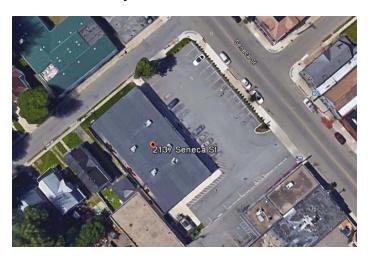


## PERIODIC REVIEW REPORT Former Pizza Hut 2137 Seneca Street **Buffalo, New York 14210**

NYSDEC Site No. V00370-9

Project Number: 18010-01



## **Prepared For:**



## **NEW YORK STATE DEPARTMENT** OF ENVIRONMENTAL CONSERVATION

Division of Environmental Remediation 625 Broadway Albany, New York 12233

and

Richard and Margaret Wieczorek (As Part Owners) 795 Choctaw Lane Shalimar, Florida 32579

Report Date: February 28, 2018

5.0

Findings and Recommendations

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## 1.0 EXECUTIVE SUMMARY

As authorized by Richard and Margaret Wieczorek (As Part Owners) Encorus Group has completed a Periodic Review Report (PRR) of a parcel of land addressed at 2137 Seneca Street, Buffalo (Erie County), New York (Site). The PRR was completed in general conformance with the Site Management Plan (SMP) prepared by URS, Inc. and dated May 25, 2011 for New York State Department of Environmental Conservation (NYSDEC) Volunteer Clean-up Program Site #V00370-9.

Historical use of the Site indicated that previous uses of the Site include residential dwellings, a pharmacy, a retail tire establishment, automotive service building, offices, a dry-cleaning establishment, and former restaurants (i.e., Pizza Hut and Wendy's). Dry cleaning chemicals (namely Tetrachloroethene or PCE) were presumably released to the environment from the aforementioned dry-cleaning establishment resulting in impacted soil and groundwater.

The Site has undergone several remediation activities between 2003 and 2009 with the approval of NYSDEC. Approximately 726-tons of excess overburden soil/fill was excavated and transported off-site for disposal as part of the remedial activities. The Site was restored post-remediation and was developed with a commercial-retail facility operated as a Dollar General store. The NYSDEC-approved Site Management Plan requires continued certification of the Site Institutional and Engineering Controls and implementation of a Groundwater Monitoring Program.

During the monitoring period extending from January 29, 2017 to February 8, 2018, the following tasks of the SMP were completed:

- Institutional and Engineering (IC/EC) Controls were maintained as certified by the Owner;
- A Site-wide inspection was completed of the Cover System; and
- Groundwater Monitoring was completed.

<u>Cover System:</u> Minor failures were noted associated with the Cover System and included seasonally damaged or dead bushes and minor sidewalk cracking.

 <u>Recommendations:</u> Replacement of damaged or dead bushes, and replace grass cover as needed and when practicable.

Groundwater Monitoring Program: The results of the Groundwater Monitoring Program indicate that elevated levels of total chlorinated volatile organic compounds (CVOCs) associated with PCE and its potential breakdown products were detected in monitoring well MW-4 (2.230 mg/l), at concentrations above the NYSDEC-mandated Standards, Criteria, and Guidelines (SCG) value of 1 milligram/liter (mg/l). The analytical results of downgradient perimeter wells were below the NYSDEC-mandated SCG concentration of 1 milligram per liter (mg/l), except at monitoring well PZ-A (2.050 mg/l). It should be noted that PCE degradation CVOCs were detected in deep monitoring well MW-4A, and included vinyl chloride (0.0074 mg/l), significantly below the NYSDEC-mandated SCG concentration of 1 milligram per liter (mg/l).

 <u>Recommendation:</u> Continued Groundwater Monitoring is required as stipulated in the VCP agreement until the NYSDEC-mandated SCG is attained. Once attained, three (3) additional quarters of Groundwater Monitoring will be required. Recommending discontinuing monitoring of at least two wells that have not exceeded the NYSDEC-mandated SCG concentration of 1 milligram per liter (mg/l) – Refer to Section 5.2.

#### 2.0 Site Overview

## 2.1 Location

The Site is located in an urban area in the City of Buffalo, County of Erie, New York. The current Site address is 2137 Seneca Street, which is identified as Parcel Number 133.26-7-1.1 on the City of Buffalo Tax Map. The Site is an approximately 0.5-acre area bounded by Seneca Street to the northeast and Kingston Place to the northwest. Commercial properties are located adjacent to the Site along Seneca Street (northeast, northwest, and southeast) and residential properties border the rear of the Site along Kingston Avenue (southwest) (Figures 1 and 2).

The Site is currently occupied by an active, single-story commercial building that faces Seneca Street and an asphalt-paved parking lot that covers the remainder of the property around the building. The current building is built for use as a Dollar General (discount store) since 2013.

## 2.2 Site History and Remediation

Historical use of the Site was summarized by Conestoga Rovers and Associates (CRA) in the associated Final Site Investigation Report and Feasibility Study (SI/FS Report), dated March 31, 2003. This report indicated that previous uses of the Site include residential dwellings, a pharmacy, a retail tire establishment, automotive service building, offices, a dry-cleaning establishment, and former restaurants (i.e., Pizza Hut and Wendy's). According to historic business listings (CRA SI/FS Report), buildings facing Seneca Street included the dry-cleaning establishment at 2141 Seneca Street (northeast corner of the property) from the 1950s until construction of the former Pizza Hut/Wendy's building in 1982. Dry cleaning chemicals (namely Tetrachloroethene or PCE) were presumably released to the environment from the dry-cleaning establishment resulting in impacted soil and groundwater.

A Phase II environmental site investigation (ESI) performed by the Fourth River Company of Pittsburgh, Pennsylvania (FRC) in 1999, first identified the presence of PCE on-Site. Franchise Finance Corporation of America (FFCA – merged with GE Capital Franchise Finance Corporation (GEFF) in 2001), a former Owner, and the New York State Department of Environmental Conservation (NYSDEC) enrolled into the NYSDEC Voluntary Clean-up Program (VCP) in 2000 as the then-noted Volunteer, and the site was assigned the VCP number V00370-9. Several investigations and sampling events were conducted by between 1999 and 2002 before remedial action for the soil was conducted in 2003 and of the groundwater in April 2004 and November 2009. [The current Site Owner since at least 2015 is Richard and Margaret Wieczorek (As Part Owners), and the site is operated as a Dollar General commercial-retail store.]

The Site has undergone several remediation activities between 2003 and 2009 with the approval of NYSDEC. The following is a summary of the Remedial Actions performed at the Site:

- Excavation of soil/fill in the northern portion of the Site that exceeded NYSDEC Technical Administrative Guidance Memorandum (TAGM) #4046 Standards, Criteria, and Guidelines (SCGs) to the extent practicable; advancing vertically to the top of the water table (approximately 10 feet bgs) and horizontally to the property boundary or structures whose integrity would be compromised;
- Construction and maintenance of a soil cover system consisting of vegetative soil or asphalt pavement overlying limestone aggregate backfill to prevent human exposure to remaining contaminated soil/fill remaining at depths below 6 feet under the Site;
- Execution and recording of the Declaration to restrict land use and prevent future risks of exposure, if any, to any residual contamination remaining at the Site;

- Installation of an in-situ groundwater treatment system in the northern portion of the Site comprising a series of injection wells and injection gallery piping connected to service boxes through a network of shallow subsurface feeding lines;
- Implementation of four In-Situ Chemical Oxidation (ISCO) applications to the shallow and deep groundwater utilizing the aforementioned treatment system under gravity flow conditions between April 2004 and May 2005;
- Implementation of three applications of both abiotic and biotic reductive dehalogenation remediation amendments within the shallow groundwater in the northern corner of the Site between September 2007 and November 2009. These full-scale events included the injection of zero-valent iron (ZVI) and either Hydrogen-releasing Compound (HRC)® or EHC® after pathway development within the subsurface using pneumatic and limited hydraulic fracturing;
- Development and implementation of a Soil Management Plan (SMP) for long-term management of Remaining Contamination as required by the Declaration, which includes plans for IC and EC Plans; monitoring, operation and maintenance (if needed); and reporting.
- Completion of a Construction Closeout Report (CCR), on behalf of 2137 Seneca, LLC (former Owner), to summarize the post-remedial redevelopment activities at the Site. Post remedial activities included the following:
  - Demolition of former restaurant building, with off-site disposal and/or recycling of waste streams.
     Approximately 726-tons of excess overburden soil/fill was excavated and transported off-site for disposal, including 627-tons at WM Chaffee Landfill in Chaffee, New York, and 99-tons at Modern Landfill in Model City, New York
  - Decommissioning of thirty-six (36) former monitoring wells and piezometers, in accordance with NYSDEC CP-43 guidelines;
  - Installation of a passive sub-slab vapor depressurization system within the commercial building (i.e., Dollar General);
  - Placement and compaction of clean backfill material. Approximately 965.5-tons of approved backfill material was placed on-Site including, approximately 877.5 tons of 2" ROC from Buffalo Crushed Stone Wehrle, and approximately 88-tons of 2" recycled material from Buffalo Recycled Aggregate, LLC; and,
  - Construction of a 9,100-square foot commercial building, parking areas, and landscaping.

## 2.3 Remaining Contamination

Based on the analytical data collected to-date, contaminant concentrations have been significantly reduced; however, Remaining Contamination was still detected in the subsurface on-Site by URS, Inc. as of May 2011. As previously reported to the NYSDEC, the results of the remedial investigations, as well as the confirmatory soil sampling and progress groundwater monitoring conducted after the remedial efforts, were performed to evaluate the Remaining Contamination present on-Site.

The groundwater contaminant data since January 2006, as previously reported by URS, Inc., confirm that the application of abiotic and biotic reductive dehalogenation remediation technologies has been successful in reducing the PCE concentration breakdown products (cis-1,2-dichloroethene [cis-1,2-DCE] and vinyl chloride, respectively) on-Site. The chlorinated volatile organic compound (CVOC) contaminant mass on-Site is

reportedly dominated by the third-order breakdown product vinyl chloride, indicating that reductive dehalogenation pathway of PCE is nearly completed.

## 2.4 Existing Groundwater Monitoring System

According to the URS SMP, groundwater monitoring results have demonstrated that residual groundwater concentrations are consistently below or near the NYSDEC-defined SCG and have demonstrated significant stability at low levels in the perimeter wells.

Groundwater monitoring of five shallow wells within the immediate vicinity of the remediated impact area will continue on a semi-annual basis until the reported total CVOC concentration at all monitored wells drops below the NYSDEC-defined SCG. The five shallow wells include MW-2, MW-4, MW-11, MW-13, and PZ-A. In addition, deep well MW-4A is also monitored. The locations of the wells are presented on Figure 3.

Monitoring Well MW-4 still contains cumulative CVOCs at levels exceeding the NYSDEC-defined SCG, but at levels less than in May 2016. The analytical results of downgradient perimeter wells MW-11 and MW-13 indicate a decrease of cumulative CVOCs. Well PZ-A reported a decrease in cumulative CVOCs as compared to May 2016.

## 2.5 Clean-up Goals

According to the SMP report, the remedial goal of reducing groundwater CVOCs to the NYSDEC-mandated concentration of 1 milligram per liter (mg/L) or part per million (ppm) or less on-Site has substantially been achieved. Isolated temporary spikes in CVOC concentrations have been reported specifically in monitoring well MW-4 and PZ-A (Figure 3) chiefly associated with PCE degradation products.

Once the monitoring objectives have been achieved, the current Owner will perform at least three more groundwater monitoring events (four quarters total) to confirm that the monitoring results report a cumulative CVOC concentration (i.e., summation of PCE and its breakdown products TCE, 1,1-DCE, cis-1,2-DCE, trans-1,2-DCE, and vinyl chloride) of less than 1 mg/L in each on-Site well. Once the quarterly monitoring has demonstrated that the total CVOC concentrations on-Site are at 1 mg/L or below, the Owner will notify NYSDEC, discontinue groundwater monitoring, and initiate the decommissioning of the monitoring wells. The Owner will not initiate the well decommissioning activities without NYSDEC's consent. Well decommissioning will be in accordance with NYSDEC guidance.

