Prepared for:

Village of Wellsville

Department of Public Works

200 Bolivar Road

Wellsville, NY 14895

PERIODIC REVIEW REPORT
February 15, 2019 to February 15, 2020

Wellsville/Andover Landfill Site
Site Number 9-02-004
Allegany County, New York

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March 2020

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1.0 OVERVIEW

1.1 Introduction

This report presents operations, maintenance and monitoring activities associated with the closed Wellsville/Andover Landfill (Site) for the period of February 15, 2019 to February 15, 2020 as part of the New York State Department of Environmental Conservation (NYSDEC) Periodic Review Report (PRR) process. The PRR certification is included as Appendix A of this report.

The Site is located on Snyder Hill Road (previously known as Gorman Road) in Wellsville and Andover townships, Allegany County, New York (Figure 1). Operation, maintenance and monitoring requirements for this Site are detailed in *Operation and Maintenance Manual for the Wellsville/Andover Landfill Site Number 9-02-004 Allegany County, New York,* dated November 1997 (O&M Plan), prepared by Ecology and Environment Engineering, P.C. (E&E) with subsequent revisions. Revisions to the O&M Plan have been approved by the NYSDEC and the current O&M requirements are summarized in Section 2 of this report (hereafter referred to as Approved O&M Plan) with details included in Appendix B.

1.2 Project Background

The Wellsville/Andover Landfill was operated by the Village of Wellsville from 1964 to 1983, accepting both municipal and industrial waste. NYSDEC added the Site to the New York State Superfund with the 1994 Record of Decision (ROD) requiring waste consolidation and capping as the remedial action. Remedial construction commenced in April 1996. Waste from the northwest and northeast fill areas was removed and consolidate on south/south-central fill area. Following consolidation, the fill was compacted and capped with a 19-acre cover system. The cover system incorporates a passive landfill gas (LFG) venting system, a leachate collection and storage system and groundwater cut-off trench on the north and east sides. Remedial construction was completed in September 1997.

The leachate collection system gravity drains to a Leachate Sump (LS-1), from which leachate is pumped into two 15,000-gal underground storage tanks. The Village of Wellsville transports water from the storage tanks to the Village of Wellsville Publicly Owned Treatment Works (POTW) for treatment.

The groundwater cutoff trench is intended to capture groundwater from the north and east landfill perimeters. The north side collection trench drains to Manhole 32 (MH-32) located at the northwest corner of the landfill, while the east side collection trench drains to Manhole 33 (MH-33) at the southeast corner of the landfill. Both MH-32 and MH-33 are piped to drain either to the leachate collection system or to the landfill perimeter surface water drainage channels. To date, water in MH-32 and MH-33 has been drained to the leachate collection system sump. The pipes from the manholes to the drainage channel are closed with removable plugs.

1.3 Summary of 2019 Monitoring, Inspection and Maintenance Activities

This section provides an overview of the monitoring, inspection and maintenance activities completed in 2019.

The required 2019 monitoring events were completed by On-Site Geological Services, D.P.C. (On-Site) in accordance with procedures set forth in the Approved O&M Plan (Appendix B). Semi-annual groundwater and residential water supply monitoring events were conducted in April and October/November 2019. Laboratory analysis was conducted by ALS Environmental (ALS), located in Rochester, New York. The 2019 monitoring events show consistent results as compared to historic monitoring indicating the site remedy is operating as designed. Details of these monitoring activities are provided in Section 3 through 7 and the 2019 laboratory analytical reports are included in Appendix E.

Quarterly inspections are conducted and documented on Inspection and Maintenance Checklist by Village of Wellsville personnel (Appendix C). 2019 Quarterly inspections resulted with no unresolved problems. 2019 maintenance activities included the following:

- annual mowing of landfill cap vegetation;
- leachate management and disposal;
- leachate collection system cleaning;
- WAL-19 residential water treatment unit maintenance; and
- Monitoring well MW-5D repair.

Details of the maintenance activities are provided in Section 8.

2.0 MONITORING, INSPECTION AND MAINTENANCE REQUIREMENTS

This section outlines monitoring, inspection and maintenance requirements specified by the Approved O&M Plan.

2.1 Monitoring Requirements

The analytical program for the site is based on the requirements of Title 6 NYCRR Subdivision 360-2.11(c) and 360-2.17(f). The most recent revisions to the analytical program were approved in May 2009 and have been implemented starting with the fall 2009 monitoring event.

Table 2-1 presents the revised monitoring program, with the current analyte list presented as Table 2-2. Sampling locations are presented in Figure 2. Details of the approved monitoring requirements are provided below.

- Monitoring is conducted semi-annually with one event conducted in the spring and one event completed in the fall.
- Five monitoring wells and one residential water supply are sampled for Volatile Organic Compounds (VOCs) during each spring sampling event. During each fall sampling event 16 monitoring wells are sampled for field parameters, VOCs and metals. Surface water location SWS-1, Groundwater cut-off system locations MH-32 and MW-33, and LS-1 are sampled annually for the parameters listed on Table 2-2. Due to dry conditions often preventing surface water sampling in the fall, starting in 2016, surface water and sediment sampling is conducted as part of the spring monitoring event.
- The Village of Wellsville continues to contract maintenance of a water filtration system at residential location WAL-19. The filter system includes a particulate filter and two granulated activated carbon (GAC) filters plumbed in series. This residence will continue to be sampled semi-annually for VOCs before the first GAC filter (sample location: WAL-19 Pre), between the GAC filters (WAL-19 Inter) and after the second GAC filter (WAL-19 Post). Residential water supply locations WAL-2 and WAL-5 are sampled on an annual basis during the fall event. WAL-5 has been unoccupied for several years and therefore is currently not sampled. Starting in 2016, vacant residential location WAL-1 became occupied and was added back into the monitoring program. WAL-1 is sampled annually during the fall monitoring event.
- Static water level elevations are required to be measured in the monitoring wells and piezometers located on and around the landfill cap as part of sampling events. Water elevations are used to construct potentiometric maps. Table 2-3 provides a tabular listing of the 2019 static water elevations along with well construction information.
- Landfill gas monitoring and perimeter air monitoring are completed during the fall monitoring event for VOCs, Lower Explosive Level (LEL) and Oxygen (O_2). The 2019 air monitoring results are presented in Table 6-1.

2.2 Inspection and Maintenance Requirements

The inspection and maintenance requirements for the site are specified in the O&M Plan and include the following.

- Conduct quarterly inspections and maintenance (if required) of cover system, leachate collection and storage system, gas venting system, storm water system, groundwater monitoring system, and facility access system (i.e. access roads and gates). Quarterly Inspection and Maintenance Checklists are provided within the O&M Plan and are completed by Village of Wellsville Department of Public Works personnel.
- Annual mowing of the vegetative cover is performed by Village of Wellsville personnel.
- The Village of Wellsville is responsible for maintenance of a residential water treatment unit at residence WAL-19, located at 3914 Synder Hill Road.

3.0 GROUNDWATER MONITORING RESULTS

Two groundwater monitoring events were completed during 2019. The spring event includes five monitoring wells for VOC analysis, while the fall event is a Site wide monitoring event.

3.1 Spring Monitoring Event Summary

Spring 2019 groundwater sampling was conducted between April 9 and 10, 2019. Monitoring wells MW-4D, MW-5D, MW-5S, MW-11S and MW-16S were sampled and analyzed for metals and VOCs. Metals were not required, but were tested inadvertently. Additionally surface water location SWS-1 and residential water supply WAL-19 were sampled.

April 2019 groundwater results are typical of historical data with several monitoring wells exceeding Class GA Standards for cis-1,2-Dichloroethene (cDCE), trans-1,2-Dichloroethene, Trichloroethene (TCE) and Vinyl chloride. Monitoring well MW-16S is the furthest downgradient well. April 2019 MW-16S VOC concentrations are reported as non-detect.

Surface water was sampled as part of the spring 2019 sampling event showing analytical results within NYSDEC Class C surface water standards. Surface water results discussed in Section 4.0.

WAL-19 residential water supply was sampled during the spring sampling event as required. Samples were collected from WAL-19 for VOC analysis before filters, between

filters, and after filters on April 17, 2019. ALS performed analysis of the residential samples for TCL VOCs (method 524.2) as required by the current O&M Plan. Residential location WAL-19 results are typical of historic results with cDCE detected before filters at concentrations below Class GA standards and NYSDOH MCLs and non-detect after filtration.

3.2 Fall Monitoring Event Results

Groundwater samples were collected from 15 of the 16 scheduled monitoring wells as part of the fall 2019 monitoring event. Monitoring well MW-15S was observed dry and therefore not sampled. Table 3-1 exhibits the detection frequency, minimum and maximum detection, NYSDEC Class GA Groundwater Standard (Class GA Standard) and the number of Class GA Standard exceedances for groundwater samples collected in 2018 and 2019. Table 3-2 lists the 2019 Class GA and NYSDOH Maximum Contaminant Level (MCL) exceedances by individual monitoring well. Table 3-3 is a tabular listing of groundwater analytical results from the two sampling events completed in 2019. Monitoring well locations are presented in Figure 2. A discussion of the analytical results is provided below.

Inorganic Compounds (metals)

Groundwater samples were analyzed for fifteen inorganic compounds during the fall 2019 sampling event (Table 2-2). As shown in Table 3-1, eight metals (Barium, Calcium, Iron, Magnesium, Manganese, Potassium, Sodium and Zinc) were detected in 2019. In 2018 the same metals, with the exception of Zinc, were detected. Iron, Manganese and Sodium exceeded Class GA standards in 2018 and 2019 and are the metals that exceed Class GA Standards on a frequent basis. Concentration time trend plots for these three metals have been created to graphically present the most recent 10 years of monitoring data. These plots are presented in Appendix D for monitoring wells that have shown NYSDEC Class GA Standard exceedances of these metals during this time period. Monitoring wells CW-3A, CW-3B, CW-4A, CW-4B, MW-3S, MW-4D, MW-5D, MW-5S, MW-11S, MW-16S, MW-17D, MW-17D, MW-18D and MW-18S are included. These graphs illustrate generally stable Iron, Manganese and Sodium concentrations for the past 10 years. These three metals have been detected at various concentrations above standards at both upgradient and downgradient wells. These metals are common constituents of soil and regionally occur naturally at the concentrations detected in Site groundwater.

VOCs

Groundwater from each well sampled during both the spring and fall 2019 sampling events were analyzed for VOCs, which include 36 compounds (Table 2-2). Consistent with historic monitoring results, in 2019 cDCE, TCE and Vinyl chloride were detected and exceeded Class GA Standards. Vinyl chloride, cDCE and TCE are the primary Site constituents of interest and commonly exceed the Class GA Standards. Therefore concentration time trend plots for these three VOCs have been created. The plots include data from 2010 through 2019 and are included in Appendix D for monitoring wells that have shown Class GA Standard exceedances for these compounds. These monitoring wells include CW-3A, CW-3B, CW-4A, MW-3D, MW-4D, MW-5D, MW-5S, MW-11S, MW-15S, MW-17S and MW-18S. Additionally as monitoring well MW-16S is the furthest Site downgradient well, a graph for this location is also included. A discussion of the VOC time trend graphs is provided below.

- Downgradient well CW-3A TCE and cDCE concentrations appear to be generally stable or slightly decreasing, while Vinyl chloride has been non-detect during this 10 year monitoring period.
- TCE at downgradient well CW-3B shows a slight increasing trend from approximately 0.2 mg/L to 0.47 mg/L. cDCE concentrations have been stable at approximately 0.1 mg/L and Vinyl chloride has been non-detect.
- Downgradient well CW-4A shows cDCE, TCE and Vinyl chloride results as non-detect since 2011.
- Upgradient well MW-3D has shown cDCE at slight decreasing trend from 0.017 mg/L to 0.0065 mg/L over this 10 year monitoring period. TCE and Vinyl chloride are non-detect.
- Cross-gradient well MW-4D has shown cDCE and Vinyl chloride on a decreasing trend, while TCE has been non-detect.
- Cross-gradient well MW-5D exhibits low-level detections of TCE and Vinyl chloride throughout this 10 year monitoring period. cDCE has been generally stable between approximately 0.2 mg/L and 1 mg/L with apparent seasonal fluctuations. NYSDEC has requested 1,1-Dichloroethene and Trans-1,2-Dichloroethene also be included on the MW-5D plot. The graph shows these two parameters at or near detection limits the last 10 years.
- Cross-gradient well MW-5S exhibits generally stable trend in cDCE, TCE and Vinyl chloride since 2012.
- Downgradient well MW-11S has shown Vinyl chloride at near detection limits and cDCE has shown stable results. TCE appears generally stable between 2.3 mg/L and 3.6 mg/L.

- Downgradient well MW-15S was dry in 2019 and therefore not sampled. MW-15S was last sampled in October 2016 and showed cDCE, TCE and Vinyl chloride non-detect.
- At the furthest downgradient well MW-16S, cDCE, TCE and Vinyl chloride results are non-detect.
- Cross-gradient well MW-17S shows stable cDCE concentrations at approximately 0.06 mg/L between 2010 and 2017 with a decreasing trend in 2018 and 2019. TCE and Vinyl chloride concentrations have been at or near detection limits.
- Cross-gradient well MW-18S has exhibited cDCE and TCE concentration at or near detection limits from 2010 to 2014 and non-detect from 2014 to 2019. Vinyl chloride has not been detected during the last 10 years.

3.3 Potentiometric Mapping

Prior to purging and collecting groundwater samples, static water levels were measured from the monitoring wells and piezometers. The spring and fall 2019 data are utilized to develop separate potentiometric maps for wells screened in overburden and wells screened in bedrock. The potentiometric maps for 2019 are included as Figures 3 through 6. Each contour represents a line of equivalent groundwater elevation. The direction of groundwater flow is from higher to lower elevation approximately perpendicular to the contours. The 2019 potentiometric maps are consistent with historic groundwater level data indicating stable and predictable groundwater flow.

4.0 SURFACE WATER AND SEDIMENT MONITORING RESULTS

Surface water and sediment location SWS-1 is positioned at the southwest corner of the landfill at the downstream side of the culvert within the drainage ditch that leads to an unnamed tributary to Duffy Hollow Creek (Figure 2). Both the unnamed tributary and Duffy Hollow Creek are classified as NYSDEC Class C streams. Surface water and sediment sampling at SWS-1 is required on an annual basis during the spring event. In 2019 SWS-1 was sampled on April 10, 2019. Sediment was not observed within the surface water ditch in 2019 and therefore not sampled. Surface water and sediment results are presented in Tables 4-1 and 4-2, respectively. The 2019 surface water results are below Class C Standards with VOCs reported as non-detect. Surface water seeps along the perimeter of the landfill were not observed to be active since 2003; therefore no seep samples were collected in 2019.

5.0 LEACHATE SUMP AND MANHOLE MONITORING RESULTS

Water samples are required to be collected at Leachate Sump (LS-1) and two groundwater cut-off manholes (MH-32 and MH-33) annually. Sampling locations are presented in Figure 2. Table 5-1 exhibits the detection frequency, minimum and maximum detection for leachate sump and manhole samples collected in 2018 and 2019. Table 5-2 lists 2019 Class GA and MCL exceedances at LS-1, MH-32 and MH-33. Table 5-3 is a tabular listing of current and historic leachate sump analytical results. Table 5-4 is a tabular listing of current and historic manhole analytical results. A discussion of leachate sump and manhole analytical results is provided below.

5.1 Leachate Sump Results

Metals

Metals were analyzed in one leachate sump sample during 2019. Metals detected in 2019 include Barium, Calcium, Iron, Magnesium, Manganese, Potassium and Sodium. The same metals, with the addition of Zinc, were detected in 2018. 2019 Metals results are consistent with historic data. Based upon NYSDEC request, concentration time trend plots for Iron, Manganese and Sodium have been created and are included in Appendix D. With the exception of an Iron spike in 2012, this plot illustrates LS-1 Iron, Manganese and Sodium concentrations generally stable since 2010.

VOCs

VOCs were analyzed in one leachate sump sample during 2019. With the exception of cDCE at 0.072 mg/L, 2019 VOC results are non-detect. 2019 LS-1 VOC results are consistent with historic data. Based upon NYSDEC request, concentration time trend plots for cDCE, TCE and Vinyl Chloride is included in Appendix D. This plot shows a cDCE decrease in 2010 with generally stable concentrations between 2010 and 2019. TCE and Vinyl chloride have primarily been non-detect the last 10 years.

5.2 Manhole Monitoring Results

Metals

Metals were analyzed in two manhole samples in fall 2019. Metals detected in 2019 at MH-32 and MH-33 include Barium, Calcium, Iron, Magnesium, Manganese, Potassium and Sodium. 2019 Manhole Metals results are consistent with historic data and show Class GA exceedances for Iron and Manganese. Based upon NYSDEC request, concentration time trend plots for these Iron, Manganese and Sodium have been created as presented in Appendix D. MH-32 and MH-33 Iron, Manganese and Sodium

concentrations appear generally stable to slight decreasing trend since 2010.

VOCs

VOCs were analyzed in two manhole samples in fall 2019. cDCE was detected at MH-32 and MH-33 at concentrations of 3.1D mg/L and 0.0086 mg/L, respectively. Vinyl chloride at 0.91 mg/L is reported at MH-32. The remaining 2019 VOC results are non-detect. 2019 VOC's results are consistent with historic data and with the exception of cDCE and Vinyl chloride are below Class GA Standards. Based upon NYSDEC request, concentration time trend plots for cDCE, TCE and Vinyl chloride are included in Appendix D. MH-32 cDCE concentrations have fluctuated from near detection limit to 9.1 mg/L while TCE and Vinyl chloride have been at or near detection limit the last 10 years. MH-33 has shown cDCE, TCE and Vinyl chloride at or near detection limit.

Wet Chemistry

Manholes MH-32 and MH-33 were sampled for Nitrate Nitrogen and Total Dissolved Solids (TDS) in 2019. Nitrate Nitrogen results are non-detect. MH-32 and MH-33 2019 TDS results are 329 mg/L and 215 mg/L, respectively. These TDS results are below Class GA and Class C Standards of 500 mg/L.

6.0 AIR MONITORING RESULTS

Air monitoring at the landfill perimeter, gas vents and LCS locations was conducted during the fall 2019 event utilizing a QRAE3 meter which includes a Photo Ionization Detector (PID) for VOCs and a four-gas meter for Oxygen (O_2) and Lower Explosive Limit (LEL). Please see Figure 7 for monitoring locations.

Prior to commencing air monitoring, the air monitoring instruments were properly calibrated according to manufacturer specifications. PID readings at the gas vents, LCS manholes and clean-out vents range from 0.0 ppm to 30.5 ppm. Oxygen levels ranged from 4.3% to 20.9%. 2019 LEL readings range from 0% to 100%. Upwind and downwind PID and LEL readings at the landfill perimeter are not above background readings indicating no measurable landfill gas at the landfill perimeter. Oxygen readings at the landfill perimeter are also within normal range. The air monitoring readings are recorded in tabular form and presented in Table 6-1.

7.0 RESIDENTIAL WATER SUPPLY MONITORING RESULTS

Two residential water supply sampling events were completed during 2019. The sampling events were conducted in April and October/November 2019. The current

monitoring schedule requires that one water supply (WAL-19) be sampled semi-annually (spring and fall) and the remaining three locations (WAL-1, WAL-2 and WAL-5) be sampled annually. Residential location WAL-5 has been vacant for several years; however this property appears to have been recently sold. The apparent new owner indicated in October 2019 that the house water is currently not operational but would agree to future sampling.

Residential location WAL-19 was sampled in the spring and fall of 2019 while residential locations WAL-1 and WAL-2, were sampled in fall 2019.

Table 7-1 presents an overview of 2019 residential water supply sampling. Figure 2 presents the approximate sampling locations.

A total of eight residential water samples were collected in 2019. Table 7-2 exhibits the detection frequency, minimum and maximum detection, NYSDOH MCL, number of NYSDOH MCL exceedances, NYSDEC Class GA Standard and the number of Class GA Standard exceedances for both 2018 and 2019. Table 7-3 is a tabular listing of 2019 residential water analytical results. A discussion of the analytical results is provided below.

Metals

WAL-1 2019 metals results are below NYSDOH MCLs and Class GA Standards. WAL-2 shows Iron at 0.69 mg/L and Manganese at 0.747 mg/L exceeding the NYSDOH MCLs and Class GA Standards. Additionally, Sodium at 47.5 mg/L exceeds Class GA Standards. The WAL-2 2019 metals results are consistent with historic results and ambient groundwater quality. The Class GA exceedances are likely naturally occurring detections and not associated with the landfill. Metals are not required to be analyzed at WAL-19.

VOCs

During 2019, residential water samples were analyzed for VOCs with two parameters detected (cDCE and TCE). These detections are at WAL-19 prior to filtration and are below NYSDOH MCLs and NYSDEC Class GA Standards. VOCs are not detected at WAL-19 after filtration. 2019 WAL-1 VOC results are non-detect.

8.0 INSPECTIONS AND MAINTENANCE ACTIVITES

Quarterly Inspections and routine maintenance were performed by Village of Wellsville personnel and recorded on the Quarterly Inspection and Maintenance Checklist provided in the O&M Plan. Quarterly inspections were completed on March 29, June 28, September 30 and December 31, 2019. No unresolved problems were noted on the inspection forms. The 2019 completed inspection forms are included in Appendix C. A description of maintenance activities performed during 2019 is provided below.

- Village of Wellsville personnel mowed the landfill cap in October 2019.
- The Village of Wellsville continues to maintain a water treatment unit at the LaDue (WAL-19) residence.
- A total of approximately 2,480,000 gallons of leachate was hauled from the Landfill to the Village of Wellsville POTW during 2019. The table below lists the total leachate gallons by year for the previous seven years.

Year/Gallons	2013	2014	2015	2016	2017	2018	2019
	1,690,269	1,441,683	1,682,710	1,777,155	2,521,185	2,891,240	2,480,000

- In June 2019 Village of Wellsville personnel removed LS-1 Pump 1 for maintenance. Pump 2 is currently in operation.
- On October 21, 2019 monitoring well MW-5D observed to have protective casing and PVC riser broken off at ground surface. On October 29, 2019, MW-5D repaired by Village of Wellsville personnel with oversite and direction provided by On-Site Geologist. Backhoe utilized to excavate around well to depth of bottom of protective casing. Installed new PVC compression coupling and PVC riser, new steel protective casing and new concrete surface seal. After repair measured new TOC elevation at 2067.58 ft and Protective Casing elevation at 2067.78 ft.
- On November 6 and 7, 2019 leachate collection system manholes and laterals were cleaned by JJH Powerwash utilizing water jet and vacuum unit with oversight provided by On-Site. Details of this work are presented in Table 8-1.

9.0 CONCLUSIONS

Monitoring and maintenance activities are being performed as required at the Wellsville/Andover Landfill. Routine maintenance and inspections are being conducted to maintain the Site. The Site has been monitored for over 23 years following completion of the remedial action. Monitoring will continue as required by the approved plan.

Maintenance activities planned for 2020 include:

- annual mowing of landfill cap vegetation;
- leachate management and disposal;
- leachate collection system cleaning; and
- WAL-19 water treatment unit maintenance.

This annual report is submitted as part of the Site Management Periodic Review required by the NYSDEC.

Tables

Table 2-1

Monitoring Requirements
Wellsville/Andover Landfill
Wellsville, New York

Location	Revised Sampling Frequency	Spring Analyte List[1]	Fall Analyte List[1]
Groundwater			
CW-3A	Annual - Fall	WL	Field, VOCs, Metals
CW-3B	Annual - Fall	WL	Field, VOCs, Metals
CW-4A	Annual - Fall	WL	Field, VOCs, Metals
CW-4B	Annual - Fall	WL	Field, VOCs, Metals
MW-15DA	NR	WL	NR
MW-15S	Annual - Fall	WL	Field, VOCs, Metals
MW-17D	Annual - Fall	WL	Field, VOCs, Metals
MW-17S	Annual - Fall	WL	Field, VOCs, Metals
MW-18D	Annual - Fall	WL	Field, VOCs, Metals
MW-18S	Annual - Fall	WL	Field, VOCs, Metals
MW-1D	NR	WL	NR
MW-3D	Annual - Fall	WL	Field, VOCs, Metals
MW-3S	Annual - Fall	WL	Field, VOCs, Metals
MW-4D	Semiannual - Spring/Fall	Field, VOCs	Field, VOCs, Metals
MW-5D	Semiannual - Spring/Fall	Field, VOCs	Field, VOCs, Metals
MW-5S	Semiannual - Spring/Fall	Field, VOCs	Field, VOCs, Metals
MW-11S	Semiannual - Spring/Fall	Field, VOCs	Field, VOCs, Metals
MW-16S	Semiannual - Spring/Fall	Field, VOCs	Field, VOCs, Metals
Leachate			
LS-1	Annual - Fall	NR	Field, VOCs, Metals

Location	Revised Sampling Frequency	Spring Analyte List[1]	Fall Analyte List[1]
Residential Water Supply			
WAL-2	Annual - Fall	NR	Metals
WAL-5	Annual - Fall	NR	VOCs[6], Metals
WAL-19	Semiannual - Spring/Fall	VOCs[2,6]	VOCs[2,6]
WAL-1 [8]	Annual - Fall	NR	VOCs[6], Metals
Landfill Gas Monitoring			
Vents	Annual - Fall	NR	PID, LEL, O_2
Leachate Clean-outs	Annual - Fall	NR	PID, LEL, O_2
Manholes	Annual - Fall	NR	PID, LEL, O_2
Perimeter	Annual - Fall	NR	PID, LEL, O_2
Surface Water [7]			
SWS-1	Annual - Spring	Field, VOCs, Metals, Wet Chem3	NR
Sediment [7]			
SWS-1	Annual - Spring	Field, VOCs, Metals, Wet Chem3	NR
Groundwater Cut-Off System			
MH-32	Annual - Fall	NR	Field, VOCs, Metals, NO_3, TDS
MH-33	Annual - Fall	NR	Field, VOCs, Metals, NO_3, TDS

Reporting

Spring Event	Summary Letter[4]
Annual	Detailed Annual Report[5]

Notes

(Revised monitoring program is based on: April 3, 2009 On-Site letter *Site Monitoring Evaluation and Proposed Revised Monitoring Program* ; NYSDEC May 12, 2009 response; and follow up e-mail.)

NR - Not required unless site conditions warrant (I.e., significant leachate breakout, leachate spill, etc.)

WL - Water level

[1] - Field = Field Parameters (WL, pH, Conductivity, Dissolved Oxygen, Turbidity, Oxidation Reduction Potential)
- VOCs = Volatile Organic Compounds method 8260
- Metals = As, Ba, Cd, Ca, Cr, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Na, Z
- NO_3 = Nitrate Nitrogen and TDS = Total Dissolved Solids

[2] WAL-19 tested for VOCs prior to filters, between filters and after filters

[3] Wet Chemistry - Color, TOC, Total Phenolics, Alkalinity, BOD, Cl, Br, SO_4, TDS, NO_3, NH_3, COD, TKN

[4] Letter reports will include a summary of the sampling event and provide the event's analytical report

[5] Annual periodic review report will include details of the years monitoring results, comparison of results to standards and historic results, potentiometric maps and details operation and maintenance activities.

[6] Residential VOCs are tested using method 524.2

[7] Starting in 2016 Surface Water and Sediment sampling changed from fall to spring due to dry conditions in fall often prohibiting sample collection

[8] Starting in Fall 2016, WAL-1 residential water supply added back into the monitoring programs as this residence is no longer unoccupied.

Table 2-2

Approved Analyte List
Wellsville/Andover Landfill
Wellsville, New York

Field Parameters
Specific Conductance
Temperature
Field pH
Oxygen Reduction Potential
Dissolved Oxygen
Turbidity

Inorganic Compounds
Arsenic
Barium
Cadmium
Calcium
Chromium
Copper
Iron
Lead
Manganese
Magnesium
Nickel
Potassium
Selenium
Sodium
Zinc

Groundwater Cut-Off System Wet Chemistry
Nitrate Nitrogen
Total Dissolved Solids

Surface Water and Sediment Wet Chemistry
Alkalinity
Ammonia Nitrogen
Biochemical Oxygen Demand
Bromide
Chemical Oxygen Demand
Chloride
Color (True) (C.U.)
Nitrate Nitrogen
Sulfate
Total Dissolved Solids
Total Kjeldahl Nitrogen
Total Organic Carbon (TOC)
Total Phenolics

Volatile Organic Compounds
1,1,1-Trichloroethane
1,1,2,2-Tetrachloroethane
1,1,2-Trichloroethane
1,1-Dichloroethane
1,1-Dichloroethene
1,2-Dibromoethane
1,2-Dichloroethane
1,2-Dichloropropane
2-Butanone (MEK)
2-Hexanone
4-Methyl-2-pentanone
Acetone
Benzene
Bromodichloromethane
Bromoform
Bromomethane
Carbon disulfide
Carbon tetrachloride
Chlorobenzene
Chloroethane
Chloroform
Chloromethane
cis-1,2-Dichloroethene
cis-1,3-Dichloropropene
Dibromochloromethane
Dichloromethane (Methylene chloride)
Ethyl benzene
m&p-Xylene
o-Xylene
Styrene
Tetrachloroethene
Toluene
trans-1,2-Dichloroethene
trans-1,3-Dichloropropene
Trichloroethene
Vinyl chloride

Table 2-3

2019 Static Ground Water Level Monitoring Data
Wellsville/Andover Landfill
Wellsville, New York

Well Number	Well Diameter (in)	TOC Elevation (ft amsl)	Protective Casing Elevation (ft amsl)	Ground Elevation (ft amsl)	Well Depth from TOC (ft)	Screened Interval from Ground (ft)	Screened Bedrock or Overburden	4/8/2019 DTW From TOC (ft)	4/8/2019 Static Water Elevation (ft amsl)	10/21/2019 DTW From TOC (ft)	10/21/2019 Static Water Elevation (ft amsl)
MW-1D	2	2193.32	2193.75	2190.6	77.39	64 - 74	Bedrock	67.94	2125.38	68.10	2125.22
MW-3D	2	2095.80	2096.07	2092.4	46.75	30 - 40	Bedrock	17.12	2078.68	19.30	2076.50
MW-3S	2	2095.70	2095.96	2093.1	25.92	9 - 19	Overburden	8.96	2086.74	10.59	2085.11
MW-4D	2	2092.22	2092.39	2090.3	24.63	12 - 22	Bedrock	9.64	2082.58	13.02	2079.20
MW-5D*	2	2066.87	2067.26	2065.4	37.74	26.5 - 36.5	Bedrock	1.62	2065.25	NM	NM
MW-5S	2	2067.30	2067.59	2065.5	21.20	10 - 20	Overburden	2.05	2065.25	2.23	2065.07
MW-7D	2	2012.13	2012.69	2009.6	47.97	35 - 45	Bedrock	35.70	1976.43	36.51	1975.62
MW-11S	2	2003.52	2003.86	2001.6	20.40	8 - 18	Overburden	4.52	1999.00	6.05	1997.47
MW-15S	2	2022.88	2023.05	2020.2	22.10	9 - 19	Overburden	Dry	<2000.78	Dry	<2000.78
MW-15DA	2	2022.67	2023.08	2020.4	56.28	43 - 53	Bedrock	56.12	1966.55	56.11	1966.56
MW-16D	2	1924.73	1925.25	1922.0	53.00	40 - 50	Bedrock	28.78	1895.95	29.23	1895.50
MW-16S	2	1924.98	1925.15	1922.2	18.67	6 - 16	Overburden	8.15	1916.83	10.44	1914.54
MW-17D	4	2037.36	NA	2034.9	65.1	48 - 63 (open hole)	Bedrock	31.54	2005.82	31.92	2005.44
MW-17S	2	2037.59	2037.68	2034.6	26.94	9 - 24	Overburden	8.17	2029.42	8.44	2029.15
MW-18D	4	2066.19	NA	2062.6	28.50	24.5 - 39.5 (open hole)	Bedrock	14.31	2051.88	13.76	2052.43
MW-18S	2	2064.60	2065.72	2063.0	20.49	4 - 19	Overburden	3.79	2060.81	4.74	2059.86
CW-3A	2	2013.75	2013.90	2012.9	27.47	21 - 26	Overburden	9.12	2004.63	8.43	2005.32
CW-3B	2	2013.90	2014.10	2012.9	37.70	33.5 - 38.5	Overburden	20.82	1993.08	20.47	1993.43
CW-4A	2	2006.11	2006.35	2004.7	19.12	13 - 18	Overburden	3.25	2002.86	4.52	2001.59
CW-4B	2	2005.84	2005.93	2004.7	30.16	25.5 - 30.5	Overburden	2.62	2003.22	3.89	2001.95
PZ-1	2	2095.11	2095.27	2092.2	NM	6 - 13	Overburden/ Refuse	14.50	2080.61	13.54	2081.57
PZ-2	2	2095.83	2096.13	2092.9	NM	14 - 24	Overburden/ Refuse	11.23	2084.60	17.42	2078.41
PZ-4	2	2067.13	2067.38	2064.4	NM	12 - 22	Overburden/ Refuse	26.09	2041.04	26.11	2041.02
PZ-5	2	2059.71	2059.71	2056.7	NM	8 - 18	Overburden/ Refuse	14.31	2045.40	12.30	2047.41
PZ-6	2	2042.18	2042.31	2039.2	NM	8 - 18	Overburden/ Refuse	22.71	2019.47	22.50	2019.68

Notes:

Dry - Water not present
NM - Not Measured
NA - Not Applicable
* MW-5D Repaired on 10/29/2019. After repair measured new TOC elevation at 2067.58 ft and Protective Casing at 2067.78 ft

Table 3-1

Frequency of 2018 and 2019 Groundwater Detections
Wellsville/Andover Landfill
Wellsville, New York

Parameter	2018 Detection frequency	2018 Minimum (mg/L)	2018 Maximum (mg/L)	2019 Detection frequency	2019 Minimum (mg/L)	2019 Maximum (mg/L)	Class GA Standard (mg/L)	Number of 2018 Exceedences	Number of 2019 Exceedences
Field Parmaeters									
Depth to Groundwater (ft)	21/21	1.57	68.92	20/20	0.94	31.87			
Dissolved Oxygen	21/21	0.39	9.24	20/20	0.39	8.76			
Field pH (std. units)	21/21	6.34	12.18	20/20	6.09	12.2			
ORP (mV)	21/21	-126.9	169.2	20/20	-82.3	215.9			
Specific Conductivity (us/cm)	21/21	140.1	1320	20/20	150.3	1416			
Temperature (deg. C)	21/21	0.9	14.9	20/20	5.1	18.8			
Turbidity (NTU)	21/21	0.7	39.8	20/20	0.7	40.2	5	9	15
Inorganic Compounds									
Arsenic	0/16			0/20			0.025	0	0
Barium	14/16	0.022	0.369	16/20	0.022	0.117	1	0	0
Cadmium	0/16			0/20			0.005	0	0
Calcium	16/16	2.3	108	20/20	2.6	116			
Chromium	0/16			0/20			0.05	0	0
Copper	0/16			0/20			0.2	0	0
Iron	10/16	0.19	10.5	16/20	0.16	6.51	0.3	9	11
Lead	0/16			0/20			0.025	0	0
Magnesium	15/16	8.4	70.1	20/20	2.9	60.6			
Manganese	13/16	0.025	3.58	19/20	0.018	2.69	0.3	8	8
Nickel	0/16			0/20			0.1	0	0
Potassium	10/16	2	14.9	10/20	2.2	12.5			
Selenium	0/16			0/20			0.01	0	0
Sodium	16/16	2.4	70.8	20/20	3.5	69	20	7	6
Zinc	0/16			1/20	0.025	0.025			
Volatile Organic Compounds									
1,1,1-Trichloroethane	0/21			0/20			0.005	0	0
1,1,2,2-Tetrachloroethane	0/21			0/20			0.005	0	0
1,1,2-Trichloroethane	0/21			0/20			0.001	0	0
1,1-Dichloroethane	0/21			0/20			0.005	0	0
1,1-Dichloroethene	1/21	0.006	0.006	0/20			0.005	1	0
1,2-Dibromoethane	0/21			0/20					
1,2-Dichloroethane	0/21			0/20			0.0006	0	0
1,2-Dichloropropane	0/21			0/20			0.001	0	0
2-Butanone (MEK)	0/21			0/20					
2-Hexanone	0/21			0/20					
4-Methyl-2-pentanone	0/21			0/20					
Acetone	0/21			0/20					
Benzene	0/21			0/20			0.001	0	0
Bromodichloromethane	0/21			0/20					
Bromoform	0/21			0/20					
Bromomethane	0/21			0/20			0.005	0	0
Carbon disulfide	0/21			0/20					
Carbon tetrachloride	0/21			0/20			0.005	0	0
Chlorobenzene	0/21			0/20			0.005	0	0
Chloroethane	0/21			0/20			0.005	0	0
Chloroform	0/21			0/20			0.007	0	0
Chloromethane	0/21			0/20			0.005	0	0
cis-1,2-Dichloroethene	11/21	0.0057	0.62	12/20	0.0065	0.59	0.005	11	12
cis-1,3-Dichloropropene	0/21			0/20					
Dibromochloromethane	0/21			0/20					
Dichloromethane (Methylene chloride)	0/21			0/20			0.005	0	0

Please see page 2 for notes.

Table 3-1

Frequency of 2018 and 2019 Groundwater Detections
Wellsville/Andover Landfill
Wellsville, New York

Parameter	2018 Detection frequency	2018 Minimum (mg/L)	2018 Maximum (mg/L)	2019 Detection frequency	2019 Minimum (mg/L)	2019 Maximum (mg/L)	Class GA Standard (mg/L)	Number of 2018 Exceedences	Number of 2019 Exceedences
Volatile Organic Compounds (con't)									
Ethyl benzene	0/21			0/20			0.005	0	0
m&p-Xylene	0/21			0/20					
o-Xylene	0/21			0/20					
Styrene	0/21			0/20			0.005	0	0
Tetrachloroethene	0/21			0/20			0.005	0	0
Toluene	0/21			0/20			0.005	0	0
trans-1,2-Dichloroethene	1/21	0.0054	0.0054	0/20			0.005	1	0
trans-1,3-Dichloropropene	0/21			0/20					
Trichloroethene	9/21	0.012	3.1	9/20	0.011	2.6	0.005	9	9
Vinyl chloride	6/21	0.0074	0.079	6/20	0.0087	0.048	0.002	6	6

Note:
Class GA Standard - NYSDEC Class GA Groundwater Standards

Please see page 2 for notes.

Table 3-2

2019 Groundwater NYSDEC and NYSDOH Standards Exceedances
Wellsville/Andover Landfill
Wellsville, New York
(mg/L except where noted)

Location	Date Sampled	Parameter	Result	Class GA Standard	NYSDOH MCL
CW-3A	22-Oct-19	Field pH (std. units)	12.2	8.5	
CW-3A	22-Oct-19	Turbidity (NTU)	7.51	5	5
CW-3A	22-Oct-19	Sodium	37.9	20	
CW-3A	22-Oct-19	cis-1,2-Dichloroethene	0.0067	0.005	0.005
CW-3A	22-Oct-19	Trichloroethene	0.038	0.005	0.005
CW-3B	22-Oct-19	Sodium	21.2	20	
CW-3B	22-Oct-19	cis-1,2-Dichloroethene	0.095	0.005	0.005
CW-3B	22-Oct-19	Trichloroethene	0.47	0.005	0.005
CW-4A	22-Oct-19	Turbidity (NTU)	5.43	5	5
MW-3D	24-Oct-19	cis-1,2-Dichloroethene	0.0065	0.005	0.005
MW-3S	24-Oct-19	Turbidity (NTU)	6.37	5	5
MW-3S	24-Oct-19	Iron	0.32	0.3	0.3
MW-3S	24-Oct-19	Sodium	37	20	
MW-4D	09-Apr-19	Turbidity (NTU)	6.95	5	5
MW-4D	09-Apr-19	Iron	1.73	0.3	0.3
MW-4D	09-Apr-19	Manganese	2.69	0.3	0.3
MW-4D	09-Apr-19	cis-1,2-Dichloroethene	0.059	0.005	0.005
MW-4D	09-Apr-19	Vinyl chloride	0.023	0.002	0.002
MW-4D	24-Oct-19	Iron	0.67	0.3	0.3
MW-4D	24-Oct-19	Manganese	2.4	0.3	0.3
MW-4D	24-Oct-19	cis-1,2-Dichloroethene	0.066	0.005	0.005
MW-4D	24-Oct-19	Vinyl chloride	0.016	0.002	0.002
MW-5D	10-Apr-19	Turbidity (NTU)	5.74	5	5
MW-5D	10-Apr-19	Iron	0.74	0.3	0.3
MW-5D	10-Apr-19	Manganese	0.96	0.3	0.3
MW-5D	10-Apr-19	cis-1,2-Dichloroethene	0.59	0.005	0.005
MW-5D	10-Apr-19	Trichloroethene	0.21	0.005	0.005
MW-5D	10-Apr-19	Vinyl chloride	0.048	0.002	0.002
MW-5D	28-Oct-19	Turbidity (NTU)	14.1	5	5
MW-5D	28-Oct-19	Iron	0.73	0.3	0.3
MW-5D	28-Oct-19	Manganese	0.7	0.3	0.3
MW-5D	28-Oct-19	cis-1,2-Dichloroethene	0.37	0.005	0.005
MW-5D	28-Oct-19	Trichloroethene	0.14	0.005	0.005
MW-5D	28-Oct-19	Vinyl chloride	0.029	0.002	0.002

Please see page 2 for notes.

Table 3-2

2019 Groundwater NYSDEC and NYSDOH Standards Exceedances
Wellsville/Andover Landfill
Wellsville, New York
(mg/L except where noted)

Location	Date Sampled	Parameter	Result	Class GA Standard	NYSDOH MCL
MW-5S	09-Apr-19	Turbidity (NTU)	40.2	5	5
MW-5S	09-Apr-19	Iron	3.14	0.3	0.3
MW-5S	09-Apr-19	Manganese	0.349	0.3	0.3
MW-5S	09-Apr-19	cis-1,2-Dichloroethene	0.14	0.005	0.005
MW-5S	09-Apr-19	Trichloroethene	0.029	0.005	0.005
MW-5S	09-Apr-19	Vinyl chloride	0.0087	0.002	0.002
MW-5S	28-Oct-19	Turbidity (NTU)	17.9	5	5
MW-5S	28-Oct-19	Iron	2.01	0.3	0.3
MW-5S	28-Oct-19	cis-1,2-Dichloroethene	0.12	0.005	0.005
MW-5S	28-Oct-19	Trichloroethene	0.018	0.005	0.005
MW-5S	28-Oct-19	Vinyl chloride	0.0095	0.002	0.002
MW-11S	10-Apr-19	Turbidity (NTU)	5.97	5	5
MW-11S	10-Apr-19	Manganese	0.583	0.3	0.3
MW-11S	10-Apr-19	cis-1,2-Dichloroethene	0.22	0.005	0.005
MW-11S	10-Apr-19	Trichloroethene	2.6	0.005	0.005
MW-11S	21-Oct-19	Manganese	0.543	0.3	0.3
MW-11S	21-Oct-19	cis-1,2-Dichloroethene	0.2	0.005	0.005
MW-11S	21-Oct-19	Trichloroethene	2.4	0.005	0.005
MW-16S	09-Apr-19	Turbidity (NTU)	6.33	5	5
MW-16S	21-Oct-19	Turbidity (NTU)	14.9	5	5
MW-16S	21-Oct-19	Iron	0.64	0.3	0.3
MW-17D	23-Oct-19	Field pH (std. units)	9.61	8.5	
MW-17D	23-Oct-19	Turbidity (NTU)	37.6	5	5
MW-17D	23-Oct-19	Iron	6.51	0.3	0.3
MW-17D	23-Oct-19	Sodium	36.5	20	
MW-17S	23-Oct-19	Turbidity (NTU)	6.06	5	5
MW-17S	23-Oct-19	Sodium	69	20	
MW-17S	23-Oct-19	cis-1,2-Dichloroethene	0.034	0.005	0.005
MW-17S	23-Oct-19	Trichloroethene	0.011	0.005	0.005
MW-18D	24-Oct-19	Turbidity (NTU)	28.3	5	5
MW-18D	24-Oct-19	Iron	3.29	0.3	0.3
MW-18D	24-Oct-19	Manganese	0.49	0.3	0.3
MW-18D	24-Oct-19	Sodium	23.6	20	
MW-18S	23-Oct-19	Turbidity (NTU)	5.26	5	5
MW-18S	23-Oct-19	Iron	0.49	0.3	0.3

Notes:
Class GA Standard - NYSDEC Class GA Groundwater Standard
NYSDOH MCL - New York State Department of Health Maximum Containment Level

Please see page 2 for notes.

Table 3-3

2019 Groundwater Analytical Results
Wellville/Andover Landfill
Wellsville, New York
(mg/L except where noted)

Parameter	Spring 2019					Fall 2019													
	MW-4D 4/9/2019	MW-5D 4/10/2019	MW-5S 4/9/2019	MW-11S 4/10/2019	MW-16S 4/9/2019	CW-3A 10/22/2019	CW-3B 10/22/2019	CW-4A 10/22/2019	CW-4B 10/22/2019	MW-3D 10/24/2019	MW-3S 10/24/2019	MW-4D 10/24/2019	MW-5D 10/28/2019	MW-5S 10/28/2019	MW-11S 10/21/2019	MW-16S 10/21/2019	MW-17D 10/23/2019	MW-17S 10/23/2019	MW-18D 10/24/2019	MW-18S 10/23/2019
Field Parameters																				
Depth to Groundwater (ft)	9.64	1.6	2.05	4.6	7.97	8.44	20.32	4.71	6.31	19.41	10.63	12.65	0.94	2.38	6.05	10.44	31.87	8.35	20.18	4.52
Dissolved Oxygen	1.94	0.65	4.55	1.85	6.95	7.21	0.84	0.88	2.66	1.24	2.79	1.34	0.39	0.95	0.56	5.86	0.88	1.87	3.26	8.76
Field pH (std. units)	6.22	6.66	6.37	6.82	6.68	12.2	6.85	6.3	6.77	6.75	6.96	6.09	6.51	6.2	6.79	6.72	9.61	7.23	7.81	6.11
ORP (mV)	76.3	13.8	36.8	102.8	215.9	-26.8	63.9	74.2	73.3	84.6	75	-82.3	35.8	-38	38.2	39.9	17.7	68.9	-1.3	114.1
Specific Conductivity (us/cm)	242	302.9	157.5	523.8	150.3	1416	589.6	310.2	359.6	640.4	536.7	234.5	204	162.7	520.7	167.8	291.1	968	371.6	229
Temperature (deg. C)	13.5	5.1	16.6	5.3	13.4	12.4	11.6	12.6	12.4	13.4	9.8	16.9	16.5	12.4	18.8	13.9	11.6	10	18.1	7.9
Turbidity (NTU)	6.95	5.74	40.2	5.97	6.33	7.51	0.74	5.43	0.7	2.29	6.37	1.56	14.1	17.9	4.47	14.9	37.6	6.06	28.3	5.26
Inorganic Compounds																				
Arsenic	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Barium	0.024	0.061	0.02 U	0.027	0.02 U	0.091	0.039	0.057	0.031	0.117	0.048	0.022	0.056	0.023	0.025	0.02 U	0.02 U	0.038	0.067	0.05
Cadmium	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Calcium	22.7	26.1	14.6	55.7	13.3	116	66.6	29.1	38.3	72.7	47.3	20.7	24	15.7	51	15	2.6	88.6	39.7	31.9
Chromium	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Copper	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
Iron	1.73	0.74	3.14	0.16	0.2	0.1 U	0.1 U	0.19	0.1 U	0.1 U	0.32	0.67	0.73	2.01	0.19	0.64	6.51	0.22	3.29	0.49
Lead	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Magnesium	18.9	20.3	9.7	36.1	8.8	2.9	34.2	16	16.5	38.6	36.1	17.7	18	8.6	31.8	9.4	20.1	60.6	20.5	12
Manganese	2.69	0.96	0.349	0.583	0.01 U	0.018	0.031	0.254	0.023	0.042	0.021	2.4	0.7	0.201	0.543	0.03	0.118	0.039	0.49	0.213
Nickel	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
Potassium	2.7	2 U	2 U	2 U	2 U	12.5	2.5	2 U	2 U	2.4	3.2	2.8	2.2	2 U	2 U	2 U	5.7	3.5	3.3	2 U
Selenium	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Sodium	4.1	8.7	5.7	19.3	6.1	37.9	21.2	14	15	16.6	37	4.7	8.5	5.8	19.1	7.1	36.5	69	23.6	3.5
Zinc	0.025	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
Volatile Organic Compounds																				
1,1,1-Trichloroethane	0.005 U	0.025 U	0.005 U	0.1 U	0.005 U	0.005 U	0.013 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.025 U	0.005 U	0.1 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
1,1,2,2-Tetrachloroethane	0.005 U	0.025 U	0.005 U	0.1 U	0.005 U	0.005 U	0.013 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.025 U	0.005 U	0.1 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
1,1,2-Trichloroethane	0.005 U	0.025 U	0.005 U	0.1 U	0.005 U	0.005 U	0.013 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.025 U	0.005 U	0.1 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
1,1-Dichloroethane	0.005 U	0.025 U	0.005 U	0.1 U	0.005 U	0.005 U	0.013 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.025 U	0.005 U	0.1 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
1,1-Dichloroethene	0.005 U	0.025 U	0.005 U	0.1 U	0.005 U	0.005 U	0.013 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.025 U	0.005 U	0.1 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
1,2-Dibromoethane	0.005 U	0.025 U	0.005 U	0.1 U	0.005 U	0.005 U	0.013 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.025 U	0.005 U	0.1 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
1,2-Dichloroethane	0.005 U	0.025 U	0.005 U	0.1 U	0.005 U	0.005 U	0.013 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.025 U	0.005 U	0.1 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
1,2-Dichloropropane	0.005 U	0.025 U	0.005 U	0.1 U	0.005 U	0.005 U	0.013 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.025 U	0.005 U	0.1 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
2-Butanone (MEK)	0.01 U	0.05 U	0.01 U	0.2 U	0.01 U	0.01 U	0.025 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.05 U	0.01 U	0.2 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
2-Hexanone	0.01 U	0.05 U	0.01 U	0.2 U	0.01 U	0.01 U	0.025 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.05 U	0.01 U	0.2 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
4-Methyl-2-pentanone	0.01 U	0.05 U	0.01 U	0.2 U	0.01 U	0.01 U	0.025 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.05 U	0.01 U	0.2 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Acetone	0.01 U	0.05 U	0.01 U	0.2 U	0.01 U	0.01 U	0.025 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.05 U	0.01 U	0.2 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Benzene	0.005 U	0.025 U	0.005 U	0.1 U	0.005 U	0.005 U	0.013 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.025 U	0.005 U	0.1 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Bromodichloromethane	0.005 U	0.025 U	0.005 U	0.1 U	0.005 U	0.005 U	0.013 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.025 U	0.005 U	0.1 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U

Please see page 2 for notes.

2019 Groundwater Analytical Results
Wellville/Andover Landfill
Wellsville, New York
(mg/L except where noted)

Parameter	Spring 2019					Fall 2019													
	MW-4D 4/9/2019	MW-5D 4/10/2019	MW-5S 4/9/2019	MW-11S 4/10/2019	MW-16S 4/9/2019	CW-3A 10/22/2019	CW-3B 10/22/2019	CW-4A 10/22/2019	CW-4B 10/22/2019	MW-3D 10/24/2019	MW-3S 10/24/2019	MW-4D 10/24/2019	MW-5D 10/28/2019	MW-5S 10/28/2019	MW-11S 10/21/2019	MW-16S 10/21/2019	MW-17D 10/23/2019	MW-17S 10/23/2019	MW-18D 10/24/2019	MW-18S 10/23/2019
Bromoform	0.005 U	0.025 U	0.005 U	0.1 U	0.005 U	0.005 U	0.013 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.025 U	0.005 U	0.1 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Bromomethane	0.005 U	0.025 U	0.005 U	0.1 U	0.005 U	0.005 U	0.013 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.025 U	0.005 U	0.1 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Carbon disulfide	0.01 U	0.05 U	0.01 U	0.2 U	0.01 U	0.01 U	0.025 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.05 U	0.01 U	0.2 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Carbon tetrachloride	0.005 U	0.025 U	0.005 U	0.1 U	0.005 U	0.005 U	0.013 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.025 U	0.005 U	0.1 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Chlorobenzene	0.005 U	0.025 U	0.005 U	0.1 U	0.005 U	0.005 U	0.013 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.025 U	0.005 U	0.1 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Chloroethane	0.005 U	0.025 U	0.005 U	0.1 U	0.005 U	0.005 U	0.013 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.025 U	0.005 U	0.1 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Chloroform	0.005 U	0.025 U	0.005 U	0.1 U	0.005 U	0.005 U	0.013 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.025 U	0.005 U	0.1 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Chloromethane	0.005 U	0.025 U	0.005 U	0.1 U	0.005 U	0.005 U	0.013 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.025 U	0.005 U	0.1 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
cis-1,2-Dichloroethene	0.059	0.59	0.14	0.22	0.005 U	0.0067	0.095	0.005 U	0.005 U	0.0065	0.005 U	0.066	0.37	0.12	0.2	0.005 U	0.005 U	0.034	0.005 U	0.005 U
cis-1,3-Dichloropropene	0.005 U	0.025 U	0.005 U	0.1 U	0.005 U	0.005 U	0.013 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.025 U	0.005 U	0.1 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Dibromochloromethane	0.005 U	0.025 U	0.005 U	0.1 U	0.005 U	0.005 U	0.013 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.025 U	0.005 U	0.1 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Dichloromethane (Methylene chloride)	0.005 U	0.025 U	0.005 U	0.1 U	0.005 U	0.005 U	0.013 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.025 U	0.005 U	0.1 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Ethyl benzene	0.005 U	0.025 U	0.005 U	0.1 U	0.005 U	0.005 U	0.013 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.025 U	0.005 U	0.1 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
m&p-Xylene	0.005 U	0.025 U	0.005 U	0.1 U	0.005 U	0.005 U	0.013 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.025 U	0.005 U	0.1 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
o-Xylene	0.005 U	0.025 U	0.005 U	0.1 U	0.005 U	0.005 U	0.013 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.025 U	0.005 U	0.1 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Styrene	0.005 U	0.025 U	0.005 U	0.1 U	0.005 U	0.005 U	0.013 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.025 U	0.005 U	0.1 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Tetrachloroethene	0.005 U	0.025 U	0.005 U	0.1 U	0.005 U	0.005 U	0.013 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.025 U	0.005 U	0.1 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Toluene	0.005 U	0.025 U	0.005 U	0.1 U	0.005 U	0.005 U	0.013 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.025 U	0.005 U	0.1 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
trans-1,2-Dichloroethene	0.005 U	0.025 U	0.005 U	0.1 U	0.005 U	0.005 U	0.013 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.025 U	0.005 U	0.1 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
trans-1,3-Dichloropropene	0.005 U	0.025 U	0.005 U	0.1 U	0.005 U	0.005 U	0.013 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.025 U	0.005 U	0.1 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Trichloroethene	0.005 U	0.21	0.029	2.6	0.005 U	0.038	0.47	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.14	0.018	2.4	0.005 U	0.005 U	0.011	0.005 U	0.005 U
Vinyl chloride	0.023	0.048	0.0087	0.1 U	0.005 U	0.005 U	0.013 U	0.005 U	0.005 U	0.005 U	0.005 U	0.016	0.029	0.0095	0.1 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U

Notes
U - Concentration not detected at specified limit

Please see page 2 for notes.

Table 4-1

Current and Historic Surface Water Analyitcal Results
Wellsville/Andover Landfill
Wellsville, New York
(mg/L except where noted)

Parameter	SWS-1 3/28/2017	SWS-1 4/17/2018	SWS-1 4/10/2019	Class C Standard
Field Parameters				
Dissolved Oxygen			9.65	
Field pH (std. units)	7.94	7.66	7.79	
ORP (mV)	83.9	154.2	30.5	
Specific Conductivity (us/cm)	231.5	138.7	339.9	
Temperature (deg. C)	6.4	3.4	8.7	
Turbidity (NTU)	6.7	13.5	2.91	
Inorganic Compounds				
Arsenic	0.01 U	0.01 U	0.01 U	
Barium	0.02 U	0.02 U	0.025	
Cadmium	0.005 U	0.005 U	0.005 U	
Calcium	22.2	13.9	37.1	
Chromium	0.01 U	0.01 U	0.01 U	
Copper	0.02 U	0.02 U	0.02 U	
Iron	0.29	0.78	0.23	
Lead	0.05 U	0.05 U	0.05 U	0.008
Magnesium	9	5.3	13.8	
Manganese	0.01	0.012	0.06	
Nickel	0.04 U	0.04 U	0.04 U	0.0082
Potassium	2 U	2.2	2.6	
Selenium	0.01 U	0.01 U	0.01 U	
Sodium	11.7	8.9	19.3	
Zinc	0.02 U	0.036	0.035	
Volatile Organic Compounds				
1,1,1-Trichloroethane	0.005 U	0.005 U	0.005 U	
1,1,2,2-Tetrachloroethane	0.005 U	0.005 U	0.005 U	
1,1,2-Trichloroethane	0.005 U	0.005 U	0.005 U	
1,1-Dichloroethane	0.005 U	0.005 U	0.005 U	
1,1-Dichloroethene	0.005 U	0.005 U	0.005 U	
1,2-Dibromoethane	0.005 U	0.005 U	0.005 U	
1,2-Dichloroethane	0.005 U	0.005 U	0.005 U	
1,2-Dichloropropane	0.005 U	0.005 U	0.005 U	
2-Butanone (MEK)	0.01 U	0.01 U	0.01 U	
2-Hexanone	0.01 U	0.01 U	0.01 U	
4-Methyl-2-pentanone	0.01 U	0.01 U	0.01 U	
Acetone	0.01 U	0.01 U	0.01 U	
Benzene	0.005 U	0.005 U	0.005 U	
Bromodichloromethane	0.005 U	0.005 U	0.005 U	
Bromoform	0.005 U	0.005 U	0.005 U	
Bromomethane	0.005 U	0.005 U	0.005 U	
Carbon disulfide	0.01 U	0.01 U	0.01 U	
Volatile Organic Compounds (con't)				

Please see page 2 for notes.

Table 4-1

Current and Historic Surface Water Analyitcal Results
Wellsville/Andover Landfill
Wellsville, New York
(mg/L except where noted)

Parameter	SWS-1 3/28/2017	SWS-1 4/17/2018	SWS-1 4/10/2019	Class C Standard
Carbon tetrachloride	0.005 U	0.005 U	0.005 U	
Chlorobenzene	0.005 U	0.005 U	0.005 U	0.005
Chloroethane	0.005 U	0.005 U	0.005 U	
Chloroform	0.005 U	0.005 U	0.005 U	
Chloromethane	0.005 U	0.005 U	0.005 U	
cis-1,2-Dichloroethene	0.005 U	0.005 U	0.005 U	
cis-1,3-Dichloropropene	0.005 U	0.005 U	0.005 U	
Dibromochloromethane	0.005 U	0.005 U	0.005 U	
Dichloromethane (Methylene chloride)	0.005 U	0.005 U	0.005 U	0.2
Ethyl benzene	0.005 U	0.005 U	0.005 U	
m&p-Xylene	0.005 U	0.005 U	0.005 U	
o-Xylene	0.005 U	0.005 U	0.005 U	
Styrene	0.005 U	0.005 U	0.005 U	
Tetrachloroethene	0.005 U	0.005 U	0.005 U	
Toluene	0.005 U	0.005 U	0.005 U	6
trans-1,2-Dichloroethene	0.005 U	0.005 U	0.005 U	
trans-1,3-Dichloropropene	0.005 U	0.005 U	0.005 U	
Trichloroethene	0.005 U	0.005 U	0.005 U	0.04
Vinyl chloride	0.005 U	0.005 U	0.005 U	
General Chemistry				
Alkalinity	93.6	56	127	
Ammonia Nitrogen	0.05 U	0.05 U	0.05 U	
Biochemical Oxygen Demand	2 U	2 U	2 U	
Bromide	1 U	1 U	1 U	
Chemical Oxygen Demand	8.5	23.9	15.6	
Chloride	21.1	12.9	39.1	
Color (True) (C.U.)	42	105	34 *	
Nitrate Nitrogen	1 U	1 U	1 U	
pH of Color Analysis	7.39	7.64 *	8.07 *	
Sulfate	2 U	2 U	2 U	
Total Dissolved Solids	139	93	207	500
Total Kjeldahl Nitrogen	0.74	0.46	0.43	
Total Organic Carbon (TOC)	6		6.2	
Total Phenolics	0.005 U		0.005 U	

Notes:
Class C Standard - NYSDEC Class C Surface Water Standard
Concentrations are within Class C Standards
U - Concentration not detected at specified detection limit
*** -** Analysis was performed out of hold time

Please see page 2 for notes.

Table 4-1

Current and Historic Surface Water Analyitcal Results
Wellsville/Andover Landfill
Wellsville, New York
(mg/L except where noted)

Parameter	SWS-1 3/28/2017	SWS-1 4/17/2018	SWS-1 4/10/2019	Class C Standard
Carbon tetrachloride	0.005 U	0.005 U	0.005 U	
Chlorobenzene	0.005 U	0.005 U	0.005 U	0.005
Chloroethane	0.005 U	0.005 U	0.005 U	
Chloroform	0.005 U	0.005 U	0.005 U	
Chloromethane	0.005 U	0.005 U	0.005 U	
cis-1,2-Dichloroethene	0.005 U	0.005 U	0.005 U	
cis-1,3-Dichloropropene	0.005 U	0.005 U	0.005 U	
Dibromochloromethane	0.005 U	0.005 U	0.005 U	
Dichloromethane (Methylene chloride)	0.005 U	0.005 U	0.005 U	0.2
Ethyl benzene	0.005 U	0.005 U	0.005 U	
m&p-Xylene	0.005 U	0.005 U	0.005 U	
o-Xylene	0.005 U	0.005 U	0.005 U	
Styrene	0.005 U	0.005 U	0.005 U	
Tetrachloroethene	0.005 U	0.005 U	0.005 U	
Toluene	0.005 U	0.005 U	0.005 U	6
trans-1,2-Dichloroethene	0.005 U	0.005 U	0.005 U	
trans-1,3-Dichloropropene	0.005 U	0.005 U	0.005 U	
Trichloroethene	0.005 U	0.005 U	0.005 U	0.04
Vinyl chloride	0.005 U	0.005 U	0.005 U	
General Chemistry				
Alkalinity	93.6	56	127	
Ammonia Nitrogen	0.05 U	0.05 U	0.05 U	
Biochemical Oxygen Demand	2 U	2 U	2 U	
Bromide	1 U	1 U	1 U	
Chemical Oxygen Demand	8.5	23.9	15.6	
Chloride	21.1	12.9	39.1	
Color (True) (C.U.)	42	105	34 *	
Nitrate Nitrogen	1 U	1 U	1 U	
pH of Color Analysis	7.39	7.64 *	8.07 *	
Sulfate	2 U	2 U	2 U	
Total Dissolved Solids	139	93	207	500
Total Kjeldahl Nitrogen	0.74	0.46	0.43	
Total Organic Carbon (TOC)	6		6.2	
Total Phenolics	0.005 U		0.005 U	

Notes:
Class C Standard - NYSDEC Class C Surface Water Standard
Concentrations are within Class C Standards
U - Concentration not detected at specified detection limit
*** -** Analysis was performed out of hold time

Please see page 2 for notes.

Table 4-2

Historic Sediment Analytical Results
Wellsville/Andover Landfill
Wellsville, New York
(mg/Kg)

Parameter	SWS-1 10/31/2016	SWS-1 3/28/2017
Inorganic Compounds		
Arsenic	8.1	12.4
Barium	57.7	121
Cadmium	0.62 U	1.1 U
Calcium	46400	68300
Chromium	8.7	15.7
Copper	16.2	25.2
Iron	28200	29500
Lead	8.4	14
Magnesium	7940	11200
Manganese	571	873
Nickel	16.6	24.5
Potassium	800	2140
Selenium	1.2 U	2.1 U
Sodium	120 U	230
Zinc	414	780
Volatile Organic Compounds		
1,1,1-Trichloroethane	0.0064 U	
1,1,2,2-Tetrachloroethane	0.0064 U	
1,1,2-Trichloroethane	0.0064 U	
1,1-Dichloroethane	0.0064 U	
1,1-Dichloroethene	0.0064 U	
1,2-Dibromoethane	0.0064 U	
1,2-Dichloroethane	0.0064 U	
1,2-Dichloropropane	0.0064 U	
2-Butanone (MEK)	0.0064 U	
2-Hexanone	0.0064 U	
4-Methyl-2-pentanone	0.0064 U	
Acetone	0.0064 U	
Benzene	0.0064 U	
Bromodichloromethane	0.0064 U	
Bromoform	0.0064 U	
Bromomethane	0.0064 U	
Carbon disulfide	0.0064 U	
Carbon tetrachloride	0.0064 U	
Chlorobenzene	0.0064 U	
Chloroethane	0.0064 U	
Chloroform	0.0064 U	
Chloromethane	0.0064 U	
cis-1,2-Dichloroethene	0.0064 U	
cis-1,3-Dichloropropene	0.0064 U	
Dibromochloromethane	0.0064 U	
Dichloromethane (Methylene chloride)	0.0064 U	
Ethyl benzene	0.0064 U	
m&p-Xylene	0.013 U	
o-Xylene	0.0064 U	
Styrene	0.0064 U	
Tetrachloroethene	0.33 D	
Toluene	0.0064 U	
trans-1,2-Dichloroethene	0.0064 U	
trans-1,3-Dichloropropene	0.0064 U	
Trichloroethene	0.0064 U	
Vinyl chloride	0.0064 U	

Parameter	SWS-1 10/31/2016	SWS-1 3/28/2017
Wet Chemistry		
Alkalinity	360	9160
Ammonia Nitrogen	6.4 U	11 U
Bromide	13 U	22 U
Chemical Oxygen Demand	75800	138000
Chloride	39 U	80
Nitrate Nitrogen	13 U	22 U
Sulfate	39 U	67 U
Total Kjeldahl Nitrogen	297	2440
Total Organic Carbon (TOC)	11000	
Total Phenolics	0.13 U	0.22 U
Total Solids	77.8	45

Note:
U - Concentration not detected at specified detection limit

Table 5-1

Frequency of 2018 and 2019 Leachate Sump and Manhole Detections
Wellsville/Andover Landfill
Wellsville, New York

Parameter	2018 Detection Frequency	2018 Minimum (mg/L)	2018 Maximum (mg/L)	2019 Detection Frequency	2019 Minimum (mg/L)	2019 Maximum (mg/L)
Field Parameters						
Field pH (std. units)	3/3	6.29	6.67	3/3	6.48	6.86
ORP (mV)	3/3	-43.6	115.9	3/3	-51.9	84.2
Specific Conductivity (us/cm)	3/3	233.8	528.7	3/3	323.4	517
Temperature (deg. C)	3/3	8.9	11	3/3	13	13.5
Turbidity (NTU)	3/3	12.8	21.3	3/3	10.3	14.1
Inorganic Compounds						
Arsenic	0/3			0/3		
Barium	3/3	0.037	0.078	3/3	0.04	0.08
Cadmium	0/3			0/3		
Calcium	3/3	38	101	3/3	48.4	89.4
Chromium	0/3			0/3		
Copper	0/3			0/3		
Iron	3/3	1.66	9.31	3/3	0.98	9.13
Lead	0/3			0/3		
Magnesium	3/3	10.6	14.6	3/3	14.1	20.4
Manganese	3/3	0.518	2.2	3/3	0.486	1.61
Nickel	0/3			0/3		
Potassium	3/3	2.3	2.8	2/3	2.1	2.6
Selenium	0/3			0/3		
Sodium	3/3	1.8	3.7	3/3	2.3	9.4
Zinc	1/3	0.045	0.045	0/3		
Volatile Organic Compounds						
1,1,1-Trichloroethane	0/3			0/3		
1,1,2,2-Tetrachloroethane	0/3			0/3		
1,1,2-Trichloroethane	0/3			0/3		
1,1-Dichloroethane	0/3			0/3		
1,1-Dichloroethene	0/3			0/3		
1,2-Dibromoethane	0/3			0/3		
1,2-Dichloroethane	0/3			0/3		
1,2-Dichloropropane	0/3			0/3		
2-Butanone (MEK)	0/3			0/3		
2-Hexanone	0/3			0/3		
4-Methyl-2-pentanone	0/3			0/3		
Acetone	0/3			0/3		
Benzene	0/3			0/3		
Bromodichloromethane	0/3			0/3		
Bromoform	0/3			0/3		
Bromomethane	0/3			0/3		
Carbon disulfide	0/3			0/3		

Table 5-1

Frequency of 2018 and 2019 Leachate Sump and Manhole Detections
Wellsville/Andover Landfill
Wellsville, New York

Parameter	2018 Detection Frequency	2018 Minimum (mg/L)	2018 Maximum (mg/L)	2019 Detection Frequency	2019 Minimum (mg/L)	2019 Maximum (mg/L)
Volatile Organic Compounds (con't)						
Carbon tetrachloride	0/3			0/3		
Chlorobenzene	0/3			0/3		
Chloroethane	0/3			0/3		
Chloroform	0/3			0/3		
Chloromethane	0/3			0/3		
cis-1,2-Dichloroethene	3/3	0.015	1.4	3/3	0.0086	3.1
cis-1,3-Dichloropropene	0/3			0/3		
Dibromochloromethane	0/3			0/3		
Dichloromethane (Methylene chloride)	1/3	0.012	0.012	0/3		
Ethyl benzene	0/3			0/3		
m&p-Xylene	0/3			0/3		
o-Xylene	0/3			0/3		
Styrene	0/3			0/3		
Tetrachloroethene	0/3			0/3		
Toluene	1/3	0.0081	0.0081	0/3		
trans-1,2-Dichloroethene	0/3			0/3		
trans-1,3-Dichloropropene	0/3			0/3		
Trichloroethene	1/3	0.0057	0.0057	0/3		
Vinyl chloride	2/3	0.013	0.11	1/3	0.091	0.091
General Chemistry						
Nitrate Nitrogen	0/2			0/2		
Total Dissolved Solids	2/2	177	336	2/2	215	329

Table 5-2

2019 Leachate Sump and Manhole
NYSDEC and NYSDOH Standards Exceedances
Wellsville/Andover Landfill
Wellsville, New York
(mg/L except where noted)

Location	Date Sampled	Parameter	Result	Class GA Standard	NYSDOH MCL
LS-1	23-Oct-19	Turbidity (NTU)	14.1	5	5
LS-1	23-Oct-19	Manganese	1.18	0.3	0.3
LS-1	23-Oct-19	Iron	2.47	0.3	0.3
LS-1	23-Oct-19	cis-1,2-Dichloroethene	0.072	0.005	0.005
MH-32	28-Oct-19	Turbidity (NTU)	10.9	5	5
MH-32	28-Oct-19	Manganese	1.61	0.3	0.3
MH-32	28-Oct-19	Iron	9.13	0.3	0.3
MH-32	28-Oct-19	Vinyl chloride	0.091	0.002	0.002
MH-32	28-Oct-19	cis-1,2-Dichloroethene	3.1 D	0.005	0.005
MH-33	28-Oct-19	Turbidity (NTU)	10.3	5	5
MH-33	28-Oct-19	Manganese	0.486	0.3	0.3
MH-33	28-Oct-19	Iron	0.98	0.3	0.3
MH-33	28-Oct-19	cis-1,2-Dichloroethene	0.0086	0.005	0.005

Notes:
Class GA Standard - NYSDEC Class GA Groundwater Standard
NYSDOH MCL - New York State Department of Health Maximum Containment Level

Table 5-3

Current and Historic Leachate Sump Analytical Results
Wellsville/Andover Landfill
Wellsville, New York
(mg/L except where noted)

Parameter	LS-1 10/17/2017	LS-1 10/29/2018	LS-1 10/23/2019	Class C Standard
Field Parameters				
Field pH (std. units)	7.39	6.29	6.86	
ORP (mV)	153.7	115.9	84.2	
Specific Conductivity (us/cm)	918	318.5	510.2	
Temperature (deg. C)	14.2	11	13.3	
Turbidity (NTU)	9.21	21.3	14.1	
Inorganic Compounds				
Arsenic	0.01 U	0.01 U	0.01 U	
Barium	0.127	0.051	0.072	
Cadmium	0.005 U	0.005 U	0.005 U	
Calcium	140	50.4	85.3	
Chromium	0.01 U	0.01 U	0.01 U	
Copper	0.02 U	0.02 U	0.02 U	
Iron	1.45	3.17	2.47	
Lead	0.05 U	0.05 U	0.05 U	0.008
Magnesium	32.5	12.7	20.4	
Manganese	3.41	1.2	1.18	
Nickel	0.04 U	0.04 U	0.04 U	0.0082
Potassium	4.4	2.8	2.6	
Selenium	0.01 U	0.01 U	0.01 U	
Sodium	32.1	3.7	9.4	
Zinc	0.02 U	0.045	0.02 U	
Volatile Organic Compounds				
1,1,1-Trichloroethane	0.005 U	0.005 U	0.005 U	
1,1,2,2-Tetrachloroethane	0.005 U	0.005 U	0.005 U	
1,1,2-Trichloroethane	0.005 U	0.005 U	0.005 U	
1,1-Dichloroethane	0.005 U	0.005 U	0.005 U	
1,1-Dichloroethene	0.005 U	0.005 U	0.005 U	
1,2-Dibromoethane	0.005 U	0.005 U	0.005 U	
1,2-Dichloroethane	0.005 U	0.005 U	0.005 U	
1,2-Dichloropropane	0.005 U	0.005 U	0.005 U	
2-Butanone (MEK)	0.01 U	0.01 U	0.01 U	
2-Hexanone	0.01 U	0.01 U	0.01 U	
4-Methyl-2-pentanone	0.01 U	0.01 U	0.01 U	
Acetone	0.01 U	0.01 U	0.01 U	
Benzene	0.005 U	0.005 U	0.005 U	
Bromodichloromethane	0.005 U	0.005 U	0.005 U	
Bromoform	0.005 U	0.005 U	0.005 U	
Bromomethane	0.005 U	0.005 U	0.005 U	
Carbon disulfide	0.01 U	0.01 U	0.01 U	

Volatile Organic Compounds (con't)

Table 5-3

Current and Historic Leachate Sump Analytical Results
Wellsville/Andover Landfill
Wellsville, New York
(mg/L except where noted)

Parameter	LS-1 10/17/2017	LS-1 10/29/2018	LS-1 10/23/2019	Class C Standard
Carbon tetrachloride	0.005 U	0.005 U	0.005 U	
Chlorobenzene	0.005 U	0.005 U	0.005 U	0.005
Chloroethane	0.005 U	0.005 U	0.005 U	
Chloroform	0.005 U	0.005 U	0.005 U	
Chloromethane	0.005 U	0.005 U	0.005 U	
cis-1,2-Dichloroethene	0.053	0.29 D	0.072	
cis-1,3-Dichloropropene	0.005 U	0.005 U	0.005 U	
Dibromochloromethane	0.005 U	0.005 U	0.005 U	
Dichloromethane (Methylene chloride)	0.005 U	0.012	0.005 U	0.2
Ethyl benzene	0.005 U	0.005 U	0.005 U	
m&p-Xylene	0.005 U	0.005 U	0.005 U	
o-Xylene	0.005 U	0.005 U	0.005 U	
Styrene	0.005 U	0.005 U	0.005 U	
Tetrachloroethene	0.005 U	0.005 U	0.005 U	
Toluene	0.005 U	0.005 U	0.005 U	6
trans-1,2-Dichloroethene	0.005 U	0.005 U	0.005 U	
trans-1,3-Dichloropropene	0.005 U	0.005 U	0.005 U	
Trichloroethene	0.005 U	0.0057	0.005 U	0.04
Vinyl chloride	0.005 U	0.013	0.005 U	

Notes:
Class C Standard - NYSDEC Class C Surface Water Standard
Concentrations are within Class C Standards
U - Concentration not detected at specified detection limit

Table 5-4

Current and Historic Manhole Analytical Results
Wellsville/Andover Landfill
Wellsville, New York
(mg/L except where noted)

Parameter	MH-32 10/17/2017	MH-32 10/29/2018	MH-32 10/28/2019	MH-33 10/17/2017	MH-33 10/29/2018	MH-33 10/28/2019	Class C Standard
Field Parameters							
Field pH (std. units)	7.11	6.47	6.48	7.21	6.67	6.6	
ORP (mV)	186.7	-43.6	-51.9	99.6	50.6	74.7	
Specific Conductivity (us/cm)	611.1	528.7	517	557.9	233.8	323.4	
Temperature (deg. C)	13.3	9.5	13	13.1	8.9	13.5	
Turbidity (NTU)	24.8	19.4	10.9	25.5	12.8	10.3	
Inorganic Compounds							
Arsenic	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	
Barium	0.091	0.078	0.08	0.057	0.037	0.04	
Cadmium	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	
Calcium	109	101	89.4	105	38	48.4	
Chromium	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	
Copper	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	
Iron	3.21	9.31	9.13	3.64	1.66	0.98	
Lead	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.008
Magnesium	14.1	14.6	14.3	19.9	10.6	14.1	
Manganese	0.641	2.2	1.61	1.37	0.518	0.486	
Nickel	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.0082
Potassium	16.4	2.4	2.1	2.1	2.3	2 U	
Selenium	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	
Sodium	5.6	2.5	3.1	8.3	1.8	2.3	
Zinc	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	
Volatile Organic Compounds							
1,1,1-Trichloroethane	0.005 U	0.005 U	0.05 U	0.005 U	0.005 U	0.005 U	
1,1,2,2-Tetrachloroethane	0.005 U	0.005 U	0.05 U	0.005 U	0.005 U	0.005 U	
1,1,2-Trichloroethane	0.005 U	0.005 U	0.05 U	0.005 U	0.005 U	0.005 U	
1,1-Dichloroethane	0.005 U	0.005 U	0.05 U	0.005 U	0.005 U	0.005 U	
1,1-Dichloroethene	0.005 U	0.005 U	0.05 U	0.005 U	0.005 U	0.005 U	
1,2-Dibromoethane	0.005 U	0.005 U	0.05 U	0.005 U	0.005 U	0.005 U	
1,2-Dichloroethane	0.005 U	0.005 U	0.05 U	0.005 U	0.005 U	0.005 U	
1,2-Dichloropropane	0.005 U	0.005 U	0.05 U	0.005 U	0.005 U	0.005 U	
2-Butanone (MEK)	0.01 U	0.01 U	0.1 U	0.01 U	0.01 U	0.01 U	
2-Hexanone	0.01 U	0.01 U	0.1 U	0.01 U	0.01 U	0.01 U	
4-Methyl-2-pentanone	0.01 U	0.01 U	0.1 U	0.01 U	0.01 U	0.01 U	
Acetone	0.01 U	0.01 U	0.1 U	0.01 U	0.01 U	0.01 U	
Benzene	0.005 U	0.005 U	0.05 U	0.005 U	0.005 U	0.005 U	
Bromodichloromethane	0.005 U	0.005 U	0.05 U	0.005 U	0.005 U	0.005 U	
Bromoform	0.005 U	0.005 U	0.05 U	0.005 U	0.005 U	0.005 U	
Bromomethane	0.005 U	0.005 U	0.05 U	0.005 U	0.005 U	0.005 U	
Carbon disulfide	0.01 U	0.01 U	0.1 U	0.01 U	0.01 U	0.01 U	

Please see page 2 for notes.

Table 5-4

Current and Historic Manhole Analytical Results
Wellsville/Andover Landfill
Wellsville, New York
(mg/L except where noted)

Parameter	MH-32 10/17/2017	MH-32 10/29/2018	MH-32 10/28/2019	MH-33 10/17/2017	MH-33 10/29/2018	MH-33 10/28/2019	Class C Standard
Volatile Organic Compounds (con't)							
Carbon tetrachloride	0.005 U	0.005 U	0.05 U	0.005 U	0.005 U	0.005 U	
Chlorobenzene	0.005 U	0.005 U	0.05 U	0.005 U	0.005 U	0.005 U	0.005
Chloroethane	0.005 U	0.005 U	0.05 U	0.005 U	0.005 U	0.005 U	
Chloroform	0.005 U	0.005 U	0.05 U	0.005 U	0.005 U	0.005 U	
Chloromethane	0.005 U	0.005 U	0.05 U	0.005 U	0.005 U	0.005 U	
cis-1,2-Dichloroethene	0.12	1.4 D	3.1 D	0.005 U	0.015	0.0086	
cis-1,3-Dichloropropene	0.005 U	0.005 U	0.05 U	0.005 U	0.005 U	0.005 U	
Dibromochloromethane	0.005 U	0.005 U	0.05 U	0.005 U	0.005 U	0.005 U	
Dichloromethane (Methylene chloride)	0.005 U	0.005 U	0.05 U	0.005 U	0.005 U	0.005 U	0.2
Ethyl benzene	0.005 U	0.005 U	0.05 U	0.005 U	0.005 U	0.005 U	
m&p-Xylene	0.005 U	0.005 U	0.05 U	0.005 U	0.005 U	0.005 U	
o-Xylene	0.005 U	0.005 U	0.05 U	0.005 U	0.005 U	0.005 U	
Styrene	0.005 U	0.005 U	0.05 U	0.005 U	0.005 U	0.005 U	
Tetrachloroethene	0.005 U	0.005 U	0.05 U	0.005 U	0.005 U	0.005 U	
Toluene	0.005 U	0.0081	0.05 U	0.005 U	0.005 U	0.005 U	6
trans-1,2-Dichloroethene	0.005 U	0.005 U	0.05 U	0.005 U	0.005 U	0.005 U	
trans-1,3-Dichloropropene	0.005 U	0.005 U	0.05 U	0.005 U	0.005 U	0.005 U	
Trichloroethene	0.0055	0.005 U	0.05 U	0.005 U	0.005 U	0.005 U	0.04
Vinyl chloride	0.005 U	0.11	0.091	0.005 U	0.005 U	0.005 U	
General Chemistry							
Nitrate Nitrogen	1 U	1 U	1 U	1 U	1 U	1 U	
Total Dissolved Solids	375	336	329	367	177	215	500

Notes:
Class C Standard - NYSDEC Class C Surface Water Standard
Concentrations are within Class C Standards
U - Concentration not detected at specified detection limit
D - Concentration is a result of a dilution.

Table 6-1

Fall 2019 Air Monitoring Results
Wellsville/Andover Landfill
Wellsville, New York

Monitoring Point	Date	PID (ppm)	O_2 (%)	LEL (%)
V-1	10/29/2019	0.0	20.9	0
V-2	10/29/2019	0.0	20.9	0
V-3	10/29/2019	0.0	20.9	0
V-4	10/29/2019	2.5	20.9	20
V-5	10/29/2019	0.1	20.9	0
V-6	10/29/2019	2.3	20.9	2
V-7	10/29/2019	0.0	20.9	0
V-8	10/29/2019	4.5	20.9	0
V-9	10/29/2019	7.0	20.9	21
V-10	10/29/2019	0.0	20.9	0
V-11	10/29/2019	3.7	20.9	26
V-12	10/29/2019	0.0	20.9	0
V-13	10/29/2019	0.2	20.9	0
V-14	10/29/2019	0.3	20.9	0
V-15	10/29/2019	0.0	20.9	0
V-16	10/29/2019	0.0	20.9	0
V-17	10/29/2019	0.3	20.9	15
V-18	10/29/2019	0.6	20.9	15
V-19	10/29/2019	0.0	20.9	0
V-20	10/29/2019	0.0	20.9	0
V-21	10/29/2019	0.0	20.9	0
L-16	10/29/2019	0.0	20.9	0
L-17	10/29/2019	1.5	13.7	<100
L-19	10/29/2019	2.6	4.9	<100
L-21	10/29/2019	1.4	7.4	<100
L-23	10/29/2019	2.9	9.8	<100
L-25	10/29/2019	1.4	20.9	0
L-27	10/29/2019	4.3	12.8	<100
L-29	10/29/2019	30.5	14.6	<100
L-31	10/29/2019	20.8	4.3	<100
MH-6	10/29/2019	0.6	20.9	0
MH-7	10/29/2019	0.0	20.9	0
MH-8	10/29/2019	1.2	19.4	23
MH-9	10/29/2019	2.5	17.9	11
MH-10	10/29/2019	6.8	19.7	18
MH-11	10/29/2019	1.5	16.9	42
MH-12	10/29/2019	4.5	16.8	14
MH-13	10/29/2019	4.6	20.9	0
MH-32	10/29/2019	0.0	20.9	0
MH-33	10/29/2019	0.0	20.9	0
Upwind	10/29/2019	0.0	20.9	0
Downwind-1	10/29/2019	0.0	20.9	0
Downwind-2	10/29/2019	0.0	20.9	0
Downwind-3	10/29/2019	0.0	20.9	0

Notes:
Meters: QRAE3 4 Gas / RAE with PID
Background Readings:
O_2=20.9 LEL = 0 PID = 0.0
Weather: 52° F, Partly Cloudy 0-15 mph winds from South
Monitored By: K. Dye

Table 7-1

Spring and Fall 2019
Residential Water Supply Contact and Sampling Summary
Wellsville/Andover Landfill

Name	Mailing Address	Physical Address of Sampling Location	Phone No.	Location ID	Water Source	Telephone Contact		Sampling Approved	Sampling Location	Sample Collection	
						Date	Time			Date	Time
Mr. John Carl	3987 Snyder Rd Wellsville, NY 14895	3987 Snyder Rd Wellsville, NY 14895	585-610-8581	WAL-1	Well[3]	10/22/2019	1330	Yes	Kitchen Sink	10/22/2019	1350
Mrs. Rosalie Rosini	210 E. Linden Ave. Rochester, NY 14445	3899 Snyder Road Wellsville, NY	585-586-0810	WAL-2	Well[1,2] 150 ft deep	10/21/2019	1540	Yes	Kitchen Sink	11/15/2019	1315
Mr. Phil Rosini	72 Havenshire Rd Rochester, NY 14625	3899 Snyder Road Wellsville, NY	(C) 585-754-6328 (H) 585-671-3831								
Adam Fantrazzo	4011 Duffy Hollow Rd Wellsville, NY 14895	4011 Duffy Hollow Rd Wellsville, NY 14895	585-296-0007	WAL-5	Spring[3]	Oct 2019: House reportedly purchased and new owner in process of moving in. Resident indicates water not on and requests sampling be done at later date.					
Mr. Daniel & Mrs. Barbara LaDue	3914 Snyder Rd. Wellsville, NY 14895	3914 Snyder Rd. Wellsville, NY 14895	(H) 585-593-7200 (C) 585-593-8524	WAL-19	Spring[2]	4/10/2019	1445	Yes	Post - Kitchen Sink	4/17/2019	1010
									Inter - Between Filters		1020
									Pre - Before Filters		1030
						10/21/2019	1530	Yes	Post - Kitchen Sink	10/24/2019	1255
									Inter - Between Filters		1315
									Pre - Before Filters		1325

Notes:

[1] Water source information from *Remedial Investigation Report, Wellsville-Andover Landfill Site,* November 1993, prepared by Ecology & Environment

[2] Water source information from *Phase II State Superfund Investigation Report, Wellsville-Andover Landfill Site,* December 1986, prepared by Malcolm Pirnie

[3] Water Source from land owner

NA - Not applicable

Frequency of 2018 and 2019 Residential Water Supply Detections
Wellsville/Andover Landfill
Wellsville, New York
(mg/L)

Parameter	2018 Detection Frequency	2018 Minimum (mg/L)	2018 Maximum (mg/L)	2019 Detection Frequency	2019 Minimum (mg/L)	2019 Maximum (mg/L)	NYSDOH MCL (mg/L)	Number of 2018 MCL Exceedences	Number of 2019 MCL Exceedences	Class GA Standard (mg/L)	Number of 2018 Class GA Exceedences	Number of 2019 Class GA Exceedences
Inorganic Compounds												
Arsenic	0/2			0/2			0.05	0	0	0.025	0	0
Barium	2/2	0.037	0.066	2/2	0.032	0.075	1	0	0	1	0	0
Cadmium	0/2			0/2			0.01	0	0	0.005	0	0
Calcium	2/2	40.9	47	2/2	40.9	45.2						
Chromium	0/2			0/2			0.05	0	0	0.05	0	0
Copper	0/2			0/2			1	0	0	0.2	0	0
Iron	1/2	0.65	0.65	1/2	0.69	0.69	0.3	1	1	0.3	1	1
Lead	0/2			0/2			0.05	0	0	0.025	0	0
Magnesium	2/2	13.8	15.7	2/2	14.2	15.6						
Manganese	2/2	0.097	0.715	2/2	0.108	0.747	0.3	1	1	0.3	1	1
Nickel	0/2			0/2						0.1	0	0
Potassium	1/2	2.2	2.2	0/2								
Selenium	0/2			0/2			0.01	0	0	0.01	0	0
Sodium	2/2	9.2	55.2	2/2	9	47.5				20	1	1
Zinc	1/2	0.045	0.045	1/2	0.04	0.04						
Volatile Organic Compounds												
1,1,1,2-Tetrachloroethane	0/7			0/7			0.005	0	0	0.005	0	0
1,1,1-Trichloroethane	0/3			0/4			0.005	0	0	0.005	0	0
1,1,2,2-Tetrachloroethane	0/7			0/7			0.005	0	0	0.005	0	0
1,1,2-Trichloroethane	0/7			0/7			0.005	0	0	0.001	0	0
1,1-Dichloroethane	0/7			0/7			0.005	0	0	0.005	0	0
1,1-Dichloroethene	0/7			0/7			0.005	0	0	0.005	0	0
1,1-Dichloropropene	0/3			0/4								
1,2,3-Trichloropropane	0/7			0/7						0.00004	0	0
1,2,4-Trimethylbenzene	0/7			0/7			0.005	0	0	0.005	0	0
1,2-Dibromo-3-chloropropane				0/3						0.00004		0
1,2-Dichlorobenzene	0/7			0/7			0.005	0	0	0.003	0	0
1,2-Dichloroethane	0/7			0/7						0.0006	0	0
1,2-Dichloropropane	0/7			0/7						0.001	0	0
1,3,5-Trimethylbenzene	0/7			0/7			0.005	0	0	0.005	0	0
1,3-Dichlorobenzene	0/7			0/7			0.005	0	0	0.003	0	0
1,3-Dichloropropane	0/7			0/7			0.005	0	0	0.005	0	0
1,4-Dichlorobenzene	0/7			0/7			0.005	0	0	0.003	0	0
2,2-Dichloropropane	0/7			0/7			0.005	0	0	0.005	0	0
2-Chlorotoluene	0/7			0/3			0.005		0	0.005		0
4-Chlorotoluene	0/7			0/3			0.005		0	0.005		0
Benzene	0/7			0/7			0.005	0	0	0.001	0	0
Bromobenzene	0/7			0/7			0.005	0	0	0.005	0	0
Bromochloromethane	0/7			0/7			0.005	0	0	0.005	0	0
Bromodichloromethane	0/7			0/3								
Bromoform	0/7			0/3								
Bromomethane	0/7			0/7			0.005	0	0	0.005	0	0

Please see page 2 for notes.

Frequency of 2018 and 2019 Residential Water Supply Detections
Wellsville/Andover Landfill
Wellsville, New York
(mg/L)

Parameter	2018 Detection Frequency	2018 Minimum (mg/L)	2018 Maximum (mg/L)	2019 Detection Frequency	2019 Minimum (mg/L)	2019 Maximum (mg/L)	NYSDOH MCL (mg/L)	Number of 2018 MCL Exceedences	Number of 2019 MCL Exceedences	Class GA Standard (mg/L)	Number of 2018 Class GA Exceedences	Number of 2019 Class GA Exceedences
Volatile Organic Compounds (con't)												
Carbon tetrachloride	0/7			0/7			0.005	0	0	0.005	0	0
Chlorobenzene	0/7			0/7			0.005	0	0	0.005	0	0
Chloroethane	0/7			0/7			0.005	0	0	0.005	0	0
Chloroform	0/7			0/3			0.005	0	0	0.007	0	0
Chloromethane	0/7			0/7						0.005	0	0
cis-1,2-Dichloroethene	2/7	0.0015	0.002	2/7	0.0022	0.0024				0.005	0	0
cis-1,3-Dichloropropene	0/7			0/7								
Dibromochloromethane	0/7			0/3								
Dibromomethane	0/7			0/7			0.005	0	0	0.005	0	0
Dichlorodifluoromethane	0/7			0/7			0.005	0	0	0.005	0	0
Dichloromethane (Methylene chloride)	0/7			0/7			0.005	0	0	0.005	0	0
Ethyl benzene	0/7			0/7			0.005	0	0	0.005	0	0
Isopropylbenzene	0/7			0/7			0.005	0	0	0.005	0	0
m&p-Xylene	0/7			0/7								
Methyl t-Butyl Ether				0/1								
Methyl tert-butyl ether (MTBE)	0/7			0/3								
n-Butylbenzene	0/7			0/7			0.005	0	0	0.005	0	0
n-Propylbenzene	0/7			0/7			0.005	0	0	0.005	0	0
o-Chlorotoluene				0/4								
o-Xylene	0/7			0/7								
p-Chlorotoluene				0/4								
p-Isopropyltoluene	0/7			0/7						0.005	0	0
sec-Butylbenzene	0/7			0/7						0.005	0	0
Styrene	0/7			0/7			0.005	0	0	0.005	0	0
tert-Butylbenzene	0/7			0/7						0.005	0	0
Tetrachloroethene	0/7			0/7			0.005	0	0	0.005	0	0
Toluene	0/7			0/7			0.005	0	0	0.005	0	0
trans-1,2-Dichloroethene	0/7			0/7						0.005	0	0
trans-1,3-Dichloropropene	0/7			0/7								
Trichloroethene	2/7	0.0018	0.0025	2/7	0.0024	0.0033	0.005	0	0	0.005	0	0
Trichlorofluoromethane	0/7			0/7			0.005	0	0	0.005	0	0
Vinyl chloride	0/7			0/4			0.005	0	0	0.002	0	0
Xylenes (total)				0/1								
1,2,3-Trichlorobenzene	0/7			0/7			0.005	0	0	0.005	0	0
1,2,4-Trichlorobenzene	0/7			0/7			0.005	0	0	0.005	0	0
Hexachlorobutadiene	0/7			0/7						0.0005	0	0
Naphthalene	0/7			0/4								

Notes:
NYSDOH MCL - NYSDOH Maximum Containment Level
Class GA Standard - NYSDEC Class GA Groundwater Standard

Please see page 2 for notes.

Table 7-3

2019 Residential Water Supply Analytical Results
Wellsville/Andover Landfill
Wellsville, New York
(mg/L)

Parameter	WAL1-1019 10/22/2019	WAL19Pre 4/17/2019	WAL19Inter 4/17/2019	WAL19Post 4/17/2019	WAL19Pre 10/24/2019	WAL19Inter 10/24/2019	WAL19Post 10/24/2019	WAL2-1119 11/15/2019
Inorganic Compounds								
Arsenic	0.01 U							0.01 U
Barium	0.075							0.032
Cadmium	0.005 U							0.005 U
Calcium	40.9							45.2
Chromium	0.01 U							0.01 U
Copper	0.02 U							0.02 U
Iron	0.1 U							0.69
Lead	0.05 U							0.05 U
Magnesium	14.2							15.6
Manganese	0.108							0.747
Nickel	0.04 U							0.04 U
Potassium	2 U							2 U
Selenium	0.01 U							0.01 U
Sodium	9							47.5
Zinc	0.04							0.02 U
Volatile Organic Compounds								
1,1,1,2-Tetrachloroethane	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	
1,1,1-Trichloroethane	0.0005 U				0.0005 U	0.0005 U	0.0005 U	
1,1,2,2-Tetrachloroethane	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	
1,1,2-Trichloroethane	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	
1,1-Dichloroethane	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	
1,1-Dichloroethene	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	
1,1-Dichloropropene	0.0005 U				0.0005 U	0.0005 U	0.0005 U	
1,2,3-Trichloropropane	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	
1,2,4-Trimethylbenzene	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	
1,2-Dibromo-3-chloropropane					0.0005 U	0.0005 U	0.0005 U	
1,2-Dichlorobenzene	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	
1,2-Dichloroethane	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	
1,2-Dichloropropane	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	
1,3,5-Trimethylbenzene	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	
1,3-Dichlorobenzene	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	
1,3-Dichloropropane	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	
1,4-Dichlorobenzene	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	
2,2-Dichloropropane	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	
2-Chlorotoluene		0.0005 U	0.0005 U	0.0005 U				
4-Chlorotoluene		0.0005 U	0.0005 U	0.0005 U				
Benzene	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	
Bromobenzene	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	
Bromochloromethane	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	
Bromodichloromethane		0.0005 U	0.0005 U	0.0005 U				
Bromoform		0.0005 U	0.0005 U	0.0005 U				
Bromomethane	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	
Carbon tetrachloride	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	
Chlorobenzene	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	
Chloroethane	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	
Chloroform		0.0005 U	0.0005 U	0.0005 U				
Chloromethane	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	
cis-1,2-Dichloroethene	0.0005 U	0.0022	0.0005 U	0.0005 U	0.0024	0.0005 U	0.0005 U	
cis-1,3-Dichloropropene	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	
Dibromochloromethane		0.0005 U	0.0005 U	0.0005 U				
Dibromomethane	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	
Dichlorodifluoromethane	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	
Volatile Organic Compounds (con't)								
Dichloromethane (Methylene chloride)	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	
Ethyl benzene	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	

Please see page 2 for notes.

Table 7-3

2019 Residential Water Supply Analytical Results
Wellsville/Andover Landfill
Wellsville, New York
(mg/L)

Parameter	WAL1-1019 10/22/2019	WAL19Pre 4/17/2019	WAL19Inter 4/17/2019	WAL19Post 4/17/2019	WAL19Pre 10/24/2019	WAL19Inter 10/24/2019	WAL19Post 10/24/2019	WAL2-1119 11/15/2019
Isopropylbenzene	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	
m&p-Xylene	0.00025 U	0.001 U	0.001 U	0.001 U	0.00025 U	0.00025 U	0.00025 U	
Methyl t-Butyl Ether	0.0005 U							
Methyl tert-butyl ether (MTBE)		0.0005 U	0.0005 U	0.0005 U				
n-Butylbenzene	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	
n-Propylbenzene	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	
o-Chlorotoluene	0.0005 U				0.0005 U	0.0005 U	0.0005 U	
o-Xylene	0.00025 U	0.0005 U	0.0005 U	0.0005 U	0.00025 U	0.00025 U	0.00025 U	
p-Chlorotoluene	0.0005 U				0.0005 U	0.0005 U	0.0005 U	
p-Isopropyltoluene	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	
sec-Butylbenzene	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	
Styrene	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	
tert-Butylbenzene	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	
Tetrachloroethene	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	
Toluene	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	
trans-1,2-Dichloroethene	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	
trans-1,3-Dichloropropene	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	
Trichloroethene	0.0005 U	0.0024	0.0005 U	0.0005 U	0.0033	0.0005 U	0.0005 U	
Trichlorofluoromethane	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	
Vinyl chloride	0.0005 U	0.0005 U	0.0005 U	0.0005 U				
Xylenes (total)	0.0005 U							
1,2,3-Trichlorobenzene	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	
1,2,4-Trichlorobenzene	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	
Hexachlorobutadiene	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	
Naphthalene	0.0005 U	0.0005 U	0.0005 U	0.0005 U				

Notes:
U - Concentrations not detected at specified limit

Please see page 2 for notes.

Table 8-1

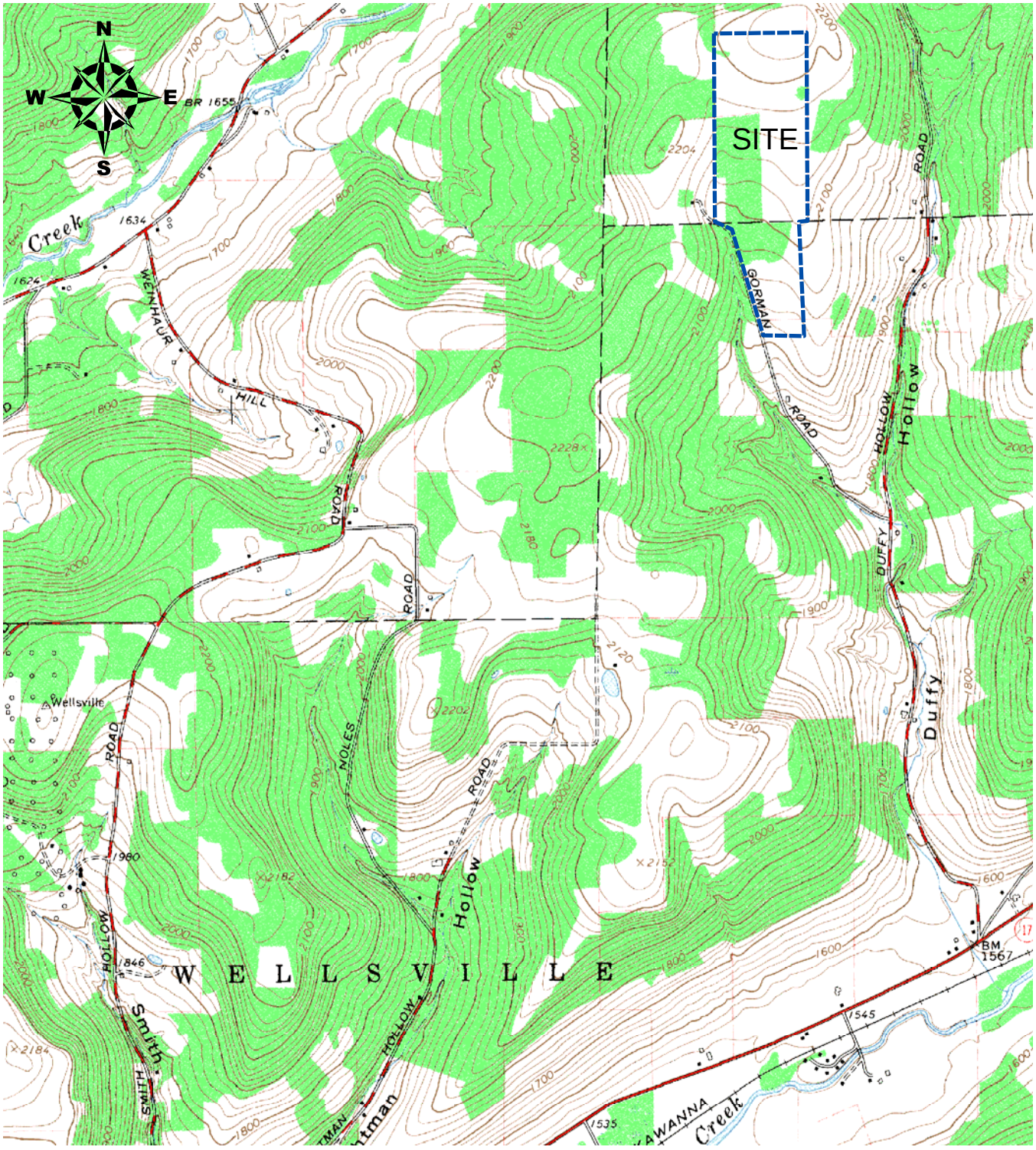
2019 Leachate Collection System Cleaning Summary
Wellsville-Andover Landfill Site
Wellsville, New York

Lateral Clean-Out	Associated Manhole	Date Cleaned	Approximate Gallons Jetted	Manhole Observations During Lateral Jetting - distances and volumes are approximate
L-16	Leachate Sump	11/6/2019	85-100	Began jetting @10:00, advanced 315 feet to refusal (felt like hard obstruction). Substantial flow of water into leachate sump during jetting (trickle prior to jetting). Inflow was fairly clear in appearance for first 5 minutes, then extremely turbid. No vacuum operations required at this location.
L-17	MH-6	11/6/2019	75	Began vacuuming at 10:25, removed 4-5 inches sediment. Very little inflow from lateral line. Began jetting @10:50, advanced approx. 450 feet - could not advance further. At 14:00, advanced jetter 290 feet up lateral line from MH-6. Also jetted from MH-6 up trunk line to MH-7, working through approx. 10 feet of dense material, releasing large quantity of sediment and water once breached, which was vacuumed out.
L-19	MH-7	11/6/2019	75	Began vacuuming at 11:10, removed 6 inches sediment. Very little inflow from lateral line. Began jetting @12:05, advanced 475 feet - could not advance further. At 15:45, advanced jetter 275 feet up lateral line from MH-7. Also jetted from MH-7 trunk line to MH-8, breaching through large amount of sediment into MH-8, which was largely gray clay, which was vacuumed out.
L-21	MH-8	11/7/2019	75	Began jetting @ 08:10, advanced 575 feet - could not advance further. No visible inflow into manhole, but could hear jetter through lateral pipe. Jetted trunk line from MH-8 to MH-9.
L-23	MH-9	11/7/2019	75	Began jetting @ 08:35, encountered and cleared obstruction at 30-35 feet, advanced 550 feet - could not advance further. No visible inflow into manhole, but could hear jetter through lateral pipe. Jetted trunk line from MH-9 to MH-10.
L-25	MH-10	11/7/2019	75	Began jetting @ 08:55, encountered and cleared obstruction at 30-35 feet, advanced 545 feet - could not advance further. No visible inflow into manhole, but could hear jetter through lateral pipe.
L-27	MH-11	11/7/2019	80	Began jetting @ 09:05, encountered and cleared obstruction at 30-35 feet (light gray clay), advanced 565 feet - could not advance further. No visible inflow into manhole, but could hear jetter through lateral pipe. Jetted trunk line from MH-11 down to MH-10, and from MH-11 up trunk line to MH-12
L-31	MH-13	11/7/2019	100	Began jetting @ 09:25, encountered and cleared obstruction at 40 feet (light gray clay), advanced 575 -585 feet - could not advance further. No visible inflow into manhole, but could hear jetter through lateral pipe. Jetted trunk line from MH-13 down trunk line to MH-12.
Pump Station Inlet Manhole		11/7/2019	N/A	Vacuumed approx. 4 feet of water and approx. 2.5 feet of very dense sediment.

Notes:
1) Laterals and clean-outs listed in order from South to North
2) Associated manhole means the manhole located at the downstream end of the lateral (i.e. Leachate Sump is downstream end of lateral with clean-out L-16 at upstream end).
3) Lateral L-29 to MH-12 previously determined not continuous and was not cleaned.

Figures

SITE LOCATION



SOURCE: WELLSVILLE NORTH, USGS 7.5 MINUTE TOPOGRAPHIC QUADRANGLE, DATED 1965.
NOTE: GORMAN ROAD IS NOW SYNDER ROAD.

