NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Remediation, Region 9
700 Delaware Avenue, Buffalo, NY 14209
P: (716) 851-7220 | F: (716) 851-7275
www.dec.ny.gov

March 9, 2023

Cattaraugus County DPW
Austin Kimes
Jack Ellis Drive
8810 Route 242
Little Valley, NY 14755

Re: Periodic Review Report (PRR) Response Letter
Farwell Road Landfill, Site No.: 905024
Ischua, Cattaraugus County

Dear Austin Kimes (as the Certifying Party):

The Department has reviewed your Periodic Review Report (PRR) and IC/EC Certification for following period: January 16, 2022 to January 16, 2023.

The Department hereby accepts the PRR and associated Certification. The frequency of Periodic Reviews for this site is 1 year(s), your next PRR is due on February 15, 2024. You will receive a reminder letter and updated certification form 75-days prior to the due date. Regardless of receipt or not, of the reminder notice, the next PRR including the signed certification form, is still due on the date specified above.

While the overall Certification for the site is accepted by the Department, there are several items in the PRR that warrant comment and revision in future PRRs:

1) Section 4.2, Dissolved Oxygen: dissolved oxygen should be included in the list of monitored field parameters as it will be a requirement of the Site Management Plan (SMP) and was recorded on the field forms provided by the sampling subcontractor;

2) Section 4.2, VOCs: the OM&M wells are to be sampled for the target compound list (TCL) volatile organic compounds (VOCs) in the draft SMP and per past correspondence with the Department. Future groundwater sampling events must analyze for the TCL VOCs in OM&M wells;

3) Section 4.5, Groundwater Contours: as previously requested by the Department, groundwater contours should be generated for both the shallow and intermediate

wells. The contours for the shallow zone should also use the surface water elevations from Ischua Creek as it has been documented that the shallow groundwater discharges into the Creek. It is not appropriate to contour groundwater elevations from wells screened in different units on a single figure. Additionally, the software and/or methods used to generate the contours must be described in future PRRs;

4) Section 4.8, VOCs: future OM&M wells will be sampled for TCL VOCs, see Comment 2; and

5) Figure 3, Groundwater Contours: in addition to the comments provided in Comment 3, the shallow groundwater contour figure must show the location of the surface water gauging locations in Ischua Creek. Future groundwater contour figures should only show locations used to generate the contours or use different legend items for the features screened in each geological unit.

The monitoring program for 2023 must address the above comments. If you have any questions on the above comments, please contact me at 716-851-7220 or benjamin.mcpherson@dec.ny.gov.

Sincerely,

Benjamin McPherson, P.E.
Project Manager
Professional Engineer 1 (Environmental)

ec:

Andrea Caprio – NYSDEC
Benjamin McPherson – NYSDEC
Austin Kimes, Cattaraugus County DPW (amkimes@cattco.org)
Kathleen Ellis, Cattaraugus County DPW (kmellis@cattco.org)
James Manzella, GPI (jmanzella@gpinet.com)

PERIODIC REVIEW REPORT
FOR THE
FARWELL ROAD LANDFILL
FARWELL ROAD ISCHUA, NEW YORK 14743
NYSDEC SSF SITE NUMBER 905024
REPORTING PERIOD: JANUARY 16, 2022 — JANUARY 16, 2023

Prepared for :
Cattaraugus County Department of Public Works
Refuse Division

8810 Route 242
Little Valley, New York 14755

FEBRUARY 2023

GPI Greenman-Pedersen, Inc.
Engineering and Construction Services

403 Main Street, Suite #330
Buffalo, N.Y. 14203
716-989-3325

PERIODIC REVIEW REPORT AND ANNUAL REPORT

FARWELL ROAD LANDFILL
FARWELL ROAD
ISCHUA, NEW YORK 14743
SSF SITE NUMBER 905024

REPORTING PERIOD: JANUARY 16, 2022 - JANUARY 16, 2023

TABLE OF CONTENTS

FIGURES

TABLES

PARAMETER SPECIFIC GRAPHS

APPENDICES:

1.0 INTRODUCTION

The Cattaraugus County Department of Public Works (CCDPW) retained Greenman-Pedersen Inc. (GPI) to evaluate conditions at the Farwell Road Landfill in the Town of Ischua, New York and prepare this Periodic Review Report (PRR) for the Site. This report also summarizes the results of water quality monitoring at the Farwell Landfill (FL) during the annual monitoring event of 2022. GPI conducted the annual Periodic Review in February 2022 for the reporting period occurring between January 16, 2022 through January 16, 2023. The Site is located at 1430 Farwell Road in the Town of Ischua, New York. This PRR is being completed to meet the Site Management Periodic Review Report and Institutional Control / Engineering Control (IC/EC) Certification requirements under the New York State Department of Environmental Conservation (NYSDEC) State Superfund (SSF) Program. The NYSDEC SSF site number is 905024. This PRR documents the implementation of and compliance with the *Farwell Landfill Site Management Plan*, November 2020; the *Record of Decision* (March 2000); and the *Deed Restriction filed with the Cattaraugus County Clerk's Office* (June 2003, updated February 2023).

2.0 BACKGROUND INFORMATION

The landfill is owned by Cattaraugus County and occupies approximately 16 acres of the northern portion of a 205-acre property owned by the County. The landfill is located on Farwell Road off of NYS Route 16 along the western wall of the Ischua Creek valley. The landfill is bounded to the south by Farwell Road, to the west by a narrow strip of trees and fields and to the north and east by an active Buffalo & Pittsburgh Railroad line and Ischua Creek. At its closest point, the creek is approximately 400 feet from the landfill. Figure 1 shows the location of the Site and Figure 1A depicts the general outline of the County owned property. The Site is comprised of two individual adjoining tax parcels (i.e. 68.001-1-18 and 68.003-1-1), which are depicted on Figures 1B and 1C.

The CCDPW operated the FL from 1975 until 1989, when the last phase of the landfill was closed pursuant to a 1984 New York State Department of Environmental Conservation (NYSDEC) consent order (84-106). The FL was constructed in three phases to form a contiguous landfill. The Phase I and Phase II areas of the landfill are unlined. The disposal of municipal solid wastes, resource recovery ash and NYSDEC approved non-hazardous industrial wastes took place in these two areas until 1984, when they reached capacity. The Phase III area of the landfill was constructed with a compacted soil liner and a leachate collection system. This area of the landfill accepted only commercial, permitted industrial, C&D waste and incinerator ash. The ash was used primarily as daily cover. This area of the landfill reached capacity and was closed in 1989.

Landfill closure included the capping of the entire landfill with 12 to 18 inches of compacted soil followed by a vegetated six-inch topsoil layer. During closure, leachate collection piping was also added to the southeastern, eastern and western sides of the landfill where leachate outbreaks had been historically observed.

In response to a 1984 Community Right to Know Survey, the Alcas Cutlery Corp. stated that it disposed of approximately 8.5 tons of trichloroethylene (TCE) sludge mixed with sawdust at the landfill between 1975 and 1984. The disposal time period indicates that the TCE wastes were disposed of in the unlined portions of the landfill. Underlying soils in these disposal areas consist of glacial till containing coarse sand and gravel. The porous nature of these soils has allowed TCE contamination to migrate to the confined principal aquifer below this disposal area. TCE levels in this aquifer have been historically detected at concentrations as high as 10 to 25 times the applicable groundwater standard. As a result, in 1996, the NYSDEC classified the landfill as a Class 2 inactive hazardous waste site. Contamination has been found in wells as far as 550 feet south of the landfill.

A focused Remedial Investigation and Feasibility Study (RI/FS) was completed in 1999 to compile the site information necessary to develop a strategy for addressing the chlorinated volatile organic compounds (VOCs) migrating from the landfill. Based on the findings of the RI/FS, the NYSDEC and the New York State Department of Health (NYSDOH) selected a remedy and issued a Record of Decision (ROD) in March 2000. The ROD indicated that the chlorinated VOCs would be addressed via natural attenuation. In order to monitor the effectiveness of the natural attenuation, the ROD required the installation of compliance monitoring wells (MW-21, MW-22 and MW-23) at locations approximately one-quarter mile downgradient of the landfill and long-term water quality monitoring at the landfill. Additionally, the ROD required that cap repairs be completed. The cap repairs were completed in 2002 and the landfill is monitored in accordance with the *Farwell Landfill Site Management Plan (SMP),* November 2020.

In January 2008, the NYSDEC sent a letter to the County indicating that the ROD objectives had been successfully met and therefore it was appropriate to reclassify the landfill from Class 2 to Class 4. Class 4 means the site is properly closed but requires continued management. In light this reclassification as well as the results of previous sampling events that shows the VOC plume to be static and continuing evidence that natural attenuation of the VOC plume is ongoing, the County proposed modifications to the environmental monitoring plan, which were subsequently approved by the NYSDEC. These modifications included: the analysis of the samples from the OM&M program wells changed from quarterly analysis for Part 363 Baseline Parameters to analysis of Baseline VOCs only; and the analysis of dissolved gases in the OM&M program was changed from quarterly collection and analysis to annual collection and analysis.

A request for post-closure landfill monitoring reduction for the Farwell Landfill was submitted to the NYSDEC on July 20, 2020 and was approved on September 14, 2020. Monitoring events will be reduced to annual/biennial sampling occurring in May with the first event completed in May 2021. This event consisted of the sampling and analysis of groundwater and leachate samples as outlined in NYSDEC's September 14, 2020 approval letter and was conducted in general accordance with the procedures specified in the *Farwell Landfill Site Management Plan (SMP),* November 2020. It should be noted that the SMP was submitted to NYSDEC in January 2021 but has yet to be formally approved by the NYSDEC. A copy of NYSDEC's September 14, 2020

approval letter along with a copy of Section 6 from the July 20, 2020 reduction request summarize the changes to the post-closure landfill monitoring program is included in Appendix A.

3.0 PERIODIC REVIEW

GPI conducted the annual Periodic Review in February 2023 for the reporting period occurring between January 16, 2022 through January 16, 2023. This Periodic Review is discussed in the sections below. Appendix B includes the NYSDEC "Site Management Periodic Review Report Notice – Institutional and Engineering Controls Certification Form."

3.1 Institutional and Engineering Controls

Since remaining contaminated groundwater exists beneath the Site, Engineering Controls and Institutional Controls were required to protect human health and the environment.

The ECs implemented at the Site include a cover system and a leachate collection system. The cover system is comprised of 18 inches of compacted soil followed by a vegetated six-inch topsoil layer that was completed in 1989. Also, during closure, leachate collection piping was also added to the southeastern, eastern and western sides of the landfill where leachate outbreaks had been historically observed. Remedial actions completed in 2002 included repairs to damaged and settled areas of the soil cover system.

In addition to the ECs a series of ICs were also required for the Site. The ICs implemented at the Site include:

- Compliance with the Deed Restriction filed with the Cattaraugus County Clerk's Office (June 2003, updated February 2023).
- Operation and maintenance of all IC's and ECs in accordance with the SMP;
- Inspection of all ECs at the Site in accordance with the SMP;
- No person shall engage in any activity that will, or that reasonably is anticipated to prevent or interfere significantly with any proposed, ongoing or completed program at the Site or that will or is reasonably foreseeable to expose the public health or the environment to a significantly increased threat of harm or damage;
- Reporting of all required monitoring data in accordance with the SMP;
- The Site may only be used for solid waste management facilities and may not ever be used for other purposes without the express written waiver of such prohibition by the NYSDEC;
- The use of the groundwater underlying the Site is prohibited without: treatment rendering it safe for intended use; and permission from the NYSDEC;
- The Deed Restrictions shall run with the land and shall be binding upon all future owners of the Site; and

- The NYSDEC shall retain the right to access the Site at any time in order to evaluate any and all controls.

3.1.1. Inspection of Engineering and Institutional Controls

In February 2023 GPI's Project Manager, Mr. James C. Manzella, CHMM, prepared and evaluated the required documentation for the Post-Remediation Media Monitoring and Sampling, the Site Wide Inspections, and the Cover System Monitoring. This included the evaluation and reporting on the samples collected from the groundwater monitoring wells and leachate storage tank for chemical analysis in May 2022; review of the the Post-Closure Inspection Forms prepared for the monthly inspections performed in 2022; and discussions with Mr. Austin Kimes, Director of Weights and Measures for the Cattaraugus County Department of Public Works, during the evaluation. The evaluation of the IC/ECs are included in Sections 4.0 and 5.0 below.

4.0 POST-REMEDIATION MEDIA MONITORING AND SAMPLING

4.1 Overview

Water quality monitoring has been performed at the Farwell Landfill since the late 1970s. The permanent monitoring program for the landfill includes an Operation, Maintenance & Monitoring (OM&M) annual monitoring program and Part 360 biennial monitoring program. The permanent monitoring network currently consists of 23 groundwater monitoring wells (11 groundwater monitoring wells sampled annually as part of OM&M program, seven groundwater monitoring wells sampled biennially as part of the Part 360 program, and five groundwater monitoring recently removed (to remain in place and not be decommissioned) from the monitoring program following the July 2020 reduction request, one on-site (SW-4) and three off-site (SW-1, SW-2 & SW-3) surface water monitoring locations (removed from the Part 360 program), three piezometer/off-site water level monitoring locations (measured annually) and one leachate collection system sample collected from the on-site leachate storage tank (L-1) (sampled annually as part of the Part 360 program). Figure 2 depicts the on-site monitoring network as well as the locations of the five off-site compliance monitoring wells (i.e. MW-21, MW-22, MW-23, MW-24 and MW-25). Figure 3 depicts the groundwater contours for the shallow monitoring wells up and downgradient of the landfill.

The upgradient monitoring wells include the OM&M program wells MW-17I and MW-17S and the Part 360 program wells MW-6 and MW-13D. The downgradient wells include the OM&M program wells MW-14S, MW-14I, MW-15S, MW-15I, MW-16S, MW-16I, MW-21, MW-22, and MW-23; the Part 360 program wells MW-9D, MW-10S, MW-10D, MW-11S and MW-11D. The downgradient OM&M program wells MW-19, MW-20, MW-24, and MW-25 have been removed from the monitoring program and will remain on site rather than be decommissioned. Downgradient well MW-9S (a Part 360 program well) historically has not been able to be sampled

due to either being consistently dry or having insufficient water and as a result is no longer included in the monitoring program. Additionally, P-15, MW-18S, MW-18D and Ischua Creek serve as annual water level monitoring locations. The 'S' in the well nomenclature indicates a shallow well the 'D' indicates a deep well, while an 'I' indicates an interface well.

4.2 Scope of Work

The scope of work completed during this 2022 monitoring event included the collection and chemical analysis of groundwater and leachate from the OM&M monitoring locations, the review and evaluation of the resulting analytical data, and the preparation of this summary. Enviroteknix completed sample collection and Eurofins TestAmerica Laboratories (TAL) preformed the chemical analyses in general accordance with the procedures specified in the SMP. The analytical data was validated by Dataval, a third-party data validation firm.

GPI utilized a database of historical analytical results from the past twenty-one years. It is this database to which this report refers when discussing historical results. GPI will maintain the database by incorporating the results from future quarterly sampling events as they are generated.

The groundwater level within each monitoring well was measured and recorded and the wells were purged to ensure the collection of representative groundwater samples. Field parameters including temperature, pH, Eh, specific conductivity and turbidity were measured during the purging and sampling of the monitoring wells and the collection of the leachate sample. These data are included in the field logs presented in Appendix C.

The samples were placed in pre-cleaned laboratory vessels and transported to TAL under proper chain-of-custody procedures. All OM&M groundwater samples collected during this annual monitoring event were analyzed for Part 363 Baseline Volatile Organic Compounds (VOCs). The Part 360 Program wells, last sampled in May 2021 are sampled biennially and were not sampled during this annual event. The leachate storage tank sample collected during this annual monitoring event was analyzed for Part 363 Expanded Parameters. All analyzed samples were analyzed pursuant to the SMP. For quality assurance/quality control (QA/QC) purposes, field duplicates and trip blanks were collected and analyzed. The blind field duplicate, Dup Y, was collected from MW-16S.

A data quality assessment was performed to determine the usability of the analytical results. The data usability review consisted of an evaluation of precision, accuracy, representativeness, data completeness, and comparability. After the data was determined to be usable, the water quality results were evaluated by comparing the data from monitoring points located downgradient from the landfill to that from upgradient monitoring locations, applicable water quality standards and historical sampling results. Following the evaluation of the data, potential causes of any applicable water quality standard exceedances that may have occurred in groundwater were identified and assessed. Potential causes of exceedances could include, but are not limited to, changes in

groundwater flow direction, seasonal fluctuations in the elevation of the groundwater piezometric surface, or new sources of contamination.

4.3 Data Quality Assessment

An assessment of the quality of the analytical data was performed prior to the incorporation of the analytical results into data tables. The data package was reviewed for completeness and consistency with the requirements of the Part 363-4.6(g)(5). Data from sampling locations limited to analysis of Routine Parameters may be internally validated by the laboratory performing the analysis, while analysis for Baseline and Expanded Parameters are required to be validated by a NYSDEC-approved third party.

The internal data validation performed by TAL focused on holding times, calibration criteria, method blanks, reference samples, matrix spike/matrix spike duplicate (MS/MSD) samples, and surrogate recoveries. The results of these efforts are presented in the TAL analytical reports. The QA/QC issues are identified within the "Case Narrative" sections of the TAL analytical reports. Copies of the analytical reports generated for this annual event are included in Appendix D. A review of the Case Narratives indicates that the analytical results generated during this quarterly monitoring event are generally usable in all cases. However, some QA/QC issues were noted and are discussed in the sections below.

In addition to the internal validation performed by TAL, an independent third-party validator (Dataval) reviewed the Baseline data generated for this sampling event. Laboratory data was evaluated according to the QA/QC requirements of the NYSDEC's ASP, the SAP, and the EPA Region II Functional Guidelines. Dataval, a NYSDEC approved validator, satisfied the requirement for 5 percent validation of data by reviewing data calculations in detail for 1 of the 13 (i.e. MW-14S) groundwater samples submitted (including QA/QC samples) and the leachate sample. All available QA/QC information derived from the data validation was then applied to an evaluation of every program sample. The data assessment section of the validation reports prepared by Dataval are summarized in the following subsections and are presented in their entirety in Appendix E.

The independent data assessment included a review of holding times; calibrations; blanks; matrix spikes; matrix spike duplicates; and reported analytes.

The reported data from the group of samples analyzed was found to be complete and well organized and felt to be completely usable in its present form by the validator. Results providing a usable estimation of conditions being measured have been flagged "J" (i.e. estimated) or "UJ" (i.e. estimated below the detection level).

The 'estimated' qualifiers placed on the laboratory results do not preclude the data from being utilized in making an assessment of this event's groundwater quality. Any estimated concentrations outside historical ranges are considered suspect.

The following sections outline the internal and independent validation processes, results and their effects on the usability of the data. The data generated during the 2022 sampling event was assessed in terms of precision, accuracy, representativeness, comparability, and completeness. Neither the internal nor the independent validation identified any analytical or quality issues with the groundwater samples analyzed for Baseline VOCs during this sampling event. Additionally, only minor QA/QC issues which do not impact the usability of the data, were noted for the leachate sample. The validation reports prepared by TAL and Dataval, which are included in Appendices D and E, respectively.

4.3.1. Precision

Precision is a measurement of agreement among individual measurements of the same property under similar conditions. It is expressed in terms of relative percent difference (RPD) between replicates or in terms of the standard deviation. Precision may be affected by the natural variation of the matrix or contamination within that matrix, as well as by errors made in the field and/or laboratory handling procedures. Precision is evaluated using analytical results for field duplicates and/or laboratory matrix spike/matrix spike duplicates (MS/MSDs) and matrix duplicates (MDs), which not only exhibit sampling and analytical precision, but also indicate precision through the reproducibility of the analytical results.

The independent validator indicated that the sulfide spike to the leachate sample (L-1) was completely unrecovered and rejected the reported results. Review of the TAL analytical and independent validation reports indicate that the results are generally precise and only minor QA/QC issues with regard to precision were noted. None of these issues impacted the usability of the data. These issues are presented in the validation reports prepared by TAL and Dataval, which are included in Appendices D and E, respectively.

A comparison of the results from MW-16S with field duplicate Dup Y indicates that the data coincide (i.e. the detected concentrations were within 1.5 times of each other) with the exception of the results for trichloroethene, which were detected in MW-16S at a concentration 1.58 times higher than Dup Y. The detected concentration of trichloroethene in MW-16S was within historical ranges.

4.3.2. Accuracy

Accuracy is defined as the degree of agreement of a measurement (or measurement average) with an accepted reference or true value. It is a measure of system bias and is usually expressed as the difference of measured versus true values or as a percentage of the difference. Sources of error include the sampling process, field contamination, preservation, handling, sample matrix, sample preparation, and analytical techniques. Accuracy is determined on the basis of blank sample analysis (e.g., equipment blanks, trip blanks, etc.) and surrogate recoveries from spiked samples.

The independent validator indicated that the trip blank contained traces of acetone (i.e. 3.6 ug/L) and that a similar concentration was found in MW-14S. Additionally, di-n-butylphthalate and endrin aldehyde were detected in the method blank associated with the leachate sample (L-1). In all three cases, the validator indicated that the concentrations of these parameters detected in MW-14S and L-1 should be interpreted as undetected and a detection limit equaling the laboratory's reporting limit should be assumed for these monitoring locations.

The independent validator stated: *It is noted that the wet chemistry results for alkalinity, TKN and phenolics were provided without the supporting raw data. Instrument response was not provided. This made it impossible to verify the calculations that produced these results. This omission should be considered when reviewing the data.* In prior correspondence with the independent validator he indicated that this is not a serious issue as the samples were still associated with good QC results. Additionally, the detected concentrations for these parameters are consistent with historical results.

The independent validator indicated that the presence of benzene and n-nitrosodi-n-butylamine in the leachate sample (L-1) could not be verified based on the mass spectra references in included in the raw data and that these parameters should be interpreted as undetected and a detection limit equaling the laboratory's reporting limit should be assumed for this monitoring location.

For the remainder of the data, both the internal and independent validation reports indicate that the program data is generally accurate and only minor QA/QC issues with regard to accuracy were noted. None of these issues impacted the usability of the data. These QA/QC issues are presented in the TAL analytical reports and independent validation report included in Appendices D and E, respectively.

4.3.3. Representativeness

This parameter expresses the degree of accuracy and precision of data that represents a characteristic of a population, process condition, a sampling point, or an environmental condition. It is a qualitative parameter that is most dependent on the proper design of the sampling program. The sampling procedures described in the Field Sampling Plan developed for the facility were applied to ensure the collection of representative samples for the media of concern. The samples were collected from similar hydrogeologic units using consistently applied sampling and analytical protocols.

4.3.4. Completeness

Review of the field logs and laboratory results indicates that the data are generally complete. Samples were collected from all eleven OM&M program wells and the leachate

storage tank and were submitted for chemical analysis. The independent validator noted that they could not be determined if custody seals were found on the coolers. Both the field sampling team and laboratory will be notified of this so that cooler custody seals are used and properly documented.

4.3.5. Comparability

This parameter expresses the confidence with which one data set can be compared to another. The objective for comparability is the generation of site characterization data that can be used to make valid comparisons with other data that may be generated in the future at this or other sites. This objective also involves the analysis of the environmental samples collected during the investigation in a manner that produces results comparable to the results that would be obtained by another laboratory using the same analytical procedure. This goal was achieved through the application of standard techniques for sample collection and analysis, and the reporting of data in appropriate units.

Review of the field logs and laboratory results indicates that the sampling protocols utilized during this monitoring event are similar to those used for previous events and that the data is generally comparable to that generated previously.

4.4 Water Quality Assessment

The complete laboratory reports containing the case narratives, analytical results and the quality control sample data are included as Appendix D, while the chain-of custody records are included as Appendix F. Table 1 summarizes the groundwater results and identifies contraventions of the water quality standards in 2022, while Table 2 summarizes the analytical results for leachate. Table 3 summarizes the groundwater elevation measurements. The analytical results are reported in either micrograms per liter (ug/L), which is approximately equivalent to parts per billion (ppb), or milligrams per liter (mg/L), which is approximately equivalent to parts per million (ppm).

The following sections discusses both upgradient and downgradient groundwater quality relative to historical groundwater data and identifies any contraventions of the applicable water quality standards.

The chemistry of leachate generated by the landfill during this monitoring event is summarized in Table 2 and is assessed with respect to historical leachate data.

4.4.1. Groundwater

The analytical results from the two (2) upgradient groundwater monitoring locations sampled during this monitoring event were generally within the historical ranges. The concentrations of the following analytes exceeded the applicable water quality standards in the following monitoring wells:

- Field Turbidity in MW-17I

Locations with analytes at concentrations representing historical maximums are denoted above with bold-type text. All parameter concentrations were within the respective historical ranges.

4.4.1.1 Downgradient Monitoring Locations

The analytical results from nine (9) downgradient groundwater monitoring locations sampled during this monitoring event indicate that the parameter concentrations are within the respective historical ranges.

As shown on Table 1, exceedances of the applicable water quality standards for one or more parameters were noted in 6 of the 9 downgradient groundwater sampling locations. The following analytes exceeded the applicable water quality standards:

- Field Turbidity in MW-14S, MW-14I, MW-15S, MW-16I, and MW-22
- Chloroethane in MW-14S, MW-14I, MW-16I, and MW-21
- 1,1-Dichloroethane in MW-16I, and MW-21
- cis-1,2-Dichloroethene in MW-14S, MW-14I, and MW-21

All parameter concentrations for the downgradient groundwater monitoring locations were within the respective historical ranges for the samples collected in 2022.

Parameter concentrations representing potential trends in the OM&M wells have been evaluated, and particular attention was focused on locations where prior reports stated that the potential for trends would be monitored. Based on this evaluation, several parameter histories in the OM&M wells were graphed and are discussed below. The comparison of Part 360 program wells results was limited to seven events for Baseline Parameters (including VOCs). No trends are apparent in these wells. Based on the limited data and the absence of trends, no graphs were produced for the Part 360 locations.

No historical maximum concertation for cis-1,2-dichloroethene was observed in the OM&M wells during 2022. While the concentrations of cis-1,2-dichloroethene in MW-14I, MW-14S, and MW-21 exceeded the groundwater standards; the concentrations in these locations were within historical ranges. The parameter histories for cis-1,2-dichloroethene in these monitoring wells (as well as MW-16S and MW-16I, which historically demonstrated exceedances) were graphed and are presented in Graphs 1 and 2. The concentration in MW-14I represents the only

location demonstrating an increasing trend for this parameter, though the concentrations have remained generally stable in the last 10 years. In MW-14S and MW-16I the concentrations remain generally stable (i.e. no significant increasing or decreasing). It should be noted that the concentrations of total VOCs continue to decline in these sampling locations. The graphs depict the concentrations of cis-1,2-dichloroethene in MW-16S and MW-21 have been declining and in MW-16S concentrations have been below the water quality standard since 2013. GPI will continue to monitor this parameter for further indications of trends.

No historical maximum concentrations for chloroethane were observed in the OM&M wells in 2022 and in fact that last historical maximum concentration for this parameter that exceeded the water quality standard was recorded in MW-14I during the third quarter 2009. However, this analyte has been historically detected in MW-14I, MW-14S, MW-16I and MW-21 at concentrations exceeding the groundwater standards; therefore, the parameter histories for chloroethane for these monitoring wells are presented in Graph 3. The concentrations of this analyte during 2022 are consistent with historical results with the trend analysis showing concentrations in MW-14I, MW-14S and MW-21 are continuing to decline and the concentrations in MW-16I remain generally stable (i.e. no significant increasing or decreasing). GPI will continue to monitor this parameter for further indications of trends.

The historical results for 1,1-dichloroethane in MW-14S, MW-14I, MW-16S, MW-16I, MW-21 and MW-22; 1,1,1-trichloroethane in MW-16S, MW-21 and MW-22; trichloroethene in MW-14S, MW-14I, MW-16S and MW-21; and vinyl chloride in MW-14S, MW- 14I and MW- 21 are shown in Graphs 4 through 7, respectively. These analytes and locations were selected because the detected concentrations have historically exceeded the water quality standards at these locations. As depicted on these graphs, the concentrations of these parameters in the aforementioned locations are continuing to decline.

A comparison of the analytical results for the groundwater samples collected from the upgradient sampling locations to the downgradient locations revealed that concentrations in the upgradient sampling locations were lower or undetected when compared to concentrations in the downgradient sampling locations during this annual event. This indicates that downgradient impacts from the unlined portions of the landfill are occurring. GPI will continue to monitor these parameters for indications of any trends.

4.4.2. Leachate

The analytical results for the leachate sample are summarized in Table 3. All parameter concentrations for this annual sampling event were within the respective historical ranges. GPI will continue to monitor for any trends in the leachate chemistry during future sampling events.

4.5 Natural Attenuation Evaluation

The term 'Natural Attenuation' refers to naturally occurring processes in soil and groundwater environments that act without human intervention to reduce the mass, toxicity, mobility, volume, or concentration of contaminants in those media. These in-situ processes include biodegradation, dispersion, dilution, adsorption, volatilization, and chemical or biological stabilization or destruction of contaminants.

The evaluation of natural attenuation included the review of concentrations of VOCs in upgradient and downgradient monitoring wells over the past twenty-one years (including 2022). Specifically, the historical data for chloroethane, 1,1-dichloroethane, cis-1,2-dichloroethene, 1,1,1-trichloroethane, trichloroethene and vinyl chloride were evaluated for trends in the concentrations of these compounds. The review of historical data supports the assertion made in the RI for the Farwell Landfill that natural attention is occurring at the landfill. The review revealed:

- The continued presence of common degradation daughter products in downgradient monitoring wells.
- Despite some minor fluctuations in parameter concentrations, the concentrations of these chlorinated solvents in the groundwater hydrogeolocially downgradient of the landfill have remained generally consistent or have declined.
- While there were minor increases of total VOCs in monitoring wells MW-14S, MW-15S, MW-21 and MW-22 when compared to the previous year, the historical evaluation of total VOCs within the impacted wells demonstrates a declining trend. The overall combined concentrations of total VOC (i.e. total VOCs from all 8 wells with detections) in the downgradient wells decreased from last year. GPI will continue to evaluate total VOC concentration trends in the downgradient monitoring wells.
- With exception to chloroethane in MW-16I (which has remained generally stable) and cis-1,2-dichloroethene in MW-14S & MW-16I (both of which have remained generally stable) and MW-14I (showing an increasing trend) the concentrations of these six parameters are declining in the wells that they have been detected in.
- The VOC plume appears to be static.

Lastly, one of the objectives of the natural attenuation evaluation is to define and track the VOC plume in groundwater downgradient of the landfill to ensure that the plume is not migrating off County owned property. This task was completed by comparing the groundwater contour map,

generated utilizing the groundwater elevation data recorded from the shallow monitoring wells during the annual monitoring event, which indicates a south/southeast flow to the total VOC concentrations recorded in each well since 2002. Total VOC graphs were generated and evaluated for MW-14I, MW-14S, MW-15I, MW-15S, MW-16I, MW-16S, MW-19, MW-20, MW-21 and MW-22. Graphs depicting the total VOC concentrations over this time period for the downgradient monitoring wells are included in Appendix G. This evaluation indicates that the VOC plume is generally static and that the plume is not significantly migrating. Despite some minor fluctuations in parameter concentrations, as demonstrated by these graphs total VOC concentrations in the groundwater downgradient of the landfill have generally been declining. The highest concentrations of VOCs continue to be detected in OM&M monitoring wells MW-14S, MW-14I and MW-21. Based on the reduction in total VOC concentrations over time and the absence of anthropogenic influences on the demonstrated attenuation, the reduction is most likely attributable to natural forces. Also, given the significantly lower concentrations of VOCs in MW-22 (compared to MW-21) and the absence of elevated chlorinated solvents in the sample collected from MW-23 diffusion of the chlorinated solvents appears to be occurring.

4.6 Environmental Monitoring Plan Deficiencies

No deficiencies were noted for the Environmental Monitoring Plan during the 2022 reporting period.

4.7 Environmental Monitoring Conclusions

A limited number of parameter concentrations were noted during the 2022 annual monitoring event relative to the concentrations observed historically. However, concentrations of most parameters were within historical ranges. The analytical results for the groundwater samples collected from the upgradient sampling locations were generally lower than the results from downgradient locations during 2022, indicating downgradient impacts from the unlined portions of the landfill. A number of analytes, primarily VOCs, were detected at concentrations exceeding the water quality standards in downgradient monitoring locations. The concentrations of total VOCs within each of the impacted wells have declined over the past 21 years and the overall combined concentrations of total VOC (i.e. total VOCs from all 8 wells with detections) in the downgradient wells decreased from last year.

4.8 Future Environmental Monitoring Activities

The next environmental monitoring event is scheduled to be completed in May 2023. This event will consist of the sampling and analysis of groundwater and leachate samples as outlined in NYSDEC's September 14, 2020 approval letter and will be conducted in general accordance with the procedures specified in the SMP. Groundwater samples collected from OM&M wells will be analyzed for Part 363 Baseline VOCs and field parameters. The Part 360 Program wells will be sampled for a modified Baseline analytical list including the leachate indicators (alkalinity, ammonia, biological oxygen demand, boron, bromide, chloride, chemical oxygen demand, color,

hardness, nitrate, phenols, sulfate, total dissolved solids, total Kjeldahl (TKN) nitrogen, and total organic carbon) and VOCs. The leachate storage tank sample will be analyzed for Part 363 Baseline Parameters. The data validation for this sampling event will be conducted in accordance with ASP Category B.

5.0 OPERATION AND MAINTENANCE

5.1 Overview

As part of the selected remedy the County implemented a formal landfill inspection and maintenance program. As detailed in the SMP monthly inspections are required April through November. These monthly inspections are performed by Cattaraugus County DPW staff and are documented on the Post-Closure Inspection Forms. On-site inspections were performed April through December 2022. Copies of the monthly inspection forms for the 2022 reporting period are included in Appendix H.

The monthly inspections are performed to evaluate onsite drainage, the condition of the landfill cover, access control features and the monitoring wells and gas vents. A summary of the evaluation requirements followed by the 2022 inspection results is presented in the paragraphs below.

5.2 Summary and Evaluation of 2022 Site-Wide Monthly Inspections

Existing drainage features are to be checked for failure or obstructions, signs of erosion and/or areas of ponded water. Additionally, inspection of the drainage system is to be conducted following the occurrence of severe storms (greater than 1 inch per hour). Based on historical weather data from Weather Underground a nearby weather station measured three severe storms event between April and November of 2022. Taking place April 26, July 2, and November 12, 2022, the correlating monthly inspections did not indicate any issues following the occurrence of these severe storms.

The review of the landfill cover includes an evaluation for visible signs of refuse, vector activity, erosion, stressed vegetation, leachate seeps and areas of settling. In April through December monthly inspection an approximately 4-ft x 10-ft area of stressed vegetation/leachate seep was identified at the toe of slope in the southwest corner of Phase II portions of the landfill or approximately 300-ft north of the northwest corner of the parking lot. The County has engaged the services of a consultant who is evaluating enhancements to the existing cap to reduce leachate generation on-site. Repairs to address this seep will be addressed in conjunction with any cap enhancements. The County intends on making repairs to this seep in 2024 following consultation with NYSDEC. During the April through October inspections vector activity consisted of evidence of groundhogs and deer; flies were noted around several of the vents in August, September and

October and deer only in December. Odors were also detected emanating from several of the vents throughout the year.

Access control is to be maintained such that unauthorized entrance to the facility is prevented. During the remedial actions conducted in the early 2000s a multi-floral rose shrubbery was planted around the landfill perimeter. This plant is shallow rooted, hardy and spiny and forms a dense hedge wall thereby restricting access. The inspections in 2022 evaluated the gates and locks, access road conditions and access restriction features (i.e. the shrubbery). These inspections noted the access control features to be in good condition and did not note any issues impacting the established access control features.

The gas venting system is to be inspected for plugging and damage of the vent risers and return bends. Additionally, areas where there are cracks in the soil cover or where vegetation appears to be stressed are to be tested with a portable explosive gas detector. During the 2022 monthly inspections the vent screens were noted to be in place and a crack in the elbow was noted for vent No. 10. This vent was noted as being repaired during the October inspection. No damage to any of the other vent risers and/or return bends was observed.

The groundwater monitoring wells are to be inspected to ensure that the locks, risers and caps are in good condition and that there is no evidence of tampering. No issues were identified with the monitoring wells.

Based on the review of the monthly inspection forms and interviews with County personnel, the Operation and Maintenance requirements are being conducted in accordance with the SMP.

5.3 Use Restrictions

The northern portion of the Site (approximately 16-acres) is currently occupied by the closed landfill, while the remainder of the site is comprised of forested land and old unutilized farm fields. Other than two County owned buildings used for storage and recyclables storage, no development or other non-solid waste uses are conducted on the Site; therefore, the Site is in compliance with the use restriction requirements of the Deed Restrictions. Also, while there is a water supply well on Site, access to water is limited to a faucet (which is not used) and a toilet within the on-site storage building. This building is kept locked and only County employees have access. Additionally, a warning sign is posted above the faucet which indicates that the water is unsuitable for drinking. Therefore, with the exception of flushing the toilet no groundwater use occurs on-site and as such meets the groundwater use restrictions.

5.4 Leachate Collection System

The leachate collection system installed during the closure operations conducted in the late 1980s continues to operate. Leachate from the landfill is collected and combined in two 10,000-gallon underground storage tanks located south of the landfill, near the storage garage. The elevation of

the leachate collection line near the storage tanks is 1538.0'. The stored leachate is pumped from the USTs an average of fourteen times a month. The total leachate generated for the reporting period was 1,328,500 gallons, with 52,500 gallons delivered to the Salamanca Waste Water Treatment Plant, 15,000 gallons going to the Jamestown Waste Water Treatment Plant, and 1,261,000 gallons going to the Olean Waste Water Treatment Plant. Tables summarizing the monthly leachate hauling quantities are included in Appendix I.

5.5 O&M Deficiencies

An O&M deficiency was noted with regard to the cover system. In April through December monthly inspection an approximately 4-ft x 10-ft area of stressed vegetation/leachate seep was identified at the toe of slope in the southwest corner of Phase II portions of the landfill or approximately 300-ft north of the northwest corner of the parking lot. The County has engaged the services of a consultant who is evaluating enhancements to the existing cap to reduce leachate generation on-site. Repairs to address this seep will be addressed in conjunction with any cap enhancements. The County intends on making repairs to this seep in 2024 following consultation with NYSDEC.

During the process of updating the leachate hauling protocols the County examined historical leachate data and they identified an instance in late November 2022 where they could not account for approximately 400 gallons of leachate. The drivers who hauled during this event did not report any observations that indicated a leachate spill; nonetheless their data suggested the amount of leachate in the tanks may have exceeded the capacity by about 400 gallons amount. In order to provide an even greater buffer for their leachate hauling operations, the County recently updated these procedures. A copy of the updated procedures is included in Appendix J.

6.0 CONCLUSIONS AND RECOMMENDATIONS

The Site is in compliance with the SMP and Deed Restrictions, therefore, no changes to the periodic review reporting are recommended. Additionally, while still currently under review by the NYSDEC the November 2020 SMP was utilized at the guiding document summarizing the controls implemented for the Site, as well as the inspections, monitoring, maintenance and reporting activities required.

7.0 LIMITATIONS

The conclusions presented in this report are based on information gathered in accordance generally accepted professional consulting principles and practices. All conclusions reflect observable conditions existing at the time of the site inspection. Information provided by outside sources (individuals, agencies, laboratories, etc.), as cited herein, was used in the evaluation of the Site. The accuracy of the conclusions drawn from this Periodic Review is, therefore, dependent upon the accuracy of information provided by these sources. Furthermore, GPI is not responsible

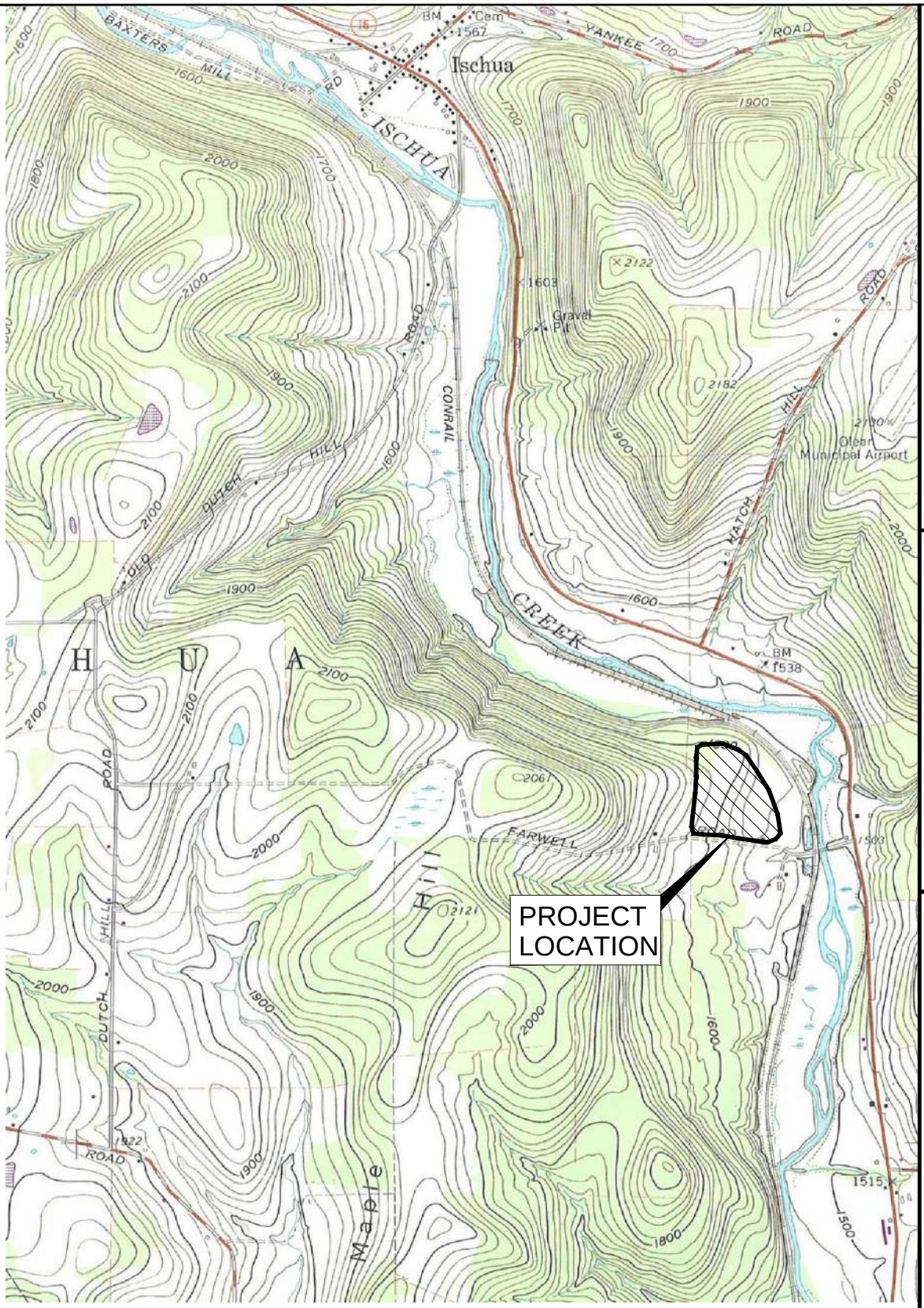
for the impacts of any changes in environmental standards, practices, or regulations subsequent to the performance of services.

This Periodic Review Report is based upon the application of scientific principles and professional judgment to certain facts with resultant subjective interpretations. Professional judgments expressed herein are based upon the facts currently available within the limits of the existing data, scope of services, budget, and schedule. To the extent that more definitive conclusions are desired by the Client than are warranted by the current available facts, it is specifically GPI's intent that the conclusions and recommendations stated herein will be intended as guidance and not necessarily a firm course of action except where explicitly stated as such. GPI makes no warranties, expressed or implied including without limitation, warranties as to merchantability or fitness of a particular purpose. Furthermore, the information provided in this report is not to be construed as legal advice.

This Periodic Review Report has been completed and prepared on behalf of and for the exclusive use of the Cattaraugus County Department of Public Works. Any reliance on this report by a third party is at such party's sole risk. Furthermore, nothing contained in this report shall be construed as a warranty or affirmation by GPI that the Site described in this report is suitable collateral for any loan or that acquisition of such property by any lender through foreclosure proceedings or otherwise will pose no risk of potential environmental liability on the part of such lender.

N:\2018\BUF-2018023.00 Cattaraugus County Landfill Reporting\Deliverables\2022 Farwell Landfill\PRR AND Annual FW 2022-text_Final.doc

FIGURES



USGS QUADRANGLE – HINSDALE, NY

PHOTO REVISED 1978

GREENMAN-PEDERSEN, INC.
CONSULTING ENGINEERS
ENGINEERING • SURVEYING • PLANNING
SURVEYING SERVICES PERFORMED BY GPI ENGINEERING AND SURVEYING, LLP
4455 GENESEE STREET BUFFALO, NY 14225
(716) 633-4844 FAX (716) 633-4940

GPI

GRAPHIC SCALE
2000 1000 0 2000
(IN FEET)
1 inch = 2000 ft.

FARWELL LANDFILL
CATTARAUGUS COUNTY, NY

SITE LOCATION MAP

FIGURE NO.

1

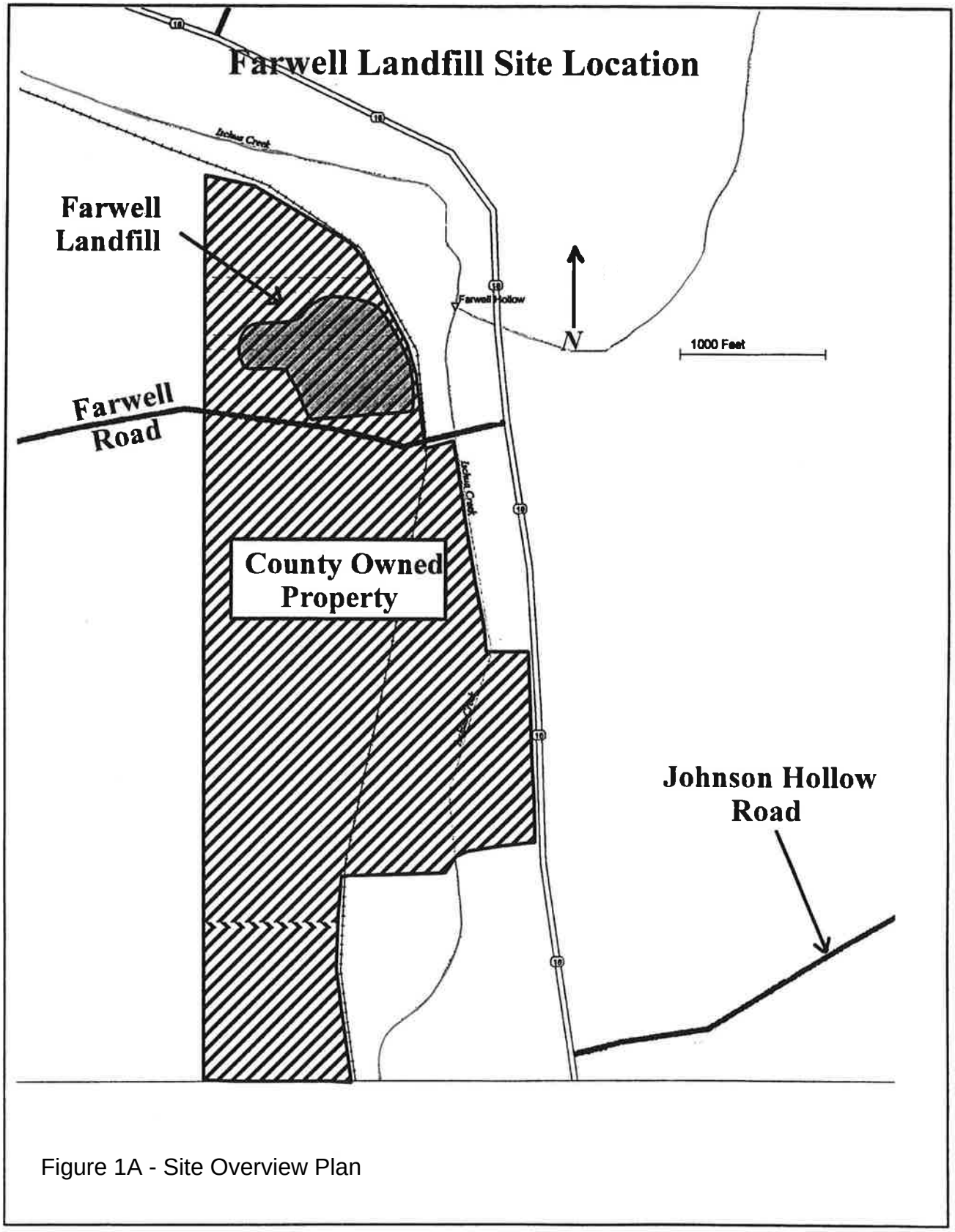
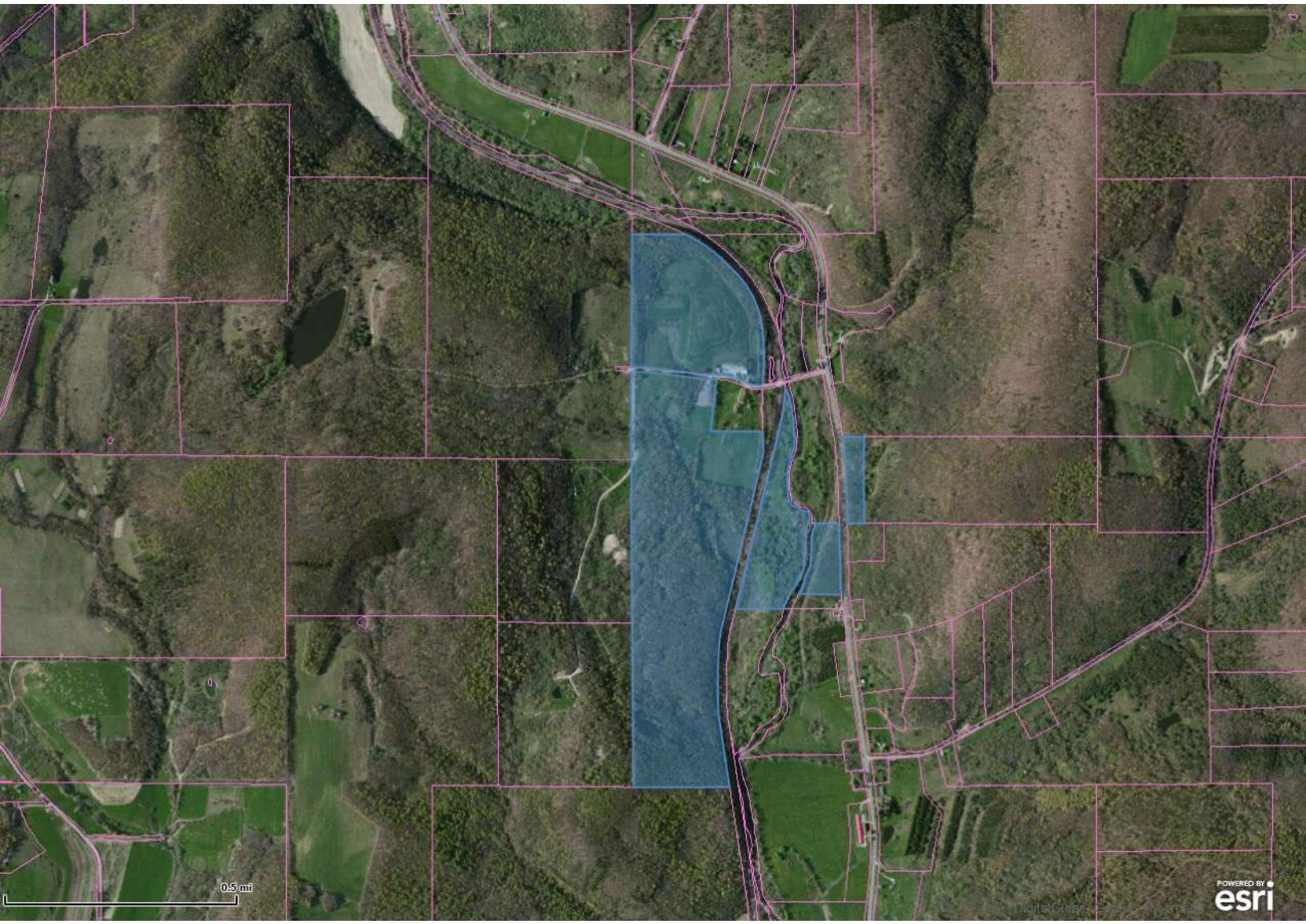


Figure 1A - Site Overview Plan

Figure 1B - Tax Map

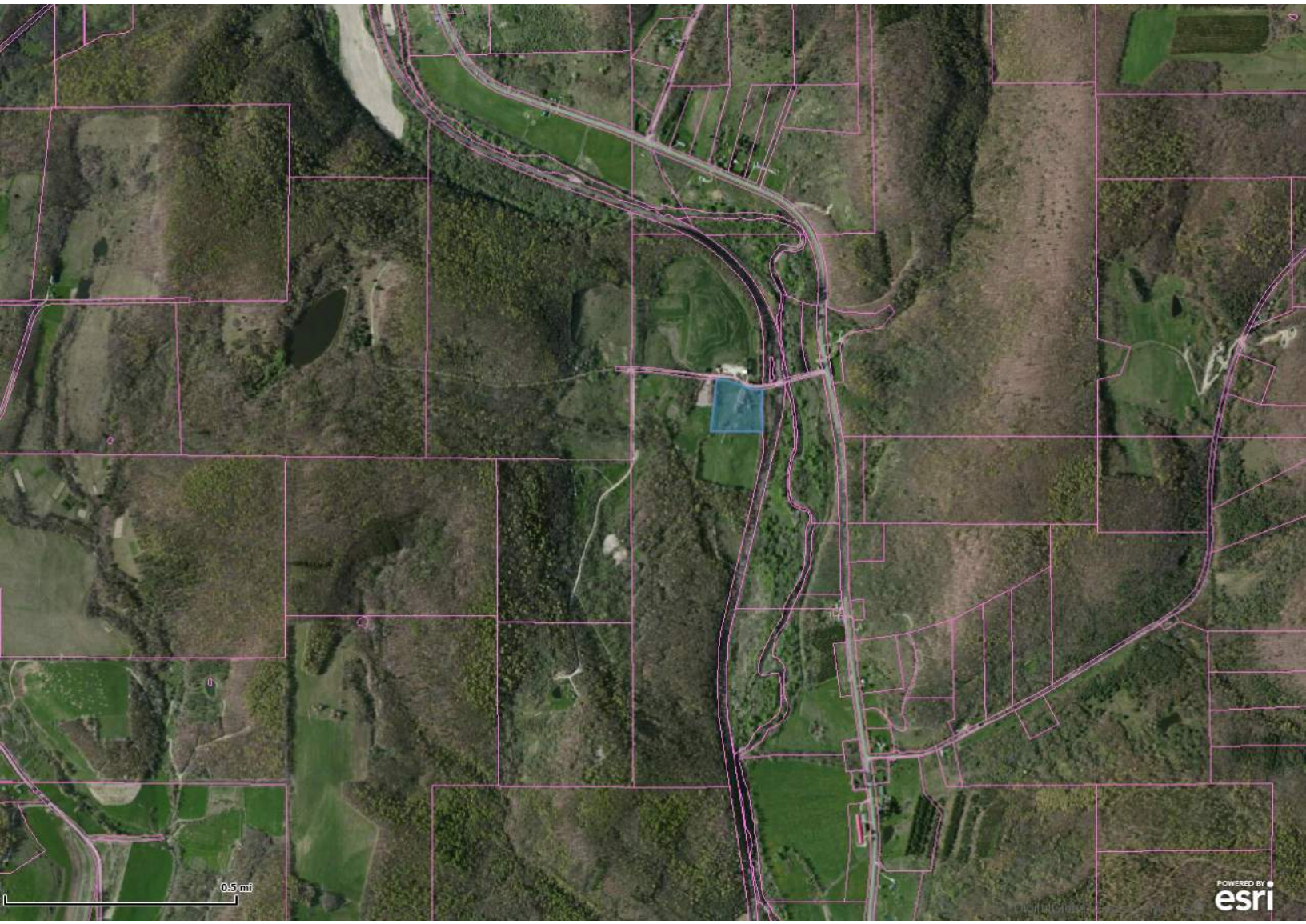
Parcel 68.003-1-1



Mon Jun 2 2014 11:11:42 AM.

Figure 1C - Tax Map

Parcel 68.001-1-18



Mon Jun 2 2014 11:18:18 AM.

TRUE (GPS CONTROL)

NEW YORK STATE RT. 16

(100' WIDE)

NEW YORK STATE RT. 16

MW-18D
MW-18S

FARWELL RD. (49.5' WIDE)

ISCHUA CREEK

MW-15I
MW-15S
PZ-15

MW-16I
MW-16S

MM-60

CONSOLIDATED RAIL LINES LLC, R.R.

WOODS

WOODS

MW-11S

MW-9D
MW-1 A
MW-10D
MW-10S

MW-17I
MW-17S

MW-11D

MW-20

MW-22

MW-23

MW-24

(100'WIDE)

MW-25

MW-19

WOODS

MW-14I
MW-14S
SITE WELL

CATTARAUGUS COUNTY

FARWELL RD.

MW-21

CATTARAUGUS COUNTY

MW-13D

MW-6

WOODS

MW-4

MW-8

MW-5A

MW-12

NOTE:
THIS MAP IS A COMPILATION OF MAPPING FROM THREE SOURCES. MONITORING WELL LOCATIONS AND ELEVATIONS ARE TAKEN FROM TWO INDIVIDUAL SURVEYS CONDUCTED BY THE CATTARAUGUS COUNTY DEPARTMENT OF PUBLIC WORKS USING ONSITE GPS MONUMENTATION AS CONTROL POINTS FOR THE SURVEYS. THE SECOND SOURCE IS TOPOGRAPHIC MAPPING DONE BY CORNERSTONE LAND SURVEYING, HINSDALE NEW YORK (USING THE SAME GPS MONUMENTATION FOR CONTROL AS THAT USED BY COUNTY FORCES FOR THEIR WORK) FOR STEARNS & WHEELER AND SUPPLIED TO CATTARAUGUS COUNTY BY STEARNS & WHEELER. THE FINAL MAPPING SOURCE UTILIZED IN CREATING THIS MAP IS THE TAX MAPPING FOR THE AREA, WHICH CONTAINS ROAD RIGHT OF WAYS, STREAMS, AND ASSOCIATED LABELING.

300 0 150 300

1 inch = 300 ft.

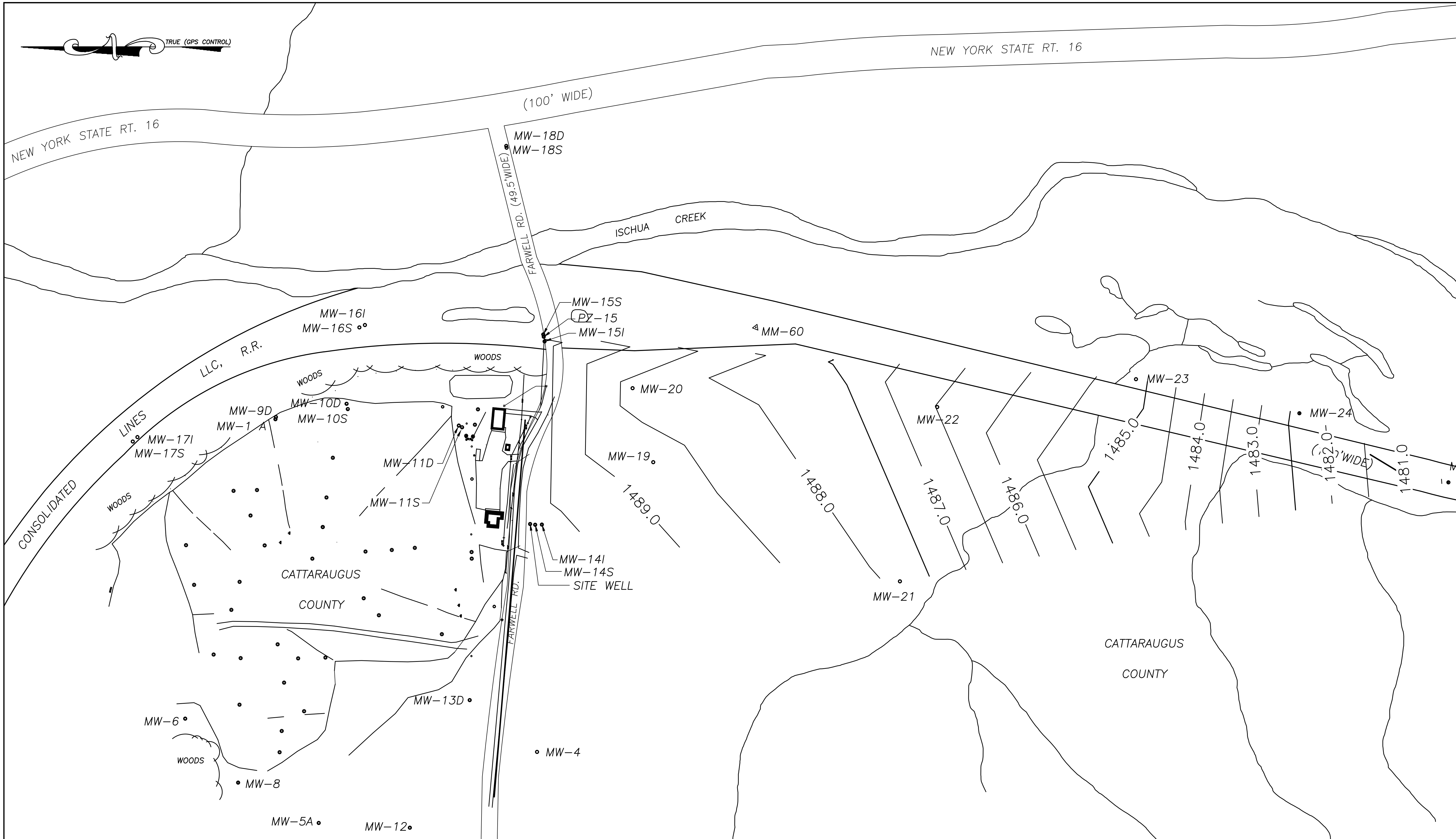
GREENMAN-PEDERSEN, INC.
CONSULTING ENGINEERS
ENGINEERING • SURVEYING • PLANNING
SURVEYING SERVICES PERFORMED BY GPI ENGINEERING AND SURVEYING, LLP
4455 GENESEE STREET BUFFALO, NY 14225
(716) 633-4844 FAX (716) 633-4940
GPI

FARWELL LANDFILL
CATTARAUGUS COUNTY, NY

MONITORING POINT LOCATION

FIGURE NO.

2



NOTE:
THIS MAP IS A COMPILATION OF MAPPING FROM THREE SOURCES. MONITORING WELL LOCATIONS AND ELEVATIONS ARE TAKEN FROM TWO INDIVIDUAL SURVEYS CONDUCTED BY THE CATTARAUGUS COUNTY DEPARTMENT OF PUBLIC WORKS USING ONSITE GPS MONUMENTATION AS CONTROL POINTS FOR THE SURVEYS. THE SECOND SOURCE IS TOPOGRAPHIC MAPPING DONE BY CORNERSTONE LAND SURVEYING, HINSDALE NEW YORK (USING THE SAME GPS MONUMENTATION FOR CONTROL AS THAT USED BY COUNTY FORCES FOR THEIR WORK) FOR STEARNS & WHEELER AND SUPPLIED TO CATTARAUGUS COUNTY BY STEARNS & WHEELER. THE FINAL MAPPING SOURCE UTILIZED IN CREATING THIS MAP IS THE TAX MAPPING FOR THE AREA, WHICH CONTAINS ROAD RIGHT OF WAYS, STREAMS, AND ASSOCIATED LABELING.

300 0 150 300
1 inch = 300 ft.

GREENMAN-PEDERSEN, INC.
CONSULTING ENGINEERS
ENGINEERING • SURVEYING • PLANNING
403 MAIN STREET SUITE 330 BUFFALO, NY 14203
(716) 633−4844 FAX (716) 633−4940
GPI

FARWELL LANDFILL
CATTARAUGUS COUNTY, NY

GROUNDWATER CONTOURS
2022 SAMPLING EVENT

FIGURE NO.
3

TABLES

GPI
Greenman-Pedersen, Inc.

