 ^B 480,000 ^C	n/v	0.99 U	1.1 U	1.0 U	1.0 U	0.99 U	1.1 U	1.0 U	1.1 U	1.1 U	1.2 U	1.0 U	0.93 UJ	1.0 U	1.1 U		
Dichloroethane, 1,2-	µg/kg	20, ^A 30,000 ^B 60,000 ^C 20, ^D	n/v	0.99 U	1.1 U	1.0 U	1.0 U	0.99 U	1.1 U	1.0 U	1.1 U	1.1 U	1.2 U	1.0 U	0.93 UJ	1.0 U	1.1 U		
Dichloroethene, 1,1-	µg/kg	330 ^{AD} 500,000, ^B 1,000,000, ^C	n/v	0.99 U	1.1 U	1.0 U	1.0 U	0.99 U	1.1 U	1.0 U	1.1 U	1.1 U	1.2 U	1.0 U	0.93 UJ	1.0 U	1.1 U		
Dichloroethene, cis-1,2-	µg/kg	250 ^{AD} 500,000, ^B 1,000,000, ^C	n/v	0.99 U	1.1 U	1.0 U	1.0 U	0.99 U	1.1 U	1.0 U	1.1 U	1.1 U	1.2 U	1.0 U	0.93 UJ	1.0 U	1.1 U		
Dichloroethene, trans-1,2-	µg/kg	190 ^{AD} 500,000, ^B 1,000,000, ^C	n/v	0.99 U	1.1 U	1.0 U	1.0 U	0.99 U	1.1 U	1.0 U	1.1 U	1.1 U	1.2 U	1.0 U	0.93 UJ	1.0 U	1.1 U		
Dichloropropane, 1,2-	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	500,000, ^E 1,000,000, ^F	0.99 U	1.1 U	1.0 U	1.0 U	0.99 U	1.1 U	1.0 U	1.1 U	1.1 U	1.2 U	1.0 U	0.93 UJ	1.0 U	1.1 U		
Dichloropropene, cis-1,3-	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	n/v	0.99 U	1.1 UJ	1.0 UJ	1.0 U	0.99 UJ	1.1 U	1.0 U	1.1 U	1.1 U	1.2 U	1.0 U	0.93 UJ	1.0 UJ	1.1 UJ		
Dichloropropene, trans-1,3-	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	n/v	0.99 U	1.1 UJ	1.0 UJ	1.0 UJ	0.99 UJ	1.1 UJ	1.0 U	1.1 U	1.1 UJ	1.2 U	1.0 U	0.93 UJ	1.0 UJ	1.1 UJ		
Ethylbenzene	µg/kg	1,000 ^{AD} 390,000 ^B 780,000 ^C	n/v	0.99 U	1.1 U	1.0 U	1.0 U	0.99 U	1.1 U	1.0 U	1.1 U	1.1 U	1.2 U	1.0 U	0.93 UJ	1.0 U	1.1 U		
Ethylene Dibromide (Dibromoethane, 1,2-)	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	n/v	0.99 U	1.1 U	1.0 U	1.0 U	0.99 U	1.1 U	1.0 U	1.1 U	1.1 U	1.2 U	1.0 U	0.93 UJ	1.0 U	1.1 U		
Hexanone, 2- (Methyl Butyl Ketone)	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	n/v	4.9 U	5.7 U	5.0 U	5.1 U	5.0 U	5.3 U	5.0 U	5.4 U	5.4 U	5.8 U	5.2 U	4.7 UJ	5.1 U	5.4 U		
Isopropylbenzene	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	500,000, ^E 1,000,000, ^F 2,300 ^G	0.99 U	1.1 U	1.0 U	1.0 U	0.99 U	1.1 U	1.0 U	1.1 U	1.1 U	1.2 U	1.0 U	0.93 UJ	1.0 U	1.1 U		
Isopropyltoluene, p- (Cymene)	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	500,000, ^E 1,000,000, ^F 10,000 ^G	0.99 U	1.1 U	1.0 U	1.0 U	0.99 U	1.1 U	1.0 U	1.1 U	1.1 U	1.2 U	1.0 U	0.93 UJ	1.0 U	1.1 U		
Methyl Acetate	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	n/v	4.9 U	5.7 U	5.0 U	5.1 U	5.0 U	5.3 U	5.0 U	5.4 U	5.4 U	5.8 U	5.2 U	4.7 UJ	5.1 U	5.4 U		
Methyl Ethyl Ketone (MEK) (2-Butanone)	µg/kg	120 ^{AD} 500,000, ^B 1,000,000, ^C	500,000, ^E 1,000,000, ^F 300 ^G	4.9 U	5.7 U	5.0 U	5.1 U	5.0 U	5.3 U	5.0 U	5.4 U	5.4 U	5.8 U	5.2 U	4.7 UJ	5.1 U	5.4 U		
Methyl Isobutyl Ketone (MIBK)	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	500,000, ^E 1,000,000, ^F 1,000 ^G	4.9 U	5.7 U	5.0 U	5.1 U	5.0 U	5.3 U	5.0 U	5.4 U	5.4 U	5.						

Table 7
Summary of Analytical Results for Southwest Septic System (RAOC-2) Confirmatory Soil Samples
Site Management Plan
820 Linden Ave Site, BCP #C828200
820 Linden Avenue, Pittsford, NY

Sample Location Sample Date Sample ID Sample Depth Sampling Company Laboratory Laboratory Work Order Laboratory Sample ID Sample Type				TANK1-SW		TANK2-SW		TANK3-SW		TANK4-SW		TANK5-SW	
				29-Jun-20 TANK1-SW-CS1 8 ft STANTEC TAL 460-212188-1 460-212188-1	29-Jun-20 TANK1-SW-CS2 8 ft STANTEC TAL 460-212188-1 460-212188-2	29-Jun-20 TANK2-SW-CS1 8 ft STANTEC TAL 460-212188-1 460-212188-3	29-Jun-20 TANK2-SW-CS2 8 ft STANTEC TAL 460-212188-1 460-212188-4	29-Jun-20 TANK3-SW-CS1 9 ft STANTEC TAL 460-212188-1 460-212188-5	29-Jun-20 TANK3-SW-CS2 9 ft STANTEC TAL 460-212188-1 460-212188-6	29-Jun-20 TANK4-SW-CS1 9 ft STANTEC TAL 460-212188-1 460-212188-7	29-Jun-20 TANK4-SW-CS2 9 ft STANTEC TAL 460-212188-1 460-212188-8	29-Jun-20 TANK5-SW-CS1 9 ft STANTEC TAL 460-212188-1 460-212188-9	29-Jun-20 TANK5-SW-CS2 9 ft STANTEC TAL 460-212188-1 460-212188-10
	Units	NYSDEC-Part 375	NYSDEC CP-51										
Metals													
Aluminum	mg/kg	10,000 ^{ABCD}	10,000 ^{EFG}	3,120	3,090	2,740	2,320	2,640	3,680	3,360	2,830	5,900	6,430
Antimony	mg/kg	10,000 ^{ABCD}	10,000 ^{EF}	30.8 U	32.0 UJ	30.4 U	30.9 U	30.9 U	29.4 U	29.7 U	31.2 U	29.6 U	29.8 U
Arsenic	mg/kg	13 _n ^A 16 _n ^{BCD}	n/v	4.1 U	4.3 U	4.1 U	4.1 U	4.1 U	3.9 U	4.0 U	4.2 U	3.9 U	4.0 U
Barium	mg/kg	350 _n ^A 400 ^B 10,000 _n ^C 820 ^D	n/v	8.9	8.2	9.6	8.1	9.9	10.1	10.0	10.1	15.4	24.9
Beryllium	mg/kg	7.2 ^A 590 ^B 2,700 ^C 47 ^D	n/v	0.41 U	0.43 U	0.41 U	0.41 U	0.41 U	0.39 U	0.40 U	0.42 U	0.39 U	0.40 U
Cadmium	mg/kg	2.5 _n ^A 9.3 ^B 60 ^C 7.5 ^D	n/v	0.41 U	0.43 U	0.41 U	0.41 U	0.41 U	0.39 U	0.40 U	0.42 U	0.39 U	0.62
Calcium	mg/kg	10,000 ^{ABCD}	10,000 ^{EF}	1,360	1,300	1,380	1,360	1,450	1,300	1,230	1,100	1,060	1,140
Chromium	mg/kg	30 _n ^A 1,500 ^B 6,800 ^C ns _n ^D	n/v	4.0	4.1	4.2	3.8	4.4	4.2	4.0	3.9	5.6	6.8
Cobalt	mg/kg	10,000 ^{ABCD}	10,000 ^{EF}	2.4	2.5	2.6	2.3	2.6	2.5	2.3	2.3	2.1	2.9
Copper	mg/kg	50 ^A 270 ^B 10,000 ^C 1,720 ^D	n/v	17.1	5.8	5.8	12.1	49.5	6.7	5.5	5.5	5.5	8.5
Iron	mg/kg	10,000 ^{ABCD}	10,000 ^{EF}	7,060	6,980	7,180	6,310	7,160	7,520	7,040	6,730	7,530	9,200
Lead	mg/kg	63 _n ^A 1,000 ^B 3,900 ^C 450 ^D	n/v	3.7	2.3	2.5	2.9	6.9	3.2	2.6	2.3	4.9	8.8
Magnesium	mg/kg	10,000 ^{ABCD}	n/v	907	916	908	824	918	987	972	917	1,030	1,270
Manganese	mg/kg	1,600 _n ^A 10,000 _n ^{BC} 2,000 _n ^D	n/v	206	167	202	181	172	174	181	162	90.5	211
Mercury	mg/kg	0.18 _n ^A 2.8 _n ^B 5.7 _n ^C 0.73 ^D	n/v	0.017 U	0.018 U	0.018 U	0.017 U	0.018 U	0.017 U	0.017 U	0.018 U	0.17	0.23 ^A
Nickel	mg/kg	30 ^A 310 ^B 10,000 ^C 130 ^D	n/v	10.3 U	10.7 U	10.1 U	10.3 U	10.3 U	9.8 U	9.9 U	10.4 U	9.9 U	9.9 U
Potassium	mg/kg	10,000 ^{ABCD}	n/v	335	359	335	319	371	351	349	327	251	357
Selenium	mg/kg	3.9 _n ^A 1,500 ^B 6,800 ^C 4 _n ^D	n/v	8.2 U	8.5 U	8.1 U	8.2 U	8.2 U	7.8 U	7.9 U	8.3 U	7.9 U	7.9 U
Silver	mg/kg	2 ^A 1,500 ^B 6,800 ^C 8.3 ^D	n/v	1.0 U	1.1 U	1.0 U	1.0 U	1.0 U	0.98 U	0.99 U	1.0 U	0.99 U	0.99 U
Sodium	mg/kg	10,000 ^{ABCD}	n/v	287 U	299 U	284 U	288 U	289 U	274 U	278 U	291 U	276 U	278 U
Thallium	mg/kg	10,000 ^{ABCD}	10,000 ^{EF}	12.3 U	12.8 U	12.2 U	12.3 U	12.4 U	11.7 U	11.9 U	12.5 U	11.8 U	11.9 U
Vanadium	mg/kg	10,000 ^{ABCD}	10,000 ^{EF}	9.7	9.1	9.0	8.1	9.1	10	9.3	8.5	10.6	12.4
Zinc	mg/kg	109 _n ^A 10,000 _n ^{BC} 2,480 ^D	n/v	64.4	17.8	19.2	51.5	196 ^A	35.8	16.2	18.0	24.5	30.3
Polychlorinated Biphenyls													
Aroclor 1016	µg/kg	o ^{ABCD}	n/v	36 U	36 U	36 U	35 U	35 U	35 U	35 U	36 U	35 U	36 U
Aroclor 1221	µg/kg	o ^{ABCD}	n/v	36 U	36 U	36 U	35 U	35 U	35 U	35 U	36 U	35 U	36 U
Aroclor 1232	µg/kg	o ^{ABCD}	n/v	36 U	36 U	36 U	35 U	35 U	35 U	35 U	36 U	35 U	36 U
Aroclor 1242	µg/kg	o ^{ABCD}	n/v	36 U	36 U	36 U	35 U	35 U	35 U	35 U	36 U	35 U	36 U
Aroclor 1248	µg/kg	o ^{ABCD}	n/v	36 U	36 U	36 U	35 U	35 U	35 U	35 U	36 U	35 U	36 U
Aroclor 1254	µg/kg	o ^{ABCD}	n/v	36 U	36 U	36 U	35 U	35 U	35 U	35 U	36 U	35 U	36 U
Aroclor 1260	µg/kg	o ^{ABCD}	n/v	36 U	36 U	36 U	35 U	35 U	35 U	35 U	36 U	35 U	36 U
Aroclor 1262	µg/kg	o ^{ABCD}	n/v	36 U	36 U	36 U	35 U	35 U	35 U	35 U	36 U	35 U	36 U
Aroclor 1268	µg/kg	o ^{ABCD}	n/v	36 U	36 U	36 U	35 U	35 U	35 U	35 U	36 U	35 U	36 U
Polychlorinated Biphenyls (PCBs)	µg/kg	100 ^A 1,000 ^B 25,000 ^C 3,200 ^D	n/v	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

See notes on last page.

Table 7
Summary of Analytical Results for Southwest Septic System (RAOC-2) Confirmatory Soil Samples
Site Management Plan
820 Linden Ave Site, BCP #C828200
820 Linden Avenue, Pittsford, NY

Sample Location Sample Date Sample ID Sample Depth Sampling Company Laboratory Laboratory Work Order Laboratory Sample ID Sample Type				TANK1-SW		TANK2-SW		TANK3-SW		TANK4-SW		TANK5-SW	
				29-Jun-20 TANK1-SW-CS1 8 ft STANTEC TAL 460-212188-1 460-212188-1	29-Jun-20 TANK1-SW-CS2 8 ft STANTEC TAL 460-212188-1 460-212188-2	29-Jun-20 TANK2-SW-CS1 8 ft STANTEC TAL 460-212188-1 460-212188-3	29-Jun-20 TANK2-SW-CS2 8 ft STANTEC TAL 460-212188-1 460-212188-4	29-Jun-20 TANK3-SW-CS1 9 ft STANTEC TAL 460-212188-1 460-212188-5	29-Jun-20 TANK3-SW-CS2 9 ft STANTEC TAL 460-212188-1 460-212188-6	29-Jun-20 TANK4-SW-CS1 9 ft STANTEC TAL 460-212188-1 460-212188-7	29-Jun-20 TANK4-SW-CS2 9 ft STANTEC TAL 460-212188-1 460-212188-8	29-Jun-20 TANK5-SW-CS1 9 ft STANTEC TAL 460-212188-1 460-212188-9	29-Jun-20 TANK5-SW-CS2 9 ft STANTEC TAL 460-212188-1 460-212188-10
	Units	NYSDEC-Part 375	NYSDEC CP-51										
Volatile Organic Compounds													
Acetone	µg/kg	50 ^{AD} 500,000, ^B 1,000,000, ^C	n/v	6.1 U	6.2	5.8 U	6.1 UJ	7.4	5.9 U	6.0 U	6.1 U	6.0 U	6.2 U
Benzene	µg/kg	60 ^{AD} 44,000 ^B 89,000 ^C	n/v	1.0 U	1.0 U	0.97 U	1.0 UJ	0.99 U	0.98 U	1.0 U	1.0 U	0.99 U	1.0 U
Bromodichloromethane	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	n/v	1.0 U	1.0 U	0.97 U	1.0 UJ	0.99 U	0.98 U	1.0 U	1.0 U	0.99 U	1.0 U
Bromoform (Tribromomethane)	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	n/v	1.0 U	1.0 U	0.97 U	1.0 UJ	0.99 U	0.98 U	1.0 U	1.0 U	0.99 U	1.0 U
Bromomethane (Methyl bromide)	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	n/v	1.0 U	1.0 U	0.97 U	1.0 UJ	0.99 U	0.98 U	1.0 U	1.0 U	0.99 U	1.0 U
Butylbenzene, n-	µg/kg	12,000 ^{AD} 500,000, ^B 1,000,000, ^C	n/v	1.0 U	1.0 U	0.97 U	1.0 UJ	0.99 U	0.98 U	1.0 U	1.0 U	0.99 U	1.0 U
Butylbenzene, sec- (2-Phenylbutane)	µg/kg	11,000 ^{AD} 500,000, ^B 1,000,000, ^C	n/v	1.0 U	1.0 U	0.97 U	1.0 UJ	0.99 U	0.98 U	1.0 U	1.0 U	0.99 U	1.0 U
Butylbenzene, tert-	µg/kg	5,900 ^{AD} 500,000, ^B 1,000,000, ^C	n/v	1.0 U	1.0 U	0.97 U	1.0 UJ	0.99 U	0.98 U	1.0 U	1.0 U	0.99 U	1.0 U
Carbon Disulfide	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	500,000, ^E 1,000,000, ^F 2,700 ^G	1.0 U	1.0 U	0.97 U	1.0 UJ	0.99 U	0.98 U	1.0 U	1.0 U	0.99 U	1.0 U
Carbon Tetrachloride (Tetrachloromethane)	µg/kg	760 ^{AD} 22,000 ^B 44,000 ^C	n/v	1.0 U	1.0 U	0.97 U	1.0 UJ	0.99 U	0.98 U	1.0 U	1.0 U	0.99 U	1.0 U
Chlorobenzene (Monochlorobenzene)	µg/kg	1,100 ^{AD} 500,000, ^B 1,000,000, ^C	n/v	1.0 U	1.0 U	0.97 U	1.0 UJ	0.99 U	0.98 U	1.0 U	1.0 U	0.99 U	1.0 U
Chloroethane (Ethyl Chloride)	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	500,000, ^E 1,000,000, ^F 1,900 ^G	1.0 U	1.0 U	0.97 U	1.0 UJ	0.99 U	0.98 U	1.0 U	1.0 U	0.99 U	1.0 U
Chloroform (Trichloromethane)	µg/kg	370 ^{AD} 350,000 ^B 700,000 ^C	n/v	1.0 U	1.0 U	0.97 U	1.0 UJ	0.99 U	0.98 U	1.0 U	1.0 U	0.99 U	1.0 U
Chloromethane	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	n/v	1.0 U	1.0 U	0.97 U	1.0 UJ	0.99 U	0.98 U	1.0 U	1.0 U	0.99 U	1.0 U
Cyclohexane	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	n/v	1.0 U	1.0 U	0.97 U	1.0 UJ	0.99 U	0.98 U	1.0 U	1.0 U	0.99 U	1.0 U
Dibromo-3-Chloropropane, 1,2- (DBCP)	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	n/v	1.0 U	1.0 U	0.97 U	1.0 UJ	0.99 U	0.98 U	1.0 U	1.0 U	0.99 U	1.0 U
Dibromochloromethane	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	500,000, ^E 1,000,000, ^F	1.0 U	1.0 U	0.97 U	1.0 UJ	0.99 U	0.98 U	1.0 U	1.0 U	0.99 U	1.0 U
Dichlorobenzene, 1,2-	µg/kg	1,100 ^{AD} 500,000, ^B 1,000,000, ^C	n/v	1.0 U	1.0 U	0.97 U	1.0 UJ	0.99 U	0.98 U	1.0 U	1.0 U	0.99 U	1.0 U
Dichlorobenzene, 1,3-	µg/kg	2,400 ^{AD} 280,000 ^B 560,000 ^C	n/v	1.0 U	1.0 U	0.97 U	1.0 UJ	0.99 U	0.98 U	1.0 U	1.0 U	0.99 U	1.0 U
Dichlorobenzene, 1,4-	µg/kg	1,800 ^{AD} 130,000 ^B 250,000 ^C	n/v	1.0 U	1.0 U	0.97 U	1.0 UJ	0.99 U	0.98 U	1.0 U	1.0 U	0.99 U	1.0 U
Dichlorodifluoromethane (Freon 12)	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	n/v	1.0 U	1.0 U	0.97 U	1.0 UJ	0.99 U	0.98 U	1.0 U	1.0 U	0.99 U	1.0 U
Dichloroethane, 1,1-	µg/kg	270 ^{AD} 240,000 ^B 480,000 ^C	n/v	1.0 U	1.0 U	0.97 U	1.0 UJ	0.99 U	0.98 U	1.0 U	1.0 U	0.99 U	1.0 U
Dichloroethane, 1,2-	µg/kg	20, ^A 30,000 ^B 60,000 ^C 20, ^D	n/v	1.0 U	1.0 U	0.97 U	1.0 UJ	0.99 U	0.98 U	1.0 U	1.0 U	0.99 U	1.0 U
Dichloroethene, 1,1-	µg/kg	330 ^{AD} 500,000, ^B 1,000,000, ^C	n/v	1.0 U	1.0 U	0.97 U	1.0 UJ	0.99 U	0.98 U	1.0 U	1.0 U	0.99 U	1.0 U
Dichloroethene, cis-1,2-	µg/kg	250 ^{AD} 500,000, ^B 1,000,000, ^C	n/v	1.0 U	1.0 U	0.97 U	1.0 UJ	0.99 U	0.98 U	1.0 U	1.0 U	0.99 U	1.0 U
Dichloroethene, trans-1,2-	µg/kg	190 ^{AD} 500,000, ^B 1,000,000, ^C	n/v	1.0 U	1.0 U	0.97 U	1.0 UJ	0.99 U	0.98 U	1.0 U	1.0 U	0.99 U	1.0 U
Dichloropropane, 1,2-	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	500,000, ^E 1,000,000, ^F	1.0 U	1.0 U	0.97 U	1.0 UJ	0.99 U	0.98 U	1.0 U	1.0 U	0.99 U	1.0 U
Dichloropropene, cis-1,3-	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	n/v	1.0 U	1.0 U	0.97 U	1.0 UJ	0.99 U	0.98 U	1.0 U	1.0 U	0.99 U	1.0 U
Dichloropropene, trans-1,3-	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	n/v	1.0 UJ	1.0 UJ	0.97 UJ	1.0 UJ	0.99 UJ	0.98 UJ	1.0 UJ	1.0 UJ	0.99 UJ	1.0 UJ
Ethylbenzene	µg/kg	1,000 ^{AD} 390,000 ^B 780,000 ^C	n/v	1.0 U	1.0 U	0.97 U	1.0 UJ	0.99 U	0.98 U	1.0 U	1.0 U	0.99 U	1.0 U
Ethylene Dibromide (Dibromomethane, 1,2-)	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	n/v	1.0 U	1.0 U	0.97 U	1.0 UJ	0.99 U	0.98 U	1.0 U	1.0 U	0.99 U	1.0 U
Hexanone, 2- (Methyl Butyl Ketone)	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	n/v	5.1 U	5.0 U	4.9 U	5.1 UJ	5.0 U	4.9 U	5.0 U	5.1 U	5.0 U	5.1 U
Isopropylbenzene	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	500,000, ^E 1,000,000, ^F 2,300 ^G	1.0 U	1.0 U	0.97 U	1.0 UJ	0.99 U	0.98 U	1.0 U	1.0 U	0.99 U	1.0 U
Isopropyltoluene, p- (Cymene)	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	500,000, ^E 1,000,000, ^F 10,000 ^G	1.0 U	1.0 U	0.97 U	1.0 UJ	0.99 U	0.98 U	1.0 U	1.0 U	0.99 U	1.0 U
Methyl Acetate	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	n/v	5.1 U	5.0 U	4.9 U	5.1 UJ	5.0 U	4.9 U	5.0 U	5.1 U	5.0 U	5.1 U
Methyl Ethyl Ketone (MEK) (2-Butanone)	µg/kg	120 ^{AD} 500,000, ^B 1,000,000, ^C	500,000, ^E 1,000,000, ^F 300 ^G	5.1 U	5.0 U	4.9 U	5.1 UJ	5.0 U	4.9 U	5.0 U	5.1 U	5.0 U	5.1 U
Methyl Isobutyl Ketone (MIBK)	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	500,000, ^E 1,000,000, ^F 1,000 ^G	5.1 U	5.0 U	4.9 U	5.1 UJ	5.0 U	4.9 U	5.0 U	5.1 U	5.0 U	5.1 U
Methyl tert-butyl ether (MTBE)	µg/kg	930 ^{AD} 500,000, ^B 1,000,000, ^C	n/v	1.0 U	1.0 U	0.97 U	1.0 UJ	0.99 U	0.98 U	1.0 U	1.0 U	0.99 U	1.0 U
Methylcyclohexane	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	n/v	1.0 U	1.0 U	0.97 U	1.0 UJ	0.99 U	0.98 U	1.0 U	1.0 U	0.99 U	1.0 U
Methylene Chloride (Dichloromethane)	µg/kg	50 ^{AD} 500,000, ^B 1,000,000, ^C	n/v	1.0 U	1.0 U	0.97 U	1.0 UJ	0.99 U	0.98 U	1.0 U	1.0 U	0.99 U	1.0 U
Naphthalene	µg/kg	12,000 ^{AD} 500,000, ^B 1,000,000, ^C	n/v	1.5 U	1.5 U	1.5 UJ	1.5 UJ	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
Propylbenzene, n-	µg/kg	3,900 ^{AD} 500,000, ^B 1,000,000, ^C	n/v	1.0 U	1.0 U	0.97 U	1.0 UJ	0.99 U	0.98 U	1.0 U	1.0 U	0.99 U	1.0 U
Styrene	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	500,000, ^E 1,000,000, ^F	1.0 U	1.0 U	0.97 U	1.0 UJ	0.99 U	0.98 U	1.0 U	1.0 U	0.99 U	1.0 U
Tetrachloroethane, 1,1,2,2-	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	500,000, ^E 1,000,000, ^F 600 ^G	1.0 U	1.0 U	0.97 U	1.0 UJ	0.99 U	0.98 U	1.0 U	1.0 U	0.99 U	1.0 U
Tetrachloroethene (PCE)	µg/kg	1,300 ^{AD} 150,000 ^B 300,000 ^C	500,000, ^E 1,000,000, ^F	1.0 U	1.0 U	0.97 U	1.0 UJ	0.99 U	0.98 U	1.0 U	1.0 U	0.99 U	1.0 U
Toluene	µg/kg	700 ^{AD} 500,000, ^B 1,000,000, ^C	n/v	1.0 U	1.0 U	0.97 U	1.0 UJ	0.99 U	0.98 U	1.0 U	1.0 U	0.99 U	1.0 U
Trichlorobenzene, 1,2,4-	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	500,000, ^E 1,000,000, ^F 3,400 ^G	1.0 U	1.0 U	0.97 U	1.0 UJ	0.99 U	0.98 U	1.0 U	1.0 U	0.99 U	1.0 U
Trichloroethane, 1,1,1-	µg/kg	680 ^{AD} 500,000, ^B 1,000,000, ^C	n/v	1.0 U	1.0 U	0.97 U	1.0 UJ	0.99 U	0.98 U	1.0 U	1.0 U	0.99 U	1.0 U
Trichloroethane, 1,1,2-	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	n/v	1.0 U	1.0 U	0.97 U	1.0 UJ	0.99 U	0.98 U	1.0 U	1.0 U	0.99 U	1.0 U
Trichloroethene (TCE)	µg/kg	470 ^{AD} 200,000 ^B 400,000 ^C	n/v	1.0 U	1.0 U	0.97 U	1.0 UJ	0.99 U	0.98 U	1.0 U	1.0 U	0.99 U	1.0 U
Trichlorofluoromethane (Freon 11)	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	n/v	1.0 U	1.0 U	0.97 U	1.0 UJ	0.99 U	0.98 U	1.0 U	1.0 U	0.99 U	1.0 U
Trichlorotrifluoroethane (Freon 113)	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	500,000, ^E 1,000,000, ^F 6,000 ^G	1.0 U	1.0 U	0.97 U	1.0 UJ	0.99 U	0.98 U	1.0 U	1.0 U	0.99 U	1.0 U
Trimethylbenzene, 1,2,4-	µg/kg	3,600 ^{AD} 190,000 ^B 380,000 ^C	n/v	1.0 U	1.0 U	0.97 U	1.0 UJ	0.99 U	0.98 U	1.0 U	1.0 U	0.99 U	1.0 U
Trimethylbenzene, 1,3,5-	µg/kg	8,400 ^{AD} 190,000 ^B 380,000 ^C	n/v	1.0 U	1.0 U	0.97 U	1.0 UJ	0.99 U	0.98 U	1.0 U	1.0 U	0.99 U	1.0 U
Vinyl Chloride	µg/kg	20 ^{AD} 13,000 ^B 27,000 ^C	n/v	1.0 U	1.0 U	0.97 U	1.0 UJ	0.99 U	0.98 U	1.0 U	1.0 U	0.99 U	1.0 U
Xylene, m & p-	µg/kg	260, ^A 500,000, ^B 1,000,000, ^C 1,600, ^D	n/v	1.0 U	1.0 U	0.97 U	1.0 UJ	0.99 U	0.98 U	1.0 U	1.0 U	0.99 U	1.0 U
Xylene, o-	µg/kg	260, ^A 500,000, ^B 1,000,000, ^C 1,600, ^D	n/v	1.0 U	1.0 U	0.97 U	1.0 UJ	0.99 U	0.98 U	1.0 U	1.0 U	0.99 U	1.0 U
Xylenes, Total	µg/kg	260 ^{AD} 500,000, ^B 1,000,000, ^C 1,600 ^D	n/v	2.0 U	2.0 U	1.9 U	2.0 UJ	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.1 U
Total VOC	µg/kg	n/v	n/v	ND	6.2	ND	ND	7.4	ND	ND	ND	ND	ND

See notes on last page.

Table 7
Summary of Analytical Results for Southwest Septic System (RAOC-2) Confirmatory Soil Samples
Site Management Plan
820 Linden Ave Site, BCP #C828200
820 Linden Avenue, Pittsford, NY

Notes:	
NYSDEC-Part 375 NYSDEC 6 NYCRR Part 375 Soil Clean-up Objectives (SCOs)	
A	NYSDEC 6 NYCRR Part 375 - Unrestricted Use Soil Cleanup Objectives
B	NYSDEC 6 NYCRR Part 375 - Restricted Use SCO - Protection of Human Health - Commercial
C	NYSDEC 6 NYCRR Part 375 - Restricted Use SCO - Protection of Human Health - Industrial
D	NYSDEC 6 NYCRR Part 375 - Restricted Use SCO - Protection of Groundwater
NYSDEC CP-51	New York State Department of Environmental Conservation, DEC Policy CP-51, October 21, 2010
E	Table 1 Supplemental Soil Cleanup Objectives - Commercial
F	Table 1 Supplemental Soil Cleanup Objectives - Industrial
G	Table 1 Supplemental Soil Cleanup Objectives - Protection of Groundwater
6.5 ^A	Concentration exceeds the indicated standard.
15.2	Measured concentration did not exceed the indicated standard.
0.03 U	Analyte was not detected at a concentration greater than the laboratory reporting limit.
n/v	No standard/guideline value.
-	Parameter not analyzed / not available.
A	The SCOs for unrestricted use were capped at a maximum value of 100 mg/kg. See 6 NYCRR Part 375 TSD Section 9.3
EPG	SCOs for organic contaminants (volatile organic compounds, semivolatile organic compounds, and pesticides) are capped at 100 ppm for residential use, 500 ppm for commercial use, 1000 ppm for industrial use. SCOs for metals are capped at 10,000 ppm.
c	The SCOs for commercial use were capped at a maximum value of 500 mg/kg. See TSD Section 9.3.
c.d	The SCOs for commercial use were capped at a maximum value of 500 mg/kg. See TSD Section 9.3. The criterion is applicable to total xylenes, and the individual isomers should be added for comparison.
d	The SCOs for industrial use and the protection of groundwater were capped at a maximum value of 1000 mg/kg (Organics) and 10000 mg/kg (Inorganics). See 6 NYCRR Part 375 TSD Section 9.3.
d.d	The SCOs for industrial use and the protection of groundwater were capped at a maximum value of 1000 mg/kg. See 6 NYCRR Part 375 TSD Section 9.3. The criterion is applicable to total xylenes, and the individual isomers should be added for comparison.
e	The SCOS for metals were capped at a maximum value of 10,000 mg/kg. See 6 NYCRR Part 375 TSD Section 9.3.
g	For constituents where the calculated SCO was lower than the rural soil background concentration as determined by the DEC/DOH rural soil survey, the rural soil background concentration is used as the Track 2 SCO value for this use of the site.
i	The SCO for this specific compound (or family of compounds) is considered to be met if the analysis for the total species of this contaminant is below the specific SCO.
k	This SCO is the lower of the values for mercury (elemental) or mercury (inorganic salts). See 6 NYCRR Part 375 TSD Table 5.6-1.
m	For constituents where the calculated SCO was lower than the Contract Required Quantitation Limit (CRQL), the CRQL is used as the Track 1 SCO value.
n	For constituents where the calculated SCO was lower than the rural soil background concentration as determined by the DEC/DOH rural soil survey, the rural soil background concentration is used as the Track 1 SCO value for this use of the site.
n.l	For constituents where the calculated SCO was lower than the rural soil background concentration as determined by the DEC/DOH rural soil survey, the rural soil background concentration is used as the Track 1 SCO value for this use of the site.
NS.a	The SCO for this specific compound (or family of compounds) is considered to be met if the analysis for the total species of this contaminant is below the specific SCO.
o	No SCO has been established for this compound. No SCO has been established for total chromium; however, see standards for trivalent and hexavalent chromium.
p	Standard is applicable to total PCBs, and the individual Aroclors should be added for comparison.
J	The criterion is applicable to total xylenes, and the individual isomers should be added for comparison.
ND	The reported result is an estimated value.
ND	Not detected.
UJ	Indicates estimated non-detect.
TAL	Eurofins Test America Laboratory

Table 8
Summary of Analytical Results for Northwest Septic System (RAOC-3) Investigation Soil Samples
Site Management Plan
820 Linden Ave Site, BCP #C828200
820 Linden Avenue, Pittsford, NY

Sample Location					LF-1	LF-2	LF-3		LF-4	TANK1-NW		TANK2-NW	
Sample Date					25-Jul-19	25-Jul-19	25-Jul-19	25-Jul-19	25-Jul-19	25-Jul-19	25-Jul-19	25-Jul-19	25-Jul-19
Sample ID					LIN-LF1-S	LIN-LF2-S	LIN-LF3-S	LIN-LFDUP-S	LIN-LF4-S	LIN-TANK1NW-WC-S	LIN-TANK1NW-S	LIN-TANK2NW-WC-S	LIN-TANK2NW-S
Sample Depth					4.5 - 5.5 ft	6 - 8 ft	4.5 - 6.5 ft	4.5 - 6.5 ft	4.5 - 5.5 ft	N/A	8 - 10 ft	N/A	8 - 10 ft
Sampling Company					STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC
Laboratory					TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL
Laboratory Work Order					480-156805-1	480-156805-1	480-156805-1	480-156805-1	480-156805-1	480-156805-2	480-156805-1	480-156805-2	480-156805-1
Laboratory Sample ID					480-156805-3	480-156805-4	480-156805-5	480-156805-10	480-156805-6	480-156805-11	480-156805-7	480-156805-12	480-156805-8
Sample Type		Units	NYSDEC-Part 375	NYSDEC CP-51				Field Duplicate					
General Chemistry													
Cyanide	mg/kg	27 ^{AB}	10,000 ^A	40 ^D	n/v	1.0 U	1.1 U	1.1 U	1.0 U	1.2 U	1.0 U	1.0 U	1.2 U
Flashpoint	deg F	n/v			n/v	-	-	-	-	-	> 176	-	-
pH, lab	S.U.	n/v			n/v	-	-	-	-	-	7.8 J	-	-
Temperature, Lab	deg C	n/v			n/v	-	-	-	-	-	21.0 J	-	-
Metals													
Aluminum	mg/kg	10,000 ^{ABCD}			10,000 ^{EFH}	7,380	4,120	4,530	4,220	9,670	6,150	6,680 J	6,100
Antimony	mg/kg	10,000 ^{ABCD}			10,000 ^{EFH}	16.2 U	15.2 U	17.7 U	16.1 U	17.1 U	16.3 U	16.3 U	18.3 U
Arsenic	mg/kg	13 ^A	16 ^{BCD}		n/v	2.8	2.6	2.5	2.7	5.7	2.5	2.7 J	2.9
Barium	mg/kg	350 ^A	400 ^B	10,000 ^C	820 ^D	n/v	24.2	15.0	16.6	15.6	38.4	21.4	20.1
Beryllium	mg/kg	7.2 ^A	590 ^B	2,700 ^C	47 ^D	n/v	0.28	0.23	0.24 U	0.21	0.49	0.26	0.28 J
Cadmium	mg/kg	2.5 ^A	9.3 ^B	60 ^C	7.5 ^D	n/v	0.22 U	0.21 U	0.24 U	0.21 U	0.24 U	0.21 U	0.22 U
Calcium	mg/kg	10,000 ^{ABCD}			10,000 ^{EFH}	1,690	23,200 ^{ABCEFG}	26,400 ^{ABCEFG}	29,200 ^{ABCEFG}	2,340	1,600	6,050 J	2,150
Chromium	mg/kg	30 ^A	1,500 ^B	6,800 ^C	NR ^{A-D}	9.9	6.3	7.3	6.6	14.1	7.3	9.4	9.1
Cobalt	mg/kg	10,000 ^{ABCD}			10,000 ^{EFH}	3.2	3.2	3.7	3.5	7.1	2.6	3.5	4.0
Copper	mg/kg	50 ^A	270 ^B	10,000 ^C	1,720 ^D	7.7	5.3	6.0	6.7	11.6	10.9	10.1	8.6
Iron	mg/kg	10,000 ^{ABCD}			10,000 ^{EFH}	9,700	8,360	9,650	8,740	19,000 ^{ABCEFG}	8,280	9,880	11,000 ^{ABCEFG}
Lead	mg/kg	63 ^A	1,000 ^B	3,900 ^C	450 ^D	5.9	1.9	2.1	2.2	5.3	6.6	4.2	3.4
Magnesium	mg/kg	10,000 ^{ABCD}			n/v	1,500	5,110	6,270	7,560	2,600	1,220	2,480 J	1,640
Manganese	mg/kg	1,600 ^A	10,000 ^{BC}	2,000 ^D	n/v	206 B	227 B	317 B	324 B	187 B	105 B	213 B	122 B
Mercury	mg/kg	0.18 ^A	2.8 ^A	5.7 ^A	0.73 ^D	n/v	0.035	0.022 U	0.024 U	0.021 U	0.025 U	0.022 U	0.020 U
Nickel	mg/kg	30 ^A	310 ^B	10,000 ^C	130 ^D	n/v	7.6	6.6	7.4	15.0	6.3	8.0	8.3
Potassium	mg/kg	10,000 ^{ABCD}			n/v	781	969	1,040	943	1,590	613	816	937
Selenium	mg/kg	3.9 ^A	1,500 ^B	6,800 ^C	4 ^D	n/v	4.3 U	4.2 U	4.7 U	4.3 U	4.7 U	4.3 U	4.3 U
Silver	mg/kg	2 ^A	1,500 ^B	6,800 ^C	8.3 ^D	n/v	0.54 U	0.53 U	0.59 U	0.54 U	0.59 U	0.53 U	0.54 U
Sodium	mg/kg	10,000 ^{ABCD}			n/v	152 U	153	165 U	165	165 U	149 U	152 U	159
Thallium	mg/kg	10,000 ^{ABCD}			10,000 ^{EFH}	6.5 U	6.3 U	7.1 U	6.4 U	7.1 U	6.4 U	6.5 U	6.4 U
Vanadium	mg/kg	10,000 ^{ABCD}			10,000 ^{EFH}	16.4	12.8	15.0	13.3	26.9	13.6	15.9	18.0
Zinc	mg/kg	109 ^A	10,000 ^{BC}	2,480 ^D	n/v	23.8	14.8	17.3	17.0	25.5	24.5	20.2 J	20.6
Polychlorinated Biphenyls													
Aroclor 1016	µg/kg	ABCD			n/v	260 U	250 U	270 U	240 U	270 U	250 U	230 U	260 U
Aroclor 1221	µg/kg	ABCD			n/v	260 U	250 U	270 U	240 U	270 U	250 U	230 U	260 U
Aroclor 1232	µg/kg	ABCD			n/v	260 U	250 U	270 U	240 U	270 U	250 U	230 U	260 U
Aroclor 1242	µg/kg	ABCD			n/v	260 U	250 U	270 U	240 U	270 U	250 U	230 U	260 U
Aroclor 1248	µg/kg	ABCD			n/v	260 U	250 U	270 U	240 U	270 U	250 U	230 U	260 U
Aroclor 1254	µg/kg	ABCD			n/v	260 U	250 U	270 U	240 U	270 U	250 U	230 U	260 U
Aroclor 1260	µg/kg	ABCD			n/v	260 U	250 U	270 U	240 U	270 U	250 U	230 U	260 U
Aroclor 1262	µg/kg	ABCD			n/v	260 U	250 U	270 U	240 U	270 U	250 U	230 U	260 U
Aroclor 1268	µg/kg	ABCD			n/v	260 U	250 U	270 U	240 U	270 U	250 U	230 U	260 U
Polychlorinated Biphenyls (PCBs)	µg/kg	100 ^A	1,000 ^B	25,000 ^C	3,200 ^D	n/v	ND	ND	ND	ND	ND	ND	ND
Pesticides													
Aldrin	µg/kg	5 ^A	680 ^B	1,400 ^B	190 ^D	n/v	180 U	1.8 U	1.9 U	1.7 U	2.0 U	1.8 U	1.8 U
BHC, alpha-	µg/kg	20 ^{AD}	3,400 ^B	6,800 ^C		n/v	180 U	1.8 U	1.9 U	1.7 U	2.0 U	1.8 U	1.8 U
BHC, beta-	µg/kg	36 ^A	3,000 ^B	14,000 ^C	90 ^D	n/v	180 U	1.8 U	1.9 U	1.7 U	2.0 U	1.8 U	1.8 U
BHC, delta-	µg/kg	40 ^A	500,000 ^B	1,000,000 ^C	250 ^D	n/v	180 U	1.8 U	1.9 U	1.7 U	2.0 U	1.8 U	1.8 U
Camphenchlor (Toxaphene)	µg/kg	100,000 ^A	500,000 ^B	1,000,000 ^C	250 ^D	n/v	1,800 U	18 U	19 U	17 U	20 U	18 U	17 U
Chlordane, alpha-	µg/kg	94 ^A	24,000 ^B	47,000 ^C	2,900 ^D	n/v	180 U	1.8 U	1.9 U	1.7 U	2.0 U	1.8 U	1.8 U
Chlordane, trans- (gamma-Chlordane)	µg/kg	100,000 ^A	1,000,000 ^B		n/v	n/v	180 U	1.8 U	1.9 U	1.7 U	2.0 U	1.8 U	1.8 U
DDD (p,p'-DDD)	µg/kg	3.3 ^A	92,000 ^B	180,000 ^C	14,000 ^D	n/v	180 U	1.8 U	1.9 U	1.7 U	2.0 U	1.8 U	1.8 U
DDE (p,p'-DDE)	µg/kg	3.3 ^A	62,000 ^B	120,000 ^C	17,000 ^D	n/v	180 U	1.8 U	1.9 U	1.7 U	2.0 U	1.8 U	1.8 U
DDT (p,p'-DDT)	µg/kg	3.3 ^A	47,000 ^B	94,000 ^C	136,000 ^D	n/v	180 U	1.8 U	1.9 U	1.7 U	2.0 U	1.8 U	1.8 U
Dieldrin	µg/kg	5 ^A	1,400 ^B	2,800 ^C	100 ^D	n/v	180 U	1.8 U	1.9 U	1.7 U	2.0 U	1.8 U	1.8 U
Endosulfan I	µg/kg	2,400 ^A	200,000 ^B	920,000 ^C	102,000 ^D	n/v	180 U	1.8 U	1.9 U	1.7 U	2.0 U	1.8 U	1.8 U
Endosulfan II	µg/kg	2,400 ^A	200,000 ^B	920,000 ^C	102,000 ^D	n/v	180 U	1.8 U	1.9 U	1.7 U	2.0 U	1.8 U	1.8 U
Endosulfan Sulfate	µg/kg	2,400 ^A	200,000 ^B	920,000 ^C	1,000,000 ^D	n/v	180 U	1.8 U	1.9 U	1.7 U	2.0 U	1.8 U	1.8 U
Endrin	µg/kg	14 ^A	89,000 ^B	410,000 ^C	60 ^D	n/v	180 U	1.8 U	1.9 U	1.7 U	2.0 U	1.8 U	1.8 U
Endrin Aldehyde	µg/kg	100,000 ^A	500,000 ^B	1,000,000 ^C	CD	n/v	180 U	1.8 U	1.9 U	1.7 U	2.0 U	1.8 U	1.8 U
Endrin Ketone	µg/kg	100,000 ^A	500,000 ^B	1,000,000 ^C	CD	n/v	180 U	1.8 U	1.9 U	1.7 U	2.0 U	1.8 U	1.8 U
Heptachlor	µg/kg	42 ^A	15,000 ^B	29,000 ^C	380 ^D	n/v	180 U	1.8 U	1.9 U	1.7 U	2.0 U	1.8 U	1.8 U
Heptachlor Epoxide	µg/kg	100,000 ^A	500,000 ^B	1,000,000 ^C	CD	n/v	180 U	1.8 U	1.9 U	1.7 U	2.0 U	1.8 U	1.8 U
Lindane (Hexachlorocyclohexane, gamma)	µg/kg	100 ^{AD}	9,200 ^B	23,000 ^C		500,000 ^E	1,000,000 ^F	20 ^G	180 U	1.8 U	1.9 U	1.7 U	2.0 U
Methoxychlor (4,4'-Methoxychlor)	µg/kg	100,000 ^A	500,000 ^B	1,000,000 ^C	CD	500,000 ^E	1,000,000 ^F	900,000 ^G	180 U	1.8 U	1.9 U	1.7 U	2.0 U
Per- and Polyfluoroalkyl Substances (PFAS)													
2-(N-methyl perfluorooctanesulfonamido) acetic acid (NMeFOSAA)	µg/kg	n/v			n/v	-	-	2.3 U	2.1 U	-	-	2.3 U	-
6:2 Fluorotelomer sulfonic acid	µg/kg	n/v			n/v	-	-	2.3 U	2.1 U	n/v	-	2.3 U	-
8:2 Fluorotelomer sulfonic acid	µg/kg	n/v			n/v	-	-	2.3 U	2.1 U	-	-	2.3 U	-
N-ethyl perfluorooctane sulfonamidoacetic acid (NEiFOSAA)	µg/kg	n/v			n/v								

Table 8
Summary of Analytical Results for Northwest Septic System (RAOC-3) Investigation Soil Samples
Site Management Plan
820 Linden Ave Site, BCP #C828200
820 Linden Avenue, Pittsford, NY

Sample Location				LF-1 25-Jul-19	LF-2 25-Jul-19	LF-3		LF-4 25-Jul-19	TANK1-NW		TANK2-NW	
Sample Date				LIN-LF1-S	LIN-LF2-S	LIN-LF3-S	LIN-LFDUP-S	LIN-LF4-S	LIN-TANK1NW-WC-S	LIN-TANK1NW-S	LIN-TANK2NW-WC-S	LIN-TANK2NW-S
Sample ID				4.5 - 5.5 ft	6 - 8 ft	4.5 - 6.5 ft	4.5 - 6.5 ft	4.5 - 5.5 ft	N/A	8 - 10 ft	N/A	8 - 10 ft
Sample Depth				STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC
Sampling Company				TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL
Laboratory				480-156805-1	480-156805-4	480-156805-5	480-156805-1	480-156805-1	480-156805-2	480-156805-1	480-156805-2	480-156805-1
Laboratory Work Order				480-156805-3	480-156805-4	480-156805-5	480-156805-10	480-156805-6	480-156805-11	480-156805-7	480-156805-12	480-156805-8
Laboratory Sample ID							Field Duplicate					
Sample Type	Units	NYSDEC-Part 375	NYSDEC CP-51									
Volatile Organic Compounds												
Acetone	µg/kg	50 ^{AD} 500,000, ^B 1,000,000, ^C	n/v	27 U	27 U	29 U	27 U	29 U	27 U	26 U	26 U	30 U
Benzene	µg/kg	60 ^{AD} 544,000 ^B 89,000 ^C	n/v	5.4 U	5.4 U	5.8 U	5.3 U	5.9 U	5.5 U	5.2 U	5.2 U	6.0 U
Bromodichloromethane	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	n/v	5.4 U	5.4 U	5.8 U	5.3 U	5.9 U	5.5 U	5.2 U	5.2 U	6.0 U
Bromoform (Tribromomethane)	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	n/v	5.4 U	5.4 U	5.8 U	5.3 U	5.9 U	5.5 U	5.2 U	5.2 U	6.0 U
Bromomethane (Methyl bromide)	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	n/v	5.4 U	5.4 U	5.8 U	5.3 U	5.9 U	5.5 U	5.2 U	5.2 U	6.0 U
Butylbenzene, n-	µg/kg	12,000 ^{AD} 500,000, ^B 1,000,000, ^C	n/v	5.4 U	5.4 U	5.8 U	5.3 U	5.9 U	5.5 U	5.2 U	5.2 U	6.0 U
Butylbenzene, sec- (2-Phenylbutane)	µg/kg	11,000 ^{AD} 500,000, ^B 1,000,000, ^C	n/v	5.4 U	5.4 U	5.8 U	5.3 U	5.9 U	5.5 U	5.2 U	5.2 U	6.0 U
Butylbenzene, tert-	µg/kg	5,900 ^{AD} 500,000, ^B 1,000,000, ^C	n/v	5.4 U	5.4 U	5.8 U	5.3 U	5.9 U	5.5 U	5.2 U	5.2 U	6.0 U
Carbon Disulfide	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	500,000, ^E 1,000,000, ^F 2,700 ^G	5.4 U	5.4 U	5.8 U	5.3 U	5.9 U	5.5 U	5.2 U	5.2 U	6.0 U
Carbon Tetrachloride (Tetrachloromethane)	µg/kg	760 ^{AD} 22,000 ^B 44,000 ^C	n/v	5.4 U	5.4 U	5.8 U	5.3 U	5.9 U	5.5 U	5.2 U	5.2 U	6.0 U
Chlorobenzene (Monochlorobenzene)	µg/kg	1,100 ^{AD} 500,000, ^B 1,000,000, ^C	n/v	5.4 U	5.4 U	5.8 U	5.3 U	5.9 U	5.5 U	5.2 U	5.2 U	6.0 U
Chloroethane (Ethyl Chloride)	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	500,000, ^E 1,000,000, ^F 1,900 ^G	5.4 U	5.4 U	5.8 U	5.3 U	5.9 U	5.5 U	5.2 U	5.2 U	6.0 U
Chloroform (Trichloromethane)	µg/kg	370 ^{AD} 350,000 ^B 700,000 ^C	n/v	5.4 U	5.4 U	5.8 U	5.3 U	5.9 U	5.5 U	5.2 U	5.2 U	6.0 U
Chloromethane	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	n/v	5.4 U	5.4 U	5.8 U	5.3 U	5.9 U	5.5 U	5.2 U	5.2 U	6.0 U
Cyclohexane	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	n/v	5.4 U	5.4 U	5.8 U	5.3 U	5.9 U	5.5 U	5.2 U	5.2 U	6.0 U
Dibromo-3-Chloropropane, 1,2- (DBCP)	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	n/v	5.4 U	5.4 U	5.8 U	5.3 U	5.9 U	5.5 U	5.2 U	5.2 U	6.0 U
Dibromochloromethane	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	500,000, ^E 1,000,000, ^F	5.4 U	5.4 U	5.8 U	5.3 U	5.9 U	5.5 U	5.2 U	5.2 U	6.0 U
Dichlorobenzene, 1,2-	µg/kg	1,100 ^{AD} 500,000, ^B 1,000,000, ^C	n/v	5.4 U	5.4 U	5.8 U	5.3 U	5.9 U	5.5 U	5.2 U	5.2 U	6.0 U
Dichlorobenzene, 1,3-	µg/kg	2,400 ^{AD} 280,000 ^B 560,000 ^C	n/v	5.4 U	5.4 U	5.8 U	5.3 U	5.9 U	5.5 U	5.2 U	5.2 U	6.0 U
Dichlorobenzene, 1,4-	µg/kg	1,800 ^{AD} 130,000 ^B 250,000 ^C	n/v	5.4 U	5.4 U	5.8 U	5.3 U	5.9 U	5.5 U	5.2 U	5.2 U	6.0 U
Dichlorodifluoromethane (Freon 12)	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	n/v	5.4 U	5.4 U	5.8 U	5.3 U	5.9 U	5.5 U	5.2 U	5.2 U	6.0 U
Dichloroethane, 1,1-	µg/kg	270 ^{AD} 240,000 ^B 480,000 ^C	n/v	5.4 U	5.4 U	5.8 U	5.3 U	5.9 U	5.5 U	5.2 U	5.2 U	6.0 U
Dichloroethane, 1,2-	µg/kg	20, ^A 30,000 ^B 60,000 ^C 20, ^B	n/v	5.4 U	5.4 U	5.8 U	5.3 U	5.9 U	5.5 U	5.2 U	5.2 U	6.0 U
Dichloroethene, 1,1-	µg/kg	330 ^{AD} 500,000, ^B 1,000,000, ^C	n/v	5.4 U	5.4 U	5.8 U	5.3 U	5.9 U	5.5 U	5.2 U	5.2 U	6.0 U
Dichloroethene, 1,2-	µg/kg	250 ^{AD} 500,000, ^B 1,000,000, ^C	n/v	5.4 U	5.4 U	5.8 U	5.3 U	5.9 U	5.5 U	5.2 U	5.2 U	6.0 U
Dichloroethene, trans-1,2-	µg/kg	190 ^{AD} 500,000, ^B 1,000,000, ^C	n/v	5.4 U	5.4 U	5.8 U	5.3 U	5.9 U	5.5 U	5.2 U	5.2 U	6.0 U
Dichloropropane, 1,2-	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	500,000, ^E 1,000,000, ^F	5.4 U	5.4 U	5.8 U	5.3 U	5.9 U	5.5 U	5.2 U	5.2 U	6.0 U
Dichloropropene, cis-1,3-	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	n/v	5.4 U	5.4 U	5.8 U	5.3 U	5.9 U	5.5 U	5.2 U	5.2 U	6.0 U
Dichloropropene, trans-1,3-	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	n/v	5.4 U	5.4 U	5.8 U	5.3 U	5.9 U	5.5 U	5.2 U	5.2 U	6.0 U
Ethylbenzene	µg/kg	1,000 ^{AD} 390,000 ^B 780,000 ^C	n/v	5.4 U	5.4 U	5.8 U	5.3 U	5.9 U	5.5 U	5.2 U	5.2 U	6.0 U
Ethylene Dibromide (Dibromoethane, 1,2-)	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	n/v	5.4 U	5.4 U	5.8 U	5.3 U	5.9 U	5.5 U	5.2 U	5.2 U	6.0 U
Hexanone, 2- (Methyl Butyl Ketone)	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	n/v	27 U	27 U	29 U	27 U	29 U	27 U	26 U	26 U	30 U
Isopropylbenzene	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	500,000, ^E 1,000,000, ^F 2,300 ^G	5.4 U	5.4 U	5.8 U	5.3 U	5.9 U	5.5 U	5.2 U	5.2 U	6.0 U
Isopropylfluene, p- (Cymene)	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	500,000, ^E 1,000,000, ^F 10,000 ^G	5.4 U	5.4 U	5.8 U	5.3 U	5.9 U	5.5 U	5.2 U	5.2 U	6.0 U
Methyl Acetate	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	n/v	27 U	27 U	29 U	27 U	29 U	27 U	26 U	26 U	30 U
Methyl Ethyl Ketone (MEK) (2-Butanone)	µg/kg	120 ^{AD} 500,000, ^B 1,000,000, ^C	500,000, ^E 1,000,000, ^F 300 ^G	27 U	27 U	29 U	27 U	29 U	27 U	26 U	26 U	30 U
Methyl Isobutyl Ketone (MIBK)	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	500,000, ^E 1,000,000, ^F 1,000 ^G	27 U	27 U	29 U	27 U	29 U	27 U	26 U	26 U	30 U
Methyl tert-butyl ether (MTBE)	µg/kg	930 ^{AD} 500,000, ^B 1,000,000, ^C	n/v	5.4 U	5.4 U	5.8 U	5.3 U	5.9 U	5.5 U	5.2 U	5.2 U	6.0 U
Methylcyclohexane	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	n/v	5.4 U	5.4 U	5.8 U	5.3 U	5.9 U	5.5 U	5.2 U	5.2 U	6.0 U
Methylene Chloride (Dichloromethane)	µg/kg	50 ^{AD} 500,000, ^B 1,000,000, ^C	n/v	5.4 U	5.4 U	5.8 U	5.3 U	5.9 U	5.5 U	5.2 U	5.2 U	6.0 U
Naphthalene	µg/kg	12,000 ^{AD} 500,000, ^B 1,000,000, ^C	n/v	5.4 U	5.4 U	5.8 U	5.3 U	5.9 U	5.5 U	5.2 U	5.2 U	6.0 U
Propylbenzene, n-	µg/kg	3,900 ^{AD} 500,000, ^B 1,000,000, ^C	n/v	5.4 U	5.4 U	5.8 U	5.3 U	5.9 U	5.5 U	5.2 U	5.2 U	6.0 U
Styrene	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	500,000, ^E 1,000,000, ^F	5.4 U	5.4 U	5.8 U	5.3 U	5.9 U	5.5 U	5.2 U	5.2 U	6.0 U
Tetrachloroethane, 1,1,2,2-	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	500,000, ^E 1,000,000, ^F 600 ^G	5.4 U	5.4 U	5.8 U	5.3 U	5.9 U	5.5 U	5.2 U	5.2 U	6.0 U
Tetrachloroethene (PCE)	µg/kg	1,300 ^{AD} 150,000 ^B 300,000 ^C	500,000, ^E 1,000,000, ^F	5.4 U	5.4 U	5.8 U	5.3 U	5.9 U	5.5 U	5.2 U	5.2 U	6.0 U
Toluene	µg/kg	700 ^{AD} 500,000, ^B 1,000,000, ^C	n/v	5.4 U	5.4 U	5.8 U	5.3 U	5.9 U	5.5 U	5.2 U	5.2 U	6.0 U
Trichlorobenzene, 1,2,4-	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	500,000, ^E 1,000,000, ^F 3,400 ^G	5.4 U	5.4 U	5.8 U	5.3 U	5.9 U	5.5 U	5.2 U	5.2 U	6.0 U
Trichloroethane, 1,1,1-	µg/kg	680 ^{AD} 500,000, ^B 1,000,000, ^C	n/v	5.4 U	5.4 U	5.8 U	5.3 U	5.9 U	5.5 U	5.2 U	5.2 U	6.0 U
Trichloroethane, 1,1,2-	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	n/v	5.4 U	5.4 U	5.8 U	5.3 U	5.9 U	5.5 U	5.2 U	5.2 U	6.0 U
Trichloroethene (TCE)	µg/kg	470 ^{AD} 200,000 ^B 400,000 ^C	n/v	5.4 U	5.4 U	5.8 U	5.3 U	5.9 U	5.5 U	5.2 U	5.2 U	6.0 U
Trichlorofluoromethane (Freon 11)	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	n/v	5.4 U	5.4 U	5.8 U	5.3 U	5.9 U	5.5 U	5.2 U	5.2 U	6.0 U
Trichlorotrifluoroethane (Freon 113)	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	500,000, ^E 1,000,000, ^F 6,000 ^G	5.4 U	5.4 U	5.8 U	5.3 U	5.9 U	5.5 U	5.2 U	5.2 U	6.0 U
Trimethylbenzene, 1,2,4-	µg/kg	3,600 ^{AD} 190,000 ^B 380,000 ^C	n/v	5.4 U	5.4 U	5.8 U	5.3 U	5.9 U	5.5 U	5.2 U	5.2 U	6.0 U
Trimethylbenzene, 1,3,5-	µg/kg	8,400 ^{AD} 190,000 ^B 380,000 ^C	n/v	5.4 U	5.4 U	5.8 U	5.3 U	5.9 U	5.5 U	5.2 U	5.2 U	6.0 U
Vinyl Chloride	µg/kg	20 ^{AD} 13,000 ^B 27,000 ^C	n/v	5.4 U	5.4 U	5.8 U	5.3 U	5.9 U	5.5 U	5.2 U	5.2 U	6.0 U
Xylene, m & p-	µg/kg	260, ^A 500,000, ^B 1,000,000, ^C 1,600, ^D	n/v	11 U	11 U	12 U	11 U	12 U	11 U	10 U	10 U	12 U
Xylene, o-	µg/kg	260, ^A 500,000, ^B 1,000,000, ^C 1,600, ^D	n/v	5.4 U	5.4 U	5.8 U	5.3 U	5.9 U	5.5 U	5.2 U	5.2 U	6.0 U
Xylenes, Total	µg/kg	260 ^A 500,000, ^B 1,000,000, ^C 1,600 ^D	n/v	11 U	11 U	12 U	11 U	12 U	11 U	10 U	10 U	12 U
Total VOC	µg/kg	n/v	n/v	ND	ND	ND	ND	ND	ND	ND	ND	ND

- Notes:
- NYSDEC-Part 375 NYSDEC 6 NYCRR Part 375 Soil Clean-up Objectives (SCOs)
- A NYSDEC 6 NYCRR Part 375 - Unrestricted Use Soil Cleanup Objectives
- B NYSDEC 6 NYCRR Part 375 - Restricted Use SCO - Protection of Human Health - Commercial
- C NYSDEC 6 NYCRR Part 375 - Restricted Use SCO - Protection of Human Health - Industrial
- D NYSDEC 6 NYCRR Part 375 - Restricted Use SCO - Protection of Groundwater
- NYSDEC CP-51 New York State Department of Environmental Conservation, DEC Policy CP-51, October 21, 2010
- E Table 1 Supplemental Soil Cleanup Objectives - Commercial
- F Table 1 Supplemental Soil Cleanup Objectives - Industrial
- G Table 1 Supplemental Soil Cleanup Objectives - Protection of Groundwater
- 6.5^A Concentration exceeds the indicated standard.
- 15.2 Measured concentration did not exceed the indicated standard.
- 0.03 U Analyte was not detected at a concentration greater than the laboratory reporting limit.
- n/v No standard/guideline value.
- Parameter not analyzed / not available.
- A The SCOs for unrestricted use were capped at a maximum value of 100 mg/kg. See 6 NYCRR Part 375 TSD Section 9.3
- B,F,G SCOs for organic contaminants (volatile organic compounds, semivolatile organic compounds, and pesticides) are capped at 100 ppm for residential use, 500 ppm for commercial use, 1000 ppm for industrial use. SCOs for metals are capped at 10,000 ppm.
- a Based on rural background study
- b Based on rural background study. The value of 1.0 refers to SVOC analyses while the 0.17b refers to VOC analyses.
- b,s1 The SCOs for commercial use were capped at a maximum value of 500 mg/kg. See TSD Section 9.3.
- c The SCOs for commercial use were capped at a maximum value of 500 mg/kg. See TSD Section 9.3. The criterion is applicable to total xylenes, and the individual isomers should be added for comparison.
- c,d The SCOs for industrial use and the protection of groundwater were capped at a maximum value of 1000 mg/kg (Organics) and 10000 mg/kg (Inorganics). See 6 NYCRR Part 375 TSD Section 9.3.
- d The SCOs for industrial use and the protection of groundwater were capped at a maximum value of 1000 mg/kg. See 6 NYCRR Part 375 TSD Section 9.3. The criterion is applicable to total xylenes, and the individual isomers should be added for comparison.
- d,s The SCOS for metals were capped at a maximum value of 10,000 mg/kg. See 6 NYCRR Part 375 TSD Section 9.3.
- e The SCOS for metals were capped at a maximum value of 10,000 mg/kg. See 6 NYCRR Part 375 TSD Section 9.3. The SCO for this specific compound (or family of compounds) is considered to be met if the analysis for the total species of this contaminant is below the specific SCO.
- e,1 For constituents where the calculated SCO was lower than the CRQL, the CRQL is used as the SCO value.
- f For constituents where the calculated SCO was lower than the rural soil background concentration as determined by the DEC/DOH rural soil survey, the rural soil background concentration is used as the Track 2 SCO value for this use of the site.
- i The SCO for this specific compound (or family of compounds) is considered to be met if the analysis for the total species of this contaminant is below the specific SCO.
- j This SCO is the sum of endosulfan I, endosulfan II, and endosulfan sulfate.
- k This SCO is the lower of the values for mercury (elemental) or mercury (inorganic salts). See 6 NYCRR Part 375 TSD Table 5.6-1.
- m For constituents where the calculated SCO was lower than the Contract Required Quantitation Limit (CRQL), the CRQL is used as the Track 1 SCO value.
- n For constituents where the calculated SCO was lower than the rural soil background concentration as determined by the DEC/DOH rural soil survey, the rural soil background concentration is used as the Track 1 SCO value for this use of the site.
- n,1 For constituents where the calculated SCO was lower than the rural soil background concentration as determined by the DEC/DOH rural soil survey, the rural soil background concentration is used as the Track 1 SCO value for this use of the site. The SCO for this specific compound (or family of compounds) is considered to be met if the analysis for the total species of this contaminant is below the specific SCO.
- NS,a No SCO has been established for this compound. No SCO has been established for total chromium; however, see standards for trivalent and hexavalent chromium.
- o Standard is applicable to total PCBs, and the individual Aroclors should be added for

Table 9
Summary of Analytical Results for Debris Pile (RAOC-4) Samples
Site Management Plan
820 Linden Ave Site, BCP #C828200
820 Linden Avenue, Pittsford, NY

Sample Location					DP-1	
Sample Date					19-Jun-20	6-Jul-20
Sample ID					*DP-CSSIDE1	DP-CSSIDE2
Sampling Company					STANTEC	STANTEC
Laboratory					TAL	TAL
Laboratory Work Order					460-161576-1	460-171508-1
Laboratory Sample ID	Units	NYSDEC-Part 375	NYSDEC CP-51	460-161576-17	480-171508-1	460-212667-1
General Chemistry						
Cyanide	mg/kg	27 ^{AB} 10,000 _g ^C 40 ^D	n/v	0.54	-	-
Metals						
Aluminum	mg/kg	10,000 _g ^{ABCD}	10,000 _g ^{EF}	3,520	-	-
Antimony	mg/kg	10,000 _g ^{ABCD}	10,000 _g ^{EF}	31.4 U	-	-
Arsenic	mg/kg	13 _g ^A 16 _g ^{BCD}	n/v	4.2 U	-	-
Barium	mg/kg	350 _g ^A 400 ^B 10,000 _g ^C 820 ^D	n/v	31.2	-	-
Beryllium	mg/kg	7.2 ^A 590 ^B 2,700 ^C 47 ^D	n/v	0.42 U	-	-
Cadmium	mg/kg	2.5 _g ^A 9.3 ^B 60 ^C 7.5 ^D	n/v	0.42 U	-	-
Calcium	mg/kg	10,000 _g ^{ABCD}	10,000 _g ^{EF}	61,300 ^{ABCEFG}	-	-
Chromium	mg/kg	30 _g ^A 1,500 ^B 6,800 ^C NS _g ⁴ ^D	n/v	17.0	-	-
Cobalt	mg/kg	10,000 _g ^{ABCD}	10,000 _g ^{EF}	2.8	-	-
Copper	mg/kg	50 ^A 270 ^B 10,000 _g ^C 1,720 ^D	n/v	22.9	-	-
Iron	mg/kg	10,000 _g ^{ABCD}	10,000 _g ^{EF}	11,100 ^{ABCEFG}	-	-
Lead	mg/kg	63 _g ^A 1,000 ^B 3,900 ^C 450 ^D	n/v	42.1	-	-
Magnesium	mg/kg	10,000 _g ^{ABCD}	n/v	24,600 ^{ABCD}	-	-
Manganese	mg/kg	1,600 _g ^A 10,000 _g ^{BC} 2,000 _g ^D	n/v	365	-	-
Mercury	mg/kg	0.18 _g ^A 2.8 _g ^B 5.7 _g ^C 0.73 ^D	n/v	0.048	-	-
Nickel	mg/kg	30 ^A 310 ^B 10,000 _g ^C 130 ^D	n/v	12.5	-	-
Potassium	mg/kg	10,000 _g ^{ABCD}	n/v	888	-	-
Selenium	mg/kg	3.9 _g ^A 1,500 ^B 6,800 ^C 4 _g ^D	n/v	8.4 U	-	-
Silver	mg/kg	2 ^A 1,500 ^B 6,800 ^C 8.3 ^D	n/v	1.0 U	-	-
Sodium	mg/kg	10,000 _g ^{ABCD}	n/v	293 U	-	-
Thallium	mg/kg	10,000 _g ^{ABCD}	10,000 _g ^{EF}	12.6 U	-	-
Vanadium	mg/kg	10,000 _g ^{ABCD}	10,000 _g ^{EF}	12.1	-	-
Zinc	mg/kg	109 _g ^A 10,000 _g ^{BC} 2,480 ^D	n/v	178 ^A	-	-
Polychlorinated Biphenyls						
Aroclor 1016	µg/kg	ABCD	n/v	38 U	-	-
Aroclor 1221	µg/kg	ABCD	n/v	38 U	-	-
Aroclor 1232	µg/kg	ABCD	n/v	38 U	-	-
Aroclor 1242	µg/kg	ABCD	n/v	38 U	-	-
Aroclor 1248	µg/kg	ABCD	n/v	38 U	-	-
Aroclor 1254	µg/kg	ABCD	n/v	38 U	-	-
Aroclor 1260	µg/kg	ABCD	n/v	38 U	-	-
Aroclor 1262	µg/kg	ABCD	n/v	38 U	-	-
Aroclor 1268	µg/kg	ABCD	n/v	38 U	-	-
Polychlorinated Biphenyls (PCBs)	µg/kg	100 ^A 1,000 ^B 25,000 ^C 3,200 ^D	n/v	ND	-	-
Pesticides						
Aldrin	µg/kg	5 _g ^A 680 ^B 1,400 ^C 190 ^D	n/v	3.8 U	-	-
BHC, alpha-	µg/kg	20 ^{AD} 3,400 ^B 6,800 ^C	n/v	3.8 U	-	-
BHC, beta-	µg/kg	36 ^A 3,000 ^B 14,000 ^C 250 ^D	n/v	3.8 U	-	-
BHC, delta-	µg/kg	40 _g ^A 500,000 _g ^B 1,000,000 _g ^C 250 ^D	n/v	3.8 U	-	-
Camphenchlor (Toxaphene)	µg/kg	100,000 _g ^A 500,000 _g ^B 1,000,000 _g ^{CD}	n/v	38 U	-	-
Chlordane, alpha-	µg/kg	94 ^A 24,000 ^B 47,000 ^C 2,900 ^D	n/v	3.8 U	-	-
Chlordane, trans- (gamma-Chlordane)	µg/kg	100,000 _g ^A 1,000,000 _g ^D	n/v	3.8 U	-	-
DDD (p,p'-DDD)	µg/kg	3.3 _m ^A 92,000 ^B 180,000 ^C 14,000 ^D	n/v	3.8 U	-	-
DDE (p,p'-DDE)	µg/kg	3.3 _m ^A 62,000 ^B 120,000 ^C 17,000 ^D	n/v	3.8 U	-	-
DDT (p,p'-DDT)	µg/kg	3.3 _m ^A 47,000 ^B 94,000 ^C 136,000 ^D	n/v	3.8 U	-	-
Dieldrin	µg/kg	5 _g ^A 1,400 ^B 2,800 ^C 100 ^D	n/v	3.8 U	-	-
Endosulfan I	µg/kg	2,400 ^A 200,000 ^B 920,000 ^C 102,000 ^D	n/v	3.8 U	-	-
Endosulfan II	µg/kg	2,400 ^A 200,000 ^B 920,000 ^C 102,000 ^D	n/v	3.8 U	-	-
Endosulfan Sulfate	µg/kg	2,400 ^A 200,000 ^B 920,000 ^C 1,000,000 _g ^D	n/v	3.8 U	-	-
Endrin	µg/kg	14 ^A 89,000 ^B 410,000 ^C 60 ^D	n/v	3.8 U	-	-
Endrin Aldehyde	µg/kg	100,000 _g ^A 500,000 _g ^B 1,000,000 _g ^{CD}	n/v	3.8 U	-	-
Endrin Ketone	µg/kg	100,000 _g ^A 500,000 _g ^B 1,000,000 _g ^{CD}	n/v	3.8 U	-	-
Heptachlor	µg/kg	42 ^A 15,000 ^B 29,000 ^C 380 ^D	n/v	3.8 U	-	-
Heptachlor Epoxide	µg/kg	100,000 _g ^A 500,000 _g ^B 1,000,000 _g ^{CD}	500,000 _g ^E 1,000,000 _g ^F 20 ^G	3.8 U	-	-
Lindane (Hexachlorocyclohexane, gamma)	µg/kg	100 ^{AD} 9,200 ^B 23,000 ^C	n/v	3.8 U	-	-
Methoxychlor (4,4'-Methoxychlor)	µg/kg	100,000 _g ^A 500,000 _g ^B 1,000,000 _g ^{CD}	500,000 _g ^E 1,000,000 _g ^F 900,000 ^G	3.8 U	-	-
Semi-Volatile Organic Compounds						
Acenaphthene	µg/kg	20,000 ^A 500,000 _g ^B 1,000,000 _g ^C 98,000 ^D	n/v	7,800 U	870 U	700 U
Acenaphthylene	µg/kg	100,000 _g ^A 500,000 _g ^B 1,000,000 _g ^C 107,000 ^D	n/v	7,800 U	870 U	700 U
Acetophenone	µg/kg	100,000 _g ^A 1,000,000 _g ^D	n/v	7,800 U	870 U	700 U
Anthracene	µg/kg	100,000 _g ^A 500,000 _g ^B 1,000,000 _g ^{CD}	n/v	7,800 U	1,700	870
Atrazine	µg/kg	100,000 _g ^A 1,000,000 _g ^D	n/v	7,800 U	870 U	700 U
Benzaldehyde	µg/kg	100,000 _g ^A 1,000,000 _g ^D	n/v	7,800 U	870 U	700 U
Benzo(a)anthracene	µg/kg	1,000 _g ^A 5,600 ^B 11,000 ^C 1,000 _g ^D	n/v	29,000 ^{ABCD}	8,300 ^{ABD}	4,100 ^{AD}
Benzo(a)pyrene	µg/kg	1,000 _g ^A 1,000 _g ^B 1,100 ^C 22,000 ^D	n/v	31,000 ^{ABCD}	8,200 ^{ABC}	4,200 ^{ABC}
Benzo(b)fluoranthene	µg/kg	1,000 _g ^A 5,600 ^B 11,000 ^C 1,700 ^D	n/v	49,000 ^{ABCD}	11,000 ^{ABD}	6,100 ^{ABD}
Benzo(g,h,i)perylene	µg/kg	100,000 ^A 500,000 _g ^B 1,000,000 _g ^{CD}	n/v	24,000	6,000	1,800
Benzo(k)fluoranthene	µg/kg	800 _g ^A 56,000 ^B 110,000 ^C 1,700 ^D	n/v	20,000 ^{AD}	5,600 ^{AD}	2,500 ^{AD}
Biphenyl	µg/kg	100,000 _g ^A 1,000,000 _g ^D	500,000 _g ^E 1,000,000 _g ^F	7,800 U	870 U	700 U
Bis(2-Chloroethoxy)methane	µg/kg	100,000 _g ^A 500,000 _g ^B 1,000,000 _g ^{CD}	n/v	7,800 U	870 U	700 U
Bis(2-Chloroethyl)ether	µg/kg	100,000 _g ^A 500,000 _g ^B 1,000,000 _g ^{CD}	n/v	7,800 U	870 U	700 U
Bis(2-Chloroisopropyl)ether (2,2-oxybis(1-Chloropropane))	µg/kg	100,000 _g ^A 500,000 _g ^B 1,000,000 _g ^{CD}	n/v	7,800 U	870 U	700 U
Bis(2-Ethylhexyl)phthalate (DEHP)	µg/kg	100,000 _g ^A 500,000 _g ^B 1,000,000 _g ^{CD}	500,000 _g ^E 1,000,000 _g ^F 435,000 ^G	7,800 U	870 U	700 U
Bromophenyl Phenyl Ether, 4-	µg/kg	100,000 _g ^A 500,000 _g ^B 1,000,000 _g ^{CD}	n/v	7,800 U	870 U	700 U
Butyl Benzyl Phthalate	µg/kg	100,000 _g ^A 500,000 _g ^B 1,000,000 _g ^{CD}	500,000 _g ^E 1,000,000 _g ^F 122,000 ^G	7,800 U	870 U	700 U
Caprolactam	µg/kg	100,000 _g ^A 1,000,000 _g ^D	n/v	7,800 U	870 U	700 U
Carbazole	µg/kg	100,000 _g ^A 500,000 _g ^B 1,000,000 _g ^{CD}	n/v	7,800 U	2,000	1,100
Chloro-3-methyl phenol, 4-	µg/kg	100,000 _g ^A 500,000 _g ^B 1,000,000 _g ^{CD}	n/v	7,800 U	870 U	700 U
Chloroaniline, 4-	µg/kg	100,000 _g ^A 500,000 _g ^B 1,000,000 _g ^{CD}	500,000 _g ^E 1,000,000 _g ^F 220 ^G	7,800 U	870 U	700 U
Chloronaphthalene, 2-	µg/kg	100,000 _g ^A 500,000 _g ^B 1,000,000 _g ^{CD}	n/v	7,800 U	870 U	700 U
Chlorophenol, 2- (ortho-Chlorophenol)	µg/kg	100,000 _g ^A 500,000 _g ^B 1,000,000 _g ^{CD}	500,000 _g ^E 1,000,000 _g ^F	7,800 U	870 U	700 U
Chlorophenyl Phenyl Ether, 4-	µg/kg	100,000 _g ^A 500,000 _g ^B 1,000,000 _g ^{CD}	n/v	7,800 U	870 U	700 U
Chrysene	µg/kg	1,000 _g ^A 56,000 ^B 110,000 ^C 1,000 _g ^D	n/v	41,000 ^{AD}	10,000 ^{AD}	5,300 ^{AD}
Cresol, o- (Methylphenol, 2-)	µg/kg	330 _g ^A 500,000 _g ^B 1,000,000 _g ^C 330 ^D	n/v	7,800 U	870 U	700 U
Cresol, p- (Methylphenol, 4-)	µg/kg	330 _g ^A 500,000 _g ^B 1,000,000 _g ^C 330 ^D	n/v	15,000 U	1,700 U	1,400 U
Dibenzo(a,h)anthracene	µg/kg	330 _g ^A 560 ^B 1,100 ^C 1,000,000 _g ^D	n/v	7,800 U	1,700 ^{ABC}	700 U
Dibenzofuran	µg/kg	7,000 ^A 350,000 ^B 1,000,000 _g ^C 210,000 ^D	500,000 _g ^E 1,000,000 _g ^F 6,200 ^G	7,800 U	870 U	700 U
Diethyl Phthalate (DBP)	µg/kg	100,000 _g ^A 500,000 _g ^B 1,000,000 _g ^{CD}	500,000 _g ^E 1,000,000 _g ^F 8,100 ^G	7,800 U	870 U	700 U
Dichlorobenzidine, 3,3'-	µg/kg	100,000 _g ^A 500,000 _g ^B 1,000,000 _g ^{CD}	n/v	7,800 U	870 U	700 U
Dichlorophenol, 2,4-	µg/kg	100,000 _g ^A 500,000 _g ^B 1,000,000 _g ^{CD}	500,000 _g ^E 1,000,000 _g ^F 400 ^G	7,800 U	870 U	700 U
Diethyl Phthalate	µg/kg	100,000 _g ^A 500,000 _g ^B 1,000,000 _g ^{CD}	500,000 _g ^E 1,000,000 _g ^F 7,100 ^G	7,800 U	870 U	700 U
Dimethyl Phthalate	µg/kg	100,000 _g ^A 500,000 _g ^B 1,000,000 _g ^{CD}	500,000 _g ^E 1,000,000 _g ^F 27,000 ^G	7,800 U	870 U	700 U
Dimethylphenol, 2,4-	µg/kg	100,000 _g ^A 500,000 _g ^B 1,000,000 _g ^{CD}	n/v	7,800 U	870 U	700 U
Dinitro-o-cresol, 4,6-	µg/kg	100,000 _g ^A 500,000 _g ^B 1,000,000 _g ^{CD}	n/v	15,000 U	1,700 U	1,400 U
Dinitrophenol, 2,4-	µg/kg	100,000 _g ^A 500,000 _g ^B 1,000,000 _g ^{CD}	500,000 _g ^E 1,000,000 _g ^F 200 ^G	15,000 U	1,700 U	1,400 U
Dinitrotoluene, 2,4-	µg/kg	100,000 _g ^A 500,000 _g ^B 1,000,000 _g ^{CD}	n/v	7,800 U	870 U	700 U
Dinitrotoluene, 2,6-	µg/kg	100,000 _g ^A 500,000 _g ^B 1,000,000 _g ^{CD}	500,000 _g ^E 1,000,000 _g ^F 1,000/170 _g ^{as} ^G	7,800 U	870 U	700 U
Di-n-Octyl phthalate	µg/kg	100,000 _g ^A 500,000 _g ^B 1,000,000 _g ^{CD}	500,000 _g ^E 1,000,000 _g ^F 120,000 ^G	7,800 U	870 U	700 U
Dioxane, 1,4-	µg/kg	100 _g ^A 130,000 ^B 250,000 ^C 100 ^D	n/v	-	510 U	-
Fluoranthene	µg/kg	100,000 _g ^A 500,000 _g ^B 1,000,000 _g ^{CD}	n/v	81,000	22,000	12,000
Fluorene	µg/kg	30,000 ^A 500,000 _g ^B 1,000,000 _g ^C 386,000 ^D	n/v	7,800 U	870 U	700 U
Hexachlorobenzene	µg/kg	330 _g ^A 6,000 ^B 12,000 ^C 3,200 ^D	500,000 _g ^E 1,000,000 _g ^F 1,400 ^G	7,800 U	870 U	700 U
Hexachlorobutadiene (Hexachloro-1,3-butadiene)	µg/kg	100,000 _g ^A 500,000 _g ^B 1,000,000 _g ^{CD}	n/v	7,800 U	870 U	700 U

Table 9
Summary of Analytical Results for Debris Pile (RAOC-4) Samples
Site Management Plan
820 Linden Ave Site, BCP #C828200
820 Linden Avenue, Pittsford, NY

Sample Location					DP-1	
Sample Date					19-Jun-20	6-Jul-20
Sample ID					*DP-CSSIDE1	DP-CSSIDE2
Sampling Company					STANTEC	STANTEC
Laboratory					TAL	TAL
Laboratory Work Order					460-161576-1	460-171508-1
Laboratory Sample ID	Units	NYSDEC-Part 375	NYSDEC CP-51	460-161576-17	480-171508-1	460-212667-1
Volatile Organic Compounds						
Acetone	µg/kg	50 ^{AD} 500,000 ^B 1,000,000 ^C	n/v	5.3 U	-	-
Benzene	µg/kg	60 ^{AD} 44,000 ^B 89,000 ^C	n/v	1.1 U	-	-
Bromodichloromethane	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	n/v	1.1 U	-	-
Bromoform (Tribromomethane)	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	n/v	1.1 U	-	-
Bromomethane (Methyl bromide)	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	n/v	1.1 U	-	-
Butylbenzene, n-	µg/kg	12,000 ^{AD} 500,000 ^B 1,000,000 ^C	n/v	1.1 U	-	-
Butylbenzene, sec- (2-Phenylbutane)	µg/kg	11,000 ^{AD} 500,000 ^B 1,000,000 ^C	n/v	1.1 U	-	-
Butylbenzene, tert-	µg/kg	5,900 ^{AD} 500,000 ^B 1,000,000 ^C	n/v	1.1 U	-	-
Carbon Disulfide	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	500,000 ^E 1,000,000 ^F 2,700 ^G	1.1 U	-	-
Carbon Tetrachloride (Tetrachloromethane)	µg/kg	760 ^{AD} 22,000 ^B 44,000 ^C	n/v	1.1 U	-	-
Chlorobenzene (Monochlorobenzene)	µg/kg	1,100 ^{AD} 500,000 ^B 1,000,000 ^C	n/v	1.1 U	-	-
Chloroethane (Ethyl Chloride)	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	500,000 ^E 1,000,000 ^F 1,900 ^G	1.1 U	-	-
Chloroform (Trichloromethane)	µg/kg	370 ^{AD} 350,000 ^B 700,000 ^C	n/v	1.1 U	-	-
Chloromethane	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	n/v	1.1 U	-	-
Cyclohexane	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	n/v	1.1 U	-	-
Dibromo-3-Chloropropane, 1,2- (DBCP)	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	n/v	1.1 U	-	-
Dibromochloromethane	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	500,000 ^E 1,000,000 ^F	1.1 U	-	-
Dichlorobenzene, 1,2-	µg/kg	1,100 ^{AD} 500,000 ^B 1,000,000 ^C	n/v	1.1 U	-	-
Dichlorobenzene, 1,3-	µg/kg	2,400 ^{AD} 280,000 ^B 560,000 ^C	n/v	1.1 U	-	-
Dichlorobenzene, 1,4-	µg/kg	1,800 ^{AD} 130,000 ^B 250,000 ^C	n/v	1.1 U	-	-
Dichlorodifluoromethane (Freon 12)	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	n/v	1.1 U	-	-
Dichloroethane, 1,1-	µg/kg	270 ^{AD} 240,000 ^B 480,000 ^C	n/v	1.1 U	-	-
Dichloroethane, 1,2-	µg/kg	20 ^A 30,000 ^B 60,000 ^C 20 ^A	n/v	1.1 U	-	-
Dichloroethene, 1,1-	µg/kg	330 ^{AD} 500,000 ^B 1,000,000 ^C	n/v	1.1 U	-	-
Dichloroethene, cis-1,2-	µg/kg	250 ^{AD} 500,000 ^B 1,000,000 ^C	n/v	1.1 U	-	-
Dichloroethene, trans-1,2-	µg/kg	190 ^{AD} 500,000 ^B 1,000,000 ^C	n/v	1.1 U	-	-
Dichloropropane, 1,2-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	500,000 ^E 1,000,000 ^F	1.1 U	-	-
Dichloropropene, cis-1,3-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	n/v	1.1 U	-	-
Dichloropropene, trans-1,3-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	n/v	1.1 U	-	-
Ethylbenzene	µg/kg	1,000 ^{AD} 390,000 ^B 780,000 ^C	n/v	1.1 U	-	-
Ethylene Dibromide (Dibromoethane, 1,2-)	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	n/v	1.1 U	-	-
Hexanone, 2- (Methyl Butyl Ketone)	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	n/v	5.3 U	-	-
Isopropylbenzene	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	500,000 ^E 1,000,000 ^F 2,300 ^G	1.1 U	-	-
Isopropyltoluene, p- (Cymene)	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	500,000 ^E 1,000,000 ^F 10,000 ^G	1.1 U	-	-
Methyl Acetate	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	n/v	5.3 U	-	-
Methyl Ethyl Ketone (MEK) (2-Butanone)	µg/kg	120 ^{AD} 500,000 ^B 1,000,000 ^C	500,000 ^E 1,000,000 ^F 300 ^G	5.3 U	-	-
Methyl Isobutyl Ketone (MIBK)	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	500,000 ^E 1,000,000 ^F 1,000 ^G	5.3 U	-	-
Methyl tert-butyl ether (MTBE)	µg/kg	930 ^{AD} 500,000 ^B 1,000,000 ^C	n/v	1.1 U	-	-
Methylcyclohexane	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	n/v	1.1 U	-	-
Methylene Chloride (Dichloromethane)	µg/kg	50 ^{AD} 500,000 ^B 1,000,000 ^C	n/v	1.1 U	-	-
Naphthalene	µg/kg	12,000 ^{AD} 500,000 ^B 1,000,000 ^C	n/v	1.1 U	-	-
Propylbenzene, n-	µg/kg	3,900 ^{AD} 500,000 ^B 1,000,000 ^C	n/v	1.1 U	-	-
Styrene	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	500,000 ^E 1,000,000 ^F	1.1 U	-	-
Tetrachloroethane, 1,1,2,2-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	500,000 ^E 1,000,000 ^F 600 ^G	1.1 U	-	-
Tetrachloroethene (PCE)	µg/kg	1,300 ^{AD} 150,000 ^B 300,000 ^C	500,000 ^E 1,000,000 ^F	1.1 U	-	-
Toluene	µg/kg	700 ^{AD} 500,000 ^B 1,000,000 ^C	n/v	1.1 U	-	-
Trichlorobenzene, 1,2,4-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	500,000 ^E 1,000,000 ^F 3,400 ^G	1.1 U	-	-
Trichloroethane, 1,1,1-	µg/kg	680 ^{AD} 500,000 ^B 1,000,000 ^C	n/v	1.1 U	-	-
Trichloroethane, 1,1,2-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	n/v	1.1 U	-	-
Trichloroethene (TCE)	µg/kg	470 ^{AD} 200,000 ^B 400,000 ^C	n/v	1.1 U	-	-
Trichlorofluoromethane (Freon 11)	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	n/v	1.1 U	-	-
Trichlorotrifluoroethane (Freon 113)	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	500,000 ^E 1,000,000 ^F 6,000 ^G	1.1 U	-	-
Trimethylbenzene, 1,2,4-	µg/kg	3,600 ^{AD} 190,000 ^B 380,000 ^C	n/v	1.1 U	-	-
Trimethylbenzene, 1,3,5-	µg/kg	8,400 ^{AD} 190,000 ^B 380,000 ^C	n/v	1.1 U	-	-
Vinyl Chloride	µg/kg	20 ^{AD} 13,000 ^B 27,000 ^C	n/v	1.1 U	-	-
Xylene, m & p-	µg/kg	260 ^A 500,000 ^B 1,000,000 ^{CD} 1,600 ^D	n/v	1.1 U	-	-
Xylene, o-	µg/kg	260 ^A 500,000 ^B 1,000,000 ^{CD} 1,600 ^D	n/v	1.1 U	-	-
Xylenes, Total	µg/kg	260 ^A 500,000 ^B 1,000,000 ^C 1,600 ^D	n/v	2.1 U	-	-
Total VOC	µg/kg	n/v	n/v	ND	-	-

VOC - Tentatively Identified Compounds

Total VOC TICs	µg/kg	n/v	n/v	10 JN	-	-
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Notes:	
NYSDEC-Part 375	NYSDEC 6 NYCRR Part 375 Soil Clean-up Objectives (SCOs)
A	NYSDEC 6 NYCRR Part 375 - Unrestricted Use Soil Cleanup Objectives
B	NYSDEC 6 NYCRR Part 375 - Restricted Use SCO - Protection of Human Health - Commercial
C	NYSDEC 6 NYCRR Part 375 - Restricted Use SCO - Protection of Human Health - Industrial
D	NYSDEC 6 NYCRR Part 375 - Restricted Use SCO - Protection of Groundwater
NYSDEC CP-51	New York State Department of Environmental Conservation, DEC Policy CP-51, October 21, 2010
E	Table 1 Supplemental Soil Cleanup Objectives - Commercial
F	Table 1 Supplemental Soil Cleanup Objectives - Industrial
G	Table 1 Supplemental Soil Cleanup Objectives - Protection of Groundwater
6.5 ^A	Concentration exceeds the indicated standard.
15.2	Measured concentration did not exceed the indicated standard.
0.03 U	Analyte was not detected at a concentration greater than the laboratory reporting limit.
n/v	No standard/guideline value.
-	Parameter not analyzed / not available.
A	The SCOs for unrestricted use were capped at a maximum value of 100 mg/kg. See 6 NYCRR Part 375 TSD Section 9.3
EFG	SCOs for organic contaminants (volatile organic compounds, semivolatile organic compounds, and pesticides) are capped at 100 ppm for residential use, 500 ppm for commercial use, 1000 ppm for industrial use. SCOs for metals are capped at 10,000 ppm.
a	Based on rural background study
b	Based on rural background study. The value of 1.0 refers to SVOC analyses while the 0.17b refers to VOC analyses.
b,a1	The SCOs for commercial use were capped at a maximum value of 500 mg/kg. See TSD Section 9.3.
c	The SCOs for commercial use were capped at a maximum value of 500 mg/kg. See TSD Section 9.3. The criterion is applicable to total xylenes, and the individual isomers should be added for comparison.
c,p	The SCOs for industrial use and the protection of groundwater were capped at a maximum value of 1000 mg/kg (Organics) and 10000 mg/kg (Inorganics). See 6 NYCRR Part 375 TSD Section 9.3.
d	The SCOs for industrial use and the protection of groundwater were capped at a maximum value of 1000 mg/kg. See 6 NYCRR Part 375 TSD Section 9.3. The criterion is applicable to total xylenes, and the individual isomers should be added for comparison.
d,p	The SCOS for metals were capped at a maximum value of 10,000 mg/kg. See 6 NYCRR Part 375 TSD Section 9.3.
e	The SCOS for metals were capped at a maximum value of 10,000 mg/kg. See 6 NYCRR Part 375 TSD Section 9.3. The SCO for this specific compound (or family of compounds) is considered to be met if the analysis for the total species of this contaminant is below the specific SCO.
e,1	For constituents where the calculated SCO was lower than the CRQL, the CRQL is used as the SCO value.
f	For constituents where the calculated SCO was lower than the rural soil background concentration as determined by the DEC/DOH rural soil survey, the rural soil background concentration is used as the Track 2 SCO value for this use of the site.
g	The SCO for this specific compound (or family of compounds) is considered to be met if the analysis for the total species of this contaminant is below the specific SCO.
i	This SCO is the sum of endosulfan I, endosulfan II, and endosulfan sulfate.
j	This SCO is the lower of the values for mercury (elemental) or mercury (inorganic salts). See 6 NYCRR Part 375 TSD Table 5.6-1.
k	For constituents where the calculated SCO was lower than the Contract Required Quantitation Limit (CRQL), the CRQL is used as the Track 1 SCO value.
m	For constituents where the calculated SCO was lower than the rural soil background concentration as determined by the DEC/DOH rural soil survey, the rural soil background concentration is used as the Track 1 SCO value for this use of the site.
n	For constituents where the calculated SCO was lower than the rural soil background concentration as determined by the DEC/DOH rural soil survey, the rural soil background concentration is used as the Track 1 SCO value for this use of the site.
n,1	The SCO for this specific compound (or family of compounds) is considered to be met if the analysis for the total species of this contaminant is below the specific SCO.
NS,q	No SCO has been established for this compound. No SCO has been established for total chromium; however, see standards for trivalent and hexavalent chromium.
o	Standard is applicable to total PCBs, and the individual Aroclors should be added for comparison.
p	The criterion is applicable to total xylenes, and the individual isomers should be added for comparison.
J	The reported result is an estimated value.
N	Presumptive evidence of material.
ND	Not detected.
T	Result is a tentatively identified compound (TIC) and an estimated value.
UJ	Indicates estimated non-detect.
TAL	Eurofins Test America Laboratory
*	An asterisk in front of the Sample ID indicates that the material no longer remains on-site following implementation of Interim Remedial Measures.

Table 10
Summary of Analytical Results for Eastern Surface Soil Impacts (RAOC-5)
Site Management Plan
820 Linden Ave Site, BCP #C828200
820 Linden Avenue, Pittsford, NY

Sample Location Sample Date Sample ID Sample Depth Sampling Company Laboratory Laboratory Work Order Laboratory Sample ID Sample Type				SS-4a 7-Apr-20 LIN-SS4a-t-S2 0 - 2 in STANTEC TAL 480-168313-1 480-168313-1	SS-4abc 30-Jul-18 LIN-SS4-t-s 0 - 2 in STANTEC TAL 460-161576-1 460-161576-24	30-Jul-18 LIN-SS4-b-s 2 - 12 in STANTEC TAL 460-161576-1 460-161576-25	30-Jul-18 LIN-SS4b-t-s 0 - 2 in STANTEC TAL 460-161576-1 460-161576-13	SS-4b 7-Apr-20 LIN-SS-4b-t-S2 0 - 2 in STANTEC TAL 480-168313-1 480-168313-2	7-Apr-20 LIN-SS-DUP-S2 0 - 2 in STANTEC TAL 480-168313-1 480-168313-4 Field Duplicate	30-Jul-18 LIN-SS4b-b-s 2 - 12 in STANTEC TAL 460-161576-1 460-161576-14	30-Jul-18 LIN-SS4c-t-s 0 - 2 in STANTEC TAL 460-161576-1 460-161576-15	SS-4c 7-Apr-20 LIN-SS4c-t-S2 0 - 2 in STANTEC TAL 480-168313-1 480-168313-3	30-Jul-18 LIN-SS4c-b-s 2 - 12 in STANTEC TAL 460-161576-1 460-161576-16	
	Units	NYSDEC-Part 375	NYSDEC CP-51											
General Chemistry														
Cyanide	mg/kg	27 ^{AB} 10,000 ^a 40 ^D	n/v	-	0.27 U	1.0	-	-	-	-	-	-	-	-
Metals														
Aluminum	mg/kg	10,000 ^a ABCD	10,000 ^a EFG	-	5,930	6,580	-	-	-	-	-	-	-	-
Antimony	mg/kg	10,000 ^a ABCD	10,000 ^a EFG	-	32.9 U	32.7 U	-	-	-	-	-	-	-	-
Arsenic	mg/kg	13 ^A 16 ^a BCD	n/v	-	4.4 U	4.4 U	-	-	-	-	-	-	-	-
Barium	mg/kg	350 ^A 400 ^B 10,000 ^C 820 ^D	n/v	-	27.4	26.2	-	-	-	-	-	-	-	-
Beryllium	mg/kg	7.2 ^A 590 ^B 2,700 ^C 47 ^D	n/v	-	0.44 U	0.44 U	-	-	-	-	-	-	-	-
Cadmium	mg/kg	2.5 ^a 9.3 ^B 60 ^C 7.5 ^D	n/v	-	0.44 U	0.44 U	-	-	-	-	-	-	-	-
Calcium	mg/kg	10,000 ^a ABCD	10,000 ^a EFG	-	4,590	3,010	-	-	-	-	-	-	-	-
Chromium	mg/kg	30 ^a 1 ^A 1,500 ^B 6,800 ^C NS ^a 4 ^D	n/v	-	16.4	19.4	-	-	-	-	-	-	-	-
Cobalt	mg/kg	10,000 ^a ABCD	10,000 ^a EFG	-	2.4	2.7	-	-	-	-	-	-	-	-
Copper	mg/kg	50 ^A 270 ^B 10,000 ^C 1,720 ^D	n/v	-	8.4	8.5	-	-	-	-	-	-	-	-
Iron	mg/kg	10,000 ^a ABCD	10,000 ^a EFG	-	7,410	8,080	-	-	-	-	-	-	-	-
Lead	mg/kg	63 ^a 1,000 ^B 3,900 ^C 450 ^D	n/v	-	26.3	28.4	-	-	-	-	-	-	-	-
Magnesium	mg/kg	10,000 ^a ABCD	n/v	-	2,030	1,550	-	-	-	-	-	-	-	-
Manganese	mg/kg	1,600 ^A 10,000 ^{BC} 2,000 ^D	n/v	-	181	170	-	-	-	-	-	-	-	-
Mercury	mg/kg	0.18 ^A 2.8 ^B 5.7 ^C 0.73 ^D	n/v	-	0.064	0.069	-	-	-	-	-	-	-	-
Nickel	mg/kg	30 ^A 310 ^B 10,000 ^C 130 ^D	n/v	-	11.0 U	10.9 U	-	-	-	-	-	-	-	-
Potassium	mg/kg	10,000 ^a ABCD	n/v	-	454	440	-	-	-	-	-	-	-	-
Selenium	mg/kg	3.9 ^A 1,500 ^B 6,800 ^C 4 ^D	n/v	-	8.8 U	8.7 U	-	-	-	-	-	-	-	-
Silver	mg/kg	2 ^A 1,500 ^B 6,800 ^C 8.3 ^D	n/v	-	1.1 U	1.1 U	-	-	-	-	-	-	-	-
Sodium	mg/kg	10,000 ^a ABCD	n/v	-	307 U	305 U	-	-	-	-	-	-	-	-
Thallium	mg/kg	10,000 ^a ABCD	10,000 ^a EFG	-	13.2 U	13.1 U	-	-	-	-	-	-	-	-
Vanadium	mg/kg	10,000 ^a ABCD	10,000 ^a EFG	-	10.9	11.8	-	-	-	-	-	-	-	-
Zinc	mg/kg	109 ^a 10,000 ^{BC} 2,480 ^D	n/v	-	47.2	46.7	-	-	-	-	-	-	-	-
Polychlorinated Biphenyls														
Aroclor 1016	µg/kg	ABC ^D	n/v	-	38 U	37 U	-	-	-	-	-	-	-	-
Aroclor 1221	µg/kg	^a ABCD	n/v	-	38 U	37 U	-	-	-	-	-	-	-	-
Aroclor 1232	µg/kg	^a ABCD	n/v	-	38 U	37 U	-	-	-	-	-	-	-	-
Aroclor 1242	µg/kg	^a ABCD	n/v	-	38 U	37 U	-	-	-	-	-	-	-	-
Aroclor 1248	µg/kg	^a ABCD	n/v	-	38 U	37 U	-	-	-	-	-	-	-	-
Aroclor 1254	µg/kg	^a ABCD	n/v	-	38 U	37 U	-	-	-	-	-	-	-	-
Aroclor 1260	µg/kg	^a ABCD	n/v	-	38 U	37 U	-	-	-	-	-	-	-	-
Aroclor 1262	µg/kg	^a ABCD	n/v	-	38 U	37 U	-	-	-	-	-	-	-	-
Aroclor 1268	µg/kg	^a ABCD	n/v	-	38 U	37 U	-	-	-	-	-	-	-	-
Polychlorinated Biphenyls (PCBs)	µg/kg	100 ^A 1,000 ^B 25,000 ^C 3,200 ^D	n/v	-	ND	ND	-	-	-	-	-	-	-	-
Pesticides														
Aldrin	µg/kg	5 ^a 680 ^B 1,400 ^C 190 ^D	n/v	-	3.8 U	3.7 U	-	-	-	-	-	-	-	-
BHC, alpha-	µg/kg	20 ^{AD} 3,400 ^B 6,800 ^C	n/v	-	3.8 U	3.7 U	-	-	-	-	-	-	-	-
BHC, beta-	µg/kg	36 ^A 3,000 ^B 14,000 ^C 90 ^D	n/v	-	3.8 U	3.7 U	-	-	-	-	-	-	-	-
BHC, delta-	µg/kg	40 ^A 500,000 ^B 1,000,000 ^C 250 ^D	n/v	-	3.8 U	3.7 U	-	-	-	-	-	-	-	-
Campechlor (Toxaphene)	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C CD	n/v	-	38 U	37 U	-	-	-	-	-	-	-	-
Chlordane, alpha-	µg/kg	94 ^A 24,000 ^B 47,000 ^C 2,900 ^D	n/v	-	3.8 U	3.7 U	-	-	-	-	-	-	-	-
Chlordane, trans- (gamma-Chlordane)	µg/kg	100,000 ^A 1,000,000 ^D	n/v	-	3.8 U	3.7 U	-	-	-	-	-	-	-	-
DDD (p,p'-DDD)	µg/kg	3.3 ^a 92,000 ^B 180,000 ^C 14,000 ^D	n/v	-	3.8 U	3.7 U	-	-	-	-	-	-	-	-
DDE (p,p'-DDE)	µg/kg	3.3 ^a 62,000 ^B 120,000 ^C 17,000 ^D	n/v	-	3.8 U	3.7 U	-	-	-	-	-	-	-	-
DDT (p,p'-DDT)	µg/kg	3.3 ^a 47,000 ^B 94,000 ^C 136,000 ^D	n/v	-	3.8 U	3.7 U	-	-	-	-	-	-	-	-
Dieldrin	µg/kg	5 ^a 1,400 ^B 2,800 ^C 100 ^D	n/v	-	63 ^A	52 ^A	-	-	-	-	-	-	-	-
Endosulfan I	µg/kg	2,400 ^A 200,000 ^B 920,000 ^C 102,000 ^D	n/v	-	3.8 U	3.7 U	-	-	-	-	-	-	-	-
Endosulfan II	µg/kg	2,400 ^A 200,000 ^B 920,000 ^C 102,000 ^D	n/v	-	3.8 U	3.7 U	-	-	-	-	-	-	-	-
Endosulfan Sulfate	µg/kg	2,400 ^A 200,000 ^B 920,000 ^C 1,000,000 ^D	n/v	-	3.8 U	3.7 U	-	-	-	-	-	-	-	-
Endrin	µg/kg	14 ^A 89,000 ^B 410,000 ^C 60 ^D	n/v	-	3.8 U	3.7 U	-	-	-	-	-	-	-	-
Endrin Aldehyde	µg/kg	100,000 ^a 500,000 ^B 1,000,000 ^C CD	n/v	-	3.8 U	3.7 U	-	-	-	-	-	-	-	-
Endrin Ketone	µg/kg	100,000 ^a 500,000 ^B 1,000,000 ^C CD	n/v	-	3.8 U	3.7 U	-	-	-	-	-	-	-	-
Heptachlor	µg/kg	42 ^A 15,000 ^B 29,000 ^C 380 ^D	n/v	-	3.8 U	3.7 U	-	-	-	-	-	-	-	-
Heptachlor Epoxide	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C CD	500,000 ^a 1,000,000 ^F 20 ^G	-	3.8 U	3.7 U	-	-	-	-	-	-	-	-
Lindane (Hexachlorocyclohexane, gamma)	µg/kg	100 ^{AD} 9,200 ^B 23,000 ^C	n/v	-	3.8 U	3.7 U	-	-	-	-	-	-	-	-
Methoxychlor (4,4'-Methoxychlor)	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C CD	500,000 ^a 1,000,000 ^F 900,000 ^G	-	3.8 U	3.7 U	-	-	-	-	-	-	-	-

See notes on last page.

