Known for excellence. Built on trust.

2022 SEMI-ANNUAL GROUNDWATER MONITORING REPORT

NIAGARA WIND POWER, LLC

STEEL WINDS I Facility (Site ID # C915205)

LACKAWANNA, NEW YORK

June 2022, Revised July 2022
File No. 03.0033579.15

PREPARED FOR:
Niagara Wind Power, LLC
200 Liberty Street, 14th Floor, New York, NY 10281

GZA GeoEnvironmental of New York
300 Pearl Street, Suite 700 | Buffalo, NY 14202
716-685-2300

Offices Nationwide
www.gza.com

Niagara Wind Power, LLC
200 Liberty Street, 14th Floor
New York, NY 10281
Attn: Cris Basden

Re: 2022 Semi-Annual Groundwater Monitoring Revised Report
Steel Winds I Site ID# C915205
Lackawanna, NY

Dear Cris:

GZA GeoEnvironmental of New York (GZA) submits this semi-annual groundwater monitoring report to Niagara Wind Power, LLC, (NWP) summarizing the analytical results of the groundwater monitoring event conducted in March 2022 at the above referenced Site. The objective of the monitoring event was to collect and analyze groundwater samples from the on-site monitoring wells in accordance with the Site Management Plan, dated September 2007, prepared by Benchmark Environmental Engineering and Science, PLLC (Benchmark) and approved by the New York State Department of Environmental Conservation (NYSDEC).

Should you have any questions or require additional information following your review, please contact Ed Summerly at (401) 427-2707.

Sincerely,

GZA GEOENVIRONMENTAL OF NEW YORK

Daniel J. Troy, P.E.
Senior Project Manager

Richard A. Carlone, P.E
Consultant Reviewer

Edward A. Summerly, P.G.[NY, KY]
District Office Manager / Principal

cc: Ms. Megan Kuczka (NYSDEC)
Mr. Jonathan Kirby (Brookfield Renewable)
Mr. Scott Rotman (GE Renewable Energy)

Attachments: Report

TABLE OF CONTENTS

1.00 INTRODUCTION 2

1.10 BACKGROUND AND SITE HISTORY 2

2.00 PURPOSE AND SCOPE OF WORK 3

3.00 FIELD STUDIES 4

3.10 GROUNDWATER COLLECTION 4

4.00 ANALYTICAL LABORATORY TESTING 5

5.00 ANALYTICAL TEST RESULTS 5

5.10 SEMI-ANNUAL WT-1 VICINITY MONITORING WELLS 6

6.00 MOVING AVERAGE TREND ANALYSIS 8

7.00 SUMMARY 9

TABLES

TABLE 1 2022 ANALYTICAL TESTING PROGRAM SUMMARY
TABLE 2 2022 SEMI-ANNUAL GROUNDWATER ANALYTICAL DATA SUMMARY

FIGURES

FIGURE 1 LOCUS PLAN
FIGURE 2 SITE PLAN

APPENDICES

APPENDIX A LIMITATIONS
APPENDIX B ANALYTICAL TEST RESULTS
APPENDIX C TIME SERIES PLOTS

1.00 INTRODUCTION

In accordance with our March 16, 2022 proposal, GZA GeoEnvironmental, Inc. (GZA) collected and analyzed groundwater samples at the six (6) semi-annual WT-1 vicinity groundwater monitoring wells located at the Steel Winds I facility in Lackawanna, New York (site). A Locus Plan and Site Plan are attached as **Figures 1** and **2**, respectively.

1.10 BACKGROUND AND SITE HISTORY

Tecumseh Redevelopment, Inc. (Tecumseh) owns approximately 1,100 acres of land at 1951 Hamburg Turnpike, as shown on attached **Figure 1**. The property was formerly used for the production of steel, coke, and related products by Bethlehem Steel Corporation (BSC). Steel production on the Tecumseh property was discontinued in 1983 and the coke ovens ceased activity in 2000. Tecumseh acquired the property, along with other BSC assets, out of bankruptcy, in 2003.

In September 2006, BQ Energy entered into a long-term lease agreement with Tecumseh to construct and operate wind turbines and supporting power generation equipment and infrastructure on an approximately 29-acre parcel of the Tecumseh property, referred to as the Steel Winds I site. BQ energy and NYSDEC also entered into a Brownfield Cleanup Agreement for the Steel Winds Site. The Site is wholly contained within the Slag Fill Area (SFA) Zones 3 and 4 of the Tecumseh property bordered by Lake Erie to the west, Smoke Creek to the south, and former industrial lands of BSC to the north and east. Niagara Wind Power, LLC (NWP), an affiliate of Brookfield Renewables, Inc., currently operates the eight wind turbines installed at the Site.

The Brownfield Cleanup Program (BCP) was successful in achieving the remedial objectives for the Steel Winds Site. The Site Management Plan (SMP) and Final Engineering Report (FER) were approved by NYSDEC in December 2007. NYSDEC issued a Certificate of Completion (COC) for the site on December 18, 2007.

The remedial activities conducted at the site include:

- Excavation and off-site disposal of impacted slag fill from the eight wind turbine foundations and interconnecting utility trenches;
- In-situ enhanced biodegradation of residual volatile organic compounds (VOCs), including benzene, toluene, total xylenes, and naphthalene, using oxygen release compound (ORC®) socks within the saturated soil and groundwater in the vicinity of WT-01 and associated monitoring; and,
- Completion of a soil cover system.

As a requirement of the SMP, Long-Term Groundwater Monitoring (LTGWM) is being performed at nine (9) wells across the Site. Additional groundwater monitoring was also performed to monitor the effectiveness of the ORC in-situ treatment in the vicinity of wind turbine WT-01. During 2011, both the LTGWM and WT-01 vicinity groundwater monitoring programs were performed on an annual basis and were done on July 13 and 14, 2011. The five (5) ORC in-situ treatment wells were to be monitored semi-annually, in accordance with the SMP. However, only one ORC monitoring event (on May 4, 2011) was conducted because of the ineffectiveness of this aspect of the remedy.

An *Operation, Monitoring and Maintenance Request for Modification* report, dated November 2011, was submitted to NYSDEC by Benchmark. This report proposed ceasing operation of the ORC® groundwater remedy for the WT-01 vicinity because the remedy was not effective in reducing VOC concentrations, due primarily to the geochemical conditions (i.e., high baseline chemical oxygen demand, highly negative oxidation reduction potential and high pH) of the Site. NYSDEC provided comments to this report on April 10, 2012 and GZA provided a response letter on May 9, 2012. Based on this letter and subsequent correspondence with NYSDEC, the ORC® remedy has been terminated (i.e., the ORC socks have been removed from the five treatment wells and disposed of as solid waste).

On September 30, 2013, GZA submitted a ***Technical Impracticability Waiver Supplemental Field Studies Work Plan*** for the Site, detailing sampling, laboratory analysis, data evaluation and reporting to be conducted in support of a Technical Impracticability Waiver request for the Site. This Work Plan was approved by NYSDEC on February 24, 2014. Sampling and analysis described in the Work Plan was conducted by GZA in summer 2014 and a Technical Impracticability Waiver application was submitted to NYSDEC on November 5, 2014, with a supplemental Endangered Species Review letter submitted to NYSDEC on January 28, 2015. Based on the remedial evaluation presented in the application, it is GZA's opinion that active remediation is not warranted or feasible, would not result in significant benefit to the environment relative to the cost, and is technically impracticable. The application recommended limited additional sampling to evaluate risk to ecological receptors. NYSDEC verbally approved the additional recommended field work on April 27, 2015. GZA submitted a Work Plan to NYSDEC on August 5, 2015 describing the proposed additional field work, which was implemented in September 2015. A Supplement TI Waiver Report was submitted to NYSDEC on April 24, 2018.

Due to the length of cold days experienced during the winter of 2015 the semi-annual sampling event, originally scheduled for January 2015, was not able to be completed until March 2015. In order to reduce negative impacts and delays associated from freezing weather conditions, the NYSDEC has approved rescheduling of semi-annual and annual sampling events to occur during the months of March and September, respectively.

A January 19, 2021 letter submitted to the Chief, Site Control Section of the NYSDEC was received indicating that BQ Energy, LLC and Steel Winds Project, LLC, the prior remedial parties for the Steel Winds I Site have transferred the Certificate of Completion (COC) to Niagara Wind Power, and Niagara Wind Power, LLC has assumed Remedial Party status for the Site. The Notice of transfer was recorded with the Erie County Clerk's Office on January 13, 2021.

2.00 PURPOSE AND SCOPE OF WORK

The purpose of the 2022 semi-annual monitoring event was to collect groundwater samples from the six (6) semi-annual WT-1 vicinity groundwater monitoring wells in accordance with the routine monitoring program described in the September 2007 SMP. To accomplish this, GZA completed the following activities:

- Collected one (1) groundwater sample from each semi-annual well location for laboratory analysis conducted by Alpha Analytical of Westborough, Massachusetts, in accordance with

the analytical testing summary provided in **Table 1**. Test parameters included the following:

- Stars list (or CP-51) VOCs via EPA Method 8260C; and
- Base-Neutral semi-volatile organic compounds (SVOCs) via EPA Method 8270D.

- Prepared this report, which summarizes the data collected during the sampling event and compared it to historic results and assessed contaminant concentration trends, if any.

This report presents GZA's field observations, results, and opinions and is subject to the limitations presented in **Appendix A**.

3.00 FIELD STUDIES

3.10 Groundwater Data Collection

GZA collected groundwater samples from the six (6) WT-1 vicinity semi-annual monitoring wells (MWN-01, MWN-01B, WT1-02, WT1-04, WT1-05, and BCP-ORC-1). Samples were collected on March 30, 2022.

The following tables show the volume of water purged and the number of well volumes removed from the respective well. In general, groundwater purge rates were about 500(±) milliliters per minute (ml/min). Purging continued until field parameters stabilized within acceptable limits established in EPA's low flow sampling SOP. Stabilized field screening parameter readings are presented in **Table 2**, attached.

WT-1 Vicinity Semi-Annual Monitoring Well ID	Cumulative Volume Purged (gallons)	Approximate Well Volumes (#)
MWN-01	8	2.9
MWN-01B	14	5.4
WT1-02	4	0.6
WT1-04	8	4.0
WT1-05	4	2.2
BCP-ORC-1	8	3.2

As part of the semi-annual groundwater monitoring, static groundwater level measurements were made from top of riser of the monitoring wells listed in the table below prior to purging. Groundwater measurements referenced in this report were made on March 30, 2022. With the exception of WT1-05 (replaced in May 2012 and surveyed by GZA), monitoring point elevation data was available from previous groundwater monitoring reports completed by

Benchmark. From the elevation and depth to groundwater data, groundwater flow directions were estimated and are shown on **Figure 2**. Based on the available information, groundwater flow is generally in a southwesterly direction towards Smoke Creek and Lake Erie.

Monitoring Well Location	Top of Riser Elevation (ft.)	Groundwater Depth (ft.)	Groundwater Elevation (ft.)
MWN-01	585.14	14.84	570.30
MWN-01B	587.03	15.73	571.30
WT1-02	600.78	27.34	573.44
WT1-04	586.45	13.19	573.26
WT1-05	584.41	12.13	572.28
BCP-ORC-1	591.97	18.69	573.28

4.00 ANALYTICAL LABORATORY TESTING

Six (6) semi-annual groundwater samples were submitted for analytical testing as part of the 2022 Semi-Annual monitoring event. The samples were packed in an ice-filled cooler and, following typical chain-of-custody procedures, sent to Alpha for analysis. **Table 1** presents a summary of the samples collected and the analyses completed.

5.00 ANALYTICAL TEST RESULTS

A discussion of the laboratory results for the groundwater samples is presented below. The laboratory reports are provided in **Appendix B** and the analytical test results are summarized on **Table 2**.

The analytical test results for the groundwater samples were compared to NYSDEC Class GA criteria presented in the ***Division of Water Technical and Operational Guidance Series*** (TOGS 1.1.1), dated October 1993, revised June 1998, errata January 1999 and amended April 2000.

The analytical data generated as part of this monitoring event was electronically submitted to NYSDEC via their EQUIS Data Processor (EDP) as part of their Environmental Information Management System (EIMS) on May 3, 2022. The data was prepared by Alpha in a standardized electronic data deliverable (EDD) format that is used by the database software application EQUIS™ (EQUIS) from Earthsoft® Inc.

5.10 Semi-Annual WT-1 Vicinity Monitoring Wells

MWN-01: Eight (8) VOCs were detected above laboratory method detection limits (MDLs) of which five (5) were identified at concentrations exceeding their respective NYSDEC Class GA criteria, as follows:

- Benzene at 14 parts per billion (ppb);
- m,p-Xylene at 7.9 ppb;
- o-xylene at 5.8 ppb;
- total xylene at 14 ppb; and
- Naphthalene at 290 ppb.

Fourteen (14) SVOCs were detected above MDLs of which six (6) exceeded their respective NYSDEC Class GA criteria, as follows:

- Biphenyl at 7.86 ppb;
- Benzo [a] anthracene at 0.372 J[1] ppb;
- Fluorene at 58.8 ppb;
- Chrysene at 0.187 J ppb;
- Naphthalene at 141 ppb; and
- Phenanthrene at 81.5 ppb.

MWN-01B: Six (6) VOCs were detected above MDLs of which six (6) were identified at concentrations exceeding their respective NYSDEC Class GA criteria, as follows.

- Benzene at 54 ppb;
- Toluene at 16 J ppb;
- m,p-Xylene at 12 J ppb;
- o-xylene at 8.9 J ppb;
- total xylene at 21 J; and
- Naphthalene at 1,700 ppb.

[1] "J" indicates that the concentration is estimated.

Sixteen (16) SVOCs were detected above MDLs of which seven (7) exceeded their respective NYSDEC Class GA criteria, as follows.

- Biphenyl at 6.09 ppb;
- Naphthalene at 970 ppb;
- Phenanthrene at 53.6 ppb;
- Benzo [a] anthracene at 0.316 J ppb;
- Benzo [b] fluoranthene at 0.105 J ppb;
- Benzo [a] pyrene at 0.076 J ppb; and
- Chrysene at 0.180 J ppb.

WT1-02: Eight (8) VOCs were detected above MDLs of which three (3) exceeded their respective NYSDEC Class GA criteria, as follows.

- Benzene at 11.0 ppb;
- Total Xylene at 6.9 ppb; and
- Naphthalene at 45 ppb.

Fourteen (14) SVOCs were detected at concentrations exceeding the MDL, of which three (3) exceeded their respective NYSDEC Class GA criteria, as follows.

- Naphthalene at 16.8 ppb;
- Benzo [a] anthracene at 0.202 J ppb; and
- Chrysene at 0.146 J ppb.

WT1-04: Eight (8) VOCs were detected above MDLs of which three (3) exceed their respective NYSDEC Class GA criteria, as follows.

- Benzene at 9.6 ppb;
- Total-Xylene at 7.7 ppb; and
- Naphthalene at 66 ppb.

Fifteen (15) SVOCs were detected above MDLs, of which four (4) exceeded their respective NYSDEC Class GA criteria, as follows.

- Naphthalene at 21.8 ppb;
- Benzo [a] anthracene at 0.226 J ppb;
- Benzo [b] fluoranthene at 0.073 J ppb; and
- Chrysene at 0.166 J ppb.

WT1-05: Eight (8) VOCs were detected above MDLs of which five (5) exceeded their respective NYSDEC Class GA criteria, as follows.

- Benzene at 13 ppb;
- m,p-Xylene at 8.8 ppb;
- o-Xylene at 6.3 ppb;
- Total Xylene at 15; and
- Naphthalene at 270 ppb.

Thirteen (13) SVOCs were detected above MDLs of which three (3) exceeded its NYSDEC Class GA criteria, as follows.

- Naphthalene at 141 ppb;
- Biphenyl at 7.74 ppb; and
- Benzo [b] fluoranthene at 0.076 J ppb;

BCP-ORC-1: Eight (8) VOCs, were detected above MDLs of which two (2) exceeded their respective NYSDEC Class GA criteria, as follows.

- Benzene at 11 ppb; and
- Naphthalene at 190 ppb.

Twelve (12) SVOCs were detected above MDLs of which one (1) exceeded its respective NYSDEC Class GA criteria, as follows.

- Naphthalene at 63.3 ppb.

A discussion of the data trend analysis is provided in Section 6.00 of this report.

6.00 STATISTICAL ANALYSIS

As stated in Section 2.4 of Attachment A4 (LTGWM Plan) of the September 2007 Site Management Plan, a statistical analysis is required for all detected constituents (in groundwater) that are observed at concentrations above NYSDEC Class GA criteria or guidance values. In lieu of performing moving trend analysis, as described in the LTGWM Plan, GZA generated time series plots for parameters which exceeded the NYSDEC Class GA criteria, either during this monitoring round or in previous routine monitoring rounds (routine monitoring started in 2008). These plots were evaluated for trends over the full monitoring period, which started in 2008 (approximately 13 years) at a 95% confidence interval and were also evaluated for outliers. Sen's Tests for trends were performed to evaluate statistically significant trends in the data with respect to time. Time series plots were generated on a well-by-well basis and are presented in **Appendix C**.

Twenty-four statistically significant decreasing trends in contamination concentrations were identified by the Sen's Tests:

- BCP-ORC-1 – benzene
- MWN-01 – 1,2,4-trimethylbenzene, benzene, biphenyl, fluorene, m, p-xylene, phenanthrene, o-xylene, toluene and total xylenes;
- MWN-01B – benzene;
- WT1-04 – 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, benzene, m, p-xylene, o-xylene, toluene and total xylenes; and
- WT1-02 – 1,3,5-trimethylbenzene, benzene, toluene, o-xylene, m, p-xylene and total xylenes.

Three statistically significant increasing trends were identified by the Sen's Tests, naphthalene and o-xylene in well BCP-ORC-1 and phenanthrene in well WT-05.

There do not appear to be any other significant season fluctuations of contaminant concentrations in the monitoring data, and no outliers were identified in the current data set.

7.00 SUMMARY

GZA was retained to collect and analyze groundwater samples from six (6) semi-annual monitoring wells at the Steel Winds I facility in accordance with the Site Management Plan. A summary of our findings follows.

- Select VOCs were detected at concentrations above NYSDEC Class GA criteria in the groundwater samples collected from each of the six semi-annual WT1 vicinity wells tested (BCP-ORC-1, MWN-01, MWN-01B, WT1-02, WT1-04 and WT1-05).

- Select SVOCs were also detected at concentrations above NYSDEC Class GA or their respective guidance criteria in each of the six groundwater samples collected from the semi-annual WT1 vicinity wells (BCP-ORC-1, MWN-01, MWN-01B, WT1-02, WT1-04 and WT-05).

In general, results of the 2022 sampling event exhibited no significant change in their respective concentrations when compared with historical data collected during previous sampling events. Statistically significant downward trends in contaminant concentrations were identified in samples from wells BCP-ORC-1, MWN-01, MWN-01B, WTI-02 and WTI-04, for one or more of the following compounds: 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, benzene, biphenyl, fluorene, m,p-xylene, o-xylene, phenanthrene, toluene or total xylenes. Three statistically significant upward trends in contaminant concentration were identified, naphthalene and o-xylene in samples from well BCP-ORC-1 and phenanthrene in samples from well WT-05.

TABLES

TABLE 1

Analytical Testing Program Summary
March 2022 Semi-Annual Groundwater Monitoring Report
Steel Winds I Facility
Lackawanna, New York

Well Designation	Sample ID	Date Collected	Screened Interval (TOR)	STARS VOCs	SVOCs (BN)
Semi-Annual Monitoring Well Sample Locations (WT-1 Vicinity Network)					
MWN-01	MWN-01-033022	3/30/2022	9.2 - 19.2	X	X
MWN-01B	MWN-01B-033022	3/30/2022	22.2 - 32.2	X	X
WT1-02	WT1-02-033022	3/30/2022	27.8 - 37.8	X	X
WT1-04	WT1-04-033022	3/30/2022	15.5 - 25.5	X	X
WT1-05	WT1-05-033022	3/30/2022	13.3 - 23.3	X	X
BCP-ORC-1	BCP-ORC-1-033022	3/30/2022	24.7 - 34.7	X	X

Notes:

1. VOCs = Volatile Organic Compounds NY CP-51 Fuel Oil Cont. (STARS) via EPA 8260C.
2. SVOCs (BN) = Semi-Volatile Organic Compounds Base-Neutrals list via EPA Method 8270D.
3. "WT", "MWN", and "BCP-ORC" monitoring well information provided in Table 1 was referenced from Benchmark Environmental Engineering & Science, PLLC*., 2009 Annual LTGWM & First Semi-Annual WT-1 Vicinity Monitoring Report.*
4. TOR = measurement recorded in feet below top-of-well riser.

Table 2
Analytical Testing Program Summary
March 2022 Semi-Annual Groundwater Analytical Data Summary
Steel Winds I Facility
Lackawanna, New York

