Proactive by Design

MARCH 2017
SEMI-ANNUAL GROUNDWATER MONITORING REPORT
NIAGARA WIND POWER, LLC/ERIE WIND POWER, LLC
STEEL WINDS I Facility (Site ID # C915205)
LACKAWANNA, NEW YORK

May 2017
File No. 03.0033579.08

PREPARED FOR:
Niagara Wind Power, LLC/Erie Wind Power, LLC
Bethesda, Maryland 20814

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May 16, 2017
File No. 03.0033579.08

Mr. James Cassida
Niagara Wind Power, LLC / Erie Wind Power, LLC
7750 Wisconsin Avenue, 9th Floor
Bethesda, Maryland 20814

Re: March 2017 Semi-Annual Groundwater Monitoring Report
Steel Winds I Site ID# C915205
Lackawanna, NY

Dear Mr. Cassida:

GZA GeoEnvironmental of New York (GZA) is pleased to submit this semi-annual groundwater monitoring report to Niagara Wind Power, LLC / Erie Wind Power, LLC (NWP/EWP) summarizing the analytical results of the groundwater monitoring event conducted in March 2017 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.
Principal

cc: Mr. Maurice Moore (NYSDEC)
Mr. Dave Szymanski (NYSDEC)
Mr. Mike Andrzejczak (Sun Edison d/b/a First Wind)

Attachments: Report

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1.00 INTRODUCTION

In accordance with our March 13, 2017 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, Smokes Creek to the south, and former BSC industrial property to the north and east. Niagara Wind Power, LLC/Erie Wind Power, LLC (NWP/EWP), an affiliate of TerraForm Power, 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 conducted on July 13 and 14, 2011. The five 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 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. We expect to submit a Supplement TI Waiver Report to NYSDEC in 2017.

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.

2.00 PURPOSE AND SCOPE OF WORK

The purpose of the March 2017 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 SGS Accutest (Accutest) of Dayton, New Jersey in accordance with the analytical testing summary provided in Table 1. Test parameters included the following:
    - Stars list VOCs via EPA Method 8260B; and
    - Base-Neutral semi-volatile organic compounds (SVOCs) via EPA Method 8270C.
- Prepared this report, which summarizes the data collected during the sampling event, compared the data to historic data 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) on March 30, 2017.

- The following tables show the volume of water purged and the number of well volumes removed from the respective well after a constant head was established. In general, groundwater purge rates were 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)	Well Volumes (#)
MWN-01	18	16.9
MWN-01B	21	19.7
WT1-02	5.9	5.5
WT1-04	15	14.1
WT1-05	19	17.8
BCP-ORC-1	5.75	5.4

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. From the elevation and depth to groundwater data, the groundwater flow direction was estimated, as 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	15.26	569.88
MWN-01B	587.13	16.15	570.98
WT1-02	600.78	27.61	573.17
WT1-04	586.45	13.61	572.84
WT1-05	584.41	12.50	571.96
BCP-ORC-1	591.97	19.19	572.78

4.00 ANALYTICAL LABORATORY TESTING

Six (6) semi-annual groundwater samples were submitted for analytical testing as part of the March 30, 2017 monitoring event. The samples were packed in an ice-filled cooler and, following typical chain-of-custody procedures, sent to Accutest 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 in 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 April 11, 2017. The data was prepared by Accutest in a standardized electronic data deliverable (EDD) format that uses the database software application EQUIS^{tm} (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 four (4) were identified at concentrations exceeding their respective NYSDEC Class GA criteria, as follows:

- Benzene at 14.7 parts per billion (ppb);
- m,p-Xylene at 10.2 ppb;
- o-xylene at 7.3 ppb; and
- Naphthalene at 204 ppb.

Eleven (11) SVOCs were detected above MDLs of which three (3) exceeded their respective guidance values:

- Fluorene at 53.8 ppb;
- Naphthalene at 145 ppb; and
- Phenanthrene at 80.7 ppb.

MWN-01B: Nine (9) VOCs were detected above MDLs of which six (6) were identified at concentrations exceeding their respective NYSDEC Class GA criteria, as follows.

- Benzene at 66.4 ppb;
- Toluene at 18.9 ppb;
- m,p-Xylene at 14.9 ppb;
- o-xylene at 10.0 ppb;
- 1,2,4-Trimethylbenzene at 7.4 ppb; and
- Naphthalene at 1,460 ppb.

Eleven (11) SVOCs were detected above MDLs of which two (2) exceeded their respective NYSDEC Class GA guidance values, as follows.

- Naphthalene at 1,240 ppb; and
- Phenanthrene at 65.8 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 12.9 ppb;
- m,p Xylene at 5.8 ppb, and
- Naphthalene at 39.5 ppb.

Eleven (11) SVOCs, were detected at concentrations exceeding the MDL, of which one (1) exceeded its NYSDEC Class GA guidance value, as follows.

- Naphthalene at 16 ppb.

WT1-04: Eight (8) VOCs were detected above MDLs of which two (2) exceed their respective NYSDEC Class GA criteria, as follows.

- Benzene at 9 ppb;
- Naphthalene at 48 ppb.

We note that both m,p-Xylene and o-xylene compounds were detected at concentrations below their respective Class GA criteria, however the total xylene concentration reported exceeded the Class GA criteria.

Eleven (11) SVOCs were detected above MDLs of which one (1) exceeded its NYSDEC Class GA guidance value, as follows.

- Naphthalene at 22.5 ppb.

WT1-05: Eight (8) VOCs were detected above MDLs of which four (4) exceeded their respective NYSDEC Class GA criteria, as follows.

- Benzene at 14.6 ppb;
- m,p-Xylene at 8.9 ppb;
- o-Xylene at 6.6 ppb; and
- Naphthalene at 177 ppb.

Ten (10) SVOCs were detected above MDLs of which one (1) exceeded its NYSDEC Class GA guidance value, as follows.

- Naphthalene at 99.6 ppb.

BCP-ORC-1: Eight (8) VOCs, were detected above MDLs of which three (3) exceeded their respective NYSDEC Class GA criteria, as follows.

- Benzene at 36.1 ppb;
- o-Xylene at 5.1 ppb, and
- Naphthalene at 369 ppb

Eleven (11) SVOCs were detected above MDLs of which one (1) exceeded its NYSDEC Class GA guidance value, as follows.

- Naphthalene at 284 ppb.

In general, results of the March 2017 sampling event exhibited a slight decrease in compound concentrations when compared with historical data collected during previous sampling events performed by Benchmark and GZA from the six

(6) WT-1 vicinity semi-annual monitoring wells. A more detailed discussion, including a 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 routine monitoring period time, which started in 2008 (approximately 9 years) at a 95% confidence interval, and for outliers. Sen's Test for trends was 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 D.

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

- MWN-01 - benzene, fluorene, toluene, and xylene;
- WT1-04 - 1,2,4-trimethylbenzene, benzene, phenanthrene, toluene, and xylene; and
- WT1-02 – benzene, toluene and xylenes.

A statistical significant increasing trend was also identified for 1,2,4-trimethylbenzene in MWN-01B. Time series plots were also evaluated for seasonality and outliers. There do not appear to be significant seasonal fluctuations of contaminant concentrations in the monitoring data. A low outlier for benzene was identified for MWN-01 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.

- 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).

- SVOCs were detected at concentrations above NYSDEC Class GA or their respective guidance criteria in 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 March 2017 sampling event exhibited a slight decrease in concentrations when compared with historical data collected during previous sampling events. Statistically significant downward trends in contaminant concentrations were identified for benzene, toluene, xylene and 1,2,4-trimethylbenzene in the samples from well WT1-04.

TABLES

TABLE 1

Analytical Testing Program Summary

March 2017 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-01-033017	3/30/2017	9.2 - 19.2	X	X
MWN-01B	MWN-01B-033017	3/30/2017	22.2 - 32.2	X	X
WT1-02	WT1-02-033017	3/30/2017	27.8 - 37.8	X	X
WT1-04	WT1-04-033017	3/30/2017	15.5 - 25.5	X	X
WT1-05	WT1-05-033017	3/30/2017	13.3 - 23.3	X	X
BCP-ORC-1	BCP-ORC-1-033017	3/30/2017	24.7 - 34.7	X	X

Notes:

1. VOCs = Volatile Organic Compounds STARS list via EPA Method 8260B.
2. SVOCs = Semi-Volatile Organic Compounds Base-Neutrals list via EPA Method 8270C.
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 2017 Semi-Annual Groundwater Analytical Data Summary
Steel Winds I Facility
Lackawanna, New York

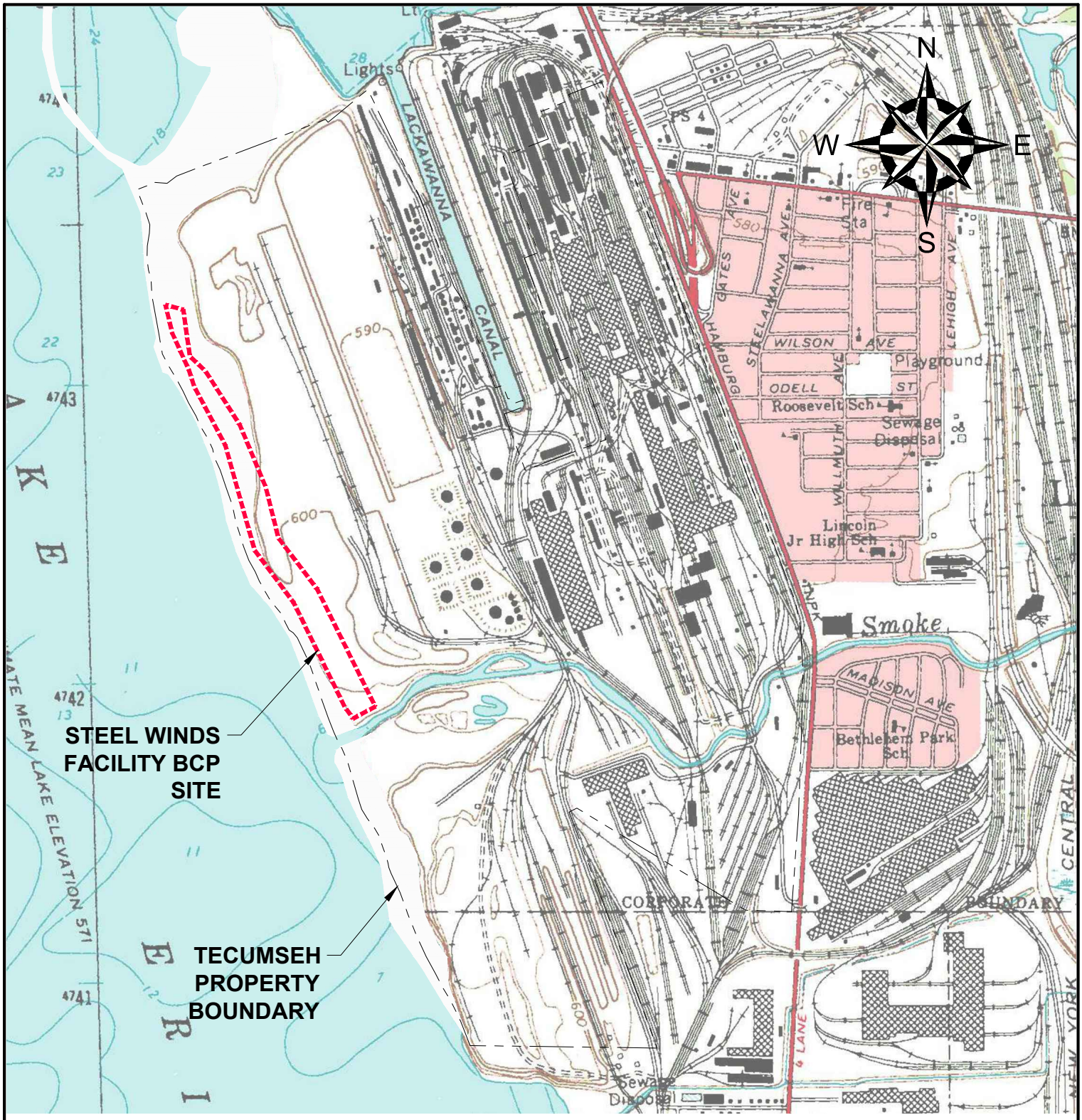
Parameter	NYSDEC Class GA Criteria	MWN-01 6/18/2013 Result	MWN-01 2/20/2014 Result	MWN-01 3/24/2015 Result	MWN-01 3/17/2016 Result	MWN-01 3/30/2017 Result	MWN-01B 6/17/2013 Result	MWN-01B 2/20/2014 Result	MWN-01B 3/24/2015 Result	MWN-01B 3/17/2016 Result	MWN-01B 3/30/2017 Result	WT1-02 6/17/2013 Result	WT1-02 2/20/2014 Result	WT1-02 3/24/2015 Result	WT1-02 3/17/2016 Result	WT1-02 3/30/2017 Result
Water Quality Field Measurements																
pH (units)	6.5 - 8.5	**11.6**	**11.8**	**11.9**	**11.88**	**11.59**	**11.29**	**11.41**	**11.39**	**11.31**	**11.15**	**12.06**	**12.31**	**12.34**	**12.24**	**11.88**
Temperature (˚C)	NV	12.4	12.7	11.8	12	11.4	12.6	13.0	11.1	11.3	11.6	13.1	12.7	12.2	12.7	12.4
Specific Conductance (uS/cm)	NV	1,310	1,290	1,220	1,160	1,370	890	910	920	750	1,260	2,230	2,120	2,280	2,090	2,450
Turbidity (NTU)	5	1.35	2	1.8	2.37	1.18	2.52	**6**	2.43	4.44	3.02	**7.53**	**6.68**	**7.17**	**5.55**	4.53
Dissolved Oxygen (mg/L)	NV	0.14	0.01	0.03	0.09	0.09	0.11	0.08	0.03	0.1	0.05	1.82	1.32	1.89	0.51	0.49
Oxygen Reduction Potential (mV)	NV	-338.7	-284.2	-315.1	-294.6	-256.6	-388.6	-324.8	-395.2	-301.3	-305.5	-221.7	-228.1	-198	-268.5	-212.2
Volatile Organic Compounds - EPA Method 8260 (ug/L)																
Benzene	1	**43**	**44**	**32.7**	**42**	**14.7**	**91**	**89**	**72.7**	**120**	**66.4**	**39**	**29**	**9.62**	**22**	**12.9**
Toluene	5	**9.5**	**8.9**	**5.76**	**8.9 J**	3.4	**26**	**24**	**16.1**	**23 J**	**18.9**	**7.7**	**5.6**	<	3.4 J	2.5
Ethylbenzene	5	1.9 J	1.7 J	<	<**	0.94 J	1.2 J	0.93 J	<	<**	0.99 J	1.8 J	1.3 J	<	<	0.69 J
m,p-Xylene	5	**21**	**20**	**13.8**	**16 J**	**10.2**	**18**	**16**	8.23	<**	**14.9**	**16**	**12**	3.95	5.4	**5.8**
o-Xylene	5	**16**	**15**	**10.7**	**11 J**	**7.3**	**11**	**9.9**	**5.76**	<**	**10**	**13**	**9.7**	3.34	4.2 J	4.5
Xylene (Total)	5	**37**	**35**	**24.5**	**27**	**17.5**	**29**	**25.9**	13.99	<**	**24.9**	**29**	**21.7**	7.29	9.6	**10.3**
Isopropylbenzene	5	<	<	<	<**	<	2.2 J	1.8 J	<	<**	1.5	<	<	<	<	<
1,3,5-Trimethylbenzene	5	**5.2**	4.7 J	<	4.4 J	3.5	**6.7**	**5.1**	<	<**	5	**5.7**	4.3 J	<	2.4 J	2.7
1,2,4-Trimethylbenzene	5	**7.1**	**6.2**	<	4.8 J	4	**9.6**	**7.7**	<	<**	**7.4**	4.5 J	2.9 J	<	1.4 J	1.8 J
Naphthalene*	10	**370 D**	**390 D**	**376**	**290 B**	**204**	**1,500 D**	**1,500 D**	**1,790 D**	**1,300 B**	**1,460**	**73**	**63**	**34.3**	**37 B**	**39.5**
Semi-Volatile Organic Compounds - EPA Method 8270 (ug/L)																
Acenaphthylene	NV	41	41	40.4	29 J	26.1	60	43	33.3	30 J	61.4	<	2.1 J	<	1 J	1.1
Naphthalene*	10	**250 D**	**270 D**	**196**	**200**	**145.0**	**1,300 D**	**1,300 D**	**1,140 D**	**890**	**1,240**	**33**	**31**	**15**	**11**	**16**
2-Methylnaphthalene	NV	54	49	42.6	42 J	32.9	54	44	33.5	28 J	39.2	8.1 J	6.6 J	<	3.2 J	3.8
Acenaphthene*	20	14	17	13.8	14 J	10.0	12	10	<**	<**	10.2	2.4 J	2.1 J	<	1.2 J	1.5
Dibenzofuran	NV	56	49	47.7	49 J	38.7	34	27	19.8	<	29.2	4.4 J	6.7 J	<	3.5 J	4.5 J
Fluorene*	50	**75**	**68**	**65**	**64 J**	**53.8**	47	36	26.5	23 J	39.1	9.4 J	8.6 J	<	6.1 J	6.0
Phenanthrene*	50	**120 D**	**140 D**	**96.3**	**100**	**80.7**	**72**	**62**	40.5	38 J	**65.8**	14	19	<	9.7 J	14.3
Carbazole	NV	36	36	30.8	31 J	21.1	71	63	50.1	47 J	58.6	6.0 J	6.0 J	<	4.2 J	4.2
Anthracene*	50	13	13	12.9	10 J	13.0	14	8.8 J	<**	<**	11.6	2.5 J	2.3 J	<	2.1 J	2.3
Fluoranthene*	50	14	12	11.8	12 J	12.4	11	7.7 J	<**	<**	10.4	5.6 J	4.8 J	<	4.8 J	5.0
Pyrene*	50	8.8 J	7.5 J	<	<**	6.2	6.6 J	5.0 J	<**	<**	5.3	<	4.0 J	<	3.3 J	2.9
bis(2-Ethylhexyl)Phthalate	5	1.4 J	<	< **	<**	<	1.6 J	<	< **	<**	<	1.4 J	<	< **	<**	<