Table 10
Summary of Analytical Results for Eastern Surface Soil Impacts (RAOC-5)
Site Management Plan
820 Linden Ave Site, BCP #C828200
820 Linden Avenue, Pittsford, NY

Sample Location Sample Date Sample ID Sample Depth Sampling Company Laboratory Laboratory Work Order Laboratory Sample ID Sample Type				SS-4a 7-Apr-20 LIN-SS4a-t-S2 0 - 2 in STANTEC TAL 480-168313-1 480-168313-1	SS-4abc 30-Jul-18 LIN-SS4-t-s 0 - 2 in STANTEC TAL 460-161576-1 460-161576-24		30-Jul-18 LIN-SS4b-t-s 0 - 2 in STANTEC TAL 460-161576-1 460-161576-13	SS-4b 7-Apr-20 LIN-SS4b-t-S2 0 - 2 in STANTEC TAL 480-168313-1 480-168313-2		30-Jul-18 LIN-SS4b-b-s 2 - 12 in STANTEC TAL 460-161576-1 460-161576-14	30-Jul-18 LIN-SS4c-t-s 0 - 2 in STANTEC TAL 460-161576-1 460-161576-15	SS-4c 7-Apr-20 LIN-SS4c-t-S2 0 - 2 in STANTEC TAL 480-168313-1 480-168313-3	30-Jul-18 LIN-SS4c-b-s 2 - 12 in STANTEC TAL 460-161576-1 460-161576-16
	Units	NYSDEC-Part 375	NYSDEC CP-51										
Semi-Volatile Organic Compounds													
Acenaphthene	µg/kg	20,000 ^A 500,000 ^B 1,000,000 ^C 98,000 ^D	n/v	-	390 U	380 U	-	-	-	-	-	-	-
Acenaphthylene	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C 107,000 ^D	n/v	-	390 U	380 U	-	-	-	-	-	-	-
Acetophenone	µg/kg	100,000 ^A 1,000,000 ^D	n/v	-	390 U	380 U	-	-	-	-	-	-	-
Anthracene	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	n/v	-	390 U	380 U	-	-	-	-	-	-	-
Atrazine	µg/kg	100,000 ^A 1,000,000 ^D	n/v	-	390 U	380 U	-	-	-	-	-	-	-
Benzaldehyde	µg/kg	100,000 ^A 1,000,000 ^D	n/v	-	390 U	380 U	-	-	-	-	-	-	-
Benzo(a)anthracene	µg/kg	1,000 ^A 5,600 ^B 11,000 ^C 1,000 ^D	n/v	-	560	560	-	-	-	-	-	-	-
Benzo(a)pyrene	µg/kg	1,000 ^A 1,000 ^B 1,100 ^C 22,000 ^D	n/v	2,300 ^{ABC}	1,800 ^{ABCD}	630	-	12,000 ^{ABC}	13,000 ^{ABC}	-	-	350,000 ^{ABCD}	-
Benzo(b)fluoranthene	µg/kg	1,000 ^A 5,600 ^B 11,000 ^C 1,700 ^D	n/v	-	2,600 ^{AD}	930	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	n/v	-	1,200	450	-	-	-	-	-	-	-
Benzo(k)fluoranthene	µg/kg	800 ^A 56,000 ^B 110,000 ^C 1,700 ^D	n/v	-	1,000 ^A	380 U	-	-	-	-	-	-	-
Biphenyl	µg/kg	100,000 ^A 1,000,000 ^D	500,000 ^E 1,000,000 ^F	-	390 U	380 U	-	-	-	-	-	-	-
Bis(2-Chloroethoxy)methane	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	n/v	-	390 U	380 U	-	-	-	-	-	-	-
Bis(2-Chloroethoxy)ether	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	n/v	-	390 U	380 U	-	-	-	-	-	-	-
Bis(2-Chloroisopropyl)ether (2,2-oxybis(1-Chloropropane))	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	n/v	-	390 U	380 U	-	-	-	-	-	-	-
Bis(2-Ethylhexyl)phthalate (DEHP)	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	500,000 ^E 1,000,000 ^F 435,000 ^G	-	390 U	380 U	-	-	-	-	-	-	-
Bromophenyl Phenyl Ether, 4-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	n/v	-	390 U	380 U	-	-	-	-	-	-	-
Butyl Benzyl Phthalate	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	500,000 ^E 1,000,000 ^F 122,000 ^G	-	390 U	380 U	-	-	-	-	-	-	-
Caprolactam	µg/kg	100,000 ^A 1,000,000 ^D	n/v	-	390 U	380 U	-	-	-	-	-	-	-
Carbazole	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	n/v	-	390 U	380 U	-	-	-	-	-	-	-
Chloro-3-methyl phenol, 4-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	n/v	-	390 U	380 U	-	-	-	-	-	-	-
Chloroaniline, 4-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	500,000 ^E 1,000,000 ^F 220 ^G	-	390 U	380 U	-	-	-	-	-	-	-
Chloronaphthalene, 2-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	n/v	-	390 U	380 U	-	-	-	-	-	-	-
Chlorophenol, 2- (ortho-Chlorophenol)	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	500,000 ^E 1,000,000 ^F	-	390 U	380 U	-	-	-	-	-	-	-
Chlorophenyl Phenyl Ether, 4-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	n/v	-	390 U	380 U	-	-	-	-	-	-	-
Chrysene	µg/kg	1,000 ^A 56,000 ^B 110,000 ^C 1,000 ^D	n/v	-	2,000 ^{AD}	680	-	-	-	-	-	-	-
Cresol, o- (Methylphenol, 2-)	µg/kg	330 ^A 500,000 ^B 1,000,000 ^C 330 ^D	n/v	-	390 U	380 U	-	-	-	-	-	-	-
Cresol, p- (Methylphenol, 4-)	µg/kg	330 ^A 500,000 ^B 1,000,000 ^C 330 ^D	n/v	-	760 U	740 U	-	-	-	-	-	-	-
Dibenzo(a,h)anthracene	µg/kg	330 ^A 560 ^B 1,100 ^C 1,000,000 ^D	n/v	-	390 U	380 U	-	-	-	-	-	-	-
Dibenzofuran	µg/kg	7,000 ^A 350,000 ^B 1,000,000 ^C 210,000 ^D	500,000 ^E 1,000,000 ^F 6,200 ^G	-	390 U	380 U	-	-	-	-	-	-	-
Dibutyl Phthalate (DBP)	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	500,000 ^E 1,000,000 ^F 8,100 ^G	-	390 U	380 U	-	-	-	-	-	-	-
Dichlorobenzidine, 3,3'-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	n/v	-	390 U	380 U	-	-	-	-	-	-	-
Dichlorophenol, 2,4-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	500,000 ^E 1,000,000 ^F 400 ^G	-	390 U	380 U	-	-	-	-	-	-	-
Diethyl Phthalate	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	500,000 ^E 1,000,000 ^F 7,100 ^G	-	390 U	380 U	-	-	-	-	-	-	-
Dimethyl Phthalate	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	500,000 ^E 1,000,000 ^F 27,000 ^G	-	390 U	380 U	-	-	-	-	-	-	-
Dimethylphenol, 2,4-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	n/v	-	390 U	380 U	-	-	-	-	-	-	-
Dinitro-o-cresol, 4,6-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	n/v	-	760 U	740 U	-	-	-	-	-	-	-
Dinitrophenol, 2,4-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	500,000 ^E 1,000,000 ^F 200 ^G	-	760 U	740 U	-	-	-	-	-	-	-
Dinitrotoluene, 2,4-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	n/v	-	390 U	380 U	-	-	-	-	-	-	-
Dinitrotoluene, 2,6-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	500,000 ^E 1,000,000 ^F 1,000/170 ^G 1	-	390 U	380 U	-	-	-	-	-	-	-
Di-n-Octyl phthalate	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	500,000 ^E 1,000,000 ^F 120,000 ^G 3	-	390 U	380 U	-	-	-	-	-	-	-
Fluoranthene	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	n/v	-	4,000	1,500	-	-	-	-	-	-	-
Fluorene	µg/kg	30,000 ^A 500,000 ^B 1,000,000 ^C 386,000 ^D	n/v	-	390 U	380 U	-	-	-	-	-	-	-
Hexachlorobenzene	µg/kg	330 ^A 6,000 ^B 12,000 ^C 3,200 ^D	500,000 ^E 1,000,000 ^F 1,400 ^G	-	390 U	380 U	-	-	-	-	-	-	-
Hexachlorobutadiene (Hexachloro-1,3-butadiene)	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	n/v	-	390 U	380 U	-	-	-	-	-	-	-
Hexachlorocyclopentadiene	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	500,000 ^E 1,000,000 ^F	-	390 U	380 U	-	-	-	-	-	-	-
Hexachloroethane	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	n/v	-	390 U	380 U	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	µg/kg	500 ^A 5,600 ^B 11,000 ^C 8,200 ^D	n/v	-	1,400 ^A	510 ^A	-	-	-	-	-	-	-
Isophorone	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	500,000 ^E 1,000,000 ^F 4,400 ^G	-	390 U	380 U	-	-	-	-	-	-	-
Methylnaphthalene, 2-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	500,000 ^E 1,000,000 ^F 36,400 ^G	-	390 U	380 U	-	-	-	-	-	-	-
Naphthalene	µg/kg	12,000 ^{AD} 500,000 ^B 1,000,000 ^C	n/v	-	390 U	380 U	-	-	-	-	-	-	-
Nitroaniline, 2-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	500,000 ^E 1,000,000 ^F 400 ^G	-	760 U	740 U	-	-	-	-	-	-	-
Nitroaniline, 3-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	500,000 ^E 1,000,000 ^F 500 ^G	-	760 U	740 U	-	-	-	-	-	-	-
Nitroaniline, 4-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	n/v	-	760 U	740 U	-	-	-	-	-	-	-
Nitrobenzene	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	69,000 ^E 140,000 ^F 170 ^G	-	390 U	380 U	-	-	-	-	-	-	-
Nitrophenol, 2-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	500,000 ^E 1,000,000 ^F 300 ^G	-	390 U	380 U	-	-	-	-	-	-	-
Nitrophenol, 4-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	500,000 ^E 1,000,000 ^F 100 ^G	-	760 U	740 U	-	-	-	-	-	-	-
N-Nitrosodi-n-Propylamine	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	n/v	-	390 U	380 U	-	-	-	-	-	-	-
n-Nitrosodiphenylamine	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	500,000 ^E 1,000,000 ^F	-	390 U	380 U	-	-	-	-	-	-	-
Pentachlorophenol	µg/kg	800 ^A 6,700 ^B 55,000 ^C 800 ^D	n/v	-	760 U	740 U	-	-	-	-	-	-	-
Phenanthrene	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	n/v	-	1,400	550	-	-	-	-	-	-	-
Phenol	µg/kg	330 ^A 500,000 ^B 1,000,000 ^C 330 ^D	n/v	-	390 U	380 U	-	-	-	-	-	-	-
Pyrene	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	n/v	-	3,300	1,200	-	-	-	-	-	-	-
Trichlorophenol, 2,4,5-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	500,000 ^E 1,000,000 ^F 100 ^G	-	390 U	380 U	-	-	-	-	-	-	-
Trichlorophenol, 2,4,6-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{CD}	500,000 ^E 1,000,000 ^F	-	390 U	380 U	-	-	-	-	-	-	-
Total SVOC	µg/kg	n/v	n/v	2,300	20,300	7,010	-	12,000	13,000	-	-	350,000	-
SVOC - Tentatively Identified Compounds													
Total SVOC TICs	µg/kg	n/v	n/v	38,140 TJN	11,180 JN	4,960 JN	-	126,900 TJN	126,000 TJN	-	-	1,188,000 TJN	-

See notes on last page.

Table 10
Summary of Analytical Results for Eastern Surface Soil Impacts (RAOC-5)
Site Management Plan
820 Linden Ave Site, BCP #C828200
820 Linden Avenue, Pittsford, NY

Sample Location Sample Date Sample ID Sample Depth Sampling Company Laboratory Laboratory Work Order Laboratory Sample ID Sample Type				SS-4a 7-Apr-20 LIN-SS4a-t-S2 0 - 2 in STANTEC TAL 480-168313-1 480-168313-1	SS-4abc 30-Jul-18 LIN-SS4-t-s 0 - 2 in STANTEC TAL 460-161576-1 460-161576-24			30-Jul-18 LIN-SS4-b-s 2 - 12 in STANTEC TAL 460-161576-1 460-161576-25	30-Jul-18 LIN-SS4b-t-s 0 - 2 in STANTEC TAL 460-161576-1 460-161576-13	SS-4b 7-Apr-20 LIN-SS4b-t-S2 0 - 2 in STANTEC TAL 480-168313-1 480-168313-2			7-Apr-20 LIN-SS4-DUP-S2 0 - 2 in STANTEC TAL 480-168313-1 480-168313-4 Field Duplicate	30-Jul-18 LIN-SS4b-b-s 2 - 12 in STANTEC TAL 460-161576-1 460-161576-14	30-Jul-18 LIN-SS4c-t-s 0 - 2 in STANTEC TAL 460-161576-1 460-161576-15	SS-4c 7-Apr-20 LIN-SS4c-t-S2 0 - 2 in STANTEC TAL 480-168313-1 480-168313-3		30-Jul-18 LIN-SS4c-b-s 2 - 12 in STANTEC TAL 460-161576-1 460-161576-16
	Units	NYSDEC-Part 375	NYSDEC CP-51															
Volatile Organic Compounds																		
Acetone	µg/kg	50 ^{AD} 500,000, ^B 1,000,000, ^C	n/v	-	-	-	-	5.5 U	-	-	-	5.2 U	7.7	-	5.0 U			
Benzene	µg/kg	60 ^{AD} 44,000 ^B 89,000 ^C	n/v	-	-	-	-	1.1 U	-	-	-	1.0 U	1.1 U	-	0.99 U			
Bromodichloromethane	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	n/v	-	-	-	-	1.1 U	-	-	-	1.0 U	1.1 U	-	7.1			
Bromoform (Tribromomethane)	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	n/v	-	-	-	-	1.1 U	-	-	-	1.0 U	1.1 U	-	0.99 U			
Bromomethane (Methyl bromide)	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	n/v	-	-	-	-	1.1 U	-	-	-	1.0 U	1.1 U	-	0.99 U			
Butylbenzene, n-	µg/kg	12,000 ^{AD} 500,000, ^B 1,000,000, ^C	n/v	-	-	-	-	1.1 U	-	-	-	1.0 U	1.1 U	-	0.99 U			
Butylbenzene, sec- (2-Phenylbutane)	µg/kg	11,000 ^{AD} 500,000, ^B 1,000,000, ^C	n/v	-	-	-	-	1.1 U	-	-	-	1.0 U	1.1 U	-	0.99 U			
Butylbenzene, tert-	µg/kg	5,900 ^{AD} 500,000, ^B 1,000,000, ^C	n/v	-	-	-	-	1.1 U	-	-	-	1.0 U	1.1 U	-	0.99 U			
Carbon Disulfide	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	500,000, ^E 1,000,000, ^F 2,700 ^G	-	-	-	-	1.1 U	-	-	-	1.0 U	1.1 U	-	0.99 U			
Carbon Tetrachloride (Tetrachloromethane)	µg/kg	760 ^{AD} 22,000 ^B 44,000 ^C	n/v	-	-	-	-	1.1 U	-	-	-	1.0 U	1.1 U	-	0.99 U			
Chlorobenzene (Monochlorobenzene)	µg/kg	1,100 ^{AD} 500,000, ^B 1,000,000, ^C	n/v	-	-	-	-	1.1 U	-	-	-	1.0 U	1.1 U	-	0.99 U			
Chloroethane (Ethyl Chloride)	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	500,000, ^E 1,000,000, ^F 1,900 ^G	-	-	-	-	1.1 U	-	-	-	1.0 U	1.1 U	-	0.99 U			
Chloroform (Trichloromethane)	µg/kg	370 ^{AD} 350,000 ^B 700,000 ^C	n/v	-	-	-	-	1.1 U	-	-	-	1.0 U	1.1 U	-	23			
Chloromethane	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	n/v	-	-	-	-	1.1 U	-	-	-	1.0 U	1.1 U	-	0.99 U			
Cyclohexane	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	n/v	-	-	-	-	1.1 U	-	-	-	1.0 U	1.1 U	-	0.99 U			
Dibromo-3-Chloropropane, 1,2- (DBCP)	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	n/v	-	-	-	-	1.1 U	-	-	-	1.0 U	1.1 U	-	0.99 U			
Dibromochloromethane	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	500,000, ^E 1,000,000, ^F	-	-	-	-	1.1 U	-	-	-	1.0 U	1.1 U	-	1.9			
Dichlorobenzene, 1,2-	µg/kg	1,100 ^{AD} 500,000, ^B 1,000,000, ^C	n/v	-	-	-	-	1.1 U	-	-	-	1.0 U	1.1 U	-	0.99 U			
Dichlorobenzene, 1,3-	µg/kg	2,400 ^{AD} 280,000 ^B 560,000 ^C	n/v	-	-	-	-	1.1 U	-	-	-	1.0 U	1.1 U	-	0.99 U			
Dichlorobenzene, 1,4-	µg/kg	1,800 ^{AD} 130,000 ^B 250,000 ^C	n/v	-	-	-	-	1.1 U	-	-	-	1.0 U	1.1 U	-	0.99 U			
Dichlorodifluoromethane (Freon 12)	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	n/v	-	-	-	-	1.1 U	-	-	-	1.0 U	1.1 U	-	0.99 U			
Dichloroethane, 1,1-	µg/kg	270 ^{AD} 240,000 ^B 480,000 ^C	n/v	-	-	-	-	1.1 U	-	-	-	1.0 U	1.1 U	-	0.99 U			
Dichloroethane, 1,2-	µg/kg	20, ^A 30,000 ^B 60,000 ^C 20, ^D	n/v	-	-	-	-	1.1 U	-	-	-	1.0 U	1.1 U	-	0.99 U			
Dichloroethane, 1,1-	µg/kg	330 ^{AD} 500,000, ^B 1,000,000, ^C	n/v	-	-	-	-	1.1 U	-	-	-	1.0 U	1.1 U	-	0.99 U			
Dichloroethane, cis-1,2-	µg/kg	250 ^{AD} 500,000, ^B 1,000,000, ^C	n/v	-	-	-	-	1.1 U	-	-	-	1.0 U	1.1 U	-	0.99 U			
Dichloroethane, trans-1,2-	µg/kg	190 ^{AD} 500,000, ^B 1,000,000, ^C	n/v	-	-	-	-	1.1 U	-	-	-	1.0 U	1.1 U	-	0.99 U			
Dichloropropane, 1,2-	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	500,000, ^E 1,000,000, ^F	-	-	-	-	1.1 U	-	-	-	1.0 U	1.1 U	-	0.99 U			
Dichloropropene, cis-1,3-	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	n/v	-	-	-	-	1.1 U	-	-	-	1.0 U	1.1 U	-	0.99 U			
Dichloropropene, trans-1,3-	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	n/v	-	-	-	-	1.1 U	-	-	-	1.0 U	1.1 U	-	0.99 U			
Ethylbenzene	µg/kg	1,000 ^{AD} 390,000 ^B 780,000 ^C	n/v	-	-	-	-	1.1 U	-	-	-	1.0 U	1.1 U	-	0.99 U			
Ethylene Dibromide (Dibromoethane, 1,2-)	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	n/v	-	-	-	-	1.1 U	-	-	-	1.0 U	1.1 U	-	0.99 U			
Hexanone, 2- (Methyl Butyl Ketone)	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	n/v	-	-	-	-	5.5 U	-	-	-	5.2 U	5.7 U	-	5.0 U			
Isopropylbenzene	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	500,000, ^E 1,000,000, ^F 2,300 ^G	-	-	-	-	1.1 U	-	-	-	1.0 U	1.1 U	-	0.99 U			
Isopropyltoluene, p- (Cymene)	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	500,000, ^E 1,000,000, ^F 10,000 ^G	-	-	-	-	1.1 U	-	-	-	1.0 U	1.1 U	-	0.99 U			
Methyl Acetate	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	n/v	-	-	-	-	5.5 U	-	-	-	5.2 U	5.7 U	-	5.0 U			
Methyl Ethyl Ketone (MEK) (2-Butanone)	µg/kg	120 ^{AD} 500,000, ^B 1,000,000, ^C	500,000, ^E 1,000,000, ^F 300 ^G	-	-	-	-	5.5 U	-	-	-	5.2 U	5.7 U	-	5.0 U			
Methyl Isobutyl Ketone (MIBK)	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	500,000, ^E 1,000,000, ^F 1,000 ^G	-	-	-	-	5.5 U	-	-	-	5.2 U	5.7 U	-	5.0 U			
Methyl tert-butyl ether (MTBE)	µg/kg	930 ^{AD} 500,000, ^B 1,000,000, ^C	n/v	-	-	-	-	1.1 U	-	-	-	1.0 U	1.1 U	-	0.99 U			
Methylcyclohexane	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	n/v	-	-	-	-	1.1 U	-	-	-	1.0 U	1.1 U	-	0.99 U			
Methylene Chloride (Dichloromethane)	µg/kg	50 ^{AD} 500,000, ^B 1,000,000, ^C	n/v	-	-	-	-	1.1 U	-	-	-	1.0 U	1.1 U	-	0.99 U			
Naphthalene	µg/kg	12,000 ^{AD} 500,000, ^B 1,000,000, ^C	n/v	-	-	-	-	1.1 U	-	-	-	1.0 U	1.1 U	-	0.99 U			
Propylbenzene, n-	µg/kg	3,900 ^{AD} 500,000, ^B 1,000,000, ^C	n/v	-	-	-	-	1.1 U	-	-	-	1.0 U	1.1 U	-	0.99 U			
Styrene	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	500,000, ^E 1,000,000, ^F	-	-	-	-	1.1 U	-	-	-	1.0 U	1.1 U	-	0.99 U			
Tetrachloroethane, 1,1,2,2-	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	500,000, ^E 1,000,000, ^F 600 ^G	-	-	-	-	1.1 U	-	-	-	1.0 U	1.1 U	-	0.99 U			
Tetrachloroethene (PCE)	µg/kg	1,300 ^{AD} 150,000 ^B 300,000 ^C	500,000, ^E 1,000,000, ^F	-	-	-	-	1.1 U	-	-	-	1.0 U	1.1 U	-	0.99 U			
Toluene	µg/kg	700 ^{AD} 500,000, ^B 1,000,000, ^C	n/v	-	-	-	-	1.1 U	-	-	-	1.0 U	1.1 U	-	0.99 U			
Trichlorobenzene, 1,2,4-	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	500,000, ^E 1,000,000, ^F 3,400 ^G	-	-	-	-	1.1 U	-	-	-	1.0 U	1.1 U	-	0.99 U			
Trichloroethane, 1,1,1-	µg/kg	680 ^{AD} 500,000, ^B 1,000,000, ^C	n/v	-	-	-	-	1.1 U	-	-	-	1.0 U	1.1 U	-	0.99 U			
Trichloroethane, 1,1,2-	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	n/v	-	-	-	-	1.1 U	-	-	-	1.0 U	1.1 U	-	0.99 U			
Trichloroethene (TCE)	µg/kg	470 ^{AD} 200,000 ^B 400,000 ^C	n/v	-	-	-	-	1.1 U	-	-	-	1.0 U	1.1 U	-	0.99 U			
Trichlorofluoromethane (Freon 11)	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	n/v	-	-	-	-	1.1 U	-	-	-	1.0 U	1.1 U	-	0.99 U			
Trichlorotrifluoroethane (Freon 113)	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	500,000, ^E 1,000,000, ^F 6,000 ^G	-	-	-	-	1.1 U	-	-	-	1.0 U	1.1 U	-	0.99 U			
Trimethylbenzene, 1,2,4-	µg/kg	3,600 ^{AD} 190,000 ^B 380,000 ^C	n/v	-	-	-	-	1.1 U	-	-	-	1.0 U	1.1 U	-	0.99 U			
Trimethylbenzene, 1,3,5-	µg/kg	8,400 ^{AD} 190,000 ^B 380,000 ^C	n/v	-	-	-	-	1.1 U	-	-	-	1.0 U	1.1 U	-	0.99 U			
Vinyl Chloride	µg/kg	20 ^{AD} 13,000 ^B 27,000 ^C	n/v	-	-	-	-	1.1 U	-	-	-	1.0 U	1.1 U	-	0.99 U			
Xylene, m & p-	µg/kg	260, ^A 500,000, ^B 1,000,000, ^C 1,600, ^D	n/v	-	-	-	-	1.1 U	-	-	-	1.0 U	1.1 U	-	0.99 U			
Xylene, o-	µg/kg	260, ^A 500,000, ^B 1,000,000, ^C 1,600, ^D	n/v	-	-	-	-	1.1 U	-	-	-	1.0 U	1.1 U	-	0.99 U			
Xylenes, Total	µg/kg	260 ^A 500,000, ^B 1,000,000, ^C 1,600 ^D	n/v	-	-	-	-	2.2 U	-	-	-	2.1 U	2.3 U	-	2.0 U			
Total VOC	µg/kg	n/v	n/v	-	-	-	-	ND	-	-	-	ND	7.7	-	32			

See notes on last page.

Table 10
Summary of Analytical Results for Eastern Surface Soil Impacts (RAOC-5)
Site Management Plan
820 Linden Ave Site, BCP #C828200
820 Linden Avenue, Pittsford, NY

Notes:	
NYSDEC-Part 375	NYSDEC 6 NYCRR Part 375 Soil Clean-up Objectives (SCOs)
A	NYSDEC 6 NYCRR Part 375 - Unrestricted Use Soil Cleanup Objectives
B	NYSDEC 6 NYCRR Part 375 - Restricted Use SCO - Protection of Human Health - Commercial
C	NYSDEC 6 NYCRR Part 375 - Restricted Use SCO - Protection of Human Health - Industrial
D	NYSDEC 6 NYCRR Part 375 - Restricted Use SCO - Protection of Groundwater
NYSDEC CP-51	New York State Department of Environmental Conservation, DEC Policy CP-51, October 21, 2010
E	Table 1 Supplemental Soil Cleanup Objectives - Commercial
F	Table 1 Supplemental Soil Cleanup Objectives - Industrial
G	Table 1 Supplemental Soil Cleanup Objectives - Protection of Groundwater
6.5 ^A	Concentration exceeds the indicated standard.
15.2	Measured concentration did not exceed the indicated standard.
0.03 U	Analyte was not detected at a concentration greater than the laboratory reporting limit.
n/V	No standard/guideline value.
-	Parameter not analyzed / not available.
A	The SCOs for unrestricted use were capped at a maximum value of 100 mg/kg. See 6 NYCRR Part 375 TSD Section 9.3
a ^{EF} G	SCOs for organic contaminants (volatile organic compounds, semivolatile organic compounds, and pesticides) are capped at 100 ppm for residential use, 500 ppm for commercial use, 1000 ppm for industrial use. SCOs for metals are capped at 10,000 ppm.
b	Based on rural background study
b.1	Based on rural background study. The value of 1.0 refers to SVOC analyses while the 0.17b refers to VOC analyses.
c	The SCOs for commercial use were capped at a maximum value of 500 mg/kg. See TSD Section 9.3.
c.D	The SCOs for commercial use were capped at a maximum value of 500 mg/kg. See TSD Section 9.3. The criterion is applicable to total xylenes, and the individual isomers should be added for comparison.
d	The SCOs for industrial use and the protection of groundwater were capped at a maximum value of 1000 mg/kg (Organics) and 10000 mg/kg (Inorganics). See 6 NYCRR Part 375 TSD Section 9.3.
d.D	The SCOs for industrial use and the protection of groundwater were capped at a maximum value of 1000 mg/kg. See 6 NYCRR Part 375 TSD Section 9.3. The criterion is applicable to total xylenes, and the individual isomers should be added for comparison.
e	The SCOS for metals were capped at a maximum value of 10,000 mg/kg. See 6 NYCRR Part 375 TSD Section 9.3.
e.I	The SCOS for metals were capped at a maximum value of 10,000 mg/kg. See 6 NYCRR Part 375 TSD Section 9.3. The SCO for this specific compound (or family of compounds) is considered to be met if the analysis for the total species of this contaminant is below the specific SCO.
f	For constituents where the calculated SCO was lower than the CRQL, the CRQL is used as the SCO value.
g	For constituents where the calculated SCO was lower than the rural soil background concentration as determined by the DEC/DOH rural soil survey, the rural soil background concentration is used as the Track 2 SCO value for this use of the site.
i	The SCO for this specific compound (or family of compounds) is considered to be met if the analysis for the total species of this contaminant is below the specific SCO.
j	This SCO is the sum of endosulfan I, endosulfan II, and endosulfan sulfate.
k	This SCO is the lower of the values for mercury (elemental) or mercury (inorganic salts). See 6 NYCRR Part 375 TSD Table 5.6-1.
m	For constituents where the calculated SCO was lower than the Contract Required Quantitation Limit (CRQL), the CRQL is used as the Track 1 SCO value.
n	For constituents where the calculated SCO was lower than the rural soil background concentration as determined by the DEC/DOH rural soil survey, the rural soil background concentration is used as the Track 1 SCO value for this use of the site.
n.I	For constituents where the calculated SCO was lower than the rural soil background concentration as determined by the DEC/DOH rural soil survey, the rural soil background concentration is used as the Track 1 SCO value for this use of the site.
	The SCO for this specific compound (or family of compounds) is considered to be met if the analysis for the total species of this contaminant is below the specific SCO.
NS,q	No SCO has been established for this compound. No SCO has been established for total chromium; however, see standards for trivalent and hexavalent chromium.
o	Standard is applicable to total PCBs, and the individual Aroclors should be added for comparison.
p	The criterion is applicable to total xylenes, and the individual isomers should be added for comparison.
J	The reported result is an estimated value.
ND	Not detected.
T	Result is a tentatively identified compound (TIC) and an estimated value.
TAL	Eurofins Test America Laboratory

Table 11a
Summary of Solid Sample Results for Septic System Waste Characterization
Site Management Plan
820 Linden Ave Site, BCP #C828200
820 Linden Avenue, Pittsford, NY

Sample Location					*DBOX-NW			*LF-SW					*TANK1-SW			*TANK4-SW
Sample Date					25-Jul-19	25-Jul-19	26-Jul-19	18-Jun-20	18-Jun-20	18-Jun-20	18-Jun-20	23-Jul-19	18-Jun-20	18-Jun-20	18-Jun-20	23-Jul-19
Sample ID					LIN-DBOX2-NW-S	LIN-DBOX-NW-S	LIN-DBOX3-NW-SLD	LIN-RAOC2-LF1-WC-S	LIN-RAOC2-LF1-WC-S	LIN-RAOC2-LF2-WC-S	LIN-RAOC2-LF2-WC-S	LIN-TANK1SW-WC-SED	LIN-RAOC2-TANK1-WC-SLG	LIN-RAOC2-TANK1-WC-SLG	LIN-TANK4SW-WC-S	
Sample Depth					N/A	N/A	N/A	2 ft	2 ft	2 ft	2 ft	N/A	N/A	N/A	N/A	
Sampling Company					STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	
Laboratory					TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	
Laboratory Work Order					480-156805-1	480-156805-2	480-156805-1	480-171430-1	480-171430-2	480-171430-1	480-171430-2	480-156763-1	480-171430-1	480-171430-2	480-156763-1	
Laboratory Sample ID					480-156805-9	480-156805-13	480-156853-1	480-171430-8	480-171430-8	480-171430-9	480-171430-9	480-156764-4	480-171430-10	480-171430-10	480-156764-7	
Sample Type	Units	NYSDEC-Part 375	NYSDEC CP-51													
General Chemistry																
Cyanide	mg/kg	27 ^{AB} 10,000 ^A 40 ^D	n/v	0.96 U	1.1 U	0.95 U	-	-	-	-	-	3.9 U	-	-	-	1.1 U
Flashpoint	deg F	n/v	n/v	-	> 176	> 180	-	-	-	-	-	-	-	-	-	-
pH, lab	S.U.	n/v	n/v	-	7.9 J	7.6	-	-	-	-	-	-	-	-	-	-
Temperature, Lab	deg C	n/v	n/v	-	21.1 J	21.1	-	-	-	-	-	-	-	-	-	-
Metals																
Aluminum	mg/kg	10,000 ^A BCD	10,000 ^{EF} G	7,060	6,530	1,680	-	8,060	-	7,520	751	-	-	-	-	10,400 ^{AB} CDEFG
Antimony	mg/kg	10,000 ^A BCD	10,000 ^{EF} G	16.2 U	16.9 U	15.3 U	-	16.2 U	-	15.9 U	68.7 U	-	-	-	-	17.5 U
Arsenic	mg/kg	13 ^A 16 ^A	n/v	3.0	10.1	2.0 U	-	2.2 U	-	2.1 U	9.2 U	-	-	-	-	2.3 U
Barium	mg/kg	350 ^A 400 ^B 10,000 ^C 820 ^D	n/v	22.8	209	7.2	-	30.9 ^A	-	16.0 ^A	36.4	-	-	-	-	39.0
Beryllium	mg/kg	7.2 ^A 590 ^B 2,700 ^C 47 ^D	n/v	0.30	0.28	0.20 U	-	0.26	-	0.22	0.92 U	-	-	-	-	0.39
Cadmium	mg/kg	2.5 ^A 9.3 ^B 60 ^C 7.5 ^D	n/v	0.22 U	5.7 ^A	0.20 U	-	0.22 U	-	0.21 U	1.1	-	-	-	-	0.57
Calcium	mg/kg	10,000 ^A BCD	10,000 ^{EF} G	1,890	6,040	468	-	879	-	790	7,010	-	-	-	-	2,930
Chromium	mg/kg	30 ^A 1,500 ^B 6,800 ^C NS ^A 4 ^D	n/v	8.9	61.2 ^A	2.6	-	8.5	-	7.7	7.7	-	-	-	-	11.5
Cobalt	mg/kg	10,000 ^A BCD	10,000 ^{EF} G	4.0	7.4	0.76	-	2.4	-	2.8	2.3 U	-	-	-	-	3.7
Copper	mg/kg	50 ^A 270 ^B 10,000 ^C 1,720 ^D	n/v	8.9	48.0	3.2	-	5.2	-	5.5	75.3 ^A	-	-	-	-	30.5
Iron	mg/kg	10,000 ^A BCD	10,000 ^{EF} G	10,600 ^{AB} CDEFG	14,600 ^{AB} CDEFG	2,380	-	9,000	-	8,800	1,500	-	-	-	-	10,400 ^{AB} CDEFG
Lead	mg/kg	63 ^A 1,000 ^B 3,900 ^C 450 ^D	n/v	6.4	95.2 ^A	5.9	-	13.3	-	4.2	55.1	-	-	-	-	25.7
Magnesium	mg/kg	10,000 ^A BCD	n/v	1,660	1,920	392	-	1,080	-	1,260	237	-	-	-	-	1,550
Manganese	mg/kg	1,600 ^A 10,000 ^{BC} 2,000 ^D	n/v	239 B	129 B	52.8 B	-	171	-	67.1	16.0	-	-	-	-	164
Mercury	mg/kg	0.18 ^A 2.8 ^B 5.7 ^C 0.73 ^D	n/v	0.021 U	0.95 ^{AD}	0.021 U	-	0.029	-	0.020	3.1 ^{ABD}	-	-	-	-	0.41 ^A
Nickel	mg/kg	30 ^A 310 ^B 10,000 ^C 130 ^D	n/v	8.9	13.1	5.1 U	-	6.0	-	6.0	22.9 U	-	-	-	-	7.6
Potassium	mg/kg	10,000 ^A BCD	n/v	1,040	931	241	-	486	-	583	196	-	-	-	-	848
Selenium	mg/kg	3.9 ^A 1,500 ^B 6,800 ^C 4 ^D	n/v	4.3 U	4.5 U	4.1 U	-	4.3 U	-	4.2 U	18.3 U	-	-	-	-	4.7 U
Silver	mg/kg	2 ^A 1,500 ^B 6,800 ^C 8.3 ^D	n/v	0.54 U	117 ^{AD}	0.51 U	-	0.54 U	-	0.53 U	2.3 U	-	-	-	-	0.58 U
Sodium	mg/kg	10,000 ^A BCD	n/v	151 U	158 U	143 U	-	151 U	-	149 U	641 U	-	-	-	-	164 U
Thallium	mg/kg	10,000 ^A BCD	10,000 ^{EF} G	6.5 U	6.8 U	6.1 U	-	6.5 U	-	6.4 U	27.5 U	-	-	-	-	7.0 U
Vanadium	mg/kg	10,000 ^A BCD	10,000 ^{EF} G	17.2	15.5	19.9	-	14.7	-	14.8	2.3 U	-	-	-	-	16.7
Zinc	mg/kg	109 ^A 10,000 ^{BC} 2,480 ^D	n/v	22.2	36.9	10.6	-	37.2	-	19.4	223 ^A	-	-	-	-	77.4
Polychlorinated Biphenyls																
Aroclor 1016	µg/kg	ABCD	n/v	190 U	270 U	11,000 U	-	260 U	-	240 U	1,100 UJ	-	-	-	560 U	270 U
Aroclor 1221	µg/kg	^A ABCD	n/v	190 U	270 U	11,000 U	-	260 U	-	240 U	1,100 UJ	-	-	-	560 U	270 U
Aroclor 1232	µg/kg	^A ABCD	n/v	190 U	270 U	11,000 U	-	260 U	-	240 U	1,100 UJ	-	-	-	560 U	270 U
Aroclor 1242	µg/kg	^A ABCD	n/v	190 U	270 U	11,000 U	-	260 U	-	240 U	1,100 UJ	-	-	-	560 U	270 U
Aroclor 1248	µg/kg	^A ABCD	n/v	190 U	270 U	11,000 U	-	260 U	-	240 U	1,100 UJ	-	-	-	560 U	270 U
Aroclor 1254	µg/kg	^A ABCD	n/v	190 U	270 U	11,000 U	-	260 U	-	240 U	5,200 J-	-	-	-	2,300	270 U
Aroclor 1260	µg/kg	^A ABCD	n/v	190 U	270 U	11,000 U	-	260 U	-	240 U	1,100 UJ	-	-	-	560 U	270 U
Aroclor 1262	µg/kg	^A ABCD	n/v	190 U	270 U	11,000 U	-	260 U	-	240 U	1,100 UJ	-	-	-	560 U	270 U
Aroclor 1268	µg/kg	^A ABCD	n/v	190 U	270 U	11,000 U	-	260 U	-	240 U	1,100 UJ	-	-	-	560 U	270 U
Polychlorinated Biphenyls (PCBs)	µg/kg	100 ^A 1,000 ^B 25,000 ^C 3,200 ^D	n/v	ND	ND	ND	-	-	-	-	5,200 J- ^{ABD}	-	-	-	-	ND
Pesticides																
Aldrin	µg/kg	5 ^A 680 ^B 1,400 ^C 190 ^D	n/v	1.8 U	18 U	6,800 U	-	-	-	-	380 U	-	-	-	-	9.8 U
BHC, alpha-	µg/kg	20 ^{AD} 3,400 ^B 6,800 ^C	n/v	1.8 U	18 U	6,800 U	-	-	-	-	380 U	-	-	-	-	9.8 U
BHC, beta-	µg/kg	36 ^A 3,000 ^B 14,000 ^C 90 ^D	n/v	1.8 U	18 U	6,800 U	-	-	-	-	380 U	-	-	-	-	9.8 U
BHC, delta-	µg/kg	40 ^A 500,000 ^B 1,000,000 ^C 250 ^D	n/v	1.8 U	18 U	6,800 U	-	-	-	-	380 U	-	-	-	-	9.8 U
Camphenchlor (Toxaphene)	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C 10 ^D	n/v	18 U	180 U	68,000 U	-	-	-	-	3,800 U	-	-	-	-	98 U
Chlordane, alpha-	µg/kg	94 ^A 24,000 ^B 47,000 ^C 2,900 ^D	n/v	1.8 U	18 U	6,800 U	-	-	-	-	380 U	-	-	-	-	54 J
Chlordane, trans- (gamma-Chlordane)	µg/kg	100,000 ^A 1,000,000 ^B	n/v	1.8 U	18 U	6,800 U	-	-	-	-	380 U	-	-	-	-	27 J
DDD (p,p'-DDD)	µg/kg	3.3 ^A 92,000 ^B 180,000 ^C 14,000 ^D	n/v	1.8 U	18 U	6,800 U	-	-	-	-	380 U	-	-	-	-	9.8 U
DDE (p,p'-DDE)	µg/kg	3.3 ^A 62,000 ^B 120,000 ^C 17,000 ^D	n/v	1.8 U	18 U	6,800 U	-	-	-	-	380 U	-	-	-	-	9.8 U
DDT (p,p'-DDT)	µg/kg	3.3 ^A 47,000 ^B 94,000 ^C 136,000 ^D	n/v	1.8 U	18 U	6,800 U	-	-	-	-	380 U	-	-	-	-	9.8 U
Dieldrin	µg/kg	5 ^A 1,400 ^B 2,800 ^C 100 ^D	n/v	1.8 U	18 U	6,800 U	-	-	-	-	380 U	-	-	-	-	180 ^{AD}
Endosulfan I	µg/kg	2,400 ^A 200,000 ^B 920,000 ^C 102,000 ^D	n/v	1.8 U	18 U	6,800 U	-	-	-	-	380 U	-	-	-	-	9.8 U
Endosulfan II	µg/kg	2,400 ^A 200,000 ^B 920,000 ^C 102,000 ^D	n/v	1.8 U	18 U	6,800 U	-	-	-	-	380 U	-	-	-	-	9.8 U
Endosulfan Sulfate	µg/kg	2,400 ^A 200,000 ^B 920,000 ^C 1,000,000 ^D	n/v	1.8 U	18 U	6,800 U	-	-	-	-	380 U	-	-	-	-	9.8 U
Endrin	µg/kg	14 ^A 89,000 ^B 410,000 ^C 60 ^D	n/v	1.8 U	18 U	6,800 U	-	-	-	-	380 U	-	-	-	-	9.8 U
Endrin Aldehyde	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C 10 ^D	n/v	1.8 U	59	6,800 U	-	-	-	-	380 U	-	-	-	-	9.8 U
Endrin Ketone	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C 10 ^D	n/v	1.8 U	18 U	6,800 U	-	-	-	-	380 U	-	-	-	-	9.8 U
Heptachlor	µg/kg	42 ^A 15,000 ^B 29,000 ^C 380 ^D	n/v	1.8 U	18 U	6,800 U	-	-	-	-	380 U	-	-	-	-	9.8 U
Heptachlor Epoxide	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C 10 ^D	500,000 ^E 1,000,000 ^F 20 ^D	1.8 U	18 U	6,800 U	-	-	-	-	380 U	-	-	-	-	9.8 U
Lindane (Hexachlorocyclohexane, gamma)	µg/kg	100 ^{AD} 9,200 ^B 23,000 ^C	n/v	1.8 U	18 U	6,800 U	-	-	-	-	380 U	-	-	-	-	9.8 U
Methoxychlor (4,4'-Methoxychlor)	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C 10 ^D	500,000 ^E 1,000,000 ^F 900,000 ^G	1.8 U	18 U	6,800 U	-	-	-	-	380 U	-	-	-	-	9.8 U
See notes on last page.																

See notes on last page.

Table 11a
Summary of Solid Sample Results for Septic System Waste Characterization
Site Management Plan
820 Linden Ave Site, BCP #C828200
820 Linden Avenue, Pittsford, NY

Sample Location				25-Jul-19	*DBOX-NW	26-Jul-19	18-Jun-20	18-Jun-20	*LF-SW	18-Jun-20	18-Jun-20	23-Jul-19	*TANK1-SW	18-Jun-20	*TANK4-SW
Sample Date				25-Jul-19	25-Jul-19	26-Jul-19	18-Jun-20	18-Jun-20	18-Jun-20	18-Jun-20	18-Jun-20	23-Jul-19	18-Jun-20	18-Jun-20	23-Jul-19
Sample ID				LIN-DBOX2-NW-S	LIN-DBOX2-NW-S	LIN-DBOX3-NW-SLD	LIN-RAOC2-LF1-WC-S	LIN-RAOC2-LF1-WC-S	LIN-RAOC2-LF2-WC-S	LIN-RAOC2-LF2-WC-S	LIN-RAOC2-LF2-WC-S	LIN-TANK1SW-WC-SED	LIN-RAOC2-TANK1-WC-SLG	LIN-RAOC2-TANK1-WC-SLG	LIN-TANK4SW-WC-S
Sample Depth				N/A	N/A	N/A	2 ft	2 ft	2 ft	2 ft	2 ft	N/A	N/A	N/A	N/A
Sampling Company				STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC
Laboratory				TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL	TAL
Laboratory Work Order				480-156805-1	480-156805-2	480-156805-1	480-171430-1	480-171430-2	480-171430-1	480-171430-2	480-171430-1	480-156763-1	480-171430-1	480-171430-2	480-156763-1
Laboratory Sample ID				480-156805-9	480-156805-9	480-156805-3	480-171430-8	480-171430-8	480-171430-9	480-171430-8	480-171430-9	480-156764-4	480-171430-10	480-171430-10	480-156764-7
Sample Type	Units	NYSDEC-Part 375	NYSDEC CP-51												
Semi-Volatile Organic Compounds															
Acenaphthene	µg/kg	20,000 ^A 500,000 ^B 1,000,000 ^C 98,000 ^D	n/v	890 U	7,500 U	260,000 U	-	-	-	-	-	39,000 U	-	-	10,000 U
Acenaphthylene	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^C 107,000 ^D	n/v	890 U	7,500 U	260,000 U	-	-	-	-	-	39,000 U	-	-	10,000 U
Acetophenone	µg/kg	100,000 ^A 1,000,000 ^B	n/v	890 U	7,500 U	260,000 U	-	-	-	-	-	39,000 U	-	-	10,000 U
Anthracene	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{C,D}	n/v	890 U	7,500 U	260,000 U	-	-	-	-	-	39,000 U	-	-	10,000 U
Atrazine	µg/kg	100,000 ^A 1,000,000 ^B	n/v	890 U	7,500 U	260,000 U	-	-	-	-	-	39,000 U	-	-	10,000 U
Benzaldehyde	µg/kg	100,000 ^A 1,000,000 ^B	n/v	890 U	7,500 U	260,000 U	-	-	-	-	-	39,000 U	-	-	10,000 U
Benzo(a)anthracene	µg/kg	1,000 ^A 5,600 ^B 11,000 ^C 1,000 ^D	n/v	890 U	7,500 U	260,000 U	-	-	-	-	-	39,000 U	-	-	10,000 U
Benzo(a)pyrene	µg/kg	1,000 ^A 1,000 ^B 1,100 ^C 22,000 ^D	n/v	890 U	7,500 U	260,000 U	-	-	-	-	-	39,000 U	-	-	10,000 U
Benzo(b)fluoranthene	µg/kg	1,000 ^A 5,600 ^B 11,000 ^C 1,700 ^D	n/v	890 U	7,500 U	260,000 U	-	-	-	-	-	39,000 U	-	-	10,000 U
Benzo(g,h,i)perylene	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{C,D}	n/v	890 U	7,500 U	260,000 U	-	-	-	-	-	39,000 U	-	-	10,000 U
Benzo(k)fluoranthene	µg/kg	800 ^A 56,000 ^B 110,000 ^C 1,700 ^D	n/v	890 U	7,500 U	260,000 U	-	-	-	-	-	39,000 U	-	-	10,000 U
Biphenyl	µg/kg	100,000 ^A 1,000,000 ^B	500,000 ^E 1,000,000 ^F	890 U	7,500 U	260,000 U	-	-	-	-	-	39,000 U	-	-	10,000 U
Bis(2-Chloroethoxy)methane	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{C,D}	n/v	890 U	7,500 U	260,000 U	-	-	-	-	-	39,000 U	-	-	10,000 U
Bis(2-Chloroethyl)ether	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{C,D}	n/v	890 U	7,500 U	260,000 U	-	-	-	-	-	39,000 U	-	-	10,000 U
Bis(2-Chloroisopropyl)ether (2,2-oxybis(1-Chloropropane))	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{C,D}	n/v	890 U	7,500 U	260,000 U	-	-	-	-	-	39,000 U	-	-	10,000 U
Bis(2-Ethylhexyl)phthalate (DEHP)	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{C,D}	500,000 ^E 1,000,000 ^F 435,000 ^G	890 U	7,500 U	260,000 U	-	-	-	-	-	39,000 U	-	-	10,000 U
Bromophenyl Phenyl Ether, 4-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{C,D}	n/v	890 U	7,500 U	260,000 U	-	-	-	-	-	39,000 U	-	-	10,000 U
Butyl Benzyl Phthalate	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{C,D}	500,000 ^E 1,000,000 ^F 122,000 ^G	890 U	7,500 U	260,000 U	-	-	-	-	-	39,000 U	-	-	10,000 U
Caprolactam	µg/kg	100,000 ^A 1,000,000 ^B	n/v	890 U	7,500 U	260,000 U	-	-	-	-	-	39,000 U	-	-	10,000 U
Carbazole	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{C,D}	n/v	890 U	7,500 U	260,000 U	-	-	-	-	-	39,000 U	-	-	10,000 U
Chloro-3-methyl phenol, 4-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{C,D}	n/v	890 U	7,500 U	260,000 U	-	-	-	-	-	39,000 U	-	-	10,000 U
Chloroaniline, 4-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{C,D}	500,000 ^E 1,000,000 ^F 220 ^G	890 U	7,500 U	260,000 U	-	-	-	-	-	39,000 U	-	-	10,000 U
Chloronaphthalene, 2-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{C,D}	n/v	890 U	7,500 U	260,000 U	-	-	-	-	-	39,000 U	-	-	10,000 U
Chlorophenol, 2- (ortho-Chlorophenol)	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{C,D}	500,000 ^E 1,000,000 ^F	890 U	7,500 U	260,000 U	-	-	-	-	-	39,000 U	-	-	10,000 U
Chlorophenyl Phenyl Ether, 4-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{C,D}	n/v	890 U	7,500 U	260,000 U	-	-	-	-	-	39,000 U	-	-	10,000 U
Chrysene	µg/kg	1,000 ^A 56,000 ^B 110,000 ^C 1,000 ^D	n/v	890 U	7,500 U	260,000 U	-	-	-	-	-	39,000 U	-	-	10,000 U
Cresol, o- (Methylphenol, 2-)	µg/kg	330 ^A 500,000 ^B 1,000,000 ^C 330 ^D	n/v	890 U	7,500 U	260,000 U	-	-	-	-	-	39,000 U	-	-	10,000 U
Cresol, p- (Methylphenol, 4-)	µg/kg	330 ^A 500,000 ^B 1,000,000 ^C 330 ^D	n/v	1,700 U	15,000 U	500,000 U	-	-	-	-	-	75,000 U	-	-	20,000 U
Dibenzo(a,h)anthracene	µg/kg	330 ^A 560 ^B 1,100 ^C 1,000,000 ^D	n/v	890 U	7,500 U	260,000 U	-	-	-	-	-	39,000 U	-	-	10,000 U
Dibenzofuran	µg/kg	7,000 ^A 350,000 ^B 1,000,000 ^C 210,000 ^D	500,000 ^E 1,000,000 ^F 6,200 ^G	890 U	7,500 U	260,000 U	-	-	-	-	-	39,000 U	-	-	10,000 U
Dibutyl Phthalate (DBP)	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{C,D}	500,000 ^E 1,000,000 ^F 8,100 ^G	890 U	7,500 U	260,000 U	-	-	-	-	-	39,000 U	-	-	10,000 U
Dichlorobenzidine, 3,3'-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{C,D}	n/v	890 U	7,500 U	260,000 U	-	-	-	-	-	39,000 U	-	-	10,000 U
Dichlorophenol, 2,4-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{C,D}	500,000 ^E 1,000,000 ^F 400 ^G	890 U	7,500 U	260,000 U	-	-	-	-	-	39,000 U	-	-	10,000 U
Diethyl Phthalate	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{C,D}	500,000 ^E 1,000,000 ^F 7,100 ^G	890 U	7,500 U	260,000 U	-	-	-	-	-	39,000 U	-	-	10,000 U
Dimethyl Phthalate	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{C,D}	500,000 ^E 1,000,000 ^F 27,000 ^G	890 U	7,500 U	260,000 U	-	-	-	-	-	39,000 U	-	-	10,000 U
Dimethylphenol, 2,4-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{C,D}	n/v	890 U	7,500 U	260,000 U	-	-	-	-	-	39,000 U	-	-	10,000 U
Dinitro-o-cresol, 4,6-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{C,D}	n/v	1,700 U	15,000 U	500,000 U	-	-	-	-	-	75,000 U	-	-	20,000 U
Dinitrophenol, 2,4-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{C,D}	500,000 ^E 1,000,000 ^F 200 ^G	1,700 U	15,000 U	500,000 U	-	-	-	-	-	75,000 U	-	-	20,000 U
Dinitrotoluene, 2,4-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{C,D}	n/v	890 U	7,500 U	260,000 U	-	-	-	-	-	39,000 U	-	-	10,000 U
Dinitrotoluene, 2,6-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{C,D}	500,000 ^E 1,000,000 ^F 1,000/170 ^{G,H}	890 U	7,500 U	260,000 U	-	-	-	-	-	39,000 U	-	-	10,000 U
Di-n-Octyl phthalate	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{C,D}	500,000 ^E 1,000,000 ^F 120,000 ^G	890 U	7,500 U	260,000 U	-	-	-	-	-	39,000 U	-	-	10,000 U
Dioxane, 1,4-	µg/kg	100 ^A 130,000 ^B 250,000 ^C 100 ^D	n/v	1,000 U	8,800 U	300,000 U	-	-	-	-	-	45,000 U	-	-	12,000 U
Fluoranthene	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{C,D}	n/v	890 U	11,000	530,000 ^{AB}	-	-	-	-	-	39,000 U	-	-	10,000 U
Fluorene	µg/kg	30,000 ^A 500,000 ^B 1,000,000 ^C 386,000 ^D	n/v	890 U	7,500 U	260,000 U	-	-	-	-	-	39,000 U	-	-	10,000 U
Hexachlorobenzene	µg/kg	330 ^A 6,000 ^B 12,000 ^C 3,200 ^D	500,000 ^E 1,000,000 ^F 1,400 ^G	890 U	7,500 U	260,000 U	-	-	-	-	-	39,000 U	-	-	10,000 U
Hexachlorobutadiene (Hexachloro-1,3-butadiene)	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{C,D}	n/v	890 U	7,500 U	260,000 U	-	-	-	-	-	39,000 U	-	-	10,000 U
Hexachlorocyclopentadiene	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{C,D}	500,000 ^E 1,000,000 ^F	890 U	7,500 U	260,000 U	-	-	-	-	-	39,000 U	-	-	10,000 U
Hexachloroethane	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{C,D}	n/v	890 U	7,500 U	260,000 U	-	-	-	-	-	39,000 U	-	-	10,000 U
Indeno(1,2,3-cd)pyrene	µg/kg	500 ^A 5,600 ^B 11,000 ^C 8,200 ^D	n/v	890 U	7,500 U	260,000 U	-	-	-	-	-	39,000 U	-	-	10,000 U
Isophorone	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{C,D}	500,000 ^E 1,000,000 ^F 4,400 ^G	890 U	7,500 U	260,000 U	-	-	-	-	-	39,000 U	-	-	10,000 U
Methylnaphthalene, 2-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{C,D}	500,000 ^E 1,000,000 ^F 36,400 ^G	890 U	7,500 U	260,000 U	-	-	-	-	-	39,000 U	-	-	10,000 U
Naphthalene	µg/kg	12,000 ^{AD} 500,000 ^B 1,000,000 ^C	n/v	890 U	7,500 U	260,000 U	-	-	-	-	-	39,000 U	-	-	10,000 U
Nitroaniline, 2-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{C,D}	500,000 ^E 1,000,000 ^F 400 ^G	1,700 U	15,000 U	500,000 U	-	-	-	-	-	75,000 U	-	-	20,000 U
Nitroaniline, 3-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{C,D}	500,000 ^E 1,000,000 ^F 500 ^G	1,700 U	15,000 U	500,000 U	-	-	-	-	-	75,000 U	-	-	20,000 U
Nitroaniline, 4-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{C,D}	n/v	1,700 U	15,000 U	500,000 U	-	-	-	-	-	75,000 U	-	-	20,000 U
Nitrobenzene	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{C,D}	69,000 ^F 140,000 ^F 170 ^G	890 U	7,500 U	260,000 U	-	-	-	-	-	39,000 U	-	-	10,000 U
Nitrophenol, 2-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{C,D}	500,000 ^E 1,000,000 ^F 300 ^G	890 U	7,500 U	260,000 U	-	-	-	-	-	39,000 U	-	-	10,000 U
Nitrophenol, 4-	µg/kg	100,000 ^A 500,000 ^B 1,000,000 ^{C,D}	500,000 ^E 1,000,000 ^F 100 ^G	1,700 U	15,000 U	500,000 U	-	-	-	-	-	75,000 U	-		

Table 11a
Summary of Solid Sample Results for Septic System Waste Characterization
Site Management Plan
820 Linden Ave Site, BCP #C828200
820 Linden Avenue, Pittsford, NY

Sample Location Sample Date Sample ID Sample Depth Sampling Company Laboratory Laboratory Work Order Laboratory Sample ID Sample Type				25-Jul-19 LIN-DBOX2-NW-S N/A STANTEC TAL 480-156805-1 480-156805-9	*DBOX-NW 25-Jul-19 LIN-DBOX-NW-S N/A STANTEC TAL 480-156805-2 480-156805-13	26-Jul-19 LIN-DBOX3-NW-SLD N/A STANTEC TAL 480-156805-1 480-156853-1	18-Jun-20 LIN-RAOC2-LF1-WC-S 2 ft STANTEC TAL 480-171430-1 480-171430-8	18-Jun-20 LIN-RAOC2-LF1-WC-S 2 ft STANTEC TAL 480-171430-2 480-171430-8	18-Jun-20 LIN-RAOC2-LF2-WC-S 2 ft STANTEC TAL 480-171430-1 480-171430-9	18-Jun-20 LIN-RAOC2-LF2-WC-S 2 ft STANTEC TAL 480-171430-2 480-171430-9	23-Jul-19 LIN-TANK1SW-WC-SED N/A STANTEC TAL 480-156763-1 480-156764-4	*TANK1-SW 18-Jun-20 LIN-RAOC2-TANK1-WC-SLG N/A STANTEC TAL 480-171430-1 480-171430-10	18-Jun-20 LIN-RAOC2-TANK1-WC-SLG N/A STANTEC TAL 480-171430-2 480-171430-10	*TANK4-SW 23-Jul-19 LIN-TANK4SW-WC-S N/A STANTEC TAL 480-156763-1 480-156764-7	
Units		NYSDEC-Part 375	NYSDEC CP-51												
Volatile Organic Compounds															
Acetone	µg/kg	50 ^{AD} 500,000, ^B 1,000,000, ^C	n/v	27 U	28 U	25 UJ	-	26 U	-	27 U	63,000 U	-	-	-	29 U
Benzene	µg/kg	60 ^{AD} 44,000 ^B 89,000 ^C	n/v	5.3 U	5.5 U	5.0 UJ	-	5.2 U	-	5.3 U	13,000 U	-	-	-	5.9 U
Bromodichloromethane	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	n/v	5.3 U	5.5 U	5.0 UJ	-	5.2 U	-	5.3 U	13,000 U	-	-	-	5.9 U
Bromoform (Tribromomethane)	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	n/v	5.3 U	5.5 U	5.0 UJ	-	5.2 U	-	5.3 U	13,000 U	-	-	-	5.9 U
Bromomethane (Methyl bromide)	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	n/v	5.3 U	5.5 U	5.0 UJ	-	5.2 U	-	5.3 U	13,000 U	-	-	-	5.9 U
Butylbenzene, n-	µg/kg	12,000 ^{AD} 500,000, ^B 1,000,000, ^C	n/v	5.3 U	5.5 U	5.0 UJ	-	5.2 U	-	5.3 U	13,000 U	-	-	-	5.9 U
Butylbenzene, sec- (2-Phenylbutane)	µg/kg	11,000 ^{AD} 500,000, ^B 1,000,000, ^C	n/v	5.3 U	5.5 U	5.0 UJ	-	5.2 U	-	5.3 U	13,000 U	-	-	-	5.9 U
Butylbenzene, tert-	µg/kg	5,900 ^{AD} 500,000, ^B 1,000,000, ^C	n/v	5.3 U	5.5 U	5.0 UJ	-	5.2 U	-	5.3 U	13,000 U	-	-	-	5.9 U
Carbon Disulfide	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	500,000, ^E 1,000,000, ^F 2,700 ^G	5.3 U	5.5 U	5.0 UJ	-	5.2 U	-	5.3 U	13,000 U	-	-	-	5.9 U
Carbon Tetrachloride (Tetrachloromethane)	µg/kg	760 ^{AD} 22,000 ^B 44,000 ^C	n/v	5.3 U	5.5 U	5.0 UJ	-	5.2 U	-	5.3 U	13,000 U	-	-	-	5.9 U
Chlorobenzene (Monochlorobenzene)	µg/kg	1,100 ^{AD} 500,000, ^B 1,000,000, ^C	n/v	5.3 U	5.5 U	5.0 UJ	-	5.2 U	-	5.3 U	13,000 U	-	-	-	5.9 U
Chloroethane (Ethyl Chloride)	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	500,000, ^E 1,000,000, ^F 1,900 ^G	5.3 U	5.5 U	5.0 UJ	-	5.2 U	-	5.3 U	13,000 U	-	-	-	5.9 U
Chloroform (Trichloromethane)	µg/kg	370 ^{AD} 350,000 ^B 700,000 ^C	n/v	5.3 U	5.5 U	5.0 UJ	-	5.2 U	-	5.3 U	13,000 U	-	-	-	5.9 U
Chloromethane	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	n/v	5.3 U	5.5 U	5.0 UJ	-	5.2 U	-	5.3 U	13,000 U	-	-	-	5.9 U
Cyclohexane	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	n/v	5.3 U	5.5 U	10 J	-	5.2 U	-	5.3 U	13,000 U	-	-	-	5.9 U
Dibromo-3-Chloropropane, 1,2- (DBCP)	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	n/v	5.3 U	5.5 U	5.0 UJ	-	5.2 U	-	5.3 U	13,000 U	-	-	-	5.9 U
Dibromochloromethane	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	500,000, ^E 1,000,000, ^F	5.3 U	5.5 U	5.0 UJ	-	5.2 U	-	5.3 U	13,000 U	-	-	-	5.9 U
Dichlorobenzene, 1,2-	µg/kg	1,100 ^{AD} 500,000, ^B 1,000,000, ^C	n/v	5.3 U	5.5 U	5.0 UJ	-	5.2 U	-	5.3 U	13,000 U	-	-	-	5.9 U
Dichlorobenzene, 1,3-	µg/kg	2,400 ^{AD} 280,000 ^B 560,000 ^C	n/v	5.3 U	5.5 U	5.0 UJ	-	5.2 U	-	5.3 U	13,000 U	-	-	-	5.9 U
Dichlorobenzene, 1,4-	µg/kg	1,800 ^{AD} 130,000 ^B 250,000 ^C	n/v	5.3 U	5.5 U	5.0 UJ	-	5.2 U	-	5.3 U	18,000 ^{AD}	-	-	-	5.9 U
Dichlorodifluoromethane (Freon 12)	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	n/v	5.3 U	5.5 U	5.0 UJ	-	5.2 U	-	5.3 U	13,000 U	-	-	-	5.9 U
Dichloroethane, 1,1-	µg/kg	270 ^{AD} 240,000 ^B 480,000 ^C	n/v	5.3 U	5.5 U	5.0 UJ	-	5.2 U	-	5.3 U	13,000 U	-	-	-	5.9 U
Dichloroethane, 1,2-	µg/kg	20 _n ^A 30,000 ^F 60,000 ^F 20 _n ^D	n/v	5.3 U	5.5 U	5.0 UJ	-	5.2 U	-	5.3 U	13,000 U	-	-	-	5.9 U
Dichloroethene, 1,1-	µg/kg	330 ^{AD} 500,000, ^B 1,000,000, ^C	n/v	5.3 U	5.5 U	5.0 UJ	-	5.2 U	-	5.3 U	13,000 U	-	-	-	5.9 U
Dichloroethene, cis-1,2-	µg/kg	250 ^{AD} 500,000, ^B 1,000,000, ^C	n/v	5.3 U	5.5 U	5.0 UJ	-	5.2 U	-	5.3 U	13,000 U	-	-	-	5.9 U
Dichloroethene, trans-1,2-	µg/kg	190 ^{AD} 500,000, ^B 1,000,000, ^C	n/v	5.3 U	5.5 U	5.0 UJ	-	5.2 U	-	5.3 U	13,000 U	-	-	-	5.9 U
Dichloropropane, 1,2-	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	500,000, ^E 1,000,000, ^F	5.3 U	5.5 U	5.0 UJ	-	5.2 U	-	5.3 U	13,000 U	-	-	-	5.9 U
Dichloropropene, cis-1,3-	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	n/v	5.3 U	5.5 U	5.0 UJ	-	5.2 U	-	5.3 U	13,000 U	-	-	-	5.9 U
Dichloropropene, trans-1,3-	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	n/v	5.3 U	5.5 U	5.0 UJ	-	5.2 U	-	5.3 U	13,000 U	-	-	-	5.9 U
Ethylbenzene	µg/kg	1,000 ^{AD} 390,000 ^B 780,000 ^C	n/v	5.3 U	5.5 U	5.0 UJ	-	5.2 U	-	5.3 U	13,000 U	-	-	-	5.9 U
Ethylene Dibromide (Dibromoethane, 1,2-)	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	n/v	5.3 U	5.5 U	5.0 UJ	-	5.2 U	-	5.3 U	13,000 U	-	-	-	5.9 U
Hexanone, 2- (Methyl Butyl Ketone)	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	n/v	27 U	28 U	25 UJ	-	26 U	-	27 U	63,000 U	-	-	-	29 U
Isopropylbenzene	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	500,000, ^E 1,000,000, ^F 2,300 ^G	5.3 U	5.5 U	5.0 UJ	-	5.2 U	-	5.3 U	13,000 U	-	-	-	5.9 U
Isopropyltoluene, p- (Cymene)	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	500,000, ^E 1,000,000, ^F 10,000 ^G	5.3 U	5.5 U	5.0 UJ	-	5.2 U	-	5.3 U	13,000 U	-	-	-	5.9 U
Methyl Acetate	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	n/v	27 U	28 U	25 UJ	-	26 U	-	27 U	63,000 U	-	-	-	29 U
Methyl Ethyl Ketone (MEK) (2-Butanone)	µg/kg	120 ^{AD} 500,000, ^B 1,000,000, ^C	500,000, ^E 1,000,000, ^F 300 ^G	27 U	28 U	25 UJ	-	26 U	-	27 U	63,000 U	-	-	-	29 U
Methyl Isobutyl Ketone (MIBK)	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	500,000, ^E 1,000,000, ^F 1,000 ^G	27 U	28 U	25 UJ	-	26 U	-	27 U	63,000 U	-	-	-	29 U
Methyl tert-butyl ether (MTBE)	µg/kg	930 ^{AD} 500,000, ^B 1,000,000, ^C	n/v	5.3 U	5.5 U	5.0 UJ	-	5.2 U	-	5.3 U	13,000 U	-	-	-	5.9 U
Methylcyclohexane	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	n/v	5.3 U	5.5 U	5.4 J	-	5.2 U	-	5.3 U	13,000 U	-	-	-	5.9 U
Methylene Chloride (Dichloromethane)	µg/kg	50 ^{AD} 500,000, ^B 1,000,000, ^C	n/v	5.3 U	5.5 U	5.2 J	-	6.9	-	23	13,000 U	-	-	-	5.9 U
Naphthalene	µg/kg	12,000 ^{AD} 500,000, ^B 1,000,000, ^C	n/v	5.3 U	5.5 U	33 J	-	5.2 U	-	5.3 U	13,000 U	-	-	-	5.9 U
Propylbenzene, n-	µg/kg	3,900 ^{AD} 500,000, ^B 1,000,000, ^C	n/v	5.3 U	5.5 U	5.0 UJ	-	5.2 U	-	5.3 U	13,000 U	-	-	-	5.9 U
Styrene	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	500,000, ^E 1,000,000, ^F	5.3 U	5.5 U	5.0 UJ	-	5.2 U	-	5.3 U	13,000 U	-	-	-	5.9 U
Tetrachloroethane, 1,1,2,2-	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	500,000, ^E 1,000,000, ^F 600 ^G	5.3 U	5.5 U	5.0 UJ	-	5.2 U	-	5.3 U	13,000 U	-	-	-	5.9 U
Tetrachloroethene (PCE)	µg/kg	1,300 ^{AD} 150,000 ^B 300,000 ^C	500,000, ^E 1,000,000, ^F	5.3 U	5.5 U	9.7 J	-	5.2 U	-	5.3 U	80,000 ^{AD}	-	-	-	22
Toluene	µg/kg	700 ^{AD} 500,000, ^B 1,000,000, ^C	n/v	5.3 U	5.5 U	5.2 J	-	5.2 U	-	5.3 U	13,000 U	-	-	-	5.9 U
Trichlorobenzene, 1,2,4-	µg/kg	100,000, ^A 500,000, ^B 1,000,000, ^{CD}	500,000, ^E 1,000,000, ^F 3,400 ^G	5.3 U	5.5 U	5.0 UJ	-	5.2 U	-	5.3 U	13,000 U	-	-	-	5.9 U

Table 11a
Summary of Solid Sample Results for Septic System Waste Characterization
Site Management Plan
820 Linden Ave Site, BCP #C828200
820 Linden Avenue, Pittsford, NY

Notes:	
NYSDEC-Part 375	NYSDEC 6 NYCRR Part 375 Soil Clean-up Objectives (SCOs)
A	NYSDEC 6 NYCRR Part 375 - Unrestricted Use Soil Cleanup Objectives
B	NYSDEC 6 NYCRR Part 375 - Restricted Use SCO - Protection of Human Health - Commercial
C	NYSDEC 6 NYCRR Part 375 - Restricted Use SCO - Protection of Human Health - Industrial
D	NYSDEC 6 NYCRR Part 375 - Restricted Use SCO - Protection of Groundwater
NYSDEC CP-51	New York State Department of Environmental Conservation, DEC Policy CP-51, October 21, 2010
E	Table 1 Supplemental Soil Cleanup Objectives - Commercial
F	Table 1 Supplemental Soil Cleanup Objectives - Industrial
G	Table 1 Supplemental Soil Cleanup Objectives - Protection of Groundwater
6.5^	Concentration exceeds the indicated standard.
15.2	Measured concentration did not exceed the indicated standard.
0.50 U	Laboratory reporting limit was greater than the applicable standard.
0.03 U	Analyte was not detected at a concentration greater than the laboratory reporting limit.
n/v	No standard/guideline value.
-	Parameter not analyzed / not available.
A	The SCOs for unrestricted use were capped at a maximum value of 100 mg/kg. See 6 NYCRR Part 375 TSD Section 9.3.
B EFG	SCOs for organic contaminants (volatile organic compounds, semivolatile organic compounds, and pesticides) are capped at 100 ppm for residential use, 500 ppm for commercial use, 1000 ppm for industrial use. SCOs for metals are capped at 10,000 ppm.
a	Based on rural background study
b	Based on rural background study. The value of 1.0 refers to SVOC analyses while the 0.17b refers to VOC analyses.
b, s1	The SCOs for commercial use were capped at a maximum value of 500 mg/kg. See TSD Section 9.3.
c	The SCOs for commercial use were capped at a maximum value of 500 mg/kg. See TSD Section 9.3. The criterion is applicable to total xylenes, and the individual isomers should be added for comparison.
c, d	The SCOs for industrial use and the protection of groundwater were capped at a maximum value of 1000 mg/kg (Organics) and 10000 mg/kg (Inorganics). See 6 NYCRR Part 375 TSD Section 9.3.
d	The SCOs for industrial use and the protection of groundwater were capped at a maximum value of 1000 mg/kg. See 6 NYCRR Part 375 TSD Section 9.3. The criterion is applicable to total xylenes, and the individual isomers should be added for comparison.
d, p	The SCOS for metals were capped at a maximum value of 10,000 mg/kg. See 6 NYCRR Part 375 TSD Section 9.3.
e	The SCOS for metals were capped at a maximum value of 10,000 mg/kg. See 6 NYCRR Part 375 TSD Section 9.3. The SCO for this specific compound (or family of compounds) is considered to be met if the analysis for the total species of this contaminant is below the specific SCO.
e, j	For constituents where the calculated SCO was lower than the CRQL, the CRQL is used as the SCO value.
f	For constituents where the calculated SCO was lower than the rural soil background concentration as determined by the DEC/DOH rural soil survey, the rural soil background concentration is used as the Track 2 SCO value for this use of the site.
g	The SCO for this specific compound (or family of compounds) is considered to be met if the analysis for the total species of this contaminant is below the specific SCO.
i	This SCO is the sum of endosulfan I, endosulfan II, and endosulfan sulfate.
j	This SCO is the lower of the values for mercury (elemental) or mercury (inorganic salts). See 6 NYCRR Part 375 TSD Table 5.6-1.
k	For constituents where the calculated SCO was lower than the Contract Required Quantitation Limit (CRQL), the CRQL is used as the Track 1 SCO value.
m	For constituents where the calculated SCO was lower than the rural soil background concentration as determined by the DEC/DOH rural soil survey, the rural soil background concentration is used as the Track 1 SCO value for this use of the site.
n	For constituents where the calculated SCO was lower than the rural soil background concentration as determined by the DEC/DOH rural soil survey, the rural soil background concentration is used as the Track 1 SCO value for this use of the site.
n, j	The SCO for this specific compound (or family of compounds) is considered to be met if the analysis for the total species of this contaminant is below the specific SCO.
NS, d	No SCO has been established for this compound. No SCO has been established for total chromium; however, see standards for trivalent and hexavalent chromium.
o	Standard is applicable to total PCBs, and the individual Aroclors should be added for comparison.
p	The criterion is applicable to total xylenes, and the individual isomers should be added for comparison.
A	ICV, CCV, ICB, CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC exceeds the control limits.
>	Greater than.
B	Indicates analyte was found in associated blank, as well as in the sample.
J	The reported result is an estimated value.
J-	The analyte was positively identified; the associated numerical value is an estimated quantity that may be biased low.
ND	Not detected.
T	Result is a tentatively identified compound (TIC) and an estimated value.
UJ	Indicates estimated non-detect.
TAL	Eurofins Test America Laboratory
*	An asterisk in front of the Sample Location indicates that the material no longer remains on-site following implementation of Interim Remedial Measures.

Table 11b
Summary of Liquid Sample Results for Characterization of Septic System Contents
 Site Management Plan
 820 Linden Ave Site BCP #C828200
 820 Linden Avenue, Pittsford, NY

Sample Location Sample Date Sample ID Sampling Company Laboratory Laboratory Work Order Laboratory Sample ID	Units	TOGS	NYSDEC	*TANK1-SW 23-Jul-19 LIN-TANK1SW-WC-W STANTEC TALBU 480-156763-1 480-156764-3	*TANK2-SW 23-Jul-19 LIN-TANK2SW-WC-W STANTEC TALBU 480-156763-1 480-156764-5	*TANK3-SW 23-Jul-19 LIN-TANK3SW-WC-W STANTEC TALBU 480-156763-1 480-156764-6
Volatile Organic Compounds						
Acetone	µg/L	50 ^A	n/v	200 U	40 U	20 U
Benzene	µg/L	1 ^B	500 ^C	20 U	4.0 U	2.0 U
Bromodichloromethane	µg/L	50 ^A	n/v	20 U	4.0 U	2.0 U
Bromoform (Tribromomethane)	µg/L	50 ^A	n/v	20 U	4.0 U	2.0 U
Bromomethane (Methyl bromide)	µg/L	5 ^{-B}	n/v	20 U	4.0 U	2.0 U
Butylbenzene, n-	µg/L	5 ^{-B}	n/v	20 U	4.0 U	2.0 U
Butylbenzene, sec- (2-Phenylbutane)	µg/L	5 ^{-B}	n/v	20 U	4.0 U	2.0 U
Butylbenzene, tert-	µg/L	5 ^{-B}	n/v	20 U	4.0 U	2.0 U
Carbon Disulfide	µg/L	60 ^A	n/v	20 U	4.0 U	2.0 U
Carbon Tetrachloride (Tetrachloromethane)	µg/L	5 ^B	500 ^C	20 U	4.0 U	2.0 U
Chlorobenzene (Monochlorobenzene)	µg/L	5 ^{-B}	100,000 ^C	20 U	4.0 U	2.0 U
Chloroethane (Ethyl Chloride)	µg/L	5 ^{-B}	n/v	20 U	4.0 U	2.0 U
Chloroform (Trichloromethane)	µg/L	7 ^B	6,000 ^C	20 U	4.0 U	2.0 U
Chloromethane	µg/L	5 ^{-B}	n/v	20 U	4.0 U	2.0 U
Cyclohexane	µg/L	n/v	n/v	20 U	4.0 U	2.0 U
Dibromo-3-Chloropropane, 1,2- (DBCP)	µg/L	0.04 ^B	n/v	20 U	4.0 U	2.0 U
Dibromochloromethane	µg/L	50 ^A	n/v	20 U	4.0 U	2.0 U
Dichlorobenzene, 1,2-	µg/L	3 ^B	n/v	20 U	4.0 U	2.0 U
Dichlorobenzene, 1,3-	µg/L	3 ^B	n/v	20 U	4.0 U	2.0 U
Dichlorobenzene, 1,4-	µg/L	3 ^B	7,500 ^C	20 U	4.0 U	2.0 U
Dichlorodifluoromethane (Freon 12)	µg/L	5 ^{-B}	n/v	20 U	4.0 U	2.0 U
Dichloroethane, 1,1-	µg/L	5 ^{-B}	n/v	20 U	4.0 U	2.0 U
Dichloroethane, 1,2-	µg/L	0.6 ^B	500 ^C	20 U	4.0 U	2.0 U
Dichloroethane, 1,1-	µg/L	5 ^{-B}	700 ^C	20 U	4.0 U	2.0 U
Dichloroethane, cis-1,2-	µg/L	5 ^{-B}	n/v	20 U	4.0 U	2.0 U
Dichloroethane, trans-1,2-	µg/L	5 ^{-B}	n/v	20 U	4.0 U	2.0 U
Dichloropropane, 1,2-	µg/L	1 ^B	n/v	20 U	4.0 U	2.0 U
Dichloropropene, cis-1,3-	µg/L	0.4 ^{-B}	n/v	20 U	4.0 U	2.0 U
Dichloropropene, trans-1,3-	µg/L	0.4 ^{-B}	n/v	20 U	4.0 U	2.0 U
Ethylbenzene	µg/L	5 ^{-B}	n/v	20 U	4.0 U	2.0 U
Ethylene Dibromide (Dibromomethane, 1,2-)	µg/L	0.0006 ^B	n/v	20 U	4.0 U	2.0 U
Hexanone, 2- (Methyl Butyl Ketone)	µg/L	50 ^A	n/v	100 U	20 U	10 U
Isopropylbenzene	µg/L	5 ^{-B}	n/v	20 U	4.0 U	2.0 U
Isopropyltoluene, p- (Cymene)	µg/L	5 ^{-B}	n/v	20 U	4.0 U	5.4 ^B
Methyl Acetate	µg/L	n/v	n/v	50 U	10 U	5.0 U
Methyl Ethyl Ketone (MEK) (2-Butanone)	µg/L	50 ^A	200,000 ^C	200 U	40 U	20 U
Methyl Isobutyl Ketone (MIBK)	µg/L	n/v	n/v	100 U	20 U	10 U
Methyl tert-butyl ether (MTBE)	µg/L	10 ^A	n/v	20 U	4.0 U	2.0 U
Methylcyclohexane	µg/L	n/v	n/v	20 U	4.0 U	2.0 U
Methylene Chloride (Dichloromethane)	µg/L	5 ^{-B}	n/v	20 U	4.0 U	2.0 U
Naphthalene	µg/L	10 ^B	n/v	20 U	4.0 U	2.0 U
Propylbenzene, n-	µg/L	5 ^{-B}	n/v	20 U	4.0 U	2.0 U
Styrene	µg/L	5 ^{-B}	n/v	20 U	4.0 U	2.0 U
Tetrachloroethane, 1,1,2,2-	µg/L	5 ^{-B}	n/v	20 U	4.0 U	2.0 U
Tetrachloroethene (PCE)	µg/L	5 ^{-B}	700 ^C	84 ^B	25 ^B	21 ^B
Toluene	µg/L	5 ^{-B}	n/v	20 U	4.0 U	2.0 U
Trichlorobenzene, 1,2,4-	µg/L	5 ^{-B}	n/v	20 U	4.0 U	2.0 U
Trichloroethane, 1,1,1-	µg/L	5 ^{-B}	n/v	20 U	4.0 U	2.0 U
Trichloroethane, 1,1,2-	µg/L	1 ^B	n/v	20 U	4.0 U	2.0 U
Trichloroethene (TCE)	µg/L	5 ^{-B}	500 ^C	20 U	4.0 U	2.0 U
Trichlorofluoromethane (Freon 11)	µg/L	5 ^{-B}	n/v	20 U	4.0 U	2.0 U
Trichlorotrifluoroethane (Freon 113)	µg/L	5 ^{-B}	n/v	680 ^B	120 ^B	88 ^B
Trimethylbenzene, 1,2,4-	µg/L	5 ^{-B}	n/v	20 U	4.0 U	2.0 U
Trimethylbenzene, 1,3,5-	µg/L	5 ^{-B}	n/v	20 U	4.0 U	2.0 U
Vinyl Chloride	µg/L	2 ^B	200 ^C	20 U	4.0 U	2.0 U
Xylene, m & p-	µg/L	5 ^{-B}	n/v	40 U	8.0 U	4.0 U
Xylene, o-	µg/L	5 ^{-B}	n/v	20 U	4.0 U	2.0 U
Xylenes, Total	µg/L	5 ^{-B}	n/v	40 U	8.0 U	4.0 U
Total VOC	µg/L	n/v	n/v	764	145	114.4
VOC - Tentatively Identified Compounds						
Total VOC TICs	µg/L	n/v	n/v	-	-	8.8 TJN

Notes:

- TOGS: NYSDEC TOGS 1.1.1 (Reissued June 1998 with errata in January 1999 and addenda in April 2000 and June 2004)
 A TOGS 1.1.1 - Table 1 - Ambient Water Quality Standards and Guidance Values, Division of Water, Technical and Operational Guidance Series (TOGS 1.1.1); Guidance
 B TOGS 1.1.1 - Table 1 - Ambient Water Quality Standards and Guidance Values, Division of Water, Technical and Operational Guidance Series (TOGS 1.1.1); Standards
 NYSDEC New York State Department of Environmental Conservation, September 5, 2006
 C Part 371.3: Characteristics of Hazardous Waste, Table 1 - Maximum Concentration of Contaminants for the Toxicity Characteristic
- 6.5^A Concentration exceeds the indicated standard.
 15.2 Measured concentration did not exceed the indicated standard.
 0.03 U Analyte was not detected at a concentration greater than the laboratory reporting limit.
 n/v No standard/guideline value.
 - Parameter not analyzed / not available.
 .. The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in the TOGS table) applies to this substance.
 p Applies to the sum of cis- and trans-1,3-dichloropropene.
 TJN Result is a tentatively identified compound (TIC) and an estimated value. / Indicates an Estimated Value for TICs. / Presumptive evidence of material.
 * An asterisk in front of the Sample Location indicates that the material no longer remains on-site following implementation of Interim Remedial Measures.

FIGURES

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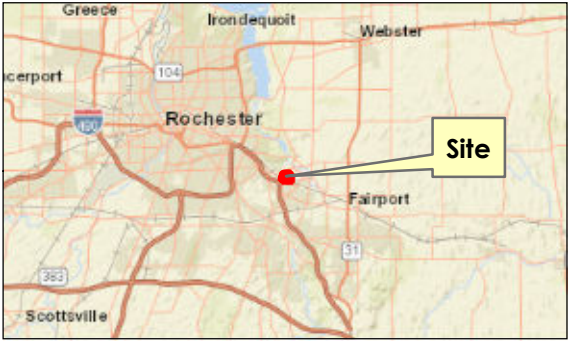


Legend

- Site Property Outline
- Building Outline
- Newport tenant space (permitted addition 1967)
- JML Optical tenant space (five construction phases, see below)
- Year of Building Permits for Construction Phases of Southern Tenant Space
 - 1954
 - 1956
 - 1958
 - 1959
 - 1966
- Nearby Parcel Boundaries
- Jarl Extrusions Monitoring Well
- Roof Drain Outfall Locations

0 100 200 Feet
1:1,200 (At Original document size of 11x17)

- Notes**
- Coordinate System: NAD 1983 StatePlane New York West FIPS 3103 Feet
 - Orthoimagery (2015) downloaded from gis.ny.gov.
 - Site building is occupied by two tenants: JML Optical in the southern building section and Newport Corporation in the northern building section. Both current tenants are optics manufacturing facilities.



Project Location: 820 Linden Avenue
Pittsford, Monroe Co., NY

Prepared by: LB on 2020-06-30
Technical Review by: SRS on 2020-08-26
Independent Review by: MPS/KI on 2020-08-26

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Client/Project
820 Linden Ave Site
BCP Site #C828200
Site Management Plan

Figure No.
2

Title

Site Layout Map

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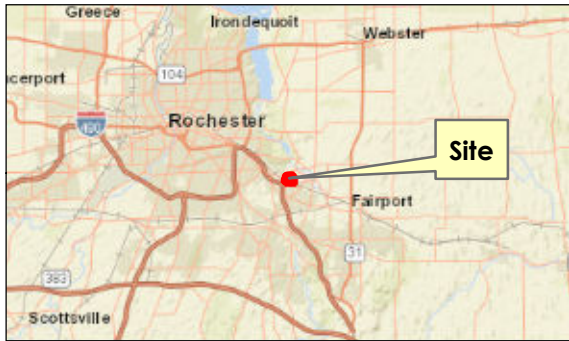


Legend

- Monitoring Well Gauging Locations and Calculated Groundwater Elevation (note: October 2018 upper; January 2019 lower)
- Groundwater Elevation Contour (ft AMSL) - October 1, 2018
- Groundwater Elevation Contour (ft AMSL) - January 23, 2019
- Approximate Inferred Direction of Groundwater Flow
- Roof Drain Outfall Locations
- Jarl Extrusions Monitoring Well
- Site
- Building Tenant Spaces
- Nearby Parcel Boundaries

Notes

- Coordinate System: NAD 1983 StatePlane New York West FIPS 3103 Feet
- Orthimagery (2015) downloaded from gis.ny.gov.
- On-site monitoring wells were gauged on October 1, 2018 and January 23, 2019, during the RI. Groundwater elevations and contours are given in feet above mean sea level (ft AMSL, NAVD 88). Shallow monitoring well MW-104S was dry during both rounds of gauging.
- *Monitoring well MW-3 is an angled well that terminates under the building. Groundwater elevation could not be accurately calculated and is therefore not used in contouring. The other monitoring wells are vertical wells.
- Well locations surveyed for vertical and horizontal coordinates by a Stantec surveyor.



Project Location: 820 Linden Avenue, Pittsford, Monroe Co., NY
Prepared by: LB on 2020-06-30
Technical Review by: SRS on 2020-08-26
Independent Review by: MPS/KI on 2020-08-26
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Client/Project
820 Linden Ave Site
BCP Site #C828200
Site Management Plan

Figure No.

3a

Title

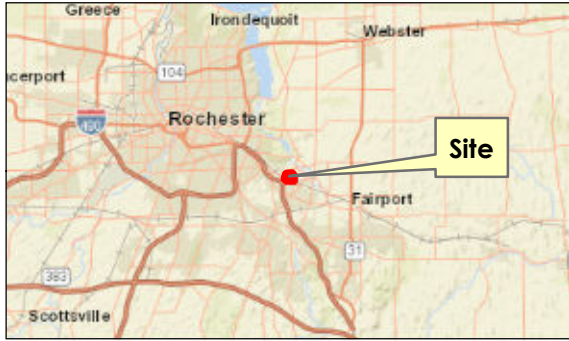
**RI Groundwater Elevation Contour Map
(October 2018 and January 2019)**

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- Legend**
- Monitoring Well Gauging Locations and Calculated Groundwater Elevation (July 2020; dashed where inferred)
 - Groundwater Elevation Contour (ft AMSL) - July 17, 2020
 - Roof Drain Outfall Locations
 - Jarl Extrusions Monitoring Well
 - Site
 - Building Tenant Spaces
 - Nearby Parcel Boundaries

- Notes**
1. Coordinate System: NAD 1983 StatePlane New York West FIPS 3103 Feet
 2. Orthimagery (2015) downloaded from gis.ny.gov.
 3. On-site monitoring wells were gauged on July 17, 2020 as part of IRM2. Groundwater elevations and contours are given in feet above mean sea level (ft AMSL, NAVD 88). Shallow monitoring well MW-104S was dry during gauging. NG=not gauged (MW-101 was inaccessible due to overlying IRM2 soil stockpile).
 4. *Monitoring well MW-3 is an angled well that terminates under the building. Groundwater elevation could not be accurately calculated and is therefore not used in contouring. The other monitoring wells are vertical wells.
 5. Well locations surveyed for vertical and horizontal coordinates by a Stantec surveyor.



Project Location: 820 Linden Avenue
Pittsford, Monroe Co., NY

Prepared by: LB on 2020-07-20
Technical Review by: SRS on 2020-08-26
Independent Review by: MPS/KI on 2020-08-26

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820 Linden Ave Site
BCP Site #C828200
Site Management Plan

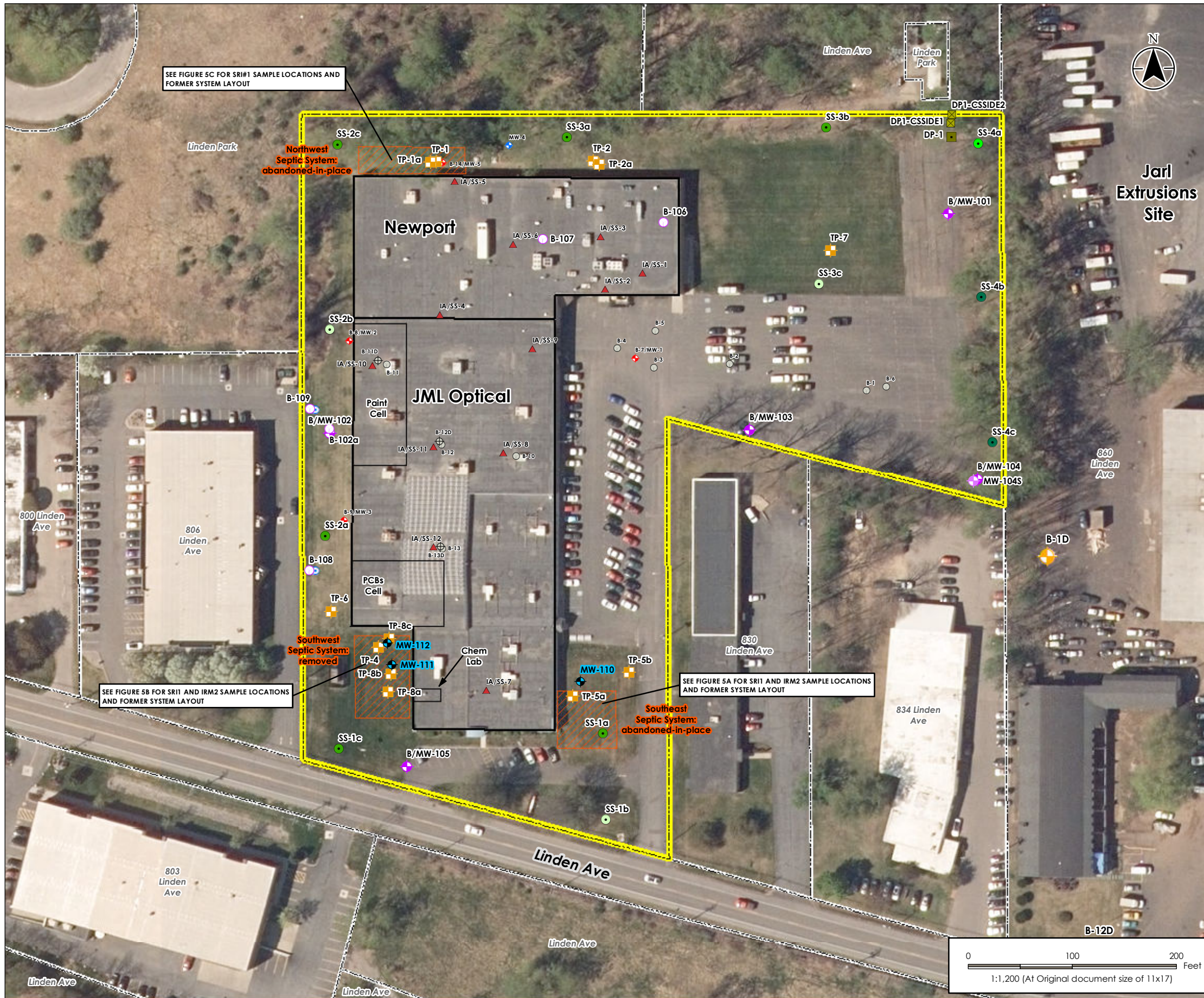
Figure No.
3b

Title

**IRM2 Groundwater Elevation Contour Map
(July 2020)**

Disclaimer: Stantec assumes no responsibility for data supplied in electronic format. The recipient accepts full responsibility for verifying the accuracy and completeness of the data. The recipient releases Stantec, its officers, employees, consultants and agents, from any and all claims arising in any way from the content or provision of the data.

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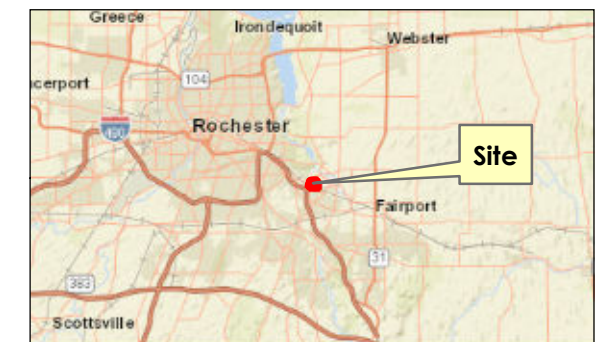


Legend

- 2020 IRM2 Septic System Monitoring Well
- 2020 IRM2 Debris Pile Removal Sidewall Samples
- 2018 RI Soil Boring/Monitoring Well
- 2018 RI Shallow Monitoring Well
- 2018 RI Soil Boring
- 2018 RI Test Pit
- 2018 RI Discrete Surface Soil Sample for Composite*
- 2018 RI Discrete Surface Soil Sample for Composite and Grab Sample for VOCs*
- SS-4a = 2018 RI Discrete Surface Soil Sample for Composite and 2020 SRI#2 Discrete Surface Soil Grab Sample for SVOCs*
- SS-4b and SS-4c = 2018 RI Discrete Surface Soil Sample for Composite and Grab Sample for VOCs and 2020 SRI#2 Discrete Surface Soil Grab Sample for SVOCs*
- 2018 RI Debris Pile Sample
- Historical Septic Systems (Removed or Abandoned-in-Place during IRM2)
- 2016 Limited Phase II ESA Soil Boring and Monitoring Well
- 2016 Limited Phase II ESA Shallow Soil Boring
- 2017 Limited Phase II ESA Deep Soil Boring/Temporary Monitoring Well
- Previously Existing Monitoring Well
- 2016-2017 Indoor Air/Sub-Slab Vapor Sample Location
- Jarl Extrusions Monitoring Well
- Roof Drain Outfall Locations
- Site Property Outline
- Nearby Parcel Boundaries
- Building Tenant Spaces
- Historical Building Usage

Notes

- Coordinate System: NAD 1983 StatePlane New York West FIPS 3103 Feet
- Orthimagery (2015) downloaded from gis.ny.gov.
- Monitoring well MW-3 is an angled well that terminates under the building. The other monitoring wells are vertical wells.
- Interior boring/well locations and sub-slab vapor/indoor air sample locations are estimated based on building structure tie-offs. The exterior locations are based on handheld GPS (Trimble) unit measurements and/or field measurements.
- Well locations surveyed for vertical and horizontal coordinates by a Stantec surveyor.
- *Surface soil sample locations were selected based on NYSDEC's Draft Soil Screening Guidance. Soil was collected from two depths at each sample location. Of the twelve discrete sample locations, eight included the collection of additional soil for VOC analysis (in addition to the soil collected for a composite analysis of other parameters). Each of the eight composite samples (4 groups at two depths) were comprised of three discrete samples. The discrete surface soil sample locations SS-4a, SS-4b, and SS-4c were re-sampled in April 2020 as part of SRI2. Samples from 0-2" below ground cover were each analyzed for benzo(a)pyrene to delineate PAH impacts to surface soil.



Project Location: 820 Linden Avenue
Pittsford, Monroe Co., NY

Prepared by LB on 2020-07-21
Technical Review by SRS on 2020-08-26
Independent Review by MPS/KI on 2020-08-26

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Client/Project
820 Linden Ave Site
BCP Site #C828200
Site Management Plan

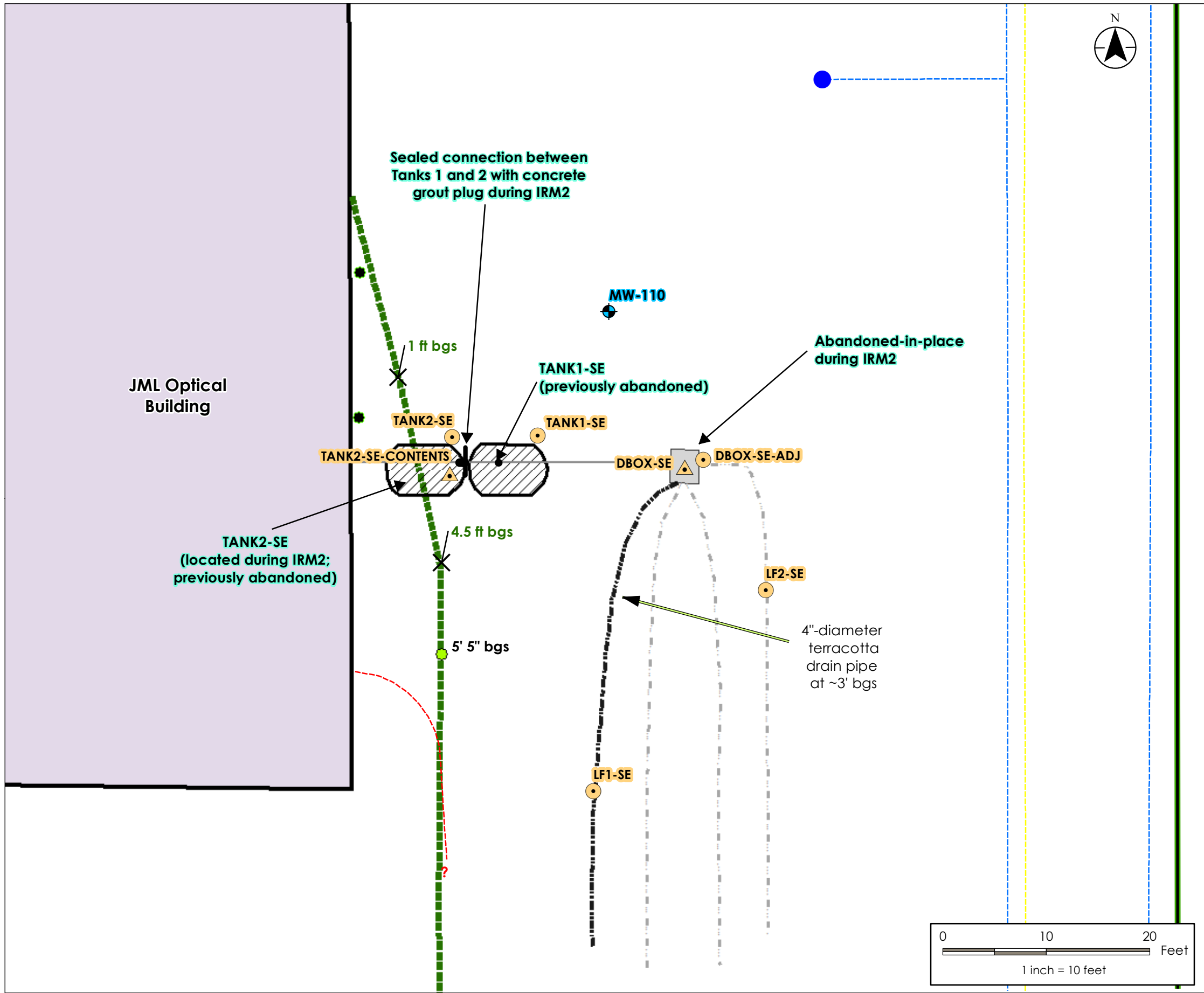
Figure No.

4

Title

Investigation and Sample Locations

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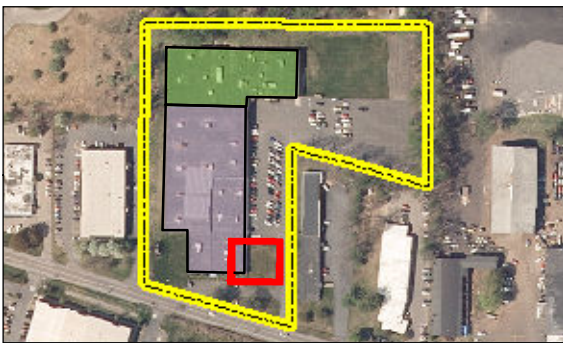


Legend

- 2020 IRM2 Septic Tank/Distribution Box/Leach Field Adjacent Soil Grab Sample
- 2020 IRM2 Septic Tank/Distribution Box Contents Grab Sample
- 2020 IRM2 Septic System Monitoring Well
- Location ID for Previous Septic Tank Contents Characterization Sampling
- Approximate Location of Septic Tank (previously abandoned)
- Approximate Location of Distribution Boxes (based on historical sketches)
- Approximate Location of Septic Drain Tiles (based on historical sketches)
- Drain Pipe Section Confirmed during SRI
- Approximate Location of Tank Connection Piping
- Exterior Sewer Lines
- Sewer Depth and Location Confirmed during SRI
- Electric (Underground)
- Gas (Underground)
- Water (Underground)
- Sewer Cleanout
- Sewer Line (location identified during RI sewer video survey; approximate depth of sewer line depicted, if known)
- Water Valve
- Site
- JML Optical tenant space
- Newport tenant space

Notes

- Coordinate System: NAD 1983 StatePlane New York West FIPS 3103 Feet
- All locations based on approximate field observations and measurements.
- The depiction of septic tanks, distribution boxes, and associated piping is largely based on historical drawings (gray) supplemented by SRI and IRM2 field activities (black). Locations should still be considered approximate only.
- Sprinkler conduits not depicted. Additional metal conduits (unknown utility and unknown operational status) encountered, but not depicted.



Project Location: 820 Linden Avenue, Pittsford, Monroe Co., NY
Prepared by: LB on 2020-07-21
Technical Review by: SRS on 2020-08-26
Independent Review by: KI/MPs on 2020-08-26

Client/Project
820 Linden Ave Site
BCP Site #C828200
Site Management Plan

Figure No.