Parameter	NYSDEC Class GA Criteria	MWN-01						MWN-01B						WT1-02					
		9/24/2019 Result	3/18/2020 Result	9/17/2020 Result	4/2/2021 Result	9/2/2021 Result	3/30/2022 Result	9/24/2019 Result	3/18/2020 Result	9/17/2020 Result	4/2/2021 Result	9/2/2021 Result	3/30/2022 Result	9/24/2019 Result	3/18/2020 Result	9/18/2020 Result	4/2/2021 Result	9/2/2021 Result	3/30/2022 Result
Water Quality Field Measurements																			
pH (units)	6.5 - 8.5	**11.59**	**11.75**	7.81	7.66	**11.53**	**13.19**	**11.29**	**11.40**	7.83	8.01	**11.1**	**13.03**	**12.18**	**12.19**	**9.07**	7.68	**11.85**	**13.45**
Temperature (˚C)	NV	13.4	10.4	14.4	10.5	10.8	9.6	10.7	11.3	10.9	11.0	9.8	9.4	12.4	12.1	13.08	11.5	12.3	11.6
Specific Conductance (mS/cm)	NV	1.051	1.150	1.450	1.380	1.212	1.170	0.921	0.902	0.991	1.01	0.831	0.808	2.116	2.110	2.090	1.84	1.77	1.746
Turbidity (NTU)	5	2.4	1.23	2.9	2.4	2.61	1.08	**5.7**	1.20	**7.3**	**5.4**	**7.67**	**22.3**	4.5	1.67	**16**	**8.6**	2.7	1.37
Dissolved Oxygen (mg/L)	NV	0.30	1.32	116.7	132.3	1.2	2.2	0.09	0.68	134.7	115.9	0.8	20.7	2.28	1.24	28.3	33.6	4.7	3.9
Oxygen Reduction Potential (mV)	NV	-211.1	-262.8	-237	-231	-159.2	-347.1	-325.3	-388.8	-247	-204	-214.2	-244.3	-137.8	-238.1	-200	-177	-160.7	-271.7
Volatile Organic Compounds - EPA Method 8260C (ug/L)																			
Benzene	1	**11**	**18**	**17**	**14**	**14**	**14**	**53**	**68**	**59**	**57**	**55**	**54**	**9.6**	**6.4**	**7.6**	**6.0**	**12**	**11.0**
Toluene	5	2.5	4.2 J	4.2	4.0 J	3.6 J	3.1 J	**17 J**	**19 J**	**18 J**	**20 J**	**19 J**	**16 J**	1.9 J	1.2 J	1.6 J	1.3 J	2.4 J	2.1 J
Ethylbenzene	5	<	<	0.98 J	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<
m,p-Xylene	5	**7.0**	**9.5**	**10**	**9.3**	**8.7**	**7.9**	**14 J**	**13 J**	**13 J**	**15 J**	**12 J**	**12 J**	4.6	2.3 J	3.1	2.2 J	4.2	4
o-Xylene	5	**5.6**	**7.5**	**8**	**7.1**	**6.5**	**5.8**	**9.3 J**	**9.3 J**	**9.1 J**	**10 J**	**9.0 J**	**8.9 J**	3.7	1.9 J	2.6	1.6 J	3.0	2.9
Xylene (Total)	5	**12.6**	**17.0**	**18.0**	**16**	**15.2**	**14**	**23.3**	**22.3 J**	**22.1**	**25 J**	**21 J**	**21 J**	**8.3**	4.2 J	**5.7**	3.8 J	**7.2**	**6.9**
1,3,5-Trimethylbenzene	5	1.8 J	3.8 J	4	4.5 J	4.6 J	3.9 J	<	<	<	<	<	<	1.7 J	1.3 J	1.5 J	1.3 J	2.0 J	2.0 J
1,2,4-Trimethylbenzene	5	2.0 J	4.3 J	4.3	4.8 J	4.6 J	4.1 J	<	<	<	**7.6 J**	**7.1 J**	<	1.2 J	0.80 J	1.1 J	0.86 J	1.5 J	1.5 J
Naphthalene*	10	**150**	**220**	**240**	**310**	**270**	**290**	**1,500**	**1,300**	**1,500**	**1,800**	**1,500**	**1,700**	**48**	**14**	**36**	**22**	**43**	**45**
Semi-Volatile Organic Compounds - EPA Method 8270D (ug/L)																			
Acetophenone	NV	<	<	<	<	<	<	<	<	<	<	<	<	<	0.297 J	<	<	<	<
Acenaphthylene	NV	12.0	30.3	22.4	34	22.3	30.3	50.0	44.6	54.6	44	44.0	33.8	0.969	0.847	1.08	1.1	0.651	1.30
Naphthalene*	10	**46.6**	**178**	**139.0**	**140**	**96.2**	**141**	**1010**	**1,210**	**1,030**	**910**	**962**	**970**	**17.6**	4.95	**16.90**	**14**	9.38	**16.8**
2-Methylnaphthalene	NV	12.9	36.9	27.1	35	21.9	40.0	43.3	40.3	48.0	41	35.8	46.2	3.70	2.21	3.57	3.3	2.11	4.05
Acenaphthene*	20	4.14	10.4	8.34	13	8.66	11.9	10.0	10.4	11.2	10	12.0	10.5	0.994	1.06	1.08	1.3	0.710	1.51
Dibenzofuran	NV	13.6	37.5	25.9	44	28.9	39.6	27.5	24.7	29.4	23.0	30.3	24.8	2.33	2.06	3.94	3.7	2.47	4.92
Fluorene*	50	19.4	**61.4**	38.30	**70**	41.9	**58.8**	38.2	34.7	43.9	38	43.7	35.7	5.58	4.44	6.14	7.3	3.50	7.51
Phenanthrene*	50	24.4	**85.2**	45.30	**110**	**71.0**	**81.5**	**61.9**	**57.5**	**64.3**	**55**	**61.9**	**53.6**	4.88	7.39	13.30	17	8.10	14.1
Dibenzo (a,h)Anthracene	NV	<	<	<	0.05 J	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<
Carbazole	NV	11.1	26.5	20.30	26	19.6	24.1	59.9	63.9	62.4	52.0	60.0	55.4	4.02	2.84	3.75	2.9	2.88	4.80
Anthracene*	50	4.18	8.96	5.81	19	7.74	11.9	9.04	8.68	11.00	5.3	8.19	6.46	1.85	1.95	2.40	2.8	1.44	2.52
Fluoranthene*	50	4.34	10.5	5.72	24	9.44	10.6	9.16	9.19	10.3	10	8.97	8.33	3.42	4.60	4.02	6.6	3.18	5.42
Biphenyl	5	3.07	**7.71**	**6.41**	**8.8**	**5.85**	**7.86**	**8.20**	**6.89**	**8.19**	**6.50**	**7.45**	**6.09**	0.902	0.695	0.99	0.82 J	0.548	1.02
Pyrene*	50	3.73	6.30	4.47	14	6.16	6.38	5.86	5.32	6.62	5.90	6.44	4.95	2.91	3.35	3.45	4.8	2.39	3.57
Butyl benzyl phthalate*	50	<	<	<	<	0.104 J	<	<	<	<	<	<	<	<	<	<	<	<	<
Benz [a] Anthracene*	0.002	<	**0.299 J**	<	**1.4**	<	**0.372 J**	<	**0.362 J**	<	**0.38**	**0.461 J**	**0.316 J**	<	**0.186 J**	<	**0.24**	<	**0.202 J**
Benzo [b] Fluoranthene*	0.002	<	<	<	**0.40**	<	<	<	<	<	**0.10 J**	**0.105 J**	**0.105 J**	<	<	<	**0.03 J**	<	<
Benzo [k] Fluoranthene*	0.002	<	<	<	**0.14**	<	<	<	<	<	**0.04 J**	<	<	<	<	<	**0.01 J**	<	<
Benzo [a] Pyrene	ND	<	<	<	**0.26**	<	<	<	<	<	**0.05 J**	**0.072 J**	**0.079 J**	<	<	<	<	<	<
Indeno [1,2,3-cd] Pyrene*	0.002	<	<	<	**0.11**	<	<	<	<	<	**0.04 J**	<	<	<	<	<	<	<	<
Benzo (g,h,i) Perylene	NV	<	<	<	0.09 J	<	<	<	<	<	0.03 J	<	<	<	<	<	<	<	<
Chrysene*	0.002	<	**0.206 J**	<	**0.82**	**0.216 J**	**0.187 J**	<	**0.218 J**	<	**0.22**	**0.256 J**	**0.180 J**	<	**0.150 J**	<	**0.17**	<	**0.146 J**
bis(2-Ethylhexyl)phthalate	5	<	<	0.456 J	<	<	<	<	0.182 J	1.10	<	<	<	0.231 J	0.195 J	0.334 JB	<	<	<

Notes:

1. Compounds detected in one or more sample for the past five sampling events are presented on this table. Refer to **Appendix B** for list of all compounds included in March 2022 analysis.
2. Analytical testing completed by Alpha Analytical in Westborough, MA .
3. NYSDEC Groundwater Class GA criteria obtained from Division of Water Technical and Operational Guidance Series (TOGS 1.1.1), dated October 1993, revised June 1998, errata January 1999 and amended April 2000 (Class GA).
4. ug/L = part per billion (ppb).
5. < indicates compound was not detected above method detection limits.
6. "J" qualifier = Analyte detected below quantitation limits.
7. Value shown in **bold** indicates exceedance of respective Class GA Criteria or guidance value.
8. NV = no value, NT = not tested, ND = Not detected above method detection limit
9. * = value shown is a guidance value rather than a groundwater standard.
10. The equipment used to collect water quality data was calibrated prior to and during use in accordance with the manufacturer's recommendations.

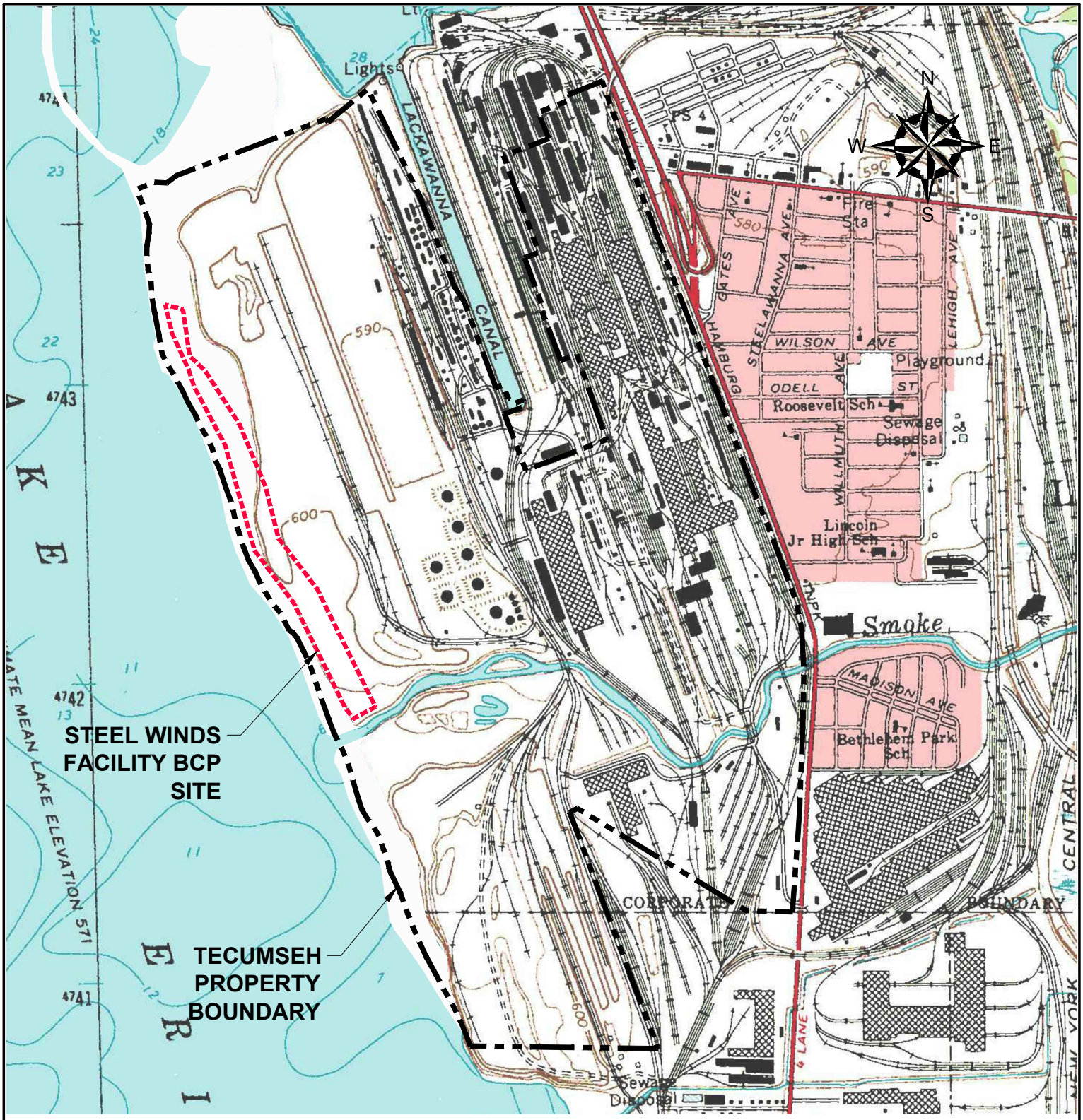
Table 2
Analytical Testing Program Summary
March 2022 Semi-Annual Groundwater Analytical Data Summary
Steel Winds I Facility
Lackawanna, New York

Parameter	NYSDEC Class GA Criteria	WT1-04						WT1-05						BCP-ORC-1					
		9/24/2019 Result	3/18/2020 Result	9/18/2020 Result	4/2/2021 Result	9/2/2021 Result	3/30/2022 Result	9/24/2019 Result	3/18/2020 Result	9/18/2020 Result	4/2/2021 Result	9/2/2021 Result	3/30/2022 Result	9/24/2019 Result	3/18/2020 Result	9/18/2020 Result	4/2/2021 Result	9/2/2021 Result	3/30/2022 Result
Water Quality Field Measurements																			
pH (units)	6.5 - 8.5	**11.89**	**11.99**	8.28	8.27	**11.51**	**13.81**	**11.35**	**11.93**	**8.6**	7.83	**11.46**	**12.99**	**11.57**	**11.4**	**8.64**	7.85	**11.21**	**13.47**
Temperature (˚C)	NV	12.1	10.2	13.27	10.8	11.1	8.4	11.9	10.4	12.57	10.9	11.2	9.2	11.7	11.5	12.02	11.1	10.0	9.0
Specific Conductance (mS/cm)	NV	1.353	1.500	1.410	1.55	1.326	1.294	1.200	1.340	1.340	1.49	1.200	1.182	1.007	0.990	1.230	1.36	0.957	1.00
Turbidity (NTU)	5	3.0	1.31	**8.3**	**6.1**	3.76	0.41	2.8	3.02	4.6	**5.3**	1.74	2.48	2.6	**11.4**	2.1	**6.1**	2.17	0.11
Dissolved Oxygen (mg/L)	NV	0.07	0.77	1.9	4.3	1.0	1.5	0.16	0.72	100.9	77.3	1.2	10.3	0.29	3.16	4.2	16.5	4.7	36.2
Oxygen Reduction Potential (mV)	NV	-292.2	-267.7	-288	-223	-172.4	-327.3	-209.6	-298.4	-190	-175	-157.2	-261.8	-209.7	-228.3	-248	-207	-188.1	-181.1
Volatile Organic Compounds - EPA Method 8260C (ug/L)																			
Benzene	1	**20**	**13**	**16**	**7.2**	**14**	**9.6**	**9.4**	**17**	**10**	**9.0**	**9.3**	**13**	**26**	**25**	**22**	**29**	**27**	**11**
Toluene	5	3.6	2.7	3.1	1.7 J	2.3 J	1.9 J	2.1 J	3.9	2.6	3.0	2.6 J	3.2 J	3.3 J	2.8 J	2.8 J	4.3 J	4.0 J	1.4 J
Ethylbenzene	5	0.72 J	<	<	<	<	<	<	0.0 J	<	0.78 J	<	<	<	<	<	<	<	<
m,p-Xylene	5	**7.6**	**6.1**	**6.1**	3.7	4.1	4.4	**6.3**	**9.3**	**6.3**	**7.8**	**6.7**	**8.8**	3.3 J	2.5 J	2.1 J	**5.2 J**	3.9 J	1.4 J
o-Xylene	5	**6.4**	4.8	**5.2**	2.9	3.2	3.3	4.9	**7.2**	**5.4**	**5.7**	**5.1**	**6.3**	**5.8 J**	3.8 J	4.2 J	**6.8 J**	**6.1 J**	2.2 J
Xylene (Total)	5	**14.0**	**10.9**	**11.3**	**6.6**	**7.3**	**7.7**	**11.2**	**16.5**	**11.7**	**14.0**	**11.8**	**15**	**9.1**	**6.3 J**	**6.3**	**12 J**	**10.0 J**	3.6 J
1,3,5-Trimethylbenzene	5	2.3 J	2.6	2.6	2.3 J	2.2 J	2.3 J	1.8 J	3.1	2.4 J	3.1	3.1 J	3.8 J	1.8 J	<	1.8 J	<	<	1.1 J
1,2,4-Trimethylbenzene	5	1.9 J	2.1 J	2.2 J	1.8 J	1.7 J	1.8 J	2.1 J	3.6	2.8	3.6	3.5 J	4.3 J	2.2 J	2.1 J	2.4 J	3.4 J	3.0 J	1.2 J
Naphthalene*	10	**81**	**50**	**93**	**60**	**54**	**66**	**150**	**200**	**230**	**160**	**200**	**270**	**460**	**320**	**490**	**500**	**460**	**190**
Semi-Volatile Organic Compounds - EPA Method 8270D (ug/L)																			
Acetophenone	NV	<	0.466 J	<	<	<		<	0.540 J	<	0.58 J	<	<	<	0.602 J	<	<	<	<
Acenaphthylene	NV	3.08	3.65	3.28	3.5	2.66	1.95	17.4	21.4	20.4	30	19.8	28.4	25.2	15.3	15.7	26	19.3	7.61
Naphthalene*	10	**49.3**	**43.9**	**43.6**	**36**	**31.1**	**21.8**	**107**	**143**	**108**	**150**	**111**	**141**	**309**	**211**	**198**	**240**	**246**	**63.3**
2-Methylnaphthalene	NV	8.29	9.44	7.04	8.5	6.14	6.77	20.0	24.0	17.4	29	18.2	30.8	23.4	19.4	14.9	24	22.7	6.86
Acenaphthene*	20	3.53	3.90	3.58	3.9	3.24	2.39	5.29	6.87	6.04	8.8	6.44	10.2	6.26	5.1	4.83	6.5	7.06	2.21
Dibenzofuran	NV	10.5	10.5	10.9	9.4	9.20	6.80	18.0	20.2	20.1	28	19.7	32.0	16.3	10.8	9.82	16	18.2	4.24
Fluorene*	50	16.0	16.6	17.2	19	14.3	10.4	25.7	27.2	27.3	42	27.0	46.7	26.6	17.4	17.7	30	29.0	7.45
Phenanthrene*	50	46.1	**50.2**	**53.1**	42	42.8	25.3	23.5	21.4	27.4	**56**	20.6	33.8	42.4	23.4	26.9	38	44.5	8.84
Dibenzo (a,h)Anthracene*	NV	<	<	<	0.04 J	<	<	<	<	<	1.6	<	<	<	<	<	<	<	<
Carbazole	NV	8.87	8.36	8.82	5.6	6.64	4.44	15.9	19.1	18.7	20	15.9	18.8	34.7	27.8	29.1	31	37.6	9.37
Anthracene*	50	5.69	7.50	6.19	6.0	5.10	4.04	2.82	2.37	2.47	13	2.44	4.46	5.60	2.56	1.91	3.8	3.59	1.56
Fluoranthene*	50	10.2	11.2	11.6	11	9.41	5.78	1.92	2.20	2.63	39	2.03	2.78	6.48	5.39	4.69	7.3	5.95	2.44
Biphenyl	5	2.2 J	2.20	1.86	1.9 J	1.67	1.17	4.35	4.98	4.31	**5.9**	4.39	**7.74**	3.93	2.95	2.42	3.9	4.03	1.07
Pyrene*	50	6.61	6.28	8.10	7.0	6.28	3.51	1.82	1.97	2.50	33	1.90	2.64	4.77	3.69	4.02	4.9	4.90	1.84
Butyl benzyl phthalate*	50	<	<	<	<	0.083 J	<	<	<	<	<	<	<	<	<	<	<	<	<
Benz [a] Anthracene*	0.002	<	**0.358 J**	**0.590**	**0.61**	**0.402 J**	**0.226 J**	<	<	**0.242 J**	**14**	<	<	<	**0.201 J**	**0.298 J**	**0.28**	**0.295 J**	<
Benzo [b] Fluoranthene*	0.002	<	<	**0.255 J**	**0.37**	**0.136 J**	**0.073 J**	<	<	**0.140 J**	**17**	<	**0.076 J**	<	<	**0.111 J**	**0.06 J**	<	<
Benzo [k] Fluoranthene*	0.002	<	<	<	**0.15**	<	<	<	<	<	**5.6**	<	<	<	<	<	**0.01 J**	<	<
Benzo [a] Pyrene	ND	<	<	**0.156 J**	**0.27**	**0.091 J**	<	<	<	**0.092 J**	**12**	<	<	<	<	**0.065 J**	**0.02 J**	<	<
Indeno [1,2,3-cd] Pyrene*	0.002	<	<	**0.110 J**	**0.19**	<	<	<	<	<	**8.6**	<	<	<	**0.014**	<	<	<	<
Benzo (g,h,i) Perylene	NV	<	<	0.114 J	0.17	<	<	<	<	<	7.6	<	<	<	<	<	<	<	<
Chrysene*	0.002	<	**0.314 J**	**0.461 J**	**0.48**	**0.331 J**	**0.166 J**	<	<	**0.198 J**	**14**	<	<	<	**0.156 J**	**0.208 J**	**0.19**	**0.225 J**	<
bis(2-Ethylhexyl)Phthalate	5	<	<	0.086 JB	<	<	<	<	0.499	0.094 JB	4.0	<	<	<	0.089 J	<	<	<	<

Notes:

1. Compounds detected in one or more sample for the past five sampling events are presented on this table. Refer to **Appendix B** for list of all compounds included in analysis.
2. Analytical testing completed by Alpha Analytical in Westborough, MA.
3. NYSDEC Groundwater Class GA criteria obtained from Division of Water Technical and Operational Guidance Series (TOGS 1.1.1), dated October 1993, revised June 1998, errata January 1999 and amended April 2000 (Class GA).
4. ug/L = part per billion (ppb).
5. < indicates compound was not detected above method detection limits.
6. "J" qualifier = Analyte detected below quantitation limits.
7. Value shown in **bold** indicates exceedance of respective Class GA Criteria or guidance value.
8. NV = no value, NT = not tested, ND = Not detected above method detection limit
9. * = value shown is a guidance value rather than a groundwater standard.
10. The equipment used to collect water quality data was calibrated prior to and during use in accordance with the manufacturer's recommendations. We note that the pH meter may have been measuring reading too high based on the apparent anomalously high values.

FIGURES



NEW YORK

NOTE:
BASE MAP ADAPTED FROM A 1965 U.S.G.S. TOPOGRAPHIC MAPS DOWNLOADED FROM http://store.usgs.gov

0 750 1500 3000
SCALE IN FEET

NO.	ISSUE/DESCRIPTION	BY	DATE

PREPARED BY:
GZA GeoEnvironmental of N.Y.
Engineers and Scientists
300 PEARL STREET, SUITE 700
BUFFALO, NEW YORK 14202
(716) 685-2300

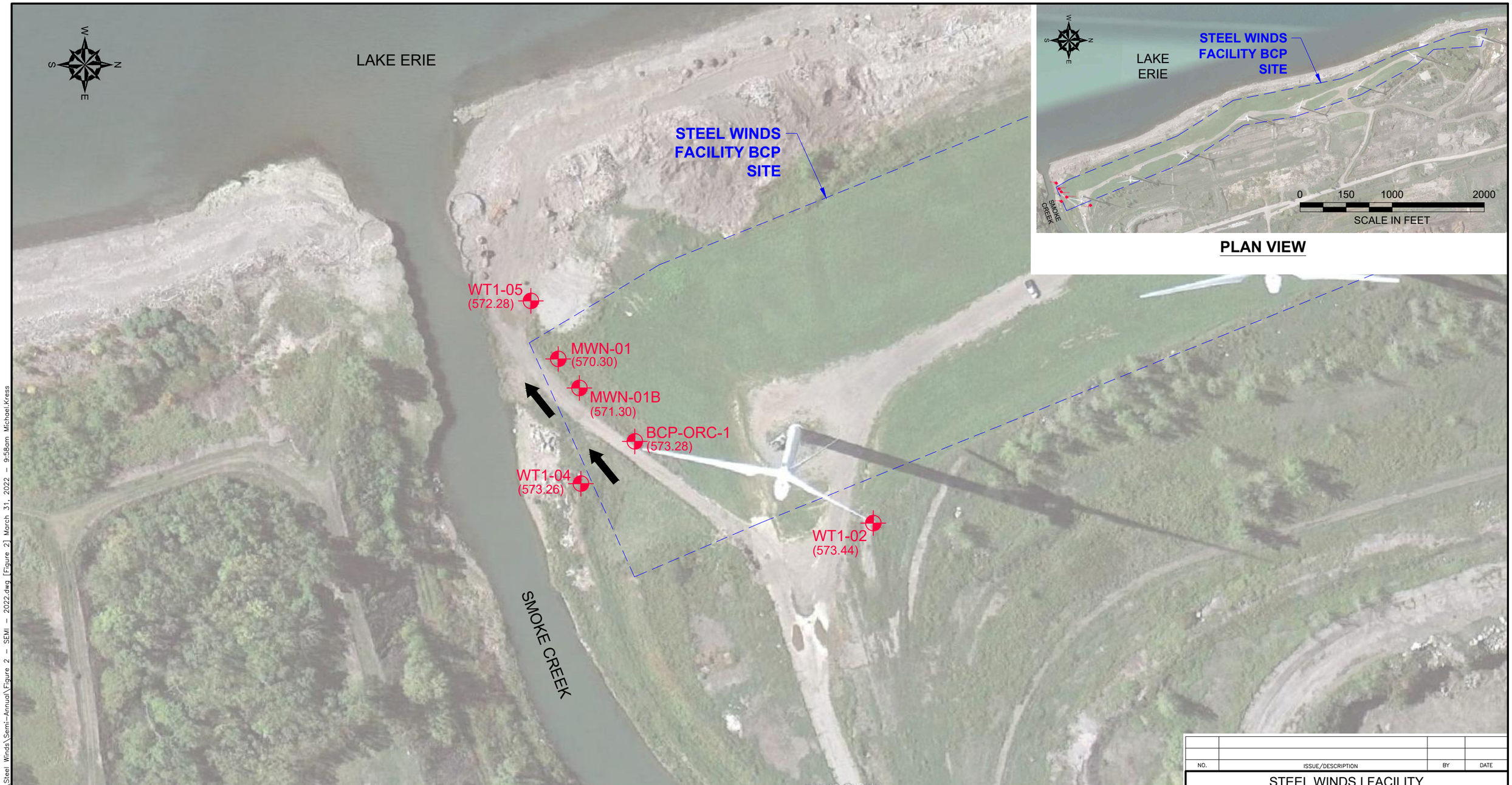
PREPARED FOR:
NIAGARA WIND POWER, LLC

STEEL WINDS I FACILITY
ROUTE 5
LACKAWANNA, NEW YORK

MARCH 2022 SEMI-ANNUAL GROUNDWATER MONITORING REPORT
LOCUS PLAN

FIGURE
1

PROJ MGR:	DJT	REVIEWED BY:	EAS	CHECKED BY:	DATE	PROJECT NO.	REVISION NO.
DESIGNED BY:		DRAWN BY:	MDK	SCALE: AS SHOWN	APRIL 2022	03.0033579.15	



PLAN VIEW

LEGEND:

MWN-01 (570.30) — APPROXIMATE LOCATION AND DESIGNATION OF EXISTING MONITORING WELLS SHOWN WITH GROUNDWATER ELEVATIONS MEASURED BY GZA IN MARCH 2022.

PRESUMED GROUNDWATER FLOW DIRECTION

NOTES:

1. BASE MAP ADAPTED FROM AN AERIAL PHOTO DOWNLOADED FROM GOOGLE EARTH AND FIELD OBSERVATIONS.

2. THE SIZE AND LOCATION OF EXISTING SITE FEATURES SHOULD BE CONSIDERED APPROXIMATE.

0 50 100 200
SCALE IN FEET

NO.	ISSUE/DESCRIPTION	BY	DATE

STEEL WINDS I FACILITY
ROUTE 5
LACKAWANNA, NEW YORK

MARCH 2022 SEMI-ANNUAL GROUNDWATER MONITORING REPORT
SITE PLAN

PREPARED BY:
GZA GeoEnvironmental of N.Y.
Engineers and Scientists
300 PEARL STREET, SUITE 700
BUFFALO, NEW YORK 14202
(716) 685-2300

PREPARED FOR:
NIAGARA WIND POWER, LLC

PROJ MGR: DJT	REVIEWED BY: BAK	CHECKED BY: EAS	FIGURE
DESIGNED BY:	DRAWN BY: MDK	SCALE: AS SHOWN	2
DATE: MARCH 2022	PROJECT NO.: 03.0033579.15	REVISION NO.	