Parameter	NYSDEC Class GA Criteria	WT1-04 6/17/2013 Result	WT1-04 2/20/2014 Result	WT1-04 3/24/2015 Result	WT1-04 3/17/2016 Result	WT1-04 3/30/2017 Result	WT1-05 6/18/2013 Result	WT1-05 2/20/2014 Result	WT1-05 3/24/2015 Result	WT1-05 3/17/2016 Result	WT1-05 3/30/2017 Result	BCP-ORC-1 6/17/2013 Result	BCP-ORC-1 2/20/2014 Result	BCP-ORC-1 3/24/2015 Result	BCP-ORC-1 3/17/2016 Result	BCP-ORC-1 3/30/2017 Result
Water Quality Field Measurements																
pH (units)	6.5 - 8.5	**11.85**	**11.89**	**12.3**	**12.13**	**11.81**	**11.55**	**11.73**	**12.08**	**11.9**	**11.54**	**11.46**	**11.68**	**11.48**	**11.75**	**11.32**
Temperature (˚C)	NV	11.7	11.6	10.4	9.8	9.6	11.9	11.4	9.2	11.3	10.7	13.7	12.8	11.3	11.8	11.1
Specific Conductance (uS/cm)	NV	1,450	1,820	1,780	1,540	1,500	840	1,090	1,130	1,130	1,260	1,070	1,170	1,040	1,070	1,120
Turbidity (NTU)	5	**5.12**	3	1.44	**5.12**	2.56	2.26	2.1	4.65	4.67	1.42	**5.08**	2.2	4.66	**67.1**	**6.4**
Dissolved Oxygen (mg/L)	NV	0.14	0.19	0.03	0.11	0.09	2.73	1.32	0.21	0.08	0.1	2.26	1.86	6.14	1.22	1.11
Oxygen Reduction Potential (mV)	NV	-331.3	-292.1	-292.4	-307.9	-273	-172.4	-188.4	-216.3	-291.1	-229.6	-226.4	-230.1	-87.1	-272.9	-222.1
Volatile Organic Compounds - EPA Method 8260 (ug/L)																
Benzene	1	**28**	**43**	**29.2**	**25**	**9**	**6.3**	**7.4**	**9.7**	**20**	**14.6**	**41**	**29**	**<**	**57**	**36.1**
Toluene	5	**5.4**	**8.4**	**5.8**	4.3 J	1.8	1.6 J	1.9 J	2.41	4.9J	3.5	4.4 J	2.8 J	<	**5.1 J**	4.3
Ethylbenzene	5	1.2 J	1.6 J	<	<	0.49 J	<	<	<	<	0.89J	<	<	<	<**	0.33 J
m,p-Xylene	5	**13**	**18**	**13.5**	7.6	4.7	3.1 J	4.2 J	4.6	9.1	**8.9**	2.4 J	1.5 J	<	<**	3.5
o-Xylene	5	**10**	**15**	**11.2**	5.9	3.5	2.5 J	3.4 J	4.33	**6.4**	**6.6**	3.0 J	2.0 J	<	<**	**5.1**
Xylene (Total)	5	**23**	**33**	**24.7**	14	**8.2**	5.7	7.6	8.93	15	**15.5**	5.4	3.5 J	<	<**	**8.6**
Isopropylbenzene	5	<	<	<	<	<	<	<	<	<	<	<	<	<	<**	0.26 J
1,3,5-Trimethylbenzene	5	5	**6.4**	3.79	3.4	2.5	1.2 J	1.5 J	<	2.4J	2.6	2.7 J	1.7 J	<	<**	<
1,2,4-Trimethylbenzene	5	4.1 J	4.8 J	**5.11**	2.5 J	1.9 J	1.2 J	1.2 J	<	2.7J	3	3.2 J	2.0 J	<	<**	2.9
Naphthalene*	10	**71**	**140**	**111**	**73 B**	**48**	**52**	**41**	**70.6**	**120B**	**177**	**460 D**	**300 D**	**12**	**360 B**	**369**
Semi-Volatile Organic Compounds - EPA Method 8270 (ug/L)																
Acenaphthylene	NV	3.8 J	4.7 J	<	3.4 J	2.1	4.6 J	2.1 J	<	15	15.4	21	14	<	11 J	26.3
Naphthalene*	10	**37**	**61**	**48.7**	**33**	**22.5**	**14**	<	<	**76**	**99.6**	**290 D**	**230 D**	<**	**210**	**284**
2-Methylnaphthalene	NV	10	12	<	9.4 J	6.3	3.9 J	<	<	16	19.2	24	14	<	15 J	26.3
Acenaphthene*	20	3.7 J	5.1 J	<	3.9 J	2.7	1.9 J	<	<	4.8 J	4.8	5.3 J	5.5 J	<	<**	6.1
Dibenzofuran	NV	12	12	11.4	11	8.7	2.0 J	<	<	12	16.2	13	8.1 J	<	<	16.1
Fluorene*	50	18	<	17.6	17	13.0	6.9 J	4.1 J	<	19	20.8	20	14	<	13 J	25.8
Phenanthrene*	50	42	44	39.3	41	36.2	1.9 J	1.2 J	<	12	19	29	19	<	18 J	38.9
Carbazole	NV	8.6 J	11	<	7.8 J	4.8	1.4 J	<	<	<		33	20	<	24 J	35.8
Anthracene*	50	5.6 J	5.8 J	<	5.4 J	6.2	<	<	<	1.7 J	14.1	2.8 J	1.5 J	<	<**	4.7
Fluoranthene*	50	10	8.5 J	<	9.3 J	8.6	1.7 J	2.0 J	<	2.1 J	2.6	4.8 J	3.1 J	<	<**	6.4
Pyrene*	50	6.1 J	5.8 J	<	5.2 J	4.4	1.6 J	1.6 J	<	1.9 J	1.8	4.7 J	3.0 J	<	<**	4.3
Butylbenzylphthalate	NV	<	<	<	1 BJ	<	<	<	<	<	<	<	<	<	<**	<
bis(2-Ethylhexyl)Phthalate	5	<	<	< **	<**	<	<	<	< **	<**	<	1.4 J	<	< **	<**	<

Notes:

1. Compounds detected in one or more sample for the past five sampling events are presented on this table. Refer to Appendix C for list of all compounds included in analysis.
2. Analytical testing completed by SGS Accutest in Dayton, NJ in April 2017 and by Paradigm Environmental Services, Inc., Rochester, NY in March 2015. All other testing events completed by Spectrum Laboratory, North Kingstown, Rhode Island.
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. "B" qualifier = indicates compound was detected in the method blank sample.
8. "D" qualifier = indicates the compound concentration was obtained from a secondary dilution analysis.
9. Value shown in **bold** indicates exceedance of respective Class GA Criteria or guidance value.
10. NV = no value, NT = not tested
11. * = value shown is a guidance value rather than a groundwater standard.
12. The equipment used to collect water quality data was calibrated prior to and during use in accordance with the manufacturer's recommendations.
13. ** Indicates analytical laboratory Method Detection Limit (MDL) exceeds analyte Class GA Criteria.

FIGURES



NEW YORK

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

0 750 150 3000
SCALE IN FEET

NO.	ISSUE/DESCRIPTION	BY	DATE

PREPARED BY:
GZA GeoEnvironmental of N.Y.
Engineers and Scientists
535 WASHINGTON STREET 11th FLOOR
BUFFALO, NEW YORK 14203
(716) 685-2300

PREPARED FOR:
NIAGARA WIND POWER, LLC./
ERIE WIND POWER, LLC.

STEEL WINDS I FACILITY
ROUTE 5
LACKAWANNA, NEW YORK

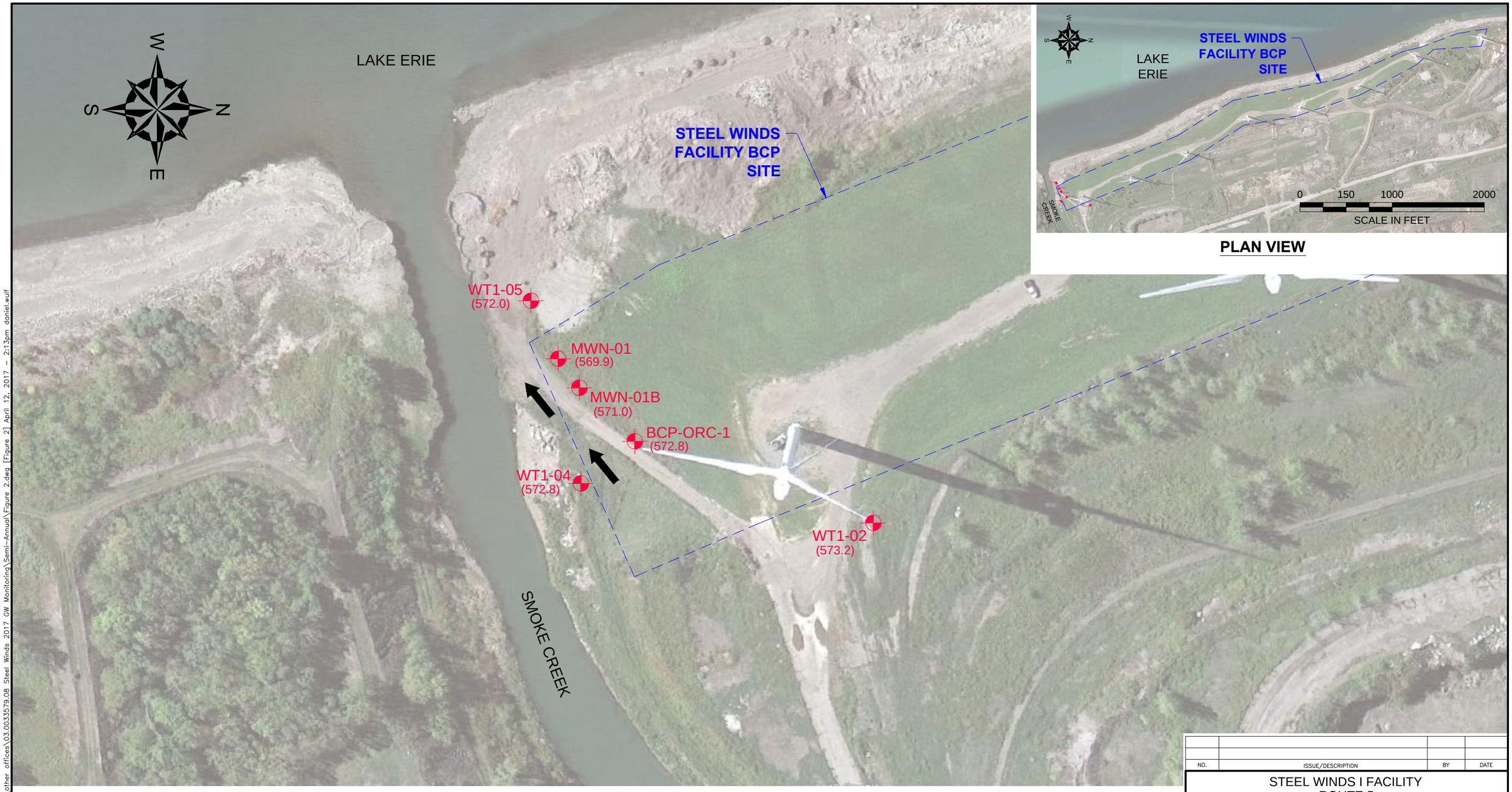
MARCH 2017 SEMI-ANNUAL GROUNDWATER MONITORING REPORT

LOCUS PLAN

FIGURE 1

PROJ MGR: DJT	REVIEWED BY: BAK	CHECKED BY: EAS	DATE: APRIL 2017	PROJECT NO.: 03.0033579.08	REVISION NO.
DESIGNED BY:	DRAWN BY: DEW	SCALE: AS SHOWN			

SHEET NO. 1 of 2



PLAN VIEW

LEGEND:

MWN-01 (569.9) — APPROXIMATE LOCATION AND DESIGNATION OF EXISTING MONITORING WELLS SHOWN WITH GROUNDWATER ELEVATIONS MEASURED BY GZA IN MARCH 2017

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 2017 SEMI-ANNUAL GROUNDWATER MONITORING REPORT

SITE PLAN

PREPARED BY:
GZA GeoEnvironmental of N.Y.
Engineers and Scientists
535 WASHINGTON STREET 11th FLOOR
BUFFALO, NEW YORK 14203
(716) 685-2300

PREPARED FOR:
NIAGARA WIND POWER, LLC./
ERIE WIND POWER, LLC.

PROJ MGR: DJT	REVIEWED BY: BAK	CHECKED BY: EAS	FIGURE 2
DESIGNED BY:	DRAWN BY: DEW	SCALE: AS SHOWN	
DATE APRIL 2017	PROJECT NO. 03.0033579.08	REVISION NO.	SHEET NO. 2 of 2

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

e-Hardcopy 2.0
Automated Report

Technical Report for

GZA GeoEnvironmental, Inc.

Steelwinds, Buffalo, NY

03.0033579.08

SGS Accutest Job Number: JC40107

Sampling Date: 03/30/17

Report to:

GZA GeoEnvironmental, Inc.
535 Washington Street Suite #11
Buffalo, NY 14203
Margaret.Popek@GZA.com

ATTN: Maggie Popek

Total number of pages in report: 59

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Nancy Cole
Laboratory Director

Client Service contact: Tammy McCloskey 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, FL, IL, IN, KS, KY, LA, MA, MD, ME, MN, NC, OH VAP (CL0056), AK (UST-103), AZ (AZ0786), PA, RI, SC, TX, UT, VA, WV, DoD ELAP (L-A-B L2248)

Sections: 1 2 3 4 5 6

Table of Contents

Sample Summary

GZA GeoEnvironmental, Inc.

Job No: JC40107

Steelwinds, Buffalo, NY
Project No: 03.0033579.08

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
JC40107-1	03/30/17	11:23	MP	03/31/17	AQ	Ground Water	WT1-05-033017
JC40107-2	03/30/17	12:32	MP	03/31/17	AQ	Ground Water	MWN-01-033017
JC40107-3	03/30/17	13:37	MP	03/31/17	AQ	Ground Water	MWN-01B-033017
JC40107-4	03/30/17	14:38	MP	03/31/17	AQ	Ground Water	WT1-04-033017
JC40107-5	03/30/17	16:05	MP	03/31/17	AQ	Ground Water	BCP-ORC-1-033017
JC40107-6	03/30/17	09:31	MP	03/31/17	AQ	Ground Water	WT1-02-033017

Summary of Hits

Job Number: JC40107
Account: GZA GeoEnvironmental, Inc.
Project: Steelwinds, Buffalo, NY
Collected: 03/30/17

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JC40107-1	**WT1-05-033017**					
Benzene		14.6	0.50	0.14	ug/l	SW846 8260C
Ethylbenzene		0.89 J	1.0	0.20	ug/l	SW846 8260C
Naphthalene		177	5.0	1.0	ug/l	SW846 8260C
Toluene		3.5	1.0	0.23	ug/l	SW846 8260C
1,2,4-Trimethylbenzene		3.0	2.0	0.26	ug/l	SW846 8260C
1,3,5-Trimethylbenzene		2.6	2.0	0.32	ug/l	SW846 8260C
m,p-Xylene		8.9	1.0	0.42	ug/l	SW846 8260C
o-Xylene		6.6	1.0	0.21	ug/l	SW846 8260C
Xylene (total)		15.5	1.0	0.21	ug/l	SW846 8260C
Acenaphthene		4.8	1.0	0.19	ug/l	SW846 8270D
Acenaphthylene		15.4	1.0	0.14	ug/l	SW846 8270D
Anthracene		2.6	1.0	0.21	ug/l	SW846 8270D
Carbazole		14.1	1.0	0.23	ug/l	SW846 8270D
Dibenzofuran		16.2	5.0	0.22	ug/l	SW846 8270D
Fluoranthene		2.5	1.0	0.17	ug/l	SW846 8270D
Fluorene		20.8	1.0	0.17	ug/l	SW846 8270D
2-Methylnaphthalene		19.2	1.0	0.21	ug/l	SW846 8270D
Naphthalene		99.6	2.0	0.46	ug/l	SW846 8270D
Phenanthrene		18.5	1.0	0.18	ug/l	SW846 8270D
Pyrene		1.8	1.0	0.22	ug/l	SW846 8270D
JC40107-2	**MWN-01-033017**					
Benzene		14.7	0.50	0.14	ug/l	SW846 8260C
Ethylbenzene		0.94 J	1.0	0.20	ug/l	SW846 8260C
Naphthalene		204	50	10	ug/l	SW846 8260C
Toluene		3.4	1.0	0.23	ug/l	SW846 8260C
1,2,4-Trimethylbenzene		4.0	2.0	0.26	ug/l	SW846 8260C
1,3,5-Trimethylbenzene		3.5	2.0	0.32	ug/l	SW846 8260C
m,p-Xylene		10.2	1.0	0.42	ug/l	SW846 8260C
o-Xylene		7.3	1.0	0.21	ug/l	SW846 8260C
Xylene (total)		17.5	1.0	0.21	ug/l	SW846 8260C
Acenaphthene		10	1.0	0.19	ug/l	SW846 8270D
Acenaphthylene		26.1	1.0	0.14	ug/l	SW846 8270D
Anthracene		13.0	1.0	0.21	ug/l	SW846 8270D
Carbazole		21.1	1.0	0.23	ug/l	SW846 8270D
Dibenzofuran		38.7	5.0	0.22	ug/l	SW846 8270D
Fluoranthene		12.4	1.0	0.17	ug/l	SW846 8270D
Fluorene		53.8	1.0	0.17	ug/l	SW846 8270D
2-Methylnaphthalene		32.9	1.0	0.21	ug/l	SW846 8270D
Naphthalene		145	5.0	1.2	ug/l	SW846 8270D
Phenanthrene		80.7	5.0	0.88	ug/l	SW846 8270D
Pyrene		6.2	1.0	0.22	ug/l	SW846 8270D

Summary of Hits

Job Number: JC40107
Account: GZA GeoEnvironmental, Inc.
Project: Steelwinds, Buffalo, NY
Collected: 03/30/17

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JC40107-3	**MWN-01B-033017**					
Benzene		66.4	0.50	0.14	ug/l	SW846 8260C
Ethylbenzene		0.99 J	1.0	0.20	ug/l	SW846 8260C
Isopropylbenzene		1.5	1.0	0.16	ug/l	SW846 8260C
Naphthalene		1460	100	20	ug/l	SW846 8260C
Toluene		18.9	1.0	0.23	ug/l	SW846 8260C
1,2,4-Trimethylbenzene		7.4	2.0	0.26	ug/l	SW846 8260C
1,3,5-Trimethylbenzene		5.0	2.0	0.32	ug/l	SW846 8260C
m,p-Xylene		14.9	1.0	0.42	ug/l	SW846 8260C
o-Xylene		10	1.0	0.21	ug/l	SW846 8260C
Xylene (total)		24.9	1.0	0.21	ug/l	SW846 8260C
Acenaphthene		10.2	1.0	0.19	ug/l	SW846 8270D
Acenaphthylene		61.4	1.0	0.14	ug/l	SW846 8270D
Anthracene		11.6	1.0	0.21	ug/l	SW846 8270D
Carbazole		58.6	1.0	0.23	ug/l	SW846 8270D
Dibenzofuran		29.2	5.0	0.22	ug/l	SW846 8270D
Fluoranthene		10.4	1.0	0.17	ug/l	SW846 8270D
Fluorene		39.1	1.0	0.17	ug/l	SW846 8270D
2-Methylnaphthalene		39.2	1.0	0.21	ug/l	SW846 8270D
Naphthalene		1240	20	4.6	ug/l	SW846 8270D
Phenanthrene		65.8	1.0	0.18	ug/l	SW846 8270D
Pyrene		5.3	1.0	0.22	ug/l	SW846 8270D
JC40107-4	**WT1-04-033017**					
Benzene		9.0	0.50	0.14	ug/l	SW846 8260C
Ethylbenzene		0.49 J	1.0	0.20	ug/l	SW846 8260C
Naphthalene		48.0	5.0	1.0	ug/l	SW846 8260C
Toluene		1.8	1.0	0.23	ug/l	SW846 8260C
1,2,4-Trimethylbenzene		1.9 J	2.0	0.26	ug/l	SW846 8260C
1,3,5-Trimethylbenzene		2.5	2.0	0.32	ug/l	SW846 8260C
m,p-Xylene		4.7	1.0	0.42	ug/l	SW846 8260C
o-Xylene		3.5	1.0	0.21	ug/l	SW846 8260C
Xylene (total)		8.2	1.0	0.21	ug/l	SW846 8260C
Acenaphthene		2.7	1.0	0.19	ug/l	SW846 8270D
Acenaphthylene		2.1	1.0	0.14	ug/l	SW846 8270D
Anthracene		6.2	1.0	0.21	ug/l	SW846 8270D
Carbazole		4.8	1.0	0.23	ug/l	SW846 8270D
Dibenzofuran		8.7	5.0	0.22	ug/l	SW846 8270D
Fluoranthene		8.6	1.0	0.17	ug/l	SW846 8270D
Fluorene		13.0	1.0	0.17	ug/l	SW846 8270D
2-Methylnaphthalene		6.3	1.0	0.21	ug/l	SW846 8270D
Naphthalene		22.5	1.0	0.23	ug/l	SW846 8270D

Summary of Hits

Job Number: JC40107
Account: GZA GeoEnvironmental, Inc.
Project: Steelwinds, Buffalo, NY
Collected: 03/30/17

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Phenanthrene		36.2	1.0	0.18	ug/l	SW846 8270D
Pyrene		4.4	1.0	0.22	ug/l	SW846 8270D
JC40107-5	**BCP-ORC-1-033017**					
Benzene		36.1	0.50	0.14	ug/l	SW846 8260C
Ethylbenzene		0.33 J	1.0	0.20	ug/l	SW846 8260C
Isopropylbenzene		0.26 J	1.0	0.16	ug/l	SW846 8260C
Naphthalene		369	50	10	ug/l	SW846 8260C
Toluene		4.3	1.0	0.23	ug/l	SW846 8260C
1,2,4-Trimethylbenzene		2.9	2.0	0.26	ug/l	SW846 8260C
m,p-Xylene		3.5	1.0	0.42	ug/l	SW846 8260C
o-Xylene		5.1	1.0	0.21	ug/l	SW846 8260C
Xylene (total)		8.6	1.0	0.21	ug/l	SW846 8260C
Acenaphthene		6.1	1.0	0.19	ug/l	SW846 8270D
Acenaphthylene		26.3	1.0	0.14	ug/l	SW846 8270D
Anthracene		4.7	1.0	0.21	ug/l	SW846 8270D
Carbazole		35.8	1.0	0.23	ug/l	SW846 8270D
Dibenzofuran		16.1	5.0	0.22	ug/l	SW846 8270D
Fluoranthene		6.4	1.0	0.17	ug/l	SW846 8270D
Fluorene		25.8	1.0	0.17	ug/l	SW846 8270D
2-Methylnaphthalene		26.3	1.0	0.21	ug/l	SW846 8270D
Naphthalene		284	10	2.3	ug/l	SW846 8270D
Phenanthrene		38.9	1.0	0.18	ug/l	SW846 8270D
Pyrene		4.3	1.0	0.22	ug/l	SW846 8270D
JC40107-6	**WT1-02-033017**					
Benzene		12.9	0.50	0.14	ug/l	SW846 8260C
Ethylbenzene		0.69 J	1.0	0.20	ug/l	SW846 8260C
Naphthalene		39.5	5.0	1.0	ug/l	SW846 8260C
Toluene		2.5	1.0	0.23	ug/l	SW846 8260C
1,2,4-Trimethylbenzene		1.8 J	2.0	0.26	ug/l	SW846 8260C
1,3,5-Trimethylbenzene		2.7	2.0	0.32	ug/l	SW846 8260C
m,p-Xylene		5.8	1.0	0.42	ug/l	SW846 8260C
o-Xylene		4.5	1.0	0.21	ug/l	SW846 8260C
Xylene (total)		10.3	1.0	0.21	ug/l	SW846 8260C
Acenaphthene		1.5	1.0	0.19	ug/l	SW846 8270D
Acenaphthylene		1.1	1.0	0.14	ug/l	SW846 8270D
Anthracene		2.3	1.0	0.21	ug/l	SW846 8270D
Carbazole		4.2	1.0	0.23	ug/l	SW846 8270D
Dibenzofuran		4.5 J	5.0	0.22	ug/l	SW846 8270D
Fluoranthene		5.0	1.0	0.17	ug/l	SW846 8270D
Fluorene		6.0	1.0	0.17	ug/l	SW846 8270D
2-Methylnaphthalene		3.8	1.0	0.21	ug/l	SW846 8270D