2,000 1,000 0 2,000
Feet

1 inch = 2,000 feet

Legend

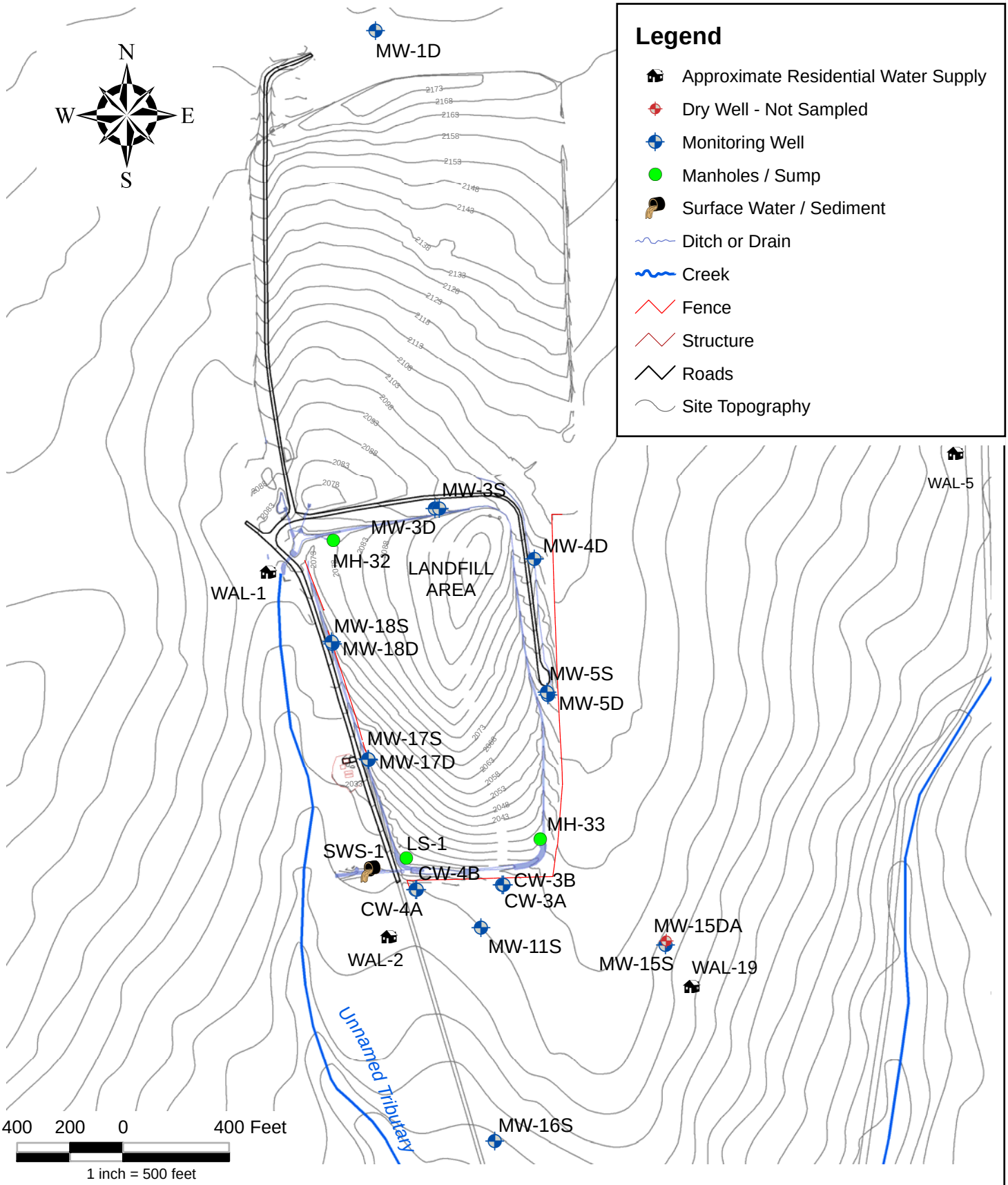
Approximate Site Boundary

ON-SITE GEOLOGICAL SERVICES, D.P.C.
72 Railroad Aveune Wellsville, NY14895

FIGURE NO.	1
PROJECT	WAL
DOCUMENT	Annual Report
FILE NO.	Site_Loc.mxd

N:\WAL\GIS\SITE_LOC.MXD

2019 MONITORING LOCATIONS



Legend

- Approximate Residential Water Supply
- Dry Well - Not Sampled
- Monitoring Well
- Manholes / Sump
- Surface Water / Sediment
- Ditch or Drain
- Creek
- Fence
- Structure
- Roads
- Site Topography

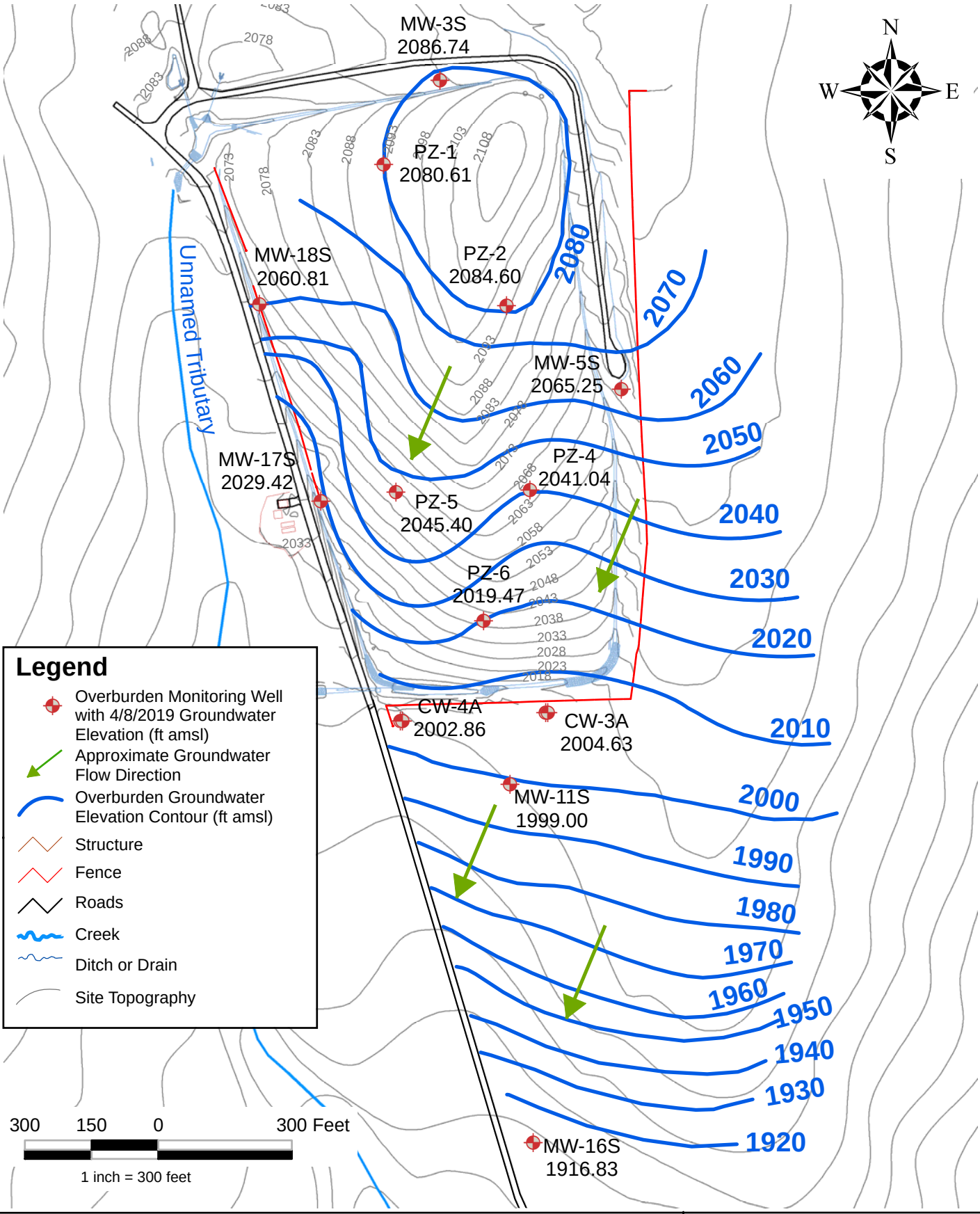
ON-SITE GEOLOGICAL SERVICES, D.P.C.

72 Railroad Avenue Wellsville, NY 14895

FIGURE NO.	2
PROJECT	WAL
DOCUMENT	2019 Annual Report
FILE NO.	Fig 2.mxd

N:\WAL\ANNUAL REPORTS\2019 ANNUAL REPORT\FIGURES\FIG 2.MXD

APRIL 8, 2019 OVERBURDEN MONITORING WELL POTENTIOMETRIC MAP



Legend

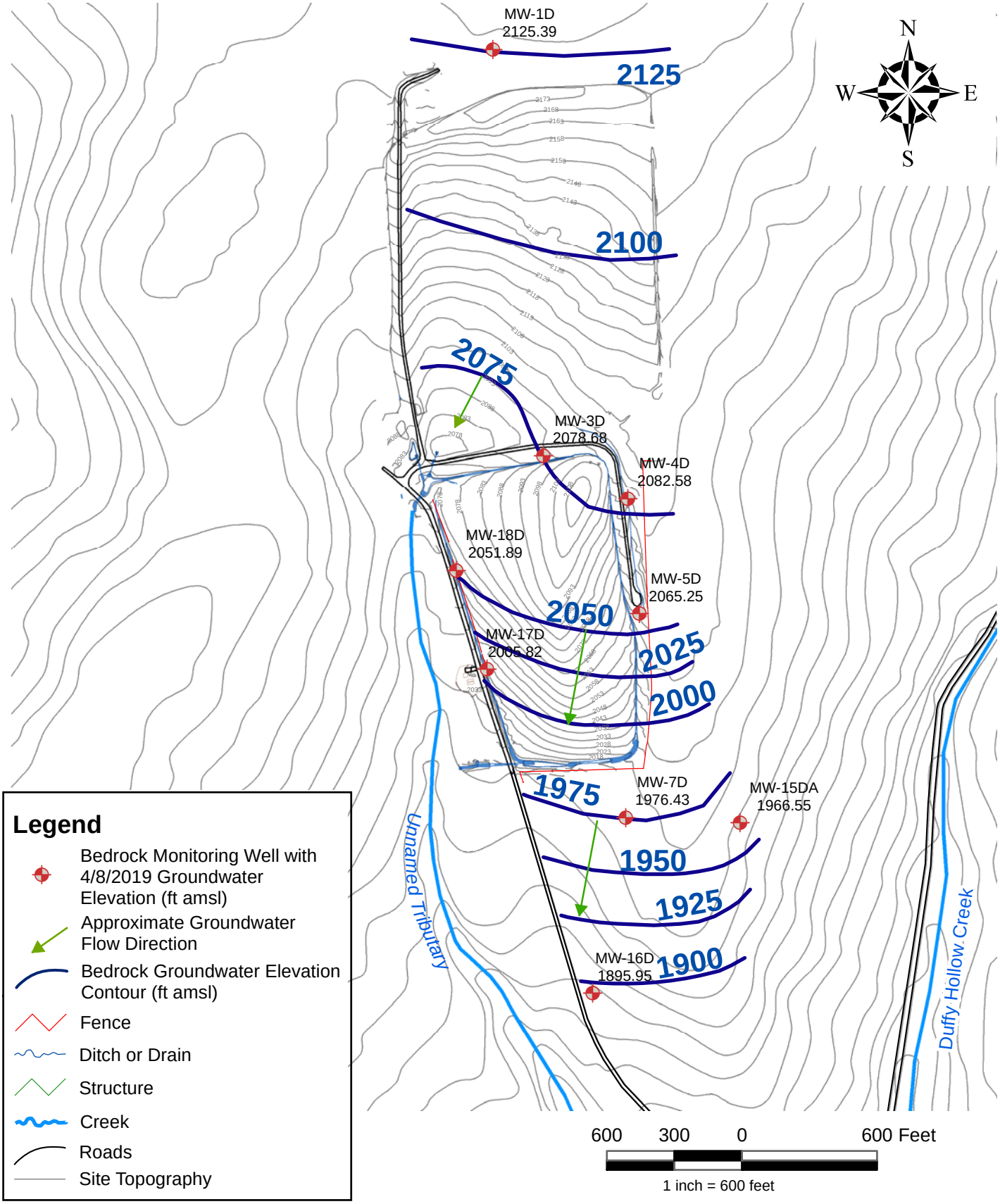
- Overburden Monitoring Well with 4/8/2019 Groundwater Elevation (ft amsl)
- Approximate Groundwater Flow Direction
- Overburden Groundwater Elevation Contour (ft amsl)
- Structure
- Fence
- Roads
- Creek
- Ditch or Drain
- Site Topography

ON-SITE GEOLOGICAL SERVICES, D.P.C.
72 Railroad Avenue Wellsville, NY 14895

FIGURE NO.	3
PROJECT	WAL
DOCUMENT	2019 Annual Report
FILE NO	Fig 3 0319 OB.mxd

N:\WAL\2019\FALL REPORT\FIGURES\FIG 3 0419 OB.MXD

APRIL 8, 2019 BEDROCK MONITORING WELL POTENTIOMETRIC MAP



Legend

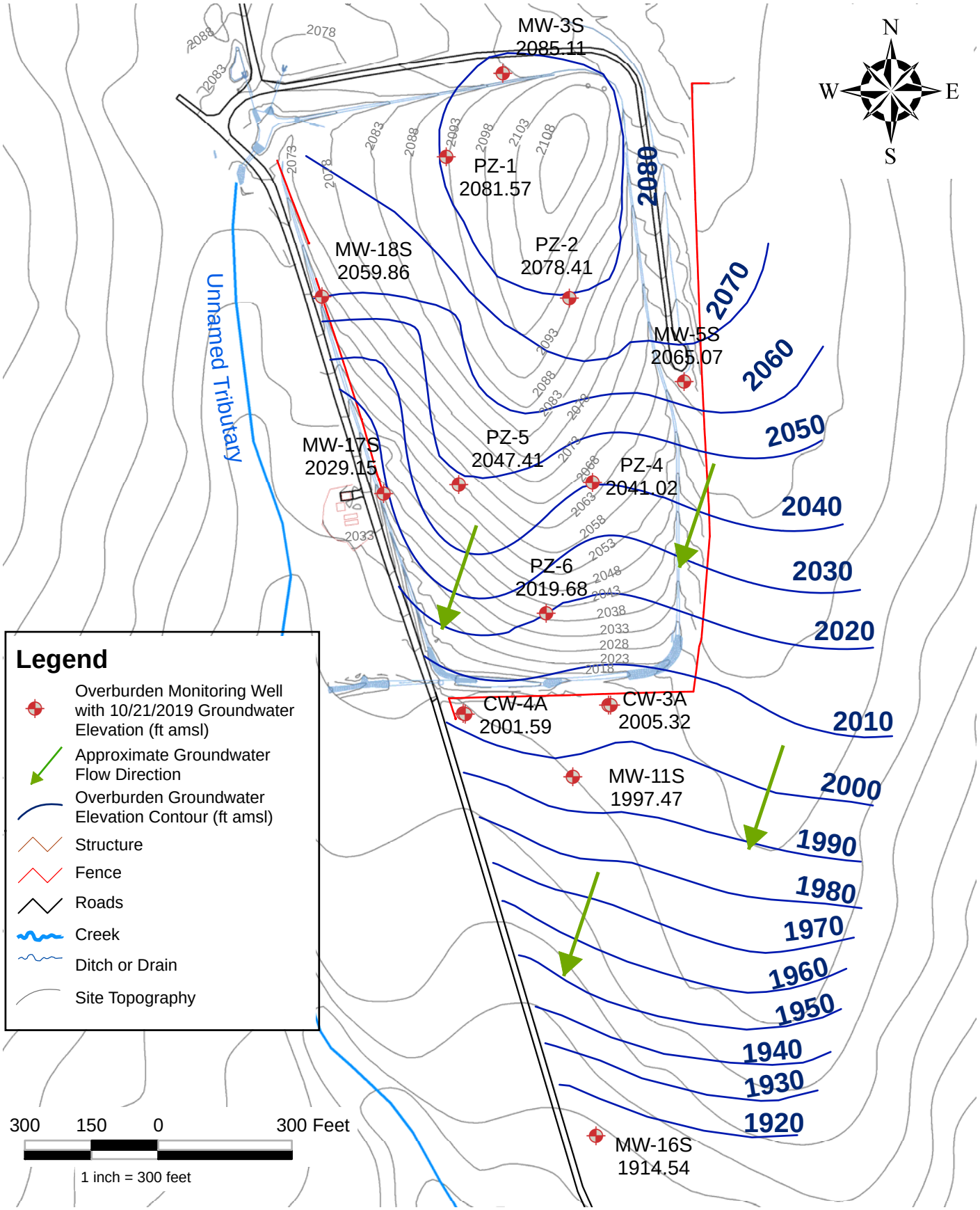
- Bedrock Monitoring Well with 4/8/2019 Groundwater Elevation (ft amsl)
- Approximate Groundwater Flow Direction
- Bedrock Groundwater Elevation Contour (ft amsl)
- Fence
- Ditch or Drain
- Structure
- Creek
- Roads
- Site Topography

ON-SITE GEOLOGICAL SERVICES, D.P.C.
72 Railroad Avenue Wellsville, NY 14895

FIGURE NO.	4
PROJECT	WAL
DOCUMENT	2019 Annual Report
FILE NO	Fig 4 0419 BR.mxd

N:\WAL\2019\FALL\FIGURES\FIG 4 0419 BR.MXD

OCTOBER 21, 2019 OVERBURDEN MONITORING WELL POTENTIOMETRIC MAP



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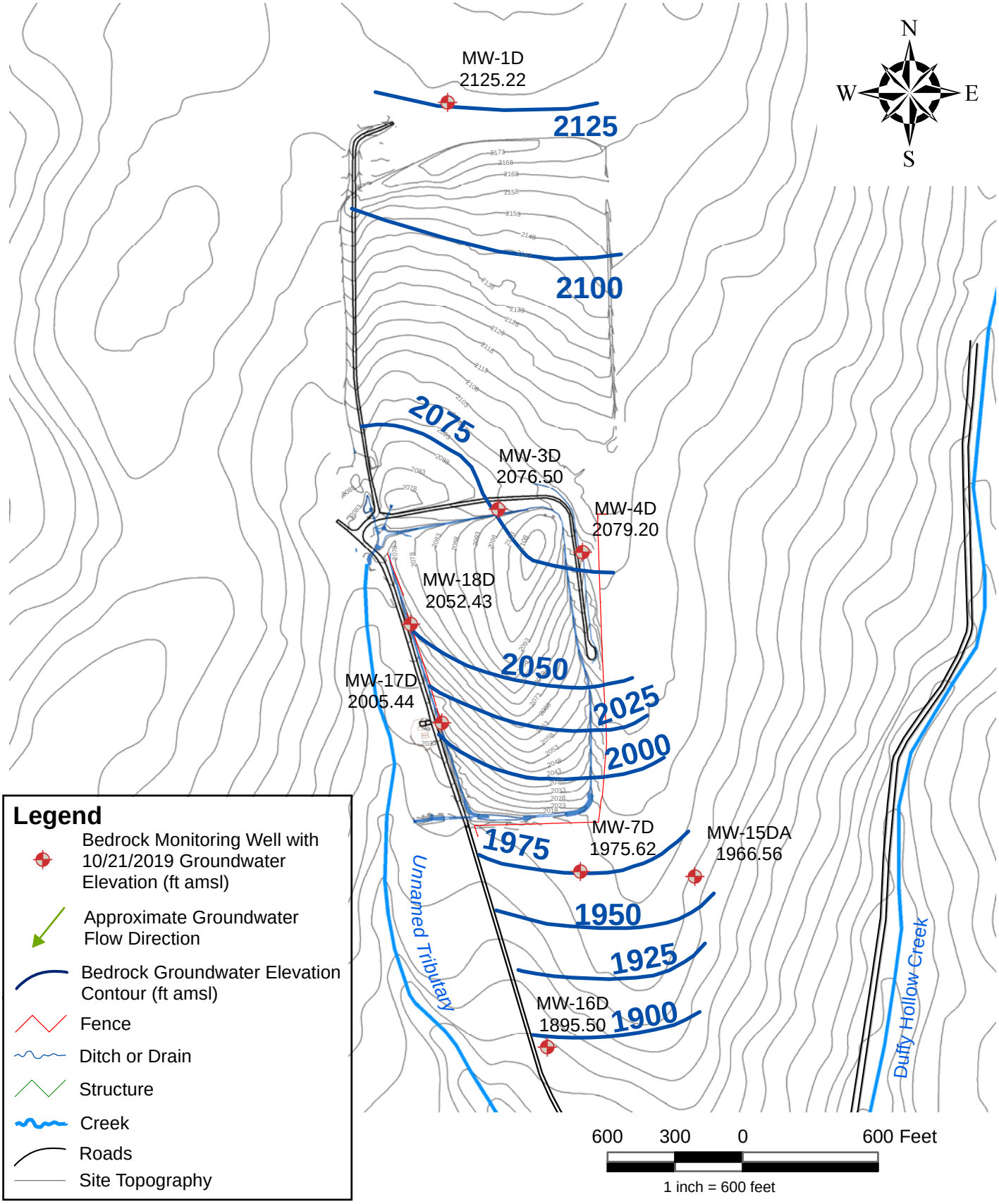
72 Railroad Avenue Wellsville, NY 14895

FIGURE NO.	5
PROJECT	WAL
DOCUMENT	2019 Annual Report
FILE NO	Fig 5 1019 OB.mxd

N:\WAL\2019\FALL\FIGURES\FIG 5 1019 OB.MXD

OCTOBER 21, 2019 BEDROCK MONITORING WELL POTENTIOMETRIC MAP



Legend

- Bedrock Monitoring Well with 10/21/2019 Groundwater Elevation (ft amsl)
- Approximate Groundwater Flow Direction
- Bedrock Groundwater Elevation Contour (ft amsl)
- Fence
- Ditch or Drain
- Structure
- Creek
- Roads
- Site Topography

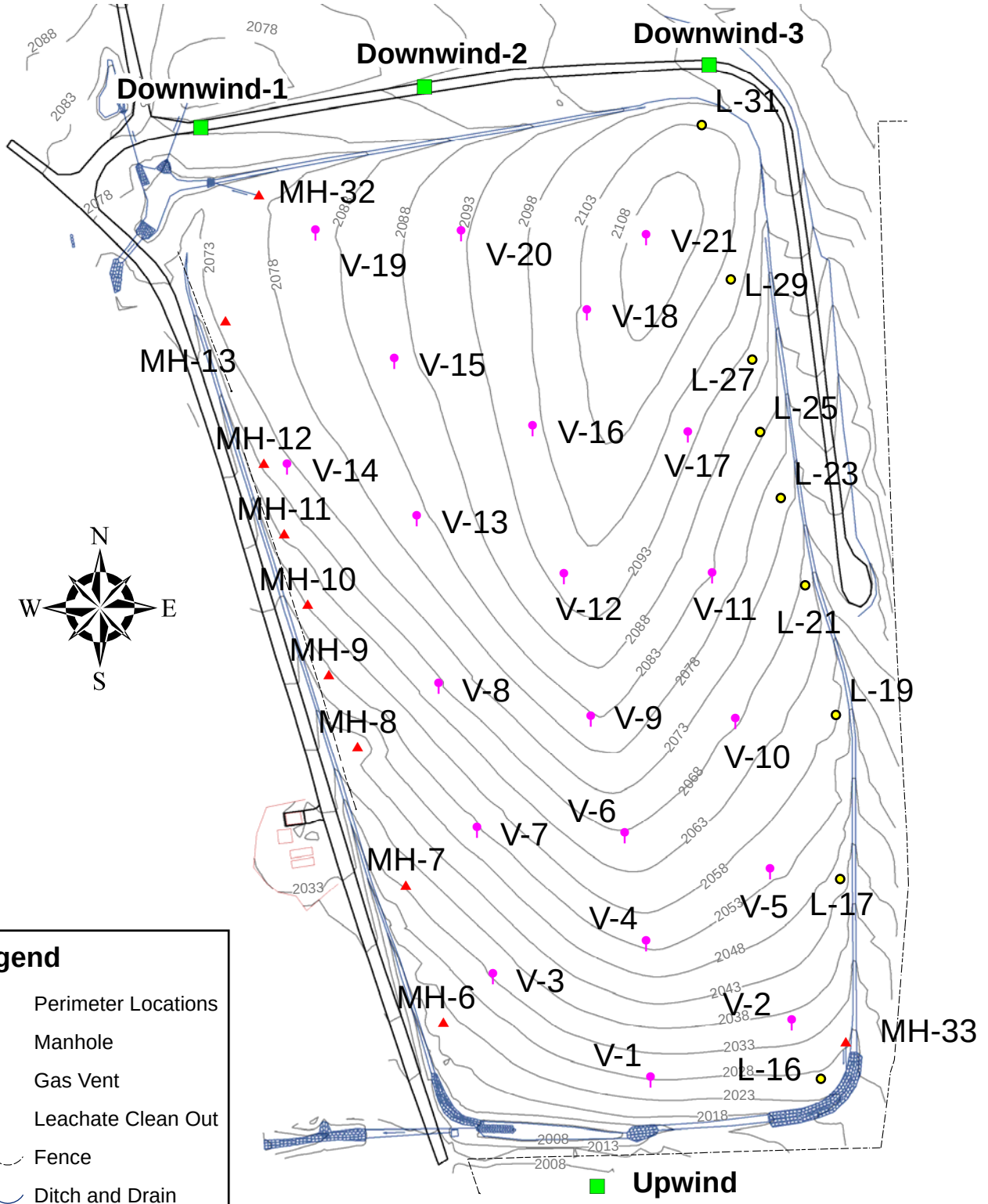
ON-SITE GEOLOGICAL SERVICES, D.P.C.

72 Railroad Avenue Wellsville, NY 14895

FIGURE NO.	6
PROJECT	WAL
DOCUMENT	2019 Annual Report
FILE NO	Fig 6 1019 BR.mxd

N:\WAL\2019\FALL\FIGURES\FIG 6 1019 BR.MXD

OCTOBER 29, 2019 AIR MONITORING LOCATIONS



Legend

- Perimeter Locations
- Manhole
- Gas Vent
- Leachate Clean Out
- Fence
- Ditch and Drain
- Structure
- Road
- Site Topography

200 100 0 200 Feet

1 inch = 200 feet

ON-SITE GEOLOGICAL SERVICES, D.P.C.

72 Railroad Avenue Wellsville, NY 14895

FIGURE NO.	7
PROJECT	WAL
DOCUMENT	2019 ANNUAL RPT
FILE NO.	FIG 7.MXD

N:\WAL\ANNUALREPORTS\2019ANNUALREPORT\FIGURES\FIG 7.MXD

Appendix A

NYSDEC Site Management Periodic Review Report Certification

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Division of Environmental Remediation
625 Broadway, 11th Floor, Albany, NY 12233-7020
P: (518)402-9543 | F: (518)402-9547
www.dec.ny.gov

2/20/2020

William D. Whitfield
Director Of Public Works
Village of Wellsville
200 Bolivar Road
Wellsville, NY 14895

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

Site Name: Wellsville-Andover Landfill
Site No.: 902004
Site Address: Snyder Hill Road
Wellsville, NY 14895

Dear William D. Whitfield:

This letter serves as a reminder that sites in active Site Management (SM) require the submittal of a periodic progress report. This report, referred to as the Periodic Review Report (PRR), must document the implementation of, and compliance with, site-specific SM requirements. Section 6.3(b) of DER-10 *Technical Guidance for Site Investigation and Remediation* (available online at http://www.dec.ny.gov/regulations/67386.html) provides guidance regarding the information that must be included in the PRR. Further, if the site is comprised of multiple parcels, then you as the Certifying Party must arrange to submit one PRR for all parcels that comprise the site. The PRR must be received by the Department no later than **March 16, 2020**. Guidance on the content of a PRR is enclosed.

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

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

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

All site-related documents and data, including the PRR, must be submitted in electronic format to the Department of Environmental Conservation. The required format for documents is an Adobe PDF file with optical character recognition and no password protection. Data must be submitted as an electronic data deliverable (EDD) according to the instructions on the following webpage:

https://www.dec.ny.gov/chemical/62440.html

Documents may be submitted to the project manager either through electronic mail or by using the Department's file transfer service at the following webpage:

https://fts.dec.state.ny.us/fts/

The Department will not approve the PRR unless all documents and data generated in support of the PRR have been submitted using the required formats and protocols.

You may contact Megan Kuczka, the Project Manager, at 716-842-2175 or megan.kuczka@dec.ny.gov with any questions or concerns about the site. Please notify the project manager before conducting inspections or field work. You may also write to the project manager at the following address:

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

Enclosures

PRR General Guidance
Certification Form Instructions
Certification Forms

ec: w/ enclosures
Megan Kuczka, Project Manager
Stanley Radon, Hazardous Waste Remediation Supervisor, Region 9

ON-SITE TECHNICAL SERVICES, INC. - JON BRANDES, P.G. - JONB@ON-SITEHS.COM

Enclosure 1

Certification Instructions

I. Verification of Site Details (Box 1 and Box 2):

Answer the three questions in the Verification of Site Details Section. The Owner and/or Qualified Environmental Professional (QEP) may include handwritten changes and/or other supporting documentation, as necessary.

II. Certification of Institutional Controls/ Engineering Controls (IC/ECs)(Boxes 3, 4, and 5)

1.1.1. Review the listed IC/ECs, confirming that all existing controls are listed, and that all existing controls are still applicable. If there is a control that is no longer applicable the Owner / Remedial Party should petition the Department separately to request approval to remove the control.

2. In Box 5, complete certifications for all Plan components, as applicable, by checking the corresponding checkbox.

3. If you cannot certify "YES" for each Control listed in Box 3 & Box 4, sign and date the form in Box 5. Attach supporting documentation that explains why the **Certification** cannot be rendered, as well as a plan of proposed corrective measures, and an associated schedule for completing the corrective measures. Note that this **Certification** form must be submitted even if an IC or EC cannot be certified; however, the certification process will not be considered complete until corrective action is completed.

If the Department concurs with the explanation, the proposed corrective measures, and the proposed schedule, a letter authorizing the implementation of those corrective measures will be issued by the Department's Project Manager. Once the corrective measures are complete, a new Periodic Review Report (with IC/EC Certification) must be submitted within 45 days to the Department. If the Department has any questions or concerns regarding the PRR and/or completion of the IC/EC Certification, the Project Manager will contact you.

III. IC/EC Certification by Signature (Box 6 and Box 7**):**

If you certified "YES" for each Control, please complete and sign the IC/EC Certifications page as follows:

- For the Institutional Controls on the use of the property, the certification statement in Box 6 shall be completed and may be made by the property owner or designated representative.

- For the Engineering Controls, the certification statement in Box 7 must be completed by a Professional Engineer or Qualified Environmental Professional, as noted on the 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. 902004

Site Name Wellsville-Andover Landfill

Site Address: Snyder Hill Road Zip Code: 14895
City/Town: Wellsville
County: Allegany
Site Acreage: 19.000

Reporting Period: February 15, 2019 to February 15, 2020

	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/ECs 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. 902004 **Box 3**

Description of Institutional Controls

Parcel	Owner	Institutional Control
201-1-15.2	VILLAGE OF WELLSVILLE	Ground Water Use Restriction Monitoring Plan O&M Plan

Box 4

Description of Engineering Controls

Parcel	Engineering Control
201-1-15.2	Cover System Fencing/Access Control Leachate Collection

Per Site O&M Manual (11/01/1997), Environmental Control Systems:
- Cover System.
- Leachate Collection and Storage System.
- Gas Venting System.
- Storm Water System.
- Groundwater Monitoring System; and
- Facility Access System (i.e., Access Roads and gates.

Box 5

Periodic Review Report (PRR) Certification Statements

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

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

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

YES	NO
X	

2. If this site has an IC/EC Plan (or equivalent as required in the Decision Document), for each Institutional or Engineering control listed in Boxes 3 and/or 4, I certify by checking "YES" below that all of the following statements are true:

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

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

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

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

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

YES	NO
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. 902004

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 William Whitfield at 200 Bolivar Road Wellsville, NY 14895,
print name print business address

am certifying as Owner (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 — Date: 3/11/20

IC/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 Jonathan Brandes, P.G. at 72 Railroad Avenue Wellsville, NY 14895,
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
		3/11/20

Enclosure 3
Periodic Review Report (PRR) General Guidance

I. Executive Summary: (1/2-page or less)
   A. Provide a brief summary of site, nature and extent of contamination, and remedial history.
   B. Effectiveness of the Remedial Program - Provide overall conclusions regarding;
      1. progress made during the reporting period toward meeting the remedial objectives for the site
      2. the ultimate ability of the remedial program to achieve the remedial objectives for the site.
   C. Compliance
      1. Identify any areas of non-compliance regarding the major elements of the Site Management Plan (SMP, i.e., the Institutional/Engineering Control (IC/EC) Plan, the Monitoring Plan, and the Operation & Maintenance (O&M) Plan).
      2. Propose steps to be taken and a schedule to correct any areas of non-compliance.
   D. Recommendations
      1. recommend whether any changes to the SMP are needed
      2. recommend any changes to the frequency for submittal of PRRs (increase, decrease)
      3. recommend whether the requirements for discontinuing site management have been met.

II. Site Overview (one page or less)
   A. Describe the site location, boundaries (figure), significant features, surrounding area, and the nature and extent of contamination prior to site remediation.
   B. Describe the chronology of the main features of the remedial program for the site, the components of the selected remedy, cleanup goals, site closure criteria, and any significant changes to the selected remedy that have been made since remedy selection.

III. Evaluate Remedy Performance, Effectiveness, and Protectiveness
   Using tables, graphs, charts and bulleted text to the extent practicable, describe the effectiveness of the remedy in achieving the remedial goals for the site. Base findings, recommendations, and conclusions on objective data. Evaluations and should be presented simply and concisely.

IV. IC/EC Plan Compliance Report (if applicable)
   A. IC/EC Requirements and Compliance
      1. Describe each control, its objective, and how performance of the control is evaluated.
      2. Summarize the status of each goal (whether it is fully in place and its effectiveness).
      3. Corrective Measures: describe steps proposed to address any deficiencies in ICECs.
      4. Conclusions and recommendations for changes.
   B. IC/EC Certification
      1. The certification must be complete (even if there are IC/EC deficiencies), and certified by the appropriate party as set forth in a Department-approved certification form(s).

V. Monitoring Plan Compliance Report (if applicable)
   A. Components of the Monitoring Plan (tabular presentations preferred) - Describe the requirements of the monitoring plan by media (i.e., soil, groundwater, sediment, etc.) and by any remedial technologies being used at the site.
   B. Summary of Monitoring Completed During Reporting Period - Describe the monitoring tasks actually completed during this PRR reporting period. Tables and/or figures should be used to show all data.
   C. Comparisons with Remedial Objectives - Compare the results of all monitoring with the remedial objectives for the site. Include trend analyses where possible.
   D. Monitoring Deficiencies - Describe any ways in which monitoring did not fully comply with the monitoring plan.
   E. Conclusions and Recommendations for Changes - Provide overall conclusions regarding the monitoring completed and the resulting evaluations regarding remedial effectiveness.

VI. Operation & Maintenance (O&M) Plan Compliance Report (if applicable)
   A. Components of O&M Plan - Describe the requirements of the O&M plan including required activities, frequencies, recordkeeping, etc.
   B. Summary of O&M Completed During Reporting Period - Describe the O&M tasks actually completed during this PRR reporting period.
   C. Evaluation of Remedial Systems - Based upon the results of the O&M activities completed, evaluated

the ability of each component of the remedy subject to O&M requirements to perform as designed/expected.

D. O&M Deficiencies - Identify any deficiencies in complying with the O&M plan during this PRR reporting period.

E. Conclusions and Recommendations for Improvements - Provide an overall conclusion regarding O&M for the site and identify any suggested improvements requiring changes in the O&M Plan.

VII. Overall PRR Conclusions and Recommendations

A. Compliance with SMP - For each component of the SMP (i.e., IC/EC, monitoring, O&M), summarize;
   1. whether all requirements of each plan were met during the reporting period
   2. any requirements not met
   3. proposed plans and a schedule for coming into full compliance.

B. Performance and Effectiveness of the Remedy - Based upon your evaluation of the components of the SMP, form conclusions about the performance of each component and the ability of the remedy to achieve the remedial objectives for the site.

C. Future PRR Submittals
   1. Recommend, with supporting justification, whether the frequency of the submittal of PRRs should be changed (either increased or decreased).
   2. If the requirements for site closure have been achieved, contact the Departments Project Manager for the site to determine what, if any, additional documentation is needed to support a decision to discontinue site management.

VIII. Additional Guidance

Additional guidance regarding the preparation and submittal of an acceptable PRR can be obtained from the Departments Project Manager for the site.

Appendix B

Monitoring Evaluation, Approved Revised Monitoring Plan and NYSDEC Response

ON-SITE TECHNICAL SERVICES, INC
72 Railroad Avenue
Wellsville, New York 14895
Phone: (585) 593-1824
Fax: (585) 593-7471

April 3, 2009

Linda Ross, CPG
New York State Department of Environmental Conservation
Division of Solid and Hazardous Materials, Region 9
270 Michigan Avenue
Buffalo, New York 14203-2999

Re: Wellsville/Andover Landfill Site (Site # 9-02-004) – Site Monitoring Evaluation and Proposed Revised Monitoring Plan

Dear Linda:

On behalf of the Village of Wellsville, this letter has been prepared to evaluate the above referenced site's post remedial action monitoring results and propose a revised monitoring plan tailored to the site for continued ample monitoring.

Background

The Wellsville/Andover Landfill was operated by the Village of Wellsville from 1964 to 1983, accepting both municipal and industrial waste. The site was added to the New York State Superfund and the New York State Department of Environmental Conservation (NYSDEC) selected capping with waste consolidation as the remedial action in the Record of Decision (ROD) for the site (NYSDEC 1994). Waste from the Northwest and Northeast fill areas was consolidated and capped on the South/South-central fill area. Following consolidation, the fill was compacted and capped with a 19-acre cover system, which incorporates a passive landfill gas (LFG) venting system, a leachate collection and storage system and a groundwater cut-off trench. Remedial construction activities were completed in September 1997.

An operation and maintenance plan was prepared for the site: *Operation and Maintenance Manual For The Wellsville/Andover Landfill Site Number 9-02-004 Allegany County, New York,* dated November 1997 (O&M Plan); which details O&M requirements. Section 3.3 of the O&M Plan states:

The primary goals of this action were to minimize leachate production, control and manage leachate produced, control LFG, consolidate the waste to reduce the size of the landfill, reduce the potential for

surface contact with waste and contaminated soils, and mitigate the spread of contaminated groundwater off site. The remedial action mitigated significant threats to the public health and the environment by:

- *Reducing the production of leachate within the fill mass;*
- *Eliminating the threat to surface waters by eliminating any future contaminated surface water runoff from the contaminated soils on site;*
- *Eliminating the potential for direct human or animal contact with the contaminated soils on site;*
- *Mitigate the impacts of contaminated groundwater to the environment;*
- *Mitigating, to the extent practicable, migration of contaminates in the landfill to groundwater; and*
- *Controlling LFG.*

Site Hydrogeology

Groundwater hydrogeology was investigated during the remedial investigation as summarized in the O&M Plan. Generally, groundwater flows from the North-Northeast to the South-Southwest as dictated primarily by topography. The overburden and bedrock beneath the site have been interpreted as being one continuous aquifer with no separating confining layer. However, in some areas of the site discontinuous low permeability horizons of silt and clay are present within the overburden creating perched water bearing zones. Groundwater flow is restricted vertically by localized clay/silt lenses, but aided in other areas by sand and gravel zones. In the top of bedrock, groundwater flow appears to be controlled by fractures and joints. Open and clay-filled bedrock fractures with many orientations were observed from remedial investigation borings. This indicates that groundwater can flow both horizontally and vertically within the overburden and top of bedrock.

Potentiometric mapping as part of approximately 11 years of post remediation monitoring indicate that groundwater flow conditions and directions have shown little variations from that observed during the remedial investigation.

Evaluation of Monitoring Results

Post remedial action site monitoring commenced in June 1998 and was conducted quarterly through 1999. Starting in 2000 and continuing through 2008, site monitoring has been conducted semi-annually. The monitoring has included sampling and analysis of groundwater, surface water and sediment, groundwater collection system water and leachate. These samples are tested for field parameters, Volatile Organic Compounds (VOCs), 15 Metals and 14 wet chemistry compounds listed in the table below.

Field Parameters
Specific Conductance
Temperature
pH
Oxygen Reduction Potential
Dissolved Oxygen
Turbidity

Inorganic Compounds
Arsenic
Barium
Cadmium
Calcium
Chromium
Copper
Iron
Lead
Magnesium
Manganese
Nickel
Potassium
Selenium
Sodium
Zinc

Volatile Organic Compounds
1,1,1-Trichloroethane
1,1,2,2-Tetrachloroethane
1,1,2-Trichloroethane
1,1-Dichloroethane
1,1-Dichloroethene
1,2-Dibromoethane
1,2-Dichloroethane
1,2-Dichloropropane
2-Butanone (MEK)
2-Hexanone
4-Methyl-2-pentanone
Acetone
Benzene
Bromodichloromethane
Bromoform
Bromomethane
Carbon disulfide
Carbon tetrachloride
Chlorobenzene
Chloroethane
Chloroform
Chloromethane
cis-1,2-Dichloroethene
cis-1,3-Dichloropropene
Dibromochloromethane
Dichloromethane (Methylene chloride)
Ethyl benzene
m&p-Xylene
o-Xylene
Styrene
Tetrachloroethene
Toluene
trans-1,2-Dichloroethene
trans-1,3-Dichloropropene
Trichloroethene
Vinyl chloride

Wet Chemistry
Alkalinity
Ammonia
Biochemical Oxygen Demand
Bromide
Chemical Oxygen Demand
Chloride
Color (True)
Hardness
Sulfate
Total Dissolved Solids
Total Kjeldahl Nitrogen
Total Organic Carbon (TOC)
Total Phenolics
Turbidity

Additionally potentiometric mapping, landfill gas monitoring and sampling and analysis of nearby residential water supplies is conducted. An evaluation of these approximately 11 years of monitoring results is presented below.

Groundwater

The current site monitoring well network consists of 18 wells required to be sampled annually and 11 of the 18 wells sampled semi-annually. Please see attached figure 1 for monitoring well locations. The table below presents a summary of parameters detected in groundwater during the last five years of monitoring.

Summary of 2004 through 2008 Groundwater Detected Parameters (mg/L)

Parameter	Number of Samples	Number of Detections	Minimum Detection	Maximum Detection	Class GA Standard	Number of Class GA Exceedances
Metals						
Barium	119	98	0.0202	0.32	1	0
Calcium	119	119	2.96	140		
Chromium	119	1	0.011	0.011	0.05	0
Iron	119	97	0.108	13.4	0.3	77
Lead	119	8	0.0052	0.0733	0.025	1
Magnesium	119	118	0.651	64		
Manganese	119	112	0.0102	1.65	0.3	58
Potassium	119	85	2.1	33.5		
Selenium	119	1	0.00522	0.00522	0.01	0
Sodium	119	119	1.56	67.4	20	45
Zinc	119	21	0.0205	0.347		0
VOCs						
1,1-Dichloroethene	134	1	0.0066	0.0066	0.005	1
cis-1,2-Dichloroethene	134	94	0.005	3	0.005	93
Ethyl benzene	134	1	0.0073	0.0073	0.005	1
Toluene	134	1	0.0065	0.0065	0.005	1
trans-1,2-Dichloroethene	134	4	0.011	0.021	0.005	4
Trichloroethene	134	80	0.0052	3.2	0.005	80
Vinyl chloride	134	34	0.005	0.83	0.002	34
Wet Chemistry						
Alkalinity	113	113	7.2	410		
Ammonia Nitrogen	115	11	0.0512	0.161	2	0
Biochemical Oxygen Demand	111	15	2.13	13		
Bromide	113	6	1.06	1.38		
Chemical Oxygen Demand	115	40	5.13	18.8		
Chloride	113	89	2.04	71.4	250	0
Color (True) (C.U.)	116	70	5	75	15	10
Hardness	117	117	12.2	519		
Sulfate	113	113	3.49	161	250	0
Total Dissolved Solids	113	113	32	698	500	5
Total Kjeldahl Nitrogen	115	34	0.203	2.74		
Total Organic Carbon (TOC)	115	70	1.01	7.51		
Total Phenolics	114	2	0.00706	0.0181	0.001	2

As observed in the table above and also previously described in site monitoring reports, there are three metals (Iron, Manganese and Sodium) and three VOCs (cis-1,2-Dichloroethene (cDCE), Trichloroethene (TCE) and Vinyl chloride) that frequently exceed NYSDEC Class GA Groundwater Standards. Therefore, concentration verses time plots for these six compounds have been prepared for monitoring wells that exhibit exceedances. These wells include CW-3A, CW-3B, CW-4B, MW-5D, MW-5S, MW-15S and MW-18S for metals and VOCs and MW-11S and MW-16S for VOCs. These plots are attached for reference.

In General, for Iron, Manganese and Sodium, increasing or decreasing time trends are not apparent. The three metals have been detected at various concentrations above standards at both upgradient and downgradient wells. These metals are common constituents of soil and groundwater and often occur naturally at the concentrations detected.

Volatile Organic Compound analyses of groundwater have shown evident time trends and VOCs are the primary constituents of concern at this site. For this reason statistical analysis was performed to evaluate total VOCs (sum of detected VOCs in a given sample). The data set utilized for the analysis includes all available post remediation VOC results, which generally includes 24 sampling events over an 11 year period. The statistical analysis was conducted using the Mann-Kendall test using a normal approximation method in accordance with *USEPA Data Quality Assessment: Statistical Methods for Practitioners EPA QA/G-9S*, dated February 2006. In this analysis, a null hypothesis of "There is no trend" is tested against an alternative hypothesis of either "There is an upward trend" or "There is a downward trend". This analysis involves using a triangular table to compute a Statistic (S) and test it against a critical value and a probability value at a 5 % significance level (95% confidence level). If both criteria are met, then the null hypothesis of no trend is rejected in favor of the alternative hypothesis. Rejecting the null hypothesis suggests that the alternative hypothesis may be true. Alternative hypotheses are upward trend for S greater than zero and downward trend for S less than zero. If only one criterion or neither criteria are met, then the result is not enough evidence to show a trend. These statistical analyses are presented in Table 1 attached. A discussion of time trend plots and statistical analysis by individual monitoring well is provided below.

CW-3A – This is an overburden well located immediately downgradient of the landfill.

Plot observation: This well exhibited anomalous high results in June 2005, but has returned to lower levels the last seven samplings. TCE and cDCE have shown a decreasing trend the last three samplings, while vinyl chloride has been non-detect except in June 2005.

Statistical analysis: There is strong evidence of an upward trend in total VOC concentrations.

CW-3B – This is an overburden well located immediately downgradient of the landfill and adjacent to CW-3A. This well is approximately 12.5 feet deeper than CW-3A.

Plot observation: There is an apparent slight increasing trend in concentrations of TCE and cDCE.

Statistical analysis: There is strong evidence of an upward trend in total VOC concentrations.

CW-4B – This is an overburden well located immediately downgradient of the landfill.

Plot observation: The plot shows a slight downward trend with TCE and Vinyl chloride results non-detect the last five years and cDCE has been non-detect since December 2005.

Statistical Analysis: There is evidence of a downward trend, but not statistically significant at the 5% significance level (95% confidence level). Therefore, the result of the statistics is no trend.

MW-4D – This is a bedrock well located cross-gradient and East of the Northern portion of the landfill.

Plot observation: This well exhibits an apparent seasonal fluctuation in VOCs with an inverse proportional relationship to groundwater elevation. Elevated concentrations of primarily cDCE occur in the fall when groundwater elevations are low and then decrease in the spring when groundwater elevations are high. However, this seasonal fluctuation is not represented in the graph for the period of 2003 to 2007 when semi-annual sampling was conducted in the months of June and December and did not include samplings at low groundwater elevation periods. This period may have included times of elevated cDCE, but this is unknown because sampling was not conducted during periods of low groundwater levels.

Statistical Analysis: There is evidence of a downward trend, but not statistically significant at the 5% significance level (95% confidence level). Therefore, the result of the statistics is no trend.

MW-5S – This is an overburden well located cross-gradient and East of the central portion of the landfill.

Plot observation: There is a decreasing trend apparent from 1998 to 2002 and concentrations have remained low and relatively stable since 2002.

Statistical analysis: There is evidence of a downward trend, but not statistically significant at the 5% significance level (95% confidence level). Therefore, the result of the statistics is no trend.

MW-5D – This is a bedrock well located immediately adjacent to MW-5S.

Plot observations: cDCE is observed at higher concentrations than TCE and Vinyl chloride, but there is not an apparent increasing or decreasing trend.

Statistical analysis: There is no trend.

MW-11S – This is an overburden well located approximately 230 feet downgradient of the landfill and has been sampled semi-annually since 2005.

Plot observation: The plot shows fairly consistent VOC concentrations over time. TCE is the highest concentration (approximately 3 mg/L), cDCE is consistently around 0.5 mg/L and Vinyl chloride has been non-detect.

Statistical analysis: There is no trend.

MW-15S – This is an overburden well located cross/downgradient and approximately 600 feet from the landfill.

Plot observation: There is no discernable upward or downward trend. cDCE has been detected at concentrations between 0.011 mg/L and 0.04 mg/L, TCE fluctuates between

approximately 0.5 mg/L and non-detect and Vinyl chloride has been non-detect since 2002. However, this well does appear to exhibit seasonal fluctuations in VOC concentrations similar to MW-4D.

Statistical analysis: There is no trend.

MW-16S – This is an overburden well located approximately 1000 feet downgradient of the landfill. This well has been sampled on the same frequency as MW-11S.

Plot observation: cDCE, TCE and Vinyl chloride results are below detection limits, with the exception of TCE at 0.066 mg/L in September 2006.

Statistical analysis: Since there is only one VOC detection at this well; statistical analysis is not applicable.

MW-18S - This is an overburden well located cross-gradient and West of the northern portion of the landfill.

Plot observation: A time trend is not obvious, but there is a good correlation between cDCE and TCE, while Vinyl chloride has not been detected. cDCE and TCE concentrations increased in 2000 as compared to 1998 through 1999 and remained at similar concentration through 2007.

Statistical analysis: There is evidence of an upward trend. However, it should be noted that both criteria thresholds were just slightly exceeded, indicating that there is just enough evidence to reject no trend in favor of an upward trend.

Surface Water and Sediment

Surface water and sediment samples have been collected annually since 2000 from location SWS-1 (see figure 1). Prior to spring 2000 surface water and sediment samples were collected quarterly from SWS-1 and two other down stream locations. Additionally, three landfill perimeter seep samples were collected between 2001 and 2003. Seeps have not been observed active since 2003. SWS-1 is the currently required surface water and sediment sampling location; therefore results from this location are discussed below.

Location SWS-1 is located at the downstream side of the culvert within the drainage ditch that leads to an unnamed tributary to Duffy Hollow Creek. Both the unnamed tributary and Duffy Hollow Creek are classified as NYSDEC Class C streams. Since June 1998, 15 surface water samples have been collected at SWS-1. From these 15 samples, four samples have exhibited Class C surface water exceedances as presented in the table below.

SWS-1 Surface Water Class C Exceedances (mg/L)

Parameter	SWS-1 6/25/1998	SWS-1 12/2/1998	SWS-1 3/25/1999	SWS-1 6/16/2005	Class C Standard
Lead	0.0088		0.0089		0.008
Nickel			0.0176 B		0.0082
Thallium		0.0127			0.008
Total Dissolved Solids				642	500

VOCs have not been detected at SWS-1 with the following exceptions. There were three Acetone detections between 1998 and 1999, which are probable laboratory artifacts. cDCE was detected five times at a maximum concentration of 0.0067 mg/L. The last cDCE detection was reported in April 2003.

Sediment sampling at SWS-1 has shown typical metal and wet chemistry parameter detections along with minimal VOC detections. A summary of SWS-1 sediment detections is presented in the table below.

SWS-1 Sediment Analytical Result Summary (mg/Kg)

Parameter	Number of Samples	Number of Detections	Minimum Detection	Maximum Detection
Aluminum	7	7	8780	13100
Arsenic	15	15	7.16	73.4
Barium	15	15	51.2	348
Beryllium	7	5	0.628	0.876
Boron	7	2	27.1	41.1
Cadmium	15	2	0.18	1.14
Calcium	15	15	3850	43200
Chromium	15	15	7.26	21.2
Cobalt	7	7	9.9	17.4
Copper	15	15	10.2	25.5
Iron	15	15	11800	41200
Lead	15	15	6.22	30
Magnesium	15	15	1780	8490
Manganese	15	15	579	8160
Mercury	7	1	0.01	0.01
Nickel	15	15	10.3	32.3
Potassium	15	15	862	4600
Selenium	15	6	1.3	13.1
Sodium	15	12	81.9	1390
Thallium	7	1	3.21	3.21
Vanadium	7	7	11.2	23.4
Zinc	14	14	74.3	2610
1,1,2-Trichloroethane	15	1	0.012	0.012
1,2-Dichloroethane	15	1	0.012	0.012
2-Butanone (MEK)	15	2	0.004	0.033
Acetone	15	5	0.016	0.22
Chloromethane	15	1	0.004	0.004
Toluene	15	2	0.0027	0.071

SWS-1 Sediment Analytical Result Summary (mg/Kg)

Parameter	Number of Samples	Number of Detections	Minimum Detection	Maximum Detection
Alkalinity	15	14	376	14300
Ammonia Nitrogen	15	11	8.12	339
Biochemical Oxygen Demand	14	13	203	49500
Bromide	15	1	13.1	13.1
Chemical Oxygen Demand	15	15	15600	535000
Chloride	15	4	41.8	144
Hardness	14	13	689	44300
Sulfate	15	4	39.3	1700
Total Kjeldahl Nitrogen	15	15	168	5790
Total Organic Carbon (TOC)	10	10	0.34	46700
Total Phenolics	15	1	0.447	0.447
Total Solids	14	14	14.1	82.6

Groundwater Cut-off System

The groundwater cut-off system is intended to capture upgradient groundwater from the North and East landfill perimeters prior to contacting waste within the landfill. The North side collection trench drains to Manhole MH-32 located at the Northwest corner of the landfill, while the East side collection trench drains to Manhole MH-33 at the Southeast corner of the landfill. Both MH-32 and MH-33 are piped to drain either to the leachate collection system or to the landfill perimeter surface water drainage channels. To date, water in MH-32 and MH-33 has been drained to the leachate collection system. The pipes from the manholes to the drainage channel are closed with removable plugs. Sampling of these two manholes has been conducted since 1998 in anticipation of demonstrating acceptable water quality for discharge to the surface water drainage channels. A summary of parameters exceeding Class C surface water standards is provided below.

MH-32 & MH-33 Groundwater Cut-off System Class C Surface Water Exceedance Summary (mg/L)

Parameter	Number of Sample	Number of Detections	Minimum Detection	Maximum Detection	Class C Standard	Number of Class C Exceedances
Cobalt	12	4	0.0056	0.154	0.005	4
Lead	46	11	0.0027	0.165	0.008	7
Nickel	46	4	0.0056	0.272	0.0082	3
Thallium	12	3	0.0055	0.0178	0.008	2
Vanadium	12	4	0.0043	0.0826	0.014	2
Dichloromethane (Methylene chloride)	42	9	0.0027	1.9	0.2	1
Trichloroethene	42	20	0.0011	1.6	0.04	6
Ammonia Nitrogen	42	41	0.0955	7.69	2	12
Total Dissolved Solids	42	42	203	1650	500	16

Additionally, since cDCE, TCE and Vinyl chloride are the three primary constituents of concern in groundwater; time trend plots of these three compounds were created for MH-32 and MH-33 and are attached. MH-32, and to a greater extent MH-33, show a decreasing trend in these VOCs. However, at this time groundwater cut-off trench water does not meet standards to allow discharge to surface water.

Leachate

The quantity of leachate generated at the site has greatly decreased following the remedial action (please see attached graph). Leachate is sampled from the leachate sump. Since the groundwater cut-off system has drained to the leachate sump to date, leachate samples are a composite from the leachate collection system and groundwater cut-off trench. Various metals, VOCs and wet chemistry parameters are typically detected as presented in the summary table below.

Summary of Leachate Sump Detected Parameters (mg/L)

Parameter	Number of Samples	Number of Detections	Minimum Detection	Maximum Detection
Aluminum	5	4	0.164	8.76
Arsenic	21	12	0.0051	0.238
Barium	21	21	0.112	0.961
Boron	4	3	0.163	0.659
Cadmium	21	1	0.00572	0.00572
Calcium	21	21	78.7	151
Chromium	21	4	0.0101	0.0205
Cobalt	4	1	0.0034	0.0034
Copper	21	4	0.0043	0.0392
Iron	21	21	3.22	360
Lead	21	10	0.0043	0.0738
Magnesium	21	21	25.1	62.2
Manganese	21	21	3.72	13.7
Nickel	21	1	0.0054	0.0054
Potassium	21	21	3.57	16.9
Selenium	21	3	0.005	0.00981
Sodium	21	21	14.6	112
Tin	3	1	0.198	0.198
Vanadium	4	1	0.0632	0.0632
Zinc	18	11	0.0159	0.21
1,1-Dichloroethane	21	2	0.0014	0.0022
2-Butanone (MEK)	21	2	0.031	0.05
4-Methyl-2-pentanone	21	1	0.0049	0.0049
Acetone	21	5	0.0056	0.044
Benzene	21	2	0.0022	0.0044
Chlorobenzene	21	1	0.0019	0.0019
Chloroethane	21	1	0.0027	0.0027
Chloroform	21	2	0.0018	0.0034
cis-1,2-Dichloroethene	21	21	0.011	0.95
Dichloromethane (Methylene	21	2	0.0023	0.067

Summary of Leachate Sump Detected Parameters (mg/L)

Parameter	Number of Samples	Number of Detections	Minimum Detection	Maximum Detection
chloride)				
Ethyl benzene	21	6	0.005	0.1
m&p-Xylene	21	1	0.0075	0.0075
o-Xylene	21	1	0.0038	0.0038
Phenol	5	1	0.044	0.044
Toluene	21	4	0.0022	0.026
trans-1,2-Dichloroethene	21	4	0.0026	0.0075
Trichloroethene	21	14	0.0064	0.038
Vinyl chloride	21	16	0.0029	0.05
Alkalinity	19	19	276	566
Ammonia Nitrogen	19	19	0.0873	12.1
Biochemical Oxygen Demand	19	8	2.01	5.4
Bromide	19	3	1.02	1.43
Chemical Oxygen Demand	19	18	12.3	17100
Chloride	19	19	27.8	200
Color (True) (C.U.)	19	19	10	200
Hardness	19	19	328	675
Sulfate	19	19	4.26	26.3
Total Dissolved Solids	19	19	357	925
Total Kjeldahl Nitrogen	19	19	2.17	14.8
Total Organic Carbon (TOC)	18	18	2.04	26
Total Phenolics	19	1	0.00588	0.00588

Landfill Gas Monitoring

Landfill gas monitoring has been conducted at the site for approximately 10 years using an FID and an O_2/LEL meter. This monitoring has provided substantial characterization of the landfill gas and shown fairly consistent results. Several of the gas vents, leachate clean outs and manholes exhibit high concentrations of Methane and low levels of Oxygen, while the landfill perimeter readings are generally within normal background levels. Additional gas monitoring was conducted in June 2005 using a GEM 2000 landfill gas meter to provide more characterization of the landfill gas. The June 2005 monitoring showed several locations with Methane readings between approximately 33% and 97%. This monitoring has demonstrated that the primary landfill gas is Methane. Starting with the March 2007 monitoring event, a PID has been utilized instead of an FID. The PID provides monitoring of VOCs while an O_2/LEL meter continues to be used to monitor Oxygen and Methane.

Residential Water Supplies

There are 20 residential water supply locations in the monitoring program. The current monitoring schedule requires that three water supplies be sampled semi-annually (spring and fall) and the remaining 17 locations be sampled every three years. The table below presents a summary of detected parameters from the last five years of sampling, which includes sampling of the available 20 locations in 2005 and 2008.

Summary of 2004 through 2008 Residential Water Supply Detected Parameters (mg/L)

Parameter	Number of Samples	Number of Detections	Minimum Detection	Maximum Detection	Class GA Standard	Number of Class GA Exceedances	NYSDOH MCL	Number of NYSDOH MCL Exceedances
Barium	53	52	0.002	0.11	1	0	1	0
Calcium	53	53	3.4	54.4				
Copper	53	20	0.01	0.16	0.2	0	1	0
Iron	53	25	0.06	1	0.3	9	0.3	9
Lead	53	1	0.015	0.015	0.025	0	0.05	0
Magnesium	53	53	1.6	20.8				
Manganese	57	35	0.0054	2.8	0.3	14	0.3	14
Potassium	53	53	0.7	4.4				
Sodium	53	53	1.1	104	20	28		0
Zinc	53	11	0.011	0.22			5	0
cis-1,2-Dichloroethene	58	9	0.00084	0.0021	0.005	0		
Trichloroethene	58	9	0.0012	0.0028	0.005	0	0.005	0

As shown in the table above, two parameters (Iron and Manganese) have shown exceedances of standards during the last five years. Eight of the nine Iron exceedances are from location WAL-2, which is a seasonal hunting camp adjacent to the Southwest corner of the landfill. The other Iron exceedance is WAL-17 in November 2005. WAL-17 is located approximately 8000 feet from the landfill; therefore this exceedance is unlikely related to the site. The Manganese exceedances are from WAL-2 and WAL-20. WAL-20 is also located approximately 8000 feet from the site and Manganese concentrations have been near or below detection limits since this residential well was replaced in 2005. The VOC detections shown in the table above are from pre-filtered WAL-19 samples. WAL-19 is located Southeast of the landfill and includes a two-stage carbon treatment system maintained by the Village of Wellsville.

Summary of Monitoring Results Evaluation

Volatile Organic Compounds and to a lesser extent, metals, are the constituents of concern at the site. VOCs groundwater concentrations are stable at most wells and trending upward at three wells. The locations where VOCs are trending upward are immediately adjacent to the landfill and this upward trend is indicative of minimal groundwater flow. Groundwater level drawdown during sampling and slow recovery (in some cases days) further illustrate that groundwater flow is extremely measured. Metals have shown exceedances of standards in both upgradient and downgradient wells and in many cases are naturally occurring. Wet Chemistry parameters in groundwater are generally below standards and do not appear to be a good indicator of landfill impacts on groundwater at this site. This is contrary to typical municipal solid waste landfills and should be considered when evaluating future site monitoring needs. Surface water and sediment sampled at location SWS-1 appears un-impacted by the site. Groundwater collection system sampling shows some signs of decreasing concentrations, but results do not meet surface water standards at this time. Leachate continues to show several detections, but is generally

more dilute as compared to operating municipal landfills. Two Residential water supplies close to the landfill continue to show detections of constituents of concern.

These 11 years of monitoring results demonstrate that the remedial action goals continue to be met. Leachate quantities have greatly decreased following the remedial action. Surface water is not impacted by the site. Contaminated groundwater and landfill gas migration is being controlled. The remedial action has mitigated significant threats to public health and the environment.

Proposed Monitoring Program

Based on the above evaluation of monitoring results, a revised monitoring program has been designed to meet the needs of continued surveillance of the remedial objectives into the future. VOCs and metals are the primary constituents of concern and wet chemistry parameters do not appear to be good indicators at this site. The project analyte list is proposed to be revised to include field parameters, VOCs and metals with a few exceptions. The proposed monitoring requirements are presented in Table 2 attached and discussed below.

Groundwater

Groundwater sampling is proposed to be conducted annually, each Fall, in an attempt to capture annual high groundwater concentrations. Sampling locations will include currently sampled wells, with the following exceptions. Upgradient well MW-1D will not be sampled because upgradient water quality has been adequately characterized and no concern of an upgradient contaminate source. Sampling of overburden wells CW-3A and CW-4A will be discontinued because overburden wells CW-3B and CW-4B are immediately adjacent to these wells and show similar water chemistry. Bedrock well MW-15DA has not been sampled following the remedial action, because it has been dry. MW-15DA will be removed from the required sampling list.

Surface Water and Sediment

Surface water at location SWS-1 will be sampled during the annual Fall event with analysis for field parameters, VOCs, Metals, Nitrate Nitrogen and Total Dissolved Solids (TDS). Nitrate Nitrogen and TDS are tested in anticipation that the groundwater cut-off system may one day discharge to surface water and these two parameters frequently exceed Class C surface water standards in groundwater cut-off system water. Sediment sampling at this location has limited usefulness and is therefore discontinued.

Groundwater Cut-Off System

Manholes MH-32 and MH-33 will be sampled during the annual Fall event with analysis for field parameters, VOCs, Metals, Nitrate Nitrogen and TDS. Sampling of these locations is conducted in anticipation of future discharge to surface water.

Leachate

Leachate sump will be sampled during the annual Fall event.

Landfill Gas Monitoring

Landfill gas has been adequately characterized and has not been detected at the landfill perimeter; therefore landfill gas monitoring will be discontinued.

Residential Water Supply

Hunting camp WAL-2 will be sampled annually for metals. Resident WAL-5 will be sampled annually for VOCs and Metals. The two-stage carbon treatment unit will be maintained at residence WAL-19 with semi-annual sampling for VOCs prior to filtration, between the filters and post filtration. The remainder of the residential water supply sampling will be discontinued.

The Village of Wellsville and On-Site appreciate your review and consideration on this matter. If you have any questions or require any clarification on the information presented in this letter, please call the undersigned.

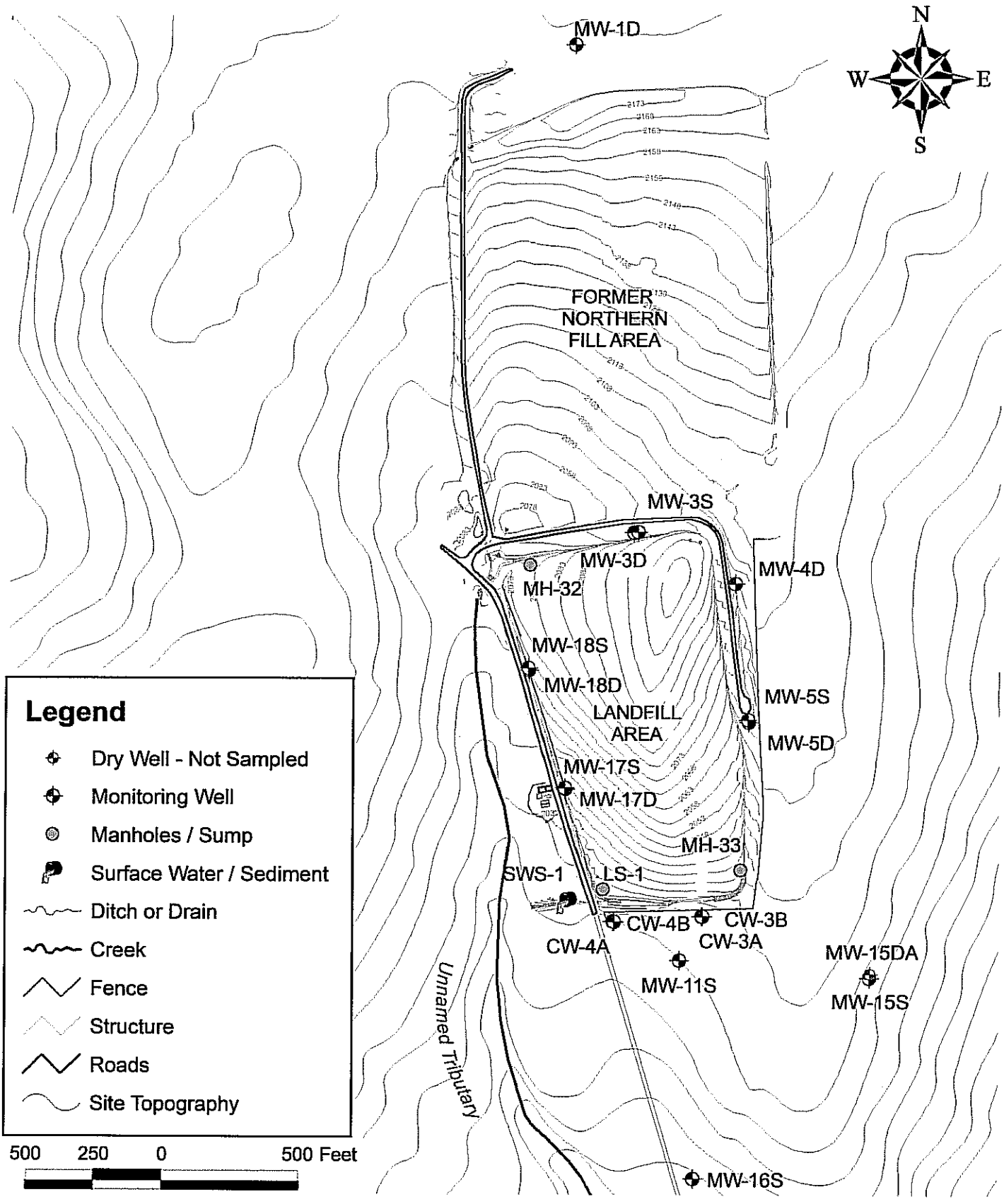
Sincerely,

Jonathan E. Brandes, P.G.
Senior Geologist

cc: Bill Whitfield, Village of Wellsville
Judy Lynch, Village Trustee, Liaison to Landfill
Tamara S. Girard, NYSDOH

Attachments

SAMPLING LOCATIONS



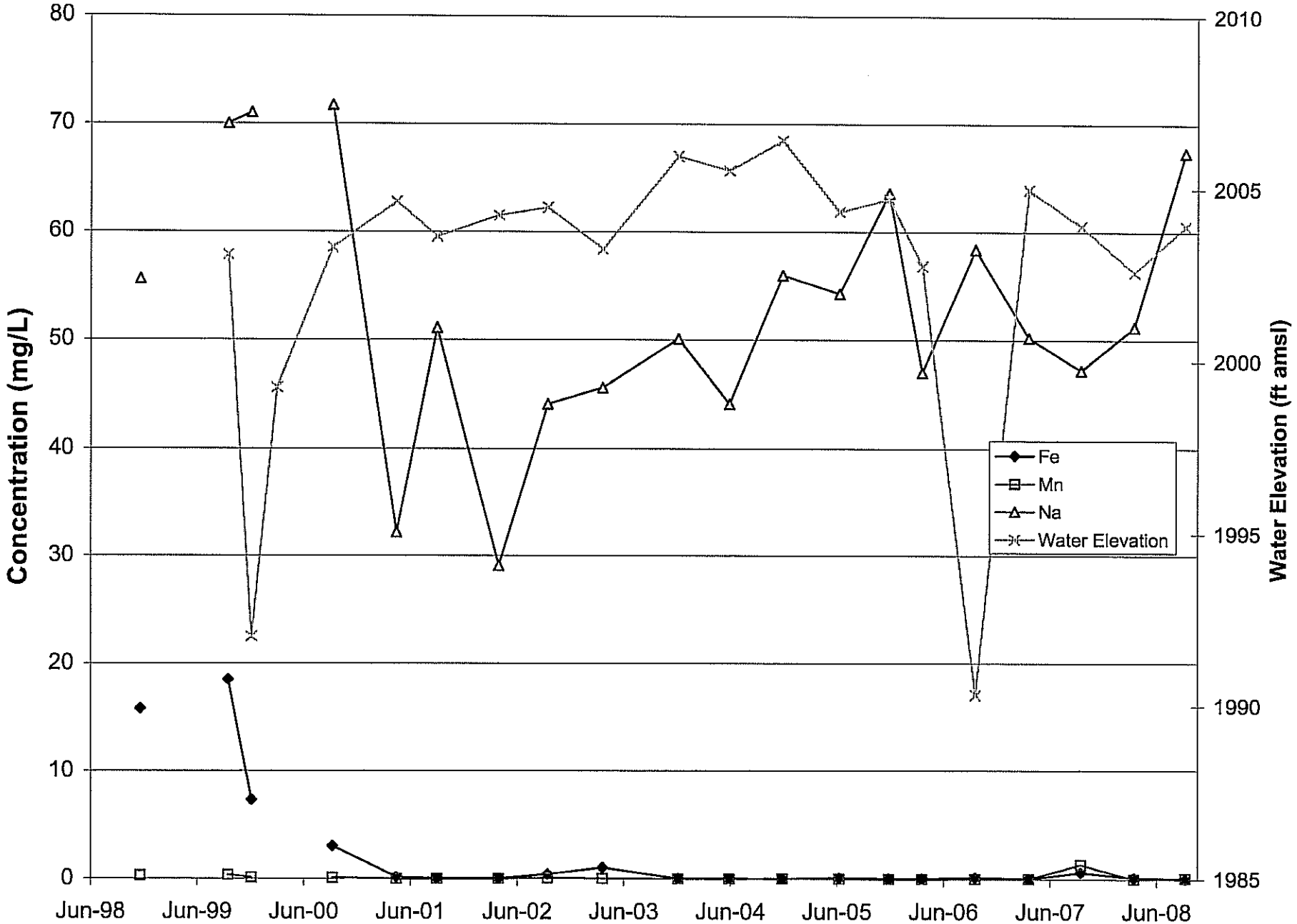
ON-SITE TECHNICAL SERVICES, INC.

72 Railroad Avenue Wellsville, NY 14895

FIGURE NO.	1
PROJECT	WAL
DOCUMENT	2009 Site Review
FILE NO.	Fig 1 - Samp Locs.mxd

N:\WAL\2009 SITE REVIEW\FIG 1 - SAMP LOCS.MXD

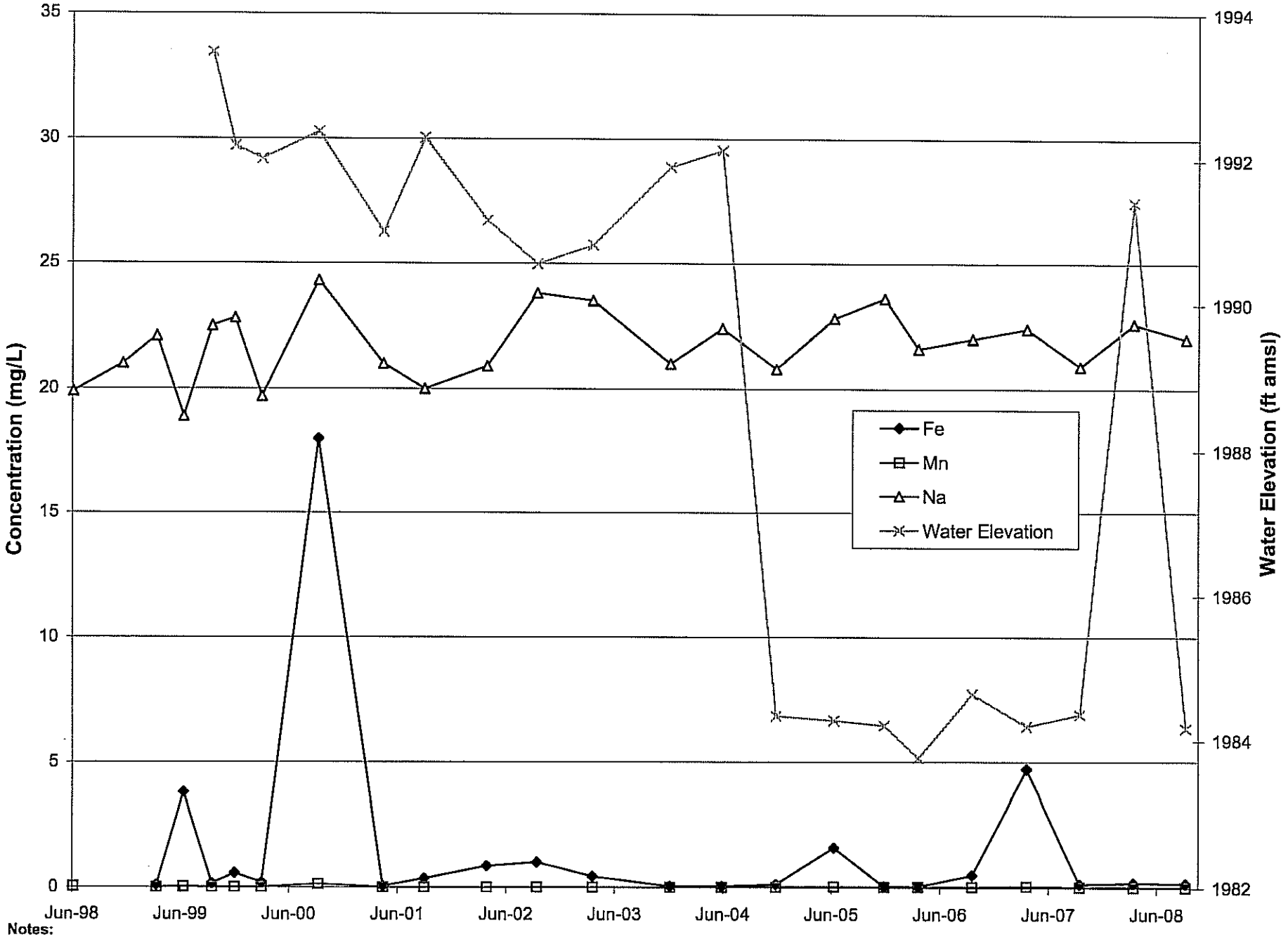
CW-3A Metals



Notes:

1. The majority of results for Manganese and Iron are non detect.
2. 1/2 Detection limit used for non-detects.

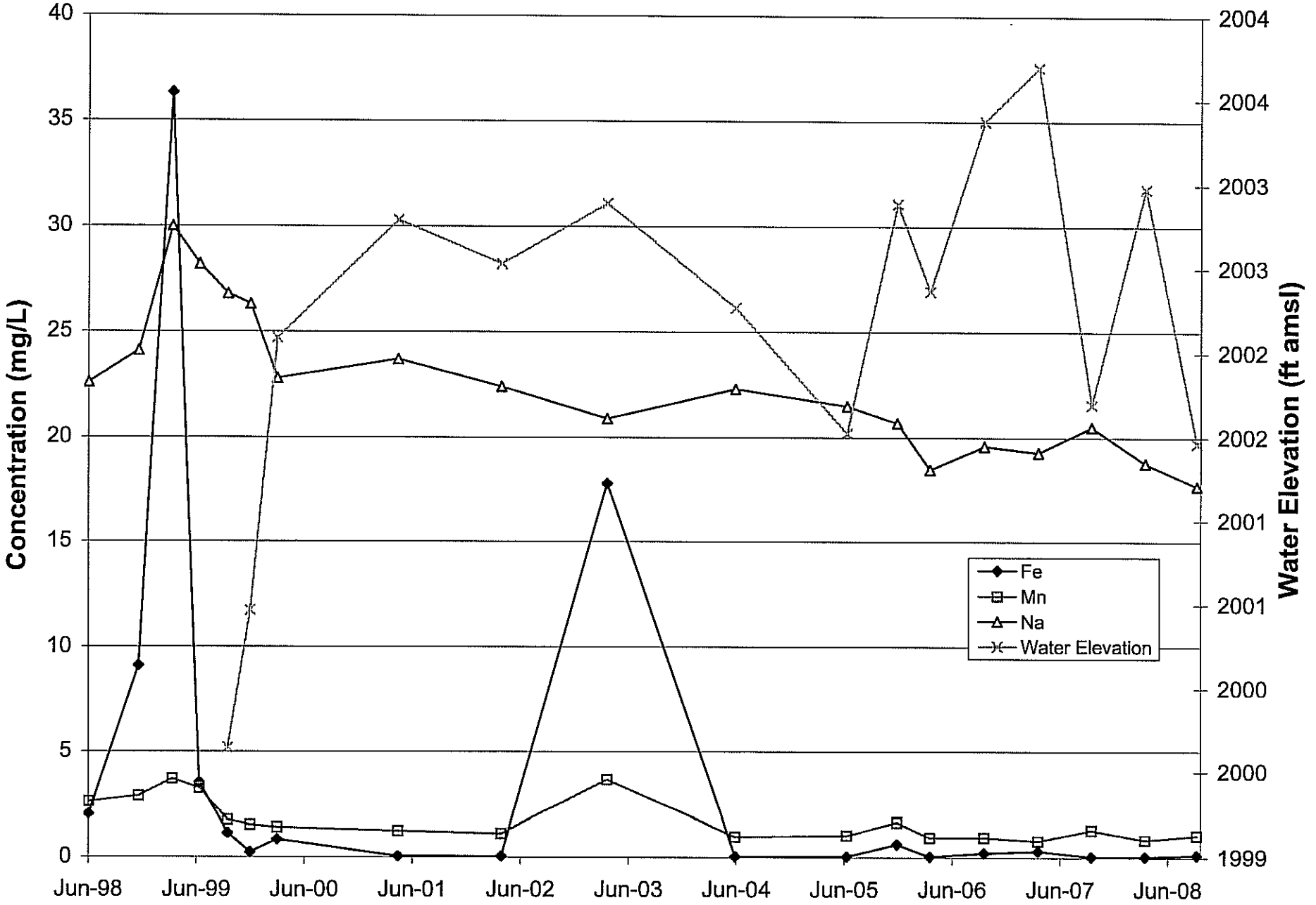
CW-3B Metals



Notes:

1. A majority of results for Manganese and Iron are non-detects.
2. 1/2 detection limit used for non-detects.

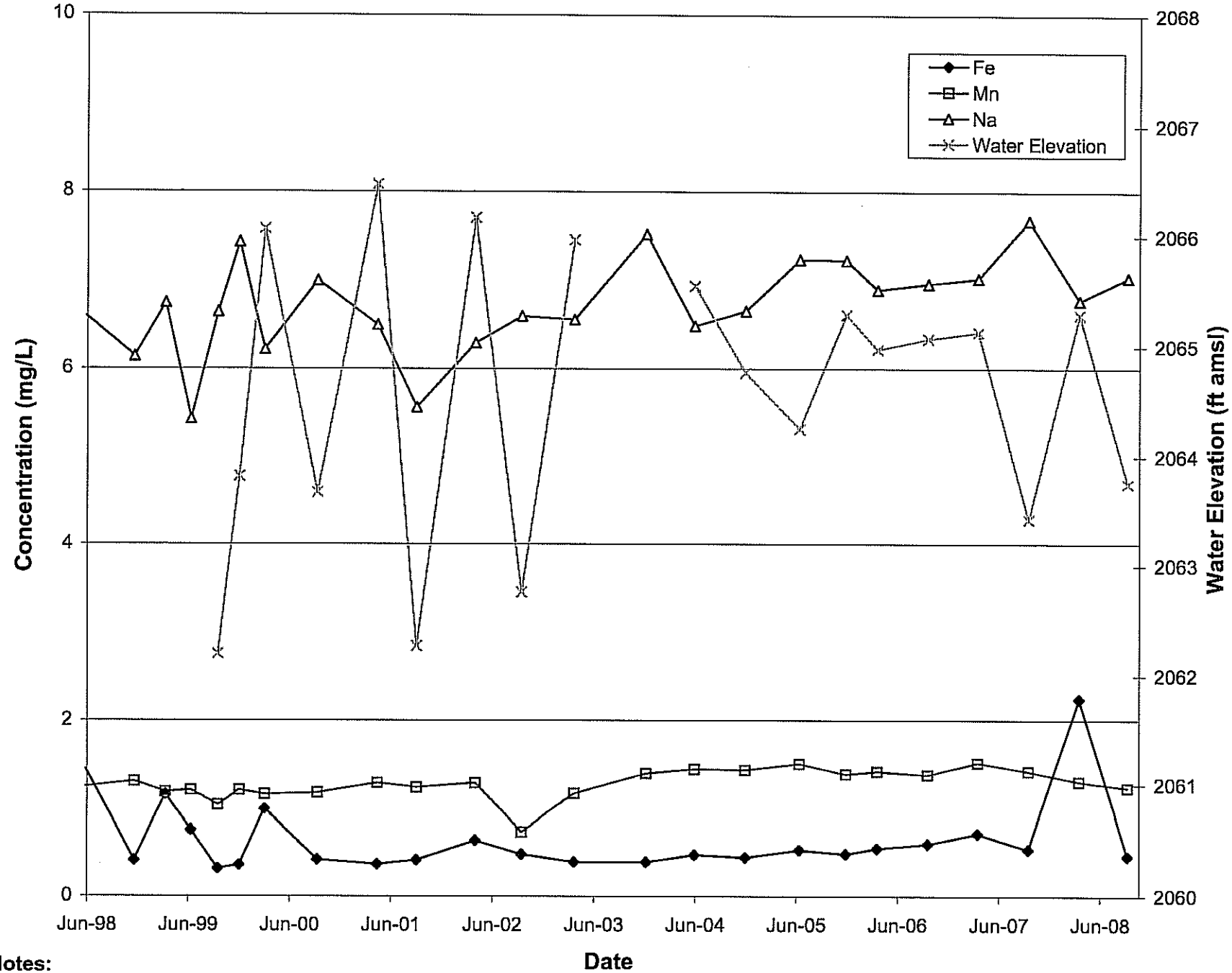
CW-4B Metals



Notes:

1. 1/2 detection limit used for non-detects
2. Iron is non-detect on 4/25/2001, 4/9/2002, 6/8/2004, 6/20/2005, 3/28/2006, 9/25/2007 and 3/25/2008

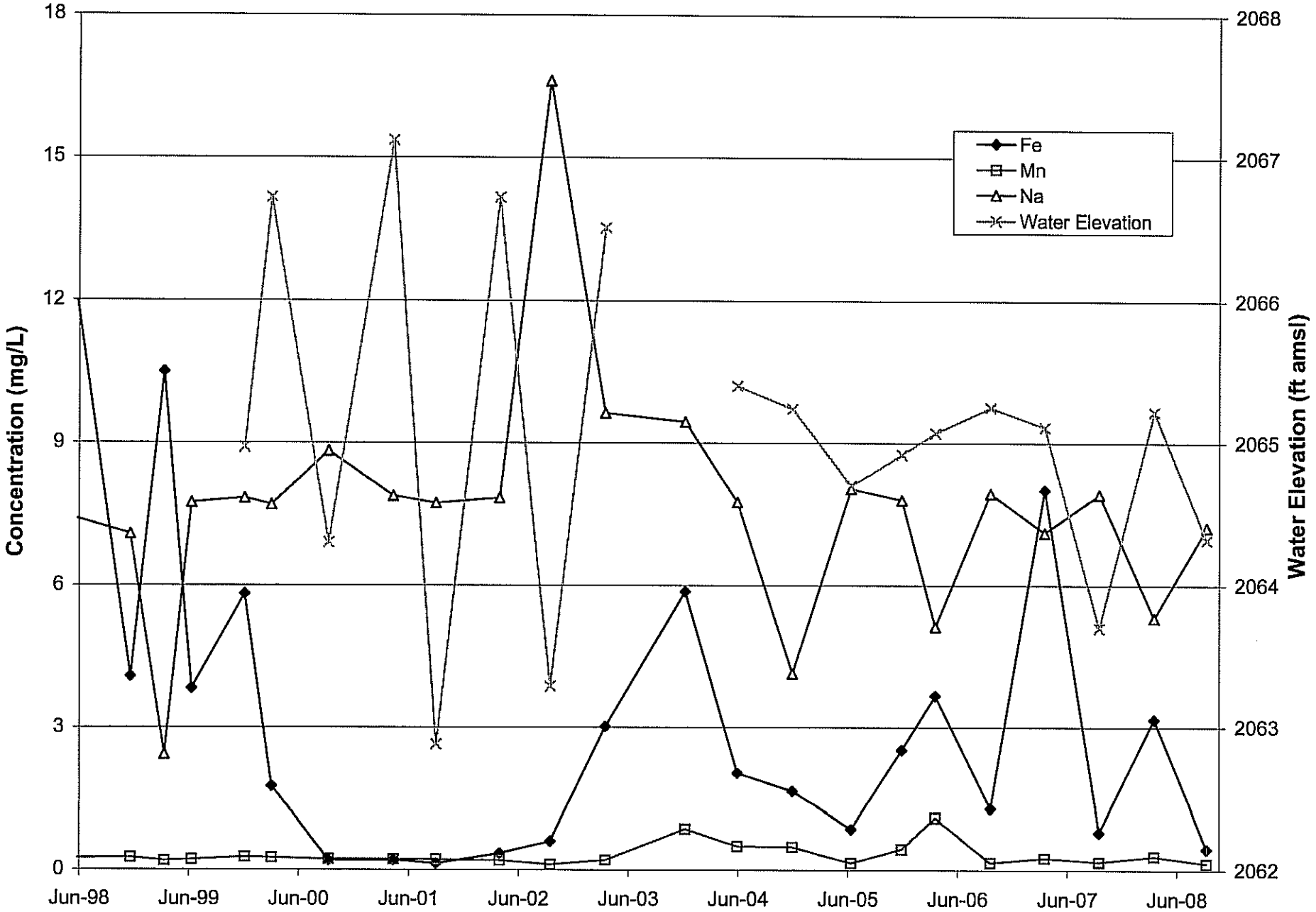
MW-5D Metals



Notes:

1. 1/2 Detection limit used for non-detects
2. No water elevation available December 2003.

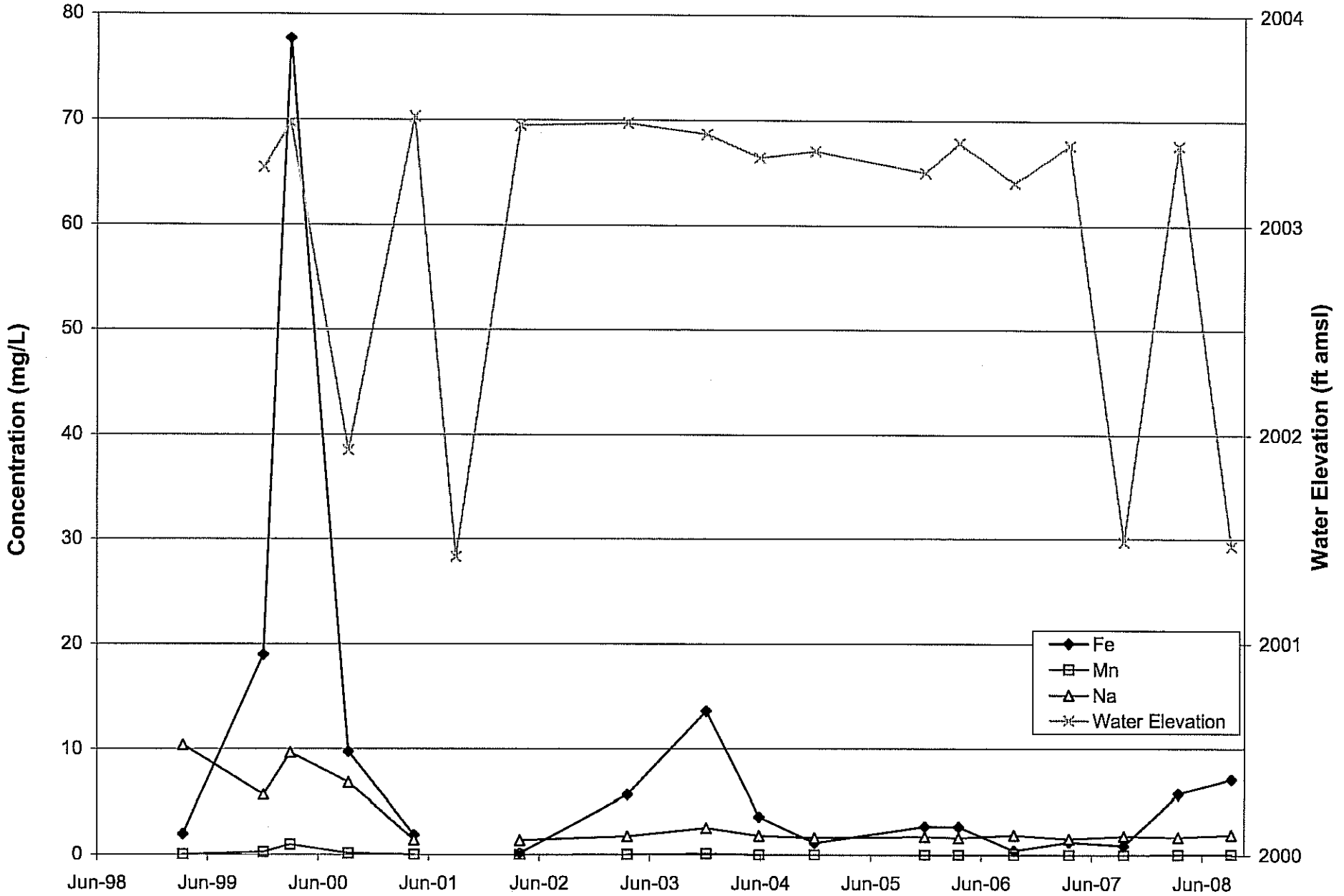
MW-5S Metals



Note:

1. 1/2 detection limit used for non-detects.
2. No water elevation available for December 2003.

MW-15S Metals

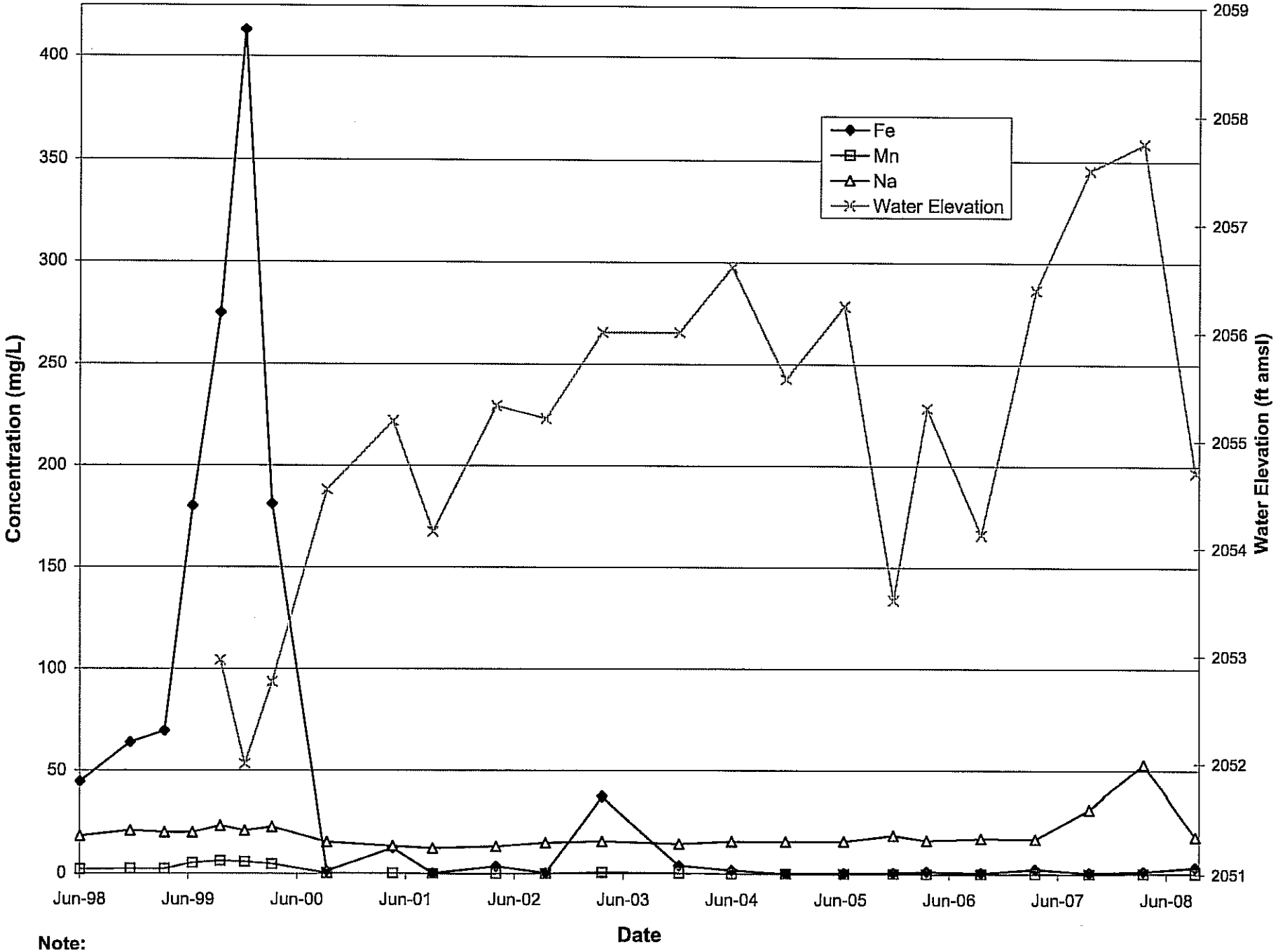


Notes:

1. 1/2 detection limit used for non-detects
2. Manganese is non-detect on 4/10/2002 and 9/28/2006.
3. VOCs only collected on 9/11/2001 due to insufficient water volume.

Date

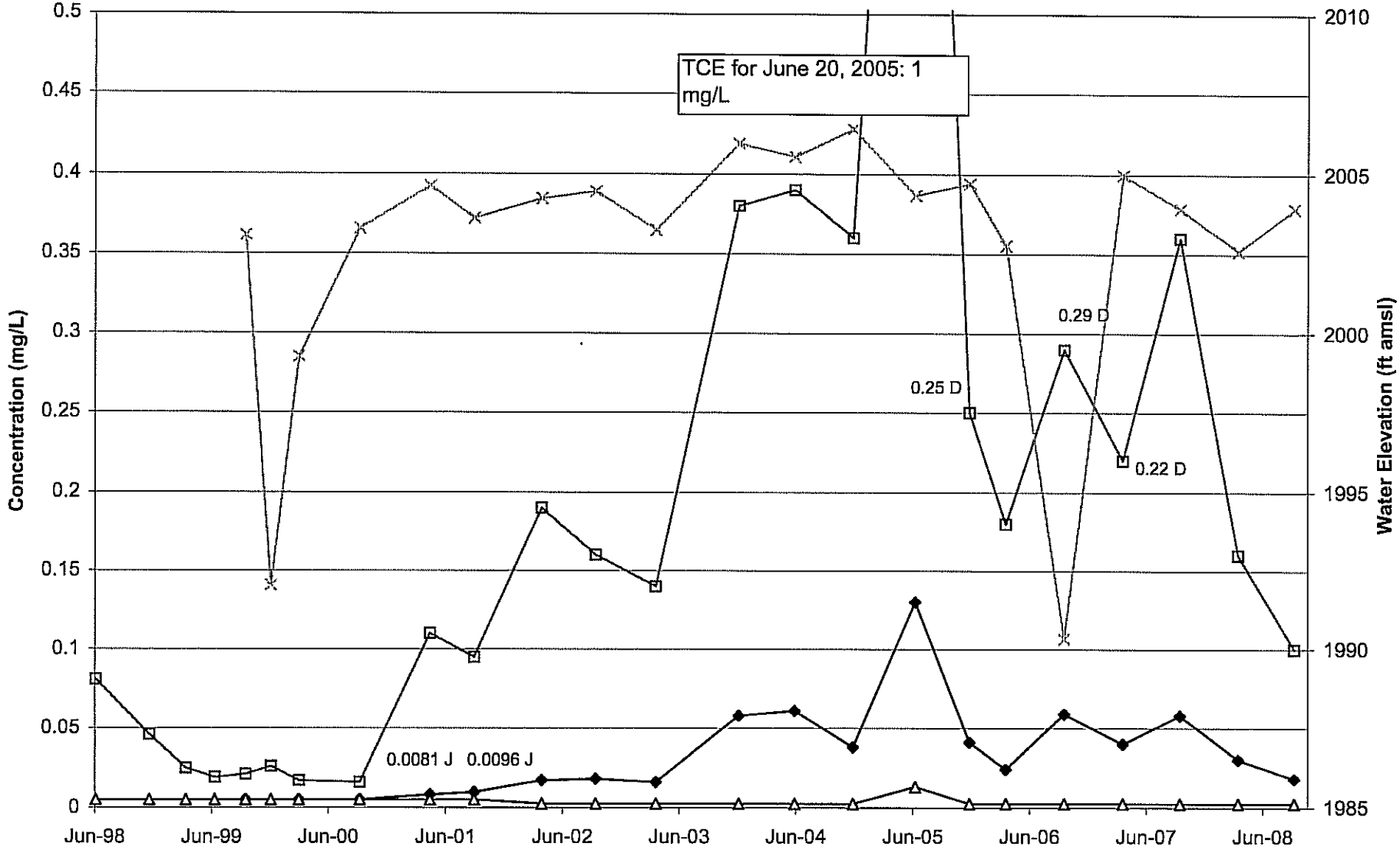
MW-18S Metals



Note:

1. 1/2 Detection limit used for non-detects

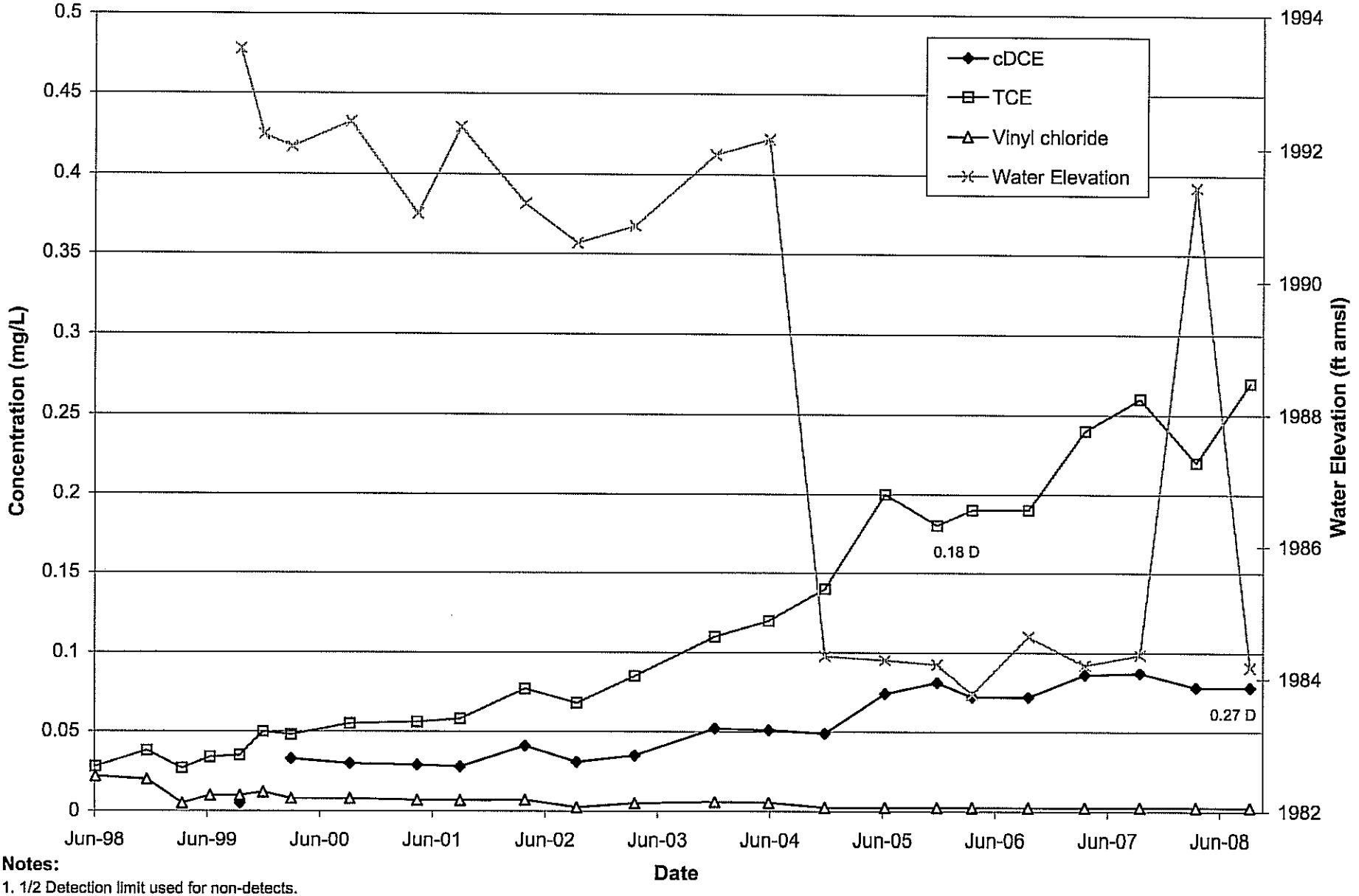
CW-3A VOCs



Notes:

1. 1/2 Detection limit used for non-detects.
2. Refer to Table B-1 (following graphs) for analytical results used in graphs.
3. Vinyl choride results are non-detected except in June 2005.
4. Results for cis-1,2-Dichloroethene on 3/13/2000 and 9/19/2000 are non-detect and estimated on 4/26/2001 and 9/11/2001.
5. D - This flag indicates a result from a diluted sample.
6. Data with flag labeled on graph as appropriate.

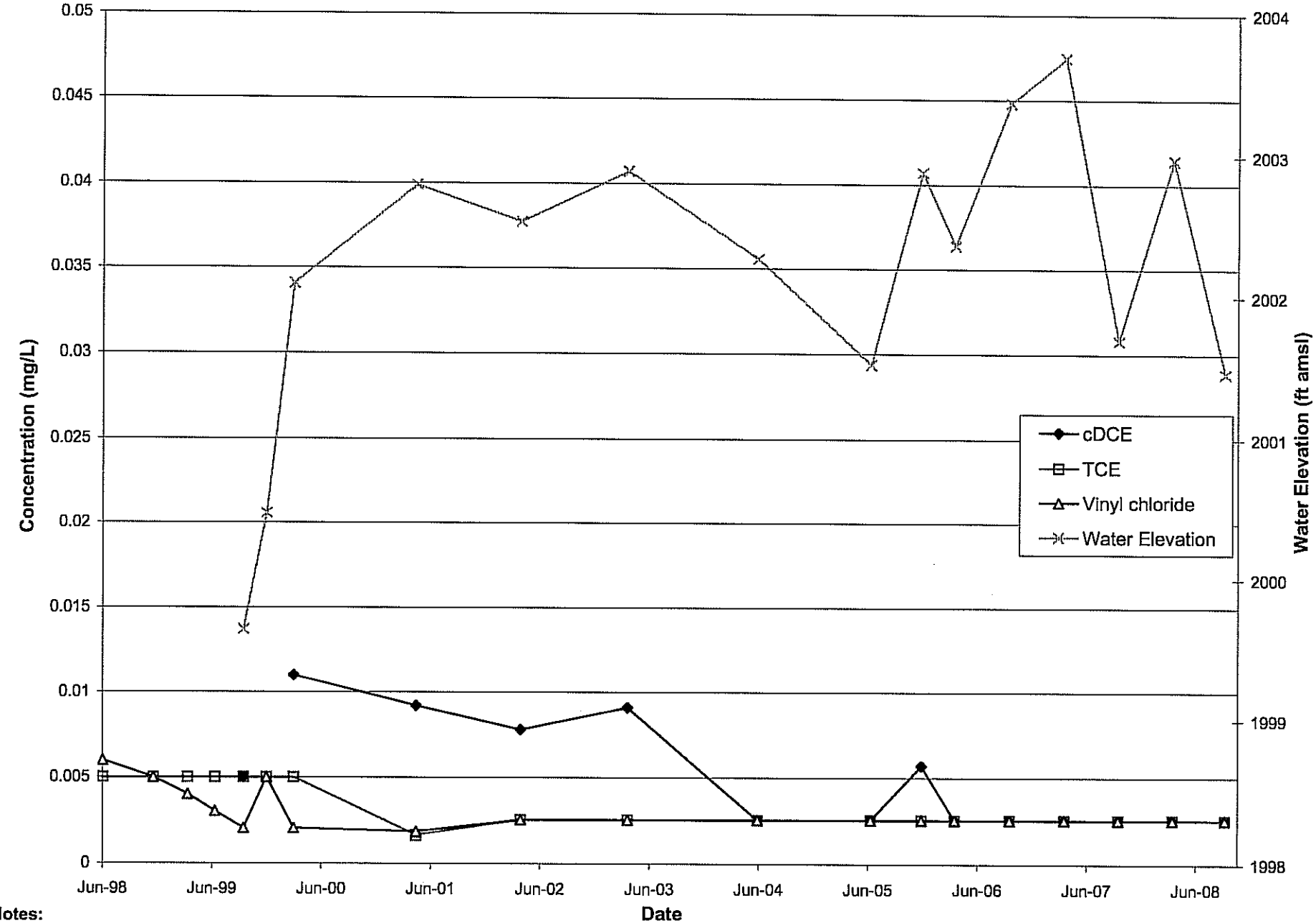
CW-3B VOCs



Notes:

1. 1/2 Detection limit used for non-detects.
2. Refer to Table B-1 (following graphs) for analytical results used in graphs.
3. The majority of Vinyl choride results are non-detect. Vinyl choride results on 3/13/2000, 9/19/2000,4/25/2001and on 9/11/2001 are estimated values.
4. Results for cDCE on 9/28/1999 are non-detect.
5. D - This flag indicates a result from a diluted sample.
6. Data with flag labeled on graph as appropriate.

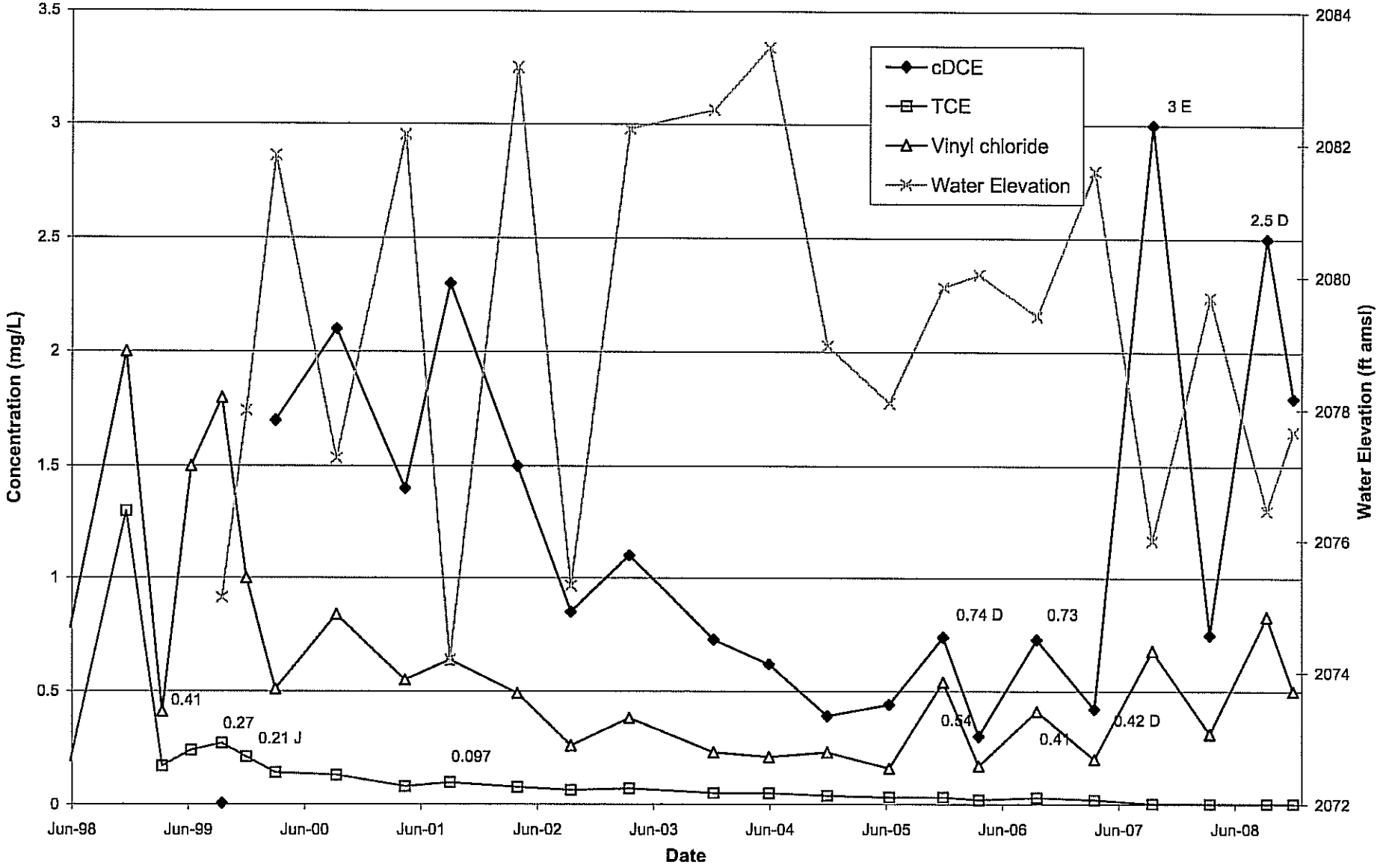
CW-4B VOCs



Notes:

1. 1/2 Detection limit used for non-detects.
2. Refer to Table B-1 (following graphs) for analytical results used in graphs.
3. TCE and Vinyl choride results are either non-detect or estimated values.
4. A majority of cDCE results are non-detect.