## 2.6 Institutional/Engineering Control Verification

## 2.6.1 Verification of Site Details

As per the NYSDEC Site Management Periodic Review (PRR) Notice, Institutional Controls (IC) and Engineering Controls (EC) Certification process, the Owner is required to verify Site details on an annual basis until closure of the VCP Agreement is satisfied.

#### 2.6.2 Institutional Controls Certification

As per the NYSDEC Site Management Periodic Review (PRR) Notice, Institutional Controls (IC) and Engineering Controls (EC) Certification process, the Owner is required to verify that all existing site controls are still applicable. The following ICs are listed for the Site:

- Groundwater Use Restriction
- Land-use Restriction
- Monitoring Plan
- Site Management Plan (SMP)

The Declaration of Covenants and Restrictions prohibits the site from being used for anything other than industrial or commercial purposes, excluding day care, child care and medical care uses. The use of the groundwater underlying the site is also prohibited without proper treatment.

The Owner has certified that the IC/EC are applicable (refer to Appendix B - Institutional Controls (IC) and Engineering Controls (EC) Certification).

## 2.6.3 Engineering Controls Certification

As per the NYSDEC Site Management Periodic Review (PRR) Notice, Institutional Controls (IC) and Engineering Controls (EC) Certification process, the Owner is required to verify that all existing site controls are still applicable.

The following EC are listed for the Site:

Cover System Inspection

The soil cover system is a permanent, passive control that includes clean soil cover/cap in landscaped areas, asphalt covered/paved parking, and throughways, and concrete covered sidewalks that is integrated into the current use of the property. The current cover system is expected to remain in-place in perpetuity with routine maintenance (i.e., landscaping maintenance, asphalt pavement sealing and repair, municipal inspection of sidewalks and associated repair) expected with Site use.

The cover system monitoring will be conducted annually and will involve a visual walk-over inspection of the Site. Additional inspections will be required after any redevelopment of the property that involves removal and replacement of any section of the pavement, including excavations. Unscheduled inspections may take place when a suspected failure in the cover system has been reported or an emergency occurs that is deemed likely to affect the operation of the system.

The visual inspection will involve an evaluation of the integrity of the following features on-Site:

- a) The sidewalk along Kingston Place and Seneca Street;
- b) The landscaped area between the northwestern edge of the parking lot and the sidewalk along Kingston Place:
- c) The asphalt pavement parking lot surrounding the current building;
- d) The landscaped area in front (northeast) of the current building.

A complete list of components to be checked is provided in the Inspection Checklist, presented in Appendix B-2. For landscaped areas, observations including areas of deterioration, water erosion, subsidence, or ponding will be documented on the inspection form and evaluated. For paved areas (i.e., asphalt, sidewalk), separation cracks or vertical off-sets that are greater than one-half inch shall be documented and sealed or repaired.

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

As a requirement of the EC Certification, a New York State Professional Engineer (NYSPE) is required to sign the appropriate Certification Form. Such is provided in Appendix B-1.

## 3.0 Media Monitoring Program

SMP activities include monitoring of groundwater remediation progress and contingency monitoring of Soil Vapor Intrusion (SVI) potential. Groundwater monitoring includes well development and sampling activities at monitoring wells noted in Section 2.4.

The contingency SVI monitoring has not been completed as the requirements for such monitoring have not yet been developed by the Owner or approved by the NYSDEC. At present, a passive sub-slab vapor depressurization system has been installed within the commercial building (i.e., Dollar General). An evaluation of the need for implementing an active system has not been implemented for the Site. If required based on available soil and/or groundwater monitoring data, the SMP will identify the SVI risk present for the building occupation and outline a program necessary for monitoring and/or mitigating the risk, if present. Currently, this passive sub-slab vapor depressurization is still present on-site, as observed from the ground surface. Two SVI roof vents were observed from the exterior ground surface, at the northwest and southwest building corners. In addition, the associated roof vent pipe was observed to be intact on the building interior at the southwest interior corner; there is no access to the roof vent pipe at the northwest interior building corner.

## 3.1 Groundwater Progress Monitoring

Groundwater progress monitoring was conducted to assess the performance of the remedial activities as the groundwater concentrations approach the remedial goal of 1 part per million (ppm) in each of the on-site monitoring wells serving as the monitoring program wells (refer to Section 2.4).

In as much as there are no active potable water supply wells on-Site or off-Site that are withdrawing groundwater from the VOC-contaminated groundwater zone, there is no significant risk posed to public health due to the detection of part per- billion (ppb) concentrations of CVOCs in groundwater in the vicinity of the Site. In addition, there appears to be no significant future risk to human health given the unlikely potential for future potable use of the shallow aguifer underlying the Site.

To confirm that groundwater has achieved the site-specific remedial goal, monitoring wells have been established that include up-gradient well MW-2, down-gradient wells MW-4, MW- 13, MW-11, and PZ-A, and deep well MW-4A, as illustrated on Figure 3. These wells were previously selected based on the historic groundwater concentrations. Monitoring well MW-2 is also included to confirm up-gradient to cross-gradient concentrations.

Groundwater progress monitoring was conducted in February 2018 and will further be conducted until the reported total CVOC concentration in each of the selected wells achieves the NYSDEC-defined SCG a level of 1 mg/L or below of total CVOCs.

#### 3.2 Sampling Protocol

#### 3.2.1 Groundwater Wells

Groundwater level measurements were collected from the designated monitoring well locations (i.e., MW-2, MW-4, MW-4A, MW-11, MW-13, PZ-A) prior to sampling. Each well was purged using low-flow pumping or bailing techniques. Groundwater samples were collected after at least three well-volumes were removed. Sampled groundwater was collected in laboratory-supplied bottles, placed in a cooler, chilled to approximately 4 degrees Celsius (°C), and delivered to the analytical laboratory (i.e., Alpha Analytical) by the field crew on-site under chain-of-custody procedures, on February 8, 2018.

Groundwater samples were tested for VOCs by SW-846 Method 8260. To monitor QA/QC for each groundwater sampling event, one duplicate sample, and one trip blank were collected during the monitoring event.

## 3.3 Monitoring Quality Assurance/Quality Control (QA/QC)

All sampling and analyses will be performed in accordance with the requirements of the Quality Assurance Project Plan (QAPP) prepared for the Site and presented in the SMP. Main components include:

- Sampling Program
  - Sample containers will be provided by the laboratory to certify that they are properly washed, decontaminated, and dosed with appropriate preservative (if applicable) prior to sample collection and analysis. Containers with preservative will be properly labeled as such.
  - Sample holding times will be in accordance with the NYSDEC Analytical Services Protocol (ASP) requirements.
  - Field QC samples (e.g., trip blanks and coded field duplicates) will be collected as necessary.
- Analytical Procedures.
- Preparation of a summary of sample preservation and chain-of-custody procedures.
- Calibration Procedures:
  - All field analytical equipment will be calibrated immediately prior to each day's use. Calibration procedures will conform to manufacturer's standard instructions.
  - The laboratory will follow all calibration procedures and schedules as specified in EPA SW-846 and subsequent updates that apply to the instruments used for the analytical methods.
- Preventative Maintenance Procedures and Schedules.
- Corrective Action Measures.

## 4.0 Summary of Results

## 4.1 Institutional/Engineering Control Verification

As per the NYSDEC Site Management Periodic Review (PRR) Notice, Institutional Controls (IC) and Engineering Controls (EC) Certification process, the Owner is required to verify that all existing site controls are still applicable. The Owner has certified that the IC/EC are applicable (refer to Appendix B - Institutional Controls (IC) and Engineering Controls (EC) Certification).

## 4.2 Engineering Controls Certification

As per the NYSDEC Site Management Periodic Review (PRR) Notice, Institutional Controls (IC) and Engineering Controls (EC) Certification process, the Owner is required to verify that all existing site controls are still applicable.

The following EC are listed for the Site:

Cover System Inspection

Based on the results of the Site inspection, the following was noted:

- Vegetative cover along Kingston Place seasonally damaged bushes and a dense 4- to 12-inch snow cover was noted (refer to Appendix B-2)
- Sidewalk (Kingston Place) has minor cracking (0.25-inches or less). The parking lot, building walkways, access roads no concerns (refer to Appendix B-2).

## 4.3 Groundwater Monitoring Program

Six (6) groundwater monitoring wells were redeveloped on February 8, 2018 prior to sampling. Well redevelopment included the following tasks:

- Each well was redeveloped using PVC bailers. Prior to redevelopment, each well was gauged with an
  electronic water level indicator to determine the depth to the water table; such data is presented in Table
  No. 2. [Table No. 1 also presents historic water levels obtained by others]. Well evacuation continued
  until at least three well volumes were removed.
- Monitoring well PZ-A was developed using a 1-inch PVC bailer and at least three well volumes were evacuated.
- Groundwater samples were obtained via PVC bailers.
- Groundwater samples were placed into pre-cleaned jars provided by the analytical laboratory, Alpha Analytical. One trip blank QA/QC sample was also submitted for analysis. One unmarked duplicate sample was also submitted for analysis. The duplicate sample was obtained from well MW-2. The eight (8) samples were submitted for volatile organic compound (VOC) analysis via USEPA Method 8260C.

#### 4.3.1 Groundwater Levels

Groundwater elevations were plotted on a site location map which presents the existing Groundwater Monitoring System wells. Groundwater elevations are referenced to the top of the well casing at each well and are presented in Table 1 and shown graphically on Figure 3. The approximate shallow overburden groundwater flow direction is believed to be to the west direction and is generally consistent with historic data.

## 4.3.1.1 Well Integrity

All monitoring wells were checked for integrity of the steel road boxes and the surface cement-grout seals. All road boxes and the surface seals were determined to be intact; two hold-down bolts were noted to be missing and will be replaced.

## 4.3.2 Analytical Results

Based on the analytical results of the groundwater sampling and testing, the detected parameters are presented in Table 2 and graphically on Figure 4. Total CVOC concentrations, which include a summation of PCE and its potential breakdown products (TCE, cis-1,2-DCE, trans-1,2-DCE, 1,1-DCE, 1,1-DCA, and Vinyl Chloride), are presented in micrograms per liter (ug/L) and milligrams per liter (mg/l).

In general, the CVOC concentrations were below the NYSDEC-mandated SCG concentration of 1,000 micrograms per liter (ug/L) or 1.0 mg/L (ppm), except at monitoring well MW-4 (2.230 mg/l) and PZ-A (2.050 mg/l). [The duplicate sample from well MW-2 had a reported similar result of 0.010 mg/l – significantly below the SCG]. It should be noted that PCE degradation CVOCs were detected in deep monitoring well MW-4A and included vinyl chloride (0.0074 mg/l), significantly below the SCG.

## 5.0 Findings and Recommendations

## 5.1 IC/EC Certification

No concerns were identified during the Cover System inspection on January 11 or February 8, 2018, except as noted in Section 4.2.

Recommendations: Replacement of damaged or dead bushes.

## 5.2 Groundwater Monitoring Program

Reported CVOC concentrations were below the NYSDEC-mandated SCG concentration of 1 milligram per liter (mg/L), except at monitoring wells MW-4 (2.230 mg/l) and PZ-A (2.050 mg/l).

- <u>Recommendations:</u> Continued Groundwater Monitoring is required as stipulated in the VCP agreement until the NYSDEC-mandated SCG is attained. However, Encorus Group would petition the NYSDEC for discontinuing the Groundwater Monitoring Program at the following wells, for the associated reasons listed:
- 1. Monitoring Well MW-2: No exceedance of the NYSDEC-mandated SCG concentration of 1 milligram per liter (mg/L) has been reported for the last four (4) events since July 2014 to February 2018.
- 2. Monitoring Well MW-13: No exceedance of the NYSDEC-mandated SCG concentration of 1 milligram per liter (mg/L) has been reported for the last four (4) events since July 2014 to February 2018.
- 3. Monitoring Well MW-11: No exceedance of the NYSDEC-mandated SCG concentration of 1 milligram per liter (mg/L) has been reported for the last three (3) events since May 2016 to February 2018.

## 6.0 Signature of Environmental Professional

I declare that, to the best of my professional knowledge and belief, I meet the definition of Environmental Professional as defined in 40 CFR 312.10.