5a

Title

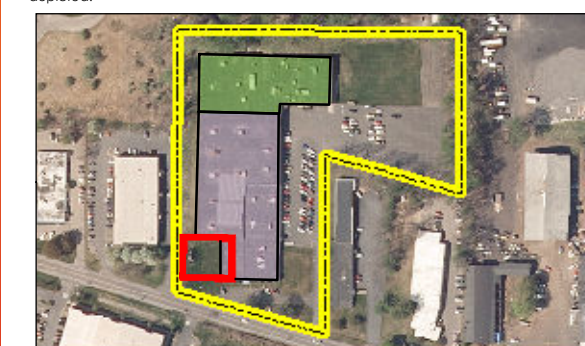
Investigation and Confirmatory Sample Locations:
Southeast Septic System (RAOC-1, abandoned-in-place)

Legend

- 2020 IRM2 Confirmatory Sample Location
- 2020 IRM2 Septic System Monitoring Well
- Approximate Location of Former Septic Tanks (removed)
- Approximate Location of Distribution Boxes (removed)
- Approximate Location of Former Septic Drain Tiles (removed the 4"-diameter terracotta pipes located at approximately 3 ft bgs)
- Approximate Location of Tank Connection Piping (removed)
- Approximate Location of Tank Inlet (plugged)
- Approximate Presumed Lateral Tank Inlet Run to Building
- Exterior Sewer Lines
- Electric (Overhead, approximate)
- Electric (Underground, approximate)
- Fiberoptic (Underground, approximate)
- Apparent Historical/Inactive Sewer Line (investigated during SRI; partially removed during IRM2)
- Remaining
- Removed
- Apparent Historical/Inactive Sewer Cleanout (accessed for SRI video survey)
- Sewer Cleanout
- Sewer Line (location identified during RI sewer video survey; approximate depth of sewer line depicted, if known)
- Sprinkler Head (location of sprinkler lines largely unknown; encounters with sprinkler conduits not depicted on map)
- Overhead Electric Utility Poles
- Fenced Electric Area
- Site
- JML Optical tenant space
- Newport tenant space

Notes

- Coordinate System: NAD 1983 StatePlane New York West FIPS 3103 Feet
- All locations based on approximate field observations and measurements.
- The depiction of septic tanks, distribution boxes, and associated piping is based on observations during IRM2 removal. Locations still considered approximate only.
- Sprinkler conduits not depicted. Additional inactive metal conduits encountered but not depicted.



Project Location: 820 Linden Avenue
Pittsford, Monroe Co., NY

Prepared by: LB on 2020-07-23
Technical Review by: SRS on 2020-08-26
Independent Review by: KI/MPs on 2020-08-26
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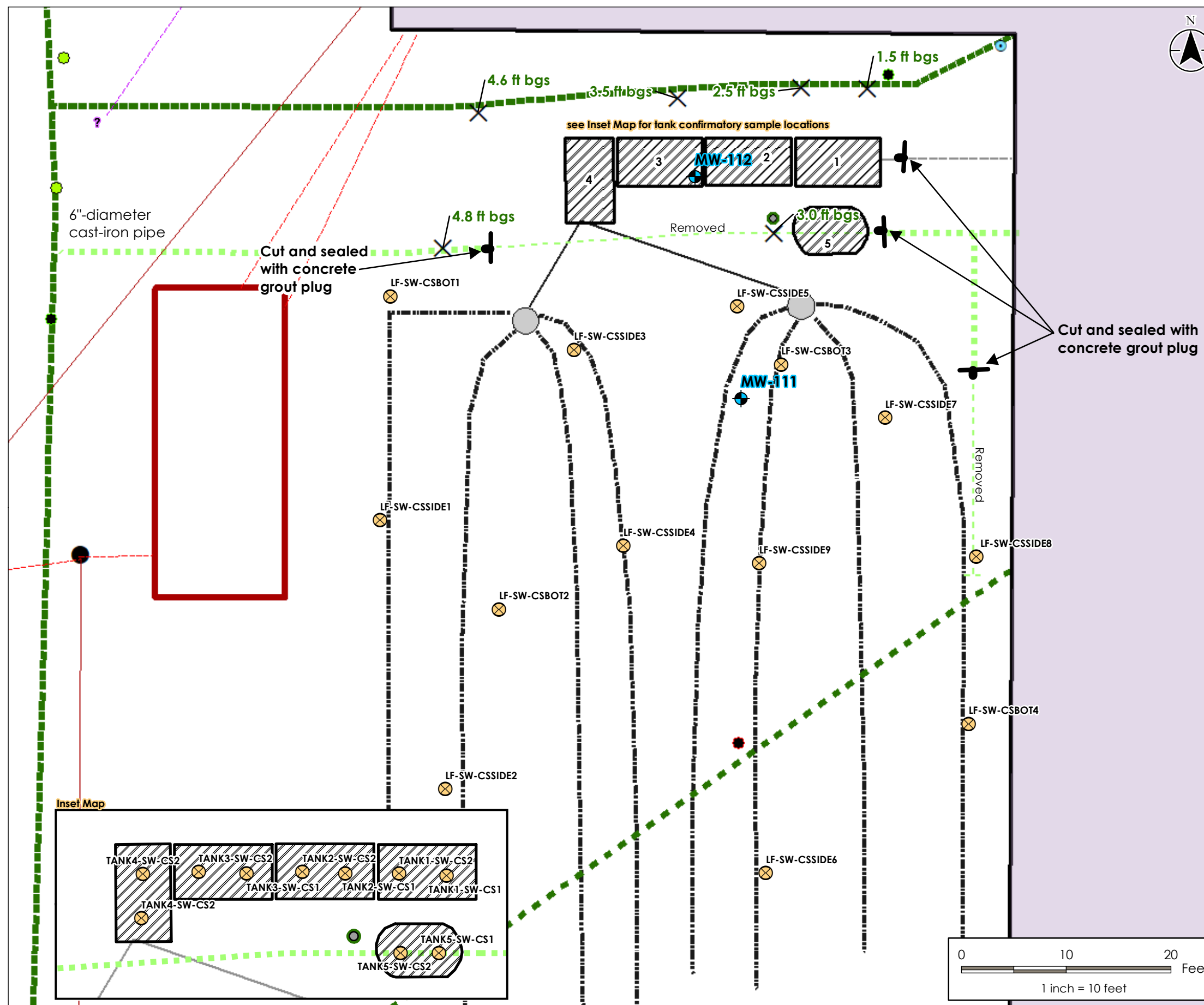
Client/Project
820 Linden Ave Site
BCP Site #C828200
Site Management Plan

Figure No.

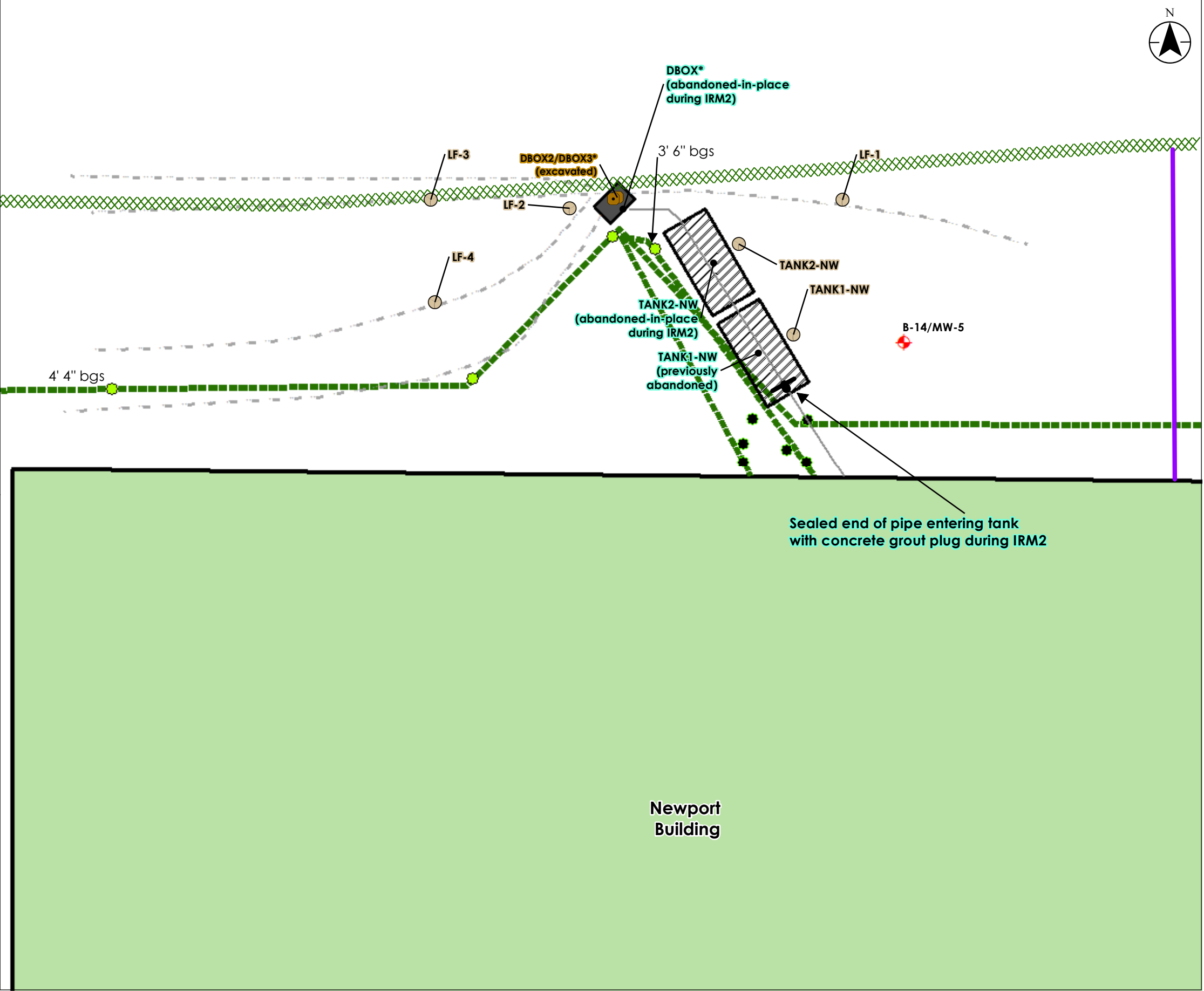
5b

Title

**Investigation and Confirmatory Sample Locations:
Southwest Septic System (RAOC-2, removed)**

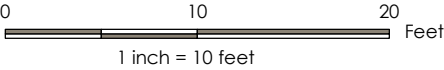


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Legend

- Location ID for Septic Tank Contents Characterization Sampling
- Grab Sample
- Soil Boring
- ▨ Approximate Location of Tank (abandoned-in-place)
- ▨ Approximate Location of Distribution Box (abandoned-in-place)
- Approximate Location of Septic Drain Tiles (based on historical sketches; see Note 5**)
- Approximate Location of Tank Connection Piping (plugged as shown during IRM2)
- Exterior Sewer Lines
- Sewer Cleanout
- Sewer Line (location identified during RI sewer video survey; approximate depth of sewer line depicted, if known)
- ⬮ Monitoring Well (2016 Investigation)
- ▭ Site
- ▭ JML Optical tenant space
- ▭ Newport tenant space
- ▭ Approximate Western Edge of Picnic Table Area
- ▨ Approximate Treeline



- Notes
1. Coordinate System: NAD 1983 StatePlane New York West FIPS 3103 Feet
 2. All locations based on approximate field observations and measurements.
 3. The depiction of septic tanks, distribution boxes, and associated piping is largely based on historical drawings (gray) supplemented by SRI field activities (black). Locations shown are approximate.
 4. *DBOX is a solids sample from within distribution box for waste characterization, as depicted. DBOX2 and DBOX3 are solids samples analyzed as part of the investigation dataset. DBOX2 is in situ soil in the vicinity of the distribution box excavation backfill area; DBOX3 is a bulk sample of black tar-like material encountered in a discrete occurrence while digging to the distribution box. Backfill material above distribution box containing de minimis black tar-like material excavated during IRM2.
 5. **Inlet/outlet holes observed in distribution box roughly align with historical sketch and provided approximate depth below ground surface for sampling reference. These holes were plugged during IRM2 prior to installation of flowable fill for closure of the distribution box component of the septic system.

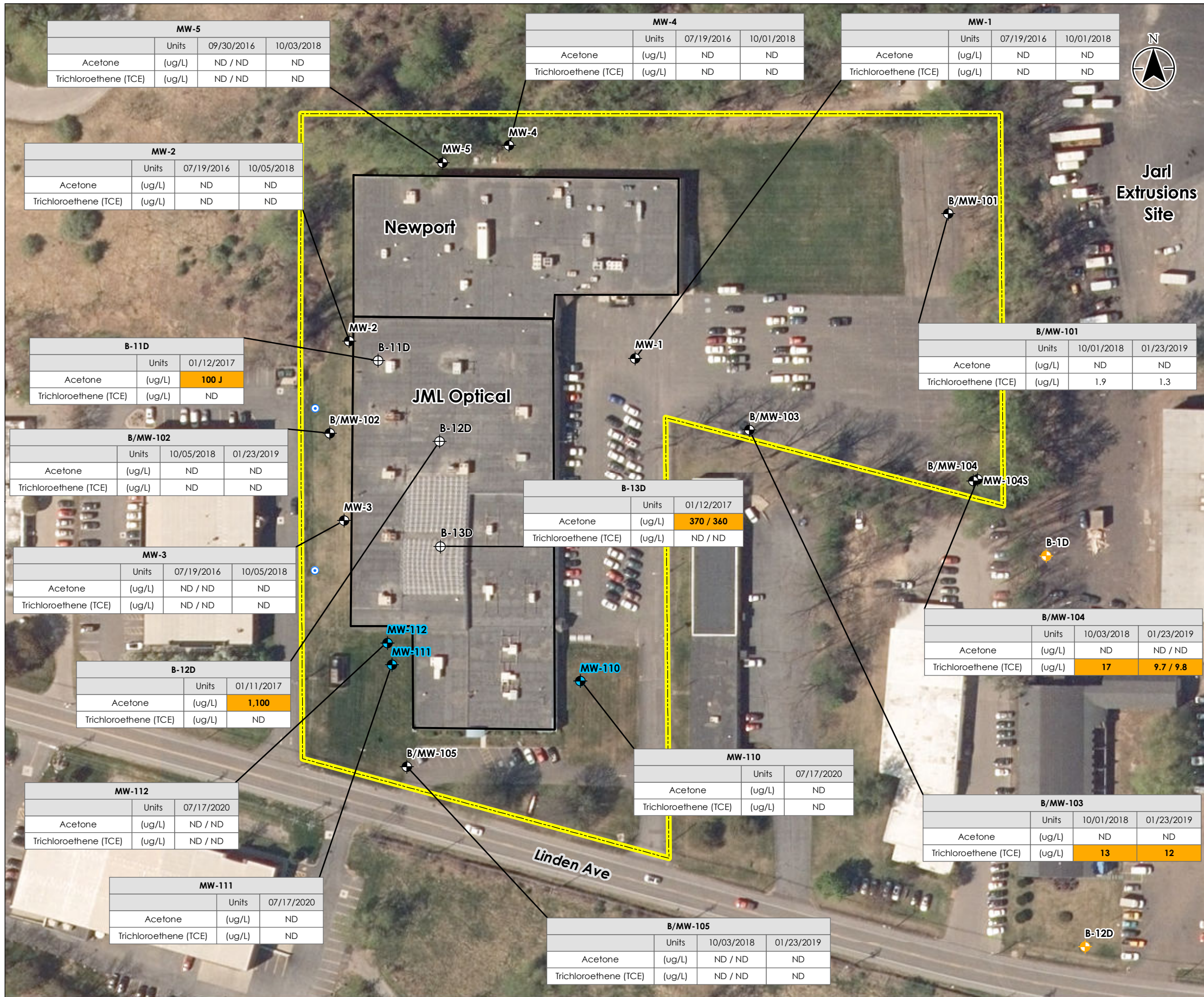


Project Location: 820 Linden Avenue, Pittsford, Monroe Co., NY
Prepared by: LB on 2020-07-21
Technical Review by: SRS on 2020-08-26
Independent Review by: KJ/MP on 2020-08-26

Client/Project: 820 Linden Ave Site, BCP Site #C828200, Site Management Plan

Figure No.: 5c
Title:



Investigation and Confirmatory Sample Locations:
Northwest Septic System (RAOC-3, abandoned-in-place)





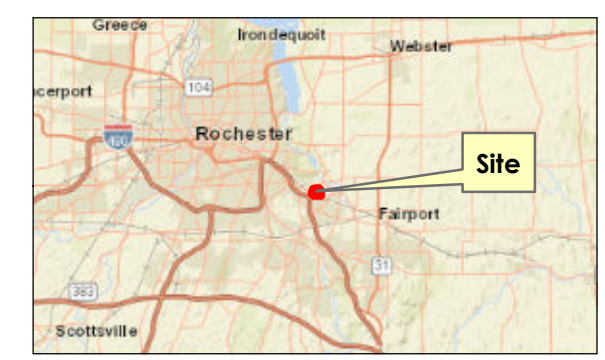
Stantec

Legend

-  2020 IRM2 Septic System Monitoring Well
-  Permanent Site Monitoring Wells (2018 RI/2016 Limited Phase II ESA)
-  Temporary Monitoring Well (2016-2017 Limited Phase II ESA)
-  Jarl Extrusions Monitoring Well
-  Roof Drain Outfall Locations
-  Site Property Outline
-  Building Tenant Spaces

Notes

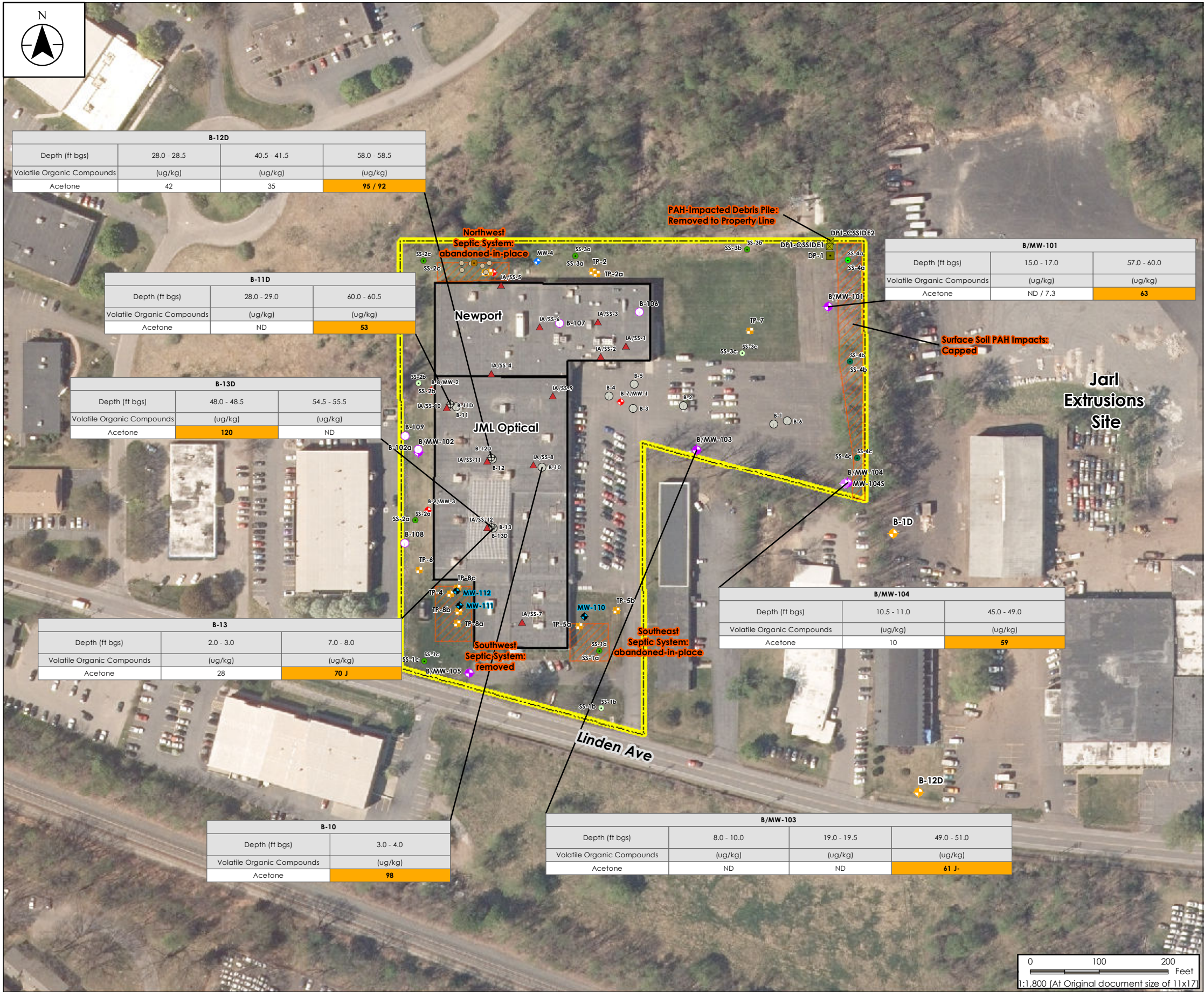
1. Coordinate System: NAD 1983 StatePlane New York West FIPS 3103 Feet
2. Orthoimagery (2015) downloaded from gis.ny.gov.
3. Monitoring well MW-3 is an angled well that terminates under the building. The other monitoring wells are vertical wells.
4. Interior temporary well locations are estimated based on building structure tie-offs. Exterior well locations surveyed for vertical and horizontal coordinates by a Stantec surveyor.
5. Shallow monitoring well MW-104S was dry during gauging events and therefore could not be sampled.
6. This figure depicts compounds with the identified exceedances of NYSDEC Standards and Guidance Values (SGVs) based on the 2016-2017 Limited Phase II ESA, the 2018 RI dataset, and the 2020 RM2 event. Exceedances of common, naturally-occurring metals such as iron, magnesium, manganese, and sodium, are not included herein. Refer to Report Tables for a complete tabulation of groundwater analytical data. Results with concentrations exceeding the NYSDEC SGVs are shaded in orange with bold text. Duplicate results are indicated with a slash ("/").
7. Data Abbreviations:
 - J - the reported result is an estimated value
 - ND - "not-detect"; the analyte was not detected at a concentration greater than the reporting limit.



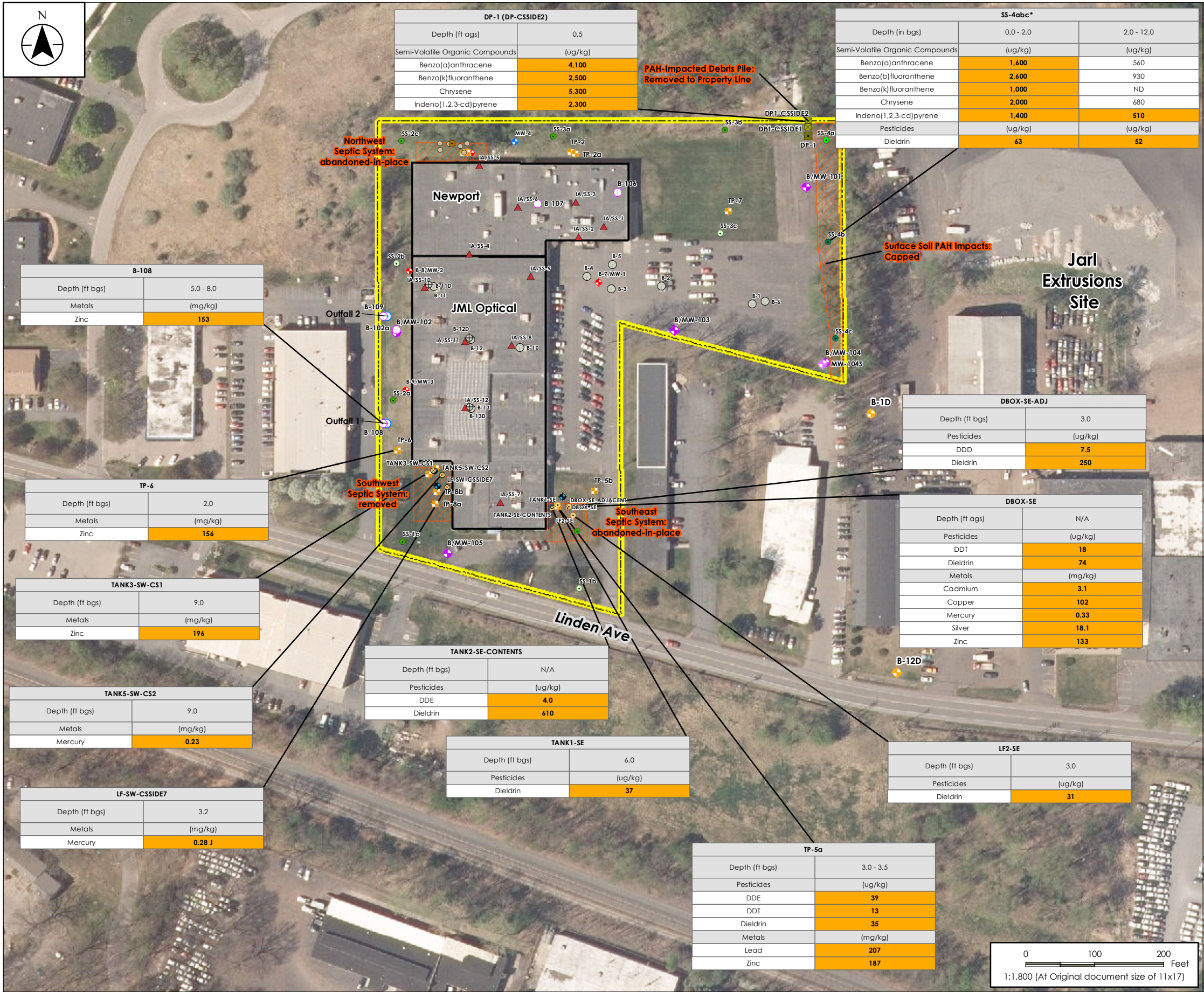
Project Location:	Prepared by LB on 2020-07-21
820 Linden Avenue	Technical Review by SRS on 2020-08-26
Pittsford, Monroe Co., NY	Independent Review by MPS/KJ on 2020-08-26
	190500898

Client/Project
820 Linden Ave Site
BCP Site #C828200
Site Management Plan

Figure No.	6
Title	



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Legend

- 2020 IRM2 Septic System Monitoring Well
- 2020 IRM2 Septic Tank/Distribution Box/Leach Field Adjacent Soil Investigation Grab Sample
- 2020 IRM2 Septic Tank/Distribution Box Contents Investigation Grab Sample
- 2020 IRM2 Confirmatory Sample Location (Southwest Septic System, RAOC-)
- 2020 IRM2 Debris Pile Removal Sidewall Samples
- 2019 SRI Grab Soil Sample
- 2019 SRI Soil Boring
- 2018 RI Soil Boring/Monitoring Well
- 2018 RI Shallow Monitoring Well
- 2018 RI Soil Boring
- 2018 RI Test Pit
- 2018 RI Discrete Surface Soil Sample for Composite
- 2018 RI Discrete Surface Soil Sample for Composite and Grab Sample for VOCs
- SS-4a = 2018 RI Discrete Surface Soil Sample for Composite and 2020 SRI#2 Discrete Surface Soil Grab Sample for SVOCs
- SS-4b and SS-4c = 2018 RI Discrete Surface Soil Sample for Composite and Grab Sample for VOCs and 2020 SRI#2 Discrete Surface Soil Grab Sample for SVOCs
- 2018 RI Debris Pile Sample
- 2016 Limited Phase II ESA Soil Boring and Monitoring Well
- 2016 Limited Phase II ESA Shallow Soil Boring
- 2017 Limited Phase II ESA Deep Soil Boring/Temporary Monitoring Well
- Previously Existing Monitoring Well
- 2016-2017 Indoor Air/Sub-Slab Vapor Sample Location
- Jarl Extrusions Monitoring Well
- Roof Drain Outfall Locations
- Area of Concern Addressed by IRMs 2 and 4
- Site Property Outline
- Building Tenant Spaces

Notes

- Coordinate System: NAD 1983 StatePlane New York West FIPS 3103 Feet
- Orthomogery (2015) downloaded from gis.ny.gov.
- Monitoring well MW-3 is an angled well that terminates under the building. The other monitoring wells are vertical wells.
- Interior boring/well locations and sub-slab vapor/indoor air sample locations are estimated based on building structure tie-offs. The exterior locations are based on handheld GPS (Trimble) unit measurements and/or field measurements.
- Well locations surveyed for vertical and horizontal coordinates by a Stantec surveyor.
- See septic layout Figures 5a-5c for a closer view of the sample locations. See Figure 4 for site-wide sample location map.
- SS-4abc is a composite of discrete surface soil samples collected from locations SS-4a, SS-4b, and SS-4c. In April 2020, grab surface soil samples were collected at locations SS-4a, SS-4b, and SS-4c for benzo(a)pyrene analyses under SRI2.
- This figure depicts remaining (post-IRMs) soil sample locations with exceedances of NYSDEC Unrestricted Use Soil Cleanup Objectives (SCOs) only. Sample locations depicted on the Commercial/Industrial or POGW SCO figures are not included herein. Exceedances of common, naturally-occurring metals such as aluminum, calcium, iron, and magnesium are not included herein. Refer to Report Tables for a complete tabulation of solids analytical data; locations with results meeting NYSDEC SCOs are not shown on this figure. Results with concentrations exceeding the listed applicable NYSDEC SCOs are shaded in orange with bold text. Duplicate results are indicated with a slash ("/"). Non-detect results are indicated by "ND".



Project Location: 820 Linden Avenue, Pittsford, Monroe Co., NY
Prepared by: LB on 2020-07-23
Technical Review by: SRS on 2020-08-26
Independent Review by: MPS/KI on 2020-08-26
190500898

Client/Project: 820 Linden Ave Site, BCP Site #C828200, Site Management Plan
Figure No.: 7c
Title: Remaining Soil Sample Exceedances of Unrestricted Use SCOs

U:\19050089\GIS_report_data\svi\svi_report\design\CADD_Figures\Site CAD Figures\SVI Figure 6 - Area Of Soil Vapor Intrusion Concern.dwg
2/20/2019 2:41 PM By: JML

Sample Location	IA-9	SS-9	Matrix Output
Sample Date	April 14, 2016		
Carbon Tetrachloride (Tetrachloromethane)	1.5 U	0.38	R&P action
Dichloroethene, 1,1-	4.8 U	0.79 U	R&P action
Dichloroethene, cis-1,2-	4.8 U	0.79 U	R&P action
Methylene Chloride (Dichloromethane)	530	120	Mitigate
Tetrachloroethene (PCE)	8.2 U	16	No further action
Trichloroethane, 1,1,1-	6.6 U	5.7	No further action
Trichloroethene (TCE)	1.3 U	3.1	R&P action
Vinyl chloride	0.62 U	0.10 U	R&P action

Sample Location	IA-8	SS-8	Matrix Output
Sample Date	April 14, 2016		
Carbon Tetrachloride (Tetrachloromethane)	3.0 U	2.5 U	R&P action
Dichloroethene, 1,1-	9.6 U	7.9 U	Mitigate
Dichloroethene, cis-1,2-	9.6 U	7.9 U	Mitigate
Methylene Chloride (Dichloromethane)	500	380	Mitigate
Tetrachloroethene (PCE)	16 U	71	R&P action
Trichloroethane, 1,1,1-	13 U	4.4 J	R&P action
Trichloroethene (TCE)	2.6 U	59	Mitigate
Vinyl chloride	1.2 U	1.0 U	R&P action

Sample Location	IA-7	SS-7	Matrix Output	IA-7 (Duplicate)	SS-7 (Duplicate)	Matrix Output	IA-7	SS-7	Matrix Output
Sample Date	April 14, 2016			April 14, 2016			March 31, 2019		
Carbon Tetrachloride (Tetrachloromethane)	0.50 U	0.40	No further action	0.47 J	0.40	No further action	0.29 U	0.35	No further action
Dichloroethene, 1,1-	1.6 U	0.79 U	R&P action	1.6 U	0.79 U	R&P action	0.14 U	0.14 U	No further action
Dichloroethene, cis-1,2-	1.6 U	0.79 U	R&P action	1.6 U	0.79 U	R&P action	0.20 U	9.9	No further action
Methylene Chloride (Dichloromethane)	76	12	R&P action	99	12	R&P action	1.1 J	1.7 U	No further action
Tetrachloroethene (PCE)	2.7 U	1.9	No further action	2.7 U	1.8	No further action	1.4 U	3.7	No further action
Trichloroethane, 1,1,1-	2.2 U	0.91 J	No further action	2.2 U	0.91 J	No further action	1.1 U	0.79 J	No further action
Trichloroethene (TCE)	0.43 U	0.21 U	No further action	0.43 U	0.21 U	No further action	0.19 U	80	Mitigate
Vinyl chloride	0.20 U	0.10 U	No further action	0.20 U	0.10 U	No further action	0.20 U	2.6 J+	No further action



61 Commercial Street, Suite 100
Rochester, New York USA 14614
585.475.1440
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Legend

IA / SS-7
APPROXIMATE INDOOR AIR AND SUB-SLAB VAPOR SAMPLE LOCATION

No further action	No further action is recommended.
R&P action	Take reasonable and practical actions to identify source(s) and reduce exposures.
Mitigate	Mitigation is recommended.

General Area of Building Footprint Serviced by SSDS

1954
Approximate Slab Footprints and Year of Building Permit

Notes

1. FIGURE DEVELOPED USING BASE BUILDING PLAN PROVIDED BY JML OPTICAL.

2. ABBREVIATIONS:

IA - INDOOR AIR
SS - SOIL SAMPLE
U - ANALYTE WAS NOT DETECTED AT A CONCENTRATION GREATER THAN THE LABORATORY REPORTING LIMIT
J - THE REPORTED RESULT IS AN ESTIMATED VALUE
J+ - THE ANALYTE WAS POSITIVELY IDENTIFIED; THE ASSOCIATED NUMERICAL VALUE IS AN ESTIMATED QUANTITY THAT MAY BE BIASED HIGH

3. CONCENTRATIONS ARE PROVIDED IN $\mu\text{g}/\text{m}^3$.

4. ALL LOCATIONS SHOWN ARE APPROXIMATE.

SMP	LB	MPS	20.07.xx
RIR	LB	MPS	19.02.21
RWP	APL	MPS	17.09.05
Issued	By	Appd.	YY.MM.DD

File Name:	APL	SRS	LB	16.07.18
	Dwn.	Chkd.	Dsgn.	YY.MM.DD

Permit-Seal

Client/Project

SITE MANAGEMENT REPORT

820 LINDEN AVE. BCP SITE # C828200
820 LINDEN AVENUE, PITTSFORD, NY

Title

Area of Soil Vapor Intrusion Concern
JML OPTICAL TENANT SPACE INTERIOR BUILDING PLAN AND SVI SAMPLING RESULTS WITH NYSDOH MATRIX RECOMMENDATIONS (JML OPTICAL)

Project No.	Scale	
190500898	NOT TO SCALE	
Drawing No.	Sheet	Revision

Figure 8

of

*SEE LEGEND

1954*

1956*

1958*

1959*

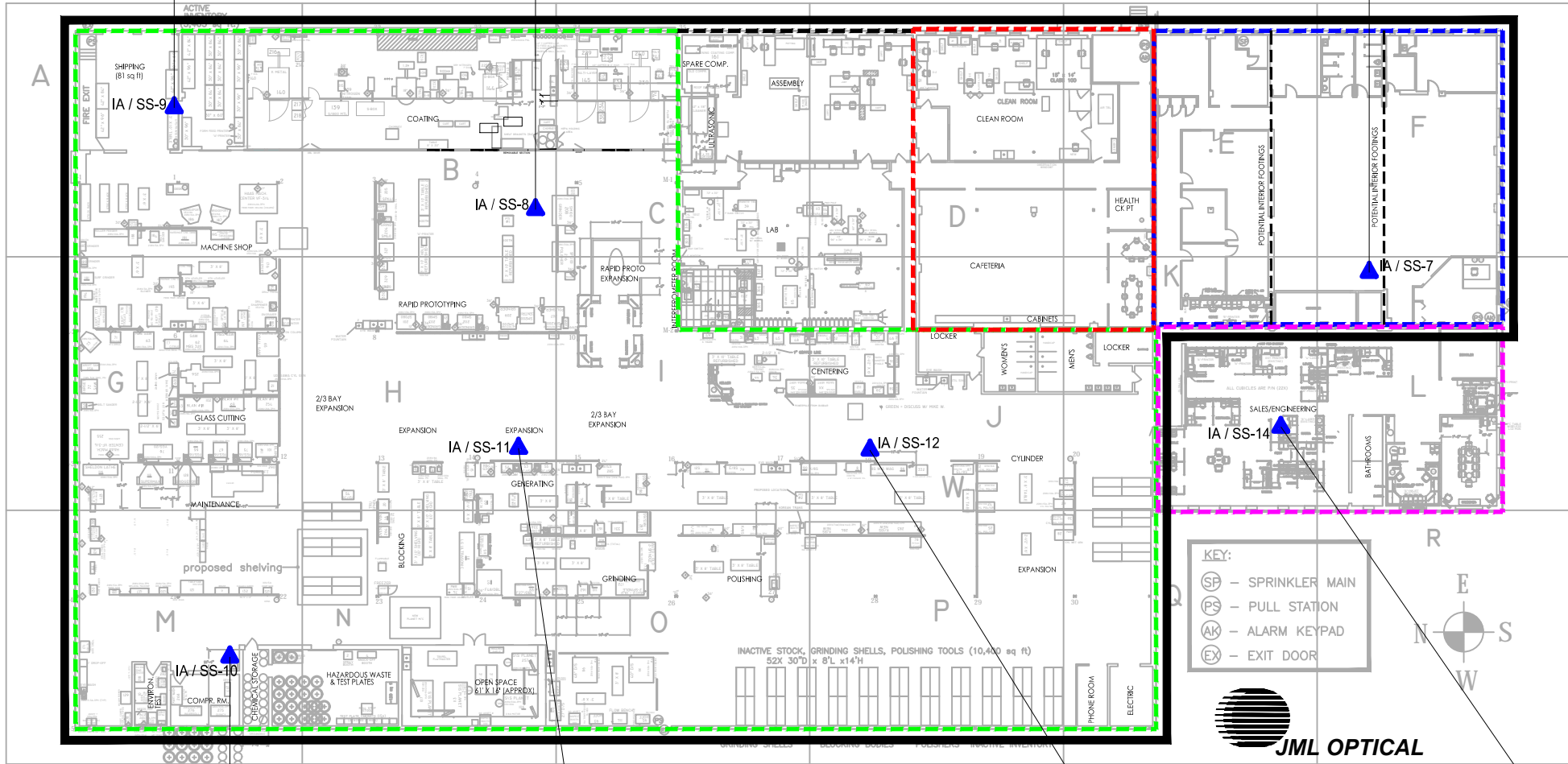
1966*

Sample Location	IA-10	SS-10	Matrix Output
Sample Date	April 14, 2016		
Carbon Tetrachloride (Tetrachloromethane)	2.8 U	0.41 J	R&P action
Dichloroethene, 1,1-	8.9 U	1.6 U	R&P action
Dichloroethene, cis-1,2-	8.9 U	1.6 U	R&P action
Methylene Chloride (Dichloromethane)	890	220	Mitigate
Tetrachloroethene (PCE)	15 U	64	R&P action
Trichloroethane, 1,1,1-	12 U	9.3	R&P action
Trichloroethene (TCE)	2.4 U	71	Mitigate
Vinyl chloride	1.1 U	0.20 U	R&P action

Sample Location	IA-11	SS-11	Matrix Output
Sample Date	April 14, 2016		
Carbon Tetrachloride (Tetrachloromethane)	2.5 U	1.5 U	R&P action
Dichloroethene, 1,1-	7.9 U	4.8 U	R&P action
Dichloroethene, cis-1,2-	7.9 U	4.8 U	R&P action
Methylene Chloride (Dichloromethane)	710	720	Mitigate
Tetrachloroethene (PCE)	14 U	89	R&P action
Trichloroethane, 1,1,1-	11 U	5.9 J	R&P action
Trichloroethene (TCE)	2.1 U	79	Mitigate
Vinyl chloride	1.0 U	0.62 U	R&P action

Sample Location	IA-12	SS-12	Matrix Output
Sample Date	April 14, 2016		
Carbon Tetrachloride (Tetrachloromethane)	2.5 U	0.66 J	R&P action
Dichloroethene, 1,1-	7.9 U	2.4 U	R&P action
Dichloroethene, cis-1,2-	7.9 U	2.4 U	R&P action
Methylene Chloride (Dichloromethane)	530	320	Mitigate
Tetrachloroethene (PCE)	14 U	100	Mitigate
Trichloroethane, 1,1,1-	11 U	3.3 U	R&P action
Trichloroethene (TCE)	2.1 U	160	Mitigate
Vinyl chloride	1.0 U	0.31 U	R&P action

Sample Location	IA-14	SS-14	Matrix Output	IA-14 (Duplicate)	SS-14 (Duplicate)	Matrix Output
Sample Date	March 31, 2019			March 31, 2019		
Carbon Tetrachloride (Tetrachloromethane)	0.29	0.22 U	No further action	0.29	0.88 U	No further action
Dichloroethene, 1,1-	0.14 U	0.14 U	No further action	0.14 U	0.56 U	No further action
Dichloroethene, cis-1,2-	0.20 U	0.20 U	No further action	0.20 U	3.1	No further action
Methylene Chloride (Dichloromethane)	5.5	1.3 J	No further action	5.7	6.9 U	No further action
Tetrachloroethene (PCE)	1.4 U	12	No further action	1.4 U	13	No further action
Trichloroethane, 1,1,1-	1.1 U	0.81 J	No further action	1.1 U	4.4 U	No further action
Trichloroethene (TCE)	0.19 U	0.45 J	No further action	0.19 U	22 J	No further action
Vinyl chloride	0.20 U	0.20 U	No further action	0.20 U	1.1 J	No further action

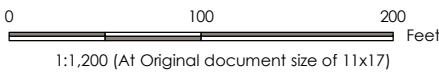


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Legend

- 2020 IRM2 Debris Pile Removal Final Sidewall Sample at Northern Property Line
- Site Cover System to Maintain
- Extent of Engineered Cover System over PAH-impacted Surface Soil
- General Area of Building Footprint Serviced by SSDs to Address Chlorinated Solvents in Sub-Slab Vapor Requiring SVI Mitigation
- Site Property Outline
- Building Outline (concrete floor slab serves as cover for the building footprint)
- Nearby Parcel Boundaries
- Jarl Extrusions Monitoring Well
- Storm Drain Outfall Locations



Notes

- Coordinate System: NAD 1983 StatePlane New York West FIPS 3103 Feet
- Basemap sources: Orthoimagery (2015) downloaded from gis.ny.gov (Main Frame); ArcGIS World Street Map (Inset Frame).
- Site building was occupied by two tenants at the time this SMP was issued: JML Optical in the southern building section and Newport Corporation in the northern building section. Both current tenants are optics manufacturing facilities.
- Institutional Controls applicable to portion of the Site included in the Environmental Easement, as defined in the Site Management Plan. Limits of the Environmental Easement are the Site property boundaries.
- Engineering Controls include the SSDs and composite Cover System as shown herein. Any ground-intrusive activity within an Engineered Control areas are subject to the Excavation Work Plan appended to the SMP.



Project Location: 820 Linden Avenue
Pittsford, Monroe Co., NY

Prepared by LB on 2020-08-18
Technical Review by SRS on 2020-08-26
Independent Review by KI/MPS on 2020-08-26

190500898

Client/Project
820 Linden Ave Site
BCP Site #C828200
Site Management Plan

Figure No.
9

Title

Engineering Controls Layout Map

Appendix A

Environmental Easement

Survey map included herein. Environmental Easement to be included upon its completion in the Final SMP.

ALL THAT TRACT OR PARCEL OF LAND BEING PART OF LOT NO 5, TOWNSHIP 12, RANGE 5, TOWN OF PITTSFORD, COUNTY OF MONROE AND STATE OF NEW YORK, AND MORE PARTICULARLY BOUNDED AND DESCRIBED AS FOLLOWS:

SAID ABOVE DESCRIBED PARCEL IS SUBJECT TO RIGHT OF WAY EASEMENT OVER PANORAMA TRAIL SOUTH (PRIVATE ROAD) PER
LIBER 3952 OF DEEDS, AT PAGE 194 AND LIBER 3459 OF DEEDS, PAGE 265

ALL THAT TRACT OR PARCEL OF LAND, SITUATE IN THE TOWN OF PITTSFORD, COUNTY OF MONROE, STATE OF NEW YORK, BEING MORE PARTICULARLY BOUNDED AND DESCRIBED AS FOLLOWS:

1. SOUTHWESTERLY, ALONG THE SOUTHEASTERLY RIGHT OF WAY LINE OF PANORAMA TRAIL SOUTH, A DISTANCE OF 809 FEET, THENCE
2. SOUTHWESTERLY, FORMING AN INTERIOR ANGLE OF 187 DEGREES 30 MINUTES 00 SECONDS, CONTINUING ALONG THE SOUTHEASTERLY RIGHT OF WAY LINE OF PANORAMA TRAIL SOUTH, A DISTANCE OF 3423 FEET, THENCE
3. SOUTHERLY, FORMING AN INTERIOR ANGLE OF 150 DEGREES 17 MINUTES 43 SECONDS, A DISTANCE OF 5339.9 FEET, THENCE
4. EASTERLY, FORMING AN INTERIOR ANGLE OF 89 DEGREES 42 MINUTES 15 SECONDS, A DISTANCE OF 3400 FEET; THENCE
5. NORTHERLY, FORMING AN INTERIOR ANGLE OF 90 DEGREES 00 MINUTES 00 SECONDS, ALONG THE EAST LINE OF THE FORMER A. GRABOSKE FARM, A DISTANCE OF 63924 FEET TO THE DIVISION LINE BETWEEN THE TOWN OF PENFIELD ON THE NORTH AND THE TOWN OF PERINTON ON THE SOUTH, THENCE
6. WESTERLY, FORMING AN INTERIOR ANGLE OF 89 DEGREES 46 MINUTES 04 SECONDS, ALONG THE DIVISION LINE BETWEEN THE TOWN OF PENFIELD ON THE NORTH AND THE TOWN OF PERINTON ON THE SOUTH, A DISTANCE OF 28004 FEET TO THE POINT OR PLACE OF BEGINNING.

CONTAINING 347,225.99 SQ. FT. (7.971 ACRES) TO CENTERLINE MORE OR LESS.

1. DEEDS REFERENCED HEREON FILED AT THE MONROE COUNTY CLERK'S OFFICE.
2. MAP TITLED "MAP SHOWING PARCELS TO BE CONVEYED" DATED APRIL 16, 1993. PREPARED BY DAVID E. VANLARE.

1. TO AMERICAN TELEPHONE & TELEGRAPH COMPANY FOR POLES AND WIRES PER LIBER 1430, PAGE 339.
2. TO ROCHESTER GAS & ELECTRIC CORP. AND ROCHESTER TELEPHONE CORPORATION FOR POLES AND WIRES PER LIBER 2994, PAGE 2.
3. TO ROCHESTER GAS & ELECTRIC CORP. FOR GAS MAINS PER LIBER 3108, PAGE 272.
4. TO ROCHESTER GAS & ELECTRIC CORP. AND ROCHESTER TELEPHONE CORPORATION FOR POLES AND WIRES PER LIBER 3106, PAGE 274.
5. TO ROCHESTER GAS & ELECTRIC CORP. FOR GAS MAINS PER LIBER 3760, PAGE 70.
6. TO PANORAMA DEVELOPMENT CO., INC.; EMIL MULLER AND EMIL MULLER CONSTRUCTION CO., INC. FOR PRIVATE ROAD (SOUTH PANORAMA TRAIL) PER LIBER 3612, PAGE 23.
7. TO PENFIELD SEWER DISTRICT NO. 1 FOR STORM AND/OR SANITARY SEWERS PER LIBER 4012, PAGE 45.
8. TO ROCHESTER GAS & ELECTRIC CORP. AND ROCHESTER TELEPHONE CORPORATION FOR POLES AND WIRES PER LIBER 5134, PAGE 173.
9. TO ROCHESTER GAS & ELECTRIC CORP. AND ROCHESTER TELEPHONE CORPORATION FOR POLES AND WIRES PER LIBER 5134, PAGE 252.
10. TO ROCHESTER GAS & ELECTRIC CORP. AND ROCHESTER TELEPHONE CORPORATION FOR POLES AND WIRES PER LIBER 5134, PAGE 263.

LEGEND

- | | |
|--|----------------------|
| | Overhead Utilities |
| | Easement Line |
| | Iron Pipe Found |
| | Iron Rebar Found |
| | Monument |
| | Catch Basin |
| | Storm Manhole |
| | Sanitary Manhole |
| | Clean Out |
| | Electric Manhole |
| | Electric Meter |
| | Water Valve |
| | Gas Valve |
| | Utility Junction Box |
| | Fire Hydrant |
| | Utility Pole |
| | Light Pole |
| | Sign |
| | Flag Pole |
| | Post |


ALL THAT TRACT OR PARCEL OF LAND BEING PART OF LOT NO 5, TOWNSHIP 12, RANGE
5, TOWN OF PITTSFORD, COUNTY OF MONROE
AND STATE OF NEW YORK, AND MORE PARTICULARLY BOUNDED AND DESCRIBED AS
FOLLOWS:

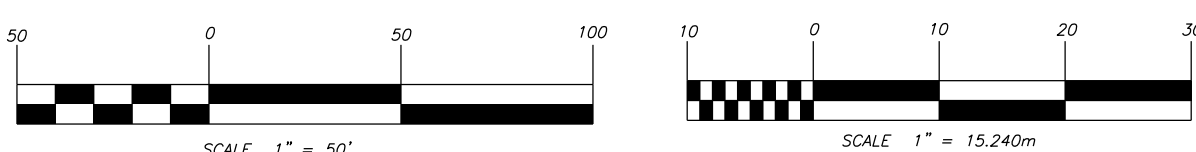
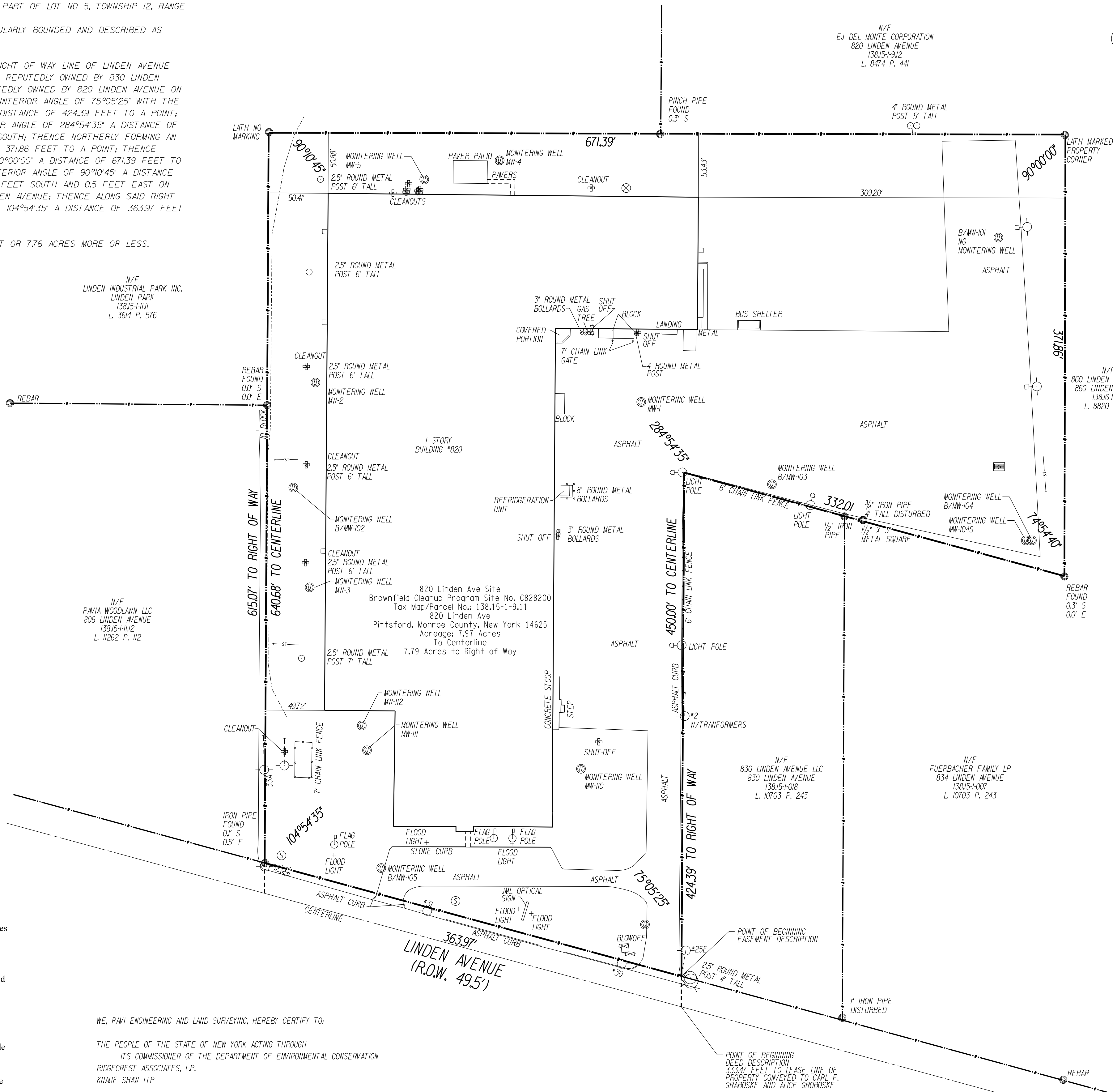
HAVING AN AREA OF 338,217.733 SQUARE FEET OR 7.76 ACRES MORE OR LESS.

N/F
PAVIA WOODLAWN LLC
806 LINDEN AVENUE
138J5-1-11J2
L. 11262 P. 112

THE PEOPLE OF THE STATE OF NEW YORK ACTING THROUGH
ITS COMMISSIONER OF THE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
RIDGECREST ASSOCIATES, L.P.
KNAUF SHAW LLP

THAT THIS SURVEY MAP WAS PREPARED FROM NOTES OF A LAND SURVEY COMPLETED BY RAVI ENGINEERING & LAND SURVEYING, P.C. ON MAY 1, 2020 AND FROM THE REFERENCES NOTED HEREON, AND THAT THE MAP OR PLAT AND THE SURVEY UPON WHICH IT WAS BASED MEETS THE GWSA 2017 MINIMUM STANDARDS FOR A SURVEY MAP.

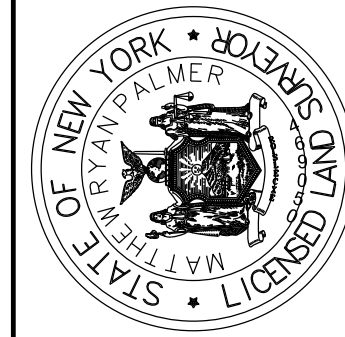
SIGNED: 
Matthew R. Palmer, PLS August 26, 2020



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PROJECT SURVEYOR:
 MATHEW R. PALMER, PLS

MAPPING BY:
ANTHONY J. CRETELLE

MAP SCALE:

**RAVI ENGINEERING
& LAND SURVEYING, P.C.**

2110 South Clinton Avenue, Suite 1
Rochester, New York 14618
TL: (585) 223-3660 FX: (585) 697-1764

ENVIRONMENTAL EASEMENT MAP
PROPERTY OWNED N/F BY
820 LINDEN AVENUE

PART OF TOWN LOT 5, TOWNSHIP 12, RANGE 5
TOWN OF PITTSFORD, COUNTY OF MONROE,
STATE OF NEW YORK

PROJECT #
20-20-068

ISSUE DATE
08/26/2020

SHEET 1 OF 1

**SITE MANAGEMENT PLAN
820 LINDEN AVE BCP SITE #C828200
PITTSFORD, NY**

Appendix B

List of Site Contacts

**SITE MANAGEMENT PLAN
820 LINDEN AVE BCP SITE #C828200
PITTSFORD, NY**

List of Site Contacts

Contact	Name	Email Address/Phone Number
Site Owner/Remedial Party	Joe Loboizzo, Ridgecrest Associates	j.loboizzo@me.com (585) 766-3949
Stantec Project Manager	Stephanie Reynolds-Smith	stephanie.reynoldssmith@stantec.com (585) 298-2382
Stantec Senior Consulting Lead	Mike Storonsky	mike.storonsky@stantec.com (585) 298-2386
Stantec Engineering Lead	Kevin Ignaszak	kevin.ignaszak@stantec.com (585) 284-6713
Stantec SSDS Engineering Lead	Dwight Harrienger	dwight.harrienger@stantec.com (585) 413-8740
Remedial Party Attorney	Linda Shaw, Knauf Shaw	lshaw@nyenvlaw.com (585) 414-3122
NYSDEC DER Project Manager	Tasha Mumbrue	tasha.mumbrue@dec.ny.gov (585) 226-5459
NYSDEC Regional HW Engineer	David Pratt	david.pratt@dec.ny.gov (585) 226-5315
NYSDEC Site Control	n/a	derweb@gw.dec.state.ny.us
NYSDOH Project Manager	Kristin Kulow	kristin.kulow@health.ny.gov (518) 402-7860
Tenant, JML Optical	Steve Burton, Vice President, Operations	steveb@jmloptical.com (585) 218-2906
Tenant, JML Optical	Mark Zaso	markz@jmloptical.com (315) 289-3038
Tenant, Newport Corporation	Brian Grove	brian.grove@mksinst.com (585) 739-6046
Library Repository	Pittsford Community Library	(585) 248-6275

**SITE MANAGEMENT PLAN
820 LINDEN AVE BCP SITE #C828200
PITTSFORD, NY**

Appendix C

Soil Boring and Monitoring Well Construction Logs



61 Commercial St, Suite 100
Rochester, NY 14614
(585) 475-1440

Test Boring No.: B-1
Page: 1 of 1

Project:	820 Linden Ave. Phase II ESA	Drill Contractor:	Parratt-Wolff Inc.	Start Date:	6/20/2016
Project #:	190500898	Driller:	Glenn	Completion Date:	6/20/2016
Client:	Ridgecrest Associates	Elevation:	NM	Casing Type:	NA
Location:	820 Linden Avenue	Weather:	75°F	Drilling Method:	Direct Push
	Rochester, NY	Field Rep.:	Charles Yarrington		

Depth (ft. bgs)	Recovery (ft.)	Sample Depth (ft. bgs)	PID (ppm)	Soil Description and Observations
4	3'4'		2.6	0' - 4": Asphalt and subgrade
			0.3	4" - 1.5': Dark brown fine SAND, non-cohesive, loose, moist
			0	1.5' - 4': Light brown fine SAND, non-cohesive, loose, moist
			0	
			0	
8	4'4'		0.4	4' - 4'2": Light brown fine SAND, non-cohesive, loose, moist
			1.3	4'2" - 4'4": Dark brown fine SAND and GRAVEL, non-cohesive, loose, moist
			0.3	4'4" - 8" Light brown fine SAND, non-cohesive, loose, moist
			0	
12	4'4'		0	8' - 12': Brown fine SAND, non-cohesive, moist, loose
			0	
			0	
			0	

Notes:

1. PID Model Mini-Rae 3000 with 10.6 eV lamp.

Boring Location: Far east in parking lot

Other Notes and Observations:



61 Commercial St, Suite 100
Rochester, NY 14614
(585) 475-1440

Test Boring No.: B-2
Page: 1 of 1

Project:	820 Linden Ave. Phase II ESA	Drill Contractor:	Parratt-Wolff Inc.	Start Date:	6/20/2016
Project #:	190500898	Driller:	Glenn	Completion Date:	6/20/2016
Client:	Ridgecrest Associates	Elevation:	NM	Casing Type:	NA
Location:	820 Linden Avenue	Weather:	75°F	Drilling Method:	Direct Push
	Rochester, NY	Field Rep.:	Charles Yarrington		

Depth (ft. bgs)	Recovery (ft.)	Sample Depth (ft. bgs)	PID (ppm)	Soil Description and Observations
4	3'/4'		12.1	0' - 6": Asphalt and subgrade
			0	6" - 4': Light brown fine SAND, non-cohesive, loose moist
			0	
			0	
8	4'/4'		0.5	4' - 4'6": Light brown fine SAND, dark brown staining, non-cohesive, loose, moist
			1.3	4'6" - 8': Light brown fine SAND, non-cohesive, loose, moist
			0.3	
			0	
12	4'/4'		0	8' - 12': Light brown fine SAND, non-cohesive, loose, moist
			0	
			0	
			0	

Notes:

1. PID Model Mini-Rae 3000 with 10.6 eV lamp.

Boring Location: Intermediate parking lot

Other Notes and Observations:

DUP-01 collected here



61 Commercial St, Suite 100
Rochester, NY 14614
(585) 475-1440

Test Boring No.: B-3
Page: 1 of 1

Project:	820 Linden Ave. Phase II ESA	Drill Contractor:	Parratt-Wolff Inc.	Start Date:	6/20/2016
Project #:	190500898	Driller:	Glenn	Completion Date:	6/20/2016
Client:	Ridgecrest Associates	Elevation:	NM	Casing Type:	NA
Location:	820 Linden Avenue	Weather:	90°F	Drilling Method:	Direct Push
	Rochester, NY	Field Rep.:	Charles Yarrington		

Depth (ft. bgs)	Recovery (ft.)	Sample Depth (ft. bgs)	PID (ppm)	Soil Description and Observations
4	3'4'		2	0' - 6": Asphalt and subgrade
			2.2	6" - 1': Light brown fine SAND, trace Medina Sandstone, small matrix suspended sub-angular gravel, non-cohesive, moist
			0	1' - 4': Brown fine SAND, non-cohesive, loose, moist
			0.2	
8	4'4'		1	4' - 8': Light brown fine SAND with dark staining at 4.5', non-cohesive, moist
			0	
			0	
			0	
12	3.5'4'		0	8' - 12': Light brown fine SAND, non-cohesive, loose, moist
			0	
			0	
			0	

Notes:

1. PID Model Mini-Rae 3000 with 10.6 eV lamp.

Boring Location: Southernmost point near loading docks

Other Notes and Observations:



61 Commercial St, Suite 100
Rochester, NY 14614
(585) 475-1440

Test Boring No.: B-4
Page: 1 of 1

Project:	820 Linden Ave. Phase II ESA	Drill Contractor:	Parratt-Wolff Inc.	Start Date:	6/20/2016
Project #:	190500898	Driller:	Glenn	Completion Date:	6/20/2016
Client:	Ridgecrest Associates	Elevation:	NM	Casing Type:	NA
Location:	820 Linden Avenue	Weather:	90°F	Drilling Method:	Direct Push
	Rochester, NY	Field Rep.:	Charles Yarrington		

Depth (ft. bgs)	Recovery (ft.)	Sample Depth (ft. bgs)	PID (ppm)	Soil Description and Observations
4	3'4'		0.5	0' - 4": Asphalt and subgrade
			0	4" - 4': Light brown fine SAND, non-cohesive, loose, moist
			0	
			0	
			0	
8	4'4'		3.2	4' - 8': Light brown fine SAND with dark staining at 4'-4.5', non-cohesive, moist
			0	
			0	
			0	
12	4'4'		0	8' - 12': Light brown fine SAND, non-cohesive, loose, moist
			0	
			0	
			0	

Notes:

1. PID Model Mini-Rae 3000 with 10.6 eV lamp.

Boring Location: Easternmost point near loading docks

Other Notes and Observations:



61 Commercial St, Suite 100
Rochester, NY 14614
(585) 475-1440

Test Boring No.: B-5
Page: 1 of 1

Project:	820 Linden Ave. Phase II ESA	Drill Contractor:	Parratt-Wolff Inc.	Start Date:	6/20/2016
Project #:	190500898	Driller:	Glenn	Completion Date:	6/20/2016
Client:	Ridgecrest Associates	Elevation:	NM	Casing Type:	NA
Location:	820 Linden Avenue	Weather:	90°F	Drilling Method:	Direct Push
	Rochester, NY	Field Rep.:	Charles Yarrington		

Depth (ft. bgs)	Recovery (ft.)	Sample Depth (ft. bgs)	PID (ppm)	Soil Description and Observations
4	4'/4'		8.5	0' - 6": Asphalt and subgrade
			4	6" - 4': Light brown fine SAND, non-cohesive, loose, moist
			0	
			0.2	
8	2.5'/4'		6.8	4' - 8': Light brown fine SAND with dark staining at 4'-4.5', non-cohesive, moist
			5.3	
			0	
			0	
12	4'/4'		0	8' - 12': Light brown fine SAND, non-cohesive, loose, moist
			0	
			0	
			0	

Notes:

1. PID Model Mini-Rae 3000 with 10.6 eV lamp.

Boring Location: Northernmost point near loading docks

Other Notes and Observations:



61 Commercial St, Suite 100
Rochester, NY 14614
(585) 475-1440

Test Boring No.: B-6
Page: 1 of 1

Project:	820 Linden Ave. Phase II ESA	Drill Contractor:	Parratt-Wolff Inc.	Start Date:	6/21/2016
Project #:	190500898	Driller:	Glenn	Completion Date:	6/21/2016
Client:	Ridgecrest Associates	Elevation:	NM	Casing Type:	NA
Location:	820 Linden Avenue	Weather:	80°F	Drilling Method:	Direct Push
	Rochester, NY	Field Rep.:	Charles Yarrington		

Depth (ft. bgs)	Recovery (ft.)	Sample Depth (ft. bgs)	PID (ppm)	Soil Description and Observations
4	3'/4'		0.9	0' - 6": Asphalt and subgrade
			0	6" - 4': Brown fine SAND, non-cohesive, loose, moist
			0	
			0	
8	3'/4'		0.9	4' - 4'4": Light brown fine SAND , non-cohesive, moist
			0	4'4" - 4'5": Fine angular matrix suspended GRAVEL and fine SAND, some
			0	4'5" - 8': Brown find SAND, non-cohesive, moist
			0	
12	3'/4'		0	8' - 12': Light brown fine SAND, non-cohesive, loose, moist
			0	
			0	
			0	

Notes:

1. PID Model Mini-Rae 3000 with 10.6 eV lamp.

Boring Location: Northernmost point near loading docks

Other Notes and Observations:

MS/MSD collected here



61 Commercial St, Suite 100
Rochester, NY 14614
(585) 475-1440

Test Boring No.: MW-1 (B-7)
Page: 1 of 3

Project:	820 Linden Ave. Phase II ESA	Drill Contractor:	Parratt-Wolff Inc.	Start Date:	6/21/2016
Project #:	190500898	Driller:	Glenn	Completion Date:	6/22/2016
Client:	Ridgecrest Associates	Elevation:	NM	Casing Type:	PVC
Location:	820 Linden Avenue	Weather:	80°F	Drilling Method:	Hollow Stem Auger
	Rochester, NY	Field Rep.:	Charles Yarrington		

Depth (ft. bgs)	Recovery (ft.)	Sample Depth (ft. bgs)	PID (ppm)	Soil Description and Observations
4	4'/4'		1.7	0' - 1': Asphalt and subgrade
			0	1' - 4': Brown fine SAND, non-cohesive, loose, moist
			0	
			0	
			0.5	
8	4'/4'		5.3	4' - 8': Light brown fine SAND , non-cohesive, moist
			0	
			0	
			0	
			0	
12	4'/4'		0	8' - 12': Light brown fine SAND, non-cohesive, loose, moist.
			0	
			0	
			0	
			0	
16	4'/4'		0	12' - 16': Light brown fine SAND, non-cohesive, loose, moist.
			0	
			0	
			0	
			0	
20	2'/4'		0	16' - 20': Light brown fine SAND, non-cohesive, loose, moist.
			0	
			0	
			0	
			0	
22	2'/2'		0	20' - 24': Light brown fine SAND, non-cohesive, loose, moist and becoming wet at approximately 23' bgs
			0	
24	2'/2'		0	
			0	

Notes:

1. PID Model Mini-Rae 3000 with 10.6 eV lamp.

Boring Location: Well in parking lot

Other Notes and Observations:



61 Commercial St, Suite 100
Rochester, NY 14614
(585) 475-1440

Test Boring No.: MW-1 (B-7)
Page: 2 of 3

Project:	820 Linden Ave. Phase II ESA	Drill Contractor:	Parratt-Wolff Inc.	Start Date:	6/21/2016
Project #:	190500898	Driller:	Glenn	Completion Date:	6/22/2016
Client:	Ridgecrest Associates	Elevation:	NM	Casing Type:	PVC
Location:	820 Linden Avenue	Weather:	80°F	Drilling Method:	Hollow Stem Auger
	Rochester, NY	Field Rep.:	Charles Yarrington		

Depth (ft. bgs)	Recovery (ft.)	Sample Depth (ft. bgs)	PID (ppm)	Soil Description and Observations
26	2' 1/2'		0	24' - 28': Grayish brown fine SAND, non-cohesive, loose, moist
			0	
			0	
28	2' 1/2'		0	
			0	
			0	
30	2' 1/2'		0	28' - 32': Brownish gray fine SAND , non-cohesive, loose, moist
			0	
			0	
32	2' 1/2'		0	
			0	
			0	
34	2' 1/2'		0	32' - 36': Brownish gray fine SAND , non-cohesive, loose, moist
			0	
			0	
36	2' 1/2'		0	
			0	
			0	
38	2' 1/2'		0	36' - 40': Brownish gray fine SAND , non-cohesive, loose, moist
			0	
			0	
40	2' 1/2'		0	
			0	
			0	
42	2' 1/2'		0	40' - 44': Brownish gray fine SAND , non-cohesive, loose, moist
			0	
			0	
44	2' 1/2'		0	
			0	
			0	
46	2' 1/2'		0	44' - 48': Brownish gray fine SAND , non-cohesive, loose, moist
			0	
			0	
48	2' 1/2'		0	
			0	
			0	

Notes:

1. PID Model Mini-Rae 3000 with 10.6 eV lamp.

Boring Location: Well in parking lot

Other Notes and Observations:



61 Commercial St, Suite 100
Rochester, NY 14614
(585) 475-1440

Test Boring No.: MW-1 (B-7)
Page: 3 of 3

Project:	820 Linden Ave. Phase II ESA	Drill Contractor:	Parratt-Wolff Inc.	Start Date:	6/21/2016
Project #:	190500898	Driller:	Glenn	Completion Date:	6/22/2016
Client:	Ridgecrest Associates	Elevation:	NM	Casing Type:	PVC
Location:	820 Linden Avenue	Weather:	80°F	Drilling Method:	Hollow Stem Auger
	Rochester, NY	Field Rep.:	Charles Yarrington		

Depth (ft. bgs)	Recovery (ft.)	Sample Depth (ft. bgs)	PID (ppm)	Soil Description and Observations
50	1' / 2'		0	48' - 52': Grayish brown fine SAND, non-cohesive, loose, moist
			0	
			0	
52	2' / 2'		0	
			0	
			0	
54	2' / 2'		0	52' - 56': Brownish gray fine SAND , non-cohesive, loose, moist and becoming wet at 56'
			0	
			0	
56	2' / 2'		0	
			0	
			0	
58	2' / 2'		0	56' - 60': Dark brownish gray fine SAND, non-cohesive, loose saturated
			0	
			0	
60	2' / 2'		0	
			0	
			0	
62	2' / 2'		0	60' - 64': Dark brownish gray fine SAND, non-cohesive, loose saturated
			0	
			0	
64	2' / 2'		0	
			0	
			0	
66	2' / 2'		0	64' - 68': Dark brownish gray fine SAND, non-cohesive, loose saturated
			0	
			0	
68	2' / 2'		0	
			0	
			0	
70	2' / 2'		0	68' - 70': Dark brownish gray fine SAND, non-cohesive, loose saturated
			0	End of boring @ 69.5'
			0	Portland cement: 1' - 49.5'
			0	Bentonite chips: 49.5' - 52.5'
			0	Sand: 52.5' - 69.5'
			0	Screen: 54.5' - 69.5'
			0	

Notes:

1. PID Model Mini-Rae 3000 with 10.6 eV lamp.

Boring Location: Well in parking lot

Other Notes and Observations:



61 Commercial St, Suite 100
Rochester, NY 14614
(585) 475-1440

Test Boring No.: MW-2 (B-8)
Page: 1 of 3

Project:	820 Linden Ave. Phase II ESA	Drill Contractor:	Parratt-Wolff Inc.	Start Date:	6/23/2016
Project #:	190500898	Driller:	Glenn	Completion Date:	6/24/2016
Client:	Ridgecrest Associates	Elevation:	NM	Casing Type:	PVC
Location:	820 Linden Avenue	Weather:	70°F	Drilling Method:	Hollow Stem Auger
	Rochester, NY	Field Rep.:	Charles Yarrington		

Depth (ft. bgs)	Recovery (ft.)	Sample Depth (ft. bgs)	PID (ppm)	Soil Description and Observations
4	3.5'/4'		0	0' - 1': Light brown sandy SILT trace organics, non-cohesive, loose, moist
			0.2	1' - 3.5': Light brown sandy SILT, trace clay, semi-cohesive, loose, moist
			0.6	3.5' - 4': Light brown sandy SILT and matrix suspended coarse angular GRAVEL
			1.5	
8	4'/4'		0.7	4' - 8': Light brown fine SAND and SILT , non-cohesive, loose, moist
			0	
			0	
			0	
			0	
12	2.5'/4'		0.2	8' - 12': Light brown fine SAND and SILT trace gravel at 7', non-cohesive, loose, moist
			0.5	
			0	
16	4'/4'		0.1	12' - 14': Light brown fine SAND and SILT , non-cohesive, loose, moist
			0	14' - 16': Brown to gray fine SAND, tight, non-cohesive, moist
			0	
20	4'/4'		0	16' - 20': Brown to gray fine SAND, tight, non-cohesive, moist
			0	
			0	
22	2'/2'		0	20' - 24': Brown to gray fine SAND, tight, non-cohesive, moist with perched water at 22'
0				
24	2'/2'		0	
			0	

Notes:

1. PID Model Mini-Rae 3000 with 10.6 eV lamp.

Boring Location: Well in grass near north of property

Other Notes and Observations:



61 Commercial St, Suite 100
Rochester, NY 14614
(585) 475-1440

Test Boring No.: MW-2 (B-8)
Page: 2 of 3

Project:	820 Linden Ave. Phase II ESA	Drill Contractor:	Parratt-Wolff Inc.	Start Date:	6/23/2016
Project #:	190500898	Driller:	Glenn	Completion Date:	6/24/2016
Client:	Ridgecrest Associates	Elevation:	NM	Casing Type:	PVC
Location:	820 Linden Avenue	Weather:	70°F	Drilling Method:	Hollow Stem Auger
	Rochester, NY	Field Rep.:	Charles Yarrington		

Depth (ft. bgs)	Recovery (ft.)	Sample Depth (ft. bgs)	PID (ppm)	Soil Description and Observations
26	2' 1/2'		0	24' - 28': Brownish gray fine SAND, medium tight, non-cohesive, moist.
			0	
			0	
28	2' 1/2'		0	
			0	
			0	
30	1' 1/2'		0	28' - 32': Brownish gray fine SAND, medium tight, non-cohesive, moist.
			0	
			0	
32	2' 1/2'		0	
			0	
			0	
34	2' 1/2'		0	32' - 36': Brownish gray fine SAND, medium tight, non-cohesive, moist.
			0	
			0	
36	2' 1/2'		0	
			0	
			0	
38	2' 1/2'		0	36' - 40': Brownish gray fine SAND, medium tight, non-cohesive, moist.
			0	
			0	
40	1' 1/2'		0	
			0	
			0	
42	2' 1/2'		0	40' - 44': Brownish gray fine SAND, medium tight, non-cohesive, moist.
			0	
			0	
44	2' 1/2'		0	
			0	
			0	
46	2' 1/2'		0	44' - 48': Brownish gray fine SAND, medium tight, non-cohesive, moist.
			0	
			0	
48	2' 1/2'		0	
			0	
			0	

Notes:

1. PID Model Mini-Rae 3000 with 10.6 eV lamp.

Boring Location: Well in grass near north of property

Other Notes and Observations:



61 Commercial St, Suite 100
Rochester, NY 14614
(585) 475-1440

Test Boring No.: MW-2 (B-8)
Page: 3 of 3

Project:	820 Linden Ave. Phase II ESA	Drill Contractor:	Parratt-Wolff Inc.	Start Date:	6/23/2016
Project #:	190500898	Driller:	Glenn	Completion Date:	6/24/2016
Client:	Ridgecrest Associates	Elevation:	NM	Casing Type:	PVC
Location:	820 Linden Avenue	Weather:	70°F	Drilling Method:	Hollow Stem Auger
	Rochester, NY	Field Rep.:	Charles Yarrington		

Depth (ft. bgs)	Recovery (ft.)	Sample Depth (ft. bgs)	PID (ppm)	Soil Description and Observations
50	2' / 2'		0	48' - 52': Brownish gray fine SAND, medium tight, non-cohesive, moist.
			0.2	
			0.6	
52	2' / 2'		1.5	
54	2' / 2'		0	52' - 56': Brownish gray fine SAND, medium tight, non-cohesive, moist.
			0	
			0	
56	2' / 2'		0	
			0	
58	2' / 2'		0	56' - 60': Brownish gray fine SAND, medium tight, non-cohesive, moist.
			0	
			0	
60	2' / 2'		0	
			0	
62	2' / 2'		0	60' - 64': Dark brownish gray fine SAND, non-cohesive, moist and becoming wet at 61'
			0	
			0	
64	2' / 2'		0	
			0	
66	2' / 2'		0	64' - 68': Dark brownish gray fine SAND, non-cohesive, loose, saturated
			0	
			0	
68	2' / 2'		0	
			0	
70	2' / 2'		0	68' - 72': Dark brownish gray fine SAND, non-cohesive, loose, saturated
			0	End of boring @ 73' (overdrilled bottom by 1')
			0	Portland cement: 1' - 52'
72	2' / 2'		0	Bentonite chips: 52' - 56'
			0	Sand: 56' - 73'
			0	Screen: 58' - 73'

Notes:

1. PID Model Mini-Rae 3000 with 10.6 eV lamp.

Boring Location: Well in grass near north of property

Other Notes and Observations:



61 Commercial St, Suite 100
Rochester, NY 14614
(585) 475-1440

Test Boring No.: MW-3 (B-9)
Page: 1 of 4

Project:	820 Linden Ave. Phase II ESA	Drill Contractor:	Parratt-Wolff Inc.	Start Date:	6/28/2016
Project #:	190500898	Driller:	Glenn	Completion Date:	6/30/2016
Client:	Ridgecrest Associates	Elevation:	NM	Casing Type:	PVC
Location:	820 Linden Avenue	Weather:	70°F	Drilling Method:	Hollow Stem Auger
	Rochester, NY	Field Rep.:	Charles Yarrington		

Depth (ft. bgs)	Recovery (ft.)	Sample Depth (ft. bgs)	PID (ppm)	Soil Description and Observations
4	3.5'/4'		0	0' - 2': [TOPSOIL] Brown sandy SILT trace organics, loose moist
			0	2' - 4': Light brown fine SAND, non-cohesive, loose, moist
			0	
			0	
			0	
8	4'/4'		0	4' - 5': Light brown fine SAND, non-cohesive, loose, moist
			0	5' - 8': Light brown fine SAND, non-cohesive, loose moist
			0	
			0	
			0	
12	2.5'/4'		0	8' - 10': Light brown fine SAND, non-cohesive, loose moist
			0	
			0	10' - 12': Brownish gray fine SAND, non-cohesive, tight, moist
			0	
			0	
16	4'/4'		0	12' - 16': Brownish gray fine SAND, non-cohesive, tight, moist
			0	
			0	
			0	
			0	
20	4'/4'		0	16' - 20': Brown to gray fine SAND, tight, non-cohesive, moist
			0	
			0	
			0	
			0	
25	5'/5'		0	20' - 25': Brownish gray fine SAND, non-cohesive, tight, moist
			0	
			3.5	
			0.5	

Notes:

1. PID Model Mini-Rae 3000 with 10.6 eV lamp.

Boring Location: Well in grass near middle of property

Other Notes and Observations:

Boring is angled 45 degrees to go under the building

Auger to 20' then pull auger and begin rotary fluid drilling @20'.



61 Commercial St, Suite 100
Rochester, NY 14614
(585) 475-1440

Test Boring No.: MW-3 (B-9)
Page: 2 of 4

Project:	820 Linden Ave. Phase II ESA	Drill Contractor:	Parratt-Wolff Inc.	Start Date:	6/28/2016
Project #:	190500898	Driller:	Glenn	Completion Date:	6/30/2016
Client:	Ridgecrest Associates	Elevation:	NM	Casing Type:	PVC
Location:	820 Linden Avenue	Weather:	70°F	Drilling Method:	Hollow Stem Auger
	Rochester, NY	Field Rep.:	Charles Yarrington		

Depth (ft. bgs)	Recovery (ft.)	Sample Depth (ft. bgs)	PID (ppm)	Soil Description and Observations
30	0'/5'			25' - 30': No recovery
			0	
			0	
			0	
			0	
35	5'/5'		0	30' - 35': Brownish gray fine SAND, non-cohesive, tight, moist
			3.2	
			0.3	
			0.2	
40			0	No sampling
			0	
			0	
			0	
			0	
45			0	No sampling
			0	
			0	
			0	
			0	
50			0	No sampling
			0	
			0	
			0	
			0	
55			0	No sampling
			0	
			0	
			0	
			0	

Notes:

1. PID Model Mini-Rae 3000 with 10.6 eV lamp.

Boring Location: Well in grass near middle of property

Other Notes and Observations:

Boring is angled 45 degrees to go under the building
Auger to 20' then pull auger and begin rotary fluid drilling @20'
and switch to 5' macrocores. Sampling was halted after 35'.



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Test Boring No.: MW-3 (B-9)
Page: 3 of 4

Project:	820 Linden Ave. Phase II ESA	Drill Contractor:	Parratt-Wolff Inc.	Start Date:	6/28/2016
Project #:	190500898	Driller:	Glenn	Completion Date:	6/30/2016
Client:	Ridgecrest Associates	Elevation:	NM	Casing Type:	PVC
Location:	820 Linden Avenue	Weather:	70°F	Drilling Method:	Hollow Stem Auger
	Rochester, NY	Field Rep.:	Charles Yarrington		

Depth (ft. bgs)	Recovery (ft.)	Sample Depth (ft. bgs)	PID (ppm)	Soil Description and Observations
60				No sampling
			0	
			0.2	
			0.6	
			1.5	
65				No sampling
			0	
			0	
			0	
			0	
70				No sampling
			0	
			0	
			0	
			0	
75				No sampling
			0	
			0	
			0	
			0	
80				No sampling
			0	
			0	
			0	
			0	
85				No sampling
			0	
			0	
			0	
			0	

Notes:

1. PID Model Mini-Rae 3000 with 10.6 eV lamp.

Boring Location: Well in grass near middle of property

Other Notes and Observations:

Boring is angled 45 degrees to go under the building
Auger to 20' then pull auger and begin rotary fluid drilling @20'
and switch to 5' macrocores. Sampling was halted after 35'.



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Test Boring No.: MW-3 (B-9)
Page: 4 of 4

Project:	820 Linden Ave. Phase II ESA	Drill Contractor:	Parratt-Wolff Inc.	Start Date:	6/28/2016
Project #:	190500898	Driller:	Glenn	Completion Date:	6/30/2016
Client:	Ridgecrest Associates	Elevation:	NM	Casing Type:	PVC
Location:	820 Linden Avenue	Weather:	70°F	Drilling Method:	Hollow Stem Auger
	Rochester, NY	Field Rep.:	Charles Yarrington		

Depth (ft. bgs)	Recovery (ft.)	Sample Depth (ft. bgs)	PID (ppm)	Soil Description and Observations
90	3'/5'		0	85' - 86': Dark brownish gray fine SAND, non-cohesive, tight moist
			0	86' - 90': Dark brownish gray fine SAND, non-cohesive, tight, saturated.
			0	
			0	
			0	
95			0	No sampling
			0	
			0	
			0	
			0	
100			0	No sampling
			0	
			0	
			0	
			0	
				EOB @ 100' (rod length)
				Grout: 1' - 75'
				Bentonite chips: 75' - 78'
				Sand: 78' - 100'
				Screen: 80' - 100'

Notes:

1. PID Model Mini-Rae 3000 with 10.6 eV lamp.

Boring Location: Well in grass near middle of property

Other Notes and Observations:

Boring is angled 45 degrees to go under the building
Auger to 20' then pull auger and begin rotary fluid drilling @20'
and switch to 5' macrocores. Sampling was halted after 35'.



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Test Boring No.: B-10
Page: 1 of 1

Project:	820 Linden Ave. Phase II ESA	Drill Contractor:	Parratt-Wolff Inc.	Start Date:	7/5/2016
Project #:	190500898	Driller:	Glenn	Completion Date:	7/5/2016
Client:	Ridgecrest Associates	Elevation:	NM	Casing Type:	NA
Location:	820 Linden Avenue	Weather:	75°F	Drilling Method:	Direct Push
	Rochester, NY	Field Rep.:	Charles Yarrington		

Depth (ft. bgs)	Recovery (ft.)	Sample Depth (ft. bgs)	PID (ppm)	Soil Description and Observations
4	3'4'		5.5	0' - 5": Concrete
			5.5	5" - 7": Dark brown SAND and GRAVEL, non-cohesive, moist
			5.5	7" - 4': Light brown fine SAND, non-cohesive, tight dry
			5.5	
			5.2	
8	4'4'		5.3	4' - 7': Light brown fine SAND, staining at ~7', non-cohesive, tight, dry
			5.4	7' - 10': Light brown fine SAND, non-cohesive, tight dry
			5.2	
			5.5	
12	4'4'		5	10' - 12': Light brown fine SAND, non-cohesive, tight dry
			4.8	

Notes:

1. PID Model Mini-Rae 3000 with 10.6 eV lamp.

Boring Location: East side of building hall east of SV point

Other Notes and Observations:

Background PID of 5.5



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Test Boring No.: B-11
Page: 1 of 1

Project:	820 Linden Ave. Phase II ESA	Drill Contractor:	Parratt-Wolff Inc.	Start Date:	7/5/2016
Project #:	190500898	Driller:	Glenn	Completion Date:	7/5/2016
Client:	Ridgecrest Associates	Elevation:	NM	Casing Type:	NA
Location:	820 Linden Avenue	Weather:	75°F	Drilling Method:	Direct Push
	Rochester, NY	Field Rep.:	Charles Yarrington		

Depth (ft. bgs)	Recovery (ft.)	Sample Depth (ft. bgs)	PID (ppm)	Soil Description and Observations
4	3'4'		4.3	0' - 5": Concrete
			4.1	5" - 11": Dark brown SAND and GRAVEL, non-cohesive, moist
			4.1	11" - 4': Light brownish tan fine SAND, non-cohesive, tight dry
			4.2	
8	4'4'		3.3	4' - 8': Light brownish tan fine SAND, non-cohesive, tight dry
			4.8	
			4.7	
			4.3	
12	4'4'		6.4	8' - 12': Light brownish tan fine SAND, non-cohesive, tight dry
			4.6	
			5.1	
			5	

Notes:

1. PID Model Mini-Rae 3000 with 10.6 eV lamp.

Boring Location: NW corner near wash sink east of SV point

Other Notes and Observations:

Background PID of 5.2



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Test Boring No.: B-12
Page: 1 of 1

Project:	820 Linden Ave. Phase II ESA	Drill Contractor:	Parratt-Wolff Inc.	Start Date:	7/5/2016
Project #:	190500898	Driller:	Glenn	Completion Date:	7/5/2016
Client:	Ridgecrest Associates	Elevation:	NM	Casing Type:	NA
Location:	820 Linden Avenue	Weather:	75°F	Drilling Method:	Direct Push
	Rochester, NY	Field Rep.:	Charles Yarrington		

Depth (ft. bgs)	Recovery (ft.)	Sample Depth (ft. bgs)	PID (ppm)	Soil Description and Observations
4	3'4'			0' - 5": Concrete
			6.3	
			6.4	5" - 6": Dark brown SAND and GRAVEL, non-cohesive, wet
			6.3	6" - 4': Light brown fine SAND, non-cohesive, loose, dry
			6.4	
8	4'4'		5.4	4' - 6': Light brown fine SAND, non-cohesive, loose, dry
			5.7	6' - 7': Light brown fine SAND, non-cohesive, tight, dry
			6.4	7' - 8': Brownish gray fine SAND, non-cohesive, very tight, moist
			6.1	
12	4'4'		6.5	8' - 12': Brownish gray fine SAND, non-cohesive, very tight, moist
			6.2	
			6.1	
			6	

Notes:

1. PID Model Mini-Rae 3000 with 10.6 eV lamp.

Boring Location: Near column 14 east of SV point

Other Notes and Observations:

Background PID of 6-7



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Test Boring No.: B-13
Page: 1 of 1

Project:	820 Linden Ave. Phase II ESA	Drill Contractor:	Parratt-Wolff Inc.	Start Date:	7/5/2016
Project #:	190500898	Driller:	Glenn	Completion Date:	7/5/2016
Client:	Ridgecrest Associates	Elevation:	NM	Casing Type:	NA
Location:	820 Linden Avenue	Weather:	75°F	Drilling Method:	Direct Push
	Rochester, NY	Field Rep.:	Charles Yarrington		

Depth (ft. bgs)	Recovery (ft.)	Sample Depth (ft. bgs)	PID (ppm)	Soil Description and Observations
4	3'4'			0' - 5": Concrete
			6.3	
			6.4	5" - 4': [FILL] Mixture of SAND and GRAVEL, various colors including white, gray, black, and brown, chemical odor
			6.3	
8	2'4'		6.4	
			5.4	4' - 8': [FILL] Mixture of SAND and GRAVEL, various colors including white, gray, black, and brown, chemical odor
			5.7	
12	4'4'		6.4	
			6.1	
			6.5	8' - 9.5': [FILL] Mixture of SAND and GRAVEL, various colors including white, gray, black, and brown, chemical odor
			6.2	
			6.1	9.5' - 12': [NATIVE] Light brown fine SAND, non-cohesive, tight, moist
			6	

Notes:

1. PID Model Mini-Rae 3000 with 10.6 eV lamp.

Boring Location: Near column 18 east of SV point

Other Notes and Observations:

Background PID of 4.8



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Test Boring No.: MW-5 (B-14)
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Project:	820 Linden Ave. Phase II ESA	Drill Contractor:	Parratt-Wolff Inc.	Start Date:	9/13/2016
Project #:	190500898	Driller:	Rick/Wayne	Completion Date:	9/14/2016
Client:	Ridgecrest Associates	Elevation:	NM	Casing Type:	PVC
Location:	820 Linden Avenue	Weather:	75°F	Drilling Method:	Fluid rotary
	Rochester, NY	Field Rep.:	Charles Yarrington		

Depth (ft. bgs)	Recovery (ft.)	Sample Depth (ft. bgs)	PID (ppm)	Soil Description and Observations
5	5'/5'	3'-4'	0	0-2': Brown silty SAND, trace organic matter, non-cohesive, loose, moist.
			0	2' - 5': Light brown fine SAND, loose, non-cohesive, moist
			0	
			0	
			0	
9	2'/4'		0	5' - 9': Light brown fine SAND, loose, non-cohesive, moist
			0	
			0	
			0	
			0	
13	3.5'/4'		0	9' - 13': Light brown fine SAND, loose, non-cohesive, moist
			0	
			0	
			0	
			0	
16	2.5'/3'		0	13' - 16': Light brown fine SAND, semi-tight, non-cohesive, moist.
			0	
			0	
			0	
			0	
20	3.5'/4'		0	16' - 20': Light brown fine SAND, semi-tight, non-cohesive, moist.
			0	
			0	
			0	
			0	
24	3'/4'		0	20' - 24': Light brown fine SAND, semi-tight, non-cohesive, moist.
			0	
			0	
			0	
			0	

Notes:

1. PID Model Mini-Rae 3000 with 10.6 eV lamp.

Boring Location: North side of building

Other Notes and Observations:

Samples were labeled as B-10, but should be B-14 in the report.



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Test Boring No.: MW-5 (B-14)
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Project:	820 Linden Ave. Phase II ESA	Drill Contractor:	Parratt-Wolff Inc.	Start Date:	9/13/2016
Project #:	190500898	Driller:	Rick/Wayne	Completion Date:	9/14/2016
Client:	Ridgecrest Associates	Elevation:	NM	Casing Type:	PVC
Location:	820 Linden Avenue	Weather:	75°F	Drilling Method:	Fluid rotary
	Rochester, NY	Field Rep.:	Charles Yarrington		

Depth (ft. bgs)	Recovery (ft.)	Sample Depth (ft. bgs)	PID (ppm)	Soil Description and Observations
28	3'/4'		0	24' - 28': Light brown fine SAND, semi-tight, non-cohesive, moist.
			0	
			0	
			0	
32	3'/4'		0	28' - 32': Light tannish brown fine SAND, medium tight, non-cohesive, moist.
			0	
			0	
			0	
36	3'/4'		0	32' - 36': Light tannish brown fine SAND, medium tight, non-cohesive, moist.
			0	
			0	
			0	
40	3'/4'		0	36' - 40': Light tannish brown fine SAND, medium tight, non-cohesive, moist.
			0	
			0	
			0	
44	3'/4'		0	40' - 44': Light brown fine SAND, semi-tight, non-cohesive, moist.
			0	
			0	
			0	
48	0.5'/4'		0	44' - 48': Light tannish brown fine SAND, medium tight, non-cohesive, moist.
			0	
			0	
			0	

Notes:

1. PID Model Mini-Rae 3000 with 10.6 eV lamp.

Boring Location: North side of building

Other Notes and Observations:

Samples were labeled as B-10, but should be B-14 in the report.



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Test Boring No.: MW-5 (B-14)
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Project:	820 Linden Ave. Phase II ESA	Drill Contractor:	Parratt-Wolff Inc.	Start Date:	9/13/2016
Project #:	190500898	Driller:	Rick/Wayne	Completion Date:	9/14/2016
Client:	Ridgecrest Associates	Elevation:	NM	Casing Type:	PVC
Location:	820 Linden Avenue	Weather:	75°F	Drilling Method:	Fluid rotary
	Rochester, NY	Field Rep.:	Charles Yarrington		

Depth (ft. bgs)	Recovery (ft.)	Sample Depth (ft. bgs)	PID (ppm)	Soil Description and Observations
52	3'4'		0	48' - 52': Light brown fine SAND, semi-tight, non-cohesive, moist.
			0	
			0	
			0	
56	2.5'4'		0	52' - 56': Light tannish brown fine SAND, medium tight, non-cohesive, moist.
			0	
			0	
			0	
60	3'4'		0	56' - 60': Light brown fine SAND, tight, non-cohesive, very moist.
			0	
			0	
			0	
64	3'4'		0	60' - 64': Light brown fine SAND, tight, non-cohesive, very moist and becoming wet at approximately 64' bgs.
			0	
			0	
			0	
68	2'4'		0	64'-68': Light brown fine SAND, tight, non-cohesive, very moist.
			0	
			0	
			0	
72	2'4'		0	68'-72': Light brown fine SAND, tight, non-cohesive, very moist.
			0	End of boring @ 72' bgs.
			0	Grout: 0.5' - 58'
			0	Riser: 0.5' - 62'
			0	Bentonite: 58' - 60'
			0	Sand: 60' - 72'
			0	Screen: 62' - 72'

Notes:

1. PID Model Mini-Rae 3000 with 10.6 eV lamp.

Boring Location: North side of building

Other Notes and Observations:

Samples were labeled as B-10, but should be B-14 in the report.