APPENDIX A

LIMITATIONS

GEOHYDROLOGICAL LIMITATIONS

Use of Report

1. GZA GeoEnvironmental, Inc. (GZA) prepared this report on behalf of, and for the exclusive use of our Client for the stated purpose(s) and location(s) identified in the Proposal for Services and/or Report. Use of this report, in whole or in part, at other locations, or for other purposes, may lead to inappropriate conclusions; and we do not accept any responsibility for the consequences of such use(s). Further, reliance by any party not expressly identified in the agreement, for any use, without our prior written permission, shall be at that party's sole risk, and without any liability to GZA.

Standard of Care

2. GZA's findings and conclusions are based on the work conducted as part of the Scope of Services set forth in the Proposal for Services and/or Report and reflect our professional judgment. These findings and conclusions must be considered not as scientific or engineering certainties, but rather as our professional opinions concerning the limited data gathered during the course of our work. Conditions other than described in this report may be found at the subject location(s).

3. GZA's services were performed using the degree of skill and care ordinarily exercised by qualified professionals performing the same type of services, at the same time, under similar conditions, at the same or a similar property. No warranty, expressed or implied, is made. Specifically, GZA does not and cannot represent that the Site contains no hazardous material, oil, or other latent condition beyond that observed by GZA during its study. Additionally, GZA makes no warranty that any response action or recommended action will achieve all of its objectives or that the findings of this study will be upheld by a local, state or federal agency.

4. In conducting our work, GZA relied upon certain information made available by public agencies, Client and/or others. GZA did not attempt to independently verify the accuracy or completeness of that information. Inconsistencies in this information which we have noted, if any, are discussed in the Report.

Subsurface Conditions

5. The generalized soil profile(s) provided in our Report are based on widely-spaced subsurface explorations and are intended only to convey trends in subsurface conditions. The boundaries between strata are approximate and idealized, and were based on our assessment of subsurface conditions. The composition of strata, and the transitions between strata, may be more variable and more complex than indicated. For more specific information on soil conditions at a specific location refer to the exploration logs. The nature and extent of variations between these explorations may not become evident until further exploration or construction. If variations or other latent conditions then become evident, it will be necessary to reevaluate the conclusions and recommendations of this report.

6. Water level readings have been made, as described in this Report, in and monitoring wells at the specified times and under the stated conditions. These data have been reviewed and interpretations have been made in this report. Fluctuations in the level of the groundwater however occur due to temporal or spatial variations in areal recharge rates, soil heterogeneities, the presence of subsurface utilities, and/or natural or artificially induced perturbations. The observed water table may be other than indicated in the Report.

Compliance with Codes and Regulations

7. We used reasonable care in identifying and interpreting applicable codes and regulations necessary to execute our scope of work. These codes and regulations are subject to various, and possibly contradictory, interpretations. Interpretations and compliance with codes and regulations by other parties is beyond our control.

Screening and Analytical Testing

8. GZA collected environmental samples at the locations identified in the Report. These samples were analyzed for the specific parameters identified in the report. Additional constituents, for which analyses were not conducted, may be present in soil, groundwater, surface water, sediment and/or air. Future Site activities and uses may result in a requirement for additional testing.

9. Our interpretation of field screening and laboratory data is presented in the Report. Unless otherwise noted, we relied upon the laboratory's QA/QC program to validate these data.

10. Variations in the types and concentrations of contaminants observed at a given location or time may occur due to release mechanisms, disposal practices, changes in flow paths, and/or the influence of various physical, chemical, biological or radiological processes. Subsequently observed concentrations may be other than indicated in the Report.

Interpretation of Data

11. Our opinions are based on available information as described in the Report, and on our professional judgment. Additional observations made over time, and/or space, may not support the opinions provided in the Report.

Additional Information

12. In the event that the Client or others authorized to use this report obtain additional information on environmental or hazardous waste issues at the Site not contained in this report, such information shall be brought to GZA's attention forthwith. GZA will evaluate such information and, on the basis of this evaluation, may modify the conclusions stated in this report.

Additional Services

13. GZA recommends that we be retained to provide services during any future investigations, design, implementation activities, construction, and/or property development/ redevelopment at the Site. This will allow us the opportunity to: i) observe conditions and compliance with our design concepts and opinions; ii) allow for changes in the event that conditions are other than anticipated; iii) provide modifications to our design; and iv) assess the consequences of changes in technologies and/or regulations.

APPENDIX B

ANALYTICAL TEST RESULTS

ANALYTICAL REPORT

Lab Number:	L2216412
Client:	GZA GeoEnvironmental of New York 300 Pearl Street Suite 700 Buffalo, NY 14202
ATTN:	Dan Troy
Phone:	(716) 844-7050
Project Name:	STEELWINDS
Project Number:	03.0033579.15
Report Date:	04/27/22

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

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

Project Name: STEELWINDS
Project Number: 03.0033579.15

Lab Number: L2216412
Report Date: 04/27/22

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2216412-01	WT1-05-033022	WATER	LACKAWANNA NY	03/30/22 09:25	03/30/22
L2216412-02	MWN-01-033022	WATER	LACKAWANNA NY	03/30/22 10:40	03/30/22
L2216412-03	MWN-01B-033022	WATER	LACKAWANNA NY	03/30/22 11:40	03/30/22
L2216412-04	WT1-04-033022	WATER	LACKAWANNA NY	03/30/22 12:30	03/30/22
L2216412-05	BCP-ORC-1-033022	WATER	LACKAWANNA NY	03/30/22 13:20	03/30/22
L2216412-06	WT1-02-033022	WATER	LACKAWANNA NY	03/30/22 14:10	03/30/22
L2216412-07	TRIP BLANK	WATER	LACKAWANNA NY	03/30/22 00:00	03/30/22

Project Name:	STEELWINDS	**Lab Number:**	L2216412
Project Number:	03.0033579.15	**Report Date:**	04/27/22

Case Narrative

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

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

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

Please contact Project Management at 800-624-9220 with any questions.

Project Name:	STEELWINDS	**Lab Number:**	L2216412
Project Number:	03.0033579.15	**Report Date:**	04/27/22

Case Narrative (continued)

Report Submission

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

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

Authorized Signature: Caitlin Walukevich

Caitlin Walukevich

Title: Technical Director/Representative

Date: 04/27/22

ORGANICS

VOLATILES

Project Name: STEELWINDS
Project Number: 03.0033579.15
Lab Number: L2216412
Report Date: 04/27/22

SAMPLE RESULTS

Lab ID: L2216412-01 D
Client ID: WT1-05-033022
Sample Location: LACKAWANNA NY

Date Collected: 03/30/22 09:25
Date Received: 03/30/22
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 04/09/22 21:09
Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Benzene	13		ug/l	1.0	0.32	2
Toluene	3.2	J	ug/l	5.0	1.4	2
Ethylbenzene	ND		ug/l	5.0	1.4	2
p/m-Xylene	8.8		ug/l	5.0	1.4	2
o-Xylene	6.3		ug/l	5.0	1.4	2
Xylenes, Total	15		ug/l	5.0	1.4	2
n-Butylbenzene	ND		ug/l	5.0	1.4	2
sec-Butylbenzene	ND		ug/l	5.0	1.4	2
tert-Butylbenzene	ND		ug/l	5.0	1.4	2
Isopropylbenzene	ND		ug/l	5.0	1.4	2
p-Isopropyltoluene	ND		ug/l	5.0	1.4	2
Naphthalene	270		ug/l	5.0	1.4	2
n-Propylbenzene	ND		ug/l	5.0	1.4	2
1,3,5-Trimethylbenzene	3.8	J	ug/l	5.0	1.4	2
1,2,4-Trimethylbenzene	4.3	J	ug/l	5.0	1.4	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	107		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	102		70-130

Project Name: STEELWINDS
Project Number: 03.0033579.15
Lab Number: L2216412
Report Date: 04/27/22

SAMPLE RESULTS

Lab ID: L2216412-02 D
Client ID: MWN-01-033022
Sample Location: LACKAWANNA NY

Date Collected: 03/30/22 10:40
Date Received: 03/30/22
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 04/09/22 20:49
Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Benzene	14		ug/l	1.0	0.32	2
Toluene	3.1	J	ug/l	5.0	1.4	2
Ethylbenzene	ND		ug/l	5.0	1.4	2
p/m-Xylene	7.9		ug/l	5.0	1.4	2
o-Xylene	5.8		ug/l	5.0	1.4	2
Xylenes, Total	14		ug/l	5.0	1.4	2
n-Butylbenzene	ND		ug/l	5.0	1.4	2
sec-Butylbenzene	ND		ug/l	5.0	1.4	2
tert-Butylbenzene	ND		ug/l	5.0	1.4	2
Isopropylbenzene	ND		ug/l	5.0	1.4	2
p-Isopropyltoluene	ND		ug/l	5.0	1.4	2
Naphthalene	290		ug/l	5.0	1.4	2
n-Propylbenzene	ND		ug/l	5.0	1.4	2
1,3,5-Trimethylbenzene	3.9	J	ug/l	5.0	1.4	2
1,2,4-Trimethylbenzene	4.1	J	ug/l	5.0	1.4	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	110		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	104		70-130

Project Name: STEELWINDS
Project Number: 03.0033579.15
Lab Number: L2216412
Report Date: 04/27/22

SAMPLE RESULTS

Lab ID: L2216412-03 D
Client ID: MWN-01B-033022
Sample Location: LACKAWANNA NY

Date Collected: 03/30/22 11:40
Date Received: 03/30/22
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 04/09/22 20:30
Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Benzene	54		ug/l	5.0	1.6	10
Toluene	16	J	ug/l	25	7.0	10
Ethylbenzene	ND		ug/l	25	7.0	10
p/m-Xylene	12	J	ug/l	25	7.0	10
o-Xylene	8.9	J	ug/l	25	7.0	10
Xylenes, Total	21	J	ug/l	25	7.0	10
n-Butylbenzene	ND		ug/l	25	7.0	10
sec-Butylbenzene	ND		ug/l	25	7.0	10
tert-Butylbenzene	ND		ug/l	25	7.0	10
Isopropylbenzene	ND		ug/l	25	7.0	10
p-Isopropyltoluene	ND		ug/l	25	7.0	10
Naphthalene	1700		ug/l	25	7.0	10
n-Propylbenzene	ND		ug/l	25	7.0	10
1,3,5-Trimethylbenzene	ND		ug/l	25	7.0	10
1,2,4-Trimethylbenzene	ND		ug/l	25	7.0	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	109		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	104		70-130
Dibromofluoromethane	101		70-130

Project Name: STEELWINDS
Project Number: 03.0033579.15
Lab Number: L2216412
Report Date: 04/27/22

SAMPLE RESULTS

Lab ID: L2216412-04
Client ID: WT1-04-033022
Sample Location: LACKAWANNA NY

Date Collected: 03/30/22 12:30
Date Received: 03/30/22
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 04/09/22 20:11
Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Benzene	9.6		ug/l	0.50	0.16	1
Toluene	1.9	J	ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
p/m-Xylene	4.4		ug/l	2.5	0.70	1
o-Xylene	3.3		ug/l	2.5	0.70	1
Xylenes, Total	7.7		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	66		ug/l	2.5	0.70	1
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	2.3	J	ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	1.8	J	ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	109		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	102		70-130

Project Name: STEELWINDS
Project Number: 03.0033579.15
Lab Number: L2216412
Report Date: 04/27/22

SAMPLE RESULTS

Lab ID: L2216412-05
Client ID: BCP-ORC-1-033022
Sample Location: LACKAWANNA NY

Date Collected: 03/30/22 13:20
Date Received: 03/30/22
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 04/09/22 19:51
Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Benzene	11		ug/l	0.50	0.16	1
Toluene	1.4	J	ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
p/m-Xylene	1.4	J	ug/l	2.5	0.70	1
o-Xylene	2.2	J	ug/l	2.5	0.70	1
Xylenes, Total	3.6	J	ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	190		ug/l	2.5	0.70	1
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	1.1	J	ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	1.2	J	ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	108		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	103		70-130

Project Name: STEELWINDS
Project Number: 03.0033579.15
Lab Number: L2216412
Report Date: 04/27/22

SAMPLE RESULTS

Lab ID: L2216412-06
Client ID: WT1-02-033022
Sample Location: LACKAWANNA NY
Date Collected: 03/30/22 14:10
Date Received: 03/30/22
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 04/09/22 19:32
Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Benzene	11		ug/l	0.50	0.16	1
Toluene	2.1	J	ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
p/m-Xylene	4.0		ug/l	2.5	0.70	1
o-Xylene	2.9		ug/l	2.5	0.70	1
Xylenes, Total	6.9		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	45		ug/l	2.5	0.70	1
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	2.0	J	ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	1.5	J	ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	105		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	99		70-130

Project Name: STEELWINDS
Project Number: 03.0033579.15
Lab Number: L2216412
Report Date: 04/27/22

SAMPLE RESULTS

Lab ID: L2216412-07
Client ID: TRIP BLANK
Sample Location: LACKAWANNA NY
Date Collected: 03/30/22 00:00
Date Received: 03/30/22
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 04/09/22 19:13
Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	109		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	104		70-130
Dibromofluoromethane	103		70-130

Project Name: STEELWINDS
Project Number: 03.0033579.15
Lab Number: L2216412
Report Date: 04/27/22

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 04/09/22 14:43
Analyst: TMS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-07 Batch: WG1626860-5					
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylenes, Total	ND		ug/l	2.5	0.70
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
tert-Butylbenzene	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
Naphthalene	ND		ug/l	2.5	0.70
n-Propylbenzene	ND		ug/l	2.5	0.70
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	111		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	104		70-130
Dibromofluoromethane	104		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: STEELWINDS
Project Number: 03.0033579.15

Lab Number: L2216412
Report Date: 04/27/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-07 Batch: WG1626860-3 WG1626860-4								
Benzene	100		100		70-130	0		20
Toluene	98		97		70-130	1		20
Ethylbenzene	100		100		70-130	0		20
p/m-Xylene	100		100		70-130	0		20
o-Xylene	100		100		70-130	0		20
n-Butylbenzene	110		110		53-136	0		20
sec-Butylbenzene	110		100		70-130	10		20
tert-Butylbenzene	100		100		70-130	0		20
Isopropylbenzene	100		100		70-130	0		20
p-Isopropyltoluene	100		100		70-130	0		20
Naphthalene	99		100		70-130	1		20
n-Propylbenzene	110		110		69-130	0		20
1,3,5-Trimethylbenzene	100		100		64-130	0		20
1,2,4-Trimethylbenzene	110		100		70-130	10		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	101		104		70-130
Toluene-d8	101		99		70-130
4-Bromofluorobenzene	103		103		70-130
Dibromofluoromethane	97		96		70-130

SEMIVOLATILES

Project Name: STEELWINDS
Project Number: 03.0033579.15
Lab Number: L2216412
Report Date: 04/27/22

SAMPLE RESULTS

Lab ID: L2216412-01
Client ID: WT1-05-033022
Sample Location: LACKAWANNA NY

Date Collected: 03/30/22 09:25
Date Received: 03/30/22
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270D
Analytical Date: 04/07/22 15:45
Analyst: PS

Extraction Method: EPA 3510C
Extraction Date: 04/04/22 14:55

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Mansfield Lab						
bis(2-Chloroethyl)ether	ND		ug/l	0.485	0.090	1
1,3-Dichlorobenzene	ND		ug/l	0.485	0.076	1
1,4-Dichlorobenzene	ND		ug/l	0.485	0.080	1
1,2-Dichlorobenzene	ND		ug/l	0.485	0.066	1
Benzyl alcohol	ND		ug/l	0.485	0.119	1
bis(2-chloroisopropyl)ether	ND		ug/l	0.485	0.105	1
Acetophenone	ND		ug/l	0.971	0.201	1
Hexachloroethane	ND		ug/l	0.485	0.099	1
Nitrobenzene	ND		ug/l	0.485	0.099	1
Isophorone	ND		ug/l	0.485	0.122	1
bis(2-Chloroethoxy)methane	ND		ug/l	0.485	0.083	1
1,2,4-Trichlorobenzene	ND		ug/l	0.485	0.093	1
Naphthalene	102	E	ug/l	0.485	0.085	1
4-Chloroaniline	ND		ug/l	0.485	0.124	1
Hexachlorobutadiene	ND		ug/l	0.485	0.083	1
2-Methylnaphthalene	30.8		ug/l	0.485	0.088	1
1,2,4,5-Tetrachlorobenzene	ND		ug/l	0.485	0.077	1
Hexachlorocyclopentadiene	ND		ug/l	0.485	0.148	1
Biphenyl	7.74		ug/l	0.485	0.108	1
2-Chloronaphthalene	ND		ug/l	0.485	0.087	1
2-Nitroaniline	ND		ug/l	0.485	0.134	1
Acenaphthylene	28.4		ug/l	0.485	0.109	1
Dimethylphthalate	ND		ug/l	0.485	0.114	1
2,6-Dinitrotoluene	ND		ug/l	0.485	0.163	1
Acenaphthene	10.2		ug/l	0.485	0.093	1
3-Nitroaniline	ND		ug/l	0.485	0.108	1
Dibenzofuran	32.0		ug/l	0.485	0.088	1
2,4-Dinitrotoluene	ND		ug/l	0.485	0.158	1

Project Name: STEELWINDS
Project Number: 03.0033579.15
Lab Number: L2216412
Report Date: 04/27/22

SAMPLE RESULTS

Lab ID: L2216412-01
Client ID: WT1-05-033022
Sample Location: LACKAWANNA NY
Date Collected: 03/30/22 09:25
Date Received: 03/30/22
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Mansfield Lab						
Fluorene	46.7		ug/l	0.485	0.101	1
Diethylphthalate	ND		ug/l	0.485	0.175	1
4-Nitroaniline	ND		ug/l	0.485	0.109	1
n-Nitrosodiphenylamine	ND		ug/l	0.485	0.070	1
Hexachlorobenzene	ND		ug/l	0.485	0.118	1
Phenanthrene	33.8		ug/l	0.485	0.108	1
Anthracene	4.46		ug/l	0.485	0.133	1
Carbazole	18.8		ug/l	0.485	0.139	1
Di-n-butylphthalate	ND		ug/l	0.485	0.097	1
Fluoranthene	2.78		ug/l	0.485	0.151	1
Pyrene	2.64		ug/l	0.485	0.165	1
Butylbenzylphthalate	ND		ug/l	0.485	0.082	1
3,3'-Dichlorobenzidine	ND		ug/l	0.485	0.187	1
Benz(a)anthracene	ND		ug/l	0.485	0.179	1
Chrysene	ND		ug/l	0.485	0.138	1
bis(2-Ethylhexyl)phthalate	ND		ug/l	0.485	0.079	1
Di-n-octylphthalate	ND		ug/l	0.971	0.076	1
Benzo(b)fluoranthene	0.076	J	ug/l	0.485	0.064	1
Benzo(k)fluoranthene	ND		ug/l	0.485	0.156	1
Benzo(a)pyrene	ND		ug/l	0.485	0.058	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.485	0.087	1
Dibenz(a,h)anthracene	ND		ug/l	0.485	0.062	1
Benzo(g,h,i)perylene	ND		ug/l	0.485	0.106	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	61		30-130
2-Fluorobiphenyl	81		30-130
Terphenyl-d14	87		30-130

Project Name: STEELWINDS
Project Number: 03.0033579.15
Lab Number: L2216412
Report Date: 04/27/22

SAMPLE RESULTS

Lab ID: L2216412-01 D
Client ID: WT1-05-033022
Sample Location: LACKAWANNA NY

Date Collected: 03/30/22 09:25
Date Received: 03/30/22
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270D
Analytical Date: 04/08/22 14:43
Analyst: PS

Extraction Method: EPA 3510C
Extraction Date: 04/04/22 14:55

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Mansfield Lab						
Naphthalene	141		ug/l	2.43	0.425	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	73		30-130
2-Fluorobiphenyl	73		30-130
Terphenyl-d14	66		30-130

Project Name: STEELWINDS
Project Number: 03.0033579.15

Lab Number: L2216412
Report Date: 04/27/22

SAMPLE RESULTS

Lab ID: L2216412-02
Client ID: MWN-01-033022
Sample Location: LACKAWANNA NY

Date Collected: 03/30/22 10:40
Date Received: 03/30/22
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270D
Analytical Date: 04/07/22 16:14
Analyst: PS

Extraction Method: EPA 3510C
Extraction Date: 04/04/22 14:55

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Mansfield Lab						
bis(2-Chloroethyl)ether	ND		ug/l	0.490	0.091	1
1,3-Dichlorobenzene	ND		ug/l	0.490	0.077	1
1,4-Dichlorobenzene	ND		ug/l	0.490	0.081	1
1,2-Dichlorobenzene	ND		ug/l	0.490	0.067	1
Benzyl alcohol	ND		ug/l	0.490	0.120	1
bis(2-chloroisopropyl)ether	ND		ug/l	0.490	0.106	1
Acetophenone	ND		ug/l	0.980	0.203	1
Hexachloroethane	ND		ug/l	0.490	0.100	1
Nitrobenzene	ND		ug/l	0.490	0.100	1
Isophorone	ND		ug/l	0.490	0.124	1
bis(2-Chloroethoxy)methane	ND		ug/l	0.490	0.084	1
1,2,4-Trichlorobenzene	ND		ug/l	0.490	0.094	1
Naphthalene	113	E	ug/l	0.490	0.086	1
4-Chloroaniline	ND		ug/l	0.490	0.125	1
Hexachlorobutadiene	ND		ug/l	0.490	0.084	1
2-Methylnaphthalene	40.0		ug/l	0.490	0.089	1
1,2,4,5-Tetrachlorobenzene	ND		ug/l	0.490	0.078	1
Hexachlorocyclopentadiene	ND		ug/l	0.490	0.150	1
Biphenyl	7.86		ug/l	0.490	0.109	1
2-Chloronaphthalene	ND		ug/l	0.490	0.088	1
2-Nitroaniline	ND		ug/l	0.490	0.135	1
Acenaphthylene	30.3		ug/l	0.490	0.110	1
Dimethylphthalate	ND		ug/l	0.490	0.115	1
2,6-Dinitrotoluene	ND		ug/l	0.490	0.165	1
Acenaphthene	11.9		ug/l	0.490	0.094	1
3-Nitroaniline	ND		ug/l	0.490	0.109	1
Dibenzofuran	39.6		ug/l	0.490	0.089	1
2,4-Dinitrotoluene	ND		ug/l	0.490	0.160	1

Project Name: STEELWINDS
Project Number: 03.0033579.15
Lab Number: L2216412
Report Date: 04/27/22

SAMPLE RESULTS

Lab ID: L2216412-02
Client ID: MWN-01-033022
Sample Location: LACKAWANNA NY
Date Collected: 03/30/22 10:40
Date Received: 03/30/22
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Mansfield Lab						
Fluorene	58.3	E	ug/l	0.490	0.102	1
Diethylphthalate	ND		ug/l	0.490	0.176	1
4-Nitroaniline	ND		ug/l	0.490	0.110	1
n-Nitrosodiphenylamine	ND		ug/l	0.490	0.071	1
Hexachlorobenzene	ND		ug/l	0.490	0.120	1
Phenanthrene	83.4	E	ug/l	0.490	0.109	1
Anthracene	11.9		ug/l	0.490	0.134	1
Carbazole	24.1		ug/l	0.490	0.140	1
Di-n-butylphthalate	ND		ug/l	0.490	0.098	1
Fluoranthene	10.6		ug/l	0.490	0.153	1
Pyrene	6.38		ug/l	0.490	0.167	1
Butylbenzylphthalate	ND		ug/l	0.490	0.083	1
3,3'-Dichlorobenzidine	ND		ug/l	0.490	0.189	1
Benz(a)anthracene	0.372	J	ug/l	0.490	0.180	1
Chrysene	0.187	J	ug/l	0.490	0.139	1
bis(2-Ethylhexyl)phthalate	ND		ug/l	0.490	0.079	1
Di-n-octylphthalate	ND		ug/l	0.980	0.077	1
Benzo(b)fluoranthene	ND		ug/l	0.490	0.064	1
Benzo(k)fluoranthene	ND		ug/l	0.490	0.158	1
Benzo(a)pyrene	ND		ug/l	0.490	0.059	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.490	0.088	1
Dibenz(a,h)anthracene	ND		ug/l	0.490	0.063	1
Benzo(g,h,i)perylene	ND		ug/l	0.490	0.107	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	89		30-130
2-Fluorobiphenyl	77		30-130
Terphenyl-d14	77		30-130

Project Name: STEELWINDS
Project Number: 03.0033579.15

Lab Number: L2216412
Report Date: 04/27/22

SAMPLE RESULTS

Lab ID: L2216412-02 D
Client ID: MWN-01-033022
Sample Location: LACKAWANNA NY

Date Collected: 03/30/22 10:40
Date Received: 03/30/22
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270D
Analytical Date: 04/08/22 15:13
Analyst: PS