I have the specific qualifications based on education, training, and experience to undertake this Periodic Review Report of the property identified as Former Pizza Hut (VCP #V00370-9), 2137 Seneca Street, Buffalo, New York for the current Owner, Richard and Margaret Wieczorek (As Part Owners).

Andrew J. Kueserik, CPG

Senior Geologist/Environmental Professional



**Education:** BA, Geological Sciences, State University of New York at Buffalo

**Professional** Registrations: AIPG 25 years BAPG 32 years

Years of **Experience:** Total: 40 With Encorus: 2

## Andrew J. Kucserik, CPG, PG

Senior Geologist

Mr. Kucserik is a Senior Geologist with nearly 40 years of geologic His specialties include geotechnical investigations, experience. geophysics, soil and groundwater sampling, remediation, environmental due diligence, and consulting services.

## Mr. Kucserik's representative project experience includes:

## Phase I - Environmental Site Assessment, 264 Ridge Road, Lackawanna, New York (2012-2017)

Mr. Kucserik completed a multi-phase investigation of a proposed residential development at a former community center that was part of a US Brownfield-eligibility investigation completed for a national consulting firm. The initial investigation included geophysical methods to investigate the presence of underground storage tanks (USTs), foundations, and potential fills. Subsequent phases included ASTM AAI Phase I reports and updates completed for national borrowers and local community developers.

## Voluntary Clean-up Program (VCP), 2137 Seneca Street, Buffalo, **New York**

A former dry cleaning facility was remediated and required an Operations and Maintenance (O&M) program. Mr. Kucserik currently conducts annual groundwater sampling and laboratory analyses as part of the NYSDEC Periodic Report Review requirements for the out-ofstate Owners. The final closure is pending based on the analytical results and NYSDEC.

## Former Manufacturing Facility, Jamestown, New York

A confidential client is assessing the viability of redeveloping a former manufacturing facility; however, the presence of oil-soaked wooden floor tiles required sampling and analyses for both gross contamination and waste disposal options. This investigation is currently being completed by Mr. Kucserik and is being evaluated for disposal costs.

## Underground Storage Tank (UST), Military Road, Niagara Falls, **New York**

Mr. Kucserik completed the investigation, excavation, remediation, and closure of three previously unknown USTs at a site that had been remediated two times previously by others. The USTs were encountered during ancillary construction activities for a national retail developer.



## **Environmental Due Diligence**

Mr. Kucserik is the Senior Geologist/Environmental Professional providing environmental due diligence services to several Western New York lending institutions, developers, attorneys, and private/commercial individuals. Typical projects have included multi-million dollar acquisitions of commercial properties for redevelopment and refinancing.

Responsible for scheduling and management of all Environmental due diligence activities (Phase I) projects in the Western New York area and portions of Pennsylvania. Mr. Kucserik is also responsible for providing professional services concerning Phase II Environmental Site Assessments incorporating drill rigs and staff, site remediation, soil, groundwater, and soil gas vapor sampling, geophysical investigations, geological consulting, and oversight monitoring.

- Underground storage tank (UST) removal investigations and oversight monitoring.
- Completed over 2,000 Phase I Environmental Site Assessments.
- Completed over 200 geophysical surveys utilizing magnetometer, ground penetrating radar, seismic blast monitoring, and resistivity surveys with associated equipment.
- Regulatory agency interfacing.
- Business development.

## **PROFESSIONAL AFFILIATIONS & TRAINING**

HAZWOPER Recertification (January 2017)

USEPA Certified Lead-Based Paint Inspector (2012 - 2016)

SUNY @ Buffalo Geology Alumni Advisory Board (2010 – 2014)

Radiation Worker II Safety Refresher (May 2003)

USEPA Fractured Bedrock Symposium (February 2001)

Wetlands Identification & Delineation (December 2000)

Federal and State Spill Reporting Requirements (October 1997)

ASTM Seminar, Risk-Based Corrective Action (June 1997)

ASCE Course on Foundation Design (April 1997)

IAH Symposium, Modern Trends in Hydrogeology (May 1992)

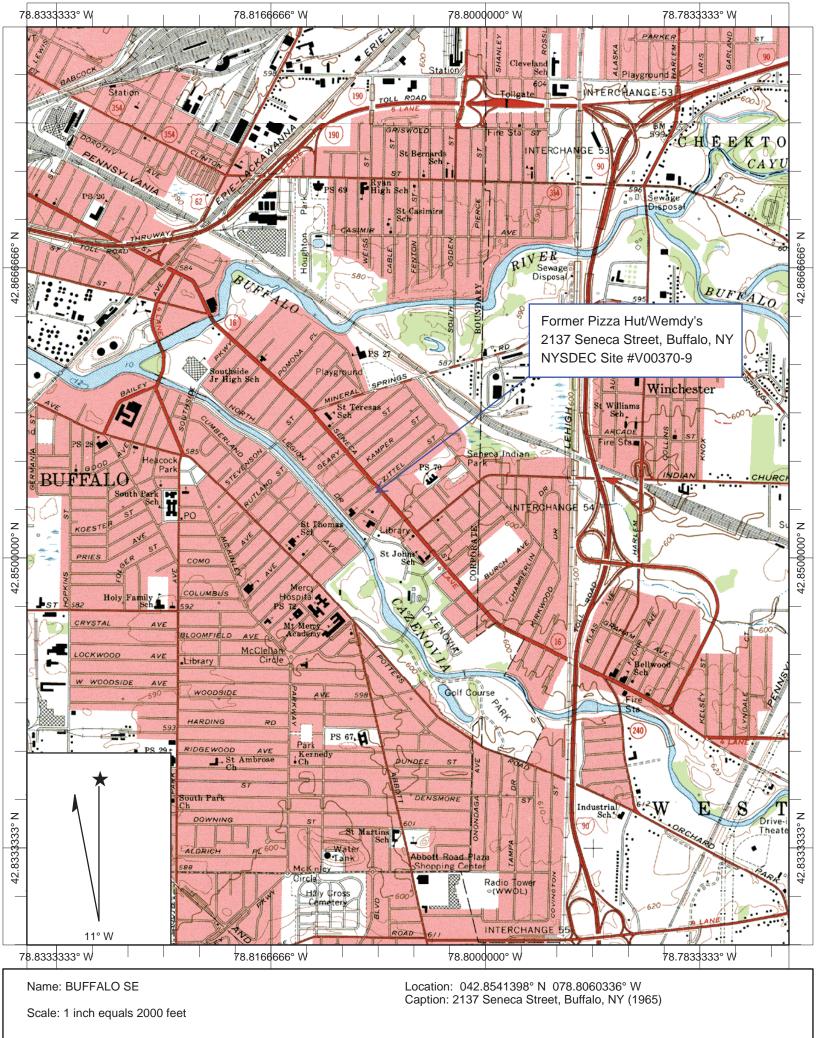
Asbestos Handlers & Supervisors Course (1989 - 1992)

OSHA 1910.120 40-Hour Hazardous Waste Certification (December 1987)

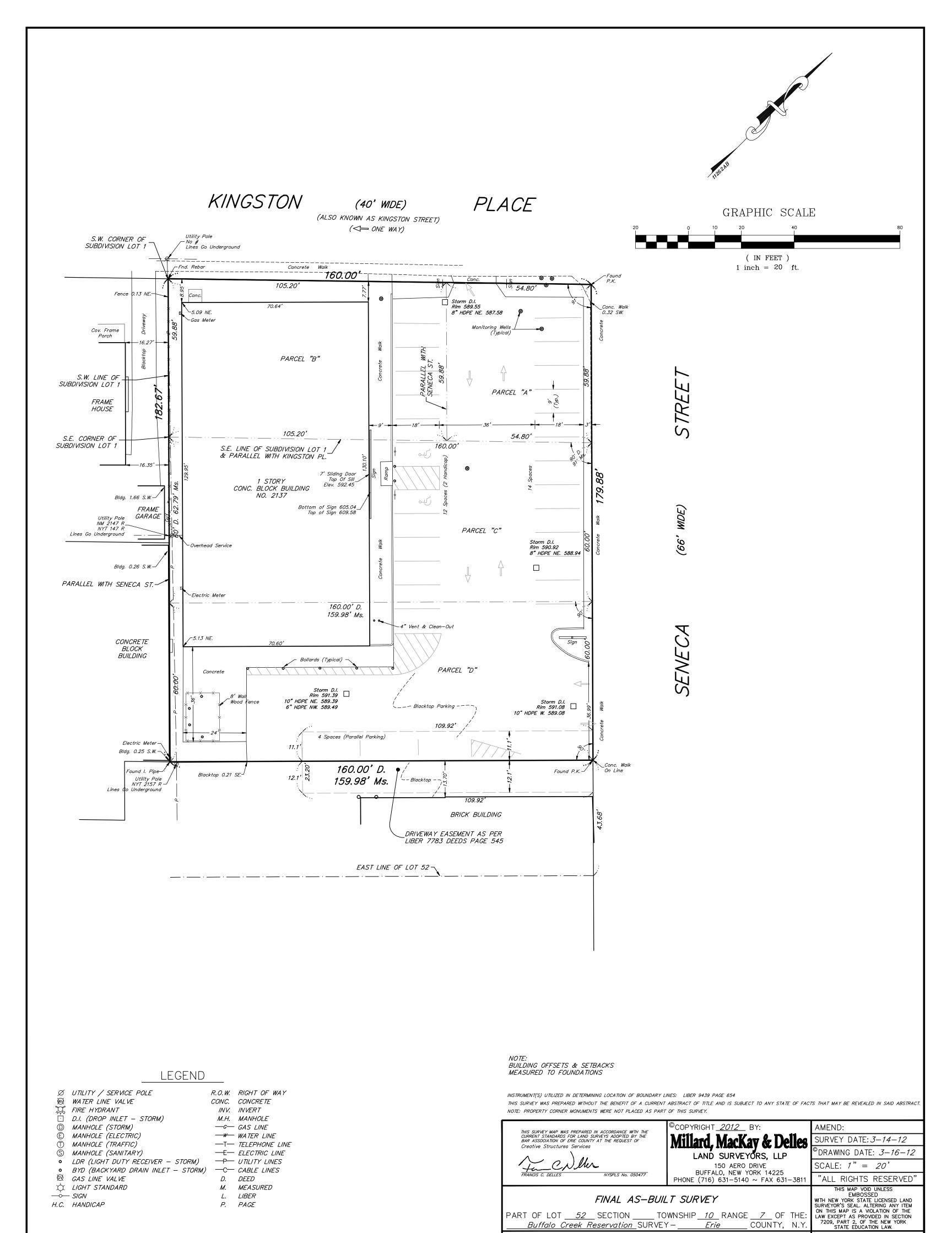
Site Assessment of Hazardous Waste Sites (October 1987)

## **APPENDICES**

## **APPENDIX A - FIGURES AND TABLES**



Copyright (C) 1997, Maptech, Inc.



