Periodic Review Report

73-79 West Huron Street Site
Buffalo, New York
BCP Site No. C915282

May 2020 0441-020-001

Prepared For:

Emerson Huron, LLC

Prepared By:

BENCHMARK
ENVIRONMENTAL
ENGINEERING &
SCIENCE, PLLC

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PERIODIC REVIEW REPORT

73-79 W. HURON ST. SITE
BCP SITE NO. C915282

73-79 W. HURON ST.
BUFFALO, NEW YORK

May 2020 B0441-020-001

Prepared for:

Emerson Huron, LLC

Prepared By:

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PERIODIC REVIEW REPORT

73-79 W. Huron St. (C915282)

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1.0 INTRODUCTION

Benchmark Environmental Engineering and Science, PLLC (Benchmark) has prepared this Periodic Review Report (PRR), on behalf of Emerson Huron, LLC to summarize the post-remedial status of New York State Department of Environmental Conservation (NYSDEC) Brownfield Cleanup Program (BCP) 73-79 West Huron Street Site (BCP No. C915282), located in the City of Buffalo, Erie County, New York (hereinafter referred to as the "Site") (see Figure 1).

This PRR has been prepared in accordance with NYSDEC DER-10 Technical Guidance for Site Investigation and Remediation (Ref 1). Appendix A includes the Institutional and Engineering Control (IC/EC) Certification Forms completed based on the Site inspection performed on May 15, 2020.

This PRR and associated certifications have been completed to document post-remedial activities at the Site for the April 28, 2019 to April 28, 2020 PRR reporting period.

1.1 Site Background

The Site is approximately 0.6-acres in size and comprised of three separate parcels identified as 73-79 West Huron Street in the City of Buffalo, Erie County, New York. The three parcels include Erie County Tax Map SBLs #111.37-4-10 (73 West Huron), #111.37-4-11 (77 West Huron), and #111.37-4-17.2 (79 West Huron) (see Figures 1 and 2). The subject site is located in a commercial district in the City of Buffalo and is bound to the north by another paved parking lot, to the south by West Huron Street, and to the east by a vacant building and parking lot. The commercial properties to the west include an auto repair shop (former Sunoco), restaurant, copy and document reproduction center, a sports bar and grill, and two office buildings. The Site is currently improved with a recently renovated six-story brick building (73 West Huron) and a new two-story gymnasium built on piers to accommodate parking below (77 and 79 West Huron) (see Figure 2). Building renovations and the new gymnasium construction activities were completed in March 2020 and the building is currently ready for use as the Emerson School of Hospitality.

The original on-site building was constructed around 1892-94 as a three bay Romanesque-Style commercial building and horse stable with a flat roof by C.W. Miller Livery. The building was constructed with a steel frame used as structural support for the

first floor with a supporting truss to suspend the remaining floors. The building was modified in 1924 with ramps to accommodate motor vehicle parking. The exterior of the building is constructed of brick and large stone blocks and consists of six floors, a roof top mechanical room, and subterranean basement.. An automotive fueling station with underground storage tanks (USTs) once operated in the parking lot west of the building; however, on-site excavation confirmed that any associated tanks have since been removed. Historic operations impacted the on-Site soil, soil vapor, and groundwater with petroleum related volatile organic compounds (VOCs)

1.2 Remedial History

Hurondel I, Inc. entered into a Brownfield Cleanup Agreement (BCA), Index#C915282-07-14, with the NYSDEC on September 9, 2014, to investigate and remediate a 0.6-acre property located in the City of Buffalo, Erie County, New York. After acceptance into the BCP Site Investigation/Interim Remedial Measure field activities were primarily conducted by Iyer Environmental Group, PLLC (IEG) in accordance with the NYSDEC-approved SI/IRM Work Plan (Ref. 2) from February 2015 through December 2015 and included: a Geoprobe® investigation (February 2015); a sub-slab soil investigation (February 2015); sub-slab soil vapor, indoor, and outdoor air sampling (March 2015); sump water sampling (April and June 2015); and IRM oversight (March through December 2015). Subsequent to IEG's completion of these field activities, Benchmark was retained by Hurondel to complete the remaining SI Work Plan requirements: well installation (June 2016); wood floor wipe sampling (June 2016); IRM backfill soil material confirmation sampling (June 2016); and a groundwater quality/ hydrogeologic assessment. Benchmark was also tasked with preparing and completing the Site Investigation/Interim Remedial Measures/Alternatives Analysis (SI/IRM/AA) Report (Ref. 3). The final remedial measures included placement of acceptable cover material in areas not otherwise covered by asphalt roadway, pavement, and building foundations as detailed in the Site Management Plan (SMP) (Ref. 4) and Final Engineering Report (FER) (Ref. 5). BCP site activities were performed in accordance with the BCA and the property was remediated to a NYSDEC Part 375 Restricted-Residential Use Track 2 cleanup.

Emerson Huron, LLC completed redevelopment of the Site as the Emerson School of Hospitality in March 2020. Site redevelopment activities are described in further detail in Section 4.2.

1.3 Compliance

At the time of the annual Site inspection (May 15, 2020), the Site was fully compliant with the NYSDEC-approved SMP (Ref 4).

The Site was undergoing final stages of redevelopment for the Emerson School of Hospitality during the subject reporting period. Redevelopment activities performed during this PRR reporting period which are regulated under the SMP included removal of BUD-approved material and non-hazardous soil/fill, ASD system installation and post-installation communication testing, import of NYSDEC approved clean stone backfill for construction activities, and post-remedial groundwater monitoring. Benchmark provided oversight for intrusive redevelopment activities in conformance with the NYSDEC approved SMP Excavation Work Plan (EWP) requirements. All redevelopment activities were fully compliant with the NYSDEC approved SMP at the time of the Site inspection.

1.4 Recommendations

Based on the results of the annual inspection and certification, no modifications are recommended at this time.

2.0 SITE OVERVIEW

Previous environmental investigations completed at the Site identified contamination from past uses of the Site that required remediation. Hurondel I, Inc. entered into the BCP to further investigate and remediate the Site for future redevelopment. The remedial activities were completed in 2015, including:

- Excavation and off-site disposal of 4,458.1 tons of petroleum-impacted soil at the Tonawanda Landfill.
- Treatment and sanitary sewer discharge of approximately 10,000 gallons of groundwater through granular activated carbon (GAC).
- Removal of approximately 150 linear feet (LF) of pipe insulation, 100 square feet (SF) of boiler insulation, and 2,500 SF of floor tiles and transportation off-Site by The Environmental Service Group (NY) Inc. to Waste Management's Chaffee Landfill for disposal.

The remedial program was successful in achieving the remedial objectives for the Site. An Environmental Easement restricting end use of the Site and enforcing adherence to the SMP was filed in November 2017 and approved in December 2017. The Final Engineering Report (FER) was approved in December 2017. Concurrently, a Certificate of Completion (COC) was issued for the Site by the NYSDEC in December 2017.

3.0 REMEDY PERFORMANCE

A post-remedial site inspection involving a walk-over of the Site covered by this PRR was performed on May 15, 2020 to visually observe and document the use of the Site for restricted residential use, confirm absence of Site groundwater use, and verify conformance with other requirements under the SMP. The Site inspection confirmed that the controls are in-place and functioning as intended in accordance with the SMP.

As indicated above, the building redevelopment activities for the Emerson School of Hospitality were completed March 2020. These activities necessitated removal of BUD-approved material and non-impacted soil/fill, ASD system installation and post-installation confirmation testing, import of NYSDEC approved clean stone backfill for construction activities, and post-remedial groundwater monitoring. Benchmark provided field oversight during construction activities and assistance in coordinating and documenting soil/fill disposal and clean stone import.

Appendix A includes the completed IC/EC Certification forms, and Appendix B includes photographs taken during the inspection.

4.0 SITE MANAGEMENT PLAN

A Site-wide SMP was prepared for the Site and approved by the Department in December 2017. Key components of the SMP are described below.

4.1 Institutional and Engineering Control (IC/EC) Plan

Since soil/fill containing constituents above Restricted Residential Soil Cleanup Objectives (SCOs) and residual groundwater impact exists beneath the Site, institutional and engineering controls are required to protect human health and the environment. The IC/EC Plan describes the procedures for the implementation and management of all IC/ECs at the Site.

4.1.1 Institutional Controls

The Site has a series of Institutional Controls (ICs) in the form of site restrictions. Adherence to these ICs is required by the Environmental Easement. Site restrictions that apply to the Controlled Property are:

- The property may only be used for restricted-residential, commercial, and industrial use provided that the long-term Engineering and Institutional Controls included in the SMP are employed;
- The use of groundwater underlying the property is prohibited without necessary water quality treatment as determined by the NYSDOH or the Erie County Department of Health to render it safe for use as drinking water or for industrial purposes, and the user must first notify and obtain written approval to do so from the Department;
- Groundwater and other environmental or public health monitoring must be performed as defined in the SMP;
- Data and information pertinent to site management must be reported at the frequency and in a manner as defined in the SMP;
- All future activities that will disturb remaining contaminated material must be conducted in accordance with the SMP;
- Monitoring to assess the performance and effectiveness of the remedy must be performed as defined in the SMP;

- Operation, maintenance, monitoring, inspection, and reporting of any mechanical or physical component of the remedy shall be performed as defined in the SMP;
- Access to the site must be provided to agents, employees or other representatives of the State of New York with reasonable prior notice to the property owner to assure compliance with the restrictions identified by the Environmental Easement;
- The potential for vapor intrusion must be evaluated for any buildings developed in the area within the IC boundaries, and any potential impacts that are identified must be monitored or mitigated;
- Indoor air monitoring and soil vapor intrusion evaluation prior to future occupancy of the existing on-site building, preferably when the heating/ventilation systems are operational; and
- Vegetable gardens and farming on the site are prohibited.

4.1.2 Engineering Controls

There are no Engineering Controls (ECs) associated with the Site under the implemented Track 2 cleanup. The Site is either covered with hardscape (asphalt) or the on-site building, with no green space cover.

4.2 Excavation Work Plan

An Excavation Work Plan (EWP) was included in the approved SMP for the Site. The EWP provides guidelines for the management of soil/fill material during any future intrusive actives. Any intrusive work that may disturb remaining contamination during maintenance or redevelopment work on the Site must be performed in compliance with the EWP and must also be conducted in accordance with a site-specific Health and Safety Plan (HASP) and Community Air Monitoring Plan (CAMP) meeting the minimum requirements of the sample HASP and CAMP included with the SMP.

4.2.1 Site Redevelopment Activities

Intrusive activities undertaken during the reporting period (April 28, 2019 to April 28, 2020) are described below. Intrusive activities were completed in conformance with the SMP and the EWP. Site improvement activities are further described below.

4.2.1.1 Soil/Fill Excavation & Removal – Building Addition

On January 9, 2019 the NYSDEC issued approval of a Beneficial Use Determination (BUD) request to allow reuse of the soils from grade beam excavation work for the elevated gymnasium, as the beams fell within the area of the original remedial excavation (i.e. within the surface parking area) which was backfilled with clean material and tested to meet unrestricted use SCOs. Beam excavation work was completed May 6 through May 17, 2019, and the BUD-approved material was sent to Roxberry Estates, Phase II, located in Clarence, NY and to the Milherst Construction, Inc. Yard, located in Clarence, NY. Load counts of BUD-approved materials and reuse locations are tabulated in Appendix C.

4.2.1.2 Soil/Fill Excavation & Removal – Basement Transformer Installation

In preparation for installation of a new transformer in the southwest corner of the basement, broken concrete and brick comprising a former foundation were transported off-Site by Milherst Construction, Inc. for disposal at Swift River, located on River Road, Tonawanda, NY between May 14 and May 17, 2019. On May 21, 2019, approximately 15 tons of non-hazardous soil/fill was generated to accommodate new transformer installation activities in the basement. Soil/fill was direct loaded and transported off-Site by Pariso Logistics (9A-826) for disposal at the Town of Tonawanda Landfill, located on East Park Road, Tonawanda NY (EnSol, Inc.) in accordance with the SMP. Disposal documentation is provided in Appendix C.

4.2.1.3 Imported Materials

Stone from New Enterprise Stone was imported to the site for building construction activities. Approximately 210 tons of stone was imported to the Site between May 2 and May 14, 2019. Import documentation from the contractor is included in Appendix D.

4.3 Active Subslab Depressurization (ASD) System

The NYSDEC-approved Site Management Plan (SMP – Ref. 4) required that measures to address subslab vapor concerns be undertaken if a vadose zone developed beneath the basement floor slab. Prior to renovation work the groundwater table was in contact with the basement floor. However, the renovation work involved cracking the original basement floor to mitigate settlement and installing an overlying layer of stone and a new slab above the former floor, creating a vadose zone.

Accordingly, an active sub-slab depressurization (ASD) system was designed and approved by the NYSDEC for implementation in the existing building. The ASD system was installed concurrently with interior building renovations over a one-year period, from March 2019 through March 2020 in accordance with the May 2018 Work Plan for Active Subslab Depressurization System Installation (Ref. 6) and the NYSDEC-approved January 2019 design drawings and specifications (see Appendix E).

The ASD system is comprised of six extraction legs constructed with 4-inch diameter subslab perforated PVC pipe and solid risers located within interior partition walls. The risers are and connected to the above-grade extraction system comprised of vertical piping vent stacks manifolded to one of two exhaust fans. Six vacuum monitoring points were installed through the slab and two magnehelic gauges were installed on the manifold risers in the basement to measure the instantaneous negative pressure produced by the in-line fans. The system began operation in February 2020 and has operated continuously since that time.

On March 18, 2020, post-installation confirmatory testing was performed by Benchmark personnel. Magnehelic gauge readings and vacuum port measurements indicated that the ASD system was operating properly. During the annual site Inspection, performed on May 15, 2020 (see below), the inspector verified that the ASD system fans were operating properly, as indicated by the readings on the magnehelic gauges.

Figure 3 illustrates ASD vacuum port locations, magnehelic gauge locations, and post-installation confirmatory test results. Appendix C provides photos of the March 18, 2020 post-installation confirmatory testing and the May 15, 2020 annual site inspection magnehelic gauge pressure readings.

4.4 Vapor Assessment

A vapor assessment will be completed to check the efficacity of the ASD system installed in the existing building consisting of one indoor air (IA) sample in the basement and one outdoor (ambient) air (OA) (i.e., background) sample for comparative purposes. Vapor sampling will be completed in conformance with the NYSDOH Soil Vapor Intrusion Guidance (October 2006 and subsequent revisions; Ref. 7) and the procedure summarized below. Samples will be collected and sent to a NYSDOH-approved laboratory for analysis of USEPA TCL VOCs in accordance with USEPA Method TO-15.

The soil vapor assessment will be completed when normal HVAC systems and the existing ASD system are running prior to building occupancy, either in August 2020 if the Emerson School of Hospitality classes are slated to resume in the Fall of 2020 or during the Fall of 2020 heating season if classes are delayed until 2021[1].

4.4.1.1 Pre-Sample Assessment

Prior to initiation of sampling, a pre-sampling inspection will be performed to identify and minimize conditions that may interfere with the proposed testing. The inspection will evaluate the presence of stored or in-use chemicals, fuels, cleaners, etc. and the floor layout and physical conditions of the building. This information will be identified on a building inventory form.

4.4.1.2 Indoor Sample

The indoor air sample will be collected in the lowest (basement) area of the building. An outdoor air sample will be concurrently collected from a ground level or roof location along the upwind side of the facility, as determined on the day of indoor air sampling field activities. Indoor and outdoor air sample canisters will be equipped with a 24-hour regulator to allow the samples to be collected over an approximate 1-day period.

Each canister, with an initial negative pressure of approximately 29 pounds per square inch (psi), will be fitted with a sampling valve that uses a critical orifice and mass flow controller to regulate the air flow into the six-liter canister for the selected sampling period. The valves will then be opened for the 24-hour collection period at a flow rate not to exceed

[1] Pending determination of return to in-class instruction by the City of Buffalo based upon NYS COVID-19 Pause restrictions

0.2 liters/minute. The mass flow controller will maintain a relative constant air flow rate throughout the sampling period. Summa canister valves will remain closed until the sample holes are complete and all of the canisters are in their respective positions. The valves will then be opened for the designated collection period and sealed upon retrieval.

4.4.1.3 Vapor Sample Analysis

The soil vapor samples will be transported under chain-of-custody command to a NYSDOH ELAP-approved laboratory for analysis of USEPA TCL VOCs in accordance with USEPA Method TO-15. Samples will be analyzed in accordance with the NYSDOH guidelines, typically, a minimum reporting limit of 0.20 microgram per cubic meter (0.20 ug/m^3) or less is sufficient for most analytes. Field documentation of vapor investigation sampling activities will be consistent with the NYSDOH guidance.

Upon completion of sampling and receipt of analytical data, a letter report will be prepared summarizing the field activities and sampling results. Results of the testing will be compared to the NYSDOH SVI Guidance Decision Matrices. The inventory assessment of all chemicals used/present at the facility will be attached to the letter report. If the results suggest a need for additional investigation or mitigation, recommendations for this work will be made.

4.5 Annual Inspection and Certification Program

The Annual Inspection and Certification Program outlines requirements for certifying and attesting that the IC/ECs employed on the Sites are unchanged from the original design and/or previous certification. The Annual Certification includes a site inspection and completion of the NYSDEC's IC/EC Certification Form. The Site inspection is intended to verify that the IC/ECs:

- Are in place and effective.
- Are performing as designed.
- That nothing has occurred that would impair the ability of the controls to protect the public health and environment.
- That nothing has occurred that would constitute a violation or failure to comply with any operation and maintenance plan for such controls.
- Access is available to the Site to evaluate continued maintenance of such controls.

Formal inspection of the Site was conducted during 2 events: by Mr. Thomas Behrendt, P.G. on March 15, 2020 and by Mr. Thomas Forbes, P.E. of Benchmark on May 15, 2020. Mr. Behrendt and Mr. Forbes meet the requirements of a Qualified Environmental Professional (QEP) per 6NYCRR Part 375.12. At the time of the inspections, the Site was fully compliant with the NYSDEC-approved SMP. Benchmark has observed all intrusive activities that have occurred during this PRR reporting period to verify compliance with the NYSDEC approved SMP. No observable indication of intrusive activities was noted during the Site inspection, nor was any observable use of groundwater was noted during the Site inspection.

The completed Site Management Periodic Review Report Notice – Institutional and Engineering Controls Certification Form is included in Appendix A. A photographic log of the Site inspections are included in Appendix C.

4.6 Operation, Monitoring and Maintenance Plan

An addendum to the December 2017 SMP will be prepared and submitted to the NYSDEC following approval of this PRR. The SMP addendum will describe the ASD system and will include procedures for routine monitoring and maintenance of the ASD system by Buffalo School maintenance personnel, who will perform routine monitoring in concert with HVAC system checks.

5.0 GROUNDWATER MONITORING

The SMP requires semi-annual groundwater monitoring and checks of groundwater levels beneath the basement floor slab semi-annually for a period of approximately two years, then annually thereafter until the NYSDEC agrees that monitoring can be terminated. Groundwater monitoring is performed at wells HMW-1, HMW-2, HMW-3, HMW-4, HMW-5, HMW-6, and MW-10; groundwater beneath the basement floor slab is sampled at groundwater sump GSW-1. Note that in concert with building redevelopment activities GSW-1 was relocated approximately 20 feet east of its prior location.

During redevelopment activities in winter of 2018 to 2019, MW-10 was covered by equipment and was thought to be damaged based on proximate ground disturbance but the well was in fact unaffected by the work and sampled during the semi-annual groundwater monitoring events.

Benchmark personnel performed the first semi-annual (third overall) groundwater monitoring event on August 13th, 2019. The second semi-annual (fourth overall) groundwater monitoring event was performed 6 months later on February 11th, 2020. Groundwater was analyzed for Target Compound List (TCL) plus Commissioners Policy -51 (CP-51) Volatile Organic Compounds (VOCs) per USEPA Method 8260C, along with alkalinity (as $CaCO_3$) using analytical method 2320B, and field parameters (i.e., pH, temperature, specific conductance, turbidity, dissolved oxygen, and oxidation-reduction potential). Appendix F includes analytical data packages and field data sheets for the August 2019 and February 2020 sampling events. Table 1 summarizes the post COC groundwater monitoring results completed in accordance with the SMP (May 2018, October 2018, August 2019, and February 2020) along with data collected in June 2016 and January 2017 (during the RI), and provides a comparison to GWQS/GVs.

Comparisons of the RI groundwater monitoring events performed in 2016 and 2017 to the post-remedial events indicate decreases in both Total VOC concentrations and pVOC concentrations at HWM-2 and HMW-3, which are both located down gradient of an oxygen injection treatment system located at the 181 Delaware Ave site. Although some fluctuation has occurred at other well locations, total and petroleum VOC concentrations at all of the wells fall below 1,000 ppb (parts per billion) as of the February 2020 with the exception of the total VOC concentration of 1,028.1 ppb at HMW-3.

The GSW-1 sample continued to yield detections of cVOCs that exceed GWQS during the August 2019 and February 2020 sampling events. The source of these detections is unknown, but cVOC levels appear to be steadily declining since October 2018. An ASD system was installed during building renovation work and was activated in February 2020.

Total alkalinity was found in all wells sampled above laboratory reporting limits. There is no NYSDEC GWQS/GV for this parameter.

All post-remedial semi-annual groundwater monitoring event data from May 2018, October 2018, August 2019, and February 2020 was uploaded to the Department's EQuIS database. Data acceptance and upload confirmatory email responses are included in Appendix F.

5.1 Groundwater Flow Direction

Figures 4A and 4B provide groundwater isopotential contour maps for groundwater elevation data collected during the August 2019 and February 2020 events, respectively. Monitoring well elevations for wells HMW-2, HMW-3 and HMW-4 were resurveyed on August 15, 2019 and February 11, 2020, prior to the semi-annual sampling events, due to potential disturbances caused by Site redevelopment activities. Monitoring well elevations for basement wells GSW-1, GSW-2, and GSW-3 were adjusted based on the finished basement floor elevation. Groundwater flow is consistent with historic and regional flow patterns.

6.0 CONCLUSIONS AND RECOMMENDATIONS

Conclusions for this reporting period and recommendations for the next reporting period are as follows:

- At the time of the Site inspection, the Site was in compliance with the SMP.
- An indoor vapor assessment will be completed to check the efficacity of the ASD system installed in the existing building. The assessment will be completed when all normal HVAC and the ASD systems are running prior to building occupancy, either in August 2020 if the Emerson School of Hospitality classes are slated to resume in the Fall of 2020 or during the Fall of 2020 heating season if on-site classes are delayed until Fall of 2021.

An addendum to the December 2017 SMP will be prepared and submitted to the NYSDEC following approval of this PRR. The SMP addendum will describe the ASD system and will include procedures for routine monitoring of the ASD manometers by school maintenance staff, who will perform the monitoring in concert with routine HVAC system checks..

7.0 DECLARATION/LIMITATION

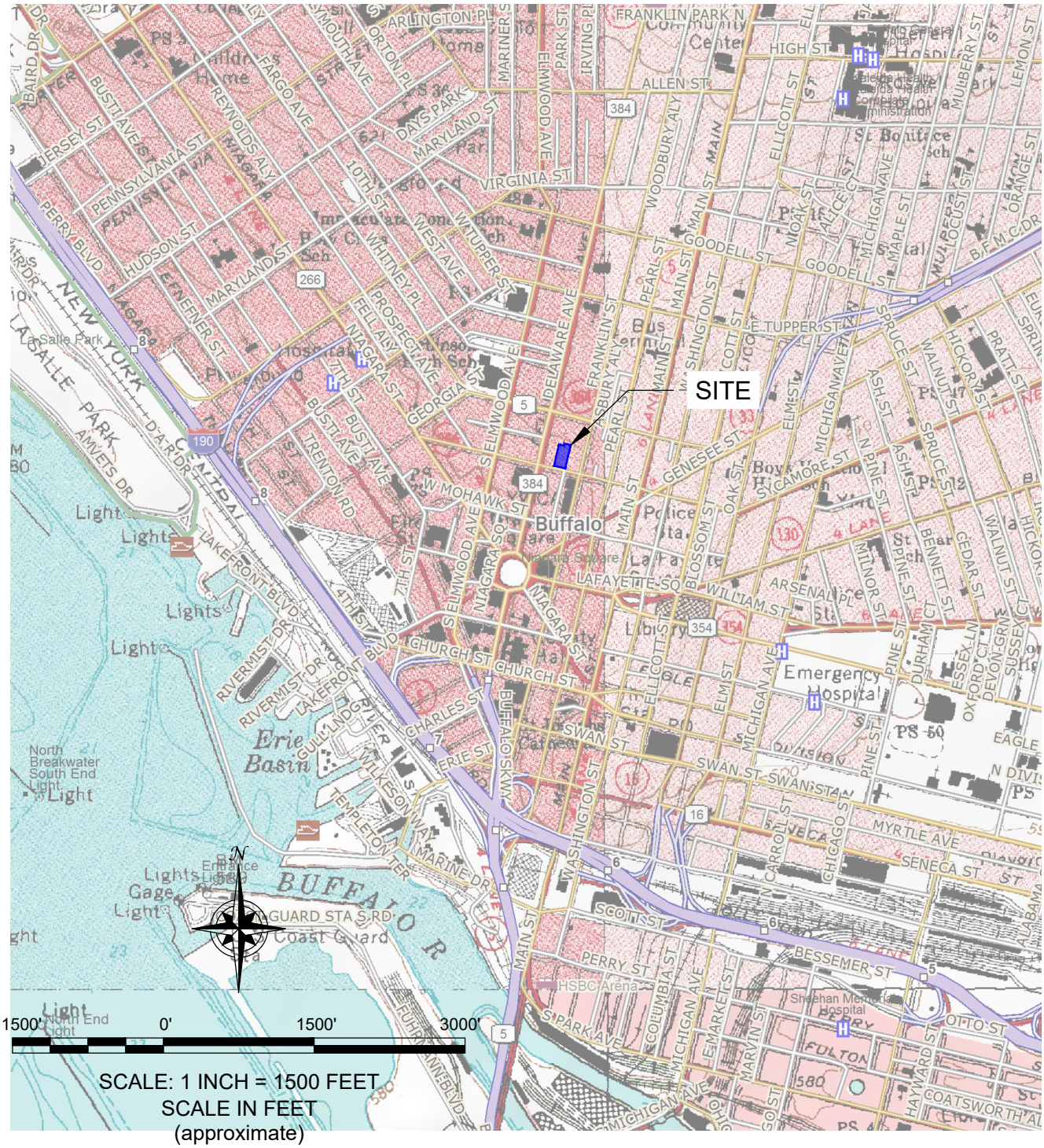
This PRR has been prepared for the exclusive use of Emerson Huron, LLC. The contents of this PRR are limited to information available at the time of the Site inspection. The findings herein may be relied upon only at the discretion of Emerson Huron, LLC. Use of or reliance upon this PRR or its findings by any other person or entity is prohibited without written permission of Benchmark Environmental Engineering & Science, PLLC.

8.0 REFERENCES

1. New York State Department of Environmental Conservation. *DER-10/ Technical Guidance for Site Investigation and Remediation.* May 3, 2013.
2. Iyer Environmental Group, PLLC (IEG). *Site Investigation/Interim Remedial Measure (SI/IRM) Work Plan, 73-79 West Huron Street Site, Buffalo, New York. BCP Site #C915282*. June 2015.
3. Benchmark Environmental Engineering & Science, PLLC (Benchmark). *Final Site Investigation/Interim Remedial Measures/Alternatives Analysis Report, 75-77 West Huron Street Property, Buffalo, New York*. May 2017.
4. Benchmark Environmental Engineering & Science, PLLC (Benchmark). *Site Management Plan for 73-79 West Huron Street Site*. November 2017.
5. Benchmark Environmental Engineering & Science, PLLC (Benchmark). *Final Engineering Report for 73-79 West Huron Street Site*. November 2017.
6. Benchmark Environmental Engineering & Science, PLLC (Benchmark). *Work Plan for Active Subslab Depressurization System (ASD) Installation for 73-79 West Huron Street Site.* May 2018.
7. NYS Department of Health. *The Guidance for Evaluating Soil Vapor Intrusion in the State of New York.* October 2006, and subsequent updates.

FIGURES

FIGURE 1



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PROJECT NO.: 0441-020-001

DATE: MAY 2020

DRAFTED BY: CCB

SITE LOCATION & VICINITY MAP

PERIODIC REVIEW REPORT

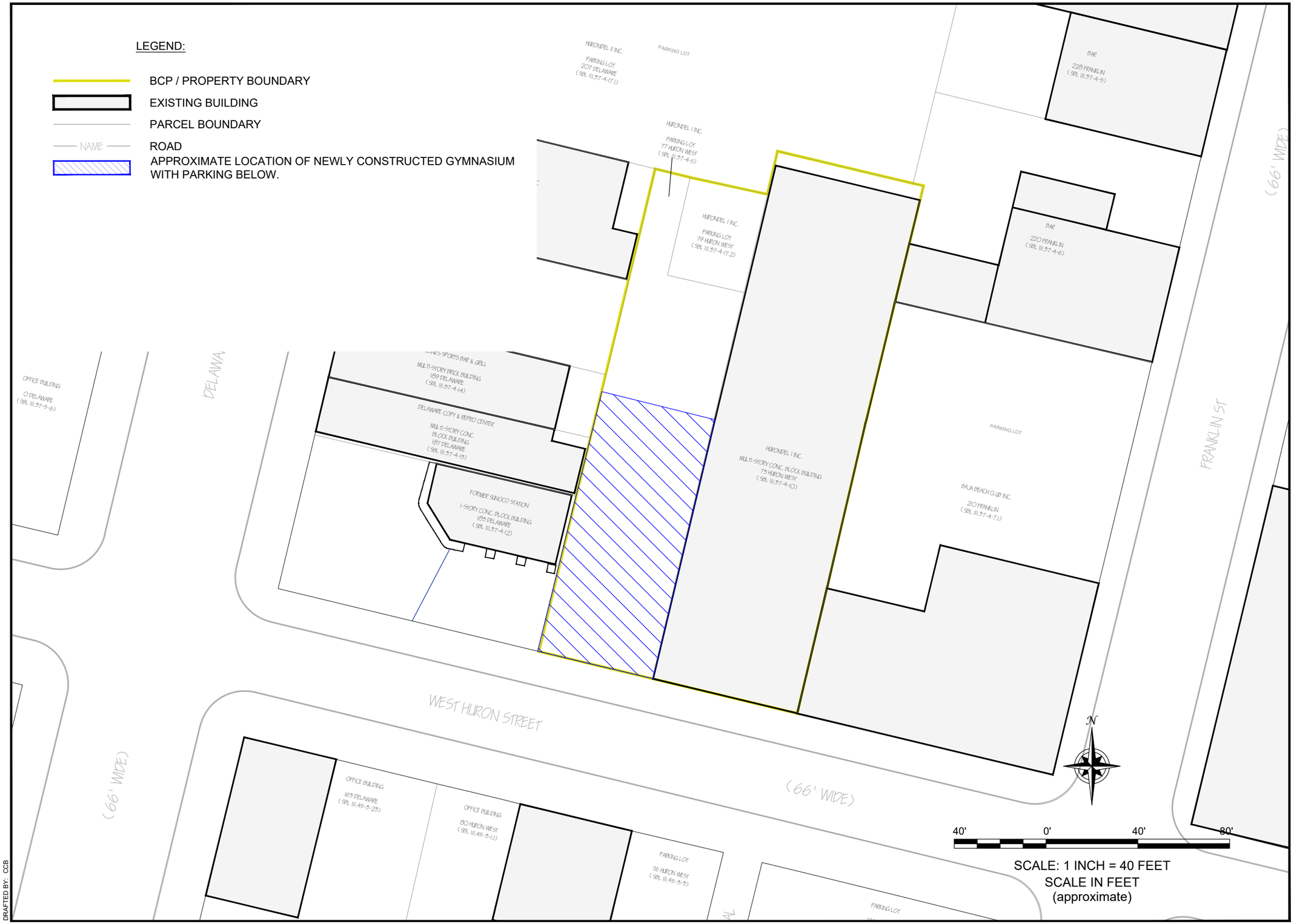
73-79 WEST HURON STREET SITE
BCP SITE NO. C915282
BUFFALO, NEW YORK

PREPARED FOR

EMERSON HURON, LLC

LEGEND:

- BCP / PROPERTY BOUNDARY
- EXISTING BUILDING
- PARCEL BOUNDARY
- NAME — ROAD
- APPROXIMATE LOCATION OF NEWLY CONSTRUCTED GYMNASIUM WITH PARKING BELOW.



DATE: MAY 2020
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BENCHMARK
ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

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SITE PLAN

PERIODIC REVIEW REPORT
73-79 WEST HURON STREET SITE
BCP SITE NO. C915282
BUFFALO, NEW YORK
PREPARED FOR
EMERSON HURON, LLC

FIGURE 2

LEGEND:

- BCP / PROPERTY BOUNDARY
- EXISTING BUILDING
- BASEMENT FLOOR PLAN
- PARCEL BOUNDARY
- NAME — ROAD
- ASD-1 (-0.015) — ASD VACUUM PORT LOCATIONS (VACUUM READING IN INCHES OF WATER)
- MAG-1 (1.0) — MAGNEHELIC PRESSURE GAUGE LOCATION (PRESSURE READING IN INCHES OF WATER)
- 4-INCH PERFORATED ASD PIPING

NOTE:
BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC COLLECTED VACUUM MEASUREMENTS FROM EACH VACUUM PORT LOCATION (ASD-1 THROUGH ASD-6) AND NEGATIVE PRESSURE READINGS FROM BOTH MAGNEHELIC GAUGES (MAG-1 & MAG-2) ON MARCH 18, 2020.

N

30' 0' 30' 60'

SCALE: 1 INCH = 30 FEET
SCALE IN FEET
(approximate)

DATE: MAY 2020
DRAFTED BY: CCB

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ASD SYSTEM CONFIRMATION TESTING LOCATIONS

PERIODIC REVIEW REPORT

73-79 WEST HURON STREET SITE
BCP SITE NO. C915282
BUFFALO, NEW YORK

PREPARED FOR
EMERSON HURON, LLC

FIGURE 3

LEGEND:

- BCP / PROPERTY BOUNDARY
- EXISTING BUILDING
- PARCEL BOUNDARY
- NAME — ROAD
- GSW-1 — SUMP WATER SAMPLE (IEG, 2015)
- MW-2 — MONITORING WELL (METI, 2004-2010)
- MW-8 — DECOMMISSIONED MONITORING WELL (METI, 2014)
- HMW-1 — MONITORING WELL (BM, 2016)
- 597.3 — GROUNDWATER ELEVATION CONTOUR (DASHED WHERE INFERRED)
- GROUNDWATER FLOW DIRECTION
- 597.5 — GROUNDWATER ELEVATION

HURONDEL II INC.
PARKING LOT
207 DELAWARE
(SBL III.57-4-17.1)

PARKING LOT

HURONDEL I INC.
PARKING LOT
77 HURON WEST
(SBL III.57-4-11)

HURONDEL I INC.
PARKING LOT
79 HURON WEST
(SBL III.57-4-17.2)

BAR
228 FRANKLIN
(SBL III.57-4-5)

BAR
220 FRANKLIN
(SBL III.57-4-6)

(66' WIDE)

FRANKLIN ST

PARKING LOT

HURONDEL I INC.
MULTI-STORY CONC. BLOCK BUILDING
75 HURON WEST
(SBL III.57-4-10)

BAJA BEACH CLUB INC.
210 FRANKLIN
(SBL III.57-4-7.1)

598.0
597.5
597.0
596.5
GSW-2
HMW-1
598.0
MW-1
DI-2
MW-8
HMW-2
597.5
GSW-1
596.5
MW-9
DI-3
HMW-3
597.4
HMW-4
597.2
MW-10
597.3
GSW-3
HMW-5
597.1
HMW-6
596.8
597.0
596.5

OFFICE BUILDING
0 DELAWARE
(SBL III.57-5-6)

DELAWA

LANES SPORTS BAR & GRILL
MULTI-STORY BRICK BUILDING
159 DELAWARE
(SBL III.57-4-14)

DELAWARE COPY & REPRO CENTER
MULTI-STORY CONC. BLOCK BUILDING
167 DELAWARE
(SBL III.57-4-15)

FORMER SUNOCO STATION
1-STORY CONC. BLOCK BUILDING
183 DELAWARE
(SBL III.57-4-12)

MW-2
MW-1R
MW-1
MW-11
MW-4
MW-12
MW-3
MW-5
MW-6
MW-7

WEST HURON STREET

(66' WIDE)

(66' WIDE)

OFFICE BUILDING
163 DELAWARE
(SBL III.45-3-23)

OFFICE BUILDING
150 HURON WEST
(SBL III.45-3-11)

BENCHMARK
Hydrant Top Nut
Elev. 609.35'

PARKING LOT
76 HURON WEST
(SBL III.45-3-5)

PARKING LOT

DATE: MAY 2020
DRAFTED BY: CCB/CMC

GROUNDWATER ISOPOTENTIAL MAP
3rd SEMI-ANNUAL GWM EVENT (AUGUST 2019)

PERIODIC REVIEW REPORT

73-79 WEST HURON STREET SITE
BCP SITE NO. C915282
BUFFALO, NEW YORK

PREPARED FOR
EMERSON HURON, LLC

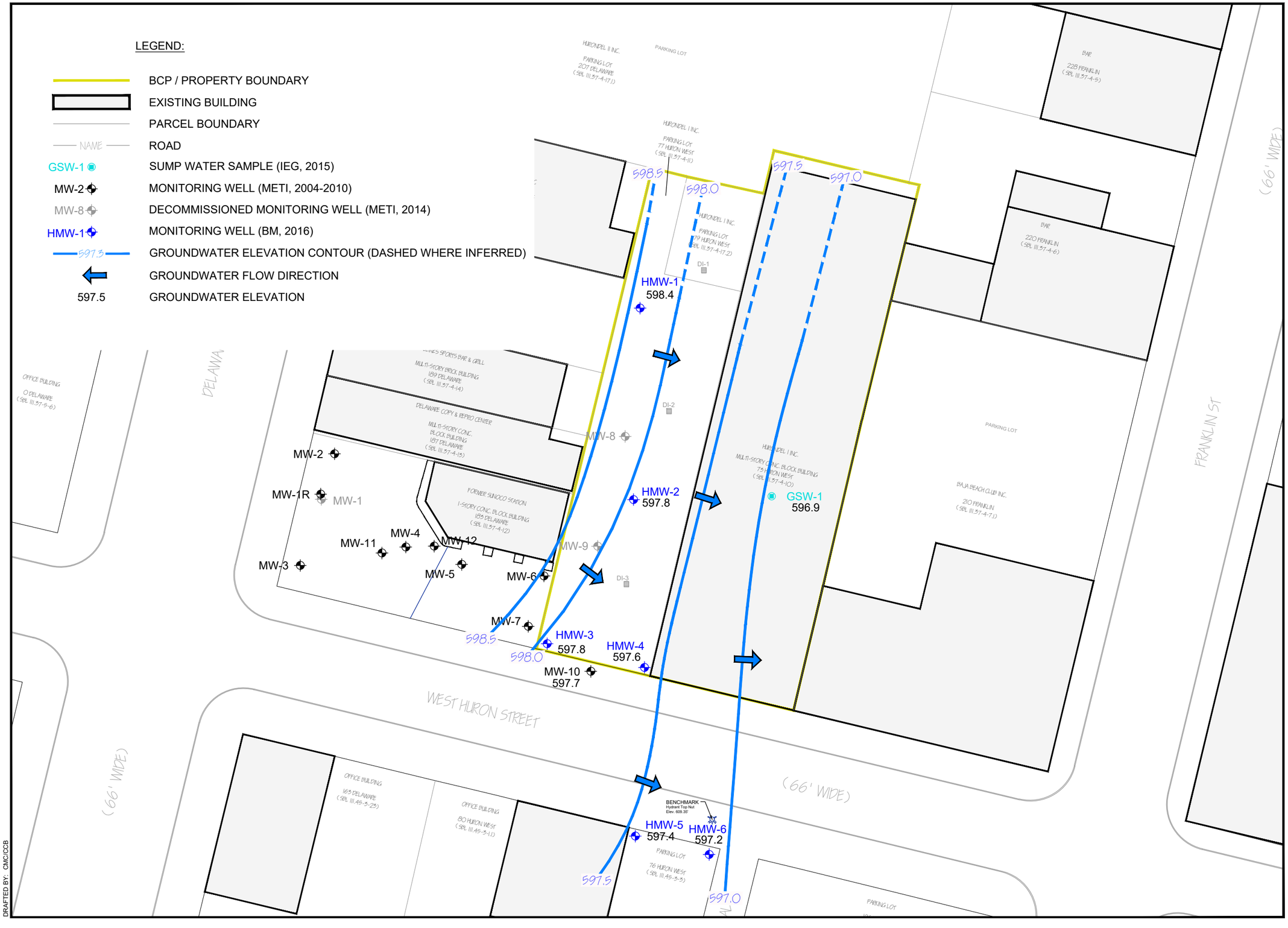
BENCHMARK
ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC
2558 HAMBURG TURNPIKE
SUITE 300
BUFFALO, NY 14218
(716) 856-0599

JOB NO.: 0441-020-001

FIGURE 4A

LEGEND:

- BCP / PROPERTY BOUNDARY
- EXISTING BUILDING
- PARCEL BOUNDARY
- NAME — ROAD
- GSW-1 — SUMP WATER SAMPLE (IEG, 2015)
- MW-2 — MONITORING WELL (METI, 2004-2010)
- MW-8 — DECOMMISSIONED MONITORING WELL (METI, 2014)
- HMW-1 — MONITORING WELL (BM, 2016)
- 597.3 — GROUNDWATER ELEVATION CONTOUR (DASHED WHERE INFERRED)
- GROUNDWATER FLOW DIRECTION
- 597.5 — GROUNDWATER ELEVATION



