Ambient Environmental, Inc.
Comprehensive Building Science Solutions
NYS Certified WBE,
SBA EDWOSB & DBE

May 15, 2019

Ms. Linette Waling
VP of Operations
Print Bear LLC
336 Forest Avenue
Amsterdam, NY 12010

Via email: linette@printbear.net

RE: Limited Phase II Environmental Site Investigation Report
61 Edson Street, Amsterdam, NY
Ambient Project No. 190311ENVA

Dear Ms. Waling;

Ambient Environmental, Inc. (Ambient) performed a limited Phase II Environmental Site Investigation (SI) at the Site located at 61 Edson Street, Amsterdam, New York (the Site). The Site location is shown on the attached Figure 1. The scope of work was based, in part, on a detailed review of environmental documents related to the Site and discussions with Print Bear LLC (Print Bear) regarding their potential future purchase and use of the Site. The Site is designated as State Superfund Program Site No. 429004 and remediation has been conducted under that Program to the extent that the Site has been reclassified as Classification 04. A NYSDEC-approved Site Management Plan (SMP) prepared by AECOM Environmental, dated February 2011, applies to the Site and contains requirements that must be met prior to the performance of any intrusive work at the Site. To comply with the SMP, Ambient prepared a limited SI Work Plan that was submitted to, and approved by, NYSDEC as described below.

Prior to preparing the SI Work Plan, Ambient evaluated environmental files related to the Site. Ambient's file review identified data gaps that could have represented a potential risk to the future owner. Those data gaps were as follows:

- Sampling had not been conducted under the building, therefore, the extent of contamination under the building (if any) was not known;
- Sampling had not been conducted in the parking lot area that occupies the entire western portion of the Site, therefore, the extent of contamination in this area (if any) was not known;
- Groundwater monitoring had not been conducted in the western portion of the site, therefore, groundwater quality in this area (which is the portion of the Site closest to residential properties) was not known.

Ambient's scope of work addressed those data gaps.

## SCOPE OF WORK

Ambient implemented the scope of work summarized below.

**SI Work Plan Development.** Ambient prepared a SI Work Plan that describes the limited SI scope of work and the approach and procedures for implementing the scope of work. The SI Work Plan includes the following elements: Sampling and Analysis Plan (SAP), Quality Assurance Project Plan (QAPP), and Health and Safety Plan (HASP). The SI Work Plan contains an extensive summary of the Site background and environmental work performed to date; therefore, that information is not presented herein.

The SI Work Plan was submitted to NYSDEC for review on 13 March 2019. NYSDEC provided comments on 14 March 2019 and Ambient addressed those comments in a SI Work Plan Addendum dated 14 March 2019. NYSDEC accepted the SI Work Plan and Addendum on 18 March 2019.

**Ground Penetrating Radar (GPR) Survey.** Ambient contracted GPRS, Inc. to conduct a GPR survey of western parking lot area to evaluate the potential location of current or past tanks, dry wells, pipes and other buried features. Additionally, Ambient utilized the public underground utility locator service ("Digsafe") and the knowledge of the property representative to establish an underground feature mark-out in the work area prior to any intrusive activity.

Results from this survey performed on 27 March 2019 are summarized below in the Summary of Findings section of this report.

**Soil Boring/Soil Sampling.** On 27 March 2019 and 28 March 2019, Ambient advanced 18 soil borings to various depths below ground surface (bgs) based on field screening and site conditions. Nine soil borings were advanced inside the building through the concrete floor and nine soil borings were advanced in the western parking lot area (Figure 2). [NOTE-Prior to advancing interior borings, Ambient utilized a PhotoIonization Detector (PID) to survey interior building air for volatile organic compounds (VOCs) at the ppm detection level. Significant VOC readings were not detected during that survey.] Soil borings were advanced by NYEG Drilling, LLC using 'direct push' technology to collect samples continuously from grade to total depth. Soil borings were logged and continuously scanned with a PID by Ambient's on-site geologist and on-site environmental scientist. The soil borings location map is included as an attachment. PID readings exceeding 5 ppm (parts per million) were not detected in soil at any boring location except for interior soil boring ISB-4 where a VOC reading of 35 ppm was detected at 8.5 feet bgs. No odors or staining were detected in any of the recovered soil. A total of five soil samples were collected for analyses based on field observations and screening as follows:

- Soil sample ISB-4 collected from 7.5 to 8.5 feet bgs at boring location ISB-4;
- Soil sample ISB-6 collected from 3.5 to 4.5 feet bgs at boring location ISB-6;
- Soil sample SB-2 collected from 9.0 to 9.0 feet bgs at boring location SB-2;
- Soil sample SB-5 collected from 4.5 to 5.0 feet bgs at boring location SB-5; and
- Soil sample WC1 collected from MW-22 and MW-23 drill cuttings.

In general, borings were advanced to approximately 10 feet below grade at which depth a firm medium brown silt/clay till layer was encountered. Refusal occurred in nine of the borings at depths varying from 4 feet bgs to 9 feet bgs due to large cobbles or dense till.

Soil boring logs are attached.

**Groundwater Monitoring.** Two bedrock groundwater monitoring wells, MW-22 and MW-23, were constructed in the northwest portion of the Site and one groundwater sample was collected for analyses from each new well (Figure 2). MW-22 and MW-23 are two-inch diameter PVC wells that were installed on 27 March 2019 and 28 March 2019 in boreholes drilled with a Hollow Stem Auger (HSA) to the top of bedrock. Air rotary drilling was utilized to complete the drilling to the total depth: 50 feet bgs for MW-22 and 45 feet bgs for MW-23. Both wells were screened from 30 feet bgs to total depth and sand was placed around the screen from 28 feet bgs to total depth. MW-22 was sealed with bentonite from 25 feet bgs to 28 feet bgs and a bentonite/cement grout was placed around the screen from 2.5 feet bgs to 25 feet bgs. A concrete pad was poured from 0 feet bgs to 2.5 feet bgs and the well was finished with a flush-mounted curb box. MW-23 was sealed with bentonite from 23.4 feet bgs to 28 feet bgs and a bentonite/cement grout was placed around the screen from 3 feet bgs to 23.4 feet bgs. A concrete pad was poured from 0 feet bgs to 3 feet bgs and the well was finished with a flush-mounted curb box. Water levels for both wells were measured on 28 March 2019, at which time the depth to water in MW-22 was 20.07 feet below the top of the PVC casing and the depth to water in MW-23 was 18.34 feet below the top of the PVC casing.

Both wells were developed, purged and sampled by Alpha Analytical on 8 April 2019. The depth to water in each well was measured prior to sampling. The depth to water in MW-22 was 18.12 feet below the top of the PVC casing and the depth to water in MW-23 was 17.90 feet below the top of the PVC casing. MW-22 was developed using bailers while MW-23 was developed using the Geopump (a peristaltic pump). A total of 14 gallons, or three well volumes, were purged from MW-23 to develop the well. A total of 11 gallons was purged from MW-22 before the well went dry. The groundwater in MW-22 started off clear and became more turbid as the well was developed. The groundwater in MW-23 started off clear and stayed clear throughout the development process. No odor was detected in either well. MW-23 recharged almost instantaneously, but MW-22 only recharged seven feet after a few hours. MW-23 was purged with the Geopump and sampled using the low flow method. MW-22 could not be purged with the Geopump due to the limited recharged; therefore, the well was purged with a bailer and sampled using the low flow method. Water quality readings were collected during the sampling process using YSI ProDSS with a flow cell. Five readings were taken from MW-23 until three stable readings were taken. There was not enough recharge in MW-22 to get three stable readings: only one reading of the parameters was taken.

Well Purging/Sampling logs are attached.

**Sample Analyses**. Five soil samples and two water samples (plus a VOC Trip Blank, as required) were analyzed for TCL volatile organic compounds (VOCs) by United States Environmental Protection Agency (USEPA) SW-846 Test Method 8260. Additionally, five soil samples were analyzed for total RCRA Metals, Nickel, and Zinc (EPA 6010D and EPA 7471). All samples were analyzed by ALPHA Analytical, a NYSDOH-certified laboratory. The results of soil sample analyses are compared to unrestricted use and commercial use NYSDEC Soil

Cleanup Objectives (SCOs) as summarized on the attached Table 1. The results of water sample analyses are compared to NYS Groundwater Standards (GWS) as summarized on Table 2.

Laboratory reports are provided as attachments.

**Summary of Findings.** The GPR survey covered the entire parking lot area and located three underground features on the western side of the building. Live power was found parallel to the western side of the building from the corner of the building to the man door. An unknown underground feature, approximately 9 feet long and buried an estimated 0.5 feet bgs, was located near the south west corner of the building. A few feet north of that, another underground feature was located. This feature was a semi-circle, approximately 8 feet wide and buried an estimated 0.5 feet bgs.

Soil borings showed that a firm medium brown silt/clay till layer was encountered at around 10 feet bgs throughout the Site. Light gray cobbles were consistently found throughout borings, causing refusal at some locations as noted on boring logs. PID readings were below 5 ppm in most of the borings, except at ISB-4 where a VOC reading of 35 ppm was detected at 8.5 feet bgs. At SB-2, a sample from 8.5 feet bgs was placed in a Ziplock bag and the headspace VOC reading reached 3 ppm. Odors or staining were not identified in any of the soil borings. The concrete floors inside the building were generally 0.5 feet thick and the pavement in the western parking lot area was generally 0.3 feet thick with another 0.7 feet of sub-base material.

Bedrock groundwater monitoring wells indicated that depth to groundwater in the western parking lot area is approximately 17-20 feet bgs. This is consistent with the other wells onsite. The bedrock in MW-23 was very fractured, causing groundwater to be encountered at relatively shallow depths, while the bedrock in MW-22 appeared to be less fractured (and, therefore, produce less water).

Analyses of soil samples show that concentrations of VOCs and metals exceed unrestricted use SCOs for various analytes in three out of the five samples. Exceedances are as follows: acetone and trichloroethene in ISB-6 (3.5-4'), trichloroethene and zinc in ISB-4 (7.5-8.5'), and cadmium, chromium, lead, nickel, and zinc in WC1. The exceedances in ISB-6 (3.5-4') were excepted since this sample was taken from the grinding room; the reported location of a historical spill. The only PID reading above 5 ppm was from ISB-4, the same location where highest concentration of trichloroethene and zinc were found in the soil sample. Soil boring ISB-4 was located near the grinding room. Although there were exceedances for unrestricted use SCOs, the concentrations of VOCs and metals in all soil samples were below commercial use SCOs.

Analyses of groundwater samples show that concentrations of VOCs exceed the NYS GWS for trichloroethene in samples collected from both newly-installed wells (MW-22 and MW-23). Aside from trichloroethene, no other VOC exceedances of the NYS GWS occurred in either sample. The concentrations of trichloroethene in samples collected from both new monitoring wells are consistent with the trichloroethene concentrations detected in samples obtained from the Site-wide groundwater monitoring well network over time. This shows that the trichloroethene concentrations in groundwater onsite is not contained to the eastern portion of the Site, as previously indicated.

## Additional Investigation Activities

Ambient performed the following activities in order to further evaluate the Site based on the findings described above.

**Groundwater Sampling.** On 2 May 2019 and 3 May 2019, Alpha Analytical re-sampled the two monitoring wells installed by Ambient (MW-22 and MW-23) and also collected groundwater samples from existing monitoring wells MW-5, MW-8, MW-10 and MW-12. This sampling was performed to: (1) confirm initial results of MW-22 and MW-23 sampling and analyses and; (2) document contemporaneous VOC concentrations at selected locations site-wide.

Well Purging/Sampling logs are attached.

Six water samples (plus a VOC Trip Blank, as required) were analyzed for TCL volatile organic compounds (VOCs) by United States Environmental Protection Agency (USEPA) SW-846 Test Method 8260. All samples were analyzed by ALPHA Analytical, a NYSDOH-certified laboratory. The concentration of trichloroethene exceeded the NYS Groundwater Standards (GWS) by at least one order of magnitude in each sample. The results of groundwater sample analyses are compared to GWS as summarized on Table 2.

Laboratory reports are provided as attachments.

Analyses of groundwater samples show that concentrations of VOCs exceed the NYS GWS for trichloroethene in samples collected from both newly installed wells (MW-22 and MW-23) and from the existing wells that were sampled (MW-5, MW-8, MW-10 and MW-12). Aside from trichloroethene, no other VOC exceedances of the NYS GWS occurred in MW-22, MW-23, MW-5 or MW-12. In addition to a trichloroethene exceedance in the sample from MW-8, the concentration of tetrachloroethene in that sample also exceedance the GWS. Both a trichloroethene exceedance and a cis-1,2-dichloroethene exceedance were detected in the sample from MW-10. The concentrations of trichloroethene in samples collected from the monitoring wells are consistent with the trichloroethene concentrations detected in the samples obtained on 8 April 2019, as well as the trichloroethene concentrations detected in samples obtained from the Site-wide groundwater monitoring well network over time. This further shows that the trichloroethene concentrations in groundwater onsite is not contained to the eastern portion of the Site, as previously indicated.

**Metal Detection.** Debris piles and small grassy hills were observed along the northwestern corner of the property. Due to a visual inspection of the area which revealed obvious metal pieces in the area, Ambient walked the area with a metal detector on 6 May 2019. The metal detector was utilized to search for possible buried drums, tanks or other materials that could have influenced groundwater and soil sample results.

As indicated on the attached Figure 3, five centralized readings were observed in the subject area. Additionally, three locations were discovered where a positive reading was observed approximately 35 inches from a negative reading. This could indicate that a horizontal metal drum or pipe is buried below the surface [**NOTE-** historic air photos indicate that two small sheds were previously located in the northwest portion of the Site. The purpose of those sheds is not known, and the sheds are no longer present.]

**Off-Site Source Investigation.** Because groundwater flow at the Site has always been shown as being to the south-southwest, Ambient evaluated the potential presence of other sources of trichloroethene to groundwater from off-site, upgradient sources. Ambient utilized historic photographs of the area and researched operating procedures at upgradient sources in order to investigate the potential presence of an off-site source. Historic photographs indicate that a large industrial landfill may be located northeast of the Site in the presumed upgradient direction. The presumed landfill in on property owned (currently or previously) by Fiber Glass Industries, 69 Edson Street, adjacent to the subject Site. The photographs indicate a very large area of ground disturbance, as well as several large above ground tanks and a lagoon or pond at 69 Edson. Ambient currently does not know if trichloroethene was used at 69 Edson Street; we are continuing our evaluation.

## Conclusions and Recommendations

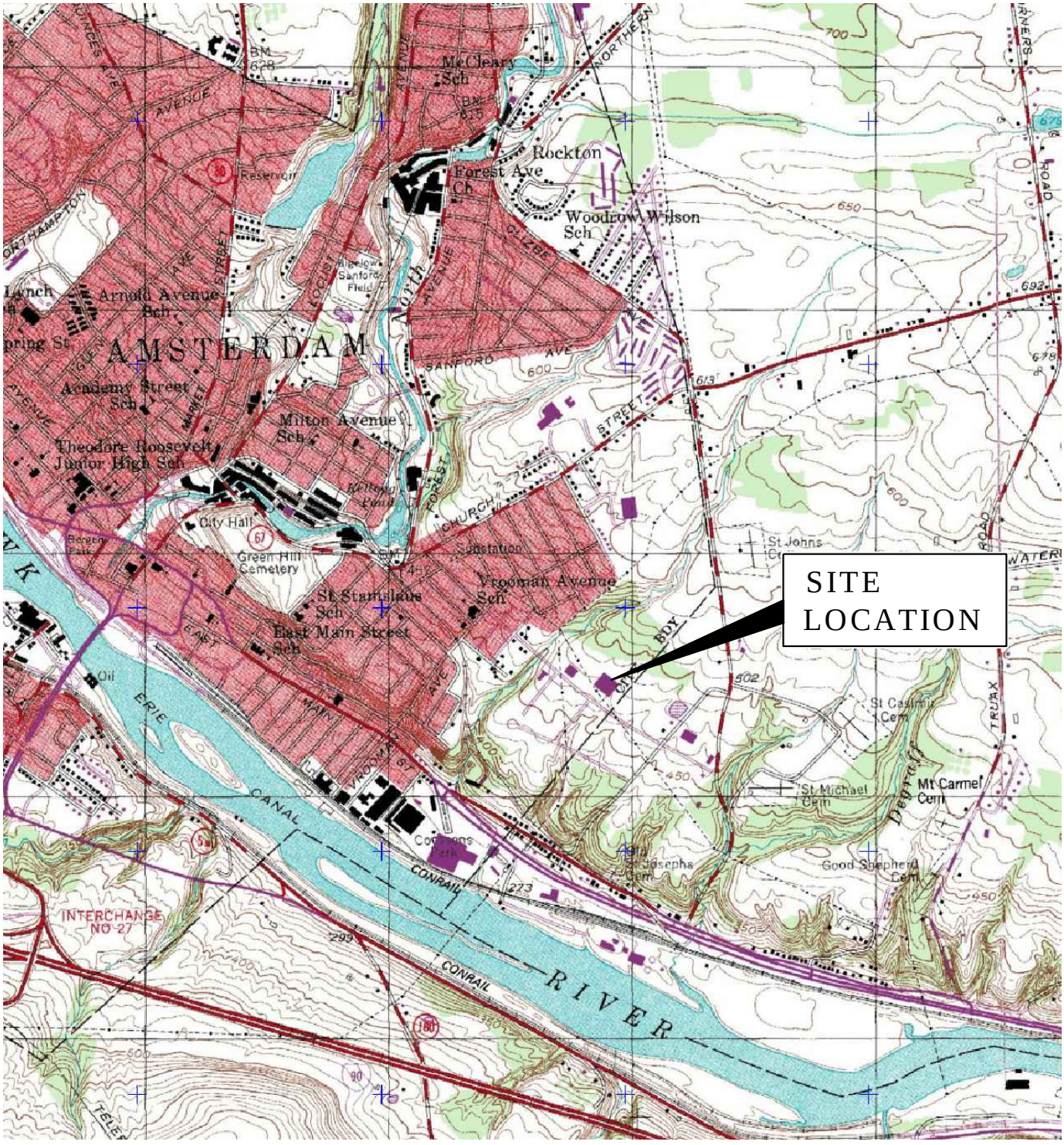
Based on the information obtained during this limited SI, Ambient concludes that significant concentrations of VOCs and metals are not present in soil under the building floor or in the soil in the western parking lot area. VOCs were detected in groundwater samples collected from monitoring wells located in the previously untested northwestern portion of the Site. The concentrations of trichloroethene in samples collected from both recently-installed monitoring wells exceeded the NYS GWS. As indicated on the attached Figure 4, these results are consistent with past results presented by others as the concentrations of trichloroethene in samples from the wells MW-10, MW-11 and MW-12 (the existing monitoring wells closest to the newly-installed wells) historically contained trichloroethene at concentrations similar to those detected in samples from MW-22 and MW-23. Unfortunately, trichloroethene contour maps prepared by others indicated that the concentration of trichloroethene in groundwater in the northwestern portion of the Site was below 5 ppb (NYS GWS); therefore, previous Site evaluations did not consider the need for addressing trichloroethene in groundwater in this portion of the Site. Further evaluation of potential on-site and off-site source of VOCs to groundwater is needed. Remediation efforts will need to be expanded to address the northwest portion of the Site.

Ambient appreciates the opportunity to provide environmental consulting services. If you have any questions regarding this report, please contact me at (315) 263-3388 or by email (jimb@ambient-env.com). Thank you.

Respectfully;
Ambient Environmental, Inc.

James F. Blasting, PG
Senior Consultant

Attachments




USGS AMSTERDAM QUADRANGLE
NEW YORK

| | | | | |
|---|---|---|---|---|
| AMBIENT ENVIRONMENTAL, INC.<br>828 WASHINGTON AVENUE<br>ALBANY, NEW YORK 12203 | PROJECT LOCATION<br>FORMER WARD PRODUCTS<br>61 EDSON STREET<br>AMSTERDAM, NEW YORK | DRAWING TITLE<br>SITE LOCATION MAP | DATE: 04/01/19 | SCALE: AS NOTED |
| | | | PROJECT NO. | 190311ENVA |
| | | | DRAWN BY: | MTG |
| | | | CHECKED BY: | |
| | | PREPARED FOR:<br>61 EDSON STREET LLC | DRAWING NO.<br>FIGURE 1 | |


2019 SI BORING AND WELL LOCATION MAP

LEGEND

SB-1 ● SOIL BORING
ISB-1 ● INSIDE SOIL BORING
MW-22 X MONITORING WELL

AMBIENT ENVIRONMENTAL, INC.
828 WASHINGTON AVENUE
ALBANY, NEW YORK 12203

PROJECT LOCATION
FORMER WARD PRODUCTS
61 EDSON STREET
AMSTERDAM, NEW YORK

DRAWING TITLE
SITE LAYOUT MAP

PREPARED FOR:
61 EDSON STREET LLC

| | |
|---|---|
| DATE: 04/01/19 | SCALE: NONE |
| PROJECT No. | 190311ENVA |
| DRAWN BY: | MTG |
| CHECKED BY: | |

DRAWING NO.
FIGURE 2

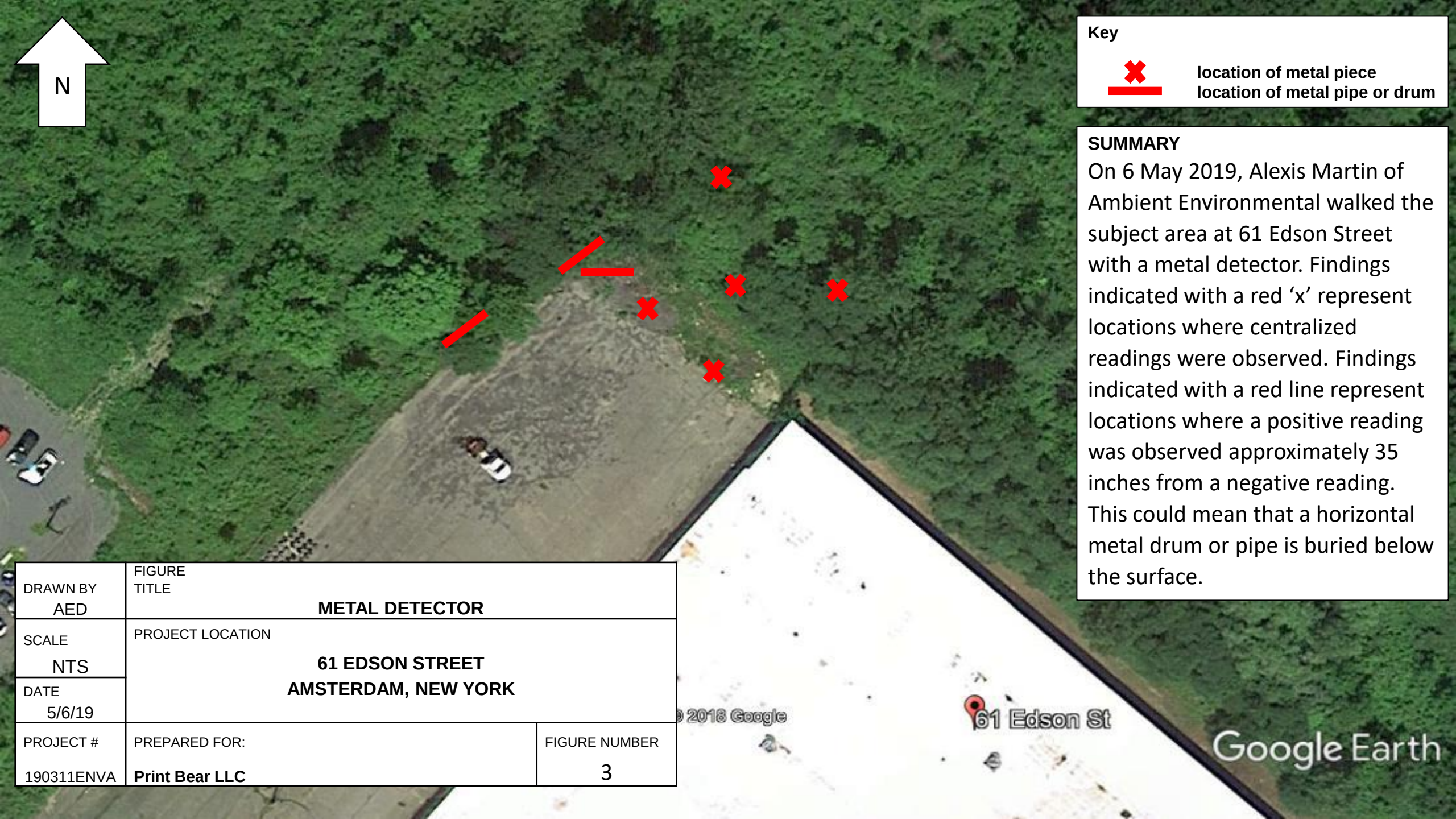

N
Key
location of metal piece
location of metal pipe or drum
SUMMARY
On 6 May 2019, Alexis Martin of Ambient Environmental walked the subject area at 61 Edson Street with a metal detector. Findings indicated with a red 'x' represent locations where centralized readings were observed. Findings indicated with a red line represent locations where a positive reading was observed approximately 35 inches from a negative reading. This could mean that a horizontal metal drum or pipe is buried below the surface.
DRAWN BY
AED
FIGURE TITLE
METAL DETECTOR
SCALE
NTS
PROJECT LOCATION
61 EDSON STREET
AMSTERDAM, NEW YORK
DATE
5/6/19
PROJECT #
190311ENVA
PREPARED FOR:
Print Bear LLC
FIGURE NUMBER
3
2018 Google
61 Edson St
Google Earth


Figure 4
TCE Concentrations for Selected Well Locations
Supplemental Site Investigation
Former Ward Products Site
61 Edson Street, Amsterdam, NY
Prepared by Ambient Environmental, Inc.

**Table 1**
**Soil Sample Results Presented by Ambient Environmental, 2019**
**61 Edson Street, Amsterdam, NY**

| Analyte | Unrestricted Use Cleanup Objectives (ppm) | Commercial Use Cleanup Objectives (ppm) | Sample ID | | | | |
|---|---|---|---|---|---|---|---|
| | | | WC1 | ISB-4 | ISB-6 | SB-2 | SB-5 |
| | | | 3/27/2019 | 3/27/2019 | 3/27/2019 | 3/27/2019 | 3/28/2019 |
| **Volatile Organic Compounds (VOCs)** | | | | | | | |
| Acetone | 0.05 | 500 | 0.028 | ND | **0.65** | 0.022 | .0069 J |
| o-Xylene | 0.26 | 500 | 0.0009 J | ND | ND | ND | ND |
| Ethylbenzene | 1 | 390 | 0.00032 J | ND | ND | ND | ND |
| Trichloroethene | 0.47 | 200 | 0.0009 | **110** | **0.56** | 0.0018 | .00044 J |
| Methyl tert butyl ether | 0.93 | 500 | 0.0003 J | ND | ND | .00022 J | ND |
| p/m - Xylene | 0.26 | 500 | 0.0015 J | ND | ND | ND | ND |
| cis-1,2-Dichloroethene | 0.25 | 500 | ND | .17 J | ND | ND | ND |
| Methyl Acetate | NS | NS | 0.0074 | 2 | 3.3 | .0027 J | .0018 J |
| **Metals** | | | | | | | |
| Arsenic | 13 | 16 | 4.33 | 3.89 | 4.49 | 4.28 | 4.2 |
| Barium | 350 | 400 | 55.4 | 33.4 | 59.9 | 39.2 | 40.1 |
| Cadmium | 2.5 | 9.3 | **2.56** | 0.84 | 0.271 J | 0.082 J | 0.049 J |
| Chromium | 30 | 1500 | **33.4** | 6.7 | 22.6 | 9.06 | 13.5 |
| Lead | 63 | 1000 | **80.3** | 5.78 | 7.65 | 7.03 | 7.62 |
| Mercury | 0.18 | 2.8 J | ND | ND | ND | ND | ND |
| Nickel | 30 | 310 | **72.6** | 10.4 | 20.5 | 15.9 | 17 |
| Selenium | 4 | 1,500 | ND | 0.169 J | 0.244 J | 0.254 J | 0.341 J |
| Silver | 2 | 1,500 | 1.06 | ND | ND | ND | ND |
| Zinc | 109 | 10,000 | **2850** | **184** | 42.9 J | 49.2 | 45.2 |

**Notes:**

All results reported in mg/kg - parts per million (ppm).

ND - Compound not detected.

**BOLD -** Unrestricted use cleanup objective excedance

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 analysis. This represents an estimated concentration for Tentalively Identified Compounds (TICs).

Only those compounds detected in at least one sample are presented on this table.