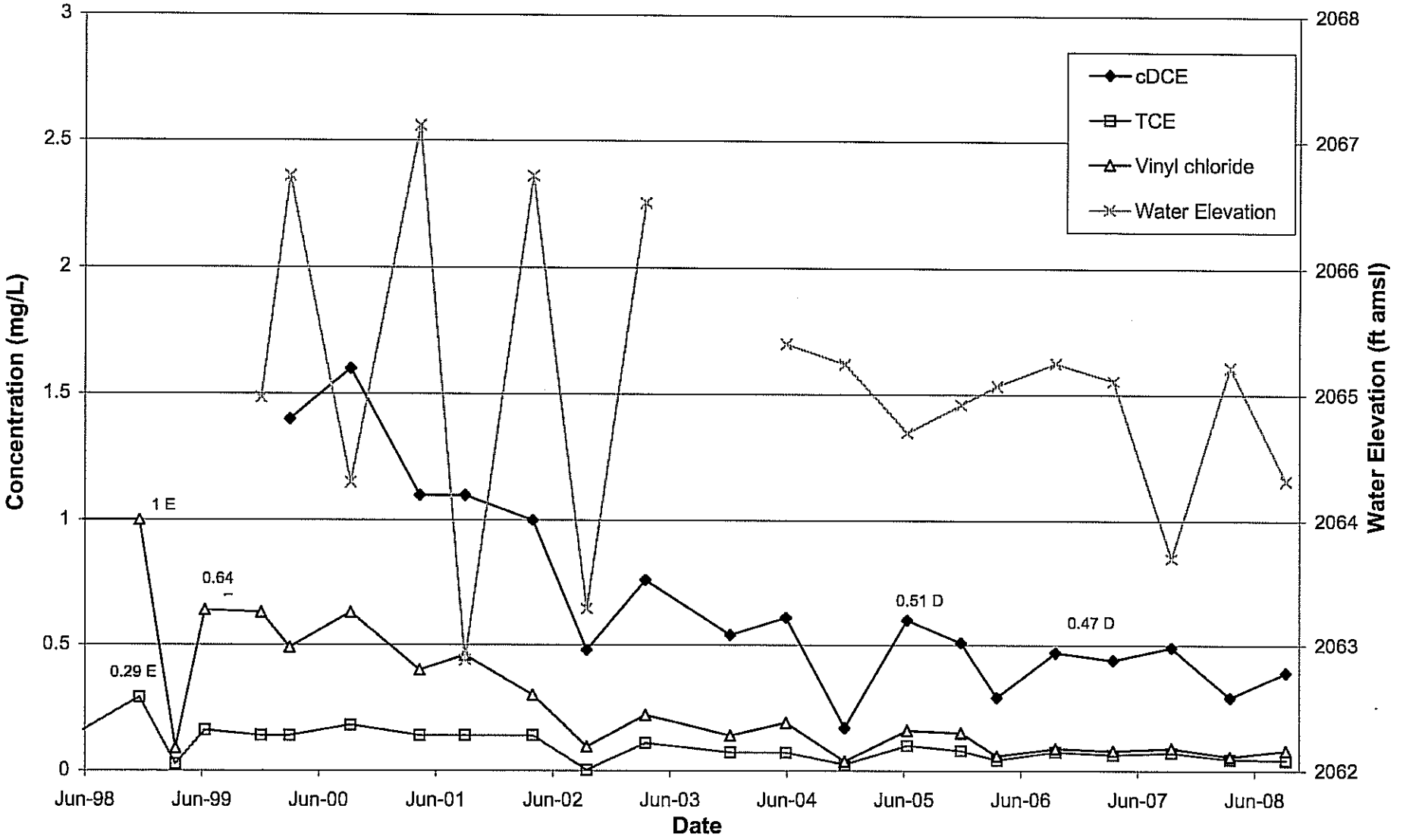
MW-4D VOCs



NOTES:

1. 1/2 Detection limit used for non-detects.
2. Refer to Table B-1 (following graphs) for analytical results used in graphs.
3. E - Results are greater than the calibration range of the instrument used for analysis
4. J - Estimated value.
5. D - This flag indicates a result from a diluted sample.
6. TCE is non-detect on 9/25/2007 and 3/24/2008.
7. Data with flag labeled on graph as appropriate.

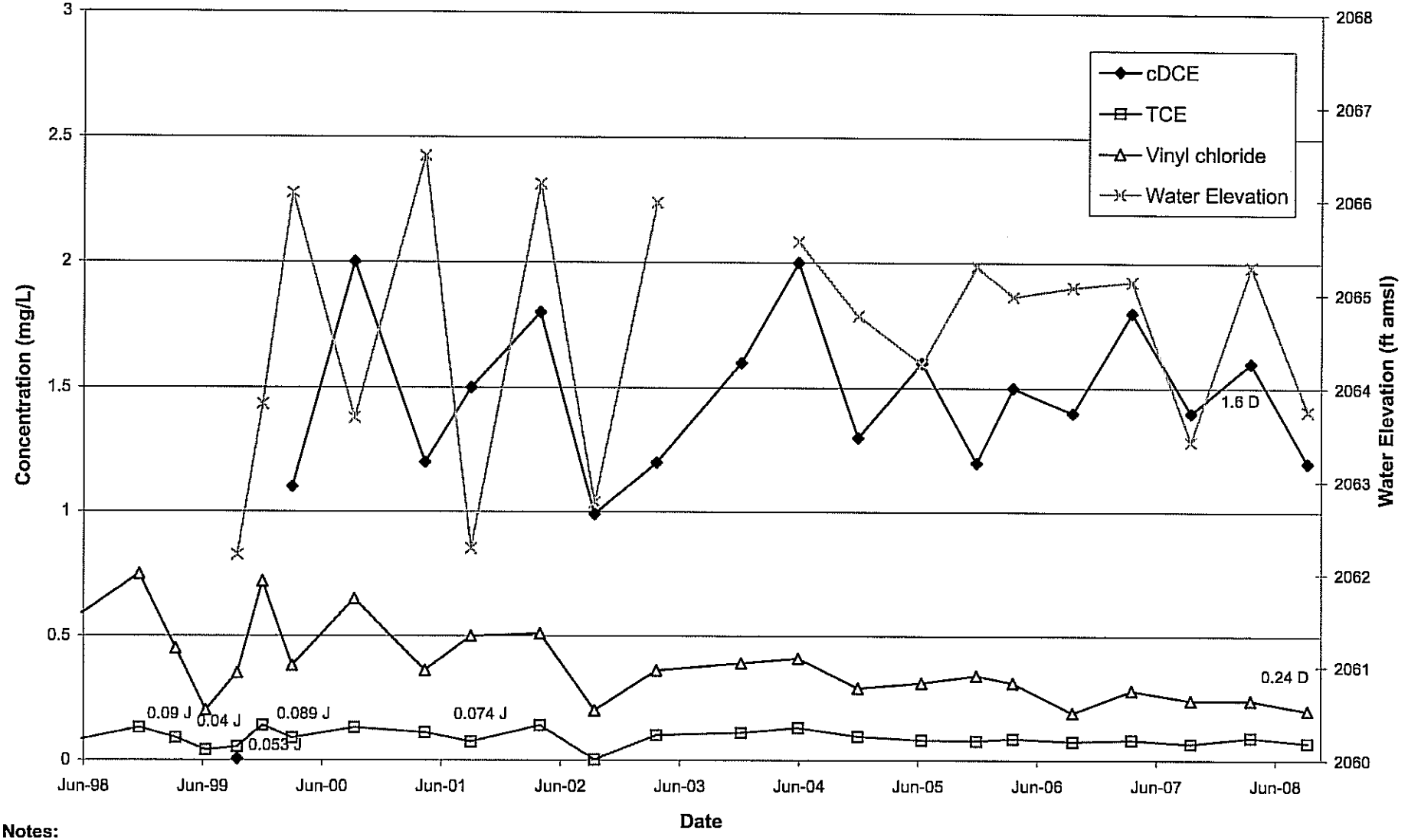
MW-5S VOCs



Notes:

1. 1/2 Detection limit used for non-detects.
2. Refer to Table B-1 (following graphs) for analytical results used in graphs.
3. TCE result on 9/26/2002 is non-detect.
4. E - Results are greater than the calibration range of the instrument used for analysis.
5. D - This flag indicates a result from a diluted sample.
6. Data with flag labeled on graph as appropriate.
7. No water elevation available for December 2003.

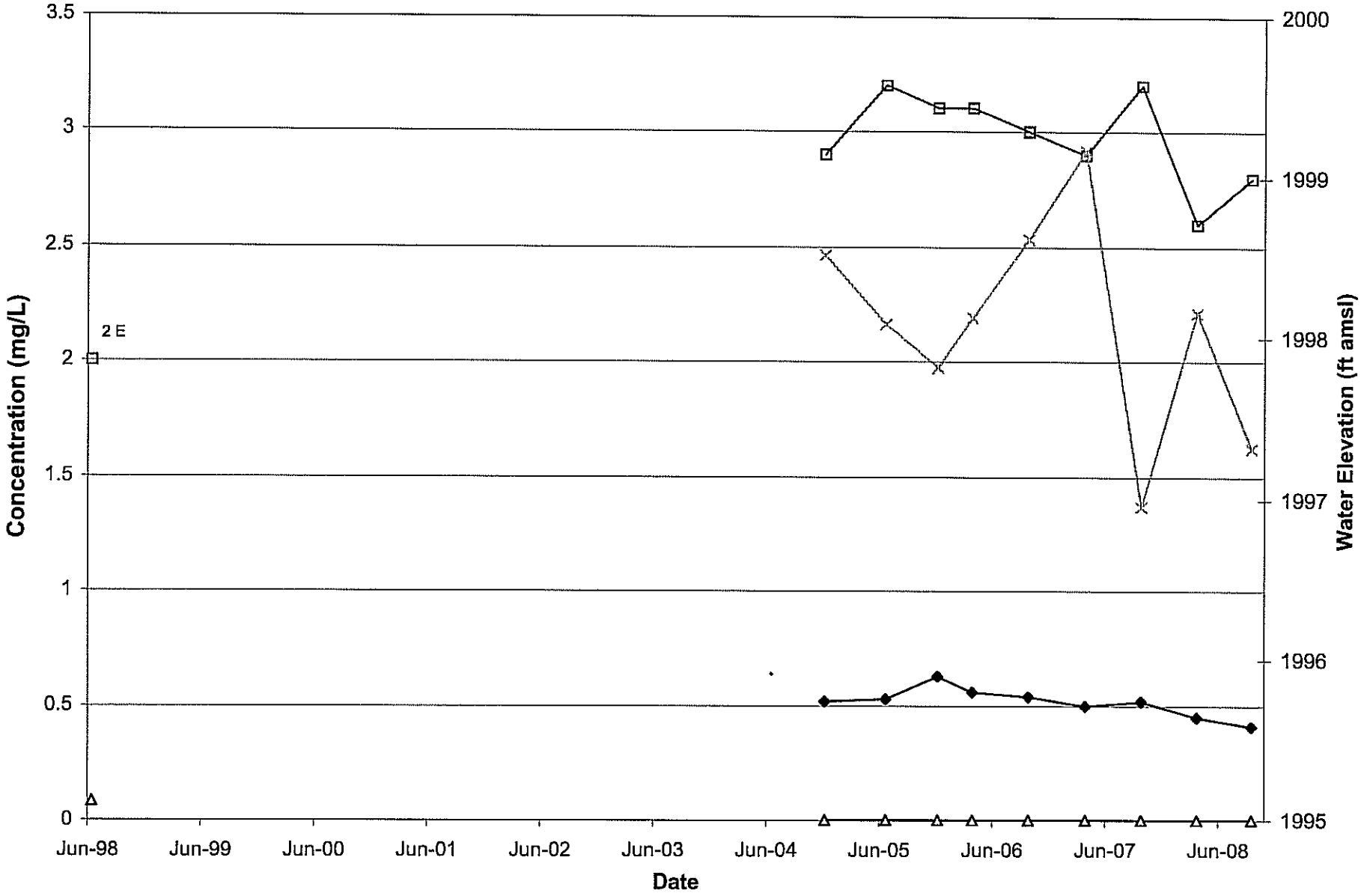
MW-5D VOCs



Notes:

1. 1/2 Detection limit used for non-detects.
2. Refer to Table B-1 (following graphs) for analytical results used in graphs.
3. TCE results on 6/9/1998, 9/23/1999, 6/23/1999, 9/28/1999, 3/14/2000 and 9/12/2001 are estimated values.
4. Result for cDCE on 9/28/1999 is non-detect.
5. J - Estimated values.
6. D - This flag indicates a result from a diluted sample.
7. Data with flag labeled on graph as appropriate.
8. No water elevation available December 2003.

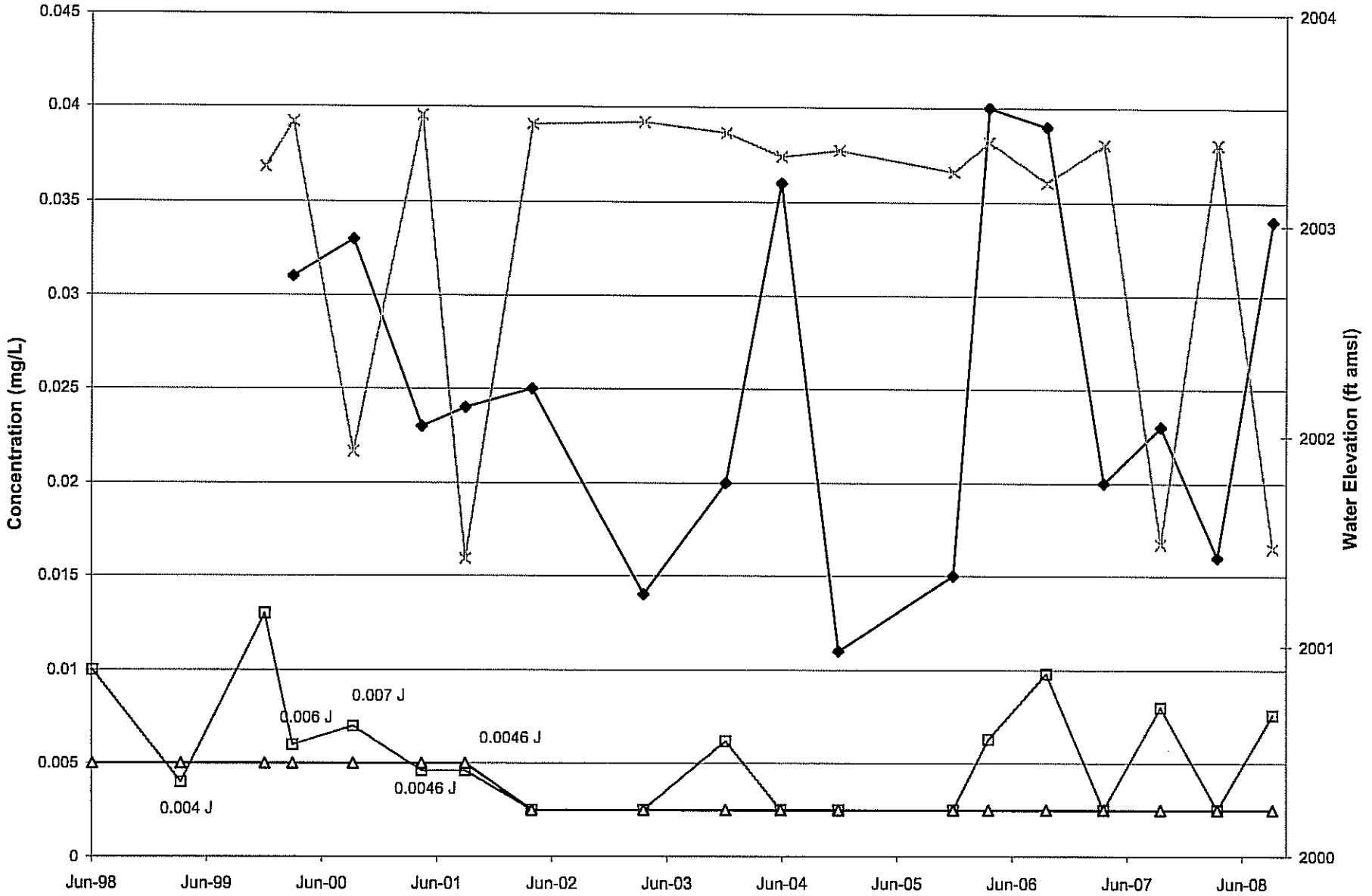
MW-11S VOCs



NOTES:

1. 1/2 Detection limit used for non-detects.
2. Refer to Table B-1 (following graphs) for analytical results used in graphs.
3. E - Results are greater than the calibration range fo the instrument used for analysis.
4. Vinyl chloride results are non-detect with an exception of result on 6/17/1998.
5. Data with flag labeled on graph as appropriate.

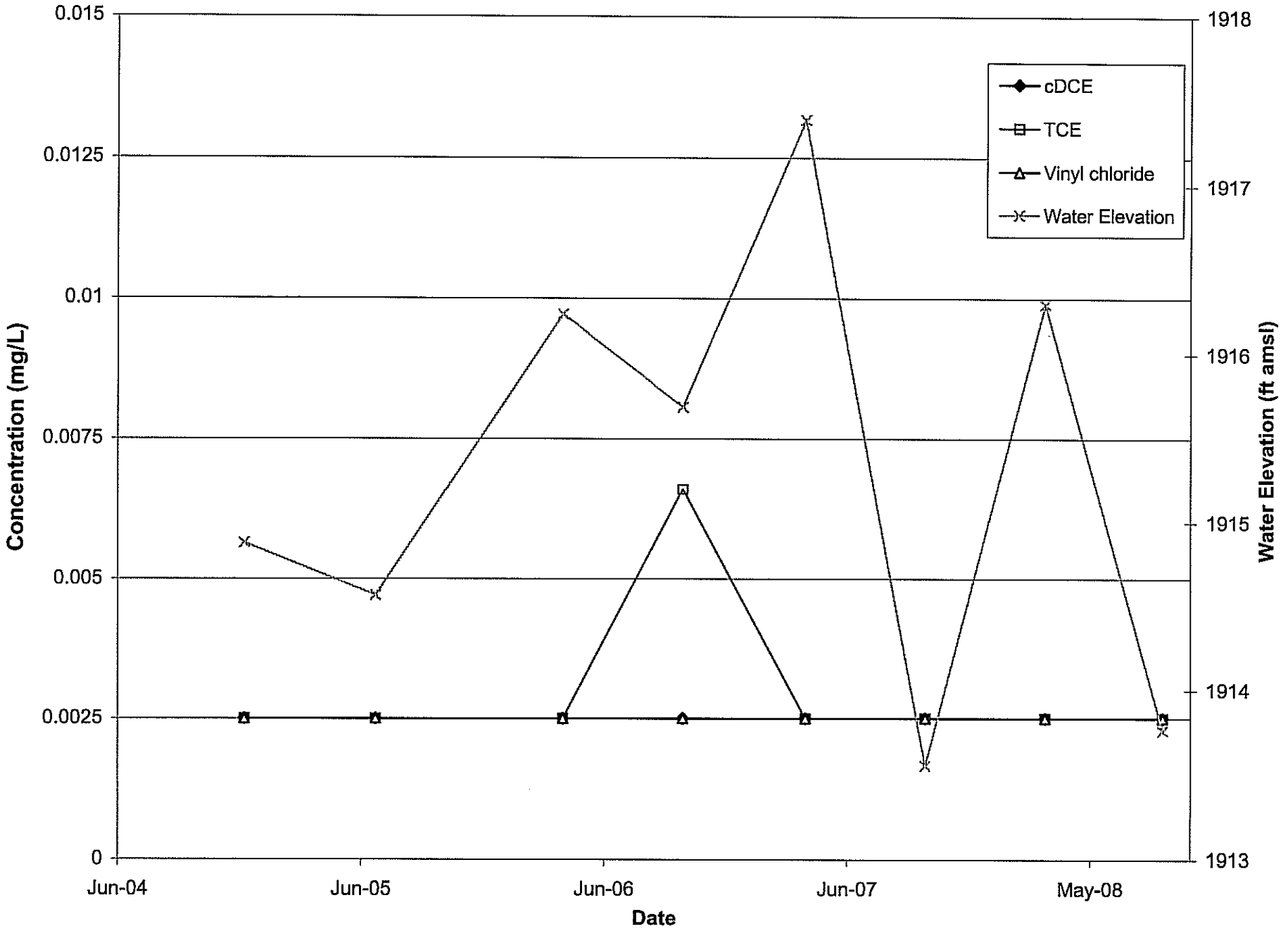
MW-15S VOCs



Notes:

1. 1/2 Detection limit used for non-detects.
2. Refer to Table B-1 (following graphs) for analytical results used in graphs.
3. J - Estimated value.
4. All Vinyl chloride and a majority of TCE results are non-detect.
5. Data with flag labeled on graph as appropriate.

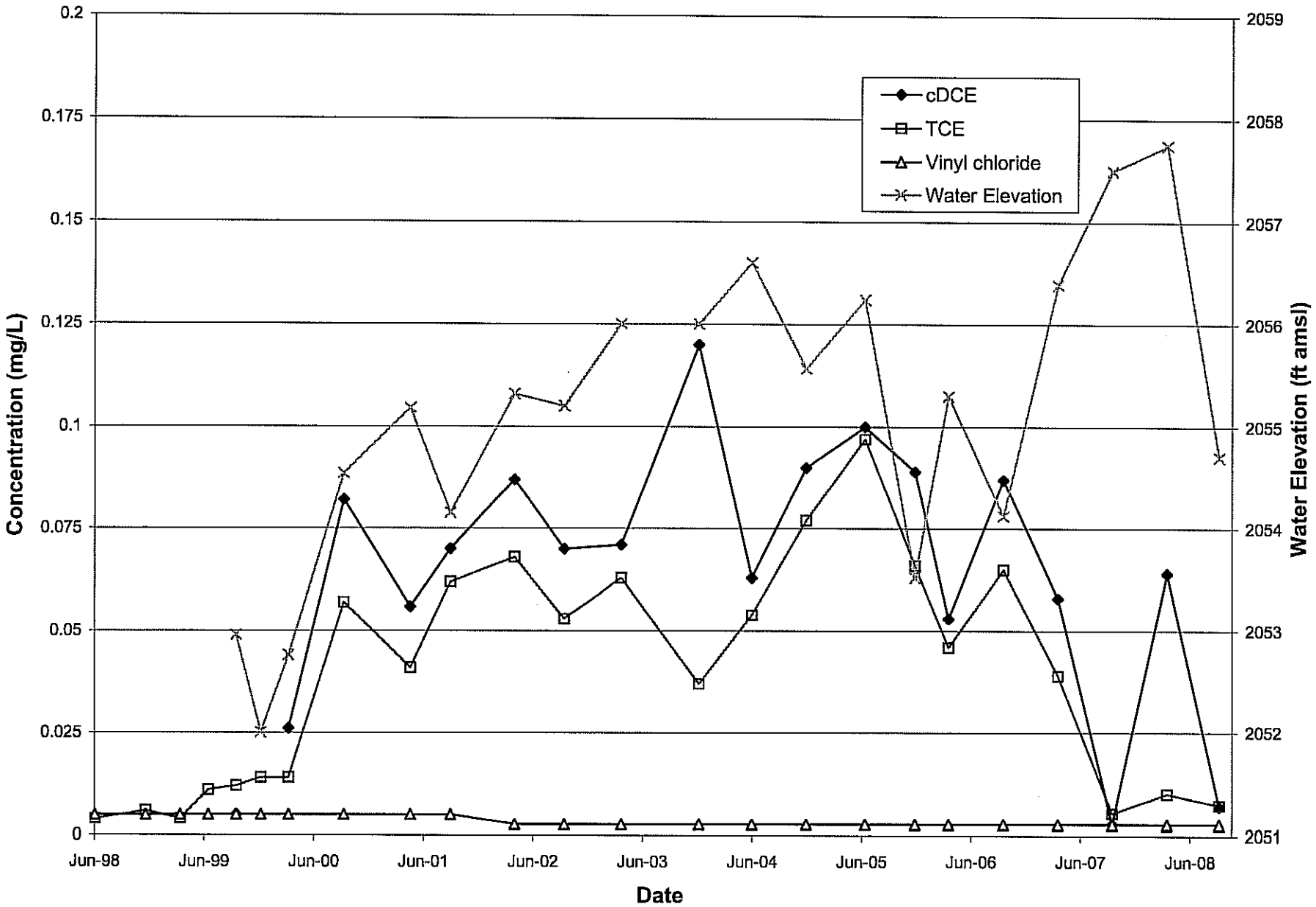
MW-16S VOCs



Notes:

1. All values for cDCE, TCE and Vinyl chloride are non-detect with the exception of TCE on 9/27/2006.
2. There is no data available for MW-16S prior to December 2004.

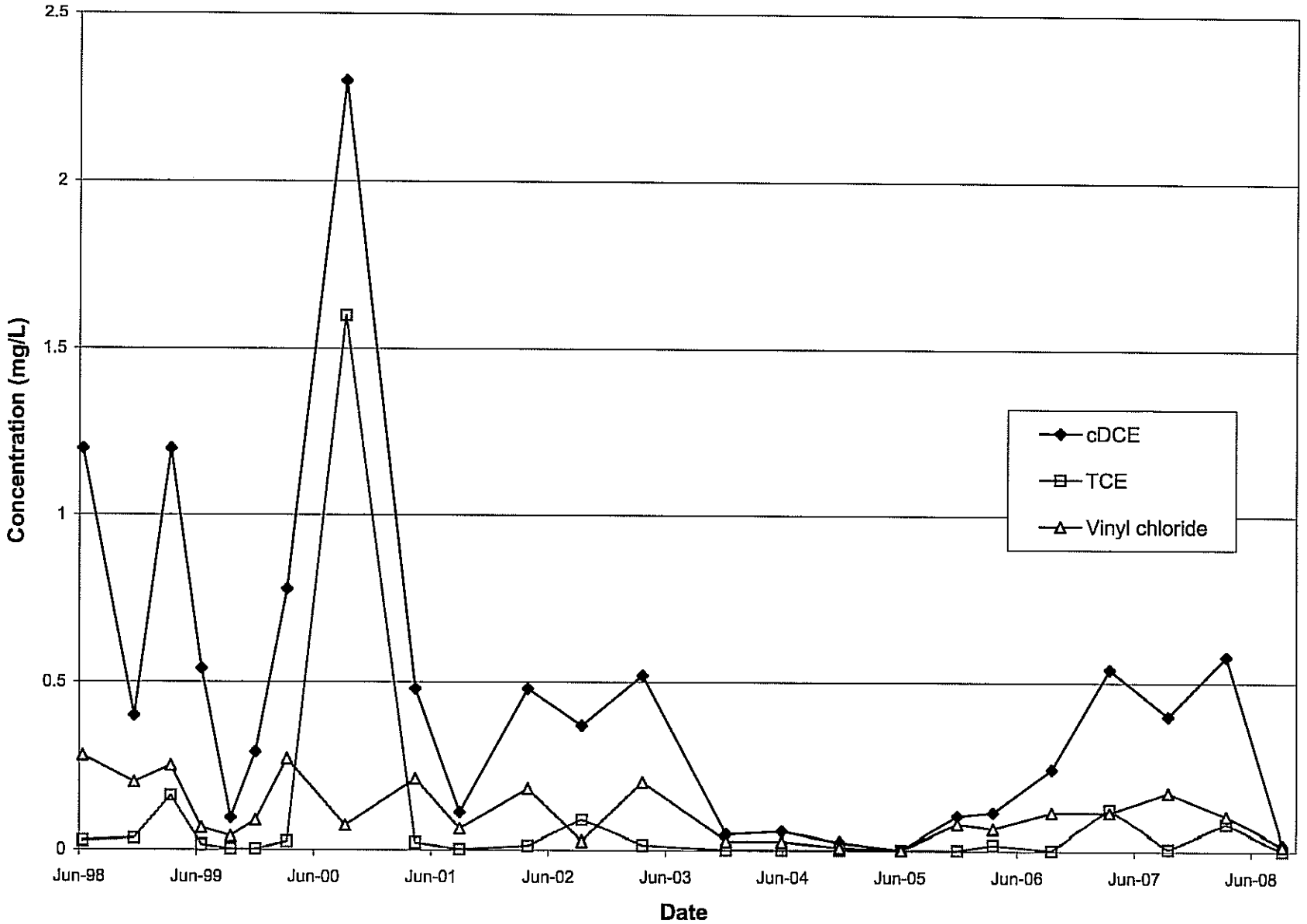
MW-18S VOCs



Notes:

1. 1/2 Detection limit used for non-detects.
2. Refer to Table B-1 (following graphs) for analytical results used in graphs.
3. TCE results on 6/15/1998, 12/1/1998 and 3/26/1999 are estimated values.
4. Vinyl chloride results are non-detect; cDCE is non-detect on 9/29/1999 and 9/25/2007.

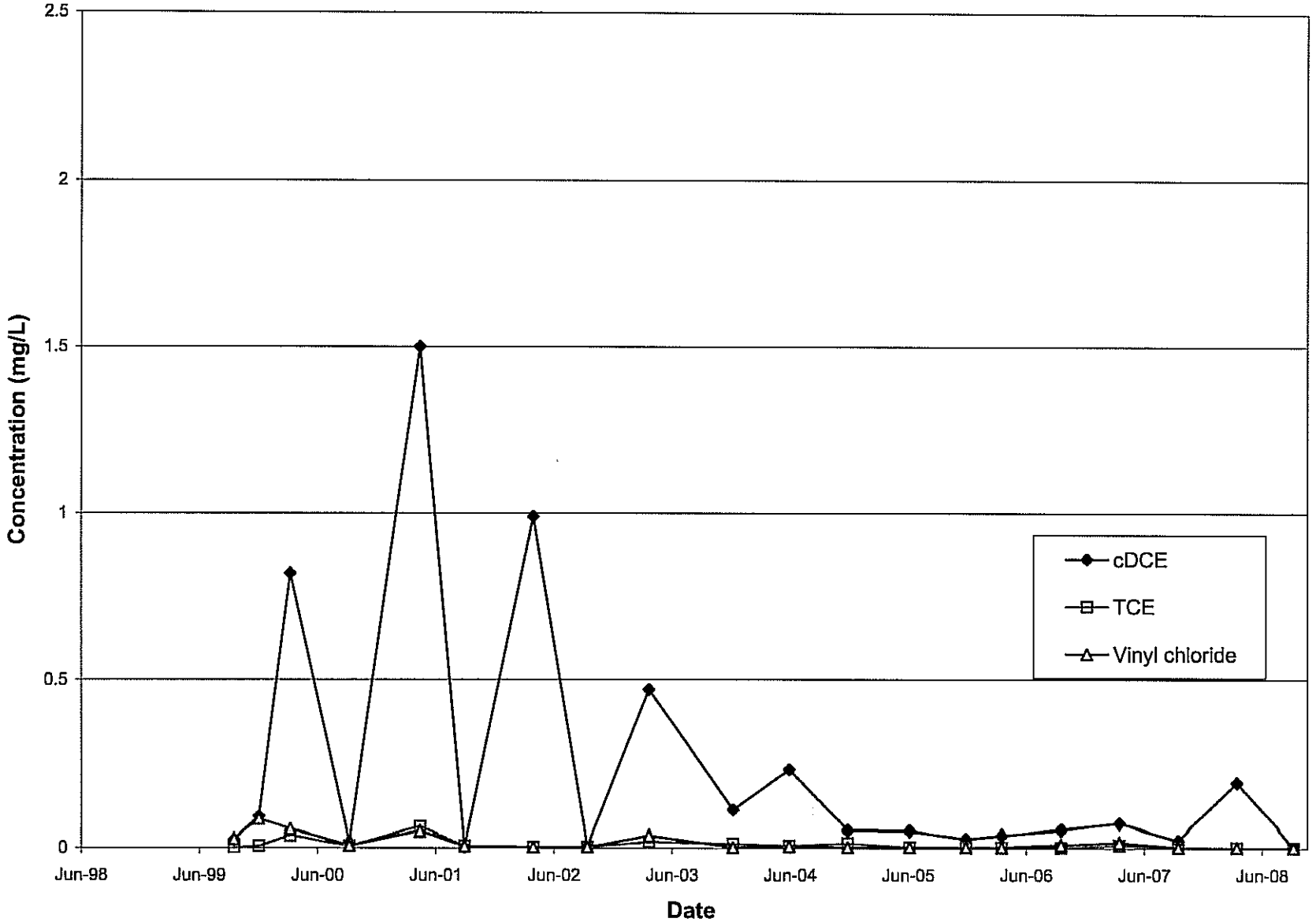
MH-32



Notes:

1. 1/2 Detection limit used for non-detects.

MH-33



Notes:

1. 1/2 Detection limit used for non-detects.

Table 1

Statistical Analysis of Groundwater Data (1998-2008)
Wellsville/Andover Landfill
Wellsville, New York

Monitoring Well CW-3A Total VOCs

COMPUTATIONS: Compute Statistic (S).

Date	6/17/98	12/1/98	3/25/99	6/24/99	9/28/99	12/16/99	3/13/00	9/19/00	4/26/01	9/11/01	4/10/02	9/25/02	4/1/03	12/16/03	6/8/04	12/7/04	6/20/05	12/6/05	3/30/06	9/28/06	3/30/07	9/25/07	3/25/08	9/17/08		
Event	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
Result (mg/L)	0.086	0.048	0.03	0.021	0.024	0.027	0.017	0.032	0.1301	0.113	0.207	0.178	0.156	0.438	0.451	0.398	1.143	0.291	0.204	0.349	0.26	0.418	0.19	0.118	Count "+"	Count "-"
0.086		-	-	-	-	-	-	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	16	7
0.048			-	-	-	-	-	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	16	6
0.03				-	-	-	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	17	4
0.021					+	+	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	19	1
0.024						+	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	18	1
0.027							-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	17	1
0.017								+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	17	0
0.032									+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	16	0
0.1301										-	+	+	+	+	+	+	+	+	+	+	+	+	+	-	13	2
0.113											+	+	+	+	+	+	+	+	+	+	+	+	+	+	14	0
0.207												-	-	+	+	+	+	+	-	+	+	+	-	-	8	5
0.178													-	+	+	+	+	+	+	+	+	+	+	-	10	2
0.156														+	+	+	+	+	+	+	+	+	+	-	10	1
0.438															+	-	+	-	-	-	-	-	-	-	2	8
0.451																-	+	-	-	-	-	-	-	-	1	8
0.398																	+	-	-	-	-	+	-	-	2	6
1.143																		-	-	-	-	-	-	-	0	7
0.291																			-	+	-	+	-	-	2	4
0.204																				+	+	+	-	-	3	2
0.349																					-	+	-	-	1	3
0.26																						+	-	-	1	2
0.418																							-	-	0	2
0.19																								-	0	1
																									203	73
																									Total "+"	Total "-"

S = Total Number of "+" minus Total Number of "-" = 130

STEP 1. Null Hypothesis: H_0: There is no trend.

STEP 2. Alternative Hypothesis: H_A: There is an upward trend.

STEP 3. Test Statistics:

$z_o = S - sign(S) / V(S)^{0.5}$ Where: sign(S) = 1 if S > 0, 0 if S = 0, and -1 if S < 0

and $V(S) = 1/18\{n(n-1)(2n+5) - [t_1(t_1-1)(2t_1+5)+[t_2(t_2-1)(2t_2+5)+\ldots$ up to $t_g]\}$

Where: n (number of samples) = 24

t_1 = number of tied samples in the first group = 0

t_2 = number of tied samples in second group = 0

g = the number of tied sample groups

V(S) = 1625.33

z_o = 3.1998

STEP 4. a) Critical Value: From Table A-2, $z_{0.95}$ (critical value at 5% significance level) = 1.645

STEP 4. b) Probability Value: p-value = $(P(Z > z_o) = 1 - z_p$, where z_p from Table A-1 = 0.9993

p-value = 0.0007

STEP 5. a) Conclusion: For testing the hypothesis, H_0 (no trend) against H_A - reject H_0 if absolute value of z_o is > $z_{0.95}$

Since absolute value z_o = 3.1998 > 1.645

we reject the null hypothesis of no trend

STEP 5. b) Conclusion: For testing the hypothesis, H_0 (no trend) against H_A - reject H_0 if p-value is less than significance level = 0.05.

Since p-value = 0.0007 < 0.05

we reject the null hypothesis of no trend

Therefore: **We reject the null hypothesis of no trend in favor of the alternative hypothesis (i.e. evidence of upward trend).**

Reference: *USEPA Data Quality Assessment: Statistical Methods for Practitioner EPA QA/G-9S,* dated February 2006

1/2 detection limit used for non-detects.

Table 1

Statistical Analysis of Groundwater Data (1998-2008)
Wellsville/Andover Landfill
Wellsville, New York

Monitoring Well CW-3B Total VOCs

COMPUTATIONS: Compute Statistic (S).

Date	6/17/98	12/1/98	3/25/99	6/24/99	9/28/99	12/13/99	3/13/00	9/19/00	4/25/01	9/11/01	4/9/02	9/24/02	3/31/03	12/16/03	6/8/04	12/7/04	6/20/05	12/6/05	3/30/06	9/28/06	3/30/07	9/25/07	3/25/08	9/17/08		
Event	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
Result (mg/L)	0.104	0.094	0.054	0.085	0.08	0.116	0.091	0.093	0.0939	0.0947	0.1251	0.099	0.1251	0.168	0.1765	0.189	0.274	0.537	0.262	0.262	0.326	0.347	0.298	0.348	Count "+"	Count "-"
0.104		-	-	-	-	+	-	-	-	-	+	-	+	+	+	+	+	+	+	+	+	+	+	+	14	9
0.094			-	-	-	+	-	-	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	16	6
0.054				+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	21	0
0.085					-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	19	1
0.08						+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	19	0
0.116							-	-	-	-	+	-	+	+	+	+	+	+	+	+	+	+	+	+	13	5
0.091								+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	17	0
0.093									+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	16	0
0.0939										+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	15	0
0.0947											+	+	+	+	+	+	+	+	+	+	+	+	+	+	14	0
0.1251												-	0	+	+	+	+	+	+	+	+	+	+	+	11	1
0.099													+	+	+	+	+	+	+	+	+	+	+	+	12	0
0.1251														+	+	+	+	+	+	+	+	+	+	+	11	0
0.168															+	+	+	+	+	+	+	+	+	+	10	0
0.1765																+	+	+	+	+	+	+	+	+	9	0
0.189																	+	+	+	+	+	+	+	+	8	0
0.274																		+	-	-	+	+	+	+	5	2
0.537																			-	-	-	-	-	-	0	6
0.262																				0	+	+	+	+	4	0
0.262																					+	+	+	+	4	0
0.326																						+	-	+	2	1
0.347																							-	+	1	1
0.298																								+	1	0
																									242	32
																									Total "+"	Total "-"

S = Total Number of "+" minus Total Number of "-" = 210

STEP 1. Null Hypothesis: H_0: There is no trend.

STEP 2. Alternative Hypothesis: H_A: There is an upward trend.

STEP 3. Test Statistics:

$z_o = S - sign(S) / V(S)^{0.5}$ Where: sign(S) = 1 if S > 0, 0 if S = 0, and -1 if S < 0

and $V(S) = 1/18\{n(n-1)(2n+5) - [t_1(t_1-1)(2t_1+5)+[t_2(t_2-1)(2t_2+5)+\ldots$ up to $t_g]\}$

Where: n (number of samples) = 24

t_1 = number of tied samples in the first group = 2

t_2 = number of tied samples in second group = 2

g = the number of tied sample groups

V(S) = 1623.33

z_o = 5.1873

STEP 4. a) Critical Value: From Table A-2, $z_{0.95}$ (critical value at 5% significance level) = 1.645

STEP 4. b) Probability Value: p-value = $(P(Z > z_o) = 1 - z_p$, where z_p from Table A-1 = 0.9999 (off scale)

p-value = 0.0001

STEP 5. a) Conclusion: For testing the hypothesis, H_0 (no trend) against H_A - reject H_0 if absolute value of z_o is > $z_{0.95}$

Since absolute value z_o = 5.1873 > 1.645

we reject the null hypothesis of no trend

STEP 5. b) Conclusion: For testing the hypothesis, H_0 (no trend) against H_A - reject H_0 if p-value is less than significance level = 0.05.

Since p-value = 0.0001 < 0.05

we reject the null hypothesis of no trend

Therefore: **We reject the null hypothesis of no trend in favor of the alternative hypothesis (i.e. evidence of upward trend)**

Reference: *USEPA Data Quality Assessment: Statistical Methods for Practitioner EPA QA/G-9S*, dated February 2006

1/2 detection limit used for non-detects.

Table 1

Statistical Analysis of Groundwater Data (1998-2008)
Wellsville/Andover Landfill
Wellsville, New York

Monitoring Well CW-4B Total VOCs

COMPUTATIONS: Compute Statistic (S).

Date	6/15/98	12/1/98	3/25/99	6/24/99	9/28/99	12/13/99	3/13/00	4/25/01	4/9/02	4/1/03	6/8/04	6/20/05	12/7/05	3/28/06	9/27/06	3/29/07	9/25/07	3/25/08	9/16/08		
Event	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19		
Result (mg/L)	0.021	0.0025	0.012	0.017	0.014	0.007	0.013	0.0126	0.0078	0.0091	0.0025	0.0025	0.0057	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	Count "+"	Count "-"
0.021		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	18
0.0025			+	+	+	+	+	+	+	+	0	0	+	0	0	0	0	0	0	9	0
0.012				+	+	-	+	+	-	-	-	-	-	-	-	-	-	-	-	4	12
0.017					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	15
0.014						-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	14
0.007							+	+	+	+	-	-	-	-	-	-	-	-	-	4	9
0.013								-	-	-	-	-	-	-	-	-	-	-	-	0	12
0.0126									-	-	-	-	-	-	-	-	-	-	-	0	11
0.0078										+	-	-	-	-	-	-	-	-	-	1	9
0.0091											-	-	-	-	-	-	-	-	-	0	9
0.0025												0	+	0	0	0	0	0	0	1	0
0.0025													+	0	0	0	0	0	0	1	0
0.0057														-	-	-	-	-	-	0	6
0.0025															0	0	0	0	0	0	0
0.0025																0	0	0	0	0	0
0.0025																	0	0	0	0	0
0.0025																		0	0	0	0
0.0025																			0	0	0
0.0025																			0	0	0
																				20	115
																				Total "+"	Total "-"

S = Total Number of "+" minus Total Number of "-" = -95

STEP 1. Null Hypothesis: H_0: There is no trend.

STEP 2. Alternative Hypothesis: H_A: There is a downward trend.

STEP 3. Test Statistics:

z_o = S - sign(S) / V(S)^0.5 Where: sign(S) = 1 if S > 0, 0 if S = 0, and -1 if S < 0

and V(S) = 1/18{n(n-1)(2n+5) - [$t_1(t_1-1)(2t_1+5)$+[$t_2(t_2-1)(2t_2+5)$+... up to t_g]}

Where: n (number of samples) = 19

t_1 = number of tied samples in the first group = 9

t_2 = number of tied samples in second group = 0

g = the number of tied sample groups

V(S) = 725.00

z_o = -3.4911

STEP 4. a) Critical Value: From Table A-2, $z_{0.95}$ (critical value at 5% significance level) = 1.645

STEP 4. b) Probability Value: p-value = (P(Z > z_o) = 1 - z_p, where z_p from Table A-1 = 0.0002

p-value = 0.9998

STEP 5. a) Conclusion: For testing the hypothesis, H_0 (no trend) against H_A - reject H_0 if absolute value of z_o is > $z_{0.95}$

Since absolute value z_o = 3.4911 > 1.645

we reject the null hypothesis of no trend

STEP 5. b) Conclusion: For testing the hypothesis, H_0 (no trend) against H_A - reject H_0 if p-value is less than significance level = 0.05.

Since p-value = 0.9998 > 0.05

we fail to reject the null hypothesis of no trend

Therefore: **We fail to reject the null hypothesis of no trend at the 5% significance level (i.e. there is eveidence of a downward trend but not enough to over rule no trend)**

Reference: *USEPA Data Quality Assessment: Statistical Methods for Practitioner EPA QA/G-9S,* dated February 2006

1/2 detection limit used for non-detects.

Table 1

Statistical Analysis of Groundwater Data (1998-2008)
Wellsville/Andover Landfill
Wellsville, New York

Monitoring Well MW-4D Total VOCs

COMPUTATIONS: Compute Statistic (S).

Date	6/9/98	12/1/98	3/24/99	6/23/99	9/28/99	12/13/99	3/14/00	9/21/00	4/24/01	9/12/01	4/11/02	9/26/02	3/28/03	12/18/03	6/9/04	12/9/04	6/21/05	12/7/05	3/29/06	9/27/06	3/27/07	9/25/07	3/24/08	9/16/08	12/11/08		
Event	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25		
Result (mg/L)	1.83	15.3	1.784	6.774	11.25	6.81	2.35	3.07	2.0401	3.037	2.067	1.173	3.012	1.011	0.88	0.659	1.317	1.312	0.503	1.17	0.651	3.68	1.06	3.33	2.3	Count "+"	Count "-"
1.83		+	-	+	+	+	+	+	+	+	+	-	+	-	-	-	-	-	-	-	-	+	-	+	+	13	11
15.3		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	23
1.784			+	+	+	+	+	+	+	+	+	-	+	-	-	-	-	-	-	-	-	+	-	+	+	12	10
6.774				+	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	19
11.25					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	20
6.81						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	19
2.35							+	-	+	-	-	+	-	-	-	-	-	-	-	-	-	+	-	+	-	5	13
3.07								-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	+	-	2	15
2.0401									+	+	-	+	-	-	-	-	-	-	-	-	-	+	-	+	+	6	10
3.037										-	-	-	-	-	-	-	-	-	-	-	-	+	-	+	-	2	13
2.067											-	+	-	-	-	-	-	-	-	-	-	+	-	+	+	4	10
1.173												+	-	-	-	+	+	-	-	-	-	+	-	+	+	6	7
3.012													-	-	-	-	-	-	-	-	-	+	-	+	-	2	10
1.011														-	-	+	+	-	+	-	+	+	+	+	+	7	4
0.88															-	+	+	-	+	-	+	+	+	+	+	7	3
0.659																+	+	-	+	-	+	+	+	+	+	7	2
1.317																	-	-	-	-	+	-	+	+	+	3	5
1.312																		-	-	-	+	-	+	+	+	3	4
0.503																			+	+	+	+	+	+	+	6	0
1.17																				-	+	-	+	+	+	3	2
0.651																					+	+	+	+	+	4	0
3.68																						-	+	-	-	0	3
1.06																							+	+	+	2	0
3.33																									-	0	1
																										75	189
																										Total "+"	Total "-"

S = Total Number of "+" minus Total Number of "-" = -114

STEP 1. Null Hypothesis: H_0: There is no trend.

STEP 2. Alternate Hypothesis: H_A: There is a downward trend.

STEP 3. Test Statistics:

z_o = S - sign(S) / V(S)^0.5 Where: sign(S) = 1 if S > 0, 0 if S = 0, and -1 if S < 0

and V(S) = 1/18{n(n-1)(2n+5) - [t_1(t_1-1)(2t_1+5)+[t_2(t_2-1)(2t_2+5)+... up to t_g]}

Where: n (number of samples) = 25

t_1 = number of tied samples in the first group = 0

t_2 = number of tied samples in second group = 0

g = the number of tied sample groups

V(S) = 1833.33

z_o = -2.6391

STEP 4. a) Critical Value: From Table A-2, $z_{0.95}$ (critical value at 5% significance level) = 1.645

STEP 4. b) Probability Value: p-value = (P(Z > z_o) = 1 - z_p, where z_p from Table A-1 = 0.0041

p-value = 0.9959

STEP 5. a) Conclusion: For testing the hypothesis, H_0 (no trend) against H_A - reject H_0 if absolute value of z_o is > $z_{0.95}$

Since absolute value z_o = 2.6391 > 1.645

we reject the null hypothesis of no trend

STEP 5. b) Conclusion: For testing the hypothesis, H_0 (no trend) against H_A - reject H_0 if p-value is less than significance level = 0.05.

Since p-value = 0.9959 > 0.05

we fail to reject the null hypothesis of no trend

Therefore: We fail to reject the null hypothesis of no trend at the 5% significance level (i.e. there is eveidence of a downward trend but not enough to over rule no trend)

Reference: *USEPA Data Quality Assessment: Statistical Methods for Practitioner EPA QA/G-9S,* dated February 2006

1/2 detection limit used for non-detects.

Table 1

Statistical Analysis of Groundwater Data (1998-2008)
Wellsville/Andover Landfill
Wellsville, New York

Monitoring Well MW-5D Total VOCs

COMPUTATIONS: Compute Statistic (S).

Date	6/9/98	12/1/98	3/23/99	6/23/99	9/28/99	12/14/99	3/14/00	9/20/00	4/24/01	9/12/01	4/11/02	9/25/02	4/2/03	12/18/03	6/9/04	12/9/04	6/22/05	12/7/05	3/29/06	9/28/06	3/27/07	9/25/07	3/26/08	9/17/08		
Event	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
Result (mg/L)	2.484	2.98	1.74	1.166	1.84	3.134	1.581	2.78	1.7073	4.4528	4.9869	1.19	1.66	2.1	2.5814	1.686	1.991	1.618	1.897	1.665	2.161	1.706	1.945	1.469	Count "+"	Count "-"
2.484		+	-	-	-	+	-	+	-	+	+	-	-	-	+	-	-	-	-	-	-	-	-	-	6	17
2.98			-	-	-	+	-	-	-	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	3	19
1.74				-	+	+	-	+	-	+	+	-	-	+	+	-	+	-	+	-	+	-	+	-	11	10
1.166					+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	20	0
1.84						+	-	+	-	+	+	-	-	+	+	-	+	-	+	-	+	-	+	-	10	9
3.134							-	-	-	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	2	16
1.581								+	+	+	+	-	+	+	+	+	+	+	+	+	+	+	+	-	15	2
2.78									-	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	2	14
1.7073										+	+	-	-	+	+	-	+	-	+	-	+	-	+	-	8	7
4.4528											+	-	-	-	-	-	-	-	-	-	-	-	-	-	1	13
4.9869												-	-	-	-	-	-	-	-	-	-	-	-	-	0	13
1.19													+	+	+	+	+	+	+	+	+	+	+	+	12	0
1.66														+	+	+	+	-	+	+	+	+	+	-	9	2
2.1															+	-	-	-	-	-	+	-	-	-	2	8
2.5814																-	-	-	-	-	-	-	-	-	0	9
1.686																	+	-	+	-	+	+	+	-	5	3
1.991																		-	-	-	+	-	-	-	1	6
1.618																			+	+	+	+	+	-	5	1
1.897																				-	+	-	+	-	2	3
1.665																					+	+	+	-	3	1
2.161																						-	-	-	0	3
1.706																							+	-	1	1
1.945																								-	0	1
																									118 Total "+"	158 Total "-"

S = Total Number of "+" minus Total Number of "-" = -40

STEP 1. Null Hypothesis: H_0: There is no trend.

STEP 2. Alternative Hypothesis: H_A: There is a downward trend.

STEP 3. Test Statistics:

z_o = S - sign(S) / V(S)^0.5 Where: sign(S) = 1 if S > 0, 0 if S = 0, and -1 if S < 0

and V(S) = 1/18{n(n-1)(2n+5) - [$t_1(t_1-1)(2t_1+5)$+[$t_2(t_2-1)(2t_2+5)$+... up to t_g]}

Where: n (number of samples) = 24

t_1 = number of tied samples in the first group = 0

t_2 = number of tied samples in second group = 0

g = the number of tied sample groups

V(S) = 1625.33

z_o = -0.9674

STEP 4. a) Critical Value: From Table A-2, $z_{0.95}$ (critical value at 5% significance level) = 1.645

STEP 4. b) Probability Value: p-value = (P(Z > z_o) = 1 - z_p, where z_p from Table A-1 = 0.165

p-value = 0.8350

STEP 5. a) Conclusion: For testing the hypothesis, H_0 (no trend) against H_A - reject H_0 if absolute value of z_o is > $z_{0.95}$

Since absolute value z_o = 0.9674 < 1.645

we fail to reject the null hypothesis of no trend

STEP 5. b) Conclusion: For testing the hypothesis, H_0 (no trend) against H_A - reject H_0 if p-value is less than significance level = 0.05.

Since p-value = 0.8350 > 0.05

we fail to reject the null hypothesis of no trend

Therefore: **We fail to reject the null hypothesis of no trend (i.e. No trend / stable)**

Reference: *USEPA Data Quality Assessment: Statistical Methods for Practitioner EPA QA/G-9S*, dated February 2006

1/2 detection limit used for non-detects.

Table 1

Statistical Analysis of Groundwater Data (1998-2008)
Wellsville/Andover Landfill
Wellsville, New York

Monitoring Well MW-5S Total VOCs

COMPUTATIONS: Compute Statistic (S).

Date	6/9/98	12/1/98	3/24/99	6/23/99	12/16/99	3/14/00	9/20/00	4/23/01	9/12/01	4/11/02	9/26/02	3/28/03	12/18/03	6/9/04	12/9/04	6/22/05	12/7/05	3/29/06	9/28/06	3/27/07	9/25/07	3/26/08	9/17/08		
Event	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23		
Result (mg/L)	3.06	4.796	0.116	2.413	5.14	2.03	2.41	1.6543	1.7	1.44	0.575	1.09	0.753	0.872	0.233	0.86	0.74	0.391	0.634	1.118	0.651	0.391	0.512	Count "+"	Count "-"
3.06		+	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	20
4.796			-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	20
0.116				+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	20	0
2.413					+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	18
5.14						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	18
2.03							+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	16
2.41								-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	16
1.6543									+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	14
1.7										-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	14
1.44											-	-	-	-	-	-	-	-	-	-	-	-	-	0	13
0.575												+	+	+	-	+	+	-	+	+	+	-	-	8	4
1.09													-	-	-	-	-	-	-	+	-	-	-	1	10
0.753														+	-	+	-	-	-	+	-	-	-	3	7
0.872															-	-	-	-	-	+	-	-	-	1	8
0.233																+	+	+	+	+	+	+	+	8	0
0.86																	-	-	-	+	-	-	-	1	6
0.74																		-	-	+	-	-	-	1	5
0.391																			+	+	+	0	+	4	0
0.634																				+	+	-	-	2	2
1.118																					-	-	-	0	3
0.651																						-	-	0	2
0.391																							+	1	0
																								56	196
																								Total "+"	Total "-"

S = Total Number of "+" minus Total Number of "-" = -140

STEP 1. Null Hypothesis: H_0: There is no trend.

STEP 2. Alternative Hypothesis: H_A: There is a downward trend.

STEP 3. Test Statistics:

z_o = S - sign(S) / V(S)^0.5 Where: sign(S) = 1 if S > 0, 0 if S = 0, and -1 if S < 0

and V(S) = 1/18{n(n-1)(2n+5) - [$t_1(t_1-1)(2t_1+5)$+[$t_2(t_2-1)(2t_2+5)$+... up to t_g]}

Where: n (number of samples) = 23

t_1 = number of tied samples in the first group = 2

t_2 = number of tied samples in second group = 0

g = the number of tied sample groups

V(S) = 1432.67

z_o = -3.6723

STEP 4. a) Critical Value: From Table A-2, $z_{0.95}$ (critical value at 5% significance level) = 1.645

STEP 4. b) Probability Value: p-value = ($P(Z > z_o) = 1 - z_p$, where z_p from Table A-1 = 0.0001 (off scale)

p-value = 0.9999

STEP 5. a) Conclusion: For testing the hypothesis, H_0 (no trend) against H_A - reject H_0 if absolute value of z_o is > $z_{0.95}$

Since absolute value z_o = 3.6723 > 1.645

we reject the null hypothesis of no trend

STEP 5. b) Conclusion: For testing the hypothesis, H_0 (no trend) against H_A - reject H_0 if p-value is less than significance level = 0.05.

Since p-value = 0.9999 > 0.05

we fail to reject the null hypothesis of no trend

Therefore: We fail to reject the null hypothesis of no trend at the 5% significance level (i.e. there is eveidence of a downward trend but not enough to over rule no trend)

Reference: *USEPA Data Quality Assessment: Statistical Methods for Practitioner EPA QA/G-9S*, dated February 2006

1/2 detection limit used for non-detects.

Table 1

Statistical Analysis of Groundwater Data (1998-2008)
Wellsville/Andover Landfill
Wellsville, New York

Monitoring Well MW-11S Total VOCs

COMPUTATIONS: Compute Statistic (S).

Date	6/17/98	12/8/04	6/23/05	12/8/05	3/31/06	9/27/06	3/30/07	9/26/07	3/24/08	9/17/08		
Event	1	2	3	4	5	6	7	8	9	10		
Result (mg/L)	2.752	3.42	3.73	3.73	3.66	3.54	3.4	3.72	3.05	3.21	Count "+"	Count "-"
2.752		+	+	+	+	+	+	+	+	+	9	0
3.42			+	+	+	+	-	+	-	-	5	3
3.73				0	-	-	-	-	-	-	0	6
3.73					-	-	-	-	-	-	0	6
3.66						-	-	+	-	-	1	4
3.54							-	+	-	-	1	3
3.4								+	-	-	1	2
3.72									-	-	0	2
3.05										+	1	0
											18	26
											Total "+"	Total "-"

S = Total Number of "+" minus Total Number of "-" = -8

STEP 1. Null Hypothesis: H_0: There is no trend.

STEP 2. Alternative Hypothesis: H_A: There is a downward trend.

STEP 3. Test Statistics:

z_o = S - sign(S) / V(S)^0.5 Where: sign(S) = 1 if S > 0, 0 if S = 0, and -1 if S < 0

and V(S) = 1/18{n(n-1)(2n+5) - [$t_1(t_1-1)(2t_1+5)$+[$t_2(t_2-1)(2t_2+5)$+... up to t_g]}

Where: n (number of samples) = 10

t_1 = number of tied samples in the first group = 2

t_2 = number of tied samples in second group = 0

g = the number of tied sample groups

V(S) = 124.00

z_o = -0.6286

STEP 4. a) Critical Value: From Table A-2, $z_{0.95}$ (critical value at 5% significance level) = 1.645

STEP 4. b) Probability Value: p-value = ($P(Z > z_o) = 1 - z_p$, where z_p from Table A-1 = 0.2648

p-value = 0.7352

STEP 5. a) Conclusion: For testing the hypothesis, H_0 (no trend) against H_A - reject H_0 if absolute value of z_o is > $z_{0.95}$

Since absolute value z_o = 0.6286 < 1.645

we fail to reject the null hypothesis of no trend

STEP 5. b) Conclusion: For testing the hypothesis, H_0 (no trend) against H_A - reject H_0 if p-value is less than significance level = 0.05.

Since p-value = 0.7352 > 0.05

we fail to reject the null hypothesis of no trend

Therefore: **We fail to reject the null hypothesis of no trend (i.e. No trend / stable)**

Reference: *USEPA Data Quality Assessment: Statistical Methods for Practitioner EPA QA/G-9S*, dated February 2006

1/2 detection limit used for non-detects.

Table 1

Statistical Analysis of Groundwater Data (1998-2008)
Wellsville/Andover Landfill
Wellsville, New York

Monitoring Well MW-15S Total VOCs

COMPUTATIONS: Compute Statistic (S).

Date	6/17/98	3/25/99	12/16/99	3/13/00	9/21/00	4/26/01	9/11/01	4/10/02	3/31/03	12/16/03	6/8/04	12/8/04	12/7/05	3/30/06	9/28/06	3/29/07	9/26/07	3/24/08	9/16/08	9/17/08		
Event	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20		
Result (mg/L)	0.103	0.027	0.073	0.037	0.04	0.0276	0.0286	0.025	0.014	0.0262	0.036	0.011	0.015	0.0463	0.0488	0.02	0.031	0.016	0.0416	0.0416	Count "+"	Count "-"
0.103		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	19
0.027			+	+	+	+	+	-	-	-	+	-	-	+	+	-	+	-	+	+	11	7
0.073				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	17
0.037					+	-	-	-	-	-	-	-	-	+	+	-	-	-	+	+	5	11
0.04						-	-	-	-	-	-	-	-	+	+	-	-	-	+	+	4	11
0.0276							+	-	-	-	+	-	-	+	+	-	+	-	+	+	7	7
0.0286								-	-	-	+	-	-	+	+	-	+	-	+	+	6	7
0.025									-	+	+	-	-	+	+	-	+	-	+	+	7	5
0.014										+	+	-	+	+	+	+	+	+	+	+	10	1
0.0262											+	-	-	+	+	-	+	-	+	+	6	4
0.036												-	-	+	+	-	-	-	+	+	4	5
0.011													+	+	+	+	+	+	+	+	8	0
0.015														+	+	+	+	+	+	+	7	0
0.0463															+	-	-	-	-	-	1	5
0.0488																-	-	-	-	-	0	5
0.02																	+	-	+	+	3	1
0.031																		-	+	+	2	1
0.016																			+	+	2	0
0.0416																				0	0	0
																					83	106
																					Total "+"	Total "-"

S = Total Number of "+" minus Total Number of "-" = -23

STEP 1. Null Hypothesis: H_0: There is no trend.

STEP 2. Alternative Hypothesis: H_A: There is a downward trend.

STEP 3. Test Statistics:

$z_o = S - sign(S) / V(S)^{0.5}$ Where: sign(S) = 1 if S > 0, 0 if S = 0, and -1 if S < 0

and $V(S) = 1/18\{n(n-1)(2n+5) - [t_1(t_1-1)(2t_1+5)+[t_2(t_2-1)(2t_2+5)+\ldots$ up to $t_g]\}$

Where: n (number of samples) = 20

t_1 = number of tied samples in the first group = 2

t_2 = number of tied samples in second group = 0

g = the number of tied sample groups

V(S) = 949.00

z_o = -0.7142

STEP 4. a) Critical Value: From Table A-2, $z_{0.95}$ (critical value at 5% significance level) = 1.645

STEP 4. b) Probability Value: p-value = $(P(Z > z_o) = 1 - z_p$, where z_p from Table A-1 = 0.2376

p-value = 0.7624

STEP 5. a) Conclusion: For testing the hypothesis, H_0 (no trend) against H_A - reject H_0 if absolute value of z_o is > $z_{0.95}$

Since absolute value z_o = 0.7142 < 1.645

we fail to reject the null hypothesis of no trend

STEP 5. b) Conclusion: For testing the hypothesis, H_0 (no trend) against H_A - reject H_0 if p-value is less than significance level = 0.05.

Since p-value = 0.7624 > 0.05

we fail to reject the null hypothesis of no trend

Therefore:

We fail to reject the null hypothesis of no trend (i.e. No trend / stable)

Reference: *USEPA Data Quality Assessment: Statistical Methods for Practitioner EPA QA/G-9S,* dated February 2006

1/2 detection limit used for non-detects.

Table 1

Statistical Analysis of Groundwater Data (1998-2008)
Wellsville/Andover Landfill
Wellsville, New York

Monitoring Well MW-18S Total VOCs

COMPUTATIONS: Compute Statistic (S).

Date	6/15/98	12/1/98	3/26/99	6/28/99	9/29/99	12/20/99	3/21/00	9/21/00	4/30/01	9/11/01	4/12/02	9/25/02	4/3/03	12/17/03	6/11/04	12/9/04	6/23/05	12/6/05	3/28/06	9/27/06	3/28/07	9/25/07	3/26/08	9/16/08		
Event	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	18	20	21	22	23	24		
Result (mg/L)	0.024	0.026	0.018	0.038	0.04	0.049	0.087	0.139	0.097	0.132	0.155	0.123	0.134	0.157	0.117	0.167	0.197	0.155	0.099	0.152	0.097	0.0052	0.074	0.0141	Count "+"	Count "-"
0.024		+	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	-	+	-	20	3
0.026			-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	-	+	-	19	3
0.018				+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	-	+	-	19	2
0.038					+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	-	+	-	18	2
0.04						+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	-	+	-	17	2
0.049							+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	-	+	-	16	2
0.087								+	+	+	+	+	+	+	+	+	+	+	+	+	+	-	-	-	14	3
0.139									-	-	+	-	-	+	-	+	+	+	-	+	-	-	-	-	6	10
0.097										+	+	+	+	+	+	+	+	+	+	+	0	-	-	-	11	3
0.132											+	-	+	+	-	+	+	+	-	+	-	-	-	-	7	7
0.155												-	-	+	-	+	+	0	-	-	-	-	-	-	3	9
0.123													+	+	-	+	+	+	-	+	-	-	-	-	6	6
0.134														+	-	+	+	+	-	+	-	-	-	-	5	6
0.157															-	+	+	-	-	-	-	-	-	-	2	8
0.117																+	+	+	-	+	-	-	-	-	4	5
0.167																	+	-	-	-	-	-	-	-	1	7
0.197																		-	-	-	-	-	-	-	0	7
0.155																			-	-	-	-	-	-	0	6
0.099																				+	-	-	-	-	1	4
0.152																					-	-	-	-	0	4
0.097																						-	-	-	0	3
0.0052																							+	+	2	0
0.074																								-	0	1
																									171	103
																									Total "+"	Total "-"

S = Total Number of "+" minus Total Number of "-" = 68

STEP 1. Null Hypothesis: H_0: There is no trend.

STEP 2. Alternative Hypothesis: H_A: There is an upward trend.

STEP 3. Test Statistics:

z_o = S - sign(S) / V(S)^0.5 Where: sign(S) = 1 if S > 0, 0 if S = 0, and -1 if S < 0

and V(S) = 1/18{n(n-1)(2n+5) - [$t_1(t_1-1)(2t_1+5)$+[$t_2(t_2-1)(2t_2+5)$+... up to t_g]}

Where: n (number of samples) = 24

t_1 = number of tied samples in the first group = 2

t_2 = number of tied samples in second group = 2

g = the number of tied sample groups

V(S) = 1623.33

z_o = 1.6629

STEP 4. a) Critical Value: From Table A-2, $z_{0.95}$ (critical value at 5% significance level) = 1.645

STEP 4. b) Probability Value: p-value = ($P(Z > z_o) = 1 - z_p$, where z_p from Table A-1 = 0.9518

p-value = 0.0482

STEP 5. a) Conclusion: For testing the hypothesis, H_0 (no trend) against H_A - reject H_0 if absolute value of z_o is > $z_{0.95}$

Since absolute value z_o = 1.6629 > 1.645

we reject the null hypothesis of no trend

STEP 5. b) Conclusion: For testing the hypothesis, H_0 (no trend) against H_A - reject H_0 if p-value is less than significance level = 0.05.

Since p-value = 0.0482 < 0.05

we reject the null hypothesis of no trend

Therefore: **We reject the null hypothesis of no trend in favor of the alternative hypothesis (i.e. evidence of upward trend)**

Reference: *USEPA Data Quality Assessment: Statistical Methods for Practitioner EPA QA/G-9S*, dated February 2006

1/2 detection limit used for non-detects.

Table 2

2009 Proposed Monitoring Program
Wellsville/Andover Landfill

Location	Current Sampling Frequency	Proposed Sampling Frequency	Proposed Analyte List[1]
Groundwater			
CW-3A	Semiannual	NR	NR
CW-3B	Semiannual	Annual - Fall	Field, VOCs, Metals
CW-4A	Annual	NR	NR
CW-4B	Semiannual	Annual - Fall	Field, VOCs, Metals
MW-15DA	Semiannual	NR	NR
MW-15S	Semiannual	Annual - Fall	Field, VOCs, Metals
MW-17D	Annual	Annual - Fall	Field, VOCs, Metals
MW-17S	Annual	Annual - Fall	Field, VOCs, Metals
MW-18D	Annual	Annual - Fall	Field, VOCs, Metals
MW-18S	Semiannual	Annual - Fall	Field, VOCs, Metals
MW-1D	Annual	NR	NR
MW-3D	Annual	Annual - Fall	Field, VOCs, Metals
MW-3S	Annual	Annual - Fall	Field, VOCs, Metals
MW-4D	Semiannual	Annual - Fall	Field, VOCs, Metals
MW-5D	Semiannual	Annual - Fall	Field, VOCs, Metals
MW-5S	Semiannual	Annual - Fall	Field, VOCs, Metals
MW-11S	Semiannual	Annual - Fall	VOCs
MW-16S	Semiannual	Annual - Fall	VOCs
Surface Water			
SWS-1	Annual	Annual	Field, VOCs, Metals, Wet Chem
Sediment			
SWS-1	Annual	NR	NR
Groundwater Cut-Off System			
MH-32	Semiannual	Annual - Fall	Field, VOCs, Metals, Wet Chem
MH-33	Semiannual	Annual - Fall	Field, VOCs, Metals, Wet Chem
Leachate			
LS-1	Semiannual	Annual - Fall	Field, VOCs, Metals

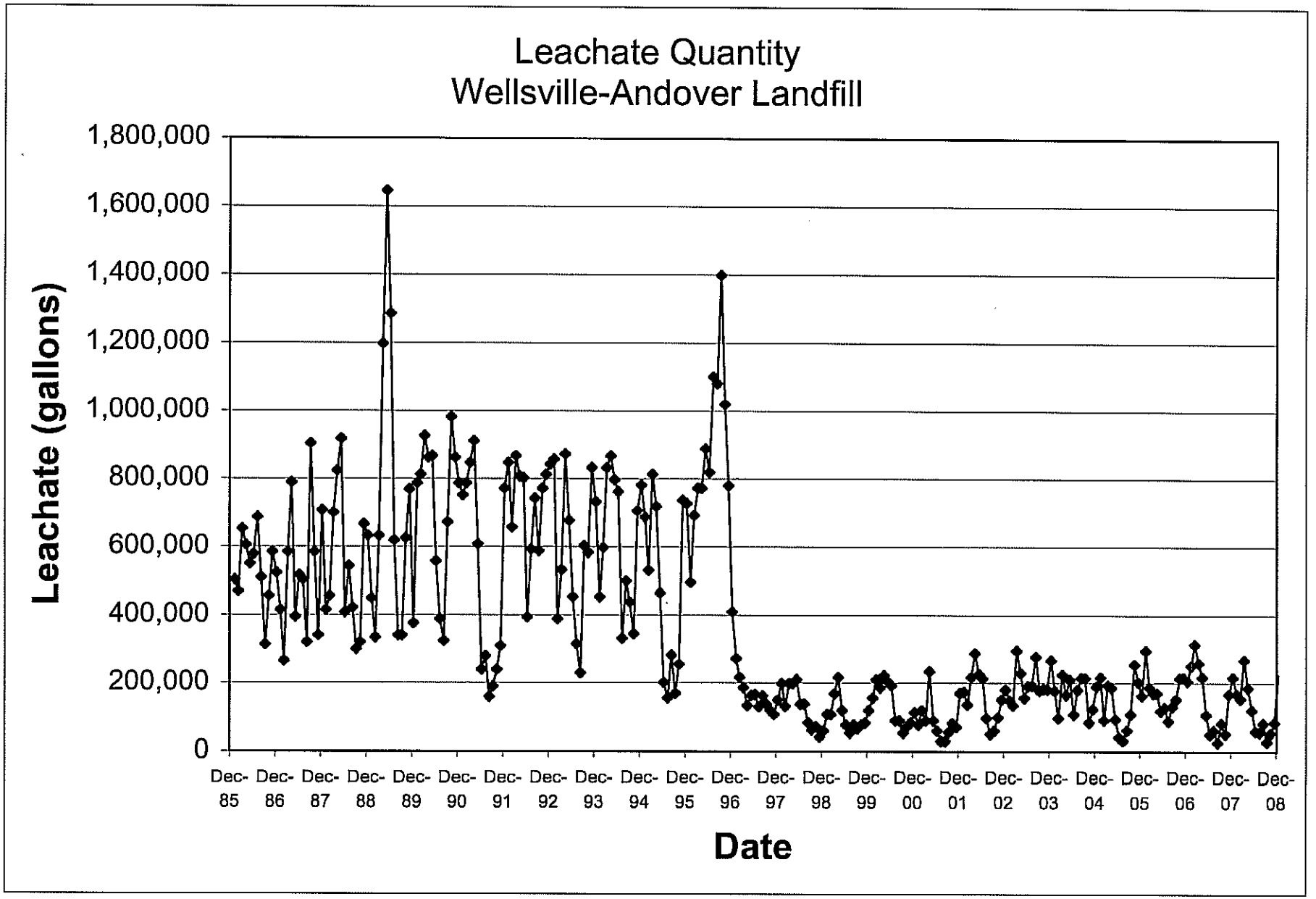
Location	Current Sampling Frequency	Proposed Sampling Frequency	Proposed Analyte List[1]
Residential Water Supply			
WAL-1	Every 3 Years	NR	NR
WAL-2	Semiannual	Annual	Metals
WAL-3	Every 3 Years	NR	NR
WAL-4	Every 3 Years	NR	NR
WAL-5	Semiannual	Annual	VOCs, Metals
WAL-6	Every 3 Years	NR	NR
WAL-7	Every 3 Years	NR	NR
WAL-8	Every 3 Years	NR	NR
WAL-9	Every 3 Years	NR	NR
WAL-10	Every 3 Years	NR	NR
WAL-11	Every 3 Years	NR	NR
WAL-12	Every 3 Years	NR	NR
WAL-13	Every 3 Years	NR	NR
WAL-14	Every 3 Years	NR	NR
WAL-15	Every 3 Years	NR	NR
WAL-16	Every 3 Years	NR	NR
WAL-17	Every 3 Years	NR	NR
WAL-18	Every 3 Years	NR	NR
WAL-19	Semiannual	Semiannual	VOCs[2]
WAL-20	Every 3 Years	NR	NR

Notes

NR - Not required unless site conditions warrant (I.e., significant leachate breakout, leachate spill, etc.)

[1] - Field = Field Parameters (pH, Conductivity, Dissolved Oxygen, Turbidity, Oxidation Reduction Potential)
- VOCs = Volatile Organic Compounds method 8260
- Metals = As, Ba, Cd, Ca, Cr, Cu, Fe, Pb, Mg, Mn, Ni, P, Se, Na, Z
- Wet Chem = Nitrate Nitrogen and Total Dissolved Solids

[2] WAL-19 tested for VOCs prior to filters, between filters and after filters


Leachate Quantity
Wellsville-Andover Landfill
Leachate (gallons)
1,800,000
1,600,000
1,400,000
1,200,000
1,000,000
800,000
600,000
400,000
200,000
0
Dec-85
Dec-86
Dec-87
Dec-88
Dec-89
Dec-90
Dec-91
Dec-92
Dec-93
Dec-94
Dec-95
Dec-96
Dec-97
Dec-98
Dec-99
Dec-00
Dec-01
Dec-02
Dec-03
Dec-04
Dec-05
Dec-06
Dec-07
Dec-08
Date

New York State Department of Environmental Conservation
Division of Environmental Remediation, Region 9
270 Michigan Avenue, Buffalo, New York 14203-2915
Phone: (716) 851-7220; **Fax** (716) 851-7226
Website: www.dec.ny.gov

Alexander B. Grannis
Commissioner

May 12, 2009

William Whitfield
Director of Public Works
Village of Wellsville
200 Bolivar Road
Wellsville, New York 14895

Dear Mr. Whitfield:

Wellsville-Andover Landfill
Site hw902004
Wellsville, Alleghany County

The New York State Department of Environmental Conservation (NYSDEC) and the New York State Department of Health (NYSDOH) have reviewed the Site Monitoring Evaluation and Proposed Revised Monitoring Plan dated April 3, 2009, for the Wellsville-Andover Landfill site. This plan recommends modification of the environmental sampling for the landfill and the surrounding residences. Based on this review, the following determinations regarding the sampling frequency have been made.

Groundwater Monitoring Well CW-3A

This overburden monitoring well has increasing Volatile Organic Comounds (VOC) contamination and should be retained for annual sampling for field, VOC and metal analytes. It monitors a different interval of the overburden formation than the neighboring CW-3B monitoring well. The location is adjacent and downgradient from the landfill and could be an important sentinel well if the groundwater flow patterns should change.

Groundwater Monitoring Wells CW-3B, CW-4B, MW-15S, MW-17D, MW-17S, MW-18D, MW-18S, MW-3D, MW-3S

We concur with the proposed annual frequency and the proposed analyte list for these monitoring wells.

Groundwater Monitoring Well CW-4A

This monitoring well should be retained for annual sampling since it monitors a different interval of the overburden formation than the neighboring CW-4B. The location is adjacent and downgradient from the landfill and could be an important sentinel well if the groundwater flow patterns should change.

Groundwater Monitoring Well MW-15DA

This bedrock well has not been sampled following the remedial action since it has been dry. We concur with the removal from the required sampling list. This monitoring well should be decommissioned.

Groundwater Monitoring Well MW-1D

This monitoring well can also be decommissioned. MW-3S and MW-3D can both function as the upgradient monitoring wells. We concur with the deletion from the sampling schedule. This monitoring well is located at too great a distance to be useful as an upgradient well.

Groundwater Monitoring Wells MW-4D, MW-5D, MW-5S, MW-11S and MW-16S

These monitoring wells should all be sampled annually for the field, VOCs and metals parameters. In addition, there should be a sampling round in the spring for VOCs only. The VOCs in MW-4D, MW-5D, MW-5S and MW-11S are of concern to the Departments. In addition, groundwater concentrations in the sentinel landfill well MW-16 is of particular concern, since it is the furthest downgradient monitoring well from the landfill. If MW-16 becomes contaminated, there should be an assessment of both the remedy and the downgradient monitoring and residential sampling.

Surface Water and Sediment Sampling – SWS-1

Since these monitoring points are potential exposure points, they should be monitored annually for the field, VOCs and metals parameters. In addition the surface water and sediment sampling should be sampled for the full wet chemistry list that it currently in effect.

Groundwater Cut-Off System MH-32, MH-33 and Leachate LS-1

We concur with the proposed sampling frequency and analyte list for these sampling points.

Recommendation to discontinue sampling of several residential wells

We concur with the recommendation to discontinue sampling at the following residential wells currently within the sampling program:

WAL-1:Shettine Residence; WAL-16 Cornell Residence

No site-related constituents have been detected in these wells at concentrations that exceed NYSDOH standards for public drinking water supplies. Additionally, given that the WAL-1 residence is currently unoccupied and the WAL-16 residence is significantly distant from the landfill, we agree with the recommendation to discontinue sampling of these wells.

WAL-3: Gephart Residence; WAL-4: Hanabach Residence; WAL-8: Dodge Residence; WAL-9: Greene Residence; WAL-10: Schettine Residence; WAL-14 Carl Residence; WAL-18: Geffer Residence; WAL-13: Wispel Residence; WAL-15: Kelly Residence

Sodium has been detected in these residential wells at concentrations that exceed NYSDOH public drinking water standards. Standards for sodium were originally based on aesthetic and taste properties, and the NYSDOH public drinking water supply guideline for people on severely restricted sodium diet is no more than 20 mg/L of sodium. If concerned about sodium intake, the homeowner may wish to use an alternate supply of water for drinking and cooking purposes. While semi-volatile organic compounds have been detected sporatically in several sampling events, these compounds were detected at concentrations significantly lower than the NYSDOH public drinking water standards. Based on this information, we agree with the recommendation to discontinue sampling of these wells.

WAL-6: Cimino Residence

Iron and manganese have been detected at concentrations that exceed NYSDOH public drinking water standards in two sampling events. However, no compounds were detected at levels which exceed NYSDOH drinking water standards in the last three of the six sampling events completed. Based on this information, we agree with the recommendation to discontinue sampling of this well.

WAL-11: Urban Residence

Iron has been historically detected in WAL-11 at concentrations that exceed NYSDOH public drinking water standards. However, levels of iron detected in the last of the twelve sampling events completed did not exceed drinking water standards. Standards for iron were based on aesthetic properties and were set to prevent problems such as poor taste, odor and fixture staining. Given this information, we concur with the recommendation to discontinue sampling of this well.

WAL-12: Blaske Residence

Iron and sodium have been detected in this residential well during the three completed sampling events at concentrations that exceed NYSDOH public drinking water standards. Standards for sodium and iron were based on aesthetic and taste properties, and the NYSDOH public drinking water supply guideline for people on severely restricted sodium diet is no more than 20 mg/L of sodium. If concerned about sodium intake, the homeowner may wish to use an alternative supply of water for drinking and cooking purposes. Based on this information, we concur with the recommendation to discontinue sampling of this well.

WAL-17: Meisenzhal Residence

Iron and sodium have been detected at WAL-17 at concentrations that exceed NYSDOH public drinking water standards. Standards for sodium and iron were based on aesthetic and taste properties, and the NYSDOH public drinking water supply guideline for people on a severely restricted sodium diet is no more than 20 mg/L of sodium. If concerned about sodium intake, the homeowner may wish to use an alternate supply of water for drinking and cooking purposes. Based on this information, we agree with the proposal to discontinue sampling of this well.

WAL-20: Fanton Residence

Current sampling frequency: every three years
Proposed sampling frequency: discontinue sampling

Three sampling events have been completed since the granulated activated carbon filter system was removed from WAL-20 in January of 2007 (subsequent to placement of a new drinking water well in 2005). With the exception of sodium, no site-related constituents have been detected in WAL-20 at levels that exceed applicable standards. Additionally, this well is located a substantial distance from the landfill. Based on this information, we agree with the recommendation to discontinue sampling of this well.

Recommendation to modify sampling frequency

We concur with the recommendation to modify the sampling frequency at the following residential wells currently within the sampling program:

WAL-2: Rossini Residence

Inorganic compounds (metals), including sodium, iron and manganese have historically been detected in WAL-2 at concentrations that exceed NYSDOH public drinking water standards. We understand that this residence is adjacent to the Wellsville-Andover landfill, is occupied seasonally and that the homeowner uses bottled water as a source of potable water while in-residence. Given this information, we concur with the recommendation of annual sampling for metals compounds. This is reduced from semi-annual sampling for inorganic compounds.

WAL-5: Ormsby Residence

Volatile organic compounds, including cis-1,2-dichloroethene and trichloroethene and metals compounds have been detected at low concentrations (below NYSDOH drinking water standards) in WAL-5. The concentrations of these compounds has remained relatively consistent over semi-annual sampling events completed from 1998 to 2002 and have not been detected in the last twelve sampling events. Based on this information, we concur with the recommendation to reduce the sampling frequency from semi-annual to annual sampling.

WAL-19: LaDue Residence

We concur with the recommendation to continue semi-annual sampling.

Although a review of the available data supports the proposed modifications to the sampling program, it should be noted that, should conditions change additional sampling or re-sampling of the environmental media may be warranted and requested by either NYSDOH or NYSDEC.

If you have any questions, please contact me at 716-851-7220.

Sincerely,

Linda C. Ross

Linda C. Ross
Project Manager
Division of Environmental Remediation

LCR/tml

cc: Mr. Jonathan Brandes, On-Site Technical Services, Inc
Ms. Tamara Girard, NYSDOH

Jon Brandes

From: "Linda Ross" <lcross@gw.dec.state.ny.us>
To: "Jon Brandes" <Jonb@on-sitehs.com>
Cc: "Tamara Girard" <tsg01@health.state.ny.us>; "William Whitfield" <billwhitfield@wellsvilleny.com>
Sent: Friday, May 22, 2009 1:15 PM
Attach: MON PROGRAM REV Table.xls
Subject: Fwd: Wellsville Andover Landfill

Jon, I agree with your proposal below in the email and the attached monitoring schedule. Please continue with the landfill gas monitoring, since they are potential exposure points. Thanks. L.

Linda C. Ross
Engineering Geologist 1
New York State Department of Environmental Conservation
Region 9
270 Michigan Avenue
Buffalo, NY 14203-2999
lcross@gw.dec.state.ny.us
office: 716. 851. 7220
fax: 716. 851. 7226

>>> "Jon Brandes" <Jonb@on-sitehs.com> 5/22/2009 11:59 AM >>>
Linda,

Based on your response to the site evaluation and proposed monitoring program, we have revised the monitoring program table - please see attached. We will follow this schedule starting with the fall event. One item that was not commented on is the request to discontinue landfill gas monitoring. Please provide comment.

Also I propose the following for reporting:
1) The spring 2009 sampling event was completed following the old monitoring schedule and the typical report will be completed.
2) For each future spring and fall event a letter report will be prepared once analytical results are received. The letter report will present the results of the monitoring event.
3) A annual report each year similar to previous annual reports.

Thanks and have a great holiday weekend!!

Jon Brandes, P.G.
Senior Geologist
On-Site Technical Services, Inc.
72 Railroad Ave
Wellsville, NY 14895
Phone: 585-593-1824
Fax: 585-593-7471

Appendix C

2019 Quarterly Inspection & Maintenance Checklist

Figure 5-3

QUARTERLY INSPECTION AND MAINTENANCE CHECKLIST
WELLSVILLE/ANDOVER LANDFILL SITE
NYSDEC SITE NO. 9-02-004

Inspector: William G. Hitteld
Date: 3/29/19
Weather: Sunny
Temperature: 45°

Area	Item	Action	Comments
Cover system	Seeps	Delineate, sample, evaluate.	None
	Subsidence/ponding	Delineate, fill, and revegetate.	None
	Erosion/gullies	Determine cause, grade, and vegetate.	None
	Slope stability	Check for erosion, slippage, slope failure.	OK
	Vegetation	Check for areas of weak/no vegetation, revegetate.	OK
		Mow semiannually.	Done 10/18
		Remove scrubs and trees from cover system and drainage ways.	None
	Vectors	Check for burrows and backfill with clean soil.	None
Leachate collection and storage system	USTs	Check leachate levels, check/test leak detection system and auto dialer; check for sediment in bottom of tanks.	Jan, Feb, March 710,000
	Pump stations	Check pump operation.	OK
		Check float operation. Perform manufacturer's recommended maintenance. Operate/cycle valves. Check sump for floating debris and sediments.	OK
	Forcemain	Check for leaks.	None
	Laterals and trunk line	Check for and record VOCs at each manhole and cleanout; check for line blockage visually; lubricate locks.	Performed By OD Site
	Groundwater cutoff manholes	Collect and analyze sample of liquid in cutoff trench. Note which line (surface drainage or LCS) is plugged.	"
Gas venting system	Odors	Check for and record VOCs and methane (explosimeter) upwind, at each vent, and at perimeter of property. Check physical condition of vent and screen.	"

Figure 5-3

QUARTERLY INSPECTION AND MAINTENANCE CHECKLIST
WELLSVILLE/ANDOVER LANDFILL SITE
NYSDEC SITE NO. 9-02-004

Inspector: William Littlefield **Date:** 3/29/19

Weather: Sunny **Temperature:** 45°

Area	Item	Action	Comments
Stormwater system	Ditches and swales	Check for pooling, erosion, excessive vegetation, and weak vegetation.	ok
	Cover system drainage	Check for cover soils that are excessively wet, slope failure without evidence of fill subsidence. Check condition of geocomposite drainage layer at cover perimeter.	ok
	Culverts	Check condition and for blockage and erosion.	ok
	Detention ponds	Check outlet structure for blockage and general condition.	ok
		Check for siltation/silt buildup, erosion, condition of vegetation and embankments.	ok
Groundwater monitoring system	Sampling wells	See Section 4.	Performed by OSHE
		Check condition of caps, locks, surface seals, and markings. Lubricate locks.	ok
Facility access system	Roads	Check condition. Check for erosion, potholes.	ok
	Access gate	Check condition. Lubricate lock.	ok
Other		Comments	

Signed: [signature]

Date: 3/29/19

Figure 5-3

QUARTERLY INSPECTION AND MAINTENANCE CHECKLIST
WELLSVILLE/ANDOVER LANDFILL SITE
NYSDEC SITE NO. 9-02-004

Inspector: BRAD MATTISON Date: 6/28/19

Weather: 74° Sunny Temperature: 74°

Area	Item	Action	Comments
Cover system	Seeps	Delineate, sample, evaluate.	OK
	Subsidence/ponding	Delineate, fill, and revegetate.	OK
	Erosion/gullies	Determine cause, grade, and vegetate.	OK
	Slope stability	Check for erosion, slippage, slope failure.	OK
	Vegetation	Check for areas of weak/no vegetation, revegetate.	OK
		Mow semiannually.	OK
		Remove scrubs and trees from cover system and drainage ways.	OK
	Vectors	Check for burrows and backfill with clean soil.	OK
Leachate collection and storage system	USTs	Check leachate levels, check/test leak detection system and auto dialer; check for sediment in bottom of tanks.	April, May, June 790,000
	Pump stations	Check pump operation.	OK
		Check float operation. Perform manufacturer's recommended maintenance. Operate/cycle valves. Check sump for floating debris and sediments.	OK
	Forcemain	Check for leaks.	
	Laterals and trunk line	Check for and record VOCs at each manhole and cleanout; check for line blockage visually; lubricate locks.	Performed by On-Site
	Groundwater cutoff manholes	Collect and analyze sample of liquid in cutoff trench. Note which line (surface drainage or LCS) is plugged.	Performed by On-Site
Gas venting system	Odors	Check for and record VOCs and methane (explosimeter) upwind, at each vent, and at perimeter of property. Check physical condition of vent and screen.	Performed by On-Site

Figure 5-3

QUARTERLY INSPECTION AND MAINTENANCE CHECKLIST
WELLSVILLE/ANDOVER LANDFILL SITE
NYSDEC SITE NO. 9-02-004

Inspector: BRAD MATTISON Date: 6/28/19

Weather: SUNNY Temperature: 74°

Area	Item	Action	Comments
Stormwater system	Ditches and swales	Check for pooling, erosion, excessive vegetation, and weak vegetation.	OK
	Cover system drainage	Check for cover soils that are excessively wet, slope failure without evidence of fill subsidence. Check condition of geocomposite drainage layer at cover perimeter.	OK
	Culverts	Check condition and for blockage and erosion.	OK
	Detention ponds	Check outlet structure for blockage and general condition.	OK
		Check for siltation/silt buildup, erosion, condition of vegetation and embankments.	OK
Groundwater monitoring system	Sampling wells	See Section 4.	OK
		Check condition of caps, locks, surface seals, and markings. Lubricate locks.	Performed by On-Site
Facility access system	Roads	Check condition. Check for erosion, potholes.	OK
	Access gate	Check condition. Lubricate lock.	OK
Other		Comments	
		PUMP #1 IN SUMP FAILED DOWN. TAKEN IN FOR SERVICE @ SIEWERT	

Signed: BRADLEY J MATTISON

Date: 6/28/19.

Figure 5-3

QUARTERLY INSPECTION AND MAINTENANCE CHECKLIST
WELLSVILLE/ANDOVER LANDFILL SITE
NYSDEC SITE NO. 9-02-004

Inspector: Brad Mathis — Date: 9/30/19

Weather: Rain Cloudy — Temperature: 61°

Area	Item	Action	Comments
Cover system	Seeps	Delineate, sample, evaluate.	OK
	Subsidence/ponding	Delineate, fill, and revegetate.	OK
	Erosion/gullies	Determine cause, grade, and vegetate.	OK
	Slope stability	Check for erosion, slippage, slope failure.	OK
	Vegetation	Check for areas of weak/no vegetation, revegetate.	OK
		Mow semiannually.	OK
		Remove scrubs and trees from cover system and drainage ways.	OK
	Vectors	Check for burrows and backfill with clean soil.	OK
Leachate collection and storage system	USTs	Check leachate levels, check/test leak detection system and auto dialer; check for sediment in bottom of tanks.	July, Aug. Sept. - 330,000 gal
	Pump stations	Check pump operation.	
		Check float operation. Perform manufacturer's recommended maintenance. Operate/cycle valves. Check sump for floating debris and sediments.	OK
	Forcemain	Check for leaks.	
	Laterals and trunk line	Check for and record VOCs at each manhole and cleanout; check for line blockage visually; lubricate locks.	Performed by On-Site
	Groundwater cutoff manholes	Collect and analyze sample of liquid in cutoff trench. Note which line (surface drainage or LCS) is plugged.	Performed by On-Site
Gas venting system	Odors	Check for and record VOCs and methane (explosimeter) upwind, at each vent, and at perimeter of property. Check physical condition of vent and screen.	Performed by On-Site

Figure 5-3

QUARTERLY INSPECTION AND MAINTENANCE CHECKLIST
WELLSVILLE/ANDOVER LANDFILL SITE
NYSDEC SITE NO. 9-02-004

Inspector: Brad Matter — Date: 9/30/19

Weather: Rain Cloudy — Temperature: 61°

Area	Item	Action	Comments
Stormwater system	Ditches and swales	Check for pooling, erosion, excessive vegetation, and weak vegetation.	ok
	Cover system drainage	Check for cover soils that are excessively wet, slope failure without evidence of fill subsidence. Check condition of geocomposite drainage layer at cover perimeter.	OK
	Culverts	Check condition and for blockage and erosion.	OK
	Detention ponds	Check outlet structure for blockage and general condition.	OK
		Check for siltation/silt buildup, erosion, condition of vegetation and embankments.	ok
Groundwater monitoring system	Sampling wells	See Section 4.	
		Check condition of caps, locks, surface seals, and markings. Lubricate locks.	Performed by On-Site
Facility access system	Roads	Check condition. Check for erosion, potholes.	ok
	Access gate	Check condition. Lubricate lock.	ok
Other		Comments	

Signed: Bradley T Matter

Date: 9/30/19

Figure 5-3

QUARTERLY INSPECTION AND MAINTENANCE CHECKLIST
WELLSVILLE/ANDOVER LANDFILL SITE
NYSDEC SITE NO. 9-02-004

Inspector: WILLIAM WHITFIELD Date: 12/31/19

Weather: SNOW SHOWERS Temperature: 32°

Area	Item	Action	Comments
Cover system	Seeps	Delineate, sample, evaluate.	NONE
	Subsidence/ponding	Delineate, fill, and revegetate.	NONE
	Erosion/gullies	Determine cause, grade, and vegetate.	NONE
	Slope stability	Check for erosion, slippage, slope failure.	NONE
	Vegetation	Check for areas of weak/no vegetation, revegetate.	NONE
		Mow semiannually.	MOWED 10/2019
		Remove scrubs and trees from cover system and drainage ways.	& NONE
	Vectors	Check for burrows and backfill with clean soil.	NONE
Leachate collection and storage system	USTs	Check leachate levels, check/test leak detection system and auto dialer; check for sediment in bottom of tanks.	Oct, Nov, Dec 650,000 gal.
	Pump stations	Check pump operation.	GOOD
		Check float operation. Perform manufacturer's recommended maintenance. Operate/cycle valves. Check sump for floating debris and sediments.	GOOD
	Forcemain	Check for leaks.	NONE
	Laterals and trunk line	Check for and record VOCs at each manhole and cleanout; check for line blockage visually; lubricate locks.	Performed by On-Site
	Groundwater cutoff manholes	Collect and analyze sample of liquid in cutoff trench. Note which line (surface drainage or LCS) is plugged.	Performed by On-Site
Gas venting system	Odors	Check for and record VOCs and methane (explosimeter) upwind, at each vent, and at perimeter of property. Check physical condition of vent and screen.	Performed by On-Site

Figure 5-3

QUARTERLY INSPECTION AND MAINTENANCE CHECKLIST
WELLSVILLE/ANDOVER LANDFILL SITE
NYSDEC SITE NO. 9-02-004

Inspector: WILLIAM WHITFIELD
Date: 12/31/19
Weather: SNOW SHOWERS
Temperature: 32°

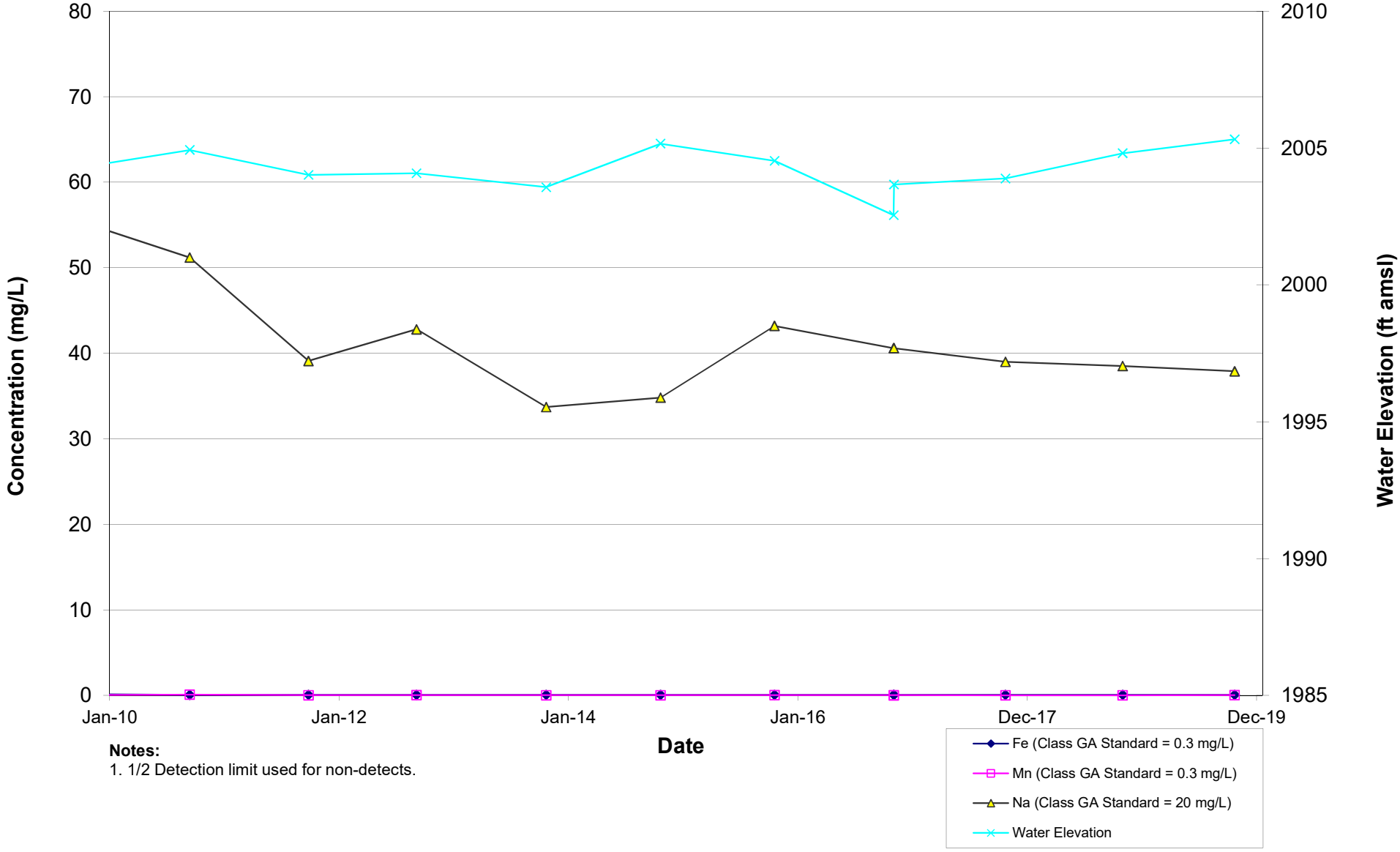
Area	Item	Action	Comments
Stormwater system	Ditches and swales	Check for pooling, erosion, excessive vegetation, and weak vegetation.	NONE
	Cover system drainage	Check for cover soils that are excessively wet, slope failure without evidence of fill subsidence. Check condition of geocomposite drainage layer at cover perimeter.	NONE OK
	Culverts	Check condition and for blockage and erosion.	NONE
	Detention ponds	Check outlet structure for blockage and general condition.	OK
		Check for siltation/silt buildup, erosion, condition of vegetation and embankments.	OK
Groundwater monitoring system	Sampling wells	See Section 4.	
		Check condition of caps, locks, surface seals, and markings. Lubricate locks.	Performed by On-Site
Facility access system	Roads	Check condition. Check for erosion, potholes.	OK
	Access gate	Check condition. Lubricate lock.	OK
Other		Comments	
		GROUNDWATER LATERALS AND MANHOLES CLEANED NOVEMBER 6 & 7, 2019	

Signed: [signature]
Date: 12/31/19

Appendix D

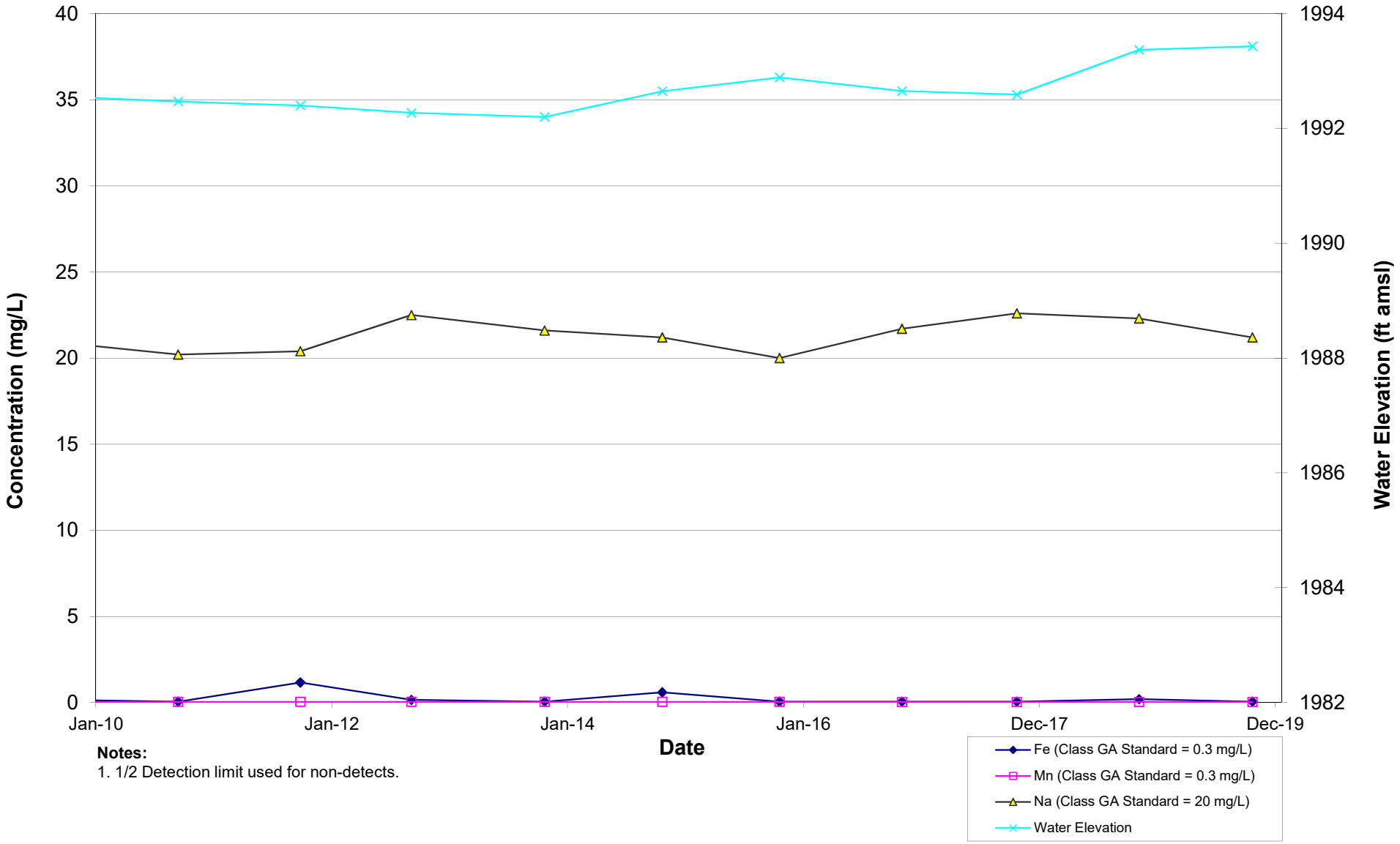
Groundwater Concentration Time Trend Plots

CW-3A Metals



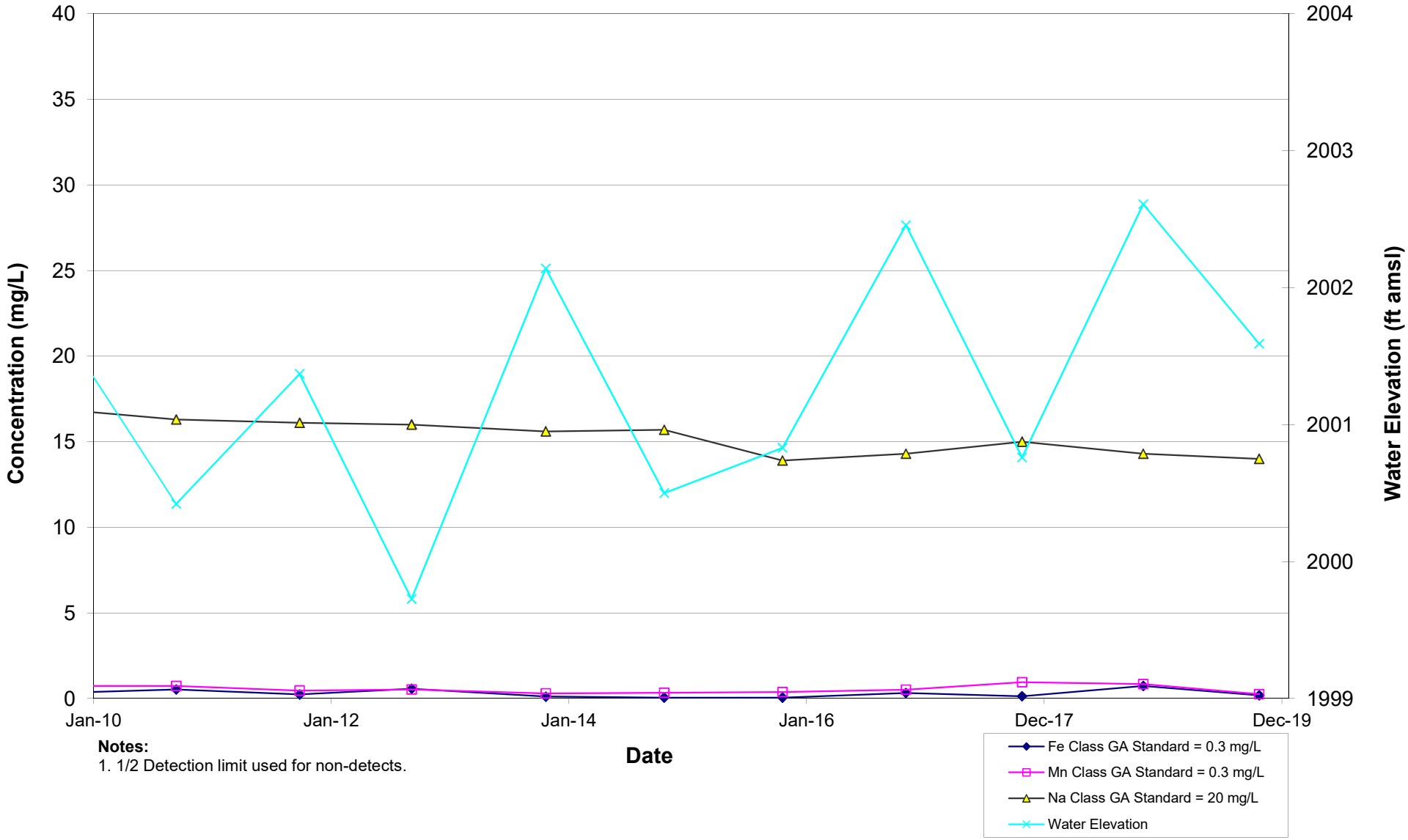
Notes:
1. 1/2 Detection limit used for non-detects.

CW-3B Metals



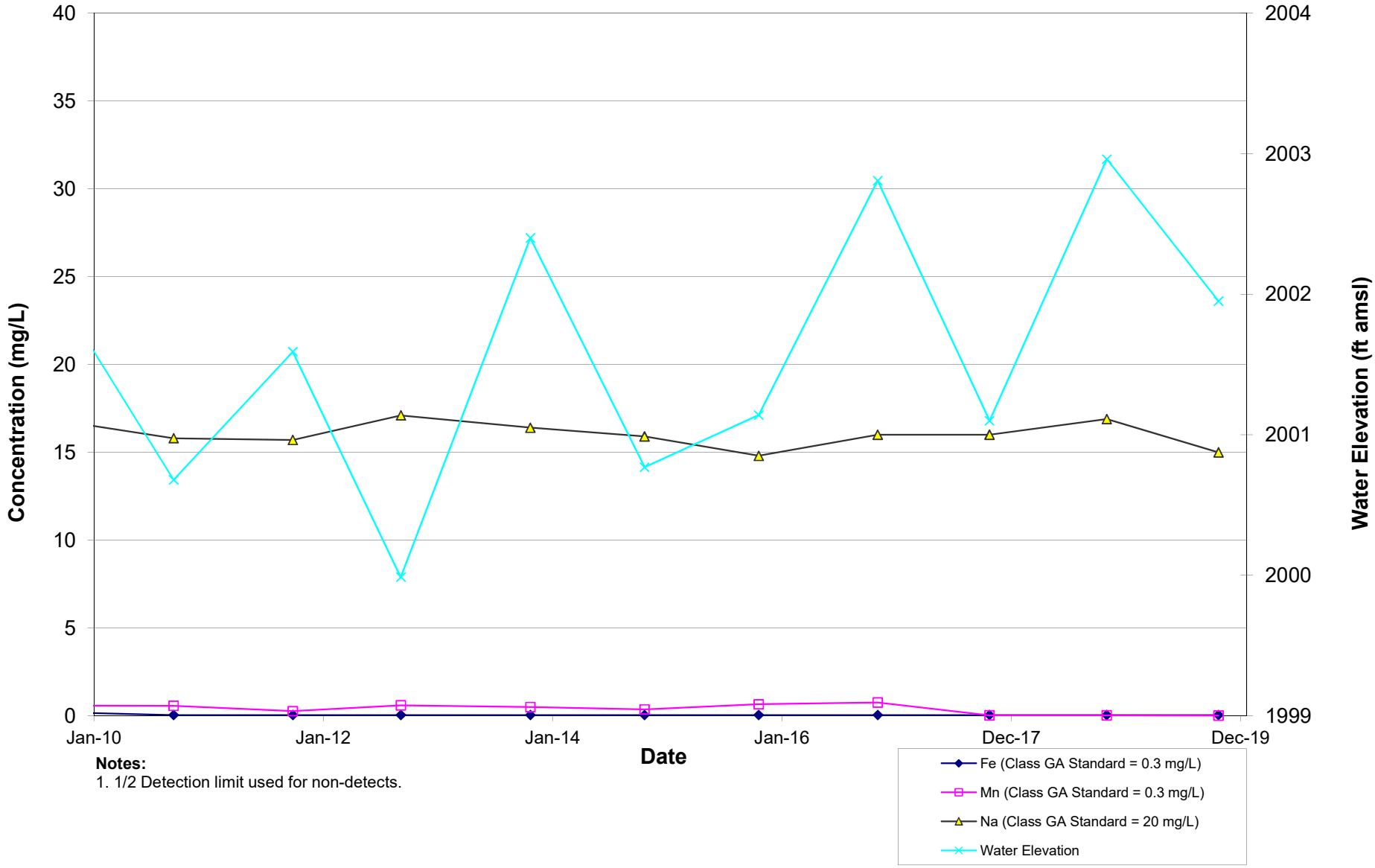
Notes:
1. 1/2 Detection limit used for non-detects.