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Test Boring No.: B-11D
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Project:	820 Linden Ave. Phase II ESA	Drill Contractor:	Parratt-Wolff Inc.	Start Date:	1/12/2017
Project #:	190500898	Driller:	W. Nielson	Completion Date:	1/12/2017
Client:	Ridgecrest Associates	Elevation:	NM	Drilling Method:	Direct Push (Geoprobe 6712DT)
Location:	820 Linden Avenue Rochester, NY	Weather:	Indoors	Supervisor:	L. Best

0	SAMPLE				Depth of Strata Change (ft)	Material Description and Remarks
	PID (ppm)	No.	Rec. (ft)	Depth (ft)		
		1	3.5	0	0.4	CONCRETE
	1.2				1.0	Brown fine to coarse SAND AND fine to medium GRAVEL, dry - FILL -
	1.1					Light brown fine to medium SAND, little silt and clay, dry
	1.4				3.0	
				4		Light brown fine uniform SAND, little silt and clay, loose, dry
	2.1					
	0.7	2	3.0			
	1.0					
	0.7					
				8		
	0.5	3	3.5		8.6	
	0.2					Light grayish brown fine to medium SAND, little silt and clay, tighter pack, dry
	0.6					
	0.8					
				12		Same lithology
	0.9	4	3.5			
	0.5					
	0.9					
	0.8					
				16		Same lithology
	0.7	5	3.9			
	0.5					
	0.3					
	0.4					
20				20		

Notes:

1. PID Model Mini-Rae 3000 with 10.6eV lamp.



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Test Boring No.: B-11D
Page: 2 of 4

Project:	820 Linden Ave. Phase II ESA	Drill Contractor:	Parratt-Wolff Inc.	Start Date:	1/12/2017
Project #:	190500898	Driller:	W. Nielson	Completion Date:	1/12/2017
Client:	Ridgecrest Associates	Elevation:	NM	Drilling Method:	Direct Push (Geoprobe 6712DT)
Location:	820 Linden Avenue Rochester, NY	Weather:	Indoors	Supervisor:	L. Best

	SAMPLE				Depth of Strata Change (ft)	Material Description and Remarks
	PID (ppm)	No.	Rec. (ft)	Depth (ft)		
20	1.7	6	4.0	20	20.0	Light brown to brown fine SAND, little silt and clay, dry
	1.0					
	0.8					
	0.5					
				24		
	0.6	7	3.5		24.5	Light grayish brown fine to medium SAND, little silt and clay, tighter pack, dry
25	0.7					
	0.4					
	1.1					
				28		
	1.4	8	3.5			Same lithology
	1.1					
30	0.9					
	0.4					
				32		
	0.7	9	4.0			Same lithology
	0.7					
	1.1					
35	1.1					
				36		
	1.2	10	3.0			Same lithology
	0.9					
	0.6					
	1.0					
40				40		

Notes:

1. PID Model Mini-Rae 3000 with 10.6eV lamp.



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Test Boring No.: B-11D
Page: 3 of 4

Project:	820 Linden Ave. Phase II ESA	Drill Contractor:	Parratt-Wolff Inc.	Start Date:	1/12/2017
Project #:	190500898	Driller:	W. Nielson	Completion Date:	1/12/2017
Client:	Ridgecrest Associates	Elevation:	NM	Drilling Method:	Direct Push (Geoprobe 6712DT)
Location:	820 Linden Avenue Rochester, NY	Weather:	Indoors	Supervisor:	L. Best

	SAMPLE				Depth of Strata Change (ft)	Material Description and Remarks
	PID (ppm)	No.	Rec. (ft)	Depth (ft)		
40	1.6	11	3.8	40		Same lithology
	1.2					
	1.1					
	1.1					
	1.0	12	3.9	44		Same lithology
45	0.5					Little tan coarse sand and trace fine to medium gravel (46.0 - 46.8')
	1.0					
	2.2					
	0.9	13	3.7	48		Same lithology
	0.6					
50	0.9					
	1.4					
	0.7	14	3.7	52		Same lithology
	1.2					
	0.5					
55	0.5					
	1.6	15	4.0	56		Light grayish brown fine to medium SAND, little tan coarse sand and silt and clay, dry
	0.7					Increasing lightness and pack tightness
	0.5					
	0.4					
60				60		Moist at 60'

Notes:

1. PID Model Mini-Rae 3000 with 10.6eV lamp.



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Test Boring No.: B-11D
Page: 4 of 4

Project: 820 Linden Ave. Phase II ESA
Project #: 190500898
Client: Ridgecrest Associates
Location: 820 Linden Avenue
Rochester, NY

Drill Contractor: Parratt-Wolff Inc.
Driller: W. Nielson
Elevation: NM
Weather: Indoors

Start Date: 1/12/2017
Completion Date: 1/12/2017
Drilling Method: Direct Push (Geoprobe 6712DT)
Supervisor: L. Best

	SAMPLE				Depth of Strata Change (ft)	Material Description and Remarks
	PID (ppm)	No.	Rec. (ft)	Depth (ft)		
60	2.2	16	3.9	60	▼ 66.1	Brown fine to coarse SAND ("beach sand"), little tan medium to coarse sand, moist
	0.7					
	0.8					
	0.5					
				64		
	0.8	17	4.0			Trace fine to medium gravel (64-66.1')
65	0.3					
	0.5					Brown fine SAND AND SILT, little clay, cohesive, wet
	0.5					
				68		Some fine to medium sand (67.3-68')
						End boring at 68'
70						
75						
80						

Notes:

1. PID Model Mini-Rae 3000 with 10.6eV lamp.



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Test Boring No.: **B-12D**
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Project:	820 Linden Ave. Phase II ESA	Drill Contractor:	Parratt-Wolff Inc.	Start Date:	1/11/2017
Project #:	190500898	Driller:	W. Nielson	Completion Date:	1/11/2017
Client:	Ridgecrest Associates	Elevation:	NM	Drilling Method:	Direct Push (Geoprobe 6712DT)
Location:	820 Linden Avenue Rochester, NY	Weather:	Indoors	Supervisor:	L. Best

0	SAMPLE				Depth of Strata Change (ft)	Material Description and Remarks
	PID (ppm)	No.	Rec. (ft)	Depth (ft)		
		1	3.1	0	0.6	CONCRETE
	4.1				0.8	Light and dark brown fine to medium SAND AND GRAVEL, loose, uncohesive, dry
						Light brown fine to medium SAND, few silt and coarse sand, dry
	9.7					Increasing tightness
	8.2					- FILL -
5				4	4.0	
	13.1	2	3.8			Brown fine SAND, some silt, few clay, dry
	5.2				5.5	
						Light grayish brown fine to medium SAND, few silt and coarse sand, dry
	8.3					- NATIVE SOIL -
10				8	8.0	
	8.1					Light grayish brown fine to medium SAND, few silt, dry
	9.9	3	4.0			
	9.9					Increasing tightness
	7.9					
15				12		Same lithology
	9.3					
	7.2	4	3.8			
	6.4					
	6.1					
20				16		Same lithology
	7.1					
	6.7					
	6.7	5	3.6			
	3.5				18.3	
20						Brown SILT AND CLAY, trace coarse sand and fine gravel, "spongy", moist
	2.9				19.6	
	4.9			20		Light brown fine to medium SAND, few silt and coarse sand, dry

Notes:

1. PID Model Mini-Rae 3000 with 10.6eV lamp.



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Test Boring No.: B-12D
Page: 2 of 4

Project:	820 Linden Ave. Phase II ESA	Drill Contractor:	Parratt-Wolff Inc.	Start Date:	1/11/2017
Project #:	190500898	Driller:	W. Nielson	Completion Date:	1/11/2017
Client:	Ridgecrest Associates	Elevation:	NM	Drilling Method:	Direct Push (Geoprobe 6712DT)
Location:	820 Linden Avenue Rochester, NY	Weather:	Indoors	Supervisor:	L. Best

	SAMPLE				Depth of Strata Change (ft)	Material Description and Remarks
	PID (ppm)	No.	Rec. (ft)	Depth (ft)		
20	8.5	6	3.7	20	20.0	Light grayish brown fine to medium SAND, few silt and tan coarse sand, tight pack, dry
	2.8					
	2.8					
				24		
	2.8	7	3.9			
25	5.7					Same lithology
	2.0					
	3.5			28		
	9.0	8	3.8			
	1.4					Same lithology
30	2.0					
	4.8			32		
	7.9	9	3.7			
	1.5					Same lithology
	2.4					
35						
	2.7			36		
	3.9	10	3.8			
	2.3					Same lithology
	3.9					
40	3.2			40		

Notes:

1. PID Model Mini-Rae 3000 with 10.6eV lamp.



61 Commercial St, Suite 100
Rochester, NY 14614
(585) 475-1440

Test Boring No.: B-12D
Page: 3 of 4

Project:	820 Linden Ave. Phase II ESA	Drill Contractor:	Parratt-Wolff Inc.	Start Date:	1/11/2017
Project #:	190500898	Driller:	W. Nielson	Completion Date:	1/11/2017
Client:	Ridgecrest Associates	Elevation:	NM	Drilling Method:	Direct Push (Geoprobe 6712DT)
Location:	820 Linden Avenue Rochester, NY	Weather:	Indoors	Supervisor:	L. Best

	SAMPLE				Depth of Strata Change (ft)	Material Description and Remarks
	PID (ppm)	No.	Rec. (ft)	Depth (ft)		
40	4.2	11	2.3	40		Same lithology
	2.5					Minor orange (possibly iron oxide) staining (40.9 - 41.4')
	3.4					
				44		Same lithology
45	1.8	12	3.9			
	1.1					
	1.0					Minor orange (possibly iron oxide) staining (46.4 - 46.8')
	1.3			48		Same lithology
	0.9	13	3.4			
	1.1					
50						
	1.5					
	0.8					
				52		Same lithology
		14	3.1			
	2.5					
	0.8					
55						
	0.6					
	0.9			56	56.0	Light brown to brown fine to coarse SAND, little silt and clay, moist
		15	3.9			
	1.0					
	1.0					
					58.4	Brown medium to coarse SAND, some fine to medium tan sand, little silt, moist
	0.6					
	0.4					Increasing moisture content
60				60	▼	Wet at 60'

Notes:

1. PID Model Mini-Rae 3000 with 10.6eV lamp.



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Test Boring No.: B-12D
Page: 4 of 4

Project: 820 Linden Ave. Phase II ESA
Project #: 190500898
Client: Ridgecrest Associates
Location: 820 Linden Avenue
Rochester, NY

Drill Contractor: Parratt-Wolff Inc.
Driller: W. Nielson
Elevation: NM
Weather: Indoors

Start Date: 1/11/2017
Completion Date: 1/11/2017
Drilling Method: Direct Push (Geoprobe 6712DT)
Supervisor: L. Best

	SAMPLE				Depth of Strata Change (ft)	Material Description and Remarks
	PID (ppm)	No.	Rec. (ft)	Depth (ft)		
60	0.7	16	4.0	60		Same lithology, wet
	0.5					
	0.4					
	0.5					
				64		
						End boring at 64'
65						
70						
75						
80						

Notes:

1. PID Model Mini-Rae 3000 with 10.6eV lamp.



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Test Boring No.: **B-13D**
Page: **1 of 3**

Project:	820 Linden Ave. Phase II ESA	Drill Contractor:	Parratt-Wolff Inc.	Start Date:	1/11/2017
Project #:	190500898	Driller:	W. Nielson	Completion Date:	1/12/2017
Client:	Ridgecrest Associates	Elevation:	NM	Drilling Method:	Direct Push (Geoprobe 6712DT)
Location:	820 Linden Avenue Rochester, NY	Weather:	Indoors	Supervisor:	L. Best

0	SAMPLE				Depth of Strata Change (ft)	Material Description and Remarks
	PID (ppm)	No.	Rec. (ft)	Depth (ft)		
	1.6	1	1.6	0	0.5	CONCRETE
					1.1	Brown and gray fine to coarse SAND AND GRAVEL, trace brick, loose, dry
	1.1				1.5	Gray COBBLES, pulverized, dry - FILL -
				4		No recovery
5		2	0.0			
				8	8.0	
		3	3.3			Light grayish brown fine to medium SAND, little silt, trace clay, cohesive, dry
	1.5					
10	1.7					
	0.5					
	1.3			12		
	1.8	4	4.0			Same lithology
	1.1					
	1.0					
15	1.0					
				16	16.0	
	0.9	5	3.0			Light grayish brown fine to medium SAND, little silt, trace clay and tan coarse sand, cohesive, dry
	1.3					
	1.3					
	0.7					
20				20		

Notes:

1. PID Model Mini-Rae 3000 with 10.6eV lamp.



61 Commercial St, Suite 100
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Test Boring No.: **B-13D**
Page: **2 of 3**

Project:	820 Linden Ave. Phase II ESA	Drill Contractor:	Parratt-Wolff Inc.	Start Date:	1/11/2017
Project #:	190500898	Driller:	W. Nielson	Completion Date:	1/12/2017
Client:	Ridgecrest Associates	Elevation:	NM	Drilling Method:	Direct Push (Geoprobe 6712DT)
Location:	820 Linden Avenue Rochester, NY	Weather:	Indoors	Supervisor:	L. Best

	SAMPLE				Depth of Strata Change (ft)	Material Description and Remarks
	PID (ppm)	No.	Rec. (ft)	Depth (ft)		
20	0.3	6	3.7	20	20.0	Brown fine SAND AND SILT, little clay, few medium to coarse gravel, wet
	0.6				21.1	Brown SILT AND CLAY, trace fine gravel, "spongy", moist
	0.7				21.7	Light grayish brown fine to medium SAND, little silt, trace clay and tan coarse sand, tight, dry
	0.9					
	0.9					
	0.7	7	4.0	24		Same lithology
25	0.4					
	0.5					
	0.9					
				28	28.0	
	0.2	8	3.8			Light grayish brown fine to medium SAND, little silt, trace clay and tan coarse sand, tight, hard (slow drilling), dry
	0.6					
30	4.6					
	0.7					
				32	32.0	
	2.6	9	3.8			Light grayish brown fine to medium SAND, some dark brown to black sand intermixed 32.0-32.4'), little silt, trace clay and tan coarse sand, tight, dry
	1.1					
	1.1					
35	1.3					
				36	36.0	
	1.4	10	3.5			Light grayish brown fine to medium SAND, little silt, trace clay and tan coarse sand, tight, dry
	1.1					
	1.1					
	1.0					
40				40		

Notes:

1. PID Model Mini-Rae 3000 with 10.6eV lamp.



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Test Boring No.: **B-13D**
Page: **3 of 3**

Project:	820 Linden Ave. Phase II ESA	Drill Contractor:	Parratt-Wolff Inc.	Start Date:	1/11/2017
Project #:	190500898	Driller:	W. Nielson	Completion Date:	1/12/2017
Client:	Ridgecrest Associates	Elevation:	NM	Drilling Method:	Direct Push (Geoprobe 6712DT)
Location:	820 Linden Avenue Rochester, NY	Weather:	Indoors	Supervisor:	L. Best

	SAMPLE				Depth of Strata Change (ft)	Material Description and Remarks
	PID (ppm)	No.	Rec. (ft)	Depth (ft)		
40	2.5	11	3.5	40		Same lithology
	0.8					
	0.7					
	0.9					
	6.0	12	0.8	44		
45	0.2					Same lithology
				48	48.0	
	6.4	13	1.5			Light grayish brown fine to medium SAND, little silt, trace clay and tan coarse sand, tight, faint chemical odor (48.0 - 48.5'), dry
	2.4					
50						
				52	52.0	
	5.7	14	3.9			Light grayish brown fine to medium SAND, with increasing coarsening sand component little silt, trace clay and tan coarse sand, tight, dry
	3.0					
	1.6					
55	1.1				55.3	Brown fine to coarse SAND ("beach sand"), little silt and tan coarse sand, wet
	0.9	15	3.8			
	0.2					Same lithology
	0.6					
	0.8					
60				60		Lighter brown sand at 59'
						End boring at 60'

Notes:

1. PID Model Mini-Rae 3000 with 10.6eV lamp.



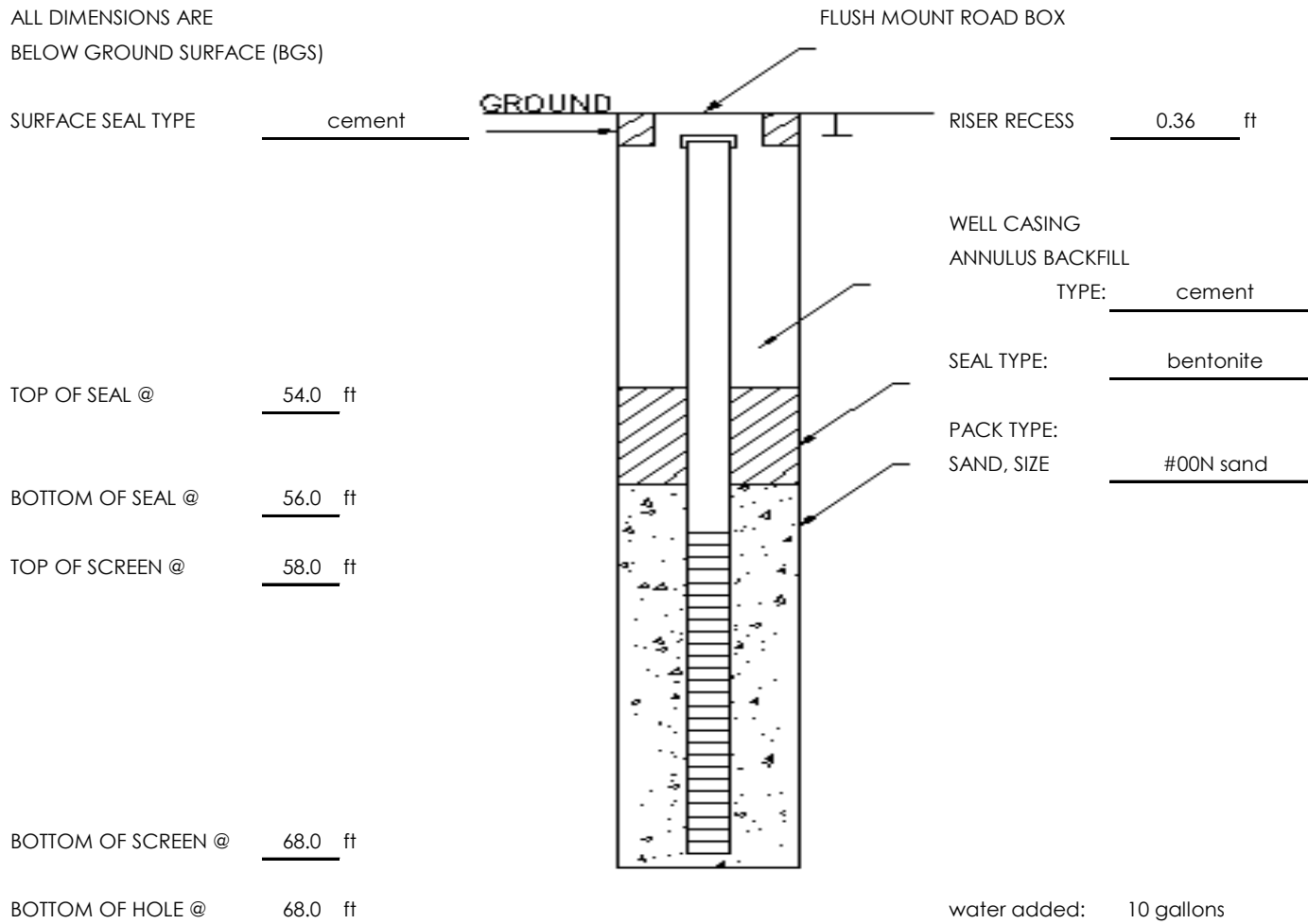
OVERBURDEN MONITORING WELL
DESIGN DETAILS

PROJECT NAME 820 Linden Ave RI
PROJECT NUMBER 190500898
CLIENT Ridgecrest Associates
LOCATION 820 Linden Avenue
Pittsford, NY

HOLE DESIGNATION **B/MW-101**
DATE COMPLETED 7/25/2018
DRILLING METHOD Hollow Stem Auger
SUPERVISOR L. Best

NOTE:

ALL DIMENSIONS ARE
BELOW GROUND SURFACE (BGS)



SCREEN TYPE: CONTINUOUS SLOT ☒ PERFORATED ☐ LOUVRE ☐ OTHER ☐

SCREEN MATERIAL: STAINLESS STEEL ☐ PVC ☒ OTHER ☐

SCREEN LENGTH: 10 ft SCREEN DIAMETER: 2 in SCREEN SLOT SIZE: 0.010

WELL CASING MATERIAL: PVC WELL CASING DIAMETER: 2 in

AUGER DIAMETER [inner]: 4 1/4 in

HOLE DIAMETER: 8 in



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(585) 475-1440

Test Boring No.: B/MW-101
Page: 1 of 4

Project:	820 Linden Ave RI	Drill Contractor:	Nothnagle	Start Date:	7/25/2018
Project #:	190500898	Driller:	Neal Short	Completion Date:	7/25/2018
Client:	Ridgecrest Associates	Elevation:	NM	Drilling Method:	Direct Push with Macrocore
Location:	820 Linden Avenue	Weather:	70s-80s, humid, over-cast, intermittent rain	Supervisor:	L. Best
	Pittsford, NY				

0	SAMPLE				Depth of Strata Change (ft)	Material Description and Remarks
	PID (ppm)	No.	Rec. (ft)	Depth (ft)		
		1	3.1	0	0.4	ASPHALT
	0.0				0.8	Gray and brown SAND AND GRAVEL, loose, dry - FILL -
	0.0				1.4	Orangish brown fine to medium SAND, little fine to medium gravel, dry
						Light brown fine to medium SAND, little silt and coarse sand, dry, no odor
	0.0			4		
						- NATIVE SOIL -
	0.0	2	2.9			
5					6.5	
	0.0					Brown SILT AND CLAY, little fine sand, soft and cohesive, moist, no odor
	0.0			8		
	0.0	3	3.4			
	0.0				10.0	
10						Light brown fine to medium SAND, little silt, dry
	0.0			12		
	0.0	4	3.0		12.5	
	0.0				13.0	Reddish brown SILT AND CLAY, little fine to medium SAND, moist
	0.0					Light brown fine SAND, some silt, little medium sand, trace clay, dry
15				15		
	0.0	5	2.7		16.0	
	0.0				17.0	Light brown fine to medium SAND, little silt and clay, dry
	0.0				17.5	Reddish brown CLAY, little silt and fine sand, soft, wet, no odor
				19		Light brown fine SAND, some silt, little medium sand, dry
		6	3.2			
20	0.0					

Notes:

1. PID Model MiniRAE 3000 with 10.6eV lamp.



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(585) 475-1440

Test Boring No.: B/MW-101
Page: 2 of 4

Project:	820 Linden Ave RI	Drill Contractor:	Nothnagle	Start Date:	7/25/2018
Project #:	190500898	Driller:	Neal Short	Completion Date:	7/25/2018
Client:	Ridgecrest Associates	Elevation:	NM	Drilling Method:	Direct Push with Macrocore
Location:	820 Linden Avenue	Weather:	70s-80s, humid, over-cast, intermittent rain	Supervisor:	L. Best
	Pittsford, NY				

	SAMPLE				Depth of Strata Change (ft)	Material Description and Remarks
	PID (ppm)	No.	Rec. (ft)	Depth (ft)		
20						
						Same as above, with trace fine to medium gravel 20-21'
	0.0					
	0.0					
				23		
		7	3.3			
	0.0					
25	0.0				25.0	
	0.0					Light brown fine to medium SAND, little silt and coarse tan and white sand, trace clay, dry
	0.0					
	0.0			27		
		8	2.4			
	0.0					
	0.0					
30	0.0			30		
		9	3.0			Same, with increasing denseness
	0.0					
	0.0					
	0.0					
	0.0					
	0.0			34		
		10	3.2			
35	0.0					
					35.5	Fine to medium gravel lens 35.4-35.5'
	0.0					Brown CLAY, little silt and fine sand, soft, cohesive, wet
					36.5	Fine to medium gravel lens 36.4-36.5'
	0.0				37.0	Brown SILT AND CLAY, little fine sand, hard, moist
						Light brown fine SAND, some silt and medium sand, trace clay, dry
				38	38.0	
	0.0	11	3.5			Lighter brown fine to medium SAND, little silt and coarse tan and white sand, loose, dry
	0.0					
40						

Notes:

- PID Model MiniRAE 3000 with 10.6eV lamp.



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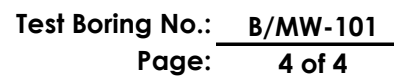
Test Boring No.: B/MW-101
Page: 3 of 4

Project:	820 Linden Ave RI	Drill Contractor:	Nothnagle	Start Date:	7/25/2018
Project #:	190500898	Driller:	Neal Short	Completion Date:	7/25/2018
Client:	Ridgecrest Associates	Elevation:	NM	Drilling Method:	Direct Push with Macrocore
Location:	820 Linden Avenue	Weather:	70s-80s, humid, over-cast, intermittent rain	Supervisor:	L. Best
	Pittsford, NY				

	SAMPLE				Depth of Strata Change (ft)	Material Description and Remarks
	PID (ppm)	No.	Rec. (ft)	Depth (ft)		
40	0.0					
	0.0			42		
	0.0	12	2.4			
	0.0				44.0	
	0.0					
45				45	45.0	Light brown fine SAND, little silt and medium sand, trace clay, more dense, dry
		13	3.1			Light brown fine to medium SAND, little silt, trace clay, loose, non-cohesive, dry
	0.0					
	0.0					
	0.0					
				49		
	0.0	14	3.1			
50						
	0.0				51.0	
	0.0					Light brown fine to medium SAND, little silt and clay, increasing cohesion and denseness, trace intermittent orange coloration (possibly iron oxide), dry
				53		
	0.0	15	3.4			
	0.0					
55						
	0.0					
	0.0					
	0.0					
		16	2.4			
	0.0					
	0.0					
					▼ 59.5	
60	0.8			60		Brown fine to medium SAND, little silt, trace clay, wet, no odor

Notes:

- PID Model MiniRAE 3000 with 10.6eV lamp.



Project:	820 Linden Ave RI	Drill Contractor:	Nothnagle	Start Date:	7/25/2018
Project #:	190500898	Driller:	Neal Short	Completion Date:	7/25/2018
Client:	Ridgecrest Associates	Elevation:	NM	Drilling Method:	Direct Push with Macrocore
Location:	820 Linden Avenue Pittsford, NY	Weather:	70s-80s, humid, over- cast, intermittent rain	Supervisor:	L. Best

[illegible]

Notes:

1. PID Model MiniRAE 3000 with 10.6eV lamp.
2. Macrocore Sample 18 from 64-68' could not be extracted from rod. The soil contents were instead poured out of sleeve for observations and screening.



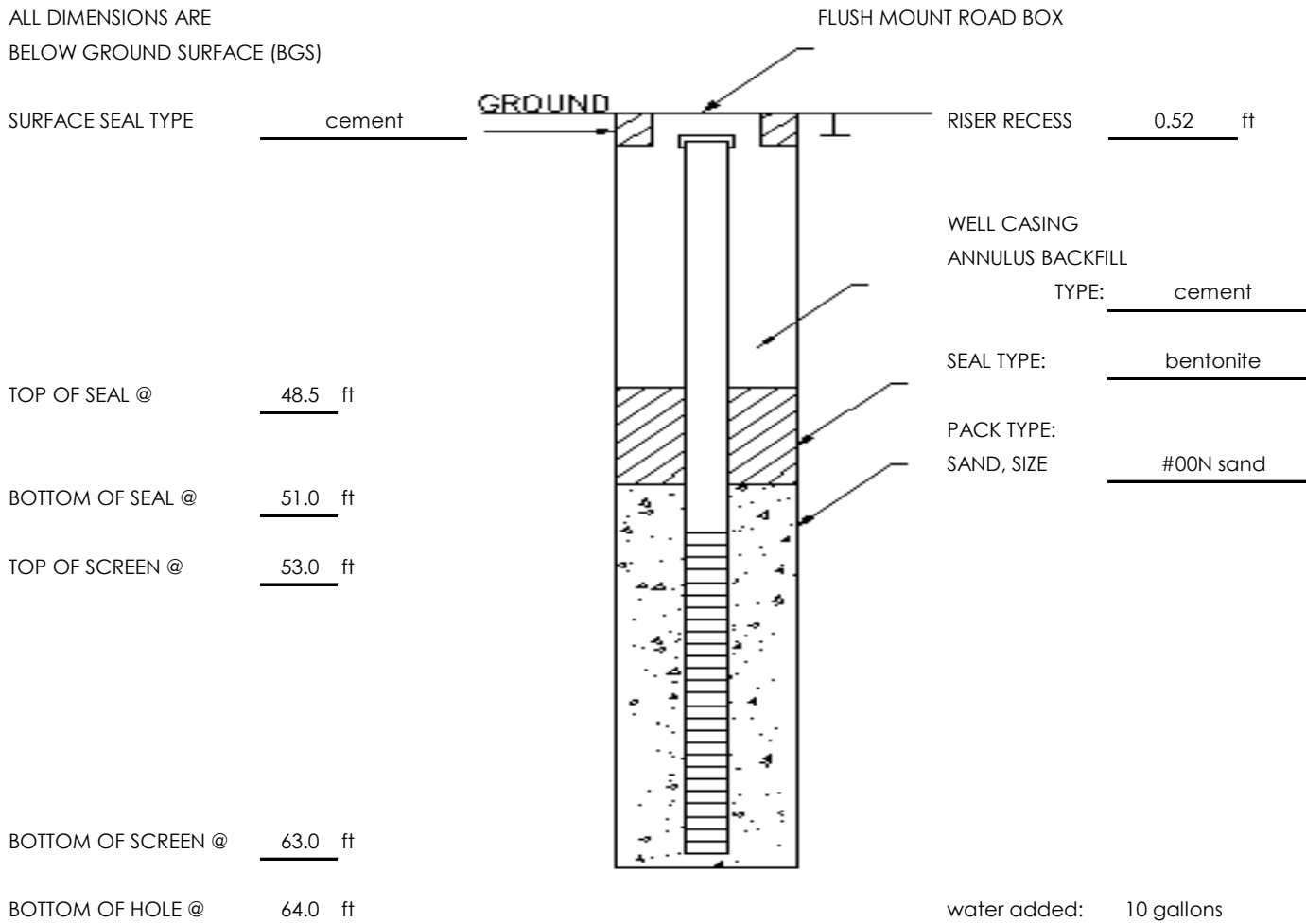
OVERBURDEN MONITORING WELL
DESIGN DETAILS

PROJECT NAME 820 Linden Ave RI
PROJECT NUMBER 190500898
CLIENT Ridgecrest Associates
LOCATION 820 Linden Avenue
Pittsford, NY

HOLE DESIGNATION **B/MW-102**
DATE COMPLETED 7/23/2018
DRILLING METHOD Hollow Stem Auger
SUPERVISOR L. Best

NOTE:

ALL DIMENSIONS ARE
BELOW GROUND SURFACE (BGS)



SCREEN TYPE: CONTINUOUS SLOT ☒ x PERFORATED ☐ LOUVRE ☐ OTHER ☐

SCREEN MATERIAL: STAINLESS STEEL ☐ PVC ☒ OTHER ☐

SCREEN LENGTH: 10 ft SCREEN DIAMETER: 2 in SCREEN SLOT SIZE: 0.010

WELL CASING MATERIAL: PVC WELL CASING DIAMETER: 2 in

AUGER DIAMETER [inner]: 4 1/4 in

HOLE DIAMETER: 8 in



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Test Boring No.: **B/MW-102**
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Project:	820 Linden Ave RI	Drill Contractor:	Nothnagle	Start Date:	7/23/2018
Project #:	190500898	Driller:	Neal Short	Completion Date:	7/23/2018
Client:	Ridgecrest Associates	Elevation:	NM	Drilling Method:	Direct Push with Macrocore
Location:	820 Linden Avenue	Weather:	70s-80s, overcast	Supervisor:	L. Best
	Pittsford, NY				

0	SAMPLE				Depth of Strata Change (ft)	Material Description and Remarks
	PID (ppm)	No.	Rec. (ft)	Depth (ft)		
		1	2.8	0	0.3	Dark brown fine SAND, little silt, dry - TOPSOIL -
	1.5					
	1.2					
	1.1			4		
		2	2.8			
5						
	1.0					
	0.8					
	0.9					
				8		
	0.4	3	2.8			
10						
	0.5					
	0.8			12		
	0.6	4	2.2			
	0.5					
	0.3				14.5	
15				15	15.0	Brown fine to medium SAND, little silt and clay, trace coarse sand, tighter, moist, no odor
	1.6	5	2.7			
	1.8					
	1.6			19	19.0	
	0.0	6	3.4			Brown fine to medium SAND, some tan coarse sand, little silt and clay, dry, no odor
20						

Notes:

- PID Model MiniRAE 3000 with 10.6eV lamp.
- At 19', began testing empty Ziploc bags to measure blank headspace; low-level VOCs were detected. After 19', different bags were used after confirming 0.0 ppm in blanks.



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Test Boring No.: B/MW-102
Page: 2 of 4

Project:	820 Linden Ave RI	Drill Contractor:	Nothnagle	Start Date:	7/23/2018
Project #:	190500898	Driller:	Neal Short	Completion Date:	7/23/2018
Client:	Ridgecrest Associates	Elevation:	NM	Drilling Method:	Direct Push with Macrocore
Location:	820 Linden Avenue	Weather:	70s-80s, overcast	Supervisor:	L. Best
	Pittsford, NY				

	SAMPLE				Depth of Strata Change (ft)	Material Description and Remarks
	PID (ppm)	No.	Rec. (ft)	Depth (ft)		
20	0.0					
	0.0					
	0.0					
				23		
	0.0	7	3.1			
	0.0					
25						
	0.0					
	0.0					
				27	27.0	
	0.0	8	2.8			Brown and light brown fine to medium SAND, little silt and coarse sand, trace clay, dry, no odor
	0.0					
	0.0					
30				30		
		9	2.3			
	0.0					
	0.0					
				34		
		10	3.1			Increasing coarse sand component
35						
						Minor orange discoloration at 37'
				38	38.0	
	0.0	11	3.2			Brown and light brown fine to medium SAND, little silt and coarse sand, trace clay and medium gravel, with trace orange discoloration, slightly dense, dry, no odor
	0.0					
40						

Notes:

1. PID Model MiniRAE 3000 with 10.6eV lamp.



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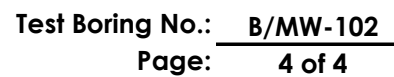
Test Boring No.: B/MW-102
Page: 3 of 4

Project:	820 Linden Ave RI	Drill Contractor:	Nothnagle	Start Date:	7/23/2018
Project #:	190500898	Driller:	Neal Short	Completion Date:	7/23/2018
Client:	Ridgecrest Associates	Elevation:	NM	Drilling Method:	Direct Push with Macrocore
Location:	820 Linden Avenue	Weather:	70s-80s, overcast	Supervisor:	L. Best
	Pittsford, NY				

	SAMPLE				Depth of Strata Change (ft)	Material Description and Remarks
	PID (ppm)	No.	Rec. (ft)	Depth (ft)		
40	0.0					
	0.0			42	42.0	
	0.0	12	2.3			Light grayish brown fine to medium SAND, little silt and coarse sand, loose, dry, no odor
	0.0					
	0.0					
45				45		
	0.0	13	3.2			
	0.0					
	0.0					
	0.1					
				49		
	0.0	14	3.2			
50	0.0				50.5	
	0.2				52.0	Brown fine SAND, some silt, little clay and medium sand, more cohesive, moist, no odor
	0.0					
	0.0			53		Brown medium SAND, some light brown and white coarse sand, little silt, moist, no odor
	0.0	15	3.2		54.0 ▼	
	0.0					Brown fine to medium SAND, little silt and clay, wet, no odor, no sheen
55	0.0				56.0	
	0.0					
	0.0			57	57.0	Brown and white/tan fine to coarse SAND, little silt and clay, wet, no odor
		16	1.8			Brown fine to medium SAND, little silt and clay, wet, no odor
	0.0					
	0.0					
60				60		

Notes:

1. PID Model MiniRAE 3000 with 10.6eV lamp.

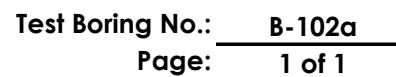


Project:	820 Linden Ave RI	Drill Contractor:	Nothnagle	Start Date:	7/23/2018
Project #:	190500898	Driller:	Neal Short	Completion Date:	7/23/2018
Client:	Ridgecrest Associates	Elevation:	NM	Drilling Method:	Direct Push with Macrocore
Location:	820 Linden Avenue	Weather:	70s-80s, overcast	Supervisor:	L. Best
	Pittsford, NY				

[illegible]

Notes:

1. PID Model MiniRAE 3000 with 10.6eV lamp.



Project:	820 Linden Ave RI	Drill Contractor:	Nothnagle	Start Date:	7/24/2018
Project #:	190500898	Driller:	Neal Short	Completion Date:	7/24/2018
Client:	Ridgecrest Associates	Elevation:	NM	Drilling Method:	Direct Push with Macrocore
Location:	820 Linden Avenue	Weather:	70s, humid, overcast	Supervisor:	L. Best
	Pittsford, NY				

[illegible]

Notes:

1. PID Model MiniRAE 3000 with 10.6eV lamp.
2. Groundwater not encountered.



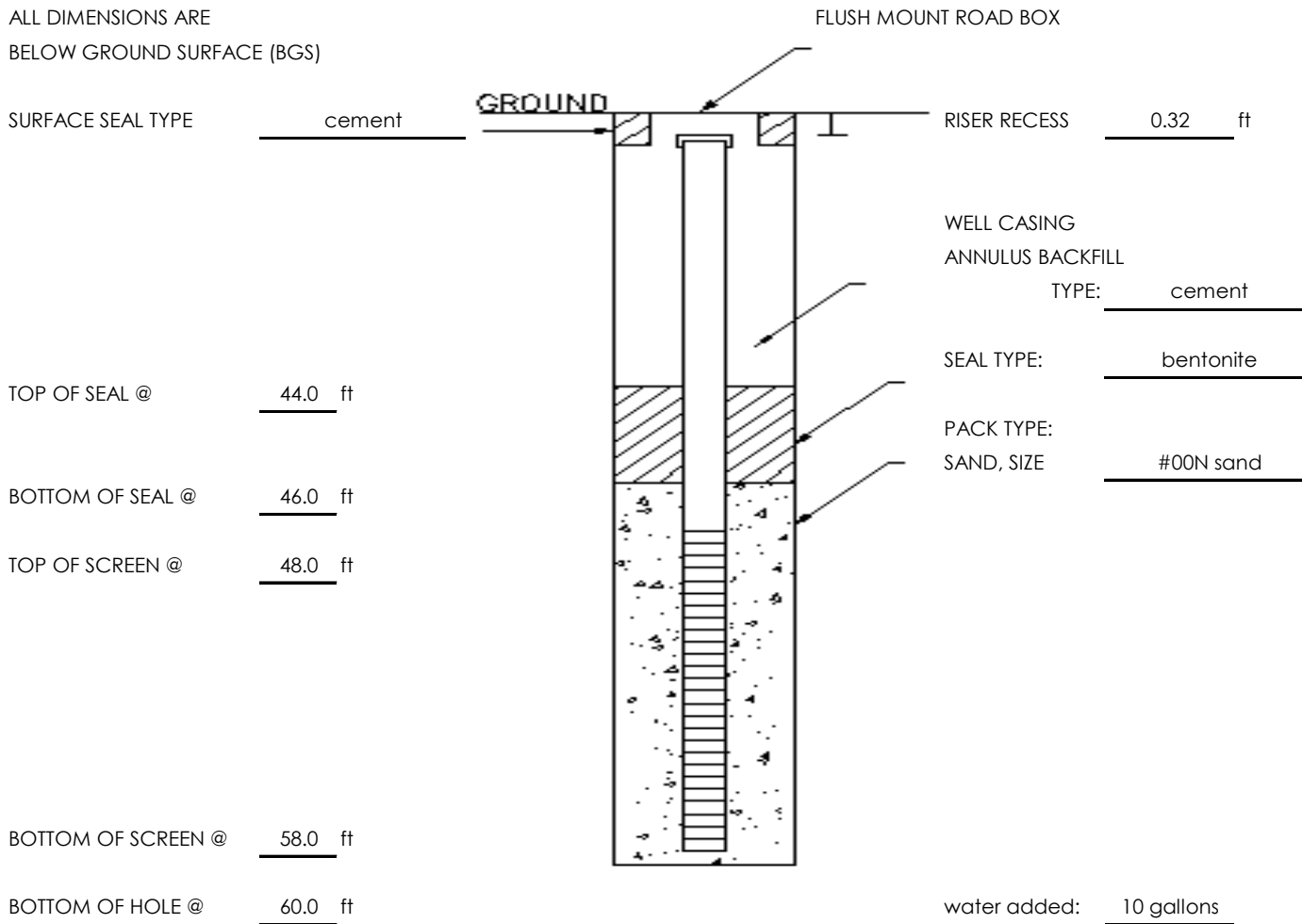
OVERBURDEN MONITORING WELL
DESIGN DETAILS

PROJECT NAME 820 Linden Ave RI
PROJECT NUMBER 190500898
CLIENT Ridgecrest Associates
LOCATION 820 Linden Avenue
Pittsford, NY

HOLE DESIGNATION **B/MW-103**
DATE COMPLETED 7/24/2018
DRILLING METHOD Hollow Stem Auger
SUPERVISOR L. Best

NOTE:

ALL DIMENSIONS ARE
BELOW GROUND SURFACE (BGS)



SCREEN TYPE: CONTINUOUS SLOT ☒ x PERFORATED ☐ LOUVRE ☐ OTHER ☐

SCREEN MATERIAL: STAINLESS STEEL ☐ PVC ☒ OTHER ☐

SCREEN LENGTH: 10 ft SCREEN DIAMETER: 2 in SCREEN SLOT SIZE: 0.010

WELL CASING MATERIAL: PVC WELL CASING DIAMETER: 2 in

AUGER DIAMETER [inner]: 4 1/4 in

HOLE DIAMETER: 8 in



61 Commercial St., Suite 100
Rochester, NY 14614
(585) 475-1440

Test Boring No.: **B/MW-103**
Page: **1 of 3**

Project:	820 Linden Ave RI	Drill Contractor:	Nothnagle	Start Date:	7/24/2018
Project #:	190500898	Driller:	Neal Short	Completion Date:	7/24/2018
Client:	Ridgecrest Associates	Elevation:	NM	Drilling Method:	Direct Push with Macrocore
Location:	820 Linden Avenue	Weather:	80s, humid, overcast	Supervisor:	L. Best
	Pittsford, NY				

0	SAMPLE				Depth of Strata Change (ft)	Material Description and Remarks
	PID (ppm)	No.	Rec. (ft)	Depth (ft)		
		1	2.7	0	0.4	ASPHALT
	0.0				0.6	Brown medium SAND AND fine GRAVEL, dry - FILL -
					0.7	Orangish light brown fine SAND, little silt and medium sand, dry, no odor
	0.0					Light brown fine SAND, some medium sand, little silt, trace clay, dry, no odor
	0.0					
				4		
	0.0	2	2.9			
5						
	0.0					
	0.0					
				8		
	0.1	3	3.1			
10	0.0					
	0.0			12		
	0.0	4	2.2		12.5	
						Light grayish brown fine to medium SAND, little silt and coarse tan and white sand, trace clay, denser, dry
	0.0					
15				15		
	0.0	5	2.1		15.5	
					16.0	Brown fine SAND, little silt and clay and medium sand, slightly cohesive, moist
	0.0					Light grayish brown fine to medium SAND, little silt and coarse tan and white sand, trace clay, dry
	0.0					
				19	19.0	
	0.0	6	3.0			Brown fine SAND AND SILT, little medium to coarse sand and clay, wet
20						

Notes:

- PID Model MiniRAE 3000 with 10.6eV lamp.



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Test Boring No.: B/MW-103
Page: 2 of 3

Project:	820 Linden Ave RI	Drill Contractor:	Nothnagle	Start Date:	7/24/2018
Project #:	190500898	Driller:	Neal Short	Completion Date:	7/24/2018
Client:	Ridgecrest Associates	Elevation:	NM	Drilling Method:	Direct Push with Macrocore
Location:	820 Linden Avenue	Weather:	80s, humid, overcast	Supervisor:	L. Best
	Pittsford, NY				

	SAMPLE				Depth of Strata Change (ft)	Material Description and Remarks
	PID (ppm)	No.	Rec. (ft)	Depth (ft)		
20	0.0				20.5	Moist at 20'
						Light grayish brown fine to medium SAND, little silt and coarse tan and white sand, dry
	0.0					
	0.0					
				23		
	0.0	7	3.3			
	0.0					
25						
	0.0					
	0.0					
				27		
	0.0	8	2.7		27.5	
						Light grayish brown fine SAND, some silt, little medium to coarse sand, dry
	0.0					
30				30	30	
		9	2.8			Light grayish brown fine to medium SAND, some silt, little coarse sand, trace clay, slightly cohesive, dry
	0.0					
	0.0					
				34		
	0.0	10	3.3			Trace orange discoloration (possibly iron oxide) 34-42'
35						
	0.0					
	0.0					
				38		
	0.0	11	3.4			
	0.0					
40						

Notes:

1. PID Model MiniRAE 3000 with 10.6eV lamp.



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Test Boring No.: B/MW-103
Page: 3 of 3

Project:	820 Linden Ave RI	Drill Contractor:	Nothnagle	Start Date:	7/24/2018
Project #:	190500898	Driller:	Neal Short	Completion Date:	7/24/2018
Client:	Ridgecrest Associates	Elevation:	NM	Drilling Method:	Direct Push with Macrocore
Location:	820 Linden Avenue	Weather:	80s, humid, overcast	Supervisor:	L. Best
	Pittsford, NY				

	SAMPLE				Depth of Strata Change (ft)	Material Description and Remarks
	PID (ppm)	No.	Rec. (ft)	Depth (ft)		
40	0.1					
	0.0			42		
	0.0	12	2.4		42.5	
	0.1					Light grayish brown fine to medium SAND, little silt and coarse tan and white sand, denser, dry
45				45		
	0.0	13	2.8			
	0.0					
	0.0					
				49	49.0	
50	0.0	14	2.8			Brown fine to medium SAND, little silt, trace clay and coarse sand, moist, no odor
	0.0				▼	Wet at 51'
	0.1					
				53	53.0	
		15	2.6			Brown fine to medium SAND, some coarse sand, little silt, trace clay, wet, no odor
55	0.0					
	0.1					
				57	57.0	
	0.0	16				Brown fine to coarse SAND, little silt and coarse tan and white sand, wet, no odor
	0.0					
	0.0					
60				60		
						Bottom of Boring at 60'

Notes:

1. PID Model MiniRAE 3000 with 10.6eV lamp.



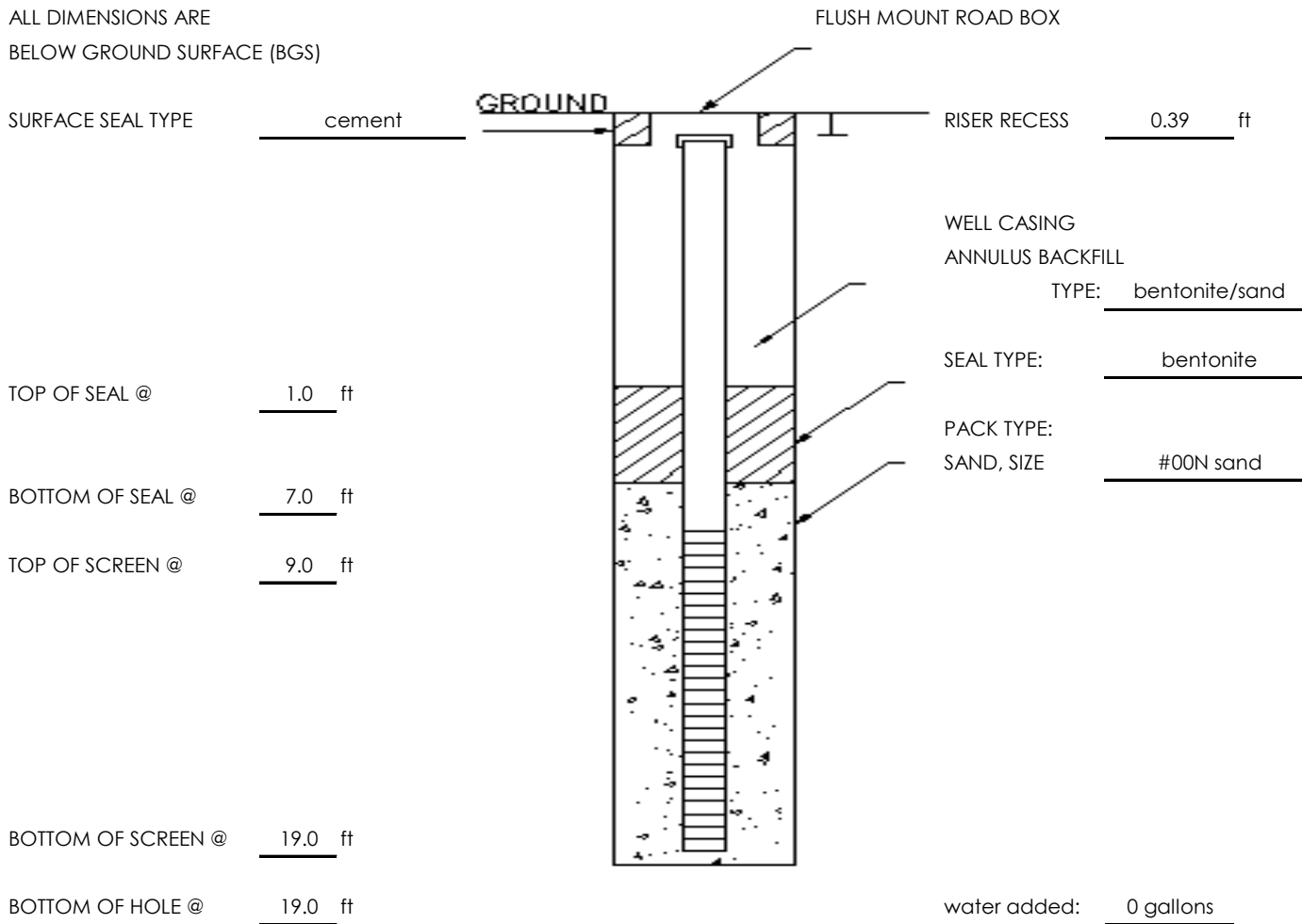
OVERBURDEN MONITORING WELL
DESIGN DETAILS

PROJECT NAME 820 Linden Ave RI
PROJECT NUMBER 190500898
CLIENT Ridgecrest Associates
LOCATION 820 Linden Avenue
Pittsford, NY

HOLE DESIGNATION MW-104S
DATE COMPLETED 7/27/2018
DRILLING METHOD Hollow Stem Auger
SUPERVISOR L. Best

NOTE:

ALL DIMENSIONS ARE
BELOW GROUND SURFACE (BGS)



SCREEN TYPE: CONTINUOUS SLOT x PERFORATED LOUVRE OTHER

SCREEN MATERIAL: STAINLESS STEEL PVC x OTHER

SCREEN LENGTH: 10 ft SCREEN DIAMETER: 2 in SCREEN SLOT SIZE: 0.010

WELL CASING MATERIAL: PVC WELL CASING DIAMETER: 2 in

AUGER DIAMETER [inner]: 4 1/4 in

HOLE DIAMETER: 8 in



61 Commercial St., Suite 100
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(585) 475-1440

Test Boring No.: **B/MW-104**
Page: **1 of 3**

Project:	820 Linden Ave RI	Drill Contractor:	Nothnagle	Start Date:	7/26/2018
Project #:	190500898	Driller:	Neal Short	Completion Date:	7/26/2018
Client:	Ridgecrest Associates	Elevation:	NM	Drilling Method:	Direct Push with Macrocore
Location:	820 Linden Avenue	Weather:	70s-80s, sunny	Supervisor:	L. Best
	Pittsford, NY				

0	SAMPLE				Depth of Strata Change (ft)	Material Description and Remarks
	PID (ppm)	No.	Rec. (ft)	Depth (ft)		
		1	3.3	0	0.3	ASPHALT
	0.0				0.6	Brown fine SAND AND fine GRAVEL, little silt and clay, trace roots, moist - FILL -
						Brown CLAY, little silt and fine sand, hard, dry, no odor
	0.0					
	0.0					
				4	4.0	Moist at 3.5' and becoming softer
	0.0	2	3.7			Brown CLAY, soft, moist
5						
	0.0					
	0.0					
				8		
		3	2.9		8.5	Brown SILT AND CLAY, stiff, moist
	0.0					
10	0.0					
					11.0	
	0.0			12	12.0	Brown CLAY, trace dark gray staining, soft, wet
		4	1.3			Brown CLAY, stiff, wet
	0.0					
	0.0					
15				15	15.0	
	0.0	5	3.1			Brown to reddish brown CLAY, plastic and medium soft, wet
	0.0					
	0.0			19	19.0	
		6	3.2			Light brown fine SAND, some silt, little clay, cohesive, dense, dry
20	0.0					

Notes:

1. PID Model MiniRAE 3000 with 10.6eV lamp.



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Test Boring No.: B/MW-104
Page: 2 of 3

Project:	820 Linden Ave RI	Drill Contractor:	Nothnagle	Start Date:	7/26/2018
Project #:	190500898	Driller:	Neal Short	Completion Date:	7/26/2018
Client:	Ridgecrest Associates	Elevation:	NM	Drilling Method:	Direct Push with Macrocore
Location:	820 Linden Avenue	Weather:	70s-80s, sunny	Supervisor:	L. Best
	Pittsford, NY				

	SAMPLE				Depth of Strata Change (ft)	Material Description and Remarks
	PID (ppm)	No.	Rec. (ft)	Depth (ft)		
20						
	0.0					
	0.0				22.0	
					22.5	Reddish brown CLAY
				23	23.0	Light brown fine SAND, some silt, little clay, cohesive, dense, dry
	0.0	7	3.3		24.0	Reddish brown fine SAND AND SILT, little clay, stiff, dry
					24.5	Light brown fine SAND, some silt, little clay and fine to medium gravel, looser
25	0.0					Light brown fine SAND, little silt and medium sand, trace clay, slightly cohesive, dry
	0.0					
	0.0					
				27		
	0.2	8	2.3			
	0.1					
	0.2					
30				30		
	0.1	9	2.8			
	0.1				32.0	
	0.2					Light brown fine SAND, little silt and medium sand, dry
				34	34.0	
35	0.1	10	3.0			Light brown fine SAND, little silt and clay, dry, no odor or staining
	0.2					
	0.2					
				38		
	0.1	11	3.1			Denser at 38'
	0.0					
40						

Notes:

1. PID Model MiniRAE 3000 with 10.6eV lamp.



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Test Boring No.: B/MW-104
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Project:	820 Linden Ave RI	Drill Contractor:	Nothnagle	Start Date:	7/26/2018
Project #:	190500898	Driller:	Neal Short	Completion Date:	7/26/2018
Client:	Ridgecrest Associates	Elevation:	NM	Drilling Method:	Direct Push with Macrocore
Location:	820 Linden Avenue	Weather:	70s-80s, sunny	Supervisor:	L. Best
	Pittsford, NY				

	SAMPLE				Depth of Strata Change (ft)	Material Description and Remarks
	PID (ppm)	No.	Rec. (ft)	Depth (ft)		
40						
	0.0					
				42	42.0	
	0.2	12	2.3			Light brown fine SAND, little silt and clay, trace orange staining at 42', cohesive, dry, no odor
	0.0					
	0.0					
45				45		
	0.6	13	3.0		46.0	
	0.5					
	0.9					Light brown fine to medium SAND, little silt and coarse white and tan sand, no staining, no odor
	0.0					
	0.2					
	0.2					
	0.2			49		Moist at 48'
	0.4	14	3.4			Wet at 49'
50						
	1.1					
	0.3					
	0.0					
				53	53.0	
	0.0	15	2.7			Brown fine to medium SAND, little silt and coarse white and tan sand, wet
	0.1					
55						
	0.0					
					56.5	
				57		Reddish brown fine to medium SAND, some silt and clay, little coarse sand, wet
						Bottom of Boring at 57'
60						

Notes:

1. PID Model MiniRAE 3000 with 10.6eV lamp.



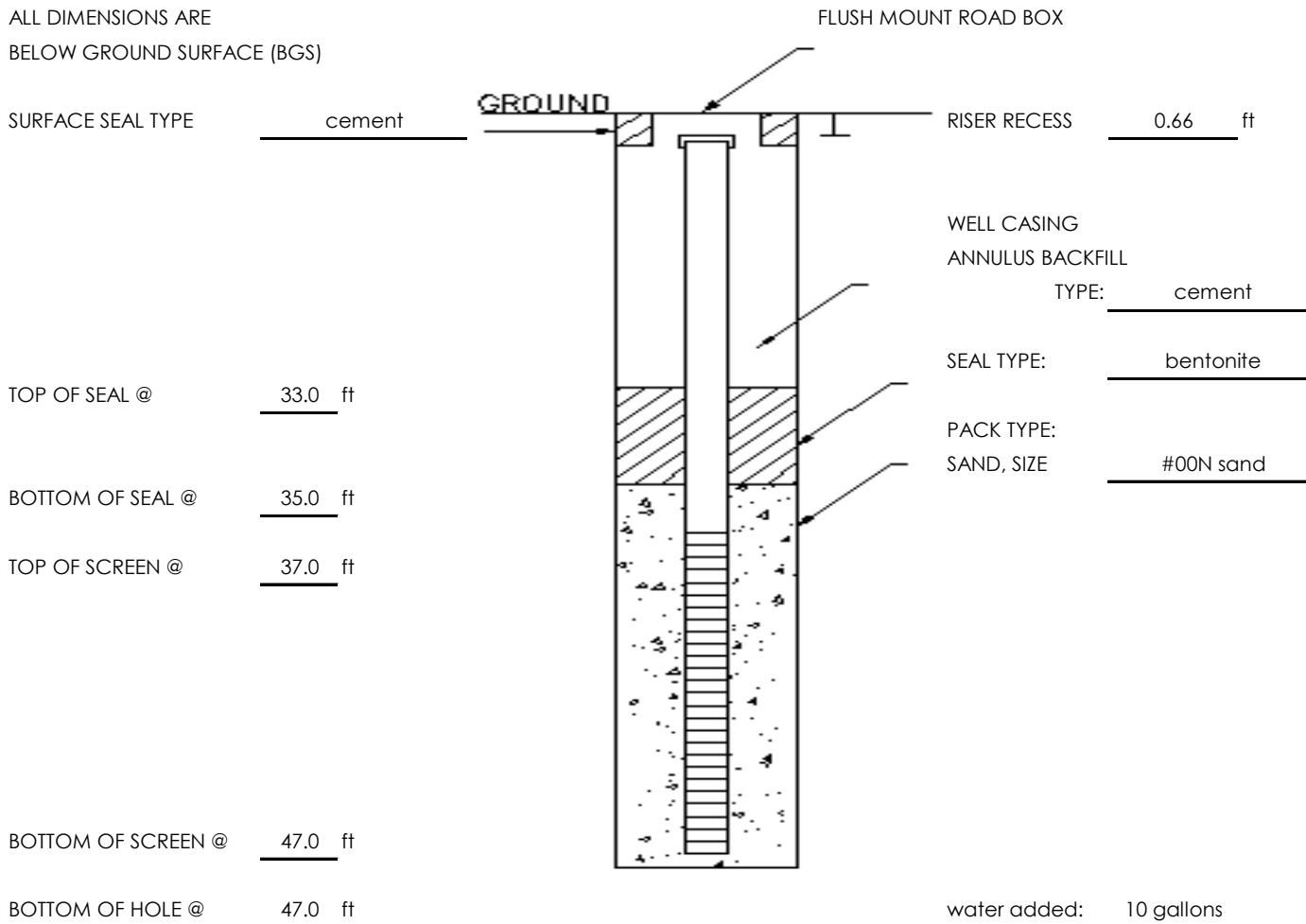
OVERBURDEN MONITORING WELL DESIGN DETAILS

PROJECT NAME 820 Linden Ave RI
PROJECT NUMBER 190500898
CLIENT Ridgecrest Associates
LOCATION 820 Linden Avenue
Pittsford, NY

HOLE DESIGNATION **B/MW-105**
DATE COMPLETED 7/27/2018
DRILLING METHOD Hollow Stem Auger
SUPERVISOR L. Best

NOTE:

ALL DIMENSIONS ARE
BELOW GROUND SURFACE (BGS)



SCREEN TYPE: CONTINUOUS SLOT ☒ PERFORATED ☐ LOUVRE ☐ OTHER ☐

SCREEN MATERIAL: STAINLESS STEEL ☐ PVC ☒ OTHER ☐

SCREEN LENGTH: 10 ft SCREEN DIAMETER: 2 in SCREEN SLOT SIZE: 0.010

WELL CASING MATERIAL: PVC WELL CASING DIAMETER: 2 in

AUGER DIAMETER [inner]: 4 1/4 in

HOLE DIAMETER: 8 in



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Test Boring No.: B/MW-105
Page: 1 of 3

Project:	820 Linden Ave RI	Drill Contractor:	Nothnagle	Start Date:	7/27/2018
Project #:	190500898	Driller:	Neal Short	Completion Date:	7/27/2018
Client:	Ridgecrest Associates	Elevation:	NM	Drilling Method:	Direct Push with Macrocore
Location:	820 Linden Avenue	Weather:	70s, partly sunny to overcast	Supervisor:	L. Best
	Pittsford, NY				

0	SAMPLE				Depth of Strata Change (ft)	Material Description and Remarks
	PID (ppm)	No.	Rec. (ft)	Depth (ft)		
		1	2.4	0	0.3	Dark brown fine SAND AND SILT with grass and roots, trace clay, moist - TOPSOIL -
	0.0					Light brown fine SAND, little silt and medium sand, trace clay, dry
	0.0					
				4	4.0	Dark brown coloring at 3.5', no odor
	0.0	2	2.8			Orangish brown fine to medium SAND, little silt, trace clay, dry, no odor
5					5.0	Light brown fine SAND, little silt and medium sand, trace clay, dense, dry
	0.0					
	0.0					
				8		
	0.0	3	3.0			
	0.0					
10					10.5	Brown fine to medium SAND, little silt and clay, moist, no odor
	0.0					
	0.0			12	12.0	Light brown fine to medium SAND, little silt, trace clay, medium dense, dry, no odor
		4	1.4			
	0.0					
				15		
15					16.0	Brown SILT AND CLAY, little fine sand, wet, no odor
	0.0	5	2.9			
					17.0	Brown fine SAND AND SILT, little clay and medium sand, no odor
	0.0				17.5	Light brown fine to medium SAND, little silt and coarse sand, trace clay, dry
	0.0			19	19	Light brown fine to medium SAND, little silt and clay, moist, no odor
		6	3.4			
20						

Notes:

- PID Model MiniRAE 3000 with 10.6eV lamp.



61 Commercial St., Suite 100
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Test Boring No.: B/MW-105
Page: 2 of 3

Project:	820 Linden Ave RI	Drill Contractor:	Nothnagle	Start Date:	7/27/2018
Project #:	190500898	Driller:	Neal Short	Completion Date:	7/27/2018
Client:	Ridgecrest Associates	Elevation:	NM	Drilling Method:	Direct Push with Macrocore
Location:	820 Linden Avenue	Weather:	70s, partly sunny to overcast	Supervisor:	L. Best
	Pittsford, NY				

	SAMPLE				Depth of Strata Change (ft)	Material Description and Remarks
	PID (ppm)	No.	Rec. (ft)	Depth (ft)		
20	0.0				21.0	
	0.0				21.5	Brown SILT AND CLAY, little fine sand, soft, moist, no odor
	0.0					Light brown fine to medium SAND, little silt and clay, dense, cohesive, moist, no odor
	0.0			23		
	0.0	7	3.4			
	0.0					
25	0.0					
	0.0					
	0.0			27		
	0.0	8	2.0			
	0.0					
	0.0					
30	0.0			30		
	0.0	9	3.2			
	0.0					
	0.0					
	0.0					
	0.0			34	34.0	
	0.0	10	3.7			Light brown fine to medium SAND, little silt, trace clay, looser, dry, no odor
35	0.0				36.0	
	0.0				37.0	Brown fine SAND AND SILT, little clay, trace medium sand, no odor
	0.0					Light brown fine to medium SAND, little silt and clay, trace coarse sand, medium dense, dry, no odor
	0.0			38		
	0.0	11	2.6		39.0	
	0.0			▼		Brown fine to medium SAND, little silt, trace clay, wet, no odor
40						

Notes:

1. PID Model MiniRAE 3000 with 10.6eV lamp.



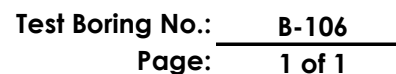
61 Commercial St., Suite 100
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(585) 475-1440

Test Boring No.: B/MW-105
Page: 3 of 3

Project:	820 Linden Ave RI	Drill Contractor:	Nothnagle	Start Date:	7/27/2018
Project #:	190500898	Driller:	Neal Short	Completion Date:	7/27/2018
Client:	Ridgecrest Associates	Elevation:	NM	Drilling Method:	Direct Push with Macrocore
Location:	820 Linden Avenue	Weather:	70s, partly sunny to overcast	Supervisor:	L. Best
	Pittsford, NY				

	SAMPLE				Depth of Strata Change (ft)	Material Description and Remarks
	PID (ppm)	No.	Rec. (ft)	Depth (ft)		
40	0.0			42	44.0	
	0.0					
	0.0	12	2.7	46		Brown fine SAND AND SILT, some clay, little fine to medium gravel, wet, no odor
	0.0					
45	0.0			46		
	0.0					
						Bottom of Boring at 46'
50						
55						
60						

Notes:
1. PID Model MiniRAE 3000 with 10.6eV lamp.

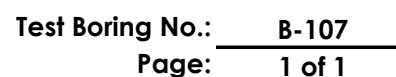


Project:	820 Linden Ave RI	Drill Contractor:	Nothnagle	Start Date:	7/31/2018
Project #:	190500898	Driller:	Jeff Schweitzer	Completion Date:	7/31/2018
Client:	Ridgecrest Associates	Elevation:	NM	Drilling Method:	Direct Push with Macrocore
Location:	820 Linden Avenue	Weather:	Indoors	Supervisor:	L. Best
	Pittsford, NY				

[illegible]

Notes:

1. PID Model MiniRAE 3000 with 10.6eV lamp.
2. Groundwater not encountered.

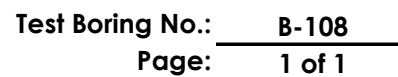


Project:	820 Linden Ave RI	Drill Contractor:	Nothnagle	Start Date:	7/31/2018
Project #:	190500898	Driller:	Jeff Schweitzer	Completion Date:	7/31/2018
Client:	Ridgecrest Associates	Elevation:	NM	Drilling Method:	Direct Push with Macrocore
Location:	820 Linden Avenue	Weather:	Indoors	Supervisor:	L. Best
	Pittsford, NY				

[illegible]

Notes:

1. PID Model MiniRAE 3000 with 10.6eV lamp.
2. Groundwater not encountered.

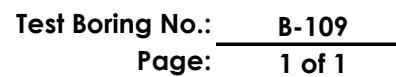


Project:	820 Linden Ave RI	Drill Contractor:	Nothnagle	Start Date:	7/30/2018
Project #:	190500898	Driller:	Jeff Schweitzer	Completion Date:	7/30/2018
Client:	Ridgecrest Associates	Elevation:	NM	Drilling Method:	Direct Push with Macrocore
Location:	820 Linden Avenue	Weather:	70s, sunny	Supervisor:	R. Mahoney
	Pittsford, NY				

[illegible]

Notes:

1. PID Model MiniRAE 3000 with 10.6eV lamp.
2. Groundwater not encountered.

[illegible]

1. PID Model MiniRAE 3000 with 10.6eV lamp.
2. Groundwater not encountered, except shallow perched zone approx 3-5 ft.



OVERBURDEN MONITORING WELL
DESIGN DETAILS

PROJECT NAME 820 Linden Ave IRM2
PROJECT NUMBER 190500898.237
CLIENT Ridgecrest Associates
LOCATION 820 Linden Avenue
Pittsford, NY

WELL DESIGNATION MW-110
DATE COMPLETED 7/8/2020
DRILLING METHOD Hollow Stem Auger
SUPERVISOR K. Nelson

NOTE:

ALL DIMENSIONS ARE
BELOW GROUND SURFACE (BGS)

SURFACE SEAL TYPE cement

FLUSH MOUNT ROAD BOX

GROUND

RISER RECESS 0.40 ft

WELL CASING
ANNULUS BACKFILL
TYPE: cement*

SEAL TYPE: bentonite

PACK TYPE:
SAND, SIZE #00N sand

TOP OF SEAL @ 42.0 ft

BOTTOM OF SEAL @ 44.0 ft

TOP OF SCREEN @ 46.0 ft

BOTTOM OF SCREEN @ 56.0 ft

BOTTOM OF HOLE @ 56.0 ft

water added (gallons): 20

SCREEN TYPE: CONTINUOUS SLOT x PERFORATED LOUVRE OTHER

SCREEN MATERIAL: STAINLESS STEEL PVC x OTHER

SCREEN LENGTH: 10 ft SCREEN DIAMETER: 2 in SCREEN SLOT SIZE: 0.010

WELL CASING MATERIAL: PVC WELL CASING DIAMETER: 2 in

HOLE DIAMETER: 8 in

AUGER DIAMETER 4 1/4 in (inner diameter)

*From 13 ft bgs to surface mixture of cement and sand used for well casing annulus backfill



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Rochester, NY 14614
(585) 475-1440

Test Boring No.: MW-110
Page: 1 of 1

Project:	820 Linden Ave IRM2	Drill Contractor:	Nothnagle	Start Date:	7/7/2020
Project #:	190500898.237	Driller:	T. Mangefrida	Completion Date:	7/7/2020
Client:	Ridgecrest Associates	Elevation:	NM	Drilling Method:	Hollow Stem Auger with Macrocore
Location:	820 Linden Avenue	Weather:	80s, sunny	Supervisor:	K. Nelson
	Pittsford, NY				

0	SAMPLE				Depth of Strata Change (ft)	Material Description and Remarks
	PID (ppm)	No.	Rec. (ft)	Depth (ft)		
						Hand clear to 5 ft
						Auger to 35 ft
35				35		
		1	4.0		35.0	Light brown fine SAND, little silt, dry, no odor
	0.6					
	0.3					
				39		
		2	4.0			trace gravel from 39-43'
40						
	0.0					
	0.8					
				43		
		3	2.0			
	0.5					
45				45		
		4	3.6			
	1.3					
	1.0					moist at 47.3'
				49		
		5	3.0		▼ 49	Brown medium SAND, little fine sand and silt, saturated, no odor
50						
	1.0					
	0.5					
						Bottom of continuous sampling at 53'
						Auger to 56' for well installation

Notes:

1. PID Model MiniRAE 3000 with 10.6eV lamp.



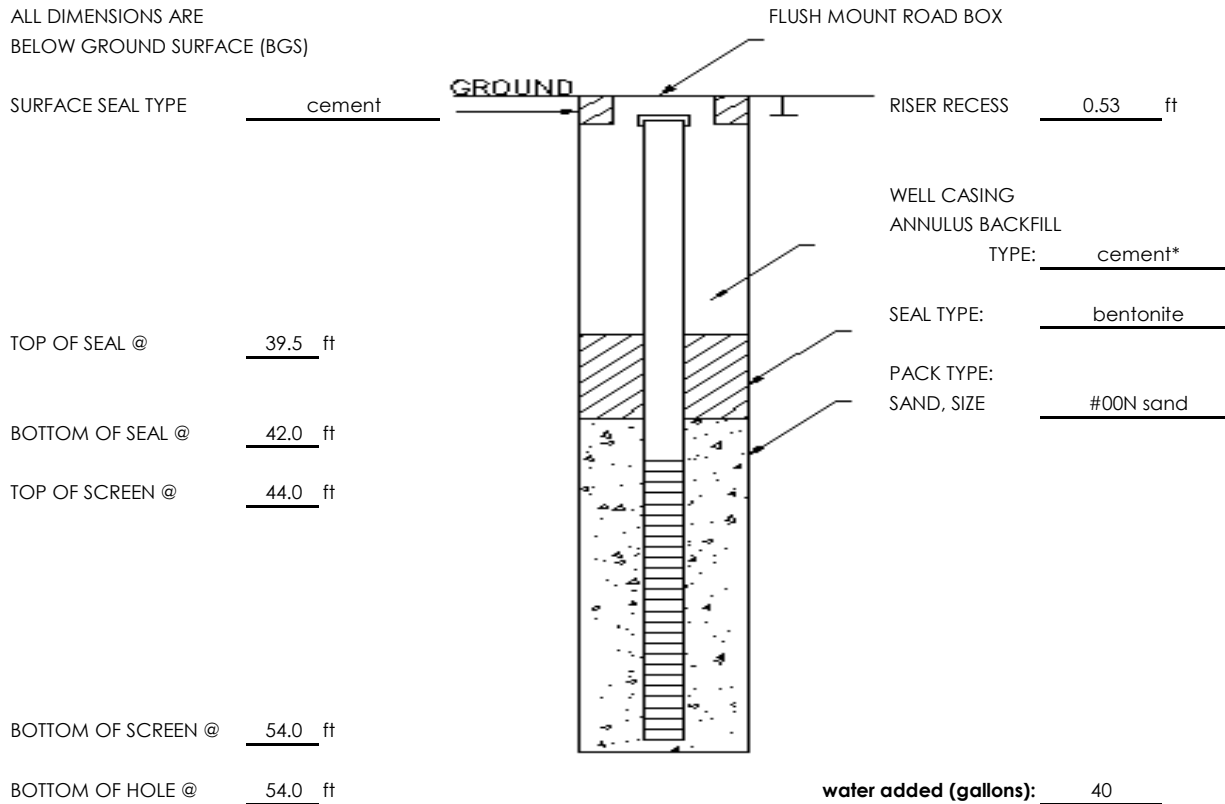
OVERBURDEN MONITORING WELL
DESIGN DETAILS

PROJECT NAME 820 Linden Ave IRM2
PROJECT NUMBER 190500898.237
CLIENT Ridgecrest Associates
LOCATION 820 Linden Avenue
Pittsford, NY

WELL DESIGNATION MW-111
DATE COMPLETED 7/10/2020
DRILLING METHOD Hollow Stem Auger
SUPERVISOR K. Nelson

NOTE:

ALL DIMENSIONS ARE
BELOW GROUND SURFACE (BGS)



SCREEN TYPE: CONTINUOUS SLOT x PERFORATED LOUVRE OTHER

SCREEN MATERIAL: STAINLESS STEEL PVC x OTHER

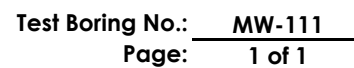
SCREEN LENGTH: 10 ft SCREEN DIAMETER: 2 in SCREEN SLOT SIZE: 0.010

WELL CASING MATERIAL: PVC WELL CASING DIAMETER: 2 in

HOLE DIAMETER: 8 in

AUGER DIAMETER 4 1/4 in (inner diameter)

*From 4.5 ft bgs to surface mixture of cement and sand used for well casing annulus backfill



Start Date:	7/9/2020
Completion Date:	7/9/2020
Drilling Method:	Hollow Stem Auger with Macrocore
Supervisor:	K. Nelson

Notes:

1. PID Model MiniRAE 3000 with 10.6eV lamp.



OVERBURDEN MONITORING WELL
DESIGN DETAILS

PROJECT NAME 820 Linden Ave IRM2
PROJECT NUMBER 190500898.237
CLIENT Ridgecrest Associates
LOCATION 820 Linden Avenue
Pittsford, NY

WELL DESIGNATION MW-112
DATE COMPLETED 7/9/2020
DRILLING METHOD Hollow Stem Auger
SUPERVISOR K. Nelson

NOTE:

ALL DIMENSIONS ARE
BELOW GROUND SURFACE (BGS)

SURFACE SEAL TYPE cement

FLUSH MOUNT ROAD BOX

GROUND

RISER RECESS 0.44 ft

WELL CASING
ANNULUS BACKFILL
TYPE: cement*

SEAL TYPE: bentonite

PACK TYPE:
SAND, SIZE #00N sand

TOP OF SEAL @ 38.5 ft

BOTTOM OF SEAL @ 41.0 ft

TOP OF SCREEN @ 43.0 ft

BOTTOM OF SCREEN @ 53.0 ft

BOTTOM OF HOLE @ 53.0 ft

water added (gallons): 50

SCREEN TYPE: CONTINUOUS SLOT x PERFORATED LOUVRE OTHER

SCREEN MATERIAL: STAINLESS STEEL PVC x OTHER

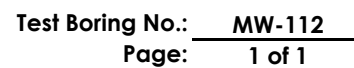
SCREEN LENGTH: 10 ft SCREEN DIAMETER: 2 in SCREEN SLOT SIZE: 0.010

WELL CASING MATERIAL: PVC WELL CASING DIAMETER: 2 in

HOLE DIAMETER: 8 in

AUGER DIAMETER 4 1/4 in (inner diameter)

*From 6 ft bgs to surface mixture of cement and sand used for well casing annulus backfill



Project:	820 Linden Ave IRM2	Drill Contractor:	Nothnagle	Start Date:	7/8/2020
Project #:	190500898.237	Driller:	T. Mangefrida	Completion Date:	7/8/2020
Client:	Ridgecrest Associates	Elevation:	NM	Drilling Method:	Hollow Stem Auger with Macrocore
Location:	820 Linden Avenue	Weather:	80s, cloudy	Supervisor:	K. Nelson
	Pittsford, NY				

[illegible]

Notes:

1. PID Model MiniRAE 3000 with 10.6eV lamp.

**SITE MANAGEMENT PLAN
820 LINDEN AVE BCP SITE #C828200
PITTSFORD, NY**

Appendix D

Excavation Work Plan

D-1 Introduction

This document presents an Excavation Work Plan (EWP) for the 820 Linden Ave Site located at 820 Linden Avenue in Pittsford, Monroe County, New York (the “Site”; see location, Figure 1). The EWP was prepared by Stantec Consulting Services, Inc. (Stantec) on behalf of Ridgecrest Associates, L. P. (Ridgecrest) pursuant to a Brownfield Cleanup Agreement (BCA) for the Site between Ridgecrest, the Site owner and BCP “Participant,” and the New York State Department of Environmental Conservation (NYSDEC or Department) executed by the Department on April 24, 2018. The Site is designated by the Department as BCP Site #C828200. This EWP is included as Appendix D of the Site Management Plan (SMP) for the Site.

The EWP shall be implemented when Site activities have the potential to encounter remaining contamination, namely activities where the Site-wide Cover System will be breached.

D-2 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 below includes contact information for the above notification. A full listing of Site-related contact information is provided in Appendix B of this SMP.

Table 1: Notifications*

Name	Contact Information
Tasha Mumbrue, NYSDEC Project Manager	e-mail: tasha.mumbrue@dec.ny.gov phone: (585) 226-5459
David Pratt, NYSDEC Regional HW Engineer	e-mail: david.pratt@dec.ny.gov phone: (585) 226-5315
NYSDEC Site Control	e-mail: derweb@gw.dec.state.ny.us

* 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 COCs, 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 Code of Federal Regulations (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 E of this SMP;
- Identification of disposal facilities for potential waste streams; and
- Identification of sources of any anticipated backfill, along with all required chemical testing results.

D-3 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 such 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 Certificate of Completion.

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 D-8 and Section D-9 of this Appendix.

D-4 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.

D-5 Materials Excavation and Load-Out

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

The owner of the property and its contractors are 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.

D-6 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 Decision Document. The Cover System is comprised of the following existing and newly-installed components:

- Existing concrete building floor slab;
- Existing landscaped, vegetated, or lawn areas with at least one foot of non-impacted soil overlying remaining soil with SCOs exceedances;
- Existing paved parking lot areas; and
- A newly-installed engineered cover consisting of a one-foot thick cap of gabion stone over a demarcation layer for the eastern [formerly vegetated] property line area (RAOC-5) remediated during IRM4.

Where present and if breached, the demarcation layer will be replaced to provide a visual reference to the top of the remaining contamination zone, the zone that requires adherence to special conditions for disturbance of remaining contaminated soils defined in this SMP. 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 (PRR) and in an updated SMP.

D-7 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 pre-determined as needed. All trucks loaded with Site materials will exit the vicinity of the Site using the pre-determined 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 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.

D-8 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 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 debris recovery facility, etc. Actual disposal quantities and associated documentation will be reported to the NYSDEC in the PRR. 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 6NYCRR Parts 360, 361, 362, 363, 364 and 365. Material that does not meet Unrestricted Use (UU) SCOs is prohibited from being taken to a New York State C&D debris recovery facility (6NYCRR Subpart 361-5 registered or permitted facility).

D-9 Materials Reuse On-Site

Chemical criteria for on-site reuse of material are NYSDEC's Commercial Use and/or POGW SCOs, which are established in 6NYCRR Part 375.6.

Impacted materials that will be re-used on-site will need to be segregated based upon field screening, previous investigation findings, and/or additional pre-construction and/or construction sampling and analyses. The analyses will include the following:

- U.S. Environmental Protection Agency (USEPA) Target Compound List (TCL) VOCs, analyzed by USEPA SW846 Method 8260C;
- TCL SVOCs (SW846 Method 8270B);
- TCL Pesticides (SW846 Method 8081);
- PCBs (SW846 Method 8082); and
- Target Analyte List (TAL) Metals (SW846 Methods 6010 or 7000-series).

The analysis results will be compared to NYSDEC's Commercial Use and POGW SCOs. If concentrations are below both sets of SCOs, the soil can be reused on-site. If the concentrations

are elevated above POGW SCOs, but below Commercial Use SCOs, the results shall be shared with the NYSDEC and approval obtained prior to their specified reuse on-site. It should be noted the NYSDEC may require significantly impacted materials to be transported off-site and disposed of at a permitted landfill facility. Staging and stockpiling management of materials should be conducted as described in the sections above.

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

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

D-10 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 State Pollutant Discharge Elimination System (SPDES) permit.

D-11 Backfill from Off-Site Sources

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

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

All imported soils will meet the backfill and cover soil quality standards established in 6NYCRR 375-6.7(d). Based on an evaluation of the land use, protection of groundwater and protection of ecological resources criteria, the resulting soil quality standards are POGW SCOs. Soils that meet 'exempt' fill requirements under 6 NYCRR Part 360, but do not meet backfill or cover soil objectives for this Site, will not be imported onto the Site without prior approval by NYSDEC. Solid waste will not be imported onto the Site.

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

D-12 Stormwater Pollution Prevention

Silt fencing, hay bales or other applicable erosion and sediment control devices will be installed around the entire perimeter of the construction area, as needed. 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.

D-13 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 and PCBs), unless the Site history and previous sampling results provide a sufficient justification to limit the list of analytes. In this case, a reduced list of analytes will be proposed to the NYSDEC for approval prior to sampling.

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

D-14 Community Air Monitoring Plan

Procedures for air monitoring are defined in the Community Air Monitoring Plan (CAMP, Appendix F of this SMP) prepared for the Site. Air monitoring locations will be selected on a daily basis during invasive work based on actual wind directions to provide an upwind and at

least one downwind monitoring stations. Appendix F also includes the special requirements for work within 20 feet of occupied structures or indoors with co-located facility operations.

Exceedances of action levels listed in the CAMP will be reported to NYSDEC and NYSDOH Project Managers.

D-15 Odor Control Plan

This odor control plan is capable of controlling emissions of nuisance odors off-site and on-site. Specific odor control methods to be used on a routine basis will include (1) covering soil stockpiles or other containerized wastes, (2) controlling the size of open excavations, and (3) limiting duration of open excavation and stockpile staging. 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 PRR.

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 soil. 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.

D-16 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.

D-17 Other Nuisances

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

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

**SITE MANAGEMENT PLAN
820 LINDEN AVE BCP SITE #C828200
PITTSFORD, NY**

Appendix E

Health and Safety Plan

**Health and Safety Plan
Site Management Plan
820 Linden Ave Brownfield Cleanup
Program Site #C82820**
820 Linden Avenue
Pittsford, Monroe County, New York

Prepared for:

New York State Department of
Environmental Conservation
6274 Avon-Lima Road
Avon, New York 14414

Prepared on behalf of:

Ridgecrest Associates, L.P.
135 Orchard Park BV
Rochester, New York 14609

Prepared by:

Stantec Consulting Services Inc.
61 Commercial Street, Suite 100
Rochester, New York 14614



September 2020

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**HEALTH AND SAFETY PLAN
SITE MANAGEMENT PLAN
820 LINDEN AVE BCP SITE #C828200
820 LINDEN AVENUE
PITTSFORD, MONROE COUNTY, NEW YORK**

Abbreviations

1,1-DCE	1,1-dichloroethene
BCOL	business center operating leader
CAMP	Community Air Monitoring Plan
CFR	Code of Federal Regulations
cis-1,2-DCE	cis-1,2-dichloroethene
COC	Contaminant of Concern
CVOC	chlorinated volatile organic compound
dB	decibel
DER	[NYSDEC] Division of Environmental Remediation
FTL	Field Team Leader
HASP	Health and Safety Plan
JML	JML Optical
NEC	National Electrical Code
Newport	Newport Corporation
NYSDEC	New York State Department of Environmental Conservation
OSHA	Occupational Safety and Health Administration
PCE	tetrachloroethene
PEL	Permissible Exposure Limit
PID	photoionization detector
ppm	parts per million
PPE	Personal Protective Equipment
RI	Remedial Investigation
SMP	Site Management Plan
SSO	Site Safety Officer
SWP	Safe Work Practice
TCE	trichloroethene
TSP	trisodium phosphate
TWA	Time Weighted Average
VOC	volatile organic compound

**HEALTH AND SAFETY PLAN
SITE MANAGEMENT PLAN
820 LINDEN AVE BROWNFIELD CLEANUP PROGRAM SITE #C828200
820 LINDEN AVENUE
PITTSFORD, MONROE COUNTY, NEW YOR**

Introduction

1.0 INTRODUCTION

The following Health and Safety Plan (HASP) describes personal safety protection standards and procedures to be followed by Stantec staff during the implementation of Site Management activities for the 820 Linden Ave Site located at 820 Linden Avenue in Pittsford, New York (Figure 1).

This HASP establishes mandatory safety procedures and personal protection standards pursuant to the Occupational Safety and Health Administration (OSHA) regulations 29 Code of Federal Regulations (CFR) 1910.120. The HASP applies to all Stantec personnel conducting any Site work, as defined in 29 CFR 1910.120(a). All personnel involved in the mentioned activities must familiarize themselves with this HASP, comply with its requirements and have completed the required health and safety training and medical surveillance program participation pursuant to 29 CFR 1910.120 prior to beginning any work onsite.

THIS HASP IS FOR THE EXPRESS USE OF STANTEC EMPLOYEES. ALL OTHER CONTRACTORS TO BE WORKING IN THE EXCLUSION AREAS ARE REQUIRED BY LAW TO DEVELOP THEIR OWN HASP, AS WELL TO MEET ALL PERTINENT ASPECTS OF OSHA REGULATIONS. STANTEC RESERVES THE RIGHT TO STOP ANY SITE WORK WHICH IS DEEMED TO POSE A HEALTH AND SAFETY THREAT TO ITS STAFF OR OTHERS.

1.1 BACKGROUND

A Site Management Plan (SMP) is being submitted to the New York State Department of Environmental Conservation (NYSDEC) for the 820 Linden Ave Site located at 820 Linden Avenue in the Town of Pittsford, Monroe County, New York. The objectives of the SMP are to manage residual contamination and provide policies and procedures for maintaining, inspecting, and certifying the Institutional and Engineering Controls implemented to mitigate exposure of the public and environment to residual contamination.

The Site consists of an approximately 7.97-acre parcel located in the Town of Pittsford, Monroe County, New York. The Site is improved with an approximately 108,400 square foot slab-on-grade building. The southern tenant space in this building is approximately 70,200 square feet and is currently occupied by JML Optical (JML). The northern tenant space is approximately 38,200 square feet and is currently occupied by Newport Corporation (Newport). Both current tenants are optics manufacturing facilities.

1.2 HAZARD RECOGNITION

Several health and safety hazards associated with this Site and the anticipated job tasks that could be performed as part of the SMP have been identified and are listed below.

**HEALTH AND SAFETY PLAN
SITE MANAGEMENT PLAN
820 LINDEN AVE BROWNFIELD CLEANUP PROGRAM SITE #C828200
820 LINDEN AVENUE
PITTSFORD, MONROE COUNTY, NEW YOR**

Introduction

While in the field, new hazards may be identified as part of the field level risk assessment. This HASP should be updated to reflect new hazards as they are identified during the various investigation stages.

1.2.1 Health Hazards

The following is a list of the potential health hazards identified for the Site.

Chemical hazards include:

- Halogenated organic compounds;
- Polycyclic aromatic hydrocarbons (PAHs);
- Polychlorinated biphenyls (PCBs);
- Mercury;
- Petroleum hydrocarbons; and
- Solvents/flammables.

Physical hazards include:

- Cold stress/frostbite;
- Heat stress/sunburn;
- Driver fatigue;
- Dust/dusty environment;
- Flora or fauna (ticks and poison ivy known to be present);
- Noise; and
- Rough terrain/heavy brush.

1.2.2 Safety Hazards

The following is a list of the potential safety hazards identified for the Site.

Machine-related hazards include:

- Heavy equipment;
- Moving parts;
- Excavations (test pits);
- Pinch points; and
- Rotating parts.

Material handling hazards include:

- Load < 50 lbs; and

**HEALTH AND SAFETY PLAN
SITE MANAGEMENT PLAN
820 LINDEN AVE BROWNFIELD CLEANUP PROGRAM SITE #C828200
820 LINDEN AVENUE
PITTSFORD, MONROE COUNTY, NEW YOR**

Introduction

- Sharp/rough surface (drums).

1.3 HAZARD ASSESSMENT

At the minimum, Stantec personnel will review the following Stantec Safe Work Practices (SWPs) identified as being relevant to the Site and project tasks prior to implementation of SMP activities.

- SWP 104 – Hazard Communication
- SWP 105 – Personal Protective Equipment (PPE)
- SWP 107 – First Aid
- SWP 111 – Medical Surveillance
- SWP 113 – Heat Stress
- SWP 114 – Working in Cold Environments
- SWP 115 – Material Handling and Safe Lifting
- SWP 124 – Safe Driving
- SWP 201 – Fall Protection/Working from Heights
- SWP 213 – Ground Disturbance and Overhead Utility
- SWP 214 – Entering Excavation and Trenches
- SWP 216 – Working Near Mobile Equipment
- SWP 314 – Working Around Hazardous Waste and Wastewater
- SWP 407 – Traffic Control and Protection Planning
- SWP 409 – Respiratory Protection
- SWP 416 – Supervision of Contracted Drilling Activities
- SWP 511 – Ticks and Tickborne Diseases

If new hazards are identified, additional SWPs should be reviewed, if available. This process should occur prior to the commencement of field work and throughout the stages of the Site Management.

In addition, hazards and safety practices associated with COVID-19 are summarized in Appendix A.

1.4 SITE-SPECIFIC CHEMICALS OF CONCERN

A detailed description of prior investigation results is provided in the SMP. An overview of the applicable findings is included below with an emphasis on the Site-specific chemicals of concern (COCs).

Four Areas of Concern (AOCs) have been identified at the Site based on findings from previous investigations and interim remedial actions and are summarized below.

**HEALTH AND SAFETY PLAN
SITE MANAGEMENT PLAN
820 LINDEN AVE BROWNFIELD CLEANUP PROGRAM SITE #C828200
820 LINDEN AVENUE
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Introduction

- AOC-1: Chlorinated Volatile Organic Compounds (VOCs) have been identified in sub-slab soil vapor beneath the JML tenant space at concentrations requiring mitigation. Chlorinated VOC impacts to sub-slab vapor were first identified from historical PSG surveys. The potential for SVI was investigated by Stantec through combined sub-slab vapor and indoor air sampling in 2016-2017 as part of the Limited Phase II ESA (Stantec, 2017b). The following chlorinated VOCs were identified as COCs for this media: 1,1-DCE; cis-1,2-DCE; PCE; and TCE. No source has been identified despite extensive shallow and deep soil and groundwater investigations in the areas of impact. Potential exposure has been or is being addressed through implementation of IRM1 and IRM3 with the installation and operation of the SSDS, which will be subject to the long-term OM&M Plan as well as the site-wide SMP.
- AOC-2: The debris pile located in the northeast corner of the parking lot area was found to contain elevated levels of PAHs [benzo(a)anthracene; benzo(a)pyrene; benzo(b)fluoranthene; indeno(1,2,3-cd)pyrene] associated with significant crushed asphalt contents. Removal of this debris pile was conducted in IRM2 up to the northern property line; however, confirmatory sampling indicated that while contamination was reduced, residual PAHs are present in soil at the Site edge north of the former debris pile.
- AOC-3: Three former septic systems were identified during the test pit program. The buried structures were addressed through system removal and/or in-place closure. Potential impacts associated with the septic systems have been largely addressed and no particular COCs remain, except for mercury described later.
- AOC-4: One semi-volatile organic compound (SVOC) was detected above commercial/industrial SCOs in the RI SS-4 composite sample which was derived from discrete sampling locations SS-4a, SS-4b, and SS-4c along the vegetated berm near the eastern property line. A second limited Supplemental Remedial Investigation (SRI#2) was conducted to discretely sample each of the composite locations. Sampling results indicated shallow surface soil PAH impacts (0-2") across the vegetated berm on the eastern property line. Exposure to these soils was mitigated by installation of an engineered cover system in IRM4.

Instances where there were exceedances of Commercial or POGW SCOs or Groundwater standards or guidance values, but the issue does not rise to the level of an AOC include:

- An isolated exceedance of the Commercial SCO for mercury in the sample adjacent to the Northwest Septic System Tank 2. This sample was taken at 8-10 ft bgs and due to its isolated location and depth, and the proposed site use, it is not considered a concern.
- TCE was identified in groundwater in the eastern parking lot area in B/MW-101, B/MW-104, and B/MW-105.

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- Acetone impacts to groundwater beneath the building were identified during Stantec's Limited Phase II ESA (Stantec, 2017b). Delineation of these impacts was addressed during the RI, which confirmed that groundwater acetone impacts are limited to beneath the building. Levels of acetone reported in Site soil samples meet both Commercial and Industrial SCOs, but in some cases exceed the POGW SCO.

Table 1 summarizes health and safety data for the COCs, and the SDSs for the COCs is included in HASP Appendix B.

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Stantec Personnel Organization

2.0 STANTEC PERSONNEL ORGANIZATION

Below is a list of **Project Contact** information:

Title	Name	Company	Phone Number
Stantec Office	Rochester, NY	Stantec	(585) 475-1440
Project Manager	Stephanie Reynolds-Smith, PG	Stantec	(585) 413-5272 c. (585) 298-2382
Project Remedial Engineer	Kevin Ignaszak, PE	Stantec	(585) 413-5355
Project SSDS Engineer	Dwight Harrienger, PE	Stantec	(585) 413-5273
Site Safety Officer/Field Team Leader	Laura Best	Stantec	(585) 413-5327 c. (585) 301-0166
Site Safety Officer/Field Team Leader	Amanda Kelly, EIT	Stantec	(585) 413-5370 c. (585) 319-9499
Site Safety Officer/Field Team Leader	Amanda Matkosky	Stantec	(585) 413-5208 c. (585) 285-3598
Site Safety Officer/Field Team Leader	Kyle Stone, EIT	Stantec	(585) 413-5209 c. (585) 284-6433
After-Hours Project Contact	Stephanie Reynolds-Smith, PG	Stantec	c. (585) 298-2382
After-Hours Project Contact [alternate]	Mike Storonsky	Stantec	c. (585) 298-2386
Client (Ridgecrest Associates)	Joe Lobo	Ridgecrest Associates	c. (585) 766-3949
Primary Facility Contact - JML	Steve Burton	JML	c. (585) 218-2906
Facility Contact - JML (Until 4:00 pm)	Mark Zaso	JML	c. (315) 289-3038
Facility Contact - JML (4:00 pm – 2:00 am)	Corbin Beck	JML	c. (585) 314-2663
Primary Facility Contact -Newport	Brian Grove	Newport	c. (585) 739-6046
Office Safety Environment Coordinator	Michele D'Agostino	Stantec	(585) 413-5206
Local HR Representative	Keith Kiss	Stantec	(585) 413-5228 c. (585) 287-4502
Stantec Corporate HSE Representative (US Northeast)	Fred Miller, CSP	Stantec	(610) 235-7315
Stantec Public Relations Specialist, US Northeast	Trevor Eckart	Stantec	(215) 665-7187

The following describes the Stantec personnel involved in health and safety operations at the 820 Linden Ave Site located at 820 Linden Avenue in Pittsford, NY.

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Medical Surveillance Requirements

2.1 PROJECT MANAGER

The Project Manager is responsible for ensuring that all Stantec procedures and methods are carried out, and that all Stantec personnel abide by the provisions of this HASP.

2.2 SITE SAFETY OFFICER/FIELD TEAM LEADER

The Site Safety Officer (SSO) and Field team leader (FTL) will report directly to the Project Manager and will be responsible for the implementation of this HASP as well as daily calibration of Stantec's safety monitoring instruments. The FTL/SSO will keep a log book of all calibration data and instrument readings for the Site that will be utilized by the field team onsite during the various SMP activities.

2.3 DAILY MEETINGS

All Stantec personnel and contractors working within the exclusion zone will be required to sign off on the daily safety meeting form presented in HASP Appendix C.

3.0 MEDICAL SURVEILLANCE REQUIREMENTS

3.1 INTRODUCTION

Hazardous waste site workers can often experience high levels of physical and chemical stress. Their daily tasks may expose them to toxic chemicals, physical hazards, biologic hazards, or radiation. They may develop heat stress while wearing protective equipment or working under temperature extremes, or face life-threatening emergencies such as explosions and fires. Therefore, a medical program is essential to: assess and monitor worker's health and fitness both prior to employment and during the course of the work; provide emergency and other treatment as needed; and keep accurate records for future reference. In addition, OSHA requires a medical evaluation for employees that may be required to work on hazardous waste sites and/or wear a respirator (29 CFR Part 1910.120 and 1910.134), and certain OSHA standards include specific medical surveillance requirements (e.g., 29 CFR Part 1926.62, Part 1910.95 and Parts 1910.1001 through 1910.1045).

3.2 MEDICAL EXAMINATIONS

All Stantec personnel working in areas of the Site where Site-related contaminants may be present shall have been examined by a licensed physician as prescribed in 29 CFR Part 1910.120,

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and determined to be medically fit to perform their duties for work conditions which require respirators. Employees will be provided with medical examinations as outlined below:

- Pre-job physical examination
- Annually thereafter if contract duration exceeds 1 year;
- Termination of employment;
- Upon reassignment in accordance with 29 CFR Part 1910.120(e)(3)(i)(C);
- If the employee develops signs or symptoms of illness related to workplace exposures;
- If the physician determines examinations need to be conducted more often than once a year; and
- When an employee develops a lost time injury or illness during the contract period.

Examinations will be performed by, or under the supervision of a licensed physician, preferably one knowledgeable in occupational medicine, and will be provided without cost to the employee, without loss of pay and at a reasonable time and place. Medical surveillance protocols and examination and test results shall be reviewed by an Occupational Physician.

4.0 ONSITE HAZARDS

4.1 CHEMICAL HAZARDS

The primary chemical hazards onsite are detailed in Table 1. SDSs for the anticipated compounds presenting potential chemical exposure hazards are provided in Appendix B.

Any activity at the Site which causes physical disturbance of the soil can potentially allow the release of contaminants into the air. For volatiles, this can include release of organic vapors into the air. Such an occurrence may be recognized by noticeable chemical odors. Field personnel should be aware of the odor threshold for these chemicals and their relation to the action levels and PELs (see Table 1).

Symptoms of overexposure to primary compounds of concern are detailed in Table 1. To prevent exposure to these chemicals, dermal contact will be minimized by using disposable surgical gloves with work gloves (as appropriate) when handling soil, groundwater equipment or samples. Real time, breathing zone levels of total VOCs will be monitored using a portable photoionization detector (PID). If ambient levels exceed action levels, all Site activities will be performed using Level C PPE until ambient concentrations dissipate. Where levels exceed 50 parts per million (ppm), work will cease, and the project manager will be notified immediately. Intrusive work may also be halted where required by action levels detailed in the Community Air Monitoring Plan (CAMP), Appendix F of the SMP.

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Depending on seasonal conditions, disturbance of the Site soils may cause the particulate contaminants to become airborne as dust. Therefore, particulates will be monitored as discussed in Section 6.1 and dust-suppression methods used where appropriate as discussed in Section 6.2, or in the CAMP. Additionally, aeration of the groundwater may cause volatilization of chemicals into the air, particularly VOCs.

Table 2 summarizes first aid instructions for exposure pathways for the Site COCs.

4.2 PHYSICAL HAZARDS

The following sub-sections describe the physical hazards anticipated to be encountered at this Site. Field team members will wear the basic safety apparel such as steel-toed shoes, hard hat, safety vest, and safety glasses during all appropriate activities. See Section 7 Personal Protective Equipment for additional information.

4.2.1 Drilling and Excavation Activities

Hazards typically encountered at construction sites with drilling and excavation activities will be a concern at this Site. These hazards include slippery ground surfaces, holes, exposure to chemical vapors, and operation of heavy and mobile machinery and equipment.

Excavation

The potential exists for falling into the excavation due to a slip or trip and also due to potential caving of the test pit sidewalls. During the excavation, field personnel will generally perform observation from the end of the excavation opposite the excavation equipment and will avoid standing along the long sidewalls of the pit. If it is necessary to make observations from a point along the long side of the excavation, they will maintain adequate distance between themselves and the excavation walls and be mindful of signs that caving may be likely. These could include raveling of sidewall material into the pit, or the development of cracks in the ground surface.

Field personnel will not enter excavations deeper than four feet. Field personnel will not approach within six feet of any excavation that is ten feet or greater in depth without the presence of a fall prevention or fall arrest system in place and functioning.

The test pit contractor shall make all necessary contacts with utilities and/or underground utility locator hotlines prior to digging.

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Drilling

Under no circumstances will Stantec personnel approach the borehole during active drilling operation. All field personnel working around the rig will be shown the location and operation of kill switches, which are to be tested daily.

The driller shall make all necessary contacts with utilities and/or underground utility locator hotlines prior to drilling and shall meet OSHA requirements for distances between the drilling rig and overhead utilities. No drilling work will be carried out where the drill rig chassis has not been stabilized and the rig is not to be moved between locations with its boom in a vertical position.

As with any soil disturbance, monitoring for VOCs with a PID will be performed continuously during drilling, test pit excavation, and logging/sampling activities. Work will be stopped, and the area vacated if sustained PID readings are observed at concentrations in excess of the Action Levels specified in Section 6.

Multi-purpose fire extinguishers, functional and within the annual inspection period, will be staged and readily accessible for use.

The use of electrical equipment in any established exclusion zones will be limited to areas verified as containing non-explosive atmospheres (<10% LEL) prior to operation, unless the equipment has been previously demonstrated or designed to be FM or UL rated as intrinsically safe. Care will be taken to avoid an ignition source while working in the presence of vapors.

4.2.2 Roadway Hazards

Field activities may take place near active roadways and/or parking lots with vehicle traffic. Where such work zones are established, personnel shall assure that protective measures including signage, cones, and shielding through use of vehicles parked at workmen perimeter, are in place. All contractors shall be responsible for meeting signage requirements of DOT. Fluorescent safety vests shall be worn by all personnel during activities in or adjacent to roadways and driveways.

4.2.3 Noise

Operation of heavy machinery and equipment may result in noise exposures, which require hearing protection. Exposure to noise can result in temporary hearing losses, interference with speech communication, interference with complicated tasks, or permanent hearing loss due to repeated exposure to noise.

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During the investigative activities, all Stantec field team members will use hearing protection when sound levels are in excess of 90 decibels (dB) time weighted average (TWA). In the absence of noise dosimetry data, field personnel will wear hearing protection during the test boring and monitoring well installation program, and where mandatory per JML/Newport standards when working indoors. Other instances requiring hearing protection may include use of hand power tools.

4.2.4 Heat and Cold Stress Exposure

Heat is a potential threat to the health and safety of Site personnel. The SSO under the direction of the Project Manager will determine the schedule of work and rest. These schedules will be employed as necessary so that personnel do not suffer adverse effects from heat. Table 3 summarizes exposure symptoms and first aid instructions for heat stress. Non-caffeinated, thirst replenishment liquids will be available onsite.

Cold stress is also a potential threat to the health and safety of Site personnel. Symptoms of cold stress include, shivering, blanching of the extremities, numbness or burning sensations, blue, purple or gray discoloration of hands and feet, frostbite, hypothermia, and loss of consciousness. Cold stress can be prevented by acclimatizing one's self to the cold, increasing fluid intake, avoiding caffeine and alcohol, maintaining proper salt and electrolyte intake, eating a well-balanced diet, wearing proper clothing, building heated enclosures to work in, and taking regular breaks to warm up. If any of the above symptoms are encountered the person should be removed from the cold area. Depending on the severity of the cold stress, 911 should be contacted and first aid administered. No fluids should be given to an unconscious person.

4.2.5 Weather-Related Hazards

Weather-related hazards include the potential for heat or cold stress (described in Section 4.2.4), electrical storms, treacherous weather-related working and/or driving conditions, or limited visibility. These hazards correlate with the season in which Site activities occur. Outside work will be suspended during electrical storms. Site work will not be resumed until 30 minutes have passed without thunder and lightning. In the event of other adverse weather conditions, the SSO, in consultation with the project manager, if needed, will determine if work can continue without endangering the health and safety of Site personnel.

4.2.6 Poison Ivy

Poison ivy has been identified along the western side of the northern Site boundary, near the Northwest Septic System as well as on the eastern side of the Site along the vegetated berm. Poison ivy is a plant that is found throughout much of North America and can be present as a shrub, vine or groundcover. It has sets of three glossy leaves with the stalk of the middle leaf

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longer than the outside leaves. It can cause an allergic reaction after contact with its active oil (urushiol). Reactions develop over a period of time, often taking hours or days. Reactions consist of itching and burning that develops into a reddish colored inflammation or non-colored bumps, followed by blistering. Treatment includes removal of all contaminated clothing and footwear without further skin contact and washing with a product such as Tecnu®. Antihistamine creams are often helpful, but severe cases may require prescription medication.

4.2.7 Ladders

Over one-third of worker deaths in construction result from falls (<https://www.osha.gov/oshstats/commonstats.html>). Many falls occur because ladders are not placed or used safely. Ladder use will comply with OSHA 1926.1053 through 1926.1060, including the following safety requirements.

STEP	PROPER LADDER USE PROCEDURE
1	Choose the right ladder for the task including the proper type and size, with a sufficient rating for the task.
2	Check the condition of the ladder before climbing. <ul style="list-style-type: none"> Do not use a ladder with broken, loose, or cracked rails or rungs. Do not use a ladder with oil, grease, or dirt on its rungs. The ladder should have safety feet.
3	Place the ladder on firm footing, with a four-to-one pitch.
4	Support the ladder by: <ul style="list-style-type: none"> Tying it off; Using ladder outrigger stabilizers; or Have another worker hold the ladder at the bottom. If another worker holds the ladder, they must: <ul style="list-style-type: none"> Wear a hard hat; Hold the ladder with both hands; Brace the ladder with their feet; and Not look up.
5	Keep the areas around the top and bottom of the ladder clear.
6	Extend the top of the ladder at least 36 inches (3 feet) above the landing.
7	Climb the ladder carefully - facing it - and use both hands. <ul style="list-style-type: none"> Use a tool belt and hand-line to carry material to the top or bottom of the ladder. Wear shoes in good repair with clean soles.
8	Inspect the ladder every day, prior to use, for the following problems: <ul style="list-style-type: none"> Rail or rung damage Broken feet Rope or pulley damage Rung lock defects or damage

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STEP	PROPER LADDER USE PROCEDURE
	<ul style="list-style-type: none"> Excessive dirt, oil, or grease <p>If the ladder fails inspection, it must be removed from service and tagged with a "Do Not Use" sign.</p>

4.2.8 Hand and Power Tools

All hand and power tools will be maintained in a safe condition and in good repair. Hand and power tools will be used in accordance with 29 CFR 1926, Subpart I (1926.300 through 1926.307). Neither Stantec nor its subcontractors will issue unsafe tools, and workers are not permitted to bring unsafe tools onsite. All tools will be used, inspected, and maintained in accordance with the manufacturer's instructions. Throwing tools or dropping tools to lower levels is prohibited. Hand and power tools will be inspected, tested, and determined to be in safe operating condition prior to each use. Periodic safety inspections of all tools will be conducted to assure that the tools are in good condition, all guards are in place, and the tools are being properly maintained. Any tool that fails an inspection will be immediately removed from service and tagged with a "Do Not Use" sign.

Workers using hand and power tools, who are exposed to falling, flying, abrasive, or splashing hazards will be required to wear personal protective equipment (PPE). Eye protection must always be worn when working onsite. Additional eye and face protection, such as safety goggles or face shields, may also be required when working with specific hand and power tools. Workers, when onsite, will wear hard hats. Additional hearing protection may be required when working with certain power tools. Workers using tools, which may subject their hands to an injury, such as cuts, abrasions, punctures, or burns, will wear protective gloves. Loose or frayed clothing, dangling jewelry, or loose long hair will not be worn when working with power tools, or near others operating machinery or equipment with moving or rotating parts.

Electric power-operated tools will be double insulated or grounded, and equipped with an on/off switch. Guards must be provided to protect the operator and other nearby workers from hazards such as in-going nip points, rotating parts, flying chips, and sparks. All reciprocating, rotating and moving parts of tools will be guarded if contact is possible. Removing machine guards is prohibited.

Abrasive wheels will only be used on equipment provided with safety guards. Safety guards must be strong enough to withstand the effect of a bursting wheel. Abrasive wheels will not be operated in excess of their rated speed. Work or tool rests will not be adjusted while the wheel is in motion. All abrasive wheels will be closely inspected, and ring tested before each use, and any cracked or damaged wheels will be removed immediately and destroyed.

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Circular saws must be equipped with guards that completely enclose the cutting edges and have anti-kickback devices. All planer and joiner blades must be fully guarded. The use of cracked, bent, or otherwise defective parts is prohibited. Chain saws must have an automatic chain brake or kickback device. The worker operating the chain saw will hold it with both hands during cutting operations. A chain saw must never be used to cut above the operator's shoulder height. Chain saws will not be re-fueled while running or hot. Power saws will not be left unattended.

Only qualified workers will operate pneumatic tools, powder-actuated tools, and abrasive blasting tools.

4.2.9 Manual Lifting

Back injuries are among the leading occupational injuries reported by industrial workers. Back injuries such as pulls and disc impairments can be reduced by using proper manual lifting techniques. Leg muscles are stronger than back muscles, so workers should lift with their legs and not with their back. Proper manual lifting techniques include the following steps:

STEP	PROPER MANUAL LIFTING PROCEDURE
1	Plan the lift before lifting the load. Take into consideration the weight, size, and shape of the load.
2	Preview the intended path of travel and the destination to ensure there are no tripping hazards along the path.
3	Wear heavy-duty work gloves to protect hands and fingers from rough edges, sharp corners, and metal straps. Also, keep hands away from potential pinch points between the load and other objects.
4	Get the load close to your ankles, and spread your feet apart. Keep your back straight and do not bend your back too far; instead bend at your knees.
5	Feel the weight; test it.
6	Lift the load smoothly, and let your legs do the lifting. If you must pivot, do not swing just the load; instead, move your feet and body with the load.

If the load is too heavy, then do not lift it alone. Lifting is always easier when performed with another person. Assistance should always be used when it is available, particularly when walking on uneven terrain, up/down stairs and near moving vehicles (or in other situations where sightlines are necessary).

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4.2.10 Lock-Out/Tag-Out

Before a worker sets up, services, or repairs a system where unexpected energizing (or release of stored energy) could occur and cause injury or electrocution, the circuits energizing the parts must be locked-out and tagged. Only authorized personnel will perform lock-out/tag-out procedures. All workers affected by the lock-out/tag-out will be notified prior to, and upon completion of, the lock-out/tag-out procedure.

Lock-out/tag-out devices must be capable of withstanding the environment to which they are exposed. Locks will be attached in such a way as to prevent other personnel from operating the equipment, circuit, or control, or from removing the lock unless they resort to excessive force. Tags will identify the worker who attached the device, and contain information, which warns against the hazardous condition that will result from the system's unauthorized start-up. Tags must be legible and understood by all affected workers and incidental personnel. The procedures for attaching and removing lock-out/tag-out devices include the steps outlined in the following table.

If maintenance work is required, the electrical supply to the equipment must be disconnected. Turning off the MAIN breaker using the disconnect switch will disconnect all power to the system. Once the disconnect switch has been turned off, the switch will be locked-out using the steps outlined below.

STEP	LOCK-OUT/TAG-OUT PROCEDURES
1	Disconnect the circuits and/or equipment to be worked on from all electrical energy sources.
2	Ensure that the system is completely isolated so that it cannot be operated at that shut-off point or at any other location.
3	Release stored electrical energy.
4	Block or relieve stored non-electrical energy.
5	Place a lock on each shut-off or disconnect point necessary to isolate all potential energy sources. Place the lock in such a manner that it will maintain the shut-off/disconnect in the off position.
6	Place a tag on each shut-off or disconnect point. The tag must contain a statement prohibiting the unauthorized re-start or re-connect of the energy source and the removal of the tag, and the identity of the individual performing the tag and lock-out.
7	Workers who will be working on the system must place their own lock and tag on <u>each</u> lock-out point.
8	A qualified person must verify the system cannot be re-started or re-connected, and de-energization of the system has been accomplished.

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STEP	LOCK-OUT/TAG-OUT PROCEDURES
	Once the service or repairs have been made on the system:
9	A qualified person will conduct an inspection of the work area, to verify that all tools, jumpers, shorts, grounds, etc., have been removed so that the system can then be safely re-energized.
10	All workers stand clear of the system.
11	Each lock and tag will be removed by the worker who attached it. If the worker has left the Site, then the lock and tag may be removed by a qualified person under the following circumstances:
	a. The qualified person ensures the worker who placed the lock and tag has left the Site; and
	b. The qualified person ensures the worker is aware the lock and tag has been removed before the worker resumes work onsite.

No Stantec personnel are permitted to perform lock-out/tag-out work without prior approval of the Project Manager and completion of required specialized training.

4.2.11 Electrical Work

Site work involving electrical installation or energized equipment must be performed by a qualified electrician. All electrical work will be performed in accordance with the OSHA electrical safety requirements found in 29 CFR 1926.400 through 1926.449. Workers are not permitted to work near electrical power circuits unless the worker is protected against electric shock by de-energizing and grounding the circuit or by guarding or barricading the circuit and providing proper PPE. All electrical installations must comply with National Electric Code (NEC) regulations. All electrical wiring and equipment used must be listed by a nationally recognized testing laboratory.