DATE: MAY 2020
DRAFTED BY: CMC/CCB

GROUNDWATER ISOPOTENTIAL MAP
4th SEMI-ANNUAL GWM EVENT (FEBRUARY 2020)

PERIODIC REVIEW REPORT

73-79 WEST HURON STREET SITE
BCP SITE NO. C915282
BUFFALO, NEW YORK

PREPARED FOR
EMERSON HURON, LLC

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC
2558 HAMBURG TURNPIKE
SUITE 300
BUFFALO, NY 14218
(716) 856-0599

JOB NO.: 0441-020-001

FIGURE 4B

TABLE

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

TABLE 1

SUMMARY OF GROUNDWATER ANALYTICAL RESULTS

POST REMEDIAL MONITORING
73-79 WEST HURON STREET SITE (C915282)
BUFFALO, NEW YORK

Parameter	GWQS/GV	Hurondel Monitoring Wells																							
		MW-10						HMW-1						HMW-2						HMW-3					
		06/23/16	01/11/17	05/17/18	10/24/18	08/20/19	02/13/20	06/16/16	01/11/17	05/17/18	10/24/18	08/20/19	02/13/20	06/16/16	01/11/17	05/17/18	10/24/18	08/20/19	02/13/20	06/16/16	01/11/17	05/17/18	10/24/18	08/20/19	02/13/20
VOLATILE ORGANICS (VOCs, ug/L)																									
1,2,4-Trimethylbenzene	5	1.5	ND	ND	**51**	**62**	1.9 J	ND	ND	ND	ND	ND	ND	**880**	**760 D**	ND	**540 D**	**5.2**	**520**	**380**	**30**	ND	**5.9**	4.3	**33**
1,3,5-Trimethylbenzene	5	ND	ND	ND	ND	ND	**7.3**	ND	ND	ND	ND	ND	ND	**51**	**33**	ND	ND	3.4	**15**	**35**	ND	ND	**53**	ND	**59**
2-Butanone	50	--	**--**	ND	ND	ND	ND	ND	**--**	ND	ND	ND	ND	ND	**--**	ND	ND	4.9 J	ND	ND	**--**	ND	ND	ND	ND
Acetone	50	--	**--**	27	ND	ND	ND	ND	**--**	ND	ND	ND	ND	ND	**--**	ND	ND	16	ND	ND	**--**	ND	ND	ND	ND
Benzene	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	7	--	**--**	ND	ND	ND	ND	ND	**--**	ND	ND	ND	ND	ND	**--**	ND	ND	ND	ND	ND	**--**	ND	ND	ND	ND
cis-1,2-Dichloroethene	5	--	**--**	ND	ND	ND	ND	ND	**--**	ND	ND	ND	ND	ND	**--**	ND	ND	ND	ND	ND	**--**	ND	ND	ND	ND
Cyclohexane	--	--	**--**	50	180	95	76	ND	**--**	ND	ND	ND	ND	290	**--**	140	69	42	97	460	**--**	190 D	96	12	130
Ethylbenzene	5	**66.2**	ND	**72**	**500**	**160**	**150**	ND	ND	ND	ND	ND	ND	**19 J**	**31**	**17**	**10**	**30**	ND	**1800**	**840**	**490 D**	**31**	**8.6**	**100**
2-Hexanone	50	--	**--**	ND	ND	ND	ND	ND	**--**	ND	ND	ND	ND	**ND**	**--**	ND	ND	ND	ND	**ND**	**--**	ND	ND	ND	ND
Isopropylbenzene	5	**13.6**	2.6	**20**	**61**	**33**	**18**	ND	ND	ND	ND	ND	ND	**74**	**71**	**58**	**73**	**12**	**40**	**110**	**17 J**	**54**	**18**	**8.3**	**12**
Methylcyclohexane	--	--	**--**	ND	8 J	48	8.7 J	ND	**--**	ND	ND	ND	ND	59 J	**--**	38	13	0.89 J	32 J	160 J	**--**	94	64	16	45
n-Butylbenzene	5	ND	ND	ND	1.9 J	**5.4**	**5.2**	ND	ND	ND	ND	ND	ND	**13 J**	**13**	ND	**9.3 J**	ND	**5.1 J**	**16 J**	**34 J**	ND	**12**	**7.3**	**11**
n-Propylbenzene	5	**38.1**	4	ND	**110**	**65**	**84**	ND	ND	ND	ND	ND	ND	**170**	**180**	ND	**140 J**	3.1	**120**	**210**	ND	ND	**110**	**66**	**21**
p-Isopropyltoluene	5	ND	ND	ND	ND	1.3 J	ND	ND	ND	ND	ND	ND	ND	ND	**14**	ND	2.9 J	ND	ND	ND	ND	ND	**5.7 J**	2.6	3 J
sec-Butylbenzene	5	1.8	ND	ND	**9.2**	**5.7**	4.8 J	ND	ND	ND	ND	ND	ND	**8.2 J**	ND	ND	ND	ND	**6.1 J**	ND	ND	ND	**9.1**	**6**	**5.1 J**
Tetrachloroethene	5	--	**--**	ND	ND	ND	ND	0.24 J	**--**	0.18 J	0.3 J	0.21 J	ND	1.8 J	**--**	ND	ND	ND	ND	ND	**--**	ND	ND	ND	ND
Toluene	5	1.2	ND	**39**	**12**	4.6	**18**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**7.8**	ND	**490**	**350**	**7.6**	**9**	**11**	**59**
Total Xylenes	5	**6**	ND	**371**	**319**	**87**	**255**	ND	ND	ND	ND	ND	ND	ND	3.2 J	0.95 J	ND	**107**	ND	**2900**	**427 J**	**555 D**	**92**	**8.9**	**550**
Trichloroethene	5	--	**--**	ND	ND	ND	ND	ND	**--**	ND	ND	ND	ND	ND	**--**	ND	ND	ND	ND	ND	**--**	ND	ND	ND	ND
TOTAL VOCs	**--**	**128.4**	**6.6**	**502**	**1252.1 J**	**567 J**	**623.7 J**	**0.24 J**	**0**	**0.18 J**	**0.3 J**	**0.21 J**	**0**	**1566 J**	**1105.2 J**	**253.95 J**	**857.2 J**	**232.29 J**	**835.2 J**	**6561 J**	**1698**	**1390.6 J**	**505.7 J**	**151 J**	**1028.1 J**
TOTAL pVOCs	**--**	**128.4**	**6.6**	**502**	**1064.1 J**	**424 J**	**544.2 J**	**0**	**0**	**0**	**0**	**0**	**0**	**1215.2 J**	**1105.2 J**	**75.95 J**	**775.2 J**	**168.5 J**	**706.2 J**	**5941 J**	**1698 J**	**1106.6 D**	**345.7 J**	**123 J**	**853.1 J**
TOTAL cVOCs	**--**	**0**	**0**	**0**	**0**	**0**	**0**	**0.24 J**	**0**	**0.18 J**	**0.3 J**	**0.21 J**	**0**	**1.8 J**	**0**	**0**	**0**	**20.9 J**	**0**	**0**	**0**	**0 J**	**0**	**0**	**0**
General Chemistry (mg/L)																									
T. Alkalinity (as $CaCO_3$)	--	--	**--**	518	476	467	733	--	**--**	320	329	319	339	--	**--**	305	320	239	258	--	**--**	470	396	384	538

Notes:
1. ND - Not Detected
2. Only those compounds detected at a minimum of one location are presented.
3. Values exceeding NYS Ambient Water Quality Class GA Groundwater Quality Standards/Guidance Values; NYSDEC June 1998 Division of Water Technical and Operational Guidance Series (TOGS) 1.1.1 are highlighted in yellow.
4. Data presented has been validated by a third party data validator; data and qualifiers modified by the validator are in RED.

Qualifiers:
J = The analyte was positively identified; the associated numerical value is an approximate concentration of the analyte in the sample.
D = Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

TABLE 1

SUMMARY OF GROUNDWATER ANALYTICAL RESULTS

POST REMEDIAL MONITORING
73-79 WEST HURON STREET SITE (C915282)
BUFFALO, NEW YORK

Parameter	GWQS/GV	Hurondel Monitoring Wells																		Hurondel Sump Water					
		HMW-4						HMW-5						HMW-6						GSW-1 (SUMP - 1)					
		06/16/16	01/11/17	05/17/18	10/24/18	08/20/19	02/13/20	06/16/16	01/11/17	05/17/18	10/24/18	08/20/19	02/13/20	06/16/16	01/11/17	05/17/18	10/24/18	8/20/2019	2/13/2020	04/24/15	06/05/15	05/17/18	06/05/18	10/24/18	08/20/19	02/13/20
VOLATILE ORGANICS (VOCs, ug/L)																									
1,2,4-Trimethylbenzene	5	ND	ND	ND	1 J	**280**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5.7**	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone	50	ND	--	ND	ND	ND	ND	ND	--	ND	ND	ND	ND	ND	--	ND	ND	ND	ND	ND	5.7	ND	ND	ND	**85**	ND
Acetone	50	ND	--	ND	ND	ND	ND	ND	--	ND	ND	ND	ND	ND	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	**170**	ND
Benzene	1	0.17 J	ND	ND	ND	ND	ND	0.23 J	ND	ND	ND	ND	ND	0.22 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	7	ND	--	ND	ND	ND	ND	3.8	--	2.3 J	ND	ND	3.1	2.7	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	5	ND	--	ND	ND	ND	ND	ND	--	ND	ND	ND	ND	ND	--	ND	ND	ND	ND	ND	ND	**25**	**24**	**31**	**28**	**6**
Cyclohexane	--	ND	--	ND	ND	90	7.7 J	0.59 J	--	ND	ND	ND	ND	0.49 J	--	ND	ND	ND	ND	ND	4.8 J	ND	ND	ND	ND	ND
Ethylbenzene	5	0.77 J	ND	ND	ND	ND	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Hexanone	50	ND	--	ND	ND	ND	ND	ND	--	ND	ND	ND	ND	ND	--	1.2 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene	5	ND	ND	ND	ND	**43**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.9	ND	ND	ND	ND	ND
Methylcyclohexane	--	0.48 J	--	ND	ND	13 J	ND	0.44	--	ND	ND	ND	ND	0.56 J	--	ND	ND	ND	ND	ND	0.49 J	ND	ND	ND	ND	ND
n-Butylbenzene	5	ND	ND	ND	ND	3.9 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
n-Propylbenzene	5	0.9 J	ND	ND	ND	**98**	1 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	4.8	ND	ND	ND	ND	ND
p-Isopropyltoluene	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
sec-Butylbenzene	5	0.7 J	ND	ND	ND	**6.8 J**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	5	ND	--	ND	ND	ND	ND	0.54	--	0.35 J	0.43 J	0.29 J	0.25 J	0.91	--	0.44 J	0.53	0.34 J	0.38 J	3.4	4.9	**550**	**480**	**680**	**300**	**110**
Toluene	5	ND	ND	ND	ND	ND	1.7 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Xylenes	5	0.84 J	ND	ND	ND	ND	**29.5**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.91 J	ND	ND	ND	ND	ND
Trichloroethene	5	ND	--	ND	ND	ND	ND	ND	--	ND	ND	ND	ND	ND	--	ND	ND	ND	ND	ND	0.52 J	**13 J**	**12**	**16**	**14**	4
TOTAL VOCs	**--**	**3.86**	**0**	**0**	**1 J**	**534.7 J**	**44.8 J**	**5.6**	**0**	**2.65**	**0.43 J**	**0.29 J**	**3.35 J**	**4.88**	**0**	**1.64**	**0.53**	**0.34 J**	**0.38 J**	**3.4**	**29.72 J**	**588 J**	**516**	**727**	**597**	**120 J**
TOTAL pVOCs	**--**	**3.38**	**0**	**0**	**1 J**	**431.7 J**	**37.1 J**	**0.23**	**0**	**0**	**0**	**0**	**0**	**0.22**	**0**	**0**	**0**	**0**	**0**	**0**	**13.31 J**	**0**	**0**	**0**	**0**	**0**
TOTAL cVOCs	**--**	**0**	**0**	**0**	**0**	**0 J**	**0 J**	**0.54**	**0**	**2.65 J**	**0.43 J**	**0.29 J**	**3.35 J**	**3.61**	**0**	**0.44 J**	**0.53**	**0.34 J**	**0.38 J**	**3.4**	**11.12 J**	**588**	**516**	**727**	**597**	**120**
General Chemistry (mg/L)																										
T. Alkalinity (as $CaCO_3$)	--	--	--	108	196	466	450	--	--	237	336	245	356	--	--	289	418	317	371	--	--	331	--	338	334	327

Notes:

1. ND - Not Detected
2. Only those compounds detected at a minimum of one location are presented.
3. Values exceeding NYS Ambient Water Quality Class GA Groundwater Quality Standards/Guidance Values; NYSDEC June 1998 Division of Water Technical and Operational Guidance Series (TOGS) 1.1.1 are highlighted in yellow.
4. Data presented has been validated by a third party data validator; data and qualifiers modified by the validator are in RED.

Qualifiers:

J = The analyte was positively identified; the associated numerical value is an approximate concentration of the analyte in the sample.
D = Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

APPENDIX A

INSTITUTIONAL & ENGINEERING CONTROLS CERTIFICATION FORMS

Enclosure 2

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

Site Details **Box 1**

Site No. **C915282**

Site Name 73-79 W. Huron St.

Site Address: 73-79 W. Huron St. Zip Code: 14202
City/Town: Buffalo
County: Erie
Site Acreage: 0.609

Reporting Period: April 28, 2019 to April 28, 2020

	YES	NO
1. Is the information above correct?	☑	☐
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?	☐	☑
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?	☑	☐

Box 2

	YES	NO
6. Is the current site use consistent with the use(s) listed below? Restricted-Residential, Commercial, and Industrial	☑	☐
7. Are all ICs/ECs in place and functioning as designed?	☑	☐

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

Signature of Owner, Remedial Party or Designated Representative Date

Box 2A

	YES	NO
8. Has any new information revealed that assumptions made in the Qualitative Exposure Assessment regarding offsite contamination are no longer valid?	☐	☑

If you answered YES to question 8, include documentation or evidence that documentation has been previously submitted with this certification form.

9. Are the assumptions in the Qualitative Exposure Assessment still valid? (The Qualitative Exposure Assessment must be certified every five years)	☑	☐

If you answered NO to question 9, the Periodic Review Report must include an updated Qualitative Exposure Assessment based on the new assumptions.

SITE NO. C915282 **Box 3**

Description of Institutional Controls

Parcel	Owner	Institutional Control
111.37-4-10	Emerson Huron, LLC	Soil Management Plan Landuse Restriction Monitoring Plan Site Management Plan IC/EC Plan Ground Water Use Restriction

- Prohibition against use of groundwater without treatment
- Provision for SVI evaluation of occupied buildings on site
- Annual monitoring of groundwater
- Compliance with excavation plan

111.37-4-11	Emerson Huron, LLC	IC/EC Plan Ground Water Use Restriction Soil Management Plan Landuse Restriction Monitoring Plan Site Management Plan

- Site use is limited to Restricted Residential, Commercial and Industrial uses as described in 6 NYCRR Part 375;
- Prohibition against use of groundwater without treatment;
- Provision for SVI evaluation of occupied buildings on site;
- Annual monitoring of groundwater;
- Compliance with excavation plan and
- Monitoring to assess the performance and effectiveness of the remedy.

111.37-4-17.2	Emerson Huron, LLC	Monitoring Plan Landuse Restriction Site Management Plan IC/EC Plan Ground Water Use Restriction Soil Management Plan

- Site use is limited to Restricted Residential, Commercial and Industrial uses as described in 6 NYCRR Part 375;
- Prohibition against use of groundwater without treatment;
- Provision for SVI evaluation of occupied buildings on site;
- Annual monitoring of groundwater;
- Compliance with excavation plan and
- Monitoring to assess the performance and effectiveness of the remedy.

Box 4

Description of Engineering Controls

None Required

Not Applicable/No EC's

Box 5

Periodic Review Report (PRR) Certification Statements

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
☑	☐

2. 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.

Signature of Owner, Remedial Party or Designated Representative

Date

IC CERTIFICATIONS
SITE NO. C915282

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.

I James Mahoney (print name) at Emerson Huron, LLC (print business address),

am certifying as Owner's Rpresentative (Owner or Remedial Party)

for the Site named in the Site Details Section of this form.

James Mahoney

Digitally signed by James Mahoney
DN: C=US, E=jmahoney@mcguiredevelopment.com, CN=James Mahoney
Reason: I am approving this document
Date: 2020.05.26 14:12:26-04'00'

Signature of Owner, Remedial Party, or Designated Representative Rendering Certification

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.

I Thomas H. Forbes, P.E. (print name) at Benchmark Environmental Engineering & Science, PLLC 2558 Hamburg Turnpike, Buffalo, NY 14218 (print business address),

am certifying as a Professional Engineer for the Owner (Owner or Remedial Party)

STATE OF NEW YORK THOMAS H. FORBES LICENSED PROFESSIONAL ENGINEER (Seal required for PE)

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

5-7-2020
Date

APPENDIX B

SITE PHOTO LOG

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

PHOTOGRAPHIC LOG

Client Name:	Site Location:	Project No.:
Emerson Huron, LLC	73-79 W. Huron Street Site (C915282)	B0441-020-001

Photo No.	Date
1	03/18/20

Direction Photo Taken:

Description:
Post-Installation ASD Communication Testing:
ASD-1 (-0.015 inches of water)

Photo No.	Date
2	03/18/20

Direction Photo Taken:

Description:
Post-Installation ASD Communication Testing:
ASD-2 (-0.029 inches of water)

Prepared By: *CCB*

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

PHOTOGRAPHIC LOG

Client Name:	Site Location:	Project No.:
Emerson Huron, LLC	73-79 W. Huron Street Site (C915282)	B0441-020-001

Photo No.	Date
3	03/18/20

Direction Photo Taken:

Description:
Post-Installation ASD Communication Testing:
ASD-3 (-0.042 inches of water)

Photo No.	Date
4	03/18/20

Direction Photo Taken:

Description:
Post-Installation ASD Communication Testing:
ASD-4 (-0.119 inches of water)

Prepared By: CCB

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

PHOTOGRAPHIC LOG

Client Name:	Site Location:	Project No.:
Emerson Huron, LLC	73-79 W. Huron Street Site (C915282)	B0441-020-001

Photo No.	Date
5	03/18/20

Direction Photo Taken:

Description:
Post-Installation ASD Communication Testing:
ASD-5 (-0.221 inches of water)

Photo No.	Date
6	03/18/20

Direction Photo Taken:

Description:
Post-Installation ASD Communication Testing:
ASD-6 (-0.020 inches of water)

Prepared By: CCB

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

PHOTOGRAPHIC LOG

Client Name:	Site Location:	Project No.:
Emerson Huron, LLC	73-79 W. Huron Street Site (C915282)	B0441-020-001

Photo No.	Date
7	03/18/20

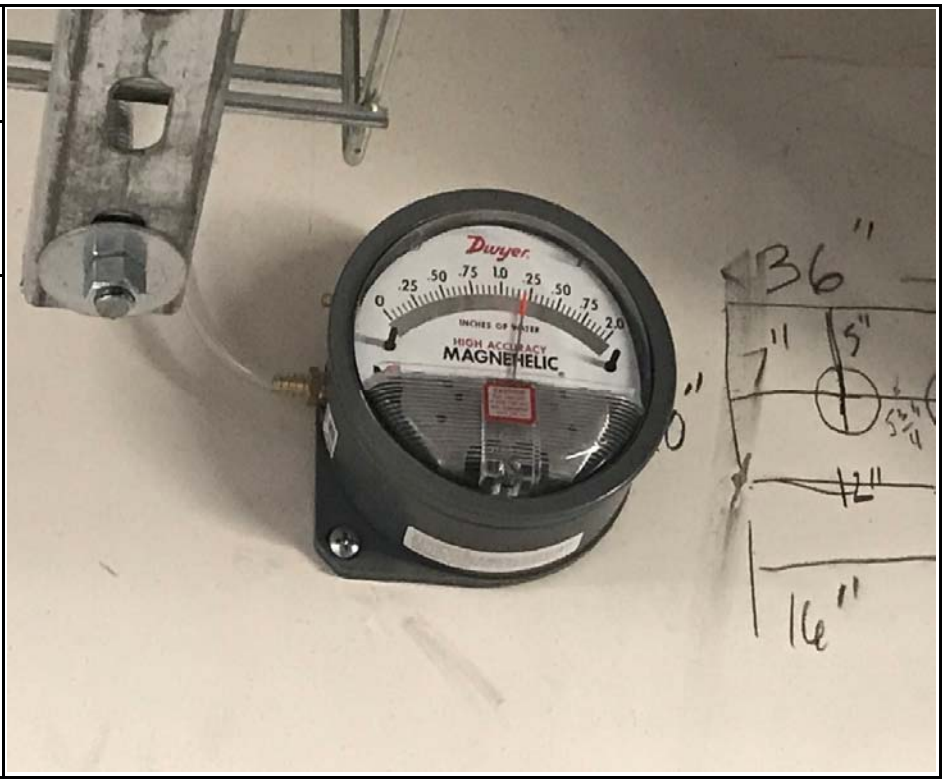
Direction Photo Taken:

Description:
Post-Installation ASD Communication Testing:
MAG-1 (1.0 inches of water)

Photo No.	Date
8	03/18/20

Direction Photo Taken:

Description:
Post-Installation ASD Communication Testing:
MAG-2 (1.25 inches of water)



Prepared By: CCB

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

PHOTOGRAPHIC LOG

Client Name:	Site Location:	Project No.:
Emerson Huron, LLC	73-79 W. Huron Street Site (C915282)	B0441-020-001

Photo No.	Date
9	05/15/20

Direction Photo Taken:
North

Description:
Annual Site Inspection:
Exterior Building Addition and Paved Areas.

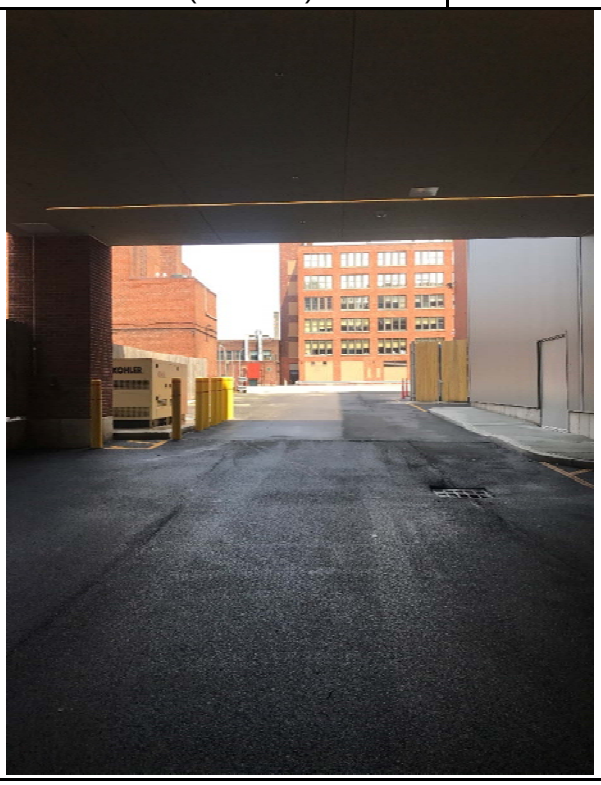
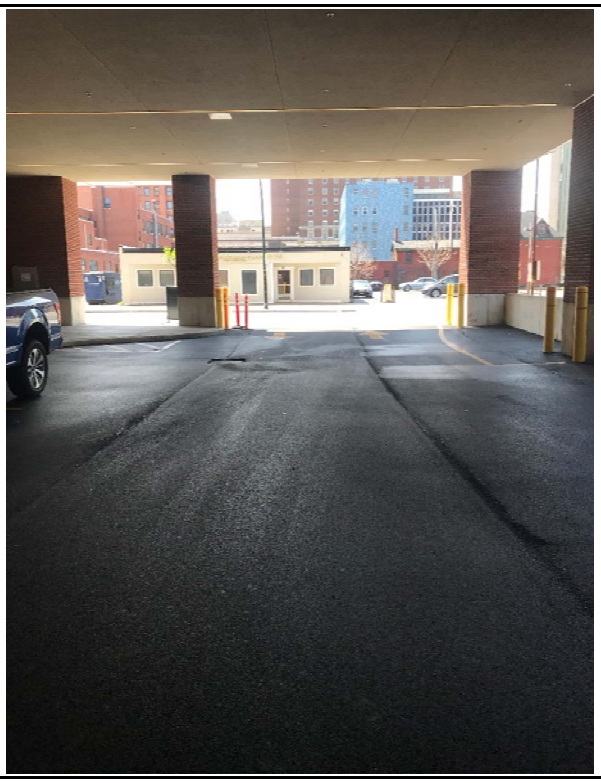


Photo No.	Date
10	05/15/20

Direction Photo Taken:
South

Description:
Annual Site Inspection:
Exterior Building Addition and Paved Areas.



Prepared By: CCB

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

PHOTOGRAPHIC LOG

Client Name:	Site Location:	Project No.:
Emerson Huron, LLC	73-79 W. Huron Street Site (C915282)	B0441-020-001

Photo No.	Date
11	05/15/20

Direction Photo Taken:
Interior

Description:
Annual Site Inspection:
Magnehelic Guage Pressure Reading (MAG-2; 1.25 inches of water)

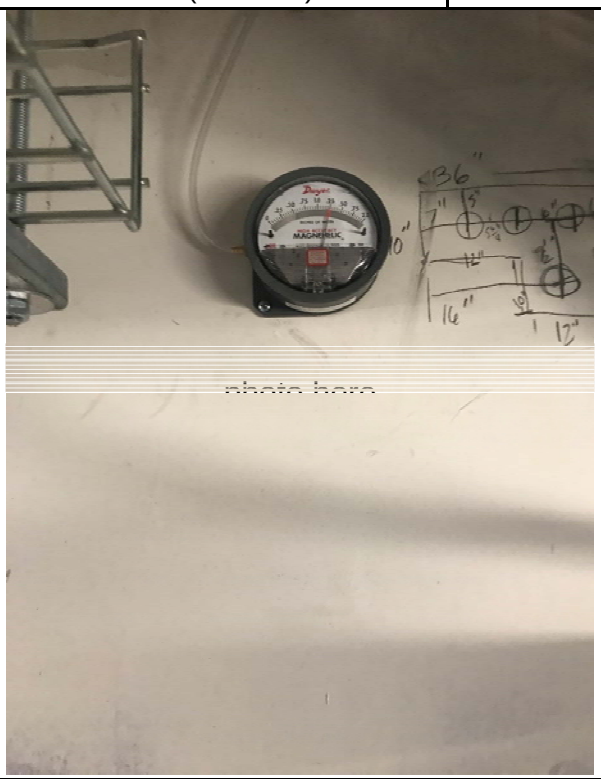


Photo No.	Date
12	05/15/20

Direction Photo Taken:
Interior

Description:
Annual Site Inspection:
Magnehelic Guage Pressure Reading (MAG-1; 0.90 inches of water)

Prepared By: CCB

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

PHOTOGRAPHIC LOG

Client Name:	Site Location:	Project No.:
Emerson Huron, LLC	73-79 W. Huron Street Site (C915282)	B0441-020-001

Photo No.	Date
13	05/15/20

Direction Photo Taken:
North

Description:
Annual Site Inspection:
Interior Basement Redevelopment.

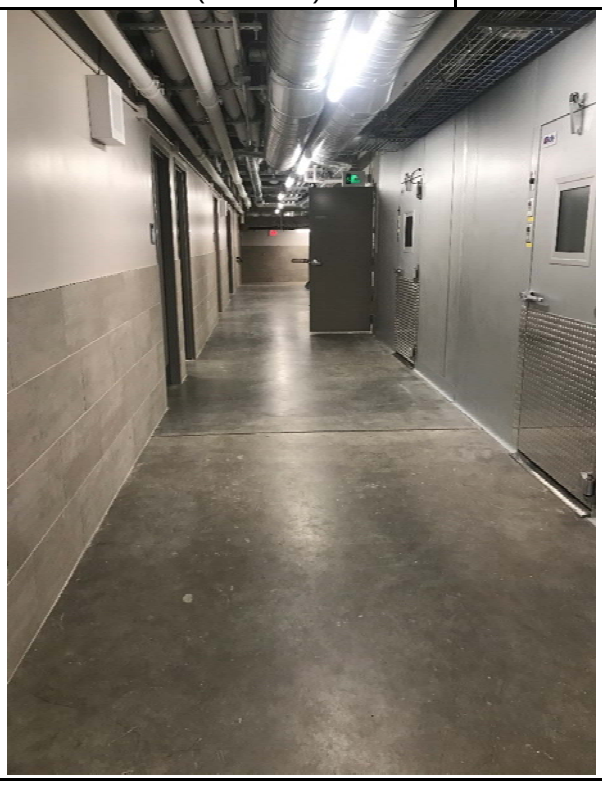


Photo No.	Date
14	05/15/20

Direction Photo Taken:
South

Description:
Annual Site Inspection:
Interior Basement Redevelopment.

Prepared By: CCB

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

PHOTOGRAPHIC LOG

Client Name:	Site Location:	Project No.:
Emerson Huron, LLC	73-79 W. Huron Street Site (C915282)	B0441-020-001

Photo No.	Date
15	05/15/20

Direction Photo Taken:
--

Description:
Annual Site Inspection:
Sealed Sumps in Basement.

Photo No.	Date
16	05/15/20

Direction Photo Taken:
Northeast

Description:
Annual Site Inspection:
North Side of Existing Building Exterior.

Prepared By: CCB

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

PHOTOGRAPHIC LOG

Client Name:	Site Location:	Project No.:
Emerson Huron, LLC	73-79 W. Huron Street Site (C915282)	B0441-020-001

Photo No.	Date
17	05/15/20

Direction Photo Taken:
East

Description:
Annual Site Inspection:
North End of Existing Building Exterior.

Photo No.	Date
18	05/15/20

Direction Photo Taken:
South

Description:
Annual Site Inspection:
Exterior Elevated Gymnasium Addition.

Prepared By: CCB

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

PHOTOGRAPHIC LOG

Client Name:	Site Location:	Project No.:
Emerson Huron, LLC	73-79 W. Huron Street Site (C915282)	B0441-020-001

Photo No.	Date
19	05/15/20

Direction Photo Taken:
East

Description:
Annual Site Inspection:
Sidewalk Along West Huron Street.

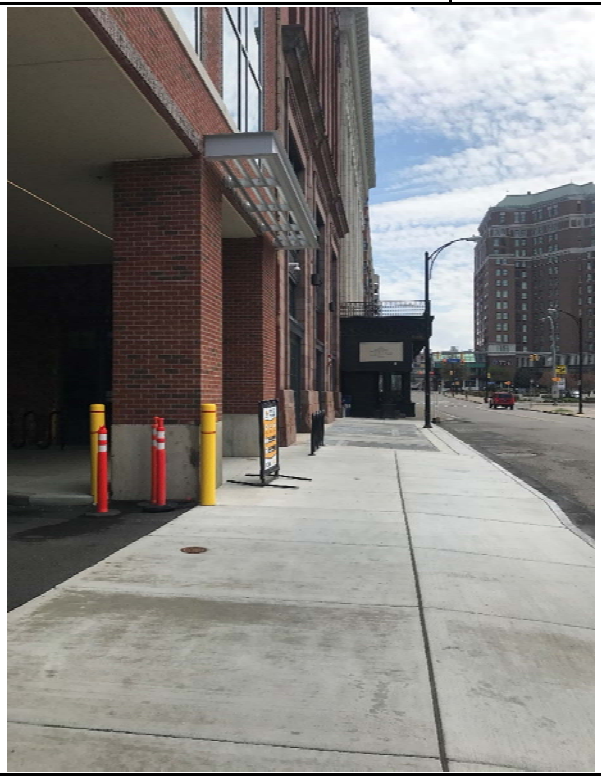


Photo No.	Date
20	05/15/20

Direction Photo Taken:
Northeast

Description:
Annual Site Inspection:
Exterior Elevated Gymnasium Addition Façade on West Huron Street.

Prepared By: CCB

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

PHOTOGRAPHIC LOG

Client Name:	Site Location:	Project No.:
Emerson Huron, LLC	73-79 W. Huron Street Site (C915282)	B0441-020-001

Photo No.	Date
21	05/15/20

Direction Photo Taken:
Northeast

Description:
Annual Site Inspection:
Existing Exterior Building Facade on West Huron Street.

Prepared By: CCB

APPENDIX C

DISPOSAL DOCUMENTS

Emerson School of Hospitality
BUD Exported Material

DATE	TRUCK No.	TICKET No.	Loads	Material Description	Disposal Site
5/6/2019	26	13098	2	Non-contaminated Dirt Fill	Roxberry Estates
5/10/2019	26	15766	1	Non-contaminated Dirt Fill	Roxberry Estates
5/17/2019	26	15706	3	Non-contaminated Dirt Fill	Roxberry Estates
5/17/2019	26	15706	2	Non-contaminated Dirt Fill	Milherst Yard

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Remediation, Region 9
270 Michigan Avenue, Buffalo, NY 14203-2915
P: (716) 851-7220 | F: (716) 851-7226
www.dec.ny.gov

January 9, 2019

Thomas Forbes, P.E.
Benchmark Environmental Engineering & Science, PLLC
2558 Hamburg Turnpike
Buffalo, New York 14218

Dear Mr. Forbes:

Soil Reuse Request
73-79 West Huron, Site #C915282
Buffalo, Erie County

The Department has reviewed the fill material reuse notification that was submitted January 2, and it's attached test results for the soil/fill samples taken from the northern portion of the West Huron site's existing, paved parking lot. None of the analytes exceeded their respective unrestricted use soil cleanup objectives. Soil/fill excavated from the sampled area may therefore be exported off site for use as backfill.

The notice identified two possible destinations for the exported material. After all the material has been exported, please notify me of the final quantities and destination(s).

Sincerely,

David P. Locey
NYSDEC Project Manager

DPL

(08/18)

NOTIFICATION OF FILL MATERIAL REUSE

OFFICIAL USE ONLY

DATE RECEIVED

GENERATOR NUMBER

DESTINATION NUMBER

STAFF INITIALS

6 NYCRR Part 360.13 requires notification to the Department for the use of fill material in the following cases:

- At least five days in advance of transfers of general fill, restricted-use fill and limited-use fill generated in, imported to, or relocated within the City of New York in amounts greater than 10 cubic yards.
- At least five days in advance of delivery of restricted-use fill and limited-use fill in amounts greater than 10 cubic yards anywhere in the State of New York.

Notification to the Department is not required when the destination is a facility authorized under 6 NYCRR Part 361-5; however, the facility may request information required by this form as part of its waste control plan.

1. Generating Site Location and Contact

Project Name: 73-79 West Huron Street Site (BCP Site No. C915282)

Location of Generating Site: 73-79 West Huron Street (*Street Address*) Buffalo (*City/Town*)

Erie (*County*) 14202 (*Zip Code*)

Contact: Wendling (*Last*) Mark (*First*) (*M.I.*)

Office Phone: (716) 302-4040 **Mobile Phone:** ( )

E-mail mwendling@buffaloconstruct.com

Company Name: Buffalo Construction Consultants, Inc.

Company Address: 6000 N Bailey Avenue (*Street Address*)

Buffalo (*City*) New York (*State*) 14226 (*Zip*)

2. Fill Material Generated at Remediation Sites

a. Is the fill material generated from a site being remediated pursuant to a program administered by the Department or EPA? ☑ Yes ☐ No

b. If Yes to question 2a, do you have approval from the Department or EPA to reuse this material at the proposed destination? ☑ Yes ☐ No

If No to question 2b, contact the Department prior to transporting fill material to the destination site.

3. Generating Site Information

a. Overall quantity of fill material this project will generate 800 tons Cubic yards

b. Indicate fill material classifications found on the site:

☑ General Fill ☐ Limited use fill ☐ Restricted use fill ☐ Other

c. Quantity of fill material covered under this notification 800 tons Cubic yards

d. **Indicate fill material classifications proposed to be reused under this notification:**

☑ General Fill ☐ Limited use fill ☐ Restricted use fill ☐ Other

e. Have other notifications for this project been submitted to the Department? ☐ Yes ☑ No

If yes, indicate destination region(s). _____

f. Will additional notifications be sent in the future? ☐ Yes ☑ No

g. Estimated start date and end date of overall project: January 2019 (*Start Date*) February 2019 (*End Date*)

h. Estimated start and end date of fill transfer for reuse under this notification: January 2019 (*Start Date*) February 2019 (*End Date*)

4. Fill Material Physical Characteristics

Describe Fill Material

Poorly graded sand and lean clay, originally imported from a certified clean source for use as backfill. A portion of this material will be re-excavated for a new building addition.

Provide a description of the fill material, including estimated composition by percent volume of soil, rock, concrete, brick, ash, cinders, slag, etc.). If more space is needed, attach an additional sheet.

5. Qualified Environmental Professional

Contact: Forbes (*Last*) Tom (*First*) H. (*M.I.*)

Office Phone: (716) 856-0599 **Mobile Phone:** ( ) _____

E-mail: tforbes@benchmarkturnkey.com

Company Name: Benchmark Environmental Engineering & Science, PLLC

Company Address: 2558 Hamburg Turnpike (*Street Address*)

Buffalo (*City*) New York (*State*) 14218 (*Zip*)

6. Destination Site Location and Contact

Project Name: Harris Hill Common, Phase III (See Section 7(e) below of alternate location)

Location of Destination Site: End of Garrock Road (*Street Address*) Clarence (*City/Town*)
Erie (*County*) 14221 (*Zip Code*)

Contact: Drollinger (*Last*) Thomas (*First*) (*M.I.*)

Phone: (716) 688-9098 **Mobile Phone:** ( ) _____

E-mail: tom@milherst.com

Company Name: Milherst Construction, Inc.

Company Address: 10025 County Road; P.O. Box 430 (*Street Address*)
Clarence Center (*City*) New York (*State*) 14032 (*Zip*)

7. Destination Site Information

a. Quantity of fill material required for this project? 800 tons **Cubic Yards**

b. Type(s) of fill material to be used (check all that apply):

☑ General Fill ☐ Limited use fill ☐ Restricted use fill ☐ Other

c. For restricted- and limited-use fill, has a local building permit or other municipal authorization been issued for this project that includes need for fill? ☐ Yes ☐ No

d. Are additional fill material notifications to be submitted for this project? ☐ Yes ☑ No

e. Describe the area(s) on the site where this fill material is to be used:

Generally used to increase sub-grade elevations beneath new subdivision infrastructure.

Alternate Location:
Roxberry, Phase III
End of Helenwood Drive
Erie County
Town of Clarence, NY 14221

Please note that both the generator and the receiver of the fill material must retain records of fill material quantities, with analytical data, for a minimum of three years after fill material is removed or received, as applicable. To demonstrate compliance with applicable requirements of this notification, a log of all loads of fill material and corresponding tracking documents should be maintained as part of these records. The Department reserves the right to inspect any site of generation or placement of fill material.

Transport of fill material that originates in the City of New York, or limited-use fill and restricted-use fill generated outside of New York City, is also subject to the requirements of Part 364.

8. Certification by Qualified Environmental Professional

I certify, under penalty of law that the data and other information provided in this notification have been prepared under my direction and supervision in compliance with the system designed to ensure that qualified personnel properly and accurately gather and evaluate this information. I am aware that any false statement I make in this notification is punishable pursuant to Section 71-2703(2) of the Environmental Conservation Law and Section 210.45 of the Penal Law.

Name: Forbes (*Last Name*) Thomas (*First Name*) H. (*M.I.*)

Signature: _____ *Date*

License Information: 070950 (*Number*) NY (*State*)

Profession: ☑ Engineer ☐ Geologist ☐ Other (see 6 NYCRR 360.2(b)(213))

(Engineer or Geologist seal above)

In the event the Qualified Environmental Professional identified in Item 5 above is not a Professional Engineer or Geologist licensed in New York State, the QEP's basis for credential must be attached to this form.

All notifications must be sent to the Regional Office of the Department in which the destination is located (see http://www.dec.ny.gov/about/558.html).

Pursuant to 6 NYCRR Subdivision 360.13(g), all notifications must be made on forms and in a manner acceptable to the Department. Before submitting this notification, please ensure this form is complete and all supporting documentation is formatted in a manner acceptable to the Department as recommended in the checklist below.

☐ **Completed Form.** All fields of the application are complete, including the certification.

☐ **Analytical Data Comparison.** Analytical data is compared with the following, for the respective fill material type for the receiving site, and exceedances clearly identified as follows (see also 6 NYCRR Part 360.13(f)):

- General Fill: protection of groundwater and residential soil cleanup objectives found in 6 NYCRR Part 375, Section 375-6.8.
- Restricted-Use Fill: In addition to general fill requirements, benzo (a) pyrene equivalent.
- Limited-Use Fill: In addition to restricted use requirements, commercial soil cleanup objectives for metals found in 6 NYCRR Part 375, Section 375-6.8.

☐ **Summary Table - Recommended Formatting.** Summary tables are attached that show standards and analytes on the left; sample IDs, depths and locations on the top; and detection limits are indicated for those constituents that are listed as 'non-detects'. The summary table should list all analytes. All data for the generating site should be provided, even if not to be transported, as part of this notification.