CW-4A Metals



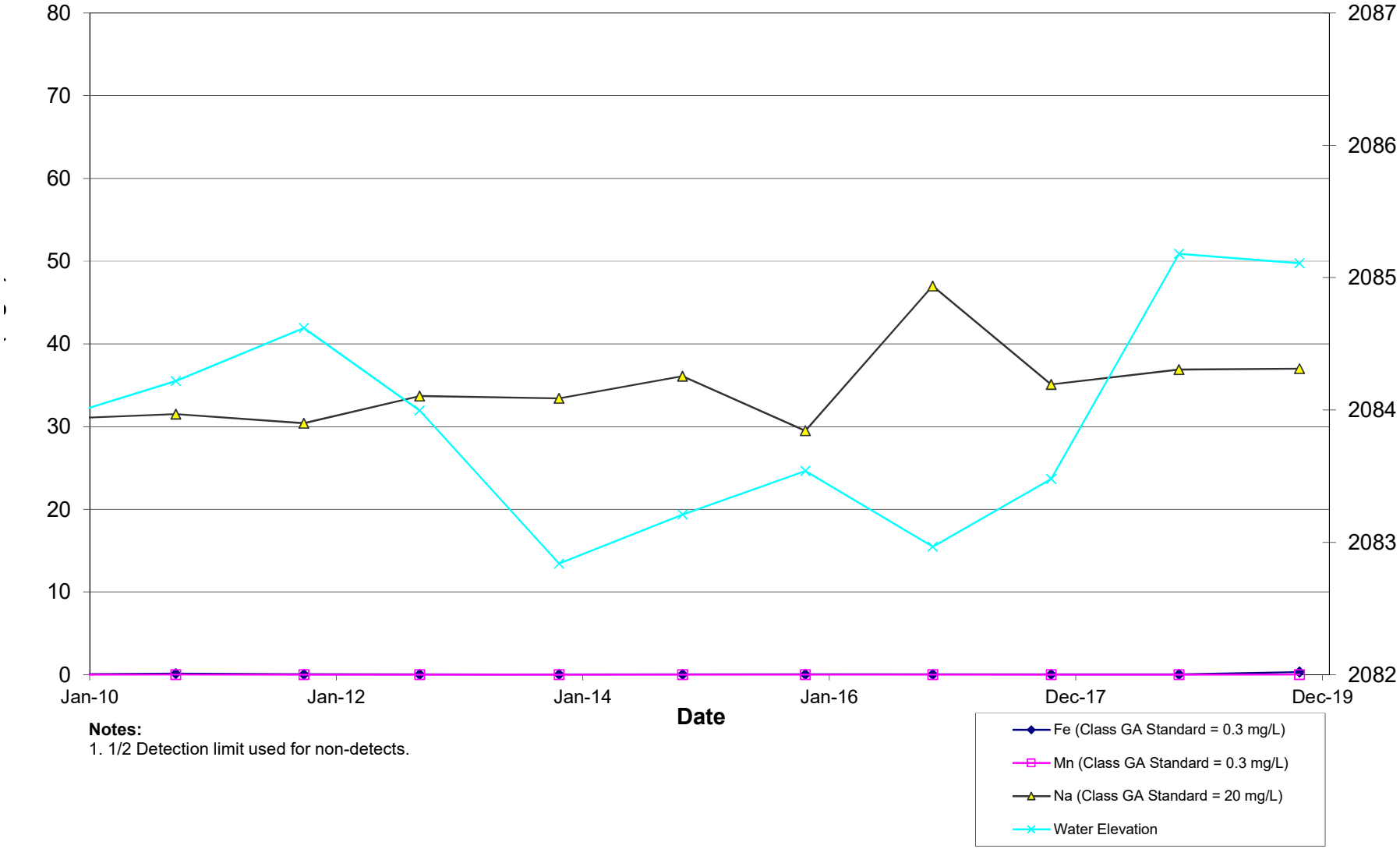
Notes:
1. 1/2 Detection limit used for non-detects.

CW-4B Metals



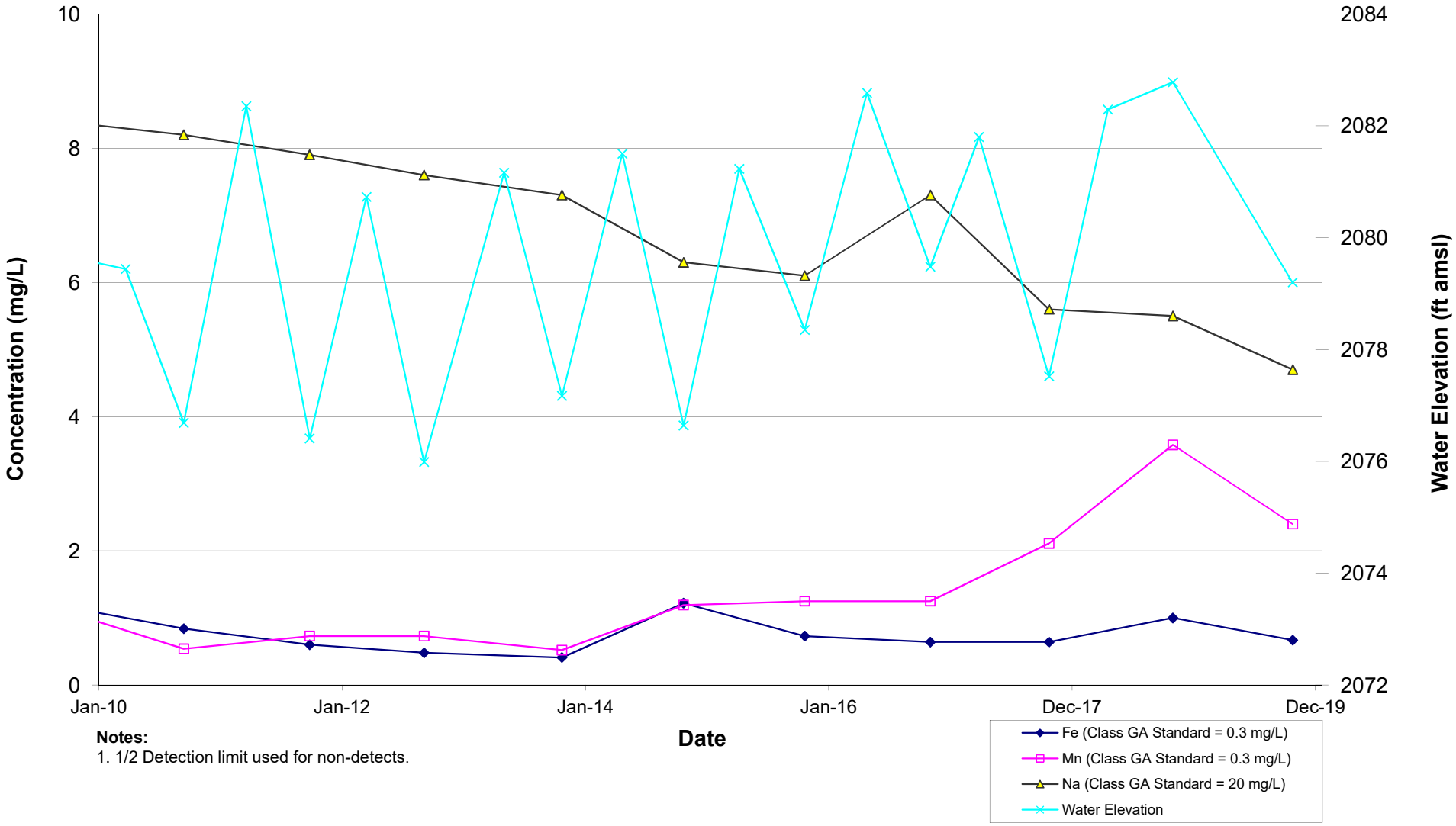
Notes:
1. 1/2 Detection limit used for non-detects.

MW-3S Metals



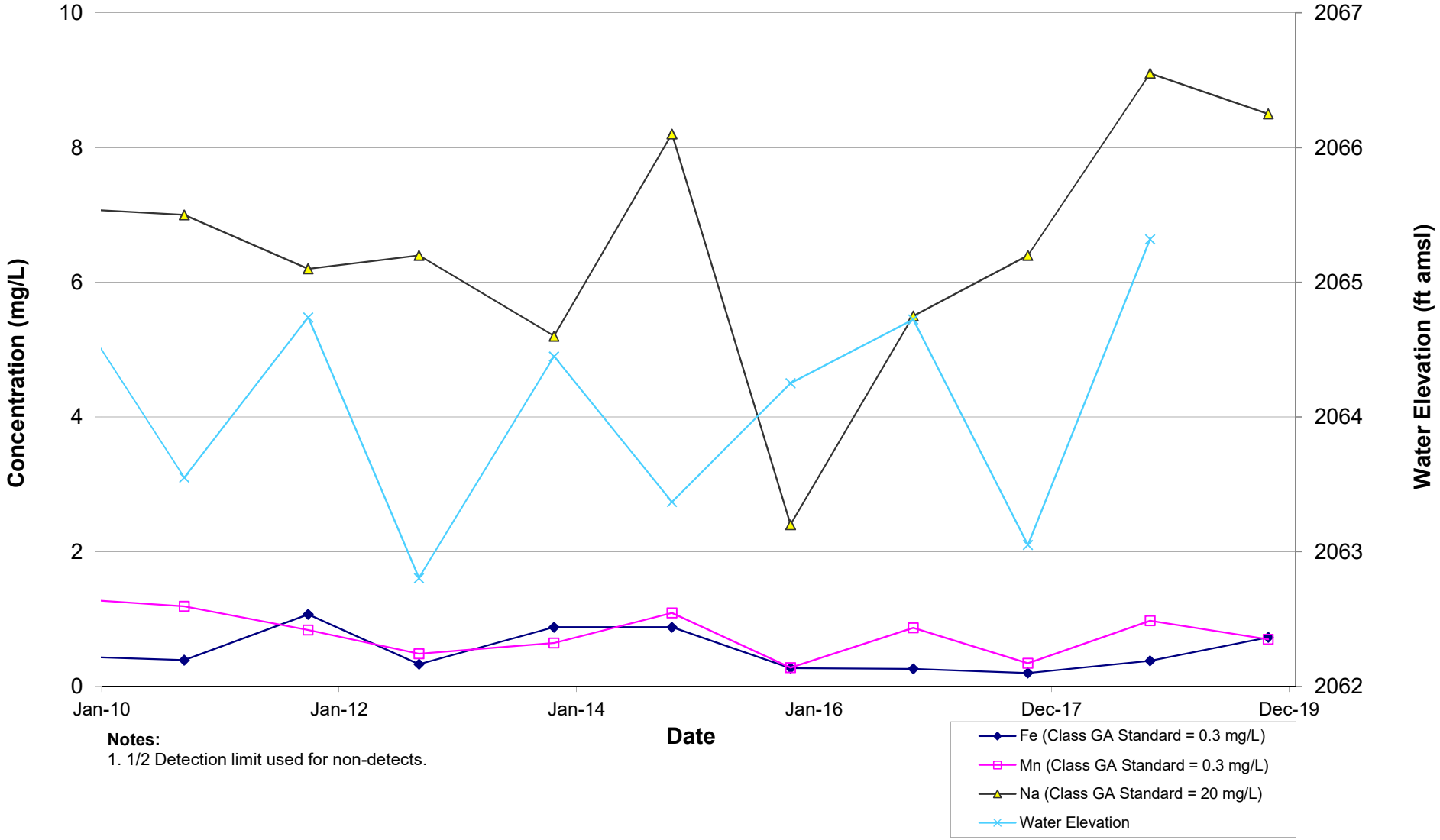
Notes:
1. 1/2 Detection limit used for non-detects.

MW-4D Metals



Notes:
1. 1/2 Detection limit used for non-detects.

MW-5D Metals

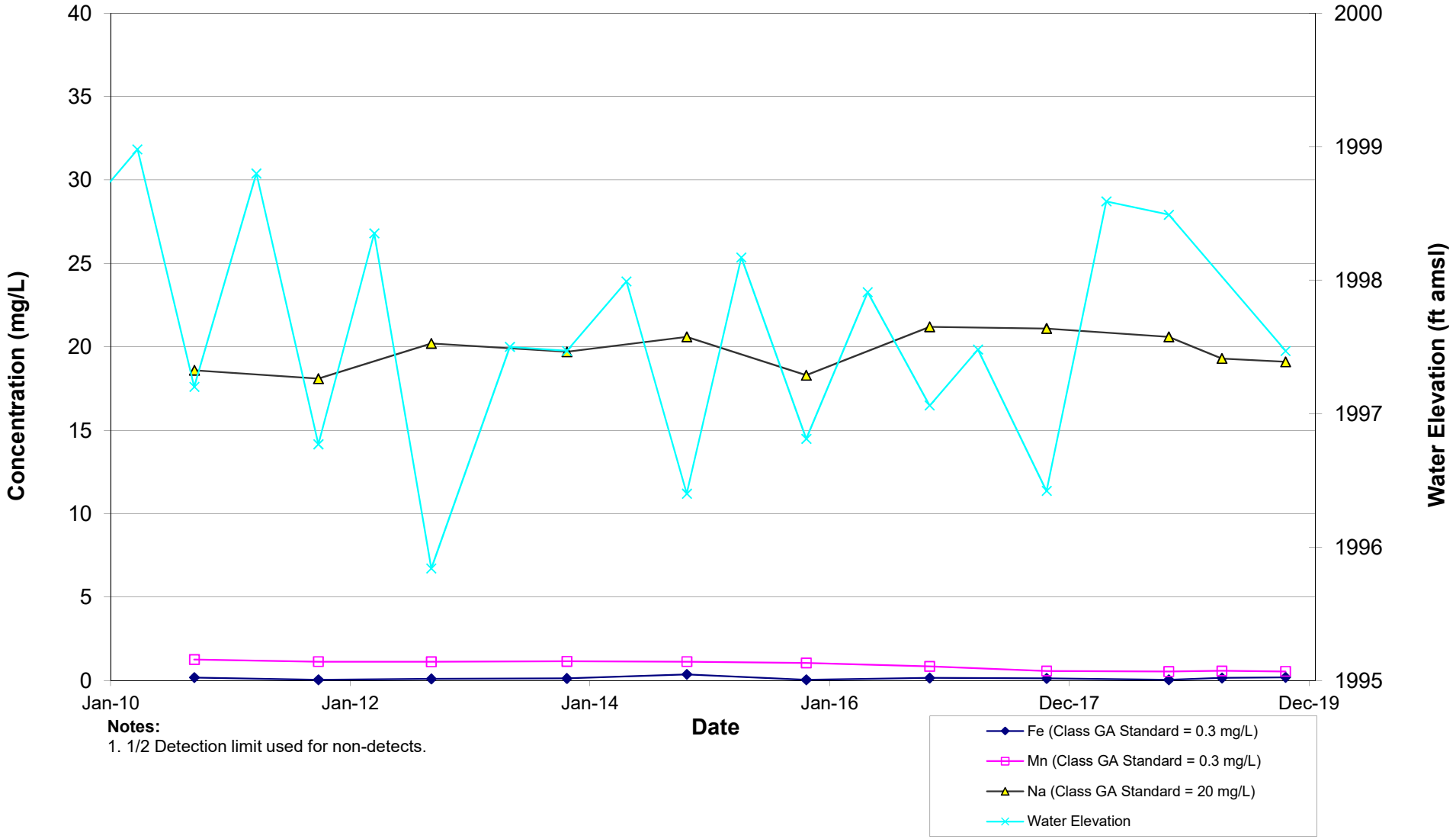


Notes:
1. 1/2 Detection limit used for non-detects.

MW-5S Metals

Notes:
1. 1/2 Detection limit used for non-detects.

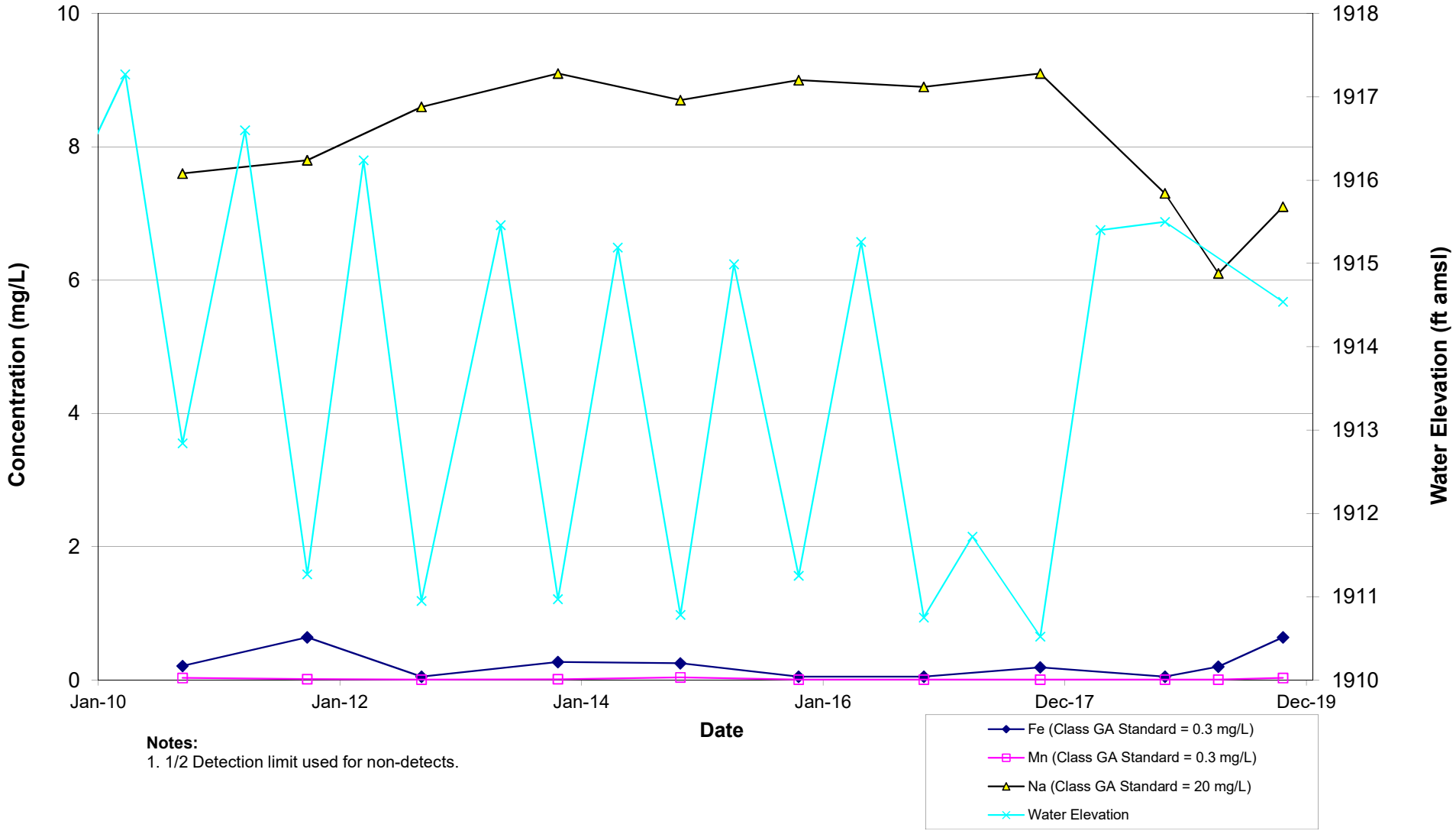
MW-11S Metals



Notes:

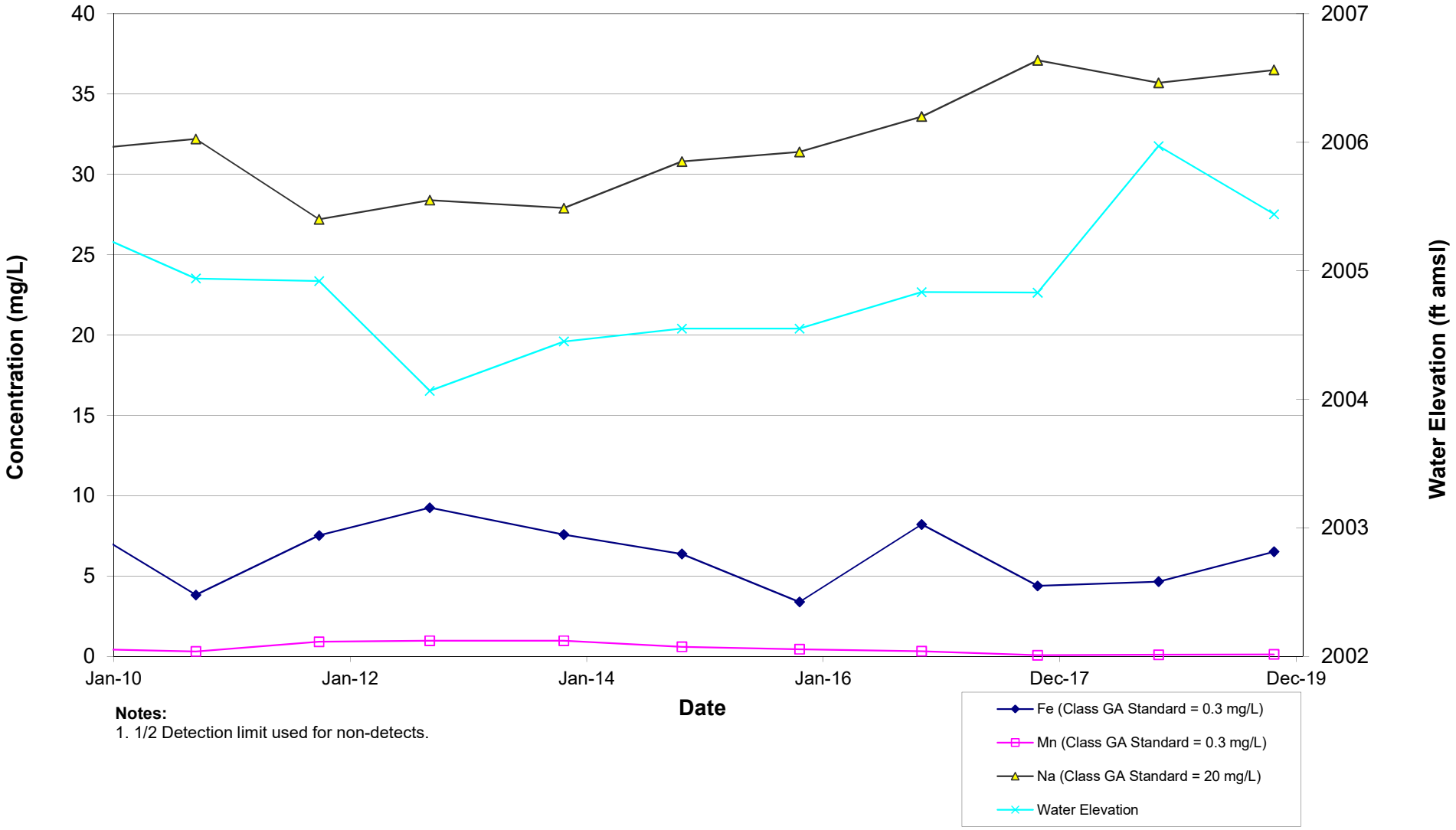
1. 1/2 Detection limit used for non-detects.

MW-16S Metals



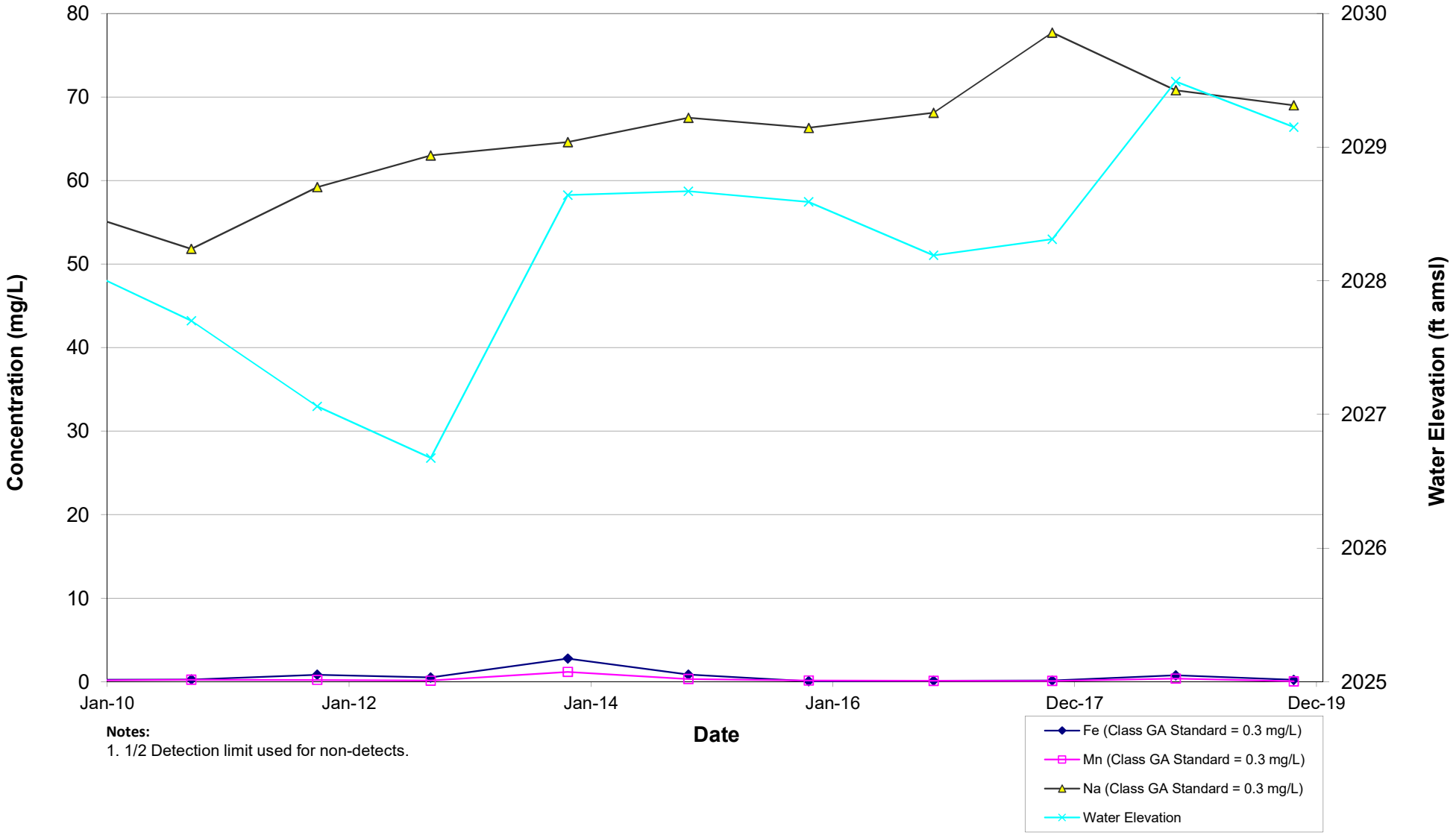
Notes:
1. 1/2 Detection limit used for non-detects.

MW-17D Metals



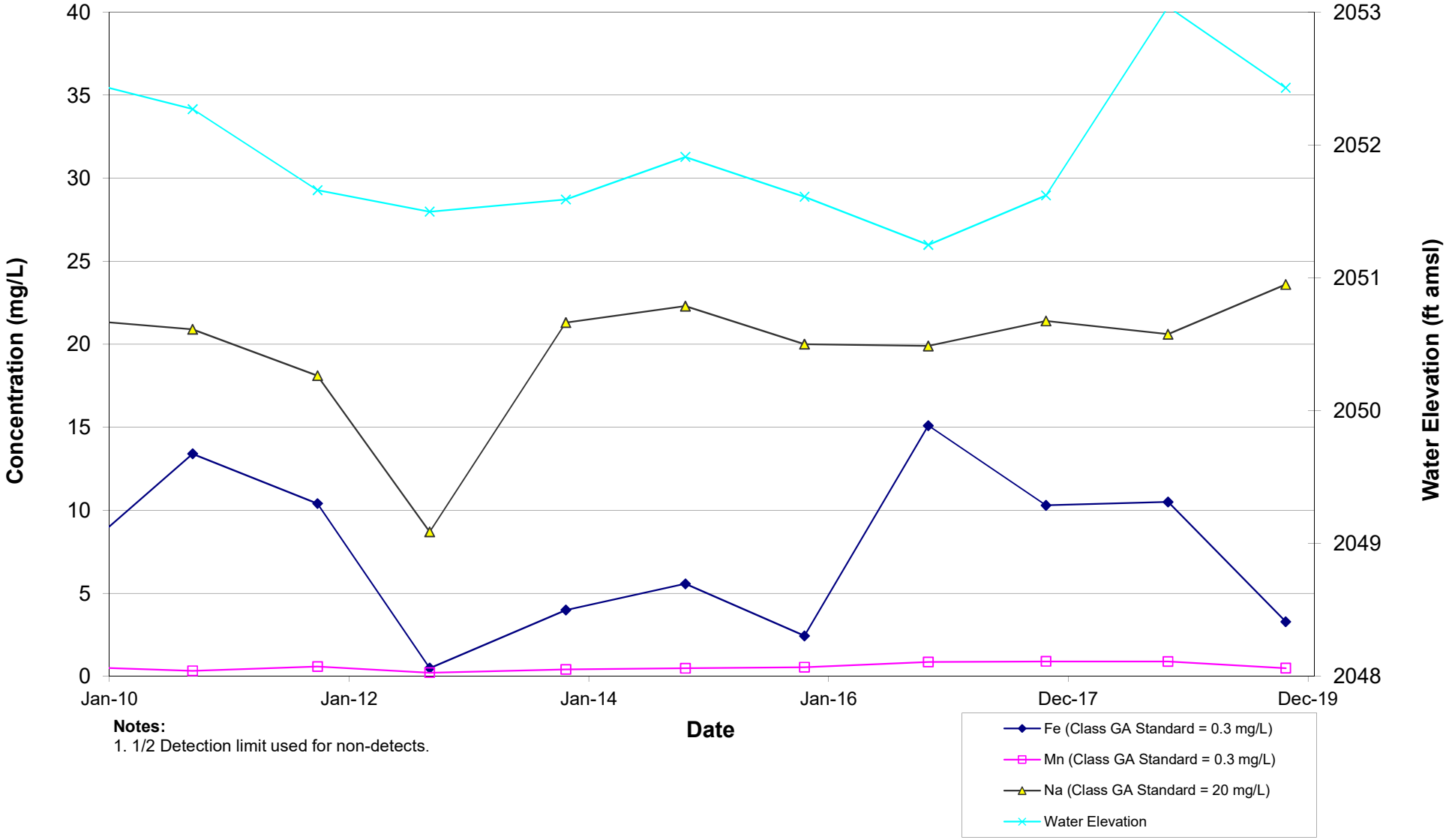
Notes:
1. 1/2 Detection limit used for non-detects.

MW-17S Metals



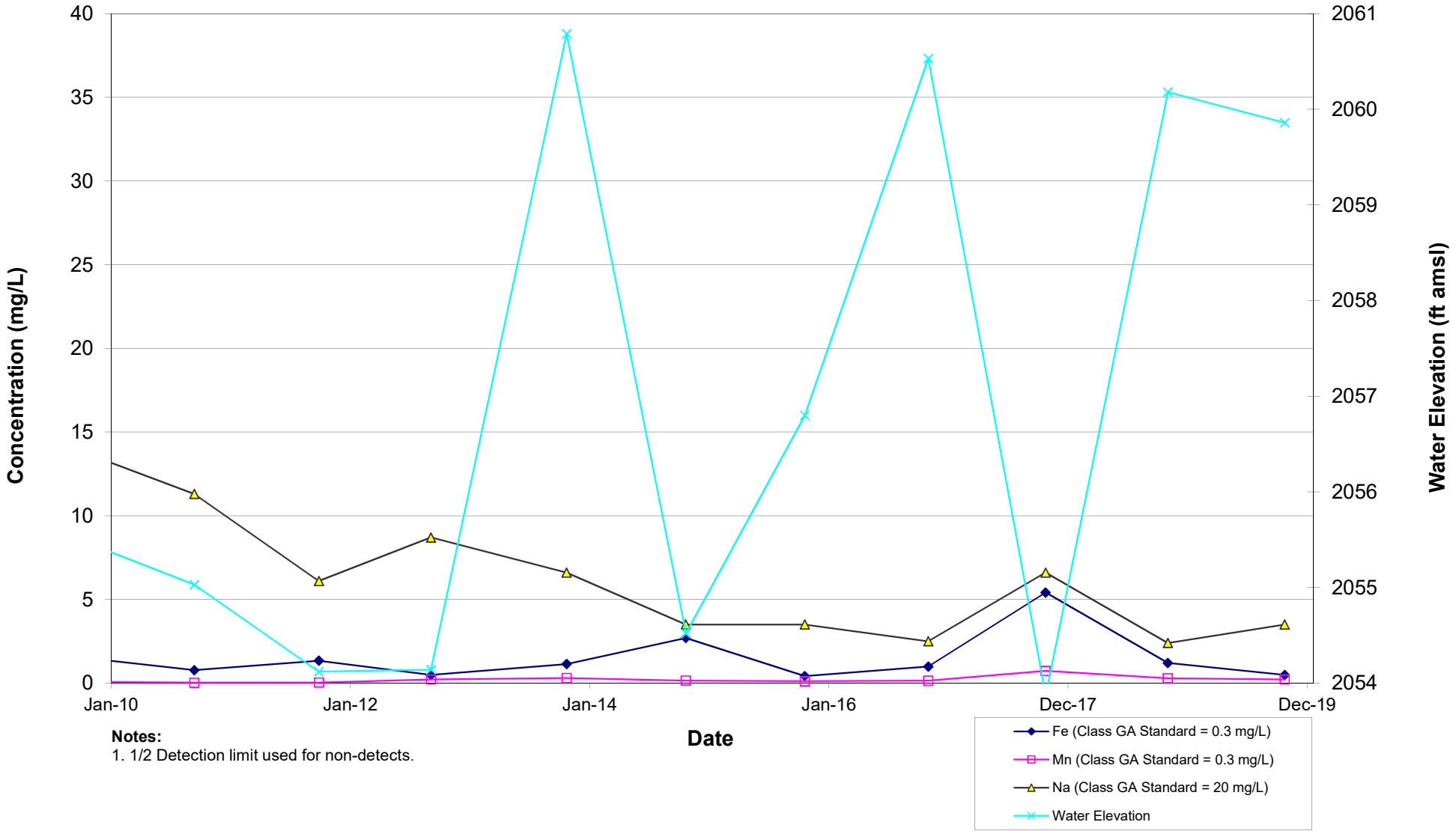
Notes:
1. 1/2 Detection limit used for non-detects.

MW-18D Metals



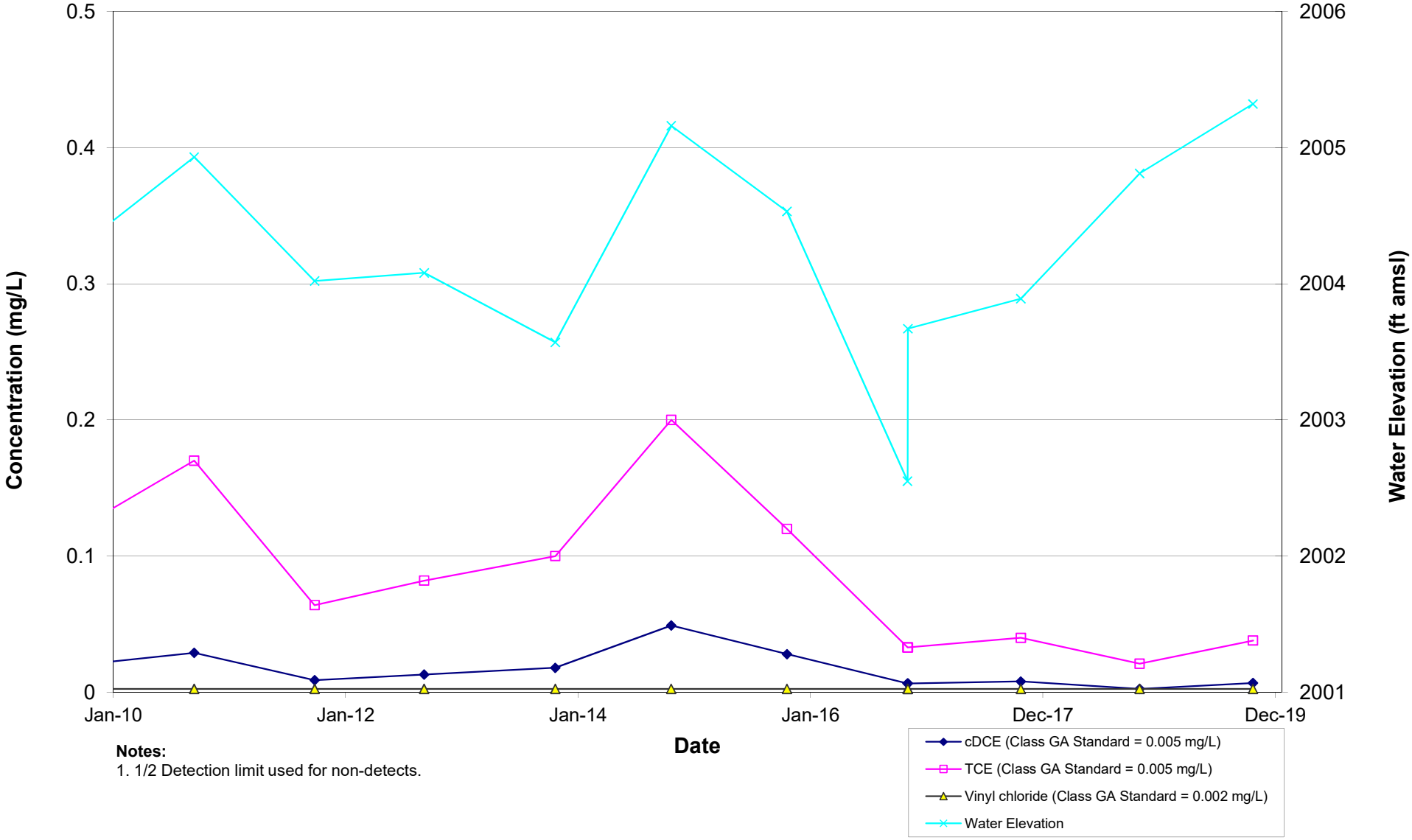
Notes:
1. 1/2 Detection limit used for non-detects.

MW-18S Metals



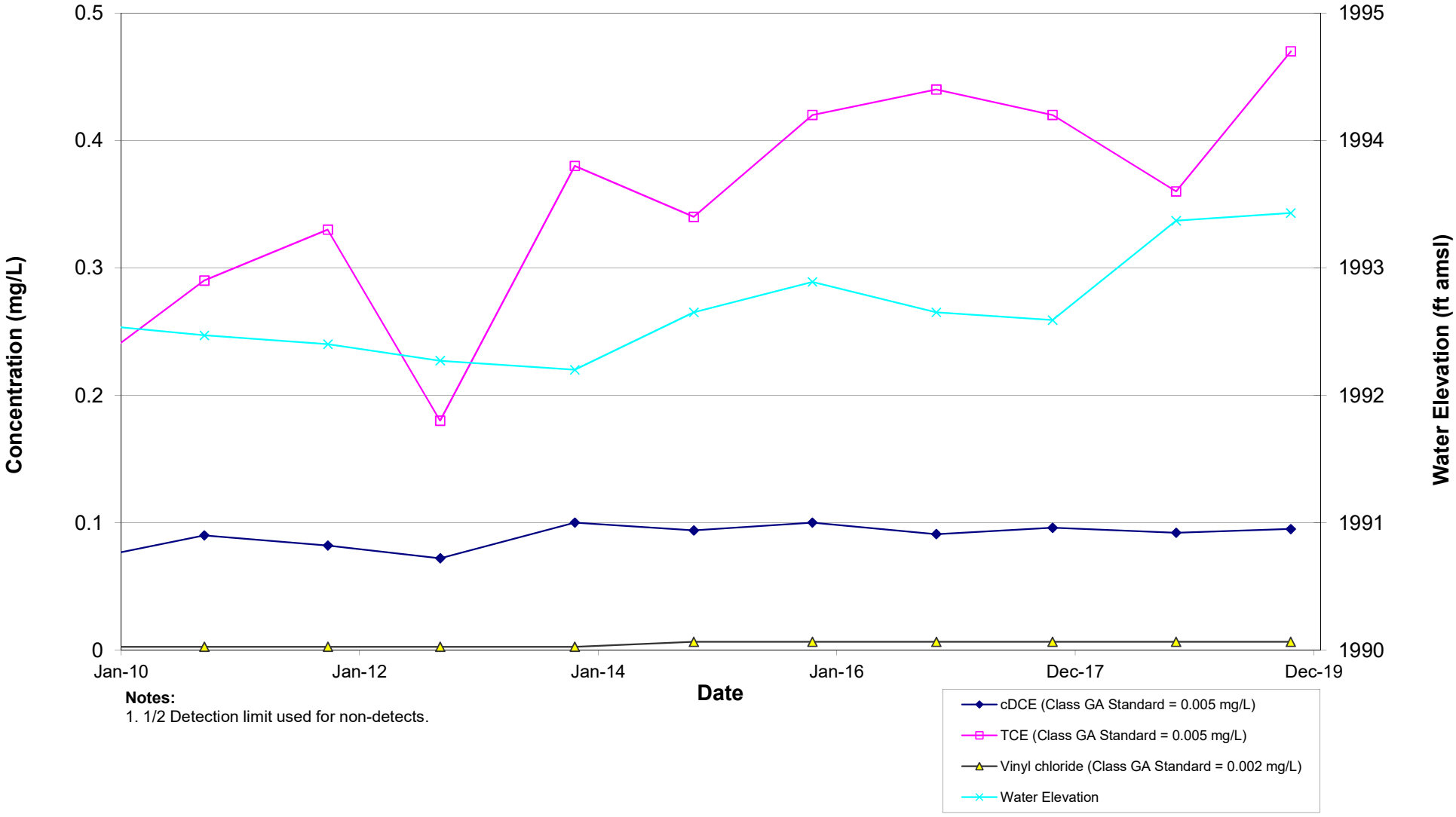
Notes:
1. 1/2 Detection limit used for non-detects.

CW-3A VOCs



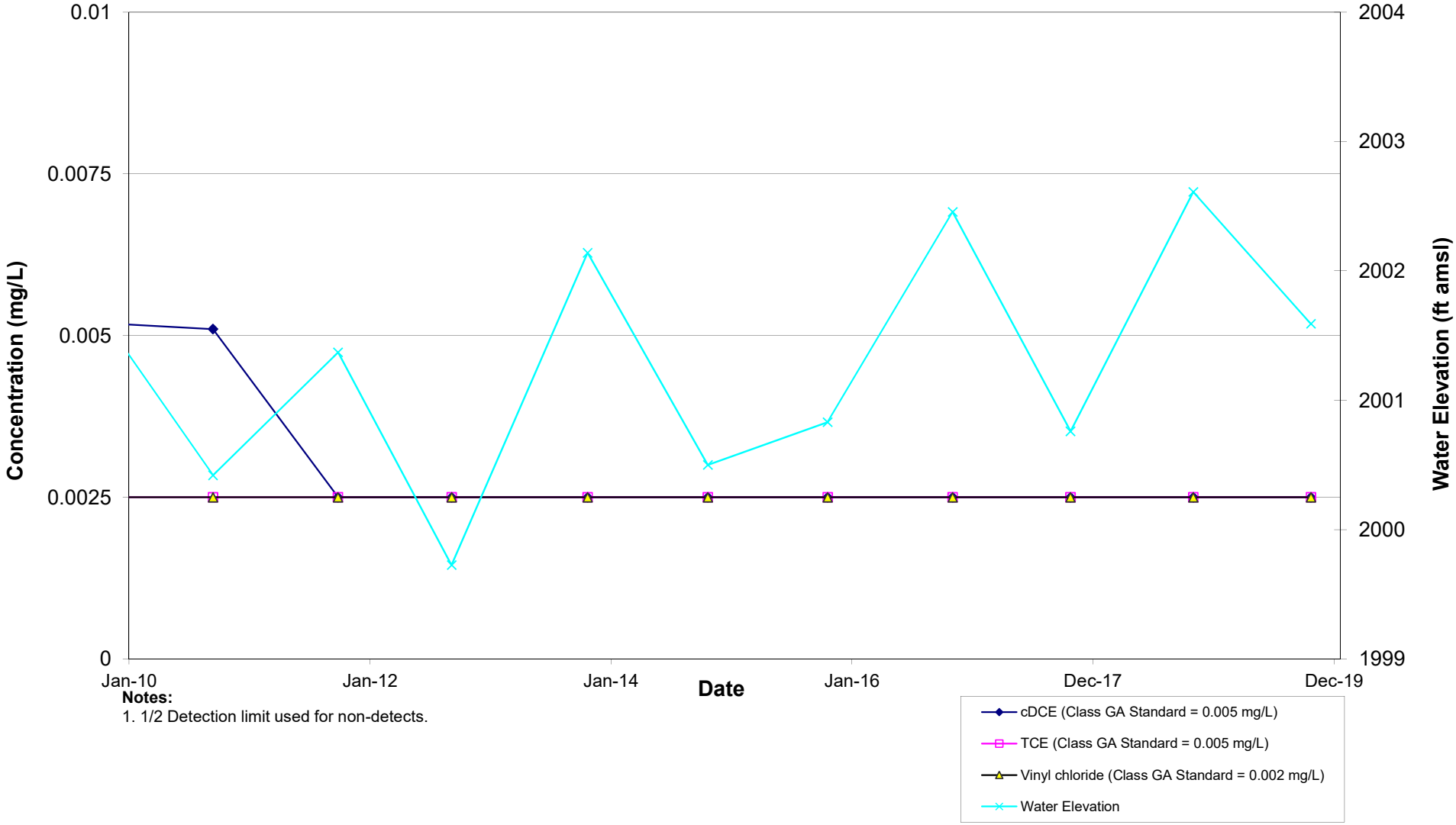
Notes:
1. 1/2 Detection limit used for non-detects.

CW-3B VOCs



Notes:
1. 1/2 Detection limit used for non-detects.

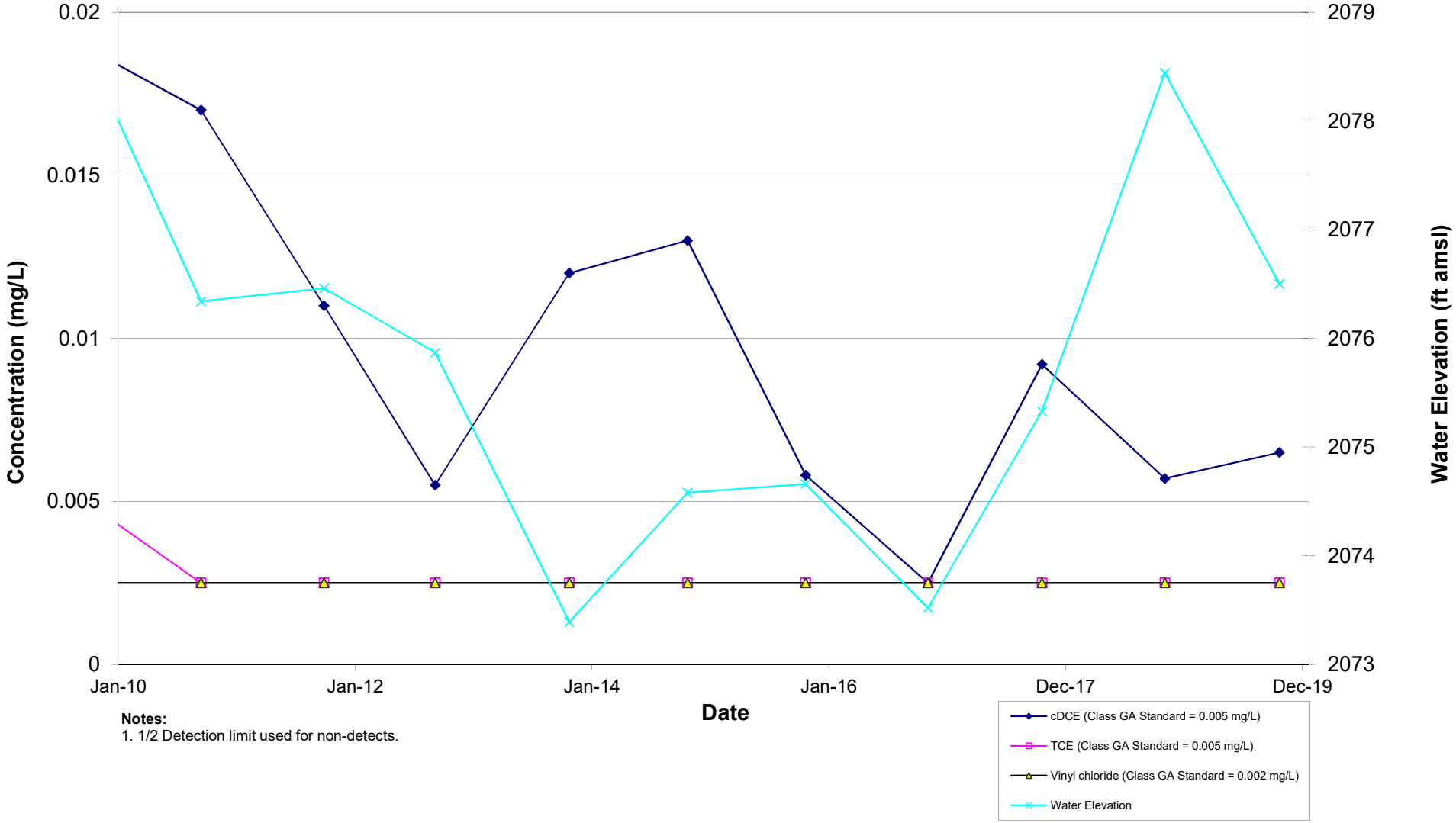
CW-4A VOCs



Notes:

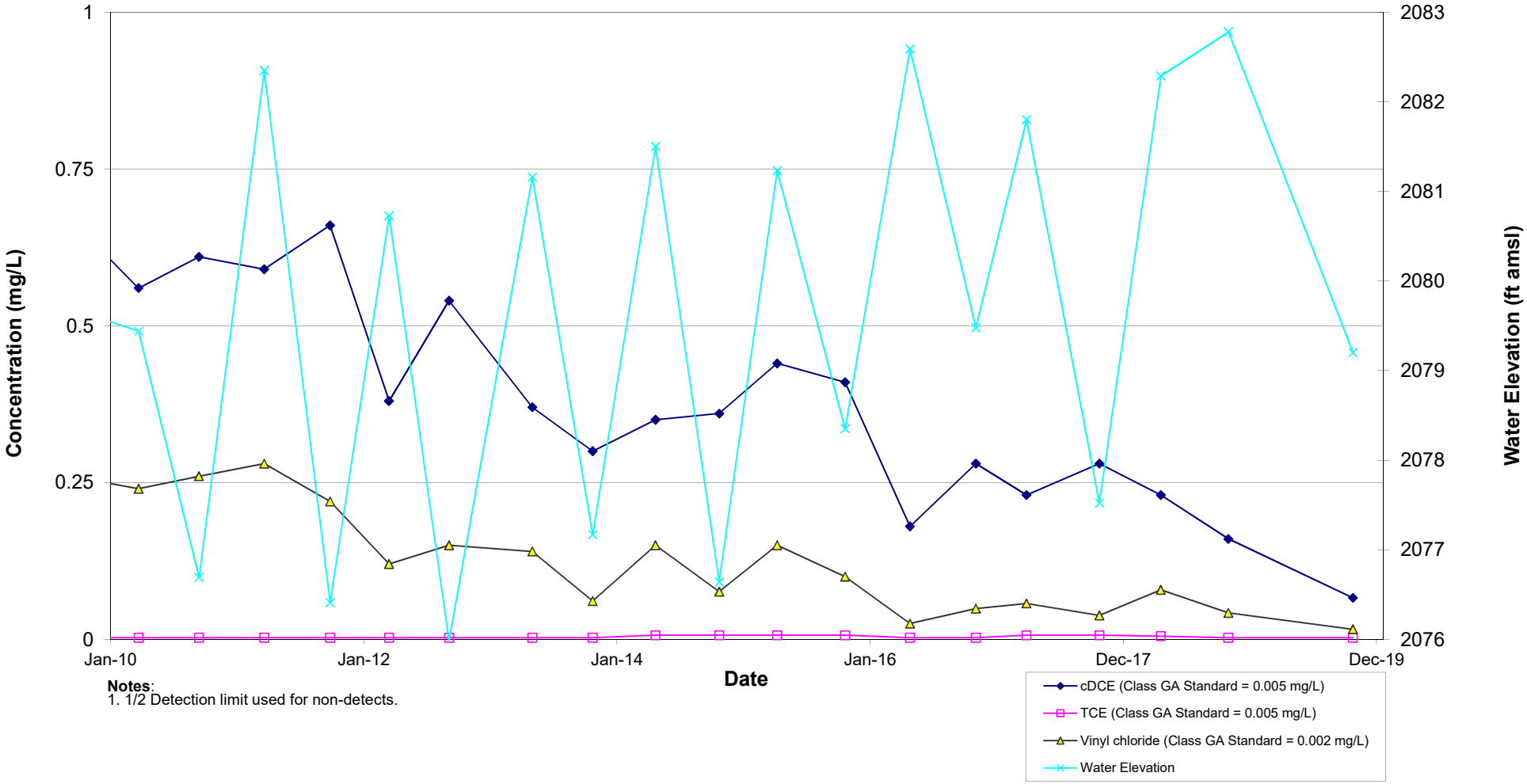
1. 1/2 Detection limit used for non-detects.

MW-3D VOCs



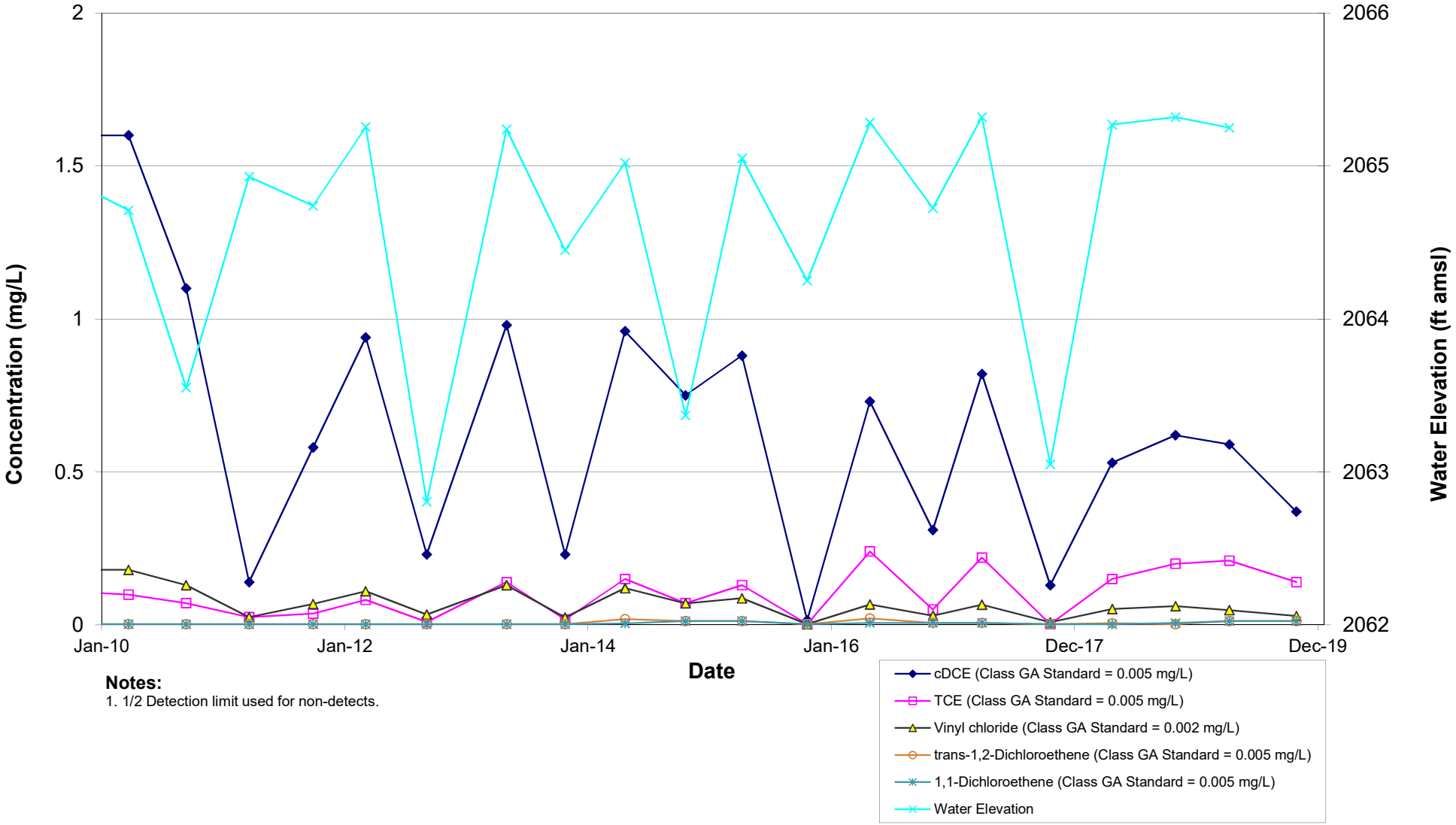
Notes:
1. 1/2 Detection limit used for non-detects.

MW-4D VOCs



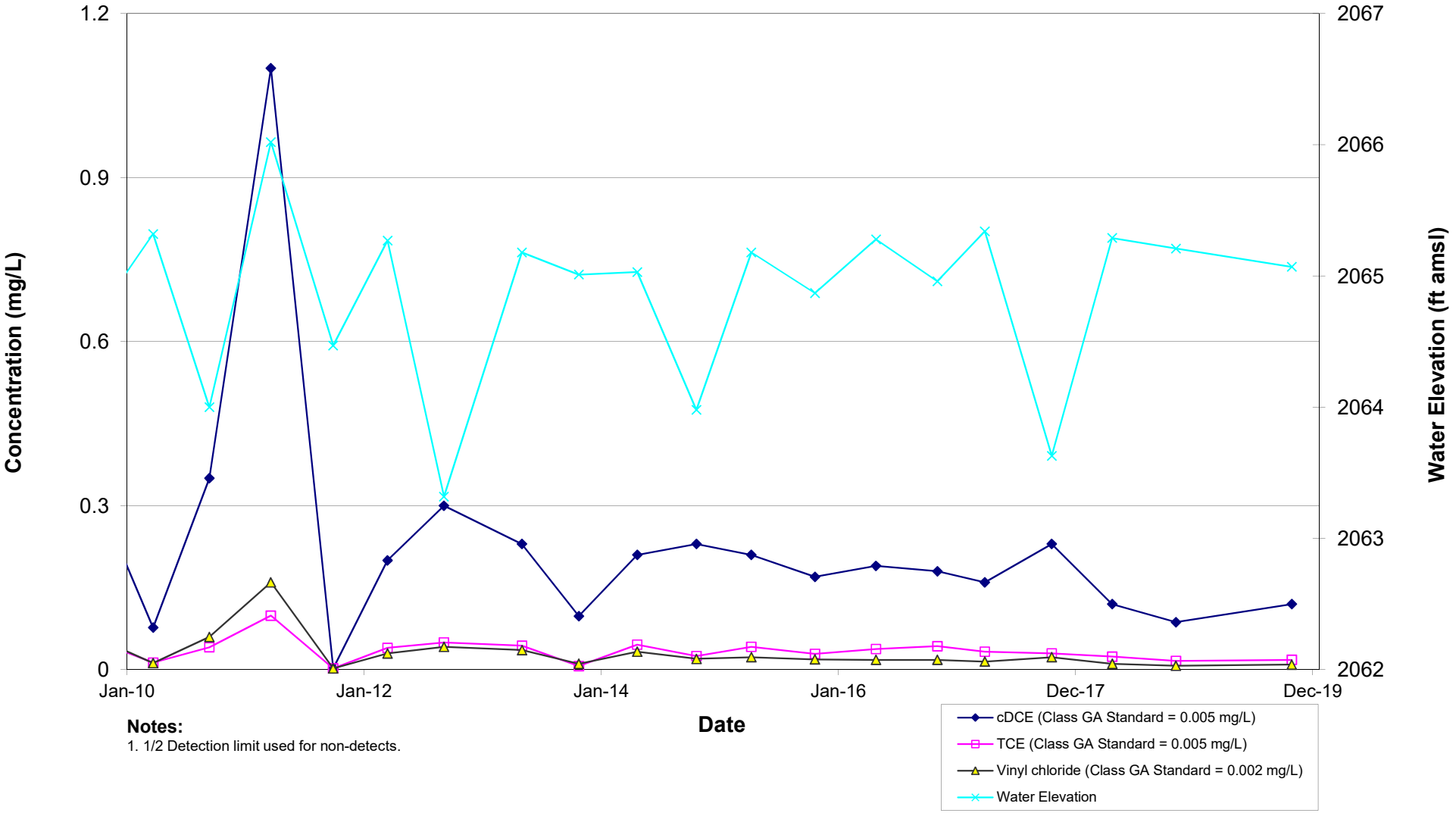
Notes:
1. 1/2 Detection limit used for non-detects.

MW-5D VOCs



Notes:
1. 1/2 Detection limit used for non-detects.

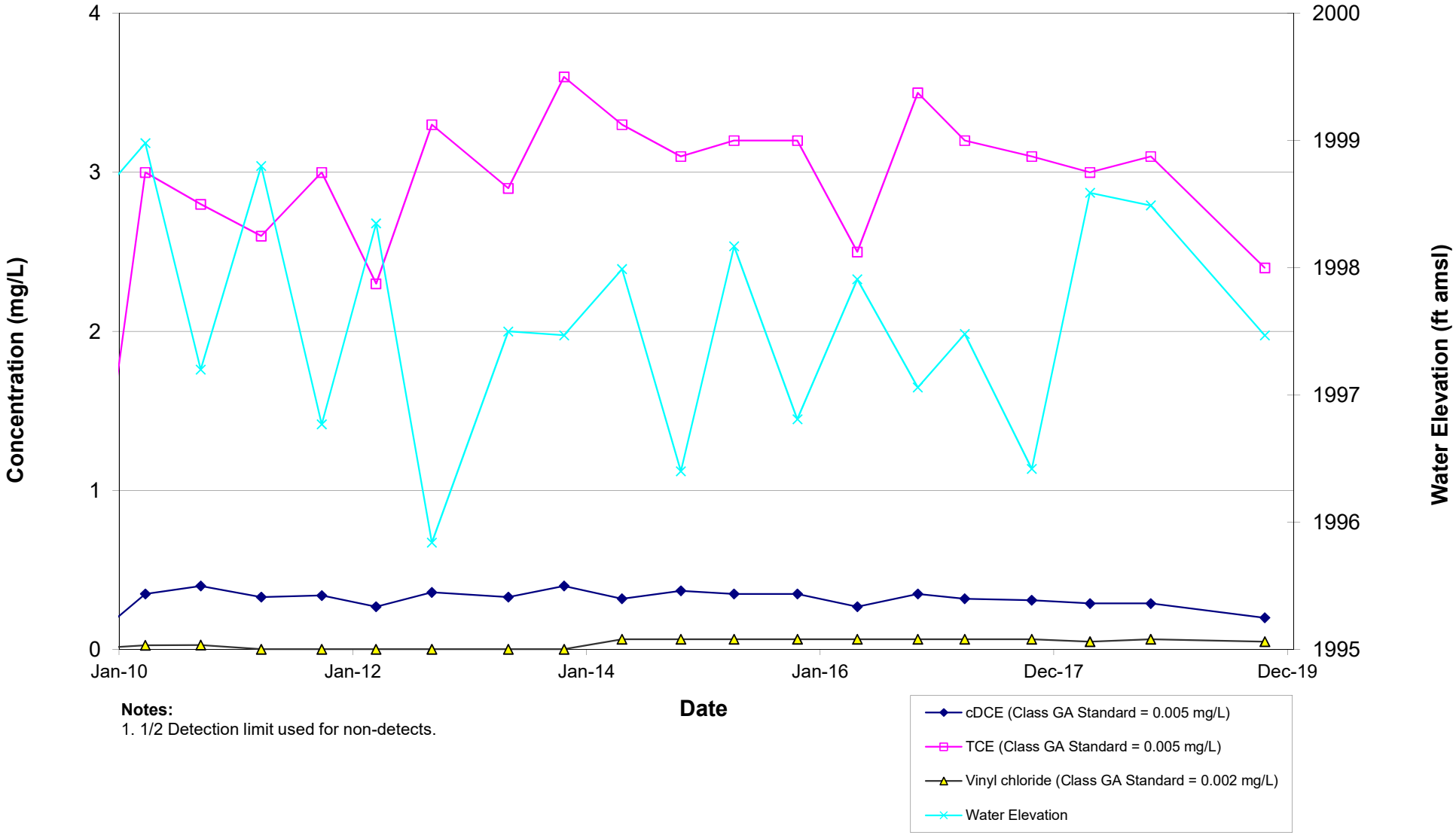
MW-5S VOCs



Notes:

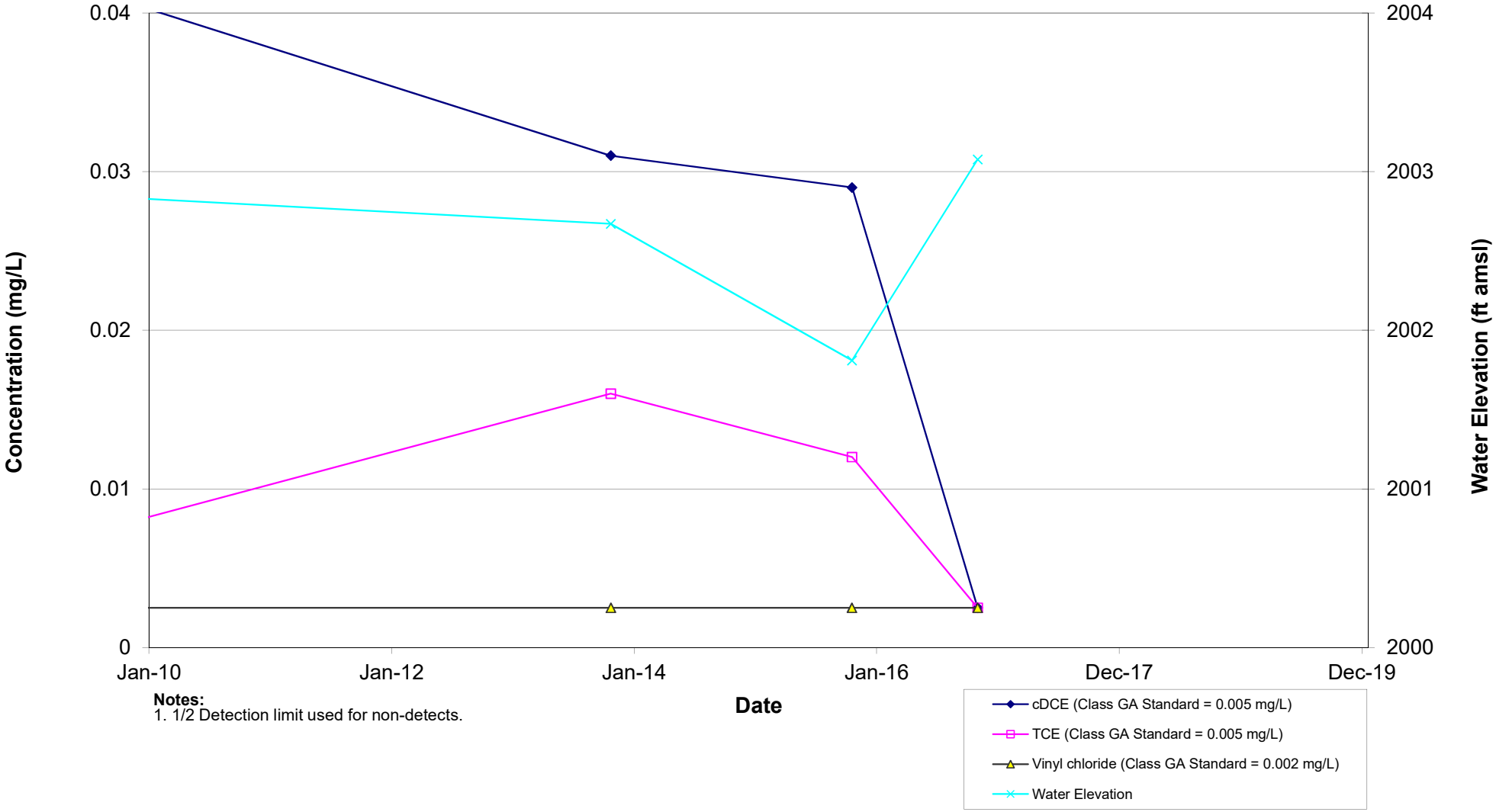
1. 1/2 Detection limit used for non-detects.

MW-11S VOCs



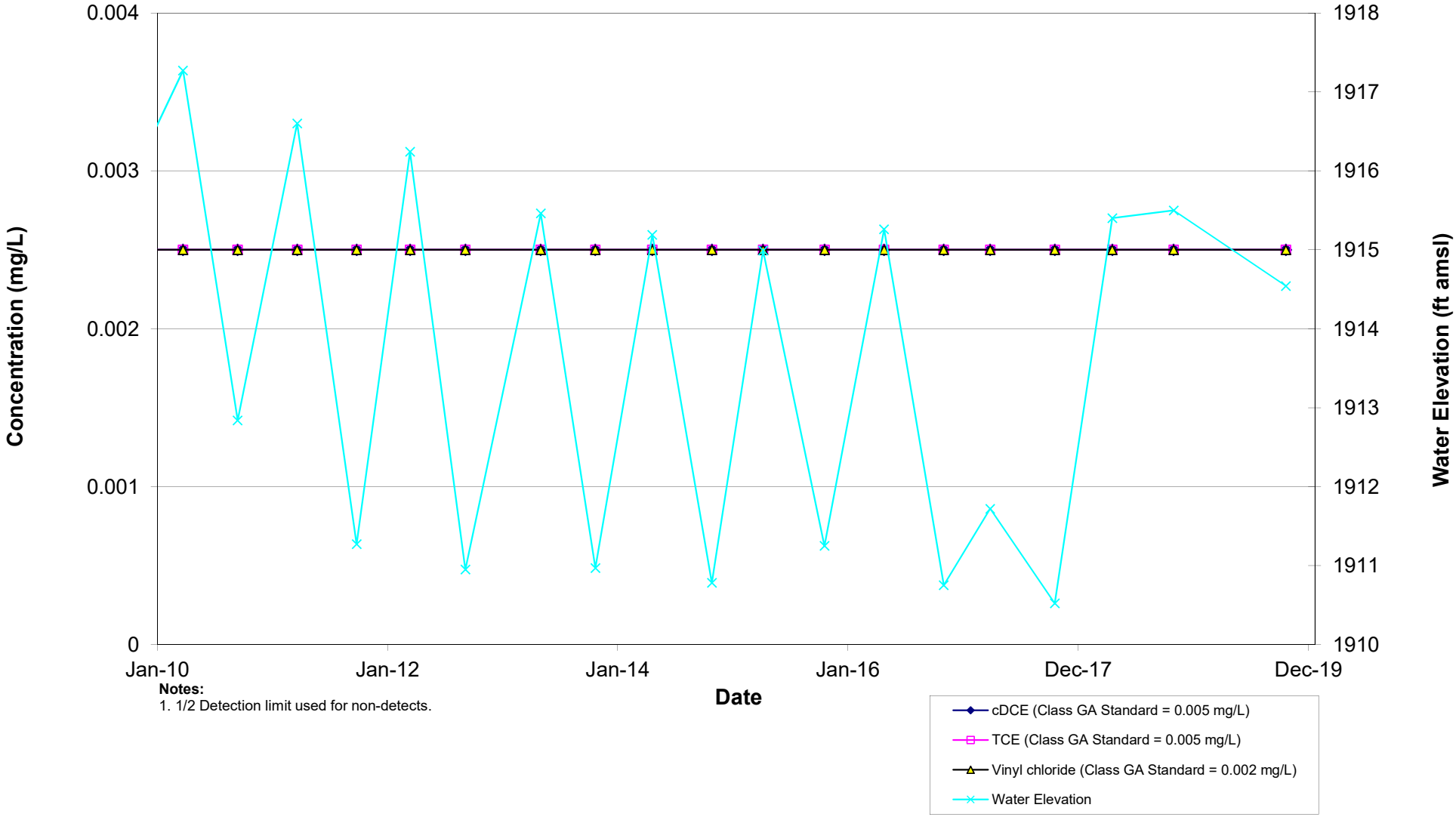
Notes:
1. 1/2 Detection limit used for non-detects.

MW-15S VOCs



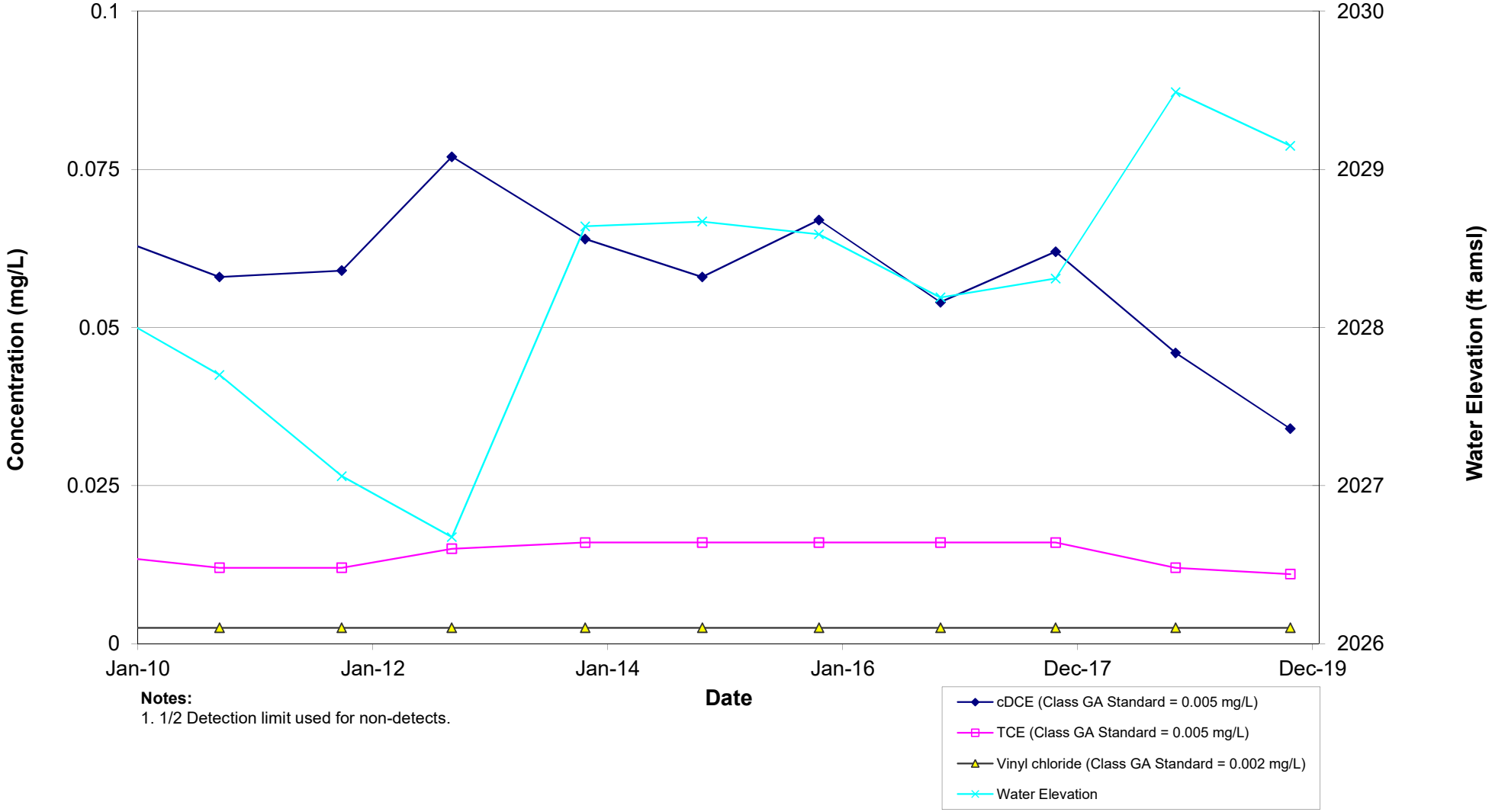
Notes:
1. 1/2 Detection limit used for non-detects.

MW-16S VOCs



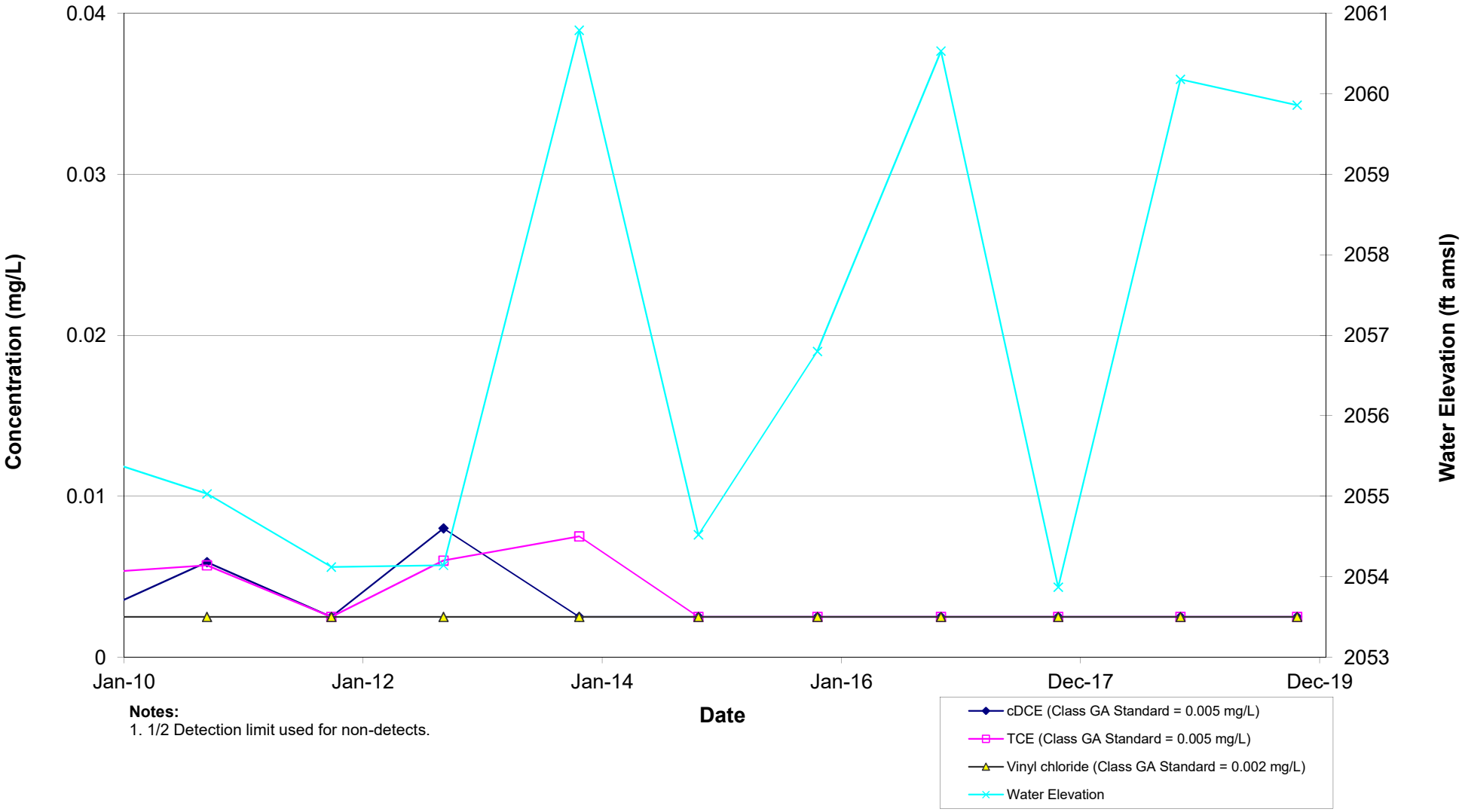
Notes:
1. 1/2 Detection limit used for non-detects.

MW-17S VOCs



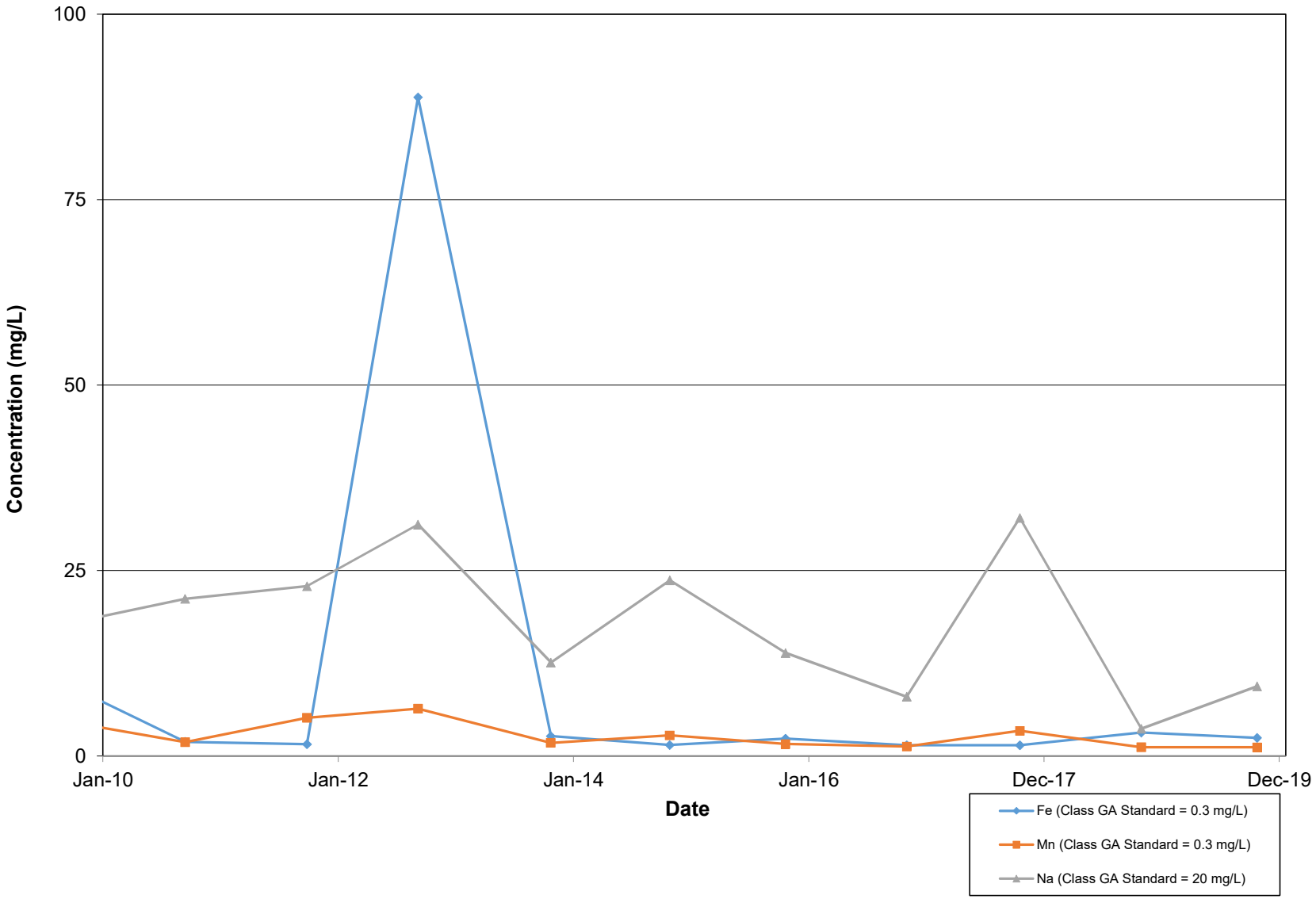
Notes:
1. 1/2 Detection limit used for non-detects.

MW-18S VOCs

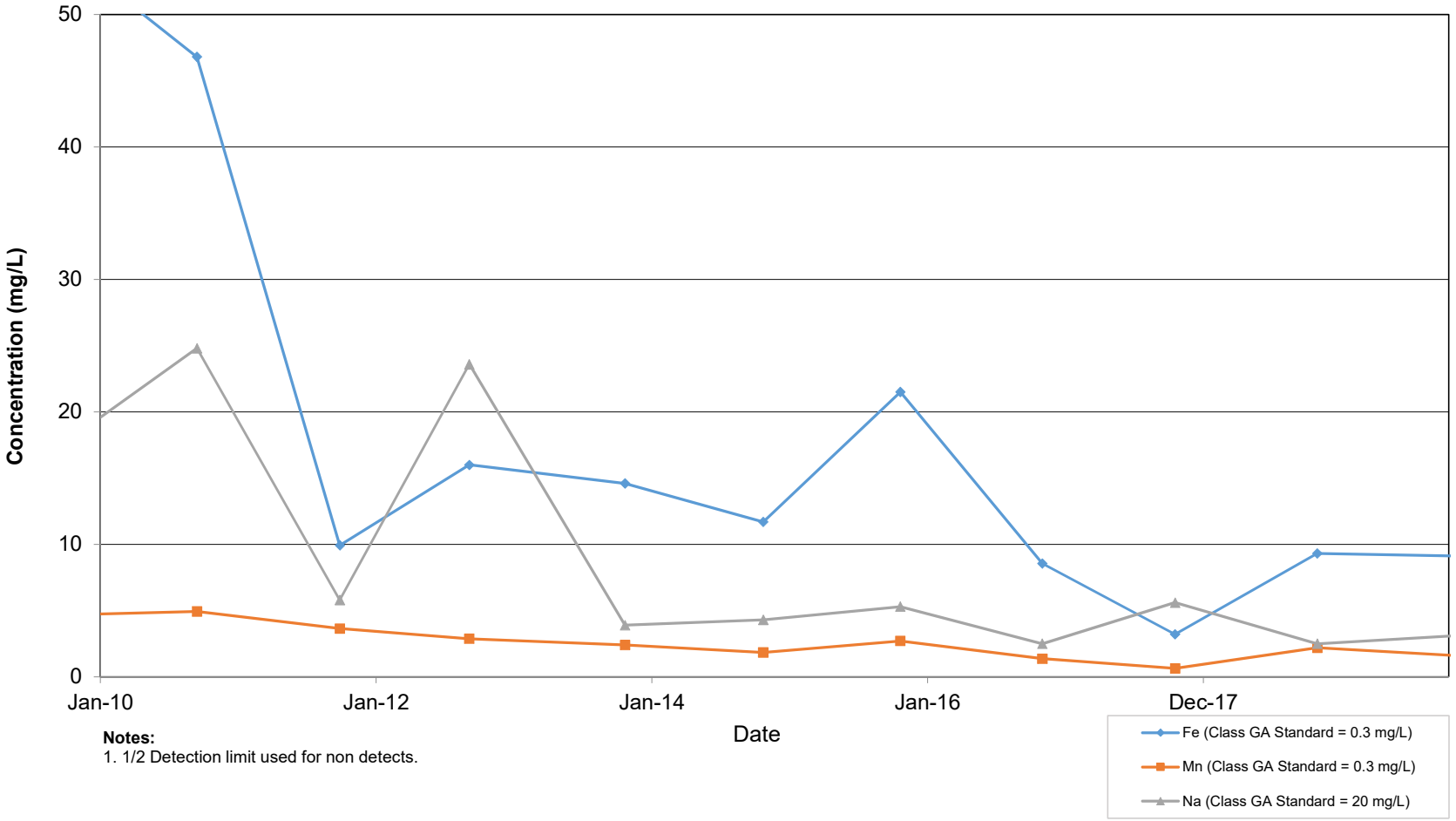


Notes:
1. 1/2 Detection limit used for non-detects.

LS-1 Metals

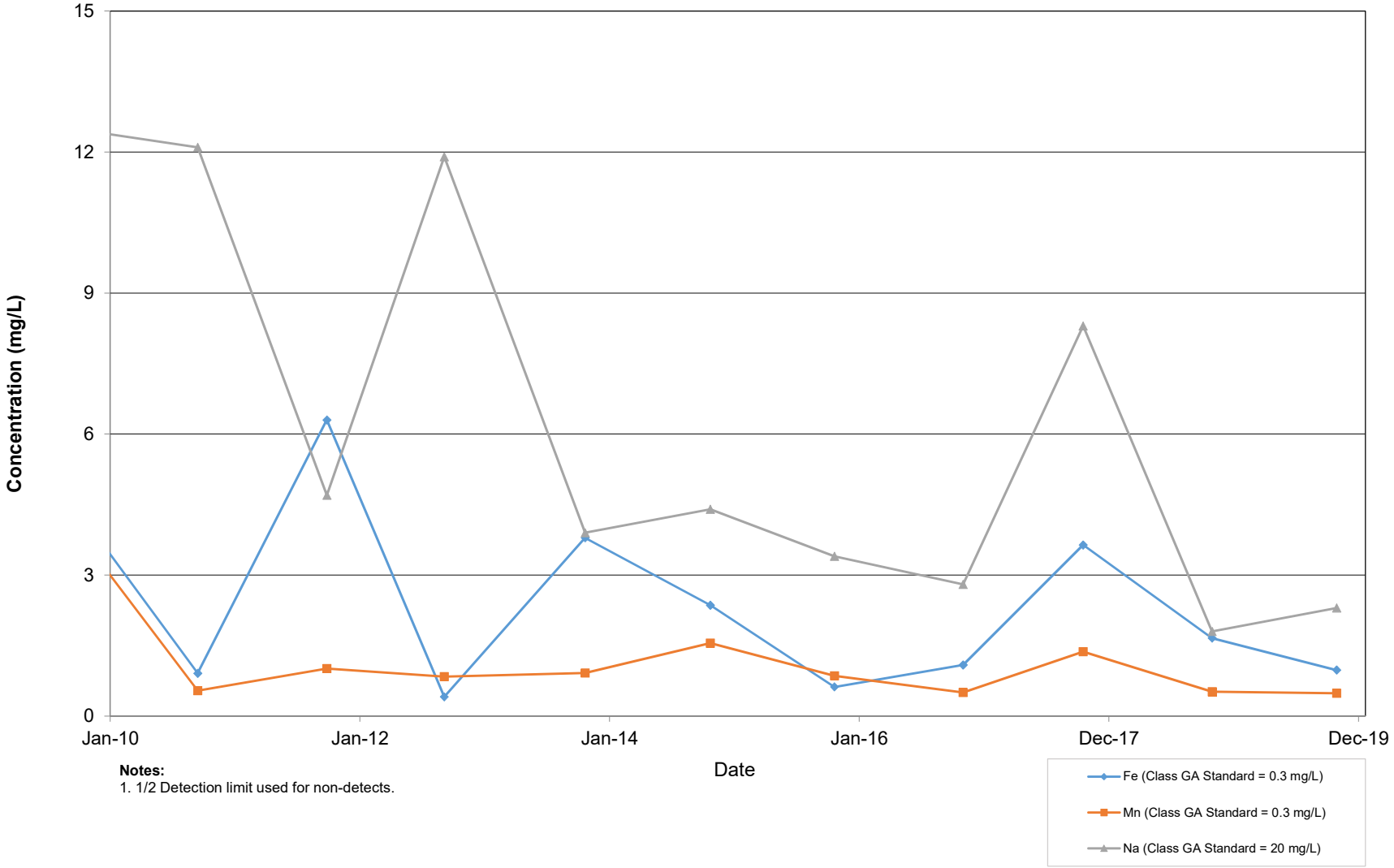

100
75
50
25
0
Concentration (mg/L)
Jan-10
Jan-12
Jan-14
Jan-16
Dec-17
Dec-19
Date
Fe (Class GA Standard = 0.3 mg/L)
Mn (Class GA Standard = 0.3 mg/L)
Na (Class GA Standard = 20 mg/L)

MH-32 Metals



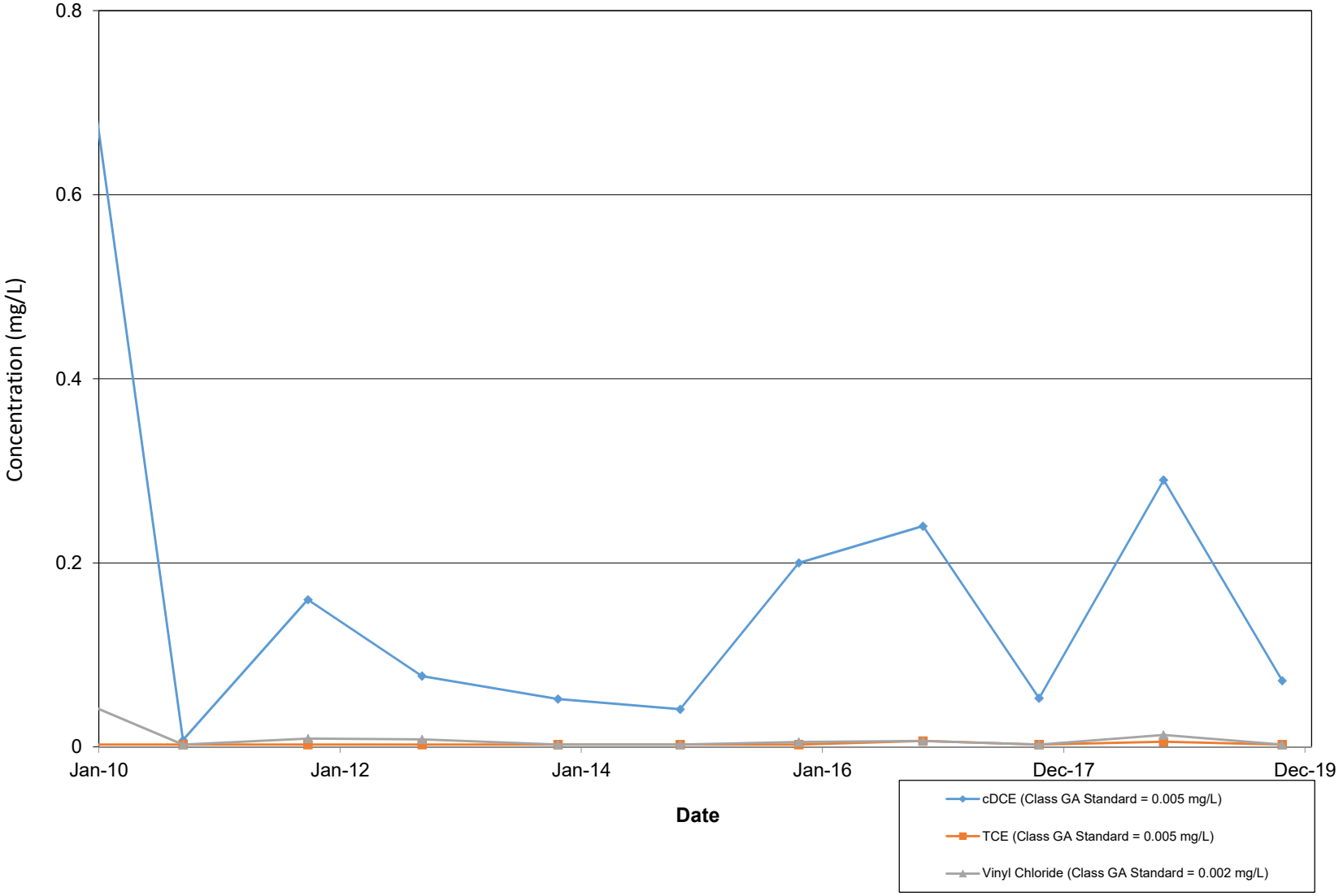
Notes:
1. 1/2 Detection limit used for non detects.

MH-33 Metals

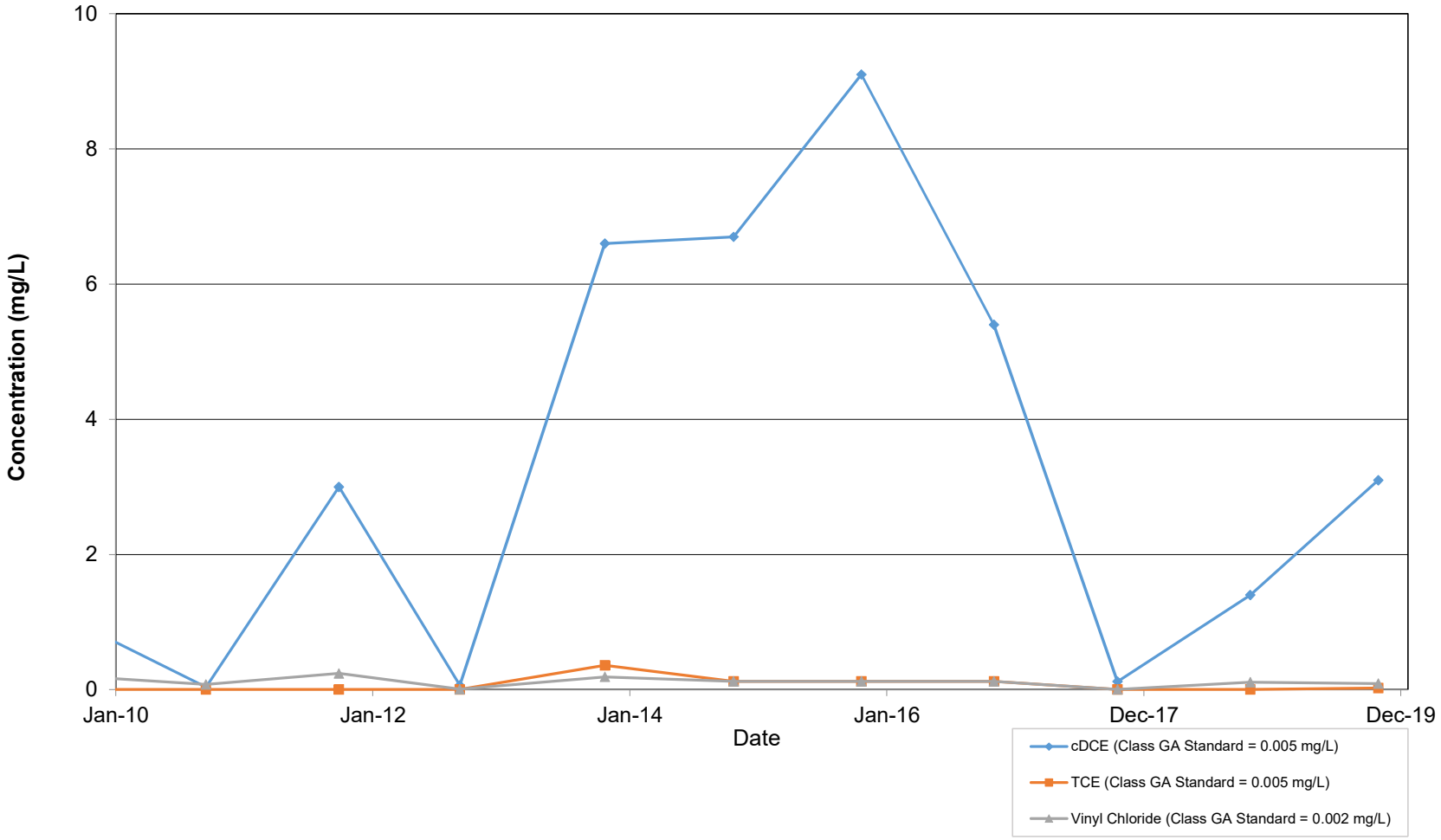


Notes:
1. 1/2 Detection limit used for non-detects.

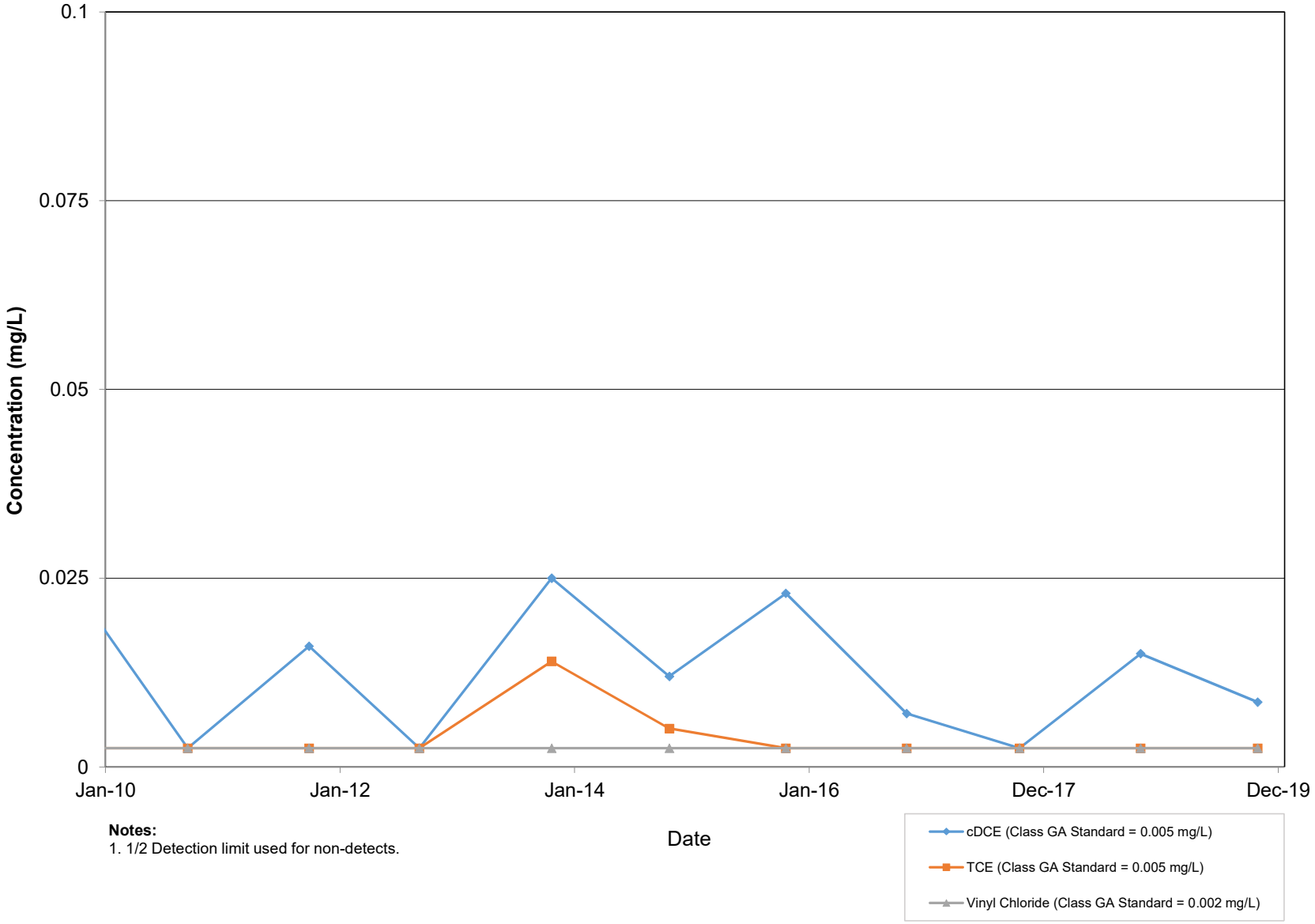
LS-1 VOCs


0.8
0.6
0.4
0.2
0
Concentration (mg/L)
Jan-10
Jan-12
Jan-14
Jan-16
Dec-17
Dec-19
Date
cDCE (Class GA Standard = 0.005 mg/L)
TCE (Class GA Standard = 0.005 mg/L)
Vinyl Chloride (Class GA Standard = 0.002 mg/L)

MH-32 VOCs


10
8
6
4
2
0
Concentration (mg/L)
Jan-10
Jan-12
Jan-14
Jan-16
Dec-17
Dec-19
Date
cDCE (Class GA Standard = 0.005 mg/L)
TCE (Class GA Standard = 0.005 mg/L)
Vinyl Chloride (Class GA Standard = 0.002 mg/L)

MH-33 VOCs



Notes:
1. 1/2 Detection limit used for non-detects.

Appendix E

2019 Laboratory Analytical Reports

May 01, 2019 Service Request No:R1903225

Mr. Jon Brandes
On-Site Technical Services, Inc.
72 Railroad Avenue
Wellsville, NY 14895

Laboratory Results for: Wellsville-Andover LF - Spring Sampling

Dear Mr.Brandes,

Enclosed are the results of the sample(s) submitted to our laboratory April 11, 2019
For your reference, these analyses have been assigned our service request number **R1903225.**

All testing was performed according to our laboratory's quality assurance program and met the requirements of the TNI standards except as noted in the case narrative report. Any testing not included in the lab's accreditation is identified on a Non-Certified Analytes report. All results are intended to be considered in their entirety. ALS Environmental is not responsible for use of less than the complete report. Results apply only to the individual samples submitted to the lab for analysis, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s), and represented by Laboratory Control Sample control limits. Any events, such as QC failures or Holding Time exceedances, which may add to the uncertainty are explained in the report narrative or are flagged with qualifiers. The flags are explained in the Report Qualifiers and Definitions page of this report.

Please contact me if you have any questions. My extension is 7472. You may also contact me via email at Janice.Jaeger@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Janice Jaeger
Project Manager

ADDRESS 1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
PHONE +1 585 288 5380 | FAX +1 585 288 8475
ALS Group USA, Corp.
dba ALS Environmental

Narrative Documents

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

ALS Environmental

Client: On-Site Technical Services, Inc.
Project: Wellsville-Andover LF - Spring Sampling
Sample Matrix: Water

Service Request: R1903225
Date Received: 04/11/2019

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier II level requested by the client.

Sample Receipt:

Nine water samples were received for analysis at ALS Environmental on 04/11/2019. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

Metals:

Method 6010C, 04/17/2019: The control limits for matrix spike recovery of one or more of the spiked analytes are not applicable and have been flagged with a "#". The concentration of the analyte(s) in the parent sample is more than 4x the spike concentration. No further corrective action was required.

General Chemistry:

Method SM 2120 B-2001(2011): Due to a laboratory error, R1903225-008 was analyzed slightly outside the recommended holding time. The analysis was performed as soon as possible after receipt by the laboratory. The data is flagged to indicate the holding time exceedance.

Method SM5210B, R1903237-001: The BOD result was calculated from two bottles that had a %Difference >30%. The % Difference does not appear to be due to toxicity.

Volatiles by GC/MS:

Method 8260C, 04/15/2019: The lower control limit was exceeded for one or more analytes in the Continuing Calibration Verification (CCV). Since there were no detections of the analyte(s) in the associated field samples, the quantitation is not affected. The data quality was not significantly affected and no further corrective action was taken.
Method 8260C, 04/16/2019: The lower control limit was exceeded for one or more analytes in the Continuing Calibration Verification (CCV). Since there were no detections of the analyte(s) in the associated field samples, the quantitation is not affected. The data quality was not significantly affected and no further corrective action was taken.