Farwell Landfill
Annual 2022
Groundwater Analysis Summary

TABLE 1

DOWN - GRADIENT MONITORING LOCATIONS

	Units	MW 14S		MW 14I		MW 15S		MW 15I		MW 16S		MW 16I		MW 19		MW 20		MW 21		MW 22		MW 23		MW 24		MW 25		MW 9S		MW 9D		MW 10S		MW 10D		MW 11S		MW 11D		REGULATORY-VALUE	Units
Field Eh	mV	0	122	0	142	0	116	0	118	0	117	0	118	0	0	0	0	0	113	0	85	0	79	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NA	mV
Field pH	SU	0	7.65	0	7.93	0	8.05	0	7.91	0	7.69	0	7.85	0	0.00	0	0.00	0	7.77	0	6.93	0	6.85	0	0.00	0	0.00	0	0.00	0	0	0	0.00	0	0.00	0	0.00	0	0.00	6.5-8.5	SU
Field Specific Conductivity	umhos/cm	0	963	0	1127	0	533	0	468	0	698	0	501	0	0	0	0	0	998	0	248	0	160	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NA	umhos/cm
Field Turbidity	NTU	0	**57.40**	0	**6.30**	0	**9.60**	0	2.70	0	4.90	0	**5.80**	0	0.00	0	0.00	0	1.30	0	**5.50**	0	1.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	5	NTU
Temperature	degC	0	7.80	0	7.20	0	3.90	0	3.30	0	3.90	0	2.20	0	0.00	0	0.00	0	3.90	0	2.20	0	1.10	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	NA	degC
BOD6	mg/l	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	NA	mg/l
Color	Units	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	NA	Units
Hexavalent Chromium	mg/l	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0.05	mg/l
Nitrate-Nitrogen	mg/l	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	10	mg/l
Alkalinity	mg/l CaCO3	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	0	0	0	0	0	0	0	NA	mg/l CaCO3
Chloride	mg/l	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	250	mg/l
COD	mg/l	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	NA	mg/l
Ammonia-Nitrogen	mg/l	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.000	0	0.00	2	mg/l
Sulfate	mg/l	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	250	mg/l
Total Cyanide	mg/l	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0.2	mg/l
Total Dissolved Solids	mg/l	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	0	0	0	0	0	0	0	500	mg/l
Total Kjeldahl Nitrogen	mg/l	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	NA	mg/l
TOC	mg/l	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	NA	mg/l
Total Phenols	mg/l	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000	0	0.0000	0.001	mg/l
Aluminum	mg/l	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	NA	mg/l
Antimony by furnace method	mg/l	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00000	0	0.00000	0	0.00000	0	0.00000	0	0.00000	0.003	mg/l
Arsenic by furnace method	mg/l	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00000	0	0.0000	0	0.0000	0	0.0000	0	0.00000	0.025	mg/l
Barium	mg/l	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	mg/l
Beryllium	mg/l	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000	0	0.0000	0.003	mg/l
Boron	mg/l	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	1	mg/l
Cadmium	mg/l	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0.005	mg/l
Calcium	mg/l	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	0	0	0	0	0	0	0	NA	mg/l
Chromium	mg/l	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0.05	mg/l
Cobalt	mg/l	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00000	0	0.00000	0	0.00000	0	0.00000	0	0.00000	NA	mg/l
Copper	mg/l	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000	0	0.0000	0.2	mg/l
Iron	mg/l	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0.3	mg/l
Lead by furnace method	mg/l	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00000	0	0.00000	0	0.00000	0	0.00000	0	0.00000	0.025	mg/l
Magnesium	mg/l	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	35	mg/l
Manganese	mg/l	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0.3	mg/l
Mercury	mg/l	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00000	0	0.00000	0	0.00000	0	0.00000	0	0.00000	0.0007	mg/l
Nickel	mg/l	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000	0	0.0000	0.1	mg/l
Potassium	mg/l	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	NA	mg/l
Selenium by furnace method	mg/l	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00000	0	0.00000	0	0.00000	0	0.00000	0	0.00000	0.01	mg/l
Silver	mg/l	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000	0	0.0000	0.05	mg/l
Sodium	mg/l	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	20	mg/l
Thallium by furnace method	mg/l	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.000000	0	0.000000	0	0.000000	0	0.000000	0	0.000000	0.0005	mg/l
Vanadium	mg/l	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000	0	0.0000	NA	mg/l
Zinc	mg/l	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000	0	0.0000	2	mg/l
Calculated Hardness	mg/l CaCO3	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0	0	0	0	0	0	0	0	NA	mg/l CaCO3
Bromide	mg/l	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	2	mg/l

CROSS/UP-GRADIENT MON. LOCATIONS

	MW 17I		MW 17S		MW 6		MW 13D	
Field Eh	0	113	0	122	0	0	0	0
Field pH	0	7.45	0	7.35	0	0.00	0	0.00
Field Specific Conductivity	0	314	0	433	0	0	0	0
Field Turbidity	0	**6.00**	0	3.90	0	0.00	0	0.00
Temperature	0	4.40	0	3.30	0	0.00	0	0.00
BOD5	0	0.00	0	0.00	0	0.00	0	0.00
Color	0	0.00	0	0.00	0	0.00	0	0.00
Hexavalent Chromium	0	0.00	0	0.00	0	0.000	0	0.000
Nitrate-Nitrogen	0	0.00	0	0.00	0	0.000	0	0.000
Alkalinity	0	0	0	0	0	0	0	0
Chloride	0	0.00	0	0.00	0	0.00	0	0.00
COD	0	0.00	0	0.00	0	0.00	0	0.00
Ammonia-Nitrogen	0	0.00	0	0.00	0	0.00	0	0.00
Sulfate	0	0.00	0	0.00	0	0.00	0	0.00
Total Cyanide	0	0.00	0	0.00	0	0.000	0	0.000
Total Dissolved Solids	0	0	0	0	0	0	0	0
Total Kjeldahl Nitrogen	0	0.00	0	0.00	0	0.00	0	0.00
TOC	0	0.00	0	0.00	0	0.00	0	0.00
Total Phenols	0	0.00	0	0.00	0	0.0000	0	0.0000
Aluminum	0	0.00	0	0.00	0	0.00	0	0.00
Antimony by furnace method	0	0.00	0	0.00	0	0.00000	0	0.00000
Arsenic by furnace method	0	0.00	0	0.00	0	0.0000	0	0.00000
Barium	0	0.00	0	0.00	0	0.00	0	0.00
Beryllium	0	0.00	0	0.00	0	0.0000	0	0.0000
Boron	0	0.00	0	0.00	0	0.00	0	0.000
Cadmium	0	0.00	0	0.00	0	0.0000	0	0.0000
Calcium	0	0.00	0	0.00	0	0.00	0	0
Chromium	0	0.00	0	0.00	0	0.000	0	0.000
Cobalt	0	0.00	0	0.00	0	0.00000	0	0.00000
Copper	0	0.00	0	0.00	0	0.0000	0	0.0000
Iron	0	0.00	0	0.00	0	0.00	0	0.00
Lead by furnace method	0	0.00	0	0.00	0	0.00000	0	0.00000
Magnesium	0	0.00	0	0.00	0	0.00	0	0.00
Manganese	0	0.00	0	0.00	0	0.00	0	0.00
Mercury	0	0.00	0	0.00	0	0.00000	0	0.00000
Nickel	0	0.00	0	0.00	0	0.0000	0	0.0000
Potassium	0	0.00	0	0.00	0	0.00	0	0.00
Selenium by furnace method	0	0.00	0	0.00	0	0.00000	0	0.00000
Silver	0	0.00	0	0.00	0	0.0000	0	0.0000
Sodium	0	0.00	0	0.00	0	0.00	0	0.00
Thallium by furnace method	0	0.00	0	0.00	0	0.000000	0	0.000000
Vanadium	0	0.00	0	0.00	0	0.0000	0	0.0000
Zinc	0	0.00	0	0.00	0	0.0000	0	0.0000
Calculated Hardness	0	0.00	0	0.00	0	0.00	0	0.00
Bromide	0	0.00	0	0.00	0	0.00	0	0.000

b Analyte in blank, possible/probable contamination

d Detected at a secondary dilution

u Result is undetected

j Result is estimated

uj Result estimated below the CRDL

~~R~~ Result rejected by validator.

1.00 Value exceeds regulatory standard

< In the lefthand column indicates the value is less than the method detection limit

0 In the lefthand column indictes the value is within method detection limits

0 In the right hand column indictes the parameter was not analyzed

Note: Reulatory values were derived from NYSDEC TOGS 1.1.1 (1998) and Part 703.3

GPI
Greenman-Pedersen, Inc.

Farwell Landfill
Annual 2022
Groundwater Analysis Summary

TABLE 1 (CON'T)

DOWN - GRADIENT MONITORING LOCATIONS

	Units	MW 14S	MW 14I	MW 15S	MW 15I	MW 16S	MW 16I	MW 19	MW 20	MW 21	MW 22	MW 23	MW 24	MW 25	MW 9S	MW 9D	MW 10S	MW 10D	MW 11S	MW 11D	REGULATORY-VALUE	Units
Acetone	ug/l	< 10.00u	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	0 0.00	0 0.00	< 3.00	< 3.00	< 3.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	50	ug/l
Acrylonitrile	ug/l	< 0.83	< 0.83	< 0.83	< 0.83	< 0.83	< 0.83	0 0.00	0 0.00	< 0.83	< 0.83	< 0.83	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	5	ug/l
Benzene	ug/l	< 0.41	< 1.00	< 0.41	< 0.41	< 0.41	< 0.41	0 0.00	0 0.00	< 0.41	< 0.41	< 0.41	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	1	ug/l
Bromochloromethane	ug/l	< 0.87	< 0.87	< 0.87	< 0.87	< 0.87	< 0.87	0 0.00	0 0.00	< 0.87	< 0.87	< 0.87	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	5	ug/l
Bromodichloromethane	ug/l	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	0 0.00	0 0.00	< 0.39	< 0.39	< 0.39	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	50	ug/l
Bromoform	ug/l	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	0 0.00	0 0.00	< 0.26	< 0.26	< 0.26	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	50	ug/l
Carbon Disulfide	ug/l	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	0 0.00	0 0.00	< 0.19	< 0.19	< 0.19	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	60	ug/l
Carbon Tetrachloride	ug/l	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	0 0.00	0 0.00	< 0.27	< 0.27	< 0.27	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	5	ug/l
Chlorobenzene	ug/l	< 0.75	< 0.75	< 0.75	< 0.75	< 0.75	< 0.75	0 0.00	0 0.00	< 0.75	< 0.75	< 0.75	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	5	ug/l
Chloroethane	ug/l	0 **13.00**	0 **19**	< 0.32	0 0.43	< 0.32	0 **11.00**	0 0.00	0 0.00	0 **9.00**	< 0.32	< 0.32	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	5	ug/l
Chloroform	ug/l	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	0 0.00	0 0.00	< 0.34	< 0.34	< 0.34	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	7	ug/l
Dibromochloromethane	ug/l	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	0 0.00	0 0.00	< 0.32	< 0.32	< 0.32	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	50	ug/l
1,2-Dibromo-3-chloropropane	ug/l	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	0 0.00	0 0.00	< 0.39	< 0.39	< 0.39	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0.04	ug/l
1,2-Dibromoethane	ug/l	< 0.73	< 0.73	< 0.73	< 0.73	< 0.73	< 0.73	0 0.00	0 0.00	< 0.73	< 0.73	< 0.73	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	5	ug/l
1,2-Dichlorobenzene	ug/l	< 0.79	< 0.79	< 0.79	< 0.79	< 0.79	< 0.79	0 0.00	0 0.00	< 0.79	< 0.79	< 0.79	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	5	ug/l
1,3-Dichlorobenzene	ug/l	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	5	ug/l
1,4-Dichlorobenzene	ug/l	< 0.84	< 0.84	< 0.84	< 0.84	< 0.84	< 0.84	0 0.00	0 0.00	< 0.84	< 0.84	< 0.84	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	5	ug/l
trans-1,4-Dichloro-2-butene	ug/l	< 0.22 uj	< 0.22 uj	< 0.22 uj	< 0.22 uj	< 0.22 uj	< 0.22 uj	0 0.00	0 0.00	< 0.22 uj	< 0.22 uj	< 0.22 uj	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	5	ug/l
1,1-Dichloroethane	ug/l	0 0.91	< 0.38	0 1.20	0 1.50	0 4.70	0 **11.00**	0 0.00	0 0.00	0 **27.00**	0 2.70	< 0.38	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	5	ug/l
1,2-Dichloroethane	ug/l	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	0 0.00	0 0.00	< 0.21	< 0.21	< 0.21	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0.6	ug/l
1,1-Dichloroethene	ug/l	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	0 0.00	0 0.00	< 0.29	< 0.29	< 0.29	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	5	ug/l
cis-1,2-Dichloroethene	ug/l	0 **7.80**	0 **10.00**	< 0.81	< 0.81	0 1.20	0 4.60	0 0.00	0 0.00	0 **49.00**	< 0.81	< 0.81	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	5	ug/l
trans-1,2-Dichloroethene	ug/l	< 0.90	< 0.90	< 0.90	< 0.90	< 0.90	< 0.90	0 0.00	0 0.00	< 0.90	< 0.90	< 0.90	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	5	ug/l
1,2-Dichloropropane	ug/l	< 0.72	< 0.72	< 0.72	< 0.72	< 0.72	< 0.72	0 0.00	0 0.00	< 0.72	< 0.72	< 0.72	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	1	ug/l
cis-1,3-Dichloropropene	ug/l	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	0 0.00	0 0.00	< 0.36	< 0.36	< 0.36	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0.4	ug/l
trans-1,3-Dichloropropene	ug/l	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	0 0.00	0 0.00	< 0.37	< 0.37	< 0.37	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0.4	ug/l
Ethylbenzene	ug/l	< 0.74	< 0.74	< 0.74	< 0.74	< 0.74	< 0.74	0 0.00	0 0.00	< 0.74	< 0.74	< 0.74	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	5	ug/l
2-Hexanone	ug/l	< 1.20	< 1.20	< 1.20	< 1.20	< 1.20	< 1.20	0 0.00	0 0.00	< 1.20	< 1.20	< 1.20	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	50	ug/l
Methyl Bromide	ug/l	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	0 0.00	0 0.00	< 0.69	< 0.69	< 0.69	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	5	ug/l
Methyl Chloride	ug/l	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	0 0.00	0 0.00	< 0.35	< 0.35	< 0.35	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	5	ug/l
Methylene Bromide	ug/l	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	0 0.00	0 0.00	< 0.41	< 0.41	< 0.41	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	NA	ug/l
Methylene Chloride	ug/l	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	0 0.00	0 0.00	< 0.44	< 0.44	< 0.44	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	5	ug/l
Methyl Ethyl Ketone	ug/l	< 1.30	< 1.30	< 1.30	< 1.30	< 1.30	< 1.30	0 0.00	0 0.00	< 1.30	< 1.30	< 1.30	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	50	ug/l
Methyl Iodide	ug/l	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	0 0.00	0 0.00	< 0.30	< 0.30	< 0.30	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	5	ug/l
4-Methyl-2-pentanone	ug/l	< 2.10	< 2.10	< 2.10	< 2.10	< 2.10	< 2.10	0 0.00	0 0.00	< 2.10	< 2.10	< 2.10	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	NA	ug/l
Styrene	ug/l	< 0.73	< 0.73	< 0.73	< 0.73	< 0.73	< 0.73	0 0.00	0 0.00	< 0.73	< 0.73	< 0.73	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	5	ug/l
1,1,1,2-Tetrachloroethane	ug/l	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	0 0.00	0 0.00	< 0.35	< 0.35	< 0.35	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	5	ug/l
1,1,2,2-Tetrachloroethane	ug/l	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	0 0.00	0 0.00	< 0.21	< 0.21	< 0.21	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	5	ug/l
Tetrachloroethane	ug/l	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	0 0.00	0 0.00	0 0.66	< 0.36	< 0.36	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	5	ug/l
Toluene	ug/l	< 0.51	< 0.51	< 0.51	< 0.51	< 0.51	< 0.51	0 0.00	0 0.00	< 0.51	< 0.51	< 0.51	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	5	ug/l
1,1,1-Trichloroethane	ug/l	< 0.82	< 0.82	< 0.82	< 0.82	< 0.82	< 0.82	0 0.00	0 0.00	0 0.97	0 2.00	< 0.82	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	5	ug/l
1,1,2-Trichloroethane	ug/l	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	0 0.00	0 0.00	< 0.23	< 0.23	< 0.23	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	5	ug/l
Trichloroethene	ug/l	< 0.46	0 0.65	< 0.46	< 0.46	0 0.84	< 0.46	0 0.00	0 0.00	0 4.00	< 0.46	< 0.46	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	5	ug/l
Trichlorofluoromethane	ug/l	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	0 0.00	0 0.00	< 0.88	< 0.88	< 0.88	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	5	ug/l
1,2,3-Trichloropropane	ug/l	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	0 0.00	0 0.00	< 0.89	< 0.89	< 0.89	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	5	ug/l
Vinyl Acetate	ug/l	< 0.85 uj	< 0.85	< 0.85	< 0.85	< 0.85	< 0.85	0 0.00	0 0.00	< 0.85	< 0.85	< 0.85	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	NA	ug/l
Vinyl Chloride	ug/l	< 0.90	< 0.90	< 0.90	< 0.90	< 0.90	< 0.90	0 0.00	0 0.00	< 0.90	< 0.90	< 0.90	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	2	ug/l
m-Xylene and p-Xylene	ug/l	< 0.66	< 0.66	< 0.66	< 0.66	< 0.66	< 0.66	0 0.00	0 0.00	< 0.66	< 0.66	< 0.66	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	5	ug/l
o-Xylene	ug/l	< 0.76	< 0.76	< 0.76	< 0.76	< 0.76	< 0.76	0 0.00	0 0.00	< 0.76	< 0.76	< 0.76	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	5	ug/l

CROSS/UP-GRADIENT MON. LOCATIONS

	MW 17I	MW 17S	MW 6	MW 13D
Acetone	< 3.00	< 3.00	0 0.00	0 0.00
Acrylonitrile	< 0.83	< 0.83	0 0.00	0 0.00
Benzene	< 0.41	< 0.41	0 0.00	0 0.00
Bromochloromethane	< 0.87	< 0.87	0 0.00	0 0.00
Bromodichloromethane	< 0.39	< 0.39	0 0.00	0 0.00
Bromoform	< 0.26	< 0.26	0 0.00	0 0.00
Carbon Disulfide	< 0.19	< 0.19	0 0.00	0 0.00
Carbon Tetrachloride	< 0.27	< 0.27	0 0.00	0 0.00
Chlorobenzene	< 0.75	< 0.75	0 0.00	0 0.00
Chloroethane	< 0.32	< 0.32	0 0.00	0 0.00
Chloroform	< 0.34	< 0.34	0 0.00	0 0.00
Dibromochloromethane	< 0.32	< 0.32	0 0.00	0 0.00
1,2-Dibromo-3-chloropropane	< 0.39	< 0.39	0 0.00	0 0.00
1,2-Dibromoethane	< 0.73	< 0.73	0 0.00	0 0.00
1,2-Dichlorobenzene	< 0.79	< 0.79	0 0.00	0 0.00
1,3-Dichlorobenzene	0 0.00	0 0.00	0 0.00	0 0.00
1,4-Dichlorobenzene	< 0.84	< 0.84	0 0.00	0 0.00
trans-1,4-Dichloro-2-butene	< 0.22 uj	< 0.22 uj	0 0.00	0 0.00
1,1-Dichloroethane	< 0.38	< 0.38	0 0.00	0 0.00
1,2-Dichloroethane	< 0.21	< 0.21	0 0.00	0 0.00
1,1-Dichloroethene	< 0.29	< 0.29	0 0.00	0 0.00
cis-1,2-Dichloroethane	< 0.81	< 0.81	0 0.00	0 0.0
trans-1,2-Dichloroethane	< 0.90	< 0.90	0 0.00	0 0.00
1,2-Dichloropropane	< 0.72	< 0.72	0 0.00	0 0.00
cis-1,3-Dichloropropene	< 0.36	< 0.36	0 0.00	0 0.00
trans-1,3-Dichloropropene	< 0.37	< 0.37	0 0.00	0 0.00
Ethylbenzene	< 0.74	< 0.74	0 0.00	0 0.00
2-Hexanone	< 1.20	< 1.20	0 0.00	0 0.00
Methyl Bromide	< 0.69	< 0.69	0 0.00	0 0.00
Methyl Chloride	< 0.35	< 0.35	0 0.00	0 0.00
Methylene Bromide	< 0.41	< 0.41	0 0.00	0 0.00
Methylene Chloride	< 0.44	< 0.44	0 0.00	0 0.00
Methyl Ethyl Ketone	< 1.30	< 1.30	0 0.00	0 0.00
Methyl Iodide	< 0.30	< 0.30	0 0.00	0 0.00
4-Methyl-2-pentanone	< 2.10	< 2.10	0 0.00	0 0.00
Styrene	< 0.73	< 0.73	0 0.00	0 0.00
1,1,1,2-Tetrachloroethane	< 0.35	< 0.35	0 0.00	0 0.00
1,1,2,2-Tetrachloroethane	< 0.00	< 0.21	0 0.00	0 0.00
Tetrachloroethane	< 0.36	< 0.36	0 0.00	0 0.00
Toluene	< 0.51	< 0.51	0 0.00	0 0.00
1,1,1-Trichloroethane	< 0.82	< 0.82	0 0.00	0 0.00
1,1,2-Trichloroethane	< 0.23	< 0.23	0 0.00	0 0.00
Trichloroethene	< 0.46	< 0.46	0 0.00	0 0.00
Trichlorofluoromethane	< 0.88	< 0.88	0 0.00	0 0.00
1,2,3-Trichloropropane	< 0.89	< 0.89	0 0.00	0 0.00
Vinyl Acetate	< 0.85	< 0.85	0 0.00	0 0.00
Vinyl Chloride	< 0.90	< 0.90	0 0.00	0 0.00
m-Xylene and p-Xylene	< 0.66	< 0.66	0 0.00	0 0.00
o-Xylene	< 0.76	< 0.76	0 0.00	0 0.00

b Analyte in blank, possible/probable contamination
d Detected at a secondary dilution
u Result is undetected
j Result is estimated
uj Result estimated below the CRDL
X Result rejected by validator.
1.00 Value exceeds regulatory standard

< In the lefthand column indicates the value is less than the method detection limit
0 In the lefthand column indictes the value is within method detection limits
0 In the right hand column indictes the parameter was not analyzed

Note: Reulatory values were derived from NYSDEC TOGS 1.1.1 (1998) and Part 703.3

Farwell Landfill
Annual 2022
Leachate Analysis Summary

TABLE 2

No.	Parameter	Units	3rd Qtr 2020		4th Qtr 2020		Annual 2021		Annual 2022	
1	Field Eh	mV	0	427	0	36	0	85	0	127
2	Field pH	SU	0	6.7	0	6.72	0	7.8	0	7.67
3	Field Specific Conductivity	umhos/cm	0	2900	0	1700	0	3900	0	3160
4	Field Turbidity	NTU	0	318	0	38.2	0	35.1	0	119
5	Temperature	degC	0	18.9	0	10	0	13	0	9.5
6	BOD5	mg/l	0	26.7	0	23.2	0	45.7	0	23
8	Hexavalent Chromium	mg/l	0	0	0	0	0	0	<	0.0050
9	Nitrate-Nitrogen	mg/l	<	0.02	0	0.073	0	0.044	0	0.021
10	Alkalinity	mg/lCaCO3	0	879	0	579	0	1360	0	1150
11	Chloride	mg/l	0	268	0	143	0	439	0	324
12	COD	mg/l	0	579	0	85.5	0	311	0	226
13	Ammonia-Nitrogen	mg/l	0	68.7	0	39.2	0	106	0	89.5
14	Sulfide	mg/l	0	0	0	0	0	0	<	~~1~~
15	Sulfate	mg/l	0	8.5	0	15.2	0	17.2	0	13.2
17	Total Disolved Solids	mg/l	0	1220	0	786	0	1650	0	1350
18	Total Kjeldahl Nitrogen	mg/l	0	75.5	0	39.2	0	~~99.8~~	0	102
19	TOC	mg/l	0	46.1	0	32.8	0	76.1	0	58.9 j
20	Total Phenols	mg/l	0	0.0054	0	0	0	0.011	<	0.0035
21	Total Aluminum	mg/l	0	**1.2**	0	0	<	0.06	<	0.06
22	Total Antimony by furnace method	mg/l	0	0.0021	0	0	<	0.0068	<	0.0068
23	Total Arsenic by furnace method	mg/l	0	**0.14**	0	0	0	0.0095	0	0.01
24	Total Barium	mg/l	0	**3.7**	0	0.00	0	0.38	0	0.41
25	Total Beryllium	mg/l	<	0.002	<	0.002	<	0.0003	<	0.0003
26	Total Boron	mg/l	0	1.4	0	0	0	2	0	1.6
27	Total Cadmium	mg/l	<	0.0005	<	0.0005	<	0.0005	0	0.00055
28	Total Calcium	mg/l	0	112	0	86.1	0	140	0	125
29	Total Chromium	mg/l	0	**0.012**	0	0	0	0.0025	0	0.0017
30	Total Cobalt	mg/l	0	**0.0051**	0	0	0	0.0032	0	0.0025
31	Total Copper	mg/l	0	0.0083	0	0	<	0.0016	<	0.0016
32	Total Iron	mg/l	0	449	0	12.5	0	10.1	0	10.5
33	Total Lead by furnace method	mg/l	0	0.0107	0	0.00066	<	0.003	0	0.00028
34	Total Magnesium	mg/l	0	37.8	0	23.7	0	65.3	0	52.7
35	Total Manganese	mg/l	0	1.2	0	0.79	0	0.99	0	0.96
36	Total Mercury	mg/l	<	0.0002	<	0.0002	0	0	<	0.000086
37	Total Nickel	mg/l	0	0.012	0	0	0	0.016	0	0.012
38	Total Potassium	mg/l	0	57.8	0	31	0	103	0	79.4
39	Total Selenium by furnace method	mg/l	<	0.001	<	0.001	<	0.0087	<	0.0087
40	Total Silver	mg/l	0	0.0029	0	0	<	0.0017	<	0.0017
41	Total Sodium	mg/l	0	235	0	127	0	427	0	305
42	Total Thallium by furnace method	mg/l	<	0.0002	<	0.0002	<	0.01	<	0.01
44	Total Vanadium	mg/l	0	**0.021**	0	0	<	0.0015	<	0.0015
45	Total Zinc	mg/l	0	0.064	0	0	0	0.021	0	0.0026
46	Calculated Hardness	mg/lCaCO3	0	436	0	313	0	**619**	0	529
217	Bromide	mg/l	0	4.5	0	3	0	7.6	0	4.9

Farwell Landfill
Annual 2022
Leachate Analysis Summary

TABLE 2

No.	Parameter	Units	3rd Qtr 2020		4th Qtr 2020		Annual 2021		Annual 2022	
	EPA 8260 Expanded Volatiles									
47	Acetone	ug/l	0	23	0	0	<	12	<	12
48	Acetonitrile	ug/l							<	20
49	Acrolein	ug/l							<	3.6 uj
50	Acrylonitrile	ug/l							<	3.3
51	Allyl Chloride	ug/l							<	1.8
52	Benzene	ug/l	0	2.7	0	0	0	1.7	<	4 u
53	Bromochloromethane	ug/l	<	4.4	<	4.4	<	3.5	<	3.5
54	Bromodichloromethane	ug/l	<	2	<	2	<	1.6	<	1.6
55	Bromoform	ug/l	<	1.3	<	1.3	<	1	<	1
56	Carbon Disulfide	ug/l	<	0.95	<	0.95	<	0.76	<	0.76
57	Carbon Tetrachloride	ug/l	<	1.4	<	1.4	<	1.1	<	1.1
58	Chlorobenzene	ug/l	<	3.8	<	3.8	<	3	<	3
59	Chloroethane	ug/l	<	1.6	<	1.6	0	2.8	0	3.4
60	Chloroform	ug/l	<	1.7	<	1.7	<	1.4	<	1.4
62	Dibromochloromethane	ug/l	<	1.6	<	1.6	<	1.3	<	1.3
63	1,2-Dibromo-3-chloropropane	ug/l	<	2	<	2	<	1.6	<	1.6
64	1,2-Dibromoethane	ug/l	<	3.7	<	3.7	<	2.9	<	2.9
65	1,2-Dichlorobenzene	ug/l	<	4	<	4	<	3.2	<	0.4
67	1,4-Dichlorobenzene	ug/l	<	4.2	<	4.2	<	3.4	0	1.6
68	trans-1,4-Dichloro-2-butene	ug/l	<	1.1	<	1.1	<	0.88 j	<	0.88 j
70	1,1-Dichloroethane	ug/l	<	1.9	<	1.9	0	2.5	0	2.9
71	1,2-Dichloroethane	ug/l	<	1.1	<	1.1	<	0.84	<	0.84
72	1,1-Dichloroethene	ug/l	<	1.5	<	1.5	<	1.2	<	1.2
73	cis-1,2-Dichloroethene	ug/l	<	4.1	<	4.1	<	3.2	<	3.2
74	trans-1,2-Dichloroethene	ug/l	<	4.5	<	4.5	<	3.6	<	3.6
75	1,2-Dichloropropane	ug/l	<	3.6	<	3.6	<	2.9	<	2.9
79	cis-1,3-Dichloropropene	ug/l	<	1.8	<	1.8	<	1.4	<	1.4
80	trans-1,3-Dichloropropene	ug/l	<	1.9	<	1.9	<	1.5	<	1.5
81	Ethylbenzene	ug/l	<	3.7	<	3.7	0	3.2	0	5.5
83	2-Hexanone	ug/l	<	6.2	<	6.2	<	5	<	5
84	Isobutyl Alcohol	ug/l							<	19 uj
86	Methyl Bromide	ug/l	<	3.5	<	3.5	<	3.5	<	3.5
87	Methyl Chloride	ug/l	<	1.8	<	1.8	<	1.6	<	1.6
88	Methyl Ethyl Ketone	ug/l	<	6.6	<	6.6	<	5.3	<	5.3
89	Methyl Iodide	ug/l	<	1.5	<	1.5	<	1.2	<	1.2
90	4-Methyl-2-pentanone	ug/l	<	11	<	11	<	8.4	<	8.4
91	Methyl Methacrylate	ug/l							<	2.4 uj
92	Methylene Bromide	ug/l	<	2.1	<	2.1	<	2.8	<	2.8
93	Methylene Chloride	ug/l	<	2.2	<	2.2	0	2.9 j	<	2.2
95	Styrene	ug/l	<	3.7	<	3.7	<	2.9	<	2.9
96	1,1,1,2-Tetrachloroethane	ug/l	<	1.8	<	1.8	<	1.4	<	1.4
97	1,1,2,2-Tetrachloroethane	ug/l	<	1.1	<	1.1	<	0.84	<	0.84
98	Tetrachloroethane	ug/l	<	1.8	<	1.8	<	1.4	<	1.4
99	Toluene	ug/l	<	2.6	<	2.6	<	2	<	2
100	1,1,1-Trichloroethane	ug/l	<	4.1	<	4.1	<	3.3	<	3.3
101	1,1,2-Trichloroethane	ug/l	<	1.2	<	1.2	<	0.92	<	0.92
102	Trichloroethene	ug/l	<	2.3	<	2.3	<	1.8	<	1.8
103	Trichlorofluoromethane	ug/l	<	4.4	<	4.4	<	3.5	<	3.5
104	1,2,3-Trichloropropane	ug/l	<	4.5	<	4.5	<	3.6	<	3.6
105	Vinyl Acetate	ug/l	<	4.3	<	4.3	<	3.4	<	3.4 uj
106	Vinyl Chloride	ug/l	<	4.5	<	4.5	<	3.6	<	3.6
107	m-Xylene and p-Xylene	ug/l	0	10	0	0	0	8.6	0	9.3
108	o-Xylene	ug/l	<	3.8	<	3.8	<	3	<	3

Farwell Landfill
Annual 2022
Leachate Analysis Summary

TABLE 2

No.	Parameter	Units	3rd Qtr 2020		4th Qtr 2020		Annual 2021		Annual 2022	
	Expanded Semivolitiles by EPA 8270									
109	Acenaphthene	ug/l							<	0.41
110	Acenaphthylene	ug/l							<	0.38
111	Acetophenone	ug/l							<	0.54
112	2-Acetylaminoflourene	ug/l							<	2.3
113	4-Aminobiphenyl	ug/l							<	0.81
114	Anthracene	ug/l							<	0.28
115	Benzo (a) anthracene	ug/l							<	0.36
116	Benzo (b) fluoranthene	ug/l							<	0.34
117	Benzo (k) fluroanthene	ug/l							<	0.73
118	Benzo (ghi) perylene	ug/l							<	0.35
119	Benzo (a) pyrene	ug/l							<	0.47
120	Benzyl Alcohol	ug/l							<	2.0
121	Bis (2-chloroethoxy) methane	ug/l							<	0.35
122	Bis (2-chloroethyl) ether	ug/l							<	0.40
123	Bis (2-chloro-1-methylethyl) ether	ug/l							<	0.52
124	Bis (2-ethylhexyl) phthalate	ug/l							<	2.2
125	4-Bromophenyl phenyl ether	ug/l							<	0.45
126	Butyl benzyl phthalate	ug/l							<	1.0
127	p-Chloroaniline	ug/l							<	0.59
128	Chlorobenzilate	ug/l							<	0.67
129	p-Chloro-m-cresol	ug/l							<	0.45
130	2-Chloronaphthalene	ug/l							<	0.46
131	2-Chlorophenol	ug/l							<	0.53
132	4-Chlorophenol phenyl ether	ug/l							<	0.35
133	Chrysene	ug/l							<	0.33
134	m-Cresol	ug/l							<	0.40
135	o-Cresol	ug/l							<	0.40
136	p-Cresol	ug/l							<	0.36
137	Diallate	ug/l							<	2.5
138	Dibenzo (a,h) anthracene	ug/l							<	0.42
139	Dibenzofuran	ug/l							<	0.51
140	Di-n-butylphthalate	ug/l							<	5 u
141	3,3'-Dichlorobenzidine	ug/l							<	0.40
142	2,4-Dichlorophenol	ug/l							<	0.51
143	2,6-Dichlorophenol	ug/l							<	0.46
144	Diethylphthalate	ug/l							0	**0.37** j
145	Thionazin	ug/l							<	0.38
146	Dimethoate	ug/l							<	0.54
147	p-(Dimethylamino) azobenzene	ug/l							<	0.75
148	7,12-Dimethylbenz (a) anthracene	ug/l							<	0.62
149	3,3'-Dimethylbenzidine	ug/l							<	2.5
150	2,4-Dimethylphenol	ug/l							0	**0.75**
151	Dimethylphthalate	ug/l							<	0.36
152	m-Dinitrobenzene	ug/l							<	0.82
153	4,6-Dinitro-o-cresol	ug/l							<	2.2
154	4,6-Dinotrophenol	ug/l							<	2.2
155	2,4-Dinitrotoluene	ug/l							<	0.45
156	2,6-Dinitrotoluene	ug/l							<	0.40
157	Di-n-octylphthalate	ug/l							<	0.47
158	Diphyenylamine	ug/l							<	0.82
159	Disulfoton	ug/l							<	0.42
160	Ethyl Methanesulfonate	ug/l							<	0.39
161	Famphur	ug/l							<	1.9
162	Fluorathene	ug/l							<	0.40
163	Fluorene	ug/l							<	0.36
164	Hexachlorobenzine	ug/l							<	0.51
165	Hexachlorobutadiene	ug/l							<	0.68
166	Hexachlorocyclopentadiene	ug/l							<	0.59
167	Hexachloroethane	ug/l							<	0.59

Farwell Landfill
Annual 2022
Leachate Analysis Summary

TABLE 2

No.	Parameter	Units	3rd Qtr 2020		4th Qtr 2020		Annual 2021		Annual 2022	
168	Hexachloropropene	ug/l							<	2.5
169	Ideno (1,2,3-cd) pyrene	ug/l							<	0.47
170	Isodrin	ug/l							<	0.18
171	Isophorone	ug/l							<	0.43
172	Isosafrole	ug/l							<	0.58
173	Methapyrilene	ug/l							<	1.8
174	3-Methylcholanthrene	ug/l							<	2.5
175	Methyl Methanesulfonate	ug/l							<	2.5
176	2-Methylnaphthalene	ug/l							<	0.37
177	Methyl Parathion	ug/l							<	0.37
178	Naphthalene	ug/l							0	**1.9**
179	1,4-Naphthoquinone	ug/l							<	0.24
180	1-Naphthylamine	ug/l							<	1.3
181	2-Naphthylamine	ug/l							<	2.5
182	o-Nitroaniline	ug/l							<	0.42
183	m-Nitroaniline	ug/l							<	0.48
184	p-Nitroaniline	ug/l							<	0.25
185	Nitrobenzene	ug/l							<	0.29
186	o-Nitrophenol	ug/l							<	0.48
187	p-Nitrophenol	ug/l							<	1.5
188	N-nitrosodi-n-butylamine	ug/l							<	10 u
189	N-Nitrosodiethylamine	ug/l							<	0.36
190	N-Nitrosodimethylamine	ug/l							<	2.2
191	N-Nitrosodiphenylamine	ug/l							<	0.51
192	N-Nitosodipropylamine	ug/l							<	0.54
193	N-Nitosomethylethylamine	ug/l							<	2.5
194	N-Nitrosopiperidine	ug/l							<	2.5
195	N-Nitrosopyrrolidine	ug/l							<	2.5
196	5-Nitro-o-toluidine	ug/l							<	0.66
197	Parathion	ug/l							<	0.64
198	Pentachlorobenzene	ug/l							<	0.53
199	Pentachloronitrobenzene	ug/l							<	2.5
200	Pentachlorophenol	ug/l							<	2.2
201	Phenacetin	ug/l							<	0.61
202	Phenanthrene	ug/l							<	0.44
203	Phenol	ug/l							<	0.39
204	p-Phenylenediamine	ug/l							<	200
205	Phorate	ug/l							<	0.50
206	Pronamide	ug/l							<	2.5
207	Pyrene	ug/l							<	0.34
208	Safrole	ug/l							<	0.46
209	1,2,4,5-Tetrachlorobenzene	ug/l							<	0.58
210	2,3,4,6-Tetrachlorophenol	ug/l							<	0.32
211	o-Toluidine	ug/l							<	1.5
212	1,2,4-Trichlorobenzene	ug/l							<	0.44
213	2,4,5-Trichlorophenol	ug/l							<	0.48
214	2,4,6-Trichlorophenol	ug/l							<	0.61
215	0,0,0-Triethyl phosphorothioate	ug/l							<	2.5
216	sym-Trinitrobenzene	ug/l							<	2.5
	Expanded Herbicides by EPA 8150									
218	2,4-D	ug/l							<	0.17
219	2,4,5-TP	ug/l							<	0.067
220	Dinoseb	ug/l							<	0.13 uj
221	2,4,5-T	ug/l							<	0.067

Farwell Landfill
Annual 2022
Leachate Analysis Summary

TABLE 2

No.	Parameter	Units	3rd Qtr 2020		4th Qtr 2020		Annual 2021		Annual 2022	
	Expanded Pesticides/PCBs by EPA 8080									
222	Aldrin	ug/l							<	0.0081
223	BHC (a-isomer)	ug/l							<	0.0077
224	BHC (b-isomer)	ug/l							<	0.025
225	BHC (g-isomer)	ug/l							<	0.0080
226	BHC (d-isomer)	ug/l							<	0.010
227	alpha-Chlordane	ug/l							<	0.29
228	gamma-Chlordane	ug/l							<	0.29
229	4,4'-DDT	ug/l							0	**0.025**
230	4,4'-DDE	ug/l							<	0.012
231	4,4'-DDD	ug/l							<	0.0092
232	Dieldrin	ug/l							<	0.0098
233	Endosulfan (a-isomer)	ug/l							0	**0.11**
234	Endosulfan (b-isomer)	ug/l							<	0.012
235	Endosulfan sulfate	ug/l							<	0.016
236	Endrin	ug/l							<	0.014
237	Endrin Aldehyde	ug/l							<	0.05 u
238	Heptachlor	ug/l							<	0.0085
239	Heptachlor Epoxide	ug/l							<	0.0074
240	Kepone	ug/l							<	1.8
241	Methoxychlor	ug/l							0	**0.021**
242	PCB, Aroclor 1016	ug/l							<	0.20
243	PCB, Aroclor 1221	ug/l							<	0.20
244	PCB, Aroclor 1232	ug/l							<	0.20
245	PCB, Aroclor 1242	ug/l							<	0.20
246	PCB, Aroclor 1248	ug/l							<	0.20
247	PCB, Aroclor 1254	ug/l							<	0.28
248	PCB, Aroclor 1260	ug/l							<	0.28
249	Toxaphene	ug/l							<	0.12

Notes:

b = possible/probable blank contamination

j = result determined to be estimated by validator

X = result rejected by validator

< In the lefthand column indicates the value is less than the method detection limit

0 In the lefthand column indictes the value is within method detection limits

0 In the righthand column indictes the parameter was not analyzed

Bold face type indicates historical maximum at time of analysis

Farwell Landfill
2022 Annual Water Quality Monitoring Report
Groundwater Elevations

TABLE 3

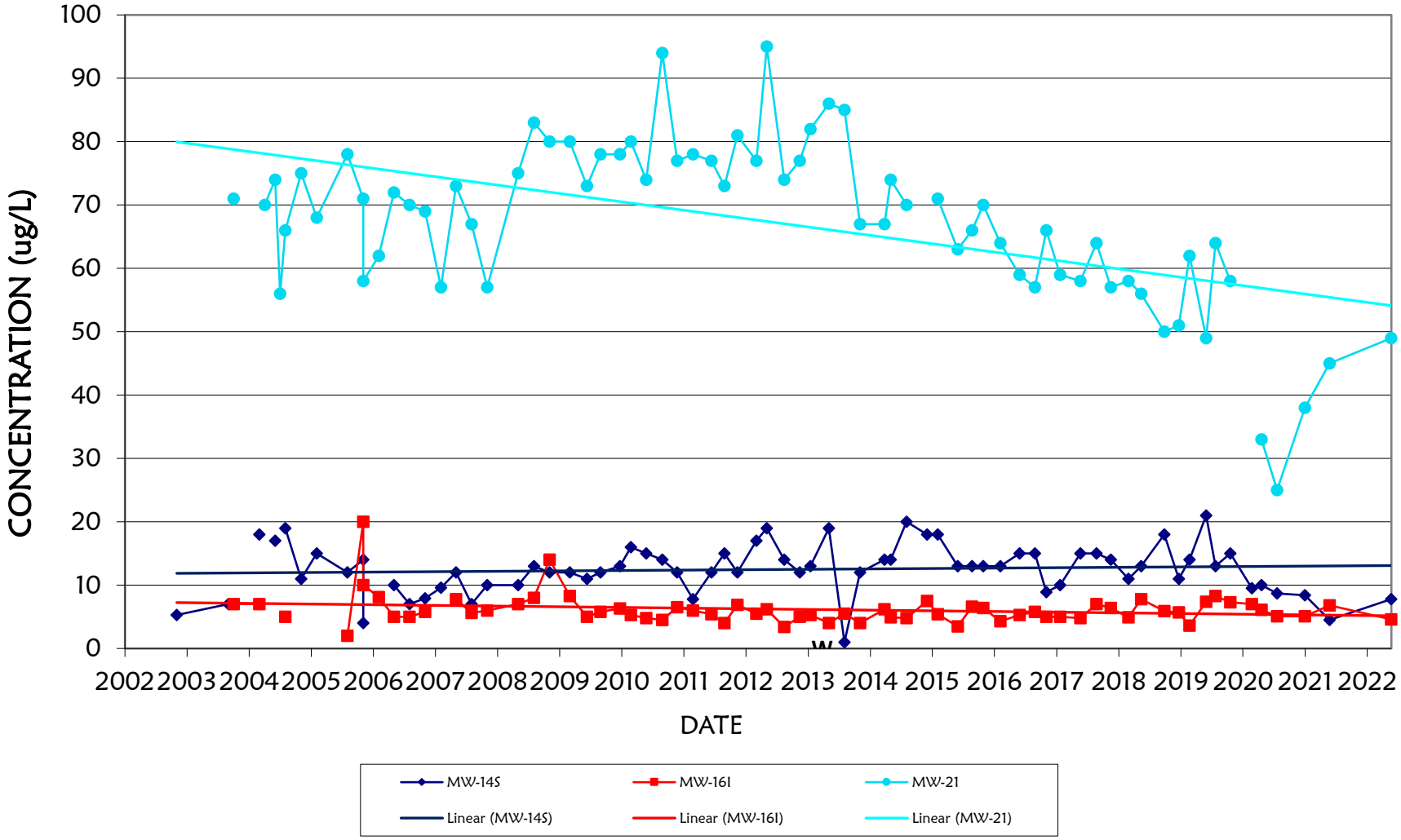
GPI Greenman-Pedersen, Inc.	TOP OF CASING ELEVATION	Feb-20	Apr-20	Jul-20	Dec-20	May-21	DEPTH TO WATER May-22	ELEVATION OF WATER May-22	COMPARED TO LAST YEAR
Down-Gradient (annual)									
MW-14S	1539.42	1481.12	1492.62	1484.52	1488.92	1489.22	49.70	1489.72	0.50
MW-14I	1539.79	1474.99	1490.89	1484.69	1488.79	1490.19	50.50	1489.29	-0.90
MW-15S	1508.83	1489.23	1494.23	1489.83	1489.03	1489.03	19.20	1489.63	0.60
MW-15I	1509.5	1489.55	1489.90	1487.50	1488.80	1489.10	19.80	1489.70	0.60
MW-16S	1506.55	1488.84	1490.65	1489.45	1490.15	1489.45	15.90	1490.65	1.20
MW-16I	1507.61	1490.21	1490.31	1488.21	1489.91	1489.51	16.80	1490.81	1.30
MW-19	1543.31	1489.01	1488.21	1486.81	1483.91	1483.91	54.60	1488.71	4.80
MW-20	1534.12	1489.22	1489.22	1487.62	1486.12	1486.12	45.80	1488.32	2.20
MW-21	1535.5	1486.40	1489.10	1486.00	1496.40	1487.90	47.60	1487.90	0.00
MW-22	1498.28	1486.18	1487.28	1484.58	1486.38	1485.58	11.80	1486.48	0.90
MW-23	1495	1485.00	1486.50	1484.60	1486.80	1483.30	9.80	1485.20	1.90
MW-24	1486.54	1482.14	1482.64	1481.14	1482.74	1480.84	4.20	1482.34	1.50
MW-25	1496.91	1480.21	1480.81	1478.91	1480.11	1479.81	16.50	1480.41	0.60
Cross-Gradient (annual)									
MW-17I	1510.45	1491.67	1492.45	1491.45	1492.55	1500.35	18.10	1492.35	-8.00
MW-17S	1509.24	1492.04	1492.44	1491.74	1492.44	1491.84	16.80	1492.44	0.60
Down-Gradient Piezometer / Off-Site Locations (quarterly)									
PZ-15	1508.16	NA	NA	NA	NA	1488.26	18.70	1489.46	1.20
MW-18S	1502.53	NA	NA	NA	NA	1488.03	11.50	1491.03	NA
MW-18D	1502.51	NA	NA	NA	NA	1488.61	11.40	1491.11	NA
Ischua Creek ** (SW-2) at Farwell Rd Bridg	1504.75	NA	NA	NA	NA	1487.25	15.40	1489.35	NA
Down-Gradient (biennially)									
MW-9S *	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-9D	1545.11	NA	1492.41	NA	NA	1490.11	53.50	1491.61	1.50
MW-10S	1530.49	NA	1499.99	NA	NA	1498.49	32.20	1498.29	-0.20
MW-10D	1528.42	NA	1490.42	NA	NA	1489.42	38.30	1490.12	0.70
MW-11S	1535.19	NA	1496.19	NA	NA	1495.39	39.20	1495.99	0.60
MW-11D	1535.57	NA	1490.57	NA	NA	1489.07	46.30	1489.27	0.20
Up/Cross-Gradient (biennially)									
MW-6 (up)	1623.68	NA	1494.88	NA	NA	1493.68	129.00	1494.68	1.00
MW-13D (cross)	1586.65	NA	1491.45	NA	NA	1487.65	96.40	1490.25	2.60

Notes: NA - Not available.
Elevations in feet above mean sea level (AMSL).
* - MW-9S was dry - no sample collected
** - Elevation of bolt on northwest side of the bridge, water elevation is determined by measuring down to the top of water from this bolt

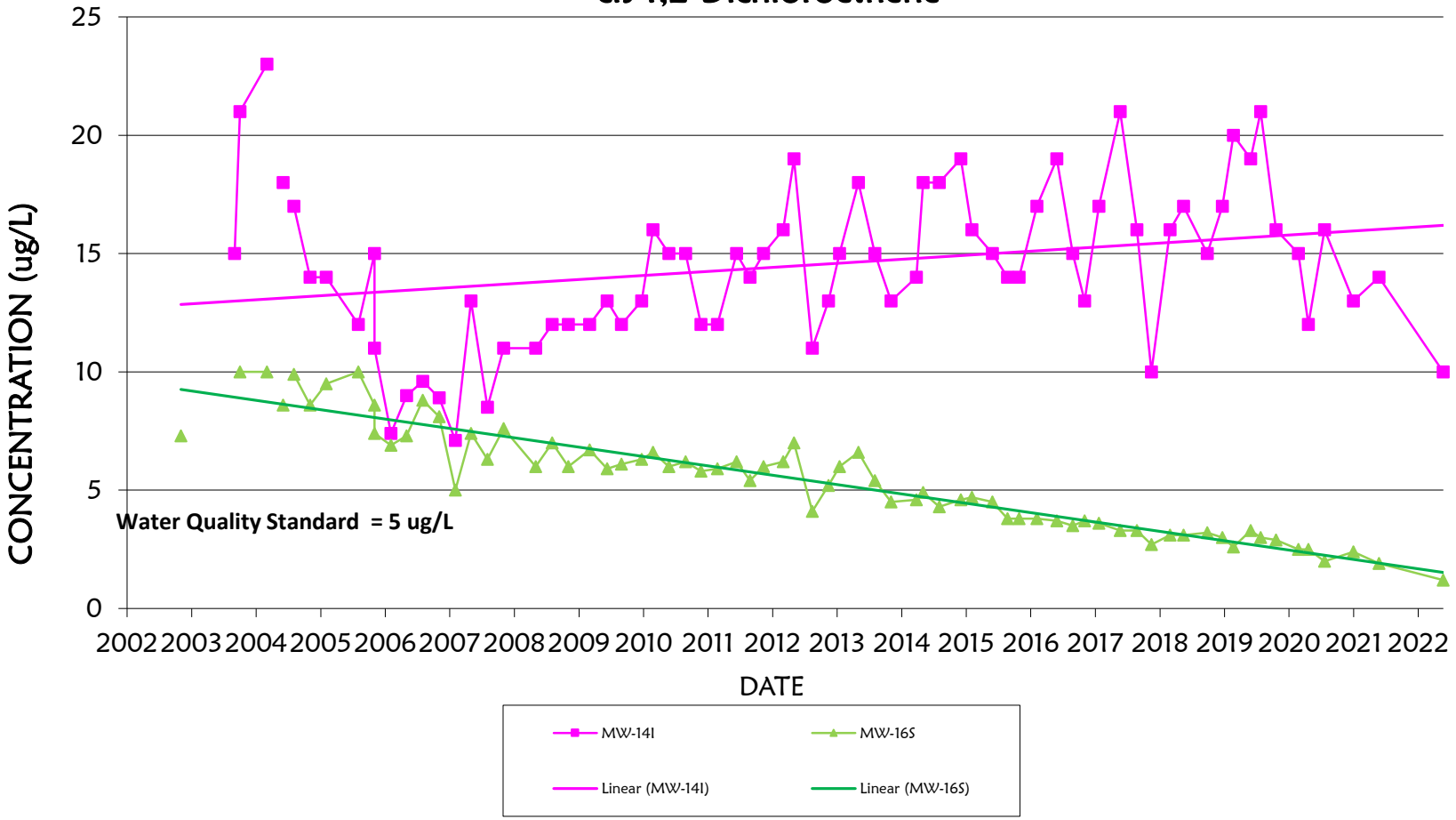
PARAMETER SPECIFIC GRAPHS

GPI

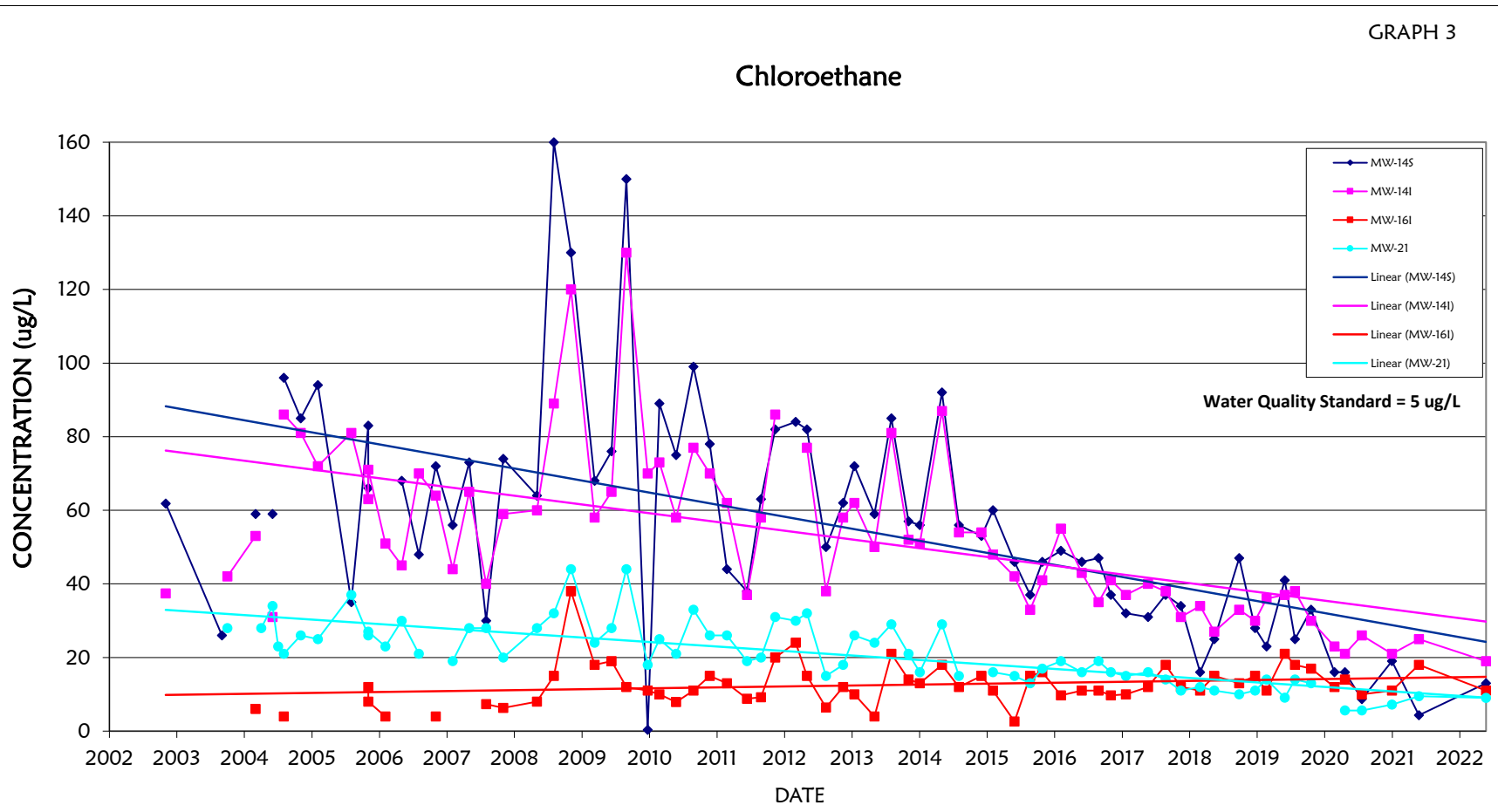
GRAPH 1


cis 1,2-Dichloroethene
CONCENTRATION (ug/L)
100
90
80
70
60
50
40
30
20
10
0
2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022
DATE
MW-14S
MW-16I
MW-21
Linear (MW-14S)
Linear (MW-16I)
Linear (MW-21)

GRAPH 2

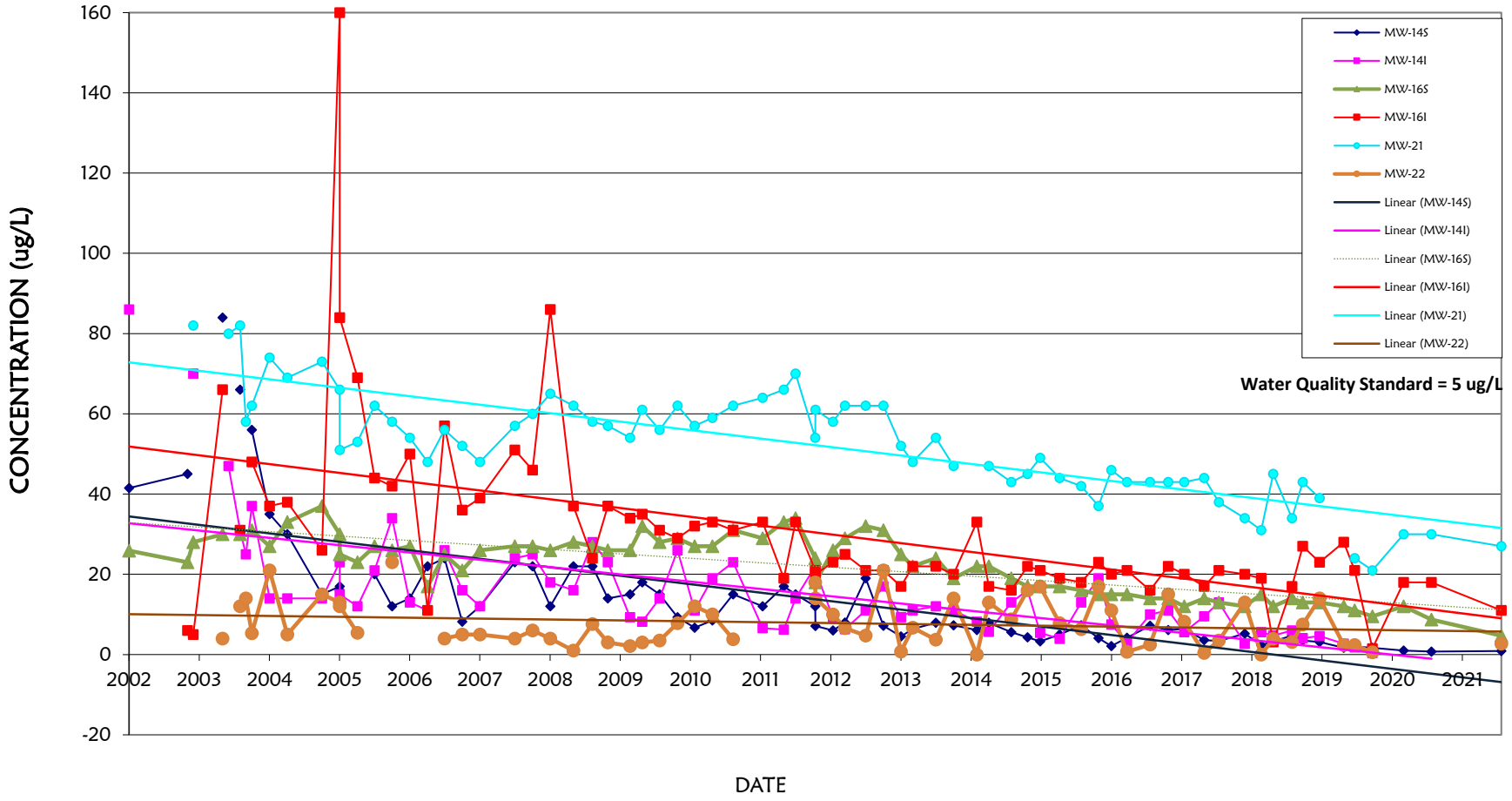

cis 1,2-Dichloroethene
CONCENTRATION (ug/L)
25
20
15
10
5
0
Water Quality Standard = 5 ug/L
2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022
DATE
MW-14I
MW-16S
Linear (MW-14I)
Linear (MW-16S)

GRAPH 3


Chloroethane
CONCENTRATION (ug/L)
DATE
0
20
40
60
80
100
120
140
160
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
MW-14S
MW-14I
MW-16I
MW-21
Linear (MW-14S)
Linear (MW-14I)
Linear (MW-16I)
Linear (MW-21)
Water Quality Standard = 5 ug/L

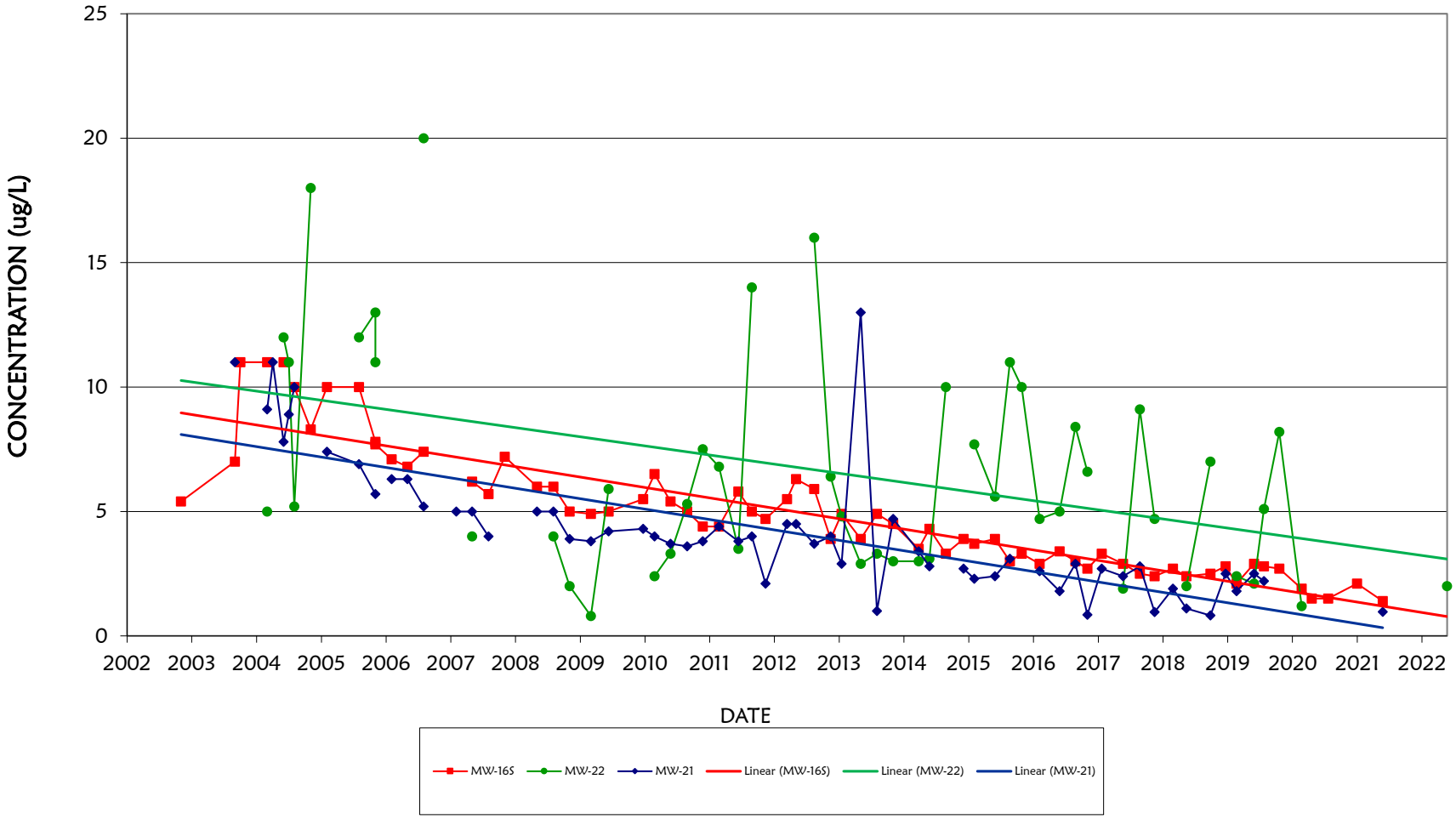
GRAPH 4

1,1- Dichloroethane

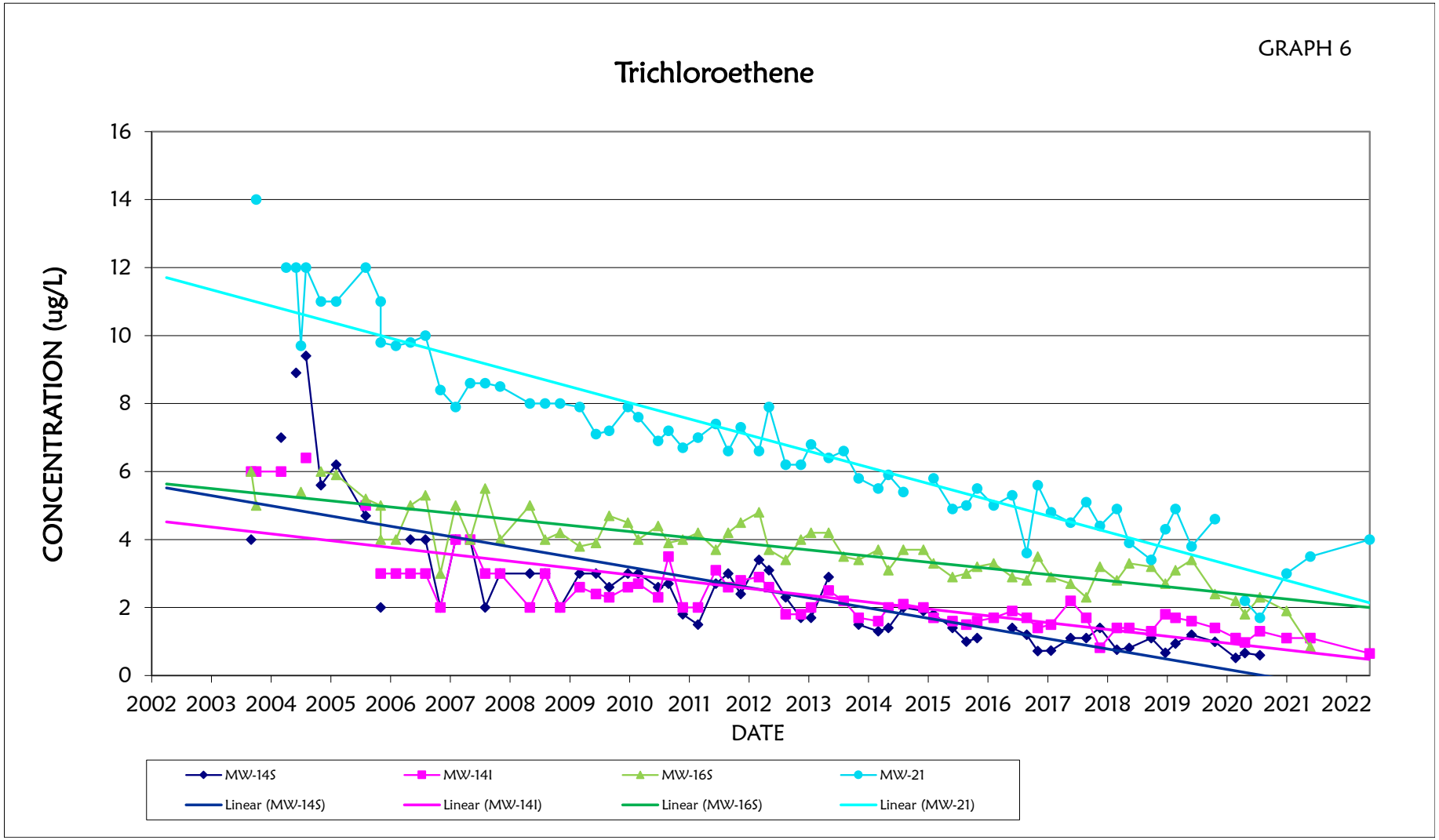


GRAPH 5

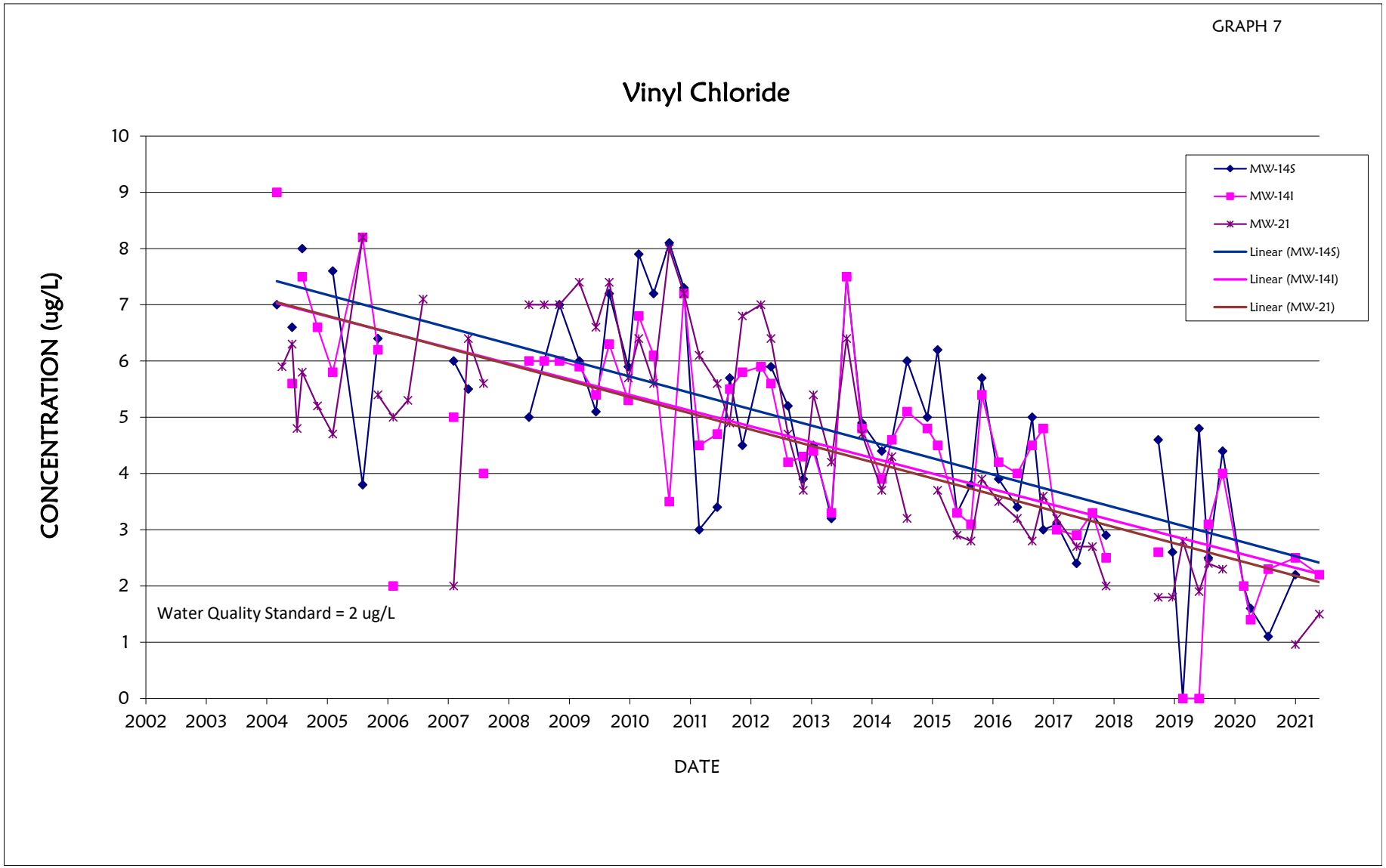
1,1,1-Trichloroethane



GRAPH 6


Trichloroethene
CONCENTRATION (ug/L)
16
14
12
10
8
6
4
2
0
2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022
DATE
MW-14S
MW-14I
MW-16S
MW-21
Linear (MW-14S)
Linear (MW-14I)
Linear (MW-16S)
Linear (MW-21)

GRAPH 7


Vinyl Chloride
CONCENTRATION (ug/L)
DATE
Water Quality Standard = 2 ug/L
MW-14S
MW-14I
MW-21
Linear (MW-14S)
Linear (MW-14I)
Linear (MW-21)
0
1
2
3
4
5
6
7
8
9
10
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021

APPENDIX A – SECTION 6 OF JULY 2020 MONITORING REDUCTION REQUEST & NYSDEC APPROVAL LETTER

6. Conclusions

6.1 Part 360 Monitoring

Under this request, as part of the landfill's Part 360 monitoring program, Cattaraugus County would:

- Monitor designated upgradient/crossgradient groundwater monitoring wells MW-6 and MW-13D and designated downgradient groundwater monitoring wells MW-9D, MW-10D, MW-10S, MW-11D, and MW-11S on a biennial basis, in May every other year
- Measure and record groundwater elevations and field parameters (i.e., temperature, conductivity, salinity, dissolved oxygen, oxidation reduction potential, and turbidity) during each monitoring event at each groundwater monitoring well sampled
- Analyze samples taken from groundwater monitoring wells for a modified list of Part 360 Baseline Parameters, including:
  - Leachate indicators (alkalinity, ammonia, biological oxygen demand, boron, bromide, chloride, chemical oxygen demand, color, hardness, nitrate, phenols, sulphate, total dissolved solids, total kjeldahl nitrogen, and total organic carbon)
  - VOCs
- Leachate collection system samples will be collected annually, in May of each year, and will continue to be analyzed for the Part 360 Expanded Parameters list.