**Table 2**
**Groundwater Sample Results Presented by Ambient 2019**
**61 Edson Street, Amsterdam, NY**

| Analyte | NYSDEC Groundwater Standard (ppb) | Sample ID | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | MW-22 | MW-23 | MW-5 | MW-8 | MW-10 | MW-12 | Trip Blank |
| | | 4/8/2019 | | | | | | |
| **Volatile Organic Compounds (VOCs)** | | | | | | | | |
| Tetrachloroethene | 5 | 0.59 | ND | NA | NA | NA | NA | ND |
| 1,1-Dichloroethene | 5 | 0.57 | 0.54 | NA | NA | NA | NA | ND |
| trans-1,2-Dichloroethene | 5 | ND | 0.72 J | NA | NA | NA | NA | ND |
| Trichloroethene | 5 | **78** | **96** | NA | NA | NA | NA | 0.23 J |
| cis-1,2-Dichloroethene | 5 | 2.0 J | 1.9 J | NA | NA | NA | NA | ND |
| Methyl cyclohexane | NS | 0.55 J | 0.70 J | NA | NA | NA | NA | ND |

| Analyte | NYSDEC Groundwater Standard (ppb) | Sample ID | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | MW-22 | MW-23 | MW-5 | MW-8 | MW-10 | MW-12 | Trip Blank |
| | | 5/3/2019 | 5/2/2019 | 5/2/2019 | 5/2/2019 | 5/2/2019 | 5/2/2019 | 5/3/2019 |
| **Volatile Organic Compounds (VOCs)** | | | | | | | | |
| Tetrachloroethene | 5 | 0.29 J | ND | ND | **55** | 1.2 | ND | ND |
| 1,1-Dichloroethene | 5 | 0.38 J | 0.57 | ND | ND | 1.6 | 0.34 J | ND |
| trans-1,2-Dichloroethene | 5 | ND | 0.73 J | ND | ND | 1.4 J | ND | ND |
| Trichloroethene | 5 | **52** | **100** | **27** | **2400** | **170** | **30** | ND |
| cis-1,2-Dichloroethene | 5 | 1.5 J | 2.0 J | 1.3 J | ND | **6.3** | 3.7 | ND |
| Methyl cyclohexane | NS | ND | ND | ND | ND | ND | ND | ND |
| Acetone | 50 | ND | ND | ND | ND | ND | ND | 2.0 J |

**Notes:**

All results reported in ug/l - parts per billion (ppb).

Only those compounds detected in at least one sample are presented on this table.

ND - Compound not detected.

NS- no standard

NA - sample not collected for analyses from this well

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 anaysis. This represents an estimated concentration for Tentatively Identified Compounds (TICs)

**BOLD**- Exceedance

Ambient Environmental, Inc.

# TEST BORING LOG
# BORING NO.: ISB-1

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| PROJECT: Former Ward Products Site Investigation | | | | | | | | | Sheet 1 of 1 |
| CLIENT: 61 Edson Street LLC | | | | | | | | | |
| AMBIENT PROJECT NO: 190311ENVA | | | | | | | | | |
| DRILLING METHOD: Direct Push | | | | | SAMPLER | BIT SIZE | CORE | CASING | |
| DRILLING RIG: Geoprobe | | | | | Macrocore | NA | NA | NA | DATE: 3/27/19 |
| DRILLER: NYEG | | | | | INSPECTOR: Jim Blasting and Alexis Martin | | | | |
| DEPTH IN FT. | SAMPLE NO. | PID reading | REC. | USCS Class | **SOIL DESCRIPTION** | | | | **REMARKS** |
| 1.0 | | <1 | | | 0 - 0.5' : Concrete<br>0.5' - 5' : medium brown silt with clay, mottled, uniform, dry to moist, no odors, no staining, firm/stiff | | | | |
| 2.0 | | | 5.0 | | | | | | |
| 3.0 | | | | | | | | | |
| 4.0 | | 1.4 | | | | | | | |
| 5.0 | | 0.5 | | | | | | | |
| 6.0 | | 0.5 | | | 5' - 6.75' : medium brown silt with clay, mottled, uniform, dry to moist, no odors, no staining, firm/stiff<br>6.75' - 7.15' : light gray cobble | | | | |
| 7.0 | | 3.5 | | | | | | | |
| 8.0 | | 0.5 | 5.0 | | 7.15' - 8.5' : medium brown silt with clay, mottled, uniform, dry to moist, no odors, no staining, firm/stiff<br>8.5' - 9' : light gray cobble | | | | |
| 9.0 | | 0.5 | | | | | | | |
| 10.0 | | | | | 9' - 10' : medium brown silt with clay, mottled, uniform, dry to moist, no odors, no staining, firm/stiff | | | | |
| 11.0 | | | | | | | | | |
| 12.0 | | | | | | | | | |
| 13.0 | | | | | | | | | |
| 14.0 | | | | | | | | | |
| 15.0 | | | | | | | | | |
| 16.0 | | | | | | | | | |
| 17.0 | | | | | | | | | |
| 18.0 | | | | | | | | | |

**Ambient Environmental, Inc.**

# TEST BORING LOG
## BORING NO.: ISB-2

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| PROJECT: Former Ward Products Site Investigation | | | | | | | | | Sheet 1 of 1 |
| CLIENT: 61 Edson Street LLC | | | | | | | | | |
| AMBIENT PROJECT NO: 190311ENVA | | | | | | | | | |
| DRILLING METHOD: Direct Push | | | | | SAMPLER | BIT SIZE | CORE | CASING | |
| DRILLING RIG: Geoprobe | | | | | Macrocore | NA | NA | NA | DATE: 3/27/19 |
| DRILLER: NYEG | | | | | INSPECTOR: Jim Blasting and Alexis Martin | | | | |
| DEPTH IN FT. | SAMPLE NO. | PID reading | REC. | USCS Class | **SOIL DESCRIPTION** | | | | **REMARKS** |
| 1.0<br>2.0<br>3.0<br>4.0<br>5.0 | | | 6" | | 0 - 0.5' : Concrete<br>No Recovery | | | | |
| 6.0<br>7.0<br>8.0<br>9.0<br>10.0 | | 0.5<br><br><br>0.5<br>0.7 | 5.0 | | 5' - 6.5' : medium brown silt with clay, mottled, uniform, dry to moist, no odors, no staining, firm/stiff<br>6.7' - 6.7' : light gray cobble<br>6.7' - 7.5' : medium brown silt with clay, mottled, uniform, dry to moist, no odors, no staining, firm/stiff<br>7.5' - 7.6' : light gray cobble<br>7.6' - 10' : medium brown fine sand, very dry, no odors, no staining | | | | .5 ppm reading coming out of boring hole |
| 11.0<br>12.0<br>13.0<br>14.0<br>15.0<br>16.0<br>17.0<br>18.0 | | | | | | | | | |

Ambient Environmental, Inc.

# TEST BORING LOG
# BORING NO.: ISB-3

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| PROJECT: Former Ward Products Site Investigation | | | | | | | | | Sheet 1 of 1 |
| CLIENT: 61 Edson Street LLC | | | | | | | | | |
| AMBIENT PROJECT NO: 190311ENVA | | | | | | | | | |
| DRILLING METHOD: Direct Push | | | | | SAMPLER | BIT SIZE | CORE | CASING | |
| DRILLING RIG: Geoprobe | | | | | Macrocore | NA | NA | NA | DATE: 3/27/19 |
| DRILLER: NYEG | | | | | INSPECTOR: Jim Blasting and Alexis Martin | | | | |
| DEPTH IN FT. | SAMPLE NO. | PID reading | REC. | USCS Class | **SOIL DESCRIPTION** | | | | **REMARKS** |
| 1.0 | | 1.6 | | | 0 - 0.5' : Concrete<br>0.5' - 1.5' : medium brown silt with clay, mottled, uniform, dry to moist, no odors, no staining, firm/stiff | | | | 1.2 - 1.5 ppm PID reading |
| 2.0 | | | | | 1.5' - 3.5' : very firm, dark brown and gray clay with silt, few pebbles | | | | |
| | | 1.6 | 3.5 | | | | | | |
| 3.0 | | | | | 3.5' - 3.55' : organic layer | | | | no staining |
| | | 1 | | | 3.55' - 5' : very firm, dark brown and gray clay with silt, few pebbles | | | | no odors |
| 4.0 | | | | | | | | | |
| 5.0 | | 1.2 | | | | | | | |
| 6.0 | | | | | 5' - 7.2' : medium brown clay with silt and few pebbles | | | | |
| | | | | | | | | | no staining |
| 7.0 | | 0.2 | 5.0 | | 7.2' - 8.5' : medium brown and gray plastic clay with silt, very moist | | | | no odors |
| 8.0 | | | | | | | | | |
| | | | | | 8.5' - 10' : medium brown silt with clay, firm/stiff, moist | | | | |
| 9.0 | | | | | | | | | |
| 10.0 | | | | | | | | | |
| 11.0 | | | | | | | | | |
| 12.0 | | | | | | | | | |
| 13.0 | | | | | | | | | |
| 14.0 | | | | | | | | | |
| 15.0 | | | | | | | | | |
| 16.0 | | | | | | | | | |
| 17.0 | | | | | | | | | |
| 18.0 | | | | | | | | | |

**Ambient Environmental, Inc.**

# TEST BORING LOG
# BORING NO.: ISB-4

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| PROJECT: Former Ward Products Site Investigation | | | | | | | | | Sheet 1 of 1 |
| CLIENT: 61 Edson Street LLC | | | | | | | | | |
| AMBIENT PROJECT NO: 190311ENVA | | | | | | | | | |
| DRILLING METHOD: Direct Push | | | | | SAMPLER | BIT SIZE | CORE | CASING | |
| DRILLING RIG: Geoprobe | | | | | Macrocore | NA | NA | NA | DATE: 3/27/19 |
| DRILLER: NYEG | | | | | INSPECTOR: Jim Blasting and Alexis Martin | | | | |
| DEPTH IN FT. | SAMPLE NO. | PID reading | REC. | USCS Class | **SOIL DESCRIPTION** | | | | **REMARKS** |
| 1.0 | | | | | 0 - 0.5' : Concrete<br>0.5' - 5' : very firm, dark brown silt with clay, mottled | | | | |
| 2.0 | | | | | | | | | |
| 3.0 | | 0.5 | 5.0 | | | | | | |
| 4.0 | | | | | | | | | |
| 5.0 | | | | | | | | | |
| 6.0 | | | | | 5' - 6.5' : light gray cobble<br>6.5' - 7.5' : medium brownish gray plastic clay with silt, very moist | | | | |
| 7.0 | | | | | 7.5' - 8.5' : dark gray, firm, moist, silt, little clay and pebbles, no odor, no staining | | | | |
| 8.0 | ISB-4 | 22 | 3.5 | | *Composite Sample ISB-4 (7.5-8.5)* | | | | |
| 9.0 | | 35 | | | Refusal @ 8.5' | | | | |
| 10.0 | | | | | | | | | |
| 11.0 | | | | | | | | | |
| 12.0 | | | | | | | | | |
| 13.0 | | | | | | | | | |
| 14.0 | | | | | | | | | |
| 15.0 | | | | | | | | | |
| 16.0 | | | | | | | | | |
| 17.0 | | | | | | | | | |
| 18.0 | | | | | | | | | |

**Ambient Environmental, Inc.**

# TEST BORING LOG
# BORING NO.: ISB-5

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| PROJECT: Former Ward Products Site Investigation | | | | | | | | | Sheet 1 of 1 |
| CLIENT: 61 Edson Street LLC | | | | | | | | | |
| AMBIENT PROJECT NO: 190311ENVA | | | | | | | | | |
| DRILLING METHOD: Direct Push | | | | | SAMPLER | BIT SIZE | CORE | CASING | |
| DRILLING RIG: Geoprobe | | | | | Macrocore | NA | NA | NA | DATE: 3/27/19 |
| DRILLER: NYEG | | | | | INSPECTOR: Jim Blasting and Alexis Martin | | | | |
| DEPTH IN FT. | SAMPLE NO. | PID reading | REC. | USCS Class | **SOIL DESCRIPTION** | | | | **REMARKS** |
| 1.0 | | | | | 0 - 0.5' : Concrete<br>0.5' - 4.5' : medium brown silt with clay, mottled, uniform, dry to moist | | | | |
| 2.0 | | 2 | | | | | | | |
| 3.0 | | | 5.0 | | | | | | |
| 4.0 | | 2.5 | | | 4.5' - 4.8' : light gray cobble | | | | |
| 5.0 | | 3 | | | 4.8' - 5' : medium brown silt with clay, mottled, uniform, dry to moist | | | | |
| 6.0 | | 2 | 1.9 | | 5' - 6' : medium brown clay with silt, cobbles present throughout | | | | |
| 7.0 | | | | | Refusal @ 6' | | | | |
| 8.0 | | | | | | | | | |
| 9.0 | | | | | | | | | |
| 10.0 | | | | | | | | | |
| 11.0 | | | | | | | | | |
| 12.0 | | | | | | | | | |
| 13.0 | | | | | | | | | |
| 14.0 | | | | | | | | | |
| 15.0 | | | | | | | | | |
| 16.0 | | | | | | | | | |
| 17.0 | | | | | | | | | |
| 18.0 | | | | | | | | | |

**Ambient Environmental, Inc.**

# TEST BORING LOG
# BORING NO.: ISB-6

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| PROJECT: Former Ward Products Site Investigation | | | | | | | | | Sheet 1 of 1 |
| CLIENT: 61 Edson Street LLC | | | | | | | | | |
| AMBIENT PROJECT NO: 190311ENVA | | | | | | | | | |
| DRILLING METHOD: Direct Push | | | | | SAMPLER | BIT SIZE | CORE | CASING | |
| DRILLING RIG: Geoprobe | | | | | Macrocore | NA | NA | NA | DATE: 3/27/19 |
| DRILLER: NYEG | | | | | INSPECTOR: Jim Blasting and Alexis Martin | | | | |
| DEPTH IN FT. | SAMPLE NO. | PID reading | REC. | USCS Class | **SOIL DESCRIPTION** | | | | **REMARKS** |
| 1.0 | | | | | 0 - 0.9' : Concrete<br>0.9' - 4.3' : medium brown silt with clay and fine sand, dry to moist, firm to very firm, uniform throughout | | | | No staining<br>No odor |
| 2.0 | | | 2.0 | | | | | | No PID over 1 ppm |
| 3.0 | | | | | | | | | |
| 4.0 | | | | | 4.3' - 4.5' : very firm/hard till with silty clay, fine sand and cobbles | | | | |
| | ISB-6 | | | | Refusal @ 4.5' | | | | |
| 5.0 | | | | | *Composite Sample ISB-6 (3.5-4.5)* | | | | |
| 6.0 | | | | | | | | | |
| 7.0 | | | | | | | | | |
| 8.0 | | | | | | | | | |
| 9.0 | | | | | | | | | |
| 10.0 | | | | | | | | | |
| 11.0 | | | | | | | | | |
| 12.0 | | | | | | | | | |
| 13.0 | | | | | | | | | |
| 14.0 | | | | | | | | | |
| 15.0 | | | | | | | | | |
| 16.0 | | | | | | | | | |
| 17.0 | | | | | | | | | |
| 18.0 | | | | | | | | | |

Ambient Environmental, Inc.

# TEST BORING LOG
# BORING NO.: ISB-7

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| PROJECT: Former Ward Products Site Investigation | | | | | | | | | Sheet 1 of 1 |
| CLIENT: 61 Edson Street LLC | | | | | | | | | |
| AMBIENT PROJECT NO: 190311ENVA | | | | | | | | | |
| DRILLING METHOD: Direct Push | | | | | SAMPLER | BIT SIZE | CORE | CASING | |
| DRILLING RIG: Geoprobe | | | | | Macrocore | NA | NA | NA | DATE: 3/27/19 |
| DRILLER: NYEG | | | | | INSPECTOR: Jim Blasting and Alexis Martin | | | | |
| DEPTH IN FT. | SAMPLE NO. | PID reading | REC. | USCS Class | **SOIL DESCRIPTION** | | | | **REMARKS** |
| 1.0<br>2.0<br>3.0<br>4.0<br>5.0 | | 5 | 5.0 | | 0 - 0.5' : Concrete<br>0.5' - 2.8' : medium brown silt with clay and some fine sand, some pebbles, moist, firm<br>2.8' - 4' : dry silt, clayey, fine sand with cobbles and gravel<br>4' - 5' : medium brown silt with clay, some fine sand, very firm, moist | | | | No staining<br>No odor<br>PID: 3-7 ppm throughout |
| 6.0<br>7.0<br>8.0<br>9.0<br>10.0 | | | 2.6 | | 5' - 6' : medium brown silt with clay, some fine sand, very firm, moist<br>6' - 6.5' : light gray cobble<br>6.5' - 7' : medium brown silt with clay and sand, some pebbles<br>7' - 7.4' : brown fine sand, moist to wet<br>7.4' - 7.6' : very hard till with clay, silt, sand, pebbles<br>Refusal @ 7.6 | | | | |
| 11.0<br>12.0<br>13.0<br>14.0<br>15.0<br>16.0<br>17.0<br>18.0 | | | | | | | | | |

Ambient Environmental, Inc.

# TEST BORING LOG
## BORING NO.: ISB-8

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| PROJECT: Former Ward Products Site Investigation | | | | | | | | | Sheet 1 of 1 |
| CLIENT: 61 Edson Street LLC | | | | | | | | | |
| AMBIENT PROJECT NO: 190311ENVA | | | | | | | | | |
| DRILLING METHOD: Direct Push | | | | | SAMPLER | BIT SIZE | CORE | CASING | |
| DRILLING RIG: Geoprobe | | | | | Macrocore | NA | NA | NA | DATE: 3/27/19 |
| DRILLER: NYEG | | | | | INSPECTOR: Jim Blasting and Alexis Martin | | | | |
| DEPTH IN FT. | SAMPLE NO. | PID reading | REC. | USCS Class | **SOIL DESCRIPTION** | | | | **REMARKS** |
| 1.0 | | | | | 0 - 0.5' : Concrete<br>0.5' - 4.6' : medium brown silt with clay and sand, pebbles and cobbles throughout, moist, firm, no odor, no staining | | | | |
| 2.0 | | 3 | | | | | | | |
| 3.0 | | | 5.0 | | | | | | |
| 4.0 | | 4.2 | | | 4.6' - 5' : light gray cobble | | | | |
| 5.0 | | 4 | | | | | | | |
| 6.0 | | 4 | | | 5' - 5.5' : cobble<br>5.5' - 7.9' : medium brown silt with clay and sand, pebles throughout, moist, firm, no odor, no staining | | | | |
| 7.0 | | 4.3 | | | | | | | |
| 8.0 | | | 5.0 | | 7.9' - 10' : till, gray/brown, cobbles and pebbles throughout, firm, moist | | | | |
| 9.0 | | 4 | | | | | | | |
| 10.0 | | | | | | | | | |
| 11.0 | | | | | | | | | |
| 12.0 | | | | | | | | | |
| 13.0 | | | | | | | | | |
| 14.0 | | | | | | | | | |
| 15.0 | | | | | | | | | |
| 16.0 | | | | | | | | | |
| 17.0 | | | | | | | | | |
| 18.0 | | | | | | | | | |

Ambient Environmental, Inc.

# TEST BORING LOG
# BORING NO.: ISB-9

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| PROJECT: Former Ward Products Site Investigation | | | | | | | | | Sheet 1 of 1 |
| CLIENT: 61 Edson Street LLC | | | | | | | | | |
| AMBIENT PROJECT NO: 190311ENVA | | | | | | | | | |
| DRILLING METHOD: Direct Push | | | | | SAMPLER | BIT SIZE | CORE | CASING | |
| DRILLING RIG: Geoprobe | | | | | Macrocore | NA | NA | NA | DATE: 3/27/19 |
| DRILLER: NYEG | | | | | INSPECTOR: Jim Blasting and Alexis Martin | | | | |
| DEPTH IN FT. | SAMPLE NO. | PID reading | REC. | USCS Class | **SOIL DESCRIPTION** | | | | **REMARKS** |
| 1.0 | | 3 | | | 0 - 0.5' : Concrete<br>0.5' - 5' : medium brown silt with clay and sand, moist, firm, no odor, cobbles and gravel throughout | | | | |
| 2.0 | | | | | | | | | |
| 3.0 | | | 5.0 | | | | | | |
| 4.0 | | | | | | | | | |
| 5.0 | | 4.2 | | | | | | | |
| 6.0 | | | 3.0 | | 5' - 5.5' : medium brown silt with clay and sand, moist, firm, no odor, cobbles and gravel throughout<br>Refusal @ 5.5' | | | | |
| 7.0 | | | | | | | | | |
| 8.0 | | | | | | | | | |
| 9.0 | | | | | | | | | |
| 10.0 | | | | | | | | | |
| 11.0 | | | | | | | | | |
| 12.0 | | | | | | | | | |
| 13.0 | | | | | | | | | |
| 14.0 | | | | | | | | | |
| 15.0 | | | | | | | | | |
| 16.0 | | | | | | | | | |
| 17.0 | | | | | | | | | |
| 18.0 | | | | | | | | | |

Ambient Environmental, Inc.

# TEST BORING LOG
## BORING NO.: SB-1

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| PROJECT: Former Ward Products Site Investigation | | | | | | | | | Sheet 1 of 1 |
| CLIENT: 61 Edson Street LLC | | | | | | | | | |
| AMBIENT PROJECT NO: 190311ENVA | | | | | | | | | |
| DRILLING METHOD: Direct Push | | | | | SAMPLER | BIT SIZE | CORE | CASING | |
| DRILLING RIG: Geoprobe | | | | | Macrocore | NA | NA | NA | DATE: 3/27/19 |
| DRILLER: NYEG | | | | | INSPECTOR: Jim Blasting and Alexis Martin | | | | |
| DEPTH IN FT. | SAMPLE NO. | PID reading | REC. | USCS Class | **SOIL DESCRIPTION** | | | | **REMARKS** |
| 1.0<br>2.0<br>3.0<br>4.0<br>5.0 | | 1 | 5.0 | | 0-1' : pavement and gravel<br>1' - 1.8' : loose sand and gravel fill<br>1.8' - 5' : medium brown silt and clay, moist, no odor, no staining, firm | | | | |
| 6.0<br>7.0<br>8.0<br>9.0<br>10.0 | | <.5 | 3.7 | | 5' - 6.5' : medium brown silt and clay, very moist, gravel pieces throughout, no odor<br>Refusal @ 6.5' | | | | |
| 11.0<br>12.0<br>13.0<br>14.0<br>15.0<br>16.0<br>17.0<br>18.0 | | | | | | | | | |

Ambient Environmental, Inc.

# TEST BORING LOG
## BORING NO.: SB-2

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| PROJECT: Former Ward Products Site Investigation | | | | | | | | | Sheet 1 of 1 |
| CLIENT: 61 Edson Street LLC | | | | | | | | | |
| AMBIENT PROJECT NO: 190311ENVA | | | | | | | | | |
| DRILLING METHOD: Direct Push | | | | | SAMPLER | BIT SIZE | CORE | CASING | |
| DRILLING RIG: Geoprobe | | | | | Macrocore | NA | NA | NA | DATE: 3/27/19 |
| DRILLER: NYEG | | | | | INSPECTOR: Jim Blasting and Alexis Martin | | | | |
| DEPTH IN FT. | SAMPLE NO. | PID reading | REC. | USCS Class | **SOIL DESCRIPTION** | | | | **REMARKS** |
| 1.0 | | 1.5 | | | 0 - 0.3' : Pavement<br>0.3' - 1' : fill: sub-base (sand and gravel, moist)<br>1' - 5' : medium brown, firm, dry to moist, silt with clay, sand and gravel (rounded) and rounded pebbles. Very firm at 5' | | | | 1-1.5 PID<br><br>no odor<br>no staining |
| 2.0 | | | | | | | | | |
| 3.0 | | | 2.8 | | | | | | |
| 4.0 | | | | | | | | | |
| 5.0 | | | | | | | | | |
| 6.0 | | | | | 5' - 8' : very firm, clay rich till with pebbles and gravel, medium brown, dry to moist | | | | no odor<br>no staining |
| 7.0 | | | 5.0 | | | | | | |
| 8.0 | | | | | 8' - 10' : plastic with more clay, medium brown, firm, moist | | | | |
| 9.0 | SB-2 | | | | *Composite Sample SB-2 (8-9')* | | | | 3 ppm in bag headspace ~ 8.5' |
| 10.0 | | | | | | | | | |
| 11.0 | | | | | | | | | |
| 12.0 | | | | | | | | | |
| 13.0 | | | | | | | | | |
| 14.0 | | | | | | | | | |
| 15.0 | | | | | | | | | |
| 16.0 | | | | | | | | | |
| 17.0 | | | | | | | | | |
| 18.0 | | | | | | | | | |

Ambient Environmental, Inc.

# TEST BORING LOG
## BORING NO.: SB-3

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| PROJECT: Former Ward Products Site Investigation | | | | | | | | | Sheet 1 of 1 |
| CLIENT: 61 Edson Street LLC | | | | | | | | | |
| AMBIENT PROJECT NO: 190311ENVA | | | | | | | | | |
| DRILLING METHOD: Direct Push | | | | | SAMPLER | BIT SIZE | CORE | CASING | |
| DRILLING RIG: Geoprobe | | | | | Macrocore | NA | NA | NA | DATE: 3/28/19 |
| DRILLER: NYEG | | | | | INSPECTOR: Jim Blasting and Alexis Martin | | | | |
| DEPTH IN FT. | SAMPLE NO. | PID reading | REC. | USCS Class | **SOIL DESCRIPTION** | | | | **REMARKS** |
| 1.0<br>2.0<br>3.0<br>4.0<br>5.0 | | | 5.0 | | 0 - 0.3' : Pavement<br>0.3' - 1' : fill and sub-base (sand and gravel)<br>1' - 2.5' : gravely brownish gray silt and clay<br>2.5' - 5' : medium brown, firm, dry to moist, silt with clay, rounded pebbles and angular gravel pieces | | | | <2 ppm<br>no odor<br>no staining |
| 6.0<br>7.0<br>8.0<br>9.0<br>10.0 | | | 5.0 | | 5' - 9' : medium brown, firm, dry to moist, silt with clay, rounded pebbles and angular gravel pieces<br>Refusal @ 9' | | | | <2 ppm |
| 11.0<br>12.0<br>13.0<br>14.0<br>15.0<br>16.0<br>17.0<br>18.0 | | | | | | | | | |

Ambient Environmental, Inc.

# TEST BORING LOG
## BORING NO.: SB-4

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| PROJECT: Former Ward Products Site Investigation | | | | | | | | | Sheet 1 of 1 |
| CLIENT: 61 Edson Street LLC | | | | | | | | | |
| AMBIENT PROJECT NO: 190311ENVA | | | | | | | | | |
| DRILLING METHOD: Direct Push | | | | | SAMPLER | BIT SIZE | CORE | CASING | |
| DRILLING RIG: Geoprobe | | | | | Macrocore | NA | NA | NA | DATE: 3/28/19 |
| DRILLER: NYEG | | | | | INSPECTOR: Jim Blasting and Alexis Martin | | | | |
| DEPTH IN FT. | SAMPLE NO. | PID reading | REC. | USCS Class | **SOIL DESCRIPTION** | | | | **REMARKS** |
| 1.0 | | | | | 0 - 0.3' : Pavement<br>0.3' - 1' : fill with sub-base<br>1' - 1.5' : medium brown silt with clay, moist, firm, pebbles and gravel | | | | |
| 2.0 | | | | | | | | | no odor |
| | | <1.5 | 4.0 | | 1.5' - 2' : light gray cobble | | | | no staining |
| 3.0 | | | | | 2' - 4' : medium brown silt with clay, moist, firm | | | | |
| 4.0 | | | | | Refusal @ 4' | | | | |
| 5.0 | | | | | | | | | |
| 6.0 | | | | | | | | | |
| 7.0 | | | | | | | | | |
| 8.0 | | | | | | | | | |
| 9.0 | | | | | | | | | |
| 10.0 | | | | | | | | | |
| 11.0 | | | | | | | | | |
| 12.0 | | | | | | | | | |
| 13.0 | | | | | | | | | |
| 14.0 | | | | | | | | | |
| 15.0 | | | | | | | | | |
| 16.0 | | | | | | | | | |
| 17.0 | | | | | | | | | |
| 18.0 | | | | | | | | | |

Ambient Environmental, Inc.