Approved by _____ Date 05/01/2019

SAMPLE DETECTION SUMMARY

CLIENT ID: MW16S-0419			Lab ID: R1903225-001			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Calcium, Total	13300			1000	ug/L	6010C
Iron, Total	200			100	ug/L	6010C
Magnesium, Total	8800			1000	ug/L	6010C
Sodium, Total	6100			1000	ug/L	6010C

CLIENT ID: MW4D-0419			Lab ID: R1903225-002			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Barium, Total	24			20	ug/L	6010C
Calcium, Total	22700			1000	ug/L	6010C
Iron, Total	1730			100	ug/L	6010C
Magnesium, Total	18900			1000	ug/L	6010C
Manganese, Total	2690			10	ug/L	6010C
Potassium, Total	2700			2000	ug/L	6010C
Sodium, Total	4100			1000	ug/L	6010C
Zinc, Total	25			20	ug/L	6010C
cis-1,2-Dichloroethene	59			5.0	ug/L	8260C
Vinyl Chloride	23			5.0	ug/L	8260C

CLIENT ID: DUP1-0419			Lab ID: R1903225-003			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Barium, Total	23			20	ug/L	6010C
Calcium, Total	22000			1000	ug/L	6010C
Iron, Total	1660			100	ug/L	6010C
Magnesium, Total	18300			1000	ug/L	6010C
Manganese, Total	2610			10	ug/L	6010C
Potassium, Total	2700			2000	ug/L	6010C
Sodium, Total	4000			1000	ug/L	6010C
Zinc, Total	23			20	ug/L	6010C
cis-1,2-Dichloroethene	58			5.0	ug/L	8260C
Vinyl Chloride	23			5.0	ug/L	8260C

CLIENT ID: MW5S-0419			Lab ID: R1903225-004			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Calcium, Total	14600			1000	ug/L	6010C
Iron, Total	3140			100	ug/L	6010C
Magnesium, Total	9700			1000	ug/L	6010C
Manganese, Total	349			10	ug/L	6010C
Sodium, Total	5700			1000	ug/L	6010C
cis-1,2-Dichloroethene	140			5.0	ug/L	8260C
Trichloroethene	29			5.0	ug/L	8260C
Vinyl Chloride	8.7			5.0	ug/L	8260C

SAMPLE DETECTION SUMMARY

CLIENT ID: MW11S-0419			Lab ID: R1903225-005			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Barium, Total	27			20	ug/L	6010C
Calcium, Total	55700			1000	ug/L	6010C
Iron, Total	160			100	ug/L	6010C
Magnesium, Total	36100			1000	ug/L	6010C
Manganese, Total	583			10	ug/L	6010C
Sodium, Total	19300			1000	ug/L	6010C
cis-1,2-Dichloroethene	220			100	ug/L	8260C
Trichloroethene	2600			100	ug/L	8260C

CLIENT ID: MW5D-0419			Lab ID: R1903225-006			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Barium, Total	61			20	ug/L	6010C
Calcium, Total	26100			1000	ug/L	6010C
Iron, Total	740			100	ug/L	6010C
Magnesium, Total	20300			1000	ug/L	6010C
Manganese, Total	960			10	ug/L	6010C
Sodium, Total	8700			1000	ug/L	6010C
cis-1,2-Dichloroethene	590			25	ug/L	8260C
Trichloroethene	210			25	ug/L	8260C
Vinyl Chloride	48			25	ug/L	8260C

CLIENT ID: EB1-0419			Lab ID: R1903225-007			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Copper, Total	30			20	ug/L	6010C

CLIENT ID: SWS1-0419			Lab ID: R1903225-008			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Alkalinity, Total as CaCO3	127			2.0	mg/L	SM 2320 B-1997 (2011)
Carbon, Total Organic (TOC)	6.2			1.0	mg/L	SM 5310 C-2000 (2011)
Chemical Oxygen Demand, Total	15.6			5.0	mg/L	410.4
Chloride	39.1			2.0	mg/L	300.0
Color, True	34.0			1.0	ColorUnits	SM 2120 B-2001 (2011)
Nitrogen, Total Kjeldahl (TKN)	0.43			0.20	mg/L	351.2
pH of Color Analysis	8.07				pH Units	SM 2120 B-2001 (2011)
Solids, Total Dissolved (TDS)	207			10	mg/L	SM 2540 C-1997 (2011)
Barium, Total	25			20	ug/L	6010C
Calcium, Total	37100			1000	ug/L	6010C
Iron, Total	230			100	ug/L	6010C
Magnesium, Total	13800			1000	ug/L	6010C
Manganese, Total	60			10	ug/L	6010C

SAMPLE DETECTION SUMMARY

CLIENT ID: SWS1-0419	Lab ID: R1903225-008					
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Potassium, Total	2600			2000	ug/L	6010C
Sodium, Total	19300			1000	ug/L	6010C
Zinc, Total	35			20	ug/L	6010C

Sample Receipt Information

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

Client: On-Site Technical Services, Inc. **Service Request:**R1903225

Project: Wellsville-Andover LF - Spring Sampling

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
R1903225-001	MW16S-0419	4/9/2019	0945
R1903225-002	MW4D-0419	4/9/2019	1125
R1903225-003	DUP1-0419	4/9/2019	1130
R1903225-004	MW5S-0419	4/9/2019	1410
R1903225-005	MW11S-0419	4/10/2019	1035
R1903225-006	MW5D-0419	4/10/2019	1250
R1903225-007	EB1-0419	4/10/2019	0815
R1903225-008	SWS1-0419	4/10/2019	1330
R1903225-009	Trip Blank	4/10/2019	1330

CHAIN of CUSTODY

Page 1 of 1

ALS-Environmental
1565 Jefferson Rd, Bldg 300, Suite 360
Rochester, NY 14623
585.288.5380

Client: On-Site
72 Railroad Ave.
Wellsville, NY 14895

Project Manager: Jon Brandes

Project: WAL - ~~Annual~~ Spring Sampling

Telephone No.: 585-593-1824

Email: jonb@on-sitehs.com

Method of Shipment: UPS

Special Detection Limit/Reporting

Sample I.D.	Lab Sample No.	No. of Containers	Matrix: Soil	Water	Air	Other	Prsv.: Yes	No	Sampling Date	Sampling Time	GC;MS VOA's 8260 (HCl)	GC;MS VOA's 524.2 (C6H806)	T-Metals (HNO3)	TDS, NO3, Br, Cl, SO4 (NP) (SW/SED)	NH3, TKN, COD (H2SO4) (SW/SED)	Total Color (NP) (SW/SED)	BOD (NP) (SW/SED)	Alkalinity (NP) (SW/SED)	TDS, NO3 (NP) (Manhole)
MW16S-0419		4		X			X		4-9-19	0945	X		X						
MW4D-0419		4		X			X		4-9-19	1125	X		X						
Dup1-0419		4		X			X		4-9-19	1130	X		X						
MW5S-0419		8		X			X		4-9-19	1410	X		X						
MW1S-0419		4		X			X		4-10-19	1035	X		X						
MW5D-0419		4		X			X		4-10-19	1250	X		X						
EB1-0419		4		X			X		4-10-19	0815	X		X						
SW51-0419		10		X			X	X	4-10-19	1330	X		X	X	X	X	X	X	X
Trip Blank		3		X			X		4-10-19	1330	X								

REMARKS: MS/MSD

Sample Received Intact: Yes No

Temperature received: Ice No ice

Relinq. by sampler (Sign & Print Name)	Date	Time	Received by (Sign & Print Name)
Kevin Dye / Kevin Dye	4-10-19	1530	
Relinquished by	Date	Time	Received by
Relinquished by	Date	Time	Received by
Relinquished by	Date	Time	Received by laboratory: Date 4/11/19 Time 1845

Lab Work No.

R1903225 5
On-Site Technical Services, Inc.
Wellsville-Andover LF - Spring Sampling

Cooler Receipt and Preservation Check Form

R1903225 5
On-Site Technical Services, Inc.
Wellsville-Andover LF - Spring Sampling

Project/Client _____ Folder Number _____

Cooler received on 4/11/19 by: DW

COURIER: ALS (UPS) FEDEX VELOCITY CLIENT

1	Were **Custody seals** on outside of cooler?	(Y) N	5a	**Perchlorate** samples have required headspace?	Y N (NA)
2	**Custody papers** properly completed (ink, signed)?	(Y) N	5b	Did VOA vials, Alk,or Sulfide have sig* **bubbles**?	Y (N) NA
3	Did all bottles arrive in good **condition** (unbroken)?	(Y) N	6	Where did the bottles originate?	ALS/ROC CLIENT
4	Circle: **Wet Ice** **Dry Ice** **Gel packs** present?	(Y) N	7	Soil VOA received as: Bulk Encore 5035set	(NA)

8. Temperature Readings Date: 4/11/19 Time: 1855 ID: IR#7 (IR#10) From: Temp Blank Sample Bottle

Observed Temp (°C)	0.9						
Correction Factor (°C)	+0.0						
Corrected Temp (°C)	0.9						
Temp from:Type of bottle							
Within 0-6°C?	(Y) N	Y N	Y N	Y N	Y N	Y N	Y N
If <0°C, were samples frozen?	Y N	Y N	Y N	Y N	Y N	Y N	Y N

If out of Temperature, note packing/ice condition: _____ Ice melted Poorly Packed (described below) Same Day Rule

&Client Approval to Run Samples: _____ Standing Approval Client aware at drop-off Client notified by: _____

All samples held in storage location: R-002 by DW on 4/11/19 at 1855
5035 samples placed in storage location: _____ by _____ on _____ at _____

Cooler Breakdown/Preservation Check**: Date: 4/12/19 Time: 1235 by: (R)

9. Were all bottle labels complete (*i.e.* analysis, preservation, etc.)? (YES) NO
10. Did all bottle labels and tags agree with custody papers? (YES) NO
11. Were correct containers used for the tests indicated? (YES) NO
12. Were 5035 vials acceptable (no extra labels, not leaking)? YES NO (N/A)
13. Air Samples: Cassettes / Tubes Intact with MS? Canisters Pressurized Tedlar® Bags Inflated (N/A)

pH	Lot of test paper	Reagent	Preserved? Yes	Preserved? No	Lot Received	Exp	Sample ID Adjusted	Vol. Added	Lot Added	Final pH
≥12		NaOH								
≤2	220617	HNO_3	✓		1117101					
≤2		H_2SO_4								
<4		$NaHSO_4$								
5-9		For 608pest			No=Notify for 3day					
Residual Chlorine (-)		For CN, (Phenol), 625, 608pest, 522	✓		If +, contact PM to add $Na_2S_2O_3$ (625, 608, CN), ascorbic (phenol).					
		$Na_2S_2O_3$								
		ZnAcetate	-	-			**VOAs and 1664 Not to be tested before analysis. Otherwise, all bottles of all samples with chemical preservatives are checked (not just representatives).			
		HCl	**	**	4117090					

Bottle lot numbers: 18-11-05, 8-333-002, 020416-1BMC, 070218-2BHO
Explain all Discrepancies/ Other Comments:

CLRES	BULK
DO	FLDT
HPROD	HGFB
HTR	LL3541
PH	SUB
SO3	MARRS
ALS	REV

Labels secondary reviewed by: (R)
PC Secondary Review: MRS 4/16/19

*significant air bubbles: VOA > 5-6 mm : WC >1 in. diameter

Miscellaneous Forms

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
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REPORT QUALIFIERS AND DEFINITIONS

U	Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.
J	Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Arclors).
B	Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.
E	Inorganics- Concentration is estimated due to the serial dilution was outside control limits.
E	Organics- Concentration has exceeded the calibration range for that specific analysis.
D	Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.
*	Indicates that a quality control parameter has exceeded laboratory limits. Under the ñNotesò column of the Form I, this qualifier denotes analysis was performed out of Holding Time.
H	Analysis was performed out of hold time for tests that have an ñimmediateò hold time criteria.
#	Spike was diluted out.
+	Correlation coefficient for MSA is <0.995.
N	Inorganics- Matrix spike recovery was outside laboratory limits.
N	Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.
S	Concentration has been determined using Method of Standard Additions (MSA).
W	Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.
P	Concentration >40% difference between the two GC columns.
C	Confirmed by GC/MS
Q	DoD reports: indicates a pesticide/Aroclor is not confirmed (Ó100% Difference between two GC columns).
X	See Case Narrative for discussion.
MRL LOQ	Method Reporting Limit. Also known as: Limit of Quantitation (LOQ) The lowest concentration at which the method analyte may be reliably quantified under the method conditions.
MDL	Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).
LOD	Limit of Detection. A value at or above the MDL which has been verified to be detectable.
ND	Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.

Rochester Lab ID # for State Certifications[1]

Connecticut ID # PH0556	Maine ID #NY0032	Pennsylvania ID# 68-786
Delaware Approved	New Hampshire ID # 2941	Rhode Island ID # 158
DoD ELAP #65817	New York ID # 10145	Virginia #460167
Florida ID # E87674	North Carolina #676	

[1] Analyses were performed according to our laboratoryôs NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the case narrative. Since not all analyte/method/matrix combinations are offered for state/NELAC accreditation, this report may contain results which are not accredited. For a specific list of accredited analytes, contact the laboratory or go to https://www.alsglobal.com/locations/americas/north-america/usa/new-york/rochester-environmental

ALS Laboratory Group

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

Client: On-Site Technical Services, Inc. **Service Request:** R1903225
Project: Wellsville-Andover LF - Spring Sampling/

Sample Name: MW16S-0419 **Date Collected:** 04/9/19
Lab Code: R1903225-001 **Date Received:** 04/11/19
Sample Matrix: Water

Analysis Method	Extracted/Digested By	Analyzed By
6010C	KMCLAEN	CKUTZER
8260C		KRUEST

Sample Name: MW4D-0419 **Date Collected:** 04/9/19
Lab Code: R1903225-002 **Date Received:** 04/11/19
Sample Matrix: Water

Analysis Method	Extracted/Digested By	Analyzed By
6010C	KMCLAEN	CKUTZER
8260C		KRUEST

Sample Name: DUP1-0419 **Date Collected:** 04/9/19
Lab Code: R1903225-003 **Date Received:** 04/11/19
Sample Matrix: Water

Analysis Method	Extracted/Digested By	Analyzed By
6010C	KMCLAEN	CKUTZER
8260C		KRUEST

Sample Name: MW5S-0419 **Date Collected:** 04/9/19
Lab Code: R1903225-004 **Date Received:** 04/11/19
Sample Matrix: Water

Analysis Method	Extracted/Digested By	Analyzed By
6010C	KMCLAEN	CKUTZER
8260C		KRUEST

Client: On-Site Technical Services, Inc. **Service Request:** R1903225
Project: Wellsville-Andover LF - Spring Sampling/

Sample Name: MW11S-0419 **Date Collected:** 04/10/19
Lab Code: R1903225-005 **Date Received:** 04/11/19
Sample Matrix: Water

Analysis Method	Extracted/Digested By	Analyzed By
6010C	KMCLAEN	CKUTZER
8260C		KRUEST

Sample Name: MW5D-0419 **Date Collected:** 04/10/19
Lab Code: R1903225-006 **Date Received:** 04/11/19
Sample Matrix: Water

Analysis Method	Extracted/Digested By	Analyzed By
6010C	KMCLAEN	CKUTZER
8260C		KRUEST

Sample Name: EB1-0419 **Date Collected:** 04/10/19
Lab Code: R1903225-007 **Date Received:** 04/11/19
Sample Matrix: Water

Analysis Method	Extracted/Digested By	Analyzed By
6010C	KMCLAEN	CKUTZER
8260C		KRUEST

Sample Name: SWS1-0419 **Date Collected:** 04/10/19
Lab Code: R1903225-008 **Date Received:** 04/11/19
Sample Matrix: Water

Analysis Method	Extracted/Digested By	Analyzed By
300.0		KMENGS
351.2	GNITAJOUPPI	GNITAJOUPPI
410.4		CWOODS
420.4		BBOWE
6010C	KMCLAEN	CKUTZER
8260C		KRUEST
ASTM D6919-09		KMENGS

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1903225
Project:	Wellsville-Andover LF - Spring Sampling/		

Sample Name:	SWS1-0419	**Date Collected:**	04/10/19
Lab Code:	R1903225-008	**Date Received:**	04/11/19
Sample Matrix:	Water		

Analysis Method	Extracted/Digested By	Analyzed By
SM 2120 B-2001(2011)		MROGERSON
SM 2320 B-1997(2011)		KWONG
SM 2540 C-1997(2011)		KAWONG
SM 5210 B-2001(2011)		AFELSER
SM 5310 C-2000(2011)		CWOODS

Sample Name:	Trip Blank	**Date Collected:**	04/10/19
Lab Code:	R1903225-009	**Date Received:**	04/11/19
Sample Matrix:	Water		

Analysis Method	Extracted/Digested By	Analyzed By
8260C		KRUEST

The preparation methods associated with this report are found in these tables unless discussed in the case narrative.

Water/Liquid Matrix

Analytical Method	Preparation Method
200.7	200.2
200.8	200.2
6010C	3005A/3010A
6020A	ILM05.3
9014 Cyanide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Acid Soluble	9030B
9056A Bomb (Halogens)	5050A
9066 Manual Distillation	9065
SM 4500-CN-E Residual Cyanide	SM 4500-CN-G
SM 4500-CN-E WAD Cyanide	SM 4500-CN-I

Solid/Soil/Non-Aqueous Matrix

Analytical Method	Preparation Method
6010C	3050B
6020A	3050B
6010C TCLP (1311) extract	3005A/3010A
6010 SPLP (1312) extract	3005A/3010A
7196A	3060A
7199	3060A
9056A Halogens/Halides	5050
300.0 Anions/ 350.1/ 353.2/ SM 2320B/ SM 5210B/ 9056A Anions	DI extraction

For analytical methods not listed, the preparation method is the same as the analytical method reference.

Sample Results

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
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Volatile Organic Compounds by GC/MS

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www.alsglobal.com

Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1903225
Project:	Wellsville-Andover LF - Spring Sampling	**Date Collected:**	04/09/19 09:45
Sample Matrix:	Water	**Date Received:**	04/11/19 18:45
Sample Name:	MW16S-0419	**Units:**	ug/L
Lab Code:	R1903225-001	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result		MRL	Dil.	Date Analyzed	Q
Acetone	10	U	10	1	04/15/19 20:19	
Benzene	5.0	U	5.0	1	04/15/19 20:19	
Bromodichloromethane	5.0	U	5.0	1	04/15/19 20:19	
Bromoform	5.0	U	5.0	1	04/15/19 20:19	
Bromomethane	5.0	U	5.0	1	04/15/19 20:19	
2-Butanone (MEK)	10	U	10	1	04/15/19 20:19	
Carbon Disulfide	10	U	10	1	04/15/19 20:19	
Carbon Tetrachloride	5.0	U	5.0	1	04/15/19 20:19	
Chlorobenzene	5.0	U	5.0	1	04/15/19 20:19	
Chloroethane	5.0	U	5.0	1	04/15/19 20:19	
Chloroform	5.0	U	5.0	1	04/15/19 20:19	
Chloromethane	5.0	U	5.0	1	04/15/19 20:19	
Dibromochloromethane	5.0	U	5.0	1	04/15/19 20:19	
1,1-Dichloroethane	5.0	U	5.0	1	04/15/19 20:19	
1,2-Dibromoethane	5.0	U	5.0	1	04/15/19 20:19	
1,2-Dichloroethane	5.0	U	5.0	1	04/15/19 20:19	
1,1-Dichloroethene	5.0	U	5.0	1	04/15/19 20:19	
cis-1,2-Dichloroethene	5.0	U	5.0	1	04/15/19 20:19	
trans-1,2-Dichloroethene	5.0	U	5.0	1	04/15/19 20:19	
1,2-Dichloropropane	5.0	U	5.0	1	04/15/19 20:19	
cis-1,3-Dichloropropene	5.0	U	5.0	1	04/15/19 20:19	
trans-1,3-Dichloropropene	5.0	U	5.0	1	04/15/19 20:19	
Ethylbenzene	5.0	U	5.0	1	04/15/19 20:19	
2-Hexanone	10	U	10	1	04/15/19 20:19	
Methylene Chloride	5.0	U	5.0	1	04/15/19 20:19	
4-Methyl-2-pentanone (MIBK)	10	U	10	1	04/15/19 20:19	
Styrene	5.0	U	5.0	1	04/15/19 20:19	
1,1,2,2-Tetrachloroethane	5.0	U	5.0	1	04/15/19 20:19	
Tetrachloroethene	5.0	U	5.0	1	04/15/19 20:19	
Toluene	5.0	U	5.0	1	04/15/19 20:19	
1,1,1-Trichloroethane	5.0	U	5.0	1	04/15/19 20:19	
1,1,2-Trichloroethane	5.0	U	5.0	1	04/15/19 20:19	
Trichloroethene	5.0	U	5.0	1	04/15/19 20:19	
Vinyl Chloride	5.0	U	5.0	1	04/15/19 20:19	
o-Xylene	5.0	U	5.0	1	04/15/19 20:19	
m,p-Xylenes	5.0	U	5.0	1	04/15/19 20:19	

Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1903225
Project:	Wellsville-Andover LF - Spring Sampling	**Date Collected:**	04/09/19 09:45
Sample Matrix:	Water	**Date Received:**	04/11/19 18:45
Sample Name:	MW16S-0419	**Units:**	ug/L
Lab Code:	R1903225-001	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	93	85 - 122	04/15/19 20:19	
Toluene-d8	100	87 - 121	04/15/19 20:19	
Dibromofluoromethane	101	89 - 119	04/15/19 20:19	

Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1903225
Project:	Wellsville-Andover LF - Spring Sampling	**Date Collected:**	04/09/19 11:25
Sample Matrix:	Water	**Date Received:**	04/11/19 18:45
Sample Name:	MW4D-0419	**Units:**	ug/L
Lab Code:	R1903225-002	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result		MRL	Dil.	Date Analyzed	Q
Acetone	10	U	10	1	04/16/19 14:26	
Benzene	5.0	U	5.0	1	04/16/19 14:26	
Bromodichloromethane	5.0	U	5.0	1	04/16/19 14:26	
Bromoform	5.0	U	5.0	1	04/16/19 14:26	
Bromomethane	5.0	U	5.0	1	04/16/19 14:26	
2-Butanone (MEK)	10	U	10	1	04/16/19 14:26	
Carbon Disulfide	10	U	10	1	04/16/19 14:26	
Carbon Tetrachloride	5.0	U	5.0	1	04/16/19 14:26	
Chlorobenzene	5.0	U	5.0	1	04/16/19 14:26	
Chloroethane	5.0	U	5.0	1	04/16/19 14:26	
Chloroform	5.0	U	5.0	1	04/16/19 14:26	
Chloromethane	5.0	U	5.0	1	04/16/19 14:26	
Dibromochloromethane	5.0	U	5.0	1	04/16/19 14:26	
1,2-Dibromoethane	5.0	U	5.0	1	04/16/19 14:26	
1,1-Dichloroethane	5.0	U	5.0	1	04/16/19 14:26	
1,2-Dichloroethane	5.0	U	5.0	1	04/16/19 14:26	
1,1-Dichloroethene	5.0	U	5.0	1	04/16/19 14:26	
cis-1,2-Dichloroethene	**59**		5.0	1	04/16/19 14:26	
trans-1,2-Dichloroethene	5.0	U	5.0	1	04/16/19 14:26	
1,2-Dichloropropane	5.0	U	5.0	1	04/16/19 14:26	
cis-1,3-Dichloropropene	5.0	U	5.0	1	04/16/19 14:26	
trans-1,3-Dichloropropene	5.0	U	5.0	1	04/16/19 14:26	
Ethylbenzene	5.0	U	5.0	1	04/16/19 14:26	
2-Hexanone	10	U	10	1	04/16/19 14:26	
Methylene Chloride	5.0	U	5.0	1	04/16/19 14:26	
4-Methyl-2-pentanone (MIBK)	10	U	10	1	04/16/19 14:26	
Styrene	5.0	U	5.0	1	04/16/19 14:26	
1,1,2,2-Tetrachloroethane	5.0	U	5.0	1	04/16/19 14:26	
Tetrachloroethene	5.0	U	5.0	1	04/16/19 14:26	
Toluene	5.0	U	5.0	1	04/16/19 14:26	
1,1,1-Trichloroethane	5.0	U	5.0	1	04/16/19 14:26	
1,1,2-Trichloroethane	5.0	U	5.0	1	04/16/19 14:26	
Trichloroethene	5.0	U	5.0	1	04/16/19 14:26	
Vinyl Chloride	**23**		5.0	1	04/16/19 14:26	
o-Xylene	5.0	U	5.0	1	04/16/19 14:26	
m,p-Xylenes	5.0	U	5.0	1	04/16/19 14:26	

Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1903225
Project:	Wellsville-Andover LF - Spring Sampling	**Date Collected:**	04/09/19 11:25
Sample Matrix:	Water	**Date Received:**	04/11/19 18:45
Sample Name:	MW4D-0419	**Units:**	ug/L
Lab Code:	R1903225-002	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	95	85 - 122	04/16/19 14:26	
Toluene-d8	98	87 - 121	04/16/19 14:26	
Dibromofluoromethane	99	89 - 119	04/16/19 14:26	

Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1903225
Project:	Wellsville-Andover LF - Spring Sampling	**Date Collected:**	04/09/19 11:30
Sample Matrix:	Water	**Date Received:**	04/11/19 18:45
Sample Name:	DUP1-0419	**Units:**	ug/L
Lab Code:	R1903225-003	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result		MRL	Dil.	Date Analyzed	Q
Acetone	10	U	10	1	04/15/19 21:02	
Benzene	5.0	U	5.0	1	04/15/19 21:02	
Bromodichloromethane	5.0	U	5.0	1	04/15/19 21:02	
Bromoform	5.0	U	5.0	1	04/15/19 21:02	
Bromomethane	5.0	U	5.0	1	04/15/19 21:02	
2-Butanone (MEK)	10	U	10	1	04/15/19 21:02	
Carbon Disulfide	10	U	10	1	04/15/19 21:02	
Carbon Tetrachloride	5.0	U	5.0	1	04/15/19 21:02	
Chlorobenzene	5.0	U	5.0	1	04/15/19 21:02	
Chloroethane	5.0	U	5.0	1	04/15/19 21:02	
Chloroform	5.0	U	5.0	1	04/15/19 21:02	
Chloromethane	5.0	U	5.0	1	04/15/19 21:02	
Dibromochloromethane	5.0	U	5.0	1	04/15/19 21:02	
1,2-Dibromoethane	5.0	U	5.0	1	04/15/19 21:02	
1,1-Dichloroethane	5.0	U	5.0	1	04/15/19 21:02	
1,2-Dichloroethane	5.0	U	5.0	1	04/15/19 21:02	
1,1-Dichloroethene	5.0	U	5.0	1	04/15/19 21:02	
cis-1,2-Dichloroethene	**58**		5.0	1	04/15/19 21:02	
trans-1,2-Dichloroethene	5.0	U	5.0	1	04/15/19 21:02	
1,2-Dichloropropane	5.0	U	5.0	1	04/15/19 21:02	
cis-1,3-Dichloropropene	5.0	U	5.0	1	04/15/19 21:02	
trans-1,3-Dichloropropene	5.0	U	5.0	1	04/15/19 21:02	
Ethylbenzene	5.0	U	5.0	1	04/15/19 21:02	
2-Hexanone	10	U	10	1	04/15/19 21:02	
Methylene Chloride	5.0	U	5.0	1	04/15/19 21:02	
4-Methyl-2-pentanone (MIBK)	10	U	10	1	04/15/19 21:02	
Styrene	5.0	U	5.0	1	04/15/19 21:02	
1,1,2,2-Tetrachloroethane	5.0	U	5.0	1	04/15/19 21:02	
Tetrachloroethene	5.0	U	5.0	1	04/15/19 21:02	
Toluene	5.0	U	5.0	1	04/15/19 21:02	
1,1,1-Trichloroethane	5.0	U	5.0	1	04/15/19 21:02	
1,1,2-Trichloroethane	5.0	U	5.0	1	04/15/19 21:02	
Trichloroethene	5.0	U	5.0	1	04/15/19 21:02	
Vinyl Chloride	**23**		5.0	1	04/15/19 21:02	
o-Xylene	5.0	U	5.0	1	04/15/19 21:02	
m,p-Xylenes	5.0	U	5.0	1	04/15/19 21:02	

Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1903225
Project:	Wellsville-Andover LF - Spring Sampling	**Date Collected:**	04/09/19 11:30
Sample Matrix:	Water	**Date Received:**	04/11/19 18:45
Sample Name:	DUP1-0419	**Units:**	ug/L
Lab Code:	R1903225-003	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	97	85 - 122	04/15/19 21:02	
Toluene-d8	97	87 - 121	04/15/19 21:02	
Dibromofluoromethane	99	89 - 119	04/15/19 21:02	

Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1903225
Project:	Wellsville-Andover LF - Spring Sampling	**Date Collected:**	04/09/19 14:10
Sample Matrix:	Water	**Date Received:**	04/11/19 18:45
Sample Name:	MW5S-0419	**Units:**	ug/L
Lab Code:	R1903225-004	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result		MRL	Dil.	Date Analyzed	Q
Acetone	10	U	10	1	04/16/19 14:48	
Benzene	5.0	U	5.0	1	04/16/19 14:48	
Bromodichloromethane	5.0	U	5.0	1	04/16/19 14:48	
Bromoform	5.0	U	5.0	1	04/16/19 14:48	
Bromomethane	5.0	U	5.0	1	04/16/19 14:48	
2-Butanone (MEK)	10	U	10	1	04/16/19 14:48	
Carbon Disulfide	10	U	10	1	04/16/19 14:48	
Carbon Tetrachloride	5.0	U	5.0	1	04/16/19 14:48	
Chlorobenzene	5.0	U	5.0	1	04/16/19 14:48	
Chloroethane	5.0	U	5.0	1	04/16/19 14:48	
Chloroform	5.0	U	5.0	1	04/16/19 14:48	
Chloromethane	5.0	U	5.0	1	04/16/19 14:48	
Dibromochloromethane	5.0	U	5.0	1	04/16/19 14:48	
1,2-Dibromoethane	5.0	U	5.0	1	04/16/19 14:48	
1,1-Dichloroethane	5.0	U	5.0	1	04/16/19 14:48	
1,2-Dichloroethane	5.0	U	5.0	1	04/16/19 14:48	
1,1-Dichloroethene	5.0	U	5.0	1	04/16/19 14:48	
cis-1,2-Dichloroethene	**140**		5.0	1	04/16/19 14:48	
trans-1,2-Dichloroethene	5.0	U	5.0	1	04/16/19 14:48	
1,2-Dichloropropane	5.0	U	5.0	1	04/16/19 14:48	
cis-1,3-Dichloropropene	5.0	U	5.0	1	04/16/19 14:48	
trans-1,3-Dichloropropene	5.0	U	5.0	1	04/16/19 14:48	
Ethylbenzene	5.0	U	5.0	1	04/16/19 14:48	
2-Hexanone	10	U	10	1	04/16/19 14:48	
Methylene Chloride	5.0	U	5.0	1	04/16/19 14:48	
4-Methyl-2-pentanone (MIBK)	10	U	10	1	04/16/19 14:48	
Styrene	5.0	U	5.0	1	04/16/19 14:48	
1,1,2,2-Tetrachloroethane	5.0	U	5.0	1	04/16/19 14:48	
Tetrachloroethene	5.0	U	5.0	1	04/16/19 14:48	
Toluene	5.0	U	5.0	1	04/16/19 14:48	
1,1,1-Trichloroethane	5.0	U	5.0	1	04/16/19 14:48	
1,1,2-Trichloroethane	5.0	U	5.0	1	04/16/19 14:48	
Trichloroethene	**29**		5.0	1	04/16/19 14:48	
Vinyl Chloride	**8.7**		5.0	1	04/16/19 14:48	
o-Xylene	5.0	U	5.0	1	04/16/19 14:48	
m,p-Xylenes	5.0	U	5.0	1	04/16/19 14:48	

Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1903225
Project:	Wellsville-Andover LF - Spring Sampling	**Date Collected:**	04/09/19 14:10
Sample Matrix:	Water	**Date Received:**	04/11/19 18:45
Sample Name:	MW5S-0419	**Units:**	ug/L
Lab Code:	R1903225-004	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	97	85 - 122	04/16/19 14:48	
Toluene-d8	100	87 - 121	04/16/19 14:48	
Dibromofluoromethane	101	89 - 119	04/16/19 14:48	

Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1903225
Project:	Wellsville-Andover LF - Spring Sampling	**Date Collected:**	04/10/19 10:35
Sample Matrix:	Water	**Date Received:**	04/11/19 18:45
Sample Name:	MW11S-0419	**Units:**	ug/L
Lab Code:	R1903225-005	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Acetone	200 U	200	20	04/15/19 21:46	
Benzene	100 U	100	20	04/15/19 21:46	
Bromodichloromethane	100 U	100	20	04/15/19 21:46	
Bromoform	100 U	100	20	04/15/19 21:46	
Bromomethane	100 U	100	20	04/15/19 21:46	
2-Butanone (MEK)	200 U	200	20	04/15/19 21:46	
Carbon Disulfide	200 U	200	20	04/15/19 21:46	
Carbon Tetrachloride	100 U	100	20	04/15/19 21:46	
Chlorobenzene	100 U	100	20	04/15/19 21:46	
Chloroethane	100 U	100	20	04/15/19 21:46	
Chloroform	100 U	100	20	04/15/19 21:46	
Chloromethane	100 U	100	20	04/15/19 21:46	
Dibromochloromethane	100 U	100	20	04/15/19 21:46	
1,1-Dichloroethane	100 U	100	20	04/15/19 21:46	
1,2-Dibromoethane	100 U	100	20	04/15/19 21:46	
1,2-Dichloroethane	100 U	100	20	04/15/19 21:46	
1,1-Dichloroethene	100 U	100	20	04/15/19 21:46	
cis-1,2-Dichloroethene	**220**	100	20	04/15/19 21:46	
trans-1,2-Dichloroethene	100 U	100	20	04/15/19 21:46	
1,2-Dichloropropane	100 U	100	20	04/15/19 21:46	
cis-1,3-Dichloropropene	100 U	100	20	04/15/19 21:46	
trans-1,3-Dichloropropene	100 U	100	20	04/15/19 21:46	
Ethylbenzene	100 U	100	20	04/15/19 21:46	
2-Hexanone	200 U	200	20	04/15/19 21:46	
Methylene Chloride	100 U	100	20	04/15/19 21:46	
4-Methyl-2-pentanone (MIBK)	200 U	200	20	04/15/19 21:46	
Styrene	100 U	100	20	04/15/19 21:46	
1,1,2,2-Tetrachloroethane	100 U	100	20	04/15/19 21:46	
Tetrachloroethene	100 U	100	20	04/15/19 21:46	
Toluene	100 U	100	20	04/15/19 21:46	
1,1,1-Trichloroethane	100 U	100	20	04/15/19 21:46	
1,1,2-Trichloroethane	100 U	100	20	04/15/19 21:46	
Trichloroethene	**2600**	100	20	04/15/19 21:46	
Vinyl Chloride	100 U	100	20	04/15/19 21:46	
o-Xylene	100 U	100	20	04/15/19 21:46	
m,p-Xylenes	100 U	100	20	04/15/19 21:46	

Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1903225
Project:	Wellsville-Andover LF - Spring Sampling	**Date Collected:**	04/10/19 10:35
Sample Matrix:	Water	**Date Received:**	04/11/19 18:45
Sample Name:	MW11S-0419	**Units:**	ug/L
Lab Code:	R1903225-005	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	96	85 - 122	04/15/19 21:46	
Toluene-d8	99	87 - 121	04/15/19 21:46	
Dibromofluoromethane	100	89 - 119	04/15/19 21:46	

Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1903225
Project:	Wellsville-Andover LF - Spring Sampling	**Date Collected:**	04/10/19 12:50
Sample Matrix:	Water	**Date Received:**	04/11/19 18:45
Sample Name:	MW5D-0419	**Units:**	ug/L
Lab Code:	R1903225-006	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Acetone	50 U	50	5	04/15/19 22:08	
Benzene	25 U	25	5	04/15/19 22:08	
Bromodichloromethane	25 U	25	5	04/15/19 22:08	
Bromoform	25 U	25	5	04/15/19 22:08	
Bromomethane	25 U	25	5	04/15/19 22:08	
2-Butanone (MEK)	50 U	50	5	04/15/19 22:08	
Carbon Disulfide	50 U	50	5	04/15/19 22:08	
Carbon Tetrachloride	25 U	25	5	04/15/19 22:08	
Chlorobenzene	25 U	25	5	04/15/19 22:08	
Chloroethane	25 U	25	5	04/15/19 22:08	
Chloroform	25 U	25	5	04/15/19 22:08	
Chloromethane	25 U	25	5	04/15/19 22:08	
Dibromochloromethane	25 U	25	5	04/15/19 22:08	
1,2-Dibromoethane	25 U	25	5	04/15/19 22:08	
1,1-Dichloroethane	25 U	25	5	04/15/19 22:08	
1,2-Dichloroethane	25 U	25	5	04/15/19 22:08	
1,1-Dichloroethene	25 U	25	5	04/15/19 22:08	
cis-1,2-Dichloroethene	**590**	25	5	04/15/19 22:08	
trans-1,2-Dichloroethene	25 U	25	5	04/15/19 22:08	
1,2-Dichloropropane	25 U	25	5	04/15/19 22:08	
cis-1,3-Dichloropropene	25 U	25	5	04/15/19 22:08	
trans-1,3-Dichloropropene	25 U	25	5	04/15/19 22:08	
Ethylbenzene	25 U	25	5	04/15/19 22:08	
2-Hexanone	50 U	50	5	04/15/19 22:08	
Methylene Chloride	25 U	25	5	04/15/19 22:08	
4-Methyl-2-pentanone (MIBK)	50 U	50	5	04/15/19 22:08	
Styrene	25 U	25	5	04/15/19 22:08	
1,1,2,2-Tetrachloroethane	25 U	25	5	04/15/19 22:08	
Tetrachloroethene	25 U	25	5	04/15/19 22:08	
Toluene	25 U	25	5	04/15/19 22:08	
1,1,1-Trichloroethane	25 U	25	5	04/15/19 22:08	
1,1,2-Trichloroethane	25 U	25	5	04/15/19 22:08	
Trichloroethene	**210**	25	5	04/15/19 22:08	
Vinyl Chloride	**48**	25	5	04/15/19 22:08	
o-Xylene	25 U	25	5	04/15/19 22:08	
m,p-Xylenes	25 U	25	5	04/15/19 22:08	

Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1903225
Project:	Wellsville-Andover LF - Spring Sampling	**Date Collected:**	04/10/19 12:50
Sample Matrix:	Water	**Date Received:**	04/11/19 18:45
Sample Name:	MW5D-0419	**Units:**	ug/L
Lab Code:	R1903225-006	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	95	85 - 122	04/15/19 22:08	
Toluene-d8	98	87 - 121	04/15/19 22:08	
Dibromofluoromethane	100	89 - 119	04/15/19 22:08	

Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1903225
Project:	Wellsville-Andover LF - Spring Sampling	**Date Collected:**	04/10/19 08:15
Sample Matrix:	Water	**Date Received:**	04/11/19 18:45
Sample Name:	EB1-0419	**Units:**	ug/L
Lab Code:	R1903225-007	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Acetone	10 U	10	1	04/15/19 19:57	
Benzene	5.0 U	5.0	1	04/15/19 19:57	
Bromodichloromethane	5.0 U	5.0	1	04/15/19 19:57	
Bromoform	5.0 U	5.0	1	04/15/19 19:57	
Bromomethane	5.0 U	5.0	1	04/15/19 19:57	
2-Butanone (MEK)	10 U	10	1	04/15/19 19:57	
Carbon Disulfide	10 U	10	1	04/15/19 19:57	
Carbon Tetrachloride	5.0 U	5.0	1	04/15/19 19:57	
Chlorobenzene	5.0 U	5.0	1	04/15/19 19:57	
Chloroethane	5.0 U	5.0	1	04/15/19 19:57	
Chloroform	5.0 U	5.0	1	04/15/19 19:57	
Chloromethane	5.0 U	5.0	1	04/15/19 19:57	
Dibromochloromethane	5.0 U	5.0	1	04/15/19 19:57	
1,1-Dichloroethane	5.0 U	5.0	1	04/15/19 19:57	
1,2-Dibromoethane	5.0 U	5.0	1	04/15/19 19:57	
1,2-Dichloroethane	5.0 U	5.0	1	04/15/19 19:57	
1,1-Dichloroethene	5.0 U	5.0	1	04/15/19 19:57	
cis-1,2-Dichloroethene	5.0 U	5.0	1	04/15/19 19:57	
trans-1,2-Dichloroethene	5.0 U	5.0	1	04/15/19 19:57	
1,2-Dichloropropane	5.0 U	5.0	1	04/15/19 19:57	
cis-1,3-Dichloropropene	5.0 U	5.0	1	04/15/19 19:57	
trans-1,3-Dichloropropene	5.0 U	5.0	1	04/15/19 19:57	
Ethylbenzene	5.0 U	5.0	1	04/15/19 19:57	
2-Hexanone	10 U	10	1	04/15/19 19:57	
Methylene Chloride	5.0 U	5.0	1	04/15/19 19:57	
4-Methyl-2-pentanone (MIBK)	10 U	10	1	04/15/19 19:57	
Styrene	5.0 U	5.0	1	04/15/19 19:57	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	04/15/19 19:57	
Tetrachloroethene	5.0 U	5.0	1	04/15/19 19:57	
Toluene	5.0 U	5.0	1	04/15/19 19:57	
1,1,1-Trichloroethane	5.0 U	5.0	1	04/15/19 19:57	
1,1,2-Trichloroethane	5.0 U	5.0	1	04/15/19 19:57	
Trichloroethene	5.0 U	5.0	1	04/15/19 19:57	
Vinyl Chloride	5.0 U	5.0	1	04/15/19 19:57	
o-Xylene	5.0 U	5.0	1	04/15/19 19:57	
m,p-Xylenes	5.0 U	5.0	1	04/15/19 19:57	

Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1903225
Project:	Wellsville-Andover LF - Spring Sampling	**Date Collected:**	04/10/19 08:15
Sample Matrix:	Water	**Date Received:**	04/11/19 18:45
Sample Name:	EB1-0419	**Units:**	ug/L
Lab Code:	R1903225-007	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	97	85 - 122	04/15/19 19:57	
Toluene-d8	99	87 - 121	04/15/19 19:57	
Dibromofluoromethane	100	89 - 119	04/15/19 19:57	

Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1903225
Project:	Wellsville-Andover LF - Spring Sampling	**Date Collected:**	04/10/19 13:30
Sample Matrix:	Water	**Date Received:**	04/11/19 18:45
Sample Name:	SWS1-0419	**Units:**	ug/L
Lab Code:	R1903225-008	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Acetone	10 U	10	1	04/15/19 20:41	
Benzene	5.0 U	5.0	1	04/15/19 20:41	
Bromodichloromethane	5.0 U	5.0	1	04/15/19 20:41	
Bromoform	5.0 U	5.0	1	04/15/19 20:41	
Bromomethane	5.0 U	5.0	1	04/15/19 20:41	
2-Butanone (MEK)	10 U	10	1	04/15/19 20:41	
Carbon Disulfide	10 U	10	1	04/15/19 20:41	
Carbon Tetrachloride	5.0 U	5.0	1	04/15/19 20:41	
Chlorobenzene	5.0 U	5.0	1	04/15/19 20:41	
Chloroethane	5.0 U	5.0	1	04/15/19 20:41	
Chloroform	5.0 U	5.0	1	04/15/19 20:41	
Chloromethane	5.0 U	5.0	1	04/15/19 20:41	
Dibromochloromethane	5.0 U	5.0	1	04/15/19 20:41	
1,1-Dichloroethane	5.0 U	5.0	1	04/15/19 20:41	
1,2-Dibromoethane	5.0 U	5.0	1	04/15/19 20:41	
1,2-Dichloroethane	5.0 U	5.0	1	04/15/19 20:41	
1,1-Dichloroethene	5.0 U	5.0	1	04/15/19 20:41	
cis-1,2-Dichloroethene	5.0 U	5.0	1	04/15/19 20:41	
trans-1,2-Dichloroethene	5.0 U	5.0	1	04/15/19 20:41	
1,2-Dichloropropane	5.0 U	5.0	1	04/15/19 20:41	
cis-1,3-Dichloropropene	5.0 U	5.0	1	04/15/19 20:41	
trans-1,3-Dichloropropene	5.0 U	5.0	1	04/15/19 20:41	
Ethylbenzene	5.0 U	5.0	1	04/15/19 20:41	
2-Hexanone	10 U	10	1	04/15/19 20:41	
Methylene Chloride	5.0 U	5.0	1	04/15/19 20:41	
4-Methyl-2-pentanone (MIBK)	10 U	10	1	04/15/19 20:41	
Styrene	5.0 U	5.0	1	04/15/19 20:41	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	04/15/19 20:41	
Tetrachloroethene	5.0 U	5.0	1	04/15/19 20:41	
Toluene	5.0 U	5.0	1	04/15/19 20:41	
1,1,1-Trichloroethane	5.0 U	5.0	1	04/15/19 20:41	
1,1,2-Trichloroethane	5.0 U	5.0	1	04/15/19 20:41	
Trichloroethene	5.0 U	5.0	1	04/15/19 20:41	
Vinyl Chloride	5.0 U	5.0	1	04/15/19 20:41	
o-Xylene	5.0 U	5.0	1	04/15/19 20:41	
m,p-Xylenes	5.0 U	5.0	1	04/15/19 20:41	

Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1903225
Project:	Wellsville-Andover LF - Spring Sampling	**Date Collected:**	04/10/19 13:30
Sample Matrix:	Water	**Date Received:**	04/11/19 18:45
Sample Name:	SWS1-0419	**Units:**	ug/L
Lab Code:	R1903225-008	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	95	85 - 122	04/15/19 20:41	
Toluene-d8	98	87 - 121	04/15/19 20:41	
Dibromofluoromethane	98	89 - 119	04/15/19 20:41	

Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1903225
Project:	Wellsville-Andover LF - Spring Sampling	**Date Collected:**	04/10/19 13:30
Sample Matrix:	Water	**Date Received:**	04/11/19 18:45
Sample Name:	Trip Blank	**Units:**	ug/L
Lab Code:	R1903225-009	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Acetone	10 U	10	1	04/15/19 19:35	
Benzene	5.0 U	5.0	1	04/15/19 19:35	
Bromodichloromethane	5.0 U	5.0	1	04/15/19 19:35	
Bromoform	5.0 U	5.0	1	04/15/19 19:35	
Bromomethane	5.0 U	5.0	1	04/15/19 19:35	
2-Butanone (MEK)	10 U	10	1	04/15/19 19:35	
Carbon Disulfide	10 U	10	1	04/15/19 19:35	
Carbon Tetrachloride	5.0 U	5.0	1	04/15/19 19:35	
Chlorobenzene	5.0 U	5.0	1	04/15/19 19:35	
Chloroethane	5.0 U	5.0	1	04/15/19 19:35	
Chloroform	5.0 U	5.0	1	04/15/19 19:35	
Chloromethane	5.0 U	5.0	1	04/15/19 19:35	
Dibromochloromethane	5.0 U	5.0	1	04/15/19 19:35	
1,2-Dibromoethane	5.0 U	5.0	1	04/15/19 19:35	
1,1-Dichloroethane	5.0 U	5.0	1	04/15/19 19:35	
1,2-Dichloroethane	5.0 U	5.0	1	04/15/19 19:35	
1,1-Dichloroethene	5.0 U	5.0	1	04/15/19 19:35	
cis-1,2-Dichloroethene	5.0 U	5.0	1	04/15/19 19:35	
trans-1,2-Dichloroethene	5.0 U	5.0	1	04/15/19 19:35	
1,2-Dichloropropane	5.0 U	5.0	1	04/15/19 19:35	
cis-1,3-Dichloropropene	5.0 U	5.0	1	04/15/19 19:35	
trans-1,3-Dichloropropene	5.0 U	5.0	1	04/15/19 19:35	
Ethylbenzene	5.0 U	5.0	1	04/15/19 19:35	
2-Hexanone	10 U	10	1	04/15/19 19:35	
Methylene Chloride	5.0 U	5.0	1	04/15/19 19:35	
4-Methyl-2-pentanone (MIBK)	10 U	10	1	04/15/19 19:35	
Styrene	5.0 U	5.0	1	04/15/19 19:35	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	04/15/19 19:35	
Tetrachloroethene	5.0 U	5.0	1	04/15/19 19:35	
Toluene	5.0 U	5.0	1	04/15/19 19:35	
1,1,1-Trichloroethane	5.0 U	5.0	1	04/15/19 19:35	
1,1,2-Trichloroethane	5.0 U	5.0	1	04/15/19 19:35	
Trichloroethene	5.0 U	5.0	1	04/15/19 19:35	
Vinyl Chloride	5.0 U	5.0	1	04/15/19 19:35	
o-Xylene	5.0 U	5.0	1	04/15/19 19:35	
m,p-Xylenes	5.0 U	5.0	1	04/15/19 19:35	

Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1903225
Project:	Wellsville-Andover LF - Spring Sampling	**Date Collected:**	04/10/19 13:30
Sample Matrix:	Water	**Date Received:**	04/11/19 18:45
Sample Name:	Trip Blank	**Units:**	ug/L
Lab Code:	R1903225-009	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	99	85 - 122	04/15/19 19:35	
Toluene-d8	102	87 - 121	04/15/19 19:35	
Dibromofluoromethane	101	89 - 119	04/15/19 19:35	

Metals

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Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1903225
Project:	Wellsville-Andover LF - Spring Sampling	**Date Collected:**	04/09/19 09:45
Sample Matrix:	Water	**Date Received:**	04/11/19 18:45
Sample Name:	MW16S-0419	**Basis:**	NA
Lab Code:	R1903225-001		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic, Total	6010C	10 U	ug/L	10	1	04/17/19 16:10	04/15/19	
Barium, Total	6010C	20 U	ug/L	20	1	04/17/19 16:10	04/15/19	
Cadmium, Total	6010C	5.0 U	ug/L	5.0	1	04/17/19 16:10	04/15/19	
Calcium, Total	6010C	**13300**	ug/L	1000	1	04/17/19 16:10	04/15/19	
Chromium, Total	6010C	10 U	ug/L	10	1	04/17/19 16:10	04/15/19	
Copper, Total	6010C	20 U	ug/L	20	1	04/17/19 16:10	04/15/19	
Iron, Total	6010C	**200**	ug/L	100	1	04/17/19 16:10	04/15/19	
Lead, Total	6010C	50 U	ug/L	50	1	04/17/19 16:10	04/15/19	
Magnesium, Total	6010C	**8800**	ug/L	1000	1	04/17/19 16:10	04/15/19	
Manganese, Total	6010C	10 U	ug/L	10	1	04/17/19 16:10	04/15/19	
Nickel, Total	6010C	40 U	ug/L	40	1	04/17/19 16:10	04/15/19	
Potassium, Total	6010C	2000 U	ug/L	2000	1	04/17/19 16:10	04/15/19	
Selenium, Total	6010C	10 U	ug/L	10	1	04/17/19 16:10	04/15/19	
Sodium, Total	6010C	**6100**	ug/L	1000	1	04/17/19 16:10	04/15/19	
Zinc, Total	6010C	20 U	ug/L	20	1	04/17/19 16:10	04/15/19	

Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1903225
Project:	Wellsville-Andover LF - Spring Sampling	**Date Collected:**	04/09/19 11:25
Sample Matrix:	Water	**Date Received:**	04/11/19 18:45
Sample Name:	MW4D-0419	**Basis:**	NA
Lab Code:	R1903225-002		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic, Total	6010C	10 U	ug/L	10	1	04/17/19 16:19	04/15/19	
Barium, Total	6010C	**24**	ug/L	20	1	04/17/19 16:19	04/15/19	
Cadmium, Total	6010C	5.0 U	ug/L	5.0	1	04/17/19 16:19	04/15/19	
Calcium, Total	6010C	**22700**	ug/L	1000	1	04/17/19 16:19	04/15/19	
Chromium, Total	6010C	10 U	ug/L	10	1	04/17/19 16:19	04/15/19	
Copper, Total	6010C	20 U	ug/L	20	1	04/17/19 16:19	04/15/19	
Iron, Total	6010C	**1730**	ug/L	100	1	04/17/19 16:19	04/15/19	
Lead, Total	6010C	50 U	ug/L	50	1	04/17/19 16:19	04/15/19	
Magnesium, Total	6010C	**18900**	ug/L	1000	1	04/17/19 16:19	04/15/19	
Manganese, Total	6010C	**2690**	ug/L	10	1	04/17/19 16:19	04/15/19	
Nickel, Total	6010C	40 U	ug/L	40	1	04/17/19 16:19	04/15/19	
Potassium, Total	6010C	**2700**	ug/L	2000	1	04/17/19 16:19	04/15/19	
Selenium, Total	6010C	10 U	ug/L	10	1	04/17/19 16:19	04/15/19	
Sodium, Total	6010C	**4100**	ug/L	1000	1	04/17/19 16:19	04/15/19	
Zinc, Total	6010C	**25**	ug/L	20	1	04/17/19 16:19	04/15/19	

Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1903225
Project:	Wellsville-Andover LF - Spring Sampling	**Date Collected:**	04/09/19 11:30
Sample Matrix:	Water	**Date Received:**	04/11/19 18:45
Sample Name:	DUP1-0419	**Basis:**	NA
Lab Code:	R1903225-003		

Inorganic Parameters

Analyte Name	Analysis Method	Result		Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic, Total	6010C	10	U	ug/L	10	1	04/17/19 16:23	04/15/19	
Barium, Total	6010C	**23**		ug/L	20	1	04/17/19 16:23	04/15/19	
Cadmium, Total	6010C	5.0	U	ug/L	5.0	1	04/17/19 16:23	04/15/19	
Calcium, Total	6010C	**22000**		ug/L	1000	1	04/17/19 16:23	04/15/19	
Chromium, Total	6010C	10	U	ug/L	10	1	04/17/19 16:23	04/15/19	
Copper, Total	6010C	20	U	ug/L	20	1	04/17/19 16:23	04/15/19	
Iron, Total	6010C	**1660**		ug/L	100	1	04/17/19 16:23	04/15/19	
Lead, Total	6010C	50	U	ug/L	50	1	04/17/19 16:23	04/15/19	
Magnesium, Total	6010C	**18300**		ug/L	1000	1	04/17/19 16:23	04/15/19	
Manganese, Total	6010C	**2610**		ug/L	10	1	04/17/19 16:23	04/15/19	
Nickel, Total	6010C	40	U	ug/L	40	1	04/17/19 16:23	04/15/19	
Potassium, Total	6010C	**2700**		ug/L	2000	1	04/17/19 16:23	04/15/19	
Selenium, Total	6010C	10	U	ug/L	10	1	04/17/19 16:23	04/15/19	
Sodium, Total	6010C	**4000**		ug/L	1000	1	04/17/19 16:23	04/15/19	
Zinc, Total	6010C	**23**		ug/L	20	1	04/17/19 16:23	04/15/19	

Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1903225
Project:	Wellsville-Andover LF - Spring Sampling	**Date Collected:**	04/09/19 14:10
Sample Matrix:	Water	**Date Received:**	04/11/19 18:45
Sample Name:	MW5S-0419	**Basis:**	NA
Lab Code:	R1903225-004		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic, Total	6010C	10 U	ug/L	10	1	04/17/19 16:26	04/15/19	
Barium, Total	6010C	20 U	ug/L	20	1	04/17/19 16:26	04/15/19	
Cadmium, Total	6010C	5.0 U	ug/L	5.0	1	04/17/19 16:26	04/15/19	
Calcium, Total	6010C	**14600**	ug/L	1000	1	04/17/19 16:26	04/15/19	
Chromium, Total	6010C	10 U	ug/L	10	1	04/17/19 16:26	04/15/19	
Copper, Total	6010C	20 U	ug/L	20	1	04/17/19 16:26	04/15/19	
Iron, Total	6010C	**3140**	ug/L	100	1	04/17/19 16:26	04/15/19	
Lead, Total	6010C	50 U	ug/L	50	1	04/17/19 16:26	04/15/19	
Magnesium, Total	6010C	**9700**	ug/L	1000	1	04/17/19 16:26	04/15/19	
Manganese, Total	6010C	**349**	ug/L	10	1	04/17/19 16:26	04/15/19	
Nickel, Total	6010C	40 U	ug/L	40	1	04/17/19 16:26	04/15/19	
Potassium, Total	6010C	2000 U	ug/L	2000	1	04/17/19 16:26	04/15/19	
Selenium, Total	6010C	10 U	ug/L	10	1	04/17/19 16:26	04/15/19	
Sodium, Total	6010C	**5700**	ug/L	1000	1	04/17/19 16:26	04/15/19	
Zinc, Total	6010C	20 U	ug/L	20	1	04/17/19 16:26	04/15/19	

Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1903225
Project:	Wellsville-Andover LF - Spring Sampling	**Date Collected:**	04/10/19 10:35
Sample Matrix:	Water	**Date Received:**	04/11/19 18:45
Sample Name:	MW11S-0419	**Basis:**	NA
Lab Code:	R1903225-005		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic, Total	6010C	10 U	ug/L	10	1	04/17/19 16:42	04/15/19	
Barium, Total	6010C	**27**	ug/L	20	1	04/17/19 16:42	04/15/19	
Cadmium, Total	6010C	5.0 U	ug/L	5.0	1	04/17/19 16:42	04/15/19	
Calcium, Total	6010C	**55700**	ug/L	1000	1	04/17/19 16:42	04/15/19	
Chromium, Total	6010C	10 U	ug/L	10	1	04/17/19 16:42	04/15/19	
Copper, Total	6010C	20 U	ug/L	20	1	04/17/19 16:42	04/15/19	
Iron, Total	6010C	**160**	ug/L	100	1	04/17/19 16:42	04/15/19	
Lead, Total	6010C	50 U	ug/L	50	1	04/17/19 16:42	04/15/19	
Magnesium, Total	6010C	**36100**	ug/L	1000	1	04/17/19 16:42	04/15/19	
Manganese, Total	6010C	**583**	ug/L	10	1	04/17/19 16:42	04/15/19	
Nickel, Total	6010C	40 U	ug/L	40	1	04/17/19 16:42	04/15/19	
Potassium, Total	6010C	2000 U	ug/L	2000	1	04/17/19 16:42	04/15/19	
Selenium, Total	6010C	10 U	ug/L	10	1	04/17/19 16:42	04/15/19	
Sodium, Total	6010C	**19300**	ug/L	1000	1	04/17/19 16:42	04/15/19	
Zinc, Total	6010C	20 U	ug/L	20	1	04/17/19 16:42	04/15/19	

Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1903225
Project:	Wellsville-Andover LF - Spring Sampling	**Date Collected:**	04/10/19 12:50
Sample Matrix:	Water	**Date Received:**	04/11/19 18:45
Sample Name:	MW5D-0419	**Basis:**	NA
Lab Code:	R1903225-006		

Inorganic Parameters

Analyte Name	Analysis Method	Result		Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic, Total	6010C	10	U	ug/L	10	1	04/17/19 16:45	04/15/19	
Barium, Total	6010C	**61**		ug/L	20	1	04/17/19 16:45	04/15/19	
Cadmium, Total	6010C	5.0	U	ug/L	5.0	1	04/17/19 16:45	04/15/19	
Calcium, Total	6010C	**26100**		ug/L	1000	1	04/17/19 16:45	04/15/19	
Chromium, Total	6010C	10	U	ug/L	10	1	04/17/19 16:45	04/15/19	
Copper, Total	6010C	20	U	ug/L	20	1	04/17/19 16:45	04/15/19	
Iron, Total	6010C	**740**		ug/L	100	1	04/17/19 16:45	04/15/19	
Lead, Total	6010C	50	U	ug/L	50	1	04/17/19 16:45	04/15/19	
Magnesium, Total	6010C	**20300**		ug/L	1000	1	04/17/19 16:45	04/15/19	
Manganese, Total	6010C	**960**		ug/L	10	1	04/17/19 16:45	04/15/19	
Nickel, Total	6010C	40	U	ug/L	40	1	04/17/19 16:45	04/15/19	
Potassium, Total	6010C	2000	U	ug/L	2000	1	04/17/19 16:45	04/15/19	
Selenium, Total	6010C	10	U	ug/L	10	1	04/17/19 16:45	04/15/19	
Sodium, Total	6010C	**8700**		ug/L	1000	1	04/17/19 16:45	04/15/19	
Zinc, Total	6010C	20	U	ug/L	20	1	04/17/19 16:45	04/15/19	

Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1903225
Project:	Wellsville-Andover LF - Spring Sampling	**Date Collected:**	04/10/19 08:15
Sample Matrix:	Water	**Date Received:**	04/11/19 18:45
Sample Name:	EB1-0419	**Basis:**	NA
Lab Code:	R1903225-007		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic, Total	6010C	10 U	ug/L	10	1	04/17/19 16:49	04/15/19	
Barium, Total	6010C	20 U	ug/L	20	1	04/17/19 16:49	04/15/19	
Cadmium, Total	6010C	5.0 U	ug/L	5.0	1	04/17/19 16:49	04/15/19	
Calcium, Total	6010C	1000 U	ug/L	1000	1	04/17/19 16:49	04/15/19	
Chromium, Total	6010C	10 U	ug/L	10	1	04/17/19 16:49	04/15/19	
Copper, Total	6010C	**30**	ug/L	20	1	04/17/19 16:49	04/15/19	
Iron, Total	6010C	100 U	ug/L	100	1	04/17/19 16:49	04/15/19	
Lead, Total	6010C	50 U	ug/L	50	1	04/17/19 16:49	04/15/19	
Magnesium, Total	6010C	1000 U	ug/L	1000	1	04/17/19 16:49	04/15/19	
Manganese, Total	6010C	10 U	ug/L	10	1	04/17/19 16:49	04/15/19	
Nickel, Total	6010C	40 U	ug/L	40	1	04/17/19 16:49	04/15/19	
Potassium, Total	6010C	2000 U	ug/L	2000	1	04/17/19 16:49	04/15/19	
Selenium, Total	6010C	10 U	ug/L	10	1	04/17/19 16:49	04/15/19	
Sodium, Total	6010C	1000 U	ug/L	1000	1	04/17/19 16:49	04/15/19	
Zinc, Total	6010C	20 U	ug/L	20	1	04/17/19 16:49	04/15/19	

Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1903225
Project:	Wellsville-Andover LF - Spring Sampling	**Date Collected:**	04/10/19 13:30
Sample Matrix:	Water	**Date Received:**	04/11/19 18:45
Sample Name:	SWS1-0419	**Basis:**	NA
Lab Code:	R1903225-008		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic, Total	6010C	10 U	ug/L	10	1	04/17/19 16:58	04/15/19	
Barium, Total	6010C	**25**	ug/L	20	1	04/17/19 16:58	04/15/19	
Cadmium, Total	6010C	5.0 U	ug/L	5.0	1	04/17/19 16:58	04/15/19	
Calcium, Total	6010C	**37100**	ug/L	1000	1	04/17/19 16:58	04/15/19	
Chromium, Total	6010C	10 U	ug/L	10	1	04/17/19 16:58	04/15/19	
Copper, Total	6010C	20 U	ug/L	20	1	04/17/19 16:58	04/15/19	
Iron, Total	6010C	**230**	ug/L	100	1	04/17/19 16:58	04/15/19	
Lead, Total	6010C	50 U	ug/L	50	1	04/17/19 16:58	04/15/19	
Magnesium, Total	6010C	**13800**	ug/L	1000	1	04/17/19 16:58	04/15/19	
Manganese, Total	6010C	**60**	ug/L	10	1	04/17/19 16:58	04/15/19	
Nickel, Total	6010C	40 U	ug/L	40	1	04/17/19 16:58	04/15/19	
Potassium, Total	6010C	**2600**	ug/L	2000	1	04/17/19 16:58	04/15/19	
Selenium, Total	6010C	10 U	ug/L	10	1	04/17/19 16:58	04/15/19	
Sodium, Total	6010C	**19300**	ug/L	1000	1	04/17/19 16:58	04/15/19	
Zinc, Total	6010C	**35**	ug/L	20	1	04/17/19 16:58	04/15/19	

General Chemistry

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Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1903225
Project:	Wellsville-Andover LF - Spring Sampling	**Date Collected:**	04/10/19 13:30
Sample Matrix:	Water	**Date Received:**	04/11/19 18:45
Sample Name:	SWS1-0419	**Basis:**	NA
Lab Code:	R1903225-008		

Inorganic Parameters

Analyte Name	Analysis Method	Result		Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Alkalinity, Total as CaCO3	SM 2320 B-1997(2011)	**127**		mg/L	2.0	1	04/15/19 18:17	NA	
Ammonia as Nitrogen, undistilled	ASTM D6919-09	0.050	U	mg/L	0.050	10	04/26/19 18:53	NA	
Biochemical Oxygen Demand (BOD)	SM 5210 B-2001(2011)	2.0	U	mg/L	2.0	1	04/12/19 08:58	NA	
Bromide	300.0	1.0	U	mg/L	1.0	10	04/12/19 11:12	NA	
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	**6.2**		mg/L	1.0	1	04/17/19 22:40	NA	
Chemical Oxygen Demand, Total	410.4	**15.6**		mg/L	5.0	1	04/18/19 18:43	NA	
Chloride	300.0	**39.1**		mg/L	2.0	10	04/12/19 11:12	NA	
Color, True	SM 2120 B-2001(2011)	**34.0**		ColorUnits	1.0	1	04/12/19 16:30	NA	*
Nitrate as Nitrogen	300.0	1.0	U	mg/L	1.0	10	04/12/19 11:12	NA	
Nitrogen, Total Kjeldahl (TKN)	351.2	**0.43**		mg/L	0.20	1	04/16/19 12:59	04/15/19	
pH of Color Analysis	SM 2120 B-2001(2011)	**8.07**		pH Units	-	1	04/15/19 22:57	NA	*
Phenolics, Total Recoverable	420.4	0.0050	U	mg/L	0.0050	1	04/15/19 13:30	NA	
Solids, Total Dissolved (TDS)	SM 2540 C-1997(2011)	**207**		mg/L	10	1	04/17/19 12:10	NA	
Sulfate	300.0	2.0	U	mg/L	2.0	10	04/15/19 15:13	NA	

QC Summary Forms

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Volatile Organic Compounds by GC/MS

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Client: On-Site Technical Services, Inc. **Service Request:** R1903225
Project: Wellsville-Andover LF - Spring Sampling
Sample Matrix: Water

SURROGATE RECOVERY SUMMARY
Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Extraction Method: EPA 5030C

Sample Name	Lab Code	4-Bromofluorobenzene 85-122	Toluene-d8 87-121	Dibromofluoromethane 89-119
MW16S-0419	R1903225-001	93	100	101
MW4D-0419	R1903225-002	95	98	99
DUP1-0419	R1903225-003	97	97	99
MW5S-0419	R1903225-004	97	100	101
MW11S-0419	R1903225-005	96	99	100
MW5D-0419	R1903225-006	95	98	100
EB1-0419	R1903225-007	97	99	100
SWS1-0419	R1903225-008	95	98	98
Trip Blank	R1903225-009	99	102	101
Method Blank	RQ1903316-04	96	99	103
Method Blank	RQ1903357-04	94	95	101
Lab Control Sample	RQ1903316-03	96	99	101
Lab Control Sample	RQ1903357-03	97	97	101
MW5S-0419 MS	RQ1903357-05	101	100	104
MW5S-0419 DMS	RQ1903357-06	97	98	106

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1903225
Project:	Wellsville-Andover LF - Spring Sampling	**Date Collected:**	04/09/19
Sample Matrix:	Water	**Date Received:**	04/11/19
		Date Analyzed:	04/16/19
		Date Extracted:	NA

Duplicate Matrix Spike Summary
Volatile Organic Compounds by GC/MS

Sample Name:	MW5S-0419	**Units:**	ug/L
Lab Code:	R1903225-004	**Basis:**	NA
Analysis Method:	8260C		
Prep Method:	EPA 5030C		

		Matrix Spike			Duplicate Matrix Spike					
		RQ1903357-05			RQ1903357-06					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Acetone	10 U	52.9	50.0	106	61.4	50.0	123	35-183	15	30
Benzene	5.0 U	50.6	50.0	101	52.3	50.0	105	76-129	3	30
Bromodichloromethane	5.0 U	49.7	50.0	99	52.6	50.0	105	78-133	6	30
Bromoform	5.0 U	48.5	50.0	97	51.6	50.0	103	58-133	6	30
Bromomethane	5.0 U	52.1	50.0	104	49.0	50.0	98	10-184	6	30
2-Butanone (MEK)	10 U	41.7	50.0	83	40.4	50.0	81	61-137	3	30
Carbon Disulfide	10 U	49.8	50.0	100	51.1	50.0	102	59-140	2	30
Carbon Tetrachloride	5.0 U	55.7	50.0	111	59.4	50.0	119	65-135	6	30
Chlorobenzene	5.0 U	51.8	50.0	104	53.5	50.0	107	76-125	3	30
Chloroethane	5.0 U	34.7	50.0	69	34.6	50.0	69	48-146	<1	30
Chloroform	5.0 U	48.5	50.0	97	49.9	50.0	100	75-130	3	30
Chloromethane	5.0 U	41.7	50.0	83	42.0	50.0	84	55-160	<1	30
Dibromochloromethane	5.0 U	50.9	50.0	102	53.7	50.0	107	72-128	5	30
1,1-Dichloroethane	5.0 U	49.4	50.0	99	48.3	50.0	97	74-132	2	30
1,2-Dibromoethane	5.0 U	49.2	50.0	98	49.4	50.0	99	67-127	<1	30
1,2-Dichloroethane	5.0 U	51.6	50.0	103	52.6	50.0	105	68-130	2	30
1,1-Dichloroethene	5.0 U	50.8	50.0	102	52.4	50.0	105	71-118	3	30
cis-1,2-Dichloroethene	140	186	50.0	97	184	50.0	93	77-127	1	30
trans-1,2-Dichloroethene	5.0 U	49.7	50.0	99	51.1	50.0	102	73-118	3	30
1,2-Dichloropropane	5.0 U	49.8	50.0	100	48.6	50.0	97	79-124	2	30
cis-1,3-Dichloropropene	5.0 U	50.3	50.0	101	51.1	50.0	102	52-134	2	30
trans-1,3-Dichloropropene	5.0 U	50.6	50.0	101	51.8	50.0	104	71-133	2	30
Ethylbenzene	5.0 U	52.5	50.0	105	55.0	50.0	110	72-134	5	30
2-Hexanone	10 U	43.7	50.0	87	46.5	50.0	93	56-132	6	30
Methylene Chloride	5.0 U	47.0	50.0	94	45.6	50.0	91	73-122	3	30
4-Methyl-2-pentanone (MIBK)	10 U	45.3	50.0	91	45.9	50.0	92	60-141	1	30
Styrene	5.0 U	53.6	50.0	107	54.5	50.0	109	74-136	2	30
1,1,2,2-Tetrachloroethane	5.0 U	47.5	50.0	95	48.1	50.0	96	72-122	1	30
Tetrachloroethene	5.0 U	56.7	50.0	113	59.6	50.0	119	72-125	5	30
Toluene	5.0 U	53.4	50.0	107	54.3	50.0	109	79-119	2	30
1,1,1-Trichloroethane	5.0 U	52.8	50.0	106	53.9	50.0	108	74-127	2	30
1,1,2-Trichloroethane	5.0 U	49.3	50.0	99	48.4	50.0	97	82-121	2	30
Trichloroethene	29	83.2	50.0	109	83.9	50.0	110	74-122	<1	30
Vinyl Chloride	8.7	58.3	50.0	99	58.1	50.0	99	74-159	<1	30
o-Xylene	5.0 U	53.2	50.0	106	54.8	50.0	110	79-123	3	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1903225
Project:	Wellsville-Andover LF - Spring Sampling	**Date Collected:**	04/09/19
Sample Matrix:	Water	**Date Received:**	04/11/19
		Date Analyzed:	04/16/19
		Date Extracted:	NA

Duplicate Matrix Spike Summary
Volatile Organic Compounds by GC/MS

Sample Name:	MW5S-0419	**Units:**	ug/L
Lab Code:	R1903225-004	**Basis:**	NA
Analysis Method:	8260C		
Prep Method:	EPA 5030C		

		Matrix Spike RQ1903357-05			Duplicate Matrix Spike RQ1903357-06					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
m,p-Xylenes	5.0 U	106	100	106	109	100	109	80-126	3	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1903225
Project:	Wellsville-Andover LF - Spring Sampling	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	RQ1903316-04	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result		MRL	Dil.	Date Analyzed	Q
Acetone	10	U	10	1	04/15/19 15:20	
Benzene	5.0	U	5.0	1	04/15/19 15:20	
Bromodichloromethane	5.0	U	5.0	1	04/15/19 15:20	
Bromoform	5.0	U	5.0	1	04/15/19 15:20	
Bromomethane	5.0	U	5.0	1	04/15/19 15:20	
2-Butanone (MEK)	10	U	10	1	04/15/19 15:20	
Carbon Disulfide	10	U	10	1	04/15/19 15:20	
Carbon Tetrachloride	5.0	U	5.0	1	04/15/19 15:20	
Chlorobenzene	5.0	U	5.0	1	04/15/19 15:20	
Chloroethane	5.0	U	5.0	1	04/15/19 15:20	
Chloroform	5.0	U	5.0	1	04/15/19 15:20	
Chloromethane	5.0	U	5.0	1	04/15/19 15:20	
Dibromochloromethane	5.0	U	5.0	1	04/15/19 15:20	
1,1-Dichloroethane	5.0	U	5.0	1	04/15/19 15:20	
1,2-Dibromoethane	5.0	U	5.0	1	04/15/19 15:20	
1,2-Dichloroethane	5.0	U	5.0	1	04/15/19 15:20	
1,1-Dichloroethene	5.0	U	5.0	1	04/15/19 15:20	
cis-1,2-Dichloroethene	5.0	U	5.0	1	04/15/19 15:20	
trans-1,2-Dichloroethene	5.0	U	5.0	1	04/15/19 15:20	
1,2-Dichloropropane	5.0	U	5.0	1	04/15/19 15:20	
cis-1,3-Dichloropropene	5.0	U	5.0	1	04/15/19 15:20	
trans-1,3-Dichloropropene	5.0	U	5.0	1	04/15/19 15:20	
Ethylbenzene	5.0	U	5.0	1	04/15/19 15:20	
2-Hexanone	10	U	10	1	04/15/19 15:20	
Methylene Chloride	5.0	U	5.0	1	04/15/19 15:20	
4-Methyl-2-pentanone (MIBK)	10	U	10	1	04/15/19 15:20	
Styrene	5.0	U	5.0	1	04/15/19 15:20	
1,1,2,2-Tetrachloroethane	5.0	U	5.0	1	04/15/19 15:20	
Tetrachloroethene	5.0	U	5.0	1	04/15/19 15:20	
Toluene	5.0	U	5.0	1	04/15/19 15:20	
1,1,1-Trichloroethane	5.0	U	5.0	1	04/15/19 15:20	
1,1,2-Trichloroethane	5.0	U	5.0	1	04/15/19 15:20	
Trichloroethene	5.0	U	5.0	1	04/15/19 15:20	
Vinyl Chloride	5.0	U	5.0	1	04/15/19 15:20	
o-Xylene	5.0	U	5.0	1	04/15/19 15:20	
m,p-Xylenes	5.0	U	5.0	1	04/15/19 15:20	

Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1903225
Project:	Wellsville-Andover LF - Spring Sampling	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	RQ1903316-04	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	96	85 - 122	04/15/19 15:20	
Toluene-d8	99	87 - 121	04/15/19 15:20	
Dibromofluoromethane	103	89 - 119	04/15/19 15:20	

Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1903225
Project:	Wellsville-Andover LF - Spring Sampling	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	RQ1903357-04	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Acetone	10 U	10	1	04/16/19 12:04	
Benzene	5.0 U	5.0	1	04/16/19 12:04	
Bromodichloromethane	5.0 U	5.0	1	04/16/19 12:04	
Bromoform	5.0 U	5.0	1	04/16/19 12:04	
Bromomethane	5.0 U	5.0	1	04/16/19 12:04	
2-Butanone (MEK)	10 U	10	1	04/16/19 12:04	
Carbon Disulfide	10 U	10	1	04/16/19 12:04	
Carbon Tetrachloride	5.0 U	5.0	1	04/16/19 12:04	
Chlorobenzene	5.0 U	5.0	1	04/16/19 12:04	
Chloroethane	5.0 U	5.0	1	04/16/19 12:04	
Chloroform	5.0 U	5.0	1	04/16/19 12:04	
Chloromethane	5.0 U	5.0	1	04/16/19 12:04	
Dibromochloromethane	5.0 U	5.0	1	04/16/19 12:04	
1,2-Dibromoethane	5.0 U	5.0	1	04/16/19 12:04	
1,1-Dichloroethane	5.0 U	5.0	1	04/16/19 12:04	
1,2-Dichloroethane	5.0 U	5.0	1	04/16/19 12:04	
1,1-Dichloroethene	5.0 U	5.0	1	04/16/19 12:04	
cis-1,2-Dichloroethene	5.0 U	5.0	1	04/16/19 12:04	
trans-1,2-Dichloroethene	5.0 U	5.0	1	04/16/19 12:04	
1,2-Dichloropropane	5.0 U	5.0	1	04/16/19 12:04	
cis-1,3-Dichloropropene	5.0 U	5.0	1	04/16/19 12:04	
trans-1,3-Dichloropropene	5.0 U	5.0	1	04/16/19 12:04	
Ethylbenzene	5.0 U	5.0	1	04/16/19 12:04	
2-Hexanone	10 U	10	1	04/16/19 12:04	
Methylene Chloride	5.0 U	5.0	1	04/16/19 12:04	
4-Methyl-2-pentanone (MIBK)	10 U	10	1	04/16/19 12:04	
Styrene	5.0 U	5.0	1	04/16/19 12:04	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	04/16/19 12:04	
Tetrachloroethene	5.0 U	5.0	1	04/16/19 12:04	
Toluene	5.0 U	5.0	1	04/16/19 12:04	
1,1,1-Trichloroethane	5.0 U	5.0	1	04/16/19 12:04	
1,1,2-Trichloroethane	5.0 U	5.0	1	04/16/19 12:04	
Trichloroethene	5.0 U	5.0	1	04/16/19 12:04	
Vinyl Chloride	5.0 U	5.0	1	04/16/19 12:04	
o-Xylene	5.0 U	5.0	1	04/16/19 12:04	
m,p-Xylenes	5.0 U	5.0	1	04/16/19 12:04	

Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1903225
Project:	Wellsville-Andover LF - Spring Sampling	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	RQ1903357-04	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	94	85 - 122	04/16/19 12:04	
Toluene-d8	95	87 - 121	04/16/19 12:04	
Dibromofluoromethane	101	89 - 119	04/16/19 12:04	

Client: On-Site Technical Services, Inc. **Service Request:** R1903225
Project: Wellsville-Andover LF - Spring Sampling **Date Analyzed:** 04/15/19
Sample Matrix: Water

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample
RQ1903316-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Acetone	8260C	18.2	20.0	91	40-161
Benzene	8260C	19.6	20.0	98	79-119
Bromodichloromethane	8260C	20.4	20.0	102	81-123
Bromoform	8260C	21.2	20.0	106	65-146
Bromomethane	8260C	22.1	20.0	111	42-166
2-Butanone (MEK)	8260C	16.6	20.0	83	61-137
Carbon Disulfide	8260C	20.4	20.0	102	66-128
Carbon Tetrachloride	8260C	20.8	20.0	104	70-127
Chlorobenzene	8260C	20.6	20.0	103	80-121
Chloroethane	8260C	13.0	20.0	65	62-131
Chloroform	8260C	19.6	20.0	98	79-120
Chloromethane	8260C	15.1	20.0	75	65-135
Dibromochloromethane	8260C	20.1	20.0	100	72-128
1,1-Dichloroethane	8260C	18.4	20.0	92	80-124
1,2-Dibromoethane	8260C	19.7	20.0	99	82-127
1,2-Dichloroethane	8260C	20.4	20.0	102	71-127
1,1-Dichloroethene	8260C	19.2	20.0	96	71-118
cis-1,2-Dichloroethene	8260C	20.3	20.0	101	80-121
trans-1,2-Dichloroethene	8260C	18.9	20.0	94	73-118
1,2-Dichloropropane	8260C	18.2	20.0	91	80-119
cis-1,3-Dichloropropene	8260C	20.5	20.0	102	77-122
trans-1,3-Dichloropropene	8260C	20.8	20.0	104	71-133
Ethylbenzene	8260C	20.0	20.0	100	76-120
2-Hexanone	8260C	18.6	20.0	93	63-124
Methylene Chloride	8260C	17.5	20.0	88	73-122
4-Methyl-2-pentanone (MIBK)	8260C	17.7	20.0	88	66-124
Styrene	8260C	20.7	20.0	103	80-124
1,1,2,2-Tetrachloroethane	8260C	19.7	20.0	98	78-126
Tetrachloroethene	8260C	21.4	20.0	107	72-125
Toluene	8260C	20.2	20.0	101	79-119
1,1,1-Trichloroethane	8260C	19.1	20.0	95	75-125
1,1,2-Trichloroethane	8260C	19.2	20.0	96	82-121
Trichloroethene	8260C	20.7	20.0	103	74-122

Client: On-Site Technical Services, Inc.
Project: Wellsville-Andover LF - Spring Sampling
Sample Matrix: Water

Service Request: R1903225
Date Analyzed: 04/15/19

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample
RQ1903316-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Vinyl Chloride	8260C	18.7	20.0	93	74-159
o-Xylene	8260C	19.9	20.0	100	79-123
m,p-Xylenes	8260C	40.0	40.0	100	80-126

Client: On-Site Technical Services, Inc. **Service Request:** R1903225
Project: Wellsville-Andover LF - Spring Sampling **Date Analyzed:** 04/16/19
Sample Matrix: Water

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample
RQ1903357-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Acetone	8260C	17.5	20.0	88	40-161
Benzene	8260C	18.9	20.0	95	79-119
Bromodichloromethane	8260C	18.4	20.0	92	81-123
Bromoform	8260C	19.1	20.0	96	65-146
Bromomethane	8260C	19.8	20.0	99	42-166
2-Butanone (MEK)	8260C	15.8	20.0	79	61-137
Carbon Disulfide	8260C	19.7	20.0	99	66-128
Carbon Tetrachloride	8260C	19.7	20.0	98	70-127
Chlorobenzene	8260C	19.3	20.0	96	80-121
Chloroethane	8260C	13.1	20.0	65	62-131
Chloroform	8260C	18.5	20.0	93	79-120
Chloromethane	8260C	14.7	20.0	73	65-135
Dibromochloromethane	8260C	19.6	20.0	98	72-128
1,1-Dichloroethane	8260C	18.2	20.0	91	80-124
1,2-Dibromoethane	8260C	19.1	20.0	95	82-127
1,2-Dichloroethane	8260C	19.6	20.0	98	71-127
1,1-Dichloroethene	8260C	18.8	20.0	94	71-118
cis-1,2-Dichloroethene	8260C	18.0	20.0	90	80-121
trans-1,2-Dichloroethene	8260C	18.5	20.0	92	73-118
1,2-Dichloropropane	8260C	17.3	20.0	86	80-119
cis-1,3-Dichloropropene	8260C	18.8	20.0	94	77-122
trans-1,3-Dichloropropene	8260C	19.4	20.0	97	71-133
Ethylbenzene	8260C	19.4	20.0	97	76-120
2-Hexanone	8260C	16.2	20.0	81	63-124
Methylene Chloride	8260C	17.4	20.0	87	73-122
4-Methyl-2-pentanone (MIBK)	8260C	17.1	20.0	86	66-124
Styrene	8260C	19.9	20.0	99	80-124
1,1,2,2-Tetrachloroethane	8260C	18.9	20.0	94	78-126
Tetrachloroethene	8260C	19.9	20.0	100	72-125
Toluene	8260C	19.4	20.0	97	79-119
1,1,1-Trichloroethane	8260C	18.3	20.0	92	75-125
1,1,2-Trichloroethane	8260C	18.3	20.0	92	82-121
Trichloroethene	8260C	19.7	20.0	98	74-122

Client: On-Site Technical Services, Inc.
Project: Wellsville-Andover LF - Spring Sampling
Sample Matrix: Water

Service Request: R1903225
Date Analyzed: 04/16/19

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample
RQ1903357-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Vinyl Chloride	8260C	17.1	20.0	86	74-159
o-Xylene	8260C	19.4	20.0	97	79-123
m,p-Xylenes	8260C	39.2	40.0	98	80-126

Metals

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1903225
Project:	Wellsville-Andover LF - Spring Sampling	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Basis:**	NA
Lab Code:	R1903225-MB		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic, Total	6010C	10 U	ug/L	10	1	04/17/19 15:41	04/15/19	
Barium, Total	6010C	20 U	ug/L	20	1	04/17/19 15:41	04/15/19	
Cadmium, Total	6010C	5.0 U	ug/L	5.0	1	04/17/19 15:41	04/15/19	
Calcium, Total	6010C	1000 U	ug/L	1000	1	04/17/19 15:41	04/15/19	
Chromium, Total	6010C	10 U	ug/L	10	1	04/17/19 15:41	04/15/19	
Copper, Total	6010C	20 U	ug/L	20	1	04/17/19 15:41	04/15/19	
Iron, Total	6010C	100 U	ug/L	100	1	04/17/19 15:41	04/15/19	
Lead, Total	6010C	50 U	ug/L	50	1	04/17/19 15:41	04/15/19	
Magnesium, Total	6010C	1000 U	ug/L	1000	1	04/17/19 15:41	04/15/19	
Manganese, Total	6010C	10 U	ug/L	10	1	04/17/19 15:41	04/15/19	
Nickel, Total	6010C	40 U	ug/L	40	1	04/17/19 15:41	04/15/19	
Potassium, Total	6010C	2000 U	ug/L	2000	1	04/17/19 15:41	04/15/19	
Selenium, Total	6010C	10 U	ug/L	10	1	04/17/19 15:41	04/15/19	
Sodium, Total	6010C	1000 U	ug/L	1000	1	04/17/19 15:41	04/15/19	
Zinc, Total	6010C	20 U	ug/L	20	1	04/17/19 15:41	04/15/19	

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QA/QC Report

Client: On-Site Technical Services, Inc.
Project: Wellsville-Andover LF - Spring Sampling
Sample Matrix: Water

Service Request:R1903225
Date Collected:04/09/19
Date Received:04/11/19
Date Analyzed:4/17/19

Duplicate Matrix Spike Summary
Inorganic Parameters

Sample Name: MW5S-0419
Lab Code: R1903225-004

Units:ug/L
Basis:NA

			Matrix Spike R1903225-004MS			Duplicate Matrix Spike R1903225-004DMS					
Analyte Name	**Method**	**Sample Result**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Arsenic, Total	6010C	10 U	39	40	98	40	40	101	75-125	3	20
Barium, Total	6010C	20 U	2150	2000	107	2180	2000	109	75-125	1	20
Cadmium, Total	6010C	5.0 U	51.6	50.0	103	52.0	50.0	104	75-125	<1	20
Calcium, Total	6010C	14600	17200	2000	133 #	17400	2000	141 #	75-125	<1	20
Chromium, Total	6010C	10 U	206	200	103	208	200	104	75-125	<1	20
Copper, Total	6010C	20 U	249	250	100	251	250	100	75-125	<1	20
Iron, Total	6010C	3140	4110	1000	97	4100	1000	96	75-125	<1	20
Lead, Total	6010C	50 U	514	500	103	517	500	103	75-125	<1	20
Magnesium, Total	6010C	9700	11800	2000	109 #	11900	2000	114 #	75-125	<1	20
Manganese, Total	6010C	349	857	500	102	864	500	103	75-125	<1	20
Nickel, Total	6010C	40 U	489	500	98	493	500	99	75-125	<1	20
Potassium, Total	6010C	2000 U	21200	20000	106	21400	20000	107	75-125	<1	20
Selenium, Total	6010C	10 U	1070	1010	106	1090	1010	107	75-125	1	20
Sodium, Total	6010C	5700	25200	20000	97	25400	20000	98	75-125	1	20
Zinc, Total	6010C	20 U	524	500	105	530	500	106	75-125	1	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client: On-Site Technical Services, Inc.
Project: Wellsville-Andover LF - Spring Sampling
Sample Matrix: Water

Service Request: R1903225
Date Analyzed: 04/17/19

Lab Control Sample Summary
Inorganic Parameters

Units:ug/L
Basis:NA

Lab Control Sample
R1903225-LCS

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Arsenic, Total	6010C	39.3	40	98	80-120
Barium, Total	6010C	2130	2000	107	80-120
Cadmium, Total	6010C	51.5	50.0	103	80-120
Calcium, Total	6010C	1910	2000	96	80-120
Chromium, Total	6010C	204	200	102	80-120
Copper, Total	6010C	248	250	99	80-120
Iron, Total	6010C	998	1000	100	80-120
Lead, Total	6010C	517	500	103	80-120
Magnesium, Total	6010C	2010	2000	101	80-120
Manganese, Total	6010C	500	500	100	80-120
Nickel, Total	6010C	497	500	99	80-120
Potassium, Total	6010C	19400	20000	97	80-120
Selenium, Total	6010C	1050	1010	104	80-120
Sodium, Total	6010C	19200	20000	96	80-120
Zinc, Total	6010C	523	500	105	80-120

General Chemistry

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Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1903225
Project:	Wellsville-Andover LF - Spring Sampling	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Basis:**	NA
Lab Code:	R1903225-MB		

Inorganic Parameters

Analyte Name	Analysis Method	Result		Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Alkalinity, Total as CaCO3	SM 2320 B-1997(2011)	2.0	U	mg/L	2.0	1	04/15/19 17:29	NA	
Ammonia as Nitrogen, undistilled	ASTM D6919-09	0.0050	U	mg/L	0.0050	1	04/26/19 11:32	NA	
Biochemical Oxygen Demand (BOD)	SM 5210 B-2001(2011)	2.0	U	mg/L	2.0	1	04/12/19 15:01	NA	
Bromide	300.0	0.10	U	mg/L	0.10	1	04/12/19 09:47	NA	
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	1.0	U	mg/L	1.0	1	04/17/19 17:06	NA	
Chemical Oxygen Demand, Total	410.4	5.0	U	mg/L	5.0	1	04/18/19 18:43	NA	
Chloride	300.0	0.20	U	mg/L	0.20	1	04/12/19 09:47	NA	
Color, True	SM 2120 B-2001(2011)	**1.0**		ColorUnits	1.0	1	04/12/19 16:30	NA	
Nitrate as Nitrogen	300.0	0.10	U	mg/L	0.10	1	04/12/19 09:47	NA	
Nitrogen, Total Kjeldahl (TKN)	351.2	0.20	U	mg/L	0.20	1	04/16/19 12:52	04/15/19	
Phenolics, Total Recoverable	420.4	0.0050	U	mg/L	0.0050	1	04/15/19 12:21	NA	
Solids, Total Dissolved (TDS)	SM 2540 C-1997(2011)	10	U	mg/L	10	1	04/17/19 12:10	NA	
Sulfate	300.0	0.20	U	mg/L	0.20	1	04/15/19 14:35	NA	

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dba ALS Environmental

QA/QC Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1903225
Project:	Wellsville-Andover LF - Spring Sampling	**Date Collected:**	04/10/19
Sample Matrix:	Water	**Date Received:**	04/11/19
		Date Analyzed:	04/15/19

Duplicate Matrix Spike Summary
Sulfate

Sample Name:	SWS1-0419	**Units:**	mg/L
Lab Code:	R1903225-008	**Basis:**	NA
Analysis Method:	300.0		

		Matrix Spike			Duplicate Matrix Spike					
		R1903225-008MS			R1903225-008DMS					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Sulfate	2.0 U	20.9	20.0	104	20.6	20.0	103	90-110	1	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client: On-Site Technical Services, Inc. **Service Request:** R1903225
Project: Wellsville-Andover LF - Spring Sampling **Date Analyzed:** 04/12/19 - 04/26/19
Sample Matrix: Water

Lab Control Sample Summary
General Chemistry Parameters

Units:mg/L
Basis:NA

Lab Control Sample
R1903225-LCS

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Alkalinity, Total as CaCO3	SM 2320 B-1997(2011)	18.4	20.0	92	80-120
Ammonia as Nitrogen, undistilled	ASTM D6919-09	0.455	0.500	91	90-110
Biochemical Oxygen Demand (BOD)	SM 5210 B-2001(2011)	203	198	102	85-115
Bromide	300.0	0.99	1.00	99	90-110
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	9.23	10.0	92	80-121
Chemical Oxygen Demand, Total	410.4	51.4	50.0	103	90-110
Chloride	300.0	1.97	2.00	99	90-110
Nitrate as Nitrogen	300.0	0.973	1.00	97	90-110
Nitrogen, Total Kjeldahl (TKN)	351.2	2.75	2.50	110	90-110
Phenolics, Total Recoverable	420.4	0.0398	0.0400	99	90-110
Solids, Total Dissolved (TDS)	SM 2540 C-1997(2011)	894	914	98	90-110
Sulfate	300.0	1.92	2.00	96	90-110

April 25, 2019 Service Request No:R1903442

Mr. Jon Brandes
On-Site Technical Services, Inc.
72 Railroad Avenue
Wellsville, NY 14895

Laboratory Results for: Wellsville-Andover LF Annual Sampling

Dear Mr.Brandes,

Enclosed are the results of the sample(s) submitted to our laboratory April 18, 2019
For your reference, these analyses have been assigned our service request number **R1903442.**

All testing was performed according to our laboratory's quality assurance program and met the requirements of the TNI standards except as noted in the case narrative report. Any testing not included in the lab's accreditation is identified on a Non-Certified Analytes report. All results are intended to be considered in their entirety. ALS Environmental is not responsible for use of less than the complete report. Results apply only to the individual samples submitted to the lab for analysis, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s), and represented by Laboratory Control Sample control limits. Any events, such as QC failures or Holding Time exceedances, which may add to the uncertainty are explained in the report narrative or are flagged with qualifiers. The flags are explained in the Report Qualifiers and Definitions page of this report.

Please contact me if you have any questions. My extension is 7472. You may also contact me via email at Janice.Jaeger@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Janice Jaeger
Project Manager

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PHONE +1 585 288 5380 | FAX +1 585 288 8475
ALS Group USA, Corp.
dba ALS Environmental

Narrative Documents

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ALS Environmental

Client: On-Site Technical Services, Inc.
Project: Wellsville-Andover LF Annual Sampling
Sample Matrix: Water

Service Request: R1903442
Date Received: 04/18/2019

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier II level requested by the client.

Sample Receipt:

Three water samples were received for analysis at ALS Environmental on 04/18/2019. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

Volatiles by GC/MS:

Method 524.2, 04/21/2019: The upper control limit was exceeded for one or more analytes in the Continuing Calibration Verification (CCV). The field samples analyzed in this sequence did not contain the analyte(s) in question above the Method Reporting Limit (MRL). Since the exceedance equates to a potential high bias, the data quality was not significantly affected and no further corrective action was taken.

Approved by _____ Date 04/25/2019

SAMPLE DETECTION SUMMARY

CLIENT ID: WAL19Pre-0419			Lab ID: R1903442-003			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
cis-1,2-Dichloroethene	2.2			0.50	ug/L	524.2
Trichloroethene	2.4			0.50	ug/L	524.2

Sample Receipt Information

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www.alsglobal.com

Client: On-Site Technical Services, Inc. **Service Request:**R1903442

Project: Wellsville-Andover LF Annual Sampling

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
R1903442-001	WAL19Post-0419	4/17/2019	1010
R1903442-002	WAL19Inter-0419	4/17/2019	1020
R1903442-003	WAL19Pre-0419	4/17/2019	1030

ALS-Environmental
1565 Jefferson Rd, Bldg 300, Suite 360
Rochester, NY 14623
585.288.5380

Client: On-Site
72 Railroad Ave.
Wellsville, NY 14895

Project Manager: Jon Brandes

CHAIN of CUSTODY

Project: WAL - Annual Sampling

Telephone No.: 585-593-1824

Email: jonb@on-sitehs.com

Page 1 of 1

Method of Shipment: UPS

Special Detection Limit/Reporting

Sample I.D.	Lab Sample No.	No. of Containers	Matrix: Soil	Water	Air	Other	Prsv.: Yes	No	Sampling Date	Sampling Time	GC;MS VOA's 8260 (HCl)	GC;MS VOA's 524.2 (C6H806)	T-Metals (HNO3)	TDS, NO3, Br, Cl, SO4 (NP) (SW/SED)	NH3, TKN, COD (H2SO4) (SW/SED)	Total Color (NP) (SW/SED)	BOD (NP) (SW/SED)	Alkalinity (NP) (SW/SED)	TDS, NO3 (NP) (Manhole)
WAL19Post-0419		3		X			X		4-17-19	1010		X							
WAL19Inter-0419		3		X			X		4-17-19	1020		X							
WAL19Pre-0419		3		X			X		4-17-19	1030		X							

REMARKS

Sample Received Intact: Yes No

Temperature received: Ice No ice

Relinq. by sampler (Sign & Print Name)	Date	Time	Received by (Sign & Print Name)	Date	Time
Kevin Dye / Kevin Dye	4-17-19	1115		4-18-19	1020
Relinquished by	Date	Time	Received by	Date	Time
				4-18-19	
Relinquished by	Date	Time	Received by		
Relinquished by	Date	Time	Received by laboratory	Date	Time

Lab Work No.

R1903442 5
On-Site Technical Services, Inc.
Wellsville-Andover LF Annual Sampling

Cooler Receipt and Preservation Check Form

R1903442 5
On-Site Technical Services, Inc.
Wellsville-Andover LF Annual Sampling

Project/Client Casella Folder Number

Cooler received on 4/18/19 by: JE

COURIER: ALS (UPS) FEDEX VELOCITY CLIENT

1	Were **Custody seals** on outside of cooler?	(Y)	N
2	**Custody papers** properly completed (ink, signed)?	(Y)	N
3	Did all bottles arrive in good **condition** (unbroken)?	(Y)	N
4	Circle: (Wet Ice) **Dry Ice Gel packs** present?	(Y)	N

5a	**Perchlorate** samples have required headspace?	Y	N	(NA)
5b	Did VOA vials, Alk, or Sulfide have sig* **bubbles**?	Y	N	(NA)
6	Where did the bottles originate?	(ALS/ROC)	CLIENT	
7	Soil VOA received as: Bulk Encore 5035set	(NA)		

8. Temperature Readings : Date: 4/18/19 Time 09:46 ID: IR#7 (IR#10) From (Temp Blank) Sample Bottle

Observed Temp (°C)	6.3	7.6					
Correction Factor (°C)	-0.1	+0.3					
Corrected Temp (°C)	6.2	7.9					
Temp from: Type of bottle	Voa Vial	centrifuge					
Within 0-6°C?	Y (N)	Y (N)	Y N	Y N	Y N	Y N	Y N
If <0°C, were samples frozen?	Y N	Y N	Y N	Y N	Y N	Y N	Y N

If out of Temperature, note packing/ice condition: _____ Ice melted (Poorly Packed (described below)) Same Day Rule

&Client Approval to Run Samples: _____ Standing Approval Client aware at drop-off Client notified by: _____

All samples held in storage location: ROC by JE on 4/18/19 at 10:48
5035 samples placed in storage location: _____ by _____ on _____ at _____

Cooler Breakdown/Preservation Check**: Date: 4/19/19 Time: 0824 by: @

9.	Were all bottle labels complete (*i.e.* analysis, preservation, etc.)?	(YES)	NO
10.	Did all bottle labels and tags agree with custody papers?	(YES)	NO
11.	Were correct containers used for the tests indicated?	(YES)	NO
12.	Were 5035 vials acceptable (no extra labels, not leaking)?	YES	NO (N/A)
13.	Air Samples: Cassettes / Tubes Intact with MS? Canisters Pressurized		Tedlar® Bags Inflated (N/A)

pH	Lot of test paper	Reagent	Preserved? Yes	Preserved? No	Lot Received	Exp	Sample ID Adjusted	Vol. Added	Lot Added	Final pH
≥12		NaOH								
≤2		HNO_3								
≤2		H_2SO_4								
<4		$NaHSO_4$								
5-9		For 608pest			No=Notify for 3day					
Residual Chlorine (-)		For CN, Phenol, 625, 608pest, 522			If +, contact PM to add $Na_2S_2O_3$ (625, 608, CN), ascorbic (phenol).					
		$Na_2S_2O_3$			2DG0384					
		ZnAcetate	-	-						
		HCl	**	**	58124					

**VOAs and 1664 Not to be tested before analysis. Otherwise, all bottles of all samples with chemical preservatives are checked (not just representatives).

Bottle lot numbers: 8-206-002

Explain all Discrepancies/ Other Comments:

One bag of ice.

CLRES	BULK
DO	FLDT
HPROD	HGFB
HTR	LL3541
PH	SUB
SO3	MARRS
ALS	REV

Labels secondary reviewed by: @
PC Secondary Review: JMS 4/19/19

*Significant air bubbles: VOA > 5-6 mm : WC >1 in. diameter

Miscellaneous Forms

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REPORT QUALIFIERS AND DEFINITIONS

U Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.

J Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Arclors).

B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.

E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.

E Organics- Concentration has exceeded the calibration range for that specific analysis.

D Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.

* Indicates that a quality control parameter has exceeded laboratory limits. Under the ñNotesò column of the Form I, this qualifier denotes analysis was performed out of Holding Time.

H Analysis was performed out of hold time for tests that have an ñimmediateò hold time criteria.

Spike was diluted out.

\+ Correlation coefficient for MSA is <0.995.

N Inorganics- Matrix spike recovery was outside laboratory limits.

N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.

S Concentration has been determined using Method of Standard Additions (MSA).

W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.

P Concentration >40% difference between the two GC columns.

C Confirmed by GC/MS

Q DoD reports: indicates a pesticide/Aroclor is not confirmed (Ó100% Difference between two GC columns).

X See Case Narrative for discussion.

MRL Method Reporting Limit. Also known as:
LOQ Limit of Quantitation (LOQ)
The lowest concentration at which the method analyte may be reliably quantified under the method conditions.

MDL Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).

LOD Limit of Detection. A value at or above the MDL which has been verified to be detectable.

ND Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.

Rochester Lab ID # for State Certifications[1]

Connecticut ID # PH0556	Maine ID #NY0032	Pennsylvania ID# 68-786
Delaware Approved	New Hampshire ID # 2941	Rhode Island ID # 158
DoD ELAP #65817	New York ID # 10145	Virginia #460167
Florida ID # E87674	North Carolina #676	

[1] Analyses were performed according to our laboratoryôs NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the case narrative. Since not all analyte/method/matrix combinations are offered for state/NELAC accreditation, this report may contain results which are not accredited. For a specific list of accredited analytes, contact the laboratory or go to https://www.alsglobal.com/locations/americas/north-america/usa/new-york/rochester-environmental

ALS Laboratory Group

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1903442
Project:	Wellsville-Andover LF Annual Sampling/		

Sample Name:	WAL19Post-0419	**Date Collected:**	04/17/19
Lab Code:	R1903442-001	**Date Received:**	04/18/19
Sample Matrix:	Water		

Analysis Method	Extracted/Digested By	Analyzed By
524.2		DLIPANI

Sample Name:	WAL19Inter-0419	**Date Collected:**	04/17/19
Lab Code:	R1903442-002	**Date Received:**	04/18/19
Sample Matrix:	Water		

Analysis Method	Extracted/Digested By	Analyzed By
524.2		DLIPANI

Sample Name:	WAL19Pre-0419	**Date Collected:**	04/17/19
Lab Code:	R1903442-003	**Date Received:**	04/18/19
Sample Matrix:	Water		

Analysis Method	Extracted/Digested By	Analyzed By
524.2		DLIPANI

The preparation methods associated with this report are found in these tables unless discussed in the case narrative.

Water/Liquid Matrix

Analytical Method	Preparation Method
200.7	200.2
200.8	200.2
6010C	3005A/3010A
6020A	ILM05.3
9014 Cyanide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Acid Soluble	9030B
9056A Bomb (Halogens)	5050A
9066 Manual Distillation	9065
SM 4500-CN-E Residual Cyanide	SM 4500-CN-G
SM 4500-CN-E WAD Cyanide	SM 4500-CN-I

Solid/Soil/Non-Aqueous Matrix

Analytical Method	Preparation Method
6010C	3050B
6020A	3050B
6010C TCLP (1311) extract	3005A/3010A
6010 SPLP (1312) extract	3005A/3010A
7196A	3060A
7199	3060A
9056A Halogens/Halides	5050
300.0 Anions/ 350.1/ 353.2/ SM 2320B/ SM 5210B/ 9056A Anions	DI extraction

For analytical methods not listed, the preparation method is the same as the analytical method reference.