Summary of Hits

Job Number: JC40107
Account: GZA GeoEnvironmental, Inc.
Project: Steelwinds, Buffalo, NY
Collected: 03/30/17

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Naphthalene		16.0	1.0	0.23	ug/l	SW846 8270D
Phenanthrene		14.3	1.0	0.18	ug/l	SW846 8270D
Pyrene		2.9	1.0	0.22	ug/l	SW846 8270D

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	WT1-05-033017		
Lab Sample ID:	JC40107-1	**Date Sampled:**	03/30/17
Matrix:	AQ - Ground Water	**Date Received:**	03/31/17
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Steelwinds, Buffalo, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D165454.D	1	04/03/17	JP	n/a	n/a	V2D6934
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA (FUEL OIL) List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	14.6	0.50	0.14	ug/l	
104-51-8	n-Butylbenzene	ND	2.0	0.28	ug/l	
135-98-8	sec-Butylbenzene	ND	2.0	1.0	ug/l	
98-06-6	tert-Butylbenzene	ND	2.0	0.28	ug/l	
100-41-4	Ethylbenzene	0.89	1.0	0.20	ug/l	J
98-82-8	Isopropylbenzene	ND	1.0	0.16	ug/l	
99-87-6	p-Isopropyltoluene	ND	2.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.34	ug/l	
91-20-3	Naphthalene	177	5.0	1.0	ug/l	
103-65-1	n-Propylbenzene	ND	2.0	0.17	ug/l	
108-88-3	Toluene	3.5	1.0	0.23	ug/l	
95-63-6	1,2,4-Trimethylbenzene	3.0	2.0	0.26	ug/l	
108-67-8	1,3,5-Trimethylbenzene	2.6	2.0	0.32	ug/l	
	m,p-Xylene	8.9	1.0	0.42	ug/l	
95-47-6	o-Xylene	6.6	1.0	0.21	ug/l	
1330-20-7	Xylene (total)	15.5	1.0	0.21	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		76-120%
17060-07-0	1,2-Dichloroethane-D4	106%		73-122%
2037-26-5	Toluene-D8	100%		84-119%
460-00-4	4-Bromofluorobenzene	97%		78-117%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WT1-05-033017		
Lab Sample ID:	JC40107-1	**Date Sampled:**	03/30/17
Matrix:	AQ - Ground Water	**Date Received:**	03/31/17
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	Steelwinds, Buffalo, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	6P36324.D	1	04/06/17	AC	04/05/17	OP1670	E6P1674
Run #2	6P36354.D	2	04/07/17	SB	04/05/17	OP1670	E6P1675

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2	1000 ml	1.0 ml

B8270 Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	4.8	1.0	0.19	ug/l	
208-96-8	Acenaphthylene	15.4	1.0	0.14	ug/l	
120-12-7	Anthracene	2.6	1.0	0.21	ug/l	
56-55-3	Benzo(a)anthracene	ND	1.0	0.20	ug/l	
50-32-8	Benzo(a)pyrene	ND	1.0	0.21	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	1.0	0.21	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	1.0	0.34	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	1.0	0.21	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	2.0	0.40	ug/l	
85-68-7	Butyl benzyl phthalate	ND	2.0	0.46	ug/l	
91-58-7	2-Chloronaphthalene	ND	2.0	0.24	ug/l	
106-47-8	4-Chloroaniline	ND	5.0	0.34	ug/l	
86-74-8	Carbazole	14.1	1.0	0.23	ug/l	
218-01-9	Chrysene	ND	1.0	0.18	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	2.0	0.28	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	2.0	0.25	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	2.0	0.40	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	2.0	0.37	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.17	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.19	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.17	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	1.0	0.55	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	1.0	0.48	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	2.0	0.51	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	1.0	0.33	ug/l	
132-64-9	Dibenzofuran	16.2	5.0	0.22	ug/l	
84-66-2	Diethyl phthalate	ND	2.0	0.26	ug/l	
131-11-3	Dimethyl phthalate	ND	2.0	0.22	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	1.7	ug/l	
206-44-0	Fluoranthene	2.5	1.0	0.17	ug/l	
86-73-7	Fluorene	20.8	1.0	0.17	ug/l	
118-74-1	Hexachlorobenzene	ND	1.0	0.33	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WT1-05-033017		
Lab Sample ID:	JC40107-1	**Date Sampled:**	03/30/17
Matrix:	AQ - Ground Water	**Date Received:**	03/31/17
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	Steelwinds, Buffalo, NY		

B8270 Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
87-68-3	Hexachlorobutadiene	ND	1.0	0.49	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	2.8	ug/l	
67-72-1	Hexachloroethane	ND	2.0	0.39	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	1.0	0.33	ug/l	
78-59-1	Isophorone	ND	2.0	0.28	ug/l	
91-57-6	2-Methylnaphthalene	19.2	1.0	0.21	ug/l	
88-74-4	2-Nitroaniline	ND	5.0	0.28	ug/l	
99-09-2	3-Nitroaniline	ND	5.0	0.39	ug/l	
100-01-6	4-Nitroaniline	ND	5.0	0.44	ug/l	
91-20-3	Naphthalene	99.6 [a]	2.0	0.46	ug/l	
98-95-3	Nitrobenzene	ND	2.0	0.64	ug/l	
85-01-8	Phenanthrene	18.5	1.0	0.18	ug/l	
129-00-0	Pyrene	1.8	1.0	0.22	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.25	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	82%	66%	34-128%
321-60-8	2-Fluorobiphenyl	78%	70%	38-119%
1718-51-0	Terphenyl-d14	94%	79%	26-129%

(a) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MWN-01-033017		
Lab Sample ID:	JC40107-2	**Date Sampled:**	03/30/17
Matrix:	AQ - Ground Water	**Date Received:**	03/31/17
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Steelwinds, Buffalo, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D165455.D	1	04/03/17	JP	n/a	n/a	V2D6934
Run #2	2D165491.D	10	04/04/17	JP	n/a	n/a	V2D6936

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

VOA (FUEL OIL) List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	14.7	0.50	0.14	ug/l	
104-51-8	n-Butylbenzene	ND	2.0	0.28	ug/l	
135-98-8	sec-Butylbenzene	ND	2.0	1.0	ug/l	
98-06-6	tert-Butylbenzene	ND	2.0	0.28	ug/l	
100-41-4	Ethylbenzene	0.94	1.0	0.20	ug/l	J
98-82-8	Isopropylbenzene	ND	1.0	0.16	ug/l	
99-87-6	p-Isopropyltoluene	ND	2.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.34	ug/l	
91-20-3	Naphthalene	204 [a]	50	10	ug/l	
103-65-1	n-Propylbenzene	ND	2.0	0.17	ug/l	
108-88-3	Toluene	3.4	1.0	0.23	ug/l	
95-63-6	1,2,4-Trimethylbenzene	4.0	2.0	0.26	ug/l	
108-67-8	1,3,5-Trimethylbenzene	3.5	2.0	0.32	ug/l	
	m,p-Xylene	10.2	1.0	0.42	ug/l	
95-47-6	o-Xylene	7.3	1.0	0.21	ug/l	
1330-20-7	Xylene (total)	17.5	1.0	0.21	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%	105%	76-120%
17060-07-0	1,2-Dichloroethane-D4	104%	104%	73-122%
2037-26-5	Toluene-D8	100%	100%	84-119%
460-00-4	4-Bromofluorobenzene	96%	98%	78-117%

(a) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MWN-01-033017		
Lab Sample ID:	JC40107-2	**Date Sampled:**	03/30/17
Matrix:	AQ - Ground Water	**Date Received:**	03/31/17
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	Steelwinds, Buffalo, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	6P36351.D	1	04/06/17	SB	04/05/17	OP1670	E6P1675
Run #2	6P36355.D	5	04/07/17	SB	04/05/17	OP1670	E6P1675

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2	1000 ml	1.0 ml

B8270 Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	10	1.0	0.19	ug/l	
208-96-8	Acenaphthylene	26.1	1.0	0.14	ug/l	
120-12-7	Anthracene	13.0	1.0	0.21	ug/l	
56-55-3	Benzo(a)anthracene	ND	1.0	0.20	ug/l	
50-32-8	Benzo(a)pyrene	ND	1.0	0.21	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	1.0	0.21	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	1.0	0.34	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	1.0	0.21	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	2.0	0.40	ug/l	
85-68-7	Butyl benzyl phthalate	ND	2.0	0.46	ug/l	
91-58-7	2-Chloronaphthalene	ND	2.0	0.24	ug/l	
106-47-8	4-Chloroaniline	ND	5.0	0.34	ug/l	
86-74-8	Carbazole	21.1	1.0	0.23	ug/l	
218-01-9	Chrysene	ND	1.0	0.18	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	2.0	0.28	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	2.0	0.25	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	2.0	0.40	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	2.0	0.37	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.17	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.19	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.17	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	1.0	0.55	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	1.0	0.48	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	2.0	0.51	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	1.0	0.33	ug/l	
132-64-9	Dibenzofuran	38.7	5.0	0.22	ug/l	
84-66-2	Diethyl phthalate	ND	2.0	0.26	ug/l	
131-11-3	Dimethyl phthalate	ND	2.0	0.22	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	1.7	ug/l	
206-44-0	Fluoranthene	12.4	1.0	0.17	ug/l	
86-73-7	Fluorene	53.8	1.0	0.17	ug/l	
118-74-1	Hexachlorobenzene	ND	1.0	0.33	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MWN-01-033017		
Lab Sample ID:	JC40107-2	**Date Sampled:**	03/30/17
Matrix:	AQ - Ground Water	**Date Received:**	03/31/17
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	Steelwinds, Buffalo, NY		

B8270 Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
87-68-3	Hexachlorobutadiene	ND	1.0	0.49	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	2.8	ug/l	
67-72-1	Hexachloroethane	ND	2.0	0.39	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	1.0	0.33	ug/l	
78-59-1	Isophorone	ND	2.0	0.28	ug/l	
91-57-6	2-Methylnaphthalene	32.9	1.0	0.21	ug/l	
88-74-4	2-Nitroaniline	ND	5.0	0.28	ug/l	
99-09-2	3-Nitroaniline	ND	5.0	0.39	ug/l	
100-01-6	4-Nitroaniline	ND	5.0	0.44	ug/l	
91-20-3	Naphthalene	145 [a]	5.0	1.2	ug/l	
98-95-3	Nitrobenzene	ND	2.0	0.64	ug/l	
85-01-8	Phenanthrene	80.7 [a]	5.0	0.88	ug/l	
129-00-0	Pyrene	6.2	1.0	0.22	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.25	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	74%	60%	34-128%
321-60-8	2-Fluorobiphenyl	78%	68%	38-119%
1718-51-0	Terphenyl-d14	92%	78%	26-129%

(a) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MWN-01B-033017		
Lab Sample ID:	JC40107-3	**Date Sampled:**	03/30/17
Matrix:	AQ - Ground Water	**Date Received:**	03/31/17
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Steelwinds, Buffalo, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D165456.D	1	04/03/17	JP	n/a	n/a	V2D6934
Run #2	2D165492.D	20	04/04/17	JP	n/a	n/a	V2D6936

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

VOA (FUEL OIL) List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	66.4	0.50	0.14	ug/l	
104-51-8	n-Butylbenzene	ND	2.0	0.28	ug/l	
135-98-8	sec-Butylbenzene	ND	2.0	1.0	ug/l	
98-06-6	tert-Butylbenzene	ND	2.0	0.28	ug/l	
100-41-4	Ethylbenzene	0.99	1.0	0.20	ug/l	J
98-82-8	Isopropylbenzene	1.5	1.0	0.16	ug/l	
99-87-6	p-Isopropyltoluene	ND	2.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.34	ug/l	
91-20-3	Naphthalene	1460 [a]	100	20	ug/l	
103-65-1	n-Propylbenzene	ND	2.0	0.17	ug/l	
108-88-3	Toluene	18.9	1.0	0.23	ug/l	
95-63-6	1,2,4-Trimethylbenzene	7.4	2.0	0.26	ug/l	
108-67-8	1,3,5-Trimethylbenzene	5.0	2.0	0.32	ug/l	
	m,p-Xylene	14.9	1.0	0.42	ug/l	
95-47-6	o-Xylene	10	1.0	0.21	ug/l	
1330-20-7	Xylene (total)	24.9	1.0	0.21	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%	105%	76-120%
17060-07-0	1,2-Dichloroethane-D4	105%	104%	73-122%
2037-26-5	Toluene-D8	100%	100%	84-119%
460-00-4	4-Bromofluorobenzene	93%	100%	78-117%

(a) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MWN-01B-033017		
Lab Sample ID:	JC40107-3	**Date Sampled:**	03/30/17
Matrix:	AQ - Ground Water	**Date Received:**	03/31/17
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	Steelwinds, Buffalo, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	6P36353.D	1	04/07/17	SB	04/05/17	OP1670	E6P1675
Run #2	6P36356.D	20	04/07/17	SB	04/05/17	OP1670	E6P1675

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2	1000 ml	1.0 ml

B8270 Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	10.2	1.0	0.19	ug/l	
208-96-8	Acenaphthylene	61.4	1.0	0.14	ug/l	
120-12-7	Anthracene	11.6	1.0	0.21	ug/l	
56-55-3	Benzo(a)anthracene	ND	1.0	0.20	ug/l	
50-32-8	Benzo(a)pyrene	ND	1.0	0.21	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	1.0	0.21	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	1.0	0.34	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	1.0	0.21	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	2.0	0.40	ug/l	
85-68-7	Butyl benzyl phthalate	ND	2.0	0.46	ug/l	
91-58-7	2-Chloronaphthalene	ND	2.0	0.24	ug/l	
106-47-8	4-Chloroaniline	ND	5.0	0.34	ug/l	
86-74-8	Carbazole	58.6	1.0	0.23	ug/l	
218-01-9	Chrysene	ND	1.0	0.18	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	2.0	0.28	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	2.0	0.25	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	2.0	0.40	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	2.0	0.37	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.17	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.19	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.17	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	1.0	0.55	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	1.0	0.48	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	2.0	0.51	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	1.0	0.33	ug/l	
132-64-9	Dibenzofuran	29.2	5.0	0.22	ug/l	
84-66-2	Diethyl phthalate	ND	2.0	0.26	ug/l	
131-11-3	Dimethyl phthalate	ND	2.0	0.22	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	1.7	ug/l	
206-44-0	Fluoranthene	10.4	1.0	0.17	ug/l	
86-73-7	Fluorene	39.1	1.0	0.17	ug/l	
118-74-1	Hexachlorobenzene	ND	1.0	0.33	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MWN-01B-033017		
Lab Sample ID:	JC40107-3	**Date Sampled:**	03/30/17
Matrix:	AQ - Ground Water	**Date Received:**	03/31/17
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	Steelwinds, Buffalo, NY		

B8270 Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
87-68-3	Hexachlorobutadiene	ND	1.0	0.49	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	2.8	ug/l	
67-72-1	Hexachloroethane	ND	2.0	0.39	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	1.0	0.33	ug/l	
78-59-1	Isophorone	ND	2.0	0.28	ug/l	
91-57-6	2-Methylnaphthalene	39.2	1.0	0.21	ug/l	
88-74-4	2-Nitroaniline	ND	5.0	0.28	ug/l	
99-09-2	3-Nitroaniline	ND	5.0	0.39	ug/l	
100-01-6	4-Nitroaniline	ND	5.0	0.44	ug/l	
91-20-3	Naphthalene	1240 [a]	20	4.6	ug/l	
98-95-3	Nitrobenzene	ND	2.0	0.64	ug/l	
85-01-8	Phenanthrene	65.8	1.0	0.18	ug/l	
129-00-0	Pyrene	5.3	1.0	0.22	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.25	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	60%	56%	34-128%
321-60-8	2-Fluorobiphenyl	80%	74%	38-119%
1718-51-0	Terphenyl-d14	85%	71%	26-129%

(a) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WT1-04-033017		
Lab Sample ID:	JC40107-4	**Date Sampled:**	03/30/17
Matrix:	AQ - Ground Water	**Date Received:**	03/31/17
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Steelwinds, Buffalo, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D165487.D	1	04/04/17	JP	n/a	n/a	V2D6936
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA (FUEL OIL) List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	9.0	0.50	0.14	ug/l	
104-51-8	n-Butylbenzene	ND	2.0	0.28	ug/l	
135-98-8	sec-Butylbenzene	ND	2.0	1.0	ug/l	
98-06-6	tert-Butylbenzene	ND	2.0	0.28	ug/l	
100-41-4	Ethylbenzene	0.49	1.0	0.20	ug/l	J
98-82-8	Isopropylbenzene	ND	1.0	0.16	ug/l	
99-87-6	p-Isopropyltoluene	ND	2.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.34	ug/l	
91-20-3	Naphthalene	48.0	5.0	1.0	ug/l	
103-65-1	n-Propylbenzene	ND	2.0	0.17	ug/l	
108-88-3	Toluene	1.8	1.0	0.23	ug/l	
95-63-6	1,2,4-Trimethylbenzene	1.9	2.0	0.26	ug/l	J
108-67-8	1,3,5-Trimethylbenzene	2.5	2.0	0.32	ug/l	
	m,p-Xylene	4.7	1.0	0.42	ug/l	
95-47-6	o-Xylene	3.5	1.0	0.21	ug/l	
1330-20-7	Xylene (total)	8.2	1.0	0.21	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		76-120%
17060-07-0	1,2-Dichloroethane-D4	104%		73-122%
2037-26-5	Toluene-D8	100%		84-119%
460-00-4	4-Bromofluorobenzene	99%		78-117%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WT1-04-033017		
Lab Sample ID:	JC40107-4	**Date Sampled:**	03/30/17
Matrix:	AQ - Ground Water	**Date Received:**	03/31/17
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	Steelwinds, Buffalo, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	6P36349.D	1	04/06/17	SB	04/05/17	OP1670	E6P1675
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

B8270 Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	2.7	1.0	0.19	ug/l	
208-96-8	Acenaphthylene	2.1	1.0	0.14	ug/l	
120-12-7	Anthracene	6.2	1.0	0.21	ug/l	
56-55-3	Benzo(a)anthracene	ND	1.0	0.20	ug/l	
50-32-8	Benzo(a)pyrene	ND	1.0	0.21	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	1.0	0.21	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	1.0	0.34	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	1.0	0.21	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	2.0	0.40	ug/l	
85-68-7	Butyl benzyl phthalate	ND	2.0	0.46	ug/l	
91-58-7	2-Chloronaphthalene	ND	2.0	0.24	ug/l	
106-47-8	4-Chloroaniline	ND	5.0	0.34	ug/l	
86-74-8	Carbazole	4.8	1.0	0.23	ug/l	
218-01-9	Chrysene	ND	1.0	0.18	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	2.0	0.28	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	2.0	0.25	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	2.0	0.40	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	2.0	0.37	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.17	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.19	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.17	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	1.0	0.55	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	1.0	0.48	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	2.0	0.51	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	1.0	0.33	ug/l	
132-64-9	Dibenzofuran	8.7	5.0	0.22	ug/l	
84-66-2	Diethyl phthalate	ND	2.0	0.26	ug/l	
131-11-3	Dimethyl phthalate	ND	2.0	0.22	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	1.7	ug/l	
206-44-0	Fluoranthene	8.6	1.0	0.17	ug/l	
86-73-7	Fluorene	13.0	1.0	0.17	ug/l	
118-74-1	Hexachlorobenzene	ND	1.0	0.33	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WT1-04-033017		
Lab Sample ID:	JC40107-4	**Date Sampled:**	03/30/17
Matrix:	AQ - Ground Water	**Date Received:**	03/31/17
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	Steelwinds, Buffalo, NY		

B8270 Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
87-68-3	Hexachlorobutadiene	ND	1.0	0.49	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	2.8	ug/l	
67-72-1	Hexachloroethane	ND	2.0	0.39	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	1.0	0.33	ug/l	
78-59-1	Isophorone	ND	2.0	0.28	ug/l	
91-57-6	2-Methylnaphthalene	6.3	1.0	0.21	ug/l	
88-74-4	2-Nitroaniline	ND	5.0	0.28	ug/l	
99-09-2	3-Nitroaniline	ND	5.0	0.39	ug/l	
100-01-6	4-Nitroaniline	ND	5.0	0.44	ug/l	
91-20-3	Naphthalene	22.5	1.0	0.23	ug/l	
98-95-3	Nitrobenzene	ND	2.0	0.64	ug/l	
85-01-8	Phenanthrene	36.2	1.0	0.18	ug/l	
129-00-0	Pyrene	4.4	1.0	0.22	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.25	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	72%		34-128%
321-60-8	2-Fluorobiphenyl	76%		38-119%
1718-51-0	Terphenyl-d14	83%		26-129%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BCP-ORC-1-033017		
Lab Sample ID:	JC40107-5	**Date Sampled:**	03/30/17
Matrix:	AQ - Ground Water	**Date Received:**	03/31/17
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Steelwinds, Buffalo, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D165488.D	1	04/04/17	JP	n/a	n/a	V2D6936
Run #2	2D165525.D	10	04/05/17	JP	n/a	n/a	V2D6938