All electrical circuits and equipment must be grounded in accordance with the NEC regulations. The path to ground from circuits, equipment, and enclosures will be permanent and continuous. Ground Fault Circuit Interrupters (GFCIs) are required on all 120-volt, single phase, 15- and 20-amp outlets in work areas that are not part of the permanent wiring of the building or structure. A GFCI is required when using an extension cord. GFCIs must be tested regularly with a GFCI tester.

Heavy-duty extension cords will be used; flat-type extension cords are not allowed. All extension cords must be the three-wire type, and designed for hard/extra hard usage. Electrical wire or cords passing through work areas must be protected from water and damage. Worn, frayed, or damaged cords and cables will not be used. Walkways and work spaces will be kept clear of cords and cables to prevent a tripping hazard. Extension cords and cables may not be secured

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with staples, hung from nails, or otherwise temporarily secured. Cords or cables passing through holes in covers, outlet boxes, etc., will be protected by bushings or fittings.

All lamps used in temporary lighting will be protected from accidental contact and breakage. Metal shell and paper-lined lamp holders are not permitted. Fixtures, lamp holders, lamps, receptacles, etc. are not permitted to have live parts. Workers must not have wet hands while plugging/unplugging energized equipment. Plugs and receptacles will be kept out of water (unless they are approved for submersion).

5.0 SITE WORK ZONES

The following work zones will be delineated by Stantec during the investigation activities.

5.1 CONTROL ZONES

Control boundaries will be established within the areas of Site activities. Examples of boundary zones include the exclusion and decontamination zone. All boundaries will be dynamic, and will be determined by the planned activities for the day. The FTL will record the names of any visitors to the Site.

5.2 EXCLUSION ZONE

The controlled portion of the Site will be delineated to identify the exclusion zone, wherein a higher level of PPE may be required for entry during intrusive activities. The limits of the exclusion zone will be designated at each work location appropriately. A decontamination zone will be located immediately outside the entrance to the exclusion zone. All personnel leaving the exclusion zone will be required to adhere to proper decontamination procedures.

A "super exclusion" zone will be established around the borehole which will not be entered by Stantec personnel at any time during any active drilling, slambar, cathead, silica sand dumping, or other related activities. The drilling contractor will be directed to stop such activity when Stantec Site team members have a need to enter this zone.

5.3 DECONTAMINATION ZONE

The decontamination zone will be located immediately outside the entrance to the exclusion zone on its apparent upwind side, if feasible, and will be delineated with caution tape and traffic cones as needed. This zone will contain the necessary decontamination materials for personnel decontamination. Decontamination procedures are outlined in Section 8.0 of this plan.

6.0 SITE MONITORING AND ACTION LEVELS

6.1 SITE MONITORING

Field activities associated with drilling, excavation, and sampling may create potentially hazardous conditions due to the migration of contaminants into the breathing zone. These substances may be in the form of mists, vapors, dusts, or fumes that can enter the body through ingestion, inhalation, absorption, and direct dermal contact. Monitoring for VOCs and particulates will be performed as needed to ensure appropriate personal protective measures are employed during Site activities.

A separate CAMP has also been developed (Appendix F of the SMP) to protect the surrounding neighborhood as well as the building tenants/Site workers. Based on NYSDEC comments on the Remedial Investigation Work Plan (RIWP) for this Site, supplemental CAMP requirements must be followed for work performed near the building when occupied by workers and/or inside the building. The special requirements required by NYSDEC, as listed in the RIWP comment letter dated May 21, 2018, are transcribed in the CAMP addendum (SMP Appendix F). It is assumed that continuous downwind particulate and VOC monitoring will be required during the test pit and drilling programs.

The following describes the conditions that will be monitored for during the investigation activities. All background and Site readings will be logged, and all instrument calibrations, etc., will be logged.

Organic Vapor Concentrations – During drilling, organic vapors will be monitored continuously in the breathing zone in the work area with a portable PID, such as a miniRAE Model 3000 with a 10.6 eV lamp. The instrument will be calibrated daily or as per the manufacturer's recommendations. PID readings will be used as the criteria for upgrading or downgrading protective equipment and for implementing additional precautions or procedures.

Split spoons or other soil sampling devices will be monitored using the PID at the time they are opened, with appropriate PPE to be used where soils exhibit measurable VOC levels.

Particulates - Stantec will perform particulate monitoring with an aerosol monitor (such as the TSI 8530 DustTrak II) within the outdoor work area to monitor personal exposures to particulates and to compare work area readings with downwind and upwind readings. The first readings of the day will be obtained prior to the commencement of work to obtain a daily background reading, and the instrument will be zeroed daily and calibrated to manufacturer's specifications. Readings will be manually recorded approximately every 30 minutes thereafter. If the work area

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Personal Protective Equipment

particulate levels exceed the background levels by more than 0.15 mg/m³, the Contractor will be instructed to implement dust suppression measures.

6.2 ACTION LEVELS

During the course of any activity, as long as sustained PID readings in the breathing zone are less than 5 ppm above background, Level D protection will be considered adequate. Level C protection will be required when VOC concentrations in ambient air in the work zone are sustained at levels exceeding 5 ppm total VOCs above background but remain below 50 ppm total VOCs. Onsite use of VOCs (including acetone, toluene, and methylene chloride) within one or both tenant spaces may contribute to background VOCs, particularly given assumed operation of ventilation/exhaust systems.

If concentrations in the work zone exceed 50 ppm for a period of 5 minutes or longer, work will immediately be terminated by the SSO. Options to allow continued drilling would then be discussed amongst all parties. Supplied-air respiratory protection is generally required for drilling to resume under these conditions. If Level B protection is not used, work may resume in Level C once monitoring concentrations have decreased below 50 ppm and conditions outlined in the CAMP are met.

If the monitoring of fugitive particulate levels within the work area exceeds 0.15 mg/m³ above background, then the drilling Contractor will be directed to implement fugitive dust control measures which may include use of engineering controls such as water spray at the borehole.

7.0 PERSONAL PROTECTIVE EQUIPMENT

Based on an evaluation of the hazards at the Site, PPE will be required for all personnel and visitors entering the drilling exclusion zone(s). It is anticipated that all Stantec oversight work will be performed in Level D. All contractors will be responsible for selection and implementation of PPE for their personnel.

7.1 PROTECTIVE CLOTHING/RESPIRATORY PROTECTION

Protective equipment for each level of protection is as follows:

If PID readings are above 50 ppm, requiring an upgrade to Level B, Site work will be halted pending review of conditions and options by Stantec and other involved parties.

When PID readings range between 5 and 50 ppm, upgrade to Level C:

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Decontamination

Level C

- Full face, air purifying respirator with organic/HEPA cartridge;
- Disposable chemical resistant one-piece suit (Tyvek or Saranex, as appropriate);
- Inner and outer chemical resistant gloves;
- Hard hat;
- Steel-toed boots; and
- Disposable booties.

When PID readings range between background and 5 ppm use Level D:

Level D

- Safety glasses;
- Steel-toed boots;
- Protective cotton, latex or leather gloves depending on Site duties;
- Hard hat; and
- Tyvek coverall (optional).

Stantec employees are expected to wear long sleeves when doing so would not pose an additional hazard (i.e. heat stress). Steel-toed boots should be approximately 6" to provide sufficient ankle protection. Safety vests should be worn for visibility; alternatively, bright colored shirts (safety yellow, for example) can be utilized when reflective properties of the safety vests are not necessary.

Caution will be taken to avoid direct skin contact with poison ivy, leaf litter, root systems, and the soil in contact with roots. Individuals known to be sensitive to poison ivy should not work in these areas of the Site. If sensitive individuals cannot avoid working in this area, after approval from their business center operating leader (BCOL), a Tyvek like clothing with hood will be worn and a full-face respirator will be used to provide complete body coverage, regardless of PID readings. In the warmer months, KleenGuard, which is lighter than Tyvek, should be considered.

8.0 DECONTAMINATION

8.1 PERSONAL DECONTAMINATION

For complete decontamination, all personnel will observe the following procedures upon leaving the exclusion zone:

1. If worn, remove disposable outer boots and outer gloves and place in disposal drum.

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Emergency Procedures

2. If using a respirator, remove respirator, dispose of cartridges if necessary, and set aside for later cleaning.
3. If worn, remove disposable chemical resistant suits and dispose of articles in drum.
4. Remove and dispose of inner gloves.

Decontamination solutions shall be supplied at the decontamination zone. The wash solution will consist of water and detergent such as Alconox or trisodium phosphate (TSP), and the rinse solution will consist of clean water.

Contaminated wash solutions shall be collected in drums for disposal. All other disposable health and safety equipment will be decontaminated and disposed of as non-hazardous waste.

When working in the vicinity of poison ivy, washing with Tecnu® or a similar product subsequent to Site work will be required.

8.2 EQUIPMENT DECONTAMINATION

If equipment is used during field activities, it will be properly washed or steam-cleaned prior to exiting the decontamination zone. Any needed pre- or post-use rinsing using solvents will be done wearing appropriate PPE.

When feasible, monitoring instruments will be either wrapped in plastic or carried by personnel not involved in handling contaminated materials, to reduce the need for decontamination. All instruments will be wet-wiped prior to removal from the work zone.

9.0 EMERGENCY PROCEDURES

The SSO will coordinate emergency procedures and will be responsible for initiating emergency response activities. Emergency communications at the Site will be conducted verbally and by means of an air or vehicle horn. All personnel will be informed of the location of the cellular telephone and horn. Three blasts on the air or vehicle horn will be used to signal distress.

9.1 LIST OF EMERGENCY CONTACTS

Ambulance: 911

Hospital: Highland Hospital: (585) 473-2200

Fire Department: 911

Police: 911

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Emergency Procedures

Poison Control Center: 1-800-222-1222

Utility Emergency: 911

9.2 DIRECTIONS TO HOSPITAL

Maps presenting directions to the nearest hospital (Highland Hospital) and urgent care centers (UR Medicine Urgent Care centers on Monroe Avenue and Penfield Road) are provided in Figure 2. The routes shall be reviewed at the initial Site safety meeting onsite and as needed for Site orientation if new personnel are added to the field team.

9.3 ACCIDENT INVESTIGATION AND REPORTING

The incident reporting form and protocol is included in Appendix D.

In the event that an accident or some other incident such as an explosion or exposure to toxic chemicals occurs during the course of the project, the Project Manager will be telephoned as soon as possible and receive a written notification within 24 hours (see Appendix D).

Where reportable injuries, hospitalizations or fatalities occur amongst Stantec personnel, the necessary document required by OSHA will be submitted within timeframes allowed by law.

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FIGURES

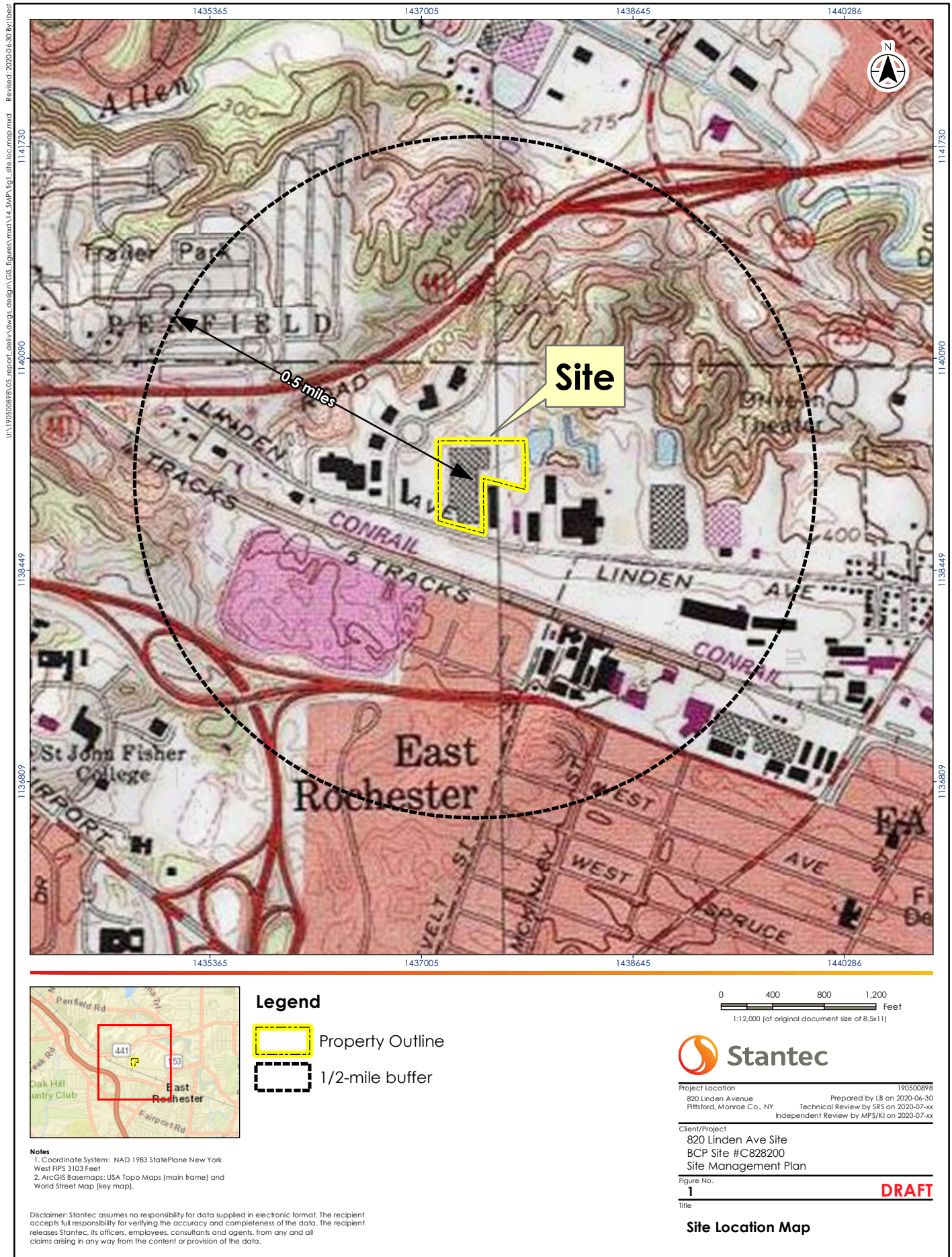


Figure 2 Map and Driving Directions to Medical Facilities

Urgent Care Option 1:

UR Medicine Urgent Care – Pittsford

Pittsford Colony Plaza

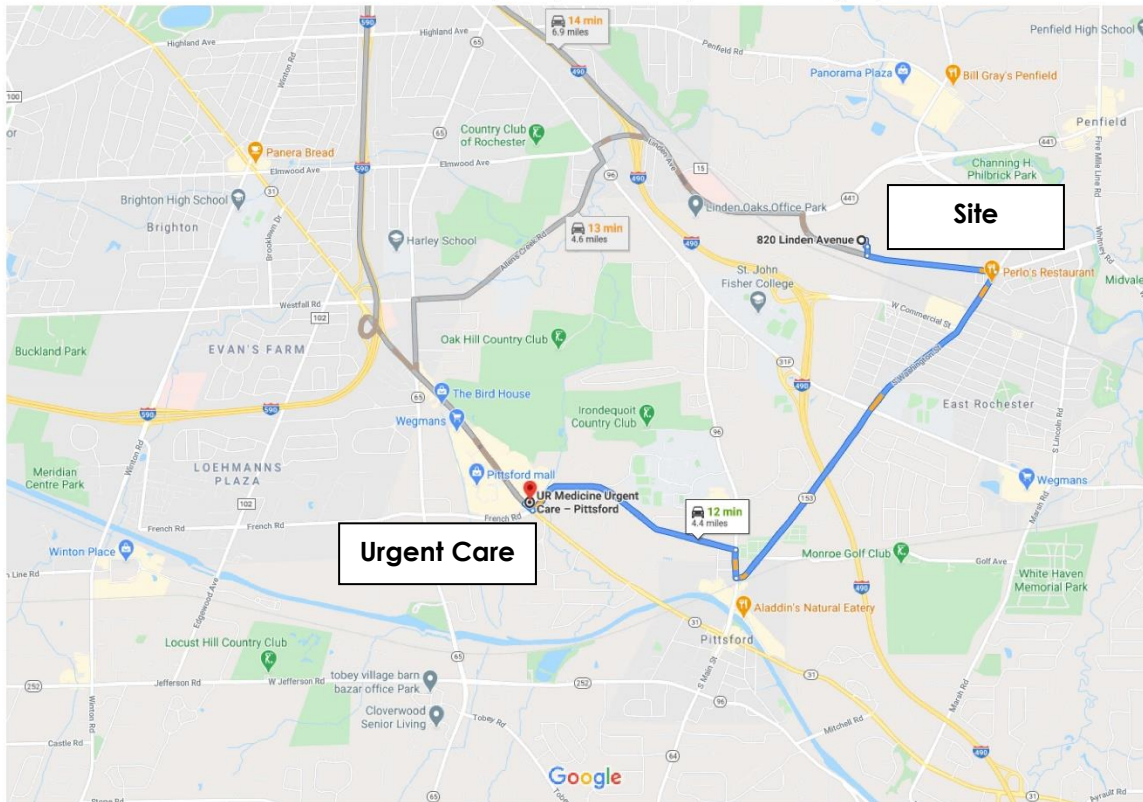
3400 Monroe Ave

Rochester, NY, 14618

Phone: (585) 203-1055

8/28/2020

820 Linden Avenue, Rochester, NY to UR Medicine Urgent Care – Pittsford - Google Maps



Continue to Linden Ave

- 39 s (476 ft)
1. Head south toward Linden Ave
233 ft
 2. Turn right toward Linden Ave
243 ft

Drive along NY-153 S/N Washington St and French Rd

- 10 min (4.3 mi)
3. Turn left onto Linden Ave
0.7 mi
 4. Turn right onto NY-153 S/N Washington St
2.2 mi
Pass by Wendy's (on the right in 0.3 mi)
 5. Turn right onto NY-96 N/N Main St
0.2 mi
Continue to follow NY-96 N
 6. Turn left onto French Rd
1.2 mi
 7. Turn right onto NY-31 W
295 ft

Drive to your destination

- 41 s (427 ft)
8. Turn right
89 ft
 9. Turn right
220 ft
 10. Turn left
118 ft
Destination will be on the right

UR Medicine Urgent Care – Pittsford

3400 Monroe Ave, Rochester, NY 14618

Figure 2
Map and Driving Directions to Medical Facilities

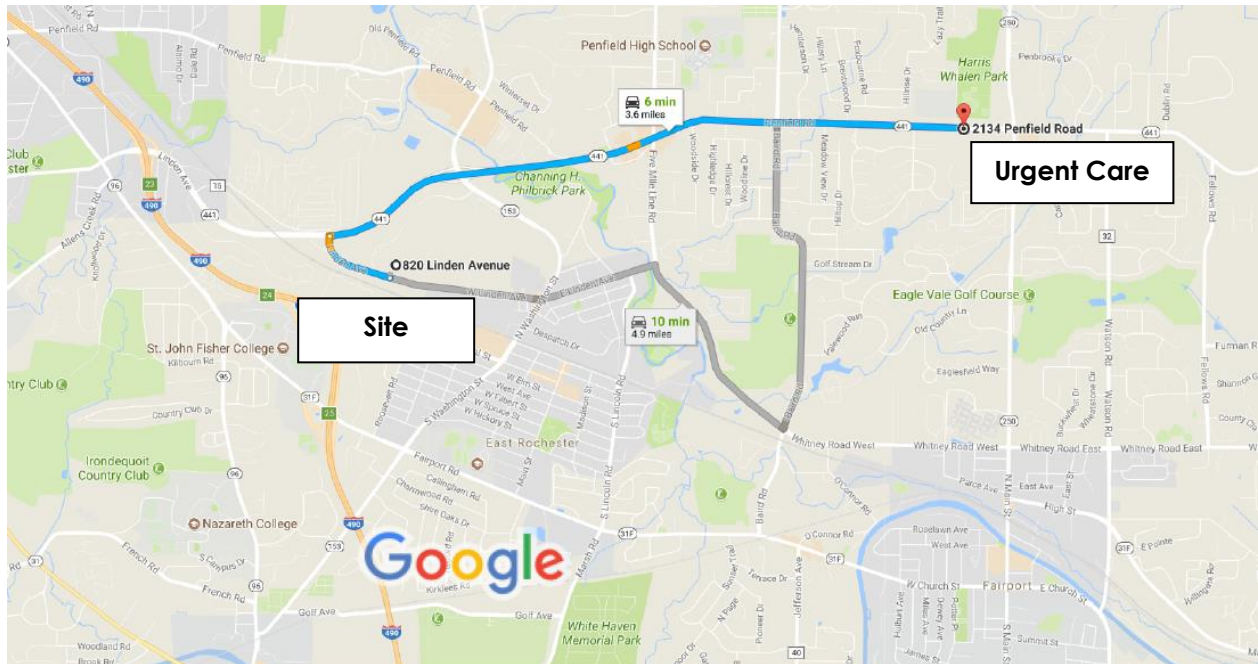
Urgent Care Option 2:

UR Medicine Urgent Care – Penfield

2134 Penfield Rd

Penfield, NY 14526

Phone: (585) 276-8280



Map data ©2017 Google United States 2000 ft

820 Linden Ave

Rochester, NY 14625

- ↑ 1. Head west on Linden Ave toward Linden Park
0.4 mi
- ➔ 2. Turn right onto NY-441 E
3.2 mi

2134 Penfield Rd

Penfield, NY 14526

****anticipated travel times for individual steps not shown as entire route is under 10 minutes and the majority of travel is along Route 441****

Figure 2 Map and Driving Directions to Medical Facilities

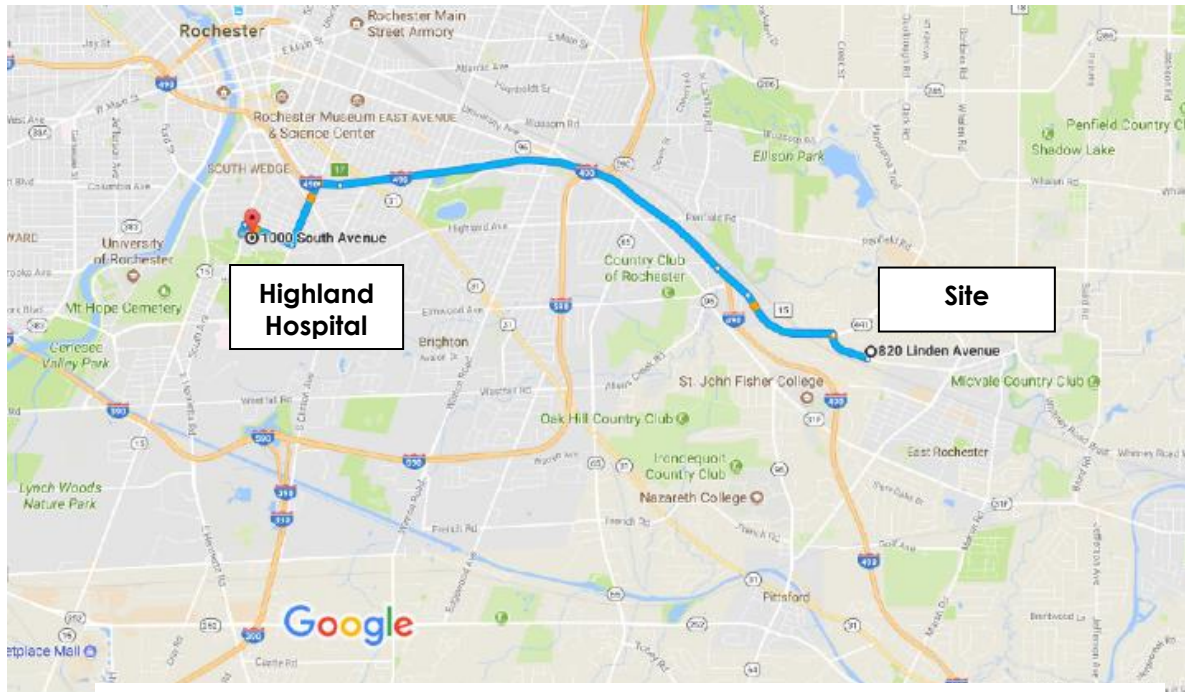
Hospital:

Highland Hospital

1000 South Ave

Rochester, NY 14620

Phone: (585) 473-2200



820 Linden Ave

Rochester, NY 14625

Get on I-490 W in Brighton

- | | | |
|---|---|----------------|
| ↑ | 1. Head west on Linden Ave toward Linden Park | 3 min (1.6 mi) |
| ↩ | 2. Use any lane to turn left onto NY-441 W | 0.4 mi |
| ⤴ | 3. Use the right lane to take the Interstate 490 W ramp | 0.9 mi |
| | | 0.4 mi |

Follow I-490 W to S Goodman St in Rochester. Take exit 17 from I-490 W

- | | | |
|---|--------------------------------|----------------|
| ⤴ | 4. Merge onto I-490 W | 4 min (3.7 mi) |
| ↘ | 5. Take exit 17 for Goodman St | 3.5 mi |
| | | 0.2 mi |

Follow S Goodman St and Rockingham St to South Ave

- | | | |
|---|----------------------------------|----------------|
| ↩ | 6. Turn left onto S Goodman St | 5 min (1.1 mi) |
| ↘ | 7. Turn right onto Rockingham St | 0.6 mi |
| ↩ | 8. Turn left onto South Ave | 0.4 mi |
| | | 446 ft |

1000 South Ave

Rochester, NY 14620

HEALTH AND SAFETY PLAN
SITE MANAGEMENT PLAN
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820 LINDEN AVENUE
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TABLES

Table 1
Health and Safety Data for COCs
Site Management Plan
Health and Safety Plan
820 Linden Ave Site
820 Linden Avenue, Pittsford, NY

Compound	OSHA PEL ¹	NIOSH REL ²	ACGIH TLV ³	Physical Description	Odor Threshold in Air	Route of Exposure	Symptoms	Target Organs
Acetone	1000 ppm	250 ppm	250 ppm 500 ppm STEL	Colorless liquid with a fragrant, mint-like odor	20 ppm	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
Aroclor 1254/PCBs	0.5 mg/m³	0.001 mg/m³	0.05 mg/m³	Colorless to pale-yellow, viscous liquid or solid (below 50°F) with a mild, hydrocarbon odor	N/A	Inhalation, skin absorption, ingestion, skin and/or eye contact	Irritation eyes, chloracne; liver damage; reproductive effects; [potential occupational carcinogen]	Skin, eyes, liver, reproductive system
Coal tar pitch volatiles (Benzo(a)pyrene, Phenanthrene, etc.)	0.2 mg/m³	0.1 mg/m³	0.2 mg/m³	Black or dark-brown amorphous residue.	N/A	Inhalation, skin and/or eye contact	Dermatitis, bronchitis, [potential occupational carcinogen]	Respiratory system, skin, bladder, kidneys
1,1-dichloroethene (1,1-DCE)	NE	NE	5 ppm	Colorless liquid or gas (above 89°F) with a mild, sweet, chloroform-like odor	190 ppm	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
cis-1,2- dichloroethene (cis-1,2-DCE)	200 ppm	200 ppm	200 ppm	Colorless liquid (usually a mixture of the cis & trans isomers) with a slightly acrid, chloroform-like odor	17 ppm	Inhalation, ingestion, skin and/or eye contact	Irritation eyes, respiratory system; central nervous system depression	Eyes, respiratory system, central nervous system
Freon 113	1,000 ppm	1,000 ppm	1,000 ppm	Colorless to water-white liquid with an odor like carbon tetrachloride at high concentrations.	N/A	Inhalation, ingestion, skin and/or eye contact	Irritation skin, throat, drowsiness, dermatitis; central nervous system depression; In Animals: cardiac arrhythmias, narcosis	Skin, heart, central nervous system, cardiovascular system
Mercury	0.1 mg/m³	0.05 mg/m³	0.025 mg/m³	Metal: Silver-white, heavy, odorless liquid	N/A	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
Methylene chloride	25 ppm 125 ppm STEL 12.5 ppm AL	NE	50 ppm	Colorless liquid with a chloroform-like odor	250 ppm	Inhalation, skin absorption, ingestion, skin and/or eye contact	Irritation eyes, skin; lassitude, drowsiness, dizziness; numb, tingle limbs; nausea	Eyes, skin, cardiovascular system, central nervous system
Tetrachloroethene (aka Perchloroethene [PCE])	100 ppm 200 ppm C	NE	25 ppm 100 ppm STEL	Colorless liquid with a mild chloroform-like odor	1 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
Toluene	200 ppm TWA 300 ppm C	100 ppm TWA 150 ppm STEL	20 ppm	Colorless liquid with a sweet, pungent, benzene-like odor	2.9 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
1,1,1-Trichloroethane (1,1,1-TCA)	350 ppm	350 ppm	350 ppm 450 ppm STEL	Colorless liquid with a mild, chloroform-like odor	120 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
Trichloroethene (TCE)	100 ppm 200 ppm C	25 ppm	10 ppm 25 ppm STEL	Colorless liquid with a chloroform-like odor	28 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

Table 1
Health and Safety Data for COCs
Site Management Plan
Health and Safety Plan
820 Linden Ave Site
820 Linden Avenue, Pittsford, NY

Abbreviations:	
AL	Action Level
C	Ceiling limits are not to be exceeded during any part of the workday
mg/m3	milligrams per cubic meter
NE	Not established
N/A	Not available
ppm	parts per million
STEL	Short-Term Exposure Limit is a 15-min TWA
TWA	Time-weighted average

- Notes:**
1. Occupational Safety and Health Administration (OSHA) Permissible Exposure Limit (PEL) for general industry. The OSHA PELs are 8-hour TWAs, unless otherwise noted.
 2. National Institute for Occupational Safety and Health (NIOSH) Recommended Exposure Limit (REL) are based on 10-hour workdays during a 40-hour workweek.
 3. American Conference for Governmental Industrial Hygienists (ACGIH) Threshold Limit Value (TLV). The ACGIH TLVs are 8-hr TWAs, unless otherwise noted.

Table 2**Exposure Pathways and First Aid Response for COCs**

Site Management Plan

Health and Safety Plan

820 Linden Ave Site

820 Linden Avenue, Pittsford, NY

Substance	Exposure Pathways	First Aid Instructions
VOCs and SVOCs listed in Table 1	Eye	Irrigate immediately
	Dermal	Soap wash promptly; or Soap wash immediately (acetone and coal tar pitch volatiles); or Soap flush immediately (1,1-DCE)
	Inhalation	Respiratory support
	Ingestion	Medical attention immediately
PCBs and Mercury	Eye	Irrigate immediately
	Dermal	Soap wash promptly
	Inhalation	Respiratory support
	Ingestion	Medical attention immediately

Table 3**Exposure Symptoms and First Aid for Heat Exposure**

Site Management Plan
Health and Safety Plan
820 Linden Ave
820 Linden Avenue, Pittsford, NY

Heat Disorder	Symptoms	First Aid Instructions
Heat Rash	Red skin	Remove victim from sun; allow skin to dry; washing skin may further cool the victim.
Heat Cramps	Muscle cramps	Move victim to cooler environment and lay down if possible; remove or lighten tight clothing; cool victim by sponging and fanning (do not cool worker too much); administer fluids (juice, non-caffeinated soft drinks or sports drinks are preferable) if victim is alert and not nauseated.
Heat Exhaustion	Heavy sweating; weakness; cool to cold skin; pale and clammy; thready pulse; possible confusion; fainting; vomiting.	Stop work immediately; remove victim from sun to cooler environment; lie down and loosen clothing; apply cool, wet cloths; fan or move to location with AC; sips of water; if nausea occurs, discontinue fluids; if vomiting continues, seek immediate medical attention.
Heat Stroke	High body temperature; hot, dry skin (red mottled or bluish); rapid and strong pulse; confusion/disorientation; dizziness; possible loss of consciousness.	Stop work immediately; call 911; move victim to cooler place and remove heavy clothing; cool the victim by available means (ice packs, wet towels) with extreme caution; do not administer fluids or medication.

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APPENDIX A

Stantec COVID-19 Guidance

Stantec COVID-19 Field Guidance and Best Practices

NOTE: Recent revisions highlighted in yellow for ease of identification

The COVID-19 pandemic is rapidly evolving, and Stantec's Pandemic Committee continues to work diligently to secure guidance from global and regional health authorities to help protect the health and safety of our employees and minimize the spread of the virus. They provide regular updates to employees through Stantec's internal communications platform (The Lens) which allow us to continue to serve our clients. Our people are at the heart of everything we do; they give our work purpose and deliver the critical support our clients require. Supporting our employees' health and the health of those around them is entrenched in our corporate values. Stantec's Pandemic Committee has instituted a number of precautionary measures to promote continued health and mitigate the chance of virus spread. All employees are encouraged to refer to [The Lens](#) for the most up to date guidance.

This document is intended to provide guidance on managing the risks associated with COVID-19 for those that perform or direct **field work**.

This guidance should be incorporated as part of existing or new project Risk Management Strategy (RMS1) or Health and Safety Plans (HASPs).

Symptoms

Those who are infected with COVID-19 may have little to no symptoms. Symptoms may take up to 14 days to appear after exposure to COVID-19. A person may not realize they have symptoms of COVID-19 because they are similar to a cold or flu. Symptoms have included: fever, cough, sore throat, shortness of breath, chills, headache, repeated shaking with chills, muscle pain, new loss of taste or smell, or toes and extremities turning blue.

Worksite Considerations

For those working on project sites or in client settings, Stantec team members will work to uphold our company standards and work transparently with clients to coordinate approaches where appropriate. Relevant topics include, but are not limited to:

1. Social Distancing
2. Communication
3. Fitness for Duty
4. Safety Plans
5. Work at Remote sites
6. Emergency Responses

1. Social Distancing

Health authorities are recommending social distancing to slow the spread of the virus. Social distancing includes voluntary avoidance of crowded places as defined by government agencies where exposure risks are increased. Experts also recommend staying a minimum of 2 metres (6 feet) away from others.

Project sites under the care and control of Stantec are asked to follow the direction of regional government and health agencies regarding social distancing or other measures. Field employees are asked to practice social distancing at toolbox meetings, in break or lunchrooms, site trailers, and vehicles. Confined spaces can also present unique challenges with respect to COVID-19 controls. When Stantec staff are requested to enter a confined space, and where possible and safe to do so, staff should request to not have others in the space with them while they conduct their work.

Minimize activities where groups of workers congregate. If reasonably practicable, conduct toolbox meetings outside, practice social distancing, and keep group sizes small.

Stantec staff will travel alone in vehicles when on Stantec business unless the work is covered by a variance or the following allowances below.

Where it is not reasonably practicable or would cause undue financial impact (as determined by the appropriate Regional Business Leader (RBL), Stantec Operational Business Line employees may travel in the same motor vehicle with one other person while on Stantec business with the following conditions.

- 1) When travelling in motor vehicles with more than one occupant, it is not likely that occupants will be able to maintain 2 metres / 6 feet physical distancing, and a cloth face covering should be worn as described by the [CDC](#). Follow cleaning and disinfectant, and cloth face covering guidance provided in Section 1.4 of the *Hygiene and Wellness COVID-19* document posted on The Lens. The passenger is to sit in the back seat on the opposite side of the driver.
- 2) For travel in a shuttle, bus or multi-row van, there is a maximum of one occupant per row of seating, alternating in a checkerboard seating arrangement. The vehicle will be loaded from the back to front and unloaded from the front to back.

These allowances do not apply under the following situations:

- any travel within the same municipality,
- travel under 2 hours when travelling from the base location,
- where it contravenes local or regional government orders,
- the vehicle has one row of seating, or
- travel in boats, UTVs and helicopters.

If a variance is required, two variance options are available:

- Business Line variances for certain work categories (i.e. land surveying, remote biological surveys). The HSSE Manager for the BOU (MOC Reviewer) and the BL (MOC Owner) will work together to prepare and submit a plan to the Director HSSE Operations for approval.
- Project level variances for one-off project requirements. For this scenario, the project team will prepare and submit a plan to the Regional HSSE Manager (MOC Reviewer)

and appropriate RBL (MOC Owner) for joint review and feedback. Once finalized, it will be sent to the Director HSSE Operations for approval.

Final approvals will also be shared with the appropriate Regional Leader(s) and HSSE Manager(s).

When two individuals have been permitted to travel in a vehicle through the Stantec variance process, do not use the air recirculation feature in the vehicle, and when practicable, open windows to provide continual replacement of cabin air with fresh air.

Where possible, adjust work planning to maximize social distancing between workers, teams, and site personnel. This may include staggering meal and break times to avoid large gatherings of workers. If workers are required to sign in and out of a site, assign one individual to add the names to the sheet or permit to minimize the possibility of spreading the virus.

If a meeting must take place in-person onsite, the location must be large enough to permit 2 metres (6 feet) of separation between attendees; surfaces will be wiped down prior to convening the meeting; hand sanitizer and wipes must be available to all participants; invitees will be asked not to attend if they are not feeling well; person-to-person contact must be avoided (shaking hands, etc.); and all attendees are reminded to cover any coughs or sneezes using the crook of their arm.

The CDC, WHO and PHAC are recommending cloth face coverings be worn (covering the nose and mouth) to protect people around you if you may be infected but do not have symptoms. A cloth face covering should be worn in settings where other social distancing measures are difficult to or cannot be maintained (e.g. you cannot maintain 2 metres/ 6 feet at all times). This practice does not replace social distancing and is instead meant to be an additional control. If your task required the use of an N95 mask to protect you from workplace hazards before the outbreak of the pandemic, you should continue to wear the N95 mask while conducting your task. Any personal protective equipment, including face coverings of all types, should always be assessed, worn, and maintained as per the manufacturer's instructions.

The cloth face coverings recommended are not surgical masks or N-95 respirators.

According to these organizations, cloth face coverings should:

- 1) Fit snugly but comfortably against the side of the face
- 2) Be secured with ties or ear loops
- 3) Include multiple layers of fabric
- 4) Allow for breathing without restriction
- 5) Be able to be laundered and machine dried without damage or change to shape

Before donning a cloth face covering, wash your hands thoroughly. Cover your mouth and nose and ensure there are no gaps between your face and the face covering. Avoid touching the face covering with your hands while you are wearing it; if you do, clean your hands with alcohol-based hand rub or soap and water. Replace the face covering with a new one as soon as it is damp.

When removing your face covering handle it by the straps and place it in a sealable container until it can be laundered. Launder cloth masks using the warmest water and appropriate detergent for the items and dry the coverings completely. The CDC indicates that standard laundering will remove the virus, use of bleach or a disinfectant is not required. Allow laundered face coverings to dry before reuse.

For any staff wanting to wear a cloth face covering at work or out in the community, please use the link to the [website](#) below for instructions on how to make one.

If access to a client site requires a cloth face covering, please speak to your supervisor to approve associated expenses.

<https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/diy-cloth-face-coverings.html>

2. Communication

Our COVID-19 response follows CDC, WHO, and PHAC guidelines. If our practices are not aligned with client practices, employees are to meet with their project manager and supervisor to discuss the differences and determine an appropriate solution to continue supporting our clients. Please seek the support of HSSE as needed.

Differences in plans may affect our level of service, project schedule, and resourcing of construction laborers, materials, or other resources. We often have contractual obligations to formally notify our clients of these situations in order to be entitled to schedule or cost relief, and often these notices must be submitted within a short period of time. If you have questions, please contact regional counsel for support.

Project managers, in cooperation with our clients, will need to determine the appropriate staffing and resources for field offices while maintaining social distancing. Project teams are asked to maintain open lines of communication with their client contacts, request a copy of changes to site safety protocols (including fit for duty), and communicate any updates to the project team.

In the event that a Stantec employee has a confirmed diagnosis or exhibits symptoms of COVID-19 and interacted with a client (either in office settings or on project sites), the project team will connect with the Stantec Regional Crisis Team who will communicate with the client.

3. Fitness for Duty

As part of the **fitness for duty** checks documented on the Field Level Risk Assessment (RMS2) form, Stantec field employees are asked to verify that any personnel who will be visiting or conducting any work on a Stantec work site:

You are not fit for duty if any of the following conditions are met.

You have a temperature above 100.4 °F (38 °C).

You have any symptoms associated with COVID-19 such as cough, sore throat, shortness of breath, chills, headache, repeated shaking with chills, muscle pain, new loss of taste or smell, or toes and extremities turning blue.

You have been exposed to someone in the last 14 days that has been diagnosed with COVID-19 or is presumptively positive.

You or any members of your household travelled internationally in the last 14 days.

There are prepared speaking notes and a *Field Level Risk Assessment Fit for Duty COVID-19 Guidance* tool to assist field employees to verify worker fitness for duty related to COVID-19.

4. Safety Plans

Incorporate the guidance below into existing and new project Risk Management Strategy (RMS1) or Health and Safety Plans (HASPs).

- Notify BC leadership of ongoing field work so that local orders or directives can be communicated to field personnel in a timely manner. These may require project managers to determine which tasks are deemed critical and which tasks can be deferred.
- Maintain a current call down list for all field-based employees.
- For projects that extend beyond a single day, verify that the site is tidied up and left in a safe and secure condition. Project teams may not be able to return to the project site based on government orders or directives. In addition, where logistically feasible, plan on traveling home at the end of the workday rather than staying in a hotel. Be mindful of local maximum allowable work hours per day or per week.
- Discuss projects that require employees to enter a residential structure with BC leadership if the work is deemed critical or if it can be deferred. When entering a residential structure, communicate expectations ahead of scheduled visits, practice social distancing at the door, and make arrangements for the client to determine the following from the occupants of the residence before entry.

Does anyone have a temperature above 100.4 °F (38 °C).

Does anyone have any symptoms associated with COVID-19 such as cough, sore throat, shortness of breath, chills, headache, repeated shaking with chills, muscle pain, new loss of taste or smell, or toes and extremities turning blue.

Has anyone been exposed to someone in the last 14 days that has been diagnosed with COVID-19 or is presumptively positive.

Have any members of your household travelled internationally in the last 14 days.

- Where possible, employees are encouraged to pack meals and snacks as needed for the project duration and avoid visiting stores and restaurants. If necessary, modify your schedule to avoid restaurants and public restrooms during peak (i.e., crowded, periods to minimize contact with the public). Use drive-through service for food pick-up if available.

Personal Hygiene and Wellness

The following personal hygiene and wellness practices are recommended to prevent or control the transmission of bacteria and/or viruses:

- Wash your hands with soap and water for at least 20 seconds after using toilet facilities, before and after eating, after handling potentially contaminated or infectious materials, after removing

hand protection and other PPE, and after sneezing, coughing, or touching your face. When soap and water is not available use an alcohol-based hand sanitizer.

- Avoid touching your eyes, nose, and mouth with unwashed hands.
- Cover your mouth and nose when coughing or sneezing with a tissue or crook of your elbow. Throw the used tissue in the trash and wash your hands.
- Maintain lunchroom facilities through cleaning and disinfecting objects and surfaces. Leave contaminated tools, materials, or clothing outside.
- Maintain vehicles through regular cleaning and disinfecting of surfaces.
- Do not share tools or equipment (e.g. cell phones, shovels, etc.) between employees without disinfecting them first.
- Avoid handling common use items such as pens and clipboards; equip each worker with their own. If it is necessary to have common use items, include them in the cleaning and disinfecting cycle outlined below.
- Avoid unnecessary, unprotected contact with wild or farm animals, and wash hands immediately if contact does occur.
- Get vaccinated against seasonal influenza viruses.
- Get adequate rest, eat a healthy, balanced diet, and stay hydrated.
- Don't share personal items that can't be disinfected. Furthermore, any protective clothing or other safety device that is worn next to the skin must be cleaned and disinfected prior to use by another employee.

Cleaning and Disinfecting

COVID-19 can survive on different surfaces but can be killed by most cleaners and disinfectants. To prevent transmission of COVID-19 while cleaning, good hygiene measures and consistent use of appropriate personal protective equipment is recommended.

Cleaning refers to the removal of germs, dirt, and impurities from surfaces. Cleaning does not kill germs, but by removing them, it lowers their numbers and the risk of spreading infection.

Disinfecting refers to using chemicals to kill germs on surfaces. This process does not necessarily clean dirty surfaces or remove germs, but by killing germs on a surface after cleaning, it can further lower the risk of spreading infection.

Practice routine cleaning of frequently touched surfaces (for example: vehicle door handles, interior of vehicle such as steering wheel and control panel, equipment controls, handles, stair railings, toilet facility doors, etc.) with household cleaners and disinfectants that are appropriate for the surface, following label instructions. Labels contain instructions for safe and effective use of the cleaning product including precautions you should take, such as wearing gloves and making sure you have good ventilation during use. It is recommended to clean and disinfect high touch surfaces a minimum of twice daily.

It is important to keep vehicles clean. Do not transfer items between vehicles and limit the transfer of objects between the vehicle and the office. Each vehicle should have an ample supply of clean tissues

and hand sanitizer, as well as cleaning supplies and disinfectants. Clean vehicles after each use and wear appropriate personal protective equipment (PPE) when cleaning. When possible, use disposable gloves and masks that may be required for cleaning and disinfecting. Rental vehicles are to be cleaned prior to use, and when possible, use Stantec preferred vehicle rental agencies that have a COVID-19 cleaning protocol in place. All passengers are to clean their hands before touching common areas of the vehicle.

What you should know:

- Commonly used cleaners and disinfectants are effective against COVID-19.
- Frequently touched surfaces are most likely to be contaminated.
- Check the expiry date of products you use and always follow manufacturer's instructions.

If surfaces are dirty, they need to be cleaned using a detergent or soap and water prior to disinfection. For disinfection, refer to a list of products from the [American Chemistry Council](#)

Drinking Water

A reasonable supply of potable drinking water is to be kept readily accessible at the project site for the use of workers. Drinking water is to be supplied from a piping system, individual servings or from a clean, covered container with a drain faucet or pump. Workers will be given a sanitary means of drinking the drinking water and must not be required to share a common drinking container. If using water coolers to provide drinking water, wear clean gloves to operate the spigot and verify that a clean source of disposable cups is available. Verify that the cooler is cleaned and sanitized on a regular basis. If using bottled water sources, have employees take measures such as labeling bottles to avoid drinking out of someone else's bottle.

Toilet Facilities

Toilet facilities will be provided or arranged for workers before work has started at the project and workers will be provided reasonable access to these facilities. Project teams need to consider local closures of restaurants and other establishments when deciding on reasonable access to these facilities. The location of the toilet facilities will be posted in a conspicuous location. The toilet facilities will be serviced, cleaned, and sanitized on a regular basis to maintain them in a clean and sanitary condition. All toilet facilities will have toilet paper available at each toilet.

For toilets that are not connected to a sanitary sewer system, provide the user privacy and protection from weather and from falling objects. The toilets are to be illuminated by natural or artificial light, have adequate ventilation, and have a self-closing door that can be locked from the inside. If the facility is intended for use by female workers, a disposal receptacle for sanitary napkins will be provided. If the toilet facility is intended for use by males only or by females only, it must have a sign indicating that fact.

If a project is being carried out in a remote unpopulated area and it is not reasonably practicable to provide toilet facilities as described above, other types of toilet facilities that come as close as possible to having the features of non-sewered flush toilet facilities will be provided instead, and must be located to provide the user privacy. The minimum number of toilet facilities will be dependent on the gender and number of workers regularly employed on the project and be determined by local legislation.

Clean-up Facilities

Each toilet facility must be provided with its own clean-up facility. Each clean-up facility will meet the following requirements:

- A wash basin with both hot and cold running water if reasonably possible.
- Soap or an alcohol-based hand cleaner.
- Paper towels or a hand dryer. If paper towels are provided, there shall be a waste disposal receptacle nearby.
- If it is not reasonably possible to have a wash basin with running water at a clean-up facility, alcohol-based hand cleanser will be provided instead.

Workers who handle or use corrosive, poisonous or other substances likely to endanger their health will be provided with washing facilities with clean water, soap and individual paper towels.

5. Work at Remote Sites

Working at remote sites presents unique challenges. Items to consider and address in the Risk Management Strategy (RMS1) or Health and Safety Plan (HASP) include:

- Pre-mobilization
 - Each employee needs to review the *Field Level Risk Assessment Fit for Duty COVID-19 Guidance* document.
- Transportation
 - How the employees are accessing the site, by vehicle, airplane or helicopter, and what methods of social distancing they will have with their means of transportation; if reasonable, have the employees access the site via their own vehicle.
- Emergency response
 - A protocol needs to be developed should an employee show signs, or symptoms associated with COVID-19 which includes how they will access medical advice and how they will be evacuated out in case of an emergency. If employees are accessing the site via airplane or helicopter, they may not be allowed access to the airplane or helicopter to evacuate out if they are experiencing any signs or symptoms of COVID-19.
- Accommodations
 - Research the accommodations available, plan for each employee to have their own private lodging to assist with social distancing. If staying in a camp setting, request the camp COVID-19 protocol and review it to ensure it meets Stantec's standard as a minimum. If there is no standard available, the Project Manager will need to discuss Stantec's requirements with the client / camp director.
- Food and water
 - Research the dining options, choose food that is either full service or pre-bagged instead of self-serve buffet style.

- Determine how staff will access potable water
- Cleaning
 - Employees will need to have ready access to tissues and disinfecting wipes.

6. **Emergency Response**

If you experience signs or symptoms of illness, distance yourself from others and notify your supervisor. Your supervisor will work with the Regional Crisis Team to help manage the response.

This guidance document does not address every situation with our projects related to COVID-19 precautionary measures. Additional communication through The Lens as the situation evolves. If there are any questions or situations not currently addressed by any of the available resources found on The Lens, please reach out to your supervisor, project manager, or Regional HSSE resource.

Fit for Duty COVID-19 Guidance

Pre-mobilization fit for duty questions for Stantec field personnel

Please review the following statements and answer the question below:

You are not fit for duty if any of the following conditions are met.

You have a temperature above 100.4 °F (38 °C).

You have any symptoms associated with COVID-19 such as cough, sore throat, shortness of breath, chills, headache, repeated shaking with chills, muscle pain, new loss of taste or smell, or toes and extremities turning blue.

You have been exposed to someone in the last 14 days that has been diagnosed with COVID-19 or is presumptively positive.

You or any members of your household travelled internationally in the last 14 days.

Are you Fit for Duty?

Yes ☐ No ☐

If you answer **YES**, you can mobilize to the project field site.

If you answer **NO**, or you choose to not answer, please consult with your supervisor prior to mobilizing to the project field site.

Field Level Risk Assessment

Questions for non-Stantec personnel accessing field sites under Stantec control

"Hello. As you are aware, COVID-19, also known as the novel coronavirus, was declared a global pandemic on March 11, 2020 by the World Health Organization (WHO). The COVID-19 situation continues to evolve and Stantec is now conducting active fit for duty affirmations prior to allowing access to this site."

Please review the following statements and answer the question below:

You are not fit for duty if any of the following conditions are met.

You have a temperature above 100.4 °F (38 °C).

You have any symptoms associated with COVID-19 such as cough, sore throat, shortness of breath, chills, headache, repeated shaking with chills, muscle pain, new loss of taste or smell, or toes and extremities turning blue.

You have been exposed to someone in the last 14 days that has been diagnosed with COVID-19 or is presumptively positive.

You or any members of your household travelled internationally in the last 14 days.

Are you Fit for Duty?

Yes ☐ No ☐

If the individual answers **YES**, site access can be granted.

If the individual answers **NO**, or refuses to answer, do not allow them access and consult with your supervisor, project manager and/or Regional Leader.

“Thank you for your honesty and understanding. While at this Stantec project site please adhere to social distancing to the fullest extent possible. Social distancing means staying 2 metres (6 feet) away from others and avoiding crowds. Please advise Stantec if your task requires you to be within 2 metres (6 feet) of another individual.”

* Close contact is defined as a person who:

- Provided care for the individual, including healthcare workers, family members or other caregivers, or who had other similar close physical contact with the person without consistent and appropriate use of personal protective equipment OR
- Lived with or otherwise had close prolonged contact (within 2 metres / 6 feet) with the person while the person was infectious OR
- Had direct contact with infectious bodily fluids of the person (e.g., was coughed or sneezed on) while not wearing recommended personal protective equipment.

Cleaning and Disinfecting: COVID-19

NOTE: RECENT CHANGES ARE HIGHLIGHTED IN YELLOW

COVID-19 is spread from person to person most likely through:

- ☐ close contact with an infectious person
- ☐ contact with droplets from an infected person's cough or sneeze; or
- ☐ touching objects or surfaces (like doorknobs, light switches, or tables, etc.) contaminated by cough or sneeze droplets from a person with a COVID-19 infection, and then touching your mouth, nose or eyes.

COVID-19 can survive on different surfaces but can be killed by most cleaners and disinfectants. To prevent transmission of COVID-19 while cleaning, good hygiene measures and consistent use of appropriate personal protective equipment is recommended.

This document addresses the following:

- 1) Cleaners and Disinfectants
- 2) Routine Cleaning and PPE
- 3) Preparing your own bleach solution
- 4) Cleaning your electronics
- 5) Personal clothing
- 6) Receiving mail and packages

1) Cleaners and Disinfectants

Cleaning refers to the removal of germs, dirt, and impurities from surfaces. Cleaning does not kill germs, but by removing them, it lowers their numbers and the risk of spreading infection.

Disinfecting refers to using chemicals to kill germs on surfaces. This process does not necessarily clean dirty surfaces or remove germs, but by killing germs on a surface after cleaning, it can further lower the risk of spreading infection.

Cleaners

- ☐ Break down grease and remove organic material from the surface.
- ☐ Used separately before using disinfectants.
- ☐ Can be purchased with cleaner and disinfectant combined in a single product.

Disinfectants

- ☐ Have chemicals that kill most germs.
- ☐ Applied after the surfaces have been cleaned.

Disinfectant Wipes

- ☐ Have combined cleaners and disinfectants in one solution.
- ☐ May become dry due to fast drying properties. Should be discarded if they become dry.
- ☐ Not recommended for heavily soiled surfaces.

2) Routine Cleaning and PPE

Practice routine cleaning of frequently touched surfaces (for example: tables, doorknobs, light switches, handles, desks, stair railings, push panels on doors, toilets, faucets, sinks) with household cleaners and disinfectants that are appropriate for the surface, following label instructions. Labels contain instructions for safe and effective use of the cleaning product including precautions you should take, such as wearing gloves, chemical interactions, and making sure you have good ventilation during use.

What you should know:

- ☐ Commonly used cleaners and disinfectants are effective against COVID-19.
- ☐ Frequently touched surfaces are most likely to be contaminated.
- ☐ Check the expiry date of products you use and always follow manufacturer's instructions.

If surfaces are dirty, they should be cleaned using a detergent or soap and water prior to disinfection. For disinfection, diluted household bleach solutions, alcohol solutions with at least 70% alcohol, and most common household disinfectants should be effective.

- a) Prepare products for use:
 - ☐ Where possible, use pre-mixed solution.
 - ☐ Read and follow manufacturer's instructions on how to:
 - o properly prepare solution
 - o allow adequate contact time for disinfectant to kill germs (see product label)
 - o wear personal protective equipment (PPE such as gloves and eye protection)
 - o provide adequate ventilation
- b) Clean the surface if necessary, using a compatible cleaner. Do not saturate the surface or submerge the item.
- c) Disinfect the surface following the label instructions. Wear the appropriate PPE. Be sure to apply the disinfectant uniformly across the surface. Keep the surface wet for the recommended period of time (see product label). Maintain good ventilation and allow the surface to dry before use.
- d) Dispose of your gloves and any wipes/towels and wash your hands following good hygiene practices.

Safety glasses, hard hats, and similar hard surface PPE can be disinfected following these procedures when in accordance with manufacturer's instructions. Some PPE such as fall arrest harnesses and lanyards should only be cleaned following the manufacturer's recommendations.

3) Preparing your own bleach solution

Diluted household bleach solutions can be used if appropriate for the surface and premixed cleaners are not available. Follow manufacturer's instructions for application and proper ventilation during mixing and

use of bleach solutions. Validate the product is not past its expiration date. Never mix household bleach with ammonia or any other cleanser. Unexpired household bleach will be effective against coronaviruses when properly diluted. Bleach solutions should be made fresh daily and gloves should be worn when handling and preparing bleach solutions. Protective eyewear should be worn in case of splashing.

Prepare a bleach solution by mixing:

- ☐ 5 tablespoons (1/3rd cup, 75 ml) bleach per US gallon (4 litres) of water or
- ☐ 4 teaspoons (20 ml) bleach per quart (950 ml) of water
- ☐ Application of the bleach solution can be through wiping the surface or spray bottle application

4) Cleaning Your Electronics

For electronics, such as tablets, touch screens, keyboards, and similar, consider applying a wipeable cover or sleeve, on the electronics when feasible. Follow manufacturer's instruction for cleaning and disinfecting equipment to prevent damage.

If there is no guidance,

- ☐ Disconnect the item from the power source then use a lint free cloth to remove residue.
- ☐ Wipe the item with an alcohol-based wipe or apply a 70% alcohol solution to a clean cloth and wipe the touch surfaces. Do not submerge the item. Avoid getting liquid inside the equipment. Avoid applying alcohol to hot electronics.
- ☐ Air dry or dry surfaces thoroughly with a clean cloth.
- ☐ Wash hands following good hand hygiene.

5) Personal clothing (cloth face coverings, clothing, shoes, towels, and other linens)

Please note: Shoes and clothing are not considered a likely source of transmission.

- ☐ Launder items according to the manufacturer's instructions. Use the warmest appropriate water setting and dry items completely.
- ☐ If doing laundry for someone who is sick, wear gloves when handling dirty laundry; items do not have to be washed separately from other laundry.
- ☐ Do not shake dirty laundry.
- ☐ Clean and disinfect clothes hampers according to guidance above for hard surfaces.
- ☐ Always wash your hands right after handling the items.

Remove shoes and leave them in your garage, mudroom, washroom, or porch – outside of the social areas of your home. Wash footwear following label instructions. Most rubber or plastic soles can be treated as a hard surface.

6) Receiving mail and packages

- ☐ Very low risk of spread from products or packaging.
- ☐ Unpack items (while not touching your face), dispose of the packaging, then wash your hands thoroughly.

*prepared using information sources from the World Health Organization (WHO), the Centers for Disease Control and Prevention (CDC), and Public Health Agency of Canada (PHAC).

HEALTH AND SAFETY PLAN
SITE MANAGEMENT PLAN
820 LINDEN AVE BROWNFIELD CLEANUP PROGRAM SITE #C828200
820 LINDEN AVENUE
PITTSFORD, MONROE COUNTY, NEW YOR

APPENDIX B

Safety Data Sheets

SAFETY DATA SHEET

Version 4.12
Revision Date 03/23/2017
Print Date 05/16/2017

1. PRODUCT AND COMPANY IDENTIFICATION

1.1 Product identifiers

Product name : 1,1-Dichloroethene

Product Number : 48526

Brand : Supelco

Index-No. : 602-025-00-8

CAS-No. : 75-35-4

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 1), H224

Acute toxicity, Oral (Category 3), H301

Skin irritation (Category 2), H315

Eye irritation (Category 2A), H319

Carcinogenicity (Category 2), H351

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)

H224 : Extremely flammable liquid and vapour.

H301 : Toxic if swallowed.

H315 : Causes skin irritation.

H319 : Causes serious eye irritation.

H351 : Suspected of causing cancer.

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.
P264	Wash skin thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.
P301 + P310 + P330	IF SWALLOWED: Immediately call a POISON CENTER/doctor. Rinse mouth.
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308 + P313	IF exposed or concerned: Get medical advice/ attention.
P332 + P313	If skin irritation occurs: Get medical advice/ attention.
P337 + P313	If eye irritation persists: Get medical advice/ attention.
P362	Take off contaminated clothing and wash before reuse.
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

May form explosive peroxides.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Synonyms	: 1,1-Dichloroethylene Vinylidene chloride
Formula	: C ₂ H ₂ Cl ₂
Molecular weight	: 96.94 g/mol
CAS-No.	: 75-35-4
EC-No.	: 200-864-0
Index-No.	: 602-025-00-8

Hazardous components

Component	Classification	Concentration
Vinylidene chloride		
	Flam. Liq. 1; Acute Tox. 3; Skin Irrit. 2; Eye Irrit. 2A; Carc. 2; H224, H301, H315, H319, H351	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. Take victim immediately to hospital. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

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**

Wear respiratory protection. 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.

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.

Air and moisture sensitive. Store under inert gas.

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
Vinylidene chloride	75-35-4	TWA	5.000000 ppm	USA. ACGIH Threshold Limit Values (TLV)
	Remarks	Liver damage Kidney damage Not classifiable as a human carcinogen		
		Potential Occupational Carcinogen See Appendix A		
		PEL	1 ppm 4 mg/m3	California permissible exposure limits for chemical contaminants (Title 8, Article 107)

8.2 Exposure controls

Appropriate engineering controls

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

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.

Full contact

Material: Fluorinated rubber

Minimum layer thickness: 0.7 mm

Break through time: 480 min

Material tested: Vitoject® (KCL 890 / Aldrich Z677698, Size M)

Splash contact

Material: butyl-rubber

Minimum layer thickness: 0.3 mm

Break through time: 30 min

Material tested: Butoject® (KCL 897 / Aldrich Z677647, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

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 AXBEK (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.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

a) Appearance	Form: liquid, clear Colour: colourless
b) Odour	No data available
c) Odour Threshold	No data available
d) pH	No data available
e) Melting point/freezing point	Melting point/range: -122 °C (-188 °F) - lit.
f) Initial boiling point and boiling range	30 - 32 °C (86 - 90 °F) - lit.
g) Flash point	-19 °C (-2 °F) - closed cup
h) Evaporation rate	No data available
i) Flammability (solid, gas)	No data available
j) Upper/lower flammability or explosive limits	Upper explosion limit: 15.5 %(V) Lower explosion limit: 6.5 %(V)
k) Vapour pressure	658.6 hPa (494.0 mmHg) 667.3 hPa (500.5 mmHg) at 20.0 °C (68.0 °F) 2,137.4 hPa (1,603.2 mmHg) at 55.0 °C (131.0 °F)
l) Vapour density	No data available
m) Relative density	1.213 g/cm ³ at 20 °C (68 °F)
n) Water solubility	0.2 g/l at 20 °C (68 °F)
o) Partition coefficient: n-octanol/water	No data available
p) Auto-ignition temperature	520.0 °C (968.0 °F) 580.0 °C (1,076.0 °F)
q) Decomposition temperature	No data available
r) Viscosity	No data available
s) Explosive properties	No data available
t) Oxidizing properties	No data available

9.2 Other safety information

No data available

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

Vapours may form explosive mixture with air.

10.4 Conditions to avoid

Heat, flames and sparks.

10.5 Incompatible materials

Oxidizing agents, Copper, Aluminum, and its alloys, Peroxides, Strong bases, Oxygen

10.6 Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, Hydrogen chloride gas

Other decomposition products - No data available

In the event of fire: see section 5

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity

LD50 Oral - Rat - 200.0 mg/kg

Inhalation: Lung irritation

Dermal: No data available

No data available

Skin corrosion/irritation

No data available

Serious eye damage/eye irritation

No data available

Respiratory or skin sensitisation

No data available

Germ cell mutagenicity

Laboratory experiments have shown mutagenic effects.

Carcinogenicity

This product is or contains a component that has been reported to be possibly carcinogenic based on its IARC, ACGIH, NTP, or EPA classification.

Limited evidence of carcinogenicity in animal studies

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

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

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

RTECS: KV9275000

Nausea, Headache, Vomiting, Dizziness, Drowsiness, Confusion., Incoordination., Central nervous system depression,
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Stomach - Irregularities - Based on Human Evidence

12. ECOLOGICAL INFORMATION

12.1 Toxicity

Toxicity to fish	LC50 - Daphnia magna (Water flea) - 11.60 - 11.79 mg/l
	LC50 - Pimephales promelas (fathead minnow) - 108.00 - 169.00 mg/l
	LC50 - Lepomis macrochirus (Bluegill) - 74.00 - 220.00 mg/l
	LC50 - Cyprinodon variegatus (sheepshead minnow) - 249.00 mg/l
	LC50 - other fish - 250.00 mg/l
	LC50 - other fish - 224.00 mg/l
	LC50 - Pimephales promelas (fathead minnow) - 108 mg/l - 96 h
	NOEC - Cyprinodon variegatus (sheepshead minnow) - 80 mg/l - 96 h
Toxicity to daphnia and other aquatic invertebrates	LC50 - Daphnia magna (Water flea) - 11.6 mg/l - 48 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

No data available

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product

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. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging

Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT (US)

UN number: 1303 Class: 3 Packing group: I
Proper shipping name: Vinylidene chloride, stabilized
Reportable Quantity (RQ): 100 lbsReportable Quantity (RQ): 100 lbsMarine pollutant:yes
Poison Inhalation Hazard: No

IMDG

UN number: 1303 Class: 3 Packing group: I EMS-No: F-E, S-D
Proper shipping name: VINYLIDENE CHLORIDE, STABILIZED
Marine pollutant:yes Marine pollutant: yes

IATA

UN number: 1303 Class: 3 Packing group: I
Proper shipping name: Vinylidene chloride, stabilized

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
Vinylidene chloride	75-35-4	2007-07-01

SARA 311/312 Hazards

Fire Hazard, Acute Health Hazard, Chronic Health Hazard

:
Reportable Quantity D029 lbs

Massachusetts Right To Know Components

	CAS-No.	Revision Date
Vinylidene chloride	75-35-4	2007-07-01

Pennsylvania Right To Know Components

	CAS-No.	Revision Date
Vinylidene chloride	75-35-4	2007-07-01

	CAS-No.	Revision Date
Vinylidene chloride	75-35-4	2007-07-01

New Jersey Right To Know Components

	CAS-No.	Revision Date
Vinylidene chloride	75-35-4	2007-07-01

California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

16. OTHER INFORMATION

Full text of H-Statements referred to under sections 2 and 3.

Acute Tox.	Acute toxicity
Carc.	Carcinogenicity
Eye Irrit.	Eye irritation
Flam. Liq.	Flammable liquids
H224	Extremely flammable liquid and vapour.
H301	Toxic if swallowed.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H351	Suspected of causing cancer.
Skin Irrit.	Skin irritation

HMIS Rating

Health hazard:	2
Chronic Health Hazard:	*
Flammability:	4
Physical Hazard	2

NFPA Rating

Health hazard:	2
Fire Hazard:	4
Reactivity Hazard:	2

Further information

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Preparation Information

Sigma-Aldrich Corporation
Product Safety – Americas Region
1-800-521-8956

Version: 4.12

Revision Date: 03/23/2017

Print Date: 05/16/2017

SAFETY DATA SHEET

Version 4.10
Revision Date 09/23/2016
Print Date 07/13/2017

1. PRODUCT AND COMPANY IDENTIFICATION

1.1 Product identifiers

Product name : 1,1,1-Trichloroethane

Product Number : 402877

Brand : Sigma-Aldrich

Index-No. : 602-013-00-2

CAS-No. : 71-55-6

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)

Acute toxicity, Inhalation (Category 4), H332

Skin irritation (Category 2), H315

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

Warning

Hazard statement(s)

H315

Causes skin irritation.

H332

Harmful if inhaled.

Precautionary statement(s)

P261

Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.

P264

Wash skin thoroughly after handling.

P271

Use only outdoors or in a well-ventilated area.

P280

Wear protective gloves.

P302 + P352

IF ON SKIN: Wash with plenty of soap and water.

P304 + P340

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P312

Call a POISON CENTER/doctor if you feel unwell.

P321 Specific treatment (see supplemental first aid instructions on this label).
P332 + P313 If skin irritation occurs: Get medical advice/ attention.
P362 Take off contaminated clothing and wash before reuse.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS - none

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Synonyms : 'Chloroethene'
Methylchloroform

Formula : $C_2H_3Cl_3$
Molecular weight : 133.40 g/mol
CAS-No. : 71-55-6
EC-No. : 200-756-3
Index-No. : 602-013-00-2

Hazardous components

Component	Classification	Concentration
1,1,1-Trichloroethane		
	Acute Tox. 4; Skin Irrit. 2; Eye Irrit. 2A; Ozone 1; H315, H319, H332	<= 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

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

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

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

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

No data available

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.
For personal protection see section 8.

6.2 Environmental precautions

Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

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.
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
1,1,1-Trichloroethane	71-55-6	TWA	350.000000 ppm	USA. ACGIH Threshold Limit Values (TLV)
	Remarks	Central Nervous System impairment Liver damage Substances for which there is a Biological Exposure Index or Indices (see BEI® section) Not classifiable as a human carcinogen		
		STEL	450.000000 ppm	USA. ACGIH Threshold Limit Values (TLV)
		Central Nervous System impairment Liver damage Substances for which there is a Biological Exposure Index or Indices (see BEI® section) Not classifiable as a human carcinogen		
		C	350.000000 ppm 1,900.000000 mg/m3	USA. NIOSH Recommended Exposure Limits
		See Appendix C 15 minute ceiling value		
		TWA	350.000000 ppm 1,900.000000 mg/m3	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
		The value in mg/m3 is approximate.		

		PEL	350 ppm 1,900 mg/m ³	California permissible exposure limits for chemical contaminants (Title 8, Article 107)
		STEL	450 ppm 2,450 mg/m ³	California permissible exposure limits for chemical contaminants (Title 8, Article 107)
		C	800 ppm	California permissible exposure limits for chemical contaminants (Title 8, Article 107)

Biological occupational exposure limits

Component	CAS-No.	Parameters	Value	Biological specimen	Basis
1,1,1-Trichloroethane	71-55-6	Methyl chloroform	40ppm	In end-exhaled air	ACGIH - Biological Exposure Indices (BEI)
	Remarks	Prior to last shift of workweek			
		Trichloroacetic acid	10.0000 mg/l	Urine	ACGIH - Biological Exposure Indices (BEI)
		End of the workweek (After four or five consecutive working days with exposure)			
		Total trichloroethanol	30.0000 mg/l	Urine	ACGIH - Biological Exposure Indices (BEI)
		End of shift at end of workweek			
		Total trichloroethanol	1.0000 mg/l	In blood	ACGIH - Biological Exposure Indices (BEI)
		End of shift at end of workweek			

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.

Full contact

Material: Fluorinated rubber

Minimum layer thickness: 0.7 mm

Break through time: 480 min

Material tested: Vitoject® (KCL 890 / Aldrich Z677698, Size M)

Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0.4 mm

Break through time: 60 min

Material tested: Camatril® (KCL 730 / Aldrich Z677442, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an

industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Body Protection

Complete suit protecting against chemicals, 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

Do not let product enter drains.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

a) Appearance	Form: liquid, clear Colour: colourless
b) Odour	No data available
c) Odour Threshold	No data available
d) pH	No data available
e) Melting point/freezing point	-35.0 °C (-31.0 °F)
f) Initial boiling point and boiling range	72.0 - 75.0 °C (161.6 - 167.0 °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: 15 %(V) Lower explosion limit: 7.5 %(V)
k) Vapour pressure	133.3 hPa (100.0 mmHg) at 20.0 °C (68.0 °F)
l) Vapour density	No data available
m) Relative density	1.34 g/cm ³
n) Water solubility	1.25 g/l at 23 °C (73 °F)
o) Partition coefficient: n-octanol/water	log Pow: 2.49
p) Auto-ignition temperature	537.0 °C (998.6 °F)
q) Decomposition temperature	No data available
r) Viscosity	No data available
s) Explosive properties	No data available
t) Oxidizing properties	No data available

9.2 Other safety information

No data available

10. STABILITY AND REACTIVITY

10.1 Reactivity

No data available

10.2 Chemical stability

Stable under recommended storage conditions.

Contains the following stabiliser(s):

Low alkyl epoxide ($\leq 0.05\%$)

10.3 Possibility of hazardous reactions

No data available

10.4 Conditions to avoid

No data available

10.5 Incompatible materials

Strong oxidizing agents, Potassium, Magnesium, Sodium/sodium oxides, Zinc, Strong bases

10.6 Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, Hydrogen chloride gas

Other decomposition products - No data available

In the event of fire: see section 5

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity

LD50 Oral - Rat - 9,600 mg/kg

Remarks: Cardiac:Pulse rate. Nutritional and Gross Metabolic:Weight loss or decreased weight gain.

LD50 Oral - Mouse - 6,000 mg/kg

Remarks: Cardiac:Pulse rate. Nutritional and Gross Metabolic:Weight loss or decreased weight gain.

LC50 Inhalation - Mouse - 2 h - 3911 ppm

Remarks: Behavioral:Excitement.

Dermal: No data available

LD50 Intraperitoneal - Rat - 3,593 mg/kg

LD50 Intraperitoneal - Mouse - 2,568 mg/kg

LD50 Subcutaneous - Mouse - 16.0 mg/kg

Remarks: Drowsiness Behavioral:Ataxia.

LD50 Intraperitoneal - Dog - 3,100 mg/kg

Remarks: Liver:Liver function tests impaired.

Skin corrosion/irritation

Skin - Rabbit

Result: Skin irritation - 24 h

Serious eye damage/eye irritation

No data available

Respiratory or skin sensitisation

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans (1,1,1-Trichloroethane)

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

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

RTECS: Not available

burning sensation, Cough, wheezing, laryngitis, Shortness of breath, Headache, Nausea, Vomiting, Exposure to and/or consumption of alcohol may increase toxic effects., prolonged or repeated exposure can cause:, narcosis, Liver injury may occur., Kidney injury may occur.

12. ECOLOGICAL INFORMATION

12.1 Toxicity

Toxicity to fish LC50 - Pimephales promelas (fathead minnow) - 42.3 mg/l - 96 h

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

Bioaccumulation Lepomis macrochirus (Bluegill) - 28 d
- 0.0734 mg/l

Bioconcentration factor (BCF): 9

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

No data available

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging

Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT (US)

UN number: 2831 Class: 6.1 Packing group: III
Proper shipping name: 1,1,1-Trichloroethane
Reportable Quantity (RQ): 1000 lbs

Poison Inhalation Hazard: No

IMDG

UN number: 2831 Class: 6.1 Packing group: III EMS-No: F-A, S-A
Proper shipping name: 1,1,1-TRICHLOROETHANE

IATA

UN number: 2831 Class: 6.1 Packing group: III
Proper shipping name: 1,1,1-Trichloroethane

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
1,1,1-Trichloroethane	71-55-6	2007-07-01

SARA 311/312 Hazards

Acute Health Hazard

Massachusetts Right To Know Components

	CAS-No.	Revision Date
1,1,1-Trichloroethane	71-55-6	2007-07-01

Pennsylvania Right To Know Components

	CAS-No.	Revision Date
1,1,1-Trichloroethane	71-55-6	2007-07-01

New Jersey Right To Know Components

	CAS-No.	Revision Date
1,1,1-Trichloroethane	71-55-6	2007-07-01

California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

16. OTHER INFORMATION

Full text of H-Statements referred to under sections 2 and 3.

Acute Tox.	Acute toxicity
Eye Irrit.	Eye irritation
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
Ozone	Hazardous to the ozone layer
Skin Irrit.	Skin irritation

HMIS Rating

Health hazard:	2
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: 4.10

Revision Date: 09/23/2016

Print Date: 07/13/2017

SAFETY DATA SHEET

Creation Date 28-Apr-2009

Revision Date 24-May-2017

Revision Number 3

1. Identification

Product Name Acetone

Cat No. : AC177170000; AC177170010; AC177170025; AC177170050;
AC177170100; AC177170250

Synonyms 2-Propanone

Recommended Use Laboratory chemicals.
Uses advised against Not for food, drug, pesticide or biocidal product use

Details of the supplier of the safety data sheet**Company**

Fisher Scientific
One Reagent Lane
Fair Lawn, NJ 07410
Tel: (201) 796-7100

Acros Organics
One Reagent Lane
Fair Lawn, NJ 07410

Emergency Telephone Number

For information **US** call: 001-800-ACROS-01 / **Europe** call: +32 14 57 52 11
Emergency Number **US**:001-201-796-7100 / **Europe**: +32 14 57 52 99
CHEMTREC Tel. No.**US**:001-800-424-9300 / **Europe**:001-703-527-3887

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
Serious Eye Damage/Eye Irritation	Category 2
Specific target organ toxicity (single exposure)	Category 3
Target Organs - Central nervous system (CNS).	
Specific target organ toxicity - (repeated exposure)	Category 2
Target Organs - Kidney, Liver, spleen, Blood.	

Label Elements**Signal Word**

Danger

Hazard Statements

Highly flammable liquid and vapor
Causes serious eye irritation
May cause drowsiness or dizziness
May cause damage to organs through prolonged or repeated exposure

**Precautionary Statements****Prevention**

Wash face, hands and any exposed skin thoroughly after handling
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
Wear protective gloves/protective clothing/eye protection/face protection
Keep cool

Response

Get medical attention/advice if you feel unwell

Inhalation

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
Call a POISON CENTER or doctor/physician if you feel unwell

Skin

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower

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

Fire

In case of fire: Use CO₂, dry chemical, or foam for extinction

Storage

Store in a well-ventilated place. Keep container tightly closed
Store locked up

Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Repeated exposure may cause skin dryness or cracking

3. Composition / information on ingredients

Component	CAS-No	Weight %
Acetone	67-64-1	>95

4. First-aid measures

Eye Contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
Obtain medical attention.

Skin Contact

Wash off immediately with plenty of water for at least 15 minutes. Obtain medical attention.

Inhalation

Move to fresh air. If breathing is difficult, give oxygen. Get medical attention immediately if symptoms occur.

Ingestion

Do not induce vomiting. Obtain medical attention.

Most important symptoms/effects	Breathing difficulties. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting: May cause pulmonary edema
Notes to Physician	Treat symptomatically

5. Fire-fighting measures

Suitable Extinguishing Media	CO ₂ , dry chemical, dry sand, alcohol-resistant foam. Water spray. Cool closed containers exposed to fire with water spray.
Unsuitable Extinguishing Media	Water may be ineffective
Flash Point	-20 °C / -4 °F
Method -	Closed cup
Autoignition Temperature	465 °C / 869 °F
Explosion Limits	
Upper	12.8 vol %
Lower	2.5 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. Risk of ignition. 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 (CO₂) Formaldehyde Methanol

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. Thermal decomposition can lead to release of irritating gases and vapors.

NFPA

Health	Flammability	Instability	Physical hazards
1	3	0	N/A

6. Accidental release measures

Personal Precautions	Use personal protective equipment. Ensure adequate ventilation. Remove all sources of ignition. Take precautionary measures against static discharges. Keep people away from and upwind of spill/leak. Avoid contact with skin, eyes and inhalation of vapors.
Environmental Precautions	Should not be released into the environment.
Methods for Containment and Clean Up	Remove all sources of ignition. Take precautionary measures against static discharges. Soak up with inert absorbent material. Keep in suitable, closed containers for disposal. Use spark-proof tools and explosion-proof equipment.

7. Handling and storage

Handling	Do not breathe vapors or spray mist. Do not get in eyes, on skin, or on clothing. Wear personal protective equipment. Ensure adequate ventilation. Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharges. Use only non-sparking tools. Use explosion-proof equipment. To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded.
Storage	Flammables area. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat and sources of ignition.

8. Exposure controls / personal protection

Exposure Guidelines

Component	ACGIH TLV	OSHA PEL	NIOSH IDLH	Mexico OEL (TWA)
Acetone	TWA: 250 ppm STEL: 500 ppm	(Vacated) TWA: 750 ppm (Vacated) TWA: 1800 mg/m ³ (Vacated) STEL: 2400 mg/m ³ (Vacated) STEL: 1000 ppm TWA: 1000 ppm TWA: 2400 mg/m ³	IDLH: 2500 ppm TWA: 250 ppm TWA: 590 mg/m ³	TWA: 1000 ppm TWA: 2400 mg/m ³ STEL: 1260 ppm STEL: 3000 mg/m ³

Legend

ACGIH - American Conference of Governmental Industrial Hygienists

OSHA - Occupational Safety and Health Administration

NIOSH IDLH: The National Institute for Occupational Safety and Health Immediately Dangerous to Life or Health

Engineering Measures

Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location. Use explosion-proof electrical/ventilating/lighting/equipment.

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	sweet
Odor Threshold	19.8 ppm
pH	7
Melting Point/Range	-95 °C / -139 °F
Boiling Point/Range	56 °C / 132.8 °F
Flash Point	-20 °C / -4 °F
Method -	Closed cup
Evaporation Rate	5.6 (Butyl Acetate = 1.0)
Flammability (solid,gas)	Not applicable
Flammability or explosive limits	
Upper	12.8 vol %
Lower	2.5 vol %
Vapor Pressure	247 mbar @ 20 °C
Vapor Density	2.0
Specific Gravity	0.790
Solubility	Soluble in water
Partition coefficient; n-octanol/water	No data available
Autoignition Temperature	465 °C / 869 °F
Decomposition Temperature	> 4°C
Viscosity	0.32 mPa.s @ 20 °C

Molecular Formula	C3 H6 O
Molecular Weight	58.08
Refractive index	1.358 - 1.359

10. Stability and reactivity

Reactive Hazard	None known, based on information available
Stability	Stable under normal conditions.
Conditions to Avoid	Heat, flames and sparks. Incompatible products. Keep away from open flames, hot surfaces and sources of ignition.
Incompatible Materials	Strong oxidizing agents, Strong reducing agents, Strong bases, Peroxides, Halogenated compounds, Alkali metals, Amines
Hazardous Decomposition Products	Carbon monoxide (CO), Carbon dioxide (CO ₂), Formaldehyde, Methanol
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
Acetone	5800 mg/kg (Rat)	> 15800 mg/kg (rabbit) > 7400 mg/kg (rat)	76 mg/l, 4 h, (rat)

Toxicologically Synergistic Products Carbon tetrachloride; Chloroform; Trichloroethylene; Bromodichloromethane; Dibromochloromethane; N-nitrosodimethylamine; 1,1,2-Trichloroethane; Styrene; Acetonitrile, 2,5-Hexanedione; Ethanol; 1,2-Dichlorobenzene

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Irritation	Irritating to eyes 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
Acetone	67-64-1	Not listed	Not listed	Not listed	Not listed	Not listed

Mutagenic Effects No information available

Reproductive Effects No information available.

Developmental Effects No information available.

Teratogenicity No information available.

STOT - single exposure Central nervous system (CNS)
STOT - repeated exposure Kidney Liver spleen Blood

Aspiration hazard No information available

Symptoms / effects, both acute and delayed Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting: May cause pulmonary edema

Endocrine Disruptor Information No information available

Other Adverse Effects

The toxicological properties have not been fully investigated.

12. Ecological information**Ecotoxicity**

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Acetone	NOEC = 430 mg/l (algae; 96 h)	Oncorhynchus mykiss: LC50 = 5540 mg/l 96h Alburnus alburnus: LC50 = 11000 mg/l 96h Leuciscus idus: LC50 = 11300 mg/L/48h Salmo gairdneri: LC50 = 6100 mg/L/24h	EC50 = 14500 mg/L/15 min	EC50 = 8800 mg/L/48h EC50 = 12700 mg/L/48h EC50 = 12600 mg/L/48h

Persistence and Degradability

Persistence is unlikely based on information available.

Bioaccumulation/ Accumulation

No information available.

Mobility

Will likely be mobile in the environment due to its volatility.

Component	log Pow
Acetone	-0.24

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
Acetone - 67-64-1	U002	-

14. Transport information**DOT**

UN-No UN1090
 Proper Shipping Name ACETONE
 Hazard Class 3
 Packing Group II

TDG

UN-No UN1090
 Proper Shipping Name ACETONE
 Hazard Class 3
 Packing Group II

IATA

UN-No UN1090
 Proper Shipping Name ACETONE
 Hazard Class 3
 Packing Group II

IMDG/IMO

UN-No UN1090
 Proper Shipping Name ACETONE
 Hazard Class 3
 Packing Group II

15. Regulatory information**International Inventories**

Component	TSCA	DSL	NDSL	EINECS	ELINCS	NLP	PICCS	ENCS	AICS	IECSC	KECL
-----------	------	-----	------	--------	--------	-----	-------	------	------	-------	------

Acetone	X	X	-	200-662-2	-		X	X	X	X	X
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Legend:

X - Listed

E - Indicates a substance that is the subject of a Section 5(e) Consent order under TSCA.

F - Indicates a substance that is the subject of a Section 5(f) Rule under TSCA.

N - Indicates a polymeric substance containing no free-radical initiator in its inventory name but is considered to cover the designated polymer made with any free-radical initiator regardless of the amount used.

P - Indicates a commenced PMN substance

R - Indicates a substance that is the subject of a Section 6 risk management rule under TSCA.

S - Indicates a substance that is identified in a proposed or final Significant New Use Rule

T - Indicates a substance that is the subject of a Section 4 test rule under TSCA.

XU - Indicates a substance exempt from reporting under the Inventory Update Rule, i.e. Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(B)).

Y1 - Indicates an exempt polymer that has a number-average molecular weight of 1,000 or greater.

Y2 - Indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule.

U.S. Federal Regulations

TSCA 12(b) Not applicable

SARA 313 Not applicable

SARA 311/312 Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	Yes
Fire Hazard	Yes
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

CWA (Clean Water Act) Not applicable

Clean Air Act Not applicable

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
Acetone	5000 lb	-

California Proposition 65 This product does not contain any Proposition 65 chemicals**U.S. State Right-to-Know Regulations**

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Acetone	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 contains the following DHS chemicals:

Component	DHS Chemical Facility Anti-Terrorism Standard
Acetone	2000 lb STQ

Other International Regulations

Mexico - Grade

Serious risk, Grade 3

16. Other information**Prepared By**Regulatory Affairs
Thermo Fisher Scientific
Email: EMSDS.RA@thermofisher.com**Creation Date**

28-Apr-2009

Revision Date

24-May-2017

Print Date

24-May-2017

Revision Summary

This document has been updated to comply with the US OSHA HazCom 2012 Standard replacing the current legislation under 29 CFR 1910.1200 to align with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

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

Revision Date: 03/05/18

www.restek.com

2 Letter ISO country code/language code: US/EN

1. IDENTIFICATION

Catalog Number / Product Name: 32011 / Aroclor® 1254 Standard
Company: Restek Corporation
Address: 110 Benner Circle
Bellefonte, Pa. 16823
Phone#: 814-353-1300
Fax#: 814-353-1309
Emergency#: 800-424-9300 (CHEMTREC)
703-527-3887 (Outside the US)
Email: www.restek.com
Revision Number: 12
Intended use: For Laboratory use only

2. HAZARD(S) IDENTIFICATION

Emergency Overview:

GHS Hazard
Symbols:



GHS Classification: Flammable Liquid Category 2
Skin Corrosion/Irritation Category 2
Specific Target Organ Systemic Toxicity (STOT) - Repeated Exposure Category 2
Hazardous to the aquatic environment - Chronic Category 2
Specific Target Organ Systemic Toxicity (STOT) - Single Exposure Category 3

GHS Signal Word: Danger

GHS Hazard: Highly flammable liquid and vapour.
Causes skin irritation.
May cause drowsiness or dizziness.
May cause damage to organs through prolonged or repeated exposure.
Toxic to aquatic life with long lasting effects.

GHS Precautions:

Safety Precautions: Keep away from heat/sparks/open flames/hot surfaces. – No smoking.
Ground/bond container and receiving equipment.
Use explosion-proof electrical/ventilation and lighting equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Do not breathe dust/fume/gas/mist/vapours/spray.
Wash hands and skin thoroughly after handling.
Use only outdoors or in a well-ventilated area.
Avoid release to the environment.
Wear protective gloves/protective clothing/eye protection/face protection.

First Aid Measures: IF ON SKIN: Wash with plenty of soap and water.
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
Call a POISON CENTER or doctor/physician if you feel unwell.
Specific treatment see section 4.
If skin irritation occurs: Get medical advice/attention.
Take off contaminated clothing and wash it before reuse.
In case of fire: Use extinguishing media in section 5 for extinction.

Collect spillage.

Storage: Store in a well-ventilated place. Keep container tightly closed.
Store in a well-ventilated place. Keep cool.
Store locked up.

Disposal: Dispose of contents/container according to section 13 of the SDS.

Single Exposure Target Organs: Specific target organ toxicity - Single exposure - STOT SE 3: H336 May cause drowsiness or dizziness.

Repeated Exposure Target Organs: Specific target organ toxicity - Repeated exposure - STOT RE 2: H373 May cause damage to organs through prolonged or repeated exposure. (C ≥ 5 %; Minimum classification, No information to prove exclusion of certain routes of exposure)

3. COMPOSITION / INFORMATION ON INGREDIENT

Chemical Name	CAS #	EINEC #	% Composition
hexane	110-54-3	203-777-6	99.9
aroclor® 1254	11097-69-1		0.1

4. FIRST-AID MEASURES

Inhalation: Remove to fresh air. If breathing is difficult, have a trained individual administer oxygen.

Eyes: Flush eyes with plenty of water for at least 20 minutes retracting eyelids often. Tilt the head to prevent chemical from transferring to the uncontaminated eye. Get immediate medical attention.

Skin Contact: Wash with soap and water. Remove contaminated clothing and launder. Get medical attention if irritation develops or persists.

Ingestion: Do not induce vomiting and seek medical attention immediately. Drink two glasses of water or milk to dilute. Provide medical care provider with this SDS.

5. FIRE- FIGHTING MEASURES

Extinguishing Media: Use alcohol resistant foam, carbon dioxide, or dry chemical extinguishing agents. Water spray or fog may also be effective for extinguishing if swept across the base of the fire. Water can also be used to absorb heat and keep exposed material from being damaged by fire.

Fire and/or Explosion Hazards: Vapors may be ignited by heat, sparks, flames or other sources of ignition at or above the low flash point giving rise to a Class B fire. Vapors are heavier than air and may travel to a source of ignition and flash back

Fire Fighting Methods and Protection: Do not enter fire area without proper protection including self-contained toxic breathing apparatus and full protective equipment. Fight fire from a safe distance and a protected location due to the potential of hazardous vapors and decomposition products. Flammable component(s) of this material may be lighter than water and burn while floating on the surface. Use water spray/fog for cooling. Flammable component(s) of this material may be lighter than water and burn while floating on the surface.

Hazardous Combustion Products: Carbon dioxide, Carbon monoxide

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions and Equipment: Exposure to the spilled material may be irritating or harmful. Follow personal protective equipment recommendations found in Section 8 of this SDS. Additional precautions may be necessary based on special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred. Also consider the expertise of employees in the area responding to the spill.

Methods for Clean-up: Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Gather and store in a sealed container pending a waste disposal evaluation.

7. HANDLING AND STORAGE

Handling Technical Measures and Precautions:	Harmful or irritating material. Avoid contacting and avoid breathing the material. Use only in a well ventilated area. Use spark-proof tools and explosion-proof equipment
Storage Technical Measures and Conditions:	Store in a cool dry ventilated location. Isolate from incompatible materials and conditions. Keep container(s) closed. Keep away from sources of ignition

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

United States:

Chemical Name	CAS No.	IDLH	ACGIH STEL	ACGIH TLV-TWA	OSHA Exposure Limit
hexane	110-54-3	1100 ppm IDLH (10% LEL)	1000 ppm	50 ppm TWA	500 ppm TWA; 1800 mg/m3 TWA
aroclor® 1254	11097-69-1	5 mg/m3 IDLH	None Known	0.5 mg/m3 TWA	0.5 mg/m3 TWA

Personal Protection:

Engineering Measures:	Local exhaust ventilation is recommended when generating excessive levels of vapours from handling or thermal processing.
Respiratory Protection:	Respiratory protection may be required to avoid overexposure when handling this product. General or local exhaust ventilation is the preferred means of protection. Use a respirator if general room ventilation is not available or sufficient to eliminate symptoms.
Eye Protection:	Wear chemically resistant safety glasses with side shields when handling this product. Do not wear contact lenses.
Skin Protection:	Wear protective gloves. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance, color:	No data available
Odor:	Mild
Physical State:	Liquid
pH:	Not applicable
Vapor Pressure:	No data available
Vapor Density:	2.97 (air = 1)
Boiling Point (°C):	68.73 °C (HSDB)
Melting Point (°C):	-95 °C Melting Point
Flash Point (°F):	-8
Flammability:	Highly Flammable Extremely Flammable
Upper Flammable/Explosive Limit, % in air:	No data available
Lower Flammable/Explosive Limit, % in air:	No data available
Autoignition Temperature (°C):	No data available deg C
Decomposition Temperature (°C):	No data available
Specific Gravity:	0.672 g/cm3 at 15 °C
Evaporation Rate:	No data available
Odor Threshold:	No data available
Solubility:	Negligible; 0-1%
Partition Coefficient: n-octanol in water:	No data available
VOC % by weight:	0
Molecular Weight:	No data available

10. STABILITY AND REACTIVITY

Stability:	Stable under normal conditions.
Conditions to Avoid:	None known.
Materials to Avoid / Chemical Incompatibility:	Strong oxidizing agents
Hazardous Decomposition Products:	No data available

11. TOXICOLOGICAL INFORMATION

Routes of Entry:	Inhalation Contact Absorption Ingestion
Target Organs Potentially Affected By Exposure:	Eyes, Central nervous system stimulation,

Chemical Interactions That Change Toxicity:	Respiratory Tract, Skin, Peripheral Nervous System None Known
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Immediate (Acute) Health Effects by Route of Exposure:

Inhalation Irritation:	Can cause severe respiratory irritation, dizziness, weakness, fatigue, nausea, headache and possible unconsciousness.
Skin Contact:	Can cause moderate skin irritation, defatting, and dermatitis. Not likely to cause permanent damage.
Skin Absorption:	May cause irritation and minor systemic damage. Harmful if absorbed through the skin.
Eye Contact:	Can cause moderate irritation, tearing and reddening, but not likely to permanently injure eye tissue.
Ingestion Irritation:	Irritating to mouth, throat, and stomach. Can cause abdominal discomfort, nausea, vomiting and diarrhea. Harmful if swallowed.
Ingestion Toxicity:	Toxic if swallowed. May cause target organ failure and/or death.

Long-Term (Chronic) Health Effects:

Carcinogenicity:	No data.
Reproductive and Developmental Toxicity:	No data available to indicate product or any components present at greater than 0.1% may cause birth defects.
Inhalation:	Upon prolonged and/or repeated exposure, can cause severe respiratory irritation, dizziness, weakness, fatigue, nausea, headache and possible unconsciousness.
Skin Contact:	Upon prolonged or repeated contact, can cause moderate skin irritation, defatting, and dermatitis. Not likely to cause permanent damage.
Skin Absorption:	Upon prolonged or repeated exposure, harmful if absorbed through the skin. May cause minor systemic damage.

Component Toxicological Data:

NIOSH:

Chemical Name	CAS No.	LD50/LC50
Aroclor 1254	11097-69-1	Oral LD50 Rat 1010 mg/kg
n-Hexane	110-54-3	Dermal LD50 Rabbit 3000 mg/kg; Inhalation LC50 Rat 48000 ppm 4 h; Oral LD50 Rat 25 g/kg

Component Carcinogenic Data:

OSHA:

Chemical Name	CAS No.	
Aroclor 1254	11097-69-1	Present

ACGIH:

Chemical Name	CAS No.	
Chlorodiphenyl (54% chlorine)	11097-69-1	A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans

NIOSH:

Chemical Name	CAS No.	
Chlorodiphenyl (54% chlorine)	11097-69-1	potential occupational carcinogen

NTP:

Chemical Name	CAS No.
No data available	

IARC:

Chemical Name	CAS No.	Group No.

12. ECOLOGICAL INFORMATION

Overview:	Moderate ecological hazard. This product may be dangerous to plants and/or wildlife.
Mobility:	No data
Persistence:	No data
Bioaccumulation:	No data
Degradability:	No data
Ecological Toxicity Data:	No data available

13. DISPOSAL CONSIDERATIONS

Waste Description of Spent Product: Spent or discarded material is a hazardous waste. Mixing spent or discarded material with other materials may render the mixture hazardous. Perform a hazardous waste determination on mixtures.

Disposal Methods: Dispose of by incineration following Federal, State, Local, or Provincial regulations.

Waste Disposal of Packaging: Comply with all Local, State, Federal, and Provincial Environmental Regulations.

14. TRANSPORTATION INFORMATION

United States:
DOT Proper Shipping Name: Hexanes
UN Number: UN1208
Hazard Class: 3
Packing Group: II

International:
IATA Proper Shipping Name: Hexanes
UN Number: UN1208
Hazard Class: 3
Packing Group: II

Marine Pollutant: Yes

Chemical Name	CAS#	Marine Pollutant	Severe Marine Pollutant
hexane	110-54-3	Y	N

15. REGULATORY INFORMATION

United States:	Chemical Name	CAS#	CERCLA	SARA 313	SARA EHS 313	TSCA
	hexane	110-54-3	X	X	-	X
	aroclor® 1254	11097-69-1	X	-	-	-

The following chemicals are listed on CA Prop 65:

Chemical Name	CAS #	Regulation
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State Right To Know Listing:

Chemical Name	CAS#	New Jersey	Massachusetts	Pennsylvania	California
hexane	110-54-3	X	X	X	-
aroclor® 1254	11097-69-1	-	X	X	X

16. OTHER INFORMATION

Prior Version Date: 09/20/16

Other Information: Any changes to the SDS compared to previous versions are marked by a vertical line in front of the concerned paragraph.

References: No data available

Disclaimer: Restek Corporation provides the descriptions, data and information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. It is provided for your guidance only. Because many factors may affect processing or application/use, Restek Corporation recommends you perform an assessment to determine the suitability of a product for your particular purpose prior to use. No warranties of any kind, either expressed or implied, including fitness for a particular purpose, are made regarding products described, data or information set forth. In no case shall the descriptions, information, or data provided be considered a part of our terms and conditions of sale. Further, the descriptions, data and information furnished hereunder are given gratis. No obligation or liability for the description, data and information given are assumed. All such being given and accepted at your risk.



Safety Data Sheet

Revision Date: 08/01/19

www.restek.com

2 Letter ISO country code/language code: US/EN

1. IDENTIFICATION

Catalog Number / Product Name: 31270 / Benzo(a)anthracene Standard
Company: Restek Corporation
Address: 110 Benner Circle
Bellefonte, Pa. 16823
Phone#: 814-353-1300
Fax#: 814-353-1309
Emergency#: 800-424-9300 (CHEMTREC)
703-527-3887 (Outside the US)
Email: www.restek.com
Revision Number: 12
Intended use: For Laboratory use only

2. HAZARD(S) IDENTIFICATION

Emergency Overview:

GHS Hazard
Symbols:



GHS Classification: Carcinogenicity Category 1B
Specific Target Organ Systemic Toxicity (STOT) - Single Exposure Category 1
Flammable Liquid Category 2
Hazardous to the aquatic environment - Acute Category 2
Hazardous to the aquatic environment - Chronic Category 2
Acute Toxicity - Dermal Category 3
Acute Toxicity - Oral Category 3

GHS Signal Word: Danger

GHS Hazard: Highly flammable liquid and vapour.
Toxic if swallowed or in contact with skin.
May cause cancer.
Causes damage to organs.
Toxic to aquatic life..
Toxic to aquatic life with long lasting effects.

GHS Precautions:

Safety Precautions: Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
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/ventilation and lighting equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Do not breathe dust/fume/gas/mist/vapours/spray.
Wash hands and skin thoroughly after handling.
Do not eat, drink or smoke when using this product.
Avoid release to the environment.
Wear protective gloves/protective clothing/eye protection/face protection.

First Aid Measures: IF SWALLOWED: Immediately call a POISON CENTER/doctor/....
IF ON SKIN: Wash with plenty of soap and water.

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
 IF exposed: Call a POISON CENTER or doctor/physician.
 IF exposed or concerned: Get medical advice/attention.
 Call a POISON CENTER or doctor/physician if you feel unwell.
 Specific treatment see section 4.
 Rinse mouth.
 Take off immediately all contaminated clothing and wash it before reuse.
 In case of fire: Use extinguishing media in section 5 for extinction.
 Collect spillage.

Storage: Keep container tightly closed.
 Store in a well-ventilated place. Keep cool.
 Store locked up.

Disposal: Dispose of contents/container according to section 13 of the SDS.

Single Exposure Target Organs: Specific target organ toxicity - Single exposure - STOT SE 1: H370 Causes damage to organs. (C \geq 10 %; No information to prove exclusion of certain routes of exposure); Specific target organ toxicity - Single exposure - STOT SE 2: H371 May cause damage to organs. (3 % \leq C < 10 %; Concentration limits for acute toxicity cannot be translated into GHS from the DSD especially when minimum classifications are given)

Repeated Exposure Target Organs: No data available

3. COMPOSITION / INFORMATION ON INGREDIENT

Chemical Name	CAS #	EINEC #	% Composition
methanol	67-56-1	200-659-6	99.9
benz (a) anthracene	56-55-3	200-280-6	0.1

4. FIRST-AID MEASURES

Inhalation: Remove to fresh air. If breathing is difficult, have a trained individual administer oxygen. If not breathing, give artificial respiration and have a trained individual administer oxygen. Get medical attention immediately

Eyes: Flush eyes with plenty of water for at least 20 minutes retracting eyelids often. Tilt the head to prevent chemical from transferring to the uncontaminated eye. Get immediate medical attention.

Skin Contact: Wash with soap and water. Remove contaminated clothing and launder. Get medical attention if irritation develops or persists.

Ingestion: Do not induce vomiting and seek medical attention immediately. Drink two glasses of water or milk to dilute. Provide medical care provider with this SDS.

5. FIRE- FIGHTING MEASURES

Extinguishing Media: Use alcohol resistant foam, carbon dioxide, or dry chemical extinguishing agents. Water may be ineffective but water spray can be used to extinguish a fire if swept across the base of the flames. Water can absorb heat and keep exposed material from being damaged by fire.

Fire and/or Explosion Hazards: Vapors may be ignited by sparks, flames or other sources of ignition if material is above the flash point giving rise to a fire (Class B). Vapors are heavier than air and may travel to a source of ignition and flash back.

Fire Fighting Methods and Protection: Do not enter fire area without proper protection including self-contained breathing apparatus and full protective equipment. Fight fire from a safe distance and a protected location due to the potential of hazardous vapors and decomposition products. Flammable component(s) of this material may be lighter than water and burn while floating on the surface.

Hazardous Combustion Products: Carbon dioxide, Carbon monoxide

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions and Equipment: Exposure to the spilled material may be severely irritating or toxic. Follow personal protective equipment recommendations found in Section 8 of this SDS. Personal protective equipment needs must be evaluated based on information provided on this sheet and the special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred, and the expertise of employees in the

area responding to the spill. Never exceed any occupational exposure limits.

Methods for Clean-up:

Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Gather and store in a sealed container pending a waste disposal evaluation.

7. HANDLING AND STORAGE

Handling Technical Measures and Precautions:	Toxic or severely irritating material. Avoid contacting and avoid breathing the material. Use only in a well ventilated area. Use spark-proof tools and explosion-proof equipment
Storage Technical Measures and Conditions:	Store in a cool dry ventilated location. Isolate from incompatible materials and conditions. Keep container(s) closed. Keep away from sources of ignition

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

United States:

Chemical Name	CAS No.	IDLH	ACGIH STEL	ACGIH TLV-TWA	OSHA Exposure Limit
methanol	67-56-1	6000 ppm IDLH	250 ppm STEL	200 ppm TWA	200 ppm TWA; 260 mg/m ³ TWA
benz (a) anthracene	56-55-3	Not established	None Known	Not established	No data available

Personal Protection:

Engineering Measures:

Local exhaust ventilation is recommended when generating excessive levels of vapours from handling or thermal processing.

Respiratory Protection:

Respiratory protection may be required to avoid overexposure when handling this product. General or local exhaust ventilation is the preferred means of protection. Use a respirator if general room ventilation is not available or sufficient to eliminate symptoms. If an exposure limit is exceeded or if an operator is experiencing symptoms of inhalation overexposure as explained in Section 3, provide respiratory protection.

Eye Protection:

Wear chemically resistant safety glasses with side shields when handling this product. Do not wear contact lenses.

Skin Protection:

Wear protective gloves. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance, color:	No data available
Odor:	Mild
Physical State:	No data available
pH:	Not applicable
Vapor Pressure:	No data available
Vapor Density:	1.1 (air = 1)
Boiling Point (°C):	438 °C Boiling Point (at 1013.25 hPa) 64.7 °C at 760 mmHg (HSDB)
Melting Point (°C):	-98 °C
Flash Point (°F):	52
Flammability:	Highly Flammable
Upper Flammable/Explosive Limit, % in air:	36
Lower Flammable/Explosive Limit, % in air:	6
Autoignition Temperature (°C):	464 deg C
Decomposition Temperature (°C):	No data available
Specific Gravity:	0.791 - 0.792 g/cm ³ at 20 °C
Evaporation Rate:	No data available
Odor Threshold:	No data available
Solubility:	Moderate; 50-99%
Partition Coefficient: n-octanol in water:	No data available
VOC % by weight:	99.9
Molecular Weight:	32.04

10. STABILITY AND REACTIVITY

Stability:	Stable under normal conditions.
Conditions to Avoid:	None known.
Materials to Avoid / Chemical Incompatibility:	Strong oxidizing agents
Hazardous Decomposition Products:	Carbon dioxide Carbon monoxide

11. TOXICOLOGICAL INFORMATION

Routes of Entry:	Inhalation, Skin Contact, Eye Contact, Ingestion
Target Organs Potentially Affected By Exposure:	Eyes, Central nervous system stimulation, Skin, GI Tract, Respiratory Tract
Chemical Interactions That Change Toxicity:	None Known

Immediate (Acute) Health Effects by Route of Exposure:

Inhalation Irritation:	Can cause moderate respiratory irritation, dizziness, weakness, fatigue, nausea and headache.
Inhalation Toxicity:	Harmful! Can cause systemic damage (see "Target Organs")Methanol can cause central nervous system depression and overexposure can cause damage to the optic nerve resulting in visual impairment or blindness.
Skin Contact:	Can cause moderate skin irritation, defatting, and dermatitis. Not likely to cause permanent damage.
Eye Contact:	Can cause moderate irritation, tearing and reddening, but not likely to permanently injure eye tissue.
Ingestion Irritation:	Irritating to mouth, throat, and stomach. Can cause abdominal discomfort, nausea, vomiting and diarrhea.Highly toxic and may be fatal if swallowed.
Ingestion Toxicity:	Toxic if swallowed. May cause target organ failure and/or death.May be fatal if swallowed.