Based on the historical sampling analytical results, which show static and/or decreasing trends in the majority of the parameters analyzed, this requested frequency and analytical list will provide adequate data to continue to establish trends, if any, in groundwater quality over time.

6.2 Inactive Hazardous Waste Site Monitoring

Under this request, as part of the landfill's inactive hazardous waste site monitoring program, Cattaraugus County would:

- Monitor designated upgradient groundwater monitoring wells MW-17I and MW-17S and designated downgradient groundwater monitoring wells MW-14I, MW-14S, MW-15I, MW-15S, MW-16I, MW-16S, MW-21, MW-22, and MW-23 on an annual basis, in May of each year
- Measure and record groundwater elevations and field parameters (i.e., temperature, conductivity, salinity, dissolved oxygen, oxidation reduction potential, and turbidity) during each monitoring event at each groundwater monitoring well sampled
- Analyze samples taken from groundwater monitoring wells for volatile organic compounds.

Based on the historical sampling analytical results, which show static and/or decreasing trends in the majority of the parameters analyzed, this requested frequency and analytical list will provide adequate data to continue to establish trends, if any, in groundwater quality over time.

TABLE 6-1

Environmental Monitoring Program Summary

Well ID	Unit Screened	Bottom Depth (feet below top of PVC casing)	Monitoring Program	Analytical Requirements
MW-6	Bedrock	160	Part 360	Biennial Frequency (May) Modified Baseline and Field Parameters
MW-13D	Overburden/ Bedrock Interface	99.65	Part 360	Biennial Frequency (May) Modified Baseline and Field Parameters
MW-9D	Overburden	76.42	Part 360	Biennial Frequency (May) Modified Baseline and Field Parameters
MW-10S	Overburden	33.77	Part 360	Biennial Frequency (May) Modified Baseline and Field Parameters
MW-10D	Overburden	87.05	Part 360	Biennial Frequency (May) Modified Baseline and Field Parameters
MW-11S	Overburden	45.45	Part 360	Biennial Frequency (May) Modified Baseline and Field Parameters
MW-11D	Overburden	92.8	Part 360	Biennial Frequency (May) Modified Baseline and Field Parameters
MW-17S	Overburden	40	OM&M	Annual Frequency (May) VOCs and Field Parameters
MW-17I	Overburden/ Bedrock Interface	97	OM&M	Annual Frequency (May) VOCs and Field Parameters
MW-14S	Overburden	56	OM&M	Annual Frequency (May) VOCs and Field Parameters

Well ID	Unit Screened	Bottom Depth (feet below top of PVC casing)	Monitoring Program	Analytical Requirements
MW-14I	Overburden	84	OM&M	Annual Frequency (May) VOCs and Field Parameters
MW-15S	Overburden	47	OM&M	Annual Frequency (May) VOCs and Field Parameters
MW-15I	Overburden/ Bedrock Interface	81	OM&M	Annual Frequency (May) VOCs and Field Parameters
MW-16S	Overburden	42	OM&M	Annual Frequency (May) VOCs and Field Parameters
MW-16I	Overburden/ Bedrock Interface	87	OM&M	Annual Frequency (May) VOCs and Field Parameters
MW-21	Overburden	122	OM&M	Annual Frequency (May) VOCs and Field Parameters
MW-22	Overburden	57	OM&M	Annual Frequency (May) VOCs and Field Parameters
MW-23	Overburden	54	OM&M	Annual Frequency (May) VOCs and Field Parameters
L-1	Leachate Tank	-	Part 360	Annual Frequency (May) Part 360 Expanded Parameters

NOTES:

1. Modified Baseline Analytical List: Leachate indicators (alkalinity, ammonia, biological oxygen demand, boron, bromide, chloride, chemical oxygen demand, color, hardness, nitrate, phenols, sulphate, total dissolved solids, total kjeldahl nitrogen, and total organic carbon) and VOCs
2. Field Parameters: Depth to water, depth of well, temperature, conductivity, salinity, dissolved oxygen, oxidation reduction potential, and turbidity

TABLE 6-2

Part 360 Monitoring Program Analytical Parameter List and Analytical Methods

Analytical Parameter	Analytical Method
MODIFIED BASELINE SAMPLING EVENTS	
LEACHATE INDICATORS	
Alkalinity	310.2
Ammonia	350.1
Biological oxygen demand	SM5210B
Boron	6010C
Bromide	300.0
Chloride	300.0
Chemical oxygen demand	410.4
Color	SM2120B
Hardness	SM2340B
Nitrate	353.2
Phenols	420.1
Sulphate	300.0
Total dissolved solids	SM2540C
Total kjeldahl nitrogen	351.2
Total organic carbon	9060A
VOLATILE ORGANIC COMPOUNDS	
1,1,1,2-tetrachloroethane	8260C
1,1,1-trichloroethane	8260C
1,1,2,2-tetrachloroethane	8260C
1,1,2-trichloroethane	8260C
1,1-dichloroethane	8260C
1,1-dichloroethene	8260C
1,2,3-trichloropropane	8260C
1,2-dibromo-3-chloropropane	8260C
1,2-dibromoethane	8260C
1,2-dichlorobenzene	8260C
1,2-dichloroethane	8260C
1,2-dichloropropane	8260C
1,4-dichlorobenzene	8260C

Analytical Parameter	Analytical Method
2-butanone (MEK)	8260C
2-hexanone (MBK)	8260C
4-methyl-2-pentanone (MIBK)	8260C
Acetone	8260C
Acrylonitrile	8260C
Benzene	8260C
Bromochloromethane	8260C
Bromodichloromethane	8260C
Bromoform	8260C
Bromomethane	8260C
Carbon disulfide	8260C
Carbon tetrachloride	8260C
Chlorobenzene	8260C
Chlorodibromomethane	8260C
Chloroethane	8260C
Chloroform	8260C
Chloromethane	8260C
cis-1,2-dichloroethene	8260C
cis-1,3-dichloropropene	8260C
Dibromomethane	8260C
Dichloromethane	8260C
Ethylbenzene	8260C
Iodomethane	8260C
Styrene	8260C
Trichloroethene	8260C
Tetrachloroethene	8260C
Toluene	8260C
trans-1,2-dichloroethene	8260C
trans-1,3-dichloropropene	8260C
trans-1,4-Dichloro-2-butene	8260C
Trichlorofluoromethane	8260C
Vinyl acetate	8260C
Vinyl chloride	8260C

Analytical Parameter	Analytical Method
Xylene (m & p)	8260C
Xylene (o)	8260C
FIELD PARAMETERS	
pH, Field	Calibrated Field Meter
Field Conductivity	Calibrated Field Meter
Temperature, Field	Calibrated Field Meter
Field Turbidity	Calibrated Field Meter
Field EH/ORP	Calibrated Field Meter
MODIFIED EXPANDED PARAMETERS LEACHATE SAMPLING EVENTS	
METALS	
Aluminum	6010C
Barium	6010C
Beryllium	6010C
Cadmium	6010C
Calcium	6010C
Chromium	6010C
Cobalt	6010C
Copper	6010C
Iron	6010C
Magnesium	6010C
Manganese	6010C
Nickel	6010C
Potassium	6010C
Silver	6010C
Sodium	6010C
Vandium	6010C
Zinc	6010C
Antimony	6020A
Arsenic	6020A
Lead	6020A
Selenium	6020A
Thallium	6020A

Analytical Parameter	Analytical Method
Mercury	7470A
LEACHATE INDICATORS	
Calcium and Magnesium Hardness	SM2340B
Bromide	300.0
Chloride	300.0
Sulfate	300.0
Alkalinity, Total	310.2
Ammonia as N	350.1
Total Kjeldahl Nitrogen	351.2
Nitrate	353.2
Chemical Oxygen Demand	410.4
Total Recoverable Phenolics	420.1
Boron	6010C
Hexavalent chromium	7196A
Cyanide, Total	9012B
Total Organic Carbon	9060A
Total Dissolved Solids	SM2540C
Biological Oxygen Demand	SM5210B
Specific Conductance	120.1
Color	SM2120B
VOLATILE ORGANIC COMPOUNDS	
1,1-Dichloroethane	8260C
2-Butanone	8260C
Acetone	8260C
Benzene	8260C
Chlorobenzene	8260C
Chloroethane	8260C
Chloromethane	8260C
cis-1,2-Dichloroethene	8260C
Ethylbenzene	8260C
m,p-Xylene	8260C
Methylene Chloride	8260C
o-Xylene	8260C

Analytical Parameter	Analytical Method
Toluene	8260C
Trichloroethene	8260C
Vinyl chloride	8260C
FIELD PARAMETERS	
pH, Field	Calibrated Field Meter
Field Conductivity	Calibrated Field Meter
Temperature, Field	Calibrated Field Meter
Field Turbidity	Calibrated Field Meter
Field EH/ORP	Calibrated Field Meter

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

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

September 14, 2020

Ms. Kathleen Ellis
Cattaraugus County
Department of Public Works
Jack Ellis Drive
8810 Route 242
Little Valley, NY 14755

Re: Farwell Road Landfill, Site No.: 905024
Ischua, Cattaraugus County
Post-Closure Monitoring Reduction

Dear Ms. Ellis:

The Department has reviewed the revised *Post-Closure Landfill Monitoring Reduction Request* [July 2020] relating to the Farwell Road Landfill site, as prepared by GHD. The revised document has generally addressed the Department's previous comments. As such, the proposed monitoring frequency outlined in Section 6 of the request is acceptable to the Department, provided that groundwater elevations in the Part 360 monitoring wells are also measured annually.

The reduced monitoring programs may begin immediately, with the first annual and biennial sampling events to be completed in May 2021. The details of the reduced monitoring program must be incorporated into the Site Management Plan. A revised Site Management Plan must be submitted to the Department for review by November 16, 2020.

If you have any questions on the above comments, please contact me at 716-851-7220 or benjamin.mcpherson@dec.ny.gov.

Sincerely,

Digitally signed by Benjamin McPherson
DN: cn=Benjamin McPherson, o=NYSDEC, ou=DER - Region 9, email=benjamin.mcpherson@dec.ny.gov, c=US
Date: 2020.09.14 11:34:56 -04'00'

Benjamin McPherson, P.E.
Project Manager
Professional Engineer 1 (Environmental)

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

ec:

Andrea Caprio, DEC DER
Benjamin McPherson, DEC DER
Steven McDonnell, DEC DMM
Scarlett McLaughlin, DOH
Kathleen Ellis, Cattaraugus County DPW (kmellis@cattco.org)
Charles Gordner, Cattaraugus County DPW (cjgordner@cattco.org)
James Manzella, GPI (jmanzella@gpinet.com)
Ian McNamara, GHD (Ian.McNamara@ghd.com)

APPENDIX B - NYSDEC SITE MANAGEMENT PERIODIC REVIEW NOTICE INSTITUTIONAL AND ENGINEERING CONTROLS CERTIFICATION FORM

Enclosure 2

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

Site Details **Box 1**

Site No. **905024**

Site Name Farwell Road Landfill

Site Address: Farwell Road Zip Code: 14743
City/Town: Ischua
County: Cattaraugus
Site Acreage: 13.000

Reporting Period: January 16, 2022 to January 16, 2023

	YES	NO
1. Is the information above correct?	X	
If NO, include handwritten above or on a separate sheet.		
2. Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?		X
3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?		X
4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?		X
If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.		
5. Is the site currently undergoing development?		X

Box 2

	YES	NO
6. Is the current site use consistent with the use(s) listed below? Closed Landfill	X	
7. Are all ICs in place and functioning as designed?	X	

IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

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

Signature of Owner, Remedial Party or Designated Representative Date

SITE NO. 905024

Box 3

Description of Institutional Controls

Parcel	Owner	Institutional Control
68.001-1-18	Cattaraugus County DPW	Ground Water Use Restriction Landuse Restriction

In accordance with the Operation & Maintenance, Environmental Monitoring Plan (August 1, 2001), the Record of Decision (March 31, 2002), and the Deed Restriction filed with the Cattaraugus County Clerk's Office on June 5, 2003, the following controls shall be maintained and certified, shall run with the land and be binding upon all future owners of the Property: Ground Water Use Restriction, Landuse Restriction, Cover System, Leachate Collection System.

68.003-1-1	Cattaraugus County DPW	Monitoring Plan O&M Plan Ground Water Use Restriction Landuse Restriction

In accordance with the Operation & Maintenance, Environmental Monitoring Plan (August 1, 2001), the Record of Decision (March 31, 2002), and the Deed Restriction filed with the Cattaraugus County Clerk's Office on June 5, 2003, the following controls shall be maintained and certified, shall run with the land and be binding upon all future owners of the Property: Ground Water Use Restriction, Landuse Restriction, Cover System, Leachate Collection System.

Box 4

Description of Engineering Controls

Parcel	Engineering Control
68.001-1-18	Cover System Leachate Collection
68.003-1-1	Cover System Leachate Collection

Box 5

Periodic Review Report (PRR) Certification Statements

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

   a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the Engineering Control certification;

   b) to the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and the information presented is accurate and compete.

YES	NO
X	☐

2. For each Engineering control listed in Box 4, I certify by checking "YES" below that all of the following statements are true:

   (a) The Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department;

   (b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;

   (c) access to the site will continue to be provided to the Department, to evaluate the remedy, including access to evaluate the continued maintenance of this Control;

   (d) nothing has occurred that would constitute a violation or failure to comply with the Site Management Plan for this Control; and

   (e) if a financial assurance mechanism is required by the oversight document for the site, the mechanism remains valid and sufficient for its intended purpose established in the document.

YES	NO
X	☐

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

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

Signature of Owner, Remedial Party or Designated Representative

Date

IC CERTIFICATIONS
SITE NO. 905024

Box 6

SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

I certify that all information and statements in Boxes 1,2, and 3 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I James C. Manzella at GPI - 403 Main St. Suite 330, Buffalo NY 14203,
print name print business address

am certifying as Designated Representative (Owner or Remedial Party)

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

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

2/16/23
Date

EC CERTIFICATIONS

Box 7

Qualified Environmental Professional Signature

I certify that all information in Boxes 4 and 5 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I James C. Manzella at EPI 403 Main St. Suite 330, Buffalo NY 14203,
print name print business address

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

Signature of Qualified Environmental Professional, for the Owner or Remedial Party, Rendering Certification	Stamp (Required for PE)	Date
	—	2-16-23

APPENDIX C - FIELD LOGS

Enviroteknix
An Environmental Field Service Company

Telephone: 716-366-8143
Fax: 716-366-8092
Email: enviroteknix@outlook.com
302 Lakeshore Drive East
Dunkirk, New York USA 14048

LANDFILL MONITORING FIELD LOG SHEET

Facility: Farwell Landfill **Sample Point ID:** SW-1

Field Personnel: CS\CS **Sample Matrix:** Surface Water

Comments: Upstream at Dutch Hill Rd

Monitoring Well Sampling: **Date:** 5/22/2022 **Time:** 11:20

Sampling Method: **Dedicated:** ( )Y ( )N **Weather/Temp:** Cldy 73F

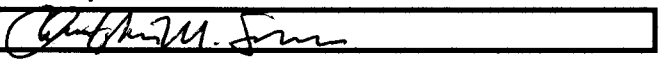
Depth to Water: 24.5

Field Data						
Temp Celsius	pH Std Units	Conductivity u/S	Turbidity NTU	ORP mV	D.O. mg/L	Observations/Characteristics
						Muddy, & flowing over banks

Parameters Sampled For: Level Only

Comments:

ENVIROTEKNIX SITE/PROJECT MANAGER SIGNATURE



Enviroteknix
An Environmental Field Service Company

Telephone: 716-366-8143
Fax: 716-366-8092
Email: enviroteknix@outlook.com
302 Lakeshore Drive East
Dunkirk, New York USA 14048

LANDFILL MONITORING FIELD LOG SHEET

Facility: Farwell Landfill **Sample Point ID:** SW-2

Field Personnel: CS/CS **Sample Matrix:** Surface Water

Comments: Adjacent to the site at Farwell Bridge

Monitoring Well Sampling: **Date:** 5/22/2022 **Time:** 11:35

Sampling Method: **Dedicated:** ( )Y ( )N **Weather/Temp:** Cldy 72F

Depth to Water: 15.4

Field Data						
Temp Celsius	pH Std Units	Conductivity u/s	Turbidity NTU	ORP mV	D.O. mg/L	Observations/Characteristics
						High & Muddy

Parameters Sampled For: Level Only

Comments: measured at red arrow on bridge.

ENVIROTEKNIX SITE/PROJECT MANAGER SIGNATURE

Enviroteknix
An Environmental Field Service Company

Telephone: 716-366-8143
Fax: 716-366-8092
Email: enviroteknix@outlook.com
302 Lakeshore Drive East
Dunkirk, New York USA 14048

LANDFILL MONITORING FIELD LOG SHEET

Facility: Farwell Landfill **Sample Point ID:** SW-3

Field Personnel: CS/CS **Sample Matrix:** Surface Water

Comments: Downstream at Kent Rd

Monitoring Well Sampling: **Date:** 5/22/2022 **Time:** 11:45

Sampling Method: **Dedicated:** ( )Y ( )N **Weather/Temp:** Cldy 72F

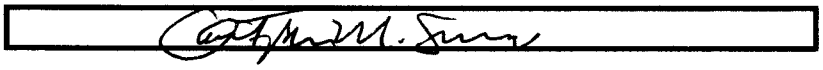
Depth to Water: 10

Field Data						
Temp Celsius	pH Std Units	Conductivity Umhos/cm	Turbidity NTU	ORP	D.O. mg/L	Observations/Characteristics
						Muddy & fast

Parameters Sampled For: Level Only

Comments: measured at red mark on bridge

ENVIROTEKNIX SITE/PROJECT MANAGER SIGNATURE



Enviroteknix
An Environmental Field Service Company

Telephone: 716-366-8143
Fax: 716-366-8092
Email: enviroteknix@outlook.com
302 Lakeshore Drive East
Dunkirk, New York USA 14048

LANDFILL MONITORING FIELD LOG SHEET

Facility: Farwell Landfill **Sample Point ID:** MW-6

Field Personnel: CS/CS **Sample Matrix:** Groundwater

Monitoring Well Inspection: **Date:** 5/22/2022 **Time:** 18:20

Condition of Casing/Riser:
( ) Unlocked (X) Good ( ) Loose ( ) Damaged ( ) Flush Mount
Condition of Seal:
(X) Good ( ) Cracked ( ) None ( ) Buried

Purge Information: **Date/Time Started:** **Riser Diameter:**
Date/Time Ended: (2" Conv. Factor = 0.163)
Purge Method: **Dedicated:** ( )Y ( )N (4" Conv. Factor = 0.653)
Surface Meas. Pt.: (X) Casing ( ) Riser
Initial H2O Level: 129 **Tot. Well Depth, ft:** 159 **One Vol. Gals:**
Tot. Purged Gals: **Purged to Dryness:** ( )Y ( )N **(3x) Vol. Gals:**
Observations: **Overall:** **Start:** **Finish:**

Comments:

Monitoring Well Sampling: **Date:** **Time:**
Sampling Method: **Dedicated:** ( )Y ( )N **Weather/Temp:**
Depth to Water:

Field Data						
Temp Celsius	pH Std Units	Conductivity Umhos/cm	Turbidity NTU	ORP	D.O. mg/L	Observations/Characteristics

Parameters Sampled For: Level Only

Comments:

ENVIROTEKNIX SITE/PROJECT MANAGER SIGNATURE

Enviroteknix
An Environmental Field Service Company

Telephone: 716-366-8143
Fax: 716-366-8092
Email: enviroteknix@outlook.com
302 Lakeshore Drive East
Dunkirk, New York USA 14048

LANDFILL MONITORING FIELD LOG SHEET

Facility: Farwell Landfill **Sample Point ID:** MW-9D

Field Personnel: CS/CS **Sample Matrix:** Groundwater

Monitoring Well Inspection: **Date:** 5/22/2022 **Time:** 18:35

Condition of Casing/Riser:
( ) Unlocked (X) Good ( ) Loose ( ) Damaged ( ) Flush Mount
Condition of Seal:
(X) Good ( ) Cracked ( ) None ( ) Buried

Purge Information: **Date/Time Started:** **Riser Diameter:**
Date/Time Ended: (2" Conv. Factor = 0.163)
Purge Method: **Dedicated:** ( )Y ( )N (4" Conv. Factor = 0.653)
Surface Meas. Pt.: (X) Casing ( ) Riser
Initial H2O Level: 53.5 **Tot. Well Depth, ft:** 80 **One Vol. Gals:**
Tot. Purged Gals: **Purged to Dryness:** ( )Y ( )N **(3x) Vol. Gals:**
Observations: **Overall:** **Start:** **Finish:**

Comments:

Monitoring Well Sampling: **Date:** **Time:**
Sampling Method: **Dedicated:** ( )Y ( )N **Weather/Temp:**
Depth to Water:

Field Data						
Temp Celsius	pH Std Units	Conductivity Umhos/cm	Turbidity NTU	ORP	D.O. mg/L	Observations/Characteristics

Parameters Sampled For: Level Only

Comments:

ENVIROTEKNIX SITE/PROJECT MANAGER SIGNATURE

Enviroteknix
An Environmental Field Service Company

Telephone: 716-366-8143
Fax: 716-366-8092
Email: enviroteknix@outlook.com
302 Lakeshore Drive East
Dunkirk, New York USA 14048

LANDFILL MONITORING FIELD LOG SHEET

Facility: Farwell Landfill **Sample Point ID:** MW-10D

Field Personnel: CS/CS **Sample Matrix:** Groundwater

Monitoring Well Inspection: **Date:** 5/22/2022 **Time:** 19:00

Condition of Casing/Riser:
( ) Unlocked (X) Good ( ) Loose ( ) Damaged ( ) Flush Mount
Condition of Seal:
(X) Good ( ) Cracked ( ) None ( ) Buried

Purge Information: **Date/Time Started:** **Riser Diameter:**
Date/Time Ended: (2" Conv. Factor = 0.163)
Purge Method: **Dedicated:** ( )Y ( )N (4" Conv. Factor = 0.653)
Surface Meas. Pt.: (X) Casing ( ) Riser
Initial H2O Level: 38.3 **Tot. Well Depth, ft:** 61 **One Vol. Gals:**
Tot. Purged Gals: **Purged to Dryness:** ( )Y ( )N **(3x) Vol. Gals:**
Observations: **Overall:** **Start:** **Finish:**

Comments:

Monitoring Well Sampling: **Date:** **Time:**
Sampling Method: **Dedicated:** ( )Y ( )N **Weather/Temp:**
Depth to Water:

Field Data						
Temp Celsius	pH Std Units	Conductivity Umhos/cm	Turbidity NTU	ORP	D.O. mg/L	Observations/Characteristics

Parameters Sampled For: Level Only

Comments:

ENVIROTEKNIX SITE/PROJECT MANAGER SIGNATURE

Enviroteknix
An Environmental Field Service Company

Telephone: 716-366-8143
Fax: 716-366-8092
Email: enviroteknix@outlook.com
302 Lakeshore Drive East
Dunkirk, New York USA 14048

LANDFILL MONITORING FIELD LOG SHEET

Facility: Farwell Landfill **Sample Point ID:** MW-10S

Field Personnel: CS/CS **Sample Matrix:** Groundwater

Monitoring Well Inspection: **Date:** 5/22/2022 **Time:** 19:05

Condition of Casing/Riser:
( ) Unlocked (X) Good ( ) Loose ( ) Damaged ( ) Flush Mount
Condition of Seal:
(X) Good ( ) Cracked ( ) None ( ) Buried

Purge Information: **Date/Time Started:** _____ **Riser Diameter:**
Date/Time Ended: _____ (2" Conv. Factor = 0.163)
Purge Method: _____ **Dedicated:** ( )Y ( )N (4" Conv. Factor = 0.653)
Surface Meas. Pt.: (X) Casing ( ) Riser
Initial H2O Level: 32.2 **Tot. Well Depth, ft:** 40 **One Vol. Gals:**
Tot. Purged Gals: _____ **Purged to Dryness:** ( )Y ( )N **(3x) Vol. Gals:**
Observations: **Overall:** _____ **Start:** _____ **Finish:** _____

Comments: _____

Monitoring Well Sampling: **Date:** _____ **Time:** _____
Sampling Method: _____ **Dedicated:** ( )Y ( )N **Weather/Temp:**
Depth to Water:

Field Data						
Temp Celsius	pH Std Units	Conductivity Umhos/cm	Turbidity NTU	ORP	D.O. mg/L	Observations/Characteristics

Parameters Sampled For: Level Only

Comments: _____

ENVIROTEKNIX SITE/PROJECT MANAGER SIGNATURE

Enviroteknix
An Environmental Field Service Company

Telephone: 716-366-8143
Fax: 716-366-8092
Email: enviroteknix@outlook.com
302 Lakeshore Drive East
Dunkirk, New York USA 14048

LANDFILL MONITORING FIELD LOG SHEET

Facility: Farwell Landfill **Sample Point ID:** MW-11D

Field Personnel: CS/CS **Sample Matrix:** Groundwater

Monitoring Well Inspection: **Date:** 5/22/2022 **Time:** 19:20

Condition of Casing/Riser:
( ) Unlocked (X) Good ( ) Loose ( ) Damaged ( ) Flush Mount
Condition of Seal:
(X) Good ( ) Cracked ( ) None ( ) Buried

Purge Information: **Date/Time Started:** **Riser Diameter:**
Date/Time Ended: (2" Conv. Factor = 0.163)
Purge Method: **Dedicated:** ( )Y ( )N (4" Conv. Factor = 0.653)
Surface Meas. Pt.: (X) Casing ( ) Riser
Initial H2O Level: 46.3 **Tot. Well Depth, ft:** 88.9 **One Vol. Gals:**
Tot. Purged Gals: **Purged to Dryness:** ( )Y ( )N **(3x) Vol. Gals:**
Observations: **Overall:** **Start:** **Finish:**

Comments:

Monitoring Well Sampling: **Date:** **Time:**
Sampling Method: **Dedicated:** ( )Y ( )N **Weather/Temp:**
Depth to Water:

Field Data						
Temp Celsius	pH Std Units	Conductivity Umhos/cm	Turbidity NTU	ORP	D.O. mg/L	Observations/Characteristics

Parameters Sampled For: Level Only

Comments:

ENVIROTEKNIX SITE/PROJECT MANAGER SIGNATURE

Enviroteknix
An Environmental Field Service Company

Telephone: 716-366-8143
Fax: 716-366-8092
Email: enviroteknix@outlook.com
302 Lakeshore Drive East
Dunkirk, New York USA 14048

LANDFILL MONITORING FIELD LOG SHEET

Facility: Farwell Landfill **Sample Point ID:** MW-11S

Field Personnel: CS/CS **Sample Matrix:** Groundwater

Monitoring Well Inspection: **Date:** 5/22/2022 **Time:** 19:15

Condition of Casing/Riser:
( ) Unlocked (X) Good ( ) Loose ( ) Damaged ( ) Flush Mount
Condition of Seal:
(X) Good ( ) Cracked ( ) None ( ) Buried

Purge Information: **Date/Time Started:** **Riser Diameter:**
Date/Time Ended: (2" Conv. Factor = 0.163)
Purge Method: **Dedicated:** ( )Y ( )N (4" Conv. Factor = 0.653)
Surface Meas. Pt.: (X) Casing ( ) Riser
Initial H2O Level: 39.2 **Tot. Well Depth, ft:** 46.9 **One Vol. Gals:**
Tot. Purged Gals: **Purged to Dryness:** ( ) Y ( ) N **(3x) Vol. Gals:**
Observations: **Overall:** **Start:** **Finish:**

Comments:

Monitoring Well Sampling: **Date:** **Time:**
Sampling Method: **Dedicated:** ( )Y ( )N **Weather/Temp:**
Depth to Water:

Field Data						
Temp Celsius	pH Std Units	Conductivity Umhos/cm	Turbidity NTU	ORP	D.O. mg/L	Observations/Characteristics

Parameters Sampled For: Level Only

Comments:

ENVIROTEKNIX SITE/PROJECT MANAGER SIGNATURE

Enviroteknix
An Environmental Field Service Company

Telephone: 716-366-8143
Fax: 716-366-8092
Email: enviroteknix@outlook.com
302 Lakeshore Drive East
Dunkirk, New York USA 14048

LANDFILL MONITORING FIELD LOG SHEET

Facility: Farwell Landfill **Sample Point ID:** MW-13D

Field Personnel: CS/CS **Sample Matrix:** Groundwater

Monitoring Well Inspection: **Date:** 5/22/2022 **Time:** 18:50

Condition of Casing/Riser:
( ) Unlocked (X) Good ( ) Loose ( ) Damaged ( ) Flush Mount
Condition of Seal:
(X) Good ( ) Cracked ( ) None ( ) Buried

Purge Information: **Date/Time Started:** **Riser Diameter:**
Date/Time Ended: (2" Conv. Factor = 0.163)
Purge Method: **Dedicated:** ( )Y ( )N (4" Conv. Factor = 0.653)
Surface Meas. Pt.: (X) Casing ( ) Riser
Initial H2O Level: 96.4 **Tot. Well Depth, ft:** 103.9 **One Vol. Gals:**
Tot. Purged Gals: **Purged to Dryness:** ( )Y ( )N **(3x) Vol. Gals:**
Observations: **Overall:** **Start:** **Finish:**

Comments:

Monitoring Well Sampling: **Date:** **Time:**
Sampling Method: **Dedicated:** ( )Y ( )N **Weather/Temp:**
Depth to Water:

Field Data						
Temp Celsius	pH Std Units	Conductivity Umhos/cm	Turbidity NTU	ORP	D.O. mg/L	Observations/Characteristics

Parameters Sampled For: Level Only

Comments:

ENVIROTEKNIX SITE/PROJECT MANAGER SIGNATURE

Enviroteknix
An Environmental Field Service Company

Telephone: 716-366-8143
Fax: 716-366-8092
Email: enviroteknix@outlook.com
302 Lakeshore Drive East
Dunkirk, New York USA 14048

LANDFILL MONITORING FIELD LOG SHEET

Facility: Farwell Landfill **Sample Point ID:** MW-18D

Field Personnel: CS/CS Sample Matrix: Groundwater

Monitoring Well Inspection: Date: 5/22/2022 Time: 11:30

Condition of Casing/Riser:
(X) Unlocked (X) Good ( ) Loose ( ) Damaged ( ) Flush Mount
Condition of Seal:
(X) Good ( ) Cracked ( ) None ( ) Buried

Purge Information:
Date/Time Started:
Date/Time Ended:
Riser Diameter: 2
(2" Conv. Factor = 0.163)
(4" Conv. Factor = 0.653)
Purge Method: Dedicated: ( )Y (X)N
Surface Meas. Pt.: ( ) Casing ( ) Riser
Initial H2O Level: 11.4 Tot. Well Depth, ft: 28.9 One Vol. Gals:
Tot. Purged Gals: Purged to Dryness: ( ) Y ( ) N (3x) Vol. Gals:
Observations: Overall: Start: Finish:

Comments:
Depth Measurement Only

Monitoring Well Sampling: Date: Time:
Sampling Method: Dedicated: ( )Y ( )N Weather/Temp:
Depth to Water:

Field Data						
Temp Celsius	pH Std Units	Conductivity u/S	Turbidity NTU	ORP mV	D.O. mg/L	Observations/Characteristics

Parameters Sampled For: Level Only

Comments:

ENVIROTEKNIX SITE/PROJECT MANAGER SIGNATURE

Enviroteknix
An Environmental Field Service Company

Telephone: 716-366-8143
Fax: 716-366-8092
Email: enviroteknix@outlook.com
302 Lakeshore Drive East
Dunkirk, New York USA 14048

LANDFILL MONITORING FIELD LOG SHEET

Facility: Farwell Landfill **Sample Point ID:** MW-18S

Field Personnel: CS/CS Sample Matrix: Groundwater

Monitoring Well Inspection: Date: 5/22/2022 Time: 11:35

Condition of Casing/Riser:
(X) Unlocked (X) Good ( ) Loose ( ) Damaged ( ) Flush Mount
Condition of Seal:
(X) Good ( ) Cracked ( ) None ( ) Buried

Purge Information: Date/Time Started: Riser Diameter: 2
Date/Time Ended: (2" Conv. Factor = 0.163)
Purge Method: Dedicated: ( )Y (X)N (4" Conv. Factor = 0.653)
Surface Meas. Pt.: ( ) Casing ( ) Riser
Initial H2O Level: 11.5 Tot. Well Depth, ft: 114.8 One Vol. Gals:
Tot. Purged Gals: Purged to Dryness: ( ) Y ( ) N (3x) Vol. Gals:
Observations: Overall: Start: Finish:

Comments:
Depth Measurement Only

Monitoring Well Sampling: Date: Time:
Sampling Method: Dedicated: ( )Y ( )N Weather/Temp:
Depth to Water:

Field Data						
Temp Celsius	pH Std Units	Conductivity u/S	Turbidity NTU	ORP mV	D.O. mg/L	Observations/Characteristics

Parameters Sampled For: Level Only

Comments:

ENVIROTEKNIX SITE/PROJECT MANAGER SIGNATURE

Enviroteknix
An Environmental Field Service Company

Telephone: 716-366-8143
Fax: 716-366-8092
Email: enviroteknix@outlook.com
302 Lakeshore Drive East
Dunkirk, New York USA 14048

LANDFILL MONITORING FIELD LOG SHEET

Facility: Farwell Landfill **Sample Point ID:** MW-19

Field Personnel: CS/CS **Sample Matrix:** Groundwater

Monitoring Well Inspection: **Date:** 5/22/2022 **Time:** 19:30

Condition of Casing/Riser:
( ) Unlocked (X) Good ( ) Loose ( ) Damaged ( ) Flush Mount
Condition of Seal:
(X) Good ( ) Cracked ( ) None ( ) Buried

Riser is bent though.

Purge Information:
Date/Time Started:
Date/Time Ended:
Riser Diameter: 2"
(2" Conv. Factor = 0.163)
(4" Conv. Factor = 0.653)

Purge Method: Pencil Blr **Dedicated:** (X)Y ( )N
Surface Meas. Pt.: (X) Casing ( ) Riser
Initial H2O Level: 54.6 **Tot. Well Depth, ft:** 121.9 **One Vol. Gals:**
Tot. Purged Gals: **Purged to Dryness:** ( ) Y ( ) N **(3x) Vol. Gals:**
Observations: Overall: Start: Finish:

Comments:

Monitoring Well Sampling: **Date:** **Time:**
Sampling Method: **Dedicated:** ( )Y ( )N **Weather/Temp:**
Depth to Water:

Field Data						
Temp Celsius	pH Std Units	Conductivity u/S	Turbidity NTU	ORP mV	D.O. mg/L	Observations/Characteristics

Parameters Sampled For: Level Only

Comments:

ENVIROTEKNIX SITE/PROJECT MANAGER SIGNATURE

Enviroteknix
An Environmental Field Service Company

Telephone: 716-366-8143
Fax: 716-366-8092
Email: enviroteknix@outlook.com
302 Lakeshore Drive East
Dunkirk, New York USA 14048

LANDFILL MONITORING FIELD LOG SHEET

Facility: Farwell Landfill **Sample Point ID:** MW-20

Field Personnel: CS/CS Sample Matrix: Groundwater

Monitoring Well Inspection: Date: 5/22/2022 Time: 19:40

Condition of Casing/Riser:
( ) Unlocked (X) Good ( ) Loose ( ) Damaged ( ) Flush Mount
Condition of Seal:
(X) Good ( ) Cracked ( ) None ( ) Buried

Purge Information: Date/Time Started: Riser Diameter: 2"
Date/Time Ended: (2" Conv. Factor = 0.163)
Purge Method: Dedicated: ( )Y ( )N (4" Conv. Factor = 0.653)
Surface Meas. Pt.: (X) Casing ( ) Riser
Initial H2O Level: 45.8 Tot. Well Depth, ft: 150 One Vol. Gals:
Tot. Purged Gals: Purged to Dryness: ( )Y ( )N (3x) Vol. Gals:
Observations: Overall: Start: Finish:

Comments:

Monitoring Well Sampling: Date: Time:
Sampling Method: Dedicated: ( )Y ( )N Weather/Temp:
Field Data Depth to Water:

Temp Celsius	pH Std Units	Conductivity Umhos/cm	Turbidity NTU	ORP mV	D.O. mg/L	Observations/Characteristics

Parameters Sampled For: Level Only

Comments:

ENVIROTEKNIX SITE/PROJECT MANAGER SIGNATURE

Enviroteknix
An Environmental Field Service Company

Telephone: 716-366-8143
Fax: 716-366-8092
Email: enviroteknix@outlook.com
302 Lakeshore Drive East
Dunkirk, New York USA 14048

LANDFILL MONITORING FIELD LOG SHEET

Facility: Farwell Landfill **Sample Point ID:** MW-24

Field Personnel: CS/CS **Sample Matrix:** Groundwater

Monitoring Well Inspection: **Date:** 5/22/2022 **Time:** 19:50

Condition of Casing/Riser:
( ) Unlocked (X) Good ( ) Loose ( ) Damaged ( ) Flush Mount
Condition of Seal:
(X) Good ( ) Cracked ( ) None ( ) Buried

Purge Information: **Date/Time Started:** **Riser Diameter:** 2"
Date/Time Ended: (2" Conv. Factor = 0.163)
Purge Method: **Dedicated Tubing:** ( )Y ( )N (4" Conv. Factor = 0.653)
Surface Meas. Pt.: (X) Casing ( ) Riser
Initial H2O Level: 4.2 **Tot. Well Depth, ft:** 54 **One Vol. Gals:**
Tot. Purged Gals: **Purged to Dryness:** ( ) Y ( ) N **(3x) Vol. Gals:**
Observations: **Overall:** **Start:** **Finish:**

Comments:

Monitoring Well Sampling: **Date:** **Time:**
Sampling Method: **Dedicated:** ( )Y ( )N **Weather/Temp:**
Field Data **Depth to Water:**

Temp Celsius	pH Std Units	Conductivity u/S	Turbidity NTU	ORP mV	D.O. mg/L	Observations/Characteristics

Parameters Sampled For: Level Only

Comments:

ENVIROTEKNIX SITE/PROJECT MANAGER SIGNATURE

Enviroteknix
An Environmental Field Service Company

Telephone: 716-366-8143
Fax: 716-366-8092
Email: enviroteknix@outlook.com
302 Lakeshore Drive East
Dunkirk, New York USA 14048

LANDFILL MONITORING FIELD LOG SHEET

Facility: Farwell Landfill **Sample Point ID:** MW-25

Field Personnel: CS/CS **Sample Matrix:** Groundwater

Monitoring Well Inspection: **Date:** 5/22/2022 **Time:** 20:00

Condition of Casing/Riser:
( ) Unlocked (X) Good ( ) Loose ( ) Damaged ( ) Flush Mount
Condition of Seal:
(X) Good ( ) Cracked ( ) None ( ) Buried

Purge Information: **Date/Time Started:** _____ **Riser Diameter:** 2"
Date/Time Ended: _____ (2" Conv. Factor = 0.163)
Purge Method: _____ **Dedicated Tubing:** ( )Y ( )N (4" Conv. Factor = 0.653)
Surface Meas. Pt.: (X) Casing ( ) Riser
Initial H2O Level: 16.5 **Tot. Well Depth, ft:** 54.5 **One Vol. Gals:**
Tot. Purged Gals: _____ **Purged to Dryness:** ( )Y ( )N **(3x) Vol. Gals:**
Observations: **Overall:** _____ **Start:** _____ **Finish:** _____

Comments: _____

Monitoring Well Sampling: **Date:** _____ **Time:** _____
Sampling Method: _____ **Dedicated:** ( )Y ( )N **Weather/Temp:**
Field Data **Depth to Water:**

Temp Celsius	pH Std Units	Conductivity u/S	Turbidity NTU	ORP mV	D.O. mg/L	Observations/Characteristics

Parameters Sampled For: Level Only

Comments: _____

ENVIROTEKNIX SITE/PROJECT MANAGER SIGNATURE

Enviroteknix
An Environmental Field Service Company

Telephone: 716-366-8143
Fax: 716-366-8092
Email: enviroteknix@outlook.com
302 Lakeshore Drive East
Dunkirk, New York USA 14048

LANDFILL MONITORING FIELD LOG SHEET

Facility: Farwell Landfill **Sample Point ID:** L-1

Field Personnel: CS\CS **Sample Matrix:** Leachate

Leachate Tank Inspection: **Date:** 5/23/2022 **Time:** 14:30

Condition of Casing/Riser:
( ) Unlocked (X) Good ( ) Loose (X) Damaged ( ) Flush Mount
Condition of Seal:
(X) Good ( ) Cracked ( ) None ( ) Buried

Comments:

Leachate Sampling: **Date:** 5/23/2022 **Time:** 14:30

Sampling Method: Bailer **Dedicated:** (X)Y ( )N **Weather/Temp:** Pt Sun 55F

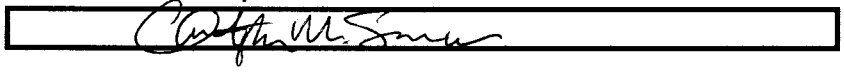
Field Data

Temp Celsius	pH Std Units	Conductivity mS	Turbidity NTU	ORP	D.O. mg/L	Observations/Characteristics
9.5	7.67	3.16	119	127	2.2	Lt. Brown Turbid

Parameters Sampled For: Expanded Parameters Set

Comments:

ENVIROTEKNIX SITE/PROJECT MANAGER SIGNATURE



Enviroteknix
An Environmental Field Service Company

Telephone: 716-366-8143
Fax: 716-366-8092
Email: enviroteknix@outlook.com
302 Lakeshore Drive East
Dunkirk, New York USA 14048

LANDFILL MONITORING FIELD LOG SHEET

Facility: Farwell Landfill **Sample Point ID:** MW-14s

Field Personnel: CS/CS **Sample Matrix:** Groundwater

Monitoring Well Inspection: **Date:** 5/22/2022 **Time:** 16:45

Condition of Casing/Riser:
( ) Unlocked (X) Good ( ) Loose ( ) Damaged ( ) Flush Mount
Condition of Seal:
(X) Good ( ) Cracked ( ) None ( ) Buried

Purge Information:
Date/Time Started: 16:45 Riser Diameter: 2"
Date/Time Ended: 17:00 (2" Conv. Factor = 0.163)
Purge Method: Bailer Dedicated Tubing: (X)Y ( )N (4" Conv. Factor = 0.653)
Surface Meas. Pt.: (X) Casing ( ) Riser
Initial H2O Level: 49.7 Tot. Well Depth, ft: 60.8 One Vol. Gals: 1.8
Tot. Purged Gals: 3.5 Purged to Dryness: (X) Y ( ) N (3x) Vol. Gals: 5.4
Observations: Overall: Clear Start: Clear Finish: Clear

Comments:

Monitoring Well Sampling: **Date:** 5/23/2022 **Time:** 13:45
Sampling Method: Bailer Dedicated: (X)Y ( )N Weather/Temp: Sun 57F
Depth to Water: 49.9

Field Data						
Temp Celsius	pH Std Units	Conductivity u/S	Turbidity NTU	ORP mV	D.O. mg/L	Observations/Characteristics
7.8	7.65	963	57.4	122	3.3	Clear/Lt Brown

Parameters Sampled For: Baseline VOCs

Comments:

ENVIROTEKNIX SITE/PROJECT MANAGER SIGNATURE

Enviroteknix
An Environmental Field Service Company

Telephone: 716-366-8143
Fax: 716-366-8092
Email: enviroteknix@outlook.com
302 Lakeshore Drive East
Dunkirk, New York USA 14048

LANDFILL MONITORING FIELD LOG SHEET

Facility: Farwell Landfill **Sample Point ID:** MW-14i

Field Personnel: CS/CS **Sample Matrix:** Groundwater

Monitoring Well Inspection: **Date:** 5/22/2022 **Time:** 16:50

Condition of Casing/Riser:
( ) Unlocked (X) Good ( ) Loose ( ) Damaged ( ) Flush Mount

Condition of Seal:
(X) Good ( ) Cracked ( ) None ( ) Buried

Purge Information:
Date/Time Started: 16:50 Riser Diameter: 2"
Date/Time Ended: 17:05 (2" Conv. Factor = 0.163)
Purge Method: Pump Dedicated: (X)Y ( )N (4" Conv. Factor = 0.653)
Surface Meas. Pt.: (X) Casing ( ) Riser
Initial H2O Level: 50.5 Tot. Well Depth, ft: 85.1 One Vol. Gals: 5.6
Tot. Purged Gals: 17 Purged to Dryness: ( ) Y (X) N (3x) Vol. Gals: 16.9
Observations: Overall: Clear Start: Clear/Lt Gray Finish: Clear/Lt Gray

Comments:

Monitoring Well Sampling: **Date:** 5/23/2022 **Time:** 13:30
Sampling Method: Bailer Dedicated: (X)Y ( )N Weather/Temp: Sun 57F
Depth to Water: 50.2

Field Data						
Temp Celsius	pH Std Units	Conductivity u/S	Turbidity NTU	ORP mV	D.O. mg/L	Observations/Characteristics
7.2	7.93	1127	6.3	142	4.1	Clear

Parameters Sampled For: Baseline VOCs

Comments:

ENVIROTEKNIX SITE/PROJECT MANAGER SIGNATURE

Enviroteknix
An Environmental Field Service Company

Telephone: 716-366-8143
Fax: 716-366-8092
Email: enviroteknix@outlook.com
302 Lakeshore Drive East
Dunkirk, New York USA 14048

LANDFILL MONITORING FIELD LOG SHEET

Facility: Farwell Landfill **Sample Point ID:** MW-15s

Field Personnel: CS/CS **Sample Matrix:** Groundwater

Monitoring Well Inspection: **Date:** 5/22/2022 **Time:** 16:05

Condition of Casing/Riser:
( ) Unlocked (X) Good ( ) Loose ( ) Damaged ( ) Flush Mount
Condition of Seal:
(X) Good ( ) Cracked ( ) None ( ) Buried

Purge Information:
Date/Time Started: 16:05 Riser Diameter: 2"
Date/Time Ended: 16:20 (2" Conv. Factor = 0.163)
Purge Method: Pump Dedicated: (X)Y ( )N (4" Conv. Factor = 0.653)
Surface Meas. Pt.: (X) Casing ( ) Riser
Initial H2O Level: 19.2 Tot. Well Depth, ft: 50.4 One Vol. Gals: 5.1
Tot. Purged Gals: 16 Purged to Dryness: ( ) Y (X) N (3x) Vol. Gals: 15.3
Observations: Overall: Clear Start: Clear Finish: Clear

Comments:

Monitoring Well Sampling: **Date:** 5/23/2022 **Time:** 13:00
Sampling Method: Bailer Dedicated: (X)Y ( )N Weather/Temp: Sun 60F
Depth to Water: 19.5

Field Data						
Temp Celsius	pH Std Units	Conductivity u/S	Turbidity NTU	ORP mV	D.O. mg/L	Observations/Characteristics
3.9	8.05	533	9.6	116	5.9	Clear

Parameters Sampled For: Baseline VOCs

Comments: Piezometer #15 depth to water was 18.7 at 15:05.

ENVIROTEKNIX SITE/PROJECT MANAGER SIGNATURE

Enviroteknix
An Environmental Field Service Company

Telephone: 716-366-8143
Fax: 716-366-8092
Email: enviroteknix@outlook.com
302 Lakeshore Drive East
Dunkirk, New York USA 14048

LANDFILL MONITORING FIELD LOG SHEET

Facility: Farwell Landfill **Sample Point ID:** MW-15i

Field Personnel: CS/CS **Sample Matrix:** Groundwater

Monitoring Well Inspection: **Date:** 5/22/2022 **Time:** 15:05

Condition of Casing/Riser:
( ) Unlocked (X) Good ( ) Loose ( ) Damaged ( ) Flush Mount
Condition of Seal:
(X) Good ( ) Cracked ( ) None ( ) Buried

Purge Information: **Date/Time Started:** 15:05 **Riser Diameter:** 4"
Date/Time Ended: 16:05 (2" Conv. Factor = 0.163)
Purge Method: Pump **Dedicated Tubing:** (X)Y ( )N (4" Conv. Factor = 0.653)
Surface Meas. Pt.: (X) Casing ( ) Riser
Initial H2O Level: 19.8 **Tot. Well Depth, ft:** 82.4 **One Vol. Gals:** 40.9
Tot. Purged Gals: 123 **Purged to Dryness:** ( ) Y (X) N **(3x) Vol. Gals:** 122.6
Observations: **Overall:** Clear **Start:** Clear **Finish:** Clear

Comments:

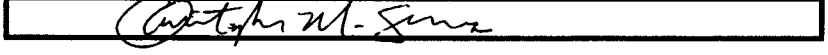
Monitoring Well Sampling: **Date:** 5/23/2022 **Time:** 13:15
Sampling Method: Bailer **Dedicated:** (X)Y ( )N **Weather/Temp:** Sun 59F
Field Data **Depth to Water:** 20.2

Temp Celsius	pH Std Units	Conductivity u/S	Turbidity NTU	ORP mV	D.O. mg/L	Observations/Characteristics
3.3	7.91	468	2.7	118	5.3	Clear

Parameters Sampled For: Baseline VOCs
MS/MSD taken here.

Comments:

ENVIROTEKNIX SITE/PROJECT MANAGER SIGNATURE



Enviroteknix
An Environmental Field Service Company

Telephone: 716-366-8143
Fax: 716-366-8092
Email: enviroteknix@outlook.com
302 Lakeshore Drive East
Dunkirk, New York USA 14048

LANDFILL MONITORING FIELD LOG SHEET

Facility: Farwell Landfill **Sample Point ID:** MW-16s

Field Personnel: CS/CS **Sample Matrix:** Groundwater

Monitoring Well Inspection: **Date:** 5/22/2022 **Time:** 12:45

Condition of Casing/Riser:
( ) Unlocked (X) Good ( ) Loose ( ) Damaged ( ) Flush Mount
Condition of Seal:
(X) Good ( ) Cracked ( ) None ( ) Buried

Purge Information:
Date/Time Started: 12:45 Riser Diameter: 2"
Date/Time Ended: 12:52 (2" Conv. Factor = 0.163)
Purge Method: Bailer Dedicated: (X)Y ( )N (4" Conv. Factor = 0.653)
Surface Meas. Pt.: (X) Casing ( ) Riser
Initial H2O Level: 15.9 Tot. Well Depth, ft: 30.1 One Vol. Gals: 2.3
Tot. Purged Gals: 7 Purged to Dryness: ( ) Y (X) N (3x) Vol. Gals: 6.9
Observations: Overall: Clear Start: Clear/Cldy Finish: Clear/Cldy

Comments:

Monitoring Well Sampling: **Date:** 5/23/2022 **Time:** 12:35
Sampling Method: Bailer Dedicated: (X)Y ( )N Weather/Temp: Sun 57F
Depth to Water: 16.4

Field Data						
Temp Celsius	pH Std Units	Conductivity u/S	Turbidity NTU	ORP mV	D.O. mg/L	Observations/Characteristics
3.9	7.69	698	4.9	117	4.9	Clear

Parameters Sampled For: Baseline VOCs
Dup Y taken here.