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

VOA (FUEL OIL) List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	36.1	0.50	0.14	ug/l	
104-51-8	n-Butylbenzene	ND	2.0	0.28	ug/l	
135-98-8	sec-Butylbenzene	ND	2.0	1.0	ug/l	
98-06-6	tert-Butylbenzene	ND	2.0	0.28	ug/l	
100-41-4	Ethylbenzene	0.33	1.0	0.20	ug/l	J
98-82-8	Isopropylbenzene	0.26	1.0	0.16	ug/l	J
99-87-6	p-Isopropyltoluene	ND	2.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.34	ug/l	
91-20-3	Naphthalene	369 [a]	50	10	ug/l	
103-65-1	n-Propylbenzene	ND	2.0	0.17	ug/l	
108-88-3	Toluene	4.3	1.0	0.23	ug/l	
95-63-6	1,2,4-Trimethylbenzene	2.9	2.0	0.26	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.32	ug/l	
	m,p-Xylene	3.5	1.0	0.42	ug/l	
95-47-6	o-Xylene	5.1	1.0	0.21	ug/l	
1330-20-7	Xylene (total)	8.6	1.0	0.21	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%	105%	76-120%
17060-07-0	1,2-Dichloroethane-D4	105%	103%	73-122%
2037-26-5	Toluene-D8	100%	100%	84-119%
460-00-4	4-Bromofluorobenzene	97%	100%	78-117%

(a) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BCP-ORC-1-033017		
Lab Sample ID:	JC40107-5	**Date Sampled:**	03/30/17
Matrix:	AQ - Ground Water	**Date Received:**	03/31/17
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	Steelwinds, Buffalo, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	6P36352.D	1	04/06/17	SB	04/05/17	OP1670	E6P1675
Run #2	6P36357.D	10	04/07/17	SB	04/05/17	OP1670	E6P1675

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2	1000 ml	1.0 ml

B8270 Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	6.1	1.0	0.19	ug/l	
208-96-8	Acenaphthylene	26.3	1.0	0.14	ug/l	
120-12-7	Anthracene	4.7	1.0	0.21	ug/l	
56-55-3	Benzo(a)anthracene	ND	1.0	0.20	ug/l	
50-32-8	Benzo(a)pyrene	ND	1.0	0.21	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	1.0	0.21	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	1.0	0.34	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	1.0	0.21	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	2.0	0.40	ug/l	
85-68-7	Butyl benzyl phthalate	ND	2.0	0.46	ug/l	
91-58-7	2-Chloronaphthalene	ND	2.0	0.24	ug/l	
106-47-8	4-Chloroaniline	ND	5.0	0.34	ug/l	
86-74-8	Carbazole	35.8	1.0	0.23	ug/l	
218-01-9	Chrysene	ND	1.0	0.18	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	2.0	0.28	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	2.0	0.25	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	2.0	0.40	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	2.0	0.37	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.17	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.19	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.17	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	1.0	0.55	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	1.0	0.48	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	2.0	0.51	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	1.0	0.33	ug/l	
132-64-9	Dibenzofuran	16.1	5.0	0.22	ug/l	
84-66-2	Diethyl phthalate	ND	2.0	0.26	ug/l	
131-11-3	Dimethyl phthalate	ND	2.0	0.22	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	1.7	ug/l	
206-44-0	Fluoranthene	6.4	1.0	0.17	ug/l	
86-73-7	Fluorene	25.8	1.0	0.17	ug/l	
118-74-1	Hexachlorobenzene	ND	1.0	0.33	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BCP-ORC-1-033017		
Lab Sample ID:	JC40107-5	**Date Sampled:**	03/30/17
Matrix:	AQ - Ground Water	**Date Received:**	03/31/17
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	Steelwinds, Buffalo, NY		

B8270 Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
87-68-3	Hexachlorobutadiene	ND	1.0	0.49	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	2.8	ug/l	
67-72-1	Hexachloroethane	ND	2.0	0.39	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	1.0	0.33	ug/l	
78-59-1	Isophorone	ND	2.0	0.28	ug/l	
91-57-6	2-Methylnaphthalene	26.3	1.0	0.21	ug/l	
88-74-4	2-Nitroaniline	ND	5.0	0.28	ug/l	
99-09-2	3-Nitroaniline	ND	5.0	0.39	ug/l	
100-01-6	4-Nitroaniline	ND	5.0	0.44	ug/l	
91-20-3	Naphthalene	284 [a]	10	2.3	ug/l	
98-95-3	Nitrobenzene	ND	2.0	0.64	ug/l	
85-01-8	Phenanthrene	38.9	1.0	0.18	ug/l	
129-00-0	Pyrene	4.3	1.0	0.22	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.25	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	76%	65%	34-128%
321-60-8	2-Fluorobiphenyl	80%	69%	38-119%
1718-51-0	Terphenyl-d14	91%	77%	26-129%

(a) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WT1-02-033017		
Lab Sample ID:	JC40107-6	**Date Sampled:**	03/30/17
Matrix:	AQ - Ground Water	**Date Received:**	03/31/17
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Steelwinds, Buffalo, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D165526.D	1	04/05/17	JP	n/a	n/a	V2D6938
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA (FUEL OIL) List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	12.9	0.50	0.14	ug/l	
104-51-8	n-Butylbenzene	ND	2.0	0.28	ug/l	
135-98-8	sec-Butylbenzene	ND	2.0	1.0	ug/l	
98-06-6	tert-Butylbenzene	ND	2.0	0.28	ug/l	
100-41-4	Ethylbenzene	0.69	1.0	0.20	ug/l	J
98-82-8	Isopropylbenzene	ND	1.0	0.16	ug/l	
99-87-6	p-Isopropyltoluene	ND	2.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.34	ug/l	
91-20-3	Naphthalene	39.5	5.0	1.0	ug/l	
103-65-1	n-Propylbenzene	ND	2.0	0.17	ug/l	
108-88-3	Toluene	2.5	1.0	0.23	ug/l	
95-63-6	1,2,4-Trimethylbenzene	1.8	2.0	0.26	ug/l	J
108-67-8	1,3,5-Trimethylbenzene	2.7	2.0	0.32	ug/l	
	m,p-Xylene	5.8	1.0	0.42	ug/l	
95-47-6	o-Xylene	4.5	1.0	0.21	ug/l	
1330-20-7	Xylene (total)	10.3	1.0	0.21	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		76-120%
17060-07-0	1,2-Dichloroethane-D4	103%		73-122%
2037-26-5	Toluene-D8	100%		84-119%
460-00-4	4-Bromofluorobenzene	98%		78-117%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WT1-02-033017		
Lab Sample ID:	JC40107-6	**Date Sampled:**	03/30/17
Matrix:	AQ - Ground Water	**Date Received:**	03/31/17
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	Steelwinds, Buffalo, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	6P36350.D	1	04/06/17	SB	04/05/17	OP1670	E6P1675
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

B8270 Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	1.5	1.0	0.19	ug/l	
208-96-8	Acenaphthylene	1.1	1.0	0.14	ug/l	
120-12-7	Anthracene	2.3	1.0	0.21	ug/l	
56-55-3	Benzo(a)anthracene	ND	1.0	0.20	ug/l	
50-32-8	Benzo(a)pyrene	ND	1.0	0.21	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	1.0	0.21	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	1.0	0.34	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	1.0	0.21	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	2.0	0.40	ug/l	
85-68-7	Butyl benzyl phthalate	ND	2.0	0.46	ug/l	
91-58-7	2-Chloronaphthalene	ND	2.0	0.24	ug/l	
106-47-8	4-Chloroaniline	ND	5.0	0.34	ug/l	
86-74-8	Carbazole	4.2	1.0	0.23	ug/l	
218-01-9	Chrysene	ND	1.0	0.18	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	2.0	0.28	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	2.0	0.25	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	2.0	0.40	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	2.0	0.37	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.17	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.19	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.17	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	1.0	0.55	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	1.0	0.48	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	2.0	0.51	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	1.0	0.33	ug/l	
132-64-9	Dibenzofuran	4.5	5.0	0.22	ug/l	J
84-66-2	Diethyl phthalate	ND	2.0	0.26	ug/l	
131-11-3	Dimethyl phthalate	ND	2.0	0.22	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	1.7	ug/l	
206-44-0	Fluoranthene	5.0	1.0	0.17	ug/l	
86-73-7	Fluorene	6.0	1.0	0.17	ug/l	
118-74-1	Hexachlorobenzene	ND	1.0	0.33	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WT1-02-033017		
Lab Sample ID:	JC40107-6	**Date Sampled:**	03/30/17
Matrix:	AQ - Ground Water	**Date Received:**	03/31/17
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	Steelwinds, Buffalo, NY		

B8270 Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
87-68-3	Hexachlorobutadiene	ND	1.0	0.49	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	2.8	ug/l	
67-72-1	Hexachloroethane	ND	2.0	0.39	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	1.0	0.33	ug/l	
78-59-1	Isophorone	ND	2.0	0.28	ug/l	
91-57-6	2-Methylnaphthalene	3.8	1.0	0.21	ug/l	
88-74-4	2-Nitroaniline	ND	5.0	0.28	ug/l	
99-09-2	3-Nitroaniline	ND	5.0	0.39	ug/l	
100-01-6	4-Nitroaniline	ND	5.0	0.44	ug/l	
91-20-3	Naphthalene	16.0	1.0	0.23	ug/l	
98-95-3	Nitrobenzene	ND	2.0	0.64	ug/l	
85-01-8	Phenanthrene	14.3	1.0	0.18	ug/l	
129-00-0	Pyrene	2.9	1.0	0.22	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.25	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	68%		34-128%
321-60-8	2-Fluorobiphenyl	70%		38-119%
1718-51-0	Terphenyl-d14	89%		26-129%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

SGS ACCUTEST

GW

CHAIN OF CUSTODY

SGS Accutest - Dayton
2235 Route 130, Dayton, NJ 08810
TEL. 732-329-0200 FAX: 732-329-3499/3480
www.accutest.com

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FED-EX Tracking # 7250 6927 8557 | Bottle Order Control #
SGS Accutest Quote # | SGS Accutest Job # JC40107

Client / Reporting Information

Company Name: GZA
Street Address: 535 Washington St. Floor 11
City: Buffalo State: NY Zip: 14203
Project Contact: Dan Troy E-mail:
Phone #: 716-844-7034 Fax #:
Sampler(s) Name(s): Margaret A. Popek 716-844-7047 Phone #:

Project Information

Project Name: Steel Winds I, Vicinity of WT-1
Street: NYSDEC C915205
City: Lackawanna State: NY
Project #: 03.0033579.08
Client Purchase Order #: 03.0033579.08
Project Manager: Dan Troy

Billing Information (if different from Report to)

Company Name:
Street Address:
City State Zip:
Attention:

Requested Analysis (see TEST CODE sheet)

8260 STARS
8270 BN

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL- Sludge
SED-Sediment
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe
FB-Field Blank
EB-Equipment Blank
RB- Rinse Blank
TB-Trip Blank

SGS Accutest Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	Number of preserved Bottles: HCl	NaOH	HNO3	H2SO4	NONE	NI Water	MEOH	ENCORE	LAB USE ONLY
1	WT1-05-033017		3/30/17	1123	MP	GW	5	3				2				E80
2	MWN-01-033017		3/30/17	1232	MP	GW	5	3				2				V482
3	MWN-01B-033017		3/30/17	1337	MP	GW	5	3				2				
4	WT1-04-033017		3/30/17	1438	MP	GW	5	3				2				
5	BCP-ORC-1-033017		3/30/17	1605	MP	GW	5	3				2				
6	WT1-02-033017		3/30/17	0931	MP	GW	5	3				2				

Turnaround Time (Business days)

- ☐ Std. 10 Business Days
- ☐ 5 Day RUSH
- ☐ 3 Day RUSH
- ☐ 2 Day RUSH
- ☐ 1 Day RUSH
- ☑ other STD 5 Day by Contract

Emergency & Rush T/A data available VIA Lablink

Approved by (SGS Accutest PM): / Date:

INITIAL ASESSMENT AM 2A

LABEL VERIFICATION

Data Deliverable Information

- ☐ Commercial "a" (Level 1)
- ☑ Commercial "b" *Level 2)
- ☐ FULLT1 (Level 3+4)
- ☐ NJ Reduced
- ☐ Commercial "C"
- ☐ NJ Data of Known Quality Protocol Reporting

Commercial "A" = Results Only, Commercial "B" = Results + QC Summary
NJ Reduced = Results + QC Summary + Partial Raw data

- ☐ NYASP Category A
- ☐ NYASP Category B
- ☐ State Forms
- ☑ EDD Format NYSDEC equis
- ☐ Other

Comments / Special Instructions

chain of custody seal numbers:
VOC and SVOC analytes must consist of those in attached Eurofins report pages

Sample inventory is verified upon receipt in the Laboratory

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1 Margaret A Popek	3/30/17 1700	1 FX	2 FX	3/31/17 940	2
Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
3		3	4		4
Relinquished by Sampler:	Date Time:	Received By:	Custody Seal # 812,814,— ☐ Intact ☐ Not intact	Preserved where applicable ☐	On Ice ☐ Cooler Temp. 0.9, 1.4, 1.6
5		5			

SM088-01C Rev. Date: 9/13/16

1P

4.1 4

JC40107: Chain of Custody
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SGS Accutest Sample Receipt Summary

Job Number: JC40107 **Client:** _____ **Project:** _____

Date / Time Received: 3/31/2017 9:40:00 AM **Delivery Method:** _____ **Airbill #'s:** _____

Cooler Temps (Raw Measured) °C: Cooler 1: (0.9); Cooler 2: (1.4); Cooler 3: (1.6);

Cooler Temps (Corrected) °C: Cooler 1: (2.3); Cooler 2: (2.8); Cooler 3: (3.0);

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:	IR Gun		
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	3		

Quality Control Preservation	Y	or	N	N/A
1. Trip Blank present / cooler:	☐		☑	☐
2. Trip Blank listed on COC:	☐		☑	☐
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☑		☐	☐

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Comments

SM089-02
Rev. Date 12/1/16

JC40107: Chain of Custody
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GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (BFB)
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: JC40107
Account: GZANYB GZA GeoEnvironmental, Inc.
Project: Steelwinds, Buffalo, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2D6934-MB	2D165437.D	1	04/03/17	JP	n/a	n/a	V2D6934

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC40107-1, JC40107-2, JC40107-3

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.50	0.14	ug/l	
104-51-8	n-Butylbenzene	ND	2.0	0.28	ug/l	
135-98-8	sec-Butylbenzene	ND	2.0	1.0	ug/l	
98-06-6	tert-Butylbenzene	ND	2.0	0.28	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.16	ug/l	
99-87-6	p-Isopropyltoluene	ND	2.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.34	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
103-65-1	n-Propylbenzene	ND	2.0	0.17	ug/l	
108-88-3	Toluene	ND	1.0	0.23	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.26	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.32	ug/l	
	m,p-Xylene	ND	1.0	0.42	ug/l	
95-47-6	o-Xylene	ND	1.0	0.21	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.21	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	106%	76-120%
17060-07-0	1,2-Dichloroethane-D4	106%	73-122%
2037-26-5	Toluene-D8	100%	84-119%
460-00-4	4-Bromofluorobenzene	102%	78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	system artifact	3.43	60	ug/l	J
	Total TIC, Volatile		0	ug/l	

Method Blank Summary

Job Number: JC40107
Account: GZANYB GZA GeoEnvironmental, Inc.
Project: Steelwinds, Buffalo, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2D6936-MB	2D165482.D	1	04/04/17	JP	n/a	n/a	V2D6936

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC40107-2, JC40107-3, JC40107-4, JC40107-5

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.50	0.14	ug/l	
104-51-8	n-Butylbenzene	ND	2.0	0.28	ug/l	
135-98-8	sec-Butylbenzene	ND	2.0	1.0	ug/l	
98-06-6	tert-Butylbenzene	ND	2.0	0.28	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.16	ug/l	
99-87-6	p-Isopropyltoluene	ND	2.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.34	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
103-65-1	n-Propylbenzene	ND	2.0	0.17	ug/l	
108-88-3	Toluene	ND	1.0	0.23	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.26	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.32	ug/l	
	m,p-Xylene	ND	1.0	0.42	ug/l	
95-47-6	o-Xylene	ND	1.0	0.21	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.21	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	104%	76-120%
17060-07-0	1,2-Dichloroethane-D4	104%	73-122%
2037-26-5	Toluene-D8	100%	84-119%
460-00-4	4-Bromofluorobenzene	103%	78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	system artifact	3.45	60	ug/l	J
	Total TIC, Volatile		0	ug/l	

Method Blank Summary

Job Number: JC40107
Account: GZANYB GZA GeoEnvironmental, Inc.
Project: Steelwinds, Buffalo, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2D6938-MB	2D165522.D	1	04/05/17	JP	n/a	n/a	V2D6938

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC40107-5, JC40107-6

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.50	0.14	ug/l	
104-51-8	n-Butylbenzene	ND	2.0	0.28	ug/l	
135-98-8	sec-Butylbenzene	ND	2.0	1.0	ug/l	
98-06-6	tert-Butylbenzene	ND	2.0	0.28	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.16	ug/l	
99-87-6	p-Isopropyltoluene	ND	2.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.34	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
103-65-1	n-Propylbenzene	ND	2.0	0.17	ug/l	
108-88-3	Toluene	ND	1.0	0.23	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.26	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.32	ug/l	
	m,p-Xylene	ND	1.0	0.42	ug/l	
95-47-6	o-Xylene	ND	1.0	0.21	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.21	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	104%	76-120%
17060-07-0	1,2-Dichloroethane-D4	103%	73-122%
2037-26-5	Toluene-D8	100%	84-119%
460-00-4	4-Bromofluorobenzene	102%	78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
124-38-9	system artifact-Carbon dioxide	3.44	46	ug/l	JN
	Total TIC, Volatile		0	ug/l	

Blank Spike Summary

Job Number: JC40107
Account: GZANYB GZA GeoEnvironmental, Inc.
Project: Steelwinds, Buffalo, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2D6934-BS	2D165438.D	1	04/03/17	JP	n/a	n/a	V2D6934

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC40107-1, JC40107-2, JC40107-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	50	47.7	95	80-118
104-51-8	n-Butylbenzene	50	54.5	109	80-121
135-98-8	sec-Butylbenzene	50	49.8	100	80-121
98-06-6	tert-Butylbenzene	50	49.1	98	78-124
100-41-4	Ethylbenzene	50	46.8	94	84-115
98-82-8	Isopropylbenzene	50	47.8	96	80-121
99-87-6	p-Isopropyltoluene	50	50.1	100	83-122
1634-04-4	Methyl Tert Butyl Ether	100	100	100	80-121
91-20-3	Naphthalene	50	57.5	115	70-126
103-65-1	n-Propylbenzene	50	47.4	95	82-123
108-88-3	Toluene	50	46.3	93	84-117
95-63-6	1,2,4-Trimethylbenzene	50	48.0	96	84-120
108-67-8	1,3,5-Trimethylbenzene	50	46.5	93	82-120
	m,p-Xylene	100	92.8	93	85-117
95-47-6	o-Xylene	50	48.3	97	85-119
1330-20-7	Xylene (total)	150	141	94	85-117

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	105%	76-120%
17060-07-0	1,2-Dichloroethane-D4	102%	73-122%
2037-26-5	Toluene-D8	96%	84-119%
460-00-4	4-Bromofluorobenzene	97%	78-117%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC40107
Account: GZANYB GZA GeoEnvironmental, Inc.
Project: Steelwinds, Buffalo, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2D6936-BS	2D165483.D	1	04/04/17	JP	n/a	n/a	V2D6936

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC40107-2, JC40107-3, JC40107-4, JC40107-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	50	47.6	95	80-118
104-51-8	n-Butylbenzene	50	53.1	106	80-121
135-98-8	sec-Butylbenzene	50	49.0	98	80-121
98-06-6	tert-Butylbenzene	50	48.5	97	78-124
100-41-4	Ethylbenzene	50	46.7	93	84-115
98-82-8	Isopropylbenzene	50	47.4	95	80-121
99-87-6	p-Isopropyltoluene	50	49.3	99	83-122
1634-04-4	Methyl Tert Butyl Ether	100	97.5	98	80-121
91-20-3	Naphthalene	50	57.7	115	70-126
103-65-1	n-Propylbenzene	50	47.0	94	82-123
108-88-3	Toluene	50	46.8	94	84-117
95-63-6	1,2,4-Trimethylbenzene	50	47.8	96	84-120
108-67-8	1,3,5-Trimethylbenzene	50	45.9	92	82-120
	m,p-Xylene	100	92.1	92	85-117
95-47-6	o-Xylene	50	47.7	95	85-119
1330-20-7	Xylene (total)	150	140	93	85-117

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	102%	76-120%
17060-07-0	1,2-Dichloroethane-D4	101%	73-122%
2037-26-5	Toluene-D8	97%	84-119%
460-00-4	4-Bromofluorobenzene	98%	78-117%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC40107
Account: GZANYB GZA GeoEnvironmental, Inc.
Project: Steelwinds, Buffalo, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2D6938-BS	2D165523.D	1	04/05/17	JP	n/a	n/a	V2D6938

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC40107-5, JC40107-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	50	46.3	93	80-118
104-51-8	n-Butylbenzene	50	53.5	107	80-121
135-98-8	sec-Butylbenzene	50	48.6	97	80-121
98-06-6	tert-Butylbenzene	50	47.7	95	78-124
100-41-4	Ethylbenzene	50	45.7	91	84-115
98-82-8	Isopropylbenzene	50	46.7	93	80-121
99-87-6	p-Isopropyltoluene	50	49.3	99	83-122
1634-04-4	Methyl Tert Butyl Ether	100	98.1	98	80-121
91-20-3	Naphthalene	50	54.8	110	70-126
103-65-1	n-Propylbenzene	50	46.8	94	82-123
108-88-3	Toluene	50	45.5	91	84-117
95-63-6	1,2,4-Trimethylbenzene	50	47.6	95	84-120
108-67-8	1,3,5-Trimethylbenzene	50	45.6	91	82-120
	m,p-Xylene	100	90.2	90	85-117
95-47-6	o-Xylene	50	47.2	94	85-119
1330-20-7	Xylene (total)	150	137	91	85-117

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	105%	76-120%
17060-07-0	1,2-Dichloroethane-D4	100%	73-122%
2037-26-5	Toluene-D8	97%	84-119%
460-00-4	4-Bromofluorobenzene	98%	78-117%

* = Outside of Control Limits.