Long-Term (Chronic) Health Effects:

Carcinogenicity:	Contains a probable or known human carcinogen.
Reproductive and Developmental Toxicity:	No data available to indicate product or any components present at greater than 0.1% may cause birth defects.
Inhalation:	Upon prolonged and/or repeated exposure, can cause moderate respiratory irritation, dizziness, weakness, fatigue, nausea and headache.Harmful! Can cause systemic damage upon prolonged and/or repeated exposure (see "Target Organs")
Skin Contact:	Upon prolonged or repeated contact, can cause moderate skin irritation, defatting, and dermatitis. Not likely to cause permanent damage.
Ingestion:	Toxic if swallowed. May cause target organ failure and/or death.

Component Toxicological Data:

NIOSH:

Chemical Name	CAS No.	LD50/LC50
Methanol	67-56-1	Inhalation LC50 Rat 22500 ppm 8 h

Component Carcinogenic Data:

OSHA:

Chemical Name	CAS No.	
Benz[a]anthracene	56-55-3	Present

ACGIH:

Chemical Name	CAS No.	
Benz[a]anthracene	56-55-3	A2 - Suspected Human Carcinogen

NIOSH:

Chemical Name	CAS No.
No data available	

NTP:

Chemical Name	CAS No.
No data available	

IARC:

Chemical Name	CAS No.	Group No.
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12. ECOLOGICAL INFORMATION

Overview:	Moderate ecological hazard. This product may be dangerous to plants and/or wildlife.
Mobility:	No data
Persistence:	No data
Bioaccumulation:	No data
Degradability:	Biodegrades slowly.
Ecological Toxicity Data:	No data available

13. DISPOSAL CONSIDERATIONS

Waste Description of Spent Product:	Spent or discarded material is a hazardous waste. Mixing spent or discarded material with other materials may render the mixture hazardous. Perform a hazardous waste determination on mixtures.
Disposal Methods:	Dispose of by incineration following Federal, State, Local, or Provincial regulations.
Waste Disposal of Packaging:	Comply with all Local, State, Federal, and Provincial Environmental Regulations.

14. TRANSPORTATION INFORMATION

United States:	
DOT Proper Shipping Name:	Methanol
UN Number:	UN1230
Hazard Class:	3
Packing Group:	II

International:	
IATA Proper Shipping Name:	Methanol
UN Number:	UN1230
Hazard Class:	3(6.1)
Packing Group:	II

Marine Pollutant: No

Chemical Name	CAS#	Marine Pollutant	Severe Marine Pollutant
No data available			

15. REGULATORY INFORMATION

United States:					
Chemical Name	CAS#	CERCLA	SARA 313	SARA EHS 313	TSCA
methanol	67-56-1	X	X	-	X
benz (a) anthracene	56-55-3	X	X	-	X

The following chemicals are listed on CA Prop 65:

Chemical Name	CAS #	Regulation
Benz[a]anthracene	56-55-3	Prop 65 Cancer
Methanol	67-56-1	Prop 65 Develop Tox

State Right To Know Listing:

Chemical Name	CAS#	New Jersey	Massachusetts	Pennsylvania	California
methanol	67-56-1	X	X	X	X
benz (a) anthracene	56-55-3	X	X	X	X

16. OTHER INFORMATION

Prior Version Date: 08/13/18

Other Information: Any changes to the SDS compared to previous versions are marked by a vertical

line in front of the concerned paragraph.

References:

No data available

Disclaimer:

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SAFETY DATA SHEET

Benzo[a]pyrene

According to Regulation (EC) No 1907/2006, Annex II, as amended. Commission Regulation (EU) No 2015/830 of 28 May 2015.

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name	Benzo[a]pyrene
Product number	FB18224
Synonyms; trade names	Benzo[a]pyrene, 3,4-Benz[a]pyrene, 3,4-Benzopyrene
CAS number	50-32-8
EU index number	601-032-00-3
EC number	200-028-5

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses	Laboratory reagent. Manufacture of substances. Research and development.
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1.3. Details of the supplier of the safety data sheet

Supplier	Carbosynth Ltd 8&9 Old Station Business Park Compton Berkshire RG20 6NE UK +44 1635 578444 +44 1635 579444 info@carbosynth.com
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1.4. Emergency telephone number

Emergency telephone	+44 7887 998634
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SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards	Not Classified
Health hazards	Skin Sens. 1 - H317 Muta. 1B - H340 Carc. 1B - H350 Repr. 1B - H360
Environmental hazards	Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410

2.2. Label elements

EC number	200-028-5
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Pictogram



Benzo[a]pyrene

Signal word	Danger
Hazard statements	H317 May cause an allergic skin reaction. H340 May cause genetic defects. H350 May cause cancer. H360 May damage fertility or the unborn child. H410 Very toxic to aquatic life with long lasting effects.
Precautionary statements	P201 Obtain special instructions before use. P261 Avoid breathing dust. P273 Avoid release to the environment. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. P302+P352 IF ON SKIN: Wash with plenty of water. P308+P313 IF exposed or concerned: Get medical advice/ attention. P333+P313 If skin irritation or rash occurs: Get medical advice/ attention.

2.3. Other hazards

No data available.

SECTION 3: Composition/information on ingredients

3.1. Substances

Product name	Benzo[a]pyrene
EU index number	601-032-00-3
CAS number	50-32-8
EC number	200-028-5
Chemical formula	C ₂₀ H ₁₂

SECTION 4: First aid measures

4.1. Description of first aid measures

General information	Get medical advice/attention if you feel unwell.
Inhalation	Remove person to fresh air and keep comfortable for breathing. If breathing stops, provide artificial respiration. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Get medical attention if symptoms are severe or persist.
Ingestion	Never give anything by mouth to an unconscious person. Rinse mouth thoroughly with water. Give plenty of water to drink. Get medical attention if symptoms are severe or persist.
Skin contact	Remove contaminated clothing. Rinse with water. Continue to rinse for at least 15 minutes. Wash contaminated clothing before reuse. Get medical attention if symptoms are severe or persist.
Eye contact	Rinse immediately with plenty of water. Continue to rinse for at least 15 minutes. Get medical attention if symptoms are severe or persist.

4.2. Most important symptoms and effects, both acute and delayed

General information	See Section 11 for additional information on health hazards.
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4.3. Indication of any immediate medical attention and special treatment needed

Notes for the doctor	Treat symptomatically.
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SECTION 5: Firefighting measures

5.1. Extinguishing media

Benzo[a]pyrene

Suitable extinguishing media Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog. Use fire-extinguishing media suitable for the surrounding fire.

5.2. Special hazards arising from the substance or mixture

Specific hazards None known.

Hazardous combustion products Thermal decomposition or combustion products may include the following substances: Oxides of carbon.

5.3. Advice for firefighters

Special protective equipment for firefighters Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing. Firefighter's clothing conforming to European standard EN469 (including helmets, protective boots and gloves) will provide a basic level of protection for chemical incidents. Use protective equipment appropriate for surrounding materials.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Wear protective clothing as described in Section 8 of this safety data sheet. No action shall be taken without appropriate training or involving any personal risk. Do not touch or walk into spilled material. Avoid inhalation of dust and vapours. Provide adequate ventilation. Keep unnecessary and unprotected personnel away from the spillage.

6.2. Environmental precautions

Environmental precautions Avoid discharge into drains or watercourses or onto the ground.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Wear protective clothing as described in Section 8 of this safety data sheet. Collect powder using special dust vacuum cleaner with particle filter or carefully sweep into suitable waste disposal containers and seal securely. Clear up spills immediately and dispose of waste safely. Flush contaminated area with plenty of water. Wash thoroughly after dealing with a spillage. For waste disposal, see Section 13.

6.4. Reference to other sections

Reference to other sections For personal protection, see Section 8. See Section 11 for additional information on health hazards. See Section 12 for additional information on ecological hazards. For waste disposal, see Section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Wear protective clothing as described in Section 8 of this safety data sheet. Avoid exposure - obtain special instructions before use. Wash hands thoroughly after handling. Provide adequate ventilation. Avoid generation and spreading of dust. Avoid contact with skin and eyes. Avoid inhalation of dust and vapours.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Keep container tightly closed. Store in a cool and well-ventilated place. Store away from incompatible materials (see Section 10). Protect from light. Store at room temperature.

7.3. Specific end use(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure Controls/personal protection

8.1. Control parameters

Occupational exposure limits

Benzo[a]pyrene

Long-term exposure limit (8-hour TWA): OSHA 0.2 mg/m³

OSHA = Occupational Safety and Health Administration.

8.2. Exposure controls

Appropriate engineering controls	Provide adequate ventilation. Observe any occupational exposure limits for the product or ingredients.
Eye/face protection	Unless the assessment indicates a higher degree of protection is required, the following protection should be worn: Tight-fitting safety glasses. Personal protective equipment for eye and face protection should comply with European Standard EN166.
Hand protection	Wear protective gloves. To protect hands from chemicals, gloves should comply with European Standard EN374.
Other skin and body protection	Wear appropriate clothing to prevent repeated or prolonged skin contact.
Respiratory protection	Respiratory protection complying with an approved standard should be worn if a risk assessment indicates inhalation of contaminants is possible. Ensure all respiratory protective equipment is suitable for its intended use and is 'CE'-marked. Particulate filters should comply with European Standard EN143. Full face mask respirators with replaceable filter cartridges should comply with European Standard EN136. Half mask and quarter mask respirators with replaceable filter cartridges should comply with European Standard EN140.
Environmental exposure controls	Keep container tightly sealed when not in use.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance	Solid.
Colour	Light (or pale). Yellow. to Green-yellow.
Odour	No data available.
Odour threshold	No data available.
pH	No data available.
Melting point	No data available.
Initial boiling point and range	No data available.
Flash point	No data available.
Evaporation rate	No data available.
Flammability (solid, gas)	No data available.
Upper/lower flammability or explosive limits	No data available.
Vapour pressure	>133 Pa @ 20°C
Vapour density	8.7
Relative density	1.35 g/cm ³
Solubility(ies)	Insoluble in water. Soluble in the following materials: Ether. Benzene. Toluene Xylene. Almost insoluble in the following materials: Alcohols.
Partition coefficient	log Pow: 5.97

Benzo[a]pyrene

Auto-ignition temperature No data available.

Decomposition Temperature No data available.

Viscosity No data available.

Explosive properties No data available.

Oxidising properties No data available.

9.2. Other information

Molecular weight 252.31

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity No data available.

10.2. Chemical stability

Stability Stable under the prescribed storage conditions.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions No data available.

10.4. Conditions to avoid

Conditions to avoid No data available.

10.5. Incompatible materials

Materials to avoid Oxidising agents.

10.6. Hazardous decomposition products

Hazardous decomposition products Oxides of carbon.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral

Notes (oral LD₅₀) Based on available data the classification criteria are not met.

Acute toxicity - dermal

Notes (dermal LD₅₀) Based on available data the classification criteria are not met.

Acute toxicity - inhalation

Notes (inhalation LC₅₀) Based on available data the classification criteria are not met.

Skin corrosion/irritation

Animal data Based on available data the classification criteria are not met.

Serious eye damage/irritation

Serious eye damage/irritation Based on available data the classification criteria are not met.

Respiratory sensitisation

Respiratory sensitisation Based on available data the classification criteria are not met.

Skin sensitisation

Skin sensitisation May cause skin sensitisation or allergic reactions in sensitive individuals.

Benzo[a]pyrene

Germ cell mutagenicity

Genotoxicity - in vitro May cause genetic defects.

Carcinogenicity

Carcinogenicity May cause cancer.

IARC carcinogenicity IARC Group 1 Carcinogenic to humans.

Reproductive toxicity

Reproductive toxicity - fertility May damage fertility.

Reproductive toxicity - development May damage the unborn child.

Specific target organ toxicity - single exposure

STOT - single exposure Not classified as a specific target organ toxicant after a single exposure.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure Not classified as a specific target organ toxicant after repeated exposure.

Aspiration hazard

Aspiration hazard Not relevant. Solid.

General information

Avoid contact during pregnancy/while nursing. May damage fertility. May cause cancer after repeated exposure. Risk of cancer depends on duration and level of exposure. May cause genetic defects. Dust may irritate the eyes and the respiratory system. The severity of the symptoms described will vary dependent on the concentration and the length of exposure.

Inhalation Dust may irritate the respiratory system. Frequent inhalation of dust over a long period of time increases the risk of developing lung diseases.

Ingestion May cause sensitisation or allergic reactions in sensitive individuals.

Skin contact May cause skin sensitisation or allergic reactions in sensitive individuals. Prolonged contact may cause dryness of the skin.

Eye contact Dust may cause slight irritation.

Route of exposure Ingestion Inhalation Skin and/or eye contact

Target organs No specific target organs known.

Medical considerations Skin disorders and allergies.

RTECS # DJ3675000

SECTION 12: Ecological Information

Ecotoxicity Very toxic to aquatic life with long lasting effects.

12.1. Toxicity

Acute aquatic toxicity

LE(C)₅₀ $0.1 < L(E)C_{50} \leq 1$

Acute toxicity - aquatic invertebrates EC₅₀, 48 hour: 0.25 mg/l, Daphnia magna

Acute toxicity - aquatic plants EC₅₀, 72 hour: 0.02 mg/l, Pseudokirchneriella subcapitata
EC₅₀, 72 hour: 0.015 mg/l, Selenastrum capricornutum

Chronic aquatic toxicity

Benzo[a]pyrene

NOEC 0.01 < NOEC ≤ 0.1

Degradability Non-rapidly degradable

12.2. Persistence and degradability

Persistence and degradability The degradability of the product is not known.

12.3. Bioaccumulative potential

Bioaccumulative potential No data available on bioaccumulation.

Partition coefficient log Pow: 5.97

12.4. Mobility in soil

Mobility No data available.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment This product contains substances classified as PBT. This product contains substances classified as vPvB.

12.6. Other adverse effects

Other adverse effects Very toxic to aquatic life with long lasting effects.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority. This material and its container must be disposed of in a safe way. When handling waste, the safety precautions applying to handling of the product should be considered.

SECTION 14: Transport information

14.1. UN number

UN No. (ADR/RID) 3077

UN No. (IMDG) 3077

UN No. (ICAO) 3077

UN No. (ADN) 3077

14.2. UN proper shipping name

Proper shipping name (ADR/RID) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Benzo[a]pyrene)

Proper shipping name (IMDG) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Benzo[a]pyrene)

Proper shipping name (ICAO) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Benzo[a]pyrene)

Proper shipping name (ADN) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Benzo[a]pyrene)

14.3. Transport hazard class(es)

ADR/RID class 9

ADR/RID classification code M7

ADR/RID label 9

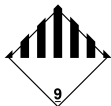
IMDG class 9

Benzo[a]pyrene

ICAO class/division 9

ADN class 9

Transport labels



14.4. Packing group

ADR/RID packing group III

IMDG packing group III

ADN packing group III

ICAO packing group III

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant



14.6. Special precautions for user

EmS F-A, S-F

ADR transport category 3

Emergency Action Code 2Z

Hazard Identification Number 90
(ADR/RID)

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

National regulations	Health and Safety at Work etc. Act 1974 (as amended). The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009 (SI 2009 No. 1348) (as amended) ["CDG 2009"]. EH40/2005 Workplace exposure limits.
EU legislation	Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended). Commission Regulation (EU) No 2015/830 of 28 May 2015. Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended).

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

Inventories

US - TSCA

Present.

Benzo[a]pyrene

SECTION 16: Other information

Abbreviations and acronyms used in the safety data sheet	<p>ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.</p> <p>ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways.</p> <p>RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail.</p> <p>IATA: International Air Transport Association.</p> <p>ICAO: Technical Instructions for the Safe Transport of Dangerous Goods by Air.</p> <p>IMDG: International Maritime Dangerous Goods.</p> <p>CAS: Chemical Abstracts Service.</p> <p>ATE: Acute Toxicity Estimate.</p> <p>LC₅₀: Lethal Concentration to 50 % of a test population.</p> <p>LD₅₀: Lethal Dose to 50% of a test population (Median Lethal Dose).</p> <p>EC₅₀: 50% of maximal Effective Concentration.</p> <p>PBT: Persistent, Bioaccumulative and Toxic substance.</p> <p>vPvB: Very Persistent and Very Bioaccumulative.</p>
Training advice	Only trained personnel should use this material.
Revision date	06/11/2017
Revision	1
SDS number	144926
Hazard statements in full	<p>H317 May cause an allergic skin reaction.</p> <p>H340 May cause genetic defects.</p> <p>H350 May cause cancer.</p> <p>H360 May damage fertility or the unborn child.</p> <p>H400 Very toxic to aquatic life.</p> <p>H410 Very toxic to aquatic life with long lasting effects.</p>

This 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. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.



Safety Data Sheet

Revision Date: 07/31/19

www.restek.com

2 Letter ISO country code/language code: US/EN

1. IDENTIFICATION

Catalog Number / Product Name:	31272 / Benzo(b)fluoranthene Standard
Company:	Restek Corporation
Address:	110 Benner Circle Bellefonte, Pa. 16823
Phone#:	814-353-1300
Fax#:	814-353-1309
Emergency#:	800-424-9300 (CHEMTREC) 703-527-3887 (Outside the US)
Email:	www.restek.com
Revision Number:	11
Intended use:	For Laboratory use only

2. HAZARD(S) IDENTIFICATION

Emergency Overview:

GHS Hazard
Symbols:



GHS Classification: Carcinogenicity Category 1B
Flammable Liquid Category 2
Serious Eye Damage/Eye Irritation Category 2
Specific Target Organ Systemic Toxicity (STOT) - Single Exposure Category 3

GHS Signal Word: Danger

GHS Hazard: Highly flammable liquid and vapour.
Causes serious eye irritation.
May cause drowsiness or dizziness.
May cause cancer.

GHS Precautions:

Safety Precautions: Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Keep away from heat/sparks/open flames/hot surfaces. – No smoking.
Ground/bond container and receiving equipment.
Use explosion-proof electrical/ventilation and lighting equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Avoid breathing dust/fume/gas/mist/vapours/spray.
Wash hands and skin thoroughly after handling.
Use only outdoors or in a well-ventilated area.
Wear protective gloves/protective clothing/eye protection/face protection.

First Aid Measures: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
IF exposed or concerned: Get medical advice/attention.
Call a POISON CENTER or doctor/physician if you feel unwell.
If eye irritation persists: Get medical advice/attention.
In case of fire: Use extinguishing media in section 5 for extinction.

Storage: Store in a well-ventilated place. Keep container tightly closed.
Store in a well-ventilated place. Keep cool.
Store locked up.

Disposal: Dispose of contents/container according to section 13 of the SDS.

Single Exposure Target Organs: Specific target organ toxicity - Single exposure - STOT SE 3: H336 May cause drowsiness or dizziness.

Repeated Exposure Target Organs: No data available

3. COMPOSITION / INFORMATION ON INGREDIENT

Chemical Name	CAS #	EINEC #	% Composition
Acetone	67-64-1	200-662-2	99.9
benzo (b) fluoranthene	205-99-2	205-911-9	0.1

4. FIRST-AID MEASURES

Inhalation: Remove to fresh air. If breathing is difficult, have a trained individual administer oxygen. If not breathing, give artificial respiration and have a trained individual administer oxygen. Get medical attention immediately

Eyes: Flush eyes with plenty of water for at least 20 minutes retracting eyelids often. Tilt the head to prevent chemical from transferring to the uncontaminated eye. Get immediate medical attention.

Skin Contact: Wash with soap and water. Remove contaminated clothing and launder. Get medical attention if irritation develops or persists.

Ingestion: Do not induce vomiting and seek medical attention immediately. Drink two glasses of water or milk to dilute. Provide medical care provider with this SDS.

5. FIRE- FIGHTING MEASURES

Extinguishing Media: Use alcohol resistant foam, carbon dioxide, or dry chemical extinguishing agents. Water spray or fog may also be effective for extinguishing if swept across the base of the fire. Water can also be used to absorb heat and keep exposed material from being damaged by fire. Flammable component(s) of this material may be lighter than water and burn while floating on the surface.

Fire and/or Explosion Hazards: Vapors may be ignited by heat, sparks, flames or other sources of ignition at or above the low flash point giving rise to a Class B fire. Vapors are heavier than air and may travel to a source of ignition and flash back

Fire Fighting Methods and Protection: Do not enter fire area without proper protection including self-contained toxic breathing apparatus and full protective equipment. Fight fire from a safe distance and a protected location due to the potential of hazardous vapors and decomposition products. Flammable component(s) of this material may be lighter than water and burn while floating on the surface. Use water spray/fog for cooling. Flammable component(s) of this material may be lighter than water and burn while floating on the surface.

Hazardous Combustion Products: Carbon dioxide, Carbon monoxide

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions and Equipment: Exposure to the spilled material may be irritating or harmful. Follow personal protective equipment recommendations found in Section 8 of this SDS. Additional precautions may be necessary based on special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred. Also consider the expertise of employees in the area responding to the spill.

Methods for Clean-up: Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Gather and store in a sealed container pending a waste disposal

evaluation.

7. HANDLING AND STORAGE

Handling Technical Measures and Precautions:	Harmful or irritating material. Avoid contacting and avoid breathing the material. Use only in a well ventilated area. Use spark-proof tools and explosion-proof equipment
Storage Technical Measures and Conditions:	Store in a cool dry ventilated location. Isolate from incompatible materials and conditions. Keep container(s) closed. Keep away from sources of ignition

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

United States:

Chemical Name	CAS No.	IDLH	ACGIH STEL	ACGIH TLV-TWA	OSHA Exposure Limit
Acetone	67-64-1	2500 ppm IDLH (10% LEL)	750 ppm STEL; 1782 mg/m3 STEL	500 ppm TWA; 1188 mg/m3 TWA	1000 ppm TWA; 2400 mg/m3 TWA
benzo (b) fluoranthene	205-99-2	Not established	None Known	Not established	No data available

Personal Protection:

Engineering Measures:	Local exhaust ventilation is recommended when generating excessive levels of vapours from handling or thermal processing.
Respiratory Protection:	No respiratory protection required under normal conditions of use. Provide general room exhaust ventilation if symptoms of overexposure occur as explained Section 3. A respirator is not normally required.
Eye Protection:	Wear chemically resistant safety glasses with side shields when handling this product. Do not wear contact lenses.
Skin Protection:	Wear protective gloves. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work
Medical Conditions Aggravated By Exposure:	Respiratory disease including asthma and bronchitis

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance, color:	Depends upon product selection
Odor:	Strong
Physical State:	No data available
pH:	Not applicable
Vapor Pressure:	No data available
Vapor Density:	2.0 (air = 1)
Boiling Point (°C):	56.05 °C at 1013.25 hPa
Melting Point (°C):	-95.4 °C Melting Point
Flash Point (°F):	39
Flammability:	Highly Flammable
Upper Flammable/Explosive Limit, % in air:	No data available
Lower Flammable/Explosive Limit, % in air:	No data available
Autoignition Temperature (°C):	465 deg C
Decomposition Temperature (°C):	No data available
Specific Gravity:	0.7845 g/cm3 at 25 °C
Evaporation Rate:	No data available
Odor Threshold:	ND
Solubility:	Complete; 100%
Partition Coefficient: n-octanol in water:	No data available
VOC % by weight:	99.9
Molecular Weight:	58.08

10. STABILITY AND REACTIVITY

Stability:	Stable under normal conditions.
Conditions to Avoid:	None known.
Materials to Avoid / Chemical Incompatibility:	Strong oxidizing agents Strong acids
Hazardous Decomposition Products:	Carbon dioxide Carbon monoxide

11. TOXICOLOGICAL INFORMATION

Routes of Entry:	Inhalation, Skin Contact, Eye Contact, Ingestion
-------------------------	--

Target Organs Potentially Affected By Exposure: Eyes, Central nervous system stimulation,
Respiratory Tract, Skin
Chemical Interactions That Change Toxicity: None Known

Immediate (Acute) Health Effects by Route of Exposure:

Inhalation Irritation: Can cause minor respiratory irritation, dizziness, weakness, fatigue, nausea, and headache.
Skin Contact: Can cause minor skin irritation, defatting, and dermatitis.
Eye Contact: Can cause minor irritation, tearing and reddening.
Ingestion Irritation: May be harmful if swallowed.
Ingestion Toxicity: Harmful if swallowed. May cause systemic poisoning.

Long-Term (Chronic) Health Effects:

Carcinogenicity: Contains a probable or known human carcinogen.
Reproductive and Developmental Toxicity: No data available to indicate product or any components present at greater than 0.1% may cause birth defects.
Inhalation: Upon prolonged and/or repeated exposure, can cause minor respiratory irritation, dizziness, weakness, fatigue, nausea, and headache.
Skin Contact: Upon prolonged or repeated contact, can cause minor skin irritation, defatting, and dermatitis.

Component Toxicological Data:

NIOSH:

Chemical Name	CAS No.	LD50/LC50
Acetone	67-64-1	Dermal LD50 Rabbit >15700 mg/kg; Inhalation LC50 Rat 50100 mg/m ³ 8 h; Oral LD50 Rat 5800 mg/kg

Component Carcinogenic Data:

OSHA:

Chemical Name	CAS No.	
Benzo(b)fluoranthene	205-99-2	Present

ACGIH:

Chemical Name	CAS No.	
Benzo[b]fluoranthene	205-99-2	A2 - Suspected Human Carcinogen
Acetone	67-64-1	A4 - Not Classifiable as a Human Carcinogen

NIOSH:

Chemical Name	CAS No.
No data available	

NTP:

Chemical Name	CAS No.
No data available	

IARC:

Chemical Name	CAS No.	Group No.
Monograph 92 [2010]; Supplement 7 [1987]; Monograph 32 [1983]	205-99-2	Group 2B

12. ECOLOGICAL INFORMATION

Overview:	This material is not expected to be harmful to the ecology.
Mobility:	No data
Persistence:	No data
Bioaccumulation:	No data
Degradability:	No data
Ecological Toxicity Data:	No data available

13. DISPOSAL CONSIDERATIONS

Waste Description of Spent Product:	Spent or discarded material is a hazardous waste. Mixing spent or discarded material with other materials may render the mixture hazardous. Perform a hazardous waste determination on mixtures.
--	--

Disposal Methods: Dispose of by incineration following Federal, State, Local, or Provincial regulations.

Waste Disposal of Packaging: Comply with all Local, State, Federal, and Provincial Environmental Regulations.

14. TRANSPORTATION INFORMATION

United States:
DOT Proper Shipping Name: Acetone
UN Number: UN1090
Hazard Class: 3
Packing Group: II

International:
IATA Proper Shipping Name: Acetone
UN Number: UN1090
Hazard Class: 3
Packing Group: II

Marine Pollutant: No

Chemical Name	CAS#	Marine Pollutant	Severe Marine Pollutant
No data available			

15. REGULATORY INFORMATION

United States:					
Chemical Name	CAS#	CERCLA	SARA 313	SARA EHS 313	TSCA
Acetone	67-64-1	X	-	-	X
benzo (b) fluoranthene	205-99-2	X	X	-	-

The following chemicals are listed on CA Prop 65:

Chemical Name	CAS #	Regulation
Benzo[b]fluoranthene	205-99-2	Prop 65 Cancer

State Right To Know Listing:

Chemical Name	CAS#	New Jersey	Massachusetts	Pennsylvania	California
Acetone	67-64-1	X	X	X	X
benzo (b) fluoranthene	205-99-2	X	X	X	X

16. OTHER INFORMATION

Prior Version Date: 08/13/18

Other Information: Any changes to the SDS compared to previous versions are marked by a vertical line in front of the concerned paragraph.

References: No data available

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SAFETY DATA SHEET

Version 4.4
Revision Date 12/01/2015
Print Date 07/13/2017

1. PRODUCT AND COMPANY IDENTIFICATION**1.1 Product identifiers**

Product name : cis-Dichloroethylene

Product Number : 48597
Brand : Supelco
Index-No. : 602-026-00-3

CAS-No. : 156-59-2

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
Acute aquatic toxicity (Category 3), H402
Chronic aquatic toxicity (Category 3), H412

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.
H332 Harmful if inhaled.
H412 Harmful to aquatic life with long lasting effects.

Precautionary statement(s)

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.
P261	Avoid breathing 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.
P303 + P361 + P353	IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.
P304 + P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P312	Call a POISON CENTER or doctor/ physician if you feel unwell.
P370 + P378	In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.
P403 + P235	Store in a well-ventilated place. Keep cool.
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

Formula	: C ₂ H ₂ Cl ₂
Molecular weight	: 96.94 g/mol
CAS-No.	: 156-59-2
EC-No.	: 205-859-7
Index-No.	: 602-026-00-3

Hazardous components

Component	Classification	Concentration
cis-Dichloroethylene		
	Flam. Liq. 2; Acute Tox. 4; Aquatic Acute 3; Aquatic Chronic 3; H225, H332, H412	<= 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

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture

Carbon oxides, Hydrogen chloride gas

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 an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local 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.

Recommended storage temperature 2 - 8 °C

Handle and store under inert gas. Air and moisture sensitive. Light sensitive.

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
cis-Dichloroethylene	156-59-2	TWA	200 ppm	USA. ACGIH Threshold Limit Values (TLV)
	Remarks	Central Nervous System impairment Eye irritation		

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 AXBEK (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: light yellow |
| b) Odour | No data available |
| c) Odour Threshold | No data available |
| d) pH | No data available |
| e) Melting point/freezing point | -80.0 °C (-112.0 °F) |
| f) Initial boiling point and boiling range | 60.0 - 61.0 °C (140.0 - 141.8 °F) |
| g) Flash point | 6.0 °C (42.8 °F) - closed cup |
| h) Evaporation rate | No data available |
| i) Flammability (solid, gas) | No data available |
| j) Upper/lower flammability or explosive limits | No data available |
| k) Vapour pressure | No data available |
| l) Vapour density | No data available |
| m) Relative density | 1.28 g/cm ³ |
| n) Water solubility | No data available |
| o) Partition coefficient: n-octanol/water | No data available |

- | | |
|------------------------------|-------------------|
| p) Auto-ignition temperature | No data available |
| q) Decomposition temperature | No data available |
| r) Viscosity | No data available |
| s) Explosive properties | No data available |
| t) Oxidizing properties | No data available |

9.2 Other safety information

No data available

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

Vapours may form explosive mixture with air.

10.4 Conditions to avoid

Heat, flames and sparks. Extremes of temperature and direct sunlight.

10.5 Incompatible materials

Oxidizing agents

10.6 Hazardous decomposition products

Other decomposition products - No data available
In the event of fire: see section 5

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity

LC50 Inhalation - Rat - 13700 ppm

Remarks: Behavioral:Somnolence (general depressed activity). Liver:Fatty liver degeneration.

Dermal: No data available

No data available

Skin corrosion/irritation

No data available

Serious eye damage/eye irritation

No data available

Respiratory or skin sensitisation

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

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

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

RTECS: KV9420000

narcosis, To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

12. ECOLOGICAL INFORMATION**12.1 Toxicity**

No data available

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.
Harmful to aquatic life.

13. DISPOSAL CONSIDERATIONS**13.1 Waste treatment methods****Product**

Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging

Dispose of as unused product.

14. TRANSPORT INFORMATION**DOT (US)**

UN number: 1150 Class: 3 Packing group: II

Proper shipping name: 1,2-Dichloroethylene

Poison Inhalation Hazard: No

IMDG

UN number: 1150 Class: 3 Packing group: II EMS-No: F-E, S-D

Proper shipping name: 1,2-DICHLOROETHYLENE

IATA

UN number: 1150 Class: 3 Packing group: II

Proper shipping name: 1,2-Dichloroethylene

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

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards

Fire Hazard

Massachusetts Right To Know Components

	CAS-No.	Revision Date
cis-Dichloroethylene	156-59-2	1993-04-24

Pennsylvania Right To Know Components

	CAS-No.	Revision Date
cis-Dichloroethylene	156-59-2	1993-04-24

New Jersey Right To Know Components

	CAS-No.	Revision Date
cis-Dichloroethylene	156-59-2	1993-04-24

California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

16. OTHER INFORMATION

Full text of H-Statements referred to under sections 2 and 3.

Acute Tox.	Acute toxicity
Aquatic Acute	Acute aquatic toxicity
Aquatic Chronic	Chronic aquatic toxicity
Flam. Liq.	Flammable liquids
H225	Highly flammable liquid and vapour.
H332	Harmful if inhaled.
H402	Harmful to aquatic life.

HMIS Rating

Health hazard:	1
Chronic Health Hazard:	*
Flammability:	3
Physical Hazard	1

NFPA Rating

Health hazard:	2
Fire Hazard:	3
Reactivity Hazard:	0

Further information

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Preparation Information

Sigma-Aldrich Corporation
Product Safety – Americas Region
1-800-521-8956

Version: 4.4

Revision Date: 12/01/2015

Print Date: 07/13/2017

SAFETY DATA SHEET

Creation Date 08-Nov-2010

Revision Date 16-Jan-2019

Revision Number 6

1. Identification

Product Name Fluoranthene

Cat No. : AC119170000; AC119170250; AC119171000; AC119175000

CAS-No 206-44-0
Synonyms Benzo[j,k]fluorene

Recommended Use Laboratory chemicals.
Uses advised against Food, drug, pesticide or biocidal product use

Details of the supplier of the safety data sheet

Company
Fisher Scientific
One Reagent Lane
Fair Lawn, NJ 07410
Tel: (201) 796-7100

Acros Organics
One Reagent Lane
Fair Lawn, NJ 07410

Emergency Telephone Number

For information **US** call: 001-800-ACROS-01 / **Europe** call: +32 14 57 52 11
Emergency Number **US**:001-201-796-7100 / **Europe**: +32 14 57 52 99
CHEMTREC Tel. No.**US**:001-800-424-9300 / **Europe**:001-703-527-3887

2. Hazard(s) identification

Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute oral toxicity Category 4

Label Elements

Signal Word

Warning

Hazard Statements

Harmful if swallowed



Precautionary Statements**Prevention**

Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product

Ingestion

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell

Rinse mouth

Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Very toxic to aquatic life with long lasting effects

3. Composition/Information on Ingredients

Component	CAS-No	Weight %
Fluoranthene	206-44-0	>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	Move to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms occur.
Ingestion	Clean mouth with water and drink afterwards plenty of water. Get medical attention if symptoms occur.
Most important symptoms and effects	None reasonably foreseeable.
Notes to Physician	Treat symptomatically

5. Fire-fighting measures

Suitable Extinguishing Media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Unsuitable Extinguishing Media	No information available
Flash Point	Not applicable
Method -	No information available
Autoignition Temperature	No information available
Explosion Limits	
Upper	No data available
Lower	No data available
Sensitivity to Mechanical Impact	No information available
Sensitivity to Static Discharge	No information available

Specific Hazards Arising from the Chemical

Keep product and empty container away from heat and sources of ignition.

Hazardous Combustion Products

Carbon monoxide (CO) Carbon dioxide (CO₂)

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
2

Flammability
0

Instability
0

Physical hazards
N/A

6. Accidental release measures

Personal Precautions

Ensure adequate ventilation. Use personal protective equipment. Avoid dust formation.

Environmental Precautions

Should not be released into the environment.

Methods for Containment and Clean Up

Sweep up or vacuum up spillage and collect in suitable container for disposal. Keep in suitable, closed containers for disposal.

7. Handling and storage

Handling

Ensure adequate ventilation. Wear personal protective equipment. Avoid dust formation. Do not get in eyes, on skin, or on clothing. Avoid ingestion and inhalation.

Storage

Keep in a dry, cool and well-ventilated place. Keep container tightly closed.

8. Exposure controls / personal protection

Exposure Guidelines

This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Engineering Measures

Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.

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

Long sleeved clothing.

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

Powder Solid

Appearance

Light green

Odor

Odorless

Odor Threshold

No information available

pH

Not applicable

Melting Point/Range

109 - 111 °C / 228.2 - 231.8 °F

Boiling Point/Range

384 °C / 723.2 °F

Flash Point

Not applicable

Evaporation Rate

No information available

Flammability (solid,gas)

No information available

Flammability or explosive limits

No information available

Upper	No data available
Lower	No data available
Vapor Pressure	No information available
Vapor Density	No information available
Specific Gravity	No information available
Solubility	insoluble
Partition coefficient; n-octanol/water	No data available
Autoignition Temperature	No information available
Decomposition Temperature	No information available
Viscosity	No information available
Molecular Formula	C16 H10
Molecular Weight	202.25

10. Stability and reactivity

Reactive Hazard	None known, based on information available
Stability	Stable under normal conditions.
Conditions to Avoid	Incompatible products.
Incompatible Materials	Strong oxidizing agents
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	No acute toxicity information is available for this product
Component Information	

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Fluoranthene	LD50 = 2 g/kg (Rat)	LD50 = 3180 mg/kg (Rabbit)	Not listed

Toxicologically Synergistic Products	No information available
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Delayed and immediate effects as well as chronic effects from short and long-term exposure

Irritation	No information available
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
Fluoranthene	206-44-0	Not listed	Not listed	Not listed	Not listed	Not listed

Mutagenic Effects	No information available
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Reproductive Effects	No information available.
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Developmental Effects	No information available.
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Teratogenicity	No information available.
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STOT - single exposure	None known
STOT - repeated exposure	None known

Aspiration hazard No information available

Symptoms / effects, both acute and delayed No information available

Endocrine Disruptor Information No information available

Other Adverse Effects The toxicological properties have not been fully investigated. See actual entry in RTECS for complete information.

12. Ecological information

Ecotoxicity

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Fluoranthene	Not listed	Oncorhynchus mykiss: LC50=0.0077 mg/L 96h	Not listed	EC50: 0.78 mg/L 20h

Persistence and Degradability No information available

Bioaccumulation/ Accumulation No information available.

Mobility .

Component	log Pow
Fluoranthene	5.1

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
Fluoranthene - 206-44-0	U120	-

14. Transport information

DOT

UN-No UN3077
 Proper Shipping Name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
 Proper technical name Fluoranthene
 Hazard Class 9
 Packing Group III

TDG

UN-No UN3077
 Proper Shipping Name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
 Hazard Class 9
 Packing Group III

IATA

UN-No UN3077
 Proper Shipping Name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
 Hazard Class 9
 Packing Group III

IMDG/IMO

UN-No UN3077
 Proper Shipping Name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
 Hazard Class 9
 Packing Group III

15. Regulatory information

All of the components in the product are on the following Inventory lists: The product is classified and labeled according to EC directives or corresponding national laws. The product is classified and labeled in accordance with Directive 1999/45/EC Europe China Canada TSCA Japan X = listed Australia U.S.A. (TSCA) Canada (DSL/NDSL) Europe (EINECS/ELINCS/NLP) Australia (AICS) Korea (ECL) China (IECSC) Japan (ENCS) Philippines (PICCS) Complete Regulatory Information contained in following SDS's

International Inventories

Component	TSCA	DSL	NDSL	EINECS	ELINCS	NLP	PICCS	ENCS	AICS	IECSC	KECL
Fluoranthene	X	-	X	205-912-4	-		-	X	X	X	-

Legend:

X - Listed

E - Indicates a substance that is the subject of a Section 5(e) Consent order under TSCA.

F - Indicates a substance that is the subject of a Section 5(f) Rule under TSCA.

N - Indicates a polymeric substance containing no free-radical initiator in its inventory name but is considered to cover the designated polymer made with any free-radical initiator regardless of the amount used.

P - Indicates a commenced PMN substance

R - Indicates a substance that is the subject of a Section 6 risk management rule under TSCA.

S - Indicates a substance that is identified in a proposed or final Significant New Use Rule

T - Indicates a substance that is the subject of a Section 4 test rule under TSCA.

XU - Indicates a substance exempt from reporting under the Inventory Update Rule, i.e. Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(B)).

Y1 - Indicates an exempt polymer that has a number-average molecular weight of 1,000 or greater.

Y2 - Indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule.

U.S. Federal Regulations

TSCA 12(b) Not applicable

SARA 313

Component	CAS-No	Weight %	SARA 313 - Threshold Values %
Fluoranthene	206-44-0	>95	1.0 0.1

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
Fluoranthene	-	-	X	X

Clean Air Act Not applicable

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
Fluoranthene	100 lb	-

California Proposition 65 This product does not contain any Proposition 65 chemicals

U.S. State Right-to-Know Regulations

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Fluoranthene	X	X	X	-	-

U.S. Department of Transportation

Reportable Quantity (RQ):	N
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	No information available
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16. Other information

Prepared By	Regulatory Affairs Thermo Fisher Scientific Email: EMSDS.RA@thermofisher.com
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Creation Date	08-Nov-2010
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Revision Date	16-Jan-2019
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Print Date	16-Jan-2019
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Revision Summary	This document has been updated to comply with the US OSHA HazCom 2012 Standard replacing the current legislation under 29 CFR 1910.1200 to align with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS).
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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

Revision Date 17-Jan-2018

Revision Number 3

1. Identification

Product Name 1,1,2-Trichloro-1,2,2-trifluoroethane

Cat No. : T178-1; T178-4

Synonyms Fluorocarbon 113; Freon 113; 1,1,2-Trichlorotrifluoroethane

Recommended Use Laboratory chemicals.

Uses advised against Not for food, drug, pesticide or biocidal product use

Details of the supplier of the safety data sheet

Company

Fisher Scientific
One Reagent Lane
Fair Lawn, NJ 07410
Tel: (201) 796-7100

Emergency Telephone Number

CHEMTREC®, Inside the USA: 800-424-9300
CHEMTREC®, Outside the USA: 001-703-527-3887

2. Hazard(s) identification

Classification

Classification under 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Based on available data, the classification criteria are not met

Label Elements

None required

Hazards not otherwise classified (HNOC)

None identified

3. Composition/Information on Ingredients

Component	CAS-No	Weight %
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	99

4. First-aid measures

Eye Contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

Skin Contact Wash off immediately with plenty of water for at least 15 minutes.

Inhalation	Move to fresh air.
Ingestion	Do not induce vomiting.
Most important symptoms and effects	No information available.
Notes to Physician	Treat symptomatically

5. Fire-fighting measures

Unsuitable Extinguishing Media	No information available
Flash Point	No information available
Method -	No information available
Autoignition Temperature	770 °C
Explosion Limits	
Upper	No data available
Lower	No data available
Sensitivity to Mechanical Impact	No information available
Sensitivity to Static Discharge	No information available

Specific Hazards Arising from the Chemical

Keep product and empty container away from heat and sources of ignition.

Hazardous Combustion Products

No information available

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
1	0	0	N/A

6. Accidental release measures

Personal Precautions	Ensure adequate ventilation. Use personal protective equipment.
Environmental Precautions	See Section 12 for additional ecological information.

Methods for Containment and Clean Up No information available.

7. Handling and storage

Handling	Ensure adequate ventilation.
Storage	Keep containers tightly closed in a dry, cool and well-ventilated place.

8. Exposure controls / personal protection

Exposure Guidelines	This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.
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Component	ACGIH TLV	OSHA PEL	NIOSH IDLH	Mexico OEL (TWA)
1,1,2-Trichloro-1,2,2-trifluoroethane	TWA: 1000 ppm STEL: 1250 ppm	(Vacated) TWA: 1000 ppm (Vacated) TWA: 7600 mg/m ³ (Vacated) STEL: 1250 ppm (Vacated) STEL: 9500 mg/m ³ TWA: 1000 ppm TWA: 7600 mg/m ³	IDLH: 2000 ppm TWA: 1000 ppm TWA: 7600 mg/m ³ STEL: 1250 ppm STEL: 9500 mg/m ³	TWA: 1000 ppm TWA: 1600 mg/m ³ STEL: 1250 ppm STEL: 9500 mg/m ³

Legend

ACGIH - American Conference of Governmental Industrial Hygienists

OSHA - Occupational Safety and Health Administration

NIOSH IDLH: The National Institute for Occupational Safety and Health Immediately Dangerous to Life or Health

Engineering Measures 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	Clear
Odor	aromatic
Odor Threshold	No information available
pH	No information available
Melting Point/Range	-36 °C
Boiling Point/Range	48 °C
Flash Point	No information available
Evaporation Rate	> 1.0 (Ether = 1.0)
Flammability (solid,gas)	No information available
Flammability or explosive limits	
Upper	No data available
Lower	No data available
Vapor Pressure	363 hPa @ 20 °C
Vapor Density	6.5 (Air = 1.0)
Specific Gravity	1.47 @ 21°C
Solubility	Insoluble in water
Partition coefficient; n-octanol/water	No data available
Autoignition Temperature	770 °C
Decomposition Temperature	No information available
Viscosity	No information available
Molecular Formula	C ₂ Cl ₃ F ₃
Molecular Weight	187.38

10. Stability and reactivity

Reactive Hazard None known, based on information available

Stability	Stable under normal conditions.
Conditions to Avoid	Incompatible products.
Incompatible Materials	Strong acids, Powdered metals
Hazardous Decomposition Products	No information available
Hazardous Polymerization	Hazardous polymerization does not occur.
Hazardous Reactions	None under normal processing.

11. Toxicological information

Acute Toxicity

Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
1,1,2-Trichloro-1,2,2-trifluoroethane	LD50 = 43 g/kg (Rat)	Not listed	LC50 = 38000 ppm (Rat) 4 h LC50 = 38500 mg/kg (Rat) 4 h

Toxicologically Synergistic Products No information available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Irritation No information available

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
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	Not listed	Not listed	Not listed	Not listed	Not listed

Mutagenic Effects No information available

Reproductive Effects No information available.

Developmental Effects No information available.

Teratogenicity No information available.

STOT - single exposure None known

STOT - repeated exposure None known

Aspiration hazard No information available

Symptoms / effects, both acute and delayed No information available

Endocrine Disruptor Information No information available

Other Adverse Effects The toxicological properties have not been fully investigated.

12. Ecological information

Ecotoxicity

Do not empty into drains. Chlorotrifluoromethane (CFC-13) is a Class I ozone-depleting chlorofluorocarbon. It is stable in the atmosphere. The half-life for degradation by reaction with photochemically-produced hydroxyl radicals is about 62 years. Following gradual diffusion into the stratosphere above the ozone layer, it slowly degrades (est. half-life of 180-450 years) due to direct photolysis and contributes to the catalytic removal of atmosphere ozone.

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
1,1,2-Trichloro-1,2,2-trifluoroethane	Not listed	LC50: 7 - 14 mg/L, 96h static (Brachydanio rerio) LC50: = 1250 mg/L, 96h (Pimephales promelas) LC50: = 6240 mg/L, 96h (Oryzias latipes)	Not listed	EC50: = 71 mg/L, 48h (Daphnia magna)

Persistence and Degradability No information available

Bioaccumulation/ Accumulation No information available.

Mobility No information available.

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.

14. Transport information

DOT Not regulated
TDG Not regulated
IATA Not regulated
IMDG/IMO Not regulated

15. Regulatory information

International Inventories

Component	TSCA	DSL	NDSL	EINECS	ELINCS	NLP	PICCS	ENCS	AICS	IECSC	KECL
1,1,2-Trichloro-1,2,2-trifluoroethane	X	X	-	200-936-1	-		X	X	X	X	X

Legend:

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R - Indicates a substance that is the subject of a Section 6 risk management rule under TSCA.

S - Indicates a substance that is identified in a proposed or final Significant New Use Rule

T - Indicates a substance that is the subject of a Section 4 test rule under TSCA.

XU - Indicates a substance exempt from reporting under the Inventory Update Rule, i.e. Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(B)).

Y1 - Indicates an exempt polymer that has a number-average molecular weight of 1,000 or greater.

Y2 - Indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule.

U.S. Federal Regulations

TSCA 12(b) Not applicable

SARA 313 Not applicable

Component	CAS-No	Weight %	SARA 313 - Threshold Values %
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	99	1.0

SARA 311/312 Hazard Categories See section 2 for more information

CWA (Clean Water Act) Not applicable

Clean Air Act Not applicable

Component	HAPS Data	Class 1 Ozone Depletors	Class 2 Ozone Depletors
1,1,2-Trichloro-1,2,2-trifluoroethane	-	X	-

OSHA Occupational Safety and Health Administration
Not applicable

CERCLA Not applicable

Component	Hazardous Substances RQs	CERCLA EHS RQs
1,1,2-Trichloro-1,2,2-trifluoroethane	5000 lb	-

California Proposition 65 This product does not contain any Proposition 65 chemicals

U.S. State Right-to-Know Regulations
Not applicable

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
1,1,2-Trichloro-1,2,2-trifluoroethane	X	X	X	-	X

U.S. Department of Transportation

Reportable Quantity (RQ): N
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 No information available

16. Other information

Prepared By Regulatory Affairs
Thermo Fisher Scientific
Email: EMSDS.RA@thermofisher.com

Revision Date 17-Jan-2018**Print Date** 17-Jan-2018

Revision Summary This document has been updated to comply with the US OSHA HazCom 2012 Standard replacing the current legislation under 29 CFR 1910.1200 to align with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

Disclaimer

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End of SDS



Safety Data Sheet

Revision Date: 06/04/19

www.restek.com

2 Letter ISO country code/language code: US/EN

1. IDENTIFICATION

Catalog Number / Product Name: 31279 / Indeno(1,2,3-c,d)pyrene Standard
Company: Restek Corporation
Address: 110 Benner Circle
Bellefonte, Pa. 16823
Phone#: 814-353-1300
Fax#: 814-353-1309
Emergency#: 800-424-9300 (CHEMTREC)
703-527-3887 (Outside the US)
Email: www.restek.com
Revision Number: 11
Intended use: For Laboratory use only

2. HAZARD(S) IDENTIFICATION

Emergency Overview:



GHS Hazard
Symbols:

GHS Classification: Carcinogenicity Category 2

GHS Signal Word: Warning

GHS Hazard: Suspected of causing cancer.

GHS Precautions:

Safety Precautions: Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Wear protective gloves/protective clothing/eye protection/face protection.

First Aid Measures: IF exposed or concerned: Get medical advice/attention.

Storage: Store locked up.

Disposal: Dispose of contents/container according to section 13 of the SDS.

Single Exposure Target Organs: No data available

Repeated Exposure Target Organs: No data available

3. COMPOSITION / INFORMATION ON INGREDIENT

Chemical Name	CAS #	EINEC #	% Composition
Dichloromethane	75-09-2	200-838-9	99.9
indeno (1,2,3-c,d) pyrene	193-39-5	205-893-2	0.1

4. FIRST-AID MEASURES

Inhalation:	Remove to fresh air. If breathing is difficult, have a trained individual administer oxygen. If not breathing, give artificial respiration and have a trained individual administer oxygen. Get medical attention immediately
Eyes:	Immediately flush eyes with plenty of water for at least 20 minutes retracting eyelids often. Tilt the head to prevent chemical from transferring to the uncontaminated eye. Get immediate medical attention and monitor the eye daily as advised by your physician. Serious harm (damage) may result if treatment is delayed. Continue to flush eyes while awaiting medical attention
Skin Contact:	Wash with soap and water. Remove contaminated clothing, launder immediately, and discard contaminated leather goods. Get medical attention immediately.
Ingestion:	Do not induce vomiting and seek medical attention immediately. Drink two glasses of water or milk to dilute. Provide medical care provider with this SDS. Never give anything by mouth to an unconscious person

5. FIRE- FIGHTING MEASURES

Extinguishing Media:	Use alcohol resistant foam, carbon dioxide, or dry chemical when fighting fires. Water or foam may cause frothing if liquid is burning but it still may be a useful extinguishing agent if carefully applied to the surface of the fire. Do Not direct a stream of water into the hot burning liquid. Use methods suitable to fight surrounding fire.
Fire and/or Explosion Hazards:	No data.
Fire Fighting Methods and Protection:	Use methods for the surrounding fire.
Hazardous Combustion Products:	Carbon dioxide, Carbon monoxide

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions and Equipment:	Exposure to the spilled material may be severely irritating or toxic. Follow personal protective equipment recommendations found in Section 8 of this SDS. Personal protective equipment needs must be evaluated based on information provided on this sheet and the special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred, and the expertise of employees in the area responding to the spill. Never exceed any occupational exposure limits.
Methods for Clean-up:	Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Gather and store in a sealed container pending a waste disposal evaluation.

7. HANDLING AND STORAGE

Handling Technical Measures and Precautions:	Toxic or severely irritating material. Avoid contacting and avoid breathing the material. Use only in a well ventilated area. As with all chemicals, good industrial hygiene practices should be followed when handling this material.
Storage Technical Measures and Conditions:	Store in a cool dry place. Isolate from incompatible materials. Keep container closed when not in use

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

United States:

Chemical Name	CAS No.	IDLH	ACGIH STEL	ACGIH TLV-TWA	OSHA Exposure Limit
Dichloromethane	75-09-2	2300 ppm IDLH	None Known	50 ppm TWA	25 ppm TWA; 125 ppm STEL (15 min. TWA)
indeno (1,2,3-c,d) pyrene	193-39-5	Not established	None Known	Not established	No data available

Personal Protection:

Engineering Measures:	Local exhaust ventilation or other engineering controls are normally required when handling or using this product to avoid overexposure.
Respiratory Protection:	Respiratory protection may be required to avoid overexposure when handling this product. General or local exhaust ventilation is the preferred means of protection. Use a respirator if general room ventilation is not available or sufficient to

Eye Protection:	eliminate symptoms. Wear chemically resistant safety glasses with side shields when handling this product. Wear additional eye protection such as chemical splash goggles and/or face shield when the possibility exists for eye contact with splashing or spraying liquid, or airborne material. Do not wear contact lenses. Have an eye wash station available.
Skin Protection:	Avoid skin contact by wearing chemically resistant gloves, an apron and other protective equipment depending upon conditions of use. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work.
Medical Conditions Aggravated By Exposure:	Eye disease Skin disease including eczema and sensitization Respiratory disease including asthma and bronchitis

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance, color:	Colorless
Odor:	Strong
Physical State:	No data available
pH:	Not applicable
Vapor Pressure:	No data available
Vapor Density:	2.93 (air = 1)
Boiling Point (°C):	530 °C
Melting Point (°C):	-96.7 °C
Flash Point (°F):	No data available
Upper Flammable/Explosive Limit, % in air:	No data available
Lower Flammable/Explosive Limit, % in air:	No data available
Autoignition Temperature (°C):	556 deg C
Decomposition Temperature (°C):	No data available
Specific Gravity:	1.3254 - 1.3258 g/cm3 at 20 °C
Evaporation Rate:	No data available
Odor Threshold:	ND
Solubility:	Moderate; 50-99%
Partition Coefficient: n-octanol in water:	No data available
VOC % by weight:	99.9
Molecular Weight:	No data available

10. STABILITY AND REACTIVITY

Stability:	Stable under normal conditions.
Conditions to Avoid:	None known. Contamination High temperatures
Materials to Avoid / Chemical Incompatibility:	Strong oxidizing agents Caustics (bases)
Hazardous Decomposition Products:	Carbon dioxide Carbon monoxide

11. TOXICOLOGICAL INFORMATION

Routes of Entry:	Inhalation Absorption Ingestion Skin contact Eye contact
Target Organs Potentially Affected By Exposure:	Skin, Cardiovascular System, Eyes, Liver
Chemical Interactions That Change Toxicity:	None Known

Immediate (Acute) Health Effects by Route of Exposure:

Inhalation Irritation:	Can cause moderate respiratory irritation, dizziness, weakness, fatigue, nausea and headache.
Inhalation Toxicity:	Harmful! Can cause systemic damage (see "Target Organs") Inhalation may cause severe central nervous system depression (including unconsciousness).
Skin Contact:	Contact causes severe skin irritation and possible burns.
Skin Absorption:	Harmful if absorbed through the skin. May cause severe irritation and systemic damage.
Eye Contact:	Contact with the eyes may cause moderate to severe eye injury. Eye contact may result in tearing and reddening, but not likely to permanently injure eye tissue. Temporary vision impairment (cloudy or blurred vision) is possible.
Ingestion Irritation:	Irritating to mouth, throat, and stomach. Can cause abdominal discomfort, nausea, vomiting and diarrhea.
Ingestion Toxicity:	Harmful if swallowed. May cause systemic poisoning.

Long-Term (Chronic) Health Effects:

Carcinogenicity:	Contains a probable or known human carcinogen.
Reproductive and Developmental Toxicity:	No data available to indicate product or any components

Inhalation:	present at greater than 0.1% may cause birth defects. Upon prolonged and/or repeated exposure, can cause moderate respiratory irritation, dizziness, weakness, fatigue, nausea and headache. Harmful! Can cause systemic damage upon prolonged and/or repeated exposure (see "Target Organs)
Skin Absorption:	Upon prolonged or repeated exposure, harmful if absorbed through the skin. May cause severe irritation and systemic damage

Component Toxicological Data:

NIOSH:		
Chemical Name	CAS No.	LD50/LC50
Methane, dichloro-	75-09-2	Inhalation LC50 Rat 53 mg/L 6 h

Component Carcinogenic Data:

OSHA:		
Chemical Name	CAS No.	
Indeno[1,2,3-cd]pyrene	193-39-5	Present
Methylene chloride	75-09-2	25 ppm TWA (8 hr.); 125 ppm STEL (15 min.); 12.5 ppm Action Level (see 29 CFR 1910.1051); effective date for respiratory protection for certain employers to acheive the 8-hour TWA PEL is August 31, 1998; the start up date to install engineering controls is December 10, 1998.; {OSHA - 29 CFR 1910 Specifically Regulate

ACGIH:		
Chemical Name	CAS No.	
Dichloromethane	75-09-2	A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans

NIOSH:		
Chemical Name	CAS No.	
Methylene chloride	75-09-2	potential occupational carcinogen

NTP:	
Chemical Name	CAS No.
No data available	

IARC:		
Chemical Name	CAS No.	Group No.
Monograph 110 [in preparation]; Monograph 71 [1999]	75-09-2	Group 2A
Monograph 92 [2010]; Supplement 7 [1987]; Monograph 32 [1983]	193-39-5	Group 2B

12. ECOLOGICAL INFORMATION

Overview:	Moderate ecological hazard. This product may be dangerous to plants and/or wildlife. Keep out of waterways.
Mobility:	No data
Persistence:	No data
Bioaccumulation:	No data
Degradability:	No data
Ecological Toxicity Data:	No data available

13. DISPOSAL CONSIDERATIONS

Waste Description of Spent Product:	Spent or discarded material is a hazardous waste. Mixing spent or discarded material with other materials may render the mixture hazardous. Perform a hazardous waste determination on mixtures.
Disposal Methods:	Incinerate spent or discarded material a permitted hazardous waste facility.
Waste Disposal of Packaging:	Comply with all Local, State, Federal, and Provincial

14. TRANSPORTATION INFORMATION

United States:
DOT Proper Shipping Name: Dichloromethane
UN Number: UN1593
Hazard Class: 6.1
Packing Group: III

International:
IATA Proper Shipping Name: Dichloromethane
UN Number: UN1593
Hazard Class: 6.1
Packing Group: III

Marine Pollutant: No

Chemical Name	CAS#	Marine Pollutant	Severe Marine Pollutant
No data available			

15. REGULATORY INFORMATION

United States:

Chemical Name	CAS#	CERCLA	SARA 313	SARA EHS 313	TSCA
Dichloromethane	75-09-2	X	X	-	X
indeno (1,2,3-c,d) pyrene	193-39-5	X	X	-	X

The following chemicals are listed on CA Prop 65:

Chemical Name	CAS #	Regulation
Indeno[1,2,3-cd]pyrene	193-39-5	Prop 65 Cancer
Dichloromethane Dichloromethane (Methylene chloride)	75-09-2	Prop 65 Cancer

State Right To Know Listing:

Chemical Name	CAS#	New Jersey	Massachusetts	Pennsylvania	California
Dichloromethane	75-09-2	X	X	X	X
indeno (1,2,3-c,d) pyrene	193-39-5	X	X	X	X

16. OTHER INFORMATION

Prior Version Date: 03/22/18

Other Information: Any changes to the SDS compared to previous versions are marked by a vertical line in front of the concerned paragraph.

References: No data available

Disclaimer: Restek Corporation provides the descriptions, data and information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. It is provided for your guidance only. Because many factors may affect processing or application/use, Restek Corporation recommends you perform an assessment to determine the suitability of a product for your particular purpose prior to use. No warranties of any kind, either expressed or implied, including fitness for a particular purpose, are made regarding products described, data or information set forth. In no case shall the descriptions, information, or data provided be considered a part of our terms and conditions of sale. Further, the descriptions, data and information furnished hereunder are given gratis. No obligation or liability for the description, data and information given are assumed. All such being given and accepted at your risk.

SAFETY DATA SHEET

Creation Date 20-Aug-2014

Revision Date 17-Jan-2018

Revision Number 3

1. Identification

Product Name Mercury (Certified ACS)

Cat No. : M141-1LB; M141-6LB

Synonyms Colloidal mercury; Hydrargyrum; Metallic mercury

Recommended Use Laboratory chemicals.

Uses advised against Not for food, drug, pesticide or biocidal product use

Details of the supplier of the safety data sheet

Company

Fisher Scientific
One Reagent Lane
Fair Lawn, NJ 07410
Tel: (201) 796-7100

Emergency Telephone Number

CHEMTREC®, Inside the USA: 800-424-9300

CHEMTREC®, Outside the USA: 001-703-527-3887

2. Hazard(s) identification

Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Corrosive to metals	Category 1
Acute Inhalation Toxicity - Vapors	Category 2
Reproductive Toxicity	Category 1B
Specific target organ toxicity - (repeated exposure)	Category 1
Target Organs - Central nervous system (CNS), Kidney.	

Label Elements

Signal Word

Danger

Hazard Statements

May be corrosive to metals

Fatal if inhaled

May damage the unborn child

Causes 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
Do not get in eyes, on skin, or on clothing
Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product
Do not breathe dust/fume/gas/mist/vapors/spray
Use only outdoors or in a well-ventilated area
Wear respiratory protection

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
Immediately call a POISON CENTER or doctor/physician

Skin

Immediately call a POISON CENTER or doctor/physician
IF ON SKIN: Gently wash with plenty of soap and water
Remove/Take off immediately all contaminated clothing
Wash contaminated clothing before reuse

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)

Very toxic to aquatic life with long lasting effects

WARNING. Reproductive Harm - <https://www.p65warnings.ca.gov/>.

3. Composition/Information on Ingredients

Component	CAS-No	Weight %
Mercury	7439-97-6	100

4. First-aid measures

Eye Contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
Immediate medical attention is required.

Skin Contact

Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Immediate medical attention is required.

Inhalation

Move to fresh air. If breathing is difficult, give oxygen. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Immediate medical attention is required.

Ingestion

Do not induce vomiting. Call a physician or Poison Control Center immediately.

Most important symptoms and effects	No information available.
Notes to Physician	Treat symptomatically

5. Fire-fighting measures

Suitable Extinguishing Media	Substance is nonflammable; use agent most appropriate to extinguish surrounding fire.
Unsuitable Extinguishing Media	No information available
Flash Point	No information available
Method -	No information available
Autoignition Temperature	No information available
Explosion Limits	
Upper	No data available
Lower	No data available
Sensitivity to Mechanical Impact	No information available
Sensitivity to Static Discharge	No information available

Specific Hazards Arising from the Chemical

Very toxic. Non-combustible, substance itself does not burn but may decompose upon heating to produce corrosive and/or toxic fumes. Keep product and empty container away from heat and sources of ignition.

Hazardous Combustion Products

Mercury oxide Highly toxic fumes

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
4	0	0	N/A

6. Accidental release measures

Personal Precautions	Wear self-contained breathing apparatus and protective suit. Evacuate personnel to safe areas. Ensure adequate ventilation. Do not get in eyes, on skin, or on clothing.
Environmental Precautions	Should not be released into the environment. See Section 12 for additional ecological information.
Methods for Containment and Clean Up	Wear self-contained breathing apparatus and protective suit. Soak up with inert absorbent material. Keep in suitable, closed containers for disposal.

7. Handling and storage

Handling	Use only under a chemical fume hood. Wear personal protective equipment. Do not get in eyes, on skin, or on clothing. Do not breathe vapors or spray mist. Do not ingest.
Storage	Keep containers tightly closed in a dry, cool and well-ventilated place. Corrosives area.

8. Exposure controls / personal protection

Exposure Guidelines

Component	ACGIH TLV	OSHA PEL	NIOSH IDLH	Mexico OEL (TWA)
Mercury	TWA: 0.025 mg/m ³ Skin	(Vacated) TWA: 0.05 mg/m ³ Ceiling: 0.1 mg/m ³ (Vacated) STEL: 0.03 mg/m ³ Skin (Vacated) Ceiling: 0.1 mg/m ³	IDLH: 10 mg/m ³ TWA: 0.05 mg/m ³ Ceiling: 0.1 mg/m ³	TWA: 0.05 mg/m ³

Legend

ACGIH - American Conference of Governmental Industrial Hygienists

OSHA - Occupational Safety and Health Administration

NIOSH IDLH: The National Institute for Occupational Safety and Health Immediately Dangerous to Life or Health

Engineering Measures Use only under a chemical fume hood. Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.

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	Silver
Odor	Odorless
Odor Threshold	No information available
pH	No information available
Melting Point/Range	-38.87 °C / -38 °F
Boiling Point/Range	356.72 °C / 674.1 °F
Flash Point	No information available
Evaporation Rate	No information available
Flammability (solid,gas)	No information available
Flammability or explosive limits	
Upper	No data available
Lower	No data available
Vapor Pressure	0.002 mmHg @ 25 °C
Vapor Density	7.0
Specific Gravity	13.59 (H ₂ O=1)
Solubility	Insoluble in water
Partition coefficient; n-octanol/water	No data available
Autoignition Temperature	No information available
Decomposition Temperature	No information available
Viscosity	No information available
Molecular Formula	Hg
Molecular Weight	200.59

10. Stability and reactivity

Reactive Hazard	None known, based on information available
Stability	Stable under normal conditions.
Conditions to Avoid	Incompatible products. Excess heat.
Incompatible Materials	Strong oxidizing agents, Ammonia, Metals, Halogens

Hazardous Decomposition Products Mercury oxide, Highly toxic fumes

Hazardous Polymerization Hazardous polymerization does not occur.

Hazardous Reactions None under normal processing.

11. Toxicological information

Acute Toxicity

Product Information No acute toxicity information is available for this product

Component Information

Toxicologically Synergistic Products No information available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Irritation No information available

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
Mercury	7439-97-6	Not listed	Not listed	Not listed	Not listed	Not listed

Mutagenic Effects No information available

Reproductive Effects No information available.

Developmental Effects May cause harm to the unborn child.

Teratogenicity No information available.

STOT - single exposure None known

STOT - repeated exposure Central nervous system (CNS) Kidney

Aspiration hazard No information available

Symptoms / effects, both acute and delayed No information available

Endocrine Disruptor Information No information available

Other Adverse Effects The toxicological properties have not been fully investigated.

12. Ecological information

Ecotoxicity

This product contains the following substance(s) which are hazardous for the environment.

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Mercury	Not listed	0.9 mg/L LC50 96h 0.18 mg/L LC50 96h 0.16 mg/L LC50 96h 0.5 mg/L LC50 96h	Not listed	EC50: = 5.0 µg/L, 96h (water flea)

Persistence and Degradability No information available

Bioaccumulation/ Accumulation No information available.

Mobility No information available.

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
Mercury - 7439-97-6	U151	-

14. Transport information

DOT

UN-No	UN2809
Proper Shipping Name	MERCURY
Hazard Class	8
Subsidiary Hazard Class	6.1
Packing Group	III

TDG

UN-No	UN2809
Proper Shipping Name	MERCURY
Hazard Class	8
Subsidiary Hazard Class	6.1
Packing Group	III

IATA

UN-No	UN2809
Proper Shipping Name	MERCURY
Hazard Class	8
Subsidiary Hazard Class	6.1
Packing Group	III

IMDG/IMO

UN-No	UN2809
Proper Shipping Name	MERCURY
Hazard Class	8
Subsidiary Hazard Class	6.1
Packing Group	III

15. Regulatory information

International Inventories

Component	TSCA	DSL	NDL	EINECS	ELINCS	NLP	PICCS	ENCS	AICS	IECSC	KECL
Mercury	X	X	-	231-106-7	-		X	-	X	X	X

Legend:

X - Listed

E - Indicates a substance that is the subject of a Section 5(e) Consent order under TSCA.

F - Indicates a substance that is the subject of a Section 5(f) Rule under TSCA.

N - Indicates a polymeric substance containing no free-radical initiator in its inventory name but is considered to cover the designated polymer made with any free-radical initiator regardless of the amount used.

P - Indicates a commenced PMN substance

R - Indicates a substance that is the subject of a Section 6 risk management rule under TSCA.

S - Indicates a substance that is identified in a proposed or final Significant New Use Rule

T - Indicates a substance that is the subject of a Section 4 test rule under TSCA.

XU - Indicates a substance exempt from reporting under the Inventory Update Rule, i.e. Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(B)).

Y1 - Indicates an exempt polymer that has a number-average molecular weight of 1,000 or greater.

Y2 - Indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule.

U.S. Federal Regulations**TSCA 12(b)**

Component	TSCA 12(b)
Mercury	Section 5

SARA 313

Component	CAS-No	Weight %	SARA 313 - Threshold Values %
Mercury	7439-97-6	100	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
Mercury	-	-	X	X

Clean Air Act

Component	HAPS Data	Class 1 Ozone Depleters	Class 2 Ozone Depleters
Mercury	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
Mercury	1 lb	-

California Proposition 65 This product contains the following proposition 65 chemicals

Component	CAS-No	California Prop. 65	Prop 65 NSRL	Category
Mercury	7439-97-6	Developmental	-	Developmental

U.S. State Right-to-Know Regulations

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Mercury	X	X	X	X	X

U.S. Department of Transportation

Reportable Quantity (RQ): N
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 No information available

16. Other information

Prepared By Regulatory Affairs
Thermo Fisher Scientific
Email: EMSDS.RA@thermofisher.com

Creation Date 20-Aug-2014

Revision Date 17-Jan-2018

Print Date 17-Jan-2018

Revision Summary This document has been updated to comply with the US OSHA HazCom 2012 Standard replacing the current legislation under 29 CFR 1910.1200 to align with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

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

Creation Date 27-Jan-2010

Revision Date 24-May-2017

Revision Number 5

1. Identification

Product Name	Methylene chloride
Cat No. :	D37-1; D37-4; D37-20; D37-200; D37-200LC; D37-500; D37FB-19; D37FB-50; D37FB-115; D37FB-200; D37POP-19; D37POP-50; D37POP-200; D37RB-19; D37RB-50; D37RB-115; D37RB-200; D37RS-19; D37RS-28; D37RS-50; D37RS-115; D37RS-200; D37SK-4; D37SK-4LC; D37SS-28; D37SS-50; D37SS-115; D37SS-200; D37SS-1350
Synonyms	Dichloromethane; DCM
Recommended Use	Laboratory chemicals.
Uses advised against	Not for food, drug, pesticide or biocidal product use

Details of the supplier of the safety data sheet

Company

Fisher Scientific
One Reagent Lane
Fair Lawn, NJ 07410
Tel: (201) 796-7100

Emergency Telephone Number

CHEMTREC®, Inside the USA: 800-424-9300
CHEMTREC®, Outside the USA: 001-703-527-3887

2. Hazard(s) identification

Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Skin Corrosion/Irritation	Category 2
Serious Eye Damage/Eye Irritation	Category 2
Carcinogenicity	Category 1B
Specific target organ toxicity (single exposure)	Category 3
Target Organs - Central nervous system (CNS).	

Label Elements

Signal Word

Danger

Hazard Statements

Causes skin irritation
Causes serious eye irritation
May cause drowsiness or dizziness
May cause cancer

**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

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 ON SKIN: Wash with plenty of soap and water
If skin irritation occurs: Get medical advice/attention
Take off contaminated clothing and wash 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

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)

WARNING! This product contains a chemical known in the State of California to cause cancer.

3. Composition / information on ingredients

Component	CAS-No	Weight %
Methylene chloride	75-09-2	>99.5

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. Obtain medical attention.
Skin Contact	Wash off immediately with plenty of water for at least 15 minutes. Obtain medical attention.
Inhalation	Move to fresh air. If breathing is difficult, give oxygen. Obtain medical attention.
Ingestion	Do not induce vomiting. Call a physician or Poison Control Center immediately.
Most important symptoms/effects	Breathing difficulties. 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 Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Unsuitable Extinguishing Media No information available

Flash Point No information available

Method - No information available

Autoignition Temperature 556 °C / 1032.8 °F

Explosion Limits

Upper 23 vol %

Lower 13 vol %

Sensitivity to Mechanical Impact No information available

Sensitivity to Static Discharge No information available

Specific Hazards Arising from the Chemical

Thermal decomposition can lead to release of irritating gases and vapors. Keep product and empty container away from heat and sources of ignition.

Hazardous Combustion Products

Carbon monoxide (CO) Carbon dioxide (CO₂) Hydrogen chloride gas Phosgene

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
2

Flammability
1

Instability
0

Physical hazards
N/A

6. Accidental release measures

Personal Precautions Use personal protective equipment. Ensure adequate ventilation. Avoid contact with skin, eyes and clothing. Keep people away from and upwind of spill/leak.

Environmental Precautions Should not be released into the environment. See Section 12 for additional ecological information.

Methods for Containment and Clean Up Soak up with inert absorbent material. Keep in suitable, closed containers for disposal.

7. Handling and storage

Handling Wear personal protective equipment. Do not get in eyes, on skin, or on clothing. Avoid ingestion and inhalation. Use only under a chemical fume hood.

Storage Keep containers tightly closed in a dry, cool and well-ventilated place.

8. Exposure controls / personal protection

Exposure Guidelines

Component	ACGIH TLV	OSHA PEL	NIOSH IDLH	Mexico OEL (TWA)
Methylene chloride	TWA: 50 ppm	(Vacated) TWA: 500 ppm (Vacated) STEL: 2000 ppm (Vacated) Ceiling: 1000 ppm TWA: 25 ppm STEL: 125 ppm	IDLH: 2300 ppm	TWA: 100 ppm TWA: 330 mg/m ³ STEL: 500 ppm STEL: 1740 mg/m ³

Legend

ACGIH - American Conference of Governmental Industrial Hygienists

OSHA - Occupational Safety and Health Administration

NIOSH IDLH: The National Institute for Occupational Safety and Health Immediately Dangerous to Life or Health

Engineering Measures Use only under a chemical fume hood. Ensure that eyewash stations and safety showers are close to the workstation location.

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	sweet
Odor Threshold	No information available
pH	Not applicable
Melting Point/Range	-97 °C / -142.6 °F
Boiling Point/Range	39 °C / 102.2 °F
Flash Point	No information available
Evaporation Rate	No information available
Flammability (solid,gas)	Not applicable
Flammability or explosive limits	
Upper	23 vol %
Lower	13 vol %
Vapor Pressure	350 mbar @ 20°C
Vapor Density	2.93 (Air = 1.0)
Specific Gravity	1.33
Solubility	No information available
Partition coefficient; n-octanol/water	No data available
Autoignition Temperature	556 °C / 1032.8 °F
Decomposition Temperature	No information available
Viscosity	No information available
Molecular Formula	C H ₂ Cl ₂
Molecular Weight	84.93

10. Stability and reactivity

Reactive Hazard	None known, based on information available
Stability	Stable under normal conditions.
Conditions to Avoid	Incompatible products. Excess heat.
Incompatible Materials	Strong oxidizing agents, Strong acids, Amines
Hazardous Decomposition Products	Carbon monoxide (CO), Carbon dioxide (CO ₂), Hydrogen chloride gas, Phosgene
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
Methylene chloride	> 2000 mg/kg (Rat)	> 2000 mg/kg (Rat)	53 mg/L (Rat) 6 h 76000 mg/m ³ (Rat) 4 h

Toxicologically Synergistic No information available

Products

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Irritation Irritating to eyes 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
Methylene chloride	75-09-2	Group 2A	Reasonably Anticipated	A3	X	A3

IARC: (International Agency for Research on Cancer)

NTP: (National Toxicity Program)

ACGIH: (American Conference of Governmental Industrial Hygienists)

Mexico - Occupational Exposure Limits - Carcinogens

IARC: (International Agency for Research on Cancer)

Group 1 - Carcinogenic to Humans

Group 2A - Probably Carcinogenic to Humans

Group 2B - Possibly Carcinogenic to Humans

NTP: (National Toxicity Program)

Known - Known Carcinogen

Reasonably Anticipated - Reasonably Anticipated to be a Human Carcinogen

A1 - Known Human Carcinogen

A2 - Suspected Human Carcinogen

A3 - Animal Carcinogen

ACGIH: (American Conference of Governmental Industrial Hygienists)

Mexico - Occupational Exposure Limits - Carcinogens

A1 - Confirmed Human Carcinogen

A2 - Suspected Human Carcinogen

A3 - Confirmed Animal Carcinogen

A4 - Not Classifiable as a Human Carcinogen

A5 - Not Suspected as a Human Carcinogen

Mutagenic Effects Mutagenic effects have occurred in microorganisms.

Reproductive Effects Experiments have shown reproductive toxicity effects on laboratory animals.

Developmental Effects Developmental effects have occurred in experimental animals.

Teratogenicity No information available.

STOT - single exposure Central nervous system (CNS)

STOT - repeated exposure None known

Aspiration hazard No information available

Symptoms / effects, both acute and delayed Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting

Endocrine Disruptor Information No information available

Other Adverse Effects Tumorigenic effects have been reported in experimental animals. See actual entry in RTECS for complete information.

12. Ecological information

Ecotoxicity

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Methylene chloride	EC50:>660 mg/L/96h	Pimephales promelas: LC50:193 mg/L/96h	EC50: 1 mg/L/24 h EC50: 2.88 mg/L/15 min	EC50: 140 mg/L/48h

Persistence and Degradability Persistence is unlikely based on information available.

Bioaccumulation/ Accumulation No information available.

Mobility Will likely be mobile in the environment due to its volatility.

Component	log Pow
Methylene chloride	1.25

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
Methylene chloride - 75-09-2	U080	-

14. Transport information

DOT

UN-No UN1593
 Proper Shipping Name DICHLOROMETHANE
 Hazard Class 6.1
 Packing Group III

TDG

UN-No UN1593
 Proper Shipping Name DICHLOROMETHANE
 Hazard Class 6.1
 Packing Group III

IATA

UN-No UN1593
 Proper Shipping Name Dichloromethane
 Hazard Class 6.1
 Packing Group III

IMDG/IMO

UN-No UN1593
 Proper Shipping Name Dichloromethane
 Hazard Class 6.1
 Packing Group III

15. Regulatory information

All of the components in the product are on the following Inventory lists: X = listed

International Inventories

Component	TSCA	DSL	NDSL	EINECS	ELINCS	NLP	PICCS	ENCS	AICS	IECSC	KECL
Methylene chloride	X	X	-	200-838-9	-		X	X	X	X	X

Legend:

X - Listed

E - Indicates a substance that is the subject of a Section 5(e) Consent order under TSCA.

F - Indicates a substance that is the subject of a Section 5(f) Rule under TSCA.

N - Indicates a polymeric substance containing no free-radical initiator in its inventory name but is considered to cover the designated

polymer made with any free-radical initiator regardless of the amount used.

P - Indicates a commenced PMN substance

R - Indicates a substance that is the subject of a Section 6 risk management rule under TSCA.

S - Indicates a substance that is identified in a proposed or final Significant New Use Rule

T - Indicates a substance that is the subject of a Section 4 test rule under TSCA.

XU - Indicates a substance exempt from reporting under the Inventory Update Rule, i.e. Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(B)).

Y1 - Indicates an exempt polymer that has a number-average molecular weight of 1,000 or greater.

Y2 - Indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule.

U.S. Federal Regulations

TSCA 12(b)

SARA 313

Component	CAS-No	Weight %	SARA 313 - Threshold Values %
Methylene chloride	75-09-2	>99.5	0.1

SARA 311/312 Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	Yes
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

Component	CWA - Hazardous Substances	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants
Methylene chloride	-	-	X	X

Clean Air Act

Component	HAPS Data	Class 1 Ozone Depletors	Class 2 Ozone Depletors
Methylene chloride	X		-

OSHA Occupational Safety and Health Administration

Component	Specifically Regulated Chemicals	Highly Hazardous Chemicals
Methylene chloride	125 ppm STEL 12.5 ppm Action Level 25 ppm TWA	-

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
Methylene chloride	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
Methylene chloride	75-09-2	Carcinogen	200 µg/day 50 µg/day	Carcinogen

U.S. State Right-to-Know Regulations

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Methylene chloride	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	No information available
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16. Other information

Prepared By	Regulatory Affairs Thermo Fisher Scientific Email: EMSDS.RA@thermofisher.com
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Creation Date	27-Jan-2010
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Revision Date	24-May-2017
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Print Date	24-May-2017
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Revision Summary	This document has been updated to comply with the US OSHA HazCom 2012 Standard replacing the current legislation under 29 CFR 1910.1200 to align with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS).
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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

Creation Date 10-Dec-2009

Revision Date 26-May-2017

Revision Number 4

1. Identification

Product Name Tetrachloroethylene

Cat No. : AC445690000; ACR445690010; AC445690025; AC445691000

Synonyms Perchloroethylene

Recommended Use Laboratory chemicals.

Uses advised against Not for food, drug, pesticide or biocidal product use

Details of the supplier of the safety data sheet**Company**

Fisher Scientific
One Reagent Lane
Fair Lawn, NJ 07410
Tel: (201) 796-7100

Acros Organics
One Reagent Lane
Fair Lawn, NJ 07410

Emergency Telephone Number

For information **US** call: 001-800-ACROS-01 / **Europe** call: +32 14 57 52 11

Emergency Number **US**:001-201-796-7100 / **Europe**: +32 14 57 52 99

CHEMTREC Tel. No.**US**:001-800-424-9300 / **Europe**:001-703-527-3887

2. Hazard(s) identification**Classification**

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Skin Corrosion/irritation	Category 2
Serious Eye Damage/Eye Irritation	Category 2
Skin Sensitization	Category 1
Carcinogenicity	Category 1B
Specific target organ toxicity (single exposure)	Category 3
Target Organs - Central nervous system (CNS).	
Specific target organ toxicity - (repeated exposure)	Category 2
Target Organs - Kidney, Liver, Blood.	

Label Elements**Signal Word**

Danger

Hazard Statements

Causes skin irritation
Causes serious eye irritation
May cause an allergic skin reaction
May cause drowsiness or dizziness
May cause cancer
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
Contaminated work clothing should not be allowed out of the workplace
Do not breathe dust/fume/gas/mist/vapors/spray
Use only outdoors or in a well-ventilated area
Wear protective gloves/protective clothing/eye protection/face protection

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 ON SKIN: Wash with plenty of soap and water
Take off contaminated clothing and wash before reuse
If skin irritation or rash occurs: Get medical advice/attention

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

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)

Toxic to aquatic life with long lasting effects

WARNING! This product contains a chemical known in the State of California to cause cancer.

3. Composition / information on ingredients

Component	CAS-No	Weight %
Tetrachloroethylene	127-18-4	>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.
Obtain medical attention.

Skin Contact

Wash off immediately with plenty of water for at least 15 minutes. If skin irritation persists, call a physician.

Inhalation

Move to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms occur.

Ingestion

Clean mouth with water and drink afterwards plenty of water.

Most important symptoms/effects	None reasonably foreseeable. May cause allergic skin reaction. Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting: Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain or flushing
Notes to Physician	Treat symptomatically

5. Fire-fighting measures

Suitable Extinguishing Media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Unsuitable Extinguishing Media	No information available
Flash Point	No information available
Method -	No information available
Autoignition Temperature	No information available
Explosion Limits	
Upper	No data available
Lower	No data available
Sensitivity to Mechanical Impact	No information available
Sensitivity to Static Discharge	No information available

Specific Hazards Arising from the Chemical

Thermal decomposition can lead to release of irritating gases and vapors. Containers may explode when heated.

Hazardous Combustion Products

Chlorine Hydrogen chloride gas Phosgene

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
2	0	0	N/A

6. Accidental release measures

Personal Precautions	Use personal protective equipment. Ensure adequate ventilation.
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.

7. Handling and storage

Handling Wear personal protective equipment. Do not get in eyes, on skin, or on clothing. Ensure adequate ventilation. Avoid ingestion and inhalation.

Storage Keep containers tightly closed in a dry, cool and well-ventilated place. Protect from sunlight.

8. Exposure controls / personal protection

Exposure Guidelines

Component	ACGIH TLV	OSHA PEL	NIOSH IDLH	Mexico OEL (TWA)
Tetrachloroethylene	TWA: 25 ppm STEL: 100 ppm	(Vacated) TWA: 25 ppm (Vacated) TWA: 170 mg/m ³ Ceiling: 200 ppm TWA: 100 ppm	IDLH: 150 ppm	TWA: 100 ppm TWA: 670 mg/m ³ TWA: 200 ppm TWA: 1250 mg/m ³ STEL: 200 ppm STEL: 1340 mg/m ³

Legend

ACGIH - American Conference of Governmental Industrial Hygienists

OSHA - Occupational Safety and Health Administration

NIOSH IDLH: The National Institute for Occupational Safety and Health Immediately Dangerous to Life or Health

Engineering Measures Use only under a chemical fume hood. Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.

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 Long sleeved clothing.

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	Characteristic, sweet
Odor Threshold	No information available
pH	No information available
Melting Point/Range	-22 °C / -7.6 °F
Boiling Point/Range	120 - 122 °C / 248 - 251.6 °F @ 760 mmHg
Flash Point	No information available
Evaporation Rate	6.0 (Ether = 1.0)
Flammability (solid,gas)	Not applicable
Flammability or explosive limits	
Upper	No data available
Lower	No data available
Vapor Pressure	18 mbar @ 20 °C
Vapor Density	No information available
Density	1.619
Specific Gravity	1.625
Solubility	0.15 g/L water (20°C)
Partition coefficient; n-octanol/water	No data available
Autoignition Temperature	No information available
Decomposition Temperature	> 150°C
Viscosity	0.89 mPa s at 20 °C
Molecular Formula	C2 Cl4
Molecular Weight	165.83

10. Stability and reactivity

Reactive Hazard None known, based on information available

Stability Stable under normal conditions.

Conditions to Avoid Incompatible products. Excess heat. Exposure to moist air or water.

Incompatible Materials Strong acids, Strong oxidizing agents, Strong bases, Metals, Zinc, Amines, Aluminium

Hazardous Decomposition Products Chlorine, Hydrogen chloride gas, Phosgene

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
Tetrachloroethylene	LD50 = 2629 mg/kg (Rat)	LD50 > 10000 mg/kg (Rat)	LC50 = 27.8 mg/L (Rat) 4 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 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
Tetrachloroethylene	127-18-4	Group 2A	Reasonably Anticipated	A3	X	A3

IARC: (International Agency for Research on Cancer)

NTP: (National Toxicity Program)

ACGIH: (American Conference of Governmental Industrial Hygienists)

Mexico - Occupational Exposure Limits - Carcinogens

IARC: (International Agency for Research on Cancer)

Group 1 - Carcinogenic to Humans

Group 2A - Probably Carcinogenic to Humans

Group 2B - Possibly Carcinogenic to Humans

NTP: (National Toxicity Program)

Known - Known Carcinogen

Reasonably Anticipated - Reasonably Anticipated to be a Human Carcinogen

A1 - Known Human Carcinogen

A2 - Suspected Human Carcinogen

A3 - Animal Carcinogen

ACGIH: (American Conference of Governmental Industrial Hygienists)

Mexico - Occupational Exposure Limits - Carcinogens

A1 - Confirmed Human Carcinogen

A2 - Suspected Human Carcinogen

A3 - Confirmed Animal Carcinogen

A4 - Not Classifiable as a Human Carcinogen

A5 - Not Suspected as a Human Carcinogen

Mutagenic Effects No information available

Reproductive Effects No information available.

Developmental Effects No information available.

Teratogenicity No information available.

STOT - single exposure Central nervous system (CNS)

STOT - repeated exposure Kidney Liver Blood

Aspiration hazard No information available

Symptoms / effects, both acute and delayed Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting; Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest

pain, muscle pain or flushing

Endocrine Disruptor Information

Component	EU - Endocrine Disruptors Candidate List	EU - Endocrine Disruptors - Evaluated Substances	Japan - Endocrine Disruptor Information
Tetrachloroethylene	Group II Chemical	Not applicable	Not applicable

Other Adverse Effects Tumorigenic effects have been reported in experimental animals.

12. Ecological information

Ecotoxicity

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. The product contains following substances which are hazardous for the environment.

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Tetrachloroethylene	EC50: > 500 mg/L, 96h (Pseudokirchneriella subcapitata)	LC50: 4.73 - 5.27 mg/L, 96h flow-through (Oncorhynchus mykiss) LC50: 11.0 - 15.0 mg/L, 96h static (Lepomis macrochirus) LC50: 8.6 - 13.5 mg/L, 96h static (Pimephales promelas) LC50: 12.4 - 14.4 mg/L, 96h flow-through (Pimephales promelas)	EC50 = 100 mg/L 24 h EC50 = 112 mg/L 24 h EC50 = 120.0 mg/L 30 min	EC50: 6.1 - 9.0 mg/L, 48h Static (Daphnia magna)

Persistence and Degradability Insoluble in water Persistence is unlikely based on information available.

Bioaccumulation/ Accumulation No information available.

Mobility . Is not likely mobile in the environment due its low water solubility. Will likely be mobile in the environment due to its volatility.

Component	log Pow
Tetrachloroethylene	2.88

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
Tetrachloroethylene - 127-18-4	U210	-

14. Transport information

DOT

UN-No UN1897
 Proper Shipping Name TETRACHLOROETHYLENE
 Hazard Class 6.1
 Packing Group III

TDG

UN-No UN1897
 Proper Shipping Name TETRACHLOROETHYLENE
 Hazard Class 6.1
 Packing Group III

IATA

UN-No UN1897
 Proper Shipping Name TETRACHLOROETHYLENE
 Hazard Class 6.1

Packing Group	III
IMDG/IMO	
UN-No	UN1897
Proper Shipping Name	TETRACHLOROETHYLENE
Hazard Class	6.1
Subsidiary Hazard Class	P
Packing Group	III

15. Regulatory information

All of the components in the product are on the following Inventory lists: X = listed

International Inventories

Component	TSCA	DSL	NDSL	EINECS	ELINCS	NLP	PICCS	ENCS	AICS	IECSC	KECL
Tetrachloroethylene	X	X	-	204-825-9	-		X	X	X	X	X

Legend:

X - Listed

E - Indicates a substance that is the subject of a Section 5(e) Consent order under TSCA.

F - Indicates a substance that is the subject of a Section 5(f) Rule under TSCA.

N - Indicates a polymeric substance containing no free-radical initiator in its inventory name but is considered to cover the designated polymer made with any free-radical initiator regardless of the amount used.

P - Indicates a commenced PMN substance

R - Indicates a substance that is the subject of a Section 6 risk management rule under TSCA.

S - Indicates a substance that is identified in a proposed or final Significant New Use Rule

T - Indicates a substance that is the subject of a Section 4 test rule under TSCA.

XU - Indicates a substance exempt from reporting under the Inventory Update Rule, i.e. Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(B)).

Y1 - Indicates an exempt polymer that has a number-average molecular weight of 1,000 or greater.

Y2 - Indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule.

U.S. Federal Regulations

TSCA 12(b) Not applicable

SARA 313

Component	CAS-No	Weight %	SARA 313 - Threshold Values %
Tetrachloroethylene	127-18-4	>95	0.1

SARA 311/312 Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	Yes
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

Component	CWA - Hazardous Substances	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants
Tetrachloroethylene	-	-	X	X

Clean Air Act

Component	HAPS Data	Class 1 Ozone Depletors	Class 2 Ozone Depletors
Tetrachloroethylene	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
Tetrachloroethylene	100 lb 1 lb	-

California Proposition 65 This product contains the following proposition 65 chemicals

Component	CAS-No	California Prop. 65	Prop 65 NSRL	Category
Tetrachloroethylene	127-18-4	Carcinogen	14 µg/day	Carcinogen

U.S. State Right-to-Know Regulations

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Tetrachloroethylene	X	X	X	X	X

U.S. Department of Transportation

Reportable Quantity (RQ): Y
DOT Marine Pollutant Y
DOT Severe Marine Pollutant N

U.S. Department of Homeland Security

This product does not contain any DHS chemicals.

Other International Regulations

Mexico - Grade No information available

16. Other information

Prepared By Regulatory Affairs
Thermo Fisher Scientific
Email: EMSDS.RA@thermofisher.com

Creation Date 10-Dec-2009
Revision Date 26-May-2017
Print Date 26-May-2017

Revision Summary This document has been updated to comply with the US OSHA HazCom 2012 Standard replacing the current legislation under 29 CFR 1910.1200 to align with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

Disclaimer

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End of SDS

SAFETY DATA SHEET

Creation Date 01-May-2012

Revision Date 16-Jan-2019

Revision Number 2

1. Identification

Product Name Phenanthrene

Cat No. : A19646

CAS-No 85-01-8
Synonyms No information available

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)

Acute oral toxicity

Category 4

Label Elements

Signal Word

Warning

Hazard Statements

Harmful if swallowed

**Precautionary Statements****Prevention**

Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product

Ingestion

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
Rinse mouth

Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Very toxic to aquatic life with long lasting effects

3. Composition/Information on Ingredients

Component	CAS-No	Weight %
Phenanthrene	85-01-8	>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	Obtain medical attention. Wash off immediately with plenty of water for at least 15 minutes.
Inhalation	Move to fresh air. Obtain medical attention. If not breathing, give artificial respiration.
Ingestion	Clean mouth with water and drink afterwards plenty of water. Get medical attention if symptoms occur.
Most important symptoms and effects	None reasonably foreseeable.
Notes to Physician	Treat symptomatically

5. Fire-fighting measures

Suitable Extinguishing Media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Unsuitable Extinguishing Media	No information available
Flash Point	No information available
Method -	No information available
Autoignition Temperature	
Explosion Limits	
Upper	No data available
Lower	No data available
Sensitivity to Mechanical Impact	No information available

Sensitivity to Static Discharge No information available

Specific Hazards Arising from the Chemical

Do not allow run-off from fire fighting to enter drains or water courses.

Hazardous Combustion Products

Carbon monoxide (CO) Carbon dioxide (CO₂)

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
1

Flammability
1

Instability
0

Physical hazards
N/A

6. Accidental release measures

Personal Precautions

Ensure adequate ventilation. Use personal protective equipment. Avoid dust formation.

Environmental Precautions

Do not flush into surface water or sanitary sewer system. Do not allow material to contaminate ground water system. Prevent product from entering drains. Local authorities should be advised if significant spillages cannot be contained.

Methods for Containment and Clean Up

Sweep up or vacuum up spillage and collect in suitable container for disposal. Keep in suitable, closed containers for disposal.

7. Handling and storage

Handling

Wear personal protective equipment. Ensure adequate ventilation. Do not get in eyes, on skin, or on clothing. Avoid ingestion and inhalation. Avoid dust formation.

Storage

Keep containers tightly closed in a dry, cool and well-ventilated place.

8. Exposure controls / personal protection

Exposure Guidelines

This product does not contain any hazardous materials with occupational exposure limit established by the region specific regulatory bodies.

Component	ACGIH TLV	OSHA PEL	NIOSH IDLH	Mexico OEL (TWA)
Phenanthrene		TWA: 0.2 mg/m ³		

Engineering Measures

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

Long sleeved clothing.

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
Appearance

Solid
Beige

Odor	Odorless
Odor Threshold	No information available
pH	No information available
Melting Point/Range	95 - 101 °C / 203 - 213.8 °F
Boiling Point/Range	336 °C / 636.8 °F
Flash Point	No information available
Evaporation Rate	Not applicable
Flammability (solid,gas)	No information available
Flammability or explosive limits	
Upper	No data available
Lower	No data available
Vapor Pressure	1 mmHg @ 116 °C
Vapor Density	Not applicable
Specific Gravity	1.063
Solubility	Insoluble in water
Partition coefficient; n-octanol/water	No data available
Autoignition Temperature	
Decomposition Temperature	No information available
Viscosity	Not applicable
Molecular Formula	C14 H10
Molecular Weight	178.23

10. Stability and reactivity

Reactive Hazard	None known, based on information available
Stability	Stable under normal conditions.
Conditions to Avoid	Incompatible products. Excess heat. Avoid dust formation.
Incompatible Materials	Strong oxidizing agents
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
Phenanthrene	1.8 g/kg (Rat)	Not listed	Not listed

Toxicologically Synergistic Products No information available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Irritation	No information available
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
Phenanthrene	85-01-8	Not listed	Not listed	Not listed	Not listed	Not listed

Mutagenic Effects No information available

Reproductive Effects No information available.

Developmental Effects	No information available.
Teratogenicity	No information available.
STOT - single exposure	None known
STOT - repeated exposure	None known
Aspiration hazard	No information available
Symptoms / effects, both acute and delayed	No information available
Endocrine Disruptor Information	No information available
Other Adverse Effects	The toxicological properties have not been fully investigated.

12. Ecological information

Ecotoxicity

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. The product contains following substances which are hazardous for the environment.

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Phenanthrene	Not listed	LC50 = 3.2 mg/L 96h	Not listed	LC50 = 0.35 mg/L 48h

Persistence and Degradability May persist

Bioaccumulation/ Accumulation No information available.

Mobility . Is not likely mobile in the environment due its low water solubility.

Component	log Pow
Phenanthrene	4.5

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.

14. Transport information

DOT

UN-No	UN3077
Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
Hazard Class	9
Packing Group	III

TDG

UN-No	UN3077
Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
Hazard Class	9
Packing Group	III

IATA

UN-No	UN3077
Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.*
Hazard Class	9
Packing Group	III

IMDG/IMO

UN-No	UN3077
Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
Hazard Class	9
Packing Group	III

15. Regulatory information

All of the components in the product are on the following Inventory lists: X = listed

International Inventories

Component	TSCA	DSL	NDSL	EINECS	ELINCS	NLP	PICCS	ENCS	AICS	IECSC	KECL
Phenanthrene	X	X	-	201-581-5	-		X	X	X	X	KE-2820 2

Legend:

X - Listed

E - Indicates a substance that is the subject of a Section 5(e) Consent order under TSCA.

F - Indicates a substance that is the subject of a Section 5(f) Rule under TSCA.

N - Indicates a polymeric substance containing no free-radical initiator in its inventory name but is considered to cover the designated polymer made with any free-radical initiator regardless of the amount used.

P - Indicates a commenced PMN substance

R - Indicates a substance that is the subject of a Section 6 risk management rule under TSCA.

S - Indicates a substance that is identified in a proposed or final Significant New Use Rule

T - Indicates a substance that is the subject of a Section 4 test rule under TSCA.

XU - Indicates a substance exempt from reporting under the Inventory Update Rule, i.e. Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(B)).

Y1 - Indicates an exempt polymer that has a number-average molecular weight of 1,000 or greater.

Y2 - Indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule.

U.S. Federal Regulations

TSCA 12(b) Not applicable

SARA 313

Component	CAS-No	Weight %	SARA 313 - Threshold Values %
Phenanthrene	85-01-8	>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
Phenanthrene	-	-	-	X

Clean Air Act Not applicable

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
Phenanthrene	5000 lb	-

California Proposition 65 This product does not contain any Proposition 65 chemicals

U.S. State Right-to-Know Regulations

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Phenanthrene	X	X	X	-	-

U.S. Department of Transportation

Reportable Quantity (RQ):	N
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	No information available
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16. Other information

Prepared By	Health, Safety and Environmental Department Email: tech@alfa.com www.alfa.com
Creation Date	01-May-2012
Revision Date	16-Jan-2019
Print Date	16-Jan-2019
Revision Summary	SDS authoring systems update, replaces ChemGes SDS No. 85-01-8/3.

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

Creation Date 03-Feb-2010

Revision Date 14-Jul-2016

Revision Number 2

1. Identification

Product Name Trichloroethylene

Cat No. : T340-4; T341-4; T341-20; T341-500; T403-4

Synonyms Trichloroethene (Stabilized/Technical/Electronic/Certified ACS)

Recommended Use Laboratory chemicals.

Uses advised against

Details of the supplier of the safety data sheet

Company

Fisher Scientific
One Reagent Lane
Fair Lawn, NJ 07410
Tel: (201) 796-7100

Emergency Telephone Number

CHEMTREC®, Inside the USA: 800-424-9300
CHEMTREC®, Outside the USA: 001-703-527-3887

2. Hazard(s) identification

Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Skin Corrosion/irritation	Category 2
Serious Eye Damage/Eye Irritation	Category 2
Skin Sensitization	Category 1
Germ Cell Mutagenicity	Category 2
Carcinogenicity	Category 1A
Specific target organ toxicity (single exposure)	Category 3
Target Organs - Central nervous system (CNS).	
Specific target organ toxicity - (repeated exposure)	Category 2
Target Organs - Kidney, Liver, Heart, spleen, Blood.	

Label Elements**Signal Word**

Danger

Hazard Statements

Causes skin irritation
Causes serious eye irritation
May cause an allergic skin reaction
May cause drowsiness or dizziness
Suspected of causing genetic defects
May cause cancer
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
Contaminated work clothing should not be allowed out of the workplace
Do not breathe dust/fume/gas/mist/vapors/spray
Use only outdoors or in a well-ventilated area
Wear protective gloves/protective clothing/eye protection/face protection

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 ON SKIN: Wash with plenty of soap and water
Take off contaminated clothing and wash before reuse
If skin irritation or rash occurs: Get medical advice/attention

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

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! This product contains a chemical known in the State of California to cause cancer, birth defects or other reproductive harm.

3. Composition / information on ingredients

Component	CAS-No	Weight %
Trichloroethylene	79-01-6	100

4. First-aid measures

General Advice

Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.

Eye Contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Skin Contact

Wash off immediately with plenty of water for at least 15 minutes. Immediate medical attention is required.

Inhalation

Move to fresh air. If not breathing, give artificial respiration. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a

pocket mask equipped with a one-way valve or other proper respiratory medical device. Immediate medical attention is required.

Ingestion Do not induce vomiting. Call a physician or Poison Control Center immediately.

Most important symptoms/effects None reasonably foreseeable. May cause allergic skin reaction. Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting: Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain or flushing

Notes to Physician Treat symptomatically

5. Fire-fighting measures

Suitable Extinguishing Media Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Unsuitable Extinguishing Media No information available

Flash Point No information available
Method - No information available

Autoignition Temperature 410 °C / 770 °F

Explosion Limits

Upper 10.5 vol %

Lower 8 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

Thermal decomposition can lead to release of irritating gases and vapors. Containers may explode when heated. Keep product and empty container away from heat and sources of ignition.

Hazardous Combustion Products

Hydrogen chloride gas Chlorine Phosgene Carbon monoxide (CO) Carbon dioxide (CO₂)

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. Thermal decomposition can lead to release of irritating gases and vapors.

NFPA

Health
2

Flammability
1

Instability
0

Physical hazards
N/A

6. Accidental release measures

Personal Precautions Ensure adequate ventilation. Use personal protective equipment. Keep people away from and upwind of spill/leak. Evacuate personnel to safe areas.

Environmental Precautions Should not be released into the environment. 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.

7. Handling and storage

Handling Wear personal protective equipment. Do not get in eyes, on skin, or on clothing. Use only under a chemical fume hood. Do not breathe vapors or spray mist. Do not ingest.

Storage Keep containers tightly closed in a dry, cool and well-ventilated place. Protect from light. Do not store in aluminum containers.

8. Exposure controls / personal protection

Exposure Guidelines

Component	ACGIH TLV	OSHA PEL	NIOSH IDLH	Mexico OEL (TWA)
Trichloroethylene	TWA: 10 ppm STEL: 25 ppm	(Vacated) TWA: 50 ppm (Vacated) TWA: 270 mg/m ³ Ceiling: 200 ppm (Vacated) STEL: 200 ppm (Vacated) STEL: 1080 mg/m ³ TWA: 100 ppm	IDLH: 1000 ppm	TWA: 100 ppm TWA: 535 mg/m ³ STEL: 200 ppm STEL: 1080 mg/m ³

Legend

ACGIH - American Conference of Governmental Industrial Hygienists

OSHA - Occupational Safety and Health Administration

NIOSH IDLH: The National Institute for Occupational Safety and Health Immediately Dangerous to Life or Health

Engineering Measures

Use only under a chemical fume hood. Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.

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

Long sleeved clothing.