SURVEY OF: 2137 Seneca Street, City of Buffalo

SBL No. 133.26-7-1.1

## MEASUREMENT OF GROUNDWATER LEVELS

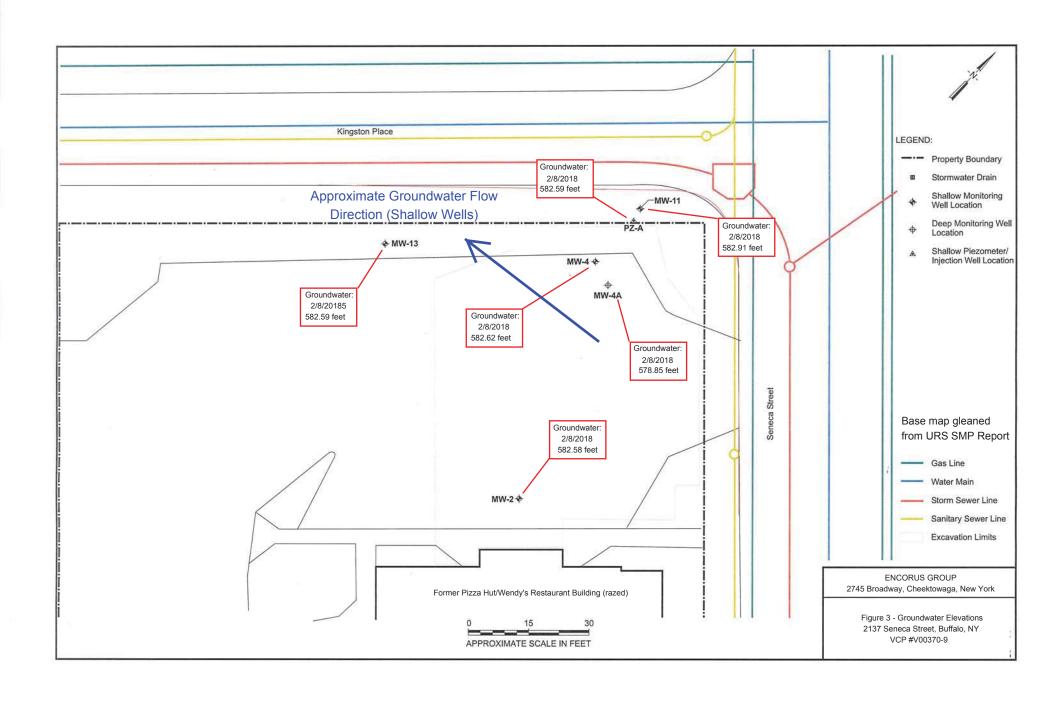
Site Name / Number: Parcel 2 - 2137 Seneca St. / VCA 00370-9 Date: 02 / 08 / 2018

Owner: Richard/Margaret Weiczorek (Part Owners) By: Encorus Group

Location: Buffalo, NY Meas. Method <u>Electronic Water Level Indicator</u>

Well Number	Time	Elevation of Reference Feet	Depth to Water	Water Elevation Feet	Notes
MW-2	N/A	590.24	7.66	582.58	No odors
MW-4	N/A	589.47	6.85	582.62	
	N/A N/A	589.04	10.19	578.85	Cloudy-gray No odors
MW-4A MW-11	N/A		6.57	582.91	Rusty color
		589.48	7.18		
MW-13	N/A	589.77 589.86		582.59	Sandy bottom
PZ-A	N/A	509.00	7.27	592.59	No odors
			1 Au 115		

ENCORUS GROUP 2745 Broadway Cheektowaga, New York 14227 O: 716-863-2093



## Table No. 2 - Analytical Results (02/08/2018) VCP NYSDEC Site #V00370-9 - 2137 Seneca Street, Buffalo, New York

LOCATION				WELL MW-2	WELL MW-4	WELL MW-4A	WELL MW-11	WELL MW-13	WELL PZ-A	DUPLICATE	TRIP BLANK
SAMPLING DATE				2/8/2018	2/8/2018	2/8/2018	2/8/2018	2/8/2018	2/8/2018	2/8/2018	2/8/2018
LAB SAMPLE ID				L1804487-01	L1804487-02	L1804487-03	L1804487-04	L1804487-05	L1804487-06	L1804487-07	L1804487-08
SAMPLE TYPE				WATER							
SAMPLE DEPTH (ft.)											
	CasNum	NY-AWQS	Units	Results							
Volatile Organics by GC/MS											
1,1-Dichloroethane	75-34-3	Ę	ug/l	ND	ND	ND	ND	0.93	ND	ND	ND
Vinyl chloride	75-01-4	2	ug/l	3.6	730	7.4	240	4.7	750	4.9	ND
1,1-Dichloroethene	75-35-4		ug/l	ND	ND	ND	ND	ND	1.8	ND	ND
Trichloroethene	79-01-6	Ę	ug/l	0.54	ND	ND	ND	0.43	ND	0.46	ND
Methyl tert butyl ether	1634-04-4	10	ug/l	ND	ND	ND	ND	3.9	ND	ND	ND
cis-1,2-Dichloroethene	156-59-2	ţ	ug/l	2.9	1500	1.7	170	7.8	1300	4.7	ND
Acetone	67-64-1	50	ug/l	2	ND	6.7	ND	ND	ND	ND	ND
2-Hexanone	591-78-6	50	ug/l	2.1	ND						
Cumulative CVOC Concer	ntration (ug/l)		(ug/l)	7.0	2,230.0	9.1	410.0	12.9	2,050.0	10.1	N/A
<b>Cumulative CVOC Concer</b>	ntration (mg/l)		(mg/l)	0.007	2.230	0.009	0.410	0.013	2.050	0.010	N/A
Result (12/23/2016)			(mg/l)	0.019	3.424	0.024	0.602	0.017	1.370	1.310	N/A
Result (5/3/2016)			(mg/l)	0.028	4.840	1.225	0.099	0.021	3.020	N/A	N/A
Result (7/31/2014)			(mg/l)	0.063	6.112	0.239	2.900	0.033	4.304	N/A	N/A

\*NY-AWQS: New York TOGS 111 Ambient Water Quality Standards criteria reflects all addendum to criteria through June 2004.

Samples collected on February 8, 2018 were analyzed by Alpha Analytical

BOLD = Exceeds NYSDEC-mandated Cumulative CVOC concentration of 1 milligram per liter (mg/L) or part per million (ppm)

ND = Not Detected

NA = Not Analyzed

J= Estimated concentration below reporting limit

D= Diluted sample

Note: CVOCs are the sum of PCE and its potential breakdown products (TCE, cis -1,2-DCE, trans-1,2-DCE, 1,1-DCE, 1,1-DCA, and Vinyl Chloride)

#### CVOCs:

TCE = trichloroethylene; 1,2,3-Trichloroethylene

cis-1,2-Dichloroethene = cis-Acetylene dichloride; cis-1,2-Dichloroethylene, cis-1,2 DCE

trans-1,2-DCE = Ethylene, 1,2-dichloro-, (E)-; (E)-1,2-Dichloroethylene; trans-Di-1,2-Chloroethylene; trans-1,2-Dichloroethene; trans-1,2-Dichloroethylene; (E)-1,2-Dichloroethylene; (E)-1,2-Dichloro

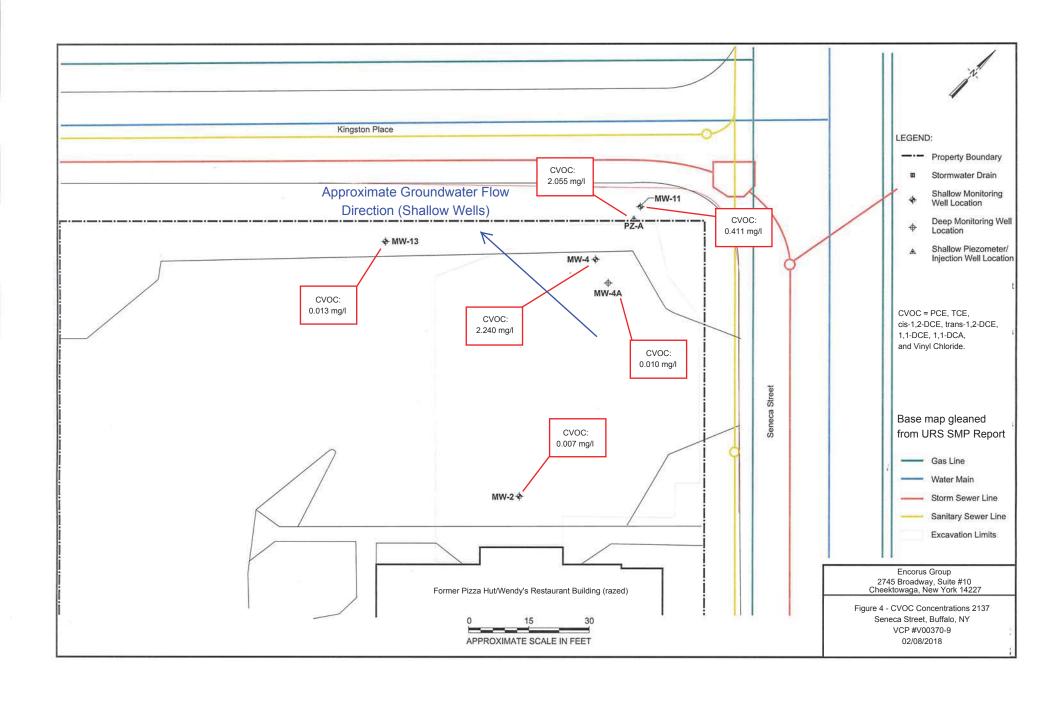
CHCl=CHCl;1,2-trans-Dichloroethene;(E)-1,2-Dichloroethene;1,2-trans-Dichloroethylene;trans-Acetylene dichloride;trans-Dichloroethylene;Acetylene

dichloride, trans-;Dichloroethylene, trans-;1,trans-2-Dichloroethene

vinyl chloride = VCM, Chloroethylene, chloroethene

PCE = tetrachloroethene, tetrachloroethylene





## **APPENDIX B - IC/EC CERTIFICATIONS**

## **APPENDIX B-1 – OWNER CERTIFICATION**

#### NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Remediation 625 Broadway, 11<sup>th</sup> Floor, Albany, NY 12233-7020 P: (518)402-9543 | F: (518)402-9547

www.dec.ny.gov

12/19/2017

Richard And Margaret Wieczorek, Owner 795 Choctaw Lane Shalimar, FL 32579

Re: Reminder Notice: Site Management Periodic Review Report and IC/EC Certification Submittal

Site Name: Former Pizza Hut

**Site No.:** V00370

Site Address: 2137 Seneca Street

Buffalo, NY 14210

## Dear Richard And Margaret Wieczorek:

This letter serves as a reminder that sites in active Site Management (SM) require the submittal of a periodic progress report. This report, referred to as the Periodic Review Report (PRR), must document the implementation of, and compliance with, site specific SM requirements. Section 6.3(b) of DER-10 *Technical Guidance for Site Investigation and Remediation* (available online at http://www.dec.ny.gov/regulations/67386.html) provides guidance regarding the information that must be included in the PRR. Further, if the site is comprised of multiple parcels, then you as the Certifying Party must arrange to submit one PRR for all parcels that comprise the site. The PRR must be received by the Department no later than **February 28, 2018**. Guidance on the content of a PRR is enclosed.

Site Management is defined in regulation (6 NYCRR 375-1.2(at)) and in Chapter 6 of DER-10. Depending on when the remedial program for your site was completed, SM may be governed by multiple documents (e.g., Operation, Maintenance, and Monitoring Plan; Soil Management Plan) or one comprehensive Site Management Plan.

A Site Management Plan (SMP) may contain one or all of the following elements, as applicable to the site: a plan to maintain institutional controls and/or engineering controls ("IC/EC Plan"); a plan for monitoring the performance and effectiveness of the selected remedy ("Monitoring Plan"); and/or a plan for the operation and maintenance of the selected remedy ("O&M Plan"). Additionally, the technical requirements for SM are stated in the decision document (e.g., Record of Decision) and, in some cases, the legal agreement directing the remediation of the site (e.g., order on consent, voluntary agreement, etc.).

When you submit the PRR (by the due date above), include the enclosed forms documenting that all SM requirements are being met. The Institutional Controls (ICs) portion of the form (Box 6) must be signed by you or your designated representative. The Engineering Controls (ECs) portion of the form (Box 7) must be signed by a Professional Engineer (PE). If you cannot certify that all SM requirements are being met, you must submit a Corrective Measures Work Plan that identifies the actions to be taken to restore compliance. The work plan must include a schedule to be approved by the Department. The Periodic Review process will not be considered complete until all necessary corrective measures are completed and all required controls are certified. Instructions for completing the certifications are enclosed.



All site-related documents and data, including the PRR, are to be submitted in electronic format to the Department of Environmental Conservation. The Department will not approve the PRR unless all documents and data generated in support of that report have been submitted in accordance with the electronic submissions protocol. In addition, the certification forms are required to be submitted in both paper and electronic formats.

Information on the format of the data submissions can be found at: http://www.dec.ny.gov/regulations/2586.html

The signed certification forms should be sent to David Szymanski, Project Manager, at the following address:

New York State Department of Environmental Conservation 270 Michigan Ave Buffalo, NY 14203-2915

Phone number: 716-851-7220. E-mail: david.szymanski@dec.ny.gov

The contact information above is also provided so that you may notify the project manager about upcoming inspections, or for any other questions or concerns that may arise in regard to the site.