Matrix Spike Summary

Job Number: JC40107
Account: GZANYB GZA GeoEnvironmental, Inc.
Project: Steelwinds, Buffalo, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC40196-2MS	2D165448.D	1	04/03/17	JP	n/a	n/a	V2D6934
JC40196-2	2D165444.D	1	04/03/17	JP	n/a	n/a	V2D6934

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC40107-1, JC40107-2, JC40107-3

CAS No.	Compound	JC40196-2 ug/l	Q	Spike ug/l	MS ug/l	MS %	Limits
71-43-2	Benzene	0.50 U		50	45.9	92	54-138
104-51-8	n-Butylbenzene	2.0 U		50	53.9	108	71-133
135-98-8	sec-Butylbenzene	2.0 U		50	49.4	99	71-133
98-06-6	tert-Butylbenzene	2.0 U		50	48.2	96	71-132
100-41-4	Ethylbenzene	1.0 U		50	46.3	93	48-143
98-82-8	Isopropylbenzene	1.0 U		50	47.4	95	70-131
99-87-6	p-Isopropyltoluene	2.0 U		50	49.4	99	75-133
1634-04-4	Methyl Tert Butyl Ether	1.0 U		100	92.7	93	70-127
91-20-3	Naphthalene	5.0 U		50	56.2	112	59-139
103-65-1	n-Propylbenzene	2.0 U		50	47.0	94	66-138
108-88-3	Toluene	1.0 U		50	45.5	91	61-136
95-63-6	1,2,4-Trimethylbenzene	2.0 U		50	46.5	93	55-143
108-67-8	1,3,5-Trimethylbenzene	2.0 U		50	45.3	91	66-133
	m,p-Xylene	1.0 U		100	91.5	92	50-144
95-47-6	o-Xylene	1.0 U		50	47.3	95	62-137
1330-20-7	Xylene (total)	1.0 U		150	139	93	56-141

CAS No.	Surrogate Recoveries	MS	JC40196-2	Limits
1868-53-7	Dibromofluoromethane	103%	104%	76-120%
17060-07-0	1,2-Dichloroethane-D4	101%	104%	73-122%
2037-26-5	Toluene-D8	97%	101%	84-119%
460-00-4	4-Bromofluorobenzene	98%	102%	78-117%

* = Outside of Control Limits.

Matrix Spike Summary

Job Number: JC40107
Account: GZANYB GZA GeoEnvironmental, Inc.
Project: Steelwinds, Buffalo, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC40107-4MS	2D165494.D	1	04/04/17	JP	n/a	n/a	V2D6936
JC40107-4	2D165487.D	1	04/04/17	JP	n/a	n/a	V2D6936

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC40107-2, JC40107-3, JC40107-4, JC40107-5

CAS No.	Compound	JC40107-4 ug/l	Q	Spike ug/l	MS ug/l	MS %	Limits
71-43-2	Benzene	9.0		50	55.9	94	54-138
104-51-8	n-Butylbenzene	ND		50	54.9	110	71-133
135-98-8	sec-Butylbenzene	ND		50	50.0	100	71-133
98-06-6	tert-Butylbenzene	ND		50	49.0	98	71-132
100-41-4	Ethylbenzene	0.49	J	50	47.2	93	48-143
98-82-8	Isopropylbenzene	ND		50	48.3	97	70-131
99-87-6	p-Isopropyltoluene	ND		50	50.4	101	75-133
1634-04-4	Methyl Tert Butyl Ether	ND		100	96.1	96	70-127
91-20-3	Naphthalene	48.0		50	113	130	59-139
103-65-1	n-Propylbenzene	ND		50	47.4	95	66-138
108-88-3	Toluene	1.8		50	48.2	93	61-136
95-63-6	1,2,4-Trimethylbenzene	1.9	J	50	49.1	94	55-143
108-67-8	1,3,5-Trimethylbenzene	2.5		50	48.3	92	66-133
	m,p-Xylene	4.7		100	96.5	92	50-144
95-47-6	o-Xylene	3.5		50	51.5	96	62-137
1330-20-7	Xylene (total)	8.2		150	148	93	56-141

CAS No.	Surrogate Recoveries	MS	JC40107-4	Limits
1868-53-7	Dibromofluoromethane	105%	103%	76-120%
17060-07-0	1,2-Dichloroethane-D4	100%	104%	73-122%
2037-26-5	Toluene-D8	96%	100%	84-119%
460-00-4	4-Bromofluorobenzene	98%	99%	78-117%

* = Outside of Control Limits.

Matrix Spike Summary

Job Number: JC40107
Account: GZANYB GZA GeoEnvironmental, Inc.
Project: Steelwinds, Buffalo, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC40251-2MS	2D165533.D	1	04/05/17	JP	n/a	n/a	V2D6938
JC40251-2	2D165528.D	1	04/05/17	JP	n/a	n/a	V2D6938

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC40107-5, JC40107-6

CAS No.	Compound	JC40251-2 ug/l	Q	Spike ug/l	MS ug/l	MS %	Limits
71-43-2	Benzene	ND		50	45.3	91	54-138
104-51-8	n-Butylbenzene	ND		50	52.2	104	71-133
135-98-8	sec-Butylbenzene	ND		50	48.1	96	71-133
98-06-6	tert-Butylbenzene	ND		50	47.1	94	71-132
100-41-4	Ethylbenzene	ND		50	44.5	89	48-143
98-82-8	Isopropylbenzene	ND		50	45.8	92	70-131
99-87-6	p-Isopropyltoluene	ND		50	48.1	96	75-133
1634-04-4	Methyl Tert Butyl Ether	ND		100	93.7	94	70-127
91-20-3	Naphthalene	ND		50	51.4	103	59-139
103-65-1	n-Propylbenzene	ND		50	45.7	91	66-138
108-88-3	Toluene	ND		50	44.3	89	61-136
95-63-6	1,2,4-Trimethylbenzene	ND		50	45.6	91	55-143
108-67-8	1,3,5-Trimethylbenzene	ND		50	44.2	88	66-133
	m,p-Xylene	ND		100	88.1	88	50-144
95-47-6	o-Xylene	ND		50	45.8	92	62-137
1330-20-7	Xylene (total)	ND		150	134	89	56-141

CAS No.	Surrogate Recoveries	MS	JC40251-2	Limits
1868-53-7	Dibromofluoromethane	105%	105%	76-120%
17060-07-0	1,2-Dichloroethane-D4	103%	103%	73-122%
2037-26-5	Toluene-D8	97%	100%	84-119%
460-00-4	4-Bromofluorobenzene	98%	102%	78-117%

* = Outside of Control Limits.

Duplicate Summary

Job Number: JC40107
Account: GZANYB GZA GeoEnvironmental, Inc.
Project: Steelwinds, Buffalo, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC40196-4DUP	2D165449.D	1	04/03/17	JP	n/a	n/a	V2D6934
JC40196-4	2D165445.D	1	04/03/17	JP	n/a	n/a	V2D6934

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC40107-1, JC40107-2, JC40107-3

CAS No.	Compound	JC40196-4 ug/l	Q	DUP ug/l	Q	RPD	Limits
71-43-2	Benzene	0.69		0.67		3	20
104-51-8	n-Butylbenzene	2.0 U		ND		nc	20
135-98-8	sec-Butylbenzene	2.0 U		ND		nc	20
98-06-6	tert-Butylbenzene	2.0 U		ND		nc	20
100-41-4	Ethylbenzene	1.0 U		ND		nc	20
98-82-8	Isopropylbenzene	1.0 U		ND		nc	20
99-87-6	p-Isopropyltoluene	2.0 U		ND		nc	20
1634-04-4	Methyl Tert Butyl Ether	1.0 U		ND		nc	20
91-20-3	Naphthalene	5.0 U		ND		nc	20
103-65-1	n-Propylbenzene	2.0 U		ND		nc	20
108-88-3	Toluene	1.0 U		ND		nc	20
95-63-6	1,2,4-Trimethylbenzene	2.0 U		ND		nc	20
108-67-8	1,3,5-Trimethylbenzene	2.0 U		ND		nc	20
	m,p-Xylene	1.0 U		ND		nc	20
95-47-6	o-Xylene	1.0 U		ND		nc	20
1330-20-7	Xylene (total)	1.0 U		ND		nc	20

CAS No.	Surrogate Recoveries	DUP	JC40196-4	Limits
1868-53-7	Dibromofluoromethane	104%	105%	76-120%
17060-07-0	1,2-Dichloroethane-D4	103%	104%	73-122%
2037-26-5	Toluene-D8	101%	101%	84-119%
460-00-4	4-Bromofluorobenzene	103%	102%	78-117%

* = Outside of Control Limits.

Duplicate Summary

Job Number: JC40107
Account: GZANYB GZA GeoEnvironmental, Inc.
Project: Steelwinds, Buffalo, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA42272-2DUP	2D165496.D	1	04/04/17	JP	n/a	n/a	V2D6936
FA42272-2	2D165486.D	1	04/04/17	JP	n/a	n/a	V2D6936

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC40107-2, JC40107-3, JC40107-4, JC40107-5

CAS No.	Compound	FA42272-2 ug/l	Q	DUP ug/l	Q	RPD	Limits
71-43-2	Benzene	ND		ND		nc	20
104-51-8	n-Butylbenzene	ND		ND		nc	20
135-98-8	sec-Butylbenzene	ND		ND		nc	20
98-06-6	tert-Butylbenzene	ND		ND		nc	20
100-41-4	Ethylbenzene	ND		ND		nc	20
98-82-8	Isopropylbenzene	ND		ND		nc	20
99-87-6	p-Isopropyltoluene	ND		ND		nc	20
1634-04-4	Methyl Tert Butyl Ether	ND		ND		nc	20
91-20-3	Naphthalene	2.6	J	2.8	J	7	20
103-65-1	n-Propylbenzene	ND		ND		nc	20
108-88-3	Toluene	0.50	J	0.51	J	2	20
95-63-6	1,2,4-Trimethylbenzene	ND		ND		nc	20
108-67-8	1,3,5-Trimethylbenzene	ND		ND		nc	20
	m,p-Xylene	ND		ND		nc	20
95-47-6	o-Xylene	ND		ND		nc	20
1330-20-7	Xylene (total)	0.34	J	0.35	J	3	20

CAS No.	Surrogate Recoveries	DUP	FA42272-2	Limits
1868-53-7	Dibromofluoromethane	105%	105%	76-120%
17060-07-0	1,2-Dichloroethane-D4	103%	103%	73-122%
2037-26-5	Toluene-D8	99%	100%	84-119%
460-00-4	4-Bromofluorobenzene	100%	101%	78-117%

* = Outside of Control Limits.

Duplicate Summary

Job Number: JC40107
Account: GZANYB GZA GeoEnvironmental, Inc.
Project: Steelwinds, Buffalo, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC40251-3DUP	2D165534.D	1	04/05/17	JP	n/a	n/a	V2D6938
JC40251-3	2D165529.D	1	04/05/17	JP	n/a	n/a	V2D6938

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC40107-5, JC40107-6

CAS No.	Compound	JC40251-3 ug/l	Q	DUP ug/l	Q	RPD	Limits
71-43-2	Benzene	ND		ND		nc	20
104-51-8	n-Butylbenzene	ND		ND		nc	20
135-98-8	sec-Butylbenzene	ND		ND		nc	20
98-06-6	tert-Butylbenzene	ND		ND		nc	20
100-41-4	Ethylbenzene	ND		ND		nc	20
98-82-8	Isopropylbenzene	ND		ND		nc	20
99-87-6	p-Isopropyltoluene	ND		ND		nc	20
1634-04-4	Methyl Tert Butyl Ether	ND		ND		nc	20
91-20-3	Naphthalene	ND		ND		nc	20
103-65-1	n-Propylbenzene	ND		ND		nc	20
108-88-3	Toluene	ND		ND		nc	20
95-63-6	1,2,4-Trimethylbenzene	ND		ND		nc	20
108-67-8	1,3,5-Trimethylbenzene	ND		ND		nc	20
	m,p-Xylene	ND		ND		nc	20
95-47-6	o-Xylene	ND		ND		nc	20
1330-20-7	Xylene (total)	ND		ND		nc	20

CAS No.	Surrogate Recoveries	DUP	JC40251-3	Limits
1868-53-7	Dibromofluoromethane	105%	105%	76-120%
17060-07-0	1,2-Dichloroethane-D4	104%	103%	73-122%
2037-26-5	Toluene-D8	100%	99%	84-119%
460-00-4	4-Bromofluorobenzene	103%	101%	78-117%

* = Outside of Control Limits.

Instrument Performance Check (BFB)

Job Number: JC40107
Account: GZANYB GZA GeoEnvironmental, Inc.
Project: Steelwinds, Buffalo, NY

Sample: V2D6923-BFB
Lab File ID: 2D165170.D
Instrument ID: GCMS2D
Injection Date: 03/22/17
Injection Time: 20:35

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	18952	17.6		Pass
75	30.0 - 60.0% of mass 95	49456	46.0		Pass
95	Base peak, 100% relative abundance	107421	100.0		Pass
96	5.0 - 9.0% of mass 95	7065	6.58		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	104082	96.9		Pass
175	5.0 - 9.0% of mass 174	7776	7.24	(7.47) [a]	Pass
176	95.0 - 101.0% of mass 174	101997	95.0	(98.0) [a]	Pass
177	5.0 - 9.0% of mass 176	6623	6.17	(6.49) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V2D6923-IC6923	2D165171.D	03/22/17	21:06	00:31	Initial cal 0.2
V2D6923-IC6923	2D165172.D	03/22/17	21:36	01:01	Initial cal 0.5
V2D6923-IC6923	2D165173.D	03/22/17	22:06	01:31	Initial cal 1
V2D6923-IC6923	2D165174.D	03/22/17	22:37	02:02	Initial cal 2
V2D6923-IC6923	2D165175.D	03/22/17	23:07	02:32	Initial cal 5
V2D6923-IC6923	2D165176.D	03/22/17	23:37	03:02	Initial cal 10
V2D6923-IC6923	2D165177.D	03/23/17	00:07	03:32	Initial cal 20
V2D6923-ICC6923	2D165178.D	03/23/17	00:37	04:02	Initial cal 50
V2D6923-IC6923	2D165179.D	03/23/17	01:07	04:32	Initial cal 100
V2D6923-IC6923	2D165180.D	03/23/17	01:37	05:02	Initial cal 200
V2D6923-ICV6923	2D165183.D	03/23/17	03:08	06:33	Initial cal verification 50
V2D6923-ICV6923	2D165184.D	03/23/17	03:38	07:03	Initial cal verification 50

Instrument Performance Check (BFB)

Job Number: JC40107
Account: GZANYB GZA GeoEnvironmental, Inc.
Project: Steelwinds, Buffalo, NY

Sample: V2D6934-BFB
Lab File ID: 2D165435A.D
Instrument ID: GCMS2D
Injection Date: 04/03/17
Injection Time: 09:01

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	21547	18.6		Pass
75	30.0 - 60.0% of mass 95	54421	47.0		Pass
95	Base peak, 100% relative abundance	115805	100.0		Pass
96	5.0 - 9.0% of mass 95	7706	6.65		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	109184	94.3		Pass
175	5.0 - 9.0% of mass 174	8201	7.08	(7.51) [a]	Pass
176	95.0 - 101.0% of mass 174	106867	92.3	(97.9) [a]	Pass
177	5.0 - 9.0% of mass 176	7215	6.23	(6.75) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V2D6934-CC6923	2D165435.D	04/03/17	09:01	00:00	Continuing cal 20
V2D6934-MB	2D165437.D	04/03/17	10:11	01:10	Method Blank
V2D6933-MB2	2D165437A.D	04/03/17	10:11	01:10	Method Blank
V2D6933-BS2	2D165438A.D	04/03/17	10:42	01:41	Blank Spike
V2D6934-BS	2D165438.D	04/03/17	10:42	01:41	Blank Spike
JC39867-1MS	2D165439.D	04/03/17	11:24	02:23	Matrix Spike
JC39867-2DUP	2D165440.D	04/03/17	11:54	02:53	Duplicate
ZZZZZZ	2D165441.D	04/03/17	12:24	03:23	(unrelated sample)
ZZZZZZ	2D165442.D	04/03/17	12:54	03:53	(unrelated sample)
ZZZZZZ	2D165443.D	04/03/17	13:24	04:23	(unrelated sample)
JC40196-2	2D165444.D	04/03/17	13:55	04:54	(used for QC only; not part of job JC40107)
JC40196-4	2D165445.D	04/03/17	14:25	05:24	(used for QC only; not part of job JC40107)
ZZZZZZ	2D165446.D	04/03/17	14:55	05:54	(unrelated sample)
ZZZZZZ	2D165447.D	04/03/17	15:25	06:24	(unrelated sample)
JC40196-2MS	2D165448.D	04/03/17	15:55	06:54	Matrix Spike
JC40196-4DUP	2D165449.D	04/03/17	16:25	07:24	Duplicate
ZZZZZZ	2D165451.D	04/03/17	17:40	08:39	(unrelated sample)
ZZZZZZ	2D165452.D	04/03/17	18:10	09:09	(unrelated sample)
ZZZZZZ	2D165453.D	04/03/17	18:40	09:39	(unrelated sample)
JC40107-1	2D165454.D	04/03/17	19:10	10:09	WT1-05-033017
JC40107-2	2D165455.D	04/03/17	19:40	10:39	MWN-01-033017
JC40107-3	2D165456.D	04/03/17	20:10	11:09	MWN-01B-033017

Instrument Performance Check (BFB)

Job Number: JC40107
Account: GZANYB GZA GeoEnvironmental, Inc.
Project: Steelwinds, Buffalo, NY

Sample: V2D6936-BFB
Lab File ID: 2D165478A.D
Instrument ID: GCMS2D
Injection Date: 04/04/17
Injection Time: 09:08

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	22160	16.9		Pass
75	30.0 - 60.0% of mass 95	60944	46.6		Pass
95	Base peak, 100% relative abundance	130853	100.0		Pass
96	5.0 - 9.0% of mass 95	8607	6.58		Pass
173	Less than 2.0% of mass 174	467	0.36	(0.36) [a]	Pass
174	50.0 - 120.0% of mass 95	129266	98.8		Pass
175	5.0 - 9.0% of mass 174	9776	7.47	(7.56) [a]	Pass
176	95.0 - 101.0% of mass 174	127101	97.1	(98.3) [a]	Pass
177	5.0 - 9.0% of mass 176	8413	6.43	(6.62) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V2D6936-CC6923	2D165478.D	04/04/17	09:08	00:00	Continuing cal 20
V2D6935-MB2	2D165479.D	04/04/17	10:07	00:59	Method Blank
JC39894-3MS	2D165480.D	04/04/17	10:38	01:30	Matrix Spike
JC39894-2DUP	2D165481.D	04/04/17	11:08	02:00	Duplicate
V2D6936-MB	2D165482.D	04/04/17	11:38	02:30	Method Blank
V2D6936-BS	2D165483.D	04/04/17	12:08	03:00	Blank Spike
ZZZZZZ	2D165485.D	04/04/17	13:22	04:14	(unrelated sample)
FA42272-2	2D165486.D	04/04/17	13:52	04:44	(used for QC only; not part of job JC40107)
JC40107-4	2D165487.D	04/04/17	14:22	05:14	WT1-04-033017
JC40107-5	2D165488.D	04/04/17	14:52	05:44	BCP-ORC-1-033017
JC40107-2	2D165491.D	04/04/17	16:23	07:15	MWN-01-033017
JC40107-3	2D165492.D	04/04/17	16:53	07:45	MWN-01B-033017
ZZZZZZ	2D165493.D	04/04/17	17:23	08:15	(unrelated sample)
JC40107-4MS	2D165494.D	04/04/17	17:54	08:46	Matrix Spike
FA42272-2DUP	2D165496.D	04/04/17	18:54	09:46	Duplicate
ZZZZZZ	2D165497.D	04/04/17	19:24	10:16	(unrelated sample)
ZZZZZZ	2D165498.D	04/04/17	19:54	10:46	(unrelated sample)