Extraction Method: EPA 3510C
Extraction Date: 04/04/22 14:55

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Mansfield Lab						
Naphthalene	141		ug/l	2.45	0.429	5
Fluorene	58.8		ug/l	2.45	0.510	5
Phenanthrene	81.5		ug/l	2.45	0.544	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	81		30-130
2-Fluorobiphenyl	82		30-130
Terphenyl-d14	62		30-130

Project Name: STEELWINDS
Project Number: 03.0033579.15
Lab Number: L2216412
Report Date: 04/27/22

SAMPLE RESULTS

Lab ID: L2216412-03
Client ID: MWN-01B-033022
Sample Location: LACKAWANNA NY

Date Collected: 03/30/22 11:40
Date Received: 03/30/22
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270D
Analytical Date: 04/07/22 16:44
Analyst: PS

Extraction Method: EPA 3510C
Extraction Date: 04/04/22 14:55

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Mansfield Lab						
bis(2-Chloroethyl)ether	ND		ug/l	0.490	0.091	1
1,3-Dichlorobenzene	ND		ug/l	0.490	0.077	1
1,4-Dichlorobenzene	ND		ug/l	0.490	0.081	1
1,2-Dichlorobenzene	ND		ug/l	0.490	0.067	1
Benzyl alcohol	ND		ug/l	0.490	0.120	1
bis(2-chloroisopropyl)ether	ND		ug/l	0.490	0.106	1
Acetophenone	ND		ug/l	0.980	0.203	1
Hexachloroethane	ND		ug/l	0.490	0.100	1
Nitrobenzene	ND		ug/l	0.490	0.100	1
Isophorone	ND		ug/l	0.490	0.124	1
bis(2-Chloroethoxy)methane	ND		ug/l	0.490	0.084	1
1,2,4-Trichlorobenzene	ND		ug/l	0.490	0.094	1
Naphthalene	323	E	ug/l	0.490	0.086	1
4-Chloroaniline	ND		ug/l	0.490	0.125	1
Hexachlorobutadiene	ND		ug/l	0.490	0.084	1
2-Methylnaphthalene	46.2		ug/l	0.490	0.089	1
1,2,4,5-Tetrachlorobenzene	ND		ug/l	0.490	0.078	1
Hexachlorocyclopentadiene	ND		ug/l	0.490	0.150	1
Biphenyl	6.09		ug/l	0.490	0.109	1
2-Chloronaphthalene	ND		ug/l	0.490	0.088	1
2-Nitroaniline	ND		ug/l	0.490	0.135	1
Acenaphthylene	36.4	E	ug/l	0.490	0.110	1
Dimethylphthalate	ND		ug/l	0.490	0.115	1
2,6-Dinitrotoluene	ND		ug/l	0.490	0.165	1
Acenaphthene	10.5		ug/l	0.490	0.094	1
3-Nitroaniline	ND		ug/l	0.490	0.109	1
Dibenzofuran	24.8	E	ug/l	0.490	0.089	1
2,4-Dinitrotoluene	ND		ug/l	0.490	0.160	1

Project Name: STEELWINDS
Project Number: 03.0033579.15
Lab Number: L2216412
Report Date: 04/27/22

SAMPLE RESULTS

Lab ID: L2216412-03
Client ID: MWN-01B-033022
Sample Location: LACKAWANNA NY
Date Collected: 03/30/22 11:40
Date Received: 03/30/22
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Mansfield Lab						
Fluorene	34.0	E	ug/l	0.490	0.102	1
Diethylphthalate	ND		ug/l	0.490	0.176	1
4-Nitroaniline	ND		ug/l	0.490	0.110	1
n-Nitrosodiphenylamine	ND		ug/l	0.490	0.071	1
Hexachlorobenzene	ND		ug/l	0.490	0.120	1
Phenanthrene	56.0	E	ug/l	0.490	0.109	1
Anthracene	6.46		ug/l	0.490	0.134	1
Carbazole	53.0	E	ug/l	0.490	0.140	1
Di-n-butylphthalate	ND		ug/l	0.490	0.098	1
Fluoranthene	8.33		ug/l	0.490	0.153	1
Pyrene	4.95		ug/l	0.490	0.167	1
Butylbenzylphthalate	ND		ug/l	0.490	0.083	1
3,3'-Dichlorobenzidine	ND		ug/l	0.490	0.189	1
Benz(a)anthracene	0.316	J	ug/l	0.490	0.180	1
Chrysene	0.180	J	ug/l	0.490	0.139	1
bis(2-Ethylhexyl)phthalate	ND		ug/l	0.490	0.079	1
Di-n-octylphthalate	ND		ug/l	0.980	0.077	1
Benzo(b)fluoranthene	0.105	J	ug/l	0.490	0.064	1
Benzo(k)fluoranthene	ND		ug/l	0.490	0.158	1
Benzo(a)pyrene	0.079	J	ug/l	0.490	0.059	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.490	0.088	1
Dibenz(a,h)anthracene	ND		ug/l	0.490	0.063	1
Benzo(g,h,i)perylene	ND		ug/l	0.490	0.107	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	103		30-130
2-Fluorobiphenyl	69		30-130
Terphenyl-d14	70		30-130

Project Name: STEELWINDS
Project Number: 03.0033579.15

Lab Number: L2216412
Report Date: 04/27/22

SAMPLE RESULTS

Lab ID: L2216412-03 D
Client ID: MWN-01B-033022
Sample Location: LACKAWANNA NY

Date Collected: 03/30/22 11:40
Date Received: 03/30/22
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270D
Analytical Date: 04/08/22 15:43
Analyst: PS

Extraction Method: EPA 3510C
Extraction Date: 04/04/22 14:55

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Mansfield Lab						
Naphthalene	970		ug/l	24.5	4.29	50
Acenaphthylene	33.8		ug/l	24.5	5.49	50
Dibenzofuran	24.8		ug/l	24.5	4.46	50
Fluorene	35.7		ug/l	24.5	5.10	50
Phenanthrene	53.6		ug/l	24.5	5.44	50
Carbazole	55.4		ug/l	24.5	7.01	50

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	72		30-130
2-Fluorobiphenyl	72		30-130
Terphenyl-d14	64		30-130

Project Name: STEELWINDS
Project Number: 03.0033579.15
Lab Number: L2216412
Report Date: 04/27/22

SAMPLE RESULTS

Lab ID: L2216412-04
Client ID: WT1-04-033022
Sample Location: LACKAWANNA NY

Date Collected: 03/30/22 12:30
Date Received: 03/30/22
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270D
Analytical Date: 04/07/22 17:13
Analyst: PS

Extraction Method: EPA 3510C
Extraction Date: 04/04/22 14:55

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Mansfield Lab						
bis(2-Chloroethyl)ether	ND		ug/l	0.490	0.091	1
1,3-Dichlorobenzene	ND		ug/l	0.490	0.077	1
1,4-Dichlorobenzene	ND		ug/l	0.490	0.081	1
1,2-Dichlorobenzene	ND		ug/l	0.490	0.067	1
Benzyl alcohol	ND		ug/l	0.490	0.120	1
bis(2-chloroisopropyl)ether	ND		ug/l	0.490	0.106	1
Acetophenone	ND		ug/l	0.980	0.203	1
Hexachloroethane	ND		ug/l	0.490	0.100	1
Nitrobenzene	ND		ug/l	0.490	0.100	1
Isophorone	ND		ug/l	0.490	0.124	1
bis(2-Chloroethoxy)methane	ND		ug/l	0.490	0.084	1
1,2,4-Trichlorobenzene	ND		ug/l	0.490	0.094	1
Naphthalene	21.8		ug/l	0.490	0.086	1
4-Chloroaniline	ND		ug/l	0.490	0.125	1
Hexachlorobutadiene	ND		ug/l	0.490	0.084	1
2-Methylnaphthalene	6.77		ug/l	0.490	0.089	1
1,2,4,5-Tetrachlorobenzene	ND		ug/l	0.490	0.078	1
Hexachlorocyclopentadiene	ND		ug/l	0.490	0.150	1
Biphenyl	1.17		ug/l	0.490	0.109	1
2-Chloronaphthalene	ND		ug/l	0.490	0.088	1
2-Nitroaniline	ND		ug/l	0.490	0.135	1
Acenaphthylene	1.95		ug/l	0.490	0.110	1
Dimethylphthalate	ND		ug/l	0.490	0.115	1
2,6-Dinitrotoluene	ND		ug/l	0.490	0.165	1
Acenaphthene	2.39		ug/l	0.490	0.094	1
3-Nitroaniline	ND		ug/l	0.490	0.109	1
Dibenzofuran	6.80		ug/l	0.490	0.089	1
2,4-Dinitrotoluene	ND		ug/l	0.490	0.160	1

Project Name: STEELWINDS
Project Number: 03.0033579.15
Lab Number: L2216412
Report Date: 04/27/22

SAMPLE RESULTS

Lab ID: L2216412-04
Client ID: WT1-04-033022
Sample Location: LACKAWANNA NY
Date Collected: 03/30/22 12:30
Date Received: 03/30/22
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Mansfield Lab						
Fluorene	10.4		ug/l	0.490	0.102	1
Diethylphthalate	ND		ug/l	0.490	0.176	1
4-Nitroaniline	ND		ug/l	0.490	0.110	1
n-Nitrosodiphenylamine	ND		ug/l	0.490	0.071	1
Hexachlorobenzene	ND		ug/l	0.490	0.120	1
Phenanthrene	25.3		ug/l	0.490	0.109	1
Anthracene	4.04		ug/l	0.490	0.134	1
Carbazole	4.44		ug/l	0.490	0.140	1
Di-n-butylphthalate	ND		ug/l	0.490	0.098	1
Fluoranthene	5.78		ug/l	0.490	0.153	1
Pyrene	3.51		ug/l	0.490	0.167	1
Butylbenzylphthalate	ND		ug/l	0.490	0.083	1
3,3'-Dichlorobenzidine	ND		ug/l	0.490	0.189	1
Benz(a)anthracene	0.226	J	ug/l	0.490	0.180	1
Chrysene	0.166	J	ug/l	0.490	0.139	1
bis(2-Ethylhexyl)phthalate	ND		ug/l	0.490	0.079	1
Di-n-octylphthalate	ND		ug/l	0.980	0.077	1
Benzo(b)fluoranthene	0.073	J	ug/l	0.490	0.064	1
Benzo(k)fluoranthene	ND		ug/l	0.490	0.158	1
Benzo(a)pyrene	ND		ug/l	0.490	0.059	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.490	0.088	1
Dibenz(a,h)anthracene	ND		ug/l	0.490	0.063	1
Benzo(g,h,i)perylene	ND		ug/l	0.490	0.107	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	61		30-130
2-Fluorobiphenyl	49		30-130
Terphenyl-d14	55		30-130

Project Name: STEELWINDS
Project Number: 03.0033579.15
Lab Number: L2216412
Report Date: 04/27/22

SAMPLE RESULTS

Lab ID: L2216412-05
Client ID: BCP-ORC-1-033022
Sample Location: LACKAWANNA NY

Date Collected: 03/30/22 13:20
Date Received: 03/30/22
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270D
Analytical Date: 04/07/22 17:42
Analyst: PS

Extraction Method: EPA 3510C
Extraction Date: 04/04/22 14:55

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Mansfield Lab						
bis(2-Chloroethyl)ether	ND		ug/l	0.490	0.091	1
1,3-Dichlorobenzene	ND		ug/l	0.490	0.077	1
1,4-Dichlorobenzene	ND		ug/l	0.490	0.081	1
1,2-Dichlorobenzene	ND		ug/l	0.490	0.067	1
Benzyl alcohol	ND		ug/l	0.490	0.120	1
bis(2-chloroisopropyl)ether	ND		ug/l	0.490	0.106	1
Acetophenone	ND		ug/l	0.980	0.203	1
Hexachloroethane	ND		ug/l	0.490	0.100	1
Nitrobenzene	ND		ug/l	0.490	0.100	1
Isophorone	ND		ug/l	0.490	0.124	1
bis(2-Chloroethoxy)methane	ND		ug/l	0.490	0.084	1
1,2,4-Trichlorobenzene	ND		ug/l	0.490	0.094	1
Naphthalene	63.5	E	ug/l	0.490	0.086	1
4-Chloroaniline	ND		ug/l	0.490	0.125	1
Hexachlorobutadiene	ND		ug/l	0.490	0.084	1
2-Methylnaphthalene	6.86		ug/l	0.490	0.089	1
1,2,4,5-Tetrachlorobenzene	ND		ug/l	0.490	0.078	1
Hexachlorocyclopentadiene	ND		ug/l	0.490	0.150	1
Biphenyl	1.07		ug/l	0.490	0.109	1
2-Chloronaphthalene	ND		ug/l	0.490	0.088	1
2-Nitroaniline	ND		ug/l	0.490	0.135	1
Acenaphthylene	7.61		ug/l	0.490	0.110	1
Dimethylphthalate	ND		ug/l	0.490	0.115	1
2,6-Dinitrotoluene	ND		ug/l	0.490	0.165	1
Acenaphthene	2.21		ug/l	0.490	0.094	1
3-Nitroaniline	ND		ug/l	0.490	0.109	1
Dibenzofuran	4.24		ug/l	0.490	0.089	1
2,4-Dinitrotoluene	ND		ug/l	0.490	0.160	1

Project Name: STEELWINDS
Project Number: 03.0033579.15
Lab Number: L2216412
Report Date: 04/27/22

SAMPLE RESULTS

Lab ID: L2216412-05
Client ID: BCP-ORC-1-033022
Sample Location: LACKAWANNA NY
Date Collected: 03/30/22 13:20
Date Received: 03/30/22
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Mansfield Lab						
Fluorene	7.45		ug/l	0.490	0.102	1
Diethylphthalate	ND		ug/l	0.490	0.176	1
4-Nitroaniline	ND		ug/l	0.490	0.110	1
n-Nitrosodiphenylamine	ND		ug/l	0.490	0.071	1
Hexachlorobenzene	ND		ug/l	0.490	0.120	1
Phenanthrene	8.84		ug/l	0.490	0.109	1
Anthracene	1.56		ug/l	0.490	0.134	1
Carbazole	9.37		ug/l	0.490	0.140	1
Di-n-butylphthalate	ND		ug/l	0.490	0.098	1
Fluoranthene	2.44		ug/l	0.490	0.153	1
Pyrene	1.84		ug/l	0.490	0.167	1
Butylbenzylphthalate	ND		ug/l	0.490	0.083	1
3,3'-Dichlorobenzidine	ND		ug/l	0.490	0.189	1
Benz(a)anthracene	ND		ug/l	0.490	0.180	1
Chrysene	ND		ug/l	0.490	0.139	1
bis(2-Ethylhexyl)phthalate	ND		ug/l	0.490	0.079	1
Di-n-octylphthalate	ND		ug/l	0.980	0.077	1
Benzo(b)fluoranthene	ND		ug/l	0.490	0.064	1
Benzo(k)fluoranthene	ND		ug/l	0.490	0.158	1
Benzo(a)pyrene	ND		ug/l	0.490	0.059	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.490	0.088	1
Dibenz(a,h)anthracene	ND		ug/l	0.490	0.063	1
Benzo(g,h,i)perylene	ND		ug/l	0.490	0.107	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	77		30-130
2-Fluorobiphenyl	65		30-130
Terphenyl-d14	75		30-130

Project Name: STEELWINDS
Project Number: 03.0033579.15
Lab Number: L2216412
Report Date: 04/27/22

SAMPLE RESULTS

Lab ID: L2216412-05 D
Client ID: BCP-ORC-1-033022
Sample Location: LACKAWANNA NY

Date Collected: 03/30/22 13:20
Date Received: 03/30/22
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270D
Analytical Date: 04/08/22 16:12
Analyst: PS

Extraction Method: EPA 3510C
Extraction Date: 04/04/22 14:55

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Mansfield Lab						
Naphthalene	63.3		ug/l	0.980	0.172	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	70		30-130
2-Fluorobiphenyl	71		30-130
Terphenyl-d14	69		30-130

Project Name: STEELWINDS
Project Number: 03.0033579.15
Lab Number: L2216412
Report Date: 04/27/22

SAMPLE RESULTS

Lab ID: L2216412-06
Client ID: WT1-02-033022
Sample Location: LACKAWANNA NY

Date Collected: 03/30/22 14:10
Date Received: 03/30/22
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270D
Analytical Date: 04/07/22 18:12
Analyst: PS

Extraction Method: EPA 3510C
Extraction Date: 04/04/22 14:55

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Mansfield Lab						
bis(2-Chloroethyl)ether	ND		ug/l	0.490	0.091	1
1,3-Dichlorobenzene	ND		ug/l	0.490	0.077	1
1,4-Dichlorobenzene	ND		ug/l	0.490	0.081	1
1,2-Dichlorobenzene	ND		ug/l	0.490	0.067	1
Benzyl alcohol	ND		ug/l	0.490	0.120	1
bis(2-chloroisopropyl)ether	ND		ug/l	0.490	0.106	1
Acetophenone	ND		ug/l	0.980	0.203	1
Hexachloroethane	ND		ug/l	0.490	0.100	1
Nitrobenzene	ND		ug/l	0.490	0.100	1
Isophorone	ND		ug/l	0.490	0.124	1
bis(2-Chloroethoxy)methane	ND		ug/l	0.490	0.084	1
1,2,4-Trichlorobenzene	ND		ug/l	0.490	0.094	1
Naphthalene	16.8		ug/l	0.490	0.086	1
4-Chloroaniline	ND		ug/l	0.490	0.125	1
Hexachlorobutadiene	ND		ug/l	0.490	0.084	1
2-Methylnaphthalene	4.05		ug/l	0.490	0.089	1
1,2,4,5-Tetrachlorobenzene	ND		ug/l	0.490	0.078	1
Hexachlorocyclopentadiene	ND		ug/l	0.490	0.150	1
Biphenyl	1.02		ug/l	0.490	0.109	1
2-Chloronaphthalene	ND		ug/l	0.490	0.088	1
2-Nitroaniline	ND		ug/l	0.490	0.135	1
Acenaphthylene	1.30		ug/l	0.490	0.110	1
Dimethylphthalate	ND		ug/l	0.490	0.115	1
2,6-Dinitrotoluene	ND		ug/l	0.490	0.165	1
Acenaphthene	1.51		ug/l	0.490	0.094	1
3-Nitroaniline	ND		ug/l	0.490	0.109	1
Dibenzofuran	4.92		ug/l	0.490	0.089	1
2,4-Dinitrotoluene	ND		ug/l	0.490	0.160	1

Project Name: STEELWINDS
Project Number: 03.0033579.15
Lab Number: L2216412
Report Date: 04/27/22

SAMPLE RESULTS

Lab ID: L2216412-06
Client ID: WT1-02-033022
Sample Location: LACKAWANNA NY
Date Collected: 03/30/22 14:10
Date Received: 03/30/22
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Mansfield Lab						
Fluorene	7.51		ug/l	0.490	0.102	1
Diethylphthalate	ND		ug/l	0.490	0.176	1
4-Nitroaniline	ND		ug/l	0.490	0.110	1
n-Nitrosodiphenylamine	ND		ug/l	0.490	0.071	1
Hexachlorobenzene	ND		ug/l	0.490	0.120	1
Phenanthrene	14.1		ug/l	0.490	0.109	1
Anthracene	2.52		ug/l	0.490	0.134	1
Carbazole	4.80		ug/l	0.490	0.140	1
Di-n-butylphthalate	ND		ug/l	0.490	0.098	1
Fluoranthene	5.42		ug/l	0.490	0.153	1
Pyrene	3.57		ug/l	0.490	0.167	1
Butylbenzylphthalate	ND		ug/l	0.490	0.083	1
3,3'-Dichlorobenzidine	ND		ug/l	0.490	0.189	1
Benz(a)anthracene	0.202	J	ug/l	0.490	0.180	1
Chrysene	0.146	J	ug/l	0.490	0.139	1
bis(2-Ethylhexyl)phthalate	ND		ug/l	0.490	0.079	1
Di-n-octylphthalate	ND		ug/l	0.980	0.077	1
Benzo(b)fluoranthene	ND		ug/l	0.490	0.064	1
Benzo(k)fluoranthene	ND		ug/l	0.490	0.158	1
Benzo(a)pyrene	ND		ug/l	0.490	0.059	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.490	0.088	1
Dibenz(a,h)anthracene	ND		ug/l	0.490	0.063	1
Benzo(g,h,i)perylene	ND		ug/l	0.490	0.107	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	63		30-130
2-Fluorobiphenyl	64		30-130
Terphenyl-d14	73		30-130

Project Name: STEELWINDS
Project Number: 03.0033579.15

Lab Number: L2216412
Report Date: 04/27/22

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 04/07/22 10:50
Analyst: PS

Extraction Method: EPA 3510C
Extraction Date: 04/04/22 14:55

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Mansfield Lab for sample(s): 01-06 Batch: WG1623198-1					
bis(2-Chloroethyl)ether	ND		ug/l	0.500	0.093
1,3-Dichlorobenzene	ND		ug/l	0.500	0.078
1,4-Dichlorobenzene	ND		ug/l	0.500	0.083
1,2-Dichlorobenzene	ND		ug/l	0.500	0.068
Benzyl alcohol	ND		ug/l	0.500	0.123
bis(2-chloroisopropyl)ether	ND		ug/l	0.500	0.108
Acetophenone	ND		ug/l	1.00	0.207
Hexachloroethane	ND		ug/l	0.500	0.102
Nitrobenzene	ND		ug/l	0.500	0.102
Isophorone	ND		ug/l	0.500	0.126
bis(2-Chloroethoxy)methane	ND		ug/l	0.500	0.085
1,2,4-Trichlorobenzene	ND		ug/l	0.500	0.096
Naphthalene	ND		ug/l	0.500	0.088
4-Chloroaniline	ND		ug/l	0.500	0.128
Hexachlorobutadiene	ND		ug/l	0.500	0.086
2-Methylnaphthalene	ND		ug/l	0.500	0.091
1,2,4,5-Tetrachlorobenzene	ND		ug/l	0.500	0.080
Hexachlorocyclopentadiene	ND		ug/l	0.500	0.153
Biphenyl	ND		ug/l	0.500	0.111
2-Chloronaphthalene	ND		ug/l	0.500	0.090
2-Nitroaniline	ND		ug/l	0.500	0.138
Acenaphthylene	ND		ug/l	0.500	0.112
Dimethylphthalate	ND		ug/l	0.500	0.117
2,6-Dinitrotoluene	ND		ug/l	0.500	0.168
Acenaphthene	ND		ug/l	0.500	0.096
3-Nitroaniline	ND		ug/l	0.500	0.111
Dibenzofuran	ND		ug/l	0.500	0.091
2,4-Dinitrotoluene	ND		ug/l	0.500	0.163
Fluorene	ND		ug/l	0.500	0.104

Project Name: STEELWINDS
Project Number: 03.0033579.15

Lab Number: L2216412
Report Date: 04/27/22

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 04/07/22 10:50
Analyst: PS

Extraction Method: EPA 3510C
Extraction Date: 04/04/22 14:55

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Mansfield Lab for sample(s): 01-06 Batch: WG1623198-1					
Diethylphthalate	ND		ug/l	0.500	0.180
4-Nitroaniline	ND		ug/l	0.500	0.112
n-Nitrosodiphenylamine	ND		ug/l	0.500	0.072
Hexachlorobenzene	ND		ug/l	0.500	0.122
Phenanthrene	ND		ug/l	0.500	0.111
Anthracene	ND		ug/l	0.500	0.137
Carbazole	ND		ug/l	0.500	0.143
Di-n-butylphthalate	ND		ug/l	0.500	0.100
Fluoranthene	ND		ug/l	0.500	0.156
Pyrene	ND		ug/l	0.500	0.170
Butylbenzylphthalate	ND		ug/l	0.500	0.085
3,3'-Dichlorobenzidine	ND		ug/l	0.500	0.193
Benz(a)anthracene	ND		ug/l	0.500	0.184
Chrysene	ND		ug/l	0.500	0.142
bis(2-Ethylhexyl)phthalate	ND		ug/l	0.500	0.081
Di-n-octylphthalate	ND		ug/l	1.00	0.079
Benzo(b)fluoranthene	ND		ug/l	0.500	0.066
Benzo(k)fluoranthene	ND		ug/l	0.500	0.161
Benzo(a)pyrene	ND		ug/l	0.500	0.060
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.500	0.090
Dibenz(a,h)anthracene	ND		ug/l	0.500	0.064
Benzo(g,h,i)perylene	ND		ug/l	0.500	0.109

Project Name: STEELWINDS
Project Number: 03.0033579.15

Lab Number: L2216412
Report Date: 04/27/22

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 04/07/22 10:50
Analyst: PS

Extraction Method: EPA 3510C
Extraction Date: 04/04/22 14:55

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Mansfield Lab for sample(s): 01-06 Batch: WG1623198-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	45		15-115
Phenol-d5	28		15-115
Nitrobenzene-d5	81		30-130
2-Fluorobiphenyl	77		30-130
2,4,6-Tribromophenol	89		15-115
Terphenyl-d14	99		30-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: STEELWINDS
Project Number: 03.0033579.15