Comments:

ENVIROTEKNIX SITE/PROJECT MANAGER SIGNATURE

Enviroteknix
An Environmental Field Service Company

Telephone: 716-366-8143
Fax: 716-366-8092
Email: enviroteknix@outlook.com
302 Lakeshore Drive East
Dunkirk, New York USA 14048

LANDFILL MONITORING FIELD LOG SHEET

Facility: Farwell Landfill **Sample Point ID:** MW-16i

Field Personnel: CS/CS **Sample Matrix:** Groundwater

Monitoring Well Inspection: **Date:** 5/22/2022 **Time:** 13:00

Condition of Casing/Riser:
( ) Unlocked (X) Good ( ) Loose ( ) Damaged ( ) Flush Mount
Condition of Seal:
(X) Good ( ) Cracked ( ) None ( ) Buried

Purge Information: **Date/Time Started:** 13:00 **Riser Diameter:** 4"
Date/Time Ended: 13:55 (2" Conv. Factor = 0.163)
Purge Method: Pump **Dedicated Tubing:** (X)Y ( )N (4" Conv. Factor = 0.653)
Surface Meas. Pt.: (X) Casing ( ) Riser
Initial H2O Level: 16.8 **Tot. Well Depth, ft:** 93.5 **One Vol. Gals:** 50.1
Tot. Purged Gals: 150 **Purged to Dryness:** ( ) Y (X) N **(3x) Vol. Gals:** 150.3
Observations: **Overall:** Clear **Start:** Clear **Finish:** Clear

Comments:

Monitoring Well Sampling: **Date:** 5/23/2022 **Time:** 12:45
Sampling Method: Bailer **Dedicated:** (X)Y ( )N **Weather/Temp:** Sun 57F
Depth to Water: 17.1

Field Data						
Temp Celsius	pH Std Units	Conductivity u/s	Turbidity NTU	ORP mV	D.O. mg/L	Observations/Characteristics
2.2	7.85	501	5.8	118	6.2	Clear

Parameters Sampled For: Baseline VOCs

Comments:

ENVIROTEKNIX SITE/PROJECT MANAGER SIGNATURE

Enviroteknix
An Environmental Field Service Company

Telephone: 716-366-8143
Fax: 716-366-8092
Email: enviroteknix@outlook.com
302 Lakeshore Drive East
Dunkirk, New York USA 14048

LANDFILL MONITORING FIELD LOG SHEET

Facility: Farwell Landfill **Sample Point ID:** MW-17s

Field Personnel: CS/CS **Sample Matrix:** Groundwater

Monitoring Well Inspection: **Date:** 5/22/2022 **Time:** 11:50

Condition of Casing/Riser:
( ) Unlocked (X) Good ( ) Loose ( ) Damaged ( ) Flush Mount
Condition of Seal:
(X) Good ( ) Cracked ( ) None ( ) Buried

Purge Information:
Date/Time Started: 11:50 Riser Diameter: 2"
Date/Time Ended: 12:05 (2" Conv. Factor = 0.163)
Purge Method: Pump Dedicated Tubing: (X)Y ( )N (4" Conv. Factor = 0.653)
Surface Meas. Pt.: (X) Casing ( ) Riser
Initial H2O Level: 16.8 Tot. Well Depth, ft: 43.1 One Vol. Gals: 4.3
Tot. Purged Gals: 13 Purged to Dryness: (X) Y ( ) N (3x) Vol. Gals: 12.9
Observations: Overall: Clear/Cldy Start: Clear Finish: Clear

Comments:

Monitoring Well Sampling: **Date:** 5/23/2022 **Time:** 12:15
Sampling Method: Bailer Dedicated: (X)Y ( )N Weather/Temp: Sun 56F
Depth to Water: 16.6

Field Data						
Temp Celsius	pH Std Units	Conductivity u/S	Turbidity NTU	ORP mV	D.O. mg/L	Observations/Characteristics
3.3	7.35	433	3.9	122	5.1	Clear

Parameters Sampled For: Baseline VOCs

Comments:

ENVIROTEKNIX SITE/PROJECT MANAGER SIGNATURE

Enviroteknix
An Environmental Field Service Company

Telephone: 716-366-8143
Fax: 716-366-8092
Email: enviroteknix@outlook.com
302 Lakeshore Drive East
Dunkirk, New York USA 14048

LANDFILL MONITORING FIELD LOG SHEET

Facility: Farwell Landfill **Sample Point ID:** MW-17i

Field Personnel: CS/CS **Sample Matrix:** Groundwater

Monitoring Well Inspection: **Date:** 5/22/2022 **Time:** 12:10

Condition of Casing/Riser:
( ) unlocked (X) Good ( ) Loose ( ) Damaged ( ) Flush Mount
Condition of Seal:
(X) Good ( ) Cracked ( ) None ( ) Buried

Purge Information:
Date/Time Started: 12:10 Riser Diameter: 2"
Date/Time Ended: 12:30 (2" Conv. Factor = 0.163)
Purge Method: Pump Dedicated Tubing: (X)Y ( )N (4" Conv. Factor = 0.653)
Surface Meas. Pt.: (X) Casing ( ) Riser
Initial H2O Level: 18.1 Tot. Well Depth, ft: 99.8 One Vol. Gals: 13.3
Tot. Purged Gals: 40 Purged to Dryness: ( ) Y (X) N (3x) Vol. Gals: 40
Observations: Overall: Clear Start: Clear Finish: Clear

Comments:

Monitoring Well Sampling: **Date:** 5/23/2022 **Time:** 12:25
Sampling Method: Bailer Dedicated: (X)Y ( )N Weather/Temp: Sun 56F
Depth to Water: 18.1

Field Data						
Temp Celsius	pH Std Units	Conductivity u/S	Turbidity NTU	ORP mV	D.O. mg/L	Observations/Characteristics
4.4	7.45	314	6	113	5.1	Clear

Parameters Sampled For: Baseline VOCs

Comments:

ENVIROTEKNIX SITE/PROJECT MANAGER SIGNATURE

Envlroteknix
An Environmental Field Service Company

Telephone: 716-366-8143
Fax: 716-366-8092
Email: enviroteknix@outlook.com
302 Lakeshore Drive East
Dunkirk, New York USA 14048

LANDFILL MONITORING FIELD LOG SHEET

Facility: Farwell Landfill **Sample Point ID:** MW-21

Field Personnel: CS/CS **Sample Matrix:** Groundwater

Monitoring Well Inspection: **Date:** 5/22/2022 **Time:** 17:20

Condition of Casing/Riser:
( ) Unlocked (X) Good ( ) Loose ( ) Damaged ( ) Flush Mount
Condition of Seal:
(X) Good ( ) Cracked ( ) None ( ) Buried

Purge Information: **Date/Time Started:** 17:20 **Riser Diameter:** 2"
Date/Time Ended: 17:45 (2" Conv. Factor = 0.163)
Purge Method: Pump **Dedicated Tubing:** (X)Y ( )N (4" Conv. Factor = 0.653)
Surface Meas. Pt.: (X) Casing ( ) Riser
Initial H2O Level: 47.6 **Tot. Well Depth, ft:** 123 **One Vol. Gals:** 12.3
Tot. Purged Gals: 37 **Purged to Dryness:** ( ) Y (X) N **(3x) Vol. Gals:** 36.9
Observations: **Overall:** Clear **Start:** Clear **Finish:** Clear

Comments:

Monitoring Well Sampling: **Date:** 5/23/2022 **Time:** 14:05
Sampling Method: Bailer **Dedicated:** (X)Y ( )N **Weather/Temp:** Sun 55F
Depth to Water: 47.7

Field Data						
Temp Celsius	pH Std Units	Conductivity u/S	Turbidity NTU	ORP mV	D.O. mg/L	Observations/Characteristics
3.9	7.77	998	1.3	113	4	Clear

Parameters Sampled For: Baseline VOCs

Comments:

ENVIROTEKNIX SITE/PROJECT MANAGER SIGNATURE

Enviroteknix
An Environmental Field Service Company

Telephone: 716-366-8143
Fax: 716-366-8092
Email: enviroteknix@outlook.com
302 Lakeshore Drive East
Dunkirk, New York USA 14048

LANDFILL MONITORING FIELD LOG SHEET

Facility: Farwell Landfill **Sample Point ID:** MW-22

Field Personnel: CS/CS **Sample Matrix:** Groundwater

Monitoring Well Inspection: **Date:** 5/22/2022 **Time:** 17:20

Condition of Casing/Riser:
( ) Unlocked (X) Good ( ) Loose ( ) Damaged ( ) Flush Mount
Condition of Seal:
(X) Good ( ) Cracked ( ) None ( ) Buried

Purge Information:
Date/Time Started: 17:20 Riser Diameter: 2"
Date/Time Ended: 17:35 (2" Conv. Factor = 0.163)
Purge Method: Pump Dedicated Tubing: (X)Y ( )N (4" Conv. Factor = 0.653)
Surface Meas. Pt.: (X) Casing ( ) Riser
Initial H2O Level: 11.8 Tot. Well Depth, ft: 57 One Vol. Gals: 7.4
Tot. Purged Gals: 22 Purged to Dryness: ( ) Y (X) N (3x) Vol. Gals: 22.1
Observations: Overall: Clear Start: Clear Finish: Clear

Comments:

Monitoring Well Sampling: **Date:** 5/23/2022 **Time:** 14:15

Sampling Method: Bailer Dedicated: (X)Y ( )N Weather/Temp: Sun 55F

Depth to Well: 12.1

Field Data						
Temp Celsius	pH Std Units	Conductivity u/S	Turbidity NTU	ORP mV	D.O. mg/L	Observations/Characteristics
2.2	6.93	248	5.5	85	5.4	Clear

Parameters Sampled For: Baseline VOCs

Comments:

ENVIROTEKNIX SITE/PROJECT MANAGER SIGNATURE

Enviroteknix
An Environmental Field Service Company

Telephone: 716-366-8143
Fax: 716-366-8092
Email: enviroteknix@outlook.com
302 Lakeshore Drive East
Dunkirk, New York USA 14048

LANDFILL MONITORING FIELD LOG SHEET

Facility: Farwell Landfill **Sample Point ID:** MW-23

Field Personnel: CS/CS **Sample Matrix:** Groundwater

Monitoring Well Inspection: **Date:** 5/22/2022 **Time:** 14:35

Condition of Casing/Riser: Pouring Rain!

( ) Unlocked (X) Good ( ) Loose ( ) Damaged ( ) Flush Mount

Condition of Seal:

(X) Good ( ) Cracked ( ) None ( ) Buried

Purge Information:

Date/Time Started: 14:35 Riser Diameter: 2"

Date/Time Ended: 15:00 (2" Conv. Factor = 0.163)

Purge Method: Pump Dedicated Tubing: (X) Y ( )N (4" Conv. Factor = 0.653)

Surface Meas. Pt.: (X) Casing ( ) Riser

Initial H2O Level: 9.8 Tot. Well Depth, ft: 54.1 One Vol. Gals: 7.2

Tot. Purged Gals: 21 Purged to Dryness: ( ) Y (X) N (3x) Vol. Gals: 21.7

Observations: Overall: Clear Start: Clear Finish: Clear

Comments:

Monitoring Well Sampling: **Date:** 5/23/2022 **Time:** 12:00

Sampling Method: Bailer Dedicated: (X)Y ( )N Weather/Temp: Sun 55F

Field Data Depth to Water: 9.8

Temp Celsius	pH Std Units	Conductivity u/S	Turbidity NTU	ORP mV	D.O. mg/L	Observations/Characteristics
1.1	6.85	160	1	79	6.1	Clear

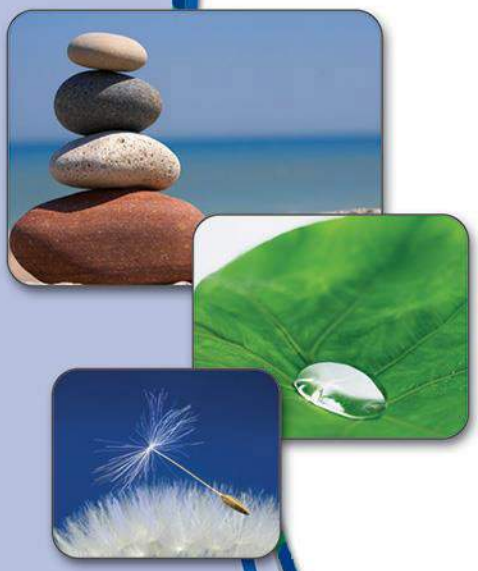
Parameters Sampled For: Baseline VOCs

Comments:

ENVIROTEKNIX SITE/PROJECT MANAGER SIGNATURE

APPENDIX D - LABORATORY ANALYTICAL REPORTS

eurofins | Environment Testing America



ANALYTICAL REPORT

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

Laboratory Job ID: 480-198235-1
Client Project/Site: Farwell Landfill - GW Baseline Volatiles
Sampling Event: FARWELL GW BASELINE Voas

For:
Cattaraugus County
8810 Route 242
Little Valley, New York 14755

Attn: Austin Kimes

Authorized for release by:
6/10/2022 11:36:51 AM

Ryan VanDette, Project Manager II
(716)504-9830
Ryan.VanDette@et.eurofinsus.com

Table of Contents

Definitions/Glossary

Client: Cattaraugus County
Job ID: 480-198235-1
Project/Site: Farwell Landfill - GW Baseline Volatiles

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Cattaraugus County
Job ID: 480-198235-1
Project/Site: Farwell Landfill - GW Baseline Volatiles

Job ID: 480-198235-1

Laboratory: Eurofins Buffalo

Narrative

Job Narrative
480-198235-1

Comments
No additional comments.

Receipt
The samples were received on 5/23/2022 5:00 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 5.1º C.

GC/MS VOA
Method 8260C: The continuing calibration verification (CCV) associated with batch 480-628185 recovered outside acceptance criteria, low biased, for 4-Methyl-2-pentanone. A reporting limit (RL) standard was analyzed, and the target analytes are detected. Since the associated samples were non-detect for the analyte, the data are reported. The associated samples are impacted: Trip Blank (480-198235-1), DUP Y (480-198235-2), MW-14I (480-198235-3), MW-14S (480-198235-4), MW-15I (480-198235-5), MW-15S (480-198235-6), MW-16I (480-198235-7), MW-16S (480-198235-8), MW-17I (480-198235-9), MW-17S (480-198235-10), MW-21 (480-198235-11), MW-22 (480-198235-12) and MW-23 (480-198235-13).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: Cattaraugus County
Job ID: 480-198235-1
Project/Site: Farwell Landfill - GW Baseline Volatiles

Client Sample ID: Trip Blank — Lab Sample ID: 480-198235-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	3.6	J	10	3.0	ug/L	1		8260C	Total/NA

Client Sample ID: DUP Y — Lab Sample ID: 480-198235-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	4.4		1.0	0.38	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	0.98	J	1.0	0.81	ug/L	1		8260C	Total/NA
Trichloroethene	0.53	J	1.0	0.46	ug/L	1		8260C	Total/NA
Field EH/ORP	117				millivolts	1		Field Sampling	Total/NA
pH, Field	7.69				SU	1		Field Sampling	Total/NA
Temperature, Field (C)	3.9				Degrees C	1		Field Sampling	Total/NA
Field Conductivity	698				umhos/cm	1		Field Sampling	Total/NA
Turbidity	4.9				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-14I — Lab Sample ID: 480-198235-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroethane	19		1.0	0.32	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	10		1.0	0.81	ug/L	1		8260C	Total/NA
Trichloroethene	0.65	J	1.0	0.46	ug/L	1		8260C	Total/NA
Field EH/ORP	142				millivolts	1		Field Sampling	Total/NA
pH, Field	7.93				SU	1		Field Sampling	Total/NA
Temperature, Field (C)	7.2				Degrees C	1		Field Sampling	Total/NA
Field Conductivity	1127				umhos/cm	1		Field Sampling	Total/NA
Turbidity	6.3				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-14S — Lab Sample ID: 480-198235-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.91	J	1.0	0.38	ug/L	1		8260C	Total/NA
Acetone	4.6	J	10	3.0	ug/L	1		8260C	Total/NA
Chloroethane	13		1.0	0.32	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	7.8		1.0	0.81	ug/L	1		8260C	Total/NA
Field EH/ORP	122				millivolts	1		Field Sampling	Total/NA
pH, Field	7.65				SU	1		Field Sampling	Total/NA
Temperature, Field (C)	7.8				Degrees C	1		Field Sampling	Total/NA
Field Conductivity	963				umhos/cm	1		Field Sampling	Total/NA
Turbidity	57.4				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-15I — Lab Sample ID: 480-198235-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	1.5		1.0	0.38	ug/L	1		8260C	Total/NA
Chloroethane	0.43	J	1.0	0.32	ug/L	1		8260C	Total/NA
Field EH/ORP	118				millivolts	1		Field Sampling	Total/NA
pH, Field	7.91				SU	1		Field Sampling	Total/NA
Temperature, Field (C)	3.3				Degrees C	1		Field Sampling	Total/NA
Field Conductivity	468				umhos/cm	1		Field Sampling	Total/NA
Turbidity	2.7				NTU	1		Field Sampling	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Cattaraugus County
Job ID: 480-198235-1
Project/Site: Farwell Landfill - GW Baseline Volatiles

Client Sample ID: MW-15S — Lab Sample ID: 480-198235-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	1.2		1.0	0.38	ug/L	1		8260C	Total/NA
Field EH/ORP	116				millivolts	1		Field Sampling	Total/NA
pH, Field	8.05				SU	1		Field Sampling	Total/NA
Temperature, Field (C)	3.9				Degrees C	1		Field Sampling	Total/NA
Field Conductivity	533				umhos/cm	1		Field Sampling	Total/NA
Turbidity	9.6				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-16I — Lab Sample ID: 480-198235-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	11		1.0	0.38	ug/L	1		8260C	Total/NA
Chloroethane	11		1.0	0.32	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	4.6		1.0	0.81	ug/L	1		8260C	Total/NA
Field EH/ORP	118				millivolts	1		Field Sampling	Total/NA
pH, Field	7.85				SU	1		Field Sampling	Total/NA
Temperature, Field (C)	2.2				Degrees C	1		Field Sampling	Total/NA
Field Conductivity	501				umhos/cm	1		Field Sampling	Total/NA
Turbidity	5.8				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-16S — Lab Sample ID: 480-198235-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	4.7		1.0	0.38	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	1.2		1.0	0.81	ug/L	1		8260C	Total/NA
Trichloroethene	0.84	J	1.0	0.46	ug/L	1		8260C	Total/NA
Field EH/ORP	117				millivolts	1		Field Sampling	Total/NA
pH, Field	7.69				SU	1		Field Sampling	Total/NA
Temperature, Field (C)	3.9				Degrees C	1		Field Sampling	Total/NA
Field Conductivity	698				umhos/cm	1		Field Sampling	Total/NA
Turbidity	4.9				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-17I — Lab Sample ID: 480-198235-9

Analyte	Result	Qualifier	NONE	NONE	Unit	Dil Fac	D	Method	Prep Type
Field EH/ORP	113				millivolts	1		Field Sampling	Total/NA
pH, Field	7.45				SU	1		Field Sampling	Total/NA
Temperature, Field (C)	4.4				Degrees C	1		Field Sampling	Total/NA
Field Conductivity	314				umhos/cm	1		Field Sampling	Total/NA
Turbidity	6.0				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-17S — Lab Sample ID: 480-198235-10

Analyte	Result	Qualifier	NONE	NONE	Unit	Dil Fac	D	Method	Prep Type
Field EH/ORP	122				millivolts	1		Field Sampling	Total/NA
pH, Field	7.35				SU	1		Field Sampling	Total/NA
Temperature, Field (C)	3.3				Degrees C	1		Field Sampling	Total/NA
Field Conductivity	433				umhos/cm	1		Field Sampling	Total/NA
Turbidity	3.9				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-21 — Lab Sample ID: 480-198235-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	0.97	J	1.0	0.82	ug/L	1		8260C	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Buffalo

Client Sample ID: MW-21 (Continued)
Lab Sample ID: 480-198235-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	27		1.0	0.38	ug/L	1		8260C	Total/NA
Chloroethane	9.0		1.0	0.32	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	49		1.0	0.81	ug/L	1		8260C	Total/NA
Tetrachloroethene	0.66	J	1.0	0.36	ug/L	1		8260C	Total/NA
Trichloroethene	4.0		1.0	0.46	ug/L	1		8260C	Total/NA
Field EH/ORP	113				millivolts	1		Field Sampling	Total/NA
pH, Field	7.77				SU	1		Field Sampling	Total/NA
Temperature, Field (C)	3.9				Degrees C	1		Field Sampling	Total/NA
Field Conductivity	998				umhos/cm	1		Field Sampling	Total/NA
Turbidity	1.3				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-22
Lab Sample ID: 480-198235-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	2.0		1.0	0.82	ug/L	1		8260C	Total/NA
1,1-Dichloroethane	2.7		1.0	0.38	ug/L	1		8260C	Total/NA
Field EH/ORP	85				millivolts	1		Field Sampling	Total/NA
pH, Field	6.93				SU	1		Field Sampling	Total/NA
Temperature, Field (C)	2.2				Degrees C	1		Field Sampling	Total/NA
Field Conductivity	248				umhos/cm	1		Field Sampling	Total/NA
Turbidity	5.5				NTU	1		Field Sampling	Total/NA

Client Sample ID: MW-23
Lab Sample ID: 480-198235-13

Analyte	Result	Qualifier	NONE	NONE	Unit	Dil Fac	D	Method	Prep Type
Field EH/ORP	79				millivolts	1		Field Sampling	Total/NA
pH, Field	6.85				SU	1		Field Sampling	Total/NA
Temperature, Field (C)	1.1				Degrees C	1		Field Sampling	Total/NA
Field Conductivity	160				umhos/cm	1		Field Sampling	Total/NA
Turbidity	1.0				NTU	1		Field Sampling	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Cattaraugus County
Job ID: 480-198235-1
Project/Site: Farwell Landfill - GW Baseline Volatiles

Client Sample ID: Trip Blank
Lab Sample ID: 480-198235-1
Date Collected: 05/23/22 00:00
Matrix: Water
Date Received: 05/23/22 17:00

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L			06/01/22 01:34	1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			06/01/22 01:34	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			06/01/22 01:34	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			06/01/22 01:34	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			06/01/22 01:34	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			06/01/22 01:34	1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L			06/01/22 01:34	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			06/01/22 01:34	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			06/01/22 01:34	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			06/01/22 01:34	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			06/01/22 01:34	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			06/01/22 01:34	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			06/01/22 01:34	1
2-Butanone	ND		10	1.3	ug/L			06/01/22 01:34	1
2-Hexanone	ND		5.0	1.2	ug/L			06/01/22 01:34	1
4-Methyl-2-pentanone	ND		5.0	2.1	ug/L			06/01/22 01:34	1
Acetone	**3.6**	**J**	10	3.0	ug/L			06/01/22 01:34	1
Acrylonitrile	ND		5.0	0.83	ug/L			06/01/22 01:34	1
Benzene	ND		1.0	0.41	ug/L			06/01/22 01:34	1
Bromochloromethane	ND		1.0	0.87	ug/L			06/01/22 01:34	1
Bromodichloromethane	ND		1.0	0.39	ug/L			06/01/22 01:34	1
Bromoform	ND		1.0	0.26	ug/L			06/01/22 01:34	1
Bromomethane	ND		1.0	0.69	ug/L			06/01/22 01:34	1
Carbon disulfide	ND		1.0	0.19	ug/L			06/01/22 01:34	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			06/01/22 01:34	1
Chlorobenzene	ND		1.0	0.75	ug/L			06/01/22 01:34	1
Chloroethane	ND		1.0	0.32	ug/L			06/01/22 01:34	1
Chloroform	ND		1.0	0.34	ug/L			06/01/22 01:34	1
Chloromethane	ND		1.0	0.35	ug/L			06/01/22 01:34	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			06/01/22 01:34	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			06/01/22 01:34	1
Dibromochloromethane	ND		1.0	0.32	ug/L			06/01/22 01:34	1
Dibromomethane	ND		1.0	0.41	ug/L			06/01/22 01:34	1
Ethylbenzene	ND		1.0	0.74	ug/L			06/01/22 01:34	1
Iodomethane	ND		1.0	0.30	ug/L			06/01/22 01:34	1
m,p-Xylene	ND		2.0	0.66	ug/L			06/01/22 01:34	1
Methylene Chloride	ND		1.0	0.44	ug/L			06/01/22 01:34	1
o-Xylene	ND		1.0	0.76	ug/L			06/01/22 01:34	1
Styrene	ND		1.0	0.73	ug/L			06/01/22 01:34	1
Tetrachloroethene	ND		1.0	0.36	ug/L			06/01/22 01:34	1
Toluene	ND		1.0	0.51	ug/L			06/01/22 01:34	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			06/01/22 01:34	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			06/01/22 01:34	1
trans-1,4-Dichloro-2-butene	ND		5.0	0.22	ug/L			06/01/22 01:34	1
Trichloroethene	ND		1.0	0.46	ug/L			06/01/22 01:34	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			06/01/22 01:34	1
Vinyl acetate	ND		5.0	0.85	ug/L			06/01/22 01:34	1
Vinyl chloride	ND		1.0	0.90	ug/L			06/01/22 01:34	1

Client: Cattaraugus County
Job ID: 480-198235-1
Project/Site: Farwell Landfill - GW Baseline Volatiles

Client Sample ID: Trip Blank
Lab Sample ID: 480-198235-1
Date Collected: 05/23/22 00:00
Matrix: Water
Date Received: 05/23/22 17:00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	91		77 - 120		06/01/22 01:34	1
4-Bromofluorobenzene (Surr)	108		73 - 120		06/01/22 01:34	1
Toluene-d8 (Surr)	96		80 - 120		06/01/22 01:34	1

Client: Cattaraugus County
Job ID: 480-198235-1
Project/Site: Farwell Landfill - GW Baseline Volatiles

Client Sample ID: DUP Y
Lab Sample ID: 480-198235-2
Date Collected: 05/23/22 12:35
Matrix: Water
Date Received: 05/23/22 17:00

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L			06/01/22 01:57	1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			06/01/22 01:57	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			06/01/22 01:57	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			06/01/22 01:57	1
1,1-Dichloroethane	**4.4**		1.0	0.38	ug/L			06/01/22 01:57	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			06/01/22 01:57	1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L			06/01/22 01:57	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			06/01/22 01:57	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			06/01/22 01:57	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			06/01/22 01:57	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			06/01/22 01:57	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			06/01/22 01:57	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			06/01/22 01:57	1
2-Butanone	ND		10	1.3	ug/L			06/01/22 01:57	1
2-Hexanone	ND		5.0	1.2	ug/L			06/01/22 01:57	1
4-Methyl-2-pentanone	ND		5.0	2.1	ug/L			06/01/22 01:57	1
Acetone	ND		10	3.0	ug/L			06/01/22 01:57	1
Acrylonitrile	ND		5.0	0.83	ug/L			06/01/22 01:57	1
Benzene	ND		1.0	0.41	ug/L			06/01/22 01:57	1
Bromochloromethane	ND		1.0	0.87	ug/L			06/01/22 01:57	1
Bromodichloromethane	ND		1.0	0.39	ug/L			06/01/22 01:57	1
Bromoform	ND		1.0	0.26	ug/L			06/01/22 01:57	1
Bromomethane	ND		1.0	0.69	ug/L			06/01/22 01:57	1
Carbon disulfide	ND		1.0	0.19	ug/L			06/01/22 01:57	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			06/01/22 01:57	1
Chlorobenzene	ND		1.0	0.75	ug/L			06/01/22 01:57	1
Chloroethane	ND		1.0	0.32	ug/L			06/01/22 01:57	1
Chloroform	ND		1.0	0.34	ug/L			06/01/22 01:57	1
Chloromethane	ND		1.0	0.35	ug/L			06/01/22 01:57	1
cis-1,2-Dichloroethene	**0.98**	**J**	1.0	0.81	ug/L			06/01/22 01:57	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			06/01/22 01:57	1
Dibromochloromethane	ND		1.0	0.32	ug/L			06/01/22 01:57	1
Dibromomethane	ND		1.0	0.41	ug/L			06/01/22 01:57	1
Ethylbenzene	ND		1.0	0.74	ug/L			06/01/22 01:57	1
Iodomethane	ND		1.0	0.30	ug/L			06/01/22 01:57	1
m,p-Xylene	ND		2.0	0.66	ug/L			06/01/22 01:57	1
Methylene Chloride	ND		1.0	0.44	ug/L			06/01/22 01:57	1
o-Xylene	ND		1.0	0.76	ug/L			06/01/22 01:57	1
Styrene	ND		1.0	0.73	ug/L			06/01/22 01:57	1
Tetrachloroethene	ND		1.0	0.36	ug/L			06/01/22 01:57	1
Toluene	ND		1.0	0.51	ug/L			06/01/22 01:57	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			06/01/22 01:57	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			06/01/22 01:57	1
trans-1,4-Dichloro-2-butene	ND		5.0	0.22	ug/L			06/01/22 01:57	1
Trichloroethene	**0.53**	**J**	1.0	0.46	ug/L			06/01/22 01:57	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			06/01/22 01:57	1
Vinyl acetate	ND		5.0	0.85	ug/L			06/01/22 01:57	1
Vinyl chloride	ND		1.0	0.90	ug/L			06/01/22 01:57	1

Client: Cattaraugus County
Job ID: 480-198235-1
Project/Site: Farwell Landfill - GW Baseline Volatiles

Client Sample ID: DUP Y
Lab Sample ID: 480-198235-2
Date Collected: 05/23/22 12:35
Matrix: Water
Date Received: 05/23/22 17:00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*91*		*77 - 120*		*06/01/22 01:57*	*1*
4-Bromofluorobenzene (Surr)	*104*		*73 - 120*		*06/01/22 01:57*	*1*
Toluene-d8 (Surr)	*92*		*80 - 120*		*06/01/22 01:57*	*1*

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Field EH/ORP	**117**				millivolts			05/23/22 12:35	1
pH, Field	**7.69**				SU			05/23/22 12:35	1
Temperature, Field (C)	**3.9**				Degrees C			05/23/22 12:35	1
Field Conductivity	**698**				umhos/cm			05/23/22 12:35	1
Turbidity	**4.9**				NTU			05/23/22 12:35	1

Client: Cattaraugus County
Job ID: 480-198235-1
Project/Site: Farwell Landfill - GW Baseline Volatiles

Client Sample ID: MW-14I
Lab Sample ID: 480-198235-3
Date Collected: 05/23/22 13:30
Matrix: Water
Date Received: 05/23/22 17:00

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L			06/01/22 02:20	1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			06/01/22 02:20	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			06/01/22 02:20	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			06/01/22 02:20	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			06/01/22 02:20	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			06/01/22 02:20	1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L			06/01/22 02:20	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			06/01/22 02:20	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			06/01/22 02:20	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			06/01/22 02:20	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			06/01/22 02:20	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			06/01/22 02:20	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			06/01/22 02:20	1
2-Butanone	ND		10	1.3	ug/L			06/01/22 02:20	1
2-Hexanone	ND		5.0	1.2	ug/L			06/01/22 02:20	1
4-Methyl-2-pentanone	ND		5.0	2.1	ug/L			06/01/22 02:20	1
Acetone	ND		10	3.0	ug/L			06/01/22 02:20	1
Acrylonitrile	ND		5.0	0.83	ug/L			06/01/22 02:20	1
Benzene	ND		1.0	0.41	ug/L			06/01/22 02:20	1
Bromochloromethane	ND		1.0	0.87	ug/L			06/01/22 02:20	1
Bromodichloromethane	ND		1.0	0.39	ug/L			06/01/22 02:20	1
Bromoform	ND		1.0	0.26	ug/L			06/01/22 02:20	1
Bromomethane	ND		1.0	0.69	ug/L			06/01/22 02:20	1
Carbon disulfide	ND		1.0	0.19	ug/L			06/01/22 02:20	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			06/01/22 02:20	1
Chlorobenzene	ND		1.0	0.75	ug/L			06/01/22 02:20	1
Chloroethane	**19**		1.0	0.32	ug/L			06/01/22 02:20	1
Chloroform	ND		1.0	0.34	ug/L			06/01/22 02:20	1
Chloromethane	ND		1.0	0.35	ug/L			06/01/22 02:20	1
cis-1,2-Dichloroethene	**10**		1.0	0.81	ug/L			06/01/22 02:20	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			06/01/22 02:20	1
Dibromochloromethane	ND		1.0	0.32	ug/L			06/01/22 02:20	1
Dibromomethane	ND		1.0	0.41	ug/L			06/01/22 02:20	1
Ethylbenzene	ND		1.0	0.74	ug/L			06/01/22 02:20	1
Iodomethane	ND		1.0	0.30	ug/L			06/01/22 02:20	1
m,p-Xylene	ND		2.0	0.66	ug/L			06/01/22 02:20	1
Methylene Chloride	ND		1.0	0.44	ug/L			06/01/22 02:20	1
o-Xylene	ND		1.0	0.76	ug/L			06/01/22 02:20	1
Styrene	ND		1.0	0.73	ug/L			06/01/22 02:20	1
Tetrachloroethene	ND		1.0	0.36	ug/L			06/01/22 02:20	1
Toluene	ND		1.0	0.51	ug/L			06/01/22 02:20	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			06/01/22 02:20	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			06/01/22 02:20	1
trans-1,4-Dichloro-2-butene	ND		5.0	0.22	ug/L			06/01/22 02:20	1
Trichloroethene	**0.65**	**J**	1.0	0.46	ug/L			06/01/22 02:20	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			06/01/22 02:20	1
Vinyl acetate	ND		5.0	0.85	ug/L			06/01/22 02:20	1
Vinyl chloride	ND		1.0	0.90	ug/L			06/01/22 02:20	1

Client: Cattaraugus County
Job ID: 480-198235-1
Project/Site: Farwell Landfill - GW Baseline Volatiles

Client Sample ID: MW-14I
Lab Sample ID: 480-198235-3
Date Collected: 05/23/22 13:30
Matrix: Water
Date Received: 05/23/22 17:00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*87*		*77 - 120*		*06/01/22 02:20*	*1*
4-Bromofluorobenzene (Surr)	*101*		*73 - 120*		*06/01/22 02:20*	*1*
Toluene-d8 (Surr)	*92*		*80 - 120*		*06/01/22 02:20*	*1*

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Field EH/ORP	**142**				millivolts			05/23/22 13:30	1
pH, Field	**7.93**				SU			05/23/22 13:30	1
Temperature, Field (C)	**7.2**				Degrees C			05/23/22 13:30	1
Field Conductivity	**1127**				umhos/cm			05/23/22 13:30	1
Turbidity	**6.3**				NTU			05/23/22 13:30	1

Client: Cattaraugus County
Job ID: 480-198235-1
Project/Site: Farwell Landfill - GW Baseline Volatiles

Client Sample ID: MW-14S
Lab Sample ID: 480-198235-4
Date Collected: 05/23/22 13:45
Matrix: Water
Date Received: 05/23/22 17:00

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L			06/01/22 02:43	1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			06/01/22 02:43	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			06/01/22 02:43	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			06/01/22 02:43	1
1,1-Dichloroethane	**0.91**	**J**	1.0	0.38	ug/L			06/01/22 02:43	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			06/01/22 02:43	1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L			06/01/22 02:43	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			06/01/22 02:43	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			06/01/22 02:43	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			06/01/22 02:43	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			06/01/22 02:43	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			06/01/22 02:43	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			06/01/22 02:43	1
2-Butanone	ND		10	1.3	ug/L			06/01/22 02:43	1
2-Hexanone	ND		5.0	1.2	ug/L			06/01/22 02:43	1
4-Methyl-2-pentanone	ND		5.0	2.1	ug/L			06/01/22 02:43	1
Acetone	**4.6**	**J**	10	3.0	ug/L			06/01/22 02:43	1
Acrylonitrile	ND		5.0	0.83	ug/L			06/01/22 02:43	1
Benzene	ND		1.0	0.41	ug/L			06/01/22 02:43	1
Bromochloromethane	ND		1.0	0.87	ug/L			06/01/22 02:43	1
Bromodichloromethane	ND		1.0	0.39	ug/L			06/01/22 02:43	1
Bromoform	ND		1.0	0.26	ug/L			06/01/22 02:43	1
Bromomethane	ND		1.0	0.69	ug/L			06/01/22 02:43	1
Carbon disulfide	ND		1.0	0.19	ug/L			06/01/22 02:43	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			06/01/22 02:43	1
Chlorobenzene	ND		1.0	0.75	ug/L			06/01/22 02:43	1
Chloroethane	**13**		1.0	0.32	ug/L			06/01/22 02:43	1
Chloroform	ND		1.0	0.34	ug/L			06/01/22 02:43	1
Chloromethane	ND		1.0	0.35	ug/L			06/01/22 02:43	1
cis-1,2-Dichloroethene	**7.8**		1.0	0.81	ug/L			06/01/22 02:43	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			06/01/22 02:43	1
Dibromochloromethane	ND		1.0	0.32	ug/L			06/01/22 02:43	1
Dibromomethane	ND		1.0	0.41	ug/L			06/01/22 02:43	1
Ethylbenzene	ND		1.0	0.74	ug/L			06/01/22 02:43	1
Iodomethane	ND		1.0	0.30	ug/L			06/01/22 02:43	1
m,p-Xylene	ND		2.0	0.66	ug/L			06/01/22 02:43	1
Methylene Chloride	ND		1.0	0.44	ug/L			06/01/22 02:43	1
o-Xylene	ND		1.0	0.76	ug/L			06/01/22 02:43	1
Styrene	ND		1.0	0.73	ug/L			06/01/22 02:43	1
Tetrachloroethene	ND		1.0	0.36	ug/L			06/01/22 02:43	1
Toluene	ND		1.0	0.51	ug/L			06/01/22 02:43	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			06/01/22 02:43	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			06/01/22 02:43	1
trans-1,4-Dichloro-2-butene	ND		5.0	0.22	ug/L			06/01/22 02:43	1
Trichloroethene	ND		1.0	0.46	ug/L			06/01/22 02:43	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			06/01/22 02:43	1
Vinyl acetate	ND		5.0	0.85	ug/L			06/01/22 02:43	1
Vinyl chloride	ND		1.0	0.90	ug/L			06/01/22 02:43	1

Client: Cattaraugus County
Job ID: 480-198235-1
Project/Site: Farwell Landfill - GW Baseline Volatiles

Client Sample ID: MW-14S
Lab Sample ID: 480-198235-4
Date Collected: 05/23/22 13:45
Matrix: Water
Date Received: 05/23/22 17:00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*87*		*77 - 120*		*06/01/22 02:43*	*1*
4-Bromofluorobenzene (Surr)	*103*		*73 - 120*		*06/01/22 02:43*	*1*
Toluene-d8 (Surr)	*91*		*80 - 120*		*06/01/22 02:43*	*1*

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Field EH/ORP	**122**				millivolts			05/23/22 13:45	1
pH, Field	**7.65**				SU			05/23/22 13:45	1
Temperature, Field (C)	**7.8**				Degrees C			05/23/22 13:45	1
Field Conductivity	**963**				umhos/cm			05/23/22 13:45	1
Turbidity	**57.4**				NTU			05/23/22 13:45	1

Client: Cattaraugus County
Job ID: 480-198235-1
Project/Site: Farwell Landfill - GW Baseline Volatiles

Client Sample ID: MW-15I
Lab Sample ID: 480-198235-5
Date Collected: 05/23/22 13:15
Matrix: Water
Date Received: 05/23/22 17:00

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L			06/01/22 03:06	1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			06/01/22 03:06	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			06/01/22 03:06	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			06/01/22 03:06	1
1,1-Dichloroethane	**1.5**		1.0	0.38	ug/L			06/01/22 03:06	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			06/01/22 03:06	1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L			06/01/22 03:06	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			06/01/22 03:06	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			06/01/22 03:06	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			06/01/22 03:06	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			06/01/22 03:06	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			06/01/22 03:06	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			06/01/22 03:06	1
2-Butanone	ND		10	1.3	ug/L			06/01/22 03:06	1
2-Hexanone	ND		5.0	1.2	ug/L			06/01/22 03:06	1
4-Methyl-2-pentanone	ND		5.0	2.1	ug/L			06/01/22 03:06	1
Acetone	ND		10	3.0	ug/L			06/01/22 03:06	1
Acrylonitrile	ND		5.0	0.83	ug/L			06/01/22 03:06	1
Benzene	ND		1.0	0.41	ug/L			06/01/22 03:06	1
Bromochloromethane	ND		1.0	0.87	ug/L			06/01/22 03:06	1
Bromodichloromethane	ND		1.0	0.39	ug/L			06/01/22 03:06	1
Bromoform	ND		1.0	0.26	ug/L			06/01/22 03:06	1
Bromomethane	ND		1.0	0.69	ug/L			06/01/22 03:06	1
Carbon disulfide	ND		1.0	0.19	ug/L			06/01/22 03:06	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			06/01/22 03:06	1
Chlorobenzene	ND		1.0	0.75	ug/L			06/01/22 03:06	1
Chloroethane	**0.43**	**J**	1.0	0.32	ug/L			06/01/22 03:06	1
Chloroform	ND		1.0	0.34	ug/L			06/01/22 03:06	1
Chloromethane	ND		1.0	0.35	ug/L			06/01/22 03:06	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			06/01/22 03:06	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			06/01/22 03:06	1
Dibromochloromethane	ND		1.0	0.32	ug/L			06/01/22 03:06	1
Dibromomethane	ND		1.0	0.41	ug/L			06/01/22 03:06	1
Ethylbenzene	ND		1.0	0.74	ug/L			06/01/22 03:06	1
Iodomethane	ND		1.0	0.30	ug/L			06/01/22 03:06	1
m,p-Xylene	ND		2.0	0.66	ug/L			06/01/22 03:06	1
Methylene Chloride	ND		1.0	0.44	ug/L			06/01/22 03:06	1
o-Xylene	ND		1.0	0.76	ug/L			06/01/22 03:06	1
Styrene	ND		1.0	0.73	ug/L			06/01/22 03:06	1
Tetrachloroethene	ND		1.0	0.36	ug/L			06/01/22 03:06	1
Toluene	ND		1.0	0.51	ug/L			06/01/22 03:06	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			06/01/22 03:06	1
trans-1,3-Dichloropropene	ND	F1	1.0	0.37	ug/L			06/01/22 03:06	1
trans-1,4-Dichloro-2-butene	ND		5.0	0.22	ug/L			06/01/22 03:06	1
Trichloroethene	ND		1.0	0.46	ug/L			06/01/22 03:06	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			06/01/22 03:06	1
Vinyl acetate	ND		5.0	0.85	ug/L			06/01/22 03:06	1
Vinyl chloride	ND		1.0	0.90	ug/L			06/01/22 03:06	1

Client: Cattaraugus County
Job ID: 480-198235-1
Project/Site: Farwell Landfill - GW Baseline Volatiles

Client Sample ID: MW-15I
Lab Sample ID: 480-198235-5
Date Collected: 05/23/22 13:15
Matrix: Water
Date Received: 05/23/22 17:00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*92*		*77 - 120*		*06/01/22 03:06*	*1*
4-Bromofluorobenzene (Surr)	*102*		*73 - 120*		*06/01/22 03:06*	*1*
Toluene-d8 (Surr)	*93*		*80 - 120*		*06/01/22 03:06*	*1*

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Field EH/ORP	**118**				millivolts			05/23/22 13:15	1
pH, Field	**7.91**				SU			05/23/22 13:15	1
Temperature, Field (C)	**3.3**				Degrees C			05/23/22 13:15	1
Field Conductivity	**468**				umhos/cm			05/23/22 13:15	1
Turbidity	**2.7**				NTU			05/23/22 13:15	1

Client: Cattaraugus County
Job ID: 480-198235-1
Project/Site: Farwell Landfill - GW Baseline Volatiles

Client Sample ID: MW-15S
Lab Sample ID: 480-198235-6
Date Collected: 05/23/22 13:00
Matrix: Water
Date Received: 05/23/22 17:00

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L			06/01/22 03:30	1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			06/01/22 03:30	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			06/01/22 03:30	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			06/01/22 03:30	1
1,1-Dichloroethane	**1.2**		1.0	0.38	ug/L			06/01/22 03:30	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			06/01/22 03:30	1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L			06/01/22 03:30	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			06/01/22 03:30	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			06/01/22 03:30	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			06/01/22 03:30	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			06/01/22 03:30	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			06/01/22 03:30	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			06/01/22 03:30	1
2-Butanone	ND		10	1.3	ug/L			06/01/22 03:30	1
2-Hexanone	ND		5.0	1.2	ug/L			06/01/22 03:30	1
4-Methyl-2-pentanone	ND		5.0	2.1	ug/L			06/01/22 03:30	1
Acetone	ND		10	3.0	ug/L			06/01/22 03:30	1
Acrylonitrile	ND		5.0	0.83	ug/L			06/01/22 03:30	1
Benzene	ND		1.0	0.41	ug/L			06/01/22 03:30	1
Bromochloromethane	ND		1.0	0.87	ug/L			06/01/22 03:30	1
Bromodichloromethane	ND		1.0	0.39	ug/L			06/01/22 03:30	1
Bromoform	ND		1.0	0.26	ug/L			06/01/22 03:30	1
Bromomethane	ND		1.0	0.69	ug/L			06/01/22 03:30	1
Carbon disulfide	ND		1.0	0.19	ug/L			06/01/22 03:30	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			06/01/22 03:30	1
Chlorobenzene	ND		1.0	0.75	ug/L			06/01/22 03:30	1
Chloroethane	ND		1.0	0.32	ug/L			06/01/22 03:30	1
Chloroform	ND		1.0	0.34	ug/L			06/01/22 03:30	1
Chloromethane	ND		1.0	0.35	ug/L			06/01/22 03:30	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			06/01/22 03:30	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			06/01/22 03:30	1
Dibromochloromethane	ND		1.0	0.32	ug/L			06/01/22 03:30	1
Dibromomethane	ND		1.0	0.41	ug/L			06/01/22 03:30	1
Ethylbenzene	ND		1.0	0.74	ug/L			06/01/22 03:30	1
Iodomethane	ND		1.0	0.30	ug/L			06/01/22 03:30	1
m,p-Xylene	ND		2.0	0.66	ug/L			06/01/22 03:30	1
Methylene Chloride	ND		1.0	0.44	ug/L			06/01/22 03:30	1
o-Xylene	ND		1.0	0.76	ug/L			06/01/22 03:30	1
Styrene	ND		1.0	0.73	ug/L			06/01/22 03:30	1
Tetrachloroethene	ND		1.0	0.36	ug/L			06/01/22 03:30	1
Toluene	ND		1.0	0.51	ug/L			06/01/22 03:30	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			06/01/22 03:30	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			06/01/22 03:30	1
trans-1,4-Dichloro-2-butene	ND		5.0	0.22	ug/L			06/01/22 03:30	1
Trichloroethene	ND		1.0	0.46	ug/L			06/01/22 03:30	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			06/01/22 03:30	1
Vinyl acetate	ND		5.0	0.85	ug/L			06/01/22 03:30	1
Vinyl chloride	ND		1.0	0.90	ug/L			06/01/22 03:30	1

Client: Cattaraugus County
Job ID: 480-198235-1
Project/Site: Farwell Landfill - GW Baseline Volatiles

Client Sample ID: MW-15S
Lab Sample ID: 480-198235-6
Date Collected: 05/23/22 13:00
Matrix: Water
Date Received: 05/23/22 17:00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*87*		*77 - 120*		*06/01/22 03:30*	*1*
4-Bromofluorobenzene (Surr)	*105*		*73 - 120*		*06/01/22 03:30*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*06/01/22 03:30*	*1*

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Field EH/ORP	**116**				millivolts			05/23/22 13:00	1
pH, Field	**8.05**				SU			05/23/22 13:00	1
Temperature, Field (C)	**3.9**				Degrees C			05/23/22 13:00	1
Field Conductivity	**533**				umhos/cm			05/23/22 13:00	1
Turbidity	**9.6**				NTU			05/23/22 13:00	1

Client: Cattaraugus County
Job ID: 480-198235-1
Project/Site: Farwell Landfill - GW Baseline Volatiles

Client Sample ID: MW-16I
Lab Sample ID: 480-198235-7
Date Collected: 05/23/22 12:45
Matrix: Water
Date Received: 05/23/22 17:00

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L			06/01/22 03:53	1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			06/01/22 03:53	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			06/01/22 03:53	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			06/01/22 03:53	1
1,1-Dichloroethane	**11**		1.0	0.38	ug/L			06/01/22 03:53	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			06/01/22 03:53	1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L			06/01/22 03:53	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			06/01/22 03:53	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			06/01/22 03:53	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			06/01/22 03:53	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			06/01/22 03:53	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			06/01/22 03:53	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			06/01/22 03:53	1
2-Butanone	ND		10	1.3	ug/L			06/01/22 03:53	1
2-Hexanone	ND		5.0	1.2	ug/L			06/01/22 03:53	1
4-Methyl-2-pentanone	ND		5.0	2.1	ug/L			06/01/22 03:53	1
Acetone	ND		10	3.0	ug/L			06/01/22 03:53	1
Acrylonitrile	ND		5.0	0.83	ug/L			06/01/22 03:53	1
Benzene	ND		1.0	0.41	ug/L			06/01/22 03:53	1
Bromochloromethane	ND		1.0	0.87	ug/L			06/01/22 03:53	1
Bromodichloromethane	ND		1.0	0.39	ug/L			06/01/22 03:53	1
Bromoform	ND		1.0	0.26	ug/L			06/01/22 03:53	1
Bromomethane	ND		1.0	0.69	ug/L			06/01/22 03:53	1
Carbon disulfide	ND		1.0	0.19	ug/L			06/01/22 03:53	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			06/01/22 03:53	1
Chlorobenzene	ND		1.0	0.75	ug/L			06/01/22 03:53	1
Chloroethane	**11**		1.0	0.32	ug/L			06/01/22 03:53	1
Chloroform	ND		1.0	0.34	ug/L			06/01/22 03:53	1
Chloromethane	ND		1.0	0.35	ug/L			06/01/22 03:53	1
cis-1,2-Dichloroethene	**4.6**		1.0	0.81	ug/L			06/01/22 03:53	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			06/01/22 03:53	1
Dibromochloromethane	ND		1.0	0.32	ug/L			06/01/22 03:53	1
Dibromomethane	ND		1.0	0.41	ug/L			06/01/22 03:53	1
Ethylbenzene	ND		1.0	0.74	ug/L			06/01/22 03:53	1
Iodomethane	ND		1.0	0.30	ug/L			06/01/22 03:53	1
m,p-Xylene	ND		2.0	0.66	ug/L			06/01/22 03:53	1
Methylene Chloride	ND		1.0	0.44	ug/L			06/01/22 03:53	1
o-Xylene	ND		1.0	0.76	ug/L			06/01/22 03:53	1
Styrene	ND		1.0	0.73	ug/L			06/01/22 03:53	1
Tetrachloroethene	ND		1.0	0.36	ug/L			06/01/22 03:53	1
Toluene	ND		1.0	0.51	ug/L			06/01/22 03:53	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			06/01/22 03:53	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			06/01/22 03:53	1
trans-1,4-Dichloro-2-butene	ND		5.0	0.22	ug/L			06/01/22 03:53	1
Trichloroethene	ND		1.0	0.46	ug/L			06/01/22 03:53	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			06/01/22 03:53	1
Vinyl acetate	ND		5.0	0.85	ug/L			06/01/22 03:53	1
Vinyl chloride	ND		1.0	0.90	ug/L			06/01/22 03:53	1

Client: Cattaraugus County
Job ID: 480-198235-1
Project/Site: Farwell Landfill - GW Baseline Volatiles

Client Sample ID: MW-16I
Lab Sample ID: 480-198235-7
Date Collected: 05/23/22 12:45
Matrix: Water
Date Received: 05/23/22 17:00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*92*		*77 - 120*		*06/01/22 03:53*	*1*
4-Bromofluorobenzene (Surr)	*101*		*73 - 120*		*06/01/22 03:53*	*1*
Toluene-d8 (Surr)	*94*		*80 - 120*		*06/01/22 03:53*	*1*

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Field EH/ORP	**118**				millivolts			05/23/22 12:45	1
pH, Field	**7.85**				SU			05/23/22 12:45	1
Temperature, Field (C)	**2.2**				Degrees C			05/23/22 12:45	1
Field Conductivity	**501**				umhos/cm			05/23/22 12:45	1
Turbidity	**5.8**				NTU			05/23/22 12:45	1

Client: Cattaraugus County
Job ID: 480-198235-1
Project/Site: Farwell Landfill - GW Baseline Volatiles

Client Sample ID: MW-16S
Lab Sample ID: 480-198235-8
Date Collected: 05/23/22 12:35
Matrix: Water
Date Received: 05/23/22 17:00

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L			06/01/22 04:16	1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			06/01/22 04:16	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			06/01/22 04:16	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			06/01/22 04:16	1
1,1-Dichloroethane	**4.7**		1.0	0.38	ug/L			06/01/22 04:16	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			06/01/22 04:16	1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L			06/01/22 04:16	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			06/01/22 04:16	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			06/01/22 04:16	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			06/01/22 04:16	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			06/01/22 04:16	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			06/01/22 04:16	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			06/01/22 04:16	1
2-Butanone	ND		10	1.3	ug/L			06/01/22 04:16	1
2-Hexanone	ND		5.0	1.2	ug/L			06/01/22 04:16	1
4-Methyl-2-pentanone	ND		5.0	2.1	ug/L			06/01/22 04:16	1
Acetone	ND		10	3.0	ug/L			06/01/22 04:16	1
Acrylonitrile	ND		5.0	0.83	ug/L			06/01/22 04:16	1
Benzene	ND		1.0	0.41	ug/L			06/01/22 04:16	1
Bromochloromethane	ND		1.0	0.87	ug/L			06/01/22 04:16	1
Bromodichloromethane	ND		1.0	0.39	ug/L			06/01/22 04:16	1
Bromoform	ND		1.0	0.26	ug/L			06/01/22 04:16	1
Bromomethane	ND		1.0	0.69	ug/L			06/01/22 04:16	1
Carbon disulfide	ND		1.0	0.19	ug/L			06/01/22 04:16	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			06/01/22 04:16	1
Chlorobenzene	ND		1.0	0.75	ug/L			06/01/22 04:16	1
Chloroethane	ND		1.0	0.32	ug/L			06/01/22 04:16	1
Chloroform	ND		1.0	0.34	ug/L			06/01/22 04:16	1
Chloromethane	ND		1.0	0.35	ug/L			06/01/22 04:16	1
cis-1,2-Dichloroethene	**1.2**		1.0	0.81	ug/L			06/01/22 04:16	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			06/01/22 04:16	1
Dibromochloromethane	ND		1.0	0.32	ug/L			06/01/22 04:16	1
Dibromomethane	ND		1.0	0.41	ug/L			06/01/22 04:16	1
Ethylbenzene	ND		1.0	0.74	ug/L			06/01/22 04:16	1
Iodomethane	ND		1.0	0.30	ug/L			06/01/22 04:16	1
m,p-Xylene	ND		2.0	0.66	ug/L			06/01/22 04:16	1
Methylene Chloride	ND		1.0	0.44	ug/L			06/01/22 04:16	1
o-Xylene	ND		1.0	0.76	ug/L			06/01/22 04:16	1
Styrene	ND		1.0	0.73	ug/L			06/01/22 04:16	1
Tetrachloroethene	ND		1.0	0.36	ug/L			06/01/22 04:16	1
Toluene	ND		1.0	0.51	ug/L			06/01/22 04:16	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			06/01/22 04:16	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			06/01/22 04:16	1
trans-1,4-Dichloro-2-butene	ND		5.0	0.22	ug/L			06/01/22 04:16	1
Trichloroethene	**0.84**	**J**	1.0	0.46	ug/L			06/01/22 04:16	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			06/01/22 04:16	1
Vinyl acetate	ND		5.0	0.85	ug/L			06/01/22 04:16	1
Vinyl chloride	ND		1.0	0.90	ug/L			06/01/22 04:16	1

Client: Cattaraugus County
Job ID: 480-198235-1
Project/Site: Farwell Landfill - GW Baseline Volatiles

Client Sample ID: MW-16S
Lab Sample ID: 480-198235-8
Date Collected: 05/23/22 12:35
Matrix: Water
Date Received: 05/23/22 17:00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*77 - 120*		*06/01/22 04:16*	*1*
4-Bromofluorobenzene (Surr)	*100*		*73 - 120*		*06/01/22 04:16*	*1*
Toluene-d8 (Surr)	*93*		*80 - 120*		*06/01/22 04:16*	*1*

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Field EH/ORP	**117**				millivolts			05/23/22 12:35	1
pH, Field	**7.69**				SU			05/23/22 12:35	1
Temperature, Field (C)	**3.9**				Degrees C			05/23/22 12:35	1
Field Conductivity	**698**				umhos/cm			05/23/22 12:35	1
Turbidity	**4.9**				NTU			05/23/22 12:35	1

Client: Cattaraugus County
Job ID: 480-198235-1
Project/Site: Farwell Landfill - GW Baseline Volatiles

Client Sample ID: MW-17I
Lab Sample ID: 480-198235-9
Date Collected: 05/23/22 12:25
Matrix: Water
Date Received: 05/23/22 17:00

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L			06/01/22 04:39	1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			06/01/22 04:39	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			06/01/22 04:39	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			06/01/22 04:39	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			06/01/22 04:39	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			06/01/22 04:39	1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L			06/01/22 04:39	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			06/01/22 04:39	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			06/01/22 04:39	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			06/01/22 04:39	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			06/01/22 04:39	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			06/01/22 04:39	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			06/01/22 04:39	1
2-Butanone	ND		10	1.3	ug/L			06/01/22 04:39	1
2-Hexanone	ND		5.0	1.2	ug/L			06/01/22 04:39	1
4-Methyl-2-pentanone	ND		5.0	2.1	ug/L			06/01/22 04:39	1
Acetone	ND		10	3.0	ug/L			06/01/22 04:39	1
Acrylonitrile	ND		5.0	0.83	ug/L			06/01/22 04:39	1
Benzene	ND		1.0	0.41	ug/L			06/01/22 04:39	1
Bromochloromethane	ND		1.0	0.87	ug/L			06/01/22 04:39	1
Bromodichloromethane	ND		1.0	0.39	ug/L			06/01/22 04:39	1
Bromoform	ND		1.0	0.26	ug/L			06/01/22 04:39	1
Bromomethane	ND		1.0	0.69	ug/L			06/01/22 04:39	1
Carbon disulfide	ND		1.0	0.19	ug/L			06/01/22 04:39	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			06/01/22 04:39	1
Chlorobenzene	ND		1.0	0.75	ug/L			06/01/22 04:39	1
Chloroethane	ND		1.0	0.32	ug/L			06/01/22 04:39	1
Chloroform	ND		1.0	0.34	ug/L			06/01/22 04:39	1
Chloromethane	ND		1.0	0.35	ug/L			06/01/22 04:39	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			06/01/22 04:39	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			06/01/22 04:39	1
Dibromochloromethane	ND		1.0	0.32	ug/L			06/01/22 04:39	1
Dibromomethane	ND		1.0	0.41	ug/L			06/01/22 04:39	1
Ethylbenzene	ND		1.0	0.74	ug/L			06/01/22 04:39	1
Iodomethane	ND		1.0	0.30	ug/L			06/01/22 04:39	1
m,p-Xylene	ND		2.0	0.66	ug/L			06/01/22 04:39	1
Methylene Chloride	ND		1.0	0.44	ug/L			06/01/22 04:39	1
o-Xylene	ND		1.0	0.76	ug/L			06/01/22 04:39	1
Styrene	ND		1.0	0.73	ug/L			06/01/22 04:39	1
Tetrachloroethene	ND		1.0	0.36	ug/L			06/01/22 04:39	1
Toluene	ND		1.0	0.51	ug/L			06/01/22 04:39	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			06/01/22 04:39	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			06/01/22 04:39	1
trans-1,4-Dichloro-2-butene	ND		5.0	0.22	ug/L			06/01/22 04:39	1
Trichloroethene	ND		1.0	0.46	ug/L			06/01/22 04:39	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			06/01/22 04:39	1
Vinyl acetate	ND		5.0	0.85	ug/L			06/01/22 04:39	1
Vinyl chloride	ND		1.0	0.90	ug/L			06/01/22 04:39	1

Client: Cattaraugus County
Job ID: 480-198235-1
Project/Site: Farwell Landfill - GW Baseline Volatiles

Client Sample ID: MW-17I
Lab Sample ID: 480-198235-9
Date Collected: 05/23/22 12:25
Matrix: Water
Date Received: 05/23/22 17:00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*96*		*77 - 120*		*06/01/22 04:39*	*1*
4-Bromofluorobenzene (Surr)	*109*		*73 - 120*		*06/01/22 04:39*	*1*
Toluene-d8 (Surr)	*94*		*80 - 120*		*06/01/22 04:39*	*1*

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Field EH/ORP	**113**				millivolts			05/23/22 12:25	1
pH, Field	**7.45**				SU			05/23/22 12:25	1
Temperature, Field (C)	**4.4**				Degrees C			05/23/22 12:25	1
Field Conductivity	**314**				umhos/cm			05/23/22 12:25	1
Turbidity	**6.0**				NTU			05/23/22 12:25	1

Client: Cattaraugus County
Job ID: 480-198235-1
Project/Site: Farwell Landfill - GW Baseline Volatiles

Client Sample ID: MW-17S
Lab Sample ID: 480-198235-10
Date Collected: 05/23/22 12:15
Matrix: Water
Date Received: 05/23/22 17:00

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L			06/01/22 05:03	1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			06/01/22 05:03	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			06/01/22 05:03	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			06/01/22 05:03	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			06/01/22 05:03	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			06/01/22 05:03	1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L			06/01/22 05:03	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			06/01/22 05:03	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			06/01/22 05:03	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			06/01/22 05:03	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			06/01/22 05:03	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			06/01/22 05:03	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			06/01/22 05:03	1
2-Butanone	ND		10	1.3	ug/L			06/01/22 05:03	1
2-Hexanone	ND		5.0	1.2	ug/L			06/01/22 05:03	1
4-Methyl-2-pentanone	ND		5.0	2.1	ug/L			06/01/22 05:03	1
Acetone	ND		10	3.0	ug/L			06/01/22 05:03	1
Acrylonitrile	ND		5.0	0.83	ug/L			06/01/22 05:03	1
Benzene	ND		1.0	0.41	ug/L			06/01/22 05:03	1
Bromochloromethane	ND		1.0	0.87	ug/L			06/01/22 05:03	1
Bromodichloromethane	ND		1.0	0.39	ug/L			06/01/22 05:03	1
Bromoform	ND		1.0	0.26	ug/L			06/01/22 05:03	1
Bromomethane	ND		1.0	0.69	ug/L			06/01/22 05:03	1
Carbon disulfide	ND		1.0	0.19	ug/L			06/01/22 05:03	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			06/01/22 05:03	1
Chlorobenzene	ND		1.0	0.75	ug/L			06/01/22 05:03	1
Chloroethane	ND		1.0	0.32	ug/L			06/01/22 05:03	1
Chloroform	ND		1.0	0.34	ug/L			06/01/22 05:03	1
Chloromethane	ND		1.0	0.35	ug/L			06/01/22 05:03	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			06/01/22 05:03	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			06/01/22 05:03	1
Dibromochloromethane	ND		1.0	0.32	ug/L			06/01/22 05:03	1
Dibromomethane	ND		1.0	0.41	ug/L			06/01/22 05:03	1
Ethylbenzene	ND		1.0	0.74	ug/L			06/01/22 05:03	1
Iodomethane	ND		1.0	0.30	ug/L			06/01/22 05:03	1
m,p-Xylene	ND		2.0	0.66	ug/L			06/01/22 05:03	1
Methylene Chloride	ND		1.0	0.44	ug/L			06/01/22 05:03	1
o-Xylene	ND		1.0	0.76	ug/L			06/01/22 05:03	1
Styrene	ND		1.0	0.73	ug/L			06/01/22 05:03	1
Tetrachloroethene	ND		1.0	0.36	ug/L			06/01/22 05:03	1
Toluene	ND		1.0	0.51	ug/L			06/01/22 05:03	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			06/01/22 05:03	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			06/01/22 05:03	1
trans-1,4-Dichloro-2-butene	ND		5.0	0.22	ug/L			06/01/22 05:03	1
Trichloroethene	ND		1.0	0.46	ug/L			06/01/22 05:03	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			06/01/22 05:03	1
Vinyl acetate	ND		5.0	0.85	ug/L			06/01/22 05:03	1
Vinyl chloride	ND		1.0	0.90	ug/L			06/01/22 05:03	1

Client: Cattaraugus County
Job ID: 480-198235-1
Project/Site: Farwell Landfill - GW Baseline Volatiles

Client Sample ID: MW-17S
Lab Sample ID: 480-198235-10
Date Collected: 05/23/22 12:15
Matrix: Water
Date Received: 05/23/22 17:00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*94*		*77 - 120*		*06/01/22 05:03*	*1*
4-Bromofluorobenzene (Surr)	*97*		*73 - 120*		*06/01/22 05:03*	*1*
Toluene-d8 (Surr)	*96*		*80 - 120*		*06/01/22 05:03*	*1*

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Field EH/ORP	**122**				millivolts			05/23/22 12:15	1
pH, Field	**7.35**				SU			05/23/22 12:15	1
Temperature, Field (C)	**3.3**				Degrees C			05/23/22 12:15	1
Field Conductivity	**433**				umhos/cm			05/23/22 12:15	1
Turbidity	**3.9**				NTU			05/23/22 12:15	1

Client: Cattaraugus County
Job ID: 480-198235-1
Project/Site: Farwell Landfill - GW Baseline Volatiles

Client Sample ID: MW-21
Lab Sample ID: 480-198235-11
Date Collected: 05/23/22 14:05
Matrix: Water
Date Received: 05/23/22 17:00

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L			06/01/22 05:26	1
1,1,1-Trichloroethane	**0.97**	**J**	1.0	0.82	ug/L			06/01/22 05:26	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			06/01/22 05:26	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			06/01/22 05:26	1
1,1-Dichloroethane	**27**		1.0	0.38	ug/L			06/01/22 05:26	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			06/01/22 05:26	1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L			06/01/22 05:26	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			06/01/22 05:26	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			06/01/22 05:26	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			06/01/22 05:26	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			06/01/22 05:26	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			06/01/22 05:26	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			06/01/22 05:26	1
2-Butanone	ND		10	1.3	ug/L			06/01/22 05:26	1
2-Hexanone	ND		5.0	1.2	ug/L			06/01/22 05:26	1
4-Methyl-2-pentanone	ND		5.0	2.1	ug/L			06/01/22 05:26	1
Acetone	ND		10	3.0	ug/L			06/01/22 05:26	1
Acrylonitrile	ND		5.0	0.83	ug/L			06/01/22 05:26	1
Benzene	ND		1.0	0.41	ug/L			06/01/22 05:26	1
Bromochloromethane	ND		1.0	0.87	ug/L			06/01/22 05:26	1
Bromodichloromethane	ND		1.0	0.39	ug/L			06/01/22 05:26	1
Bromoform	ND		1.0	0.26	ug/L			06/01/22 05:26	1
Bromomethane	ND		1.0	0.69	ug/L			06/01/22 05:26	1
Carbon disulfide	ND		1.0	0.19	ug/L			06/01/22 05:26	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			06/01/22 05:26	1
Chlorobenzene	ND		1.0	0.75	ug/L			06/01/22 05:26	1
Chloroethane	**9.0**		1.0	0.32	ug/L			06/01/22 05:26	1
Chloroform	ND		1.0	0.34	ug/L			06/01/22 05:26	1
Chloromethane	ND		1.0	0.35	ug/L			06/01/22 05:26	1
cis-1,2-Dichloroethene	**49**		1.0	0.81	ug/L			06/01/22 05:26	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			06/01/22 05:26	1
Dibromochloromethane	ND		1.0	0.32	ug/L			06/01/22 05:26	1
Dibromomethane	ND		1.0	0.41	ug/L			06/01/22 05:26	1
Ethylbenzene	ND		1.0	0.74	ug/L			06/01/22 05:26	1
Iodomethane	ND		1.0	0.30	ug/L			06/01/22 05:26	1
m,p-Xylene	ND		2.0	0.66	ug/L			06/01/22 05:26	1
Methylene Chloride	ND		1.0	0.44	ug/L			06/01/22 05:26	1
o-Xylene	ND		1.0	0.76	ug/L			06/01/22 05:26	1
Styrene	ND		1.0	0.73	ug/L			06/01/22 05:26	1
Tetrachloroethene	**0.66**	**J**	1.0	0.36	ug/L			06/01/22 05:26	1
Toluene	ND		1.0	0.51	ug/L			06/01/22 05:26	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			06/01/22 05:26	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			06/01/22 05:26	1
trans-1,4-Dichloro-2-butene	ND		5.0	0.22	ug/L			06/01/22 05:26	1
Trichloroethene	**4.0**		1.0	0.46	ug/L			06/01/22 05:26	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			06/01/22 05:26	1
Vinyl acetate	ND		5.0	0.85	ug/L			06/01/22 05:26	1
Vinyl chloride	ND		1.0	0.90	ug/L			06/01/22 05:26	1

Client: Cattaraugus County
Job ID: 480-198235-1
Project/Site: Farwell Landfill - GW Baseline Volatiles