## **Enclosures**

PRR General Guidance Certification Form Instructions Certification Forms

ec: w/ enclosures

David Szymanski, Project Manager Chad Staniszewski, Hazardous Waste Remediation Engineer, Region 9

1063



# Enclosure 2 NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION Site Management Periodic Review Report Notice Institutional and Engineering Controls Certification Form



Si	Site Details te No. V00370	Box 1						
Si	te Name Former Pizza Hut							
Ci Co Sil	te Address: 2137 Seneca Street Zip Code: 14210 ty/Town: Buffalo punty: Erie te Acreage: 0.7 sporting Period: January 29, 2017 to January 29, 2018							
		YES	NO					
1.	Is the information above correct?	X	u					
	If NO, include handwritten above or on a separate sheet.							
2.	Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?		¥					
3.	Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?	)	×					
4.	Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?	ting lave	法					
	If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.							
5.	Is the site currently undergoing development?		171					
		Box 2						
		YES	NO					
6.	Is the current site use consistent with the use(s) listed below?  Commercial and Industrial	×						
7.	Are all ICs/ECs in place and functioning as designed?	×	C					
	IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.							
A C	orrective Measures Work Plan must be submitted along with this form to address the	ese issu	ies.					
	nature of Owner, Remedial Party or Designated Representative Date	<u> </u>	ng mananananan arawayayaya					

SITE NO. V00370 Box 3

## **Description of Institutional Controls**

Parcel

133.26-07-1.1

Owner

Richard and Margaret Wieczorek

Institutional Control

Monitoring Plan

**Ground Water Use Restriction** 

Landuse Restriction Site Management Plan

The Declaration of Covenants and Restrictions prohibits the site from being used for anything other than industrial or commercial purposes, excluding day care, child care and medical care uses. The use of the groundwater underlying the site is also prohibit without proper treatment.

The Site Management Plan includes provisions for continued groundwater monitoring, inspection of the existing site cover, disposition of excavated soils and evaluating the potential for intrusive soil vapors if the building on site is ever reoccupied or another building constructed in its place.

Box 4

## **Description of Engineering Controls**

**Parcel** 

**Engineering Control** 

133.26-07-1.1

Cover System

BOX 5	B	OX	5
-------	---	----	---

1.	I certify	by	checking	"YES"	below	that:
----	-----------	----	----------	-------	-------	-------

- a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the certification:
- b) 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 is accurate and compete.

YES NO

X I

- If this site has an IC/EC Plan (or equivalent as required in the Decision Document), for each Institutional
  or Engineering control listed in Boxes 3 and/or 4, I certify by checking "YES" below that all of the
  following statements are true:
  - (a) the Institutional Control and/or Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department;
  - (b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;
  - (c) 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;
  - (d) nothing has occurred that would constitute a violation or failure to comply with the Site Management Plan for this Control; and
  - (e) if a financial assurance mechanism is required by the oversight document for the site, the mechanism remains valid and sufficient for its intended purpose established in the document.

YES NO

· ·

IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Kech is it M. Le record.

Signature of Owner, Remedial Party or Designated Representative

5 ( ) - U/2

Date

p.3 3⊀3

## IC CERTIFICATIONS SITE NO. V00370

Box 6

SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

I certify that all information and statements in Boxes 1,2, and 3 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.

1 RICHARD M - WIECZULEK at 31377 print name	SEMECH ST SEFFACO N.Y.
am certifying as <u>り</u> おいきょ	(Owner or Remedial Party)
for the Site named in the Site Details Section of this	form.
Signature of Owner, Remedial Party, or Designated	Representative Date

## **IC/EC CERTIFICATIONS**

Box 7

## **Professional Engineer Signature**

I certify that all information in Boxes 4 and 5 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.

1	Robert J Runge II P.E.	_ at	23 Mechanic St. PO Box 344, Springville NY, 141,41			
	print name		print business address			
am	certifying as a Professional Engine	er for the	Richard and Margaret Wieczorek (As Part Owners)			
	, ,		(Owner or Remedial Party)			

Signature of Professional Engineer, for the Owner or Remedial Party, Rendering Certification

Stamp (Required for PE)

2018-03-02

Date

## **APPENDIX B-2 - SITE INSPECTION FORMS**

## INSPECTION FORM COVER SYSTEM

Inspector's Name	Andrew J. Kucserik / E	ncorus Group			
Date and Time of Inspection	January 11, 2018; 12:0	0 PM			
Date of Last Inspection	December 22, 2016				
After sign		10001			
	INSPECTION CHE				
Vegetative cover along Kings     Walk the length of the vegetati					
3			<u>Comments</u>		
Are there any bare spots in the veget	ation cover?	Yes X No			
Are there any signs of damaged or di	iseased vegetation?		Some dead/dying bushes along	Seneca	
Are there any signs of excessive eros	sion?	Yes X No			
Is there new root exposure or new we established?	oody plants	Yes X No			
Are there any signs of burrowing ani	mals?	Yes _ No			
Any other Observations?					
2. Sidewalk along Kingston Place pavement associated with part Walk the length of the sidewalk	rking lot and access wa	valkways around y to road	building, Asphalt  Comments		
Are there any cracks greater than ½-i		Yes X No			
Are there any signs of raised paveme plant roots or subsurface subsidence?		Yes No			
Are there any signs of extensive deter	rioration of pavement?	Yes X_No			
Any other Observations?	W				
3. Remedial Action Required	The dead or dying b	ushes should be	replaced as part of the cover syst	em.	
4. Inspector's Signature And RETURN COMPLETED	drew J. Knaseri DFORM TO PROPER		PRESENTATIVE		

Parcel 2 – 2137 Seneca Street NYSDEC VCP Site Number: V-00370-9 Site Management Plan St.

## SITE-WIDE INSPECTION FORM

Da	spector's Name ate and Time of Inspection ate of Last Inspection	Andrew J. Kucserik / Encorus Group January 11, 2018; 12:00 PM December 22, 2016						
Pu	Property							
1.	•	SITE OWNERSHIP AND USE garet Wieczorek (66%)  a Maxick (34%) New Owner since last inspection? Yes X No						
2.	Name of Establishment:	Dollar General (retail store)						
3,	Current Site Use: X Com	mercialIndustrialUnoccupiedOther:						
4.	Are there any tenants residing on Site? Yes* X No							
5.	Does the Site Use include a day care, child care, or medical Care facility?Yes* _X No							
6.	Does the Site Use include a vegetable garden?Yes* X No							
7.	Does the Site utilize on Site groundwater for irrigation, potable use, or other use? Yes* _X_ No							
8.	Has the soil cover been com	promised such that contamination has been encountered? Yes* _X No						
ec 3		with an asterisk require review of the VCA and Declaration of (Appendix A and B of the SMP) and potential notification to NYSDEC to ly appropriate for the Site.						
		MEDIA MONITORING STATUS						
1.	Has a soil cover inspection been conducted since the last site-wide inspection? X Yes No Inspection Date: January 11, 2018 (Please attach copy(s) of inspection form)							
2.	Has groundwater monitori Monitoring Dates: Fel	ing performed since the past inspection? X Yes No bruary 8, 2018						
3.	Remedial Action Required	No						
		ndrew J. Kucserik  ORM TO PROPERTY OWNER REPRESENTATIVE AND NEW						

RETURN COMPLETED FORM TO PROPERTY OWNER REPRESENTATIVE AND NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION (NYSDEC)

Parcel 2 – 2137 Seneca Street NYSDEC VCP Site Number: V-00370-9 Site Management Plan

## APPENDIX C - ANALYTICAL DATA



#### ANALYTICAL REPORT

Lab Number: L1804487

Client: Encorus Group

2745 Broadway

Suite 10

Cheektowaga, NY 14227

VCP-2137 SENECA ST.

ATTN: Andrew Kucserik Phone: (716) 592-3980

Project Name: VCP-2137 SENECA ST.

Report Date: 02/13/18

Project Number:

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), NJ NELAP (MA935), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-14-00197).

Eight Walkup Drive, Westborough, MA 01581-1019 508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



**Project Name:** VCP-2137 SENECA ST. **Project Number:** VCP-2137 SENECA ST.

Lab Number: Report Date: L1804487

**port Date:** 02/13/18

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1804487-01	WELL MW-2	WATER	2137 SENECA ST., BUFFALO	02/08/18 14:48	02/08/18
L1804487-02	WELL MW-4	WATER	2137 SENECA ST., BUFFALO	02/08/18 12:53	02/08/18
L1804487-03	WELL MW-4A	WATER	2137 SENECA ST., BUFFALO	02/08/18 13:10	02/08/18
L1804487-04	WELL MW-11	WATER	2137 SENECA ST., BUFFALO	02/08/18 13:18	02/08/18
L1804487-05	WELL MW-13	WATER	2137 SENECA ST., BUFFALO	02/08/18 13:40	02/08/18
L1804487-06	WELL PZ-A	WATER	2137 SENECA ST., BUFFALO	02/08/18 13:29	02/08/18
L1804487-07	DUPLICATE	WATER	2137 SENECA ST., BUFFALO	02/08/18 15:01	02/08/18
L1804487-08	TRIP BLANK	WATER	2137 SENECA ST., BUFFALO	02/08/18 12:30	02/08/18



Project Name:VCP-2137 SENECA ST.Lab Number:L1804487Project Number:VCP-2137 SENECA ST.Report Date:02/13/18

#### **Case Narrative**

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

#### HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please	contact	Client	Services	at 80	0-624	-9220	with	any	question	ıs.



Project Name:VCP-2137 SENECA ST.Lab Number:L1804487Project Number:VCP-2137 SENECA ST.Report Date:02/13/18

### **Case Narrative (continued)**

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

Title: Technical Director/Representative Date: 02/13/18

Custin Walker Cristin Walker

## **ORGANICS**



## **VOLATILES**



L1804487

**Project Name:** VCP-2137 SENECA ST.

Project Number: VCP-2137 SENECA ST.

**SAMPLE RESULTS** 

**Report Date:** 02/13/18

Lab Number:

Lab ID: L1804487-01 Client ID: WELL MW-2

Sample Location: 2137 SENECA ST., BUFFALO

Sample Depth:

Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 02/12/18 14:08

Analyst: AD

Date Collected: 02/08/18 14:48
Date Received: 02/08/18
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Wes	stborough Lab					
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	3.6		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	0.54		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1



**Project Name:** VCP-2137 SENECA ST. **Lab Number:** L1804487

Project Number: VCP-2137 SENECA ST. Report Date: 02/13/18

**SAMPLE RESULTS** 

Lab ID: Date Collected: 02/08/18 14:48

Client ID: WELL MW-2 Date Received: 02/08/18
Sample Location: 2137 SENECA ST., BUFFALO Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westbo	rough Lab					
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	2.9		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	2.0	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	2.1	J	ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Acceptance Qualifier Criteria	
1,2-Dichloroethane-d4	107	70-130	
Toluene-d8	102	70-130	
4-Bromofluorobenzene	103	70-130	
Dibromofluoromethane	93	70-130	



L1804487

**Project Name:** VCP-2137 SENECA ST.

1,8260C

**Project Number:** VCP-2137 SENECA ST.

**SAMPLE RESULTS** 

02/13/18

Report Date:

Lab Number:

2137 SENECA ST., BUFFALO

Lab ID: L1804487-02 D

Client ID: WELL MW-4

Sample Location: Sample Depth:

Analytical Method:

Matrix: Water

Analytical Date: 02/12/18 16:14

Analyst: TAB

Date Collected:	02/08/18 12:53
Date Received:	02/08/18
Field Pren:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westb	orough Lab					
Methylene chloride	ND		ug/l	50	14.	20
1,1-Dichloroethane	ND		ug/l	50	14.	20
Chloroform	ND		ug/l	50	14.	20
Carbon tetrachloride	ND		ug/l	10	2.7	20
1,2-Dichloropropane	ND		ug/l	20	2.7	20
Dibromochloromethane	ND		ug/l	10	3.0	20
1,1,2-Trichloroethane	ND		ug/l	30	10.	20
Tetrachloroethene	ND		ug/l	10	3.6	20
Chlorobenzene	ND		ug/l	50	14.	20
Trichlorofluoromethane	ND		ug/l	50	14.	20
1,2-Dichloroethane	ND		ug/l	10	2.6	20
1,1,1-Trichloroethane	ND		ug/l	50	14.	20
Bromodichloromethane	ND		ug/l	10	3.8	20
trans-1,3-Dichloropropene	ND		ug/l	10	3.3	20
cis-1,3-Dichloropropene	ND		ug/l	10	2.9	20
Bromoform	ND		ug/l	40	13.	20
1,1,2,2-Tetrachloroethane	ND		ug/l	10	3.3	20
Benzene	ND		ug/l	10	3.2	20
Toluene	ND		ug/l	50	14.	20
Ethylbenzene	ND		ug/l	50	14.	20
Chloromethane	ND		ug/l	50	14.	20
Bromomethane	ND		ug/l	50	14.	20
Vinyl chloride	730		ug/l	20	1.4	20
Chloroethane	ND		ug/l	50	14.	20
1,1-Dichloroethene	ND		ug/l	10	3.4	20
trans-1,2-Dichloroethene	ND		ug/l	50	14.	20
Trichloroethene	ND		ug/l	10	3.5	20
1,2-Dichlorobenzene	ND		ug/l	50	14.	20
1,3-Dichlorobenzene	ND		ug/l	50	14.	20



02/08/18 12:53

**Project Name:** VCP-2137 SENECA ST. **Lab Number:** L1804487

Project Number: VCP-2137 SENECA ST. Report Date: 02/13/18

**SAMPLE RESULTS** 

Lab ID: L1804487-02 D Date Collected:

Client ID: WELL MW-4 Date Received: 02/08/18
Sample Location: 2137 SENECA ST., BUFFALO Field Prep: Not Specified

Campio Boptini						
Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Wes	stborough Lab					
1,4-Dichlorobenzene	ND		ug/l	50	14.	20
Methyl tert butyl ether	ND		ug/l	50	14.	20
p/m-Xylene	ND		ug/l	50	14.	20
o-Xylene	ND		ug/l	50	14.	20
cis-1,2-Dichloroethene	1500		ug/l	50	14.	20
Styrene	ND		ug/l	50	14.	20
Dichlorodifluoromethane	ND		ug/l	100	20.	20
Acetone	ND		ug/l	100	29.	20
Carbon disulfide	ND		ug/l	100	20.	20
2-Butanone	ND		ug/l	100	39.	20
4-Methyl-2-pentanone	ND		ug/l	100	20.	20
2-Hexanone	ND		ug/l	100	20.	20
Bromochloromethane	ND		ug/l	50	14.	20
1,2-Dibromoethane	ND		ug/l	40	13.	20
1,2-Dibromo-3-chloropropane	ND		ug/l	50	14.	20
Isopropylbenzene	ND		ug/l	50	14.	20
1,2,3-Trichlorobenzene	ND		ug/l	50	14.	20
1,2,4-Trichlorobenzene	ND		ug/l	50	14.	20
Methyl Acetate	ND		ug/l	40	4.7	20
Cyclohexane	ND		ug/l	200	5.4	20
1,4-Dioxane	ND		ug/l	5000	1200	20
Freon-113	ND		ug/l	50	14.	20
Methyl cyclohexane	ND		ug/l	200	7.9	20

Surrogate	% Recovery	Acceptance Qualifier Criteria	
1,2-Dichloroethane-d4	109	70-130	
Toluene-d8	103	70-130	
4-Bromofluorobenzene	103	70-130	
Dibromofluoromethane	95	70-130	



L1804487

02/13/18

Project Name: VCP-2137 SENECA ST.

Project Number: VCP-2137 SENECA ST.

**SAMPLE RESULTS** 

Date Collected: 02/08/18 13:10

Lab Number:

Report Date:

Date Received: 02/08/18
Field Prep: Not Specified

Lab ID: L1804487-03
Client ID: WELL MW-4A

Sample Location: 2137 SENECA ST., BUFFALO

Sample Depth:

Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 02/12/18 14:34

Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westbook	ough Lab					
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	7.4		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1



**Project Name:** VCP-2137 SENECA ST. **Lab Number:** L1804487

Project Number: VCP-2137 SENECA ST. Report Date: 02/13/18

**SAMPLE RESULTS** 

Lab ID: L1804487-03 Date Collected: 02/08/18 13:10

Client ID: WELL MW-4A Date Received: 02/08/18
Sample Location: 2137 SENECA ST., BUFFALO Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborou	ıgh Lab					
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	1.7	J	ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	6.7		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Acceptance Qualifier Criteria	
1,2-Dichloroethane-d4	109	70-130	
Toluene-d8	102	70-130	
4-Bromofluorobenzene	102	70-130	
Dibromofluoromethane	94	70-130	



02/08/18

Not Specified

Date Received:

Field Prep:

**Project Name:** VCP-2137 SENECA ST. **Lab Number:** L1804487

Project Number: VCP-2137 SENECA ST. Report Date: 02/13/18

**SAMPLE RESULTS** 

Lab ID: L1804487-04 D Date Collected: 02/08/18 13:18

Client ID: WELL MW-11

Sample Location: 2137 SENECA ST., BUFFALO

Sample Depth:

Matrix: Water Analytical Method: 1,8260C

Analytical Date: 02/12/18 16:39

Analyst: TAB

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - West	borough Lab					
Methylene chloride	ND		ug/l	5.0	1.4	2
1,1-Dichloroethane	ND		ug/l	5.0	1.4	2
Chloroform	ND		ug/l	5.0	1.4	2
Carbon tetrachloride	ND		ug/l	1.0	0.27	2
1,2-Dichloropropane	ND		ug/l	2.0	0.27	2
Dibromochloromethane	ND		ug/l	1.0	0.30	2
1,1,2-Trichloroethane	ND		ug/l	3.0	1.0	2
Tetrachloroethene	ND		ug/l	1.0	0.36	2
Chlorobenzene	ND		ug/l	5.0	1.4	2
Trichlorofluoromethane	ND		ug/l	5.0	1.4	2
1,2-Dichloroethane	ND		ug/l	1.0	0.26	2
1,1,1-Trichloroethane	ND		ug/l	5.0	1.4	2
Bromodichloromethane	ND		ug/l	1.0	0.38	2
trans-1,3-Dichloropropene	ND		ug/l	1.0	0.33	2
cis-1,3-Dichloropropene	ND		ug/l	1.0	0.29	2
Bromoform	ND		ug/l	4.0	1.3	2
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	0.33	2
Benzene	ND		ug/l	1.0	0.32	2
Toluene	ND		ug/l	5.0	1.4	2
Ethylbenzene	ND		ug/l	5.0	1.4	2
Chloromethane	ND		ug/l	5.0	1.4	2
Bromomethane	ND		ug/l	5.0	1.4	2
Vinyl chloride	240		ug/l	2.0	0.14	2
Chloroethane	ND		ug/l	5.0	1.4	2
1,1-Dichloroethene	ND		ug/l	1.0	0.34	2
trans-1,2-Dichloroethene	ND		ug/l	5.0	1.4	2
Trichloroethene	ND		ug/l	1.0	0.35	2
1,2-Dichlorobenzene	ND		ug/l	5.0	1.4	2
1,3-Dichlorobenzene	ND		ug/l	5.0	1.4	2



**Project Name:** VCP-2137 SENECA ST. **Lab Number:** L1804487

Project Number: VCP-2137 SENECA ST. Report Date: 02/13/18

**SAMPLE RESULTS** 

Lab ID: L1804487-04 D Date Collected: 02/08/18 13:18

Client ID: WELL MW-11 Date Received: 02/08/18
Sample Location: 2137 SENECA ST., BUFFALO Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westh	oorough Lab					
1,4-Dichlorobenzene	ND		ug/l	5.0	1.4	2
Methyl tert butyl ether	ND		ug/l	5.0	1.4	2
p/m-Xylene	ND		ug/l	5.0	1.4	2
o-Xylene	ND		ug/l	5.0	1.4	2
cis-1,2-Dichloroethene	170		ug/l	5.0	1.4	2
Styrene	ND		ug/l	5.0	1.4	2
Dichlorodifluoromethane	ND		ug/l	10	2.0	2
Acetone	ND		ug/l	10	2.9	2
Carbon disulfide	ND		ug/l	10	2.0	2
2-Butanone	ND		ug/l	10	3.9	2
4-Methyl-2-pentanone	ND		ug/l	10	2.0	2
2-Hexanone	ND		ug/l	10	2.0	2
Bromochloromethane	ND		ug/l	5.0	1.4	2
1,2-Dibromoethane	ND		ug/l	4.0	1.3	2
1,2-Dibromo-3-chloropropane	ND		ug/l	5.0	1.4	2
Isopropylbenzene	ND		ug/l	5.0	1.4	2
1,2,3-Trichlorobenzene	ND		ug/l	5.0	1.4	2
1,2,4-Trichlorobenzene	ND		ug/l	5.0	1.4	2
Methyl Acetate	ND		ug/l	4.0	0.47	2
Cyclohexane	ND		ug/l	20	0.54	2
1,4-Dioxane	ND		ug/l	500	120	2
Freon-113	ND		ug/l	5.0	1.4	2
Methyl cyclohexane	ND		ug/l	20	0.79	2

Surrogate	% Recovery	Acceptance Qualifier Criteria	
1,2-Dichloroethane-d4	109	70-130	
Toluene-d8	103	70-130	
4-Bromofluorobenzene	104	70-130	
Dibromofluoromethane	95	70-130	



L1804487

02/08/18 13:40

Not Specified

02/08/18

**Project Name:** VCP-2137 SENECA ST.

**Project Number:** VCP-2137 SENECA ST.

**SAMPLE RESULTS** 

Report Date: 02/13/18

Lab Number:

Date Collected:

Date Received:

Field Prep:

Lab ID: L1804487-05 Client ID: WELL MW-13

Sample Location: 2137 SENECA ST., BUFFALO

Sample Depth:

Matrix: Water 1,8260C Analytical Method:

Analytical Date: 02/12/18 14:59

Analyst: ΑD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westl	borough Lab					
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	0.93	J	ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	4.7		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	0.43	J	ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1



**Project Name:** VCP-2137 SENECA ST. **Lab Number:** L1804487

Project Number: VCP-2137 SENECA ST. Report Date: 02/13/18

**SAMPLE RESULTS** 

Lab ID: Date Collected: 02/08/18 13:40

Client ID: WELL MW-13 Date Received: 02/08/18
Sample Location: 2137 SENECA ST., BUFFALO Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - West	borough Lab					
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	3.9		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	7.8		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Acceptance Qualifier Criteria	
1,2-Dichloroethane-d4	106	70-130	
Toluene-d8	102	70-130	
4-Bromofluorobenzene	103	70-130	
Dibromofluoromethane	93	70-130	



02/08/18

Not Specified

Project Name: VCP-2137 SENECA ST.