Sample Results

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Volatile Organic Compounds by GC/MS

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Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1903442
Project:	Wellsville-Andover LF Annual Sampling	**Date Collected:**	04/17/19 10:10
Sample Matrix:	Water	**Date Received:**	04/18/19 10:20
Sample Name:	WAL19Post-0419	**Units:**	ug/L
Lab Code:	R1903442-001	**Basis:**	NA

Purgeable Organic Compounds by GC/MS

Analysis Method: 524.2
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Benzene	0.50 U	0.50	1	04/21/19 14:36	
Bromobenzene	0.50 U	0.50	1	04/21/19 14:36	
Bromochloromethane	0.50 U	0.50	1	04/21/19 14:36	
Bromodichloromethane	0.50 U	0.50	1	04/21/19 14:36	
Bromoform	0.50 U	0.50	1	04/21/19 14:36	
Bromomethane	0.50 U	0.50	1	04/21/19 14:36	
Methyl tert-Butyl Ether	0.50 U	0.50	1	04/21/19 14:36	
tert-Butylbenzene	0.50 U	0.50	1	04/21/19 14:36	
sec-Butylbenzene	0.50 U	0.50	1	04/21/19 14:36	
n-Butylbenzene	0.50 U	0.50	1	04/21/19 14:36	
Carbon Tetrachloride	0.50 U	0.50	1	04/21/19 14:36	
Chlorobenzene	0.50 U	0.50	1	04/21/19 14:36	
Chloroethane	0.50 U	0.50	1	04/21/19 14:36	
Chloroform	0.50 U	0.50	1	04/21/19 14:36	
Chloromethane	0.50 U	0.50	1	04/21/19 14:36	
2-Chlorotoluene	0.50 U	0.50	1	04/21/19 14:36	
4-Chlorotoluene	0.50 U	0.50	1	04/21/19 14:36	
Dibromochloromethane	0.50 U	0.50	1	04/21/19 14:36	
Dibromomethane	0.50 U	0.50	1	04/21/19 14:36	
1,2-Dichlorobenzene	0.50 U	0.50	1	04/21/19 14:36	
1,4-Dichlorobenzene	0.50 U	0.50	1	04/21/19 14:36	
1,3-Dichlorobenzene	0.50 U	0.50	1	04/21/19 14:36	
Dichlorodifluoromethane	0.50 U	0.50	1	04/21/19 14:36	
1,1-Dichloroethane	0.50 U	0.50	1	04/21/19 14:36	
1,2-Dichloroethane	0.50 U	0.50	1	04/21/19 14:36	
1,1-Dichloroethene	0.50 U	0.50	1	04/21/19 14:36	
trans-1,2-Dichloroethene	0.50 U	0.50	1	04/21/19 14:36	
cis-1,2-Dichloroethene	0.50 U	0.50	1	04/21/19 14:36	
2,2-Dichloropropane	0.50 U	0.50	1	04/21/19 14:36	
1,2-Dichloropropane	0.50 U	0.50	1	04/21/19 14:36	
1,3-Dichloropropane	0.50 U	0.50	1	04/21/19 14:36	
trans-1,3-Dichloropropene	0.50 U	0.50	1	04/21/19 14:36	
cis-1,3-Dichloropropene	0.50 U	0.50	1	04/21/19 14:36	
Ethylbenzene	0.50 U	0.50	1	04/21/19 14:36	
Hexachlorobutadiene	0.50 U	0.50	1	04/21/19 14:36	
Isopropylbenzene	0.50 U	0.50	1	04/21/19 14:36	
p-Isopropyltoluene	0.50 U	0.50	1	04/21/19 14:36	
Methylene Chloride	0.50 U	0.50	1	04/21/19 14:36	
Naphthalene	0.50 U	0.50	1	04/21/19 14:36	
n-Propylbenzene	0.50 U	0.50	1	04/21/19 14:36	
Styrene	0.50 U	0.50	1	04/21/19 14:36	
1,1,1,2-Tetrachloroethane	0.50 U	0.50	1	04/21/19 14:36	
1,1,2,2-Tetrachloroethane	0.50 U	0.50	1	04/21/19 14:36	

Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1903442
Project:	Wellsville-Andover LF Annual Sampling	**Date Collected:**	04/17/19 10:10
Sample Matrix:	Water	**Date Received:**	04/18/19 10:20
Sample Name:	WAL19Post-0419	**Units:**	ug/L
Lab Code:	R1903442-001	**Basis:**	NA

Purgeable Organic Compounds by GC/MS

Analysis Method: 524.2
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Tetrachloroethene	0.50 U	0.50	1	04/21/19 14:36	
Toluene	0.50 U	0.50	1	04/21/19 14:36	
1,2,4-Trichlorobenzene	0.50 U	0.50	1	04/21/19 14:36	
1,2,3-Trichlorobenzene	0.50 U	0.50	1	04/21/19 14:36	
1,1,2-Trichloroethane	0.50 U	0.50	1	04/21/19 14:36	
Trichloroethene	0.50 U	0.50	1	04/21/19 14:36	
Trichlorofluoromethane	0.50 U	0.50	1	04/21/19 14:36	
1,2,3-Trichloropropane	0.50 U	0.50	1	04/21/19 14:36	
1,3,5-Trimethylbenzene	0.50 U	0.50	1	04/21/19 14:36	
1,2,4-Trimethylbenzene	0.50 U	0.50	1	04/21/19 14:36	
Vinyl Chloride	0.50 U	0.50	1	04/21/19 14:36	
m,p-Xylenes	1.0 U	1.0	1	04/21/19 14:36	
o-Xylene	0.50 U	0.50	1	04/21/19 14:36	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	97	70 - 130	04/21/19 14:36	
1,2-Dichlorobenzene-d4	99	70 - 130	04/21/19 14:36	

Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1903442
Project:	Wellsville-Andover LF Annual Sampling	**Date Collected:**	04/17/19 10:20
Sample Matrix:	Water	**Date Received:**	04/18/19 10:20
Sample Name:	WAL19Inter-0419	**Units:**	ug/L
Lab Code:	R1903442-002	**Basis:**	NA

Purgeable Organic Compounds by GC/MS

Analysis Method: 524.2
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Benzene	0.50 U	0.50	1	04/21/19 15:08	
Bromobenzene	0.50 U	0.50	1	04/21/19 15:08	
Bromochloromethane	0.50 U	0.50	1	04/21/19 15:08	
Bromodichloromethane	0.50 U	0.50	1	04/21/19 15:08	
Bromoform	0.50 U	0.50	1	04/21/19 15:08	
Bromomethane	0.50 U	0.50	1	04/21/19 15:08	
Methyl tert-Butyl Ether	0.50 U	0.50	1	04/21/19 15:08	
tert-Butylbenzene	0.50 U	0.50	1	04/21/19 15:08	
sec-Butylbenzene	0.50 U	0.50	1	04/21/19 15:08	
n-Butylbenzene	0.50 U	0.50	1	04/21/19 15:08	
Carbon Tetrachloride	0.50 U	0.50	1	04/21/19 15:08	
Chlorobenzene	0.50 U	0.50	1	04/21/19 15:08	
Chloroethane	0.50 U	0.50	1	04/21/19 15:08	
Chloroform	0.50 U	0.50	1	04/21/19 15:08	
Chloromethane	0.50 U	0.50	1	04/21/19 15:08	
2-Chlorotoluene	0.50 U	0.50	1	04/21/19 15:08	
4-Chlorotoluene	0.50 U	0.50	1	04/21/19 15:08	
Dibromochloromethane	0.50 U	0.50	1	04/21/19 15:08	
Dibromomethane	0.50 U	0.50	1	04/21/19 15:08	
1,2-Dichlorobenzene	0.50 U	0.50	1	04/21/19 15:08	
1,4-Dichlorobenzene	0.50 U	0.50	1	04/21/19 15:08	
1,3-Dichlorobenzene	0.50 U	0.50	1	04/21/19 15:08	
Dichlorodifluoromethane	0.50 U	0.50	1	04/21/19 15:08	
1,1-Dichloroethane	0.50 U	0.50	1	04/21/19 15:08	
1,2-Dichloroethane	0.50 U	0.50	1	04/21/19 15:08	
1,1-Dichloroethene	0.50 U	0.50	1	04/21/19 15:08	
trans-1,2-Dichloroethene	0.50 U	0.50	1	04/21/19 15:08	
cis-1,2-Dichloroethene	0.50 U	0.50	1	04/21/19 15:08	
2,2-Dichloropropane	0.50 U	0.50	1	04/21/19 15:08	
1,2-Dichloropropane	0.50 U	0.50	1	04/21/19 15:08	
1,3-Dichloropropane	0.50 U	0.50	1	04/21/19 15:08	
trans-1,3-Dichloropropene	0.50 U	0.50	1	04/21/19 15:08	
cis-1,3-Dichloropropene	0.50 U	0.50	1	04/21/19 15:08	
Ethylbenzene	0.50 U	0.50	1	04/21/19 15:08	
Hexachlorobutadiene	0.50 U	0.50	1	04/21/19 15:08	
Isopropylbenzene	0.50 U	0.50	1	04/21/19 15:08	
p-Isopropyltoluene	0.50 U	0.50	1	04/21/19 15:08	
Methylene Chloride	0.50 U	0.50	1	04/21/19 15:08	
Naphthalene	0.50 U	0.50	1	04/21/19 15:08	
n-Propylbenzene	0.50 U	0.50	1	04/21/19 15:08	
Styrene	0.50 U	0.50	1	04/21/19 15:08	
1,1,1,2-Tetrachloroethane	0.50 U	0.50	1	04/21/19 15:08	
1,1,2,2-Tetrachloroethane	0.50 U	0.50	1	04/21/19 15:08	

Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1903442
Project:	Wellsville-Andover LF Annual Sampling	**Date Collected:**	04/17/19 10:20
Sample Matrix:	Water	**Date Received:**	04/18/19 10:20
Sample Name:	WAL19Inter-0419	**Units:**	ug/L
Lab Code:	R1903442-002	**Basis:**	NA

Purgeable Organic Compounds by GC/MS

Analysis Method: 524.2
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Tetrachloroethene	0.50 U	0.50	1	04/21/19 15:08	
Toluene	0.50 U	0.50	1	04/21/19 15:08	
1,2,4-Trichlorobenzene	0.50 U	0.50	1	04/21/19 15:08	
1,2,3-Trichlorobenzene	0.50 U	0.50	1	04/21/19 15:08	
1,1,2-Trichloroethane	0.50 U	0.50	1	04/21/19 15:08	
Trichloroethene	0.50 U	0.50	1	04/21/19 15:08	
Trichlorofluoromethane	0.50 U	0.50	1	04/21/19 15:08	
1,2,3-Trichloropropane	0.50 U	0.50	1	04/21/19 15:08	
1,3,5-Trimethylbenzene	0.50 U	0.50	1	04/21/19 15:08	
1,2,4-Trimethylbenzene	0.50 U	0.50	1	04/21/19 15:08	
Vinyl Chloride	0.50 U	0.50	1	04/21/19 15:08	
m,p-Xylenes	1.0 U	1.0	1	04/21/19 15:08	
o-Xylene	0.50 U	0.50	1	04/21/19 15:08	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	95	70 - 130	04/21/19 15:08	
1,2-Dichlorobenzene-d4	95	70 - 130	04/21/19 15:08	

Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1903442
Project:	Wellsville-Andover LF Annual Sampling	**Date Collected:**	04/17/19 10:30
Sample Matrix:	Water	**Date Received:**	04/18/19 10:20
Sample Name:	WAL19Pre-0419	**Units:**	ug/L
Lab Code:	R1903442-003	**Basis:**	NA

Purgeable Organic Compounds by GC/MS

Analysis Method: 524.2
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Benzene	0.50 U	0.50	1	04/21/19 15:40	
Bromobenzene	0.50 U	0.50	1	04/21/19 15:40	
Bromochloromethane	0.50 U	0.50	1	04/21/19 15:40	
Bromodichloromethane	0.50 U	0.50	1	04/21/19 15:40	
Bromoform	0.50 U	0.50	1	04/21/19 15:40	
Bromomethane	0.50 U	0.50	1	04/21/19 15:40	
Methyl tert-Butyl Ether	0.50 U	0.50	1	04/21/19 15:40	
tert-Butylbenzene	0.50 U	0.50	1	04/21/19 15:40	
sec-Butylbenzene	0.50 U	0.50	1	04/21/19 15:40	
n-Butylbenzene	0.50 U	0.50	1	04/21/19 15:40	
Carbon Tetrachloride	0.50 U	0.50	1	04/21/19 15:40	
Chlorobenzene	0.50 U	0.50	1	04/21/19 15:40	
Chloroethane	0.50 U	0.50	1	04/21/19 15:40	
Chloroform	0.50 U	0.50	1	04/21/19 15:40	
Chloromethane	0.50 U	0.50	1	04/21/19 15:40	
2-Chlorotoluene	0.50 U	0.50	1	04/21/19 15:40	
4-Chlorotoluene	0.50 U	0.50	1	04/21/19 15:40	
Dibromochloromethane	0.50 U	0.50	1	04/21/19 15:40	
Dibromomethane	0.50 U	0.50	1	04/21/19 15:40	
1,2-Dichlorobenzene	0.50 U	0.50	1	04/21/19 15:40	
1,4-Dichlorobenzene	0.50 U	0.50	1	04/21/19 15:40	
1,3-Dichlorobenzene	0.50 U	0.50	1	04/21/19 15:40	
Dichlorodifluoromethane	0.50 U	0.50	1	04/21/19 15:40	
1,1-Dichloroethane	0.50 U	0.50	1	04/21/19 15:40	
1,2-Dichloroethane	0.50 U	0.50	1	04/21/19 15:40	
1,1-Dichloroethene	0.50 U	0.50	1	04/21/19 15:40	
trans-1,2-Dichloroethene	0.50 U	0.50	1	04/21/19 15:40	
cis-1,2-Dichloroethene	**2.2**	0.50	1	04/21/19 15:40	
2,2-Dichloropropane	0.50 U	0.50	1	04/21/19 15:40	
1,2-Dichloropropane	0.50 U	0.50	1	04/21/19 15:40	
1,3-Dichloropropane	0.50 U	0.50	1	04/21/19 15:40	
trans-1,3-Dichloropropene	0.50 U	0.50	1	04/21/19 15:40	
cis-1,3-Dichloropropene	0.50 U	0.50	1	04/21/19 15:40	
Ethylbenzene	0.50 U	0.50	1	04/21/19 15:40	
Hexachlorobutadiene	0.50 U	0.50	1	04/21/19 15:40	
Isopropylbenzene	0.50 U	0.50	1	04/21/19 15:40	
p-Isopropyltoluene	0.50 U	0.50	1	04/21/19 15:40	
Methylene Chloride	0.50 U	0.50	1	04/21/19 15:40	
Naphthalene	0.50 U	0.50	1	04/21/19 15:40	
n-Propylbenzene	0.50 U	0.50	1	04/21/19 15:40	
Styrene	0.50 U	0.50	1	04/21/19 15:40	
1,1,1,2-Tetrachloroethane	0.50 U	0.50	1	04/21/19 15:40	
1,1,2,2-Tetrachloroethane	0.50 U	0.50	1	04/21/19 15:40	

Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1903442
Project:	Wellsville-Andover LF Annual Sampling	**Date Collected:**	04/17/19 10:30
Sample Matrix:	Water	**Date Received:**	04/18/19 10:20
Sample Name:	WAL19Pre-0419	**Units:**	ug/L
Lab Code:	R1903442-003	**Basis:**	NA

Purgeable Organic Compounds by GC/MS

Analysis Method: 524.2
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Tetrachloroethene	0.50 U	0.50	1	04/21/19 15:40	
Toluene	0.50 U	0.50	1	04/21/19 15:40	
1,2,4-Trichlorobenzene	0.50 U	0.50	1	04/21/19 15:40	
1,2,3-Trichlorobenzene	0.50 U	0.50	1	04/21/19 15:40	
1,1,2-Trichloroethane	0.50 U	0.50	1	04/21/19 15:40	
Trichloroethene	**2.4**	0.50	1	04/21/19 15:40	
Trichlorofluoromethane	0.50 U	0.50	1	04/21/19 15:40	
1,2,3-Trichloropropane	0.50 U	0.50	1	04/21/19 15:40	
1,3,5-Trimethylbenzene	0.50 U	0.50	1	04/21/19 15:40	
1,2,4-Trimethylbenzene	0.50 U	0.50	1	04/21/19 15:40	
Vinyl Chloride	0.50 U	0.50	1	04/21/19 15:40	
m,p-Xylenes	1.0 U	1.0	1	04/21/19 15:40	
o-Xylene	0.50 U	0.50	1	04/21/19 15:40	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	97	70 - 130	04/21/19 15:40	
1,2-Dichlorobenzene-d4	98	70 - 130	04/21/19 15:40	

QC Summary Forms

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

Volatile Organic Compounds by GC/MS

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

Client: On-Site Technical Services, Inc. **Service Request:** R1903442

Project: Wellsville-Andover LF Annual Sampling

Sample Matrix: Water

SURROGATE RECOVERY SUMMARY
Purgeable Organic Compounds by GC/MS

Analysis Method: 524.2

Extraction Method: EPA 5030C

Sample Name	Lab Code	4-Bromofluorobenzene 70-130	1,2-Dichlorobenzene-d4 70-130
WAL19Post-0419	R1903442-001	97	99
WAL19Inter-0419	R1903442-002	95	95
WAL19Pre-0419	R1903442-003	97	98
Method Blank	RQ1903773-05	97	100
Method Blank	RQ1903773-10	97	100
Lab Control Sample	RQ1903773-03	110	112
Duplicate Lab Control Sample	RQ1903773-04	111	110
Lab Control Sample	RQ1903773-08	110	112
Duplicate Lab Control Sample	RQ1903773-09	111	110

Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1903442
Project:	Wellsville-Andover LF Annual Sampling	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	RQ1903773-05	**Basis:**	NA

Purgeable Organic Compounds by GC/MS

Analysis Method: 524.2
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Benzene	0.50 U	0.50	1	04/21/19 13:31	
Bromobenzene	0.50 U	0.50	1	04/21/19 13:31	
Bromochloromethane	0.50 U	0.50	1	04/21/19 13:31	
Bromodichloromethane	0.50 U	0.50	1	04/21/19 13:31	
Bromoform	0.50 U	0.50	1	04/21/19 13:31	
Bromomethane	0.50 U	0.50	1	04/21/19 13:31	
Methyl tert-Butyl Ether	0.50 U	0.50	1	04/21/19 13:31	
tert-Butylbenzene	0.50 U	0.50	1	04/21/19 13:31	
sec-Butylbenzene	0.50 U	0.50	1	04/21/19 13:31	
n-Butylbenzene	0.50 U	0.50	1	04/21/19 13:31	
Carbon Tetrachloride	0.50 U	0.50	1	04/21/19 13:31	
Chlorobenzene	0.50 U	0.50	1	04/21/19 13:31	
Chloroethane	0.50 U	0.50	1	04/21/19 13:31	
Chloroform	0.50 U	0.50	1	04/21/19 13:31	
Chloromethane	0.50 U	0.50	1	04/21/19 13:31	
2-Chlorotoluene	0.50 U	0.50	1	04/21/19 13:31	
4-Chlorotoluene	0.50 U	0.50	1	04/21/19 13:31	
Dibromochloromethane	0.50 U	0.50	1	04/21/19 13:31	
Dibromomethane	0.50 U	0.50	1	04/21/19 13:31	
1,2-Dichlorobenzene	0.50 U	0.50	1	04/21/19 13:31	
1,4-Dichlorobenzene	0.50 U	0.50	1	04/21/19 13:31	
1,3-Dichlorobenzene	0.50 U	0.50	1	04/21/19 13:31	
Dichlorodifluoromethane	0.50 U	0.50	1	04/21/19 13:31	
1,1-Dichloroethane	0.50 U	0.50	1	04/21/19 13:31	
1,2-Dichloroethane	0.50 U	0.50	1	04/21/19 13:31	
1,1-Dichloroethene	0.50 U	0.50	1	04/21/19 13:31	
trans-1,2-Dichloroethene	0.50 U	0.50	1	04/21/19 13:31	
cis-1,2-Dichloroethene	0.50 U	0.50	1	04/21/19 13:31	
2,2-Dichloropropane	0.50 U	0.50	1	04/21/19 13:31	
1,2-Dichloropropane	0.50 U	0.50	1	04/21/19 13:31	
1,3-Dichloropropane	0.50 U	0.50	1	04/21/19 13:31	
trans-1,3-Dichloropropene	0.50 U	0.50	1	04/21/19 13:31	
cis-1,3-Dichloropropene	0.50 U	0.50	1	04/21/19 13:31	
Ethylbenzene	0.50 U	0.50	1	04/21/19 13:31	
Hexachlorobutadiene	0.50 U	0.50	1	04/21/19 13:31	
Isopropylbenzene	0.50 U	0.50	1	04/21/19 13:31	
p-Isopropyltoluene	0.50 U	0.50	1	04/21/19 13:31	
Methylene Chloride	0.50 U	0.50	1	04/21/19 13:31	
Naphthalene	0.50 U	0.50	1	04/21/19 13:31	
n-Propylbenzene	0.50 U	0.50	1	04/21/19 13:31	
Styrene	0.50 U	0.50	1	04/21/19 13:31	
1,1,1,2-Tetrachloroethane	0.50 U	0.50	1	04/21/19 13:31	
1,1,2,2-Tetrachloroethane	0.50 U	0.50	1	04/21/19 13:31	

Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1903442
Project:	Wellsville-Andover LF Annual Sampling	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	RQ1903773-05	**Basis:**	NA

Purgeable Organic Compounds by GC/MS

Analysis Method: 524.2
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Tetrachloroethene	0.50 U	0.50	1	04/21/19 13:31	
Toluene	0.50 U	0.50	1	04/21/19 13:31	
1,2,4-Trichlorobenzene	0.50 U	0.50	1	04/21/19 13:31	
1,2,3-Trichlorobenzene	0.50 U	0.50	1	04/21/19 13:31	
1,1,2-Trichloroethane	0.50 U	0.50	1	04/21/19 13:31	
Trichloroethene	0.50 U	0.50	1	04/21/19 13:31	
Trichlorofluoromethane	0.50 U	0.50	1	04/21/19 13:31	
1,2,3-Trichloropropane	0.50 U	0.50	1	04/21/19 13:31	
1,3,5-Trimethylbenzene	0.50 U	0.50	1	04/21/19 13:31	
1,2,4-Trimethylbenzene	0.50 U	0.50	1	04/21/19 13:31	
Vinyl Chloride	0.50 U	0.50	1	04/21/19 13:31	
m,p-Xylenes	1.0 U	1.0	1	04/21/19 13:31	
o-Xylene	0.50 U	0.50	1	04/21/19 13:31	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	97	70 - 130	04/21/19 13:31	
1,2-Dichlorobenzene-d4	100	70 - 130	04/21/19 13:31	

Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1903442
Project:	Wellsville-Andover LF Annual Sampling	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	RQ1903773-10	**Basis:**	NA

Purgeable Organic Compounds by GC/MS

Analysis Method: 524.2
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Benzene	0.50 U	0.50	1	04/21/19 13:31	
Bromobenzene	0.50 U	0.50	1	04/21/19 13:31	
Bromochloromethane	0.50 U	0.50	1	04/21/19 13:31	
Bromodichloromethane	0.50 U	0.50	1	04/21/19 13:31	
Bromoform	0.50 U	0.50	1	04/21/19 13:31	
Bromomethane	0.50 U	0.50	1	04/21/19 13:31	
Methyl tert-Butyl Ether	0.50 U	0.50	1	04/21/19 13:31	
tert-Butylbenzene	0.50 U	0.50	1	04/21/19 13:31	
sec-Butylbenzene	0.50 U	0.50	1	04/21/19 13:31	
n-Butylbenzene	0.50 U	0.50	1	04/21/19 13:31	
Carbon Tetrachloride	0.50 U	0.50	1	04/21/19 13:31	
Chlorobenzene	0.50 U	0.50	1	04/21/19 13:31	
Chloroethane	0.50 U	0.50	1	04/21/19 13:31	
Chloroform	0.50 U	0.50	1	04/21/19 13:31	
Chloromethane	0.50 U	0.50	1	04/21/19 13:31	
2-Chlorotoluene	0.50 U	0.50	1	04/21/19 13:31	
4-Chlorotoluene	0.50 U	0.50	1	04/21/19 13:31	
Dibromochloromethane	0.50 U	0.50	1	04/21/19 13:31	
Dibromomethane	0.50 U	0.50	1	04/21/19 13:31	
1,2-Dichlorobenzene	0.50 U	0.50	1	04/21/19 13:31	
1,4-Dichlorobenzene	0.50 U	0.50	1	04/21/19 13:31	
1,3-Dichlorobenzene	0.50 U	0.50	1	04/21/19 13:31	
Dichlorodifluoromethane	0.50 U	0.50	1	04/21/19 13:31	
1,1-Dichloroethane	0.50 U	0.50	1	04/21/19 13:31	
1,2-Dichloroethane	0.50 U	0.50	1	04/21/19 13:31	
1,1-Dichloroethene	0.50 U	0.50	1	04/21/19 13:31	
trans-1,2-Dichloroethene	0.50 U	0.50	1	04/21/19 13:31	
cis-1,2-Dichloroethene	0.50 U	0.50	1	04/21/19 13:31	
2,2-Dichloropropane	0.50 U	0.50	1	04/21/19 13:31	
1,2-Dichloropropane	0.50 U	0.50	1	04/21/19 13:31	
1,3-Dichloropropane	0.50 U	0.50	1	04/21/19 13:31	
trans-1,3-Dichloropropene	0.50 U	0.50	1	04/21/19 13:31	
cis-1,3-Dichloropropene	0.50 U	0.50	1	04/21/19 13:31	
Ethylbenzene	0.50 U	0.50	1	04/21/19 13:31	
Hexachlorobutadiene	0.50 U	0.50	1	04/21/19 13:31	
Isopropylbenzene	0.50 U	0.50	1	04/21/19 13:31	
p-Isopropyltoluene	0.50 U	0.50	1	04/21/19 13:31	
Methylene Chloride	0.50 U	0.50	1	04/21/19 13:31	
Naphthalene	0.50 U	0.50	1	04/21/19 13:31	
n-Propylbenzene	0.50 U	0.50	1	04/21/19 13:31	
Styrene	0.50 U	0.50	1	04/21/19 13:31	
1,1,1,2-Tetrachloroethane	0.50 U	0.50	1	04/21/19 13:31	
1,1,2,2-Tetrachloroethane	0.50 U	0.50	1	04/21/19 13:31	

Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1903442
Project:	Wellsville-Andover LF Annual Sampling	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	RQ1903773-10	**Basis:**	NA

Purgeable Organic Compounds by GC/MS

Analysis Method: 524.2
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Tetrachloroethene	0.50 U	0.50	1	04/21/19 13:31	
Toluene	0.50 U	0.50	1	04/21/19 13:31	
1,2,4-Trichlorobenzene	0.50 U	0.50	1	04/21/19 13:31	
1,2,3-Trichlorobenzene	0.50 U	0.50	1	04/21/19 13:31	
1,1,2-Trichloroethane	0.50 U	0.50	1	04/21/19 13:31	
Trichloroethene	0.50 U	0.50	1	04/21/19 13:31	
Trichlorofluoromethane	0.50 U	0.50	1	04/21/19 13:31	
1,2,3-Trichloropropane	0.50 U	0.50	1	04/21/19 13:31	
1,3,5-Trimethylbenzene	0.50 U	0.50	1	04/21/19 13:31	
1,2,4-Trimethylbenzene	0.50 U	0.50	1	04/21/19 13:31	
Vinyl Chloride	0.50 U	0.50	1	04/21/19 13:31	
m,p-Xylenes	1.0 U	1.0	1	04/21/19 13:31	
o-Xylene	0.50 U	0.50	1	04/21/19 13:31	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	97	70 - 130	04/21/19 13:31	
1,2-Dichlorobenzene-d4	100	70 - 130	04/21/19 13:31	

Client: On-Site Technical Services, Inc. **Service Request:** R1903442
Project: Wellsville-Andover LF Annual Sampling **Date Analyzed:** 04/21/19
Sample Matrix: Water

Duplicate Lab Control Sample Summary
Purgeable Organic Compounds by GC/MS

Units:ug/L
Basis:NA

		Lab Control Sample			Duplicate Lab Control Sample					
		RQ1903773-03			RQ1903773-04					
Analyte Name	**Analytical Method**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Benzene	524.2	5.03	5.00	101	5.14	5.00	103	70-130	2	20
Bromobenzene	524.2	5.02	5.00	100	5.32	5.00	106	70-130	6	20
Bromochloromethane	524.2	4.89	5.00	98	5.35	5.00	107	70-130	9	20
Bromodichloromethane	524.2	5.42	5.00	108	5.36	5.00	107	70-130	1	20
Bromoform	524.2	6.08	5.00	122	6.10	5.00	122	70-130	<1	20
Bromomethane	524.2	4.63	5.00	93	4.42	5.00	88	70-130	5	20
Methyl tert-Butyl Ether	524.2	5.60	5.00	112	5.83	5.00	117	70-130	4	20
tert-Butylbenzene	524.2	4.57	5.00	91	4.70	5.00	94	70-130	3	20
sec-Butylbenzene	524.2	4.47	5.00	89	4.63	5.00	93	70-130	4	20
n-Butylbenzene	524.2	4.53	5.00	91	4.65	5.00	93	70-130	3	20
Carbon Tetrachloride	524.2	5.39	5.00	108	5.23	5.00	105	70-130	3	20
Chlorobenzene	524.2	5.02	5.00	100	4.87	5.00	97	70-130	3	20
Chloroethane	524.2	3.93	5.00	79	4.15	5.00	83	70-130	5	20
Chloroform	524.2	5.35	5.00	107	5.20	5.00	104	70-130	3	20
Chloromethane	524.2	4.38	5.00	88	4.51	5.00	90	70-130	3	20
2-Chlorotoluene	524.2	4.59	5.00	92	4.71	5.00	94	70-130	3	20
4-Chlorotoluene	524.2	4.60	5.00	92	4.76	5.00	95	70-130	3	20
Dibromochloromethane	524.2	5.84	5.00	117	5.67	5.00	113	70-130	3	20
Dibromomethane	524.2	5.31	5.00	106	5.44	5.00	109	70-130	2	20
1,2-Dichlorobenzene	524.2	4.90	5.00	98	5.06	5.00	101	70-130	3	20
1,4-Dichlorobenzene	524.2	4.76	5.00	95	5.00	5.00	100	70-130	5	20
1,3-Dichlorobenzene	524.2	4.79	5.00	96	4.95	5.00	99	70-130	3	20
Dichlorodifluoromethane	524.2	4.55	5.00	91	4.65	5.00	93	70-130	2	20
1,1-Dichloroethane	524.2	4.77	5.00	95	3.83	5.00	77	70-130	22*	20
1,2-Dichloroethane	524.2	5.36	5.00	107	5.32	5.00	106	70-130	<1	20
1,1-Dichloroethene	524.2	5.05	5.00	101	4.90	5.00	98	70-130	3	20
trans-1,2-Dichloroethene	524.2	4.75	5.00	95	4.80	5.00	96	70-130	1	20
cis-1,2-Dichloroethene	524.2	4.80	5.00	96	5.00	5.00	100	70-130	4	20
2,2-Dichloropropane	524.2	5.09	5.00	102	4.97	5.00	99	70-130	2	20
1,2-Dichloropropane	524.2	4.85	5.00	97	4.97	5.00	99	70-130	2	20
1,3-Dichloropropane	524.2	5.33	5.00	107	5.59	5.00	112	70-130	5	20
trans-1,3-Dichloropropene	524.2	4.58	5.00	92	5.06	5.00	101	70-130	10	20
cis-1,3-Dichloropropene	524.2	4.71	5.00	94	4.94	5.00	99	70-130	5	20

Client: On-Site Technical Services, Inc. **Service Request:** R1903442
Project: Wellsville-Andover LF Annual Sampling **Date Analyzed:** 04/21/19
Sample Matrix: Water

Duplicate Lab Control Sample Summary
Purgeable Organic Compounds by GC/MS

Units:ug/L
Basis:NA

		Lab Control Sample			Duplicate Lab Control Sample					
		RQ1903773-03			RQ1903773-04					
Analyte Name	**Analytical Method**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Ethylbenzene	524.2	4.72	5.00	94	4.73	5.00	95	70-130	<1	20
Hexachlorobutadiene	524.2	4.73	5.00	95	4.61	5.00	92	70-130	3	20
Isopropylbenzene	524.2	4.62	5.00	92	4.67	5.00	93	70-130	1	20
p-Isopropyltoluene	524.2	4.52	5.00	90	4.73	5.00	95	70-130	5	20
Methylene Chloride	524.2	4.90	5.00	98	4.97	5.00	99	70-130	1	20
Naphthalene	524.2	5.37	5.00	107	5.49	5.00	110	70-130	2	20
n-Propylbenzene	524.2	4.53	5.00	91	4.66	5.00	93	70-130	3	20
Styrene	524.2	4.73	5.00	95	4.92	5.00	98	70-130	4	20
1,1,1,2-Tetrachloroethane	524.2	5.94	5.00	119	5.56	5.00	111	70-130	7	20
1,1,2,2-Tetrachloroethane	524.2	5.65	5.00	113	5.67	5.00	113	70-130	<1	20
Tetrachloroethene	524.2	5.04	5.00	101	5.12	5.00	102	70-130	2	20
Toluene	524.2	4.81	5.00	96	4.85	5.00	97	70-130	<1	20
1,2,4-Trichlorobenzene	524.2	4.98	5.00	100	5.25	5.00	105	70-130	5	20
1,2,3-Trichlorobenzene	524.2	5.35	5.00	107	5.47	5.00	109	70-130	2	20
1,1,2-Trichloroethane	524.2	5.52	5.00	110	5.56	5.00	111	70-130	<1	20
Trichloroethene	524.2	4.95	5.00	99	4.93	5.00	99	70-130	<1	20
Trichlorofluoromethane	524.2	4.75	5.00	95	4.98	5.00	100	70-130	5	20
1,2,3-Trichloropropane	524.2	5.81	5.00	116	5.61	5.00	112	70-130	4	20
1,3,5-Trimethylbenzene	524.2	4.63	5.00	93	4.66	5.00	93	70-130	<1	20
1,2,4-Trimethylbenzene	524.2	4.70	5.00	94	4.76	5.00	95	70-130	1	20
Vinyl Chloride	524.2	4.95	5.00	99	4.89	5.00	98	70-130	1	20
m,p-Xylenes	524.2	9.31	10.0	93	9.61	10.0	96	70-130	3	20
o-Xylene	524.2	4.52	5.00	90	4.58	5.00	92	70-130	1	20

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: On-Site Technical Services, Inc. **Service Request:** R1903442
Project: Wellsville-Andover LF Annual Sampling **Date Analyzed:** 04/21/19
Sample Matrix: Water

Duplicate Lab Control Sample Summary
Purgeable Organic Compounds by GC/MS

Units:ug/L
Basis:NA

		Lab Control Sample			Duplicate Lab Control Sample					
		RQ1903773-08			RQ1903773-09					
Analyte Name	**Analytical Method**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Benzene	524.2	5.03	5.00	101	5.14	5.00	103	70-130	2	20
Bromobenzene	524.2	5.02	5.00	100	5.32	5.00	106	70-130	6	20
Bromochloromethane	524.2	4.89	5.00	98	5.35	5.00	107	70-130	9	20
Bromodichloromethane	524.2	5.42	5.00	108	5.36	5.00	107	70-130	1	20
Bromoform	524.2	6.08	5.00	122	6.10	5.00	122	70-130	<1	20
Bromomethane	524.2	4.63	5.00	93	4.42	5.00	88	70-130	5	20
Methyl tert-Butyl Ether	524.2	5.60	5.00	112	5.83	5.00	117	70-130	4	20
tert-Butylbenzene	524.2	4.57	5.00	91	4.70	5.00	94	70-130	3	20
sec-Butylbenzene	524.2	4.47	5.00	89	4.63	5.00	93	70-130	4	20
n-Butylbenzene	524.2	4.53	5.00	91	4.65	5.00	93	70-130	3	20
Carbon Tetrachloride	524.2	5.39	5.00	108	5.23	5.00	105	70-130	3	20
Chlorobenzene	524.2	5.02	5.00	100	4.87	5.00	97	70-130	3	20
Chloroethane	524.2	3.93	5.00	79	4.15	5.00	83	70-130	5	20
Chloroform	524.2	5.35	5.00	107	5.20	5.00	104	70-130	3	20
Chloromethane	524.2	4.38	5.00	88	4.51	5.00	90	70-130	3	20
2-Chlorotoluene	524.2	4.59	5.00	92	4.71	5.00	94	70-130	3	20
4-Chlorotoluene	524.2	4.60	5.00	92	4.76	5.00	95	70-130	3	20
Dibromochloromethane	524.2	5.84	5.00	117	5.67	5.00	113	70-130	3	20
Dibromomethane	524.2	5.31	5.00	106	5.44	5.00	109	70-130	2	20
1,2-Dichlorobenzene	524.2	4.90	5.00	98	5.06	5.00	101	70-130	3	20
1,4-Dichlorobenzene	524.2	4.76	5.00	95	5.00	5.00	100	70-130	5	20
1,3-Dichlorobenzene	524.2	4.79	5.00	96	4.95	5.00	99	70-130	3	20
Dichlorodifluoromethane	524.2	4.55	5.00	91	4.65	5.00	93	70-130	2	20
1,1-Dichloroethane	524.2	4.77	5.00	95	3.83	5.00	77	70-130	22*	20
1,2-Dichloroethane	524.2	5.36	5.00	107	5.32	5.00	106	70-130	<1	20
1,1-Dichloroethene	524.2	5.05	5.00	101	4.90	5.00	98	70-130	3	20
trans-1,2-Dichloroethene	524.2	4.75	5.00	95	4.80	5.00	96	70-130	1	20
cis-1,2-Dichloroethene	524.2	4.80	5.00	96	5.00	5.00	100	70-130	4	20
2,2-Dichloropropane	524.2	5.09	5.00	102	4.97	5.00	99	70-130	2	20
1,2-Dichloropropane	524.2	4.85	5.00	97	4.97	5.00	99	70-130	2	20
1,3-Dichloropropane	524.2	5.33	5.00	107	5.59	5.00	112	70-130	5	20
trans-1,3-Dichloropropene	524.2	4.58	5.00	92	5.06	5.00	101	70-130	10	20
cis-1,3-Dichloropropene	524.2	4.71	5.00	94	4.94	5.00	99	70-130	5	20

Client: On-Site Technical Services, Inc. **Service Request:** R1903442
Project: Wellsville-Andover LF Annual Sampling **Date Analyzed:** 04/21/19
Sample Matrix: Water

Duplicate Lab Control Sample Summary
Purgeable Organic Compounds by GC/MS

Units:ug/L
Basis:NA

		Lab Control Sample			Duplicate Lab Control Sample					
		RQ1903773-08			RQ1903773-09					
Analyte Name	**Analytical Method**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Ethylbenzene	524.2	4.72	5.00	94	4.73	5.00	95	70-130	<1	20
Hexachlorobutadiene	524.2	4.73	5.00	95	4.61	5.00	92	70-130	3	20
Isopropylbenzene	524.2	4.62	5.00	92	4.67	5.00	93	70-130	1	20
p-Isopropyltoluene	524.2	4.52	5.00	90	4.73	5.00	95	70-130	5	20
Methylene Chloride	524.2	4.90	5.00	98	4.97	5.00	99	70-130	1	20
Naphthalene	524.2	5.37	5.00	107	5.49	5.00	110	70-130	2	20
n-Propylbenzene	524.2	4.53	5.00	91	4.66	5.00	93	70-130	3	20
Styrene	524.2	4.73	5.00	95	4.92	5.00	98	70-130	4	20
1,1,1,2-Tetrachloroethane	524.2	5.94	5.00	119	5.56	5.00	111	70-130	7	20
1,1,2,2-Tetrachloroethane	524.2	5.65	5.00	113	5.67	5.00	113	70-130	<1	20
Tetrachloroethene	524.2	5.04	5.00	101	5.12	5.00	102	70-130	2	20
Toluene	524.2	4.81	5.00	96	4.85	5.00	97	70-130	<1	20
1,2,4-Trichlorobenzene	524.2	4.98	5.00	100	5.25	5.00	105	70-130	5	20
1,2,3-Trichlorobenzene	524.2	5.35	5.00	107	5.47	5.00	109	70-130	2	20
1,1,2-Trichloroethane	524.2	5.52	5.00	110	5.56	5.00	111	70-130	<1	20
Trichloroethene	524.2	4.95	5.00	99	4.93	5.00	99	70-130	<1	20
Trichlorofluoromethane	524.2	4.75	5.00	95	4.98	5.00	100	70-130	5	20
1,2,3-Trichloropropane	524.2	5.81	5.00	116	5.61	5.00	112	70-130	4	20
1,3,5-Trimethylbenzene	524.2	4.63	5.00	93	4.66	5.00	93	70-130	<1	20
1,2,4-Trimethylbenzene	524.2	4.70	5.00	94	4.76	5.00	95	70-130	1	20
Vinyl Chloride	524.2	4.95	5.00	99	4.89	5.00	98	70-130	1	20
m,p-Xylenes	524.2	9.31	10.0	93	9.61	10.0	96	70-130	3	20
o-Xylene	524.2	4.52	5.00	90	4.58	5.00	92	70-130	1	20

November 01, 2019 Service Request No:R1910415

Mr. Jon Brandes
On-Site Technical Services, Inc.
72 Railroad Avenue
Wellsville, NY 14895

Laboratory Results for: Wellsville-Andover LF - Annual Sampling

Dear Mr.Brandes,

Enclosed are the results of the sample(s) submitted to our laboratory October 23, 2019
For your reference, these analyses have been assigned our service request number **R1910415.**

All testing was performed according to our laboratory's quality assurance program and met the requirements of the TNI standards except as noted in the case narrative report. Any testing not included in the lab's accreditation is identified on a Non-Certified Analytes report. All results are intended to be considered in their entirety. ALS Environmental is not responsible for use of less than the complete report. Results apply only to the individual samples submitted to the lab for analysis, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s), and represented by Laboratory Control Sample control limits. Any events, such as QC failures or Holding Time exceedances, which may add to the uncertainty are explained in the report narrative or are flagged with qualifiers. The flags are explained in the Report Qualifiers and Definitions page of this report.

Please contact me if you have any questions. My extension is 7472. You may also contact me via email at Janice.Jaeger@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Janice Jaeger
Project Manager

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ALS Group USA, Corp.
dba ALS Environmental

Narrative Documents

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ALS Environmental

Client: On-Site Technical Services, Inc.
Project: Wellsville-Andover LF - Annual Sampling
Sample Matrix: Drinking Water, Water

Service Request: R1910415
Date Received: 10/23/2019

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier II level requested by the client.

Sample Receipt:

Eight drinking water, water samples were received for analysis at ALS Environmental on 10/23/2019. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

Metals:

No significant anomalies were noted with this analysis.

Subcontracted Analytical Parameters:

One or more samples were subcontracted to another laboratory for testing. The certified analytical report from the subcontractor has been included in its entirety at the end of this report and includes the name and address of the subcontracted laboratory.

Volatiles by GC/MS:

Method 8260C, 10/28/2019: The lower control limit was exceeded for one or more analytes in the Continuing Calibration Verification (CCV). Since there were no detections of the analyte(s) above the MRL in the associated field samples, the quantitation is not affected. The data quality was not significantly affected and no further corrective action was taken.

Method 8260C, 10/25/2019: The lower control limit was exceeded for one or more analytes in the Continuing Calibration Verification (CCV). Since there were no detections of the analyte(s) above the MRL in the associated field samples, the quantitation is not affected. The data quality was not significantly affected and no further corrective action was taken.

Approved by _____ Date 11/01/2019

SAMPLE DETECTION SUMMARY

CLIENT ID: MW16S-1019			Lab ID: R1910415-001			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Calcium, Total	15000			1000	ug/L	6010C
Iron, Total	640			100	ug/L	6010C
Magnesium, Total	9400			1000	ug/L	6010C
Manganese, Total	30			10	ug/L	6010C
Sodium, Total	7100			1000	ug/L	6010C

CLIENT ID: MW11S-1019			Lab ID: R1910415-002			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Barium, Total	25			20	ug/L	6010C
Calcium, Total	51000			1000	ug/L	6010C
Iron, Total	190			100	ug/L	6010C
Magnesium, Total	31800			1000	ug/L	6010C
Manganese, Total	543			10	ug/L	6010C
Sodium, Total	19100			1000	ug/L	6010C
cis-1,2-Dichloroethene	200			100	ug/L	8260C
Trichloroethene	2400			100	ug/L	8260C

CLIENT ID: CW4A-1019			Lab ID: R1910415-003			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Barium, Total	57			20	ug/L	6010C
Calcium, Total	29100			1000	ug/L	6010C
Iron, Total	190			100	ug/L	6010C
Magnesium, Total	16000			1000	ug/L	6010C
Manganese, Total	254			10	ug/L	6010C
Sodium, Total	14000			1000	ug/L	6010C

CLIENT ID: CW4B-1019			Lab ID: R1910415-004			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Barium, Total	31			20	ug/L	6010C
Calcium, Total	38300			1000	ug/L	6010C
Magnesium, Total	16500			1000	ug/L	6010C
Manganese, Total	23			10	ug/L	6010C
Sodium, Total	15000			1000	ug/L	6010C

CLIENT ID: DUP1-1019			Lab ID: R1910415-005			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Barium, Total	31			20	ug/L	6010C
Calcium, Total	38700			1000	ug/L	6010C
Magnesium, Total	16600			1000	ug/L	6010C
Manganese, Total	29			10	ug/L	6010C
Sodium, Total	15200			1000	ug/L	6010C

SAMPLE DETECTION SUMMARY

CLIENT ID: CW3B-1019			Lab ID: R1910415-006			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Barium, Total	39			20	ug/L	6010C
Calcium, Total	66600			1000	ug/L	6010C
Magnesium, Total	34200			1000	ug/L	6010C
Manganese, Total	31			10	ug/L	6010C
Potassium, Total	2500			2000	ug/L	6010C
Sodium, Total	21200			1000	ug/L	6010C
cis-1,2-Dichloroethene	95			13	ug/L	8260C
Trichloroethene	470			13	ug/L	8260C

CLIENT ID: CW3A-1019			Lab ID: R1910415-007			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Barium, Total	91			20	ug/L	6010C
Calcium, Total	116000			1000	ug/L	6010C
Magnesium, Total	2900			1000	ug/L	6010C
Manganese, Total	18			10	ug/L	6010C
Potassium, Total	12500			2000	ug/L	6010C
Sodium, Total	37900			1000	ug/L	6010C
cis-1,2-Dichloroethene	6.7			5.0	ug/L	8260C
Trichloroethene	38			5.0	ug/L	8260C

CLIENT ID: WAL1-1019			Lab ID: R1910415-008			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Barium, Total	75			20	ug/L	200.7
Calcium, Total	40900			1000	ug/L	200.7
Magnesium, Total	14200			1000	ug/L	200.7
Manganese, Total	108			10	ug/L	200.7
Sodium, Total	9000			1000	ug/L	200.7
Zinc, Total	40			20	ug/L	200.7

Sample Receipt Information

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

Client: On-Site Technical Services, Inc. **Service Request:**R1910415

Project: Wellsville-Andover LF - Annual Sampling

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
R1910415-001	MW16S-1019	10/21/2019	1005
R1910415-002	MW11S-1019	10/21/2019	1425
R1910415-003	CW4A-1019	10/22/2019	0920
R1910415-004	CW4B-1019	10/22/2019	1035
R1910415-005	DUP1-1019	10/22/2019	1045
R1910415-006	CW3B-1019	10/22/2019	1200
R1910415-007	CW3A-1019	10/22/2019	1315
R1910415-008	WAL1-1019	10/22/2019	1350

ALS-Environmental
1565 Jefferson Rd, Bldg 300, Suite 360
Rochester, NY 14623
585.288.5380

Client: **On-Site**
72 Railroad Ave.
Wellsville, NY 14895

Project Manager: **Jon Brandes**

CHAIN of CUSTODY

Page 1 of 1

Project: **WAL - Annual Sampling**

Telephone No.: 585-593-1824

Email: jonb@on-sitehs.com

Method of Shipment: UPS

Special Detection Limit/Reporting

Sample I.D.	Lab Sample No.	No. of Containers	Matrix: Soil	Water	Air	Other	Prsv.: Yes	No	Sampling Date	Sampling Time	GC;MS VOA's 8260 (HCl)	GC;MS VOA's 524.2 (C6H806)	T-Metals (HNO3)	TDS, NO3, Br, Cl, SO4 (NP) (SW/SED)	NH3, TKN, COD (H2SO4) (SW/SED)	Total Color (NP) (SW/SED)	BOD (NP) (SW/SED)	Alkalinity (NP) (SW/SED)	TDS, NO3 (NP) (Manhole)	REMARKS
MW16S-1019		8		X			X	X	10-21-19	1005	X		X							-MS/MSD
MW11S-1019		4		X			X		10-21-19	1425	X		X							
CW4A-1019		4		X			X		10-22-19	0920	X		X							
CW4B-1019		4		X			X		10-22-19	1035	X		X							
Dup1-1019		4		X			X		10-22-19	1045	X		X							
CW3B-1019		4		X			X		10-22-19	1200	X		X							
CW3A-1019		4		X			X		10-22-19	1315	X		X							
WAL2-1019		4		X			X		10-22-19	1350		X	X							

Sample Received Intact: Yes No

Temperature received: Ice No ice

Relinq. by sampler (Sign & Print Name)	Date	Time	Received by (Sign & Print Name)
Kevin Dye / Kevin Dye	10-22-19	1500	
Relinquished by	Date	Time	Received by
Relinquished by	Date	Time	Received by
Relinquished by	Date	Time	Received by laboratory: Date 10/23/19 Time 1315

Lab Work No.

R1910415 5
On-Site Technical Services, Inc.
Wellsville-Andover LF - Annual Sampling

R1910415 5
On-Site Technical Services, Inc.
Wellsville-Andover LF - Annual Sampling

Cooler Receipt and Preservation Check Form

Project/Client On-Site Folder Number

Cooler received on 10/23/19 by: RD

COURIER: ALS (UPS) FEDEX VELOCITY CLIENT

1	Were **Custody seals** on outside of cooler?	(Y) N	5a	**Perchlorate** samples have required headspace?	Y N (NA)
2	**Custody papers** properly completed (ink, signed)?	(Y) N	5b	Did VOA vials, Alk,or Sulfide have sig* **bubbles**?	Y (N) NA
3	Did all bottles arrive in good **condition** (unbroken)?	(Y) N	6	Where did the bottles originate?	(ALS/ROC) CLIENT
4	Circle: (Wet Ice) **Dry Ice Gel packs** present?	(Y) N	7	Soil VOA received as: Bulk Encore 5035set	(NA)

8. Temperature Readings Date: 10/23/19 Time: 1324 ID: (IR#7) IR#10 From: (Temp Blank) Sample Bottle

Observed Temp (°C)	1.8						
Correction Factor (°C)	~~-0~~ +1.1						
Corrected Temp (°C)	2.9						
Temp from:Type of bottle	Cont Tube						
Within 0-6°C?	(Y) N	Y N	Y N	Y N	Y N	Y N	Y N
If <0°C, were samples frozen?	Y N	Y N	Y N	Y N	Y N	Y N	Y N

If out of Temperature, note packing/ice condition: _____ Ice melted Poorly Packed (described below) Same Day Rule

&Client Approval to Run Samples: _____ Standing Approval Client aware at drop-off Client notified by: _____

All samples held in storage location: R-102 by C on 10/23/19 at 1330
5035 samples placed in storage location: _____ by _____ on _____ at _____

Cooler Breakdown/Preservation Check**: Date: 10/23/19 Time: 1855 by: RD

9. Were all bottle labels complete (*i.e.* analysis, preservation, etc.)? (YES) NO
10. Did all bottle labels and tags agree with custody papers? (YES) NO
11. Were correct containers used for the tests indicated? (YES) NO
12. Were 5035 vials acceptable (no extra labels, not leaking)? YES NO (N/A)
13. Air Samples: Cassettes / Tubes Intact with MS? Canisters Pressurized Tedlar® Bags Inflated (N/A)

pH	Lot of test paper	Reagent	Preserved? Yes	Preserved? No	Lot Received	Exp	Sample ID Adjusted	Vol. Added	Lot Added	Final pH
≥12		NaOH								
≤2		HNO_3	✓		1118072					
≤2		H_2SO_4								
<4		$NaHSO_4$								
5-9		For 608pest			No=Notify for 3day					
Residual Chlorine (-)		For CN, Phenol, 625, 608pest, 522			If +, contact PM to add $Na_2S_2O_3$ (625, 608, CN), ascorbic (phenol).					
		$Na_2S_2O_3$								
		ZnAcetate	-	-						
		HCl	**	**	J108-15, 59081					

**VOAs and 1664 Not to be tested before analysis. Otherwise, all bottles of all samples with chemical preservatives are checked (not just representatives).

Bottle lot numbers: 8-333-003, 19-07-38

Explain all Discrepancies/ Other Comments:

-004 = bottles bad

CLRES	BULK
DO	FLDT
HPROD	HGFB
HTR	LL3541
PH	(SUB)
SO3	MARRS
ALS	REV

Labels secondary reviewed by: C

PC Secondary Review: MG

*significant air bubbles: VOA > 5-6 mm : WC >1 in. diameter

Miscellaneous Forms

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

REPORT QUALIFIERS AND DEFINITIONS

U	Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.
J	Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Arclors).
B	Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.
E	Inorganics- Concentration is estimated due to the serial dilution was outside control limits.
E	Organics- Concentration has exceeded the calibration range for that specific analysis.
D	Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.
*	Indicates that a quality control parameter has exceeded laboratory limits. Under the ñNotesò column of the Form I, this qualifier denotes analysis was performed out of Holding Time.
H	Analysis was performed out of hold time for tests that have an ñimmediateò hold time criteria.
#	Spike was diluted out.
+	Correlation coefficient for MSA is <0.995.
N	Inorganics- Matrix spike recovery was outside laboratory limits.
N	Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.
S	Concentration has been determined using Method of Standard Additions (MSA).
W	Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.
P	Concentration >40% difference between the two GC columns.
C	Confirmed by GC/MS
Q	DoD reports: indicates a pesticide/Aroclor is not confirmed (Ó100% Difference between two GC columns).
X	See Case Narrative for discussion.
MRL LOQ	Method Reporting Limit. Also known as: Limit of Quantitation (LOQ) The lowest concentration at which the method analyte may be reliably quantified under the method conditions.
MDL	Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).
LOD	Limit of Detection. A value at or above the MDL which has been verified to be detectable.
ND	Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.

Rochester Lab ID # for State Certifications[1]

Connecticut ID # PH0556	Maine ID #NY0032	Pennsylvania ID# 68-786
Delaware Approved	New Hampshire ID # 2941	Rhode Island ID # 158
DoD ELAP #65817	New York ID # 10145	Virginia #460167
Florida ID # E87674	North Carolina #676	

[1] Analyses were performed according to our laboratoryôs NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the case narrative. Since not all analyte/method/matrix combinations are offered for state/NELAC accreditation, this report may contain results which are not accredited. For a specific list of accredited analytes, contact the laboratory or go to https://www.alsglobal.com/locations/americas/north-america/usa/new-york/rochester-environmental

ALS Laboratory Group

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

Client: On-Site Technical Services, Inc. **Service Request:** R1910415
Project: Wellsville-Andover LF - Annual Sampling

Non-Certified Analytes

Certifying Agency: New York Department of Health

Method	Matrix	Analyte
200.7	Drinking Water	Arsenic, Total
200.7	Drinking Water	Barium, Total
200.7	Drinking Water	Cadmium, Total
200.7	Drinking Water	Lead, Total
200.7	Drinking Water	Nickel, Total
200.7	Drinking Water	Selenium, Total

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1910415
Project:	Wellsville-Andover LF - Annual Sampling/		

Sample Name:	MW16S-1019	**Date Collected:**	10/21/19
Lab Code:	R1910415-001	**Date Received:**	10/23/19
Sample Matrix:	Water		

Analysis Method	Extracted/Digested By	Analyzed By
6010C	AKONZEL	KMCLAEN
8260C		KRUEST

Sample Name:	MW11S-1019	**Date Collected:**	10/21/19
Lab Code:	R1910415-002	**Date Received:**	10/23/19
Sample Matrix:	Water		

Analysis Method	Extracted/Digested By	Analyzed By
6010C	AKONZEL	KMCLAEN
8260C		KRUEST

Sample Name:	CW4A-1019	**Date Collected:**	10/22/19
Lab Code:	R1910415-003	**Date Received:**	10/23/19
Sample Matrix:	Water		

Analysis Method	Extracted/Digested By	Analyzed By
6010C	AKONZEL	KMCLAEN
8260C		KRUEST

Sample Name:	CW4B-1019	**Date Collected:**	10/22/19
Lab Code:	R1910415-004	**Date Received:**	10/23/19
Sample Matrix:	Water		

Analysis Method	Extracted/Digested By	Analyzed By
6010C	AKONZEL	KMCLAEN
8260C		KRUEST

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1910415
Project:	Wellsville-Andover LF - Annual Sampling/		

Sample Name:	DUP1-1019	**Date Collected:**	10/22/19
Lab Code:	R1910415-005	**Date Received:**	10/23/19
Sample Matrix:	Water		

Analysis Method	Extracted/Digested By	Analyzed By
6010C	AKONZEL	KMCLAEN
8260C		KRUEST

Sample Name:	CW3B-1019	**Date Collected:**	10/22/19
Lab Code:	R1910415-006	**Date Received:**	10/23/19
Sample Matrix:	Water		

Analysis Method	Extracted/Digested By	Analyzed By
6010C	AKONZEL	KMCLAEN
8260C		KRUEST

Sample Name:	CW3A-1019	**Date Collected:**	10/22/19
Lab Code:	R1910415-007	**Date Received:**	10/23/19
Sample Matrix:	Water		

Analysis Method	Extracted/Digested By	Analyzed By
6010C	AKONZEL	KMCLAEN
8260C		KRUEST

Sample Name:	WAL1-1019	**Date Collected:**	10/22/19
Lab Code:	R1910415-008	**Date Received:**	10/23/19
Sample Matrix:	Drinking Water		

Analysis Method	Extracted/Digested By	Analyzed By
200.7	AKONZEL	KMCLAEN

The preparation methods associated with this report are found in these tables unless discussed in the case narrative.

Water/Liquid Matrix

Analytical Method	Preparation Method
200.7	200.2
200.8	200.2
6010C	3005A/3010A
6020A	ILM05.3
9014 Cyanide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Acid Soluble	9030B
9056A Bomb (Halogens)	5050A
9066 Manual Distillation	9065
SM 4500-CN-E Residual Cyanide	SM 4500-CN-G
SM 4500-CN-E WAD Cyanide	SM 4500-CN-I

Solid/Soil/Non-Aqueous Matrix

Analytical Method	Preparation Method
6010C	3050B
6020A	3050B
6010C TCLP (1311) extract	3005A/3010A
6010 SPLP (1312) extract	3005A/3010A
7196A	3060A
7199	3060A
9056A Halogens/Halides	5050
300.0 Anions/ 350.1/ 353.2/ SM 2320B/ SM 5210B/ 9056A Anions	DI extraction

For analytical methods not listed, the preparation method is the same as the analytical method reference.

Sample Results

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

Volatile Organic Compounds by GC/MS

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1910415
Project:	Wellsville-Andover LF - Annual Sampling	**Date Collected:**	10/21/19 10:05
Sample Matrix:	Water	**Date Received:**	10/23/19 13:15
Sample Name:	MW16S-1019	**Units:**	ug/L
Lab Code:	R1910415-001	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Acetone	10 U	10	1	10/25/19 18:33	
Benzene	5.0 U	5.0	1	10/25/19 18:33	
Bromodichloromethane	5.0 U	5.0	1	10/25/19 18:33	
Bromoform	5.0 U	5.0	1	10/25/19 18:33	
Bromomethane	5.0 U	5.0	1	10/25/19 18:33	
2-Butanone (MEK)	10 U	10	1	10/25/19 18:33	
Carbon Disulfide	10 U	10	1	10/25/19 18:33	
Carbon Tetrachloride	5.0 U	5.0	1	10/25/19 18:33	
Chlorobenzene	5.0 U	5.0	1	10/25/19 18:33	
Chloroethane	5.0 U	5.0	1	10/25/19 18:33	
Chloroform	5.0 U	5.0	1	10/25/19 18:33	
Chloromethane	5.0 U	5.0	1	10/25/19 18:33	
Dibromochloromethane	5.0 U	5.0	1	10/25/19 18:33	
1,1-Dichloroethane	5.0 U	5.0	1	10/25/19 18:33	
1,2-Dibromoethane	5.0 U	5.0	1	10/25/19 18:33	
1,2-Dichloroethane	5.0 U	5.0	1	10/25/19 18:33	
1,1-Dichloroethene	5.0 U	5.0	1	10/25/19 18:33	
cis-1,2-Dichloroethene	5.0 U	5.0	1	10/25/19 18:33	
trans-1,2-Dichloroethene	5.0 U	5.0	1	10/25/19 18:33	
1,2-Dichloropropane	5.0 U	5.0	1	10/25/19 18:33	
cis-1,3-Dichloropropene	5.0 U	5.0	1	10/25/19 18:33	
trans-1,3-Dichloropropene	5.0 U	5.0	1	10/25/19 18:33	
Ethylbenzene	5.0 U	5.0	1	10/25/19 18:33	
2-Hexanone	10 U	10	1	10/25/19 18:33	
Methylene Chloride	5.0 U	5.0	1	10/25/19 18:33	
4-Methyl-2-pentanone (MIBK)	10 U	10	1	10/25/19 18:33	
Styrene	5.0 U	5.0	1	10/25/19 18:33	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	10/25/19 18:33	
Tetrachloroethene	5.0 U	5.0	1	10/25/19 18:33	
Toluene	5.0 U	5.0	1	10/25/19 18:33	
1,1,1-Trichloroethane	5.0 U	5.0	1	10/25/19 18:33	
1,1,2-Trichloroethane	5.0 U	5.0	1	10/25/19 18:33	
Trichloroethene	5.0 U	5.0	1	10/25/19 18:33	
Vinyl Chloride	5.0 U	5.0	1	10/25/19 18:33	
o-Xylene	5.0 U	5.0	1	10/25/19 18:33	
m,p-Xylenes	5.0 U	5.0	1	10/25/19 18:33	

Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1910415
Project:	Wellsville-Andover LF - Annual Sampling	**Date Collected:**	10/21/19 10:05
Sample Matrix:	Water	**Date Received:**	10/23/19 13:15
Sample Name:	MW16S-1019	**Units:**	ug/L
Lab Code:	R1910415-001	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	98	85 - 122	10/25/19 18:33	
Toluene-d8	101	87 - 121	10/25/19 18:33	
Dibromofluoromethane	98	89 - 119	10/25/19 18:33	

Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1910415
Project:	Wellsville-Andover LF - Annual Sampling	**Date Collected:**	10/21/19 14:25
Sample Matrix:	Water	**Date Received:**	10/23/19 13:15
Sample Name:	MW11S-1019	**Units:**	ug/L
Lab Code:	R1910415-002	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result		MRL	Dil.	Date Analyzed	Q
Acetone	200	U	200	20	10/25/19 20:00	
Benzene	100	U	100	20	10/25/19 20:00	
Bromodichloromethane	100	U	100	20	10/25/19 20:00	
Bromoform	100	U	100	20	10/25/19 20:00	
Bromomethane	100	U	100	20	10/25/19 20:00	
2-Butanone (MEK)	200	U	200	20	10/25/19 20:00	
Carbon Disulfide	200	U	200	20	10/25/19 20:00	
Carbon Tetrachloride	100	U	100	20	10/25/19 20:00	
Chlorobenzene	100	U	100	20	10/25/19 20:00	
Chloroethane	100	U	100	20	10/25/19 20:00	
Chloroform	100	U	100	20	10/25/19 20:00	
Chloromethane	100	U	100	20	10/25/19 20:00	
Dibromochloromethane	100	U	100	20	10/25/19 20:00	
1,2-Dibromoethane	100	U	100	20	10/25/19 20:00	
1,1-Dichloroethane	100	U	100	20	10/25/19 20:00	
1,2-Dichloroethane	100	U	100	20	10/25/19 20:00	
1,1-Dichloroethene	100	U	100	20	10/25/19 20:00	
cis-1,2-Dichloroethene	**200**		100	20	10/25/19 20:00	
trans-1,2-Dichloroethene	100	U	100	20	10/25/19 20:00	
1,2-Dichloropropane	100	U	100	20	10/25/19 20:00	
cis-1,3-Dichloropropene	100	U	100	20	10/25/19 20:00	
trans-1,3-Dichloropropene	100	U	100	20	10/25/19 20:00	
Ethylbenzene	100	U	100	20	10/25/19 20:00	
2-Hexanone	200	U	200	20	10/25/19 20:00	
Methylene Chloride	100	U	100	20	10/25/19 20:00	
4-Methyl-2-pentanone (MIBK)	200	U	200	20	10/25/19 20:00	
Styrene	100	U	100	20	10/25/19 20:00	
1,1,2,2-Tetrachloroethane	100	U	100	20	10/25/19 20:00	
Tetrachloroethene	100	U	100	20	10/25/19 20:00	
Toluene	100	U	100	20	10/25/19 20:00	
1,1,1-Trichloroethane	100	U	100	20	10/25/19 20:00	
1,1,2-Trichloroethane	100	U	100	20	10/25/19 20:00	
Trichloroethene	**2400**		100	20	10/25/19 20:00	
Vinyl Chloride	100	U	100	20	10/25/19 20:00	
o-Xylene	100	U	100	20	10/25/19 20:00	
m,p-Xylenes	100	U	100	20	10/25/19 20:00	

Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1910415
Project:	Wellsville-Andover LF - Annual Sampling	**Date Collected:**	10/21/19 14:25
Sample Matrix:	Water	**Date Received:**	10/23/19 13:15
Sample Name:	MW11S-1019	**Units:**	ug/L
Lab Code:	R1910415-002	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	96	85 - 122	10/25/19 20:00	
Toluene-d8	99	87 - 121	10/25/19 20:00	
Dibromofluoromethane	96	89 - 119	10/25/19 20:00	

Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1910415
Project:	Wellsville-Andover LF - Annual Sampling	**Date Collected:**	10/22/19 09:20
Sample Matrix:	Water	**Date Received:**	10/23/19 13:15
Sample Name:	CW4A-1019	**Units:**	ug/L
Lab Code:	R1910415-003	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Acetone	10 U	10	1	10/25/19 18:55	
Benzene	5.0 U	5.0	1	10/25/19 18:55	
Bromodichloromethane	5.0 U	5.0	1	10/25/19 18:55	
Bromoform	5.0 U	5.0	1	10/25/19 18:55	
Bromomethane	5.0 U	5.0	1	10/25/19 18:55	
2-Butanone (MEK)	10 U	10	1	10/25/19 18:55	
Carbon Disulfide	10 U	10	1	10/25/19 18:55	
Carbon Tetrachloride	5.0 U	5.0	1	10/25/19 18:55	
Chlorobenzene	5.0 U	5.0	1	10/25/19 18:55	
Chloroethane	5.0 U	5.0	1	10/25/19 18:55	
Chloroform	5.0 U	5.0	1	10/25/19 18:55	
Chloromethane	5.0 U	5.0	1	10/25/19 18:55	
Dibromochloromethane	5.0 U	5.0	1	10/25/19 18:55	
1,1-Dichloroethane	5.0 U	5.0	1	10/25/19 18:55	
1,2-Dibromoethane	5.0 U	5.0	1	10/25/19 18:55	
1,2-Dichloroethane	5.0 U	5.0	1	10/25/19 18:55	
1,1-Dichloroethene	5.0 U	5.0	1	10/25/19 18:55	
cis-1,2-Dichloroethene	5.0 U	5.0	1	10/25/19 18:55	
trans-1,2-Dichloroethene	5.0 U	5.0	1	10/25/19 18:55	
1,2-Dichloropropane	5.0 U	5.0	1	10/25/19 18:55	
cis-1,3-Dichloropropene	5.0 U	5.0	1	10/25/19 18:55	
trans-1,3-Dichloropropene	5.0 U	5.0	1	10/25/19 18:55	
Ethylbenzene	5.0 U	5.0	1	10/25/19 18:55	
2-Hexanone	10 U	10	1	10/25/19 18:55	
Methylene Chloride	5.0 U	5.0	1	10/25/19 18:55	
4-Methyl-2-pentanone (MIBK)	10 U	10	1	10/25/19 18:55	
Styrene	5.0 U	5.0	1	10/25/19 18:55	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	10/25/19 18:55	
Tetrachloroethene	5.0 U	5.0	1	10/25/19 18:55	
Toluene	5.0 U	5.0	1	10/25/19 18:55	
1,1,1-Trichloroethane	5.0 U	5.0	1	10/25/19 18:55	
1,1,2-Trichloroethane	5.0 U	5.0	1	10/25/19 18:55	
Trichloroethene	5.0 U	5.0	1	10/25/19 18:55	
Vinyl Chloride	5.0 U	5.0	1	10/25/19 18:55	
o-Xylene	5.0 U	5.0	1	10/25/19 18:55	
m,p-Xylenes	5.0 U	5.0	1	10/25/19 18:55	

Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1910415
Project:	Wellsville-Andover LF - Annual Sampling	**Date Collected:**	10/22/19 09:20
Sample Matrix:	Water	**Date Received:**	10/23/19 13:15
Sample Name:	CW4A-1019	**Units:**	ug/L
Lab Code:	R1910415-003	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	97	85 - 122	10/25/19 18:55	
Toluene-d8	101	87 - 121	10/25/19 18:55	
Dibromofluoromethane	96	89 - 119	10/25/19 18:55	

Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1910415
Project:	Wellsville-Andover LF - Annual Sampling	**Date Collected:**	10/22/19 10:35
Sample Matrix:	Water	**Date Received:**	10/23/19 13:15
Sample Name:	CW4B-1019	**Units:**	ug/L
Lab Code:	R1910415-004	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Acetone	10 U	10	1	10/25/19 19:16	
Benzene	5.0 U	5.0	1	10/25/19 19:16	
Bromodichloromethane	5.0 U	5.0	1	10/25/19 19:16	
Bromoform	5.0 U	5.0	1	10/25/19 19:16	
Bromomethane	5.0 U	5.0	1	10/25/19 19:16	
2-Butanone (MEK)	10 U	10	1	10/25/19 19:16	
Carbon Disulfide	10 U	10	1	10/25/19 19:16	
Carbon Tetrachloride	5.0 U	5.0	1	10/25/19 19:16	
Chlorobenzene	5.0 U	5.0	1	10/25/19 19:16	
Chloroethane	5.0 U	5.0	1	10/25/19 19:16	
Chloroform	5.0 U	5.0	1	10/25/19 19:16	
Chloromethane	5.0 U	5.0	1	10/25/19 19:16	
Dibromochloromethane	5.0 U	5.0	1	10/25/19 19:16	
1,2-Dibromoethane	5.0 U	5.0	1	10/25/19 19:16	
1,1-Dichloroethane	5.0 U	5.0	1	10/25/19 19:16	
1,2-Dichloroethane	5.0 U	5.0	1	10/25/19 19:16	
1,1-Dichloroethene	5.0 U	5.0	1	10/25/19 19:16	
cis-1,2-Dichloroethene	5.0 U	5.0	1	10/25/19 19:16	
trans-1,2-Dichloroethene	5.0 U	5.0	1	10/25/19 19:16	
1,2-Dichloropropane	5.0 U	5.0	1	10/25/19 19:16	
cis-1,3-Dichloropropene	5.0 U	5.0	1	10/25/19 19:16	
trans-1,3-Dichloropropene	5.0 U	5.0	1	10/25/19 19:16	
Ethylbenzene	5.0 U	5.0	1	10/25/19 19:16	
2-Hexanone	10 U	10	1	10/25/19 19:16	
Methylene Chloride	5.0 U	5.0	1	10/25/19 19:16	
4-Methyl-2-pentanone (MIBK)	10 U	10	1	10/25/19 19:16	
Styrene	5.0 U	5.0	1	10/25/19 19:16	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	10/25/19 19:16	
Tetrachloroethene	5.0 U	5.0	1	10/25/19 19:16	
Toluene	5.0 U	5.0	1	10/25/19 19:16	
1,1,1-Trichloroethane	5.0 U	5.0	1	10/25/19 19:16	
1,1,2-Trichloroethane	5.0 U	5.0	1	10/25/19 19:16	
Trichloroethene	5.0 U	5.0	1	10/25/19 19:16	
Vinyl Chloride	5.0 U	5.0	1	10/25/19 19:16	
o-Xylene	5.0 U	5.0	1	10/25/19 19:16	
m,p-Xylenes	5.0 U	5.0	1	10/25/19 19:16	

Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1910415
Project:	Wellsville-Andover LF - Annual Sampling	**Date Collected:**	10/22/19 10:35
Sample Matrix:	Water	**Date Received:**	10/23/19 13:15
Sample Name:	CW4B-1019	**Units:**	ug/L
Lab Code:	R1910415-004	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	98	85 - 122	10/25/19 19:16	
Toluene-d8	101	87 - 121	10/25/19 19:16	
Dibromofluoromethane	98	89 - 119	10/25/19 19:16	

Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1910415
Project:	Wellsville-Andover LF - Annual Sampling	**Date Collected:**	10/22/19 10:45
Sample Matrix:	Water	**Date Received:**	10/23/19 13:15
Sample Name:	DUP1-1019	**Units:**	ug/L
Lab Code:	R1910415-005	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Acetone	10 U	10	1	10/25/19 19:38	
Benzene	5.0 U	5.0	1	10/25/19 19:38	
Bromodichloromethane	5.0 U	5.0	1	10/25/19 19:38	
Bromoform	5.0 U	5.0	1	10/25/19 19:38	
Bromomethane	5.0 U	5.0	1	10/25/19 19:38	
2-Butanone (MEK)	10 U	10	1	10/25/19 19:38	
Carbon Disulfide	10 U	10	1	10/25/19 19:38	
Carbon Tetrachloride	5.0 U	5.0	1	10/25/19 19:38	
Chlorobenzene	5.0 U	5.0	1	10/25/19 19:38	
Chloroethane	5.0 U	5.0	1	10/25/19 19:38	
Chloroform	5.0 U	5.0	1	10/25/19 19:38	
Chloromethane	5.0 U	5.0	1	10/25/19 19:38	
Dibromochloromethane	5.0 U	5.0	1	10/25/19 19:38	
1,1-Dichloroethane	5.0 U	5.0	1	10/25/19 19:38	
1,2-Dibromoethane	5.0 U	5.0	1	10/25/19 19:38	
1,2-Dichloroethane	5.0 U	5.0	1	10/25/19 19:38	
1,1-Dichloroethene	5.0 U	5.0	1	10/25/19 19:38	
cis-1,2-Dichloroethene	5.0 U	5.0	1	10/25/19 19:38	
trans-1,2-Dichloroethene	5.0 U	5.0	1	10/25/19 19:38	
1,2-Dichloropropane	5.0 U	5.0	1	10/25/19 19:38	
cis-1,3-Dichloropropene	5.0 U	5.0	1	10/25/19 19:38	
trans-1,3-Dichloropropene	5.0 U	5.0	1	10/25/19 19:38	
Ethylbenzene	5.0 U	5.0	1	10/25/19 19:38	
2-Hexanone	10 U	10	1	10/25/19 19:38	
Methylene Chloride	5.0 U	5.0	1	10/25/19 19:38	
4-Methyl-2-pentanone (MIBK)	10 U	10	1	10/25/19 19:38	
Styrene	5.0 U	5.0	1	10/25/19 19:38	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	10/25/19 19:38	
Tetrachloroethene	5.0 U	5.0	1	10/25/19 19:38	
Toluene	5.0 U	5.0	1	10/25/19 19:38	
1,1,1-Trichloroethane	5.0 U	5.0	1	10/25/19 19:38	
1,1,2-Trichloroethane	5.0 U	5.0	1	10/25/19 19:38	
Trichloroethene	5.0 U	5.0	1	10/25/19 19:38	
Vinyl Chloride	5.0 U	5.0	1	10/25/19 19:38	
o-Xylene	5.0 U	5.0	1	10/25/19 19:38	
m,p-Xylenes	5.0 U	5.0	1	10/25/19 19:38	

Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1910415
Project:	Wellsville-Andover LF - Annual Sampling	**Date Collected:**	10/22/19 10:45
Sample Matrix:	Water	**Date Received:**	10/23/19 13:15
Sample Name:	DUP1-1019	**Units:**	ug/L
Lab Code:	R1910415-005	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	100	85 - 122	10/25/19 19:38	
Toluene-d8	103	87 - 121	10/25/19 19:38	
Dibromofluoromethane	98	89 - 119	10/25/19 19:38	

Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1910415
Project:	Wellsville-Andover LF - Annual Sampling	**Date Collected:**	10/22/19 12:00
Sample Matrix:	Water	**Date Received:**	10/23/19 13:15
Sample Name:	CW3B-1019	**Units:**	ug/L
Lab Code:	R1910415-006	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Acetone	25 U	25	2.5	10/28/19 14:35	
Benzene	13 U	13	2.5	10/28/19 14:35	
Bromodichloromethane	13 U	13	2.5	10/28/19 14:35	
Bromoform	13 U	13	2.5	10/28/19 14:35	
Bromomethane	13 U	13	2.5	10/28/19 14:35	
2-Butanone (MEK)	25 U	25	2.5	10/28/19 14:35	
Carbon Disulfide	25 U	25	2.5	10/28/19 14:35	
Carbon Tetrachloride	13 U	13	2.5	10/28/19 14:35	
Chlorobenzene	13 U	13	2.5	10/28/19 14:35	
Chloroethane	13 U	13	2.5	10/28/19 14:35	
Chloroform	13 U	13	2.5	10/28/19 14:35	
Chloromethane	13 U	13	2.5	10/28/19 14:35	
Dibromochloromethane	13 U	13	2.5	10/28/19 14:35	
1,2-Dibromoethane	13 U	13	2.5	10/28/19 14:35	
1,1-Dichloroethane	13 U	13	2.5	10/28/19 14:35	
1,2-Dichloroethane	13 U	13	2.5	10/28/19 14:35	
1,1-Dichloroethene	13 U	13	2.5	10/28/19 14:35	
cis-1,2-Dichloroethene	**95**	13	2.5	10/28/19 14:35	
trans-1,2-Dichloroethene	13 U	13	2.5	10/28/19 14:35	
1,2-Dichloropropane	13 U	13	2.5	10/28/19 14:35	
cis-1,3-Dichloropropene	13 U	13	2.5	10/28/19 14:35	
trans-1,3-Dichloropropene	13 U	13	2.5	10/28/19 14:35	
Ethylbenzene	13 U	13	2.5	10/28/19 14:35	
2-Hexanone	25 U	25	2.5	10/28/19 14:35	
Methylene Chloride	13 U	13	2.5	10/28/19 14:35	
4-Methyl-2-pentanone (MIBK)	25 U	25	2.5	10/28/19 14:35	
Styrene	13 U	13	2.5	10/28/19 14:35	
1,1,2,2-Tetrachloroethane	13 U	13	2.5	10/28/19 14:35	
Tetrachloroethene	13 U	13	2.5	10/28/19 14:35	
Toluene	13 U	13	2.5	10/28/19 14:35	
1,1,1-Trichloroethane	13 U	13	2.5	10/28/19 14:35	
1,1,2-Trichloroethane	13 U	13	2.5	10/28/19 14:35	
Trichloroethene	**470**	13	2.5	10/28/19 14:35	
Vinyl Chloride	13 U	13	2.5	10/28/19 14:35	
o-Xylene	13 U	13	2.5	10/28/19 14:35	
m,p-Xylenes	13 U	13	2.5	10/28/19 14:35	

Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1910415
Project:	Wellsville-Andover LF - Annual Sampling	**Date Collected:**	10/22/19 12:00
Sample Matrix:	Water	**Date Received:**	10/23/19 13:15
Sample Name:	CW3B-1019	**Units:**	ug/L
Lab Code:	R1910415-006	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	96	85 - 122	10/28/19 14:35	
Toluene-d8	100	87 - 121	10/28/19 14:35	
Dibromofluoromethane	97	89 - 119	10/28/19 14:35	

Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1910415
Project:	Wellsville-Andover LF - Annual Sampling	**Date Collected:**	10/22/19 13:15
Sample Matrix:	Water	**Date Received:**	10/23/19 13:15
Sample Name:	CW3A-1019	**Units:**	ug/L
Lab Code:	R1910415-007	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Acetone	10 U	10	1	10/28/19 14:14	
Benzene	5.0 U	5.0	1	10/28/19 14:14	
Bromodichloromethane	5.0 U	5.0	1	10/28/19 14:14	
Bromoform	5.0 U	5.0	1	10/28/19 14:14	
Bromomethane	5.0 U	5.0	1	10/28/19 14:14	
2-Butanone (MEK)	10 U	10	1	10/28/19 14:14	
Carbon Disulfide	10 U	10	1	10/28/19 14:14	
Carbon Tetrachloride	5.0 U	5.0	1	10/28/19 14:14	
Chlorobenzene	5.0 U	5.0	1	10/28/19 14:14	
Chloroethane	5.0 U	5.0	1	10/28/19 14:14	
Chloroform	5.0 U	5.0	1	10/28/19 14:14	
Chloromethane	5.0 U	5.0	1	10/28/19 14:14	
Dibromochloromethane	5.0 U	5.0	1	10/28/19 14:14	
1,1-Dichloroethane	5.0 U	5.0	1	10/28/19 14:14	
1,2-Dibromoethane	5.0 U	5.0	1	10/28/19 14:14	
1,2-Dichloroethane	5.0 U	5.0	1	10/28/19 14:14	
1,1-Dichloroethene	5.0 U	5.0	1	10/28/19 14:14	
cis-1,2-Dichloroethene	**6.7**	5.0	1	10/28/19 14:14	
trans-1,2-Dichloroethene	5.0 U	5.0	1	10/28/19 14:14	
1,2-Dichloropropane	5.0 U	5.0	1	10/28/19 14:14	
cis-1,3-Dichloropropene	5.0 U	5.0	1	10/28/19 14:14	
trans-1,3-Dichloropropene	5.0 U	5.0	1	10/28/19 14:14	
Ethylbenzene	5.0 U	5.0	1	10/28/19 14:14	
2-Hexanone	10 U	10	1	10/28/19 14:14	
Methylene Chloride	5.0 U	5.0	1	10/28/19 14:14	
4-Methyl-2-pentanone (MIBK)	10 U	10	1	10/28/19 14:14	
Styrene	5.0 U	5.0	1	10/28/19 14:14	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	10/28/19 14:14	
Tetrachloroethene	5.0 U	5.0	1	10/28/19 14:14	
Toluene	5.0 U	5.0	1	10/28/19 14:14	
1,1,1-Trichloroethane	5.0 U	5.0	1	10/28/19 14:14	
1,1,2-Trichloroethane	5.0 U	5.0	1	10/28/19 14:14	
Trichloroethene	**38**	5.0	1	10/28/19 14:14	
Vinyl Chloride	5.0 U	5.0	1	10/28/19 14:14	
o-Xylene	5.0 U	5.0	1	10/28/19 14:14	
m,p-Xylenes	5.0 U	5.0	1	10/28/19 14:14	

Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1910415
Project:	Wellsville-Andover LF - Annual Sampling	**Date Collected:**	10/22/19 13:15
Sample Matrix:	Water	**Date Received:**	10/23/19 13:15
Sample Name:	CW3A-1019	**Units:**	ug/L
Lab Code:	R1910415-007	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	97	85 - 122	10/28/19 14:14	
Toluene-d8	102	87 - 121	10/28/19 14:14	
Dibromofluoromethane	96	89 - 119	10/28/19 14:14	

Metals

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Phone (585) 288-5380 Fax (585) 288-8475
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Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1910415
Project:	Wellsville-Andover LF - Annual Sampling	**Date Collected:**	10/21/19 10:05
Sample Matrix:	Water	**Date Received:**	10/23/19 13:15
Sample Name:	MW16S-1019	**Basis:**	NA
Lab Code:	R1910415-001		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic, Total	6010C	10 U	ug/L	10	1	10/25/19 22:26	10/24/19	
Barium, Total	6010C	20 U	ug/L	20	1	10/25/19 22:26	10/24/19	
Cadmium, Total	6010C	5.0 U	ug/L	5.0	1	10/25/19 22:26	10/24/19	
Calcium, Total	6010C	**15000**	ug/L	1000	1	10/25/19 22:26	10/24/19	
Chromium, Total	6010C	10 U	ug/L	10	1	10/25/19 22:26	10/24/19	
Copper, Total	6010C	20 U	ug/L	20	1	10/25/19 22:26	10/24/19	
Iron, Total	6010C	**640**	ug/L	100	1	10/25/19 22:26	10/24/19	
Lead, Total	6010C	50 U	ug/L	50	1	10/25/19 22:26	10/24/19	
Magnesium, Total	6010C	**9400**	ug/L	1000	1	10/25/19 22:26	10/24/19	
Manganese, Total	6010C	**30**	ug/L	10	1	10/25/19 22:26	10/24/19	
Nickel, Total	6010C	40 U	ug/L	40	1	10/25/19 22:26	10/24/19	
Potassium, Total	6010C	2000 U	ug/L	2000	1	10/25/19 22:26	10/24/19	
Selenium, Total	6010C	10 U	ug/L	10	1	10/25/19 22:26	10/24/19	
Sodium, Total	6010C	**7100**	ug/L	1000	1	10/25/19 22:26	10/24/19	
Zinc, Total	6010C	20 U	ug/L	20	1	10/25/19 22:26	10/24/19	

Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1910415
Project:	Wellsville-Andover LF - Annual Sampling	**Date Collected:**	10/21/19 14:25
Sample Matrix:	Water	**Date Received:**	10/23/19 13:15
Sample Name:	MW11S-1019	**Basis:**	NA
Lab Code:	R1910415-002		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic, Total	6010C	10 U	ug/L	10	1	10/25/19 22:42	10/24/19	
Barium, Total	6010C	**25**	ug/L	20	1	10/25/19 22:42	10/24/19	
Cadmium, Total	6010C	5.0 U	ug/L	5.0	1	10/25/19 22:42	10/24/19	
Calcium, Total	6010C	**51000**	ug/L	1000	1	10/25/19 22:42	10/24/19	
Chromium, Total	6010C	10 U	ug/L	10	1	10/25/19 22:42	10/24/19	
Copper, Total	6010C	20 U	ug/L	20	1	10/25/19 22:42	10/24/19	
Iron, Total	6010C	**190**	ug/L	100	1	10/25/19 22:42	10/24/19	
Lead, Total	6010C	50 U	ug/L	50	1	10/25/19 22:42	10/24/19	
Magnesium, Total	6010C	**31800**	ug/L	1000	1	10/25/19 22:42	10/24/19	
Manganese, Total	6010C	**543**	ug/L	10	1	10/25/19 22:42	10/24/19	
Nickel, Total	6010C	40 U	ug/L	40	1	10/25/19 22:42	10/24/19	
Potassium, Total	6010C	2000 U	ug/L	2000	1	10/25/19 22:42	10/24/19	
Selenium, Total	6010C	10 U	ug/L	10	1	10/25/19 22:42	10/24/19	
Sodium, Total	6010C	**19100**	ug/L	1000	1	10/25/19 22:42	10/24/19	
Zinc, Total	6010C	20 U	ug/L	20	1	10/25/19 22:42	10/24/19	

Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1910415
Project:	Wellsville-Andover LF - Annual Sampling	**Date Collected:**	10/22/19 09:20
Sample Matrix:	Water	**Date Received:**	10/23/19 13:15
Sample Name:	CW4A-1019	**Basis:**	NA
Lab Code:	R1910415-003		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic, Total	6010C	10 U	ug/L	10	1	10/25/19 22:45	10/24/19	
Barium, Total	6010C	**57**	ug/L	20	1	10/25/19 22:45	10/24/19	
Cadmium, Total	6010C	5.0 U	ug/L	5.0	1	10/25/19 22:45	10/24/19	
Calcium, Total	6010C	**29100**	ug/L	1000	1	10/25/19 22:45	10/24/19	
Chromium, Total	6010C	10 U	ug/L	10	1	10/25/19 22:45	10/24/19	
Copper, Total	6010C	20 U	ug/L	20	1	10/25/19 22:45	10/24/19	
Iron, Total	6010C	**190**	ug/L	100	1	10/25/19 22:45	10/24/19	
Lead, Total	6010C	50 U	ug/L	50	1	10/25/19 22:45	10/24/19	
Magnesium, Total	6010C	**16000**	ug/L	1000	1	10/25/19 22:45	10/24/19	
Manganese, Total	6010C	**254**	ug/L	10	1	10/25/19 22:45	10/24/19	
Nickel, Total	6010C	40 U	ug/L	40	1	10/25/19 22:45	10/24/19	
Potassium, Total	6010C	2000 U	ug/L	2000	1	10/25/19 22:45	10/24/19	
Selenium, Total	6010C	10 U	ug/L	10	1	10/25/19 22:45	10/24/19	
Sodium, Total	6010C	**14000**	ug/L	1000	1	10/25/19 22:45	10/24/19	
Zinc, Total	6010C	20 U	ug/L	20	1	10/25/19 22:45	10/24/19	

Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1910415
Project:	Wellsville-Andover LF - Annual Sampling	**Date Collected:**	10/22/19 10:35
Sample Matrix:	Water	**Date Received:**	10/23/19 13:15
Sample Name:	CW4B-1019	**Basis:**	NA
Lab Code:	R1910415-004		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic, Total	6010C	10 U	ug/L	10	1	10/25/19 22:48	10/24/19	
Barium, Total	6010C	**31**	ug/L	20	1	10/25/19 22:48	10/24/19	
Cadmium, Total	6010C	5.0 U	ug/L	5.0	1	10/25/19 22:48	10/24/19	
Calcium, Total	6010C	**38300**	ug/L	1000	1	10/25/19 22:48	10/24/19	
Chromium, Total	6010C	10 U	ug/L	10	1	10/25/19 22:48	10/24/19	
Copper, Total	6010C	20 U	ug/L	20	1	10/25/19 22:48	10/24/19	
Iron, Total	6010C	100 U	ug/L	100	1	10/25/19 22:48	10/24/19	
Lead, Total	6010C	50 U	ug/L	50	1	10/25/19 22:48	10/24/19	
Magnesium, Total	6010C	**16500**	ug/L	1000	1	10/25/19 22:48	10/24/19	
Manganese, Total	6010C	**23**	ug/L	10	1	10/25/19 22:48	10/24/19	
Nickel, Total	6010C	40 U	ug/L	40	1	10/25/19 22:48	10/24/19	
Potassium, Total	6010C	2000 U	ug/L	2000	1	10/25/19 22:48	10/24/19	
Selenium, Total	6010C	10 U	ug/L	10	1	10/25/19 22:48	10/24/19	
Sodium, Total	6010C	**15000**	ug/L	1000	1	10/25/19 22:48	10/24/19	
Zinc, Total	6010C	20 U	ug/L	20	1	10/25/19 22:48	10/24/19	

Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1910415
Project:	Wellsville-Andover LF - Annual Sampling	**Date Collected:**	10/22/19 10:45
Sample Matrix:	Water	**Date Received:**	10/23/19 13:15
Sample Name:	DUP1-1019	**Basis:**	NA
Lab Code:	R1910415-005		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic, Total	6010C	10 U	ug/L	10	1	10/25/19 22:58	10/24/19	
Barium, Total	6010C	**31**	ug/L	20	1	10/25/19 22:58	10/24/19	
Cadmium, Total	6010C	5.0 U	ug/L	5.0	1	10/25/19 22:58	10/24/19	
Calcium, Total	6010C	**38700**	ug/L	1000	1	10/25/19 22:58	10/24/19	
Chromium, Total	6010C	10 U	ug/L	10	1	10/25/19 22:58	10/24/19	
Copper, Total	6010C	20 U	ug/L	20	1	10/25/19 22:58	10/24/19	
Iron, Total	6010C	100 U	ug/L	100	1	10/25/19 22:58	10/24/19	
Lead, Total	6010C	50 U	ug/L	50	1	10/25/19 22:58	10/24/19	
Magnesium, Total	6010C	**16600**	ug/L	1000	1	10/25/19 22:58	10/24/19	
Manganese, Total	6010C	**29**	ug/L	10	1	10/25/19 22:58	10/24/19	
Nickel, Total	6010C	40 U	ug/L	40	1	10/25/19 22:58	10/24/19	
Potassium, Total	6010C	2000 U	ug/L	2000	1	10/25/19 22:58	10/24/19	
Selenium, Total	6010C	10 U	ug/L	10	1	10/25/19 22:58	10/24/19	
Sodium, Total	6010C	**15200**	ug/L	1000	1	10/25/19 22:58	10/24/19	
Zinc, Total	6010C	20 U	ug/L	20	1	10/25/19 22:58	10/24/19	

Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1910415
Project:	Wellsville-Andover LF - Annual Sampling	**Date Collected:**	10/22/19 12:00
Sample Matrix:	Water	**Date Received:**	10/23/19 13:15
Sample Name:	CW3B-1019	**Basis:**	NA
Lab Code:	R1910415-006		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic, Total	6010C	10 U	ug/L	10	1	10/25/19 23:01	10/24/19	
Barium, Total	6010C	**39**	ug/L	20	1	10/25/19 23:01	10/24/19	
Cadmium, Total	6010C	5.0 U	ug/L	5.0	1	10/25/19 23:01	10/24/19	
Calcium, Total	6010C	**66600**	ug/L	1000	1	10/25/19 23:01	10/24/19	
Chromium, Total	6010C	10 U	ug/L	10	1	10/25/19 23:01	10/24/19	
Copper, Total	6010C	20 U	ug/L	20	1	10/25/19 23:01	10/24/19	
Iron, Total	6010C	100 U	ug/L	100	1	10/25/19 23:01	10/24/19	
Lead, Total	6010C	50 U	ug/L	50	1	10/25/19 23:01	10/24/19	
Magnesium, Total	6010C	**34200**	ug/L	1000	1	10/25/19 23:01	10/24/19	
Manganese, Total	6010C	**31**	ug/L	10	1	10/25/19 23:01	10/24/19	
Nickel, Total	6010C	40 U	ug/L	40	1	10/25/19 23:01	10/24/19	
Potassium, Total	6010C	**2500**	ug/L	2000	1	10/25/19 23:01	10/24/19	
Selenium, Total	6010C	10 U	ug/L	10	1	10/25/19 23:01	10/24/19	
Sodium, Total	6010C	**21200**	ug/L	1000	1	10/25/19 23:01	10/24/19	
Zinc, Total	6010C	20 U	ug/L	20	1	10/25/19 23:01	10/24/19	

Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1910415
Project:	Wellsville-Andover LF - Annual Sampling	**Date Collected:**	10/22/19 13:15
Sample Matrix:	Water	**Date Received:**	10/23/19 13:15
Sample Name:	CW3A-1019	**Basis:**	NA
Lab Code:	R1910415-007		

Inorganic Parameters

Analyte Name	Analysis Method	Result		Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic, Total	6010C	10	U	ug/L	10	1	10/25/19 23:05	10/24/19	
Barium, Total	6010C	**91**		ug/L	20	1	10/25/19 23:05	10/24/19	
Cadmium, Total	6010C	5.0	U	ug/L	5.0	1	10/25/19 23:05	10/24/19	
Calcium, Total	6010C	**116000**		ug/L	1000	1	10/25/19 23:05	10/24/19	
Chromium, Total	6010C	10	U	ug/L	10	1	10/25/19 23:05	10/24/19	
Copper, Total	6010C	20	U	ug/L	20	1	10/25/19 23:05	10/24/19	
Iron, Total	6010C	100	U	ug/L	100	1	10/25/19 23:05	10/24/19	
Lead, Total	6010C	50	U	ug/L	50	1	10/25/19 23:05	10/24/19	
Magnesium, Total	6010C	**2900**		ug/L	1000	1	10/25/19 23:05	10/24/19	
Manganese, Total	6010C	**18**		ug/L	10	1	10/25/19 23:05	10/24/19	
Nickel, Total	6010C	40	U	ug/L	40	1	10/25/19 23:05	10/24/19	
Potassium, Total	6010C	**12500**		ug/L	2000	1	10/25/19 23:05	10/24/19	
Selenium, Total	6010C	10	U	ug/L	10	1	10/25/19 23:05	10/24/19	
Sodium, Total	6010C	**37900**		ug/L	1000	1	10/25/19 23:05	10/24/19	
Zinc, Total	6010C	20	U	ug/L	20	1	10/25/19 23:05	10/24/19	

Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1910415
Project:	Wellsville-Andover LF - Annual Sampling	**Date Collected:**	10/22/19 13:50
Sample Matrix:	Drinking Water	**Date Received:**	10/23/19 13:15
Sample Name:	WAL1-1019	**Basis:**	NA
Lab Code:	R1910415-008		

Inorganic Parameters

Analyte Name	Analysis Method	Result		Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic, Total	200.7	10	U	ug/L	10	1	10/28/19 21:29	10/28/19	
Barium, Total	200.7	**75**		ug/L	20	1	10/28/19 21:29	10/28/19	
Cadmium, Total	200.7	5.0	U	ug/L	5.0	1	10/28/19 21:29	10/28/19	
Calcium, Total	200.7	**40900**		ug/L	1000	1	10/28/19 21:29	10/28/19	
Chromium, Total	200.7	10	U	ug/L	10	1	10/28/19 21:29	10/28/19	
Copper, Total	200.7	20	U	ug/L	20	1	10/28/19 21:29	10/28/19	
Iron, Total	200.7	100	U	ug/L	100	1	10/28/19 21:29	10/28/19	
Lead, Total	200.7	50	U	ug/L	50	1	10/28/19 21:29	10/28/19	
Magnesium, Total	200.7	**14200**		ug/L	1000	1	10/28/19 21:29	10/28/19	
Manganese, Total	200.7	**108**		ug/L	10	1	10/28/19 21:29	10/28/19	
Nickel, Total	200.7	40	U	ug/L	40	1	10/28/19 21:29	10/28/19	
Potassium, Total	200.7	2000	U	ug/L	2000	1	10/28/19 21:29	10/28/19	
Selenium, Total	200.7	10	U	ug/L	10	1	10/28/19 21:29	10/28/19	
Sodium, Total	200.7	**9000**		ug/L	1000	1	10/28/19 21:29	10/28/19	
Zinc, Total	200.7	**40**		ug/L	20	1	10/28/19 21:29	10/28/19	

QC Summary Forms

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Volatile Organic Compounds by GC/MS

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Client: On-Site Technical Services, Inc. **Service Request:** R1910415
Project: Wellsville-Andover LF - Annual Sampling
Sample Matrix: Water

SURROGATE RECOVERY SUMMARY
Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Extraction Method: EPA 5030C

Sample Name	Lab Code	4-Bromofluorobenzene 85-122	Toluene-d8 87-121	Dibromofluoromethane 89-119
MW16S-1019	R1910415-001	98	101	98
MW11S-1019	R1910415-002	96	99	96
CW4A-1019	R1910415-003	97	101	96
CW4B-1019	R1910415-004	98	101	98
DUP1-1019	R1910415-005	100	103	98
CW3B-1019	R1910415-006	96	100	97
CW3A-1019	R1910415-007	97	102	96
Method Blank	RQ1912397-04	98	102	97
Method Blank	RQ1912480-04	97	101	96
Lab Control Sample	RQ1912397-03	99	103	99
Lab Control Sample	RQ1912480-03	100	102	100
MW16S-1019 MS	RQ1912397-05	100	103	102
MW16S-1019 DMS	RQ1912397-06	97	101	98

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1910415
Project:	Wellsville-Andover LF - Annual Sampling	**Date Collected:**	10/21/19
Sample Matrix:	Water	**Date Received:**	10/23/19
		Date Analyzed:	10/25/19
		Date Extracted:	NA

Duplicate Matrix Spike Summary
Volatile Organic Compounds by GC/MS

Sample Name:	MW16S-1019	**Units:**	ug/L
Lab Code:	R1910415-001	**Basis:**	NA
Analysis Method:	8260C		
Prep Method:	EPA 5030C		

		Matrix Spike RQ1912397-05			Duplicate Matrix Spike RQ1912397-06					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Acetone	10 U	39.5	50.0	79	40.0	50.0	80	35-183	1	30
Benzene	5.0 U	49.6	50.0	99	50.9	50.0	102	76-129	3	30
Bromodichloromethane	5.0 U	50.2	50.0	100	50.6	50.0	101	78-133	<1	30
Bromoform	5.0 U	47.9	50.0	96	56.7	50.0	113	58-133	17	30
Bromomethane	5.0 U	59.0	50.0	118	55.7	50.0	111	10-184	6	30
2-Butanone (MEK)	10 U	40.3	50.0	81	42.3	50.0	85	61-137	5	30
Carbon Disulfide	10 U	48.6	50.0	97	50.1	50.0	100	59-140	3	30
Carbon Tetrachloride	5.0 U	50.2	50.0	100	53.7	50.0	107	65-135	7	30
Chlorobenzene	5.0 U	49.0	50.0	98	51.8	50.0	104	76-125	6	30
Chloroethane	5.0 U	45.1	50.0	90	48.4	50.0	97	48-146	7	30
Chloroform	5.0 U	45.9	50.0	92	47.6	50.0	95	75-130	4	30
Chloromethane	5.0 U	47.4	50.0	95	49.6	50.0	99	55-160	5	30
Dibromochloromethane	5.0 U	49.4	50.0	99	54.1	50.0	108	72-128	9	30
1,1-Dichloroethane	5.0 U	47.7	50.0	95	48.9	50.0	98	74-132	3	30
1,2-Dibromoethane	5.0 U	45.5	50.0	91	48.3	50.0	97	67-127	6	30
1,2-Dichloroethane	5.0 U	45.4	50.0	91	46.9	50.0	94	68-130	3	30
1,1-Dichloroethene	5.0 U	47.8	50.0	96	48.5	50.0	97	71-118	1	30
cis-1,2-Dichloroethene	5.0 U	47.0	50.0	94	49.1	50.0	98	77-127	5	30
trans-1,2-Dichloroethene	5.0 U	46.7	50.0	93	49.2	50.0	98	73-118	5	30
1,2-Dichloropropane	5.0 U	47.4	50.0	95	48.6	50.0	97	79-124	2	30
cis-1,3-Dichloropropene	5.0 U	47.0	50.0	94	48.5	50.0	97	52-134	3	30
trans-1,3-Dichloropropene	5.0 U	45.7	50.0	91	47.3	50.0	95	71-133	4	30
Ethylbenzene	5.0 U	49.7	50.0	99	53.1	50.0	106	72-134	7	30
2-Hexanone	10 U	42.9	50.0	86	44.4	50.0	89	56-132	3	30
Methylene Chloride	5.0 U	42.0	50.0	84	43.4	50.0	87	73-122	3	30
4-Methyl-2-pentanone (MIBK)	10 U	45.6	50.0	91	46.1	50.0	92	60-141	1	30
Styrene	5.0 U	49.9	50.0	100	52.2	50.0	104	74-136	4	30
1,1,2,2-Tetrachloroethane	5.0 U	44.9	50.0	90	51.3	50.0	103	72-122	13	30
Tetrachloroethene	5.0 U	49.4	50.0	99	51.3	50.0	103	72-125	4	30
Toluene	5.0 U	50.8	50.0	102	52.1	50.0	104	79-119	3	30
1,1,1-Trichloroethane	5.0 U	46.4	50.0	93	49.4	50.0	99	74-127	6	30
1,1,2-Trichloroethane	5.0 U	48.9	50.0	98	50.4	50.0	101	82-121	3	30
Trichloroethene	5.0 U	49.4	50.0	99	50.2	50.0	100	74-122	2	30
Vinyl Chloride	5.0 U	48.8	50.0	98	50.6	50.0	101	74-159	4	30
o-Xylene	5.0 U	50.1	50.0	100	52.6	50.0	105	79-123	5	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1910415
Project:	Wellsville-Andover LF - Annual Sampling	**Date Collected:**	10/21/19
Sample Matrix:	Water	**Date Received:**	10/23/19
		Date Analyzed:	10/25/19
		Date Extracted:	NA

Duplicate Matrix Spike Summary
Volatile Organic Compounds by GC/MS

Sample Name:	MW16S-1019	**Units:**	ug/L
Lab Code:	R1910415-001	**Basis:**	NA
Analysis Method:	8260C		
Prep Method:	EPA 5030C		

		Matrix Spike RQ1912397-05			Duplicate Matrix Spike RQ1912397-06					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
m,p-Xylenes	5.0 U	103	100	103	107	100	107	80-126	4	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1910415
Project:	Wellsville-Andover LF - Annual Sampling	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	RQ1912397-04	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Acetone	**16**	10	1	10/25/19 12:24	
Benzene	5.0 U	5.0	1	10/25/19 12:24	
Bromodichloromethane	5.0 U	5.0	1	10/25/19 12:24	
Bromoform	5.0 U	5.0	1	10/25/19 12:24	
Bromomethane	5.0 U	5.0	1	10/25/19 12:24	
2-Butanone (MEK)	10 U	10	1	10/25/19 12:24	
Carbon Disulfide	10 U	10	1	10/25/19 12:24	
Carbon Tetrachloride	5.0 U	5.0	1	10/25/19 12:24	
Chlorobenzene	5.0 U	5.0	1	10/25/19 12:24	
Chloroethane	5.0 U	5.0	1	10/25/19 12:24	
Chloroform	5.0 U	5.0	1	10/25/19 12:24	
Chloromethane	5.0 U	5.0	1	10/25/19 12:24	
Dibromochloromethane	5.0 U	5.0	1	10/25/19 12:24	
1,1-Dichloroethane	5.0 U	5.0	1	10/25/19 12:24	
1,2-Dibromoethane	5.0 U	5.0	1	10/25/19 12:24	
1,2-Dichloroethane	5.0 U	5.0	1	10/25/19 12:24	
1,1-Dichloroethene	5.0 U	5.0	1	10/25/19 12:24	
cis-1,2-Dichloroethene	5.0 U	5.0	1	10/25/19 12:24	
trans-1,2-Dichloroethene	5.0 U	5.0	1	10/25/19 12:24	
1,2-Dichloropropane	5.0 U	5.0	1	10/25/19 12:24	
cis-1,3-Dichloropropene	5.0 U	5.0	1	10/25/19 12:24	
trans-1,3-Dichloropropene	5.0 U	5.0	1	10/25/19 12:24	
Ethylbenzene	5.0 U	5.0	1	10/25/19 12:24	
2-Hexanone	10 U	10	1	10/25/19 12:24	
Methylene Chloride	5.0 U	5.0	1	10/25/19 12:24	
4-Methyl-2-pentanone (MIBK)	10 U	10	1	10/25/19 12:24	
Styrene	5.0 U	5.0	1	10/25/19 12:24	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	10/25/19 12:24	
Tetrachloroethene	5.0 U	5.0	1	10/25/19 12:24	
Toluene	5.0 U	5.0	1	10/25/19 12:24	
1,1,1-Trichloroethane	5.0 U	5.0	1	10/25/19 12:24	
1,1,2-Trichloroethane	5.0 U	5.0	1	10/25/19 12:24	
Trichloroethene	5.0 U	5.0	1	10/25/19 12:24	
Vinyl Chloride	5.0 U	5.0	1	10/25/19 12:24	
o-Xylene	5.0 U	5.0	1	10/25/19 12:24	
m,p-Xylenes	5.0 U	5.0	1	10/25/19 12:24	

Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1910415
Project:	Wellsville-Andover LF - Annual Sampling	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	RQ1912397-04	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	98	85 - 122	10/25/19 12:24	
Toluene-d8	102	87 - 121	10/25/19 12:24	
Dibromofluoromethane	97	89 - 119	10/25/19 12:24	

Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1910415
Project:	Wellsville-Andover LF - Annual Sampling	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	RQ1912480-04	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Acetone	**23**	10	1	10/28/19 13:45	
Benzene	5.0 U	5.0	1	10/28/19 13:45	
Bromodichloromethane	5.0 U	5.0	1	10/28/19 13:45	
Bromoform	5.0 U	5.0	1	10/28/19 13:45	
Bromomethane	5.0 U	5.0	1	10/28/19 13:45	
2-Butanone (MEK)	10 U	10	1	10/28/19 13:45	
Carbon Disulfide	10 U	10	1	10/28/19 13:45	
Carbon Tetrachloride	5.0 U	5.0	1	10/28/19 13:45	
Chlorobenzene	5.0 U	5.0	1	10/28/19 13:45	
Chloroethane	5.0 U	5.0	1	10/28/19 13:45	
Chloroform	5.0 U	5.0	1	10/28/19 13:45	
Chloromethane	5.0 U	5.0	1	10/28/19 13:45	
Dibromochloromethane	5.0 U	5.0	1	10/28/19 13:45	
1,2-Dibromoethane	5.0 U	5.0	1	10/28/19 13:45	
1,1-Dichloroethane	5.0 U	5.0	1	10/28/19 13:45	
1,2-Dichloroethane	5.0 U	5.0	1	10/28/19 13:45	
1,1-Dichloroethene	5.0 U	5.0	1	10/28/19 13:45	
cis-1,2-Dichloroethene	5.0 U	5.0	1	10/28/19 13:45	
trans-1,2-Dichloroethene	5.0 U	5.0	1	10/28/19 13:45	
1,2-Dichloropropane	5.0 U	5.0	1	10/28/19 13:45	
cis-1,3-Dichloropropene	5.0 U	5.0	1	10/28/19 13:45	
trans-1,3-Dichloropropene	5.0 U	5.0	1	10/28/19 13:45	
Ethylbenzene	5.0 U	5.0	1	10/28/19 13:45	
2-Hexanone	10 U	10	1	10/28/19 13:45	
Methylene Chloride	5.0 U	5.0	1	10/28/19 13:45	
4-Methyl-2-pentanone (MIBK)	10 U	10	1	10/28/19 13:45	
Styrene	5.0 U	5.0	1	10/28/19 13:45	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	10/28/19 13:45	
Tetrachloroethene	5.0 U	5.0	1	10/28/19 13:45	
Toluene	5.0 U	5.0	1	10/28/19 13:45	
1,1,1-Trichloroethane	5.0 U	5.0	1	10/28/19 13:45	
1,1,2-Trichloroethane	5.0 U	5.0	1	10/28/19 13:45	
Trichloroethene	5.0 U	5.0	1	10/28/19 13:45	
Vinyl Chloride	5.0 U	5.0	1	10/28/19 13:45	
o-Xylene	5.0 U	5.0	1	10/28/19 13:45	
m,p-Xylenes	5.0 U	5.0	1	10/28/19 13:45	

Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1910415
Project:	Wellsville-Andover LF - Annual Sampling	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	RQ1912480-04	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	97	85 - 122	10/28/19 13:45	
Toluene-d8	101	87 - 121	10/28/19 13:45	
Dibromofluoromethane	96	89 - 119	10/28/19 13:45	

Client: On-Site Technical Services, Inc. **Service Request:** R1910415
Project: Wellsville-Andover LF - Annual Sampling **Date Analyzed:** 10/25/19
Sample Matrix: Water

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample
RQ1912397-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Acetone	8260C	27.3	20.0	137	40-161
Benzene	8260C	19.8	20.0	99	79-119
Bromodichloromethane	8260C	20.1	20.0	100	81-123
Bromoform	8260C	19.2	20.0	96	65-146
Bromomethane	8260C	22.9	20.0	114	42-166
2-Butanone (MEK)	8260C	16.9	20.0	84	61-137
Carbon Disulfide	8260C	19.3	20.0	97	66-128
Carbon Tetrachloride	8260C	20.4	20.0	102	70-127
Chlorobenzene	8260C	19.9	20.0	99	80-121
Chloroethane	8260C	19.2	20.0	96	62-131
Chloroform	8260C	18.8	20.0	94	79-120
Chloromethane	8260C	19.5	20.0	98	65-135
Dibromochloromethane	8260C	20.2	20.0	101	72-128
1,1-Dichloroethane	8260C	19.2	20.0	96	80-124
1,2-Dibromoethane	8260C	18.5	20.0	92	82-127
1,2-Dichloroethane	8260C	18.8	20.0	94	71-127
1,1-Dichloroethene	8260C	19.9	20.0	99	71-118
cis-1,2-Dichloroethene	8260C	19.5	20.0	98	80-121
trans-1,2-Dichloroethene	8260C	19.6	20.0	98	73-118
1,2-Dichloropropane	8260C	19.1	20.0	95	80-119
cis-1,3-Dichloropropene	8260C	19.1	20.0	95	77-122
trans-1,3-Dichloropropene	8260C	18.5	20.0	92	71-133
Ethylbenzene	8260C	19.2	20.0	96	76-120
2-Hexanone	8260C	16.8	20.0	84	63-124
Methylene Chloride	8260C	17.9	20.0	89	73-122
4-Methyl-2-pentanone (MIBK)	8260C	17.5	20.0	87	66-124
Styrene	8260C	19.6	20.0	98	80-124
1,1,2,2-Tetrachloroethane	8260C	18.9	20.0	95	78-126
Tetrachloroethene	8260C	19.6	20.0	98	72-125
Toluene	8260C	20.5	20.0	102	79-119
1,1,1-Trichloroethane	8260C	19.3	20.0	97	75-125
1,1,2-Trichloroethane	8260C	20.0	20.0	100	82-121
Trichloroethene	8260C	19.6	20.0	98	74-122

Client: On-Site Technical Services, Inc.
Project: Wellsville-Andover LF - Annual Sampling
Sample Matrix: Water

Service Request: R1910415
Date Analyzed: 10/25/19

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample
RQ1912397-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Vinyl Chloride	8260C	19.9	20.0	100	74-159
o-Xylene	8260C	19.2	20.0	96	79-123
m,p-Xylenes	8260C	39.8	40.0	100	80-126

Client: On-Site Technical Services, Inc. **Service Request:** R1910415
Project: Wellsville-Andover LF - Annual Sampling **Date Analyzed:** 10/28/19
Sample Matrix: Water

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample
RQ1912480-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Acetone	8260C	21.3	20.0	106	40-161
Benzene	8260C	18.9	20.0	94	79-119
Bromodichloromethane	8260C	19.5	20.0	97	81-123
Bromoform	8260C	21.0	20.0	105	65-146
Bromomethane	8260C	22.6	20.0	113	42-166
2-Butanone (MEK)	8260C	15.8	20.0	79	61-137
Carbon Disulfide	8260C	20.4	20.0	102	66-128
Carbon Tetrachloride	8260C	19.1	20.0	95	70-127
Chlorobenzene	8260C	19.0	20.0	95	80-121
Chloroethane	8260C	17.7	20.0	89	62-131
Chloroform	8260C	18.2	20.0	91	79-120
Chloromethane	8260C	18.4	20.0	92	65-135
Dibromochloromethane	8260C	20.2	20.0	101	72-128
1,1-Dichloroethane	8260C	18.1	20.0	91	80-124
1,2-Dibromoethane	8260C	17.5	20.0	87	82-127
1,2-Dichloroethane	8260C	17.6	20.0	88	71-127
1,1-Dichloroethene	8260C	18.9	20.0	94	71-118
cis-1,2-Dichloroethene	8260C	18.5	20.0	93	80-121
trans-1,2-Dichloroethene	8260C	18.2	20.0	91	73-118
1,2-Dichloropropane	8260C	18.4	20.0	92	80-119
cis-1,3-Dichloropropene	8260C	17.8	20.0	89	77-122
trans-1,3-Dichloropropene	8260C	17.8	20.0	89	71-133
Ethylbenzene	8260C	18.9	20.0	94	76-120
2-Hexanone	8260C	15.7	20.0	78	63-124
Methylene Chloride	8260C	16.7	20.0	84	73-122
4-Methyl-2-pentanone (MIBK)	8260C	16.5	20.0	82	66-124
Styrene	8260C	18.9	20.0	94	80-124
1,1,2,2-Tetrachloroethane	8260C	18.6	20.0	93	78-126
Tetrachloroethene	8260C	18.6	20.0	93	72-125
Toluene	8260C	19.6	20.0	98	79-119
1,1,1-Trichloroethane	8260C	18.4	20.0	92	75-125
1,1,2-Trichloroethane	8260C	18.2	20.0	91	82-121
Trichloroethene	8260C	18.8	20.0	94	74-122

Client: On-Site Technical Services, Inc.
Project: Wellsville-Andover LF - Annual Sampling
Sample Matrix: Water

Service Request: R1910415
Date Analyzed: 10/28/19

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample
RQ1912480-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Vinyl Chloride	8260C	19.0	20.0	95	74-159
o-Xylene	8260C	18.8	20.0	94	79-123
m,p-Xylenes	8260C	38.8	40.0	97	80-126

Metals

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
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Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1910415
Project:	Wellsville-Andover LF - Annual Sampling	**Date Collected:**	NA
Sample Matrix:	Drinking Water	**Date Received:**	NA
Sample Name:	Method Blank	**Basis:**	NA
Lab Code:	R1910415-MB		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic, Total	200.7	10 U	ug/L	10	1	10/28/19 20:27	10/28/19	
Barium, Total	200.7	20 U	ug/L	20	1	10/28/19 20:27	10/28/19	
Cadmium, Total	200.7	5.0 U	ug/L	5.0	1	10/28/19 20:27	10/28/19	
Calcium, Total	200.7	1000 U	ug/L	1000	1	10/28/19 20:27	10/28/19	
Chromium, Total	200.7	10 U	ug/L	10	1	10/28/19 20:27	10/28/19	
Copper, Total	200.7	20 U	ug/L	20	1	10/28/19 20:27	10/28/19	
Iron, Total	200.7	100 U	ug/L	100	1	10/28/19 20:27	10/28/19	
Lead, Total	200.7	50 U	ug/L	50	1	10/28/19 20:27	10/28/19	
Magnesium, Total	200.7	1000 U	ug/L	1000	1	10/28/19 20:27	10/28/19	
Manganese, Total	200.7	10 U	ug/L	10	1	10/28/19 20:27	10/28/19	
Nickel, Total	200.7	40 U	ug/L	40	1	10/28/19 20:27	10/28/19	
Potassium, Total	200.7	2000 U	ug/L	2000	1	10/28/19 20:27	10/28/19	
Selenium, Total	200.7	10 U	ug/L	10	1	10/28/19 20:27	10/28/19	
Sodium, Total	200.7	1000 U	ug/L	1000	1	10/28/19 20:27	10/28/19	
Zinc, Total	200.7	20 U	ug/L	20	1	10/28/19 20:27	10/28/19	

Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1910415
Project:	Wellsville-Andover LF - Annual Sampling	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Basis:**	NA
Lab Code:	R1910415-MB		

Inorganic Parameters

Analyte Name	Analysis Method	Result		Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic, Total	6010C	10	U	ug/L	10	1	10/25/19 21:40	10/24/19	
Barium, Total	6010C	20	U	ug/L	20	1	10/25/19 21:40	10/24/19	
Cadmium, Total	6010C	5.0	U	ug/L	5.0	1	10/25/19 21:40	10/24/19	
Calcium, Total	6010C	1000	U	ug/L	1000	1	10/25/19 21:40	10/24/19	
Chromium, Total	6010C	10	U	ug/L	10	1	10/25/19 21:40	10/24/19	
Copper, Total	6010C	20	U	ug/L	20	1	10/25/19 21:40	10/24/19	
Iron, Total	6010C	100	U	ug/L	100	1	10/25/19 21:40	10/24/19	
Lead, Total	6010C	50	U	ug/L	50	1	10/25/19 21:40	10/24/19	
Magnesium, Total	6010C	1000	U	ug/L	1000	1	10/25/19 21:40	10/24/19	
Manganese, Total	6010C	10	U	ug/L	10	1	10/25/19 21:40	10/24/19	
Nickel, Total	6010C	40	U	ug/L	40	1	10/25/19 21:40	10/24/19	
Potassium, Total	6010C	2000	U	ug/L	2000	1	10/25/19 21:40	10/24/19	
Selenium, Total	6010C	10	U	ug/L	10	1	10/25/19 21:40	10/24/19	
Sodium, Total	6010C	1000	U	ug/L	1000	1	10/25/19 21:40	10/24/19	
Zinc, Total	6010C	20	U	ug/L	20	1	10/25/19 21:40	10/24/19	

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QA/QC Report

Client: On-Site Technical Services, Inc.
Project: Wellsville-Andover LF - Annual Sampling
Sample Matrix: Water

Service Request:R1910415
Date Collected:10/21/19
Date Received:10/23/19
Date Analyzed:10/25/19

Duplicate Matrix Spike Summary
Inorganic Parameters

Sample Name: MW16S-1019
Lab Code: R1910415-001

Units:ug/L
Basis:NA

			Matrix Spike R1910415-001MS			Duplicate Matrix Spike R1910415-001DMS					
Analyte Name	**Method**	**Sample Result**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Arsenic, Total	6010C	10 U	42	40	105	42	40	104	75-125	<1	20
Barium, Total	6010C	20 U	2050	2000	102	2050	2000	103	75-125	<1	20
Cadmium, Total	6010C	5.0 U	49.5	50.0	99	49.4	50.0	99	75-125	<1	20
Calcium, Total	6010C	15000	17400	2000	120 #	17200	2000	109 #	75-125	1	20
Chromium, Total	6010C	10 U	201	200	100	201	200	101	75-125	<1	20
Copper, Total	6010C	20 U	234	250	93	236	250	94	75-125	<1	20
Iron, Total	6010C	640	1570	1000	93	1570	1000	93	75-125	<1	20
Lead, Total	6010C	50 U	491	500	98	491	500	98	75-125	<1	20
Magnesium, Total	6010C	9400	11400	2000	102 #	11300	2000	95 #	75-125	1	20
Manganese, Total	6010C	30	524	500	99	526	500	99	75-125	<1	20
Nickel, Total	6010C	40 U	485	500	97	485	500	97	75-125	<1	20
Potassium, Total	6010C	2000 U	20700	20000	104	20800	20000	104	75-125	<1	20
Selenium, Total	6010C	10 U	1050	1010	104	1050	1010	104	75-125	<1	20
Sodium, Total	6010C	7100	26600	20000	97	26600	20000	98	75-125	<1	20
Zinc, Total	6010C	20 U	496	500	99	498	500	100	75-125	<1	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client: On-Site Technical Services, Inc.
Project: Wellsville-Andover LF - Annual Sampling
Sample Matrix: Drinking Water

Service Request: R1910415
Date Analyzed: 10/25/19 - 10/28/19

Lab Control Sample Summary
Inorganic Parameters

Units:ug/L
Basis:NA

Lab Control Sample
R1910415-LCS

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Arsenic, Total	200.7	42	40	106	85-115
Arsenic, Total	6010C	38.8	40	97	80-120
Barium, Total	200.7	2060	2000	103	85-115
Barium, Total	6010C	2030	2000	102	80-120
Cadmium, Total	200.7	50.0	50.0	100	85-115
Cadmium, Total	6010C	49.5	50.0	99	80-120
Calcium, Total	200.7	1740	2000	87	85-115
Calcium, Total	6010C	1730	2000	87	80-120
Chromium, Total	200.7	202	200	101	85-115
Chromium, Total	6010C	200	200	100	80-120
Copper, Total	200.7	231	250	92	85-115
Copper, Total	6010C	234	250	94	80-120
Iron, Total	200.7	955	1000	96	85-115
Iron, Total	6010C	957	1000	96	80-120
Lead, Total	200.7	491	500	98	85-115
Lead, Total	6010C	493	500	99	80-120
Magnesium, Total	200.7	1920	2000	96	85-115
Magnesium, Total	6010C	1900	2000	95	80-120
Manganese, Total	200.7	498	500	100	85-115
Manganese, Total	6010C	492	500	98	80-120
Nickel, Total	200.7	497	500	99	85-115
Nickel, Total	6010C	495	500	99	80-120
Potassium, Total	200.7	19200	20000	96	85-115
Potassium, Total	6010C	19200	20000	96	80-120
Selenium, Total	200.7	975	1010	97	85-115
Selenium, Total	6010C	1050	1010	104	80-120
Sodium, Total	200.7	19800	20000	99	85-115
Sodium, Total	6010C	19700	20000	99	80-120
Zinc, Total	200.7	495	500	99	85-115
Zinc, Total	6010C	499	500	100	80-120

Subcontracted Analytical Parameters

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

ALS Environmental

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State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

October 29, 2019

Reports and Invoices
ALS Environmental
1565 Jefferson Road
Building 300, Suite 360
Rochester, NY 14623

Certificate of Analysis

Project Name:	**R1910415**	Workorder:	**3066032**
Purchase Order:		Workorder ID:	**R1910415**

Dear Reports Invoices:

Enclosed are the analytical results for samples received by the laboratory on Friday, October 25, 2019.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Ms. Sarah S Leung (Project Coordinator) at (717) 944-5541.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads.