Client Sample ID: MW-21
Lab Sample ID: 480-198235-11
Date Collected: 05/23/22 14:05
Matrix: Water
Date Received: 05/23/22 17:00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*89*		*77 - 120*		*06/01/22 05:26*	*1*
4-Bromofluorobenzene (Surr)	*106*		*73 - 120*		*06/01/22 05:26*	*1*
Toluene-d8 (Surr)	*92*		*80 - 120*		*06/01/22 05:26*	*1*

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Field EH/ORP	**113**				millivolts			05/23/22 14:05	1
pH, Field	**7.77**				SU			05/23/22 14:05	1
Temperature, Field (C)	**3.9**				Degrees C			05/23/22 14:05	1
Field Conductivity	**998**				umhos/cm			05/23/22 14:05	1
Turbidity	**1.3**				NTU			05/23/22 14:05	1

Client: Cattaraugus County
Job ID: 480-198235-1
Project/Site: Farwell Landfill - GW Baseline Volatiles

Client Sample ID: MW-22
Lab Sample ID: 480-198235-12
Date Collected: 05/23/22 14:15
Matrix: Water
Date Received: 05/23/22 17:00

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L			06/01/22 05:49	1
1,1,1-Trichloroethane	**2.0**		1.0	0.82	ug/L			06/01/22 05:49	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			06/01/22 05:49	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			06/01/22 05:49	1
1,1-Dichloroethane	**2.7**		1.0	0.38	ug/L			06/01/22 05:49	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			06/01/22 05:49	1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L			06/01/22 05:49	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			06/01/22 05:49	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			06/01/22 05:49	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			06/01/22 05:49	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			06/01/22 05:49	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			06/01/22 05:49	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			06/01/22 05:49	1
2-Butanone	ND		10	1.3	ug/L			06/01/22 05:49	1
2-Hexanone	ND		5.0	1.2	ug/L			06/01/22 05:49	1
4-Methyl-2-pentanone	ND		5.0	2.1	ug/L			06/01/22 05:49	1
Acetone	ND		10	3.0	ug/L			06/01/22 05:49	1
Acrylonitrile	ND		5.0	0.83	ug/L			06/01/22 05:49	1
Benzene	ND		1.0	0.41	ug/L			06/01/22 05:49	1
Bromochloromethane	ND		1.0	0.87	ug/L			06/01/22 05:49	1
Bromodichloromethane	ND		1.0	0.39	ug/L			06/01/22 05:49	1
Bromoform	ND		1.0	0.26	ug/L			06/01/22 05:49	1
Bromomethane	ND		1.0	0.69	ug/L			06/01/22 05:49	1
Carbon disulfide	ND		1.0	0.19	ug/L			06/01/22 05:49	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			06/01/22 05:49	1
Chlorobenzene	ND		1.0	0.75	ug/L			06/01/22 05:49	1
Chloroethane	ND		1.0	0.32	ug/L			06/01/22 05:49	1
Chloroform	ND		1.0	0.34	ug/L			06/01/22 05:49	1
Chloromethane	ND		1.0	0.35	ug/L			06/01/22 05:49	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			06/01/22 05:49	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			06/01/22 05:49	1
Dibromochloromethane	ND		1.0	0.32	ug/L			06/01/22 05:49	1
Dibromomethane	ND		1.0	0.41	ug/L			06/01/22 05:49	1
Ethylbenzene	ND		1.0	0.74	ug/L			06/01/22 05:49	1
Iodomethane	ND		1.0	0.30	ug/L			06/01/22 05:49	1
m,p-Xylene	ND		2.0	0.66	ug/L			06/01/22 05:49	1
Methylene Chloride	ND		1.0	0.44	ug/L			06/01/22 05:49	1
o-Xylene	ND		1.0	0.76	ug/L			06/01/22 05:49	1
Styrene	ND		1.0	0.73	ug/L			06/01/22 05:49	1
Tetrachloroethene	ND		1.0	0.36	ug/L			06/01/22 05:49	1
Toluene	ND		1.0	0.51	ug/L			06/01/22 05:49	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			06/01/22 05:49	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			06/01/22 05:49	1
trans-1,4-Dichloro-2-butene	ND		5.0	0.22	ug/L			06/01/22 05:49	1
Trichloroethene	ND		1.0	0.46	ug/L			06/01/22 05:49	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			06/01/22 05:49	1
Vinyl acetate	ND		5.0	0.85	ug/L			06/01/22 05:49	1
Vinyl chloride	ND		1.0	0.90	ug/L			06/01/22 05:49	1

Client: Cattaraugus County
Job ID: 480-198235-1
Project/Site: Farwell Landfill - GW Baseline Volatiles

Client Sample ID: MW-22
Lab Sample ID: 480-198235-12
Date Collected: 05/23/22 14:15
Matrix: Water
Date Received: 05/23/22 17:00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*91*		*77 - 120*		*06/01/22 05:49*	*1*
4-Bromofluorobenzene (Surr)	*103*		*73 - 120*		*06/01/22 05:49*	*1*
Toluene-d8 (Surr)	*96*		*80 - 120*		*06/01/22 05:49*	*1*

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Field EH/ORP	**85**				millivolts			05/23/22 14:15	1
pH, Field	**6.93**				SU			05/23/22 14:15	1
Temperature, Field (C)	**2.2**				Degrees C			05/23/22 14:15	1
Field Conductivity	**248**				umhos/cm			05/23/22 14:15	1
Turbidity	**5.5**				NTU			05/23/22 14:15	1

Client: Cattaraugus County
Job ID: 480-198235-1
Project/Site: Farwell Landfill - GW Baseline Volatiles

Client Sample ID: MW-23
Lab Sample ID: 480-198235-13
Date Collected: 05/23/22 12:00
Matrix: Water
Date Received: 05/23/22 17:00

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L			06/01/22 06:12	1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			06/01/22 06:12	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			06/01/22 06:12	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			06/01/22 06:12	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			06/01/22 06:12	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			06/01/22 06:12	1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L			06/01/22 06:12	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			06/01/22 06:12	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			06/01/22 06:12	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			06/01/22 06:12	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			06/01/22 06:12	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			06/01/22 06:12	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			06/01/22 06:12	1
2-Butanone	ND		10	1.3	ug/L			06/01/22 06:12	1
2-Hexanone	ND		5.0	1.2	ug/L			06/01/22 06:12	1
4-Methyl-2-pentanone	ND		5.0	2.1	ug/L			06/01/22 06:12	1
Acetone	ND		10	3.0	ug/L			06/01/22 06:12	1
Acrylonitrile	ND		5.0	0.83	ug/L			06/01/22 06:12	1
Benzene	ND		1.0	0.41	ug/L			06/01/22 06:12	1
Bromochloromethane	ND		1.0	0.87	ug/L			06/01/22 06:12	1
Bromodichloromethane	ND		1.0	0.39	ug/L			06/01/22 06:12	1
Bromoform	ND		1.0	0.26	ug/L			06/01/22 06:12	1
Bromomethane	ND		1.0	0.69	ug/L			06/01/22 06:12	1
Carbon disulfide	ND		1.0	0.19	ug/L			06/01/22 06:12	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			06/01/22 06:12	1
Chlorobenzene	ND		1.0	0.75	ug/L			06/01/22 06:12	1
Chloroethane	ND		1.0	0.32	ug/L			06/01/22 06:12	1
Chloroform	ND		1.0	0.34	ug/L			06/01/22 06:12	1
Chloromethane	ND		1.0	0.35	ug/L			06/01/22 06:12	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			06/01/22 06:12	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			06/01/22 06:12	1
Dibromochloromethane	ND		1.0	0.32	ug/L			06/01/22 06:12	1
Dibromomethane	ND		1.0	0.41	ug/L			06/01/22 06:12	1
Ethylbenzene	ND		1.0	0.74	ug/L			06/01/22 06:12	1
Iodomethane	ND		1.0	0.30	ug/L			06/01/22 06:12	1
m,p-Xylene	ND		2.0	0.66	ug/L			06/01/22 06:12	1
Methylene Chloride	ND		1.0	0.44	ug/L			06/01/22 06:12	1
o-Xylene	ND		1.0	0.76	ug/L			06/01/22 06:12	1
Styrene	ND		1.0	0.73	ug/L			06/01/22 06:12	1
Tetrachloroethene	ND		1.0	0.36	ug/L			06/01/22 06:12	1
Toluene	ND		1.0	0.51	ug/L			06/01/22 06:12	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			06/01/22 06:12	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			06/01/22 06:12	1
trans-1,4-Dichloro-2-butene	ND		5.0	0.22	ug/L			06/01/22 06:12	1
Trichloroethene	ND		1.0	0.46	ug/L			06/01/22 06:12	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			06/01/22 06:12	1
Vinyl acetate	ND		5.0	0.85	ug/L			06/01/22 06:12	1
Vinyl chloride	ND		1.0	0.90	ug/L			06/01/22 06:12	1

Client: Cattaraugus County
Job ID: 480-198235-1
Project/Site: Farwell Landfill - GW Baseline Volatiles

Client Sample ID: MW-23
Lab Sample ID: 480-198235-13
Date Collected: 05/23/22 12:00
Matrix: Water
Date Received: 05/23/22 17:00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*92*		*77 - 120*		*06/01/22 06:12*	*1*
4-Bromofluorobenzene (Surr)	*102*		*73 - 120*		*06/01/22 06:12*	*1*
Toluene-d8 (Surr)	*91*		*80 - 120*		*06/01/22 06:12*	*1*

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Field EH/ORP	**79**				millivolts			05/23/22 12:00	1
pH, Field	**6.85**				SU			05/23/22 12:00	1
Temperature, Field (C)	**1.1**				Degrees C			05/23/22 12:00	1
Field Conductivity	**160**				umhos/cm			05/23/22 12:00	1
Turbidity	**1.0**				NTU			05/23/22 12:00	1

Surrogate Summary

Client: Cattaraugus County
Job ID: 480-198235-1
Project/Site: Farwell Landfill - GW Baseline Volatiles

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water
Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)								
		DCA	BFB	TOL						
Lab Sample ID	Client Sample ID	(77-120)	(73-120)	(80-120)						
480-198235-1	Trip Blank	91	108	96						
480-198235-2	DUP Y	91	104	92						
480-198235-3	MW-14I	87	101	92						
480-198235-4	MW-14S	87	103	91						
480-198235-5	MW-15I	92	102	93						
480-198235-5 MS	MW-15I	92	106	97						
480-198235-5 MSD	MW-15I	93	101	95						
480-198235-6	MW-15S	87	105	99						
480-198235-7	MW-16I	92	101	94						
480-198235-8	MW-16S	98	100	93						
480-198235-9	MW-17I	96	109	94						
480-198235-10	MW-17S	94	97	96						
480-198235-11	MW-21	89	106	92						
480-198235-12	MW-22	91	103	96						
480-198235-13	MW-23	92	102	91						
LCS 480-628185/6	Lab Control Sample	91	101	92						
MB 480-628185/8	Method Blank	87	103	96						

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
TOL = Toluene-d8 (Surr)

Client: Cattaraugus County
Job ID: 480-198235-1
Project/Site: Farwell Landfill - GW Baseline Volatiles

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 480-628185/8
Matrix: Water
Analysis Batch: 628185

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L			06/01/22 00:25	1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			06/01/22 00:25	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			06/01/22 00:25	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			06/01/22 00:25	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			06/01/22 00:25	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			06/01/22 00:25	1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L			06/01/22 00:25	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			06/01/22 00:25	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			06/01/22 00:25	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			06/01/22 00:25	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			06/01/22 00:25	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			06/01/22 00:25	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			06/01/22 00:25	1
2-Butanone	ND		10	1.3	ug/L			06/01/22 00:25	1
2-Hexanone	ND		5.0	1.2	ug/L			06/01/22 00:25	1
4-Methyl-2-pentanone	ND		5.0	2.1	ug/L			06/01/22 00:25	1
Acetone	ND		10	3.0	ug/L			06/01/22 00:25	1
Acrylonitrile	ND		5.0	0.83	ug/L			06/01/22 00:25	1
Benzene	ND		1.0	0.41	ug/L			06/01/22 00:25	1
Bromochloromethane	ND		1.0	0.87	ug/L			06/01/22 00:25	1
Bromodichloromethane	ND		1.0	0.39	ug/L			06/01/22 00:25	1
Bromoform	ND		1.0	0.26	ug/L			06/01/22 00:25	1
Bromomethane	ND		1.0	0.69	ug/L			06/01/22 00:25	1
Carbon disulfide	ND		1.0	0.19	ug/L			06/01/22 00:25	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			06/01/22 00:25	1
Chlorobenzene	ND		1.0	0.75	ug/L			06/01/22 00:25	1
Chloroethane	ND		1.0	0.32	ug/L			06/01/22 00:25	1
Chloroform	ND		1.0	0.34	ug/L			06/01/22 00:25	1
Chloromethane	ND		1.0	0.35	ug/L			06/01/22 00:25	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			06/01/22 00:25	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			06/01/22 00:25	1
Dibromochloromethane	ND		1.0	0.32	ug/L			06/01/22 00:25	1
Dibromomethane	ND		1.0	0.41	ug/L			06/01/22 00:25	1
Ethylbenzene	ND		1.0	0.74	ug/L			06/01/22 00:25	1
Iodomethane	ND		1.0	0.30	ug/L			06/01/22 00:25	1
m,p-Xylene	ND		2.0	0.66	ug/L			06/01/22 00:25	1
Methylene Chloride	ND		1.0	0.44	ug/L			06/01/22 00:25	1
o-Xylene	ND		1.0	0.76	ug/L			06/01/22 00:25	1
Styrene	ND		1.0	0.73	ug/L			06/01/22 00:25	1
Tetrachloroethene	ND		1.0	0.36	ug/L			06/01/22 00:25	1
Toluene	ND		1.0	0.51	ug/L			06/01/22 00:25	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			06/01/22 00:25	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			06/01/22 00:25	1
trans-1,4-Dichloro-2-butene	ND		5.0	0.22	ug/L			06/01/22 00:25	1
Trichloroethene	ND		1.0	0.46	ug/L			06/01/22 00:25	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			06/01/22 00:25	1
Vinyl acetate	ND		5.0	0.85	ug/L			06/01/22 00:25	1
Vinyl chloride	ND		1.0	0.90	ug/L			06/01/22 00:25	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 480-628185/8
Matrix: Water
Analysis Batch: 628185

Client Sample ID: Method Blank
Prep Type: Total/NA

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	87		77 - 120		06/01/22 00:25	1
4-Bromofluorobenzene (Surr)	103		73 - 120		06/01/22 00:25	1
Toluene-d8 (Surr)	96		80 - 120		06/01/22 00:25	1

Lab Sample ID: LCS 480-628185/6
Matrix: Water
Analysis Batch: 628185

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1,2-Tetrachloroethane	25.0	23.8		ug/L		95	80 - 120
1,1,1-Trichloroethane	25.0	26.7		ug/L		107	73 - 126
1,1,2,2-Tetrachloroethane	25.0	19.5		ug/L		78	76 - 120
1,1,2-Trichloroethane	25.0	21.2		ug/L		85	76 - 122
1,1-Dichloroethane	25.0	22.8		ug/L		91	77 - 120
1,1-Dichloroethene	25.0	22.4		ug/L		90	66 - 127
1,2,3-Trichloropropane	25.0	21.5		ug/L		86	68 - 122
1,2-Dibromo-3-Chloropropane	25.0	20.3		ug/L		81	56 - 134
1,2-Dibromoethane	25.0	23.8		ug/L		95	77 - 120
1,2-Dichlorobenzene	25.0	23.2		ug/L		93	80 - 124
1,2-Dichloroethane	25.0	24.5		ug/L		98	75 - 120
1,2-Dichloropropane	25.0	22.9		ug/L		92	76 - 120
1,4-Dichlorobenzene	25.0	23.8		ug/L		95	80 - 120
2-Butanone	125	123		ug/L		98	57 - 140
2-Hexanone	125	109		ug/L		87	65 - 127
4-Methyl-2-pentanone	125	91.4		ug/L		73	71 - 125
Acetone	125	156		ug/L		125	56 - 142
Acrylonitrile	250	206		ug/L		83	63 - 125
Benzene	25.0	23.7		ug/L		95	71 - 124
Bromochloromethane	25.0	27.3		ug/L		109	72 - 130
Bromodichloromethane	25.0	26.1		ug/L		104	80 - 122
Bromoform	25.0	20.8		ug/L		83	61 - 132
Bromomethane	25.0	26.5		ug/L		106	55 - 144
Carbon disulfide	25.0	20.5		ug/L		82	59 - 134
Carbon tetrachloride	25.0	25.7		ug/L		103	72 - 134
Chlorobenzene	25.0	22.4		ug/L		90	80 - 120
Chloroethane	25.0	21.6		ug/L		86	69 - 136
Chloroform	25.0	25.2		ug/L		101	73 - 127
Chloromethane	25.0	20.9		ug/L		83	68 - 124
cis-1,2-Dichloroethene	25.0	24.1		ug/L		96	74 - 124
cis-1,3-Dichloropropene	25.0	24.8		ug/L		99	74 - 124
Dibromochloromethane	25.0	24.4		ug/L		97	75 - 125
Dibromomethane	25.0	25.6		ug/L		102	76 - 127
Ethylbenzene	25.0	22.0		ug/L		88	77 - 123
Iodomethane	25.0	25.3		ug/L		101	78 - 123
m,p-Xylene	25.0	23.7		ug/L		95	76 - 122
Methylene Chloride	25.0	23.2		ug/L		93	75 - 124
o-Xylene	25.0	22.1		ug/L		89	76 - 122
Styrene	25.0	21.4		ug/L		85	80 - 120

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 480-628185/6
Matrix: Water
Analysis Batch: 628185

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Tetrachloroethene			25.0	22.3		ug/L		89	74 - 122		
Toluene			25.0	21.6		ug/L		86	80 - 122		
trans-1,2-Dichloroethene			25.0	23.8		ug/L		95	73 - 127		
trans-1,3-Dichloropropene			25.0	21.8		ug/L		87	80 - 120		
trans-1,4-Dichloro-2-butene			25.0	13.7		ug/L		55	41 - 131		
Trichloroethene			25.0	25.6		ug/L		102	74 - 123		
Trichlorofluoromethane			25.0	26.1		ug/L		104	62 - 150		
Vinyl acetate			50.0	47.0		ug/L		94	50 - 144		
Vinyl chloride			25.0	21.5		ug/L		86	65 - 133		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*91*		*77 - 120*
4-Bromofluorobenzene (Surr)	*101*		*73 - 120*
Toluene-d8 (Surr)	*92*		*80 - 120*

Lab Sample ID: 480-198235-5 MS
Matrix: Water
Analysis Batch: 628185

Client Sample ID: MW-15I
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
1,1,1,2-Tetrachloroethane	ND		25.0	27.3		ug/L		109	80 - 120		
1,1,1-Trichloroethane	ND		25.0	30.7		ug/L		123	73 - 126		
1,1,2,2-Tetrachloroethane	ND		25.0	23.2		ug/L		93	76 - 120		
1,1,2-Trichloroethane	ND		25.0	24.3		ug/L		97	76 - 122		
1,1-Dichloroethane	1.5		25.0	25.9		ug/L		98	77 - 120		
1,1-Dichloroethene	ND		25.0	25.6		ug/L		103	66 - 127		
1,2,3-Trichloropropane	ND		25.0	23.6		ug/L		94	68 - 122		
1,2-Dibromo-3-Chloropropane	ND		25.0	25.6		ug/L		102	56 - 134		
1,2-Dibromoethane	ND		25.0	26.4		ug/L		106	77 - 120		
1,2-Dichlorobenzene	ND		25.0	27.1		ug/L		108	80 - 124		
1,2-Dichloroethane	ND		25.0	26.2		ug/L		105	75 - 120		
1,2-Dichloropropane	ND		25.0	24.6		ug/L		98	76 - 120		
1,4-Dichlorobenzene	ND		25.0	24.9		ug/L		100	78 - 124		
2-Butanone	ND		125	141		ug/L		112	57 - 140		
2-Hexanone	ND		125	132		ug/L		105	65 - 127		
4-Methyl-2-pentanone	ND		125	110		ug/L		88	71 - 125		
Acetone	ND		125	174		ug/L		139	56 - 142		
Acrylonitrile	ND		250	226		ug/L		90	63 - 125		
Benzene	ND		25.0	24.9		ug/L		100	71 - 124		
Bromochloromethane	ND		25.0	29.5		ug/L		118	72 - 130		
Bromodichloromethane	ND		25.0	26.9		ug/L		107	80 - 122		
Bromoform	ND		25.0	24.2		ug/L		97	61 - 132		
Bromomethane	ND		25.0	22.9		ug/L		92	55 - 144		
Carbon disulfide	ND		25.0	22.4		ug/L		90	59 - 134		
Carbon tetrachloride	ND		25.0	29.9		ug/L		120	72 - 134		
Chlorobenzene	ND		25.0	25.2		ug/L		101	80 - 120		
Chloroethane	0.43	J	25.0	22.1		ug/L		87	69 - 136		
Chloroform	ND		25.0	27.8		ug/L		111	73 - 127		

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 480-198235-5 MS
Matrix: Water
Analysis Batch: 628185

Client Sample ID: MW-15I
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloromethane	ND		25.0	21.2		ug/L		85	68 - 124
cis-1,2-Dichloroethene	ND		25.0	27.1		ug/L		109	74 - 124
cis-1,3-Dichloropropene	ND		25.0	21.5		ug/L		86	74 - 124
Dibromochloromethane	ND		25.0	26.1		ug/L		104	75 - 125
Dibromomethane	ND		25.0	27.5		ug/L		110	76 - 127
Ethylbenzene	ND		25.0	25.0		ug/L		100	77 - 123
Iodomethane	ND		25.0	27.5		ug/L		110	78 - 123
m,p-Xylene	ND		25.0	26.1		ug/L		104	76 - 122
Methylene Chloride	ND		25.0	26.0		ug/L		104	75 - 124
o-Xylene	ND		25.0	24.8		ug/L		99	76 - 122
Styrene	ND		25.0	23.0		ug/L		92	80 - 120
Tetrachloroethene	ND		25.0	25.8		ug/L		103	74 - 122
Toluene	ND		25.0	24.8		ug/L		99	80 - 122
trans-1,2-Dichloroethene	ND		25.0	24.2		ug/L		97	73 - 127
trans-1,3-Dichloropropene	ND	F1	25.0	19.8	F1	ug/L		79	80 - 120
trans-1,4-Dichloro-2-butene	ND		25.0	10.3		ug/L		41	41 - 131
Trichloroethene	ND		25.0	27.9		ug/L		112	74 - 123
Trichlorofluoromethane	ND		25.0	25.0		ug/L		100	62 - 150
Vinyl acetate	ND		50.0	29.2		ug/L		58	50 - 144
Vinyl chloride	ND		25.0	22.4		ug/L		90	65 - 133

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*92*		*77 - 120*
4-Bromofluorobenzene (Surr)	*106*		*73 - 120*
Toluene-d8 (Surr)	*97*		*80 - 120*

Lab Sample ID: 480-198235-5 MSD
Matrix: Water
Analysis Batch: 628185

Client Sample ID: MW-15I
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	ND		25.0	28.3		ug/L		113	80 - 120	3	20
1,1,1-Trichloroethane	ND		25.0	33.0	F1	ug/L		132	73 - 126	7	15
1,1,2,2-Tetrachloroethane	ND		25.0	21.6		ug/L		87	76 - 120	7	15
1,1,2-Trichloroethane	ND		25.0	24.0		ug/L		96	76 - 122	1	15
1,1-Dichloroethane	1.5		25.0	27.6		ug/L		105	77 - 120	6	20
1,1-Dichloroethene	ND		25.0	26.3		ug/L		105	66 - 127	3	16
1,2,3-Trichloropropane	ND		25.0	23.6		ug/L		94	68 - 122	0	14
1,2-Dibromo-3-Chloropropane	ND		25.0	22.4		ug/L		90	56 - 134	13	15
1,2-Dibromoethane	ND		25.0	26.6		ug/L		107	77 - 120	1	15
1,2-Dichlorobenzene	ND		25.0	25.9		ug/L		104	80 - 124	4	20
1,2-Dichloroethane	ND		25.0	27.2		ug/L		109	75 - 120	4	20
1,2-Dichloropropane	ND		25.0	25.9		ug/L		104	76 - 120	5	20
1,4-Dichlorobenzene	ND		25.0	26.0		ug/L		104	78 - 124	4	20
2-Butanone	ND		125	151		ug/L		121	57 - 140	7	20
2-Hexanone	ND		125	141		ug/L		113	65 - 127	7	15
4-Methyl-2-pentanone	ND		125	116		ug/L		93	71 - 125	5	35
Acetone	ND		125	173		ug/L		138	56 - 142	1	15

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 480-198235-5 MSD
Matrix: Water
Analysis Batch: 628185

Client Sample ID: MW-15I
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acrylonitrile	ND		250	239		ug/L		96	63 - 125	6	20
Benzene	ND		25.0	27.0		ug/L		108	71 - 124	8	13
Bromochloromethane	ND		25.0	30.3		ug/L		121	72 - 130	3	15
Bromodichloromethane	ND		25.0	27.9		ug/L		111	80 - 122	4	15
Bromoform	ND		25.0	24.4		ug/L		98	61 - 132	1	15
Bromomethane	ND		25.0	25.0		ug/L		100	55 - 144	9	15
Carbon disulfide	ND		25.0	23.0		ug/L		92	59 - 134	2	15
Carbon tetrachloride	ND		25.0	30.7		ug/L		123	72 - 134	2	15
Chlorobenzene	ND		25.0	24.9		ug/L		100	80 - 120	1	25
Chloroethane	0.43	J	25.0	24.6		ug/L		97	69 - 136	11	15
Chloroform	ND		25.0	28.3		ug/L		113	73 - 127	2	20
Chloromethane	ND		25.0	22.8		ug/L		91	68 - 124	7	15
cis-1,2-Dichloroethene	ND		25.0	28.6		ug/L		114	74 - 124	5	15
cis-1,3-Dichloropropene	ND		25.0	22.5		ug/L		90	74 - 124	5	15
Dibromochloromethane	ND		25.0	26.1		ug/L		104	75 - 125	0	15
Dibromomethane	ND		25.0	29.8		ug/L		119	76 - 127	8	15
Ethylbenzene	ND		25.0	24.9		ug/L		100	77 - 123	0	15
Iodomethane	ND		25.0	28.4		ug/L		114	78 - 123	3	20
m,p-Xylene	ND		25.0	26.1		ug/L		105	76 - 122	0	16
Methylene Chloride	ND		25.0	25.0		ug/L		100	75 - 124	4	15
o-Xylene	ND		25.0	24.8		ug/L		99	76 - 122	0	16
Styrene	ND		25.0	24.3		ug/L		97	80 - 120	6	20
Tetrachloroethene	ND		25.0	25.5		ug/L		102	74 - 122	1	20
Toluene	ND		25.0	24.8		ug/L		99	80 - 122	0	15
trans-1,2-Dichloroethene	ND		25.0	26.5		ug/L		106	73 - 127	9	20
trans-1,3-Dichloropropene	ND	F1	25.0	19.6	F1	ug/L		79	80 - 120	1	15
trans-1,4-Dichloro-2-butene	ND		25.0	11.0		ug/L		44	41 - 131	6	20
Trichloroethene	ND		25.0	29.5		ug/L		118	74 - 123	6	16
Trichlorofluoromethane	ND		25.0	28.4		ug/L		114	62 - 150	13	20
Vinyl acetate	ND		50.0	30.1		ug/L		60	50 - 144	3	23
Vinyl chloride	ND		25.0	25.0		ug/L		100	65 - 133	11	15

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*93*		*77 - 120*
4-Bromofluorobenzene (Surr)	*101*		*73 - 120*
Toluene-d8 (Surr)	*95*		*80 - 120*

Client: Cattaraugus County
Job ID: 480-198235-1
Project/Site: Farwell Landfill - GW Baseline Volatiles

GC/MS VOA

Analysis Batch: 628185

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-198235-1	Trip Blank	Total/NA	Water	8260C	
480-198235-2	DUP Y	Total/NA	Water	8260C	
480-198235-3	MW-14I	Total/NA	Water	8260C	
480-198235-4	MW-14S	Total/NA	Water	8260C	
480-198235-5	MW-15I	Total/NA	Water	8260C	
480-198235-6	MW-15S	Total/NA	Water	8260C	
480-198235-7	MW-16I	Total/NA	Water	8260C	
480-198235-8	MW-16S	Total/NA	Water	8260C	
480-198235-9	MW-17I	Total/NA	Water	8260C	
480-198235-10	MW-17S	Total/NA	Water	8260C	
480-198235-11	MW-21	Total/NA	Water	8260C	
480-198235-12	MW-22	Total/NA	Water	8260C	
480-198235-13	MW-23	Total/NA	Water	8260C	
MB 480-628185/8	Method Blank	Total/NA	Water	8260C	
LCS 480-628185/6	Lab Control Sample	Total/NA	Water	8260C	
480-198235-5 MS	MW-15I	Total/NA	Water	8260C	
480-198235-5 MSD	MW-15I	Total/NA	Water	8260C	

Field Service / Mobile Lab

Analysis Batch: 628351

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-198235-2	DUP Y	Total/NA	Water	Field Sampling	
480-198235-3	MW-14I	Total/NA	Water	Field Sampling	
480-198235-4	MW-14S	Total/NA	Water	Field Sampling	
480-198235-5	MW-15I	Total/NA	Water	Field Sampling	
480-198235-6	MW-15S	Total/NA	Water	Field Sampling	
480-198235-7	MW-16I	Total/NA	Water	Field Sampling	
480-198235-8	MW-16S	Total/NA	Water	Field Sampling	
480-198235-9	MW-17I	Total/NA	Water	Field Sampling	
480-198235-10	MW-17S	Total/NA	Water	Field Sampling	
480-198235-11	MW-21	Total/NA	Water	Field Sampling	
480-198235-12	MW-22	Total/NA	Water	Field Sampling	
480-198235-13	MW-23	Total/NA	Water	Field Sampling	

Lab Chronicle

Client: Cattaraugus County
Job ID: 480-198235-1
Project/Site: Farwell Landfill - GW Baseline Volatiles

Client Sample ID: Trip Blank
Lab Sample ID: 480-198235-1
Date Collected: 05/23/22 00:00
Matrix: Water
Date Received: 05/23/22 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	628185	06/01/22 01:34	CR	TAL BUF

Client Sample ID: DUP Y
Lab Sample ID: 480-198235-2
Date Collected: 05/23/22 12:35
Matrix: Water
Date Received: 05/23/22 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	628185	06/01/22 01:57	CR	TAL BUF
Total/NA	Analysis	Field Sampling		1	628351	05/23/22 12:35	FLD	TAL BUF

Client Sample ID: MW-14I
Lab Sample ID: 480-198235-3
Date Collected: 05/23/22 13:30
Matrix: Water
Date Received: 05/23/22 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	628185	06/01/22 02:20	CR	TAL BUF
Total/NA	Analysis	Field Sampling		1	628351	05/23/22 13:30	FLD	TAL BUF

Client Sample ID: MW-14S
Lab Sample ID: 480-198235-4
Date Collected: 05/23/22 13:45
Matrix: Water
Date Received: 05/23/22 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	628185	06/01/22 02:43	CR	TAL BUF
Total/NA	Analysis	Field Sampling		1	628351	05/23/22 13:45	FLD	TAL BUF

Client Sample ID: MW-15I
Lab Sample ID: 480-198235-5
Date Collected: 05/23/22 13:15
Matrix: Water
Date Received: 05/23/22 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	628185	06/01/22 03:06	CR	TAL BUF
Total/NA	Analysis	Field Sampling		1	628351	05/23/22 13:15	FLD	TAL BUF

Client Sample ID: MW-15S
Lab Sample ID: 480-198235-6
Date Collected: 05/23/22 13:00
Matrix: Water
Date Received: 05/23/22 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	628185	06/01/22 03:30	CR	TAL BUF
Total/NA	Analysis	Field Sampling		1	628351	05/23/22 13:00	FLD	TAL BUF

Lab Chronicle

Client: Cattaraugus County
Job ID: 480-198235-1
Project/Site: Farwell Landfill - GW Baseline Volatiles

Client Sample ID: MW-16I
Lab Sample ID: 480-198235-7
Date Collected: 05/23/22 12:45
Matrix: Water
Date Received: 05/23/22 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	628185	06/01/22 03:53	CR	TAL BUF
Total/NA	Analysis	Field Sampling		1	628351	05/23/22 12:45	FLD	TAL BUF

Client Sample ID: MW-16S
Lab Sample ID: 480-198235-8
Date Collected: 05/23/22 12:35
Matrix: Water
Date Received: 05/23/22 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	628185	06/01/22 04:16	CR	TAL BUF
Total/NA	Analysis	Field Sampling		1	628351	05/23/22 12:35	FLD	TAL BUF

Client Sample ID: MW-17I
Lab Sample ID: 480-198235-9
Date Collected: 05/23/22 12:25
Matrix: Water
Date Received: 05/23/22 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	628185	06/01/22 04:39	CR	TAL BUF
Total/NA	Analysis	Field Sampling		1	628351	05/23/22 12:25	FLD	TAL BUF

Client Sample ID: MW-17S
Lab Sample ID: 480-198235-10
Date Collected: 05/23/22 12:15
Matrix: Water
Date Received: 05/23/22 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	628185	06/01/22 05:03	CR	TAL BUF
Total/NA	Analysis	Field Sampling		1	628351	05/23/22 12:15	FLD	TAL BUF

Client Sample ID: MW-21
Lab Sample ID: 480-198235-11
Date Collected: 05/23/22 14:05
Matrix: Water
Date Received: 05/23/22 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	628185	06/01/22 05:26	CR	TAL BUF
Total/NA	Analysis	Field Sampling		1	628351	05/23/22 14:05	FLD	TAL BUF

Client Sample ID: MW-22
Lab Sample ID: 480-198235-12
Date Collected: 05/23/22 14:15
Matrix: Water
Date Received: 05/23/22 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	628185	06/01/22 05:49	CR	TAL BUF
Total/NA	Analysis	Field Sampling		1	628351	05/23/22 14:15	FLD	TAL BUF

Lab Chronicle

Client: Cattaraugus County
Job ID: 480-198235-1
Project/Site: Farwell Landfill - GW Baseline Volatiles

Client Sample ID: MW-23
Lab Sample ID: 480-198235-13
Date Collected: 05/23/22 12:00
Matrix: Water
Date Received: 05/23/22 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	628185	06/01/22 06:12	CR	TAL BUF
Total/NA	Analysis	Field Sampling		1	628351	05/23/22 12:00	FLD	TAL BUF

Laboratory References:

TAL BUF = Eurofins Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Accreditation/Certification Summary

Client: Cattaraugus County
Job ID: 480-198235-1
Project/Site: Farwell Landfill - GW Baseline Volatiles

Laboratory: Eurofins Buffalo

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	03-31-23

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
Field Sampling		Water	Field Conductivity
Field Sampling		Water	Field EH/ORP
Field Sampling		Water	pH, Field
Field Sampling		Water	Temperature, Field (C)
Field Sampling		Water	Turbidity

Method Summary

Client: Cattaraugus County
Job ID: 480-198235-1
Project/Site: Farwell Landfill - GW Baseline Volatiles

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF
Field Sampling	Field Sampling	EPA	TAL BUF
5030C	Purge and Trap	SW846	TAL BUF

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL BUF = Eurofins Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: Cattaraugus County
Job ID: 480-198235-1
Project/Site: Farwell Landfill - GW Baseline Volatiles

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-198235-1	Trip Blank	Water	05/23/22 00:00	05/23/22 17:00
480-198235-2	DUP Y	Water	05/23/22 12:35	05/23/22 17:00
480-198235-3	MW-14I	Water	05/23/22 13:30	05/23/22 17:00
480-198235-4	MW-14S	Water	05/23/22 13:45	05/23/22 17:00
480-198235-5	MW-15I	Water	05/23/22 13:15	05/23/22 17:00
480-198235-6	MW-15S	Water	05/23/22 13:00	05/23/22 17:00
480-198235-7	MW-16I	Water	05/23/22 12:45	05/23/22 17:00
480-198235-8	MW-16S	Water	05/23/22 12:35	05/23/22 17:00
480-198235-9	MW-17I	Water	05/23/22 12:25	05/23/22 17:00
480-198235-10	MW-17S	Water	05/23/22 12:15	05/23/22 17:00
480-198235-11	MW-21	Water	05/23/22 14:05	05/23/22 17:00
480-198235-12	MW-22	Water	05/23/22 14:15	05/23/22 17:00
480-198235-13	MW-23	Water	05/23/22 12:00	05/23/22 17:00

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: Surma	Lab PM: VanDette, Ryan T	Carrier Tracking No(s):
COC No: 480-173652-2691.1			
Client Contact: Linda McAndrew	Phone:	E-Mail: Ryan.VanDette@et.eurofinsus.com	State of Origin:
Page: Page 1 of 2			
Company: Cattaraugus County	PWSID:	**Analysis Requested**	Job #:
Address: 8810 Route 242	Due Date Requested:		
City: Little Valley	TAT Requested (days):		
State, Zip: NY, 14755	Compliance Project: Δ Yes Δ No		
Phone:	PO #: Purchase Order not requir		
Email: lbmcandrew@cattco.org	WO #:		
Project Name: Cattaraugus County/ Event Desc: FARWELL GW BASELINE Vo	Project #: 48003171		
Site: New York	SSOW#:		

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA
M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	FieldSampling - (MOD) PA Field Parameters	8260B - (MOD) TCL list OLM04.2	Total Number of containers	Special Instructions/Note:
				Preservation Code:	X	X	A	A	X	
Trip Blank				Water						1/V + HCl
DUP Y	5/23/22	1235	G	Water			X	X		
MW- 14I		1330		Water			X	X		
MW- 14S		1345		Water			X	X		
MW-15I		1315		Water			X	X		
MW-15S		1300		Water			X	X		
MW-16I		1245		Water			X	X		
MW-16S		1235		Water			X	X		
MW-17I		1225		Water			X	X		
MW-17S		1215		Water			X	X		
MW-21		1405		Water			X	X		

480-198235 Chain of Custody

Possible Hazard Identification
☐ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* ☐ *Poison B* ☐ *Unknown* ☐ *Radiological*

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For ______ Months*

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:
Relinquished by: [signature]	Date/Time: 5/23/22	Company: ETEX	Received by: [signature] Date/Time: 5/23/22 1700 Company: TA
Relinquished by:	Date/Time:	Company:	Received by: Date/Time: Company:
Relinquished by:	Date/Time:	Company:	Received by: Date/Time: Company:
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.: 1970999		Cooler Temperature(s) °C and Other Remarks: 5.1 #1 ICE

Ver: 06/08/2021

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: Surma	Lab PM: VanDette, Ryan T	Carrier Tracking No(s):	COC No: 480-173652-2691.2
Client Contact: Linda McAndrew	Phone:	E-Mail: Ryan.VanDette@et.eurofinsus.com	State of Origin:	Page: Page 2 of 2
Company: Cattaraugus County	PWSID:	Analysis Requested		Job #:
Address: 8810 Route 242	Due Date Requested:			Preservation Codes:
City: Little Valley	TAT Requested (days):			A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
State, Zip: NY, 14755	Compliance Project: Δ Yes Δ No			
Phone:	PO #: Purchase Order not requir			Other:
Email: lbmcandrew@cattco.org	WO #:			
Project Name: Cattaraugus County/ Event Desc: FARWELL GW BASELINE Vo	Project #: 48003171			
Site: New York	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	FieldSampling - (MOD) PA Field Parameters	8260B - (MOD) TCL list OLM04.2	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A	A		
MW-22	5/23/22	1415	G	Water			X	X		Ice & HCl
MW-23		1200		Water			X	X		
15i MS		1315		Water			X	X		
15i MSD		1315		Water			X	X		

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Surma	5/23/22	ETEX	PGL		

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.: 1970999	Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

6/10/2022

Enviroteknix
An Environmental Field Service Company

Telephone: 716-366-8143
Fax: 716-366-8092
Email: enviroteknix@outlook.com
302 Lakeshore Drive East
Dunkirk, New York USA 14048

LANDFILL MONITORING FIELD LOG SHEET

Facility: Farwell Landfill **Sample Point ID:** MW-14i

Field Personnel: CS/CS **Sample Matrix:** Groundwater

Monitoring Well Inspection: **Date:** 5/22/2022 **Time:** 16:50

Condition of Casing/Riser:
( ) Unlocked (X) Good ( ) Loose ( ) Damaged ( ) Flush Mount

Condition of Seal:
(X) Good ( ) Cracked ( ) None ( ) Buried

Purge Information:

Date/Time Started: 16:50 Riser Diameter: 2"
Date/Time Ended: 17:05 (2" Conv. Factor = 0.163)
(4" Conv. Factor = 0.653)

Purge Method: Pump Dedicated: (X)Y ( )N
Surface Meas. Pt.: (X) Casing ( ) Riser
Initial H2O Level: 50.5 Tot. Well Depth, ft: 85.1 One Vol. Gals: 5.6
Tot. Purged Gals: 17 Purged to Dryness: ( ) Y (X) N (3x) Vol. Gals: 16.9
Observations: Overall: Clear Start: Clear/Lt Gray Finish: Clear/Lt Gray

Comments:

Monitoring Well Sampling: **Date:** 5/23/2022 **Time:** 13:30

Sampling Method: Bailer **Dedicated: (X)Y ( )N** **Weather/Temp:** Sun 57F

Depth to Water: 50.2

Field Data						
Temp Celsius	pH Std Units	Conductivity u/s	Turbidity NTU	ORP mV	D.O. mg/L	Observations/Characteristics
7.2	7.93	1127	6.3	142	4.1	Clear

Parameters Sampled For: Baseline VOCs

Comments:

ENVIROTEKNIX SITE/PROJECT MANAGER SIGNATURE

Enviroteknix
An Environmental Field Service Company

Telephone: 716-366-8143
Fax: 716-366-8092
Email: enviroteknix@outlook.com
302 Lakeshore Drive East
Dunkirk, New York USA 14048

LANDFILL MONITORING FIELD LOG SHEET

Facility: Farwell Landfill **Sample Point ID:** MW-14s

Field Personnel: CS/CS **Sample Matrix:** Groundwater

Monitoring Well Inspection: **Date:** 5/22/2022 **Time:** 16:45

Condition of Casing/Riser:
( ) Unlocked (X) Good ( ) Loose ( ) Damaged ( ) Flush Mount

Condition of Seal:
(X) Good ( ) Cracked ( ) None ( ) Buried

Purge Information:

Date/Time Started: 16:45 Riser Diameter: 2"
Date/Time Ended: 17:00 (2" Conv. Factor = 0.163)
Purge Method: Bailer Dedicated Tubing: (X)Y ( )N (4" Conv. Factor = 0.653)
Surface Meas. Pt.: (X) Casing ( ) Riser
Initial H2O Level: 49.7 Tot. Well Depth, ft: 60.8 One Vol. Gals: 1.8
Tot. Purged Gals: 3.5 Purged to Dryness: (X) Y ( ) N (3x) Vol. Gals: 5.4
Observations: Overall: Clear Start: Clear Finish: Clear

Comments:

Monitoring Well Sampling: **Date:** 5/23/2022 **Time:** 13:45

Sampling Method: Bailer **Dedicated: (X)Y ( )N** **Weather/Temp:** Sun 57F

Depth to Water: 49.9

Field Data						
Temp Celsius	pH Std Units	Conductivity u/s	Turbidity NTU	ORP mV	D.O. mg/L	Observations/Characteristics
7.8	7.65	963	57.4	122	3.3	Clear/Lt Brown

Parameters Sampled For: Baseline VOCs

Comments:

ENVIROTEKNIX SITE/PROJECT MANAGER SIGNATURE

Enviroteknix
An Environmental Field Service Company

Telephone: 716-366-8143
Fax: 716-366-8092
Email: enviroteknix@outlook.com
302 Lakeshore Drive East
Dunkirk, New York USA 14048

LANDFILL MONITORING FIELD LOG SHEET

Facility: Farwell Landfill **Sample Point ID:** MW-15I

Field Personnel: CS/CS **Sample Matrix:** Groundwater

Monitoring Well Inspection: **Date:** 5/22/2022 **Time:** 15:05

Condition of Casing/Riser:
( ) Unlocked (X) Good ( ) Loose ( ) Damaged ( ) Flush Mount

Condition of Seal:
(X) Good ( ) Cracked ( ) None ( ) Buried

Purge Information:

Date/Time Started: 15:05 Riser Diameter: 4"
Date/Time Ended: 16:05 (2" Conv. Factor = 0.163)
Purge Method: Pump Dedicated Tubing: (X)Y ( )N (4" Conv. Factor = 0.653)
Surface Meas. Pt.: (X) Casing ( ) Riser
Initial H2O Level: 19.8 Tot. Well Depth, ft: 82.4 One Vol. Gals: 40.9
Tot. Purged Gals: 123 Purged to Dryness: ( ) Y (X) N (3x) Vol. Gals: 122.6
Observations: Overall: Clear Start: Clear Finish: Clear

Comments:

Monitoring Well Sampling: **Date:** 5/23/2022 **Time:** 13:15

Sampling Method: Bailer Dedicated: (X)Y ( )N Weather/Temp: Sun 59F
Depth to Water: 20.2

Field Data						
Temp Celsius	pH Std Units	Conductivity u/S	Turbidity NTU	ORP mV	D.O. mg/L	Observations/Characteristics
3.3	7.91	468	2.7	118	5.3	Clear

Parameters Sampled For: Baseline VOCs
MS/MSD taken here.

Comments:

ENVIROTEKNIX SITE/PROJECT MANAGER SIGNATURE

Enviroteknix
An Environmental Field Service Company

Telephone: 716-366-8143
Fax: 716-366-8092
Email: enviroteknix@outlook.com
302 Lakeshore Drive East
Dunkirk, New York USA 14048

LANDFILL MONITORING FIELD LOG SHEET

Facility: Farwell Landfill **Sample Point ID:** MW-15s

Field Personnel: CS/CS **Sample Matrix:** Groundwater

Monitoring Well Inspection: **Date:** 5/22/2022 **Time:** 16:05

Condition of Casing/Riser:
( ) Unlocked (X) Good ( ) Loose ( ) Damaged ( ) Flush Mount

Condition of Seal:
(X) Good ( ) Cracked ( ) None ( ) Buried

Purge Information:

Date/Time Started: 16:05 Riser Diameter: 2"
Date/Time Ended: 16:20 (2" Conv. Factor = 0.163)
Purge Method: Pump Dedicated: (X)Y ( )N (4" Conv. Factor = 0.653)
Surface Meas. Pt.: (X) Casing ( ) Riser
Initial H2O Level: 19.2 Tot. Well Depth, ft: 50.4 One Vol. Gals: 5.1
Tot. Purged Gals: 16 Purged to Dryness: ( ) Y (X) N (3x) Vol. Gals: 15.3
Observations: Overall: Clear Start: Clear Finish: Clear

Comments:

Monitoring Well Sampling: **Date:** 5/23/2022 **Time:** 13:00

Sampling Method: Bailer Dedicated: (X)Y ( )N Weather/Temp: Sun 60F
Depth to Water: 19.5

Field Data						
Temp Celsius	pH Std Units	Conductivity u/s	Turbidity NTU	ORP mV	D.O. mg/L	Observations/Characteristics
3.9	8.05	533	9.6	116	5.9	Clear

Parameters Sampled For: Baseline VOCs

Comments: Piezometer #15 depth to water was 18.7 at 15:05.

ENVIROTEKNIX SITE/PROJECT MANAGER SIGNATURE

Enviroteknix
An Environmental Field Service Company

Telephone: 716-366-8143
Fax: 716-366-8092
Email: enviroteknix@outlook.com
302 Lakeshore Drive East
Dunkirk, New York USA 14048

LANDFILL MONITORING FIELD LOG SHEET

Facility: Farwell Landfill **Sample Point ID:** MW-16I

Field Personnel: CS/CS **Sample Matrix:** Groundwater

Monitoring Well Inspection: **Date:** 5/22/2022 **Time:** 13:00

Condition of Casing/Riser:
( ) Unlocked (X) Good ( ) Loose ( ) Damaged ( ) Flush Mount

Condition of Seal:
(X) Good ( ) Cracked ( ) None ( ) Buried

Purge Information:

Date/Time Started: 13:00 **Riser Diameter:** 4"
Date/Time Ended: 13:55 (2" Conv. Factor = 0.163)
(4" Conv. Factor = 0.653)

Purge Method: Pump **Dedicated Tubing:** (X)Y ( )N
Surface Meas. Pt.: (X) Casing ( ) Riser
Initial H2O Level: 16.8 **Tot. Well Depth, ft:** 93.5 **One Vol. Gals:** 50.1
Tot. Purged Gals: 150 **Purged to Dryness:** ( ) Y (X) N **(3x) Vol. Gals:** 150.3
Observations: **Overall:** Clear **Start:** Clear **Finish:** Clear

Comments:

Monitoring Well Sampling: **Date:** 5/23/2022 **Time:** 12:45

Sampling Method: Bailer **Dedicated:** (X)Y ( )N **Weather/Temp:** Sun 57F

Depth to Water: 17.1

Field Data						
Temp Celsius	pH Std Units	Conductivity u/s	Turbidity NTU	ORP mV	D.O. mg/L	Observations/Characteristics
2.2	7.85	501	5.8	118	6.2	Clear

Parameters Sampled For: Baseline VOCs

Comments:

ENVIROTEKNIX SITE/PROJECT MANAGER SIGNATURE

Enviroteknix
An Environmental Field Service Company

Telephone: 716-366-8143
Fax: 716-366-8092
Email: enviroteknix@outlook.com
302 Lakeshore Drive East
Dunkirk, New York USA 14048

LANDFILL MONITORING FIELD LOG SHEET

Facility: Farwell Landfill **Sample Point ID:** MW-16s

Field Personnel: CS/CS **Sample Matrix:** Groundwater

Monitoring Well Inspection: **Date:** 5/22/2022 **Time:** 12:45

Condition of Casing/Riser:
( ) Unlocked (X) Good ( ) Loose ( ) Damaged ( ) Flush Mount

Condition of Seal:
(X) Good ( ) Cracked ( ) None ( ) Buried

Purge Information:

Date/Time Started: 12:45 Riser Diameter: 2"
Date/Time Ended: 12:52 (2" Conv. Factor = 0.163)
Purge Method: Bailer Dedicated: (X)Y ( )N (4" Conv. Factor = 0.653)
Surface Meas. Pt.: (X) Casing ( ) Riser
Initial H2O Level: 15.9 Tot. Well Depth, ft: 30.1 One Vol. Gals: 2.3
Tot. Purged Gals: 7 Purged to Dryness: ( ) Y (X) N (3x) Vol. Gals: 6.9
Observations: Overall: Clear Start: Clear/Cldy Finish: Clear/Cldy

Comments:

Monitoring Well Sampling: **Date:** 5/23/2022 **Time:** 12:35

Sampling Method: Bailer **Dedicated: (X)Y ( )N** **Weather/Temp:** Sun 57F

Depth to Water: 16.4

Field Data						
Temp Celsius	pH Std Units	Conductivity u/S	Turbidity NTU	ORP mV	D.O. mg/L	Observations/Characteristics
3.9	7.69	698	4.9	117	4.9	Clear

Parameters Sampled For: Baseline VOCs
Dup Y taken here.

Comments:

ENVIROTEKNIX SITE/PROJECT MANAGER SIGNATURE

Enviroteknix
An Environmental Field Service Company

Telephone: 716-366-8143
Fax: 716-366-8092
Email: enviroteknix@outlook.com
302 Lakeshore Drive East
Dunkirk, New York USA 14048

LANDFILL MONITORING FIELD LOG SHEET

Facility: Farwell Landfill **Sample Point ID:** MW-17I

Field Personnel: CS/CS **Sample Matrix:** Groundwater

Monitoring Well Inspection: **Date:** 5/22/2022 **Time:** 12:10

Condition of Casing/Riser:
( ) unlocked (X) Good ( ) Loose ( ) Damaged ( ) Flush Mount

Condition of Seal:
(X) Good ( ) Cracked ( ) None ( ) Buried

Purge Information:

Date/Time Started: 12:10 Riser Diameter: 2"
Date/Time Ended: 12:30 (2" Conv. Factor = 0.163)
Purge Method: Pump Dedicated Tubing: (X)Y ( )N (4" Conv. Factor = 0.653)
Surface Meas. Pt.: (X) Casing ( ) Riser
Initial H2O Level: 18.1 Tot. Well Depth, ft: 99.8 One Vol. Gals: 13.3
Tot. Purged Gals: 40 Purged to Dryness: ( ) Y (X) N (3x) Vol. Gals: 40
Observations: Overall: Clear Start: Clear Finish: Clear

Comments:

Monitoring Well Sampling: **Date:** 5/23/2022 **Time:** 12:25

Sampling Method: Bailer **Dedicated: (X)Y ( )N** **Weather/Temp:** Sun 56F

Depth to Water: 18.1

Field Data						
Temp Celsius	pH Std Units	Conductivity u/s	Turbidity NTU	ORP mV	D.O. mg/L	Observations/Characteristics
4.4	7.45	314	6	113	5.1	Clear

Parameters Sampled For: Baseline VOCs

Comments:

ENVIROTEKNIX SITE/PROJECT MANAGER SIGNATURE

Enviroteknix
An Environmental Field Service Company

Telephone: 716-366-8143
Fax: 716-366-8092
Email: enviroteknix@outlook.com
302 Lakeshore Drive East
Dunkirk, New York USA 14048

LANDFILL MONITORING FIELD LOG SHEET

Facility: Farwell Landfill **Sample Point ID:** MW-17s

Field Personnel: CS/CS **Sample Matrix:** Groundwater

Monitoring Well Inspection: **Date:** 5/22/2022 **Time:** 11:50

Condition of Casing/Riser:
( ) Unlocked (X) Good ( ) Loose ( ) Damaged ( ) Flush Mount

Condition of Seal:
(X) Good ( ) Cracked ( ) None ( ) Buried

Purge Information:

Date/Time Started: 11:50 Riser Diameter: 2"
Date/Time Ended: 12:05 (2" Conv. Factor = 0.163)
Purge Method: Pump Dedicated Tubing: (X)Y ( )N (4" Conv. Factor = 0.653)
Surface Meas. Pt.: (X) Casing ( ) Riser
Initial H2O Level: 16.8 Tot. Well Depth, ft: 43.1 One Vol. Gals: 4.3
Tot. Purged Gals: 13 Purged to Dryness: (X) Y ( ) N (3x) Vol. Gals: 12.9
Observations: Overall: Clear/Cldy Start: Clear Finish: Clear

Comments:

Monitoring Well Sampling: **Date:** 5/23/2022 **Time:** 12:15

Sampling Method: Bailer Dedicated: (X)Y ( )N Weather/Temp: Sun 56F
Depth to Water: 16.6

Field Data						
Temp Celsius	pH Std Units	Conductivity u/S	Turbidity NTU	ORP mV	D.O. mg/L	Observations/Characteristics
3.3	7.35	433	3.9	122	5.1	Clear

Parameters Sampled For: Baseline VOCs

Comments:

ENVIROTEKNIX SITE/PROJECT MANAGER SIGNATURE

Enviroteknix
An Environmental Field Service Company

Telephone: 716-366-8143
Fax: 716-366-8092
Email: enviroteknix@outlook.com
302 Lakeshore Drive East
Dunkirk, New York USA 14048

LANDFILL MONITORING FIELD LOG SHEET

Facility: Farwell Landfill **Sample Point ID:** MW-21

Field Personnel: CS/CS **Sample Matrix:** Groundwater

Monitoring Well Inspection: **Date:** 5/22/2022 **Time:** 17:20

Condition of Casing/Riser:
( ) Unlocked (X) Good ( ) Loose ( ) Damaged ( ) Flush Mount

Condition of Seal:
(X) Good ( ) Cracked ( ) None ( ) Buried

Purge Information:
Date/Time Started: 17:20 Riser Diameter: 2"
Date/Time Ended: 17:45 (2" Conv. Factor = 0.163)
Purge Method: Pump Dedicated Tubing: (X)Y ( )N (4" Conv. Factor = 0.653)
Surface Meas. Pt.: (X) Casing ( ) Riser
Initial H2O Level: 47.6 Tot. Well Depth, ft: 123 One Vol. Gals: 12.3
Tot. Purged Gals: 37 Purged to Dryness: ( ) Y (X) N (3x) Vol. Gals: 36.9
Observations: Overall: Clear Start: Clear Finish: Clear

Comments:

Monitoring Well Sampling: **Date:** 5/23/2022 **Time:** 14:05
Sampling Method: Bailer Dedicated: (X)Y ( )N Weather/Temp: Sun 55F
Depth to Water: 47.7

Field Data						
Temp Celsius	pH Std Units	Conductivity u/S	Turbidity NTU	ORP mV	D.O. mg/L	Observations/Characteristics
3.9	7.77	998	1.3	113	4	Clear

Parameters Sampled For: Baseline VOCs

Comments:

ENVIROTEKNIX SITE/PROJECT MANAGER SIGNATURE

Enviroteknix
An Environmental Field Service Company

Telephone: 716-366-8143
Fax: 716-366-8092
Email: enviroteknix@outlook.com
302 Lakeshore Drive East
Dunkirk, New York USA 14048

LANDFILL MONITORING FIELD LOG SHEET

Facility: Farwell Landfill **Sample Point ID:** MW-22

Field Personnel: CS/CS **Sample Matrix:** Groundwater

Monitoring Well Inspection: **Date:** 5/22/2022 **Time:** 17:20

Condition of Casing/Riser:
( ) Unlocked (X) Good ( ) Loose ( ) Damaged ( ) Flush Mount

Condition of Seal:
(X) Good ( ) Cracked ( ) None ( ) Buried

Purge Information:

Date/Time Started: 17:20 Riser Diameter: 2"
Date/Time Ended: 17:35 (2" Conv. Factor = 0.163)
Purge Method: Pump Dedicated Tubing: (X)Y ( )N (4" Conv. Factor = 0.653)
Surface Meas. Pt.: (X) Casing ( ) Riser
Initial H2O Level: 11.8 Tot. Well Depth, ft: 57 One Vol. Gals: 7.4
Tot. Purged Gals: 22 Purged to Dryness: ( ) Y (X) N (3x) Vol. Gals: 22.1
Observations: Overall: Clear Start: Clear Finish: Clear

Comments:

Monitoring Well Sampling: **Date:** 5/23/2022 **Time:** 14:15

Sampling Method: Bailer Dedicated: (X)Y ( )N Weather/Temp: Sun 55F
Depth to Well: 12.1

Field Data						
Temp Celsius	pH Std Units	Conductivity u/s	Turbidity NTU	ORP mV	D.O. mg/L	Observations/Characteristics
2.2	6.93	248	5.5	85	5.4	Clear

Parameters Sampled For: Baseline VOCs

Comments:

ENVIROTEKNIX SITE/PROJECT MANAGER SIGNATURE

Enviroteknix
An Environmental Field Service Company

Telephone: 716-366-8143
Fax: 716-366-8092
Email: enviroteknix@outlook.com
302 Lakeshore Drive East
Dunkirk, New York USA 14048

LANDFILL MONITORING FIELD LOG SHEET

Facility: Farwell Landfill **Sample Point ID:** MW-23

Field Personnel: CS/CS **Sample Matrix:** Groundwater

Monitoring Well Inspection: **Date:** 5/22/2022 **Time:** 14:35

Condition of Casing/Riser:
( ) Unlocked (X) Good ( ) Loose ( ) Damaged ( ) Flush Mount
Condition of Seal:
(X) Good ( ) Cracked ( ) None ( ) Buried

Pouring Rain!

Purge Information:

Date/Time Started: 14:35 Riser Diameter: 2"
Date/Time Ended: 15:00 (2" Conv. Factor = 0.163)
Purge Method: Pump Dedicated Tubing: (X) Y ( )N (4" Conv. Factor = 0.653)
Surface Meas. Pt.: (X) Casing ( ) Riser
Initial H2O Level: 9.8 Tot. Well Depth, ft: 54.1 One Vol. Gals: 7.2
Tot. Purged Gals: 21 Purged to Dryness: ( ) Y (X) N (3x) Vol. Gals: 21.7
Observations: Overall: Clear Start: Clear Finish: Clear

Comments:

Monitoring Well Sampling: **Date:** 5/23/2022 **Time:** 12:00

Sampling Method: Bailer Dedicated: (X)Y ( )N Weather/Temp: Sun 55F
Depth to Water: 9.8

Field Data						
Temp Celsius	pH Std Units	Conductivity u/s	Turbidity NTU	ORP mV	D.O. mg/L	Observations/Characteristics
1.1	6.85	160	1	79	6.1	Clear

Parameters Sampled For: Baseline VOCs

Comments:

ENVIROTEKNIX SITE/PROJECT MANAGER SIGNATURE

Login Sample Receipt Checklist

Client: Cattaraugus County

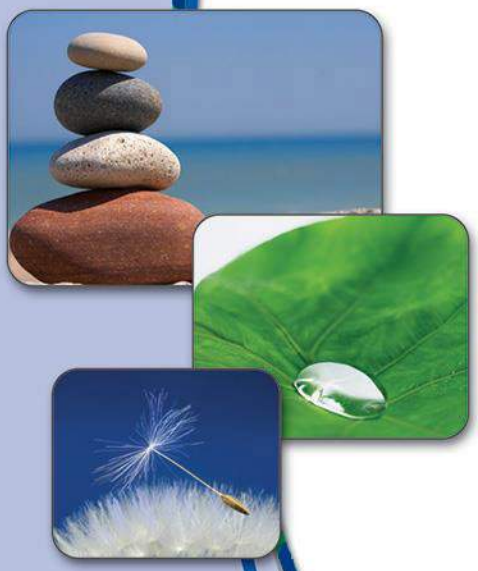
Job Number: 480-198235-1
SDG Number:

Login Number: 198235
List Number: 1
Creator: Yeager, Brian A

List Source: Eurofins Buffalo

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	ETEX
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	

eurofins | Environment Testing America



ANALYTICAL REPORT

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

Laboratory Job ID: 480-198237-1
Client Project/Site: Farwell Landfill - Leachate Expanded
Sampling Event: Farwell Leachate Expanded Monitoring

For:
Cattaraugus County
8810 Route 242
Little Valley, New York 14755

Attn: Austin Kimes

Authorized for release by:
6/10/2022 4:00:58 PM

Ryan VanDette, Project Manager II
(716)504-9830
Ryan.VanDette@et.eurofinsus.com

Table of Contents

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC Semi VOA

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1+	Surrogate recovery exceeds control limits, high biased.

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
b	Result Detected in the Unseeded Control blank (USB).
B	Compound was found in the blank and sample.
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 480-198237-1

Laboratory: Eurofins Buffalo

Narrative

Job Narrative
480-198237-1

Comments
No additional comments.

Receipt
The samples were received on 5/23/2022 5:00 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 5.6º C.

GC/MS VOA
Method 8260C: The continuing calibration verification (CCV) associated with batch 480-628019 recovered above the upper control limit for Acrolein, Vinyl acetate and Ethyl methacrylate. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: L-1 (480-198237-1) and Trip Blank (480-198237-2).

Method 8260C: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for analytical batch 480-628019 recovered outside control limits for the following analytes: Acrolein and Ethyl methacrylate. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported. The associated samples are impacted: L-1 (480-198237-1) and Trip Blank (480-198237-2).