Lab Number: L1804487

Date Received:

Field Prep:

Project Number: VCP-2137 SENECA ST. Report Date: 02/13/18

**SAMPLE RESULTS** 

Lab ID: L1804487-06 D Date Collected: 02/08/18 13:29

Client ID: WELL PZ-A

Sample Location: 2137 SENECA ST., BUFFALO

Sample Depth:

Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 02/12/18 17:04

Analyst: TAB

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Wes	tborough Lab					
Methylene chloride	ND		ug/l	25	7.0	10
1,1-Dichloroethane	ND		ug/l	25	7.0	10
Chloroform	ND		ug/l	25	7.0	10
Carbon tetrachloride	ND		ug/l	5.0	1.3	10
1,2-Dichloropropane	ND		ug/l	10	1.4	10
Dibromochloromethane	ND		ug/l	5.0	1.5	10
1,1,2-Trichloroethane	ND		ug/l	15	5.0	10
Tetrachloroethene	ND		ug/l	5.0	1.8	10
Chlorobenzene	ND		ug/l	25	7.0	10
Trichlorofluoromethane	ND		ug/l	25	7.0	10
1,2-Dichloroethane	ND		ug/l	5.0	1.3	10
1,1,1-Trichloroethane	ND		ug/l	25	7.0	10
Bromodichloromethane	ND		ug/l	5.0	1.9	10
trans-1,3-Dichloropropene	ND		ug/l	5.0	1.6	10
cis-1,3-Dichloropropene	ND		ug/l	5.0	1.4	10
Bromoform	ND		ug/l	20	6.5	10
1,1,2,2-Tetrachloroethane	ND		ug/l	5.0	1.7	10
Benzene	ND		ug/l	5.0	1.6	10
Toluene	ND		ug/l	25	7.0	10
Ethylbenzene	ND		ug/l	25	7.0	10
Chloromethane	ND		ug/l	25	7.0	10
Bromomethane	ND		ug/l	25	7.0	10
Vinyl chloride	750		ug/l	10	0.71	10
Chloroethane	ND		ug/l	25	7.0	10
1,1-Dichloroethene	1.8	J	ug/l	5.0	1.7	10
trans-1,2-Dichloroethene	ND		ug/l	25	7.0	10
Trichloroethene	ND		ug/l	5.0	1.8	10
1,2-Dichlorobenzene	ND		ug/l	25	7.0	10
1,3-Dichlorobenzene	ND		ug/l	25	7.0	10



**Project Name:** VCP-2137 SENECA ST. **Lab Number:** L1804487

Project Number: VCP-2137 SENECA ST. Report Date: 02/13/18

**SAMPLE RESULTS** 

Lab ID: L1804487-06 D Date Collected: 02/08/18 13:29

Client ID: WELL PZ-A Date Received: 02/08/18
Sample Location: 2137 SENECA ST., BUFFALO Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - West	borough Lab					
1,4-Dichlorobenzene	ND		ug/l	25	7.0	10
Methyl tert butyl ether	ND		ug/l	25	7.0	10
p/m-Xylene	ND		ug/l	25	7.0	10
o-Xylene	ND		ug/l	25	7.0	10
cis-1,2-Dichloroethene	1300		ug/l	25	7.0	10
Styrene	ND		ug/l	25	7.0	10
Dichlorodifluoromethane	ND		ug/l	50	10.	10
Acetone	ND		ug/l	50	15.	10
Carbon disulfide	ND		ug/l	50	10.	10
2-Butanone	ND		ug/l	50	19.	10
4-Methyl-2-pentanone	ND		ug/l	50	10.	10
2-Hexanone	ND		ug/l	50	10.	10
Bromochloromethane	ND		ug/l	25	7.0	10
1,2-Dibromoethane	ND		ug/l	20	6.5	10
1,2-Dibromo-3-chloropropane	ND		ug/l	25	7.0	10
Isopropylbenzene	ND		ug/l	25	7.0	10
1,2,3-Trichlorobenzene	ND		ug/l	25	7.0	10
1,2,4-Trichlorobenzene	ND		ug/l	25	7.0	10
Methyl Acetate	ND		ug/l	20	2.3	10
Cyclohexane	ND		ug/l	100	2.7	10
1,4-Dioxane	ND		ug/l	2500	610	10
Freon-113	ND		ug/l	25	7.0	10
Methyl cyclohexane	ND		ug/l	100	4.0	10

Surrogate	% Recovery	Acceptance Qualifier Criteria	
1,2-Dichloroethane-d4	107	70-130	
Toluene-d8	103	70-130	
4-Bromofluorobenzene	103	70-130	
Dibromofluoromethane	95	70-130	



**Project Name:** VCP-2137 SENECA ST.

**Project Number:** VCP-2137 SENECA ST.

**SAMPLE RESULTS** 

Report Date:

Lab Number:

02/13/18

L1804487

Lab ID: L1804487-07 Client ID: **DUPLICATE** 

Sample Location:

2137 SENECA ST., BUFFALO

Sample Depth:

Matrix: Water Analytical Method: 1,8260C Analytical Date: 02/12/18 15:24

Analyst: ΑD

Date Collected:	02/08/18 15:01
Date Received:	02/08/18
Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - West	borough Lab					
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	4.9		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	0.46	J	ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1



**Project Name:** VCP-2137 SENECA ST. **Lab Number:** L1804487

**Project Number:** VCP-2137 SENECA ST. **Report Date:** 02/13/18

**SAMPLE RESULTS** 

Lab ID: Date Collected: 02/08/18 15:01

Client ID: DUPLICATE Date Received: 02/08/18
Sample Location: 2137 SENECA ST., BUFFALO Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westbo	rough Lab					
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	4.7		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Acceptance Qualifier Criteria	
1,2-Dichloroethane-d4	109	70-130	
Toluene-d8	103	70-130	
4-Bromofluorobenzene	102	70-130	
Dibromofluoromethane	94	70-130	



02/08/18

Not Specified

Date Received:

Field Prep:

1.0

2.5

0.50

2.5

0.50

2.5

2.5

ug/l

ug/l

ug/l

ug/l

ug/l

ug/l

ug/l

0.07

0.70

0.17

0.70

0.18

0.70

0.70

**Project Name:** VCP-2137 SENECA ST. **Lab Number:** L1804487

Project Number: VCP-2137 SENECA ST. Report Date: 02/13/18

**SAMPLE RESULTS** 

Lab ID: L1804487-08 Date Collected: 02/08/18 12:30

Client ID: TRIP BLANK

Sample Location: 2137 SENECA ST., BUFFALO

Sample Depth:

Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 02/12/18 15:49

Analyst: TAB

_						
Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - We	estborough Lab					
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1

ND

ND

ND

ND

ND

ND

ND



1

1

1

1

1

1

Vinyl chloride

Chloroethane

Trichloroethene

1,1-Dichloroethene

1,2-Dichlorobenzene

1,3-Dichlorobenzene

trans-1,2-Dichloroethene

**Project Name:** VCP-2137 SENECA ST. **Lab Number:** L1804487

Project Number: VCP-2137 SENECA ST. Report Date: 02/13/18

**SAMPLE RESULTS** 

Lab ID: Date Collected: 02/08/18 12:30

Client ID: TRIP BLANK Date Received: 02/08/18
Sample Location: 2137 SENECA ST., BUFFALO Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westbord	ough Lab					
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Acceptance Qualifier Criteria
1,2-Dichloroethane-d4	106	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	103	70-130
Dibromofluoromethane	93	70-130



Project Name:VCP-2137 SENECA ST.Lab Number:L1804487Project Number:VCP-2137 SENECA STReport Date:02/13/18

## Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C Analytical Date: 02/12/18 08:42

Analyst: PD

Parameter	Result	Qualifier Units	RL	MDL	
olatile Organics by GC/MS	- Westborough Lab	for sample(s): 0°	1-08 Batch:	WG1088563-5	
Methylene chloride	ND	ug/l	2.5	0.70	
1,1-Dichloroethane	ND	ug/l	2.5	0.70	
Chloroform	ND	ug/l	2.5	0.70	
Carbon tetrachloride	ND	ug/l	0.50	0.13	
1,2-Dichloropropane	ND	ug/l	1.0	0.14	
Dibromochloromethane	ND	ug/l	0.50	0.15	
1,1,2-Trichloroethane	ND	ug/l	1.5	0.50	
Tetrachloroethene	ND	ug/l	0.50	0.18	
Chlorobenzene	ND	ug/l	2.5	0.70	
Trichlorofluoromethane	ND	ug/l	2.5	0.70	
1,2-Dichloroethane	ND	ug/l	0.50	0.13	
1,1,1-Trichloroethane	ND	ug/l	2.5	0.70	
Bromodichloromethane	ND	ug/l	0.50	0.19	
trans-1,3-Dichloropropene	ND	ug/l	0.50	0.16	
cis-1,3-Dichloropropene	ND	ug/l	0.50	0.14	
Bromoform	ND	ug/l	2.0	0.65	
1,1,2,2-Tetrachloroethane	ND	ug/l	0.50	0.17	
Benzene	ND	ug/l	0.50	0.16	
Toluene	ND	ug/l	2.5	0.70	
Ethylbenzene	ND	ug/l	2.5	0.70	
Chloromethane	ND	ug/l	2.5	0.70	
Bromomethane	ND	ug/l	2.5	0.70	
Vinyl chloride	ND	ug/l	1.0	0.07	
Chloroethane	ND	ug/l	2.5	0.70	
1,1-Dichloroethene	ND	ug/l	0.50	0.17	
trans-1,2-Dichloroethene	ND	ug/l	2.5	0.70	
Trichloroethene	ND	ug/l	0.50	0.18	
1,2-Dichlorobenzene	ND	ug/l	2.5	0.70	
1,3-Dichlorobenzene	ND	ug/l	2.5	0.70	



Project Name:VCP-2137 SENECA ST.Lab Number:L1804487Project Number:VCP-2137 SENECA STReport Date:02/13/18

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C Analytical Date: 02/12/18 08:42

Analyst: PD

arameter	Result	Qualifier Units	RL	MDL
olatile Organics by GC/MS - V	estborough Lat	o for sample(s): 01-08	Batch:	WG1088563-5
1,4-Dichlorobenzene	ND	ug/l	2.5	0.70
Methyl tert butyl ether	ND	ug/l	2.5	0.70
p/m-Xylene	ND	ug/l	2.5	0.70
o-Xylene	ND	ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND	ug/l	2.5	0.70
Styrene	ND	ug/l	2.5	0.70
Dichlorodifluoromethane	ND	ug/l	5.0	1.0
Acetone	ND	ug/l	5.0	1.5
Carbon disulfide	ND	ug/l	5.0	1.0
2-Butanone	ND	ug/l	5.0	1.9
4-Methyl-2-pentanone	ND	ug/l	5.0	1.0
2-Hexanone	ND	ug/l	5.0	1.0
Bromochloromethane	ND	ug/l	2.5	0.70
1,2-Dibromoethane	ND	ug/l	2.0	0.65
1,2-Dibromo-3-chloropropane	ND	ug/l	2.5	0.70
Isopropylbenzene	ND	ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND	ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND	ug/l	2.5	0.70
Methyl Acetate	ND	ug/l	2.0	0.23
Cyclohexane	ND	ug/l	10	0.27
1,4-Dioxane	ND	ug/l	250	61.
Freon-113	ND	ug/l	2.5	0.70
Methyl cyclohexane	ND	ug/l	10	0.40

Tentatively Identified Compounds

No Tentatively Identified Compounds ND ug/l



Project Name:VCP-2137 SENECA ST.Lab Number:L1804487Project Number:VCP-2137 SENECA STReport Date:02/13/18

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C Analytical Date: 02/12/18 08:42

Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	
Volatile Organics by GC/MS - West	borough La	b for sampl	e(s): 01-0	Batch:	WG1088563-5	

		Acceptance
Surrogate	%Recovery	Qualifier Criteria
1,2-Dichloroethane-d4	103	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	102	70-130
Dibromofluoromethane	94	70-130



02/13/18

# Lab Control Sample Analysis Batch Quality Control

**Project Name:** VCP-2137 SENECA ST.

Lab Number: L1804487

Report Date:

**Project Number:** VCP-2137 SENECA ST.

arameter	LCS %Recovery	Qual	LCSD %Recovery	' Qual	%Recovery Limits	RPD	RPD Qual Limits	
olatile Organics by GC/MS - Westborough	Lab Associated	sample(s):	01-08 Batch:	WG1088563-3	WG1088563-4			
Methylene chloride	86		84		70-130	2	20	
1,1-Dichloroethane	94		92		70-130	2	20	
Chloroform	92		90		70-130	2	20	
Carbon tetrachloride	80		78		63-132	3	20	
1,2-Dichloropropane	94		93		70-130	1	20	
Dibromochloromethane	84		83		63-130	1	20	
1,1,2-Trichloroethane	98		96		70-130	2	20	
Tetrachloroethene	89		85		70-130	5	20	
Chlorobenzene	91		89		75-130	2	20	
Trichlorofluoromethane	100		100		62-150	0	20	
1,2-Dichloroethane	96		95		70-130	1	20	
1,1,1-Trichloroethane	87		85		67-130	2	20	
Bromodichloromethane	87		85		67-130	2	20	
trans-1,3-Dichloropropene	89		87		70-130	2	20	
cis-1,3-Dichloropropene	86		85		70-130	1	20	
Bromoform	78		76		54-136	3	20	
1,1,2,2-Tetrachloroethane	100		99		67-130	1	20	
Benzene	90		88		70-130	2	20	
Toluene	93		90		70-130	3	20	
Ethylbenzene	95		94		70-130	1	20	
Chloromethane	93		89		64-130	4	20	
Bromomethane	82		80		39-139	2	20	
Vinyl chloride	90		87		55-140	3	20	