Lab Number: L2216412
Report Date: 04/27/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Mansfield Lab Associated sample(s): 01-06 Batch: WG1623198-2 WG1623198-3								
bis(2-Chloroethyl)ether	77		75		40-140	3		20
1,3-Dichlorobenzene	51		51		40-140	0		20
1,4-Dichlorobenzene	46		47		40-140	2		20
1,2-Dichlorobenzene	48		51		40-140	6		20
bis(2-chloroisopropyl)ether	58		65		40-140	11		20
Acetophenone	79		67		40-140	16		20
Hexachloroethane	44		38		10-97	15		20
Nitrobenzene	82		62		40-140	**28**	Q	20
Isophorone	85		68		40-140	**22**	Q	20
bis(2-Chloroethoxy)methane	88		69		40-140	**24**	Q	20
1,2,4-Trichlorobenzene	56		55		40-140	2		20
Naphthalene	60		61		40-140	2		20
4-Chloroaniline	75		74		40-140	1		20
Hexachlorobutadiene	52		50		40-140	4		20
2-Methylnaphthalene	68		57		40-140	18		20
1,2,4,5-Tetrachlorobenzene	50		48		40-140	4		20
Hexachlorocyclopentadiene	38		37		10-109	3		20
Biphenyl	59		62		40-140	5		20
2-Chloronaphthalene	52		52		40-140	0		20
2-Nitroaniline	87		71		40-140	20		20
Acenaphthylene	78		75		40-140	4		20
Dimethylphthalate	87		79		40-140	10		20
2,6-Dinitrotoluene	87		72		40-140	19		20

Lab Control Sample Analysis
Batch Quality Control

Project Name: STEELWINDS
Project Number: 03.0033579.15

Lab Number: L2216412
Report Date: 04/27/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Mansfield Lab Associated sample(s): 01-06 Batch: WG1623198-2 WG1623198-3								
Acenaphthene	75		73		40-140	3		20
3-Nitroaniline	94		91		40-140	3		20
Dibenzofuran	78		77		40-140	1		20
2,4-Dinitrotoluene	102		99		40-140	3		20
Fluorene	74		80		40-140	8		20
Diethylphthalate	84		93		40-140	10		20
4-Nitroaniline	84		96		40-140	13		20
n-Nitrosodiphenylamine	87		93		40-140	7		20
Hexachlorobenzene	84		84		40-140	0		20
Phenanthrene	88		86		40-140	2		20
Anthracene	87		85		40-140	2		20
Carbazole	81		79		40-140	3		20
Di-n-butylphthalate	89		79		40-140	12		20
Fluoranthene	88		79		40-140	11		20
Pyrene	85		102		40-140	18		20
Butylbenzylphthalate	101		102		40-140	1		20
3,3'-Dichlorobenzidine	76		74		40-140	3		20
Benz(a)anthracene	90		87		40-140	3		20
Chrysene	91		102		40-140	11		20
bis(2-Ethylhexyl)phthalate	84		100		40-140	17		20
Di-n-octylphthalate	103		93		40-140	10		20
Benzo(b)fluoranthene	97		104		40-140	7		20
Benzo(k)fluoranthene	98		106		40-140	8		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: STEELWINDS

Project Number: 03.0033579.15

Lab Number: L2216412

Report Date: 04/27/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Mansfield Lab Associated sample(s): 01-06 Batch: WG1623198-2 WG1623198-3								
Benzo(a)pyrene	87		81		40-140	7		20
Indeno(1,2,3-cd)pyrene	88		97		40-140	10		20
Dibenz(a,h)anthracene	87		98		40-140	12		20
Benzo(g,h,i)perylene	95		100		40-140	5		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	51		49		15-115
Phenol-d5	30		31		15-115
Nitrobenzene-d5	86		65		30-130
2-Fluorobiphenyl	66		65		30-130
2,4,6-Tribromophenol	87		96		15-115
Terphenyl-d14	87		94		30-130

Project Name: STEELWINDS
Project Number: 03.0033579.15

Lab Number: L2216412
Report Date: 04/27/22

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2216412-01A	Vial HCl preserved	A	NA		2.3	Y	Absent		NYCP51-8260(14)
L2216412-01B	Vial HCl preserved	A	NA		2.3	Y	Absent		NYCP51-8260(14)
L2216412-01C	Vial HCl preserved	A	NA		2.3	Y	Absent		NYCP51-8260(14)
L2216412-01D	Amber 1000ml unpreserved	A	12	12	2.3	Y	Absent		A2-SVOC-8270(7)
L2216412-01E	Amber 1000ml unpreserved	A	12	12	2.3	Y	Absent		A2-SVOC-8270(7)
L2216412-02A	Vial HCl preserved	A	NA		2.3	Y	Absent		NYCP51-8260(14)
L2216412-02B	Vial HCl preserved	A	NA		2.3	Y	Absent		NYCP51-8260(14)
L2216412-02C	Vial HCl preserved	A	NA		2.3	Y	Absent		NYCP51-8260(14)
L2216412-02D	Amber 1000ml unpreserved	A	12	12	2.3	Y	Absent		A2-SVOC-8270(7)
L2216412-02E	Amber 1000ml unpreserved	A	12	12	2.3	Y	Absent		A2-SVOC-8270(7)
L2216412-03A	Vial HCl preserved	A	NA		2.3	Y	Absent		NYCP51-8260(14)
L2216412-03B	Vial HCl preserved	A	NA		2.3	Y	Absent		NYCP51-8260(14)
L2216412-03C	Vial HCl preserved	A	NA		2.3	Y	Absent		NYCP51-8260(14)
L2216412-03D	Amber 1000ml unpreserved	A	12	12	2.3	Y	Absent		A2-SVOC-8270(7)
L2216412-03E	Amber 1000ml unpreserved	A	12	12	2.3	Y	Absent		A2-SVOC-8270(7)
L2216412-04A	Vial HCl preserved	A	NA		2.3	Y	Absent		NYCP51-8260(14)
L2216412-04B	Vial HCl preserved	A	NA		2.3	Y	Absent		NYCP51-8260(14)
L2216412-04C	Vial HCl preserved	A	NA		2.3	Y	Absent		NYCP51-8260(14)
L2216412-04D	Amber 1000ml unpreserved	A	12	12	2.3	Y	Absent		A2-SVOC-8270(7)
L2216412-04E	Amber 1000ml unpreserved	A	12	12	2.3	Y	Absent		A2-SVOC-8270(7)
L2216412-05A	Vial HCl preserved	A	NA		2.3	Y	Absent		NYCP51-8260(14)
L2216412-05B	Vial HCl preserved	A	NA		2.3	Y	Absent		NYCP51-8260(14)
L2216412-05C	Vial HCl preserved	A	NA		2.3	Y	Absent		NYCP51-8260(14)

*Values in parentheses indicate holding time in days

Project Name: STEELWINDS
Project Number: 03.0033579.15

Lab Number: L2216412
Report Date: 04/27/22

Container Information

Container ID	*Container Type*	*Cooler*	*Initial pH*	*Final pH*	*Temp deg C*	*Pres*	*Seal*	*Frozen Date/Time*	*Analysis(*)*
L2216412-05D	Amber 1000ml unpreserved	A	12	12	2.3	Y	Absent		A2-SVOC-8270(7)
L2216412-05E	Amber 1000ml unpreserved	A	12	12	2.3	Y	Absent		A2-SVOC-8270(7)
L2216412-06A	Vial HCl preserved	A	NA		2.3	Y	Absent		NYCP51-8260(14)
L2216412-06B	Vial HCl preserved	A	NA		2.3	Y	Absent		NYCP51-8260(14)
L2216412-06C	Vial HCl preserved	A	NA		2.3	Y	Absent		NYCP51-8260(14)
L2216412-06D	Amber 1000ml unpreserved	A	12	12	2.3	Y	Absent		A2-SVOC-8270(7)
L2216412-06E	Amber 1000ml unpreserved	A	12	12	2.3	Y	Absent		A2-SVOC-8270(7)
L2216412-07A	Vial HCl preserved	A	NA		2.3	Y	Absent		NYCP51-8260(14)
L2216412-07B	Vial HCl preserved	A	NA		2.3	Y	Absent		NYCP51-8260(14)

*Values in parentheses indicate holding time in days

Project Name:	STEELWINDS	**Lab Number:**	L2216412
Project Number:	03.0033579.15	**Report Date:**	04/27/22

GLOSSARY

Acronyms

DL - Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EMPC - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LOD - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

LOQ - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

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

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

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

NDPA/DPA - N-Nitrosodiphenylamine/Diphenylamine.

NI - Not Ignitable.

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

NR - No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

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

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

TEF - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.

TEQ - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.

TIC - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: DU Report with 'J' Qualifiers

Project Name:	STEELWINDS	**Lab Number:**	L2216412
Project Number:	03.0033579.15	**Report Date:**	04/27/22

Footnotes

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

Terms

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

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

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

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

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

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

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

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

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

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

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

F - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with 'J' Qualifiers

Project Name:	STEELWINDS	**Lab Number:**	L2216412
Project Number:	03.0033579.15	**Report Date:**	04/27/22

Data Qualifiers

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

V - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Z - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Project Name:	STEELWINDS	**Lab Number:**	L2216412
Project Number:	03.0033579.15	**Report Date:**	04/27/22

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.

LIMITATION OF LIABILITIES

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

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

Certification Information

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

Westborough Facility
EPA 624/624.1: m/p-xylene, o-xylene, Naphthalene
EPA 625/625.1: alpha-Terpineol
EPA 8260C/8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D/8270E: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: EPA 3050B

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

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522, EPA 537.1.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

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

NEW YORK CHAIN OF CUSTODY

ALPHA ANALYTICAL

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

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

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

Page 1 of 1

Date Rec'd in Lab: 3/31/22

ALPHA Job #: L2216412

Client Information
Client: GZA
Address: 300 Pearl St Suite 700
Buffalo NY
Phone: 716-517-5708
Fax:
Email: Daniel.Troy@GZA.com

Project Information
Project Name: STEEL WINDS
Project Location: LACKAWANNA NY
Project # 03.0033579.15
(Use Project name as Project #) ☐
Project Manager: Daniel Troy
ALPHAQuote #:

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

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

Billing Information
☒ Same as Client Info
PO #

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

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

These samples have been previously analyzed by Alpha ☐

Other project specific requirements/comments:

Please specify Metals or TAL.

ANALYSIS

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

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	8260 SHARS	8270	Total Bottle	Sample Specific Comments
16412 1	WT1-05-033022	3-30-22	0925	GW	PN	X	X		
2	MWN-01-033022	"	1040	"	"	X	X		
3	MWN-03-033022		1140			X	X		
4	WT1-04-033022		1230			X	X		
5	BCP-ORC-2-033022		1320			X	X		
6	WT1-02-033022		1410	↓		X	X		
7	TRIP BLANK	↓	/		↓	X			

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

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

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

Container Type									
Preservative									

Relinquished By:	Date/Time	Received By:	Date/Time
	3/30/22 1452		3/30/22 1452
	3/30/20 1452		3/31/22 0050

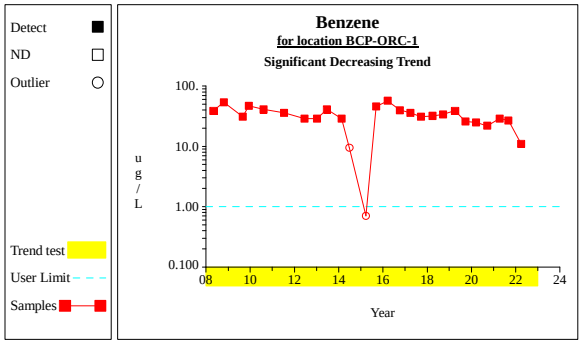
Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

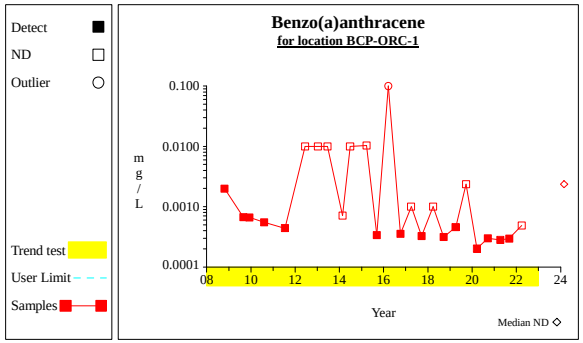
Form No: 01-25 HC (rev. 30-Sept-2013)

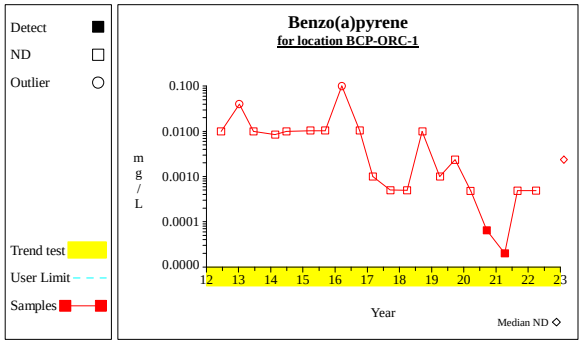
APPENDIX C

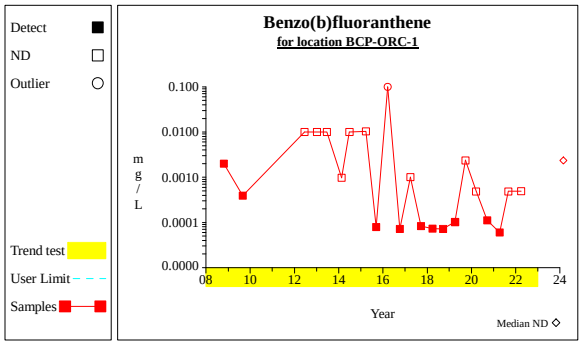
TIME SERIES PLOTS

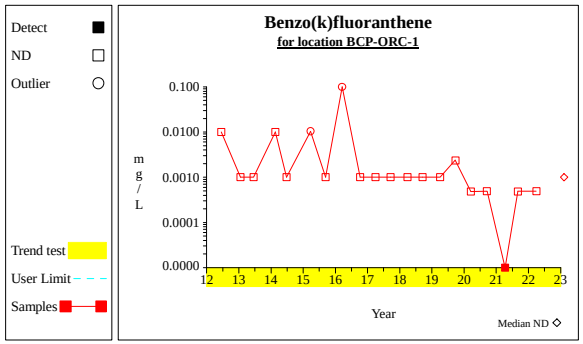
Time Series

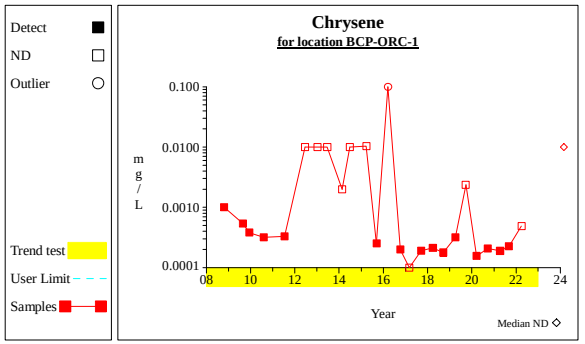

Detect
ND
Outlier
Trend test
User Limit
Samples
Benzene
for location BCP-ORC-1
Significant Decreasing Trend
ug/L
100.
10.0
1.00
0.100
08 10 12 14 16 18 20 22 24
Year

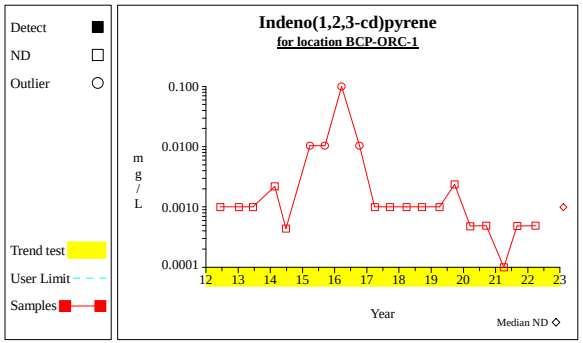

Detect
ND
Outlier
Trend test
User Limit
Samples
Benzo(a)anthracene
for location BCP-ORC-1
mg/L
0.100
0.0100
0.0010
0.0001
08 10 12 14 16 18 20 22 24
Year
Median ND

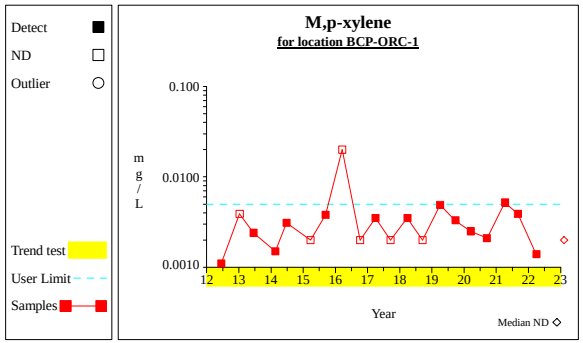

Detect
ND
Outlier
Trend test
User Limit
Samples
Benzo(a)pyrene
for location BCP-ORC-1
mg/L
0.100
0.0100
0.0010
0.0001
0.0000
12 13 14 15 16 17 18 19 20 21 22 23
Year
Median ND

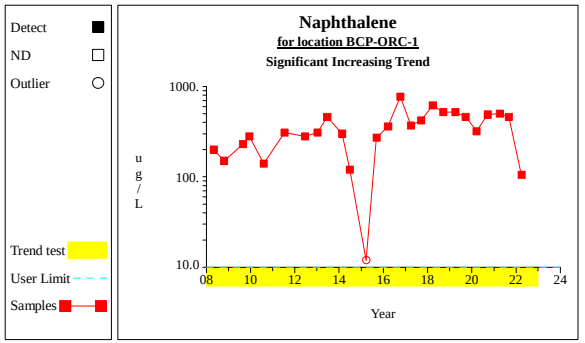

Detect
ND
Outlier
Trend test
User Limit
Samples
Benzo(b)fluoranthene
for location BCP-ORC-1
mg/L
0.100
0.0100
0.0010
0.0001
0.0000
08 10 12 14 16 18 20 22 24
Year
Median ND


Detect
ND
Outlier
Trend test
User Limit
Samples
Benzo(k)fluoranthene
for location BCP-ORC-1
mg/L
0.100
0.0100
0.0010
0.0001
0.0000
12 13 14 15 16 17 18 19 20 21 22 23
Year
Median ND

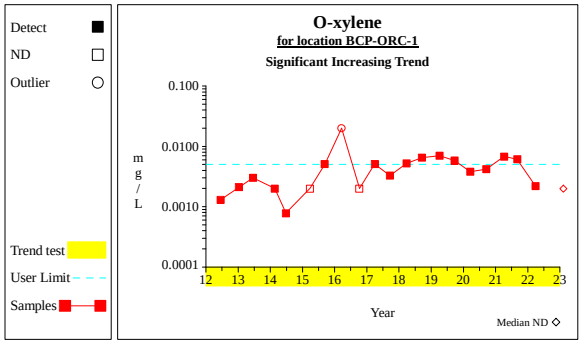

Detect
ND
Outlier
Trend test
User Limit
Samples
Chrysene
for location BCP-ORC-1
mg/L
0.100
0.0100
0.0010
0.0001
08 10 12 14 16 18 20 22 24
Year
Median ND

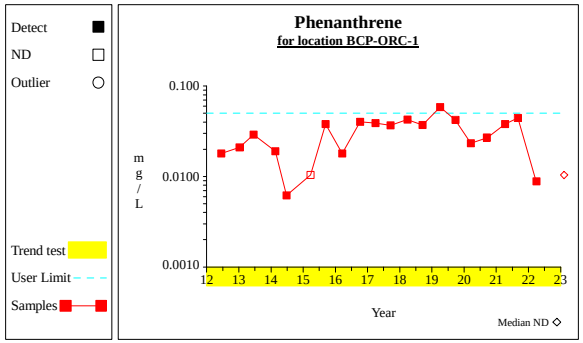

Detect
ND
Outlier
Trend test
User Limit
Samples
Indeno(1,2,3-cd)pyrene
for location BCP-ORC-1
mg/L
0.100
0.0100
0.0010
0.0001
12 13 14 15 16 17 18 19 20 21 22 23
Year
Median ND

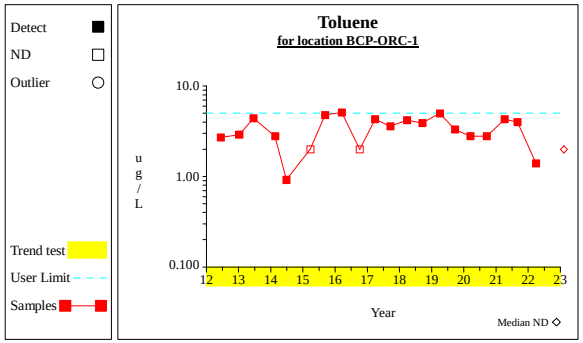

Detect
ND
Outlier
Trend test
User Limit
Samples
M,p-xylene
for location BCP-ORC-1
mg/L
0.100
0.0100
0.0010
12 13 14 15 16 17 18 19 20 21 22 23
Year
Median ND

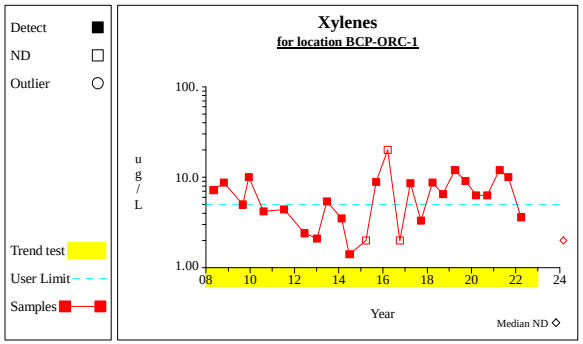

Detect
ND
Outlier
Trend test
User Limit
Samples
Naphthalene
for location BCP-ORC-1
Significant Increasing Trend
ug/L
1000.
100.
10.0
08 10 12 14 16 18 20 22 24
Year

Time Series

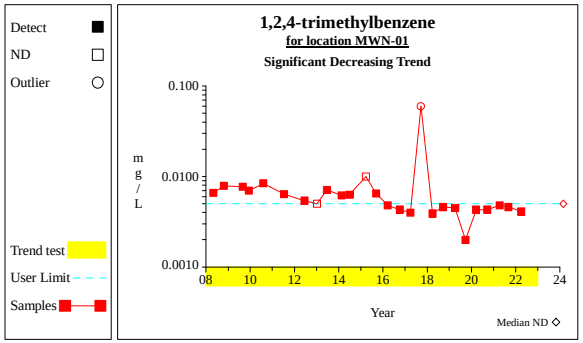

Detect
ND
Outlier
Trend test
User Limit
Samples
O-xylene
for location BCP-ORC-1
Significant Increasing Trend
mg/L
0.100
0.0100
0.0010
0.0001
12 13 14 15 16 17 18 19 20 21 22 23
Year
Median ND

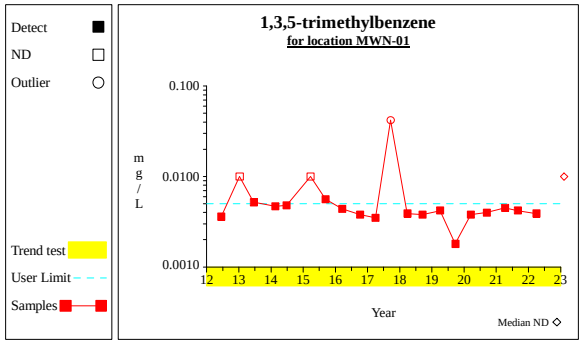

Detect
ND
Outlier
Trend test
User Limit
Samples
Phenanthrene
for location BCP-ORC-1
mg/L
0.100
0.0100
0.0010
12 13 14 15 16 17 18 19 20 21 22 23
Year
Median ND

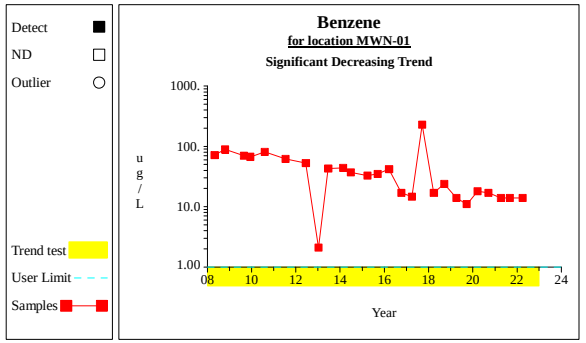

Detect
ND
Outlier
Trend test
User Limit
Samples
Toluene
for location BCP-ORC-1
ug/L
10.0
1.00
0.100
12 13 14 15 16 17 18 19 20 21 22 23
Year
Median ND

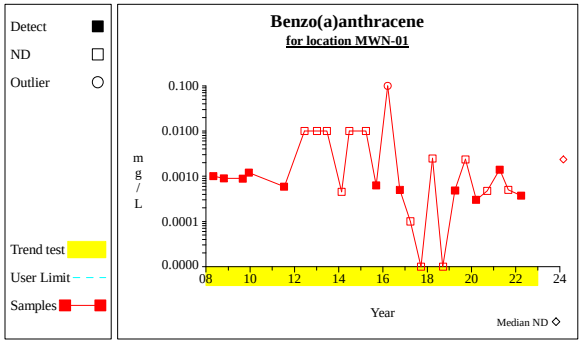

Detect
ND
Outlier
Trend test
User Limit
Samples
Xylenes
for location BCP-ORC-1
ug/L
100.
10.0
1.00
08 10 12 14 16 18 20 22 24
Year
Median ND