Method 8260C: The following volatiles sample was diluted due to foaming at the time of purging during the original sample analysis: L-1 (480-198237-1). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

HPLC/IC
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC Semi VOA
Method 8151A: Surrogate recovery for the following sample was outside the upper control limit due to matrix interference: L-1 (480-198237-1). This sample did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals
Method 7470A: Due to interference with the sample matrix, the standard mercury preparation procedure was inadequate for the following samples(s): L-1 (480-198237-1). This was demonstrated when the potassium permanganate reagent was added and the characteristic purple color faded rapidly. This loss of color indicates oxidizing conditions were not maintained. The sample(s) was prepared and analyzed at a 1/2 dilution, which maintained the purple color during digestion.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry
Method SM 2120B: The following samples were filtered prior to analysis, therefore the analytical results are being report as "True Color": L-1 (480-198237-1) and (480-198237-Q-1 DU)

Method SM 4500 S2 F: The following sample had insufficient amount of the matrix spike added to allow for recovery to be calculated: L-1 (MS)(480-198237-N-1 MS). The LCS was compliant.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep

Job ID: 480-198237-1 (Continued)

Laboratory: Eurofins Buffalo (Continued)

Method 8151A: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with preparation batch 480-627564.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: Cattaraugus County
Job ID: 480-198237-1
Project/Site: Farwell Landfill - Leachate Expanded

Client Sample ID: L-1
Lab Sample ID: 480-198237-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	2.9	J	4.0	1.5	ug/L	4		8260C	Total/NA
Benzene	1.9	J	4.0	1.6	ug/L	4		8260C	Total/NA
Chloroethane	3.4	J	4.0	1.3	ug/L	4		8260C	Total/NA
Ethylbenzene	5.5		4.0	3.0	ug/L	4		8260C	Total/NA
m-Xylene & p-Xylene	9.3		8.0	2.6	ug/L	4		8260C	Total/NA
Xylenes, Total	9.3		8.0	2.6	ug/L	4		8260C	Total/NA
1,4-Dichlorobenzene	1.6	J	10	0.46	ug/L	1		8270D	Total/NA
2,4-Dimethylphenol	0.75	J	5.0	0.50	ug/L	1		8270D	Total/NA
Diethyl phthalate	0.37	J	5.0	0.22	ug/L	1		8270D	Total/NA
Di-n-butyl phthalate	13	B	5.0	0.31	ug/L	1		8270D	Total/NA
Naphthalene	1.9	J	5.0	0.76	ug/L	1		8270D	Total/NA
N-Nitrosodi-n-butylamine	4.2	J	10	0.60	ug/L	1		8270D	Total/NA
4,4'-DDT	0.025	J	0.050	0.011	ug/L	1		8081B	Total/NA
Endosulfan I	0.11		0.050	0.011	ug/L	1		8081B	Total/NA
Endrin aldehyde	0.027	J B	0.050	0.016	ug/L	1		8081B	Total/NA
Methoxychlor	0.021	J	0.050	0.014	ug/L	1		8081B	Total/NA
Arsenic	0.010		0.010	0.0056	mg/L	1		6010C	Total/NA
Barium	0.41		0.0020	0.00070	mg/L	1		6010C	Total/NA
Boron	1.6		0.020	0.0040	mg/L	1		6010C	Total/NA
Cadmium	0.00055	J	0.0010	0.00050	mg/L	1		6010C	Total/NA
Calcium	125		0.50	0.10	mg/L	1		6010C	Total/NA
Chromium	0.0017	J	0.0040	0.0010	mg/L	1		6010C	Total/NA
Cobalt	0.0025	J	0.0040	0.00063	mg/L	1		6010C	Total/NA
Iron	10.5		0.050	0.019	mg/L	1		6010C	Total/NA
Magnesium	52.7		0.20	0.043	mg/L	1		6010C	Total/NA
Manganese	0.96		0.0030	0.00040	mg/L	1		6010C	Total/NA
Nickel	0.012		0.010	0.0013	mg/L	1		6010C	Total/NA
Potassium	79.4		0.50	0.10	mg/L	1		6010C	Total/NA
Sodium	305		1.0	0.32	mg/L	1		6010C	Total/NA
Zinc	0.0026	J B	0.010	0.0015	mg/L	1		6010C	Total/NA
Lead	0.00028	J	0.0010	0.00017	mg/L	1		6020A	Total/NA
Calcium and Magnesium Hardness	529		0.50	0.10	mg/L	1		SM 2340B	Total/NA
Bromide	4.9		2.0	0.73	mg/L	10		300.0	Total/NA
Chloride	324		5.0	2.8	mg/L	10		300.0	Total/NA
Sulfate	13.2	J	20.0	3.5	mg/L	10		300.0	Total/NA
Alkalinity, Total	1150	B	200	80.0	mg/L	20		310.2	Total/NA
Ammonia as N	89.5		1.0	0.45	mg/L as N	50		350.1	Total/NA
Total Kjeldahl Nitrogen	102		10.0	9.4	mg/L as N	50		351.2	Total/NA
Nitrate	0.021	J	0.050	0.020	mg/L as N	1		353.2	Total/NA
Chemical Oxygen Demand	226		20.0	10.0	mg/L	2		410.4	Total/NA
Total Organic Carbon	58.9	B	1.0	0.43	mg/L	1		9060A	Total/NA
Color	25.0		5.00	5.00	Color Units	1		SM 2120B	Total/NA
Filterable Residue (180 C)	1350		20.0	8.0	mg/L	1		SM 2540C	Total/NA
Biochemical Oxygen Demand	23.0	b	12.0	12.0	mg/L	1		SM 5210B	Total/NA
Field EH/ORP	127				millivolts	1		Field Sampling	Total/NA
pH, Field	7.67				SU	1		Field Sampling	Total/NA
Temperature, Field (C)	9.5				Degrees C	1		Field Sampling	Total/NA
Turbidity, Field	119				NTU	1		Field Sampling	Total/NA
Specific Conductance, Field	3160				umhos/cm	1		Field Sampling	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Cattaraugus County
Job ID: 480-198237-1
Project/Site: Farwell Landfill - Leachate Expanded

Client Sample ID: Trip Blank **Lab Sample ID: 480-198237-2**

No Detections.

This Detection Summary does not include radiochemical test results.

Client: Cattaraugus County
Job ID: 480-198237-1
Project/Site: Farwell Landfill - Leachate Expanded

Client Sample ID: L-1
Lab Sample ID: 480-198237-1
Date Collected: 05/23/22 14:30
Matrix: Water
Date Received: 05/23/22 17:00

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		4.0	1.4	ug/L			05/28/22 04:42	4
1,1,1-Trichloroethane	ND		4.0	3.3	ug/L			05/28/22 04:42	4
1,1,2,2-Tetrachloroethane	ND		4.0	0.84	ug/L			05/28/22 04:42	4
1,1,2-Trichloroethane	ND		4.0	0.92	ug/L			05/28/22 04:42	4
1,1-Dichloroethane	**2.9**	**J**	4.0	1.5	ug/L			05/28/22 04:42	4
1,1-Dichloroethene	ND		4.0	1.2	ug/L			05/28/22 04:42	4
1,2,3-Trichloropropane	ND		4.0	3.6	ug/L			05/28/22 04:42	4
1,1-Dichloropropene	ND		4.0	2.9	ug/L			05/28/22 04:42	4
1,2-Dibromo-3-Chloropropane	ND		4.0	1.6	ug/L			05/28/22 04:42	4
1,2-Dibromoethane (EDB)	ND		4.0	2.9	ug/L			05/28/22 04:42	4
1,2-Dichloroethane	ND		4.0	0.84	ug/L			05/28/22 04:42	4
1,2-Dichloropropane	ND		4.0	2.9	ug/L			05/28/22 04:42	4
2-Hexanone	ND		20	5.0	ug/L			05/28/22 04:42	4
2-Butanone (MEK)	ND		40	5.3	ug/L			05/28/22 04:42	4
4-Methyl-2-pentanone (MIBK)	ND		20	8.4	ug/L			05/28/22 04:42	4
Acetone	ND		40	12	ug/L			05/28/22 04:42	4
Acetonitrile	ND		160	20	ug/L			05/28/22 04:42	4
1,2-Dichloroethene, Total	ND		8.0	3.2	ug/L			05/28/22 04:42	4
Acrolein	ND	*+	80	3.6	ug/L			05/28/22 04:42	4
Acrylonitrile	ND		20	3.3	ug/L			05/28/22 04:42	4
Allyl chloride	ND		4.0	1.8	ug/L			05/28/22 04:42	4
Benzene	**1.9**	**J**	4.0	1.6	ug/L			05/28/22 04:42	4
Bromodichloromethane	ND		4.0	1.6	ug/L			05/28/22 04:42	4
1,3-Dichloropropane	ND		4.0	3.0	ug/L			05/28/22 04:42	4
Bromoform	ND		4.0	1.0	ug/L			05/28/22 04:42	4
Bromomethane	ND		4.0	2.8	ug/L			05/28/22 04:42	4
Carbon disulfide	ND		4.0	0.76	ug/L			05/28/22 04:42	4
Carbon tetrachloride	ND		4.0	1.1	ug/L			05/28/22 04:42	4
2,2-Dichloropropane	ND		4.0	1.6	ug/L			05/28/22 04:42	4
Chlorobenzene	ND		4.0	3.0	ug/L			05/28/22 04:42	4
Chlorodibromomethane	ND		4.0	1.3	ug/L			05/28/22 04:42	4
Chloroethane	**3.4**	**J**	4.0	1.3	ug/L			05/28/22 04:42	4
Chloroform	ND		4.0	1.4	ug/L			05/28/22 04:42	4
Chloromethane	ND		4.0	1.4	ug/L			05/28/22 04:42	4
Chloroprene	ND		4.0	2.0	ug/L			05/28/22 04:42	4
cis-1,3-Dichloropropene	ND		4.0	1.4	ug/L			05/28/22 04:42	4
Dibromomethane	ND		4.0	1.6	ug/L			05/28/22 04:42	4
Dichlorodifluoromethane	ND		4.0	2.7	ug/L			05/28/22 04:42	4
Ethyl methacrylate	ND	*+	4.0	2.4	ug/L			05/28/22 04:42	4
Ethylbenzene	**5.5**		4.0	3.0	ug/L			05/28/22 04:42	4
Iodomethane	ND		4.0	1.2	ug/L			05/28/22 04:42	4
Methacrylonitrile	ND		20	2.8	ug/L			05/28/22 04:42	4
Methyl methacrylate	ND		4.0	2.4	ug/L			05/28/22 04:42	4
Methylene Chloride	ND		4.0	1.8	ug/L			05/28/22 04:42	4
m-Xylene & p-Xylene	**9.3**		8.0	2.6	ug/L			05/28/22 04:42	4
o-Xylene	ND		4.0	3.0	ug/L			05/28/22 04:42	4
Propionitrile	ND		40	23	ug/L			05/28/22 04:42	4
Styrene	ND		4.0	2.9	ug/L			05/28/22 04:42	4
Tetrachloroethene	ND		4.0	1.4	ug/L			05/28/22 04:42	4

Client: Cattaraugus County
Job ID: 480-198237-1
Project/Site: Farwell Landfill - Leachate Expanded

Client Sample ID: L-1
Lab Sample ID: 480-198237-1
Date Collected: 05/23/22 14:30
Matrix: Water
Date Received: 05/23/22 17:00

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	ND		4.0	2.0	ug/L			05/28/22 04:42	4
Bromochloromethane	ND		4.0	3.5	ug/L			05/28/22 04:42	4
trans-1,2-Dichloroethene	ND		4.0	3.6	ug/L			05/28/22 04:42	4
trans-1,3-Dichloropropene	ND		4.0	1.5	ug/L			05/28/22 04:42	4
trans-1,4-Dichloro-2-butene	ND		20	0.88	ug/L			05/28/22 04:42	4
Trichloroethene	ND		4.0	1.8	ug/L			05/28/22 04:42	4
Trichlorofluoromethane	ND		4.0	3.5	ug/L			05/28/22 04:42	4
Vinyl acetate	ND		20	3.4	ug/L			05/28/22 04:42	4
cis-1,2-Dichloroethene	ND		4.0	3.2	ug/L			05/28/22 04:42	4
Vinyl chloride	ND		4.0	3.6	ug/L			05/28/22 04:42	4
Isobutanol	ND		160	19	ug/L			05/28/22 04:42	4
Xylenes, Total	**9.3**		8.0	2.6	ug/L			05/28/22 04:42	4

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*77 - 120*		*05/28/22 04:42*	*4*
Toluene-d8 (Surr)	*95*		*80 - 120*		*05/28/22 04:42*	*4*
4-Bromofluorobenzene (Surr)	*93*		*73 - 120*		*05/28/22 04:42*	*4*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4,5-Tetrachlorobenzene	ND		5.0	0.58	ug/L		05/24/22 15:35	05/25/22 16:58	1
1,2,4-Trichlorobenzene	ND		10	0.44	ug/L		05/24/22 15:35	05/25/22 16:58	1
1,2-Dichlorobenzene	ND		10	0.40	ug/L		05/24/22 15:35	05/25/22 16:58	1
1,3-Dichlorobenzene	ND		10	0.48	ug/L		05/24/22 15:35	05/25/22 16:58	1
1,3-Dinitrobenzene	ND		20	0.82	ug/L		05/24/22 15:35	05/25/22 16:58	1
1,4-Dichlorobenzene	**1.6**	**J**	10	0.46	ug/L		05/24/22 15:35	05/25/22 16:58	1
1,4-Naphthoquinone	ND		10	0.24	ug/L		05/24/22 15:35	05/25/22 16:58	1
1-Naphthylamine	ND		10	1.3	ug/L		05/24/22 15:35	05/25/22 16:58	1
2,3,4,6-Tetrachlorophenol	ND		5.0	0.32	ug/L		05/24/22 15:35	05/25/22 16:58	1
2,4,5-Trichlorophenol	ND		5.0	0.48	ug/L		05/24/22 15:35	05/25/22 16:58	1
2,4,6-Trichlorophenol	ND		5.0	0.61	ug/L		05/24/22 15:35	05/25/22 16:58	1
2,4-Dichlorophenol	ND		5.0	0.51	ug/L		05/24/22 15:35	05/25/22 16:58	1
2,4-Dimethylphenol	**0.75**	**J**	5.0	0.50	ug/L		05/24/22 15:35	05/25/22 16:58	1
2,4-Dinitrophenol	ND		10	2.2	ug/L		05/24/22 15:35	05/25/22 16:58	1
2,4-Dinitrotoluene	ND		5.0	0.45	ug/L		05/24/22 15:35	05/25/22 16:58	1
2,6-Dichlorophenol	ND		10	0.46	ug/L		05/24/22 15:35	05/25/22 16:58	1
2,6-Dinitrotoluene	ND		5.0	0.40	ug/L		05/24/22 15:35	05/25/22 16:58	1
2-Acetylaminofluorene	ND		10	2.3	ug/L		05/24/22 15:35	05/25/22 16:58	1
2-Chloronaphthalene	ND		5.0	0.46	ug/L		05/24/22 15:35	05/25/22 16:58	1
2-Chlorophenol	ND		5.0	0.53	ug/L		05/24/22 15:35	05/25/22 16:58	1
2-Methylnaphthalene	ND		5.0	0.60	ug/L		05/24/22 15:35	05/25/22 16:58	1
2-Methylphenol	ND		5.0	0.40	ug/L		05/24/22 15:35	05/25/22 16:58	1
2-Naphthylamine	ND		10	2.5	ug/L		05/24/22 15:35	05/25/22 16:58	1
2-Nitroaniline	ND		10	0.42	ug/L		05/24/22 15:35	05/25/22 16:58	1
2-Nitrophenol	ND		5.0	0.48	ug/L		05/24/22 15:35	05/25/22 16:58	1
2-Toluidine	ND		10	1.5	ug/L		05/24/22 15:35	05/25/22 16:58	1
3,3'-Dichlorobenzidine	ND		5.0	0.40	ug/L		05/24/22 15:35	05/25/22 16:58	1
3,3'-Dimethylbenzidine	ND		40	2.5	ug/L		05/24/22 15:35	05/25/22 16:58	1
3-Methylcholanthrene	ND		10	2.5	ug/L		05/24/22 15:35	05/25/22 16:58	1
3-Methylphenol	ND		10	0.40	ug/L		05/24/22 15:35	05/25/22 16:58	1

Client: Cattaraugus County
Job ID: 480-198237-1
Project/Site: Farwell Landfill - Leachate Expanded

Client Sample ID: L-1
Lab Sample ID: 480-198237-1
Date Collected: 05/23/22 14:30
Matrix: Water
Date Received: 05/23/22 17:00

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3-Nitroaniline	ND		10	0.48	ug/L		05/24/22 15:35	05/25/22 16:58	1
4,6-Dinitro-2-methylphenol	ND		10	2.2	ug/L		05/24/22 15:35	05/25/22 16:58	1
4-Aminobiphenyl	ND		10	0.81	ug/L		05/24/22 15:35	05/25/22 16:58	1
4-Bromophenyl phenyl ether	ND		5.0	0.45	ug/L		05/24/22 15:35	05/25/22 16:58	1
4-Chloro-3-methylphenol	ND		5.0	0.45	ug/L		05/24/22 15:35	05/25/22 16:58	1
4-Chlorophenyl phenyl ether	ND		5.0	0.35	ug/L		05/24/22 15:35	05/25/22 16:58	1
4-Methylphenol	ND		10	0.36	ug/L		05/24/22 15:35	05/25/22 16:58	1
4-Nitroaniline	ND		10	0.25	ug/L		05/24/22 15:35	05/25/22 16:58	1
4-Nitrophenol	ND		10	1.5	ug/L		05/24/22 15:35	05/25/22 16:58	1
7,12-Dimethylbenz[a]anthracene	ND		10	0.62	ug/L		05/24/22 15:35	05/25/22 16:58	1
Acenaphthene	ND		5.0	0.41	ug/L		05/24/22 15:35	05/25/22 16:58	1
Acenaphthylene	ND		5.0	0.38	ug/L		05/24/22 15:35	05/25/22 16:58	1
Acetophenone	ND		5.0	0.54	ug/L		05/24/22 15:35	05/25/22 16:58	1
Anthracene	ND		5.0	0.28	ug/L		05/24/22 15:35	05/25/22 16:58	1
Benzo[a]anthracene	ND		5.0	0.36	ug/L		05/24/22 15:35	05/25/22 16:58	1
Benzo[a]pyrene	ND		5.0	0.47	ug/L		05/24/22 15:35	05/25/22 16:58	1
Benzo[b]fluoranthene	ND		5.0	0.34	ug/L		05/24/22 15:35	05/25/22 16:58	1
Benzo[g,h,i]perylene	ND		5.0	0.35	ug/L		05/24/22 15:35	05/25/22 16:58	1
Benzo[k]fluoranthene	ND		5.0	0.73	ug/L		05/24/22 15:35	05/25/22 16:58	1
Benzyl alcohol	ND		20	2.0	ug/L		05/24/22 15:35	05/25/22 16:58	1
bis (2-chloroisopropyl) ether	ND		5.0	0.52	ug/L		05/24/22 15:35	05/25/22 16:58	1
Bis(2-chloroethoxy)methane	ND		5.0	0.35	ug/L		05/24/22 15:35	05/25/22 16:58	1
Bis(2-chloroethyl)ether	ND		5.0	0.40	ug/L		05/24/22 15:35	05/25/22 16:58	1
Bis(2-ethylhexyl) phthalate	ND		5.0	2.2	ug/L		05/24/22 15:35	05/25/22 16:58	1
Butyl benzyl phthalate	ND		5.0	1.0	ug/L		05/24/22 15:35	05/25/22 16:58	1
Chlorobenzilate	ND		20	0.67	ug/L		05/24/22 15:35	05/25/22 16:58	1
Chrysene	ND		5.0	0.33	ug/L		05/24/22 15:35	05/25/22 16:58	1
Diallate	ND		10	2.5	ug/L		05/24/22 15:35	05/25/22 16:58	1
Dibenz[a,h]anthracene	ND		5.0	0.42	ug/L		05/24/22 15:35	05/25/22 16:58	1
Dibenzofuran	ND		5.0	0.51	ug/L		05/24/22 15:35	05/25/22 16:58	1
Diethyl phthalate	**0.37**	**J**	5.0	0.22	ug/L		05/24/22 15:35	05/25/22 16:58	1
Dimethoate	ND		10	0.54	ug/L		05/24/22 15:35	05/25/22 16:58	1
Dimethyl phthalate	ND		5.0	0.36	ug/L		05/24/22 15:35	05/25/22 16:58	1
Di-n-butyl phthalate	**13**	**B**	5.0	0.31	ug/L		05/24/22 15:35	05/25/22 16:58	1
Di-n-octyl phthalate	ND		5.0	0.47	ug/L		05/24/22 15:35	05/25/22 16:58	1
Diphenylamine	ND		10	0.82	ug/L		05/24/22 15:35	05/25/22 16:58	1
Disulfoton	ND		10	0.42	ug/L		05/24/22 15:35	05/25/22 16:58	1
Ethyl methanesulfonate	ND		10	0.39	ug/L		05/24/22 15:35	05/25/22 16:58	1
Famphur	ND		40	1.9	ug/L		05/24/22 15:35	05/25/22 16:58	1
Fluoranthene	ND		5.0	0.40	ug/L		05/24/22 15:35	05/25/22 16:58	1
Fluorene	ND		5.0	0.36	ug/L		05/24/22 15:35	05/25/22 16:58	1
Hexachlorobenzene	ND		5.0	0.51	ug/L		05/24/22 15:35	05/25/22 16:58	1
Hexachlorobutadiene	ND		5.0	0.68	ug/L		05/24/22 15:35	05/25/22 16:58	1
Hexachlorocyclopentadiene	ND		5.0	0.59	ug/L		05/24/22 15:35	05/25/22 16:58	1
Hexachloroethane	ND		5.0	0.59	ug/L		05/24/22 15:35	05/25/22 16:58	1
Hexachloropropene	ND		10	2.5	ug/L		05/24/22 15:35	05/25/22 16:58	1
Indeno[1,2,3-cd]pyrene	ND		5.0	0.47	ug/L		05/24/22 15:35	05/25/22 16:58	1
Isodrin	ND		10	0.18	ug/L		05/24/22 15:35	05/25/22 16:58	1
Isophorone	ND		5.0	0.43	ug/L		05/24/22 15:35	05/25/22 16:58	1

Client: Cattaraugus County
Job ID: 480-198237-1
Project/Site: Farwell Landfill - Leachate Expanded

Client Sample ID: L-1
Lab Sample ID: 480-198237-1
Date Collected: 05/23/22 14:30
Matrix: Water
Date Received: 05/23/22 17:00

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isosafrole	ND		10	0.58	ug/L		05/24/22 15:35	05/25/22 16:58	1
Kepone	ND		50	1.8	ug/L		05/24/22 15:35	05/25/22 16:58	1
Methapyrilene	ND		50	1.8	ug/L		05/24/22 15:35	05/25/22 16:58	1
Methyl methanesulfonate	ND		10	2.5	ug/L		05/24/22 15:35	05/25/22 16:58	1
Naphthalene	**1.9**	**J**	5.0	0.76	ug/L		05/24/22 15:35	05/25/22 16:58	1
Nitrobenzene	ND		5.0	0.29	ug/L		05/24/22 15:35	05/25/22 16:58	1
N-Nitro-o-toluidine	ND		10	0.66	ug/L		05/24/22 15:35	05/25/22 16:58	1
N-Nitrosodiethylamine	ND		10	0.36	ug/L		05/24/22 15:35	05/25/22 16:58	1
N-Nitrosodimethylamine	ND		10	2.2	ug/L		05/24/22 15:35	05/25/22 16:58	1
N-Nitrosodi-n-butylamine	**4.2**	**J**	10	0.60	ug/L		05/24/22 15:35	05/25/22 16:58	1
N-Nitrosodi-n-propylamine	ND		5.0	0.54	ug/L		05/24/22 15:35	05/25/22 16:58	1
N-Nitrosodiphenylamine	ND		5.0	0.51	ug/L		05/24/22 15:35	05/25/22 16:58	1
N-Nitrosomethylethylamine	ND		10	2.5	ug/L		05/24/22 15:35	05/25/22 16:58	1
N-Nitrosopiperidine	ND		10	2.5	ug/L		05/24/22 15:35	05/25/22 16:58	1
N-Nitrosopyrrolidine	ND		10	2.5	ug/L		05/24/22 15:35	05/25/22 16:58	1
O,O,O-Triethyl phosphorothioate	ND		10	0.43	ug/L		05/24/22 15:35	05/25/22 16:58	1
Parathion ethyl	ND		10	0.64	ug/L		05/24/22 15:35	05/25/22 16:58	1
Parathion-methyl	ND		10	0.37	ug/L		05/24/22 15:35	05/25/22 16:58	1
p-Chloroaniline	ND		5.0	0.59	ug/L		05/24/22 15:35	05/25/22 16:58	1
p-Dimethylamino azobenzene	ND		10	0.75	ug/L		05/24/22 15:35	05/25/22 16:58	1
Pentachlorobenzene	ND		10	0.53	ug/L		05/24/22 15:35	05/25/22 16:58	1
Pentachloronitrobenzene	ND		10	2.5	ug/L		05/24/22 15:35	05/25/22 16:58	1
Pentachlorophenol	ND		10	2.2	ug/L		05/24/22 15:35	05/25/22 16:58	1
Phenacetin	ND		10	0.61	ug/L		05/24/22 15:35	05/25/22 16:58	1
Phenanthrene	ND		5.0	0.44	ug/L		05/24/22 15:35	05/25/22 16:58	1
Phenol	ND		5.0	0.39	ug/L		05/24/22 15:35	05/25/22 16:58	1
Phorate	ND		10	0.50	ug/L		05/24/22 15:35	05/25/22 16:58	1
p-Phenylene diamine	ND		800	200	ug/L		05/24/22 15:35	05/25/22 16:58	1
Pronamide	ND		10	2.5	ug/L		05/24/22 15:35	05/25/22 16:58	1
Pyrene	ND		5.0	0.34	ug/L		05/24/22 15:35	05/25/22 16:58	1
Safrole	ND		10	0.46	ug/L		05/24/22 15:35	05/25/22 16:58	1
sym-Trinitrobenzene	ND		10	2.5	ug/L		05/24/22 15:35	05/25/22 16:58	1
Thionazin	ND		10	0.38	ug/L		05/24/22 15:35	05/25/22 16:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*101*		*41 - 120*	*05/24/22 15:35*	*05/25/22 16:58*	*1*
2-Fluorobiphenyl	*85*		*48 - 120*	*05/24/22 15:35*	*05/25/22 16:58*	*1*
2-Fluorophenol	*66*		*35 - 120*	*05/24/22 15:35*	*05/25/22 16:58*	*1*
Nitrobenzene-d5	*77*		*46 - 120*	*05/24/22 15:35*	*05/25/22 16:58*	*1*
Phenol-d5	*50*		*22 - 120*	*05/24/22 15:35*	*05/25/22 16:58*	*1*
p-Terphenyl-d14	*68*		*60 - 148*	*05/24/22 15:35*	*05/25/22 16:58*	*1*

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.050	0.0092	ug/L		05/25/22 09:02	05/26/22 11:33	1
4,4'-DDE	ND		0.050	0.012	ug/L		05/25/22 09:02	05/26/22 11:33	1
4,4'-DDT	**0.025**	**J**	0.050	0.011	ug/L		05/25/22 09:02	05/26/22 11:33	1
Aldrin	ND		0.050	0.0081	ug/L		05/25/22 09:02	05/26/22 11:33	1
alpha-BHC	ND		0.050	0.0077	ug/L		05/25/22 09:02	05/26/22 11:33	1
beta-BHC	ND		0.050	0.025	ug/L		05/25/22 09:02	05/26/22 11:33	1

Client Sample ID: L-1
Date Collected: 05/23/22 14:30
Date Received: 05/23/22 17:00

Lab Sample ID: 480-198237-1
Matrix: Water

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlordane	ND		0.50	0.29	ug/L		05/25/22 09:02	05/26/22 11:33	1
delta-BHC	ND		0.050	0.010	ug/L		05/25/22 09:02	05/26/22 11:33	1
Dieldrin	ND		0.050	0.0098	ug/L		05/25/22 09:02	05/26/22 11:33	1
Endosulfan I	**0.11**		0.050	0.011	ug/L		05/25/22 09:02	05/26/22 11:33	1
Endosulfan II	ND		0.050	0.012	ug/L		05/25/22 09:02	05/26/22 11:33	1
Endosulfan sulfate	ND		0.050	0.016	ug/L		05/25/22 09:02	05/26/22 11:33	1
Endrin	ND		0.050	0.014	ug/L		05/25/22 09:02	05/26/22 11:33	1
Endrin aldehyde	**0.027**	**J B**	0.050	0.016	ug/L		05/25/22 09:02	05/26/22 11:33	1
gamma-BHC (Lindane)	ND		0.050	0.0080	ug/L		05/25/22 09:02	05/26/22 11:33	1
Heptachlor	ND		0.050	0.0085	ug/L		05/25/22 09:02	05/26/22 11:33	1
Heptachlor epoxide	ND		0.050	0.0074	ug/L		05/25/22 09:02	05/26/22 11:33	1
Methoxychlor	**0.021**	**J**	0.050	0.014	ug/L		05/25/22 09:02	05/26/22 11:33	1
Toxaphene	ND		0.50	0.12	ug/L		05/25/22 09:02	05/26/22 11:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*59*		*20 - 120*	*05/25/22 09:02*	*05/26/22 11:33*	*1*
DCB Decachlorobiphenyl	*35*		*20 - 120*	*05/25/22 09:02*	*05/26/22 11:33*	*1*
Tetrachloro-m-xylene	*101*		*44 - 120*	*05/25/22 09:02*	*05/26/22 11:33*	*1*
Tetrachloro-m-xylene	*50*		*44 - 120*	*05/25/22 09:02*	*05/26/22 11:33*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		0.57	0.20	ug/L		05/25/22 08:46	05/26/22 00:13	1
Aroclor 1221	ND		0.57	0.20	ug/L		05/25/22 08:46	05/26/22 00:13	1
Aroclor 1232	ND		0.57	0.20	ug/L		05/25/22 08:46	05/26/22 00:13	1
Aroclor 1242	ND		0.57	0.20	ug/L		05/25/22 08:46	05/26/22 00:13	1
Aroclor 1248	ND		0.57	0.20	ug/L		05/25/22 08:46	05/26/22 00:13	1
Aroclor 1254	ND		0.57	0.28	ug/L		05/25/22 08:46	05/26/22 00:13	1
Aroclor 1260	ND		0.57	0.28	ug/L		05/25/22 08:46	05/26/22 00:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*32*		*19 - 120*	*05/25/22 08:46*	*05/26/22 00:13*	*1*
DCB Decachlorobiphenyl	*35*		*19 - 120*	*05/25/22 08:46*	*05/26/22 00:13*	*1*
Tetrachloro-m-xylene	*57*		*39 - 121*	*05/25/22 08:46*	*05/26/22 00:13*	*1*
Tetrachloro-m-xylene	*56*		*39 - 121*	*05/25/22 08:46*	*05/26/22 00:13*	*1*

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	ND		0.49	0.067	ug/L		05/25/22 10:55	05/27/22 20:13	1
2,4-D	ND		0.49	0.17	ug/L		05/25/22 10:55	05/27/22 20:13	1
Dinoseb	ND		0.49	0.13	ug/L		05/25/22 10:55	05/27/22 20:13	1
Silvex (2,4,5-TP)	ND		0.49	0.049	ug/L		05/25/22 10:55	05/27/22 20:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*802*	*S1+*	*48 - 132*	*05/25/22 10:55*	*05/27/22 20:13*	*1*
2,4-Dichlorophenylacetic acid	*98*		*48 - 132*	*05/25/22 10:55*	*05/27/22 20:13*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.20	0.060	mg/L		05/26/22 09:50	05/27/22 17:47	1
Antimony	ND		0.020	0.0068	mg/L		05/26/22 09:50	05/27/22 17:47	1

Client Sample ID: L-1
Date Collected: 05/23/22 14:30
Date Received: 05/23/22 17:00

Lab Sample ID: 480-198237-1
Matrix: Water

Method: 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.010		0.010	0.0056	mg/L		05/26/22 09:50	05/27/22 17:47	1
Barium	0.41		0.0020	0.00070	mg/L		05/26/22 09:50	05/27/22 17:47	1
Beryllium	ND		0.0020	0.00030	mg/L		05/26/22 09:50	05/27/22 17:47	1
Boron	1.6		0.020	0.0040	mg/L		05/26/22 09:50	05/27/22 17:47	1
Cadmium	0.00055	J	0.0010	0.00050	mg/L		05/26/22 09:50	05/27/22 17:47	1
Calcium	125		0.50	0.10	mg/L		05/26/22 09:50	05/27/22 17:47	1
Chromium	0.0017	J	0.0040	0.0010	mg/L		05/26/22 09:50	05/27/22 17:47	1
Cobalt	0.0025	J	0.0040	0.00063	mg/L		05/26/22 09:50	05/27/22 17:47	1
Copper	ND		0.010	0.0016	mg/L		05/26/22 09:50	05/27/22 17:47	1
Iron	10.5		0.050	0.019	mg/L		05/26/22 09:50	05/27/22 17:47	1
Magnesium	52.7		0.20	0.043	mg/L		05/26/22 09:50	05/27/22 17:47	1
Manganese	0.96		0.0030	0.00040	mg/L		05/26/22 09:50	05/27/22 17:47	1
Nickel	0.012		0.010	0.0013	mg/L		05/26/22 09:50	05/27/22 17:47	1
Potassium	79.4		0.50	0.10	mg/L		05/26/22 09:50	05/27/22 17:47	1
Selenium	ND		0.015	0.0087	mg/L		05/26/22 09:50	05/27/22 17:47	1
Silver	ND		0.0030	0.0017	mg/L		05/26/22 09:50	05/27/22 17:47	1
Sodium	305		1.0	0.32	mg/L		05/26/22 09:50	05/27/22 17:47	1
Tin	ND		0.010	0.0051	mg/L		05/26/22 09:50	05/27/22 17:47	1
Vanadium	ND		0.0050	0.0015	mg/L		05/26/22 09:50	05/27/22 17:47	1
Zinc	0.0026	J B	0.010	0.0015	mg/L		05/26/22 09:50	05/27/22 17:47	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.00028	J	0.0010	0.00017	mg/L		05/26/22 09:34	05/26/22 16:41	1
Thallium	ND		0.20	0.019	ug/L		05/26/22 09:34	05/26/22 16:41	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00040	0.000086	mg/L		05/25/22 10:57	05/25/22 15:59	1

Method: SM 2340B - Total Hardness (as CaCO3) by calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium and Magnesium Hardness	529		0.50	0.10	mg/L			06/02/22 12:54	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	4.9		2.0	0.73	mg/L			06/02/22 07:44	10
Chloride	324		5.0	2.8	mg/L			06/02/22 07:44	10
Sulfate	13.2	J	20.0	3.5	mg/L			06/02/22 07:44	10
Alkalinity, Total	1150	B	200	80.0	mg/L			05/31/22 12:48	20
Ammonia as N	89.5		1.0	0.45	mg/L as N			05/25/22 09:39	50
Total Kjeldahl Nitrogen	102		10.0	9.4	mg/L as N		06/04/22 09:00	06/06/22 09:40	50
Nitrate	0.021	J	0.050	0.020	mg/L as N			05/24/22 19:41	1
Chemical Oxygen Demand	226		20.0	10.0	mg/L			05/26/22 19:00	2
Total Recoverable Phenolics	ND		0.0050	0.0035	mg/L			05/27/22 11:05	1
Chromium, hexavalent	ND		0.010	0.0050	mg/L			05/24/22 11:15	1
Cyanide, Total	ND		0.010	0.0050	mg/L		05/31/22 15:59	06/01/22 08:47	1
Total Organic Carbon	58.9	B	1.0	0.43	mg/L			06/01/22 07:07	1
Filterable Residue (180 C)	1350		20.0	8.0	mg/L			05/27/22 11:31	1
Sulfide	ND	F1	1.0	0.67	mg/L			05/27/22 15:15	1

Client: Cattaraugus County
Job ID: 480-198237-1
Project/Site: Farwell Landfill - Leachate Expanded

Client Sample ID: L-1
Lab Sample ID: 480-198237-1
Date Collected: 05/23/22 14:30
Matrix: Water
Date Received: 05/23/22 17:00

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	23.0	b	12.0	12.0	mg/L			05/24/22 18:03	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Color	25.0		5.00	5.00	Color Units			05/25/22 08:00	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Field EH/ORP	127				millivolts			05/23/22 14:30	1
pH, Field	7.67				SU			05/23/22 14:30	1
Temperature, Field (C)	9.5				Degrees C			05/23/22 14:30	1
Turbidity, Field	119				NTU			05/23/22 14:30	1
Specific Conductance, Field	3160				umhos/cm			05/23/22 14:30	1

Client: Cattaraugus County
Job ID: 480-198237-1
Project/Site: Farwell Landfill - Leachate Expanded

Client Sample ID: Trip Blank
Lab Sample ID: 480-198237-2
Date Collected: 05/23/22 00:00
Matrix: Water
Date Received: 05/23/22 17:00

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L			05/28/22 05:05	1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			05/28/22 05:05	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			05/28/22 05:05	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			05/28/22 05:05	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			05/28/22 05:05	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			05/28/22 05:05	1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L			05/28/22 05:05	1
1,1-Dichloropropene	ND		1.0	0.72	ug/L			05/28/22 05:05	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			05/28/22 05:05	1
1,2-Dibromoethane (EDB)	ND		1.0	0.73	ug/L			05/28/22 05:05	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			05/28/22 05:05	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			05/28/22 05:05	1
2-Hexanone	ND		5.0	1.2	ug/L			05/28/22 05:05	1
2-Butanone (MEK)	ND		10	1.3	ug/L			05/28/22 05:05	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			05/28/22 05:05	1
Acetone	ND		10	3.0	ug/L			05/28/22 05:05	1
Acetonitrile	ND		40	4.9	ug/L			05/28/22 05:05	1
1,2-Dichloroethene, Total	ND		2.0	0.81	ug/L			05/28/22 05:05	1
Acrolein	ND	*+	20	0.91	ug/L			05/28/22 05:05	1
Acrylonitrile	ND		5.0	0.83	ug/L			05/28/22 05:05	1
Allyl chloride	ND		1.0	0.44	ug/L			05/28/22 05:05	1
Benzene	ND		1.0	0.41	ug/L			05/28/22 05:05	1
Bromodichloromethane	ND		1.0	0.39	ug/L			05/28/22 05:05	1
1,3-Dichloropropane	ND		1.0	0.75	ug/L			05/28/22 05:05	1
Bromoform	ND		1.0	0.26	ug/L			05/28/22 05:05	1
Bromomethane	ND		1.0	0.69	ug/L			05/28/22 05:05	1
Carbon disulfide	ND		1.0	0.19	ug/L			05/28/22 05:05	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			05/28/22 05:05	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			05/28/22 05:05	1
Chlorobenzene	ND		1.0	0.75	ug/L			05/28/22 05:05	1
Chlorodibromomethane	ND		1.0	0.32	ug/L			05/28/22 05:05	1
Chloroethane	ND		1.0	0.32	ug/L			05/28/22 05:05	1
Chloroform	ND		1.0	0.34	ug/L			05/28/22 05:05	1
Chloromethane	ND		1.0	0.35	ug/L			05/28/22 05:05	1
Chloroprene	ND		1.0	0.49	ug/L			05/28/22 05:05	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			05/28/22 05:05	1
Dibromomethane	ND		1.0	0.41	ug/L			05/28/22 05:05	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			05/28/22 05:05	1
Ethyl methacrylate	ND	*+	1.0	0.59	ug/L			05/28/22 05:05	1
Ethylbenzene	ND		1.0	0.74	ug/L			05/28/22 05:05	1
Iodomethane	ND		1.0	0.30	ug/L			05/28/22 05:05	1
Methacrylonitrile	ND		5.0	0.69	ug/L			05/28/22 05:05	1
Methyl methacrylate	ND		1.0	0.61	ug/L			05/28/22 05:05	1
Methylene Chloride	ND		1.0	0.44	ug/L			05/28/22 05:05	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			05/28/22 05:05	1
o-Xylene	ND		1.0	0.76	ug/L			05/28/22 05:05	1
Propionitrile	ND		10	5.8	ug/L			05/28/22 05:05	1
Styrene	ND		1.0	0.73	ug/L			05/28/22 05:05	1
Tetrachloroethene	ND		1.0	0.36	ug/L			05/28/22 05:05	1

Client: Cattaraugus County
Job ID: 480-198237-1
Project/Site: Farwell Landfill - Leachate Expanded

Client Sample ID: Trip Blank
Lab Sample ID: 480-198237-2
Date Collected: 05/23/22 00:00
Matrix: Water
Date Received: 05/23/22 17:00

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	ND		1.0	0.51	ug/L			05/28/22 05:05	1
Bromochloromethane	ND		1.0	0.87	ug/L			05/28/22 05:05	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			05/28/22 05:05	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			05/28/22 05:05	1
trans-1,4-Dichloro-2-butene	ND		5.0	0.22	ug/L			05/28/22 05:05	1
Trichloroethene	ND		1.0	0.46	ug/L			05/28/22 05:05	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			05/28/22 05:05	1
Vinyl acetate	ND		5.0	0.85	ug/L			05/28/22 05:05	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			05/28/22 05:05	1
Vinyl chloride	ND		1.0	0.90	ug/L			05/28/22 05:05	1
Isobutanol	ND		40	4.8	ug/L			05/28/22 05:05	1
Xylenes, Total	ND		2.0	0.66	ug/L			05/28/22 05:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*77 - 120*		*05/28/22 05:05*	*1*
Toluene-d8 (Surr)	*96*		*80 - 120*		*05/28/22 05:05*	*1*
4-Bromofluorobenzene (Surr)	*93*		*73 - 120*		*05/28/22 05:05*	*1*

Surrogate Summary

Client: Cattaraugus County
Job ID: 480-198237-1
Project/Site: Farwell Landfill - Leachate Expanded

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		DCA	TOL	BFB
Lab Sample ID	Client Sample ID	(77-120)	(80-120)	(73-120)
480-198237-1	L-1	104	95	93
480-198237-2	Trip Blank	105	96	93
LCS 480-628019/6	Lab Control Sample	101	101	99
MB 480-628019/8	Method Blank	107	99	93

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
TOL = Toluene-d8 (Surr)
BFB = 4-Bromofluorobenzene (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		TBP	FBP	2FP	NBZ	PHL	TPHd14
Lab Sample ID	Client Sample ID	(41-120)	(48-120)	(35-120)	(46-120)	(22-120)	(60-148)
480-198237-1	L-1	101	85	66	77	50	68
LCS 480-627445/2-A	Lab Control Sample	92	81	63	77	51	104
MB 480-627445/1-A	Method Blank	67	94	67	84	51	107

Surrogate Legend

TBP = 2,4,6-Tribromophenol
FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
PHL = Phenol-d5
TPHd14 = p-Terphenyl-d14

Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCBP1	DCBP2	TCX1	TCX2
Lab Sample ID	Client Sample ID	(20-120)	(20-120)	(44-120)	(44-120)
480-198237-1	L-1	59	35	101	50
LCS 480-627511/2-A	Lab Control Sample	39	50	74	60
LCSD 480-627511/3-A	Lab Control Sample Dup	30	35	58	75
MB 480-627511/1-A	Method Blank	50	54	91	73

Surrogate Legend

DCBP = DCB Decachlorobiphenyl
TCX = Tetrachloro-m-xylene

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCBP1	DCBP2	TCX1	TCX2
Lab Sample ID	Client Sample ID	(19-120)	(19-120)	(39-121)	(39-121)
480-198237-1	L-1	32	35	57	56
LCS 480-627510/2-A	Lab Control Sample	33	37	53	56
MB 480-627510/1-A	Method Blank	35	40	54	62

Surrogate Summary

Client: Cattaraugus County
Job ID: 480-198237-1
Project/Site: Farwell Landfill - Leachate Expanded

Surrogate Legend

DCBP = DCB Decachlorobiphenyl

TCX = Tetrachloro-m-xylene

Method: 8151A - Herbicides (GC)

Matrix: Water
Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	**Client Sample ID**	**DCPAA1 (48-132)**	**DCPAA2 (48-132)**
480-198237-1	L-1	802 S1+	98
LCS 480-627564/2-A	Lab Control Sample	106	82
LCSD 480-627564/3-A	Lab Control Sample Dup	101	74
MB 480-627564/1-A	Method Blank	91	84

Surrogate Legend

DCPAA = 2,4-Dichlorophenylacetic acid

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 480-628019/8
Matrix: Water
Analysis Batch: 628019

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L			05/28/22 02:00	1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			05/28/22 02:00	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			05/28/22 02:00	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			05/28/22 02:00	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			05/28/22 02:00	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			05/28/22 02:00	1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L			05/28/22 02:00	1
1,1-Dichloropropene	ND		1.0	0.72	ug/L			05/28/22 02:00	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			05/28/22 02:00	1
1,2-Dibromoethane (EDB)	ND		1.0	0.73	ug/L			05/28/22 02:00	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			05/28/22 02:00	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			05/28/22 02:00	1
2-Hexanone	ND		5.0	1.2	ug/L			05/28/22 02:00	1
2-Butanone (MEK)	ND		10	1.3	ug/L			05/28/22 02:00	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			05/28/22 02:00	1
Acetone	ND		10	3.0	ug/L			05/28/22 02:00	1
Acetonitrile	ND		40	4.9	ug/L			05/28/22 02:00	1
1,2-Dichloroethene, Total	ND		2.0	0.81	ug/L			05/28/22 02:00	1
Acrolein	ND		20	0.91	ug/L			05/28/22 02:00	1
Acrylonitrile	ND		5.0	0.83	ug/L			05/28/22 02:00	1
Allyl chloride	ND		1.0	0.44	ug/L			05/28/22 02:00	1
Benzene	ND		1.0	0.41	ug/L			05/28/22 02:00	1
Bromodichloromethane	ND		1.0	0.39	ug/L			05/28/22 02:00	1
1,3-Dichloropropane	ND		1.0	0.75	ug/L			05/28/22 02:00	1
Bromoform	ND		1.0	0.26	ug/L			05/28/22 02:00	1
Bromomethane	ND		1.0	0.69	ug/L			05/28/22 02:00	1
Carbon disulfide	ND		1.0	0.19	ug/L			05/28/22 02:00	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			05/28/22 02:00	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			05/28/22 02:00	1
Chlorobenzene	ND		1.0	0.75	ug/L			05/28/22 02:00	1
Chlorodibromomethane	ND		1.0	0.32	ug/L			05/28/22 02:00	1
Chloroethane	ND		1.0	0.32	ug/L			05/28/22 02:00	1
Chloroform	ND		1.0	0.34	ug/L			05/28/22 02:00	1
Chloromethane	ND		1.0	0.35	ug/L			05/28/22 02:00	1
Chloroprene	ND		1.0	0.49	ug/L			05/28/22 02:00	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			05/28/22 02:00	1
Dibromomethane	ND		1.0	0.41	ug/L			05/28/22 02:00	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			05/28/22 02:00	1
Ethyl methacrylate	ND		1.0	0.59	ug/L			05/28/22 02:00	1
Ethylbenzene	ND		1.0	0.74	ug/L			05/28/22 02:00	1
Iodomethane	ND		1.0	0.30	ug/L			05/28/22 02:00	1
Methacrylonitrile	ND		5.0	0.69	ug/L			05/28/22 02:00	1
Methyl methacrylate	ND		1.0	0.61	ug/L			05/28/22 02:00	1
Methylene Chloride	ND		1.0	0.44	ug/L			05/28/22 02:00	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			05/28/22 02:00	1
o-Xylene	ND		1.0	0.76	ug/L			05/28/22 02:00	1
Propionitrile	ND		10	5.8	ug/L			05/28/22 02:00	1
Styrene	ND		1.0	0.73	ug/L			05/28/22 02:00	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 480-628019/8
Matrix: Water
Analysis Batch: 628019

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	ND		1.0	0.36	ug/L			05/28/22 02:00	1
Toluene	ND		1.0	0.51	ug/L			05/28/22 02:00	1
Bromochloromethane	ND		1.0	0.87	ug/L			05/28/22 02:00	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			05/28/22 02:00	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			05/28/22 02:00	1
trans-1,4-Dichloro-2-butene	ND		5.0	0.22	ug/L			05/28/22 02:00	1
Trichloroethene	ND		1.0	0.46	ug/L			05/28/22 02:00	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			05/28/22 02:00	1
Vinyl acetate	ND		5.0	0.85	ug/L			05/28/22 02:00	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			05/28/22 02:00	1
Vinyl chloride	ND		1.0	0.90	ug/L			05/28/22 02:00	1
Isobutanol	ND		40	4.8	ug/L			05/28/22 02:00	1
Xylenes, Total	ND		2.0	0.66	ug/L			05/28/22 02:00	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*		*77 - 120*		*05/28/22 02:00*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*05/28/22 02:00*	*1*
4-Bromofluorobenzene (Surr)	*93*		*73 - 120*		*05/28/22 02:00*	*1*

Lab Sample ID: LCS 480-628019/6
Matrix: Water
Analysis Batch: 628019

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1,2-Tetrachloroethane	25.0	24.7		ug/L		99	80 - 120
1,1,1-Trichloroethane	25.0	23.2		ug/L		93	73 - 126
1,1,2,2-Tetrachloroethane	25.0	25.1		ug/L		100	76 - 120
1,1,2-Trichloroethane	25.0	25.0		ug/L		100	76 - 122
1,1-Dichloroethane	25.0	24.2		ug/L		97	77 - 120
1,1-Dichloroethene	25.0	21.3		ug/L		85	66 - 127
1,2,3-Trichloropropane	25.0	24.4		ug/L		97	68 - 122
1,1-Dichloropropene	25.0	24.9		ug/L		100	72 - 122
1,2-Dibromo-3-Chloropropane	25.0	24.7		ug/L		99	56 - 134
1,2-Dibromoethane (EDB)	25.0	25.2		ug/L		101	77 - 120
1,2-Dichloroethane	25.0	24.4		ug/L		98	75 - 120
1,2-Dichloropropane	25.0	25.3		ug/L		101	76 - 120
2-Hexanone	125	145		ug/L		116	65 - 127
2-Butanone (MEK)	125	145		ug/L		116	57 - 140
4-Methyl-2-pentanone (MIBK)	125	137		ug/L		110	71 - 125
Acetone	125	127		ug/L		102	56 - 142
Acrolein	125	256	*+	ug/L		205	52 - 143
Acrylonitrile	250	266		ug/L		106	63 - 125
Allyl chloride	25.0	22.6		ug/L		90	60 - 140
Benzene	25.0	24.0		ug/L		96	71 - 124
Bromodichloromethane	25.0	23.9		ug/L		96	80 - 122
1,3-Dichloropropane	25.0	26.1		ug/L		104	75 - 120
Bromoform	25.0	25.8		ug/L		103	61 - 132
Bromomethane	25.0	20.1		ug/L		81	55 - 144

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 480-628019/6
Matrix: Water
Analysis Batch: 628019

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Carbon disulfide	25.0	21.5		ug/L		86	59 - 134
Carbon tetrachloride	25.0	23.5		ug/L		94	72 - 134
2,2-Dichloropropane	25.0	24.1		ug/L		97	63 - 136
Chlorobenzene	25.0	23.8		ug/L		95	80 - 120
Chlorodibromomethane	25.0	25.7		ug/L		103	75 - 125
Chloroethane	25.0	22.2		ug/L		89	69 - 136
Chloroform	25.0	22.8		ug/L		91	73 - 127
Chloromethane	25.0	22.7		ug/L		91	68 - 124
cis-1,3-Dichloropropene	25.0	26.4		ug/L		105	74 - 124
Dibromomethane	25.0	24.5		ug/L		98	76 - 127
Dichlorodifluoromethane	25.0	20.6		ug/L		82	59 - 135
Ethyl methacrylate	25.0	31.5	*+	ug/L		126	74 - 120
Ethylbenzene	25.0	24.0		ug/L		96	77 - 123
Iodomethane	25.0	21.0		ug/L		84	78 - 123
Methylene Chloride	25.0	22.9		ug/L		92	75 - 124
m-Xylene & p-Xylene	25.0	24.5		ug/L		98	76 - 122
o-Xylene	25.0	24.1		ug/L		96	76 - 122
Styrene	25.0	24.9		ug/L		100	80 - 120
Tetrachloroethene	25.0	22.9		ug/L		91	74 - 122
Toluene	25.0	24.0		ug/L		96	80 - 122
Bromochloromethane	25.0	23.6		ug/L		94	72 - 130
trans-1,2-Dichloroethene	25.0	23.1		ug/L		92	73 - 127
trans-1,3-Dichloropropene	25.0	26.5		ug/L		106	80 - 120
trans-1,4-Dichloro-2-butene	25.0	18.7		ug/L		75	41 - 131
Trichloroethene	25.0	23.1		ug/L		92	74 - 123
Trichlorofluoromethane	25.0	21.5		ug/L		86	62 - 150
Vinyl acetate	50.0	67.5		ug/L		135	50 - 144
cis-1,2-Dichloroethene	25.0	23.1		ug/L		92	74 - 124
Vinyl chloride	25.0	20.7		ug/L		83	65 - 133
Isobutanol	625	908		ug/L		145	51 - 150

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*101*		*77 - 120*
Toluene-d8 (Surr)	*101*		*80 - 120*
4-Bromofluorobenzene (Surr)	*99*		*73 - 120*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-627445/1-A
Matrix: Water
Analysis Batch: 627554

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 627445

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4,5-Tetrachlorobenzene	ND		5.0	0.58	ug/L		05/24/22 15:35	05/25/22 13:17	1
1,2,4-Trichlorobenzene	ND		10	0.44	ug/L		05/24/22 15:35	05/25/22 13:17	1
1,2-Dichlorobenzene	ND		10	0.40	ug/L		05/24/22 15:35	05/25/22 13:17	1
1,3-Dichlorobenzene	ND		10	0.48	ug/L		05/24/22 15:35	05/25/22 13:17	1
1,3-Dinitrobenzene	ND		20	0.82	ug/L		05/24/22 15:35	05/25/22 13:17	1
1,4-Dichlorobenzene	ND		10	0.46	ug/L		05/24/22 15:35	05/25/22 13:17	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-627445/1-A
Matrix: Water
Analysis Batch: 627554

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 627445

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Naphthoquinone	ND		10	0.24	ug/L		05/24/22 15:35	05/25/22 13:17	1
1-Naphthylamine	ND		10	1.3	ug/L		05/24/22 15:35	05/25/22 13:17	1
2,3,4,6-Tetrachlorophenol	ND		5.0	0.32	ug/L		05/24/22 15:35	05/25/22 13:17	1
2,4,5-Trichlorophenol	ND		5.0	0.48	ug/L		05/24/22 15:35	05/25/22 13:17	1
2,4,6-Trichlorophenol	ND		5.0	0.61	ug/L		05/24/22 15:35	05/25/22 13:17	1
2,4-Dichlorophenol	ND		5.0	0.51	ug/L		05/24/22 15:35	05/25/22 13:17	1
2,4-Dimethylphenol	ND		5.0	0.50	ug/L		05/24/22 15:35	05/25/22 13:17	1
2,4-Dinitrophenol	ND		10	2.2	ug/L		05/24/22 15:35	05/25/22 13:17	1
2,4-Dinitrotoluene	ND		5.0	0.45	ug/L		05/24/22 15:35	05/25/22 13:17	1
2,6-Dichlorophenol	ND		10	0.46	ug/L		05/24/22 15:35	05/25/22 13:17	1
2,6-Dinitrotoluene	ND		5.0	0.40	ug/L		05/24/22 15:35	05/25/22 13:17	1
2-Acetylaminofluorene	ND		10	2.3	ug/L		05/24/22 15:35	05/25/22 13:17	1
2-Chloronaphthalene	ND		5.0	0.46	ug/L		05/24/22 15:35	05/25/22 13:17	1
2-Chlorophenol	ND		5.0	0.53	ug/L		05/24/22 15:35	05/25/22 13:17	1
2-Methylnaphthalene	ND		5.0	0.60	ug/L		05/24/22 15:35	05/25/22 13:17	1
2-Methylphenol	ND		5.0	0.40	ug/L		05/24/22 15:35	05/25/22 13:17	1
2-Naphthylamine	ND		10	2.5	ug/L		05/24/22 15:35	05/25/22 13:17	1
2-Nitroaniline	ND		10	0.42	ug/L		05/24/22 15:35	05/25/22 13:17	1
2-Nitrophenol	ND		5.0	0.48	ug/L		05/24/22 15:35	05/25/22 13:17	1
2-Toluidine	ND		10	1.5	ug/L		05/24/22 15:35	05/25/22 13:17	1
3,3'-Dichlorobenzidine	ND		5.0	0.40	ug/L		05/24/22 15:35	05/25/22 13:17	1
3,3'-Dimethylbenzidine	ND		40	2.5	ug/L		05/24/22 15:35	05/25/22 13:17	1
3-Methylcholanthrene	ND		10	2.5	ug/L		05/24/22 15:35	05/25/22 13:17	1
3-Methylphenol	ND		10	0.40	ug/L		05/24/22 15:35	05/25/22 13:17	1
3-Nitroaniline	ND		10	0.48	ug/L		05/24/22 15:35	05/25/22 13:17	1
4,6-Dinitro-2-methylphenol	ND		10	2.2	ug/L		05/24/22 15:35	05/25/22 13:17	1
4-Aminobiphenyl	ND		10	0.81	ug/L		05/24/22 15:35	05/25/22 13:17	1
4-Bromophenyl phenyl ether	ND		5.0	0.45	ug/L		05/24/22 15:35	05/25/22 13:17	1
4-Chloro-3-methylphenol	ND		5.0	0.45	ug/L		05/24/22 15:35	05/25/22 13:17	1
4-Chlorophenyl phenyl ether	ND		5.0	0.35	ug/L		05/24/22 15:35	05/25/22 13:17	1
4-Methylphenol	ND		10	0.36	ug/L		05/24/22 15:35	05/25/22 13:17	1
4-Nitroaniline	ND		10	0.25	ug/L		05/24/22 15:35	05/25/22 13:17	1
4-Nitrophenol	ND		10	1.5	ug/L		05/24/22 15:35	05/25/22 13:17	1
7,12-Dimethylbenz[a]anthracene	ND		10	0.62	ug/L		05/24/22 15:35	05/25/22 13:17	1
Acenaphthene	ND		5.0	0.41	ug/L		05/24/22 15:35	05/25/22 13:17	1
Acenaphthylene	ND		5.0	0.38	ug/L		05/24/22 15:35	05/25/22 13:17	1
Acetophenone	ND		5.0	0.54	ug/L		05/24/22 15:35	05/25/22 13:17	1
Anthracene	ND		5.0	0.28	ug/L		05/24/22 15:35	05/25/22 13:17	1
Benzo[a]anthracene	ND		5.0	0.36	ug/L		05/24/22 15:35	05/25/22 13:17	1
Benzo[a]pyrene	ND		5.0	0.47	ug/L		05/24/22 15:35	05/25/22 13:17	1
Benzo[b]fluoranthene	ND		5.0	0.34	ug/L		05/24/22 15:35	05/25/22 13:17	1
Benzo[g,h,i]perylene	ND		5.0	0.35	ug/L		05/24/22 15:35	05/25/22 13:17	1
Benzo[k]fluoranthene	ND		5.0	0.73	ug/L		05/24/22 15:35	05/25/22 13:17	1
Benzyl alcohol	ND		20	2.0	ug/L		05/24/22 15:35	05/25/22 13:17	1
bis (2-chloroisopropyl) ether	ND		5.0	0.52	ug/L		05/24/22 15:35	05/25/22 13:17	1
Bis(2-chloroethoxy)methane	ND		5.0	0.35	ug/L		05/24/22 15:35	05/25/22 13:17	1
Bis(2-chloroethyl)ether	ND		5.0	0.40	ug/L		05/24/22 15:35	05/25/22 13:17	1
Bis(2-ethylhexyl) phthalate	ND		5.0	2.2	ug/L		05/24/22 15:35	05/25/22 13:17	1
Butyl benzyl phthalate	ND		5.0	1.0	ug/L		05/24/22 15:35	05/25/22 13:17	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-627445/1-A
Matrix: Water
Analysis Batch: 627554

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 627445

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorobenzilate	ND		20	0.67	ug/L		05/24/22 15:35	05/25/22 13:17	1
Chrysene	ND		5.0	0.33	ug/L		05/24/22 15:35	05/25/22 13:17	1
Diallate	ND		10	2.5	ug/L		05/24/22 15:35	05/25/22 13:17	1
Dibenz[a,h]anthracene	ND		5.0	0.42	ug/L		05/24/22 15:35	05/25/22 13:17	1
Dibenzofuran	ND		5.0	0.51	ug/L		05/24/22 15:35	05/25/22 13:17	1
Diethyl phthalate	ND		5.0	0.22	ug/L		05/24/22 15:35	05/25/22 13:17	1
Dimethoate	ND		10	0.54	ug/L		05/24/22 15:35	05/25/22 13:17	1
Dimethyl phthalate	ND		5.0	0.36	ug/L		05/24/22 15:35	05/25/22 13:17	1
Di-n-butyl phthalate	1.02	J	5.0	0.31	ug/L		05/24/22 15:35	05/25/22 13:17	1
Di-n-octyl phthalate	ND		5.0	0.47	ug/L		05/24/22 15:35	05/25/22 13:17	1
Diphenylamine	ND		10	0.82	ug/L		05/24/22 15:35	05/25/22 13:17	1
Disulfoton	ND		10	0.42	ug/L		05/24/22 15:35	05/25/22 13:17	1
Ethyl methanesulfonate	ND		10	0.39	ug/L		05/24/22 15:35	05/25/22 13:17	1
Famphur	ND		40	1.9	ug/L		05/24/22 15:35	05/25/22 13:17	1
Fluoranthene	ND		5.0	0.40	ug/L		05/24/22 15:35	05/25/22 13:17	1
Fluorene	ND		5.0	0.36	ug/L		05/24/22 15:35	05/25/22 13:17	1
Hexachlorobenzene	ND		5.0	0.51	ug/L		05/24/22 15:35	05/25/22 13:17	1
Hexachlorobutadiene	ND		5.0	0.68	ug/L		05/24/22 15:35	05/25/22 13:17	1
Hexachlorocyclopentadiene	ND		5.0	0.59	ug/L		05/24/22 15:35	05/25/22 13:17	1
Hexachloroethane	ND		5.0	0.59	ug/L		05/24/22 15:35	05/25/22 13:17	1
Hexachloropropene	ND		10	2.5	ug/L		05/24/22 15:35	05/25/22 13:17	1
Indeno[1,2,3-cd]pyrene	ND		5.0	0.47	ug/L		05/24/22 15:35	05/25/22 13:17	1
Isodrin	ND		10	0.18	ug/L		05/24/22 15:35	05/25/22 13:17	1
Isophorone	ND		5.0	0.43	ug/L		05/24/22 15:35	05/25/22 13:17	1
Isosafrole	ND		10	0.58	ug/L		05/24/22 15:35	05/25/22 13:17	1
Kepone	ND		50	1.8	ug/L		05/24/22 15:35	05/25/22 13:17	1
Methapyrilene	ND		50	1.8	ug/L		05/24/22 15:35	05/25/22 13:17	1
Methyl methanesulfonate	ND		10	2.5	ug/L		05/24/22 15:35	05/25/22 13:17	1
Naphthalene	ND		5.0	0.76	ug/L		05/24/22 15:35	05/25/22 13:17	1
Nitrobenzene	ND		5.0	0.29	ug/L		05/24/22 15:35	05/25/22 13:17	1
N-Nitro-o-toluidine	ND		10	0.66	ug/L		05/24/22 15:35	05/25/22 13:17	1
N-Nitrosodiethylamine	ND		10	0.36	ug/L		05/24/22 15:35	05/25/22 13:17	1
N-Nitrosodimethylamine	ND		10	2.2	ug/L		05/24/22 15:35	05/25/22 13:17	1
N-Nitrosodi-n-butylamine	ND		10	0.60	ug/L		05/24/22 15:35	05/25/22 13:17	1
N-Nitrosodi-n-propylamine	ND		5.0	0.54	ug/L		05/24/22 15:35	05/25/22 13:17	1
N-Nitrosodiphenylamine	ND		5.0	0.51	ug/L		05/24/22 15:35	05/25/22 13:17	1
N-Nitrosomethylethylamine	ND		10	2.5	ug/L		05/24/22 15:35	05/25/22 13:17	1
N-Nitrosopiperidine	ND		10	2.5	ug/L		05/24/22 15:35	05/25/22 13:17	1
N-Nitrosopyrrolidine	ND		10	2.5	ug/L		05/24/22 15:35	05/25/22 13:17	1
O,O,O-Triethyl phosphorothioate	ND		10	0.43	ug/L		05/24/22 15:35	05/25/22 13:17	1
Parathion ethyl	ND		10	0.64	ug/L		05/24/22 15:35	05/25/22 13:17	1
Parathion-methyl	ND		10	0.37	ug/L		05/24/22 15:35	05/25/22 13:17	1
p-Chloroaniline	ND		5.0	0.59	ug/L		05/24/22 15:35	05/25/22 13:17	1
p-Dimethylamino azobenzene	ND		10	0.75	ug/L		05/24/22 15:35	05/25/22 13:17	1
Pentachlorobenzene	ND		10	0.53	ug/L		05/24/22 15:35	05/25/22 13:17	1
Pentachloronitrobenzene	ND		10	2.5	ug/L		05/24/22 15:35	05/25/22 13:17	1
Pentachlorophenol	ND		10	2.2	ug/L		05/24/22 15:35	05/25/22 13:17	1
Phenacetin	ND		10	0.61	ug/L		05/24/22 15:35	05/25/22 13:17	1
Phenanthrene	ND		5.0	0.44	ug/L		05/24/22 15:35	05/25/22 13:17	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-627445/1-A
Matrix: Water
Analysis Batch: 627554