This laboratory report may not be reproduced, except in full, without the written approval of ALS Environmental.

ALS Spring City: 10 Riverside Drive, Spring City, PA 19475 610-948-4903

CC: Mr. Michael Chevalier , Mr. Brady Kalkman , Ms. Janice Jaeger

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Ms. Sarah S Leung
Project Coordinator

ALS Environmental

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SAMPLE SUMMARY

Workorder: 3066032 R1910415

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
3066032001	WALI-1019	NY Non-Potable	10/22/2019 13:50	10/25/2019 09:23	Collected by Client

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SAMPLE SUMMARY

Workorder: 3066032 R1910415

Notes

-- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
-- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
-- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
-- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
-- The Chain of Custody document is included as part of this report.
-- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
-- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are preformed in the laboratory and are therefore analyzed out of hold time.
-- Method references listed on this report beginning with the prefix “S” followed by a method number (such as S2310B-97) refer to methods from “Standard Methods for the Examination of Water and Wastewater”.
-- For microbiological analyses, the "Prepared" value is the date/time into the incubator and the "Analyzed" value is the date/time out the incubator.
-- An Analysis-Prep Method Cross Reference Table is included after Analytical Results & Qualifiers section in this report.

Standard Acronyms/Flags

J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit
I	Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL)
(S)	Surrogate Compound
NC	Not Calculated
*	Result outside of QC limits

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ANALYTICAL RESULTS

Workorder: 3066032 R1910415

Lab ID: **3066032001** Date Collected: 10/22/2019 13:50 Matrix: NY Non-Potable Water

Sample ID: **WALI-1019** Date Received: 10/25/2019 09:23

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	*Cntr*
VOLATILE ORGANICS										
Benzene	ND		ug/L	0.50	EPA 524.2			10/26/19 02:02	PDK	B
Bromobenzene	ND		ug/L	0.50	EPA 524.2			10/26/19 02:02	PDK	B
Bromochloromethane	ND		ug/L	0.50	EPA 524.2			10/26/19 02:02	PDK	B
Bromomethane	ND		ug/L	0.50	EPA 524.2			10/26/19 02:02	PDK	B
n-Butylbenzene	ND		ug/L	0.50	EPA 524.2			10/26/19 02:02	PDK	B
tert-Butylbenzene	ND		ug/L	0.50	EPA 524.2			10/26/19 02:02	PDK	B
sec-Butylbenzene	ND		ug/L	0.50	EPA 524.2			10/26/19 02:02	PDK	B
Carbon Tetrachloride	ND		ug/L	0.50	EPA 524.2			10/26/19 02:02	PDK	B
Chlorobenzene	ND		ug/L	0.50	EPA 524.2			10/26/19 02:02	PDK	B
Chloroethane	ND		ug/L	0.50	EPA 524.2			10/26/19 02:02	PDK	B
Chloromethane	ND		ug/L	0.50	EPA 524.2			10/26/19 02:02	PDK	B
o-Chlorotoluene	ND		ug/L	0.50	EPA 524.2			10/26/19 02:02	PDK	B
p-Chlorotoluene	ND		ug/L	0.50	EPA 524.2			10/26/19 02:02	PDK	B
Dibromomethane	ND		ug/L	0.50	EPA 524.2			10/26/19 02:02	PDK	B
1,2-Dichlorobenzene	ND		ug/L	0.50	EPA 524.2			10/26/19 02:02	PDK	B
1,3-Dichlorobenzene	ND		ug/L	0.50	EPA 524.2			10/26/19 02:02	PDK	B
1,4-Dichlorobenzene	ND		ug/L	0.50	EPA 524.2			10/26/19 02:02	PDK	B
Dichlorodifluoromethane	ND		ug/L	0.50	EPA 524.2			10/26/19 02:02	PDK	B
1,1-Dichloroethane	ND		ug/L	0.50	EPA 524.2			10/26/19 02:02	PDK	B
1,2-Dichloroethane	ND		ug/L	0.50	EPA 524.2			10/26/19 02:02	PDK	B
1,1-Dichloroethene	ND		ug/L	0.50	EPA 524.2			10/26/19 02:02	PDK	B
cis-1,2-Dichloroethene	ND		ug/L	0.50	EPA 524.2			10/26/19 02:02	PDK	B
trans-1,2-Dichloroethene	ND		ug/L	0.50	EPA 524.2			10/26/19 02:02	PDK	B
1,3-Dichloropropane	ND		ug/L	0.50	EPA 524.2			10/26/19 02:02	PDK	B
2,2-Dichloropropane	ND		ug/L	0.50	EPA 524.2			10/26/19 02:02	PDK	B
1,2-Dichloropropane	ND		ug/L	0.50	EPA 524.2			10/26/19 02:02	PDK	B
1,1-Dichloropropene	ND		ug/L	0.50	EPA 524.2			10/26/19 02:02	PDK	B
cis-1,3-Dichloropropene	ND		ug/L	0.50	EPA 524.2			10/26/19 02:02	PDK	B
trans-1,3-Dichloropropene	ND		ug/L	0.50	EPA 524.2			10/26/19 02:02	PDK	B
Ethylbenzene	ND		ug/L	0.50	EPA 524.2			10/26/19 02:02	PDK	B
Hexachlorobutadiene	ND		ug/L	0.50	EPA 524.2			10/26/19 02:02	PDK	B
Isopropylbenzene	ND		ug/L	0.50	EPA 524.2			10/26/19 02:02	PDK	B
p-Isopropyltoluene	ND		ug/L	0.50	EPA 524.2			10/26/19 02:02	PDK	B
Methyl t-Butyl Ether	ND		ug/L	0.50	EPA 524.2			10/26/19 02:02	PDK	B
Methylene Chloride	ND		ug/L	0.50	EPA 524.2			10/26/19 02:02	PDK	B
Naphthalene	ND		ug/L	0.50	EPA 524.2			10/26/19 02:02	PDK	B
n-Propylbenzene	ND		ug/L	0.50	EPA 524.2			10/26/19 02:02	PDK	B

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ANALYTICAL RESULTS

Workorder: 3066032 R1910415

Lab ID: **3066032001** Date Collected: 10/22/2019 13:50 Matrix: NY Non-Potable Water

Sample ID: **WALI-1019** Date Received: 10/25/2019 09:23

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
Styrene	ND		ug/L	0.50	EPA 524.2			10/26/19 02:02	PDK	B
1,1,1,2-Tetrachloroethane	ND		ug/L	0.50	EPA 524.2			10/26/19 02:02	PDK	B
1,1,2,2-Tetrachloroethane	ND		ug/L	0.50	EPA 524.2			10/26/19 02:02	PDK	B
Tetrachloroethene	ND		ug/L	0.50	EPA 524.2			10/26/19 02:02	PDK	B
Toluene	ND		ug/L	0.50	EPA 524.2			10/26/19 02:02	PDK	B
Total Xylenes	ND		ug/L	0.50	EPA 524.2			10/26/19 02:02	PDK	B
1,2,3-Trichlorobenzene	ND		ug/L	0.50	EPA 524.2			10/26/19 02:02	PDK	B
1,2,4-Trichlorobenzene	ND		ug/L	0.50	EPA 524.2			10/26/19 02:02	PDK	B
1,1,1-Trichloroethane	ND		ug/L	0.50	EPA 524.2			10/26/19 02:02	PDK	B
1,1,2-Trichloroethane	ND		ug/L	0.50	EPA 524.2			10/26/19 02:02	PDK	B
Trichloroethene	ND		ug/L	0.50	EPA 524.2			10/26/19 02:02	PDK	B
Trichlorofluoromethane	ND		ug/L	0.50	EPA 524.2			10/26/19 02:02	PDK	B
1,2,3-Trichloropropane	ND		ug/L	0.50	EPA 524.2			10/26/19 02:02	PDK	B
1,2,4-Trimethylbenzene	ND		ug/L	0.50	EPA 524.2			10/26/19 02:02	PDK	B
1,3,5-Trimethylbenzene	ND		ug/L	0.50	EPA 524.2			10/26/19 02:02	PDK	B
Vinyl Chloride	ND		ug/L	0.50	EPA 524.2			10/26/19 02:02	PDK	B
o-Xylene	ND		ug/L	0.25	EPA 524.2			10/26/19 02:02	PDK	B
mp-Xylene	ND		ug/L	0.25	EPA 524.2			10/26/19 02:02	PDK	B
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	101		%	70 - 130	EPA 524.2			10/26/19 02:02	PDK	B
4-Bromofluorobenzene (S)	94.7		%	70 - 130	EPA 524.2			10/26/19 02:02	PDK	B

Ms. Sarah S Leung
Project Coordinator

ALS Environmental

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ANALYSIS - PREP METHOD CROSS REFERENCE TABLE

Workorder: 3066032 R1910415

Lab ID	Sample ID	Analysis Method	Prep Method
3066032001	WALI-1019	EPA 524.2	

ALS Environmental Chain of Custody

1565 Jefferson Rd, Building 300 • Rochester, NY 14623 • 585-288-5380 • FAX 585-288-8475

ALS Contact: Janice Jaeger

20166032

Project Number: R1910415
Project Manager: Janice Jaeger
QAP: LAB QAP

Lab Code	Sample ID	# of Cont.	Matrix	Sample Date	Sample Time	Lab ID	VOC 524.2
R1910415-008	WALI-1019	3	Drinking Water	10/22/19	1350	Middletown ALS	X

Folder Comments:
MRL U

Special Instructions/Comments
DW List + MTBE + V.C.
no trip Blk
NPDES

H - Test is On Hold P - Test is Authorized for Prep Only

Turnaround Requirements
____RUSH (Surcharges Apply)
PLEASE CIRCLE WORK DAYS
1 2 3 4 5
X STANDARD
Requested FAX Date: _____
Requested Report Date: 11/01/19

Report Requirements
____ I. Results Only
____ II. Results + QC Summaries
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with Raw Data
PQL/MDL/J N
EDD Y Basic woQC
- CASNO _ Sur

Invoice Information
PO# 58R1910415
Bill to

Relinquished By: [signature] 10/24/19/1550 Fedex
Received By: Fedex [signature] 10/25/19 923
Airbill Number:

R1910415

3066032

____ **Ship To: Middletown ALS**
ALS Environmental - Middletown
301 Fulling Mill Rd.
Middletown, PA 17057

PC _____ Date _____

SMO _____ Date _____

Instructions:

Ice _____

Dry Ice _____

No Ice _____

Shipping:

Overnight _____

2nd Day _____

Ground _____

Bill to Client Account _____

Comments:

ALS Group USA, Corp.
www.alsglobal.com
An ALS Limited Company

ALS

301 Fulling Mill Road
Middletown, PA 17057
P: (717) 944-5541
F: (717) 944-1430

Condition of Sample Receipt Form

Client: ALS Roch. Work Order #: 3066032 Initials: DA Date: 10/25

1. Were airbills / tracking numbers present and recorded?	NONE	YES	NO
Tracking number: 4896 1684 4879			
2. Are Custody Seals on shipping containers intact?	NONE	YES	NO
3. Are Custody Seals on sample containers intact?	NONE	YES	NO
4. Is there a COC (Chain-of-Custody) present?		YES	NO
5. Are the COC and bottle labels complete, legible and in agreement?		YES	NO
5a. Does the COC contain sample locations?		YES	NO
5b. Does the COC contain date and time of sample collection for all samples?		YES	NO
5c. Does the COC contain sample collectors name? Collected by Client		YES	NO
5d. Does the COC note the type(s) of preservation for all bottles? Not Listed		YES	NO
5e. Does the COC note the number of bottles submitted for each sample?		YES	NO
5f. Does the COC note the type of sample, composite or grab? Nc C/o		YES	NO
5g. Does the COC note the matrix of the sample(s)?		YES	NO
6. Are all aqueous samples requiring preservation preserved correctly?	N/A	YES	NO
7. Were all samples placed in the proper containers for the requested analyses, with sufficient volume?		YES	NO
8. Are all samples within holding times for the requested analyses?		YES	NO
9. Were all sample containers received intact and headspace free when required? (not broken, leaking, frozen, etc.)		YES	NO
10. Did we receive trip blanks (applies only for methods EPA 504, EPA 524.2 and 1631E (LL Hg)?	N/A	YES	NO
11. Were the samples received on ice?		YES	NO
12. Were sample temperatures measured at 0.0-6.0°C		YES	NO
13. Are the samples DW matrix ? If YES, fill out Reportable Drinking Water questions below		YES	NO
13a. Are the samples required for SDWA compliance reporting?	N/A	YES	NO
13b. Did the client provide a SDWA PWS ID#?	N/A	YES	NO
13c. Are all aqueous unpreserved SDWA samples pH 5-9?	N/A	YES	NO
13d. Did the client provide the SDWA sample location ID/Description?	N/A	YES	NO
13e. Did the client provide the SDWA sample type (D, E, R, C, P, S)?	N/A	YES	NO

Cooler #: ____

Temperature (°C): 2

Thermometer ID: 403

Radiological (µCi): ____

COMMENTS (Required for all NO responses above and any sample non-conformance):

* No 524 T.B.

DN 10/25

Rev. 4/29/2019

November 04, 2019 Service Request No:R1910516

Mr. Jon Brandes
On-Site Technical Services, Inc.
72 Railroad Avenue
Wellsville, NY 14895

Laboratory Results for: Wellsville-Andover LF - Annual Sampling

Dear Mr.Brandes,

Enclosed are the results of the sample(s) submitted to our laboratory October 25, 2019
For your reference, these analyses have been assigned our service request number **R1910516.**

All testing was performed according to our laboratory's quality assurance program and met the requirements of the TNI standards except as noted in the case narrative report. Any testing not included in the lab's accreditation is identified on a Non-Certified Analytes report. All results are intended to be considered in their entirety. ALS Environmental is not responsible for use of less than the complete report. Results apply only to the individual samples submitted to the lab for analysis, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s), and represented by Laboratory Control Sample control limits. Any events, such as QC failures or Holding Time exceedances, which may add to the uncertainty are explained in the report narrative or are flagged with qualifiers. The flags are explained in the Report Qualifiers and Definitions page of this report.

Please contact me if you have any questions. My extension is 7472. You may also contact me via email at Janice.Jaeger@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Brady Kalkman
For
Janice Jaeger
Project Manager

ADDRESS 1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
PHONE +1 585 288 5380 | FAX +1 585 288 8475
ALS Group USA, Corp.
dba ALS Environmental

Narrative Documents

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

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Client: On-Site Technical Services, Inc.
Project: Wellsville-Andover LF - Annual Sampling
Sample Matrix: Drinking Water, Water

Service Request: R1910516
Date Received: 10/25/2019

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier II level requested by the client.

Sample Receipt:

Twelve drinking water, water samples were received for analysis at ALS Environmental on 10/25/2019. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

Metals:

No significant anomalies were noted with this analysis.

Subcontracted Analytical Parameters:

One or more samples were subcontracted to another laboratory for testing. The certified analytical report from the subcontractor has been included in its entirety at the end of this report and includes the name and address of the subcontracted laboratory.

Volatiles by GC/MS:

Method 8260C, 10/29/2019: The lower control limit was exceeded for one or more analytes in the Continuing Calibration Verification (CCV). Since there were no detections of the analyte(s) above the MRL in the associated field samples, the quantitation is not affected. The data quality was not significantly affected and no further corrective action was taken.

Approved by _____ Date 11/04/2019

SAMPLE DETECTION SUMMARY

CLIENT ID: MW18S-1019			Lab ID: R1910516-001			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Barium, Total	50			20	ug/L	6010C
Calcium, Total	31900			1000	ug/L	6010C
Iron, Total	490			100	ug/L	6010C
Magnesium, Total	12000			1000	ug/L	6010C
Manganese, Total	213			10	ug/L	6010C
Sodium, Total	3500			1000	ug/L	6010C

CLIENT ID: MW17S-1019			Lab ID: R1910516-002			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Barium, Total	38			20	ug/L	6010C
Calcium, Total	88600			1000	ug/L	6010C
Iron, Total	220			100	ug/L	6010C
Magnesium, Total	60600			1000	ug/L	6010C
Manganese, Total	39			10	ug/L	6010C
Potassium, Total	3500			2000	ug/L	6010C
Sodium, Total	69000			1000	ug/L	6010C
cis-1,2-Dichloroethene	34			5.0	ug/L	8260C
Trichloroethene	11			5.0	ug/L	8260C

CLIENT ID: MW17D-1019			Lab ID: R1910516-003			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Calcium, Total	2600			1000	ug/L	6010C
Iron, Total	6510			100	ug/L	6010C
Magnesium, Total	20100			1000	ug/L	6010C
Manganese, Total	118			10	ug/L	6010C
Potassium, Total	5700			2000	ug/L	6010C
Sodium, Total	36500			1000	ug/L	6010C

CLIENT ID: LS1-1019			Lab ID: R1910516-004			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Barium, Total	72			20	ug/L	6010C
Calcium, Total	85300			1000	ug/L	6010C
Iron, Total	2470			100	ug/L	6010C
Magnesium, Total	20400			1000	ug/L	6010C
Manganese, Total	1180			10	ug/L	6010C
Potassium, Total	2600			2000	ug/L	6010C
Sodium, Total	9400			1000	ug/L	6010C
cis-1,2-Dichloroethene	72			5.0	ug/L	8260C

CLIENT ID: MW3S-1019			Lab ID: R1910516-005			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Barium, Total	48			20	ug/L	6010C
Calcium, Total	47300			1000	ug/L	6010C

SAMPLE DETECTION SUMMARY

CLIENT ID: MW3S-1019	Lab ID: R1910516-005					
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Iron, Total	320			100	ug/L	6010C
Magnesium, Total	36100			1000	ug/L	6010C
Manganese, Total	21			10	ug/L	6010C
Potassium, Total	3200			2000	ug/L	6010C
Sodium, Total	37000			1000	ug/L	6010C

CLIENT ID: MW3D-1019	Lab ID: R1910516-006					
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Barium, Total	117			20	ug/L	6010C
Calcium, Total	72700			1000	ug/L	6010C
Magnesium, Total	38600			1000	ug/L	6010C
Manganese, Total	42			10	ug/L	6010C
Potassium, Total	2400			2000	ug/L	6010C
Sodium, Total	16600			1000	ug/L	6010C
cis-1,2-Dichloroethene	6.5			5.0	ug/L	8260C

CLIENT ID: MW4D-1019	Lab ID: R1910516-007					
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Barium, Total	22			20	ug/L	6010C
Calcium, Total	20700			1000	ug/L	6010C
Iron, Total	670			100	ug/L	6010C
Magnesium, Total	17700			1000	ug/L	6010C
Manganese, Total	2400			10	ug/L	6010C
Potassium, Total	2800			2000	ug/L	6010C
Sodium, Total	4700			1000	ug/L	6010C
cis-1,2-Dichloroethene	66			5.0	ug/L	8260C
Vinyl Chloride	16			5.0	ug/L	8260C

CLIENT ID: MW18D-1019	Lab ID: R1910516-011					
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Barium, Total	67			20	ug/L	6010C
Calcium, Total	39700			1000	ug/L	6010C
Iron, Total	3290			100	ug/L	6010C
Magnesium, Total	20500			1000	ug/L	6010C
Manganese, Total	490			10	ug/L	6010C
Potassium, Total	3300			2000	ug/L	6010C
Sodium, Total	23600			1000	ug/L	6010C

Sample Receipt Information

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

Client: On-Site Technical Services, Inc. **Service Request:**R1910516

Project: Wellsville-Andover LF - Annual Sampling

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
R1910516-001	MW18S-1019	10/23/2019	0920
R1910516-002	MW17S-1019	10/23/2019	1340
R1910516-003	MW17D-1019	10/23/2019	1505
R1910516-004	LS1-1019	10/23/2019	1535
R1910516-005	MW3S-1019	10/24/2019	0925
R1910516-006	MW3D-1019	10/24/2019	1040
R1910516-007	MW4D-1019	10/24/2019	1210
R1910516-011	MW18D-1019	10/24/2019	1430
R1910516-012	Trip Blank	10/24/2019	1430

CHAIN of CUSTODY

Page 1 of 1

ALS-Environmental
1565 Jefferson Rd, Bldg 300, Suite 360
Rochester, NY 14623
585.288.5380

Client: On-Site
72 Railroad Ave.
Wellsville, NY 14895

Project Manager: Jon Brandes

Project: WAL - Annual Sampling

Telephone No.: 585-593-1824

Email: jonb@on-sitehs.com

Method of Shipment: UPS

Special Detection Limit/Reporting

Sample I.D.	Lab Sample No.	No. of Containers	Matrix: Soil	Matrix: Water	Matrix: Air	Matrix: Other	Prsv.: Yes	Prsv.: No	Sampling Date	Sampling Time	GC/MS VOA's 8260 (HCl)	GC/MS VOA's 524.2 (C6H806)	T-Metals (HNO3)	TDS, NO3, Br, Cl, SO4 (NP) (SW/SED)	NH3, TKN, COD (H2SO4) (SW/SED)	Total Color (NP) (SW/SED)	BOD (NP) (SW/SED)	Alkalinity (NP) (SW/SED)	TDS, NO3 (NP) (Manhole)
MW18S-1019		4		X			X		10-23-19	0920	X		X						
MW17S-1019		4		X			X		10-23-19	1340	X		X						
MW17D-1019		4		X			X		10-23-19	1505	X		X						
LS1-1019		4		X			X		10-23-19	1535	X		X						
MW3S-1019		4		X			X		10-24-19	0925	X		X						
MW3D-1019		4		X			X		10-24-19	1040	X		X						
MW4D-1019		4		X			X		10-24-19	1210	X		X						
WAL19Post-1019		3		X			X		10-24-19	1255		X							
WAL19Inter-1019		3		X			X		10-24-19	1315		X							
WAL19Pre-1019		3		X			X		10-24-19	1325		X							
MW18D-1019		4		X			X		10-24-19	1430	X		X						
Trip Blank		3		X			X		10-24-19	1430	X								

REMARKS

Sample Received Intact: Yes No

Temperature received: Ice No ice

	Date	Time		
Relinq. by sampler (Sign & Print Name): Kevin Dye / Kevin Dye	10/24/19	1530	Received by (Sign & Print Name): Gregory O. Esmerian ALS 10-25-19 09:30	Lab Work No.
Relinquished by	Date	Time	Received by	
Relinquished by	Date	Time	Received by	
Relinquished by	Date	Time	Received by laboratory	Date Time

R1910516
On-Site Technical Services, Inc.
Wellsville-Andover LF - Annual Sampling
5

R1910516 5
On-Site Technical Services, Inc.
Wellsville-Andover LF - Annual Sampling

Cooler Receipt and Preservation Check Form

Project/Client On-Site Folder Number .

Cooler received on 10-25-19 by: HE

COURIER: ALS (UPS) FEDEX VELOCITY CLIENT

1	Were **Custody seals** on outside of cooler?	(Y) N	5a	**Perchlorate** samples have required headspace?	Y N (NA)
2	**Custody papers** properly completed (ink, signed)?	(Y) N	5b	Did VOA vials, Alk,or Sulfide have sig* **bubbles**?	Y (N) NA
3	Did all bottles arrive in good **condition** (unbroken)?	(Y) N	6	Where did the bottles originate?	(ALS/ROC) CLIENT
4	Circle: **Wet Ice** **Dry Ice** **Gel packs** present?	(Y) N	7	Soil VOA received as: Bulk Encore 5035set	(NA)

8. Temperature Readings Date: 10-25-19 Time: 09:46 ID: (IR#7) IR#10 From: (Temp Blank) Sample Bottle

Observed Temp (°C)	1.5						
Correction Factor (°C) HE 10-25-19	0.7+1.1						
Corrected Temp (°C)	2.6						
Temp from:Type of bottle	cent tube						
Within 0-6°C?	(Y) N	Y N	Y N	Y N	Y N	Y N	Y N
If <0°C, were samples frozen?	Y N	Y N	Y N	Y N	Y N	Y N	Y N

If out of Temperature, note packing/ice condition: _____ Ice melted Poorly Packed (described below) Same Day Rule

&Client Approval to Run Samples: _____ Standing Approval Client aware at drop-off Client notified by: _____

All samples held in storage location: R002 by HE on 10-25-19 at 09:53
5035 samples placed in storage location: _____ by _____ on _____ at _____

Cooler Breakdown/Preservation Check**: Date: 10/25/19 Time: 1351 by: (HE)

9. Were all bottle labels complete (*i.e.* analysis, preservation, etc.)? (YES) NO
10. Did all bottle labels and tags agree with custody papers? (YES) NO
11. Were correct containers used for the tests indicated? (YES) NO
12. Were 5035 vials acceptable (no extra labels, not leaking)? YES NO (N/A)
13. Air Samples: Cassettes / Tubes Intact with MS? Canisters Pressurized Tedlar® Bags Inflated (N/A)

pH	Lot of test paper	Reagent	Preserved? Yes	Preserved? No	Lot Received	Exp	Sample ID Adjusted	Vol. Added	Lot Added	Final pH
≥12		NaOH								
≤2	230018	HNO_3	✓		1118072					
≤2		H_2SO_4								
<4		$NaHSO_4$								
5-9		For 608pest			No=Notify for 3day					
Residual Chlorine (-)		For CN, Phenol, 625, 608pest, 522			If +, contact PM to add $Na_2S_2O_3$ (625, 608, CN), ascorbic (phenol).					
		$Na_2S_2O_3$								
		ZnAcetate	-	-			**VOAs and 1664 Not to be tested before analysis. Otherwise, all bottles of all samples with chemical preservatives are checked (not just representatives).			
		HCl	**	**	J180-15					

Bottle lot numbers: 19-07-30, 8-333-002,
Explain all Discrepancies/ Other Comments:

CLRES	BULK
DO	FLDT
HPROD	HGFB
HTR	LL3541
PH	(SUB)
SO3	MARRS
ALS	REV

Labels secondary reviewed by: (a)
PC Secondary Review: MP

*significant air bubbles: VOA > 5-6 mm : WC >1 in. diameter

Miscellaneous Forms

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

REPORT QUALIFIERS AND DEFINITIONS

U	Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.
J	Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Arclors).
B	Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.
E	Inorganics- Concentration is estimated due to the serial dilution was outside control limits.
E	Organics- Concentration has exceeded the calibration range for that specific analysis.
D	Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.
*	Indicates that a quality control parameter has exceeded laboratory limits. Under the ñNotesò column of the Form I, this qualifier denotes analysis was performed out of Holding Time.
H	Analysis was performed out of hold time for tests that have an ñimmediateò hold time criteria.
#	Spike was diluted out.
+	Correlation coefficient for MSA is <0.995.
N	Inorganics- Matrix spike recovery was outside laboratory limits.
N	Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.
S	Concentration has been determined using Method of Standard Additions (MSA).
W	Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.
P	Concentration >40% difference between the two GC columns.
C	Confirmed by GC/MS
Q	DoD reports: indicates a pesticide/Aroclor is not confirmed (Ó100% Difference between two GC columns).
X	See Case Narrative for discussion.
MRL LOQ	Method Reporting Limit. Also known as: Limit of Quantitation (LOQ) The lowest concentration at which the method analyte may be reliably quantified under the method conditions.
MDL	Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).
LOD	Limit of Detection. A value at or above the MDL which has been verified to be detectable.
ND	Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.

Rochester Lab ID # for State Certifications[1]

Connecticut ID # PH0556	Maine ID #NY0032	Pennsylvania ID# 68-786
Delaware Approved	New Hampshire ID # 2941	Rhode Island ID # 158
DoD ELAP #65817	New York ID # 10145	Virginia #460167
Florida ID # E87674	North Carolina #676	

[1] Analyses were performed according to our laboratoryôs NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the case narrative. Since not all analyte/method/matrix combinations are offered for state/NELAC accreditation, this report may contain results which are not accredited. For a specific list of accredited analytes, contact the laboratory or go to https://www.alsglobal.com/locations/americas/north-america/usa/new-york/rochester-environmental

ALS Laboratory Group

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

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Analyst Summary report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1910516
Project:	Wellsville-Andover LF - Annual Sampling/		

Sample Name:	MW18S-1019	**Date Collected:**	10/23/19
Lab Code:	R1910516-001	**Date Received:**	10/25/19
Sample Matrix:	Water		

Analysis Method	Extracted/Digested By	Analyzed By
6010C	AKONZEL	NMANSEN
8260C		KRUEST

Sample Name:	MW17S-1019	**Date Collected:**	10/23/19
Lab Code:	R1910516-002	**Date Received:**	10/25/19
Sample Matrix:	Water		

Analysis Method	Extracted/Digested By	Analyzed By
6010C	AKONZEL	NMANSEN
8260C		KRUEST

Sample Name:	MW17D-1019	**Date Collected:**	10/23/19
Lab Code:	R1910516-003	**Date Received:**	10/25/19
Sample Matrix:	Water		

Analysis Method	Extracted/Digested By	Analyzed By
6010C	AKONZEL	NMANSEN
8260C		KRUEST

Sample Name:	LS1-1019	**Date Collected:**	10/23/19
Lab Code:	R1910516-004	**Date Received:**	10/25/19
Sample Matrix:	Water		

Analysis Method	Extracted/Digested By	Analyzed By
6010C	AKONZEL	NMANSEN
8260C		KRUEST

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1910516
Project:	Wellsville-Andover LF - Annual Sampling/		

Sample Name:	MW3S-1019	**Date Collected:**	10/24/19
Lab Code:	R1910516-005	**Date Received:**	10/25/19
Sample Matrix:	Water		

Analysis Method	Extracted/Digested By	Analyzed By
6010C	AKONZEL	NMANSEN
8260C		KRUEST

Sample Name:	MW3D-1019	**Date Collected:**	10/24/19
Lab Code:	R1910516-006	**Date Received:**	10/25/19
Sample Matrix:	Water		

Analysis Method	Extracted/Digested By	Analyzed By
6010C	AKONZEL	NMANSEN
8260C		KRUEST

Sample Name:	MW4D-1019	**Date Collected:**	10/24/19
Lab Code:	R1910516-007	**Date Received:**	10/25/19
Sample Matrix:	Water		

Analysis Method	Extracted/Digested By	Analyzed By
6010C	AKONZEL	NMANSEN
8260C		KRUEST

Sample Name:	MW18D-1019	**Date Collected:**	10/24/19
Lab Code:	R1910516-011	**Date Received:**	10/25/19
Sample Matrix:	Water		

Analysis Method	Extracted/Digested By	Analyzed By
6010C	AKONZEL	NMANSEN
8260C		KRUEST

ALS Group USA, Corp.
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Analyst Summary report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1910516
Project:	Wellsville-Andover LF - Annual Sampling/		

Sample Name:	Trip Blank	**Date Collected:**	10/24/19
Lab Code:	R1910516-012	**Date Received:**	10/25/19
Sample Matrix:	Water		

Analysis Method	Extracted/Digested By	Analyzed By
8260C		KRUEST

INORGANIC PREPARATION METHODS

The preparation methods associated with this report are found in these tables unless discussed in the case narrative.

Water/Liquid Matrix

Analytical Method	Preparation Method
200.7	200.2
200.8	200.2
6010C	3005A/3010A
6020A	ILM05.3
9014 Cyanide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Acid Soluble	9030B
9056A Bomb (Halogens)	5050A
9066 Manual Distillation	9065
SM 4500-CN-E Residual Cyanide	SM 4500-CN-G
SM 4500-CN-E WAD Cyanide	SM 4500-CN-I

Solid/Soil/Non-Aqueous Matrix

Analytical Method	Preparation Method
6010C	3050B
6020A	3050B
6010C TCLP (1311) extract	3005A/3010A
6010 SPLP (1312) extract	3005A/3010A
7196A	3060A
7199	3060A
9056A Halogens/Halides	5050
300.0 Anions/ 350.1/ 353.2/ SM 2320B/ SM 5210B/ 9056A Anions	DI extraction

For analytical methods not listed, the preparation method is the same as the analytical method reference.

Sample Results

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
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Volatile Organic Compounds by GC/MS

ALS Environmental—Rochester Laboratory
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Phone (585) 288-5380 Fax (585) 288-8475
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ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1910516
Project:	Wellsville-Andover LF - Annual Sampling	**Date Collected:**	10/23/19 09:20
Sample Matrix:	Water	**Date Received:**	10/25/19 09:30
Sample Name:	MW18S-1019	**Units:**	ug/L
Lab Code:	R1910516-001	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result		MRL	Dil.	Date Analyzed	Q
Acetone	10	U	10	1	10/29/19 16:18	
Benzene	5.0	U	5.0	1	10/29/19 16:18	
Bromodichloromethane	5.0	U	5.0	1	10/29/19 16:18	
Bromoform	5.0	U	5.0	1	10/29/19 16:18	
Bromomethane	5.0	U	5.0	1	10/29/19 16:18	
2-Butanone (MEK)	10	U	10	1	10/29/19 16:18	
Carbon Disulfide	10	U	10	1	10/29/19 16:18	
Carbon Tetrachloride	5.0	U	5.0	1	10/29/19 16:18	
Chlorobenzene	5.0	U	5.0	1	10/29/19 16:18	
Chloroethane	5.0	U	5.0	1	10/29/19 16:18	
Chloroform	5.0	U	5.0	1	10/29/19 16:18	
Chloromethane	5.0	U	5.0	1	10/29/19 16:18	
Dibromochloromethane	5.0	U	5.0	1	10/29/19 16:18	
1,2-Dibromoethane	5.0	U	5.0	1	10/29/19 16:18	
1,1-Dichloroethane	5.0	U	5.0	1	10/29/19 16:18	
1,2-Dichloroethane	5.0	U	5.0	1	10/29/19 16:18	
1,1-Dichloroethene	5.0	U	5.0	1	10/29/19 16:18	
cis-1,2-Dichloroethene	5.0	U	5.0	1	10/29/19 16:18	
trans-1,2-Dichloroethene	5.0	U	5.0	1	10/29/19 16:18	
1,2-Dichloropropane	5.0	U	5.0	1	10/29/19 16:18	
cis-1,3-Dichloropropene	5.0	U	5.0	1	10/29/19 16:18	
trans-1,3-Dichloropropene	5.0	U	5.0	1	10/29/19 16:18	
Ethylbenzene	5.0	U	5.0	1	10/29/19 16:18	
2-Hexanone	10	U	10	1	10/29/19 16:18	
Methylene Chloride	5.0	U	5.0	1	10/29/19 16:18	
4-Methyl-2-pentanone (MIBK)	10	U	10	1	10/29/19 16:18	
Styrene	5.0	U	5.0	1	10/29/19 16:18	
1,1,2,2-Tetrachloroethane	5.0	U	5.0	1	10/29/19 16:18	
Tetrachloroethene	5.0	U	5.0	1	10/29/19 16:18	
Toluene	5.0	U	5.0	1	10/29/19 16:18	
1,1,1-Trichloroethane	5.0	U	5.0	1	10/29/19 16:18	
1,1,2-Trichloroethane	5.0	U	5.0	1	10/29/19 16:18	
Trichloroethene	5.0	U	5.0	1	10/29/19 16:18	
Vinyl Chloride	5.0	U	5.0	1	10/29/19 16:18	
o-Xylene	5.0	U	5.0	1	10/29/19 16:18	
m,p-Xylenes	5.0	U	5.0	1	10/29/19 16:18	

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Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1910516
Project:	Wellsville-Andover LF - Annual Sampling	**Date Collected:**	10/23/19 09:20
Sample Matrix:	Water	**Date Received:**	10/25/19 09:30
Sample Name:	MW18S-1019	**Units:**	ug/L
Lab Code:	R1910516-001	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	93	85 - 122	10/29/19 16:18	
Toluene-d8	98	87 - 121	10/29/19 16:18	
Dibromofluoromethane	95	89 - 119	10/29/19 16:18	

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Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1910516
Project:	Wellsville-Andover LF - Annual Sampling	**Date Collected:**	10/23/19 13:40
Sample Matrix:	Water	**Date Received:**	10/25/19 09:30
Sample Name:	MW17S-1019	**Units:**	ug/L
Lab Code:	R1910516-002	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result		MRL	Dil.	Date Analyzed	Q
Acetone	10	U	10	1	10/29/19 16:40	
Benzene	5.0	U	5.0	1	10/29/19 16:40	
Bromodichloromethane	5.0	U	5.0	1	10/29/19 16:40	
Bromoform	5.0	U	5.0	1	10/29/19 16:40	
Bromomethane	5.0	U	5.0	1	10/29/19 16:40	
2-Butanone (MEK)	10	U	10	1	10/29/19 16:40	
Carbon Disulfide	10	U	10	1	10/29/19 16:40	
Carbon Tetrachloride	5.0	U	5.0	1	10/29/19 16:40	
Chlorobenzene	5.0	U	5.0	1	10/29/19 16:40	
Chloroethane	5.0	U	5.0	1	10/29/19 16:40	
Chloroform	5.0	U	5.0	1	10/29/19 16:40	
Chloromethane	5.0	U	5.0	1	10/29/19 16:40	
Dibromochloromethane	5.0	U	5.0	1	10/29/19 16:40	
1,2-Dibromoethane	5.0	U	5.0	1	10/29/19 16:40	
1,1-Dichloroethane	5.0	U	5.0	1	10/29/19 16:40	
1,2-Dichloroethane	5.0	U	5.0	1	10/29/19 16:40	
1,1-Dichloroethene	5.0	U	5.0	1	10/29/19 16:40	
cis-1,2-Dichloroethene	**34**		5.0	1	10/29/19 16:40	
trans-1,2-Dichloroethene	5.0	U	5.0	1	10/29/19 16:40	
1,2-Dichloropropane	5.0	U	5.0	1	10/29/19 16:40	
cis-1,3-Dichloropropene	5.0	U	5.0	1	10/29/19 16:40	
trans-1,3-Dichloropropene	5.0	U	5.0	1	10/29/19 16:40	
Ethylbenzene	5.0	U	5.0	1	10/29/19 16:40	
2-Hexanone	10	U	10	1	10/29/19 16:40	
Methylene Chloride	5.0	U	5.0	1	10/29/19 16:40	
4-Methyl-2-pentanone (MIBK)	10	U	10	1	10/29/19 16:40	
Styrene	5.0	U	5.0	1	10/29/19 16:40	
1,1,2,2-Tetrachloroethane	5.0	U	5.0	1	10/29/19 16:40	
Tetrachloroethene	5.0	U	5.0	1	10/29/19 16:40	
Toluene	5.0	U	5.0	1	10/29/19 16:40	
1,1,1-Trichloroethane	5.0	U	5.0	1	10/29/19 16:40	
1,1,2-Trichloroethane	5.0	U	5.0	1	10/29/19 16:40	
Trichloroethene	**11**		5.0	1	10/29/19 16:40	
Vinyl Chloride	5.0	U	5.0	1	10/29/19 16:40	
o-Xylene	5.0	U	5.0	1	10/29/19 16:40	
m,p-Xylenes	5.0	U	5.0	1	10/29/19 16:40	

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Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1910516
Project:	Wellsville-Andover LF - Annual Sampling	**Date Collected:**	10/23/19 13:40
Sample Matrix:	Water	**Date Received:**	10/25/19 09:30
Sample Name:	MW17S-1019	**Units:**	ug/L
Lab Code:	R1910516-002	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	96	85 - 122	10/29/19 16:40	
Toluene-d8	101	87 - 121	10/29/19 16:40	
Dibromofluoromethane	97	89 - 119	10/29/19 16:40	

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Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1910516
Project:	Wellsville-Andover LF - Annual Sampling	**Date Collected:**	10/23/19 15:05
Sample Matrix:	Water	**Date Received:**	10/25/19 09:30
Sample Name:	MW17D-1019	**Units:**	ug/L
Lab Code:	R1910516-003	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Acetone	10 U	10	1	10/29/19 17:02	
Benzene	5.0 U	5.0	1	10/29/19 17:02	
Bromodichloromethane	5.0 U	5.0	1	10/29/19 17:02	
Bromoform	5.0 U	5.0	1	10/29/19 17:02	
Bromomethane	5.0 U	5.0	1	10/29/19 17:02	
2-Butanone (MEK)	10 U	10	1	10/29/19 17:02	
Carbon Disulfide	10 U	10	1	10/29/19 17:02	
Carbon Tetrachloride	5.0 U	5.0	1	10/29/19 17:02	
Chlorobenzene	5.0 U	5.0	1	10/29/19 17:02	
Chloroethane	5.0 U	5.0	1	10/29/19 17:02	
Chloroform	5.0 U	5.0	1	10/29/19 17:02	
Chloromethane	5.0 U	5.0	1	10/29/19 17:02	
Dibromochloromethane	5.0 U	5.0	1	10/29/19 17:02	
1,1-Dichloroethane	5.0 U	5.0	1	10/29/19 17:02	
1,2-Dibromoethane	5.0 U	5.0	1	10/29/19 17:02	
1,2-Dichloroethane	5.0 U	5.0	1	10/29/19 17:02	
1,1-Dichloroethene	5.0 U	5.0	1	10/29/19 17:02	
cis-1,2-Dichloroethene	5.0 U	5.0	1	10/29/19 17:02	
trans-1,2-Dichloroethene	5.0 U	5.0	1	10/29/19 17:02	
1,2-Dichloropropane	5.0 U	5.0	1	10/29/19 17:02	
cis-1,3-Dichloropropene	5.0 U	5.0	1	10/29/19 17:02	
trans-1,3-Dichloropropene	5.0 U	5.0	1	10/29/19 17:02	
Ethylbenzene	5.0 U	5.0	1	10/29/19 17:02	
2-Hexanone	10 U	10	1	10/29/19 17:02	
Methylene Chloride	5.0 U	5.0	1	10/29/19 17:02	
4-Methyl-2-pentanone (MIBK)	10 U	10	1	10/29/19 17:02	
Styrene	5.0 U	5.0	1	10/29/19 17:02	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	10/29/19 17:02	
Tetrachloroethene	5.0 U	5.0	1	10/29/19 17:02	
Toluene	5.0 U	5.0	1	10/29/19 17:02	
1,1,1-Trichloroethane	5.0 U	5.0	1	10/29/19 17:02	
1,1,2-Trichloroethane	5.0 U	5.0	1	10/29/19 17:02	
Trichloroethene	5.0 U	5.0	1	10/29/19 17:02	
Vinyl Chloride	5.0 U	5.0	1	10/29/19 17:02	
o-Xylene	5.0 U	5.0	1	10/29/19 17:02	
m,p-Xylenes	5.0 U	5.0	1	10/29/19 17:02	

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Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1910516
Project:	Wellsville-Andover LF - Annual Sampling	**Date Collected:**	10/23/19 15:05
Sample Matrix:	Water	**Date Received:**	10/25/19 09:30
Sample Name:	MW17D-1019	**Units:**	ug/L
Lab Code:	R1910516-003	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	93	85 - 122	10/29/19 17:02	
Toluene-d8	98	87 - 121	10/29/19 17:02	
Dibromofluoromethane	94	89 - 119	10/29/19 17:02	

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Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1910516
Project:	Wellsville-Andover LF - Annual Sampling	**Date Collected:**	10/23/19 15:35
Sample Matrix:	Water	**Date Received:**	10/25/19 09:30
Sample Name:	LS1-1019	**Units:**	ug/L
Lab Code:	R1910516-004	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result		MRL	Dil.	Date Analyzed	Q
Acetone	10	U	10	1	10/29/19 18:29	
Benzene	5.0	U	5.0	1	10/29/19 18:29	
Bromodichloromethane	5.0	U	5.0	1	10/29/19 18:29	
Bromoform	5.0	U	5.0	1	10/29/19 18:29	
Bromomethane	5.0	U	5.0	1	10/29/19 18:29	
2-Butanone (MEK)	10	U	10	1	10/29/19 18:29	
Carbon Disulfide	10	U	10	1	10/29/19 18:29	
Carbon Tetrachloride	5.0	U	5.0	1	10/29/19 18:29	
Chlorobenzene	5.0	U	5.0	1	10/29/19 18:29	
Chloroethane	5.0	U	5.0	1	10/29/19 18:29	
Chloroform	5.0	U	5.0	1	10/29/19 18:29	
Chloromethane	5.0	U	5.0	1	10/29/19 18:29	
Dibromochloromethane	5.0	U	5.0	1	10/29/19 18:29	
1,2-Dibromoethane	5.0	U	5.0	1	10/29/19 18:29	
1,1-Dichloroethane	5.0	U	5.0	1	10/29/19 18:29	
1,2-Dichloroethane	5.0	U	5.0	1	10/29/19 18:29	
1,1-Dichloroethene	5.0	U	5.0	1	10/29/19 18:29	
cis-1,2-Dichloroethene	**72**		5.0	1	10/29/19 18:29	
trans-1,2-Dichloroethene	5.0	U	5.0	1	10/29/19 18:29	
1,2-Dichloropropane	5.0	U	5.0	1	10/29/19 18:29	
cis-1,3-Dichloropropene	5.0	U	5.0	1	10/29/19 18:29	
trans-1,3-Dichloropropene	5.0	U	5.0	1	10/29/19 18:29	
Ethylbenzene	5.0	U	5.0	1	10/29/19 18:29	
2-Hexanone	10	U	10	1	10/29/19 18:29	
Methylene Chloride	5.0	U	5.0	1	10/29/19 18:29	
4-Methyl-2-pentanone (MIBK)	10	U	10	1	10/29/19 18:29	
Styrene	5.0	U	5.0	1	10/29/19 18:29	
1,1,2,2-Tetrachloroethane	5.0	U	5.0	1	10/29/19 18:29	
Tetrachloroethene	5.0	U	5.0	1	10/29/19 18:29	
Toluene	5.0	U	5.0	1	10/29/19 18:29	
1,1,1-Trichloroethane	5.0	U	5.0	1	10/29/19 18:29	
1,1,2-Trichloroethane	5.0	U	5.0	1	10/29/19 18:29	
Trichloroethene	5.0	U	5.0	1	10/29/19 18:29	
Vinyl Chloride	5.0	U	5.0	1	10/29/19 18:29	
o-Xylene	5.0	U	5.0	1	10/29/19 18:29	
m,p-Xylenes	5.0	U	5.0	1	10/29/19 18:29	

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Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1910516
Project:	Wellsville-Andover LF - Annual Sampling	**Date Collected:**	10/23/19 15:35
Sample Matrix:	Water	**Date Received:**	10/25/19 09:30
Sample Name:	LS1-1019	**Units:**	ug/L
Lab Code:	R1910516-004	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	95	85 - 122	10/29/19 18:29	
Toluene-d8	97	87 - 121	10/29/19 18:29	
Dibromofluoromethane	98	89 - 119	10/29/19 18:29	

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Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1910516
Project:	Wellsville-Andover LF - Annual Sampling	**Date Collected:**	10/24/19 09:25
Sample Matrix:	Water	**Date Received:**	10/25/19 09:30
Sample Name:	MW3S-1019	**Units:**	ug/L
Lab Code:	R1910516-005	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Acetone	10 U	10	1	10/29/19 17:24	
Benzene	5.0 U	5.0	1	10/29/19 17:24	
Bromodichloromethane	5.0 U	5.0	1	10/29/19 17:24	
Bromoform	5.0 U	5.0	1	10/29/19 17:24	
Bromomethane	5.0 U	5.0	1	10/29/19 17:24	
2-Butanone (MEK)	10 U	10	1	10/29/19 17:24	
Carbon Disulfide	10 U	10	1	10/29/19 17:24	
Carbon Tetrachloride	5.0 U	5.0	1	10/29/19 17:24	
Chlorobenzene	5.0 U	5.0	1	10/29/19 17:24	
Chloroethane	5.0 U	5.0	1	10/29/19 17:24	
Chloroform	5.0 U	5.0	1	10/29/19 17:24	
Chloromethane	5.0 U	5.0	1	10/29/19 17:24	
Dibromochloromethane	5.0 U	5.0	1	10/29/19 17:24	
1,1-Dichloroethane	5.0 U	5.0	1	10/29/19 17:24	
1,2-Dibromoethane	5.0 U	5.0	1	10/29/19 17:24	
1,2-Dichloroethane	5.0 U	5.0	1	10/29/19 17:24	
1,1-Dichloroethene	5.0 U	5.0	1	10/29/19 17:24	
cis-1,2-Dichloroethene	5.0 U	5.0	1	10/29/19 17:24	
trans-1,2-Dichloroethene	5.0 U	5.0	1	10/29/19 17:24	
1,2-Dichloropropane	5.0 U	5.0	1	10/29/19 17:24	
cis-1,3-Dichloropropene	5.0 U	5.0	1	10/29/19 17:24	
trans-1,3-Dichloropropene	5.0 U	5.0	1	10/29/19 17:24	
Ethylbenzene	5.0 U	5.0	1	10/29/19 17:24	
2-Hexanone	10 U	10	1	10/29/19 17:24	
Methylene Chloride	5.0 U	5.0	1	10/29/19 17:24	
4-Methyl-2-pentanone (MIBK)	10 U	10	1	10/29/19 17:24	
Styrene	5.0 U	5.0	1	10/29/19 17:24	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	10/29/19 17:24	
Tetrachloroethene	5.0 U	5.0	1	10/29/19 17:24	
Toluene	5.0 U	5.0	1	10/29/19 17:24	
1,1,1-Trichloroethane	5.0 U	5.0	1	10/29/19 17:24	
1,1,2-Trichloroethane	5.0 U	5.0	1	10/29/19 17:24	
Trichloroethene	5.0 U	5.0	1	10/29/19 17:24	
Vinyl Chloride	5.0 U	5.0	1	10/29/19 17:24	
o-Xylene	5.0 U	5.0	1	10/29/19 17:24	
m,p-Xylenes	5.0 U	5.0	1	10/29/19 17:24	

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Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1910516
Project:	Wellsville-Andover LF - Annual Sampling	**Date Collected:**	10/24/19 09:25
Sample Matrix:	Water	**Date Received:**	10/25/19 09:30
Sample Name:	MW3S-1019	**Units:**	ug/L
Lab Code:	R1910516-005	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	94	85 - 122	10/29/19 17:24	
Toluene-d8	101	87 - 121	10/29/19 17:24	
Dibromofluoromethane	94	89 - 119	10/29/19 17:24	

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Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1910516
Project:	Wellsville-Andover LF - Annual Sampling	**Date Collected:**	10/24/19 10:40
Sample Matrix:	Water	**Date Received:**	10/25/19 09:30
Sample Name:	MW3D-1019	**Units:**	ug/L
Lab Code:	R1910516-006	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Acetone	10 U	10	1	10/29/19 17:46	
Benzene	5.0 U	5.0	1	10/29/19 17:46	
Bromodichloromethane	5.0 U	5.0	1	10/29/19 17:46	
Bromoform	5.0 U	5.0	1	10/29/19 17:46	
Bromomethane	5.0 U	5.0	1	10/29/19 17:46	
2-Butanone (MEK)	10 U	10	1	10/29/19 17:46	
Carbon Disulfide	10 U	10	1	10/29/19 17:46	
Carbon Tetrachloride	5.0 U	5.0	1	10/29/19 17:46	
Chlorobenzene	5.0 U	5.0	1	10/29/19 17:46	
Chloroethane	5.0 U	5.0	1	10/29/19 17:46	
Chloroform	5.0 U	5.0	1	10/29/19 17:46	
Chloromethane	5.0 U	5.0	1	10/29/19 17:46	
Dibromochloromethane	5.0 U	5.0	1	10/29/19 17:46	
1,2-Dibromoethane	5.0 U	5.0	1	10/29/19 17:46	
1,1-Dichloroethane	5.0 U	5.0	1	10/29/19 17:46	
1,2-Dichloroethane	5.0 U	5.0	1	10/29/19 17:46	
1,1-Dichloroethene	5.0 U	5.0	1	10/29/19 17:46	
cis-1,2-Dichloroethene	**6.5**	5.0	1	10/29/19 17:46	
trans-1,2-Dichloroethene	5.0 U	5.0	1	10/29/19 17:46	
1,2-Dichloropropane	5.0 U	5.0	1	10/29/19 17:46	
cis-1,3-Dichloropropene	5.0 U	5.0	1	10/29/19 17:46	
trans-1,3-Dichloropropene	5.0 U	5.0	1	10/29/19 17:46	
Ethylbenzene	5.0 U	5.0	1	10/29/19 17:46	
2-Hexanone	10 U	10	1	10/29/19 17:46	
Methylene Chloride	5.0 U	5.0	1	10/29/19 17:46	
4-Methyl-2-pentanone (MIBK)	10 U	10	1	10/29/19 17:46	
Styrene	5.0 U	5.0	1	10/29/19 17:46	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	10/29/19 17:46	
Tetrachloroethene	5.0 U	5.0	1	10/29/19 17:46	
Toluene	5.0 U	5.0	1	10/29/19 17:46	
1,1,1-Trichloroethane	5.0 U	5.0	1	10/29/19 17:46	
1,1,2-Trichloroethane	5.0 U	5.0	1	10/29/19 17:46	
Trichloroethene	5.0 U	5.0	1	10/29/19 17:46	
Vinyl Chloride	5.0 U	5.0	1	10/29/19 17:46	
o-Xylene	5.0 U	5.0	1	10/29/19 17:46	
m,p-Xylenes	5.0 U	5.0	1	10/29/19 17:46	

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Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1910516
Project:	Wellsville-Andover LF - Annual Sampling	**Date Collected:**	10/24/19 10:40
Sample Matrix:	Water	**Date Received:**	10/25/19 09:30
Sample Name:	MW3D-1019	**Units:**	ug/L
Lab Code:	R1910516-006	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	97	85 - 122	10/29/19 17:46	
Toluene-d8	99	87 - 121	10/29/19 17:46	
Dibromofluoromethane	96	89 - 119	10/29/19 17:46	

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Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1910516
Project:	Wellsville-Andover LF - Annual Sampling	**Date Collected:**	10/24/19 12:10
Sample Matrix:	Water	**Date Received:**	10/25/19 09:30
Sample Name:	MW4D-1019	**Units:**	ug/L
Lab Code:	R1910516-007	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result		MRL	Dil.	Date Analyzed	Q
Acetone	10	U	10	1	10/29/19 18:51	
Benzene	5.0	U	5.0	1	10/29/19 18:51	
Bromodichloromethane	5.0	U	5.0	1	10/29/19 18:51	
Bromoform	5.0	U	5.0	1	10/29/19 18:51	
Bromomethane	5.0	U	5.0	1	10/29/19 18:51	
2-Butanone (MEK)	10	U	10	1	10/29/19 18:51	
Carbon Disulfide	10	U	10	1	10/29/19 18:51	
Carbon Tetrachloride	5.0	U	5.0	1	10/29/19 18:51	
Chlorobenzene	5.0	U	5.0	1	10/29/19 18:51	
Chloroethane	5.0	U	5.0	1	10/29/19 18:51	
Chloroform	5.0	U	5.0	1	10/29/19 18:51	
Chloromethane	5.0	U	5.0	1	10/29/19 18:51	
Dibromochloromethane	5.0	U	5.0	1	10/29/19 18:51	
1,1-Dichloroethane	5.0	U	5.0	1	10/29/19 18:51	
1,2-Dibromoethane	5.0	U	5.0	1	10/29/19 18:51	
1,2-Dichloroethane	5.0	U	5.0	1	10/29/19 18:51	
1,1-Dichloroethene	5.0	U	5.0	1	10/29/19 18:51	
cis-1,2-Dichloroethene	**66**		5.0	1	10/29/19 18:51	
trans-1,2-Dichloroethene	5.0	U	5.0	1	10/29/19 18:51	
1,2-Dichloropropane	5.0	U	5.0	1	10/29/19 18:51	
cis-1,3-Dichloropropene	5.0	U	5.0	1	10/29/19 18:51	
trans-1,3-Dichloropropene	5.0	U	5.0	1	10/29/19 18:51	
Ethylbenzene	5.0	U	5.0	1	10/29/19 18:51	
2-Hexanone	10	U	10	1	10/29/19 18:51	
Methylene Chloride	5.0	U	5.0	1	10/29/19 18:51	
4-Methyl-2-pentanone (MIBK)	10	U	10	1	10/29/19 18:51	
Styrene	5.0	U	5.0	1	10/29/19 18:51	
1,1,2,2-Tetrachloroethane	5.0	U	5.0	1	10/29/19 18:51	
Tetrachloroethene	5.0	U	5.0	1	10/29/19 18:51	
Toluene	5.0	U	5.0	1	10/29/19 18:51	
1,1,1-Trichloroethane	5.0	U	5.0	1	10/29/19 18:51	
1,1,2-Trichloroethane	5.0	U	5.0	1	10/29/19 18:51	
Trichloroethene	5.0	U	5.0	1	10/29/19 18:51	
Vinyl Chloride	**16**		5.0	1	10/29/19 18:51	
o-Xylene	5.0	U	5.0	1	10/29/19 18:51	
m,p-Xylenes	5.0	U	5.0	1	10/29/19 18:51	

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Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1910516
Project:	Wellsville-Andover LF - Annual Sampling	**Date Collected:**	10/24/19 12:10
Sample Matrix:	Water	**Date Received:**	10/25/19 09:30
Sample Name:	MW4D-1019	**Units:**	ug/L
Lab Code:	R1910516-007	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	96	85 - 122	10/29/19 18:51	
Toluene-d8	100	87 - 121	10/29/19 18:51	
Dibromofluoromethane	95	89 - 119	10/29/19 18:51	

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Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1910516
Project:	Wellsville-Andover LF - Annual Sampling	**Date Collected:**	10/24/19 14:30
Sample Matrix:	Water	**Date Received:**	10/25/19 09:30
Sample Name:	MW18D-1019	**Units:**	ug/L
Lab Code:	R1910516-011	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Acetone	10 U	10	1	10/29/19 18:07	
Benzene	5.0 U	5.0	1	10/29/19 18:07	
Bromodichloromethane	5.0 U	5.0	1	10/29/19 18:07	
Bromoform	5.0 U	5.0	1	10/29/19 18:07	
Bromomethane	5.0 U	5.0	1	10/29/19 18:07	
2-Butanone (MEK)	10 U	10	1	10/29/19 18:07	
Carbon Disulfide	10 U	10	1	10/29/19 18:07	
Carbon Tetrachloride	5.0 U	5.0	1	10/29/19 18:07	
Chlorobenzene	5.0 U	5.0	1	10/29/19 18:07	
Chloroethane	5.0 U	5.0	1	10/29/19 18:07	
Chloroform	5.0 U	5.0	1	10/29/19 18:07	
Chloromethane	5.0 U	5.0	1	10/29/19 18:07	
Dibromochloromethane	5.0 U	5.0	1	10/29/19 18:07	
1,2-Dibromoethane	5.0 U	5.0	1	10/29/19 18:07	
1,1-Dichloroethane	5.0 U	5.0	1	10/29/19 18:07	
1,2-Dichloroethane	5.0 U	5.0	1	10/29/19 18:07	
1,1-Dichloroethene	5.0 U	5.0	1	10/29/19 18:07	
cis-1,2-Dichloroethene	5.0 U	5.0	1	10/29/19 18:07	
trans-1,2-Dichloroethene	5.0 U	5.0	1	10/29/19 18:07	
1,2-Dichloropropane	5.0 U	5.0	1	10/29/19 18:07	
cis-1,3-Dichloropropene	5.0 U	5.0	1	10/29/19 18:07	
trans-1,3-Dichloropropene	5.0 U	5.0	1	10/29/19 18:07	
Ethylbenzene	5.0 U	5.0	1	10/29/19 18:07	
2-Hexanone	10 U	10	1	10/29/19 18:07	
Methylene Chloride	5.0 U	5.0	1	10/29/19 18:07	
4-Methyl-2-pentanone (MIBK)	10 U	10	1	10/29/19 18:07	
Styrene	5.0 U	5.0	1	10/29/19 18:07	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	10/29/19 18:07	
Tetrachloroethene	5.0 U	5.0	1	10/29/19 18:07	
Toluene	5.0 U	5.0	1	10/29/19 18:07	
1,1,1-Trichloroethane	5.0 U	5.0	1	10/29/19 18:07	
1,1,2-Trichloroethane	5.0 U	5.0	1	10/29/19 18:07	
Trichloroethene	5.0 U	5.0	1	10/29/19 18:07	
Vinyl Chloride	5.0 U	5.0	1	10/29/19 18:07	
o-Xylene	5.0 U	5.0	1	10/29/19 18:07	
m,p-Xylenes	5.0 U	5.0	1	10/29/19 18:07	

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Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1910516
Project:	Wellsville-Andover LF - Annual Sampling	**Date Collected:**	10/24/19 14:30
Sample Matrix:	Water	**Date Received:**	10/25/19 09:30
Sample Name:	MW18D-1019	**Units:**	ug/L
Lab Code:	R1910516-011	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	95	85 - 122	10/29/19 18:07	
Toluene-d8	99	87 - 121	10/29/19 18:07	
Dibromofluoromethane	93	89 - 119	10/29/19 18:07	

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Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1910516
Project:	Wellsville-Andover LF - Annual Sampling	**Date Collected:**	10/24/19 14:30
Sample Matrix:	Water	**Date Received:**	10/25/19 09:30
Sample Name:	Trip Blank	**Units:**	ug/L
Lab Code:	R1910516-012	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result		MRL	Dil.	Date Analyzed	Q
Acetone	10	U	10	1	10/29/19 15:13	
Benzene	5.0	U	5.0	1	10/29/19 15:13	
Bromodichloromethane	5.0	U	5.0	1	10/29/19 15:13	
Bromoform	5.0	U	5.0	1	10/29/19 15:13	
Bromomethane	5.0	U	5.0	1	10/29/19 15:13	
2-Butanone (MEK)	10	U	10	1	10/29/19 15:13	
Carbon Disulfide	10	U	10	1	10/29/19 15:13	
Carbon Tetrachloride	5.0	U	5.0	1	10/29/19 15:13	
Chlorobenzene	5.0	U	5.0	1	10/29/19 15:13	
Chloroethane	5.0	U	5.0	1	10/29/19 15:13	
Chloroform	5.0	U	5.0	1	10/29/19 15:13	
Chloromethane	5.0	U	5.0	1	10/29/19 15:13	
Dibromochloromethane	5.0	U	5.0	1	10/29/19 15:13	
1,2-Dibromoethane	5.0	U	5.0	1	10/29/19 15:13	
1,1-Dichloroethane	5.0	U	5.0	1	10/29/19 15:13	
1,2-Dichloroethane	5.0	U	5.0	1	10/29/19 15:13	
1,1-Dichloroethene	5.0	U	5.0	1	10/29/19 15:13	
cis-1,2-Dichloroethene	5.0	U	5.0	1	10/29/19 15:13	
trans-1,2-Dichloroethene	5.0	U	5.0	1	10/29/19 15:13	
1,2-Dichloropropane	5.0	U	5.0	1	10/29/19 15:13	
cis-1,3-Dichloropropene	5.0	U	5.0	1	10/29/19 15:13	
trans-1,3-Dichloropropene	5.0	U	5.0	1	10/29/19 15:13	
Ethylbenzene	5.0	U	5.0	1	10/29/19 15:13	
2-Hexanone	10	U	10	1	10/29/19 15:13	
Methylene Chloride	5.0	U	5.0	1	10/29/19 15:13	
4-Methyl-2-pentanone (MIBK)	10	U	10	1	10/29/19 15:13	
Styrene	5.0	U	5.0	1	10/29/19 15:13	
1,1,2,2-Tetrachloroethane	5.0	U	5.0	1	10/29/19 15:13	
Tetrachloroethene	5.0	U	5.0	1	10/29/19 15:13	
Toluene	5.0	U	5.0	1	10/29/19 15:13	
1,1,1-Trichloroethane	5.0	U	5.0	1	10/29/19 15:13	
1,1,2-Trichloroethane	5.0	U	5.0	1	10/29/19 15:13	
Trichloroethene	5.0	U	5.0	1	10/29/19 15:13	
Vinyl Chloride	5.0	U	5.0	1	10/29/19 15:13	
o-Xylene	5.0	U	5.0	1	10/29/19 15:13	
m,p-Xylenes	5.0	U	5.0	1	10/29/19 15:13	

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Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1910516
Project:	Wellsville-Andover LF - Annual Sampling	**Date Collected:**	10/24/19 14:30
Sample Matrix:	Water	**Date Received:**	10/25/19 09:30
Sample Name:	Trip Blank	**Units:**	ug/L
Lab Code:	R1910516-012	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	98	85 - 122	10/29/19 15:13	
Toluene-d8	100	87 - 121	10/29/19 15:13	
Dibromofluoromethane	97	89 - 119	10/29/19 15:13	

Metals

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Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1910516
Project:	Wellsville-Andover LF - Annual Sampling	**Date Collected:**	10/23/19 09:20
Sample Matrix:	Water	**Date Received:**	10/25/19 09:30
Sample Name:	MW18S-1019	**Basis:**	NA
Lab Code:	R1910516-001		

Inorganic Parameters

Analyte Name	Analysis Method	Result		Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic, Total	6010C	10	U	ug/L	10	1	10/29/19 15:57	10/28/19	
Barium, Total	6010C	**50**		ug/L	20	1	10/29/19 15:57	10/28/19	
Cadmium, Total	6010C	5.0	U	ug/L	5.0	1	10/29/19 15:57	10/28/19	
Calcium, Total	6010C	**31900**		ug/L	1000	1	10/29/19 15:57	10/28/19	
Chromium, Total	6010C	10	U	ug/L	10	1	10/29/19 15:57	10/28/19	
Copper, Total	6010C	20	U	ug/L	20	1	10/29/19 15:57	10/28/19	
Iron, Total	6010C	**490**		ug/L	100	1	10/29/19 15:57	10/28/19	
Lead, Total	6010C	50	U	ug/L	50	1	10/29/19 15:57	10/28/19	
Magnesium, Total	6010C	**12000**		ug/L	1000	1	10/29/19 15:57	10/28/19	
Manganese, Total	6010C	**213**		ug/L	10	1	10/29/19 15:57	10/28/19	
Nickel, Total	6010C	40	U	ug/L	40	1	10/29/19 15:57	10/28/19	
Potassium, Total	6010C	2000	U	ug/L	2000	1	10/29/19 15:57	10/28/19	
Selenium, Total	6010C	10	U	ug/L	10	1	10/29/19 15:57	10/28/19	
Sodium, Total	6010C	**3500**		ug/L	1000	1	10/29/19 15:57	10/28/19	
Zinc, Total	6010C	20	U	ug/L	20	1	10/29/19 15:57	10/28/19	

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Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1910516
Project:	Wellsville-Andover LF - Annual Sampling	**Date Collected:**	10/23/19 13:40
Sample Matrix:	Water	**Date Received:**	10/25/19 09:30
Sample Name:	MW17S-1019	**Basis:**	NA
Lab Code:	R1910516-002		

Inorganic Parameters

Analyte Name	Analysis Method	Result		Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic, Total	6010C	10	U	ug/L	10	1	10/29/19 16:00	10/28/19	
Barium, Total	6010C	**38**		ug/L	20	1	10/29/19 16:00	10/28/19	
Cadmium, Total	6010C	5.0	U	ug/L	5.0	1	10/29/19 16:00	10/28/19	
Calcium, Total	6010C	**88600**		ug/L	1000	1	10/29/19 16:00	10/28/19	
Chromium, Total	6010C	10	U	ug/L	10	1	10/29/19 16:00	10/28/19	
Copper, Total	6010C	20	U	ug/L	20	1	10/29/19 16:00	10/28/19	
Iron, Total	6010C	**220**		ug/L	100	1	10/29/19 16:00	10/28/19	
Lead, Total	6010C	50	U	ug/L	50	1	10/29/19 16:00	10/28/19	
Magnesium, Total	6010C	**60600**		ug/L	1000	1	10/29/19 16:00	10/28/19	
Manganese, Total	6010C	**39**		ug/L	10	1	10/29/19 16:00	10/28/19	
Nickel, Total	6010C	40	U	ug/L	40	1	10/29/19 16:00	10/28/19	
Potassium, Total	6010C	**3500**		ug/L	2000	1	10/29/19 16:00	10/28/19	
Selenium, Total	6010C	10	U	ug/L	10	1	10/29/19 16:00	10/28/19	
Sodium, Total	6010C	**69000**		ug/L	1000	1	10/29/19 16:00	10/28/19	
Zinc, Total	6010C	20	U	ug/L	20	1	10/29/19 16:00	10/28/19	

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Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1910516
Project:	Wellsville-Andover LF - Annual Sampling	**Date Collected:**	10/23/19 15:05
Sample Matrix:	Water	**Date Received:**	10/25/19 09:30
Sample Name:	MW17D-1019	**Basis:**	NA
Lab Code:	R1910516-003		

Inorganic Parameters

Analyte Name	Analysis Method	Result		Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic, Total	6010C	10	U	ug/L	10	1	10/29/19 16:04	10/28/19	
Barium, Total	6010C	20	U	ug/L	20	1	10/29/19 16:04	10/28/19	
Cadmium, Total	6010C	5.0	U	ug/L	5.0	1	10/29/19 16:04	10/28/19	
Calcium, Total	6010C	**2600**		ug/L	1000	1	10/29/19 16:04	10/28/19	
Chromium, Total	6010C	10	U	ug/L	10	1	10/29/19 16:04	10/28/19	
Copper, Total	6010C	20	U	ug/L	20	1	10/29/19 16:04	10/28/19	
Iron, Total	6010C	**6510**		ug/L	100	1	10/29/19 16:04	10/28/19	
Lead, Total	6010C	50	U	ug/L	50	1	10/29/19 16:04	10/28/19	
Magnesium, Total	6010C	**20100**		ug/L	1000	1	10/29/19 16:04	10/28/19	
Manganese, Total	6010C	**118**		ug/L	10	1	10/29/19 16:04	10/28/19	
Nickel, Total	6010C	40	U	ug/L	40	1	10/29/19 16:04	10/28/19	
Potassium, Total	6010C	**5700**		ug/L	2000	1	10/29/19 16:04	10/28/19	
Selenium, Total	6010C	10	U	ug/L	10	1	10/29/19 16:04	10/28/19	
Sodium, Total	6010C	**36500**		ug/L	1000	1	10/29/19 16:04	10/28/19	
Zinc, Total	6010C	20	U	ug/L	20	1	10/29/19 16:04	10/28/19	

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Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1910516
Project:	Wellsville-Andover LF - Annual Sampling	**Date Collected:**	10/23/19 15:35
Sample Matrix:	Water	**Date Received:**	10/25/19 09:30
Sample Name:	LS1-1019	**Basis:**	NA
Lab Code:	R1910516-004		

Inorganic Parameters

Analyte Name	Analysis Method	Result		Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic, Total	6010C	10	U	ug/L	10	1	10/29/19 16:13	10/28/19	
Barium, Total	6010C	**72**		ug/L	20	1	10/29/19 16:13	10/28/19	
Cadmium, Total	6010C	5.0	U	ug/L	5.0	1	10/29/19 16:13	10/28/19	
Calcium, Total	6010C	**85300**		ug/L	1000	1	10/29/19 16:13	10/28/19	
Chromium, Total	6010C	10	U	ug/L	10	1	10/29/19 16:13	10/28/19	
Copper, Total	6010C	20	U	ug/L	20	1	10/29/19 16:13	10/28/19	
Iron, Total	6010C	**2470**		ug/L	100	1	10/29/19 16:13	10/28/19	
Lead, Total	6010C	50	U	ug/L	50	1	10/29/19 16:13	10/28/19	
Magnesium, Total	6010C	**20400**		ug/L	1000	1	10/29/19 16:13	10/28/19	
Manganese, Total	6010C	**1180**		ug/L	10	1	10/29/19 16:13	10/28/19	
Nickel, Total	6010C	40	U	ug/L	40	1	10/29/19 16:13	10/28/19	
Potassium, Total	6010C	**2600**		ug/L	2000	1	10/29/19 16:13	10/28/19	
Selenium, Total	6010C	10	U	ug/L	10	1	10/29/19 16:13	10/28/19	
Sodium, Total	6010C	**9400**		ug/L	1000	1	10/29/19 16:13	10/28/19	
Zinc, Total	6010C	20	U	ug/L	20	1	10/29/19 16:13	10/28/19	

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Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1910516
Project:	Wellsville-Andover LF - Annual Sampling	**Date Collected:**	10/24/19 09:25
Sample Matrix:	Water	**Date Received:**	10/25/19 09:30
Sample Name:	MW3S-1019	**Basis:**	NA
Lab Code:	R1910516-005		

Inorganic Parameters

Analyte Name	Analysis Method	Result		Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic, Total	6010C	10	U	ug/L	10	1	10/29/19 16:17	10/28/19	
Barium, Total	6010C	**48**		ug/L	20	1	10/29/19 16:17	10/28/19	
Cadmium, Total	6010C	5.0	U	ug/L	5.0	1	10/29/19 16:17	10/28/19	
Calcium, Total	6010C	**47300**		ug/L	1000	1	10/29/19 16:17	10/28/19	
Chromium, Total	6010C	10	U	ug/L	10	1	10/29/19 16:17	10/28/19	
Copper, Total	6010C	20	U	ug/L	20	1	10/29/19 16:17	10/28/19	
Iron, Total	6010C	**320**		ug/L	100	1	10/29/19 16:17	10/28/19	
Lead, Total	6010C	50	U	ug/L	50	1	10/29/19 16:17	10/28/19	
Magnesium, Total	6010C	**36100**		ug/L	1000	1	10/29/19 16:17	10/28/19	
Manganese, Total	6010C	**21**		ug/L	10	1	10/29/19 16:17	10/28/19	
Nickel, Total	6010C	40	U	ug/L	40	1	10/29/19 16:17	10/28/19	
Potassium, Total	6010C	**3200**		ug/L	2000	1	10/29/19 16:17	10/28/19	
Selenium, Total	6010C	10	U	ug/L	10	1	10/29/19 16:17	10/28/19	
Sodium, Total	6010C	**37000**		ug/L	1000	1	10/29/19 16:17	10/28/19	
Zinc, Total	6010C	20	U	ug/L	20	1	10/29/19 16:17	10/28/19	

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Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1910516
Project:	Wellsville-Andover LF - Annual Sampling	**Date Collected:**	10/24/19 10:40
Sample Matrix:	Water	**Date Received:**	10/25/19 09:30
Sample Name:	MW3D-1019	**Basis:**	NA
Lab Code:	R1910516-006		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic, Total	6010C	10 U	ug/L	10	1	10/29/19 16:20	10/28/19	
Barium, Total	6010C	**117**	ug/L	20	1	10/29/19 16:20	10/28/19	
Cadmium, Total	6010C	5.0 U	ug/L	5.0	1	10/29/19 16:20	10/28/19	
Calcium, Total	6010C	**72700**	ug/L	1000	1	10/29/19 16:20	10/28/19	
Chromium, Total	6010C	10 U	ug/L	10	1	10/29/19 16:20	10/28/19	
Copper, Total	6010C	20 U	ug/L	20	1	10/29/19 16:20	10/28/19	
Iron, Total	6010C	100 U	ug/L	100	1	10/29/19 16:20	10/28/19	
Lead, Total	6010C	50 U	ug/L	50	1	10/29/19 16:20	10/28/19	
Magnesium, Total	6010C	**38600**	ug/L	1000	1	10/29/19 16:20	10/28/19	
Manganese, Total	6010C	**42**	ug/L	10	1	10/29/19 16:20	10/28/19	
Nickel, Total	6010C	40 U	ug/L	40	1	10/29/19 16:20	10/28/19	
Potassium, Total	6010C	**2400**	ug/L	2000	1	10/29/19 16:20	10/28/19	
Selenium, Total	6010C	10 U	ug/L	10	1	10/29/19 16:20	10/28/19	
Sodium, Total	6010C	**16600**	ug/L	1000	1	10/29/19 16:20	10/28/19	
Zinc, Total	6010C	20 U	ug/L	20	1	10/29/19 16:20	10/28/19	

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Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1910516
Project:	Wellsville-Andover LF - Annual Sampling	**Date Collected:**	10/24/19 12:10
Sample Matrix:	Water	**Date Received:**	10/25/19 09:30
Sample Name:	MW4D-1019	**Basis:**	NA
Lab Code:	R1910516-007		

Inorganic Parameters

Analyte Name	Analysis Method	Result		Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic, Total	6010C	10	U	ug/L	10	1	10/29/19 16:23	10/28/19	
Barium, Total	6010C	**22**		ug/L	20	1	10/29/19 16:23	10/28/19	
Cadmium, Total	6010C	5.0	U	ug/L	5.0	1	10/29/19 16:23	10/28/19	
Calcium, Total	6010C	**20700**		ug/L	1000	1	10/29/19 16:23	10/28/19	
Chromium, Total	6010C	10	U	ug/L	10	1	10/29/19 16:23	10/28/19	
Copper, Total	6010C	20	U	ug/L	20	1	10/29/19 16:23	10/28/19	
Iron, Total	6010C	**670**		ug/L	100	1	10/29/19 16:23	10/28/19	
Lead, Total	6010C	50	U	ug/L	50	1	10/29/19 16:23	10/28/19	
Magnesium, Total	6010C	**17700**		ug/L	1000	1	10/29/19 16:23	10/28/19	
Manganese, Total	6010C	**2400**		ug/L	10	1	10/29/19 16:23	10/28/19	
Nickel, Total	6010C	40	U	ug/L	40	1	10/29/19 16:23	10/28/19	
Potassium, Total	6010C	**2800**		ug/L	2000	1	10/29/19 16:23	10/28/19	
Selenium, Total	6010C	10	U	ug/L	10	1	10/29/19 16:23	10/28/19	
Sodium, Total	6010C	**4700**		ug/L	1000	1	10/29/19 16:23	10/28/19	
Zinc, Total	6010C	20	U	ug/L	20	1	10/29/19 16:23	10/28/19	

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Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1910516
Project:	Wellsville-Andover LF - Annual Sampling	**Date Collected:**	10/24/19 14:30
Sample Matrix:	Water	**Date Received:**	10/25/19 09:30
Sample Name:	MW18D-1019	**Basis:**	NA
Lab Code:	R1910516-011		

Inorganic Parameters

Analyte Name	Analysis Method	Result		Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic, Total	6010C	10	U	ug/L	10	1	10/29/19 16:26	10/28/19	
Barium, Total	6010C	**67**		ug/L	20	1	10/29/19 16:26	10/28/19	
Cadmium, Total	6010C	5.0	U	ug/L	5.0	1	10/29/19 16:26	10/28/19	
Calcium, Total	6010C	**39700**		ug/L	1000	1	10/29/19 16:26	10/28/19	
Chromium, Total	6010C	10	U	ug/L	10	1	10/29/19 16:26	10/28/19	
Copper, Total	6010C	20	U	ug/L	20	1	10/29/19 16:26	10/28/19	
Iron, Total	6010C	**3290**		ug/L	100	1	10/29/19 16:26	10/28/19	
Lead, Total	6010C	50	U	ug/L	50	1	10/29/19 16:26	10/28/19	
Magnesium, Total	6010C	**20500**		ug/L	1000	1	10/29/19 16:26	10/28/19	
Manganese, Total	6010C	**490**		ug/L	10	1	10/29/19 16:26	10/28/19	
Nickel, Total	6010C	40	U	ug/L	40	1	10/29/19 16:26	10/28/19	
Potassium, Total	6010C	**3300**		ug/L	2000	1	10/29/19 16:26	10/28/19	
Selenium, Total	6010C	10	U	ug/L	10	1	10/29/19 16:26	10/28/19	
Sodium, Total	6010C	**23600**		ug/L	1000	1	10/29/19 16:26	10/28/19	
Zinc, Total	6010C	20	U	ug/L	20	1	10/29/19 16:26	10/28/19	

QC Summary Forms

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Volatile Organic Compounds by GC/MS

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QA/QC Report

Client: On-Site Technical Services, Inc. **Service Request:** R1910516
Project: Wellsville-Andover LF - Annual Sampling
Sample Matrix: Water

SURROGATE RECOVERY SUMMARY
Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Extraction Method: EPA 5030C

Sample Name	Lab Code	4-Bromofluorobenzene 85-122	Toluene-d8 87-121	Dibromofluoromethane 89-119
MW18S-1019	R1910516-001	93	98	95
MW17S-1019	R1910516-002	96	101	97
MW17D-1019	R1910516-003	93	98	94
LS1-1019	R1910516-004	95	97	98
MW3S-1019	R1910516-005	94	101	94
MW3D-1019	R1910516-006	97	99	96
MW4D-1019	R1910516-007	96	100	95
MW18D-1019	R1910516-011	95	99	93
Trip Blank	R1910516-012	98	100	97
Method Blank	RQ1912546-04	97	100	94
Lab Control Sample	RQ1912546-03	102	103	99
MW18S-1019 MS	RQ1912546-05	97	101	101
MW18S-1019 DMS	RQ1912546-06	95	96	97

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QA/QC Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1910516
Project:	Wellsville-Andover LF - Annual Sampling	**Date Collected:**	10/23/19
Sample Matrix:	Water	**Date Received:**	10/25/19
		Date Analyzed:	10/29/19
		Date Extracted:	NA

Duplicate Matrix Spike Summary
Volatile Organic Compounds by GC/MS

Sample Name:	MW18S-1019	**Units:**	ug/L
Lab Code:	R1910516-001	**Basis:**	NA
Analysis Method:	8260C		
Prep Method:	EPA 5030C		

		Matrix Spike RQ1912546-05			Duplicate Matrix Spike RQ1912546-06					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Acetone	10 U	41.2	50.0	82	41.3	50.0	83	35-183	<1	30
Benzene	5.0 U	48.7	50.0	97	48.6	50.0	97	76-129	<1	30
Bromodichloromethane	5.0 U	49.2	50.0	98	49.1	50.0	98	78-133	<1	30
Bromoform	5.0 U	49.0	50.0	98	51.2	50.0	102	58-133	4	30
Bromomethane	5.0 U	58.2	50.0	116	58.0	50.0	116	10-184	<1	30
2-Butanone (MEK)	10 U	43.9	50.0	88	42.6	50.0	85	61-137	3	30
Carbon Disulfide	10 U	51.5	50.0	103	52.0	50.0	104	59-140	1	30
Carbon Tetrachloride	5.0 U	49.6	50.0	99	50.7	50.0	101	65-135	2	30
Chlorobenzene	5.0 U	47.9	50.0	96	48.1	50.0	96	76-125	<1	30
Chloroethane	5.0 U	44.2	50.0	88	44.5	50.0	89	48-146	<1	30
Chloroform	5.0 U	43.5	50.0	87	45.4	50.0	91	75-130	4	30
Chloromethane	5.0 U	46.0	50.0	92	48.4	50.0	97	55-160	5	30
Dibromochloromethane	5.0 U	49.7	50.0	99	51.4	50.0	103	72-128	3	30
1,1-Dichloroethane	5.0 U	46.0	50.0	92	46.3	50.0	93	74-132	<1	30
1,2-Dibromoethane	5.0 U	44.9	50.0	90	45.7	50.0	91	67-127	2	30
1,2-Dichloroethane	5.0 U	44.6	50.0	89	45.6	50.0	91	68-130	2	30
1,1-Dichloroethene	5.0 U	46.0	50.0	92	47.1	50.0	94	71-118	2	30
cis-1,2-Dichloroethene	5.0 U	45.6	50.0	91	47.2	50.0	94	77-127	3	30
trans-1,2-Dichloroethene	5.0 U	46.1	50.0	92	47.4	50.0	95	73-118	3	30
1,2-Dichloropropane	5.0 U	46.8	50.0	94	47.4	50.0	95	79-124	1	30
cis-1,3-Dichloropropene	5.0 U	45.4	50.0	91	45.5	50.0	91	52-134	<1	30
trans-1,3-Dichloropropene	5.0 U	43.7	50.0	87	44.9	50.0	90	71-133	3	30
Ethylbenzene	5.0 U	47.9	50.0	96	48.3	50.0	97	72-134	<1	30
2-Hexanone	10 U	45.4	50.0	91	46.0	50.0	92	56-132	1	30
Methylene Chloride	5.0 U	41.8	50.0	84	42.7	50.0	85	73-122	2	30
4-Methyl-2-pentanone (MIBK)	10 U	47.4	50.0	95	46.5	50.0	93	60-141	2	30
Styrene	5.0 U	47.6	50.0	95	48.5	50.0	97	74-136	2	30
1,1,2,2-Tetrachloroethane	5.0 U	47.3	50.0	95	47.9	50.0	96	72-122	1	30
Tetrachloroethene	5.0 U	46.3	50.0	93	47.1	50.0	94	72-125	2	30
Toluene	5.0 U	49.5	50.0	99	49.9	50.0	100	79-119	<1	30
1,1,1-Trichloroethane	5.0 U	45.6	50.0	91	47.8	50.0	96	74-127	5	30
1,1,2-Trichloroethane	5.0 U	47.5	50.0	95	47.6	50.0	95	82-121	<1	30
Trichloroethene	5.0 U	48.7	50.0	97	49.5	50.0	99	74-122	2	30
Vinyl Chloride	5.0 U	47.2	50.0	94	49.0	50.0	98	74-159	4	30
o-Xylene	5.0 U	48.6	50.0	97	48.6	50.0	97	79-123	<1	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

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QA/QC Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1910516
Project:	Wellsville-Andover LF - Annual Sampling	**Date Collected:**	10/23/19
Sample Matrix:	Water	**Date Received:**	10/25/19
		Date Analyzed:	10/29/19
		Date Extracted:	NA

Duplicate Matrix Spike Summary
Volatile Organic Compounds by GC/MS

Sample Name:	MW18S-1019	**Units:**	ug/L
Lab Code:	R1910516-001	**Basis:**	NA
Analysis Method:	8260C		
Prep Method:	EPA 5030C		

		Matrix Spike RQ1912546-05			**Duplicate Matrix Spike** RQ1912546-06					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
m,p-Xylenes	5.0 U	99.1	100	99	99.9	100	100	80-126	<1	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

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Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1910516
Project:	Wellsville-Andover LF - Annual Sampling	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	RQ1912546-04	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result		MRL	Dil.	Date Analyzed	Q
Acetone	10	U	10	1	10/29/19 12:40	
Benzene	5.0	U	5.0	1	10/29/19 12:40	
Bromodichloromethane	5.0	U	5.0	1	10/29/19 12:40	
Bromoform	5.0	U	5.0	1	10/29/19 12:40	
Bromomethane	5.0	U	5.0	1	10/29/19 12:40	
2-Butanone (MEK)	10	U	10	1	10/29/19 12:40	
Carbon Disulfide	10	U	10	1	10/29/19 12:40	
Carbon Tetrachloride	5.0	U	5.0	1	10/29/19 12:40	
Chlorobenzene	5.0	U	5.0	1	10/29/19 12:40	
Chloroethane	5.0	U	5.0	1	10/29/19 12:40	
Chloroform	5.0	U	5.0	1	10/29/19 12:40	
Chloromethane	5.0	U	5.0	1	10/29/19 12:40	
Dibromochloromethane	5.0	U	5.0	1	10/29/19 12:40	
1,1-Dichloroethane	5.0	U	5.0	1	10/29/19 12:40	
1,2-Dibromoethane	5.0	U	5.0	1	10/29/19 12:40	
1,2-Dichloroethane	5.0	U	5.0	1	10/29/19 12:40	
1,1-Dichloroethene	5.0	U	5.0	1	10/29/19 12:40	
cis-1,2-Dichloroethene	5.0	U	5.0	1	10/29/19 12:40	
trans-1,2-Dichloroethene	5.0	U	5.0	1	10/29/19 12:40	
1,2-Dichloropropane	5.0	U	5.0	1	10/29/19 12:40	
cis-1,3-Dichloropropene	5.0	U	5.0	1	10/29/19 12:40	
trans-1,3-Dichloropropene	5.0	U	5.0	1	10/29/19 12:40	
Ethylbenzene	5.0	U	5.0	1	10/29/19 12:40	
2-Hexanone	10	U	10	1	10/29/19 12:40	
Methylene Chloride	5.0	U	5.0	1	10/29/19 12:40	
4-Methyl-2-pentanone (MIBK)	10	U	10	1	10/29/19 12:40	
Styrene	5.0	U	5.0	1	10/29/19 12:40	
1,1,2,2-Tetrachloroethane	5.0	U	5.0	1	10/29/19 12:40	
Tetrachloroethene	5.0	U	5.0	1	10/29/19 12:40	
Toluene	5.0	U	5.0	1	10/29/19 12:40	
1,1,1-Trichloroethane	5.0	U	5.0	1	10/29/19 12:40	
1,1,2-Trichloroethane	5.0	U	5.0	1	10/29/19 12:40	
Trichloroethene	5.0	U	5.0	1	10/29/19 12:40	
Vinyl Chloride	5.0	U	5.0	1	10/29/19 12:40	
o-Xylene	5.0	U	5.0	1	10/29/19 12:40	
m,p-Xylenes	5.0	U	5.0	1	10/29/19 12:40	

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Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1910516
Project:	Wellsville-Andover LF - Annual Sampling	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	RQ1912546-04	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	97	85 - 122	10/29/19 12:40	
Toluene-d8	100	87 - 121	10/29/19 12:40	
Dibromofluoromethane	94	89 - 119	10/29/19 12:40	

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QA/QC Report

Client: On-Site Technical Services, Inc.
Project: Wellsville-Andover LF - Annual Sampling
Sample Matrix: Water

Service Request: R1910516
Date Analyzed: 10/29/19

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample
RQ1912546-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Acetone	8260C	27.7	20.0	139	40-161
Benzene	8260C	18.7	20.0	93	79-119
Bromodichloromethane	8260C	20.0	20.0	100	81-123
Bromoform	8260C	20.2	20.0	101	65-146
Bromomethane	8260C	20.4	20.0	102	42-166
2-Butanone (MEK)	8260C	15.9	20.0	80	61-137
Carbon Disulfide	8260C	19.9	20.0	100	66-128
Carbon Tetrachloride	8260C	19.4	20.0	97	70-127
Chlorobenzene	8260C	19.0	20.0	95	80-121
Chloroethane	8260C	17.4	20.0	87	62-131
Chloroform	8260C	17.9	20.0	90	79-120
Chloromethane	8260C	18.4	20.0	92	65-135
Dibromochloromethane	8260C	19.0	20.0	95	72-128
1,1-Dichloroethane	8260C	18.0	20.0	90	80-124
1,2-Dibromoethane	8260C	18.1	20.0	90	82-127
1,2-Dichloroethane	8260C	17.4	20.0	87	71-127
1,1-Dichloroethene	8260C	18.0	20.0	90	71-118
cis-1,2-Dichloroethene	8260C	18.3	20.0	91	80-121
trans-1,2-Dichloroethene	8260C	18.6	20.0	93	73-118
1,2-Dichloropropane	8260C	18.4	20.0	92	80-119
cis-1,3-Dichloropropene	8260C	17.6	20.0	88	77-122
trans-1,3-Dichloropropene	8260C	18.2	20.0	91	71-133
Ethylbenzene	8260C	19.1	20.0	95	76-120
2-Hexanone	8260C	16.2	20.0	81	63-124
Methylene Chloride	8260C	16.7	20.0	84	73-122
4-Methyl-2-pentanone (MIBK)	8260C	16.6	20.0	83	66-124
Styrene	8260C	19.3	20.0	96	80-124
1,1,2,2-Tetrachloroethane	8260C	18.8	20.0	94	78-126
Tetrachloroethene	8260C	18.9	20.0	95	72-125
Toluene	8260C	19.3	20.0	97	79-119
1,1,1-Trichloroethane	8260C	17.7	20.0	88	75-125
1,1,2-Trichloroethane	8260C	19.4	20.0	97	82-121
Trichloroethene	8260C	19.2	20.0	96	74-122

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QA/QC Report

Client: On-Site Technical Services, Inc.
Project: Wellsville-Andover LF - Annual Sampling
Sample Matrix: Water

Service Request: R1910516
Date Analyzed: 10/29/19

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample
RQ1912546-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Vinyl Chloride	8260C	18.4	20.0	92	74-159
o-Xylene	8260C	19.0	20.0	95	79-123
m,p-Xylenes	8260C	39.3	40.0	98	80-126

Metals

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Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1910516
Project:	Wellsville-Andover LF - Annual Sampling	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Basis:**	NA
Lab Code:	R1910516-MB		

Inorganic Parameters

Analyte Name	Analysis Method	Result		Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic, Total	6010C	10	U	ug/L	10	1	10/29/19 14:55	10/28/19	
Barium, Total	6010C	20	U	ug/L	20	1	10/29/19 14:55	10/28/19	
Cadmium, Total	6010C	5.0	U	ug/L	5.0	1	10/29/19 14:55	10/28/19	
Calcium, Total	6010C	1000	U	ug/L	1000	1	10/29/19 14:55	10/28/19	
Chromium, Total	6010C	10	U	ug/L	10	1	10/29/19 14:55	10/28/19	
Copper, Total	6010C	20	U	ug/L	20	1	10/29/19 14:55	10/28/19	
Iron, Total	6010C	100	U	ug/L	100	1	10/29/19 14:55	10/28/19	
Lead, Total	6010C	50	U	ug/L	50	1	10/29/19 14:55	10/28/19	
Magnesium, Total	6010C	1000	U	ug/L	1000	1	10/29/19 14:55	10/28/19	
Manganese, Total	6010C	10	U	ug/L	10	1	10/29/19 14:55	10/28/19	
Nickel, Total	6010C	40	U	ug/L	40	1	10/29/19 14:55	10/28/19	
Potassium, Total	6010C	2000	U	ug/L	2000	1	10/29/19 14:55	10/28/19	
Selenium, Total	6010C	10	U	ug/L	10	1	10/29/19 14:55	10/28/19	
Sodium, Total	6010C	1000	U	ug/L	1000	1	10/29/19 14:55	10/28/19	
Zinc, Total	6010C	20	U	ug/L	20	1	10/29/19 14:55	10/28/19	

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QA/QC Report

Client: On-Site Technical Services, Inc.
Project: Wellsville-Andover LF - Annual Sampling
Sample Matrix: Water

Service Request: R1910516
Date Analyzed: 10/29/19

Lab Control Sample Summary
Inorganic Parameters

Units:ug/L
Basis:NA

Lab Control Sample
R1910516-LCS

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Arsenic, Total	6010C	43.9	40	110	80-120
Barium, Total	6010C	2160	2000	108	80-120
Cadmium, Total	6010C	53.1	50.0	106	80-120
Calcium, Total	6010C	1820	2000	91	80-120
Chromium, Total	6010C	213	200	106	80-120
Copper, Total	6010C	245	250	98	80-120
Iron, Total	6010C	1010	1000	101	80-120
Lead, Total	6010C	523	500	105	80-120
Magnesium, Total	6010C	2030	2000	102	80-120
Manganese, Total	6010C	526	500	105	80-120
Nickel, Total	6010C	527	500	105	80-120
Potassium, Total	6010C	20100	20000	101	80-120
Selenium, Total	6010C	1130	1010	112	80-120
Sodium, Total	6010C	20600	20000	103	80-120
Zinc, Total	6010C	528	500	106	80-120

Subcontracted Analytical Parameters

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

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State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

October 30, 2019

Reports and Invoices
ALS Environmental
1565 Jefferson Road
Building 300, Suite 360
Rochester, NY 14623

Certificate of Analysis

Project Name:	**Custom EDD & QC, No MDL**	Workorder:	**3066458**
Purchase Order:	**58R1910516**	Workorder ID:	**R1910516**

Dear Reports Invoices:

Enclosed are the analytical results for samples received by the laboratory on Tuesday, October 29, 2019.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Ms. Sarah S Leung (Project Coordinator) at (717) 944-5541.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads.

ALS Spring City: 10 Riverside Drive, Spring City, PA 19475 610-948-4903

CC: Mr. Michael Chevalier , Mr. Brady Kalkman , Ms. Janice Jaeger

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Ms. Sarah S Leung
Project Coordinator

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SAMPLE SUMMARY

Workorder: 3066458 R1910516

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
3066458001	WALI9Post-1019	Drinking Water	10/24/2019 12:55	10/29/2019 09:03	Collected by Client
3066458002	WALI9Inter-1019	Drinking Water	10/24/2019 13:15	10/29/2019 09:03	Collected by Client
3066458003	WALI9Pre-1019	Drinking Water	10/24/2019 13:25	10/29/2019 09:03	Collected by Client

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SAMPLE SUMMARY

Workorder: 3066458 R1910516

Notes

-- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
-- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
-- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
-- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
-- The Chain of Custody document is included as part of this report.
-- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
-- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are preformed in the laboratory and are therefore analyzed out of hold time.
-- Method references listed on this report beginning with the prefix “S” followed by a method number (such as S2310B-97) refer to methods from “Standard Methods for the Examination of Water and Wastewater”.
-- For microbiological analyses, the "Prepared" value is the date/time into the incubator and the "Analyzed" value is the date/time out the incubator.
-- An Analysis-Prep Method Cross Reference Table is included after Analytical Results & Qualifiers section in this report.