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

TABLE 1

SUMMARY OF BUD REUSE SAMPLE ANALYTICAL RESULTS

73-79 WEST HURON STREET SITE

BUFFALO, NEW YORK

PARAMETER[1]	Unrestricted Use SCOs [2]	Residential Use SCOs [2]	Sample Location								
			BUD COMP-1	BUD COMP-2	BUD VOC-1	BUD VOC-2	BUD VOC-3	BUD VOC-4	BUD VOC-5	BUD VOC-6	BUD VOC-7
			11/19/2018								
Volatile Organic Compounds (VOCs) - mg/Kg [3]											
Chloroform	**0.37**	**10**	--	--	ND	ND	0.00016 J	0.00028 J	ND	ND	ND
Tetrachloroethene	**1.3**	**5.5**	--	--	ND	ND	0.0011	ND	ND	0.00056	0.00046
Polycyclic Aromatic Hydrocarbons (PAHs) - mg/Kg [3]											
Benzo(a)anthracene	**1**	**1**	ND	0.045 J	--	--	--	--	--	--	--
Benzo(a)pyrene	**1**	**1**	ND	0.048 J	--	--	--	--	--	--	--
Benzo(b)fluoranthene	**1**	**1**	0.042 J	0.077 J	--	--	--	--	--	--	--
Benzo(ghi)perylene	**100**	**100**	ND	0.042 J	--	--	--	--	--	--	--
Bis(2-ethylhexyl) phthalate	**--**	**--**	0.12 J	ND	--	--	--	--	--	--	--
Chrysene	**1**	**1**	0.024 J	0.049 J	--	--	--	--	--	--	--
Fluoranthene	**100**	**100**	0.05 J	0.077 J	--	--	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	**0.5**	**0.5**	ND	0.045 J	--	--	--	--	--	--	--
Phenanthrene	**100**	**100**	0.067 J	0.03 J	--	--	--	--	--	--	--
Pyrene	**100**	**100**	0.038 J	0.059 J	--	--	--	--	--	--	--

Notes:

1. Only those parameters detected at a minimum of one sample location are presented in this table; other compounds were reported as non-detect.
2. Values per 6NYCRR Part 375 Soil Cleanup Objectives (SCOs).
3. Sample results were reported by the laboratory in ug/kg and converted to mg/kg for comparisons to SCOs.

Definitions:

ND = Parameter not detected above laboratory detection limit.
"--" = No value available for the parameter; Parameter not analysed for.
J = Estimated value; result is less than the sample quantitation limit but greater than zero.

Bold	= Result exceeds Unrestricted Use SCOs.
Bold	= Result exceeds Residential Use SCOs.

ANALYTICAL REPORT

Lab Number:	L1847727
Client:	Benchmark & Turnkey Companies 2558 Hamburg Turnpike Suite 300 Buffalo, NY 14218
ATTN:	Tom Forbes
Phone:	(716) 856-0599
Project Name:	73-79 WEST HURON STREET SITE
Project Number:	B0441-018-001
Report Date:	11/29/18

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

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

Project Name: 73-79 WEST HURON STREET SITE
Project Number: B0441-018-001

Lab Number: L1847727
Report Date: 11/29/18

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1847727-01	BUD COMP-1	SOIL	BUFFALO, NY	11/19/18 14:00	11/20/18
L1847727-02	BUD COMP-2	SOIL	BUFFALO, NY	11/19/18 14:05	11/20/18
L1847727-03	BUD VOC-1	SOIL	BUFFALO, NY	11/19/18 14:10	11/20/18
L1847727-04	BUD VOC-2	SOIL	BUFFALO, NY	11/19/18 14:15	11/20/18
L1847727-05	BUD VOC-3	SOIL	BUFFALO, NY	11/19/18 14:20	11/20/18
L1847727-06	BUD VOC-4	SOIL	BUFFALO, NY	11/19/18 14:25	11/20/18
L1847727-07	BUD VOC-5	SOIL	BUFFALO, NY	11/19/18 14:30	11/20/18
L1847727-08	BUD VOC-6	SOIL	BUFFALO, NY	11/19/18 14:35	11/20/18
L1847727-09	BUD VOC-7	SOIL	BUFFALO, NY	11/19/18 14:40	11/20/18

Project Name:	73-79 WEST HURON STREET SITE	**Lab Number:**	L1847727
Project Number:	B0441-018-001	**Report Date:**	11/29/18

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 800-624-9220 with any questions.

Project Name:	73-79 WEST HURON STREET SITE	**Lab Number:**	L1847727
Project Number:	B0441-018-001	**Report Date:**	11/29/18

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: Amita Naik

Title: Technical Director/Representative Date: 11/29/18

ORGANICS

VOLATILES

Project Name: 73-79 WEST HURON STREET SITE **Lab Number:** L1847727

Project Number: B0441-018-001 **Report Date:** 11/29/18

SAMPLE RESULTS

Lab ID: L1847727-03
Client ID: BUD VOC-1
Sample Location: BUFFALO, NY

Date Collected: 11/19/18 14:10
Date Received: 11/20/18
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 11/28/18 00:41
Analyst: MV
Percent Solids: 82%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
Methylene chloride	ND		ug/kg	4.8	2.2	1
1,1-Dichloroethane	ND		ug/kg	0.96	0.14	1
Chloroform	ND		ug/kg	1.4	0.13	1
Carbon tetrachloride	ND		ug/kg	0.96	0.22	1
1,2-Dichloropropane	ND		ug/kg	0.96	0.12	1
Dibromochloromethane	ND		ug/kg	0.96	0.13	1
1,1,2-Trichloroethane	ND		ug/kg	0.96	0.26	1
Tetrachloroethene	ND		ug/kg	0.48	0.19	1
Chlorobenzene	ND		ug/kg	0.48	0.12	1
Trichlorofluoromethane	ND		ug/kg	3.8	0.67	1
1,2-Dichloroethane	ND		ug/kg	0.96	0.25	1
1,1,1-Trichloroethane	ND		ug/kg	0.48	0.16	1
Bromodichloromethane	ND		ug/kg	0.48	0.10	1
trans-1,3-Dichloropropene	ND		ug/kg	0.96	0.26	1
cis-1,3-Dichloropropene	ND		ug/kg	0.48	0.15	1
Bromoform	ND		ug/kg	3.8	0.24	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.48	0.16	1
Benzene	ND		ug/kg	0.48	0.16	1
Toluene	ND		ug/kg	0.96	0.52	1
Ethylbenzene	ND		ug/kg	0.96	0.14	1
Chloromethane	ND		ug/kg	3.8	0.89	1
Bromomethane	ND		ug/kg	1.9	0.56	1
Vinyl chloride	ND		ug/kg	0.96	0.32	1
Chloroethane	ND		ug/kg	1.9	0.43	1
1,1-Dichloroethene	ND		ug/kg	0.96	0.23	1
trans-1,2-Dichloroethene	ND		ug/kg	1.4	0.13	1
Trichloroethene	ND		ug/kg	0.48	0.13	1
1,2-Dichlorobenzene	ND		ug/kg	1.9	0.14	1

Project Name: 73-79 WEST HURON STREET SITE **Lab Number:** L1847727

Project Number: B0441-018-001 **Report Date:** 11/29/18

SAMPLE RESULTS

Lab ID: L1847727-03 Date Collected: 11/19/18 14:10

Client ID: BUD VOC-1 Date Received: 11/20/18

Sample Location: BUFFALO, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/kg	1.9	0.14	1
1,4-Dichlorobenzene	ND		ug/kg	1.9	0.16	1
Methyl tert butyl ether	ND		ug/kg	1.9	0.19	1
p/m-Xylene	ND		ug/kg	1.9	0.54	1
o-Xylene	ND		ug/kg	0.96	0.28	1
cis-1,2-Dichloroethene	ND		ug/kg	0.96	0.17	1
Styrene	ND		ug/kg	0.96	0.19	1
Dichlorodifluoromethane	ND		ug/kg	9.6	0.88	1
Acetone	ND		ug/kg	9.6	4.6	1
Carbon disulfide	ND		ug/kg	9.6	4.4	1
2-Butanone	ND		ug/kg	9.6	2.1	1
4-Methyl-2-pentanone	ND		ug/kg	9.6	1.2	1
2-Hexanone	ND		ug/kg	9.6	1.1	1
Bromochloromethane	ND		ug/kg	1.9	0.20	1
1,2-Dibromoethane	ND		ug/kg	0.96	0.27	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	2.9	0.96	1
Isopropylbenzene	ND		ug/kg	0.96	0.10	1
1,2,3-Trichlorobenzene	ND		ug/kg	1.9	0.31	1
1,2,4-Trichlorobenzene	ND		ug/kg	1.9	0.26	1
Methyl Acetate	ND		ug/kg	3.8	0.91	1
Cyclohexane	ND		ug/kg	9.6	0.52	1
1,4-Dioxane	ND		ug/kg	96	34.	1
Freon-113	ND		ug/kg	3.8	0.66	1
Methyl cyclohexane	ND		ug/kg	3.8	0.58	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	117		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	85		70-130
Dibromofluoromethane	116		70-130

Project Name: 73-79 WEST HURON STREET SITE **Lab Number:** L1847727

Project Number: B0441-018-001 **Report Date:** 11/29/18

SAMPLE RESULTS

Lab ID: L1847727-04
Client ID: BUD VOC-2
Sample Location: BUFFALO, NY

Date Collected: 11/19/18 14:15
Date Received: 11/20/18
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 11/28/18 01:09
Analyst: MV
Percent Solids: 84%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
Methylene chloride	ND		ug/kg	4.5	2.1	1
1,1-Dichloroethane	ND		ug/kg	0.90	0.13	1
Chloroform	ND		ug/kg	1.4	0.13	1
Carbon tetrachloride	ND		ug/kg	0.90	0.21	1
1,2-Dichloropropane	ND		ug/kg	0.90	0.11	1
Dibromochloromethane	ND		ug/kg	0.90	0.13	1
1,1,2-Trichloroethane	ND		ug/kg	0.90	0.24	1
Tetrachloroethene	ND		ug/kg	0.45	0.18	1
Chlorobenzene	ND		ug/kg	0.45	0.11	1
Trichlorofluoromethane	ND		ug/kg	3.6	0.63	1
1,2-Dichloroethane	ND		ug/kg	0.90	0.23	1
1,1,1-Trichloroethane	ND		ug/kg	0.45	0.15	1
Bromodichloromethane	ND		ug/kg	0.45	0.10	1
trans-1,3-Dichloropropene	ND		ug/kg	0.90	0.25	1
cis-1,3-Dichloropropene	ND		ug/kg	0.45	0.14	1
Bromoform	ND		ug/kg	3.6	0.22	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.45	0.15	1
Benzene	ND		ug/kg	0.45	0.15	1
Toluene	ND		ug/kg	0.90	0.49	1
Ethylbenzene	ND		ug/kg	0.90	0.13	1
Chloromethane	ND		ug/kg	3.6	0.84	1
Bromomethane	ND		ug/kg	1.8	0.52	1
Vinyl chloride	ND		ug/kg	0.90	0.30	1
Chloroethane	ND		ug/kg	1.8	0.41	1
1,1-Dichloroethene	ND		ug/kg	0.90	0.22	1
trans-1,2-Dichloroethene	ND		ug/kg	1.4	0.12	1
Trichloroethene	ND		ug/kg	0.45	0.12	1
1,2-Dichlorobenzene	ND		ug/kg	1.8	0.13	1

Project Name: 73-79 WEST HURON STREET SITE **Lab Number:** L1847727

Project Number: B0441-018-001 **Report Date:** 11/29/18

SAMPLE RESULTS

Lab ID: L1847727-04 Date Collected: 11/19/18 14:15

Client ID: BUD VOC-2 Date Received: 11/20/18

Sample Location: BUFFALO, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/kg	1.8	0.13	1
1,4-Dichlorobenzene	ND		ug/kg	1.8	0.15	1
Methyl tert butyl ether	ND		ug/kg	1.8	0.18	1
p/m-Xylene	ND		ug/kg	1.8	0.51	1
o-Xylene	ND		ug/kg	0.90	0.26	1
cis-1,2-Dichloroethene	ND		ug/kg	0.90	0.16	1
Styrene	ND		ug/kg	0.90	0.18	1
Dichlorodifluoromethane	ND		ug/kg	9.0	0.83	1
Acetone	ND		ug/kg	9.0	4.4	1
Carbon disulfide	ND		ug/kg	9.0	4.1	1
2-Butanone	ND		ug/kg	9.0	2.0	1
4-Methyl-2-pentanone	ND		ug/kg	9.0	1.2	1
2-Hexanone	ND		ug/kg	9.0	1.1	1
Bromochloromethane	ND		ug/kg	1.8	0.18	1
1,2-Dibromoethane	ND		ug/kg	0.90	0.25	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	2.7	0.90	1
Isopropylbenzene	ND		ug/kg	0.90	0.10	1
1,2,3-Trichlorobenzene	ND		ug/kg	1.8	0.29	1
1,2,4-Trichlorobenzene	ND		ug/kg	1.8	0.25	1
Methyl Acetate	ND		ug/kg	3.6	0.86	1
Cyclohexane	ND		ug/kg	9.0	0.49	1
1,4-Dioxane	ND		ug/kg	90	32.	1
Freon-113	ND		ug/kg	3.6	0.63	1
Methyl cyclohexane	ND		ug/kg	3.6	0.54	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	119		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	84		70-130
Dibromofluoromethane	120		70-130

Project Name: 73-79 WEST HURON STREET SITE **Lab Number:** L1847727

Project Number: B0441-018-001 **Report Date:** 11/29/18

SAMPLE RESULTS

Lab ID: L1847727-05
Client ID: BUD VOC-3
Sample Location: BUFFALO, NY

Date Collected: 11/19/18 14:20
Date Received: 11/20/18
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 11/28/18 01:37
Analyst: MV
Percent Solids: 85%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
Methylene chloride	ND		ug/kg	4.7	2.2	1
1,1-Dichloroethane	ND		ug/kg	0.94	0.14	1
Chloroform	0.16	J	ug/kg	1.4	0.13	1
Carbon tetrachloride	ND		ug/kg	0.94	0.22	1
1,2-Dichloropropane	ND		ug/kg	0.94	0.12	1
Dibromochloromethane	ND		ug/kg	0.94	0.13	1
1,1,2-Trichloroethane	ND		ug/kg	0.94	0.25	1
Tetrachloroethene	1.1		ug/kg	0.47	0.18	1
Chlorobenzene	ND		ug/kg	0.47	0.12	1
Trichlorofluoromethane	ND		ug/kg	3.8	0.65	1
1,2-Dichloroethane	ND		ug/kg	0.94	0.24	1
1,1,1-Trichloroethane	ND		ug/kg	0.47	0.16	1
Bromodichloromethane	ND		ug/kg	0.47	0.10	1
trans-1,3-Dichloropropene	ND		ug/kg	0.94	0.26	1
cis-1,3-Dichloropropene	ND		ug/kg	0.47	0.15	1
Bromoform	ND		ug/kg	3.8	0.23	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.47	0.16	1
Benzene	ND		ug/kg	0.47	0.16	1
Toluene	ND		ug/kg	0.94	0.51	1
Ethylbenzene	ND		ug/kg	0.94	0.13	1
Chloromethane	ND		ug/kg	3.8	0.88	1
Bromomethane	ND		ug/kg	1.9	0.55	1
Vinyl chloride	ND		ug/kg	0.94	0.32	1
Chloroethane	ND		ug/kg	1.9	0.42	1
1,1-Dichloroethene	ND		ug/kg	0.94	0.22	1
trans-1,2-Dichloroethene	ND		ug/kg	1.4	0.13	1
Trichloroethene	ND		ug/kg	0.47	0.13	1
1,2-Dichlorobenzene	ND		ug/kg	1.9	0.14	1

Project Name: 73-79 WEST HURON STREET SITE **Lab Number:** L1847727

Project Number: B0441-018-001 **Report Date:** 11/29/18

SAMPLE RESULTS

Lab ID: L1847727-05 Date Collected: 11/19/18 14:20

Client ID: BUD VOC-3 Date Received: 11/20/18

Sample Location: BUFFALO, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/kg	1.9	0.14	1
1,4-Dichlorobenzene	ND		ug/kg	1.9	0.16	1
Methyl tert butyl ether	ND		ug/kg	1.9	0.19	1
p/m-Xylene	ND		ug/kg	1.9	0.53	1
o-Xylene	ND		ug/kg	0.94	0.27	1
cis-1,2-Dichloroethene	ND		ug/kg	0.94	0.16	1
Styrene	ND		ug/kg	0.94	0.18	1
Dichlorodifluoromethane	ND		ug/kg	9.4	0.86	1
Acetone	ND		ug/kg	9.4	4.5	1
Carbon disulfide	ND		ug/kg	9.4	4.3	1
2-Butanone	ND		ug/kg	9.4	2.1	1
4-Methyl-2-pentanone	ND		ug/kg	9.4	1.2	1
2-Hexanone	ND		ug/kg	9.4	1.1	1
Bromochloromethane	ND		ug/kg	1.9	0.19	1
1,2-Dibromoethane	ND		ug/kg	0.94	0.26	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	2.8	0.94	1
Isopropylbenzene	ND		ug/kg	0.94	0.10	1
1,2,3-Trichlorobenzene	ND		ug/kg	1.9	0.30	1
1,2,4-Trichlorobenzene	ND		ug/kg	1.9	0.26	1
Methyl Acetate	ND		ug/kg	3.8	0.89	1
Cyclohexane	ND		ug/kg	9.4	0.51	1
1,4-Dioxane	ND		ug/kg	94	33.	1
Freon-113	ND		ug/kg	3.8	0.65	1
Methyl cyclohexane	ND		ug/kg	3.8	0.57	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	117		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	85		70-130
Dibromofluoromethane	117		70-130

Project Name: 73-79 WEST HURON STREET SITE **Lab Number:** L1847727

Project Number: B0441-018-001 **Report Date:** 11/29/18

SAMPLE RESULTS

Lab ID: L1847727-06
Client ID: BUD VOC-4
Sample Location: BUFFALO, NY

Date Collected: 11/19/18 14:25
Date Received: 11/20/18
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 11/28/18 02:04
Analyst: MV
Percent Solids: 85%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
Methylene chloride	ND		ug/kg	5.3	2.4	1
1,1-Dichloroethane	ND		ug/kg	1.0	0.15	1
Chloroform	0.28	J	ug/kg	1.6	0.15	1
Carbon tetrachloride	ND		ug/kg	1.0	0.24	1
1,2-Dichloropropane	ND		ug/kg	1.0	0.13	1
Dibromochloromethane	ND		ug/kg	1.0	0.15	1
1,1,2-Trichloroethane	ND		ug/kg	1.0	0.28	1
Tetrachloroethene	ND		ug/kg	0.53	0.21	1
Chlorobenzene	ND		ug/kg	0.53	0.13	1
Trichlorofluoromethane	ND		ug/kg	4.2	0.73	1
1,2-Dichloroethane	ND		ug/kg	1.0	0.27	1
1,1,1-Trichloroethane	ND		ug/kg	0.53	0.18	1
Bromodichloromethane	ND		ug/kg	0.53	0.11	1
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.29	1
cis-1,3-Dichloropropene	ND		ug/kg	0.53	0.17	1
Bromoform	ND		ug/kg	4.2	0.26	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.53	0.17	1
Benzene	ND		ug/kg	0.53	0.17	1
Toluene	ND		ug/kg	1.0	0.57	1
Ethylbenzene	ND		ug/kg	1.0	0.15	1
Chloromethane	ND		ug/kg	4.2	0.98	1
Bromomethane	ND		ug/kg	2.1	0.61	1
Vinyl chloride	ND		ug/kg	1.0	0.35	1
Chloroethane	ND		ug/kg	2.1	0.48	1
1,1-Dichloroethene	ND		ug/kg	1.0	0.25	1
trans-1,2-Dichloroethene	ND		ug/kg	1.6	0.14	1
Trichloroethene	ND		ug/kg	0.53	0.14	1
1,2-Dichlorobenzene	ND		ug/kg	2.1	0.15	1

Project Name: 73-79 WEST HURON STREET SITE **Lab Number:** L1847727

Project Number: B0441-018-001 **Report Date:** 11/29/18

SAMPLE RESULTS

Lab ID: L1847727-06 Date Collected: 11/19/18 14:25

Client ID: BUD VOC-4 Date Received: 11/20/18

Sample Location: BUFFALO, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/kg	2.1	0.16	1
1,4-Dichlorobenzene	ND		ug/kg	2.1	0.18	1
Methyl tert butyl ether	ND		ug/kg	2.1	0.21	1
p/m-Xylene	ND		ug/kg	2.1	0.59	1
o-Xylene	ND		ug/kg	1.0	0.31	1
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.18	1
Styrene	ND		ug/kg	1.0	0.21	1
Dichlorodifluoromethane	ND		ug/kg	10	0.96	1
Acetone	ND		ug/kg	10	5.1	1
Carbon disulfide	ND		ug/kg	10	4.8	1
2-Butanone	ND		ug/kg	10	2.3	1
4-Methyl-2-pentanone	ND		ug/kg	10	1.3	1
2-Hexanone	ND		ug/kg	10	1.2	1
Bromochloromethane	ND		ug/kg	2.1	0.22	1
1,2-Dibromoethane	ND		ug/kg	1.0	0.29	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.2	1.0	1
Isopropylbenzene	ND		ug/kg	1.0	0.11	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.1	0.34	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.1	0.29	1
Methyl Acetate	ND		ug/kg	4.2	1.0	1
Cyclohexane	ND		ug/kg	10	0.57	1
1,4-Dioxane	ND		ug/kg	100	37.	1
Freon-113	ND		ug/kg	4.2	0.73	1
Methyl cyclohexane	ND		ug/kg	4.2	0.63	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	112		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	80		70-130
Dibromofluoromethane	116		70-130

Project Name: 73-79 WEST HURON STREET SITE **Lab Number:** L1847727

Project Number: B0441-018-001 **Report Date:** 11/29/18

SAMPLE RESULTS

Lab ID: L1847727-07
Client ID: BUD VOC-5
Sample Location: BUFFALO, NY

Date Collected: 11/19/18 14:30
Date Received: 11/20/18
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 11/29/18 04:41
Analyst: MV
Percent Solids: 86%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
Methylene chloride	ND		ug/kg	5.2	2.4	1
1,1-Dichloroethane	ND		ug/kg	1.0	0.15	1
Chloroform	ND		ug/kg	1.5	0.14	1
Carbon tetrachloride	ND		ug/kg	1.0	0.24	1
1,2-Dichloropropane	ND		ug/kg	1.0	0.13	1
Dibromochloromethane	ND		ug/kg	1.0	0.14	1
1,1,2-Trichloroethane	ND		ug/kg	1.0	0.28	1
Tetrachloroethene	ND		ug/kg	0.52	0.20	1
Chlorobenzene	ND		ug/kg	0.52	0.13	1
Trichlorofluoromethane	ND		ug/kg	4.1	0.72	1
1,2-Dichloroethane	ND		ug/kg	1.0	0.26	1
1,1,1-Trichloroethane	ND		ug/kg	0.52	0.17	1
Bromodichloromethane	ND		ug/kg	0.52	0.11	1
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.28	1
cis-1,3-Dichloropropene	ND		ug/kg	0.52	0.16	1
Bromoform	ND		ug/kg	4.1	0.25	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.52	0.17	1
Benzene	ND		ug/kg	0.52	0.17	1
Toluene	ND		ug/kg	1.0	0.56	1
Ethylbenzene	ND		ug/kg	1.0	0.14	1
Chloromethane	ND		ug/kg	4.1	0.96	1
Bromomethane	ND		ug/kg	2.1	0.60	1
Vinyl chloride	ND		ug/kg	1.0	0.34	1
Chloroethane	ND		ug/kg	2.1	0.47	1
1,1-Dichloroethene	ND		ug/kg	1.0	0.24	1
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.14	1
Trichloroethene	ND		ug/kg	0.52	0.14	1
1,2-Dichlorobenzene	ND		ug/kg	2.1	0.15	1

Project Name: 73-79 WEST HURON STREET SITE **Lab Number:** L1847727

Project Number: B0441-018-001 **Report Date:** 11/29/18

SAMPLE RESULTS

Lab ID: L1847727-07 Date Collected: 11/19/18 14:30

Client ID: BUD VOC-5 Date Received: 11/20/18

Sample Location: BUFFALO, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/kg	2.1	0.15	1
1,4-Dichlorobenzene	ND		ug/kg	2.1	0.18	1
Methyl tert butyl ether	ND		ug/kg	2.1	0.21	1
p/m-Xylene	ND		ug/kg	2.1	0.58	1
o-Xylene	ND		ug/kg	1.0	0.30	1
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.18	1
Styrene	ND		ug/kg	1.0	0.20	1
Dichlorodifluoromethane	ND		ug/kg	10	0.94	1
Acetone	ND		ug/kg	10	5.0	1
Carbon disulfide	ND		ug/kg	10	4.7	1
2-Butanone	ND		ug/kg	10	2.3	1
4-Methyl-2-pentanone	ND		ug/kg	10	1.3	1
2-Hexanone	ND		ug/kg	10	1.2	1
Bromochloromethane	ND		ug/kg	2.1	0.21	1
1,2-Dibromoethane	ND		ug/kg	1.0	0.29	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.1	1.0	1
Isopropylbenzene	ND		ug/kg	1.0	0.11	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.1	0.33	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.1	0.28	1
Methyl Acetate	ND		ug/kg	4.1	0.98	1
Cyclohexane	ND		ug/kg	10	0.56	1
1,4-Dioxane	ND		ug/kg	100	36.	1
Freon-113	ND		ug/kg	4.1	0.71	1
Methyl cyclohexane	ND		ug/kg	4.1	0.62	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	107		70-130
Toluene-d8	105		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	103		70-130

Project Name: 73-79 WEST HURON STREET SITE **Lab Number:** L1847727

Project Number: B0441-018-001 **Report Date:** 11/29/18

SAMPLE RESULTS

Lab ID: L1847727-08
Client ID: BUD VOC-6
Sample Location: BUFFALO, NY

Date Collected: 11/19/18 14:35
Date Received: 11/20/18
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 11/28/18 08:33
Analyst: MV
Percent Solids: 84%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
Methylene chloride	ND		ug/kg	4.6	2.1	1
1,1-Dichloroethane	ND		ug/kg	0.92	0.13	1
Chloroform	ND		ug/kg	1.4	0.13	1
Carbon tetrachloride	ND		ug/kg	0.92	0.21	1
1,2-Dichloropropane	ND		ug/kg	0.92	0.12	1
Dibromochloromethane	ND		ug/kg	0.92	0.13	1
1,1,2-Trichloroethane	ND		ug/kg	0.92	0.25	1
Tetrachloroethene	0.56		ug/kg	0.46	0.18	1
Chlorobenzene	ND		ug/kg	0.46	0.12	1
Trichlorofluoromethane	ND		ug/kg	3.7	0.64	1
1,2-Dichloroethane	ND		ug/kg	0.92	0.24	1
1,1,1-Trichloroethane	ND		ug/kg	0.46	0.15	1
Bromodichloromethane	ND		ug/kg	0.46	0.10	1
trans-1,3-Dichloropropene	ND		ug/kg	0.92	0.25	1
cis-1,3-Dichloropropene	ND		ug/kg	0.46	0.15	1
Bromoform	ND		ug/kg	3.7	0.23	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.46	0.15	1
Benzene	ND		ug/kg	0.46	0.15	1
Toluene	ND		ug/kg	0.92	0.50	1
Ethylbenzene	ND		ug/kg	0.92	0.13	1
Chloromethane	ND		ug/kg	3.7	0.86	1
Bromomethane	ND		ug/kg	1.8	0.54	1
Vinyl chloride	ND		ug/kg	0.92	0.31	1
Chloroethane	ND		ug/kg	1.8	0.42	1
1,1-Dichloroethene	ND		ug/kg	0.92	0.22	1
trans-1,2-Dichloroethene	ND		ug/kg	1.4	0.13	1
Trichloroethene	ND		ug/kg	0.46	0.13	1
1,2-Dichlorobenzene	ND		ug/kg	1.8	0.13	1

Project Name: 73-79 WEST HURON STREET SITE **Lab Number:** L1847727

Project Number: B0441-018-001 **Report Date:** 11/29/18

SAMPLE RESULTS

Lab ID: L1847727-08 Date Collected: 11/19/18 14:35

Client ID: BUD VOC-6 Date Received: 11/20/18

Sample Location: BUFFALO, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/kg	1.8	0.14	1
1,4-Dichlorobenzene	ND		ug/kg	1.8	0.16	1
Methyl tert butyl ether	ND		ug/kg	1.8	0.19	1
p/m-Xylene	ND		ug/kg	1.8	0.52	1
o-Xylene	ND		ug/kg	0.92	0.27	1
cis-1,2-Dichloroethene	ND		ug/kg	0.92	0.16	1
Styrene	ND		ug/kg	0.92	0.18	1
Dichlorodifluoromethane	ND		ug/kg	9.2	0.85	1
Acetone	ND		ug/kg	9.2	4.4	1
Carbon disulfide	ND		ug/kg	9.2	4.2	1
2-Butanone	ND		ug/kg	9.2	2.0	1
4-Methyl-2-pentanone	ND		ug/kg	9.2	1.2	1
2-Hexanone	ND		ug/kg	9.2	1.1	1
Bromochloromethane	ND		ug/kg	1.8	0.19	1
1,2-Dibromoethane	ND		ug/kg	0.92	0.26	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	2.8	0.92	1
Isopropylbenzene	ND		ug/kg	0.92	0.10	1
1,2,3-Trichlorobenzene	ND		ug/kg	1.8	0.30	1
1,2,4-Trichlorobenzene	ND		ug/kg	1.8	0.25	1
Methyl Acetate	ND		ug/kg	3.7	0.88	1
Cyclohexane	ND		ug/kg	9.2	0.50	1
1,4-Dioxane	ND		ug/kg	92	32.	1
Freon-113	ND		ug/kg	3.7	0.64	1
Methyl cyclohexane	ND		ug/kg	3.7	0.56	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	109		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	86		70-130
Dibromofluoromethane	113		70-130

Project Name: 73-79 WEST HURON STREET SITE **Lab Number:** L1847727

Project Number: B0441-018-001 **Report Date:** 11/29/18

SAMPLE RESULTS

Lab ID: L1847727-09
Client ID: BUD VOC-7
Sample Location: BUFFALO, NY

Date Collected: 11/19/18 14:40
Date Received: 11/20/18
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 11/28/18 03:00
Analyst: MV
Percent Solids: 86%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
Methylene chloride	ND		ug/kg	4.4	2.0	1
1,1-Dichloroethane	ND		ug/kg	0.87	0.13	1
Chloroform	ND		ug/kg	1.3	0.12	1
Carbon tetrachloride	ND		ug/kg	0.87	0.20	1
1,2-Dichloropropane	ND		ug/kg	0.87	0.11	1
Dibromochloromethane	ND		ug/kg	0.87	0.12	1
1,1,2-Trichloroethane	ND		ug/kg	0.87	0.23	1
Tetrachloroethene	0.46		ug/kg	0.44	0.17	1
Chlorobenzene	ND		ug/kg	0.44	0.11	1
Trichlorofluoromethane	ND		ug/kg	3.5	0.61	1
1,2-Dichloroethane	ND		ug/kg	0.87	0.22	1
1,1,1-Trichloroethane	ND		ug/kg	0.44	0.15	1
Bromodichloromethane	ND		ug/kg	0.44	0.10	1
trans-1,3-Dichloropropene	ND		ug/kg	0.87	0.24	1
cis-1,3-Dichloropropene	ND		ug/kg	0.44	0.14	1
Bromoform	ND		ug/kg	3.5	0.22	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.44	0.14	1
Benzene	ND		ug/kg	0.44	0.14	1
Toluene	ND		ug/kg	0.87	0.47	1
Ethylbenzene	ND		ug/kg	0.87	0.12	1
Chloromethane	ND		ug/kg	3.5	0.81	1
Bromomethane	ND		ug/kg	1.7	0.51	1
Vinyl chloride	ND		ug/kg	0.87	0.29	1
Chloroethane	ND		ug/kg	1.7	0.40	1
1,1-Dichloroethene	ND		ug/kg	0.87	0.21	1
trans-1,2-Dichloroethene	ND		ug/kg	1.3	0.12	1
Trichloroethene	ND		ug/kg	0.44	0.12	1
1,2-Dichlorobenzene	ND		ug/kg	1.7	0.12	1

Project Name: 73-79 WEST HURON STREET SITE **Lab Number:** L1847727

Project Number: B0441-018-001 **Report Date:** 11/29/18

SAMPLE RESULTS

Lab ID: L1847727-09 Date Collected: 11/19/18 14:40

Client ID: BUD VOC-7 Date Received: 11/20/18

Sample Location: BUFFALO, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/kg	1.7	0.13	1
1,4-Dichlorobenzene	ND		ug/kg	1.7	0.15	1
Methyl tert butyl ether	ND		ug/kg	1.7	0.18	1
p/m-Xylene	ND		ug/kg	1.7	0.49	1
o-Xylene	ND		ug/kg	0.87	0.25	1
cis-1,2-Dichloroethene	ND		ug/kg	0.87	0.15	1
Styrene	ND		ug/kg	0.87	0.17	1
Dichlorodifluoromethane	ND		ug/kg	8.7	0.80	1
Acetone	ND		ug/kg	8.7	4.2	1
Carbon disulfide	ND		ug/kg	8.7	4.0	1
2-Butanone	ND		ug/kg	8.7	1.9	1
4-Methyl-2-pentanone	ND		ug/kg	8.7	1.1	1
2-Hexanone	ND		ug/kg	8.7	1.0	1
Bromochloromethane	ND		ug/kg	1.7	0.18	1
1,2-Dibromoethane	ND		ug/kg	0.87	0.24	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	2.6	0.87	1
Isopropylbenzene	ND		ug/kg	0.87	0.10	1
1,2,3-Trichlorobenzene	ND		ug/kg	1.7	0.28	1
1,2,4-Trichlorobenzene	ND		ug/kg	1.7	0.24	1
Methyl Acetate	ND		ug/kg	3.5	0.83	1
Cyclohexane	ND		ug/kg	8.7	0.48	1
1,4-Dioxane	ND		ug/kg	87	31.	1
Freon-113	ND		ug/kg	3.5	0.60	1
Methyl cyclohexane	ND		ug/kg	3.5	0.53	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	119		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	83		70-130
Dibromofluoromethane	120		70-130

Project Name: 73-79 WEST HURON STREET SITE **Lab Number:** L1847727

Project Number: B0441-018-001 **Report Date:** 11/29/18

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 11/27/18 19:37
Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 03-06,09 Batch: WG1183210-5					
Methylene chloride	ND		ug/kg	5.0	2.3
1,1-Dichloroethane	ND		ug/kg	1.0	0.14
Chloroform	ND		ug/kg	1.5	0.14
Carbon tetrachloride	ND		ug/kg	1.0	0.23
1,2-Dichloropropane	ND		ug/kg	1.0	0.12
Dibromochloromethane	ND		ug/kg	1.0	0.14
1,1,2-Trichloroethane	ND		ug/kg	1.0	0.27
Tetrachloroethene	ND		ug/kg	0.50	0.20
Chlorobenzene	ND		ug/kg	0.50	0.13
Trichlorofluoromethane	ND		ug/kg	4.0	0.70
1,2-Dichloroethane	ND		ug/kg	1.0	0.26
1,1,1-Trichloroethane	ND		ug/kg	0.50	0.17
Bromodichloromethane	ND		ug/kg	0.50	0.11
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.27
cis-1,3-Dichloropropene	ND		ug/kg	0.50	0.16
Bromoform	ND		ug/kg	4.0	0.25
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.50	0.17
Benzene	ND		ug/kg	0.50	0.17
Toluene	ND		ug/kg	1.0	0.54
Ethylbenzene	ND		ug/kg	1.0	0.14
Chloromethane	ND		ug/kg	4.0	0.93
Bromomethane	ND		ug/kg	2.0	0.58
Vinyl chloride	ND		ug/kg	1.0	0.34
Chloroethane	ND		ug/kg	2.0	0.45
1,1-Dichloroethene	ND		ug/kg	1.0	0.24
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.14
Trichloroethene	ND		ug/kg	0.50	0.14
1,2-Dichlorobenzene	ND		ug/kg	2.0	0.14
1,3-Dichlorobenzene	ND		ug/kg	2.0	0.15

Project Name: 73-79 WEST HURON STREET SITE **Lab Number:** L1847727

Project Number: B0441-018-001 **Report Date:** 11/29/18

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 11/27/18 19:37
Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 03-06,09 Batch: WG1183210-5					
1,4-Dichlorobenzene	ND		ug/kg	2.0	0.17
Methyl tert butyl ether	ND		ug/kg	2.0	0.20
p/m-Xylene	ND		ug/kg	2.0	0.56
o-Xylene	ND		ug/kg	1.0	0.29
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.18
Styrene	ND		ug/kg	1.0	0.20
Dichlorodifluoromethane	ND		ug/kg	10	0.92
Acetone	ND		ug/kg	10	4.8
Carbon disulfide	ND		ug/kg	10	4.6
2-Butanone	ND		ug/kg	10	2.2
4-Methyl-2-pentanone	ND		ug/kg	10	1.3
2-Hexanone	ND		ug/kg	10	1.2
Bromochloromethane	ND		ug/kg	2.0	0.20
1,2-Dibromoethane	ND		ug/kg	1.0	0.28
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.0	1.0
Isopropylbenzene	ND		ug/kg	1.0	0.11
1,2,3-Trichlorobenzene	ND		ug/kg	2.0	0.32
1,2,4-Trichlorobenzene	ND		ug/kg	2.0	0.27
Methyl Acetate	ND		ug/kg	4.0	0.95
Cyclohexane	ND		ug/kg	10	0.54
1,4-Dioxane	ND		ug/kg	100	35.
Freon-113	ND		ug/kg	4.0	0.69
Methyl cyclohexane	ND		ug/kg	4.0	0.60

Project Name: 73-79 WEST HURON STREET SITE
Project Number: B0441-018-001
Lab Number: L1847727
Report Date: 11/29/18

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 11/27/18 19:37
Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 03-06,09 Batch: WG1183210-5					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	109		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	84		70-130
Dibromofluoromethane	113		70-130

Project Name: 73-79 WEST HURON STREET SITE **Lab Number:** L1847727

Project Number: B0441-018-001 **Report Date:** 11/29/18

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 11/28/18 08:05
Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by 8260/5035 - Westborough Lab for sample(s): 08 Batch: WG1183334-5					
Methylene chloride	ND		ug/kg	5.0	2.3
1,1-Dichloroethane	ND		ug/kg	1.0	0.14
Chloroform	ND		ug/kg	1.5	0.14
Carbon tetrachloride	ND		ug/kg	1.0	0.23
1,2-Dichloropropane	ND		ug/kg	1.0	0.12
Dibromochloromethane	ND		ug/kg	1.0	0.14
1,1,2-Trichloroethane	ND		ug/kg	1.0	0.27
Tetrachloroethene	ND		ug/kg	0.50	0.20
Chlorobenzene	ND		ug/kg	0.50	0.13
Trichlorofluoromethane	ND		ug/kg	4.0	0.70
1,2-Dichloroethane	ND		ug/kg	1.0	0.26
1,1,1-Trichloroethane	ND		ug/kg	0.50	0.17
Bromodichloromethane	ND		ug/kg	0.50	0.11
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.27
cis-1,3-Dichloropropene	ND		ug/kg	0.50	0.16
Bromoform	ND		ug/kg	4.0	0.25
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.50	0.17
Benzene	ND		ug/kg	0.50	0.17
Toluene	ND		ug/kg	1.0	0.54
Ethylbenzene	ND		ug/kg	1.0	0.14
Chloromethane	ND		ug/kg	4.0	0.93
Bromomethane	ND		ug/kg	2.0	0.58
Vinyl chloride	ND		ug/kg	1.0	0.34
Chloroethane	ND		ug/kg	2.0	0.45
1,1-Dichloroethene	ND		ug/kg	1.0	0.24
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.14
Trichloroethene	ND		ug/kg	0.50	0.14
1,2-Dichlorobenzene	ND		ug/kg	2.0	0.14
1,3-Dichlorobenzene	ND		ug/kg	2.0	0.15

Project Name: 73-79 WEST HURON STREET SITE
Project Number: B0441-018-001
Lab Number: L1847727
Report Date: 11/29/18

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 11/28/18 08:05
Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by 8260/5035 - Westborough Lab for sample(s): 08 Batch: WG1183334-5					
1,4-Dichlorobenzene	ND		ug/kg	2.0	0.17
Methyl tert butyl ether	ND		ug/kg	2.0	0.20
p/m-Xylene	ND		ug/kg	2.0	0.56
o-Xylene	ND		ug/kg	1.0	0.29
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.18
Styrene	ND		ug/kg	1.0	0.20
Dichlorodifluoromethane	ND		ug/kg	10	0.92
Acetone	ND		ug/kg	10	4.8
Carbon disulfide	ND		ug/kg	10	4.6
2-Butanone	ND		ug/kg	10	2.2
4-Methyl-2-pentanone	ND		ug/kg	10	1.3
2-Hexanone	ND		ug/kg	10	1.2
Bromochloromethane	ND		ug/kg	2.0	0.20
1,2-Dibromoethane	ND		ug/kg	1.0	0.28
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.0	1.0
Isopropylbenzene	ND		ug/kg	1.0	0.11
1,2,3-Trichlorobenzene	ND		ug/kg	2.0	0.32
1,2,4-Trichlorobenzene	ND		ug/kg	2.0	0.27
Methyl Acetate	ND		ug/kg	4.0	0.95
Cyclohexane	ND		ug/kg	10	0.54
1,4-Dioxane	ND		ug/kg	100	35.
Freon-113	ND		ug/kg	4.0	0.69
Methyl cyclohexane	ND		ug/kg	4.0	0.60

Project Name: 73-79 WEST HURON STREET SITE
Project Number: B0441-018-001
Lab Number: L1847727
Report Date: 11/29/18

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 11/28/18 08:05
Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by 8260/5035 - Westborough Lab for sample(s): 08 Batch: WG1183334-5					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	112		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	85		70-130
Dibromofluoromethane	113		70-130