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 627445

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	ND		5.0	0.39	ug/L		05/24/22 15:35	05/25/22 13:17	1
Phorate	ND		10	0.50	ug/L		05/24/22 15:35	05/25/22 13:17	1
p-Phenylene diamine	ND		800	200	ug/L		05/24/22 15:35	05/25/22 13:17	1
Pronamide	ND		10	2.5	ug/L		05/24/22 15:35	05/25/22 13:17	1
Pyrene	ND		5.0	0.34	ug/L		05/24/22 15:35	05/25/22 13:17	1
Safrole	ND		10	0.46	ug/L		05/24/22 15:35	05/25/22 13:17	1
sym-Trinitrobenzene	ND		10	2.5	ug/L		05/24/22 15:35	05/25/22 13:17	1
Thionazin	ND		10	0.38	ug/L		05/24/22 15:35	05/25/22 13:17	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*67*		*41 - 120*	*05/24/22 15:35*	*05/25/22 13:17*	*1*
2-Fluorobiphenyl	*94*		*48 - 120*	*05/24/22 15:35*	*05/25/22 13:17*	*1*
2-Fluorophenol	*67*		*35 - 120*	*05/24/22 15:35*	*05/25/22 13:17*	*1*
Nitrobenzene-d5	*84*		*46 - 120*	*05/24/22 15:35*	*05/25/22 13:17*	*1*
Phenol-d5	*51*		*22 - 120*	*05/24/22 15:35*	*05/25/22 13:17*	*1*
p-Terphenyl-d14	*107*		*60 - 148*	*05/24/22 15:35*	*05/25/22 13:17*	*1*

Lab Sample ID: LCS 480-627445/2-A
Matrix: Water
Analysis Batch: 627554

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 627445

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2,4,5-Tetrachlorobenzene	32.0	23.1		ug/L		72	53 - 120
1,2,4-Trichlorobenzene	32.0	21.7		ug/L		68	40 - 120
1,2-Dichlorobenzene	32.0	20.9		ug/L		65	49 - 120
1,3-Dichlorobenzene	32.0	19.2		ug/L		60	50 - 120
1,3-Dinitrobenzene	32.0	30.6		ug/L		96	68 - 131
1,4-Dichlorobenzene	32.0	19.9		ug/L		62	51 - 120
2,3,4,6-Tetrachlorophenol	32.0	31.6		ug/L		99	63 - 120
2,4,5-Trichlorophenol	32.0	30.6		ug/L		96	65 - 126
2,4,6-Trichlorophenol	32.0	28.8		ug/L		90	64 - 120
2,4-Dichlorophenol	32.0	27.5		ug/L		86	63 - 120
2,4-Dimethylphenol	32.0	27.5		ug/L		86	47 - 120
2,4-Dinitrophenol	64.0	62.5		ug/L		98	31 - 137
2,4-Dinitrotoluene	32.0	32.4		ug/L		101	69 - 120
2,6-Dichlorophenol	32.0	27.7		ug/L		86	62 - 120
2,6-Dinitrotoluene	32.0	30.8		ug/L		96	68 - 120
2-Chloronaphthalene	32.0	25.5		ug/L		80	58 - 120
2-Chlorophenol	32.0	25.8		ug/L		81	48 - 120
2-Methylnaphthalene	32.0	21.8		ug/L		68	59 - 120
2-Methylphenol	32.0	26.0		ug/L		81	39 - 120
2-Nitroaniline	32.0	29.6		ug/L		92	54 - 127
2-Nitrophenol	32.0	26.7		ug/L		83	52 - 125
3,3'-Dichlorobenzidine	64.0	54.1		ug/L		85	49 - 135
3-Nitroaniline	32.0	27.6		ug/L		86	51 - 120
4,6-Dinitro-2-methylphenol	64.0	67.4		ug/L		105	46 - 136
4-Bromophenyl phenyl ether	32.0	30.0		ug/L		94	65 - 120
4-Chloro-3-methylphenol	32.0	28.9		ug/L		90	61 - 123

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-627445/2-A
Matrix: Water
Analysis Batch: 627554

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 627445

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
4-Chlorophenyl phenyl ether	32.0	29.5		ug/L		92	62 - 120
4-Methylphenol	32.0	25.8		ug/L		81	29 - 131
4-Nitroaniline	32.0	31.8		ug/L		99	65 - 120
4-Nitrophenol	64.0	45.8		ug/L		72	45 - 120
Acenaphthene	32.0	28.5		ug/L		89	60 - 120
Acenaphthylene	32.0	26.9		ug/L		84	63 - 120
Acetophenone	32.0	26.6		ug/L		83	45 - 120
Anthracene	32.0	30.8		ug/L		96	67 - 120
Benzo[a]anthracene	32.0	32.1		ug/L		100	70 - 121
Benzo[a]pyrene	32.0	28.9		ug/L		90	60 - 123
Benzo[b]fluoranthene	32.0	32.7		ug/L		102	66 - 126
Benzo[g,h,i]perylene	32.0	34.9		ug/L		109	66 - 150
Benzo[k]fluoranthene	32.0	31.9		ug/L		100	65 - 124
Benzyl alcohol	32.0	26.5		ug/L		83	41 - 126
bis (2-chloroisopropyl) ether	32.0	24.7		ug/L		77	21 - 136
Bis(2-chloroethoxy)methane	32.0	26.9		ug/L		84	50 - 128
Bis(2-chloroethyl)ether	32.0	25.5		ug/L		80	44 - 120
Bis(2-ethylhexyl) phthalate	32.0	32.6		ug/L		102	63 - 139
Butyl benzyl phthalate	32.0	34.6		ug/L		108	70 - 129
Chrysene	32.0	31.4		ug/L		98	69 - 120
Dibenz[a,h]anthracene	32.0	32.7		ug/L		102	65 - 135
Dibenzofuran	32.0	29.1		ug/L		91	66 - 120
Diethyl phthalate	32.0	32.8		ug/L		103	59 - 127
Dimethyl phthalate	32.0	32.2		ug/L		101	68 - 120
Di-n-butyl phthalate	32.0	34.3		ug/L		107	69 - 131
Di-n-octyl phthalate	32.0	32.8		ug/L		102	63 - 140
Diphenylamine	27.4	26.6		ug/L		97	61 - 120
Fluoranthene	32.0	33.0		ug/L		103	69 - 126
Fluorene	32.0	30.6		ug/L		96	66 - 120
Hexachlorobenzene	32.0	30.7		ug/L		96	61 - 120
Hexachlorobutadiene	32.0	17.4		ug/L		54	35 - 120
Hexachlorocyclopentadiene	32.0	16.4		ug/L		51	31 - 120
Hexachloroethane	32.0	17.3		ug/L		54	43 - 120
Indeno[1,2,3-cd]pyrene	32.0	32.9		ug/L		103	69 - 146
Isophorone	32.0	28.4		ug/L		89	55 - 120
Naphthalene	32.0	23.9		ug/L		75	57 - 120
Nitrobenzene	32.0	25.6		ug/L		80	53 - 123
N-Nitrosodimethylamine	32.0	19.1		ug/L		60	10 - 120
N-Nitrosodi-n-propylamine	32.0	27.4		ug/L		86	32 - 140
N-Nitrosodiphenylamine	32.0	31.1		ug/L		97	61 - 120
p-Chloroaniline	32.0	25.4		ug/L		79	30 - 120
Pentachlorophenol	64.0	62.4		ug/L		98	29 - 136
Phenanthrene	32.0	31.0		ug/L		97	68 - 120
Phenol	32.0	17.3		ug/L		54	17 - 120
Pyrene	32.0	32.8		ug/L		102	70 - 125

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol	*92*		*41 - 120*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-627445/2-A
Matrix: Water
Analysis Batch: 627554

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 627445

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl	81		48 - 120
2-Fluorophenol	63		35 - 120
Nitrobenzene-d5	77		46 - 120
Phenol-d5	51		22 - 120
p-Terphenyl-d14	104		60 - 148

Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 480-627511/1-A
Matrix: Water
Analysis Batch: 627706

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 627511

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.050	0.0092	ug/L		05/25/22 09:02	05/26/22 10:15	1
4,4'-DDE	ND		0.050	0.012	ug/L		05/25/22 09:02	05/26/22 10:15	1
4,4'-DDT	ND		0.050	0.011	ug/L		05/25/22 09:02	05/26/22 10:15	1
Aldrin	ND		0.050	0.0081	ug/L		05/25/22 09:02	05/26/22 10:15	1
alpha-BHC	ND		0.050	0.0077	ug/L		05/25/22 09:02	05/26/22 10:15	1
beta-BHC	ND		0.050	0.025	ug/L		05/25/22 09:02	05/26/22 10:15	1
Chlordane	ND		0.50	0.29	ug/L		05/25/22 09:02	05/26/22 10:15	1
delta-BHC	ND		0.050	0.010	ug/L		05/25/22 09:02	05/26/22 10:15	1
Dieldrin	ND		0.050	0.0098	ug/L		05/25/22 09:02	05/26/22 10:15	1
Endosulfan I	ND		0.050	0.011	ug/L		05/25/22 09:02	05/26/22 10:15	1
Endosulfan II	ND		0.050	0.012	ug/L		05/25/22 09:02	05/26/22 10:15	1
Endosulfan sulfate	ND		0.050	0.016	ug/L		05/25/22 09:02	05/26/22 10:15	1
Endrin	ND		0.050	0.014	ug/L		05/25/22 09:02	05/26/22 10:15	1
Endrin aldehyde	0.0196	J	0.050	0.016	ug/L		05/25/22 09:02	05/26/22 10:15	1
gamma-BHC (Lindane)	ND		0.050	0.0080	ug/L		05/25/22 09:02	05/26/22 10:15	1
Heptachlor	ND		0.050	0.0085	ug/L		05/25/22 09:02	05/26/22 10:15	1
Heptachlor epoxide	ND		0.050	0.0074	ug/L		05/25/22 09:02	05/26/22 10:15	1
Methoxychlor	ND		0.050	0.014	ug/L		05/25/22 09:02	05/26/22 10:15	1
Toxaphene	ND		0.50	0.12	ug/L		05/25/22 09:02	05/26/22 10:15	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	50		20 - 120	05/25/22 09:02	05/26/22 10:15	1
DCB Decachlorobiphenyl	54		20 - 120	05/25/22 09:02	05/26/22 10:15	1
Tetrachloro-m-xylene	91		44 - 120	05/25/22 09:02	05/26/22 10:15	1
Tetrachloro-m-xylene	73		44 - 120	05/25/22 09:02	05/26/22 10:15	1

Lab Sample ID: LCS 480-627511/2-A
Matrix: Water
Analysis Batch: 627706

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 627511

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
4,4'-DDD	0.400	0.440		ug/L		110	64 - 129
4,4'-DDE	0.400	0.375		ug/L		94	50 - 120
4,4'-DDT	0.400	0.448		ug/L		112	59 - 120
Aldrin	0.400	0.245		ug/L		61	40 - 125

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCS 480-627511/2-A
Matrix: Water
Analysis Batch: 627706

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 627511

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
alpha-BHC			0.400	0.308		ug/L		77	52 - 125		
beta-BHC			0.400	0.390		ug/L		98	51 - 120		
delta-BHC			0.400	0.353		ug/L		88	51 - 120		
Dieldrin			0.400	0.405		ug/L		101	66 - 128		
Endosulfan I			0.400	0.424		ug/L		106	57 - 120		
Endosulfan II			0.400	0.409		ug/L		102	66 - 131		
Endosulfan sulfate			0.400	0.457		ug/L		114	66 - 136		
Endrin			0.400	0.417		ug/L		104	65 - 135		
Endrin aldehyde			0.400	0.372		ug/L		93	61 - 134		
gamma-BHC (Lindane)			0.400	0.353		ug/L		88	56 - 120		
Heptachlor			0.400	0.355		ug/L		89	58 - 120		
Heptachlor epoxide			0.400	0.379		ug/L		95	65 - 125		
Methoxychlor			0.400	0.506		ug/L		126	50 - 150		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*39*		*20 - 120*
DCB Decachlorobiphenyl	*50*		*20 - 120*
Tetrachloro-m-xylene	*74*		*44 - 120*
Tetrachloro-m-xylene	*60*		*44 - 120*

Lab Sample ID: LCSD 480-627511/3-A
Matrix: Water
Analysis Batch: 627706

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 627511

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
4,4'-DDD			0.400	0.469		ug/L		117	64 - 129	6	23
4,4'-DDE			0.400	0.381		ug/L		95	50 - 120	2	22
4,4'-DDT			0.400	0.445		ug/L		111	59 - 120	1	24
Aldrin			0.400	0.251		ug/L		63	40 - 125	3	25
alpha-BHC			0.400	0.331		ug/L		83	52 - 125	7	24
beta-BHC			0.400	0.397		ug/L		99	51 - 120	2	24
delta-BHC			0.400	0.376		ug/L		94	51 - 120	7	24
Dieldrin			0.400	0.411		ug/L		103	66 - 128	1	24
Endosulfan I			0.400	0.439		ug/L		110	57 - 120	4	30
Endosulfan II			0.400	0.417		ug/L		104	66 - 131	2	40
Endosulfan sulfate			0.400	0.466		ug/L		116	66 - 136	2	24
Endrin			0.400	0.426		ug/L		107	65 - 135	2	24
Endrin aldehyde			0.400	0.383		ug/L		96	61 - 134	3	28
gamma-BHC (Lindane)			0.400	0.362		ug/L		91	56 - 120	3	24
Heptachlor			0.400	0.368		ug/L		92	58 - 120	3	25
Heptachlor epoxide			0.400	0.399		ug/L		100	65 - 125	5	23
Methoxychlor			0.400	0.508		ug/L		127	50 - 150	0	26

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
DCB Decachlorobiphenyl	*30*		*20 - 120*
DCB Decachlorobiphenyl	*35*		*20 - 120*
Tetrachloro-m-xylene	*58*		*44 - 120*
Tetrachloro-m-xylene	*75*		*44 - 120*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 480-627510/1-A
Matrix: Water
Analysis Batch: 627607

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 627510

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		0.50	0.18	ug/L		05/25/22 08:46	05/25/22 20:26	1
Aroclor 1221	ND		0.50	0.18	ug/L		05/25/22 08:46	05/25/22 20:26	1
Aroclor 1232	ND		0.50	0.18	ug/L		05/25/22 08:46	05/25/22 20:26	1
Aroclor 1242	ND		0.50	0.18	ug/L		05/25/22 08:46	05/25/22 20:26	1
Aroclor 1248	ND		0.50	0.18	ug/L		05/25/22 08:46	05/25/22 20:26	1
Aroclor 1254	ND		0.50	0.25	ug/L		05/25/22 08:46	05/25/22 20:26	1
Aroclor 1260	ND		0.50	0.25	ug/L		05/25/22 08:46	05/25/22 20:26	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*35*		*19 - 120*	*05/25/22 08:46*	*05/25/22 20:26*	*1*
DCB Decachlorobiphenyl	*40*		*19 - 120*	*05/25/22 08:46*	*05/25/22 20:26*	*1*
Tetrachloro-m-xylene	*54*		*39 - 121*	*05/25/22 08:46*	*05/25/22 20:26*	*1*
Tetrachloro-m-xylene	*62*		*39 - 121*	*05/25/22 08:46*	*05/25/22 20:26*	*1*

Lab Sample ID: LCS 480-627510/2-A
Matrix: Water
Analysis Batch: 627607

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 627510

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aroclor 1016	4.00	2.47		ug/L		62	62 - 130
Aroclor 1260	4.00	2.75		ug/L		69	56 - 123

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*33*		*19 - 120*
DCB Decachlorobiphenyl	*37*		*19 - 120*
Tetrachloro-m-xylene	*53*		*39 - 121*
Tetrachloro-m-xylene	*56*		*39 - 121*

Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 480-627564/1-A
Matrix: Water
Analysis Batch: 627984

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 627564

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	ND		0.50	0.068	ug/L		05/25/22 10:55	05/27/22 18:44	1
2,4-D	ND		0.50	0.17	ug/L		05/25/22 10:55	05/27/22 18:44	1
Dinoseb	ND		0.50	0.14	ug/L		05/25/22 10:55	05/27/22 18:44	1
Silvex (2,4,5-TP)	ND		0.50	0.050	ug/L		05/25/22 10:55	05/27/22 18:44	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*91*		*48 - 132*	*05/25/22 10:55*	*05/27/22 18:44*	*1*
2,4-Dichlorophenylacetic acid	*84*		*48 - 132*	*05/25/22 10:55*	*05/27/22 18:44*	*1*

Method: 8151A - Herbicides (GC) (Continued)

Lab Sample ID: LCS 480-627564/2-A
Matrix: Water
Analysis Batch: 627984

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 627564

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
2,4,5-T			2.00	1.94		ug/L		97	41 - 150		
2,4-D			2.00	1.92		ug/L		96	36 - 150		
Dinoseb			2.00	0.463	J	ug/L		23	21 - 120		
Silvex (2,4,5-TP)			2.00	1.86		ug/L		93	49 - 150		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4-Dichlorophenylacetic acid	*106*		*48 - 132*
2,4-Dichlorophenylacetic acid	*82*		*48 - 132*

Lab Sample ID: LCSD 480-627564/3-A
Matrix: Water
Analysis Batch: 627984

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 627564

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2,4,5-T			2.00	1.99		ug/L		100	41 - 150	3	50
2,4-D			2.00	2.16		ug/L		108	36 - 150	12	50
Dinoseb			2.00	0.506		ug/L		25	21 - 120	9	50
Silvex (2,4,5-TP)			2.00	1.94		ug/L		97	49 - 150	4	50

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2,4-Dichlorophenylacetic acid	*101*		*48 - 132*
2,4-Dichlorophenylacetic acid	*74*		*48 - 132*

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 480-627560/1-A
Matrix: Water
Analysis Batch: 628137

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 627560

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.20	0.060	mg/L		05/26/22 09:50	05/27/22 15:42	1
Antimony	ND		0.020	0.0068	mg/L		05/26/22 09:50	05/27/22 15:42	1
Arsenic	ND		0.010	0.0056	mg/L		05/26/22 09:50	05/27/22 15:42	1
Barium	ND		0.0020	0.00070	mg/L		05/26/22 09:50	05/27/22 15:42	1
Beryllium	ND		0.0020	0.00030	mg/L		05/26/22 09:50	05/27/22 15:42	1
Boron	ND		0.020	0.0040	mg/L		05/26/22 09:50	05/27/22 15:42	1
Cadmium	ND		0.0010	0.00050	mg/L		05/26/22 09:50	05/27/22 15:42	1
Calcium	ND		0.50	0.10	mg/L		05/26/22 09:50	05/27/22 15:42	1
Chromium	ND		0.0040	0.0010	mg/L		05/26/22 09:50	05/27/22 15:42	1
Cobalt	ND		0.0040	0.00063	mg/L		05/26/22 09:50	05/27/22 15:42	1
Copper	ND		0.010	0.0016	mg/L		05/26/22 09:50	05/27/22 15:42	1
Iron	ND		0.050	0.019	mg/L		05/26/22 09:50	05/27/22 15:42	1
Magnesium	ND		0.20	0.043	mg/L		05/26/22 09:50	05/27/22 15:42	1
Manganese	ND		0.0030	0.00040	mg/L		05/26/22 09:50	05/27/22 15:42	1
Nickel	ND		0.010	0.0013	mg/L		05/26/22 09:50	05/27/22 15:42	1
Potassium	ND		0.50	0.10	mg/L		05/26/22 09:50	05/27/22 15:42	1
Selenium	ND		0.015	0.0087	mg/L		05/26/22 09:50	05/27/22 15:42	1
Silver	ND		0.0030	0.0017	mg/L		05/26/22 09:50	05/27/22 15:42	1

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: MB 480-627560/1-A
Matrix: Water
Analysis Batch: 628137

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 627560

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	ND		1.0	0.32	mg/L		05/26/22 09:50	05/27/22 15:42	1
Tin	ND		0.010	0.0051	mg/L		05/26/22 09:50	05/27/22 15:42	1
Vanadium	ND		0.0050	0.0015	mg/L		05/26/22 09:50	05/27/22 15:42	1
Zinc	0.00153	J	0.010	0.0015	mg/L		05/26/22 09:50	05/27/22 15:42	1

Lab Sample ID: LCS 480-627560/2-A
Matrix: Water
Analysis Batch: 628137

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 627560

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	10.0	10.26		mg/L		103	80 - 120
Antimony	0.200	0.212		mg/L		106	80 - 120
Arsenic	0.200	0.200		mg/L		100	80 - 120
Barium	0.200	0.209		mg/L		104	80 - 120
Beryllium	0.200	0.205		mg/L		102	80 - 120
Boron	0.200	0.203		mg/L		102	80 - 120
Cadmium	0.200	0.200		mg/L		100	80 - 120
Calcium	10.0	10.10		mg/L		101	80 - 120
Chromium	0.200	0.205		mg/L		102	80 - 120
Cobalt	0.200	0.198		mg/L		99	80 - 120
Copper	0.200	0.203		mg/L		101	80 - 120
Iron	10.0	10.22		mg/L		102	80 - 120
Magnesium	10.0	10.52		mg/L		105	80 - 120
Manganese	0.200	0.209		mg/L		104	80 - 120
Nickel	0.200	0.193		mg/L		97	80 - 120
Potassium	10.0	9.56		mg/L		95	80 - 120
Selenium	0.200	0.197		mg/L		99	80 - 120
Silver	0.0500	0.0486		mg/L		97	80 - 120
Sodium	10.0	9.62		mg/L		96	80 - 120
Tin	0.200	0.237		mg/L		118	80 - 120
Vanadium	0.200	0.198		mg/L		99	80 - 120
Zinc	0.200	0.203		mg/L		102	80 - 120

Lab Sample ID: LCSD 480-627560/3-A
Matrix: Water
Analysis Batch: 628137

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 627560

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aluminum	10.0	10.14		mg/L		101	80 - 120	1	20
Antimony	0.200	0.214		mg/L		107	80 - 120	1	20
Arsenic	0.200	0.203		mg/L		102	80 - 120	1	20
Barium	0.200	0.205		mg/L		103	80 - 120	2	20
Beryllium	0.200	0.203		mg/L		102	80 - 120	1	20
Boron	0.200	0.201		mg/L		100	80 - 120	1	20
Cadmium	0.200	0.199		mg/L		100	80 - 120	0	20
Calcium	10.0	10.04		mg/L		100	80 - 120	1	20
Chromium	0.200	0.203		mg/L		102	80 - 120	1	20
Cobalt	0.200	0.199		mg/L		99	80 - 120	0	20
Copper	0.200	0.204		mg/L		102	80 - 120	1	20

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: LCSD 480-627560/3-A
Client Sample ID: Lab Control Sample Dup
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 628137
Prep Batch: 627560

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Iron	10.0	10.24		mg/L		102	80 - 120	0	20
Magnesium	10.0	10.56		mg/L		106	80 - 120	0	20
Manganese	0.200	0.206		mg/L		103	80 - 120	1	20
Nickel	0.200	0.194		mg/L		97	80 - 120	0	20
Potassium	10.0	9.34		mg/L		93	80 - 120	2	20
Selenium	0.200	0.196		mg/L		98	80 - 120	1	20
Silver	0.0500	0.0493		mg/L		99	80 - 120	1	20
Sodium	10.0	9.50		mg/L		95	80 - 120	1	20
Tin	0.200	0.237		mg/L		119	80 - 120	0	20
Vanadium	0.200	0.196		mg/L		98	80 - 120	1	20
Zinc	0.200	0.201		mg/L		100	80 - 120	1	20

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 480-627565/1-A
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 627904
Prep Batch: 627565

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0010	0.00017	mg/L		05/26/22 09:34	05/26/22 15:29	1
Thallium	ND		0.20	0.019	ug/L		05/26/22 09:34	05/26/22 15:29	1

Lab Sample ID: LCS 480-627565/2-A
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 627904
Prep Batch: 627565

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lead	0.0200	0.0201		mg/L		101	80 - 120
Thallium	20.0	19.94		ug/L		100	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 480-627537/1-A
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 627679
Prep Batch: 627537

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000043	mg/L		05/25/22 10:57	05/25/22 15:24	1

Lab Sample ID: LCS 480-627537/2-A
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 627679
Prep Batch: 627537

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00667	0.00738		mg/L		111	80 - 120

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 480-628391/28
Matrix: Water
Analysis Batch: 628391

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	ND		0.20	0.073	mg/L			06/02/22 02:10	1
Chloride	ND		0.50	0.28	mg/L			06/02/22 02:10	1
Sulfate	ND		2.0	0.35	mg/L			06/02/22 02:10	1

Lab Sample ID: LCS 480-628391/29
Matrix: Water
Analysis Batch: 628391

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromide	5.01	4.70		mg/L		94	90 - 110
Chloride	50.1	48.69		mg/L		97	90 - 110
Sulfate	50.0	48.79		mg/L		98	90 - 110

Method: 310.2 - Alkalinity

Lab Sample ID: MB 480-628187/17
Matrix: Water
Analysis Batch: 628187

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	ND		10.0	4.0	mg/L			05/31/22 12:27	1

Lab Sample ID: MB 480-628187/21
Matrix: Water
Analysis Batch: 628187

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	6.88	J	10.0	4.0	mg/L			05/31/22 12:47	1

Lab Sample ID: LCS 480-628187/20
Matrix: Water
Analysis Batch: 628187

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Alkalinity, Total	50.0	51.81		mg/L		104	90 - 110

Lab Sample ID: 480-198237-1 MS
Matrix: Water
Analysis Batch: 628187

Client Sample ID: L-1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Alkalinity, Total	1150	B	20.0	1172	4	mg/L		92	60 - 140

Lab Sample ID: 480-198237-1 MSD
Matrix: Water
Analysis Batch: 628187

Client Sample ID: L-1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Alkalinity, Total	1150	B	20.0	1193	4	mg/L		197	60 - 140	2	20

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 480-627541/51
Matrix: Water
Analysis Batch: 627541

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia as N	ND		0.020	0.0090	mg/L as N			05/25/22 09:33	1

Lab Sample ID: LCS 480-627541/52
Matrix: Water
Analysis Batch: 627541

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Ammonia as N	1.00	1.03		mg/L as N		103	90 - 110

Method: 351.2 - Nitrogen, Total Kjeldahl

Lab Sample ID: MB 480-628785/1-A
Matrix: Water
Analysis Batch: 628876

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 628785

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Kjeldahl Nitrogen	ND		0.20	0.19	mg/L as N		06/04/22 09:00	06/06/22 05:40	1

Lab Sample ID: LCS 480-628785/2-A
Matrix: Water
Analysis Batch: 628876

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 628785

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Kjeldahl Nitrogen	2.50	2.42		mg/L as N		97	90 - 110

Lab Sample ID: 480-198237-1 MS
Matrix: Water
Analysis Batch: 628876

Client Sample ID: L-1
Prep Type: Total/NA
Prep Batch: 628785

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Total Kjeldahl Nitrogen	102		1.00	111.5	4	mg/L as N		969	90 - 110

Method: 410.4 - COD

Lab Sample ID: MB 480-627874/27
Matrix: Water
Analysis Batch: 627874

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	ND		10.0	5.0	mg/L			05/26/22 19:00	1

Lab Sample ID: LCS 480-627874/28
Matrix: Water
Analysis Batch: 627874

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chemical Oxygen Demand	25.0	24.02		mg/L		96	90 - 110

Method: 420.4 - Phenolics, Total Recoverable

Lab Sample ID: MB 480-627966/16
Matrix: Water
Analysis Batch: 627966

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Recoverable Phenolics	ND		0.0050	0.0035	mg/L			05/27/22 07:03	1

Lab Sample ID: MB 480-627966/73
Matrix: Water
Analysis Batch: 627966

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Recoverable Phenolics	ND		0.0050	0.0035	mg/L			05/27/22 10:33	1

Lab Sample ID: LCS 480-627966/17
Matrix: Water
Analysis Batch: 627966

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Recoverable Phenolics	0.100	0.0969		mg/L		97	90 - 110

Lab Sample ID: LCS 480-627966/74
Matrix: Water
Analysis Batch: 627966

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Recoverable Phenolics	0.100	0.0971		mg/L		97	90 - 110

Method: 7196A - Chromium, Hexavalent

Lab Sample ID: MB 480-627486/3
Matrix: Water
Analysis Batch: 627486

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND		0.010	0.0050	mg/L			05/24/22 11:15	1

Lab Sample ID: LCS 480-627486/4
Matrix: Water
Analysis Batch: 627486

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chromium, hexavalent	0.0500	0.0487		mg/L		97	85 - 115

Lab Sample ID: 480-198237-1 MS
Matrix: Water
Analysis Batch: 627486

Client Sample ID: L-1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chromium, hexavalent	ND		0.0500	0.0499		mg/L		100	85 - 115

Method: 9012B - Cyanide, Total andor Amenable

Lab Sample ID: MB 480-628212/1-A
Matrix: Water
Analysis Batch: 628277

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 628212

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.00731	J	0.010	0.0050	mg/L		05/31/22 15:59	06/01/22 08:25	1

Lab Sample ID: LCS 480-628212/2-A
Matrix: Water
Analysis Batch: 628277

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 628212

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	0.250	0.265		mg/L		106	90 - 110

Method: 9060A - Organic Carbon, Total (TOC)

Lab Sample ID: MB 480-628513/28
Matrix: Water
Analysis Batch: 628513

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	0.673	J	1.0	0.43	mg/L			06/01/22 03:52	1

Lab Sample ID: LCS 480-628513/29
Matrix: Water
Analysis Batch: 628513

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Organic Carbon	60.0	58.76		mg/L		98	90 - 110

Method: SM 2120B - Color, Colorimetric

Lab Sample ID: MB 480-627676/3
Matrix: Water
Analysis Batch: 627676

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Color	ND		5.00	5.00	Color Units			05/25/22 08:00	1

Lab Sample ID: LCS 480-627676/4
Matrix: Water
Analysis Batch: 627676

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Color	30.0	30.00		Color Units		100	90 - 110

Lab Sample ID: 480-198237-1 DU
Matrix: Water
Analysis Batch: 627676

Client Sample ID: L-1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Color	25.0		25.00		Color Units		0	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 480-627944/1
Matrix: Water
Analysis Batch: 627944

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Filterable Residue (180 C)	ND		10.0	4.0	mg/L			05/27/22 11:31	1

Lab Sample ID: LCS 480-627944/2
Matrix: Water
Analysis Batch: 627944

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Filterable Residue (180 C)	538	503.0		mg/L		93	85 - 115

Method: SM 4500 S2 F - Sulfide, Total

Lab Sample ID: MB 480-628011/3
Matrix: Water
Analysis Batch: 628011

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	ND		1.0	0.67	mg/L			05/27/22 15:15	1

Lab Sample ID: LCS 480-628011/4
Matrix: Water
Analysis Batch: 628011

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfide	6.00	6.40		mg/L		107	90 - 110

Lab Sample ID: 480-198237-1 MS
Matrix: Water
Analysis Batch: 628011

Client Sample ID: L-1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfide	ND	F1	3.00	ND	F1	mg/L		0	40 - 150

Method: SM 5210B - BOD, 5-Day

Lab Sample ID: USB 480-627475/1
Matrix: Water
Analysis Batch: 627475

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	USB Result	USB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	ND		2.0	2.0	mg/L			05/24/22 18:03	1

Lab Sample ID: LCS 480-627475/2
Matrix: Water
Analysis Batch: 627475

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Biochemical Oxygen Demand	198	185.5		mg/L		94	85 - 115

GC/MS VOA

Analysis Batch: 628019

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-198237-1	L-1	Total/NA	Water	8260C	
480-198237-2	Trip Blank	Total/NA	Water	8260C	
MB 480-628019/8	Method Blank	Total/NA	Water	8260C	
LCS 480-628019/6	Lab Control Sample	Total/NA	Water	8260C	

GC/MS Semi VOA

Prep Batch: 627445

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-198237-1	L-1	Total/NA	Water	3510C	
MB 480-627445/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-627445/2-A	Lab Control Sample	Total/NA	Water	3510C	

Analysis Batch: 627554

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-198237-1	L-1	Total/NA	Water	8270D	627445
MB 480-627445/1-A	Method Blank	Total/NA	Water	8270D	627445
LCS 480-627445/2-A	Lab Control Sample	Total/NA	Water	8270D	627445

GC Semi VOA

Prep Batch: 627510

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-198237-1	L-1	Total/NA	Water	3510C	
MB 480-627510/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-627510/2-A	Lab Control Sample	Total/NA	Water	3510C	

Prep Batch: 627511

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-198237-1	L-1	Total/NA	Water	3510C	
MB 480-627511/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-627511/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 480-627511/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Prep Batch: 627564

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-198237-1	L-1	Total/NA	Water	8151A	
MB 480-627564/1-A	Method Blank	Total/NA	Water	8151A	
LCS 480-627564/2-A	Lab Control Sample	Total/NA	Water	8151A	
LCSD 480-627564/3-A	Lab Control Sample Dup	Total/NA	Water	8151A	

Analysis Batch: 627607

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-198237-1	L-1	Total/NA	Water	8082A	627510
MB 480-627510/1-A	Method Blank	Total/NA	Water	8082A	627510
LCS 480-627510/2-A	Lab Control Sample	Total/NA	Water	8082A	627510

Analysis Batch: 627706

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-198237-1	L-1	Total/NA	Water	8081B	627511
MB 480-627511/1-A	Method Blank	Total/NA	Water	8081B	627511
LCS 480-627511/2-A	Lab Control Sample	Total/NA	Water	8081B	627511

GC Semi VOA (Continued)

Analysis Batch: 627706 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 480-627511/3-A	Lab Control Sample Dup	Total/NA	Water	8081B	627511

Analysis Batch: 627984

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-198237-1	L-1	Total/NA	Water	8151A	627564
MB 480-627564/1-A	Method Blank	Total/NA	Water	8151A	627564
LCS 480-627564/2-A	Lab Control Sample	Total/NA	Water	8151A	627564
LCSD 480-627564/3-A	Lab Control Sample Dup	Total/NA	Water	8151A	627564

Metals

Prep Batch: 627537

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-198237-1	L-1	Total/NA	Water	7470A	
MB 480-627537/1-A	Method Blank	Total/NA	Water	7470A	
LCS 480-627537/2-A	Lab Control Sample	Total/NA	Water	7470A	

Prep Batch: 627560

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-198237-1	L-1	Total/NA	Water	3005A	
MB 480-627560/1-A	Method Blank	Total/NA	Water	3005A	
LCS 480-627560/2-A	Lab Control Sample	Total/NA	Water	3005A	
LCSD 480-627560/3-A	Lab Control Sample Dup	Total/NA	Water	3005A	

Prep Batch: 627565

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-198237-1	L-1	Total/NA	Water	3020A	
MB 480-627565/1-A	Method Blank	Total/NA	Water	3020A	
LCS 480-627565/2-A	Lab Control Sample	Total/NA	Water	3020A	

Analysis Batch: 627679

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-198237-1	L-1	Total/NA	Water	7470A	627537
MB 480-627537/1-A	Method Blank	Total/NA	Water	7470A	627537
LCS 480-627537/2-A	Lab Control Sample	Total/NA	Water	7470A	627537

Analysis Batch: 627904

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-198237-1	L-1	Total/NA	Water	6020A	627565
MB 480-627565/1-A	Method Blank	Total/NA	Water	6020A	627565
LCS 480-627565/2-A	Lab Control Sample	Total/NA	Water	6020A	627565

Analysis Batch: 628137

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-198237-1	L-1	Total/NA	Water	6010C	627560
MB 480-627560/1-A	Method Blank	Total/NA	Water	6010C	627560
LCS 480-627560/2-A	Lab Control Sample	Total/NA	Water	6010C	627560
LCSD 480-627560/3-A	Lab Control Sample Dup	Total/NA	Water	6010C	627560

Metals

Analysis Batch: 628536

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-198237-1	L-1	Total/NA	Water	SM 2340B	

General Chemistry

Analysis Batch: 627475

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-198237-1	L-1	Total/NA	Water	SM 5210B	
USB 480-627475/1	Method Blank	Total/NA	Water	SM 5210B	
LCS 480-627475/2	Lab Control Sample	Total/NA	Water	SM 5210B	

Analysis Batch: 627486

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-198237-1	L-1	Total/NA	Water	7196A	
MB 480-627486/3	Method Blank	Total/NA	Water	7196A	
LCS 480-627486/4	Lab Control Sample	Total/NA	Water	7196A	
480-198237-1 MS	L-1	Total/NA	Water	7196A	

Analysis Batch: 627490

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-198237-1	L-1	Total/NA	Water	353.2	

Analysis Batch: 627541

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-198237-1	L-1	Total/NA	Water	350.1	
MB 480-627541/51	Method Blank	Total/NA	Water	350.1	
LCS 480-627541/52	Lab Control Sample	Total/NA	Water	350.1	

Analysis Batch: 627676

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-198237-1	L-1	Total/NA	Water	SM 2120B	
MB 480-627676/3	Method Blank	Total/NA	Water	SM 2120B	
LCS 480-627676/4	Lab Control Sample	Total/NA	Water	SM 2120B	
480-198237-1 DU	L-1	Total/NA	Water	SM 2120B	

Analysis Batch: 627874

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-198237-1	L-1	Total/NA	Water	410.4	
MB 480-627874/27	Method Blank	Total/NA	Water	410.4	
LCS 480-627874/28	Lab Control Sample	Total/NA	Water	410.4	

Analysis Batch: 627944

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-198237-1	L-1	Total/NA	Water	SM 2540C	
MB 480-627944/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 480-627944/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 627966

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-198237-1	L-1	Total/NA	Water	420.4	
MB 480-627966/16	Method Blank	Total/NA	Water	420.4	
MB 480-627966/73	Method Blank	Total/NA	Water	420.4	

General Chemistry (Continued)

Analysis Batch: 627966 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 480-627966/17	Lab Control Sample	Total/NA	Water	420.4	
LCS 480-627966/74	Lab Control Sample	Total/NA	Water	420.4	

Analysis Batch: 628011

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-198237-1	L-1	Total/NA	Water	SM 4500 S2 F	
MB 480-628011/3	Method Blank	Total/NA	Water	SM 4500 S2 F	
LCS 480-628011/4	Lab Control Sample	Total/NA	Water	SM 4500 S2 F	
480-198237-1 MS	L-1	Total/NA	Water	SM 4500 S2 F	

Analysis Batch: 628187

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-198237-1	L-1	Total/NA	Water	310.2	
MB 480-628187/17	Method Blank	Total/NA	Water	310.2	
MB 480-628187/21	Method Blank	Total/NA	Water	310.2	
LCS 480-628187/20	Lab Control Sample	Total/NA	Water	310.2	
480-198237-1 MS	L-1	Total/NA	Water	310.2	
480-198237-1 MSD	L-1	Total/NA	Water	310.2	

Prep Batch: 628212

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-198237-1	L-1	Total/NA	Water	9012B	
MB 480-628212/1-A	Method Blank	Total/NA	Water	9012B	
LCS 480-628212/2-A	Lab Control Sample	Total/NA	Water	9012B	

Analysis Batch: 628277

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-198237-1	L-1	Total/NA	Water	9012B	628212
MB 480-628212/1-A	Method Blank	Total/NA	Water	9012B	628212
LCS 480-628212/2-A	Lab Control Sample	Total/NA	Water	9012B	628212

Analysis Batch: 628391

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-198237-1	L-1	Total/NA	Water	300.0	
MB 480-628391/28	Method Blank	Total/NA	Water	300.0	
LCS 480-628391/29	Lab Control Sample	Total/NA	Water	300.0	

Analysis Batch: 628513

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-198237-1	L-1	Total/NA	Water	9060A	
MB 480-628513/28	Method Blank	Total/NA	Water	9060A	
LCS 480-628513/29	Lab Control Sample	Total/NA	Water	9060A	

Prep Batch: 628785

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-198237-1	L-1	Total/NA	Water	351.2	
MB 480-628785/1-A	Method Blank	Total/NA	Water	351.2	
LCS 480-628785/2-A	Lab Control Sample	Total/NA	Water	351.2	
480-198237-1 MS	L-1	Total/NA	Water	351.2	

QC Association Summary

Client: Cattaraugus County
Job ID: 480-198237-1
Project/Site: Farwell Landfill - Leachate Expanded

General Chemistry

Analysis Batch: 628876

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-198237-1	L-1	Total/NA	Water	351.2	628785
MB 480-628785/1-A	Method Blank	Total/NA	Water	351.2	628785
LCS 480-628785/2-A	Lab Control Sample	Total/NA	Water	351.2	628785
480-198237-1 MS	L-1	Total/NA	Water	351.2	628785

Field Service / Mobile Lab

Analysis Batch: 627941

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-198237-1	L-1	Total/NA	Water	Field Sampling	

Lab Chronicle

Client: Cattaraugus County
Job ID: 480-198237-1
Project/Site: Farwell Landfill - Leachate Expanded

Client Sample ID: L-1
Lab Sample ID: 480-198237-1

Date Collected: 05/23/22 14:30
Matrix: Water
Date Received: 05/23/22 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		4	628019	05/28/22 04:42	AXK	TAL BUF
Total/NA	Prep	3510C			627445	05/24/22 15:35	CMC	TAL BUF
Total/NA	Analysis	8270D		1	627554	05/25/22 16:58	JMM	TAL BUF
Total/NA	Prep	3510C			627511	05/25/22 09:02	MS	TAL BUF
Total/NA	Analysis	8081B		1	627706	05/26/22 11:33	JLS	TAL BUF
Total/NA	Prep	3510C			627510	05/25/22 08:46	MS	TAL BUF
Total/NA	Analysis	8082A		1	627607	05/26/22 00:13	DSC	TAL BUF
Total/NA	Prep	8151A			627564	05/25/22 10:55	JMP	TAL BUF
Total/NA	Analysis	8151A		1	627984	05/27/22 20:13	MAN	TAL BUF
Total/NA	Prep	3005A			627560	05/26/22 09:50	NVK	TAL BUF
Total/NA	Analysis	6010C		1	628137	05/27/22 17:47	LMH	TAL BUF
Total/NA	Prep	3020A			627565	05/26/22 09:34	NVK	TAL BUF
Total/NA	Analysis	6020A		1	627904	05/26/22 16:41	BMB	TAL BUF
Total/NA	Prep	7470A			627537	05/25/22 10:57	NVK	TAL BUF
Total/NA	Analysis	7470A		1	627679	05/25/22 15:59	NVK	TAL BUF
Total/NA	Analysis	SM 2340B		1	628536	06/02/22 12:54	LMH	TAL BUF
Total/NA	Analysis	300.0		10	628391	06/02/22 07:44	IMZ	TAL BUF
Total/NA	Analysis	310.2		20	628187	05/31/22 12:48	IMZ	TAL BUF
Total/NA	Analysis	350.1		50	627541	05/25/22 09:39	CLT	TAL BUF
Total/NA	Prep	351.2			628785	06/04/22 09:00	EAG	TAL BUF
Total/NA	Analysis	351.2		50	628876	06/06/22 09:40	CLT	TAL BUF
Total/NA	Analysis	353.2		1	627490	05/24/22 19:41	CSS	TAL BUF
Total/NA	Analysis	410.4		2	627874	05/26/22 19:00	CSS	TAL BUF
Total/NA	Analysis	420.4		1	627966	05/27/22 11:05	CLT	TAL BUF
Total/NA	Analysis	7196A		1	627486	05/24/22 11:15	CSS	TAL BUF
Total/NA	Prep	9012B			628212	05/31/22 15:59	NLK	TAL BUF
Total/NA	Analysis	9012B		1	628277	06/01/22 08:47	CLT	TAL BUF
Total/NA	Analysis	9060A		1	628513	06/01/22 07:07	KER	TAL BUF
Total/NA	Analysis	SM 2120B		1	627676	05/25/22 08:00	EJL	TAL BUF
Total/NA	Analysis	SM 2540C		1	627944	05/27/22 11:31	SAK	TAL BUF
Total/NA	Analysis	SM 4500 S2 F		1	628011	05/27/22 15:15	DLG	TAL BUF
Total/NA	Analysis	SM 5210B		1	627475	05/24/22 18:03	RDA	TAL BUF
Total/NA	Analysis	Field Sampling		1	627941	05/23/22 14:30	FLD	TAL BUF

Client Sample ID: Trip Blank
Lab Sample ID: 480-198237-2

Date Collected: 05/23/22 00:00
Matrix: Water
Date Received: 05/23/22 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	628019	05/28/22 05:05	AXK	TAL BUF

Laboratory References:

TAL BUF = Eurofins Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Accreditation/Certification Summary

Client: Cattaraugus County
Job ID: 480-198237-1
Project/Site: Farwell Landfill - Leachate Expanded

Laboratory: Eurofins Buffalo

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	03-31-23

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
300.0		Water	Bromide
8260C		Water	1,2-Dichloroethene, Total
Field Sampling		Water	Field EH/ORP
Field Sampling		Water	pH, Field
Field Sampling		Water	Specific Conductance, Field
Field Sampling		Water	Temperature, Field (C)
Field Sampling		Water	Turbidity, Field

Method Summary

Client: Cattaraugus County
Job ID: 480-198237-1
Project/Site: Farwell Landfill - Leachate Expanded

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL BUF
8081B	Organochlorine Pesticides (GC)	SW846	TAL BUF
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL BUF
8151A	Herbicides (GC)	SW846	TAL BUF
6010C	Metals (ICP)	SW846	TAL BUF
6020A	Metals (ICP/MS)	SW846	TAL BUF
7470A	Mercury (CVAA)	SW846	TAL BUF
SM 2340B	Total Hardness (as CaCO3) by calculation	SM	TAL BUF
300.0	Anions, Ion Chromatography	MCAWW	TAL BUF
310.2	Alkalinity	MCAWW	TAL BUF
350.1	Nitrogen, Ammonia	MCAWW	TAL BUF
351.2	Nitrogen, Total Kjeldahl	MCAWW	TAL BUF
353.2	Nitrate	EPA	TAL BUF
410.4	COD	MCAWW	TAL BUF
420.4	Phenolics, Total Recoverable	MCAWW	TAL BUF
7196A	Chromium, Hexavalent	SW846	TAL BUF
9012B	Cyanide, Total andor Amenable	SW846	TAL BUF
9060A	Organic Carbon, Total (TOC)	SW846	TAL BUF
SM 2120B	Color, Colorimetric	SM	TAL BUF
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL BUF
SM 4500 S2 F	Sulfide, Total	SM	TAL BUF
SM 5210B	BOD, 5-Day	SM	TAL BUF
Field Sampling	Field Sampling	EPA	TAL BUF
3005A	Preparation, Total Metals	SW846	TAL BUF
3020A	Preparation, Total Metals	SW846	TAL BUF
351.2	Nitrogen, Total Kjeldahl	MCAWW	TAL BUF
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL BUF
5030C	Purge and Trap	SW846	TAL BUF
7470A	Preparation, Mercury	SW846	TAL BUF
8151A	Extraction (Herbicides)	SW846	TAL BUF
9012B	Cyanide, Total and/or Amenable, Distillation	SW846	TAL BUF

Protocol References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL BUF = Eurofins Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: Cattaraugus County
Job ID: 480-198237-1
Project/Site: Farwell Landfill - Leachate Expanded

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-198237-1	L-1	Water	05/23/22 14:30	05/23/22 17:00
480-198237-2	Trip Blank	Water	05/23/22 00:00	05/23/22 17:00

Quantitation Limit Exceptions Summary

Client: Cattaraugus County
Job ID: 480-198237-1
Project/Site: Farwell Landfill - Leachate Expanded

The requested project specific reporting limits listed below were less than laboratory standard quantitation limits (PQL) but greater than or equal to the laboratory method detection limits (MDL). It must be noted that results reported below lab standard quantitation limits may result in false positive/false negative values and less accurate quantitation. Routine laboratory procedures do not indicate corrective action for detections below the laboratory's PQL.

Method	Analyte	Matrix	Prep Type	Unit	Client RL	Lab PQL
8270D	Dibenzofuran	Water	Total/NA	ug/L	5.0	10
6010C	Arsenic	Water	Total/NA	mg/L	0.010	0.015
6010C	Cadmium	Water	Total/NA	mg/L	0.0010	0.002
6010C	Selenium	Water	Total/NA	mg/L	0.015	0.025
6010C	Silver	Water	Total/NA	mg/L	0.0030	0.006
420.4	Total Recoverable Phenolics	Water	Total/NA	mg/L	0.0050	0.010

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: Summa	Lab PM: VanDette, Ryan T	Carrier Tracking No(s):	COC No: 480-173653-37500.1
Client Contact: Austin Kimes	Phone:	E-Mail: Ryan.VanDette@et.eurofinsus.com	State of Origin:	Page: Page 1 of 2
Company: Cattaraugus County	PWSID:			Job #:

Address: 8810 Route 242	Due Date Requested:	Analysis Requested
City: Little Valley	TAT Requested (days):	
State, Zip: NY, 14755	Compliance Project: Δ Yes Δ No	
Phone:	PO #: Purchase Order not required	
Email: amkimes@cattco.org	WO #:	
Project Name: Cattaraugus County/ Event Desc: Farwell Leachate Expanded M	Project #: 48003171	
Site: New York	SSOW#:	

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8082A - (MOD) PCBs	8081B - (MOD) Pesticides	8270D - (MOD) NY Part 360 Expanded Semivolatiles	300.0_28D - Br/Cl/SO4	350.1; 351.2; 410.4	6010C, 6020A, 7470A, SM2340B	420.4_NP - Total Recoverable Phenolics	8260C - (MOD) Volatiles	9060A - Total Organic Carbon	8151A - NY Part 360 Expanded Herbicides	5210B - Biochemical Oxygen Demand	2540C_Calcd - Filterable Residue (180 C)	SM4500_S2_F - Sulfide	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N	N	N	S	D	S	A	A	N	N	N	CB		
L-1	5/23/22	1430	G	Water			X	X	X	X	X	X	X	X	X	X	X	XX			Hel + Pro
TRIP BLANK				Water																	

480-198237 Chain of Custody

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological	☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify)	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	5/23/22	ECES		5/23/22 1700	TA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.: 1970978	Cooler Temperature(s) °C and Other Remarks: Site # 1 ICE

Ver: 06/08/2021

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: Summa	Lab PM: VanDette, Ryan T	Carrier Tracking No(s):	COC No: 480-173653-37500.2
Client Contact: Austin Kimes	Phone:	E-Mail: Ryan.VanDette@et.eurofinsus.com	State of Origin:	Page: Page 2 of 2
Company: Cattaraugus County	PWSID:			Job #:
Address: 8810 Route 242	Due Date Requested:			
City: Little Valley	TAT Requested (days):			
State, Zip: NY, 14755	Compliance Project: Δ Yes Δ No			
Phone:	PO #: Purchase Order not required			
Email: amkimes@cattco.org	WO #:			
Project Name: Cattaraugus County/ Event Desc: Farwell Leachate Expanded M	Project #: 48003171			
Site: New York	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	FieldSampling - (MOD) Local Method	9012B - Cyanide, Total	2120B, 353.2, 353.2_Nitrite, Nitrate_Calc	7196A - Chromium, hexavalent	310.2 - Alkalinity, Total	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	B	N	N	N		
L-1	5/23/22	1430	G	Water			X	X	X	X	X		Leak
TRIP BLANK				Water									

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological	☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify)	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	[signature]	5/23/22	ETEX	PGL		
2						
3						

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.: 1970978	Cooler Temperature(s) °C and Other Remarks

Ver: 06/08/2021

6/10/2022

Enviroteknix
An Environmental Field Service Company

Telephone: 716-366-8143
Fax: 716-366-8092
Email: enviroteknix@outlook.com
302 Lakeshore Drive East
Dunkirk, New York USA 14048

LANDFILL MONITORING FIELD LOG SHEET

Facility: Farwell Landfill **Sample Point ID:** L-1

Field Personnel: CS\CS **Sample Matrix:** Leachate

Leachate Tank Inspection: **Date:** 5/23/2022 **Time:** 14:30

Condition of Casing/Riser:
( ) Unlocked (X) Good ( ) Loose (X) Damaged ( ) Flush Mount

Condition of Seal:
(X) Good ( ) Cracked ( ) None ( ) Buried

Comments:

Leachate Sampling: **Date:** 5/23/2022 **Time:** 14:30

Sampling Method: Bailer **Dedicated:** (X)Y ( )N **Weather/Temp:** Pt Sun 55F

Field Data						
Temp Celsius	pH Std Units	Conductivity mS	Turbidity NTU	ORP	D.O. mg/L	Observations/Characteristics
9.5	7.67	3.16	119	127	2.2	Lt. Brown Turbid

Parameters Sampled For: Expanded Parameters Set

Comments:

ENVIROTEKNIX SITE/PROJECT MANAGER SIGNATURE

Login Sample Receipt Checklist

Client: Cattaraugus County

Job Number: 480-198237-1

Login Number: 198237

List Source: Eurofins Buffalo

List Number: 1

Creator: Sabuda, Brendan D

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	5.6 #1 ice
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	True	

APPENDIX E - INDEPENDENT DATA VALIDATION REPORTS

DATA VALIDATION
BASELINE VOC PARAMETERS MONITORING
FARWELL LANDFILL

SAMPLED MAY 2022

Prepared for:

CATTARAUGUS COUNTY DPW
8810 Route 242
Little Valley, NY 14755

Prepared by:

DATAVAL, Inc.
201 West Genesee Street, PMB 273
Fayetteville, NY 13066

DATA ASSESSMENT

A data package containing analytical results for 11 aqueous samples, a blind duplicate, and a trip blank was received from Eurofins Buffalo on 16Dec22. The samples were collected from the Farwell Landfill site on 23May22, as required by 6 NYCRR Part 360 (10/94). The ASP deliverables package included formal reports, raw data, the necessary QC, and supporting information for Baseline Volatile Organics monitoring. Samples were identified by Chain of Custody documents and traceable through the work of Eurofins Buffalo, the laboratory contracted for analysis. Laboratory data was evaluated according to the Quality Assurance / Quality Control requirements of the New York State Department of Environmental Conservation's Analytical Services Protocol (ASP), September 1989, Rev. 07/2005. When the required protocol was not followed, the current EPA Region II Functional Guidelines (SOP NO. HW-33, Rev. #3, March 2013, Low/Medium Volatile Data Validation) was used as a technical reference.

To satisfy the requirement for 5% data validation, data calculations relating to MW-14S were examined in detail. All available QA/QC information was then applied to an evaluation of every program sample.

This group of twelve groundwater samples was collected for VOC analysis by Enviroteknix (ETEX) on 23May22. The samples were packaged with a trip blank and delivered to the laboratory on the day of collection. At the time of laboratory receipt, the cooler of samples was found to be intact and properly chilled. A cooler temperature of 5.1°C was recorded at that time. It could not be determined if custody seals were found on the sample cooler. Proper sample preservation was documented in the field custody record and verified at the time of analysis. These checks confirmed that each program sample was properly stabilized at a pH<2.

Laboratory analyses were well organized, supported by the raw data, and completed within the SW-486 holding time limitations. Areas where program requirements were not completely satisfied are addressed below. A detailed discussion of the review process follows.

VOLATILE ORGANICS

Each VOC analysis incorporates several quality assurance checks to ensure the precision and accuracy of laboratory measurements. These include the addition of surrogates and internal standards to every calibration standard, blank and program sample. A matrix spiked sample, a matrix spiked duplicate, and a matrix spiked blank are also analyzed with each group of samples. ASP protocol defines acceptance criteria for each of these evaluations. The results reported by the laboratory satisfied most of these requirements. The exceptions are addressed below.

MS Tuning
Mass spectrometer tuning and performance criteria are established to ensure sufficient mass resolution and sensitivity to accurately detect and identify targeted analytes. Verification is accomplished using a certified standard.

An Instrument Performance Check Standard of BFB was analyzed prior to each 12-hour period of instrument operation that included samples from this program. An Instrument Performance Check Form is present for each BFB evaluation. Each of these checks satisfied the ASP acceptance criteria.

Calibrations
Requirements for instrument calibration are established to ensure that laboratory equipment is capable of producing accurate, quantitative data. Initial calibrations demonstrate a range through which measurements may be made. Continuing calibration check standards verify instrument stability.

The initial instrument calibration for VOC was performed on 18May22. Standards of 0.5, 1.0, 2.0, 5.0, 10, 25, 50 and 100 µg/l were included. Each analyte targeted by this program produced the required levels of instrument response and demonstrated an acceptable degree of linearity during this calibration.

A continuing calibration check standard was analyzed on 31May22, prior to the twelve-hour period of instrument operation that included samples from this program. When compared to the initial calibration, each targeted analyte demonstrated an acceptable level of instrument stability.

Blanks
Blanks are analyzed to evaluate various sources of sample contamination. Trip blanks and field blanks monitor sampling, shipping and storage activities. Method blanks are analyzed to verify instrument integrity. Samples are considered compromised by conditions causing contamination in any blank.

One method blank and a trip blank were analyzed with this group of samples. Although both of these blanks demonstrated acceptable chromatography, the trip blank contained traces of acetone. A similar artifact was found in MW-14S. This concentration should be interpreted as undetected and a detection limit equaling the laboratory's reporting limit should be assumed.

Surrogates
Each sample, blank and standard is spiked with surrogate compounds prior to analysis. The structures of surrogates are similar to analytes of interest, but they are not normally found in environmental samples. Surrogate recoveries are monitored to evaluate overall laboratory performance and the efficiency of laboratory technique.

Although Surrogate Summary Sheets were properly prepared, an incorrect acceptance criteria was applied. However, when compared to the ASP requirements an acceptable recovery was reported for each surrogate addition to this group of samples.

Internal Standards

Internal standards are added to each sample, blank and standard just prior to injection. Analyte concentrations are calculated relative to the response of a specific internal standard. Internal standard performance criteria ensure that GC/MS sensitivity and response are stable during the analysis of each sample. The area of internal standard peaks may not vary by more than a factor of two. When compared to the preceding calibration check, retention times may not vary by more than 30 seconds.

The laboratory correctly calculated control limits for internal standard response and retention times. When compared to these limits, an acceptable response was reported for the internal standard additions to each program sample.

Matrix Spikes

Matrix spiking refers to the addition of known analyte concentrations to a sample, prior to analysis. Analyte recoveries provide an indication of laboratory accuracy. The analysis of a duplicate spiked aliquot provides a measurement of precision.

MW-15I was selected for matrix spiking. The entire list of targeted analytes was added to two aliquots of this sample. The recoveries reported for these spikes included high results for acetone (139%,138%) and 1,1,1-trichloroethane (132%) and low recoveries of trans-1,4-dichloro-2-butene (41%,44%) and vinyl acetate (58%,60%). The positive bias indicated by the high recoveries warrants no concern because acetone and 1,1,1-trichloroethane were not detected in MW-15I. The trans-1,4-dichloro-2-butene (14CL2-2-BUT) and vinyl acetate (VIN ACE) results from MW-15I have been qualified as estimations.

A spiked blank (LCS) was also analyzed with this group of samples. The recoveries reported from this LCS sample included a low recovery of trans-1,4-dichloro-2-butene (55%). The trans-1,4-dichloro-2-butene results from this project have been qualified as estimations based on this indication of negative bias.

Reported Analytes

Formal reports were provided for each sample. The data package also included total ion chromatograms and raw instrument print outs. Reference mass spectra were provided to confirm the identification of each analyte that was detected in this group of samples. Tentatively Identified Compounds (TIC) were not reported.

CORRECTNESS AND USABILITY

Reported data should be considered technically defensible and completely usable in its present form. Data presenting a usable estimation of the conditions being measured has been flagged "U". Estimated data should be used with caution. A detailed discussion of the review process follows.

Two facts should be considered by all data users. No compound concentration, even if it has passed all QC testing, can be guaranteed to be accurate. Strict QC serves to increase confidence in data, but any value potentially contains error. Secondly. DATAVAL, Inc. guarantees the quality of this data assessment. However, DATAVAL, Inc. does not warrant any interpretation or utilization of this data by a third party.

Reviewer's signature: _____ Date: 23 Dec 22

James B. Baldwin
DATAVAL, Inc.

QUALIFIED DATA
FARWELL LANDFILL
SAMPLED MAY 2022

	BLANK ACETONE	SPIKE 14CL2-2-BUT	SPIKE VIN ACE
TRIP BLANK		5.0UJ	
DUP Y		5.0UJ	
MW-14I		5.0UJ	
MW-14S	10U	5.0UJ	
MW-15I		5.0UJ	5.0UJ
MW-15S		5.0UJ	
MW-16I		5.0UJ	
MW-16S		5.0UJ	
MW-17I		5.0UJ	
MW-17S		5.0UJ	
MW-21		5.0UJ	
MW-22		5.0UJ	
MW-23		5.0UJ	

DATA REVIEW
FARWELL LANBFILL
LEACHATE MONITORING

SAMPLED MAY 2022

Prepared for:

CATTARAUGUS COUNTY DPW
8810 Route 242
Little Valley, NY 14755

Prepared by:

DATAVAL, Inc.
201 West Genesee Street, PMB 273
Fayetteville, NY 13066

DATA ASSESSMENT

A Cat B data package containing analytical results for one leachate sample and a trip blank was received from Eurofins Buffalo on 16Dec22. The sample was collected from the Farwell Landfill site on 23May22, as required by 6 NYCRR Part 360 (10/94). The ASP deliverables package included formal reports, raw data, the necessary QC, and supporting information for Expanded Parameters monitoring. The sample was identified by Chain of Custody documents and traceable through the work of ETEX and Eurofins Buffalo, the organizations contracted for sampling and analysis. Laboratory data was evaluated according to the Quality Assurance / Quality Control Requirements of the New York State Department of Environmental Conservation's Analytical Services Protocol (ASP), September 1989, Rev. 07/2005. When the required protocol was not followed, the current EPA Region II Functional Guidelines (SOP HW-33, Rev 3, Low/Medium Volatile Data Validation; SOP HW-35, Rev 2, Semivolatile Data Valibation; SOP HW-2a, Rev 15, ICP-AES Data Validation; SOP HW-2b Rev 15, ICP-MS Data Validation; SOP HW-36, Rev 4, Pesticide Data Validation, SOP HW-37, Rev 3, Poly-chlorinated Biphenyl (PCB) Data Validation; and SOP HW-17 Rev 3, Validating Chlorinated Herbicides GC, SW-846 Method 8151A) were used as a technical reference.

The volumes Of L-1 for expanded parameters monitoring were collected and shipped to the laboratory, via ETEX, on 23May22. The shipment of samples arrived intact and packaged with ice. A cooler temperature of 5.6°C was recorded at the time of receipt.

Proper sample preservation was documented in the field custody record and verified in the laboratory. A pH<2 was obtained from each VOC sample at the time of analysis. These checks verified that each sample volume was properly preserved.

Laboratory analyses were well organized and in most cases completely supported by the raw data. Areas where program requirements were not completely satisfied are addressed below. A detailed discussion of the review process follows.

LEACHATE INDICATORS

Test methods for the determination of Leachate Indicators utilize classical wet chemistry techniques. In most cases, these methods were performed well and demonstrated excellent quality control. Areas where program requirements were not satisfied are addressed below.

It is noted that the wet chemistry results for alkalinity, TKN and phenolics were provided without the supporting raw data. This made it impossible to verify the calculations that produced these results. This omission should be considered when reviewing the data.

Total Organic Carbon (TOC)
The TOC spike to sample L-1 produced a high recovery of 131%. The TOC result from L-1 has been qualified as an estimation based on this indication of positive bias.

Sulfide
The sulfide spike to L-1 was completely unrecovered (0%). The sulfide result from L-1 must be considered unreliable based on this performance. It should not be included in data tables.

Color
The sample for color analysis was held for two days prior to analysis. This exceeded the allowed holding time by one day. However, samples are normally allow one day for shipment, and these samples were received on the day they were collected. Data qualifications are not required.

INORGANICS

The analysis of each metal was associated with the appropriate quality control checks, as defined by ASP protocol. The results produced by these checks satisfied the program acceptance criteria. The metals results from L-1 should be considered completely usable and without qualifications based on this performance.

VOLATILE ORGANICS

Each VOA analysis incorporates several quality assurance checks to ensure the precision and accuracy of laboratory measurements. These include the addition of surrogates and internal standards to every calibration standard, blank and program sample. A matrix spiked sample, a matrix spiked duplicate, and a matrix spiked blank are also analyzed with each group of samples. ASP protocol defines acceptance criteria for each of these evaluations. The results reported by the laboratory satisfied most of these requirements. The exceptions are detailed below.

Calibration
Requirements for instrument calibration are established to ensure that laboratory equipment is capable of producing accurate, quantitative data. Initial calibrations demonstrate a range through which measurements may be made. Continuing calibration check standards verify instrument stability.

Initial instrument calibrations for VOC were performed on 09May22. Standards of 0.5, 1.0, 2.0, 5.0, 25, 50 and 100 µg/l were included. With the exception of dichlorodifluoromethane and isobutanol, each targeted analyte produced the required levels of instrument response and demonstrated an acceptable degree of linearity during this calibration. Dichlorodifluoromethane, however, failed to produce the required levels of instrument

response and isobutanol demonstrated poor linearity. Based on this performance, the dichlorodifluoromethane and isobutanol results from L-1 have been qualified as estimations.