# TEST BORING LOG
## BORING NO.: SB-5

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| PROJECT: Former Ward Products Site Investigation | | | | | | | | | Sheet 1 of 1 |
| CLIENT: 61 Edson Street LLC | | | | | | | | | |
| AMBIENT PROJECT NO: 190311ENVA | | | | | | | | | |
| DRILLING METHOD: Direct Push | | | | | SAMPLER | BIT SIZE | CORE | CASING | |
| DRILLING RIG: Geoprobe | | | | | Macrocore | NA | NA | NA | DATE: 3/28/19 |
| DRILLER: NYEG | | | | | INSPECTOR: Jim Blasting and Alexis Martin | | | | |
| DEPTH IN FT. | SAMPLE NO. | PID reading | REC. | USCS Class | **SOIL DESCRIPTION** | | | | **REMARKS** |
| 1.0 | | | | | 0 - 0.3' : Pavement<br>0.3' - 1' : sub-base material (sand and gravel) | | | | |
| 2.0 | | | 5.0 | | 1' - 5' : medium brown silt with clay, moist, firm, no odor, gravel and pebbles | | | | PID readings <2 ppm |
| 3.0 | | | | | | | | | |
| 4.0 | SB-5 | | | | *Composite Sample SB-5 (4.5-5')* | | | | |
| 5.0 | | | | | | | | | |
| 6.0 | | | | | 5' - 7' : same as above with more angular gravel pieces and rounded pebbles | | | | |
| 7.0 | | | | | Refusal @ 7' | | | | |
| 8.0 | | | | | | | | | |
| 9.0 | | | | | | | | | |
| 10.0 | | | | | | | | | |
| 11.0 | | | | | | | | | |
| 12.0 | | | | | | | | | |
| 13.0 | | | | | | | | | |
| 14.0 | | | | | | | | | |
| 15.0 | | | | | | | | | |
| 16.0 | | | | | | | | | |
| 17.0 | | | | | | | | | |
| 18.0 | | | | | | | | | |

Ambient Environmental, Inc.

# TEST BORING LOG
## BORING NO.: SB-6

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| PROJECT: Former Ward Products Site Investigation | | | | | | | | | Sheet 1 of 1 |
| CLIENT: 61 Edson Street LLC | | | | | | | | | |
| AMBIENT PROJECT NO: 190311ENVA | | | | | | | | | |
| DRILLING METHOD: Direct Push | | | | | SAMPLER | BIT SIZE | CORE | CASING | |
| DRILLING RIG: Geoprobe | | | | | Macrocore | NA | NA | NA | DATE: 3/28/19 |
| DRILLER: NYEG | | | | | INSPECTOR: Jim Blasting and Alexis Martin | | | | |
| DEPTH IN FT. | SAMPLE NO. | PID reading | REC. | USCS Class | **SOIL DESCRIPTION** | | | | **REMARKS** |
| 1.0 | | | | | 0 - 0.3' : Pavement<br>0.3' - 1' : sub-base material (gravel and sand)<br>1' - 5' : medium brown silt and clay, moist, firm, no odor, pebbles and gravel pieces present, no staining | | | | |
| 2.0 | | 2.8 | 4.8 | | | | | | |
| 3.0 | | 2.6 | | | | | | | |
| 4.0 | | 2.9 | | | | | | | |
| 5.0 | | 2.6 | | | | | | | |
| 6.0 | | | | | 5' - 10' : medium brown silt and clay, moist, firm, no odor, pebbles and gravel pieces present, no staining | | | | |
| 7.0 | | | | | | | | | |
| 8.0 | | 2.7 | 4.8 | | | | | | |
| 9.0 | | 1.5 | | | | | | | |
| 10.0 | | 2.8 | | | | | | | |
| 11.0 | | | | | | | | | |
| 12.0 | | | | | | | | | |
| 13.0 | | | | | | | | | |
| 14.0 | | | | | | | | | |
| 15.0 | | | | | | | | | |
| 16.0 | | | | | | | | | |
| 17.0 | | | | | | | | | |
| 18.0 | | | | | | | | | |

**Ambient Environmental, Inc.**

# TEST BORING LOG
# BORING NO.: SB-7

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| PROJECT: Former Ward Products Site Investigation | | | | | | | | | Sheet 1 of 1 |
| CLIENT: 61 Edson Street LLC | | | | | | | | | |
| AMBIENT PROJECT NO: 190311ENVA | | | | | | | | | |
| DRILLING METHOD: Direct Push | | | | | SAMPLER | BIT SIZE | CORE | CASING | |
| DRILLING RIG: Geoprobe | | | | | Macrocore | NA | NA | NA | DATE: 3/28/19 |
| DRILLER: NYEG | | | | | INSPECTOR: Jim Blasting and Alexis Martin | | | | |
| DEPTH IN FT. | SAMPLE NO. | PID reading | REC. | USCS Class | **SOIL DESCRIPTION** | | | | **REMARKS** |
| 1.0 | | 0.6 | | | 0 - 0.3' : Pavement<br>0.3' - 1' : sub-base material (sand and gravel) | | | | no odor |
| 2.0 | | | | | 1' - 1.8' : grayish brown silt and clay, firm, moist, pebbles and gravel pieces | | | | no staining |
| 3.0 | | | 5.0 | | 1.8' - 3.7' : medium brown silt and clay, firm<br>3.7' - 4.3' : softer, little more clay | | | | |
| 4.0 | | 1.3 | | | 4.3' - 5' : medium brown silt and clay, firm, gravel and pebble, moist | | | | |
| 5.0 | | 0.6 | | | | | | | |
| 6.0 | | | | | 5' - 10' : same as above | | | | no odor |
| 7.0 | | | | | | | | | no staining |
| 8.0 | | 0.5 | | | | | | | |
| 9.0 | | | | | | | | | |
| 10.0 | | 2 | | | | | | | |
| 11.0 | | | | | | | | | |
| 12.0 | | | | | | | | | |
| 13.0 | | | | | | | | | |
| 14.0 | | | | | | | | | |
| 15.0 | | | | | | | | | |
| 16.0 | | | | | | | | | |
| 17.0 | | | | | | | | | |
| 18.0 | | | | | | | | | |

Ambient Environmental, Inc.

# TEST BORING LOG
# BORING NO.: SB-8

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| PROJECT: Former Ward Products Site Investigation | | | | | | | | | Sheet 1 of 1 |
| CLIENT: 61 Edson Street LLC | | | | | | | | | |
| AMBIENT PROJECT NO: 190311ENVA | | | | | | | | | |
| DRILLING METHOD: Direct Push | | | | | SAMPLER | BIT SIZE | CORE | CASING | |
| DRILLING RIG: Geoprobe | | | | | Macrocore | NA | NA | NA | DATE: 3/28/19 |
| DRILLER: NYEG | | | | | INSPECTOR: Jim Blasting and Alexis Martin | | | | |
| DEPTH IN FT. | SAMPLE NO. | PID reading | REC. | USCS Class | **SOIL DESCRIPTION** | | | | **REMARKS** |
| 1.0 | | | | | 0 - 0.3' : Pavement<br>0.3' - 1' : sub-base material (sand and gravel)<br>1' - 5' : medium brown, silt and clay, moist, firm, gravel and round pebbles, no odor, no staining | | | | no odor<br>no staining |
| 2.0 | | | | | | | | | |
| 3.0 | | | 5.0 | | | | | | |
| 4.0 | | 1 | | | | | | | |
| 5.0 | | 0.4 | | | | | | | |
| 6.0 | | | | | 5' - 10' : same as above, more round gravel and pebbles | | | | no odor<br>no staining |
| 7.0 | | 1 | | | | | | | |
| 8.0 | | 0.5 | 5.0 | | | | | | |
| 9.0 | | | | | | | | | |
| 10.0 | | | | | | | | | |
| 11.0 | | | | | | | | | |
| 12.0 | | | | | | | | | |
| 13.0 | | | | | | | | | |
| 14.0 | | | | | | | | | |
| 15.0 | | | | | | | | | |
| 16.0 | | | | | | | | | |
| 17.0 | | | | | | | | | |
| 18.0 | | | | | | | | | |

Ambient Environmental, Inc.

# TEST BORING LOG
# BORING NO.: SB-3

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| PROJECT: Former Ward Products Site Investigation | | | | | | | | | Sheet 1 of 1 |
| CLIENT: 61 Edson Street LLC | | | | | | | | | |
| AMBIENT PROJECT NO: 190311ENVA | | | | | | | | | |
| DRILLING METHOD: Direct Push | | | | | SAMPLER | BIT SIZE | CORE | CASING | |
| DRILLING RIG: Geoprobe | | | | | Macrocore | NA | NA | NA | DATE: 3/28/19 |
| DRILLER: NYEG | | | | | INSPECTOR: Jim Blasting and Alexis Martin | | | | |
| DEPTH IN FT. | SAMPLE NO. | PID reading | REC. | USCS Class | **SOIL DESCRIPTION** | | | | **REMARKS** |
| 1.0 | | | | | 0 - 0.3' : Pavement<br>0.3' - 1' : sub-base materail (sand and gravel)<br>1' - 4.6' : medium gray, silt and clay, firm, moist, gravel and pebbles, no odor, no staining | | | | no odor<br>no staining |
| 2.0 | | | | | | | | | |
| 3.0 | | | | | | | | | |
| 4.0 | | 0.5 | | | 4.6' - 5' : light gray cobble | | | | |
| 5.0 | | | | | | | | | |
| 6.0 | | | | | 5' - 10' : medium gray, silt and clay, firm, moist, gravel and pebbles, no odor, no staining | | | | |
| 7.0 | | | | | | | | | |
| 8.0 | | 0.5 | | | | | | | |
| 9.0 | | | | | | | | | |
| 10.0 | | | | | | | | | |
| 11.0 | | | | | | | | | |
| 12.0 | | | | | | | | | |
| 13.0 | | | | | | | | | |
| 14.0 | | | | | | | | | |
| 15.0 | | | | | | | | | |
| 16.0 | | | | | | | | | |
| 17.0 | | | | | | | | | |
| 18.0 | | | | | | | | | |

## Injection Well Purging/Sampling Form

Project Name and Number: 61 Edson St, Amsterdam, NY 12031 ENVA

Monitoring Well Number: MW-22 Date: 4/8/19

Samplers: Zack Robison AAL

Sample Number: 2 QA/QC Collected? N/A

Purging / Sampling Method: Geopump / Low Flow

| | | |
|---|---|---|
| 1. L = Total Well Depth: | 49.75 | feet |
| 2. D = Riser Diameter (I.D.): | 2 in. | ~~feet~~ |
| 3. W = Static Depth to Water (TOC): | 18.12 | feet |
| 4. C = Column of Water in Casing: | 31.63 | feet |
| 5. V = Volume of Water in Well = $C(3.14159)(0.5D)^2(7.48)$ | 5.16 | gal |
| 6. D2 = Pump Setting Depth (ft): | 40.0 | feet |
| 7. C2 = Column of water in Pump/Tubing (ft): | | feet |
| 8. Tubing Volume = C2(0.005737088) | | gal |

| D (inches) | D (feet) |
|---|---|
| 1-inch | 0.08 |
| 2-inch | 0.17 |
| 3-inch | 0.25 |
| 4-inch | 0.33 |
| 6-inch | 0.50 |

Conversion factors to determine V given C

| D (inches) | 1-inch | 2-inch | 3-inch | 4-inch | 6-inch |
|---|---|---|---|---|---|
| V (gal / ft) | 0.041 | 0.163 | 0.37 | 0.65 | 1.5 |

Water Quality Readings Collected Using YSI ProDSS w/ flow cell

| Parameter | Units | 1515 | | | Readings | | | |
|---|---|---|---|---|---|---|---|---|
| Time | 24 hr | | | | | | | |
| Water Level (0.33) | feet | 42.6 | | | | | | |
| Volume Purged | gal | — | | | | | | |
| Flow Rate | mL / min | 100ml | | | | | | |
| Turbidity (+/- 10%) | NTU | 747.29 | | | | | | |
| Dissolved Oxygen (+/- 10%) | % | 68.0 | | | | | | |
| Dissolved Oxygen (+/- 10%) | mg/L | 6.95 | | | | | | |
| Eh / ORP (+/- 10) | MeV | 187.4 | | | | | | |
| Specific Conductivity | mS/cm[c] | 0.848 | | | | | | |
| Conductivity (+/- 3%) | µmho / cm | | | | | | | |
| pH (+/- 0.1) | pH unit | 7.42 | | | | | | |
| Temp (+/- 0.5) | C | 14.1 | | | | | | |
| Color | Visual | Clear | | | | | | |
| Odor | Olfactory | N/A | | | | | | |

**Comments:** Well in good condition / No Odor
Developed well before Sampled
Clear → Turbid (Brown)
*Well water did not get back to static level
Not enough volume/recharge to get 3 Stable readings. Only 1 reading of parameters taken.

* Three consecutive readings within range indicates stabilization of that parameter.

49.75
-18.12
31.63 x .163
= 5.16 gal
x 3 volumes
= 15.46 gal
(Purge to Develop)

~11 gallons
Purged until
Dry.
(Developed)

## Injection Well Purging/Sampling Form

Project Name and Number: 61 Edson St, Amsterdam, NY 12011 ENVA

Monitoring Well Number: MW-23 Date: 4/8/19

Samplers: Zack Robison AAL

Sample Number: 1 QA/QC Collected? N/A

Purging / Sampling Method: GeoPump / Low Flow

| | | |
|---|---|---|
| 1. L = Total Well Depth: | 45.95 | feet |
| 2. D = Riser Diameter (I.D.): | 2 in | feet |
| 3. W = Static Depth to Water (TOC): | 17.90 | feet |
| 4. C = Column of Water in Casing: | 28.05 | feet |
| 5. V = Volume of Water in Well = C(3.14159)(0.5D)$^2$(7.48) | 4.57 | gal |
| 6. D2 = Pump Setting Depth (ft): | 37.0 | feet |
| 7. C2 = Column of water in Pump/Tubing (ft): | | feet |
| 8. Tubing Volume = C2(0.005737088) | | gal |

| D (inches) | D (feet) |
|---|---|
| 1-inch | 0.08 |
| 2-inch | 0.17 |
| 3-inch | 0.25 |
| 4-inch | 0.33 |
| 6-inch | 0.50 |

45.95
-17.90
28.05 x .163
= 4.57 x 3 vol
= 13.72 gal (Purge to Develop)

Conversion factors to determine V given C

| D (inches) | 1-inch | 2-inch | 3-inch | 4-inch | 6-inch |
|---|---|---|---|---|---|
| V (gal / ft) | 0.041 | 0.163 | 0.37 | 0.65 | 1.5 |

Water Quality Readings Collected Using YSI ProDSS w/ flow cell

| Parameter | Units | Readings | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Time | 24 hr | 1335 | 1340 | 1345 | 1350 | 1355 | | |
| Water Level (0.33) | feet | 17.85 | 17.87 | 17.87 | 17.87 | 17.87 | | |
| Volume Purged | gal | | | | | | ~1 gal | total |
| Flow Rate | mL / min | 100 ml | 100 ml | 100 ml | 100 ml | 100 ml | | |
| Turbidity (+/- 10%) | NTU | 34.54 | 54.59 | 49.17 | 48.10 | 48.75 | | |
| Dissolved Oxygen (+/- 10%) | % | 3.2 | 2.7 | 2.5 | 2.4 | 2.3 | | |
| Dissolved Oxygen (+/- 10%) | mg/L | 0.34 | 0.29 | 0.28 | 0.26 | 0.28 | | |
| Eh / ORP (+/- 10) | MeV | 203.8 | 200.6 | 198.6 | 196.1 | 197.3 | | |
| Specific Conductivity | mS/cm[c] | 0.741 | 0.745 | 0.741 | 0.740 | 0.741 | | |
| Conductivity (+/- 3%) | µmho / cm | | | | | | | |
| pH (+/- 0.1) | pH unit | 7.28 | 7.28 | 7.28 | 7.29 | 7.29 | | |
| Temp (+/- 0.5) | C | 12.1 | 11.8 | 11.7 | 12.0 | 12.3 | | |
| Color | Visual | Clear → | | | | | | |
| Odor | Olfactory | N/A → | | | | | | |

~14 gallons Purged (Developed)

**Comments:** Well in Good Condition / No Odor
Standing water in casing (Purged out)

Developed well before sampling clear → clear

* Three consecutive readings within range indicates stabilization of that parameter.

## Injection Well Purging/Sampling Form

Project Name and Number: 61 Edison St, Amsterdam NY, 190311 ENVA

Monitoring Well Number: MW-22 Date: 5/3/19

Samplers: Eric Swartzmeyer

Sample Number: 6 QA/QC Collected? N/A

Purging / Sampling Method: GeoPump / Low Flow

| | | |
|---|---|---|
| 1. L = Total Well Depth: | 49.80 | feet |
| 2. D = Riser Diameter (I.D.): | 2in | ~~feet~~ |
| 3. W = Static Depth to Water (TOC): | 17.80 | feet |
| 4. C = Column of Water in Casing: | 32.0 | feet |
| 5. V = Volume of Water in Well = C(3.14159)(0.5D)$^2$(7.48) | 5.21 | gal |
| 6. D2 = Pump Setting Depth (ft): | 25 | feet |
| 7. C2 = Column of water in Pump/Tubing (ft): | | feet |
| 8. Tubing Volume = C2(0.005737088) | | gal |

| D (inches) | D (feet) |
|---|---|
| 1-inch | 0.08 |
| 2-inch | 0.17 |
| 3-inch | 0.25 |
| 4-inch | 0.33 |
| 6-inch | 0.50 |

Conversion factors to determine V given C

| D (inches) | 1-inch | 2-inch | 3-inch | 4-inch | 6-inch |
|---|---|---|---|---|---|
| V (gal / ft) | 0.041 | 0.163 | 0.37 | 0.65 | 1.5 |

Water Quality Readings Collected Using YSI Pro DSS w/ Flow Cell

| Parameter | Units | Readings | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Time | 24 hr | 0825 | 0830 | 0835 | 0840 | 0845 | 0850 | 0855 |
| Water Level (0.33) | feet | 17.80 | 17.88 | 17.91 | 17.95 | 18.00 | 18.03 | 18.05 |
| Volume Purged | gal | | | | | | | |
| Flow Rate | mL / min | 100mL | | | | | | |
| Turbidity (+/- 10%) | NTU | 113.46 | 121.02 | 122.60 | 121.07 | 7.93 | 5.54 | 4.95 |
| Dissolved Oxygen (+/- 10%) | % | 52.7 | 46.5 | 42.7 | 41.7 | 40.1 | 39.8 | 39.3 |
| Dissolved Oxygen (+/- 10%) | mg/L | 5.62 | 5.04 | 4.64 | 4.46 | 4.40 | 4.38 | 4.33 |
| Eh / ORP (+/- 10) | MeV | 213.2 | 216.4 | 216.4 | 216.4 | 216.5 | 216.5 | 216.5 |
| Specific Conductivity | mS/cm[c] | 0.886 | 0.894 | 0.894 | 0.893 | 0.893 | 0.892 | 0.892 |
| Conductivity (+/- 3%) | µmho / cm | | | | | | | |
| pH (+/- 0.1) | pH unit | 7.45 | 7.45 | 7.45 | 7.45 | 7.45 | 7.45 | 7.46 |
| Temp (+/- 0.5) | C | 11.0 | 11.3 | 11.3 | 11.3 | 11.3 | 11.2 | 11.3 |
| Color | Visual | Clear | | | | | | |
| Odor | Olfactory | None | | | | | | |

Comments: Well is in good Condition/No Oder/Clear
Sampling Time @ 0855

* Three consecutive readings within range indicates stabilization of that parameter.

## Injection Well Purging/Sampling Form

Project Name and Number: 61 Edison St, Amsterdam NY, 190311 ENVA

Monitoring Well Number: MW-8 Date: 5/2/19

Samplers: Eric Swartzmeyer

Sample Number: 1 QA/QC Collected? N/A

Purging / Sampling Method: GeoPump / Low Flow

| | | |
|---|---|---|
| 1. L = Total Well Depth: | 80.65 | feet |
| 2. D = Riser Diameter (I.D.): | 2in | ~~feet~~ |
| 3. W = Static Depth to Water (TOC): | 12.61 | feet |
| 4. C = Column of Water in Casing: | 68.04 | feet |
| 5. V = Volume of Water in Well = $C(3.14159)(0.5D)^2(7.48)$ | 11.09 | gal |
| 6. D2 = Pump Setting Depth (ft): | 60.0 | feet |
| 7. C2 = Column of water in Pump/Tubing (ft): | | feet |
| 8. Tubing Volume = C2(0.005737088) | | gal |

| D (inches) | D (feet) |
|---|---|
| 1-inch | 0.08 |
| 2-inch | 0.17 |
| 3-inch | 0.25 |
| 4-inch | 0.33 |
| 6-inch | 0.50 |

Conversion factors to determine V given C

| D (inches) | 1-inch | 2-inch | 3-inch | 4-inch | 6-inch |
|---|---|---|---|---|---|
| V (gal / ft) | 0.041 | 0.163 | 0.37 | 0.65 | 1.5 |

Water Quality Readings Collected Using Pro DSS w/ Flow Cell

| Parameter | Units | Readings | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Time | 24 hr | 0735 | 0740 | 0745 | 0750 | 0755 | 0800 | 0805 |
| Water Level (0.33) | feet | 12.61 | 12.60 | 12.61 | 12.61 | 12.61 | 12.61 | 12.61 |
| Volume Purged | gal | | | | | | | |
| Flow Rate | mL / min | 100mL | → | → | → | → | → | → |
| Turbidity (+/- 10%) | NTU | 49.50 | 59.55 | 60.28 | 61.31 | 60.59 | 60.89 | 60.74 |
| Dissolved Oxygen (+/- 10%) | % | 36.4 | 30.3 | 28.0 | 27.1 | 26.3 | 25.9 | 25.8 |
| Dissolved Oxygen (+/- 10%) | mg/L | 4.13 | 3.49 | 3.23 | 3.11 | 3.03 | 3.00 | 2.98 |
| Eh / ORP (+/- 10) | MeV | 209.3 | 210.1 | 210.2 | 210.6 | 211.0 | 211.4 | 211.6 |
| Specific Conductivity | mS/cm[c] | 0.494 | 0.504 | 0.510 | 0.512 | 0.516 | 0.519 | 0.518 |
| Conductivity (+/- 3%) | µmho / cm | | | | | | | |
| pH (+/- 0.1) | pH unit | 7.43 | 7.44 | 7.44 | 7.44 | 7.44 | 7.44 | 7.44 |
| Temp (+/- 0.5) | C | 9.0 | 9.0 | 9.0 | 9.0 | 9.0 | 9.0 | 9.0 |
| Color | Visual | Clear | → | → | → | → | → | → |
| Odor | Olfactory | None | → | → | → | → | → | → |

Comments: Well in good condition / No Oder
Sample Collected @ 0805

* Three consecutive readings within range indicates stabilization of that parameter.

## Injection Well Purging/Sampling Form

Project Name and Number: 61 Edison St, Amsterdam NY, 190311 ENVA

Monitoring Well Number: MW-5 Date: 5/2/19

Samplers: Eric Swartzmeyer

Sample Number: 2 QA/QC Collected? N/A

Purging / Sampling Method: Geo Pump / Low Flow

| | | |
|---|---|---|
| 1. L = Total Well Depth: | 18.35 | feet |
| 2. D = Riser Diameter (I.D.): | 2inch | ~~feet~~ |
| 3. W = Static Depth to Water (TOC): | 16.60 | feet |
| 4. C = Column of Water in Casing: | 1.75 | feet |
| 5. V = Volume of Water in Well = $C(3.14159)(0.5D)^2(7.48)$ | 0.28 | gal |
| 6. D2 = Pump Setting Depth (ft): | 17.0 | feet |
| 7. C2 = Column of water in Pump/Tubing (ft): | | feet |
| 8. Tubing Volume = C2(0.005737088) | | gal |

| D (inches) | D (feet) |
|---|---|
| 1-inch | 0.08 |
| 2-inch | 0.17 |
| 3-inch | 0.25 |
| 4-inch | 0.33 |
| 6-inch | 0.50 |

Conversion factors to determine V given C

| D (inches) | 1-inch | 2-inch | 3-inch | 4-inch | 6-inch |
|---|---|---|---|---|---|
| V (gal / ft) | 0.041 | 0.163 | 0.37 | 0.65 | 1.5 |

Water Quality Readings Collected Using Pro DSS w/ Flow Cell

| Parameter | Units | Readings | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Time | 24 hr | 0845 | 0850 | 0855 | 0900 | 0905 | | |
| Water Level (0.33) | feet | 16.60 | 17.81 | 15.28 | 15.31 | 15.38 | | |
| Volume Purged | gal | | | | | | | |
| Flow Rate | mL / min | 100mL | | | | | | |
| Turbidity (+/- 10%) | NTU | 5.23 | 2.58 | 2.13 | 2.86 | 2.41 | | |
| Dissolved Oxygen (+/- 10%) | % | 48.6 | 38.4 | 41.2 | 39.4 | 40.7 | | |
| Dissolved Oxygen (+/- 10%) | mg/L | 5.59 | 4.52 | 4.80 | 4.78 | 4.82 | | |
| Eh / ORP (+/- 10) | MeV | 221.3 | 222.8 | 223.7 | 223.9 | 224.1 | | |
| Specific Conductivity | mS/cm[c] | 0.662 | 0.663 | 0.662 | 0.662 | 0.663 | | |
| Conductivity (+/- 3%) | µmho / cm | | | | | | | |
| pH (+/- 0.1) | pH unit | 7.10 | 7.10 | 7.11 | 7.11 | 7.10 | | |
| Temp (+/- 0.5) | C | 8.4 | 8.3 | 8.4 | 8.5 | 8.4 | | |
| Color | Visual | Clear | | | | | | |
| Odor | Olfactory | None | | | | | | |

Comments: Well in good conditon / No Order / Clear
Sample Taken @ 0905

* Three consecutive readings within range indicates stabilization of that parameter.

## Injection Well Purging/Sampling Form

Project Name and Number: G1 Edison St, Amsterdam NY, 190311 ENVA

Monitoring Well Number: MW-10 Date: 5/2/19

Samplers: Eric Swartzmeyer

Sample Number: 3 QA/QC Collected? N/A

Purging / Sampling Method: Geo Pump / Low Flow

| | | |
|---|---|---|
| 1. L = Total Well Depth: | 20.42 | feet |
| 2. D = Riser Diameter (I.D.): | 2in | ~~feet~~ |
| 3. W = Static Depth to Water (TOC): | 52.25 | feet |
| 4. C = Column of Water in Casing: | 31.83 | feet |
| 5. V = Volume of Water in Well = C(3.14159)(0.5D)$^2$(7.48) | 5.18 | gal |
| 6. D2 = Pump Setting Depth (ft): | 35.0 | feet |
| 7. C2 = Column of water in Pump/Tubing (ft): | | feet |
| 8. Tubing Volume = C2(0.005737088) | | gal |

ZSB 5/7/19

| D (inches) | D (feet) |
|---|---|
| 1-inch | 0.08 |
| 2-inch | 0.17 |
| 3-inch | 0.25 |
| 4-inch | 0.33 |
| 6-inch | 0.50 |

Conversion factors to determine V given C

| D (inches) | 1-inch | 2-inch | 3-inch | 4-inch | 6-inch |
|---|---|---|---|---|---|
| V (gal / ft) | 0.041 | 0.163 | 0.37 | 0.65 | 1.5 |

Water Quality Readings Collected Using YSI Pro DSS w/ Flow Cell

| Parameter | Units | Readings | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Time | 24 hr | 1040 | 1045 | 1050 | 1055 | 1100 | 1105 | 1110 |
| Water Level (0.33) | feet | 20.42 | 20.42 | 20.42 | 20.42 | 20.42 | 20.42 | 20.42 |
| Volume Purged | gal | | | | | | | 1 gal |
| Flow Rate | mL / min | 100mL | | | | | | |
| Turbidity (+/- 10%) | NTU | 90.51 | 94.57 | 92.17 | 34.99 | 35.66 | 34.89 | 35.23 |
| Dissolved Oxygen (+/- 10%) | % | 17.1 | 9.0 | 5.0 | 4.0 | 3.1 | 3.0 | 2.9 |
| Dissolved Oxygen (+/- 10%) | mg/L | 1.77 | 0.98 | 0.54 | 0.43 | 0.40 | 0.38 | 0.37 |
| Eh / ORP (+/- 10) | MeV | 219.2 | 221.0 | 221.6 | 221.5 | 220.8 | 220.6 | 220.5 |
| Specific Conductivity | mS/cm[c] | 0.693 | 0.687 | 0.705 | 0.705 | 0.704 | 0.703 | 0.703 |
| Conductivity (+/- 3%) | µmho / cm | | | | | | | |
| pH (+/- 0.1) | pH unit | 7.26 | 7.26 | 7.24 | 7.24 | 7.25 | 7.25 | 7.25 |
| Temp (+/- 0.5) | C | 11.6 | 11.4 | 11.4 | 11.4 | 11.4 | 11.4 | 11.4 |
| Color | Visual | Clear | | | | | | |
| Odor | Olfactory | None | | | | | | |

Comments: Well in good condition / No Oder / Clear
Sample Time @ 11:10

* Three consecutive readings within range indicates stabilization of that parameter.