Project Name: 73-79 WEST HURON STREET SITE **Lab Number:** L1847727

Project Number: B0441-018-001 **Report Date:** 11/29/18

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 11/28/18 20:01
Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by 8260/5035 - Westborough Lab for sample(s): 07 Batch: WG1183682-5					
Methylene chloride	ND		ug/kg	5.0	2.3
1,1-Dichloroethane	ND		ug/kg	1.0	0.14
Chloroform	ND		ug/kg	1.5	0.14
Carbon tetrachloride	ND		ug/kg	1.0	0.23
1,2-Dichloropropane	ND		ug/kg	1.0	0.12
Dibromochloromethane	ND		ug/kg	1.0	0.14
1,1,2-Trichloroethane	ND		ug/kg	1.0	0.27
Tetrachloroethene	ND		ug/kg	0.50	0.20
Chlorobenzene	ND		ug/kg	0.50	0.13
Trichlorofluoromethane	ND		ug/kg	4.0	0.70
1,2-Dichloroethane	ND		ug/kg	1.0	0.26
1,1,1-Trichloroethane	ND		ug/kg	0.50	0.17
Bromodichloromethane	ND		ug/kg	0.50	0.11
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.27
cis-1,3-Dichloropropene	ND		ug/kg	0.50	0.16
Bromoform	ND		ug/kg	4.0	0.25
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.50	0.17
Benzene	ND		ug/kg	0.50	0.17
Toluene	ND		ug/kg	1.0	0.54
Ethylbenzene	ND		ug/kg	1.0	0.14
Chloromethane	ND		ug/kg	4.0	0.93
Bromomethane	ND		ug/kg	2.0	0.58
Vinyl chloride	ND		ug/kg	1.0	0.34
Chloroethane	ND		ug/kg	2.0	0.45
1,1-Dichloroethene	ND		ug/kg	1.0	0.24
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.14
Trichloroethene	ND		ug/kg	0.50	0.14
1,2-Dichlorobenzene	ND		ug/kg	2.0	0.14
1,3-Dichlorobenzene	ND		ug/kg	2.0	0.15

Project Name: 73-79 WEST HURON STREET SITE
Project Number: B0441-018-001
Lab Number: L1847727
Report Date: 11/29/18

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 11/28/18 20:01
Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by 8260/5035 - Westborough Lab for sample(s): 07 Batch: WG1183682-5					
1,4-Dichlorobenzene	ND		ug/kg	2.0	0.17
Methyl tert butyl ether	ND		ug/kg	2.0	0.20
p/m-Xylene	ND		ug/kg	2.0	0.56
o-Xylene	ND		ug/kg	1.0	0.29
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.18
Styrene	ND		ug/kg	1.0	0.20
Dichlorodifluoromethane	ND		ug/kg	10	0.92
Acetone	ND		ug/kg	10	4.8
Carbon disulfide	ND		ug/kg	10	4.6
2-Butanone	ND		ug/kg	10	2.2
4-Methyl-2-pentanone	ND		ug/kg	10	1.3
2-Hexanone	ND		ug/kg	10	1.2
Bromochloromethane	ND		ug/kg	2.0	0.20
1,2-Dibromoethane	ND		ug/kg	1.0	0.28
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.0	1.0
Isopropylbenzene	ND		ug/kg	1.0	0.11
1,2,3-Trichlorobenzene	ND		ug/kg	2.0	0.32
1,2,4-Trichlorobenzene	ND		ug/kg	2.0	0.27
Methyl Acetate	ND		ug/kg	4.0	0.95
Cyclohexane	ND		ug/kg	10	0.54
1,4-Dioxane	ND		ug/kg	100	35.
Freon-113	ND		ug/kg	4.0	0.69
Methyl cyclohexane	ND		ug/kg	4.0	0.60

Project Name: 73-79 WEST HURON STREET SITE
Project Number: B0441-018-001
Lab Number: L1847727
Report Date: 11/29/18

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 11/28/18 20:01
Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by 8260/5035 - Westborough Lab for sample(s): 07 Batch: WG1183682-5					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	85		70-130
Toluene-d8	107		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	94		70-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: 73-79 WEST HURON STREET SITE
Project Number: B0441-018-001

Lab Number: L1847727
Report Date: 11/29/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 03-06,09 Batch: WG1183210-3 WG1183210-4								
Methylene chloride	108		103		70-130	5		30
1,1-Dichloroethane	109		103		70-130	6		30
Chloroform	107		103		70-130	4		30
Carbon tetrachloride	106		105		70-130	1		30
1,2-Dichloropropane	108		104		70-130	4		30
Dibromochloromethane	102		100		70-130	2		30
1,1,2-Trichloroethane	105		101		70-130	4		30
Tetrachloroethene	102		98		70-130	4		30
Chlorobenzene	101		97		70-130	4		30
Trichlorofluoromethane	**158**	Q	**154**	Q	70-139	3		30
1,2-Dichloroethane	103		101		70-130	2		30
1,1,1-Trichloroethane	98		95		70-130	3		30
Bromodichloromethane	96		94		70-130	2		30
trans-1,3-Dichloropropene	93		93		70-130	0		30
cis-1,3-Dichloropropene	94		94		70-130	0		30
Bromoform	88		89		70-130	1		30
1,1,2,2-Tetrachloroethane	97		98		70-130	1		30
Benzene	113		108		70-130	5		30
Toluene	104		100		70-130	4		30
Ethylbenzene	104		100		70-130	4		30
Chloromethane	94		90		52-130	4		30
Bromomethane	**159**	Q	**156**	Q	57-147	2		30
Vinyl chloride	**131**	Q	123		67-130	6		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: 73-79 WEST HURON STREET SITE
Project Number: B0441-018-001

Lab Number: L1847727
Report Date: 11/29/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 03-06,09 Batch: WG1183210-3 WG1183210-4								
Chloroethane	**166**	Q	**154**	Q	50-151	8		30
1,1-Dichloroethene	98		96		65-135	2		30
trans-1,2-Dichloroethene	101		100		70-130	1		30
Trichloroethene	103		99		70-130	4		30
1,2-Dichlorobenzene	105		102		70-130	3		30
1,3-Dichlorobenzene	106		104		70-130	2		30
1,4-Dichlorobenzene	108		105		70-130	3		30
Methyl tert butyl ether	87		88		66-130	1		30
p/m-Xylene	108		104		70-130	4		30
o-Xylene	100		96		70-130	4		30
cis-1,2-Dichloroethene	104		101		70-130	3		30
Styrene	98		95		70-130	3		30
Dichlorodifluoromethane	104		101		30-146	3		30
Acetone	130		133		54-140	2		30
Carbon disulfide	91		87		59-130	4		30
2-Butanone	84		82		70-130	2		30
4-Methyl-2-pentanone	84		88		70-130	5		30
2-Hexanone	73		77		70-130	5		30
Bromochloromethane	117		114		70-130	3		30
1,2-Dibromoethane	101		101		70-130	0		30
1,2-Dibromo-3-chloropropane	96		95		68-130	1		30
Isopropylbenzene	99		98		70-130	1		30
1,2,3-Trichlorobenzene	97		98		70-130	1		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: 73-79 WEST HURON STREET SITE
Project Number: B0441-018-001

Lab Number: L1847727
Report Date: 11/29/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 03-06,09 Batch: WG1183210-3 WG1183210-4								
1,2,4-Trichlorobenzene	98		96		70-130	2		30
Methyl Acetate	109		110		51-146	1		30
Cyclohexane	99		96		59-142	3		30
1,4-Dioxane	103		104		65-136	1		30
Freon-113	103		101		50-139	2		30
Methyl cyclohexane	101		98		70-130	3		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	108		106		70-130
Toluene-d8	100		98		70-130
4-Bromofluorobenzene	85		86		70-130
Dibromofluoromethane	108		108		70-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: 73-79 WEST HURON STREET SITE
Project Number: B0441-018-001

Lab Number: L1847727
Report Date: 11/29/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by 8260/5035 - Westborough Lab Associated sample(s): 08 Batch: WG1183334-3 WG1183334-4								
Methylene chloride	97		94		70-130	3		30
1,1-Dichloroethane	99		96		70-130	3		30
Chloroform	98		93		70-130	5		30
Carbon tetrachloride	97		93		70-130	4		30
1,2-Dichloropropane	100		98		70-130	2		30
Dibromochloromethane	91		92		70-130	1		30
1,1,2-Trichloroethane	96		96		70-130	0		30
Tetrachloroethene	93		90		70-130	3		30
Chlorobenzene	92		90		70-130	2		30
Trichlorofluoromethane	**144**	Q	136		70-139	6		30
1,2-Dichloroethane	96		95		70-130	1		30
1,1,1-Trichloroethane	89		85		70-130	5		30
Bromodichloromethane	89		87		70-130	2		30
trans-1,3-Dichloropropene	85		87		70-130	2		30
cis-1,3-Dichloropropene	87		86		70-130	1		30
Bromoform	81		83		70-130	2		30
1,1,2,2-Tetrachloroethane	91		92		70-130	1		30
Benzene	104		100		70-130	4		30
Toluene	94		93		70-130	1		30
Ethylbenzene	93		92		70-130	1		30
Chloromethane	78		74		52-130	5		30
Bromomethane	**150**	Q	**148**	Q	57-147	1		30
Vinyl chloride	114		106		67-130	7		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: 73-79 WEST HURON STREET SITE
Project Number: B0441-018-001

Lab Number: L1847727
Report Date: 11/29/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by 8260/5035 - Westborough Lab Associated sample(s): 08 Batch: WG1183334-3 WG1183334-4								
Chloroethane	148		138		50-151	7		30
1,1-Dichloroethene	88		85		65-135	3		30
trans-1,2-Dichloroethene	94		90		70-130	4		30
Trichloroethene	94		91		70-130	3		30
1,2-Dichlorobenzene	97		97		70-130	0		30
1,3-Dichlorobenzene	99		98		70-130	1		30
1,4-Dichlorobenzene	101		98		70-130	3		30
Methyl tert butyl ether	81		80		66-130	1		30
p/m-Xylene	98		96		70-130	2		30
o-Xylene	91		89		70-130	2		30
cis-1,2-Dichloroethene	95		93		70-130	2		30
Styrene	89		89		70-130	0		30
Dichlorodifluoromethane	87		83		30-146	5		30
Acetone	118		120		54-140	2		30
Carbon disulfide	81		76		59-130	6		30
2-Butanone	79		70		70-130	12		30
4-Methyl-2-pentanone	76		80		70-130	5		30
2-Hexanone	**67**	Q	70		70-130	4		30
Bromochloromethane	108		106		70-130	2		30
1,2-Dibromoethane	92		93		70-130	1		30
1,2-Dibromo-3-chloropropane	86		88		68-130	2		30
Isopropylbenzene	93		90		70-130	3		30
1,2,3-Trichlorobenzene	93		93		70-130	0		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: 73-79 WEST HURON STREET SITE
Project Number: B0441-018-001

Lab Number: L1847727
Report Date: 11/29/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by 8260/5035 - Westborough Lab Associated sample(s): 08 Batch: WG1183334-3 WG1183334-4								
1,2,4-Trichlorobenzene	92		90		70-130	2		30
Methyl Acetate	100		102		51-146	2		30
Cyclohexane	91		85		59-142	7		30
1,4-Dioxane	88		90		65-136	2		30
Freon-113	96		89		50-139	8		30
Methyl cyclohexane	94		89		70-130	5		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	106		105		70-130
Toluene-d8	98		99		70-130
4-Bromofluorobenzene	87		87		70-130
Dibromofluoromethane	109		108		70-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: 73-79 WEST HURON STREET SITE
Project Number: B0441-018-001

Lab Number: L1847727
Report Date: 11/29/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by 8260/5035 - Westborough Lab Associated sample(s): 07 Batch: WG1183682-3 WG1183682-4								
Methylene chloride	94		89		70-130	5		30
1,1-Dichloroethane	89		82		70-130	8		30
Chloroform	91		85		70-130	7		30
Carbon tetrachloride	96		91		70-130	5		30
1,2-Dichloropropane	89		83		70-130	7		30
Dibromochloromethane	102		100		70-130	2		30
1,1,2-Trichloroethane	108		101		70-130	7		30
Tetrachloroethene	118		112		70-130	5		30
Chlorobenzene	106		100		70-130	6		30
Trichlorofluoromethane	94		84		70-139	11		30
1,2-Dichloroethane	79		75		70-130	5		30
1,1,1-Trichloroethane	95		87		70-130	9		30
Bromodichloromethane	88		84		70-130	5		30
trans-1,3-Dichloropropene	103		98		70-130	5		30
cis-1,3-Dichloropropene	94		90		70-130	4		30
Bromoform	109		108		70-130	1		30
1,1,2,2-Tetrachloroethane	108		106		70-130	2		30
Benzene	96		90		70-130	6		30
Toluene	109		104		70-130	5		30
Ethylbenzene	108		102		70-130	6		30
Chloromethane	74		67		52-130	10		30
Bromomethane	104		94		57-147	10		30
Vinyl chloride	100		89		67-130	12		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: 73-79 WEST HURON STREET SITE
Project Number: B0441-018-001

Lab Number: L1847727
Report Date: 11/29/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by 8260/5035 - Westborough Lab Associated sample(s): 07 Batch: WG1183682-3 WG1183682-4								
Chloroethane	102		93		50-151	9		30
1,1-Dichloroethene	102		98		65-135	4		30
trans-1,2-Dichloroethene	103		96		70-130	7		30
Trichloroethene	96		92		70-130	4		30
1,2-Dichlorobenzene	110		107		70-130	3		30
1,3-Dichlorobenzene	111		107		70-130	4		30
1,4-Dichlorobenzene	111		108		70-130	3		30
Methyl tert butyl ether	91		84		66-130	8		30
p/m-Xylene	109		104		70-130	5		30
o-Xylene	107		101		70-130	6		30
cis-1,2-Dichloroethene	98		91		70-130	7		30
Styrene	106		101		70-130	5		30
Dichlorodifluoromethane	84		80		30-146	5		30
Acetone	79		70		54-140	12		30
Carbon disulfide	91		84		59-130	8		30
2-Butanone	72		**68**	Q	70-130	6		30
4-Methyl-2-pentanone	90		84		70-130	7		30
2-Hexanone	80		73		70-130	9		30
Bromochloromethane	98		93		70-130	5		30
1,2-Dibromoethane	108		102		70-130	6		30
1,2-Dibromo-3-chloropropane	101		98		68-130	3		30
Isopropylbenzene	117		109		70-130	7		30
1,2,3-Trichlorobenzene	104		104		70-130	0		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: 73-79 WEST HURON STREET SITE
Project Number: B0441-018-001

Lab Number: L1847727
Report Date: 11/29/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by 8260/5035 - Westborough Lab Associated sample(s): 07 Batch: WG1183682-3 WG1183682-4								
1,2,4-Trichlorobenzene	112		109		70-130	3		30
Methyl Acetate	73		67		51-146	9		30
Cyclohexane	86		77		59-142	11		30
1,4-Dioxane	96		85		65-136	12		30
Freon-113	101		92		50-139	9		30
Methyl cyclohexane	101		94		70-130	7		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	87		84		70-130
Toluene-d8	109		107		70-130
4-Bromofluorobenzene	102		102		70-130
Dibromofluoromethane	96		95		70-130

SEMIVOLATILES

Project Name: 73-79 WEST HURON STREET SITE
Project Number: B0441-018-001
Lab Number: L1847727
Report Date: 11/29/18

SAMPLE RESULTS

Lab ID: L1847727-01
Client ID: BUD COMP-1
Sample Location: BUFFALO, NY

Date Collected: 11/19/18 14:00
Date Received: 11/20/18
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 11/27/18 02:48
Analyst: RC
Percent Solids: 80%

Extraction Method: EPA 3546
Extraction Date: 11/23/18 10:29

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	160	21.	1
Hexachlorobenzene	ND		ug/kg	120	23.	1
Bis(2-chloroethyl)ether	ND		ug/kg	190	28.	1
2-Chloronaphthalene	ND		ug/kg	210	20.	1
3,3'-Dichlorobenzidine	ND		ug/kg	210	55.	1
2,4-Dinitrotoluene	ND		ug/kg	210	41.	1
2,6-Dinitrotoluene	ND		ug/kg	210	36.	1
Fluoranthene	50	J	ug/kg	120	24.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	210	22.	1
4-Bromophenyl phenyl ether	ND		ug/kg	210	32.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	250	35.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	220	21.	1
Hexachlorobutadiene	ND		ug/kg	210	30.	1
Hexachlorocyclopentadiene	ND		ug/kg	590	190	1
Hexachloroethane	ND		ug/kg	160	34.	1
Isophorone	ND		ug/kg	190	27.	1
Naphthalene	ND		ug/kg	210	25.	1
Nitrobenzene	ND		ug/kg	190	31.	1
NDPA/DPA	ND		ug/kg	160	24.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	210	32.	1
Bis(2-ethylhexyl)phthalate	120	J	ug/kg	210	72.	1
Butyl benzyl phthalate	ND		ug/kg	210	52.	1
Di-n-butylphthalate	ND		ug/kg	210	39.	1
Di-n-octylphthalate	ND		ug/kg	210	70.	1
Diethyl phthalate	ND		ug/kg	210	19.	1
Dimethyl phthalate	ND		ug/kg	210	44.	1
Benzo(a)anthracene	ND		ug/kg	120	23.	1
Benzo(a)pyrene	ND		ug/kg	160	51.	1

Project Name: 73-79 WEST HURON STREET SITE **Lab Number:** L1847727

Project Number: B0441-018-001 **Report Date:** 11/29/18

SAMPLE RESULTS

Lab ID: L1847727-01 Date Collected: 11/19/18 14:00
Client ID: BUD COMP-1 Date Received: 11/20/18
Sample Location: BUFFALO, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(b)fluoranthene	42	J	ug/kg	120	35.	1
Benzo(k)fluoranthene	ND		ug/kg	120	33.	1
Chrysene	24	J	ug/kg	120	22.	1
Acenaphthylene	ND		ug/kg	160	32.	1
Anthracene	ND		ug/kg	120	40.	1
Benzo(ghi)perylene	ND		ug/kg	160	24.	1
Fluorene	ND		ug/kg	210	20.	1
Phenanthrene	67	J	ug/kg	120	25.	1
Dibenzo(a,h)anthracene	ND		ug/kg	120	24.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	160	29.	1
Pyrene	38	J	ug/kg	120	21.	1
Biphenyl	ND		ug/kg	470	48.	1
4-Chloroaniline	ND		ug/kg	210	38.	1
2-Nitroaniline	ND		ug/kg	210	40.	1
3-Nitroaniline	ND		ug/kg	210	39.	1
4-Nitroaniline	ND		ug/kg	210	86.	1
Dibenzofuran	ND		ug/kg	210	20.	1
2-Methylnaphthalene	ND		ug/kg	250	25.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	210	22.	1
Acetophenone	ND		ug/kg	210	26.	1
2,4,6-Trichlorophenol	ND		ug/kg	120	39.	1
p-Chloro-m-cresol	ND		ug/kg	210	31.	1
2-Chlorophenol	ND		ug/kg	210	24.	1
2,4-Dichlorophenol	ND		ug/kg	190	33.	1
2,4-Dimethylphenol	ND		ug/kg	210	68.	1
2-Nitrophenol	ND		ug/kg	450	78.	1
4-Nitrophenol	ND		ug/kg	290	85.	1
2,4-Dinitrophenol	ND		ug/kg	1000	97.	1
4,6-Dinitro-o-cresol	ND		ug/kg	540	100	1
Pentachlorophenol	ND		ug/kg	160	46.	1
Phenol	ND		ug/kg	210	31.	1
2-Methylphenol	ND		ug/kg	210	32.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	300	32.	1
2,4,5-Trichlorophenol	ND		ug/kg	210	40.	1
Carbazole	ND		ug/kg	210	20.	1
Atrazine	ND		ug/kg	160	73.	1
Benzaldehyde	ND		ug/kg	270	56.	1

Project Name: 73-79 WEST HURON STREET SITE **Lab Number:** L1847727

Project Number: B0441-018-001 **Report Date:** 11/29/18

SAMPLE RESULTS

Lab ID: L1847727-01 Date Collected: 11/19/18 14:00

Client ID: BUD COMP-1 Date Received: 11/20/18

Sample Location: BUFFALO, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Caprolactam	ND		ug/kg	210	63.	1
2,3,4,6-Tetrachlorophenol	ND		ug/kg	210	42.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	56		25-120
Phenol-d6	57		10-120
Nitrobenzene-d5	56		23-120
2-Fluorobiphenyl	64		30-120
2,4,6-Tribromophenol	59		10-136
4-Terphenyl-d14	55		18-120

Project Name: 73-79 WEST HURON STREET SITE **Lab Number:** L1847727

Project Number: B0441-018-001 **Report Date:** 11/29/18

SAMPLE RESULTS

Lab ID: L1847727-02
Client ID: BUD COMP-2
Sample Location: BUFFALO, NY

Date Collected: 11/19/18 14:05
Date Received: 11/20/18
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 11/27/18 04:29
Analyst: RC
Percent Solids: 88%

Extraction Method: EPA 3546
Extraction Date: 11/23/18 10:29

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	150	19.	1
Hexachlorobenzene	ND		ug/kg	110	21.	1
Bis(2-chloroethyl)ether	ND		ug/kg	170	25.	1
2-Chloronaphthalene	ND		ug/kg	190	18.	1
3,3'-Dichlorobenzidine	ND		ug/kg	190	50.	1
2,4-Dinitrotoluene	ND		ug/kg	190	37.	1
2,6-Dinitrotoluene	ND		ug/kg	190	32.	1
Fluoranthene	77	J	ug/kg	110	21.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	190	20.	1
4-Bromophenyl phenyl ether	ND		ug/kg	190	28.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	220	32.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	200	19.	1
Hexachlorobutadiene	ND		ug/kg	190	27.	1
Hexachlorocyclopentadiene	ND		ug/kg	530	170	1
Hexachloroethane	ND		ug/kg	150	30.	1
Isophorone	ND		ug/kg	170	24.	1
Naphthalene	ND		ug/kg	190	23.	1
Nitrobenzene	ND		ug/kg	170	28.	1
NDPA/DPA	ND		ug/kg	150	21.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	190	29.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	190	64.	1
Butyl benzyl phthalate	ND		ug/kg	190	47.	1
Di-n-butylphthalate	ND		ug/kg	190	35.	1
Di-n-octylphthalate	ND		ug/kg	190	63.	1
Diethyl phthalate	ND		ug/kg	190	17.	1
Dimethyl phthalate	ND		ug/kg	190	39.	1
Benzo(a)anthracene	45	J	ug/kg	110	21.	1
Benzo(a)pyrene	48	J	ug/kg	150	45.	1

Project Name: 73-79 WEST HURON STREET SITE **Lab Number:** L1847727

Project Number: B0441-018-001 **Report Date:** 11/29/18

SAMPLE RESULTS

Lab ID: L1847727-02 Date Collected: 11/19/18 14:05

Client ID: BUD COMP-2 Date Received: 11/20/18

Sample Location: BUFFALO, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(b)fluoranthene	77	J	ug/kg	110	31.	1
Benzo(k)fluoranthene	ND		ug/kg	110	30.	1
Chrysene	49	J	ug/kg	110	19.	1
Acenaphthylene	ND		ug/kg	150	29.	1
Anthracene	ND		ug/kg	110	36.	1
Benzo(ghi)perylene	42	J	ug/kg	150	22.	1
Fluorene	ND		ug/kg	190	18.	1
Phenanthrene	30	J	ug/kg	110	23.	1
Dibenzo(a,h)anthracene	ND		ug/kg	110	22.	1
Indeno(1,2,3-cd)pyrene	45	J	ug/kg	150	26.	1
Pyrene	59	J	ug/kg	110	18.	1
Biphenyl	ND		ug/kg	420	43.	1
4-Chloroaniline	ND		ug/kg	190	34.	1
2-Nitroaniline	ND		ug/kg	190	36.	1
3-Nitroaniline	ND		ug/kg	190	35.	1
4-Nitroaniline	ND		ug/kg	190	77.	1
Dibenzofuran	ND		ug/kg	190	18.	1
2-Methylnaphthalene	ND		ug/kg	220	22.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	190	19.	1
Acetophenone	ND		ug/kg	190	23.	1
2,4,6-Trichlorophenol	ND		ug/kg	110	35.	1
p-Chloro-m-cresol	ND		ug/kg	190	28.	1
2-Chlorophenol	ND		ug/kg	190	22.	1
2,4-Dichlorophenol	ND		ug/kg	170	30.	1
2,4-Dimethylphenol	ND		ug/kg	190	62.	1
2-Nitrophenol	ND		ug/kg	400	70.	1
4-Nitrophenol	ND		ug/kg	260	76.	1
2,4-Dinitrophenol	ND		ug/kg	900	87.	1
4,6-Dinitro-o-cresol	ND		ug/kg	480	90.	1
Pentachlorophenol	ND		ug/kg	150	41.	1
Phenol	ND		ug/kg	190	28.	1
2-Methylphenol	ND		ug/kg	190	29.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	270	29.	1
2,4,5-Trichlorophenol	ND		ug/kg	190	36.	1
Carbazole	ND		ug/kg	190	18.	1
Atrazine	ND		ug/kg	150	65.	1
Benzaldehyde	ND		ug/kg	250	50.	1

Project Name: 73-79 WEST HURON STREET SITE **Lab Number:** L1847727

Project Number: B0441-018-001 **Report Date:** 11/29/18

SAMPLE RESULTS

Lab ID: L1847727-02 Date Collected: 11/19/18 14:05

Client ID: BUD COMP-2 Date Received: 11/20/18

Sample Location: BUFFALO, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Caprolactam	ND		ug/kg	190	57.	1
2,3,4,6-Tetrachlorophenol	ND		ug/kg	190	38.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	63		25-120
Phenol-d6	66		10-120
Nitrobenzene-d5	63		23-120
2-Fluorobiphenyl	70		30-120
2,4,6-Tribromophenol	64		10-136
4-Terphenyl-d14	50		18-120

Project Name: 73-79 WEST HURON STREET SITE
Project Number: B0441-018-001
Lab Number: L1847727
Report Date: 11/29/18

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 11/26/18 22:35
Analyst: RC

Extraction Method: EPA 3546
Extraction Date: 11/23/18 10:29

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG1182117-1					
Acenaphthene	ND		ug/kg	130	17.
Hexachlorobenzene	ND		ug/kg	99	18.
Bis(2-chloroethyl)ether	ND		ug/kg	150	22.
2-Chloronaphthalene	ND		ug/kg	160	16.
3,3'-Dichlorobenzidine	ND		ug/kg	160	44.
2,4-Dinitrotoluene	ND		ug/kg	160	33.
2,6-Dinitrotoluene	ND		ug/kg	160	28.
Fluoranthene	ND		ug/kg	99	19.
4-Chlorophenyl phenyl ether	ND		ug/kg	160	18.
4-Bromophenyl phenyl ether	ND		ug/kg	160	25.
Bis(2-chloroisopropyl)ether	ND		ug/kg	200	28.
Bis(2-chloroethoxy)methane	ND		ug/kg	180	16.
Hexachlorobutadiene	ND		ug/kg	160	24.
Hexachlorocyclopentadiene	ND		ug/kg	470	150
Hexachloroethane	ND		ug/kg	130	27.
Isophorone	ND		ug/kg	150	21.
Naphthalene	ND		ug/kg	160	20.
Nitrobenzene	ND		ug/kg	150	24.
NDPA/DPA	ND		ug/kg	130	19.
n-Nitrosodi-n-propylamine	ND		ug/kg	160	25.
Bis(2-ethylhexyl)phthalate	ND		ug/kg	160	57.
Butyl benzyl phthalate	ND		ug/kg	160	41.
Di-n-butylphthalate	ND		ug/kg	160	31.
Di-n-octylphthalate	ND		ug/kg	160	56.
Diethyl phthalate	ND		ug/kg	160	15.
Dimethyl phthalate	ND		ug/kg	160	34.
Benzo(a)anthracene	ND		ug/kg	99	18.
Benzo(a)pyrene	ND		ug/kg	130	40.
Benzo(b)fluoranthene	ND		ug/kg	99	28.

Project Name: 73-79 WEST HURON STREET SITE
Project Number: B0441-018-001
Lab Number: L1847727
Report Date: 11/29/18

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 11/26/18 22:35
Analyst: RC

Extraction Method: EPA 3546
Extraction Date: 11/23/18 10:29

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG1182117-1					
Benzo(k)fluoranthene	ND		ug/kg	99	26.
Chrysene	ND		ug/kg	99	17.
Acenaphthylene	ND		ug/kg	130	25.
Anthracene	ND		ug/kg	99	32.
Benzo(ghi)perylene	ND		ug/kg	130	19.
Fluorene	ND		ug/kg	160	16.
Phenanthrene	ND		ug/kg	99	20.
Dibenzo(a,h)anthracene	ND		ug/kg	99	19.
Indeno(1,2,3-cd)pyrene	ND		ug/kg	130	23.
Pyrene	ND		ug/kg	99	16.
Biphenyl	ND		ug/kg	380	38.
4-Chloroaniline	ND		ug/kg	160	30.
2-Nitroaniline	ND		ug/kg	160	32.
3-Nitroaniline	ND		ug/kg	160	31.
4-Nitroaniline	ND		ug/kg	160	68.
Dibenzofuran	ND		ug/kg	160	16.
2-Methylnaphthalene	ND		ug/kg	200	20.
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	160	17.
Acetophenone	ND		ug/kg	160	20.
2,4,6-Trichlorophenol	ND		ug/kg	99	31.
p-Chloro-m-cresol	ND		ug/kg	160	24.
2-Chlorophenol	ND		ug/kg	160	19.
2,4-Dichlorophenol	ND		ug/kg	150	26.
2,4-Dimethylphenol	ND		ug/kg	160	54.
2-Nitrophenol	ND		ug/kg	360	62.
4-Nitrophenol	ND		ug/kg	230	67.
2,4-Dinitrophenol	ND		ug/kg	790	77.
4,6-Dinitro-o-cresol	ND		ug/kg	430	79.
Pentachlorophenol	ND		ug/kg	130	36.

Project Name: 73-79 WEST HURON STREET SITE
Project Number: B0441-018-001
Lab Number: L1847727
Report Date: 11/29/18

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 11/26/18 22:35
Analyst: RC

Extraction Method: EPA 3546
Extraction Date: 11/23/18 10:29

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG1182117-1					
Phenol	ND		ug/kg	160	25.
2-Methylphenol	ND		ug/kg	160	26.
3-Methylphenol/4-Methylphenol	ND		ug/kg	240	26.
2,4,5-Trichlorophenol	ND		ug/kg	160	32.
Carbazole	ND		ug/kg	160	16.
Atrazine	ND		ug/kg	130	58.
Benzaldehyde	ND		ug/kg	220	44.
Caprolactam	ND		ug/kg	160	50.
2,3,4,6-Tetrachlorophenol	ND		ug/kg	160	33.

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	54		25-120
Phenol-d6	58		10-120
Nitrobenzene-d5	56		23-120
2-Fluorobiphenyl	65		30-120
2,4,6-Tribromophenol	61		10-136
4-Terphenyl-d14	68		18-120

Lab Control Sample Analysis
Batch Quality Control

Project Name: 73-79 WEST HURON STREET SITE
Project Number: B0441-018-001

Lab Number: L1847727
Report Date: 11/29/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG1182117-2 WG1182117-3								
Acenaphthene	64		67		31-137	5		50
Hexachlorobenzene	66		67		40-140	2		50
Bis(2-chloroethyl)ether	58		61		40-140	5		50
2-Chloronaphthalene	72		76		40-140	5		50
3,3'-Dichlorobenzidine	49		59		40-140	19		50
2,4-Dinitrotoluene	78		78		40-132	0		50
2,6-Dinitrotoluene	84		85		40-140	1		50
Fluoranthene	77		77		40-140	0		50
4-Chlorophenyl phenyl ether	68		70		40-140	3		50
4-Bromophenyl phenyl ether	70		70		40-140	0		50
Bis(2-chloroisopropyl)ether	90		91		40-140	1		50
Bis(2-chloroethoxy)methane	65		66		40-117	2		50
Hexachlorobutadiene	63		68		40-140	8		50
Hexachlorocyclopentadiene	52		57		40-140	9		50
Hexachloroethane	56		58		40-140	4		50
Isophorone	67		68		40-140	1		50
Naphthalene	65		71		40-140	9		50
Nitrobenzene	62		65		40-140	5		50
NDPA/DPA	71		72		36-157	1		50
n-Nitrosodi-n-propylamine	67		68		32-121	1		50
Bis(2-ethylhexyl)phthalate	82		84		40-140	2		50
Butyl benzyl phthalate	81		82		40-140	1		50
Di-n-butylphthalate	76		76		40-140	0		50

Lab Control Sample Analysis
Batch Quality Control

Project Name: 73-79 WEST HURON STREET SITE
Project Number: B0441-018-001

Lab Number: L1847727
Report Date: 11/29/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG1182117-2 WG1182117-3								
Di-n-octylphthalate	86		87		40-140	1		50
Diethyl phthalate	71		71		40-140	0		50
Dimethyl phthalate	81		80		40-140	1		50
Benzo(a)anthracene	69		73		40-140	6		50
Benzo(a)pyrene	75		81		40-140	8		50
Benzo(b)fluoranthene	78		84		40-140	7		50
Benzo(k)fluoranthene	70		74		40-140	6		50
Chrysene	70		73		40-140	4		50
Acenaphthylene	77		79		40-140	3		50
Anthracene	73		75		40-140	3		50
Benzo(ghi)perylene	69		73		40-140	6		50
Fluorene	68		70		40-140	3		50
Phenanthrene	70		72		40-140	3		50
Dibenzo(a,h)anthracene	72		75		40-140	4		50
Indeno(1,2,3-cd)pyrene	74		77		40-140	4		50
Pyrene	75		75		35-142	0		50
Biphenyl	76		79		54-104	4		50
4-Chloroaniline	56		67		40-140	18		50
2-Nitroaniline	88		88		47-134	0		50
3-Nitroaniline	48		55		26-129	14		50
4-Nitroaniline	73		72		41-125	1		50
Dibenzofuran	66		68		40-140	3		50
2-Methylnaphthalene	69		74		40-140	7		50

Lab Control Sample Analysis
Batch Quality Control

Project Name: 73-79 WEST HURON STREET SITE
Project Number: B0441-018-001

Lab Number: L1847727
Report Date: 11/29/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG1182117-2 WG1182117-3								
1,2,4,5-Tetrachlorobenzene	72		78		40-117	8		50
Acetophenone	71		73		14-144	3		50
2,4,6-Trichlorophenol	83		84		30-130	1		50
p-Chloro-m-cresol	81		82		26-103	1		50
2-Chlorophenol	69		70		25-102	1		50
2,4-Dichlorophenol	79		78		30-130	1		50
2,4-Dimethylphenol	78		79		30-130	1		50
2-Nitrophenol	78		81		30-130	4		50
4-Nitrophenol	72		71		11-114	1		50
2,4-Dinitrophenol	72		69		4-130	4		50
4,6-Dinitro-o-cresol	75		75		10-130	0		50
Pentachlorophenol	61		57		17-109	7		50
Phenol	69		70		26-90	1		50
2-Methylphenol	66		69		30-130.	4		50
3-Methylphenol/4-Methylphenol	75		74		30-130	1		50
2,4,5-Trichlorophenol	84		85		30-130	1		50
Carbazole	74		75		54-128	1		50
Atrazine	87		87		40-140	0		50
Benzaldehyde	52		57		40-140	9		50
Caprolactam	105		104		15-130	1		50
2,3,4,6-Tetrachlorophenol	70		70		40-140	0		50

Lab Control Sample Analysis
Batch Quality Control

Project Name: 73-79 WEST HURON STREET SITE
Project Number: B0441-018-001

Lab Number: L1847727
Report Date: 11/29/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG1182117-2 WG1182117-3								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	66		68		25-120
Phenol-d6	68		69		10-120
Nitrobenzene-d5	65		66		23-120
2-Fluorobiphenyl	72		75		30-120
2,4,6-Tribromophenol	72		72		10-136
4-Terphenyl-d14	66		65		18-120

INORGANICS
&
MISCELLANEOUS

Project Name: 73-79 WEST HURON STREET SITE
Project Number: B0441-018-001
Lab Number: L1847727
Report Date: 11/29/18

SAMPLE RESULTS

Lab ID: L1847727-01
Client ID: BUD COMP-1
Sample Location: BUFFALO, NY
Sample Depth:
Matrix: Soil

Date Collected: 11/19/18 14:00
Date Received: 11/20/18
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	80.0		%	0.100	NA	1	-	11/21/18 13:32	121,2540G	RI

Project Name: 73-79 WEST HURON STREET SITE
Project Number: B0441-018-001
Lab Number: L1847727
Report Date: 11/29/18

SAMPLE RESULTS

Lab ID: L1847727-02
Client ID: BUD COMP-2
Sample Location: BUFFALO, NY
Sample Depth:
Matrix: Soil

Date Collected: 11/19/18 14:05
Date Received: 11/20/18
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	87.6		%	0.100	NA	1	-	11/21/18 13:32	121,2540G	RI

Project Name: 73-79 WEST HURON STREET SITE
Project Number: B0441-018-001
Lab Number: L1847727
Report Date: 11/29/18

SAMPLE RESULTS

Lab ID: L1847727-03
Client ID: BUD VOC-1
Sample Location: BUFFALO, NY
Sample Depth:
Matrix: Soil

Date Collected: 11/19/18 14:10
Date Received: 11/20/18
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	82.4		%	0.100	NA	1	-	11/21/18 04:17	121,2540G	FN

Project Name: 73-79 WEST HURON STREET SITE
Project Number: B0441-018-001
Lab Number: L1847727
Report Date: 11/29/18

SAMPLE RESULTS

Lab ID: L1847727-04
Client ID: BUD VOC-2
Sample Location: BUFFALO, NY
Sample Depth:
Matrix: Soil

Date Collected: 11/19/18 14:15
Date Received: 11/20/18
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	84.1		%	0.100	NA	1	-	11/21/18 04:17	121,2540G	FN

Project Name: 73-79 WEST HURON STREET SITE
Project Number: B0441-018-001
Lab Number: L1847727
Report Date: 11/29/18

SAMPLE RESULTS

Lab ID: L1847727-05
Client ID: BUD VOC-3
Sample Location: BUFFALO, NY
Sample Depth:
Matrix: Soil

Date Collected: 11/19/18 14:20
Date Received: 11/20/18
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	85.4		%	0.100	NA	1	-	11/21/18 04:17	121,2540G	FN

Project Name: 73-79 WEST HURON STREET SITE
Project Number: B0441-018-001
Lab Number: L1847727
Report Date: 11/29/18

SAMPLE RESULTS

Lab ID: L1847727-06
Client ID: BUD VOC-4
Sample Location: BUFFALO, NY
Sample Depth:
Matrix: Soil

Date Collected: 11/19/18 14:25
Date Received: 11/20/18
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	84.8		%	0.100	NA	1	-	11/21/18 04:17	121,2540G	FN

Project Name: 73-79 WEST HURON STREET SITE
Project Number: B0441-018-001
Lab Number: L1847727
Report Date: 11/29/18

SAMPLE RESULTS

Lab ID: L1847727-07
Client ID: BUD VOC-5
Sample Location: BUFFALO, NY
Sample Depth:
Matrix: Soil

Date Collected: 11/19/18 14:30
Date Received: 11/20/18
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	86.1		%	0.100	NA	1	-	11/21/18 04:17	121,2540G	FN

Project Name: 73-79 WEST HURON STREET SITE
Project Number: B0441-018-001
Lab Number: L1847727
Report Date: 11/29/18

SAMPLE RESULTS

Lab ID: L1847727-08
Client ID: BUD VOC-6
Sample Location: BUFFALO, NY
Sample Depth:
Matrix: Soil

Date Collected: 11/19/18 14:35
Date Received: 11/20/18
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	84.4		%	0.100	NA	1	-	11/21/18 04:17	121,2540G	FN

Project Name: 73-79 WEST HURON STREET SITE
Project Number: B0441-018-001
Lab Number: L1847727
Report Date: 11/29/18

SAMPLE RESULTS

Lab ID: L1847727-09
Client ID: BUD VOC-7
Sample Location: BUFFALO, NY
Sample Depth:
Matrix: Soil

Date Collected: 11/19/18 14:40
Date Received: 11/20/18
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	86.0		%	0.100	NA	1	-	11/21/18 04:17	121,2540G	FN

Lab Duplicate Analysis
Batch Quality Control

Project Name: 73-79 WEST HURON STREET SITE
Project Number: B0441-018-001

Lab Number: L1847727
Report Date: 11/29/18

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 03-09 QC Batch ID: WG1181671-1 QC Sample: L1847591-01 Client ID: DUP Sample						
Solids, Total	75.3	75.0	%	0		20
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1181871-1 QC Sample: L1847287-01 Client ID: DUP Sample						
Solids, Total	86.7	84.4	%	3		20