Instrument Performance Check (BFB)

Job Number: JC40107
Account: GZANYB GZA GeoEnvironmental, Inc.
Project: Steelwinds, Buffalo, NY

Sample: V2D6938-BFB
Lab File ID: 2D165521A.D
Instrument ID: GCMS2D
Injection Date: 04/05/17
Injection Time: 08:46

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	21213	17.3		Pass
75	30.0 - 60.0% of mass 95	56378	45.9		Pass
95	Base peak, 100% relative abundance	122733	100.0		Pass
96	5.0 - 9.0% of mass 95	8169	6.66		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	121789	99.2		Pass
175	5.0 - 9.0% of mass 174	9016	7.35	(7.40) [a]	Pass
176	95.0 - 101.0% of mass 174	120144	97.9	(98.6) [a]	Pass
177	5.0 - 9.0% of mass 176	7873	6.41	(6.55) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V2D6938-CC6923	2D165521.D	04/05/17	08:46	00:00	Continuing cal 20
V2D6938-MB	2D165522.D	04/05/17	09:32	00:46	Method Blank
V2D6938-BS	2D165523.D	04/05/17	10:03	01:17	Blank Spike
ZZZZZZ	2D165524.D	04/05/17	11:01	02:15	(unrelated sample)
JC40107-5	2D165525.D	04/05/17	11:31	02:45	BCP-ORC-1-033017
JC40107-6	2D165526.D	04/05/17	12:01	03:15	WT1-02-033017
ZZZZZZ	2D165527.D	04/05/17	12:31	03:45	(unrelated sample)
JC40251-2	2D165528.D	04/05/17	13:01	04:15	(used for QC only; not part of job JC40107)
JC40251-3	2D165529.D	04/05/17	13:31	04:45	(used for QC only; not part of job JC40107)
ZZZZZZ	2D165530.D	04/05/17	14:01	05:15	(unrelated sample)
ZZZZZZ	2D165531.D	04/05/17	14:31	05:45	(unrelated sample)
ZZZZZZ	2D165532.D	04/05/17	15:01	06:15	(unrelated sample)
JC40251-2MS	2D165533.D	04/05/17	15:32	06:46	Matrix Spike
JC40251-3DUP	2D165534.D	04/05/17	16:02	07:16	Duplicate
ZZZZZZ	2D165535.D	04/05/17	16:32	07:46	(unrelated sample)
ZZZZZZ	2D165536.D	04/05/17	17:02	08:16	(unrelated sample)
ZZZZZZ	2D165537.D	04/05/17	17:32	08:46	(unrelated sample)
ZZZZZZ	2D165538.D	04/05/17	18:02	09:16	(unrelated sample)
ZZZZZZ	2D165539.D	04/05/17	18:32	09:46	(unrelated sample)
ZZZZZZ	2D165540.D	04/05/17	19:02	10:16	(unrelated sample)
ZZZZZZ	2D165541.D	04/05/17	19:32	10:46	(unrelated sample)
ZZZZZZ	2D165542.D	04/05/17	20:02	11:16	(unrelated sample)

Volatile Surrogate Recovery Summary

Job Number: JC40107
Account: GZANYB GZA GeoEnvironmental, Inc.
Project: Steelwinds, Buffalo, NY

Method: SW846 8260C **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4
JC40107-1	2D165454.D	106	106	100	97
JC40107-2	2D165491.D	105	104	100	98
JC40107-2	2D165455.D	106	104	100	96
JC40107-3	2D165492.D	105	104	100	100
JC40107-3	2D165456.D	106	105	100	93
JC40107-4	2D165487.D	103	104	100	99
JC40107-5	2D165525.D	105	103	100	100
JC40107-5	2D165488.D	105	105	100	97
JC40107-6	2D165526.D	105	103	100	98
FA42272-2DUP	2D165496.D	105	103	99	100
JC40107-4MS	2D165494.D	105	100	96	98
JC40196-2MS	2D165448.D	103	101	97	98
JC40196-4DUP	2D165449.D	104	103	101	103
JC40251-2MS	2D165533.D	105	103	97	98
JC40251-3DUP	2D165534.D	105	104	100	103
V2D6934-BS	2D165438.D	105	102	96	97
V2D6934-MB	2D165437.D	106	106	100	102
V2D6936-BS	2D165483.D	102	101	97	98
V2D6936-MB	2D165482.D	104	104	100	103
V2D6938-BS	2D165523.D	105	100	97	98
V2D6938-MB	2D165522.D	104	103	100	102

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	76-120%
S2 = 1,2-Dichloroethane-D4	73-122%
S3 = Toluene-D8	84-119%
S4 = 4-Bromofluorobenzene	78-117%

GC/MS Semi-volatiles

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QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (DFTPP)
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: JC40107
Account: GZANYB GZA GeoEnvironmental, Inc.
Project: Steelwinds, Buffalo, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP1670-MB1	6P36313.D	1	04/06/17	AC	04/05/17	OP1670	E6P1674

The QC reported here applies to the following samples: **Method:** SW846 8270D

JC40107-1, JC40107-2, JC40107-3, JC40107-4, JC40107-5, JC40107-6

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	1.0	0.19	ug/l	
208-96-8	Acenaphthylene	ND	1.0	0.14	ug/l	
120-12-7	Anthracene	ND	1.0	0.21	ug/l	
56-55-3	Benzo(a)anthracene	ND	1.0	0.20	ug/l	
50-32-8	Benzo(a)pyrene	ND	1.0	0.21	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	1.0	0.21	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	1.0	0.34	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	1.0	0.21	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	2.0	0.40	ug/l	
85-68-7	Butyl benzyl phthalate	ND	2.0	0.46	ug/l	
91-58-7	2-Chloronaphthalene	ND	2.0	0.24	ug/l	
106-47-8	4-Chloroaniline	ND	5.0	0.34	ug/l	
86-74-8	Carbazole	ND	1.0	0.23	ug/l	
218-01-9	Chrysene	ND	1.0	0.18	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	2.0	0.28	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	2.0	0.25	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	2.0	0.40	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	2.0	0.37	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.17	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.19	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.17	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	1.0	0.55	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	1.0	0.48	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	2.0	0.51	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	1.0	0.33	ug/l	
132-64-9	Dibenzofuran	ND	5.0	0.22	ug/l	
84-66-2	Diethyl phthalate	ND	2.0	0.26	ug/l	
131-11-3	Dimethyl phthalate	ND	2.0	0.22	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	1.7	ug/l	
206-44-0	Fluoranthene	ND	1.0	0.17	ug/l	
86-73-7	Fluorene	ND	1.0	0.17	ug/l	
118-74-1	Hexachlorobenzene	ND	1.0	0.33	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	0.49	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	2.8	ug/l	
67-72-1	Hexachloroethane	ND	2.0	0.39	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	1.0	0.33	ug/l	

Method Blank Summary

Job Number: JC40107
Account: GZANYB GZA GeoEnvironmental, Inc.
Project: Steelwinds, Buffalo, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP1670-MB1	6P36313.D	1	04/06/17	AC	04/05/17	OP1670	E6P1674

The QC reported here applies to the following samples: **Method:** SW846 8270D

JC40107-1, JC40107-2, JC40107-3, JC40107-4, JC40107-5, JC40107-6

CAS No.	Compound	Result	RL	MDL	Units	Q
78-59-1	Isophorone	ND	2.0	0.28	ug/l	
91-57-6	2-Methylnaphthalene	ND	1.0	0.21	ug/l	
88-74-4	2-Nitroaniline	ND	5.0	0.28	ug/l	
99-09-2	3-Nitroaniline	ND	5.0	0.39	ug/l	
100-01-6	4-Nitroaniline	ND	5.0	0.44	ug/l	
91-20-3	Naphthalene	ND	1.0	0.23	ug/l	
98-95-3	Nitrobenzene	ND	2.0	0.64	ug/l	
85-01-8	Phenanthrene	ND	1.0	0.18	ug/l	
129-00-0	Pyrene	ND	1.0	0.22	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.25	ug/l	

CAS No.	Surrogate Recoveries		Limits
4165-60-0	Nitrobenzene-d5	77%	34-128%
321-60-8	2-Fluorobiphenyl	77%	38-119%
1718-51-0	Terphenyl-d14	94%	26-129%

Blank Spike Summary

Job Number: JC40107
Account: GZANYB GZA GeoEnvironmental, Inc.
Project: Steelwinds, Buffalo, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP1670-BS1	6P36314.D	1	04/06/17	AC	04/05/17	OP1670	E6P1674

The QC reported here applies to the following samples: **Method:** SW846 8270D

JC40107-1, JC40107-2, JC40107-3, JC40107-4, JC40107-5, JC40107-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
83-32-9	Acenaphthene	50	37.6	75	40-114
208-96-8	Acenaphthylene	50	38.4	77	40-109
120-12-7	Anthracene	50	40.7	81	50-113
56-55-3	Benzo(a)anthracene	50	39.1	78	55-110
50-32-8	Benzo(a)pyrene	50	43.0	86	52-112
205-99-2	Benzo(b)fluoranthene	50	39.7	79	53-114
191-24-2	Benzo(g,h,i)perylene	50	39.3	79	46-115
207-08-9	Benzo(k)fluoranthene	50	47.2	94	55-115
101-55-3	4-Bromophenyl phenyl ether	50	46.9	94	47-122
85-68-7	Butyl benzyl phthalate	50	37.3	75	50-124
91-58-7	2-Chloronaphthalene	50	37.2	74	33-112
106-47-8	4-Chloroaniline	50	15.4	31	17-87
86-74-8	Carbazole	50	38.0	76	54-118
218-01-9	Chrysene	50	38.1	76	52-107
111-91-1	bis(2-Chloroethoxy)methane	50	32.5	65	38-116
111-44-4	bis(2-Chloroethyl)ether	50	24.4	49	38-118
108-60-1	bis(2-Chloroisopropyl)ether	50	34.2	68	29-108
7005-72-3	4-Chlorophenyl phenyl ether	50	48.8	98	40-122
95-50-1	1,2-Dichlorobenzene	50	30.1	60	24-110
541-73-1	1,3-Dichlorobenzene	50	28.3	57	20-110
106-46-7	1,4-Dichlorobenzene	50	28.8	58	21-110
121-14-2	2,4-Dinitrotoluene	50	39.2	78	54-129
606-20-2	2,6-Dinitrotoluene	50	39.8	80	53-131
91-94-1	3,3'-Dichlorobenzidine	100	65.5	66	28-91
53-70-3	Dibenzo(a,h)anthracene	50	45.9	92	51-117
132-64-9	Dibenzofuran	50	38.4	77	46-118
84-66-2	Diethyl phthalate	50	47.2	94	49-122
131-11-3	Dimethyl phthalate	50	45.2	90	51-118
117-81-7	bis(2-Ethylhexyl)phthalate	50	39.7	79	47-128
206-44-0	Fluoranthene	50	44.9	90	54-118
86-73-7	Fluorene	50	42.7	85	45-116
118-74-1	Hexachlorobenzene	50	45.6	91	45-124
87-68-3	Hexachlorobutadiene	50	33.3	67	10-120
77-47-4	Hexachlorocyclopentadiene	100	66.7	67	10-110
67-72-1	Hexachloroethane	50	32.7	65	11-110
193-39-5	Indeno(1,2,3-cd)pyrene	50	43.6	87	45-123

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC40107
Account: GZANYB GZA GeoEnvironmental, Inc.
Project: Steelwinds, Buffalo, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP1670-BS1	6P36314.D	1	04/06/17	AC	04/05/17	OP1670	E6P1674

The QC reported here applies to the following samples: **Method:** SW846 8270D

JC40107-1, JC40107-2, JC40107-3, JC40107-4, JC40107-5, JC40107-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
78-59-1	Isophorone	50	34.5	69	43-115
91-57-6	2-Methylnaphthalene	50	36.5	73	37-111
88-74-4	2-Nitroaniline	50	47.3	95	40-144
99-09-2	3-Nitroaniline	50	21.5	43	31-104
100-01-6	4-Nitroaniline	50	41.0	82	48-119
91-20-3	Naphthalene	50	32.7	65	29-110
98-95-3	Nitrobenzene	50	34.1	68	35-118
85-01-8	Phenanthrene	50	38.7	77	49-116
129-00-0	Pyrene	50	37.2	74	51-116
120-82-1	1,2,4-Trichlorobenzene	50	33.8	68	19-110

CAS No.	Surrogate Recoveries	BSP	Limits
4165-60-0	Nitrobenzene-d5	72%	34-128%
321-60-8	2-Fluorobiphenyl	79%	38-119%
1718-51-0	Terphenyl-d14	76%	26-129%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC40107
Account: GZANYB GZA GeoEnvironmental, Inc.
Project: Steelwinds, Buffalo, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP1670-MS	6P36320.D	1	04/06/17	AC	04/05/17	OP1670	E6P1674
OP1670-MSD	6P36321.D	1	04/06/17	AC	04/05/17	OP1670	E6P1674
JC40107-3	6P36353.D	1	04/07/17	SB	04/05/17	OP1670	E6P1675
JC40107-3	6P36356.D	20	04/07/17	SB	04/05/17	OP1670	E6P1675

The QC reported here applies to the following samples: **Method:** SW846 8270D

JC40107-1, JC40107-2, JC40107-3, JC40107-4, JC40107-5, JC40107-6

CAS No.	Compound	JC40107-3 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	10.2		100	91.2	81	100	94.1	84	3	44-119/28
208-96-8	Acenaphthylene	61.4		100	144	83	100	157	96	9	40-115/28
120-12-7	Anthracene	11.6		100	101	89	100	98.8	87	2	44-120/30
56-55-3	Benzo(a)anthracene	ND		100	83.6	83	100	82.3	82	2	48-116/30
50-32-8	Benzo(a)pyrene	ND		100	93.5	94	100	91.4	91	2	43-120/31
205-99-2	Benzo(b)fluoranthene	ND		100	83.3	83	100	82.0	82	2	42-123/31
191-24-2	Benzo(g,h,i)perylene	ND		100	84.5	85	100	77.4	77	9	39-121/32
207-08-9	Benzo(k)fluoranthene	ND		100	97.0	97	100	92.8	93	4	44-123/31
101-55-3	4-Bromophenyl phenyl ether	ND		100	94.2	94	100	93.0	93	1	47-127/31
85-68-7	Butyl benzyl phthalate	ND		100	80.4	80	100	77.7	78	3	41-135/32
91-58-7	2-Chloronaphthalene	ND		100	80.1	80	100	80.8	81	1	37-120/30
106-47-8	4-Chloroaniline	ND		100	34.2	34	100	20.6	21	50* [a]	10-110/49
86-74-8	Carbazole	58.6		100	148	89	100	153	94	3	46-127/29
218-01-9	Chrysene	ND		100	84.2	84	100	79.5	80	6	45-113/30
111-91-1	bis(2-Chloroethoxy)methane	ND		100	59.7	60	100	59.8	60	0	33-122/29
111-44-4	bis(2-Chloroethyl)ether	ND		100	136	136* [a]	100	117	117	15	29-132/36
108-60-1	bis(2-Chloroisopropyl)ether	ND		100	70.2	70	100	72.2	72	3	27-115/34
7005-72-3	4-Chlorophenyl phenyl ether	ND		100	103	103	100	107	107	4	43-125/30
95-50-1	1,2-Dichlorobenzene	ND		100	64.4	64	100	64.4	64	0	24-112/34
541-73-1	1,3-Dichlorobenzene	ND		100	61.0	61	100	60.6	61	1	21-110/35
106-46-7	1,4-Dichlorobenzene	ND		100	65.3	65	100	61.8	62	6	23-110/34
121-14-2	2,4-Dinitrotoluene	ND		100	86.4	86	100	87.7	88	1	49-135/31
606-20-2	2,6-Dinitrotoluene	ND		100	84.8	85	100	83.2	83	2	50-135/32
91-94-1	3,3'-Dichlorobenzidine	ND		200	172	86	200	141	71	20	2-115/43
53-70-3	Dibenzo(a,h)anthracene	ND		100	93.2	93	100	89.5	90	4	44-121/32
132-64-9	Dibenzofuran	29.2		100	113	84	100	118	89	4	43-123/29
84-66-2	Diethyl phthalate	ND		100	100	100	100	102	102	2	46-126/30
131-11-3	Dimethyl phthalate	ND		100	93.0	93	100	93.3	93	0	49-120/29
117-81-7	bis(2-Ethylhexyl)phthalate	ND		100	82.3	82	100	83.4	83	1	35-140/35
206-44-0	Fluoranthene	10.4		100	108	98	100	107	97	1	48-122/30
86-73-7	Fluorene	39.1		100	136	97	100	145	106	6	45-121/30
118-74-1	Hexachlorobenzene	ND		100	91.5	92	100	89.6	90	2	42-129/32
87-68-3	Hexachlorobutadiene	ND		100	63.1	63	100	63.7	64	1	10-129/36
77-47-4	Hexachlorocyclopentadiene	ND		200	103	52	200	116	58	12	10-111/40
67-72-1	Hexachloroethane	ND		100	70.6	71	100	71.4	71	1	12-116/37
193-39-5	Indeno(1,2,3-cd)pyrene	ND		100	88.4	88	100	85.4	85	3	39-129/33

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC40107
Account: GZANYB GZA GeoEnvironmental, Inc.
Project: Steelwinds, Buffalo, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP1670-MS	6P36320.D	1	04/06/17	AC	04/05/17	OP1670	E6P1674
OP1670-MSD	6P36321.D	1	04/06/17	AC	04/05/17	OP1670	E6P1674
JC40107-3	6P36353.D	1	04/07/17	SB	04/05/17	OP1670	E6P1675
JC40107-3	6P36356.D	20	04/07/17	SB	04/05/17	OP1670	E6P1675

The QC reported here applies to the following samples: **Method:** SW846 8270D

JC40107-1, JC40107-2, JC40107-3, JC40107-4, JC40107-5, JC40107-6

CAS No.	Compound	JC40107-3 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
78-59-1	Isophorone	ND		100	66.5	67	100	64.2	64	4	37-122/29
91-57-6	2-Methylnaphthalene	39.2		100	112	73	100	120	81	7	33-118/31
88-74-4	2-Nitroaniline	ND		100	105	105	100	103	103	2	32-156/31
99-09-2	3-Nitroaniline	ND		100	70.4	70	100	60.6	61	15	11-114/41
100-01-6	4-Nitroaniline	ND		100	90.1	90	100	87.8	88	3	31-125/30
91-20-3	Naphthalene	1240	c	100	982	193*	b 100	1040	251*	b 6	24-119/33
98-95-3	Nitrobenzene	ND		100	64.7	65	100	65.2	65	1	28-130/32
85-01-8	Phenanthrene	65.8		100	147	81	100	158	92	7	41-128/30
129-00-0	Pyrene	5.3		100	83.5	78	100	81.7	76	2	47-122/30
120-82-1	1,2,4-Trichlorobenzene	ND		100	63.9	64	100	60.0	60	6	18-118/33

CAS No.	Surrogate Recoveries	MS	MSD	JC40107-3	JC40107-3	Limits
4165-60-0	Nitrobenzene-d5	67%	65%	60%	56%	34-128%
321-60-8	2-Fluorobiphenyl	80%	83%	80%	74%	38-119%
1718-51-0	Terphenyl-d14	85%	82%	85%	71%	26-129%

(a) Outside of in house control limits.
(b) Outside control limits due to high level in sample relative to spike amount.
(c) Result is from Run #2.

* = Outside of Control Limits.