## Injection Well Purging/Sampling Form

Project Name and Number: 61 Edison St Amsterdam NY, 190311 CNVA

Monitoring Well Number: MW-23 Date: 5/2/19

Samplers: Eric Swartzmeyer

Sample Number: 4 QA/QC Collected? N/A

Purging / Sampling Method: Geo Pump / Low Flow

| | | |
|---|---|---|
| 1. L = Total Well Depth: | 45.45 | feet |
| 2. D = Riser Diameter (I.D.): | 2in | ~~feet~~ |
| 3. W = Static Depth to Water (TOC): | 17.60 | feet |
| 4. C = Column of Water in Casing: | 27.85 | feet |
| 5. V = Volume of Water in Well = C(3.14159)(0.5D)$^2$(7.48) | 4.53 | gal |
| 6. D2 = Pump Setting Depth (ft): | 30.0 | feet |
| 7. C2 = Column of water in Pump/Tubing (ft): | | feet |
| 8. Tubing Volume = C2(0.005737088) | | gal |

| D (inches) | D (feet) |
|---|---|
| 1-inch | 0.08 |
| 2-inch | 0.17 |
| 3-inch | 0.25 |
| 4-inch | 0.33 |
| 6-inch | 0.50 |

Conversion factors to determine V given C

| D (inches) | 1-inch | 2-inch | 3-inch | 4-inch | 6-inch |
|---|---|---|---|---|---|
| V (gal / ft) | 0.041 | 0.163 | 0.37 | 0.65 | 1.5 |

Water Quality Readings Collected Using YSI Pro DSS w/ Flow Cell

| Parameter | Units | Readings | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Time | 24 hr | 1200 | 1205 | 1210 | 1215 | 1220 | 1225 | 1230 |
| Water Level (0.33) | feet | 17.60 | 17.71 | 17.71 | 17.71 | 17.71 | 17.71 | 17.71 |
| Volume Purged | gal | | | | | | | 1gal |
| Flow Rate | mL / min | 100mL | | | | | | |
| Turbidity (+/- 10%) | NTU | 185.62 | 236.11 | 251.40 | 220.51 | 221.61 | 220.97 | 221.23 |
| Dissolved Oxygen (+/- 10%) | % | 20.2 | 7.0 | 6.9 | 7.2 | 6.8 | 6.6 | 6.5 |
| Dissolved Oxygen (+/- 10%) | mg/L | 2.10 | 0.77 | 0.76 | 0.81 | 0.74 | 0.73 | 0.71 |
| Eh / ORP (+/- 10) | MeV | 204.6 | 180.4 | 174.0 | 169.3 | 166.8 | 165.2 | 164.8 |
| Specific Conductivity | mS/cm[c] | 0.738 | 0.739 | 0.737 | 0.744 | 0.742 | 0.740 | 0.739 |
| Conductivity (+/- 3%) | µmho / cm | | | | | | | |
| pH (+/- 0.1) | pH unit | 7.21 | 7.17 | 7.18 | 7.19 | 7.19 | 7.20 | 7.20 |
| Temp (+/- 0.5) | C | 11.0 | 10.8 | 10.8 | 10.8 | 10.8 | 10.9 | 10.9 |
| Color | Visual | Clear | | | | | | |
| Odor | Olfactory | None | | | | | | |

Comments: Well is in good condition / No Oder / Clear
Sample Time @ 1230

* Three consecutive readings within range indicates stabilization of that parameter.

## Injection Well Purging/Sampling Form

Project Name and Number: 61 Edison St Amsterdam NY 190311 ENVA

Monitoring Well Number: MW-12 Date: 5/3/19

Samplers: Eric Swartzmeyer

Sample Number: 5 QA/QC Collected? N/A

Purging / Sampling Method: Geo Pump / Low Flow

| | | |
|---|---|---|
| 1. L = Total Well Depth: | 45.75 | feet |
| 2. D = Riser Diameter (I.D.): | 2in | ~~feet~~ |
| 3. W = Static Depth to Water (TOC): | 17.52 | feet |
| 4. C = Column of Water in Casing: | 28.23 | feet |
| 5. V = Volume of Water in Well = C(3.14159)(0.5D)$^2$(7.48) | 4.60 | gal |
| 6. D2 = Pump Setting Depth (ft): | 30.0 | feet |
| 7. C2 = Column of water in Pump/Tubing (ft): | | feet |
| 8. Tubing Volume = C2(0.005737088) | | gal |

| D (inches) | D (feet) |
|---|---|
| 1-inch | 0.08 |
| 2-inch | 0.17 |
| 3-inch | 0.25 |
| 4-inch | 0.33 |
| 6-inch | 0.50 |

Conversion factors to determine V given C

| D (inches) | 1-inch | 2-inch | 3-inch | 4-inch | 6-inch |
|---|---|---|---|---|---|
| V (gal / ft) | 0.041 | 0.163 | 0.37 | 0.65 | 1.5 |

Water Quality Readings Collected Using YSI ProDSS w/ Flow Cell

| Parameter | Units | Readings | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Time | 24 hr | 0735 | 0740 | 0745 | 0750 | 0755 | 0800 | 0805 |
| Water Level (0.33) | feet | 17.52 | 18.85 | 19.00 | 19.15 | 19.20 | 19.25 | 19.30 |
| Volume Purged | gal | | | | | | | |
| Flow Rate | mL / min | 100mL | — | — | — | — | — | — |
| Turbidity (+/- 10%) | NTU | 24.01 | 17.29 | 17.60 | 15.01 | 14.60 | 14.51 | 14.27 |
| Dissolved Oxygen (+/- 10%) | % | 75.6 | 65.3 | 64.8 | 64.6 | 64.2 | 64.3 | 64.6 |
| Dissolved Oxygen (+/- 10%) | mg/L | 8.30 | 7.26 | 7.20 | 7.16 | 7.12 | 7.13 | 7.13 |
| Eh / ORP (+/- 10) | MeV | 233.5 | 230.5 | 229.8 | 229.4 | 229.0 | 228.9 | 228.6 |
| Specific Conductivity | mS/cm[c] | 0.588 | 0.597 | 0.598 | 0.597 | 0.598 | 0.598 | 0.598 |
| Conductivity (+/- 3%) | µmho / cm | | | | | | | |
| pH (+/- 0.1) | pH unit | 7.48 | 7.54 | 7.55 | 7.56 | 7.57 | 7.57 | 7.57 |
| Temp (+/- 0.5) | C | 10.9 | 10.6 | 10.6 | 10.7 | 10.7 | 10.7 | 10.7 |
| Color | Visual | Clear | — | — | — | — | — | — |
| Odor | Olfactory | None | — | — | — | — | — | — |

Comments: Well is in good condition / No Oder / Clear

Sample Collected @ 0805

* Three consecutive readings within range indicates stabilization of that parameter.

# ANALYTICAL REPORT

| | |
|---|---|
| Lab Number: | L1912354 |
| Client: | Ambient Environmental<br>7843 Karakul Lane<br>Fayetteville, NY 13066 |
| ATTN: | Jim Blasting |
| Phone: | (315) 203-3355 |
| Project Name: | FORMER WARD PRODUCTS SITE |
| Project Number: | 190311ENVA |
| Report Date: | 04/04/19 |



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:** FORMER WARD PRODUCTS SITE
**Project Number:** 190311ENVA

**Lab Number:** L1912354
**Report Date:** 04/04/19

| Alpha Sample ID | Client ID | Matrix | Sample Location | Collection Date/Time | Receive Date |
|---|---|---|---|---|---|
| L1912354-01 | WC1 | SOIL | 61 EDSON STREET | 03/27/19 16:30 | 03/28/19 |
| L1912354-02 | ISB-6 (3.5-4') | SOIL | 61 EDSON STREET | 03/27/19 13:43 | 03/28/19 |
| L1912354-03 | ISB-4 (7.5-8.5') | SOIL | 61 EDSON STREET | 03/27/19 12:15 | 03/28/19 |
| L1912354-04 | SB-2 (8-9') | SOIL | 61 EDSON STREET | 03/27/19 17:50 | 03/28/19 |
| L1912354-05 | SB-5 (4.5-5') | SOIL | 61 EDSON STREET | 03/28/19 09:27 | 03/28/19 |

| | | | |
|---|---|---|---|
| **Project Name:** | FORMER WARD PRODUCTS SITE | **Lab Number:** | L1912354 |
| **Project Number:** | 190311ENVA | **Report Date:** | 04/04/19 |

## 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:** | FORMER WARD PRODUCTS SITE | **Lab Number:** | L1912354 |
| **Project Number:** | 190311ENVA | **Report Date:** | 04/04/19 |

**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

Any reported concentrations that are below 200 ug/kg may be low due to the sample not being collected according to 5035-L/5035A-L low-level specifications.

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: 04/04/19

# ORGANICS

# VOLATILES

**Project Name:** FORMER WARD PRODUCTS SITE **Lab Number:** L1912354

**Project Number:** 190311ENVA **Report Date:** 04/04/19

## SAMPLE RESULTS

Lab ID: L1912354-01
Client ID: WC1
Sample Location: 61 EDSON STREET

Date Collected: 03/27/19 16:30
Date Received: 03/28/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 04/03/19 19:12
Analyst: MV
Percent Solids: 87%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Volatile Organics by GC/MS - Westborough Lab** | | | | | | |
| Methylene chloride | ND | | ug/kg | 5.6 | 2.6 | 1 |
| 1,1-Dichloroethane | ND | | ug/kg | 1.1 | 0.16 | 1 |
| Chloroform | ND | | ug/kg | 1.7 | 0.16 | 1 |
| Carbon tetrachloride | ND | | ug/kg | 1.1 | 0.26 | 1 |
| 1,2-Dichloropropane | ND | | ug/kg | 1.1 | 0.14 | 1 |
| Dibromochloromethane | ND | | ug/kg | 1.1 | 0.16 | 1 |
| 1,1,2-Trichloroethane | ND | | ug/kg | 1.1 | 0.30 | 1 |
| Tetrachloroethene | ND | | ug/kg | 0.56 | 0.22 | 1 |
| Chlorobenzene | ND | | ug/kg | 0.56 | 0.14 | 1 |
| Trichlorofluoromethane | ND | | ug/kg | 4.5 | 0.78 | 1 |
| 1,2-Dichloroethane | ND | | ug/kg | 1.1 | 0.29 | 1 |
| 1,1,1-Trichloroethane | ND | | ug/kg | 0.56 | 0.19 | 1 |
| Bromodichloromethane | ND | | ug/kg | 0.56 | 0.12 | 1 |
| trans-1,3-Dichloropropene | ND | | ug/kg | 1.1 | 0.30 | 1 |
| cis-1,3-Dichloropropene | ND | | ug/kg | 0.56 | 0.18 | 1 |
| Bromoform | ND | | ug/kg | 4.5 | 0.27 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | ug/kg | 0.56 | 0.18 | 1 |
| Benzene | ND | | ug/kg | 0.56 | 0.18 | 1 |
| Toluene | ND | | ug/kg | 1.1 | 0.60 | 1 |
| Ethylbenzene | 0.32 | J | ug/kg | 1.1 | 0.16 | 1 |
| Chloromethane | ND | | ug/kg | 4.5 | 1.0 | 1 |
| Bromomethane | ND | | ug/kg | 2.2 | 0.65 | 1 |
| Vinyl chloride | ND | | ug/kg | 1.1 | 0.37 | 1 |
| Chloroethane | ND | | ug/kg | 2.2 | 0.50 | 1 |
| 1,1-Dichloroethene | ND | | ug/kg | 1.1 | 0.26 | 1 |
| trans-1,2-Dichloroethene | ND | | ug/kg | 1.7 | 0.15 | 1 |
| Trichloroethene | 0.90 | | ug/kg | 0.56 | 0.15 | 1 |
| 1,2-Dichlorobenzene | ND | | ug/kg | 2.2 | 0.16 | 1 |

**Project Name:** FORMER WARD PRODUCTS SITE **Lab Number:** L1912354

**Project Number:** 190311ENVA **Report Date:** 04/04/19

## SAMPLE RESULTS

Lab ID: L1912354-01 Date Collected: 03/27/19 16:30

Client ID: WC1 Date Received: 03/28/19

Sample Location: 61 EDSON STREET 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/kg | 2.2 | 0.16 | 1 |
| 1,4-Dichlorobenzene | ND | | ug/kg | 2.2 | 0.19 | 1 |
| Methyl tert butyl ether | 0.30 | J | ug/kg | 2.2 | 0.22 | 1 |
| p/m-Xylene | 1.5 | J | ug/kg | 2.2 | 0.62 | 1 |
| o-Xylene | 0.90 | J | ug/kg | 1.1 | 0.32 | 1 |
| cis-1,2-Dichloroethene | ND | | ug/kg | 1.1 | 0.20 | 1 |
| Styrene | ND | | ug/kg | 1.1 | 0.22 | 1 |
| Dichlorodifluoromethane | ND | | ug/kg | 11 | 1.0 | 1 |
| Acetone | 28 | | ug/kg | 11 | 5.4 | 1 |
| Carbon disulfide | ND | | ug/kg | 11 | 5.1 | 1 |
| 2-Butanone | ND | | ug/kg | 11 | 2.5 | 1 |
| 4-Methyl-2-pentanone | ND | | ug/kg | 11 | 1.4 | 1 |
| 2-Hexanone | ND | | ug/kg | 11 | 1.3 | 1 |
| Bromochloromethane | ND | | ug/kg | 2.2 | 0.23 | 1 |
| 1,2-Dibromoethane | ND | | ug/kg | 1.1 | 0.31 | 1 |
| 1,2-Dibromo-3-chloropropane | ND | | ug/kg | 3.3 | 1.1 | 1 |
| Isopropylbenzene | ND | | ug/kg | 1.1 | 0.12 | 1 |
| 1,2,3-Trichlorobenzene | ND | | ug/kg | 2.2 | 0.36 | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 2.2 | 0.30 | 1 |
| Methyl Acetate | 7.4 | | ug/kg | 4.5 | 1.1 | 1 |
| Cyclohexane | ND | | ug/kg | 11 | 0.61 | 1 |
| 1,4-Dioxane | ND | | ug/kg | 89 | 39. | 1 |
| Freon-113 | ND | | ug/kg | 4.5 | 0.77 | 1 |
| Methyl cyclohexane | ND | | ug/kg | 4.5 | 0.67 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 1,2-Dichloroethane-d4 | 97 | | 70-130 |
| Toluene-d8 | 112 | | 70-130 |
| 4-Bromofluorobenzene | 117 | | 70-130 |
| Dibromofluoromethane | 91 | | 70-130 |

**Project Name:** FORMER WARD PRODUCTS SITE **Lab Number:** L1912354

**Project Number:** 190311ENVA **Report Date:** 04/04/19

## SAMPLE RESULTS

Lab ID: L1912354-02
Client ID: ISB-6 (3.5-4')
Sample Location: 61 EDSON STREET

Date Collected: 03/27/19 13:43
Date Received: 03/28/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 04/03/19 21:40
Analyst: NLK
Percent Solids: 87%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Volatile Organics by GC/MS - Westborough Lab** | | | | | | |
| Methylene chloride | ND | | ug/kg | 280 | 130 | 1 |
| 1,1-Dichloroethane | ND | | ug/kg | 55 | 8.0 | 1 |
| Chloroform | ND | | ug/kg | 83 | 7.7 | 1 |
| Carbon tetrachloride | ND | | ug/kg | 55 | 13. | 1 |
| 1,2-Dichloropropane | ND | | ug/kg | 55 | 6.9 | 1 |
| Dibromochloromethane | ND | | ug/kg | 55 | 7.7 | 1 |
| 1,1,2-Trichloroethane | ND | | ug/kg | 55 | 15. | 1 |
| Tetrachloroethene | ND | | ug/kg | 28 | 11. | 1 |
| Chlorobenzene | ND | | ug/kg | 28 | 7.0 | 1 |
| Trichlorofluoromethane | ND | | ug/kg | 220 | 38. | 1 |
| 1,2-Dichloroethane | ND | | ug/kg | 55 | 14. | 1 |
| 1,1,1-Trichloroethane | ND | | ug/kg | 28 | 9.2 | 1 |
| Bromodichloromethane | ND | | ug/kg | 28 | 6.0 | 1 |
| trans-1,3-Dichloropropene | ND | | ug/kg | 55 | 15. | 1 |
| cis-1,3-Dichloropropene | ND | | ug/kg | 28 | 8.7 | 1 |
| Bromoform | ND | | ug/kg | 220 | 14. | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | ug/kg | 28 | 9.2 | 1 |
| Benzene | ND | | ug/kg | 28 | 9.2 | 1 |
| Toluene | ND | | ug/kg | 55 | 30. | 1 |
| Ethylbenzene | ND | | ug/kg | 55 | 7.8 | 1 |
| Chloromethane | ND | | ug/kg | 220 | 51. | 1 |
| Bromomethane | ND | | ug/kg | 110 | 32. | 1 |
| Vinyl chloride | ND | | ug/kg | 55 | 18. | 1 |
| Chloroethane | ND | | ug/kg | 110 | 25. | 1 |
| 1,1-Dichloroethene | ND | | ug/kg | 55 | 13. | 1 |
| trans-1,2-Dichloroethene | ND | | ug/kg | 83 | 7.6 | 1 |
| Trichloroethene | 560 | | ug/kg | 28 | 7.6 | 1 |
| 1,2-Dichlorobenzene | ND | | ug/kg | 110 | 8.0 | 1 |

**Project Name:** FORMER WARD PRODUCTS SITE **Lab Number:** L1912354

**Project Number:** 190311ENVA **Report Date:** 04/04/19

## SAMPLE RESULTS

Lab ID: L1912354-02 Date Collected: 03/27/19 13:43

Client ID: ISB-6 (3.5-4') Date Received: 03/28/19

Sample Location: 61 EDSON STREET 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/kg | 110 | 8.2 | 1 |
| 1,4-Dichlorobenzene | ND | | ug/kg | 110 | 9.4 | 1 |
| Methyl tert butyl ether | ND | | ug/kg | 110 | 11. | 1 |
| p/m-Xylene | ND | | ug/kg | 110 | 31. | 1 |
| o-Xylene | ND | | ug/kg | 55 | 16. | 1 |
| cis-1,2-Dichloroethene | ND | | ug/kg | 55 | 9.7 | 1 |
| Styrene | ND | | ug/kg | 55 | 11. | 1 |
| Dichlorodifluoromethane | ND | | ug/kg | 550 | 50. | 1 |
| Acetone | 650 | | ug/kg | 550 | 260 | 1 |
| Carbon disulfide | ND | | ug/kg | 550 | 250 | 1 |
| 2-Butanone | ND | | ug/kg | 550 | 120 | 1 |
| 4-Methyl-2-pentanone | ND | | ug/kg | 550 | 71. | 1 |
| 2-Hexanone | ND | | ug/kg | 550 | 65. | 1 |
| Bromochloromethane | ND | | ug/kg | 110 | 11. | 1 |
| 1,2-Dibromoethane | ND | | ug/kg | 55 | 15. | 1 |
| 1,2-Dibromo-3-chloropropane | ND | | ug/kg | 160 | 55. | 1 |
| Isopropylbenzene | ND | | ug/kg | 55 | 6.0 | 1 |
| 1,2,3-Trichlorobenzene | ND | | ug/kg | 110 | 18. | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 110 | 15. | 1 |
| Methyl Acetate | 3300 | | ug/kg | 220 | 52. | 1 |
| Cyclohexane | ND | | ug/kg | 550 | 30. | 1 |
| 1,4-Dioxane | ND | | ug/kg | 4400 | 1900 | 1 |
| Freon-113 | ND | | ug/kg | 220 | 38. | 1 |
| Methyl cyclohexane | ND | | ug/kg | 220 | 33. | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 1,2-Dichloroethane-d4 | 113 | | 70-130 |
| Toluene-d8 | 95 | | 70-130 |
| 4-Bromofluorobenzene | 101 | | 70-130 |
| Dibromofluoromethane | 101 | | 70-130 |

**Project Name:** FORMER WARD PRODUCTS SITE **Lab Number:** L1912354

**Project Number:** 190311ENVA **Report Date:** 04/04/19

## SAMPLE RESULTS

Lab ID: L1912354-03 D
Client ID: ISB-4 (7.5-8.5')
Sample Location: 61 EDSON STREET

Date Collected: 03/27/19 12:15
Date Received: 03/28/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 04/03/19 22:05
Analyst: NLK
Percent Solids: 89%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Volatile Organics by GC/MS - Westborough Lab** | | | | | | |
| Methylene chloride | ND | | ug/kg | 2300 | 1100 | 10 |
| 1,1-Dichloroethane | ND | | ug/kg | 470 | 68. | 10 |
| Chloroform | ND | | ug/kg | 700 | 65. | 10 |
| Carbon tetrachloride | ND | | ug/kg | 470 | 110 | 10 |
| 1,2-Dichloropropane | ND | | ug/kg | 470 | 58. | 10 |
| Dibromochloromethane | ND | | ug/kg | 470 | 65. | 10 |
| 1,1,2-Trichloroethane | ND | | ug/kg | 470 | 120 | 10 |
| Tetrachloroethene | ND | | ug/kg | 230 | 92. | 10 |
| Chlorobenzene | ND | | ug/kg | 230 | 59. | 10 |
| Trichlorofluoromethane | ND | | ug/kg | 1900 | 320 | 10 |
| 1,2-Dichloroethane | ND | | ug/kg | 470 | 120 | 10 |
| 1,1,1-Trichloroethane | ND | | ug/kg | 230 | 78. | 10 |
| Bromodichloromethane | ND | | ug/kg | 230 | 51. | 10 |
| trans-1,3-Dichloropropene | ND | | ug/kg | 470 | 130 | 10 |
| cis-1,3-Dichloropropene | ND | | ug/kg | 230 | 74. | 10 |
| Bromoform | ND | | ug/kg | 1900 | 120 | 10 |
| 1,1,2,2-Tetrachloroethane | ND | | ug/kg | 230 | 78. | 10 |
| Benzene | ND | | ug/kg | 230 | 78. | 10 |
| Toluene | ND | | ug/kg | 470 | 250 | 10 |
| Ethylbenzene | ND | | ug/kg | 470 | 66. | 10 |
| Chloromethane | ND | | ug/kg | 1900 | 440 | 10 |
| Bromomethane | ND | | ug/kg | 940 | 270 | 10 |
| Vinyl chloride | ND | | ug/kg | 470 | 160 | 10 |
| Chloroethane | ND | | ug/kg | 940 | 210 | 10 |
| 1,1-Dichloroethene | ND | | ug/kg | 470 | 110 | 10 |
| trans-1,2-Dichloroethene | ND | | ug/kg | 700 | 64. | 10 |
| Trichloroethene | 110000 | | ug/kg | 230 | 64. | 10 |
| 1,2-Dichlorobenzene | ND | | ug/kg | 940 | 67. | 10 |

**Project Name:** FORMER WARD PRODUCTS SITE **Lab Number:** L1912354

**Project Number:** 190311ENVA **Report Date:** 04/04/19

## SAMPLE RESULTS

Lab ID: L1912354-03 D
Client ID: ISB-4 (7.5-8.5')
Sample Location: 61 EDSON STREET

Date Collected: 03/27/19 12:15
Date Received: 03/28/19
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/kg | 940 | 69. | 10 |
| 1,4-Dichlorobenzene | ND | | ug/kg | 940 | 80. | 10 |
| Methyl tert butyl ether | ND | | ug/kg | 940 | 94. | 10 |
| p/m-Xylene | ND | | ug/kg | 940 | 260 | 10 |
| o-Xylene | ND | | ug/kg | 470 | 140 | 10 |
| cis-1,2-Dichloroethene | 170 | J | ug/kg | 470 | 82. | 10 |
| Styrene | ND | | ug/kg | 470 | 92. | 10 |
| Dichlorodifluoromethane | ND | | ug/kg | 4700 | 430 | 10 |
| Acetone | ND | | ug/kg | 4700 | 2200 | 10 |
| Carbon disulfide | ND | | ug/kg | 4700 | 2100 | 10 |
| 2-Butanone | ND | | ug/kg | 4700 | 1000 | 10 |
| 4-Methyl-2-pentanone | ND | | ug/kg | 4700 | 600 | 10 |
| 2-Hexanone | ND | | ug/kg | 4700 | 550 | 10 |
| Bromochloromethane | ND | | ug/kg | 940 | 96. | 10 |
| 1,2-Dibromoethane | ND | | ug/kg | 470 | 130 | 10 |
| 1,2-Dibromo-3-chloropropane | ND | | ug/kg | 1400 | 470 | 10 |
| Isopropylbenzene | ND | | ug/kg | 470 | 51. | 10 |
| 1,2,3-Trichlorobenzene | ND | | ug/kg | 940 | 150 | 10 |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 940 | 130 | 10 |
| Methyl Acetate | 2000 | | ug/kg | 1900 | 440 | 10 |
| Cyclohexane | ND | | ug/kg | 4700 | 250 | 10 |
| 1,4-Dioxane | ND | | ug/kg | 37000 | 16000 | 10 |
| Freon-113 | ND | | ug/kg | 1900 | 320 | 10 |
| Methyl cyclohexane | ND | | ug/kg | 1900 | 280 | 10 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 1,2-Dichloroethane-d4 | 112 | | 70-130 |
| Toluene-d8 | 94 | | 70-130 |
| 4-Bromofluorobenzene | 101 | | 70-130 |
| Dibromofluoromethane | 105 | | 70-130 |

**Project Name:** FORMER WARD PRODUCTS SITE **Lab Number:** L1912354

**Project Number:** 190311ENVA **Report Date:** 04/04/19

## SAMPLE RESULTS

Lab ID: L1912354-04
Client ID: SB-2 (8-9')
Sample Location: 61 EDSON STREET

Date Collected: 03/27/19 17:50
Date Received: 03/28/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 04/03/19 19:38
Analyst: MV
Percent Solids: 83%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Volatile Organics by GC/MS - Westborough Lab** | | | | | | |
| Methylene chloride | ND | | ug/kg | 5.4 | 2.5 | 1 |
| 1,1-Dichloroethane | ND | | ug/kg | 1.1 | 0.16 | 1 |
| Chloroform | ND | | ug/kg | 1.6 | 0.15 | 1 |
| Carbon tetrachloride | ND | | ug/kg | 1.1 | 0.25 | 1 |
| 1,2-Dichloropropane | ND | | ug/kg | 1.1 | 0.14 | 1 |
| Dibromochloromethane | ND | | ug/kg | 1.1 | 0.15 | 1 |
| 1,1,2-Trichloroethane | ND | | ug/kg | 1.1 | 0.29 | 1 |
| Tetrachloroethene | ND | | ug/kg | 0.54 | 0.21 | 1 |
| Chlorobenzene | ND | | ug/kg | 0.54 | 0.14 | 1 |
| Trichlorofluoromethane | ND | | ug/kg | 4.4 | 0.76 | 1 |
| 1,2-Dichloroethane | ND | | ug/kg | 1.1 | 0.28 | 1 |
| 1,1,1-Trichloroethane | ND | | ug/kg | 0.54 | 0.18 | 1 |
| Bromodichloromethane | ND | | ug/kg | 0.54 | 0.12 | 1 |
| trans-1,3-Dichloropropene | ND | | ug/kg | 1.1 | 0.30 | 1 |
| cis-1,3-Dichloropropene | ND | | ug/kg | 0.54 | 0.17 | 1 |
| Bromoform | ND | | ug/kg | 4.4 | 0.27 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | ug/kg | 0.54 | 0.18 | 1 |
| Benzene | ND | | ug/kg | 0.54 | 0.18 | 1 |
| Toluene | ND | | ug/kg | 1.1 | 0.59 | 1 |
| Ethylbenzene | ND | | ug/kg | 1.1 | 0.15 | 1 |
| Chloromethane | ND | | ug/kg | 4.4 | 1.0 | 1 |
| Bromomethane | ND | | ug/kg | 2.2 | 0.63 | 1 |
| Vinyl chloride | ND | | ug/kg | 1.1 | 0.36 | 1 |
| Chloroethane | ND | | ug/kg | 2.2 | 0.49 | 1 |
| 1,1-Dichloroethene | ND | | ug/kg | 1.1 | 0.26 | 1 |
| trans-1,2-Dichloroethene | ND | | ug/kg | 1.6 | 0.15 | 1 |
| Trichloroethene | 1.8 | | ug/kg | 0.54 | 0.15 | 1 |
| 1,2-Dichlorobenzene | ND | | ug/kg | 2.2 | 0.16 | 1 |