Project Name: 73-79 WEST HURON STREET SITE
Project Number: B0441-018-001

Lab Number: L1847727
Report Date: 11/29/18

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1847727-01A	Glass 60ml unpreserved split	A	NA		4.4	Y	Absent		HOLD-METAL(180)
L1847727-01B	Glass 500ml/16oz unpreserved	A	NA		4.4	Y	Absent		NYTCL-8270(14),TS(7),HOLD-8082()
L1847727-01C	Glass 500ml/16oz unpreserved	A	NA		4.4	Y	Absent		NYTCL-8270(14),TS(7),HOLD-8082()
L1847727-02A	Glass 60ml unpreserved split	A	NA		4.4	Y	Absent		HOLD-METAL(180)
L1847727-02B	Glass 500ml/16oz unpreserved	A	NA		4.4	Y	Absent		NYTCL-8270(14),TS(7),HOLD-8082()
L1847727-02C	Glass 500ml/16oz unpreserved	A	NA		4.4	Y	Absent		NYTCL-8270(14),TS(7),HOLD-8082()
L1847727-03A	5 gram Encore Sampler	A	NA		4.4	Y	Absent		NYTCL-8260HLW-R2(14)
L1847727-03B	5 gram Encore Sampler	A	NA		4.4	Y	Absent		NYTCL-8260HLW-R2(14)
L1847727-03C	5 gram Encore Sampler	A	NA		4.4	Y	Absent		NYTCL-8260HLW-R2(14)
L1847727-03D	Plastic 2oz unpreserved for TS	A	NA		4.4	Y	Absent		TS(7)
L1847727-03X	Vial MeOH preserved split	A	NA		4.4	Y	Absent		NYTCL-8260HLW-R2(14)
L1847727-03Y	Vial Water preserved split	A	NA		4.4	Y	Absent	21-NOV-18 12:24	NYTCL-8260HLW-R2(14)
L1847727-03Z	Vial Water preserved split	A	NA		4.4	Y	Absent	21-NOV-18 12:24	NYTCL-8260HLW-R2(14)
L1847727-04A	5 gram Encore Sampler	A	NA		4.4	Y	Absent		NYTCL-8260HLW-R2(14)
L1847727-04B	5 gram Encore Sampler	A	NA		4.4	Y	Absent		NYTCL-8260HLW-R2(14)
L1847727-04C	5 gram Encore Sampler	A	NA		4.4	Y	Absent		NYTCL-8260HLW-R2(14)
L1847727-04D	Plastic 2oz unpreserved for TS	A	NA		4.4	Y	Absent		TS(7)
L1847727-04X	Vial MeOH preserved split	A	NA		4.4	Y	Absent		NYTCL-8260HLW-R2(14)
L1847727-04Y	Vial Water preserved split	A	NA		4.4	Y	Absent	21-NOV-18 12:24	NYTCL-8260HLW-R2(14)
L1847727-04Z	Vial Water preserved split	A	NA		4.4	Y	Absent	21-NOV-18 12:24	NYTCL-8260HLW-R2(14)
L1847727-05A	5 gram Encore Sampler	A	NA		4.4	Y	Absent		NYTCL-8260HLW-R2(14)
L1847727-05B	5 gram Encore Sampler	A	NA		4.4	Y	Absent		NYTCL-8260HLW-R2(14)
L1847727-05C	5 gram Encore Sampler	A	NA		4.4	Y	Absent		NYTCL-8260HLW-R2(14)

*Values in parentheses indicate holding time in days

Project Name: 73-79 WEST HURON STREET SITE
Project Number: B0441-018-001

Lab Number: L1847727
Report Date: 11/29/18

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1847727-05D	Plastic 2oz unpreserved for TS	A	NA		4.4	Y	Absent		TS(7)
L1847727-05X	Vial MeOH preserved split	A	NA		4.4	Y	Absent		NYTCL-8260HLW-R2(14)
L1847727-05Y	Vial Water preserved split	A	NA		4.4	Y	Absent	21-NOV-18 12:24	NYTCL-8260HLW-R2(14)
L1847727-05Z	Vial Water preserved split	A	NA		4.4	Y	Absent	21-NOV-18 12:24	NYTCL-8260HLW-R2(14)
L1847727-06A	5 gram Encore Sampler	A	NA		4.4	Y	Absent		NYTCL-8260HLW-R2(14)
L1847727-06B	5 gram Encore Sampler	A	NA		4.4	Y	Absent		NYTCL-8260HLW-R2(14)
L1847727-06C	5 gram Encore Sampler	A	NA		4.4	Y	Absent		NYTCL-8260HLW-R2(14)
L1847727-06D	Plastic 2oz unpreserved for TS	A	NA		4.4	Y	Absent		TS(7)
L1847727-06X	Vial MeOH preserved split	A	NA		4.4	Y	Absent		NYTCL-8260HLW-R2(14)
L1847727-06Y	Vial Water preserved split	A	NA		4.4	Y	Absent	21-NOV-18 12:24	NYTCL-8260HLW-R2(14)
L1847727-06Z	Vial Water preserved split	A	NA		4.4	Y	Absent	21-NOV-18 12:24	NYTCL-8260HLW-R2(14)
L1847727-07A	5 gram Encore Sampler	A	NA		4.4	Y	Absent		NYTCL-8260HLW-R2(14)
L1847727-07B	5 gram Encore Sampler	A	NA		4.4	Y	Absent		NYTCL-8260HLW-R2(14)
L1847727-07C	5 gram Encore Sampler	A	NA		4.4	Y	Absent		NYTCL-8260HLW-R2(14)
L1847727-07D	Plastic 2oz unpreserved for TS	A	NA		4.4	Y	Absent		TS(7)
L1847727-07X	Vial MeOH preserved split	A	NA		4.4	Y	Absent		NYTCL-8260HLW-R2(14)
L1847727-07Y	Vial Water preserved split	A	NA		4.4	Y	Absent	21-NOV-18 12:24	NYTCL-8260HLW-R2(14)
L1847727-07Z	Vial Water preserved split	A	NA		4.4	Y	Absent	21-NOV-18 12:24	NYTCL-8260HLW-R2(14)
L1847727-08A	5 gram Encore Sampler	A	NA		4.4	Y	Absent		NYTCL-8260HLW-R2(14)
L1847727-08B	5 gram Encore Sampler	A	NA		4.4	Y	Absent		NYTCL-8260HLW-R2(14)
L1847727-08C	5 gram Encore Sampler	A	NA		4.4	Y	Absent		NYTCL-8260HLW-R2(14)
L1847727-08D	Plastic 2oz unpreserved for TS	A	NA		4.4	Y	Absent		TS(7)
L1847727-08X	Vial MeOH preserved split	A	NA		4.4	Y	Absent		NYTCL-8260HLW-R2(14)
L1847727-08Y	Vial Water preserved split	A	NA		4.4	Y	Absent	21-NOV-18 12:24	NYTCL-8260HLW-R2(14)
L1847727-08Z	Vial Water preserved split	A	NA		4.4	Y	Absent	21-NOV-18 12:24	NYTCL-8260HLW-R2(14)
L1847727-09A	5 gram Encore Sampler	A	NA		4.4	Y	Absent		NYTCL-8260HLW-R2(14)
L1847727-09B	5 gram Encore Sampler	A	NA		4.4	Y	Absent		NYTCL-8260HLW-R2(14)
L1847727-09C	5 gram Encore Sampler	A	NA		4.4	Y	Absent		NYTCL-8260HLW-R2(14)

*Values in parentheses indicate holding time in days

Project Name: 73-79 WEST HURON STREET SITE
Project Number: B0441-018-001

Lab Number: L1847727
Report Date: 11/29/18

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1847727-09D	Plastic 2oz unpreserved for TS	A	NA		4.4	Y	Absent		TS(7)
L1847727-09X	Vial MeOH preserved split	A	NA		4.4	Y	Absent		NYTCL-8260HLW-R2(14)
L1847727-09Y	Vial Water preserved split	A	NA		4.4	Y	Absent	21-NOV-18 12:24	NYTCL-8260HLW-R2(14)
L1847727-09Z	Vial Water preserved split	A	NA		4.4	Y	Absent	21-NOV-18 12:24	NYTCL-8260HLW-R2(14)

*Values in parentheses indicate holding time in days

Project Name:	73-79 WEST HURON STREET SITE	**Lab Number:**	L1847727
Project Number:	B0441-018-001	**Report Date:**	11/29/18

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).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
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.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample¿s toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
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

1	- 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.

Report Format: DU Report with 'J' Qualifiers

Project Name:	73-79 WEST HURON STREET SITE	**Lab Number:**	L1847727
Project Number:	B0441-018-001	**Report Date:**	11/29/18

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - 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 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).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - 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.

J - 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:	73-79 WEST HURON STREET SITE	**Lab Number:**	L1847727
Project Number:	B0441-018-001	**Report Date:**	11/29/18

REFERENCES

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

121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

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.

Certification Information

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

Westborough Facility
EPA 624/624.1: m/p-xylene, o-xylene
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.

EPA 6860: SCM: Perchlorate

SM4500: NPW: Amenable Cyanide; 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, SM4500Cl-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**, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, 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, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

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

NEW YORK CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page of

Date Rec'd in Lab: 11/21/18

ALPHA Job #: L1847727

Client Information
Client: Benchmark Env Eng.
Address: 2558 Hamburg Turnpk.
Buffalo NY. 14218
Phone: 716-856-0599
Fax:
Email: Herbe@benchmarkturnkey.com

Project Information
Project Name: 73-79 West Huron Street SITE
Project Location: Buffalo N.Y.
Project #: B0441-018-001
(Use Project name as Project #) ☐
Project Manager: Candy Fox
ALPHAQuote #:

Turn-Around Time
Standard: ☒ Due Date:
Rush (only if pre approved) ☐ # of Days:

Deliverables
☐ ASP-A ☐ ASP-B
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Regulatory Requirement
☐ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Billing Information
☐ Same as Client Info
PO #

Disposal Site Information
Please identify below location of applicable disposal facilities.
Disposal Facility:
☐ NJ ☐ NY
☐ Other:

These samples have been previously analyzed by Alpha ☐

Other project specific requirements/comments:

Please specify Metals or TAL.

ANALYSIS

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	VOCs	SVOCs	Metals	PCBs	Pesticides				Total Bottle	Sample Specific Comments
47727-01	BUD COMP-1	11/19/18	14:00	Soil	CCB		X	X	X	X					
02	BUD COMP-2	11/19/18	14:05				X	X	X	X					*Please analyze VOCs + SVOCs, hold all other analyses until notified.
03	BUD COMP VOC-1	11/19/18	1410			X									
04	BUD VOC-2	11/19/18	1415			X									
05	BUD VOC-3	11/19/18	1420			X									
06	BUD VOC-4	11/19/18	1425			X									
07	BUD VOC-5	11/19/18	1430			X									
08	BUD VOC-6	11/19/18	1435			X									
09	BUD VOC-7	11/19/18	1440			X									

Container Type: ~~AE~~ A A A A
Preservative: A A A A A

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	11/20/18/1600	[signature] AAL	11/20/18@1600
[signature] AAL	11/20/18 @1620	Danielle Matt	11/21/18 01:20

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-25 HC (rev. 30-Sept-2013)

Emerson School of Hospitality
Swift River Exported Material

DATE	TRUCK No.	TICKET No.	Loads	Material Description	Disposal Site
5/14/2019	32	15851	4	Broken Concrete	Swift River
5/16/2019	26	15705	3	Broken Brick	Swift River
5/17/2019	26	15706	1	Broken Concrete	Swift River

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
N/A		716-285-3920	ES-450019

GENERATOR

5. Generator's Name and Mailing Address
Emerson Huron, LLC c/o McGuire Dev., , 455 Cayuga Rd, Suite 100, , Buffalo NY 14225,
Generator's Phone: 716-829-1900

Generator's Site Address (if different than mailing address)
Emerson School of Hospitality II, , 73 W Huron Street, , Buffalo NY 14202, Mark Wendling

6. Transporter 1 Company Name
Patino Logistics
716-825-6168

U.S. EPA ID Number
NA 826

7. Transporter 2 Company Name
MidWest Construction

U.S. EPA ID Number

8. Designated Facility Name and Site Address
Tonawanda Bioremediation Facility
795 East Park Drive
Tonawanda New York 14150
Facility's Phone: 716-285-3920

U.S. EPA ID Number
N/A

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	Non RCRA, Non D.O.T. Regulated Material, Soil (PCS), , , ,	001	T		T	
2.	, , , Transformer Vault (Hica)					
3.	, , ,					
4.	, , ,					

13. Special Handling Instructions and Additional Information
Emergency Contact: EnSol, Inc. Nick Herreale
EnSol, Inc. Project ID Number: 18-3476-05B
Truck ID:
Truck Lic.:
Handling Code:
Weight Ticket No.:
Gross Weight:
Tare Weight:

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: Brian Kelley as Agent — Signature — Month: 05 Day: 21 Year: 19

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: William Swader — Signature — Month: 05 Day: 21 Year: 19

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Item #13 Estimated, Actual Weight = 14.49
Manifest Reference Number: 450019

17b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month — Day — Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month — Day — Year

169-BLC-O 6 10498 (Rev. 9/09)

TRANSPORTER #1

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
N/A		716-285-3920	ES-450019

GENERATOR

5. Generator's Name and Mailing Address
Emerson Huron, LLC c/o McGuire Dev., , 455 Cayuga Rd, Suite 100, , Buffalo NY 14225,
Generator's Phone: 716-829-1900

Generator's Site Address (if different than mailing address)
Emerson School of Hospitality II, , 75 W. Huron Street, , Buffalo NY 14202, Mark Wendling

6. Transporter 1 Company Name
Pariso Logistics
716-875-6168
U.S. EPA ID Number: NA 826

7. Transporter 2 Company Name
MILHURST CONSTRUCTION
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
Tonewanda Bioremediation Facility
795 East Park Drive
Tonewanda New York 14150
Facility's Phone: 716-285-3920
U.S. EPA ID Number: N/A

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	Non RCRA, Non D.O.T. Regulated Material, Soil (PCS), , ,	001	T		T	
2.	, , , Transformer VAULT (Area)					
3.	, , , Per NICK @ Landfill Gave ORIGINAL TO ,					
4.	, , , TRUCK DRIVER. NICK WILL E MAIL SIGNED SHEETS BACK TO WORK					

13. Special Handling Instructions and Additional Information
Emergency Contact: Ensol. Inc. Nick Morreale
EnSol. Inc. Project ID Number: 18-3476-05B
Truck ID:
Truck Lic.:
Handling Codes:
Weight Ticket No.:
Gross Weight:
Tare Weight:
, , ,

14. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: Brian Kelley AS AGENT
Signature: Brian Kelley
Month: 05 Day: 21 Year: 19

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name | Signature | Month | Day | Year
Transporter 2 Printed/Typed Name | Signature | Month | Day | Year

DESIGNATED FACILITY

17. Discrepancy
17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Item #13 Estimated. Actual Weight =
Manifest Reference Number: 450019
17b. Alternate Facility (or Generator) | U.S. EPA ID Number
Facility's Phone:
17c. Signature of Alternate Facility (or Generator) | Month | Day | Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a
Printed/Typed Name | Signature | Month | Day | Year

PARISO LOGISTICS, INC.

3649 RIVER ROAD
TONAWANDA, NEW YORK 14150
OFFICE: (716) 875-6168 FAX: (716) 875-4121
SCALE: (716) 875-0902

TANDEMS TRI-AXLES DUMP TRAILERS

VARIETY OF PRODUCTS AVAILABLE FROM OUR STOCKPILES

CUSTOMER # Hilbert

TICKET # P133371

CUSTOMER NAME

DATE 05/21/2019
TIME 12:50PM

JOB #

SHIP TO Tn. Landfill
Emerson School

GROSS [illegible] lb POUNDS
TARE [illegible] lb POUNDS
NET [illegible] lb POUNDS
14.49 TN

PRODUCT Fill. Soil

WEIGHMASTER: **PARISO LOGISTICS, INC.**
S. RAWE / E. RAWE
N.Y.S. LICENSE #140331 / 601381

WEIGHED BY

TRUCK NO. 28 TRUCKING CO. Hilbert

TRUCKER'S SIGNATURE

TRUCKER

APPENDIX D

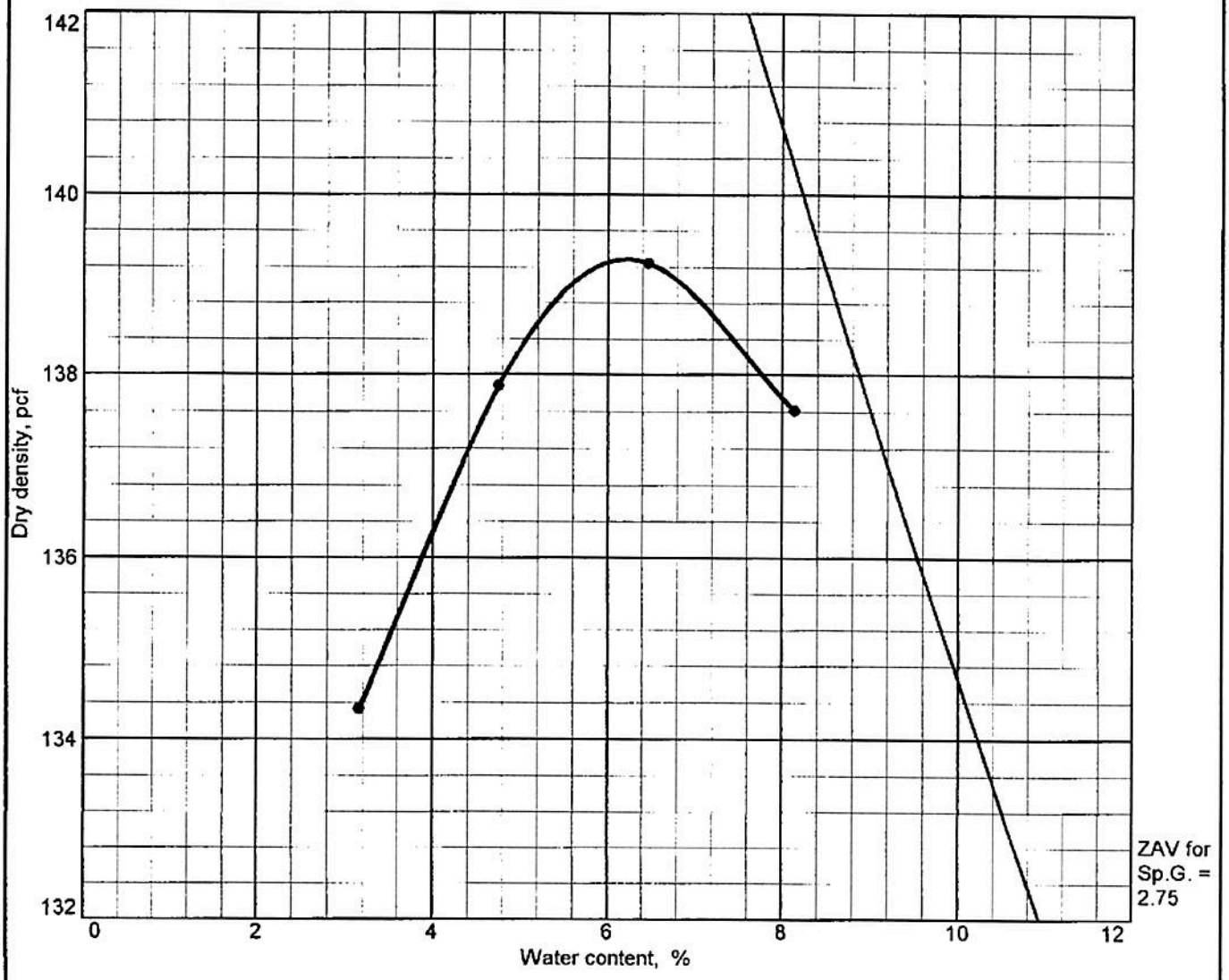
IMPORT DOCUMENTATION

Emerson School of Hospitality

Stone Delivery

50266938	**5/2/19**	21.04	Pariso	2crn
50266974	5/2/19	21.47	Pariso	2cr
50267012	5/2/19	22.84	Pariso	2cr
50267045	5/2/19	21.09	Pariso	2cr
50267319	**5/3/19**	21.09	Pariso	2cr
50267544	5/6/19	19.40	Mil26	2cr
50267868	5/7/19	21.44	Mil25	2cr
50267917	5/8/19	19.53	Mil25	2cr
50268835	5/10/19	20.17	Mil26	1cr
50269375	5/14/19	20.07	Mil28	1cr

COMPACTION TEST REPORT - MANUAL RAMMER



Test specification: ASTM D 1557-12 Procedure C Modified
Oversize correction applied to each point

Elev/ Depth	Classification		Nat. Moist.	Sp.G.	LL	PI	% > 3/4 in.	% < No.200
	USCS	AASHTO						
				2.65			15.2	4.9

ROCK CORRECTED TEST RESULTS	MATERIAL DESCRIPTION
Maximum dry density = 139.3 pcf Optimum moisture = 6.2 %	2" ROC STONE

Project No. BT-17-019 **Client:** NEW ENTERPRISE STONE & LIME INC.
Project: MATERIALS TESTING: NEW ENTERPRISE STONE & LIME

• **Location:** WEHRLE DRIVE PLANT

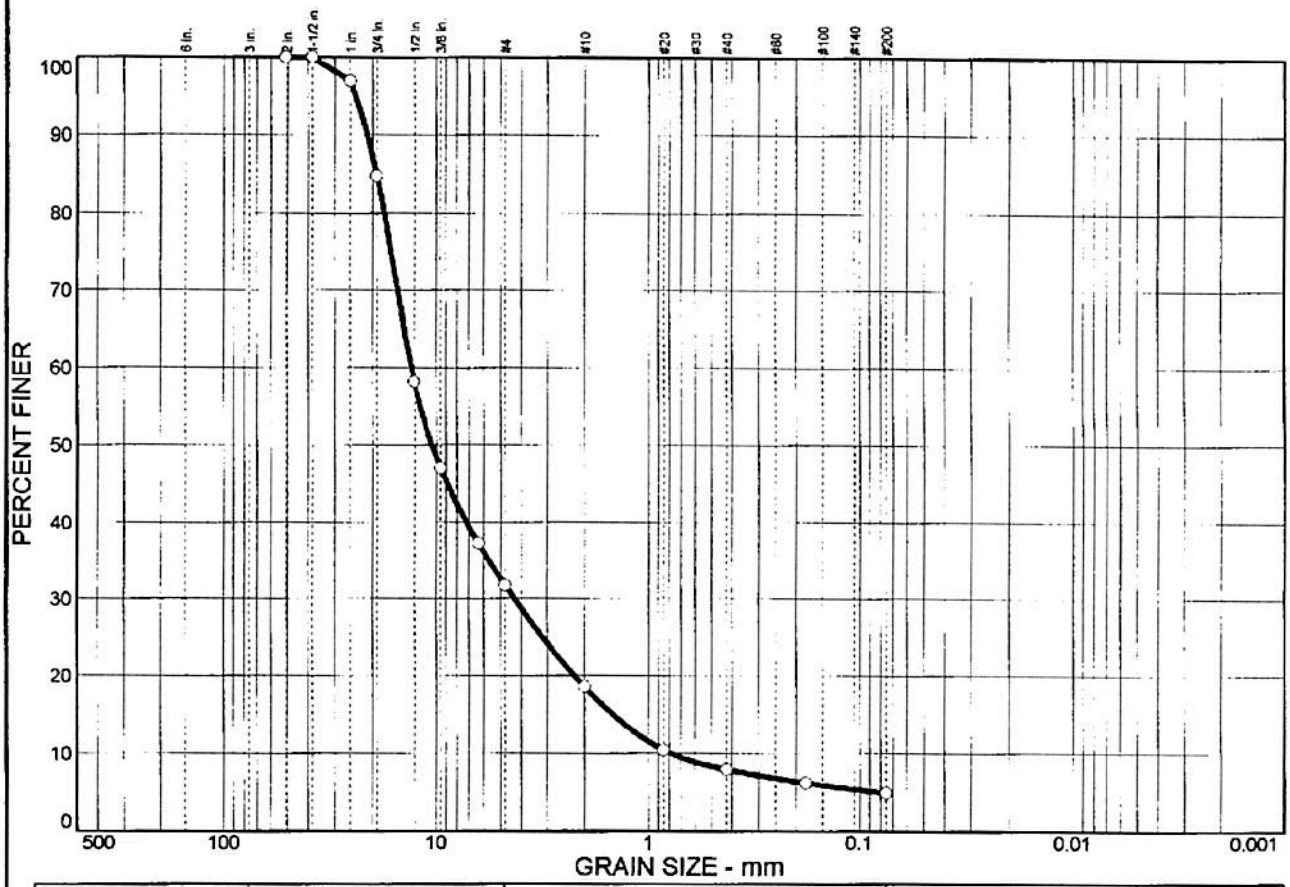
Remarks:
LTR-6
SAMPLE NUMBER: 19-220

COMPACTION TEST REPORT - MANUAL RAMMER

SJB SERVICES, INC.

Plate

Particle Size Distribution Report ASTM D-422 / ASTM D-1140



% COBBLES	% GRAVEL	% SAND	% SILT	% CLAY
0.0	68.2	26.9	4.9	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
2 in.	100.0		
1.5 in.	100.0		
1 in.	97.0		
.75 in.	84.8		
.5 in.	58.2		
.375 in.	47.0		
.25 in.	37.3		
#4	31.8		
#10	18.5		
#20	10.4		
#40	7.9		
#80	6.2		
#200	4.9		

* (no specification provided)

Soil Description

2" ROC STONE

Atterberg Limits

PL= LL= PI=

Coefficients

D_{85}= 19.1 D_{60}= 13.1 D_{50}= 10.5
D_{30}= 4.29 D_{15}= 1.48 D_{10}= 0.791
C_u= 16.57 C_c= 1.77

Classification

USCS= AASHTO=

Remarks

LTR-6
SAMPLED BY: NESL
DATE RECEIVED: 3-12-2019

Sample No.: 19-220 **Source of Sample:** NEW ENTERPRISE STONE & LIME **Date:** 3-26-2019
Location: WEHRLE DRIVE PLANT **Elev./Depth:**

SJB SERVICES, INC.

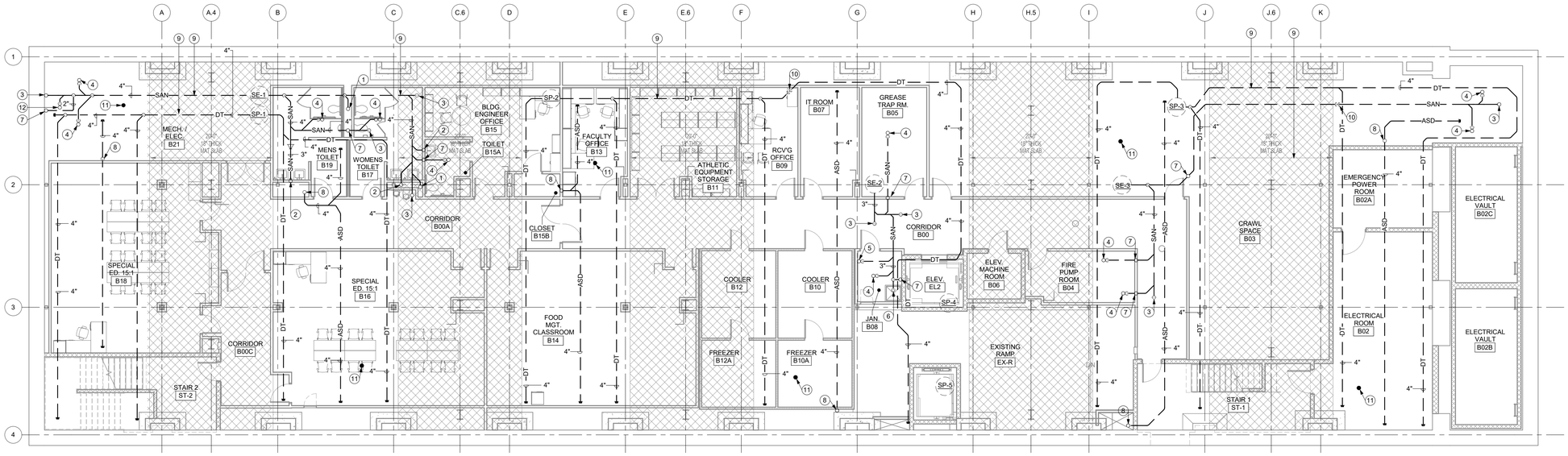
Client: NEW ENTERPRISE STONE & LIME INC.
Project: MATERIALS TESTING: NEW ENTERPRISE STONE & LIME
Project No: BT-17-019 **Plate**

APPENDIX E

ASD SYSTEM DESIGN DETAILS

P100 DRAWING NOTES

1 4" SANITARY DOWN FROM ABOVE.
2 3" SANITARY UP TO 1'-0" AFF.
3 4" SANITARY DOWN FROM DPCO ABOVE.
4 3" SANITARY DOWN FROM FLOOR DRAIN ABOVE.
5 4" SANITARY UP TO SAFE WASTE.
6 3" SANITARY DOWN FROM MOP BASIN ABOVE.
7 2" VENT UP TO ABOVE FLOOR.
8 4" ACTIVE SOIL DEPRESSURIZATION BRANCH UP. REFER TO DRAWING 4/P506 FOR PIPING SCHEMATIC.
9 INSTALL PIPING BENEATH MAT SLAB.
10 OFFSET PIPING TO RUN BENEATH MAT SLAB.
11 VACUUM PORT. REFER TO DETAIL 5/P506 FOR PIPING SCHEMATIC.
12 EMERGENCY FLOOR DRAIN.



FOUNDATION FLOOR PLAN - PLUMBING

SCALE: 1/8" = 1'-0"

1/P100

N 0' 8' 16' 32'

Kideney Architects

Kideney Architects, P.C.
ARCHITECTS | PLANNERS
INTERIORS | LANDSCAPE DESIGN
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Buffalo, New York 14203
716.249.3837 | kideney.com

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Mechanical/Electrical Engineering Consultants
Buffalo | Rochester | Syracuse | Schenectady
60 LAKEFRONT BLVD, SUITE 320
BUFFALO, NY 14202
716.845.5050
www.meengineering.com

EMERSON II

S.E.D. NUMBER: 14-06-00-01-8-681-L01

75 WEST HURON

BUFFALO, NEW YORK 14202

BID PACKAGE 3: BUILDING CORE AND TENANT IMPROVEMENTS

FOUNDATION FLOOR PLAN - PLUMBING

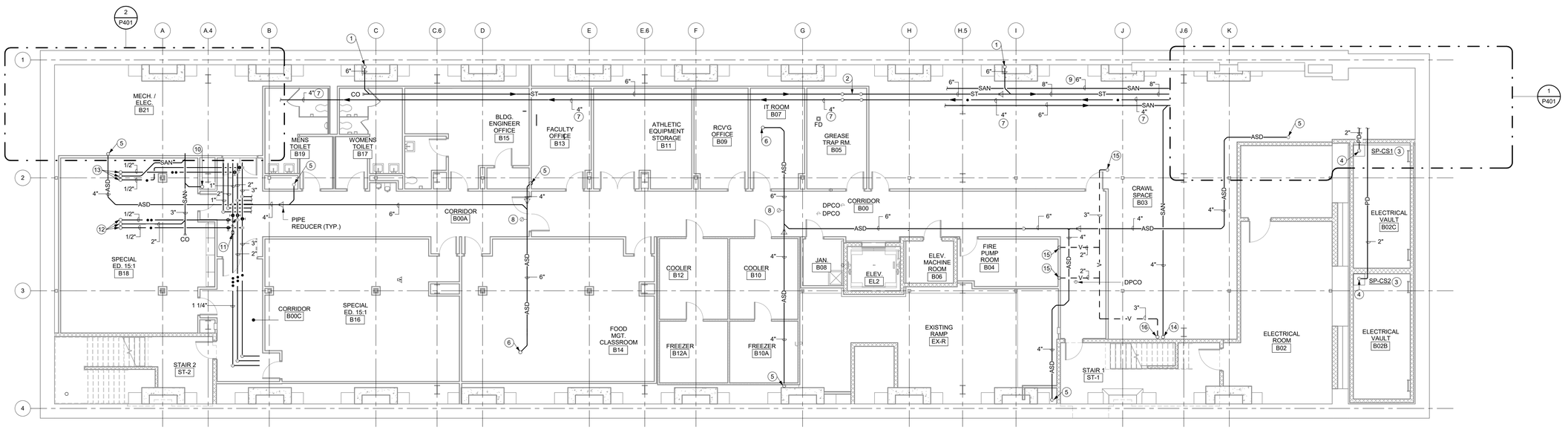
AS NOTED — SCALE:	
JJE — DRAWN BY:	
ESC — CHECKED BY:	1 — 08/03/2018 (NO. — DATE)
REVISIONS	
2017066.00 — PROJECT NO.	07/13/2018 — DATE:

P100
DRAWING NO.

9/19/2018 9:08:23 AM

P101 DRAWING NOTES

1 6" PRIMARY CONDUCTOR DOWN FROM FLOOR ABOVE TO BASEMENT CEILING ELEVATION. ROUTE 6" ST MAINS AS HIGH AS POSSIBLE.
2 DROP 8" ST TO MECHANICAL ROOM CEILING ELEVATION. ROUTE 8" ST MAIN AS HIGH AS POSSIBLE.
3 REFER TO DRAWING 6/P504 FOR SUMP PUMP INSTALLATION SCHEMATIC.
4 2" PUMPED DRAINAGE (PD) UP FROM SUMP PUMP IN PIT VAULT FLOOR. ROUTE 2" HORIZONTAL MAIN AS HIGH AS POSSIBLE.
5 4" ACTIVE SOIL DEPRESSURIZATION PIPING UP FROM BELOW FLOOR TO BASEMENT CEILING ELEVTION.
6 6" ACTIVE SOIL DEPRESSURIZATION PIPING TO FLOOR ABOVE.
7 4" CW PIPING SHALL BE LABELED "DO NOT TAP".
8 MAGNEHELIC PRESSURE GAUGE LOCATION.
9 6" SAN ROUTED APPROXIMATLY 4'-6" A.F.F. FROM GREASE TRAP ROOM.
10 4" SAN DOWN FROM FLOOR ABOVE.
11 CALIBRATE BALANCE VALVE TO 13 GPM FLOW RATE.
12 1/2" CW AND 1/2" HW UP TO FLOOR ABOVE. 2" WASTE DOWN FROM FLOOR ABOVE TO BASEMENT CEILING ELEVATION.
13 1/2" CW AND 1/2" HW UP TO FLOOR ABOVE. 1-1/2" WASTE DOWN FROM FLOOR ABOVE TO BASEMENT CEILING ELEVATION.
14 3" SAN DOWN FROM FLOOR ABOVE TO BASEMENT CEILING ELEVATION.
15 2" VENT UP FROM BELOW FLOOR BASEMENT CEILING ELEVATION.
16 2" VENT UP TO FLOOR ABOVE.



BASEMENT FLOOR PLAN - PLUMBING

SCALE: 1/8" = 1'-0"

1 P101

N

0' 8' 16' 32'

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www.meengineering.com

EMERSON II
S.E.D. NUMBER: 14-06-00-01-8-681-L01
75 WEST HURON
BUFFALO, NEW YORK 14202

BID PACKAGE 3: BUILDING CORE AND TENANT IMPROVEMENTS

BASEMENT FLOOR PLAN - PLUMBING

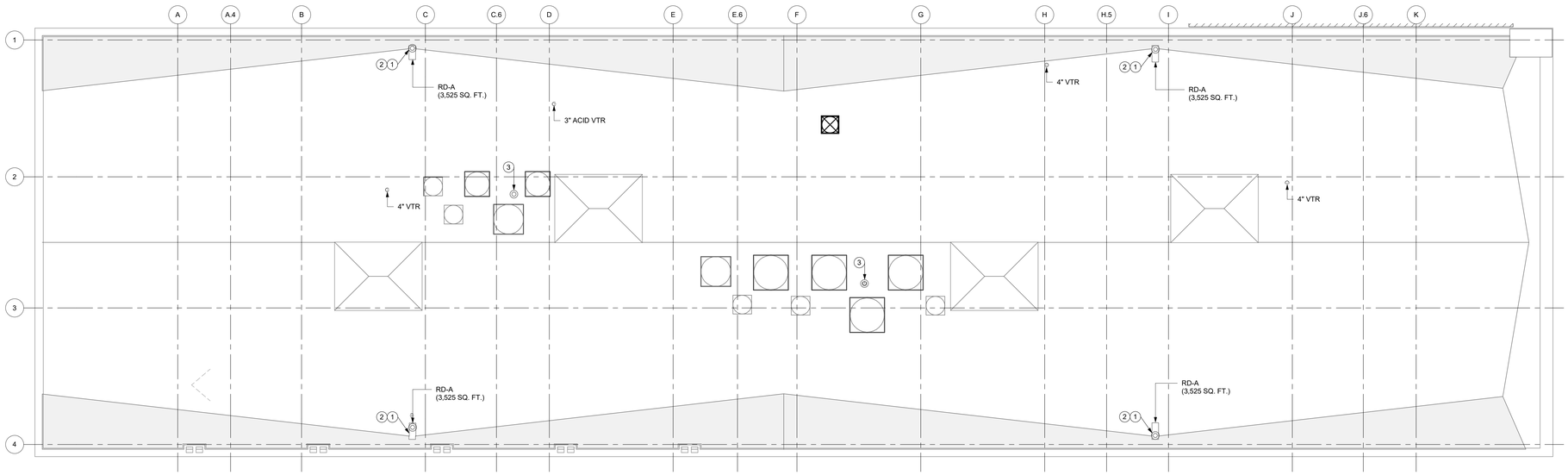
AS NOTED	SCALE:	
JJE	DRAWN BY:	
ESC	CHECKED BY:	1 08/17/2018 NO. DATE REVISIONS
2017066.00	PROJECT NO.	07/13/2018 DATE

P101
DRAWING NO.

9/19/2018 9:08:30 AM

P108 DRAWING NOTES

1 4" PRIMARY CONDUCTOR DOWN FROM ROOF DRAIN TO FLOORS BELOW.
2 4" SECONDARY CONDUCTOR DOWN FROM ROOF DRAIN TO FLOORS BELOW.
3 6" ACTIVE SOIL DEPRESSURIZATION FAN. REFER TO DRAWING 6/P501 FOR INSTALLATION DETAIL.



ROOF PLAN - PLUMBING
SCALE: 1/8" = 1'-0"

1 / P108

N

0' 8' 16' 32'

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EMERSON II

S.E.D. NUMBER: 14-06-00-01-8-681-L01

75 WEST HURON

BUFFALO, NEW YORK 14202

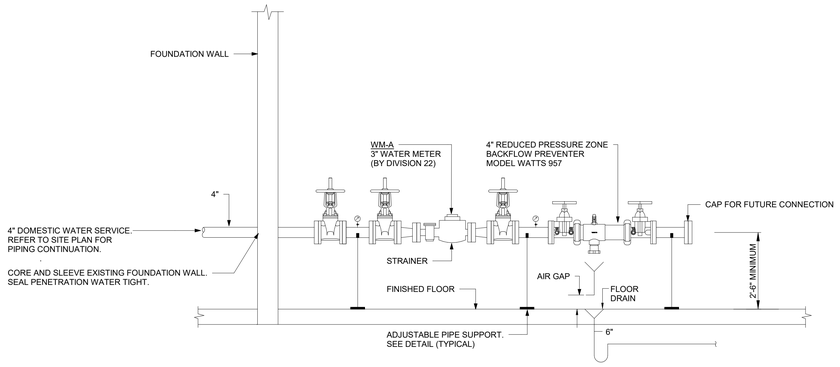
BID PACKAGE 3: BUILDING CORE AND TENANT IMPROVEMENTS

ROOF PLAN - PLUMBING

AS NOTED	SCALE:	
JJE	DRAWN BY:	
ESC	CHECKED BY:	1 08/17/2018 NO. DATE REVISIONS
2017066.00	PROJECT NO.	07/13/2018 DATE:

P108
DRAWING NO.

9/19/2018 9:08:35 AM



DETAIL NOTES:

A. PROVIDE PROPER SUPPORTS FOR BACKFLOW PREVENTERS, WATER METER AND PIPING.

B. PROVIDE CALIBRATED WATER METER. REFER TO SPECIFICATIONS FOR FURTHER INFORMATION.

C. PROVIDE 8" CLEARANCE BEHIND BACKFLOW PREVENTERS, 1'-0" ABOVE AND 2'-6" CLEARANCE IN FRONT OF DEVICES.

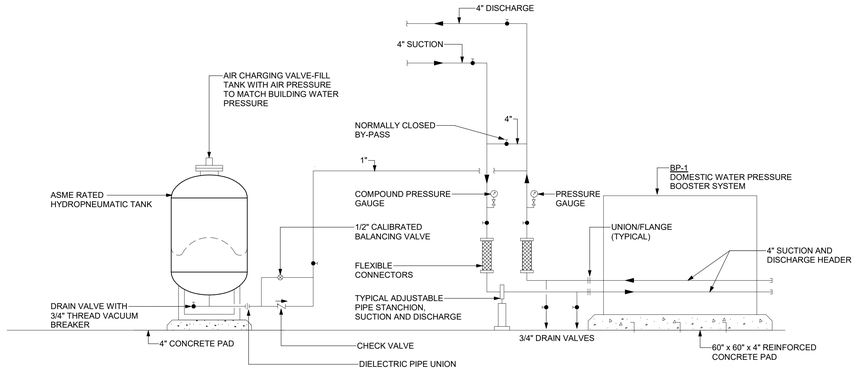
D. PAINT SUPPORTS WITH ONE (1) PRIMER AND TWO (2) FINISH COATS OF COLOR AS SPECIFIED.

E. PROVIDE LENGTHS OF STRAIGHT PIPE UPSTREAM AND DOWNSTREAM OF METER AS RECOMMENDED BY MANUFACTURER.

DOMESTIC WATER SERVICE DETAIL

SCALE: 1/8" = 1'-0"

1 P501



DETAIL NOTES:

A. MOUNT BOOSTER SYSTEM ON NEOPRENE AND CORK VIBRATION PADS.

B. INTERLOCK BOOSTER SYSTEM CUT-OFF PROBE WITH BOOSTER SYSTEM SAFETIES.

C. PIPE 1/2" THERMAL RELIEF VALVE TO FLOOR DRAIN.

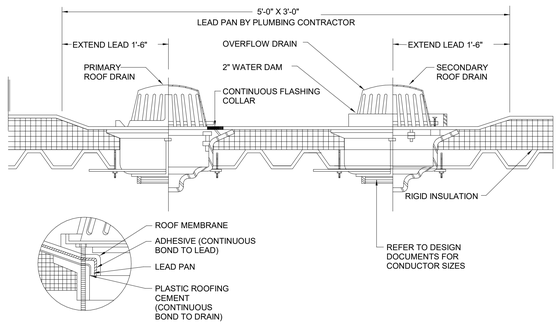
D. INSULATE SUCTION AND DISCHARGE HEADER.