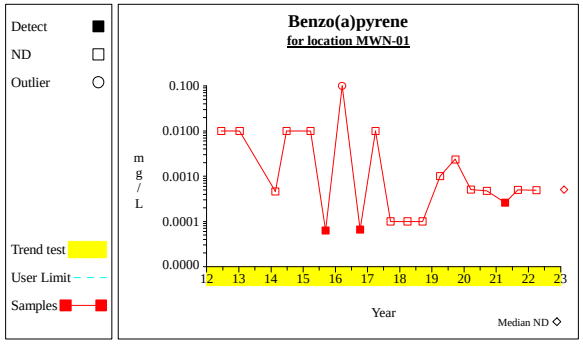
Time Series

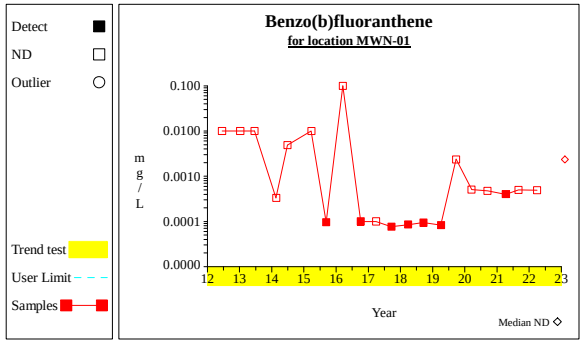

Detect
ND
Outlier
Trend test
User Limit
Samples
1,2,4-trimethylbenzene
for location MWN-01
Significant Decreasing Trend
mg/L
0.100
0.0100
0.0010
08 10 12 14 16 18 20 22 24
Year
Median ND

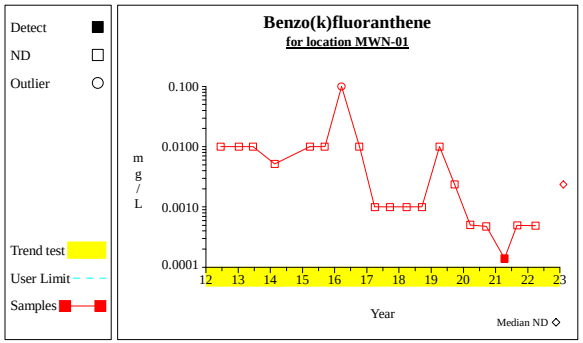

Detect
ND
Outlier
Trend test
User Limit
Samples
1,3,5-trimethylbenzene
for location MWN-01
mg/L
0.100
0.0100
0.0010
12 13 14 15 16 17 18 19 20 21 22 23
Year
Median ND

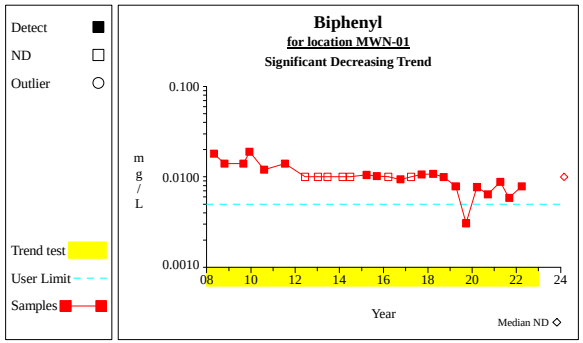

Detect
ND
Outlier
Trend test
User Limit
Samples
Benzene
for location MWN-01
Significant Decreasing Trend
ug/L
1000.
100.
10.0
1.00
08 10 12 14 16 18 20 22 24
Year

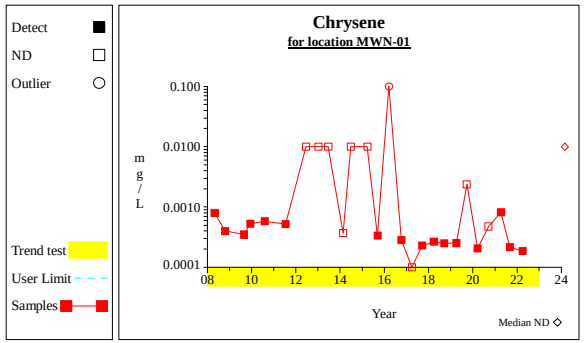

Detect
ND
Outlier
Trend test
User Limit
Samples
Benzo(a)anthracene
for location MWN-01
mg/L
0.100
0.0100
0.0010
0.0001
0.0000
08 10 12 14 16 18 20 22 24
Year
Median ND


Detect
ND
Outlier
Trend test
User Limit
Samples
Benzo(a)pyrene
for location MWN-01
mg/L
0.100
0.0100
0.0010
0.0001
0.0000
12 13 14 15 16 17 18 19 20 21 22 23
Year
Median ND

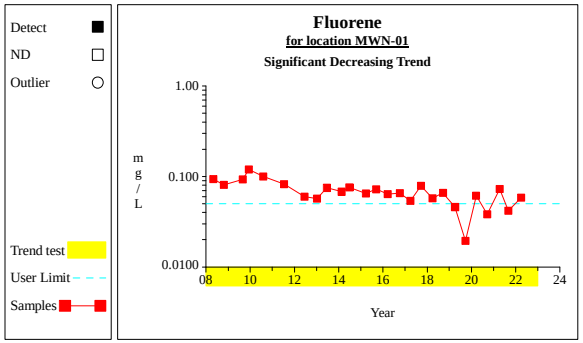

Detect
ND
Outlier
Trend test
User Limit
Samples
Benzo(b)fluoranthene
for location MWN-01
mg/L
0.100
0.0100
0.0010
0.0001
0.0000
12 13 14 15 16 17 18 19 20 21 22 23
Year
Median ND

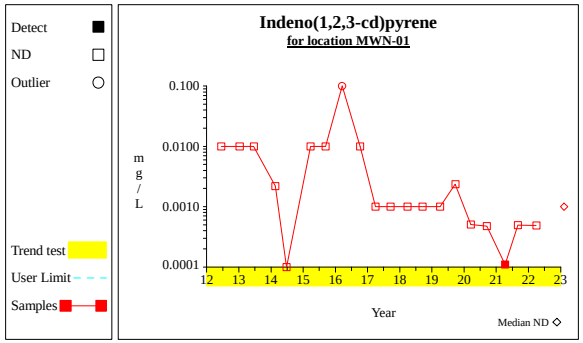

Detect
ND
Outlier
Trend test
User Limit
Samples
Benzo(k)fluoranthene
for location MWN-01
mg/L
0.100
0.0100
0.0010
0.0001
12 13 14 15 16 17 18 19 20 21 22 23
Year
Median ND

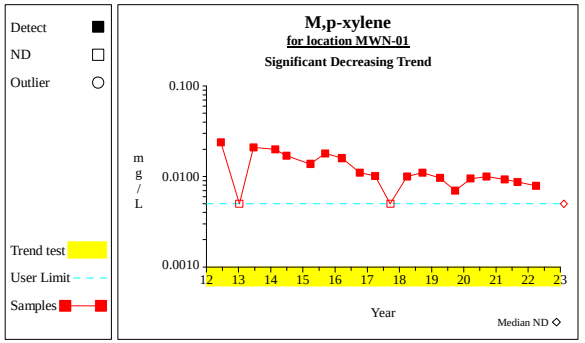

Detect
ND
Outlier
Trend test
User Limit
Samples
Biphenyl
for location MWN-01
Significant Decreasing Trend
mg/L
0.100
0.0100
0.0010
08 10 12 14 16 18 20 22 24
Year
Median ND

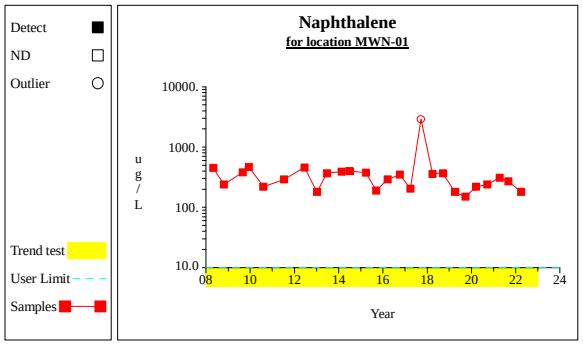

Detect
ND
Outlier
Trend test
User Limit
Samples
Chrysene
for location MWN-01
mg/L
0.100
0.0100
0.0010
0.0001
08 10 12 14 16 18 20 22 24
Year
Median ND

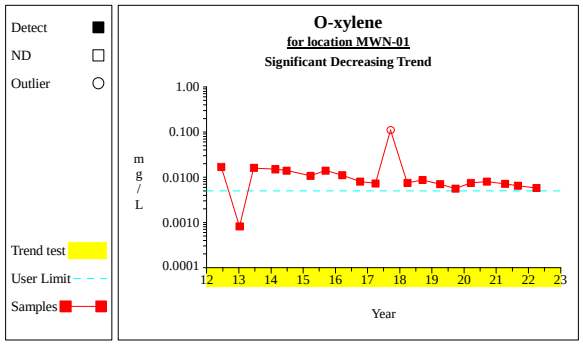
Time Series

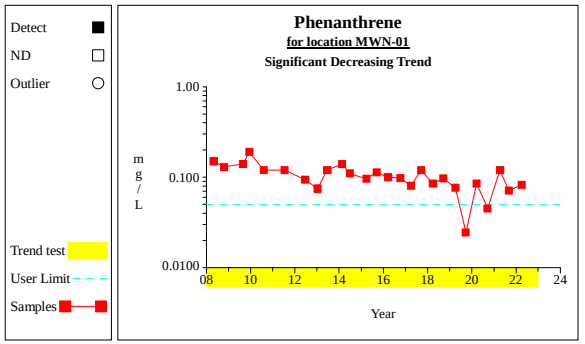

Detect
ND
Outlier
Trend test
User Limit
Samples
Fluorene
for location MWN-01
Significant Decreasing Trend
m g / L
1.00
0.100
0.0100
08 10 12 14 16 18 20 22 24
Year

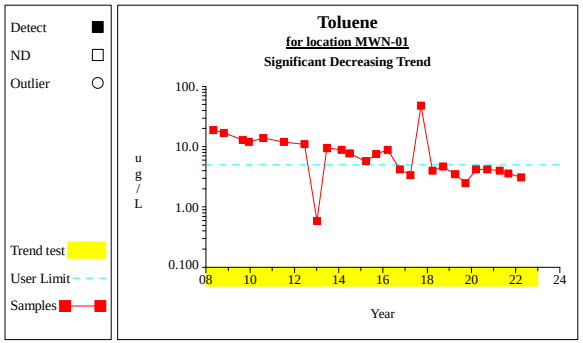

Detect
ND
Outlier
Trend test
User Limit
Samples
Indeno(1,2,3-cd)pyrene
for location MWN-01
m g / L
0.100
0.0100
0.0010
0.0001
12 13 14 15 16 17 18 19 20 21 22 23
Year
Median ND

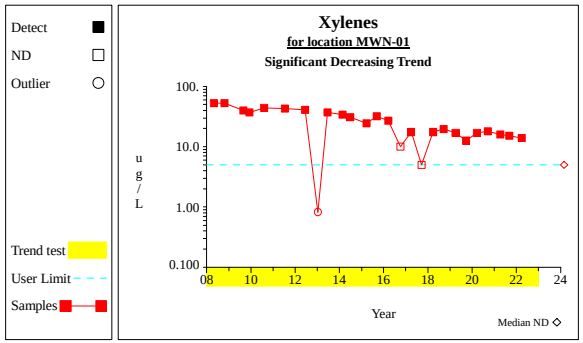

Detect
ND
Outlier
Trend test
User Limit
Samples
M,p-xylene
for location MWN-01
Significant Decreasing Trend
m g / L
0.100
0.0100
0.0010
12 13 14 15 16 17 18 19 20 21 22 23
Year
Median ND


Detect
ND
Outlier
Trend test
User Limit
Samples
Naphthalene
for location MWN-01
u g / L
10000.
1000.
100.
10.0
08 10 12 14 16 18 20 22 24
Year

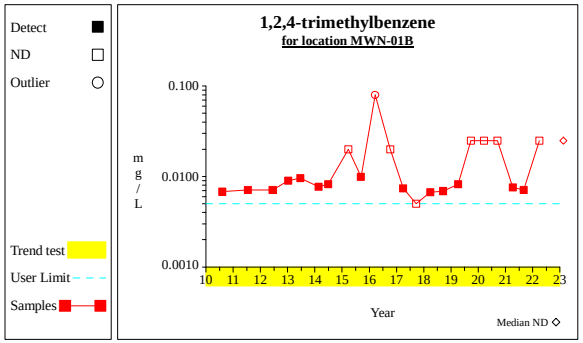

Detect
ND
Outlier
Trend test
User Limit
Samples
O-xylene
for location MWN-01
Significant Decreasing Trend
m g / L
1.00
0.100
0.0100
0.0010
0.0001
12 13 14 15 16 17 18 19 20 21 22 23
Year

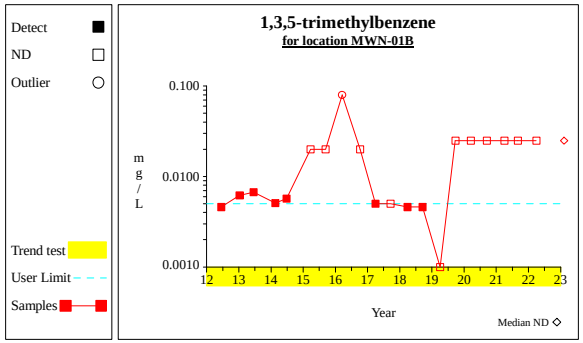

Detect
ND
Outlier
Trend test
User Limit
Samples
Phenanthrene
for location MWN-01
Significant Decreasing Trend
m g / L
1.00
0.100
0.0100
08 10 12 14 16 18 20 22 24
Year

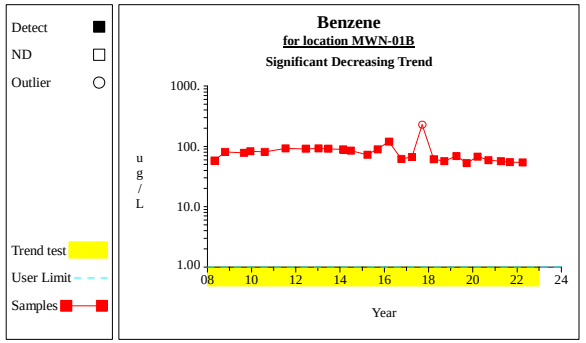

Detect
ND
Outlier
Trend test
User Limit
Samples
Toluene
for location MWN-01
Significant Decreasing Trend
u g / L
100.
10.0
1.00
0.100
08 10 12 14 16 18 20 22 24
Year

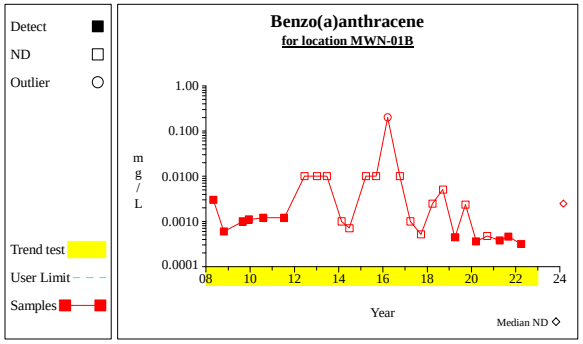

Detect
ND
Outlier
Trend test
User Limit
Samples
Xylenes
for location MWN-01
Significant Decreasing Trend
u g / L
100.
10.0
1.00
0.100
08 10 12 14 16 18 20 22 24
Year
Median ND

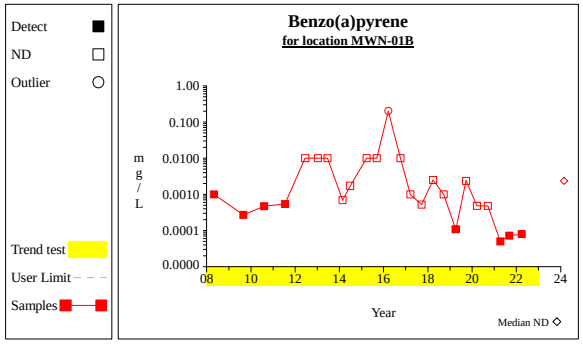
Time Series

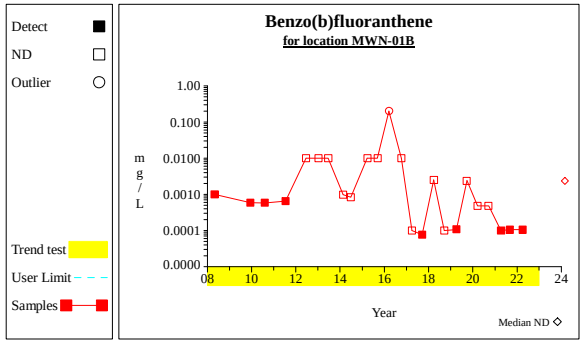

Detect
ND
Outlier
Trend test
User Limit
Samples
1,2,4-trimethylbenzene
for location MWN-01B
mg/L
0.100
0.0100
0.0010
10 11 12 13 14 15 16 17 18 19 20 21 22 23
Year
Median ND

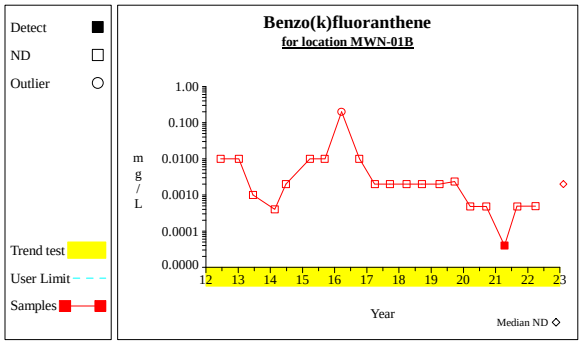

Detect
ND
Outlier
Trend test
User Limit
Samples
1,3,5-trimethylbenzene
for location MWN-01B
mg/L
0.100
0.0100
0.0010
12 13 14 15 16 17 18 19 20 21 22 23
Year
Median ND

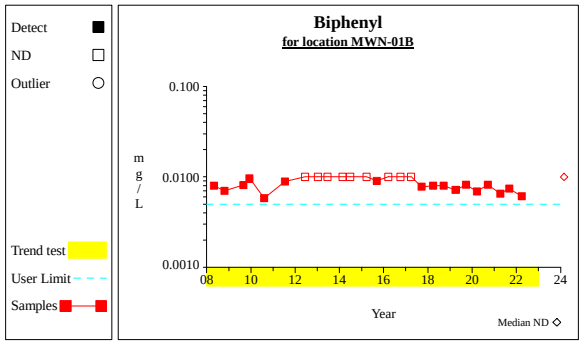

Detect
ND
Outlier
Trend test
User Limit
Samples
Benzene
for location MWN-01B
Significant Decreasing Trend
ug/L
1000.
100.
10.0
1.00
08 10 12 14 16 18 20 22 24
Year

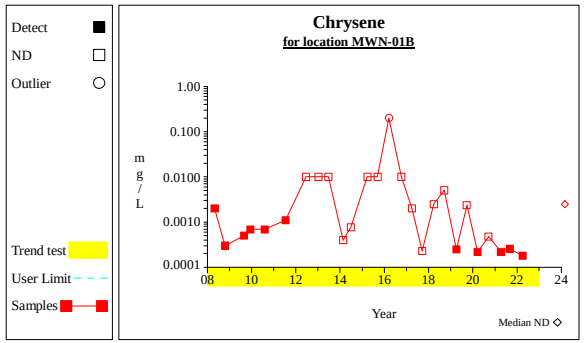

Detect
ND
Outlier
Trend test
User Limit
Samples
Benzo(a)anthracene
for location MWN-01B
mg/L
1.00
0.100
0.0100
0.0010
0.0001
08 10 12 14 16 18 20 22 24
Year
Median ND


Detect
ND
Outlier
Trend test
User Limit
Samples
Benzo(a)pyrene
for location MWN-01B
mg/L
1.00
0.100
0.0100
0.0010
0.0001
0.0000
08 10 12 14 16 18 20 22 24
Year
Median ND

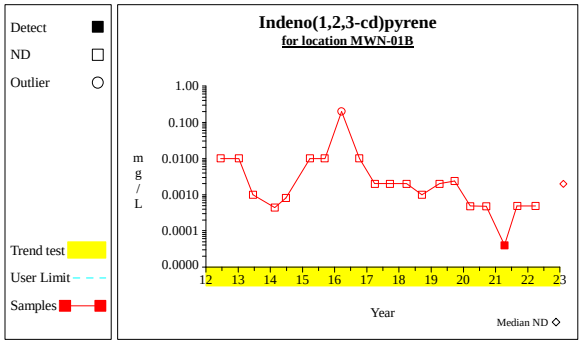

Detect
ND
Outlier
Trend test
User Limit
Samples
Benzo(b)fluoranthene
for location MWN-01B
mg/L
1.00
0.100
0.0100
0.0010
0.0001
0.0000
08 10 12 14 16 18 20 22 24
Year
Median ND

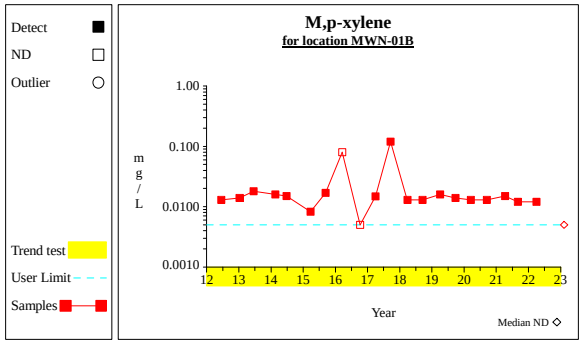

Detect
ND
Outlier
Trend test
User Limit
Samples
Benzo(k)fluoranthene
for location MWN-01B
mg/L
1.00
0.100
0.0100
0.0010
0.0001
0.0000
12 13 14 15 16 17 18 19 20 21 22 23
Year
Median ND

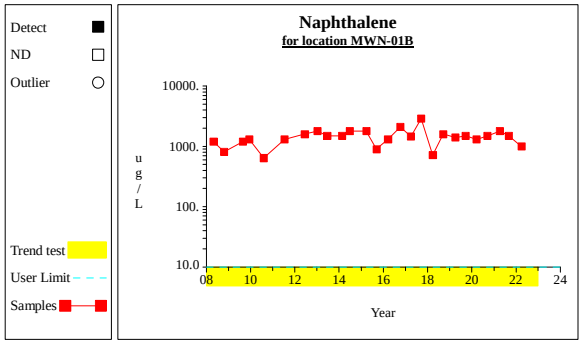

Detect
ND
Outlier
Trend test
User Limit
Samples
Biphenyl
for location MWN-01B
mg/L
0.100
0.0100
0.0010
08 10 12 14 16 18 20 22 24
Year
Median ND

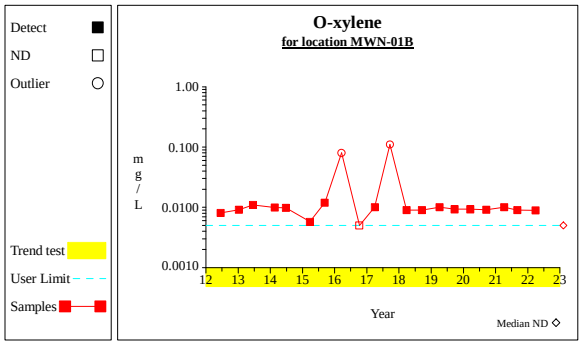

Detect
ND
Outlier
Trend test
User Limit
Samples
Chrysene
for location MWN-01B
mg/L
1.00
0.100
0.0100
0.0010
0.0001
08 10 12 14 16 18 20 22 24
Year
Median ND

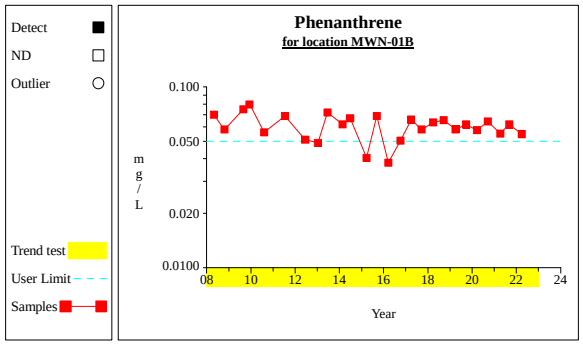
Time Series

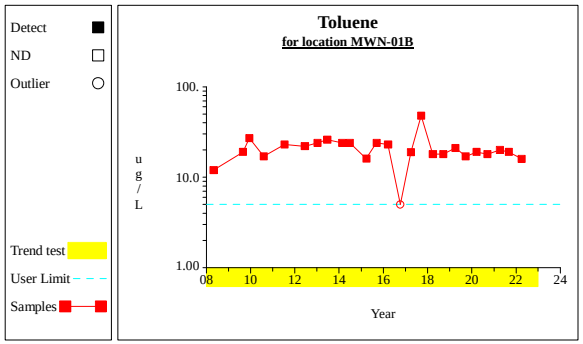

Detect
ND
Outlier
Trend test
User Limit
Samples
Indeno(1,2,3-cd)pyrene
for location MWN-01B
mg/L
1.00
0.100
0.0100
0.0010
0.0001
0.0000
12 13 14 15 16 17 18 19 20 21 22 23
Year
Median ND