**Project Name:** FORMER WARD PRODUCTS SITE **Lab Number:** L1912354

**Project Number:** 190311ENVA **Report Date:** 04/04/19

## SAMPLE RESULTS

Lab ID: L1912354-04 Date Collected: 03/27/19 17:50

Client ID: SB-2 (8-9') Date Received: 03/28/19

Sample Location: 61 EDSON STREET 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/kg | 2.2 | 0.16 | 1 |
| 1,4-Dichlorobenzene | ND | | ug/kg | 2.2 | 0.19 | 1 |
| Methyl tert butyl ether | 0.22 | J | ug/kg | 2.2 | 0.22 | 1 |
| p/m-Xylene | ND | | ug/kg | 2.2 | 0.61 | 1 |
| o-Xylene | ND | | ug/kg | 1.1 | 0.32 | 1 |
| cis-1,2-Dichloroethene | ND | | ug/kg | 1.1 | 0.19 | 1 |
| Styrene | ND | | ug/kg | 1.1 | 0.21 | 1 |
| Dichlorodifluoromethane | ND | | ug/kg | 11 | 1.0 | 1 |
| Acetone | 22 | | ug/kg | 11 | 5.2 | 1 |
| Carbon disulfide | ND | | ug/kg | 11 | 5.0 | 1 |
| 2-Butanone | ND | | ug/kg | 11 | 2.4 | 1 |
| 4-Methyl-2-pentanone | ND | | ug/kg | 11 | 1.4 | 1 |
| 2-Hexanone | ND | | ug/kg | 11 | 1.3 | 1 |
| Bromochloromethane | ND | | ug/kg | 2.2 | 0.22 | 1 |
| 1,2-Dibromoethane | ND | | ug/kg | 1.1 | 0.30 | 1 |
| 1,2-Dibromo-3-chloropropane | ND | | ug/kg | 3.3 | 1.1 | 1 |
| Isopropylbenzene | ND | | ug/kg | 1.1 | 0.12 | 1 |
| 1,2,3-Trichlorobenzene | ND | | ug/kg | 2.2 | 0.35 | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 2.2 | 0.30 | 1 |
| Methyl Acetate | 2.7 | J | ug/kg | 4.4 | 1.0 | 1 |
| Cyclohexane | ND | | ug/kg | 11 | 0.59 | 1 |
| 1,4-Dioxane | ND | | ug/kg | 87 | 38. | 1 |
| Freon-113 | ND | | ug/kg | 4.4 | 0.76 | 1 |
| Methyl cyclohexane | ND | | ug/kg | 4.4 | 0.66 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 1,2-Dichloroethane-d4 | 113 | | 70-130 |
| Toluene-d8 | 108 | | 70-130 |
| 4-Bromofluorobenzene | 111 | | 70-130 |
| Dibromofluoromethane | 95 | | 70-130 |

**Project Name:** FORMER WARD PRODUCTS SITE **Lab Number:** L1912354

**Project Number:** 190311ENVA **Report Date:** 04/04/19

## SAMPLE RESULTS

Lab ID: L1912354-05
Client ID: SB-5 (4.5-5')
Sample Location: 61 EDSON STREET

Date Collected: 03/28/19 09:27
Date Received: 03/28/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 04/03/19 20:04
Analyst: MV
Percent Solids: 80%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Volatile Organics by GC/MS - Westborough Lab** | | | | | | |
| Methylene chloride | ND | | ug/kg | 5.0 | 2.3 | 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 | 0.23 | 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 | 0.27 | 1 |
| Tetrachloroethene | ND | | ug/kg | 0.50 | 0.20 | 1 |
| Chlorobenzene | ND | | ug/kg | 0.50 | 0.13 | 1 |
| Trichlorofluoromethane | ND | | ug/kg | 4.0 | 0.70 | 1 |
| 1,2-Dichloroethane | ND | | ug/kg | 1.0 | 0.26 | 1 |
| 1,1,1-Trichloroethane | ND | | ug/kg | 0.50 | 0.17 | 1 |
| Bromodichloromethane | ND | | ug/kg | 0.50 | 0.11 | 1 |
| trans-1,3-Dichloropropene | ND | | ug/kg | 1.0 | 0.28 | 1 |
| cis-1,3-Dichloropropene | ND | | ug/kg | 0.50 | 0.16 | 1 |
| Bromoform | ND | | ug/kg | 4.0 | 0.25 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | ug/kg | 0.50 | 0.17 | 1 |
| Benzene | ND | | ug/kg | 0.50 | 0.17 | 1 |
| Toluene | ND | | ug/kg | 1.0 | 0.55 | 1 |
| Ethylbenzene | ND | | ug/kg | 1.0 | 0.14 | 1 |
| Chloromethane | ND | | ug/kg | 4.0 | 0.94 | 1 |
| Bromomethane | ND | | ug/kg | 2.0 | 0.59 | 1 |
| Vinyl chloride | ND | | ug/kg | 1.0 | 0.34 | 1 |
| Chloroethane | ND | | ug/kg | 2.0 | 0.46 | 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 | 0.44 | J | ug/kg | 0.50 | 0.14 | 1 |
| 1,2-Dichlorobenzene | ND | | ug/kg | 2.0 | 0.14 | 1 |

**Project Name:** FORMER WARD PRODUCTS SITE **Lab Number:** L1912354

**Project Number:** 190311ENVA **Report Date:** 04/04/19

## SAMPLE RESULTS

Lab ID: L1912354-05 Date Collected: 03/28/19 09:27

Client ID: SB-5 (4.5-5') Date Received: 03/28/19

Sample Location: 61 EDSON STREET 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/kg | 2.0 | 0.15 | 1 |
| 1,4-Dichlorobenzene | ND | | ug/kg | 2.0 | 0.17 | 1 |
| Methyl tert butyl ether | ND | | ug/kg | 2.0 | 0.20 | 1 |
| p/m-Xylene | ND | | ug/kg | 2.0 | 0.56 | 1 |
| o-Xylene | ND | | ug/kg | 1.0 | 0.29 | 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 | 0.92 | 1 |
| Acetone | 6.9 | J | ug/kg | 10 | 4.8 | 1 |
| Carbon disulfide | ND | | ug/kg | 10 | 4.6 | 1 |
| 2-Butanone | ND | | ug/kg | 10 | 2.2 | 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 | 2.0 | 0.21 | 1 |
| 1,2-Dibromoethane | ND | | ug/kg | 1.0 | 0.28 | 1 |
| 1,2-Dibromo-3-chloropropane | ND | | ug/kg | 3.0 | 1.0 | 1 |
| Isopropylbenzene | ND | | ug/kg | 1.0 | 0.11 | 1 |
| 1,2,3-Trichlorobenzene | ND | | ug/kg | 2.0 | 0.32 | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 2.0 | 0.27 | 1 |
| Methyl Acetate | 1.8 | J | ug/kg | 4.0 | 0.96 | 1 |
| Cyclohexane | ND | | ug/kg | 10 | 0.55 | 1 |
| 1,4-Dioxane | ND | | ug/kg | 81 | 35. | 1 |
| Freon-113 | ND | | ug/kg | 4.0 | 0.70 | 1 |
| Methyl cyclohexane | ND | | ug/kg | 4.0 | 0.61 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 1,2-Dichloroethane-d4 | 117 | | 70-130 |
| Toluene-d8 | 105 | | 70-130 |
| 4-Bromofluorobenzene | 111 | | 70-130 |
| Dibromofluoromethane | 97 | | 70-130 |

**Project Name:** FORMER WARD PRODUCTS SITE **Lab Number:** L1912354

**Project Number:** 190311ENVA **Report Date:** 04/04/19

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 04/03/19 18:42
Analyst: AD

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|---|---|---|---|---|
| Volatile Organics by GC/MS - Westborough Lab for sample(s): 01,04-05 Batch: WG1222870-5 | | | | | |
| 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:** FORMER WARD PRODUCTS SITE **Lab Number:** L1912354

**Project Number:** 190311ENVA **Report Date:** 04/04/19

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 04/03/19 18:42
Analyst: AD

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|---|---|---|---|---|
| Volatile Organics by GC/MS - Westborough Lab for sample(s): 01,04-05 Batch: WG1222870-5 | | | | | |
| 1,4-Dichlorobenzene | ND | | ug/kg | 2.0 | 0.17 |
| Methyl tert butyl ether | 0.24 | J | 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 | 80 | 35. |
| Freon-113 | ND | | ug/kg | 4.0 | 0.69 |
| Methyl cyclohexane | ND | | ug/kg | 4.0 | 0.60 |

**Project Name:** FORMER WARD PRODUCTS SITE **Lab Number:** L1912354

**Project Number:** 190311ENVA **Report Date:** 04/04/19

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 04/03/19 18:42
Analyst: AD

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|---|---|---|---|---|
| Volatile Organics by GC/MS - Westborough Lab for sample(s): 01,04-05 Batch: WG1222870-5 | | | | | |

| Surrogate | %Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 1,2-Dichloroethane-d4 | 116 | | 70-130 |
| Toluene-d8 | 106 | | 70-130 |
| 4-Bromofluorobenzene | 109 | | 70-130 |
| Dibromofluoromethane | 93 | | 70-130 |

**Project Name:** FORMER WARD PRODUCTS SITE **Lab Number:** L1912354

**Project Number:** 190311ENVA **Report Date:** 04/04/19

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 04/03/19 19:20
Analyst: AD

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|---|---|---|---|---|
| Volatile Organics by GC/MS - Westborough Lab for sample(s): 02-03 Batch: WG1223011-5 | | | | | |
| Methylene chloride | ND | | ug/kg | 250 | 110 |
| 1,1-Dichloroethane | ND | | ug/kg | 50 | 7.2 |
| Chloroform | ND | | ug/kg | 75 | 7.0 |
| Carbon tetrachloride | ND | | ug/kg | 50 | 12. |
| 1,2-Dichloropropane | ND | | ug/kg | 50 | 6.2 |
| Dibromochloromethane | ND | | ug/kg | 50 | 7.0 |
| 1,1,2-Trichloroethane | ND | | ug/kg | 50 | 13. |
| Tetrachloroethene | ND | | ug/kg | 25 | 9.8 |
| Chlorobenzene | ND | | ug/kg | 25 | 6.4 |
| Trichlorofluoromethane | ND | | ug/kg | 200 | 35. |
| 1,2-Dichloroethane | ND | | ug/kg | 50 | 13. |
| 1,1,1-Trichloroethane | ND | | ug/kg | 25 | 8.4 |
| Bromodichloromethane | ND | | ug/kg | 25 | 5.4 |
| trans-1,3-Dichloropropene | ND | | ug/kg | 50 | 14. |
| cis-1,3-Dichloropropene | ND | | ug/kg | 25 | 7.9 |
| Bromoform | ND | | ug/kg | 200 | 12. |
| 1,1,2,2-Tetrachloroethane | ND | | ug/kg | 25 | 8.3 |
| Benzene | ND | | ug/kg | 25 | 8.3 |
| Toluene | ND | | ug/kg | 50 | 27. |
| Ethylbenzene | ND | | ug/kg | 50 | 7.0 |
| Chloromethane | ND | | ug/kg | 200 | 47. |
| Bromomethane | 51 | J | ug/kg | 100 | 29. |
| Vinyl chloride | ND | | ug/kg | 50 | 17. |
| Chloroethane | ND | | ug/kg | 100 | 23. |
| 1,1-Dichloroethene | ND | | ug/kg | 50 | 12. |
| trans-1,2-Dichloroethene | ND | | ug/kg | 75 | 6.8 |
| Trichloroethene | ND | | ug/kg | 25 | 6.8 |
| 1,2-Dichlorobenzene | ND | | ug/kg | 100 | 7.2 |
| 1,3-Dichlorobenzene | ND | | ug/kg | 100 | 7.4 |

**Project Name:** FORMER WARD PRODUCTS SITE **Lab Number:** L1912354

**Project Number:** 190311ENVA **Report Date:** 04/04/19

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 04/03/19 19:20
Analyst: AD

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|---|---|---|---|---|
| Volatile Organics by GC/MS - Westborough Lab for sample(s): 02-03 Batch: WG1223011-5 | | | | | |
| 1,4-Dichlorobenzene | ND | | ug/kg | 100 | 8.6 |
| Methyl tert butyl ether | ND | | ug/kg | 100 | 10. |
| p/m-Xylene | ND | | ug/kg | 100 | 28. |
| o-Xylene | ND | | ug/kg | 50 | 14. |
| cis-1,2-Dichloroethene | ND | | ug/kg | 50 | 8.8 |
| Styrene | ND | | ug/kg | 50 | 9.8 |
| Dichlorodifluoromethane | ND | | ug/kg | 500 | 46. |
| Acetone | ND | | ug/kg | 500 | 240 |
| Carbon disulfide | ND | | ug/kg | 500 | 230 |
| 2-Butanone | ND | | ug/kg | 500 | 110 |
| 4-Methyl-2-pentanone | ND | | ug/kg | 500 | 64. |
| 2-Hexanone | ND | | ug/kg | 500 | 59. |
| Bromochloromethane | ND | | ug/kg | 100 | 10. |
| 1,2-Dibromoethane | ND | | ug/kg | 50 | 14. |
| 1,2-Dibromo-3-chloropropane | ND | | ug/kg | 150 | 50. |
| Isopropylbenzene | ND | | ug/kg | 50 | 5.4 |
| 1,2,3-Trichlorobenzene | ND | | ug/kg | 100 | 16. |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 100 | 14. |
| Methyl Acetate | ND | | ug/kg | 200 | 48. |
| Cyclohexane | ND | | ug/kg | 500 | 27. |
| 1,4-Dioxane | ND | | ug/kg | 4000 | 1800 |
| Freon-113 | ND | | ug/kg | 200 | 35. |
| Methyl cyclohexane | ND | | ug/kg | 200 | 30. |

**Project Name:** FORMER WARD PRODUCTS SITE **Lab Number:** L1912354

**Project Number:** 190311ENVA **Report Date:** 04/04/19

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 04/03/19 19:20
Analyst: AD

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|---|---|---|---|---|
| Volatile Organics by GC/MS - Westborough Lab for sample(s): 02-03 Batch: WG1223011-5 | | | | | |

| Surrogate | %Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 1,2-Dichloroethane-d4 | 119 | | 70-130 |
| Toluene-d8 | 94 | | 70-130 |
| 4-Bromofluorobenzene | 101 | | 70-130 |
| Dibromofluoromethane | 104 | | 70-130 |

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** FORMER WARD PRODUCTS SITE

**Project Number:** 190311ENVA

**Lab Number:** L1912354

**Report Date:** 04/04/19

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01,04-05 Batch: WG1222870-3 WG1222870-4 | | | | | | | | |
| Methylene chloride | 85 | | 84 | | 70-130 | 1 | | 30 |
| 1,1-Dichloroethane | 89 | | 86 | | 70-130 | 3 | | 30 |
| Chloroform | 82 | | 82 | | 70-130 | 0 | | 30 |
| Carbon tetrachloride | 79 | | 77 | | 70-130 | 3 | | 30 |
| 1,2-Dichloropropane | 87 | | 86 | | 70-130 | 1 | | 30 |
| Dibromochloromethane | 82 | | 83 | | 70-130 | 1 | | 30 |
| 1,1,2-Trichloroethane | 89 | | 90 | | 70-130 | 1 | | 30 |
| Tetrachloroethene | 78 | | 74 | | 70-130 | 5 | | 30 |
| Chlorobenzene | 79 | | 79 | | 70-130 | 0 | | 30 |
| Trichlorofluoromethane | 78 | | 76 | | 70-139 | 3 | | 30 |
| 1,2-Dichloroethane | 93 | | 95 | | 70-130 | 2 | | 30 |
| 1,1,1-Trichloroethane | 81 | | 80 | | 70-130 | 1 | | 30 |
| Bromodichloromethane | 82 | | 82 | | 70-130 | 0 | | 30 |
| trans-1,3-Dichloropropene | 91 | | 94 | | 70-130 | 3 | | 30 |
| cis-1,3-Dichloropropene | 81 | | 82 | | 70-130 | 1 | | 30 |
| Bromoform | 82 | | 85 | | 70-130 | 4 | | 30 |
| 1,1,2,2-Tetrachloroethane | 89 | | 92 | | 70-130 | 3 | | 30 |
| Benzene | 80 | | 80 | | 70-130 | 0 | | 30 |
| Toluene | 86 | | 85 | | 70-130 | 1 | | 30 |
| Ethylbenzene | 85 | | 85 | | 70-130 | 0 | | 30 |
| Chloromethane | 92 | | 89 | | 52-130 | 3 | | 30 |
| Bromomethane | 83 | | 82 | | 57-147 | 1 | | 30 |
| Vinyl chloride | 78 | | 74 | | 67-130 | 5 | | 30 |

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** FORMER WARD PRODUCTS SITE

**Project Number:** 190311ENVA

**Lab Number:** L1912354

**Report Date:** 04/04/19

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01,04-05 Batch: WG1222870-3 WG1222870-4 | | | | | | | | |
| Chloroethane | 82 | | 79 | | 50-151 | 4 | | 30 |
| 1,1-Dichloroethene | 78 | | 75 | | 65-135 | 4 | | 30 |
| trans-1,2-Dichloroethene | 78 | | 78 | | 70-130 | 0 | | 30 |
| Trichloroethene | 78 | | 77 | | 70-130 | 1 | | 30 |
| 1,2-Dichlorobenzene | 81 | | 82 | | 70-130 | 1 | | 30 |
| 1,3-Dichlorobenzene | 83 | | 82 | | 70-130 | 1 | | 30 |
| 1,4-Dichlorobenzene | 82 | | 82 | | 70-130 | 0 | | 30 |
| Methyl tert butyl ether | 85 | | 87 | | 66-130 | 2 | | 30 |
| p/m-Xylene | 81 | | 81 | | 70-130 | 0 | | 30 |
| o-Xylene | 80 | | 79 | | 70-130 | 1 | | 30 |
| cis-1,2-Dichloroethene | 79 | | 78 | | 70-130 | 1 | | 30 |
| Styrene | 80 | | 80 | | 70-130 | 0 | | 30 |
| Dichlorodifluoromethane | 65 | | 62 | | 30-146 | 5 | | 30 |
| Acetone | 120 | | 123 | | 54-140 | 2 | | 30 |
| Carbon disulfide | 84 | | 82 | | 59-130 | 2 | | 30 |
| 2-Butanone | 100 | | 114 | | 70-130 | 13 | | 30 |
| 4-Methyl-2-pentanone | 100 | | 107 | | 70-130 | 7 | | 30 |
| 2-Hexanone | 98 | | 104 | | 70-130 | 6 | | 30 |
| Bromochloromethane | 75 | | 75 | | 70-130 | 0 | | 30 |
| 1,2-Dibromoethane | 84 | | 86 | | 70-130 | 2 | | 30 |
| 1,2-Dibromo-3-chloropropane | 85 | | 87 | | 68-130 | 2 | | 30 |
| Isopropylbenzene | 86 | | 85 | | 70-130 | 1 | | 30 |
| 1,2,3-Trichlorobenzene | 80 | | 82 | | 70-130 | 2 | | 30 |

# Lab Control Sample Analysis
## Batch Quality Control

**Project Name:** FORMER WARD PRODUCTS SITE
**Project Number:** 190311ENVA

**Lab Number:** L1912354
**Report Date:** 04/04/19

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01,04-05 Batch: WG1222870-3 WG1222870-4 | | | | | | | | |
| 1,2,4-Trichlorobenzene | 80 | | 80 | | 70-130 | 0 | | 30 |
| Methyl Acetate | 97 | | 101 | | 51-146 | 4 | | 30 |
| Cyclohexane | 89 | | 86 | | 59-142 | 3 | | 30 |
| 1,4-Dioxane | 112 | | 115 | | 65-136 | 3 | | 30 |
| Freon-113 | 78 | | 77 | | 50-139 | 1 | | 30 |
| Methyl cyclohexane | 78 | | 76 | | 70-130 | 3 | | 30 |

| Surrogate | LCS %Recovery | Qual | LCSD %Recovery | Qual | Acceptance Criteria |
|---|---|---|---|---|---|
| 1,2-Dichloroethane-d4 | 116 | | 118 | | 70-130 |
| Toluene-d8 | 106 | | 106 | | 70-130 |
| 4-Bromofluorobenzene | 108 | | 109 | | 70-130 |
| Dibromofluoromethane | 95 | | 97 | | 70-130 |

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** FORMER WARD PRODUCTS SITE

**Project Number:** 190311ENVA

**Lab Number:** L1912354

**Report Date:** 04/04/19

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02-03 Batch: WG1223011-3 WG1223011-4 | | | | | | | | |
| Methylene chloride | 89 | | 88 | | 70-130 | 1 | | 30 |
| 1,1-Dichloroethane | 99 | | 98 | | 70-130 | 1 | | 30 |
| Chloroform | 108 | | 106 | | 70-130 | 2 | | 30 |
| Carbon tetrachloride | 113 | | 110 | | 70-130 | 3 | | 30 |
| 1,2-Dichloropropane | 94 | | 92 | | 70-130 | 2 | | 30 |
| Dibromochloromethane | 90 | | 90 | | 70-130 | 0 | | 30 |
| 1,1,2-Trichloroethane | 87 | | 89 | | 70-130 | 2 | | 30 |
| Tetrachloroethene | 85 | | 86 | | 70-130 | 1 | | 30 |
| Chlorobenzene | 82 | | 84 | | 70-130 | 2 | | 30 |
| Trichlorofluoromethane | 123 | | 114 | | 70-139 | 8 | | 30 |
| 1,2-Dichloroethane | 113 | | 113 | | 70-130 | 0 | | 30 |
| 1,1,1-Trichloroethane | 110 | | 107 | | 70-130 | 3 | | 30 |
| Bromodichloromethane | 106 | | 104 | | 70-130 | 2 | | 30 |
| trans-1,3-Dichloropropene | 93 | | 96 | | 70-130 | 3 | | 30 |
| cis-1,3-Dichloropropene | 98 | | 98 | | 70-130 | 0 | | 30 |
| Bromoform | 88 | | 88 | | 70-130 | 0 | | 30 |
| 1,1,2,2-Tetrachloroethane | 79 | | 82 | | 70-130 | 4 | | 30 |
| Benzene | 94 | | 93 | | 70-130 | 1 | | 30 |
| Toluene | 86 | | 85 | | 70-130 | 1 | | 30 |
| Ethylbenzene | 87 | | 87 | | 70-130 | 0 | | 30 |
| Chloromethane | 88 | | 85 | | 52-130 | 3 | | 30 |
| Bromomethane | 143 | | 133 | | 57-147 | 7 | | 30 |
| Vinyl chloride | 87 | | 84 | | 67-130 | 4 | | 30 |

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** FORMER WARD PRODUCTS SITE

**Project Number:** 190311ENVA

**Lab Number:** L1912354

**Report Date:** 04/04/19

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02-03 Batch: WG1223011-3 WG1223011-4 | | | | | | | | |
| Chloroethane | 97 | | 96 | | 50-151 | 1 | | 30 |
| 1,1-Dichloroethene | 89 | | 89 | | 65-135 | 0 | | 30 |
| trans-1,2-Dichloroethene | 93 | | 91 | | 70-130 | 2 | | 30 |
| Trichloroethene | 95 | | 92 | | 70-130 | 3 | | 30 |
| 1,2-Dichlorobenzene | 80 | | 81 | | 70-130 | 1 | | 30 |
| 1,3-Dichlorobenzene | 80 | | 81 | | 70-130 | 1 | | 30 |
| 1,4-Dichlorobenzene | 80 | | 80 | | 70-130 | 0 | | 30 |
| Methyl tert butyl ether | 105 | | 104 | | 66-130 | 1 | | 30 |
| p/m-Xylene | 85 | | 85 | | 70-130 | 0 | | 30 |
| o-Xylene | 83 | | 85 | | 70-130 | 2 | | 30 |
| cis-1,2-Dichloroethene | 93 | | 93 | | 70-130 | 0 | | 30 |
| Styrene | 83 | | 84 | | 70-130 | 1 | | 30 |
| Dichlorodifluoromethane | 88 | | 84 | | 30-146 | 5 | | 30 |
| Acetone | 115 | | 116 | | 54-140 | 1 | | 30 |
| Carbon disulfide | 91 | | 89 | | 59-130 | 2 | | 30 |
| 2-Butanone | 104 | | 104 | | 70-130 | 0 | | 30 |
| 4-Methyl-2-pentanone | 83 | | 87 | | 70-130 | 5 | | 30 |
| 2-Hexanone | 88 | | 92 | | 70-130 | 4 | | 30 |
| Bromochloromethane | 96 | | 92 | | 70-130 | 4 | | 30 |
| 1,2-Dibromoethane | 85 | | 87 | | 70-130 | 2 | | 30 |
| 1,2-Dibromo-3-chloropropane | 82 | | 85 | | 68-130 | 4 | | 30 |
| Isopropylbenzene | 82 | | 81 | | 70-130 | 1 | | 30 |
| 1,2,3-Trichlorobenzene | 82 | | 84 | | 70-130 | 2 | | 30 |

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** FORMER WARD PRODUCTS SITE

**Project Number:** 190311ENVA

**Lab Number:** L1912354

**Report Date:** 04/04/19

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02-03 Batch: WG1223011-3 WG1223011-4 | | | | | | | | |
| 1,2,4-Trichlorobenzene | 81 | | 83 | | 70-130 | 2 | | 30 |
| Methyl Acetate | 100 | | 101 | | 51-146 | 1 | | 30 |
| Cyclohexane | 91 | | 89 | | 59-142 | 2 | | 30 |
| 1,4-Dioxane | 100 | | 104 | | 65-136 | 4 | | 30 |
| Freon-113 | 97 | | 94 | | 50-139 | 3 | | 30 |
| Methyl cyclohexane | 90 | | 89 | | 70-130 | 1 | | 30 |

| Surrogate | LCS %Recovery | Qual | LCSD %Recovery | Qual | Acceptance Criteria |
|---|---|---|---|---|---|
| 1,2-Dichloroethane-d4 | 120 | | 122 | | 70-130 |
| Toluene-d8 | 94 | | 95 | | 70-130 |
| 4-Bromofluorobenzene | 100 | | 100 | | 70-130 |
| Dibromofluoromethane | 106 | | 106 | | 70-130 |

# METALS

**Project Name:** FORMER WARD PRODUCTS SITE **Lab Number:** L1912354

**Project Number:** 190311ENVA **Report Date:** 04/04/19

## SAMPLE RESULTS

Lab ID: L1912354-01 Date Collected: 03/27/19 16:30

Client ID: WC1 Date Received: 03/28/19

Sample Location: 61 EDSON STREET Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 87%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total Metals - Mansfield Lab** | | | | | | | | | | | |
| Arsenic, Total | 4.33 | | mg/kg | 0.454 | 0.094 | 1 | 04/02/19 07:10 | 04/02/19 10:26 | EPA 3050B | 1,6010D | LC |
| Barium, Total | 55.4 | | mg/kg | 0.454 | 0.079 | 1 | 04/02/19 07:10 | 04/02/19 10:26 | EPA 3050B | 1,6010D | LC |
| Cadmium, Total | 2.56 | | mg/kg | 0.454 | 0.045 | 1 | 04/02/19 07:10 | 04/02/19 10:26 | EPA 3050B | 1,6010D | LC |
| Chromium, Total | 33.4 | | mg/kg | 0.454 | 0.044 | 1 | 04/02/19 07:10 | 04/02/19 10:26 | EPA 3050B | 1,6010D | LC |
| Lead, Total | 80.3 | | mg/kg | 2.27 | 0.122 | 1 | 04/02/19 07:10 | 04/02/19 10:26 | EPA 3050B | 1,6010D | LC |
| Mercury, Total | ND | | mg/kg | 0.072 | 0.015 | 1 | 03/30/19 09:30 | 04/01/19 14:49 | EPA 7471B | 1,7471B | GD |
| Nickel, Total | 72.6 | | mg/kg | 1.13 | 0.110 | 1 | 04/02/19 07:10 | 04/02/19 10:26 | EPA 3050B | 1,6010D | LC |
| Selenium, Total | ND | | mg/kg | 0.907 | 0.117 | 1 | 04/02/19 07:10 | 04/02/19 10:26 | EPA 3050B | 1,6010D | LC |
| Silver, Total | 1.06 | | mg/kg | 0.454 | 0.128 | 1 | 04/02/19 07:10 | 04/02/19 10:26 | EPA 3050B | 1,6010D | LC |
| Zinc, Total | 2850 | | mg/kg | 22.7 | 1.33 | 10 | 04/02/19 07:10 | 04/02/19 19:55 | EPA 3050B | 1,6010D | AB |