A continuing calibration check standard was analyzed on 28May22. When compared to the initial calibration, unacceptable shifts were observed in the instrument response of acrolein (113%), vinyl acetate (28%), methyl methacrylate (31%) and trans-1,4-dichloro-2-butene (25.3%). Based on this performance, the acrolein, vinyl acetate, methyl methacrylate and trans-1,4-dichloro-2-butene results from L-1 and the trip blank have been qualified as estimations.

Matrix Spikes

Matrix spiking refers to the addition of known analyte concentrations to a sample, prior to analysis. Analyte recoveries provide an indication of laboratory accuracy. The analysis of a duplicate spiked aliquot provides a measurement of precision.

Although L-1 was not selected for matrix spiking, a spiked blank was analyzed with L-1. The recoveries reported for these additions included high results for acrolein (205%) and vinyl acetate (135%). These indications of positive bias, however, warrant no concern because acrolein and vinyl acetate were not detected in L-1 or the trip blank.

Reported Analytes

The presence of benzene in L-1 could not be verified based on the mass spectra references included in the raw data. Benzene should be interpreted as undetected in this sample and a detection limit equaling the laboratory's reporting limit should be assumed.

SEMIVOLATILE ORGANICS

Blanks

Blanks are analyzed to evaluate various sources of sample contamination. Trip blanks and field blanks monitor sampling, transport and storage activities. Method blanks are analyzed to verify instrument integrity. Samples are considered compromised by conditions causing contamination in any blank.

One method blank was analyzed with L-1. Although this blank demonstrated acceptable chromatography, it contained traces of di-n-butylphthalate (DI-N-BUTPHTH). A similar artifact was detected in L-1. This concentration should be interpreted as undetected, with a detection limit equaling the reported concentration.

Although not found in the method blank, diethylphthalate was detected in L-1. This concentration has been qualified as an estimation because low levels of phthalates frequently represent laboratory artifacts. Diethylphthalate (DIETHPHTH) cold not be

removed from the affected sample report because it was not found in the associated method blank.

Reported Analytes
The presence of n-nitrosodi-n-butylamine in L-1 could not be verified based on the mass spectra references included in the raw data. N-nitrosodi-n-butylamine (DI-N-BUTAMINE) should be interpreted as undetected in this sample and a detection limit equaling the laboratory's reporting limit should be assumed.

PESTICIDES

Blanks
Blanks are analyzed to evaluate various sources of sample contamination. Trip blanks and field blanks monitor sampling, transport and storage activities. Method blanks are analyzed to verify instrument integrity. Samples are considered compromised by conditions causing contamination in any blank.

One method blank was analyzed with L-1. Although this blank produced acceptable chromatography, it contained traces of endrin aldehyde (ALDEHYDE). A similar artifact was also detected in L-1. This concentration should be interpreted as undetected and a detection limit equaling the laboratory's reporting limit should be assumed.

PCB

The PCB results from L-1 should be considered completely usable and without qualifications as reported.

HERBICIDES

Surrogates
Surrogate Summary Sheets were properly prepared, based on the laboratory's acceptance criteria. When compared to the ASP requirements, however, an unacceptably high recovery was reported for one of the DCAA (802%) additions to L-1. The second addition to L-1 (98%) was recovered successfully. Because L-1 produced negative herbicide results, data qualifications are not required.

Matrix Spikes
Matrix spiking refers to the addition of known analyte concentrations to a sample, prior to analysis. Analyte recoveries provide an indication of laboratory accuracy. The analysis of a duplicate spiked aliquot provides a measurement of precision.

Although not selected for matrix spiking, a pair of spiked blanks (LCS/LCSD) was analyzed with L-1. The recoveries reported for these additions included low results for Dinoseb (23%,25%). The

Dinoseb result from L-1 has been qualified as an estimation based on this indication of negative bias.

CORRECTNESS AND USABILITY

The data package supporting the results from MW27A-0618 was found to be complete and well organized. Reported data is felt to be completely usable in its present form. Data presenting a usable estimation of the conditions being measured has been flagged "J" or "UJ". Estimated data should be used with caution.

Two facts should be considered by all data users. No compound concentration, even if it has passed all QC testing, can be guaranteed to be accurate. Strict QC serves to increase confidence in data, but any value potentially contains error. Secondly. DATAVAL, Inc. guarantees the quality of this data assessment. However, DATAVAL, Inc. does not warrant any interpretation or utilization of this data by a third party.

Reviewer's signature: _____ Date: 23-Dec-22

James B. Baldwin
DATAVAL, Inc.

QUALIFIED DATA
CHEMUNG COUNTY LANDFILL
SAMPLED MAY 2022

	SPIKE TOC	SPIKE SULFIDE	CALIBRATE CAL1*	SPECTRA ID BENZENE	BLANK DI-N-BUTPHTH	BLANK DIETHPHTH	SPECTRA ID DI-N-BUTAMINE	BLANKS ALDEHYDE
L-1	58.9J	REJECT	ALL UJ	4.0U	13U	0.37J	10U	
TRIP BLANK			ALL UJ					

CAL1* = acrolein, vinyl acetate, methyl methacrylate, trans-1,4-dichloro-2-butene, isobutanol

	SPIKE DINOSEB
L-1	0.49UJ

APPENDIX F – CHAINS-OF-CUSTODY

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler:	Lab PM: VanDette, Ryan T	Carrier Tracking No(s):	COC No: 480-173652-2691.1
Client Contact: Linda McAndrew	Phone:	E-Mail: Ryan.VanDette@et.eurofinsus.com	State of Origin:	Page: Page 1 of 2
Company: Cattaraugus County	PWSID:	Analysis Requested		Job #:
Address: 8810 Route 242	Due Date Requested:			Preservation Codes: A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
City: Little Valley	TAT Requested (days):			
State, Zip: NY, 14755	Compliance Project: Δ Yes Δ No			
Phone:	PO #: Purchase Order not requir			Other:
Email: lbmcandrew@cattco.org	WO #:			
Project Name: Cattaraugus County/ Event Desc: FARWELL GW BASELINE Vo	Project #: 48003171			
Site: New York	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	FieldSampling - (MOD) PA Field Parameters	8260B - (MOD) TCL list OLM04.2	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A	A		
Trip Blank				Water						1 VOA + HCl
DUP Y	5/23/22	1235	G	Water			X	X		
MW- 14I		1330		Water			X	X		
MW- 14S		1345		Water			X	X		
MW-15I		1315		Water			X	X		
MW-15S		1300		Water			X	X		
MW-16I		1245		Water			X	X		
MW-16S		1235		Water			X	X		
MW-17I		1225		Water			X	X		
MW-17S		1215		Water			X	X		
MW-21		1405		Water			X	X		

480-198235 Chain of Custody

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify)	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:
Relinquished by:	Date/Time: 5/23/22	Company: ETEX	Received by:	Date/Time: 5/23/22 1700	Company: TA
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.: 1970999	Cooler Temperature(s) °C and Other Remarks: 5.1 #1 ICE

Ver: 06/08/2021

6/10/2022

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: Surma	Lab PM: VanDette, Ryan T	Carrier Tracking No(s):	COC No: 480-173652-2691.2
Client Contact: Linda McAndrew	Phone:	E-Mail: Ryan.VanDette@et.eurofinsus.com	State of Origin:	Page: Page 2 of 2
Company: Cattaraugus County	PWSID:	Analysis Requested		Job #:
Address: 8810 Route 242	Due Date Requested:			Preservation Codes:
City: Little Valley	TAT Requested (days):			A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
State, Zip: NY, 14755	Compliance Project: Δ Yes Δ No			
Phone:	PO #: Purchase Order not requir			Other:
Email: lbmcandrew@cattco.org	WO #:			
Project Name: Cattaraugus County/ Event Desc: FARWELL GW BASELINE Vo	Project #: 48003171			
Site: New York	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	FieldSampling - (MOD) PA Field Parameters	8260B - (MOD) TCL list OLM04.2	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A	A		
MW-22	5/23/22	1415	G	Water			X	X		Ice & HCl
MW-23	↓	1200	↓	Water			X	X		↓
15i MS		1315		Water			X	X		
15i MSD		1315		Water			X	X		

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
CW Surma	5/23/22	ETEX	PGL		
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.: 1970999	Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

6/10/2022

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: Sharma	Lab PM: VanDette, Ryan T	Carrier Tracking No(s):	COC No: 480-173653-37500.1
Client Contact: Austin Kimes	Phone:	E-Mail: Ryan.VanDette@et.eurofinsus.com	State of Origin:	Page: Page 1 of 2
Company: Cattaraugus County	PWSID:			Job #:

Address: 8810 Route 242	Due Date Requested:	
City: Little Valley	TAT Requested (days):	
State, Zip: NY, 14755	Compliance Project: Δ Yes Δ No	
Phone:	PO #: Purchase Order not required	
Email: amkimes@cattco.org	WO #:	
Project Name: Cattaraugus County/ Event Desc: Farwell Leachate Expanded M	Project #: 48003171	
Site: New York	SSOW#:	

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8082A - (MOD) PCBs	8081B - (MOD) Pesticides	8270D - (MOD) NY Part 360 Expanded Semivolatiles	300.0_28D - Br/Cl/SO4	350.1; 351.2; 410.4	6010C, 6020A, 7470A, SM2340B	420.4_NP - Total Recoverable Phenolics	8260C - (MOD) Volatiles	9060A - Total Organic Carbon	8151A - NY Part 360 Expanded Herbicides	5210B - Biochemical Oxygen Demand	2540C_Calcd - Filterable Residue (180 C)	SM4500_S2_F - Sulfide	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N	N	N	S	D	S	A	A	N	N	N	CB		
L-1	5/23/22	1430	G	Water			X	X	X	X	X	X	X	X	X	X	X	XX			Hcl + Pro
TRIP BLANK				Water																	

480-198237 Chain of Custody

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological	☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify)	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:
Relinquished by:	Date/Time: 5/23/22	Company: ETEC	Received by:	Date/Time: 5/23/22 1700	Company: TA
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:
Custody Seals Intact: Δ Yes Δ No	Custody Seal No: 1970978		Cooler Temperature(s) °C and Other Remarks: Site # 1 ICE		

Ver: 06/08/2021

6/10/2022

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: Summa	Lab PM: VanDette, Ryan T	Carrier Tracking No(s):	COC No: 480-173653-37500.2
Client Contact: Austin Kimes	Phone:	E-Mail: Ryan.VanDette@et.eurofinsus.com	State of Origin:	Page: Page 2 of 2
Company: Cattaraugus County	PWSID:			Job #:

Address: 8810 Route 242	Due Date Requested:	
City: Little Valley	TAT Requested (days):	
State, Zip: NY, 14755	Compliance Project: Δ Yes Δ No	
Phone:	PO #: Purchase Order not required	
Email: amkimes@cattco.org	WO #:	
Project Name: Cattaraugus County/ Event Desc: Farwell Leachate Expanded M	Project #: 48003171	
Site: New York	SSOW#:	

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	FieldSampling - (MOD) Local Method	9012B - Cyanide, Total	2120B, 353.2, 353.2_Nitrite, Nitrate_Calc	7196A - Chromium, hexavalent	310.2 - Alkalinity, Total	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	B	N	N	N		
L-1	5/23/22	1430	G	Water			X	X	X	X	X		Leak
TRIP BLANK				Water									

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

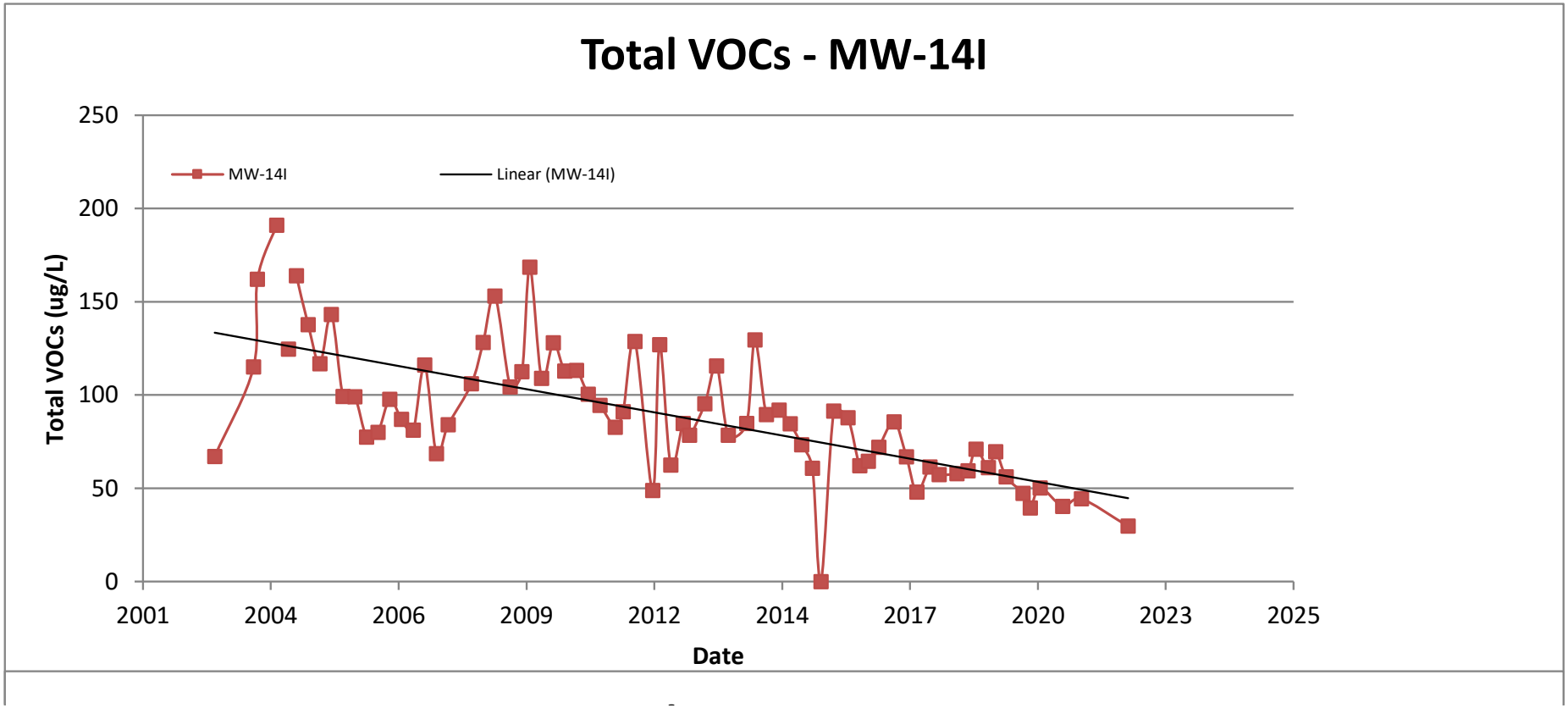
Empty Kit Relinquished by:		Date:	Time:	Method of Shipment:	
Relinquished by:	Date/Time: 5/23/22	Company: ETEX	Received by: PGL	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

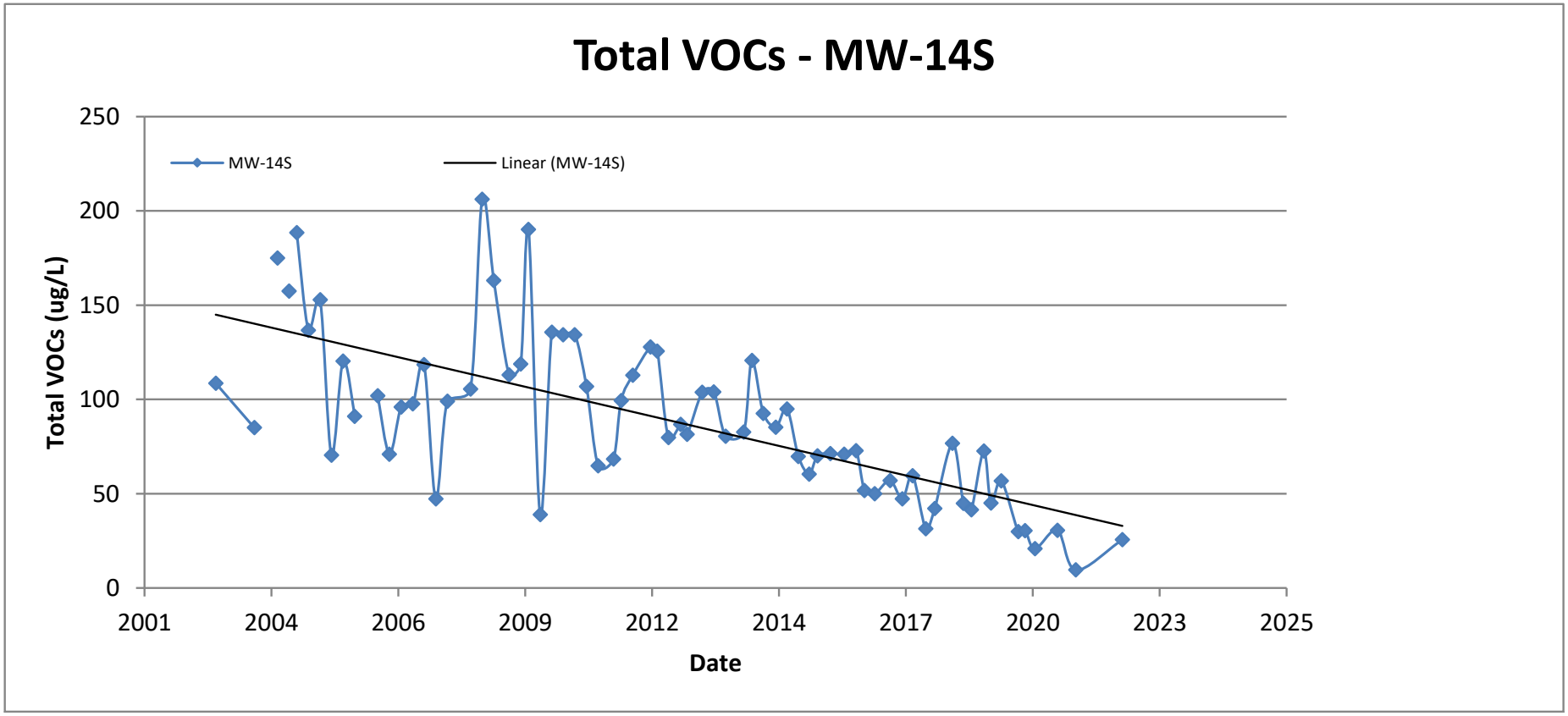
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.: 1970978	Cooler Temperature(s) °C and Other Remarks:

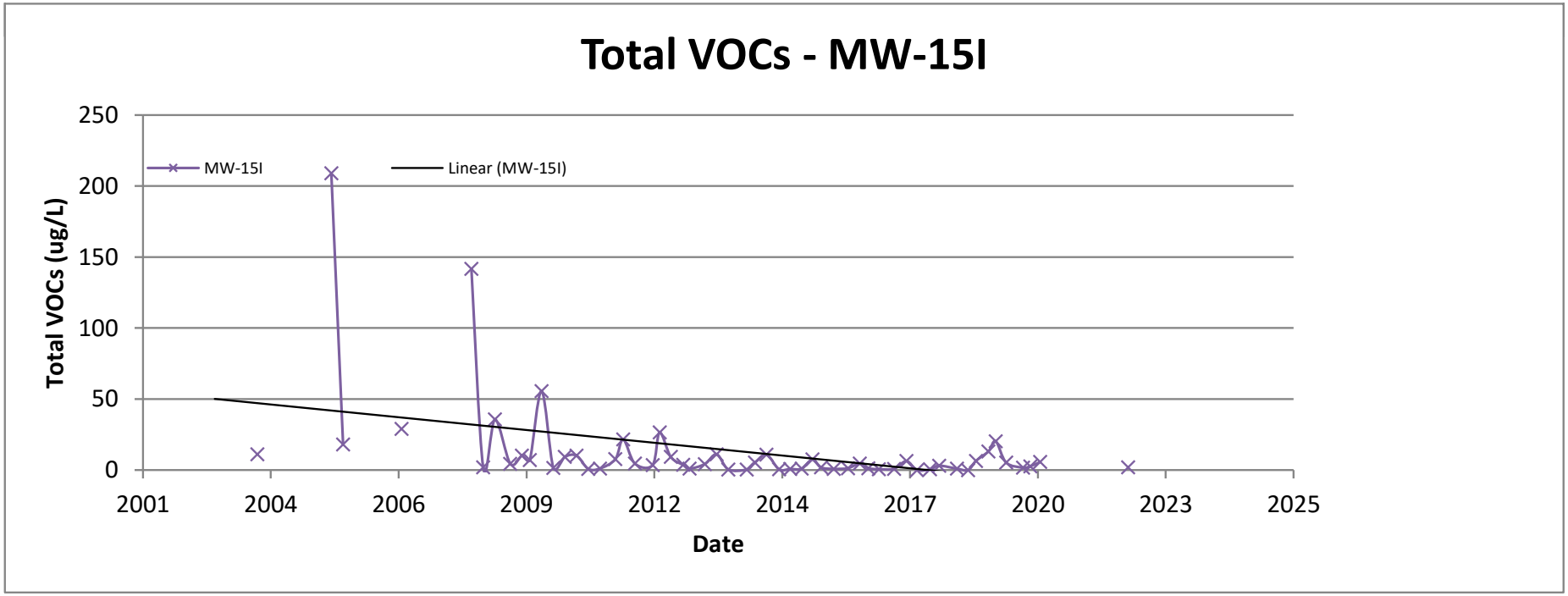
Ver: 06/08/2021

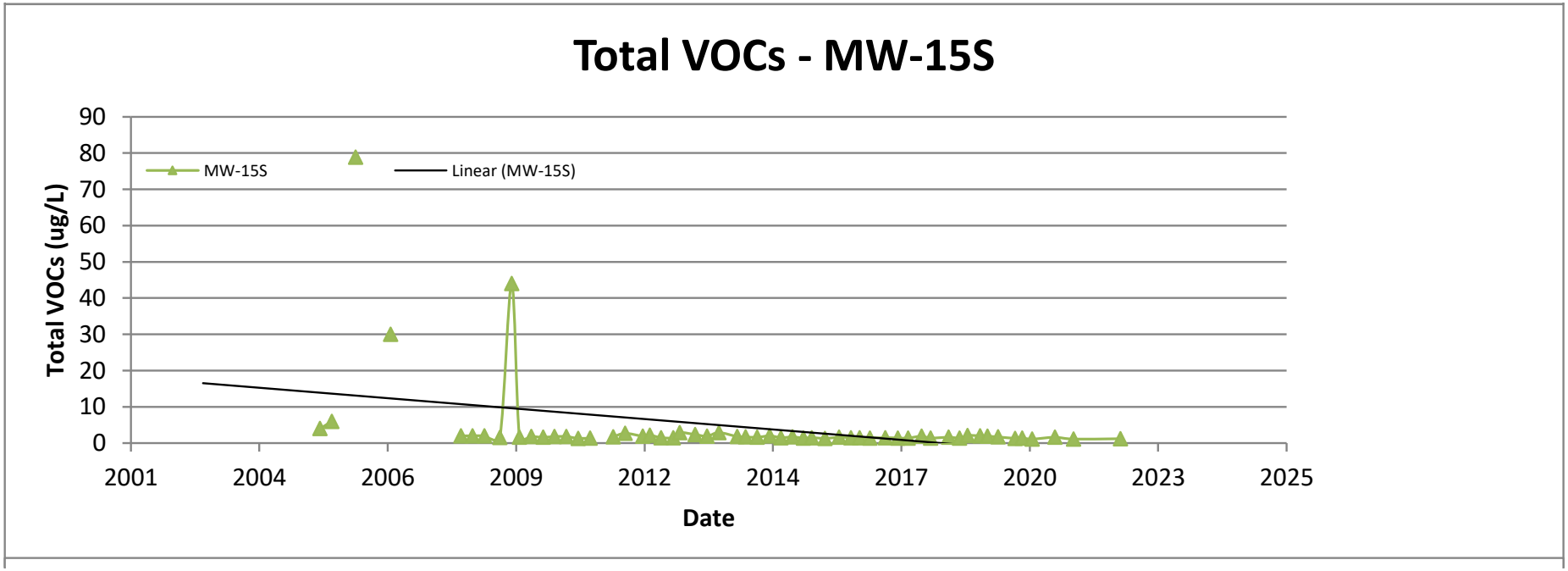
6/10/2022

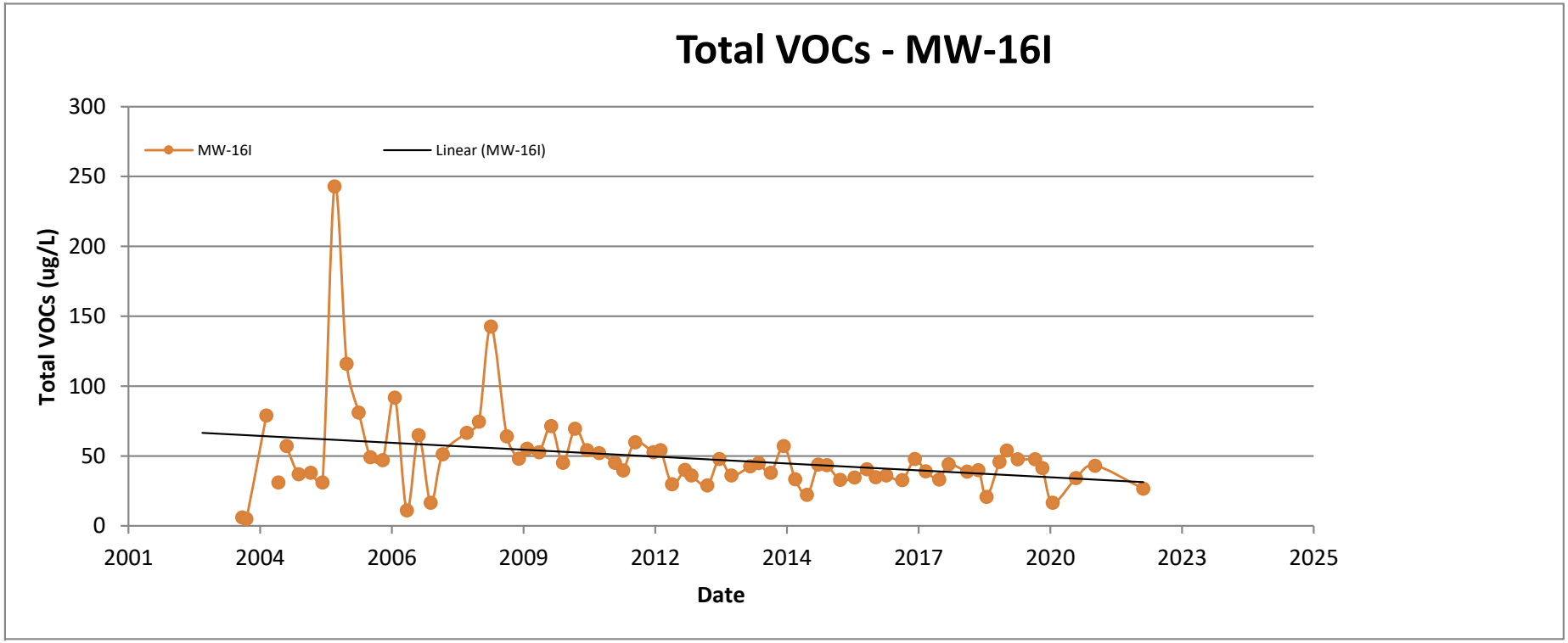
APPENDIX G – TOTAL VOC GRAPHS

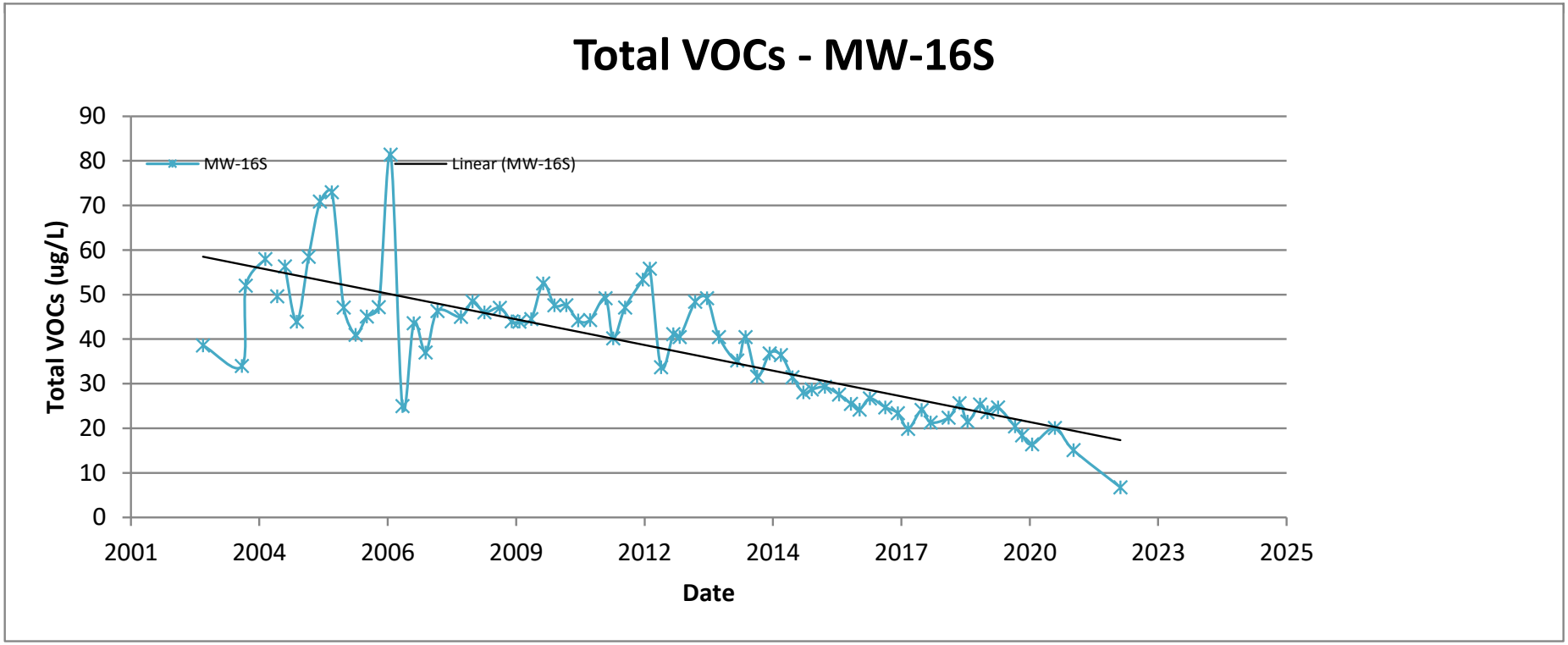

Total VOCs - MW-14I
MW-14I
Linear (MW-14I)
Total VOCs (ug/L)
250
200
150
100
50
0
2001
2004
2006
2009
2012
2014
2017
2020
2023
2025
Date

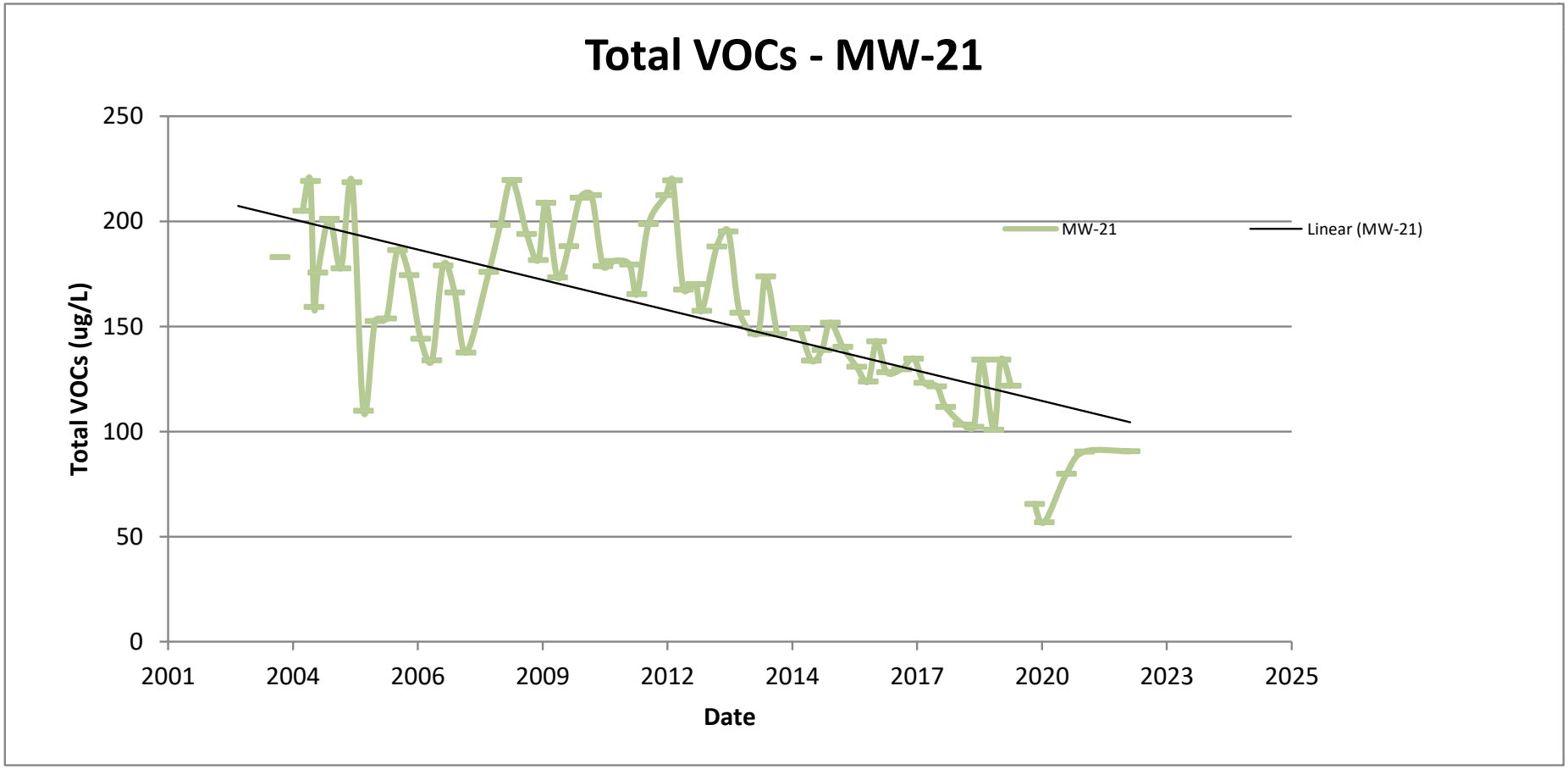

Total VOCs - MW-14S
MW-14S
Linear (MW-14S)
Total VOCs (ug/L)
250
200
150
100
50
0
2001
2004
2006
2009
2012
2014
2017
2020
2023
2025
Date

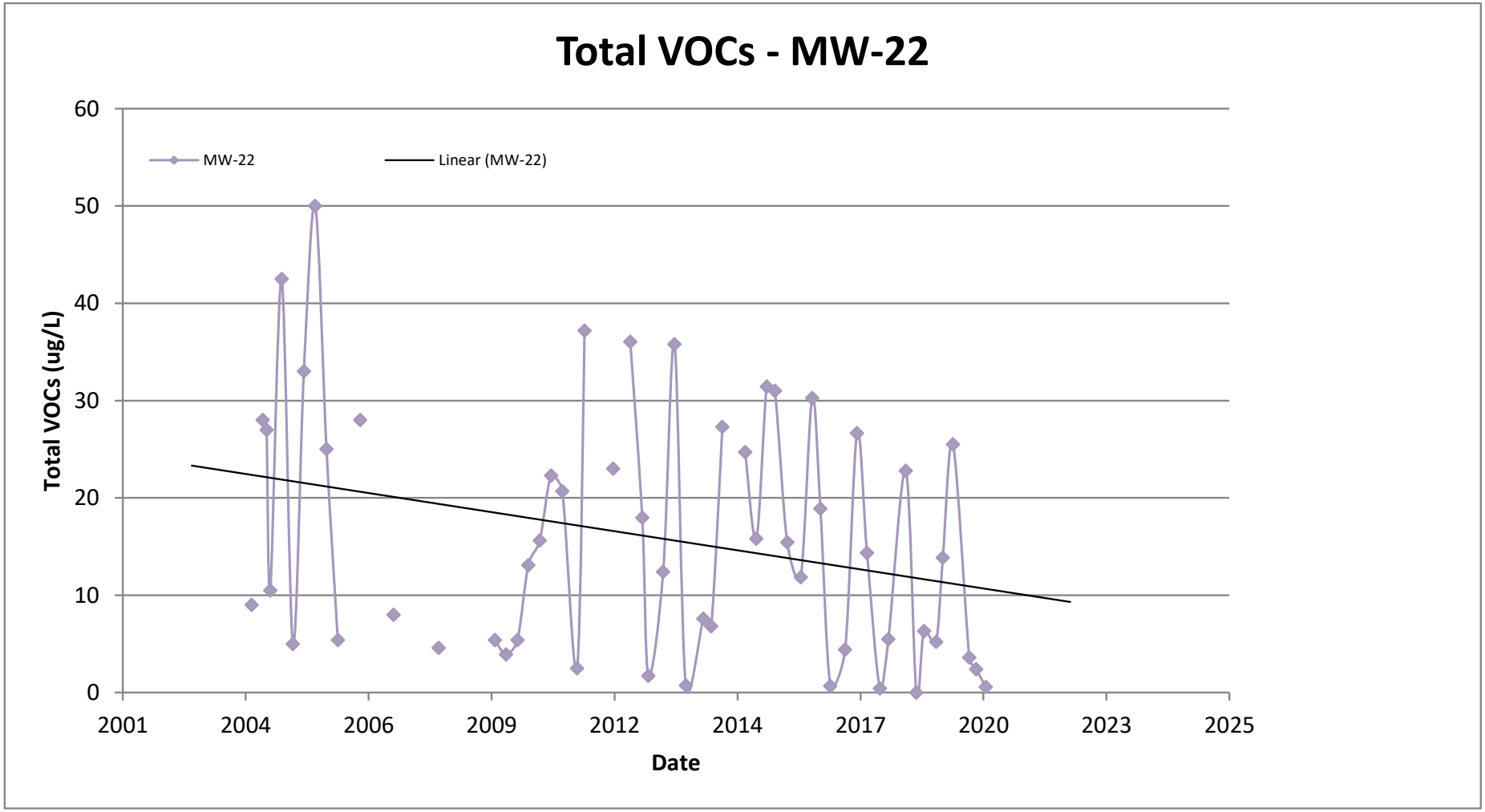

Total VOCs - MW-15I
250
200
150
100
50
0
Total VOCs (ug/L)
MW-15I
Linear (MW-15I)
2001
2004
2006
2009
2012
2014
2017
2020
2023
2025
Date


Total VOCs - MW-15S
Total VOCs (ug/L)
90
80
70
60
50
40
30
20
10
0
MW-15S
Linear (MW-15S)
2001
2004
2006
2009
2012
2014
2017
2020
2023
2025
Date


Total VOCs - MW-16I
MW-16I
Linear (MW-16I)
Total VOCs (ug/L)
300
250
200
150
100
50
0
2001
2004
2006
2009
2012
2014
2017
2020
2023
2025
Date

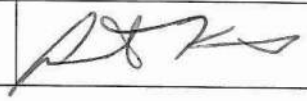

Total VOCs - MW-16S
MW-16S
Linear (MW-16S)
Total VOCs (ug/L)
90
80
70
60
50
40
30
20
10
0
2001
2004
2006
2009
2012
2014
2017
2020
2023
2025
Date


Total VOCs - MW-21
250
200
150
100
50
0
Total VOCs (ug/L)
2001
2004
2006
2009
2012
2014
2017
2020
2023
2025
Date
MW-21
Linear (MW-21)


Total VOCs - MW-22
MW-22
Linear (MW-22)
Total VOCs (ug/L)
60
50
40
30
20
10
0
2001
2004
2006
2009
2012
2014
2017
2020
2023
2025
Date

APPENDIX H - POST CLOSURE MONTHLY INSPECTION FORMS

Cattaraugus County Department of Public Works
Farwell Landfill
Post Closure Inspection Form

DATE OF INSPECTION	4/28/22
INSPECTOR (PRINT)	Austin Kimes
INSPECTOR (SIGNATURE)	

A. Landfill Cover	
Visible Refuse	None
Signs of vector activity	Deer, Groundhogs
Signs of erosion	None
Signs of stressed vegetation	None
Leachate seeps	Moderate at south end
Detectable odor	Slight odor around vents
Areas of settling	None

B. Waterways and Ditches	
Signs of erosion	None
Blockage of drainage pathway	None
Culverts clear of obstructions	Yes
Ponded water areas	None

C. Monitoring Wells (well casing, cap, and locks in place and in good condition)	
All wells	Good Condition

D. Gas Venting System (vent screens in place, no damage to vent risers and return bends)	
#10 vent	Needs repaired (cracked elbow)

E. Access Control	
Gates and locks operable	Yes
Access road condition	Good
Access is restricted	Yes

Action Required:

_____repair vent #10_____

Follow Up--Corrective Action Taken:

_____Vent parts on hand_____

Cattaraugus County Department of Public Works
Farwell Landfill
Post Closure Inspection Form

DATE OF INSPECTION	5/24/22
INSPECTOR (PRINT)	Austin Kimes
INSPECTOR (SIGNATURE)	

A. Landfill Cover	
Visible Refuse	None
Signs of vector activity	Deer, Groundhogs
Signs of erosion	None
Signs of stressed vegetation	None
Leachate seeps	Moderate at south end
Detectable odor	Slight odor around vents
Areas of settling	None

B. Waterways and Ditches	
Signs of erosion	None
Blockage of drainage pathway	None
Culverts clear of obstructions	Yes
Ponded water areas	None

C. Monitoring Wells (well casing, cap, and locks in place and in good condition)	
All wells	Good Condition

D. Gas Venting System (vent screens in place, no damage to vent risers and return bends)	
#10 vent	Needs repaired (cracked elbow)

E. Access Control	
Gates and locks operable	Yes
Access road condition	Good
Access is restricted	Yes

Action Required:

_____repair vent #10_____

Follow Up--Corrective Action Taken:

_____Vent parts on hand_____

Cattaraugus County Department of Public Works
Farwell Landfill
Post Closure Inspection Form

DATE OF INSPECTION	6/10/22
INSPECTOR (PRINT)	Austin Kimes
INSPECTOR (SIGNATURE)	

A. Landfill Cover	
Visible Refuse	None
Signs of vector activity	Deer, Groundhogs
Signs of erosion	None
Signs of stressed vegetation	None
Leachate seeps	Moderate at south end
Detectable odor	Slight odor around vents
Areas of settling	None

B. Waterways and Ditches	
Signs of erosion	None
Blockage of drainage pathway	None
Culverts clear of obstructions	Yes
Ponded water areas	None

C. Monitoring Wells (well casing, cap, and locks in place and in good condition)	
All wells	Good Condition

D. Gas Venting System (vent screens in place, no damage to vent risers and return bends)	
#10 vent	Needs repaired (cracked elbow)

E. Access Control	
Gates and locks operable	Yes
Access road condition	Good
Access is restricted	Yes

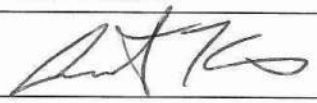
Action Required:

_____repair vent #10_____

Follow Up--Corrective Action Taken:

_____Vent parts on hand_____

Cattaraugus County Department of Public Works
Farwell Landfill
Post Closure Inspection Form

DATE OF INSPECTION	7/15/22
INSPECTOR (PRINT)	Austin Kimes
INSPECTOR (SIGNATURE)	

A. Landfill Cover	
Visible Refuse	None
Signs of vector activity	Deer, Groundhogs
Signs of erosion	None
Signs of stressed vegetation	None
Leachate seeps	Moderate at south end
Detectable odor	Slight odor around vents
Areas of settling	None

B. Waterways and Ditches	
Signs of erosion	None
Blockage of drainage pathway	None
Culverts clear of obstructions	Yes
Ponded water areas	None

C. Monitoring Wells (well casing, cap, and locks in place and in good condition)	
All wells	Good Condition

D. Gas Venting System (vent screens in place, no damage to vent risers and return bends)	
#10 vent	Needs repaired (cracked elbow)

E. Access Control	
Gates and locks operable	Yes
Access road condition	Good
Access is restricted	Yes

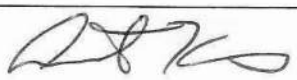
Action Required:

_____repair vent #10_____

Follow Up--Corrective Action Taken:

_____Vent parts on hand_____

Cattaraugus County Department of Public Works
Farwell Landfill
Post Closure Inspection Form

DATE OF INSPECTION	8/29/22
INSPECTOR (PRINT)	Austin Kimes
INSPECTOR (SIGNATURE)	

A. Landfill Cover	
Visible Refuse	None
Signs of vector activity	Deer, Groundhogs
Signs of erosion	None
Signs of stressed vegetation	None
Leachate seeps	Moderate at south end
Detectable odor	Slight odor around vents
Areas of settling	None

B. Waterways and Ditches	
Signs of erosion	None
Blockage of drainage pathway	None
Culverts clear of obstructions	Yes
Ponded water areas	None

C. Monitoring Wells (well casing, cap, and locks in place and in good condition)	
All wells	Good Condition

D. Gas Venting System (vent screens in place, no damage to vent risers and return bends)	
#10 vent	Needs repaired (cracked elbow)

E. Access Control	
Gates and locks operable	Yes
Access road condition	Good
Access is restricted	Yes

Action Required:

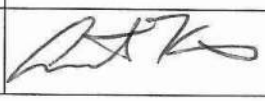
_____repair vent #10_____

_____seep remediation_____

Follow Up--Corrective Action Taken:

_____Vent parts on hand_____

Cattaraugus County Department of Public Works
Farwell Landfill
Post Closure Inspection Form

DATE OF INSPECTION	9/14/22
INSPECTOR (PRINT)	Austin Kimes
INSPECTOR (SIGNATURE)	

A. Landfill Cover	
Visible Refuse	None
Signs of vector activity	Deer, Groundhogs, flies
Signs of erosion	None
Signs of stressed vegetation	None
Leachate seeps	Moderate at south end
Detectable odor	Slight odor around vents
Areas of settling	None

B. Waterways and Ditches	
Signs of erosion	None
Blockage of drainage pathway	None
Culverts clear of obstructions	Yes
Ponded water areas	None

C. Monitoring Wells (well casing, cap, and locks in place and in good condition)	
All wells	Good Condition

D. Gas Venting System (vent screens in place, no damage to vent risers and return bends)	
#10 vent	Needs repaired (cracked elbow)

E. Access Control	
Gates and locks operable	Yes
Access road condition	Good
Access is restricted	Yes

Action Required:

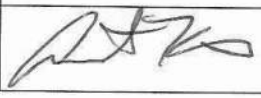
_____repair vent #10_____

_____seep remediation_____

Follow Up--Corrective Action Taken:

_____Vent parts on hand_____

Cattaraugus County Department of Public Works
Farwell Landfill
Post Closure Inspection Form

DATE OF INSPECTION	10/19/22
INSPECTOR (PRINT)	Austin Kimes
INSPECTOR (SIGNATURE)	

A. Landfill Cover	
Visible Refuse	None
Signs of vector activity	Deer, Groundhogs, flies
Signs of erosion	None
Signs of stressed vegetation	None
Leachate seeps	Moderate at south end
Detectable odor	Slight odor around vents
Areas of settling	None

B. Waterways and Ditches	
Signs of erosion	None
Blockage of drainage pathway	None
Culverts clear of obstructions	Yes
Ponded water areas	None

C. Monitoring Wells (well casing, cap, and locks in place and in good condition)	
All wells	Good Condition

D. Gas Venting System (vent screens in place, no damage to vent risers and return bends)	
#10 vent	Repaired

E. Access Control	
Gates and locks operable	Yes
Access road condition	Good
Access is restricted	Yes

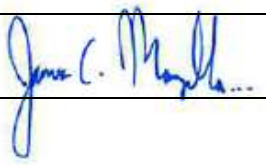
Action Required:

seep remediation

Follow Up--Corrective Action Taken:

#10 Vent fixed 10/12/22

Cattaraugus County Department of Public Works
Farwell Landfill
Site Wide Inspection Form

DATE OF INSPECTION	11-10-22
INSPECTOR (PRINT)	James C. Manzella
INSPECTOR (SIGNATURE)	

A. Landfill Cover	
Visible Refuse	None
Signs of vector activity	None
Signs of erosion	None
Signs of stressed vegetation	Only around the seep discussed below
Leachate seeps	An approximately 4-ft x 10-ft area of stressed vegetation/leachate seep was identified at the toe of slope in the southwest corner of Phase II portions of the landfill or approximately 300-ft north of the northwest corner of the parking lot
Detectable odor	None
Areas of settling	None

B. Waterways and Ditches	
Signs of erosion	None
Blockage of drainage pathway	None
Culverts clear of obstructions	Yes
Ponded water areas	None

C. Monitoring Wells (well casing, cap, and locks in place and in good condition)	
All wells	All locks, casings, and caps are in place and in good condition.

D. Gas Venting System (vent screens in place, no damage to vent risers and return bends)	
All vents	Vent screens are in place, no damage to vent risers and/or return bends

E. Access Control	
Gates and locks operable	Yes
Access road condition	Good
Access is restricted	Yes, through thorny dense shrubs and gates and buildings are locked

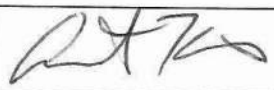
Action Required:

- Address leachate seep in southwest corner of Phase II

Follow Up--Corrective Action Taken:

- The County is currently working with a consultant who is evaluating enhancements to the existing cap to reduce leachate generation on-site. The seep will be addressed in conjunction with any cap enhancements.

Cattaraugus County Department of Public Works
Farwell Landfill
Post Closure Inspection Form

DATE OF INSPECTION	12/28/22
INSPECTOR (PRINT)	Austin Kimes
INSPECTOR (SIGNATURE)	

A. Landfill Cover	
Visible Refuse	None
Signs of vector activity	Deer
Signs of erosion	None
Signs of stressed vegetation	None
Leachate seeps	Moderate at south end
Detectable odor	None
Areas of settling	None

B. Waterways and Ditches	
Signs of erosion	None
Blockage of drainage pathway	None
Culverts clear of obstructions	Yes
Ponded water areas	None

C. Monitoring Wells (well casing, cap, and locks in place and in good condition)	
All wells	Good Condition

D. Gas Venting System (vent screens in place, no damage to vent risers and return bends)	
All vents	Good Condition

E. Access Control	
Gates and locks operable	Yes
Access road condition	Good
Access is restricted	Yes

Action Required:

_____trim around vents_____

_____seep remediation_____

Follow Up--Corrective Action Taken:

APPENDIX I - MONTHLY LEACHATE HAULING LOGS

Farwell Leachate
Monthly Hauling Report

Month of JAN 2022

	Olean WWTP		Salamanca WWTP		Jamestown WWTP		
Day	**# of Loads**	**Gallons**	**# of Loads**	**Gallons**	**# of Loads**	**Gallons**	**Comments**
1	2	15,000					FARWELL → OLN
2							
3	1	7500					FARWELL → OLN
4							
5	2	15,000					FARWELL → OLN
6							
7	1	7500					FARWELL → OLN
8							
9							
10	2	15000					FARWELL → OLN
11							
12							
13	1	7500					FARWELL → OLN
14	1	7500					FARWELL → OLN
15							
16							
17	1	7500					FARWELL → OLN
18							
19							
20							
21							
22	2	7500					FARWELL → OLN
23							
24							
25	1	7500					FARWELL → OLN
26							
27							
28							
29	1	7500					FARWELL → OLN
30							
31	1	7500					FARWELL → OLN
Totals	16	120,000					FARWELL → OLN

Farwell Leachate
Monthly Hauling Report

Month of Feb 2022

	Olean WWTP		Salamanca WWTP		Jamestown WWTP		
Day	**# of Loads**	**Gallons**	**# of Loads**	**Gallons**	**# of Loads**	**Gallons**	**Comments**
1							
2							
3	1	7500					FARWELL → OLN
4							
5							
6							
7	1	7500					FARWELL → OLN
8							
9	1	7500					FARWELL → OLN
10							
11	1	7500					FARWELL → OLN
12							
13							
14	1	7500					FARWELL → OLN
15	1	7500					FARWELL → OLN
16							
17							
18					2	15000	FARWELL → JAMES
19							
20							
21	2	15000					FARWELL → OLN
22							
23	3	22,500					FARWELL → OLN
24							
25	1	7500					FARWELL → OLN
26							
27	1	7500					FARWELL → OLN
28	1	7500					FARWELL → OLN
29							
30							
31							
Totals	14	105,000			2	15000	

Farwell Leachate
Monthly Hauling Report

Month of March 2022

	Olean WWTP		Salamanca WWTP		Jamestown WWTP		
Day	**# of Loads**	**Gallons**	**# of Loads**	**Gallons**	**# of Loads**	**Gallons**	**Comments**
1							
2	2	15000					FAR → OLN
3							
4			2	15000			
5							
6	2	15000					
7							
8	2	15000					FAR → OLN
9							
10							
11	2	15000					Far → OLN
12							
13	1	7500					Far → OLN
14	1	7500					Far → OLN
15							
16	2	15,000					Far → OLN
17							
18	1	7500					Far → OLN
19	1	7,500					Far → OLN
20	2	15,000					Far → OLN
21	1	7,500					Far → OLN
22							
23							
24	1	7500					Far → OLN
25							
26							
27			1	7,500			Far → Sal
28							
29	1	7500					Far → OLN
30							
31	2	15,000					Far → OLN
Totals	21	157,500	3	22,500			

Farwell Leachate
Monthly Hauling Report

Month of APRIL 2022

	Olean WWTP		Salamanca WWTP		Jamestown WWTP		
Day	**# of Loads**	**Gallons**	**# of Loads**	**Gallons**	**# of Loads**	**Gallons**	**Comments**
1	1	7,500					Far → OLN
2							
3							
4	2	15,000					Far → OLN
5							
6							
7	2	15,000					Far → OLN
8	1	7,500					Far → OLN
9	[redacted]	[redacted]					[redacted]
10	[redacted]	[redacted] 7,500					Far → OLN
11							
12	2	15,000					Far → OLN
13							
14	1	7,500					Far → OLN
15	1	7,500					Far → OLN
16							
17							
18	2	15,000					Far → OLN
19							
20	1	7,500					Far → OLN
21							
22	2	15,000					Far → OLN
23							
24	1	7,500					Far → OLN
25							Far → OLN
26	1	7,500					
27	[redacted]						
28	1	7,500					Far → OLN
29	1	7,500					Far → OLN
30							
31							
Totals	20	150,000					

Farwell Leachate
Monthly Hauling Report

Month of May 2022

	Olean WWTP		Salamanca WWTP		Jamestown WWTP		
Day	**# of Loads**	**Gallons**	**# of Loads**	**Gallons**	**# of Loads**	**Gallons**	**Comments**
1							
2	1	7,500					Far → OLN
3	1	7,500					Far → OLN
4							
5							
6			1	7,500			Far → Sal
7							
8							
9	1	8,500					Far → OLN 8,500
10							
11							
12							
13	1	7500	1	7,500			Far → Sal
14							
15							
16	1	7,500					Far → OLN
17							
18							
19							
20	2	15,000					Far → OLN
21							
22							
23							
24							
25							
26	1	7,500	1	7,500			Far → OLN Far → Sal
27							
28							
29							
30							
31	1	7,500	1	7,500			
Totals	8	68,500	4	30,000	ø	ø	

Farwell Leachate
Monthly Hauling Report

Month of June 2022

	Olean WWTP		Salamanca WWTP		Jamestown WWTP		
Day	**# of Loads**	**Gallons**	**# of Loads**	**Gallons**	**# of Loads**	**Gallons**	**Comments**
1							
2							
3							
4							
5							
6							
7	2	15,000					Far → OLN
8							
9							
10							
11							
12							
13							
14	2	15,000					Far → OLN
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28	2	15,000					Far → OLN
29							
30							
31							
Totals	6	45,000					

Farwell Leachate
Monthly Hauling Report

Month of July 2022

	Olean WWTP		Salamanca WWTP		Jamestown WWTP		
Day	**# of Loads**	**Gallons**	**# of Loads**	**Gallons**	**# of Loads**	**Gallons**	**Comments**
1							
2							
3							
4							
5							
6							
7	1	7,500					Far → OLN
8							
9							
10							
11							
12							
13							
14							
15	2	15,000					Far → OLN
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26	1	7,500					Far → OLN
27							
28							
29							
30							
31							
Totals	4	30,000					

Farwell Leachate
Monthly Hauling Report

Month of August 2022

	Olean WWTP		Salamanca WWTP		Jamestown WWTP		
Day	# of Loads	Gallons	# of Loads	Gallons	# of Loads	Gallons	Comments
1							
2							
3							
4							
5							
6							
7							
8							
9	2	15,000					Far → OLN
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23	1	7,500					Far → OLN
24							
25							
26							
27							
28							
29							
30							
31							
Totals	3	22,500					

Farwell Leachate
Monthly Hauling Report

Month of September 2022

	Olean WWTP		Salamanca WWTP		Jamestown WWTP		
Day	**# of Loads**	**Gallons**	**# of Loads**	**Gallons**	**# of Loads**	**Gallons**	**Comments**
1							
2							
3							
4							
5							
6	3	22,500					FAR → OLN
7							
8							
9							
10							
11							
12							
13	2	15,000					Far → OLN
14	1	7,500					Far → OLN
15							
16	2	15,000					Far → OLN
17							
18							
19							
20	1	7,500					Far → OLN
21							
22							
23							
24							
25	1	7,500					Far → OLN
26							
27	3	22,500					Far → OLN
28	2	15,000					Far → OLN
29	1	7,500					Far → OLN
30							
31							
Totals	16	120,000					

Farwell Leachate
Monthly Hauling Report

Month of October 2022

	Olean WWTP		Salamanca WWTP		Jamestown WWTP		
Day	**# of Loads**	**Gallons**	**# of Loads**	**Gallons**	**# of Loads**	**Gallons**	**Comments**
1							
2							
3	2	15,000					Far → OLN
4							
5							
6							
7	1	7,500					Far → OLN
8							
9							
10							
11							
12							
13	2	15,000					Far → OLN
14	1	7,500					Far → OLN
15							
16							
17	2	15,000					Far → OLN
18							
19							
20	1	7,500					Far → OLN
21							
22							
23							
24							
25							
26	2	15,000					Far → OLN
27							
28							
29							
30							
31							
Totals	11	82,500					

Farwell Leachate
Monthly Hauling Report

Month of November 2022

	Olean WWTP		Salamanca WWTP		Jamestown WWTP		
Day	**# of Loads**	**Gallons**	**# of Loads**	**Gallons**	**# of Loads**	**Gallons**	**Comments**
1							
2							
3							
4							
5							
6							
7							
8	2	15,000					Far → OLN
9							
10							
11							
12	2	15,000					Far → OLN
13	1	7,500					Far → OLN
14	2	15,000					Far → OLN
15							
16	2	15,000					Far → OLN
17							
18							
19	2	15,000					Far → OLN
20							
21							
22	2	15,000					Far → OLN
23							
24							
25	3	22,500					Far → OLN
26							
27	2	15,000					Far → OLN
28							
29	2	15,000					Far → OLN
30	2	15,000					Far → OLN
31							
Totals	22	165,000					

Farwell Leachate
Monthly Hauling Report

Month of December 2022

	Olean WWTP		Salamanca WWTP		Jamestown WWTP		
Day	**# of Loads**	**Gallons**	**# of Loads**	**Gallons**	**# of Loads**	**Gallons**	**Comments**
1							
2	2	15,000					Far → OLN
3	1	7,500					Far → OLN
4	2	15,000					Far → OLN
5	1	7,500					Far → OLN
6							
7	2	15,000					Far → OLN
8							
9							
10	2	15,000					Far → OLN
11							
12	2	15,000					Far → OLN
13							
14							
15	1	7,500					Far → OLN
16	1	7500					
17	1	7,500					Far → OLN
18							
19	2	15,000					Far → OLN
20							
21	1	7,500					Far → OLN
22							
23	2	15,000					
24							
25							
26	2	15,000					Far → OLN
27	1	7,500					Far → OLN
28							
29	1	7,500					Far → OLN
30							
31	2	15,000					Far → OLN
Totals	26	195,000					

APPENDIX J - CATTARAUGUS COUNTY UPDATED LEACHATE HAULING PROTOCOLS

CATTARAUGUS COUNTY

DEPARTMENT OF PUBLIC WORKS

Development – Progress – Workmanship

Kathleen M. Ellis, Commissioner
Michael J. Prinino, Deputy Commissioner
William Fox, PE, Director of Engineering

8810 Route 242, Jack Ellis Drive
Little Valley, New York 14755
Phone (716) 938 9121 | Fax (716) 938 2752

LEACHATE HAULING PROTOCOL FARWELL

Leachate Hauling Thresholds

1. High Alarm: 88 true inches / 15,138 gallons
2. High/High Alarm: 98 true inches / 16,938 gallons

Callout List

1. In House/In Title – Hauling Supervisor - *Salamanca*
2. In House/In Title – CDLA Hauler
    a. Mike Perrington – *Little Valley*
3. In House/In Title – CDL A Hauler
    a. Bob McKraken - *Salamanca*
    b. Eric Moshier - *Salamanca*
4. In House/Out of title – Refuse Maintenance Mechanic, SR TSO
    a. Joe Baker – Maint Mech – *Little Valley*
    b. Chad Brewer – SR TSO – *Salamanca*
    c. Ken Quinn – SR TSO – Portville
5. Volunteer Hauling List[1]
    a. Class A License Holder
    b. Tanker Endorsement
    c. Tanker Hauling Experience
    d. DPW Leachate Hauling Trained

WWTP Contact Information

Olean WWTP
716-376-5694
Contact: Jeremy Meerdink
Limit: 22,500 gallons/24hrs
Emergency Dispatch: 716-376-5677

Jamestown WWTP
716-450-2334
Contact: Keith Vanstrom
Limit: 30,000 gallons/24hrs

Salamanca WWTP
716-945-1691
Contact: Jeffrey Shurilla
Limit: 15,000 gallons/24hrs

Procedure – High Alarm

1. Upon receipt of a high alarm, the Hauling Supervisor will utilize the Callout List and assign leachate hauling duty to the appropriate driver. A sufficient amount of leachate must be removed as to clear the high alarm.
2. The assigned hauler will utilize the WWTP Listing to identify the appropriate facility for leachate disposal.

Procedure – High /High Alarm

1. High High Alarms are indicative of not removing leachate promptly after a high alarm and are to be avoided.
2. Upon receipt of a high/high alarm the Hauling Supervisor will utilize the Callout List and assign leachate hauling duty to the appropriate driver. The Hauling Supervisor shall activate the callout list and affect an immediate response to the pump station to load a tanker. Leachate volumes must decrease within 4 hours of receipt of a high/high alarms (leachate volume measured using the RAFA).[2]

Monitoring

The Hauling Supervisor will monitor leachate levels so that scheduling can be done for moderate tank levels. If afternoon tank levels suggest an alarm is inevitable, the Hauling Supervisor will force overtime to reduce tank levels to avoid an alarm.

Notification

The Waste Management Coordinator is to be notified of all call outs to Refuse personnel. Any callout to out of title personnel shall not cause a Transfer Station to be left uncovered or understaffed.

---

[1] See Attached listing

[2] Utilizing a 400 gallons / hour fill rate

CATTARAUGUS COUNTY

DEPARTMENT OF PUBLIC WORKS

Development – Progress – Workmanship

Kathleen M. Ellis, Commissioner
Michael J. Prinino, Deputy Commissioner
William Fox, PE, Director of Engineering

8810 Route 242, Jack Ellis Drive
Little Valley, New York 14755
Phone (716) 938 9121 | Fax (716) 938 2752

Leachate Hauling Drivers

Name	Position	Seniority Date	Primary Location	Phone Number
Crowley, Jeremy	Class A	11/19/2002	Allegany Hwy Barn	716-307-6629
Lyons, Brock	Class B	3/19/2012	Franklinville Hwy Barn	716-307-5102
Morales-Healy, Mykel	Class A	7/18/2016	Franklinville Hwy Barn	716-307-4020
Poitras, Timothy	Class A	5/27/2008	Highway Maintenance	716-499-8225
Shuster, Edward	Class A	1/20/2009	West Valley Hwy Barn	716-244-2367
Smith, Benjamin	Class B	12/27/2010	West Valley Hwy Barn	716-472-8267