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	Characteristic
Odor Threshold	No information available
pH	No information available
Melting Point/Range	-85 °C / -121 °F
Boiling Point/Range	87 °C / 188.6 °F
Flash Point	No information available
Evaporation Rate	0.69 (Carbon Tetrachloride = 1.0)
Flammability (solid,gas)	Not applicable
Flammability or explosive limits	
Upper	10.5 vol %
Lower	8 vol %
Vapor Pressure	77.3 mbar @ 20 °C
Vapor Density	4.5 (Air = 1.0)
Specific Gravity	1.460
Solubility	Slightly soluble in water
Partition coefficient; n-octanol/water	No data available
Autoignition Temperature	410 °C / 770 °F
Decomposition Temperature	> 120°C
Viscosity	0.55 mPa.s (25°C)

Molecular Formula
Molecular Weight

C₂ H Cl₃
131.39

10. Stability and reactivity

Reactive Hazard	None known, based on information available
Stability	Light sensitive.
Conditions to Avoid	Incompatible products. Excess heat. Exposure to light. Exposure to moist air or water.
Incompatible Materials	Strong oxidizing agents, Strong bases, Amines, Alkali metals, Metals,
Hazardous Decomposition Products	Hydrogen chloride gas, Chlorine, Phosgene, 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
Trichloroethylene	LD50 = 4290 mg/kg (Rat) LD50 = 4920 mg/kg (Rat)	LD50 > 20 g/kg (Rabbit) LD50 = 29000 mg/kg (Rabbit)	LC50 = 26 mg/L (Rat) 4 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 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
Trichloroethylene	79-01-6	Group 1	Reasonably Anticipated	A2	X	Not listed

IARC: (International Agency for Research on Cancer)

NTP: (National Toxicity Program)

ACGIH: (American Conference of Governmental Industrial Hygienists)

IARC: (International Agency for Research on Cancer)

Group 1 - Carcinogenic to Humans

Group 2A - Probably Carcinogenic to Humans

Group 2B - Possibly Carcinogenic to Humans

NTP: (National Toxicity Program)

Known - Known Carcinogen

Reasonably Anticipated - Reasonably Anticipated to be a Human Carcinogen

A1 - Known Human Carcinogen

A2 - Suspected Human Carcinogen

A3 - Animal Carcinogen

ACGIH: (American Conference of Governmental Industrial Hygienists)

Mutagenic Effects Mutagenic effects have occurred in humans.

Reproductive Effects No information available.

Developmental Effects No information available.

Teratogenicity No information available.

STOT - single exposure	Central nervous system (CNS)
STOT - repeated exposure	Kidney Liver Heart spleen Blood
Aspiration hazard	No information available
Symptoms / effects, both acute and delayed	Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting. Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain or flushing
Endocrine Disruptor Information	No information available
Other Adverse Effects	The toxicological properties have not been fully investigated.

12. Ecological information

Ecotoxicity

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Do not empty into drains. The product contains following substances which are hazardous for the environment. Contains a substance which is: Harmful to aquatic organisms. Toxic to aquatic organisms.

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Trichloroethylene	EC50: = 175 mg/L, 96h (Pseudokirchneriella subcapitata) EC50: = 450 mg/L, 96h (Desmodesmus subspicatus)	LC50: 39 - 54 mg/L, 96h static (Lepomis macrochirus) LC50: 31.4 - 71.8 mg/L, 96h flow-through (Pimephales promelas)	EC50 = 0.81 mg/L 24 h EC50 = 115 mg/L 10 min EC50 = 190 mg/L 15 min EC50 = 235 mg/L 24 h EC50 = 410 mg/L 24 h EC50 = 975 mg/L 5 min	EC50: = 2.2 mg/L, 48h (Daphnia magna)

Persistence and Degradability Persistence is unlikely based on information available.

Bioaccumulation/ Accumulation No information available.

Mobility Will likely be mobile in the environment due to its volatility.

Component	log Pow
Trichloroethylene	2.4

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
Trichloroethylene - 79-01-6	U228	-

14. Transport information

DOT

UN-No	UN1710
Proper Shipping Name	TRICHLOROETHYLENE
Hazard Class	6.1
Packing Group	III

TDG

UN-No	UN1710
Proper Shipping Name	TRICHLOROETHYLENE
Hazard Class	6.1
Packing Group	III

IATA

UN-No	UN1710
Proper Shipping Name	TRICHLOROETHYLENE

Hazard Class	6.1
Packing Group	III
IMDG/IMO	
UN-No	UN1710
Proper Shipping Name	TRICHLOROETHYLENE
Hazard Class	6.1
Packing Group	III

15. Regulatory information

All of the components in the product are on the following Inventory lists: X = listed

International Inventories

Component	TSCA	DSL	NDSL	EINECS	ELINCS	NLP	PICCS	ENCS	AICS	IECSC	KECL
Trichloroethylene	X	X	-	201-167-4	-		X	X	X	X	X

Legend:

X - Listed

E - Indicates a substance that is the subject of a Section 5(e) Consent order under TSCA.

F - Indicates a substance that is the subject of a Section 5(f) Rule under TSCA.

N - Indicates a polymeric substance containing no free-radical initiator in its inventory name but is considered to cover the designated polymer made with any free-radical initiator regardless of the amount used.

P - Indicates a commenced PMN substance

R - Indicates a substance that is the subject of a Section 6 risk management rule under TSCA.

S - Indicates a substance that is identified in a proposed or final Significant New Use Rule

T - Indicates a substance that is the subject of a Section 4 test rule under TSCA.

XU - Indicates a substance exempt from reporting under the Inventory Update Rule, i.e. Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(B)).

Y1 - Indicates an exempt polymer that has a number-average molecular weight of 1,000 or greater.

Y2 - Indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule.

U.S. Federal Regulations

TSCA 12(b) Not applicable

Component	TSCA 12(b)
Trichloroethylene	Section 5

SARA 313

Component	CAS-No	Weight %	SARA 313 - Threshold Values %
Trichloroethylene	79-01-6	100	0.1

SARA 311/312 Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	Yes
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

Component	CWA - Hazardous Substances	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants
Trichloroethylene	X	100 lb	X	X

Clean Air Act

Component	HAPS Data	Class 1 Ozone Depletors	Class 2 Ozone Depletors
Trichloroethylene	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
Trichloroethylene	100 lb 1 lb	-

California Proposition 65 This product contains the following proposition 65 chemicals

Component	CAS-No	California Prop. 65	Prop 65 NSRL	Category
Trichloroethylene	79-01-6	Carcinogen Developmental Male Reproductive	14 µg/day 50 µg/day	Developmental Carcinogen

U.S. State Right-to-Know Regulations

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Trichloroethylene	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 No information available

16. Other information

Prepared By Regulatory Affairs
Thermo Fisher Scientific
Email: EMSDS.RA@thermofisher.com

Creation Date 03-Feb-2010

Revision Date 14-Jul-2016

Print Date 14-Jul-2016

Revision Summary This document has been updated to comply with the US OSHA HazCom 2012 Standard replacing the current legislation under 29 CFR 1910.1200 to align with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

Disclaimer

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End of SDS

SAFETY DATA SHEET

Creation Date 11-Jun-2009

Revision Date 24-May-2017

Revision Number 3

1. Identification

Product Name Toluene

Cat No. : T326F-1GAL; T326P-4; T326S-20; T326S-20LC

Synonyms Tol; Methylbenzene

Recommended Use Laboratory chemicals.

Uses advised against Not for food, drug, pesticide or biocidal product use

Details of the supplier of the safety data sheet

Company

Fisher Scientific
One Reagent Lane
Fair Lawn, NJ 07410
Tel: (201) 796-7100

Emergency Telephone Number

CHEMTREC®, Inside the USA: 800-424-9300
CHEMTREC®, Outside the USA: 001-703-527-3887

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.	
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 respiratory irritation
May cause drowsiness or dizziness
Suspected of damaging the unborn child
Causes 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
Do not eat, drink or smoke when using this product
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)

WARNING! This product contains a chemical known in the State of California to cause birth defects or other reproductive harm.

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. Obtain medical attention.
Skin Contact	Wash off immediately with plenty of water for at least 15 minutes. If skin irritation persists, call a physician.
Inhalation	Move to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms occur. Risk of serious damage to the lungs.
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/effects	Breathing difficulties. 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	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. Cool closed containers exposed to fire with water spray.
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 (CO₂)

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
3

Flammability
3

Instability
0

Physical hazards
N/A

6. Accidental release measures

Personal Precautions	Use personal protective equipment. Ensure adequate ventilation. Remove all sources of ignition. Take precautionary measures against static discharges.
Environmental Precautions	Should not be released into the environment. 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. 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 and sources of ignition.

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: 50 ppm TWA: 188 mg/m ³

Legend

ACGIH - American Conference of Governmental Industrial Hygienists

OSHA - Occupational Safety and Health Administration

NIOSH IDLH: The National Institute for Occupational Safety and Health Immediately Dangerous to Life or 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 Long sleeved clothing.

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	Not applicable
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)	LD50 = 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
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

Contains a substance which is: The product contains following substances which are hazardous for the environment.

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: = 11.5 mg/L, 48h (Daphnia magna) EC50: 5.46 - 9.83 mg/L, 48h Static (Daphnia magna)

Persistence and Degradability Soluble in water Persistence is unlikely based on information available.

Bioaccumulation/ Accumulation No information available.

Mobility . Will likely be mobile in the environment due to its 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

All of the components in the product are on the following Inventory lists: X = listed

International Inventories

Component	TSCA	DSL	NDSL	EINECS	ELINCS	NLP	PICCS	ENCS	AICS	IECSC	KECL
Toluene	X	X	-	203-625-9	-		X	X	X	X	X

Legend:

X - Listed

E - Indicates a substance that is the subject of a Section 5(e) Consent order under TSCA.

F - Indicates a substance that is the subject of a Section 5(f) Rule under TSCA.

N - Indicates a polymeric substance containing no free-radical initiator in its inventory name but is considered to cover the designated polymer made with any free-radical initiator regardless of the amount used.

P - Indicates a commenced PMN substance

R - Indicates a substance that is the subject of a Section 6 risk management rule under TSCA.

S - Indicates a substance that is identified in a proposed or final Significant New Use Rule

T - Indicates a substance that is the subject of a Section 4 test rule under TSCA.

XU - Indicates a substance exempt from reporting under the Inventory Update Rule, i.e. Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(B)).

Y1 - Indicates an exempt polymer that has a number-average molecular weight of 1,000 or greater.

Y2 - Indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule.

U.S. Federal Regulations

TSCA 12(b) Not applicable

SARA 313

Component	CAS-No	Weight %	SARA 313 - Threshold Values %
Toluene	108-88-3	>95	1.0

SARA 311/312 Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	Yes
Fire Hazard	Yes
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

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
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Toluene	1000 lb 1 lb	-
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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 Regulatory Affairs
Thermo Fisher Scientific
Email: EMSDS.RA@thermofisher.com

Creation Date 11-Jun-2009

Revision Date 24-May-2017

Print Date 24-May-2017

Revision Summary This document has been updated to comply with the US OSHA HazCom 2012 Standard replacing the current legislation under 29 CFR 1910.1200 to align with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

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

HEALTH AND SAFETY PLAN
SITE MANAGEMENT PLAN
820 LINDEN AVE BROWNFIELD CLEANUP PROGRAM SITE #C828200
820 LINDEN AVENUE
PITTSFORD, MONROE COUNTY, NEW YOR

APPENDIX C













Onsite Safety Meeting Forms











Project Number: Project Number **Date:** Date
Project Name: Project Name
Project Location: Project Location
Description of Work: Description

HASP/RMS1 reviewed with staff on site Yes ☐
 Review of STOP Work Authority with staff and subs Yes ☐
 Emergency plan adequate and communicated Yes ☐
 Tools and appropriate PPE inspected before use Yes ☐
 Last Minute Risk Assessment process reviewed Yes ☐

If the answer to any of the above questions is not "YES" stop work and contact your supervisor

Field crews have certifications on site Yes ☐ N/A ☐
 Utility locates on site and understood Yes ☐ N/A ☐
 Working alone plan in place Yes ☐ N/A ☐
 Work permits completed Yes ☐ N/A ☐
 Client site safety meeting conducted/attended Yes ☐ N/A ☐

CRITICAL RISKS	 Driving <input type="checkbox"/> Yes						 Working at Heights <input type="checkbox"/> Yes						 Traffic Control <input type="checkbox"/> Yes						 Wildlife, Insects and Vegetation <input type="checkbox"/> Yes						 Mobile and Heavy Equipment <input type="checkbox"/> Yes						 Environments with water or ice <input type="checkbox"/> Yes					
		 Ground Disturbance <input type="checkbox"/> Yes						 Ergonomic Hazards and Manual Handling <input type="checkbox"/> Yes						 Hazardous Materials and Environments <input type="checkbox"/> Yes						 Control of Hazardous Energy <input type="checkbox"/> Yes						 Hot Work <input type="checkbox"/> Yes						 Confined Spaces <input type="checkbox"/> Yes				

ENERGY HAZARD	 Thermal: Open flame, electric ignition sources (including phones and friction), hot or cold surfaces, liquids or gasses, weather conditions including humidity levels and snow/ice		 Gravity: Falling objects, collapsing objects, slipping, tripping or falling	
	 Chemical: Flammable vapors, reactive hazards, carcinogens or other toxic compounds, corrosives, pyrophorics, combustibles, oxygen deficient atmospheres, fumes, dusts, naturally occurring gases		 Motion: Vehicles (car, truck, ATV, ARGO, boat, snowmobile, bicycles, transit, mobile equipment, trailer), workers and other people (lifting, pushing, pulling, carrying, use of hand and power tools, body position, walking), flowing water, sprung branches	
	 Biological: Animals, bacteria, viruses, insects, blood borne pathogens (needles), poisonous and noxious plants, contaminated water, human behaviors (protesters, concerned citizens, onlookers)		 Mechanical: Rotating equipment (augers, pulleys, drive shafts), compressed springs, drive belts, conveyors and motors	
	 Radiation: Welding, NORMs (Naturally Occurring Radioactive Material), X rays, Nuclear Densometers, Lasers, Microwaves, Solar, Radioactive waste and sources		 Electrical: Power and communication lines (overhead and buried), static charge, lightning, energized equipment, wiring, batteries, GFCI cords/plugs, lighting levels, double insulated tools, wet environment	
	 Noise: Stationary or mobile equipment, impact noise, high pressure release, impact of noise on communication		 Pressure: pressure piping, compressed cylinders (fire extinguisher, calibration gas, propane), control lines, vessels, tanks, hoses, pneumatic and hydraulic equipment	

JOB SAFETY ANALYSIS (JSA)				
	Basic Job Steps	Describe Energy Hazard	Controls	Person Responsible
1				
2				
3				
4				
5				
6				
7				
8				

Toolbox Meeting		
Pre-Start Time:	Date:	
Weather:	Toolbox Discussion Leader Name:	Toolbox Leader Signature:
Notes:		
Mid-Day Time:		
Weather:	Toolbox Discussion Leader Name:	Toolbox Leader Signature:
Notes:		
End of Day Time:		
Weather:	Toolbox Discussion Leader Name:	Toolbox Leader Signature:
Notes:		

Review / Sign-off				
Print the company that you work for, your name and initial beside your fitness level under the corresponding time column: Fit for Duty = F Alternate Plan = AP				
Company Name	Print your Name	Pre-Start	Mid-Day	End of Day
		F:	F:	F:
		AP:	AP:	AP:
		F:	F:	F:
		AP:	AP:	AP:
		F:	F:	F:
		AP:	AP:	AP:
		F:	F:	F:
		AP:	AP:	AP:
		F:	F:	F:
		AP:	AP:	AP:
		F:	F:	F:
		AP:	AP:	AP:
		F:	F:	F:
		AP:	AP:	AP:
		F:	F:	F:
		AP:	AP:	AP:
		F:	F:	F:
		AP:	AP:	AP:

For work-related symptoms or injuries, and to speak to a medical professional for guidance and treatment options contact:

Work Care
(24-hour service)
1-888-449-7787

Workers' Compensation Claims Coordinator (Canada)
Ph: 905-944-6854; c: 416-951-5663
Workers' Compensation Claims Coordinator (US)
C: 513-720-3706

LAST-MINUTE RISK ASSESSMENT (LMRA)



1 STOP AND THINK
Is the work area safe?
Will my work create a hazard?
Will other people/tasks create a hazard?

2 LOOK AROUND
Do I clearly understand the task?
Will I trip or miss a hand hold, or become entangled?
Potential for slips, trips, or falls?
Are there obstructions or vehicle concerns?
Have I connected all underground services?
Moving or pressurized equipment?
What could go wrong?

3 ASSESS RISK
What can I do to control the hazard?
Do I have the right tools?
Is the STOP/Work Plan/Job appropriate?
Do I have the appropriate PPE?
Are emergency plans in place?

4 CONTROL RISK
Are you ready to work safely?
Always remember your Stop Work Authority.

5 BEGIN/RESUME WORK
If you're unsure, talk to your supervisor.
hsse@stantec.com

 Stantec

Field Level Risk Assessment (RMS2) Seven (7) Day

This form is intended for projects of up to 7 consecutive days on one site. If work will last longer than the days provided on this form, please start a new RMS2 to refresh hazard awareness.

Project Number:	Project Number	Date:	Date
Project Name:	Project Name		
Project Location:	Project Location		
Description of Work:	Description		

	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
HASP/RMS1 reviewed with staff on site	Yes <input type="checkbox"/>	Yes <input type="checkbox"/>	Yes <input type="checkbox"/>	Yes <input type="checkbox"/>	Yes <input type="checkbox"/>	Yes <input type="checkbox"/>	Yes <input type="checkbox"/>
Review of STOP Work Authority with staff & subs	Yes <input type="checkbox"/>	Yes <input type="checkbox"/>	Yes <input type="checkbox"/>	Yes <input type="checkbox"/>	Yes <input type="checkbox"/>	Yes <input type="checkbox"/>	Yes <input type="checkbox"/>
Emergency plan adequate and communicated	Yes <input type="checkbox"/>	Yes <input type="checkbox"/>	Yes <input type="checkbox"/>	Yes <input type="checkbox"/>	Yes <input type="checkbox"/>	Yes <input type="checkbox"/>	Yes <input type="checkbox"/>
Tools and appropriate PPE inspected before use	Yes <input type="checkbox"/>	Yes <input type="checkbox"/>	Yes <input type="checkbox"/>	Yes <input type="checkbox"/>	Yes <input type="checkbox"/>	Yes <input type="checkbox"/>	Yes <input type="checkbox"/>
Last Minute Risk Assessment process reviewed	Yes <input type="checkbox"/>	Yes <input type="checkbox"/>	Yes <input type="checkbox"/>	Yes <input type="checkbox"/>	Yes <input type="checkbox"/>	Yes <input type="checkbox"/>	Yes <input type="checkbox"/>

If the answer to any of the questions above is not "Yes" Stop work and contact your supervisor.

	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
Field crews have certifications on site	Yes <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input type="checkbox"/> N/A <input type="checkbox"/>
Utility locates on site and understood	Yes <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input type="checkbox"/> N/A <input type="checkbox"/>
Working alone plan in place	Yes <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input type="checkbox"/> N/A <input type="checkbox"/>
Work permits completed	Yes <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input type="checkbox"/> N/A <input type="checkbox"/>
Client site safety meeting conducted/attended	Yes <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input type="checkbox"/> N/A <input type="checkbox"/>
Are there additional critical risks, JSA tasks or energy hazards? If yes, update the JSA and communicate to the team		Yes <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input type="checkbox"/> N/A <input type="checkbox"/>

For work-related symptoms or injuries, and speak to a medical professional for guidance and treatment options contact

WorkCare
(24-hour service)

1-888-449-7787

Workers' Compensation Claims Coordinator (Canada)
Ph. 905-944-6854; cell 416-951-5663

Workers' Compensation Claims Coordinator (US)
cell: 513-720-3706

LAST-MINUTE RISK ASSESSMENT (LMRA)



Are you ready to work safely?
Always remember your Stop Work Authority.

1 STOP AND THINK

2 LOOK AROUND

Is the work area safe?
Will my work endanger others?
Will other people/tasks create hazards?

3 ASSESS RISK

Do I clearly understand the task?
Will lifting or manual handling be required?
Potential for slips, trips, or falls?
Are there driving or vehicle concerns?
Have I considered all underground services?
Moving or pressurized equipment?
What could go wrong?

4 CONTROL RISK

What can I do to control hazards?
Do I have the right tools?
Is the SWP (Safe Work Practice) appropriate?
Do I have the appropriate PPE?
Are emergency plans in place?













5 BEGIN/RESUME WORK











If you're unsure, talk to your supervisor.
hse@stantec.com

Field Level Risk Assessment (RMS2) Seven (7) Day

JOB SAFETY ANALYSIS (JSA)				
	Basic Job Steps	Describe Energy Hazard	Controls	Person Responsible
1				
2				
3				
4				
5				
6				
7				
8				

Field Level Risk Assessment (RMS2) Seven (7) Day

CRITICAL RISKS	 Driving	 Working at Heights	 Traffic Control	 Wildlife, Insects and Vegetation	 Mobile and Heavy Equipment	 Environments with water or ice
	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
CRITICAL RISKS	 Ground Disturbance	 Ergonomic Hazards and Manual Handling	 Hazardous Materials and Environments	 Control of Hazardous Energy	 Hot Work	 Confined Spaces
	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes

ENERGY HAZARD	 Thermal: Open flame, electric ignition sources (including phones and friction), hot or cold surfaces, liquids or gasses, weather conditions including humidity levels and snow/ice	 Gravity: Falling objects, collapsing objects, slipping, tripping or falling
	 Chemical: Flammable vapors, reactive hazards, carcinogens or other toxic compounds, corrosives, pyrophorics, combustibles, oxygen deficient atmospheres, fumes, dusts, naturally occurring gases	 Motion: Vehicles (car, truck, ATV, ARGO, boat, snowmobile, bicycles, transit, mobile equipment, trailer), workers and other people (lifting, pushing, pulling, carrying, use of hand and power tools, body position, walking), flowing water, sprung branches
	 Biological: Animals, bacteria, viruses, insects, blood borne pathogens (needles), poisonous and noxious plants, contaminated water, human behaviors (protesters, concerned citizens, onlookers)	 Mechanical: Rotating equipment (augers, pulleys, drive shafts), compressed springs, drive belts, conveyors and motors
	 Radiation: Welding, NORMs (Naturally Occurring Radioactive Material), X rays, Nuclear Densometers, Lasers, Microwaves, Solar, Radioactive waste and sources	 Electrical: Power and communication lines (overhead and buried), static charge, lightning, energized equipment, wiring, batteries, GFCI cords/plugs, lighting levels, double insulated tools, wet environment
	 Noise: Stationary or mobile equipment, impact noise, high pressure release, impact of noise on communication	 Pressure: pressure piping, compressed cylinders (fire extinguisher, calibration gas, propane), control lines, vessels, tanks, hoses, pneumatic and hydraulic equipment

Meeting details	
Day 1	
Date:	Weather:
Pre-start time:	am / pm
Notes:	
Mid-day time:	am / pm
Notes:	
End of day time:	am / pm
Notes:	
Toolbox Discussion Leader Name:	Toolbox Leader Signature:

Meeting details

Field Level Risk Assessment (RMS2)

Seven (7) Day

Day 2	
Date:	Weather:
Pre-start time:	am / pm
Notes:	
Mid-day time:	am / pm
Notes:	
End of day time:	am / pm
Notes:	
Toolbox Discussion Leader Name:	Toolbox Leader Signature:
Day 3	
Date:	Weather:
Pre-start time:	am / pm
Notes:	
Mid-day time:	am / pm
Notes:	
End of day time:	am / pm
Notes:	
Toolbox Discussion Leader Name:	Toolbox Leader Signature:
Day 4	
Date:	Weather:
Pre-start time:	am / pm
Notes:	
Mid-day time:	am / pm
Notes:	
End of day time:	am / pm
Notes:	
Toolbox Discussion Leader Name:	Toolbox Leader Signature:
Day 5	
Date:	Weather:
Pre-start time:	am / pm
Notes:	
Mid-day time:	am / pm
Notes:	
End of day time:	am / pm
Notes:	
Toolbox Discussion Leader Name:	Toolbox Leader Signature:
Meeting details	

Field Level Risk Assessment (RMS2) Seven (7) Day

Date:	Weather:	
Pre-start time:	am / pm	
Notes:		
Mid-day time:	am / pm	
Notes:		
End of day time:	am / pm	
Notes:		
Toolbox Discussion Leader Name:		Toolbox Leader Signature:
Day 6		
Date:	Weather:	
Pre-start time:	am / pm	
Notes:		
Mid-day time:	am / pm	
Notes:		
End of day time:	am / pm	
Notes:		
Toolbox Discussion Leader Name:		Toolbox Leader Signature:
Day 7		
Date:	Weather:	
Pre-start time:	am / pm	
Notes:		
Mid-day time:	am / pm	
Notes:		
End of day time:	am / pm	
Notes:		
Toolbox Discussion Leader Name:		Toolbox Leader Signature:

Field Level Risk Assessment (RMS2) Seven (7) Day

Review/Sign-off

Print the company that you work for, your name and indicate which fitness level you are under the corresponding time column:
Fit for Duty = F Alternate Plan = AP

Company name	Print your name	Date:			Date:			Date:			Date:		
		Time:	Time:	Time:	Time:	Time:	Time:	Time:	Time:	Time:	Time:	Time:	Time:
		F:	F:	F:	F:	F:	F:	F:	F:	F:	F:	F:	F:
		AP:	AP:	AP:	AP:	AP:	AP:	AP:	AP:	AP:	AP:	AP:	AP:
		F:	F:	F:	F:	F:	F:	F:	F:	F:	F:	F:	F:
		AP:	AP:	AP:	AP:	AP:	AP:	AP:	AP:	AP:	AP:	AP:	AP:
		F:	F:	F:	F:	F:	F:	F:	F:	F:	F:	F:	F:
		AP:	AP:	AP:	AP:	AP:	AP:	AP:	AP:	AP:	AP:	AP:	AP:
		F:	F:	F:	F:	F:	F:	F:	F:	F:	F:	F:	F:
		AP:	AP:	AP:	AP:	AP:	AP:	AP:	AP:	AP:	AP:	AP:	AP:
		F:	F:	F:	F:	F:	F:	F:	F:	F:	F:	F:	F:
		AP:	AP:	AP:	AP:	AP:	AP:	AP:	AP:	AP:	AP:	AP:	AP:
		F:	F:	F:	F:	F:	F:	F:	F:	F:	F:	F:	F:
		AP:	AP:	AP:	AP:	AP:	AP:	AP:	AP:	AP:	AP:	AP:	AP:
		F:	F:	F:	F:	F:	F:	F:	F:	F:	F:	F:	F:
		AP:	AP:	AP:	AP:	AP:	AP:	AP:	AP:	AP:	AP:	AP:	AP:
		F:	F:	F:	F:	F:	F:	F:	F:	F:	F:	F:	F:
		AP:	AP:	AP:	AP:	AP:	AP:	AP:	AP:	AP:	AP:	AP:	AP:

Field Level Risk Assessment (RMS2) Seven (7) Day

Review / Sign-off

Print the company that you work for, your name and indicate which fitness level you are under the corresponding time column:
Fit for Duty = F Alternate Plan = AP

		Date:			Date:			Date:		
Company name	Print your name	Time:	Time:	Time:	Time:	Time:	Time:	Time:	Time:	Time:
		F:	F:	F:	F:	F:	F:	F:	F:	F:
		AP:	AP:	AP:	AP:	AP:	AP:	AP:	AP:	AP:
		F:	F:	F:	F:	F:	F:	F:	F:	F:
		AP:	AP:	AP:	AP:	AP:	AP:	AP:	AP:	AP:
		F:	F:	F:	F:	F:	F:	F:	F:	F:
		AP:	AP:	AP:	AP:	AP:	AP:	AP:	AP:	AP:
		F:	F:	F:	F:	F:	F:	F:	F:	F:
		AP:	AP:	AP:	AP:	AP:	AP:	AP:	AP:	AP:
		F:	F:	F:	F:	F:	F:	F:	F:	F:
		AP:	AP:	AP:	AP:	AP:	AP:	AP:	AP:	AP:
		F:	F:	F:	F:	F:	F:	F:	F:	F:
		AP:	AP:	AP:	AP:	AP:	AP:	AP:	AP:	AP:
		F:	F:	F:	F:	F:	F:	F:	F:	F:
		AP:	AP:	AP:	AP:	AP:	AP:	AP:	AP:	AP:
		F:	F:	F:	F:	F:	F:	F:	F:	F:
		AP:	AP:	AP:	AP:	AP:	AP:	AP:	AP:	AP:

HEALTH AND SAFETY PLAN
SITE MANAGEMENT PLAN
820 LINDEN AVE BROWNFIELD CLEANUP PROGRAM SITE #C828200
820 LINDEN AVENUE
PITTSFORD, MONROE COUNTY, NEW YOR

APPENDIX D

Incident Reporting



Incident Reporting Protocol - US

Health, Safety, Security, & Environment

IMMEDIATE ACTIONS FOR ALL INJURIES, and SERIOUS or SIGNIFICANT INCIDENTS

(see HSSE Program Manual s.14 for definitions)

1. Keeping safety in mind, care for injured people (if applicable) and stabilize the scene.
2. For life threatening injuries, **immediately contact 911**. Accompany the injured employee to the medical facility whenever possible.
3. Call **WorkCare (24-hour service): 1-888-449-7787** for work-related symptoms or injuries and speak to a medical professional for guidance and treatment options.
4. Make voice contact with your supervisor within 1 hour or less of the incident occurring. Leaving a voicemail does not count. If you cannot contact your supervisor and project manager, contact the HSSE Manager or HSSE Advisor for your region.
5. Supervisors must immediately contact their HSSE Manager or HSSE Advisor by phone to discuss incident severity and determine if further notifications (internal or external) are required.
6. When an employee is guided by WorkCare to obtain medical assistance, or the employee requests medical attention for a non-life threatening injury, and after alerting the supervisor; the employee must **immediately call Melissa Helton, Stantec's US WC Claims Coordinator at 513-720-3706** for assistance.
7. In most cases, WorkCare will provide guidance about which clinic is available and provide directions. Some job sites already have prescribed clinics. Here is a link accessing additional clinic locations: Clinic Search [link](#).
8. Additional notifications may be required based on the client requirements.

Contacts		Landline	Cell
HSSE Manager – North Central	Wes Cline	615-885-1144	916-281-7459
HSSE Manager – Southeast	Randy Jones	615-499-7161	907-707-9305
HSSE Manager – Northeast	Fred Miller	610-235-7315	610-235-7315
HSSE Manager – Gulf	Mark Maynard	615-238-2730	615-238-2730
HSSE Manager – Pacific	Tony Wong	805-250-2860	805-234-6227
HSSE Manager – Mountain	Mike Doherty	503-220-5434	503-220-5434
HSSE Manager – NA Export	Kev Metcalfe	780-917-7023	780-231-2185
Director HSSE Operations - US	Keith Kuhlmann	740-816-6170	740-816-6170
HSSE Senior Vice President	Jon Lessard	713-548-5700	281-513-5538
Your OSEC or HSSE Advisor	Master HSSE Representative Listing		

Region	WC Claims Coordinator	Landline	Cell
US (All Regions)	Melissa Helton	513-720-3706	513-720-3706

REPORTING

- Within 24 hours of the incident, an HSSE Event Report (**RMS3**) must be completed with as much information as possible and emailed to hsse@stantec.com.
- Do not delay submitting the report to wait for signatures. Follow-up with signatures when possible.
- Complete the balance of the RMS3 within 5 business days, including signatures. Include information and corrective actions determined during the investigation/ Incident Causation Analysis (ICA), as coordinated by HSSE Advisor and/or HSSE Manager.
- Other protocols dictated by a client or project agreement, or internal practice may also need to be completed. See HSSE Program Manual s.14 for Incident Notification.

Incidents involving injury, potential injury, or report of pain, soreness, or discomfort must be reported immediately (within one hour) to a supervisor. Supervisors will then immediately contact their HSSE manager/advisor to discuss incident severity and determine further notification. This form must be completed and **submitted within 24 hours** of any incident. Do not delay submission waiting for signatures. Email to hsse@stantec.com or fax unsigned report to (780) 969-2030 and file locally in compliance with the corporate [records retention policy and practices](#) once all signatures have been obtained.

This document contains privileged and confidential information prepared at the request of Stantec's Legal Counsel. The contents of this report are restricted to HSSE, HR personnel, Risk Management Representatives, Project Manager and BC Leader, and Stantec's Insurer, Adjuster and Legal Counsel. Information collected will be used solely for the purpose of meeting the requirements of Stantec's HSSE and insurance programs, complying with applicable legislation, and will be used in accordance with any governing privacy legislation. The information collected will be maintained electronically and may be included in **required** reports.

SECTION 1: GENERAL INFORMATION			
Office location:		BC number:	
Location of incident:			
Incident date:		Incident time:	
Incident reported-date:		Incident reported-time:	
Project name:		Project number:	
Client name:			
Person in charge:		Person in charge phone:	

SECTION 2: INVOLVED STANTEC EMPLOYEE INFORMATION (if more than one identify extras in incident details below)			
Name:		Phone:	
Job position:		Group name:	
Time employee began work:		Job experience (in years)	
Type of employment:	Full Time <input type="checkbox"/> ; Visitor <input type="checkbox"/> ; Contract <input type="checkbox"/> ; Volunteer <input type="checkbox"/> ; Seasonal <input type="checkbox"/>		
Supervisor:		Supervisor phone:	

SECTION 3: INCIDENT DETAILS	
Type of Incident:	*incident types marked with an asterisk, please complete sections 1, 2 and 3 and sign below. See The Lens for a list of Incident Type Definitions

Incident Severity (0-4 Serious):		Incident Likelihood: (1-4 Very Likely)	
<input type="checkbox"/> *Report Only	<input type="checkbox"/> First Aid	<input type="checkbox"/> Motor Vehicle Incident	<input type="checkbox"/> 3 rd Party Incident (i.e., Public)
<input type="checkbox"/> *Hazard Identification	<input type="checkbox"/> Medical Aid – No Lost Time	<input type="checkbox"/> Property Damage - Vehicle	<input type="checkbox"/> Spill or Release
<input type="checkbox"/> *Near Miss	<input type="checkbox"/> Restricted Work	<input type="checkbox"/> Property Damage - Other	<input type="checkbox"/> Utility Strike
<input type="checkbox"/> *Safety Opportunity	<input type="checkbox"/> Lost Time	<input type="checkbox"/> Security	<input type="checkbox"/> Fire/Explosion/Flood
<input type="checkbox"/> Critical Risk?	<input type="checkbox"/> Fatality	<input type="checkbox"/> Contractor Recordable Incident	<input type="checkbox"/> Stop Work Authority
<input type="checkbox"/> High Potential Incident?	<input type="checkbox"/> Violence or Harassment	<input type="checkbox"/> Non-compliance	<input type="checkbox"/> Work Refusal
Describe incident in detail: (include any issues related to people, equipment, materials, environment, and processes)			
Immediate corrective actions taken:			
Submitted by (add signature):			

Atlantic – Kyle Ferguson (902-240-3847); Alberta North – Ruth O'Haire (780-231-5290); Alberta South & British Columbia – Shawna Robichaud (587-894-2635); Ontario East & Ontario West – Jared Memory (647-969-3709); Quebec – Claudine Tremblay (514-668-4820); Prairies & Territories – Nikki Boudreau (639-994-1843); Northeast – Fred Miller (610-235-7315); Southeast – Randy Jones (615-499-7161); Gulf – Mark Maynard (615-238-2730); North Central – Wes Cline (916-281-7459); Mountain – Mike Doherty (415-307-2920); Pacific – Tony Wong (805-234-6227); NA Export – Kev Metcalfe (780-231-2185); UK, Australia & New Zealand – Chris Sutton (+44 (0) 7990 534941)

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SECTION 4: MEDICAL INFORMATION

Name of first aid attendant:	Injury recorded in first aid log? Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>																																																																											
Description of first aid or medical treatment administered:																																																																												
Clinic/hospital sent to:																																																																												
Attending physician/paramedic (if known):																																																																												
Area of Injury – Please check all that apply: <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;"><input type="checkbox"/> Head</td> <td style="width: 15%;"><input type="checkbox"/> Teeth</td> <td style="width: 15%;"><input type="checkbox"/> Upper back</td> <td style="width: 10%;"></td> <td style="width: 10%; text-align: center;">Left</td> <td style="width: 10%; text-align: center;">Right</td> <td style="width: 10%;"></td> <td style="width: 10%; text-align: center;">Left</td> <td style="width: 10%; text-align: center;">Right</td> <td style="width: 10%;"></td> <td style="width: 10%; text-align: center;">Left</td> <td style="width: 10%; text-align: center;">Right</td> <td style="width: 10%;"></td> <td style="width: 10%; text-align: center;">Left</td> <td style="width: 10%; text-align: center;">Right</td> </tr> <tr> <td><input type="checkbox"/> Face</td> <td><input type="checkbox"/> Neck</td> <td><input type="checkbox"/> Lower back</td> <td></td> <td><input type="checkbox"/> Shoulder</td> <td><input type="checkbox"/></td> <td></td> <td><input type="checkbox"/> Wrist</td> <td><input type="checkbox"/></td> <td></td> <td><input type="checkbox"/> Hip</td> <td><input type="checkbox"/></td> <td></td> <td><input type="checkbox"/> Ankle</td> <td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/> Eye(s)</td> <td><input type="checkbox"/> Chest</td> <td><input type="checkbox"/> Abdomen</td> <td></td> <td><input type="checkbox"/> Arm</td> <td><input type="checkbox"/></td> <td></td> <td><input type="checkbox"/> Hand</td> <td><input type="checkbox"/></td> <td></td> <td><input type="checkbox"/> Thigh</td> <td><input type="checkbox"/></td> <td></td> <td><input type="checkbox"/> Foot</td> <td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/> Ear(s)</td> <td></td> <td><input type="checkbox"/> Pelvis</td> <td></td> <td><input type="checkbox"/> Elbow</td> <td><input type="checkbox"/></td> <td></td> <td><input type="checkbox"/> Finger(s)</td> <td><input type="checkbox"/></td> <td></td> <td><input type="checkbox"/> Knee</td> <td><input type="checkbox"/></td> <td></td> <td><input type="checkbox"/> Toe(s)</td> <td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/> Other</td> <td colspan="2">Specify _____</td> <td></td> <td><input type="checkbox"/> Forearm</td> <td><input type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> <td><input type="checkbox"/> Lower Leg</td> <td><input type="checkbox"/></td> <td></td> <td></td> <td></td> </tr> </table>		<input type="checkbox"/> Head	<input type="checkbox"/> Teeth	<input type="checkbox"/> Upper back		Left	Right		Left	Right		Left	Right		Left	Right	<input type="checkbox"/> Face	<input type="checkbox"/> Neck	<input type="checkbox"/> Lower back		<input type="checkbox"/> Shoulder	<input type="checkbox"/>		<input type="checkbox"/> Wrist	<input type="checkbox"/>		<input type="checkbox"/> Hip	<input type="checkbox"/>		<input type="checkbox"/> Ankle	<input type="checkbox"/>	<input type="checkbox"/> Eye(s)	<input type="checkbox"/> Chest	<input type="checkbox"/> Abdomen		<input type="checkbox"/> Arm	<input type="checkbox"/>		<input type="checkbox"/> Hand	<input type="checkbox"/>		<input type="checkbox"/> Thigh	<input type="checkbox"/>		<input type="checkbox"/> Foot	<input type="checkbox"/>	<input type="checkbox"/> Ear(s)		<input type="checkbox"/> Pelvis		<input type="checkbox"/> Elbow	<input type="checkbox"/>		<input type="checkbox"/> Finger(s)	<input type="checkbox"/>		<input type="checkbox"/> Knee	<input type="checkbox"/>		<input type="checkbox"/> Toe(s)	<input type="checkbox"/>	<input type="checkbox"/> Other	Specify _____			<input type="checkbox"/> Forearm	<input type="checkbox"/>					<input type="checkbox"/> Lower Leg	<input type="checkbox"/>			
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<input type="checkbox"/> Other	Specify _____			<input type="checkbox"/> Forearm	<input type="checkbox"/>					<input type="checkbox"/> Lower Leg	<input type="checkbox"/>																																																																	
Has the injured employee had a previous similar injury or disability?												Yes <input type="checkbox"/>	No <input type="checkbox"/>																																																															

SECTION 5: PROPERTY OR VEHICLE DAMAGE: STANTEC

Ownership Details (choose one):	<input type="checkbox"/> Rented (attach rental agreement)	<input type="checkbox"/> Stantec Owned	<input type="checkbox"/> Personal (employee vehicle)
Year, Make, and Model of Vehicle:	Vehicle ID # (VIN)		
Nature of damage:	Estimated cost of damage:		\$
Description of damaged property:			
Attending police officer (if known):	Badge #:		
Copy of police report received	Yes <input type="checkbox"/> No <input type="checkbox"/> If yes, file number: (attach copy of police report)		

PROPERTY OR VEHICLE DAMAGE: 3RD PARTY

Name of owner and contact number:			
Year, Make, and Model of Vehicle:	License Plate Number:		
Insurer and Policy Number:			
Injured parties? Yes <input type="checkbox"/> No <input type="checkbox"/>	If yes, describe injuries:		
Diagram or photographs attached?	Yes <input type="checkbox"/> No <input type="checkbox"/>		

WITNESS INFORMATION - #1

Name:		Phone Number:	
Witness statement provided?	Yes (attached) <input type="checkbox"/>	No <input type="checkbox"/>	

WITNESS INFORMATION - #2

Name:		Phone Number:	
Witness statement provided?	Yes (attached) <input type="checkbox"/>	No <input type="checkbox"/>	

SECTION 6: SPILL OR RELEASE

Substance:			
Quantity:		Employee(s) exposed via:	<input type="checkbox"/> Inhalation <input type="checkbox"/> Contact <input type="checkbox"/> Ingestion <input type="checkbox"/> n/a
Off-site impacts observed or anticipated?	Yes <input type="checkbox"/> No <input type="checkbox"/> If yes, describe:		
Name of regulatory agencies contacted:			
Contact name, number, date and time of call:			

SECTION 7: ANALYSIS
DIRECT CAUSES
A. ACTIONS TO IMPROVE (check off as many as necessary)

- | | | |
|--|--|---|
| <input type="checkbox"/> Operating equipment without authority | <input type="checkbox"/> Did not use personal protective equipment (PPE) | <input type="checkbox"/> Hazard or risk not identified |
| <input type="checkbox"/> Lack of warning | <input type="checkbox"/> Improper loading | <input type="checkbox"/> Inattention |
| <input type="checkbox"/> Did not secure | <input type="checkbox"/> Improper placement | <input type="checkbox"/> Communication/coordination needs improvement |
| <input type="checkbox"/> Operating at improper speed | <input type="checkbox"/> Improper lifting or handling | <input type="checkbox"/> Influence of alcohol or drugs suspected |
| <input type="checkbox"/> Disabling/removing safety devices | <input type="checkbox"/> Improper position for a task | <input type="checkbox"/> Did not check/monitor |
| <input type="checkbox"/> Using defective/improper equipment | <input type="checkbox"/> Servicing equipment in operation | <input type="checkbox"/> Did not react or correct |
| <input type="checkbox"/> Using equipment improperly | <input type="checkbox"/> Horseplay | |
| | <input type="checkbox"/> Procedure, policy, or practice, not followed | |

B. CONDITIONS TO IMPROVE (check off as many as necessary)

- | | | |
|---|---|--|
| <input type="checkbox"/> Inadequate guards/barriers | <input type="checkbox"/> Radiation exposure | <input type="checkbox"/> Inadequate information/data |
| <input type="checkbox"/> Improper/inadequate PPE | <input type="checkbox"/> Temperature extremes | <input type="checkbox"/> Preparation/planning needs improvement |
| <input type="checkbox"/> Defective tools or equipment | <input type="checkbox"/> Inadequate or excess illumination | <input type="checkbox"/> Opportunity to improve support/assistance |
| <input type="checkbox"/> Congested work area | <input type="checkbox"/> Inadequate ventilation | <input type="checkbox"/> Road conditions |
| <input type="checkbox"/> Inadequate warning system | <input type="checkbox"/> Presence of harmful materials or environment | <input type="checkbox"/> Weather conditions |
| <input type="checkbox"/> Fire and explosion hazards | <input type="checkbox"/> Instructions/procedures need improvement | <input type="checkbox"/> Communications need improvement (hardware/software) |
| <input type="checkbox"/> Poor housekeeping; disorder | | |
| <input type="checkbox"/> Noise exposure | | |

ROOT CAUSES
C. PERSONAL FACTORS (check off as many as necessary)

- | | | |
|--|--|--|
| <input type="checkbox"/> Physical Capability | <input type="checkbox"/> Lack of Skill | <input type="checkbox"/> Abuse or Misuse |
| <input type="checkbox"/> Physical Stress | <input type="checkbox"/> Lack of Knowledge | <input type="checkbox"/> Mental/Psychological Capability |
| <input type="checkbox"/> Mental Stress | <input type="checkbox"/> Improper Motivation | |

D. JOB FACTORS (check off as many as necessary)

- | | | |
|--|--|--|
| <input type="checkbox"/> Leadership or supervision | <input type="checkbox"/> Maintenance (scheduled or preventative) | <input type="checkbox"/> Excessive wear and tear |
| <input type="checkbox"/> Engineering | <input type="checkbox"/> Tools or equipment | <input type="checkbox"/> Communications |
| <input type="checkbox"/> Purchasing | <input type="checkbox"/> Work standards | <input type="checkbox"/> Other: Specify |

SECTION 8: FOLLOW-UP

Short-term:	Corrective Action	Assigned To	Target Date	Completion Date
Long-term:	Corrective Action	Assigned To	Target Date	Completion Date

REVIEW COMMENTS		
Involved Employee Comments: <div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> Signature: Job Title: </div> <div style="width: 30%;"> Print Name: </div> <div style="width: 30%;"> Date: </div> </div>		
Supervisor/Project Manager: <div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> Signature: Job Title: </div> <div style="width: 30%;"> Print Name: </div> <div style="width: 30%;"> Date: </div> </div>		
HSSE Representative (OSEC/JH&S Committee/HSSE Manager/HSSE Advisor): <div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> Signature: Job Title: </div> <div style="width: 30%;"> Print Name: </div> <div style="width: 30%;"> Date: </div> </div>		
Management Review: <input type="checkbox"/> not applicable <div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> Signature: Job Title: </div> <div style="width: 30%;"> Print Name: </div> <div style="width: 30%;"> Date: </div> </div>		
Additional Comments: <div style="height: 100px;"></div>		

Atlantic – Kyle Ferguson (902-240-3847); Alberta North – Ruth O'Haire (780-231-5290); Alberta South & British Columbia – Shawna Robichaud (587-894-2635); Ontario East & Ontario West – Jared Memory (647-969-3709); Quebec – Claudine Tremblay (514-668-4820); Prairies & Territories – Nikki Boudreau (639-994-1843); Northeast – Fred Miller (610-235-7315); Southeast – Randy Jones (615-499-7161); Gulf – Mark Maynard (615-238-2730); North Central – Wes Cline (916-281-7459); Mountain – Mike Doherty (415-307-2920); Pacific – Tony Wong (805-234-6227); NA Export – Kev Metcalfe (780-231-2185); UK, Australia & New Zealand – Chris Sutton (+44 (0) 7990 534941

**SITE MANAGEMENT PLAN
820 LINDEN AVE BCP SITE #C828200
PITTSFORD, NY**

Appendix F

Community Air Monitoring Plan

Appendix 1A

New York State Department of Health Generic Community Air Monitoring Plan

Overview

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

The generic CAMP presented below will be sufficient to cover many, if not most, sites. Specific requirements should be reviewed for each situation in consultation with NYSDOH to ensure proper applicability. In some cases, a separate site-specific CAMP or supplement may be required. Depending upon the nature of contamination, chemical- specific monitoring with appropriately-sensitive methods may be required. Depending upon the proximity of potentially exposed individuals, more stringent monitoring or response levels than those presented below may be required. Special requirements will be necessary for work within 20 feet of potentially exposed individuals or structures and for indoor work with co-located residences or facilities. These requirements should be determined in consultation with NYSDOH.

Reliance on the CAMP should not preclude simple, common-sense measures to keep VOCs, dust, and odors at a minimum around the work areas.

Community Air Monitoring Plan

Depending upon the nature of known or potential contaminants at each site, real-time air monitoring for VOCs and/or particulate levels at the perimeter of the exclusion zone or work area will be necessary. Most sites will involve VOC and particulate monitoring; sites known to be contaminated with heavy metals alone may only require particulate monitoring. If radiological contamination is a concern, additional monitoring requirements may be necessary per consultation with appropriate DEC/NYSDOH staff.

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

Periodic monitoring for VOCs will be required during non-intrusive activities such as the collection of soil and sediment samples or the collection of groundwater samples from existing monitoring wells. “Periodic” monitoring during sample collection might reasonably consist of taking a reading upon arrival at a sample location, monitoring while opening a well cap or

overturning soil, monitoring during well baling/purging, and taking a reading prior to leaving a sample location. In some instances, depending upon the proximity of potentially exposed individuals, continuous monitoring may be required during sampling activities. Examples of such situations include groundwater sampling at wells on the curb of a busy urban street, in the midst of a public park, or adjacent to a school or residence.

VOC Monitoring, Response Levels, and Actions

Volatile organic compounds (VOCs) must be monitored at the downwind perimeter of the immediate work area (i.e., the exclusion zone) on a continuous basis or as otherwise specified. Upwind concentrations should be measured at the start of each workday and periodically thereafter to establish background conditions, particularly if wind direction changes. The monitoring work should be performed using equipment appropriate to measure the types of contaminants known or suspected to be present. The equipment should be calibrated at least daily for the contaminant(s) of concern or for an appropriate surrogate. The equipment should be capable of calculating 15-minute running average concentrations, which will be compared to the levels specified below.

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

Particulate Monitoring, Response Levels, and Actions

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

1. If the downwind PM-10 particulate level is 100 micrograms per cubic meter (mcg/m^3) greater than background (upwind perimeter) for the 15-minute period or if airborne dust is observed leaving the work area, then dust suppression techniques must be employed. Work may continue with dust suppression techniques provided that downwind PM-10 particulate levels do not exceed $150 \text{ mcg}/\text{m}^3$ above the upwind level and provided that no visible dust is migrating from the work area.

2. If, after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater than $150 \text{ mcg}/\text{m}^3$ above the upwind level, work must be stopped and a re-evaluation of activities initiated. Work can resume provided that dust suppression measures and other controls are successful in reducing the downwind PM-10 particulate concentration to within $150 \text{ mcg}/\text{m}^3$ of the upwind level and in preventing visible dust migration.

3. All readings must be recorded and be available for State (DEC and NYSDOH) and County Health personnel to review.

December 2009

Appendix 1B

Fugitive Dust and Particulate Monitoring

A program for suppressing fugitive dust and particulate matter monitoring at hazardous waste sites is a responsibility on the remedial party performing the work. These procedures must be incorporated into appropriate intrusive work plans. The following fugitive dust suppression and particulate monitoring program should be employed at sites during construction and other intrusive activities which warrant its use:

1. Reasonable fugitive dust suppression techniques must be employed during all site activities which may generate fugitive dust.
2. Particulate monitoring must be employed during the handling of waste or contaminated soil or when activities on site may generate fugitive dust from exposed waste or contaminated soil. Remedial activities may also include the excavation, grading, or placement of clean fill. These control measures should not be considered necessary for these activities.
3. Particulate monitoring must be performed using real-time particulate monitors and shall monitor particulate matter less than ten microns (PM₁₀) with the following minimum performance standards:
 - (a) Objects to be measured: Dust, mists or aerosols;
 - (b) Measurement Ranges: 0.001 to 400 mg/m³ (1 to 400,000 :ug/m³);
 - (c) Precision (2-sigma) at constant temperature: +/- 10 :g/m³ for one second averaging; and +/- 1.5 g/m³ for sixty second averaging;
 - (d) Accuracy: +/- 5% of reading +/- precision (Referred to gravimetric calibration with SAE fine test dust (mmd= 2 to 3 :m, g= 2.5, as aerosolized);
 - (e) Resolution: 0.1% of reading or 1g/m³, whichever is larger;
 - (f) Particle Size Range of Maximum Response: 0.1-10;
 - (g) Total Number of Data Points in Memory: 10,000;
 - (h) Logged Data: Each data point with average concentration, time/date and data point number
 - (i) Run Summary: overall average, maximum concentrations, time/date of maximum, total number of logged points, start time/date, total elapsed time (run duration), STEL concentration and time/date occurrence, averaging (logging) period, calibration factor, and tag number;
 - (j) Alarm Averaging Time (user selectable): real-time (1-60 seconds) or STEL (15 minutes), alarms required;
 - (k) Operating Time: 48 hours (fully charged NiCd battery); continuously with charger;
 - (l) Operating Temperature: -10 to 50° C (14 to 122° F);
 - (m) Particulate levels will be monitored upwind and immediately downwind at the working site and integrated over a period not to exceed 15 minutes.
4. In order to ensure the validity of the fugitive dust measurements performed, there must be appropriate Quality Assurance/Quality Control (QA/QC). It is the responsibility of the remedial party to adequately supplement QA/QC Plans to include the following critical features: periodic instrument calibration, operator training, daily instrument performance (span) checks, and a record keeping plan.
5. The action level will be established at 150 ug/m³ (15 minutes average). While conservative,

this short-term interval will provide a real-time assessment of on-site air quality to assure both health and safety. If particulate levels are detected in excess of 150 ug/m³, the upwind background level must be confirmed immediately. If the working site particulate measurement is greater than 100 ug/m³ above the background level, additional dust suppression techniques must be implemented to reduce the generation of fugitive dust and corrective action taken to protect site personnel and reduce the potential for contaminant migration. Corrective measures may include increasing the level of personal protection for on-site personnel and implementing additional dust suppression techniques (see paragraph 7). Should the action level of 150 ug/m³ continue to be exceeded work must stop and DER must be notified as provided in the site design or remedial work plan. The notification shall include a description of the control measures implemented to prevent further exceedances.

6. It must be recognized that the generation of dust from waste or contaminated soil that migrates off-site, has the potential for transporting contaminants off-site. There may be situations when dust is being generated and leaving the site and the monitoring equipment does not measure PM₁₀ at or above the action level. Since this situation has the potential to allow for the migration of contaminants off-site, it is unacceptable. While it is not practical to quantify total suspended particulates on a real-time basis, it is appropriate to rely on visual observation. If dust is observed leaving the working site, additional dust suppression techniques must be employed. Activities that have a high dusting potential--such as solidification and treatment involving materials like kiln dust and lime--will require the need for special measures to be considered.

7. The following techniques have been shown to be effective for the controlling of the generation and migration of dust during construction activities:

- (a) Applying water on haul roads;
- (b) Wetting equipment and excavation faces;
- (c) Spraying water on buckets during excavation and dumping;
- (d) Hauling materials in properly tarped or watertight containers;
- (e) Restricting vehicle speeds to 10 mph;
- (f) Covering excavated areas and material after excavation activity ceases; and
- (g) Reducing the excavation size and/or number of excavations.

Experience has shown that the chance of exceeding the 150ug/m³ action level is remote when the above-mentioned techniques are used. When techniques involving water application are used, care must be taken not to use excess water, which can result in unacceptably wet conditions. Using atomizing sprays will prevent overly wet conditions, conserve water, and provide an effective means of suppressing the fugitive dust.

8. The evaluation of weather conditions is necessary for proper fugitive dust control. When extreme wind conditions make dust control ineffective, as a last resort remedial actions may need to be suspended. There may be situations that require fugitive dust suppression and particulate monitoring requirements with action levels more stringent than those provided above. Under some circumstances, the contaminant concentration and/or toxicity may require additional monitoring to protect site personnel and the public. Additional integrated sampling and chemical analysis of the dust may also be in order. This must be evaluated when a health and safety plan is developed and when appropriate suppression and monitoring requirements are established for protection of health and the environment.

Based on NYSDEC's comments on the Remedial Investigation Work Plan (RIWP) for this Site, supplemental CAMP requirements must be followed for work performed near the building when occupied by workers and/or inside the building. The special requirements required by NYSDEC, as listed in the RIWP comment letter dated May 21, 2018, are transcribed as follows:

If/when completing field work inside the building or tight to the building, the following Community Air Monitoring Plan (CAMP) requirements must be followed:

Special Requirements for Work Within 20 Feet of Potentially Exposed Individuals or Structures

When work areas are within 20 feet of potentially exposed populations or occupied structures, the continuous monitoring locations for VOCs and particulates must reflect the nearest potentially exposed individuals and the location of ventilation system intakes for nearby structures. The use of engineering controls such as vapor/dust barriers, temporary negative-pressure enclosures, or special ventilation devices should be considered to prevent exposures related to the work activities and to control dust and odors. Consideration should be given to implementing the planned activities when potentially exposed populations are at a minimum, such as during weekends or evening hours in non-residential settings.

- If total VOC concentrations opposite the walls of occupied structures or next to intake vents exceed 1 ppm, monitoring should occur within the occupied structure(s). Background readings in the occupied spaces must be taken prior to commencement of the planned work. Any unusual background readings should be discussed with NYSDOH prior to commencement of the work.
- If total particulate concentrations opposite the walls of occupied structures or next to intake vents exceed 150 mcg/m³, work activities should be suspended until controls are implemented and are successful in reducing the total particulate concentration to 150 mcg/m³ or less at the monitoring point.
- Depending upon the nature of contamination and remedial activities, other parameters (e.g., explosivity, oxygen, hydrogen sulfide, carbon monoxide) may also need to be monitored. Response levels and actions should be pre-determined, as necessary, for each site.

Special Requirements for Indoor Work with Co-Located Residences or Facilities

Unless a self-contained, negative-pressure enclosure with proper emission controls will encompass the work area, all individuals not directly involved with the planned work must be absent from the room in which the work will occur. Monitoring requirements shall be as stated above under "Special Requirements for Work Within 20 Feet of Potentially Exposed Individuals or Structures" except that in this instance "nearby/occupied structures" would be adjacent occupied rooms. Additionally, the location of all exhaust vents in the room and their discharge points, as well as potential vapor pathways (openings, conduits, etc.) relative to adjoining rooms, should be understood and the monitoring locations established accordingly. In these situations, it is strongly recommended that exhaust fans or other engineering controls be used to create negative air pressure within the work area during remedial activities. Additionally, it is strongly recommended that the planned work be implemented during hours (e.g. weekends or evenings) when building occupancy is at a minimum.

**SITE MANAGEMENT PLAN
820 LINDEN AVE BCP SITE #C828200
PITTSFORD, NY**

Appendix G

SSDS OM&M Manual



Appendix G
Sub-Slab Depressurization System
Operation, Monitoring &
Maintenance Manual

820 Linden Ave Site
Pittsford, New York
BCP Site # C828200

April 2020, rev. August 2020

Prepared for:

New York State Department of
Environmental Conservation
6274 East Avon-Lima Road
Avon, New York 14414

Prepared on Behalf of:

Ridgecrest Associates, L.P.
135 Orchard Park Boulevard
Rochester, NY 14609

Prepared by:

Stantec Consulting Services Inc.
61 Commercial Street Suite 100
Rochester NY 14614-1009

Revision	Description	Author		Quality Check		Independent Review	
0	Agency Review Draft	A. Kelly	4/2020	D. Harrienger	4/6/2020	S. Reynolds Smith	4/9/2020
1	Revision to reporting protocol	S. Reynolds-Smith	8/2020	D. Harrienger	8/30/2020	A. Kelly	8/31/2020

Certification

I, Dwight A. Harrienger, certify that I am currently a NYS registered professional engineer and that this Sub-Slab Depressurization System Operation, Monitoring & Maintenance Manual 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).



Signature

8/31/2020

Date

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**SUB-SLAB DEPRESSURIZATION SYSTEM OPERATION, MONITORING & MAINTENANCE MANUAL
820 LINDEN AVENUE SITE
BROWNFIELD CLEANUP PROGRAM SITE #C828200**

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Abbreviations

BCP	Brownfield Cleanup Program
CVOC	Chlorinated Volatile Organic Compounds
DER-10	Division of Environmental Remediation Technical Guidance for Site Investigation and Remediation, May 2010
ESA	Environmental Site Assessment
IRM	Interim Remedial Measure
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
OM&M	Operation, Monitoring and Maintenance
PCE	Tetrachloroethene
PSG	Passive Soil Gas
PVC	Polyvinyl Chloride
RI	Remedial Investigation
SGVs	Standards and Guidance Values
SSDS	Sub-Slab Depressurization System
SVI	Soil Vapor Intrusion
TCE	Trichloroethene
VOC	Volatile Organic Compound
1,1,1-TCA	1,1,1-trichloroethane

1.0 INTRODUCTION AND SITE DESCRIPTION

This Sub-Slab Depressurization System (SSDS) Operation, Monitoring and Maintenance (OM&M) Manual has been developed on behalf of Ridgecrest Associates, L.P for the 820 Linden Avenue Site (New York State Department of Environmental Conservation (NYSDEC) Brownfield Cleanup Program (BCP) Site #C828200), located at 820 Linden Avenue in the Pittsford, Monroe County, New York (the "Site").

From December 2018 through February 2019, a SSDS was installed in the majority of the southern tenant space in the existing building onsite at 820 Linden Avenue, as depicted on Drawing ENV-100 in Appendix A. This construction phase is referred to as Zones 1 through 7 of the SSDS. The SSDS installation was performed concurrently with the Remedial Investigation (RI) as an Interim Remedial Measure #1 (IRM#1) in the NYSDEC BCP, with approval of the NYSDEC and the New York State Department of Health (NYSDOH) (Stantec, 2018).

From December 2019 to January 2020, a SSDS was installed in the 1954 Building Footprint of the southern tenant space in the existing building onsite at 820 Linden Avenue, as depicted on Drawing ENV-100A in Appendix A. This construction phase is referred to as Zone 8 of the SSDS. The SSDS installation was performed concurrently with the RI as an Interim Remedial Measure #3 (IRM#3) in the NYSDEC BCP, with approval of the NYSDEC and NYSDOH (Stantec, 2019).

1.1 SITE DESCRIPTION

The Site consists of an approximately 7.97-acre property improved with an approximately 108,400 square foot slab-on-grade building (Figure 1). The southern tenant space in this building is approximately 70,200 square feet and is currently occupied by JML Optical (JML). The northern tenant space is approximately 38,200 square feet and is currently occupied by Newport Corporation (Newport). Both current tenants are optics manufacturing facilities. Based on building permit records, the building was reportedly constructed in six phases. The first building permit was issued in 1954, with subsequent additions permitted for the rear and west sides of the building in 1956, 1958, and 1959. A large addition immediately north of the original building was permitted in 1966. Each of the first five construction phases now comprise the current southern tenant space. The final construction phase, which now comprises the northern tenant space, was permitted in 1967. Construction phases are delineated on design drawings provided in Appendix A.

1.2 SUMMARY OF PERTINENT ENVIRONMENTAL FINDINGS

2004 Phase II ESA

A Phase II Environmental Site Assessment (ESA) was completed by Environmental Resources Management for Thermo Electron Corporation in 2004 (ERM, 2004). This investigation included a passive soil gas (PSG) survey with 60 sampling locations across the northern portion of the Site. The survey showed that chlorinated volatile organic compounds (CVOCs) such as tetrachloroethene (PCE), trichloroethene (TCE), and 1,1,1-trichloroethane (1,1,1-TCA) were present in soil vapor beneath the building footprint and toluene (a petroleum-related volatile organic compound (VOC)) was present in exterior soil vapor across the northern portion of the Site.

SUB-SLAB DEPRESSURIZATION SYSTEM OPERATION, MONITORING & MAINTENANCE MANUAL

Sub-Slab Depressurization System (SSDS) Description

2005 Phase II ESA

A Phase II ESA was completed by Labella Associates, P.C. for JML Optical in 2005 (Labella, 2005). This investigation included a PSG survey with 31 sampling locations, mostly across the southern portion of the Site. The constituent detected at the highest concentration was PCE, with lesser amounts of TCE, 1,1,1-TCA, and 2-butanone reported. The highest CVOC concentrations were detected under the central portion of the building near a former hazardous waste storage area. Toluene was also detected in about two-thirds of the locations.

2016-2017 Limited Phase II ESA

Stantec conducted a Limited Phase II ESA in April 2016 through January 2017 for Ridgecrest Associates to further evaluate impacts to the Site (Stantec, 2017a). In April 2016 Stantec began its investigation of the Site by conducting an updated soil vapor intrusion (SVI) investigation in accordance with the NYSDOH's Final Guidance for Evaluating Soil Vapor Intrusion in the State of New York (NYSDOH, 2006). The Limited Phase II ESA work scope included two SVI Investigation events. The first event was conducted in April 2016 and included twelve sampling locations total spread throughout both tenant spaces. The second event was conducted in January 2017 and included three sampling locations in the northern tenant space. The limited Phase II ESA work scope also included an interior and exterior soil and groundwater investigation.

Based on the NYSDOH guidance for CVOCs, within the southern tenant space, results from four of the six locations indicated the need for mitigation of potential SVI impacts based on the 1,1-dichloroethene (1,1-DCE), cis-1,2-dichloroethene (cis-1,2-DCE), TCE or PCE results. Within the northern tenant space, one location suggested the need for monitoring during one sampling round and for mitigation during another sampling round based on TCE results. This location is adjacent to the southern tenant space. None of these CVOCs were reported to be used or stored by the current tenants.

The Limited Phase II ESA did not identify the source(s) of the CVOC contamination in sub-slab vapor. The absence of detections in soil and groundwater near (and downgradient from) the highest sub-slab vapor concentrations appeared to indicate the absence of a major CVOC issue in Site soil and groundwater.

To address the acetone in soil and groundwater and CVOCs detected during the SVI investigation, the Limited Phase II ESA recommended that the Site owners apply for entry into the NYSDEC BCP. Based on the SVI CVOC results, installation of a SSDS to address the potential for CVOC SVI to occur onsite was recommended.

2.0 SUB-SLAB DEPRESSURIZATION SYSTEM (SSDS) DESCRIPTION

SVI is the migration of volatile organic compounds (VOCs) or semi volatile organic compounds (SVOCs) chemicals from contaminated groundwater and soil into overlying buildings. SSDSs are designed to mitigate the migration of subsurface vapors into the interior of a structure by collecting and extracting vapors from beneath an interior, occupied space, safely routing the vapors around or through the interior, occupied space and discharging them above the roof line in a manner that does not lead to their recirculation in the building's HVAC operations.

SUB-SLAB DEPRESSURIZATION SYSTEM OPERATION, MONITORING & MAINTENANCE MANUAL

Sub-Slab Depressurization System (SSDS) Description

In order to mitigate potential vapor intrusion in the building located on the 820 Linden Avenue Site, a SSDS was designed and constructed in accordance with the Final NYSDOH Guidance for Evaluating Soil Vapor Intrusion in the State of New York, dated October 2006.

2.1 OBJECTIVES

The primary objectives of this SSDS OM&M Manual are:

- Facilitate the understanding of the site owner and designated tenant representatives of the system's operation, maintenance and monitoring;
- Define system components and operation;
- Specify maintenance activities, as required, to ensure continuous and effective operation of the system;
- Define monthly monitoring requirements to be completed by the building operator; and
- Describe annual monitoring and reporting requirements to be completed by a qualified professional (Engineer).

2.2 EQUIPMENT AND MATERIAL DETAILS - THE SSDS IRM

Stantec designed an active SSDS in a series of two phases. Phase One (IRM#1) consisted of a network 19 suction cavities which penetrated the existing floor slab. Phase Two (IRM#3) consisted of a network of 4 suction cavities, which also penetrated the existing floor slab. The locations of these 23 suction cavities were based on radii of influence observed during sub-slab communication testing performed in August and September 2017, as well as the spatial restrictions of the existing tenant in the southern portion of the building.

2.2.1 Zones 1-7

To construct suction cavities, a hole was cut through the existing concrete floor to allow a suction cavity of approximately 1 cubic foot to be excavated. Clean, washed #2 rounded gravel with minimal fines was placed in the suction cavity. In general, suction cavities located near an existing structural support column had limited space to install sub-slab piping due to the top of the footer for the structural support column being located approximately 4 inches from the bottom of the existing finished floor concrete slab. For suction cavities located near an existing structural support column, 3-inch diameter perforated schedule 40 polyvinyl chloride (PVC) pipe was installed to a depth of approximately 12 inches below the bottom of the floor slab and encased with clean, washed #2 rounded gravel. The 3-inch PVC transitioned to a 4" schedule 40 PVC riser pipe just prior to becoming exposed above the finished floor. Generally, each fan is connected to three (3) individual suction cavities (some systems such as SSDS Zone 7 are connected only to two (2) suction cavities). Refer to Drawing ENV-100 for SSDS piping layouts. Six-inch schedule 40 PVC distribution headers connect individual suction cavities in ceiling systems of the building. These 6" schedule 40 PVC distribution headers leave the building via exterior walls where they transition to 6" schedule 80 PVC and connect to the exhaust fans on the roof.

The system is depressurized by way of seven (7) Radonaway model RP265 roof-mounted inline fans, each connected to the suction cavity network by two or three respective 4" SCH40 PVC risers running from below the first-

SUB-SLAB DEPRESSURIZATION SYSTEM OPERATION, MONITORING & MAINTENANCE MANUAL

Sub-Slab Depressurization System (SSDS) Description

floor slab to the roof. Each fan exhausts the removed vapor vertically through a rain cap made out of a 6" schedule 80 PVC tee with ½" by ½" hot dipped galvanized mesh covering both ends of the tee to prevent foreign objects from entering the depressurization piping.

The system is monitored by way of seven (7) Radonaway Checkpoint IIa low pressure switches and seven (7) Magnehelic® manometers. Five (5) Magnehelic® manometers are located in the central portion of the southern tenant space and housed in two (2) separate lockable cabinets (collectively referred to as Monitoring Panel B, reference Drawing ENV-100 in Appendix A), while the remaining two (2) Magnehelic® manometers are located in a lockable cabinet in the northwest portion of the southern tenant space (Monitoring Panel A, reference Drawing ENV-100 in Appendix A).

Radonaway Checkpoint IIa low-pressure switches have two (2) pilot lights. If the system is operating correctly, a green light (the light on the right side if facing the instrument) should be illuminated. The low-pressure switches also have an audible warning alarm. The low-pressure switches are connected to the SSDS extraction piping just before it exits the interior space of the building via ¼-in. clear vinyl tubing installed above the drop ceiling (for SSDS zones 6 and 7) or in the webbing of the roof (for the remainder of the SSDS zones). The goal of the low-pressure switches is to monitor the vacuum being produced by the roof-mounted fans. When the fans are creating greater than 0.25 inches of water column pressure differential, the audible/visual alarm will not be activated, and the green pilot light will be illuminated. If the pressure differential in the SSDS piping drops below 0.25 inches of water column pressure differential, the audible alarm will be activated, and the red pilot light will become illuminated.

Additionally, each of the 19 suction cavity risers have Dwyer manometers mounted on them as well as separate monitoring ports.

The system is designed to exhaust sub-slab vapor at a total rate of no more than 300 cfm per fan. Each fan is sized to operate at approximately 2 inches of water column (+/- 0.5 inches of water column, SSDS zone 7 will be slightly higher than this range since there are only 2 suction cavities on this system), resulting in a pressure extension field capable of depressurizing the majority of the sub-slab void spaces.

Fourteen (14) permanent sub-slab pressure monitoring ports were also installed throughout the southern tenant space finished floor to monitor sub-slab vacuum. The locations of the PMPs are provided on Drawing ENV-101 in Appendix A, and details on their construction are provided on Drawing ENV-500, Detail 3 in Appendix A.

In order to avoid accidental damage to the SSDS that could disturb its function, labels containing the following message: "THIS IS A COMPONENT OF A SUB-SLAB DEPRESSURIZATION SYSTEM. DO NOT ALTER OR DISCONNECT." were placed on accessible/visible portions of the riser pipes and distribution pipes.

2.2.2 Zone 8

To construct suction cavities, a hole was cut through the existing concrete floor to allow a suction cavity of approximately 1 cubic foot to be excavated. Clean #2 rounded gravel with minimal fines was placed in the suction cavity. Suction cavities were located near existing structural support columns or in room corners to remain as unobtrusive as possible. For Zone 8 suction cavities, a 4-inch diameter perforated schedule 40 PVC pipe was installed to a depth of approximately 12 inches below the bottom of the floor slab and encased with clean #2 rounded gravel. For each of the four risers, the 4-inch PVC riser pipe was installed vertically into the drop ceiling where the

SUB-SLAB DEPRESSURIZATION SYSTEM OPERATION, MONITORING & MAINTENANCE MANUAL

Sub-Slab Depressurization System (SSDS) Description

horizontal network was installed. One six-inch schedule 40 PVC distribution header connects the individual suction cavities in Zone 8. This 6" schedule 40 PVC distribution header leaves the building via the same exterior wall used for F4 and F7 of the first phase of the SSD System. Once the header penetrated the exterior wall, it transitioned to a 6" schedule 80 PVC and connected to one set of two Fantech RN-4 fans in series. Refer to Drawing ENV-100A for SSDS piping layouts.

The system is depressurized by way of two (2) Fantech RN-4 roof mounted fans in series. The Zone 8 fans exhaust the removed vapor vertically through a rain cap constructed out of a 6" schedule 80 PVC tee with ½" by ½" hot dipped galvanized mesh covering both ends of the tee to prevent foreign objects from entering the depressurization piping.

The system is monitored by way of one (1) Radonaway Checkpoint IIa low pressure switch and one (1) Magnehelic® manometer encased in an Attabox® lockable cabinets. The Zone 8 monitoring enclosure, also referenced as Monitoring Panel C, is located in the sprinkler room of the 1954 building footprint (reference Drawing ENV-100A in Appendix A).

The Radonaway Checkpoint IIa low-pressure switch has two (2) pilot lights. If the system is operating correctly, a green light (the light on the right side if facing the instrument) should be illuminated. The low-pressure switches also have an audible warning alarm. The low-pressure switches are connected to the Zone 8 SSDS extraction piping just before it enters the production area of the building via ¼-in. clear vinyl tubing installed above the drop ceiling. The goal of the low-pressure switches is to monitor the vacuum being produced by the roof-mounted fans. When the fans are creating greater than 4.8 inches of water column pressure differential, the audible/visual alarm will not be activated, and the green pilot light will be illuminated. If the pressure differential in the SSDS piping drops below 4.8 inches of water column pressure differential, the audible alarm will be activated, and the red pilot light will become illuminated.

Additionally, each of the 4 suction cavity risers have Dwyer manometers mounted on them as well as separate monitoring ports.

The system is designed to exhaust sub-slab vapor at a total rate of approximately 80 cfm. Both fans in series are sized to operate at approximately 5 inches of water column (+/- 0.5 inches of water column), resulting in a pressure extension field capable of depressurizing the majority of the sub-slab void spaces.

Five (5) vapor pins were installed as permanent sub-slab pressure monitoring ports throughout 1954 building footprint of the southern tenant space finished floor to monitor sub-slab vacuum. The locations of the PMPs are provided in Drawing ENV-101 in Appendix A, and details on their construction are provided on Drawing ENV-500, Detail 4 in Appendix A.

In order to avoid accidental damage to the SSDS that could disturb its function, labels containing the following message: "THIS IS A COMPONENT OF A SUB-SLAB DEPRESSURIZATION SYSTEM. DO NOT ALTER OR DISCONNECT." were placed on accessible/visible portions of the riser pipes and distribution pipes.

3.0 OPERATION, MONITORING AND MAINTENANCE

Specific monitoring tasks need to be completed by the building operator on a monthly basis. In addition, annual monitoring and certification of the system must be performed by a qualified professional. System start-up and shut down procedures are described below. Depending on whether a monitoring event is considered monthly or annually, SSDS monitoring data will be recorded on either the 820 Linden Avenue Sub-Slab Depressurization System Monthly Monitoring Log or the 820 Linden Avenue Sub-Slab Depressurization System Annual Monitoring Log; sample sheets are included in Appendix B and Appendix C. Under normal operating conditions, regular maintenance of the system is not required unless monitoring results indicate a significant change from normal operating conditions.

3.1 MONTHLY MONITORING

The following monitoring tasks will be completed by the owner or building operator on a monthly basis:

1. Collect vacuum readings from the eight (8) Magnehelic® manometer gauges (labeled by fan number) located in the monitoring panels described in Section 2.2. Locations are provided on Drawings ENV—100 and -100A in Appendix A. Record the readings on the 820 Linden Avenue Sub-Slab Depressurization System Monthly Monitoring Log provided in Appendix B;
 - a. For fans in Zones 1-7 (Fans #1-7), if the manometer needle rests all the way to the left on the zero bar and/or the low-pressure switch audible warning alarm is activated/the pilot light is red, confirm operation (either visually or audibly) of the corresponding fan at the roof level and notify the owner and Engineer immediately in order to initiate necessary corrective measures;
 - b. For fans in Zone 8 (Fans #8 and #9), if the manometer needle sits below 4.8 in H₂O and/or the low-pressure switch audible warning alarm is activated/the pilot light is red, confirm operation (either visually or audibly) of the corresponding fan at the roof level and notify the owner and Engineer immediately in order to initiate necessary corrective measures;
2. Indicate on the log sheet if the instrument panel pilot lights are green or red to verify that fans are operating correctly. If any of the pilot lights are off, notify the owner and Engineer immediately in order to initiate necessary corrective measures;
3. Maintain panelboard schedules in the electrical panels that contain circuit breakers for SSDS roof-mounted fans;
4. With the assistance of a trained electrician, shut off the corresponding circuit breakers for the SSDS roof-mounted fans to confirm that the low-pressure switches both provide an audible warning and a visual warning via the pilot light changing from green to red. If any low-pressure switches do not work correctly, notify the owner and Engineer immediately to initiate corrective measures. Once the test has been completed, ensure that corresponding circuit breakers have been turned back on;
5. Note any observed abnormalities, visual or auditory, with respect to normal system operating conditions on the log sheet.

3.2 ANNUAL MONITORING & REPORTING

A complete system evaluation will be performed on an annual basis by the Engineer retained by the owner/operator of the building. The following tasks will be completed as part of this evaluation:

1. Complete the monthly monitoring tasks outlined in section 3.1 above, recording on the 820 Linden Avenue Sub-Slab Depressurization System Annual Monitoring Log provided in Appendix C;
2. Obtain vacuum readings using a micromanometer from the 23 sub-slab pressure monitoring points (refer to Drawing ENV-101 in Appendix A for the locations of the sub-slab pressure monitoring points). Ensure that the micromanometer has been calibrated by the manufacturer within one (1) year of its use. If any of the sub-slab pressure monitoring points or well boxes are damaged, take measures for corrective action;
3. Inspect the entire finished floor slab for cracks, new penetrations or other potential leaks. Perform smoke testing as necessary to assess the leakage potential of suspect locations;
4. Inspect the fans and low-pressure switches (audible warning/visual pilot light alarms) and note any abnormal conditions such as hot fan housings, vibrations or unusual noise; and
5. If the roof is accessible and safe to be on (e.g. not snow/ice covered), make note of any condensation occurring on the SSDS exhaust piping. Visually inspect the ½" by ½" hot dipped galvanized mesh on the exhaust stacks to verify there are no obstructions to exhaust flow.

The results of the annual evaluation shall be presented in the Periodic Review Report (PRR), which will be prepared in accordance with the Site Management Plan (SMP). Per Section 4.6 of the October 2006 NYSDOH SVI Guidance Document, the reporting on the annual OM&M will be signed by a professional engineer or environmental professional. The PRR will be submitted for approval to the NYSDEC and NYSDOH on behalf of the owner.

3.3 SYSTEM STARTUP AND SHUTDOWN PROCEDURES

3.3.1 SSDS Startup

To turn the system on:

1. Ensure that the appropriate breakers in the electrical panel boxes are ON with the help of a person qualified to open the electrical panels on-site.
2. Ensure the motor starter switches are in the ON position. These are located on the roof near each fan.
3. Confirm proper SSDS operation by applying the appropriate monitoring tasks outlined in sections 3.1 and 3.2 above.

3.3.2 SSDS Shutdown

To turn the system off:

System optimization

1. Put the motor starter switches in the OFF position. These are located on the roof and are mounted on the metal support structure for each of the exhaust fans;
2. Place the appropriate circuit breakers in the OFF position with the assistance of a person qualified to open the electrical panels on-site.

4.0 SYSTEM OPTIMIZATION

If vacuum is not detected greater than or equal to 0.002 inches of water column at all permanent sub-slab pressure monitoring points depicted on Drawing ENV-101 (see Appendix A), the SSDS may need to be adjusted or optimized due to changing subsurface conditions or other factors. System optimization can be completed by the following:

- Collect vacuum readings at all pressure monitoring points (PMPs) to determine which area(s) within zones may have excess vacuum. Identify risers associated with the excess vacuum and throttle the ball valves for identified risers down accordingly. Recheck all PMPs to determine if sufficient vacuum is present at each location.
- If Option 1 does not yield acceptable vacuum throughout the system, system optimization may be accomplished by selecting new fans for one or several of the eight SSDS piping networks.

Should any of the above situations arise, contact the owner and the Engineer immediately.

5.0 SYSTEM DECOMMISSIONING

The SSDS system will remain in operation until its decommissioning is approved by NYSDOH, NYSDEC and Monroe County DOH. However, it is likely that the SSDS system will need to be operated for an extended period of time. Decommissioning of the system will be contingent on natural attenuation or treatment of the VOC soil vapor located below the building and/or the results of indoor air sampling. Decommissioning of the system may include:

- Removal of the SSDS fans and instrument panel and proper decommissioning of associated electrical connections by a qualified electrician;
- Grouting of the sub-slab piping and permanent sub-slab pressure monitoring points; and
- Capping (or removal, if required by owner) of the solid PVC risers installed from the first floor to the roof.

6.0 ENGINEER OF RECORD CONTACT INFORMATION

The contact information for the NYS-licensed Professional Engineer of Record for the design of this SSDS is presented below, in the event the Owner and/or Tenants have questions or concerns regarding the SSDS operation, performance, monitoring or maintenance.

SUB-SLAB DEPRESSURIZATION SYSTEM OPERATION, MONITORING & MAINTENANCE MANUAL

Engineer of Record Contact Information

Dwight Harrienger, P.E. LEED BD + C

Senior Associate

Direct: 585 413-5273

Fax: 585 272-1814

dwight.harrienger@stantec.com

Stantec

61 Commercial Street Suite 100

Rochester NY 14614-1009

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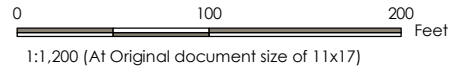
References

FIGURE 1 – 820 LINDEN AVENUE SITE LAYOUT



Legend

- Site Property Outline
- Nearby Parcel Boundaries
- Building Tenant Spaces
- JML Optical
- Newport



- Notes**
- Coordinate System: NAD 1983 StatePlane New York West FIPS 3103 Feet
 - Orthoimagery (2015) downloaded from gis.ny.gov.
 - Site building is occupied by two tenants: JML Optical in the southern building section and Newport in the northern building section.



Project Location:	Prepared by	MB	on 2018-07-06
820 Linden Avenue	Technical Review by	SRS	on 2018-07-06
Pittsford, Monroe Co., NY	Independent Review by	MPS	on 2018-07-06
			190500898

Client/Project
820 Linden Avenue Site
Interim Remedial Measure Work Plan
Brownfield Cleanup Program Site #C828200

Figure No.
1
Title

820 Linden Avenue Site Layout

Appendix A RECORD DRAWINGS

- A.1 ENV-100 – SUB-SLAB DEPRESSURIZATION SYSTEM COVERAGE PLAN (ZONE 1-7) (SOUTHERN TENANT SPACE)**
- A.2 ENV-100A – SUB-SLAB DEPRESSURIZATION SYSTEM COVERAGE PLAN (ZONE 8) (SOUTHERN TENANT SPACE)**
- A.3 ENV-101 – SUB-SLAB DEPRESSURIZATION SYSTEM SUB-SLAB PRESSURE MONITORING RESULTS (SOUTHERN TENANT SPACE)**
- A.4 ENV-102– SUB-SLAB DEPRESSURIZATION SYSTEM DISCHARGE AND EXHAUST LOCATIONS (SOUTHERN TENANT SPACE)**
- A.5 ENV-300 – SUB-SLAB DEPRESSURIZATION SYSTEM SECTION (SOUTHERN TENANT SPACE)**
- A.6 ENV-500 – SUB-SLAB DEPRESSURIZATION SYSTEM INTERIOR DETAILS (SOUTHERN TENANT SPACE)**
- A.7 ENV-501 – SUB-SLAB DEPRESSURIZATION SYSTEM EXTERIOR DETAILS (SOUTHERN TENANT SPACE)**
- A.8 ENV-502 – SUB-SLAB DEPRESSURIZATION SYSTEM PROCESS & INSTRUMENTATION DIAGRAM (SOUTHERN TENANT SPACE)**

Record Drawing

These drawings have been prepared based on information provided by others. Stantec has not verified the accuracy and/or completeness of this information and shall not be responsible for any errors or omissions which may be incorporated herein as a result.

Legend

- FIRE STOP FITTING
- APPROXIMATE LOCATION OF TEST SUCTION HOLES
- APPROXIMATE LOCATION OF TEST EXTENSION HOLES
- EXISTING BUILDING COLUMN AND COLUMN NUMBER
- NO ENTRY DUE TO TENANT MANUFACTURING PROCESS
- SUCTION HOLE LOCATION (ZONE 8)
- SUCTION HOLE LOCATION (ZONE 1-7)
- VERTICAL DISCHARGE PIPING
- SUCTION PIPE ALIGNMENT W/PIPE SIZE (PVC) (ZONE 8)
- MONITORING PANEL WITH DIFFERENTIAL PRESSURE GAUGES AND WARNING LIGHTS (ZONE 8)
- MONITORING PANEL WITH DIFFERENTIAL PRESSURE GAUGES AND WARNING LIGHTS (ZONE 1-7)
- CONDENSATE FLOW DIRECTION / PIPE SLOPE
- VACUUM FLOW DIRECTION
- SUB-SLAB PRESSURE MONITORING POINT LOCATION (ZONE 1-7)
- SUB-SLAB PRESSURE MONITORING POINT LOCATION (ZONE 8)
- EXISTING SUCTION PIPE ALIGNMENT (PVC) (ZONE 1-7)

Notes

- FIGURE DEVELOPED USING BASE BUILDING PLAN PROVIDED BY SOUTHERN TENANT.
- SSDS TESTING WAS PERFORMED BY STANTEC AND MITIGATION TECHNOLOGIES ON 8-18-2017, 8-21-2017, AND 9-11-2017.
- PROPOSED SUCTION HOLE LOCATION ON COLUMNS TO BE VERIFIED IN FIELD WITH OWNER'S REPRESENTATIVE.

RECORD	APLAK	DH	20.04.16
REVISED ZONE 8 EXTENSION	AK	DH	19.11.14
SYSTEM EXTENSION - ZONE 8	AK	DH	19.07.30
Issued	By	Appd.	YY.MM.DD

ZONE 8 - ENV-100A - SUB-SLAB DEPRESSURIZATION SYSTEM COVERAGE PLAN- SOUTHERN TENANT SPACE DWG				
File Name:	APL	DH	MB	18.07.31
	Dwn.	Chkd.	Dsgn.	YY.MM.DD

Permit-Seal

RECORD DRAWING

Client/Project

820 LINDEN AVE SITE

BROWNFIELD CLEANUP PROGRAM
SITE # C828200

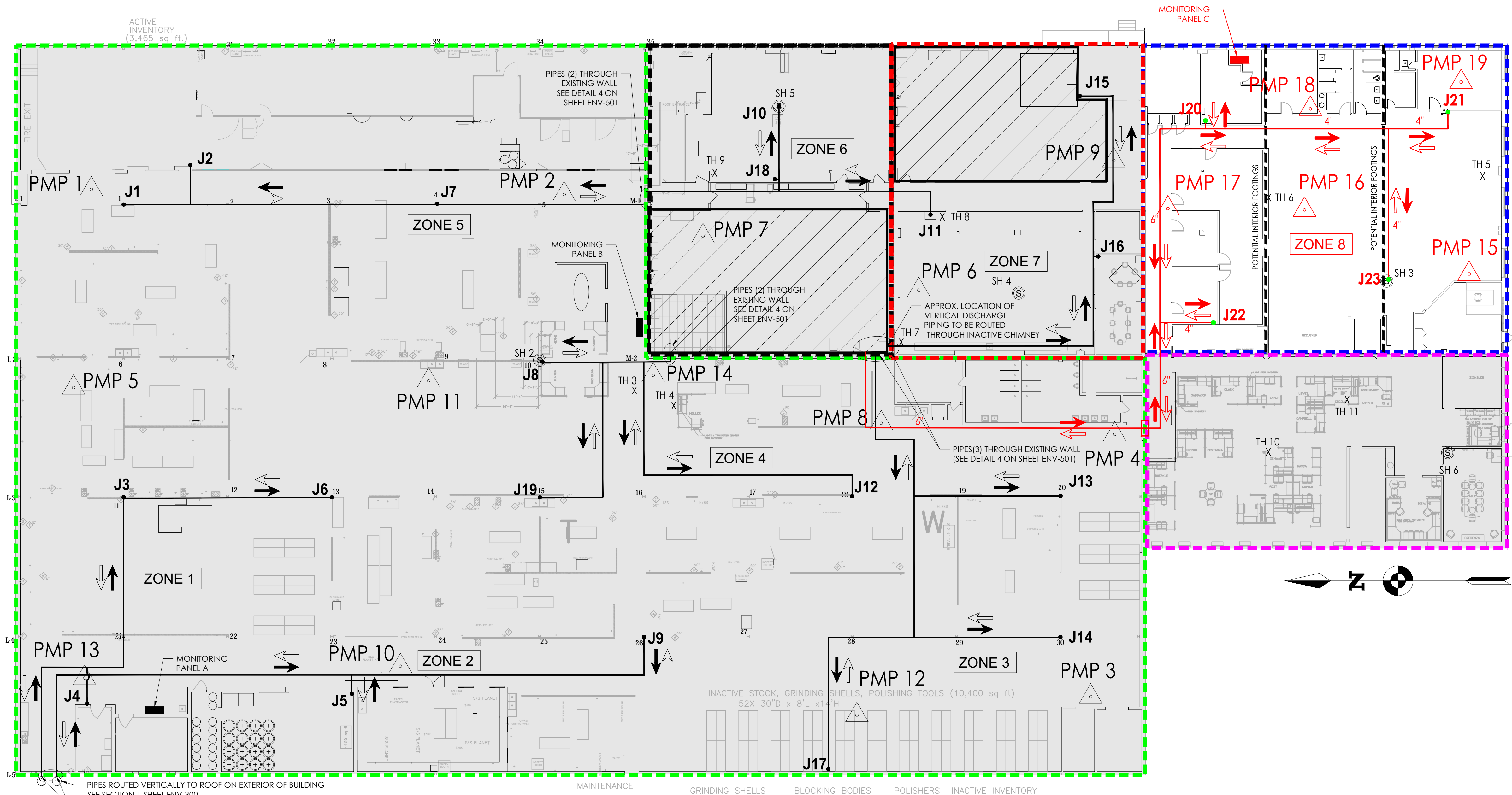
820 LINDEN AVE., PITTSFORD, NY

Title
SUB-SLAB DEPRESSURIZATION SYSTEM
COVERAGE PLAN (ZONE 8)
(SOUTHERN TENANT SPACE)

Project No.	Scale	
190500898	1/16"=1'-0"	
Drawing No.	Sheet	Revision

ENV-100A 2 OF 8

NORTHERN
TENANT



BUILDING ADDITION CONSTRUCTION DATE KEY

- 1954* (SSDS INSTALLED IN IRM 3)
- 1956* (SSDS INSTALLED IN IRM 1)
- 1958* (SSDS INSTALLED IN IRM 1)
- 1959* (NO ACTION)
- 1966* (SSDS INSTALLED IN IRM 1)

NOTE:

- NYSDOL ASBESTOS INSPECTOR TO OBSERVE AND SAMPLE BUILDING MATERIALS AS NEEDED.
- PREVIOUS PHASE WORK INDICATED <1% ASBESTOS IN WHITE CEILING BOARD. IT IS EXPECTED THAT PORTIONS OF PIPE RUN IN 1954 AND 1956 BUILDING SECTIONS WILL REQUIRE USE OF AN ASBESTOS ABATEMENT CONTRACTOR.

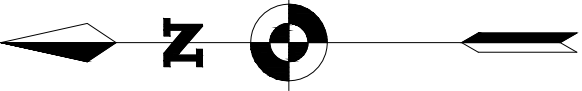
- AREA (ZONES 1-7) SSDS INSTALLED DURING IRM#1 CONSTRUCTION
- AREA (ZONES 8) SSDS INSTALLED DURING IRM# 3 CONSTRUCTION

NOTE:

- * REFER TO LEGEND

U:\190500898\05_report_cdd\dwg\design\CAD_figures\SSDS\cond\SYSTEM_EXTENSION\ZONE 8\ZONE 8 - ENV-102-SSDS - Discharge And Exhaust Locations - Southern Tenant Space.dwg
2020/04/10 11:17 PM By: Lest. And

ORIGINAL SHEET - ANSI D



Stantec
61 COMMERCIAL STREET SUITE 100
ROCHESTER, NY 14614
P. 585.475.1440

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Record Drawing
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Consultants

Legend

- AIR INTAKE STRUCTURE
- LOWER ELEVATION ROOF
- ROOF MOUNTED SOLAR PANELS
- AIR INTAKE BUFFER (AREA WITHIN 25 FEET OF OF AIR INTAKE EQUIPMENT)
- EXISTING ROOF TOP SUCTION PIPING (PVC) LOCATION
- OSHA FALL PROTECTION BOUNDARY (10 FOOT OFFSET FROM BUILDING EDGE)
- F1-F7 EXHAUST FAN AND VERTICAL PIPE STACK DISCHARGE LOCATION (ZONE 1-7)
- F8-F9 EXHAUST FAN AND VERTICAL PIPE STACK DISCHARGE LOCATION (ZONE 8)

Notes

- FIGURE DEVELOPED USING BASE BUILDING PLAN PROVIDED BY JML OPTICAL.
- SSDS TESTING WAS PERFORMED BY STANTEC AND MITIGATION TECHNOLOGIES ON 8-18-2017, 8-21-2017, AND 9-11-2017.

Revision	By	Appd.	YY.MM.DD
RECORD	APLAK	DH	20.04.16
SYSTEM EXTENSION-ZONE 8		AK,DH	19.07.30
Issued	By	Appd.	YY.MM.DD

ZONE 8 - ENV-102-SSDS - Discharge and Exhaust Locations - Southern Tenant Space.dwg			
File Name:	APL	DH	MB
	Dwn.	Chkd.	Dsgn.
			YY.MM.DD

Permit-Seal

RECORD DRAWING

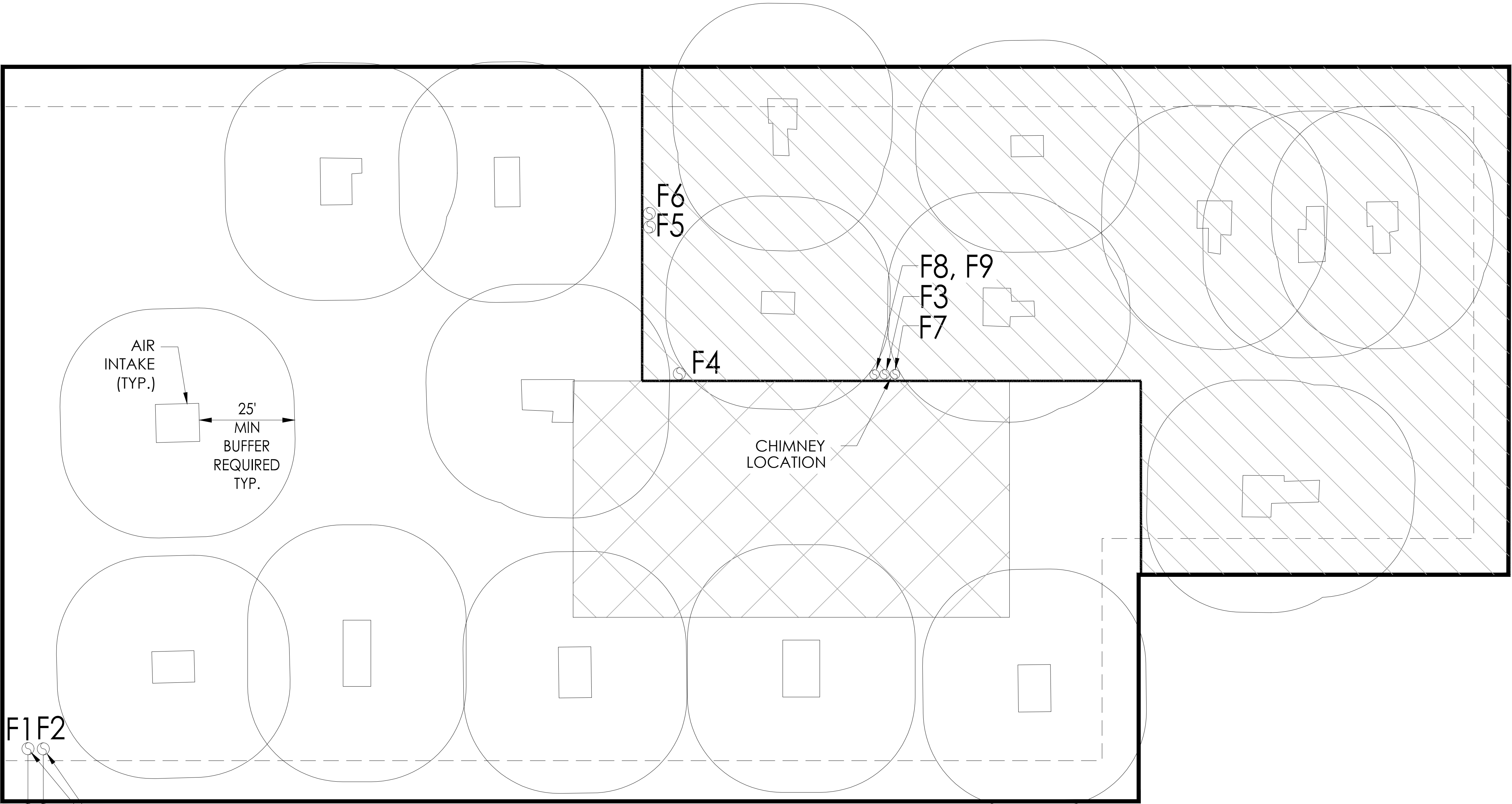
Client/Project

820 LINDEN AVE SITE
BROWNFIELD CLEANUP PROGRAM
SITE # C828200
820 LINDEN AVE., PITTSFORD, NY

Title
SUB-SLAB DEPRESSURIZATION SYSTEM
DISCHARGE AND EXHAUST LOCATION
(SOUTHERN TENANT SPACE)

Project No.	Scale	
90500898	1/16"=1'-0"	
Drawing No.	Sheet	Revision

ENV-102 4 OF 8



- (2) VERTICAL STACK PIPES ON ROOF OF BUILDING AFTER FANS TYPICAL ALL FAN LOCATION (SEE DETAILS 1 AND 2 SHEET 501)
- (2) VERTICAL PIPES ROUTED ON EXTERIOR WALL OF BUILDING (SEE SECTION SHEET ENV-300)

BUILDING ROOF PLAN - SOUTHERN TENANT SPACE
Scale : 1/16" = 1'-0"



Record Drawing

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Legend

Notes

Revision			
	By	Appd.	YY.MM.DD
RECORD	APLAK	DH	20.04.16
Issued	By	Appd.	YY.MM.DD

Record Drawing - ENV-300 - Typical Sub-Slab Depressurization System Section.dwg			
File Name:	APL	DH	M8
	Dwn.	Chkd.	Dsgn.
			18.07.31
			YY.MM.DD

Permit-Seal

RECORD DRAWING

Client/Project

820 LINDEN AVE SITE

BROWNFIELD CLEANUP PROGRAM
SITE # C828200

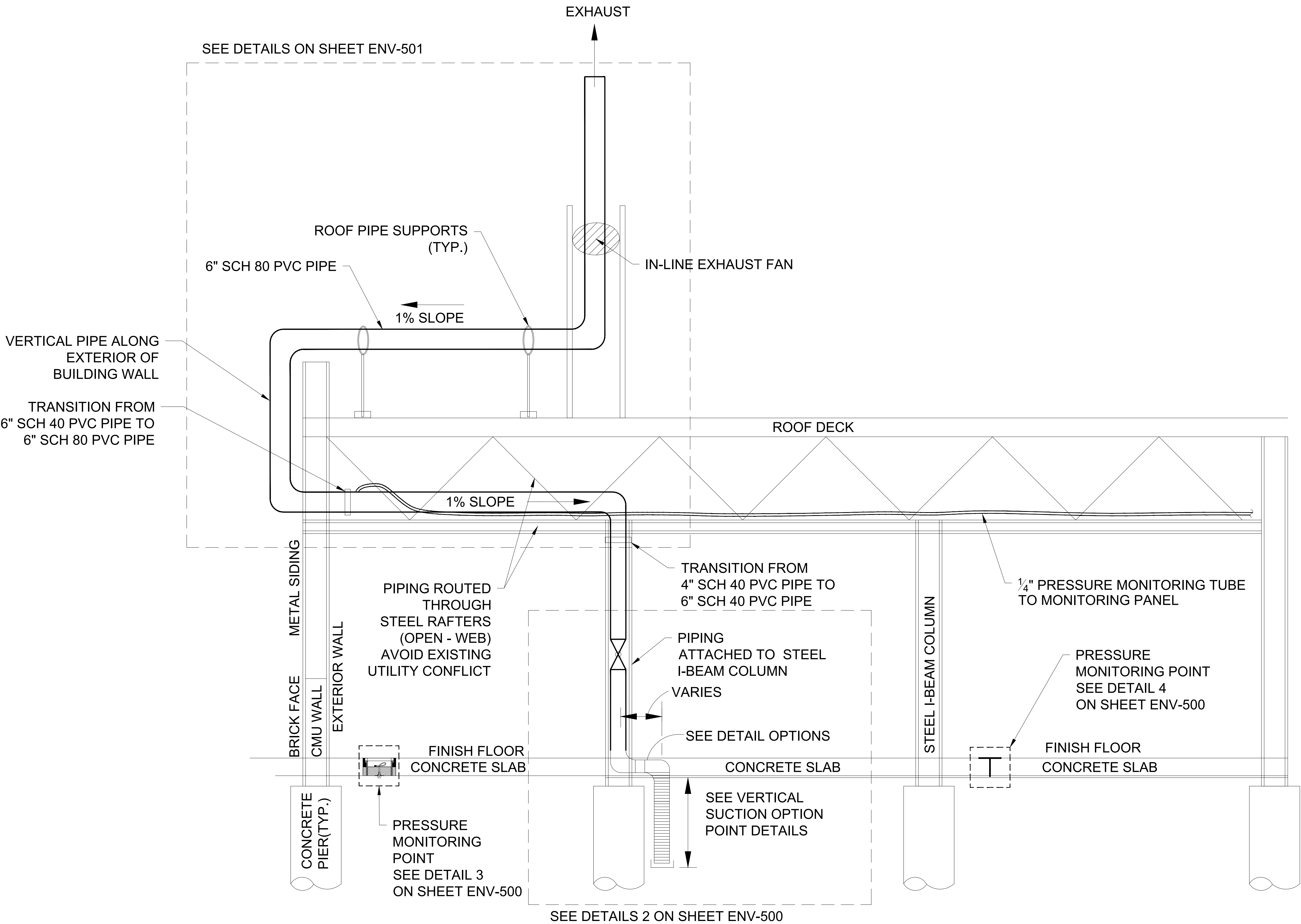
820 LINDEN AVE., PITTSFORD, NY

Title
SUB-SLAB DEPRESSURIZATION SYSTEM
SECTION
(SOUTHERN TENANT SPACE)

Project No. 190500898
Scale NOT TO SCALE

Drawing No. Sheet Revision

ENV-300 5 OF 8



TYPICAL INSTALLATION SECTION VIEW

1
ENV-300



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Notes

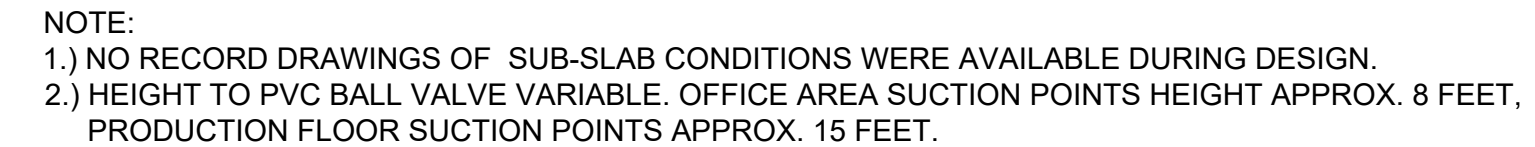
Permit-Seal

Client/Project

820 LINDEN AVE., PITTSFORD, NY

SUB-SLAB DEPRESSURIZATION SYSTEM
INTERIOR DETAILS
(SOUTHERN TENANT SPACE)

Drawing No.	Sheet	Revision
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1) ALL SOIL/FILL MATERIAL REMOVED FROM PRESSURE MONITORING POINT CAVITIES WAS STORED IN 55 GALLON DOT-APPROVED DRUMS, AND DISPOSED OF PROPERLY OFFSITE.