**Project Name:** FORMER WARD PRODUCTS SITE **Lab Number:** L1912354

**Project Number:** 190311ENVA **Report Date:** 04/04/19

## SAMPLE RESULTS

Lab ID: L1912354-02 Date Collected: 03/27/19 13:43

Client ID: ISB-6 (3.5-4') Date Received: 03/28/19

Sample Location: 61 EDSON STREET Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 87%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total Metals - Mansfield Lab** | | | | | | | | | | | |
| Arsenic, Total | 4.49 | | mg/kg | 0.444 | 0.092 | 1 | 04/02/19 07:10 | 04/02/19 13:53 | EPA 3050B | 1,6010D | LC |
| Barium, Total | 59.9 | | mg/kg | 0.444 | 0.077 | 1 | 04/02/19 07:10 | 04/02/19 13:53 | EPA 3050B | 1,6010D | LC |
| Cadmium, Total | 0.271 | J | mg/kg | 0.444 | 0.044 | 1 | 04/02/19 07:10 | 04/02/19 13:53 | EPA 3050B | 1,6010D | LC |
| Chromium, Total | 22.6 | | mg/kg | 0.444 | 0.043 | 1 | 04/02/19 07:10 | 04/02/19 13:53 | EPA 3050B | 1,6010D | LC |
| Lead, Total | 7.65 | | mg/kg | 2.22 | 0.119 | 1 | 04/02/19 07:10 | 04/02/19 13:53 | EPA 3050B | 1,6010D | LC |
| Mercury, Total | ND | | mg/kg | 0.072 | 0.015 | 1 | 03/30/19 09:30 | 04/01/19 15:00 | EPA 7471B | 1,7471B | GD |
| Nickel, Total | 20.5 | | mg/kg | 1.11 | 0.108 | 1 | 04/02/19 07:10 | 04/02/19 13:53 | EPA 3050B | 1,6010D | LC |
| Selenium, Total | 0.244 | J | mg/kg | 0.889 | 0.115 | 1 | 04/02/19 07:10 | 04/02/19 13:53 | EPA 3050B | 1,6010D | LC |
| Silver, Total | ND | | mg/kg | 0.444 | 0.126 | 1 | 04/02/19 07:10 | 04/02/19 13:53 | EPA 3050B | 1,6010D | LC |
| Zinc, Total | 42.9 | | mg/kg | 2.22 | 0.130 | 1 | 04/02/19 07:10 | 04/02/19 13:53 | EPA 3050B | 1,6010D | LC |

**Project Name:** FORMER WARD PRODUCTS SITE **Lab Number:** L1912354

**Project Number:** 190311ENVA **Report Date:** 04/04/19

## SAMPLE RESULTS

Lab ID: L1912354-03 Date Collected: 03/27/19 12:15

Client ID: ISB-4 (7.5-8.5') Date Received: 03/28/19

Sample Location: 61 EDSON STREET Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 89%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total Metals - Mansfield Lab** | | | | | | | | | | | |
| Arsenic, Total | 3.89 | | mg/kg | 0.433 | 0.090 | 1 | 04/02/19 07:10 | 04/02/19 13:57 | EPA 3050B | 1,6010D | LC |
| Barium, Total | 33.4 | | mg/kg | 0.433 | 0.075 | 1 | 04/02/19 07:10 | 04/02/19 13:57 | EPA 3050B | 1,6010D | LC |
| Cadmium, Total | 0.840 | | mg/kg | 0.433 | 0.042 | 1 | 04/02/19 07:10 | 04/02/19 13:57 | EPA 3050B | 1,6010D | LC |
| Chromium, Total | 6.70 | | mg/kg | 0.433 | 0.042 | 1 | 04/02/19 07:10 | 04/02/19 13:57 | EPA 3050B | 1,6010D | LC |
| Lead, Total | 5.78 | | mg/kg | 2.16 | 0.116 | 1 | 04/02/19 07:10 | 04/02/19 13:57 | EPA 3050B | 1,6010D | LC |
| Mercury, Total | ND | | mg/kg | 0.071 | 0.015 | 1 | 03/30/19 09:30 | 04/01/19 15:02 | EPA 7471B | 1,7471B | GD |
| Nickel, Total | 10.4 | | mg/kg | 1.08 | 0.105 | 1 | 04/02/19 07:10 | 04/02/19 13:57 | EPA 3050B | 1,6010D | LC |
| Selenium, Total | 0.169 | J | mg/kg | 0.866 | 0.112 | 1 | 04/02/19 07:10 | 04/02/19 13:57 | EPA 3050B | 1,6010D | LC |
| Silver, Total | ND | | mg/kg | 0.433 | 0.122 | 1 | 04/02/19 07:10 | 04/02/19 13:57 | EPA 3050B | 1,6010D | LC |
| Zinc, Total | 184 | | mg/kg | 2.16 | 0.127 | 1 | 04/02/19 07:10 | 04/02/19 13:57 | EPA 3050B | 1,6010D | LC |

**Project Name:** FORMER WARD PRODUCTS SITE **Lab Number:** L1912354

**Project Number:** 190311ENVA **Report Date:** 04/04/19

## SAMPLE RESULTS

Lab ID: L1912354-04 Date Collected: 03/27/19 17:50

Client ID: SB-2 (8-9') Date Received: 03/28/19

Sample Location: 61 EDSON STREET Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 83%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total Metals - Mansfield Lab** | | | | | | | | | | | |
| Arsenic, Total | 4.28 | | mg/kg | 0.454 | 0.094 | 1 | 04/02/19 07:10 | 04/02/19 14:02 | EPA 3050B | 1,6010D | LC |
| Barium, Total | 39.2 | | mg/kg | 0.454 | 0.079 | 1 | 04/02/19 07:10 | 04/02/19 14:02 | EPA 3050B | 1,6010D | LC |
| Cadmium, Total | 0.082 | J | mg/kg | 0.454 | 0.045 | 1 | 04/02/19 07:10 | 04/02/19 14:02 | EPA 3050B | 1,6010D | LC |
| Chromium, Total | 9.06 | | mg/kg | 0.454 | 0.044 | 1 | 04/02/19 07:10 | 04/02/19 14:02 | EPA 3050B | 1,6010D | LC |
| Lead, Total | 7.03 | | mg/kg | 2.27 | 0.122 | 1 | 04/02/19 07:10 | 04/02/19 14:02 | EPA 3050B | 1,6010D | LC |
| Mercury, Total | ND | | mg/kg | 0.076 | 0.016 | 1 | 03/30/19 09:30 | 04/01/19 15:04 | EPA 7471B | 1,7471B | GD |
| Nickel, Total | 15.9 | | mg/kg | 1.13 | 0.110 | 1 | 04/02/19 07:10 | 04/02/19 14:02 | EPA 3050B | 1,6010D | LC |
| Selenium, Total | 0.254 | J | mg/kg | 0.907 | 0.117 | 1 | 04/02/19 07:10 | 04/02/19 14:02 | EPA 3050B | 1,6010D | LC |
| Silver, Total | ND | | mg/kg | 0.454 | 0.128 | 1 | 04/02/19 07:10 | 04/02/19 14:02 | EPA 3050B | 1,6010D | LC |
| Zinc, Total | 49.2 | | mg/kg | 2.27 | 0.133 | 1 | 04/02/19 07:10 | 04/02/19 14:02 | EPA 3050B | 1,6010D | LC |

**Project Name:** FORMER WARD PRODUCTS SITE **Lab Number:** L1912354

**Project Number:** 190311ENVA **Report Date:** 04/04/19

## SAMPLE RESULTS

Lab ID: L1912354-05 Date Collected: 03/28/19 09:27

Client ID: SB-5 (4.5-5') Date Received: 03/28/19

Sample Location: 61 EDSON STREET Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 80%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total Metals - Mansfield Lab** | | | | | | | | | | | |
| Arsenic, Total | 4.20 | | mg/kg | 0.494 | 0.103 | 1 | 04/02/19 07:10 | 04/02/19 14:07 | EPA 3050B | 1,6010D | LC |
| Barium, Total | 40.1 | | mg/kg | 0.494 | 0.086 | 1 | 04/02/19 07:10 | 04/02/19 14:07 | EPA 3050B | 1,6010D | LC |
| Cadmium, Total | 0.049 | J | mg/kg | 0.494 | 0.048 | 1 | 04/02/19 07:10 | 04/02/19 14:07 | EPA 3050B | 1,6010D | LC |
| Chromium, Total | 13.5 | | mg/kg | 0.494 | 0.047 | 1 | 04/02/19 07:10 | 04/02/19 14:07 | EPA 3050B | 1,6010D | LC |
| Lead, Total | 7.62 | | mg/kg | 2.47 | 0.132 | 1 | 04/02/19 07:10 | 04/02/19 14:07 | EPA 3050B | 1,6010D | LC |
| Mercury, Total | ND | | mg/kg | 0.079 | 0.017 | 1 | 03/30/19 09:30 | 04/01/19 15:08 | EPA 7471B | 1,7471B | GD |
| Nickel, Total | 17.0 | | mg/kg | 1.24 | 0.120 | 1 | 04/02/19 07:10 | 04/02/19 14:07 | EPA 3050B | 1,6010D | LC |
| Selenium, Total | 0.341 | J | mg/kg | 0.988 | 0.128 | 1 | 04/02/19 07:10 | 04/02/19 14:07 | EPA 3050B | 1,6010D | LC |
| Silver, Total | ND | | mg/kg | 0.494 | 0.140 | 1 | 04/02/19 07:10 | 04/02/19 14:07 | EPA 3050B | 1,6010D | LC |
| Zinc, Total | 45.2 | | mg/kg | 2.47 | 0.145 | 1 | 04/02/19 07:10 | 04/02/19 14:07 | EPA 3050B | 1,6010D | LC |

**Project Name:** FORMER WARD PRODUCTS SITE **Lab Number:** L1912354

**Project Number:** 190311ENVA **Report Date:** 04/04/19

# Method Blank Analysis
# Batch Quality Control

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| Total Metals - Mansfield Lab for sample(s): 01-05 Batch: WG1221306-1 | | | | | | | | | | |
| Mercury, Total | ND | | mg/kg | 0.083 | 0.018 | 1 | 03/30/19 09:30 | 04/01/19 14:45 | 1,7471B | GD |

**Prep Information**

Digestion Method: EPA 7471B

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| Total Metals - Mansfield Lab for sample(s): 01-05 Batch: WG1221992-1 | | | | | | | | | | |
| Arsenic, Total | 0.104 | J | mg/kg | 0.400 | 0.083 | 1 | 04/02/19 07:10 | 04/02/19 09:51 | 1,6010D | LC |
| Barium, Total | ND | | mg/kg | 0.400 | 0.070 | 1 | 04/02/19 07:10 | 04/02/19 09:51 | 1,6010D | LC |
| Cadmium, Total | ND | | mg/kg | 0.400 | 0.039 | 1 | 04/02/19 07:10 | 04/02/19 09:51 | 1,6010D | LC |
| Chromium, Total | ND | | mg/kg | 0.400 | 0.038 | 1 | 04/02/19 07:10 | 04/02/19 09:51 | 1,6010D | LC |
| Lead, Total | ND | | mg/kg | 2.00 | 0.107 | 1 | 04/02/19 07:10 | 04/02/19 09:51 | 1,6010D | LC |
| Nickel, Total | ND | | mg/kg | 1.00 | 0.097 | 1 | 04/02/19 07:10 | 04/02/19 09:51 | 1,6010D | LC |
| Selenium, Total | ND | | mg/kg | 0.800 | 0.103 | 1 | 04/02/19 07:10 | 04/02/19 09:51 | 1,6010D | LC |
| Silver, Total | ND | | mg/kg | 0.400 | 0.113 | 1 | 04/02/19 07:10 | 04/02/19 09:51 | 1,6010D | LC |
| Zinc, Total | 0.152 | J | mg/kg | 2.00 | 0.117 | 1 | 04/02/19 07:10 | 04/02/19 09:51 | 1,6010D | LC |

**Prep Information**

Digestion Method: EPA 3050B

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** FORMER WARD PRODUCTS SITE

**Project Number:** 190311ENVA

**Lab Number:** L1912354

**Report Date:** 04/04/19

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Total Metals - Mansfield Lab Associated sample(s): 01-05 Batch: WG1221306-2 SRM Lot Number: D101-540 | | | | | | | | |
| Mercury, Total | 124 | | - | | 65-135 | - | | |
| Total Metals - Mansfield Lab Associated sample(s): 01-05 Batch: WG1221992-2 SRM Lot Number: D101-540 | | | | | | | | |
| Arsenic, Total | 93 | | - | | 83-117 | - | | |
| Barium, Total | 94 | | - | | 83-118 | - | | |
| Cadmium, Total | 91 | | - | | 83-117 | - | | |
| Chromium, Total | 92 | | - | | 81-118 | - | | |
| Lead, Total | 89 | | - | | 83-117 | - | | |
| Nickel, Total | 91 | | - | | 82-117 | - | | |
| Selenium, Total | 93 | | - | | 79-121 | - | | |
| Silver, Total | 94 | | - | | 80-120 | - | | |
| Zinc, Total | 90 | | - | | 81-119 | - | | |

# Matrix Spike Analysis
## Batch Quality Control

**Project Name:** FORMER WARD PRODUCTS SITE
**Project Number:** 190311ENVA

**Lab Number:** L1912354
**Report Date:** 04/04/19

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Metals - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG1221306-3 QC Sample: L1912354-01 Client ID: WC1 | | | | | | | | | | | | |
| Mercury, Total | ND | 0.145 | 0.174 | 120 | | - | - | | 80-120 | - | | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG1221992-3 QC Sample: L1912498-02 Client ID: MS Sample | | | | | | | | | | | | |
| Arsenic, Total | 1.87 | 10.2 | 11.5 | 94 | | - | - | | 75-125 | - | | 20 |
| Barium, Total | 8.05 | 170 | 162 | 91 | | - | - | | 75-125 | - | | 20 |
| Cadmium, Total | ND | 4.33 | 4.08 | 94 | | - | - | | 75-125 | - | | 20 |
| Chromium, Total | 3.59 | 17 | 19.1 | 91 | | - | - | | 75-125 | - | | 20 |
| Lead, Total | 2.92J | 43.3 | 41.2 | 95 | | - | - | | 75-125 | - | | 20 |
| Nickel, Total | 5.81 | 42.5 | 43.7 | 89 | | - | - | | 75-125 | - | | 20 |
| Selenium, Total | 0.242J | 10.2 | 9.31 | 91 | | - | - | | 75-125 | - | | 20 |
| Silver, Total | ND | 25.5 | 22.0 | 86 | | - | - | | 75-125 | - | | 20 |
| Zinc, Total | 18.9 | 42.5 | 59.0 | 94 | | - | - | | 75-125 | - | | 20 |

# Lab Duplicate Analysis

***Batch Quality Control***

**Project Name:** FORMER WARD PRODUCTS SITE

**Project Number:** 190311ENVA

***Lab Number:*** L1912354

***Report Date:*** 04/04/19

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|
| **Total Metals - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG1221306-4 QC Sample: L1912354-01 Client ID: WC1** | | | | | | |
| Mercury, Total | ND | ND | mg/kg | NC | | 20 |
| **Total Metals - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG1221992-4 QC Sample: L1912498-02 Client ID: DUP Sample** | | | | | | |
| Arsenic, Total | 1.87 | 1.97 | mg/kg | 5 | | 20 |
| Barium, Total | 8.05 | 8.09 | mg/kg | 0 | | 20 |
| Cadmium, Total | ND | ND | mg/kg | NC | | 20 |
| Chromium, Total | 3.59 | 3.56 | mg/kg | 1 | | 20 |
| Lead, Total | 2.92J | 2.97J | mg/kg | NC | | 20 |
| Nickel, Total | 5.81 | 5.77 | mg/kg | 1 | | 20 |
| Selenium, Total | 0.242J | ND | mg/kg | NC | | 20 |
| Silver, Total | ND | ND | mg/kg | NC | | 20 |
| Zinc, Total | 18.9 | 19.4 | mg/kg | 3 | | 20 |

# INORGANICS
# &
# MISCELLANEOUS

**Project Name:** FORMER WARD PRODUCTS SITE
**Project Number:** 190311ENVA

**Lab Number:** L1912354
**Report Date:** 04/04/19

## SAMPLE RESULTS

Lab ID: L1912354-01
Client ID: WC1
Sample Location: 61 EDSON STREET

Sample Depth:
Matrix: Soil

Date Collected: 03/27/19 16:30
Date Received: 03/28/19
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 | 86.5 | | % | 0.100 | NA | 1 | - | 03/29/19 13:34 | 121,2540G | RI |

**Project Name:** FORMER WARD PRODUCTS SITE
**Project Number:** 190311ENVA
**Lab Number:** L1912354
**Report Date:** 04/04/19

## SAMPLE RESULTS

Lab ID: L1912354-02
Client ID: ISB-6 (3.5-4')
Sample Location: 61 EDSON STREET
Sample Depth:
Matrix: Soil

Date Collected: 03/27/19 13:43
Date Received: 03/28/19
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 | 87.3 | | % | 0.100 | NA | 1 | - | 03/29/19 13:34 | 121,2540G | RI |

**Project Name:** FORMER WARD PRODUCTS SITE
**Project Number:** 190311ENVA

**Lab Number:** L1912354
**Report Date:** 04/04/19

## SAMPLE RESULTS

Lab ID: L1912354-03
Client ID: ISB-4 (7.5-8.5')
Sample Location: 61 EDSON STREET

Date Collected: 03/27/19 12:15
Date Received: 03/28/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry - Westborough Lab** | | | | | | | | | | |
| Solids, Total | 88.8 | | % | 0.100 | NA | 1 | - | 03/29/19 13:34 | 121,2540G | RI |

**Project Name:** FORMER WARD PRODUCTS SITE
**Project Number:** 190311ENVA
**Lab Number:** L1912354
**Report Date:** 04/04/19

## SAMPLE RESULTS

Lab ID: L1912354-04
Client ID: SB-2 (8-9')
Sample Location: 61 EDSON STREET
Sample Depth:
Matrix: Soil

Date Collected: 03/27/19 17:50
Date Received: 03/28/19
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 | 82.8 | | % | 0.100 | NA | 1 | - | 03/29/19 13:34 | 121,2540G | RI |

**Project Name:** FORMER WARD PRODUCTS SITE
**Project Number:** 190311ENVA

**Lab Number:** L1912354
**Report Date:** 04/04/19

## SAMPLE RESULTS

Lab ID: L1912354-05
Client ID: SB-5 (4.5-5')
Sample Location: 61 EDSON STREET

Date Collected: 03/28/19 09:27
Date Received: 03/28/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry - Westborough Lab** | | | | | | | | | | |
| Solids, Total | 79.6 | | % | 0.100 | NA | 1 | - | 03/29/19 13:34 | 121,2540G | RI |

# Lab Duplicate Analysis

***Batch Quality Control***

**Project Name:** FORMER WARD PRODUCTS SITE

**Project Number:** 190311ENVA

***Lab Number:*** L1912354

***Report Date:*** 04/04/19

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|
| General Chemistry - Westborough Lab Associated sample(s): 01-05 QC Batch ID: WG1221060-1 QC Sample: L1910330-01 Client ID: DUP Sample | | | | | | |
| Solids, Total | 70.8 | 69.4 | % | 2 | | 20 |

**Project Name:** FORMER WARD PRODUCTS SITE
**Project Number:** 190311ENVA

**Lab Number:** L1912354
**Report Date:** 04/04/19

## 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(*) |
|---|---|---|---|---|---|---|---|---|---|
| L1912354-01A | Plastic 2oz unpreserved for TS | A | NA | | 2.5 | Y | Absent | | TS(7) |
| L1912354-01B | Metals Only-Glass 60mL/2oz unpreserved | A | NA | | 2.5 | Y | Absent | | AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),NI-TI(180),PB-TI(180),SE-TI(180),ZN-TI(180),HG-T(28),CD-TI(180) |
| L1912354-01C | Vial Large Septa unpreserved (4oz) | A | NA | | 2.5 | Y | Absent | | NYTCL-8260-R2(14) |
| L1912354-01X | Vial MeOH preserved split | A | NA | | 2.5 | Y | Absent | | NYTCL-8260-R2(14) |
| L1912354-01Y | Vial Water preserved split | A | NA | | 2.5 | Y | Absent | **03-APR-19 03:56** | NYTCL-8260-R2(14) |
| L1912354-01Z | Vial Water preserved split | A | NA | | 2.5 | Y | Absent | **03-APR-19 03:56** | NYTCL-8260-R2(14) |
| L1912354-02A | Plastic 2oz unpreserved for TS | A | NA | | 2.5 | Y | Absent | | TS(7) |
| L1912354-02B | Metals Only-Glass 60mL/2oz unpreserved | A | NA | | 2.5 | Y | Absent | | AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),NI-TI(180),PB-TI(180),SE-TI(180),ZN-TI(180),HG-T(28),CD-TI(180) |
| L1912354-02C | Vial Large Septa unpreserved (4oz) | A | NA | | 2.5 | Y | Absent | | NYTCL-8260-R2(14) |
| L1912354-02X | Vial MeOH preserved split | A | NA | | 2.5 | Y | Absent | | NYTCL-8260-R2(14) |
| L1912354-02Y | Vial Water preserved split | A | NA | | 2.5 | Y | Absent | **03-APR-19 03:56** | NYTCL-8260-R2(14) |
| L1912354-02Z | Vial Water preserved split | A | NA | | 2.5 | Y | Absent | **03-APR-19 03:56** | NYTCL-8260-R2(14) |
| L1912354-03A | Plastic 2oz unpreserved for TS | A | NA | | 2.5 | Y | Absent | | TS(7) |
| L1912354-03B | Metals Only-Glass 60mL/2oz unpreserved | A | NA | | 2.5 | Y | Absent | | AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),NI-TI(180),PB-TI(180),SE-TI(180),ZN-TI(180),HG-T(28),CD-TI(180) |
| L1912354-03C | Vial Large Septa unpreserved (4oz) | A | NA | | 2.5 | Y | Absent | | NYTCL-8260-R2(14) |
| L1912354-03X | Vial MeOH preserved split | A | NA | | 2.5 | Y | Absent | | NYTCL-8260-R2(14) |
| L1912354-03Y | Vial Water preserved split | A | NA | | 2.5 | Y | Absent | **03-APR-19 03:56** | NYTCL-8260-R2(14) |
| L1912354-03Z | Vial Water preserved split | A | NA | | 2.5 | Y | Absent | **03-APR-19 03:56** | NYTCL-8260-R2(14) |
| L1912354-04A | Plastic 2oz unpreserved for TS | A | NA | | 2.5 | Y | Absent | | TS(7) |
| L1912354-04B | Metals Only-Glass 60mL/2oz unpreserved | A | NA | | 2.5 | Y | Absent | | AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),NI-TI(180),PB-TI(180),SE-TI(180),ZN-TI(180),HG-T(28),CD-TI(180) |



*Values in parentheses indicate holding time in days

**Project Name:** FORMER WARD PRODUCTS SITE
**Project Number:** 190311ENVA

**Lab Number:** L1912354
**Report Date:** 04/04/19

## Container Information

| Container ID | Container Type | Cooler | Initial pH | Final pH | Temp deg C | Pres | Seal | Frozen Date/Time | Analysis(*) |
|---|---|---|---|---|---|---|---|---|---|
| L1912354-04C | Vial Large Septa unpreserved (4oz) | A | NA | | 2.5 | Y | Absent | | NYTCL-8260-R2(14) |
| L1912354-04X | Vial MeOH preserved split | A | NA | | 2.5 | Y | Absent | | NYTCL-8260-R2(14) |
| L1912354-04Y | Vial Water preserved split | A | NA | | 2.5 | Y | Absent | **03-APR-19 03:56** | NYTCL-8260-R2(14) |
| L1912354-04Z | Vial Water preserved split | A | NA | | 2.5 | Y | Absent | **03-APR-19 03:56** | NYTCL-8260-R2(14) |
| L1912354-05A | Plastic 2oz unpreserved for TS | A | NA | | 2.5 | Y | Absent | | TS(7) |
| L1912354-05B | Metals Only-Glass 60mL/2oz unpreserved | A | NA | | 2.5 | Y | Absent | | AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),NI-TI(180),PB-TI(180),SE-TI(180),ZN-TI(180),HG-T(28),CD-TI(180) |
| L1912354-05C | Vial Large Septa unpreserved (4oz) | A | NA | | 2.5 | Y | Absent | | NYTCL-8260-R2(14) |
| L1912354-05X | Vial MeOH preserved split | A | NA | | 2.5 | Y | Absent | | NYTCL-8260-R2(14) |
| L1912354-05Y | Vial Water preserved split | A | NA | | 2.5 | Y | Absent | **03-APR-19 03:56** | NYTCL-8260-R2(14) |
| L1912354-05Z | Vial Water preserved split | A | NA | | 2.5 | Y | Absent | **03-APR-19 03:56** | NYTCL-8260-R2(14) |



*Values in parentheses indicate holding time in days

| | | | |
|---|---|---|---|
| **Project Name:** | FORMER WARD PRODUCTS SITE | **Lab Number:** | L1912354 |
| **Project Number:** | 190311ENVA | **Report Date:** | 04/04/19 |

## 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.)<br><br>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:** | FORMER WARD PRODUCTS SITE | **Lab Number:** | L1912354 |
| **Project Number:** | 190311ENVA | **Report Date:** | 04/04/19 |

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.

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 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.