# Lab Control Sample Analysis Batch Quality Control

**Project Name:** VCP-2137 SENECA ST. **Project Number:** VCP-2137 SENECA ST.

Lab Number: L1804487

**Report Date:** 02/13/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	
/olatile Organics by GC/MS - We	estborough Lab Associated	sample(s):	01-08 Batch: \	WG1088563-3	WG1088563-4				
Chloroethane	97		93		55-138	4		20	
1,1-Dichloroethene	87		84		61-145	4		20	
trans-1,2-Dichloroethene	86		85		70-130	1		20	
Trichloroethene	86		85		70-130	1		20	
1,2-Dichlorobenzene	92		90		70-130	2		20	
1,3-Dichlorobenzene	91		89		70-130	2		20	
1,4-Dichlorobenzene	92		90		70-130	2		20	
Methyl tert butyl ether	82		81		63-130	1		20	
p/m-Xylene	95		90		70-130	5		20	
o-Xylene	95		90		70-130	5		20	
cis-1,2-Dichloroethene	85		86		70-130	1		20	
Styrene	95		95		70-130	0		20	
Dichlorodifluoromethane	75		73		36-147	3		20	
Acetone	110		100		58-148	10		20	
Carbon disulfide	83		81		51-130	2		20	
2-Butanone	110		110		63-138	0		20	
4-Methyl-2-pentanone	96		94		59-130	2		20	
2-Hexanone	95		95		57-130	0		20	
Bromochloromethane	85		85		70-130	0		20	
1,2-Dibromoethane	91		89		70-130	2		20	
1,2-Dibromo-3-chloropropane	79		79		41-144	0		20	
Isopropylbenzene	98		96		70-130	2		20	
1,2,3-Trichlorobenzene	99		100		70-130	1		20	



# Lab Control Sample Analysis Batch Quality Control

**Project Name:** VCP-2137 SENECA ST.

Lab Number:

L1804487

**Project Number:** VCP-2137 SENECA ST.

Report Date:

02/13/18

Parameter	LCS %Recovery	Qual	LCSD %Recove		%Recovery Limits	RPD	Qual	RPD Limits	
Volatile Organics by GC/MS - Westborough L	ab Associated	sample(s):	01-08 Batc	h: WG1088563-3	3 WG1088563-4				
1,2,4-Trichlorobenzene	94		93		70-130	1	1	20	
Methyl Acetate	100		100		70-130	0		20	
Cyclohexane	100		99		70-130	1		20	
1,4-Dioxane	82		80		56-162	2		20	
Freon-113	90		88		70-130	2		20	
Methyl cyclohexane	94		92		70-130	2		20	

Surrogate	LCS %Recovery Qual	LCSD %Recovery Qual	Acceptance Criteria
1,2-Dichloroethane-d4	108	107	70-130
Toluene-d8	103	102	70-130
4-Bromofluorobenzene	102	101	70-130
Dibromofluoromethane	96	96	70-130

Project Name: VCP-2137 SENECA ST.

Project Number: VCP-2137 SENECA ST.

**Lab Number:** L1804487 **Report Date:** 02/13/18

### Sample Receipt and Container Information

Were project specific reporting limits specified?

**Cooler Information** 

Cooler Custody Seal

A Absent

Container Information				Initial	Final	Temp			Frozen		
	Container ID	Container Type	Cooler	рН	рН	deg C	Pres	Seal	Date/Time	Analysis(*)	
	L1804487-01A	Vial HCl preserved	Α	NA		2.1	Υ	Absent		NYTCL-8260-R2(14)	
	L1804487-01B	Vial HCl preserved	Α	NA		2.1	Υ	Absent		NYTCL-8260-R2(14)	
	L1804487-01C	Vial HCl preserved	Α	NA		2.1	Υ	Absent		NYTCL-8260-R2(14)	
	L1804487-02A	Vial HCl preserved	Α	NA		2.1	Υ	Absent		NYTCL-8260-R2(14)	
	L1804487-02B	Vial HCl preserved	Α	NA		2.1	Υ	Absent		NYTCL-8260-R2(14)	
	L1804487-02C	Vial HCl preserved	Α	NA		2.1	Υ	Absent		NYTCL-8260-R2(14)	
	L1804487-03A	Vial HCl preserved	Α	NA		2.1	Υ	Absent		NYTCL-8260-R2(14)	
	L1804487-03B	Vial HCl preserved	Α	NA		2.1	Υ	Absent		NYTCL-8260-R2(14)	
	L1804487-03C	Vial HCl preserved	Α	NA		2.1	Υ	Absent		NYTCL-8260-R2(14)	
	L1804487-04A	Vial HCl preserved	Α	NA		2.1	Υ	Absent		NYTCL-8260-R2(14)	
	L1804487-04B	Vial HCl preserved	Α	NA		2.1	Υ	Absent		NYTCL-8260-R2(14)	
	L1804487-04C	Vial HCl preserved	Α	NA		2.1	Υ	Absent		NYTCL-8260-R2(14)	
	L1804487-05A	Vial HCl preserved	Α	NA		2.1	Υ	Absent		NYTCL-8260-R2(14)	
	L1804487-05B	Vial HCl preserved	Α	NA		2.1	Υ	Absent		NYTCL-8260-R2(14)	
	L1804487-05C	Vial HCl preserved	Α	NA		2.1	Υ	Absent		NYTCL-8260-R2(14)	
	L1804487-06A	Vial HCl preserved	Α	NA		2.1	Υ	Absent		NYTCL-8260-R2(14)	
	L1804487-06B	Vial HCl preserved	Α	NA		2.1	Υ	Absent		NYTCL-8260-R2(14)	
	L1804487-06C	Vial HCl preserved	Α	NA		2.1	Υ	Absent		NYTCL-8260-R2(14)	
	L1804487-07A	Vial HCl preserved	Α	NA		2.1	Υ	Absent		NYTCL-8260-R2(14)	
	L1804487-07B	Vial HCl preserved	Α	NA		2.1	Υ	Absent		NYTCL-8260-R2(14)	
	L1804487-07C	Vial HCl preserved	Α	NA		2.1	Υ	Absent		NYTCL-8260-R2(14)	
	L1804487-08A	Vial HCl preserved	Α	NA		2.1	Υ	Absent		NYTCL-8260-R2(14)	
	L1804487-08B	Vial HCl preserved	Α	NA		2.1	Υ	Absent		NYTCL-8260-R2(14)	



**Lab Number:** L1804487

**Report Date:** 02/13/18

**Container Information** Initial Final Temp Frozen pН

Project Name: VCP-2137 SENECA ST.

**Project Number:** VCP-2137 SENECA ST.

deg C Pres Seal Date/Time Cooler pH Container ID Container Type Analysis(\*)



Project Name:VCP-2137 SENECA ST.Lab Number:L1804487Project Number:VCP-2137 SENECA ST.Report Date:02/13/18

#### **GLOSSARY**

#### Acronyms

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated

values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis

of PAHs using Solid-Phase Microextraction (SPME).

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of

analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of

analytes or a material containing known and verified amounts of analytes.

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any

adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for

which an independent estimate of target analyte concentration is available.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's

reporting unit.

NDPA/DPA - N-Nitrosodiphenylamine/Diphenylamine.

NI - Not Ignitable.

NP - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL

includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less

than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the

values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the

associated field samples.

STLP - Semi-dynamic Tank Leaching Procedure per EPA Method 1315.

TIC - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound

list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

#### **Footnotes**

- The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

#### Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

#### Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

- The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related

Report Format: DU Report with 'J' Qualifiers



В

Project Name:VCP-2137 SENECA ST.Lab Number:L1804487Project Number:VCP-2137 SENECA ST.Report Date:02/13/18

#### **Data Qualifiers**

projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

- Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations
  of the analyte.
- E Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.
- H The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I The lower value for the two columns has been reported due to obvious interference.
- M Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P The RPD between the results for the two columns exceeds the method-specified criteria.
- Q The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- **R** Analytical results are from sample re-analysis.
- **RE** Analytical results are from sample re-extraction.
- S Analytical results are from modified screening analysis.
- Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with 'J' Qualifiers



Project Name:VCP-2137 SENECA ST.Lab Number:L1804487Project Number:VCP-2137 SENECA ST.Report Date:02/13/18

#### REFERENCES

Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

### LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Alpha Analytical, Inc. Facility: Company-wide

Department: Quality Assurance

Title: Certificate/Approval Program Summary

ID No.:17873

Revision 11 Published Date: 1/8/2018 4:15:49 PM

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### Certification Information

#### The following analytes are not included in our Primary NELAP Scope of Accreditation:

#### Westborough Facility

EPA 624: m/p-xylene, o-xylene

EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: lodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.

EPA 8270D: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.

EPA 300: DW: Bromide EPA 6860: SCM: Perchlorate

EPA 9010: NPW and SCM: Amenable Cyanide Distillation

SM4500: NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO2, NO3.

### **Mansfield Facility**

SM 2540D: TSS

EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

Biological Tissue Matrix: EPA 3050B

#### The following analytes are included in our Massachusetts DEP Scope of Accreditation

#### Westborough Facility:

#### **Drinking Water**

EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; EPA 353.2: Nitrate-N, Nitrite-N; SM4500NO3-F: Nitrate-N, Nitrite-N; SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B

EPA 332: Perchlorate; EPA 524.2: THMs and VOCs; EPA 504.1: EDB, DBCP.

Microbiology: SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D.

#### Non-Potable Water

SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, EPA 350.1: Ammonia-N, LACHAT 10-107-06-1-B: Ammonia-N, EPA 351.1, SM4500NO3-F, EPA 353.2: Nitrate-N, EPA 351.1, SM4500P-B, E, E, EPA 351.1, SM4500P-B, E, EPA 351.1, SM4500P-B, E, EPA 351.1, SM4500P-B, E, EPA 351.1, SM4500P-B, EPA 351.1, SM450P-B, EPA 351.1, SM4 SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D. EPA 624: Volatile Halocarbons & Aromatics,

EPA 608: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan II, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

EPA 625: SVOC (Acid/Base/Neutral Extractables), EPA 600/4-81-045: PCB-Oil.

Microbiology: SM9223B-Colilert-QT; Enterolert-QT, SM9221E, SM9222D.

#### **Mansfield Facility:**

#### **Drinking Water**

EPA 200.7: Al, Ba, Be, Cd, Cr, Cu, Mn, Ni, Na, Ag, Ca, Zn. EPA 200.8: Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. EPA 245.1 Hg. EPA 522.

#### Non-Potable Water

**EPA 200.7**: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.

EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn.

EPA 245.1 Hg.

SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

Pre-Qualtrax Document ID: 08-113 Document Type: Form

ALPHA	NEW YORK CHAIN OF CUSTODY	Service Centers Mahwah, NJ 07430: 35 Whitne Albany, NY 12205: 14 Walker Tonawanda, NY 14150: 275 C	Way	¥ 105	Pag /	ge of /		Date Rec	COLUMN TO SERVICE	118	333	ALPHA Job# 11804482	
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reservative Code: = None = HCl = HNO <sub>3</sub> = H <sub>2</sub> SO <sub>4</sub> = NaOH	A = Amber Glass V = Vial G = Glass	Westboro: Certification No: MA935 Mansfield: Certification No: MA015			Container Type Preservative							Please print clearly, legibly and completely. Samples not be logged in and turnaround time clock will	
	B = Bacteria Cup C = Cube	D. H. C. V. V. C. V.					794				start until any ambiguities are		
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ge 35 of 35												(-as is reliance and i)	

## APPENDIX D - PHOTOS



Photo 1: Parking Lot – Looking towards Kingston Place



Photo 2: Sidewalk- Along Seneca Street



Photo 3: Sidewalk - Looking along Kingston Place



Photo 4: SVI Roof Vent - Southwest exterior building corner



Photo 5: SVI Roof Vent – Northwest exterior building corner



Photo 6: SVI Roof Vent (left pipe) - Southwest interior building corner