E. BOOSTER PUMP SYSTEM REPRESENTATIVE SHALL FIELD CALIBRATE BALANCING VALVE.

DOMESTIC WATER BOOSTER SYSTEM

SCALE:NOT TO SCALE

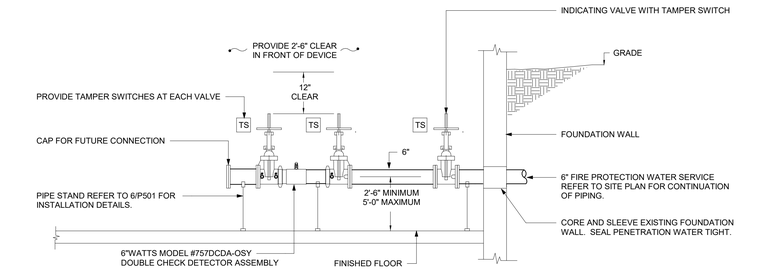
2 P501



PRIMARY AND SECONDARY ROOF DRAIN DETAIL

SCALE:NOT TO SCALE

3 P501



DETAIL NOTES:

A. REFER TO FLOOR PLANS FOR LOCATION OF FIRE PROTECTION SERVICE ENTRANCE.

B. ALL COMPONENTS SHALL BE PROVIDED IN ACCORDANCE WITH NFPA 13, LOCAL AUTHORITIES HAVING JURISDICTION AND COMPONENTS MANUFACTURERS. CONTRACTOR FOR ELECTRICAL WORK WILL WIRE ALARM, TAMPER SWITCHES, PRESSURE AND FLOW SWITCHES. COORDINATE ELECTRICAL CHARACTERISTICS OF DEVICES WITH CONTRACTOR FOR ELECTRICAL WORK.

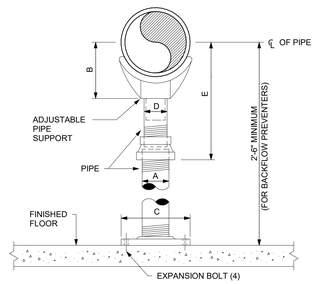
C. PROVIDE PROPER PIPE SUPPORTS. PAINT WITH ONE (1) COAT OF PRIMER AND TWO (2) FINISH COATS OF GLOSS BLACK PAINT. CONTRACTOR SHALL ALSO REPAINT ANY PORTIONS OF PIPING SYSTEM DISTURBED BY CONSTRUCTION - MATCH EXISTING PAINT COLORS AS REQUIRED.

FIRE PROTECTION WATER SERVICE ENTRANCE

SCALE: 1/8" = 1'-0"

5 P501

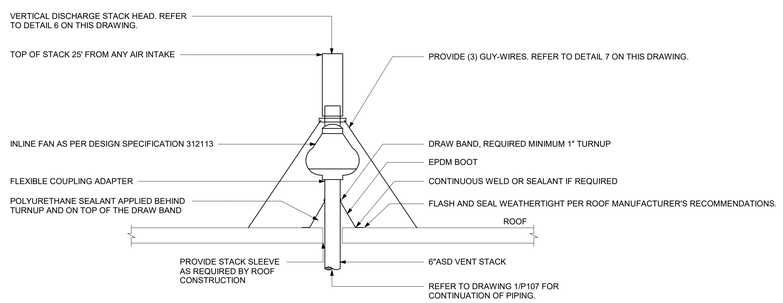
PIPE SIZE	A	B	C	D	DIMENSION E	
					MINIMUM	MAXIMUM
4"	3"	4 3/16"	9"	2 1/2"	9 1/4"	1'- 2"
6"	3"	5 7/16"	9"	2 1/2"	10 1/2"	1'-3 1/4"



ADJUSTABLE PIPE SUPPORT DETAILS

SCALE:NOT TO SCALE

4 P501



ACTIVE SOIL DEPRESSURIZATION FAN DETAIL

SCALE: 1/8" = 1'-0"

6 P501

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NOT FOR CONSTRUCTION

ENGINEERING
Mechanical/Electrical Engineering Consultants
Buffalo | Rochester | Syracuse | Schenectady
60 LAKEFRONT BLVD, SUITE 320
BUFFALO, NY 14202
716.845.5092
www.meengineering.com

EMERSON II

75 WEST HURON

BUFFALO, NEW YORK 14202

BID PACKAGE 4: CORE & SHELL

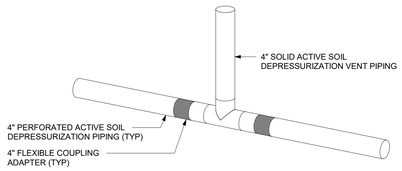
PLUMBING DETAILS

AS NOTED		
SCALE:		
Author		
DRAWN BY:		
Checker	NO.	DATE
CHECKED BY:	REVISIONS:	
2017066.00	05/16/2018	
PROJECT NO.	DATE:	

P501

DRAWING NO.

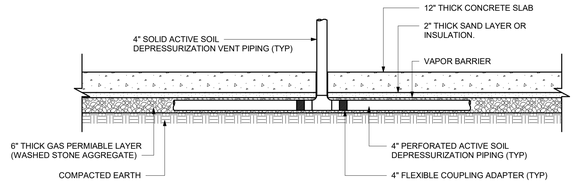
5/16/2018 9:59:39 AM



VERTICAL SUCTION PIPE ASSEMBLY DETAIL

SCALE: 1/8" = 1'-0"

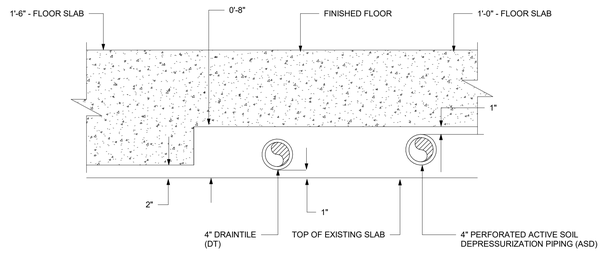
3 P506



UNDER SLAB PIPING DETAIL

SCALE: 1/8" = 1'-0"

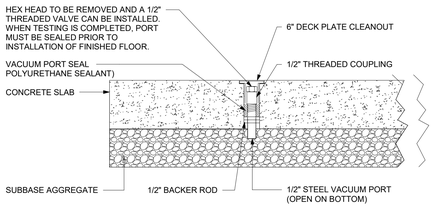
2 P506



FOUNDATION PIPING DETAIL

SCALE:NOT TO SCALE

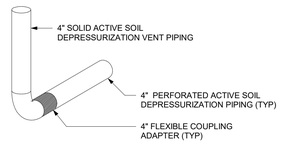
1 P506



VACUUM PORT DETAIL

SCALE: 1/8" = 1'-0"

5 P506



OFFSET VERTICAL SUCTION POINT PIPE ASSEMBLY DETAIL

SCALE: 1/8" = 1'-0"

4 P506

Kideney Architects

Kideney Architects, P.C.
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EMERSON II

S.E.D. NUMBER: 14-06-00-01-8-681-L01

75 WEST HURON

BUFFALO, NEW YORK 14202

BID PACKAGE 3: BUILDING CORE AND TENANT IMPROVEMENTS

PLUMBING DETAILS

AS NOTED (SCALE:)		
JJE (DRAWN BY:)		
ESC (CHECKED BY:)	1	08/17/2018
	NO.	DATE
	REVISIONS:	
2017066.00 (PROJECT NO.)	07/13/2018 (DATE:)	

P506
DRAWING NO.

9/19/2018 9:08:39 AM

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary General Conditions and other Division 00 & 01 Specification Sections, apply to this Section.

1.2 RELATED WORK SPECIFIED ELSEWHERE

A. Firestopping: Section 078413.

B. Joint Sealers: Section 079200.

1.3 REFERENCES

A. ASTM E 1465-08a - Standard Practice for Radon Control Options for the Design and Construction of New Low-Rise Residential Buildings.

B. ASTM E 631-06 - Standard Terminology of Building Constructions.

1.4 SUBMITTALS

A. Product Data: Manufacturer's catalog sheets, performance charts, test data, standard schematic drawings, wiring diagrams, specifications and installation instructions for each active soil depressurization system, fan, piping, fittings, couplings, and all associated equipment.

B. Contract Closeout Submittals:

1. Operation and Maintenance Data: Deliver 2 copies, covering the installed products, to the Director's Representative.

1.5 QUALITY ASSURANCE

A. Qualifications: The persons employed to perform the work of this Section and their supervisor shall be NEHA or NRSB certified in radon mitigation and shall have been regularly performing such work for a minimum of five years while in the employ of a company or companies engaged in radon mitigation systems.

1. Upon request, furnish to the Director the names and addresses of five similar projects which the foregoing people have worked on during the past three years.

B. National Certifications:

1. NEHA (The National Environmental Health Association) - Radon Certification Program.
2. NRSB (The National Radon Safety Board) - Radon Certification Program.

C. Regulatory Requirements:

1. Materials for the work of this Section shall comply with ASTM E 1465-08a - Standard Practice for Radon Control Options for the Design and Construction of New Low-Rise Residential Buildings.

1.6 SPECIAL COORDINATION

A. Coordinate all work of other trades.

B. Furnish Division 26 - "Electrical" with dimensional drawings showing location of electrical connections, location of equipment mounted on walls, and of other equipment requiring electrical connections, removals or replacements.

PART 2 - PRODUCTS

2.1 THERMOPLASTIC (CPVC) PIPE AND FITTINGS (ABOVE GROUND)

A. Pipe: ASTM F441, Chlorinated Polyvinyl Chloride, Schedule 40, CPVC compounds conforming to ASTM D1784.

B. Fittings: ASTM F439, CPVC, Schedule 40, pressure fittings, socket type, solvent weld. Conforming to ASTM D1784 for CPVC compounds. Solvent cement conforming to ASTM F493.

C. Filler Rods: Same material as pipe.

2.2 FLEXIBLE COUPLING ADAPTERS

A. Equal to Fernco Flexible Couplings: Couplings constructed with PVC compound material; Series 300 stainless steel clamps; conforming to applicable parts of ASTM C443, C425, C564, D1869, and C1173; sizes as required.

2.3 HANGERS, INSERTS AND SUPPORTS

A. Hangers, Inserts, Clamps: B-Line, Grinnell, Michigan Hanger, PHD Manufacturing.

B. Hangers:

1. Adjustable, wrought malleable iron or steel with electroplated zinc or cadmium finish. Hot-dipped galvanized finish for exterior locations.
2. Adjustable steel clevis type for piping 4 in. and larger.
3. Nuts, washers and rods with electroplated zinc or cadmium finish. Hot-dipped galvanized finish for exterior locations.

C. Spacing Schedule:

Pipe Size	Plastic	Rod Size
2-1/2 in. to 4 in.	4 ft.	1/2 in.
5 in. and over	4 ft.	5/8 in.
8 in.	4 ft.	3/4 in.

D. Beam Attachments:

1. C-Clamp style, locknut, restraining strap, electroplated finish, UL listed, FM approved for pipe sizes 2 in. and smaller.
2. Center loaded style with clamp attachments that engage both edges of beam, electroplated finish, UL listed, FM approved, for pipe sizes larger than 2 in., refer to "Supports" for additional requirements.

E. Inserts: Carbon steel body and square insert nut, galvanized finish, maximum loading 1,300 lbs., for 3/8 in. to 3/4 in. rod sizes, reinforcing rods on both sides, MSS-SP-69 Type 19 or approved equal.

F. Supports:

1. For all piping larger than 2 in., provide intermediate structural steel members for hanger attachment. Members shall span across the bar joists at panel points of joists. Secure member to structure. Select size of members based on a minimum factor of safety of four.
2. For weights under 1,000 lbs.: "Drill-In" inserts, "U" shaped channel, beam clamps or other structurally reviewed support. The factor of safety shall be at least four. Follow manufacturer's instructions.
3. For metal decks: Drill hole through for hanger rods and imbed a welded plate in concrete or use devices designed for this application, with a safety factor of four.
4. Make: Hilti, ITW Ramset, Phillips "Red Head" or approved equal.

G. Piping systems with material not listed above shall be supported and protected in accordance with manufacturer's recommendations.

2.4 PIPE SLEEVES

A. Type A: Schedule 40 steel pipe.

B. Type B: No. 16 gauge galvanized sheet steel.

C. Type D: No. 16 gauge galvanized sheet steel with 16 gauge sheet steel metal collar rigidly secured to sleeve. Size metal collars as required to span a minimum of one cell or corrugation, on all sides of the rough opening through the metal deck.

2.5 RADON FAN

A. Equal to Fantech Model No. FR250-8; 115 volt, single phase, 2850 rpm, 2.40 maximum amps; 250 cfm at 1.5 in. wc. and with 8 inch duct connection.

2.6 MAGNEHELIC GAUGE

A. 3-7/8 in. diameter white dial diaphragm actuated air filter gauge. Guaranteed accurate to ± 2% of full scale. Pointer zero adjustment. Provide all required accessories.

B. Range:

1. 0-2 in. wc, Dwyer Model 2002 or approved equal.

C. Design Equipment: Dwyer Magnehelic Series 2000.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Provide an independent active soil depressurization system at each location shown on the contract drawings.

B. Provide all piping, fittings, flexible coupling adapters, hangers and supports, pipe sleeves, radon fan, radon system monitor, etc. as required for a complete system ready for use.

C. Install horizontal piping with a constant pitch and without sags or humps; pitch 1/8 inch per foot downward, in the opposite direction of air flow.

D. Install vertical piping plumb.

E. Install piping at approximate locations indicated and at maximum height.

F. Install piping clear of door swings and above sash heads.

G. Make allowances for expansion and contraction.

H. Install radon fans in accordance with manufacturer's instructions and contract drawings. Allow space for removal of fan unit without disturbing or removing installed equipment or piping.

I. Provide an analog magnehelic operated radon system monitor on each system as shown on the contract drawings.

J. Provide radon labels on each system to comply with ASTM E 1465-08a.

K. Power wiring for radon fans is by the Division 26 Electrical Contractor.

3.2 CLEANING, TESTING AND INSPECTION

A. Clean all piping systems as required by the Director's Representative with water prior to pressure testing.

B. While fan is operating, check joints for leaks with non-thermal smoke. Perform testing work in the presence of the Director's Representative.

C. Provide inspection services for the vapor barrier under slabs on grade. Report findings to the Director's Representative in writing prior to concrete slab installation.

D. Provide inspection services for the sealing of gaps and joints in slabs. Report findings to the Director's Representative in writing prior to radon measurement testing.

E. All radon measurement testing shall be done by an independent consultant.

3.3 PIPING PENETRATIONS

A. Sleeve Schedule: Unless otherwise shown, comply with the following schedule for the type of sleeve to be used where piping penetrates wall or floor construction:

	CONSTRUCTION	SLEEVE TYPE
1.	Frame construction	None required
2.	Foundation walls	A*
3.	Non-waterproof interior walls	B*
4.	Non-waterproof interior floors on metal decks	D*
5.	Non-waterproof interior floors not on metal decks	B*
6.	Floors not on grade having a floor drain	A
7.	Floors over mechanical equipment, steam service, machine, and boiler rooms	A

	CONSTRUCTION	SLEEVE TYPE
8.	Floors finished or to be finished with latex composition or terrazzo, and on metal decks	D*
9.	Earth supported concrete floors	None required
10.	Non-metal roof decks	A
11.	Waterproof floors on metal decks	D
12.	Waterproof floors not on metal decks	A
13.	Waterproof walls	A

*Core drilling is permissible in lieu of sleeves where marked with asterisks.

B. Diameter of Sleeves and Core Dilled Holes:

1. Unless otherwise specified, size holes through floors and walls in accordance with the through penetration firestopping system being used.
2. Size holes through exterior walls or waterproofed walls above inside earth or finished floors, and exterior concrete slabs in accordance with the following:

    a. Uninsulated (Bare) Pipe: Inside diameter of sleeve or core drilled hole 1/2 inch greater than outside diameter of pipe, unless otherwise specified.
    b. Mechanical Modular Seals: Size holes in accordance with the manufacturer's recommendations.

C. Length of Sleeves (except as shown otherwise on Drawings):

1. Walls and Partitions: Equal in length to total finished thickness of wall or partition.
2. Floors, Finished: Equal in length to total finished thickness of floor and exceeding 1/2 inch above the finished floor level, except as follows:

    a. In furred spaces at exterior walls, extend sleeve one inch above the finished floor level.

3. Roofs: Equal in length to the total thickness of roof construction, including insulation and roofing materials, and extending one inch above the finished roof level.

D. Packing of Sleeves and Core Drilled Holes:

1. Unless otherwise specified, pack sleeves or core drilled holes in accordance with Section 078400 - Firestopping.
2. Pack sleeves in exterior walls or waterproofed walls above inside earth or finished floors with oakum to withstand 1/2 inch of each wall face, and finish both sides with Type 6 (one part) sealant. See Section 079200.

    a. Mechanical modular seals may be used in lieu of packing and sealant for sleeves and core drilled holes.

3. Pack sleeves in exterior concrete slabs with oakum to full depth, and within 1/2 inch of top of sleeve and finish the remainder with sealant. See Section 079200.

a. Sealant Types:

1) Piping conveying materials up to 140 degrees F, Type 6 (one part).

b. Mechanical modular seals may be used in lieu of packing and sealant for sleeves and core drilled holes.

E. Weld metal collars of Type D sleeves to the upper surface of the metal deck. Seal voids under the metal collar as recommended by the manufacturer of the metal deck.

3.4 COMMISSIONING

A. Provide commissioning services as outlined in the Appendix. Commissioning assistance shall be provided by a factory authorized representative and include radon fans, piping and associated controls.

END OF SECTION 312113

APPENDIX F

GROUNDWATER ANALYTICAL DATA

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

EQUIPMENT CALIBRATION LOG

PROJECT INFORMATION:

Project Name: Emerson Aug 2019 GWM

Date: 8-15-19

Project No.: 30441-018-001-002

Client: Emerson

Instrument Source: [X] BM [ ] Rental

METER TYPE	UNITS	TIME	MAKE/MODEL	SERIAL NUMBER	CAL. BY	STANDARD	POST CAL. READING	SETTINGS
[X] pH meter	units	0800	Myron L Company Ultra Meter 6P	6213516 [ ] 6243084 [ ] 6212375 [ ] 6243003 [ ] 6223973 [ ]	TAB	4.00 7.00 10.01	4.00 7.05 9.95	
[X] Turbidity meter	NTU	0800	Hach 2100P or 2100Q Turbidimeter	06120C020523 (P) [ ] 13120C030432 (Q) [X] 17110C062619 (Q) [ ]	TAB	10 NTU verification < 0.4 20 100 800	9.56	
[X] Sp. Cond. meter	uS mS	0800	Myron L Company Ultra Meter 6P	6213516 [ ] 6243084 [ ] 6212375 [ ] 6243003 [ ] 6223973 [ ]	TAB	7000 mS @ 25 °C	6998	
[ ] PID	ppm		MinRAE 2000			open air zero ____ ppm Iso. Gas		MIBK response factor = 1.0
[X] Dissolved Oxygen	ppm	0800	HACH Model HQ30d	080700023281 [ ] 100500041867 [ ] 140200100319 [X]	TAB	100% Satuartion	100 % 97 % slope	
[ ] Particulate meter	mg/m^3					zero air		
[ ] Radiation Meter	uR/H					background area		

ADDITIONAL REMARKS:

PREPARED BY: TAB **DATE:** 8/15/19

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

GROUNDWATER FIELD FORM

Project Name: 73-79 West Huron Date: 8-15-19

Location: Buffalo Project No.: B0441-018-000-002 Field Team: TAB + CEH

Well No. HMW-2 | Diameter (inches): 2 | Sample Date / Time: 8-15-19

Product Depth (fbTOR): | Water Column (ft): 7.58 | DTW when sampled:

DTW (static) (fbTOR): 9.65 | One Well Volume (gal): 1.24 | Purpose: ☐ Development ☐ Sample ☒ Purge & Sample

Total Depth (fbTOR): 17.23 | Total Volume Purged (gal): | Purge Method: Low Flow Submersible Pump

Time		Water Level (fbTOR)	Acc. Volume (gallons)	pH (units)	Temp. (deg. C)	SC (uS)	Turbidity (NTU)	DO (mg/L)	ORP (mV)	Appearance & Odor
1340	0	Initial		7.62	20.2	2705	>1000	0.89	-78	Turbid, no odor
1342	1	10.15	0.75	7.63	18.1	2382	>1000	1.71	-92	" " "
1344	2	10.15	1.25	7.64	17.7	2146	>1000	1.93	-98	" " "
1346	3	10.15	2.25	7.61	18.3	2011	776	1.34	-107	" " "
1348	4	10.25	3.00	7.70	17.9	1982	573	1.23	-115	" " "
1349	5	10.30	3.25	7.63	17.5	1910	447	1.71	-113	" " "
	6									
	7									
	8									
	9									
	10									
Sample Information:										
1353	S1	10.33	4.00	7.64	18.8	1898	662	1.47	-120	Turbid, no odor
	S2									

Well No. GSW-1 | Diameter (inches): | Sample Date / Time:

Product Depth (fbTOR): - | Water Column (ft): | DTW when sampled:

DTW (static) (fbTOR): 3.54 | One Well Volume (gal): | Purpose: ☐ Development ☒ Sample ☐ Purge & Sample

Total Depth (fbTOR): - | Total Volume Purged (gal): | Purge Method: Grab

Time		Water Level (fbTOR)	Acc. Volume (gallons)	pH (units)	Temp. (deg. C)	SC (uS)	Turbidity (NTU)	DO (mg/L)	ORP (mV)	Appearance & Odor
	0	Initial								
	1									
	2									
	3									
	4									
	5									
	6									
	7									
	8									
	9									
	10									
Sample Information:										
1500	S1	3.54	-	7.65	22.5	3371	25.2		49	Clear, no odor
	S2									

REMARKS:

Note: All water level measurements are in feet, distance from top of riser.

Volume Calculation

Diam.	Vol. (g/ft)
1"	0.041
2"	0.163
4"	0.653
6"	1.469

Stabilization Criteria

Parameter	Criteria
pH	± 0.1 unit
SC	± 3%
Turbidity	± 10%
DO	± 0.3 mg/L
ORP	± 10 mV

PREPARED BY: TAB

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

GROUNDWATER FIELD FORM

Project Name: 73-79 West Huron Date: 8-15-19

Location: Emerson Project No.: B0441-018-00-000 Field Team: TAB + CEH

Well No. MW-10			Diameter (inches): 4			Sample Date / Time: 8/15/19 1228			
Product Depth (fbTOR):			Water Column (ft): 5.38			DTW when sampled: 9.41			
DTW (static) (fbTOR): 9.10			One Well Volume (gal): 3.45			Purpose: ☐ Development ☐ Sample ☒ Purge & Sample			
Total Depth (fbTOR): 14.38			Total Volume Purged (gal):			Purge Method: Low Flow			
Time	Water Level (fbTOR)	Acc. Volume (gallons)	pH (units)	Temp. (deg. C)	SC (uS)	Turbidity (NTU)	DO (mg/L)	ORP (mV)	Appearance & Odor
1215	0 Initial	20.25	6.87	19.6	3022	52.9	1.74	-78	Black Fine
1218	1 9.41	1.0	6.86	18.0	3056	23.2	1.77	-86	"
1222	2 9.41	2.0	6.84	18.3	3009	19.4	1.84	-85	"
1225	3 9.41	3.0	6.86	18.4	2905	99.6	1.81	-83	"
~~1228~~	4								
	5								
	6								
	7								
	8								
	9								
	10								
Sample Information:									
1228	S1 9.41	4.0	6.83	18.3	2869	11.8	1.76	-82	
	S2								

Well No. MW-3			Diameter (inches): 2"			Sample Date / Time:			
Product Depth (fbTOR):			Water Column (ft): ~~7.05~~ 7.78			DTW when sampled:			
DTW (static) (fbTOR): 9.60			One Well Volume (gal): 1.26			Purpose: ☐ Development ☐ Sample ☐ Purge & Sample			
Total Depth (fbTOR): ~~16.55~~			Total Volume Purged (gal):			Purge Method:			
Time	Water Level (fbTOR)	Acc. Volume (gallons)	pH (units)	Temp. (deg. C)	SC (uS)	Turbidity (NTU)	DO (mg/L)	ORP (mV)	Appearance & Odor
1253	0 Initial	20.25	7.02	18.7	3339	86.9	8.10	-36	Slight Brown
1257	1 9.35	1.5	6.98	18.9	2885	54.7	9.43	-71	"
1300	2 9.35	2.5	6.98	17.9	2801	18.7	4.69	-76	"
1304	3 9.34	4.0	6.88	18.0	2804	5.25	4.62	-76	Clear "
	4								
	5								
	6								
	7								
	8								
	9								
	10								
Sample Information:									
1311	S1 9.35	5.0	6.97	19.2	2815	25.9	4.47	-76	"
	S2								

REMARKS:

Note: All water level measurements are in feet, distance from top of riser.

Volume Calculation

Diam.	Vol. (g/ft)
1"	0.041
2"	0.163
4"	0.653
6"	1.469

Stabilization Criteria

Parameter	Criteria
pH	± 0.1 unit
SC	± 3%
Turbidity	± 10%
DO	± 0.3 mg/L
ORP	± 10 mV

PREPARED BY: TAB

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

GROUNDWATER FIELD FORM

Project Name: 73-79 West Huron Date: 8-15-19

Location: Buffalo Project No.: B0491-018-00-002 Field Team: CEH

Well No. HMW-6			Diameter (inches): 2			Sample Date / Time: 8-15-19 / 0906			
Product Depth (fbTOR): 9.41			Water Column (ft): 7.87			DTW when sampled: 9.65			
DTW (static) (fbTOR): 17.28			One Well Volume (gal): 1.28			Purpose: ☐ Development ☐ Sample ☒ Purge & Sample			
Total Depth (fbTOR):			Total Volume Purged (gal):			Purge Method: ~~Bladder pump~~ Bailer			
Time	Water Level (fbTOR)	Acc. Volume (gallons)	pH (units)	Temp. (deg. C)	SC (uS)	Turbidity (NTU)	DO (mg/L)	ORP (mV)	Appearance & Odor
848	0 Initial	<0.25	7.38	15.6	4192	277	1.10	90	SC Turbid, no odor
858	1	1.30	7.33	17.4	4100	>1000	1.07	101	Turbid, no odor
900	2 9.65	2.60	7.25	16.3	3744	>1000	1.48	99	" " "
904	3 9.65	3.90	7.26	16.4	3678	>1000	1.37	99	" " "
	4								
	5								
	6								
	7								
	8								
	9								
	10								
Sample Information:									
0906	S1 9.65	3.90	7.22	16.8	3903	>1000	1.82	103	Turbid, no odor
0910	S2 9.48	4.00	7.32	16.5	3190	>1000	2.36	103	" " "

Well No. HMW-5			Diameter (inches): 2			Sample Date / Time: 8-15-19 / 0935			
Product Depth (fbTOR): -			Water Column (ft): 7.92			DTW when sampled: ~~935~~ 950			
DTW (static) (fbTOR): 9.31			One Well Volume (gal): 1.29			Purpose: ☐ Development ☐ Sample ☒ Purge & Sample			
Total Depth (fbTOR): 17.23			Total Volume Purged (gal):			Purge Method: Bailer			
Time	Water Level (fbTOR)	Acc. Volume (gallons)	pH (units)	Temp. (deg. C) 18.0	SC (uS)	Turbidity (NTU)	DO (mg/L)	ORP (mV)	Appearance & Odor
922	0 Initial	0	7.49	~~2451~~	2450	810	0.99	127	Td. 2 No odor
925	1 9.55	1.3	7.23	17.3	2719	>1000	1.73	108	"
927	2 9.50	2.6	7.27	17.4	2890	>1000	2.40	107	"
930	3 9.50	3.9	7.31	17.5	2925	>1000	2.30	109	"
	4								
	5								
	6								
	7								
	8								
	9								
	10								
Sample Information:									
935	S1 9.50	4.00	7.37	17.4	2895	>1000	2.24	107	Turbid, no odor
	S2								

REMARKS: Issues with Pump on HMW-6, used bailer to purge and sample.

Note: All water level measurements are in feet, distance from top of riser.

Volume Calculation

Diam.	Vol. (g/ft)
1"	0.041
2"	0.163
4"	0.653
6"	1.469

Stabilization Criteria

Parameter	Criteria
pH	± 0.1 unit
SC	± 3%
Turbidity	± 10%
DO	± 0.3 mg/L
ORP	± 10 mV

PREPARED BY: TA3

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

GROUNDWATER FIELD FORM

Project Name: 73-79 West Huron Date: 8-15-19

Location: Buffalo Project No. B0441-018-00-002 Field Team: CEH + TAB

Well No. HMW-1			Diameter (inches): 2			Sample Date / Time: 8-15-19 / 1118			
Product Depth (fbTOR): HMW-1			Water Column (ft): 5.76			DTW when sampled: 11.70			
DTW (static) (fbTOR): 11.55			One Well Volume (gal): 0.94			Purpose: ☐ Development ☐ Sample ☒ Purge & Sample			
Total Depth (fbTOR): 17.31			Total Volume Purged (gal):			Purge Method: Low Flow Sub Pump			
Time	Water Level (fbTOR)	Acc. Volume (gallons)	pH (units)	Temp. (deg. C)	SC (uS)	Turbidity (NTU)	DO (mg/L)	ORP (mV)	Appearance & Odor
1103	0 Initial		7.57	20.1	3600	179	1.54	164	SL Turbid, no odor
1112	1 11.70	1.00	7.47	19.3	3656	34.2	1.06	133	clear, no odor
1114	2 11.70	2.00	7.52	18.3	3736	13.8	1.45	131	" " "
1116	3 11.70	3.00	7.46	18.6	3688	18.2	1.50	126	" " "
	4								
	5								
	6								
	7								
	8								
	9								
	10								
Sample Information:									
1118	S1 11.70	4.00	7.46	18.1	3730	9.64	1.37	123	clear, no odor
	S2								

Well No. HMW-4			Diameter (inches): 2			Sample Date / Time: 8-15-19 / 1153			
Product Depth (fbTOR):			Water Column (ft): 6.93			DTW when sampled: 10.04			
DTW (static) (fbTOR): 9.50			One Well Volume (gal): 1.13			Purpose: ☐ Development ☐ Sample ☒ Purge & Sample			
Total Depth (fbTOR): 16.43			Total Volume Purged (gal):			Purge Method: Low Flow Sub Pump			
Time	Water Level (fbTOR)	Acc. Volume (gallons)	pH (units)	Temp. (deg. C)	SC (uS)	Turbidity (NTU)	DO (mg/L)	ORP (mV)	Appearance & Odor
1138	0 Initial		7.32	19.7	1890	463	1.94	139	Turbid, No odor
1140	1 9.89	0.75	7.16	18.7	1798	>1000	2.31	117	" " "
1143	2 9.95	1.50	7.31	18.7	1880	741	2.20	106	" " "
1148	3 10.00	2.50	7.18	22.6	1885	229	2.51	87	SL Turbid, no odor
1150	4 10.02	3.25	7.02	18.4	2000	202	1.87	63	" " "
	5								
	6								
	7								
	8								
	9								
	10								
Sample Information:									
1153	S1 10.04	4.00	7.03	18.1	2031	158	1.69	48	SL Turbid, no odor
	S2								

REMARKS:

Note: All water level measurements are in feet, distance from top of riser.

Volume Calculation

Diam.	Vol. (g/ft)
1"	0.041
2"	0.163
4"	0.653
6"	1.469

Stabilization Criteria

Parameter	Criteria
pH	± 0.1 unit
SC	± 3%
Turbidity	± 10%
DO	± 0.3 mg/L
ORP	± 10 mV

PREPARED BY: TAD

TurnKey Environmental Restoration, LLC

Sheet _____ of _____
Project No. _____
By _____ Date _____
Checked _____ Date _____
Subject _____

8/15/19

BM	+	HI	−	Elevation	
MW-10				606.44	TOR
	6.44				
		612.88			
HMW-2			5.71	607.17	TOR
HMW-3			6.43	606.45	TOR
HMW-4			6.13	606.75	TOR
MW-10			6.44	606.44	TOR

GSW-1 Finished Floor = 599.62 ← Provided by Buffalo Construction
(corrugated) Riser − 0.40"
600.02 Elevation

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

EQUIPMENT CALIBRATION LOG

PROJECT INFORMATION:

Project Name: Emerson GWM

Project No.: B0441-020-001

Client: Emerson

Date: 2/11/20

Instrument Source: ☐ BM ☐ Rental

METER TYPE	UNITS	TIME	MAKE/MODEL	SERIAL NUMBER	CAL. BY	STANDARD	POST CAL. READING	SETTINGS
☒ pH meter	units	0730	Myron L Company Ultra Meter 6P	6213516 ☐ 6243084 ☐ 6212375 ☒ 6243003 ☐ 6223973 ☐	TAB	4.00 7.00 10.01	4.01 6.95 9.97	4.0 7.0 10.0
☒ Turbidity meter	NTU	0730	Hach 2100P or 2100Q Turbidimeter	06120C020523 (P) ☐ 13120C030432 (Q) ☐ 17110C062619 (Q) ☒	TAB	10 NTU verification < 0.4 20 100 800	9.42	
☒ Sp. Cond. meter	uS mS		Myron L Company Ultra Meter 6P	6213516 ☐ 6243084 ☐ 6212375 ☒ 6243003 ☐ 6223973 ☐	TAB	7.000 mS @ 25 °C	7.001	7.000
☐ PID	ppm		MinRAE 2000			open air zero _____ ppm Iso. Gas		MIBK response factor = 1.0
☒ Dissolved Oxygen	ppm	0730	HACH Model HQ30d	080700023281 ☐ 100500041867 ☐ 140200100319 ☒	TAB	100% Satuartion	✓ 100% Sat.	98.6%
☐ Particulate meter	mg/m^3					zero air		
☐ Radiation Meter	uR/H					background area		

ADDITIONAL REMARKS:

PREPARED BY: TAB **DATE:** 2/11/20

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

SAMPLE COLLECTION LOG

PROJECT INFORMATION

Project Name: Emerdon School GWM
Project No.: B0441-020-001-001
Client: 73-79 W. Huron Street
Location: Buffalo, NY

SAMPLE DESCRIPTION

I.D.: GSW-1

Matrix: ☐ SURFACE WATER ☐ STORM ☐ SEEP ☑ GROUNDWATER ☐ INFLUENT ☐ EFFLUENT

SAMPLE INFORMATION

Date Collected: 2/11/20
Time Collected: 1350
Date Shipped to Lab: 2/11/20
Collected By: TAB

Sample Type: ☑ POINT ☐ GRAB ☐ COMPOSITE

Sample Collection Method: ☑ DIRECT DIP ☐ SS / POLY. DIPPER ☐ PERISTALTIC PUMP ☐ POLY. DISP. BAILER ☐ ISCO SAMPLER ☐ HYDROSLEEVE

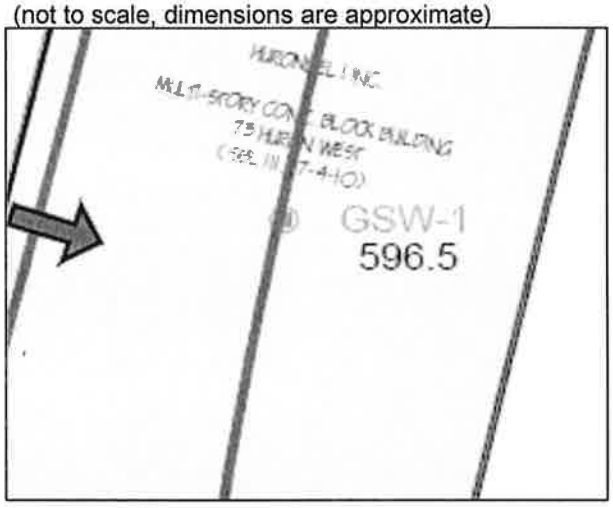
SAMPLING INFORMATION

Depth to Water: 3.07

Parameter	First	Last	Units
pH	7.45		units
Temp.	11.9		°C
Cond.	3614		mS
Turbidity	3.07		NTU
Eh / ORP	-74		mV
D.O.	3.45		ppm
Odor	None		olfactory
Appearance	clear		visual

LOCATION SKETCH

(not to scale, dimensions are approximate)



SAMPLE DESCRIPTION (appearance, olfactory):

SAMPLE ANALYSIS (depth, laboratory analysis required):

ADDITIONAL REMARKS:

PREPARED BY: TAB **DATE:** 2/11/20

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

GROUNDWATER FIELD FORM

Project Name: Emerson School GWM Date: 2/11/20

Location: Buffalo Project No.: Field Team: TAB

Well No. HMW-6			Diameter (inches): 2"			Sample Date / Time:			
Product Depth (fbTOR): -			Water Column (ft): 8.25			DTW when sampled:			
DTW (static) (fbTOR): 9.03			One Well Volume (gal): 1.34			Purpose: ☐ Development ☐ Sample ☐ Purge & Sample			
Total Depth (fbTOR): 17.28			Total Volume Purged (gal): 4.03			Purge Method:			
Time	Water Level (fbTOR)	Acc. Volume (gallons)	pH (units)	Temp. (deg. C)	SC (uS)	Turbidity (NTU)	DO (mg/L)	ORP (mV)	Appearance & Odor
823	0 Initial	>0.25	6.27	9.9	5723	158	8.02	164	SL Turbid No odor
825	1 9.51	1.75	6.47	12.0	5503	63.9	6.26	153	"
828	2 9.41	2.25	6.68	12.2	4699	3.20	5.37	146	"
830	3 9.36	3.0	6.71	12.7	4204	23.8	4.96	141	"
833	4 9.38	3.25	6.99	12.5	3893	16.6	4.41	138	"
835	5 9.37	4.0	6.94	12.7	3666	12.3	3.98	153	"
	6								
	7								
	8								
	9								
	10								
Sample Information:									
837	S1 9.39	4.25	7.0	12.7	3577	10.7	3.96	132	"
	S2								

Well No. HMW-5			Diameter (inches): 2"			Sample Date / Time:			
Product Depth (fbTOR): -			Water Column (ft): 8.31			DTW when sampled:			
DTW (static) (fbTOR): 8.91			One Well Volume (gal): 1.35			Purpose: ☐ Development ☐ Sample ☐ Purge & Sample			
Total Depth (fbTOR): 17.22			Total Volume Purged (gal): 4.06			Purge Method:			
Time	Water Level (fbTOR)	Acc. Volume (gallons)	pH (units)	Temp. (deg. C)	SC (uS)	Turbidity (NTU)	DO (mg/L)	ORP (mV)	Appearance & Odor
859	0 Initial	>0.25	7.07	10.7	4410	130	2.68	131	SL Turb No odor
901	1 9.44	1.75	7.08	12.5	4177	61.8	2.65	119	"
904	2 9.44	3.0	7.07	13.2	3783	36.8	2.69	114	"
906	3 9.44	4.0	7.06	12.8	3639	21.9	3.08	111	clear No odor
911	4 ?								
	5								
	6								
	7								
	8								
	9								
	10								
Sample Information:									
911	S1 9.44	4.50	7.14	12.7	3356	13.3	2.86	108	"
	S2								

REMARKS:

Note: All water level measurements are in feet, distance from top of riser.

Volume Calculation

Diam.	Vol. (g/ft)
1"	0.041
2"	0.163
4"	0.653
6"	1.469

Stabilization Criteria

Parameter	Criteria
pH	± 0.1 unit
SC	± 3%
Turbidity	± 10%
DO	± 0.3 mg/L
ORP	± 10 mV

PREPARED BY: TAB

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

GROUNDWATER FIELD FORM

Project Name: Date:

Location: Project No.: Field Team:

Well No. HMW-4			Diameter (inches): 2"			Sample Date / Time:			
Product Depth (fbTOR): -			Water Column (ft): 7.53			DTW when sampled:			
DTW (static) (fbTOR): 9.16			One Well Volume (gal): 1.22			Purpose: ☐ Development ☐ Sample ☐ Purge & Sample			
Total Depth (fbTOR): 16.68			Total Volume Purged (gal): 4.0			Purge Method:			
Time	Water Level (fbTOR)	Acc. Volume (gallons)	pH (units)	Temp. (deg. C)	SC (uS)	Turbidity (NTU)	DO (mg/L)	ORP (mV)	Appearance & Odor
948	0 Initial	>0.25	7.30	8.3	2649	70.0	5.92	133	sl Turb No odor
952	1 16.73	1.25	7.12	9.7	2630	101	5.87	136	"
954	2 16.81	2.25	7.05	9.8	2592	55.6	4.92	139	"
956	3 16.81	3.0	7.01	9.9	2611	36.0	4.66	129	
	4								
	5								
	6								
	7								
	8								
	9								
	10								
Sample Information:									
1004	S1 16.91	4.0	7.03	8.0	2575	25.2	4.56	105	"
	S2								

Well No. HMW-1			Diameter (inches): 2"			Sample Date / Time:			
Product Depth (fbTOR): -			Water Column (ft): 6.14			DTW when sampled:			
DTW (static) (fbTOR): 11.15			One Well Volume (gal): 1.0			Purpose: ☐ Development ☐ Sample ☐ Purge & Sample			
Total Depth (fbTOR): 17.29			Total Volume Purged (gal):			Purge Method:			
Time	Water Level (fbTOR)	Acc. Volume (gallons)	pH (units)	Temp. (deg. C)	SC (uS)	Turbidity (NTU)	DO (mg/L)	ORP (mV)	Appearance & Odor
1035	0 Initial	<0.25	7.16	8.9	3494	39.1	2.43	84	Turbid No odor
1038	1 11.31	1.0	7.24	11.2	3362	82.1	1.82	91	sl Turbid "
1041	2 11.31	2.0	7.27	11.5	3379	14.1	2.09	96	"
1045	3 11.31	3.0	7.38	11.5	3325	7.36	1.63	104	clear "
	4								
	5								
	6								
	7								
	8								
	9								
	10								
Sample Information:									
1050	S1 11.31	4.0	7.44	11.7	3281	4.62		107	"
	S2								

REMARKS:

Note: All water level measurements are in feet, distance from top of riser.