**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:** | FORMER WARD PRODUCTS SITE | **Lab Number:** | L1912354 |
| **Project Number:** | 190311ENVA | **Report Date:** | 04/04/19 |

## 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), 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: 3/29/19

ALPHA Job #: L1912354

**Client Information**
Client: AMBIENT ENV.
Address: 828 WASHINGTON AVE
Phone:
Fax:
Email: alexis m@ambient.env.com

**Project Information**
Project Name: Former Ward Products Site
Project Location: 61 Edson Street
Project #: 19031ENVA
(Use Project name as Project #)
Project Manager: Jim Blasting
ALPHAQuote #:

**Turn-Around Time**
Standard ☑ 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

**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:

**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 | TOTAL METALS (RCRA 8 + Ni, Zn) | TS | NYTCL-8260 | Total Bottle | Sample Specific Comments |
|---|---|---|---|---|---|---|---|---|---|---|
| 12354 - 01 | NC1 | 3/27/19 | 4:30pm | Soil | AM | 1 | 1 | 1 | | |
| 02 | ISB-6 (3.5-4') | 3/27/19 | 1:43pm | Soil | AM | 1 | 1 | 1 | | |
| 03 | ISB-4 (7.5-8.5') | 3/27/19 | 12:15pm | Soil | AM | 1 | 1 | 1 | | |
| 04 | SB-2 (8-9') | 3/27/19 | 5:50pm | Soil | AM | 1 | 1 | 1 | | |
| 05 | SB-5 (4.5-5') | 3/28/19 | 9:27am | Soil | AM | 1 | 1 | 1 | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |

Container Type: G P V
Preservative: 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 |
|---|---|---|---|
| ALEXIS MARTIN | 3/28 12:34PM | Jim Conley AAL | 3/28/19 12:34 |
| Jim Conley AAL | 3/28/19 1240 | | 3/29/19 0030 |

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: | L1914179 |
| Client: | Ambient Environmental<br>7843 Karakul Lane<br>Fayetteville, NY 13066 |
| ATTN: | Jim Blasting |
| Phone: | (315) 203-3355 |
| Project Name: | 61 EDSON STREET, AMSTERDAM, NY |
| Project Number: | 190311ENVA |
| Report Date: | 04/15/19 |



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:** 61 EDSON STREET, AMSTERDAM, NY
**Project Number:** 190311ENVA

**Lab Number:** L1914179
**Report Date:** 04/15/19

| Alpha Sample ID | Client ID | Matrix | Sample Location | Collection Date/Time | Receive Date |
|---|---|---|---|---|---|
| L1914179-01 | MW-22 | WATER | AMSTERDAM, NY | 04/08/19 15:15 | 04/08/19 |
| L1914179-02 | MW-23 | WATER | AMSTERDAM, NY | 04/08/19 14:00 | 04/08/19 |
| L1914179-03 | TRIP BLANK | WATER | AMSTERDAM, NY | 04/08/19 00:00 | 04/08/19 |

| | | | |
|---|---|---|---|
| **Project Name:** | 61 EDSON STREET, AMSTERDAM, NY | **Lab Number:** | L1914179 |
| **Project Number:** | 190311ENVA | **Report Date:** | 04/15/19 |

## 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:** | 61 EDSON STREET, AMSTERDAM, NY | **Lab Number:** | L1914179 |
| **Project Number:** | 190311ENVA | **Report Date:** | 04/15/19 |

**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.

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: 04/15/19

# ORGANICS

# VOLATILES

**Project Name:** 61 EDSON STREET, AMSTERDAM, NY **Lab Number:** L1914179

**Project Number:** 190311ENVA **Report Date:** 04/15/19

## SAMPLE RESULTS

Lab ID: L1914179-01
Client ID: MW-22
Sample Location: AMSTERDAM, NY

Date Collected: 04/08/19 15:15
Date Received: 04/08/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 04/12/19 15:27
Analyst: PK

| 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 | 0.59 | | 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 | 0.57 | | ug/l | 0.50 | 0.17 | 1 |
| trans-1,2-Dichloroethene | ND | | ug/l | 2.5 | 0.70 | 1 |
| Trichloroethene | 78 | | ug/l | 0.50 | 0.18 | 1 |
| 1,2-Dichlorobenzene | ND | | ug/l | 2.5 | 0.70 | 1 |

**Project Name:** 61 EDSON STREET, AMSTERDAM, NY **Lab Number:** L1914179

**Project Number:** 190311ENVA **Report Date:** 04/15/19

## SAMPLE RESULTS

Lab ID: L1914179-01 Date Collected: 04/08/19 15:15

Client ID: MW-22 Date Received: 04/08/19

Sample Location: AMSTERDAM, 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 | 2.0 | J | ug/l | 2.5 | 0.70 | 1 |
| Styrene | ND | | ug/l | 2.5 | 0.70 | 1 |
| Dichlorodifluoromethane | ND | | ug/l | 5.0 | 1.0 | 1 |
| Acetone | ND | | ug/l | 5.0 | 1.5 | 1 |
| Carbon disulfide | ND | | ug/l | 5.0 | 1.0 | 1 |
| 2-Butanone | ND | | ug/l | 5.0 | 1.9 | 1 |
| 4-Methyl-2-pentanone | ND | | ug/l | 5.0 | 1.0 | 1 |
| 2-Hexanone | ND | | ug/l | 5.0 | 1.0 | 1 |
| Bromochloromethane | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,2-Dibromoethane | ND | | ug/l | 2.0 | 0.65 | 1 |
| 1,2-Dibromo-3-chloropropane | ND | | ug/l | 2.5 | 0.70 | 1 |
| Isopropylbenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,2,3-Trichlorobenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| Methyl Acetate | ND | | ug/l | 2.0 | 0.23 | 1 |
| Cyclohexane | ND | | ug/l | 10 | 0.27 | 1 |
| 1,4-Dioxane | ND | | ug/l | 250 | 61. | 1 |
| Freon-113 | ND | | ug/l | 2.5 | 0.70 | 1 |
| Methyl cyclohexane | 0.55 | J | ug/l | 10 | 0.40 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 1,2-Dichloroethane-d4 | 94 | | 70-130 |
| Toluene-d8 | 95 | | 70-130 |
| 4-Bromofluorobenzene | 96 | | 70-130 |
| Dibromofluoromethane | 100 | | 70-130 |

**Project Name:** 61 EDSON STREET, AMSTERDAM, NY **Lab Number:** L1914179

**Project Number:** 190311ENVA **Report Date:** 04/15/19

**SAMPLE RESULTS**

Lab ID: L1914179-02
Client ID: MW-23
Sample Location: AMSTERDAM, NY

Date Collected: 04/08/19 14:00
Date Received: 04/08/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 04/12/19 15:56
Analyst: PK

| 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 | 0.54 | | ug/l | 0.50 | 0.17 | 1 |
| trans-1,2-Dichloroethene | 0.72 | J | ug/l | 2.5 | 0.70 | 1 |
| Trichloroethene | 96 | | ug/l | 0.50 | 0.18 | 1 |
| 1,2-Dichlorobenzene | ND | | ug/l | 2.5 | 0.70 | 1 |

**Project Name:** 61 EDSON STREET, AMSTERDAM, NY **Lab Number:** L1914179

**Project Number:** 190311ENVA **Report Date:** 04/15/19

## SAMPLE RESULTS

Lab ID: L1914179-02 Date Collected: 04/08/19 14:00

Client ID: MW-23 Date Received: 04/08/19

Sample Location: AMSTERDAM, 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 | 1.9 | J | ug/l | 2.5 | 0.70 | 1 |
| Styrene | ND | | ug/l | 2.5 | 0.70 | 1 |
| Dichlorodifluoromethane | ND | | ug/l | 5.0 | 1.0 | 1 |
| Acetone | ND | | ug/l | 5.0 | 1.5 | 1 |
| Carbon disulfide | ND | | ug/l | 5.0 | 1.0 | 1 |
| 2-Butanone | ND | | ug/l | 5.0 | 1.9 | 1 |
| 4-Methyl-2-pentanone | ND | | ug/l | 5.0 | 1.0 | 1 |
| 2-Hexanone | ND | | ug/l | 5.0 | 1.0 | 1 |
| Bromochloromethane | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,2-Dibromoethane | ND | | ug/l | 2.0 | 0.65 | 1 |
| 1,2-Dibromo-3-chloropropane | ND | | ug/l | 2.5 | 0.70 | 1 |
| Isopropylbenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,2,3-Trichlorobenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| Methyl Acetate | ND | | ug/l | 2.0 | 0.23 | 1 |
| Cyclohexane | ND | | ug/l | 10 | 0.27 | 1 |
| 1,4-Dioxane | ND | | ug/l | 250 | 61. | 1 |
| Freon-113 | ND | | ug/l | 2.5 | 0.70 | 1 |
| Methyl cyclohexane | 0.70 | J | ug/l | 10 | 0.40 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 1,2-Dichloroethane-d4 | 93 | | 70-130 |
| Toluene-d8 | 96 | | 70-130 |
| 4-Bromofluorobenzene | 96 | | 70-130 |
| Dibromofluoromethane | 99 | | 70-130 |

**Project Name:** 61 EDSON STREET, AMSTERDAM, NY **Lab Number:** L1914179

**Project Number:** 190311ENVA **Report Date:** 04/15/19

**SAMPLE RESULTS**

Lab ID: L1914179-03
Client ID: TRIP BLANK
Sample Location: AMSTERDAM, NY

Date Collected: 04/08/19 00:00
Date Received: 04/08/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 04/12/19 16:26
Analyst: PK

| 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 | 0.23 | J | ug/l | 0.50 | 0.18 | 1 |
| 1,2-Dichlorobenzene | ND | | ug/l | 2.5 | 0.70 | 1 |

**Project Name:** 61 EDSON STREET, AMSTERDAM, NY **Lab Number:** L1914179

**Project Number:** 190311ENVA **Report Date:** 04/15/19

## SAMPLE RESULTS

Lab ID: L1914179-03 Date Collected: 04/08/19 00:00

Client ID: TRIP BLANK Date Received: 04/08/19

Sample Location: AMSTERDAM, 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 |
| 1,2-Dibromo-3-chloropropane | ND | | ug/l | 2.5 | 0.70 | 1 |
| Isopropylbenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,2,3-Trichlorobenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| Methyl Acetate | ND | | ug/l | 2.0 | 0.23 | 1 |
| Cyclohexane | ND | | ug/l | 10 | 0.27 | 1 |
| 1,4-Dioxane | ND | | ug/l | 250 | 61. | 1 |
| Freon-113 | ND | | ug/l | 2.5 | 0.70 | 1 |
| Methyl cyclohexane | ND | | ug/l | 10 | 0.40 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 1,2-Dichloroethane-d4 | 91 | | 70-130 |
| Toluene-d8 | 95 | | 70-130 |
| 4-Bromofluorobenzene | 96 | | 70-130 |
| Dibromofluoromethane | 99 | | 70-130 |

**Project Name:** 61 EDSON STREET, AMSTERDAM, NY **Lab Number:** L1914179

**Project Number:** 190311ENVA **Report Date:** 04/15/19

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 04/12/19 10:33
Analyst: PD

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|---|---|---|---|---|
| Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-03 Batch: WG1225976-5 | | | | | |
| 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:** 61 EDSON STREET, AMSTERDAM, NY **Lab Number:** L1914179

**Project Number:** 190311ENVA **Report Date:** 04/15/19

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 04/12/19 10:33
Analyst: PD

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|---|---|---|---|---|
| Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-03 Batch: WG1225976-5 | | | | | |
| 1,4-Dichlorobenzene | ND | | ug/l | 2.5 | 0.70 |
| Methyl tert butyl ether | ND | | ug/l | 2.5 | 0.70 |
| p/m-Xylene | ND | | ug/l | 2.5 | 0.70 |
| o-Xylene | ND | | ug/l | 2.5 | 0.70 |
| cis-1,2-Dichloroethene | ND | | ug/l | 2.5 | 0.70 |
| Styrene | ND | | ug/l | 2.5 | 0.70 |
| Dichlorodifluoromethane | ND | | ug/l | 5.0 | 1.0 |
| Acetone | ND | | ug/l | 5.0 | 1.5 |
| Carbon disulfide | ND | | ug/l | 5.0 | 1.0 |
| 2-Butanone | ND | | ug/l | 5.0 | 1.9 |
| 4-Methyl-2-pentanone | ND | | ug/l | 5.0 | 1.0 |
| 2-Hexanone | ND | | ug/l | 5.0 | 1.0 |
| Bromochloromethane | ND | | ug/l | 2.5 | 0.70 |
| 1,2-Dibromoethane | ND | | ug/l | 2.0 | 0.65 |
| 1,2-Dibromo-3-chloropropane | ND | | ug/l | 2.5 | 0.70 |
| Isopropylbenzene | ND | | ug/l | 2.5 | 0.70 |
| 1,2,3-Trichlorobenzene | ND | | ug/l | 2.5 | 0.70 |
| 1,2,4-Trichlorobenzene | ND | | ug/l | 2.5 | 0.70 |
| Methyl Acetate | ND | | ug/l | 2.0 | 0.23 |
| Cyclohexane | ND | | ug/l | 10 | 0.27 |
| 1,4-Dioxane | ND | | ug/l | 250 | 61. |
| Freon-113 | ND | | ug/l | 2.5 | 0.70 |
| Methyl cyclohexane | ND | | ug/l | 10 | 0.40 |

**Project Name:** 61 EDSON STREET, AMSTERDAM, NY **Lab Number:** L1914179

**Project Number:** 190311ENVA **Report Date:** 04/15/19

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 04/12/19 10:33
Analyst: PD

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|---|---|---|---|---|
| Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-03 Batch: WG1225976-5 | | | | | |

| Surrogate | %Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 1,2-Dichloroethane-d4 | 91 | | 70-130 |
| Toluene-d8 | 95 | | 70-130 |
| 4-Bromofluorobenzene | 97 | | 70-130 |
| Dibromofluoromethane | 100 | | 70-130 |

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 61 EDSON STREET, AMSTERDAM, NY

**Project Number:** 190311ENVA

**Lab Number:** L1914179

**Report Date:** 04/15/19

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 Batch: WG1225976-3 WG1225976-4 | | | | | | | | |
| Methylene chloride | 100 | | 100 | | 70-130 | 0 | | 20 |
| 1,1-Dichloroethane | 110 | | 110 | | 70-130 | 0 | | 20 |
| Chloroform | 100 | | 100 | | 70-130 | 0 | | 20 |
| Carbon tetrachloride | 100 | | 100 | | 63-132 | 0 | | 20 |
| 1,2-Dichloropropane | 110 | | 110 | | 70-130 | 0 | | 20 |
| Dibromochloromethane | 100 | | 110 | | 63-130 | 10 | | 20 |
| 1,1,2-Trichloroethane | 97 | | 100 | | 70-130 | 3 | | 20 |
| Tetrachloroethene | 100 | | 100 | | 70-130 | 0 | | 20 |
| Chlorobenzene | 100 | | 100 | | 75-130 | 0 | | 20 |
| Trichlorofluoromethane | 95 | | 95 | | 62-150 | 0 | | 20 |
| 1,2-Dichloroethane | 100 | | 100 | | 70-130 | 0 | | 20 |
| 1,1,1-Trichloroethane | 100 | | 100 | | 67-130 | 0 | | 20 |
| Bromodichloromethane | 110 | | 110 | | 67-130 | 0 | | 20 |
| trans-1,3-Dichloropropene | 94 | | 95 | | 70-130 | 1 | | 20 |
| cis-1,3-Dichloropropene | 100 | | 100 | | 70-130 | 0 | | 20 |
| Bromoform | 100 | | 110 | | 54-136 | 10 | | 20 |
| 1,1,2,2-Tetrachloroethane | 95 | | 97 | | 67-130 | 2 | | 20 |
| Benzene | 100 | | 100 | | 70-130 | 0 | | 20 |
| Toluene | 100 | | 99 | | 70-130 | 1 | | 20 |
| Ethylbenzene | 100 | | 99 | | 70-130 | 1 | | 20 |
| Chloromethane | 80 | | 81 | | 64-130 | 1 | | 20 |
| Bromomethane | 57 | | 53 | | 39-139 | 7 | | 20 |
| Vinyl chloride | 110 | | 110 | | 55-140 | 0 | | 20 |

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 61 EDSON STREET, AMSTERDAM, NY

**Project Number:** 190311ENVA

**Lab Number:** L1914179

**Report Date:** 04/15/19

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 Batch: WG1225976-3 WG1225976-4 | | | | | | | | |
| Chloroethane | 110 | | 100 | | 55-138 | 10 | | 20 |
| 1,1-Dichloroethene | 100 | | 100 | | 61-145 | 0 | | 20 |
| trans-1,2-Dichloroethene | 100 | | 100 | | 70-130 | 0 | | 20 |
| Trichloroethene | 100 | | 100 | | 70-130 | 0 | | 20 |
| 1,2-Dichlorobenzene | 96 | | 98 | | 70-130 | 2 | | 20 |
| 1,3-Dichlorobenzene | 97 | | 96 | | 70-130 | 1 | | 20 |
| 1,4-Dichlorobenzene | 96 | | 96 | | 70-130 | 0 | | 20 |
| Methyl tert butyl ether | 95 | | 97 | | 63-130 | 2 | | 20 |
| p/m-Xylene | 105 | | 100 | | 70-130 | 5 | | 20 |
| o-Xylene | 100 | | 100 | | 70-130 | 0 | | 20 |
| cis-1,2-Dichloroethene | 110 | | 110 | | 70-130 | 0 | | 20 |
| Styrene | 100 | | 100 | | 70-130 | 0 | | 20 |
| Dichlorodifluoromethane | 130 | | 130 | | 36-147 | 0 | | 20 |
| Acetone | 97 | | 87 | | 58-148 | 11 | | 20 |
| Carbon disulfide | 110 | | 110 | | 51-130 | 0 | | 20 |
| 2-Butanone | **61** | Q | **60** | Q | 63-138 | 2 | | 20 |
| 4-Methyl-2-pentanone | 100 | | 100 | | 59-130 | 0 | | 20 |
| 2-Hexanone | 84 | | 84 | | 57-130 | 0 | | 20 |
| Bromochloromethane | 120 | | 120 | | 70-130 | 0 | | 20 |
| 1,2-Dibromoethane | 100 | | 100 | | 70-130 | 0 | | 20 |
| 1,2-Dibromo-3-chloropropane | 97 | | 97 | | 41-144 | 0 | | 20 |
| Isopropylbenzene | 99 | | 98 | | 70-130 | 1 | | 20 |
| 1,2,3-Trichlorobenzene | 91 | | 98 | | 70-130 | 7 | | 20 |

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 61 EDSON STREET, AMSTERDAM, NY

**Project Number:** 190311ENVA

**Lab Number:** L1914179

**Report Date:** 04/15/19

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 Batch: WG1225976-3 WG1225976-4 | | | | | | | | |
| 1,2,4-Trichlorobenzene | 95 | | 98 | | 70-130 | 3 | | 20 |
| Methyl Acetate | 72 | | 72 | | 70-130 | 0 | | 20 |
| Cyclohexane | 110 | | 110 | | 70-130 | 0 | | 20 |
| 1,4-Dioxane | 110 | | 100 | | 56-162 | 10 | | 20 |
| Freon-113 | 100 | | 100 | | 70-130 | 0 | | 20 |
| Methyl cyclohexane | 100 | | 100 | | 70-130 | 0 | | 20 |

| Surrogate | LCS %Recovery | Qual | LCSD %Recovery | Qual | Acceptance Criteria |
|---|---|---|---|---|---|
| 1,2-Dichloroethane-d4 | 93 | | 94 | | 70-130 |
| Toluene-d8 | 97 | | 95 | | 70-130 |
| 4-Bromofluorobenzene | 98 | | 98 | | 70-130 |
| Dibromofluoromethane | 100 | | 99 | | 70-130 |

**Project Name:** 61 EDSON STREET, AMSTERDAM, NY
**Project Number:** 190311ENVA

**Lab Number:** L1914179
**Report Date:** 04/15/19

## 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(*) |
|---|---|---|---|---|---|---|---|---|---|
| L1914179-01A | Vial HCl preserved | A | NA | | 3.1 | Y | Absent | | NYTCL-8260-R2(14) |
| L1914179-01B | Vial HCl preserved | A | NA | | 3.1 | Y | Absent | | NYTCL-8260-R2(14) |
| L1914179-01C | Vial HCl preserved | A | NA | | 3.1 | Y | Absent | | NYTCL-8260-R2(14) |
| L1914179-02A | Vial HCl preserved | A | NA | | 3.1 | Y | Absent | | NYTCL-8260-R2(14) |
| L1914179-02B | Vial HCl preserved | A | NA | | 3.1 | Y | Absent | | NYTCL-8260-R2(14) |
| L1914179-02C | Vial HCl preserved | A | NA | | 3.1 | Y | Absent | | NYTCL-8260-R2(14) |
| L1914179-03A | Vial HCl preserved | A | NA | | 3.1 | Y | Absent | | NYTCL-8260-R2(14) |
| L1914179-03B | Vial HCl preserved | A | NA | | 3.1 | Y | Absent | | NYTCL-8260-R2(14) |



*Values in parentheses indicate holding time in days

| | | | |
|---|---|---|---|
| **Project Name:** | 61 EDSON STREET, AMSTERDAM, NY | **Lab Number:** | L1914179 |
| **Project Number:** | 190311ENVA | **Report Date:** | 04/15/19 |

## 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.)<br><br>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:** | 61 EDSON STREET, AMSTERDAM, NY | **Lab Number:** | L1914179 |
| **Project Number:** | 190311ENVA | **Report Date:** | 04/15/19 |

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.

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 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.

**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:** | 61 EDSON STREET, AMSTERDAM, NY | **Lab Number:** | L1914179 |
| **Project Number:** | 190311ENVA | **Report Date:** | 04/15/19 |

## REFERENCES

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

## LIMITATION OF LIABILITIES

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

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

# 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.

ALPHA ANALYTICAL

# NEW YORK CHAIN OF CUSTODY

Page 1 of 1

Date Rec'd in Lab: 4/10/19

ALPHA Job #: L1914179

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

**Client Information**

Client: Ambient Environmental
Address:
Phone: (315) 263-3388
Fax:
Email: jimb@ambient-env.com

**Project Information**

Project Name: 61 Edson Street, Amsterdam, NY
Project Location: Amsterdam, NY
Project #
(Use Project name as Project #) ☐
Project Manager: Jim Blasting
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 # 190311ENVA

**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 VOCs | Sample Specific Comments | Total # Bottles |
|---|---|---|---|---|---|---|---|---|
| L1914179-01 | MW-22 | 4/8/2019 | 1515 | GW | ZJR | X | | 3 |
| -02 | MW-23 | 4/8/2019 | 1400 | GW | ZJR | X | | 3 |
| -03 | Trip Blank | 4/8/2019 | — | Lab Water | ZJR | X | | 2 |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

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

| Container Type | V | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Preservative | B | | | | | | | |

| Relinquished By: | Date/Time | Received By: | Date/Time |
|---|---|---|---|
| | 4/9/19 1135 | | 4/10/19 0825 |
| | | | |
| | | | |

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.

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

# ANALYTICAL REPORT

| | |
|---|---|
| Lab Number: | L1918442 |
| Client: | Ambient Environmental<br>7843 Karakul Lane<br>Fayetteville, NY 13066 |
| ATTN: | Jim Blasting |
| Phone: | (315) 203-3355 |
| Project Name: | 61 EDSON STREET, AMSTERDAM, NY |
| Project Number: | 190311ENVA |
| Report Date: | 05/10/19 |



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:** 61 EDSON STREET, AMSTERDAM, NY
**Project Number:** 190311ENVA

**Lab Number:** L1918442
**Report Date:** 05/10/19

| Alpha Sample ID | Client ID | Matrix | Sample Location | Collection Date/Time | Receive Date |
|---|---|---|---|---|---|
| L1918442-01 | MW-22 | WATER | AMSTERDAM, NY | 05/03/19 08:55 | 05/03/19 |
| L1918442-02 | MW-23 | WATER | AMSTERDAM, NY | 05/02/19 12:30 | 05/03/19 |
| L1918442-03 | MW-5 | WATER | AMSTERDAM, NY | 05/02/19 09:05 | 05/03/19 |
| L1918442-04 | MW-8 | WATER | AMSTERDAM, NY | 05/02/19 08:05 | 05/03/19 |
| L1918442-05 | MW-10 | WATER | AMSTERDAM, NY | 05/02/19 11:00 | 05/03/19 |
| L1918442-06 | MW-12 | WATER | AMSTERDAM, NY | 05/03/19 08:05 | 05/03/19 |
| L1918442-07 | TRIP BLANK | WATER | AMSTERDAM, NY | 05/02/19 00:00 | 05/03/19 |

| | | | |
|---|---|---|---|
| **Project Name:** | 61 EDSON STREET, AMSTERDAM, NY | **Lab Number:** | L1918442 |
| **Project Number:** | 190311ENVA | **Report Date:** | 05/10/19 |

## 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:** | 61 EDSON STREET, AMSTERDAM, NY | **Lab Number:** | L1918442 |
| **Project Number:** | 190311ENVA | **Report Date:** | 05/10/19 |

**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.

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: Lisa Westerlind

Title: Technical Director/Representative Date: 05/10/19

# ORGANICS

# VOLATILES

**Project Name:** 61 EDSON STREET, AMSTERDAM, NY **Lab Number:** L1918442

**Project Number:** 190311ENVA **Report Date:** 05/10/19

**SAMPLE RESULTS**

Lab ID: L1918442-01
Client ID: MW-22
Sample Location: AMSTERDAM, NY

Date Collected: 05/03/19 08:55
Date Received: 05/03/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 05/08/19 09:56
Analyst: PD

| 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 | 0.29 | 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 | 0.38 | J | ug/l | 0.50 | 0.17 | 1 |
| trans-1,2-Dichloroethene | ND | | ug/l | 2.5 | 0.70 | 1 |
| Trichloroethene | 52 | | ug/l | 0.50 | 0.18 | 1 |
| 1,2-Dichlorobenzene | ND | | ug/l | 2.5 | 0.70 | 1 |

**Project Name:** 61 EDSON STREET, AMSTERDAM, NY **Lab Number:** L1918442

**Project Number:** 190311ENVA **Report Date:** 05/10/19

## SAMPLE RESULTS

Lab ID: L1918442-01 Date Collected: 05/03/19 08:55

Client ID: MW-22 Date Received: 05/03/19

Sample Location: AMSTERDAM, 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 | 1.5 | J | ug/l | 2.5 | 0.70 | 1 |
| Styrene | ND | | ug/l | 2.5 | 0.70 | 1 |
| Dichlorodifluoromethane | ND | | ug/l | 5.0 | 1.0 | 1 |
| Acetone | ND | | ug/l | 5.0 | 1.5 | 1 |
| Carbon disulfide | ND | | ug/l | 5.0 | 1.0 | 1 |
| 2-Butanone | ND | | ug/l | 5.0 | 1.9 | 1 |
| 4-Methyl-2-pentanone | ND | | ug/l | 5.0 | 1.0 | 1 |
| 2-Hexanone | ND | | ug/l | 5.0 | 1.0 | 1 |
| Bromochloromethane | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,2-Dibromoethane | ND | | ug/l | 2.0 | 0.65 | 1 |
| 1,2-Dibromo-3-chloropropane | ND | | ug/l | 2.5 | 0.70 | 1 |
| Isopropylbenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,2,3-Trichlorobenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| Methyl Acetate | ND | | ug/l | 2.0 | 0.23 | 1 |
| Cyclohexane | ND | | ug/l | 10 | 0.27 | 1 |
| 1,4-Dioxane | ND | | ug/l | 250 | 61. | 1 |
| Freon-113 | ND | | ug/l | 2.5 | 0.70 | 1 |
| Methyl cyclohexane | ND | | ug/l | 10 | 0.40 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 1,2-Dichloroethane-d4 | 105 | | 70-130 |
| Toluene-d8 | 95 | | 70-130 |
| 4-Bromofluorobenzene | 97 | | 70-130 |
| Dibromofluoromethane | 102 | | 70-130 |

**Project Name:** 61 EDSON STREET, AMSTERDAM, NY **Lab Number:** L1918442

**Project Number:** 190311ENVA **Report Date:** 05/10/19

**SAMPLE RESULTS**

Lab ID: L1918442-02
Client ID: MW-23
Sample Location: AMSTERDAM, NY

Date Collected: 05/02/19 12:30
Date Received: 05/03/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 05/08/19 10:32
Analyst: PD

| 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 | 0.57 | | ug/l | 0.50 | 0.17 | 1 |
| trans-1,2-Dichloroethene | 0.73 | J | ug/l | 2.5 | 0.70 | 1 |
| Trichloroethene | 100 | | ug/l | 0.50 | 0.18 | 1 |
| 1,2-Dichlorobenzene | ND | | ug/l | 2.5 | 0.70 | 1 |

**Project Name:** 61 EDSON STREET, AMSTERDAM, NY **Lab Number:** L1918442

**Project Number:** 190311ENVA **Report Date:** 05/10/19

## SAMPLE RESULTS

Lab ID: L1918442-02 Date Collected: 05/02/19 12:30

Client ID: MW-23 Date Received: 05/03/19

Sample Location: AMSTERDAM, 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 | 2.0 | J | ug/l | 2.5 | 0.70 | 1 |
| Styrene | ND | | ug/l | 2.5 | 0.70 | 1 |
| Dichlorodifluoromethane | ND | | ug/l | 5.0 | 1.0 | 1 |
| Acetone | ND | | ug/l | 5.0 | 1.5 | 1 |
| Carbon disulfide | ND | | ug/l | 5.0 | 1.0 | 1 |
| 2-Butanone | ND | | ug/l | 5.0 | 1.9 | 1 |
| 4-Methyl-2-pentanone | ND | | ug/l | 5.0 | 1.0 | 1 |
| 2-Hexanone | ND | | ug/l | 5.0 | 1.0 | 1 |
| Bromochloromethane | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,2-Dibromoethane | ND | | ug/l | 2.0 | 0.65 | 1 |
| 1,2-Dibromo-3-chloropropane | ND | | ug/l | 2.5 | 0.70 | 1 |
| Isopropylbenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,2,3-Trichlorobenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| Methyl Acetate | ND | | ug/l | 2.0 | 0.23 | 1 |
| Cyclohexane | ND | | ug/l | 10 | 0.27 | 1 |
| 1,4-Dioxane | ND | | ug/l | 250 | 61. | 1 |
| Freon-113 | ND | | ug/l | 2.5 | 0.70 | 1 |
| Methyl cyclohexane | ND | | ug/l | 10 | 0.40 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 1,2-Dichloroethane-d4 | 106 | | 70-130 |
| Toluene-d8 | 95 | | 70-130 |
| 4-Bromofluorobenzene | 95 | | 70-130 |
| Dibromofluoromethane | 103 | | 70-130 |

**Project Name:** 61 EDSON STREET, AMSTERDAM, NY **Lab Number:** L1918442

**Project Number:** 190311ENVA **Report Date:** 05/10/19

**SAMPLE RESULTS**

Lab ID: L1918442-03
Client ID: MW-5
Sample Location: AMSTERDAM, NY

Date Collected: 05/02/19 09:05
Date Received: 05/03/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 05/08/19 11:08
Analyst: PD

| 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 | 27 | | ug/l | 0.50 | 0.18 | 1 |
| 1,2-Dichlorobenzene | ND | | ug/l | 2.5 | 0.70 | 1 |