5 SUB-SLAB VACUUM
MONITORING PIN
COVER DETAIL
NOT TO SCALE



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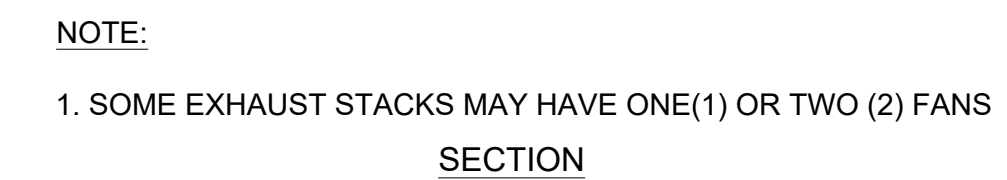
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Record Drawing ENV-501 – Exterior Details - Rev 2019.02.01.dwg				
File Name:	APL	DH	MB	18.07.31
	Dwn.	Chkd.	Dsgn.	YY.MM.DD

RECORD DRAWING

Title
SUB-SLAB DEPRESSURIZATION SYSTEM
EXTERIOR DETAILS
(SOUTHERN TENANT SPACE)

ENV-501 7 OF 8



INSTALLATION NOTES:

1. NYSDOOL LICENSED ASBESTOS INSPECTOR TO OBSERVE / SAMPLE BUILDING MATERIALS AS NEEDED.
2. CONTRACTOR TO USE LEAD SAFE WORK PRACTICES.
3. EXISTING ROOF MEMBRANE SHALL NOT BE DAMAGED.
4. ALL GALVANIZED METAL SHALL BE HOT-DIPPED.
5. TERMINATE STACK MIN. 10 FT FROM INVERT. ON FANS MOUNTED NEXT TO EACH OTHER TERMINATE STACK AT SAME ELEVATION AS OTHER STACK, MAINTAINING MIN. 10 FT. FROM INVERT.
6. ALL IN-LINE EXHAUST FANS TO BE INSTALLED WITH CONDENSATE BYPASS FROM MANUFACTURER.

INSTALLATION NOTES:

1. NYSDOL LICENSED ASBESTOS INSPECTOR TO OBSERVE / SAMPLE BUILDING MATERIALS AS NEEDED.
2. CONTRACTOR TO USE LEAD SAFE WORK PRACTICES.
3. EXISTING ROOF MEMBRANE SHALL NOT BE DAMAGED.
4. ALL GALVANIZED METAL SHALL BE HOT-DIPPED.
5. ALL IN-LINE EXHAUST FANS TO BE INSTALLED WITH CONDENSATE BYPASS PER MANUFACTURER.

3 TYPICAL CHIMNEY PENETRATION DETAIL
NO SCALE



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IN-LINE EXHAUST FAN

POINT OF MEASUREMENT FOR THE
MAGNETIC MODEL 2000 DIFFERENTIAL
PRESSURE GAUGE
(MOUNTED INSIDE DIFFERENTIAL PRESSURE
GAUGE/WARNING LIGHT BOX)

AIR FLOW

- 1.) ¾" TUBING SHALL NOT BE RUN THROUGH DUCT WORK.
- 2.) REFER TO DRAWINGS FOR CONNECTION OF ¾" TUBING TO DIFFERENTIAL PRESSURE GAUGE.
- 3.) ¾" TUBING TO BE POLYETHYLENE (PE) EATON SYNPLEX 1219FR OR APPROVED EQUAL.
- 4.) ¾" TUBING TO BE RUN THROUGH ROOF JOIST WEBBING IN A WIRE LOOM (PROTECTIVE SLEEVE), PROVIDE SCH 80 PVC ELECTRICAL CONDUIT ON EXTERIOR WALLS TO RUN TUBING IN AND CONNECT TO FLEXO.
- 5.) ALL PRESSURE MONITORING POINTS TO BE AT THE SUCTION SIDE OF THE IN-LINE EXHAUST FAN, MOUNTED INSIDE, JUST BELOW THE ROOF.

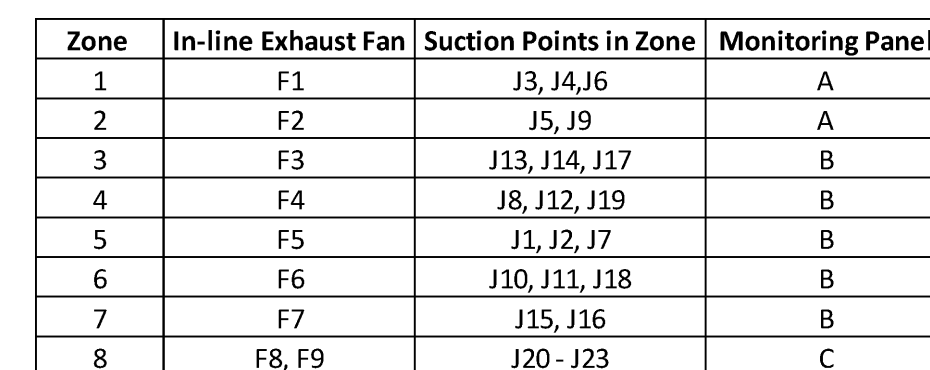
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	Dwn.	Chkd.	Dsgn.	YY.MM.DD

RECORD DRAWING

820 LINDEN AVE SITE
BROWNFIELD CLEANUP PROGRAM
SITE # C828200
820 LINDEN AVE., PITTSFORD, NY

Project No.	Scale
190500898	NOT TO SCALE

ENV-502 8 OF 8



NO SCALE

Appendix B 820 LINDEN AVENUE SUB-SLAB DEPRESSURIZATION SYSTEM MONTHLY MONITORING LOG

820 Linden Avenue Site (BCP Site #C828200)

Town of Pittsford, NY

SSDS Inspection Form



Date

Name

Company

Position

Complete?	Task	Notes
SSDS Inspection		
	Visual inspection of the equipment and piping	
	Identification and subsequent repair of any leaks	
	Inspection of exhaust points to verify that no air intakes have been located nearby	
	Audible operational status check of vent fans	
	Documentation of manifold settings and vacuum at each fan	
	Damper adjustments as required to balance parallel branches of system	
	Maintenance activities conducted	
	Any modifications to the system, are electrical panel schedules related to the SSDS fans up to date and accurate?	
Cover System (Concrete Floor Slab) Inspection		
	Visual inspection of the hard surface cover for evidence of deep cracks, potholes, cuts, depressions, and deterioration of joint seals and penetration seals	
	Identification of any areas where there is evidence of excessive settlement relative to the surrounding areas	
	Listening for audible indications of cracks in the cover system	

820 Linden Avenue Site (BCP Site #C828200)

Town of Pittsford, NY

SSDS Pressure Monitoring Form



Fan	Date	Approximate Time	Differential Pressure (inches of water column)
F1			
F2			
F3			
F4			
F5			
F6			
F7			
F8 & F9			

Weather conditions: _____

Is an air supply/heating system on: _____

Name and Position: _____

Company: _____

Appendix C 820 LINDEN AVENUE SUB-SLAB DEPRESSURIZATION SYSTEM ANNUAL MONITORING LOG

820 Linden Avenue Site (BCP Site #C828200)

Town of Pittsford, NY

SSDS Inspection Form



Date

Name

Company

Position

Complete?	Task	Notes
SSDS Inspection		
	Visual inspection of the equipment and piping	
	Identification and subsequent repair of any leaks	
	Inspection of exhaust points to verify that no air intakes have been located nearby	
	Audible operational status check of vent fans	
	Documentation of manifold settings and vacuum at each fan (7 total) and extraction point (19 total)	
	Documentation of sub-slab pressure at each permanent sub-slab pressure monitoring point (14 total)	
	Damper adjustments as required to balance parallel branches of system	
	Maintenance activities conducted	
	Any modifications to the system	
Cover System (Concrete Floor Slab) Inspection		
	Visual inspection of the hard surface cover for evidence of deep cracks, potholes, cuts, depressions, and deterioration of joint seals and penetration seals	
	Identification of any areas where there is evidence of excessive settlement relative to the surrounding areas	
	Listening for audible indications of cracks in the cover system	

820 Linden Avenue Site (BCP Site #C828200)

Town of Pittsford, NY

SSDS Pressure Monitoring Log



PMP	Date	Approximate Time	Differential Pressure (inches of water column)	Manometer Zeroed?
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				

Fan	SSDS Zone	Date	Approximate Time	Differential Pressure (inches of water column)
F1	1			
F2	2			
F3	3			
F4	4			
F5	5			
F6	6			
F7	7			
F8 & F9	8			

Suction Point (Riser)	SSDS Zone	Date	Approximate Time	Differential Pressure (inches of water column)	Manometer Zeroed?
J1	1				
J2	5				
J3	4				
J4	2				
J5	6				
J6	6				
J7	4				
J8	3				
J9	3				
J10	7				
J11	7				
J12	3				
J13	6				
J14	4				
J15	7				
J16	7				
J17	3				
J18	6				
J19	4				
J20	7				
J21	7				
J22	3				
J23	6				

Weather conditions: _____

Is an air supply/heating system on: _____

Name and Position: _____

Company: _____

Notes:

1) All sub-slab pressure readings are shown as differential pressure readings between the indoor air and the sub-slab void space. Values shown as negative values indicate that sub-slab pressure is lower than indoor air pressure.

Appendix D SSDS COMPONENTS CUT SHEETS, MANUFACTURER RECOMMENDATIONS AND WARRANTIES

[Home](#) → [RP265 Radon Fan Pro Series](#)



RP265 Radon Fan Pro Series

SKU: 28463

[Be the first to review this product](#)

We have just enhanced the performance of our popular RadonAway RP265 Pro Series radon fan (see below for details). The RP265 Pro Series fan installs white and stays white. It has a 6" duct and is chosen most often by radon professionals when there is a need for quiet efficiency coupled with more power and higher air flow. Made in the USA with U.S. and imported parts.

NOTE: New RP265 performance curves are shown below.



NOTICE

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RP265 Radon Fan Features:

- Stay-White™ housing
- Five-year limited warranty
- Quiet and attractive (Installs white, stays white)

Product Categories

Radon Fans	+
HRVs / ERVs	+
Radon System Components	+
Mitigation Tools & Diagnostic Aids	+
Sealing Products	+
Crawlspace Moisture and Radon Control	+
Sump Pumps & Accessories	+
Pipe Accessories	+
Radon System Accessories	+
Radon in Water Removal Systems	+
Radon Testing	+
Spruce Inline Ventilation	+
Canada Fulfillment	+
Air Purifiers	
New Products	New
Best Sellers	



1-2 day shipping in most of US
[Read more...](#)



Five year manufacturer's warranty on RadonAway fans



Free technical support for our customers



[Contact Us](#)



Thermally protected
 Water-hardened motorized impeller
 Seams sealed to inhibit radon leakage
 ETL Listed - for indoor or outdoor use
 Meets all electrical code requirements
 Rated for commercial and residential use

Additional Radon Fan Information:

[Downloadable Fan Specifications/Sales Sheet](#) (PDF format)

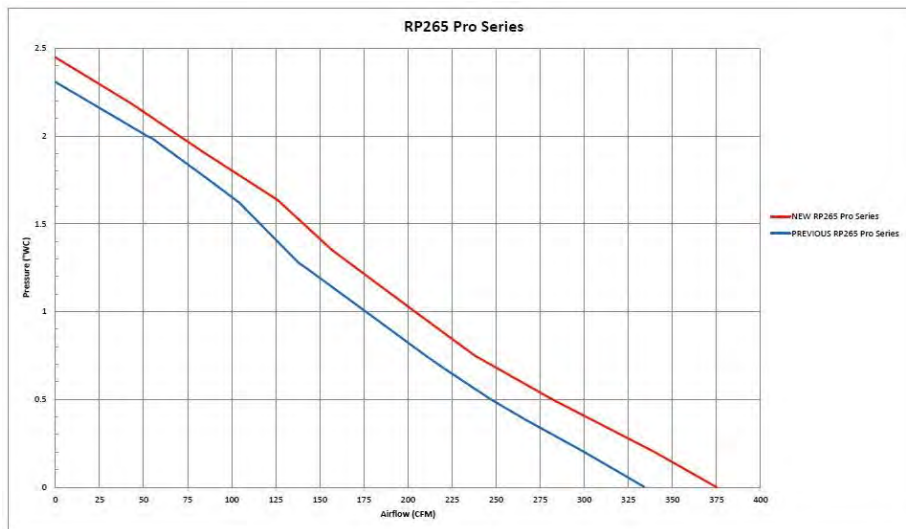
[Downloadable Fan Installation Instructions](#) (PDF format)

[Calculate your estimated annual electrical cost.](#)

Also available through our Canadian distribution location.



RP265 New Performance Curves



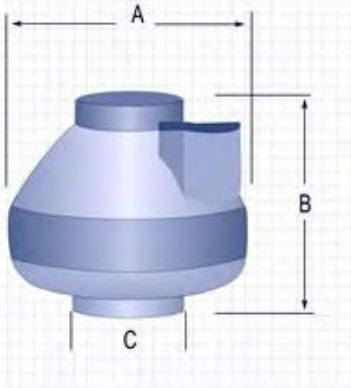
Model	P/N	Energy Star® Rated	Fan Duct Diameter	Watts	Recommended Max Operating Pressure "WC	Typical CFM vs. Static Pressure WC					RRNC Type1
						0"	.5"	1.0"	1.5"	2.0"	
RP140 Pro Series	28460	Yes	4"	15-21	0.7	135	70	-	-	-	RF1
RP145 Pro Series	28461	-	4"	41-72	1.7	166	126	82	41	3	RF1, RF2
RP260 Pro Series	28462	-	6"	47-65	1.3	251	157	70	-	-	-
RP265 Pro Series	28463	-	6"	95-139	2.3	375	282	204	140	70	-

Model	P/N	Energy Star® Rated	Fan Duct Diameter	Watts	Recommended Max Operating Pressure "WC	Typical CFM vs. Static Pressure WC					RRNC Type1
						0"	.5"	1.0"	1.5"	2.0"	
RP380 Pro Series	28208	-	8"	96- 138	2.0	531	415	268	139	41	-

1 Suitable as designated by the new Reducing Radon in New Construction Standard, RRNC 2.0. [Click here for details.](#)

Dimensions

Model	A	B	C
RP140 Pro	9.7"	8.5"	4.5"
RP145 Pro	9.7"	8.5"	4.5"
RP260 Pro	11.75"	8.6"	6"
RP265 Pro	11.75"	8.6"	6"
RP380 Pro	13.41"	10.53"	8"



Related

< >



RadonAway® Easy
Read Manometer -
BLUE
[Add to Wishlist](#)



RadonAway®
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6" x 6" Black
Coupling (Single)
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4" x 4.5" Black
Coupling (Single)
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Installation and Operation Manual Manuel d'installation et d'opération

Item #: 142001
Rev Date: 2019-07-19

Rn2EC / Rn4EC



Inline EC Radon Fan • Ventilateur pour radon en ligne EC

PARTS IN THE BOX (Rn2EC)

Inline Radon Fan Rn, 1 pc
Operation and Installation Manual, 1 pc

PIÈCES DANS LA BOÎTE (Rn2EC)

Ventilateur pour radon en ligne Rn, 1 pc
Manuel d'installation, 1 pc

PARTS IN THE BOX (Rn4EC)

Inline Radon Fan Rn, 1 pc
LDVI™ Couplings, 2 pcs
Operation and Installation Manual, 1 pc

PIÈCES DANS LA BOÎTE (Rn4EC)

Ventilateur pour radon en ligne Rn, 1 pc
Couplages LDVI™, 2 pcs
Manuel d'installation, 1 pc



Rn2EC



Rn4EC

REGISTER* THIS PRODUCT TO
INCREASE YOUR PRODUCT
WARRANTY BY AN EXTRA YEAR

registration.fantech.app



* in USA only

Technical / Customer Support:

Support technique et service à la clientèle

United States Tel.: 800.747.1762

Canada Tel.: 800.565.3548



fantech®
a systemair company

Note	Warning / Important note Avertissement / Note importante	Information	Technical information Information technique	Practical tip Conseil pratique



DO NOT CONNECT POWER SUPPLY until fan is completely installed.
Make sure electrical service to the fan is in the locked "OFF" position.

1. Fantech recommends installation of this product by a trained, licensed, certified mitigation professional. Incorrect installation will void any and all product warranties or liability. Verification of safe/acceptable radon levels after installation is required.

Check your local code restrictions for additional safety measures that may be needed for proper code compliant installation.

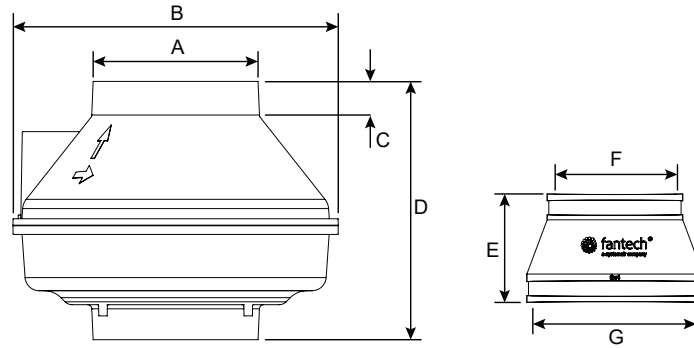
2. This fan has rotating parts and safety precaution should be exercised during installation, operation and maintenance.
3. **WARNING! TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK, OR INJURY TO PERSONS - OBSERVE THE FOLLOWING:**
 - a. Use this unit in the manner intended by the manufacturer. If you have any questions, contact your manufacturer's representative or contact us directly.
 - b. **CAUTION:** Before installation, servicing or cleaning unit, switch power off at service panel and lock the service disconnection means to prevent power from being switched on accidentally. When the service disconnection means cannot be locked, securely fasten a prominent warning device, such as tag, to the panel.
 - c. Installation work and electrical wiring must be done by qualified person(s) in accordance with all applicable codes and standards, including fire-rated construction.
 - d. The combustion airflow needed for safe operation of fuel burning equipment may be affected by this unit's operation. Follow the heating equipment manufacturer's guidelines and safety standards such as those published by the National Fire Protection Association (NFPA), the American Society of Heating, Refrigeration, and Air Conditioning Engineers (ASHRAE) and the local code authorities.
 - e. When cutting or drilling into wall and ceiling, do not damage electrical wiring and other hidden utilities.
 - f. Ducted fans must always be vented to the outdoors.
4. **WARNING!** Check voltage at the fan to see if it corresponds to the motor name plate.
5. For radon mitigation use only. **DO NOT** use to exhaust hazardous or explosive materials and vapors.
6. Do not use this fan with any solid state speed control device.

GUARDS MUST BE INSTALLED WHEN FAN IS WITHIN REACH OF PERSONNEL OR WITHIN SEVEN (7) FEET OF WORKING LEVEL OR WHEN DEEMED ADVISABLE FOR SAFETY.



The ducting from this fan to the outside of the building has a strong effect on the air flow, noise and energy use of the fan. Use the shortest, straightest duct routing possible for best performance, and avoid installing the fan with smaller ducts than recommended. Insulation around the ducts can reduce energy loss and inhibit mold growth. Fans installed with existing ducts may not achieve their rated air flow.

DIMENSIONS



Model/ Modèle	A	B	C	D	E	F	G
Rn2EC	4 15/32 (114)	10 (254)	1 1/4 (32)	9 1/4 (235)	-	-	-
Rn4EC-3	5 7/8 (149)	11 1/2 (292)	1 1/4 (32)	9 1/4 (235)	4 (102)	3 1/2 (89)	6 (152)
Rn4EC-4	5 7/8 (149)	11 1/2 (292)	1 1/4 (32)	9 1/4 (235)	4 (102)	4 1/2 (114)	6 (152)

Dimensions in inches (mm).
Dimensions en pouces (mm)

INSTALLATION

Rn2EC-3 & Rn4EC-3 are designed for use with 3" schedule 40 PVC pipe.
Rn2EC-4 & Rn4EC-4 are designed for use with 4" schedule 40 PVC pipe.

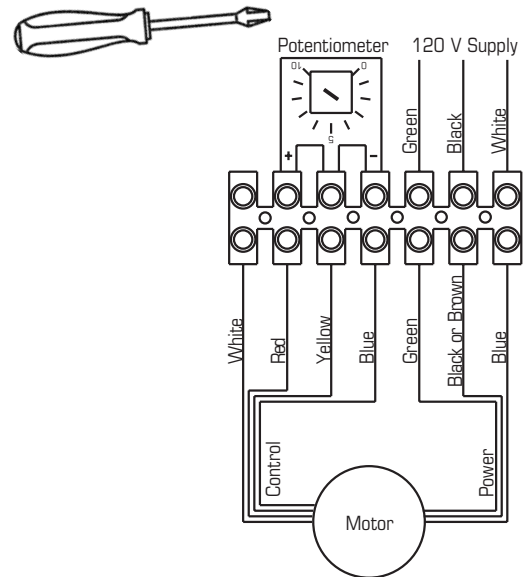
Prior to installation, the suction pipe should be terminated at the exterior wall. The suction pipe should be installed with slight incline to drain water from the fan.



WIRING DIAGRAM



To reduce fan speed use a small screwdriver and turn potentiometer knob counter clockwise



DO NOT connect fan directly to building structure

WARRANTY

Five (5) Year Warranty

This warranty supersedes all prior warranties

DURING ENTIRE WARRANTY PERIOD:

Fantech will repair or replace any part which has a factory defect in workmanship or material. Product may need to be returned to the Fantech factory, together with a copy of the bill of sale and identified with RMA number.

FOR FACTORY RETURN YOU MUST:

- Have a Return Materials Authorization (RMA) number. This may be obtained by calling Fantech either in the USA at 1.800.747.1762 or in CANADA at 1.800.565.3548. Please have bill of sale available.
- The RMA number must be clearly written on the outside of the carton, or the carton will be refused.
- All parts and/or product will be repaired/replaced and shipped back to buyer; no credit will be issued.

OR

The Distributor may place an order for the warranty part and/or product and is invoiced. The Distributor will receive a credit equal to the invoice only after product is returned prepaid and verified to be defective.

FANTECH WARRANTY TERMS DO NOT PROVIDE FOR REPLACEMENT WITHOUT CHARGE PRIOR TO INSPECTION FOR A DEFECT. REPLACEMENTS ISSUED IN ADVANCE OF DEFECT INSPECTION ARE INVOICED, AND CREDIT IS PENDING INSPECTION OF RETURNED MATERIAL. DEFECTIVE MATERIAL RETURNED BY END USERS SHOULD NOT BE REPLACED BY THE DISTRIBUTOR WITHOUT CHARGE TO THE

END USER, AS CREDIT TO DISTRIBUTOR'S ACCOUNT WILL BE PENDING INSPECTION AND VERIFICATION OF ACTUAL DEFECT BY FANTECH.

THE FOLLOWING WARRANTIES DO NOT APPLY:

- Damages from shipping, either concealed or visible. Claim must be filed with freight company.
- Damages resulting from improper wiring or installation.
- Damages or failure caused by acts of God, or resulting from improper consumer procedures, such as:
 1. Improper maintenance
 2. Misuse, abuse, abnormal use, or accident, and
 3. Incorrect electrical voltage or current.
- Removal or any alteration made on the Fantech label control number or date of manufacture.
- Any other warranty, expressed, implied or written, and to any consequential or incidental damages, loss or property, revenues, or profit, or costs of removal, installation or reinstallation, for any breach of warranty.

WARRANTY VALIDATION

- The user must keep a copy of the bill of sale to verify purchase date.
- These warranties give you specific legal rights, and are subject to an applicable consumer protection legislation. You may have additional rights which vary from state to state.

Limitation of Warranty and Liability






This warranty does not apply to any Fantech product or part which has failed as a result of faulty installation or abuse, incorrect electrical connections or alterations made by others, or use under abnormal operating conditions or misapplication of the product or parts. We will not approve for payment any repair not made by us or our authorized agent without prior written consent. The foregoing shall constitute our sole and exclusive warranty and our sole exclusive liability, and is in lieu of any other warranties, whether written, oral, implied or statutory. There are no warranties which extend beyond the description on the page hereof. In no event, whether as a result of breach of contract, or warranty or alleged

negligence, defect incorrect advice or other causes, shall Fantech be liable for special or consequential damages, including, but not limited to, loss of profits or revenue, loss of use of equipment or any other associated equipment, cost of capital, cost of substitute equipment, facilities or services, downtime costs, or claims of customers of purchase for such damages. Fantech neither assumes or authorizes any person to assume for it any other liability in connection with the sale of product(s) or part(s). Some jurisdictions do not allow the exclusion or limitation of incidental or consequential damages so the above limitations and exclusions may not apply to you.

Warning

Fantech products are designed and manufactured to provide reliable performance, but they are not guaranteed to be 100% free from defects. Even reliable products will experience occasional failures and this possibility should be recognized by the user. If these products are used in a

life support ventilation system where failure could result in loss or injury, the user should provide adequate backup ventilation, supplementary natural ventilation, failure alarm system, or acknowledge willingness to accept the risk of such loss or injury.

				
Note	Avertissement / Note importante	Information	Information technique	Conseil pratique



NE PAS BRANCHER À L'ALIMENTATION ÉLECTRIQUE avant l'installation complète du ventilateur.

Assurez-vous que l'alimentation électrique du ventilateur est en position hors tension verrouillée (OFF).

1. Fantech recommande l'installation de ce produit par un professionnel de l'atténuation formé, agréé et certifié. Une installation incorrecte entraînera l'annulation de toutes les garanties ou responsabilités du produit. La vérification des niveaux de radon sécuritaires / acceptables après l'installation est requise.
Vérifiez les restrictions de votre code local pour les mesures de sécurité supplémentaires qui peuvent être nécessaires pour une installation conforme au code approprié.
2. Ce ventilateur comporte des pièces rotatives; il est essentiel de faire preuve de prudence pendant l'installation, le fonctionnement et l'entretien.
3. **AVERTISSEMENT! POUR RÉDUIRE LE RISQUE D'INCENDIE, D'ÉLECTROCUTION OU DE BLESSURES, VEUILLEZ RESPECTER LES RÈGLES SUIVANTES :**
 - a. Utilisez cet appareil de la manière prévue par le fabricant. Si vous avez des questions, communiquez avec le représentant du fabricant ou directement avec nous.
 - b. **MISE EN GARDE :** Avant d'installer, de réparer ou de nettoyer l'appareil, coupez l'alimentation électrique au panneau de service et bloquez les dispositifs de sectionnement pour éviter que l'alimentation ne soit rétablie par accident. Si les dispositifs de sectionnement ne peuvent pas être bloqués, apposez une note d'avertissement bien visible, comme une étiquette, sur le panneau de service.
 - c. Tous les travaux relatifs à l'installation et aux fils électriques devraient être effectués par un technicien qualifié, conformément aux normes et aux règlements en vigueur, y compris les travaux de construction classés résistants au feu.
 - d. Le fonctionnement de cet appareil pourrait modifier la circulation d'air de combustion nécessaire au fonctionnement sécuritaire des appareils de combustion. Suivez les consignes du fabricant pour les appareils de chauffage et respectez les normes de sécurité comme celles établies par la National Fire Protection Association (NFPA), la American Society for Heating, Refrigeration and Air Conditioning Engineers (ASHRAE) ainsi que les codes des autorités locales.
 - e. Lorsque vous coupez ou percez un mur ou un plafond pour l'installation de l'appareil, assurez-vous de ne pas endommager le câblage électrique et les autres services publics cachés.
 - f. Les conduits d'air des ventilateurs doivent toujours être éventés à l'extérieur.
4. **AVERTISSEMENT!** Vérifiez la tension du ventilateur pour confirmer qu'elle correspond à celle inscrite sur la plaque signalétique du moteur.
5. Uniquement pour la mise en oeuvre de mesures d'atténuation du radon. **NE PAS** utiliser pour évacuer des vapeurs ou des substances dangereuses ou explosives.
6. Ne pas utiliser cet appareil avec une commande de vitesse à semiconducteurs.

DES DISPOSITIFS PROTECTEURS DOIVENT ÊTRE INSTALLÉS SI LE VENTILATEUR SE TROUVE À PORTÉE DE MEMBRES DU PERSONNEL OU À SEPT (7) PIEDS OU MOINS DU NIVEAU DE FONCTIONNEMENT OU LORSQU'ILS SONT JUGÉS NÉCESSAIRES POUR DES RAISONS DE SÉCURITÉ



Le conduit de raccordement de ce ventilateur avec l'extérieur de l'immeuble a un effet important sur le débit d'air, le bruit et la consommation d'énergie du ventilateur. Veuillez utiliser le conduit le plus court et le plus droit possible pour obtenir un rendement optimal, et évitez d'installer des conduits plus petits que ceux recommandés pour le ventilateur. L'isolation autour des conduits peut réduire les pertes d'énergie et empêcher la moisissure. Les ventilateurs installés avec des conduits existants pourraient ne pas offrir le débit d'air nominal.

INSTALLATION

Le modèle Rn2EC-3 & Rn4EC-3 est conçu pour un usage avec des conduits de PVC de série 40 de 3 po.

Le modèle Rn2EC-4 & Rn4EC-4 est conçu pour un usage avec des conduits de PVC de série 40 de 4 po.

Avant l'installation, il faut prévoir une sortie pour le tuyau d'aspiration sur un mur extérieur. Le tuyau d'aspiration devrait être installé avec une pente légère pour drainer l'eau du ventilateur.

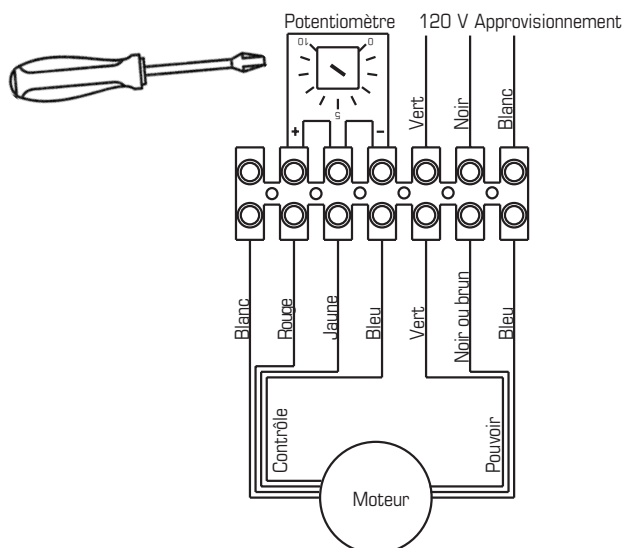


NE PAS attacher le ventilateur directement dans la structure du bâtiment.

SCHÉMA ÉLECTRIQUE



Pour réduire la vitesse du ventilateur, utilisez un petit tournevis et tournez le bouton du potentiomètre dans le sens inverse des aiguilles d'une montre.



GARANTIE

Garantie de 5 ans

Cette garantie remplace toutes les garanties précédentes.

DURANT TOUTE LA PÉRIODE DE GARANTIE:

Fantech s'engage à réparer ou à remplacer toute pièce présentant un défaut d'usine en matière de qualité d'exécution ou de matériau. Il sera peut être nécessaire de retourner le produit à l'usine Fantech, accompagné d'une copie du contrat de vente et du numéro d'autorisation de retour.

POUR RETOURNER UN PRODUIT À L'USINE, VOUS DEVEZ:

- Obtenir un numéro d'autorisation de retour; pour ce faire, communiquer avec Fantech aux États-Unis au numéro 1.800.747.1762, ou au Canada, au numéro 1.800.565.3548. Veuillez avoir votre contrat de vente à portée de la main.
- S'assurer que le numéro d'autorisation de retour est lisible sur l'extérieur de la boîte, sinon la boîte sera refusée.
- Toutes les pièces et/ou le produit seront réparés ou remplacés puis retournés à l'acheteur. Aucun crédit ne sera accordé.

OU

Le Distributeur peut commander une pièce ou un produit couvert par la garantie; la facture lui sera envoyée. Le distributeur ne sera crédité du montant de sa facture qu'après que le produit a été retourné port payé et qu'il a été trouvé défectueux.

LES TERMES DE LA GARANTIE DE Fantech NE PRÉVOIENT PAS DE REMPLACEMENT SANS FRAIS AVANT QUE LA PIÈCE OU LE PRODUIT DÉFECTUEUX AIT ÉTÉ INSPECTÉ. LES PRODUITS OU PIÈCES REMPLACÉS AVANT L'INSPECTION DE LA DÉFECTUOSITÉ SERONT FACTURÉS ET LE MONTANT DU CRÉDIT EST FONCTION DE L'INSPECTION DE LA PIÈCE OU DU PRODUIT RETOURNÉ. LE DISTRIBUTEUR NE DOIT PAS REMPLACER SANS FRAIS POUR

L'UTILISATEUR FINAL L'ÉQUIPEMENT DÉFECTUEUX RETOURNÉ PAR L'UTILISATEUR FINAL, CAR LE COMPTE DU DISTRIBUTEUR NE SERA CRÉDITÉ QU'APRÈS L'INSPECTION ET LA VÉRIFICATION PAR FANTECH DE LA DÉFECTUOSITÉ.

LES GARANTIES NE S'APPLIQUENT PAS DANS LES CAS SUIVANTS:

- Dommages dus au transport (dissimulés ou visibles). Les réclamations doivent être faites à la compagnie de fret.
- Dommages dus au mauvais câblage ou à l'installation inappropriée.
- Dommages ou défectuosité causés par une calamité naturelle ou résultant d'une procédure irrégulière de l'acheteur, notamment :
 1. Entretien irrégulier
 2. Mauvais usage, usage abusif, usage anormal ou accident
 3. Tension ou courant électrique incorrect
- Enlèvement ou toute modification du numéro de contrôle ou de la date de fabrication de l'étiquette Fantech
- Toute autre garantie expresse, écrite ou implicite, pour les dommages accidentels ou indirects, perte de biens, de recettes, manque à gagner ou coûts relatifs à la dépose, à l'installation ou à la réinstallation, en cas de violation de garantie.

CERTIFICATION DE LA GARANTIE:

- L'utilisateur doit conserver une copie du contrat de vente pour confirmer la date d'achat.
- Les présentes garanties vous donnent des droits spécifiques reconnus par la loi et sont régies par les lois sur la protection du consommateur appropriées. Il est possible que différents états offrent d'autres droits.

Limites de garanties et de responsabilités

Cette garantie ne s'applique à aucun produit de Fantech ou à aucune pièce détachée dont la défectuosité relève d'une erreur d'installation ou d'abus ou de mauvaise installation électrique ou dut à des modifications extérieures ou utilisées dans des conditions anormales ou encore une mauvaise installation du produit ou des pièces détachées. Nous n'approuverons aucun remboursement pour des réparations qui ne sont pas effectuées par un agent américain ou un agent autorisé sans un accord écrit. Ce dernier constituera notre seule et exclusive garantie et notre seule exclusive responsabilité et tient lieu de toute autre garantie ou bien écrite ou orale implicite ou statuaire. Aucune garantie ne s'appliquera au-delà des descriptions faites de la page ci-dessus. En aucun cas, que ce soit pour une rupture de contrat ou de garanties ou

des dommages dus à la négligence ou à des conseils incorrects ou autres causes, Fantech ne pourra être tenu pour responsable des dommages particuliers ou consécutifs, incluant mais pas limités aux pertes et profits ou bénéfices perte de matériel ou autres matériels associés. Coût du capital, coût des équipements de remplacement, matériels ou services, coût de temps d'arrêt ou les réclamations des clients pour de tels dommages. Fantech ne délègue ou autorise aucune personne d'assumer sa responsabilité sur la vente du produit ou des pièces détachées. Certaines juridictions ne permettent pas l'exclusion de la limitation des dommages accidentels ou consécutifs ainsi ces limitations ci-dessus et les exclusions ne s'appliquent pas à vous.

Avertissement

Les produits de Fantech sont conçus et fabriqués pour produire des performances fiables, mais il n'y a aucune garantie qu'ils soient 100% sans défaut. Les plus produits les plus fiables ont occasionnellement des défectuosités et cette possibilité devraient être reconnu par les usagers. Si ces produits sont utilisés comme une source de ventilation ou leur panne risque de mettre en danger des vies humaines ou entraîner des

blessures, les usagers devront avoir une source de ventilation de secours en addition à une ventilation naturelle, le défaut de système d'alarme ou la connaissance de ces conditions entraînent sa responsabilité envers de telles pertes ou blessures.

Fantech reserves the right to make technical changes.
For updated documentation please refer to www.fantech.net

Fantech se réserve le droit de faire des changements techniques. Pour de la documentation à jour, s'il vous plaît se référer au www.fantech.net

Fantech®



INSTALLATION & OPERATING INSTRUCTIONS
Instruction P/N IN015 Rev E
FOR CHECKPOINT IIa™ P/N 28001-2 & 28001-3
RADON SYSTEM ALARM

INSTALLATION INSTRUCTIONS
(WALL MOUNTING)

Select a suitable wall location near a vertical section of the suction pipe. The unit should be mounted about four or five feet above the floor and as close to the suction pipe as possible. Keep in mind that with the plug-in transformer provided, the unit must also be within six feet of a 120V receptacle. **NOTE: The Checkpoint IIa is calibrated for vertical mounting, horizontal mounting will affect switchpoint calibration.**

Drill two 1/4" holes 4" apart horizontally where the unit is to be mounted.

Install the two 1/4" wall anchors provided.

Hang the CHECKPOINT IIa from the two mounting holes located on the mounting bracket. Tighten the mounting screws so the unit fits snugly and securely against the wall.

Drill a 5/16" hole into the side of the vent pipe about 6" higher than the top of the unit.

Insert the vinyl tubing provided about 1" inside the suction pipe.

Cut a suitable length of vinyl tubing and attach it to the pressure switch connector on the CHECKPOINT IIa.

CALIBRATION AND OPERATION.

The CHECKPOINT IIa units are calibrated and sealed at the factory to alarm when the vacuum pressure falls below the factory setting and should not normally require field calibration. Factory Settings are:

28001-2 -.25" WC Vacuum

28001-3 -.10" WC Vacuum

To Verify Operation:

With the exhaust fan off or the pressure tubing disconnected and the CHECKPOINT IIa plugged in, both the red indicator light and the audible alarm should be on.

Turn the fan system on or connect the pressure tubing to the fan piping. The red light and the audible alarm should go off. The green light should come on.

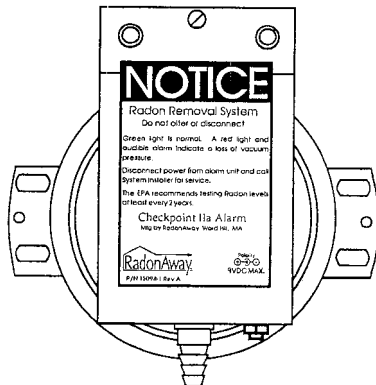
Now turn the fan off. The red light and audible alarm should come on in about two or three seconds and the green light should go out.

WARRANTY INFORMATION

Subject to applicable consumer protection legislation, RadonAway warrants that the CHECKPOINT IIa will be free from defective material and workmanship for a period of (1) year from the date of purchase. Warranty is contingent on installation in accordance with the instructions provided. This warranty does not apply where repairs or alterations have been made or attempted by others; or the unit has been abused or misused. Warranty does not include damage in shipment unless the damage is due to the negligence of RadonAway. All other warranties, expressed or written, are not valid. To make a claim under these limited warranties, you must return the defective item to RadonAway with a copy of the purchase receipt. RadonAway is not responsible for installation or removal cost associated with this warranty. In no case is RadonAway liable beyond the repair or replacement of the defective product FOB RadonAway.

THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF. THERE IS NO WARRANTY OF MERCHANTABILITY. ALL OTHER WARRANTIES, EXPRESSED OR WRITTEN, ARE NOT VALID.

For service under these warranties, contact RadonAway for a Return Material Authorization (RMA) number and shipping information. **No returns can be accepted without an RMA.** If factory return is required, the customer assumes all shipping costs to and from factory.



Manufactured by:
RadonAway
Ward Hill, MA
(978)-521-3703

INSTALLS WHITE, STAYS WHITE

Radon Mitigation Fan

All RadonAway® fans are specifically designed for radon mitigation. RP Series Fans provide superb performance, run ultra-quiet and are attractive. They are ideal for most sub-slab radon mitigation systems.

Features

- NEW Stay-White™ housing
- Energy efficient
- RP140 - ENERGY STAR Most Efficient 2018
- Ultra-quiet operation
- Meets all electrical code requirements
- Water-hardened motorized impeller
- Seams sealed to inhibit radon leakage (RP140 & RP145 double snap sealed)
- ETL Listed - for indoor or outdoor use
- Thermally protected motor
- Rated for commercial and residential use



MODEL	P/N	FAN DUCT DIAMETER	WATTS	RECOM. MAX. OP. PRESSURE "WC	TYPICAL CFM vs. STATIC PRESSURE WC				
					0"	.5"	1.0"	1.5"	2.0"
RP140	28460	4"	15-21	0.7	135	70	-	-	-
RP145	28461	4"	41-72	1.7	166	126	82	41	3
RP260	28462	6"	47-65	1.3	251	157	70	-	-
RP265	28463	6"	95-139	2.3	375	282	204	140	70
RP380*	28208	8"	96-138	2.0	531	415	268	139	41

*Currently not stay-white material.



with U.S. and imported parts.



ETL Listed



All RadonAway® inline radon fans are covered by our 5-year, hassle-free warranty.



Model	A	B	C
RP140	4.5"	9.7"	8.5"
RP145	4.5"	9.7"	8.5"
RP260	6"	11.75"	8.6"
RP265	6"	11.75"	8.6"
RP380	8"	13.41"	10.53"

For Further Information, Contact Your Radon Professional

**SITE MANAGEMENT PLAN
820 LINDEN AVE BCP SITE #C828200
PITTSFORD, NY**

Appendix H

Quality Assurance Project Plan

**Quality Assurance Project Plan
Site Management Plan
820 Linden Ave Brownfield Cleanup
Program Site #C828200**
820 Linden Avenue
Pittsford, Monroe County, New York

Prepared for:
New York State Department of
Environmental Conservation
6274 Avon-Lima Road
Avon, New York 14414

Prepared on behalf of:
Ridgecrest Associates
135 Orchard Park BV
Rochester, New York 14609

Prepared by:
Stantec Consulting Services Inc.
61 Commercial Street, Suite 100
Rochester, New York 14614



September 2020

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**QUALITY ASSURANCE PROJECT PLAN
SITE MANAGEMENT PLAN
820 LINDEN AVENUE
PITTSFORD, MONROE COUNTY, NEW YORK**

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Abbreviations

APR	air purifying respirators
ASP	Analytical Services Protocol
ASTM	American Society for Testing and Materials
CLP	Contract Laboratory Program
DUSR	Data Usability Summary Report
EDD	electronic data deliverable
ELAP	Environmental Laboratory Accreditation Program
GC	gas chromatography
GC-MS	gas chromatography-mass spectrometry
MS/MSD	Matrix Spike/Matrix Spike Duplicates
NIST	National Institute of Standards and Technology
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
PM	Project Manager
PRR	Periodic Review Report
QA	Quality Assurance
QC	Quality Control
QA/QC	Quality Assurance/Quality Control
QAPP	Quality Assurance Project Plan
RPD	relative percent difference
SMP	Site Management Plan
USDOT	United States Department of Transportation
USEPA	United States Environmental Protection Agency

**QUALITY ASSURANCE PROJECT PLAN
SITE MANAGEMENT PLAN
820 LINDEN AVENUE
PITTSFORD, MONROE COUNTY, NEW YORK**

Introduction

1.0 INTRODUCTION

This Quality Assurance Project Plan (QAPP) is to be used in conjunction with the Site Management Plan (SMP) for 820 Linden Avenue in Pittsford, Monroe County, New York (the "Site"; see Figure 1). This QAPP presents the policies, organization, objectives, functional activities, and specific quality assurance and quality control activities to ensure the validity of data generated in the completion of the investigation. The purpose of this QAPP program is to ensure that technical data generated are both accurate and representative.

Quality assurance (QA) is a management system for ensuring that information, data, and decisions resulting from investigation and environmental monitoring programs are technically sound, and properly documented. Quality control (QC) is the functional mechanism through which quality assurance achieves its goals. Quality control programs, for example, define the frequency and methods of checks, audits, and reviews necessary to identify problems and dictate corrective actions to resolve these problems, thus ensuring high quality data. As such, a quality assurance and quality control program pertains to data collection, evaluation, and review activities which are part of the investigation.

Quality assurance and quality control (QA/QC) procedures will be in accordance with applicable professional technical standards, government regulations and guidelines, and specific project goals and requirements. This QAPP has been prepared in accordance with New York State Department of Environmental Conservation (NYSDEC) and United States Environmental Protection Agency (USEPA) Region II guidance documents.

The QAPP incorporates the following activities:

- Sample collection, control, chain-of-custody, and analysis;
- Document control;
- Laboratory instrumentation, analysis, and control; and
- Review of project reports.

Laboratory analysis of project samples will be performed by a laboratory with the experience and certifications appropriate to the analyses to be performed. Analyses will be performed by laboratories accredited pursuant to the New York State Department of Health (NYSDOH) Environmental Laboratory Accreditation Program (ELAP) for the category of parameters to be analyzed by the laboratory. Eurofins TestAmerica Laboratories, Inc. (TestAmerica) was utilized for the investigation and remedial work performed by Stantec, and is anticipated to be used, as needed, in the future. However, another lab may be used as long as they are NYSDOH ELAP-accredited.



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Project Description

Duplicates, replicates, and spiked samples will be used to identify the quality of the analytical data. Field audits may be conducted to verify that proper sampling techniques and chain-of-custody procedures are followed. Field data compilation, tabulation, and analysis will be checked for accuracy. Calculations and other post-field tasks will be reviewed by senior project personnel. Equipment used to take field measurements will be maintained and calibrated in accordance with established procedures. Records of calibration and maintenance will be kept by assigned personnel. Field testing and data acquisition will be performed following guidelines as described herein.

Document control procedures will be used to coordinate the distribution, coding, storage, retrieval, and review of data collected during sampling tasks.

A Data Usability Summary Report (DUSR) will be prepared for analytical results from each sampling and/or monitoring activity, with the exception of sampling data utilized for screening, waste characterization, and survey purposes only. The DUSR will be prepared by an independent consultant with the required experience, in accordance with NYSDEC's "Guidance for the Development of Data Usability Summary Reports," revised 1997 and NYSDEC's DER-10 "Technical Guidance for Site Investigation and Remediation," May 2010 (DER-10).

2.0 PROJECT DESCRIPTION

This QAPP pertains to the completion of field activities and subsequent laboratory and data analysis associated with Site Management of 820 Linden Avenue in Pittsford, NY. A description of the Site is presented in the SMP to which this QAPP is attached as an appendix. The SMP also describes the previous environmental investigations performed at the Site.

3.0 PROJECT ORGANIZATION AND RESPONSIBILITY

This QAPP provides for designated qualified personnel to review products and provide guidance on QA matters. This QAPP also outlines the approach to be followed to ensure that products of sufficient quality are obtained. This structure will provide for direct and constant operational responsibility, clear lines of authority, and the integration of QA activities. The QA-related functions of the project positions are as follows:

Project Manager

The project manager (PM) will have overall responsibility for ensuring that the project meets the objectives and quality standards as presented in the SMP and this QAPP. The PM will be responsible for implementing the project and will have the authority to commit the resources necessary to meet project objectives and requirements. The PM's primary function is to ensure



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Project Organization and Responsibility

that technical, financial, and scheduling objectives are achieved successfully. The project manager will provide the major point of contact and control for matters concerning the project. In addition, the PM will be responsible for technical quality control and project oversight.

Team Leaders

The project manager will be supported by a team leader or leaders who will be responsible for leading and coordinating the day-to-day activities of the various resource specialists under their supervision. The team leader is a highly experienced environmental professional who will report directly to the project manager.

Technical Staff

The technical staff (team members) for this project will be drawn from corporate resources and appropriately qualified subcontractors. The technical staff will be used to gather and analyze data, and to prepare various task reports and support materials. The designated team members will be experienced professionals who possess the degree of specialization and technical competence required to effectively and efficiently perform the required work.

Project QA Director

The Project QA Director will be responsible for maintaining QA for the project.

Laboratory Director

The laboratory director will be responsible for analytical work and works in conjunction with the QA unit. The laboratory director maintains liaison with the QA officer regarding QA and custody requirements.

Laboratory Manager

The laboratory manager will maintain liaison with the laboratory director regarding QA elements of specific sample analyses tasks. The laboratory manager will report to the laboratory director and work in conjunction with the laboratory QA unit.

Laboratory QA Coordinator

The laboratory QA coordinator will be responsible for overseeing the QA program within the laboratory and for maintaining QC documentation. The laboratory QA coordinator reports directly to the laboratory director.

Laboratory Staff

Each member of the laboratory staff will perform an assigned QA or analytical function that is pertinent to and within the scope of his or her knowledge, experience, training, and aptitude.



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QA Objectives for Data Measurement

An individual will be assigned the responsibility for checking, reviewing, or otherwise verifying that a sample analysis activity has been correctly performed.

Laboratory Facilities

Laboratory work will be performed in accordance with guidelines established by NYSDEC, NYSDOH, USEPA, and/or the American Society for Testing and Materials (ASTM). In case of conflict, these guidelines and protocols will be considered in the order shown (i.e., NYSDEC criteria is of primary precedence). In addition, QA/QC programs will be maintained for the instruments and the analytical procedures used. TestAmerica is a NYSDOH ELAP certified laboratory capable of providing NYSDEC Analytical Services Protocol (ASP) Category B deliverables and is anticipated to provide laboratory services for this project. However, any lab accredited pursuant to NYSDOH ELAP is eligible.

With the exception of data collected solely for screening, waste characterization, and survey purposes, data will be reported with a NYSDEC ASP Category B deliverable. Laboratory preventative maintenance procedures are provided and outlined in their Laboratory Quality Assurance Manual (available upon request).

4.0 QA OBJECTIVES FOR DATA MEASUREMENT

Measurements will be made to ensure that analytical results are representative of the media and conditions measured. Unless otherwise specified, data will be calculated and reported in units consistent with other organizations who report similar data to allow comparability of databases among organizations.

4.1 KEY CONSIDERATIONS

The key considerations for the QA assessment of generated data are accuracy, precision, completeness, representativeness, and comparability. These characteristics are defined below:

Accuracy: Accuracy is the degree of agreement of a measurement or average of measurements with an accepted reference or "true" value and is a measure of bias in the system.

Precision: Precision is the degree of mutual agreement among individual measurements of a given parameter.

Completeness: Completeness is a measure of the amount of valid data obtained from a measurement system compared to the amount expected to be obtained under correct normal conditions.



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Sampling Procedures

Representativeness: Representativeness expresses the degree to which data accurately and precisely represent a characteristic of a population, parameter variations at a sampling point, a process condition, or an environmental condition.

Comparability: Comparability expresses the confidence with which one data set can be compared to another.

Refer to Section 13.0 for additional detail regarding the metrics listed above.

4.2 GOALS

The QA/QC goals will focus on controlling measurement error within the limits established and will ultimately provide a database for estimating the actual uncertainty in the measurement data.

Target values for detection limit, percent spike recovery and percent "true" value of known check standards, and relative percent difference (RPD) of duplicates/replicates are provided in the referenced analytical procedures. It should be noted that target values are not always attainable. Instances may arise where high sample concentrations, non-homogeneity of samples, or matrix interferences preclude achievement of target detection limits or other quality control criteria. In such instances, the laboratory will report reasons for deviations from these detection limits or noncompliance with quality control criteria.

5.0 SAMPLING PROCEDURES

The sampling of various environmental media may be completed as part of Site Management activities, as described in the SMP.

5.1 SAMPLING PROGRAM

The sample containers, preservation, and holding times that will be used are identified in Table 1. The sample containers will be labeled in accordance with Section 6.2. Sample handling, packaging and shipping procedures are presented in Section 6.3.

5.2 FIELD QUALITY CONTROL SAMPLES

Field quality control samples will consist of trip blanks, rinsate blanks, field duplicates, matrix spikes/matrix spike duplicates (MS/MSD), as shown on Table 2.

Sampling Procedures

5.2.1 Trip Blanks

Trip blanks will be used to assess whether groundwater samples have been exposed to volatile constituents during sample storage and transport. The trip blanks will consist of a container filled by the laboratory with analyte-free water. The trip blanks will remain unopened throughout the sampling event and will only be analyzed for volatile organics. The trip blanks will be collected as shown in Table 2.

5.2.2 Rinsate Blanks

Rinsate blanks will be used to assess decontamination procedures for non-dedicated equipment. Rinsate blanks will be collected as shown in Table 2.

5.2.3 Field Duplicates

Field quality control samples will be collected to verify reproducibility of the sampling and analytical methods. Field duplicates will be obtained at a rate of one per 20 original field samples, as shown in Table 2.

5.2.4 Matrix Spike/Matrix Spike Duplicates

MS/MSDs will be obtained to determine if the matrix is interfering with the sample analysis. MS/MSDs will be collected at a rate of one per 20 original field samples, as shown on Table 2.

5.2.5 Laboratory Quality Control Checks

Internal laboratory quality control checks will be used to monitor data integrity. These checks include method (equipment) blanks, spike blanks, internal standards, surrogate samples, calibration standards, and reference standards.

5.3 SAMPLE CONTAINERS

The volumes and containers required for the sampling activities are included in Table 1. Pre-washed sample containers will be provided by the laboratory. All bottles are to be prepared in accordance with USEPA bottle washing procedures.

5.4 DECONTAMINATION

Dedicated and/or disposable sampling equipment will be used to the extent possible to minimize decontamination requirements and the possibility of cross-contamination.

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Sample Custody

Split spoon samplers, shovels, hand augers, and sediment samplers are examples of sampling equipment that could be used at more than one location. The water level indicator will be decontaminated between locations by using the following decontamination procedures:

- Initial cleaning of any foreign matter with paper towels, if needed;
- Low-phosphate detergent wash; and
- Distilled water rinse;

The non-dedicated samplers used for drilling and soil sampling in test borings will be decontaminated with a bucket wash consisting of a low-phosphate detergent wash followed by potable water rinse. During monitoring well installation, the drill rig, augers, rods, and other related downhole equipment will be decontaminated using high-pressure steam prior to initiating the soil boring program and between drilling locations. During test pit excavating, the excavator will be decontaminated using high-pressure steam. Steam cleaning will be performed in a designated onsite decontamination area. Throughout and after the cleaning processes, direct contact between the equipment and the ground surface will not be permitted. Decontamination waste water will be containerized for later characterization and disposal. The drill rig and associated equipment will also be cleaned upon completion of the investigation prior to departure from the site using the following methods:

- Initial cleaning of foreign matter; and
- Wash down with high-pressure wash.

5.5 LEVELS OF PROTECTION/SITE SAFETY

Sampling will be conducted under a written Health and Safety Plan (HASP). On the basis of air monitoring, the level of protection may be downgraded or upgraded at the discretion of the Site safety officer. Work will initially be conducted in Level D (refer to HASP, Appendix E of the SMP). Air purifying respirators (APRs) will be available if monitoring indicates an upgrade to Level C is appropriate. Crew members will stand upwind of open boreholes or wellheads during the collection of samples, when possible.

6.0 SAMPLE CUSTODY

This section describes standard operating procedures for sample identification and chain-of-custody to be used for field activities. The purpose of these procedures is to ensure that the quality of the samples is maintained during collection, transportation, storage, and analysis. Chain-of-custody requirements comply with standard operating procedures indicated in USEPA and NYSDEC sample-handling protocol.



Sample Custody

Sample identification documents must be carefully prepared so that sample identification and chain-of-custody can be maintained and sample disposition controlled. Sample identification documents include:

- Field sampling records (field notebook and/or field logs);
- Sample labels;
- Custody seals; and
- Chain-of-custody records.

6.1 CHAIN-OF-CUSTODY

The primary objective of the chain-of-custody procedures is to provide an accurate written or computerized record that can be used to trace the possession and handling of a sample from collection to completion of required analyses.

6.1.1 Sample Labels

Sample labels attached to, or affixed around, the sample container must be used to properly identify samples collected in the field. To the extent possible, the sample labels are to be placed on the bottles so as not to obscure any QA/QC lot numbers on the bottles. Sample information must be printed in a legible manner using waterproof ink. Field identification must be sufficient to enable cross-reference with the field sampling records or sample logbook. For chain-of-custody purposes, QC samples are subject to the same custodial procedures and documentation as original or parent samples.

6.1.2 Custody Seals

Custody seals are pre-printed adhesive-backed seals often with security slots which are designed to break if the seals are disturbed. Sample shipping containers (coolers, cardboard boxes, etc., as appropriate) are sealed in as many places as necessary to ensure security. Seals must be signed and dated before use. On receipt at the laboratory, the custodian must check (and certify, by completing logbook entries) that seals on shipping containers are intact. Strapping tape should be placed over the seals to ensure that seals on shipping containers are not accidentally broken during shipment.

6.1.3 Chain-Of-Custody Record

The chain-of-custody record must be completed at least in duplicate by the field personnel designated by the PM as being responsible for sample shipment to the appropriate laboratory for analysis. In addition, if samples are known to require rapid turnaround in the laboratory because of project time constraints or analytical concerns (e.g., extraction time or sample retention period limitations, etc.), the person completing the chain-of-custody record should

Sample Custody

note these constraints in the designated section of the custody record. The field personnel who shipped the samples will review the sample log-in information sent by the lab to confirm sample ID, sample date, sample time, required analyses, and turnaround time. If any discrepancies are identified, the individual will contact the laboratory to correct those inconsistencies.

6.1.4 Field Custody Procedures

The following field custody procedures will be implemented:

- As few parties as possible should handle samples.
- Sample bottles will be obtained pre-cleaned by the laboratory and shipped to the sampling personnel in charge of the field activities. Coolers or boxes containing cleaned bottles should be sealed with a custody tape seal during transport to the field or while in storage prior to use.
- The sample collector is responsible for the care and custody of samples collected until they are transferred to another person or dispatched properly under chain-of-custody rules.
- The sample collector will record sample data in a controlled field notebook and/or on appropriate field sampling records.
- The Site team leader will determine whether proper custody procedures were followed during the fieldwork and decide if additional samples are required.

6.2 DOCUMENTATION

6.2.1 Sample Identification

Collected samples will be identified using the following format on a label or tag fixed to the sample container:

LIN-xxxx-Z, where:

- "LIN" - This shorthand indicates the project located at 820 **L**inden Avenue in Pittsford, NY.
- "xxxx" - These characters (alpha-numeric) will be individual sample-specific. The number of characters may vary depending on the sample location and type. Sample identifications and locations will be recorded on the sampling record. Field duplicates, field blanks and rinsate blanks will be assigned unique sample numbers.
- "Z" - This initial will identify the sample matrix in accordance with the following abbreviations:



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Sample Custody

- W – Water Sample
- S – Soil Sample

Each sample will be labeled, chemically preserved, if required, and sealed immediately after collection. To minimize handling of sample containers, labels will be filled out prior to sample collection to the extent possible. The sample label will be filled out using waterproof ink and will be firmly affixed to the sample containers. The sample label will give the following information:

- Name or initials of sampler;
- Date and time of collection;
- Sample identification;
- Intended analysis; and
- Preservation.

6.2.2 Daily Logs

Daily log entries in the dedicated field notebook and field data log forms are necessary to provide sufficient data and observations to enable participants to reconstruct events that occurred during the project. Daily logs will be kept in a project-dedicated notebook, with the pages/entries consecutively numbered. Entries will be made in waterproof ink, dated, and signed. Sampling data will be recorded in the sampling records (may be separate field logs). Information will be completed in waterproof ink. Corrections will be made using a single strike-through with the editor's initials.

6.3 SAMPLE HANDLING, PACKAGING, AND SHIPPING

The transportation and handling of samples must be accomplished in a manner that not only protects the integrity of the sample, but also prevents any detrimental effects due to the possible hazardous nature of samples. Regulations for packaging, marking, labeling, and shipping hazardous materials are promulgated by the United States Department of Transportation (USDOT) in the Code of Federal Regulations, 49 CFR 171 through 177.

All chain-of-custody requirements must comply with standard operating procedures in the NYSDEC and USEPA sample handling protocol. Field personnel will make arrangements for transportation of samples to the laboratory. When custody is relinquished to a shipper, field personnel will ensure that the laboratory custodian or project manager is aware of the expected time of arrival of the sample shipment and of any time constraints on sample analysis(es). Samples will be delivered to the laboratory in a timely manner to help ensure that holding times are followed.

7.0 CALIBRATION PROCEDURES AND FREQUENCY

Instruments and equipment used during sampling and analysis will be operated, calibrated, and maintained according to the manufacturer's guidelines and recommendations as well as criteria set forth in the applicable analytical methodology references.

7.1 FIELD INSTRUMENTS

A calibration program will be implemented to ensure that routine calibration is performed on field instruments. Calibration will typically be performed on a daily basis unless manufacturer's instructions indicate differently. More frequent calibrations may be performed as necessary to maintain analytical integrity. Field personnel familiar with the calibration and operations of the equipment will maintain proficiency and perform the prescribed calibration procedures outlined in the operation manuals accompanying the respective instruments. Calibration records for each field instrument used on the project will be maintained in the project files.

7.2 LABORATORY INSTRUMENTS

Laboratory calibration procedures are addressed in detail in the laboratory Quality Assurance Manual which is available upon request. Calibration procedures will be consistent with the method used for analysis.

8.0 ANALYTICAL PROCEDURES

8.1 FIELD

Onsite procedures for analysis of total organic vapor and other field parameters are addressed in the SMP, if applicable.

8.2 LABORATORY

Specific analytical methods for constituents of interest in soil and groundwater are listed in Table 1. The laboratory will maintain and have available for the appropriate operators Standard Operating Procedures relating to sample preparation and analysis according to the methods stipulated in Table 1. Laboratory SOPs are available upon request. Laboratory target reporting and detection limits for soil and groundwater analyses are provided in Appendix A.

9.0 DATA REDUCTION AND REPORTING

QA/QC requirements will be strictly adhered to during sampling and analytical work. Data generated will be reviewed by comparing and interpreting results from chromatograms (responses, stability of retention times), accuracy (mean percent recovery of spiked samples), and precision (reproducibility of results).

Data storage and documentation will be maintained using logbooks and data sheets that will be kept on file. Analytical QC will be documented and included in the analytical testing report. A central file will be maintained for the sampling and analytical effort after the final laboratory report is issued.

Calculations and data manipulations are included in the appropriate methodology references. Control charts and calibration curves will be used to review the data and identify outlying results. Prior to the submission of the report to the client, data will be evaluated for precision, accuracy, and completeness. Sections 4.0, and 13.0 of this document include some of the QC criteria to be used in the data evaluation process.

Laboratory reports will be reviewed by the laboratory supervisor, the project QA director, laboratory manager and/or director, and the PM. Analytical reports will contain a data tabulation of results. Supporting QC information will also be provided in the laboratory reports. Raw data will be available for later inspection, if required, and maintained in the control job file. With the exception of data collected solely for screening, waste characterization, and survey purposes, data will be reported in NYSDEC ASP Category B deliverable format.

Finalized data will be provided to NYSDEC in an electronic data deliverable (EDD) format, in accordance with DER-10 and NYSDEC's "Electronic Data Deliverable Manual" (v.3, April 2013). The EDD will reflect DUSR-related modifications, as appropriate.

10.0 INTERNAL QUALITY CONTROL CHECKS

QC data are necessary to determine precision and accuracy and to demonstrate the absence of interferences and/or contamination of glassware and reagents. The procedures to be followed for internal quality control checks are consistent with NYSDEC ASP protocols.

11.0 PERFORMANCE AND SYSTEM AUDITS

11.1 FIELD AUDITS

The Project QA Director may conduct episodic audits of the operations at the Site to ensure that work is being performed in accordance with the work plan and associated standard operating practice. The audit will cover, but not necessarily be limited to, such areas as:

- Conformance to standard operating procedures;
- Completeness and accuracy of documentation;
- Chain-of-custody procedures; and
- Construction specifications.

11.2 LABORATORY AUDITS

In addition to any audits required by the NYSDEC, the Project QA Director may choose to audit the laboratory. These additional audits may take the form of performance evaluation samples or onsite inspections of the laboratory. Performance evaluation samples may be either blind samples or samples of known origin to the laboratory. Reasonable notice will be provided if the audit is to include an on-site inspection of the laboratory.

12.0 PREVENTIVE MAINTENANCE

12.1 FIELD

Field personnel assigned to complete the work will be responsible for preventative maintenance of field instruments. The field sampling personnel will protect the field instruments by placing them in portable boxes and/or protective cases, and by minimizing their exposure to precipitation to the extent practicable.

Field equipment will be subject to a routine maintenance program, prior to and after each use. The routine maintenance program for each piece of equipment will be in accordance with the manufacturer's operations and maintenance manual. Equipment will be cleaned and checked for integrity after each use. Necessary repairs will be performed immediately after any defects are observed, and before the item of equipment is used again. Equipment parts with a limited life (such as batteries, membranes, sensors and some electronic components) will be periodically checked and replaced or recharged as necessary according to the manufacturer's specifications.

12.2 LABORATORY

The laboratory's preventative maintenance procedures are provided in the laboratory Quality Assurance Manual (available upon request).

13.0 DATA ASSESSMENT PROCEDURE

Performance of the following calculations will be completed to evaluate the accuracy, precision and completeness of collected measurement data.

13.1 PRECISION

Precision of a particular analysis is measured by assessing its performance with duplicate or replicate samples. Duplicate samples are pairs of samples taken in the field and transported to the laboratory as distinct samples. Their identity as duplicates is sometimes not known to the laboratory and usually not known to bench analysts, so their usefulness for monitoring analytical precision at bench level is limited. For most purposes, precision is determined by the analysis of replicate pairs (i.e., two samples prepared at the laboratory from one original sample). Often in replicate analysis the sample chosen for replication does not contain target analytes so that quantification of precision is impossible. Replicate pairs of spiked samples, known as MS/MSDs, are used for precision studies. This has the advantage that two real positive values for a target analyte can be compared.

Precision is calculated in terms of relative percent difference (RPD), which is expressed as follows:

$$RPD = \frac{(x_1 - x_2) \times 100}{(x_1 + x_2)/2}$$

where X_1 and X_2 represent the individual values found for the target analyte in the two replicate analyses or in the MS/MSD analyses.

RPDs must be compared to the method RPD for the analysis. The analyst or analyst supervisor must investigate the cause of RPDs outside stated acceptance limits. This may include a visual inspection of the sample for non-homogeneity, analysis of check samples, etc. Follow-up action may include sample re-analysis or flagging of the data as suspect if problems cannot be resolved.

13.2 ACCURACY

Accuracy of a particular analysis is measured by assessing its performance with "known" samples. These "knowns" can take the form of USEPA or National Institute of Standards and Technology (NIST) traceable standards (usually spiked into a pure water matrix); or laboratory prepared solutions of target analytes into a pure water or sample matrix; or, in the case of gas chromatography (GC) or gas chromatography-mass spectrometry (GC-MS) analyses, solutions of surrogate compounds which can be spiked into every sample and are designed to mimic the behavior of target analytes without interfering with their determination.

In each case the recovery of the analyte is measured as a percentage, corrected for analytes known to be present in the original sample if necessary, as in the case of a matrix spike analysis. For USEPA or NIST supplied known solutions, this recovery is compared to the published data that accompany the solution. For prepared solutions, the recovery is compared to USEPA-developed data or historical data as available. For surrogate compounds, recoveries are compared to USEPA Contract Laboratory Program (CLP) acceptable recovery tables. If recoveries do not meet required criteria, then the analytical data for the batch (or, in the case of surrogate compounds, for the individual sample) are considered potentially inaccurate.

For highly contaminated samples, recovery of matrix spike may depend on sample homogeneity. As a rule, analyses are not corrected for recovery of matrix spike or surrogate compounds.

13.3 COMPLETENESS

Completeness is a measure of the amount of valid data obtained from a measurement system compared to the total amount expected to be obtained under normal conditions. Completeness for each parameter is calculated as:

$$\text{Completeness} = \frac{\text{Number of Successful Analyses} \times 100}{\text{Number of Requested Analyses}}$$

Target value for completeness for parameters is 100%. A completeness value of 95% will be considered acceptable. Incomplete results will be reported to the PM.

13.4 REPRESENTATIVENESS

The characteristic of representativeness is not quantifiable. Subjective factors to consider include:

- The degree of homogeneity of the Site;

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Quality Assurance Reports

- The degree of homogeneity of a sample taken from one point in a Site; and
- The available information on which a sampling plan is based.

To maximize representativeness of results, sampling techniques and sample locations will be carefully chosen so that they provide laboratory samples representative of the Site and the specific area sampled.

14.0 QUALITY ASSURANCE REPORTS

Upon completion of a sampling event, with the exception of sampling efforts conducted solely for screening, waste characterization, and survey purposes, analytical and QC data will be included in a DUSR that summarizes the work and provides a data evaluation. A discussion of the usability of the results in the context of QA/QC procedures will be prepared for the Periodic Review Report (PRR), and will also include a summary of the QA/QC activity. The DUSR will be performed in accordance with the DEC's "Guidance for the Development of Data Usability Summary Reports," revised 1997, and DER-10.

As described in the following section, serious analytical problems will be reported, and appropriate corrective measures taken.

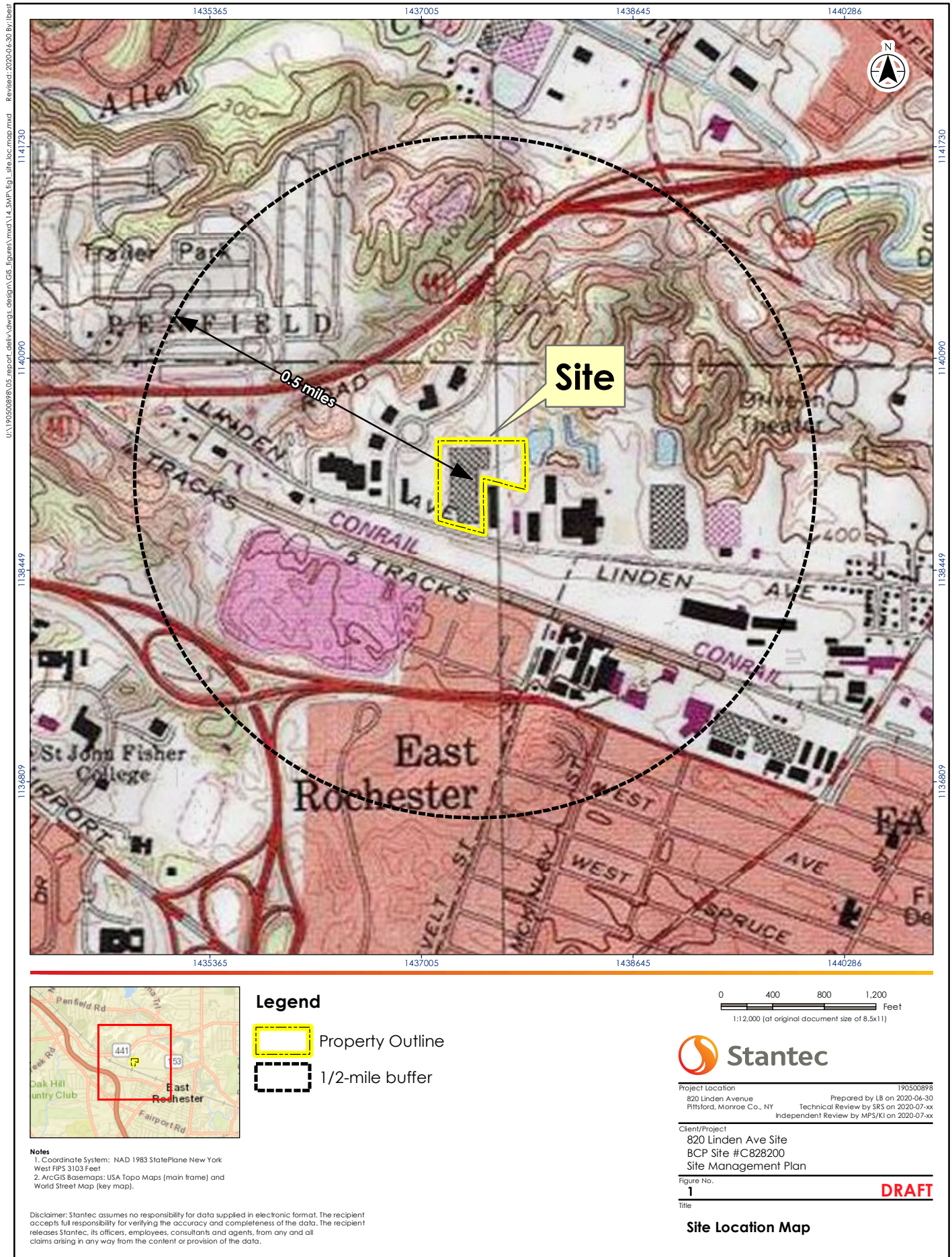
15.0 CORRECTIVE ACTION

Corrective actions can be initiated as a result of performance and system audits, laboratory and inter-field comparison studies, data validation, and/or a QA program audit. They may also be required as a result of a request from project representatives. Corrective action necessary to resolve analytical problems will be implemented.

Time and type of corrective action, if needed, will depend on the severity of the problem and relative overall project importance. Corrective actions may include altering procedures in the field, conducting subsequent audits, or modifying project/laboratory protocol. Corrective action will be implemented after notification of project representatives. The PM is responsible for initiating corrective action and the team leader is responsible for its implementation in the correction of field non-conformance corrective actions. Success or failure of corrective actions will be reported to project representatives, and addressed within the PRR, including an estimate of effect on data quality, if any.

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FIGURES



QUALITY ASSURANCE PROJECT PLAN
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TABLES

Table 1
Required Sample Containers, Volumes, Sample Preservation, and Holding Times

Quality Assurance Project Plan
820 Linden Ave BCP Site #C828200
820 Linden Avenue, Pittsford, NY

Media	Type of Analysis	Method	Required Container	Preferred Sample Volume	Preservation	Maximum Holding Time
Soil	TCL plus CP-51 VOCs + TICs	EPA 8260C	2 oz. cwm	2 oz.	Cool 4°C	14 days
	TCL SVOCs + TICs	EPA 8270D	4 oz. cwm	8 oz.	Cool 4°C	7 days
	TCL Pesticides	EPA 8081B				
	TCL PCBs	EPA 8082A				
	TAL Metals	EPA 6010C/7000 Series	4 oz. cwm	4 oz.	Cool 4°C	6 months; 28 days for mercury
	Cyanide	EPA 9012B	4 oz. cwm	4 oz.	Cool 4°C	14 days
Groundwater	TCL plus CP-51 VOCs + TICs	EPA 8260C	(3) 40 ml glass vials	120 ml	pH < 2, HCl	14 days if acidified with HCl
	TCL SVOCs + TICs	EPA 8270D	(2) 250 ml amber glass jars	500 ml	Cool 4°C	7 day/40 day ^A
	TCL Pesticides	EPA 8081B	(2) 250 ml amber glass jars	500 ml	Cool 4°C	7 day/40 day ^A
	TCL PCBs	EPA 8082A	(2) 250 ml amber glass jars	500 ml	Cool 4°C	10 day/40 day ^B
	TAL Metals	EPA 6010C/7000 Series	(1) 250 ml plastic jar	500 ml	pH < 2, HNO ₃	6 months; 28 days for mercury
	Cyanide	EPA 9012B	(1) 250 ml plastic jar	250 ml	NaOH	14 days
Sub-Slab Soil Vapor/Indoor Air/Outdoor Air	TCL VOCs	TO-15	6L Summa canister	6L	--	30 days

Key:

CP-51 NYSDEC Commissioner Policy (CP)-51
cwm clear wide mouth jar
EPA U.S. Environmental Protection Agency
HCl hydrochloric acid
ml milliliter
HNO₃ nitric acid
L liter
PCBs Polychlorinated biphenyls
PFAS per- and polyfluoroalkyl substances
SIM selective ion monitoring
SVOCs semivolatile organic compounds
TAL USEPA's Target Analyte List
TCL USEPA's Target Compound List
TIC tentatively identified compound
VOCs volatile organic compounds
oz ounces

Notes:

^A Holding time is 7 days from collection to extraction and 40 days from extraction to analysis.
^B Holding time is 10 days from collection to extraction and 40 days from extraction to analysis.

Table 2
Summary of Field Quality Control Checks

Quality Assurance Project Plan
820 Linden Ave BCP Site #C828200
820 Linden Avenue, Pittsford, NY

Analysis Parameters	Analysis Method (USEPA SW846 method number)	Estimated Number of Site Samples	QA/QC Samples				Total Number of Samples
			Field Duplicates ²	Trip Blanks ³	Rinsate Blanks ⁴	MS/MSD ⁵	
Soil Sampling ¹							
TCL + CP-51 VOCs, plus up to 10 TICs	8260C	0	0	0	0	0/0	0
TCL SVOCs, plus up to 20 TICs	8270D	0	0	0	0	0/0	0
TCL PCBs	8082A	0	0	0	0	0/0	0
TCL Pesticides	8081B	0	0	0	0	0/0	0
TAL Metals	6010C/7000 series	0	0	0	0	0/0	0
Cyanide	9012B	0	0	0	0	0/0	0
Groundwater Sampling ¹							
TCL + CP-51 VOCs, plus up to 10 TICs	8260C	0	0	0	0	0/0	0
TCL SVOCs, plus up to 20 TICs	8270D	0	0	0	0	0/0	0
TCL PCBs	8082A	0	0	0	0	0/0	0
TCL Pesticides	8081B	0	0	0	0	0/0	0
TAL Metals	6010C/7000 series	0	0	0	0	0/0	0
Cyanide	9012B	0	0	0	0	0/0	0
Air Sampling ¹							
TCL VOCs	TO-15	0	0	0	0	0/0	0

Key:

MS/MSD Matrix Spike/Matrix Spike Duplicate
PCBs polychlorinated biphenyls
QA/QC Quality Assurance/Quality Control
SVOCs semivolatile organic compounds
TAL USEPA's Target Analyte List
TCL USEPA's Target Compound List
TICs tentatively identified compounds
USEPA United States Environmental Protection Agency
VOCs volatile organic compounds

Notes:

- ¹ At the time this SMP was prepared, no routine sampling with laboratory analyses was proposed. The number of required QA/QC samples will be accordingly adjusted should sampling become warranted and required.
- ² Field duplicates will be collected at a frequency of 1 per 20 samples for each sample medium, including soil vapor/indoor air/outdoor air.
- ³ Trip blanks will be collected at a frequency of 1 per cooler containing aqueous samples to be analyzed for VOCs.
- ⁴ Rinsate blanks will be collected at a frequency of 1 per mobilization for each sampling method using non-dedicated equipment.
- ⁵ MS/MSDs will be collected at a frequency of 1 per 20 samples for each sample medium, excluding soil vapor/indoor air/outdoor air.

QUALITY ASSURANCE PROJECT PLAN
SITE MANAGEMENT PLAN
820 LINDEN AVENUE
PITTSFORD, MONROE COUNTY, NEW YORK

APPENDICES

Method Description	Analyte	Laboratory MDL	Laboratory RL
Volatile Organic Compounds (8260C)	Soil (mg/Kg)		
	1,1,1-Trichloroethane	0.0004	0.005
	1,1,2,2-Tetrachloroethane	0.0008	0.005
	1,1,2-Trichloro-1,2,2-trifluoroethane	0.0011	0.005
	1,1,2-Trichloroethane	0.0007	0.005
	1,1-Dichloroethane	0.0006	0.005
	1,1-Dichloroethene	0.0006	0.005
	1,2,4-Trichlorobenzene	0.0003	0.005
	1,2,4-Trimethylbenzene	0.0010	0.005
	1,2-Dibromo-3-Chloropropane	0.0025	0.005
	1,2-Dibromoethane	0.0006	0.005
	1,2-Dichlorobenzene	0.0004	0.005
	1,2-Dichloroethane	0.0003	0.005
	1,2-Dichloropropane	0.0025	0.005
	1,3,5-Trimethylbenzene	0.0003	0.005
	1,3-Dichlorobenzene	0.0003	0.005
	1,4-Dichlorobenzene	0.0007	0.005
	2-Butanone (MEK)	0.0018	0.025
	2-Hexanone	0.0025	0.025
	4-Isopropyltoluene	0.0004	0.005
	4-Methyl-2-pentanone (MIBK)	0.0016	0.025
	Acetone	0.0042	0.025
	Benzene	0.0002	0.005
	Bromodichloromethane	0.0007	0.005
	Bromoform	0.0025	0.005
	Bromomethane	0.0005	0.005
	Carbon disulfide	0.0025	0.005
	Carbon tetrachloride	0.0005	0.005
	Chlorobenzene	0.0007	0.005
	Chloroethane	0.0011	0.005
	Chloroform	0.0003	0.005
	Chloromethane	0.0003	0.005
	cis-1,2-Dichloroethene	0.0006	0.005
	cis-1,3-Dichloropropene	0.0007	0.005
	Cyclohexane	0.0007	0.005
	Dibromochloromethane	0.0006	0.005
	Dichlorodifluoromethane	0.0004	0.005
	Ethylbenzene	0.0003	0.005
	Isopropylbenzene	0.0008	0.005
	m,p-Xylene	0.0008	0.01
	Methyl acetate	0.0030	0.025
	Methyl tert-butyl ether	0.0005	0.005
	Methylcyclohexane	0.0008	0.005
	Methylene Chloride	0.0023	0.005
	Naphthalene	0.0007	0.005
	n-Butylbenzene	0.0004	0.005
	N-Propylbenzene	0.0004	0.005
	o-Xylene	0.0007	0.005
	sec-Butylbenzene	0.0004	0.005
	Styrene	0.0003	0.005
	tert-Butylbenzene	0.0005	0.005
	Tetrachloroethene	0.0007	0.005
	Toluene	0.0004	0.005
	trans-1,2-Dichloroethene	0.0005	0.005
	trans-1,3-Dichloropropene	0.0022	0.005
	Trichloroethene	0.0011	0.005
	Trichlorofluoromethane	0.0005	0.005
	Vinyl chloride	0.0006	0.005
	Xylenes, Total	0.0008	0.01

Method Description	Analyte	Laboratory MDL	Laboratory RL
Semivolatile Organic Compounds (8270D)	2,2'-oxybis[1-chloropropane]	0.0340	0.17
	2,4,5-Trichlorophenol	0.0460	0.17
	2,4,6-Trichlorophenol	0.0340	0.17
	2,4-Dichlorophenol	0.0180	0.17
	2,4-Dimethylphenol	0.0410	0.17
	2,4-Dinitrophenol	0.7840	0.33
	2,4-Dinitrotoluene	0.0350	0.17
	2,6-Dinitrotoluene	0.0200	0.17
	2-Chloronaphthalene	0.0280	0.17
	2-Chlorophenol	0.0310	0.17
	2-Methylnaphthalene	0.0340	0.17
	2-Methylphenol	0.0200	0.17
	2-Nitroaniline	0.0250	0.33
	2-Nitrophenol	0.0480	0.17
	3,3'-Dichlorobenzidine	0.2000	0.17
	3-Nitroaniline	0.0470	0.33
	4,6-Dinitro-2-methylphenol	0.1700	0.33
	4-Bromophenyl phenyl ether	0.0240	0.17
	4-Chloro-3-methylphenol	0.0420	0.17
	4-Chloroaniline	0.0420	0.17
	4-Chlorophenyl phenyl ether	0.0210	0.17
	4-Methylphenol	0.0200	0.33
	4-Nitroaniline	0.0890	0.33
	4-Nitrophenol	0.1190	0.33
	Acenaphthene	0.0250	0.17
	Acenaphthylene	0.0220	0.17
	Acetophenone	0.0230	0.17
	Anthracene	0.0420	0.17
	Atrazine	0.0590	0.17
	Benzaldehyde	0.1350	0.17
	Benzo[a]anthracene	0.0170	0.17
	Benzo[a]pyrene	0.0250	0.17
	Benzo[b]fluoranthene	0.0270	0.17
	Benzo[g,h,i]perylene	0.0180	0.17
	Benzo[k]fluoranthene	0.0220	0.17
	Biphenyl	0.0250	0.17
	Bis(2-chloroethoxy)methane	0.0360	0.17
	Bis(2-chloroethyl)ether	0.0220	0.17
	Bis(2-ethylhexyl) phthalate	0.0580	0.17
	Butyl benzyl phthalate	0.0280	0.17
	Caprolactam	0.0510	0.17
	Carbazole	0.0200	0.17
	Chrysene	0.0380	0.17
	Dibenz(a,h)anthracene	0.0300	0.17
	Dibenzofuran	0.0200	0.17
	Diethyl phthalate	0.0220	0.17
	Dimethyl phthalate	0.0200	0.17
	Di-n-butyl phthalate	0.0290	0.17
	Di-n-octyl phthalate	0.0200	0.17
	Fluoranthene	0.0180	0.17
	Fluorene	0.0200	0.17
	Hexachlorobenzene	0.0230	0.17
	Hexachlorobutadiene	0.0250	0.17
	Hexachlorocyclopentadiene	0.0230	0.17
	Hexachloroethane	0.0220	0.17
	Indeno[1,2,3-cd]pyrene	0.0210	0.17
	Isophorone	0.0360	0.17
	Naphthalene	0.0220	0.17
	Nitrobenzene	0.0190	0.17
	N-Nitrosodi-n-propylamine	0.0290	0.17
	N-Nitrosodiphenylamine	0.1380	0.17
	Pentachlorophenol	0.1700	0.33
	Phenanthrene	0.0250	0.17
	Phenol	0.0260	0.17
	Pyrene	0.0200	0.17

Method Description	Analyte	Laboratory MDL	Laboratory RL
Pesticides (8081B)	4,4'-DDD	0.0003	0.00167
	4,4'-DDE	0.0004	0.00167
	4,4'-DDT	0.0004	0.00167
	Aldrin	0.0004	0.00167
	alpha-BHC	0.0003	0.00167
	alpha-Chlordane	0.0008	0.00167
	beta-BHC	0.0003	0.00167
	delta-BHC	0.0003	0.00167
	Dieldrin	0.0004	0.00167
	Endosulfan I	0.0003	0.00167
	Endosulfan II	0.0003	0.00167
	Endosulfan sulfate	0.0003	0.00167
	Endrin	0.0003	0.00167
	Endrin aldehyde	0.0004	0.00167
	Endrin ketone	0.0004	0.00167
	gamma-BHC (Lindane)	0.0003	0.00167
	gamma-Chlordane	0.0005	0.00167
	Heptachlor	0.0004	0.00167
	Heptachlor epoxide	0.0004	0.00167
	Methoxychlor	0.0003	0.00167
	Toxaphene	0.0097	0.0167
PCBs (8082A)	PCB-1016	0.0489	0.0167
	PCB-1221	0.0489	0.0167
	PCB-1232	0.0489	0.0167
	PCB-1242	0.0489	0.0167
	PCB-1248	0.0489	0.0167
	PCB-1254	0.1170	0.0167
	PCB-1260	0.1170	0.0167
	PCB-1262	0.1170	0.0167
	PCB-1268	0.1170	0.0167
Metals (6010C/7000 Series)	Aluminum	4.40	10.0
	Antimony	0.400	15.0
	Arsenic	0.400	2.00
	Barium	0.110	0.500
	Beryllium	0.0280	0.200
	Cadmium	0.0300	0.200
	Calcium	3.30	50.0
	Chromium	0.200	0.500
	Cobalt	0.0500	0.500
	Copper	0.210	1.00
	Iron	3.50	10.0
	Lead	0.240	1.00
	Magnesium	0.927	20.0
	Manganese	0.0320	0.200
	Nickel	0.230	5.00
	Potassium	20.0	30.0
	Selenium	0.400	4.00
	Silver	0.200	0.500
	Sodium	13.0	140
	Thallium	0.300	6.00
	Vanadium	0.110	0.500
	Zinc	0.640	2.00
	Mercury	0.00810	0.0200
Cyanide, Total and/or Amenable (9012B)	Cyanide, Total	0.483	1.00

Method Description	Analyte	Laboratory MDL	Laboratory RL
Volatile Organic Compounds (8260C)	Water (µg/L)		
	1,1,1-Trichloroethane	0.820	1.00
	1,1,2,2-Tetrachloroethane	0.210	1.00
	1,1,2-Trichloro-1,2,2-trifluoroethane	0.310	1.00
	1,1,2-Trichloroethane	0.230	1.00
	1,1-Dichloroethane	0.380	1.00
	1,1-Dichloroethene	0.290	1.00
	1,2,4-Trichlorobenzene	0.410	1.00
	1,2,4-Trimethylbenzene	0.750	1.00
	1,2-Dibromo-3-Chloropropane	0.390	1.00
	1,2-Dibromoethane	0.730	1.00
	1,2-Dichlorobenzene	0.790	1.00
	1,2-Dichloroethane	0.210	1.00
	1,2-Dichloropropane	0.720	1.00
	1,3,5-Trimethylbenzene	0.770	1.00
	1,3-Dichlorobenzene	0.780	1.00
	1,4-Dichlorobenzene	0.840	1.00
	2-Butanone (MEK)	1.32	10.0
	2-Hexanone	1.24	5.00
	4-Isopropyltoluene	0.310	1.00
	4-Methyl-2-pentanone (MIBK)	2.10	5.00
	Acetone	3.00	10.0
	Benzene	0.410	1.00
	Bromodichloromethane	0.390	1.00
	Bromoform	0.260	1.00
	Bromomethane	0.690	1.00
	Carbon disulfide	0.190	1.00
	Carbon tetrachloride	0.270	1.00
	Chlorobenzene	0.750	1.00
	Chloroethane	0.320	1.00
	Chloroform	0.340	1.00
	Chloromethane	0.350	1.00
	cis-1,2-Dichloroethene	0.810	1.00
	cis-1,3-Dichloropropene	0.360	1.00
	Cyclohexane	0.180	1.00
	Dibromochloromethane	0.320	1.00
	Dichlorodifluoromethane	0.680	1.00
	Ethylbenzene	0.740	1.00
	Isopropylbenzene	0.790	1.00
	m,p-Xylene	0.660	2.00
	Methyl acetate	1.30	2.50
	Methyl tert-butyl ether	0.160	1.00
	Methylcyclohexane	0.160	1.00
	Methylene Chloride	0.440	1.00
	Naphthalene	0.430	1.00
	n-Butylbenzene	0.640	1.00
	N-Propylbenzene	0.690	1.00
	o-Xylene	0.760	1.00
	sec-Butylbenzene	0.750	1.00
	Styrene	0.730	1.00
	Tentatively Identified Compound		
	tert-Butylbenzene	0.810	1.00
	Tetrachloroethene	0.360	1.00
	Toluene	0.510	1.00
	trans-1,2-Dichloroethene	0.900	1.00
	trans-1,3-Dichloropropene	0.370	1.00
	Trichloroethene	0.460	1.00
	Trichlorofluoromethane	0.880	1.00
	Vinyl chloride	0.900	1.00
	Xylenes, Total	0.660	2.00

Method Description	Analyte	Laboratory MDL	Laboratory RL
Semivolatile Organic Compounds (8270D)	2,4,5-Trichlorophenol	0.480	5.00
	2,4,6-Trichlorophenol	0.610	5.00
	2,4-Dichlorophenol	0.510	5.00
	2,4-Dimethylphenol	0.500	5.00
	2,4-Dinitrophenol	2.22	10.0
	2,4-Dinitrotoluene	0.447	5.00
	2,6-Dinitrotoluene	0.400	5.00
	2-Chloronaphthalene	0.460	5.00
	2-Chlorophenol	0.530	5.00
	2-Methylnaphthalene	0.600	5.00
	2-Methylphenol	0.400	5.00
	2-Nitroaniline	0.420	10.0
	2-Nitrophenol	0.480	5.00
	3,3'-Dichlorobenzidine	0.400	5.00
	3-Nitroaniline	0.480	10.0
	4,6-Dinitro-2-methylphenol	2.20	10.0
	4-Bromophenyl phenyl ether	0.450	5.00
	4-Chloro-3-methylphenol	0.450	5.00
	4-Chloroaniline	0.590	5.00
	4-Chlorophenyl phenyl ether	0.350	5.00
	4-Methylphenol	0.360	10.0
	4-Nitroaniline	0.250	10.0
	4-Nitrophenol	1.52	10.0
	Acenaphthene	0.410	5.00
	Acenaphthylene	0.380	5.00
	Acetophenone	0.540	5.00
	Anthracene	0.280	5.00
	Atrazine	0.460	5.00
	Benzaldehyde	0.267	5.00
	Benzo[a]anthracene	0.360	5.00
	Benzo[a]pyrene	0.470	5.00
	Benzo[b]fluoranthene	0.340	5.00
	Benzo[g,h,i]perylene	0.350	5.00
	Benzo[k]fluoranthene	0.730	5.00
	Biphenyl	0.653	5.00
	bis (2-chloroisopropyl) ether	0.520	5.00
	Bis(2-chloroethoxy)methane	0.350	5.00
	Bis(2-chloroethyl)ether	0.400	5.00
	Bis(2-ethylhexyl) phthalate	2.20	5.00
	Butyl benzyl phthalate	1.00	5.00
	Caprolactam	2.20	5.00
	Carbazole	0.300	5.00
	Chrysene	0.330	5.00
	Dibenz(a,h)anthracene	0.420	5.00
	Dibenzofuran	0.510	10.0
	Diethyl phthalate	0.220	5.00
	Dimethyl phthalate	0.360	5.00
	Di-n-butyl phthalate	0.310	5.00
	Di-n-octyl phthalate	0.470	5.00
	Fluoranthene	0.400	5.00
	Fluorene	0.360	5.00
	Hexachlorobenzene	0.510	5.00
	Hexachlorobutadiene	0.680	5.00
	Hexachlorocyclopentadiene	0.590	5.00
	Hexachloroethane	0.590	5.00
	Indeno[1,2,3-cd]pyrene	0.470	5.00
	Isophorone	0.430	5.00
	Naphthalene	0.760	5.00
	Nitrobenzene	0.290	5.00
	N-Nitrosodi-n-propylamine	0.540	5.00
	N-Nitrosodiphenylamine	0.510	5.00
	Pentachlorophenol	2.20	10.0
	Phenanthrene	0.440	5.00
	Phenol	0.390	5.00
	Pyrene	0.340	5.00

Method Description	Analyte	Laboratory MDL	Laboratory RL
Pesticides (8081B)	4,4'-DDD	0.00920	0.0500
	4,4'-DDE	0.0116	0.0500
	4,4'-DDT	0.0110	0.0500
	Aldrin	0.00810	0.0500
	alpha-BHC	0.00770	0.0500
	beta-BHC	0.0248	0.0500
	delta-BHC	0.0100	0.0500
	Dieldrin	0.00980	0.0500
	Endosulfan I	0.0110	0.0500
	Endosulfan II	0.0120	0.0500
	Endosulfan sulfate	0.0157	0.0500
	Endrin	0.0138	0.0500
	Endrin aldehyde	0.0163	0.0500
	gamma-BHC (Lindane)	0.00800	0.0500
	Heptachlor	0.00850	0.0500
	Heptachlor epoxide	0.00740	0.0500
	Methoxychlor	0.0141	0.0500
	Toxaphene	0.120	0.500
PCBs (8082A)	PCB-1016	0.176	0.500
	PCB-1221	0.176	0.500
	PCB-1232	0.176	0.500
	PCB-1242	0.176	0.500
	PCB-1248	0.176	0.500
	PCB-1254	0.250	0.500
	PCB-1260	0.250	0.500
Metals (6010C/7000 Series)	Aluminum	60	200
	Antimony	6.79	20
	Arsenic	5.55	10
	Barium	0.7	2
	Beryllium	0.3	2
	Cadmium	0.5	1
	Calcium	100	500
	Chromium	1	4
	Cobalt	0.63	4
	Copper	1.6	10
	Iron	19.3	50
	Lead	3	5
	Magnesium	43.4	200
	Manganese	0.4	3
	Nickel	1.26	10
	Potassium	100	500
	Selenium	8.7	15
	Silver	1.7	3
	Sodium	324	1000
	Thallium	10.2	20
	Vanadium	1.5	5
	Zinc	1.5	10
	Mercury	0.12	0.2
Hexavalent Chromium (7196A)	Chromium, Hexavalent	5	10
Cyanide, Total and/or Amenable (9012B)	Cyanide, Total	5	10

Notes:

1. The limits summarized in this table were obtained from Eurofins TestAmerica Laboratories, Inc. for this project.

**SITE MANAGEMENT PLAN
820 LINDEN AVE BCP SITE #C828200
PITTSFORD, NY**

Appendix I

Site Management Forms

List of Site Management Forms

1. Annual Site-wide Inspection Form
2. SSDS Inspection Form: Monthly Monitoring Log
3. SSDS Inspection Form: Annual Monitoring Log
4. Summary of Green Remediation Metrics for Site Management



Annual Site-wide Inspection Form

820 Linden Ave Site

Brownfield Cleanup Program Site # C828200

820 Linden Avenue

Pittsford, Monroe County, New York

Inspection Date(s): _____

Time Period Inspection Covers: _____

Inspector(s): _____

Weather: _____

1. **Describe the Site usage:** _____

Is the Site still Commercial/Industrial (circle one)? Y N

If no, what is the current use? _____

2. **Describe general Site conditions (surface/floor condition, evidence of erosion or recent construction activities, standing water, other notable observations, etc.)**

Exterior: _____

Interior: _____

3. **Is the Site currently undergoing development (circle one)?** Y N

If so, describe. _____

4. **Has some or all of the Site property been sold, subdivided, merged, or undergone a tax map amendment during the Reporting Period (circle one)?** Y N

5. **Is the Site being used for vegetable gardening or farming (circle one)?** Y N

6. Has groundwater monitoring been performed according to the schedule in the Site Management Plan (SMP) (circle one)? Y N N/A

7. Is groundwater being used on-site (circle one)? Y N

If yes, has the use been approved by NYSDEC and is it being rendered safe for its intended use? Describe. _____

8. How many buildings are on-site and what type? _____

*Are any of the listed buildings new (circle one)? Y N N/A

9. Has the potential for soil vapor intrusion been evaluated or has a sub-slab depressurization system (SSDS) been installed? Y N

*If any of the buildings are new, please comment on the evaluation of potential for SVI been evaluated and/or future SSDS installation. _____

10. Are soil covers in place for the areas defined in the SMP (circle one)? Y N

If not, describe. _____

11. Describe vegetation in place on the soil cover. _____

12. Have any activities been conducted since the last inspection that necessitated site management activities be conducted, such as excavation in covered areas (circle one)?

Y N

If so, describe. _____

13. Have any federal, state, and/or local permits (e.g. building, discharge) been issued for or at the property during this Reporting Period (circle one)? Y N

If so, describe. _____

14. Are all ICs/ECs in place and functioning as designed (circle one)? Y N

If not, describe. _____

820 Linden Avenue Site (BCP Site #C828200)

Town of Pittsford, NY

SSDS Inspection Form



Date

Name

Company

Position

Complete?	Task	Notes
SSDS Inspection		
	Visual inspection of the equipment and piping	
	Identification and subsequent repair of any leaks	
	Inspection of exhaust points to verify that no air intakes have been located nearby	
	Audible operational status check of vent fans	
	Documentation of manifold settings and vacuum at each fan	
	Damper adjustments as required to balance parallel branches of system	
	Maintenance activities conducted	
	Any modifications to the system, are electrical panel schedules related to the SSDS fans up to date and accurate?	
Cover System (Concrete Floor Slab) Inspection		
	Visual inspection of the hard surface cover for evidence of deep cracks, potholes, cuts, depressions, and deterioration of joint seals and penetration seals	
	Identification of any areas where there is evidence of excessive settlement relative to the surrounding areas	
	Listening for audible indications of cracks in the cover system	

820 Linden Avenue Site (BCP Site #C828200)

Town of Pittsford, NY

SSDS Pressure Monitoring Form



Fan	Date	Approximate Time	Differential Pressure (inches of water column)
F1			
F2			
F3			
F4			
F5			
F6			
F7			
F8 & F9			

Weather conditions: _____

Is an air supply/heating system on: _____

Name and Position: _____

Company: _____

820 Linden Avenue Site (BCP Site #C828200)

Town of Pittsford, NY

SSDS Inspection Form



Date

Name

Company

Position

Complete?	Task	Notes
SSDS Inspection		
	Visual inspection of the equipment and piping	
	Identification and subsequent repair of any leaks	
	Inspection of exhaust points to verify that no air intakes have been located nearby	
	Audible operational status check of vent fans	
	Documentation of manifold settings and vacuum at each fan (7 total) and extraction point (19 total)	
	Documentation of sub-slab pressure at each permanent sub-slab pressure monitoring point (14 total)	
	Damper adjustments as required to balance parallel branches of system	
	Maintenance activities conducted	
	Any modifications to the system	
Cover System (Concrete Floor Slab) Inspection		
	Visual inspection of the hard surface cover for evidence of deep cracks, potholes, cuts, depressions, and deterioration of joint seals and penetration seals	
	Identification of any areas where there is evidence of excessive settlement relative to the surrounding areas	
	Listening for audible indications of cracks in the cover system	

820 Linden Avenue Site (BCP Site #C828200)

Town of Pittsford, NY

SSDS Pressure Monitoring Log



PMP	Date	Approximate Time	Differential Pressure (inches of water column)	Manometer Zeroed?
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				

Fan	SSDS Zone	Date	Approximate Time	Differential Pressure (inches of water column)
F1	1			
F2	2			
F3	3			
F4	4			
F5	5			
F6	6			
F7	7			
F8 & F9	8			

Suction Point (Riser)	SSDS Zone	Date	Approximate Time	Differential Pressure (inches of water column)	Manometer Zeroed?
J1	1				
J2	5				
J3	4				
J4	2				
J5	6				
J6	6				
J7	4				
J8	3				
J9	3				
J10	7				
J11	7				
J12	3				
J13	6				
J14	4				
J15	7				
J16	7				
J17	3				
J18	6				
J19	4				
J20	7				
J21	7				
J22	3				
J23	6				

Weather conditions: _____

Is an air supply/heating system on: _____

Name and Position: _____

Company: _____

Notes:

1) All sub-slab pressure readings are shown as differential pressure readings between the indoor air and the sub-slab void space. Values shown as negative values indicate that sub-slab pressure is lower than indoor air pressure.

Summary of Green Remediation Metrics for Site Management

Site Name: _____ Site Code: _____
Address: _____ City: _____
State: _____ Zip Code: _____ County: _____

Initial Report Period (Start Date of period covered by the Initial Report submittal)

Start Date: _____

Current Reporting Period

Reporting Period From: _____ To: _____

Contact Information

Preparer's Name: _____ Phone No.: _____
Preparer's Affiliation: _____

I. Energy Usage: Quantify the amount of energy used directly on-site and the portion of that derived from renewable energy sources.

	Current Reporting Period	Total to Date
Fuel Type 1 (e.g. natural gas (cf))		
Fuel Type 2 (e.g. fuel oil, propane (gals))		
Electricity (kWh)		
Of that Electric usage, provide quantity:		
Derived from renewable sources (e.g. solar, wind)		
Other energy sources (e.g. geothermal, solar thermal (Btu))		

Provide a description of all energy usage reduction programs for the site in the space provided on Page 3.

II. Solid Waste Generation: Quantify the management of solid waste generated on-site.

	Current Reporting Period (tons)	Total to Date (tons)
Total waste generated on-site		
OM&M generated waste		
Of that total amount, provide quantity:		
Transported off-site to landfills		
Transported off-site to other disposal facilities		
Transported off-site for recycling/reuse		
Reused on-site		

Provide a description of any implemented waste reduction programs for the site in the space provided on Page 3.

III. Transportation/Shipping: Quantify the distances travelled for delivery of supplies, shipping of laboratory samples, and the removal of waste.

	Current Reporting Period (miles)	Total to Date (miles)
Standby Engineer/Contractor		
Laboratory Courier/Delivery Service		
Waste Removal/Hauling		

Provide a description of all mileage reduction programs for the site in the space provided on Page 3. Include specifically any local vendor/services utilized that are within 50 miles of the site.

IV. Water Usage: Quantify the volume of water used on-site from various sources.

	Current Reporting Period (gallons)	Total to Date (gallons)
Total quantity of water used on-site		
Of that total amount, provide quantity:		
Public potable water supply usage		
Surface water usage		
On-site groundwater usage		
Collected or diverted storm water usage		

Provide a description of any implemented water consumption reduction programs for the site in the space provided on Page 3.

V. Land Use and Ecosystems: Quantify the amount of land and/or ecosystems disturbed and the area of land and/or ecosystems restored to a pre-development condition (i.e. Green Infrastructure).

	Current Reporting Period (acres)	Total to Date (acres)
Land disturbed		
Land restored		

Provide a description of any implemented land restoration/green infrastructure programs for the site in the space provided on Page 3.