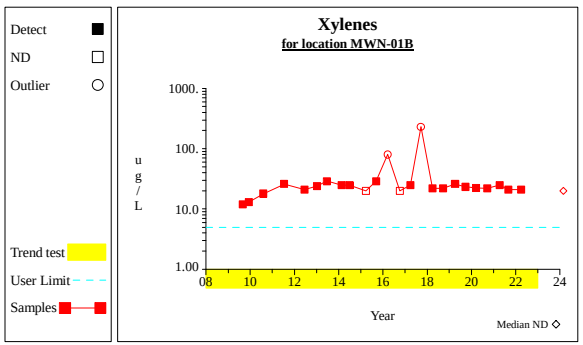

Detect
ND
Outlier
Trend test
User Limit
Samples
M,p-xylene
for location MWN-01B
mg/L
1.00
0.100
0.0100
0.0010
12 13 14 15 16 17 18 19 20 21 22 23
Year
Median ND


Detect
ND
Outlier
Trend test
User Limit
Samples
Naphthalene
for location MWN-01B
ug/L
10000.
1000.
100.
10.0
08 10 12 14 16 18 20 22 24
Year


Detect
ND
Outlier
Trend test
User Limit
Samples
O-xylene
for location MWN-01B
mg/L
1.00
0.100
0.0100
0.0010
12 13 14 15 16 17 18 19 20 21 22 23
Year
Median ND


Detect
ND
Outlier
Trend test
User Limit
Samples
Phenanthrene
for location MWN-01B
mg/L
0.100
0.050
0.020
0.0100
08 10 12 14 16 18 20 22 24
Year

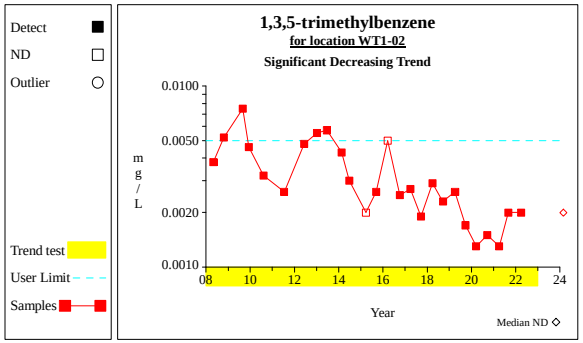

Detect
ND
Outlier
Trend test
User Limit
Samples
Toluene
for location MWN-01B
ug/L
100.
10.0
1.00
08 10 12 14 16 18 20 22 24
Year

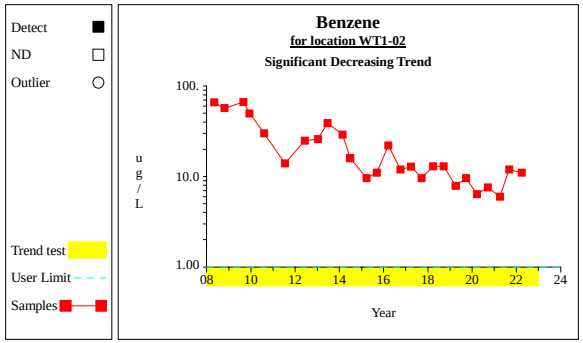

Detect
ND
Outlier
Trend test
User Limit
Samples
Xylenes
for location MWN-01B
ug/L
1000.
100.
10.0
1.00
08 10 12 14 16 18 20 22 24
Year
Median ND

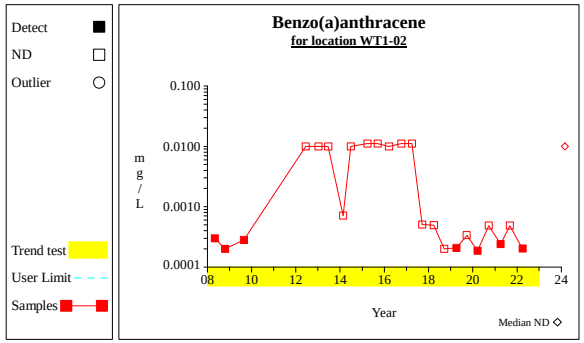
Steel Winds

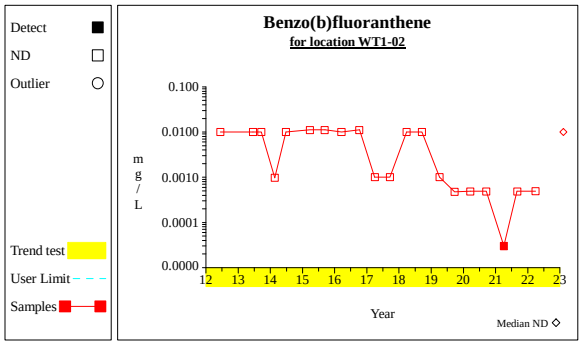
Analysis prepared on: 7/8/2022

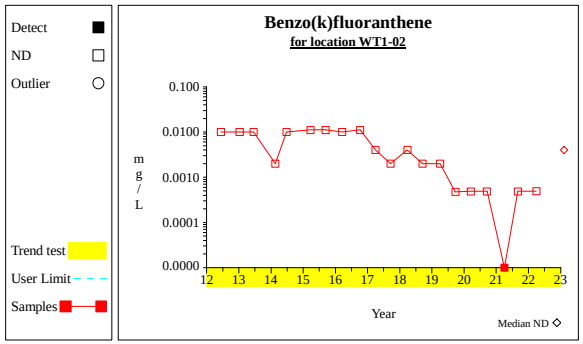
Time Series

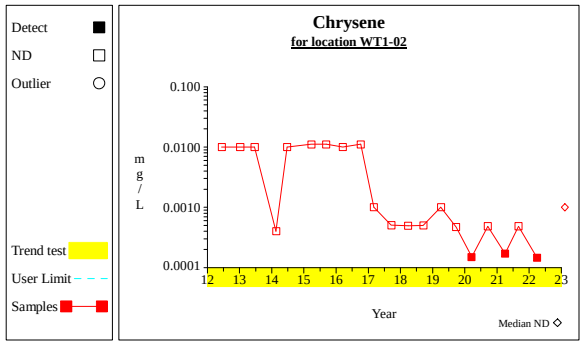


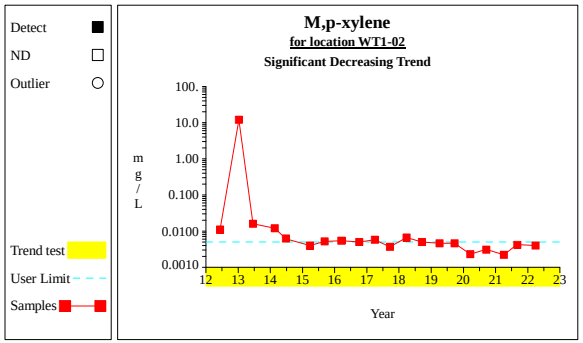


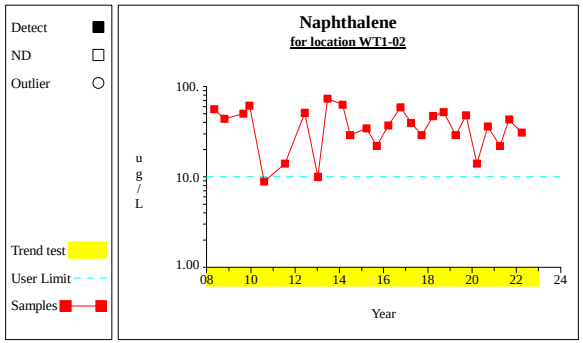


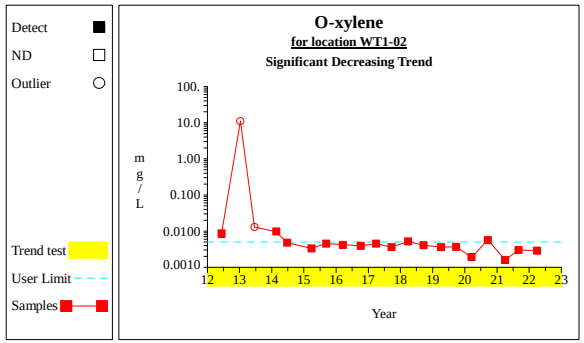






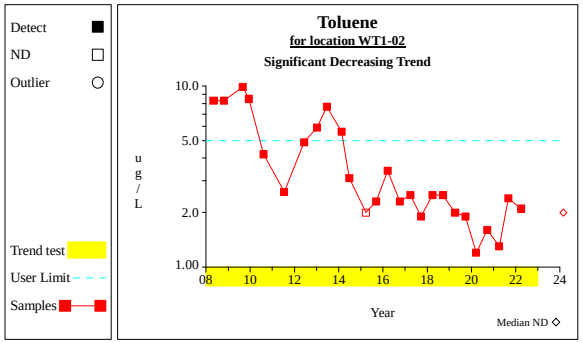


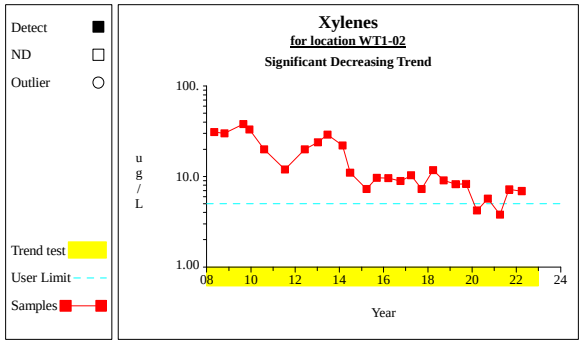




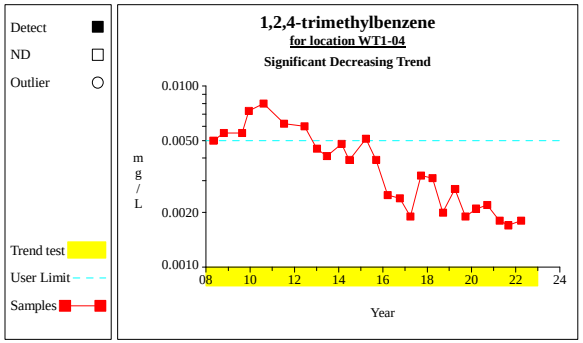
Prepared by: GZA GeoEnvironmental Inc.

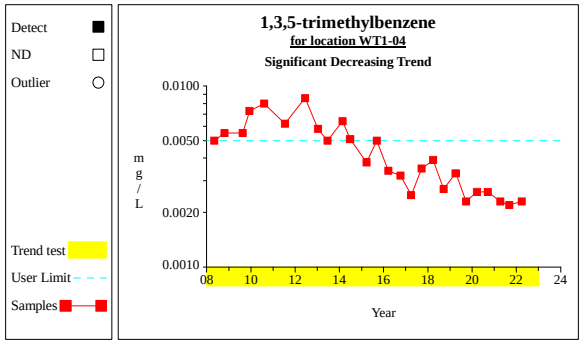
Time Series

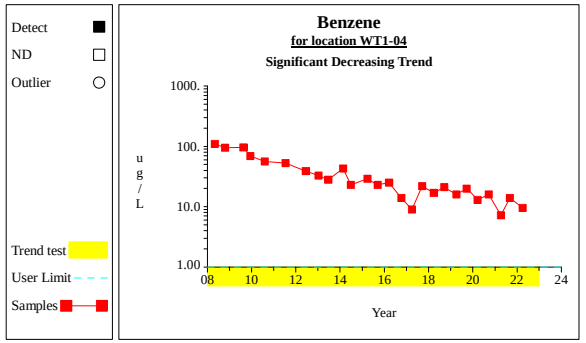

Detect
ND
Outlier
Trend test
User Limit
Samples
Toluene
for location WT1-02
Significant Decreasing Trend
u
g
/
L
10.0
5.0
2.0
1.00
08
10
12
14
16
18
20
22
24
Year
Median ND

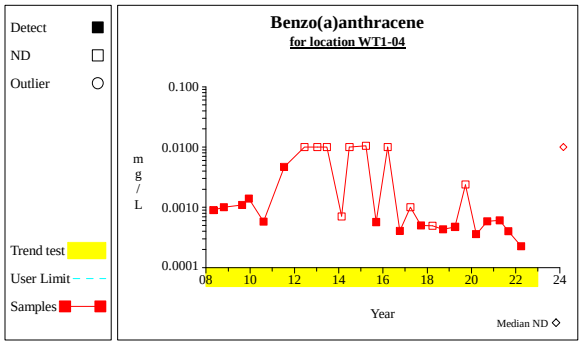

Detect
ND
Outlier
Trend test
User Limit
Samples
Xylenes
for location WT1-02
Significant Decreasing Trend
u
g
/
L
100.
10.0
1.00
08
10
12
14
16
18
20
22
24
Year

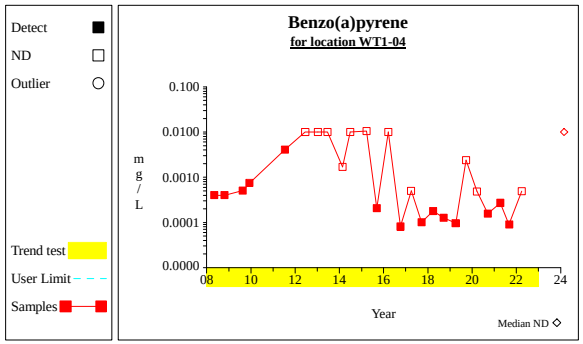
Time Series

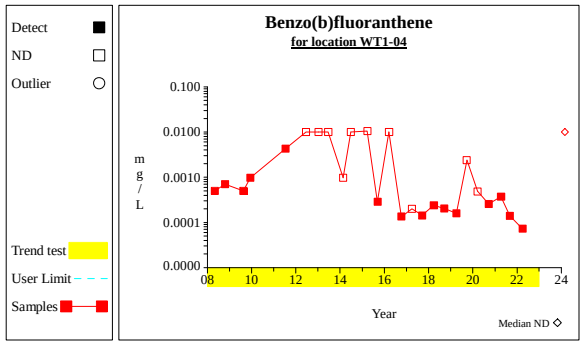

Detect
ND
Outlier
Trend test
User Limit
Samples
1,2,4-trimethylbenzene
for location WT1-04
Significant Decreasing Trend
mg/L
0.0100
0.0050
0.0020
0.0010
08 10 12 14 16 18 20 22 24
Year

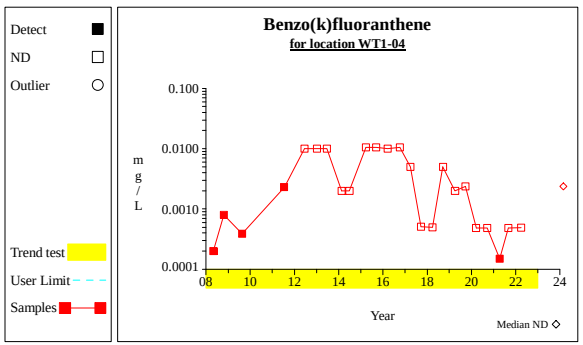

Detect
ND
Outlier
Trend test
User Limit
Samples
1,3,5-trimethylbenzene
for location WT1-04
Significant Decreasing Trend
mg/L
0.0100
0.0050
0.0020
0.0010
08 10 12 14 16 18 20 22 24
Year

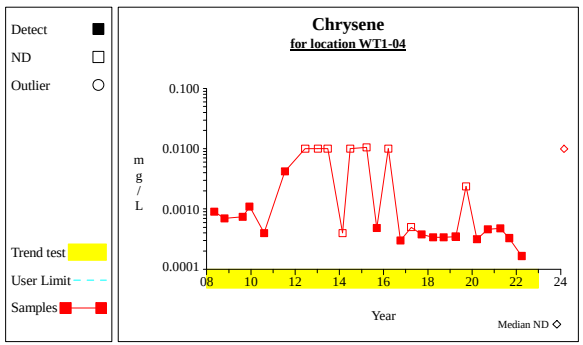

Detect
ND
Outlier
Trend test
User Limit
Samples
Benzene
for location WT1-04
Significant Decreasing Trend
ug/L
1000.
100.
10.0
1.00
08 10 12 14 16 18 20 22 24
Year

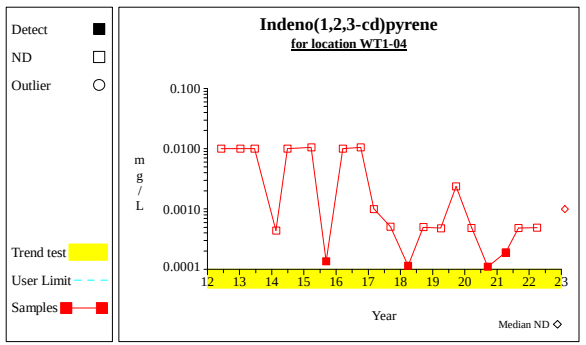

Detect
ND
Outlier
Trend test
User Limit
Samples
Benzo(a)anthracene
for location WT1-04
mg/L
0.100
0.0100
0.0010
0.0001
08 10 12 14 16 18 20 22 24
Year
Median ND


Detect
ND
Outlier
Trend test
User Limit
Samples
Benzo(a)pyrene
for location WT1-04
mg/L
0.100
0.0100
0.0010
0.0001
0.0000
08 10 12 14 16 18 20 22 24
Year
Median ND


Detect
ND
Outlier
Trend test
User Limit
Samples
Benzo(b)fluoranthene
for location WT1-04
mg/L
0.100
0.0100
0.0010
0.0001
0.0000
08 10 12 14 16 18 20 22 24
Year
Median ND


Detect
ND
Outlier
Trend test
User Limit
Samples
Benzo(k)fluoranthene
for location WT1-04
mg/L
0.100
0.0100
0.0010
0.0001
08 10 12 14 16 18 20 22 24
Year
Median ND

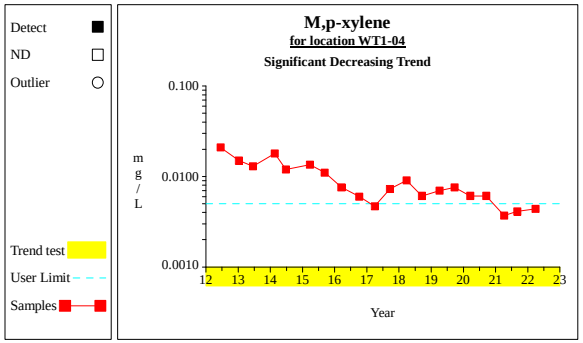

Detect
ND
Outlier
Trend test
User Limit
Samples
Chrysene
for location WT1-04
mg/L
0.100
0.0100
0.0010
0.0001
08 10 12 14 16 18 20 22 24
Year
Median ND

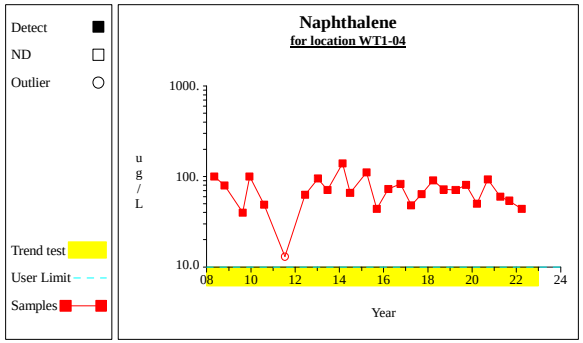

Detect
ND
Outlier
Trend test
User Limit
Samples
Indeno(1,2,3-cd)pyrene
for location WT1-04
mg/L
0.100
0.0100
0.0010
0.0001
12 13 14 15 16 17 18 19 20 21 22 23
Year
Median ND

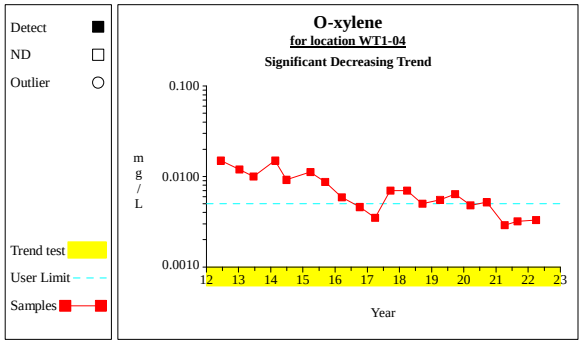
Steel Winds

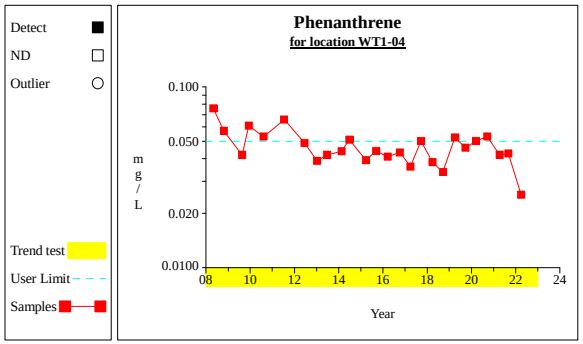
Analysis prepared on: 7/8/2022

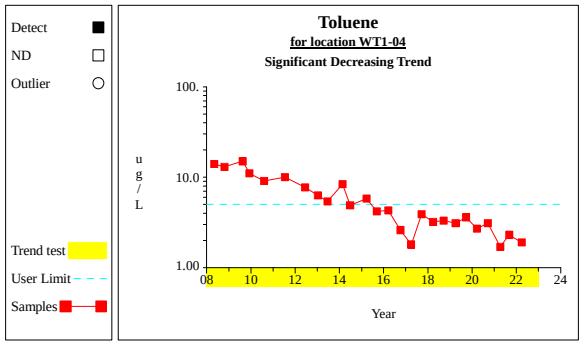
Time Series

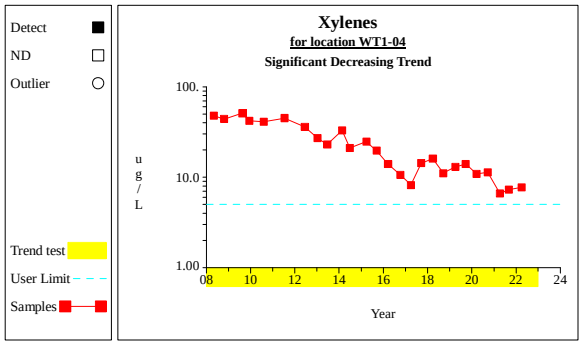






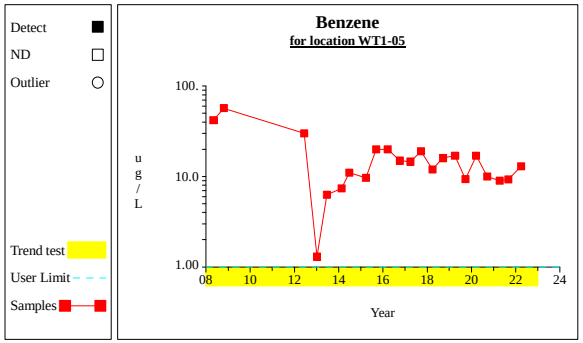


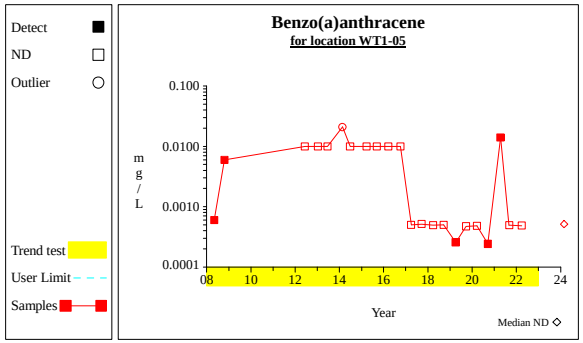


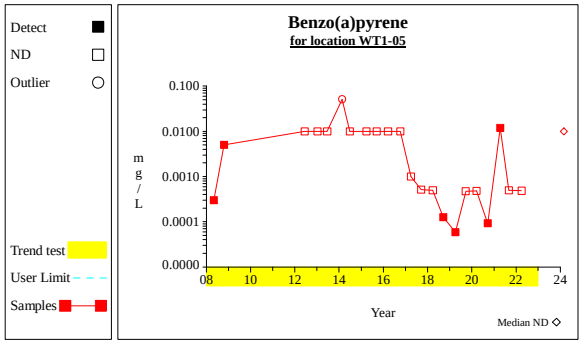


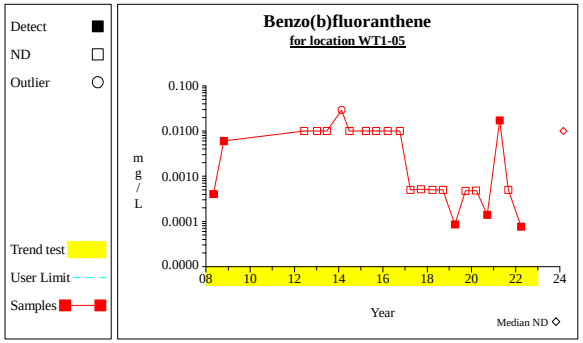
Prepared by: GZA GeoEnvironmental Inc.