Standard Acronyms/Flags

J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit
I	Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL)
(S)	Surrogate Compound
NC	Not Calculated
*	Result outside of QC limits

ANALYTICAL RESULTS

Workorder: 3066458 R1910516

Lab ID: **3066458001** Date Collected: 10/24/2019 12:55 Matrix: Drinking Water

Sample ID: **WALI9Post-1019** Date Received: 10/29/2019 09:03

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	*Cntr*
VOLATILE ORGANICS										
Benzene	ND		ug/L	0.50	EPA 524.2			10/30/19 04:50	PDK	A
Bromobenzene	ND		ug/L	0.50	EPA 524.2			10/30/19 04:50	PDK	A
Bromochloromethane	ND		ug/L	0.50	EPA 524.2			10/30/19 04:50	PDK	A
Bromomethane	ND		ug/L	0.50	EPA 524.2			10/30/19 04:50	PDK	A
n-Butylbenzene	ND		ug/L	0.50	EPA 524.2			10/30/19 04:50	PDK	A
tert-Butylbenzene	ND		ug/L	0.50	EPA 524.2			10/30/19 04:50	PDK	A
sec-Butylbenzene	ND		ug/L	0.50	EPA 524.2			10/30/19 04:50	PDK	A
Carbon Tetrachloride	ND		ug/L	0.50	EPA 524.2			10/30/19 04:50	PDK	A
Chlorobenzene	ND		ug/L	0.50	EPA 524.2			10/30/19 04:50	PDK	A
Chloroethane	ND		ug/L	0.50	EPA 524.2			10/30/19 04:50	PDK	A
Chloromethane	ND		ug/L	0.50	EPA 524.2			10/30/19 04:50	PDK	A
o-Chlorotoluene	ND		ug/L	0.50	EPA 524.2			10/30/19 04:50	PDK	A
p-Chlorotoluene	ND		ug/L	0.50	EPA 524.2			10/30/19 04:50	PDK	A
1,2-Dibromo-3-chloropropane	ND		ug/L	0.50	EPA 524.2			10/30/19 04:50	PDK	A
Dibromomethane	ND		ug/L	0.50	EPA 524.2			10/30/19 04:50	PDK	A
1,2-Dichlorobenzene	ND		ug/L	0.50	EPA 524.2			10/30/19 04:50	PDK	A
1,3-Dichlorobenzene	ND		ug/L	0.50	EPA 524.2			10/30/19 04:50	PDK	A
1,4-Dichlorobenzene	ND		ug/L	0.50	EPA 524.2			10/30/19 04:50	PDK	A
Dichlorodifluoromethane	ND		ug/L	0.50	EPA 524.2			10/30/19 04:50	PDK	A
1,1-Dichloroethane	ND		ug/L	0.50	EPA 524.2			10/30/19 04:50	PDK	A
1,2-Dichloroethane	ND		ug/L	0.50	EPA 524.2			10/30/19 04:50	PDK	A
1,1-Dichloroethene	ND		ug/L	0.50	EPA 524.2			10/30/19 04:50	PDK	A
cis-1,2-Dichloroethene	ND		ug/L	0.50	EPA 524.2			10/30/19 04:50	PDK	A
trans-1,2-Dichloroethene	ND		ug/L	0.50	EPA 524.2			10/30/19 04:50	PDK	A
1,3-Dichloropropane	ND		ug/L	0.50	EPA 524.2			10/30/19 04:50	PDK	A
2,2-Dichloropropane	ND		ug/L	0.50	EPA 524.2			10/30/19 04:50	PDK	A
1,2-Dichloropropane	ND		ug/L	0.50	EPA 524.2			10/30/19 04:50	PDK	A
1,1-Dichloropropene	ND		ug/L	0.50	EPA 524.2			10/30/19 04:50	PDK	A
cis-1,3-Dichloropropene	ND		ug/L	0.50	EPA 524.2			10/30/19 04:50	PDK	A
trans-1,3-Dichloropropene	ND		ug/L	0.50	EPA 524.2			10/30/19 04:50	PDK	A
Ethylbenzene	ND		ug/L	0.50	EPA 524.2			10/30/19 04:50	PDK	A
Hexachlorobutadiene	ND		ug/L	0.50	EPA 524.2			10/30/19 04:50	PDK	A
Isopropylbenzene	ND		ug/L	0.50	EPA 524.2			10/30/19 04:50	PDK	A
p-Isopropyltoluene	ND		ug/L	0.50	EPA 524.2			10/30/19 04:50	PDK	A
Methylene Chloride	ND		ug/L	0.50	EPA 524.2			10/30/19 04:50	PDK	A
n-Propylbenzene	ND		ug/L	0.50	EPA 524.2			10/30/19 04:50	PDK	A

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ANALYTICAL RESULTS

Workorder: 3066458 R1910516

Lab ID: **3066458001** Date Collected: 10/24/2019 12:55 Matrix: Drinking Water

Sample ID: **WALI9Post-1019** Date Received: 10/29/2019 09:03

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
Styrene	ND		ug/L	0.50	EPA 524.2			10/30/19 04:50	PDK	A
1,1,1,2-Tetrachloroethane	ND		ug/L	0.50	EPA 524.2			10/30/19 04:50	PDK	A
1,1,2,2-Tetrachloroethane	ND		ug/L	0.50	EPA 524.2			10/30/19 04:50	PDK	A
Tetrachloroethene	ND		ug/L	0.50	EPA 524.2			10/30/19 04:50	PDK	A
Toluene	ND		ug/L	0.50	EPA 524.2			10/30/19 04:50	PDK	A
1,2,3-Trichlorobenzene	ND		ug/L	0.50	EPA 524.2			10/30/19 04:50	PDK	A
1,2,4-Trichlorobenzene	ND		ug/L	0.50	EPA 524.2			10/30/19 04:50	PDK	A
1,1,1-Trichloroethane	ND		ug/L	0.50	EPA 524.2			10/30/19 04:50	PDK	A
1,1,2-Trichloroethane	ND		ug/L	0.50	EPA 524.2			10/30/19 04:50	PDK	A
Trichloroethene	ND		ug/L	0.50	EPA 524.2			10/30/19 04:50	PDK	A
Trichlorofluoromethane	ND		ug/L	0.50	EPA 524.2			10/30/19 04:50	PDK	A
1,2,3-Trichloropropane	ND		ug/L	0.50	EPA 524.2			10/30/19 04:50	PDK	A
1,2,4-Trimethylbenzene	ND		ug/L	0.50	EPA 524.2			10/30/19 04:50	PDK	A
1,3,5-Trimethylbenzene	ND		ug/L	0.50	EPA 524.2			10/30/19 04:50	PDK	A
o-Xylene	ND		ug/L	0.25	EPA 524.2			10/30/19 04:50	PDK	A
mp-Xylene	ND		ug/L	0.25	EPA 524.2			10/30/19 04:50	PDK	A

Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	104		%	70 - 130	EPA 524.2			10/30/19 04:50	PDK	A
4-Bromofluorobenzene (S)	97.6		%	70 - 130	EPA 524.2			10/30/19 04:50	PDK	A

Ms. Sarah S Leung
Project Coordinator

ANALYTICAL RESULTS

Workorder: 3066458 R1910516

Lab ID: **3066458002** Date Collected: 10/24/2019 13:15 Matrix: Drinking Water

Sample ID: **WALI9Inter-1019** Date Received: 10/29/2019 09:03

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	*Cntr*
VOLATILE ORGANICS										
Benzene	ND		ug/L	0.50	EPA 524.2			10/30/19 05:14	PDK	A
Bromobenzene	ND		ug/L	0.50	EPA 524.2			10/30/19 05:14	PDK	A
Bromochloromethane	ND		ug/L	0.50	EPA 524.2			10/30/19 05:14	PDK	A
Bromomethane	ND		ug/L	0.50	EPA 524.2			10/30/19 05:14	PDK	A
n-Butylbenzene	ND		ug/L	0.50	EPA 524.2			10/30/19 05:14	PDK	A
tert-Butylbenzene	ND		ug/L	0.50	EPA 524.2			10/30/19 05:14	PDK	A
sec-Butylbenzene	ND		ug/L	0.50	EPA 524.2			10/30/19 05:14	PDK	A
Carbon Tetrachloride	ND		ug/L	0.50	EPA 524.2			10/30/19 05:14	PDK	A
Chlorobenzene	ND		ug/L	0.50	EPA 524.2			10/30/19 05:14	PDK	A
Chloroethane	ND		ug/L	0.50	EPA 524.2			10/30/19 05:14	PDK	A
Chloromethane	ND		ug/L	0.50	EPA 524.2			10/30/19 05:14	PDK	A
o-Chlorotoluene	ND		ug/L	0.50	EPA 524.2			10/30/19 05:14	PDK	A
p-Chlorotoluene	ND		ug/L	0.50	EPA 524.2			10/30/19 05:14	PDK	A
1,2-Dibromo-3-chloropropane	ND		ug/L	0.50	EPA 524.2			10/30/19 05:14	PDK	A
Dibromomethane	ND		ug/L	0.50	EPA 524.2			10/30/19 05:14	PDK	A
1,2-Dichlorobenzene	ND		ug/L	0.50	EPA 524.2			10/30/19 05:14	PDK	A
1,3-Dichlorobenzene	ND		ug/L	0.50	EPA 524.2			10/30/19 05:14	PDK	A
1,4-Dichlorobenzene	ND		ug/L	0.50	EPA 524.2			10/30/19 05:14	PDK	A
Dichlorodifluoromethane	ND	1,2	ug/L	0.50	EPA 524.2			10/30/19 05:14	PDK	A
1,1-Dichloroethane	ND		ug/L	0.50	EPA 524.2			10/30/19 05:14	PDK	A
1,2-Dichloroethane	ND		ug/L	0.50	EPA 524.2			10/30/19 05:14	PDK	A
1,1-Dichloroethene	ND	3	ug/L	0.50	EPA 524.2			10/30/19 05:14	PDK	A
cis-1,2-Dichloroethene	ND		ug/L	0.50	EPA 524.2			10/30/19 05:14	PDK	A
trans-1,2-Dichloroethene	ND		ug/L	0.50	EPA 524.2			10/30/19 05:14	PDK	A
1,3-Dichloropropane	ND		ug/L	0.50	EPA 524.2			10/30/19 05:14	PDK	A
2,2-Dichloropropane	ND		ug/L	0.50	EPA 524.2			10/30/19 05:14	PDK	A
1,2-Dichloropropane	ND		ug/L	0.50	EPA 524.2			10/30/19 05:14	PDK	A
1,1-Dichloropropene	ND		ug/L	0.50	EPA 524.2			10/30/19 05:14	PDK	A
cis-1,3-Dichloropropene	ND		ug/L	0.50	EPA 524.2			10/30/19 05:14	PDK	A
trans-1,3-Dichloropropene	ND		ug/L	0.50	EPA 524.2			10/30/19 05:14	PDK	A
Ethylbenzene	ND		ug/L	0.50	EPA 524.2			10/30/19 05:14	PDK	A
Hexachlorobutadiene	ND	4	ug/L	0.50	EPA 524.2			10/30/19 05:14	PDK	A
Isopropylbenzene	ND		ug/L	0.50	EPA 524.2			10/30/19 05:14	PDK	A
p-Isopropyltoluene	ND		ug/L	0.50	EPA 524.2			10/30/19 05:14	PDK	A
Methylene Chloride	ND		ug/L	0.50	EPA 524.2			10/30/19 05:14	PDK	A
n-Propylbenzene	ND		ug/L	0.50	EPA 524.2			10/30/19 05:14	PDK	A

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ANALYTICAL RESULTS

Workorder: 3066458 R1910516

Lab ID: **3066458002** Date Collected: 10/24/2019 13:15 Matrix: Drinking Water

Sample ID: **WALI9Inter-1019** Date Received: 10/29/2019 09:03

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
Styrene	ND		ug/L	0.50	EPA 524.2			10/30/19 05:14	PDK	A
1,1,1,2-Tetrachloroethane	ND		ug/L	0.50	EPA 524.2			10/30/19 05:14	PDK	A
1,1,2,2-Tetrachloroethane	ND		ug/L	0.50	EPA 524.2			10/30/19 05:14	PDK	A
Tetrachloroethene	ND		ug/L	0.50	EPA 524.2			10/30/19 05:14	PDK	A
Toluene	ND		ug/L	0.50	EPA 524.2			10/30/19 05:14	PDK	A
1,2,3-Trichlorobenzene	ND		ug/L	0.50	EPA 524.2			10/30/19 05:14	PDK	A
1,2,4-Trichlorobenzene	ND		ug/L	0.50	EPA 524.2			10/30/19 05:14	PDK	A
1,1,1-Trichloroethane	ND		ug/L	0.50	EPA 524.2			10/30/19 05:14	PDK	A
1,1,2-Trichloroethane	ND		ug/L	0.50	EPA 524.2			10/30/19 05:14	PDK	A
Trichloroethene	ND		ug/L	0.50	EPA 524.2			10/30/19 05:14	PDK	A
Trichlorofluoromethane	ND		ug/L	0.50	EPA 524.2			10/30/19 05:14	PDK	A
1,2,3-Trichloropropane	ND		ug/L	0.50	EPA 524.2			10/30/19 05:14	PDK	A
1,2,4-Trimethylbenzene	ND		ug/L	0.50	EPA 524.2			10/30/19 05:14	PDK	A
1,3,5-Trimethylbenzene	ND		ug/L	0.50	EPA 524.2			10/30/19 05:14	PDK	A
o-Xylene	ND		ug/L	0.25	EPA 524.2			10/30/19 05:14	PDK	A
mp-Xylene	ND		ug/L	0.25	EPA 524.2			10/30/19 05:14	PDK	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	106		%	70 - 130	EPA 524.2			10/30/19 05:14	PDK	A
4-Bromofluorobenzene (S)	95.8		%	70 - 130	EPA 524.2			10/30/19 05:14	PDK	A

Ms. Sarah S Leung
Project Coordinator

ALS Environmental

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ANALYTICAL RESULTS

Workorder: 3066458 R1910516

Lab ID: **3066458003** Date Collected: 10/24/2019 13:25 Matrix: Drinking Water

Sample ID: **WALI9Pre-1019** Date Received: 10/29/2019 09:03

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	*Cntr*
VOLATILE ORGANICS										
Benzene	ND		ug/L	0.50	EPA 524.2			10/30/19 05:39	PDK	A
Bromobenzene	ND		ug/L	0.50	EPA 524.2			10/30/19 05:39	PDK	A
Bromochloromethane	ND		ug/L	0.50	EPA 524.2			10/30/19 05:39	PDK	A
Bromomethane	ND		ug/L	0.50	EPA 524.2			10/30/19 05:39	PDK	A
n-Butylbenzene	ND		ug/L	0.50	EPA 524.2			10/30/19 05:39	PDK	A
tert-Butylbenzene	ND		ug/L	0.50	EPA 524.2			10/30/19 05:39	PDK	A
sec-Butylbenzene	ND		ug/L	0.50	EPA 524.2			10/30/19 05:39	PDK	A
Carbon Tetrachloride	ND		ug/L	0.50	EPA 524.2			10/30/19 05:39	PDK	A
Chlorobenzene	ND		ug/L	0.50	EPA 524.2			10/30/19 05:39	PDK	A
Chloroethane	ND		ug/L	0.50	EPA 524.2			10/30/19 05:39	PDK	A
Chloromethane	ND		ug/L	0.50	EPA 524.2			10/30/19 05:39	PDK	A
o-Chlorotoluene	ND		ug/L	0.50	EPA 524.2			10/30/19 05:39	PDK	A
p-Chlorotoluene	ND		ug/L	0.50	EPA 524.2			10/30/19 05:39	PDK	A
1,2-Dibromo-3-chloropropane	ND		ug/L	0.50	EPA 524.2			10/30/19 05:39	PDK	A
Dibromomethane	ND		ug/L	0.50	EPA 524.2			10/30/19 05:39	PDK	A
1,2-Dichlorobenzene	ND		ug/L	0.50	EPA 524.2			10/30/19 05:39	PDK	A
1,3-Dichlorobenzene	ND		ug/L	0.50	EPA 524.2			10/30/19 05:39	PDK	A
1,4-Dichlorobenzene	ND		ug/L	0.50	EPA 524.2			10/30/19 05:39	PDK	A
Dichlorodifluoromethane	ND		ug/L	0.50	EPA 524.2			10/30/19 05:39	PDK	A
1,1-Dichloroethane	ND		ug/L	0.50	EPA 524.2			10/30/19 05:39	PDK	A
1,2-Dichloroethane	ND		ug/L	0.50	EPA 524.2			10/30/19 05:39	PDK	A
1,1-Dichloroethene	ND		ug/L	0.50	EPA 524.2			10/30/19 05:39	PDK	A
cis-1,2-Dichloroethene	2.4		ug/L	0.50	EPA 524.2			10/30/19 05:39	PDK	A
trans-1,2-Dichloroethene	ND		ug/L	0.50	EPA 524.2			10/30/19 05:39	PDK	A
1,3-Dichloropropane	ND		ug/L	0.50	EPA 524.2			10/30/19 05:39	PDK	A
2,2-Dichloropropane	ND		ug/L	0.50	EPA 524.2			10/30/19 05:39	PDK	A
1,2-Dichloropropane	ND		ug/L	0.50	EPA 524.2			10/30/19 05:39	PDK	A
1,1-Dichloropropene	ND		ug/L	0.50	EPA 524.2			10/30/19 05:39	PDK	A
cis-1,3-Dichloropropene	ND		ug/L	0.50	EPA 524.2			10/30/19 05:39	PDK	A
trans-1,3-Dichloropropene	ND		ug/L	0.50	EPA 524.2			10/30/19 05:39	PDK	A
Ethylbenzene	ND		ug/L	0.50	EPA 524.2			10/30/19 05:39	PDK	A
Hexachlorobutadiene	ND		ug/L	0.50	EPA 524.2			10/30/19 05:39	PDK	A
Isopropylbenzene	ND		ug/L	0.50	EPA 524.2			10/30/19 05:39	PDK	A
p-Isopropyltoluene	ND		ug/L	0.50	EPA 524.2			10/30/19 05:39	PDK	A
Methylene Chloride	ND		ug/L	0.50	EPA 524.2			10/30/19 05:39	PDK	A
n-Propylbenzene	ND		ug/L	0.50	EPA 524.2			10/30/19 05:39	PDK	A

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ANALYTICAL RESULTS

Workorder: 3066458 R1910516

Lab ID: **3066458003** Date Collected: 10/24/2019 13:25 Matrix: Drinking Water

Sample ID: **WALI9Pre-1019** Date Received: 10/29/2019 09:03

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
Styrene	ND		ug/L	0.50	EPA 524.2			10/30/19 05:39	PDK	A
1,1,1,2-Tetrachloroethane	ND		ug/L	0.50	EPA 524.2			10/30/19 05:39	PDK	A
1,1,2,2-Tetrachloroethane	ND		ug/L	0.50	EPA 524.2			10/30/19 05:39	PDK	A
Tetrachloroethene	ND		ug/L	0.50	EPA 524.2			10/30/19 05:39	PDK	A
Toluene	ND		ug/L	0.50	EPA 524.2			10/30/19 05:39	PDK	A
1,2,3-Trichlorobenzene	ND		ug/L	0.50	EPA 524.2			10/30/19 05:39	PDK	A
1,2,4-Trichlorobenzene	ND		ug/L	0.50	EPA 524.2			10/30/19 05:39	PDK	A
1,1,1-Trichloroethane	ND		ug/L	0.50	EPA 524.2			10/30/19 05:39	PDK	A
1,1,2-Trichloroethane	ND		ug/L	0.50	EPA 524.2			10/30/19 05:39	PDK	A
Trichloroethene	3.3		ug/L	0.50	EPA 524.2			10/30/19 05:39	PDK	A
Trichlorofluoromethane	ND		ug/L	0.50	EPA 524.2			10/30/19 05:39	PDK	A
1,2,3-Trichloropropane	ND		ug/L	0.50	EPA 524.2			10/30/19 05:39	PDK	A
1,2,4-Trimethylbenzene	ND		ug/L	0.50	EPA 524.2			10/30/19 05:39	PDK	A
1,3,5-Trimethylbenzene	ND		ug/L	0.50	EPA 524.2			10/30/19 05:39	PDK	A
o-Xylene	ND		ug/L	0.25	EPA 524.2			10/30/19 05:39	PDK	A
mp-Xylene	ND		ug/L	0.25	EPA 524.2			10/30/19 05:39	PDK	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichlorobenzene-d4 (S)	106		%	70 - 130	EPA 524.2			10/30/19 05:39	PDK	A
4-Bromofluorobenzene (S)	97.8		%	70 - 130	EPA 524.2			10/30/19 05:39	PDK	A

Ms. Sarah S Leung
Project Coordinator

ANALYTICAL RESULTS

Workorder: 3066458 R1910516

PARAMETER QUALIFIERS

Lab ID	#	Sample ID	Analytical Method	Analyte
3066458002	1	WALI9Inter-1019	EPA 524.2	Dichlorodifluoromethane
The QC sample type MS for method EPA 524.2 was outside the control limits for the analyte Dichlorodifluoromethane. The % Recovery was reported as 51 and the control limits were 70 to 130.				
3066458002	2	WALI9Inter-1019	EPA 524.2	Dichlorodifluoromethane
The QC sample type MSD for method EPA 524.2 was outside the control limits for the analyte Dichlorodifluoromethane. The % Recovery was reported as 55.3 and the control limits were 70 to 130.				
3066458002	3	WALI9Inter-1019	EPA 524.2	1,1-Dichloroethene
The QC sample type MSD for method EPA 524.2 was outside the control limits for the analyte 1,1-Dichloroethene. The % Recovery was reported as 135 and the control limits were 70 to 130.				
3066458002	4	WALI9Inter-1019	EPA 524.2	Hexachlorobutadiene
The QC sample type MSD for method EPA 524.2 was outside the control limits for the analyte Hexachlorobutadiene. The % Recovery was reported as 136 and the control limits were 70 to 130.				

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ANALYSIS - PREP METHOD CROSS REFERENCE TABLE

Workorder: 3066458 R1910516

Lab ID	Sample ID	Analysis Method	Prep Method
3066458001	WALI9Post-1019	EPA 524.2	
3066458002	WALI9Inter-1019	EPA 524.2	
3066458003	WALI9Pre-1019	EPA 524.2	

QUALITY CONTROL DATA

Workorder: 3066458 R1910516

QC Batch: VOMS/52852 **Analysis Method:** EPA 524.2

QC Batch Method: EPA 524.2

Associated Lab Samples: 3066458001, 3066458002, 3066458003

METHOD BLANK: 3036340

Parameter	Blank Result	Units	Reporting Limit
Benzene	ND	ug/L	0.50
Bromobenzene	ND	ug/L	0.50
Bromochloromethane	ND	ug/L	0.50
Bromomethane	ND	ug/L	0.50
n-Butylbenzene	ND	ug/L	0.50
tert-Butylbenzene	ND	ug/L	0.50
sec-Butylbenzene	ND	ug/L	0.50
Carbon Tetrachloride	ND	ug/L	0.50
Chlorobenzene	ND	ug/L	0.50
Chloroethane	ND	ug/L	0.50
Chloromethane	ND	ug/L	0.50
o-Chlorotoluene	ND	ug/L	0.50
p-Chlorotoluene	ND	ug/L	0.50
1,2-Dibromo-3-chloropropane	ND	ug/L	0.50
Dibromomethane	ND	ug/L	0.50
1,2-Dichlorobenzene	ND	ug/L	0.50
1,3-Dichlorobenzene	ND	ug/L	0.50
1,4-Dichlorobenzene	ND	ug/L	0.50
Dichlorodifluoromethane	ND	ug/L	0.50
1,1-Dichloroethane	ND	ug/L	0.50
1,2-Dichloroethane	ND	ug/L	0.50
1,1-Dichloroethene	ND	ug/L	0.50
cis-1,2-Dichloroethene	ND	ug/L	0.50
trans-1,2-Dichloroethene	ND	ug/L	0.50
1,3-Dichloropropane	ND	ug/L	0.50
2,2-Dichloropropane	ND	ug/L	0.50
1,2-Dichloropropane	ND	ug/L	0.50
1,1-Dichloropropene	ND	ug/L	0.50
cis-1,3-Dichloropropene	ND	ug/L	0.50
trans-1,3-Dichloropropene	ND	ug/L	0.50
Ethylbenzene	ND	ug/L	0.50
Hexachlorobutadiene	ND	ug/L	0.50
Isopropylbenzene	ND	ug/L	0.50
p-Isopropyltoluene	ND	ug/L	0.50
Methylene Chloride	ND	ug/L	0.50
n-Propylbenzene	ND	ug/L	0.50
Styrene	ND	ug/L	0.50

QUALITY CONTROL DATA

Workorder: 3066458 R1910516

1,1,1,2-Tetrachloroethane	ND	ug/L	0.50
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50
Tetrachloroethene	ND	ug/L	0.50
Toluene	ND	ug/L	0.50
1,2,3-Trichlorobenzene	ND	ug/L	0.50
1,2,4-Trichlorobenzene	ND	ug/L	0.50
1,1,1-Trichloroethane	ND	ug/L	0.50
1,1,2-Trichloroethane	ND	ug/L	0.50
Trichloroethene	ND	ug/L	0.50
Trichlorofluoromethane	ND	ug/L	0.50
1,2,3-Trichloropropane	ND	ug/L	0.50
1,2,4-Trimethylbenzene	ND	ug/L	0.50
1,3,5-Trimethylbenzene	ND	ug/L	0.50
o-Xylene	ND	ug/L	0.25
mp-Xylene	ND	ug/L	0.25
1,2-Dichlorobenzene-d4 (S)	103	%	70 - 130
4-Bromofluorobenzene (S)	98.9	%	70 - 130

LABORATORY CONTROL SAMPLE: 3036341

Parameter	LCS % Rec	Units	Spike Conc.	LCS Result	% Rec Limit
1,2-Dichlorobenzene-d4 (S)	115	%			70 - 130
4-Bromofluorobenzene (S)	108	%			70 - 130

LABORATORY CONTROL SAMPLE: 3036342

Parameter	LCS % Rec	Units	Spike Conc.	LCS Result	% Rec Limit
Benzene	114	ug/L	5	5.7	70 - 130
Bromobenzene	104	ug/L	5	5.2	70 - 130
Bromochloromethane	108	ug/L	5	5.4	70 - 130
Bromomethane	102	ug/L	5	5.1	70 - 130
n-Butylbenzene	99.8	ug/L	5	5.0	70 - 130
tert-Butylbenzene	92.7	ug/L	5	4.6	70 - 130
sec-Butylbenzene	89.9	ug/L	5	4.5	70 - 130
Carbon Tetrachloride	113	ug/L	5	5.7	70 - 130
Chlorobenzene	112	ug/L	5	5.6	70 - 130
Chloroethane	98.8	ug/L	5	4.9	70 - 130
Chloromethane	116	ug/L	5	5.8	70 - 130
o-Chlorotoluene	103	ug/L	5	5.1	70 - 130
p-Chlorotoluene	110	ug/L	5	5.5	70 - 130
1,2-Dibromo-3-chloropropane	114	ug/L	5	5.7	70 - 130

QUALITY CONTROL DATA

Workorder: 3066458 R1910516

Dibromomethane	107	ug/L	5	5.4	70 - 130
1,2-Dichlorobenzene	107	ug/L	5	5.4	70 - 130
1,3-Dichlorobenzene	110	ug/L	5	5.5	70 - 130
1,4-Dichlorobenzene	109	ug/L	5	5.5	70 - 130
Dichlorodifluoromethane	125	ug/L	5	6.2	70 - 130
1,1-Dichloroethane	118	ug/L	5	5.9	70 - 130
1,2-Dichloroethane	113	ug/L	5	5.6	70 - 130
1,1-Dichloroethene	123	ug/L	5	6.2	70 - 130
cis-1,2-Dichloroethene	112	ug/L	5	5.6	70 - 130
trans-1,2-Dichloroethene	129	ug/L	5	6.5	70 - 130
1,3-Dichloropropane	107	ug/L	5	5.3	70 - 130
2,2-Dichloropropane	118	ug/L	5	5.9	70 - 130
1,2-Dichloropropane	105	ug/L	5	5.3	70 - 130
1,1-Dichloropropene	118	ug/L	5	5.9	70 - 130
cis-1,3-Dichloropropene	113	ug/L	5	5.6	70 - 130
trans-1,3-Dichloropropene	118	ug/L	5	5.9	70 - 130
Ethylbenzene	101	ug/L	5	5.1	70 - 130
Hexachlorobutadiene	129	ug/L	5	6.5	70 - 130
Isopropylbenzene	95.8	ug/L	5	4.8	70 - 130
p-Isopropyltoluene	99.9	ug/L	5	5.0	70 - 130
Methylene Chloride	110	ug/L	5	5.5	70 - 130
n-Propylbenzene	113	ug/L	5	5.6	70 - 130
Styrene	92.4	ug/L	5	4.6	70 - 130
1,1,1,2-Tetrachloroethane	114	ug/L	5	5.7	70 - 130
1,1,2,2-Tetrachloroethane	101	ug/L	5	5.0	70 - 130
Tetrachloroethene	115	ug/L	5	5.8	70 - 130
Toluene	114	ug/L	5	5.7	70 - 130
1,2,3-Trichlorobenzene	96	ug/L	5	4.8	70 - 130
1,2,4-Trichlorobenzene	105	ug/L	5	5.3	70 - 130
1,1,1-Trichloroethane	120	ug/L	5	6.0	70 - 130
1,1,2-Trichloroethane	111	ug/L	5	5.5	70 - 130
Trichloroethene	113	ug/L	5	5.6	70 - 130
Trichlorofluoromethane	118	ug/L	5	5.9	70 - 130
1,2,3-Trichloropropane	103	ug/L	5	5.1	70 - 130
1,2,4-Trimethylbenzene	89.9	ug/L	5	4.5	70 - 130
1,3,5-Trimethylbenzene	91	ug/L	5	4.5	70 - 130
o-Xylene	110	ug/L	5	5.5	70 - 130
mp-Xylene	94.3	ug/L	10	9.4	70 - 130
1,2-Dichlorobenzene-d4 (S)	105	%			70 - 130
4-Bromofluorobenzene (S)	108	%			70 - 130

QUALITY CONTROL DATA

Workorder: 3066458 R1910516

MATRIX SPIKE: 3036580 DUPLICATE: 3036581 ORIGINAL: 3066458002

****NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

Parameter	Original Result	Units	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD
Benzene	0	ug/L	5	5.92842	5.6077	119	112	70 - 130	5.56	40
Bromobenzene	0	ug/L	5	5.36901	5.29155	107	106	70 - 130	1.45	40
Bromochloromethane	0	ug/L	5	5.49821	5.5448	110	111	70 - 130	.84	40
Bromomethane	.22562	ug/L	5	4.4635	4.32793	84.8	82	70 - 130	3.08	40
n-Butylbenzene	0	ug/L	5	5.06	5.25018	101	105	70 - 130	3.69	40
tert-Butylbenzene	0	ug/L	5	4.72228	4.94377	94.4	98.9	70 - 130	4.58	40
sec-Butylbenzene	0	ug/L	5	4.48022	4.72613	89.6	94.5	70 - 130	5.34	40
Carbon Tetrachloride	0	ug/L	5	5.68536	6.40296	114	128	70 - 130	11.9	40
Chlorobenzene	0	ug/L	5	5.60669	5.7365	112	115	70 - 130	2.29	40
Chloroethane	0	ug/L	5	3.92933	3.97203	78.6	79.4	70 - 130	1.08	40
Chloromethane	0	ug/L	5	3.58304	3.53849	71.7	70.8	70 - 130	1.25	40
o-Chlorotoluene	0	ug/L	5	5.31485	5.43292	106	109	70 - 130	2.2	40
p-Chlorotoluene	0	ug/L	5	5.3617	5.76229	107	115	70 - 130	7.2	40
1,2-Dibromo-3-chloropropane	0	ug/L	5	5.30409	6.17851	106	124	70 - 130	15.2	40
Dibromomethane	0	ug/L	5	6.07447	5.96086	121	119	70 - 130	1.89	40
1,2-Dichlorobenzene	0	ug/L	5	5.50135	5.54563	110	111	70 - 130	.8	40
1,3-Dichlorobenzene	0	ug/L	5	5.57061	5.83892	111	117	70 - 130	4.7	40
1,4-Dichlorobenzene	0	ug/L	5	5.41889	5.87291	108	117	70 - 130	8.04	40
Dichlorodifluoromethane	0	ug/L	5	2.55147	2.76609	51*	55.3*	70 - 130	8.07	40
1,1-Dichloroethane	0	ug/L	5	6.13652	5.86476	123	117	70 - 130	4.53	40
1,2-Dichloroethane	0	ug/L	5	5.41958	5.67176	108	113	70 - 130	4.55	40
1,1-Dichloroethene	0	ug/L	5	6.4889	6.76212	130	135*	70 - 130	4.12	40
cis-1,2-Dichloroethene	0	ug/L	5	5.46218	5.5582	109	111	70 - 130	1.74	40
trans-1,2-Dichloroethene	0	ug/L	5	6.24548	6.4073	125	128	70 - 130	2.56	40
1,3-Dichloropropane	0	ug/L	5	5.01156	5.08194	100	102	70 - 130	1.39	40
2,2-Dichloropropane	0	ug/L	5	5.92557	5.42997	119	109	70 - 130	8.73	40
1,2-Dichloropropane	0	ug/L	5	5.23963	5.22846	105	105	70 - 130	.21	40
1,1-Dichloropropene	0	ug/L	5	5.92748	5.63141	119	113	70 - 130	5.12	40
cis-1,3-Dichloropropene	0	ug/L	5	5.36418	5.33484	107	107	70 - 130	.55	40
trans-1,3-Dichloropropene	0	ug/L	5	5.33888	5.56349	107	111	70 - 130	4.12	40
Ethylbenzene	0	ug/L	5	4.70914	5.06624	94.2	101	70 - 130	7.31	40
Hexachlorobutadiene	0	ug/L	5	5.96911	6.82289	119	136*	70 - 130	13.3	40
Isopropylbenzene	0	ug/L	5	4.74015	4.85391	94.8	97.1	70 - 130	2.37	40
p-Isopropyltoluene	0	ug/L	5	4.98645	5.37363	99.7	107	70 - 130	7.47	40
Methylene Chloride	0	ug/L	5	5.21346	5.2126	104	104	70 - 130	.02	40
n-Propylbenzene	0	ug/L	5	5.7848	6.05043	116	121	70 - 130	4.49	40
Styrene	0	ug/L	5	4.35452	4.30098	87.1	86	70 - 130	1.24	40
1,1,1,2-Tetrachloroethane	0	ug/L	5	5.2192	5.44761	104	109	70 - 130	4.28	40
1,1,2,2-Tetrachloroethane	0	ug/L	5	4.98971	5.33666	99.8	107	70 - 130	6.72	40
Tetrachloroethene	0	ug/L	5	5.89515	6.12642	118	123	70 - 130	3.85	40

QUALITY CONTROL DATA

Workorder: 3066458 R1910516

Toluene	0	ug/L	5	5.72859	5.46847	115	109	70 - 130	4.65	40
1,2,3-Trichlorobenzene	0	ug/L	5	4.91995	5.72905	98.4	115	70 - 130	15.2	40
1,2,4-Trichlorobenzene	0	ug/L	5	4.99461	5.74177	99.9	115	70 - 130	13.9	40
1,1,1-Trichloroethane	0	ug/L	5	6.14294	5.89267	123	118	70 - 130	4.16	40
1,1,2-Trichloroethane	0	ug/L	5	5.09736	5.55815	102	111	70 - 130	8.65	40
Trichloroethene	0	ug/L	5	5.96086	5.61837	119	112	70 - 130	5.92	40
Trichlorofluoromethane	0	ug/L	5	4.89762	4.9896	98	99.8	70 - 130	1.86	40
1,2,3-Trichloropropane	0	ug/L	5	5.21519	5.19997	104	104	70 - 130	.29	40
1,2,4-Trimethylbenzene	0	ug/L	5	4.48022	4.72613	89.6	94.5	70 - 130	5.34	40
1,3,5-Trimethylbenzene	0	ug/L	5	4.70925	4.7435	94.2	94.9	70 - 130	.72	40
o-Xylene	0	ug/L	5	5.23599	5.56457	105	111	70 - 130	6.08	40
mp-Xylene	0	ug/L	10	9.52352	10.0673	95.2	101	70 - 130	5.55	40
1,2-Dichlorobenzene-d4 (S)	113	%				113	119	70 - 130		
4-Bromofluorobenzene (S)	117	%				117	124	70 - 130		

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QUALITY CONTROL DATA QUALIFIERS

Workorder: 3066458 R1910516

QUALITY CONTROL PARAMETER QUALIFIERS

Lab ID	#	Sample Type	Analytical Method	Analyte
3036580	1	Matrix Spike	EPA 524.2	Dichlorodifluoromethane

The QC sample type MS for method EPA 524.2 was outside the control limits for the analyte Dichlorodifluoromethane. The % Recovery was reported as 51 and the control limits were 70 to 130.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 3066458 R1910516

Lab ID	Sample ID	Prep Method	Prep Batch	Analysis Method	Analysis Batch
3066458001	WALI9Post-1019			EPA 524.2	VOMS/52852
3066458002	WALI9Inter-1019			EPA 524.2	VOMS/52852
3066458003	WALI9Pre-1019			EPA 524.2	VOMS/52852

ALS Environmental Chain of Custody

1565 Jefferson Rd, Building 300 • Rochester, NY 14623 • 585-288-5380 • FAX 585-288-8475

AL

Project Number: R1910516
Project Manager: Janice Jaeger
QAP: LAB QAP

Lab Code	Sample ID	# of Cont.	Matrix	Sample Date	Sample Time	Lab ID	VOC 524.2
~~R1910516-008~~	WAL19Post-1019	3	Drinking Water	10/24/19	1255	Middletown ALS	X
~~R1910516-009~~	WAL19Inter-1019	"	Drinking Water	10/24/19	1315	Middletown ALS	X
~~R1910516-010~~	WAL19Pre-1019	"	Drinking Water	10/24/19	1325	Middletown ALS	X

Folder Comments:
MRL U

Special Instructions/Comments

DW +MTBE+VC.

NPDES

H - Test is On Hold P - Test is Authorized for Prep Only

Turnaround Requirements

____ **RUSH** (Surcharges Apply)

PLEASE CIRCLE WORK DAYS
1 2 3 4 5

X **STANDARD**

Requested FAX Date: _____

Requested Report Date: 11/05/19

Report Requirements

___ I. Results Only

X II. Results + QC Summaries

___ III. Results + QC and Calibration Summaries

___ IV. Data Validation Report with Raw Data

PQL/MDL/J- N
EDD (Y) Basic_WO_QC

Invoice Information

PO# 58R1910516

Bill to

Relinquished By: [signature] 10/28/19/1438 Received By: FedEx Airbill Number:

FedEx [signature] 10/29 903

30d6458

R1910516

____ **Ship To: Middletown ALS**
ALS Environmental - Middletown
301 Fulling Mill Rd.
Middletown, PA 17057

PC _____ Date _____

SMO _____ Date _____

Instructions:

Ice _____

Dry Ice _____

No Ice _____

Shipping:

Overnight _____

2nd Day _____

Ground _____

Bill to Client Account _____

Comments:

301 Fulling Mill Road
Middletown, PA 17057
P: (717) 944-5541
F: (717) 944-1430

Condition of Sample Receipt Form

Client: ALS Roch. Work Order #: 30de458 Initials: DN Date: 10/29/19

1. Were airbills / tracking numbers present and recorded?	NONE	(YES)	NO
Tracking number: 4846 1684 5831			
2. Are Custody Seals on shipping containers intact?	NONE	(YES)	NO
3. Are Custody Seals on sample containers intact?	NONE	(YES)	NO
4. Is there a COC (Chain-of-Custody) present?		(YES)	NO
5. Are the COC and bottle labels complete, legible and in agreement?		(YES)	NO
5a. Does the COC contain sample locations?		(YES)	NO
5b. Does the COC contain date and time of sample collection for all samples?		(YES)	NO
5c. Does the COC contain sample collectors name? (Collected by Client)		YES	(NO)
5d. Does the COC note the type(s) of preservation for all bottles? Not Listed		YES	(NO)
5e. Does the COC note the number of bottles submitted for each sample?		(YES)	NO
5f. Does the COC note the type of sample, composite or grab? NO C/G		(YES)	(NO)
5g. Does the COC note the matrix of the sample(s)?		(YES)	NO
6. Are all aqueous samples requiring preservation preserved correctly?	(N/A)	YES	NO
7. Were all samples placed in the proper containers for the requested analyses, with sufficient volume?		(YES)	NO
8. Are all samples within holding times for the requested analyses?		(YES)	NO
9. Were all sample containers received intact and headspace free when required? (not broken, leaking, frozen, etc.)		(YES)	NO
10. Did we receive trip blanks (applies only for methods EPA 504, EPA 524.2 and 1631E (LL Hg)? NO T.B.	(N/A)	YES	(NO)
11. Were the samples received on ice?		(YES)	NO
12. Were sample temperatures measured at 0.0-6.0°C		(YES)	NO
13. Are the samples DW matrix ? If YES, fill out Reportable Drinking Water questions below		YES	NO
13a. Are the samples required for SDWA compliance reporting?	N/A	YES	NO
13b. Did the client provide a SDWA PWS ID#?	N/A	YES	NO
13c. Are all aqueous unpreserved SDWA samples pH 5-9?	N/A	YES	NO
13d. Did the client provide the SDWA sample location ID/Description?	N/A	YES	NO
13e. Did the client provide the SDWA sample type (D, E, R, C, P, S)?	N/A	YES	NO

Cooler #:								
Temperature (°C):								
Thermometer ID:	405							
Radiological (µCi):								

COMMENTS (Required for all NO responses above and any sample non-conformance):

Rev. 4/29/2019

November 06, 2019 Service Request No:R1910552

Mr. Jon Brandes
On-Site Technical Services, Inc.
72 Railroad Avenue
Wellsville, NY 14895

Laboratory Results for: Wellsville-Andover LF - Annual Sampling

Dear Mr.Brandes,

Enclosed are the results of the sample(s) submitted to our laboratory October 29, 2019
For your reference, these analyses have been assigned our service request number **R1910552.**

All testing was performed according to our laboratory's quality assurance program and met the requirements of the TNI standards except as noted in the case narrative report. Any testing not included in the lab's accreditation is identified on a Non-Certified Analytes report. All results are intended to be considered in their entirety. ALS Environmental is not responsible for use of less than the complete report. Results apply only to the individual samples submitted to the lab for analysis, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s), and represented by Laboratory Control Sample control limits. Any events, such as QC failures or Holding Time exceedances, which may add to the uncertainty are explained in the report narrative or are flagged with qualifiers. The flags are explained in the Report Qualifiers and Definitions page of this report.

Please contact me if you have any questions. My extension is 7472. You may also contact me via email at Janice.Jaeger@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Brady Kalkman
For
Janice Jaeger
Project Manager

ADDRESS 1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
PHONE +1 585 288 5380 | FAX +1 585 288 8475
ALS Group USA, Corp.
dba ALS Environmental

Narrative Documents

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

1565 Jefferson Rd, Building 300, Rochester, NY 14623 | 585-288-5380 | www.alsglobal.com

Client: On-Site Technical Services, Inc.
Project: Wellsville-Andover LF - Annual Sampling
Sample Matrix: Water

Service Request: R1910552
Date Received: 10/29/2019

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier II level requested by the client.

Sample Receipt:

Five water samples were received for analysis at ALS Environmental on 10/29/2019. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

Metals:

No significant anomalies were noted with this analysis.

General Chemistry:

No significant anomalies were noted with this analysis.

Volatiles by GC/MS:

Method 8260C, 11/01/2019: The upper control criterion was exceeded for one or more analytes in the Laboratory Control Sample (LCS). There were no detections of the analyte(s) above the MRL in the associated field samples. The error associated with elevated recovery equates to a high bias. The sample data is not significantly affected. No further corrective action was appropriate.

Method 8260C, 11/01/2019: The upper control limit was exceeded for one or more analytes in the Continuing Calibration Verification (CCV). The field samples analyzed in this sequence did not contain the analyte(s) in question above the Method Reporting Limit (MRL). Since the exceedance equates to a potential high bias, the data quality was not significantly affected and no further corrective action was taken.

Approved by _____ Date 11/06/2019

SAMPLE DETECTION SUMMARY

CLIENT ID: MH33-1019	Lab ID: R1910552-002					
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Solids, Total Dissolved (TDS)	215			10	mg/L	SM 2540 C-1997 (2011)
Barium, Total	40			20	ug/L	6010C
Calcium, Total	48400			1000	ug/L	6010C
Iron, Total	980			100	ug/L	6010C
Magnesium, Total	14100			1000	ug/L	6010C
Manganese, Total	486			10	ug/L	6010C
Sodium, Total	2300			1000	ug/L	6010C
cis-1,2-Dichloroethene	8.6			5.0	ug/L	8260C

CLIENT ID: MW5S-1019	Lab ID: R1910552-003					
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Barium, Total	23			20	ug/L	6010C
Calcium, Total	15700			1000	ug/L	6010C
Iron, Total	2010			100	ug/L	6010C
Magnesium, Total	8600			1000	ug/L	6010C
Manganese, Total	201			10	ug/L	6010C
Sodium, Total	5800			1000	ug/L	6010C
cis-1,2-Dichloroethene	120			5.0	ug/L	8260C
Trichloroethene	18			5.0	ug/L	8260C
Vinyl Chloride	9.5			5.0	ug/L	8260C

CLIENT ID: MW5D-1019	Lab ID: R1910552-004					
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Barium, Total	56			20	ug/L	6010C
Calcium, Total	24000			1000	ug/L	6010C
Iron, Total	730			100	ug/L	6010C
Magnesium, Total	18000			1000	ug/L	6010C
Manganese, Total	700			10	ug/L	6010C
Potassium, Total	2200			2000	ug/L	6010C
Sodium, Total	8500			1000	ug/L	6010C
cis-1,2-Dichloroethene	370			25	ug/L	8260C
Trichloroethene	140			25	ug/L	8260C
Vinyl Chloride	29			25	ug/L	8260C

CLIENT ID: MH32-1019	Lab ID: R1910552-005					
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Solids, Total Dissolved (TDS)	329			10	mg/L	SM 2540 C-1997 (2011)
Barium, Total	80			20	ug/L	6010C
Calcium, Total	89400			1000	ug/L	6010C
Iron, Total	9130			100	ug/L	6010C
Magnesium, Total	14300			1000	ug/L	6010C
Manganese, Total	1610			10	ug/L	6010C

SAMPLE DETECTION SUMMARY

CLIENT ID: MH32-1019	Lab ID: R1910552-005					
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Potassium, Total	2100			2000	ug/L	6010C
Sodium, Total	3100			1000	ug/L	6010C
cis-1,2-Dichloroethene	3100	D		100	ug/L	8260C
Vinyl Chloride	91			50	ug/L	8260C

Sample Receipt Information

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

Client: On-Site Technical Services, Inc. **Service Request:**R1910552

Project: Wellsville-Andover LF - Annual Sampling

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
R1910552-001	EB1-1019	10/28/2019	0730
R1910552-002	MH33-1019	10/28/2019	1135
R1910552-003	MW5S-1019	10/28/2019	1040
R1910552-004	MW5D-1019	10/28/2019	1235
R1910552-005	MH32-1019	10/28/2019	1315

ALS-Environmental
1565 Jefferson Rd, Bldg 300, Suite 360
Rochester, NY 14623
585.288.5380

Client: On-Site
72 Railroad Ave.
Wellsville, NY 14895

Project Manager: Jon Brandes

CHAIN of CUSTODY

Page 1 of 1

Project: WAL - Annual Sampling

Telephone No.: 585-593-1824

Email: jonb@on-sitehs.com

Method of Shipment: UPS

Special Detection Limit/Reporting

Sample I.D.	Lab Sample No.	No. of Containers	Matrix: Soil	Water	Air	Other	Prsv.: Yes	No	Sampling Date	Sampling Time	GC;MS VOA's 8260 (HCl)	GC;MS VOA's 524.2 (C6H806)	T-Metals (HNO3)	TDS, NO3, Br, Cl, SO4 (NP) (SW/SED)	NH3, TKN, COD (H2SO4) (SW/SED)	Total Color (NP) (SW/SED)	BOD (NP) (SW/SED)	Alkalinity (NP) (SW/SED)	TDS, NO3 (NP) (Manhole)
EBI-1019		4		X			X		10/28/19	0730	X		X						
MH33-1019		5		X			X	X	10/28/19	1135	X		X						X
MW5S-1019		4		X			X		10/28/19	1040	X		X						
MW5D-1019		4		X			X		10-28-19	1235	X		X						
MH32-1019		5		X			X	X	10-28-19	1315	X		X						X

REMARKS

Sample Received Intact: Yes No

Temperature received: Ice No ice

Relinq. by sampler (Sign & Print Name)	Date	Time	Received by (Sign & Print Name)
Kevin Dye / Kevin Dye	10-28-19	1500	Gregory O. Esmerian ALS 10-29-19 10:20
Relinquished by	Date	Time	Received by
Relinquished by	Date	Time	Received by
Relinquished by	Date	Time	Received by laboratory / Date / Time

Lab Work No.

R1910552 5
On-Site Technical Services, Inc.
Wellsville-Andover LF - Annual Sampling

R1910552 5
On-Site Technical Services, Inc.
Wellsville-Andover LF - Annual Sampling

Cooler Receipt and Preservation Check Form

Project/Client On-Site Folder Number

Cooler received on 10-29-19 by: ME

COURIER: ALS (UPS) FEDEX VELOCITY CLIENT

1	Were **Custody seals** on outside of cooler?	(Y)	N
2	**Custody papers** properly completed (ink, signed)?	(Y)	N
3	Did all bottles arrive in good **condition** (unbroken)?	(Y)	N
4	Circle: (**Wet Ice**) **Dry Ice** **Gel packs** present?	(Y)	N

5a	**Perchlorate** samples have required headspace?	Y	N	(NA)
5b	Did VOA vials, Alk,or Sulfide have sig* **bubbles**?	Y	(N)	NA
6	Where did the bottles originate?	(ALS/ROC)		CLIENT
7	Soil VOA received as: Bulk Encore 5035set			(NA)

8. Temperature Readings Date: 10-29-19 Time: 10:34 ID: IR#7 (IR#10) From: (Temp Blank) Sample Bottle

Observed Temp (°C)	3.2						
Correction Factor (°C)	0						
Corrected Temp (°C)	3.2						
Temp from:Type of bottle	centtube						
Within 0-6°C?	(Y) N	Y N	Y N	Y N	Y N	Y N	Y N
If <0°C, were samples frozen?	Y N	Y N	Y N	Y N	Y N	Y N	Y N

If out of Temperature, note packing/ice condition: _____ Ice melted Poorly Packed (described below) Same Day Rule

&Client Approval to Run Samples: _____ Standing Approval Client aware at drop-off Client notified by: _____

All samples held in storage location: R002 by ME on 10-29-19 at 10:37
5035 samples placed in storage location: _____ by _____ on _____ at _____

Cooler Breakdown/Preservation Check**: Date: 10/29/19 Time: 1258 by: [illegible]

9.	Were all bottle labels complete (*i.e.* analysis, preservation, etc.)?	(YES)	NO
10.	Did all bottle labels and tags agree with custody papers?	(YES)	NO
11.	Were correct containers used for the tests indicated?	(YES)	NO
12.	Were 5035 vials acceptable (no extra labels, not leaking)?	YES	NO (N/A)
13.	Air Samples: Cassettes / Tubes Intact with MS? Canisters Pressurized		Tedlar® Bags Inflated (N/A)

pH	Lot of test paper	Reagent	Preserved? Yes	Preserved? No	Lot Received	Exp	Sample ID Adjusted	Vol. Added	Lot Added	Final pH
≥12		NaOH								
≤2	230018	HNO_3	✓		1118072					
≤2		H_2SO_4								
<4		$NaHSO_4$								
5-9		For 608pest			No=Notify for 3day					
Residual Chlorine (-)		For CN, Phenol, 625, 608pest, 522			If +, contact PM to add $Na_2S_2O_3$ (625, 608, CN), ascorbic (phenol).					
		$Na_2S_2O_3$								
		ZnAcetate	-	-						
		HCl	**	**	J18015					

**VOAs and 1664 Not to be tested before analysis. Otherwise, all bottles of all samples with chemical preservatives are checked (not just representatives).

Bottle lot numbers: 090919-2AA0, 19-07-30
Explain all Discrepancies/ Other Comments:

CLRES	BULK
DO	FLDT
HPROD	HGFB
HTR	LL3541
PH	SUB
SO3	MARRS
ALS	REV

Labels secondary reviewed by: [illegible]
PC Secondary Review: _____

*significant air bubbles: VOA > 5-6 mm : WC >1 in. diameter

Miscellaneous Forms

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

REPORT QUALIFIERS AND DEFINITIONS

U	Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.
J	Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Arclors).
B	Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.
E	Inorganics- Concentration is estimated due to the serial dilution was outside control limits.
E	Organics- Concentration has exceeded the calibration range for that specific analysis.
D	Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.
*	Indicates that a quality control parameter has exceeded laboratory limits. Under the ñNotesò column of the Form I, this qualifier denotes analysis was performed out of Holding Time.
H	Analysis was performed out of hold time for tests that have an ñimmediateò hold time criteria.
#	Spike was diluted out.
+	Correlation coefficient for MSA is <0.995.
N	Inorganics- Matrix spike recovery was outside laboratory limits.
N	Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.
S	Concentration has been determined using Method of Standard Additions (MSA).
W	Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.
P	Concentration >40% difference between the two GC columns.
C	Confirmed by GC/MS
Q	DoD reports: indicates a pesticide/Aroclor is not confirmed (Ó100% Difference between two GC columns).
X	See Case Narrative for discussion.
MRL LOQ	Method Reporting Limit. Also known as: Limit of Quantitation (LOQ) The lowest concentration at which the method analyte may be reliably quantified under the method conditions.
MDL	Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).
LOD	Limit of Detection. A value at or above the MDL which has been verified to be detectable.
ND	Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.

Rochester Lab ID # for State Certifications[1]

Connecticut ID # PH0556	Maine ID #NY0032	Pennsylvania ID# 68-786
Delaware Approved	New Hampshire ID # 2941	Rhode Island ID # 158
DoD ELAP #65817	New York ID # 10145	Virginia #460167
Florida ID # E87674	North Carolina #676	

[1] Analyses were performed according to our laboratoryôs NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the case narrative. Since not all analyte/method/matrix combinations are offered for state/NELAC accreditation, this report may contain results which are not accredited. For a specific list of accredited analytes, contact the laboratory or go to https://www.alsglobal.com/locations/americas/north-america/usa/new-york/rochester-environmental

ALS Laboratory Group

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1910552
Project:	Wellsville-Andover LF - Annual Sampling/		

Sample Name:	EB1-1019	**Date Collected:**	10/28/19
Lab Code:	R1910552-001	**Date Received:**	10/29/19
Sample Matrix:	Water		

Analysis Method	Extracted/Digested By	Analyzed By
6010C	AKONZEL	KMCLAEN
8260C		AMOSES

Sample Name:	MH33-1019	**Date Collected:**	10/28/19
Lab Code:	R1910552-002	**Date Received:**	10/29/19
Sample Matrix:	Water		

Analysis Method	Extracted/Digested By	Analyzed By
300.0		KWONG
6010C	AKONZEL	KMCLAEN
8260C		AMOSES
SM 2540 C-1997(2011)		KAWONG

Sample Name:	MW5S-1019	**Date Collected:**	10/28/19
Lab Code:	R1910552-003	**Date Received:**	10/29/19
Sample Matrix:	Water		

Analysis Method	Extracted/Digested By	Analyzed By
6010C	AKONZEL	KMCLAEN
8260C		AMOSES

Sample Name:	MW5D-1019	**Date Collected:**	10/28/19
Lab Code:	R1910552-004	**Date Received:**	10/29/19
Sample Matrix:	Water		

Analysis Method	Extracted/Digested By	Analyzed By
6010C	AKONZEL	KMCLAEN
8260C		AMOSES

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1910552
Project:	Wellsville-Andover LF - Annual Sampling/		

Sample Name:	MH32-1019	**Date Collected:**	10/28/19
Lab Code:	R1910552-005	**Date Received:**	10/29/19
Sample Matrix:	Water		

Analysis Method	Extracted/Digested By	Analyzed By
300.0		KWONG
6010C	AKONZEL	KMCLAEN
8260C		AMOSES
SM 2540 C-1997(2011)		KAWONG

Sample Name:	MH32-1019	**Date Collected:**	10/28/19
Lab Code:	R1910552-005.R01	**Date Received:**	10/29/19
Sample Matrix:	Water		

Analysis Method	Extracted/Digested By	Analyzed By
8260C		AMOSES

INORGANIC PREPARATION METHODS

The preparation methods associated with this report are found in these tables unless discussed in the case narrative.

Water/Liquid Matrix

Analytical Method	Preparation Method
200.7	200.2
200.8	200.2
6010C	3005A/3010A
6020A	ILM05.3
9014 Cyanide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Acid Soluble	9030B
9056A Bomb (Halogens)	5050A
9066 Manual Distillation	9065
SM 4500-CN-E Residual Cyanide	SM 4500-CN-G
SM 4500-CN-E WAD Cyanide	SM 4500-CN-I

Solid/Soil/Non-Aqueous Matrix

Analytical Method	Preparation Method
6010C	3050B
6020A	3050B
6010C TCLP (1311) extract	3005A/3010A
6010 SPLP (1312) extract	3005A/3010A
7196A	3060A
7199	3060A
9056A Halogens/Halides	5050
300.0 Anions/ 350.1/ 353.2/ SM 2320B/ SM 5210B/ 9056A Anions	DI extraction

For analytical methods not listed, the preparation method is the same as the analytical method reference.

Sample Results

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

Volatile Organic Compounds by GC/MS

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1910552
Project:	Wellsville-Andover LF - Annual Sampling	**Date Collected:**	10/28/19 07:30
Sample Matrix:	Water	**Date Received:**	10/29/19 10:20
Sample Name:	EB1-1019	**Units:**	ug/L
Lab Code:	R1910552-001	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result		MRL	Dil.	Date Analyzed	Q
Acetone	10	U	10	1	11/01/19 13:29	
Benzene	5.0	U	5.0	1	11/01/19 13:29	
Bromodichloromethane	5.0	U	5.0	1	11/01/19 13:29	
Bromoform	5.0	U	5.0	1	11/01/19 13:29	
Bromomethane	5.0	U	5.0	1	11/01/19 13:29	
2-Butanone (MEK)	10	U	10	1	11/01/19 13:29	
Carbon Disulfide	10	U	10	1	11/01/19 13:29	
Carbon Tetrachloride	5.0	U	5.0	1	11/01/19 13:29	
Chlorobenzene	5.0	U	5.0	1	11/01/19 13:29	
Chloroethane	5.0	U	5.0	1	11/01/19 13:29	
Chloroform	5.0	U	5.0	1	11/01/19 13:29	
Chloromethane	5.0	U	5.0	1	11/01/19 13:29	
Dibromochloromethane	5.0	U	5.0	1	11/01/19 13:29	
1,2-Dibromoethane	5.0	U	5.0	1	11/01/19 13:29	
1,1-Dichloroethane	5.0	U	5.0	1	11/01/19 13:29	
1,2-Dichloroethane	5.0	U	5.0	1	11/01/19 13:29	
1,1-Dichloroethene	5.0	U	5.0	1	11/01/19 13:29	
cis-1,2-Dichloroethene	5.0	U	5.0	1	11/01/19 13:29	
trans-1,2-Dichloroethene	5.0	U	5.0	1	11/01/19 13:29	
1,2-Dichloropropane	5.0	U	5.0	1	11/01/19 13:29	
cis-1,3-Dichloropropene	5.0	U	5.0	1	11/01/19 13:29	
trans-1,3-Dichloropropene	5.0	U	5.0	1	11/01/19 13:29	
Ethylbenzene	5.0	U	5.0	1	11/01/19 13:29	
2-Hexanone	10	U	10	1	11/01/19 13:29	
Methylene Chloride	5.0	U	5.0	1	11/01/19 13:29	
4-Methyl-2-pentanone (MIBK)	10	U	10	1	11/01/19 13:29	
Styrene	5.0	U	5.0	1	11/01/19 13:29	
1,1,2,2-Tetrachloroethane	5.0	U	5.0	1	11/01/19 13:29	
Tetrachloroethene	5.0	U	5.0	1	11/01/19 13:29	
Toluene	5.0	U	5.0	1	11/01/19 13:29	
1,1,1-Trichloroethane	5.0	U	5.0	1	11/01/19 13:29	
1,1,2-Trichloroethane	5.0	U	5.0	1	11/01/19 13:29	
Trichloroethene	5.0	U	5.0	1	11/01/19 13:29	
Vinyl Chloride	5.0	U	5.0	1	11/01/19 13:29	
o-Xylene	5.0	U	5.0	1	11/01/19 13:29	
m,p-Xylenes	5.0	U	5.0	1	11/01/19 13:29	

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Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1910552
Project:	Wellsville-Andover LF - Annual Sampling	**Date Collected:**	10/28/19 07:30
Sample Matrix:	Water	**Date Received:**	10/29/19 10:20
Sample Name:	EB1-1019	**Units:**	ug/L
Lab Code:	R1910552-001	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	96	85 - 122	11/01/19 13:29	
Toluene-d8	98	87 - 121	11/01/19 13:29	
Dibromofluoromethane	101	89 - 119	11/01/19 13:29	

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Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1910552
Project:	Wellsville-Andover LF - Annual Sampling	**Date Collected:**	10/28/19 11:35
Sample Matrix:	Water	**Date Received:**	10/29/19 10:20
Sample Name:	MH33-1019	**Units:**	ug/L
Lab Code:	R1910552-002	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result		MRL	Dil.	Date Analyzed	Q
Acetone	10	U	10	1	11/01/19 13:51	
Benzene	5.0	U	5.0	1	11/01/19 13:51	
Bromodichloromethane	5.0	U	5.0	1	11/01/19 13:51	
Bromoform	5.0	U	5.0	1	11/01/19 13:51	
Bromomethane	5.0	U	5.0	1	11/01/19 13:51	
2-Butanone (MEK)	10	U	10	1	11/01/19 13:51	
Carbon Disulfide	10	U	10	1	11/01/19 13:51	
Carbon Tetrachloride	5.0	U	5.0	1	11/01/19 13:51	
Chlorobenzene	5.0	U	5.0	1	11/01/19 13:51	
Chloroethane	5.0	U	5.0	1	11/01/19 13:51	
Chloroform	5.0	U	5.0	1	11/01/19 13:51	
Chloromethane	5.0	U	5.0	1	11/01/19 13:51	
Dibromochloromethane	5.0	U	5.0	1	11/01/19 13:51	
1,1-Dichloroethane	5.0	U	5.0	1	11/01/19 13:51	
1,2-Dibromoethane	5.0	U	5.0	1	11/01/19 13:51	
1,2-Dichloroethane	5.0	U	5.0	1	11/01/19 13:51	
1,1-Dichloroethene	5.0	U	5.0	1	11/01/19 13:51	
cis-1,2-Dichloroethene	**8.6**		5.0	1	11/01/19 13:51	
trans-1,2-Dichloroethene	5.0	U	5.0	1	11/01/19 13:51	
1,2-Dichloropropane	5.0	U	5.0	1	11/01/19 13:51	
cis-1,3-Dichloropropene	5.0	U	5.0	1	11/01/19 13:51	
trans-1,3-Dichloropropene	5.0	U	5.0	1	11/01/19 13:51	
Ethylbenzene	5.0	U	5.0	1	11/01/19 13:51	
2-Hexanone	10	U	10	1	11/01/19 13:51	
Methylene Chloride	5.0	U	5.0	1	11/01/19 13:51	
4-Methyl-2-pentanone (MIBK)	10	U	10	1	11/01/19 13:51	
Styrene	5.0	U	5.0	1	11/01/19 13:51	
1,1,2,2-Tetrachloroethane	5.0	U	5.0	1	11/01/19 13:51	
Tetrachloroethene	5.0	U	5.0	1	11/01/19 13:51	
Toluene	5.0	U	5.0	1	11/01/19 13:51	
1,1,1-Trichloroethane	5.0	U	5.0	1	11/01/19 13:51	
1,1,2-Trichloroethane	5.0	U	5.0	1	11/01/19 13:51	
Trichloroethene	5.0	U	5.0	1	11/01/19 13:51	
Vinyl Chloride	5.0	U	5.0	1	11/01/19 13:51	
o-Xylene	5.0	U	5.0	1	11/01/19 13:51	
m,p-Xylenes	5.0	U	5.0	1	11/01/19 13:51	

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Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1910552
Project:	Wellsville-Andover LF - Annual Sampling	**Date Collected:**	10/28/19 11:35
Sample Matrix:	Water	**Date Received:**	10/29/19 10:20
Sample Name:	MH33-1019	**Units:**	ug/L
Lab Code:	R1910552-002	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	97	85 - 122	11/01/19 13:51	
Toluene-d8	101	87 - 121	11/01/19 13:51	
Dibromofluoromethane	101	89 - 119	11/01/19 13:51	

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Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1910552
Project:	Wellsville-Andover LF - Annual Sampling	**Date Collected:**	10/28/19 10:40
Sample Matrix:	Water	**Date Received:**	10/29/19 10:20
Sample Name:	MW5S-1019	**Units:**	ug/L
Lab Code:	R1910552-003	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result		MRL	Dil.	Date Analyzed	Q
Acetone	10	U	10	1	11/01/19 14:13	
Benzene	5.0	U	5.0	1	11/01/19 14:13	
Bromodichloromethane	5.0	U	5.0	1	11/01/19 14:13	
Bromoform	5.0	U	5.0	1	11/01/19 14:13	
Bromomethane	5.0	U	5.0	1	11/01/19 14:13	
2-Butanone (MEK)	10	U	10	1	11/01/19 14:13	
Carbon Disulfide	10	U	10	1	11/01/19 14:13	
Carbon Tetrachloride	5.0	U	5.0	1	11/01/19 14:13	
Chlorobenzene	5.0	U	5.0	1	11/01/19 14:13	
Chloroethane	5.0	U	5.0	1	11/01/19 14:13	
Chloroform	5.0	U	5.0	1	11/01/19 14:13	
Chloromethane	5.0	U	5.0	1	11/01/19 14:13	
Dibromochloromethane	5.0	U	5.0	1	11/01/19 14:13	
1,2-Dibromoethane	5.0	U	5.0	1	11/01/19 14:13	
1,1-Dichloroethane	5.0	U	5.0	1	11/01/19 14:13	
1,2-Dichloroethane	5.0	U	5.0	1	11/01/19 14:13	
1,1-Dichloroethene	5.0	U	5.0	1	11/01/19 14:13	
cis-1,2-Dichloroethene	**120**		5.0	1	11/01/19 14:13	
trans-1,2-Dichloroethene	5.0	U	5.0	1	11/01/19 14:13	
1,2-Dichloropropane	5.0	U	5.0	1	11/01/19 14:13	
cis-1,3-Dichloropropene	5.0	U	5.0	1	11/01/19 14:13	
trans-1,3-Dichloropropene	5.0	U	5.0	1	11/01/19 14:13	
Ethylbenzene	5.0	U	5.0	1	11/01/19 14:13	
2-Hexanone	10	U	10	1	11/01/19 14:13	
Methylene Chloride	5.0	U	5.0	1	11/01/19 14:13	
4-Methyl-2-pentanone (MIBK)	10	U	10	1	11/01/19 14:13	
Styrene	5.0	U	5.0	1	11/01/19 14:13	
1,1,2,2-Tetrachloroethane	5.0	U	5.0	1	11/01/19 14:13	
Tetrachloroethene	5.0	U	5.0	1	11/01/19 14:13	
Toluene	5.0	U	5.0	1	11/01/19 14:13	
1,1,1-Trichloroethane	5.0	U	5.0	1	11/01/19 14:13	
1,1,2-Trichloroethane	5.0	U	5.0	1	11/01/19 14:13	
Trichloroethene	**18**		5.0	1	11/01/19 14:13	
Vinyl Chloride	**9.5**		5.0	1	11/01/19 14:13	
o-Xylene	5.0	U	5.0	1	11/01/19 14:13	
m,p-Xylenes	5.0	U	5.0	1	11/01/19 14:13	

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Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1910552
Project:	Wellsville-Andover LF - Annual Sampling	**Date Collected:**	10/28/19 10:40
Sample Matrix:	Water	**Date Received:**	10/29/19 10:20
Sample Name:	MW5S-1019	**Units:**	ug/L
Lab Code:	R1910552-003	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	97	85 - 122	11/01/19 14:13	
Toluene-d8	99	87 - 121	11/01/19 14:13	
Dibromofluoromethane	99	89 - 119	11/01/19 14:13	

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Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1910552
Project:	Wellsville-Andover LF - Annual Sampling	**Date Collected:**	10/28/19 12:35
Sample Matrix:	Water	**Date Received:**	10/29/19 10:20
Sample Name:	MW5D-1019	**Units:**	ug/L
Lab Code:	R1910552-004	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result		MRL	Dil.	Date Analyzed	Q
Acetone	50	U	50	5	11/01/19 13:07	
Benzene	25	U	25	5	11/01/19 13:07	
Bromodichloromethane	25	U	25	5	11/01/19 13:07	
Bromoform	25	U	25	5	11/01/19 13:07	
Bromomethane	25	U	25	5	11/01/19 13:07	
2-Butanone (MEK)	50	U	50	5	11/01/19 13:07	
Carbon Disulfide	50	U	50	5	11/01/19 13:07	
Carbon Tetrachloride	25	U	25	5	11/01/19 13:07	
Chlorobenzene	25	U	25	5	11/01/19 13:07	
Chloroethane	25	U	25	5	11/01/19 13:07	
Chloroform	25	U	25	5	11/01/19 13:07	
Chloromethane	25	U	25	5	11/01/19 13:07	
Dibromochloromethane	25	U	25	5	11/01/19 13:07	
1,1-Dichloroethane	25	U	25	5	11/01/19 13:07	
1,2-Dibromoethane	25	U	25	5	11/01/19 13:07	
1,2-Dichloroethane	25	U	25	5	11/01/19 13:07	
1,1-Dichloroethene	25	U	25	5	11/01/19 13:07	
cis-1,2-Dichloroethene	**370**		25	5	11/01/19 13:07	
trans-1,2-Dichloroethene	25	U	25	5	11/01/19 13:07	
1,2-Dichloropropane	25	U	25	5	11/01/19 13:07	
cis-1,3-Dichloropropene	25	U	25	5	11/01/19 13:07	
trans-1,3-Dichloropropene	25	U	25	5	11/01/19 13:07	
Ethylbenzene	25	U	25	5	11/01/19 13:07	
2-Hexanone	50	U	50	5	11/01/19 13:07	
Methylene Chloride	25	U	25	5	11/01/19 13:07	
4-Methyl-2-pentanone (MIBK)	50	U	50	5	11/01/19 13:07	
Styrene	25	U	25	5	11/01/19 13:07	
1,1,2,2-Tetrachloroethane	25	U	25	5	11/01/19 13:07	
Tetrachloroethene	25	U	25	5	11/01/19 13:07	
Toluene	25	U	25	5	11/01/19 13:07	
1,1,1-Trichloroethane	25	U	25	5	11/01/19 13:07	
1,1,2-Trichloroethane	25	U	25	5	11/01/19 13:07	
Trichloroethene	**140**		25	5	11/01/19 13:07	
Vinyl Chloride	**29**		25	5	11/01/19 13:07	
o-Xylene	25	U	25	5	11/01/19 13:07	
m,p-Xylenes	25	U	25	5	11/01/19 13:07	

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Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1910552
Project:	Wellsville-Andover LF - Annual Sampling	**Date Collected:**	10/28/19 12:35
Sample Matrix:	Water	**Date Received:**	10/29/19 10:20
Sample Name:	MW5D-1019	**Units:**	ug/L
Lab Code:	R1910552-004	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	97	85 - 122	11/01/19 13:07	
Toluene-d8	101	87 - 121	11/01/19 13:07	
Dibromofluoromethane	98	89 - 119	11/01/19 13:07	

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Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1910552
Project:	Wellsville-Andover LF - Annual Sampling	**Date Collected:**	10/28/19 13:15
Sample Matrix:	Water	**Date Received:**	10/29/19 10:20
Sample Name:	MH32-1019	**Units:**	ug/L
Lab Code:	R1910552-005	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result		MRL	Dil.	Date Analyzed	Q
Acetone	100	U	100	10	11/01/19 14:34	
Benzene	50	U	50	10	11/01/19 14:34	
Bromodichloromethane	50	U	50	10	11/01/19 14:34	
Bromoform	50	U	50	10	11/01/19 14:34	
Bromomethane	50	U	50	10	11/01/19 14:34	
2-Butanone (MEK)	100	U	100	10	11/01/19 14:34	
Carbon Disulfide	100	U	100	10	11/01/19 14:34	
Carbon Tetrachloride	50	U	50	10	11/01/19 14:34	
Chlorobenzene	50	U	50	10	11/01/19 14:34	
Chloroethane	50	U	50	10	11/01/19 14:34	
Chloroform	50	U	50	10	11/01/19 14:34	
Chloromethane	50	U	50	10	11/01/19 14:34	
Dibromochloromethane	50	U	50	10	11/01/19 14:34	
1,1-Dichloroethane	50	U	50	10	11/01/19 14:34	
1,2-Dibromoethane	50	U	50	10	11/01/19 14:34	
1,2-Dichloroethane	50	U	50	10	11/01/19 14:34	
1,1-Dichloroethene	50	U	50	10	11/01/19 14:34	
cis-1,2-Dichloroethene	**3100**	**D**	100	20	11/01/19 20:01	
trans-1,2-Dichloroethene	50	U	50	10	11/01/19 14:34	
1,2-Dichloropropane	50	U	50	10	11/01/19 14:34	
cis-1,3-Dichloropropene	50	U	50	10	11/01/19 14:34	
trans-1,3-Dichloropropene	50	U	50	10	11/01/19 14:34	
Ethylbenzene	50	U	50	10	11/01/19 14:34	
2-Hexanone	100	U	100	10	11/01/19 14:34	
Methylene Chloride	50	U	50	10	11/01/19 14:34	
4-Methyl-2-pentanone (MIBK)	100	U	100	10	11/01/19 14:34	
Styrene	50	U	50	10	11/01/19 14:34	
1,1,2,2-Tetrachloroethane	50	U	50	10	11/01/19 14:34	
Tetrachloroethene	50	U	50	10	11/01/19 14:34	
Toluene	50	U	50	10	11/01/19 14:34	
1,1,1-Trichloroethane	50	U	50	10	11/01/19 14:34	
1,1,2-Trichloroethane	50	U	50	10	11/01/19 14:34	
Trichloroethene	50	U	50	10	11/01/19 14:34	
Vinyl Chloride	**91**		50	10	11/01/19 14:34	
o-Xylene	50	U	50	10	11/01/19 14:34	
m,p-Xylenes	50	U	50	10	11/01/19 14:34	

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Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1910552
Project:	Wellsville-Andover LF - Annual Sampling	**Date Collected:**	10/28/19 13:15
Sample Matrix:	Water	**Date Received:**	10/29/19 10:20
Sample Name:	MH32-1019	**Units:**	ug/L
Lab Code:	R1910552-005	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	96	85 - 122	11/01/19 14:34	
Toluene-d8	99	87 - 121	11/01/19 14:34	
Dibromofluoromethane	100	89 - 119	11/01/19 14:34	

Metals

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Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1910552
Project:	Wellsville-Andover LF - Annual Sampling	**Date Collected:**	10/28/19 07:30
Sample Matrix:	Water	**Date Received:**	10/29/19 10:20
Sample Name:	EB1-1019	**Basis:**	NA
Lab Code:	R1910552-001		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic, Total	6010C	10 U	ug/L	10	1	11/04/19 19:23	10/31/19	
Barium, Total	6010C	20 U	ug/L	20	1	11/04/19 19:23	10/31/19	
Cadmium, Total	6010C	5.0 U	ug/L	5.0	1	11/04/19 19:23	10/31/19	
Calcium, Total	6010C	1000 U	ug/L	1000	1	11/04/19 19:23	10/31/19	
Chromium, Total	6010C	10 U	ug/L	10	1	11/04/19 19:23	10/31/19	
Copper, Total	6010C	20 U	ug/L	20	1	11/04/19 19:23	10/31/19	
Iron, Total	6010C	100 U	ug/L	100	1	11/04/19 19:23	10/31/19	
Lead, Total	6010C	50 U	ug/L	50	1	11/04/19 19:23	10/31/19	
Magnesium, Total	6010C	1000 U	ug/L	1000	1	11/04/19 19:23	10/31/19	
Manganese, Total	6010C	10 U	ug/L	10	1	11/04/19 19:23	10/31/19	
Nickel, Total	6010C	40 U	ug/L	40	1	11/04/19 19:23	10/31/19	
Potassium, Total	6010C	2000 U	ug/L	2000	1	11/04/19 19:23	10/31/19	
Selenium, Total	6010C	10 U	ug/L	10	1	11/05/19 18:35	10/31/19	
Sodium, Total	6010C	1000 U	ug/L	1000	1	11/04/19 19:23	10/31/19	
Zinc, Total	6010C	20 U	ug/L	20	1	11/04/19 19:23	10/31/19	

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Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1910552
Project:	Wellsville-Andover LF - Annual Sampling	**Date Collected:**	10/28/19 11:35
Sample Matrix:	Water	**Date Received:**	10/29/19 10:20
Sample Name:	MH33-1019	**Basis:**	NA
Lab Code:	R1910552-002		

Inorganic Parameters

Analyte Name	Analysis Method	Result		Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic, Total	6010C	10	U	ug/L	10	1	11/04/19 19:26	10/31/19	
Barium, Total	6010C	**40**		ug/L	20	1	11/04/19 19:26	10/31/19	
Cadmium, Total	6010C	5.0	U	ug/L	5.0	1	11/04/19 19:26	10/31/19	
Calcium, Total	6010C	**48400**		ug/L	1000	1	11/04/19 19:26	10/31/19	
Chromium, Total	6010C	10	U	ug/L	10	1	11/04/19 19:26	10/31/19	
Copper, Total	6010C	20	U	ug/L	20	1	11/04/19 19:26	10/31/19	
Iron, Total	6010C	**980**		ug/L	100	1	11/04/19 19:26	10/31/19	
Lead, Total	6010C	50	U	ug/L	50	1	11/04/19 19:26	10/31/19	
Magnesium, Total	6010C	**14100**		ug/L	1000	1	11/04/19 19:26	10/31/19	
Manganese, Total	6010C	**486**		ug/L	10	1	11/04/19 19:26	10/31/19	
Nickel, Total	6010C	40	U	ug/L	40	1	11/04/19 19:26	10/31/19	
Potassium, Total	6010C	2000	U	ug/L	2000	1	11/04/19 19:26	10/31/19	
Selenium, Total	6010C	10	U	ug/L	10	1	11/05/19 18:39	10/31/19	
Sodium, Total	6010C	**2300**		ug/L	1000	1	11/04/19 19:26	10/31/19	
Zinc, Total	6010C	20	U	ug/L	20	1	11/04/19 19:26	10/31/19	

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Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1910552
Project:	Wellsville-Andover LF - Annual Sampling	**Date Collected:**	10/28/19 10:40
Sample Matrix:	Water	**Date Received:**	10/29/19 10:20
Sample Name:	MW5S-1019	**Basis:**	NA
Lab Code:	R1910552-003		

Inorganic Parameters

Analyte Name	Analysis Method	Result		Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic, Total	6010C	10	U	ug/L	10	1	11/04/19 19:29	10/31/19	
Barium, Total	6010C	**23**		ug/L	20	1	11/04/19 19:29	10/31/19	
Cadmium, Total	6010C	5.0	U	ug/L	5.0	1	11/04/19 19:29	10/31/19	
Calcium, Total	6010C	**15700**		ug/L	1000	1	11/04/19 19:29	10/31/19	
Chromium, Total	6010C	10	U	ug/L	10	1	11/04/19 19:29	10/31/19	
Copper, Total	6010C	20	U	ug/L	20	1	11/04/19 19:29	10/31/19	
Iron, Total	6010C	**2010**		ug/L	100	1	11/04/19 19:29	10/31/19	
Lead, Total	6010C	50	U	ug/L	50	1	11/04/19 19:29	10/31/19	
Magnesium, Total	6010C	**8600**		ug/L	1000	1	11/04/19 19:29	10/31/19	
Manganese, Total	6010C	**201**		ug/L	10	1	11/04/19 19:29	10/31/19	
Nickel, Total	6010C	40	U	ug/L	40	1	11/04/19 19:29	10/31/19	
Potassium, Total	6010C	2000	U	ug/L	2000	1	11/04/19 19:29	10/31/19	
Selenium, Total	6010C	10	U	ug/L	10	1	11/05/19 18:42	10/31/19	
Sodium, Total	6010C	**5800**		ug/L	1000	1	11/04/19 19:29	10/31/19	
Zinc, Total	6010C	20	U	ug/L	20	1	11/04/19 19:29	10/31/19	

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Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1910552
Project:	Wellsville-Andover LF - Annual Sampling	**Date Collected:**	10/28/19 12:35
Sample Matrix:	Water	**Date Received:**	10/29/19 10:20
Sample Name:	MW5D-1019	**Basis:**	NA
Lab Code:	R1910552-004		

Inorganic Parameters

Analyte Name	Analysis Method	Result		Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic, Total	6010C	10	U	ug/L	10	1	11/04/19 19:32	10/31/19	
Barium, Total	6010C	**56**		ug/L	20	1	11/04/19 19:32	10/31/19	
Cadmium, Total	6010C	5.0	U	ug/L	5.0	1	11/04/19 19:32	10/31/19	
Calcium, Total	6010C	**24000**		ug/L	1000	1	11/04/19 19:32	10/31/19	
Chromium, Total	6010C	10	U	ug/L	10	1	11/04/19 19:32	10/31/19	
Copper, Total	6010C	20	U	ug/L	20	1	11/04/19 19:32	10/31/19	
Iron, Total	6010C	**730**		ug/L	100	1	11/04/19 19:32	10/31/19	
Lead, Total	6010C	50	U	ug/L	50	1	11/04/19 19:32	10/31/19	
Magnesium, Total	6010C	**18000**		ug/L	1000	1	11/04/19 19:32	10/31/19	
Manganese, Total	6010C	**700**		ug/L	10	1	11/04/19 19:32	10/31/19	
Nickel, Total	6010C	40	U	ug/L	40	1	11/04/19 19:32	10/31/19	
Potassium, Total	6010C	**2200**		ug/L	2000	1	11/04/19 19:32	10/31/19	
Selenium, Total	6010C	10	U	ug/L	10	1	11/05/19 18:45	10/31/19	
Sodium, Total	6010C	**8500**		ug/L	1000	1	11/04/19 19:32	10/31/19	
Zinc, Total	6010C	20	U	ug/L	20	1	11/04/19 19:32	10/31/19	

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Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1910552
Project:	Wellsville-Andover LF - Annual Sampling	**Date Collected:**	10/28/19 13:15
Sample Matrix:	Water	**Date Received:**	10/29/19 10:20
Sample Name:	MH32-1019	**Basis:**	NA
Lab Code:	R1910552-005		

Inorganic Parameters

Analyte Name	Analysis Method	Result		Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic, Total	6010C	10	U	ug/L	10	1	11/04/19 19:36	10/31/19	
Barium, Total	6010C	**80**		ug/L	20	1	11/04/19 19:36	10/31/19	
Cadmium, Total	6010C	5.0	U	ug/L	5.0	1	11/04/19 19:36	10/31/19	
Calcium, Total	6010C	**89400**		ug/L	1000	1	11/04/19 19:36	10/31/19	
Chromium, Total	6010C	10	U	ug/L	10	1	11/04/19 19:36	10/31/19	
Copper, Total	6010C	20	U	ug/L	20	1	11/04/19 19:36	10/31/19	
Iron, Total	6010C	**9130**		ug/L	100	1	11/04/19 19:36	10/31/19	
Lead, Total	6010C	50	U	ug/L	50	1	11/04/19 19:36	10/31/19	
Magnesium, Total	6010C	**14300**		ug/L	1000	1	11/04/19 19:36	10/31/19	
Manganese, Total	6010C	**1610**		ug/L	10	1	11/04/19 19:36	10/31/19	
Nickel, Total	6010C	40	U	ug/L	40	1	11/04/19 19:36	10/31/19	
Potassium, Total	6010C	**2100**		ug/L	2000	1	11/04/19 19:36	10/31/19	
Selenium, Total	6010C	10	U	ug/L	10	1	11/05/19 18:48	10/31/19	
Sodium, Total	6010C	**3100**		ug/L	1000	1	11/04/19 19:36	10/31/19	
Zinc, Total	6010C	20	U	ug/L	20	1	11/04/19 19:36	10/31/19	

General Chemistry

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Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1910552
Project:	Wellsville-Andover LF - Annual Sampling	**Date Collected:**	10/28/19 11:35
Sample Matrix:	Water	**Date Received:**	10/29/19 10:20
Sample Name:	MH33-1019	**Basis:**	NA
Lab Code:	R1910552-002		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Nitrate as Nitrogen	300.0	1.0 U	mg/L	1.0	10	10/29/19 13:25	
Solids, Total Dissolved (TDS)	SM 2540 C-1997(2011)	**215**	mg/L	10	1	10/29/19 11:30	

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Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1910552
Project:	Wellsville-Andover LF - Annual Sampling	**Date Collected:**	10/28/19 13:15
Sample Matrix:	Water	**Date Received:**	10/29/19 10:20
Sample Name:	MH32-1019	**Basis:**	NA
Lab Code:	R1910552-005		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Nitrate as Nitrogen	300.0	1.0 U	mg/L	1.0	10	10/29/19 13:33	
Solids, Total Dissolved (TDS)	SM 2540 C-1997(2011)	**329**	mg/L	10	1	10/29/19 11:30	

QC Summary Forms

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Volatile Organic Compounds by GC/MS

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QA/QC Report

Client: On-Site Technical Services, Inc. **Service Request:** R1910552
Project: Wellsville-Andover LF - Annual Sampling
Sample Matrix: Water

SURROGATE RECOVERY SUMMARY
Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Sample Name	Lab Code	4-Bromofluorobenzene 85-122	Toluene-d8 87-121	Dibromofluoromethane 89-119
EB1-1019	R1910552-001	96	98	101
MH33-1019	R1910552-002	97	101	101
MW5S-1019	R1910552-003	97	99	99
MW5D-1019	R1910552-004	97	101	98
MH32-1019	R1910552-005	96	99	100
Method Blank	RQ1912754-05	95	96	98
Lab Control Sample	RQ1912754-03	94	96	96
Duplicate Lab Control Sample	RQ1912754-04	95	98	98

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Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1910552
Project:	Wellsville-Andover LF - Annual Sampling	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	RQ1912754-05	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result		MRL	Dil.	Date Analyzed	Q
Acetone	10	U	10	1	11/01/19 12:45	
Benzene	5.0	U	5.0	1	11/01/19 12:45	
Bromodichloromethane	5.0	U	5.0	1	11/01/19 12:45	
Bromoform	5.0	U	5.0	1	11/01/19 12:45	
Bromomethane	5.0	U	5.0	1	11/01/19 12:45	
2-Butanone (MEK)	10	U	10	1	11/01/19 12:45	
Carbon Disulfide	10	U	10	1	11/01/19 12:45	
Carbon Tetrachloride	5.0	U	5.0	1	11/01/19 12:45	
Chlorobenzene	5.0	U	5.0	1	11/01/19 12:45	
Chloroethane	5.0	U	5.0	1	11/01/19 12:45	
Chloroform	5.0	U	5.0	1	11/01/19 12:45	
Chloromethane	5.0	U	5.0	1	11/01/19 12:45	
Dibromochloromethane	5.0	U	5.0	1	11/01/19 12:45	
1,1-Dichloroethane	5.0	U	5.0	1	11/01/19 12:45	
1,2-Dibromoethane	5.0	U	5.0	1	11/01/19 12:45	
1,2-Dichloroethane	5.0	U	5.0	1	11/01/19 12:45	
1,1-Dichloroethene	5.0	U	5.0	1	11/01/19 12:45	
cis-1,2-Dichloroethene	5.0	U	5.0	1	11/01/19 12:45	
trans-1,2-Dichloroethene	5.0	U	5.0	1	11/01/19 12:45	
1,2-Dichloropropane	5.0	U	5.0	1	11/01/19 12:45	
cis-1,3-Dichloropropene	5.0	U	5.0	1	11/01/19 12:45	
trans-1,3-Dichloropropene	5.0	U	5.0	1	11/01/19 12:45	
Ethylbenzene	5.0	U	5.0	1	11/01/19 12:45	
2-Hexanone	10	U	10	1	11/01/19 12:45	
Methylene Chloride	5.0	U	5.0	1	11/01/19 12:45	
4-Methyl-2-pentanone (MIBK)	10	U	10	1	11/01/19 12:45	
Styrene	5.0	U	5.0	1	11/01/19 12:45	
1,1,2,2-Tetrachloroethane	5.0	U	5.0	1	11/01/19 12:45	
Tetrachloroethene	5.0	U	5.0	1	11/01/19 12:45	
Toluene	5.0	U	5.0	1	11/01/19 12:45	
1,1,1-Trichloroethane	5.0	U	5.0	1	11/01/19 12:45	
1,1,2-Trichloroethane	5.0	U	5.0	1	11/01/19 12:45	
Trichloroethene	5.0	U	5.0	1	11/01/19 12:45	
Vinyl Chloride	5.0	U	5.0	1	11/01/19 12:45	
o-Xylene	5.0	U	5.0	1	11/01/19 12:45	
m,p-Xylenes	5.0	U	5.0	1	11/01/19 12:45	

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Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1910552
Project:	Wellsville-Andover LF - Annual Sampling	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	RQ1912754-05	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	95	85 - 122	11/01/19 12:45	
Toluene-d8	96	87 - 121	11/01/19 12:45	
Dibromofluoromethane	98	89 - 119	11/01/19 12:45	

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QA/QC Report

Client: On-Site Technical Services, Inc.
Project: Wellsville-Andover LF - Annual Sampling
Sample Matrix: Water

Service Request: R1910552
Date Analyzed: 11/01/19

Duplicate Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

		Lab Control Sample			Duplicate Lab Control Sample					
		RQ1912754-03			RQ1912754-04					
Analyte Name	**Analytical Method**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Acetone	8260C	14.9	20.0	74	16.6	20.0	83	40-161	11	30
Benzene	8260C	19.5	20.0	97	19.9	20.0	99	79-119	2	30
Bromodichloromethane	8260C	20.1	20.0	100	21.1	20.0	105	81-123	5	30
Bromoform	8260C	21.1	20.0	105	21.4	20.0	107	65-146	1	30
Bromomethane	8260C	19.8	20.0	99	21.0	20.0	105	42-166	6	30
2-Butanone (MEK)	8260C	13.7	20.0	69	14.2	20.0	71	61-137	4	30
Carbon Disulfide	8260C	22.6	20.0	113	20.9	20.0	105	66-128	8	30
Carbon Tetrachloride	8260C	27.6	20.0	138 *	26.2	20.0	131 *	70-127	5	30
Chlorobenzene	8260C	20.3	20.0	102	19.5	20.0	98	80-121	4	30
Chloroethane	8260C	20.0	20.0	100	21.9	20.0	109	62-131	9	30
Chloroform	8260C	19.9	20.0	99	20.3	20.0	102	79-120	2	30
Chloromethane	8260C	19.5	20.0	97	20.7	20.0	104	65-135	6	30
Dibromochloromethane	8260C	20.8	20.0	104	22.0	20.0	110	72-128	6	30
1,1-Dichloroethane	8260C	20.4	20.0	102	21.4	20.0	107	80-124	5	30
1,2-Dibromoethane	8260C	18.7	20.0	93	19.3	20.0	97	82-127	3	30
1,2-Dichloroethane	8260C	18.0	20.0	90	18.8	20.0	94	71-127	5	30
1,1-Dichloroethene	8260C	21.4	20.0	107	22.8	20.0	114	71-118	7	30
cis-1,2-Dichloroethene	8260C	20.5	20.0	103	22.4	20.0	112	80-121	9	30
trans-1,2-Dichloroethene	8260C	20.6	20.0	103	22.2	20.0	111	73-118	7	30
1,2-Dichloropropane	8260C	19.8	20.0	99	20.4	20.0	102	80-119	3	30
cis-1,3-Dichloropropene	8260C	21.3	20.0	106	21.4	20.0	107	77-122	<1	30
trans-1,3-Dichloropropene	8260C	22.2	20.0	111	22.9	20.0	114	71-133	3	30
Ethylbenzene	8260C	20.3	20.0	102	20.3	20.0	102	76-120	<1	30
2-Hexanone	8260C	13.8	20.0	69	14.4	20.0	72	63-124	4	30
Methylene Chloride	8260C	18.3	20.0	91	18.6	20.0	93	73-122	2	30
4-Methyl-2-pentanone (MIBK)	8260C	14.8	20.0	74	15.5	20.0	78	66-124	5	30
Styrene	8260C	19.6	20.0	98	19.7	20.0	99	80-124	<1	30
1,1,2,2-Tetrachloroethane	8260C	18.6	20.0	93	19.4	20.0	97	78-126	4	30
Tetrachloroethene	8260C	19.9	20.0	99	20.2	20.0	101	72-125	2	30
Toluene	8260C	20.7	20.0	104	20.5	20.0	102	79-119	1	30
1,1,1-Trichloroethane	8260C	23.4	20.0	117	22.7	20.0	113	75-125	3	30
1,1,2-Trichloroethane	8260C	18.5	20.0	93	19.2	20.0	96	82-121	4	30
Trichloroethene	8260C	19.4	20.0	97	18.2	20.0	91	74-122	7	30

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QA/QC Report

Client: On-Site Technical Services, Inc. **Service Request:** R1910552
Project: Wellsville-Andover LF - Annual Sampling **Date Analyzed:** 11/01/19
Sample Matrix: Water

Duplicate Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

			Lab Control Sample RQ1912754-03			Duplicate Lab Control Sample RQ1912754-04				
Analyte Name	**Analytical Method**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Vinyl Chloride	8260C	20.8	20.0	104	23.0	20.0	115	74-159	10	30
o-Xylene	8260C	20.4	20.0	102	20.4	20.0	102	79-123	<1	30
m,p-Xylenes	8260C	41.4	40.0	103	40.6	40.0	102	80-126	2	30

Metals

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Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1910552
Project:	Wellsville-Andover LF - Annual Sampling	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Basis:**	NA
Lab Code:	R1910552-MB		

Inorganic Parameters

Analyte Name	Analysis Method	Result		Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic, Total	6010C	10	U	ug/L	10	1	11/04/19 18:01	10/31/19	
Barium, Total	6010C	20	U	ug/L	20	1	11/04/19 18:01	10/31/19	
Cadmium, Total	6010C	5.0	U	ug/L	5.0	1	11/04/19 18:01	10/31/19	
Calcium, Total	6010C	1000	U	ug/L	1000	1	11/04/19 18:01	10/31/19	
Chromium, Total	6010C	10	U	ug/L	10	1	11/04/19 18:01	10/31/19	
Copper, Total	6010C	20	U	ug/L	20	1	11/04/19 18:01	10/31/19	
Iron, Total	6010C	100	U	ug/L	100	1	11/04/19 18:01	10/31/19	
Lead, Total	6010C	50	U	ug/L	50	1	11/04/19 18:01	10/31/19	
Magnesium, Total	6010C	1000	U	ug/L	1000	1	11/04/19 18:01	10/31/19	
Manganese, Total	6010C	10	U	ug/L	10	1	11/04/19 18:01	10/31/19	
Nickel, Total	6010C	40	U	ug/L	40	1	11/04/19 18:01	10/31/19	
Potassium, Total	6010C	2000	U	ug/L	2000	1	11/04/19 18:01	10/31/19	
Selenium, Total	6010C	10	U	ug/L	10	1	11/05/19 17:40	10/31/19	
Sodium, Total	6010C	1000	U	ug/L	1000	1	11/04/19 18:01	10/31/19	
Zinc, Total	6010C	20	U	ug/L	20	1	11/04/19 18:01	10/31/19	

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QA/QC Report

Client: On-Site Technical Services, Inc.
Project: Wellsville-Andover LF - Annual Sampling
Sample Matrix: Water

Service Request: R1910552
Date Analyzed: 11/04/19 - 11/05/19

Duplicate Lab Control Sample Summary
Inorganic Parameters

Units:ug/L
Basis:NA

		Lab Control Sample			Duplicate Lab Control Sample					
		R1910552-LCS			R1910552-DLCS					
Analyte Name	**Analytical Method**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Arsenic, Total	6010C	40	40	101	42	40	105	80-120	4	20
Barium, Total	6010C	2070	2000	104	2040	2000	102	80-120	1	20
Cadmium, Total	6010C	50.4	50.0	101	49.5	50.0	99	80-120	2	20
Calcium, Total	6010C	1800	2000	88	1800	2000	89	80-120	<1	20
Chromium, Total	6010C	204	200	102	200	200	100	80-120	2	20
Copper, Total	6010C	240	250	96	236	250	95	80-120	1	20
Iron, Total	6010C	970	1000	97	950	1000	95	80-120	1	20
Lead, Total	6010C	502	500	100	492	500	98	80-120	2	20
Magnesium, Total	6010C	1900	2000	97	1900	2000	96	80-120	2	20
Manganese, Total	6010C	503	500	101	495	500	99	80-120	2	20
Nickel, Total	6010C	504	500	101	495	500	99	80-120	2	20
Potassium, Total	6010C	19700	20000	98	19400	20000	97	80-120	1	20
Selenium, Total	6010C	1080	1010	107	1080	1010	107	80-120	<1	20
Sodium, Total	6010C	20400	20000	102	20100	20000	101	80-120	1	20
Zinc, Total	6010C	505	500	101	497	500	99	80-120	2	20

General Chemistry

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ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1910552
Project:	Wellsville-Andover LF - Annual Sampling	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Basis:**	NA
Lab Code:	R1910552-MB		

Inorganic Parameters

Analyte Name	Analysis Method	Result		Units	MRL	Dil.	Date Analyzed	Q
Nitrate as Nitrogen	300.0	0.10	U	mg/L	0.10	1	10/29/19 12:37	
Solids, Total Dissolved (TDS)	SM 2540 C-1997(2011)	10	U	mg/L	10	1	10/29/19 11:30	

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: On-Site Technical Services, Inc.
Project: Wellsville-Andover LF - Annual Sampling
Sample Matrix: Water

Service Request: R1910552
Date Analyzed: 10/29/19

Lab Control Sample Summary
General Chemistry Parameters

Units:mg/L
Basis:NA

Lab Control Sample
R1910552-LCS

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Nitrate as Nitrogen	300.0	1.00	1.00	100	90-110
Solids, Total Dissolved (TDS)	SM 2540 C-1997(2011)	886	914	97	90-110

November 25, 2019 Service Request No:R1911353

Mr. Jon Brandes
On-Site Technical Services, Inc.
72 Railroad Avenue
Wellsville, NY 14895

Laboratory Results for: WAL - Annual Sampling

Dear Mr.Brandes,

Enclosed are the results of the sample(s) submitted to our laboratory November 19, 2019
For your reference, these analyses have been assigned our service request number **R1911353.**

All testing was performed according to our laboratory's quality assurance program and met the requirements of the TNI standards except as noted in the case narrative report. Any testing not included in the lab's accreditation is identified on a Non-Certified Analytes report. All results are intended to be considered in their entirety. ALS Environmental is not responsible for use of less than the complete report. Results apply only to the individual samples submitted to the lab for analysis, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s), and represented by Laboratory Control Sample control limits. Any events, such as QC failures or Holding Time exceedances, which may add to the uncertainty are explained in the report narrative or are flagged with qualifiers. The flags are explained in the Report Qualifiers and Definitions page of this report.

Please contact me if you have any questions. My extension is 7472. You may also contact me via email at Janice.Jaeger@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Meghan Pedro for
Janice Jaeger
Project Manager

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dba ALS Environmental

Narrative Documents

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Client: On-Site Technical Services, Inc.
Project: WAL - Annual Sampling
Sample Matrix: Water

Service Request: R1911353
Date Received: 11/19/2019

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier II level requested by the client.

Sample Receipt:

One water sample was received for analysis at ALS Environmental on 11/19/2019. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

Metals:

No significant anomalies were noted with this analysis.

Approved by _____ Date 11/25/2019

SAMPLE DETECTION SUMMARY

CLIENT ID: WAL2-1119	Lab ID: R1911353-001					
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Barium, Total	32			20	ug/L	6010C
Calcium, Total	45200			1000	ug/L	6010C
Iron, Total	690			100	ug/L	6010C
Magnesium, Total	15600			1000	ug/L	6010C
Manganese, Total	747			10	ug/L	6010C
Sodium, Total	47500			1000	ug/L	6010C

Sample Receipt Information

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www.alsglobal.com

Client: On-Site Technical Services, Inc. **Service Request:**R1911353

Project: WAL - Annual Sampling

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
R1911353-001	WAL2-1119	11/15/2019	1315

CHAIN of CUSTODY

Page 1 of 1

ALS-Environmental
1565 Jefferson Rd, Bldg 300, Suite 360
Rochester, NY 14623
585.288.5380

Client: On-Site
72 Railroad Ave.
Wellsville, NY 14895

Project Manager: Jon Brandes

Project: WAL - Annual Sampling

Telephone No.: 585-593-1824

Email: jonb@on-sitehs.com

Method of Shipment:

Special Detection Limit/Reporting:

Sample I.D.	Lab Sample No.	No. of Containers	Matrix: Soil	Water	Air	Other	Prsv.: Yes	No	Sampling Date	Sampling Time	GC;MS VOA's 8260 (HCl)	GC;MS VOA's 524.2 (C6H806)	T-Metals (HNO3)	TDS, NO3, Br, Cl, SO4 (NP) (SW/SED)	NH3, TKN, COD (H2SO4) (SW/SED)	Total Color (NP) (SW/SED)	BOD (NP) (SW/SED)	Alkalinity (NP) (SW/SED)	TDS, NO3 (NP) (Manhole)
WAL 2-1119		1		X			X		11-15-19	1315			X						

REMARKS

Sample Received Intact: Yes No

Temperature received: Ice No ice

Relinq. by sampler (Sign & Print Name)	Date	Time	Received by (Sign & Print Name)
Kevin Dye / Kevin Dye	11-15-19	1345	Jonathan E Brandes / Jonathan E Brandes
Relinquished by: Jonathan E Brandes / Jonathan E Brandes	11/18/19	1530	Received by
Relinquished by	Date	Time	Received by
Relinquished by	Date	Time	Received by laboratory: Date 11/19/19 Time 1205

Lab Work No.

R1911353 5
On-Site Technical Services, Inc.
WAL - Annual Sampling

Cooler Receipt and Preservation Check Form

R1911353 5
On-Site Technical Services, Inc.
WAL - Annual Sampling

Project/Client On-Site Folder Number

Cooler received on 11/19/19 by: [illegible]

COURIER: ALS (UPS) FEDEX VELOCITY CLIENT

1	Were **Custody seals** on outside of cooler?	(Y) N	5a	**Perchlorate** samples have required headspace?	Y N (NA)
2	**Custody papers** properly completed (ink, signed)?	(Y) N	5b	Did VOA vials, Alk,or Sulfide have sig* **bubbles**?	Y N (NA)
3	Did all bottles arrive in good **condition** (unbroken)?	(Y) N	6	Where did the bottles originate?	(ALS/ROC) CLIENT
4	Circle: (Wet Ice) **Dry Ice Gel packs** present?	(Y) N	7	Soil VOA received as: Bulk Encore 5035set	(NA)

8. Temperature Readings Date: 11/19/19 Time: 1207 ID: IR#7 (IR#10) From: Temp Blank (Sample Bottle)

Observed Temp (°C)	1.7						
Within 0-6°C?	(Y) N	Y N	Y N	Y N	Y N	Y N	Y N
If <0°C, were samples frozen?	Y N	Y N	Y N	Y N	Y N	Y N	Y N

If out of Temperature, note packing/ice condition: _____ Ice melted Poorly Packed (described below) Same Day Rule

&Client Approval to Run Samples: _____ Standing Approval Client aware at drop-off Client notified by: _____

All samples held in storage location: R-002 by [illegible] on 11/19/19 at 1210
5035 samples placed in storage location: _____ by _____ on _____ at _____

Cooler Breakdown/Preservation Check**: Date: 11/19/19 Time: 1540 by: [illegible]

9. Were all bottle labels complete (*i.e.* analysis, preservation, etc.)? (YES) NO
10. Did all bottle labels and tags agree with custody papers? (YES) NO
11. Were correct containers used for the tests indicated? (YES) NO
12. Were 5035 vials acceptable (no extra labels, not leaking)? YES NO (N/A)
13. Air Samples: Cassettes / Tubes Intact with MS? Canisters Pressurized Tedlar® Bags Inflated (N/A)

pH	Lot of test paper	Reagent	Preserved? Yes	Preserved? No	Lot Received	Exp	Sample ID Adjusted	Vol. Added	Lot Added	Final pH
≥12		NaOH								
≤2	230018	HNO_3	V		1118081					
≤2		H_2SO_4								
<4		$NaHSO_4$								
5-9		For 608pest			No=Notify for 3day					
Residual Chlorine (-)		For CN, Phenol, 625, 608pest, 522			If +, contact PM to add $Na_2S_2O_3$ (625, 608, CN), ascorbic (phenol).					
		$Na_2S_2O_3$								
		ZnAcetate	-	-			**VOAs and 1664 Not to be tested before analysis. Otherwise, all bottles of all samples with chemical preservatives are checked (not just representatives).			
		HCl	**	**						

Bottle lot numbers: 19-09-03

Explain all Discrepancies/ Other Comments:

HPROD	BULK
HTR	FLDT
SUB	HGFB
ALS	LL3541

Labels secondary reviewed by: [illegible]

PC Secondary Review: [illegible]

*significant air bubbles: VOA > 5-6 mm : WC >1 in. diameter

Miscellaneous Forms

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REPORT QUALIFIERS AND DEFINITIONS

U	Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.
J	Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Arclors).
B	Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.
E	Inorganics- Concentration is estimated due to the serial dilution was outside control limits.
E	Organics- Concentration has exceeded the calibration range for that specific analysis.
D	Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.
*	Indicates that a quality control parameter has exceeded laboratory limits. Under the ñNotesò column of the Form I, this qualifier denotes analysis was performed out of Holding Time.
H	Analysis was performed out of hold time for tests that have an ñimmediateò hold time criteria.
#	Spike was diluted out.
+	Correlation coefficient for MSA is <0.995.
N	Inorganics- Matrix spike recovery was outside laboratory limits.
N	Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.
S	Concentration has been determined using Method of Standard Additions (MSA).
W	Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.
P	Concentration >40% difference between the two GC columns.
C	Confirmed by GC/MS
Q	DoD reports: indicates a pesticide/Aroclor is not confirmed (Ó100% Difference between two GC columns).
X	See Case Narrative for discussion.
MRL LOQ	Method Reporting Limit. Also known as: Limit of Quantitation (LOQ) The lowest concentration at which the method analyte may be reliably quantified under the method conditions.
MDL	Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).
LOD	Limit of Detection. A value at or above the MDL which has been verified to be detectable.
ND	Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.

Rochester Lab ID # for State Certifications[1]

Connecticut ID # PH0556	Maine ID #NY0032	Pennsylvania ID# 68-786
Delaware Approved	New Hampshire ID # 2941	Rhode Island ID # 158
DoD ELAP #65817	New York ID # 10145	Virginia #460167
Florida ID # E87674	North Carolina #676	

[1] Analyses were performed according to our laboratoryôs NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the case narrative. Since not all analyte/method/matrix combinations are offered for state/NELAC accreditation, this report may contain results which are not accredited. For a specific list of accredited analytes, contact the laboratory or go to https://www.alsglobal.com/locations/americas/north-america/usa/new-york/rochester-environmental

ALS Laboratory Group

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1911353
Project:	WAL - Annual Sampling/		

Sample Name:	WAL2-1119	**Date Collected:**	11/15/19
Lab Code:	R1911353-001	**Date Received:**	11/19/19
Sample Matrix:	Water		

Analysis Method	Extracted/Digested By	Analyzed By
6010C	AKONZEL	KMCLAEN

The preparation methods associated with this report are found in these tables unless discussed in the case narrative.

Water/Liquid Matrix

Analytical Method	Preparation Method
200.7	200.2
200.8	200.2
6010C	3005A/3010A
6020A	ILM05.3
9014 Cyanide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Acid Soluble	9030B
9056A Bomb (Halogens)	5050A
9066 Manual Distillation	9065
SM 4500-CN-E Residual Cyanide	SM 4500-CN-G
SM 4500-CN-E WAD Cyanide	SM 4500-CN-I

Solid/Soil/Non-Aqueous Matrix

Analytical Method	Preparation Method
6010C	3050B
6020A	3050B
6010C TCLP (1311) extract	3005A/3010A
6010 SPLP (1312) extract	3005A/3010A
7196A	3060A
7199	3060A
9056A Halogens/Halides	5050
300.0 Anions/ 350.1/ 353.2/ SM 2320B/ SM 5210B/ 9056A Anions	DI extraction

For analytical methods not listed, the preparation method is the same as the analytical method reference.

Sample Results

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Metals

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Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1911353
Project:	WAL - Annual Sampling	**Date Collected:**	11/15/19 13:15
Sample Matrix:	Water	**Date Received:**	11/19/19 12:05
Sample Name:	WAL2-1119	**Basis:**	NA
Lab Code:	R1911353-001		

Inorganic Parameters

Analyte Name	Analysis Method	Result		Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic, Total	6010C	10	U	ug/L	10	1	11/22/19 18:53	11/21/19	
Barium, Total	6010C	**32**		ug/L	20	1	11/22/19 18:53	11/21/19	
Cadmium, Total	6010C	5.0	U	ug/L	5.0	1	11/22/19 18:53	11/21/19	
Calcium, Total	6010C	**45200**		ug/L	1000	1	11/22/19 18:53	11/21/19	
Chromium, Total	6010C	10	U	ug/L	10	1	11/22/19 18:53	11/21/19	
Copper, Total	6010C	20	U	ug/L	20	1	11/22/19 18:53	11/21/19	
Iron, Total	6010C	**690**		ug/L	100	1	11/22/19 18:53	11/21/19	
Lead, Total	6010C	50	U	ug/L	50	1	11/22/19 18:53	11/21/19	
Magnesium, Total	6010C	**15600**		ug/L	1000	1	11/22/19 18:53	11/21/19	
Manganese, Total	6010C	**747**		ug/L	10	1	11/22/19 18:53	11/21/19	
Nickel, Total	6010C	40	U	ug/L	40	1	11/22/19 18:53	11/21/19	
Potassium, Total	6010C	2000	U	ug/L	2000	1	11/22/19 18:53	11/21/19	
Selenium, Total	6010C	10	U	ug/L	10	1	11/22/19 18:53	11/21/19	
Sodium, Total	6010C	**47500**		ug/L	1000	1	11/22/19 18:53	11/21/19	
Zinc, Total	6010C	20	U	ug/L	20	1	11/22/19 18:53	11/21/19	

QC Summary Forms

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Metals

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Analytical Report

Client:	On-Site Technical Services, Inc.	**Service Request:**	R1911353
Project:	WAL - Annual Sampling	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Basis:**	NA
Lab Code:	R1911353-MB		

Inorganic Parameters

Analyte Name	Analysis Method	Result		Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic, Total	6010C	10	U	ug/L	10	1	11/22/19 17:15	11/21/19	
Barium, Total	6010C	20	U	ug/L	20	1	11/22/19 17:15	11/21/19	
Cadmium, Total	6010C	5.0	U	ug/L	5.0	1	11/22/19 17:15	11/21/19	
Calcium, Total	6010C	1000	U	ug/L	1000	1	11/22/19 17:15	11/21/19	
Chromium, Total	6010C	10	U	ug/L	10	1	11/22/19 17:15	11/21/19	
Copper, Total	6010C	20	U	ug/L	20	1	11/22/19 17:15	11/21/19	
Iron, Total	6010C	100	U	ug/L	100	1	11/22/19 17:15	11/21/19	
Lead, Total	6010C	50	U	ug/L	50	1	11/22/19 17:15	11/21/19	
Magnesium, Total	6010C	1000	U	ug/L	1000	1	11/22/19 17:15	11/21/19	
Manganese, Total	6010C	10	U	ug/L	10	1	11/22/19 17:15	11/21/19	
Nickel, Total	6010C	40	U	ug/L	40	1	11/22/19 17:15	11/21/19	
Potassium, Total	6010C	2000	U	ug/L	2000	1	11/22/19 17:15	11/21/19	
Selenium, Total	6010C	10	U	ug/L	10	1	11/22/19 17:15	11/21/19	
Sodium, Total	6010C	1000	U	ug/L	1000	1	11/22/19 17:15	11/21/19	
Zinc, Total	6010C	20	U	ug/L	20	1	11/22/19 17:15	11/21/19	

Client: On-Site Technical Services, Inc.
Project: WAL - Annual Sampling
Sample Matrix: Water

Service Request: R1911353
Date Analyzed: 11/22/19

Lab Control Sample Summary
Inorganic Parameters

Units:ug/L
Basis:NA

Lab Control Sample
R1911353-LCS

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Arsenic, Total	6010C	44	40	111	80-120
Barium, Total	6010C	2060	2000	103	80-120
Cadmium, Total	6010C	51.6	50.0	103	80-120
Calcium, Total	6010C	2100	2000	103	80-120
Chromium, Total	6010C	206	200	103	80-120
Copper, Total	6010C	239	250	96	80-120
Iron, Total	6010C	1010	1000	101	80-120
Lead, Total	6010C	503	500	101	80-120
Magnesium, Total	6010C	2000	2000	98	80-120
Manganese, Total	6010C	500	500	100	80-120
Nickel, Total	6010C	513	500	103	80-120
Potassium, Total	6010C	19300	20000	96	80-120
Selenium, Total	6010C	1080	1010	107	80-120
Sodium, Total	6010C	19800	20000	99	80-120
Zinc, Total	6010C	509	500	102	80-120