Instrument Performance Check (DFTPP)

Job Number: JC40107
Account: GZANYB GZA GeoEnvironmental, Inc.
Project: Steelwinds, Buffalo, NY

Sample:	E6P1656-DFTPP	**Injection Date:**	03/24/17
Lab File ID:	6P35813.D	**Injection Time:**	07:23
Instrument ID:	GCMS6P		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	84717	52.7		Pass
68	Less than 2.0% of mass 69	1114	0.69	(1.22) [a]	Pass
69	Mass 69 relative abundance	91042	56.6		Pass
70	Less than 2.0% of mass 69	662	0.41	(0.73) [a]	Pass
127	40.0 - 60.0% of mass 198	94490	58.7		Pass
197	Less than 1.0% of mass 198	0	0.00		Pass
198	Base peak, 100% relative abundance	160864	100.0		Pass
199	5.0 - 9.0% of mass 198	10818	6.72		Pass
275	10.0 - 30.0% of mass 198	44109	27.4		Pass
365	1.0 - 100.0% of mass 198	6838	4.25		Pass
441	Present, but less than mass 443	15342	9.54	(82.3) [b]	Pass
442	40.0 - 100.0% of mass 198	101682	63.2		Pass
443	17.0 - 23.0% of mass 442	18651	11.6	(18.3) [c]	Pass

(a) Value is % of mass 69
(b) Value is % of mass 443
(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E6P1656-IC1656	6P35814.D	03/24/17	07:39	00:16	Initial cal 100
E6P1656-IC1656	6P35815.D	03/24/17	08:09	00:46	Initial cal 1
E6P1656-IC1656	6P35816.D	03/24/17	08:34	01:11	Initial cal 2
E6P1656-IC1656	6P35817.D	03/24/17	08:56	01:33	Initial cal 5
E6P1656-IC1656	6P35818.D	03/24/17	09:19	01:56	Initial cal 10
E6P1656-IC1656	6P35819.D	03/24/17	09:42	02:19	Initial cal 25
E6P1656-ICC1656	6P35820.D	03/24/17	10:05	02:42	Initial cal 50
E6P1656-IC1656	6P35821.D	03/24/17	10:28	03:05	Initial cal 80
E6P1656-ICV1656	6P35822.D	03/24/17	10:51	03:28	Initial cal verification 50
E6P1656-ICV1656	6P35823.D	03/24/17	11:14	03:51	Initial cal verification 50
E6P1656-ICV1656	6P35824.D	03/24/17	11:37	04:14	Initial cal verification 50
E6P1656-ICV1656	6P35825.D	03/24/17	12:00	04:37	Initial cal verification 50
E6P1656-ICV1656	6P35827.D	03/24/17	12:23	05:00	Initial cal verification 50

Instrument Performance Check (DFTPP)

Job Number: JC40107
Account: GZANYB GZA GeoEnvironmental, Inc.
Project: Steelwinds, Buffalo, NY

Sample:	E6P1657-DFTPP	**Injection Date:**	03/24/17
Lab File ID:	6P35831.D	**Injection Time:**	13:11
Instrument ID:	GCMS6P		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	97679	49.5		Pass
68	Less than 2.0% of mass 69	1111	0.56	(1.04) [a]	Pass
69	Mass 69 relative abundance	107130	54.3		Pass
70	Less than 2.0% of mass 69	587	0.30	(0.55) [a]	Pass
127	40.0 - 60.0% of mass 198	114024	57.8		Pass
197	Less than 1.0% of mass 198	254	0.13		Pass
198	Base peak, 100% relative abundance	197285	100.0		Pass
199	5.0 - 9.0% of mass 198	13590	6.89		Pass
275	10.0 - 30.0% of mass 198	54613	27.7		Pass
365	1.0 - 100.0% of mass 198	8820	4.47		Pass
441	Present, but less than mass 443	20271	10.3	(78.0) [b]	Pass
442	40.0 - 100.0% of mass 198	132258	67.0		Pass
443	17.0 - 23.0% of mass 442	26000	13.2	(19.7) [c]	Pass

(a) Value is % of mass 69
(b) Value is % of mass 443
(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E6P1657-IC1657	6P35832.D	03/24/17	13:22	00:11	Initial cal 100
E6P1657-IC1657	6P35833.D	03/24/17	13:46	00:35	Initial cal 80
E6P1657-ICC1657	6P35834.D	03/24/17	14:09	00:58	Initial cal 50
E6P1657-IC1657	6P35835.D	03/24/17	14:32	01:21	Initial cal 25
E6P1657-IC1657	6P35836.D	03/24/17	14:55	01:44	Initial cal 10
E6P1657-IC1657	6P35837.D	03/24/17	15:18	02:07	Initial cal 5
E6P1657-IC1657	6P35838.D	03/24/17	15:41	02:30	Initial cal 2
E6P1657-IC1657	6P35839.D	03/24/17	16:05	02:54	Initial cal 1
E6P1657-ICV1657	6P35840.D	03/24/17	16:28	03:17	Initial cal verification 50
E6P1657-ICV1657	6P35841.D	03/24/17	16:51	03:40	Initial cal verification 50
E6P1657-ICV1657	6P35842.D	03/24/17	17:15	04:04	Initial cal verification 50
E6P1657-ICV1657	6P35843.D	03/24/17	17:38	04:27	Initial cal verification 50

Instrument Performance Check (DFTPP)

Job Number: JC40107
Account: GZANYB GZA GeoEnvironmental, Inc.
Project: Steelwinds, Buffalo, NY

Sample:	E6P1674-DFTPP	**Injection Date:**	04/06/17
Lab File ID:	6P36309.D	**Injection Time:**	08:05
Instrument ID:	GCMS6P		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	145748	59.0		Pass
68	Less than 2.0% of mass 69	1629	0.66	(1.35) [a]	Pass
69	Mass 69 relative abundance	120457	48.7		Pass
70	Less than 2.0% of mass 69	1225	0.50	(1.02) [a]	Pass
127	40.0 - 60.0% of mass 198	146992	59.5		Pass
197	Less than 1.0% of mass 198	0	0.00		Pass
198	Base peak, 100% relative abundance	247186	100.0		Pass
199	5.0 - 9.0% of mass 198	16405	6.64		Pass
275	10.0 - 30.0% of mass 198	70733	28.6		Pass
365	1.0 - 100.0% of mass 198	13129	5.31		Pass
441	Present, but less than mass 443	19522	7.90	(79.1) [b]	Pass
442	40.0 - 100.0% of mass 198	126448	51.2		Pass
443	17.0 - 23.0% of mass 442	24671	9.98	(19.5) [c]	Pass

(a) Value is % of mass 69
(b) Value is % of mass 443
(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E6P1674-CC1656	6P36310.D	04/06/17	08:17	00:12	Continuing cal 25
E6P1674-CC1657	6P36311.D	04/06/17	08:41	00:36	Continuing cal 25
OP1670-MB1	6P36313.D	04/06/17	09:30	01:25	Method Blank
OP1670-BS1	6P36314.D	04/06/17	10:34	02:29	Blank Spike
OP1499-MB1	6P36330.D	04/06/17	11:21	03:16	Method Blank
OP1478-MB1	6P36331.D	04/06/17	11:44	03:39	Method Blank
OP1583-MB1	6P36332.D	04/06/17	12:08	04:03	Method Blank
ZZZZZZ	6P36335.D	04/06/17	13:18	05:13	(unrelated sample)
ZZZZZZ	6P36338.D	04/06/17	14:29	06:24	(unrelated sample)
ZZZZZZ	6P36339.D	04/06/17	14:52	06:47	(unrelated sample)
ZZZZZZ	6P36316.D	04/06/17	15:16	07:11	(unrelated sample)
JC38685-1B	6P36317.D	04/06/17	15:40	07:35	(used for QC only; not part of job JC40107)
OP1641-MS	6P36318.D	04/06/17	16:03	07:58	Matrix Spike
OP1641-MSD	6P36319.D	04/06/17	16:27	08:22	Matrix Spike Duplicate
OP1670-MS	6P36320.D	04/06/17	16:50	08:45	Matrix Spike
OP1670-MSD	6P36321.D	04/06/17	17:14	09:09	Matrix Spike Duplicate
JC40107-1	6P36324.D	04/06/17	17:37	09:32	WT1-05-033017

Instrument Performance Check (DFTPP)

Job Number: JC40107
Account: GZANYB GZA GeoEnvironmental, Inc.
Project: Steelwinds, Buffalo, NY

Sample:	E6P1675-DFTPP	**Injection Date:**	04/06/17
Lab File ID:	6P36345.D	**Injection Time:**	21:11
Instrument ID:	GCMS6P		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	117028	55.5		Pass
68	Less than 2.0% of mass 69	922	0.44	(0.94) [a]	Pass
69	Mass 69 relative abundance	97952	46.4		Pass
70	Less than 2.0% of mass 69	782	0.37	(0.80) [a]	Pass
127	40.0 - 60.0% of mass 198	116970	55.4		Pass
197	Less than 1.0% of mass 198	1374	0.65		Pass
198	Base peak, 100% relative abundance	211045	100.0		Pass
199	5.0 - 9.0% of mass 198	14770	7.00		Pass
275	10.0 - 30.0% of mass 198	62432	29.6		Pass
365	1.0 - 100.0% of mass 198	10337	4.90		Pass
441	Present, but less than mass 443	18378	8.71	(68.1) [b]	Pass
442	40.0 - 100.0% of mass 198	121501	57.6		Pass
443	17.0 - 23.0% of mass 442	26979	12.8	(22.2) [c]	Pass

(a) Value is % of mass 69
(b) Value is % of mass 443
(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E6P1675-CC1656	6P36346.D	04/06/17	21:25	00:14	Continuing cal 50
E6P1675-CC1657	6P36347.D	04/06/17	21:49	00:38	Continuing cal 50
JC40107-4	6P36349.D	04/06/17	22:38	01:27	WT1-04-033017
JC40107-6	6P36350.D	04/06/17	23:02	01:51	WT1-02-033017
JC40107-2	6P36351.D	04/06/17	23:25	02:14	MWN-01-033017
JC40107-5	6P36352.D	04/06/17	23:49	02:38	BCP-ORC-1-033017
JC40107-3	6P36353.D	04/07/17	00:12	03:01	MWN-01B-033017
JC40107-1	6P36354.D	04/07/17	00:36	03:25	WT1-05-033017
JC40107-2	6P36355.D	04/07/17	00:59	03:48	MWN-01-033017
JC40107-3	6P36356.D	04/07/17	01:23	04:12	MWN-01B-033017
JC40107-5	6P36357.D	04/07/17	01:46	04:35	BCP-ORC-1-033017

Semivolatile Surrogate Recovery Summary

Job Number: JC40107
Account: GZANYB GZA GeoEnvironmental, Inc.
Project: Steelwinds, Buffalo, NY

Method: SW846 8270D **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
JC40107-1	6P36354.D	66	70	79
JC40107-1	6P36324.D	82	78	94
JC40107-2	6P36355.D	60	68	78
JC40107-2	6P36351.D	74	78	92
JC40107-3	6P36356.D	56	74	71
JC40107-3	6P36353.D	60	80	85
JC40107-4	6P36349.D	72	76	83
JC40107-5	6P36357.D	65	69	77
JC40107-5	6P36352.D	76	80	91
JC40107-6	6P36350.D	68	70	89
OP1670-BS1	6P36314.D	72	79	76
OP1670-MB1	6P36313.D	77	77	94
OP1670-MS	6P36320.D	67	80	85
OP1670-MSD	6P36321.D	65	83	82

Surrogate Compounds	Recovery Limits
S1 = Nitrobenzene-d5	34-128%
S2 = 2-Fluorobiphenyl	38-119%
S3 = Terphenyl-d14	26-129%

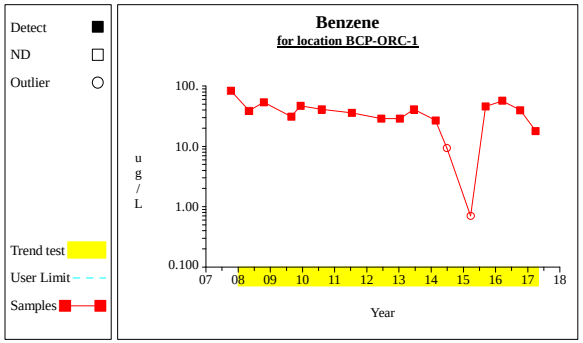
APPENDIX C

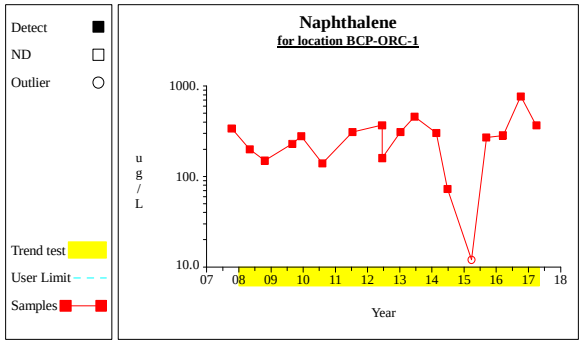
TIME SERIES PLOTS

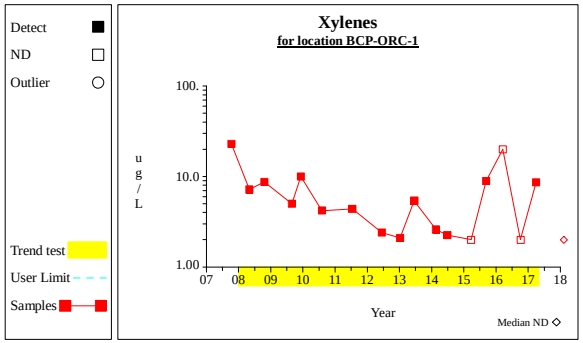
Steel Winds

Analysis prepared on: 5/12/2017

Time Series

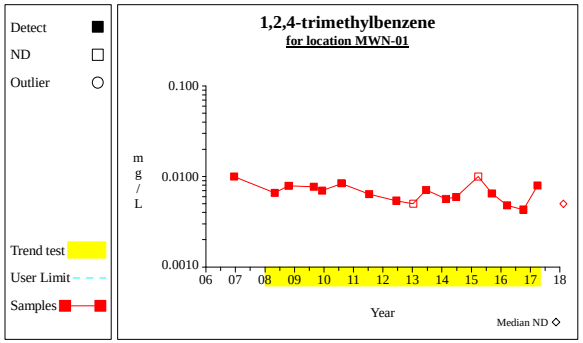


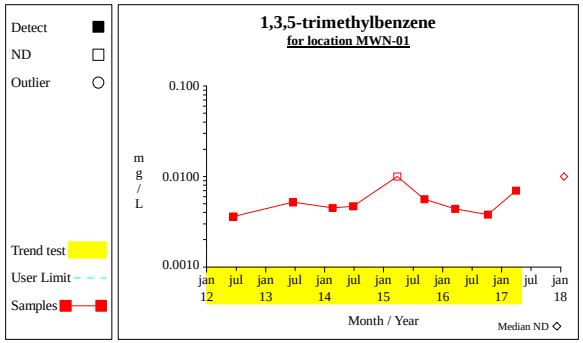


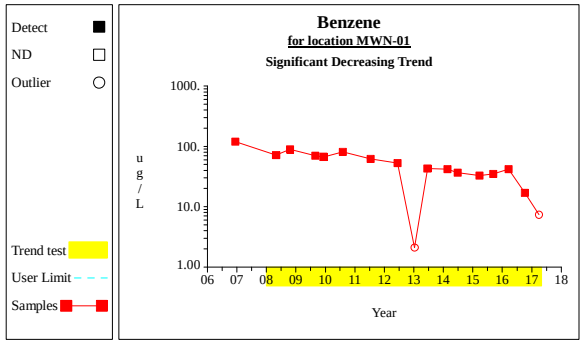


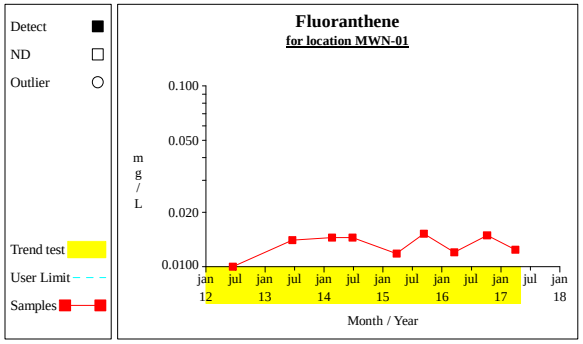
Prepared by: GZA GeoEnvironmental Inc.

Time Series


Detect
ND
Outlier
Trend test
User Limit
Samples
1,2,4-trimethylbenzene
for location MWN-01
m g / L
0.100
0.0100
0.0010
06 07 08 09 10 11 12 13 14 15 16 17 18
Year
Median ND


Detect
ND
Outlier
Trend test
User Limit
Samples
1,3,5-trimethylbenzene
for location MWN-01
m g / L
0.100
0.0100
0.0010
jan jul jan jul jan jul jan jul jan jul jan jul jan
12 13 14 15 16 17 18
Month / Year
Median ND


Detect
ND
Outlier
Trend test
User Limit
Samples
Benzene
for location MWN-01
Significant Decreasing Trend
u g / L
1000.
100.
10.0
1.00
06 07 08 09 10 11 12 13 14 15 16 17 18
Year


Detect
ND
Outlier
Trend test
User Limit
Samples
Fluoranthene
for location MWN-01
m g / L
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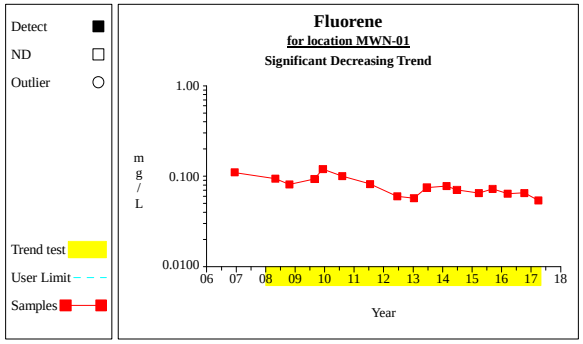
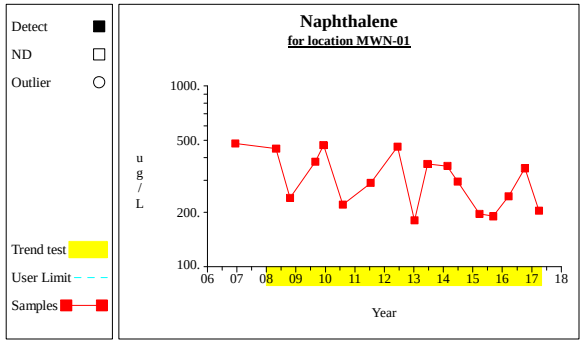
0.050
0.020
0.0100
jan jul jan jul jan jul jan jul jan jul jan jul jan
12 13 14 15 16 17 18
Month / Year


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
06 07 08 09 10 11 12 13 14 15 16 17 18
Year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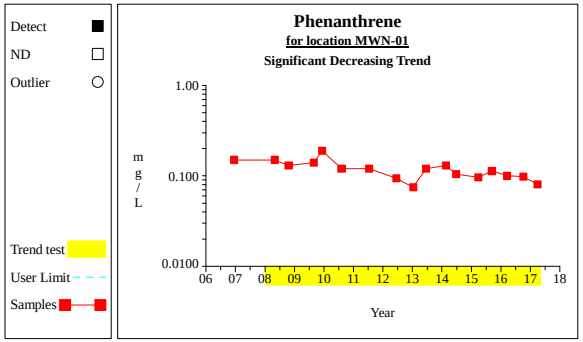
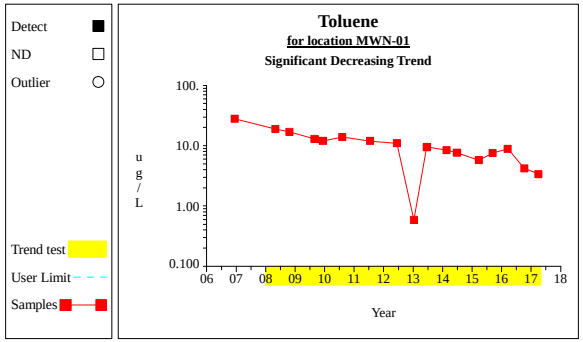
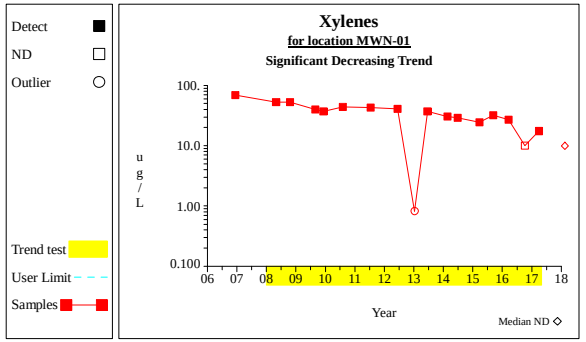
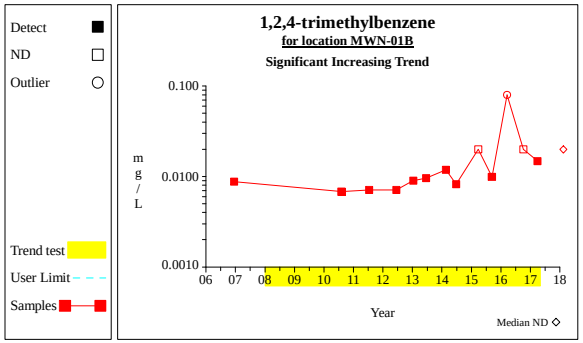
ND
Outlier
Trend test
User Limit
Samples
Naphthalene
for location MWN-01
u g / L
1000.
500.
200.
100.
06 07 08 09 10 11 12 13 14 15 16 17 18
Year

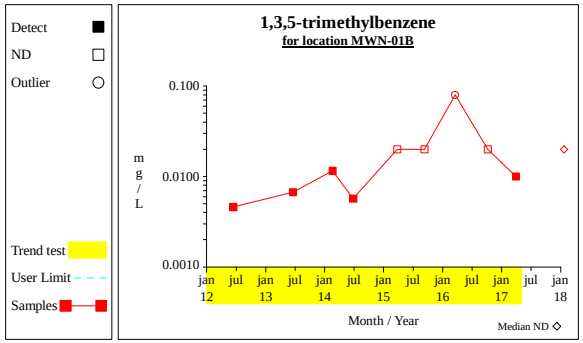

Detect
ND
Outlier
Trend test
User Limit
Samples
Phenanthrene
for location MWN-01
Significant Decreasing Trend
m g / L
1.00
0.100
0.0100
06 07 08 09 10 11 12 13 14 15 16 17 18
Year