**Project Name:** 61 EDSON STREET, AMSTERDAM, NY **Lab Number:** L1918442

**Project Number:** 190311ENVA **Report Date:** 05/10/19

## SAMPLE RESULTS

Lab ID: L1918442-03 Date Collected: 05/02/19 09:05

Client ID: MW-5 Date Received: 05/03/19

Sample Location: AMSTERDAM, 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 | 1.3 | J | ug/l | 2.5 | 0.70 | 1 |
| Styrene | ND | | ug/l | 2.5 | 0.70 | 1 |
| Dichlorodifluoromethane | ND | | ug/l | 5.0 | 1.0 | 1 |
| Acetone | ND | | ug/l | 5.0 | 1.5 | 1 |
| Carbon disulfide | ND | | ug/l | 5.0 | 1.0 | 1 |
| 2-Butanone | ND | | ug/l | 5.0 | 1.9 | 1 |
| 4-Methyl-2-pentanone | ND | | ug/l | 5.0 | 1.0 | 1 |
| 2-Hexanone | ND | | ug/l | 5.0 | 1.0 | 1 |
| Bromochloromethane | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,2-Dibromoethane | ND | | ug/l | 2.0 | 0.65 | 1 |
| 1,2-Dibromo-3-chloropropane | ND | | ug/l | 2.5 | 0.70 | 1 |
| Isopropylbenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,2,3-Trichlorobenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| Methyl Acetate | ND | | ug/l | 2.0 | 0.23 | 1 |
| Cyclohexane | ND | | ug/l | 10 | 0.27 | 1 |
| 1,4-Dioxane | ND | | ug/l | 250 | 61. | 1 |
| Freon-113 | ND | | ug/l | 2.5 | 0.70 | 1 |
| Methyl cyclohexane | ND | | ug/l | 10 | 0.40 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 1,2-Dichloroethane-d4 | 108 | | 70-130 |
| Toluene-d8 | 94 | | 70-130 |
| 4-Bromofluorobenzene | 95 | | 70-130 |
| Dibromofluoromethane | 106 | | 70-130 |

**Project Name:** 61 EDSON STREET, AMSTERDAM, NY **Lab Number:** L1918442

**Project Number:** 190311ENVA **Report Date:** 05/10/19

**SAMPLE RESULTS**

Lab ID: L1918442-04 D
Client ID: MW-8
Sample Location: AMSTERDAM, NY

Date Collected: 05/02/19 08:05
Date Received: 05/03/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 05/08/19 11:44
Analyst: PD

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Volatile Organics by GC/MS - Westborough Lab** | | | | | | |
| Methylene chloride | ND | | ug/l | 50 | 14. | 20 |
| 1,1-Dichloroethane | ND | | ug/l | 50 | 14. | 20 |
| Chloroform | ND | | ug/l | 50 | 14. | 20 |
| Carbon tetrachloride | ND | | ug/l | 10 | 2.7 | 20 |
| 1,2-Dichloropropane | ND | | ug/l | 20 | 2.7 | 20 |
| Dibromochloromethane | ND | | ug/l | 10 | 3.0 | 20 |
| 1,1,2-Trichloroethane | ND | | ug/l | 30 | 10. | 20 |
| Tetrachloroethene | 55 | | ug/l | 10 | 3.6 | 20 |
| Chlorobenzene | ND | | ug/l | 50 | 14. | 20 |
| Trichlorofluoromethane | ND | | ug/l | 50 | 14. | 20 |
| 1,2-Dichloroethane | ND | | ug/l | 10 | 2.6 | 20 |
| 1,1,1-Trichloroethane | ND | | ug/l | 50 | 14. | 20 |
| Bromodichloromethane | ND | | ug/l | 10 | 3.8 | 20 |
| trans-1,3-Dichloropropene | ND | | ug/l | 10 | 3.3 | 20 |
| cis-1,3-Dichloropropene | ND | | ug/l | 10 | 2.9 | 20 |
| Bromoform | ND | | ug/l | 40 | 13. | 20 |
| 1,1,2,2-Tetrachloroethane | ND | | ug/l | 10 | 3.3 | 20 |
| Benzene | ND | | ug/l | 10 | 3.2 | 20 |
| Toluene | ND | | ug/l | 50 | 14. | 20 |
| Ethylbenzene | ND | | ug/l | 50 | 14. | 20 |
| Chloromethane | ND | | ug/l | 50 | 14. | 20 |
| Bromomethane | ND | | ug/l | 50 | 14. | 20 |
| Vinyl chloride | ND | | ug/l | 20 | 1.4 | 20 |
| Chloroethane | ND | | ug/l | 50 | 14. | 20 |
| 1,1-Dichloroethene | ND | | ug/l | 10 | 3.4 | 20 |
| trans-1,2-Dichloroethene | ND | | ug/l | 50 | 14. | 20 |
| Trichloroethene | 2400 | | ug/l | 10 | 3.5 | 20 |
| 1,2-Dichlorobenzene | ND | | ug/l | 50 | 14. | 20 |

**Project Name:** 61 EDSON STREET, AMSTERDAM, NY **Lab Number:** L1918442

**Project Number:** 190311ENVA **Report Date:** 05/10/19

## SAMPLE RESULTS

Lab ID: L1918442-04 D
Client ID: MW-8
Sample Location: AMSTERDAM, NY

Date Collected: 05/02/19 08:05
Date Received: 05/03/19
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 | 50 | 14. | 20 |
| 1,4-Dichlorobenzene | ND | | ug/l | 50 | 14. | 20 |
| Methyl tert butyl ether | ND | | ug/l | 50 | 14. | 20 |
| p/m-Xylene | ND | | ug/l | 50 | 14. | 20 |
| o-Xylene | ND | | ug/l | 50 | 14. | 20 |
| cis-1,2-Dichloroethene | ND | | ug/l | 50 | 14. | 20 |
| Styrene | ND | | ug/l | 50 | 14. | 20 |
| Dichlorodifluoromethane | ND | | ug/l | 100 | 20. | 20 |
| Acetone | ND | | ug/l | 100 | 29. | 20 |
| Carbon disulfide | ND | | ug/l | 100 | 20. | 20 |
| 2-Butanone | ND | | ug/l | 100 | 39. | 20 |
| 4-Methyl-2-pentanone | ND | | ug/l | 100 | 20. | 20 |
| 2-Hexanone | ND | | ug/l | 100 | 20. | 20 |
| Bromochloromethane | ND | | ug/l | 50 | 14. | 20 |
| 1,2-Dibromoethane | ND | | ug/l | 40 | 13. | 20 |
| 1,2-Dibromo-3-chloropropane | ND | | ug/l | 50 | 14. | 20 |
| Isopropylbenzene | ND | | ug/l | 50 | 14. | 20 |
| 1,2,3-Trichlorobenzene | ND | | ug/l | 50 | 14. | 20 |
| 1,2,4-Trichlorobenzene | ND | | ug/l | 50 | 14. | 20 |
| Methyl Acetate | ND | | ug/l | 40 | 4.7 | 20 |
| Cyclohexane | ND | | ug/l | 200 | 5.4 | 20 |
| 1,4-Dioxane | ND | | ug/l | 5000 | 1200 | 20 |
| Freon-113 | ND | | ug/l | 50 | 14. | 20 |
| Methyl cyclohexane | ND | | ug/l | 200 | 7.9 | 20 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 1,2-Dichloroethane-d4 | 105 | | 70-130 |
| Toluene-d8 | 95 | | 70-130 |
| 4-Bromofluorobenzene | 95 | | 70-130 |
| Dibromofluoromethane | 103 | | 70-130 |

**Project Name:** 61 EDSON STREET, AMSTERDAM, NY **Lab Number:** L1918442

**Project Number:** 190311ENVA **Report Date:** 05/10/19

**SAMPLE RESULTS**

Lab ID: L1918442-05
Client ID: MW-10
Sample Location: AMSTERDAM, NY

Date Collected: 05/02/19 11:00
Date Received: 05/03/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 05/08/19 12:20
Analyst: PD

| 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 | 1.2 | | 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 | 1.6 | | ug/l | 0.50 | 0.17 | 1 |
| trans-1,2-Dichloroethene | 1.4 | J | ug/l | 2.5 | 0.70 | 1 |
| Trichloroethene | 170 | | ug/l | 0.50 | 0.18 | 1 |
| 1,2-Dichlorobenzene | ND | | ug/l | 2.5 | 0.70 | 1 |

**Project Name:** 61 EDSON STREET, AMSTERDAM, NY **Lab Number:** L1918442

**Project Number:** 190311ENVA **Report Date:** 05/10/19

## SAMPLE RESULTS

Lab ID: L1918442-05 Date Collected: 05/02/19 11:00

Client ID: MW-10 Date Received: 05/03/19

Sample Location: AMSTERDAM, 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 | 6.3 | | ug/l | 2.5 | 0.70 | 1 |
| Styrene | ND | | ug/l | 2.5 | 0.70 | 1 |
| Dichlorodifluoromethane | ND | | ug/l | 5.0 | 1.0 | 1 |
| Acetone | ND | | ug/l | 5.0 | 1.5 | 1 |
| Carbon disulfide | ND | | ug/l | 5.0 | 1.0 | 1 |
| 2-Butanone | ND | | ug/l | 5.0 | 1.9 | 1 |
| 4-Methyl-2-pentanone | ND | | ug/l | 5.0 | 1.0 | 1 |
| 2-Hexanone | ND | | ug/l | 5.0 | 1.0 | 1 |
| Bromochloromethane | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,2-Dibromoethane | ND | | ug/l | 2.0 | 0.65 | 1 |
| 1,2-Dibromo-3-chloropropane | ND | | ug/l | 2.5 | 0.70 | 1 |
| Isopropylbenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,2,3-Trichlorobenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| Methyl Acetate | ND | | ug/l | 2.0 | 0.23 | 1 |
| Cyclohexane | ND | | ug/l | 10 | 0.27 | 1 |
| 1,4-Dioxane | ND | | ug/l | 250 | 61. | 1 |
| Freon-113 | ND | | ug/l | 2.5 | 0.70 | 1 |
| Methyl cyclohexane | ND | | ug/l | 10 | 0.40 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 1,2-Dichloroethane-d4 | 105 | | 70-130 |
| Toluene-d8 | 95 | | 70-130 |
| 4-Bromofluorobenzene | 95 | | 70-130 |
| Dibromofluoromethane | 104 | | 70-130 |

**Project Name:** 61 EDSON STREET, AMSTERDAM, NY **Lab Number:** L1918442

**Project Number:** 190311ENVA **Report Date:** 05/10/19

**SAMPLE RESULTS**

Lab ID: L1918442-06
Client ID: MW-12
Sample Location: AMSTERDAM, NY

Date Collected: 05/03/19 08:05
Date Received: 05/03/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 05/08/19 12:57
Analyst: PD

| 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 | 0.34 | J | ug/l | 0.50 | 0.17 | 1 |
| trans-1,2-Dichloroethene | ND | | ug/l | 2.5 | 0.70 | 1 |
| Trichloroethene | 30 | | ug/l | 0.50 | 0.18 | 1 |
| 1,2-Dichlorobenzene | ND | | ug/l | 2.5 | 0.70 | 1 |

**Project Name:** 61 EDSON STREET, AMSTERDAM, NY **Lab Number:** L1918442

**Project Number:** 190311ENVA **Report Date:** 05/10/19

## SAMPLE RESULTS

Lab ID: L1918442-06 Date Collected: 05/03/19 08:05

Client ID: MW-12 Date Received: 05/03/19

Sample Location: AMSTERDAM, 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 | 3.7 | | ug/l | 2.5 | 0.70 | 1 |
| Styrene | ND | | ug/l | 2.5 | 0.70 | 1 |
| Dichlorodifluoromethane | ND | | ug/l | 5.0 | 1.0 | 1 |
| Acetone | ND | | ug/l | 5.0 | 1.5 | 1 |
| Carbon disulfide | ND | | ug/l | 5.0 | 1.0 | 1 |
| 2-Butanone | ND | | ug/l | 5.0 | 1.9 | 1 |
| 4-Methyl-2-pentanone | ND | | ug/l | 5.0 | 1.0 | 1 |
| 2-Hexanone | ND | | ug/l | 5.0 | 1.0 | 1 |
| Bromochloromethane | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,2-Dibromoethane | ND | | ug/l | 2.0 | 0.65 | 1 |
| 1,2-Dibromo-3-chloropropane | ND | | ug/l | 2.5 | 0.70 | 1 |
| Isopropylbenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,2,3-Trichlorobenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| Methyl Acetate | ND | | ug/l | 2.0 | 0.23 | 1 |
| Cyclohexane | ND | | ug/l | 10 | 0.27 | 1 |
| 1,4-Dioxane | ND | | ug/l | 250 | 61. | 1 |
| Freon-113 | ND | | ug/l | 2.5 | 0.70 | 1 |
| Methyl cyclohexane | ND | | ug/l | 10 | 0.40 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 1,2-Dichloroethane-d4 | 109 | | 70-130 |
| Toluene-d8 | 95 | | 70-130 |
| 4-Bromofluorobenzene | 95 | | 70-130 |
| Dibromofluoromethane | 107 | | 70-130 |

**Project Name:** 61 EDSON STREET, AMSTERDAM, NY **Lab Number:** L1918442

**Project Number:** 190311ENVA **Report Date:** 05/10/19

**SAMPLE RESULTS**

Lab ID: L1918442-07
Client ID: TRIP BLANK
Sample Location: AMSTERDAM, NY

Date Collected: 05/02/19 00:00
Date Received: 05/03/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 05/08/19 09:20
Analyst: PD

| 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:** 61 EDSON STREET, AMSTERDAM, NY **Lab Number:** L1918442

**Project Number:** 190311ENVA **Report Date:** 05/10/19

## SAMPLE RESULTS

Lab ID: L1918442-07 Date Collected: 05/02/19 00:00

Client ID: TRIP BLANK Date Received: 05/03/19

Sample Location: AMSTERDAM, 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 | 2.0 | J | ug/l | 5.0 | 1.5 | 1 |
| Carbon disulfide | ND | | ug/l | 5.0 | 1.0 | 1 |
| 2-Butanone | ND | | ug/l | 5.0 | 1.9 | 1 |
| 4-Methyl-2-pentanone | ND | | ug/l | 5.0 | 1.0 | 1 |
| 2-Hexanone | ND | | ug/l | 5.0 | 1.0 | 1 |
| Bromochloromethane | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,2-Dibromoethane | ND | | ug/l | 2.0 | 0.65 | 1 |
| 1,2-Dibromo-3-chloropropane | ND | | ug/l | 2.5 | 0.70 | 1 |
| Isopropylbenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,2,3-Trichlorobenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| Methyl Acetate | ND | | ug/l | 2.0 | 0.23 | 1 |
| Cyclohexane | ND | | ug/l | 10 | 0.27 | 1 |
| 1,4-Dioxane | ND | | ug/l | 250 | 61. | 1 |
| Freon-113 | ND | | ug/l | 2.5 | 0.70 | 1 |
| Methyl cyclohexane | ND | | ug/l | 10 | 0.40 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 1,2-Dichloroethane-d4 | 105 | | 70-130 |
| Toluene-d8 | 95 | | 70-130 |
| 4-Bromofluorobenzene | 96 | | 70-130 |
| Dibromofluoromethane | 102 | | 70-130 |

**Project Name:** 61 EDSON STREET, AMSTERDAM, NY **Lab Number:** L1918442

**Project Number:** 190311ENVA **Report Date:** 05/10/19

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 05/08/19 08:44
Analyst: PD

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|---|---|---|---|---|
| Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-07 Batch: WG1234948-5 | | | | | |
| 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:** 61 EDSON STREET, AMSTERDAM, NY **Lab Number:** L1918442

**Project Number:** 190311ENVA **Report Date:** 05/10/19

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 05/08/19 08:44
Analyst: PD

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|---|---|---|---|---|
| Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-07 Batch: WG1234948-5 | | | | | |
| 1,4-Dichlorobenzene | ND | | ug/l | 2.5 | 0.70 |
| Methyl tert butyl ether | ND | | ug/l | 2.5 | 0.70 |
| p/m-Xylene | ND | | ug/l | 2.5 | 0.70 |
| o-Xylene | ND | | ug/l | 2.5 | 0.70 |
| cis-1,2-Dichloroethene | ND | | ug/l | 2.5 | 0.70 |
| Styrene | ND | | ug/l | 2.5 | 0.70 |
| Dichlorodifluoromethane | ND | | ug/l | 5.0 | 1.0 |
| Acetone | ND | | ug/l | 5.0 | 1.5 |
| Carbon disulfide | ND | | ug/l | 5.0 | 1.0 |
| 2-Butanone | ND | | ug/l | 5.0 | 1.9 |
| 4-Methyl-2-pentanone | ND | | ug/l | 5.0 | 1.0 |
| 2-Hexanone | ND | | ug/l | 5.0 | 1.0 |
| Bromochloromethane | ND | | ug/l | 2.5 | 0.70 |
| 1,2-Dibromoethane | ND | | ug/l | 2.0 | 0.65 |
| 1,2-Dibromo-3-chloropropane | ND | | ug/l | 2.5 | 0.70 |
| Isopropylbenzene | ND | | ug/l | 2.5 | 0.70 |
| 1,2,3-Trichlorobenzene | ND | | ug/l | 2.5 | 0.70 |
| 1,2,4-Trichlorobenzene | ND | | ug/l | 2.5 | 0.70 |
| Methyl Acetate | ND | | ug/l | 2.0 | 0.23 |
| Cyclohexane | ND | | ug/l | 10 | 0.27 |
| 1,4-Dioxane | ND | | ug/l | 250 | 61. |
| Freon-113 | ND | | ug/l | 2.5 | 0.70 |
| Methyl cyclohexane | ND | | ug/l | 10 | 0.40 |

**Project Name:** 61 EDSON STREET, AMSTERDAM, NY
**Project Number:** 190311ENVA
**Lab Number:** L1918442
**Report Date:** 05/10/19

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 05/08/19 08:44
Analyst: PD

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|---|---|---|---|---|
| Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-07 Batch: WG1234948-5 | | | | | |

| Surrogate | %Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 1,2-Dichloroethane-d4 | 104 | | 70-130 |
| Toluene-d8 | 96 | | 70-130 |
| 4-Bromofluorobenzene | 95 | | 70-130 |
| Dibromofluoromethane | 105 | | 70-130 |

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 61 EDSON STREET, AMSTERDAM, NY

**Project Number:** 190311ENVA

**Lab Number:** L1918442

**Report Date:** 05/10/19

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-07 Batch: WG1234948-3 WG1234948-4 | | | | | | | | |
| Methylene chloride | 110 | | 110 | | 70-130 | 0 | | 20 |
| 1,1-Dichloroethane | 110 | | 110 | | 70-130 | 0 | | 20 |
| Chloroform | 110 | | 110 | | 70-130 | 0 | | 20 |
| Carbon tetrachloride | 110 | | 110 | | 63-132 | 0 | | 20 |
| 1,2-Dichloropropane | 110 | | 110 | | 70-130 | 0 | | 20 |
| Dibromochloromethane | 96 | | 92 | | 63-130 | 4 | | 20 |
| 1,1,2-Trichloroethane | 97 | | 95 | | 70-130 | 2 | | 20 |
| Tetrachloroethene | 98 | | 98 | | 70-130 | 0 | | 20 |
| Chlorobenzene | 98 | | 98 | | 75-130 | 0 | | 20 |
| Trichlorofluoromethane | 110 | | 100 | | 62-150 | 10 | | 20 |
| 1,2-Dichloroethane | 110 | | 100 | | 70-130 | 10 | | 20 |
| 1,1,1-Trichloroethane | 110 | | 110 | | 67-130 | 0 | | 20 |
| Bromodichloromethane | 100 | | 100 | | 67-130 | 0 | | 20 |
| trans-1,3-Dichloropropene | 87 | | 86 | | 70-130 | 1 | | 20 |
| cis-1,3-Dichloropropene | 110 | | 110 | | 70-130 | 0 | | 20 |
| Bromoform | 84 | | 81 | | 54-136 | 4 | | 20 |
| 1,1,2,2-Tetrachloroethane | 90 | | 87 | | 67-130 | 3 | | 20 |
| Benzene | 110 | | 110 | | 70-130 | 0 | | 20 |
| Toluene | 99 | | 97 | | 70-130 | 2 | | 20 |
| Ethylbenzene | 100 | | 100 | | 70-130 | 0 | | 20 |
| Chloromethane | 86 | | 88 | | 64-130 | 2 | | 20 |
| Bromomethane | 110 | | 100 | | 39-139 | 10 | | 20 |
| Vinyl chloride | 92 | | 94 | | 55-140 | 2 | | 20 |

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 61 EDSON STREET, AMSTERDAM, NY

**Project Number:** 190311ENVA

**Lab Number:** L1918442

**Report Date:** 05/10/19

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-07 Batch: WG1234948-3 WG1234948-4 | | | | | | | | |
| Chloroethane | 120 | | 100 | | 55-138 | 18 | | 20 |
| 1,1-Dichloroethene | 100 | | 100 | | 61-145 | 0 | | 20 |
| trans-1,2-Dichloroethene | 110 | | 100 | | 70-130 | 10 | | 20 |
| Trichloroethene | 100 | | 100 | | 70-130 | 0 | | 20 |
| 1,2-Dichlorobenzene | 94 | | 93 | | 70-130 | 1 | | 20 |
| 1,3-Dichlorobenzene | 94 | | 93 | | 70-130 | 1 | | 20 |
| 1,4-Dichlorobenzene | 94 | | 93 | | 70-130 | 1 | | 20 |
| Methyl tert butyl ether | 98 | | 97 | | 63-130 | 1 | | 20 |
| p/m-Xylene | 105 | | 100 | | 70-130 | 5 | | 20 |
| o-Xylene | 100 | | 100 | | 70-130 | 0 | | 20 |
| cis-1,2-Dichloroethene | 110 | | 110 | | 70-130 | 0 | | 20 |
| Styrene | 105 | | 105 | | 70-130 | 0 | | 20 |
| Dichlorodifluoromethane | 100 | | 99 | | 36-147 | 1 | | 20 |
| Acetone | 100 | | 94 | | 58-148 | 6 | | 20 |
| Carbon disulfide | 96 | | 97 | | 51-130 | 1 | | 20 |
| 2-Butanone | 100 | | 100 | | 63-138 | 0 | | 20 |
| 4-Methyl-2-pentanone | 80 | | 83 | | 59-130 | 4 | | 20 |
| 2-Hexanone | 85 | | 86 | | 57-130 | 1 | | 20 |
| Bromochloromethane | 120 | | 110 | | 70-130 | 9 | | 20 |
| 1,2-Dibromoethane | 93 | | 92 | | 70-130 | 1 | | 20 |
| 1,2-Dibromo-3-chloropropane | 76 | | 83 | | 41-144 | 9 | | 20 |
| Isopropylbenzene | 97 | | 98 | | 70-130 | 1 | | 20 |
| 1,2,3-Trichlorobenzene | 87 | | 94 | | 70-130 | 8 | | 20 |

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 61 EDSON STREET, AMSTERDAM, NY

**Project Number:** 190311ENVA

**Lab Number:** L1918442

**Report Date:** 05/10/19

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-07 Batch: WG1234948-3 WG1234948-4 | | | | | | | | |
| 1,2,4-Trichlorobenzene | 91 | | 92 | | 70-130 | 1 | | 20 |
| Methyl Acetate | 98 | | 99 | | 70-130 | 1 | | 20 |
| Cyclohexane | 110 | | 110 | | 70-130 | 0 | | 20 |
| 1,4-Dioxane | 90 | | 92 | | 56-162 | 2 | | 20 |
| Freon-113 | 110 | | 110 | | 70-130 | 0 | | 20 |
| Methyl cyclohexane | 110 | | 100 | | 70-130 | 10 | | 20 |

| Surrogate | LCS %Recovery | Qual | LCSD %Recovery | Qual | Acceptance Criteria |
|---|---|---|---|---|---|
| 1,2-Dichloroethane-d4 | 101 | | 100 | | 70-130 |
| Toluene-d8 | 97 | | 96 | | 70-130 |
| 4-Bromofluorobenzene | 98 | | 99 | | 70-130 |
| Dibromofluoromethane | 103 | | 101 | | 70-130 |

**Project Name:** 61 EDSON STREET, AMSTERDAM, NY
**Project Number:** 190311ENVA

**Lab Number:** L1918442
**Report Date:** 05/10/19

## 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(*) |
|---|---|---|---|---|---|---|---|---|---|
| L1918442-01A | Vial HCl preserved | A | NA | | 2.6 | Y | Absent | | NYTCL-8260-R2(14) |
| L1918442-01B | Vial HCl preserved | A | NA | | 2.6 | Y | Absent | | NYTCL-8260-R2(14) |
| L1918442-01C | Vial HCl preserved | A | NA | | 2.6 | Y | Absent | | NYTCL-8260-R2(14) |
| L1918442-02A | Vial HCl preserved | A | NA | | 2.6 | Y | Absent | | NYTCL-8260-R2(14) |
| L1918442-02B | Vial HCl preserved | A | NA | | 2.6 | Y | Absent | | NYTCL-8260-R2(14) |
| L1918442-02C | Vial HCl preserved | A | NA | | 2.6 | Y | Absent | | NYTCL-8260-R2(14) |
| L1918442-03A | Vial HCl preserved | A | NA | | 2.6 | Y | Absent | | NYTCL-8260-R2(14) |
| L1918442-03B | Vial HCl preserved | A | NA | | 2.6 | Y | Absent | | NYTCL-8260-R2(14) |
| L1918442-03C | Vial HCl preserved | A | NA | | 2.6 | Y | Absent | | NYTCL-8260-R2(14) |
| L1918442-04A | Vial HCl preserved | A | NA | | 2.6 | Y | Absent | | NYTCL-8260-R2(14) |
| L1918442-04B | Vial HCl preserved | A | NA | | 2.6 | Y | Absent | | NYTCL-8260-R2(14) |
| L1918442-04C | Vial HCl preserved | A | NA | | 2.6 | Y | Absent | | NYTCL-8260-R2(14) |
| L1918442-05A | Vial HCl preserved | A | NA | | 2.6 | Y | Absent | | NYTCL-8260-R2(14) |
| L1918442-05B | Vial HCl preserved | A | NA | | 2.6 | Y | Absent | | NYTCL-8260-R2(14) |
| L1918442-05C | Vial HCl preserved | A | NA | | 2.6 | Y | Absent | | NYTCL-8260-R2(14) |
| L1918442-06A | Vial HCl preserved | A | NA | | 2.6 | Y | Absent | | NYTCL-8260-R2(14) |
| L1918442-06B | Vial HCl preserved | A | NA | | 2.6 | Y | Absent | | NYTCL-8260-R2(14) |
| L1918442-06C | Vial HCl preserved | A | NA | | 2.6 | Y | Absent | | NYTCL-8260-R2(14) |
| L1918442-07A | Vial HCl preserved | A | NA | | 2.6 | Y | Absent | | NYTCL-8260-R2(14) |
| L1918442-07B | Vial HCl preserved | A | NA | | 2.6 | Y | Absent | | NYTCL-8260-R2(14) |



*Values in parentheses indicate holding time in days

| | | | |
|---|---|---|---|
| **Project Name:** | 61 EDSON STREET, AMSTERDAM, NY | **Lab Number:** | L1918442 |
| **Project Number:** | 190311ENVA | **Report Date:** | 05/10/19 |

## 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:** | 61 EDSON STREET, AMSTERDAM, NY | **Lab Number:** | L1918442 |
| **Project Number:** | 190311ENVA | **Report Date:** | 05/10/19 |

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.

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 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.

**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:** | 61 EDSON STREET, AMSTERDAM, NY | **Lab Number:** | L1918442 |
| **Project Number:** | 190311ENVA | **Report Date:** | 05/10/19 |

## REFERENCES

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

## LIMITATION OF LIABILITIES

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

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

# 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.

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

# NEW YORK CHAIN OF CUSTODY

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: 5/4/19

ALPHA Job #: L1918442

**Client Information**
Client: Ambient Environmental
Address:
Phone: (315) 263-3388
Fax:
Email: jimb@ambient-env.com

**Project Information**
Project Name: 61 Edson Street, Amsterdam, NY
Project Location: Amsterdam, NY
Project #
(Use Project name as Project #) ☐
Project Manager: Jim Blasting
ALPHAQuote #:

**Turn-Around Time**
Standard ☑ Due Date: 5/9/19
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 # 190311ENVA

**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 VOCs - EPA 8260 | Sample Specific Comments | Total Bottle |
|---|---|---|---|---|---|---|---|---|
| 18442-01 | MW-22 | 5/3/19 | 0855 | GW | ES | X | | 3 |
| 02 | MW-23 | 5/2/19 | 1230 | GW | ES | X | | 3 |
| 03 | MW-5 | 5/2/19 | 0905 | GW | ES | X | | 3 |
| 04 | MW-8 | 5/2/19 | 0805 | GW | ES | X | | 3 |
| 05 | MW-10 | 5/2/19 | 11:10 | GW | ES | X | | 3 |
| 06 | MW-12 | 5/3/19 | 0805 | GW | ES | X | | 3 |
| 07 | Trip Blank | | | Lab Water | | X | | 2 |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

Container Type: V
Preservative: B

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 |
|---|---|---|---|
| AAL | 5/3/19 1050 | | 5/4/19 00:35 |
| | | | |
| | | | |

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.

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