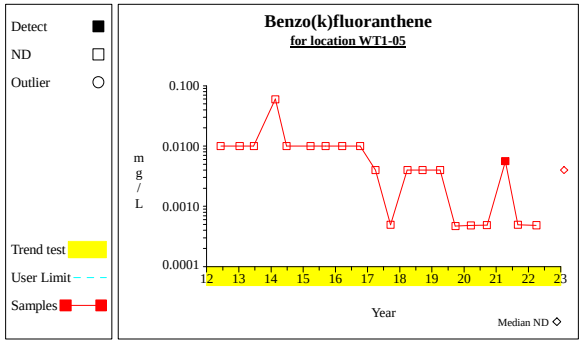
Time Series

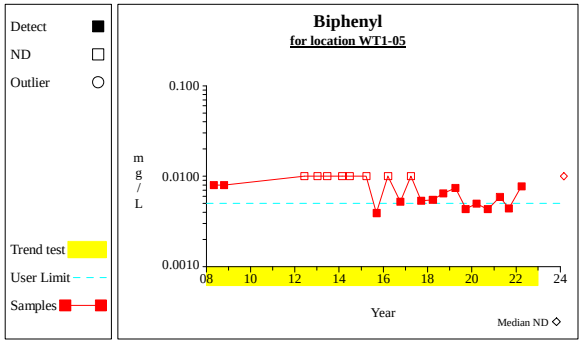

Detect
ND
Outlier
Trend test
User Limit
Samples
Benzene
for location WT1-05
u g / L
100.
10.0
1.00
08 10 12 14 16 18 20 22 24
Year

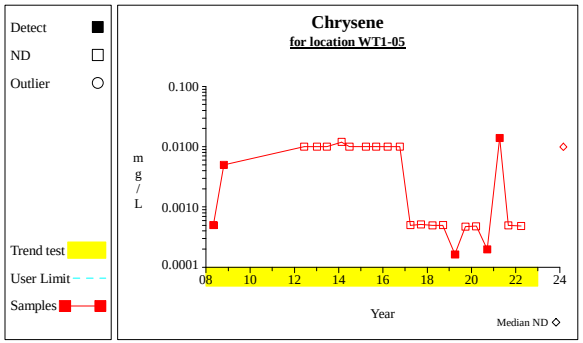

Detect
ND
Outlier
Trend test
User Limit
Samples
Benzo(a)anthracene
for location WT1-05
m g / L
0.100
0.0100
0.0010
0.0001
08 10 12 14 16 18 20 22 24
Year
Median ND

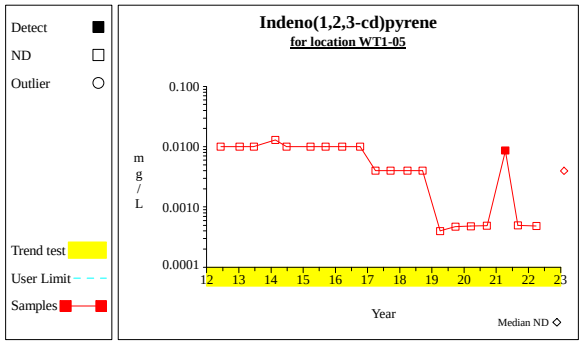

Detect
ND
Outlier
Trend test
User Limit
Samples
Benzo(a)pyrene
for location WT1-05
m g / L
0.100
0.0100
0.0010
0.0001
0.0000
08 10 12 14 16 18 20 22 24
Year
Median ND

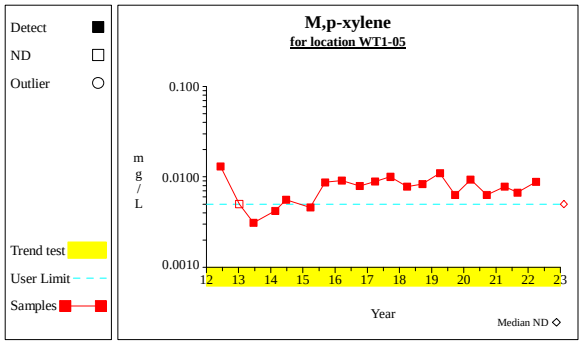

Detect
ND
Outlier
Trend test
User Limit
Samples
Benzo(b)fluoranthene
for location WT1-05
m g / L
0.100
0.0100
0.0010
0.0001
0.0000
08 10 12 14 16 18 20 22 24
Year
Median ND


Detect
ND
Outlier
Trend test
User Limit
Samples
Benzo(k)fluoranthene
for location WT1-05
m g / L
0.100
0.0100
0.0010
0.0001
12 13 14 15 16 17 18 19 20 21 22 23
Year
Median ND


Detect
ND
Outlier
Trend test
User Limit
Samples
Biphenyl
for location WT1-05
m g / L
0.100
0.0100
0.0010
08 10 12 14 16 18 20 22 24
Year
Median ND


Detect
ND
Outlier
Trend test
User Limit
Samples
Chrysene
for location WT1-05
m g / L
0.100
0.0100
0.0010
0.0001
08 10 12 14 16 18 20 22 24
Year
Median ND

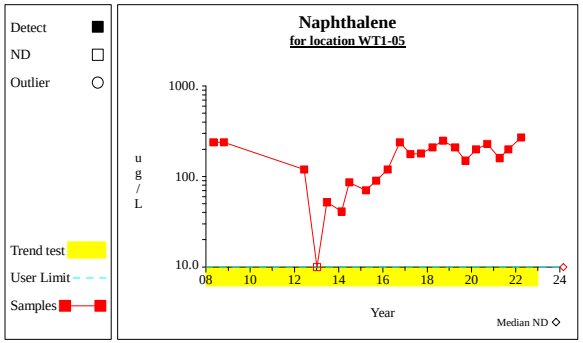

Detect
ND
Outlier
Trend test
User Limit
Samples
Indeno(1,2,3-cd)pyrene
for location WT1-05
m g / L
0.100
0.0100
0.0010
0.0001
12 13 14 15 16 17 18 19 20 21 22 23
Year
Median ND

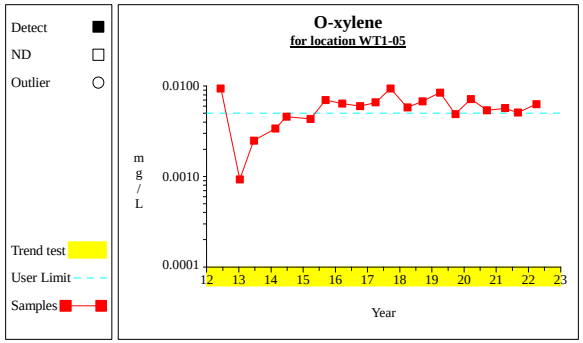

Detect
ND
Outlier
Trend test
User Limit
Samples
M,p-xylene
for location WT1-05
m g / L
0.100
0.0100
0.0010
12 13 14 15 16 17 18 19 20 21 22 23
Year
Median ND

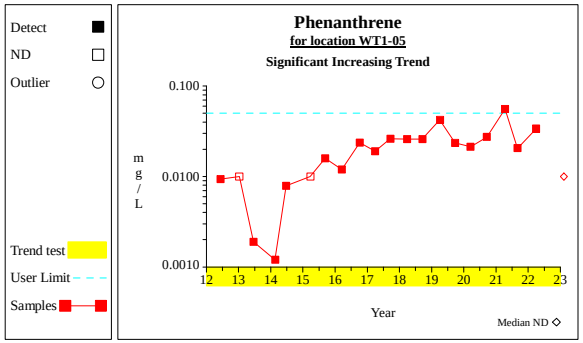
Steel Winds

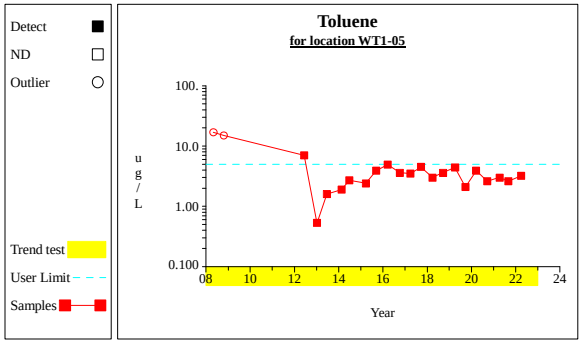
Analysis prepared on: 7/8/2022

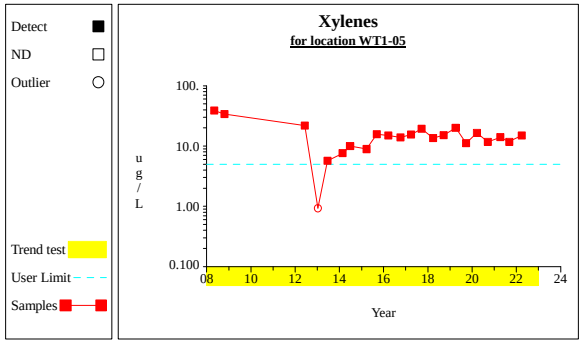
Time Series











Prepared by: GZA GeoEnvironmental Inc.

File: 03.0033579.15

STEEL WINDS SEMI-ANNUAL GROUNDWATER MONITORING EVENT
WELL DEVELOPMENT FORM
LACKAWANNA, NEW YORK

Historic Information

Boring Log Available (**yes**/no/attached):
Installation Log Available (**yes**/no/attached)

Summary

Monitoring Well :	**MWN-01**	Ground Surface Elevation	582.99	Riser/Screen Material: PVC	
Installation Date:	8/30/90	Protective Casing Elevation:		Top of Screen Depth:	9.15
Installed By:	Turnkey	Monitoring Point Elevation	585.14	Bottom of Screen Depth:	19.15
		Elevation Datum:			

Previous Field measurement Information Available (yes/**no**/attached)

Ranges of Previous Field Measurements

Depth to Water (ft)	pH (Standard Units)	Specific Conductance (uMhos/cm)	Temperature (^{o}C)	Turbidity (NTU)	Color
11.59	11.53	1.212	10.8	2.61	Clear

Notes:

Field Observations		Parameters +/-		Sampling Information
Exterior Observations:	Good	pH	+/- 0.1	Sample ID: **MWN-01-033022**
		Conductivity	+/- 3%	Sample Time: 10:40
Interior Observations	Good	Temperature	+/- 10%	# of Sample Containers: 5
		Turbidity	+/- 10%	Duplicate Sample ID: None
		ORP	+/- 10mV	Sample Analysis: VOCs STARS 8260,
Signs of Damage/Tampering:		DO	+/- 10%	SVOCs 8270 BN

Locked (yes/**no**)	Well Cap (**yes**/no)	Surface Seal Intact (**yes**/no)	PID Measurement: 0.0 ppm	Odors: None

Well Quality Data

Date	Time	Depth to Water ft BTOC	Cumulative Volume Purged	pH (Standard Units)	Specific Conductance (mS/cm)	Temperature (^{o}C)	Turbidity (NTU)	Color	Dissolved Oxygen	Oxygen Reduction Potential	Notes
3/30/2022	10:20	14.91	0	13.28	1.179	9.6	38.28	Clear	14.3	-270.8	Depth of Water: 14.84
	10:30	14.96	4	13.17	1.178	9.7	4.89	Clear	2.9	-334.0	Length of Water Column: 4.31
	10:35	14.96	6	13.18	1.174	9.7	2.63	Clear	2.5	-342.6	Depth of Well: **19.15**
	10:40	14.96	8	13.19	1.170	9.6	1.08	Clear	2.20	-347.1	Sheen Observed: Y **N**
											DNAPL Observed: Y **N**
											Did Well Go Dry: Y **N**
											Other: One well volume 2.8 gallons

File: 03.0033579.15

STEEL WINDS SEMI-ANNUAL GROUNDWATER MONITORING EVENT
WELL DEVELOPMENT FORM
LACKAWANNA, NEW YORK

Historic Information			
Boring Log Available (**yes**/no/attached):			
Installation Log Available (**yes**/no/attached)			
Summary			
Monitoring Well :	**MWN-01B**	Ground Surface Elevation 583.79	Riser/Screen Material: PVC
Installation Date:	11/2/92	Protective Casing Elevation:	Top of Screen Depth: 22.24
Installed By:	Turnkey	Monitoring Point Elevation: 587.03	Bottom of Screen Depth: 32.24
		Elevation Datum:	
Previous Field measurement Information Available (yes/**no**/attached)			

Ranges of Previous Field Measurements

Depth to Water (ft)	pH (Standard Units)	Specific Conductance (uMhos/cm)	Temperature (^{o}C)	Turbidity (NTU)	Color
15.5	11.10	0.831	9.8	7.67	Clear

Notes:

Field Observations		Parameters +/-		Sampling Information
Exterior Observations:	Good	pH	+/- 0.1	Sample ID: **MWN-01B-033022**
		Conductivity	+/- 3%	Sample Time: 11:40
Interior Observations	Good	Temperature	+/- 10%	# of Sample Containers: 5
		Turbidity	+/- 10%	Duplicate Sample ID: None
		ORP	+/- 10mV	Sample Analysis: VOCs STARS 8260,
Signs of Damage/Tampering:	None	DO	+/- 10%	SVOCs 8270 BN

Locked (yes/**no**)	Well Cap (**yes**/no)	Surface Seal Intact (**yes**/no)	PID Measurement: 0.0 ppm	Odors: None

Well Quality Data

Date	Time	Depth to Water ft BTOC	Cumulative Volume Purged	pH (Standard Units)	Specific Conductance (mS/cm)	Temperature (^{o}C)	Turbidity (NTU)	Color	Dissolved Oxygen	Oxygen Reduction Potential	Notes
3/30/2022	11:05	16.01	0	12.7	0.677	9.5	68.21	Clear	6.0	-318.2	Depth of Water: 15.73
	11:15	16.16	4	12.80	0.765	9.7	47.83	Clear	6.0	-287.0	Length of Water Column: 16.51
	11:25	16.12	8	12.95	0.802	9.4	17.0	Clear	13.3	-258.3	Depth of Well: **32.24**
	11:30	16.12	10	13.01	0.806	9.4	21.85	Clear	20.3	-250.4	Sheen Observed: Y **N**
	11:35	16.12	12	13.04	0.810	9.4	21.92	Clear	20.4	-246.1	DNAPL Observed: Y **N**
	11:40	16.12	14	13.03	0.808	9.4	22.3	Clear	20.7	-244.3	Did Well Go Dry: Y **N**
											Other: One well volume 2.6 gallons

File: 03.0033579.15

STEEL WINDS SEMI-ANNUAL GROUNDWATER MONITORING EVENT
WELL DEVELOPMENT FORM
LACKAWANNA, NEW YORK

Historic Information

Boring Log Available (**yes**/no/attached):
Installation Log Available (**yes**/no/attached)

Summary

Monitoring Well :	**WT1-02**	Ground Surface Elevation	598.5	Riser/Screen Material:	PVC
Installation Date:	6/11/07	Protective Casing Elevation:		Top of Screen Depth:	27.78
Installed By:	Turnkey	Monitoring Point Elevation:	600.78	Bottom of Screen Depth:	37.78
		Elevation Datum:			

Previous Field measurement Information Available (yes/**no**/attached)

Ranges of Previous Field Measurements

Depth to Water (ft)	pH (Standard Units)	Specific Conductance (uMhos/cm)	Temperature (^{o}C)	Turbidity (NTU)	Color
26.91	11.85	1.77	12.3	2.7	Clear

Notes:

Field Observations		Parameters +/-		Sampling Information
Exterior Observations:	Good	pH	+/- 0.1	Sample ID: **WT1-02-033022**
		Conductivity	+/- 3%	Sample Time: 14:10
Interior Observations	Good	Temperature	+/- 10%	# of Sample Containers: 5
		Turbidity	+/- 10%	Duplicate Sample ID: None
		ORP	+/- 10mV	Sample Analysis: VOCs STARS 8260,
Signs of Damage/Tampering:	None	DO	+/- 10%	SVOCs 8270 BN

Locked (yes/**no**)	Well Cap (**yes**/no)	Surface Seal Intact (**yes**/no)	PID Measurement: 0.0 ppm	Odors: None

Well Quality Data

Date	Time	Depth to Water ft BTOC	Cumulative Volume Purged	pH (Standard Units)	Specific Conductance (mS/cm)	Temperature (^{o}C)	Turbidity (NTU)	Color	Dissolved Oxygen	Oxygen Reduction Potential	Notes
3/30/2022	13:50	28.11	0	13.52	1.778	11.6	2.93	Clear	19.0	-239.1	Depth of Water: 27.34
	14:00	28.23	2	13.47	1.764	11.5	1.74	Clear	3.8	-277.4	Length of Water Column: 10.44
	14:05	28.23	3	13.45	1.758	11.6	1.56	Clear	3.8	-275.6	Depth of Well: **37.78**
	14:10	28.23	4	13.45	1.746	11.6	1.37	Clear	3.9	-271.7	Sheen Observed: Y **N**
											DNAPL Observed: Y **N**
											Did Well Go Dry: Y **N**
											Other: One well volume 6.8 gallons

File: 03.0033579.15

STEEL WINDS SEMI-ANNUAL GROUNDWATER MONITORING EVENT
WELL DEVELOPMENT FORM
LACKAWANNA, NEW YORK

Historic Information					
Boring Log Available (**yes**/no/attached):					
Installation Log Available (**yes**/no/attached)					
Summary					
Monitoring Well :	**WT1-04**	Ground Surface Elevation	584.43	Riser/Screen Material: PVC	
Installation Date:	5/21/07	Protective Casing Elevation:		Top of Screen Depth: 15.52	
Installed By:	Turnkey	Monitoring Point Elevation:	586.45	Bottom of Screen Depth: 25.52	
		Elevation Datum:			
Previous Field measurement Information Available (yes/**no**/attached)					

Ranges of Previous Field Measurements

Depth to Water (ft)	pH (Standard Units)	Specific Conductance (uMhos/cm)	Temperature (^{o}C)	Turbidity (NTU)	Color
12.91	11.51	1.326	11.1	3.76	Clear

Notes:

Field Observations		Parameters +/-		Sampling Information
Exterior Observations:	Good	pH	+/- 0.1	Sample ID: **WT1-04-033022**
		Conductivity	+/- 3%	Sample Time: 12:30
Interior Observations	Good	Temperature	+/- 10%	# of Sample Containers: 5
		Turbidity	+/- 10%	Duplicate Sample ID: None
		ORP	+/- 10mV	Sample Analysis: VOCs STARS 8260,
Signs of Damage/Tampering:	None	DO	+/- 10%	SVOCs 8270 BN

Locked (yes/**no**)	Well Cap (**yes**/no)	Surface Seal Intact (**yes**/no)	PID Measurement: 0.0 ppm	Odors: None

Well Quality Data

Date	Time	Depth to Water ft BTOC	Cumulative Volume Purged	pH (Standard Units)	Specific Conductance (mS/cm)	Temperature (^{o}C)	Turbidity (NTU)	Color	Dissolved Oxygen	Oxygen Reduction Potential	Notes
3/30/2022	12:10	13.49	0	13.88	1.636	8.7	29.62	Clear	7.3	-287.2	Depth of Water: 13.19
	12:20	13.49	4	13.84	1.367	8.4	1.00	Clear	2.2	-323.3	Length of Water Column: 12.33
	12:25	13.49	6	13.81	1.312	8.4	0.38	Clear	1.7	-327.9	Depth of Well: **25.52**
	12:30	13.49	8	13.81	1.294	8.4	0.41	Clear	1.5	-327.3	Sheen Observed: Y **N**
											DNAPL Observed: Y **N**
											Did Well Go Dry: Y **N**
											Other: One well volume 2.0 gallons

File: 03.0033579.15

STEEL WINDS SEMI-ANNUAL GROUNDWATER MONITORING EVENT
WELL DEVELOPMENT FORM
LACKAWANNA, NEW YORK

Historic Information					
Boring Log Available (**yes**/no/attached):					
Installation Log Available (**yes**/no/attached)					
Summary					
Monitoring Well :	**WT1-05**	Ground Surface Elevation	581.66	Riser/Screen Material:	PVC
Installation Date:	5/29/07	Protective Casing Elevation:		Top of Screen Depth:	13.30
Installed By:	Turnkey	Monitoring Point Elevation:	584.41	Bottom of Screen Depth:	23.30
		Elevation Datum:			
Previous Field measurement Information Available (yes/**no**/attached)					

Ranges of Previous Field Measurements					
Depth to Water (ft)	pH (Standard Units)	Specific Conductance (uMhos/cm)	Temperature (^{o}C)	Turbidity (NTU)	Color
11.85	11.46	1.2	11.2	1.74	Clear

Notes:

Field Observations		Parameters +/-		Sampling Information
Exterior Observations:	Riser latch broken	pH	+/- 0.1	Sample ID: **WT1-05-033022**
		Conductivity	+/- 3%	Sample Time: 09:25
Interior Observations	Good	Temperature	+/- 10%	# of Sample Containers: 5
		Turbidity	+/- 10%	Duplicate Sample ID: None
		ORP	+/- 10mV	Sample Analysis: VOCs STARS 8260,
Signs of Damage/Tampering:		DO	+/- 10%	SVOCs 8270 BN

Locked (yes/**no**)	Well Cap (**yes**/no)	Surface Seal Intact (**yes**/no)	PID Measurement: 0.0 ppm	Odors: None

Well Quality Data

Date	Time	Depth to Water ft BTOC	Cumulative Volume Purged	pH (Standard Units)	Specific Conductance (mS/cm)	Temperature (^{o}C)	Turbidity (NTU)	Color	Dissolved Oxygen	Oxygen Reduction Potential	Notes
3/30/2022	9:05	12.16	0	12.91	1.129	9.0	16.42	Clear	27.5	-216.9	Depth of Water: 12.13
	9:15	12.16	2	12.93	1.169	9.6	9.56	Clear	12.70	-247.4	Length of Water Column: 11.17
	9:20	12.16	3	12.97	1.174	9.7	4.86	Clear	11.9	-255.3	Depth of Well: **23.30**
	9:25	12.16	4	12.99	1.182	9.2	2.48	Clear	10.3	-261.8	Sheen Observed: Y **N**
											DNAPL Observed: Y **N**
											Did Well Go Dry: Y **N**
											Other: One well volume 1.8 gallons

File: 03.0033579.15

STEEL WINDS SEMI-ANNUAL GROUNDWATER MONITORING EVENT
WELL DEVELOPMENT FORM
LACKAWANNA, NEW YORK

Historic Information					
Boring Log Available (**yes**/no/attached):					
Installation Log Available (**yes**/no/attached)					
Summary					
Monitoring Well :	**BCP-ORC-1**	Ground Surface Elevation	589.47	Riser/Screen Material: PVC	
Installation Date:	10/03/07	Protective Casing Elevation:		Top of Screen Depth: 24.68	
Installed By:	Turnkey	Monitoring Point Elevation:	591.97	Bottom of Screen Depth: 34.68	
		Elevation Datum:			
Previous Field measurement Information Available (yes/**no**/attached)					

Ranges of Previous Field Measurements

Depth to Water (ft)	pH (Standard Units)	Specific Conductance (uMhos/cm)	Temperature (^{o}C)	Turbidity (NTU)	Color
18.3	11.21	0.957	10	2.17	Clear

Notes:

Field Observations		Parameters +/-		Sampling Information
Exterior Observations:	Good	pH	+/- 0.1	Sample ID**: BCP-ORC-1-033022**
		Conductivity	+/- 3%	Sample Time: 13:20
Interior Observations	Good	Temperature	+/- 10%	# of Sample Containers: 5
		Turbidity	+/- 10%	Duplicate Sample ID: None
		ORP	+/- 10mV	Sample Analysis: VOCs STARS 8260,
Signs of Damage/Tampering:	None	DO	+/- 10%	SVOCs 8270 BN

Locked (yes/**no**)	Well Cap (**yes**/no)	Surface Seal Intact (**yes**/no)	PID Measurement: 0.0 ppm	Odors: None

Well Quality Data

Date	Time	Depth to Water ft bgs	Cumulative Volume Purged	pH (Standard Units)	Specific Conductance (mS/cm)	Temperature (^{o}C)	Turbidity (NTU)	Color	Dissolved Oxygen	Oxygen Reduction Potential	Notes
3/30/2022	13:00	19.11	0	13.61	1.018	8.8	0.56	Clear	48.2	-123.0	Depth of Water: 18.69
	13:10	19.98	4	13.48	1.018	9.0	0.12	Clear	39.2	-169.2	Length of Water Column: 15.99
	13:15	19.98	6	13.48	1.009	9.0	0.10	Clear	37.4	-176.3	Depth of Well: **34.68**
	13:20	19.98	8	13.47	1.000	9.0	0.11	Clear	36.2	-181.1	Sheen Observed: Y **N**
											DNAPL Observed: Y **N**
											Did Well Go Dry: Y **N**
											Other: One well volume 2.5 gallons

GZA GeoEnvironmental, Inc.