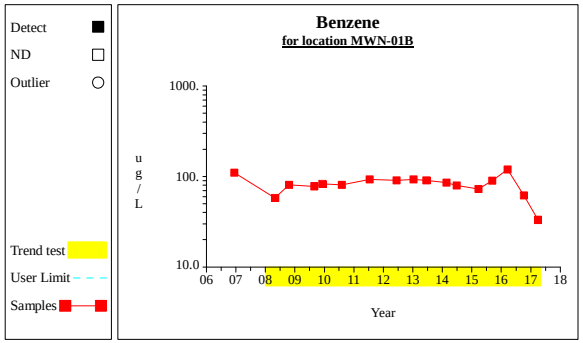

Detect
ND
Outlier
Trend test
User Limit
Samples
Toluene
for location MWN-01
Significant Decreasing Trend
u g / L
100.
10.0
1.00
0.100
06 07 08 09 10 11 12 13 14 15 16 17 18
Year


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
06 07 08 09 10 11 12 13 14 15 16 17 18
Year
Median ND

Time Series


Detect
ND
Outlier
Trend test
User Limit
Samples
1,2,4-trimethylbenzene
for location MWN-01B
Significant Increasing Trend
0.100
0.0100
0.0010
m g / L
06 07 08 09 10 11 12 13 14 15 16 17 18
Year
Median ND


Detect
ND
Outlier
Trend test
User Limit
Samples
1,3,5-trimethylbenzene
for location MWN-01B
0.100
0.0100
0.0010
m g / L
jan 12 jul jan 13 jul jan 14 jul jan 15 jul jan 16 jul jan 17 jul jan 18
Month / Year
Median ND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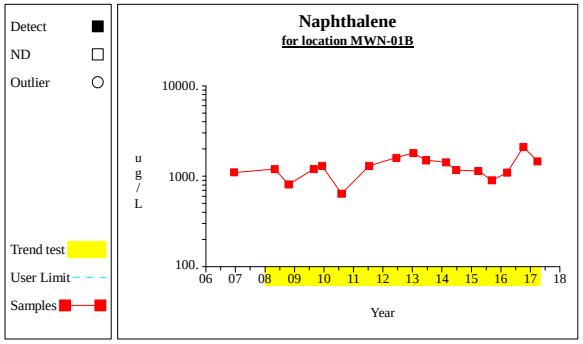
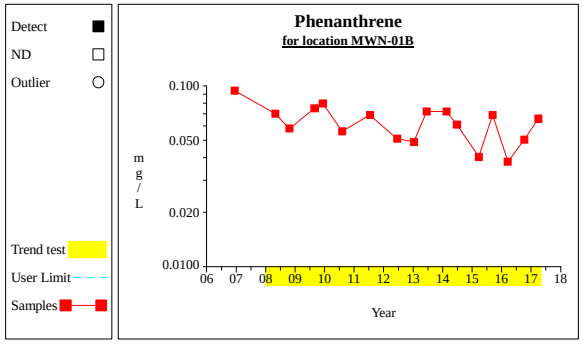
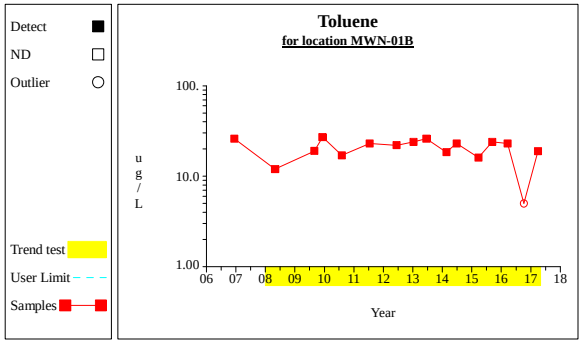
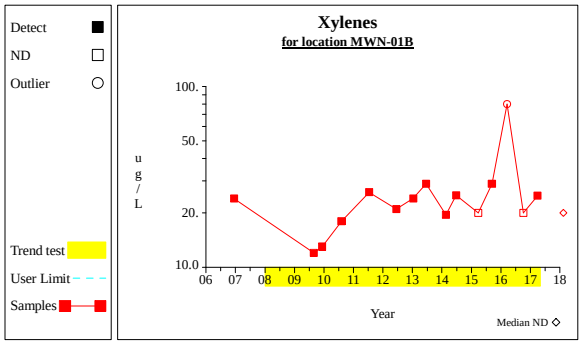
ND
Outlier
Trend test
User Limit
Samples
Benzene
for location MWN-01B
1000.
100.
10.0
u g / L
06 07 08 09 10 11 12 13 14 15 16 17 18
Year

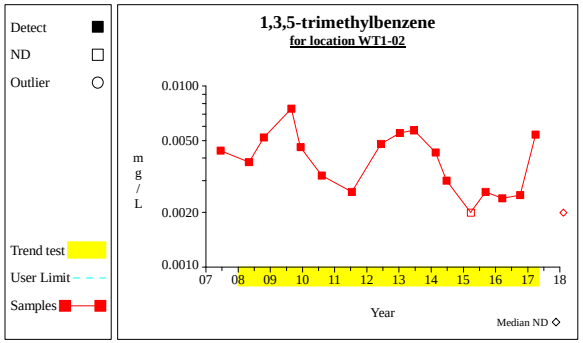

Detect
ND
Outlier
Trend test
User Limit
Samples
Naphthalene
for location MWN-01B
10000.
1000.
100.
u g / L
06 07 08 09 10 11 12 13 14 15 16 17 18
Year

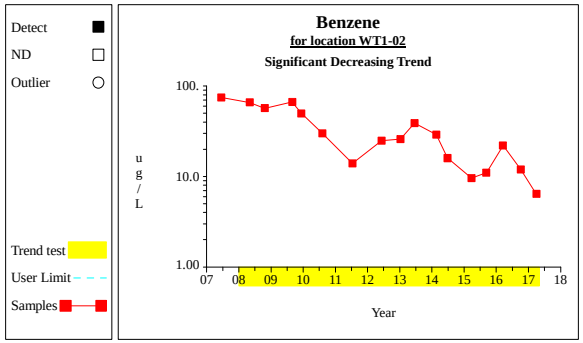

Detect
ND
Outlier
Trend test
User Limit
Samples
Phenanthrene
for location MWN-01B
0.100
0.050
0.020
0.0100
m g / L
06 07 08 09 10 11 12 13 14 15 16 17 18
Year

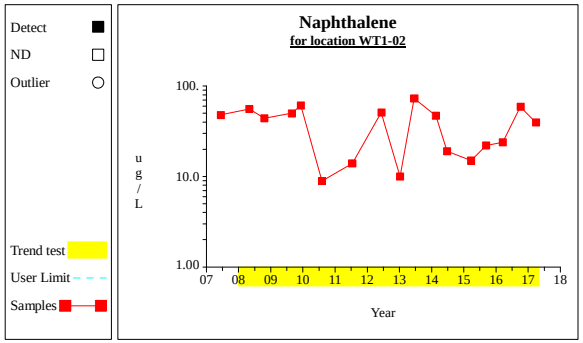

Detect
ND
Outlier
Trend test
User Limit
Samples
Toluene
for location MWN-01B
100.
10.0
1.00
u g / L
06 07 08 09 10 11 12 13 14 15 16 17 18
Year

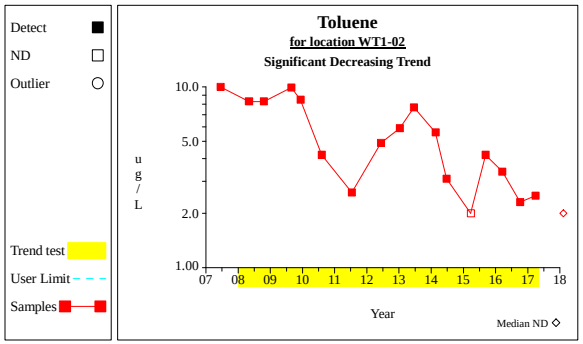

Detect
ND
Outlier
Trend test
User Limit
Samples
Xylenes
for location MWN-01B
100.
50.
20.
10.0
u g / L
06 07 08 09 10 11 12 13 14 15 16 17 18
Year
Median ND

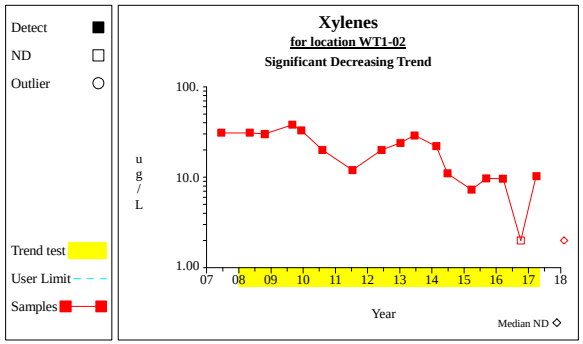
Time Series


Detect
ND
Outlier
Trend test
User Limit
Samples
1,3,5-trimethylbenzene
for location WT1-02
0.0100
0.0050
0.0020
0.0010
m
g
/
L
07 08 09 10 11 12 13 14 15 16 17 18
Year
Median ND

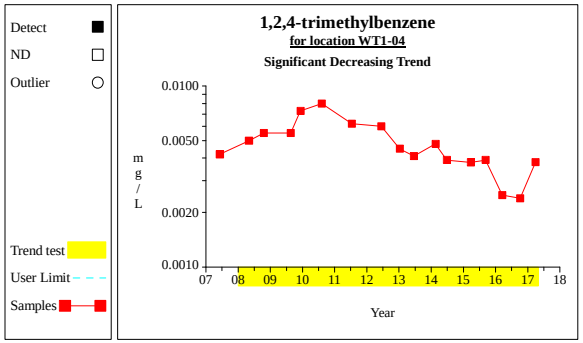

Detect
ND
Outlier
Trend test
User Limit
Samples
Benzene
for location WT1-02
Significant Decreasing Trend
100.
10.0
1.00
u
g
/
L
07 08 09 10 11 12 13 14 15 16 17 18
Year

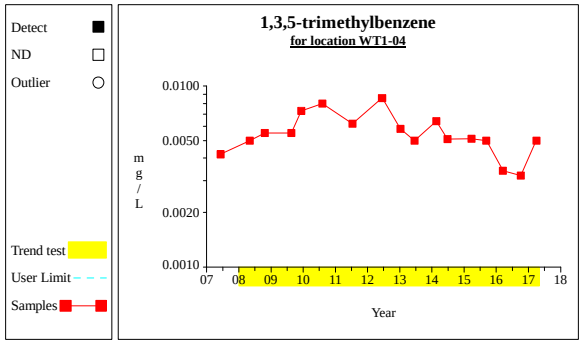

Detect
ND
Outlier
Trend test
User Limit
Samples
Naphthalene
for location WT1-02
100.
10.0
1.00
u
g
/
L
07 08 09 10 11 12 13 14 15 16 17 18
Year

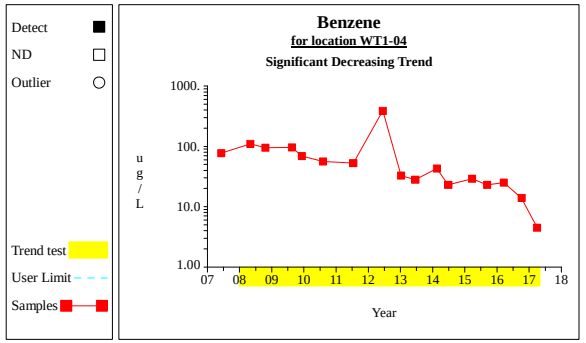

Detect
ND
Outlier
Trend test
User Limit
Samples
Toluene
for location WT1-02
Significant Decreasing Trend
10.0
5.0
2.0
1.00
u
g
/
L
07 08 09 10 11 12 13 14 15 16 17 18
Year
Median ND

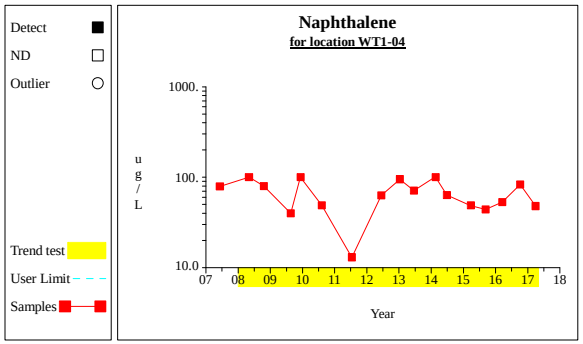

Detect
ND
Outlier
Trend test
User Limit
Samples
Xylenes
for location WT1-02
Significant Decreasing Trend
100.
10.0
1.00
u
g
/
L
07 08 09 10 11 12 13 14 15 16 17 18
Year
Median ND

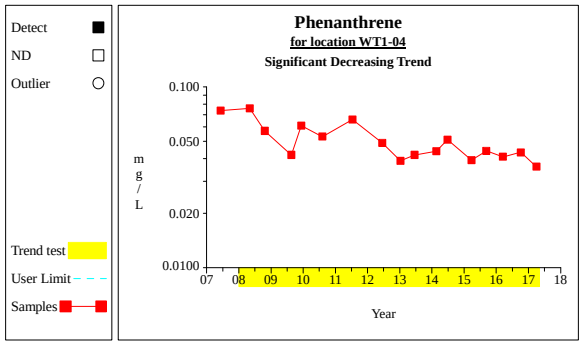
Time Series

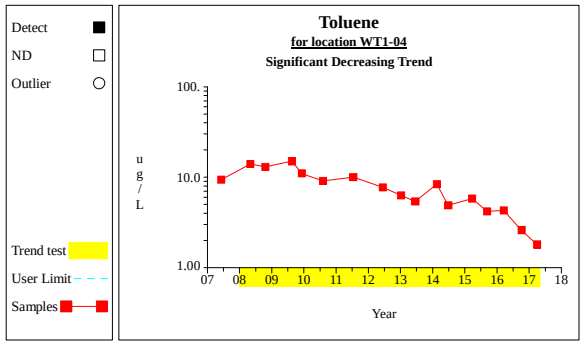

Detect
ND
Outlier
Trend test
User Limit
Samples
1,2,4-trimethylbenzene
for location WT1-04
Significant Decreasing Trend
0.0100
0.0050
0.0020
0.0010
m
g
/
L
07 08 09 10 11 12 13 14 15 16 17 18
Year

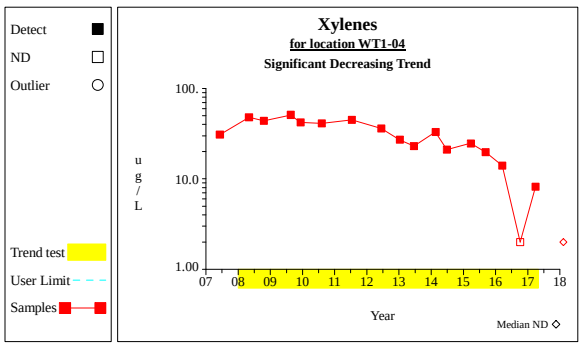

Detect
ND
Outlier
Trend test
User Limit
Samples
1,3,5-trimethylbenzene
for location WT1-04
0.0100
0.0050
0.0020
0.0010
m
g
/
L
07 08 09 10 11 12 13 14 15 16 17 18
Year


Detect
ND
Outlier
Trend test
User Limit
Samples
Benzene
for location WT1-04
Significant Decreasing Trend
1000.
100.
10.0
1.00
u
g
/
L
07 08 09 10 11 12 13 14 15 16 17 18
Year

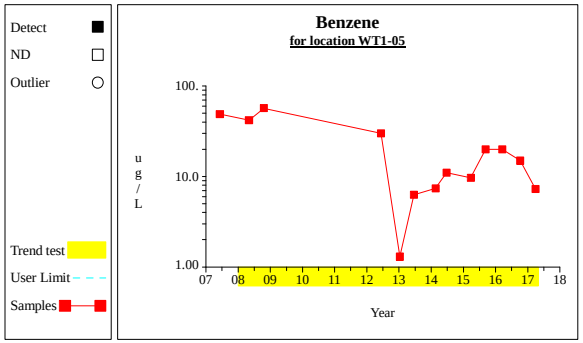

Detect
ND
Outlier
Trend test
User Limit
Samples
Naphthalene
for location WT1-04
1000.
100.
10.0
u
g
/
L
07 08 09 10 11 12 13 14 15 16 17 18
Year

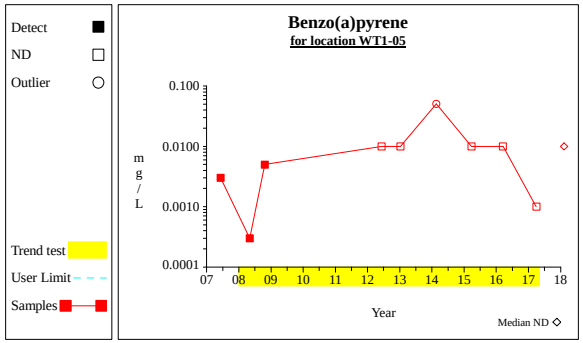

Detect
ND
Outlier
Trend test
User Limit
Samples
Phenanthrene
for location WT1-04
Significant Decreasing Trend
0.100
0.050
0.020
0.0100
m
g
/
L
07 08 09 10 11 12 13 14 15 16 17 18
Year

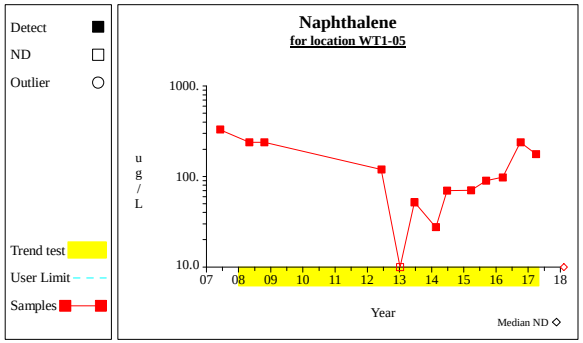

Detect
ND
Outlier
Trend test
User Limit
Samples
Toluene
for location WT1-04
Significant Decreasing Trend
100.
10.0
1.00
u
g
/
L
07 08 09 10 11 12 13 14 15 16 17 18
Year

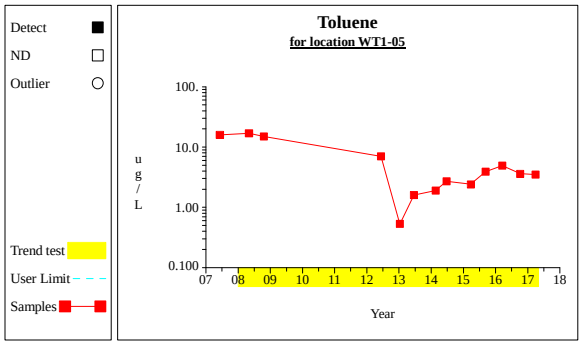

Detect
ND
Outlier
Trend test
User Limit
Samples
Xylenes
for location WT1-04
Significant Decreasing Trend
100.
10.0
1.00
u
g
/
L
07 08 09 10 11 12 13 14 15 16 17 18
Year
Median ND

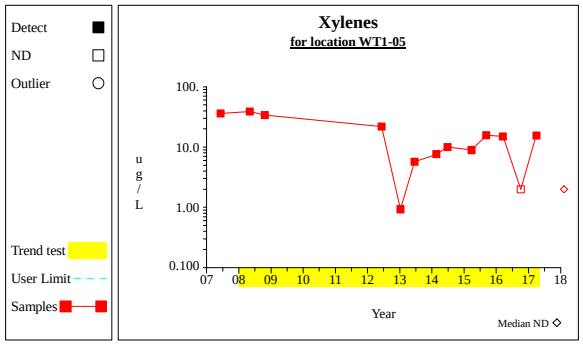
Time Series


Detect
ND
Outlier
Trend test
User Limit
Samples
Benzene
for location WT1-05
100.
10.0
1.00
u
g
/
L
07 08 09 10 11 12 13 14 15 16 17 18
Year


Detect
ND
Outlier
Trend test
User Limit
Samples
Benzo(a)pyrene
for location WT1-05
0.100
0.0100
0.0010
0.0001
m
g
/
L
07 08 09 10 11 12 13 14 15 16 17 18
Year
Median ND


Detect
ND
Outlier
Trend test
User Limit
Samples
Naphthalene
for location WT1-05
1000.
100.
10.0
u
g
/
L
07 08 09 10 11 12 13 14 15 16 17 18
Year
Median ND


Detect
ND
Outlier
Trend test
User Limit
Samples
Toluene
for location WT1-05
100.
10.0
1.00
0.100
u
g
/
L
07 08 09 10 11 12 13 14 15 16 17 18
Year


Detect
ND
Outlier
Trend test
User Limit
Samples
Xylenes
for location WT1-05
100.
10.0
1.00
0.100
u
g
/
L
07 08 09 10 11 12 13 14 15 16 17 18
Year
Median ND

GZA GeoEnvironmental, Inc.