Volume Calculation

Diam.	Vol. (g/ft)
1"	0.041
2"	0.163
4"	0.653
6"	1.469

Stabilization Criteria

Parameter	Criteria
pH	± 0.1 unit
SC	± 3%
Turbidity	± 10%
DO	± 0.3 mg/L
ORP	± 10 mV

PREPARED BY:

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

GROUNDWATER FIELD FORM

Project Name: Emerson GWM Date: 2/11/20

Location: Buffalo Project No.: Field Team: TAB

Well No. MW-3			Diameter (inches): 2"			Sample Date / Time: 2/11/20 1324				
Product Depth (fbTOR): —			Water Column (ft): 7.81			DTW when sampled: 8.95				
DTW (static) (fbTOR): 8.67			One Well Volume (gal): 1.27			Purpose: ☐ Development ☐ Sample ☒ Purge & Sample				
Total Depth (fbTOR): 16.48			Total Volume Purged (gal): 4.25			Purge Method: Low Flow				
Time	Water Level (fbTOR)	Acc. Volume (gallons)	pH (units)	Temp. (deg. C)	SC (uS)	Turbidity (NTU)	DO (mg/L)	ORP (mV)	Appearance & Odor	
1256	0 Initial	70.25	6.92	9.4	2701	32.3	1.75	-50	Slt clay Petro	
1258	1 8.91	1.0	6.67	10.5	2770	22.6	1.57	-63	"	
1301	2 8.95	2.0	6.65	10.6	2720	26.1	2.38	-63	"	
1313	3 8.95	2.5	6.96	3.8	2971	30.0	1.94	-64	"	
1311	4 8.95	3.25	6.85	9.4	3009	11.0	1.47	-57	"	
1315	5 8.95	4.0	6.73	9.3	2986	4.55	1.25	-59		
	6									
	7									
	8									
	9									
	10									
Sample Information:										
1324	S1 8.95	4.75	6.79	8.7	2997	3.74	1.41	-60	"	
	S2									

Well No.			Diameter (inches):			Sample Date / Time:				
Product Depth (fbTOR):			Water Column (ft):			DTW when sampled:				
DTW (static) (fbTOR):			One Well Volume (gal):			Purpose: ☐ Development ☐ Sample ☐ Purge & Sample				
Total Depth (fbTOR):			Total Volume Purged (gal):			Purge Method: grab				
Time	Water Level (fbTOR)	Acc. Volume (gallons)	pH (units)	Temp. (deg. C)	SC (uS)	Turbidity (NTU)	DO (mg/L)	ORP (mV)	Appearance & Odor	
	0 Initial									
	1									
	2									
	3									
	4									
	5									
	6									
	7									
	8									
	9									
	10									
Sample Information:										
	S1									
	S2									

REMARKS:

Note: All water level measurements are in feet, distance from top of riser.

Volume Calculation

Diam.	Vol. (g/ft)
1"	0.041
2"	0.163
4"	0.653
6"	1.469

Stabilization Criteria

Parameter	Criteria
pH	± 0.1 unit
SC	± 3%
Turbidity	± 10%
DO	± 0.3 mg/L
ORP	± 10 mV

PREPARED BY: TAB

ANALYTICAL REPORT

Lab Number:	L1937130
Client:	Benchmark & Turnkey Companies 2558 Hamburg Turnpike Suite 300 Buffalo, NY 14218
ATTN:	Tom Forbes
Phone:	(716) 856-0599
Project Name:	73-79 W. HURON
Project Number:	B0441-018-001-001
Report Date:	08/27/19

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

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

Project Name: 73-79 W. HURON
Project Number: B0441-018-001-001

Lab Number: L1937130
Report Date: 08/27/19

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1937130-01	GSW-1	WATER	BUFFALO	08/15/19 15:00	08/16/19
L1937130-02	HMW-1	WATER	BUFFALO	08/15/19 11:18	08/16/19
L1937130-03	HMW-2	WATER	BUFFALO	08/15/19 13:53	08/16/19
L1937130-04	HMW-3	WATER	BUFFALO	08/15/19 13:11	08/16/19
L1937130-05	HMW-4	WATER	BUFFALO	08/15/19 11:53	08/16/19
L1937130-06	HMW-5	WATER	BUFFALO	08/15/19 09:06	08/16/19
L1937130-07	HMW-6	WATER	BUFFALO	08/15/19 09:35	08/16/19
L1937130-08	MW-10	WATER	BUFFALO	08/15/19 12:28	08/16/19

Project Name:	73-79 W. HURON	**Lab Number:**	L1937130
Project Number:	B0441-018-001-001	**Report Date:**	08/27/19

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. 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 Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data 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.

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 Alpha Project Manager 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 Project Management at 800-624-9220 with any questions.

Project Name: 73-79 W. HURON
Project Number: B0441-018-001-001

Lab Number: L1937130
Report Date: 08/27/19

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.

Volatile Organics

L1937130-05: The sample has elevated detection limits due to the dilution required by the elevated concentrations of non-target compounds in the sample.

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: Amita Naik

Title: Technical Director/Representative Date: 08/27/19

ORGANICS

VOLATILES

Project Name: 73-79 W. HURON
Lab Number: L1937130
Project Number: B0441-018-001-001
Report Date: 08/27/19

SAMPLE RESULTS

Lab ID: L1937130-01 D
Client ID: GSW-1
Sample Location: BUFFALO

Date Collected: 08/15/19 15:00
Date Received: 08/16/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 08/24/19 11:52
Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	6.2	1.8	2.5
1,1-Dichloroethane	ND		ug/l	6.2	1.8	2.5
Chloroform	ND		ug/l	6.2	1.8	2.5
Carbon tetrachloride	ND		ug/l	1.2	0.34	2.5
1,2-Dichloropropane	ND		ug/l	2.5	0.34	2.5
Dibromochloromethane	ND		ug/l	1.2	0.37	2.5
1,1,2-Trichloroethane	ND		ug/l	3.8	1.2	2.5
Tetrachloroethene	300		ug/l	1.2	0.45	2.5
Chlorobenzene	ND		ug/l	6.2	1.8	2.5
Trichlorofluoromethane	ND		ug/l	6.2	1.8	2.5
1,2-Dichloroethane	ND		ug/l	1.2	0.33	2.5
1,1,1-Trichloroethane	ND		ug/l	6.2	1.8	2.5
Bromodichloromethane	ND		ug/l	1.2	0.48	2.5
trans-1,3-Dichloropropene	ND		ug/l	1.2	0.41	2.5
cis-1,3-Dichloropropene	ND		ug/l	1.2	0.36	2.5
Bromoform	ND		ug/l	5.0	1.6	2.5
1,1,2,2-Tetrachloroethane	ND		ug/l	1.2	0.42	2.5
Benzene	ND		ug/l	1.2	0.40	2.5
Toluene	ND		ug/l	6.2	1.8	2.5
Ethylbenzene	ND		ug/l	6.2	1.8	2.5
Chloromethane	ND		ug/l	6.2	1.8	2.5
Bromomethane	ND		ug/l	6.2	1.8	2.5
Vinyl chloride	ND		ug/l	2.5	0.18	2.5
Chloroethane	ND		ug/l	6.2	1.8	2.5
1,1-Dichloroethene	ND		ug/l	1.2	0.42	2.5
trans-1,2-Dichloroethene	ND		ug/l	6.2	1.8	2.5
Trichloroethene	14		ug/l	1.2	0.44	2.5
1,2-Dichlorobenzene	ND		ug/l	6.2	1.8	2.5

Project Name: 73-79 W. HURON **Lab Number:** L1937130

Project Number: B0441-018-001-001 **Report Date:** 08/27/19

SAMPLE RESULTS

Lab ID: L1937130-01 D Date Collected: 08/15/19 15:00
Client ID: GSW-1 Date Received: 08/16/19
Sample Location: BUFFALO Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	6.2	1.8	2.5
1,4-Dichlorobenzene	ND		ug/l	6.2	1.8	2.5
Methyl tert butyl ether	ND		ug/l	6.2	1.8	2.5
p/m-Xylene	ND		ug/l	6.2	1.8	2.5
o-Xylene	ND		ug/l	6.2	1.8	2.5
cis-1,2-Dichloroethene	28		ug/l	6.2	1.8	2.5
Styrene	ND		ug/l	6.2	1.8	2.5
Dichlorodifluoromethane	ND		ug/l	12	2.5	2.5
Acetone	170		ug/l	12	3.6	2.5
Carbon disulfide	ND		ug/l	12	2.5	2.5
2-Butanone	85		ug/l	12	4.8	2.5
4-Methyl-2-pentanone	ND		ug/l	12	2.5	2.5
2-Hexanone	ND		ug/l	12	2.5	2.5
Bromochloromethane	ND		ug/l	6.2	1.8	2.5
1,2-Dibromoethane	ND		ug/l	5.0	1.6	2.5
n-Butylbenzene	ND		ug/l	6.2	1.8	2.5
sec-Butylbenzene	ND		ug/l	6.2	1.8	2.5
1,2-Dibromo-3-chloropropane	ND		ug/l	6.2	1.8	2.5
Isopropylbenzene	ND		ug/l	6.2	1.8	2.5
p-Isopropyltoluene	ND		ug/l	6.2	1.8	2.5
n-Propylbenzene	ND		ug/l	6.2	1.8	2.5
1,2,3-Trichlorobenzene	ND		ug/l	6.2	1.8	2.5
1,2,4-Trichlorobenzene	ND		ug/l	6.2	1.8	2.5
1,3,5-Trimethylbenzene	ND		ug/l	6.2	1.8	2.5
1,2,4-Trimethylbenzene	ND		ug/l	6.2	1.8	2.5
Methyl Acetate	ND		ug/l	5.0	0.58	2.5
Cyclohexane	ND		ug/l	25	0.68	2.5
1,4-Dioxane	ND		ug/l	620	150	2.5
Freon-113	ND		ug/l	6.2	1.8	2.5
Methyl cyclohexane	ND		ug/l	25	0.99	2.5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	122		70-130
Toluene-d8	108		70-130
4-Bromofluorobenzene	112		70-130
Dibromofluoromethane	103		70-130

Project Name: 73-79 W. HURON
Project Number: B0441-018-001-001
Lab Number: L1937130
Report Date: 08/27/19

SAMPLE RESULTS

Lab ID: L1937130-02
Client ID: HMW-1
Sample Location: BUFFALO
Date Collected: 08/15/19 11:18
Date Received: 08/16/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 08/24/19 12:18
Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough 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	0.21	J	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	ND		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

Project Name: 73-79 W. HURON
Project Number: B0441-018-001-001
Lab Number: L1937130
Report Date: 08/27/19

SAMPLE RESULTS

Lab ID: L1937130-02
Client ID: HMW-1
Sample Location: BUFFALO
Date Collected: 08/15/19 11:18
Date Received: 08/16/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
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
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	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
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	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	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	123		70-130
Toluene-d8	107		70-130
4-Bromofluorobenzene	108		70-130
Dibromofluoromethane	105		70-130

Project Name: 73-79 W. HURON
Project Number: B0441-018-001-001
Lab Number: L1937130
Report Date: 08/27/19

SAMPLE RESULTS

Lab ID: L1937130-03
Client ID: HMW-2
Sample Location: BUFFALO

Date Collected: 08/15/19 13:53
Date Received: 08/16/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 08/24/19 12:44
Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough 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	7.8		ug/l	2.5	0.70	1
Ethylbenzene	30		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	ND		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

Project Name: 73-79 W. HURON
Project Number: B0441-018-001-001
Lab Number: L1937130
Report Date: 08/27/19

SAMPLE RESULTS

Lab ID: L1937130-03
Client ID: HMW-2
Sample Location: BUFFALO
Date Collected: 08/15/19 13:53
Date Received: 08/16/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
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	72		ug/l	2.5	0.70	1
o-Xylene	35		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	16		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	4.9	J	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
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	12		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	3.1		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
1,3,5-Trimethylbenzene	3.4		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	5.2		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	42		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	0.89	J	ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	115		70-130
Toluene-d8	110		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	94		70-130

Project Name: 73-79 W. HURON
Project Number: B0441-018-001-001
Lab Number: L1937130
Report Date: 08/27/19

SAMPLE RESULTS

Lab ID: L1937130-04
Client ID: HMW-3
Sample Location: BUFFALO

Date Collected: 08/15/19 13:11
Date Received: 08/16/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 08/24/19 13:09
Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough 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	11		ug/l	2.5	0.70	1
Ethylbenzene	8.6		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	ND		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

Project Name: 73-79 W. HURON
Project Number: B0441-018-001-001
Lab Number: L1937130
Report Date: 08/27/19

SAMPLE RESULTS

Lab ID: L1937130-04
Client ID: HMW-3
Sample Location: BUFFALO
Date Collected: 08/15/19 13:11
Date Received: 08/16/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
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	4.6		ug/l	2.5	0.70	1
o-Xylene	4.3		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
n-Butylbenzene	7.3		ug/l	2.5	0.70	1
sec-Butylbenzene	6.0		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	8.3		ug/l	2.5	0.70	1
p-Isopropyltoluene	2.6		ug/l	2.5	0.70	1
n-Propylbenzene	66		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
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	4.3		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	12		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	16		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	111		70-130
Toluene-d8	108		70-130
4-Bromofluorobenzene	94		70-130
Dibromofluoromethane	95		70-130

Project Name: 73-79 W. HURON
Project Number: B0441-018-001-001
Lab Number: L1937130
Report Date: 08/27/19

SAMPLE RESULTS

Lab ID: L1937130-05 D
Client ID: HMW-4
Sample Location: BUFFALO

Date Collected: 08/15/19 11:53
Date Received: 08/16/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 08/27/19 12:31
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	12	3.5	5
1,1-Dichloroethane	ND		ug/l	12	3.5	5
Chloroform	ND		ug/l	12	3.5	5
Carbon tetrachloride	ND		ug/l	2.5	0.67	5
1,2-Dichloropropane	ND		ug/l	5.0	0.68	5
Dibromochloromethane	ND		ug/l	2.5	0.74	5
1,1,2-Trichloroethane	ND		ug/l	7.5	2.5	5
Tetrachloroethene	ND		ug/l	2.5	0.90	5
Chlorobenzene	ND		ug/l	12	3.5	5
Trichlorofluoromethane	ND		ug/l	12	3.5	5
1,2-Dichloroethane	ND		ug/l	2.5	0.66	5
1,1,1-Trichloroethane	ND		ug/l	12	3.5	5
Bromodichloromethane	ND		ug/l	2.5	0.96	5
trans-1,3-Dichloropropene	ND		ug/l	2.5	0.82	5
cis-1,3-Dichloropropene	ND		ug/l	2.5	0.72	5
Bromoform	ND		ug/l	10	3.2	5
1,1,2,2-Tetrachloroethane	ND		ug/l	2.5	0.84	5
Benzene	ND		ug/l	2.5	0.80	5
Toluene	ND		ug/l	12	3.5	5
Ethylbenzene	ND		ug/l	12	3.5	5
Chloromethane	ND		ug/l	12	3.5	5
Bromomethane	ND		ug/l	12	3.5	5
Vinyl chloride	ND		ug/l	5.0	0.36	5
Chloroethane	ND		ug/l	12	3.5	5
1,1-Dichloroethene	ND		ug/l	2.5	0.84	5
trans-1,2-Dichloroethene	ND		ug/l	12	3.5	5
Trichloroethene	ND		ug/l	2.5	0.88	5
1,2-Dichlorobenzene	ND		ug/l	12	3.5	5

Project Name: 73-79 W. HURON **Lab Number:** L1937130

Project Number: B0441-018-001-001 **Report Date:** 08/27/19

SAMPLE RESULTS

Lab ID: L1937130-05 D Date Collected: 08/15/19 11:53
Client ID: HMW-4 Date Received: 08/16/19
Sample Location: BUFFALO Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	12	3.5	5
1,4-Dichlorobenzene	ND		ug/l	12	3.5	5
Methyl tert butyl ether	ND		ug/l	12	3.5	5
p/m-Xylene	ND		ug/l	12	3.5	5
o-Xylene	ND		ug/l	12	3.5	5
cis-1,2-Dichloroethene	ND		ug/l	12	3.5	5
Styrene	ND		ug/l	12	3.5	5
Dichlorodifluoromethane	ND		ug/l	25	5.0	5
Acetone	ND		ug/l	25	7.3	5
Carbon disulfide	ND		ug/l	25	5.0	5
2-Butanone	ND		ug/l	25	9.7	5
4-Methyl-2-pentanone	ND		ug/l	25	5.0	5
2-Hexanone	ND		ug/l	25	5.0	5
Bromochloromethane	ND		ug/l	12	3.5	5
1,2-Dibromoethane	ND		ug/l	10	3.2	5
n-Butylbenzene	3.9	J	ug/l	12	3.5	5
sec-Butylbenzene	6.8	J	ug/l	12	3.5	5
1,2-Dibromo-3-chloropropane	ND		ug/l	12	3.5	5
Isopropylbenzene	43		ug/l	12	3.5	5
p-Isopropyltoluene	ND		ug/l	12	3.5	5
n-Propylbenzene	98		ug/l	12	3.5	5
1,2,3-Trichlorobenzene	ND		ug/l	12	3.5	5
1,2,4-Trichlorobenzene	ND		ug/l	12	3.5	5
1,3,5-Trimethylbenzene	ND		ug/l	12	3.5	5
1,2,4-Trimethylbenzene	280		ug/l	12	3.5	5
Methyl Acetate	ND		ug/l	10	1.2	5
Cyclohexane	90		ug/l	50	1.4	5
1,4-Dioxane	ND		ug/l	1200	300	5
Freon-113	ND		ug/l	12	3.5	5
Methyl cyclohexane	13	J	ug/l	50	2.0	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	99		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	93		70-130

Project Name: 73-79 W. HURON
Project Number: B0441-018-001-001
Lab Number: L1937130
Report Date: 08/27/19

SAMPLE RESULTS

Lab ID: L1937130-06
Client ID: HMW-5
Sample Location: BUFFALO
Date Collected: 08/15/19 09:06
Date Received: 08/16/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 08/24/19 14:01
Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	10		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	0.29	J	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	ND		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

Project Name: 73-79 W. HURON
Project Number: B0441-018-001-001
Lab Number: L1937130
Report Date: 08/27/19

SAMPLE RESULTS

Lab ID: L1937130-06
Client ID: HMW-5
Sample Location: BUFFALO
Date Collected: 08/15/19 09:06
Date Received: 08/16/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
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
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	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
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	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	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	110		70-130
Toluene-d8	104		70-130
4-Bromofluorobenzene	105		70-130
Dibromofluoromethane	103		70-130

Project Name: 73-79 W. HURON
Project Number: B0441-018-001-001
Lab Number: L1937130
Report Date: 08/27/19

SAMPLE RESULTS

Lab ID: L1937130-07
Client ID: HMW-6
Sample Location: BUFFALO

Date Collected: 08/15/19 09:35
Date Received: 08/16/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 08/24/19 14:26
Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough 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	0.34	J	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	ND		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

Project Name: 73-79 W. HURON
Project Number: B0441-018-001-001
Lab Number: L1937130
Report Date: 08/27/19

SAMPLE RESULTS

Lab ID: L1937130-07
Client ID: HMW-6
Sample Location: BUFFALO
Date Collected: 08/15/19 09:35
Date Received: 08/16/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
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
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	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
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	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	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	112		70-130
Toluene-d8	105		70-130
4-Bromofluorobenzene	107		70-130
Dibromofluoromethane	101		70-130

Project Name: 73-79 W. HURON
Project Number: B0441-018-001-001
Lab Number: L1937130
Report Date: 08/27/19

SAMPLE RESULTS

Lab ID: L1937130-08
Client ID: MW-10
Sample Location: BUFFALO

Date Collected: 08/15/19 12:28
Date Received: 08/16/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 08/24/19 14:52
Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough 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	4.6		ug/l	2.5	0.70	1
Ethylbenzene	160		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	ND		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

Project Name: 73-79 W. HURON
Project Number: B0441-018-001-001
Lab Number: L1937130
Report Date: 08/27/19

SAMPLE RESULTS

Lab ID: L1937130-08
Client ID: MW-10
Sample Location: BUFFALO
Date Collected: 08/15/19 12:28
Date Received: 08/16/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
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	73		ug/l	2.5	0.70	1
o-Xylene	14		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
n-Butylbenzene	5.4		ug/l	2.5	0.70	1
sec-Butylbenzene	5.7		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	33		ug/l	2.5	0.70	1
p-Isopropyltoluene	1.3	J	ug/l	2.5	0.70	1
n-Propylbenzene	65		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
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	62		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	95		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	48		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	109		70-130
Toluene-d8	108		70-130
4-Bromofluorobenzene	106		70-130
Dibromofluoromethane	78		70-130

Project Name: 73-79 W. HURON
Project Number: B0441-018-001-001
Lab Number: L1937130
Report Date: 08/27/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 08/24/19 10:36
Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-04,06-08 Batch: WG1276861-5					
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: 73-79 W. HURON
Project Number: B0441-018-001-001
Lab Number: L1937130
Report Date: 08/27/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 08/24/19 10:36
Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-04,06-08 Batch: WG1276861-5					
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
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
n-Propylbenzene	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
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	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

Project Name: 73-79 W. HURON
Project Number: B0441-018-001-001
Lab Number: L1937130
Report Date: 08/27/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 08/24/19 10:36
Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-04,06-08 Batch: WG1276861-5					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	117		70-130
Toluene-d8	106		70-130
4-Bromofluorobenzene	111		70-130
Dibromofluoromethane	103		70-130

Project Name: 73-79 W. HURON
Project Number: B0441-018-001-001
Lab Number: L1937130
Report Date: 08/27/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 08/27/19 11:14
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 05 Batch: WG1277267-5					
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: 73-79 W. HURON
Project Number: B0441-018-001-001
Lab Number: L1937130
Report Date: 08/27/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 08/27/19 11:14
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 05 Batch: WG1277267-5					
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
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
n-Propylbenzene	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
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	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

Project Name: 73-79 W. HURON
Project Number: B0441-018-001-001
Lab Number: L1937130
Report Date: 08/27/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 08/27/19 11:14
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 05 Batch: WG1277267-5					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	98		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	106		70-130
Dibromofluoromethane	95		70-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: 73-79 W. HURON
Project Number: B0441-018-001-001

Lab Number: L1937130
Report Date: 08/27/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-04,06-08 Batch: WG1276861-3 WG1276861-4								
Methylene chloride	96		94		70-130	2		20
1,1-Dichloroethane	100		100		70-130	0		20
Chloroform	100		100		70-130	0		20
Carbon tetrachloride	95		92		63-132	3		20
1,2-Dichloropropane	100		100		70-130	0		20
Dibromochloromethane	96		99		63-130	3		20
1,1,2-Trichloroethane	100		110		70-130	10		20
Tetrachloroethene	82		82		70-130	0		20
Chlorobenzene	97		98		75-130	1		20
Trichlorofluoromethane	92		90		62-150	2		20
1,2-Dichloroethane	110		110		70-130	0		20
1,1,1-Trichloroethane	96		93		67-130	3		20
Bromodichloromethane	100		100		67-130	0		20
trans-1,3-Dichloropropene	100		100		70-130	0		20
cis-1,3-Dichloropropene	98		97		70-130	1		20
Bromoform	92		92		54-136	0		20
1,1,2,2-Tetrachloroethane	100		100		67-130	0		20
Benzene	110		100		70-130	10		20
Toluene	98		98		70-130	0		20
Ethylbenzene	98		99		70-130	1		20
Chloromethane	97		97		64-130	0		20
Bromomethane	**140**	Q	**140**	Q	39-139	0		20
Vinyl chloride	100		100		55-140	0		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: 73-79 W. HURON

Project Number: B0441-018-001-001

Lab Number: L1937130

Report Date: 08/27/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-04,06-08 Batch: WG1276861-3 WG1276861-4								
Chloroethane	110		120		55-138	9		20
1,1-Dichloroethene	92		87		61-145	6		20
trans-1,2-Dichloroethene	94		92		70-130	2		20
Trichloroethene	98		94		70-130	4		20
1,2-Dichlorobenzene	94		96		70-130	2		20
1,3-Dichlorobenzene	96		96		70-130	0		20
1,4-Dichlorobenzene	95		97		70-130	2		20
Methyl tert butyl ether	100		99		63-130	1		20
p/m-Xylene	95		95		70-130	0		20
o-Xylene	95		100		70-130	5		20
cis-1,2-Dichloroethene	98		96		70-130	2		20
Styrene	100		100		70-130	0		20
Dichlorodifluoromethane	82		76		36-147	8		20
Acetone	86		90		58-148	5		20
Carbon disulfide	98		93		51-130	5		20
2-Butanone	100		100		63-138	0		20
4-Methyl-2-pentanone	100		100		59-130	0		20
2-Hexanone	97		98		57-130	1		20
Bromochloromethane	94		94		70-130	0		20
1,2-Dibromoethane	98		99		70-130	1		20
n-Butylbenzene	97		98		53-136	1		20
sec-Butylbenzene	93		94		70-130	1		20
1,2-Dibromo-3-chloropropane	84		88		41-144	5		20

Lab Control Sample Analysis
Batch Quality Control

Project Name: 73-79 W. HURON
Project Number: B0441-018-001-001

Lab Number: L1937130
Report Date: 08/27/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-04,06-08 Batch: WG1276861-3 WG1276861-4								
Isopropylbenzene	90		90		70-130	0		20
p-Isopropyltoluene	90		90		70-130	0		20
n-Propylbenzene	92		93		69-130	1		20
1,2,3-Trichlorobenzene	80		79		70-130	1		20
1,2,4-Trichlorobenzene	81		83		70-130	2		20
1,3,5-Trimethylbenzene	94		95		64-130	1		20
1,2,4-Trimethylbenzene	95		96		70-130	1		20
Methyl Acetate	110		110		70-130	0		20
Cyclohexane	90		88		70-130	2		20
1,4-Dioxane	78		84		56-162	7		20
Freon-113	88		82		70-130	7		20
Methyl cyclohexane	83		82		70-130	1		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	115		115		70-130
Toluene-d8	105		104		70-130
4-Bromofluorobenzene	97		100		70-130
Dibromofluoromethane	100		99		70-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: 73-79 W. HURON
Project Number: B0441-018-001-001

Lab Number: L1937130
Report Date: 08/27/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 05 Batch: WG1277267-3 WG1277267-4								
Methylene chloride	89		88		70-130	1		20
1,1-Dichloroethane	92		90		70-130	2		20
Chloroform	90		88		70-130	2		20
Carbon tetrachloride	92		93		63-132	1		20
1,2-Dichloropropane	93		93		70-130	0		20
Dibromochloromethane	95		95		63-130	0		20
1,1,2-Trichloroethane	99		100		70-130	1		20
Tetrachloroethene	94		93		70-130	1		20
Chlorobenzene	95		93		75-130	2		20
Trichlorofluoromethane	92		90		62-150	2		20
1,2-Dichloroethane	93		92		70-130	1		20
1,1,1-Trichloroethane	91		89		67-130	2		20
Bromodichloromethane	93		92		67-130	1		20
trans-1,3-Dichloropropene	96		96		70-130	0		20
cis-1,3-Dichloropropene	92		91		70-130	1		20
Bromoform	96		99		54-136	3		20
1,1,2,2-Tetrachloroethane	100		110		67-130	10		20
Benzene	95		94		70-130	1		20
Toluene	95		95		70-130	0		20
Ethylbenzene	94		92		70-130	2		20
Chloromethane	78		78		64-130	0		20
Bromomethane	90		83		39-139	8		20
Vinyl chloride	82		83		55-140	1		20

Lab Control Sample Analysis
Batch Quality Control

Project Name: 73-79 W. HURON
Project Number: B0441-018-001-001

Lab Number: L1937130
Report Date: 08/27/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 05 Batch: WG1277267-3 WG1277267-4								
Chloroethane	84		86		55-138	2		20
1,1-Dichloroethene	92		89		61-145	3		20
trans-1,2-Dichloroethene	90		90		70-130	0		20
Trichloroethene	94		94		70-130	0		20
1,2-Dichlorobenzene	98		99		70-130	1		20
1,3-Dichlorobenzene	96		95		70-130	1		20
1,4-Dichlorobenzene	96		95		70-130	1		20
Methyl tert butyl ether	97		98		63-130	1		20
p/m-Xylene	95		90		70-130	5		20
o-Xylene	95		95		70-130	0		20
cis-1,2-Dichloroethene	92		90		70-130	2		20
Styrene	95		90		70-130	5		20
Dichlorodifluoromethane	63		60		36-147	5		20
Acetone	110		120		58-148	9		20
Carbon disulfide	85		83		51-130	2		20
2-Butanone	110		110		63-138	0		20
4-Methyl-2-pentanone	110		110		59-130	0		20
2-Hexanone	110		110		57-130	0		20
Bromochloromethane	96		98		70-130	2		20
1,2-Dibromoethane	100		100		70-130	0		20
n-Butylbenzene	96		96		53-136	0		20
sec-Butylbenzene	98		97		70-130	1		20
1,2-Dibromo-3-chloropropane	110		110		41-144	0		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: 73-79 W. HURON

Project Number: B0441-018-001-001

Lab Number: L1937130

Report Date: 08/27/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 05 Batch: WG1277267-3 WG1277267-4								
Isopropylbenzene	96		97		70-130	1		20
p-Isopropyltoluene	97		97		70-130	0		20
n-Propylbenzene	96		95		69-130	1		20
1,2,3-Trichlorobenzene	110		110		70-130	0		20
1,2,4-Trichlorobenzene	100		110		70-130	10		20
1,3,5-Trimethylbenzene	96		96		64-130	0		20
1,2,4-Trimethylbenzene	98		97		70-130	1		20
Methyl Acetate	100		110		70-130	10		20
Cyclohexane	90		87		70-130	3		20
1,4-Dioxane	136		136		56-162	0		20
Freon-113	96		93		70-130	3		20
Methyl cyclohexane	92		90		70-130	2		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	103		98		70-130
Toluene-d8	101		102		70-130
4-Bromofluorobenzene	101		102		70-130
Dibromofluoromethane	97		97		70-130

INORGANICS
&
MISCELLANEOUS

Project Name: 73-79 W. HURON
Project Number: B0441-018-001-001

Lab Number: L1937130
Report Date: 08/27/19

SAMPLE RESULTS

Lab ID: L1937130-01
Client ID: GSW-1
Sample Location: BUFFALO

Date Collected: 08/15/19 15:00
Date Received: 08/16/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Alkalinity, Total	334.		mg CaCO3/L	2.00	NA	1	-	08/20/19 03:03	121,2320B	MA

Project Name: 73-79 W. HURON
Project Number: B0441-018-001-001

Lab Number: L1937130
Report Date: 08/27/19

SAMPLE RESULTS

Lab ID: L1937130-02
Client ID: HMW-1
Sample Location: BUFFALO

Sample Depth:
Matrix: Water

Date Collected: 08/15/19 11:18
Date Received: 08/16/19
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Alkalinity, Total	319.		mg CaCO3/L	2.00	NA	1	-	08/20/19 03:03	121,2320B	MA

Project Name: 73-79 W. HURON
Project Number: B0441-018-001-001

Lab Number: L1937130
Report Date: 08/27/19

SAMPLE RESULTS

Lab ID: L1937130-03
Client ID: HMW-2
Sample Location: BUFFALO

Date Collected: 08/15/19 13:53
Date Received: 08/16/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Alkalinity, Total	239.		mg CaCO3/L	2.00	NA	1	-	08/20/19 03:03	121,2320B	MA

Project Name: 73-79 W. HURON
Project Number: B0441-018-001-001

Lab Number: L1937130
Report Date: 08/27/19

SAMPLE RESULTS

Lab ID: L1937130-04
Client ID: HMW-3
Sample Location: BUFFALO

Date Collected: 08/15/19 13:11
Date Received: 08/16/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Alkalinity, Total	384.		mg CaCO3/L	2.00	NA	1	-	08/20/19 03:03	121,2320B	MA

Project Name: 73-79 W. HURON
Project Number: B0441-018-001-001

Lab Number: L1937130
Report Date: 08/27/19

SAMPLE RESULTS

Lab ID: L1937130-05
Client ID: HMW-4
Sample Location: BUFFALO

Date Collected: 08/15/19 11:53
Date Received: 08/16/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Alkalinity, Total	466.		mg CaCO3/L	2.00	NA	1	-	08/20/19 03:03	121,2320B	MA

Project Name: 73-79 W. HURON
Project Number: B0441-018-001-001

Lab Number: L1937130
Report Date: 08/27/19

SAMPLE RESULTS

Lab ID: L1937130-06
Client ID: HMW-5
Sample Location: BUFFALO

Sample Depth:
Matrix: Water

Date Collected: 08/15/19 09:06
Date Received: 08/16/19
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Alkalinity, Total	245.		mg CaCO3/L	2.00	NA	1	-	08/20/19 03:03	121,2320B	MA

Project Name: 73-79 W. HURON
Project Number: B0441-018-001-001

Lab Number: L1937130
Report Date: 08/27/19

SAMPLE RESULTS

Lab ID: L1937130-07
Client ID: HMW-6
Sample Location: BUFFALO

Sample Depth:
Matrix: Water

Date Collected: 08/15/19 09:35
Date Received: 08/16/19
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Alkalinity, Total	317.		mg CaCO3/L	2.00	NA	1	-	08/20/19 03:03	121,2320B	MA

Project Name: 73-79 W. HURON
Project Number: B0441-018-001-001

Lab Number: L1937130
Report Date: 08/27/19

SAMPLE RESULTS

Lab ID: L1937130-08
Client ID: MW-10
Sample Location: BUFFALO

Date Collected: 08/15/19 12:28
Date Received: 08/16/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Alkalinity, Total	467.		mg CaCO3/L	2.00	NA	1	-	08/20/19 03:03	121,2320B	MA

Project Name: 73-79 W. HURON
Project Number: B0441-018-001-001
Lab Number: L1937130
Report Date: 08/27/19

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01-08 Batch: WG1274376-1										
Alkalinity, Total	ND		mg CaCO3/L	2.00	NA	1	-	08/20/19 03:03	121,2320B	MA

Lab Control Sample Analysis

Batch Quality Control

Project Name: 73-79 W. HURON

Project Number: B0441-018-001-001

Lab Number: L1937130

Report Date: 08/27/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-08 Batch: WG1274376-2								
Alkalinity, Total	103		-		90-110	-		10

Matrix Spike Analysis
Batch Quality Control

Project Name: 73-79 W. HURON
Project Number: B0441-018-001-001

Lab Number: L1937130
Report Date: 08/27/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-08 QC Batch ID: WG1274376-4 QC Sample: L1937357-01 Client ID: MS Sample												
Alkalinity, Total	28.0	100	127	99		-	-		86-116	-		10

Lab Duplicate Analysis

Batch Quality Control

Project Name: 73-79 W. HURON

Project Number: B0441-018-001-001

Lab Number: L1937130

Report Date: 08/27/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-08 QC Batch ID: WG1274376-3 QC Sample: L1937357-01 Client ID: DUP Sample						
Alkalinity, Total	28.0	27.3	mg CaCO3/L	3		10

Project Name: 73-79 W. HURON
Project Number: B0441-018-001-001

Lab Number: L1937130
Report Date: 08/27/19

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1937130-01A	Vial HCl preserved	A	NA		2.3	Y	Absent		NYTCL-8260-R2(14)
L1937130-01B	Vial HCl preserved	A	NA		2.3	Y	Absent		NYTCL-8260-R2(14)
L1937130-01C	Vial HCl preserved	A	NA		2.3	Y	Absent		NYTCL-8260-R2(14)
L1937130-01D	Amber 250ml unpreserved	A	NA		2.3	Y	Absent		ALK-T-2320(14)
L1937130-02A	Vial HCl preserved	A	NA		2.3	Y	Absent		NYTCL-8260-R2(14)
L1937130-02B	Vial HCl preserved	A	NA		2.3	Y	Absent		NYTCL-8260-R2(14)
L1937130-02C	Vial HCl preserved	A	NA		2.3	Y	Absent		NYTCL-8260-R2(14)
L1937130-02D	Amber 250ml unpreserved	A	NA		2.3	Y	Absent		ALK-T-2320(14)
L1937130-03A	Vial HCl preserved	A	NA		2.3	Y	Absent		NYTCL-8260-R2(14)
L1937130-03B	Vial HCl preserved	A	NA		2.3	Y	Absent		NYTCL-8260-R2(14)
L1937130-03C	Vial HCl preserved	A	NA		2.3	Y	Absent		NYTCL-8260-R2(14)
L1937130-03D	Amber 250ml unpreserved	A	NA		2.3	Y	Absent		ALK-T-2320(14)
L1937130-04A	Vial HCl preserved	A	NA		2.3	Y	Absent		NYTCL-8260-R2(14)
L1937130-04B	Vial HCl preserved	A	NA		2.3	Y	Absent		NYTCL-8260-R2(14)
L1937130-04C	Vial HCl preserved	A	NA		2.3	Y	Absent		NYTCL-8260-R2(14)
L1937130-04D	Amber 250ml unpreserved	A	NA		2.3	Y	Absent		ALK-T-2320(14)
L1937130-05A	Vial HCl preserved	A	NA		2.3	Y	Absent		NYTCL-8260-R2(14)
L1937130-05B	Vial HCl preserved	A	NA		2.3	Y	Absent		NYTCL-8260-R2(14)
L1937130-05C	Vial HCl preserved	A	NA		2.3	Y	Absent		NYTCL-8260-R2(14)
L1937130-05D	Amber 250ml unpreserved	A	NA		2.3	Y	Absent		ALK-T-2320(14)
L1937130-06A	Vial HCl preserved	A	NA		2.3	Y	Absent		NYTCL-8260-R2(14)
L1937130-06B	Vial HCl preserved	A	NA		2.3	Y	Absent		NYTCL-8260-R2(14)
L1937130-06C	Vial HCl preserved	A	NA		2.3	Y	Absent		NYTCL-8260-R2(14)

*Values in parentheses indicate holding time in days

Project Name: 73-79 W. HURON
Project Number: B0441-018-001-001

Lab Number: L1937130
Report Date: 08/27/19

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1937130-06D	Amber 250ml unpreserved	A	NA		2.3	Y	Absent		ALK-T-2320(14)
L1937130-07A	Vial HCl preserved	A	NA		2.3	Y	Absent		NYTCL-8260-R2(14)
L1937130-07B	Vial HCl preserved	A	NA		2.3	Y	Absent		NYTCL-8260-R2(14)
L1937130-07C	Vial HCl preserved	A	NA		2.3	Y	Absent		NYTCL-8260-R2(14)
L1937130-07D	Amber 250ml unpreserved	A	NA		2.3	Y	Absent		ALK-T-2320(14)
L1937130-08A	Vial HCl preserved	A	NA		2.3	Y	Absent		NYTCL-8260-R2(14)
L1937130-08B	Vial HCl preserved	A	NA		2.3	Y	Absent		NYTCL-8260-R2(14)
L1937130-08C	Vial HCl preserved	A	NA		2.3	Y	Absent		NYTCL-8260-R2(14)
L1937130-08D	Amber 250ml unpreserved	A	NA		2.3	Y	Absent		ALK-T-2320(14)

*Values in parentheses indicate holding time in days

Project Name:	73-79 W. HURON	**Lab Number:**	L1937130
Project Number:	B0441-018-001-001	**Report Date:**	08/27/19

GLOSSARY

Acronyms

DL - 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 limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

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).

EMPC - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.

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.

LOD - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

LOQ - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

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. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.

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.

TEF - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.

TEQ - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.

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

Report Format: DU Report with 'J' Qualifiers

Project Name:	73-79 W. HURON	**Lab Number:**	L1937130
Project Number:	B0441-018-001-001	**Report Date:**	08/27/19

1 - 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.

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

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.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

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 Condensates" are byproducts of the extraction/concentration procedures when using acetone as a solvent.

B - 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 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).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - 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.

J - 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).

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

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.

Report Format: DU Report with 'J' Qualifiers

Project Name:	73-79 W. HURON	**Lab Number:**	L1937130
Project Number:	B0441-018-001-001	**Report Date:**	08/27/19

REFERENCES

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

121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

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.

Certification Information

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

Westborough Facility
EPA 624/624.1: m/p-xylene, o-xylene
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; 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, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-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**, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, 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, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

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

NEW YORK CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 1

Date Rec'd in Lab: 8/17/19

ALPHA Job #: L1937130

Client Information

Client: Benchmark
Address: 2558 Hamburg Turnpike
Lackawanna NY 14218
Phone: (716) 818-8358
Fax:
Email: TBehrendt@Tunneltk.com

Project Information

Project Name: 73-79 W. Huron
Project Location: Buffalo
Project # B0441-018-001-001
(Use Project name as Project #) ☒
Project Manager: Tom Forbes
ALPHAQuote #:

Turn-Around Time

Standard ☒ Due Date:
Rush (only if pre approved) ☐ # of Days:

Deliverables

☐ ASP-A ☐ ASP-B
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Billing Information

☐ Same as Client Info
PO #

Regulatory Requirement

☐ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Disposal Site Information

Please identify below location of applicable disposal facilities.
Disposal Facility:
☐ NJ ☐ NY
☐ Other:

These samples have been previously analyzed by Alpha ☐

Other project specific requirements/comments:

Please specify Metals or TAL.

ANALYSIS

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	TCL+CP-51 VOC	T. Alkalinity as CaCO3	Total Bottle	Sample Specific Comments
37130 - 01	GSW-1	8/15/19	1500	Water	TAB	3	1	4	
02	HMW-1		1118			3	1	4	
03	HMW-2		1353			3	1	4	
04	HMW-3		1311			3	1	4	
05	HMW-4		1153			3	1	4	
06	HMW-5		906			3	1	4	
07	HMW-6		935			3	1	4	
08	MW-10		1228			3	1		
Container Type						V	A		
Preservative						B	A		

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
	8/16/19 1309		16Aug2019 1310
	16Aug2019 1310		8/17/19 0810

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-25 HC (rev. 30-Sept-2013)

ANALYTICAL REPORT

Lab Number:	L2006381
Client:	Benchmark & Turnkey Companies 2558 Hamburg Turnpike Suite 300 Buffalo, NY 14218
ATTN:	Tom Forbes
Phone:	(716) 856-0599
Project Name:	EMERSON SCHOOL
Project Number:	B0441-020-001-001
Report Date:	02/19/20

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

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

Project Name: EMERSON SCHOOL
Project Number: B0441-020-001-001

Lab Number: L2006381
Report Date: 02/19/20

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2006381-01	HMW-1	WATER	BUFFALO, NY	02/11/20 10:50	02/12/20
L2006381-02	HMW-2	WATER	BUFFALO, NY	02/11/20 11:39	02/12/20
L2006381-03	HMW-3	WATER	BUFFALO, NY	02/11/20 13:24	02/12/20
L2006381-04	HMW-4	WATER	BUFFALO, NY	02/11/20 10:04	02/12/20
L2006381-05	HMW-5	WATER	BUFFALO, NY	02/11/20 09:11	02/12/20
L2006381-06	HMW-6	WATER	BUFFALO, NY	02/11/20 08:37	02/12/20
L2006381-07	MW-10	WATER	BUFFALO, NY	02/11/20 12:27	02/12/20
L2006381-08	GSW-1	WATER	BUFFALO, NY	02/11/20 13:50	02/12/20

Project Name:	EMERSON SCHOOL	**Lab Number:**	L2006381
Project Number:	B0441-020-001-001	**Report Date:**	02/19/20

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. 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 Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data 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.

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 Alpha Project Manager 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 Project Management at 800-624-9220 with any questions.

Project Name:	EMERSON SCHOOL	**Lab Number:**	L2006381
Project Number:	B0441-020-001-001	**Report Date:**	02/19/20

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.

Sample Receipt

L2006381-01, -03 and -05: Headspace was noted in the sample containers submitted for Total Alkalinity - SM 2320. The analysis was performed at the client's request.

Volatile Organics

L2006381-07: The sample has elevated detection limits due to the dilution required by the elevated concentrations of non-target compounds in the sample.

Alkalinity, Carbonate

L2006381-07: The sample has an elevated detection limit due to the dilution required by the sample matrix.

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: Melissa Sturgis Melissa Sturgis

Title: Technical Director/Representative Date: 02/19/20

ORGANICS

VOLATILES

Project Name: EMERSON SCHOOL
Project Number: B0441-020-001-001
Lab Number: L2006381
Report Date: 02/19/20

SAMPLE RESULTS

Lab ID: L2006381-01
Client ID: HMW-1
Sample Location: BUFFALO, NY

Date Collected: 02/11/20 10:50
Date Received: 02/12/20
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 02/14/20 14:55
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough 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	ND		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

Project Name: EMERSON SCHOOL **Lab Number:** L2006381

Project Number: B0441-020-001-001 **Report Date:** 02/19/20

SAMPLE RESULTS

Lab ID: L2006381-01 Date Collected: 02/11/20 10:50

Client ID: HMW-1 Date Received: 02/12/20

Sample Location: BUFFALO, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
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
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	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
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	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	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	128		70-130
Toluene-d8	103		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	99		70-130

Project Name: EMERSON SCHOOL
Project Number: B0441-020-001-001
Lab Number: L2006381
Report Date: 02/19/20

SAMPLE RESULTS

Lab ID: L2006381-02 D
Client ID: HMW-2
Sample Location: BUFFALO, NY

Date Collected: 02/11/20 11:39
Date Received: 02/12/20
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 02/14/20 15:19
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	12	3.5	5
1,1-Dichloroethane	ND		ug/l	12	3.5	5
Chloroform	ND		ug/l	12	3.5	5
Carbon tetrachloride	ND		ug/l	2.5	0.67	5
1,2-Dichloropropane	ND		ug/l	5.0	0.68	5
Dibromochloromethane	ND		ug/l	2.5	0.74	5
1,1,2-Trichloroethane	ND		ug/l	7.5	2.5	5
Tetrachloroethene	ND		ug/l	2.5	0.90	5
Chlorobenzene	ND		ug/l	12	3.5	5
Trichlorofluoromethane	ND		ug/l	12	3.5	5
1,2-Dichloroethane	ND		ug/l	2.5	0.66	5
1,1,1-Trichloroethane	ND		ug/l	12	3.5	5
Bromodichloromethane	ND		ug/l	2.5	0.96	5
trans-1,3-Dichloropropene	ND		ug/l	2.5	0.82	5
cis-1,3-Dichloropropene	ND		ug/l	2.5	0.72	5
Bromoform	ND		ug/l	10	3.2	5
1,1,2,2-Tetrachloroethane	ND		ug/l	2.5	0.84	5
Benzene	ND		ug/l	2.5	0.80	5
Toluene	ND		ug/l	12	3.5	5
Ethylbenzene	ND		ug/l	12	3.5	5
Chloromethane	ND		ug/l	12	3.5	5
Bromomethane	ND		ug/l	12	3.5	5
Vinyl chloride	ND		ug/l	5.0	0.36	5
Chloroethane	ND		ug/l	12	3.5	5
1,1-Dichloroethene	ND		ug/l	2.5	0.84	5
trans-1,2-Dichloroethene	ND		ug/l	12	3.5	5
Trichloroethene	ND		ug/l	2.5	0.88	5
1,2-Dichlorobenzene	ND		ug/l	12	3.5	5

Project Name: EMERSON SCHOOL **Lab Number:** L2006381

Project Number: B0441-020-001-001 **Report Date:** 02/19/20

SAMPLE RESULTS

Lab ID: L2006381-02 D Date Collected: 02/11/20 11:39

Client ID: HMW-2 Date Received: 02/12/20

Sample Location: BUFFALO, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	12	3.5	5
1,4-Dichlorobenzene	ND		ug/l	12	3.5	5
Methyl tert butyl ether	ND		ug/l	12	3.5	5
p/m-Xylene	ND		ug/l	12	3.5	5
o-Xylene	ND		ug/l	12	3.5	5
cis-1,2-Dichloroethene	ND		ug/l	12	3.5	5
Styrene	ND		ug/l	12	3.5	5
Dichlorodifluoromethane	ND		ug/l	25	5.0	5
Acetone	ND		ug/l	25	7.3	5
Carbon disulfide	ND		ug/l	25	5.0	5
2-Butanone	ND		ug/l	25	9.7	5
4-Methyl-2-pentanone	ND		ug/l	25	5.0	5
2-Hexanone	ND		ug/l	25	5.0	5
Bromochloromethane	ND		ug/l	12	3.5	5
1,2-Dibromoethane	ND		ug/l	10	3.2	5
n-Butylbenzene	5.1	J	ug/l	12	3.5	5
sec-Butylbenzene	6.1	J	ug/l	12	3.5	5
1,2-Dibromo-3-chloropropane	ND		ug/l	12	3.5	5
Isopropylbenzene	40		ug/l	12	3.5	5
p-Isopropyltoluene	ND		ug/l	12	3.5	5
n-Propylbenzene	120		ug/l	12	3.5	5
1,2,3-Trichlorobenzene	ND		ug/l	12	3.5	5
1,2,4-Trichlorobenzene	ND		ug/l	12	3.5	5
1,3,5-Trimethylbenzene	15		ug/l	12	3.5	5
1,2,4-Trimethylbenzene	520		ug/l	12	3.5	5
Methyl Acetate	ND		ug/l	10	1.2	5
Cyclohexane	97		ug/l	50	1.4	5
1,4-Dioxane	ND		ug/l	1200	300	5
Freon-113	ND		ug/l	12	3.5	5
Methyl cyclohexane	32	J	ug/l	50	2.0	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	129		70-130
Toluene-d8	104		70-130
4-Bromofluorobenzene	104		70-130
Dibromofluoromethane	88		70-130

Project Name: EMERSON SCHOOL
Project Number: B0441-020-001-001
Lab Number: L2006381
Report Date: 02/19/20

SAMPLE RESULTS

Lab ID: L2006381-03 D
Client ID: HMW-3
Sample Location: BUFFALO, NY

Date Collected: 02/11/20 13:24
Date Received: 02/12/20
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 02/14/20 15:44
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	6.2	1.8	2.5
1,1-Dichloroethane	ND		ug/l	6.2	1.8	2.5
Chloroform	ND		ug/l	6.2	1.8	2.5
Carbon tetrachloride	ND		ug/l	1.2	0.34	2.5
1,2-Dichloropropane	ND		ug/l	2.5	0.34	2.5
Dibromochloromethane	ND		ug/l	1.2	0.37	2.5
1,1,2-Trichloroethane	ND		ug/l	3.8	1.2	2.5
Tetrachloroethene	ND		ug/l	1.2	0.45	2.5
Chlorobenzene	ND		ug/l	6.2	1.8	2.5
Trichlorofluoromethane	ND		ug/l	6.2	1.8	2.5
1,2-Dichloroethane	ND		ug/l	1.2	0.33	2.5
1,1,1-Trichloroethane	ND		ug/l	6.2	1.8	2.5
Bromodichloromethane	ND		ug/l	1.2	0.48	2.5
trans-1,3-Dichloropropene	ND		ug/l	1.2	0.41	2.5
cis-1,3-Dichloropropene	ND		ug/l	1.2	0.36	2.5
Bromoform	ND		ug/l	5.0	1.6	2.5
1,1,2,2-Tetrachloroethane	ND		ug/l	1.2	0.42	2.5
Benzene	ND		ug/l	1.2	0.40	2.5
Toluene	59		ug/l	6.2	1.8	2.5
Ethylbenzene	100		ug/l	6.2	1.8	2.5
Chloromethane	ND		ug/l	6.2	1.8	2.5
Bromomethane	ND		ug/l	6.2	1.8	2.5
Vinyl chloride	ND		ug/l	2.5	0.18	2.5
Chloroethane	ND		ug/l	6.2	1.8	2.5
1,1-Dichloroethene	ND		ug/l	1.2	0.42	2.5
trans-1,2-Dichloroethene	ND		ug/l	6.2	1.8	2.5
Trichloroethene	ND		ug/l	1.2	0.44	2.5
1,2-Dichlorobenzene	ND		ug/l	6.2	1.8	2.5

Project Name: EMERSON SCHOOL **Lab Number:** L2006381

Project Number: B0441-020-001-001 **Report Date:** 02/19/20

SAMPLE RESULTS

Lab ID: L2006381-03 D Date Collected: 02/11/20 13:24
Client ID: HMW-3 Date Received: 02/12/20
Sample Location: BUFFALO, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	6.2	1.8	2.5
1,4-Dichlorobenzene	ND		ug/l	6.2	1.8	2.5
Methyl tert butyl ether	ND		ug/l	6.2	1.8	2.5
p/m-Xylene	440		ug/l	6.2	1.8	2.5
o-Xylene	110		ug/l	6.2	1.8	2.5
cis-1,2-Dichloroethene	ND		ug/l	6.2	1.8	2.5
Styrene	ND		ug/l	6.2	1.8	2.5
Dichlorodifluoromethane	ND		ug/l	12	2.5	2.5
Acetone	ND		ug/l	12	3.6	2.5
Carbon disulfide	ND		ug/l	12	2.5	2.5
2-Butanone	ND		ug/l	12	4.8	2.5
4-Methyl-2-pentanone	ND		ug/l	12	2.5	2.5
2-Hexanone	ND		ug/l	12	2.5	2.5
Bromochloromethane	ND		ug/l	6.2	1.8	2.5
1,2-Dibromoethane	ND		ug/l	5.0	1.6	2.5
n-Butylbenzene	11		ug/l	6.2	1.8	2.5
sec-Butylbenzene	5.1	J	ug/l	6.2	1.8	2.5
1,2-Dibromo-3-chloropropane	ND		ug/l	6.2	1.8	2.5
Isopropylbenzene	12		ug/l	6.2	1.8	2.5
p-Isopropyltoluene	3.0	J	ug/l	6.2	1.8	2.5
n-Propylbenzene	21		ug/l	6.2	1.8	2.5
1,2,3-Trichlorobenzene	ND		ug/l	6.2	1.8	2.5
1,2,4-Trichlorobenzene	ND		ug/l	6.2	1.8	2.5
1,3,5-Trimethylbenzene	59		ug/l	6.2	1.8	2.5
1,2,4-Trimethylbenzene	33		ug/l	6.2	1.8	2.5
Methyl Acetate	ND		ug/l	5.0	0.58	2.5
Cyclohexane	130		ug/l	25	0.68	2.5
1,4-Dioxane	ND		ug/l	620	150	2.5
Freon-113	ND		ug/l	6.2	1.8	2.5
Methyl cyclohexane	45		ug/l	25	0.99	2.5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	124		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	81		70-130

Project Name: EMERSON SCHOOL
Project Number: B0441-020-001-001
Lab Number: L2006381
Report Date: 02/19/20

SAMPLE RESULTS

Lab ID: L2006381-04
Client ID: HMW-4
Sample Location: BUFFALO, NY

Date Collected: 02/11/20 10:04
Date Received: 02/12/20
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 02/14/20 16:09
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough 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	1.7	J	ug/l	2.5	0.70	1
Ethylbenzene	4.9		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	ND		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

Project Name: EMERSON SCHOOL **Lab Number:** L2006381

Project Number: B0441-020-001-001 **Report Date:** 02/19/20

SAMPLE RESULTS

Lab ID: L2006381-04 Date Collected: 02/11/20 10:04

Client ID: HMW-4 Date Received: 02/12/20

Sample Location: BUFFALO, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
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	25		ug/l	2.5	0.70	1
o-Xylene	4.5		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
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	1.0	J	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
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	7.7	J	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	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	122		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	96		70-130

Project Name: EMERSON SCHOOL
Project Number: B0441-020-001-001
Lab Number: L2006381
Report Date: 02/19/20

SAMPLE RESULTS

Lab ID: L2006381-05
Client ID: HMW-5
Sample Location: BUFFALO, NY

Date Collected: 02/11/20 09:11
Date Received: 02/12/20
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 02/14/20 16:34
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	3.1		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	0.25	J	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	ND		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

Project Name: EMERSON SCHOOL **Lab Number:** L2006381

Project Number: B0441-020-001-001 **Report Date:** 02/19/20

SAMPLE RESULTS

Lab ID: L2006381-05 Date Collected: 02/11/20 09:11

Client ID: HMW-5 Date Received: 02/12/20

Sample Location: BUFFALO, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
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
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	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
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	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	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	123		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	98		70-130

Project Name: EMERSON SCHOOL
Project Number: B0441-020-001-001
Lab Number: L2006381
Report Date: 02/19/20

SAMPLE RESULTS

Lab ID: L2006381-06
Client ID: HMW-6
Sample Location: BUFFALO, NY

Date Collected: 02/11/20 08:37
Date Received: 02/12/20
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 02/14/20 16:59
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough 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	0.38	J	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	ND		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

Project Name: EMERSON SCHOOL **Lab Number:** L2006381

Project Number: B0441-020-001-001 **Report Date:** 02/19/20

SAMPLE RESULTS

Lab ID: L2006381-06 Date Collected: 02/11/20 08:37

Client ID: HMW-6 Date Received: 02/12/20

Sample Location: BUFFALO, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
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
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	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
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	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	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	123		70-130
Toluene-d8	104		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	96		70-130

Project Name: EMERSON SCHOOL
Project Number: B0441-020-001-001
Lab Number: L2006381
Report Date: 02/19/20

SAMPLE RESULTS

Lab ID: L2006381-07 D
Client ID: MW-10
Sample Location: BUFFALO, NY

Date Collected: 02/11/20 12:27
Date Received: 02/12/20
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 02/14/20 17:23
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough 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	18		ug/l	5.0	1.4	2
Ethylbenzene	150		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	ND		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

Project Name: EMERSON SCHOOL **Lab Number:** L2006381

Project Number: B0441-020-001-001 **Report Date:** 02/19/20

SAMPLE RESULTS

Lab ID: L2006381-07 D Date Collected: 02/11/20 12:27

Client ID: MW-10 Date Received: 02/12/20

Sample Location: BUFFALO, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	5.0	1.4	2
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	240		ug/l	5.0	1.4	2
o-Xylene	15		ug/l	5.0	1.4	2
cis-1,2-Dichloroethene	ND		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
n-Butylbenzene	5.2		ug/l	5.0	1.4	2
sec-Butylbenzene	4.8	J	ug/l	5.0	1.4	2
1,2-Dibromo-3-chloropropane	ND		ug/l	5.0	1.4	2
Isopropylbenzene	18		ug/l	5.0	1.4	2
p-Isopropyltoluene	ND		ug/l	5.0	1.4	2
n-Propylbenzene	84		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
1,3,5-Trimethylbenzene	7.3		ug/l	5.0	1.4	2
1,2,4-Trimethylbenzene	1.9	J	ug/l	5.0	1.4	2
Methyl Acetate	ND		ug/l	4.0	0.47	2
Cyclohexane	76		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	8.7	J	ug/l	20	0.79	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	121		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	82		70-130

Project Name: EMERSON SCHOOL
Project Number: B0441-020-001-001
Lab Number: L2006381
Report Date: 02/19/20

SAMPLE RESULTS

Lab ID: L2006381-08
Client ID: GSW-1
Sample Location: BUFFALO, NY

Date Collected: 02/11/20 13:50
Date Received: 02/12/20
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 02/14/20 17:48
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough 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	110		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	ND		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	4.0		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: EMERSON SCHOOL **Lab Number:** L2006381

Project Number: B0441-020-001-001 **Report Date:** 02/19/20

SAMPLE RESULTS

Lab ID: L2006381-08 Date Collected: 02/11/20 13:50

Client ID: GSW-1 Date Received: 02/12/20

Sample Location: BUFFALO, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
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	6.0		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
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	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
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	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	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	119		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	92		70-130

Project Name: EMERSON SCHOOL **Lab Number:** L2006381

Project Number: B0441-020-001-001 **Report Date:** 02/19/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 02/14/20 13:16
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-08 Batch: WG1341416-5					
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: EMERSON SCHOOL **Lab Number:** L2006381

Project Number: B0441-020-001-001 **Report Date:** 02/19/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 02/14/20 13:16
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-08 Batch: WG1341416-5					
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
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
n-Propylbenzene	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
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	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

Project Name: EMERSON SCHOOL
Project Number: B0441-020-001-001
Lab Number: L2006381
Report Date: 02/19/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 02/14/20 13:16
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-08 Batch: WG1341416-5					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	122		70-130
Toluene-d8	103		70-130
4-Bromofluorobenzene	104		70-130
Dibromofluoromethane	96		70-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: EMERSON SCHOOL
Project Number: B0441-020-001-001

Lab Number: L2006381
Report Date: 02/19/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-08 Batch: WG1341416-3 WG1341416-4								
Methylene chloride	92		90		70-130	2		20
1,1-Dichloroethane	100		100		70-130	0		20
Chloroform	100		100		70-130	0		20
Carbon tetrachloride	110		110		63-132	0		20
1,2-Dichloropropane	86		88		70-130	2		20
Dibromochloromethane	92		93		63-130	1		20
1,1,2-Trichloroethane	93		93		70-130	0		20
Tetrachloroethene	96		91		70-130	5		20
Chlorobenzene	90		90		75-130	0		20
Trichlorofluoromethane	110		110		62-150	0		20
1,2-Dichloroethane	92		94		70-130	2		20
1,1,1-Trichloroethane	110		110		67-130	0		20
Bromodichloromethane	99		99		67-130	0		20
trans-1,3-Dichloropropene	110		110		70-130	0		20
cis-1,3-Dichloropropene	98		100		70-130	2		20
Bromoform	91		90		54-136	1		20
1,1,2,2-Tetrachloroethane	88		88		67-130	0		20
Benzene	93		91		70-130	2		20
Toluene	98		94		70-130	4		20
Ethylbenzene	100		100		70-130	0		20
Chloromethane	97		95		64-130	2		20
Bromomethane	**38**	Q	**36**	Q	39-139	5		20
Vinyl chloride	81		80		55-140	1		20

Lab Control Sample Analysis
Batch Quality Control

Project Name: EMERSON SCHOOL
Project Number: B0441-020-001-001

Lab Number: L2006381
Report Date: 02/19/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-08 Batch: WG1341416-3 WG1341416-4								
Chloroethane	65		65		55-138	0		20
1,1-Dichloroethene	92		94		61-145	2		20
trans-1,2-Dichloroethene	90		94		70-130	4		20
Trichloroethene	91		91		70-130	0		20
1,2-Dichlorobenzene	86		86		70-130	0		20
1,3-Dichlorobenzene	88		87		70-130	1		20
1,4-Dichlorobenzene	88		86		70-130	2		20
Methyl tert butyl ether	110		110		63-130	0		20
p/m-Xylene	90		90		70-130	0		20
o-Xylene	90		90		70-130	0		20
cis-1,2-Dichloroethene	94		93		70-130	1		20
Styrene	90		90		70-130	0		20
Dichlorodifluoromethane	86		89		36-147	3		20
Acetone	81		87		58-148	7		20
Carbon disulfide	100		100		51-130	0		20
2-Butanone	95		97		63-138	2		20
4-Methyl-2-pentanone	100		100		59-130	0		20
2-Hexanone	93		98		57-130	5		20
Bromochloromethane	90		88		70-130	2		20
1,2-Dibromoethane	90		89		70-130	1		20
n-Butylbenzene	100		99		53-136	1		20
sec-Butylbenzene	86		84		70-130	2		20
1,2-Dibromo-3-chloropropane	80		82		41-144	2		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: EMERSON SCHOOL

Project Number: B0441-020-001-001

Lab Number: L2006381

Report Date: 02/19/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-08 Batch: WG1341416-3 WG1341416-4								
Isopropylbenzene	91		91		70-130	0		20
p-Isopropyltoluene	88		86		70-130	2		20
n-Propylbenzene	94		92		69-130	2		20
1,2,3-Trichlorobenzene	93		94		70-130	1		20
1,2,4-Trichlorobenzene	96		96		70-130	0		20
1,3,5-Trimethylbenzene	94		92		64-130	2		20
1,2,4-Trimethylbenzene	96		93		70-130	3		20
Methyl Acetate	110		110		70-130	0		20
Cyclohexane	98		97		70-130	1		20
1,4-Dioxane	88		100		56-162	13		20
Freon-113	97		95		70-130	2		20
Methyl cyclohexane	84		82		70-130	2		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	127		128		70-130
Toluene-d8	104		102		70-130
4-Bromofluorobenzene	102		101		70-130
Dibromofluoromethane	95		97		70-130

INORGANICS
&
MISCELLANEOUS

Project Name: EMERSON SCHOOL
Project Number: B0441-020-001-001

Lab Number: L2006381
Report Date: 02/19/20

SAMPLE RESULTS

Lab ID: L2006381-01
Client ID: HMW-1
Sample Location: BUFFALO, NY

Date Collected: 02/11/20 10:50
Date Received: 02/12/20
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Alkalinity, Total	339.		mg CaCO3/L	2.00	NA	1	-	02/15/20 05:46	121,2320B	JA

Project Name: EMERSON SCHOOL
Project Number: B0441-020-001-001

Lab Number: L2006381
Report Date: 02/19/20

SAMPLE RESULTS

Lab ID: L2006381-02
Client ID: HMW-2
Sample Location: BUFFALO, NY

Sample Depth:
Matrix: Water

Date Collected: 02/11/20 11:39
Date Received: 02/12/20
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Alkalinity, Total	258.		mg CaCO3/L	2.00	NA	1	-	02/15/20 05:46	121,2320B	JA

Project Name: EMERSON SCHOOL
Project Number: B0441-020-001-001

Lab Number: L2006381
Report Date: 02/19/20

SAMPLE RESULTS

Lab ID: L2006381-03
Client ID: HMW-3
Sample Location: BUFFALO, NY

Date Collected: 02/11/20 13:24
Date Received: 02/12/20
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Alkalinity, Total	538.		mg CaCO3/L	2.00	NA	1	-	02/15/20 05:46	121,2320B	JA

Project Name: EMERSON SCHOOL
Project Number: B0441-020-001-001

Lab Number: L2006381
Report Date: 02/19/20

SAMPLE RESULTS

Lab ID: L2006381-04
Client ID: HMW-4
Sample Location: BUFFALO, NY

Date Collected: 02/11/20 10:04
Date Received: 02/12/20
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Alkalinity, Total	450.		mg CaCO3/L	2.00	NA	1	-	02/15/20 05:46	121,2320B	JA

Project Name: EMERSON SCHOOL
Project Number: B0441-020-001-001

Lab Number: L2006381
Report Date: 02/19/20

SAMPLE RESULTS

Lab ID: L2006381-05
Client ID: HMW-5
Sample Location: BUFFALO, NY

Date Collected: 02/11/20 09:11
Date Received: 02/12/20
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Alkalinity, Total	356.		mg CaCO3/L	2.00	NA	1	-	02/15/20 05:46	121,2320B	JA

Project Name: EMERSON SCHOOL
Project Number: B0441-020-001-001

Lab Number: L2006381
Report Date: 02/19/20

SAMPLE RESULTS

Lab ID: L2006381-06
Client ID: HMW-6
Sample Location: BUFFALO, NY

Date Collected: 02/11/20 08:37
Date Received: 02/12/20
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Alkalinity, Total	371.		mg CaCO3/L	2.00	NA	1	-	02/15/20 05:46	121,2320B	JA

Project Name: EMERSON SCHOOL
Project Number: B0441-020-001-001

Lab Number: L2006381
Report Date: 02/19/20

SAMPLE RESULTS

Lab ID: L2006381-07
Client ID: MW-10
Sample Location: BUFFALO, NY

Date Collected: 02/11/20 12:27
Date Received: 02/12/20
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Alkalinity, Total	733.		mg CaCO3/L	5.00	NA	2.5	-	02/15/20 05:46	121,2320B	JA

Project Name: EMERSON SCHOOL
Project Number: B0441-020-001-001

Lab Number: L2006381
Report Date: 02/19/20

SAMPLE RESULTS

Lab ID: L2006381-08
Client ID: GSW-1
Sample Location: BUFFALO, NY

Date Collected: 02/11/20 13:50
Date Received: 02/12/20
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Alkalinity, Total	327.		mg CaCO3/L	2.00	NA	1	-	02/15/20 05:46	121,2320B	JA

Project Name: EMERSON SCHOOL
Project Number: B0441-020-001-001

Lab Number: L2006381
Report Date: 02/19/20

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01-08 Batch: WG1341058-1										
Alkalinity, Total	ND		mg CaCO3/L	2.00	NA	1	-	02/15/20 05:46	121,2320B	JA

Lab Control Sample Analysis

Batch Quality Control

Project Name: EMERSON SCHOOL

Project Number: B0441-020-001-001

Lab Number: L2006381

Report Date: 02/19/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-08 Batch: WG1341058-2								
Alkalinity, Total	104		-		90-110	-		10

Matrix Spike Analysis
Batch Quality Control

Project Name: EMERSON SCHOOL
Project Number: B0441-020-001-001

Lab Number: L2006381
Report Date: 02/19/20

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-08 QC Batch ID: WG1341058-4 QC Sample: L2006713-05 Client ID: MS Sample												
Alkalinity, Total	35.6	100	144	108		-	-		86-116	-		10

Lab Duplicate Analysis

Batch Quality Control

Project Name: EMERSON SCHOOL

Project Number: B0441-020-001-001

Lab Number: L2006381

Report Date: 02/19/20

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-08 QC Batch ID: WG1341058-3 QC Sample: L2006713-05 Client ID: DUP Sample						
Alkalinity, Total	35.6	34.3	mg CaCO3/L	4		10

Project Name: EMERSON SCHOOL
Project Number: B0441-020-001-001

Lab Number: L2006381
Report Date: 02/19/20

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2006381-01A	Vial HCl preserved	A	NA		3.8	Y	Absent		NYTCL-8260-R2(14)
L2006381-01B	Vial HCl preserved	A	NA		3.8	Y	Absent		NYTCL-8260-R2(14)
L2006381-01C	Vial HCl preserved	A	NA		3.8	Y	Absent		NYTCL-8260-R2(14)
L2006381-01D	Plastic 120ml unpreserved/No Headspace	A	NA		3.8	Y	Absent		ALK-T-2320(14)
L2006381-02A	Vial HCl preserved	A	NA		3.8	Y	Absent		NYTCL-8260-R2(14)
L2006381-02B	Vial HCl preserved	A	NA		3.8	Y	Absent		NYTCL-8260-R2(14)
L2006381-02C	Vial HCl preserved	A	NA		3.8	Y	Absent		NYTCL-8260-R2(14)
L2006381-02D	Plastic 120ml unpreserved/No Headspace	A	NA		3.8	Y	Absent		ALK-T-2320(14)
L2006381-03A	Vial HCl preserved	A	NA		3.8	Y	Absent		NYTCL-8260-R2(14)
L2006381-03B	Vial HCl preserved	A	NA		3.8	Y	Absent		NYTCL-8260-R2(14)
L2006381-03C	Vial HCl preserved	A	NA		3.8	Y	Absent		NYTCL-8260-R2(14)
L2006381-03D	Plastic 120ml unpreserved/No Headspace	A	NA		3.8	Y	Absent		ALK-T-2320(14)
L2006381-04A	Vial HCl preserved	A	NA		3.8	Y	Absent		NYTCL-8260-R2(14)
L2006381-04B	Vial HCl preserved	A	NA		3.8	Y	Absent		NYTCL-8260-R2(14)
L2006381-04C	Vial HCl preserved	A	NA		3.8	Y	Absent		NYTCL-8260-R2(14)
L2006381-04D	Plastic 120ml unpreserved/No Headspace	A	NA		3.8	Y	Absent		ALK-T-2320(14)
L2006381-05A	Vial HCl preserved	A	NA		3.8	Y	Absent		NYTCL-8260-R2(14)
L2006381-05B	Vial HCl preserved	A	NA		3.8	Y	Absent		NYTCL-8260-R2(14)
L2006381-05C	Vial HCl preserved	A	NA		3.8	Y	Absent		NYTCL-8260-R2(14)
L2006381-05D	Plastic 120ml unpreserved/No Headspace	A	NA		3.8	Y	Absent		ALK-T-2320(14)
L2006381-06A	Vial HCl preserved	A	NA		3.8	Y	Absent		NYTCL-8260-R2(14)
L2006381-06B	Vial HCl preserved	A	NA		3.8	Y	Absent		NYTCL-8260-R2(14)
L2006381-06C	Vial HCl preserved	A	NA		3.8	Y	Absent		NYTCL-8260-R2(14)

*Values in parentheses indicate holding time in days

Project Name: EMERSON SCHOOL
Project Number: B0441-020-001-001

Lab Number: L2006381
Report Date: 02/19/20

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2006381-06D	Plastic 120ml unpreserved/No Headspace	A	NA		3.8	Y	Absent		ALK-T-2320(14)
L2006381-07A	Vial HCl preserved	A	NA		3.8	Y	Absent		NYTCL-8260-R2(14)
L2006381-07B	Vial HCl preserved	A	NA		3.8	Y	Absent		NYTCL-8260-R2(14)
L2006381-07C	Vial HCl preserved	A	NA		3.8	Y	Absent		NYTCL-8260-R2(14)
L2006381-07D	Plastic 120ml unpreserved/No Headspace	A	NA		3.8	Y	Absent		ALK-T-2320(14)
L2006381-08A	Vial HCl preserved	A	NA		3.8	Y	Absent		NYTCL-8260-R2(14)
L2006381-08B	Vial HCl preserved	A	NA		3.8	Y	Absent		NYTCL-8260-R2(14)
L2006381-08C	Vial HCl preserved	A	NA		3.8	Y	Absent		NYTCL-8260-R2(14)
L2006381-08D	Plastic 120ml unpreserved/No Headspace	A	NA		3.8	Y	Absent		ALK-T-2320(14)

*Values in parentheses indicate holding time in days

Project Name:	EMERSON SCHOOL	**Lab Number:**	L2006381
Project Number:	B0441-020-001-001	**Report Date:**	02/19/20

GLOSSARY

Acronyms

DL - 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 limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

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).

EMPC - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.

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.

LOD - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

LOQ - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

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. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.

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.

TEF - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.

TEQ - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.

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

Report Format: DU Report with 'J' Qualifiers

Project Name:	EMERSON SCHOOL	**Lab Number:**	L2006381
Project Number:	B0441-020-001-001	**Report Date:**	02/19/20

1 - 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.

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

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.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

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 Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

B - 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 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).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - 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.

J - 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).

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

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

Report Format: DU Report with 'J' Qualifiers

Project Name:	EMERSON SCHOOL	**Lab Number:**	L2006381
Project Number:	B0441-020-001-001	**Report Date:**	02/19/20

Data Qualifiers

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.

Report Format: DU Report with 'J' Qualifiers

Project Name:	EMERSON SCHOOL	**Lab Number:**	L2006381
Project Number:	B0441-020-001-001	**Report Date:**	02/19/20

REFERENCES

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

121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

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.

Certification Information

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

Westborough Facility
EPA 624/624.1: m/p-xylene, o-xylene
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; 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.
EPA TO-12 Non-methane organics
EPA 3C Fixed gases
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, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-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**, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, 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, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

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

NEW YORK CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-9288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page of

Date Rec'd in Lab: 2/13/20

ALPHA Job #: L2006381

Client Information
Client: Benchmark Env
Address: 2558 Hamburg Turnpike Lackawanna NY 14218
Phone: (716) 828-8358
Fax:
Email: TBehrendt@Benchmarkllc.com

Project Information
Project Name: ~~Hamburg Dept GDOM~~ Emerson Blvd
Project Location: Buffalo NY
Project # B0441-020-001-001
(Use Project name as Project #) [X]
Project Manager: Tom Forbes
ALPHAQuote #:

Turn-Around Time
Standard [X] Due Date:
Rush (only if pre approved) [ ] # of Days:

These samples have been previously analyzed by Alpha [ ]

Other project specific requirements/comments:

Please specify Metals or TAL.

Deliverables
[ ] ASP-A [ ] ASP-B
[ ] EQuIS (1 File) [ ] EQuIS (4 File)
[ ] Other

Regulatory Requirement
[ ] NY TOGS [ ] NY Part 375
[ ] AWQ Standards [ ] NY CP-51
[ ] NY Restricted Use [ ] Other
[ ] NY Unrestricted Use
[ ] NYC Sewer Discharge

Billing Information
[ ] Same as Client Info
PO #

Disposal Site Information
Please identify below location of applicable disposal facilities.
Disposal Facility:
[ ] NJ [ ] NY
[ ] Other:

ANALYSIS

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	TCL+CP-51 VOC 8260	T-Alkalinity as CaCO3							Sample Specific Comments	Total Bottle
06381-01	HMW-1 2/11/20	~~2/11/20~~	1050	Water	TAB	X	X								4
-02	HMW-2		1139			X	X								4
-03	HMW-3		1324			X	X								4
-04	HMW-4		1004			X	X								4
-05	HMW-5		911			X	X								4
-06	HMW-6		837			X	X								4
-07	MW-10		1227			X	X								4
-08	GSW-1		1350			X	X								4

Sample Filtration
[ ] Done
[ ] Lab to do
Preservation
[ ] Lab to do
(Please Specify below)

Container Type	V	P						
Preservative	B	A						

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
	~~2/12/20~~ 2/12/20 1450		2/12/20 1510
	2/12/20 1540		2/13/20 0214

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-25 HC (rev. 30-Sept-2013)

Caroline C. Bukowski

From: dec.sm.NYENVDATA <NYENVDATA@dec.ny.gov>
Sent: Wednesday, November 14, 2018 2:18 PM
To: Caroline C. Bukowski
Cc: Tom A. Behrendt; Lori E. Riker; Locey, David (DEC)
Subject: RE: Submittal - NYSDEC EQuIS Data 73-79 W. Huron Street Site (C915282) Buffalo, New York Post Remedial Groundwater

Caroline,

EDDs 20181109 0916.C915282.NYSDEC, 20181109 0918.C915282.NYSDEC and 20181109 0919.C915282.NYSDEC were successfully uploaded. The data is available for use within the NYSDEC system.

Thank you,
Alison
NYSDEC EIMS Team

From: Caroline C. Bukowski [mailto:CBukowski@benchmarkturnkey.com]
Sent: Friday, November 09, 2018 9:28 AM
To: dec.sm.NYENVDATA <NYENVDATA@dec.ny.gov>
Cc: Tom A. Behrendt <TBehrendt@Turnkeyllc.com>; Lori E. Riker <LRiker@benchmarkees.com>; Locey, David (DEC) <david.locey@dec.ny.gov>
Subject: Submittal - NYSDEC EQuIS Data 73-79 W. Huron Street Site (C915282) Buffalo, New York Post Remedial Groundwater

NYSDEC EIMS Team,

Please find attached the EQuIS submittal and the referenced document for 73-79 W. Huron Street Site (C915282) Buffalo, New York Post Remedial Groundwater.

If you have any questions, comments, or require any additional information please do not hesitate to let me know.

Regards,
Caroline Bukowski

Caroline C. Bukowski
Engineer

Benchmark Environmental Engineering & Science, PLLC
2558 Hamburg Turnpike, Suite 300, Buffalo, NY 14218
www.benchmarkees.com

Phone: (716) 856-0599
Direct Dial: (716) 331-0625
Facsimile: (716) 856-0583
E-mail: cbukowski@benchmarkees.com

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From:	dec.sm.NYENVDATA
To:	Caroline C. Bukowski
Cc:	Tom A. Behrendt; Tom H. Forbes; Locey, David (DEC)
Subject:	RE: Submittal - NYSDEC EQuIS Data 73-79 W. Huron Street Site (C915282) Buffalo, New York Post Remedial Groundwater
Date:	Monday, November 25, 2019 4:39:33 PM
Attachments:	image001.png

Caroline,

Thank you for your EDD submission. NYSDEC has successfully uploaded the data from the EDDs "20190916 1033.C915282.NYSDEC_MERGE" and "20190916 1035.C915282.NYSDEC_MERGE" to 73-79 W. Huron St. in the NYSDEC database and the data is available for use within the system.

Aaron
NYSDEC EIMS Team

From: Caroline C. Bukowski <CBukowski@benchmarkturnkey.com>
Sent: Monday, September 16, 2019 10:38 AM
To: dec.sm.NYENVDATA <NYENVDATA@dec.ny.gov>
Cc: Tom A. Behrendt <TBehrendt@Turnkeyllc.com>; tforbes@benchmarkturnkey.com; Locey, David (DEC) <david.locey@dec.ny.gov>
Subject: Submittal - NYSDEC EQuIS Data 73-79 W. Huron Street Site (C915282) Buffalo, New York Post Remedial Groundwater

NYSDEC EIMS Team,

Please find attached the EQuIS submittal and the referenced document for 73-79 W. Huron Street Site (C915282) Buffalo, New York Post Remedial Groundwater.

If you have any questions, comments, or require any additional information please do not hesitate to let me know.

Regards,

Caroline C. Bukowski
Engineer

Benchmark Environmental Engineering & Science, PLLC
2558 Hamburg Turnpike, Suite 300, Buffalo, NY 14218
www.benchmarkees.com

Phone: (716) 856-0599
Direct Dial: (716) 331-0625

Facsimile: (716) 856-0583
E-mail: cbukowski@benchmarkees.com

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Charlotte M. Clark

From: dec.sm.NYENVDATA <NYENVDATA@dec.ny.gov>
Sent: Monday, April 20, 2020 9:33 AM
To: Charlotte M. Clark
Cc: Locey, David (DEC); Tom H. Forbes; Tom A. Behrendt
Subject: RE: Submittal - NYSDEC EQuIS Data 73-79 W. Huron St. Site (C915282) Buffalo, New York; February 2020 GW Data

Charlotte,

Thank you for your EDD submission. NYSDEC has successfully uploaded the data from the EDDs "20200221 0918.C915282.NYSDEC_MERGE" and "20200221 0919.C915282.NYSDEC_MERGE" to 73-79 W. Huron St. in the NYSDEC database and the data is available for use within the system.

Aaron
NYSDEC EIMS Team

From: Charlotte M. Clark <cclark@bm-tk.com>
Sent: Friday, February 21, 2020 9:26 AM
To: dec.sm.NYENVDATA <NYENVDATA@dec.ny.gov>
Cc: Locey, David (DEC) <david.locey@dec.ny.gov>; Tom H. Forbes <TForbes@bm-tk.com>; Tom A. Behrendt <TBehrendt@bm-tk.com>
Subject: Submittal - NYSDEC EQuIS Data 73-79 W. Huron St. Site (C915282) Buffalo, New York; February 2020 GW Data

NYSDEC EIMS Team,

Please find attached the EQuIS submittal documents for 73-79 W. Huron St. Site (C915282) groundwater sampling. Files "20200221 0918.C915282…" and "20200221 0919.C915282…" represent the February 2020 groundwater data.

If you have any questions, comments, or require any additional information please do not hesitate to let me know.

Regards,

Charlotte Clark
Environmental Engineer
cclark@bm-tk.com

Benchmark Environmental Engineering & Science, PLLC
www.benchmarkturnkey.com
2558 Hamburg Turnpike, Suite 300, Buffalo, NY 14218
Phone: (716) 856-0599*, Mobile:* (716) 220-1201

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